

CHILDREN'S HOSPITAL AND RESEARCH CENTER OAKLAND CAMPUS MASTER PLAN PROJECT RESPONSE TO COMMENTS DOCUMENT

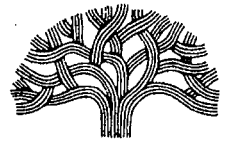
STATE CLEARINGHOUSE NO. 2013072058



LSA

February 2015

CITY OF OAKLAND



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Bureau of Planning
Planning & Zoning Division

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**COMBINED NOTICE OF AVAILABILITY AND RELEASE OF A
RESPONSE TO COMMENTS AND FINAL ENVIRONMENTAL IMPACT REPORT (FEIR)
AND NOTICE OF PUBLIC HEARINGS ON THE FEIR FOR THE
CHILDREN'S HOSPITAL & RESEARCH CENTER OAKLAND CAMPUS MASTER PLAN PROJECT**

TO: All Interested Parties

PROJECT NAME: Children's Hospital & Research Center Oakland Campus Master Plan Project

PROJECT LOCATION: 747 52nd Street, Oakland

PROJECT SPONSOR: Children's Hospital & Research Center Oakland

CASE FILE NO: ER12-0013; CEQA State Clearinghouse No. 2013072058

PROJECT LOCATION: The project site consists of the 11-acre Children's Hospital & Research Center Oakland (CHRCO) main campus, located at 747 52nd Street, in the northern portion of the City of Oakland, Alameda County. The CHRCO main campus consists of 31 parcels. The project site also includes an area of Caltrans right-of-way, which the hospital proposes to acquire and improve in connection with the project, and two parcels not owned by the hospital (and for which the hospital has no current plans for acquisition). The CHRCO campus is an existing hospital facility that contains a complex of medical buildings on a triangular site. A total of 692,416 square feet of total building area is currently located within the campus and a total of 1,107 on- and off-campus parking spaces are provided. The CHRCO-owned parking lot at 4701 Martin Luther King Jr. Way, is on the Cortese list due to a former leaking underground storage tank. No improvements are proposed for this site as part of the project.

PROJECT DESCRIPTION: The main purpose of the proposed project is to create new seismically compliant acute care facilities that meet the seismic safety requirements of Senate Bill (SB) 1953. The proposed project would demolish a total of 66,582 square feet of existing uses on the campus and construct a total of 399,200 square feet of new building area, for a total of 332,618 square feet of net new building area. Upon project completion, total building area at the CHRCO campus would be 1,025,034 square feet. In addition, a total of 284 net new parking spaces would be located on the campus at project completion, for a total of 1,391 parking spaces. The proposed project would be developed in two phases, as described below.

Phase 1 would include the demolition of one residential building, minor rear yard additions on two residential buildings, and construction of the 6-story Outpatient Center Building 2 (OPC2). Circulation improvements would also occur. Phase 1 would also include internal renovations in the OPC1 Building, the 1982 Tower, the D&T Building, and the Cardiac Catheterization Lab building, as well as an addition to the Central Utility Plant to provide utilities to the renovated areas. As part of Phase 1, approximately 1,541 square feet of use would be demolished, 90,200 square feet would be constructed, and 95,550 square feet would be renovated.

Phase 2 would include the demolition of the following structures: one residential building and one modular office building, the rear portions (façades would be maintained) of three residential buildings, the B/C Wing, Bruce Lyon Memorial Research Center, HemOnc Administrative Building, the helistop structure and trailers. Phase 2 would include construction of a Family Residence Building, Clinical Support Building, Link Building with a helistop on the roof, Acute Care Patient Pavilion, expansion of the Central Utility Plant, and a Parking Structure. Phase 2 would also include interior renovations to the 1982 Tower. In addition, site and circulation improvements would be constructed. Phase 2 would include the acquisition and improvement of a portion of the SR 24 right-of-way adjacent to the hospital on the east side and currently owned by Caltrans. Phase 2 would include an increase of 40 hospital beds and an increase of 286 parking spaces on the CHRCO campus. As part

of Phase 2, approximately 65,041 square feet of use would be demolished, approximately 309,000 square feet would be constructed, and approximately 42,342 square feet would be renovated.

The project includes a General Plan Amendment and Rezoning. The current General Plan designation for a portion of the project site is Mixed Housing Type Residential. The proposed General Plan designation for this area will be Institutional. In addition, a portion of the project site is zoned RM-2, Mixed Housing Type Residential Zone - 2. The proposed zoning for this area will be S-1 Medical Center Zone.

The project also includes a number of other permits/approvals from the City, including but not limited to:, a Planned Unit Development (PUD) Permit, Conditional Use Permits (CUPs), a Vesting Tentative Map and Final Map(s), and helistop and tree removal permits.

ENVIRONMENTAL REVIEW: The preparation of the Responses to Comments document has been overseen by the City's Environmental Review Officer and the conclusions and recommendations in the document represent the independent conclusions and recommendations of the City. Copies of the Responses to Comments and FEIR are available for distribution to interested parties at no charge at the City of Oakland Bureau of Planning, Zoning Permit Counter, 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, CA 94612, Monday through Friday, 8:30 a.m. to 4:00 p. m., except Wednesday 9:30 a.m. to 4:00 p.m. The FEIR is also available on the City of Oakland website at: <http://www2.oaklandnet.com/Government/o/PBN/OurServices/ Application/DOWD009157>. The FEIR is item number eight (8) on the website.

PUBLIC HEARINGS:

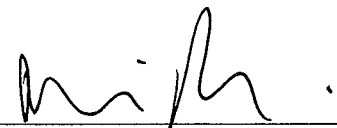
1. The Oakland Landmarks Preservation Advisory Board will conduct a public hearing on the historic resources aspect of the FEIR on **March 9, 2015 at 6:00 p.m.** in Hearing Room 1, City Hall, 1 Frank H. Ogawa Plaza;
2. The Oakland City Planning Commission and Office of the City Administrator will conduct a joint public hearing on the FEIR on **April 1, 2015, at 6:00 p.m.** in Hearing Room 1, City Hall, 1 Frank H. Ogawa Plaza to consider certification of the Final EIR and project approvals and recommendations to City Council.

Copies of the DEIR were available for review at the City of Oakland Bureau of Planning, Zoning Counter, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, California and at the Oakland Public Library, Social Science and Documents 125 14th Street, Oakland, and on the City's website at: <http://www2.oaklandnet.com/Government/o/PBN/OurServices/ Application/DOWD009157>. The DEIR is item number eight (8). Copies of the DEIR were also distributed to interested parties.

The public were encouraged to provide comments during the public comment period from August 7, 2014 through September 22, 2014. Public Hearings were held on September 8, 2014 before the Oakland Landmarks Preservation Advisory Board, on September 17, 2014 before the City Planning Commission, and on September 18, 2014 before the Oakland Bicycle and Pedestrian Advisory Committee. Comments were made at the public hearings as well as received in writing. All comments that were received have been addressed in the Response to Comments and FEIR document.

If you challenge the environmental document or other actions pertaining to the Project in court, you may be limited to raising only those issues raised at the public hearings described above or in written correspondence received by the Bureau of Planning on or prior to 4:00 p.m. on **April 1, 2015**.

For further information, please contact **Heather Klein** at **(510) 238-3659** or hklein@oaklandnet.com.



Darin Ranelletti

Deputy Director, Bureau of Planning
Environmental Review Officer

Date of Notice: **February 27, 2015**
File Number ER12-0013

**CHILDREN'S HOSPITAL AND
RESEARCH CENTER OAKLAND
CAMPUS MASTER PLAN PROJECT
RESPONSE TO COMMENTS DOCUMENT**

STATE CLEARINGHOUSE NO. 2013072058

Submitted to:

City of Oakland
Bureau of Planning
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February 2015

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I. INTRODUCTION

A. PURPOSE OF THE RESPONSE TO COMMENTS DOCUMENT

This document has been prepared to respond to comments received on the Draft Environmental Impact Report (Draft EIR) prepared for the proposed Children's Hospital & Research Center Oakland Campus Master Plan Project (project). The Draft EIR identifies the likely environmental consequences associated with development of the proposed project, and recommends standard conditions of approval (SCAs) to reduce potentially significant impacts. This Response to Comments (RTC) Document provides a response to comments on the Draft EIR and makes revisions to the Draft EIR, as necessary, in response to those comments or to make clarifications in the Draft EIR. This document, together with the Draft EIR, constitutes the Final EIR for the proposed project.

The City of Oakland will consider the Final EIR before approving or denying the proposed project. Before the Lead Agency may approve the project, it must certify that the Final EIR adequately discloses the environmental effects of the proposed project, that the Final EIR has been completed in conformance with the California Environmental Quality Act (CEQA), and that the decision-making body of the Lead Agency independently reviewed and considered the information contained in the Final EIR. Certification of the Final EIR would indicate the City's determination that the Final EIR adequately evaluates the environmental impacts that could be associated with the proposed project.

The City of Oakland has prepared this document pursuant to *CEQA Guidelines* Section 15132, which specifies the following (and which also applies to Draft and Final EIRs):

“The Final EIR shall consist of:

- (a) The Draft EIR or a revision of that draft.
- (b) Comments and recommendations received on the Draft EIR either verbatim or in a summary.
- (c) A list of persons, organizations, and public agencies commenting on the Draft EIR.
- (d) The response of the Lead Agency to significant environmental points raised in review and consultation process.
- (e) Any other information added by the Lead Agency.”

This Final EIR incorporates comments from public agencies and the general public and contains the Lead Agency's responses to those comments.

B. ENVIRONMENTAL REVIEW PROCESS

According to CEQA, lead agencies are required to consult with public agencies having jurisdiction over a proposed project and to provide the general public with an opportunity to comment on the Draft EIR.

On July 26, 2013, the City of Oakland circulated a Notice of Preparation (NOP) to help identify the types of impacts that could result from the proposed project and the scope of the Draft EIR and analysis, as well as potential areas of controversy. The NOP was mailed to public agencies (including the State Clearinghouse), organizations, and individuals considered likely to be interested in the proposed project and its potential impacts. Comments received by the City on the NOP were taken into account during the preparation of the Draft EIR.

The Draft EIR was made available for public review on August 7, 2014. Copies of the Notice of Availability of the Draft EIR (NOA) were mailed to all interested parties, and property owners within 300 feet of the project site. The Draft EIR was posted electronically on the City's website, and a hard copy was available for public review at the City of Oakland Bureau of Planning, 250 Frank H. Ogawa Plaza, Suite 3315, Oakland, CA 94612.

The CEQA-mandated 45-day public comment period ended on September 22, 2014. The City held three hearings on the Draft EIR, one before the Landmarks Preservation Advisory Board on September 8, 2014, one before the Planning Commission on September 17, 2014, and one before the Bicycle and Pedestrian Advisory Committee on September 18, 2014. The City received a total of 6 comment letters from State, regional and local agencies, 5 letters from organizations, and 50 letters from individuals. Copies of all written comments received during the comment period and a transcript of the oral comments received at the public hearings are included in Chapter V of this document.

C. CONSIDERATION OF THE FINAL EIR

If *significant new information* is added to an EIR after notice of public review has been given, but before final certification of the EIR, the lead agency must issue a new notice and recirculate the EIR for further comments and consultation.¹ Recirculation is not required where the new information added to an EIR merely clarifies or amplifies or makes insignificant modification in an adequate EIR.² The City has determined that none of the additions, corrections or clarifications to the Draft EIR identified in this document constitute *significant new information* pursuant to Section 15088.5 of the CEQA Guidelines. As a result, recirculation of the Draft EIR is not required.

Specifically, the new information, corrections or clarifications presented in this document do not disclose that:

- A new significant environmental impact would result from the project or from a new mitigation measure (or standard condition) proposed to be implemented;
- A substantial increase in the severity of an environmental impact would result unless mitigation measures (or standard conditions) are adopted that reduce the impact to a level of insignificance;

¹ CEQA Guidelines §15088.5; *Laurel Heights Improvement Ass'n v. Regents of the Univ. of Cal.*, 6 Cal. 1112 [1993].

² Ibid.

- A feasible project alternative or mitigation measure (or standard condition) considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it; or
- The Draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

Information presented in the Draft EIR and this document support the City's determination that recirculation of the Draft EIR is not required.

D. DOCUMENT ORGANIZATION

This RTC Document consists of the following chapters:

- *Chapter I: Introduction.* This chapter discusses the purpose and organization of this RTC Document, and the Final EIR, and summarizes the environmental review process for the project.
- *Chapter II: Project Overview.* This chapter summarizes the proposed project as presented in the Draft EIR; the project applicant has not made substantive changes to the project resulting in new or more severe adverse environmental effects since publication of the Draft EIR.
- *Chapter III: List of Commenters.* This chapter contains a list of all those agencies and individuals who submitted written comments during the public review period as well as comments made at public hearings on the Draft EIR.
- *Chapter IV: Draft EIR Revisions.* Corrections to the Draft EIR that are necessary in light of the comments received and responses provided, or necessary to amplify or clarify the Draft EIR, are contained in this chapter. Underlined text represents language that has been added to the Draft EIR; text with strikeout has been deleted from the Draft EIR.
- *Chapter V: Comments and Responses.* This chapter contains reproductions of all comment letters received on the Draft EIR, including transcripts from each of the public hearings held on the Draft EIR. A written response for each CEQA-related comment received during the public review period is provided. Each response is keyed to the corresponding comment.

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II. PROJECT OVERVIEW

A. PROJECT SUMMARY

As described in the Draft EIR, the Children's Hospital & Research Center Oakland is the project applicant for the Children's Hospital & Research Center Oakland Campus Master Plan Project (project), which proposes to demolish a total of 66,582 square feet of existing uses on the campus and construct a total of 399,200 square feet of new building area, for a total of 332,618 square feet of new building area, and add 284 net new parking spaces on the campus for a total of 1,391 campus parking spaces. At project buildout, the number of hospital beds would increase by 40, for a total of 210 on-campus beds. Total staffing would increase by 205, for a total of 2,371 staff members. The main purpose of the proposed project is to create seismically compliant acute care facilities that meet the seismic safety requirements of Senate Bill (SB) 1953.

A summary of the proposed project's existing location, setting, and site characteristics, in addition to an overview of the key components of the proposed project itself, is provided below. Please refer to Chapter III, Project Description in the Draft EIR for a complete description of the proposed project.

B. SITE LOCATION AND SETTING

The approximately 11-acre CHRCO main campus is located at 747 52nd Street, in the northern portion of Oakland, in Alameda County. The CHRCO main campus is generally bounded by 53rd Street to the north, State Route 24 (SR-24) to the east, and Martin Luther King Jr. Way and the elevated Bay Area Rapid Transit (BART) tracks to the south and west. The CHRCO main campus, within the project site, consists of 31 parcels. In addition, the project site includes an area of Caltrans right of way which the hospital proposes to acquire, and 2 parcels not owned by the hospital (and for which the hospital has no current plans for acquisition).

Regional vehicular access to the campuses is via Interstate 580 (I-580) and State Routes 13 and 24 (SR-13 and SR-24). The nearest access point to SR-24 is located immediately south of the CHRCO campus, at the intersection of the SR-24 ramp and Martin Luther King Jr. Way, in the vicinity of 47th Street. Local roadways providing access to the campuses include Martin Luther King Jr. Way, 52nd Street, and Dover Street. The Alameda-Contra Costa Transit District (AC Transit) provides bus services to the campuses via Martin Luther King Jr. Way. The nearest BART Station is the MacArthur Station, approximately 0.6 miles south of the CHRCO campus. Children's Hospital operates a free shuttle service between the MacArthur BART Station and the main campus.

The majority of the existing CHRCO campus is designated as Institutional per the City's Land Use and Transportation Element of the City's General Plan; the northeastern corner of the campus is designated as Mixed Housing Type Residential. The majority of the campus is zoned Medical Center (S-1) on the City's zoning map; the northeastern corner of the campus is zoned Mixed Housing Type Residential (RM-2). The Caltrans right-of-way adjacent to the main CHRCO campus has the same General Plan designation and zoning as the majority of the campus (i.e., designated under the General Plan as Institutional and zoned S-1).

The residential area north of 53rd Street is designated Mixed Use Type Residential under the General Plan and zoned Mixed Housing Type Residential (RM-2), while the neighborhood-serving commercial uses along Martin Luther King Jr. Way are designated Neighborhood Center Mixed Use in the General Plan and zoned Neighborhood Commercial (CN-3). The residential and commercial areas east of SR 24 are designated as Urban Residential and Neighborhood Center Mixed Use in the General Plan and zoned Urban Residential Zone (RU-1) and Neighborhood Commercial Zones (CN-3 and CN-4). Residential uses are located south of the CHRCO campus and consist of predominantly 1- and 2-story single-family homes and are designated as Urban Residential per the City's General Plan and zoned Urban Residential (RU-4 and RU-5). The primarily residential uses located west of Martin Luther King Jr. Way consist of both single-family and multi-family homes and are designated as Mixed Use Type Residential per the General Plan and zoned Mixed Housing Type Residential (RM-2).

The CHRCO main campus is generally surrounded by residential areas to the north and west and SR-24 to the east. Residential uses are located north of the CHRCO main campus and consist of predominantly 1- and 2-story single-family homes with neighborhood serving commercial uses along Martin Luther King Jr. Way to the northwest. Residential and commercial uses are located beyond SR-24, east of CHRCO campus and consist of single family and multi-family residential buildings with neighborhood-serving commercial uses along the eastside of Shattuck Avenue.

C. EXISTING SITE CHARACTERISTICS

The CHRCO campus is generally oriented on a north-south axis. The campus is an existing hospital facility that contains a complex of medical buildings on a triangular site. Buildings and structures located in the northern area (north of 52nd Street) of the CHRCO campus include the 5-story, 115,559-square-foot Outpatient Center Building 1 (OPC1), 5-story parking garage structure, several CHRCO-owned residential buildings and 2 private residences.

Buildings and structures in the southern area of the site (generally bounded on three sides by 52nd Street on the north, SR 24 on the east, and Martin Luther King Jr. Way on the west) comprise the main hospital facilities and include seven 2- to 5-story buildings or building additions, which include the 1982 Patient Tower (1982 Tower), Ford Diagnostic and Treatment Center (D&T Building) and Cardiac Catheterization Lab, B/C Wing, A/B Wing, Cafeteria, the Western Addition, and the Central Utility Plant. These buildings are located in the central area of the campus and total approximately 257,727 square feet of floor area.

Other buildings and structures located south of 52nd Street include the 36-foot-tall helistop structure, 2-story Bruce Lyon Memorial Research Laboratory Building, the Bruce Lyon addition (Hematology Oncology [Hem/Onc] administrative offices) and five temporary trailers that house office and administrative uses.

In 2013, 559 helicopters utilized the CHRCO helistop. Each landing/takeoff is counted as an aircraft operation, meaning that a total of 1,118 helicopter operations occurred at the existing helistop during this time period. The time and date of those landings vary greatly as they are necessitated by medical emergencies.¹ Helicopter arrivals/departures are expected to increase approximately 1 percent per

¹ Heliplanners, 2014. Children's Hospital and Research Center Oakland Helicopter Landing Analysis. May 29.

year through 2025 with or without the proposed project.² In 2025, the projected number of helistop operations is 1,260.

D. KEY COMPONENTS OF THE PROJECT

The proposed project would be developed in two phases, as described below. The development program for both phases and total buildout of the project is shown in **Table II-1**.

Phase 1 would include the demolition of one residential building (currently owned by the hospital) to accommodate the construction of the 6-story Outpatient Center Building 2 (OPC2). Vehicular access into and out of the existing parking garage for the public and for hospital employees would be moved from 52nd Street to Martin Luther King Jr. Way with outbound and emergency access to 52nd Street. Phase 1 would include the demolition of rear yard additions on two residential buildings (currently owned by the hospital) to accommodate a new driveway to an existing maintenance area adjacent to the existing parking structure and OPC1. It would also include internal renovations in the OPC1 Building, the 1982 Tower, the D&T Building, and the Cardiac Catheterization Lab Building, as well as an addition to the Central Utility Plant to provide utilities to the renovated areas. Phase 1 would include the temporary displacement of approximately 30 on-site hospital beds during construction (as a result of interior renovations). It would include the net loss of 2 parking spaces. Fifteen new spaces would be constructed at the new Emergency Department area at the ground floor of the new OPC2. Seventeen parking spaces would be removed within the existing parking garage to accommodate the relocation of the parking garage entrance. As part of Phase 1, approximately 1,541 square feet of use would be demolished, approximately 90,200 square feet would be constructed, and approximately 95,550 square feet would be renovated. Total Phase 1 project construction is anticipated to take approximately 58 months.

Phase 2 would include the demolition of the following structures: one residential building and one modular office building south of 53rd Street (currently owned by the hospital), the rear portions (façades would be maintained) of three residential buildings south of 53rd Street (owned by the hospital), the B/C Wing, Bruce Lyon Memorial Research Laboratory Building, HemOnc Administrative Building, helistop structure and trailers. Phase 2 would include construction of a Family Residence Building, Clinical Support Building, Link Building with a helistop on the roof, Patient Pavilion, expansion of the Central Utility Plant, and a Parking Structure. New buildings constructed as part of Phase 2 would be two- to five- stories. Phase 2 would also include interior renovations to the 1982 Tower. In addition, site and circulation improvements would be constructed. The PG&E underground duct bank that extends east-west across the campus would be rerouted around the southern tip of the campus. Phase 2 would include the acquisition and improvement of a portion of the SR 24 right-of-way adjacent to the hospital on the east side and currently owned by Caltrans. Phase 2 would include an increase of 40 campus hospital beds (for a total of 210 beds from an existing baseline of 170 campus beds) and an increase of approximately 284 parking spaces on the CHRCO campus. As part of Phase 2, approximately 65,041 square feet of use would be demolished, approximately 309,000 square feet would be constructed, and approximately 42,342 square feet would be renovated. Phase 2 project construction is expected to take approximately 60 months.

² The actual number of helicopter landings, and their timing, is a function of medical emergencies, which can vary daily and seasonally. Furthermore, landings can increase or decrease over time with changes in population, added or reduced medical specialties at CHRCO, and the availability of competing services at other hospitals.

Table II-1: Proposed Development by Phase and Total Buildout

	Existing	Proposed Increase Phase 1 ^a	Campus Total with Implementation of Phase 1 (Existing + Phase 1)	Proposed Increase Phase 2 ^a	Proposed Increase Phase 1 + Phase 2	Campus Total at Buildout (Existing + Phase 1 + Phase 2)	Net Change from Existing
Site Acres	11.0	–	11.0	1.5	1.5	12.5	1.5
Demolished Building Area		(1,541)		(65,041)	(66,582)		
New Building Area		90,200		309,000	399,200		
Net Building Area (sq. ft.)	692,416	88,659	781,075	243,959	332,618	1,025,034	332,618
Removed Parking Spaces		(17)		(48)	(67)		
New Parking Spaces		15		334	349		
Net Parking Spaces	1,107	(2)	1,105	286	284	1,391	284
On-Site Hospital Beds (#)	170	(30)	140	70	40	210	40
Off-Site Hospital Beds (#)	20	20	40	(40)	(20)	0	(20)
Patients and Outpatient Visitors ^b (daily)	875	43	918	70	113	988	113
Hospital (Inpatient) Visitors ^c (daily)	604	0	604	157	157	761	157
Total Staff ^d (daily)	2,166	25	2,191	180	205	2,371	205

^a Phase 1 is estimated to be completed in 58 months; Phase 2 is anticipated to begin in 2020 and is estimated to be completed in 60 months.

^b Includes inpatient census, emergency department patients, and outpatient visitors.

^c Includes visitors (parents, siblings, vendors, and contractors).

^d Staff includes Outpatient staff, hospital staff, physicians, scientists and “lease” employees.

Source: HDR, November 2013.

E. DISCRETIONARY ACTIONS AND OTHER PLANNING CONSIDERATIONS

This EIR is intended to be used to provide CEQA clearance for all required discretionary actions for the proposed project. A number of permits and approvals would be required before the development of the project could proceed. The discretionary actions and other considerations and approvals anticipated to be required for the proposed project include those described below and listed in **Table II-2**, without limitation.

Table II-2: Anticipated Permits and Approvals for the Project

Lead Agency	Permit/Approval
City of Oakland	<ul style="list-style-type: none"> General Plan Amendment for portion of project site to Institutional Rezoning of portion of project site to S-1 Medical Center zone Planned Unit Development Permit (PUD) for entirety of CHRCO site Final Planned Unit Development Permit for Phase 1 (FPUD) Helistop Permit Tree Removal Permit Design Review Subdivision Maps Conditional Use Permits (CUP) Variances Caltrans acquisition and lot merger (mapping) Encroachment Permit for driveway ramp onto Martin Luther King Jr. Way
Responsible Agencies	
Caltrans	<ul style="list-style-type: none"> Encroachment Permit(s) Decertify State right-of-way Helistop Site Approval Permit and Heliport Permit (Aeronautics Division)
California Transportation Commission (CTC)	<ul style="list-style-type: none"> Approval of sale of decertified State right-of-way
Office of Statewide Health Planning and Development (OSHPD)	<ul style="list-style-type: none"> Permitting and enforcement for construction of new acute care hospital in compliance with Title 24 Compliance with SB 1953 and related legislation
California Department of Health Services (CDHS)	<ul style="list-style-type: none"> Licensing of new acute care facility Review of policies and procedures for compliance with Title 22
San Francisco Bay Regional Water Quality Control Board (RWQCB)	<ul style="list-style-type: none"> National Pollutant Discharge Elimination System (NPDES) permit for storm water discharge
Alameda County Flood Control and Water Conservation District	<ul style="list-style-type: none"> Possible Flood Encroachment Permit
University of California	<ul style="list-style-type: none"> Possible financial authorization
Other Agencies and Service Providers	
East Bay Municipal Utility District (EBMUD)	<ul style="list-style-type: none"> Approval of new service requests and new water meter installations
Bay Area Air Quality Management District (BAAQMD)	<ul style="list-style-type: none"> Stationary Source Permits
Alameda Contra-Costa Transit District (AC Transit)	<ul style="list-style-type: none"> Relocation of Route 18 bus stop
Alameda County Airport Land Use Commission	<ul style="list-style-type: none"> Helistop consistency determination
Federal Aviation Administration (FAA)	<ul style="list-style-type: none"> Helistop airspace determination

Source: LSA Associates, Inc., 2014.

1. City of Oakland

The proposed project would include a General Plan Amendment to designate a portion of the CHRCO site Institutional (including one privately-owned residence) and to rezone a portion of the CHRCO site S-1 (including two privately-owned residences). The proposed project would also include a Planned Unit Development (PUD) permit for development on the entirety of the CHRCO site. The PUD permit would be staged to facilitate the project's construction phasing. The proposed project would also include a vesting tentative map and final maps to merge lot lines on the CHRCO site to accommodate project development. In addition, the proposed project would include conditional use permits related to the conversion of residential uses to non-residential uses and for other uses on the site and variances for open facilities, such as a farmer's market, and loading berths. The proposed project would also include a tree removal permit(s) and a special activity permit for the proposed helistop, and potentially an encroachment permit for the driveway ramp to the existing garage at Martin Luther King Jr. Way.

2. Office of Statewide Health Planning and Development (OSHPD)

The Office of Statewide Health Planning and Development (OSHPD) is responsible for overseeing all aspects of hospital construction in California for general acute care hospitals, psychiatric hospitals, skilled nursing homes, and intermediate care hospitals. Pursuant to the Alquist Act, building plans for the retrofit or replacement of acute care hospital facilities must be submitted to, and approved by, OSHPD. Under OSHPD requirements, the construction related to hospital facilities must comply with California Code of Regulations, Title 24, California Building Standards Code relating to the regulation of hospital buildings, in addition to other regulations adopted pursuant to the State Health and Safety Code and all other applicable State laws. The construction of the new acute care facilities proposed under the Master Plan would require CHRCO to file with the OSHPD Facilities Development Division an application for General Acute Care Hospital review related to the proposed renovations of the acute care facilities, and for Licensed Clinic review related to the construction of OPC2, as proposed under Phase 1. In addition, as part of Phase 1, renovations to inpatient facilities and construction of the Central Utility Plant would be reviewed and approved by OSHPD. Under Phase 2, review and approval of inpatient renovations and construction of the Link Building, Patient Pavilion, and Central Utility Plant would also be required. The Facilities Development Division would review the proposed project construction drawings and specifications for code compliance, and would issue a building permit upon plan approval.

3. California Department of Health Services (CDHS)

The California Department of Health Services (CDHS) is responsible for the licensing of the new acute care facility in addition to overseeing compliance with the Medical Waste Management Program, which ensures the proper handling and disposal of medical waste.

4. California Department of Transportation (Caltrans)

The proposed project would include land acquisition from Caltrans related to the use of and improvements within approximately 1.5 acres of Caltrans right-of-way adjacent to westbound SR 24. Encroachment permits may be needed from Caltrans to construct retaining walls along SR 24 and improvements related to 52nd Street. The proposed project would also include the construction and operation of a new helistop on top of the Link Building, which would be subject to review and approval by the Caltrans Division of Aeronautics.

III. LIST OF COMMENTERS

This chapter presents a list of comment letters received during the public review period and describes the organization of the letters and comments that are provided in Chapter V, Comments and Responses, of this document.

A. ORGANIZATION OF COMMENTS AND RESPONSES

Chapter V includes a reproduction of each comment letter received on the Draft EIR. The written comments are grouped by the affiliation of the commenter, as follows: State, regional and local agencies (A), Organizations (B), Individuals (C), and Hearings (PC, LP, BP, as defined below).

The comment letters are numbered consecutively using the following designations:

State, Regional and Local Agencies	A#-#
Organizations.....	B#-#
Individuals	C#-#
Hearings:	
Planning Commission	PC#-#
Landmarks Preservation Advisory Board	LP#-#
Bicycle and Pedestrian Advisory Committee.....	BP#-#

The letters are numbered and comments within each letter are numbered consecutively after the hyphen. Each speaker at each of the hearings has been designated with a number as well.

B. LIST OF AGENCIES COMMENTING ON THE DRAFT EIR

The following comment letters were submitted to the City during the public review period:

State, Regional and Local Agencies

- A1 State of California, Governor's Office of Planning and Research, State Clearinghouse and Planning Unit; Scott Morgan, Director, State Clearinghouse (September 23, 2014)
- A2 State of California, Office of Historic Preservation; Carol Roland-Nawi, State Historic Preservation Officer (September 23, 2014)
- A3 State of California, Department of Transportation; Erik Alm, District Branch Chief (September 19, 2014)
- A4 Bay Area Air Quality Management District; Barry G. Young, Senior Advanced Projects Advisor (September 19, 2014)

- A5 Alameda County Transportation Commission; Tess Lengyel, Deputy Director of Planning and Policy (August 18, 2014)
- A6 East Bay Municipal Utility District; William R. Kirkpatrick, Manager of Water Distribution Planning (August 19, 2014)

Organizations

- B1 California Bicycle Coalition, Ryan Price (August 20, 2014)
- B2 Lozeau Drury, Richard T. Drury; representing the Committee of Interns and Residents (September 22, 2014)
- B3 Longfellow Community Association, Leslie Cleaver Wood, et al. (September 22, 2014)
- B4 Oakland Heritage Alliance, Alison Finlay and Naomi Schiff (September 17, 2014)
- B5 Santa Fe Community Association and Neighbors, Cathy Leonard (September 22, 2014)

Individuals

- C1 Albright, Brandie (August 28, 2014)
- C2 Ancar, Katina (September 22, 2014)
- C3 Anderson, Victoria (September 7, 2014)
- C4 Anwar, Yasmin (September 22, 2014)
- C5 Anwar, Yasmin (August 10, 2014)
- C6 Armour, Cynthia (August 25, 2014)
- C7 Barber, Laurel (No date)
- C8 Baugh, Elizabeth (September 21, 2014)
- C9 Beldner, Lynn; Briscoe, Steve (September 5, 2014)
- C10 Brodersen, Shelagh (September 3, 2014)
- C11 Brokl, Robert; Crofts, Alfred (September 7, 2014)
- C12 Brokl, Robert; Crofts, Alfred (September 15, 2014)
- C13 Chachkin, Myra (September 22, 2014)

- C14 Copenhagen, Brian (September 21, 2014)
- C15 David, Cindy (No date, 2014)
- C16 Decker, Jake (September 18, 2014)
- C17 Doyle, Ben (August 20, 2014)
- C18 Dughi, Bruce (August 19, 2014)
- C19 Ebron, Rafael (September 22, 2014)
- C20 Escárcega, Christopher (September 16, 2014)
- C21 Forder, Jenna and Jack (September 22, 2014)
- C22 Gottlieb, Samantha D. (September 3, 2014)
- C23 Hester, Karen (September 3, 2014)
- C24 Hickey, Mara (August 20, 2014)
- C25 Horneman, Phyllis (September 3, 2014)
- C26 Kaze, Mo (August 20, 2014)
- C27 Kemnitz, Marisa (September 16, 2014)
- C28 Kiesel, Kristin (September 22, 2014)
- C29 Krolikowski, Katherine (No date, 2014)
- C30 Langlois, Paul (September 3, 2014)
- C31 Lightfoot, Sarah (August 22, 2014)
- C32 Littlejohn, Nicholas (August 19, 2014)
- C33 Macken, Catherine (August 20, 2014)
- C34 Merritt, Greg (August 21, 2014)
- C35 Naftz, Sommer; Craig, Graham (September 3, 2014)
- C36 Parker, Jean (September 22, 2014)
- C37 Parker, Susan (September 22, 2014)

- C38 Ratcliff, Steve (August 25, 2014)
- C39 Razon, Anat (August 21, 2014)
- C40 Robinson, Gerald (September 3, 2014)
- C41 Rosenberg, Steve; Fully, Melissa (September 22, 2014)
- C42 Schenker, Bob; Pajarillo, Jovita (August 2014)
- C43 Slater, Cynthia Barnes (September 22, 2014)
- C44 Sloan, Annie (August 21, 2014)
- C45 Smith, Patricia (September 22, 2014)
- C46 Spain, Sharon (September 21, 2014)
- C47 Squires, Jeff (August 20, 2014)
- C48 Staskawicz, Liam (August 20, 2014)
- C49 Stephan, Erica (September 17, 2014)
- C50 Wu, Joanna (September 22, 2014)

Public Hearings

Comments recorded at the respective hearings that were held during the public review period are included in the following transcripts:

- PC1 Planning Commission Hearing (September 17, 2014)
- LP1 Landmarks Preservation Advisory Board Hearing (September 8, 2014)
- LP2 Landmarks Preservation Advisory Board Memorandum (September 17, 2014)
- BP1 Bicycle and Pedestrian Advisory Committee Hearing (September 18, 2014)

IV. DRAFT EIR REVISIONS

Chapter IV presents specific changes to the text of the Draft EIR that are being made to clarify any errors, omissions, or misinterpretation in the Draft EIR, in response to comments received during the public review period or at the initiation of City staff. In no case do these revisions result in any new significant unavoidable impacts or a substantial increase in the severity of a previously identified significant impact set forth in the Draft EIR. Where revisions to the main text are called for, the page and paragraph are set forth, followed by the appropriate revision. Added text is indicated with double underlined text. Deleted text is shown in ~~strikeout~~.

Figure III-20 on page 147 of the Draft EIR is revised as shown on the following pages.

Page 181 of the Draft EIR is hereby revised as follows:

...Therefore, implementation of Phase 1 would not result in potential conflicts between existing and proposed uses and this impact would be less than significant. However, to further provide a buffer between residential and non-residential uses, it is recommended that the applicant implement the following measure:

Recommendation LU-1: The project applicant shall maintain the low density residential character of CHRCO-owned properties along 53rd Street, including 707-715, 671-679 53rd Street, 5225 Dover Street, and the new addresses for two properties relocated from 52nd Street to 53rd Street. Any additional construction at these properties shall conform to the RM-2 zoning only with respect to setbacks and height limitations, as well as landscaping requirements, maximum impervious surface coverage within the front yard setback, and except for existing driveways used for parking at previously-residential properties, no unenclosed parking shall be permitted in the front yard setback. However, the project applicant may request a Minor Variance to deviate from these requirements.

Pages 222 and 225 of the Draft EIR are hereby revised as follows:

... In the area that is now the 55th and Dover Residential District—~~the boundary of which encompasses today includes~~ 143 buildings and 119 contributing properties—there were only 34 empty lots in 1911.

Pages 240 through 241 of the Draft EIR are hereby revised as follows:

... This updated evaluation identified 143 properties—~~including 119 contributing properties~~—within the Residential District, which is roughly bounded between 55th and 56th Streets on the north, 52nd Street on the south, Martin Luther King Jr. Way on the west, and on the east and southeast by Shattuck Avenue and State Route 24 overpass.

Page 247 of the Draft EIR is hereby revised as follows:

Phase 1 Impacts. Phase 1 includes demolition of 5204 Martin Luther King Jr. Way to allow for construction of Outpatient Center 2. The residence at 5204 Martin Luther King Jr. Way is not a historical resource under CEQA, and its demolition would not have a substantial adverse change on the environment. However, SCA CUL-4 requires the applicant to comply with Policy 3.7 of the Historic Preservation Element, which requires the applicant to make a reasonable good-faith effort to relocate this building.

Phase 1 also includes demolition of the rear additions at 707 and 715 53rd Street (which are contributors to the Residential District and therefore CEQA historic resources) for construction of a driveway from Dover Street to access the existing maintenance area adjacent to the existing parking structure and Outpatient Center 1. Demolition of the rear additions would impact only a small percentage of the Residential District's total contributing properties and would not render the Residential District unable to convey its significance. The removal of later building additions at 707 and 715 53rd Street would not result in material impairment of the Residential District's character-defining features such that the District would no longer be eligible for listing in the California Register and the City's Local Register. The character-defining features of the Residential District from the public right-of-way, including the uniformity of residential building types and setbacks, street grid and block pattern, and various design elements, would remain intact after demolition of the rear additions. As described in the technical study prepared for the project (Appendix B), these project actions are consistent with applicable Rehabilitation Standards—specifically Rehabilitation Standards 2, 5, and 9—and are, therefore, mitigated to a level of less than a significant impact (CEQA Guidelines Section 15064.5(b)(3)).

Implementation of Phase 1 would have less than significant impacts to historical resources.

Phase 2 Impacts. Phase 2 includes the partial demolition of several buildings, removal of the Magnolia Tree, redesign of the interior courtyard, and new construction in proximity to the A/B Wing. Potential impacts to historic resources are described below. Implementation of Phase 2 would have less than significant impacts to historical resources.

Demolition. Phase 2 includes demolition of the rear portions of 671, 675, and 679 53rd Street to accommodate the new Family Residence Building, although the existing building façades would be retained. The buildings at 671 and 675 53rd Street are contributors to the Residential District and are therefore CEQA historic resources. However, demolition of the rear portions of these buildings would impact only a small percentage of the Residential District's total contributing properties and would not render the Residential District unable to convey its significance. Demolition of the rear portions of these buildings would not result in material impairment such that the Residential District would no longer be eligible for listing in the California Register or the City's Local Register. The character-defining features of the Residential District from the public right-of-way, including the uniformity of residential building types and setbacks, street grid and block pattern, and various design elements, would remain intact after demolition of the rear portions of these buildings. As described in the technical study prepared for the project (Appendix B), these project actions are consistent with applicable Rehabilitation Standards—specifically Rehabilitation Standards 2, 5, and 9—and are, therefore, less than significant (CEQA Guidelines Section 15064.5(b)(3)).



LSA

NOT TO SCALE

FIGURE III-20 - Revised

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Recommendation CUL-1a on page 248 of the Draft EIR is hereby revised as follows:

Recommendation CUL-1a: The project applicant shall incorporate a new magnolia tree into the site plan of the proposed project, as close as possible to the historic location of the magnolia (#82), within the constraints of the site plan. The project applicant shall enter into a contract with a qualified tree company to grow a specimen magnolia tree. The Hospital shall select the largest, good quality, boxed specimen, and the tree company shall grow the tree for five more years. The tree shall be installed on the main hospital campus as part of Phase 2 development. The cost to contract grow the Southern magnolia shall not exceed the \$45,800 appraised value of the magnolia tree #82.

Page 291 of the Draft EIR is hereby revised to include the following text:

4. Regulatory Framework

Alameda County Transportation Commission

The Alameda County Transportation Commission (ACTC) coordinates transportation planning efforts throughout Alameda County and programs federal, state, regional, and local funding for project planning and implementation. Through its Congestion Management Program (CMP), ACTC oversees and monitors the operations and performance of roadways in the CMP network, which consist of freeways and major arterials that provide connectivity in the County. The Land Use Analysis Program of the CMP requires local jurisdictions to evaluate the potential impacts of proposed land use changes (i.e., General Plan amendments, and developments estimated to generate 100 or more net new PM peak hour automobile trips) on the CMP network. See page 333 of this Draft EIR for the analysis of the proposed project impacts on the CMP network.

Recommendation TRA-4 on Page 344 of the Draft EIR is hereby revised to include the following additional bullet:

- The City of Oakland will consider elements of the Alternative Design as suggested by Bike East Bay and shown on Figures RTC-V-2a through RTC-V-2d of the RTC Document as part of the final design for the improvements on 52nd Street. These elements may include advanced yield markings at the uncontrolled crosswalks, additional pedestrian bulbouts, and/or other design features. Elements found to be feasible and in accordance with the City's guidelines and policies shall be incorporated in the final design.

Page 350 of the Draft EIR is hereby revised to include the following text:

Thus, with the implementation of SCA TRA-2 as part of the project, Phase 1 and Phase 2 of the CHRCO project would not result in a substantial, though temporary, adverse effect on the circulation system during construction of the project. In addition, to ensure that the public has the opportunity to review and provide feedback on the construction process, it is recommended that the applicant implement the following measure, to be included as part of SCA TRA-2:

Recommendation TRA-9: The project applicant shall prepare and submit plans for a construction-period community engagement program to the City for review and approval prior to issuance of a grading, demolition, or building permit. The process for engaging the community (via newsletter, website notification, or meetings) prior to and throughout the construction period shall be detailed in the plan.

Figure IV.D-25 on page 351 of the Draft EIR is revised as shown on the following page.

Page 395 of the Draft EIR is hereby revised as follows:

Table IV.E-11: Inhalation Health Risks from Total Project Construction

	Carcinogenic Inhalation Health Risk in One Million with CRAF	Chronic Inhalation Hazard Index	Acute Inhalation Hazard Index	Annual PM _{2.5} Concentration (µg/m ³)
Maximum Exposed On-Site Individual	2.98	0.585	0.0	0.17
Maximum Exposed Off-Site Individual	4.48 <u>7.53</u>	0.014	0.0	0.209
Threshold	>10.0 in one million	>1.0	>1.0	>0.30

Note: This analysis conservatively assumes that patients would be in the hospital for 30 days each year of the construction period; however, the average hospital stay is approximately 5 days.

CRAF = Cancer Risk Adjustment Factors

Source: LSA Associates, Inc., 2014.

Results of the analysis indicate that the highest cancer risk during construction would be a risk level of ~~4.48~~ 7.53 in 1 million for residents in the project vicinity. This analysis conservatively assumed the resident to be an infant during the start of project construction project and therefore assumed the CRAF to be 10 until the resident reached age 2, when the CRAF is 3. This risk level is below the threshold of 10 in one million.

Page 520 of the Draft EIR is hereby revised as follows:

The 4701 Martin Luther King Jr. Way CHRCO-owned parcel, which is across Martin Luther King Jr. Way from the main campus, is used for off-site vehicle parking and is listed due to a leaking underground storage tank. Three USTs, one containing gasoline and two containing heating oil, were removed from the site in 1989. Between 2000 and 2002, investigations identified total petroleum hydrocarbons (TPH) in the gasoline and diesel ranges and associated volatile organic compounds (VOCs) in soil and groundwater. ~~CHRCO has made a request that the case be classified as a “low threat” site and closed, but as of the time of preparation of this Draft EIR, the release case remains open.~~ In August 2013, the San Francisco Bay Regional Water Quality Control Board (Water Board) requested additional investigation be performed at this site to further characterize the groundwater downgradient of the former USTs.

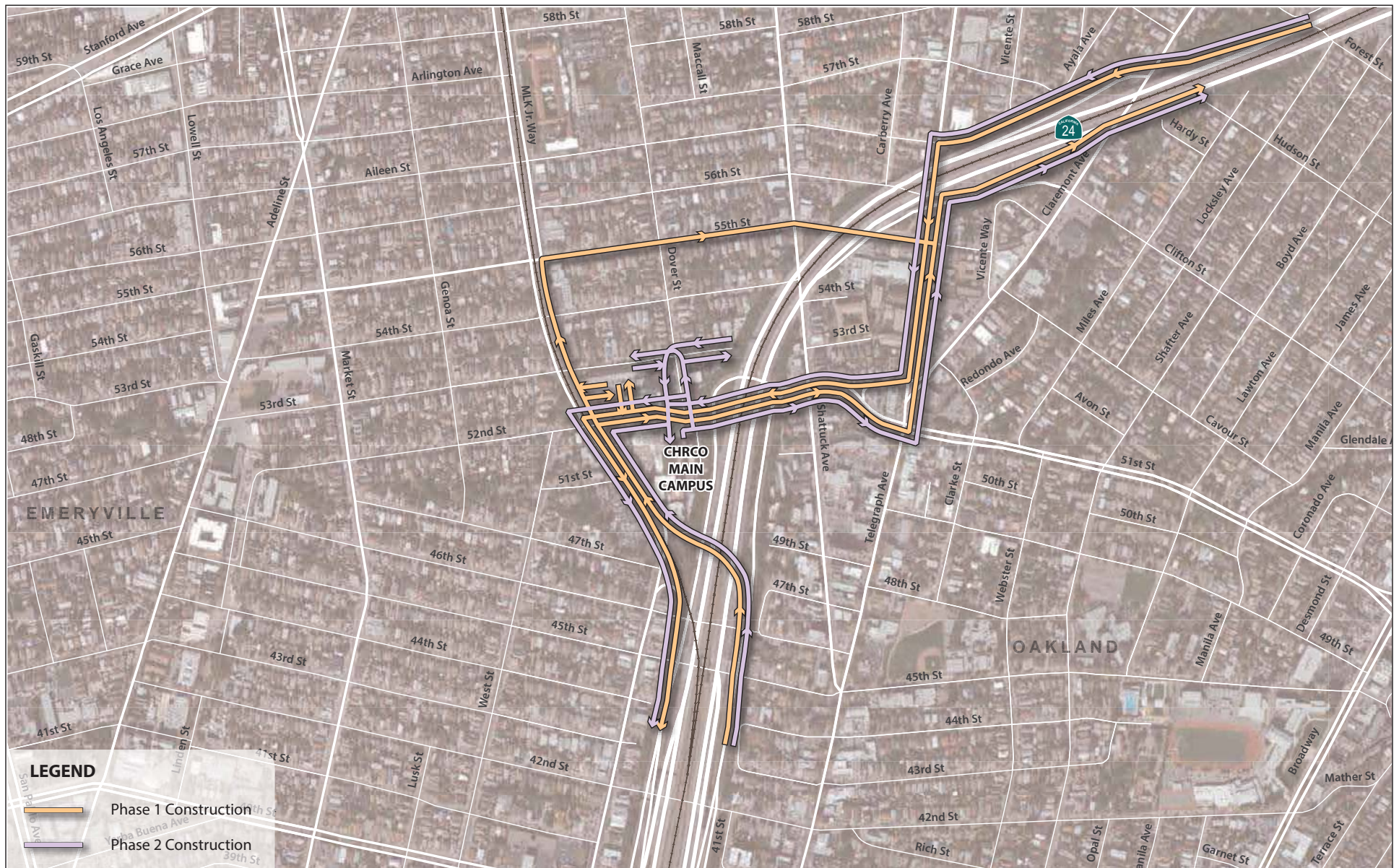


FIGURE IV.D-25 - Revised

CHRCO Campus Master Plan Project EIR
Construction Truck Routes

SOURCE: FEHR & PEERS, 2014.

I:\CHR1201 Childrens Hospital\RTC\RTC figures\Fig_IVD25-Revised.ai (12/18/14)

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Page 533 of the Draft EIR is hereby revised as follows:

As determined by the Phase I ESA and a regulatory database report reviewed for this analysis, the project site is not located on the Cortese list of hazardous materials release sites; therefore, no impacts would occur related to listing on a hazardous materials site. The CHRCO-owned parking lot at 4701 Martin Luther King Jr. Way, is on the Cortese list due to a former leaking underground storage tank; ~~proposed remedial activities at this site have been completed and case closure has been requested.~~ This site is used as a parking lot and would continue to be used in this manner. No construction or changes in land uses is proposed for this portion of the project site and any migration of groundwater contamination from this site would migrate to the west, away from project construction areas, along with natural groundwater flow. This site would not create an impact for the proposed project.

Page 579 of the Draft EIR is hereby revised as follows:

In addition, this portion of Dover Street also contributes to the 55th and Dover Residential District's pattern of development; ~~although closure of the street would not reduce the integrity of the District such that a significant impact would occur, its contribution to the District would be slightly reduced with closure to through public access. Although a change to this one block of the district has been found to have a less-than-significant impact on the historic district, the Historic Resource Evaluation Report prepared for the project¹ recommends that the Dover Street Closure alternative not be implemented and that the existing street grid and block configuration in the district should be retained.~~ The street grid and regular block and lot pattern are character-defining features of the Residential District, and closure of Dover Street and the resulting change to this character-defining feature represents a minor impact to the District. Overall, the change of street grid at one block of street in the District does not render the resource unable to convey its historic character. The Residential District retains the vast majority of its character-defining features, including the uniformity of building types and design elements at these buildings, its pattern of building setbacks, and the street grid and block pattern at eight out of nine blocks of street in the District. Therefore, reconfiguration of Dover Street represents a less-than-significant impact on the Residential District, and no mitigation is required.

Page 580 of the Draft EIR is hereby revised as follows:

As stated in Section IV.D, Transportation and Circulation, the closure of Dover Street, between 53rd and 52nd Streets, is recommended as one of several options to reduce traffic at Dover and 52nd Streets as part of the proposed project (see Recommendation TRA-2). If this measure is recommended by the City, ~~The~~ the Dover Street closure would only occur under after Phase 2 (project buildout) with implementation of this alternative as Dover Street is needed to accommodate both Phase 1 and Phase 2 construction. Therefore, traffic operations for this alternative are analyzed at the study intersection under the Phase 2 buildout scenarios analyzed for the proposed project. This analysis assumes no other modifications to the project or surrounding roadway network. Traffic operations that would occur under the Dover Street Closure alternative, under each scenario, are described below. Similar to the proposed project,

¹ Page & Turnbull, 2014. *Oakland Children's Hospital and Research Center Historic Resource Evaluation Part II: Proposed Project Analysis*. July 16.

the Dover Street Closure alternative would not result in any significant impacts related to traffic loads and capacity on surrounding roadways, would not exceed established thresholds for traffic safety, or conflict with transportation related policies or plans.

Page 612 of the Draft EIR is hereby revised to include the following text:

... Ultimately, transplanting the magnolia tree was determined to present logistical and financial constraints that could ultimately result in the death of the tree before it could be feasibly transplanted. Therefore, relocation of the tree is not considered as part of the proposed project. However, it is recommended that, in addition to implementation of Recommendation CUL-1a, the applicant implement the following measures:

Recommendation BIO-1: CHRCO shall retain a qualified tree company to take seeds or cuttings from the existing Southern magnolia (#82). The contracted firm shall propagate these seeds or cuttings and continue to grow them until they reach a typical landscape tree size, 24-inch box minimum. The trees shall be planted along the Dover Street entrance to the main campus as part of the Phase 2 proposed landscape plan.

V. COMMENTS AND RESPONSES

Written responses to each comment letter received on the Draft EIR are provided in this chapter. Letters received during the public review period on the Draft EIR are provided in their entirety. Each letter is immediately followed by responses keyed to the specific comments. Letters and comments are grouped by the affiliation of the commenting entity as follows: State, regional and local agencies (A), Organizations (B), Individuals (C), and Hearings/Meetings (PC1, LP1, LP2, BP1).

Please note that text within individual letters that has not been numbered does not raise environmental issues or relate to the adequacy of the information or analysis within the Draft EIR, and therefore no comment is enumerated or response required, per CEQA Guidelines Section 15132.

Many of the comments received on the Draft EIR involve variations of several key issues. In order to consolidate responses to questions and comments related to these topics, and to address concerns comprehensively, seven Master Responses have been prepared. Master Responses are included below for the following topics and are referenced in subsequent responses, as appropriate.

List of Topics:

1. Construction Impacts
2. 52nd Street Improvements and Traffic Calming Measures
3. Parking
4. Adjacent Neighborhood and Land Use Conflicts
5. Helen McGregor Plaza Park
6. Magnolia Tree
7. Helicopter Noise

Master Response #1: Construction Impacts

Several commenters are concerned with various aspects of project construction, including days and hours of construction activities, traffic, dust, and noise. Transportation and Circulation, Air Quality and Noise impacts during project construction are discussed in detail below.

Duration of Construction

Several commenters expressed concern regarding the total duration of construction. Construction of the project would occur at different locations throughout the 11-acre property and many months of construction would consist of interior renovation work which would not result in any noise impact to the surrounding areas. The proposed project includes demolition, construction of new buildings and interior renovations of existing buildings for a total duration of 9 years and 10 months. However, the

timeframe for exterior demolition and construction work would be 3 years for Phase 1. The remaining 22 months in Phase 1 account for the interior renovation work. Since the building would be enclosed this aspect of construction would generate less noise than exterior demolition and construction. Phase 2 construction would occur after completion of Phase 1. Phase 2 demolition and construction would be for 4 years. The remaining 12 months in Phase 2 would be interior construction. As the elements of Phase 1 and Phase 2 are in different locations, impacts related to noise, air quality and traffic within the project vicinity would vary in intensity throughout the overall construction period. No one location would be impacted for 10 years, with the exception of possibly 52nd Street.

As demonstrated in the Draft EIR and as discussed below, the project would mitigate construction impacts through implementation of the City's SCA's, and impacts to traffic, air quality, and noise would be less than significant.

Transportation and Circulation

Several commenters were concerned with aspects of construction related to construction staging, truck routes, bicycle and pedestrian safety, road closures, street repairs, and construction worker parking. Transportation and circulation impacts during project construction are evaluated on pages 349 and 350 of the Draft EIR. With implementation of Standard Condition of Approval (SCA) TRA-2, Construction Traffic and Parking Management Plan, detailed on pages 296 and 297 of the Draft EIR, these impacts would be less than significant. Elements of TRA-2 are described in greater detail below. However, it is important to note that since Phase 1 and Phase 2 are located in different areas, and involve different demolition and construction square footage, the Construction Traffic and Parking Management Plan would likely need to be different for each Phase and possibly for each sub-phase of construction as depicted on Figures III-8a through III-8c on pages 89, 91, and 93 of the Draft EIR.

- Locations for construction staging – The Draft EIR evaluates construction-period impacts related to truck routes and parking for construction workers' vehicles (see pages 349-350). SCA TRA-2, item c, requires the Construction Management Plan to identify construction staging areas for materials, equipment, and vehicles to be approved by City of Oakland to ensure that construction staging would result in a less than significant impact. Since the main components of Phase 1 are the relocation of the main garage entry to Martin Luther King Jr. Way and construction of the OPC2 building, it is likely that construction staging will be located on the sidewalk surrounding these structures and along the north side of 52nd Street. It is typical that this area would be used for construction staging in a constrained urban setting such as that which exists at the project site. However, to ensure the project uses appropriate construction staging and delivery areas, SCA TRA-2 requires submittal of staging and delivery areas to be reviewed and approved by City of Oakland staff.
- Construction truck routes – As noted above, the Draft EIR evaluates construction truck routes, and concludes that those impacts would be less than significant (see page 350 of the Draft EIR). In addition, SCA TRA-2, item o, identifies construction truck traffic routes on the streets shown on Figure IV.D-25 to ensure that construction staging would result in a less than significant impact. Figure IV.D-25 has been revised and updated for the Final EIR (see Revised Figure IV.D-25 in Chapter IV of this RTC Document). To the extent feasible, trucks are limited to non-residential streets, such as Martin Luther King Jr. Way, Telegraph Avenue, 55th Street, and 52nd Street. Since Phase 1 would include the demolition of minor rear yard additions to accommodate the new maintenance access route and Phase 2 of the

project would include buildings on Dover and 53rd Streets (construction of the Family House and relocation of the two houses from 52nd Street to 53rd Street), trucks would need to use these streets because no other access is available. However, trucks would only use the segments of Dover Street between 52nd and 53rd Streets and 53rd Street just east and west of Dover Street. Trucks on these street segments would be limited to those trucks serving the construction site, and no other trucks would use these street segments for through travel as shown on the Revised Figure IV.D-25.

- Bicycle and pedestrian safety – The Draft EIR evaluates potential impacts related to bicycle and pedestrian safety, and concludes that those impacts would be less than significant. In addition, SCA TRA-2, item m, requires comprehensive traffic control measures for motor vehicles, transit, bicycle, and pedestrian access and circulation during each phase of construction. SCA TRA-2, item e, requires the Construction Management Plan to accommodate pedestrian flow during construction. SCA TRA-2, items e and m would ensure that project construction would result in a less than significant impact on bicycle and pedestrian access and safety. For Phase 1, if the construction is staged as indicated above, pedestrians and bicycles likely would be re-routed to the south side of 52nd Street and to the west side of Martin Luther King Jr. Way.
- Road closures – SCA TRA-2, items a and m, require comprehensive traffic control measures during potential roadway closures to ensure that road closures during construction would result in a less-than-significant impact.
- Street and sidewalk repairs during construction – SCA TRA-2, item g, requires any damage or excessive wear to streets caused by the construction project to be repaired within one week unless further damage/wear is expected. If no further damage/wear is expected as a result of the construction project, then repair shall occur prior to issuance of a final inspection of the building permit. The SCA also requires damages that are a threat to public health or safety to be repaired immediately. The damaged streets are to be restored to their condition prior to the construction. SCA TRA-2, item g would ensure that project construction would result in a less than significant impact on streets and sidewalks.
- Construction worker and CHRCO patient/visitor parking – The Draft EIR evaluates construction workers' parking and the effects of construction on patient and visitor parking and concludes that those impacts would be less than significant. In addition, SCA TRA-2, item f, requires the Construction Management Plan to accommodate parking for construction workers to ensure that construction workers do not park on-street. Moreover, SCA TRA-2, item n, requires the Construction Management Plan to ensure that parking for construction workers, and CHRCO employees and patients/visitors are accommodated during each phase of construction. As described on page 349 of the Draft EIR, up to 140 construction workers are expected during Phase 1 and up to 300 construction workers are expected during Phase 2, and all parking for construction workers is expected to be accommodated at off-street facilities off-site. SCA TRA-2, items f and n would ensure that construction worker, CHRCO employee, patients and visitor parking would result in a less than significant impact.
- Notifications and complaints during construction – SCA TRA-2, item b, requires the Construction Management Plan to establish a process for public notification of adjacent property owners and the public regarding major deliveries, detours, and lane closures. SCA TRA-2, item d, requires the Construction Management Plan to establish a process for

reporting, tracking, and resolving complaints pertaining to the construction process. The notifications and complaints processes may include a website, newsletters, and community meetings.

Several commenters suggested that the Hospital provide a fund for unforeseen effects of the project on the neighborhood. This comment is noted. The Draft EIR thoroughly analyzed the potential impacts related to construction and determined that all construction related impacts would be reduced to Less than Significant with implementation of the City's standard conditions of approval; therefore, a fund for unforeseen effects is unnecessary.

Several commenters suggested that the Construction Management Plan be made available for public review. This comment is noted. The Construction Management Plan is approved by City staff based on the information in each SCA, and other City guidelines, policies, and typical practices and is completed prior to issuance of a grading, demolition, or construction permit. The following recommendation would however ensure that the public has the opportunity to review and comment on the construction process before it is finalized and this language is added to page 350 of the Draft EIR:

Thus, with the implementation of SCA TRA-2 as part of the project, Phase 1 and Phase 2 of the CHRCO project would not result in a substantial, though temporary, adverse effect on the circulation system during construction of the project. In addition, to ensure that the public has the opportunity to review and provide feedback on the construction process, it is recommended that the applicant implement the following measure, to be included as part of SCA TRA-2:

Recommendation TRA-9: The project applicant shall prepare and submit plans for a construction-period community engagement program to the City for review and approval prior to issuance of a grading, demolition, or building permit. The process for engaging the community (via newsletter, website notification, or meetings) prior to and throughout the construction period shall be detailed in the plan.

Air Quality

Construction emissions associated with the project are described in the Draft EIR on pages 384 and 385. Construction dust will be minimized through implementation of SCA AIR-1 (see pages 379 and 380) which will require the implementation of all applicable Bay Area Air Quality Management District (BAAQMD) best management practices. SCA AIR-1 includes 24 measures or techniques for reducing dust and construction emissions, and with implementation, air quality impacts during construction would be less than significant.

BAAQMD measures related to dust reduction include but are not limited to: water all exposed surfaces of active construction areas at least twice daily; cover all trucks hauling soil, sand, and other loose materials; all trucks and equipment, including tires, shall be washed off prior to leaving the site; all visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day; enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.); pave all roadways, driveways, sidewalks, etc. as soon as feasible; and, vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible. In addition, the applicant shall designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite.

Measures related to emission reduction include but are not limited to: idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes; minimize the idling time of diesel-powered construction equipment to two minutes; all construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications, all equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation; all construction equipment, diesel trucks, and generators (which should only be used when temporary power poles cannot be feasibly installed, per SCA NOI-1) shall be equipped with Best Available Control Technology for emission reductions of NO_x and PM; and off-road heavy diesel engines shall meet the ARB's most recent certification standard.

In addition, the applicant is required to post a publicly visible sign that includes the contractor's name and telephone number to contact regarding dust complaints. When contacted, the contractor shall respond and take corrective action within 48 hours. The telephone numbers of contacts at the City and the BAAQMD shall also be visible.

As shown in Table IV.E-5 and Table IV.E-6 of the Draft EIR (page 385), construction emissions associated with the proposed project, including dust particles, are well below the emission thresholds and therefore would not be significant. Therefore, indoor air quality monitoring and air filtration at nearby residential units would not be necessary.

Noise

Several commenters expressed concern regarding the days and hours of construction, measures to reduce noise near residents, notification of extreme noise events, noise complaint procedures, and the definition of heavy as opposed to light construction. As shown in Draft EIR Figures III-8a through 8d, construction of the project would occur at different locations throughout the 11-acre property and many months of construction would be interior renovation work, which would not result in any significant noise impact to the surrounding areas. Figure RTC-V-1 further shows the location of specific construction areas on the project site and the proximity of noise-sensitive receptors that were identified in the Draft EIR analysis, including residential areas located across Martin Luther King Jr. Way.

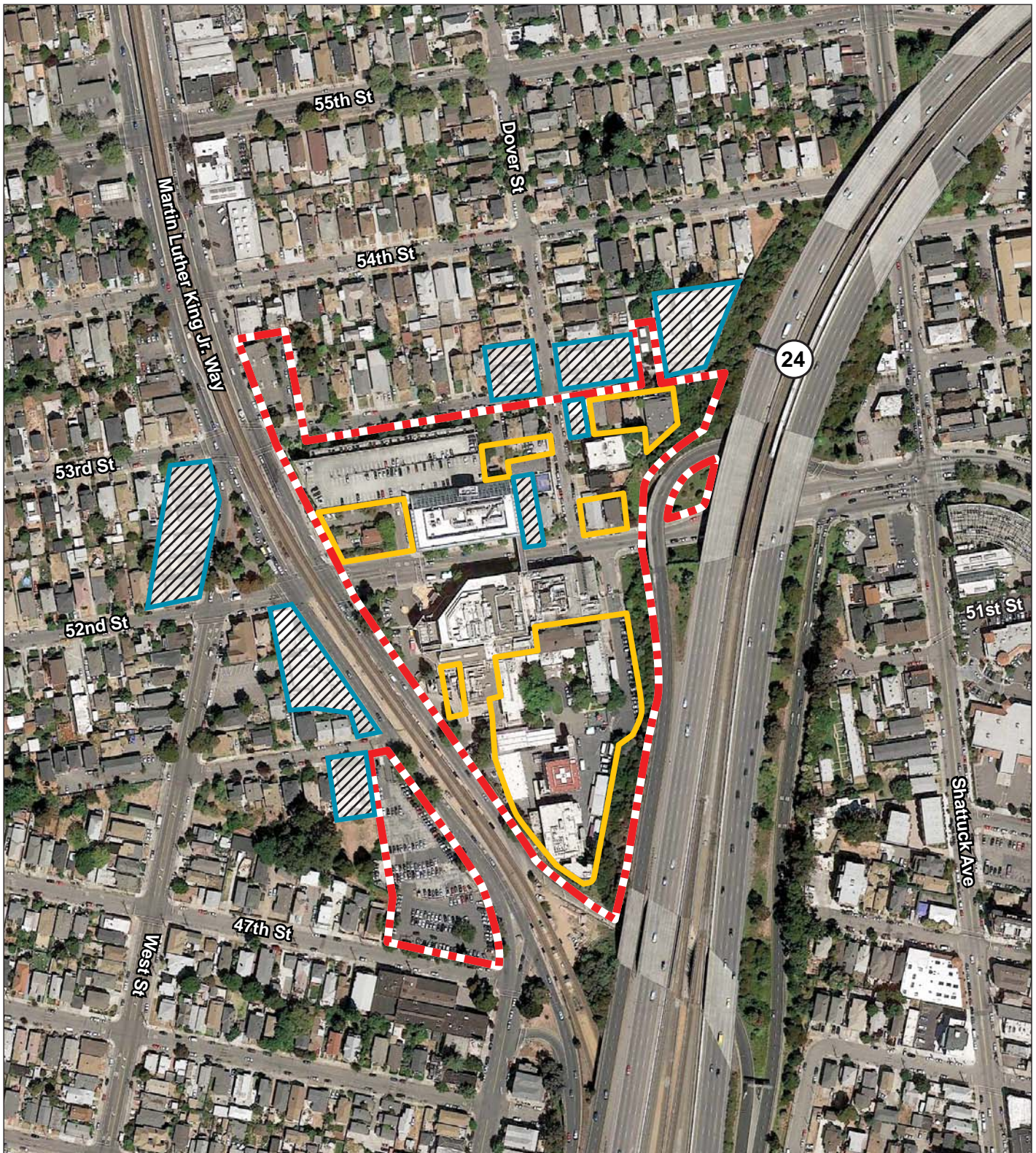
Construction noise impacts are evaluated on pages 461 to 465 of the Draft EIR. Construction-related noise levels would be reduced with implementation of Standard Conditions of Approval (SCA) NOI-1, SCA NOI-2, SCA NOI-3, and SCA NOI-6 (see pages 441 to 443). Elements of construction-related noise SCAs are described in greater detail below:

- Hours of construction – Consistent with the City of Oakland Noise Ordinance, SCA NOI-1 limits the hours of construction to between 7:00 a.m. and 7:00 p.m. on Mondays through Saturdays. However, Saturday construction is typically limited to only after the building is enclosed and doors and windows are closed. Furthermore, construction on Saturdays and outside of standard hours will be evaluated by the building department on a case-by-case basis with consideration given to the proximity of residences and resident's preference if construction will be shortened. The Bureau of Building will provide written authorization if approval of days and hours beyond regular limits is granted. Extreme noise-generating activities are limited to 8:00 a.m. to 4:00 p.m. Monday through Friday. No extreme noise are permitted on Saturday with no exception. No construction can occur on Sunday or Federal holidays.

- **Site Specific Noise Reduction Program** – SCA NOI-2 requires the construction contractors to implement a site-specific construction noise reduction program, which includes the following measures: equipment and trucks used for project construction shall utilize the best available noise control techniques; impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools; stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, shall incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction; and the noisiest phases of construction shall be limited to less than 10 days at a time (exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented). The draft site specific noise program includes a site-specific noise control strategy to provide a 15-foot high temporary barrier placed between proposed construction sites and sensitive receptors.
- **Noise Complaint Procedures** – SCA NOI-3 requires the project applicant to submit to the Building Services Division a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include: a procedure and phone numbers for notifying the Building Services Division staff and Oakland Police Department (during regular construction hours and off-hours); a sign posted on-site with permitted construction days and hours and complaint procedures and who to notify in the event of a problem; the designation of an on-site construction complaint and enforcement manager for the project; and, notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity.

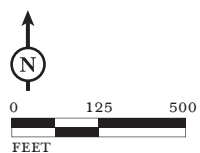
In addition to the above, a preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

- **Noise Attenuation for Extreme Noise Generators** – SCA NOI-6 requires a set of site-specific noise attenuation measures to be completed under the supervision of a qualified acoustical consultant to further reduce potential pier drilling, pile driving and/or other extreme noise generating construction impacts greater than 90 dBA. (Please note that impact pile driving would not be used during project construction.) Attenuation measures may include the following: erect temporary plywood noise barriers around the construction site, particularly along sites adjacent to residential buildings; implement “quiet” pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions; utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site; evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and monitor the effectiveness of noise attenuation measures by taking noise measurements. With implementation of these measures, double pane windows are not necessary as part of the project’s site specific noise reduction program. Additionally, the City’s limits on permitted construction hours would also help reduce construction noise impacts.



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FIGURE RTC-V-1



- - - Project Sites
- / / / Project Construction Noise Sensitive Receptors
- _ _ _ Construction Sites

SOURCES: GOOGLE EARTH, 8/12; LSA ASSOCIATES, INC., 2015.

CHRCO Campus Master Plan Project EIR
Noise Sensitive Receptor Locations

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As demonstrated in the Draft EIR in Table IV.G-14: Typical Construction Equipment Maximum Noise Levels, on page 462, the project would involve different types of construction equipment. Most equipment would be considered “heavy equipment,” meaning that it generates substantial or extreme noise. As noted in the Draft EIR, construction is performed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics and the various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. However, implementation of SCA NOI-3, and SCA NOI-6, applicable to construction hours of operation, noise control, noise complaint procedures, and extreme noise generators, would reduce construction noise impacts on surrounding noise sensitive land uses.

Master Response #2: 52nd Street Improvements and Traffic Calming Measures

Several commenters expressed concern about various aspects of the recommended bicycle facilities on 52nd Street. Also, several commenters recommended traffic calming measures in the vicinity of the project. As described in Section IV. D. Transportation and Circulation, of the Draft EIR, implementation of the proposed CHRCO project would not result in a significant impact on transportation and circulation; therefore, the Draft EIR does not include any mitigation measures. However, the Draft EIR includes Recommendation TRA-4 to improve bicycle and pedestrian facilities in the project vicinity to further encourage cycling and walking. Recommendation TRA-4 (see pages 343-344 of the Draft EIR) consists of a bikeway on 52nd Street between Market Street and Shattuck Avenue. Figure IV.D-24 on page 345 of the Draft EIR shows the conceptual plan for the recommended bikeway, which would include a combination of Class 2 (bicycle lanes) with and without buffers, Class 3A (arterial bicycle route), and Class 3B (bicycle boulevard) facilities. As described in Recommendation TRA-4, the bikeway would be implemented as part of Phase 2 of the proposed project. Figure III-19 on page 145 of the Draft EIR depicts the improvements on 52nd Street proposed by CHRCO as part of Phase 2 of the project. Recommendation TRA-4 would modify these improvements as shown on Figure IV.D-24.

The configuration described in Recommendation TRA-4 and shown on Figure IV.D-24 is conceptual and is intended to show the feasibility of implementing a bikeway on this corridor. The Conceptual Plan would provide exclusive and separated bicycle facilities (e.g., buffered bicycle lanes) where feasible. The Conceptual Plan also would provide traffic calming measures along the corridor where appropriate.

Various aspects of the bikeway design raised in the comments and an Alternative Design suggested by Bike East Bay, and shown on Figures RTC-V-2a through RTC-V-2d, are addressed below. These comments also address traffic calming measures to be implemented after Phase 2 construction:

- Continuous bicycle lanes – Recommendation TRA-4 provides exclusive and/or separated bicycle facilities (i.e., buffered bicycle lanes) where feasible. Continuous Class 2 bicycle lanes would be provided from West Street to the SR 24 off-ramp in the eastbound direction and from Dover Street to West Street in the westbound direction. However, due to the limited right-of-way and varying street width along the corridor, and the need to safely and efficiently accommodate different travel modes, implementation of continuous bicycle lanes along the entire length of the corridor is not currently feasible.

- Parking protected bicycle lanes – the Conceptual Plan, per Recommendation TRA-4 and shown on Figure IV.D-24, includes provision of on-street parallel parking and a buffered Class 2 bicycle lane between the parking and auto travel lane in both directions of 52nd Street under the SR 24 overpass. The Alternative Design proposes to swap the parking and bicycle lanes so that the parking lanes are separate from the bicycle and auto lanes. Parking-protected bicycle lanes are not recommended at this location because they would only be for a short distance (about 200 feet in each direction). In addition, the westbound parking-protected bicycle lane would require cyclists to deflect from the shortest path and may encourage some cyclists to use the auto lane. The Alternative Design would also require westbound cyclists to merge with auto traffic just west of the overpass, and the parking lane may limit sight distance between autos and cyclists. In the eastbound direction, the Alternative Design would place the bicycle lane adjacent to the off-ramp, which may increase conflicts with vehicles on the off-ramp due to limited sight distance.
- Green paint in bike lanes – Consistent with current state-of-practice, the Conceptual Plan shown on Figure IV.D-24 provides green bicycle lanes in conflict zones, which are defined as areas where cyclists and autos are expected to cross paths.
- Genoa Street-52nd Street bicycle boulevard corridor – 52nd Street between West and Genoa Streets and Genoa Street north of 52nd Street is currently identified and signed as a bicycle boulevard. City of Oakland is considering traffic calming measures along this corridor to further discourage auto travel and improve bicycle safety. As described on pages 343 to 344 of the Draft EIR, Recommendation TRA-4 may include physical traffic calming measures on 52nd Street between Market and West Streets. Thus, both Recommendation TRA-4 and City of Oakland's Genoa Street bicycle boulevard improvement project overlap in the segment of 52nd Street between Genoa and West Streets. The improvements included in Recommendation TRA-4 for this segment of 52nd Street may include speed humps on 52nd Street west of West Street, and/or a traffic circle at the Genoa Street/52nd Street intersection, which would be consistent with the preliminary Genoa Street bicycle boulevard improvements. The appropriate measures will be determined as part of the 52nd Street bikeway design during Phase 2 of the CHRCO project.

Several commenters requested traffic calming measures or other changes along Genoa Street north of 52nd Street. These include maintaining the existing all-way stop-signs at the Genoa Street/Arlington Avenue intersection, and various signs on 55th and 59th Streets at Genoa Street and on Genoa Street between 60th and Adeline Streets. The Draft EIR does not identify any impacts, mitigation measures, or recommend any modification on Genoa Street north of 52nd Street because the proposed project would have minimal effect on Genoa Street. However as previously noted, City of Oakland is considering addressing conditions along Genoa Street in a separate project.

- Safety at SR 24 Ramps –The Draft EIR includes the following recommendations to improve safety for pedestrians and cyclists on 52nd Street at the SR 24 Ramps (see Recommendation TRA-4 and the improvements illustrated in Figure IV.D-24 on page 345):
 - Prohibition of on-street parking on the south side of 52nd Street adjacent to the SR 24 Eastbound Off-Ramp to provide sight-distance for motorists on the off-ramp, which is consistent with the Alternative Design.



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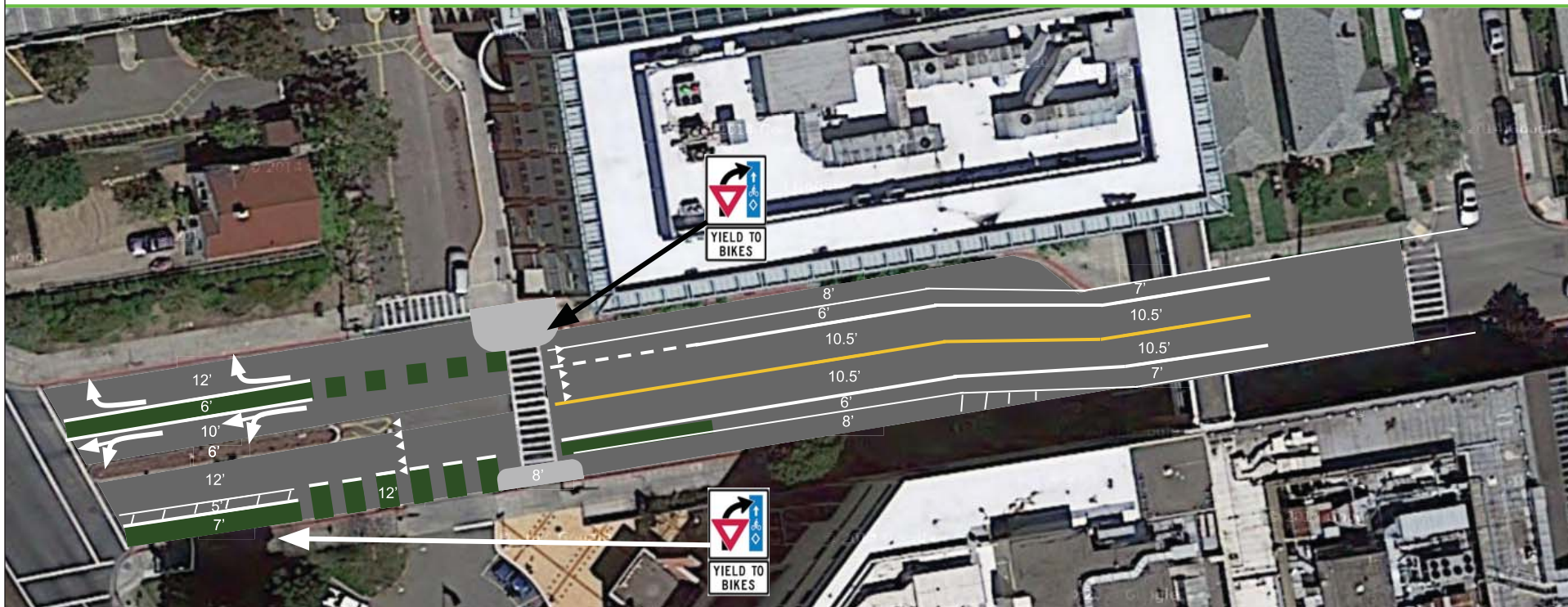
FIGURE RTC-V-2a



SOURCE: BIKE EAST BAY, <https://pdf.yt/d/5h8q4vPa77wFI4MD>, DECEMBER 12, 2014.

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CHRCO Campus Master Plan Project EIR
Bike East Bay 52nd Street Bicycle Facilities Plan



LSA

FIGURE RTC-V-2b



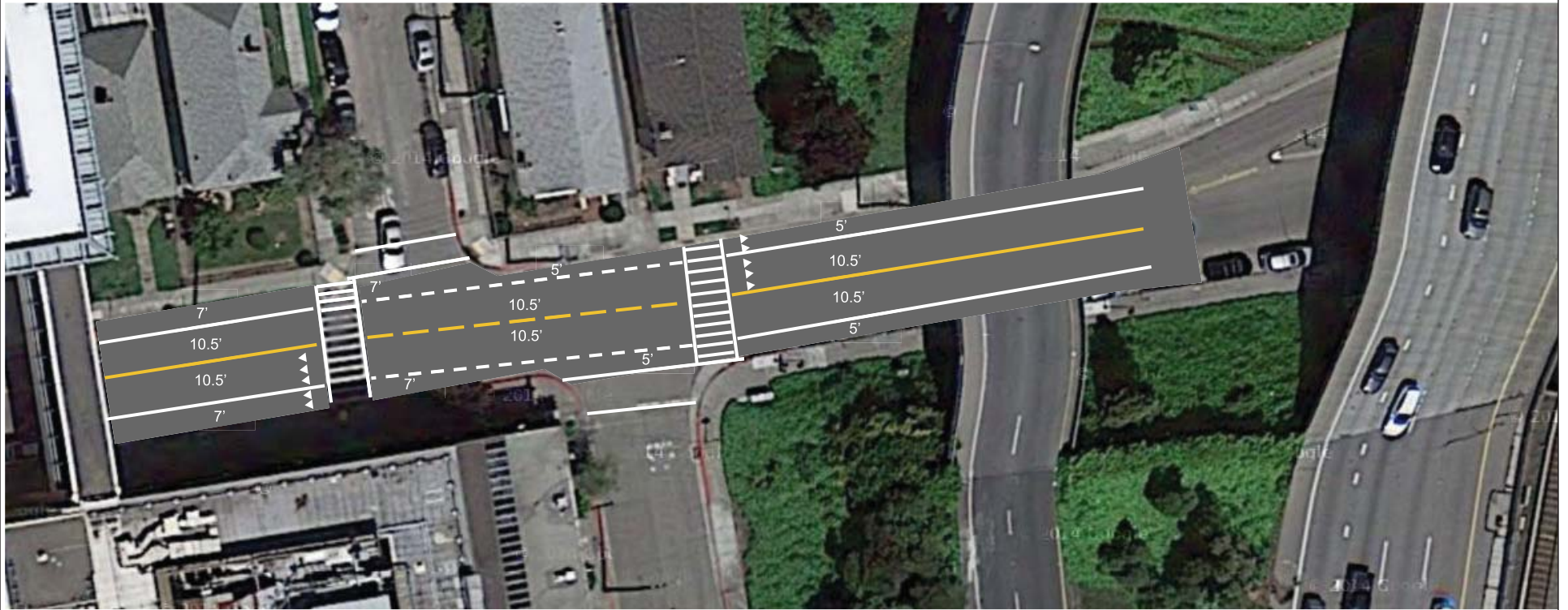


FIGURE RTC-V-2c

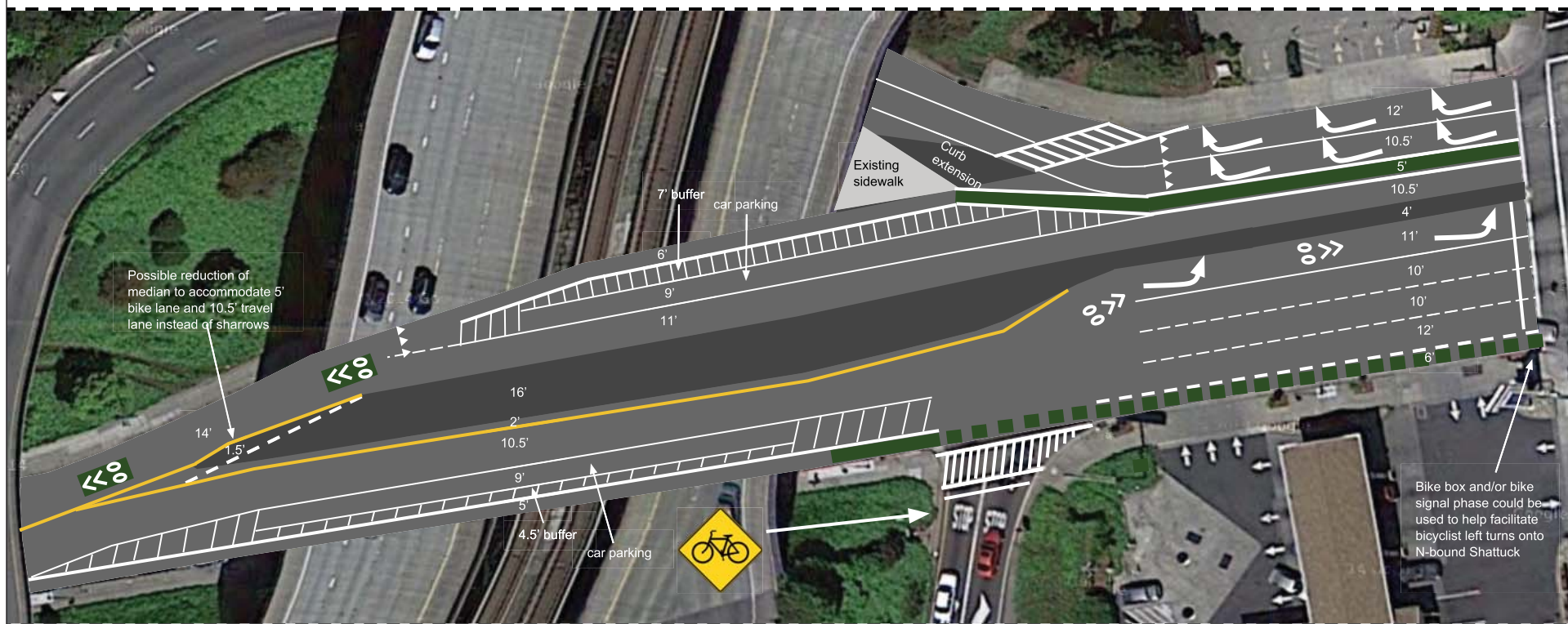
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SOURCE: BIKE EAST BAY, <https://pdf.yt/d/5h8q4vPa77wFI4MD>, DECEMBER 12, 2014.

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CHRCO Campus Master Plan Project EIR
Bike East Bay 52nd Street Bicycle Facilities Plan



LSA



FIGURE RTC-V-2d

- Placement of Class 2 bicycle lanes on eastbound 52nd Street adjacent to the travel lane so that motorists on SR 24 Eastbound Off-Ramp would have the same sight-line for both cyclists and motorists on eastbound 52nd Street. The Alternative Design would place the bicycle lane adjacent to the sidewalk and the off-ramp, which may increase conflicts with vehicles on the off-ramp due to limited sight distance.
- High-visibility crosswalk and advanced stop bar on the SR 24 Eastbound Off-Ramp, which is consistent with the Alternative Design.
- Replacing the existing shared thru/right lane on westbound 52nd Street at the SR 24 Westbound On-Ramp with exclusive right-turn lanes, exclusive through auto lane, and exclusive bicycle lane, which is consistent with the Alternative Design.
- The crosswalk across the SR 24 Westbound On-Ramp would remain at the existing location in order to maximize sight-distance between pedestrians and motorists and minimize the crossing distance. Recommendation TRA-4 would reduce the crossing distance by reducing the width of the travel lanes on the on-ramp. The crosswalk location proposed in the Alternative Design would require westbound pedestrians at the crossing to turn around before crossing and would result in a longer crossing across the on-ramp; therefore, it is not recommended. However, the advanced yield markings in the Alternative Design will be considered for inclusion in Recommendation TRA-4.
- Bicycle connection to Telegraph Avenue – Recommendation TRA-4 would provide a bikeway on 52nd Street to connect CHRCO to the citywide bicycle network by directly connecting to the existing Class 2 bicycle lanes on Market Street, West Street, and Shattuck Avenue, and Class 3B bicycle boulevard on Genoa Street. The City of Oakland is currently studying providing bicycle facilities on Telegraph Avenue as part of the Telegraph Avenue Complete Streets project (see page 283 of the Draft EIR). Since the feasibility of providing bicycle facilities on 51st and 52nd Streets between Shattuck and Telegraph Avenues is outside the scope of this EIR, Recommendation TRA-4 does not extend the recommended bikeway to Telegraph Avenue.
- Pedestrian bulbouts – Recommendation TRA-4 would include bulbouts on 52nd Street at the existing Main Garage Driveway, which will also be used to access the Emergency Department parking on the ground level of OPC-2 after completion of Phase 1. The Alternative Design proposes additional bulbouts on 52nd Street at intersections with Martin Luther King Jr. Way and West Street. The feasibility of these additional bulbout will be considered as part of the final design.
- Advanced yield markings – Recommendation TRA-4 as shown on Figure IV.D-24 does not include any advanced yield markings (shark teeth markings). The Alternative Design proposes advanced yield markings on the crosswalk across the SR 24 on-ramp and on both directions of 52nd Street at the pedestrian crossing at the existing Main Garage Driveway. As previously noted, the markings at the SR 24 on-ramp will be considered for inclusion in Recommendation TRA-4. However, the markings on 52nd Street at the pedestrian crossing at the existing Main Garage Driveway cannot be implemented because the intersection, including the pedestrian crossing, is signal controlled and advanced yield markings are not installed at signalized locations because they would conflict with the signal.

- Strategies to further encourage CHRCO staff, patients and visitors, to walk, bike, and use transit – Standard Condition of Approval (SCA) TRA-1 (page 294 of Draft EIR) requires the project to implement a Transportation Demand Management (TDM) Plan to provide incentives and encourage use of non-automobile travel modes.

The final design for the 52nd Street bikeway will be prepared as part of Phase 2 of the proposed project based on engineering standards, best practices, and the City's guidelines and policies in effect at that time. Therefore, the following bullet is added to the list under Recommendation TRA-4 on Page 344 of the Draft EIR:

- The City of Oakland will consider elements of the Alternative Design as suggested by Bike East Bay and shown on Figures RTC-V-2a through RTC-V-2d of the RTC Document as part of the final design for the improvements on 52nd Street. These elements may include advanced yield markings at the uncontrolled crosswalks, additional pedestrian bulbouts, and/or other design features. Elements found to be feasible and in accordance with the City's guidelines and policies shall be incorporated in the final design.

Master Response #3: Parking

Several commenters requested establishment of Residential Parking Permits (RPP) zones on the streets in the vicinity of CHRCO during project construction and/or after completion of the project and requested that CHRCO cover the cost of implementing RPP. As described on page 353 of the Draft EIR, parking is not considered an environmental topic to be evaluated under CEQA. However, this EIR evaluated parking as a non-CEQA topic for informational purposes. This Master Response provides an overview of on-street parking and the potential for implementing RPP in the project vicinity.

The Draft EIR evaluated on-street parking supply and occupancy within walking distance (about .25 miles) of CHRCO. As shown on Figure IV.D-5 of the Draft EIR (page 273), there are currently no restrictions on on-street parking on the residential streets in the vicinity of the project. As shown on Figure IV.D-6 and described on page 272 of the Draft EIR, on-street parking is currently at or near capacity on the streets adjacent to and within one or two blocks of CHRCO. As described on page 300 of the Draft EIR, it is estimated that about 10 percent of CHRCO employees and patients/visitors currently park on-street at peak times, which corresponds to about 124 parked vehicles.

As shown in Table IV.D-22 and described on page 357 of the Draft EIR, it is estimated that Phase 1 of the project would have a parking deficit of 71 spaces based on estimated peak parking demand, and Phase 2 of the project would have a parking surplus of 17 spaces based on the estimated peak parking demand. Since the estimated project parking demand includes employees and patients/visitors that currently park on-street, the off-street parking supply at the end of Phase 2 of the project would satisfy the total estimated demand. Furthermore, as required by SCA TRA-1, the project will implement TDM strategies to reduce the parking generated by project employees, patients, and visitors.

As described in Master Response 1 and required by SCA TRA-2, the project will implement a Construction Management Plan during each phase of construction to accommodate construction worker parking to ensure that construction workers do not park on-street, and parking for CHRCO employees and patients/visitors are accommodated during construction.

Although the CHRCO project would provide adequate off-street parking supply to meet all the parking demand it generates during and upon completion of Phase 2, some employees and patients/visitors may choose to continue to park on-street because there are no restrictions on parking on most residential streets surrounding the site and on-street parking on residential streets would be free compared to the fee at the off-street parking facilities.

The City of Oakland allows establishment of RPP zones where on-street parking for non-residents is typically restricted to two-hours during weekday business hours. Since most employees, patients, and visitors remain at CHRCO for more than two hours, establishing an RPP zone would reduce the demand for on-street parking.

The City of Oakland has the following requirements for establishing a RPP zone:

- A petition must be submitted to the City containing signatures representing at least 51 percent of the residential units in each of the blocks within the proposed RPP area.
- At least six adjacent block fronts should be included in each area.
- At least 80 percent of each block front must be residentially zoned.
- At least 75 percent of all on-street parking spaces in the proposed area must be occupied during any two one-hour periods between 8:00 a.m. and 6:00 p.m.

Based on the parking occupancy data on Figure IV.D-6 of the Draft EIR, several streets may be eligible for RPP, including:

- 51st Street between West Street and Martin Luther King Jr. Way
- 52nd Street between Genoa Street and Martin Luther King Jr. Way
- 53rd Street between Martin Luther King Jr. Way and SR 24 freeway
- 54th Street between Martin Luther King Jr. Way and Telegraph Avenue
- West Street between Martin Luther King Jr. Way and 47th Street
- West side of Martin Luther King Jr. Way between 51st and 55th Streets
- Dover Street between 52nd and 55th Streets

CHRCO and City of Oakland staff have discussed with residents in the area the possibility of establishing an RPP zone within the vicinity of the Hospital. CHRCO is currently coordinating with City of Oakland staff to evaluate the feasibility and scope of an RPP zone in this area, and whether an RPP zone is an appropriate measure to include in the TDM Plan for the project pursuant to SCA TRA-1 (Parking and Transportation Demand Management). The City will consider implementation of an RPP program as part of the project entitlements and decision on the project and may choose to recommend that an RPP zone be established as part of the TDM Plan. As required by SCA TRA-1, the TDM Plan must be approved by the City prior to issuance of a final inspection of the building permit. However, parking is not an environmental topic to be evaluated under CEQA and this issue is not further addressed in this document.

Master Response #4: Adjacent Neighborhood and Land Use Conflicts

Several commenters expressed concern regarding the proposed rezoning of properties within the project boundaries. These concerns generally related to possible encroachment of institutional uses into the

residential neighborhood to the north across 53rd Street and associated impacts to the residential and historic character of the neighborhood, the compatibility of institutional uses with adjacent and nearby residential uses, and the need for appropriate buffers. Several commenters suggested that existing CHRCO-owned properties that are currently used as office space either should not be rezoned to retain residential character and to act as a buffer or should be rezoned to mixed-use to allow for a mix of both residential and commercial uses.

Some commenters also requested clarification on which properties would be rezoned. The response below begins with a summary of the existing and proposed General Plan and zoning designations that apply to the project site, followed by a response to specific concerns related to this issue.

Existing and Proposed General Plan Zoning Designations

As discussed on page 149 of the Draft EIR, in Chapter III, Project Description, the proposed project would include a General Plan Amendment to designate a portion of the project site as Institutional and to rezone a portion of the site to Medical Center (S-1), to be consistent with current uses and to further solidify and define the existing CHRCO campus boundaries. The existing General Plan and zoning designations for the site are depicted in Figure III-5 (Draft EIR page 75). The proposed General Plan and zoning designations are depicted in Figure III-21 (Draft EIR page 151). To further clarify, existing and future land use designations, zoning, and uses for these properties are identified below in Table RTC-1. The underlying land use designations and/or zoning for these properties would change, and in some cases the lot lines and building configurations would also change to accommodate Master Plan buildout (e.g., some buildings would be demolished and new buildings would be constructed). Two of these existing buildings are private residences and residential uses are allowed and are expected to continue under the new General Plan and zoning designations. Changes in land use designation and zoning only apply to properties on the south side of 53rd Street, as depicted in Figure III-21 (Draft EIR page 151). However, Conditional Use Permits are being requested for two properties north of 53rd Street, to allow the current office uses.

As described in Section IV.A, Land Use and Planning in the Draft EIR (pages 173 to 174), the properties identified in Table RTC-1 would be rezoned to the S-1 Medical Service zone in order to facilitate the existing and future use of these properties as support facilities for the main hospital. With the exception of the two privately-owned residences and one CHRCO-owned residence, the properties proposed for rezoning are currently functioning in support of the hospital. The existing RM-2 zoning is appropriate for areas which are intended for and occupied by residential uses; health care civic activities such as hospital uses are permitted upon approval of a Conditional Use Permit in an RM-2 zone. However, in the existing hospital setting, the S-1 zone is appropriate as its intended use is for compact areas around large medical campuses which house medical facilities or auxiliary uses. Development would be restricted by the limits, standards, and guidelines (building height, setbacks, etc.) prescribed by the requested zoning, Planned Unit Development permit, and Conditional Use Permits and at the discretion of the City through the discretionary review of the project. With implementation of the General Plan Amendment, rezoning, merging of lot lines and requested permits, the proposed project would be consistent with the Institutional General Plan designation and S-1 zoning controls. As such, for the purposes of CEQA, the project would be consistent with the applicable General Plan designations and zoning on the project site and would not inherently conflict with other surrounding uses and zoning designations.

Table RTC-V-1: Properties Subject to Land Use and Zoning Changes

Number on Draft EIR Figure III-6	Street Address	Use		General Plan Designation		Zoning	
		Current	Future	Current	Future	Current	Future
4	715 53 rd Street	Office	No change	Institutional	No change	RM-2	S-1
5	707 53 rd Street	Residential	Office	Institutional	No change	RM-2	S-1
6	5225 Dover Street	Office	No change	Institutional	No change	RM-2	S-1
7/8	744 52 nd Street	Sports Rehab Facility	No change	Institutional	No change	RM-2	S-1
9 ^a	720 52 nd Street	Private residence	No change	Institutional	No change	RM-2	S-1
10	5203 Dover Street	Office	No change	Institutional	No change	RM-2	S-1
11 ^a	685 53 rd Street	Private Residence	No change	Mixed Housing Type Residential	Institutional	RM-2	S-1
12	679 53 rd Street	Office	Family Residence Building	Mixed Housing Type Residential	Institutional	RM-2	S-1
13	675 53 rd Street	Office	Family Residence Building	Mixed Housing Type Residential	Institutional	RM-2	S-1
14	671 53 rd Street	Office	Family Residence Building	Mixed Housing Type Residential	Institutional	RM-2	S-1
15	665 53 rd Street	Office	Office	Mixed Housing Type Residential	Institutional	RM-2	S-1
16	5222 Dover Street	Family House	No change	Mixed Housing Type Residential	Institutional	RM-2	S-1
17	5212 Dover Street	Office	Clinical Support Building	Mixed Housing Type Residential	Institutional	RM-2	S-1
18	688 52 nd Street	Office	Clinical Support Building	Mixed Housing Type Residential	Institutional	RM-2	S-1
19	682 52 nd Street	Office	Clinical Support Building	Mixed Housing Type Residential	Institutional	RM-2	S-1
36	Caltrans ROW	Caltrans ROW	Landscaping	Mixed Housing Type Residential	Institutional	RM-2	S-1

^a Properties not owned by CHRCO

Source: LSA Associates, Inc., 2014.

Furthermore, the requested land use and zoning changes are limited to properties south of 53rd Street. The hospital is not proposing any physical improvements or zoning changes for properties located north of 53rd Street (although CUPs are being requested to allow existing uses at two properties located north of and along 53rd Street) and thus any future potential expansion north of 53rd Street is not evaluated in the Draft EIR because no such expansion is being proposed. As described in the Draft EIR pages 87 to 147, the proposed project would result in an expansion of campus boundaries toward SR 24. However, this area currently functions as a medical facility and the main hospital facilities are and would continue to be concentrated within the campus interior and south of 52nd Street, away from the existing residential neighborhoods to the north.

Compatibility of Institutional and Residential Uses

Institutional and residential uses are not inherently incompatible and, within the RM-2 zone in particular, institutional uses are permitted with a Conditional Use Permit provided that certain findings regarding compatibility with surrounding land uses (among other findings) are made. Semi-transient uses however, such as the Family House, are prohibited and a change in zoning is required to accommodate that use. Within the S-1 zone, which would be the zone applied to the entire project

site with approval of the project, both medical and semi-transient residential uses are permitted by right. The institutional uses currently associated with the medical facility consist of low impact office uses that do not adversely affect the character of the existing neighborhood, which already consists of a mix of residential and institutional/office uses.

It should also be noted that the Draft EIR did not identify any impacts related to traffic and circulation within the vicinity of the CHRCO campus; therefore, increases in traffic on neighborhood streets associated with the project would not adversely affect the livability of the neighborhood. In addition, increased vehicle traffic would not affect the historical character of the neighborhood, given that the character-defining features of the Residential District would not be materially impaired or otherwise physically affected by any increase in vehicle traffic (see discussion on page 247 of the Draft EIR).

Several commenters expressed concerns that the proposed General Plan and zoning changes could result in further encroachment of institutional uses into the neighborhoods to the north and several commenters stated that a mechanism should be in place to prevent the development of institutional uses north of 53rd Street. Existing land use controls are in place to ensure that hospital uses are limited to appropriately-zoned properties. Should CHRCO purchase additional properties in the future within the RM-2 zone, the use of those properties would be subject to the underlying land use designations and zoning. The City's General Plan and Municipal Planning Code govern the use of land, and are the mechanism by which to control land development within the City. Changes in the use of residential properties within the RM-2 designation that are otherwise not permitted by right require approval by City decision-makers. CEQA regulates development through the disclosure of environmental impacts of proposed projects. It does not provide an opportunity to regulate future actions by property owners and as such, cannot be used to limit future construction north of 53rd Street, or cause this project to be conditioned as such.

Buffering of Residential Uses and Historic Character

Commenters further stated that additional buffers should be installed or implemented to separate residential uses to the north from the institutional uses to the south. Commenters also requested that the design of new buildings in proximity to the existing neighborhood be integrated with the historic character of the neighborhood. The general theme of these and related comments is that the proposed project should be considerate of the existing residential character and intensity of uses to the north and that the project should not detract from the integrity of the residential neighborhood. The proposed project includes various improvements that would further define the campus boundaries and provide additional buffers between residential and institutional uses. These include relocation of the existing maintenance access to the Parking Garage and OPC1 from 53rd Street to Dover Street and relocation of vehicular ingress to the existing parking garage from 52nd Street to Martin Luther King Jr. Way. In addition, the most intense uses associated with the hospital would be located to the south across 52nd Street, towards the campus interior. It should be noted that no physical changes to existing buildings within the campus boundaries that face 53rd Street are proposed west of Dover Street.

Furthermore, development proposed on the south side of 53rd Street and east of Dover Street would also buffer the residential neighborhood from the more intense hospital uses further south, including the following: 1) retention of the existing façades and setbacks of three existing residential buildings and redevelopment of these properties into the new Family Residence Building for use by families with sick children; 2) demolition of an existing modular building and relocation of two residential

buildings currently located at the corner of Dover Street and 52nd Street; and 3) landscape improvements along the length of these redeveloped properties as shown in Revised Figure III-20 (see Chapter IV, Text Changes for changes to page 147 of the Draft EIR). These proposed changes are intended to maintain and improve upon the historic and residential character of the 53rd Street corridor in this location. The residential façades and setbacks in this location would be similar to, and compatible with, the existing residential character of the neighborhood to the north and would not adversely affect the integrity of the 55th and Dover Residential District.

While the proposed project does include development of the three-story Clinical Support Building at the northeast corner of Dover Street and 52nd Street and construction of the new OPC2 Building at the northeast corner of the Martin Luther King Jr. Way and 52nd Street intersection, these new buildings would be buffered from residential uses to the north by existing buildings. New landscaping would also be located along both sides of 52nd Street. In sum, the proposed project would include improvements that would buffer the neighborhood from hospital uses. Furthermore, the most intense uses would remain close to the interior of the hospital campus and major arterials, and as far as possible from the adjacent neighborhood. As described in the Draft EIR, in Section IV.A, Land Use and Planning (pages 180 through 183), proposed improvements associated with redevelopment activities would be generally compatible with existing and future uses both within and surrounding the campus and proposed development would not degrade the character of the residential uses to the north, which are clearly separated from the CHRCO campus by 53rd Street.

As described in the Draft EIR on pages 180 to 183, hospital uses began on the site around 1912 and residential uses expanded around the site at about the same time. Hospital uses have co-existed with residential uses in this area for the past 100 years. Given the history of development of the area and since the proposed project would not result in a change to the configuration of the existing CHRCO campus or introduce new uses outside of the existing campus boundaries, which could create land use conflicts between the medical facility and existing residential uses, the proposed project would not result in significant impacts related to land use or planning or compatibility with existing nearby uses. Environmental impacts associated with proposed uses and proximity to residential areas that may relate to specific environmental issues such as noise, traffic, historic resources or other environmental topics are evaluated in the appropriate topical sections of the Draft EIR and are supplemented by the responses provided in this document. The following recommendation would further provide a buffer between residential and non-residential uses, and is added to the end of the fourth paragraph on page 181 of the Draft EIR.

...Therefore, implementation of Phase 1 would not result in potential conflicts between existing and proposed uses and this impact would be less than significant. However, to further provide a buffer between residential and non-residential uses, it is recommended that the applicant implement the following measure:

Recommendation LU-1: The project applicant shall maintain the low density residential character of CHRCO-owned properties along 53rd Street, including 707-715, 671-679 53rd Street, 5225 Dover Street, and the new addresses for two properties relocated from 52nd Street to 53rd Street. Any additional construction at these properties shall conform to the RM-2 zoning only with respect to setbacks and height limitations, as well as landscaping requirements, maximum impervious surface coverage within the front yard setback, and except for existing driveways used for parking at previously-residential properties, no unenclosed parking shall

be permitted in the front yard setback. However, the project applicant may request a Minor Variance to deviate from these requirements.

Several commenters also expressed concern that the General Plan Amendment and Rezoning would impact the historic 55th and Dover Residential District. As noted on page 244 of the Draft EIR, implementation of the proposed project would have a significant impact on cultural resources if it would cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. Specifically, substantial adverse changes include physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be “materially impaired.” The significance of a historical resource is “materially impaired” when a project demolishes or materially alters, in an adverse manner, those physical characteristics of the resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, a historical resource list. A change to the General Plan or zoning designation would not result in the Residential District being materially impaired. Furthermore, the character defining features of the Residential District are noted in Appendix B of the EIR. None of the character defining features would change with the implementation of a new General Plan or zoning district. The District would retain the historic setting, character, and feeling and would not be physically altered or otherwise materially altered by the proposed project.

Master Response #5: Helen McGregor Plaza Park

The Draft EIR identifies Helen McGregor Plaza Park as the nearest recreational facility to the proposed project. The park is a ¼-acre City-owned facility located along Martin Luther King Jr. Way that consists of a plaza with concrete seating areas and landscape trees. Potential impacts to this park that could occur as a result of the proposed project are discussed throughout the Draft EIR in the appropriate topical sections. Specifically, as discussed in Section IV.B, Aesthetics and Shadow, the proposed project would not cast new shadows on the park (page 214). As discussed in Chapter VI, Other CEQA Considerations, the proposed project would not increase the use of this public park such that physical deterioration would occur or be accelerated (page 615). However, the impacts of the project on the conditions of the park are not the primary concern of most commenters.

As noted by many commenters, existing conditions at the park make it an unattractive space for recreational pursuits by nearby residents. According to City parks staff, the park is considered a high-priority park due to the level of service that is needed to maintain it in good condition, and the City currently performs two to three service visits per week, including litter removal and disposal of trash accumulated in trash containers. Less regularly, the City’s crime scene team visits the park to remove waste and sterilize the facilities due to the continuous use of the park by homeless persons. Additionally, beginning on June 1, 2014, the Longfellow Community Association and Santa Fe Community Association and Neighbors (CAN) began hosting clean-up events every other month, where volunteers pick up litter, weed the small gardens and perform graffiti abatement. The neighborhood groups are currently preparing a plan to integrate more plants and landscaping into the park.¹

¹ Oakland, City of, Robert Kennedy, Parks Supervisor Level 2 personal communication with LSA Associates Inc. on October 16, 2014.

Several commenters noted that the park is in need of improvements and better maintenance and expressed concerns related to safety and littering. Commenters expressed a general desire to improve the park with more active uses and better programs that would serve the community and attract nearby residents. Because CHRCO is located nearby and is considered to be a large-landholder in the vicinity, many commenters suggested that CHRCO should participate in and/or guide a visioning process for identifying needed improvements and otherwise contribute to the overall improvements and upkeep and maintenance of the park. Although these issues are not generally applicable to the analysis in the Draft EIR, which focuses on the thresholds of significance identified by the City of Oakland and as required by CEQA, the City and CHRCO recognize that this is an important issue to the community.

The hospital has collaborated with several community groups including the Longfellow Community Association, Santa Fe CAN, and 55th and Dover Street Residents to address community interest in improvements to the park.

Master Response #6: Magnolia Tree

Several commenters expressed concern regarding the proposed removal of the existing magnolia tree that is located in the courtyard between the A/B Wing and B/C Wing due to its historical connection with the A/B Wing (original baby hospital), and/or because of its age and size. The tree was planted in about 1860, prior to the establishment of the hospital. The diameter at breast height of the tree is approximately 70 inches and it is approximately 60 feet high, with a canopy of approximately 70 feet in diameter. Several commenters requested that the tree be retained in place, that the tree be relocated, that additional plantings be provided throughout the site to offset the loss of the tree, and/or that cuttings from the tree should be propagated for new plantings. Commenters requested additional information about potential relocation options. Others expressed support for implementation of some of the recommendations in the Draft EIR that would further reduce the already less than significant CEQA-related impacts associated with removal of the tree.

Due to its association with the A/B Wing, the magnolia tree is considered a character-defining contributing feature of the A/B Wing, which is considered a historical resource under CEQA. The tree is not an individual historic resource or part of a historic cultural landscape. The Draft EIR discusses the history of the tree and adjacent A/B Wing in Section IV.C., Cultural and Historic Resources. The analysis in the Draft EIR on page 248 describes that the removal of the tree would eliminate some of the historical context of the A/B Wing; however, it would not render the A/B Wing unable to convey its historical significance as the building would maintain its footprint, massing, fenestration material and pattern, cladding, ornament, and surrounding spatial openness. Therefore, removal of the tree was found to be less-than-significant in the context of impacts to historical resources and no mitigation is required. Nonetheless, the Draft EIR recommends implementation of Recommendations CUL-1a and CUL-1b to further reduce the impacts related to the removal of the magnolia tree, as described on page 248 of the Draft EIR. Recommendations CUL-1a and CUL-1b propose installing a new replacement magnolia tree and informational plaque as close to the site of the old tree as possible so visitors can understand the historical significance of the A/B Wing.

In addition, impacts associated with removal of the tree are discussed in Chapter VI, Other CEQA Considerations (pages 608 through 612) in the Draft EIR. As discussed, with implementation of

SCAs BIO-2, BIO-3, and BIO-4 impacts to protected trees, including the magnolia tree, would be less than significant. The analysis provided in the Draft EIR included an evaluation of potential opportunities and constraints associated with relocation of the magnolia tree. This analysis is based on two separate studies: 1) Level 1 Tree Health Assessment and 2) Transplant Feasibility Analysis; these studies are included in Appendix I of the Draft EIR. The Transplant Feasibility Analysis explored the feasibility of relocating the tree to one of four locations, as follows:

- *Site A.* Located at the end of 53rd Street, east of Dover Street, adjacent to the residential buildings that would be relocated as part of Phase 2.
- *Site B.* Located at the center of the reconfigured turn-around/patient drop off area as part of Phase 2.
- *Site C.* Located within Helen McGregor Plaza Park, west of Martin Luther King Jr. Way between 52nd Street and 53rd Street.
- *Site D.* Located a few feet east of the tree's current location within the new courtyard that would be developed as part of Phase 2.

In addition, as noted in Comment LP2-16, one commenter recommended relocating the tree to the existing Children's Hospital Oakland Research Institute (CHORI) campus, located at 5700 Martin Luther King Jr. Way.

Transplanting the magnolia tree was determined to present logistical and financial constraints that could ultimately result in the death of the tree before it could be feasibly transplanted. Because relocation of the tree is unlikely to be successful and its removal does not result in an environmental impact per the City's thresholds, relocation was not further considered as part of the project or required in the Draft EIR.

However, several comments requested that this issue be further studied. Therefore, CHRCO retained Valley Crest Tree Company to further review the possibility of relocating the tree and HortScience Inc. was retained to provide an appraisal value of the tree. The City's arborist reviewed these and previous studies. These additional reports are included in Appendix A to this RTC Document and the findings are summarized below.

Valley Crest Tree Company determined that if the tree were to be relocated, assuming optimal conditions, the survival rate would be less than 50 percent. They determined that the tree would most likely die once moved and could also result in a public safety hazard during transport due to its size and weight. Valley Crest Tree Company would not guarantee the tree's survival if they were contracted to relocate it. The City's Tree Services Unit concurs with the findings in the Valley Crest report.

HortScience Inc. appraised the tree using the standard methods in the Guide for Plant Appraisal published by the International Society of Arboriculture. The trunk method was used for the evaluation which takes into account the size, species, condition, and location. Based on an assessment of the tree, the benefits provided by the tree, and the methodology in the Guide for Plant Appraisal, the established value of the tree is approximately \$45,800.

In order to grant a Tree Removal Permit, the City's Tree Services Unit must make several findings, including whether the monetary value of the tree is greater than the cost of its preservation to the property owner. The Protected Trees Ordinance requires the value of the tree to be calculated using the Council of Tree and Landscape Appraisers formula. The cost of preservation includes any additional design and construction expenses required to retain the tree. City Tree Services staff reviewed the appraisal report prepared by HortScience, Inc., and concurred with the findings. The City finds that the monetary value of the tree, using depreciated replacement cost method, is approximately \$45,800, affected significantly by the fact that the tree is older than the reported maximum lifespan of the species. The estimated \$400,000 to \$600,000 cost of preservation by transplanting would greatly exceed the value of the tree. Therefore, the City can make all of the required findings to grant a Tree Removal Permit for the magnolia tree located on the CHRCO campus.

The City of Oakland's Tree Services Unit cannot require relocation of the Southern magnolia tree per the Tree Preservation Ordinance and does not recommend relocation of the tree. However the tree is a beautiful specimen and an asset to both Children's Hospital and the City of Oakland. In order to address the removal of such a significant tree, Tree Services Unit staff recommends that the tree be replaced with a specimen tree. Currently, Valley Crest has three, 7-foot boxed magnolias in their nursery. If one of the trees was selected, the tree would probably be re-boxed at least once and, at the end of the 5-year waiting period, end up in a 10-foot box. The tree height would be approximately 25 feet, and the crown width would be approximately 18 to 20 feet. It would be practical to relocate a tree of this size and age given the site constraints. Upon completion of Phase 2 and installation of the tree, the CHRCO campus would have a magnolia that could potentially grow for another 150 years. In addition, the City recommends that seeds or cuttings be taken from the existing magnolia tree, propagated, and grown until they reach a size appropriate for transplanting. The trees should be planted along the entrance to the main campus as part of Phase 2 of the proposed landscape plan.

To address these additional recommendations, Recommendation CUL-1a on page 248 of the Draft EIR is revised as follows:

Recommendation CUL-1a: The project applicant shall incorporate a new magnolia tree into the site plan of the proposed project, as close as possible to the historic location of the magnolia (#82), within the constraints of the site plan. The project applicant shall enter into a contract with a qualified tree company to grow a specimen magnolia tree. The Hospital shall select the largest, good quality, boxed specimen, and the tree company shall grow the tree for five more years. The tree shall be installed on the main hospital campus as part of Phase 2 development. The cost to contract grow the Southern magnolia shall not exceed the \$45,800 appraised value of the magnolia tree #82.

The following text is also added to page 612 of the Draft EIR:

... Ultimately, transplanting the magnolia tree was determined to present logistical and financial constraints that could ultimately result in the death of the tree before it could be feasibly transplanted. Therefore, relocation of the tree is not considered as part of the proposed project. However, it is recommended that, in addition to implementation of Recommendation CUL-1a, the applicant implement the following measure:

Recommendation BIO-1: CHRCO shall retain a qualified tree company to take seeds or cuttings from the existing Southern magnolia (#82). The contracted firm shall propagate these seeds or cuttings and continue to grow them until they reach a typical landscape tree size, 24-inch box minimum. The trees shall be planted along the Dover Street entrance to the main campus as part of the proposed Phase 2 landscape plan.

Master Response #7: Helicopter Noise

The existing noise environment in the project vicinity is described beginning on page 444 of the Draft EIR. It is noted that the project site is in an urban area, and the vicinity includes several major transportation noise sources: Martin Luther King Jr. Way, SR 24 and two Bay Area Rapid Transit (BART) lines, as well as existing helicopter noise from existing hospital operations. Long-term and short-term noise measurements were conducted and are summarized in Tables IV.G-7 and IV.G-8, respectively. In addition, the City of Oakland General Plan Roadway Noise Contours and Railroad and BART Noise Contours are shown in Figures IV.G-2 and IV.G-3, respectively. Existing noise levels from each source result in noise levels of 65 to greater than 70 L_{dn} across the project site.

As described on page 470 of the Draft EIR, in 2013, 559 helicopter flights occurred at the existing helistop and the average daily number of helicopter operations was 3.1. Helicopter activity is expected to grow at approximately 1 percent per year with or without the proposed project over the life of the Master Plan (through 2025). The projected number of annual helistop landings/departures would be 630 by 2025, and the average daily number of helicopter operations would be 3.5.

Project noise, including helicopter noise, is analyzed against the thresholds of significance established by the City of Oakland; these thresholds are listed beginning on page 453 of the Draft EIR. The thresholds state that a project would result in a significant impact if it would generate noise resulting in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project. Helicopter noise was evaluated extensively in the Helistop Noise Assessment prepared by Brown Buntin Associates (included as Draft EIR Appendix D2) and in the Draft EIR (see pages 470 through 473 of the Draft EIR).

Phase 1 Helistop Operational Noise Impacts are analyzed on page 470 of the Draft EIR, as noted above. Helistop operations are expected to increase with or without implementation of Phase 1, and the hospital would operate under the conditions of the existing helicopter permit. In addition, Phase 1 of the project would not include any physical changes to the existing helistop. Phase 1 would not result in any changes to the helistop configuration or increase the number of helicopter trips. Therefore, Phase 1 would not result in a permanent increase in helicopter noise and impacts would be less than significant.

Phase 2 Helistop Operational Noise Impacts are analyzed beginning on page 470 of the Draft EIR. Helicopter activity is expected to grow with or without Phase 2 of the project; however, Phase 2 of the proposed project would include the demolition of the existing helistop located on a raised platform structure on the CHRCO campus, and construction of a new helistop on top of the proposed 5-story Link Building approximately 250 feet north and slightly west of the existing helistop. The elevation of the new helistop would be 45.5 feet higher than the existing helistop.

This change in helistop location could result in changes to helicopter noise surrounding the project site. To determine the change in noise, helicopter noise was modeled using the Integrated Noise Model (INM) which included project-specific inputs such as helistop configuration, helicopter traffic volume, temporal distribution of flights, and helicopter fleet mix. As discussed on page 9 of the Helistop Noise Assessment (Appendix D of the Draft EIR), the analysis evaluated the noise levels of the A-109 helicopter which produces somewhat higher noise levels than the Eurocopter EC-135 helicopter that was used for the helicopter noise baseline conditions analysis. Additionally, since it was not possible to definitively determine the annual average distribution of helicopter flights on a flight path, the model assumes 100 percent of the flights would occur on each flight path. Therefore, the model produced a conservative worst case assessment of helicopter noise.

The increase in height of the proposed helistop would result in a decrease in noise impacts to sensitive receptors. Helicopters would not descend as low, they would remain further away from sensitive receptors. However, the shift of the location of the helistop 250 feet north would change the sensitive receptors impacted - when comparing the noise contours shown in Figure IV.G-5 (2013 CNEL Contours with Existing Helistop, page 456) and the noise contours shown in Figure IV.G-6 (Phase 2 CNEL Contours with Replacement Helistop, page 471), one can see that the noise contours shift to north. As shown in Table IV.G-16, Calculated CNEL Values at Noise Impact Assessment Sites on page 473 of the Draft EIR, noise levels increase at some reference points and decrease at other noise receptor locations.

Site G has an increase of 5.7 dBA CNEL, which is the greatest change in noise levels attributable to the proposed project. As noted on page 473, ambient conditions at Site G range from 68.3 to 70 dBA CNEL, including noise from SR 24. As shown in Table IV.G-16 (page 471), the CNEL at Site G would be 67.4 from helicopter noise. Therefore, the combined noise level (helicopter noise and traffic noise) would be 70.3 to 71.9 dBA, for a maximum ambient increase in noise of 2.0 dBA attributed to the project.² Only noise levels of 3 dBA or more are considered perceptible by the human ear. Therefore, helicopter noise levels associated with the project would not result in a substantial permanent increase in noise levels, as noise levels are already above those that would be generated by the project. Therefore, helicopter noise associated with the proposed helistop would not result in a substantial permanent increase in ambient noise levels.

Although not required to reduce a significant CEQA impact as one was not identified, Recommendation NOI-1 was included in the Draft EIR (page 473) to further reduce the already less-than-significant impacts of helicopter noise. Recommendation NOI-1 requires CHRCO to offer forced air ventilation or an air conditioning unit and sound insulating windows for the residence located at 720 52nd Street so that windows may remain closed for prolonged periods. Although no significant impact was identified per CEQA thresholds, this location could have a noticeable change in instantaneous noise from helicopter activity that could be reduced by implementation of this measure. Other locations in the project vicinity would not be similarly affected.

² Two equal strength sources combined together would result in an increase of 3 dBA. As the difference in the strength of the two sources becomes larger, the noise contribution from the lower noise source would diminish. When the difference between the two sources is greater than 10 dBA (e.g., adding 55 dBA to 67 dBA), the contribution of the lower noise source becomes negligible.

As noted on page 439 of the Draft EIR, the City of Oakland may not impose their own noise level standards to the noise generated by individual aircraft operations, such as requiring mufflers or other noise abatement measures. However, consistent with the City request described in Recommendation NOI-1 (page 473), the hospital will develop a protocol to respond to noise complaints about helicopter over flight and will coordinate with the Federal Aviation Administration to request a waiver to allow mufflers or other sound reducing equipment on helicopters to reduce noise to the extent feasible.

Some commenters suggested that the existing helistop could be relocated to reduce noise impacts to the surrounding community. In Chapter V. Alternatives of the Draft EIR, as discussed on pages 566 to 567, both off-site and on-site (i.e., a location somewhere other than the proposed location on top of the proposed Link Building) helistop relocation alternatives were considered, discussed and rejected from further analysis as not being feasible or not practical in regards to providing adequate care during an emergency and would not meet the project objectives.

The City recognizes the nature of helicopter noise can cause intermittent disturbance at receptor locations in the project vicinity. Beginning on page 476, the Draft EIR evaluated the potential for sleep disturbance and found that the project related change in expected awakenings would range from a 1.8 percent reduction to a 1.7 percent increase in sleep disturbance. The study also found that with the exception of one location, speech interference would be limited to an increase of 0.6 minutes or 36 seconds per day. The most impacted receptor would have an increase of 1.3 minutes per day. Although there is no threshold of significance for sleep disturbance or speech interference, the City has identified Recommendation NOI-1 to reduce impacts to Receptor G. With implementation of Recommendation of NOI-1, would reduce sleep disturbance and speech interference associated with the project.

Helicopter noise would not result in a substantial permanent increase in noise levels. Therefore, noise associated with the helicopter pad relocation project would be less than significant.

A. STATE, REGIONAL AND LOCAL AGENCIES



EDMUND G. BROWN JR.
GOVERNOR

STATE OF CALIFORNIA
GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH
STATE CLEARINGHOUSE AND PLANNING UNIT



KEN ALEX
DIRECTOR

September 23, 2014

Heather Klein
City of Oakland, Comm. & Economic Dev. Agency
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

Subject: Children's Hospital and Research Center Oakland Master Plan Project
SCH#: 2013072058

Dear Heather Klein:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on September 22, 2014, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

"A responsible or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Enclosures
cc: Resources Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2013072058
Project Title Children's Hospital and Research Center Oakland Master Plan Project
Lead Agency Oakland, City of

Type EIR Draft EIR
Description The main purpose of the proposed project is to create new seismically compliant acute care facilities that meet the seismic safety requirements of SB 1953. The project would be constructed in two phases, and a completion would add ~332,618 sf of use, 40 hospital beds, 284 net new parking spaces. As a result, there would be an increase of ~113 patients, 157 visitor and 205 employees each day.

Lead Agency Contact

Name Heather Klein
Agency City of Oakland, Comm. & Economic Dev. Agency
Phone (510) 238-3659 **Fax**
email
Address 250 Frank H. Ogawa Plaza, Suite 3315
City Oakland **State** CA **Zip** 94612

Project Location

County Alameda
City Oakland
Region
Lat / Long 37° 50' 11.98" N / 122° 16' 1.09" W
Cross Streets 52nd Street and Martin Luther King Jr. Way
Parcel No. 14-1206-26-1, 14-1206-26-1, 14-1205-19-1, 14-1205-19-1, 14-1205-19-1, 14-1205-19-1, 015-1281-02-
Township **Range** **Section** **Base**

Proximity to:

Highways SR 24, I-980, I-580, I-80
Airports No
Railways Union Pacific
Waterways San Francisco Bay
Schools Multiple
Land Use PLU: Medical Campus/Z: Medical Center (S-1) and Mixed Housing Type Residential (RM-2)/GPD: Institutional and Mixed Housing Type Residential Children's Hospital Oakland Research Institute site: PLU: Medical Research Facility/ZD: Neighborhood Commercial (CN-3) and Mixed Housing Type Residential (RM-2)/GPD: Neighborhood Center Mixed Use and Mixed Housing Type Residential

Project Issues Air Quality; Archaeologic-Historic; Geologic/Seismic; Noise; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Water Quality; Water Supply; Landuse; Cumulative Effects; Aesthetic/Visual

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Wildlife, Region 3; Department of Parks and Recreation; Department of Water Resources; California Highway Patrol; Caltrans, District 4; Air Resources Board; Regional Water Quality Control Board, Region 2; Department of Toxic Substances Control; Native American Heritage Commission; Public Utilities Commission; Statewide Health Planning

Date Received 08/07/2014 **Start of Review** 08/07/2014 **End of Review** 09/22/2014

COMMENTER A1

State of California, Governor's Office of Planning and Research
State Clearinghouse and Planning Unit
Scott Morgan, Director, State Clearinghouse
September 23, 2014

Response A1-1: This letter acknowledges that the City has complied with State Clearinghouse review requirements for draft CEQA documents, and indicates that the Draft EIR was distributed to State agencies for review. Letters on the Draft EIR from State agencies are included in Section A (State, Regional, and Local Agencies) of this RTC Document.

**OFFICE OF HISTORIC PRESERVATION
DEPARTMENT OF PARKS AND RECREATION**

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September 23, 2014

Sent via email: hklein@oaklandnet.com

Heather Klein
Planner III
City of Oakland
Department of Planning and Building
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

Dear Ms. Klein:

RE: CHILDREN'S HOSPITAL AND RESEARCH CENTER OAKLAND CAMPUS MASTER PLAN PROJECT DRAFT ENVIRONMENTAL IMPACT REPORT (CLEARING HOUSE NO. 2013072058)

Thank you for including the California Office of Historic Preservation (OHP) in the environmental review process for Children's Hospital and Research Center Oakland Campus Master Plan Project Draft Environmental Impact Report (DEIR). The State Historic Preservation Officer and the OHP have broad responsibilities for the implementation of federal and state historic preservation programs in California. Our comments are related to the identification of historic resources PRC § 212844.1 and CEQA Guidelines at § 15064.5(a)(1-4)) and significant adverse effects to those resources (PRC § 21068 and CEQA Guidelines § 15064.5 (b-f)).

On August 28, 2013 we responded to the Notice of Preparation and outlined several issues and tasks that should be addressed in the DEIR as they relate to historic resources.

In the NOP we pointed out the importance of a thorough and adequate evaluation of the 55th and Dover Residential District.

The area identified as the 55th and Dover Residential District was evaluated by the city in 1996, and should be reevaluated using the definition a historical resource found in CEQA, as a historical district and not as a number of individual properties. Part of the district is within the project footprint, and part is outside that boundary. Identification efforts and analysis of impact should include the entire 55th and Dover Residential District. The claim that properties located in the district are "Potentially Designated Historic Properties" but not historical resources for purposes of CEQA simply does not make sense.

Unfortunately, this did not occur. The assessment of effects is dependent on a thorough identification of historic resources. Historic resources include buildings, archeological resources, and districts along with a number of other property types defined at CEQA Guidelines § 15064.5(a)(3)

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Within the DEIR there is a lack of consistency about the nature and identification of the 55th and Dover Residential District. The map found at figure IV.C-1 shows boundaries that extend from properties facing 55th street to the north, west to the rear of buildings facing Martin Luther King, Jr. Way, south to the buildings facing 53rd street with a few extending down to 52nd street, and to Shattuck Avenue at its eastern edge. The DEIR (p. 222-223) describes it as a residential neighborhood which includes 143 properties. In another section of the DEIR, the document states "In the City's opinion, the Residential District is eligible for listing in the California Register due to its association with Key Route System Vice President E. A. Heron. . . . The Residential District retains sufficient integrity to convey its historical importance for its period of significance (1906-1913, i.e., when the land was purchased and developed by E. A. Heron), and is, therefore a historical resource under CEQA (p. 241). While one part of the DEIR establishes an expansive district of 143 buildings, another part of the DEIR limits the significant properties to a total of sixteen built between 1906-1913 (p. 225). Furthermore, of those sixteen, the city only analyzed impacts to the eight properties directly within the project footprint. The question remains, what is the historic district?

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cont.

We recommend that the city broaden its period of significance to include not only the original lay-out of the neighborhood, its build-out as well. The California Register of Historic Resources does not define "historic district" and instead defers to the definitions provided by the National Park Service for use in the National Register evaluation process (National Register Bulletin, How to Apply the National Register Criteria for Evaluation, p. 5.) A historic district is the historic district. "A district can comprise both features that lack individual distinction individually distinctive features that serve as focal points. It may be considered eligible if all of the components lack individual distinction, provided that the grouping achieves significance as a whole within its historic context." The important point here is that the district as a whole is the historic resource, deriving its significance from being a unified entity. Yet, the DEIR has approached its identification, evaluation and analysis as if the residential properties were stand-alone resources, unrelated to one another.

This is more than an academic exercise, because the assessment of impacts cannot be made if the definition of the historic resource is not identified properly. The city has chosen to access impacts on a case-by-case basis only to those properties directly within the project footprint, not the district as a whole. In its Residential District Rehabilitation Standards Assessments (p. 247), the city has concluded that proposed demolition and new construction of what the city considers to be historic resources are consistent with the Secretary of the Interior's Standards for Rehabilitation and therefore will not impact historic resources. No analysis is provided. This approach is flawed, and should be remedied by assessing impacts to the district. The city needs to address how the project impacts the integrity of the district as a whole (which is the historic resources), including but not limited to setting, feeling, and association. By not adequately identifying the historic district as the historic resource for purposes of CEQA, the city has failed to assess how increased traffic and on-street parking might impact the historic qualities of the 55th and Dover Residential District.

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In the Notice of Preparation we also addressed archeology.

The CHRCO campus is in close proximity to Temescal Creek. Environmental settings that include waterways or former waterways are generally considered to

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Ms. Klein
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Page 3

be sensitive regarding the potential for prehistoric archeological properties. A research design and study, which may include some testing, should be prepared as part of the DEIR so that if potential sites are identified they can be addressed before construction occurs. Simply stating, as a mitigation measure, that the project will be monitored during construction is not adequate because the option to avoid impacts is not likely at that time.

Unfortunately, rather than pursue archeological studies prior to the DEIR, the city has relied on an extensive set of standard mitigations in the event archeological resources are encountered after construction has commenced. This approach is flawed. The city has used project mitigation as a way to identify archeological resources after the project design has been approved when there is little to no chance of avoidance. The identification of known or potential resources should be used to inform the project design, by considering alternatives that would avoid resources. The mitigation measures outlined in the DEIR do address the possibility of avoidance during construction, but as a practical measure we do not find this realistic.

If archeological resources are identified and determined to be historic resources under California Register criterion 4, then their value is largely limited to their information yield, and studying the site, with proper archeological methodology, would likely be considered to have no impact. However, archeological resources may also be significant under California Register criteria 1 (broad patterns of history), 2 (association with significant individuals), and 3 (design). In those instances, their value extends beyond scientific information yield and mitigation of the resource by removal for further study cannot be seen as lowering impacts to less than significant because the resource is essentially lost.

Thank you for considering our comments. If you have questions, please feel free to contact Lucinda Woodward, Supervisor of the Local Government and Environmental Review Unit, at (916) 445-7028 or at Lucinda.Woodward@parks.ca.gov.

Sincerely,



Carol Roland-Nawi, Ph.D.
State Historic Preservation Officer

4
cont.

COMMENTS A2

State of California, Office of Historic Preservation
Carol Roland-Nawi, State Historic Preservation Officer
September 23, 2014

Response A2-1: This comment states (1) that an evaluation of the 55th and Dover Residential District (Residential District) was not completed for the Draft EIR; (2) there is a lack of consistency in the Draft EIR regarding the nature and identification of the Residential District, including the number of resources that contribute to the Residential District; (3) that the City should broaden the Residential District's period of significance as stated in the Draft EIR (1906-1913); and (4) the "historic resource" consists of the Residential District, not the individual residences that contribute to the Residential District.

A "windshield" evaluation of the Residential District was completed first by the City in 1996. That evaluation defined a preliminary boundary of the Residential District based on a comparison of the character-defining architectural features of buildings in the surrounding area.

Page & Turnbull, for the purpose of analyzing the effects of the proposed project on the Residential District, reevaluated the Residential District for its eligibility for listing in the California Register of Historical Resources (California Register). The results of this evaluation were included in the Department of Parks and Recreation 523 (DPR 523) record. This document is first referenced on page 217 of the Draft EIR, the first page of the Cultural and Historic Resources section, and included as Appendix B4 of the Draft EIR. The field survey conducted for the Residential District is referenced on page 219, the history of the area, including the Residential District is described beginning on page 221, and contributing and non-contributing buildings to the Residential District within the project site are described beginning on page 240. An inventory of all contributing and non-contributing resources to the Residential District is included in the DPR 523 record (Appendix B4).

The Page & Turnbull report in the Draft EIR (Appendix B4) identifies 143 buildings within the boundary of the Residential District. The boundary of the Residential District—as determined by Page & Turnbull's study—has been updated since the City's 1996 evaluation and is depicted on Figure IV.C-1 of the Draft EIR. Of these buildings, 119 contribute to the Residential District; the 24 buildings that do not contribute to the Residential District either were not constructed during its period of significance or lack the integrity to convey their historical significance. The commenter incorrectly states that "the DEIR limits the significant properties [of the Residential District] to a total of sixteen built between 1906-1913 (page 225)." In fact, page 225 of the Draft EIR states "Sixteen properties were constructed in the

55th and Dover Residential District in 1912 and 1913.” To clarify the number of resources that contribute to the Residential District and to clarify the status of the Residential District as a historical resource, pages 222 and 225 of the Draft EIR are revised as follows:

... In the area that is now the 55th and Dover Residential District—the boundary of which encompasses today includes 143 buildings and 119 contributing properties—there were only 34 empty lots in 1911.

To further clarify the number of resources that contribute to the Residential District and to clarify the status of the Residential District as a historical resource, pages 240 through 241 of the Draft EIR are revised as follows:

... This updated evaluation identified 143 properties—including 119 contributing properties—within the Residential District, which is roughly bounded between 55th and 56th Streets on the north, 52nd Street on the south, Martin Luther King Jr. Way on the west, and on the east and southeast by Shattuck Avenue and State Route 24 overpass.

The commenter does not provide a basis for the recommendation that the Residential District’s period of significance be extended to include the resource’s build-out or beyond. Based on Page & Turnbull’s findings, the City is of the opinion that the historic significance of the District is based on the connection between E.A. Heron’s real estate subdivision and ownership of this area and his direct involvement, as vice president, in the key route system’s expansion to the area. The District’s historic significance is not based on architecture as many buildings were constructed throughout Oakland with a similar architectural style. The period of significance for the 55th and Dover Residential District begins in 1906, the year in which the San Francisco earthquake caused a rapid population increase in Oakland and also the year that the tract comprising the Residential District was bought by the Key Route’s vice president, E. A. Heron. By 1910, the tract was no longer owned by Heron, and construction began to slow considerably after 1913 – 16 properties were constructed in 1912 and 1913, after which only 6 properties were constructed between 1914 and 1921. The period of significance ends in 1913, when the boom of construction in the area slowed as the neighborhood became largely built-out. Eighty-nine percent of the buildings (127 out of 143) within the Residential District were constructed between 1906 and 1913, further highlighting the importance of these years in establishing the resource’s significance in local history. In short, the Residential District’s period of significance, as documented in the Draft EIR, is substantiated by archival research, architectural field survey, and a developed historical context.

The City agrees, however, with the commenter that the entire Residential District constitutes the “historic resource” for purposes of CEQA. The Draft EIR identifies eight contributing buildings to the Residential District within

the project site. Of the eight buildings, four would not be physically altered, two would have more recent minor rear yard additions removed, and two would have the rear façades demolished. None of the contributing buildings would be completely demolished. Potential impacts from the project to the District, the alteration of four contributing buildings, and the District's character-defining features are summarized in the Draft EIR on page 248. Please also see Responses to Comments A2-2, A2-3, and B4-1 for additional discussion regarding the project's potential impacts to the Residential District.

Response A2-2:

As noted in Response to Comment A2-1, Draft EIR Appendix B4 includes the DPR 523 record for the Residential District. This DPR 523 record includes an inventory of all buildings that comprise the Residential District and is not limited to buildings within the project site. Rather than limit consideration of impacts to buildings on a case-by-case basis within the project site, the Draft EIR assesses whether potential impacts to contributing buildings within the project site would adversely affect the character-defining features of the Residential District as a whole. As described in the Draft EIR Appendix B3, the character-defining features of the Residential District are: (1) uniformity of residential building type; (2) pattern of building setbacks; (3) street grid and block pattern; and (4) design elements of contributing properties that enable these properties to express their era of construction, including footprint and massing, Craftsman bungalow and Classic Box architectural styles, extant historic materials, and general fenestration pattern at the primary façade. Beginning on page 244 of the Draft EIR, the project's potential impacts to the Residential District are summarized. Additional text and modifications have been made to page 247 the Draft EIR as identified below to clarify the impacts discussion and the project's less-than-significant impact finding for the Residential District. This finding concludes that, although 4 of 119 contributing buildings (3 percent) of the Residential District would be impacted by the project (two from partial demolition and two due to the removal of more recent minor rear yard additions), this impact is less than significant as it would not result in material impairment to the District such that it would no longer be eligible for listing in the California Register and the City's Local Register (see CEQA Guidelines Section 15064.5(b)(2)). The Residential District's character-defining features would remain largely intact and unaffected by the project, and the resource would continue to convey its significance after project implementation.

The analysis in Appendix B3 and the Draft EIR also applies the Secretary of the Interior's Standards for Rehabilitation to the Residential District to determine the project's compliance with these Standards. Based on this analysis, it was determined that the project would have a less-than-significant impact on the Residential District as the project would not materially impair any of the four character-defining features (as described above in this response) of the historic district. Furthermore, for purposes of CEQA review in the City, projects that are not consistent with the Standards do not

necessarily result in a significant unavoidable impact. To the extent the project may not be consistent with Rehabilitation Standard 2 due to the partial demolition of buildings at 671 and 675 53rd Street (“The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.”), the project nevertheless would not result in material impairment to the Residential District, and therefore would not result in a significant impact to a historical resource as discussed in the Draft EIR on pages 247 through 248. Additional text has been added to the EIR to clarify the project’s compliance with the Standards.

The following text from page 247 of the Draft EIR is modified as follows:

Phase 1 Impacts. Phase 1 includes demolition of 5204 Martin Luther King Jr. Way to allow for construction of Outpatient Center 2. The residence at 5204 Martin Luther King Jr. Way is not a historical resource under CEQA, and its demolition would not have a substantial adverse change on the environment. However, SCA CUL-4 requires the applicant to comply with Policy 3.7 of the Historic Preservation Element, which requires the applicant to make a reasonable good-faith effort to relocate this building.

Phase 1 also includes demolition of the rear additions at 707 and 715 53rd Street (which are contributors to the Residential District and therefore CEQA historic resources) for construction of a driveway from Dover Street to access the existing maintenance area adjacent to the existing parking structure and Outpatient Center 1. Demolition of the rear additions would impact only a small percentage of the Residential District’s total contributing properties and would not render the Residential District unable to convey its significance. The removal of later building additions at 707 and 715 53rd Street would not result in material impairment of the Residential District’s character-defining features such that the District would no longer be eligible for listing in the California Register and the City’s Local Register. The character-defining features of the Residential District from the public right-of-way, including the uniformity of residential building types and setbacks, street grid and block pattern, and various design elements, would remain intact after demolition of the rear additions. As described in the technical study prepared for the project (Appendix B), these project actions are consistent with applicable Rehabilitation Standards—specifically Rehabilitation Standards 2, 5, and 9—and are, therefore, ~~mitigated to a level of less than a significant impact~~ (CEQA Guidelines Section 15064.5(b)(3)).

Implementation of Phase 1 would have less than significant impacts to historical resources.

Additional text has also been added to the EIR to address Phase 2 impacts related to demolition of the rear portions of the buildings at 671 and 675 53rd

Street (although the rear portion of 679 53rd Street would also be demolished, this building is not a CEQA historic resource). To the extent the project may not be consistent with Rehabilitation Standard 2 due to the demolition of the rear portions of 671 and 675 53rd Street which are contributors to the Residential District, (“The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.”), the project nevertheless would not result in material impairment to the Residential District, and therefore would not result in a significant impact to a historical resource as discussed in the Draft EIR on pages 247 through 248. Also refer to Response to Comment B4-1. The following text from page 247 of the Draft EIR is further modified as follows:

Phase 2 Impacts. Phase 2 includes the partial demolition of several buildings, removal of the Magnolia Tree, redesign of the interior courtyard, and new construction in proximity to the A/B Wing. Potential impacts to historic resources are described below. Implementation of Phase 2 would have less than significant impacts to historical resources.

Demolition. Phase 2 includes demolition of the rear portions of 671, 675, and 679 53rd Street to accommodate the new Family Residence Building, although the existing building façades would be retained. The buildings at 671 and 675 53rd Street are contributors to the Residential District and are therefore CEQA historic resources. However, demolition of the rear portions of these buildings would impact only a small percentage of the Residential District’s total contributing properties and would not render the Residential District unable to convey its significance. Demolition of the rear portions of these buildings would not result in material impairment such that the Residential District would no longer be eligible for listing in the California Register or the City’s Local Register. The character-defining features of the Residential District from the public right-of-way, including the uniformity of residential building types and setbacks, street grid and block pattern, and various design elements, would remain intact after demolition of the rear portions of these buildings. As described in the technical study prepared for the project (Appendix B), these project actions are consistent with applicable Rehabilitation Standards—specifically Rehabilitation Standards 2, 5, and 9—and are, therefore, less than significant (CEQA Guidelines Section 15064.5(b)(3)).

Response A2-3: The Transportation and Circulation section of the Draft EIR includes an analysis of the project’s potential impacts related to increased traffic and parking at the project site and surrounding neighborhood. No significant project or cumulative impacts were identified.

As noted in Response A2-1 and described in the Draft EIR Appendix B3, four character-defining elements that define the Residential District include (1) the uniformity of buildings that comprise the resource; (2) the pattern of building setbacks that characterize the neighborhood; (3) the design elements of contributing properties, and (4) the street grid and block pattern. CEQA guidelines and the City's thresholds of significance note that a project would have a significant impact if it would cause an adverse change including physical demolition, destruction, alteration, relocation, or alteration of a resource or its surroundings such that the resource would be materially impaired. A resource would be materially impaired when a project materially alters the physical characteristics of the resource to convey its significance. The less-than-significant traffic and parking impacts identified in the Draft EIR would not result in an adverse change to the physical character-defining features of the Residential District. Furthermore, elements of the Residential District's integrity—consisting of integrity of location, design, setting, feeling, association, materials, and workmanship—would largely be unaffected by a minor increase in traffic and on-street parking that would result from project implementation.

As a result of public comment from the scoping session and the Hospital's original proposal to move the main garage entrance to Dover Street, the EIR analyzed the closure of Dover Street between 52nd and 53rd Streets and construction of a cul-de-sac as an alternative in the Draft EIR (see Draft EIR pages 576 through 590). The cultural analysis on page 579 of the Draft EIR concludes that implementation of the Dover Street Closure alternative would affect the historic grid and block pattern of the Residential District. However, this change is constrained to only one of nine blocks within the District. Furthermore, this reconfiguration would be located at the edge, rather than in the center of the Residential District. Overall, the change of the street grid at one block in the Residential District does not materially impair the resource's integrity of design such that this action would render the District unable to convey its historic character.

Nonetheless, a change in the street grid—such as the closure of this portion of Dover Street and construction of a cul-de-sac—could have a slight effect (physical alteration) on the overall historic grid and block pattern of the Residential District. To address the project's potential impacts to the Residential District from the Dover Street Closure alternative, the following text has been added to page 579 of the Draft EIR:

In addition, this portion of Dover Street also contributes to the 55th and Dover Residential District's pattern of development; ~~although closure of the street would not reduce the integrity of the District such that a significant impact would occur, its contribution to the District would be slightly reduced with closure to through public access. Although a change to this one block of the district has been found to have a less than significant impact on the historic district, the Historic~~

Resource Evaluation Report prepared for the project³ recommends that the Dover Street Closure alternative not be implemented and that the existing street grid and block configuration in the district should be retained. The street grid and regular block and lot pattern are character-defining features of the Residential District, and closure of Dover Street and the resulting change to this character-defining feature represents a minor impact to the District. Overall, the change of street grid at one block of street in the District does not render the resource unable to convey its historic character. The Residential District retains the vast majority of its character-defining features, including the uniformity of building types and design elements at these buildings, its pattern of building setbacks, and the street grid and block pattern at eight out of nine blocks of street in the District. Therefore, reconfiguration of Dover Street represents a less-than-significant impact on the Residential District, and no mitigation is required.

Response A2-4:

Archaeological Resources are analyzed beginning on page 253 of the Draft EIR. There are no prehistoric or historical archaeological deposits recorded in the project site; however, the project site is generally sensitive for the presence of prehistoric archaeological resources based on the presence of Temescal Creek near but outside of the southern border of the project site. A previous archaeological survey of Temescal Creek near the project site, between Martin Luther King Jr. Way on the east and Adeline Street on the west, did not identify archaeological resources. Although the potential for such intact deposits to be present under landscaping, buildings, asphalt, fill material, and native soil cannot be definitively ruled out, it appears to be low given the extent of development already present on the project site.

The Draft EIR includes a number of the City's Standard Conditions of Approval (SCAs) that will ensure the project's impacts are less than significant. These SCAs are uniformly applied to projects in the City, regardless of the project's environmental determinations. Potential impacts from the project to archaeological resources inadvertently unearthed during construction would be adequately mitigated with implementation of the City's SCAs.

None of the measures included in the SCAs as applied to this project constitute deferred mitigation. Mitigation is improperly deferred when an EIR puts off analysis or orders a report without either setting standards or demonstrating how the impact can be mitigated in the manner described in the EIR. Mitigation measures may, however, specify performance standards that would mitigate a significant impact and that might be achieved in

³ Page & Turnbull, 2014. *Oakland Children's Hospital and Research Center Historic Resource Evaluation Part II: Proposed Project Analysis*. July 16.

various ways. Moreover, if it is not practical to design a plan for mitigating an impact when the EIR is prepared, a lead agency may defer formulation of the specifics pending further study if the mitigation measure describes the options that will be considered and identifies performance standards.

Compliance with applicable regulatory standards – such as those standards imposed by the SCAs – can provide a basis for determining that a project will not have a significant environmental impact. A requirement that a project comply with specific laws or regulations may also serve as adequate mitigation of environmental impacts. As the court explained in *Oakland Heritage Alliance v. City of Oakland* (2011) 195 Cal.App.4th 884, 906, “a condition requiring compliance with regulations is a common and reasonable mitigation measure and may be proper where it is reasonable to expect compliance.” In that case, the court upheld the City of Oakland’s reliance on standards in the building code and the City’s building ordinances to mitigate seismic impacts to less than significant levels. A determination that regulatory compliance (implementation of SCAs) will be sufficient to prevent significant adverse impacts must be based on a project-specific analysis of potential impacts and the effects of regulatory compliance. As described in the Draft EIR on page 255, this analysis, relative to potential impacts associated with the project on archeological resources, has occurred.

Here, the City has adopted SCAs for reducing or avoiding potential impacts to archaeological resources. These SCAs include specific performance standards that the City believes would mitigate impacts from project ground disturbance to previously unrecorded subsurface archaeological deposits. SCA CUL-1, a through d, are listed beginning on page 231 of the Draft EIR. These SCAs require work stoppage in the vicinity of an archaeological find and consultation with a qualified archaeologist. Due to the proximity of Temescal Creek and the elevated sensitivity for buried prehistoric archaeological deposits, the City is also requiring the project proponent to implement an intensive pre-construction archaeological study (SCA CUL-1a) or prepare an “ALERT” sheet (SCA CUL-1d) to provide construction personnel with basic training in identification of archaeological deposits and appropriate procedures to undertake in the event that archaeological deposits are identified. Additional SCAs, including possible archaeological monitoring (SCA CUL-1b), may also be required. Moreover, these SCAs are generally consistent with cultural resource mitigation measures adopted by other public agencies though the State. It is not necessary or legally required to conduct archaeological studies “prior to the Draft EIR,” especially given that, in cases where the site has been previously developed, the likelihood of encountering resources is low.

The City's SCAs are incorporated into projects as Conditions of Approval regardless of a project's environmental determination. As applicable, the Conditions of Approval are adopted as requirements of an individual project when it is approved by the City and are designed to, and will, substantially mitigate environmental effects.

The City will be preparing and adopting, as part of the project approvals, a Standard Conditions of Approval/Mitigation Monitoring and Reporting Program (SCA/MMRP) that will identify all impacts, the SCAs and/or mitigation measures to address the impact, the responsible entity, and the timeframe for addressing the impact. This will be the City's tool to ensure that the appropriate SCAs and mitigation measures are implemented and enforced.

DEPARTMENT OF TRANSPORTATION

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September 19, 2014

ALA024036
ALA-24-R2.76
SCH# 2013072058

Ms. Heather Klein
City of Oakland, Bureau of Planning
250 Frank H. Ogawa, Suite 3315
Oakland, CA 94612

Dear Ms. Klein:

**Children's Hospital and Research Center Oakland Master Plan Project – Draft
Environmental Impact Report (DEIR)**

Thank you for continuing to include the California Department of Transportation (Caltrans) in the environmental review process for the project referenced above. We have reviewed the DEIR and have the following comments to offer.

1

Geology

- The DEIR should include the California Environmental Quality Act (CEQA) checklist questionnaire followed by an explanation of the mitigation that would be followed.
- According to the environmental guidelines (Caltrans Standard Environmental Reference), all impacts such as expansive soils, ground shaking, liquefaction, and differential settlement that are mentioned in the DEIR and require special design, should be designated as "Less than Significant with Mitigation."

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Environmental

- In the DEIR on page 440, Action 3.3 states, "demand that Caltrans implement sound barriers, building retrofit programs..." Please change "demand that Caltrans" to "work with Caltrans to..."
- Page 487-488 under Expansion Soil Section 4 states that "soil disturbance from this project affects slope stability." If so, Caltrans should not be responsible for retaining wall construction, any repairs due to faults in the retaining wall, or failure of the retaining wall.

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Design

- A standard concrete barrier will need to be constructed on top of the retaining wall, as

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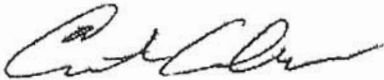
Ms Heather Klein, City of Oakland
September 19, 2014
Page 2

well as a new structural section between the new concrete barrier and the existing edge of pavement.

- Caltrans will also need access to the bottom of the wall for maintenance reasons.
- Please provide Caltrans with the stage construction plans and a Traffic Management Plan for the construction period for our review.

Should you have any questions regarding this letter, please call Keith Wayne of my staff at 510-286-5737 or keith_wayne@dot.ca.gov.

Sincerely,



ERIK ALM, AICP
District Branch Chief
Local Development - Intergovernmental Review

c: Scott Morgan, State Clearinghouse

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cont.

7

COMMENTS A3

State of California, Department of Transportation
Erik Alm, District Branch Chief
September 19, 2014

- Response A3-1: This introductory comment is noted. Responses to subsequent comments are provided below.
- Response A3-2: This comment, which appears under the title of “Geology,” requests that the Draft EIR include a copy of the Environmental Checklist found in Appendix G of the CEQA Guidelines. The Draft EIR includes a stand-alone chapter that addresses this topic (Section IV.H, Geology, Seismicity and Soils, pages 481 through 499). The analysis of the project’s impacts, including impacts related to the topic of geology and soils, is based on the City of Oakland’s thresholds of significance (page 495), which are adapted from the Appendix G checklist. Based on the adaptation of the Appendix G checklist, the Draft EIR determines that the project’s impacts would be less than significant with implementation of the City’s SCAs. No mitigation measures are required.
- Response A3-3: This comment states that where special design standards are required to ensure that potential environmental impacts are less than significant, such as those related to expansive soils, ground shaking, liquefaction, and differential settlement, these impacts should be identified as “less than significant with mitigation” in the Draft EIR. The Draft EIR contains a detailed analysis of potential impacts related to these issue topics and concludes that impacts associated with unstable soils would be less than significant with implementation of the City’s SCAs, which require preparation of a design-specific geotechnical report and implementation of recommended design measures outlined in the report (SCA GEO-3). Project-specific design standards that are not already addressed in the City’s SCAs or that would be identified as part of the design-level geotechnical report are not required to reduce potential impacts to a less-than-significant level and no mitigation measures are required in the Draft EIR. Also see Response to Comment A2-4.
- Response A3-4: This comment, which requests revisions to Action 3.3 under Policy 3 of the City of Oakland General Plan Noise Element, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response A3-5: This comment, which states that Caltrans should not be responsible for construction or maintenance of the proposed retaining wall, is noted. As stated on page 488 of the Draft EIR, the geotechnical investigation prepared for the project concluded that special-design considerations would be required for installation of the proposed retaining walls within the Caltrans

right-of-way; these considerations would be identified in the design-specific geotechnical investigation required by SCA GEO-3. In addition, as stated on page 497 of the Draft EIR, retaining walls constructed within the Caltrans right-of-way would be subject to Caltrans Seismic Design Criteria, the Caltrans Geotechnical Services Design Manual, and other Caltrans standard specifications to ensure that slope stability is maintained. Further, it is anticipated that CHRCO and Caltrans will collaborate on this and other issues prior to acquisition of the existing right of way and construction of the retaining wall. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response A3-6: This comment, which provides design recommendations for the proposed retaining wall and states that Caltrans will need to maintain access to the area, is noted. It is anticipated that CHRCO and Caltrans collaborate on this and other issues prior to acquisition of the existing right of way and construction of the retaining wall. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response A3-7: The project applicant and/or City of Oakland will provide Caltrans the construction staging and traffic management plans that require Caltrans approval and/or would affect the Caltrans right-of-way when available. This comment does not relate to the adequacy of the Draft EIR; therefore, no further response is required. Please see Master Response #1.

From: Barry Young <BYoung@baaqmd.gov>
Sent: Friday, September 19, 2014 10:24 AM
To: Klein, Heather
Cc: David Vintze; Alison Kirk; Pamela Leong; Carol Allen; Catherine Fortney; Brent Rudin
Subject: Comments - Children's Hospital Oakland NOP

Ms. Heather Klein
City of Oakland
Bureau of Planning
Planning & Zoning Division
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612-2032

RE: **Combined Notice of Availability and Release of a DEIR and Notice of Public Hearings for the Children's Hospital & Research Center Oakland Campus Master Plan Project**
(Case File No: ER12-0013; CEQA State Clearinghouse No. 2013072058)

Dear Ms. Klein:

The Air District has reviewed the Draft Environmental Impact Report (DEIR) for the Children's Hospital and Research Center Oakland Master Plan Project and has the following comment.

Page 396 of the DEIR states *"The proposed project currently utilizes four standby emergency generators on-site. The project would install a 1,500 kw standby diesel generator which would replace an existing 131 kW diesel generator. All generators would be permitted by the BAAQMD and require intermittent use as part of testing, thereby emitting diesel particulate matter. Additionally, the project would install five new gas-fired boilers, replacing two of the existing boilers, which would also be a source of emissions."*

Please inform the project sponsor that they must also apply for all required BAAQMD permits or registrations for the five new boilers. Have them contact Catherine Fortney, BAAQMD permit engineer, at (415) 749-4671 or cfortney@baaqmd.gov with any questions about the required permits or registrations for the boilers.

The BAAQMD's permit process is a pre-construction review and approval process. This ensures that all District rules and regulations are considered and allows the project sponsor to make required design changes in the planning stages.

If you have any questions regarding this comment, please contact me.

Best Regards,
--Barry

Barry G. Young
Senior Advanced Projects Advisor
Engineering Division
BAAQMD
939 Ellis Street
San Francisco, CA 94109
(415) 749-4721
Fax: (415) 749-5030

COMMENTER A4

Bay Area Air Quality Management District
Barry G. Young, Senior Advanced Projects Advisor
September 19, 2014

Response A4-1: This comment, which provides information on the BAAQMD's pre-construction review and approval process as it relates to regulation of the five new boilers that are proposed for the project, is noted. As required by SCA HAZ-2, the project applicant would be required to obtain permits from regulatory agencies prior to issuance of construction-related permits, as applicable. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.



1111 Broadway, Suite 800, Oakland, CA 94607

510.208.7400

www.AlamedaCTC.org

August 18, 2014

Heather Klein
Planning and Building Department
250 Frank H. Ogawa Plaza
Suite 3315
Oakland, CA 94612

SUBJECT: Draft Environmental Impact Report for the Children's Hospital & Research Center
Oakland Campus Master Plan Project

Thank you for the opportunity to comment on the Draft Environmental Impact Report (DEIR) for the Children's Hospital & Research Center Oakland Campus Master Plan Project. The project site consists of the 11-acre Children's Hospital & Research Center Oakland (CHRCO) main campus, located at 747 52nd Street. The proposed project would demolish a total of 66,582 square feet of existing uses on the campus and construct a total of 399,200 square feet of new building area. Upon project completion, total building area at the CHRCO campus would be 1,025,034 square feet.

1

The Alameda County Transportation Commission (Alameda CTC) respectfully submits the following comments:

- The Alameda County Congestion Management Program should be listed under the Regulatory Framework section of the Transportation and Circulation chapter of the DEIR (starting on page 291). Specifically, the Land Use Analysis element of the CMP should be referenced.
- The DEIR does not include analysis of bus travel times under 2035 conditions, and explains this omission in a footnote as follows:

2

"This EIR does not evaluate bus travel times under 2035 conditions because bus travel times are affected by a variety of factors that can change in the long-term, such as route changes or bus frequencies, which cannot be known at this time. Thus, the results would not be very accurate or meaningful."

The reasoning that bus travel times cannot be accurately analyzed in 2035 is inconsistent with other major planning projects in the City of Oakland (e.g. Lake Merritt Specific Plan DEIR) which have included analysis of impacts to transit travel times in 2035. Furthermore, bus routes, particularly major trunk line bus routes, are no more transitory or speculative in nature than levels of automobile traffic and automobile transportation system performance, for which 2035 conditions are studied in great detail in the DEIR. While bus routes may change configuration somewhat between the present and 2035, it is entirely reasonable to assert that there will be some form of higher frequency transit operations on streets such as Telegraph Avenue and Martin Luther King Jr. Way in 2035. Therefore, the DEIR should be revised to include analysis of impacts of the project on 2035 transit travel times.

3

Heather Klein
August 18, 2014
Page 2

Please contact me at (510) 208-7405 or Matthew Bomberg of my staff at (510) 208-7444 if you have any questions.

Sincerely,



Tess Lengyel
Deputy Director of Planning and Policy

cc: Matthew Bomberg, Assistant Transportation Planner
Val Menotti, Planning Department Manager, BART
Jim Cunradi, Manager of Long Range Planning, AC Transit

file: CMP/Environmental Review Opinions/2014

COMMENTS A5

Alameda County Transportation Commission
Tess Lengyel, Deputy Director of Planning and Policy
August 18, 2014

Response A5-1: This introductory comment is noted. Responses to subsequent comments are provided below.

Response A5-2: As requested by the commenter, the following is added to the Regulatory Framework discussion on page 291 of the Draft EIR to describe Alameda County Transportation Commission and their Congestion Management Program:

4. Regulatory Framework

Alameda County Transportation Commission

The Alameda County Transportation Commission (ACTC) coordinates transportation planning efforts throughout Alameda County and programs federal, state, regional, and local funding for project planning and implementation. Through its Congestion Management Program (CMP), ACTC oversees and monitors the operations and performance of roadways in the CMP network, which consist of freeways and major arterials that provide connectivity in the County. The Land Use Analysis Program of the CMP requires local jurisdictions to evaluate the potential impacts of proposed land use changes (i.e., General Plan amendments, and developments estimated to generate 100 or more net new PM peak hour automobile trips) on the CMP network. See page 333 of this Draft EIR for the analysis of the proposed project impacts on the CMP network.

Response A5-3: The comment requests analysis of bus travel times under 2035 conditions. The analysis of bus travel times provided in the Draft EIR consists of project impacts under Existing and 2020 conditions, only. The Draft EIR did not analyze bus travel times under 2035 conditions for reasons described on page 334. However, as requested, Table RTC-2 summarizes bus travel times along existing bus routes under 2035 conditions. Similar to the travel times estimates for Existing and 2020 conditions, the 2035 travel times were estimated using the results of the intersection operations analysis and reflect the delay that would be experienced by buses due to the congestion caused by additional traffic.

The 2035 travel times are generally higher than the Existing or 2020 travel times due to additional congestion caused by cumulative growth in the area. Similar to the Existing and 2020 analyses presented in the Draft EIR (see

Tables IV.D-18 and IV.D-19 on pages 335 and 336, respectively), the traffic generated by either Phase 1 or Phase 2 of the project would slightly increase congestion along these bus routes. The additional traffic generated by either Phase 1 or Phase 2 of the project would increase peak hour travel times along these corridors by one minute at the most. The resulting increases would not be noticeable to most bus riders and would have a minor effect on transit service within the area as the estimated increase is within the variability in travel time experienced by each bus on these corridors. This continues to be a less than significant impact, and no mitigation measures are required.

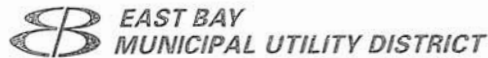
Table RTC-V-2: Bus Travel Times (2035 Conditions)

Bus Route/Direction	Peak Hour	2035 No Project		2035 Plus Phase 1		2035 Plus Phase 2	
		Travel Time (Min:Sec) ^a	Average Speed (mph)	Travel Time (Min:Sec) ^a	Average Speed (mph)	Travel Time (Min:Sec) ^a	Average Speed (mph)
Route 1/1R Northbound (from Telegraph Ave. at 51 st St. to 55 th St.)	AM	1:40	9	1:40	9	1:40	9
	PM	3:10	5	3:00	5	3:00	5
Route 1/1R Southbound (from Telegraph Ave. at 55 th St. to 51 st St.)	AM	1:30	10	1:40	9	1:40	9
	PM	1:30	11	1:30	10	1:30	10
Route 12 Eastbound (from Martin Luther King Jr. Way at 55 th St. to 51 st St. at Telegraph Ave.)	AM	4:40	8	4:40	8	4:40	8
	PM	6:20	6	7:00	6	7:20	5
Route 12 Westbound (from 51 st St. at Telegraph Ave. to Martin Luther King Jr. Way at 55 th St.)	AM	7:00	6	7:00	6	7:00	6
	PM	9:10	4	9:50	4	9:50	4
Route 18 Northbound (from Martin Luther King Jr. Way at SR 24 Ramps to Shattuck Ave. at 55 th St.)	AM	3:20	12	3:30	12	3:30	12
	PM	3:40	11	4:10	10	4:20	9
Route 18 Southbound (from Shattuck Ave. at 55 th St. to Martin Luther King Jr. Way at SR 24 Ramps)	AM	2:50	14	2:50	14	2:50	14
	PM	3:00	14	3:00	14	3:00	14

^a Corridor travel times calculated using intersection delay and free-flow segment speeds from Synchro 8.0

Note: Route 800 (All-Nighter) operates outside of the AM and PM peak hours; therefore, operations of this route were not analyzed and are not included in this table.

Source: Fehr & Peers, 2014.



August 19, 2014

Heather Klein, Planner III
City of Oakland, Bureau of Planning
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

Re: Draft Environmental Impact Report – Children’s Hospital & Research Center,
Oakland

Dear Ms. Klein:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Draft Environmental Impact Report (EIR) for the Children’s Hospital & Research Center Oakland located in the City of Oakland. EBMUD provided comments on water service, wastewater service, water recycling and water conservation for the Notice of Preparation of the Draft EIR on August 26, 2013; EBMUD’s comments on wastewater service, water recycling and requesting a water supply assessment have been addressed in the Draft EIR. EBMUD’s original comments (see enclosure) still apply regarding water service and water conservation.

If you have any questions concerning this response, please contact David J. Rehnstrom, Senior Civil Engineer, Water Service Planning, at (510) 287-1365.

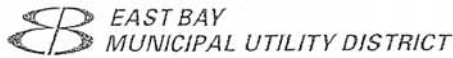
Sincerely,

William R. Kirkpatrick
Manager of Water Distribution Planning

WRK:TRM:djr
sb14_192.docx

Enclosure

cc: Doug Nelson, Director, Facilities Development & Construction
Children’s Hospital & Research Center Oakland
747 52nd Street
Oakland, CA 94609



August 26, 2013

Heather Klein, Planner III
City of Oakland
Department of Planning and Building
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612

Re: Notice of Preparation - Draft Environmental Impact Report – Children’s Hospital and
Research Center Oakland Master Plan Project, Oakland (Case File Number ER12-0013)

Dear Ms. Klein:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report (EIR) for the Children’s Hospital and Research Center Oakland Master Plan Project (Project) located in the City of Oakland (City). EBMUD has the following comments.

2

GENERAL

On page 2 of the Notice of Preparation, under Project Purpose, it indicates that the main purpose of the Project is to create new seismically compliant acute care facilities that meet the seismic safety requirements of California Senate Bill 1953. EBMUD understands the regulations developed by the Office of Statewide Health Planning and Development as mandated by California Senate Bill 1953 also include requirements for non-structural performance (Category 5), which specifically states every hospital by 2030 must have integrated into its plumbing system, an on-site water supply, sufficient for 72 hours of emergency operations based on 50 gallons per day per bed; these requirements can also be found in the California Building Code. The Draft EIR for the Project should identify how this requirement will be addressed as part of the overall project development.

3

WATER SERVICE

The proposed Project meets the threshold of a Water Supply Assessment (WSA) pursuant to Section 15155 of the California Environmental Quality Act Guidelines and Section 10910-10915 of the California Water Code. EBMUD received the City’s written request to prepare a WSA for the Project on August 1, 2013; the WSA is scheduled for EBMUD Board of Directors approval on October 8, 2013.

4

EBMUD’s Claremont Pressure Zone, with a service elevation between 100 and 200 feet, serves the existing parcels of the project site. If additional water service is needed, the project sponsor should contact EBMUD’s New Business Office and request a water service estimate to

Heather Klein, Planner III
August 26, 2013
Page 2

determine costs and conditions for providing additional water service to the existing parcels. Engineering and installation of water services requires substantial lead-time, which should be provided for in the project sponsor's development schedule.

The project sponsor should be aware that EBMUD will not inspect, install or maintain pipeline in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste or that may pose a health and safety risk to construction or maintenance personnel wearing Level D personal protective equipment. Nor will EBMUD install piping in areas where groundwater contaminant concentrations exceed specified limits for discharge to sanitary sewer systems or sewage treatment plants. Applicants for EBMUD services requiring excavation in contaminated areas must submit copies of existing information regarding soil and groundwater quality within or adjacent to the project boundary. In addition, the applicant must provide a legally sufficient, complete and specific written remedial plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of all identified contaminated soil and/or groundwater.

EBMUD will not design the installation of pipelines until such time as soil and groundwater quality data and remediation plans are received and reviewed and will not install pipelines until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists or the information supplied by the applicant is insufficient the EBMUD may require the applicant to perform sampling and analysis to characterize the soil being excavated and groundwater that may be encountered during excavation or perform such sampling and analysis itself at the applicant's expense.

WASTEWATER SERVICE

EBMUD's Main Wastewater Treatment Plant (MWWTP) and interceptor system are anticipated to have adequate dry weather capacity to treat wastewater flows from the proposed Project, provided that the Project and the wastewater generated by the Project meet the requirements of the current EBMUD Wastewater Control Ordinance. However, wet weather flows are a concern. EBMUD has historically operated three Wet Weather Facilities to provide treatment for high wet weather flows that exceed the treatment capacity of the MWWTP. On January 14, 2009, due to Environmental Protection Agency's (EPA) and the State Water Resources Control Board's (SWRCB) re-interpretation of applicable law, the Regional Water Quality Control Board (RWQCB) issued an order prohibiting further discharges from EBMUD's Wet Weather Facilities. In addition, on July 22, 2009 a Stipulated Order for Preliminary Relief issued by EPA, the SWRCB, and RWQCB became effective. This order requires EBMUD to perform work that will identify problem infiltration/inflow areas, begin to reduce infiltration/inflow through private sewer lateral improvements, and lay the groundwork for future efforts to eliminate discharges from the Wet Weather Facilities.

**4
cont.**

5

Heather Klein, Planner III
August 26, 2013
Page 3

Currently, there is insufficient information to forecast how these changes will impact allowable wet weather flows in the individual collection system subbasins contributing to the EBMUD wastewater system, including the subbasin in which the proposed Project is located. It is reasonable to assume that a new regional wet weather flow allocation process may occur in the East Bay, but the schedule for implementation such program has not yet been determined. In the meantime, it would be prudent for the City to require project applicant to incorporate the following measures into any proposed Project: 1) replace or rehabilitate any existing sanitary sewer collection systems, including sewer lateral lines, to reduce infiltration/inflow and 2) ensure any new wastewater collection systems, including sewer lateral lines, for the project are constructed to prevent infiltration/inflow to the maximum extent feasible. Please include such provisions in the environmental documentation and other appropriate approvals for the Project.

**5
cont.**

WATER RECYCLING

EBMUD's Policy 9.05 requires that customers use non-potable water, including recycled water, for non-domestic purposes when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health and not injurious to plant, fish and wildlife to offset demand on EBMUD's limited potable water supply. Appropriate recycled water uses could include landscape irrigation, commercial and industrial process uses, toilet and urinal flushing in non-residential buildings and other applications.

6

The project site is located more than a mile away from any existing or planned recycled water supply facilities and infrastructure within the East Bayshore Recycled Water Project. Although the proposed Project is not a likely candidate for recycled water, EBMUD still requests that the project applicant maintain continued coordination and consultation with EBMUD during the project development and implementation to confirm the feasibility of providing recycled water service to the project site for appropriate non-potable uses.

WATER CONSERVATION

The proposed Project presents an opportunity to incorporate water conservation measures. EBMUD would request that the City include in its conditions of approval a requirement that the project sponsor comply with the California Model Water Efficient Landscape Ordinance (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495). The project sponsor should be aware that Section 31 of EBMUD's Water Service Regulations requires that water service shall not be furnished for new or expanded service unless all the applicable water-efficiency measures described in the regulation are installed at the project sponsor's expense. EBMUD staff would appreciate the opportunity to meet with the project sponsor to discuss water conservation programs and best management practices applicable to the integrated projects. A key objective of this discussion will be to explore timely opportunities to expand water conservation via early consideration of EBMUD's conservation programs and best management practices applicable to the Project.

7

Heather Klein, Planner III
August 26, 2013
Page 4

If you have any questions concerning this response, please contact David J. Rehnstrom, Senior Civil Engineer, Water Service Planning at (510) 287-1365.

Sincerely,

A handwritten signature in black ink, appearing to read "W.R. Kirkpatrick", with a large, stylized loop at the end.

William R. Kirkpatrick
Manager of Water Distribution Planning

WRK:AMW:sb
sb13_179.doc

COMMENTER A6

East Bay Municipal Utility District
William R. Kirkpatrick, Manager of Water Distribution Planning
August 19, 2014

Response A6-1: This introductory comment notes that the East Bay Municipal Utility District (EBMUD) provided comments on the availability of water service, wastewater service, water recycling and water conservation for the Notice of Preparation of the Draft EIR on August 26, 2013. EBMUD notes that their comments related to wastewater service, water recycling and requesting a water supply assessment have been addressed in the Draft EIR. EBMUD also notes that their original comments regarding water service and water conservation are still applicable. These specific comments are included in the attachment to Letter A6 and are addressed in Responses A6-2 through A6-7, below.

Response A6-2: This comment, which introduces EBMUD's comments on the Notice of Preparation of the EIR, is noted. The comments provided in this letter, dated August 26, 2013, were considered by the City during preparation of the Draft EIR.

Response A6-3: This comment requests that the Draft EIR identify how the project will meet non-structural compliance requirements for domestic water and sanitary sewer infrastructure, as mandated by Senate Bill 1953. As stated on page 546 of the Draft EIR, Phase 1 of the proposed project would not be subject to these requirements. Medical facilities developed as part of Phase 2, including development of the Patient Pavilion, Link Building, and interior renovations, would be subject to and would conform to these requirements.

Response A6-4: This comment relates to the provision of water service to the project site, including the request for a water supply assessment, the protocol for requesting new water service from EBMUD, and EBMUD's policy and requirements for servicing projects with contaminated soils and groundwater.

As indicated in Response A6-1, the City complied with and satisfied the requirements for a water supply assessment as part of the Draft EIR (Draft EIR, Appendix H).

The protocol for requesting new water service from EBMUD does not relate to the environmental issues in the Draft EIR and is therefore noted. As per SCA UTL-5, the project applicant is responsible for payment of required installation or hook-up fees to the affected service providers.

EBMUD's policy and requirements for servicing a project with contaminated soil or ground water does not relate to the environmental issues in the Draft

EIR and is therefore noted. As discussed in Section IV.J, Hazards and Hazardous Materials, on page 519, a Phase I Environmental Site Assessment identified five potential sources of hazardous materials at and near the project site; however, none of these sources included significant sources of soils or groundwater contamination, with the exception that aerially-deposited lead could be present in shallow soils within the SR 24 right-of-way portion of the site. SCA HAZ-1 requires best management practices during construction and requires that any previously unknown contamination that is discovered be investigated and remediated, as required.

Response A6-5:

This comment is related to wastewater treatment from the proposed project. Specifically, this comment states that while EBMUD “[is] anticipated to have adequate dry weather capacity to treat the proposed wastewater flows from this project,” wet weather flows are a concern because of the treatment capacity of EBMUD’s Main Wastewater Treatment Plant. The commenter recommends that the applicant: 1) replace or rehabilitate any existing sanitary sewer collection systems, including sewer lateral lines, to reduce infiltration/inflow; and 2) ensure any new wastewater collection systems, including sewer lateral lines, for the proposed project, are constructed to prevent infiltration/inflow to the maximum extent feasible.

Chapter IV.K, Utilities, describes major utilities and infrastructure serving the project area and evaluates the effects of the proposed project on existing utilities and infrastructure. The City’s Sanitary Sewer Infiltration/Inflow Correction Program and mitigation fees for new development are discussed on page 540 of the Draft EIR and project impacts related to wastewater treatment are discussed on pages 554 through 556 of the Draft EIR. The applicant is required to implement SCA HYD-4, which incorporates the commenter’s suggestions. Specifically, it requires a qualified civil engineer to assess the capacity and state of repair of the City’s stormwater and sanitary sewer system. The applicant shall be responsible for necessary stormwater and sanitary sewer infrastructure improvements to accommodate the proposed project. Improvements to the existing sanitary sewer collection system shall specifically include, but are not limited to, mechanisms to control or minimize increases in infiltration/ inflow to offset sanitary sewer increases associated with the proposed project.

Response A6-6:

This comment, which relates to the provision of recycled water and non-potable water, does not relate to the adequacy of the information or analysis within the Draft EIR and is therefore noted. EBMUD’s recycled water program is described on page 538 of the Draft EIR. The project applicant would coordinate with EBMUD to address non-potable and potable water services during project development and implementation as necessary.

Response A6-7:

This comment, which relates to implementation of water conservation measures, does not relate to the adequacy of the information or analysis within the Draft EIR and is therefore noted. For the purposes of CEQA, a

project would have a significant impact to water if new demand resulted in the need for new or expanded facilities. However, as discussed in Section IV.K, Utilities, the proposed project would not exceed East Bay Municipal Utility District's treatment capacity or the capacity of the water supply distribution system. Thus, the impact would be less than significant.

As described on pages 551 through 553 of the Draft EIR, the proposed project would be designed to meet the City's Green Building Ordinance as well as State CalGreen requirements and would be outfitted with water-conserving fixtures, such as low-flow faucets, toilets urinals, and showerheads, as required by the Uniform Building Code and CalGreen. In addition, Bay-friendly and native landscaping planted at the site would reduce water use for irrigation and water efficient irrigation systems would be utilized. Bio-filtration planting areas are also proposed. The proposed project would comply with all federal, State and local laws established for the purpose of water conservation, including California's Model Water Efficient Landscape Ordinance.

B. ORGANIZATIONS

From: Ryan Price <ryan@calbike.org>
Sent: Wednesday, August 20, 2014 2:42 PM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital comment

This message is in response to the recently released Draft Environmental Impact Report for the Oakland Children's Hospital expansion project.

The project is good for healthcare and could help to revitalize the neglected MLK corridor, but it could also bring a lot more car traffic to the area. The included plan for a bikeway on 52nd Street is an upgrade from the current conditions, but the design is still outdated and won't do enough to encourage the average person to bike or walk there. I urge you to work with local non-profits Bike East Bay and Walk Oakland Bike Oakland on an improved design that will create a much more compelling and safe connection between the surrounding neighborhoods, and encourage more biking and walking trips by hospital staff, guests, and local residents, especially because most bike/ped advocates I know in Oakland live in that neighborhood.

An improved design should:

- Ensure that this plan includes a continuous, separated bikeway throughout the entire project area
- Provide better safety accommodations for bicyclists and pedestrians at conflict points along 52nd Street, especially the Highway 24 on and off ramps
- Adjust on-street car parking under the Highway 24 (would argue you should research making this continuous) to create a buffered, parking-protected bikeway
- Implement the City of Oakland's guidelines throughout this project for green paint in bike lanes
- Fund Oakland's proposed bike boulevard treatment for the 52nd/Genoa Street bikeway, which will discourage cut-through car traffic on this bike-priority corridor
- Extend the project area to ensure safe bicycle connections between 52nd Street, Shattuck Ave, and Telegraph Ave in all directions
- Provide great biking, walking, and transit facilities and incentives for hospital employees and guests, including but not limited to: Long and short term bicycle parking in convenient locations and in excess of the city's minimum standard - Free bike share bikes, locks, and helmets made available to hospital staff on site - Bike commuting classes for employees and guests, hosted at the hospital - Bicycle accommodation on the free Children's Hospital MacArthur BART shuttle, made available to hospital staff, guests, and neighborhood residents.

You can view the existing plan for the 52nd Street bikeway at https://pdf.yt/d/82O6oHh2_OMQ87Qr, and an alternative plan suggested by Bike East Bay at <https://pdf.yt/d/5h8q4vPa77wFI4MD>.

Thank you for your attention!

Ryan Price
Administrative Director
California Bicycle Coalition
Enabling more people to bicycle for the health, safety, and prosperity of all Californians.
Join or renew as a CalBike member and Sign up for our monthly mailer.
[916-913-5866](tel:916-913-5866) | ryan@calbike.org

COMMENTER B1

California Bicycle Coalition

Ryan Price

August 20, 2014

- Response B1-1: This commenter is concerned that the proposed project would “bring a lot more car traffic to the area.” As shown in Table IV.D-13 on page 307 of the Draft EIR, the net new automobile trips generated by the proposed project is estimated to be about 240 daily, 18 AM peak hour, and 19 PM peak hour trips after completion of Phase 1 and 1,230 daily, 96 AM peak hour, and 102 PM peak hour trips after completion of Phase 2. As shown in the analysis summarized on pages 317-334 of the Draft EIR, the additional traffic generated by Phase 1 or Phase 2 of the project would not have significant impacts on traffic operations in the study area.
- Response B1-2: The commenter supports the recommended bicycle improvements on 52nd Street included in Recommendation TRA-4. However, the comment states that the recommended bikeway can be further improved and provides a video link, which is noted. See Master Response #2 for a complete discussion regarding the recommended bicycle facilities on 52nd Street and its various features.



T 510.636.4200
F 510.636.4206

410 12th Street, Suite 250
Oakland, Ca 94607

www.lozeaudrury.com
richard@lozeaudrury.com

September 22, 2014

Via Electronic Mail and Hand Delivery

Ms. Heather Klein
Mr. Robert Merkamp
City of Oakland, Bureau of Planning
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612
Fax: (510) 238-3658
Email: hklein@oaklandnet.com;
rmerkamp@oaklandnet.com

Re: File Number ER12-0013: Comments on the Children's Hospital & Research Center Oakland Campus Master Plan Project (SCH No. 2013072058)

Dear Ms. Klein, Mr. Merkamp:

This letter is respectfully submitted on behalf of the Committee of Interns and Residents ("CIR"), a non-profit union composed of intern and resident physicians at Children's Hospital and Research Center Oakland ("CHRCO" or "Hospital")¹ regarding the Draft Environmental Impact Report ("DEIR") for the City of Oakland ("City's") proposed expansion of CHRCO to create new seismically compliant acute care facilities that meet the seismic safety requirements of Senate Bill (SB) 1953 ("Project").

As healthcare professionals, CIR's goal is to improve the health of our patients and the local community. Of course, we fully support the goal of making the Hospital earthquake safe for the benefit of our members and our patients. However, we want to ensure that this is done in a manner that minimizes environmental and public health impacts. Unfortunately, after review by leading experts, it is apparent that the EIR ignores very serious risks to public health and the environment. A revised EIR is

1

¹ We note that the DEIR incorrectly refers to the Project applicant as Children's Hospital and Research Center Oakland (CHRCO) throughout the document. The DEIR fails to acknowledge the Hospital's official name change as of January 1, 2014 to UCSF Benioff Children's Hospital Oakland.

Ms. Heather Klein, Mr. Robert Merkamp
Comments on CHRCO Master Plan Project
September 22, 2014
Page 2 of 21

required to fully analyze these risks and to propose feasible mitigation measures to reduce these risks.

1
cont.

After reviewing the DEIR together with our expert consultants, it is evident that the document contains numerous errors and omissions that preclude an accurate analysis of the Project. We therefore value this opportunity to provide these comments and look forward to working with the City, CHRCO, and all stakeholders to ensure a vibrant and sustainable future for the Hospital and its surrounding communities.²

We prepared these comments with the assistance of certified hydrogeologist and hazardous materials specialist Matthew Hagemann, PG, C.Hg., QSD, QSP, and air quality expert Anders Sutherland. Mr. Hagemann is the former Senior Science Policy Advisor for U.S. EPA Region 9 and Hydrogeologist, Superfund, RCRA and Clean Water programs, and is an expert in hazardous materials and water quality issues. Our experts, and our own analysis, have concluded that the DEIR has significant deficiencies in areas related to public health, including air quality, cancer risk, and exposure to hazardous materials.

2

In particular, our experts have concluded that the DEIR significantly underestimated the cancer risk posed by construction of the Project. The DEIR's Health Risk Assessment ("HRA") inappropriately shortened the exposure duration because it calculated cancer risk for over a 7-year construction period, rather than the full 9-year, 10-month period required for construction of both phases of the Project. As a result of this underestimation, the DEIR found the Project's cancer risk to be 7.92 in a million less than the applicable 10 in a million CEQA cancer risk threshold. As a result, the EIR did not implement any mitigations to reduce cancer risk. CIR's experts calculated the same impact using an accurate construction period, and concluded that, when calculated properly, the Project creates a cancer risk of 12.39 in a million, well above the applicable CEQA significance threshold. The DEIR fails to identify this significant impact, and failed entirely to mitigate it. This is particularly significant since CHRCO's patients are largely children.

3

Our experts have also concluded that, contrary to statements made in the DEIR, a portion of the Project site contains significant soil contamination from a former leaking underground storage tank ("LUST") beneath the 4701 Martin Luther King Jr. Way ("MLK Way") portion of the expanded hospital site. The DEIR states that the site has been adequately cleaned-up, and that the property owner has requested "low threat" closure status from the regional Water Board. In truth, the Water Board flatly denied closure of the site in August 2013, and has ordered further investigation of potentially significant contamination that may threaten nearby Temescal Creek. The DEIR fails to disclose this information, and fails to acknowledge this significant impact.

4

² We reserve the right to supplement these comments at later hearings and proceedings for this Project. See *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109.

Ms. Heather Klein, Mr. Robert Merkamp
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 September 22, 2014
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The DEIR suffers from numerous additional defects, including a failure to analyze the impacts of the Project on pedestrian safety, a lack of baseline conditions regarding pedestrian injuries in the Project vicinity, and numerous vague and deferred mitigation measures related to air quality and hazardous materials impacts.

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These issues are of fundamental concern to CIR, because CIR is dedicated to improving the health of patients, especially children, and the local community. CIR's members, many of whom work at CHRCO, are particularly committed to ensuring that CHRCO maintains the same high standards in performing its environmental review that it has achieved as a leading children's healthcare facility. A supplemental EIR must be prepared and recirculated for public comment in order to properly analyze and mitigate the Project's significant impacts.

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I. PROJECT DESCRIPTION.

The purpose of the Project is to create new seismically compliant acute care facilities at the CHRCO campus that meet the seismic safety requirements of Senate Bill ("SB") 1953. The proposed project would demolish a total of 66,582 square feet of existing uses on the campus and construct a total of 399,200 square feet of new building area, for a total of 332,618 square feet of net new building area. DEIR, p. 87. Upon project completion, total building area at the CHRCO campus would be 1,025,034 square feet. In addition, a total of 284 net new parking spaces would be located on the campus at project completion, for a total of 1,391 parking spaces. DEIR, p. 97.

The Project is to be developed in two phases. Phase 1 would include the demolition of one residential building, minor rear yard additions on two residential buildings, and construction of the 6-story Outpatient Center Building 2 (OPC2). Phase 1 would include the temporary displacement of approximately 30 on-site hospital beds during construction (as a result of interior renovations). As part of Phase 1, approximately 1,541 square feet of use would be demolished, approximately 90,200 square feet would be constructed, and approximately 95,550 square feet would be renovated.

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Phase 2 will include the demolition of one residential building and one modular office building south of 53rd Street, the rear portions of three residential buildings south of 53rd Street, the B/C Wing, Bruce Lyon Memorial Research Laboratory Building, HemOnc Administrative Building, helistop structure and trailers. Phase 2 will construct a Family Residence Building, Clinical Support Building, Link Building with a new helistop on the roof, Patient Pavilion, expansion of the Central Utility Plant, and a Parking Structure. Phase 2 will add 40 campus hospital beds and an increase of approximately 286 parking spaces on the CHRCO campus. As part of Phase 2, approximately 65,041 square feet of use would be demolished, approximately 309,000 square feet would be constructed, and approximately 42,342 square feet would be renovated. In addition,

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site and circulation improvements would be constructed, and Phase 2 will include the acquisition and improvement of a portion of the SR 24 right-of-way adjacent to the hospital on the east side and currently owned by Caltrans.

Project construction is expected to last almost 10 years. Phase 1 project construction is anticipated to take approximately 58 months. 2 Project construction is expected to take approximately 60 months.

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II. STANDING

CIR is a National Affiliate of Service Employees International Union ("SEIU"). CIR is the oldest and largest housestaff union in the country, representing more than 13,000 interns, residents, and fellows in California and other states. CIR's members include intern and resident physicians at CHRCO. As healthcare professionals, CIR's goal is to improve the health of its patients and the local community.

CIR members work at the Hospital, and live and recreate in its surrounding communities. CIR members also regularly travel to and from the Hospital using public thoroughfares and public transportation. These members will suffer the impacts of a poorly executed or inadequately mitigated Project. It is CIR's desire to work with the City, CHRCO, and other stakeholders to ensure that the Project's adverse environmental and public health impacts are mitigated to the fullest extent possible.

III. LEGAL STANDARDS

A. EIR.

CEQA requires that an agency analyze the potential environmental impacts of its proposed actions in an EIR (except in certain limited circumstances). See, e.g., Pub. Res. Code ("PRC") § 21100. The EIR is the very heart of CEQA. *Dunn-Edwards v. BAAQMD* (1992) 9 Cal.App.4th 644, 652. "The 'foremost principle' in interpreting CEQA is that the Legislature intended the act to be read so as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language." *Comtys. for a Better Env't v. Cal. Resources Agency* (2002) 103 Cal.App.4th 98, 109 ("CBE v. CRA").

CEQA has two primary purposes. First, CEQA is designed to inform decision makers and the public about the potential, significant environmental effects of a project. 14 Cal. Code Regs. ("CCR") § 15002(a)(1). "Its purpose is to inform the public and its responsible officials of the environmental consequences of their decisions before they are made. Thus, the EIR 'protects not only the environment but also informed self-government.'" *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal. 3d 553, 564. The EIR has been described as "an environmental 'alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they

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have reached ecological points of no return.” *Berkeley Keep Jets Over the Bay v. Bd. of Port Comm’rs.* (2001) 91 Cal.App.4th 1344, 1354 (“*Berkeley Jets*”); *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

Second, CEQA requires public agencies to avoid or reduce environmental damage when “feasible” by requiring “environmentally superior” alternatives and all feasible mitigation measures. 14 CCR § 15002(a)(2) and (3); see also *Berkeley Jets*, 91 Cal. App. 4th at 1354; *Citizens of Goleta Valley, supra*, 52 Cal.3d at 564. The EIR serves to provide agencies and the public with information about the environmental impacts of a proposed project and to “identify ways that environmental damage can be avoided or significantly reduced.” 14 CCR §15002(a)(2). If the project will have a significant effect on the environment, the agency may approve the project only if it finds that it has “eliminated or substantially lessened all significant effects on the environment where feasible” and that any unavoidable significant effects on the environment are “acceptable due to overriding concerns.” PRC § 21081; 14 CCR § 15092(b)(2)(A) & (B).)

While the courts review an EIR using an “abuse of discretion” standard, “the reviewing court is not to ‘uncritically rely on every study or analysis presented by a project proponent in support of its position. A ‘clearly inadequate or unsupported study is entitled to no judicial deference.’” *Berkeley Jets*, 91 Cal.App.4th at 1355, quoting *Laurel Heights Improvement Ass’n v. Regents of Univ. of Cal.* (1988) 47 Cal.3d 376, 391 409, fn. 12. As the court stated in *Berkeley Jets*, 91 Cal. App. 4th at 1355:

A prejudicial abuse of discretion occurs “if the failure to include relevant information precludes informed decisionmaking and informed public participation, thereby thwarting the statutory goals of the EIR process.” *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal.App.4th 713, 722; *Galante Vineyards v. Monterey Peninsula Water Management Dist.* (1997) 60 Cal. App. 4th 1109, 1117; *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 946.

As our Supreme Court has emphasized, “[t]he preparation and circulation of an EIR is more than a set of technical hurdles for agencies and developers to overcome. The EIR’s function is to ensure that government officials who decide to build or approve a project do so with a full understanding of the environmental consequences and, equally important, that the public is assured those consequences have been taken into account. For the EIR to serve these goals it must present information in such a manner that the foreseeable impacts of pursuing the project can actually be understood and weighed, and the public must be given an adequate opportunity to comment on that presentation before the decision to go forward is made.” *Comtys. for a Better Env’t v. Richmond (Chevron)* (2010) 184 Cal. App. 4th 70 80 (“*CBE v. Richmond*”), quoting *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 449-450.

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B. Supplemental EIR.

Recirculation of an EIR prior to certification is required "when the new information added to an EIR discloses: (1) a new substantial environmental impact resulting from the project or from a new mitigation measure proposed to be implemented (cf. 14 CCR § 15162(a)(1), (3)(B)(1)); (2) a substantial increase in the severity of an environmental impact unless mitigation measures are adopted that reduce the impact to a level of insignificance (cf. 14 CCR § 15162(a)(3)(B)(2)); (3) a feasible project alternative or mitigation measure that clearly would lessen the environmental impacts of the project, but which the project's proponents decline to adopt (cf. 14 CCR § 15162(a)(3)(B)(3), (4)); or (4) that the draft EIR was so fundamentally and basically inadequate and conclusory in nature that public comment on the draft was in effect meaningless." *Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1993) 6 Cal.4th 1112, 1130, citing *Mountain Lion Coalition v. Fish & Game Comm'n* (1989) 214 Cal.App.3d 1043.

Significant new information requiring recirculation can include:

- (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- (2) A substantial increase in the severity of an environmental impact would result unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.
- (4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

14 CCR § 15088.5(a).

The DEIR fails to analyze numerous significant environmental and public health impacts of the Project and fails to fully consider all feasible mitigation measures to address such impacts. A revised EIR is required to be prepared and recirculated to the public in order to address these deficiencies.

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IV. THE DEIR FAILS TO COMPLY WITH CEQA

A. The DEIR Fails to Adequately Disclose and Mitigate the Project's Significant Air Quality Impacts.

An EIR must "identify ways that environmental damage can be avoided or significantly reduced." 14 CCR §15002(a)(2). Where an EIR lacks substantial evidence to support its conclusions, and where evidence in the record demonstrates that the EIR contains errors in its facts or omits key evidence and analysis, the EIR is inadequate. 14 CCR § 15384. An agency abuses its discretion by failing to proceed in a manner required by law when it fails to address a potentially significant impact in the EIR. *San Joaquin Raptor/Wildlife Rescue Center v. County of Stanislaus* (1994) 27 Cal. App. 4th 713, 722.

1. The DEIR Fails to Accurately Analyze and Disclose Project's Significant Cancer Risk.

The DEIR significantly underestimated the cancer risk posed to children and other sensitive receptors by the Project's construction, in violation of CEQA. It is well established that an EIR must discuss significant impacts with emphasis in proportion to their severity and probability of occurrence, and in particular, must analyze the impacts of a Project on human health. 14 CCR § 15143; *Berkeley Keep Jets Over the Bay Com. v. Bd. of Port Comrs.* (2001) 91 Cal.App.4th 1344, 1369 (EIR must include a "human health risk assessment" to address impacts from exposure to toxic air contaminants). Failure to perform an adequate health risk analysis, and failure to disclose and mitigate a project's significant health impacts renders an EIR inadequate. See *CBE v. SCAQMD*, 48 Cal. 4th at 317.

CEQA specifically requires the lead agency to determine whether a project will "expose sensitive receptors to substantial pollutant concentrations." CEQA Guidelines, App. G, § 3(d). Sensitive receptors include, inter alia, children and persons with serious health problems. BAAQMD Guidelines, § 5.2.5. Exhaust from heavy-duty construction equipment, like the equipment being used for construction of the Hospital expansion, releases diesel particulate matter ("DPM"). DPM is a toxic air contaminant ("TAC") that is recognized by state and federal agencies, and atmospheric scientists, as causing severe respiratory disease, lung damage, cancer, and premature death. See *California Bldg. Indus. Ass'n v. Bay Area Air Quality Mgmt. Dist.* (2013) 161 Cal. Rptr. 3d 128, 134 (review granted) (Air districts have recently recognized that "TACs present an even greater health risk than previously thought.").

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In general, HRA's are used for this analysis, and are required if the BAAQMD concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggests a potential public health risk. DEIR p. 376. Such an assessment must evaluate chronic, long-term effects, including the increased risk of cancer as a result of exposure to one or more TACs. DEIR p. 376. The BAAQMD cancer risk threshold for TAC exposure from project construction is 10 in a million. DEIR, p. 383; BAAQMD Guidelines, § 8.3.

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The DEIR includes an HRA which incorrectly concludes that the cancer risk to children from exposure to TACs during Project construction is 7.92. DEIR, p. 393. This conclusion was reached using on an outdated air quality model and wholly inaccurate time period for Project construction.

First, the DEIR assessed air quality hazards from toxic air contaminants using the dispersion model ISCST3. DEIR, p. 390. As explained by Mr. Sutherland, ISCST3 is an outdated dispersion model that was replaced by AERMOD in 2006 as the federally promulgated model for simulating fate and transport of air pollutants from emissions sources. Exh. A, p. 5. "The use of ISCST3 is a testament to the questionable considerations that were incorporated into the air quality analyses conducted for the DEIR." *Id.* Mr. Sutherland concludes that a revised EIR must implement the current AERMOD dispersion modeling software to characterize on-site and off-site concentrations of modeled air pollutants associated with Project construction and operation, in order to properly characterize the Project's air quality impacts. *Id.*

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Second, the HRA was prepared in a manner that inappropriately shortened the exposure duration and consequently reduced the excess cancer risk from construction of the Project below the applicable threshold. The Project is proposed to be built out in two phases. The EIR admits that Project construction will take a total of 9 years, 10 months for both Phases of the Project. In numerous instances throughout the DEIR it is stated that Phase 1 of Project construction will last approximately 58 months, and construction of Phase 2 will take approximately 60 months. DEIR, p. 88, 97, 121, 349. Additionally, the DEIR acknowledges that the two phases cannot be undertaken simultaneously, and therefore will be completed sequentially. DEIR, p. 384. The resulting total duration of Project construction is 118 months (9 years, 10 months), two months short of ten years. *Id.*

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The HRA erroneously relied on a 7 year construction period. See DEIR, p. 392 ("the duration for project construction was assumed to be 3 years for Phase 1 and 4

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years for Phase 2" in the risk assessment). This erroneous assumption reduced the exposure duration of Phase 1 by 22 months and Phase 2 by 12 months without any justification or reference to supplementary information.

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CIR's expert, Mr. Sutherland, prepared his own analysis, using the same air quality modeling data and assumptions used in the City's HRA, but adjusted the exposure period to the entire 9 year, 10 month period of Project construction. Mr. Anders concluded that total excess cancer risk for Phase 1 and Phase 2 construction is 12.39 in one million, which exceeds the BAAQMD threshold of 10 in one million cancer risk, and is therefore a significant impact. Exh. A, p. 6. The EIR must disclose an impact as significant when it exceeds a duly adopted CEQA significance threshold, as here. *CBE v. CRA*, 103 Cal.App.4th at 110-111; *Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 960.

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CIR's expert comments constitute substantial evidence that the Project will have significant impacts from cancer risk to children. Because the DEIR failed to perform an accurate analysis of this impact, the City has no substantial evidence to rebut Mr. Sutherland's expert conclusion, and has no substantial evidence to support the DEIR's conclusion that the cancer risk posed by Project construction is less than significant. *Sierra Club v. Cnty. of Fresno*, 226 Cal. App. 4th 704, 745; *Kings Cty. Farm Bur. v. Hanford* (1990) 221 Cal.App.3d 692, 732 (lead agency may deem particular impact to be insignificant only if it produces rigorous analysis and concrete substantial evidence justifying finding).

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The DEIR must be revised and recirculated to fully and adequately disclose the Project's significant health impacts on children and other sensitive receptors from Project construction. *Berkeley Keep Jets Over the Bay Com. v. Bd. of Port Comrs.* (2001) 91 Cal.App.4th 1344, 1369 (EIR must include a "human health risk assessment" to address impacts from exposure to toxic air contaminants); see also *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, at 1219-20 ("the health consequences that necessarily result from the identified adverse air quality impacts....On remand, the health impacts resulting from the adverse air quality impacts must be identified and analyzed in the new EIR's."). The Revised EIR must propose feasible mitigation measures to reduce these cancer risks to the extent feasible.

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2. The DEIR Fails to Acknowledge that the Project's Size is Well Over Air District Screening Levels for Significant Air Quality Impacts.

The Bay Area Air Quality Management District ("BAAQMD") is the regulatory agency with jurisdiction over the Project's air quality impacts. DEIR, p. 363. BAAQMD has set minimum thresholds of significance for analyzing a project's air quality impacts.

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14 CCR § 15064.7; BAAQMD Guidelines, p. 1-1.³ These thresholds are set forth in BAAQMD's CEQA Guidelines, which provide recommended procedures for evaluating air quality impacts consistent with CEQA's requirements. *Id.* When an impact exceeds a CEQA significance threshold, the agency must disclose in the EIR that the impact is significant. *CBE v. CRA*, 103 Cal.App.4th at 110-111; *Schenck v. County of Sonoma* (2011) 198 Cal.App.4th 949, 960.

The Project exceeds BAAQMD's threshold for significant operational air emissions of nitrogen oxides ("NOx"), reactive organic compounds ("ROGs"), and greenhouse gas impacts ("GHGs") by several thousand square feet, yet the DEIR fails to acknowledge this exceedance as an impact. The Project will result in a net 332,618 square foot expansion of CHRCO. DEIR, p. 2. This expansion is well above BAAQMD screening thresholds adopted for hospitals for NOx, ROGs, and GHGs, which is 226,000 square feet (NOx), 39,000 square feet (GHGs), and 277,000 square feet (ROGs) respectively. See Exh. C, BAAQMD 2010 CEQA Guidelines, Table 3-1. The City must acknowledge these exceedances of BAAQMD screening thresholds as significant, and circulate a revised EIR which implement all feasible mitigations to reduce impacts from these pollutants to less than significant levels. 14 CCR § 15064.7; *CBE v. CRA*, 103 Cal.App.4th at 110-111; *CBE v. SCAQMD*, 48 Cal.4th at 327 (impact is significant because exceeds "established significance threshold for NOx ... constitute[ing] substantial evidence supporting a fair argument for a significant adverse impact").

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B. The DEIR Failed to Adequately Disclose and Mitigate Project's Significant Hazardous Materials Impacts.

The existence of toxic soil contamination at a project site is a significant impact requiring review and mitigation in the EIR. *McQueen v. Bd. of Dirs.* (1988) 202 Cal.App.3d 1136, 1149; *Assoc. For A Cleaner Env't v. Yosemite Comm. College Dist.* ("ACE v. Yosemite") (2004) 116 Cal.App.4th 629. In this case, the Project will disturb and possibly exacerbate significant contamination on the construction site.

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1. The DEIR Omitted Evidence Regarding a Leaking Underground Storage Tank Beneath the Project Site That Has Not Been Adequately Characterized or Removed.

The DEIR mischaracterizes conditions at the Project site related to releases of gasoline and diesel fuel from former underground storage tanks at the CHRCO Annex Parking Lot. The DEIR states that CHRCO made a request to the San Francisco Bay

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³ BAAQMD's CEQA Guidelines are available at http://www.baaqmd.gov/~media/Files/Planning-and-Research/CEQA/Draft_BAAQMD_CEQA_Guidelines_May_2010_Final.ashx?la=en, and http://www.baaqmd.gov/~media/Files/Planning-and-Research/CEQA/BAAQMD-CEQA-Guidelines_Final_May-2012.ashx?la=en.

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Regional Water Quality Control Board ("Water Board" or "RWQCB ") that the case be classified as a "low threat" site and closed, but that "as of the time of preparation of this Draft EIR, the release case remains open." DEIR, p. 520.⁴

The DEIR fails to disclose that the CHRCO request to have the site classified as low risk was flatly denied. In a letter dated August 28, 2013, the Water Board stated the closure request was denied because the site is not adequately characterized. See Exh. B. Mr. Hagemann explains that there is a health risk posed from the contamination, which can be spread as a result of groundwater flow direction. Exh. A, p. 2. The Water Board identified groundwater flow to be in a northwesterly direction, and concluded that it had not been monitored with appropriately placed groundwater wells. *Id.* The Water Board concluded that the contamination poses a risk to nearby Temescal Creek. Because of inadequate Project site characterization the RWQCB ordered CHRCO "to submit a technical report to this office by November 15, 2013, consisting of a workplan for characterizing the groundwater pollution downgradient of the former USTs." *Id.*; Exh. B.

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The DEIR misleads the public by stating that, at the time of the DEIR preparation that the "case remains open" without mentioning the RWQCB rejection of the CHRCO closure request. The DEIR was released August 2014, a full year after the Water Board issued its order requiring further investigation. There is no reason that the DEIR should have failed to state that RWQCB denied the CHRCO request for closure in August of 2013, approximately a year before the DEIR preparation. The DEIR should also have disclosed the preparation of any workplans that may have been prepared in response to the August 28, 2013 RWQCB order. Exh. A, p. 2. There is no evidence in the DEIR that any further investigation has been conducted, nor any contamination remediated at the site, since the Water Board issued its August 2013 order.

Mr. Hagemann concludes that existence of unremediated soil and groundwater contamination beneath the Project site is a significant impact that must be adequately disclosed and mitigated in the EIR, and that remedial activities at the site cannot be considered complete until site assessment has been completed. Exh. A, p.2. Mr. Hagemann also concludes that the preparation of site assessment reports to address the RWQCB's order is critical to ensure the protection of workers during construction of the Project. He explains:

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During construction, contaminated groundwater may be encountered when excavation or foundation work is being conducted. Because groundwater flow is in a northwesterly direction, contamination that may originate from former

⁴ The Notice of Availability for the DEIR states that the CHRCO-owned parking lot at 4701 Martin Luther King Jr. Way, is on the Cortese list due to a former leaking underground storage tank; proposed remedial activities at this site have been completed and case closure has been requested. This is false and misleading.

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underground storage tanks at the CHRCO Annex Parking Lot may have moved with groundwater under areas slated for Project construction. Contaminants noted at the former underground storage tanks include total petroleum hydrocarbons (TPH) in the gasoline and diesel ranges and associated volatile organic compounds (VOCs) in soil and groundwater (DEIR, p. 520). Exh. A, p. 3.

Courts have repeatedly rejected CEQA documents which failed to disclose and propose mitigation measures for soil contamination. In *McQueen v. Bd. Of Directors*, 202 Cal.App.3d at 1148-49, the court reiterated that a CEQA document must be prepared to disclose the existence of hazardous chemical contamination on a site as well as the method that will be employed to clean-up the contamination. Similarly, in *ACE v. Yosemite*, 116 Cal.App.4th 629, the court held that an EIR was required to disclose and analyze existing lead contamination on a site, despite the fact that the project at issue did not cause or contribute to the contamination. Just as in *ACE* and *McQueen*, the DEIR is deficient for its failure to disclose this impact. The DEIR must be revised to accurately disclose the site's soil contamination.

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2. Further Investigation is Required to Assess the Project's Potential to Expose the Public to Hazardous Soil and Water Vapors.

The EIR fails to disclose the potential for contaminated groundwater to be encountered during dewatering activities. Groundwater is found beneath the Project site at depths as shallow as 8.5 feet. DEIR, p. 515. Workers who are involved in foundation preparation activities may encounter contaminants when the water table is penetrated, and may be exposed through inhalation of vapors and dermal contact. Because of this potentially significant health risk, Mr. Hagemann recommends that any groundwater encountered during Project construction must be carefully and properly disposed of. See Exh. A, p. 3.

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The DEIR acknowledges presence of volatile organic compounds ("VOCs"), and contains mitigation measures directed at VOCs. See e.g. SCA HAZ-9 (DEIR, p. 57) ("Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building (pursuant to the Standard Condition of Approval regarding Radon or Vapor Intrusion from Soil and Groundwater Sources.>"). The DEIR goes on to admit that VOCs and soil vapor intrusion are potentially significant impacts. *Id.* Thus, further investigation is required to characterize the nature and extent of this impact.

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The Project may not proceed until these issues have been resolved. PRC § 21002 (agency may not approve project unless it has implemented all feasible mitigation measures which would substantially lessen the significant environmental effects of the project). Indeed, this is also an express requirement of the Project's own mitigation measures. See DEIR, p. 57, SCA HAZ-9 ("Prior to issuance of any

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demolition, grading, or building permit, the applicant shall submit for review and approval by the City of Oakland, written verification that the appropriate federal, state or county oversight authorities, including but not limited to the RWQCB and/or the ACDEH, have granted all required clearances and confirmed that the all applicable standards, regulations and conditions for all previous contamination at the site.” (emphasis added).

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C. The DEIR Improperly Defers Mitigation of Numerous Potentially Significant Impacts.

The EIR must clearly describe mitigation measures that will be relied upon to reduce significant impacts. The EIR may not defer development of mitigation measures until after certification of the EIR or Project approval. Mitigation measures should describe the actions that will be taken to reduce or avoid an impact; it is ordinarily inappropriate to defer formulation of a mitigation measure to the future. 14 CCR §15126.4(a)(1)(B). “Impermissible deferral of mitigation measures occurs when an EIR puts off analysis or orders a report without either setting standards or demonstrating how the impact can be mitigated in the manner described in the EIR.” *City of Long Beach v. Los Angeles Unified School District* (2009) 176 Cal.App.4th 889, 915. The DEIR improperly defers numerous key mitigation measures until post-Project approval, in violation of CEQA.

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1. Hazardous Materials.

CEQA disallows deferring the formulation of mitigation measures to post-approval studies. *CBE v. Richmond*, 184 Cal. App. 4th at 92, CEQA Guidelines § 15126.4(a)(1)(B). In particular, Soil contamination is a significant impact that requires mitigation and a concrete Remediation Plan in the CEQA document itself. *McQueen v. Bd. Of Directors*, 202 Cal.App.3d at 1148-49; *ACE v. Yosemite*, 116 Cal.App.4th 629.

The below mitigation measures improperly defer mitigation of significant impacts from contaminated soil to post-Project approval without having an adequate cleanup plan in place, including for extremely hazardous contaminants such as asbestos and PCBs.

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SCA HAZ-1 (DEIR, p. 54): “Prior to commencement of demolition, grading, or construction, the project applicant and construction contractor shall...

(1) “Ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction workers and the occupants of the proposed development.”

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(2) "Soil sampling and chemical analyses of samples shall be performed to determine the extent of potential contamination beneath all USTs, elevator shafts, clarifiers, and subsurface hydraulic lifts when on-site demolition, or construction activities would potentially affect a particular development or building."

(3) "If soil, groundwater or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment."⁵

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SCA HAZ-3 Requires submission of Phase I / Phase II ESAs, and a remediation plan for site contamination "prior to issuance of a demolition, grading, or building permit."

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SCA HAZ-5: Environmental Site Assessment Reports Remediation. Similarly requires submission and approval of remediation plan prior to issuance of building/grading permits. Even if the remediation plan is ultimately effective, deferring creation of the plan to post-Project approval fails to comply with CEQA's informational requirements, and denies public the opportunity to review and comment on the plan.

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SCA HAZ-7: Other Materials Classified as Hazardous Waste / SCA HAZ-8: Health and Safety Plan per Assessment: Same problem. Allows future study for presence of asbestos, PCBs, and associated health risks, and improper future selection of remediation plans outside of CEQA public comment period. This measure is nothing more than a vague and deferred requirement to comply with "other laws."

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SCA HAZ-2: "Conformance with Other Requirements. Prior to the issuance of a demolition, grading, P-job, or other construction related permit. a) The project applicant shall comply with all other applicable federal, state, regional and/or local laws/codes, requirements, regulations, and guidelines." This measure is

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⁵ This measure is particularly ineffective because the public must trust that untrained workers will identify potentially hazardous toxic contamination, and if found, that unspecified mitigation measures will be implemented to safeguard public health.

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vague, fails to specify which laws apply to the Project's soil contamination, thereby failing to provide sufficient information to the public, and gives the public no opportunity to evaluate the adequacy of the Project applicant's ultimate compliance with these laws.

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SCA HAZ-9: Best Management Practices for Soil and Groundwater Hazards: Contains a vague requirement that "Soil generated by construction activities shall be stockpiled onsite in a **secure and safe manner**. All contaminated soils determined to be hazardous or nonhazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility." The measure contains no explanation whatsoever to the public of what "secure and safe" methods may be.

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All of the above measures are improper deferred mitigation, requiring the development of specific measures after Project approval. CEQA requires that the mitigation measures be clearly set forth in the EIR so that the public can analyze their effectiveness and propose alternative measures. CEQA prohibits such deferred mitigation. "[M]itigation measure[s] [that do] no more than require a report be prepared and followed" do not provide adequate information for informed decisionmaking under CEQA. *Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 794; 14 CCR § 15126.4(a)(1)(B)). The DEIR must be revised to include concrete and defined mitigation measures.

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2. Pedestrian Safety.

The DEIR improperly defers traffic and pedestrian safety mitigation measures that do not allow for meaningful public review of their efficacy. See e.g. DEIR, pp, 16-17; SCA TRA-1: Parking and Transportation Demand Management ("Prior to issuance of a final inspection of the building permit...project applicant shall submit a Transportation and Parking Demand Management (TDM) plan for review and approval by the City....The TDM plan shall include strategies to increase pedestrian, bicycle, transit, and carpool use, and reduce parking demand.").

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D. The DEIR Fails to Accurately Establish the Project's Environmental Setting, or Baseline.

CEQA requires that an EIR include a description of the project's environmental setting or "baseline." 14 CCR § 15063(d)(2). The CEQA "baseline" is the set of environmental conditions against which to compare a project's anticipated impacts. *CBE v. SCAQMD*, 48 Cal.4th at 321. CEQA Guidelines section 15125(a) states, in pertinent part, that a lead agency's environmental review under CEQA:

...must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time [environmental analysis] is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a Lead Agency determines whether an impact is significant.

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14 CCR § 15125(a); see *Save Our Peninsula Comt'y v. County of Monterey* (2001) 87 Cal.App.4th 99, 124-125 ("*Save Our Peninsula*").

Here, the DEIR is inadequate because it failed to establish any baseline whatsoever for injury to pedestrians in the vicinity of the Project site, and failed to describe accurate baseline conditions at the Project site for hazardous materials impacts.

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1. Pedestrian Safety Impacts.

The EIR does not adequately examine the existing conditions for pedestrian safety, and provides indefinite information about the Project's proposed pedestrian safety measures. Pedestrian safety is particularly important given that CHRCO's patients are largely children. Analysis in the DEIR should include, at minimum, a historical examination of the pedestrian collisions, their locations, and their causes including unsafe design features.

Available data allows for a detailed examination of the location of historical injuries and their causes. For California, the UC Berkeley Transportation Injury Mapping Program makes available statewide injury data since 2003. See Exhibit D. Examination of this data, for example, shows three injuries at signal controlled crossings at 52nd and MLK Way. The immediate cause of these injuries were pedestrian right of way violations that could likely be prevented with improved intersection design that protected pedestrians in crosswalks from turning vehicles. Similarly, a pedestrian injury at an uncontrolled crosswalk on MLK at 53rd Street suggests the need for crosswalk safety improvements.

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The DEIR must be revised to include an impact analysis that examine whether the Project will worsen any of the existing causative factors for pedestrian injuries. Avoidable injuries and fatalities occur when all the following three factors intersect, pedestrian traffic vehicle traffic, and unsafe design. The Project will relocate the entry and exit to the Hospital multilevel parking lot at MLK Way. DEIR, p. 88. This will create a newly created hazardous for transit travelers getting of the northbound 18 bus at 53rd Street and walking to the hospital or clinics. This should be identified as an impact under Threshold #10. The suggested improvement recommendation, relocating the bus stop, should be a required mitigation. More generally, the Hospital expansion will result in a modest increase in pedestrian traffic and automobile in the vicinity of the Hospital. These increases in traffic and pedestrian volume will contribute cumulatively to the frequency and risk of pedestrian injuries in the vicinity. The increase may justify investments in countermeasures at locations with known pedestrian hazards, such as the ones described above. These improvement are consistent with PMP policies for transportation safety.

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By failing to include this baseline information with which to assess the adequacy of pedestrian safety measures proposed for the Project, the DEIR fails to include an accurate environmental setting for the Project, as required by CEQA. A baseline pedestrian injury analysis would serve to direct and prioritize these mitigation measures, and must be conducted.

E. The DEIR Provides An Inaccurate, Unstable Project Description.

One of the key requirements of CEQA is that the project description must be clear. This is to ensure that project impacts are analyzed properly and accurately. An accurate, stable and finite project description is the sine qua non of an informative and legally sufficient EIR." 14 CCR § 15378; *San Joaquin Raptor v. County* ("San Joaquin Raptor II") (2007) 149 Cal. App. 4th 645, 655. The DEIR does not meet CEQA's requirements because it fails to include a complete and accurate project description. This omission renders the DEIR's entire environmental impact analysis erroneous and unreliable.

37

1. The DEIR's Description of the Project's Construction Period is Inconsistent.

As discussed in Section III.A above, the DEIR's description of the length of Project construction fluctuates between the body of DEIR, which acknowledges a 2-phase construction period totaling 9 years, 10 months (DEIR, p. 384) and the Air Quality appendices, where the HRA claims the Project's 2-phase construction period is just 7 years. See also Exh. A, p. 6. This inconsistency in the description of the Project's construction period results in an inconsistent and inaccurate analysis of air quality impacts.

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2. The DEIR Fails to Accurately Describe the Status of the Impacts Analysis Performed for the Project.

The DEIR inaccurately states that an HRA and Phase I Hazardous Materials analysis is still outstanding still have to be performed. See SCA HAZ-3, p. 55. However, the EIR includes both of these studies in its appendices. This is misleading and confusing for members of the public seeking to fully comprehend the Project's impacts, and to understand the extent of analysis and mitigation yet to be performed. Similarly, proposed Measure SCA AIR-2 (Exposure to Air Pollution for Toxic Air Contaminants: Particulate Matter), states that the Applicant must prepare an in accordance with ARB and OEHHA guidelines. However, as discussed above, there was an HRA attached to DEIR. It is clear that the Project as described in the MMRP does not match the Project as described elsewhere in the DEIR and appendices.

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The above inconsistencies and inaccuracies in the Project description must be corrected in a supplemental EIR, so that the public can know the full scope of the Project's impacts, and so that the City fulfills its duty to inform, analyze, and mitigate Project impacts. See e.g., *Laurel Heights*, 47 Cal.3d at 376 (accurate and complete project description is essential to evaluate the potential environmental effects of a proposed project).

F. The DEIR Fails to Include an Accurate and Enforceable Mitigation Plan.

CEQA requires the lead agency to adopt feasible mitigation measures that will substantially lessen or avoid a project's potentially significant environmental impacts (PRC §§ 21002, 21081(a)) and describe those mitigation measures in the EIR. PRC § 21100(b)(3); 14 CCR § 15126.4. Moreover, where an agency relies on mitigation measures to substantially lessen the significant environmental effect of a project, those mitigation measures must be fully enforceable through permit conditions, agreements or other legally binding instruments. 14 CCR §§ 15091(a)(1), (d); 15126.4(a)(2). In *Lotus*, an EIR prepared by the Department of Transportation for a forest road construction project relied on proposed mitigations described in the body of the EIR to conclude that the road project would have no significant impacts on old growth trees. However, the EIR failed to formally adopt the mitigations into a legally enforceable mitigation and monitoring plan ("MMRP"). 223 Cal. App. 4th at 651-52. The court held that the mitigations failed meet the requirements of Guidelines section 15091, resulting in a structural deficiency in the EIR. As the court explained, "[s]imply stating that there will be no significant impacts because the project incorporates 'special construction techniques' is not adequate or permissible. *Id.* at 657.

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The DEIR's proposed MMRP fails to meet this standard. As discussed below, in addition to containing a significant number of deferred mitigation measures that have not been carefully thought through by the City, the MMRP also includes a number of mistakes and omissions that fail to meet CEQA's standards for feasibility and enforceability for the Project's mitigation plan.

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1. The DEIR's proposed MMRP is Inaccurate Because it Calls for Future Analysis of Impacts That Have Already Been Analyzed (Inadequately).

As discussed above, the DEIR inaccurately states that an HRA and Phase I Hazardous Materials analysis is still outstanding still have to be performed. See SCA HAZ-3, p. 55. However, the EIR includes both of these studies in its appendices. Similarly, SCA AIR-2 (Exposure to Air Pollution for Toxic Air Contaminants: Particulate Matter), states that the Applicant must prepare an in accordance with ARB and OEHHA guidelines.

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CIR's experts reviewed both the HRA and Phase I ESA, and concluded that the HRA that was provided fails to meet these requirements. The MMRP must be revised to accurately reflect the status of environmental analysis of air and hazardous materials impacts, and to state whether the City intends to rely on the existing documents alone, or whether further analysis is required.

2. The DEIR Fails to Include Binding Mitigation Measures for Traffic, Parking, and Pedestrian Safety Impacts Which Admittedly Require Mitigation.

The DEIR improperly includes non-binding "suggested" mitigation measures to mitigate which it relies upon for its conclusions that the Project's impacts will be less than significant. The below measures fail to meet CEQA's requirement for binding and enforceable mitigation.

DEIR, pp. 16-20, Table II-1: "NON CEQA REQUIRED RECOMMENDED PROJECT SPECIFIC CONDITIONS." This section articulates proposed mitigations for parking and transportation demand / traffic during project operation. EIR admits that these mitigations are required to ensure that the impacts are LTS. See DEIR, p. 16 ("No significant operational impacts related to transportation and circulation would occur with implementation of the City Standard Conditions of Approval listed in this table.").

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See "Recommendations" TRA-1 through TRA-10 (e.g. TRA-3: "Widen the through pedestrian zone to a minimum of 8-feet on the sidewalk along Martin Luther King Jr. Way fronting OPC-2 and Main Garage to be consistent with the City of

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Oakland's Pedestrian Master Plan; "Recommendation TRA-4:" As part of Phase 2 of the CHRCO project, coordinate with City of Oakland to implement a bikeway on 52nd Street between Market Street and Shattuck Avenue. DEIR, p. 21; see also Recommendations TRA-1 and TRA-2.

Although the DEIR concludes that the Project will not have significant transportation or pedestrian safety impacts, it does so in reliance on these non-binding "Recommended" conditions. See DEIR, pp 21-24 (concluding that the "Level of Significance" of transportation impacts "With MM, SCA or Recommendation" is less than significant). This is impermissible under CEQA.

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In order to ensure that these mitigations will be effective and enforceable, all proposed mitigations that are merely "recommended" for inclusion in the Project conditions must be formally adopted into the Project's final Mitigation and Monitoring Plan and project permit conditions. 14 CCR § 15126.4(a)(2); *Lotus v. Dep't of Transp.* (2014) 223 Cal. App. 4th 645, 657.

G. The City Should Prepare and Recirculate a Supplemental EIR.

Recirculation of an EIR prior to certification is addressed in CEQA § 21092.1, and CEQA Guidelines §15088.5. "When significant new information is added to an environmental impact report after notice has been given pursuant to Section 21092 ... but prior to certification, the public agency shall give notice again pursuant to Section 21092, and consult again pursuant to Sections 21104 and 21153 before certifying the environmental impact report." PRC § 21092.1.

A supplemental EIR must be prepared and recirculated to address significant new information that has come to light during the DEIR's public process. In particular, the HRA's failure to evaluate the Project's cancer risk over the entire life of Project construction (9 years, 10 months) is a significant omission. CIR's air quality expert calculated the cancer risk over the full construction period to be 12.39 / million. This is well over the BAAQMD significance threshold, and represents a per se significant impact that the DEIR failed to address entirely. The 12.39 / million cancer risk represents a substantial increase in the severity of an environmental impact that would result from the project, and also demonstrates that draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded. 14 CCR §15088.5(2), (4).

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Similarly, the soil sampling and investigation mandated by the Water Board for the 4701 MLK Way site is necessary to establish an accurate baseline for the Project's hazardous materials impacts. This significant inaccuracy in the EIR's hazardous materials analysis renders the DEIR woefully inadequate.

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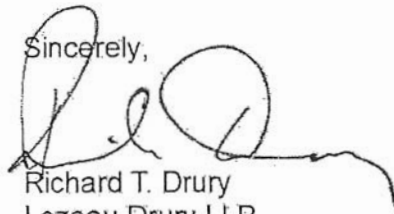
The City must prepare a supplemental EIR to address these and the other deficiencies discussed herein.

V. CONCLUSION

CIR fully supports the goal of creating new seismically safe acute care facilities at CHRCO. However, CIR wants to ensure that the hospital expansion is performed in a manner that minimizes environmental and public health impacts, especially on children. The DEIR has numerous omissions and deficiencies that render it an inadequate informational document. The DEIR contains inadequate analysis of the Project's significant health impacts on cancer risk, pedestrian safety, exposure to air pollutants, and exposure to hazardous materials. A Revised Draft EIR is required to disclose and mitigate these impacts.

CIR values the opportunity to provide these comments. CIR looks forward to working with the City, CHRCO, and all stakeholders to ensure a vibrant and sustainable future for the Hospital and its surrounding communities. Thank you for considering these comments. Please include this letter and all attachments hereto in the record of proceedings for this Project.

Sincerely,



Richard T. Drury
Lozeau Drury LLP
Attorneys for the
Committee of Interns and Residents

Attachments:

Exhibit A: Matt Hagemann, P.G., C.Hg., Comments on the Children's Hospital & Research Center Oakland Project, September 18, 2014.

Exhibit B: San Francisco Bay Regional Water Quality Control Board, Denial of Case Closure Request and Requirement for a Technical Report Children's Hospital of Oakland, Parking Lot at 4701 Martin Luther King Jr. Way, Oakland, Alameda County, August 28, 2013.

Exhibit C: BAAQMD 2010 CEQA Guidelines, Table 3-1.

Exhibit D: Transportation Injury Mapping Program Pedestrian Injury Map

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cont.

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Letter

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Attach.

EXHIBIT A



Technical Consultation, Data Analysis and
Litigation Support for the Environment

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Matt Hagemann
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Email: mhagemann@swape.com

September 18, 2014

Richard Drury
Lozeau | Drury LLP
410 12th Street, Suite 250
Oakland, CA 94607

Subject: Comments on the Children's Hospital & Research Center Oakland Project

Dear Mr. Drury:

We have reviewed the August 2014 Children's Hospital & Research Center Oakland (CHRCO) Campus Master Plan Project ("Project") Draft Environmental Impact Report (DEIR). The Project would demolish 66,582 square feet of existing CHRCO uses and construct 399,200 square feet of new buildings. In addition, a total of 284 net new parking spaces would be created.

We have found the DEIR to inadequately address issues regarding Hazards and Hazardous Waste and Air Quality. A revised DEIR should be prepared to address these issues and to identify mitigation.

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Hazards and Hazardous Waste

The DEIR mischaracterizes conditions at the Project site related to releases of gasoline and diesel fuel from former underground storage tanks at the CHRCO Annex Parking Lot. The DEIR should be revised to acknowledge that conditions related to these releases have not been characterized to the satisfaction of regulatory agencies, and to disclose the extent of soil and groundwater contamination and attendant health risks that workers may face during construction. The revised DEIR should also disclose that groundwater encountered during foundation preparation may be contaminated and water generated during dewatering activities will need to meet strict limitations prior to discharge to the sewer.

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Regulatory Status Improperly Disclosed

The DEIR states (p. 519):

Potential hazardous materials issues in the project site were evaluated in a Phase I Environmental Site Assessment for the CHRCO campus, conducted in August 2008 (included as Appendix G).

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The Phase I ESA is six years old. Generally, when considered for real estate transactions, Phase I ESAs are considered valid for only a period of 6 months¹ because environmental or regulatory oversight conditions may change, rendering observations obsolete. In a footnote, the DEIR explains:

“To CHRCO’s knowledge, no changes regarding the potential for hazardous materials issues at the project site have occurred since this analysis was conducted in 2008.

In fact, changes regarding the potential for hazardous materials issues have occurred since 2008 Phase I. Most notably, the Project site, specifically the area of the Project known as the CHRCO Annex Parking Lot, is under an administrative order issued by the Regional Water Quality Control Board in 2013.² This is a significant change, and the potential for hazardous materials issues is under active regulatory oversight and is currently unresolved.

The DEIR omits important information about the regulatory status of the site in stating (p. 520):

CHRCO has made a request that the case be classified as a “low threat” site and closed, but as of the time of preparation of this Draft EIR, the release case remains open.

What the DEIR fails to state is that the CHRCO request to have the site classified as low risk was flatly denied. In a letter dated August 28, 2013, the San Francisco Bay Regional Water Quality Control Board (RWQCB) stated the closure request was denied because the site is not adequately characterized.³ At issue is the groundwater flow direction, which the RWQCB stated was in a northwesterly direction, and which has not been monitored with appropriately placed groundwater wells. Because of inadequate Project site characterization the RWQCB ordered CHRCO “to submit a technical report to this office by November 15, 2013, consisting of a workplan for characterizing the groundwater pollution downgradient of the former USTs.”⁴

The DEIR is misleading when it stated that at the time of the DEIR preparation that the “case remains open” without mentioning the RWQCB rejection of the CHRCO closure request. The DEIR, which is dated August 2014, should have instead stated that RWQCB denied the CHRCO request for closure in August of 2013, approximately a year before the DEIR preparation. The DEIR should also have disclosed the preparation of any workplans that may have been prepared in response to the August 28, 2013 RWQCB order: no progress in meeting the November 15, 2013 RWQCB deadline for the workplan is apparent from the documents that have been posted to the Envirostor website.

Worse, the Notice of Availability for the DEIR (and included as the page after the DEIR cover page) wrongly states:

¹ <http://www.astm.org/Standards/E2247.htm>

² <file:///H:/DEIRs%20and%20AFCs/OAK%20Childrens%20Hospital/01-1724%20-%2013267%20ltr%2008-28-13.pdf>

³ Ibid, p. 1

⁴ Ibid., p. 2

The CHRCO-owned parking lot at 4701 Martin Luther King Jr. Way, is on the Cortese list due to a former leaking underground storage tank; proposed remedial activities at this site have been completed and case closure has been requested.

Remedial activities cannot be considered complete until site assessment has been completed. As discussed, the site was ordered to complete additional site assessment activities in August 2013.

The preparation of site assessment reports to address the RWQCB's order is critical to ensure the protection of workers during construction of the Project. During construction, contaminated groundwater may be encountered when excavation or foundation work is being conducted. Because groundwater flow is in a northwesterly direction, contamination that may originate from former underground storage tanks at the CHRCO Annex Parking Lot may have moved with groundwater under areas slated for Project construction. Contaminants noted at the former underground storage tanks include total petroleum hydrocarbons (TPH) in the gasoline and diesel ranges and associated volatile organic compounds (VOCs) in soil and groundwater (DEIR, p. 520).

The DEIR does provide for standard condition of approval SCA HAZ-3 which states:

Phase I and/or Phase II Reports. Prior to issuance of a demolition, grading, or building permit. Prior to issuance of demolition, grading, or building permits the project applicant shall submit to the Fire Prevention Bureau, Hazardous Materials Unit, a Phase I environmental site assessment report, and a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer. The applicant shall implement the approved recommendations.

In no way does the future submittal of Phase I and Phase II ESA reports suffice to address the lapse in regulatory compliance. The RWQCB issued an order for a workplan to investigate contaminated groundwater over one year ago. Preparation of Phase I and Phase II reports for submittal to agencies other than the RWQCB *after* DEIR certification and prior to Project earthwork does not allow for adequate disclosure of impacts associated with potentially contaminated groundwater, including worker safety and dewatering (as discussed below). A revised DEIR should be prepared to document how the order issued by the RWQCB has been addressed and to disclose the extent of soil and groundwater contamination at the Project site. If contamination is at concentrations that would pose a risk to workers involved in construction, the revised DEIR should identify mitigation to reduce risks, including use of protective equipment.

Groundwater Encountered During Construction will need to be Properly Disposed
An additional oversight in the DEIR is that of the potential for contaminated groundwater to be encountered during dewatering activities. Groundwater is found beneath the Project site at depths as shallow as 8.5 feet (DEIR, p. 515). Workers who are involved in foundation preparation activities may encounter contaminants if the water table is penetrated through inhalation of vapors and dermal contact.

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The DEIR does not anticipate contamination associated with the former USTs at the CHRCO Annex Parking Lot to be an issue and makes no provisions for testing the water produced by dewatering activities for petroleum contamination. With respect to impacts from dewatering activities, the DEIR only references Standard Condition of Approval (SCA) HYD-1 which requires only a Stormwater Pollution Prevention Plan (SWPPP) to govern construction activities. In no way does a SWPPP for construction activities suffice for the extraction and discharge of potentially contaminated groundwater that may be necessarily dewatered. A revised DEIR should be prepared to acknowledge the potential for contamination to be encountered during dewatering activities, to identify the expected range of contaminant concentrations and the need to contain and possibly treat the water to meet East Bay Municipal Utilities District permit limits.

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Unresolved Disposition of an Underground Storage Tank

The current status of an underground storage tank near Wing B of the current hospital was not disclosed in the DEIR. A revised DEIR should be prepared to identify the current status of the underground storage tank, corroborated with regulatory records to show that it was properly removed.

The 2008 Phase I ESA states:

Based on interviews with CHRCO engineers we understand that an underground storage tank (UST) was previously located and removed near the southwest corner of wing B. No further information regarding the contents of the UST or whether any contamination was present upon removal was available.

The Phase I ESA further states:

According to CHRCO personnel (Mr. Michael Carlson) an underground storage tank (UST) was located south of the engineering building at the corner of B and C sections of the AB&C building (Figure 3). The contents of the UST are unknown and to the best of his knowledge, the UST has been removed. No further information regarding the UST was available. SGI understands that future projects may include excavation and dewatering associated with the reconstruction of hospital building wings B and C. Depending on the depth and location of future excavations and, or trenching, the potential exists to encounter soil and groundwater that has been impacted with releases associated with the former UST. Mitigation measures should be developed for worker health and safety considerations and the proper management of impacted soil and groundwater.

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The DEIR affirms the uncertain status of the underground storage tank in stating:

There may be the potential for a former petroleum UST south of the B/C wing to be encountered during development. The Phase I indicated that the UST was believed to have been removed, but no closure records for the UST were found.

To address this uncertainty, the DEIR, provides for standard conditions of approval HAZ-1, HAZ-2, HAZ-3, HAZ-4, HAZ-5, HAZ-6, HAZ-7, HAZ-8, HAZ-9, to include "soil sampling and chemical analyses of samples ...

to determine the extent of potential contamination beneath all USTs.” Soil sampling only after EIR approval constitutes inadequate disclosure. Soil sampling, under agency oversight should be conducted now, and the results should be included in a revised DEIR. Only with such sampling prior to DEIR approval can the full scope of the contamination be considered: with widespread contamination, significant volumes of soil will need to be excavated and exported, leading to impacts which would include truck traffic and potentially harmful dust generation, impacts not considered in the DEIR.

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Air Quality

The DEIR does not provide an accurate representation of the severity of on- and off-site air quality hazards that will be generated by construction of the proposed Project. In addition to the DEIR, we reviewed Appendix E: Air Quality and Greenhouse Gas Data, which provided only the raw CalEEMod output files and cancer risk calculation results. The files are presented in no discernible order and without discussion; the DEIR gives no references to the page of the appendix from which risk assessment results are presented in Table IV.E-10 (DEIR, p. 393) and Table IV.E-11 (DEIR, p. 395). The DEIR should be revised to include a succinct summary of the files from which parameters of the risk assessment were extracted to aid the reviewer in understanding the methodologies employed.

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The DEIR assessed air quality hazards from toxic air contaminants using the dispersion model ISCST3 (DEIR, p. 390). ISCST3 is an outdated dispersion model that was replaced by AERMOD in 2006 as the federally promulgated model for simulating fate and transport of air pollutants from emissions sources.⁵ The use of ISCST3 is a testament to the questionable considerations that were incorporated into the air quality analyses conducted for the DEIR. The revised iteration of the DEIR should implement the AERMOD dispersion modeling software to characterize on-site and off-site concentrations of modeled air pollutants associated with Project construction and operation.

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Furthermore, the DEIR risk assessment for construction was prepared in a manner that inappropriately shortened the exposure duration and consequently reduced the excess cancer risk from construction of the Project below the applicable threshold. The Project is proposed to be built out in two phases. In numerous instances throughout the DEIR it is stated that Phase 1 of Project construction will last approximately 58 months, and construction of Phase 2 will take approximately 60 months (DEIR, p. 88, 97, 121, 349). Additionally, the DEIR acknowledges that the two phases cannot be undertaken simultaneously, and therefore will be completed sequentially (DEIR, p. 384). The resulting total duration of Project construction is 118 months, two months short of ten years.

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Instead of using the repeatedly stated duration of 58 months for Phase 1 and 60 months for Phase 2, "the duration for project construction was assumed to be 3 years for Phase 1 and 4 years for Phase 2" in the risk assessment (DEIR, p. 392). This erroneous assumption reduced the exposure duration of Phase 1 by 22 months and Phase 2 by 12 months without any justification or reference to supplementary information. We have prepared an adjusted excess cancer risk attributable to toxic air contaminants that will be released during Project construction and determined that the 10 in one million cancer risk

⁵ http://www.epa.gov/ttn/scram/dispersion_prefrec.htm#rec

threshold would be exceeded at an off-site sensitive receptor, constituting a significant and unavoidable air quality impact.

Our analysis kept all parameters of the risk assessment consistent with those presented in the DEIR (p. 392-393) except for the exposure duration. The DEIR presents the cancer risk from Phase 1 and Phase 2 separately in Table IV.E-10 (DEIR, p. 393) and Table IV.E-11 DEIR, (p. 395), respectively. Also, the DEIR acknowledges that the Cancer Risk Adjustment Factors (CRAF) promulgated by OEHHA for exposure assessment to children were included in the cancer risk calculations DEIR, p. 392-393). The CRAF multiplies the annual exposure in the first two years of life by 10 and the successive fourteen years by 3 to account for the heightened susceptibility of children to the carcinogenic toxicity of toxic air contaminants.

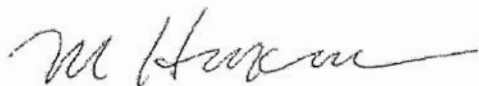
We assumed that for the Phase 1 calculations, a CRAF of 10 was applied to the first two years and a CRAF of 3 was applied to the third year. Together, these equate to multiplying the calculated single-year exposure to a child by a factor of 23. If instead we assume a 58 month Phase 1 duration - as consistently identified in the DEIR - the Phase 1 single-year exposure is multiplied by two years at a CRAF of 10 ($2 \times 10 = 20$) and 34 months at a CRAF of 3 ($34/12 \times 3 = 8.5$), together resulting in a scaling factor of 28.5. Taking the Phase 1 excess cancer risk presented in Table IV.E-10 and multiplying by a factor of $28.5/23$, the adjusted Phase 1 excess cancer risk is $7.92 \times 28.5/23 = 9.81$. The correct estimate of the excess cancer risk to an off-site residential receptor during the 58-month Phase 1 Project construction is 9.81 in one million.

Applying the same adjustment methodology for Phase 2, we calculated the excess cancer risk assuming a 60-month Phase 2 construction duration following Phase 1 build out. The DEIR states that Phase 2 construction health risks were calculated following the same methodology as Phase 1, implementing the CRAF of 10 for the first two years and the CRAF of 3 for the following two years. The total CRAF for the four year Phase 2 exposure was 26 ($2 \times 10 + 2 \times 3$). The DEIR acknowledges that "total cumulative risk is lower than the sum of Phase 1 and Phase 2 due to the application of the Cancer Risk Adjustment Factor which applies to the first 16 years of the risk analysis" (DEIR, p. 394-395). In our calculations, we assumed that Phase 2 would follow Phase 1, and therefore applied a CRAF of 3 to the five-year Phase 2 construction duration, resulting in a total CRAF of 15 (5×3). Multiplying the Phase 2 excess cancer risk presented in Table IV.E-11 (4.48) by a factor of $15/26$, we calculated the adjust Phase 2 excess cancer risk to be 2.58.

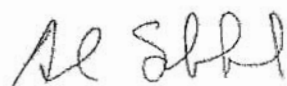
The total excess cancer risk for Phase 1 and Phase 2 construction is $9.81 + 2.58 = 12.39$ in one million. The excess cancer risk for Project construction exceeds the applicable threshold of 10 in one million, and constitutes a significant air quality impact. The DEIR did not present the combined excess cancer risk calculation, nor did it accurately characterize the exposure duration. Our calculations demonstrate that Project construction will result in a significant and unavoidable air quality impact by exceeding the 10 in one million excess cancer risk threshold at an off-site sensitive receptor. Additional mitigation measures should be addressed in a revised DEIR to ensure that the health of nearby communities is protected throughout completion of the Project. Health risk calculations should be appropriately revised to

accurately characterize on- and off-site air quality detriments resulting from Project construction and operation.

Sincerely,

A handwritten signature in cursive script, appearing to read "Matt Hagemann".

Matt Hagemann, P.G., C.Hg.

A handwritten signature in cursive script, appearing to read "Anders Sutherland".

Anders Sutherland

Letter

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Attach.

EXHIBIT B



San Francisco Bay Regional Water Quality Control Board

August 28, 2013
File No. 01-1724 (JMJ)

Children's Hospital of Oakland
Attn: Mr. James Jackson
747 52nd Street
Oakland, CA 94609

SUBJECT: Denial of Case Closure Request and Requirement for a Technical Report
Children's Hospital of Oakland, Parking Lot at 4701 Martin Luther King Jr. Way,
Oakland, Alameda County

Dear Mr. Jackson:

This letter denies your case closure request and requires you to submit a technical report consisting of a work plan to characterize the groundwater pollution downgradient of the former USTs.

The subject site consists of a gated and fenced parking lot for Children's Hospital. From the 1930s until conversion to a parking lot by Children's Hospital in the 1990s, a two-story commercial building was present on the site. In October 1990, three USTs (one gasoline and two heating oil USTs) were removed from beneath the sidewalk adjacent to the site. Following over-excavation to 19 feet (October 1990) below ground surface, soil confirmation samples contained up to 1,100 mg/kg of TPH-g, 2,700 mg/kg of TPH-d, and non-detectable (ND) concentrations of benzene. On June 27, 2000, four soil borings were advanced at the site. Grab groundwater samples from the borings contained up to 5,900 ppb of TPH-mo, 150,000 ppb of TPH-d, 24,000 ppb of TPH-g, and ND concentration of benzene. Three monitoring wells were installed on April 26, 2002. Groundwater samples from the monitoring wells in 2002 (the only time they were sampled) contained 298 ppb of TPH-d, 231 ppb of TPH-g, and ND concentration of benzene. Depth to groundwater was between 17 and 18 feet below. None of these three monitoring wells are located downgradient of the USTs and are, therefore, not useful in determining the downgradient extent and magnitude of the contaminant plume.

In the March 2013 "No Further Action Request" report, you requested closure for the site. **Regional Water Board staff denies your closure request because the site is not adequately characterized (see above).** Groundwater flow as determined by the three site monitoring wells in 2002 indicates that the groundwater flow is to the northwest. Temescal Creek is located about 100 feet north of 47th Street, downgradient of the former USTs. There are no wells at the site that tell us if the petroleum hydrocarbon contamination at the site poses a risk for Temescal Creek.

JOHN MULLEN, CHAIR | BRUCE H. WOLFE, EXECUTIVE OFFICER

1015 Clay St., Suite 1400, Oakland, CA 94612 | www.waterboards.ca.gov/sanfranciscobay

RECEIVED PARTY

Mr. James Jackson

August 2013

You are hereby required to submit a technical report to this office by November 15, 2013, consisting of a workplan for characterizing the groundwater pollution downgradient of the former USTs.

This requirement for a technical report is made pursuant to Water Code Section 13267, which allows the Regional Water Board to require technical or monitoring program reports from any person who has discharged, discharges, proposes to discharge, or is suspected of discharging waste that could affect water quality. The attachment provides additional information about Section 13267 requirements. Any extension in the above deadlines must be confirmed in writing by Regional Water Board staff.

You are required to submit all documents in electronic format to the State Water Resources Control Board's Geotracker database. Guidance for electronic information submittal is available at http://www.waterboards.ca.gov/water_issues/programs/ust/electronic_submittal/. Please note that this requirement includes all analytical data, monitoring well latitudes, longitudes, and elevations, water depths, site maps, boring logs (PDF format), and complete copies of reports and correspondence including the signed transmittal letters and professional certifications (PDF format).

All reports submitted should have the Regional Water Board file number 01-1724 on the first page of the report. Copies of all reports and correspondence should be sent to Ms. Barbara Jakub of the Alameda County Environmental Health Services. You are responsible for obtaining any necessary approvals or permits from all agencies having jurisdiction over any aspect of the proposed work. These agencies may include the local Building Department, Planning Department, Public Works, and the Alameda County Environmental Health Services Department (contact number 510-567-6700).

Please direct all questions and correspondence regarding this matter to John Jang of my staff at (510) 622-2366 (email address jjang@waterboards.ca.gov).

Sincerely,

Chuck Headlee
for

Bruce H. Wolfe
Executive Officer

Digitally signed by Chuck
Headlee
Date: 2013.08.28 12:46:41
-07'00'

Attachment: Fact Sheet – Requirements For Submitting Technical Reports Under Section 13267 of the California Water Code (Revised January 2008)

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cont.

Mr. James Jackson

August 2013

cc w/ attachment:

Shari Knieriem, Claims Review Unit, Underground Storage Tank Cleanup Fund
PO Box 944212
Sacramento, CA 94244-2120
(email sknieriem@waterboards.ca.gov)

Barbara Jakub
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(email Barbara.jakub@acgov.org)94937

Peter Krasnoff
WEST Environmental Services & Technology
711 Grand Avenue, Suite 220
San Rafael, CA 94901
(email main@westenvironmental.com)

Henry Trudel
Children's Hospital & Research Center at Oakland
747 52nd Street
Oakland, CA 94609



San Francisco Bay Regional Water Quality Control Board

Fact Sheet – Requirements for Submitting Technical Reports Under Section 13267 of the California Water Code

What does it mean when the Regional Water Board requires a technical report?

Section 13267¹ of the California Water Code provides that "...the regional board may require that any person who has discharged, discharges, or who is suspected of having discharged or discharging, or who proposes to discharge waste...that could affect the quality of waters...shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires."

This requirement for a technical report seems to mean that I am guilty of something, or at least responsible for cleaning something up. What if that is not so?

The requirement for a technical report is a tool the Regional Water Board uses to investigate water quality issues or problems. The information provided can be used by the Regional Water Board to clarify whether a given party has responsibility.

Are there limits to what the Regional Water Board can ask for?

Yes. The information required must relate to an actual or suspected or proposed discharge of waste (including discharges of waste where the initial discharge occurred many years ago), and the burden of compliance must bear a reasonable relationship to the need for the report and the benefits obtained. The Regional Water Board is required to explain the reasons for its request.

What if I can provide the information, but not by the date specified?

A time extension may be given for good cause. Your request should be promptly submitted in writing, giving reasons.

Are there penalties if I don't comply?

Depending on the situation, the Regional Water Board can impose a fine of up to \$5,000 per day, and a court can impose fines of up to \$25,000 per day as well as criminal penalties. A person who submits false information or fails to comply with a requirement to submit a technical report may be found guilty of a misdemeanor. For some reports, submission of false information may be a felony.

Do I have to use a consultant or attorney to comply?

There is no legal requirement for this, but as a practical matter, in most cases the specialized nature of the information required makes use of a consultant and/or attorney advisable.

What if I disagree with the 13267 requirements and the Regional Water Board staff will not change the requirement and/or date to comply?

You may ask that the Regional Water Board reconsider the requirement, and/or submit a petition to the State Water Resources Control Board. See California Water Code sections 13320 and 13321 for details. A request for reconsideration to the Regional Water Board does not affect the 30-day deadline within which to file a petition to the State Water Resources Control Board.

If I have more questions, whom do I ask?

Requirements for technical reports include the name, telephone number, and email address of the Regional Water Board staff contact.

Revised May 2012

¹ All code sections referenced herein can be found by going to www.leginfo.ca.gov.

Letter

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EXHIBIT C



California Environmental Quality Act Air Quality Guidelines

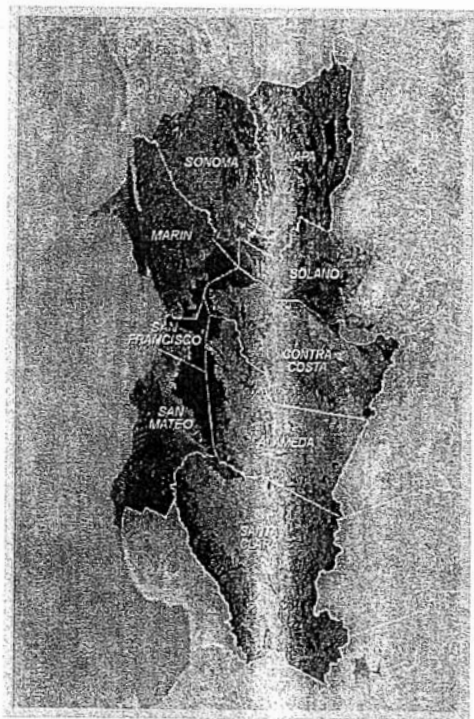




Table 3-1 Operational-Related Criteria Air Pollutant and Precursor Screening Level Sizes			
Land Use Type	Operational Criteria Pollutant Screening Size	Operational GHG Screening Size	Construction- Related Screening Size
General office building	346 ksf (NOX)	53 ksf	277 ksf (ROG)
Office park	323 ksf (NOX)	50 ksf	277 ksf (ROG)
Government office building	61 ksf (NOX)	12 ksf	277 ksf (ROG)
Government (civic center)	149 ksf (NOX)	27 ksf	277 ksf (ROG)
Pharmacy/drugstore w/ drive through	49 ksf (NOX)	10 ksf	277 ksf (ROG)
Pharmacy/drugstore w/o drive through	48 ksf (NOX)	10 ksf	277 ksf (ROG)
Medical office building	117 ksf (NOX)	22 ksf	277 ksf (ROG)
Hospital	226 ksf (NOX)	39 ksf	277 ksf (ROG)
Hospital	334 beds (NOX)	84 ksf	337 beds (ROG)
Warehouse	864 ksf (NOX)	64 ksf	259 ksf (NOX)
General light industry	541 ksf (NOX)	121 ksf	259 ksf (NOX)
General light industry	72 acres (NOX)	-	11 acres (NOX)
General light industry	1249 employees (NOX)	-	540 employees (NOX)
General heavy industry	1899 ksf (ROG)	-	259 ksf (NOX)
General heavy industry	281 acres (ROG)	-	11 acres (NOX)
Industrial park	553 ksf (NOX)	65 ksf	259 ksf (NOX)
Industrial park	61 acres (NOX)	-	11 acres (NOX)
Industrial park	1154 employees (NOX)	-	577 employees (NOX)
Manufacturing	992 ksf (NOX)	89 ksf	259 ksf (NOX)

Notes: du = dwelling units; ksf = thousand square feet; NO_x = oxides of nitrogen; ROG = reactive organic gases.
Screening levels include indirect and area source emissions. Emissions from engines (e.g., back-up generators) and industrial sources subject to Air District Rules and Regulations embedded in the land uses are not included in the screening estimates and must be added to the above land uses.
Refer to Appendix D for support documentation.
Source: Modeled by EDAW 2009.

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cont.**

3.2. COMMUNITY RISK AND HAZARD IMPACTS

Please refer to Chapter 5 for discussion of screening criteria for local community risk and hazard impacts.

3.3. CARBON MONOXIDE IMPACTS

This preliminary screening methodology provides the Lead Agency with a conservative indication of whether the implementation of the proposed project would result in CO emissions that exceed the *Thresholds of Significance* shown in Table 2-3.

The proposed project would result in a less-than-significant impact to localized CO concentrations if the following screening criteria is met:

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EXHIBIT D



Letter

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Attach.

EXHIBIT E



Technical Consultation, Data Analysis and
Litigation Support for the Environment

2503 Eastbluff Dr., Suite 206
Newport Beach, California 92660
Tel: (949) 887-9013
Fax: (949) 717-0069
Email: mhagemann@swape.com

Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.

B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certification:

California Professional Geologist

California Certified Hydrogeologist

Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – present;
- Senior Environmental Analyst, Komex H2O Science, Inc (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of numerous environmental impact reports under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, greenhouse gas emissions and geologic hazards.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.
- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt currently teaches Physical Geology (lecture and lab) to students at Golden West College in Huntington Beach, California.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Colorado.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and Hagemann, M., 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal representatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and Hagemann, M.F. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukunaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

Letter

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EXHIBIT F

ANDERS SUTHERLAND

CELL: (858) 229-1651
ANDERS.SUTHERLAND@GMAIL.COM

1559 BROCKTON AVE #1
LOS ANGELES, CA 90025

EDUCATION

UNIVERSITY OF CALIFORNIA, LOS ANGELES B.S. ATMOSPHERIC, OCEANIC, & ENVIRONMENTAL SCIENCES JUNE 2010

PROJECT EXPERIENCE

SOIL WATER AIR PROTECTION ENTERPRISE

SANTA MONICA, CA

AIR QUALITY SPECIALIST, PROJECT DEVELOPMENT STAFF

MARCH 2009 - JUNE 2013

PROJECT MANAGER: VOC EMISSIONS AT UNCONVENTIONAL NATURAL GAS FACILITIES

SEPT 2011 - JUNE 2013

- Coordinated air dispersion modeling of VOC emissions from thirty-five natural gas processing facilities using AERMOD.
- Evaluated locally cumulative modeled concentrations with respect to regulatory thresholds and peer-reviewed literature.
- Reviewed and organized emissions inventory data and emission factor development studies to define model source terms.
- Composed text of affidavits and organized supporting materials for use as Expert testimony in environmental litigation.
- Participated in meetings with clients to discuss project strategy and identify solutions to achieve short and long term goals.

SENIOR ANALYST: VOCs AND SO₂ IN AMBIENT AIR SURROUNDING A PETROLEUM REFINERY NOV 2010 - JUNE 2013

- Analyzed air monitoring data from numerous stations during facility emission events to examine effectiveness of network.
- Produced tables, charts, and graphs to exhibit the relative contribution of petroleum refinery emissions to local air quality.
- Combined analyses of air monitoring data, emissions modeling, and peer-reviewed literature in Expert Witness reports.
- Addressed time-dependent requests of client to conduct statistical analyses of air monitoring and emissions inventory data.
- Examined regulatory studies on the chemistry of ozone formation to characterize air quality impacts from industrial flares.

SENIOR ANALYST: BAAQMD LAND USE REDEVELOPMENTS SCREENING & MODELING

JAN 2011 - DEC 2011

- Calculated roadway, permitted source, and cumulative impacts for risk and hazard analyses at proposed land use projects.
- Prepared presentations containing figures and tables comparing results of particulate matter analyses to CEQA thresholds.
- Composed summary texts of Risk and Hazard Screening Analyses conducted for several land use redevelopment projects.
- Utilized BAAQMD methodologies for surface streets screening analyses to interpolate impacts between receptor distances.

SENIOR ANALYST: ODOROUS COMPOUNDS EMANATING FROM A SMOLDERING LANDFILL

APRIL 2013 - JUNE 2013

- Conducted ambient air and landfill gas sampling using sorbent tubes and SUMMA canisters for an array of analytes.
- Prepared portions of Quality Assurance Project Plan and Sampling and Analysis Plan submitted to the Missouri DNR.
- Calculated dioxin TCDD Toxic Equivalency Values from air monitoring data results obtained during field work activities.
- Reviewed previously conducted air sampling events to determine potential contaminants of concern and odor thresholds.

PUBLICATIONS

Contributing author: Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., Rosenfeld, P.E. Dioxin furan blood lipid and attic dust concentrations in populations living near four wood treatment facilities in the United States. *Journal of Environmental Health*. 2011 Jan-Feb; 73(6): 34-46.

Contributing author: Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., Rosenfeld, P.E. PCBs and dioxins/furans in attic dust collected near former PCB production and secondary copper facilities in Sauget, IL. *Procedia Environmental Sciences* 4 (2011): 113-125.

Contributing author: Chen, J.A., Zapata, A.R., Sutherland, A.J., Molmen, D.R., Chow, B.S., Wu, L.E., Rosenfeld, P.E., Hesse, R.C. Sulfur dioxide and volatile organic compound exposure to a community in Texas City, Texas evaluated using AERMOD and empirical monitoring data. *American Journal of Environmental Science* 8(6) 2012: 622-632.

COMMENTER B2

Lozeau Drury, Richard T. Drury
Representing the Committee of Interns and Residents
September 22, 2014

Response B2-1: This introductory comment, which states that the commenter supports the proposed project, but has concerns related to the adequacy of the Draft EIR, is noted. Responses to subsequent comments related to the adequacy of the Draft EIR are provided below.

Response B2-2: This introductory comment reiterates the concern that the Draft EIR contains errors and omissions that preclude an accurate analysis of the project. These concerns relate to public health, including air quality, cancer risk, and exposure to hazardous materials in particular. Responses to subsequent comments provided by the commenter and their technical experts that are related to the adequacy of the Draft EIR are provided below.

Response B2-3: This introductory comment states that the Draft EIR underestimates the cancer risk posed by construction of the project because the time of construction was limited to 7 years rather than for the entire duration of both Phase 1 and Phase 2. Responses to subsequent comments provided by the commenter and their technical experts that are related to the health risk assessment for the proposed project are provided below in Responses B2-14, B2-15, and B2-16.

Response B2-4: The commenter states that releases from a former leaking underground storage tank (LUST) at 4701 Martin Luther King Jr. Way have resulted in significant soil contamination at the project site, that the Draft EIR states that the site has been adequately cleaned up, and that the most recent regulatory action at that site was to request additional information of contamination that may affect Temescal Creek. The commenter states that this contamination represents a significant impact to the project.

The commenter is incorrect that the project would result in impacts related to contamination from the 4701 Martin Luther King Jr. Way LUST site. As shown in Figure III-6 on page 76 of the Draft EIR, the LUST site, labeled as the CHRCO Annex Employee Parking Lot, is located across Martin Luther Jr. King Way, to the west of all proposed project construction areas, and no changes in current land use are proposed for the LUST site.

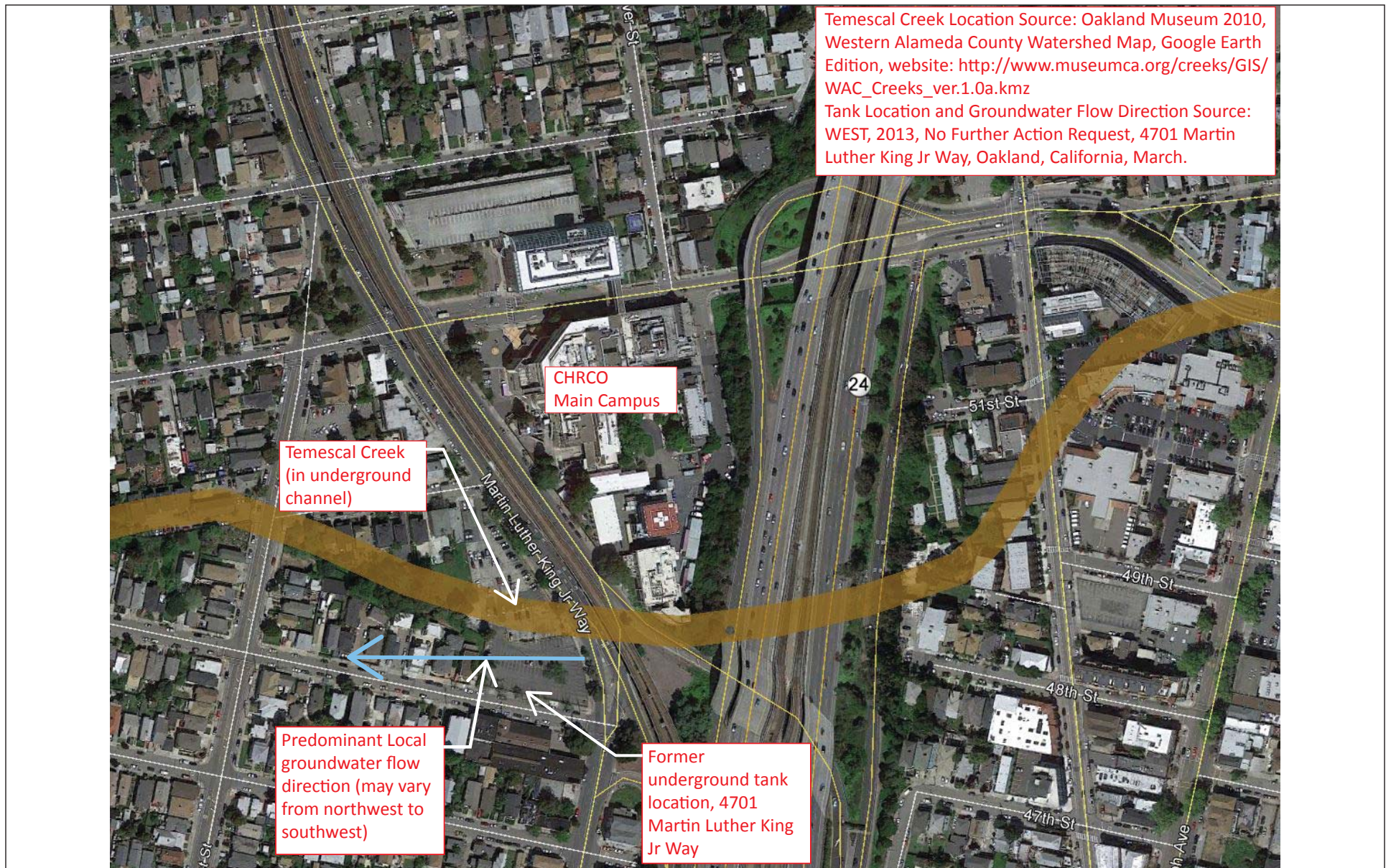
The attached Figure RTC-V-3: Location of the Former LUST Sites, shows the location of the former UST, the predominant groundwater flow direction described in the March 2013 request for closure for the site,¹ and

¹ WEST, 2013. No Further Action Request, 4701 Martin Luther King Jr Way, Oakland, California, March.

the alignment of the Temescal Creek underground culvert, the nearest hydrologic feature to the LUST site. Any contaminated soils or groundwater at the LUST site are located beneath the parking lot pavement and would not be directly affected by any construction for the project. No buildings are currently present or proposed at the LUST site. Based on the groundwater flow direction, any migration of contaminants from the LUST site via groundwater would be away from the project construction areas.

The commenter is correct that in August 2013, the San Francisco Bay Regional Water Quality Control Board (Water Board) denied CHRCO's March 2013 request for closure and requested additional groundwater investigation downgradient of the former tanks at 4701 Martin Luther King Jr. Way. The Water Board noted that in one groundwater monitoring event in 2002, groundwater flow at the project site was reported to be to the northwest, and requested additional investigation to determine whether Temescal Creek, which flows to the west toward San Francisco Bay, had been affected by the LUST releases. As Temescal Creek is only 100 feet north of the former USTs (Figure RTC-V-3), if groundwater were to flow toward the northwest, Temescal Creek could potentially serve as a conduit to convey contaminants from the LUST site further to the west.

Because of regional topography, groundwater flow in the project vicinity is to the west, towards San Francisco Bay, though the flow direction may have a northerly or southerly component due to local topography or significant hydrologic features such as Temescal Creek, the presence of which could slightly redirect flows as the water table levels rise and fall in the vicinity of the creek. Because of the westerly direction of flow of groundwater and Temescal Creek, any groundwater quality impacts identified at 4701 Martin Luther King Jr. would only have the potential to migrate to properties to the west of the project site. Development under the proposed project is east of the LUST site and thus would not result in any impacts related to exposure of contaminants or any other hazardous materials or water quality impacts. No impacts from the project would occur, and no additional mitigation is necessary. Implementation of SCA HAZ-2, 3, and 8 would further serve to ensure no impact related to groundwater contamination would occur as a result of the project.



LSA



FIGURE RTC-V-3

SOURCE: BASELINE, DECEMBER 2014.

CHRCO Campus Master Plan Project EIR
Location of Former LUST Sites

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In response to the comment, the following text change is made to page 520 of the Draft EIR to update the regulatory status of the 4701 Martin Luther King Jr. Way site:

The 4701 Martin Luther King Jr. Way CHRCO-owned parcel, which is across Martin Luther King Jr. Way from the main campus, is used for off-site vehicle parking and is listed due to a leaking underground storage tank. Three USTs, one containing gasoline and two containing heating oil, were removed from the site in 1989. Between 2000 and 2002, investigations identified total petroleum hydrocarbons (TPH) in the gasoline and diesel ranges and associated volatile organic compounds (VOCs) in soil and groundwater. ~~CHRCO has made a request that the case be classified as a “low threat” site and closed, but as of the time of preparation of this Draft EIR, the release case remains open.~~ In August 2013, the San Francisco Bay Regional Water Quality Control Board (Water Board) requested additional investigation be performed at this site to further characterize the groundwater downgradient of the former USTs.

In response to the comment, the following text change is made to page 533 of the Draft EIR to clarify the use of the 4701 Martin Luther King Jr. Way property and to more clearly state that construction and other development on the project site would not result in any impacts due to groundwater contamination on the CHRCO Annex Employee Parking Lot:

As determined by the Phase I ESA and a regulatory database report reviewed for this analysis, the project site is not located on the Cortese list of hazardous materials release sites; therefore, no impacts would occur related to listing on a hazardous materials site. The CHRCO-owned parking lot at 4701 Martin Luther King Jr. Way, is on the Cortese list due to a former leaking underground storage tank; ~~proposed remedial activities at this site have been completed and case closure has been requested.~~ This site is used as a parking lot and would continue to be used in this manner. No construction or changes in land uses is proposed for this portion of the project site and any migration of groundwater contamination from this site would migrate to the west, away from project construction areas, along with natural groundwater flow. This site would not create an impact for the proposed project.

Response B2-5: The comment states the Draft EIR did not analyze the impacts of the proposed project on pedestrian safety and did not establish baseline conditions regarding pedestrian injuries in the project vicinity.

The Draft EIR evaluates the impacts of both Phases 1 and 2 of the CHRCO project on pedestrian safety based on application of City of Oakland Thresholds of Significance #10 and #11 (see page 316), which state that the

proposed project would result in a significant impact if “directly or indirectly cause or expose roadway users to a permanent and substantial transportation hazard due to a new or existing physical design feature or incompatible uses” or “directly or indirectly result in a permanent substantial decrease in pedestrian safety.” As described starting on page 336 of the Draft EIR, neither Phase 1 nor 2 of the project would cause a significant impact on pedestrian safety based on application of Thresholds of Significance #10 and #11; therefore, no mitigation measures are required. However, the Draft EIR includes the following recommendations that would improve pedestrian safety in the vicinity of CHRCO to further reduce the already less-than-significant impacts:

- Recommendation TRA-2 would provide marked crosswalks and directional curb-ramps on all four approaches of the Dover Street-Hospital Driveway/52nd Street intersection as part of Phase 2.
- Recommendation TRA-3 would widen the sidewalk along Martin Luther King Jr. Way adjacent to OPC-2 and the Main Garage.
- Recommendation TRA-4 would provide bulbouts at the Garage Driveway/52nd Street intersection, and improve the median refuge and provide pedestrian push-bottoms on the median at the Martin Luther King Jr. Way/52nd Street intersection, and install directional curb ramps and widen sidewalks along project frontage on 52nd Street.

As required by City of Oakland, the Draft EIR presents an evaluation of collision data starting on page 360 that provides the baseline conditions for injury to pedestrians in the vicinity of the project site. As referenced on page 360 of the Draft EIR, Appendix N within Appendix C summarizes reported collision data, including collisions involving pedestrians, within three blocks of the CHRCO, for the last available five years (2008-2012). The recommended measures bulleted above are partly in response to the collision data analysis.

Response B2-6: Please see Response to Comment B2-5 regarding impacts to pedestrian safety.

Response B2-7: In this introductory comment, the commenter states that the air quality and hazardous materials measures included in the Draft EIR are an improper deferment of mitigation. The City’s SCAs relevant to air quality are listed beginning on page 379 of the Draft EIR. As described on page 115 of the Draft EIR, SCAs are uniformly applied, regardless of a project’s environmental determination. The City will be preparing and adopting, as part of the project approvals, a Standard Condition of Approval/Mitigation Monitoring and Reporting Program (SCA/MMRP) that will identify all impacts, the SCAs and/or mitigation measures to address the impact, the responsible entity, and the timeframe for addressing the impact. The SCA/MMRP allows the City to ensure that the appropriate SCAs and mitigation measures are implemented and enforced. Please also see Responses A2-4 regarding deferment of mitigation and B2-26 through B2-32.

- Response B2-8: The commenter has not identified any new or substantially more severe significant impacts that would require recirculation of the Draft EIR. See Chapter I, Introduction, on pages 2 through 3 in this document, which describe the conditions under which an EIR must be recirculated.
- Response B2-9: This comment provides a summary of the proposed project as outlined in Chapter III, Project Description of the Draft EIR. As stated on page 88 of the Draft EIR, “approximately 500 square feet of rear yard additions on residential buildings at 715 53rd Street and 707 53rd Street would be demolished...” as part of Phase 1 of the project. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response B2-10: This comment, which states that the commenter represents a group that could be affected by adverse impacts of the project and summarizes the legal standards related to CEQA, is noted. As discussed throughout Chapter IV of the Draft EIR, all potentially significant impacts of the proposed project would be less than significant with implementation of the City’s SCAs. Also refer to Chapter II, Summary of the Draft EIR for a summary of the project impacts (pages 10 through 64).
- Response B2-11: This comment, which summarizes the requirements for recirculation of an EIR, is noted. Please refer to Response B2-8 regarding the request to recirculate the Draft EIR.
- Response B2-12: As discussed on pages 389 to 400 of the Draft EIR, toxic air contaminants were discussed and a thorough health risk assessment was conducted analyzing project construction and operational impacts using age sensitivity factors to account for impacts to children and sensitive groups. Sensitive receptors are introduced on page 389 and the specific model input factors that were used in the analysis that account for the age sensitivity of children are discussed on page 392 of the Draft EIR.
- Response B2-13: The BAAQMD released *Recommended Methods for Screening and Modeling Local Risks and Hazards*² document in 2012 to assist lead agencies in conducting a risk and hazards analysis as part of CEQA documents for land use projects. Section 4.3.1 Recommended Models, states “The Recommended models for use in refined modeling analysis include refined models ISCST3 and AERMOD”. According to the BAAQMD both ISC and AERMOD follow similar modeling methodologies for conducting air dispersion analysis. The primary differences are the preprocessors used to develop the meteorological data and the terrain elevations. The BAAQMD processes meteorological data from numerous stations throughout the Bay Area in ISC-compatible format;

² Bay Area Air Quality Management District, 2012. *Recommended Methods for Screening and Modeling Local Risks and Hazards*. May.

however, AERMOD-compatible files are not readily available from the BAAQMD.

A critical factor when determining which model to use when performing any dispersion model analysis is the availability of data required for input to the model, or specifically for AERMOD, the availability of meteorological data. At the time modeling was performed for the Draft EIR, the BAAQMD had only ISC-compatible data for the project area, and the necessary AERMOD-compatible data was not available for use. It is possible to process and generate AERMOD meteorological data independently from the BAAQMD; however, AERMOD is sensitive to model input selections and using AERMOD would have resulted in uncertainties such as underestimation or overestimation of emission concentrations depending on the choices regarding model input options (e.g., wind speeds, land cover data) the modeler had to make when developing and processing the raw meteorological data. Therefore, use of BAAQMD-provided data, not data independently generated, preserves the accuracy of the model output.

The federal EPA has determined that of the two refined models, the primary model to be used in conducting criteria modeling for the purpose of evaluating impacts related to the prevention of significant deterioration (PSD) is AERMOD. However, in addition to the BAAQMD, all other Air Districts that develop the risk assessment guidance, which are used by lead agencies as the basis of all CEQA documented HRAs, permit the use of the ISCST3 model. Additionally, other government agencies in California are still utilizing the ISCST3 model for conducting health risk assessments under the Air Toxic “Hot Spots” AB2588 and permitting programs. The model selection requirements for EPA’s PSD evaluation program does not invalidate the use of ISCST3 by other agencies for other purposes.

Furthermore, EPA performed a comparison analysis³ to determine the consequence of moving from ISCST3 to AERMOD. EPA concluded that ISCST3 generally results in the same or higher concentrations depending on the scenario being evaluated, meaning the model used for the CHRCO analysis likely resulted in estimating higher estimated emission concentrations (and resulting health risk) than if the analysis utilized AERMOD. Thus, the ISCST3 model is conservative and it was not necessary to run the AERMOD model.

Additionally, ENVIRON, an environmental consulting firm, conducted an independent review of the air quality-related comments made by the Committee of Interns and Residents (CIR) regarding the air quality impact analysis in the Draft EIR. ENVIRON’s conclusions are summarized in a letter report to the City of Oakland dated January 5, 2015, and is included in

³ Comparison of Regulatory Design Concentrations, EPA 2003, EPA-454/R-03-002

Appendix C of this document. Based on ENVIRON's independent review of the comments raised regarding the project's potential air quality impacts, ENVIRON concludes that the comments are based on misunderstandings of the construction HRA, the BAAQMD recommended model, and the City of Oakland SCAs. ENVIRON also concludes that the Draft EIR's overall evaluation of the project's potential air quality impacts was done in substantial conformity with generally acceptable air quality and toxic air contaminants protocols and industry standards, and conclusions reached by LSA regarding the project's less-than-significant air quality impacts are consistent with these protocols and standards.

ENVIRON also concludes that ISCST3 is an appropriate air dispersion model for the project and notes that the BAAQMD continues to use ISCST3 regularly to conduct health risk screening analysis (HRSA) for permitting purposes. In fact, the BAAQMD's regular practice is to not use AERMOD unless the involved facility is a major facility subject to Federal permit regulations (i.e., a Title V facility), which CHRCO is not.

Response B2-14:

The proposed project includes demolition, construction of new buildings and interior renovations of existing buildings for a total duration of 9 years 10 months. The demolition and construction is estimated to be 3 years for Phase 1 and 4 years for Phase 2. The remaining 22 months in Phase 1 and 12 months in Phase 2 accounts for the interior renovation work. The interior work would require the use of trucks for off-hauling of debris. The emissions associated with interior work truck off-hauling were included in the last year of construction emission estimates in the analysis (see Appendix E of the Draft EIR) and added to the construction emissions analysis; however, the remaining work (fixtures, flooring, and other interior finishes) would be performed inside the buildings without the use of off-road diesel equipment. Therefore, this calculation method resulted in the worst-case scenario health risk as it included the concentration of emissions over the 7-year outdoor construction period plus off-hauling during interior work.

ENVIRON's independent review also concludes that the construction duration used in the analysis was an appropriate approach to evaluate the project's air quality impacts.

Response B2-15:

This comment asserts that a significant air quality impact would result from the project based on an analysis by the commenter's consultant. In particular, the commenter states that when the exposure period is adjusted to include the entire 9-year 10-month period of project construction, the total excess cancer risk for Phase 1 and Phase 2 construction is 12.39 in one million, which would exceed the BAAQMD threshold of 10 in 1 million cancer risk.

The commenter assumes that the intensity and location of construction activities on the project site will remain constant throughout the entire 9-year

and 10-month period of construction on the project. This assumption is incorrect.

There are two qualitatively different kinds of construction that will occur for the project: (1) exterior construction, which includes truck trips for transportation of material and off-haul debris, exterior demolition, construction, and other exterior construction equipment and work; and (2) interior construction, which includes truck trips for transportation of material and off-haul debris, interior design renovations, interior structural renovations, and other interior construction equipment and work.

According to CHRCO, the total duration of exterior construction on the project is 3 years for Phase 1 and 4 years for Phase 2, for a total of 7 years. The total duration of interior construction on the project is 22 months for Phase 1 and 12 months for Phase 2, for a total of 34 months. The total sum of these construction periods is 9 years and 10 months.

Other than truck trips for the transportation of material and off-haul of debris, interior renovation work generally does not require significant pieces of diesel construction equipment, the major sources of toxic air contaminants considered in the HRA. Therefore, interior renovation work generally does not result in any significant sources of air emissions. Because air emissions associated with interior renovation work are de minimis, the air quality health risk assessment in the Draft EIR modeled air quality impacts based on the duration of exterior construction work on the project and the number of truck trips required for the both the exterior and interior construction work.

In contrast, the commenter's consultant appears to assume that exterior construction work would occur throughout the project construction period and at the same level of intensity. Because the consultant did not take into account the fact that exterior construction work would take place during only 7 years, the consultant's calculations of air quality impacts are an improper overestimation.⁴

LSA believes that the consultant derived 12.39 in one million by assuming construction intensity would remain constant, and by simply adding the assumed Phase 1 health risk of 9.81 and the assumed Phase 2 health risk of 2.58. However, these two risk levels are not additive. Each risk value represents a separate maximum exposed individual. In other words, these two risk levels apply to two different individuals. Because the location of construction on the project site does not remain static (i.e., the location of

⁴ For purposes of responding to this comment, LSA analyzed the potential air quality impacts associated with an extended construction duration of 9 years and 10 months to determine if the commenter's analysis could be replicated for this "worst-case scenario." The results of LSA's analysis indicate that health risk impacts would be 8.16 in one million, which is still below the BAAQMD significance threshold. LSA's calculations are provided as supplemental information in Appendix C.

construction activities shifts over time depending on the construction phase), the maximum exposed individual in Phase 1 is not the same as the maximum exposed individual in Phase 2. They are different in terms of each individual's location on the project site and other factors unique to that individual and location.

To account for this characteristic of the project, LSA determined the risk to the maximum exposed individual under the cumulative scenario by identifying the maximum combination of risk from Phase 1 and Phase 2 construction at the same receptor location. LSA applied "time-away-from-home factors," which is allowed by BAAQMD and the Office of Environmental Health Hazards⁵ in these circumstances, to account for the number of hours that a resident spends inside his or her house. These factors bear on the exposure duration for a resident living near a construction area by accounting for the amount of time the resident is away from his or her home. Based on these assumptions, the risk to the maximum exposed individual under the cumulative scenario for the project is 7.53 in one million. This number was arrived at by adding the risk contribution of 5.86 in one million for the maximum exposed individual in Phase 1, to the Phase 2 contribution risk of 1.67 in one million at the same location as in Phase 1 as allowed by BAAQMD. Appendix E of the Draft EIR sets forth the contribution of health risks for each year of the analysis for all receptor locations, including the maximum exposed individual.

When computing the total excess cancer risk, the commenter also over-estimated the potential risk by applying an incorrect cancer risk adjustment factor (CRAF) for the entire 9-year and 10-month period of project construction. The cancer risk analysis in the Draft EIR included an adjusted CRAF to account for an age sensitivity of 10 for the first two years of both phases of construction, a total of four years (see page 392 of the Draft EIR). For the cumulative analysis, the CRAF was reduced to 3 for the third year through 16th year as per OEHA risk assessment guidance (for a total of 6 years of project construction). The commenter did not use an adjusted CRAF which resulted in an overestimation of the project construction health risk.

In summary, the commenter's consultant made a number of erroneous assumptions that grossly overestimated the air quality impacts related to the project. As discussed above, the air quality analysis in the Draft EIR is adequate and correct, and the commenter does not raise any new or substantially more severe significant impacts.

In responding to this comment, LSA discovered a tabulation error in the reporting of the cumulative (Phase 1 and Phase 2) project cancer risk. Table IV.E-11 reported a risk of 4.48 for the maximum exposed individual;

⁵ Office of Environmental Health Hazard Assessment, 2012. *Air Toxics Hot Spots Program Risk Assessment Guidelines: Revised Technical Support Document For Exposure Assessment and Stochastic Analysis*, Chapter 11. June.

however, that risk would only be for Phase 2 of project construction. The cumulative Phase 1 and Phase 2 risk is 7.53 in 1 million, as explained below. Page 395 of the Draft EIR is revised as follows:

Table IV.E-11: Inhalation Health Risks from Total Project Construction

	Carcinogenic Inhalation Health Risk in One Million with CRAF	Chronic Inhalation Hazard Index	Acute Inhalation Hazard Index	Annual PM _{2.5} Concentration (µg/m ³)
Maximum Exposed On-Site Individual	2.98	0.585	0.0	0.17
Maximum Exposed Off-Site Individual	4.48 <u>7.53</u>	0.014	0.0	0.209
Threshold	>10.0 in one million	>1.0	>1.0	>0.30

Note: This analysis conservatively assumes that patients would be in the hospital for 30 days each year of the construction period; however, the average hospital stay is approximately 5 days.

CRAF = Cancer Risk Adjustment Factors

Source: LSA Associates, Inc., 2014.

Results of the analysis indicate that the highest cancer risk during construction would be a risk level of ~~4.48~~ 7.53 in 1 million for residents in the project vicinity. This analysis conservatively assumed the resident to be an infant during the start of project construction project and therefore assumed the CRAF to be 10 until the resident reached age 2, when the CRAF is 3. This risk level is below the threshold of 10 in one million.

Response B2-16:

As noted above in Response to Comment B2-15, LSA has included the results of a risk evaluation of the extended 9-year 10-month period for informational purposes to provide additional substantial evidence to support the conclusion that the cancer risk posed by the project construction is less than significant.

Additionally, ENVIRON's independent review of the analysis determines that the methodology used by the commenter's consultant of adding the adjusted risk values at the two maximum exposed individuals results in an inaccurate overestimation of impacts.

Response B2-17:

As discussed in Responses to Comments B2-15 and B2-16, the proposed project would not result in an increased health risk to children or other sensitive receptors, therefore, recirculation of the Draft EIR and imposition of mitigation measures would not be required.

Response B2-18:

This comment confuses the BAAQMD's *Thresholds of Significance* with the BAAQMD's *Screening Criteria*. The BAAQMD Thresholds of Significance are included in Table 2-1 of the BAAQMD Air Quality CEQA Guidelines. Thresholds of significance are provided for criteria air pollutants and precursors in terms of average daily emissions in pounds per day, and maximum annual emissions in terms of tons per year. The Screening Criteria is

shown in Table 3-1 of BAAQMD's Air Quality CEQA Guidelines. The Screening Criteria identifies land use types and the associated square footage which would require further emission analysis. According to the BAAQMD "The screening criteria identified in this section are not thresholds of significance. The BAAQMD developed screening criteria to provide lead agencies and project applicants with a conservative indication of whether the proposed project could result in potentially significant air quality impacts. These screening levels are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration. In addition, the screening criteria in this section do not account for project design features, attributes, or local development requirements that could also result in lower emissions. For projects that are mixed-use, infill, and/or proximate to transit service and local services, emissions would be less than the greenfield type project that these screening criteria are based on." The purpose of the screening criteria is to "screen out" projects that do not have the potential for air quality impacts. Again, if a project exceeds the screening level size then an emissions analysis would be required.

The project exceeded the screening level size shown in Table 3-1 in terms of square footage. Therefore, a detailed emission analysis was conducted using project specific square footages and trip generation rates with the California Emissions Estimator Model (CalEEMod) to determine if project emissions would exceed the BAAQMD thresholds. Accordingly, as demonstrated in Table IV.E-8 and Table IV.E-9 and as documented in the model output shown in Appendix E, the proposed project would not exceed the significance threshold for emissions.

Response B2-19: This comment states that the presence of toxic soil contaminants at the project site requires mitigation in the EIR. Please see Response to Comment B2-4 which address this issue as well as Responses to Comments B2-22 and B2-50 regarding the former UST on the main campus.

Response B2-20: The commenter states that description of the LUST site at 4701 Martin Luther King Jr. Way in the Draft EIR was misleading and did not properly describe the current status of the property. The commenter cites the analysis by Matthew Hagemann (contained in Attachment A of the letter) that the groundwater at 4701 Martin Luther King Jr. Way flows toward the northwest and that the Water Board has requested additional study to evaluate the potential for downgradient water quality impacts.

Please see discussion and text changes under Response to Comment B2-4 for discussion of the LUST site. Implementation of the proposed project does not include ground disturbance at 4701 Martin Luther King Jr. Way; there would not be a potential for project construction to affect soils at the LUST site (or LUST site soils to affect construction workers or future project site occupants). There would also not be the potential for contaminated groundwater that may have migrated from the LUST site to the northwest, away from the CHRCO

campus, to affect groundwater at project site construction areas as the project site is located to the northeast.

Response B2-21: The commenter cites Mr. Hagemann's analysis that contaminated soil and groundwater from the 4701 Martin Luther King Jr. Way LUST site exist beneath the project site and represent a potentially significant impact that must be addressed in the CEQA document. Please see Response to Comment B2-4 for further discussion of the LUST site. As of February 2015, no workplan for additional investigation at the site has been posted on the Water Board Geotracker website. However, the Draft EIR evaluates the potential presence of soil contaminants and hazardous materials at the site, and the potential for impacts that could result from the project. The analysis in the Draft EIR concludes that no contaminated soils from the LUST site would be disturbed by the project and contaminated groundwater from that site would migrate generally to the west, away from project site construction areas. For the purposes of CEQA, no additional investigation is required to conclude that no contaminated soil and groundwater from the LUST site are present beneath project site construction areas or would result in a significant impact as a result of the project. Also see Response to Comment B2-22, below and B2-50 regarding the UST located on the main campus.

Response B2-22: The commenter cites Mr. Hagemann's analysis that contaminated groundwater may be encountered during project construction and adversely affect construction workers. Please see Response to Comment B2-4 for specific discussion of groundwater contamination the 4701 Martin Luther King Jr. Way LUST site. The project does not include any construction at the LUST site, so any residual soil contamination will not be encountered during construction. Any residual groundwater contamination that may be present at the LUST site would migrate toward the west, away from project construction areas and no additional investigation or mitigation measures are required. A UST was previously located near the B/C Wing; while staff interviewed for the Phase I report believe that the UST was removed, the contents and disposition are unknown. The Draft EIR discussed potential impacts to groundwater on page 532. Implementation of SCA HAZ-1, and adherence to regulatory requirements would reduce these impacts to a less-than-significant level.

Response B2-23: The commenter states that the Draft EIR acknowledges the presence of volatile organic compound (VOC) contamination and contains measures to address VOC vapor intrusion which warrant further investigation. The comment cites City of Oakland Standard Condition of Approval (SCA) HAZ-9, which mentions vapor intrusion, as the basis for this comment.

The City's SCAs relevant to hazards and hazardous materials are listed beginning on page 526 of the Draft EIR; SCA HAZ-9 is on pages 528-529. Although not mentioned in the comment, SCA HAZ-10, on page 529, also requires project applicants to submit documentation regarding radon and

vapor intrusion hazards as part of the Phase 1 report. As described on page 115 of the Draft EIR, SCAs are uniformly applied, regardless of a project's environmental determination. It is possible that VOC vapor intrusion could be encountered due to the former UST on the main campus. However, as discussed in the Draft EIR, the Phase I Environmental Site Assessment (Appendix G) concludes that no significant soil or groundwater contamination sources, including VOC contamination or vapor intrusion hazards, are present in project site construction areas, and therefore no additional investigation or mitigation is required.

The analysis of project impacts related to hazardous materials begins on page 530 of the Draft EIR. All potential impacts, including the accidental release of VOCs and other hazardous materials, were found to be less than significant with implementation of SCA HAZ-9.

Response B2-24: The commenter states that VOC contamination must be investigated and mitigated prior to project approval. Please refer to Responses to Comments B2-22 and B2-23 and the Phase I Environmental Site Assessment in Appendix G of the Draft EIR. No known sources of VOC contamination or vapor intrusion hazards are present in project site construction areas. However, if these are found on the site due to the former UST on the main campus, implementation of SCA HAZ-9 would be required to be implemented and this would ensure that the potential impact would be less than significant.

Response B2-25: In this introductory comment, the commenter states that the Draft EIR improperly defers a number of mitigation measures until post-project approval. Subsequent comments related to this issue reference impacts related to hazardous materials and traffic and transportation; these issues are responded to below in Responses B2-26 through B2-33. As discussed below, none of the SCAs identified by the commenter constitute the improper deferral of mitigation. Please refer to Response A2-4, which further addresses this issue of deferral.

Response B2-26: The commenter cites SCA HAZ-1 as improper deferral of mitigation. Please refer to Response to Comment A2-4 regarding the City's use of SCAs in the Draft EIR. Some of the SCAs related to impacts from hazardous materials that the commenter identifies in this and subsequent comments have already been satisfied in preparation of the Draft EIR. SCA HAZ-3 requires the preparation of a Phase I environmental site assessment report, and a Phase II report if warranted, for the project site. SCA HAZ-10 also requires the applicant to determine whether radon or vapor intrusion from groundwater and soil is located on the site as part of the Phase I documentation. As described in the EIR, a Phase 1 was completed for the project site to evaluate the potential for groundwater and soil contamination. The Phase 1 concluded that a Phase 2 was not necessary for further soil sampling and chemical analysis. Thus, SCA HAZ-3 and SCA HAZ-10 have been satisfied. In addition, SCA HAZ-5 requires remedial action if the environmental site

assessment reports for the project site recommend such remedial action. As discussed above, a Phase I environmental site assessment report has been prepared for the project site, and that report does not require any further remedial action. Thus, SCA HAZ-5 has also been satisfied.

As to the other SCAs related to impacts from hazardous materials that the commenter identifies, none of these SCAs constitute the improper deferral of mitigation.

SCA HAZ-1 identifies several “Hazards Best Management Practices” to be implemented as part of construction to minimize the potential negative effects to groundwater and soils. Among these best management practices, or “BMPs,” is the requirement to “ensure that construction would not have a significant impact on the environment or pose a substantial health risk to construction works and the occupants of the proposed development” by requiring soil sampling and chemical analyses on the project site “when on-site demolition, or construction activities would potentially affect a particular development or building.” This SCA requires that certain actions take place in the event suspected contamination is encountered during construction activities. Construction workers are trained to comply with regulatory requirements and to identify potentially hazardous conditions throughout the course of construction activities. Specific actions include stopping work in the vicinity of the suspected material, securing the area, and taking all appropriate measures to protect human health and the environment, and those measures must include the notification of regulatory agencies and implementation of other SCAs to identify the nature and extent of the contamination. This SCA therefore includes specific performance standards and activities that would mitigate impacts related to the suspected discovery of contamination. As such, this SCA does not constitute improper deferral of mitigation.

SCA HAZ-2 requires the applicant to comply with all applicable federal, State, regional, and/or local laws/code, requirements, regulations, and guidelines. SCA HAZ-4 and SCA HAZ-6 require the applicant to document the presence or lack of hazardous building materials prior to issuance of demolition permits and either stabilize or remove identified materials in compliance with regulatory requirements. SCA HAZ-7 and SCA HAZ-8 require the applicant to submit written confirmation to certain regulatory agencies if other materials classified as hazardous waste are present on the site and to develop and implement appropriate plans to protect workers as necessary. SCA HAZ-7 specifies that this confirmation reflect the applicant’s commitment to following all State and federal laws and regulations when profiling, handling, treating, transporting, and/or disposing of such materials and implementation of SCA HAZ-8 further ensures compliance with regulatory standards. As discussed in Response to Comment A2-4, compliance with regulatory standards is suitable under CEQA and does not constitute deferred mitigation.

SCA HAZ-9 requires the applicant to implement a number of BMPs for soil and groundwater hazards throughout demolition, grading, and construction activities. One of those BMPs requires that soil generated by construction activities must be handled properly, including being stockpiled onsite in a “secure and safe manner,” and that handling must be in accordance with applicable local, state, and federal agencies’ laws, in particular the Regional Water Quality Control Board and/or the Alameda County Department of Environmental Health, and policies of the City of Oakland. As discussed in Response to Comment A2-4, compliance with regulatory standards is suitable mitigation under CEQA and does not constitute deferred mitigation.

- Response B2-27: The commenter cites SCA HAZ-3 as an improper deferment of mitigation. SCA HAZ-3 requires the preparation of a Phase I Environmental Site Assessment (ESA) report, and a Phase II report if warranted, for the project site. As described in the Draft EIR, a Phase 1 was completed for the project site to evaluate the potential for groundwater and soil contamination (see Draft EIR Appendix G). The Phase 1 ESA concluded that a Phase 2 was not necessary for further soil sampling and chemical analysis. Thus, SCA HAZ-3 has been satisfied.
- Response B2-28: The commenter cites SCA HAZ-5 as an improper deferment of mitigation. SCA HAZ-5 requires remedial action if the environmental site assessment reports for the project site recommend such remedial action. As discussed above, a Phase I ESA has been prepared for the project site, and that report does not require any further remedial action. Thus, SCA HAZ-5 has been satisfied.
- Response B2-29: The commenter cites SCA HAZ-7 and SCA HAZ-8 as improper deferment of mitigation. Please refer to Response B2-26.
- Response B2-30: The commenter cites SCA HAZ-2 as an improper deferment of mitigation. Please refer to Response B2-26.
- Response B2-31: The commenter cites SCA HAZ-9 as an improper deferment of mitigation. Please refer to Response B2-26.
- Response B2-32: Please refer to Responses B2-25 through B2-31. As discussed in these responses, SCAs HAZ-1 through HAZ-10 do not constitute deferred mitigation.
- Response B2-33: The commenter generically states that the Draft EIR improperly defers mitigation related to traffic and pedestrian safety, and only cites SCA TRA-1 for this comment. SCA TRA-1 requires the applicant to prepare and submit a TDM Plan to the City for review and approval. The TDM Plan will be used to increase pedestrian, bicycle, transit, and carpool use, and to reduce parking demand related to the project. No traffic impacts were identified in the Draft EIR, per the City’s Thresholds of Significance. The TDM Plan is not required

to reduce any significant impacts of the project and the purpose of the plan is to reduce vehicle trips, particularly single-occupancy vehicle trips to the hospital, to the extent feasible; therefore, it does not constitute improper deferral of mitigation. In addition, the TDM Plan would be designed to meet certain performance standards (for the CHRCO project, that standard is to achieve a 20 percent reduction in vehicle trips generated by the project at build out), as required by the City of Oakland for projects of this size and to further reduce the already less-than-significant traffic and transportation-related impacts of the proposed project.

Response B2-34: This comment summarizes CEQA requirements for establishment of a project's environmental baseline. Please see Response to Comment B2-5 regarding baseline for pedestrian injuries in the Draft EIR.

Response B2-35: Section IV.J, Hazards and Hazardous Materials, in the Draft EIR accurately describes baseline conditions at the project site for hazardous materials impacts because all known hazards are identified and established in the setting subsection. The commenter does not otherwise specify how the baseline for hazardous materials is not accurately defined. Please also see specific responses under Responses to Comments B2-37 and B2-39.

Response B2-36: The commenter states that the Draft EIR did not adequately describe existing conditions for pedestrian safety and safety measures proposed by the project. Please see Response to Comment B2-5.

The commenter references the collision data at the Martin Luther King Jr. Way/52nd Street intersection which shows pedestrian injury collisions resulting from pedestrian right-of-way violations. The commenter speculates that the reported injuries may have been prevented by improved intersection design. Based on the available collision data, it cannot be determined if the intersection design or personal behavior contributed to these collisions. However, as described in Response B2-5, although the project would not cause a significant impact on pedestrian safety at this intersection based on application of City's Threshold of Significance, Recommendation TRA-4 includes improvements to the signalized pedestrian crossings at this intersection.

The commenter correctly states that Phase 1 of the CHRCO project would relocate the existing Main Garage driveway from 52nd Street to Martin Luther King Jr. Way midblock between 52nd and 53rd Streets. The commenter incorrectly states this would create a hazardous condition for bus riders traveling between the hospital and the bus stop for northbound Route 18 at 53rd Street. As described on page 344 of the Draft EIR, the current northbound Route 18 bus stop is midblock between 52nd and 53rd Streets, where the proposed driveway for the Main Garage would be relocated, which will require moving the bus stop. Recommendation TRA-5 proposes to move the bus stop just north of 52nd Street, which would be closer to the CHRCO facilities and

would not require CHRCO bus riders to cross the relocated Main Garage Driveway. Furthermore as described on page 339 of the Draft EIR, motorists at the relocated Main Garage Driveway on Martin Luther King Jr. Way would have adequate sight distance of the adjacent sidewalk, minimizing potential conflicts between motorists and pedestrians on the sidewalk.

In addition, the commenter incorrectly states that the Martin Luther King Jr. Way and 53rd Street intersection has uncontrolled crosswalks. The intersection is currently signalized and all pedestrian crossings at the intersection are signal controlled.

No significant impacts related to pedestrian safety were identified in the Draft EIR, although Recommendations TRA-2 through TRA-4 are recommended to improve overall conditions. As such, the proposed project would not contribute to a cumulatively considerable impact related to pedestrian safety.

Response B2-37: This commenter states that the project described in Chapter III, Project Description and throughout the Draft EIR is incomplete and inaccurate, rendering the analysis and conclusions presented in the Draft EIR to be inadequate. As discussed in the responses below, the project description is accurate, stable, and consistent, and is therefore adequate. Responses to subsequent comments related to the accuracy of the project description and adequacy of the Draft EIR are provided below.

Response B2-38: Please see Response to Comment B2-14.

Response B2-39: The commenter states that that an HRA and a Phase I environmental site assessment are improperly listed as outstanding. The commenter states that SCA HAZ-3 and SCA AIR-2 indicate that these documents are required, but they have been completed and are included as appendices to the Draft EIR. The commenter states that this is an inaccuracy in the Draft EIR.

SCAs HAZ-3 and AIR-2 describe some of the standard City of Oakland requirements for issuance of demolition, grading, and construction permits. These requirements include a Phase I environmental site assessment (SCA HAZ-3) and an air quality HRA (SCA AIR-2), prior to issuing demolition, grading, or construction permits. As described on page 115 of the Draft EIR, SCAs are uniformly applied, regardless of a project's environmental determination. The City will be preparing and adopting, as part of the project approvals, a Standard Conditions of Approval/Mitigation Monitoring and Reporting Program (SCA/MMRP) that will identify all impacts, the SCAs and/or mitigation measures to address the impact, the responsible entity, and the timeframe for addressing the impact. This will be the City's tool to ensure that the appropriate SCAs and mitigation measures are implemented and enforced. In regards to preparation of an HRA, see Responses B2-13, B2-15, and B2-16.

The commenter is correct that the Phase I environmental site assessment and air quality HRA have been completed for the project and that their contents were used for the analysis in the Draft EIR and included as appendices to the document. The HRA was completed according to and is consistent with ARB guidelines. This does not reflect an inaccuracy in the Draft EIR. Instead, this reflects the fact that two requirements for City demolition, grading, and construction permits have already been completed for the project. No text changes are warranted in response to this comment.

The MMRP (Mitigation Monitoring and Reporting Program) has not been completed for this project. As per CEQA Guidelines Section 15097, an MMRP is required at the time of project approval.

Response B2-40: As noted in Response to Comment B2-39, the MMRP (Mitigation Monitoring and Reporting Program) has not been completed for this project. As per CEQA Guidelines Section 15097, an MMRP is required at the time of project approval and, as such, the Draft EIR does not include a “proposed MMRP” as described in the comment. In addition, it should be noted that mitigation measures were not required to reduce any of the project’s impacts to a less than significant level, instead, implementation of the City’s SCAs would ensure that impacts associated with the proposed project would be less than significant. Please also see Response to Comment A2-4 regarding deferral of mitigation measures and enforcement of the City’s SCAs. Subsequent comments related to the commenter’s statement that the Draft EIR contains a number of mistakes or omissions are addressed in the responses below.

Response B2-41: Please see Responses to Comments B2-39 and B2-40.

Response B2-42: The comment states that the Draft EIR does not include binding mitigation measures for traffic, parking, and pedestrian safety impacts. As described in Response to Comment B2-5 and B2-40, the Draft EIR does not include any mitigation measures because the proposed project would not result in any significant impacts based on the application of City of Oakland’s Thresholds of Significance. However, the Draft EIR includes several SCAs, and recommended measures to further reduce already less-than-significant impacts to be considered by the approving body.

As described on page 294 of the Draft EIR, the SCAs would be adopted as conditions of approval as part of the project approval process to help ensure no significant impacts result from the project. Thus, the project is required to implement the SCAs. As stated in the Draft EIR, “because the conditions of approval are incorporated as part of the proposed project, they are not listed as mitigation measures.” Since the proposed project is required to implement the SCAs included in the Draft EIR, they are mandatory requirements binding on the project applicant and subject to monitoring and enforcement by the City. Therefore, the Draft EIR is adequate and consistent with CEQA requirements.

Although the project would not result in any significant impacts, the Draft EIR includes Recommendations TRA-1 through TRA-8 to improve circulation and safety for various travel modes in the vicinity of the project. These recommendations are not imposed as mitigation measures because the project would not trigger the applicable thresholds of significance as described in the discussion for each impact topic in the Draft EIR. Therefore, the approving body has the ability to consider and either impose them as binding and enforceable conditions of approval or reject them. If the approving body imposes the recommended measures for the project, the project would be required to implement them.

- Response B2-43: Please see Responses to Comments B2-4, B2-8, B2-14, and B2-16.
- Response B2-44: This comment, which summarizes the general concerns presented in the preceding comments that are related to the adequacy of the Draft EIR, which are more specifically addressed in the above responses, is noted. Please see Response to Comment B2-8 regarding recirculation of the Draft EIR.
- Response B2-45: This introductory comment summarizes the proposed project and the commenter's concerns related to the adequacy of the Draft EIR, which are further addressed in the responses below and in Responses to Comments B2-4, B2-8, and B2-14.
- Response B2-46: Please see Responses to Comments B2-4 regarding the 4701 Martin Luther King Jr. Way LUST site and Response to Comment B2-21 regarding the potential for the project development to result in any impacts due to contamination from that site.
- Response B2-47: Please see Responses to Comments B2-4 and B2-22 regarding contaminated groundwater that may be encountered during project construction. As no sources of groundwater contamination were identified in the Draft EIR analysis, no contaminated groundwater would be expected to be encountered during foundation preparation or dewatering activities, and no discharge of contaminated groundwater would occur during project construction. Implementation of SCA HAZ-9 which requires Best Management Practices during groundwater dewatering would further ensure that no impacts related to groundwater dewatering would occur during project construction.
- Response B2-48: The commenter states that the Phase I environmental site assessment cited in the hazards analysis is six years old and may be obsolete, as Phase I reports are only considered valid for six months when used for a property transaction. The commenter further states that the Draft EIR analysis did not include the latest regulatory information regarding the 4701 Martin Luther King Jr. Way LUST site and that updated site assessments are required to determine appropriate worker safety provisions during project construction.

The six-month limit the commenter refers to is associated with the use of a Phase I site assessment in support of a property transaction to limit legal liability to a prospective purchaser for historic contamination. No similar time limit exists for other uses of a Phase I environmental site assessment. Section 4.7 of ASTM Standard E1527-13, "Standard Practice for Environmental Site Assessments, Phase I Environmental Site Assessment Process," (ASTM Standard) permits environmental professionals to rely on information from prior Phase I site assessment reports of any age if the earlier Phase I reports were performed in accordance with the ASTM Standard.

The 2008 Phase I report cited for the project site was conducted in accordance with the ASTM Standard. For the Draft EIR hazards analysis, information from the Phase I was supplemented with additional, more recent information, including a September 2013 search of regulatory agency databases and an October 2013 review of State Water Resource Control Board online files to describe changes that may have occurred since the 2008 Phase I report was prepared.

Please see Responses to Comments B2-4 regarding the 4701 Martin Luther King Jr. Way LUST site and B2-21 and B2-22 regarding the Water Board's requirements for additional investigation at that site. As noted in that response, the Notice of Availability (NOA) of the Draft EIR indicated that closure of the LUST site had been requested, but did not note that the Water Board had requested a workplan for additional investigation. A text change for the Draft EIR has been proposed to provide that updated information. As of February 2015, no workplan for additional investigation at the site has been posted on the Water Board Geotracker website.

As no contamination from the LUST site has the potential to migrate and affect soil and groundwater in project construction areas, no special worker safety provisions related to the LUST site will be necessary during project construction.

Response B2-49: The commenter states that contaminated groundwater generated during construction dewatering will require proper disposal and could result in health risks to construction workers. Please refer to Responses to Comments B2-4, B2-22, and B2-47.

Response B2-50: The commenter states that a former underground storage tank (UST) may be present near the B/C Wing of the hospital and that soil sampling and any required remediation should be performed now, prior to finalizing the Draft EIR.

The potential for a UST to be present is discussed on page 520 of the Draft EIR. Staff interviewed for the Phase I report believed that a UST had been removed from this location, though the contents and ultimate disposition of

the tank were unknown. No records of the UST were identified during Phase I activities (see Appendix G of the Draft EIR).

The potential impacts from the potential presence of the UST are discussed on page 532 of the Draft EIR. Per SCA HAZ-1, should any residual soil or groundwater contamination be encountered during construction, adherence to existing regulatory requirements would ensure that potential impacts would be less than significant. Furthermore, should a UST be found on-site, implementation of SCAs HAZ-2, HAZ-4, HAZ-7, HAZ-8, and HAZ-9 would reduce any potential impacts related to the presence of that UST to a less-than-significant level. Depending on the nature and extent of the discovery, additional soil sampling or other remediation activities may be required per the City's SCAs. At this time, no additional investigation, remediation, or mitigation measures are required to reduce impacts to a less-than-significant level. Also refer to Responses to Comments B2-19, B2-22 and B2-25 through B2-31.

- Response B2-51: CalEEMod and AERMOD generate hundreds of pages in output files. Titles are provided at the top of each of CalEEMod model scenario sheets. The model was developed by the South Coast Air Quality Management District, which has sole control over the format of the model output files. To provide some ease in reviewing the appendix materials, the PDF version of Draft EIR Appendix E includes bookmarks to guide the reader to the different sections of model output material. The bookmarks clearly identify which section of materials the reader is looking at by each phase of the project.
- Response B2-52: Please see Response to Comment B2-13.
- Response B2-53: Please see Responses to Comments B2-14 and B2-15. As noted in Mr. Sutherland's letter, their "analysis kept all parameters of the risk assessment consistent with those presented in the Draft EIR with the exception of the exposure duration." To accurately assess the risk for a modified exposure duration, the emission rate would not be consistent each year and would need to be adjusted to reflect annual emissions when increasing from 7 years to 9 years and 10 months. The emission rate would be lower assuming the same level of construction activity for the longer duration. The methodology presented in this comment also improperly assumes that the maximum exposed individual (MEI) would be at the same location for Phase 1 and Phase 2. Project construction would occur at different locations on the 11-acre project site during the two phases of construction, therefore the MEI for Phase 1 is not in the same location under Phase 2 construction. The cumulative MEI is a location with the highest of all Phase 1 and Phase 2 exposure combinations.
- Response B2-54: This comment reproduces the Regional Water Board's denial of case closure request for the property at 4701 Martin Luther King Jr. Way. Please refer to Response to Comment B2-4, which addresses the contents of this letter, as

appropriate. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response B2-55: This comment reproduces excerpts of the Bay Area Air Quality Management District's California Environmental Quality Act Air Quality Guidelines. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response B2-56: This comment depicts a map of the project vicinity generated by the Transportation Injury Mapping System and is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response B2-57: This comment presents the qualifications for Mr. Hagemann and is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response B2-58: This comment presents the qualifications for Mr. Sutherland and is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Memorandum

Date: September 22, 2014

To: **City of Oakland**

Robert Merkamp, Interim Development Planning Manager
Heather Klein, Planner III



From: **Longfellow Community Association**

www.longfellowcommunityassociation.org

Leslie Cleaver Wood, President

Hastings Hart, Vice President, Chair - Safety and Neighborhood Watch

Yuriko Jewett, Board Member, Chair - Land Use and Transportation

Noe Noyola, Board Member, Chair - Business and Organizational Outreach

David Adams, Board Member, Chair - Greening and Beautification

Shayne Martinsen, Board Member, Chair - Arts and Culture

Eric Davila, Board Member, Chair - Visibility and Network Building

Re: **Children's Hospital Master Plan Draft EIR Comments**

The Longfellow Community Association (LCA) is a nonprofit, community organization located in the Longfellow neighborhood of Oakland (see attached map). A large portion of Children's Hospital Oakland (Hospital) is in our neighborhood boundary and the impact of this renovation project will occur in the northeastern quadrant of our area. Below are the LCA's comments in regards the Children's Hospital Master Plan Draft EIR (DEIR):

1

Additional Traffic Study Request

Although the connection between MacArthur BART and the Hospital is mentioned throughout the DEIR, the current traffic study does not address the Martin Luther King Jr. Way (MLK) corridor from 40th to 51st streets. The traffic impact to surface streets along the north side of the project vicinity is included in the study, but this key Longfellow neighborhood surface street to the south is not included. While SR24 will be the direct freeway access route to the site, this is not the only access route available for vehicles approaching the site from the south.

Surface streets in the Longfellow neighborhood in general experience significant overflow when traffic on nearby freeways is impacted. When drivers are informed of excessive impact on the freeway, they will take an "earlier" exit and often use surface streets to travel to nearby Berkeley, for example. As residents of this neighborhood we have witnessed this firsthand, especially when traffic collisions occur on the freeway during commute hours.

2

The LCA requests that an additional traffic study of the MLK corridor from 40th to 51st streets be included in the EIR and that traffic growth projections from the

MacArthur Transit Village Project EIR be applied as needed to complete this analysis.

**2
cont.**

Residential Parking Permits (RPP)

The LCA requests that the Hospital pay for the yearly RPP fee for residents within ¼ mile of the project vicinity during both Phase I and II of construction. The LCA also requests that an impact analysis of on-street parking be completed at building occupancy, and that an extension of the RPP agreement be negotiated with residents at that time.

**3
4**

The logistics of construction staging areas have not been formally identified. The LCA requests that these locations be identified as soon as possible and that residents in the area be informed accordingly. The LCA also requests that residents within a one-block radius from these areas be allowed to receive RPP during construction with the yearly payment covered by the Hospital.

**5
6**

Helen MacGregor Park

It is the opinion of the LCA that the Open Space Conservation and Recreation element of the DEIR is not thoroughly addressed. Many of the existing recreation sites mentioned in the DEIR, such as the swimming pool/arts studio complex, are located quite far from the project vicinity with the exception of one - Helen MacGregor Park (HMP).

7

In support of the comments made by the Commissioners at the September 17, 2014 Planning Commission meeting, the LCA requests the following of the Hospital to assist in mitigating this impact:

1. Community Visioning Session

In partnership with Hospital patients and their guardians, employees, neighbors, and the City of Oakland, the LCA requests that the Hospital hire a landscape architect to host a community visioning session to improve HMP. The goal of this session would be to allow the community to identify recreation opportunities at HMP, as well as provide design input on overall park improvements.

8

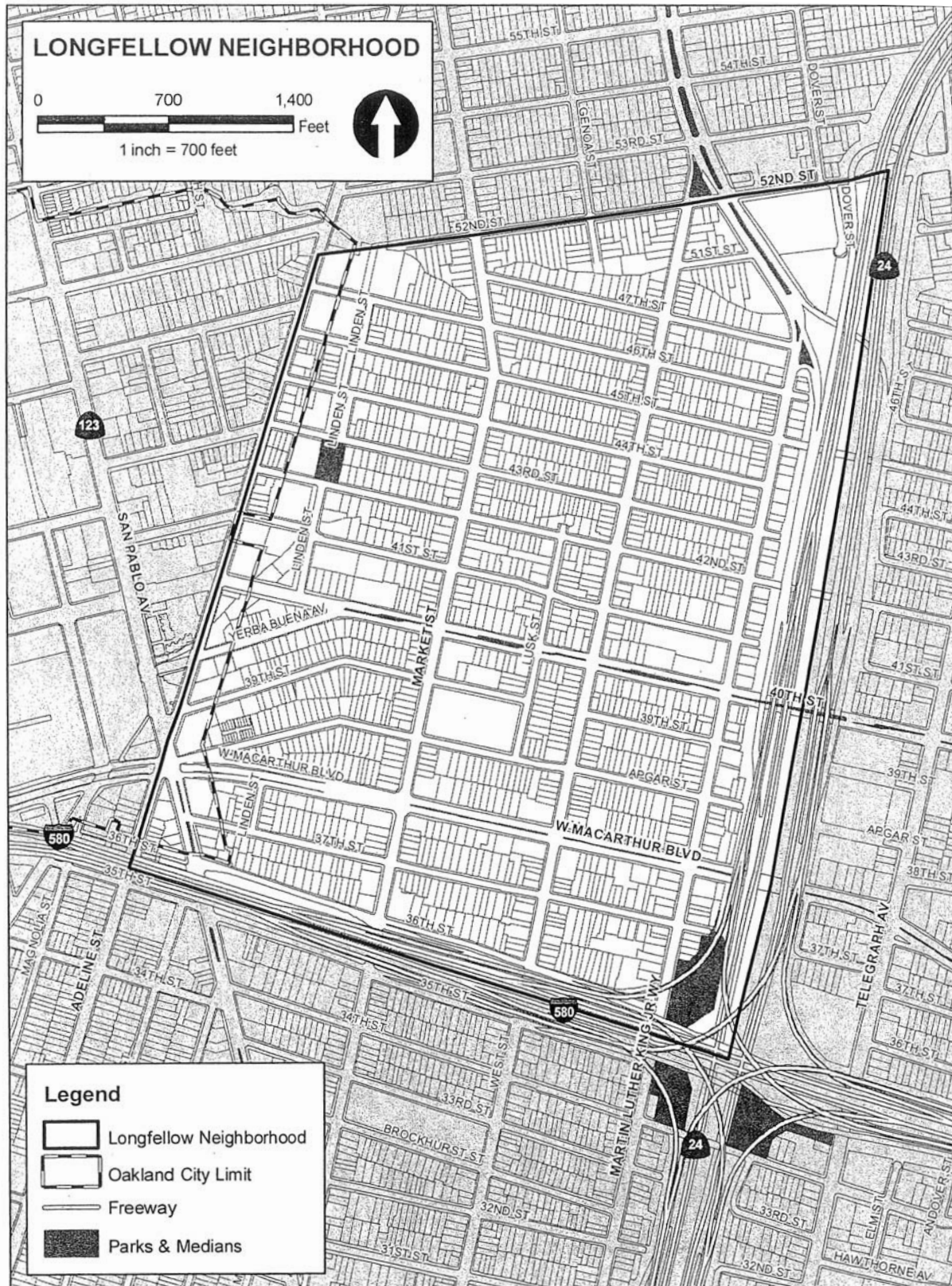
2. Concept Design and Cost Estimate

Once ideas from the community have been identified, the hired consultant will then create a concept level plan for the park. This will include illustrative boards of the community's vision and a formal cost estimate to allow the community to pursue grants and other avenues to assist with funding construction of HMP.

Continuous Bicycle Access on 52nd Street

The LCA supports Bike East Bay's recommendation to provide continuous bicycle access on 52nd Street.

9



COMMENTER B3

Longfellow Community Association
Leslie Cleaver Wood, et al.
September 22, 2014

Response B3-1: This introductory comment is noted. Responses to subsequent comments are provided below.

Response B3-2: The comment request analysis of traffic conditions on Martin Luther King Jr. Way between 40th and 51st Streets. The Required Congestion Management Program (CMP) Evaluation, starting on page 333 of the Draft EIR, analyzed the impacts of the proposed project on street segments along Martin Luther King Jr. Way south of the project site. Appendix L within Appendix C summarizes the results under 2020 and 2035 conditions. Neither Phase 1 nor Phase 2 of the project would result in a significant impact on Martin Luther King Jr. Way south of the project site.

The Draft EIR also analyzed the impacts of the project along Martin Luther King Jr. Way at its intersections with 51st Street and SR 24 Ramps and did not identify any significant impacts at these locations. The Draft EIR did not analyze any intersections on Martin Luther King Jr. Way south of the SR 24 Ramps. As described on pages 259 and 308 of the Draft EIR, this is because study intersections were selected for analysis only if the proposed project would increase traffic volumes by 50 or more peak-hour vehicle trips at a signalized intersection or 10 or more peak-hour vehicle trips on the controlled approach of an unsignalized intersection. As shown on Figures IV.D-17a and IV.D-17b of the Draft EIR, both Phase 1 and Phase 2 of the CHRCO project are expected to add fewer than 10 peak hour vehicle trips on Martin Luther King Jr. Way south of the SR 24 Ramps under typical operating conditions. Although additional vehicles generated by the project may use this segment of Martin Luther King Jr. Way under special circumstances, such as a crash on the freeway, they do not represent typical conditions.

Considering that the CMP analysis did not identify a significant impact and that the proposed project is expected to add fewer than ten peak hour trips under typical conditions on Martin Luther King Jr. Way south of the SR 24 Ramps, the Draft EIR does not need to analyze the impacts of the project on intersections along Martin Luther King Jr. Way south of the SR 24 Ramps.

Response B3-3: The comment requests that CHRCO pay for residential parking permit (RPP) for residents within a quarter-mile of the site during both Phase 1 and Phase 2 of project construction. Please see Master Responses #1 and #3.

- Response B3-4: The comment requests analysis of impacts on on-street parking associated with RPP after project occupancy and to determine the continuation of RPP at that time. Please see Master Response #3.
- Response B3-5: Please see Master Response #1 regarding the locations and logistics for construction staging.
- Response B3-6: The comment requests that CHRCO pay for RPP for residents within one block of the staging areas during both Phase 1 and Phase 2 of the construction. Please see Master Responses #1 and #3.
- Response B3-7: This comment suggests that open space and recreation issues are not thoroughly addressed in the Draft EIR; however, the comment does not indicate where the Draft EIR is deficient in the analysis of this topic, except that the Open Space and Recreation Element of the General Plan is not addressed. This is incorrect. All applicable policies and objectives of the Open Space Conservation and Recreation Element of the General Plan element are addressed in the Draft EIR in Table IV.A-1 in Section IV.A, Land Use and Planning (pages 186 through 187). The analysis focuses on potential policy conflicts that could result in physical environmental impacts.

Further, open space and recreational facilities within the immediate vicinity of the site are identified and potential impacts to these facilities are evaluated in the appropriate topical sections of the Draft EIR (e.g., potential increases in shadows cast on nearby Helen McGregor Plaza Park are addressed in Section IV.B, Aesthetics and Shadow, page 214). In addition, potential impacts to recreational facilities, including Helen McGregor Plaza Park, related to increased demand for services are addressed in Chapter VI, Other CEQA Considerations, pages 615 through 616. Recreational facilities that are anticipated to be affected by the project, including those within the immediate vicinity such as Helen McGregor Plaza Park, are identified.

The analysis in the Draft EIR is based on the City's Thresholds of Significance which state that a project would have a significant impact on recreational facilities if it would: 1) increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or 2) include recreational facilities or require the construction or expansion of recreational facilities which might have a substantial adverse physical effect on the environment. Helen McGregor Plaza Park provides limited active recreation opportunities for children and the use of this park is not anticipated to substantially increase with the proposed project, such that physical impacts to the park would result. In addition, as discussed on page 615 of the Draft EIR, passive and active open space areas would be provided within the CHRCO campus for use by patients and their visitors. These facilities would include retention and reconfiguration of the existing courtyard between the A/B and B/C Wings and the existing play area and development of a new playground and garden area on the site of the

new Family Residence Building. On-site open space would be provided to serve the increased number of patients and visitors to the campus and the proposed project would not directly increase the demand for parks and recreational facilities in the vicinity (such as would be caused by new housing). For all of these reasons, the analysis provided in the Draft EIR determined that the project would not increase the use of area parks and community and regional recreational facilities, such that it would result in substantial physical deterioration of local parks and recreational facilities. Therefore, the minor increase in use of these facilities associated with the proposed project would result in less-than-significant impacts related to park and recreation services.

Response B3-8: This comment requests that CHRCO participate a visioning process to identify needed improvements to Helen McGregor Plaza Park. Concerns related to Helen McGregor Plaza Park are noted. However, as noted above in Response B3-7, the proposed project would not result in a significant and unavoidable impact related to increased use of Helen McGregor Plaza Park. This comment and response will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project. Please see Master Response #5 which addresses future park improvements.

Response B3-9: The comment supports Bike East Bay's comments on continuous bicycle facilities on 52nd Street. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Please see Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

Response B3-10: The Longfellow neighborhood boundaries are depicted in the attachment included as part of this comment. This comment, which does not relate to the adequacy of the information or analysis within the Draft EIR, is noted; no further response is required.



September 17, 2014
(By electronic transmission)

To: Oakland City Planning Commission

RE: Children's Hospital expansion ER12-0013

Dear Planning Commissioners and staff:

Oakland Heritage Alliance (OHA) would like to thank staff and the applicants for incorporating some of the suggestions developed during meetings with community and interested groups.

We would like to address impacts upon cultural resources.

At page 15 of the staff report, it is asserted that the hybrid new-old "building at the rear of 671-675 53rd Street is consistent with the Secretary of the Interior's Guidelines for Rehabilitation." This is wrong and should be removed from the staff report and anywhere else that the claim is made. The Secretary's Guidelines (quoted below) do not suggest removing the majority of a building and retaining only a façade. Therefore, the conclusion of no impact is also incorrect. While we might support this kind of re-use for reasons having to do with neighborhood context and appropriate street frontage treatment, we should not delude ourselves that this is historic preservation. The current plan fits none of the below. Consulting with your own city staff might clarify this, and should result in corrected language. Please note that other examples of this kind of treatment, such as Cox Cadillac/Whole Foods, are not considered to conform to the Secretary's Guidelines.

1

"The first treatment, **Preservation**, places a high premium on the retention of all historic fabric through conservation, maintenance and repair. It reflects a building's continuum over time, through successive occupancies, and the respectful changes and alterations that are made. **Rehabilitation**, the second treatment, emphasizes the retention and repair of historic materials, but more latitude is provided for replacement because it is assumed the property is more deteriorated prior to work. (Both Preservation and Rehabilitation standards focus attention on the preservation of those materials, features, finishes, spaces, and spatial relationships that, together, give a property its historic character.) **Restoration**, the third treatment, focuses on the retention of materials from the most significant time in a property's history, while permitting the removal of materials from other periods. **Reconstruction**, the fourth treatment, establishes limited opportunities to re-create a non-surviving site, landscape, building, structure, or object in all new materials."

At page 15 of the staff report there is no explanation of why the moving of the old magnolia tree should not at least be attempted. In the case of success it would be a wonderful act of salvation in which the hospital could take pride. The hospital might well use the tree's preservation in its advertising and promotion. Such an attempt should be required of the applicants. In the event that moving the tree fails, all attempts should be made, starting right now, to rear offspring from this tree, using cuttings from it, rather than or in addition to simply replacing it. If those efforts could start immediately, perhaps it would be possible to provide several magnolias genetically identical to this old survivor. Please add this as a simple mitigation measure in addition to replacing trees. Surely there is some value in honoring the enormous staying power of this specimen by propagating it.

2

Nowhere is the proper designation and listing of the historic A/B wing proposed. We ask that the applicant prepare an application for the historic wing to be listed on the California Register, and as an Oakland landmark. With its increased visibility, it should help in creating a distinctive identity for the hospital, and would reassure residents that the resource is valued and worthy of retention and celebration, although such landmarks status does not preclude demolition. The incremental chipping-away at historic resources causes us concern that the historic fabric will be lost by inches, if not all at once.

3

We question whether the archeological protections are adequate. If the tree is 160+ years old, it seems more than possible that there are some relatively undisturbed soils on the site, and therefore some pre-excavation explorations should be undertaken.

4

This project has improved considerably since the early stages of discussion. However, we firmly believe that the zoning of the adjoining neighborhood to the north should be revised to limit institutional uses in the area, should reinforce the kind of intact neighborhood of residential family housing that remains, and request that the hospital commit itself to limiting its further construction projects to south of 53rd Street. A combination of zoning measures and a memorandum of understanding or other agreement between the hospital, the city, and the neighbors, would appear to be the right course. How can we arrange this before any final approvals are given? Surely a condition of approval of the project should be an agreement looking into the future, and preserving the neighborhood from further encroachments.

5

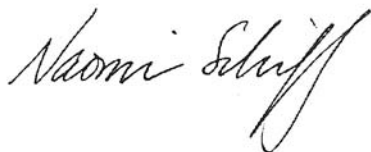
We may submit a few additional detailed comments by the 22nd.

Thank you for the opportunity to comment,

Sincerely,



Alison Finlay
President



Naomi Schiff
Preservation Committee

Attachment

What should happen to this 160+-year-old tree?

- a) Try to build around it
- b) Attempt a move and replant it
- c) While the move is attempted, also prepare cuttings and root them, a relatively inexpensive, but multiple-year process, requiring a little care and patience..



From ROYAL HORTICULTURAL SOCIETY, 2014
Propagation

Layering shoots near ground level is the easiest propagation method.

Deciduous magnolias can be propagated from soft- and greenwood cuttings. Liquid feed rooted cuttings and overwinter in a frost-free place. Magnolias are not easy to strike from cuttings and artificial light may be needed from summer until leaf fall if they are to be developed enough to survive the first winter.

For evergreens, take semi-ripe cuttings in late summer and early autumn.

Magnolias grow readily from seed but may take over 10 years to begin flowering. Collect seeds when the cones begin to split. Many of the seeds do not fully develop due to lack of pollination. The shiny black seeds will be covered by an orange-red fleshy covering which should be cleaned away with water. Mix the cleaned seed with moist sand or vermiculite, then place in a polythene bag in the refrigerator for two to four months before sowing under cover. Dried seed is often unsuccessful. Pot on seedlings as soon as large enough to handle and grow on in containers for two or three years before planting them in the garden.

Oakland Heritage Alliance
9-17-2014

COMMENTER B4

Oakland Heritage Alliance
Alison Finlay and Naomi Schiff
September 17, 2014

Response B4-1: This comment suggests that, contrary to the analysis presented in the Draft EIR (see Draft EIR page 248 and Appendix B3), partial demolition at the rear of buildings at 671 and 675 53rd Street to construct the new Family Residence Building is not consistent with the Secretary of the Interior's Guidelines for Rehabilitation.⁶ The analysis in Appendix B3 and the Draft EIR applies the Secretary of the Interior's Standards for Rehabilitation to the Residential District, as the two properties are considered contributors to the 55th and Dover Residential District, to determine the project's compliance with these Standards. These Standards apply because they provide a useful analytic tool for understanding and describing the potential impacts of substantial changes to historical resources. Based on this analysis, it was determined that the project would have a less-than-significant impact on the Residential District as the project would not materially impair any of the character-defining features of the historical district (Please refer to Response to Comment A2-2).

One could argue that application of these Standards is inappropriate and not in the spirit of the Guidelines as Standard 2 states: "The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided." However, for purposes of CEQA review in the City, projects that are not consistent with the Standards do not necessarily result in a significant unavoidable impact. Projects are reviewed on a case by case basis for identification of impacts. In this case, the demolition of the rear portion of these two contributing buildings and the construction of the Family Residence Building retains all the character-defining elements including, uniformity of building types, building setbacks, design elements of contributing properties, the street grid and regular block pattern. Specifically, the building setback, design elements, street grid, and block pattern would not change. As such, the project would not result in material impairment to the Residential District, and therefore would not result in a significant impact to a historical resource as discussed on page 247 of the Draft EIR.

Furthermore, for purposes of CEQA, demolition of the rear portions of the buildings at 671 and 675 53rd Street would not result in material impairment

⁶ The building at 679 53rd Street would also be partially demolished to construct the Family Residence Building. As noted in Appendix B3 of the Draft EIR, this building is not a contributor to the Residential District and, therefore is not a CEQA resource. However, the front façade of this building would also be retained and incorporated into the Family Residence Building.

such that the Residential District would no longer be eligible for listing in the California Register or the City's Local Register (CEQA Guidelines Section 15064.5(b)(2)). Material impairment would not occur as (1) the impact is to a small fraction (2 percent) of the Residential District's contributors and (2) the District's character-defining elements would remain largely unaffected and continue to be expressed by the majority of its contributing features. Also refer to Response to Comment A2-2. Any inconsistency with the Secretary's Guidelines is not a CEQA impact, per the City's thresholds of significance.

- Response B4-2: This comment, which states that the project applicant should be required to relocate the magnolia tree, is noted. Relocation of the magnolia tree is addressed in Chapter VI, Other CEQA Considerations (pages 608 through 612). In addition, please see Master Response #6, which further addresses this issue. The comment also requests that in the event relocation of the tree fails, in addition to replacing trees, a mitigation measure should be added requiring the existing Magnolia tree be propagated. This comment is noted. As discussed in Chapter VI, removal of the magnolia tree is not considered to be an impact under CEQA and no mitigation is required. However, the City will consider this input prior to taking action on the EIR and the proposed project.
- Response B4-3: The historic resource evaluation completed for the Draft EIR concluded that the A/B Wing is not eligible for listing in the California Register due to compromised integrity of setting and feeling (see pages 240-241; see also Appendix B1). However, the A/B Wing has a City rating of "B3", indicating it is locally a property of "major importance" and is not a contributor to a historic district. B-rated properties are automatically on Oakland's Local Register and are considered "historical resources" under CEQA. Under the City's Historic Preservation Element, the City Council may confer Landmark status on B-rated properties on the advice of the Landmarks Preservation Advisory Board and typically pursuant to an application submitted by the property owner. The City would support CHRCO efforts to designate the A/B Wing a Landmark. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response B4-4: This comment questions whether the archaeological protections identified in the Draft EIR are adequate and identifies the potential for undisturbed soils on the site, specifically near the magnolia tree. Please see Response to Comment A2-4.
- Response B4-5: This comment generally requests that rezoning of residential properties to the north of the hospital be limited and suggests that a mechanism should be in place to enforce limits on expansion of institutional uses north of 53rd Street. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input prior to taking action on the EIR and the proposed project. Please see Master Response #4.

Response B4-6: A photograph of the existing magnolia tree is depicted in this comment. Recommendations for relocation and propagation are also presented. This comment, which does not relate to the adequacy of the Draft EIR, is noted; no further response is required. Please see Master Response #6.

RE: Comments to Children Hospital's Draft EIR
September 22, 2014

Ms. Klein and Mr. Merkamp,

Thank you for the opportunity to provide comments to the Draft EIR with respect to Children's Hospital's modernization/expansion plans. I have made comments with respect to decisions which will be made by the Landmark Preservation Advisory Board, the Oakland City Planning Commission and the Bicycle and Pedestrian Advisory Committee.

By way of introduction, four generations of my family have and are currently residing in the Santa Fe District. The three properties acquired in the mid to late '50s are all located between Martin Luther King, Jr Way and Genoa Street. The property most affected by the upcoming modernization/expansion plans is my grandparents' property on 52nd Street. Parking was an issue in the '50s and remains so today as set forth below.

Santa Fe Community Association & Neighbors (Santa Fe CAN)

Santa Fe CAN and its members are vested in this community. Our community association was formed a little over a year ago, since then we have incorporated and recently have filed to obtain 501(c) (3) status. Since our origin, we have organized community cleanups at Helen McGregor Plaza, Driver's Plaza, and the Martin Luther King Jr Way median from 52th to 60th Streets. We have also organized neighborhood cleanups and facilitated the planting of trees in Santa Fe by Urban Releaf (Urban Releaf is located in the Santa Fe District). We have also held monthly socials and committee meetings at local businesses. We hold monthly steering committee (now board) meetings and monthly general meetings.

Santa Fe CAN participates in monthly Beat 10Y Neighborhood Crime Prevention Council meetings and its two co-chairs of the Public Safety Committee have been appointed as sector leaders for the Santa Fe District.

In an effort to create a sense of beauty within our community, Dover Street and Santa Fe residents petitioned the City of Oakland to install drought resistant plantings and irrigation the length of the median under the BART tracks. Some of both was done; however, a large part remains undone due to City budgetary restrictions. We would ask that donations be made to finish the project according to the plans created by the landscape architect.

In the month of August in 2013 and 2014, we organized National Night Out (NNO) in which encompassed the Genoa Street corridor from south of 52nd Street to 59th Street and several feeder streets. We hosted three live bands, an ice cream social, a pie contest, a Kid's Zone, capoeira martial arts demonstration, among other events. Invitees included Doreen Moreno of Children's Hospital, Alice Axel, the Social Services Coordinator of Sojourner Truth Manor (three senior citizens buildings), Oakland Police Captain Anthony Toribio and Councilman Dan Kalb. All attended. We have strong relationships with Councilman Dan Kalb and Police Captain Anthony Toribio. We also cherish our relationship with Doreen Moreno of Children's Hospital. We hold our general meetings at CHORI, thanks to Ms. Moreno and the reservation staff at CHORI.

Santa Fe CAN and Other Community Associations

Santa Fe CAN and LCA have formally co-adopted Helen McGregor Plaza and organize monthly community cleanups. Santa Fe CAN has also formally adopted Driver's Plaza and organized community cleanups there. Some of our board members attended a 3-hour Introduction to Restorative Justice seminar held in the Bushrod District. Participants included Councilman Kalb, Captain Toribio and two Alameda County Superior Court sitting judges. One of our board members attended a two-day training on restorative justice which was held at a local church in the Santa Fe District.

**1
cont.**

On September 20th, Santa Fe CAN held all day CORE (Communities of Oakland Respond to Emergencies) I and II trainings at the North Oakland Senior Center. Co-sponsors were LCA and Councilman Kalb. Residents from the Santa Fe, Longfellow, Golden Gate, Rockridge, Broadway Terrace, Piedmont Avenue, and Lake Merritt Districts including two nursing students from UCSF attended. Plans are underway to hold the three-part CORE III trainings on behalf of our and neighboring districts.

Children's Hospital and the Neighboring Communities

Individuals and community groups, i.e. Santa Fe Community CAN and the Dover Street corridor residents have been meeting with Children's Hospital over the last year or so about their modernization and expansion plans. Children's has indicated to me and others that they would like to partner with their neighbors and with Santa Fe CAN. We welcome a working partnership. In that vein, a meeting is scheduled for September 23, 2014 between Children Hospital executives, representatives of Santa Fe CAN, LCA, a long-time Dover Street resident, and Oakland Parks and Recreation concerning the future of Helen McGregor Plaza and to discuss ways in which we can work together to improve the Plaza for the benefit of the Hospital and the community. Children's has also communicated their offer to work out the logistics of perhaps providing residential parking permits for their neighbors who have been and will continue to be affected by parking issues.

2

3

Given the above and our mutual willingness to partner together, I think Children's can improve on certain parts of their plan which are spelled out below.

Residential Parking

We believe that Children's should absorb the costs of residential parking permits. A common complaint in the Santa Fe District is lack of parking on certain identifiable streets due to employee and visitor parking for Children's Hospital. Children's has indicated that they may pay for the parking permits depending on the number of blocks and households involved. The affected boundaries are 52nd to 55th Streets and Genoa Street and perhaps to Market Street.

The duration of the parking permits should at least last throughout the demolition and construction period. However, since the parking issue has been an issue since the '50s I envision it will continue to be an ongoing problem. According to page 4 of the Landmarks Preservation Advisory Board September 8, 2014 Staff Report, it appears that only an additional 282 parking spaces will be added (Removed Parking Spaces 67, New Parking Spaces 349). Children's should absorb the costs of the residential parking permits until such time as they can provide ample parking spaces for employees and guests.

4

One Hundred Sixty (160) Year Old Magnolia Tree

The analysis of the Oakland City Planning Commission at page 15 states that "... it is physically possible to transplant the tree to ..." (*several sites are mentioned*). I agree with Commissioners Stafford Buckley and Frank Flores (an arborist) that the magnolia tree should be moved, if it is at all possible and cost effective. I also agree with Santa Fe District resident Joe Gerardi that the tree should be moved to the grassy area which fronts CHORI and the North Oakland Senior Center on Martin Luther King Jr. Way. Another site might be at the Dover (Street) Park between 58th and 57 Streets. Relocating such an old tree would only enhance either site and enhance the reputation of Children's Hospital and the City of Oakland. The City of Oakland's symbol is that of a large tree which to me indicates longevity and respect for living things.

5

House on MLK at 52nd Street

Children's Hospital's plans call for the demolition of the residential building located at the northeast corner of Martin Luther King Jr. Way and 52nd Street in order to construct a 6-story Outpatient Center. The prior owner of that house loved this house and vowed never to sell the house and land to the Hospital during his lifetime. It would be a shame to see this beautiful home demolished. Surely such a loved and lovely home could be sold and moved to another location in honor of the previous movie? There seems to be a strong parallel in the Pixar movie *Up* to this house.

6

Height of Proposed New Building on 52nd Street & MLK, Jr. Way

Ground floor parking and a five (5) story building are proposed for this site. This building will be one story higher than the existing parking lot building next door. It would seem appropriate to construct the parking space underground so that the new building and the parking lot will be the same height. This will give a sense of uniformity of the buildings and the surrounding area. The Planning Commission Chair, Vice Chair and Commissioner Weinstein agreed that parking on the ground floor is not pedestrian friendly. We concur.

7

8

Staging of Construction Site and Noise Abatement

Where will the construction site be staged? MLK is designated as an arterial street, it seems to me that construction trucks and crews will also add to the congestion of this street.

9

How will noise from demolition/construction be abated, if at all possible? Mufflers or some sort of noise abating attachment on all equipment would be appropriate.

10

Traffic Congestion

MLK is a heavily trafficked street. There are concerns about how the flow of traffic will be affected the length of MLK from Children's Hospital to the Berkeley border at Stanford. The new entrance and exit from the parking lot will no doubt affect traffic as well. What will be done to alleviate both concerns? One of our local businesses is worried about the impact on his business. He suggests that diagonal parking be constructed on the east side of MLK from 53rd to Aileen Streets. The placement of diagonal parking would open up more parking for local businesses and at the same time force drivers to reduce their speed thereby providing safety to Santa Fe and Dover Street residents trying to get to either side of their respective communities.

11

Bicycle Pedestrian Plans

I urge the Board to work with the local non-profits Bike East Bay and Walk Oakland Bike Oakland (WOBO) for improved designs for safe bicycling and walking through the Santa Fe and neighboring districts.

Many residents in this area, myself included, bicycle along the Genoa Street corridor and 52nd Street to travel to Temescal for dining or areas beyond, i.e. Downtown Oakland or Lake Merritt. There is no safe way to do this on 52nd without riding on the sidewalk. There must be a continuous bicycle lane from Shattuck to Market on 52nd Street and also along the Genoa Street corridor. Keep in mind that 52nd and Genoa Streets are used as a corridor from Oakland to Berkeley and vice versa. Bicycle traffic has increased exponentially on these streets.

I highly recommend that the City adopt the Bicycle Pedestrian Plans set forth by local non-profit Bike East Bay with the following exceptions set forth below.

- The four way stop signs on Genoa Street at Arlington must be maintained. Our understanding is that four people were killed at that intersection and Santa Fe District residents fought hard for the four way sign. Drivers still refuse to stop at the stop signs so perhaps signs can be erected on Arlington which states "Cross traffic does not stop".

12

Bike East Bay's plans can be found at <https://pdf.yt/d/5h8q4vPa77wFI4MD>.

Other feasible recommendations for the Santa Fe District:

A sign should be erected on 55th Street at Genoa which states "State Law - Yield to Pedestrians Within Crosswalks". There is such a sign at San Francisco's City Hall and vehicles abide by this sign. (See attached picture). This sign should appear at every crosswalk on Martin Luther King Jr. Way from Children's Hospital to Children's Oakland Research Institute at 58th Street and MLK and on feeder streets to Genoa.

Bicyclists traveling from Berkeley ride down the short block on Genoa between 60th and Adeline Street. A sign should be erected indicating that it is a one way street. A head on collision is bound to occur.

A stop sign should be erected on 59th Street at Genoa with a sign indicating that "Cross traffic does not stop".

System for Reporting Violations

Will there be a process in place for community members to register complaints pertaining to construction activities, i.e. an onsite complaint manager? If so, how will the community be notified of the process and to whom complaints should be made? How fast will complaints be remedied?

13

Thank you.

Cathy Leonard (510) 473-7897
Co-Chair, Public Safety Committee
Co-Chair and Member, Board of Directors
Santa Fe Community Association & Neighbors (Santa Fe CAN)

COMMENTER B5

Santa Fe Community Association and Neighbors

Cathy Leonard

September 22, 2014

- Response B5-1: This introductory comment, which introduces the commenter and describes the Santa Fe Community Association and Neighbors (Santa Fe CAN) group, is noted. This comment does not relate to the adequacy of the Draft EIR. Therefore, no further response is required.
- Response B5-2: This comment, which notes support for ongoing collaboration between CHRCO and neighborhood groups and residents, including the Santa Fe CAN, is noted. However, it does not relate to any environmental issues in the Draft EIR and no further response is required.
- Response B5-3: The comment notes CHRCO's offer to work out logistics of perhaps providing residential parking permits (RPP) for residents in the vicinity of the site at least through the construction phases of the project. Please see Master Responses #1 and #3.
- Response B5-4: The comment states that the proposed project would increase the off-street parking supply by 282 spaces. As described on page 356 of the Draft EIR, Phase 1 of the project would reduce the total off-street parking supply by two spaces, and Phase 2 of the project would increase the parking supply by 284 spaces over current conditions. As shown in Table IV.D-22 and described on page 357, it is estimated that the project would have a parking deficit of 71 spaces after completion of Phase 1. At completion of Phase 2, the hospital would have a parking surplus of 17 spaces and would be able to accommodate the entire estimated project parking demand, which includes staff, patients, and visitors that currently park on-street. As required by SCA TRA-1, the project is required to implement TDM strategies to reduce the parking generated by project staff, patients, and visitors. However, staff, patients, and visitors may choose not to park in the garage and continue to park on the street. Please see Master Responses #1 and #3 regarding construction-period management and RPP.
- Response B5-5: This comment notes support for the relocation of the magnolia tree, and suggest several sites for possible relocation. Please see Master Response #6. This comment and response will be forwarded to City decision-makers for their consideration prior to taking action on the EIR and the proposed project.
- Response B5-6: This comment identifies relocation as a possible alternative to demolition of the house at 5204 Martin Luther King Jr. Way (at the northeast corner of Martin Luther King Jr. Way and 52nd Street). This residential structure is identified as building number 3 in Figures III-6 and III-7 (pages 76 through 77)

in the Draft EIR, Chapter III, Project Description. It is owned by Children's Hospital and Research Center Oakland and is currently used for offices.

This house is described in greater detail on page 243 of the Draft EIR, within the Cultural and Historic Resources section. While it was constructed in the 1920s, it is not defined as a historic resource for CEQA purposes. However, because the house is still considered a potentially designated historic resource, the Draft EIR includes SCA CUL-4, which requires, pursuant to the City's Historic Preservation Element Policy 3.7 and Planning Code 17.136.075, that the project applicant make a good-faith effort to relocate this house prior to demolition. In order to demolish this building, the City would be required to adopt certain findings. Specifically, these findings require that (1) the design quality of the proposed replacement project is at least equal to that of the original structure and the proposed replacement project is compatible with the character of the neighborhood; or (2) the public benefits of the proposed replacement project outweigh the benefit of retaining the original structure and the proposed replacement project is compatible with the character of the neighborhood; or (3) the existing design is undistinguished and does not warrant retention and the proposed design is compatible with the neighborhood.

In addition, it should be noted that the structure at 5204 Martin Luther King Jr. Way is proposed for demolition as part of Phase 1, which is anticipated to begin in 2015. The acquisition of the Caltrans right-of-way would not occur until Phase 2, which is anticipated to begin in 2020. As such, the Caltrans property would not be available for the relocation of this residence.

Response B5-7: This comment suggests that the proposed OPC2 Building should be limited to five stories with parking located in a sixth sub-surface level, so that the building height will be the same as the existing parking garage located to the north. This comment relates to the merits of the proposed project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, this comment will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project. The compatibility of proposed buildings with the existing pattern of development and building heights in the area is addressed in Section IV.B, Aesthetics and Shadow, pages 208 through 211. As discussed on page 210 in particular (Viewpoint 6), visual impacts related to the height of the new OPC2 Building were determined to be less than significant.

Response B5-8: The comment agrees with comments from Planning Commissioners that the OPC2 ground floor parking does not create a pedestrian friendly environment and would prefer the OPC2 parking relocated to basement. As described on pages 303 and 336 of the Draft EIR, the OPC2 ground floor parking would provide 15 parking spaces, which will primarily be used by Emergency Department visitors. The parking facility would be served by the existing

signalized driveway on 52nd Street. As described on page 339 of the Draft EIR, the driveway provides adequate sight distance between vehicles and pedestrians. Therefore, as described in the Transportation Hazards and Pedestrian Safety discussion (pages 337 through 342), the OPC2 ground floor parking would not result in a significant impact on pedestrian safety. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, this comment will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project.

Response B5-9: Please see Master Response #1 regarding construction staging.

The comment also states that construction trucks and workers would add to the traffic on Martin Luther King Jr. Way. As described in the Construction-Period Impacts discussion, starting on page 349 of the Draft EIR, construction trucks and workers may result in temporary and intermittent transportation impacts during construction of Phase 1 or Phase 2 of the project. As stated in the comment and shown on Figure IV.D-25 (page 351 of the Draft EIR and Chapter IV of this RTC Document), Martin Luther King Jr. Way is a designated truck route for both Phase 1 and Phase 2 construction. City of Oakland SCA TRA-2 (see page 296 of the Draft EIR) requires preparation of a Construction Management Plan, to be approved by City of Oakland, that would include strategies to minimize congestion during construction. As stated on page 350 of the Draft EIR, implementation of SCA TRA-2 as part of the project would ensure that project construction would not result in a substantial adverse effect on the circulation system, including Martin Luther King Jr. Way.

Response B5-10: Please see Master Response #1 regarding noise impacts during project construction.

Response B5-11: The comment is concerned about traffic operations along Martin Luther King Jr. Way between CHRCO and Stanford Avenue, including at the relocated Main Garage Driveway on Martin Luther King Jr. Way. The Project Traffic Impact Analysis section of the Draft EIR (pages 316 through 335) evaluates the potential impacts of both Phase 1 and Phase 2 of the project on intersections along Martin Luther King Jr. Way between SR 24 Ramps and 55th Street, including the relocated Main Garage Driveway, during weekday AM and PM peak hours of commute under Existing as well as 2020 and 2035 conditions. As summarized in the Draft EIR, both Phase 1 and Phase 2 of the project would result in less-than-significant impacts on traffic operations along this segment of Martin Luther King Jr. Way, including the relocated project driveway. The Project Traffic Impact Analysis section of the Draft EIR did not analyze traffic operations north of 55th Street because the project would add fewer than 50 peak-hour trips (see page 308 of the Draft EIR). Since the proposed project would add fewer vehicle trips on Martin Luther King Jr. Way north of 55th Street, the proposed project would have fewer

effects on the segment of Martin Luther King Jr. Way between 55th Street and Stanford Avenue.

In addition, the Required Congestion Management Program (CMP) Evaluation, starting on page 333 of the Draft EIR, analyzed the impacts of the proposed project at a street segment level along Martin Luther King Jr. Way between San Pablo Avenue in the south and Ashby Avenue in the north. Appendix L within Appendix C summarizes the results under 2020 and 2035 conditions. Consistent with the finding of the Project Traffic Impact Analysis section, neither Phase 1 nor Phase 2 of the project would result in a significant impact on Martin Luther King Jr. Way.

The comment also proposes implementation of diagonal parking on the east side of Martin Luther King Jr. Way between 53rd and Aileen Streets. As described above and summarized in the Draft EIR, the proposed project would not result in a significant impact on traffic operations along Martin Luther King Jr. Way north of the project site. Therefore, the project is not required to implement any mitigation measures. Furthermore, implementation of diagonal parking on this segment of Martin Luther King Jr. Way is not recommended because the roadway does not currently have adequate width to safely accommodate three automobile lanes and diagonal parking. In addition, diagonal parking would limit the sight distance for the multiple driveways on this segment of Martin Luther King Jr. Way, and diagonal parking generally reduces safety for cyclists due to limited sight distance of motorists backing out of a diagonal parking space.

Response B5-12: The comment supports Bike East Bay's comments on continuous bicycle facilities on 52nd Street. This comment does not relate to the adequacy of the Draft EIR. Therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Please see Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

The comment also recommends several improvements along Genoa Street, including maintaining the existing all-way stop-signs at the Genoa Street/Arlington Avenue intersection, and various signs on 55th and 59th Streets at Genoa Street and on Genoa Street between 60th and Adeline Streets. The Draft EIR does not identify any impacts or mitigation measures along Genoa Street, nor does it recommend any modification on Genoa Street north of 52nd Street because modifications to Genoa Street are beyond the scope of the project. Since the comment is not applicable to the proposed CHRCO project or the Draft EIR, no response is needed. However, City of Oakland is addressing conditions along Genoa Street in a separate project. Please see Master Response #2 for more detail.

Response B5-13: Please see Master Response #1 regarding the request for a complaint manager to address impacts during project construction.

C. INDIVIDUALS

From: Brandie Albright <bjalbrig@icloud.com>
Sent: Thursday, August 28, 2014 8:15 PM
To: Merkamp, Robert; Klein, Heather
Subject: Oakland Children's Hospital Expansion

Hello,

I have a question about the Oakland Children's Hospital Expansion, more specifically, traffic calming for the streets that lead up to the site.

I am a North Oakland resident and live in the vicinity of W MacArthur and West Streets. West Street is commonly used as a traffic light-less by-pass for MLK, and I'm very concerned that this Hospital expansion is only going to increase traffic to the area and traffic speeding down West Street.

I have, in just the last 3 weeks, witnessed cars speeding down West greatly in excess of the 25mph speed limit and use the center turn lane down the street to fly by cars in front of them. In two of these instances, these cars that sped down West and used the turn lane as a passing lane, also ended up turning right on 52nd and entering a Children's Hospital garage.

My neighborhood is a neighborhood full of children that play outside and people who walk their dogs, and bicycle regularly. The work that you're doing to encourage bike safety along the 52nd Street corridor is a great start, but it is short sighted. What other traffic calming measures along the streets that lead directly to Children's - specifically West Street - are being planned?

I've reviewed the plans along with several neighbors and West Street doesn't seem to be addressed, and we're concerned.

What needs to be done to ensure minimal impact along our corridor?

Thank you,

Brandie Albright
(520) 360-9691

COMMENTER C1

Albright, Brandie
August 28, 2014

Response C1-1: The comment is concerned about traffic increases on West Street and potential need for traffic calming measures on West Street. Based on the analysis presented in the Draft EIR, the proposed CHRCO project is not expected to increase the traffic volumes on West Street. As summarized in the Trip Distribution discussion starting on pages 307 of the Draft EIR, the automobile traffic that would be generated by the proposed project was assigned to the roadway network based on the likely direction of approach and departure that motorists would use to arrive and depart from the site. Considering the roadway network in the project vicinity, the location of CHRCO garages, and the likely origin/destination of CHRCO staff, patients, visitors, it is unlikely that a noticeable amount of CHRCO generated traffic would use West Street. Figures IV.D-16a and 16b in the Draft EIR identify the roadways that would most likely be used by project generated traffic. Since the proposed project is not expected to substantially increase the traffic volumes on West Street, the project is not required to implement traffic calming measures on West Street.

681 55th Street
Oakland, CA 94609
September 22, 2014

Heather Klein, Planner III
City of Oakland Planning Commission
Department of Planning and Building
City of Oakland
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612
Kleinhklein@oaklandnet.com

Re: Case File Number ER12-0013 (Draft EIR for Application DOWD009157)

Ms. Klein and Members of the Planning Commission:

I write to register my comments about UCSF Benioff Children's Hospital Oakland's Master Plan (the Plan) pursuant to CEQA. The expansion project proposed by UCSF Benioff Children's Hospital Oakland's (CHO or the Hospital) will affect me and my community directly. Although I commend the Hospital for its willingness to address several neighborhood concerns in its latest plans, as the neighborhood has learned repeatedly, plans and Hospital administrations change. Consequently, I request the Commission's action to ensure that the Hospital does not find excuses to renege on these concessions and to guarantee that CHO addresses critical, yet unresolved issues.

1

CONCERNS REGARDING A DECADE OF CONSTRUCTION

As you can imagine, the prospect of more than a decade of major construction is overwhelming for neighbors. To ensure that the construction and its attendant issues threaten neither residents' health/well-being nor our neighborhood's vitality, it is imperative that the Commission confirm that the Hospital address the following concerns.

2

Construction and Large Vehicle Traffic - Escalation in Noise and Pollution

A decade of proposed construction will bring dust, exhaust fumes, and noise to the area. The Hospital sits nestled within a residential neighborhood. Ten years of construction is not typical for such a small, quiet area.

Many of neighborhood residents are raising young children, retired (and spending more time in their homes), or working full-time from home. Nonetheless, the EIR has not addressed questions such as: Where will the staging area be for construction? How will large trucks and other equipment move to and from the construction site? Where will this large construction vehicles park? What will construction hours be?

3

The answers to these and other questions are critical to enabling neighbors to endure the decade of building that the Hospital Plan entails. Trucks, construction employees' parking, etc. should not be allowed on Dover Street or surrounding residential viaducts and should instead be routed via non-residential streets. Construction must be constrained to allow neighbors to enjoy their

homes and yards peacefully *both during business and non-business hours*. Under no circumstances should construction be allowed on Saturdays or Sundays. In addition, the heavy truck traffic with the attendant increase in noise, dust, and diesel exhaust fumes must be severely mitigated during this proposed decade-long large-scale construction project. In addition, significant funds should be set aside to address unforeseen adverse effects to residents.

3
cont.

THE HOSPITAL PLAN

Residential Zoning Must Be Preserved (Including Limiting Hospital Expansion Boundaries) to Maintain Neighborhood Livability

Residential zoning is necessary to maintain a livable residential environment for those who live in the neighborhood. As a result, I strenuously oppose *any* commercial rezoning of residential properties and request that the Commission deny wholesale commercial rezoning for all existing residences owned by CHO.

4

Instead, I ask that the Commission impose alternatives such as maintaining residential zoning (with conditional use permissions), allowing mixed use, and ensuring that those properties blend with the neighborhood (i.e., renovating/building structures with residential facades that mimic and fit in with the residential scale, despite their interior uses). In all cases, permits and design approvals should encourage a blending with the residential and historical character of the neighborhood. Such steps will significantly enhance the surrounding community – rather than progressively degrading its residential character.

Finally, I request that the Commission impose a binding agreement or other mechanism to solidify the boundaries of the Hospital site – while providing certainty for CHO as it moves forward with building plans – as a condition of Plan approval is *essential*. In the last decades, we have watched as successive CHO administrations bought and bulldozed residences in the area. Based on the Hospital's repeated violations of oral agreements with neighboring residents, additional verbal promises by the Hospital will prove insufficient defense for our neighborhood against further encroachment.

5

Proper Traffic Mitigation and Parking Garage Placement

CHO had proposed to relocate the entrance to the main parking garage from 52nd Street to the corner of Dover and 53rd Streets. I strongly encourage the Commission to prevent such a relocation. A new entrance in this location would cause considerable traffic increase on residential streets. All streets (including Dover, 53rd, and 54th) are extremely narrow allowing just enough room for one car to pass between vehicles parked at the curb. Local residents will suffer the negative effects of increases in traffic and congestion. Increased traffic could also create additional danger to vehicles, pedestrians, and cyclists. Fifty-Third Street cannot handle additional traffic flow, as drivers cruise up the street from Martin Luther King Way, Jr. (MLK) or down Dover Street from 52nd searching for the parking garage entrance.

6

Instead, I request that the Commission support relocating the parking entrance on MLK, which is better designed to bear significant traffic flow. This would preclude the serious health and safety risks of passenger and construction traffic with the attendant noise, dust, and exhaust fumes that could result from a parking lot entrance on Dover Street.

Parking Assessment and Mitigation

The Plan proposal notes that the Hospital will eliminate 160 parking spaces during Phase I construction. In this 100-year old neighborhood, most homes were constructed without garages and some without driveways. As the Hospital has expanded, decreased parking availability and blocked driveways have escalated in significance for some residents. Hospital visitors and patients park vehicles as far north as 57th Street and walk to the Hospital rather than utilizing Hospital-provided spaces. To date, the Hospital has not addressed parking to many residents' satisfaction. Past and recent experience does not demonstrate that Hospital can do so with the loss of an additional 160 parking spaces.

7

Nonetheless, the Hospital Plan includes expanding its campus to consolidate many of its facilities and employees in satellite locations. Thus, many more Hospital employees will be coming to the neighborhood. With even fewer parking spaces, where will these additional employees park? Where is the infrastructure for this influx of Hospital employees? The Hospital has not answered these questions. Moreover, although neighbors have moved to gather signatures for residential parking permits, the Hospital has not committed to pay for such permits. Other projects (such as the Safeway rebuild on College Avenue) have included guarantees of paid parking permits.

8

Maintenance Yard Access

For similar reasons, I oppose increased traffic access into the maintenance yard via a Dover Street entrance. Again, this is a residential street and cannot accommodate maintenance vehicles.

9

Noise Associated with Helicopters

The draft EIR's assessment of helicopter noise is insufficient and inaccurate. The decibel level of continuous and "average" noise associated with freeway and BART traffic *is not* appropriately compared with the abrupt and violent noise of helicopter propellers. Noise pollution consists of more than simple decibel levels. The startling, disruptive nature of helicopter noise is well-documented within the neighborhood and by the Hospital – particularly as helicopters arrive and depart at all times of the day, night, and "wee hours" of the morning. Pilots often stray far from the proper flight path, flying low and directly over residences. While humans may "tune out" the constant "white" or "background" noise of traffic, the sound associated with unexpected helicopter hovering, take offs, and landing is loud and jarring. The location and design of the landing pad should be adjusted to minimize the impact of such helicopter noise on the neighborhood north of 52nd Street.

10

Physical Plant Upgrades – Noise Pollution

The current physical plant creates a high-pitched "whine" that reflects off of neighboring homes and into yards. Physical plant upgrades should include a sound buffer that keeps noise out of the neighborhood.

11

Case File Number ER12-0013

Increased Bike and Pedestrian Access – 52nd Street and Dover Street

The Plan should result in increased bike and pedestrian access. These are important thoroughfares as people travel north and south between Ashby and MacArthur BART, as well as between neighborhoods and the improving Oakland commercial districts (Telegraph, Ashby, Alcatraz, etc.).

12

Green Space Buffers and Landscaping Options

The Hospital's current "landscaping" and green space consists mainly of bare dirt and concrete, making its buildings neighborhood eyesores. The need for a green space "cushion" is great. Notably, other Oakland projects (such as the Safeway rebuild on College Avenue) have created a buffer area to separate the site from the residential neighborhood.

13

Neighborhood residents deeply respect the Hospital and its mission. Many residents are CHO employees; others bring their own children there for treatment. We appreciate the current administration's work in addressing some neighborhood concerns and look forward to a continuing, long-term collaboration with the Hospital.

14

Regards,

//

Katina Ancar

COMMENTS C2

Ancar, Katina
September 22, 2014

- Response C2-1: This introductory comment, which requests that City decision-makers ensure that CHRCO addresses neighborhood concerns and follows through with agreed-to concessions, is noted. The comment does not address the adequacy of the Draft EIR and therefore no response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Specific concerns outlined in following comments are addressed in the responses below.
- Response C2-2: Please see Master Response #1 regarding noise and air quality impacts during project construction and duration of construction.
- Response C2-3: Please see Master Response #1 regarding various aspects of project construction such as construction staging areas, truck routes, construction worker parking, construction hours, and noise and air quality impacts during construction.
- Response C2-4: This comment, which expresses opposition to rezoning of residential buildings within the project site boundaries, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the Final EIR and the proposed project. Please see Master Response #4 regarding residential rezoning and preservation of neighborhood character.
- Response C2-5: This comment, which suggests that a mechanism should be in place to solidify the boundaries of the CHRCO campus, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Please see Master Response #4 regarding residential zoning and preservation of neighborhood character.
- Response C2-6: This comment notes that the hospital has previously proposed an entrance to the existing main parking garage off of Dover and expresses opposition to this proposal. The hospital is now proposing to locate the entrance to Martin Luther King Jr. Way as shown in Figure III-9 on page 97 of the Draft EIR. The commenter requests that the City decision-makers support the proposal. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, this comment will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project.

- Response C2-7: The comment incorrectly states that the project would reduce the on-site parking supply by 160 spaces. Please see the Automobile Parking subsection starting on page 356 of the Draft EIR for parking supply and estimated parking demand after completion of each phase of the project. Also, please see Response to Comment B5-4 for the correct number of parking spaces and the estimated off-street parking deficit/surplus after completion of each phase of project.
- Response C2-8: Please see Response to Comment B5-4 regarding parking demand at CHRCO and strategies to reduce parking demand at the project.
- Please see Master Response #3 regarding implementation of RPP in the project vicinity and CHRCO funding.
- Response C2-9: The comment expresses opposition to the proposed maintenance access on Dover Street. Currently, the maintenance access is provided off of 53rd Street to the rear of the existing OPC1. The proposed project would relocate the maintenance access to Dover Street behind 707-715 53rd and 5225 Dover Streets. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. As described on page 458 of the Draft EIR, deliveries to the hospital and maintenance activities typically occur between the hours of 9:00 a.m. and 4:00 p.m. The deliveries to the access area would be made by either passenger vehicles, pickup trucks, or staked trucks. The large majority of deliveries to the access area would occur from Monday through Friday, when all clinics are active at OPC1 and OPC2 buildings. Large deliveries (18-wheelers) would continue to go to the CHRCO loading docks (bays) south of 52nd Street to the east side of Martin Luther King Jr. Way. Maintenance vehicles would use 52nd Street to access Dover Street and would be able to navigate both streets. In addition, the existing maintenance yard would be re-landscaped as shown on Revised Figure III-20 (see Chapter IV of this RTC Document).
- Response C2-10: Please see Master Response #7 regarding helicopter noise.
- Response C2-11: Physical plant upgrades will be designed and operated to meet SCA NOI-5, Operational Noise-General, which requires that noise levels from any equipment on-site comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code (see Draft EIR page 443). Noise generated by the equipment associated with the CHRCO campus is expected to meet these standards. However, consistent with SCA NOI-5, if the noise levels are exceeded, the noise will be abated until appropriate noise reduction measures have been installed and compliance verified by the Planning and Zoning Division and Building Services.

- Response C2-12: As stated in the comment, the proposed project is expected to increase bicycle and pedestrian activity in the project vicinity. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Please see Master Response #2 regarding the recommended bicycle and pedestrian facilities on 52nd Street.
- Response C2-13: This comment suggests that more green space and landscape buffering should be provided within the CHRCO campus boundaries. The proposed landscape concept is presented in Figure III-20 on page 147 of the Draft EIR (also see Revised Figure III-20 in Chapter IV of this RTC Document). This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project.
- Response C2-14: This comment, which expresses respect for the hospital and its mission, and expresses appreciation for their work in addressing some neighborhood concerns, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project.

From: Victoria Anderson <lanuevavic@gmail.com>
Sent: Sunday, September 07, 2014 5:34 PM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital comment

This message is in response to the recently released Draft Environmental Impact Report for the Oakland Children's Hospital expansion project.

The project is good for healthcare and could help to revitalize the neglected MLK corridor, but it could also bring a lot more car traffic to the area. The included plan for a bikeway on 52nd Street is an upgrade from the current conditions, but the design is still outdated and won't do enough to encourage the average person to bike or walk there. I urge you to work with local non-profits Bike East Bay and Walk Oakland Bike Oakland on an improved design that will create a much more compelling and safe connection between the surrounding neighborhoods, and encourage more biking and walking trips by hospital staff, guests, and local residents.

An improved design should:

- Ensure that this plan includes a continuous, separated bikeway throughout the entire project area
- Provide better safety accommodation for bicyclists and pedestrians at conflict points along 52nd Street, especially the Highway 24 on and off ramps
- Adjust on-street car parking under the Highway 24 to create a buffered, parking-protected bikeway
- Implement the City of Oakland's guidelines throughout this project for green paint in bike lanes
- Fund Oakland's proposed bike boulevard treatment for the 52nd/Genoa Street bikeway, which will discourage cut-through car traffic on this bike-priority corridor
- Extend the project area to ensure safe bicycle connections between 52nd Street, Shattuck Ave, and Telegraph Ave in all directions
- Provide great biking, walking, and transit facilities and incentives for hospital employees and guests, including but not limited to: Long and short term bicycle parking in convenient locations and in excess of the city's minimum standard
- Free bike share bikes, locks, and helmets made available to hospital staff on site
- Bike commuting classes for employees and guests, hosted at the hospital
- Bicycle accommodation on the free Children's Hospital MacArthur BART shuttle, made available to hospital staff, guests, and neighborhood residents.

You can view the existing plan for the 52nd Street bikeway at https://pdf.yt/d/82O6oHh2_OMQ87Qr, and an alternative plan suggested by Bike East Bay at <https://pdf.yt/d/5h8q4vPa77wFI4MD>.

Thank you for your attention!

Sent from my iPhone

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COMMENTER C3

Anderson, Victoria
September 7, 2014

Response C3-1: Please see Response to Comment B1-1 regarding the Draft EIR's analysis of additional traffic generated by the proposed CHRCO project.

Response C3-2: The commenter supports the recommended bicycle improvements on 52nd Street included in Recommendation TRA-4. However, the comment states that the recommended bikeway can be further improved and provides a link to the existing bike plan for 52nd Street and a link for an Alternative Design suggested by Bike East Bay. The plan suggested by Bike East Bay is depicted in Figure RTC-V-2a through RTC-V-2d, as part of Master Response #2. See Master Response #2 for a complete discussion regarding the recommended bicycle facilities on 52nd Street and its various features.

Heather Klein, Planner III
Oakland Planning Commission
Department of Planning and Building
Oakland, CA 94612

September 22, 2014

RE: UCSF Benioff Children's Hospital Oakland – ER12-0013, DEIR: DOWD009157

Dear Ms. Klein, Oakland Planning Commissioners and other relevant parties,

Thank you for allowing me to make comments and recommendations regarding the expansion of UCSF Benioff Children's Hospital Oakland, particularly in the wake of the Sept. 17 Planning Commission meeting. This major construction project is expected to last from 2015 to 2025 and threatens to take an enormous toll on the health and wellbeing of its residential neighbors. Also at stake is the vibrant and historic character of the neighborhood if zoning changes allow for high-density buildings along Dover between 52nd and 53rd street, an area that I strongly believe should remain a low-density buffer zone.

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PRIORITIES:

I applaud UCSF Benioff Children's Hospital Oakland's agreement to place the new 6-story outpatient building at MLK and 52nd, not on the Dover Street residential side; the parking lot entrance on MLK, and not on the Dover Street residential side, and to keep the helistop on the south side of 52nd Street. It is important that no changes are made to this plan. But there is still more to be achieved to keep our neighborhood livable through the next ten years.

3

TRAFFIC AND POLLUTION:

I ask that construction vehicles/traffic not be permitted to use Dover Street or the adjacent residential roads, but be diverted to non-residential streets. Our roads cannot bear the brunt of 10 years of heavy traffic, the infrastructure is old, potholes are forming, and the sewer system is in bad need of repair, breakage will come at residents' and taxpayers' expense. We have a significant number of residents, old and young, with asthma. We literally cannot afford damage to our roads, nor to our lungs.

4

CONSTRUCTION HOURS:

To endure a decade of construction in a largely residential area, we will need a meaningful respite from a 7 a.m.-7 p.m. construction schedule. In addition to Sundays, we should have peace on Saturdays. Among other things, our Jewish households should be entitled to enjoy Shabbat in peace, just as other faiths enjoy Sundays as a day of rest and reflection.

5

RELIEF:

In this new economy, many of us work from home and cannot escape the impacts of construction. Concessions should include but are not limited to:

- Double-paned windows to keep out the incessant noise and dust. A process must be put in place for a reasonable number of double-paned windows to be provided to the most impacted residents. Let me note that helicopter noise remains an issue for those of us living between 54th and 53rd street as the helicopters usually veer off the freeway (Highway 24) route at 54th street and cut across and over our homes for their descent on the helipad at MLK and 52nd Street. We don't anticipate that these shortcuts will change, and so this block is in particular need of relief from helicopter noise.
- Road closures, if only through temporary barriers, should be used to divert construction traffic away from residential roads during the construction period.
- Landscaping would provide a noise buffer zone. At present there is little or no landscaping to the north of UCSF Benioff Children's Hospital. We look forward to more landscaping plans as trees and plants absorb sound very well.

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ZONING:

Any effort to rezone residential buildings to commercial ones on Dover between 52nd and 53rd would eliminate our one and only buffer zone. We are looking at a high-density, internally-oriented hospital campus on the doorstep of a historic neighborhood of narrow roads and single-family homes, many of which were built just after the 1906 San Francisco earthquake. We must continue to keep the tallest and busiest buildings south of 52nd Street by the freeway, and keep the development between 52nd and 53rd in scale with the residential neighborhood to the north.

9

FINAL NOTE:

UCSF Benioff Children's Hospital, a private, nonprofit institution, provides an admirable service for Oakland, Alameda County and beyond. That is not in question. At issue is how this decade-long expansion will impact a vibrant and historic North Oakland neighborhood. The hospital campus need not be a fortress casting a long shadow over its neighbors. It need not be internally oriented as is the new Kaiser Hospital, ugly and foreboding on the outside and sleek inside. This expansion can and should be an asset to the hospital, the city and to its neighbors. Let's do this right.

10

Kindest regards,
Yasmin Anwar, 5319 Dover Street, Oakland, CA 94609

COMMENTER C4

Anwar, Yasmin
September 22, 2014

- Response C4-1: This introductory comment, which expresses general concerns related to the length of the construction period, is noted. See Master Response #1 regarding the length of the construction period and construction impacts. Responses to subsequent specific comments provided by the commenter are provided below. Also refer to Response C4-10.
- Response C4-2: Please see Master Response #4 regarding project rezoning and neighborhood preservation. Please also see Response to Comment A2-2 regarding the project's potential impacts to the historical Residential District.
- Response C4-3: This comment, which expresses general support for elements of the proposed project and requests that City decision-makers ensure that these specific elements are implemented, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project.
- Response C4-4: The comment requests that construction trucks not be allowed to use Dover Street or other adjacent residential streets. Please see Master Response #1 regarding potential use of Dover Street and other residential streets by construction trucks as well as street damage repair and related construction-period air quality impacts.
- Response C4-5: Please see Master Response #1 regarding days and hours of construction.
- Response C4-6: This comment, which requests that CHRCO be required to implement additional measures to reduce construction and operation period noise impacts of the project, is noted. Construction and operation period noise impacts are addressed in Section IV.G, Noise and were determined to be less than significant with implementation of the City's SCAs. Helicopter noise at locations between 54th and 53rd Streets is shown in Table IV.G-16 (see Receptor sites I and J) and is discussed on page 470 of the Draft EIR. The analysis found that impacts related to helicopter noise would be less than significant. The addition of Recommendation NOI-1 includes several recommendations to further reduce noise impacts to nearby residents and SCA NOI-2 recommends implementation of a site-specific noise reduction program to reduce noise impacts during construction. No mitigation measures are required; however, the City will consider this input prior to taking action on the EIR and the proposed project. Also refer to Master Responses #1 and #7.
- Response C4-7: Please see Master Response #1 regarding road closures during construction.

- Response C4-8: See Response to Comment C2-13. The proposed landscape plan is included in the Draft EIR as Figure III-20 (also see Revised Figure III-20 in Chapter IV of this RTC Document). The statements that additional green space would lessen noise impacts are noted, however, landscaping has not been shown to measurably reduce noise levels. In order to reduce noise levels, a barrier must be continuous with no gaps or openings. In addition, noise impacts are addressed in Section IV.G, Noise. Impacts were determined to be less than significant.
- Response C4-9: This comment expresses concern regarding rezoning of residential buildings and the related preservation of the neighborhood's scale and character. Please see Master Response #4.
- Response C4-10: This comment notes that the hospital provides an admirable service for Oakland and beyond, but also reiterates concern regarding the duration of construction and associated impacts and the campus's relationship to the neighborhood. Please see Responses to Comments C4-2 through C4-9.

From: Yasmin Anwar <yanwar24@gmail.com>
Sent: Sunday, August 10, 2014 7:19 PM
To: Klein, Heather
Cc: Yasmin Anwar
Subject: Children's Hospital expansion ER 12-0013

Dear Ms. Klein and members of the Oakland City Planning Commission,

My husband, son and I live two blocks north of Children's Hospital Oakland. We have owned our 1908-built home for 25 years, and cherish our diverse, historic neighborhood. As you can imagine, the prospect of more than a decade of major construction traffic, noise and dust -- until my son, now 10, is in college -- is daunting. That said, I commend Children's Hospital for working with us neighbors to find solutions to our top concerns, those being that we did NOT want a 6-story outpatient building towering over us at 53rd and Dover streets, and that we did NOT want the parking lot entrance on narrow, residential Dover Street, and that we did NOT want the helipad on the north side of 52nd Street. We are thankful that these concerns were addressed in CHO's latest plans. But as we all know, plans can change and so it is incumbent upon us to ensure that Children's Hospital does not find excuses to renege on these concessions, and that the hospital addresses unresolved issues, such as the following:

1. Children's Hospital is shoe-horned into a triangle bounded by BART tracks, freeways and residential areas. Where will the staging area be for construction? How will the large trucks and other equipment move in and out of the neighborhood and where will all this traffic park? There is no room. This is critical and I do not see it addressed anywhere in the paperwork.

2. There has been talk off closing off Dover Street at 53rd Street. Some of us would like to see this used as a traffic calming device similar to those used around the Alta Bates Medical Center. Other neighbors are concerned that a street closure will cause traffic backups. We have discussed the pros and cons at community meetings, but this issue remains unresolved. Where is Children's Hospital on this question?

3. Traffic and parking are already a major problem in our neighborhood. As yet, we have not received a commitment from CHO will pay for residential parking permits for a limited number of blocks. We are

gathering signatures for residential parking permits, but everyone is asking, who is paying? We don't have an answer from Children's Hospital.

4
cont.

4. Children's is expanding its campus to consolidate many of its facilities and employees in satellite locations. An example is a 6-story clinical services building they have planned for the north side of Dover at 52nd Street in Phase 2. This means many more CHO employees coming to the neighborhood. Where will they all park? Where is the infrastructure for this influx of CHO employees?

5

5. What will be the hours of construction and what will they do to mitigate noise and dust? We have many residents, including elderly people and children, with asthma. In this "new" economy, we also have many residents who work from home. We're talking 10 or more years of construction so what will be done to keep our neighborhood livable through 2025 and possibly longer?

6

Note that Safeway on College agreed to pay for residential parking for the most impacted residents, create a buffer area to separate the site from the residential neighborhood, and set aside \$300,000 to address unforeseen adverse effects on the neighborhood.

7

Again, we appreciate all that CHO's leadership has done to address our concerns and look forward to working with the hospital and the city to make this a project we can all be proud of.

8

Thank you for your consideration,

Warmest regards,
Yasmin Anwar, Thomas Levy and Leeam Levy
5319 Dover Street, Oakland, CA 94609

COMMENTER C5

Anwar, Yasmin
August 10, 2014

- Response C5-1: This introductory comment, which generally expresses support for certain elements of the project and requests that City decision-makers ensure that CHRCO addresses neighborhood concerns and follows through with agreed-to concessions, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input prior to taking action on the EIR and the proposed project.
- Response C5-2: This comment requests additional information related to construction of the proposed project. Please see Master Response #1 regarding construction staging, construction truck routes, and construction worker parking.
- Response C5-3: This comment, which requests that Dover Street be closed south of 53rd Street as a traffic calming measure is noted. Potential closure of Dover Street is analyzed in the Draft EIR in Chapter V, Alternatives, on pages 576 through 590. After a thorough review of all public comments, the traffic analysis related to the Dover Street Closure Alternative within the Draft EIR, the applicant's proposed Tentative Tract Maps, current City operations, and all relevant State and City codes and legislation, City staff is not recommending vacation or closure of Dover Street be considered as part of the Planning entitlements at this time for several reasons. First, as noted in Figure IV.D-10 on page 285 of the Draft EIR, speed humps are installed along the entire length of Dover Street from 52nd Street to the Berkeley border. These traffic calming measures reduce speeds in the area and assist in diverting traffic to arterial streets. Second, City staff is required to make findings to approve either vacation or closure. City staff cannot make findings for vacation nor has CHRCO formally petitioned the City for closure. Third, Dover Street is used periodically by Oakland Fire Department and Oakland Police Department personnel to respond to emergencies requiring the street remain open to emergency vehicles. Due to the presence of existing buildings along the street and necessary hospital loading operations, the street would be unable to meet the required dimensions for an emergency vehicle access easement in order to support vacation. In addition, closure of Dover Street would require constant monitoring and action to ensure the street remains unobstructed which is beyond the scope of the City or CHRCO to enforce. Fourth, the Draft EIR concluded that traffic along Dover Street would maintain a free traffic flow typical of a neighborhood street. Closure of Dover Street between 52nd and 53rd Streets is likely to divert traffic to other local streets requiring additional traffic calming and closures which would further disrupt neighborhood connectivity. Fifth, the street grid is a character defining feature of the historic neighborhood. Although this pattern has been disrupted by the elevated BART

tracks and SR 24 and vacation or closure would not result in a CEQA impact, the Historic Resource Evaluation Report prepared for the project recommends that the Dover Street Closure Alternative not be implemented and that the existing street grid and block configuration be retained. Sixth, the project is proposing a 10 year Master Plan and many street improvements are not proposed until Phase 2. Although traffic impacts were analyzed in the Draft EIR to determine future potential impacts, actual traffic volumes may increase or decrease. Finally, Dover Street logistically needs to remain open to facilitate construction along 53rd Street and Dover Street as part of Phase 1 and Phase 2 of the project and to reduce construction trips along 53rd Street west of Dover. Therefore, City staff recommends that the City Council postpone action on vacation or closure until after further review of the actual future traffic volumes in 2025. To ensure that this review is completed, Planning staff has recommended that the following requirement be imposed as a Condition of Project Approval:

“The Hospital shall cause to be conducted a transportation engineering study, by a qualified consultant, at Dover Street between 52nd and 53rd Street and shall submit the study to City Departments for review and approval six months after the occupancy of Phase 2. At that time, the City will further evaluate whether vacation or closure is necessary and whether the required findings can be satisfied. If the City determines that vacation or closure is necessary, the Hospital will implement the City’s recommendation at the Hospital’s sole cost and expense.”

- Response C5-4: Please see Master Response #3 regarding implementing RPP in the vicinity of proposed project and CHRCO funding.
- Response C5-5: The comment inquires where the additional employees generated by the proposed project would park. See the Automobile Parking subsection starting on page 356 of the Draft EIR for parking supply and estimated parking demand after completion of each phase of the project. Also, please see Response to Comment B5-4.
- Response C5-6: Please see Master Response #1 regarding construction noise and dust, which is also analyzed in sections IV.G, Noise and IV.E, Air Quality in the Draft EIR.
- Response C5-7: Please see Master Response #3 regarding implementing RPP in the vicinity of proposed project and CHRCO funding.
- Please see Master Response #1 regarding funds for unforeseen adverse effects during project construction.

Response C5-8: This comment expresses appreciation for CHRCO's efforts to address the neighborhood's concerns. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input prior to taking action on the EIR and the proposed project.

From: Cynthia Armour <armour.cb@gmail.com>
Sent: Monday, August 25, 2014 11:33 AM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital comment

Hi there!

My name is Cynthia Armour and I live at 480 55th Street, just blocks away from Children's Hospital. I bike and walk around the area very often, and I'd like to submit some comments to the recently released Draft Environmental Impact Report for the Oakland Children's Hospital expansion project.

The project is good for health care and could help to revitalize the neglected MLK corridor, but it could also bring a lot more car traffic to the area. The included plan for a bikeway on 52nd Street is an upgrade from the current conditions, but I'm concerned that the design is still **outdated** and **won't do enough** to encourage the average person to bike or walk there. *I urge you to work with local non-profits Bike East Bay and Walk Oakland Bike Oakland on an improved design that will create a much more compelling and safe connection between the surrounding neighborhoods, and encourage more biking and walking trips by hospital staff, guests, and local residents.*

An improved design should:

- Ensure that this plan includes a continuous, separated bikeway throughout the entire project area
- Provide better safety accommodation for bicyclists and pedestrians at conflict points along 52nd Street, especially the Highway 24 on and off ramps
- Adjust on-street car parking under the Highway 24 to create a buffered, parking-protected bikeway
- Implement the City of Oakland's guidelines throughout this project for green paint in bike lanes
- Fund Oakland's proposed bike boulevard treatment for the 52nd/Genoa Street bikeway, which will discourage cut-through car traffic on this bike-priority corridor
- Extend the project area to ensure safe bicycle connections between 52nd Street, Shattuck Ave, and Telegraph Ave in all directions
- Provide great biking, walking, and transit facilities and incentives for hospital employees and guests, including but not limited to: Long and short term bicycle parking in convenient locations and in excess of the city's minimum standard
- Free bike share bikes, locks, and helmets made available to hospital staff on site Bike commuting classes for employees and guests, hosted at the hospital
- Bicycle accommodation on the free Children's Hospital MacArthur BART shuttle, made available to hospital staff, guests, and neighborhood residents.

On a last note, I'd encourage you to [watch this video](#) about an infrastructure project near a hospital in Fremont. Of course it's comparing apples to oranges, but I would like to highlight that you have an opportunity hear to get things done right the first time around, and not wait until there have been injuries before building a safe and complete street.

Thank you for your attention!

Cynthia Armour
Oakland resident

COMMENTER C6

Armour, Cynthia
August 25, 2014

Response C6-1: Please see Response to Comment B1-1 regarding the additional traffic generated by the proposed CHRCO project.

Response C6-2: The commenter supports the recommended bicycle improvements on 52nd Street included in Recommendation TRA-4. However, the comment states that the recommended bikeway can be further improved and provides a link to the existing bike plan for 52nd Street and a link for an alternative plan suggested by Bike East Bay. The plan suggested by Bike East Bay is depicted in Figure RTC-V-2a through RTC-V-2d, as part of Master Response #2. See Master Response #2 for a complete discussion regarding the recommended bicycle facilities on 52nd Street and its various features.

Laurel Barber
5322 Dover St.
Oakland, CA 94609
jnanamai@yahoo.com

Oakland City Planning
c/o Heather Klein
hklein@oaklandnet.com

Dear Oakland City Planning Commission,

I'm writing to register my comments about the Draft EIR for Application DOWD009157: Children's Hospital Master Plan pursuant to CEQA.

1. **Construction concerns:** this promises to be a 10-plus year ordeal for neighbors of Children's Hospital, and it is imperative that the draft EIR considers fully and carefully this long-term impact on the livability of the neighborhood.
 - a. **Construction traffic:** Trucks, employee parking, etc. should not be allowed on Dover Street, and instead should be routed via non-residential streets.
 - b. **Hours of construction:** Ten years of construction is not typical, and the project is nestled in a residential neighborhood. Therefore, the hours of construction should be constrained to allow neighbors to enjoy peace in their yards during non-business hours. 8am-6pm Monday-Friday is a reasonable time period. Construction should not be allowed on Saturdays should
 - c. **Safety:** 52nd street, and also Dover Street are important pedestrian and bicycle connections that span a major freeway. During the 10 years of construction, every effort must be made to keep pedestrians and bicyclists safe as they use this transportation corridor. As an example of what NOT to do- consider the MacArthur BART pedestrian/bike "passageway" that was recently part of construction there.
2. **Project Plan:** My primary concern about this plan is to make sure it does not detract from the livability of the residential neighborhoods around the hospital.
 - a. **Zoning** should NOT be changed. Residential zoning is needed to maintain a pleasant environment for the neighbors.
 - b. **Parking garage entrance:** I support the parking entrance being placed on MLK. I strongly disagree with the idea of placing the parking entrance on Dover St.
 - c. **Maintenance yard access:** I do NOT support increased traffic access into the maintenance yard via a Dover St. entrance, this is not acceptable. Dover St. is a narrow residential street and should not accommodate maintenance vehicles.

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- d. **Physical plant upgrades – noise pollution:** The current physical plant creates a high-pitched “whine” that reflects off of our house into the backyard. Physical plant upgrades should include a sound buffer that keeps noise out of the neighborhood. 9
- e. **Bike and pedestrian – 52nd Street and Dover St. :** The project should result in INCREASED bike and pedestrian access between West St. and Shattuck. This is an important thoroughfare as people travel north and south between Ashby and MacArthur BART, as well as between neighborhoods and the recently improving commercial districts of Oakland (Telegraph, Ashby, Alcatraz, etc.) 10
- f. **Safety:** The project should be designed so that the ‘exterior’ parts of the hospital tend to improve safety for the surrounding neighborhood. For instance, the current configuration of a parking garage wall and un-kept homes (which are sometimes rented to people associated with criminal activity) is NOT a good example of the hospital’s presence improving safety and health in its surrounding neighborhood. 11
- g. **Residential livability:** In all cases, permits and design approvals should encourage a blending with the residential and historical character of the neighborhood. 12
- h. **Helicopter noise:** The draft EIR’s assessment of helicopter noise is not appropriate. Citing decibel levels of the continuous and “average” noise from freeway and BART with the ‘abrupt’ and ‘violent’ noise of helicopters is a ridiculous comparison. Noise pollution is about more than decibels – the startling and fear-inducing nature of helicopter noise is well-known, and while neighbors can get used to and ‘tune out’ the constant noise of traffic and the whir of BART, helicopter arrivals are ALWAYS scary. Their impacts on the neighborhood should be minimized in the design of the helicopter landing pad. 13

I would like to add that I am a Registered Nurse Practitioner who has practiced in Alameda County services for children and adolescents for the past 20 years. I am well aware of the excellent services provided by Children’s Hospital and support the improvement of the facility. However I ask that the quality of life and health of the community be taken into consideration and the above issues be addressed. 14

Thank you for your attention to this matter.

Sincerely,
Laurel Barber

COMMENTER C7

Barber, Laurel
2014

- Response C7-1: This introductory comment, which expresses general concern that long-term impacts associated with project construction should be considered in the Draft EIR, is noted. Please see Master Response #1 regarding the length of the construction period and associated impacts.
- Response C7-2: Please see Master Response #1 regarding potential use of Dover Street and other residential streets by construction trucks.
- Response C7-3: Please see Master Response #1 regarding days and hours of construction.
- Response C7-4: Please see Master Response #1 regarding pedestrian and bicycle safety during construction.
- Response C7-5: This comment, which expresses concerns related to livability of the nearby residential neighborhood, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response C7-6: This comment, which states that the existing residential zoning within the CHRCO campus boundaries should not be changed, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Please see Master Response #4.
- Response C7-7: This comment, which states support for the parking garage access off of Martin Luther King Jr. Way and not Dover Street, is noted. It should also be noted that garage access from Dover Street is not part of the proposed project (see Chapter III, Project Description of the Draft EIR for a description of proposed garage access points). This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project.
- Response C7-8: Please see Response to Comment C2-9 regarding the proposed maintenance access on Dover Street.
- Response C7-9: Please see Response to Comment C2-11 regarding physical plant noise.
- Response C7-10: Please see Response to Comment C2-12 regarding increased bicycle and pedestrian activity in the project vicinity.

Response C7-11: The commenter requests that CHRCO participate in improving public safety in and around the CHRCO campus. This comment is noted.

Beginning on page 614, the Draft EIR analyzes potential impacts to public services, including police services. Implementation of the proposed project would increase staff, patients, and visitors on the site. However, this increase would be minor and would not result in the need for new or physically altered government facilities that could in turn result in adverse physical impacts. As such, the Draft EIR concludes that the project would result in less-than-significant impacts to public services.

Response C7-12: This comment, which requests that approvals granted for the proposed project should consider compatibility with the residential and historic character of the area, is noted. Please see Master Response #4.

Response C7-13: Please see Master Response #7 regarding helicopter noise.

Response C7-14: This comment, which states that the quality of life and health of the community need to be considered, is noted. Please see Responses C7-2 through C7-13 which address the commenter's concerns.

From: bb <bethbaugh2000@yahoo.com>
Sent: Sunday, September 21, 2014 9:42 PM
To: Klein, Heather
Subject: Re: Draft EIR for Application DOWD009157 Children's Hospital Master Plan pursuant to CEQA.

Elizabeth Baugh
664 54th Street
Oakland, CA 94609

Oakland City Planning
c/o Heather Klein
hklein@oaklandnet.com

Dear Oakland City Planning Commission,

Below are my comments about the draft EIR for Application DOWD009157: Children's Hospital Master Plan pursuant to CEQA.

My neighbors and I have voiced, and continue to have, deep concerns about the estimated ten year construction plan. How will this impact our neighborhood in terms of:

Time Frame-- ten years is a long time for a project to impact an entire neighborhood. It is imperative that construction hours be set to respect residents' peace during non business hours. Many neighbors work from home. No Saturday construction should be allowed.

Construction traffic--our residential streets are already filled with CHO employee and visitor vehicles on most weekdays--trucks, etc. must be routed and parked on non-residential streets as much as possible.

Pedestrian safety--It is important to plan for maximum bicycle and pedestrian safety in an already traffic-heavy area.

CHO has the opportunity to integrate itself more fully into the community by working with its neighbors to minimize the impact that this decade-long project will have on the surrounding area. I urge the city of Oakland to ensure that the disruption to the neighborhood be minimal by taking seriously our neighbors' comments, by enforcing zoning and other requirements, and by addressing our concerns in the final EIR.

Thank you,
Elizabeth Baugh

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COMMENTER C8

Baugh, Elizabeth
September 21, 2014

- Response C8-1: Please see Master Response #1 regarding duration of construction and hours and days of construction.
- Response C8-2: Please see Master Response #1 regarding truck routes and worker parking during construction.
- Response C8-3: Please see Master Response #1 regarding pedestrian and bicycle safety during construction.
- Response C8-4: This comment broadly addresses the proposed project's environmental impacts and urges City decision-makers to enforce existing policies in order to minimize impacts to the neighborhood. The City will consider this input prior to taking action on the EIR and the proposed project.

From: Lynn <roc_roc8@hotmail.com>
Sent: Friday, September 05, 2014 1:37 PM
To: Klein, Heather
Subject: Children's Hospital Expansion

**Letter
C9**

Hello Oakland City Planning Commission,

We have lived at 5528 Dover for 16 years and have worked hard with our community to improve our neighborhood. We are very concerned about the new construction of Children's Hospital. We are concerned about the noise, dust, and additional traffic in our neighborhood. In addition, we are very concerned about parking. We already have visitors and staff from the hospital parking in front of our house for the whole day. When the construction begins we know we will also have contractors parking here too.

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We keep hearing that Children's Hospital is willing to facilitate residential parking permits. But they are asking us to go door to door and have petitions signed. Children's Hospital should be undertaking the project of the petitioning. This is a large daunting project that will require quite a bit of time.

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It will take many hours to go door to door in the community and explain the residential parking permit process. The neighbors should not be burdened with this process. This process would be easier if Children's Hospital petitioned the Council to establish a RPP area in our neighborhood.

Would Children's Hospital be willing to pay for the permits for the length of the construction? Alta Bates Hospital has provided this for the surrounding neighborhood.

Of course there will be unseen problems that we will all have to navigate during this construction period. Children's Hospital has done a very good job about communicating with us. Hopefully going forward this will continue.

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Thanks so much!

Lynn Beldner + Steve Briscoe

COMMENTER C9

Beldner, Lynn; Briscoe, Steve
September 5, 2014

- Response C9-1: Please see Master Response #1 regarding increase in dust, noise, and traffic during construction. Traffic and noise issues during the project operation period are also discussed in the appropriate topical sections of the Draft EIR (Sections IV.D, Transportation and Circulation and IV.G, Noise, respectively). This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response C9-2: Please see Master Response #1 regarding accommodating construction worker parking during the construction period. Also refer to Master Response #3 regarding parking concerns during project operation.
- Response C9-3: Please see Master Response #3 regarding establishing RPP on the residential streets in the project vicinity.
- Response C9-4: This comment, which expresses concerns related to project construction, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

From: Shelagh Brodersen <shelaghb1@icloud.com>
Sent: Wednesday, September 03, 2014 6:33 PM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital comment

PC This message is in response to the recently released Draft Environmental Impact Report for the Oakland Children's Hospital expansion project.

The project is good for healthcare and could help to revitalize the neglected MLK corridor, but it could also bring a lot more car traffic to the area. The included plan for a bikeway on 52nd Street is an upgrade from the current conditions, but the design is still outdated and won't do enough to encourage the average person to bike or walk there. I urge you to work with local non-profits Bike East Bay and Walk Oakland Bike Oakland on an improved design that will create a much more compelling and safe connection between the surrounding neighborhoods, and encourage more biking and walking trips by hospital staff, guests, and local residents.

An improved design should:

- Ensure that this plan includes a continuous, separated bikeway throughout the entire project area
- Provide better safety accommodation for bicyclists and pedestrians at conflict points along 52nd Street, especially the Highway 24 on and off ramps
- Adjust on-street car parking under the Highway 24 to create a buffered, parking-protected bikeway
- Implement the City of Oakland's guidelines throughout this project for green paint in bike lanes
- Fund Oakland's proposed bike boulevard treatment for the 52nd/Genoa Street bikeway, which will discourage cut-through car traffic on this bike-priority corridor
- Extend the project area to ensure safe bicycle connections between 52nd Street, Shattuck Ave, and Telegraph Ave in all directions
- Provide great biking, walking, and transit facilities and incentives for hospital employees and guests, including but not limited to: Long and short term bicycle parking in convenient locations and in excess of the city's minimum standard
- Free bike share bikes, locks, and helmets made available to hospital staff on site
- Bike commuting classes for employees and guests, hosted at the hospital
- Bicycle accommodation on the free Children's Hospital MacArthur BART shuttle, made available to hospital staff, guests, and neighborhood residents.

You can view the existing plan for the 52nd Street bikeway at https://pdf.yt/d/82O6oHh2_OMQ87Qr, and an alternative plan suggested by Bike East Bay at <https://pdf.yt/d/5h8q4vPa77wFI4MD>.

Thank you for your attention!

Sent from my iPad

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COMMENTS C10

Brodersen, Shelagh
September 3, 2014

Response C10-1: Please see Response to Comment B1-1 regarding the additional traffic generated by the proposed CHRCO project.

Response C10-2: The commenter supports the recommended bicycle improvements on 52nd Street included in Recommendation TRA-4. However, the comment states that the recommended bikeway can be further improved and provides a link to the existing bike plan for 52nd Street and a link for an alternative plan suggested by Bike East Bay. The plan suggested by Bike East Bay is depicted in Figure RTC-V-2a through RTC-V-2d, as part of Master Response #2. See Master Response #2 for a complete discussion regarding the recommended bicycle facilities on 52nd Street and its various features.

From: brokcrofts <brokcrofts@sonic.net>
Sent: Sunday, September 07, 2014 11:51 AM
To: Flynn, Rachel; Klein, Heather; Marvin, Betty; Kalb, Dan; Ranelletti, Darin; Merkamp, Robert
Cc: Christopher Andrews; Peter Birkholz; Valerie Garry; Mary Mac Donald; Stafford Buckley; Eleanor Casson; Frank Flores
Subject: Expansion update: DEIR UCSF Benioff Children's Hospital Oakland--Landmarks Board Meeting Monday, 6 p.m.

The expansion will be considered at the Landmarks Board Monday, the Planning Commission Wed., Sept. 17, both meetings at Oakland City Hall. Comments must be received by planning staff by 4 p.m., Sept. 22.

Dear Planning Commission and Landmark Board member/Planning Staff:

We are concerned about the inadequacy of the environmental review being undertaken by the City of Oakland and UCSF Benioff Children's Hospital Oakland for the massive expansion project, involving as it does 400,000 s.f. of new construction and demolition of 66,582 s.f. of existing buildings.

Note: The boilerplate DEIR refers to the project applicant throughout as Children's Hospital and Research Center Oakland (CHRCO) throughout the document, ignoring the official name change as of Jan. 1, 2014.

The following are our objections and concerns which may be amended or added to before the Sept. 22 deadline.

1. Planning staff ignored the recommendation by the State Office of Historic Preservation, and reiterated by ourselves and others, to study the ENTIRE Dover/55th St. Historic District, an Area of Secondary Importance by the City's own criteria.

As spelled out succinctly by Lucinda Woodward of SHPO in her Aug. 28, 2013 letter:

"The area identified as the 55th and Dover Residential District was evaluated by the city in 1996, and should be reevaluated using the definition of a historical resource found in CEQA, as a historical district and not a number of individual properties. Part of the district is within the project footprint, and part is outside that boundary. Identification efforts and analysis of impacts should include the entire 55th and Dover Residential District."

Alfred Crofts and myself, in our Aug. 27, 2013 letter, noted the inadequacy of the analysis acknowledged even by Page & Turnbull, the City's own consultants:

"Page and Turnbull was not asked to complete a residential district evaluation for either the state or local register as part of the scope of work for this project. However, such an evaluation is necessary to fully understand the existing conditions, historic context and integrity of the district..." (pg. 110, Page & Turnbull)

With the refusal to expand the inadequate and incomplete description of the District, along with possible impacts, the City has truncated the discussion.

2. The traffic analysis is inadequate and fails to take into consideration the acknowledged increase in traffic with the proposed project upon the existing narrow, historic streets, more lanes than boulevards. This area was built up, post-1906 earthquake, as a “street-car suburb,” serviced by the street car line down Grove St., now MLK Jr. Way. Automobiles were scarce in that era, many houses were built without garages, so to assert that there will be no significant impacts on this century old grid by this massive hospital expansion is absurd.

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3. The dismissal of possible Dover St. closure with the hypocritical injunction that the “existing street grid and block configuration should be retained” ignores both the impinging reality of the massive UCSF Benioff CHO project, not to mention the profound disruption to that grid and configuration with the BART and Highway 24 construction.

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4. There is no consideration of ongoing penetration and degradation of the surrounding Dover/55th St. ASI. UCSF Benioff CHO continues to own and operate buildings, including former residential housing, north of 53rd St. Hospital officials have refused to agree to any covenants curtailing expansion beyond 53rd St. as part of approval for this latest expansion. Nor have they indicated any support for an official designation of a Dover/55th St. landmark district, or for any official landmark designation for their National Register-eligible “Original Baby Hospital” Building, whose ultimate fate is uncertain.

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5. The DEIR ignores the historic and ongoing encroachment of UCSF Benioff CHO upon the surrounding residential neighborhood, of which the expansion is only the latest, but not the last, iteration. Previous expansions also occurred with demolition of residences. It must also be noted that even if residences are relocated or the first ten feet of the facades retained, the structures will have institutional uses and character, with institutional schedules and occupants. **That** is an impact.

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6. The DEIR ignores the injunction by SHPO to study impacts of the project on nearby Temescal Creek, with the “potential for prehistoric archeological properties.”

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In summary, the conclusion that there will be no significant and unavoidable impacts, as well as cumulative impacts, for this project is unsubstantiated, without first conducting the adequate analysis of the surrounding ASI neighborhood. The traffic analysis is faulty.

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Of course there are cumulative impacts. The DEIR fails to address traffic and other impacts with hundreds of housing units in the pipeline, a mere 2 blocks away in Temescal.

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From a holistic, planning perspective, the DEIR is a tragic waste of the time and resources of community members, who attended meetings and submitted comments and concerns, with sincere hopes for a better project and in the apparently mistaken belief the city and UCSF Benioff CHO welcomed their input. The DEIR doesn’t even bother to address these comments, simply marginalizing them on a disc. Nor does it bother to address numerous other issues raised by community members, such as UCSF Benioff CHO’s improvement of their other facilities in the vicinity outside the project footprint such as the surface parking lot and the “ghetto” brutalist, marginally municipal, park at 52nd and MLK, in the epicenter of the ever-expanding hospital zone.

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COMMENTER C11

Brokl, Robert; Crofts, Alfred
September 7, 2014

- Response C11-1: This introductory comment, which generally states that the commenter has concerns related to the adequacy of the Draft EIR, is noted. Because this comment does not raise any specific issues related to the adequacy of the information or analysis within the Draft EIR, no further response is required. Responses to subsequent comments related to the adequacy of the Draft EIR are provided below.
- Response C11-2: This comment, which states that there was a change in ownership and subsequent name change of the Children's Hospital and Research Center Oakland (to UCSF Benioff Children's Hospital Oakland) in January 2014, is noted. However, it does not relate to environmental issues in the Draft EIR and no further response is required. Responses to subsequent comments related to the adequacy of the Draft EIR are provided below.
- Response C11-3: Please see Response to Comment A2-1. Page & Turnbull's Historic Resource Evaluation (see Appendix B1 of the Draft EIR, page 110) indicates "an evaluation is necessary to fully understand the existing conditions, historic context, and integrity of the district." To address this concern, the City requested that an updated inventory and historical evaluation be completed for the Residential District (see Appendix B4 in the Draft EIR). The Residential District in its entirety was evaluated for its eligibility for listing in the California Register, the results of which are noted in the Cultural and Historic Resources section of the Draft EIR. A detailed DPR 523 record of the Residential District was prepared and included as Appendix B4. The DPR 523 record includes an evaluation of the Residential District's historical significance and descriptions of the contributing buildings.
- Response C11-4: The comment states that the traffic analysis presented in the Draft EIR is inadequate because it does not identify any significant impacts on the existing streets in the project vicinity. However, the commenter does not comment on any specific assumptions, methodology, or results presented in the Draft EIR. The Draft EIR analyzed traffic impacts and concluded that all potential traffic impacts from the project would be less than significant.
- The assumptions and methodology used in the transportation analysis completed for the Draft EIR is based on standard transportation engineering best-practices and City of Oakland's guidelines and requirements. Based on application of City of Oakland's Thresholds of Significance (see page 315 of the Draft EIR), the Draft EIR does not identify any significant impacts on transportation and circulation. Nevertheless, the Draft EIR includes recommendations, which are not required to address a CEQA impact, but are

provided to improve access and circulation in the project vicinity for all travel modes. Also refer to Master Response #4 regarding increased vehicle traffic and effects on the historic integrity of the neighborhood and Response A2-3 regarding the historic street grid.

Response C11-5: The comment states that the Draft EIR dismisses the potential closure of Dover Street. The Draft EIR analyzes the impacts of the project on transportation and circulation, with and without the closure of Dover Street (project analysis presented in Section IV.D starting on page 257 does not include closure of Dover Street; the alternatives analysis presented in Section V.D starting on page 576 includes the closure of Dover Street.) Based on the analysis presented in the Draft EIR, the closure of Dover Street would not result in any significant impacts on transportation and circulation.

The closure of Dover Street would also not result in significant impacts on the historic Residential District. Closure of Dover Street would not materially impair the character-defining features of the District that include its uniformity of building types, building setbacks, and design elements of contributing properties. Although the street grid and regular block pattern is also a character-defining feature of the Residential District, closure of Dover Street would be contained to one block within the District and would not render the historical resource unable to convey its significance. Please also see Responses to Comments A2-3 and C5-3 for a discussion of potential impacts to historical resources from closure of Dover Street.

Response C11-6: The proposed project is described in detail in Chapter III of the Draft EIR. Figure III-4 provides a map of all CHRCO clinics and facilities in the City of Oakland; Figure III-6 enumerates the facilities associated with the CHRCO Campus, including two buildings north of 53rd Street - 670 53rd Street and 770 53rd Street. No physical changes are proposed to these two buildings as part of the Master Plan project, and as show in Figures III-5 and III-21, no changes to the General Plan or Zoning designations of these two parcels is proposed.

The 55th and Dover Residential District is discussed in Section IV.G, Cultural and Historic Resources. Potential impacts to the Residential District as a result of project implementation are summarized on pages 244 to 250 of the Draft EIR, as well as in Appendix B3. Impacts to the Residential District would be less than significant because the character-defining features of the resource would not be materially impaired to the degree that the district would no longer be eligible for listing in the California Register and the City's Local Register. Please see Response to Comment B4-1 for a discussion of the project's less-than-significant impact finding for the Residential District. Please also see Master Response #4.

Response C11-7: This comment addresses the potential for historic designation of the 55th/Dover Residential Street ASI and/or the A/B Wing as historic landmarks. Please see Response to Comment B4-3 regarding the official designation of the A/B Wing.

The Oakland Cultural Heritage Survey (OCHS) previously identified the Residential District in 1996 as an Area of Secondary Importance (ASI). To update the OCHS historical evaluation for EIR purposes, an inventory and evaluation was completed for the project (see Appendix B4). The evaluation found that the Residential District is eligible for listing in the California Register and retained good integrity. Under the City's Historic Preservation Element, the City Council may confer Preservation District status on eligible districts, including an ASI on the advice of the LPAB and typically at the request of property owners. The S-20 Historic Preservation Combining Zone is the designation given to residential districts. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response C11-8: This comment relates to the historic and potential future encroachment of CHRCO into the neighborhood. The environmental setting for the proposed project was considered to be the setting at the time the Notice of Preparation was published, July 25, 2013. This is consistent with CEQA Guidelines Section 15125(a). Any previous or historic "encroachment" by the hospital onto the surrounding neighborhood is considered part of that setting (i.e., the baseline) for comparison against the project to evaluate the project's potential environmental impacts. The proposed project described in Chapter III of the Draft EIR, represents the long range, approximately 20 year plan by the hospital on the CHRCO Campus. There are no known plans for expansion beyond what is described.

The Draft EIR considered whether the project would have a significant effect on the environment if it – in combination with other past, current, or reasonably feasibly foreseeable projects under review by the City – contributes to a significant cumulative impact on cultural resources. The analysis concluded that the project would not contribute to a cumulatively significant impact on a historical resource, i.e., the Residential District and the A/B Wing (see Draft EIR pages 255-256).

The Draft EIR also considers the potential impacts to the Residential District from partial demolition of contributing elements at 671, 675, 707, and 715 53rd Street. Partial demolition of these residences would result in a less-than-significant impact on the Residential District as it would not adversely affect the character-defining features of that resource (see Appendices B3 and B4) to such an extent that it would materially alter those physical characteristics that justify its eligibility for inclusion in the California Register or status as an ASI. The character-defining features of the Residential District include a uniformity of residential building type and building setbacks; the street grid

and block pattern; and the various design elements of contributing properties. Please see Responses to Comments A2-2 and B4-1.

Section IV.A, Land Use and Planning, describes existing land uses on the project site as well as the surrounding area, defines the existing regulatory context, identifies potential land use impacts, and recommends mitigation measures, where appropriate. Impacts to land use, including compatibility with surrounding land use, were found to be less than significant. Please see Master Response #4.

Response C11-9: Please see Response to Comment A2-4 regarding archaeological resources.

Response C11-10: Please see Response to Comment A2-1 regarding the Residential District.

Response C11-11: The comment incorrectly states that the cumulative traffic impact analysis presented in the Draft EIR does not account for planned developments in project vicinity, especially in Temescal. The project traffic impact analysis presented in the Draft EIR evaluates the impacts of both Phase 1 and Phase 2 of the CHRCO project under 2020 and 2035 conditions. As described on pages 284 and 289 of the Draft EIR, traffic volume forecasts used in the Draft EIR were developed using the Alameda County Transportation Commission (ACTC) latest Countywide Travel Demand Model. The Model land use database was checked to ensure inclusion of development projects on City of Oakland's Major Project List, including several planned and proposed development projects in the vicinity of the project, which include any known projects in the Temescal neighborhood. The 2020 and 2035 conditions analyses presented in the Draft EIR account for past, present, and future developments expected by 2020 and 2035, respectively. Also, please see Response to Comment C11-4 regarding the adequacy of the traffic analysis.

Section IV.D, Transportation and Circulation, describes the transportation, circulation, and parking conditions, including transit services and pedestrian and bicycle facilities in the vicinity of the proposed project. It also describes the regulatory setting relevant to transportation and circulation issues. Potential impacts of the proposed project are discussed and evaluated, and Standard Conditions of Approval (SCA) and Recommendations are identified as appropriate.

Response C11-12: This comment, which states that the Draft EIR is inadequate, is noted. Specific comments related to the adequacy of the Draft EIR that are provided in Letter C11 are addressed above in Responses to Comments C11-3 through C11-11. In addition, all comments related to environmental issues that were received on the Notice of Preparation were considered by the City in preparing the Draft EIR.

Comments related to off-site properties owned by CHRCO or the City are also noted. These facilities are outside of the project boundaries and such comments do not relate to environmental impacts of the proposed project; therefore, no further response is required. Also see Master Response #5 which addresses improvements to Helen McGregor Plaza Park.

From: broklcrofts <broklcrofts@sonic.net>
Sent: Monday, September 15, 2014 10:01 PM
To: Klein, Heather
Cc: Merkamp, Robert; Ranelletti, Darin
Subject: Fwd: UCSF Benioff CHO DEIR

Begin forwarded message:

From: broklcrofts <broklcrofts@sonic.net>
Subject: UCSF Benioff CHO DEIR
Date: September 15, 2014 at 9:59:35 PM PDT
To: Chris Patillo <Patillo@pgadesign.com>, Jim Moore <jmoore.ocpc@gmail.com>, Jahaziel Bonilla <jahazielbonillaoaklandpc@gmail.com>, Jahmese Myres <jmyres@gmail.com>
Cc: Michael Coleman <Michael@MBCarch.com>, Emily Weinstein <EW.Oakland@gmail.com>, Adhi Nagraj <nagrajplanning@gmail.com>

The expansion will be considered at the the Planning Commission Wed., Sept. 17, at Oakland City Hall. Comments must be received by planning staff by 4 p.m., Sept. 22.

Dear Planning Commission members/Planning Staff:

We are concerned about the inadequacy of the environmental review being undertaken by the City of Oakland and UCSF Benioff Children's Hospital Oakland for the massive expansion project, involving as it does 400,000 s.f. of new construction and demolition of 66,582 s.f. of existing buildings.

Note: The boilerplate DEIR refers to the project applicant throughout as Children's Hospital and Research Center Oakland (CHRCO) throughout the document, ignoring the official name change as of Jan. 1, 2014.

The following are our objections and concerns which may be amended or added to before the Sept. 22 deadline.

1. Planning staff followed the recommendation by the State Office of Historic Preservation, and reiterated by ourselves and others, to study the ENTIRE Dover/55th St. Historic District, an Area of Secondary Importance by the City's own criteria. The Page & Turnbull analysis is found in Appendix B, on the disc attached to the DEIR.

Unfortunately, the acknowledgement that the area does indeed qualify as a historic resource doesn't result in measures to protect the area from the massive expansion, or others to come, since the City has determined that the project does not have major impacts that require any mitigations.

And yet, project planner, Heather Klein, used the "buffer" word at the Landmarks Board meeting to defend facadomies on the buildings on 53rd, saying the neighbors wanted a "residential-appearing streetscape as a buffer."

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Therefore, we would suggest other mitigations and buffers:

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** Landscaping/vest pocket parks, traffic calming measures and street closures.*

**Study of the entire area from the hospital north to the Berkeley border, and both sides of MLK Jr. way, since the entire area exhibits the same pattern of development and is impacted by hospital expansion.*

5

**UCSF Benioff CHO should commit to relocating the “Holdout House” at 5204 MLK JR. Way to the Cal Trans right of way area along the freeway, as hospital executives have suggested as a “possibility” during community meetings. The house could be disassembled into pieces, and reassembled, and then put up for sale for the million dollars houses are selling for in this area.*

6

2. The traffic analysis is inadequate and fails to take into consideration the acknowledged increase in traffic with the proposed project upon the existing narrow, historic streets, more lanes than boulevards. This area was built up, post-1906 earthquake, as a “street-car suburb,” serviced by the street car line down Grove St., now MLK Jr. Way. Automobiles were scarce in that era, many houses were built without garages, so to assert that there will be no significant impacts on this century old grid by this massive hospital expansion is absurd. The absurdity of the City’s assertion that traffic is not an environmental issue means that there is no difference—in their opinion!— from living next to a forest or a freeway.

7

The dismissal of possible Dover St. closure with the hypocritical injunction that the “existing street grid and block configuration should be retained” ignores both the impinging reality of the massive UCSF Benioff CHO project, not to mention the profound disruption to that grid and configuration with the BART and Highway 24 construction.

Approximately 3/4 of the neighbors at a community meeting sponsored by UCSF Benioff CHO (and attended by Heather Klein) voted to support the Dover St. closure at 53rd St., a vote that was discouraged initially by the hospital representatives and by Klein. No coincidence then that the DEIR says the neighborhood is “divided” about the street closure.

8

**Closure of 53rd St. must be considered as a serious option, along with other traffic mitigations.*

3. There is no consideration of ongoing penetration and degradation of the surrounding Dover/55th St. ASI. UCSF Benioff CHO continues to own and operate buildings, including former residential housing, north of 53rd St. Hospital officials have refused to agree to any covenants curtailing expansion beyond 53rd St. as part of approval for this latest expansion. Nor have they indicated any support for an official designation of a Dover/55th St. landmark district, or for any official landmark designation for their National Register-eligible “Original Baby Hospital” Building (aka A/B wing), whose ultimate fate is uncertain.

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Although the ancient magnolia tree’s relationship to the project was analysed, and alternate sites were identified for relocation, this was not agreed to by the hospital to date.

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**UCSF Benioff CHO should sponsor the Baby Hospital (aka A/B wing) for landmark designation, the City should initiate official designation for the Dover/55th St. ASI, and the magnolia tree must be carefully dug up, boxed and relocated either to 52nd St. (where the houses will be removed) or to the hospital courtyard.*

12

UCSF Benioff CHO should also save the bay from the B/C wing that replicates the bays on the A/B wing. HDR-Taylor Architects had suggested installing this bay in new construction at the new entrance—this is a partial mitigation for loss of the B/C wing.

13

** Commitment in writing (covenant) as provided by previous UCSF Benioff CHO executives, verbally, to not expand north of the south side of 53rd.*

4. The DEIR ignores the historic and ongoing encroachment of UCSF Benioff CHO upon the surrounding residential neighborhood, of which the expansion is only the latest, but not the last, iteration. Previous expansions also occurred with demolition of residences. It must also be noted that even if residences are relocated or the first ten feet of the facades retained, the structures will have institutional uses and character, with institutional schedules and occupants. **That** is an impact.

14

**Ways to scale back new construction, or soften with landscaping, at the interface with the neighborhood must be explored.*

UCSF Benioff CHO should, as good faith measures to the surrounding community, commit to replacing their junkyard-appearing wall at their surface parking lot on MLK Jr. Way. They demolished existing commercial buildings to create this lot—hardly the highest/best use

15

They should also partner with the City to renovate the ugly park, with its ghetto brutalist “design,” at the entrance to their campus, at 52nd and MLK Jr. Way.

5. The DEIR ignores the injunction by SHPO to study the “potential for prehistoric archeological properties” at Temescal Creek, or elsewhere on the project site, as for example, the soil undisturbed in the area of the existing magnolia.

16

The reasonable, good faith effort to identify archeological resources must happen early on, so proactive measures can be taken; monitoring alone during construction as Heather Klein committed to, means there will be nothing more than a salvage operation.

In summary, the conclusion that there will be no significant and unavoidable impacts, as well as cumulative impacts, for this project is unsubstantiated, without first conducting the adequate analysis of the surrounding ASI neighborhood. The traffic analysis is faulty.

17

Of course there are cumulative impacts. The DEIR fails to address traffic and other impacts with hundreds of housing units in the pipeline, a mere block away in Temescal.

18

From a holistic, planning perspective, the DEIR is a tragic waste of the time and resources of community members, who attended meetings and submitted comments and concerns, with sincere hopes for a better project and in the apparently mistaken belief the City and UCSF Benioff CHO welcomed their input. The DEIR doesn't even bother to address these comments, simply marginalizing them on a disc.

19

Robert Brokl Alfred Crofts

COMMENTER C12

Brokl, Robert; Crofts, Alfred
September 15, 2014

Response C12-1: This introductory comment, which states that the commenter has concerns related to the adequacy of the Draft EIR, is noted. Responses to subsequent comments related to the adequacy of the Draft EIR are provided below. Also see Responses to Comments C11-2 through C11-12 for comments repeated in Letter C12.

Response C12-2: Please see Response to Comment C11-2.

Response C12-3: This comment notes that the Draft EIR identifies the Residential District as a historical resource; however it does not include any mitigation measures to protect the District. The Draft EIR does not identify significant impacts to the Residential District. Therefore, no mitigation measures would be required. Also see Responses to Comments A2-2, B4-1 and C11-3.

Response C12-4: The comment is in support of landscaping, traffic calming and street closures. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Also, please see Response to Comment C11-5 regarding closure of Dover Street, Master Response # 2 regarding traffic calming, and C2-13 regarding landscaping.

Response C12-5: This comment suggests that a study be done for “the entire area from the hospital north to the Berkeley border, and both sides of MLK Jr. Way.” Previous surveys by OCHS in 1996 and Page & Turnbull for the current project (see Draft EIR Appendix B4) do not indicate that the Residential District extends north of 56th Street, and additional study for historical resources outside of the District’s boundary does not appear to be warranted.

As indicated in Appendix B4 of the Draft EIR, the Residential District is bounded largely in relation to transportation thoroughfares. At the west, Martin Luther King Jr. Way was the historic location of a north-south transportation line that brought residential settlement to the area, and continues to be a busy thoroughfare with a raised BART track. The Residential District boundary excludes the buildings that face onto Martin Luther King Jr. Way because they are generally commercial buildings that were not constructed during the period of significance for the District and were not part of the tract owned by E.A. Heron. To the north, 55th Street was the location of the Key System Route E, which branched off from the north-south route and further encouraged residential settlement in the area. At the east, Shattuck Avenue formed a natural traffic boundary to the area, a

boundary which was further reinforced in the 1960s with the construction of SR 24. The east side of Dover Street between 52nd and 53rd Streets has been excluded from the boundary because nearly all of the buildings were constructed outside the established period of significance. The boundaries of the Residential District reflect the remaining intact residential areas at the district's southern border near CHRCO.

Moreover, the cumulative analysis conducted for the project considered past, current, and reasonably feasibly foreseeable projects under review by the City that have the potential to adversely affect historical resources. The Draft EIR concluded that the project would not result in a considerable contribution to any cumulatively significant impact. See pages 257-258 of the Draft EIR.

- Response C12-6: Please see Responses to Comments B4-1 and B5-6.
- Response C12-7: Please see Responses to Comments A2-3 and C11-4 regarding adequacy of the traffic analysis in the Draft EIR.
- Response C12-8: The comment states community support for closure of Dover Street and suggests consideration for closure of 53rd Street. Please see Response to Comment C5-3 regarding closure of Dover Street. 53rd Street is already closed at the freeway.
- Response C12-9: Please see Responses to Comments C11-6 and C11-8.
- Response C12-10: Please see Response to Comment C11-7.
- Response C12-11: This comment, which states that relocation of the magnolia tree was analyzed in the Draft EIR, is noted. Please see Master Response #6 regarding the relocation of the Magnolia tree.
- Response C12-12: Please see Responses to Comments B4-2 and C11-7 regarding the designation of the A/B Wing and the Residential District. Please also see Master Response #6 regarding the relocation of the Magnolia tree.
- Response C12-13: A historical evaluation was conducted for the B/C Wing, the results of which are presented in the technical study (Appendix B1) and summarized on page 241 of the Draft EIR. The B/C Wing and the bay window element of the B/C Wing are not historical resources under CEQA. Therefore, mitigation of the project's potential impacts to this building or any of its architectural elements is not required. The request that the bay window from the B/C Wing be incorporated into the new construction is noted. The approving body will consider this input on the project merits and design prior to making a decision on the project.
- Response C12-14: Please see Responses to Comments B4-5 and C2-5.

- Response C12-15: The proposed landscape plan for Master Plan buildout is shown in Revised Figure III-20 in Chapter V of this Response to Comments Document. Comments related to off-site properties owned by CHRCO or the City are noted. These facilities are outside of the project boundaries and such comments do not relate to environmental impacts of the proposed project. The approving body will consider this input on the project merits and design prior to making a decision on the project. Also see Master Response #5 which addresses improvements to Helen McGregor Plaza Park.
- Response C12-16: Please see Response to Comment A2-4 regarding archaeological resources.
- Response C12-17: Please see Response to Comment A2-1 regarding the Residential District.
- Response C12-18: Please see Response to Comment C11-11 regarding cumulative traffic analysis.
- Response C12-19: Please see Response to Comment C11-12.

From: heppyket <heppyket@gmail.com>
Sent: Monday, September 22, 2014 7:30 AM
To: Klein, Heather; Merkamp, Robert
Cc: Myra Chachkin
Subject: Comments on the Children's Hospital expansion plan and specifically bike lanes

Hi,

I'm writing with comments on the Oakland Children's Hospital draft expansion plan, specifically the bike lanes component.

I live in the neighborhood, on Market Street between 55th and 56th. I bike to and from work in downtown Oakland every weekday. My morning route is 55th to Genoa to 52nd to West, and my evening route is the reverse. This is the recommended bikeway and is a common commute path for many bicyclists.

When the bike lanes were added on 55th Street between Adeline and MLK, it made a huge difference to my safety. I can now use a protected part of the street which is clearly marked for bike traffic, instead of sharing a lane with cars and hoping that they won't hit me, speed by me, etc. It would be a huge improvement to have more bicyclist protections and traffic calming on Genoa and 52nd streets.

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In particular, 52nd Street between MLK and Market has always been hazardous. Those blocks have been a hot spot for donuts and speeding for years. The 3-way intersection of West, 52nd, and MLK is always very difficult to negotiate, especially since bicyclists need to make a left turn across traffic from both 52nd and West when traveling northbound from West to Genoa.

The section of 52nd St. where it runs under highway 24 is also very difficult for bicyclists. Even though it's the most direct route from my house to Temescal, I almost never bike that way because it's so dangerous.

Children's Hospital is a huge presence in the neighborhood. They bring some good things to the neighborhood, but they also bring lots of traffic, noise (including helicopter traffic, which is supposed to follow a non-disruptive flight path but often doesn't), and sometimes destructive development. I don't personally have the impression that they've been a particularly good neighbor to the community or have done much to mitigate their impact. I support their mission, but I also think that we should take this one-time-only opportunity to make sure that they do their expansion right.

2

I fully support the East Bike Bike Coalition's recommendations regarding the Children's Hospital expansion plan.

3

Sincerely,
Myra Chachkin

COMMENTER C13

Chachkin, Myra
September 22, 2014

Response C13-1: The comment supports improvements that benefit cyclists on Genoa Street and specific segments of 52nd Street which are described below. Please see Master Response #2 regarding the recommended bicycle improvements along 52nd Street. The project would not include modifications along Genoa Street, north of 52nd Street. However, the City of Oakland is considering addressing conditions along Genoa Street in a separate project.

The segment of 52nd Street between Market and West Streets does not have adequate width to provide Class 2 bicycle lanes. Therefore, Recommendation TRA-4 (see page 343 and Figure IV.D-24 on page 345 of the Draft EIR) recommends installation of a Class 3B bicycle boulevard (i.e. sharrows) along with traffic calming measures to reduce automobile speeds and discourage automobile traffic.

Recommendation TRA-4 would improve the 52nd Street-West Street-Martin Luther King Jr. Way area for cyclists by providing Class 2 bicycle lanes in both directions of 52nd Street between West Street and Martin Luther King Jr. Way. Recommendation TRA-4 would also narrow eastbound 52nd Street between West Street and Martin Luther King Jr. Way from two auto lanes to one auto lane, which would reduce potential conflicts between automobiles and bicycles in this area.

Recommendation TRA-4 recommends buffered Class 2 bicycle lanes on 52nd Street under the SR 24 Overpass. Buffered bicycle lanes cannot be accommodated on 52nd Street immediately to the east and west of the SR 24 Overpass due to limited street width. Therefore, Recommendation TRA-4 includes Class 2 bicycle lanes without buffers and a Class 3B bicycle boulevard in these areas.

Response C13-2: This comment, which states support for the CHRCO mission but also expresses concerns with CHRCO's relationship with the community and impacts from previous projects, is noted. Draft EIR Section IV.D, Transportation and Circulation describes and analyzes traffic. Draft EIR Section IV.G, Noise describes and analyzes noise.

Response C13-3: The comment supports the alternative bikeway design for 52nd Street proposed by Bicycle East Bay. Please see Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

From: Brian Copenhagen <brian@soundfacility.com>
Sent: Sunday, September 21, 2014 11:45 PM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital comment

Good day-

I live at the corner of Arlington Ave and Genoa Street, specifically 848 Arlington Ave.

I would like to encourage the planning commission to please LEAVE IN PLACE the 4-way stop at Genoa and Arlington when undertaking the Genoa St Bike Blvd project.

Living on the corner, I see cars run the stop signs DAILY. Removing them from Genoa would simply encourage the speedy traffic behavior.

The sidewalks at this corner are at street level, so pedestrians go into the street without the conscious step down off the curb and into the street. This is especially true for children, of which there are many in the neighborhood, my 3-year-old included.

Additionally, there is a handicapped resident (in a wheelchair) living on the opposite corner, which would not be pleased to see those stop signs go away.

Also, I believe the commission has already heard comments from other residents concerning the deadly accidents that occurred here in the past.

Otherwise the plans for the Genoa St project look good. One thing I would encourage is the use of bike-friendly speed humps, such as sinusoidal speed humps used elsewhere in the U.S.

Thanks for your attention to this.

Sincerely,

Brian Copenhagen
848 Arlington Ave,
Oakland, CA 94608

COMMENTER C14

Copenhagen, Brian
September 21, 2014

Response C14-1: The comment is regarding potential improvements along Genoa Street. The Draft EIR does not recommend any modification on Genoa Street. Since the comment is not applicable to the proposed CHRCO project or the Draft EIR, no response is needed. However, the City of Oakland is considering conditions along Genoa Street in a separate project. Please see Master Response #2 for more detail.

Cindy David
5315 Dover St.
Oakland, CA 94609
CindyDavid@SageKraft.com

Oakland City Planning
c/o Heather Klein
hklein@oaklandnet.com

Dear Oakland City Planning Commission,

I'm writing to register my comments about the Draft EIR for Application DOWD009157: Children's Hospital Master Plan pursuant to CEQA.

1. **Preservation of a historical neighborhood:** The neighborhood qualifies for status as a historical residential area under CEQA, yet impacts to the neighborhood are not adequately addressed.
 - a. **No rezoning along 53rd.** The residences along 53rd street should remain in use as single family homes and not be allowed to be used as office space, or removed. The houses are zoned as single family housing because they are part of a residential neighborhood. There are many other locations within Oakland that are already zoned mixed use or commercial and those are far more suitable and appropriate use as office space. Using a historic residential neighborhood for office space in an area where housing is in extremely high demand is inappropriate and creates an impact to that neighborhood that cannot be mitigated.
 - b. **Degradation of historic neighborhood not addressed.** The DEIR fails to recognize the historical neighborhood in the DEIR, and therefore does not fully and adequately address the impacts. The removal of 2 city blocks of this historic neighborhood, the build-up of high rises, addition of transient housing, addition of parking structures, and the repurposing of single-family homes to be used as office space all have tangible, long-term impact of degrading the neighborhood as a whole. The DEIR does not provide adequate mitigating measures to address the long-term degradation and destruction from buying up parcels of the neighborhood and then removing them from the neighborhood through demolition and re-zoning.

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c. Mitigate zoning and conditional use impacts. Set additional conditions in the zoning and other aspects of this project to ensure the project enhances the public areas and provides a calm residential feeling leading into the historic neighborhood. Conditions such as height restrictions in areas facing the neighborhood, an emphasis on landscaping, and ensuring all buildings tie-in with the best historical design elements of the baby hospital and neighborhood.	4
2. Construction concerns: this promises to be a 10-plus year ordeal for neighbors of Children's Hospital, and it is imperative that the draft EIR considers fully and carefully this long-term impact on the livability of the neighborhood.	5
a. Construction traffic: Trucks, employee parking, etc. should not be allowed on Dover Street, and instead should be routed via non-residential streets.	6
b. Hours of construction: Ten years of construction is not typical, and the project is nestled in a residential neighborhood. Therefore, the hours of construction should be constrained to allow neighbors to enjoy peace in their yards during non-business hours. 8am-6pm Monday-Friday is a reasonable time period. Construction should not be allowed on Saturdays should	7
c. Safety: 52 nd street, and also Dover Street are important pedestrian and bicycle connections that span a major freeway. During the 10 years of construction, every effort must be made to keep pedestrians and bicyclists safe as they use this transportation corridor. As an example of what NOT to do- consider the MacArthur BART pedestrian/bike "passageway" that was recently part of construction there.	8
d. Street repairs. The DEIR allows for construction repairs to roadways be made after the project. Construction repairs should be made immediately for the safety of people travelling through this area in the next 10 years.	9
3. Project Plan: My primary concern about this plan is to make sure it does not detract from the livability of the residential neighborhoods around the hospital.	10
a. Parking garage entrance: I support the parking entrance being placed on MLK. I strongly disagree with the idea of placing the parking entrance on Dover St.	11
b. Maintenance yard access: I do NOT support increased traffic access into the maintenance yard via a Dover St. entrance. I do not support an increase in heavy maintenance vehicles on Dover street. This is a residential street and should not accommodate maintenance vehicles. The street is only wide enough to accommodate two way traffic of	12

passenger vehicles, and then just barely. Maintenance and service vehicles are too large and restrict the traffic flow to one lane.

12
cont.

- c. **Physical plant upgrades – noise pollution:** The current physical plant creates a high-pitched “whine” that reflects off of our house into the backyard. Physical plant upgrades should include a sound buffer that keeps noise out of the neighborhood.

13

- d. **Bike and pedestrian – 52nd Street and Dover St. :** The project should result in INCREASED bike and pedestrian access between West St. and Shattuck. This is an important thoroughfare as people travel north and south between Ashby and MacArthur BART, as well as between neighborhoods and the recently improving commercial districts of Oakland (Telegraph, Ashby, Alcatraz, etc.)

14

- e. **Safety:** The project should be designed so that the ‘exterior’ parts of the hospital improve safety for the surrounding neighborhood. For instance, the current configuration of a parking garage wall and un-kept homes (which the hospital tends to rent to people associated with criminal activity) is NOT a good example of the hospital’s presence improving safety and health in its surrounding neighborhood.

15

- f. **Residential livability:** In all cases, permits and design approvals should encourage a blending with the residential and historical character of the neighborhood.

16

- g. **Helicopter noise:** The draft EIR’s assessment of helicopter noise is not appropriate. Citing decibel levels of the continuous and “average” noise from freeway and BART with the ‘abrupt’ and ‘violent’ noise of helicopters is a ridiculous comparison. Noise pollution is about more than decibels – the startling and fear-inducing nature of helicopter noise is well-known, and while neighbors can get used to and ‘tune out’ the constant noise of traffic and the whir of BART, helicopter arrivals are ALWAYS scary. Their impacts on the neighborhood should be minimized in the design of the helicopter landing pad.

17

I ask you to address each of these concerns in the final EIR. I realize this project has to go forward to meet health requirements, and suggest that the hospital consider moving its operation to a site more appropriate for industrial use. If the hospital insists on this 10-year project in the midst of a residential neighborhood, the City of Oakland must insist and enforce requirements that every possible measure be taken to reduce and minimize disruption to residents of the neighborhood. After all, ten years is a full **one-seventh !!!** (assuming a lifespan of 70-80 years) of the lifetime of folks living in this neighborhood. If the 10-year project is approved, Oakland must be a good steward for its citizens.

18

19

Sincerely,

Cindy David

COMMENTS C15

David, Cindy
No date, 2014

- Response C15-1: This comment states that the neighborhood qualifies as a historical residential area and that impacts to this neighborhood are not adequately addressed in the Draft EIR. As discussed in Section IV.C, Cultural and Historic Resources, and as shown in Figure IV.C-1 of the Draft EIR, portions of the project site extend into the 55th and Dover Residential District Area of Secondary Importance. This district is a historical resource for purposes of CEQA, and beginning on page 244 of the Draft EIR, the project's potential impacts to the Residential District are summarized. Please see Responses to Comments A2-1 and A2-2 regarding the Residential District.
- Response C15-2: This comment, which expresses opposition to rezoning of residential properties along 53rd Street, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Please see Master Response #4.
- Response C15-3: The Draft EIR recognizes that the Residential District is a historical resource for purposes of CEQA. The project's potential impacts to the Residential District were considered with respect to how these impacts would adversely affect this resource's character-defining features, as identified in Page & Turnbull's historical evaluation and recordation of the District (Appendices B3 and B4). The Draft EIR concludes that project construction and partial demolition of contributing elements to the Residential District would not impact the historical character-defining features of the District to the extent that material impairment would occur (CEQA Guidelines Section 15064.5(b)(1-2). Please also see Responses to Comments A2-2, A2-3, and B4-1 for a discussion of the project's less-than-significant impacts on the Residential District. See Master Response #4 regarding potential buffers between the Hospital and the residential uses to the north.

Section IV.A, Land Use and Planning, describes existing land uses on the project site as well as the surrounding area, defines the existing regulatory context, and identifies potential land use impacts. Impacts to land use, including compatibility with surrounding land uses, were found to be less than significant and no mitigation measures were required.

Section IV.B, Aesthetics and Shadow, evaluates the effects of the proposed project on visual resources in the vicinity of the project site, as well as light, and glare, and shade and shadow impacts. Impacts to aesthetics, degradation

to the existing visual character or quality of the site and its surroundings, were found to be less than significant and no mitigation measures were required.

- Response C15-4: Please see Master Response #4.
- Response C15-5: Please see Master Response #1 regarding various aspects of project construction.
- Response C15-6: Please see Master Response #1 regarding potential use of Dover Street and other residential streets by construction trucks.
- Response C15-7: Please see Master Response #1 regarding days and hours of construction.
- Response C15-8: Please see Master Response #1 regarding pedestrian and bicycle safety during construction.
- Response C15-9: Please see Master Response #1 regarding street repairs during and after construction.
- Response C15-10: This comment, which expresses concerns related to livability of the nearby residential neighborhood, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response C15-11: Please see Response to Comment C7-7 regarding parking garage access.
- Response C15-12: Please see Response to Comment C2-9 regarding the proposed maintenance access on Dover Street.
- Response C15-13: Please see Response to Comment C2-11 regarding potential operational noise.
- Response C15-14: Please see Response to Comment C2-12 regarding increased bicycle and pedestrian activity in the project vicinity.
- Response C15-15: Please see Response to Comment C7-11 regarding safety improvements and related concerns.
- Response C15-16: Please see Master Response #4.
- Response C15-17: Please see Master Response #7 regarding helicopter noise.
- Response C15-18: This comment, which suggests that the hospital should be relocated to an area that is appropriate for “industrial” uses, is noted. Relocation of hospital facilities is addressed in Chapter V, Alternatives (page 567) and relocation to an off-site location was found to be infeasible for a number of reasons, including that the project objectives would not be met. In addition, as described in the Draft EIR in Section IV.A, Land Use and Planning (pages 161

to 189), the hospital facilities have been located in the area since 1912 and residential uses expanded around the site at that same time. The existing hospital facilities are consistent with the City of Oakland's General Plan Land Use Map and Zoning Ordinance. For a more detailed discussion of the hospital's setting and relationship to surrounding neighborhoods, see Master Response #4.

Response C15-19: This comment, which expresses concerns related to the length of the construction period and requests that the City enforce measures to reduce impacts to residents, is noted. Please see Master Response #1.

From: Jake Decker <jake.decker@gmail.com>
Sent: Thursday, September 18, 2014 10:05 AM
To: Klein, Heather
Subject: Construction concerns.

Hi Heather,

I live with my partner over at 52nd and Genoa. I wasn't able to attend the meeting last night, but we definitely have concerns over the proposed construction taking place from 7 am to 7 pm Monday through Saturday. In fact, I'd say we are both against it.

1

Thanks.

COMMENTS C16

Decker, Jake
September 18, 2014

Response C16-1: This comment, which expresses concerns and opposition related to the permitted construction hours, is noted. Please see Master Response #1 regarding hours of construction.

From: Ben <notburt@gmail.com>
Sent: Wednesday, August 20, 2014 9:59 PM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital comment

Hi,
I know the message below looks like a lot of other you are getting... But as a long time resident of the neighborhood I want to ask you to take a good look at these points. I bike past the hospital from my home on 55th and Dover to Bart as a part of my daily commute. I bike with my kids around the hospital to get to karate lessons, school and other neighborhood attractions. These changes are good for our community. Thanks for listening.

Ben Doyle
5511 Dover st
Oakland CA 94609

This message is in response to the recently released Draft Environmental Impact Report for the Oakland Children's Hospital expansion project.

The project is good for healthcare and could help to revitalize the neglected MLK corridor, but it could also bring a lot more car traffic to the area. The included plan for a bikeway on 52nd Street is an upgrade from the current conditions, but the design is still outdated and won't do enough to encourage the average person to bike or walk there. I urge you to work with local non-profits Bike East Bay and Walk Oakland Bike Oakland on an improved design that will create a much more compelling and safe connection between the surrounding neighborhoods, and encourage more biking and walking trips by hospital staff, guests, and local residents.

An improved design should:

- Ensure that this plan includes a continuous, separated bikeway throughout the entire project area
- Provide better safety accommodation for bicyclists and pedestrians at conflict points along 52nd Street, especially the Highway 24 on and off ramps
- Adjust on-street car parking under the Highway 24 to create a buffered, parking-protected bikeway
- Implement the City of Oakland's guidelines throughout this project for green paint in bike lanes
- Fund Oakland's proposed bike boulevard treatment for the 52nd/Genoa Street bikeway, which will discourage cut-through car traffic on this bike-priority corridor
- Extend the project area to ensure safe bicycle connections between 52nd Street, Shattuck Ave, and Telegraph Ave in all directions
- Provide great biking, walking, and transit facilities and incentives for hospital employees and guests, including but not limited to: Long and short term bicycle parking in convenient locations and in excess of the city's minimum standard
- Free bike share bikes, locks, and helmets made available to hospital staff on site
- Bike commuting classes for employees and guests, hosted at the hospital
- Bicycle accommodation on the free Children's Hospital MacArthur BART shuttle, made available to hospital staff, guests, and neighborhood residents.

You can view the existing plan for the 52nd Street bikeway at https://pdf.yt/d/82O6oHh2_OMQ87Qr, and an alternative plan suggested by Bike East Bay at <https://pdf.yt/d/5h8q4vPa77wFI4MD>.

Thank you for your attention!

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COMMENTER C17

Doyle, Ben

August 20, 2014

Response C17-1: Please see Response to Comment B1-1 regarding the additional traffic generated by the proposed project.

Response C17-2: Please see Response to Comment C3-2 and Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

From: Bruce Dughi <bdughi@yahoo.com>
Sent: Tuesday, August 19, 2014 4:28 PM
To: Klein, Heather; Merkamp, Robert
Subject: Please Employ Complete Streets Methodology on 52nd St near Oakland Children's Hospital Expansion

Having spent some time at Oakland's Children Hospital, I know this area and have a soft spot for the place. In fact, the reason we spent 4 days in the hospital (including 1 day in intensive care) is because my then 10 yr old son got hit by a car while riding his bicycle. The car was at fault for not yielding. This was a particularly challenging part of my life and I appreciate all the support I got from the hospital.

I understand that you are proposing discontinuous bike lanes. As both a cyclist and a driver, please make the bike lanes continuous and consider a protected bike lane as this is the safest option and most likely to encourage cycling. I have read many, many studies extolling the virtues of protected bike lanes but I will just leave you with my favorite from Delaware DOT. I have encountered many discontinuous bike lanes in the bay area. Not only is this frustrating, it is unsafe. Please implement the Complete Streets policies to make our streets safer for cyclists. The only way to reduce Vehicle Miles Traveled (VMT) is to get people out of their cars. The only way to do that is to provide inviting and safe alternative like they do in Europe and Asia.

Respectfully,
Bruce Dughi

COMMENTS C18

Dughi, Bruce
August 19, 2014

Response C18-1: The comment requests continuous bicycle lanes along 52nd Street. Please see Response to Comment C3-2 and Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

From: Rafael Ebron <rebron@gmail.com>
Sent: Monday, September 22, 2014 1:26 PM
To: Klein, Heather
Cc: Kalb, Dan; At Large; Cowan, Richard
Subject: Official Comments Case ER12-0013 - Children's Hospital Master Plan

September 22, 2014

Heather Klein, Planner III
City of Oakland Planning Commission
Department of Planning and Building
City of Oakland
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612
Kleinhklein@oaklandnet.com

Re: Case File Number ER12-0013 (Draft EIR for Application DOWD009157)

Ms. Klein and Members of the Planning Commission:

I write to register my comments about UCSF Benioff Children's Hospital Oakland's Master Plan (the Plan) pursuant to CEQA. The expansion project proposed by UCSF Benioff Children's Hospital Oakland's (CHO or the Hospital) will affect me and my community directly. Although I commend the Hospital for its willingness to address several neighborhood concerns in its latest plans, as the neighborhood has learned repeatedly, plans and Hospital administrations change. Consequently, I request the Commission's action to ensure that the Hospital does not find excuses to renege on these concessions and to guarantee that CHO addresses critical, yet unresolved issues.

1

CONCERNS REGARDING A DECADE OF CONSTRUCTION

As you can imagine, the prospect of more than a decade of major construction is overwhelming for neighbors. To ensure that the construction and its attendant issues threaten neither residents' health/well-being nor our neighborhood's vitality, it is imperative that the Commission confirm that the Hospital address the following concerns.

2

Construction and Large Vehicle Traffic - Escalation in Noise and Pollution

A decade of proposed construction will bring dust, exhaust fumes, and noise to the area. The Hospital sits nestled within a residential neighborhood. Ten years of construction is not typical for such a small, quiet area.

Many of neighborhood residents are raising young children, retired (and spending more time in their homes), or working full-time from home. Nonetheless, the EIR has not addressed questions such as: Where will the staging area be for construction? How will large trucks and other equipment move to and from the construction site? Where will this large construction vehicles park? What will construction hours be?

The answers to these and other questions are critical to enabling neighbors to endure the decade of building that the Hospital Plan entails. Trucks, construction employees' parking, etc. should not be allowed on Dover Street or surrounding residential viaducts and should instead be routed via non-residential streets. Construction must be constrained to allow neighbors to enjoy their homes and yards peacefully *both during business and non-business hours*. Under no circumstances should construction be allowed on Saturdays or Sundays. In addition, the heavy truck traffic with the attendant increase in noise, dust, and diesel exhaust fumes must be severely mitigated during this proposed decade-long large-scale

3

construction project. In addition, significant funds should be set aside to address unforeseen adverse effects to residents.

3
cont.

THE HOSPITAL PLAN

Residential Zoning Must Be Preserved (Including Limiting Hospital Expansion Boundaries) to Maintain Neighborhood Livability

Residential zoning is necessary to maintain a livable residential environment for those who live in the neighborhood. As a result, I strenuously oppose **any** commercial rezoning of residential properties and request that the Commission deny wholesale commercial rezoning for all existing residences owned by CHO.

4

Instead, I ask that the Commission impose alternatives such as maintaining residential zoning (with conditional use permissions), allowing mixed use, and ensuring that those properties blend with the neighborhood (i.e., renovating/building structures with residential facades that mimic and fit in with the residential scale, despite their interior uses). In all cases, permits and design approvals should encourage a blending with the residential and historical character of the neighborhood. Such steps will significantly enhance the surrounding community – rather than progressively degrading its residential character.

Finally, I request that the Commission impose a binding agreement or other mechanism to solidify the boundaries of the Hospital site – while providing certainty for CHO as it moves forward with building plans – as a condition of Plan approval is *essential*. In the last decades, we have watched as successive CHO administrations bought and bulldozed residences in the area. Based on the Hospital's repeated violations of oral agreements with neighboring residents, additional verbal promises by the Hospital will prove insufficient defense for our neighborhood against further encroachment.

5

Proper Traffic Mitigation and Parking Garage Placement

CHO had proposed to relocate the entrance to the main parking garage from 52nd Street to the corner of Dover and 53rd Streets. I strongly encourage the Commission to prevent such a relocation. A new entrance in this location would cause considerable traffic increase on residential streets. All streets (including Dover, 53rd, and 54th) are extremely narrow allowing just enough room for one car to pass between vehicles parked at the curb. Local residents will suffer the negative effects of increases in traffic and congestion. Increased traffic could also create additional danger to vehicles, pedestrians, and cyclists. Fifty-Third Street cannot handle additional traffic flow, as drivers cruise up the street from Martin Luther King Way, Jr. (MLK) or down Dover Street from 52nd searching for the parking garage entrance.

6

Instead, I request that the Commission support relocating the parking entrance on MLK, which is better designed to bear significant traffic flow. This would preclude the serious health and safety risks of passenger and construction traffic with the attendant noise, dust, and exhaust fumes that could result from a parking lot entrance on Dover Street.

Parking Assessment and Mitigation

The Plan proposal notes that the Hospital will eliminate 160 parking spaces during Phase I construction. In this 100-year old neighborhood, most homes were constructed without garages and some without driveways. As the Hospital has expanded, decreased parking availability and blocked driveways have escalated in significance for some residents. Hospital visitors and patients park vehicles as far north as 57th Street and walk to the Hospital rather than utilizing Hospital-provided spaces. To date, the Hospital has not addressed parking to many residents' satisfaction. Past and recent experience does not demonstrate that Hospital can do so with the loss of an additional 160 parking spaces.

7

Nonetheless, the Hospital Plan includes expanding its campus to consolidate many of its facilities and employees in satellite locations. Thus, many more Hospital employees will be coming to the neighborhood. With even fewer parking spaces, where will these additional employees park? Where is the infrastructure for this influx of Hospital employees? The Hospital has not answered these questions. Moreover, although neighbors have moved to gather signatures for residential parking permits, the Hospital has not committed to pay for such permits. Other projects (such as the Safeway rebuild on College Avenue) have included guarantees of paid parking permits.

8

Maintenance Yard Access

For similar reasons, I oppose increased traffic access into the maintenance yard via a Dover Street entrance. Again, this is a residential street and cannot accommodate maintenance vehicles.

9

Noise Associated with Helicopters

The draft EIR's assessment of helicopter noise is insufficient and inaccurate. The decibel level of continuous and "average" noise associated with freeway and BART traffic *is not* appropriately compared with the abrupt and violent noise of helicopter propellers. Noise pollution consists of more than simple decibel levels. The startling, disruptive nature of helicopter noise is well-documented within the neighborhood and by the Hospital – particularly as helicopters arrive and depart at all times of the day, night, and "wee hours" of the morning. Pilots often stray far from the proper flight path, flying low and directly over residences. While humans may "tune out" the constant "white" or "background" noise of traffic, the sound associated with unexpected helicopter hovering, take offs, and landing is loud and jarring. The location and design of the landing pad should be adjusted to minimize the impact of such helicopter noise on the neighborhood north of 52nd Street.

10

Physical Plant Upgrades – Noise Pollution

The current physical plant creates a high-pitched "whine" that reflects off of neighboring homes and into yards. Physical plant upgrades should include a sound buffer that keeps noise out of the neighborhood.

11

Increased Bike and Pedestrian Access – 52nd Street and Dover Street

The Plan should result in increased bike and pedestrian access. These are important thoroughfares as people travel north and south between Ashby and MacArthur BART, as well as between neighborhoods and the improving Oakland commercial districts (Telegraph, Ashby, Alcatraz, etc.).

12

Green Space Buffers and Landscaping Options

The Hospital's current "landscaping" and green space consists mainly of bare dirt and concrete, making its buildings neighborhood eyesores. The need for a green space "cushion" is great. Notably, other Oakland projects (such as the Safeway rebuild on College Avenue) have created a buffer area to separate the site from the residential neighborhood.

13

Neighborhood residents deeply respect the Hospital and its mission. Many residents are CHO employees; others bring their own children there for treatment. We appreciate the current administration's work in addressing some neighborhood concerns and look forward to a continuing, long-term collaboration with the Hospital.

14

Regards,

Rafael Ebron
681 55th Street
Oakland, CA 94609

COMMENTER C19

Ebron, Rafael
September 22, 2014

- Response C19-1: This introductory comment, which requests that City decision-makers ensure that CHRCO addresses neighborhood concerns and follows through with agreed-to concessions, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, this comment will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project. Specific concerns outlined in following comments are addressed in the responses below.
- Response C19-2: Please see Master Response #1 regarding noise and air quality impacts during construction and duration of construction.
- Response C19-3: Please see Master Response #1 regarding various aspects of project construction, including construction staging areas, truck routes, construction worker parking, construction hours, and noise and air quality impacts during construction.
- Response C19-4: This comment, which expresses opposition related to the proposed rezoning of residential properties within project boundaries, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Please see Master Response #4 regarding residential rezoning and preservation of neighborhood character.
- Response C19-5: Please see Master Response #4 regarding potential buffers between the Hospital and residential uses to the north.
- Response C19-6: Please see Response to Comment C2-6 regarding the location of the parking garage access.
- Response C19-7: Please see Response to Comment C2-7 regarding the on-site parking supply.
- Response C19-8: Please see Response to Comment B5-4 regarding parking demand at CHRCO and strategies to reduce parking demand at the project.
- Please see Master Response #3 regarding implementation of RPP in the project vicinity and CHRCO funding.
- Response C19-9: Please see Response to Comment C2-9 regarding the proposed maintenance access on Dover Street.

- Response C19-10: Please see Master Response #7 regarding helicopter noise.
- Response C19-11: Please see Response to Comment C2-11 regarding physical plant noise.
- Response C19-12: Please see Response to Comment C2-12 regarding increased bicycle and pedestrian activity in the project vicinity.
- Response C19-13: Please see Response to Comment C2-13 regarding proposed project landscaping.
- Response C19-14: This comment, which expresses respect for the hospital and its mission and expresses appreciation for their work in addressing some neighborhood concerns, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project.

From: Christopher Escárcega <chris.escarcega@gmail.com>
Sent: Tuesday, September 16, 2014 11:47 PM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital DEIR

Dear Ms. Klein and Mr. Merkamp -

I am writing in response to the recently released Draft EIR for the proposed Oakland Children's Hospital expansion. Specifically, I would like to comment on the need for robust, continuous bike/pedestrian facilities on the 51st/52nd ST corridor between Shattuck and Genoa streets.

I'm a resident of the Longfellow/Santa Fe neighborhoods (right on the border at 52nd, and my cross street is at West). I commute to work in downtown Oakland, and use a variety of transportation modes, including cycling, transit (both BART and AC Transit), and occasionally Uber. My usual cycling route follows West to 45th, then Webster to downtown. This isn't the most direct route - I would much prefer to use Telegraph, and would like to use 51st/52nd to get from my neighborhood to the Telegraph corridor.

I urge you to request the following:

- Hospital patrol and maintenance of Helen MacGregor Plaza - currently the site of loitering, drug and alcohol abuse, and illegal camping. The activity in the plaza discourages pedestrian and bicycle use in the vicinity of the area. 1
- Construction of a traffic circle at 52nd and Genoa, along with other bike boulevard treatments as proposed by Fehr and Peers in their Genoa-Specific Recommendations. 52nd is frequently used as a cut-through from MLK Blvd to Market (including by speeding commuters, semi tractor-trailers and oversized emergency response vehicles), and the 52nd/Genoa intersection has recently been the site of several dangerous and illegal "sydeshows". 2
- A continuous protected bikeway, which would dramatically increase safety along an otherwise dangerous street for both cyclists and pedestrians. On-street parking east of the hospital would provide an excellent buffer for cyclists on the bikeway. 3
- Traffic calming measures near the ramps to Highway 24. The wide roadway and "freeway" feel of the ramps makes for dangerous riding and walking. 4
- Green paint in the bikeway, per City guidelines. 5
- Promote, educate, and encourage alternatives to car travel for both hospital staff an patients/guests. This could include improved transit shelters, bike lockers, shuttle bike racks, transit vouchers, and active transportation promotional materials and incentives. 6
- Ensure connectivity with intersecting bikeways and other facilities adjacent to the corridor 7

Thank you for diligence and work in improving transportation options in Oakland.

Best Regards,

COMMENTER C20

Escárcega, Christopher
September 16, 2014

- Response C20-1: Please see Master Response #2 regarding bicycle facilities along 52nd Street and connection to Telegraph Avenue.
- Response C20-2: This comment, which requests that CHRCO maintain and patrol the nearby Helen McGregor Plaza Park and expresses concerns regarding safety issues, is noted. However, these concerns do not relate to the environmental issues in the Draft EIR and no further response is required. Please see Master Response #5.
- Response C20-3: The comment supports a traffic circle at the 52nd Street/Genoa Street intersection and enhanced bicycle boulevard treatments along Genoa Street. Please see Master Response #2 regarding a potential traffic circle at the 52nd Street/Genoa Street intersection and planned improvements on Genoa Street. Also, please see Response to Comment B5-12.
- Response C20-4: Please see Master Response #2 regarding feasibility of a continuous bicycle facility on 52nd Street, and using on-street parking to buffer bicycle lanes.
- Response C20-5: Please see Master Response #2 regarding safety at the SR 24 Ramps on 52nd Street.
- Response C20-6: Please see Master Response #2 regarding use of green paint on the recommended bicycle facilities on 52nd Street.
- Response C20-7: The comment requests implementation of measures to encourage alternatives to car travel. As described on page 294 of the Draft EIR, SCA TRA-1 requires the project to implement a TDM Plan to provide incentives and encourage use of non-automobile travel modes. The proposed CHRCO project and the recommendations included in the Draft EIR, such as the 52nd Street bikeway, would also enhance the physical environment for non-automobile travel modes and further encourage for these modes.
- Response C20-8: The comment supports connectivity to adjacent bicycle facilities. As described in Master Response #2, the proposed 52nd Street bikeway would connect CHRCO to the citywide bicycle network by directly connecting to the existing facilities on Market Street, West Street, Shattuck Avenue, and Genoa Street.

From: Jenna <jennaforder@gmail.com>
Sent: Monday, September 22, 2014 12:57 PM
To: Klein, Heather
Subject: Dover neighborhood

Dear Ms. Klein, Oakland Planning Commissioners and other relevant parties,

Thank you for allowing to us to make comments and recommendations regarding the expansion of UCSF Benioff Children's Hospital Oakland, particularly in the wake of the Sept. 17 Planning Commission meeting. This major construction project is expected to last from 2015 to 2025 and threatens to take an enormous toll on the health and wellbeing of its residential neighbors. Also at stake is the vibrant and historic character of the neighborhood if zoning changes allow for high-density buildings along Dover between 52nd and 53rd street, an area that We strongly believe should remain a low-density buffer zone.

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PRIORITIES:

We support UCSF Benioff Children's Hospital Oakland's agreement to place the new 6-story outpatient building at MLK and 52nd, not on the Dover Street residential side; the parking lot entrance on MLK, and not on the Dover Street residential side, and to keep the helistop on the south side of 52nd Street. It is important that no changes are made to this plan. But there is still more to be achieved to keep our neighborhood livable through the next ten years.

3

TRAFFIC AND POLLUTION:

We ask that construction vehicles/traffic not be permitted to use Dover Street or the adjacent residential roads, but be diverted to non-residential streets. Our roads cannot bear the brunt of 10 years of heavy traffic, the infrastructure is old, potholes are forming, and the sewer system is in bad need of repair, breakage will come at residents' and taxpayers' expense. We have a significant number of residents, old and young, with asthma. We literally cannot afford damage to our roads, nor to our lungs.

4

CONSTRUCTION HOURS:

To endure a decade of construction in a largely residential area, we will need a meaningful respite from a 7 a.m.-7 p.m. construction schedule. In addition to Sundays, we should have peace on Saturdays. Among other things, our Jewish households should be entitled to enjoy Shabbat in peace, just as other faiths enjoy Sundays as a day of rest and reflection. It is also a lot to ask of us to have only one day of quiet a week.

5

RELIEF:

In this new economy, many of us work from home and cannot escape the impacts of construction. Concessions should include but are not limited to:

Double-paned windows to keep out the incessant noise and dust. A process must be put in place for a reasonable number of double-paned windows to be provided to the most impacted residents. Let me note that helicopter noise remains an issue for those of us living between 54th and 53rd street as the helicopters usually veer off the freeway (Highway 24) route at 54th street and cut across and over our homes for their descent on the helipad at MLK and 52nd Street. We don't anticipate that these shortcuts will change, and so this block is in particular need of relief from helicopter noise.

6

Road closures, if only through temporary barriers, should be used to divert construction traffic away from residential roads during the construction period.

7

Landscaping would provide a noise buffer zone. At present there is little or no landscaping to the north of UCSF Benioff Children's Hospital. We look forward to more landscaping plans as trees and plants absorb sound very well. We are really hoping such landscaping can improve our view of the hospital and the well being on the neighbors, staff and families using your facilities. Please, please make this north side beautiful. We love our neighborhood and want to see improvement.

8

ZONING:

Any effort to rezone residential buildings to commercial ones on Dover between 52nd and 53rd would eliminate our one and only buffer zone. We are looking at a high-density, internally-oriented hospital campus on the doorstep of a historic neighborhood of narrow roads and single-family homes, many of which were built just after the 1906 San Francisco earthquake. We must continue to keep the tallest and busiest buildings south of 52nd Street by the freeway, and keep the development between 52nd and 53rd in scale with the residential neighborhood to the north.

9

FINAL NOTE:

UCSF Benioff Children's Hospital, a private, nonprofit institution, provides an admirable service for Oakland, Alameda County and beyond. That is not in question. At issue is how this decade-long expansion will impact a vibrant and historic North Oakland neighborhood. The hospital campus need not be a fortress casting a long shadow over its neighbors. It need not be internally oriented as is the new Kaiser Hospital, ugly and foreboding on the outside and sleek inside. This expansion can and should be an asset to the hospital, the city and to its neighbors. Let's do this right.

10

People live in the surrounding neighborhood. We are raising our children here and making strong community relationships. Please be a positive contribution. Our lives matter just as we believe your work and the lives CHO Benioff touch and heal matter.

Gratitude,

Jenna and Jack Forder, 5327 Dover Street, Oakland, CA 94609

Gratitude, Jenna

Art Studio <http://www.bigspiritstudio.com>

Birth Services

<http://www.empoweringmama.com>

COMMENTER C21

Forder, Jenna and Jack
September 22, 2014

- Response C21-1: This introductory comment expresses general concerns related to the length of the construction period. Responses to subsequent specific comments provided by the commenter are provided below. Please refer to Master Response #1 regarding duration of construction and construction-related impacts.
- Response C21-2: Please see Master Response #4 regarding rezoning of the project site, neighborhood preservation and buffers between the hospital and residential uses. Please also see Response to Comment A2-2 regarding the project's potential impacts to the historic Residential District.
- Response C21-3: This comment, which expresses general support for elements of the proposed project and requests that City decision-makers ensure that these specific elements are implemented, is noted. This comment addresses the merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response C21-4: Please see Master Response #1 regarding construction traffic and the potential use of Dover Street and other residential streets by construction vehicles, construction-period air quality, and potential street damage.
- Response C21-5: Please see Master Response #1 regarding days and hours of construction.
- Response C21-6: Please see Response to Comment C4-6 regarding construction-period noise and dust impacts.
- Response C21-7: Please see Master Response #1 regarding road closures during construction.
- Response C21-8: Please see Responses to Comments C2-13 and C4-8 regarding proposed project landscaping.
- Response C21-9: Please see Master Response #4 and Response to Comment C4-9 regarding rezoning and preservation of neighborhood character.
- Response C21-10: Please see Response to Comment C4-10.

From: Samantha Gottlieb <samantha.gottlieb@gmail.com>
Sent: Wednesday, September 03, 2014 10:47 PM
To: Klein, Heather; Merkamp, Robert
Subject: Comments on proposed 52nd St Children's Hospital Corridor

This message is in response to the recently released Draft Environmental Impact Report for the Oakland Children's Hospital expansion project.

As a **very frequent** cyclist through this corridor, I have real concerns about the the proposed plan. The included plan for a bikeway on 52nd Street is an upgrade from the current conditions, but the design is still outdated and won't do enough to encourage the average person to bike or walk there. **In addition, as I'm sure you're aware, this is a fairly treacherous passageway for cyclists and pedestrians.** Making new urban development plans actively mindful of how the space is used and the impact on the non-car traffic is essential.

1

I urge you to work with local non-profits Bike East Bay and Walk Oakland Bike Oakland on an improved design that will create a much more compelling and safe connection between the surrounding neighborhoods, and encourage more biking and walking trips.

An improved design should:

-Ensure that this plan includes **a continuous, separated bikeway throughout the entire project area -- moving through ambiguously marked spaces is particularly treacherous for non-car traffic, such as bicycles and pedestrians.**

-Provide better safety accommodation for bicyclists and pedestrians at conflict points along 52nd Street, especially the Highway 24 on and off ramps. **The current intersections are dangerous and frightening. I often need to cross 52nd Street with my daughter on the back of my bicycle, and I worry about our safety, yet have few alternatives to move between neighborhoods without dramatically circumventing my route. I also occasionally run through this area, and I don't find it any more hospitable as a person on foot.**

-Adjust on-street car parking under the Highway 24 to create a buffered, parking-protected bikeway

-Implement the City of Oakland's guidelines throughout this project for green paint in bike lanes

-Fund Oakland's proposed bike boulevard treatment for the 52nd/Genoa Street bikeway, which will discourage cut-through car traffic on this bike-priority corridor

-Extend the project area to ensure safe bicycle connections between 52nd Street, Shattuck Ave, and Telegraph Ave in all directions. **As noted above, none of the current pass-throughs in the greater Longfellow/Santa Fe neighborhoods is particularly safe for bicyclists or pedestrians. 42nd, 45th and 52nd all pose serious concerns for bikers or pedestrians.**

-Provide great biking, walking, and transit facilities and incentives for hospital employees and guests, including but not limited to: Long and short term bicycle parking in convenient locations and in excess of the city's minimum standard - Free bike share bikes, locks, and helmets made available to hospital staff on site - Bike commuting classes for employees and guests, hosted at the hospital - Bicycle accommodation on the free Children's Hospital MacArthur BART shuttle, made available to hospital staff, guests, and neighborhood residents.

You can view the existing plan for the 52nd Street bikeway at https://pdf.yt/d/82O6oHh2_OMQ87Qr, and an alternative plan suggested by Bike East Bay at <https://pdf.yt/d/5h8q4vPa77wFI4MD>.

Thank you for your attention!

Samantha D. Gottlieb, PhD, MHS
956 44th Street
Oakland, CA 94608

2

COMMENTER C22

Gottlieb, Samantha D.
September 3, 2014

- Response C22-1: This introductory comment expresses concerns with the proposed bike plan along 52nd Street. Please see Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.
- Response C22-2: Please see Master Response #2 and Response to Comment C3-2 regarding the recommended bicycle facilities on 52nd Street and its various features.

From: Karen Hester <karen@hesternet.net>
Sent: Wednesday, September 03, 2014 5:11 PM
To: Klein, Heather; Merkamp, Robert
Cc: Doreen Moreno; Robert Prinz; Dave Campbell
Subject: Oakland Children's Hospital expansion comment

Hi Heather and Robert,

I came to the first CHO meeting when you were there and spoke of the need for way more bike infrastructure. I bike almost every other day along Dover, then from 51st to Shattuck and it's one of the worst parts of my commute. I know we can make this area lots better including:

- Ensure that this plan includes a continuous, separated bikeway throughout the entire project area
- Provide better safety accommodation for bicyclists and pedestrians at conflict points along 52nd Street, especially the Highway 24 on and off ramps
- Adjust on-street car parking under the Highway 24 to create a buffered, parking-protected bikeway
- Implement the City of Oakland's guidelines throughout this project for green paint in bike lanes
- Fund Oakland's proposed bike boulevard treatment for the 52nd/Genoa Street bikeway, which will discourage cut-through car traffic on this bike-priority corridor (see image of proposed changes below)
- Extend the project area to ensure safe bicycle connections between 52nd Street, Shattuck Ave, and Telegraph Ave in all directions
- Provide great biking, walking, and transit facilities and incentives for hospital employees and guests, including but not limited to: Long and short term bicycle parking in convenient locations and in excess of the city's minimum standard - Free bike share bikes, locks, and helmets made available to hospital staff on site - Bike commuting classes for employees and guests, hosted at the hospital - Bicycle accommodation on the free Children's Hospital MacArthur BART shuttle, made available to hospital staff, guests, and neighborhood residents.

Karen Hester

COMMENTS C23

Hester, Karen
September 3, 2014

Response C23-1: Please see Response to Comment C3-2 and Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

From: Mara Hickey <peakhickey@gmail.com>
Sent: Wednesday, August 20, 2014 4:50 PM
To: Merkamp, Robert; Klein, Heather
Subject: Oakland Children's Hospital comment

This message is in response to the recently released Draft Environmental Impact Report for the Oakland Children's Hospital expansion project.

The project is good for healthcare and could help to revitalize the neglected MLK corridor, but it could also bring a lot more car traffic to the area. The included plan for a bikeway on 52nd Street is an upgrade from the current conditions, but the design is still outdated and won't do enough to encourage the average person to bike or walk there. I urge you to work with local non-profits Bike East Bay and Walk Oakland Bike Oakland on an improved design that will create a much more compelling and safe connection between the surrounding neighborhoods, and encourage more biking and walking trips by hospital staff, guests, and local residents.

An improved design should:

- Ensure that this plan includes a continuous, separated bikeway throughout the entire project area
- Provide better safety accommodation for bicyclists and pedestrians at conflict points along 52nd Street, especially the Highway 24 on and off ramps
- Adjust on-street car parking under the Highway 24 to create a buffered, parking-protected bikeway
- Implement the City of Oakland's guidelines throughout this project for green paint in bike lanes
- Fund Oakland's proposed bike boulevard treatment for the 52nd/Genoa Street bikeway, which will discourage cut-through car traffic on this bike-priority corridor
- Extend the project area to ensure safe bicycle connections between 52nd Street, Shattuck Ave, and Telegraph Ave in all directions
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You can view the existing plan for the 52nd Street bikeway at https://pdf.yt/d/82O6oHh2_OMQ87Qr, and an alternative plan suggested by Bike East Bay at <https://pdf.yt/d/5h8q4vPa77wFI4MD>.

Thank you for your attention!

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COMMENTS C24

Hickey, Mara
August 20, 2014

Response C24-1: Please see Response to Comment B1-1 regarding the additional traffic generated by the proposed project.

Response C24-2: Please see Response to Comment C3-2 and Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

From: Phyllis Horneman <phyllis.horneman@gmail.com>
Sent: Wednesday, September 03, 2014 2:57 PM
To: Klein, Heather
Subject: Draft EIR CHRCO (ER12-0013)

Is the draft EIR for this project available on line? I am particularly interested in the parking changes and increase, and analysis of traffic with the changes. What is planned for the construction phase is of interest to me, as well as the completed changes.

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Thank you.

COMMENTER C25

Horneman, Phyllis
September 3, 2014

Response C25-1: The comment inquires about parking changes proposed by the project, analysis of traffic impacts, and planning during construction.

The Project Traffic Impact Analysis section of the Draft EIR (pages 316 through 335) evaluates the potential impacts of both Phase 1 and Phase 2 on the roadway network surrounding the site, during weekday AM and PM peak hours of commute under Existing as well as 2020 and 2035 conditions. As summarized in the Draft EIR, both Phase 1 and Phase 2 of the project would result in less-than-significant impacts on traffic operations.

Please see Master Response #1 regarding various aspects of the Construction Management Plan and Response to Comment B5-4 and Master Response #3 regarding parking.

From: mo kaze <peaching@gmail.com>
Sent: Wednesday, August 20, 2014 1:36 PM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital comment

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-Extend the project area to ensure safe bicycle connections between 52nd Street, Shattuck Ave, and Telegraph Ave in all directions

PLEASE ENSURE THE CONNECTIONS

-Provide great biking, walking, and transit facilities and incentives for hospital employees and guests, including but not limited to: Long and short term bicycle parking in convenient locations and in excess of the city's minimum standard - Free bike share bikes, locks, and helmets made available to hospital staff on site - Bike commuting classes for employees and guests, hosted at the hospital - Bicycle accommodation on the free Children's Hospital MacArthur BART shuttle, made available to hospital staff, guests, and neighborhood residents.

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Thank you for your attention!

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COMMENTS C26

Kaze, Mo

August 20, 2014

Response C26-1: Please see Response to Comment B1-1 regarding the additional traffic generated by the proposed project.

Response C26-2: Please see Response to Comment C3-2 and Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

From: marisa kemnitz <marisakemnitz@gmail.com>
Sent: Tuesday, September 16, 2014 10:04 AM
To: Klein, Heather; Merkamp, Robert; Kalb, Dan
Subject: CHO expansion project neighborhood concerns

Hi,
I live in the neighborhood adjacent to CHO and frequently experience parking issues (parking in driveway, parking in red zones, etc) in our area. I would like for a residential parking permit area to be zoned in this neighborhood before or at some point during the expansion.

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Particularly on 51st street between West and MLK.

Thank you,
Marisa Kemnitz
849 51st St
Oakland, CA 94608

COMMENTS C27

Kemnitz, Marisa
September 16, 2014

Response C27-1: Please see Master Response #3 regarding implementation of RPP in the project vicinity and CHRCO funding.

From: Kristin Kiesel <kristin.kiesel@gmail.com>
Sent: Monday, September 22, 2014 8:55 AM
To: Klein, Heather
Subject: Oakland Children's Hospital Master Plan--Comments

Dear Oakland City Planning Commission,

I'm writing to register my comments about the Draft EIR for Application DOWD009157: Children's Hospital Master Plan pursuant to CEQA.

While I view OCH as a valuable neighbor in our community, and am thankful for the adjustments to the Master Plan due to our ongoing dialogue, especially the move of the parking garage entry to MLK and continued use of the buildings originally scheduled for removal. As a single working mother, I moved to this neighborhood, 2.5 years ago, being priced out of the Berkeley rental market, and we greatly enjoy where we live and are committed to play an active part in shaping the future of our neighborhood. I hope, OCH shares this commitment and wanted to submit some additional concerns with regard to the current project plan, as well as the proposed construction schedule.

Our neighborhood is highly impacted by traffic to and from OCH. Daytime, weekday parking has become a real challenge as a result of OCH employees and visitors parking on our streets. But more importantly, visitors to OCH discard their trash out of their cars without much regard for our neighborhood. In order to keep the surrounding area of my residence livable, I currently pick up trash on the corner of Dover and 53rd once a week (usually resulting in two bags full of discarded bottles, food wrappers, diapers, etc.). I would urge OCH to continue to be a considerate neighbor in our community and take responsibility for the impact they have on the livelihood and character of our neighborhood. Specifically:

- I strongly support the parking entrance being placed on MLK. I strongly disagree with the idea of placing the parking entrance on Dover St.
- I do not support increased traffic access via a Dover St. entrance. This is a residential street and not suitable to accommodate maintenance vehicles and any increased traffic in general.
- The use of the OCH facilities in the neighborhood and exterior design of structures should be designed so that they blend in with the residential and historical character of the neighborhood, and ensure safety for the surrounding neighborhood. I strongly encourage OCH to address parking needs of its employees in its construction (e.g. free parking passes, etc) to minimize the impact on the community, and take responsibility and partake in the clean up of the neighborhood. Residential zoning should not be changed. I also support improved bike and pedestrian access from Shattuck and 52nd as part of these efforts.
- The current plan anticipates a 10-year construction period and requires consideration of the impact on our neighborhood. Construction traffic and parking should not be allowed on Dover St., and instead should be routed via non-residential routes. The hours of construction should be restricted and not extend to non-business hours. 8am-6pm Monday-Friday is a reasonable time period, and construction should not be allowed on weekends.

Thank you for your consideration and continued efforts to work with us.
Sincerely,
Kristin Kiesel
(5301 Dover St)

COMMENTER C28

Kiesel, Kristin
September 22, 2014

- Response C28-1: This introductory comment is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. Specific concerns outlined in following comments are addressed in the responses below.
- Response C28-2: The comment is concerned about traffic and parking on residential streets surrounding the project site. This comment does not raise any specific issues or address the adequacy of the Draft EIR. Therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Also, based on the analysis presented in the Draft EIR, the proposed project would not result in a significant impact on traffic operations in the project vicinity and the proposed project would provide adequate parking supply to meet the estimated parking demand at the end of Phase 2 of the project. Furthermore, SCA TRA-1 (see page 294 of the Draft EIR) requires the project to implement a TDM Plan to provide incentives and encourage use of non-automobile travel modes, which would reduce CHRCO's traffic generation and parking demand. See Master Response #3 regarding residential parking permits.
- The commenter's observations about existing littering in the residential neighborhoods near the CHRCO campus are noted. This comment does not relate to the adequacy of the Draft EIR. Therefore, no further response is required. Both private and public areas within the CHRCO campus boundaries are regularly maintained by CHRCO staff. CHRCO has contracted with J & S Environmental Services to perform a daily walk-around and pickup of trash and litter for all CHRCO properties between 53rd Street and the south end of the hospital property. In addition, CHRCO landscapers inspect, maintain, and repair all landscaped areas once a week.
- Response C28-4: Please see Response to Comment C7-7 regarding parking garage access.
- Response C28-5: Please see Response to Comment C2-9 regarding the proposed maintenance access on Dover Street.
- Response C28-6: This comment, which requests that the project consider compatibility with the residential and historic character of the area, is noted. Please see Master Response #4. This comment also suggests that the design of the project should consider safety concerns. This comment is noted. Please also see Response to Comment C7-11.
- Response C28-7: Please see Response to Comment B5-4.

Response C28-8: Please see Response to Comment C28-3.

Response C28-9: This comment, which states that existing residential zoning designations should not be changed as part of the proposed project, is noted. The comment does not address the adequacy of the Draft EIR and therefore no response is warranted pursuant to CEQA. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Please see Master Response #4.

Response C28-10: Please see Master Response #2 regarding bicycle and pedestrian improvements between the project site and Shattuck Avenue and 52nd Street.

Response C28-11: Please see Master Response #1 regarding duration of construction and potential use of Dover Street and other residential streets by construction vehicles and construction parking.

Response C28-12: Please see Master Response #1 regarding days and hours of construction.

Katherine Krolikowski
5315 Dover St.
Oakland, CA 94609
katie.krolikowski@gmail.com

Oakland City Planning
c/o Heather Klein
hklein@oaklandnet.com

Dear Oakland City Planning Commission,

I'm writing to register my comments about the Draft EIR for Application DOWD009157: Children's Hospital Master Plan pursuant to CEQA.

1. **Construction concerns:** this promises to be a 10-plus year ordeal for neighbors of Children's Hospital, and it is imperative that the draft EIR considers fully and carefully this long-term impact on the livability of the neighborhood.
 - a. **Construction traffic:** Trucks, employee parking, etc. should not be allowed on Dover Street, and instead should be routed via non-residential streets.
 - b. **Hours of construction:** Ten years of construction is not typical, and the project is nestled in a residential neighborhood. Therefore, the hours of construction should be constrained to allow neighbors to enjoy peace in their yards during non-business hours. 8am-6pm Monday-Friday is a reasonable time period. Construction should not be allowed on Saturdays should
 - c. **Safety:** 52nd street, and also Dover Street are important pedestrian and bicycle connections that span a major freeway. During the 10 years of construction, every effort must be made to keep pedestrians and bicyclists safe as they use this transportation corridor. As an example of what NOT to do- consider the MacArthur BART pedestrian/bike "passageway" that was recently part of construction there.
2. **Project Plan:** My primary concern about this plan is to make sure it does not detract from the livability of the residential neighborhoods around the hospital.
 - a. **Zoning** should NOT be changed. Residential zoning is needed to maintain a pleasant environment for the neighbors.
 - b. **Parking garage entrance:** I support the parking entrance being placed on MLK. I strongly disagree with the idea of placing the parking entrance on Dover St.
 - c. **Maintenance yard access:** I do NOT support increased traffic access into the maintenance yard via a Dover St. entrance. This is a residential street and should not accommodate maintenance vehicles.

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| d. Physical plant upgrades – noise pollution: The current physical plant creates a high-pitched “whine” that reflects off of our house into the backyard. Physical plant upgrades should include a sound buffer that keeps noise out of the neighborhood. | 8 |
| e. Bike and pedestrian – 52nd Street and Dover St. : The project should result in INCREASED bike and pedestrian access between West St. and Shattuck. This is an important thoroughfare as people travel north and south between Ashby and MacArthur BART, as well as between neighborhoods and the recently improving commercial districts of Oakland (Telegraph, Ashby, Alcatraz, etc.) | 9 |
| f. Safety: The project should be designed so that the ‘exterior’ parts of the hospital tend to improve safety for the surrounding neighborhood. For instance, the current configuration of a parking garage wall and un-kept homes (which are sometimes rented to people associated with criminal activity) is NOT a good example of the hospital’s presence improving safety and health in its surrounding neighborhood. | 10 |
| g. Residential livability: In all cases, permits and design approvals should encourage a blending with the residential and historical character of the neighborhood. | 11 |
| h. Helicopter noise: The draft EIR’s assessment of helicopter noise is <u>not appropriate</u> . Citing decibel levels of the continuous and “average” noise from freeway and BART with the ‘abrupt’ and ‘violent’ noise of helicopters is a ridiculous comparison. Noise pollution is about more than decibels – the startling and fear-inducing nature of helicopter noise is well-known, and while neighbors can get used to and ‘tune out’ the constant noise of traffic and the whir of BART, helicopter arrivals are ALWAYS scary. Their impacts on the neighborhood should be minimized in the design of the helicopter landing pad. | 12 |

I ask you to address each of these concerns in the final EIR. I realize this project has to go forward to meet health requirements, and suggest that the hospital consider moving its operation to a site more appropriate for industrial use. If the hospital insists on this 10-year project in the midst of a residential neighborhood, the City of Oakland must insist and enforce requirements that every possible measure be taken to reduce and minimize disruption to residents of the neighborhood. After all, ten years is a full one-seventh !!! (assuming a lifespan of 70-80 years) of the lifetime of folks living in this neighborhood. If the 10-year project is approved, Oakland must be a good steward for its citizens.	13
	14

Sincerely,
Katherine Krolikowski

COMMENTER C29

Krolikowski, Katherine

No date, 2014

- Response C29-1: Please see Master Response #1 regarding duration of construction and potential use of Dover Street and other residential streets by construction vehicles.
- Response C29-2: Please see Master Response #1 regarding days and hours of construction.
- Response C29-3: Please see Master Response #1 regarding pedestrian and bicycle safety during construction.
- Response C29-4: This comment, which expresses concerns related to neighborhood livability, is noted. The comment does not address the adequacy of the Draft EIR and therefore no response is warranted pursuant to CEQA.
- Response C29-5: Please see Response to Comment C7-6 regarding rezoning.
- Response C29-6: Please see Response to Comment C7-7 regarding parking garage access.
- Response C29-7: Please see Response to Comment C2-9 regarding the proposed maintenance access on Dover Street.
- Response C29-8: Please see Response to Comment C2-11 regarding physical plant noise.
- Response C29-9: Please see Response to Comment C2-12 regarding increased bicycle and pedestrian activity in the project vicinity.
- Response C29-10: Please see Response to Comment C7-11 regarding safety improvements.
- Response C29-11: Please see Response to Comment C7-12 regarding compatibility with the neighborhood.
- Response C29-12: Please see Master Response #7 regarding helicopter noise.
- Response C29-13: Please see Response to Comment C15-18 regarding another location for the hospital.
- Response C29-14: This comment, which expresses concerns related to the duration of the construction period and requests that the City enforce measures to reduce impacts to residents, is noted. Please see Master Response #1 regarding duration of construction and impacts during project construction.

From: heyoverhere <heyoverhere@gmail.com>
Sent: Wednesday, September 03, 2014 1:35 PM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital comment

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The project is good for healthcare and could help to revitalize the neglected MLK corridor, but it could also bring a lot more car traffic to the area. The included plan for a bikeway on 52nd Street is an upgrade from the current conditions, but the design is still outdated and won't do enough to encourage the average person to bike or walk there. I urge you to work with local non-profits Bike East Bay and Walk Oakland Bike Oakland on an improved design that will create a much more compelling and safe connection between the surrounding neighborhoods, and encourage more biking and walking trips by hospital staff, guests, and local residents.

An improved design should:

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Thank you for your attention!
Paul Langlois
853 45th St
(no mail please!)

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COMMENTER C30

Langlois, Paul
September 3, 2014

Response C30-1: Please see Response to Comment B1-1 regarding the additional traffic generated by the proposed project.

Response C30-2: Please see Response to Comment C3-2 and Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

From: Sarah Lightfoot <slightfootmail@gmail.com>
Sent: Friday, August 22, 2014 2:15 AM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital comment

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Thank you for your attention!

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COMMENTS C31

Lightfoot, Sarah
August 22, 2014

Response C31-1: Please see Response to Comment B1-1 regarding the additional traffic generated by the proposed CHRCO project.

Response C31-2: Please see Response to Comment C3-2 and Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

From: Nicholas Littlejohn <nicklittlejohn@gmail.com>
Sent: Tuesday, August 19, 2014 1:36 PM
To: Klein, Heather
Subject: Children's Hospital - Safer Bike Lanes

Hello, I wanted to comment to concur with Bike East Bay that the proposed designs are not continuous and don't do enough to encourage the average person to bike or walk there.

Please work with this longstanding group to make a remarkable and safe project here to encourage safety for all ages.

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Thank you,
Nicholas
Green, Ink

--

Thank you for all that you do for our world,

Nicholas

--

Nicholas Littlejohn

Founder- Green, Ink.

Green Consultant, saving you and your business energy (and money.)

COMMENTS C32

Littlejohn, Nicholas
August 19, 2014

Response C32-1: The comment expresses general support for the alternative bikeway design for 52nd Street proposed by Bicycle East Bay. Please see Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features and feasibility of continuous bike lanes.

From: Catherine Macken <catherineamacken@gmail.com>
Sent: Wednesday, August 20, 2014 9:48 PM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital comment

Addition of a traffic circle needed at 52nd and Genoa to end drag racing, high speed donuts, enforce bike boulevard safety.

1

This message is in response to the recently released Draft Environmental Impact Report for the Oakland Children's Hospital expansion project.

2

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3

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Thank you for your attention!

Sent from my iPhone

COMMENTER C33

Macken, Catherine
August 20, 2014

Response C33-1: Please see Master Response #2 regarding a potential traffic circle at the 52nd Street/Genoa Street intersection.

Response C33-2: Please see Response to Comment B1-1 regarding the additional traffic generated by the proposed project.

Response C33-3: Please see Response to Comment C3-2 and Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

From: Greg Merritt <greg.merritt@gmail.com>
Sent: Thursday, August 21, 2014 6:07 AM
To: Klein, Heather; Merkamp, Robert
Subject: please consider improved design for Children's Hospital

Hello! The text below is boilerplate from Bike East Bay, but, as a walking & cycling neighbor living a few blocks away from the hospital, I'd like to chime in with my request that you strive to accommodate these fabulous suggestions for an improved design.

1

-Greg Merritt

This message is in response to the recently released Draft Environmental Impact Report for the Oakland Children's Hospital expansion project.

2

The project is good for healthcare and could help to revitalize the neglected MLK corridor, but it could also bring a lot more car traffic to the area. The included plan for a bikeway on 52nd Street is an upgrade from the current conditions, but the design is still outdated and won't do enough to encourage the average person to bike or walk there. I urge you to work with local non-profits Bike East Bay and Walk Oakland Bike Oakland on an improved design that will create a much more compelling and safe connection between the surrounding neighborhoods, and encourage more biking and walking trips by hospital staff, guests, and local residents.

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3

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Thank you for your attention!

COMMENTER C34

Merritt, Greg
August 21, 2014

- Response C34-1: The comment expresses general support for the alternative bikeway design for 52nd Street proposed by Bicycle East Bay. This comment does not relate to the adequacy of the Draft EIR. Therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project.
- Response C34-2: Please see Response to Comment B1-1 regarding the additional traffic generated by the proposed project.
- Response C34-3: Please see Response to Comment C3-2 and Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

From: Sommer Naffz <sommerlou@gmail.com>
Sent: Wednesday, September 03, 2014 9:44 PM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital comment

This message is in response to the recently released Draft Environmental Impact Report for the Oakland Children's Hospital expansion project.

As residents of 52nd St., between Market & Genoa, we strongly support the proposal of a traffic circle being installed at 52nd/Genoa St. Many drivers take the opportunity to speed through 52nd St., given the absence of speed bumps (unlike surrounding streets).

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Speed and reckless driving in the area, particularly on the 52nd thoroughfare between Market & MLK, are an everyday occurrence. As new parents-to-be, bike riders and concerned citizens, we welcome any and all efforts to install traffic-calming measures as well as promote a healthy and family friendly environment via bikeway improvements with safety and overall community welfare in mind. We look forward to taking advantage of the future accommodations.

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Thank you for your consideration.

Sommer Naffz & Graham Craig
871 52nd St.
Oakland, CA 94608

COMMENTER C35

Naftz, Sommer; Craig, Graham
September 3, 2014

Response C35-1: The comment supports a traffic circle at the 52nd Street/Genoa Street intersection. Please see Master Response #2 regarding a potential traffic circle at this location.

Response C35-2: The comment supports traffic calming measures on 52nd Street between Martin Luther King Jr. Way and Market Street. Please see Master Response #2 regarding potential traffic calming measures along this segment of 52nd Street.

From: Jean Parker <prkr@pacbell.net>
Sent: Monday, September 22, 2014 2:14 PM
To: Klein, Heather
Subject: Case File Number ER12-0013 (Draft EIR for Application DOWD009157)

September 22, 2014

Heather Klein, Planner III
City of Oakland Planning Commission
Department of Planning and Building
City of Oakland
250 Frank H. Ogawa Plaza, Suite 3315
Oakland, CA 94612
hklein@oaklandnet.com

Re: Case File Number ER12-0013 (Draft EIR for Application DOWD009157)

I am writing to provide comments on the Draft EIR for Application DOWD009157: Children's Hospital Master Plan.

UCSF Benioff Children's Hospital provides excellent medical care for Oakland, Alameda County, and beyond. As a neighbor, I'm proud of the quality of care provided by the hospital. However, as a neighbor, I also have significant scar tissue related to past hospital development actions that sought to ride roughshod over our community. I support the hospital retrofit and modernization efforts but I'm concerned about how the hospital's decade-long expansion will adversely impact our North Oakland neighborhood. I expect the Commission to protect our residential neighborhood as it works to approve a plan for this massive, decade-long construction project.

1

This project is expected to last from 2015 to 2025 and threatens to take an enormous toll on the health and well-being of the hospital's residential neighbors. Also at stake is the vibrant and historic character of the neighborhood if zoning changes allow for high-density buildings along Dover between 52nd and 53rd street, an area that I strongly believe should remain a low-density buffer zone.

2

I do applaud UCSF Benioff Children's Hospital Oakland's agreement to place the new 6-story outpatient building at MLK and 52nd, not on the Dover Street residential side; the parking lot entrance on MLK, and not on the Dover Street residential side, and to keep the helistop on the south side of 52nd Street. It is important that no changes are made to these aspects of the plan.

3

But there is still more to be achieved to keep our neighborhood livable through the next ten years and beyond:

TRAFFIC AND POLLUTION:

Construction vehicles/traffic should not be permitted to use Dover Street or the adjacent residential roads. Our roads cannot bear the brunt of 10 years of heavy traffic, the infrastructure is old, potholes are forming, and the sewer system is in bad need of repair, breakage will come at residents' and taxpayers' expense. The increased pollution that comes with increased traffic would be detrimental to the health of our neighbors.

4

There needs to be an adequate plan in place for staging the construction equipment and parking for the construction workers.

CONSTRUCTION HOURS:

To endure a decade of construction in a largely residential area, residents will need a respite from the construction dust and noise. Construction hours of 7am - 7pm, Monday to Saturday would be a great hardship for hospital neighbors. The hours of construction should be limited to 8am-4pm, Monday-Friday. Construction should not be allowed on weekends.

5

ZONING:

Any effort to rezone residential buildings to commercial ones on Dover Street between 52nd and 53rd would eliminate the neighborhood's one and only buffer zone. We are looking at a high-density hospital campus on the doorstep of a historic neighborhood of narrow roads and single-family homes. We must continue to keep the tallest and busiest buildings south of 52nd Street by the freeway, and keep the development between 52nd and 53rd in scale with the residential neighborhood to the north.

6

HOSPITAL BOUNDARIES:

I appreciate the current administration's work in addressing some neighborhood concerns and look forward to a continuing, long-term collaboration with the hospital. That said, our neighborhood's previous experience with the hospital has been less than rosy. In the last decades, we have watched as successive CHO administrations bought and boarded up or bulldozed residences in the area, repeatedly violating oral agreements with neighboring residents that the hospital wouldn't expand into the neighborhood. At this stage, the Commission should impose a binding agreement or other mechanism to solidify the boundaries of the hospital site as a condition of plan approval.

7

ADDITIONAL QUALITY OF LIFE CONCERNS/RELIEF:

Those living closest to the hospital should receive construction concessions, including but not limited to:

- Double-paned windows to keep out incessant noise and dust and to partially abate significant helicopter noise.
- Residential permit parking for blocks that desire it, paid for by the hospital.
- Road closures, if only through temporary barriers, should be used to divert construction traffic away from residential roads during the construction period.
- Landscaping to provide a noise buffer zone between the hospital and residences. At present there is little or no landscaping to the north of the hospital.
- A significant fund should be maintained by the hospital to address unforeseen neighborhood needs that may arise as construction progresses.

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It is imperative that the Commission take steps to ensure the livability of the residential neighborhood during the hospital's ten-year construction timeline and beyond.

Sincerely,
Jean Parker
5405 Dover St.
Oakland, CA 94609
prkr@pacbell.net

COMMENTS C36

Parker, Jean
September 22, 2014

- Response C36-1: This comment, which expresses general support for the work of CHRCO and also expresses concerns related to the duration of the construction period, is noted. Please see Master Response #1 regarding the duration of the construction period and the Construction Management Plan that would be in place during project construction.
- Response C36-2: Please see Master Response #4.
- Response C36-3: This comment, which expresses general support for elements of the proposed project and requests that City decision-makers ensure that these specific elements are implemented, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, this comment will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project.
- Response C36-4: Please see Master Response #1 regarding potential use of Dover Street and other residential streets by construction trucks, street repairs caused by construction, pollution control during construction, construction staging, and construction worker parking.
- Response C36-5: Please see Master Response #1 regarding noise and dust impacts during project construction as well as hours of construction.
- Response C36-6: This comment, which expresses concerns related to rezoning of residential properties within the CHRCO campus boundaries related to preservation of neighborhood scale and character and suggests that the more intensive uses within the campus should be located to the south, is noted. Please see Master Response #4.
- Response C36-7: This comment suggests that a mechanism should be in place to enforce limits on expansion of institutional uses north of 53rd Street. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, this comment will be forwarded to City decision-makers for their consideration prior to taking action on the EIR and the proposed project. Please see Master Response #4.
- Response C36-8: Please see Response to Comment C4-6 and Master Responses #1 and #7.
- Response C36-9: Please see Master Responses #1 and #3 regarding implementation of RPP during and after construction in the project vicinity and CHRCO funding.

- Response C36-10: Please see Master Response #1 regarding designated truck routes for project construction and road closures during construction.
- Response C36-11: Please see Response to Comment C2-13 regarding proposed project landscaping.
- Response C36-12: Please see Master Response #1 regarding funds for unforeseen circumstances.

From: Susan Parker <sparker.sparker.sparker@gmail.com>
Sent: Monday, September 22, 2014 9:30 AM
To: Klein, Heather
Subject: Case File Number ER12-0013 (Draft EIR for Application DOWD009157) CHO expansion

To: Heather Klein, Planner III
 City of Oakland Planning Commission
 Department of Planning and Building
 City of Oakland
 250 Frank H. Ogawa Plaza, Suite 3315
 Oakland, CA 94612
hklein@oaklandnet.com

From Susan Parker
 5323 Dover Street
 Oakland, CA 94609
 510 915 2812
sparker.sparker.sparker@gmail.com

Re: Case File Number ER12-0013 (Draft EIR for Application DOWD009157)

Ms. Klein and Members of the Planning Commission:

I have lived one block from CHO for the past 22 plus years.

I write to register my comments about UCSF Benioff Children's Hospital Oakland's Master Plan (the Plan) pursuant to CEQA. The expansion project proposed by UCSF Benioff Children's Hospital Oakland's (CHO or the Hospital) will affect me and my community directly. Although I commend the Hospital for its willingness to address several neighborhood concerns in its latest plans, as the neighborhood has learned repeatedly, plans and Hospital administrations change. Consequently, I request the Commission's action to ensure that the Hospital does not find excuses to renege on these concessions and to guarantee that CHO addresses critical, yet unresolved issues.

CONCERNS REGARDING A DECADE OF CONSTRUCTION

As you can imagine, the prospect of more than a decade of major construction is overwhelming for neighbors. To ensure that the construction and its attendant issues threaten neither residents' health/well-being nor our neighborhood's vitality, it is imperative that the Commission confirm that the Hospital address the following concerns.

Construction and Large Vehicle Traffic - Escalation in Noise and Pollution

A decade of proposed construction will bring dust, exhaust fumes, and noise to the area. The Hospital sits nestled within a residential neighborhood. Ten years of construction is not typical for such a small, quiet area.

Many of neighborhood residents are raising young children, retired (and spending more time in their homes), or working full-time from home. Nonetheless, the EIR has not addressed questions such as: Where will the staging area be for construction? How will large trucks and other equipment move to and from the construction site? Where will this large construction vehicles park? What will construction hours be?

The answers to these and other questions are critical to enabling neighbors to endure the decade of building that the Hospital Plan entails. Trucks, construction employees' parking, etc. should not be allowed on Dover Street or surrounding residential viaducts and should instead be routed via non-residential streets. Construction must be constrained to allow neighbors to enjoy their homes and yards peacefully *both during business and non-business hours*. Under no circumstances should construction be allowed on Saturdays or Sundays. In addition, the heavy truck traffic with the attendant increase in noise, dust, and diesel exhaust fumes must be severely mitigated during this proposed decade-long large-scale construction project. In addition, significant funds should be set aside to address unforeseen adverse effects to residents.

THE HOSPITAL PLAN

Residential Zoning Must Be Preserved (Including Limiting Hospital Expansion Boundaries) to Maintain Neighborhood Livability

Residential zoning is necessary to maintain a livable residential environment for those who live in the neighborhood. As a result, I strenuously oppose *any* commercial rezoning of residential properties and request that the Commission deny wholesale commercial rezoning for all existing residences owned by CHO.

Instead, I ask that the Commission impose alternatives such as maintaining residential zoning (with conditional use permissions), allowing mixed use, and ensuring that those properties blend with the neighborhood (i.e., renovating/building structures with residential facades that mimic and fit in with the residential scale, despite their interior uses). In all cases, permits and design approvals should encourage a blending with the residential and historical character of the neighborhood. Such steps will significantly enhance the surrounding community – rather than progressively degrading its residential character.

Finally, I request that the Commission impose a binding agreement or other mechanism to solidify the boundaries of the Hospital site – while providing certainty for CHO as it moves forward with building plans – as a condition of Plan approval is *essential*. In the last decades, we have watched as successive CHO administrations bought and bulldozed residences in the area. Based on the Hospital's repeated violations of oral agreements with neighboring residents, additional verbal promises by the Hospital will prove insufficient defense for our neighborhood against further encroachment.

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Proper Traffic Mitigation and Parking Garage Placement

CHO had proposed to relocate the entrance to the main parking garage from 52nd Street to the corner of Dover and 53rd Streets. I strongly encourage the Commission to prevent such a relocation. A new entrance in this location would cause considerable traffic increase on residential streets. All streets (including Dover, 53rd, and 54th) are extremely narrow allowing just enough room for one car to pass between vehicles parked at the curb. Local residents will suffer the negative effects of increases in traffic and congestion. Increased traffic could also create additional danger to vehicles, pedestrians, and cyclists. Fifty-Third Street cannot handle additional traffic flow, as drivers cruise up the street from Martin Luther King Way, Jr. (MLK) or down Dover Street from 52nd searching for the parking garage entrance.

6

Instead, I request that the Commission support relocating the parking entrance on MLK, which is better designed to bear significant traffic flow. This would preclude the serious health and safety risks of passenger and construction traffic with the attendant noise, dust, and exhaust fumes that could result from a parking lot entrance on Dover Street.

Parking Assessment and Mitigation

The Plan proposal notes that the Hospital will eliminate 160 parking spaces during Phase I construction. In this 100-year old neighborhood, most homes were constructed without garages and some without driveways. As the Hospital has expanded, decreased parking availability and blocked driveways have escalated in significance for some residents. Hospital visitors and patients park vehicles as far north as 57th Street and walk to the Hospital rather than utilizing Hospital-provided spaces. To date, the Hospital has not addressed parking to many residents' satisfaction. Past and recent experience does not demonstrate that Hospital can do so with the loss of an additional 160 parking spaces.

7

Nonetheless, the Hospital Plan includes expanding its campus to consolidate many of its facilities and employees in satellite locations. Thus, many more Hospital employees will be coming to the neighborhood. With even fewer parking spaces, where will these additional employees park? Where is the infrastructure for this influx of Hospital employees? The Hospital has not answered these questions. Moreover, although neighbors have moved to gather signatures for residential parking permits, the Hospital has not committed to pay for such permits. Other projects (such as the Safeway rebuild on College Avenue) have included guarantees of paid parking permits.

8

Maintenance Yard Access

For similar reasons, I oppose increased traffic access into the maintenance yard via a Dover Street entrance. Again, this is a residential street and cannot accommodate maintenance vehicles.

9

Noise Associated with Helicopters

The draft EIR's assessment of helicopter noise is insufficient and inaccurate. The decibel level of continuous and "average" noise associated with freeway and BART traffic is not appropriately compared with the abrupt and violent noise of helicopter propellers. Noise pollution consists of more than simple decibel levels. The startling, disruptive nature of helicopter noise is well-documented within the neighborhood and by the Hospital – particularly as helicopters arrive and depart at all times of the day, night, and "wee hours" of the morning. Pilots often stray far from the proper flight path, flying low and directly over residences. While humans may "tune out" the constant "white" or "background" noise of traffic, the sound associated with unexpected helicopter hovering, take offs, and landing is loud and jarring. The location and design of the landing pad should be adjusted to minimize the impact of such helicopter noise on the neighborhood north of 52nd Street.

10

Physical Plant Upgrades – Noise Pollution

The current physical plant creates a high-pitched "whine" that reflects off of neighboring homes and into yards. Physical plant upgrades should include a sound buffer that keeps noise out of the neighborhood.

11

Increased Bike and Pedestrian Access – 52nd Street and Dover Street

The Plan should result in increased bike and pedestrian access. These are important thoroughfares as people travel north and south between Ashby and MacArthur BART, as well as between neighborhoods and the improving Oakland commercial districts (Telegraph, Ashby, Alcatraz, etc.).

12

Green Space Buffers and Landscaping Options

The Hospital's current "landscaping" and green space consists mainly of bare dirt and concrete, making its buildings neighborhood eyesores. The need for a green space "cushion" is great. Notably, other Oakland projects (such as the Safeway rebuild on College Avenue) have created a buffer area to separate the site from the residential neighborhood.

13

Neighborhood residents deeply respect the Hospital and its mission. Many residents are CHO employees; others bring their own children there for treatment. We appreciate the current administration's work in addressing some neighborhood concerns and look forward to a continuing, long-term collaboration with the Hospital.

14

Sincerely,

Susan Parker

COMMENTER C37

Parker, Susan
September 22, 2014

- Response C37-1: This introductory comment, which requests that City decision-makers ensure that CHRCO addresses neighborhood concerns and follows through with agreed-to concessions, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. This comment will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project. Specific concerns outlined in following comments are addressed in the responses below
- Response C37-2: Please see Master Response #1 regarding noise and air quality impacts during construction and the duration of construction.
- Response C37-3: Please see Master Response #1 regarding various aspects of project construction such as construction staging areas, truck routes, construction worker parking, construction hours, and noise and air quality impacts during construction.
- Response C37-4: Please see Response to Comment C2-4 regarding residential rezoning and preservation of neighborhood character.
- Response C37-5: Please see Master Response #4 and Response to Comment C2-5 regarding a mechanism to secure hospital boundaries.
- Response C37-6: Please see Response to Comment C2-6 regarding the location of the parking garage access.
- Response C37-7: Please see Response to Comment C2-7 regarding the on-site parking supply.
- Response C37-8: Please see Response to Comment B5-4 regarding parking demand at CHRCO and strategies to reduce parking demand at the project.

Please see Master Response #3 regarding implementation of RPP in the project vicinity and CHRCO funding.
- Response C37-9: Please see Response to Comment C2-9 regarding the proposed maintenance access on Dover Street.
- Response C37-10: Please see Master Response #7 regarding helicopter noise.
- Response C37-11: Please see Response to Comment C2-11 regarding physical plant noise.

- Response C37-12: Please see Response to Comment C2-12 regarding increased bicycle and pedestrian activity in the project vicinity.
- Response C37-13: Please see Response to Comment C2-13 regarding proposed project landscaping.
- Response C37-14: This comment, which expresses respect for the hospital and its mission, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

From: Steve Ratcliff <steveratcliff@gmail.com>
Sent: Monday, August 25, 2014 4:21 PM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital comment from an Oakland homeowner and neighbor

This message is in response to the recently released Draft Environmental Impact Report for the Oakland Children's Hospital expansion project.

I appreciate the added bike lanes and see much value in continuing to keep pedestrians and cyclists safe. As an Oakland homeowner, pedestrian, driver, dog-owner and father I find the importance in both safety as well as efficient travel for all. This is to say that I feel safe bike lanes and pedestrian crossings are important but please do not forget to at a very minimum maintain the current flow of traffic if not improve it.

1

The left turn into Children's hospital on Eastbound 52nd St already backs up with two traffic lanes. Cutting this to one lane as traffic into the hospital increases will make the traffic flow inefficient and may endanger pedestrians and cyclists as cars weave around left turning vehicles.

May I recommend that a dedicated left-turn lane be included in this plan or at a very minimum, more appropriate timing of left turn lights to coincide with traffic through this corridor.

Also, have I missed the comment period for improvements to the 57th/Adeline intersection? At 1/2 block from my home I am excited to see this being modernized and made safer but am concerned about efficient flow of traffic being maintained.

2

Thanks for your time,

Steve Ratcliff

COMMENTS C38

Ratcliff, Steve
August 25, 2014

Response C38-1: The commenter would like to maintain current traffic flow in the project area. The Project Traffic Impact Analysis section of the Draft EIR (pages 316 through 335) evaluates the potential impacts of both Phase 1 and Phase 2 on the roadway network surrounding the site, during weekday AM and PM peak hours of commute under Existing as well as 2020 and 2035 conditions. As shown in Tables IV.D-15 through IV.D-17, the intersections analyzed in the Draft EIR would generally experience similar amount of delay with and without the proposed project. As summarized in the Draft EIR, both Phase 1 and Phase 2 of the project would result in less-than-significant impacts on traffic operations.

The commenter is also concerned about traffic flow on eastbound 52nd Street at the Main Garage Driveway and requests a dedicated left-turn lane on eastbound 52nd Street. Phase 1 of the proposed project would relocate the entrance to the Main Garage from 52nd Street to Martin Luther King Jr. Way. As shown on Figure IV.D-17a of the Draft EIR, the relocation of the driveway would reduce the left-turn volume from eastbound 52nd Street into the Main Garage by as much as 108 vehicles per hour. As shown on Figure IV.D-22, fewer than five vehicles per hour are expected to make this left-turn movement. As a result, no dedicated left-turn lane is needed and as shown in Tables IV.D-15 through IV.D-17, the intersection would continue to operate at LOS C or better after completion of Phase 2 of the project.

Response C38-2: The commenter inquires about potential improvements at 57th Street/Adeline Street/Market Street intersection. The Draft EIR did not analyze or include any modification at this intersection because minimal traffic generated by the proposed project is expected to travel through it. Since the comment is not applicable to the proposed project or the Draft EIR, no response is needed. However, City of Oakland is planning improvements in a separate project to upgrade the signal equipment and construct several curb extensions to reduce the size of the intersection allowing for a shorter signal cycle length, shorter pedestrian crossing distances, and lower automobile speeds. The improvements are expected to be constructed in fiscal year 2015-2016.

From: Anat Razon <razonan@gmail.com>
Sent: Thursday, August 21, 2014 4:29 PM
To: Klein, Heather; Merkamp, Robert
Subject: Subject: Oakland Children's Hospital comment

This message is in response to the recently released Draft Environmental Impact Report for the Oakland Children's Hospital expansion project.

1

The project is good for health care and could help to revitalize the neglected MLK corridor, but it could also bring a lot more car traffic to the area. The included plan for a bikeway on 52nd Street is an upgrade from the current conditions, but the design is still outdated and won't do enough to encourage the average person to bike or walk there. I urge you to work with local non-profits Bike East Bay and Walk Oakland Bike Oakland on an improved design that will create a much more compelling and safe connection between the surrounding neighborhoods, and encourage more biking and walking trips by hospital staff, guests, and local residents.

An improved design should:

- Ensure that this plan includes a continuous, separated bikeway throughout the entire project area
- Provide better safety accommodation for bicyclists and pedestrians at conflict points along 52nd Street, especially the Highway 24 on and off ramps
- Adjust on-street car parking under the Highway 24 to create a buffered, parking-protected bikeway
- Implement the City of Oakland's guidelines throughout this project for green paint in bike lanes
- Fund Oakland's proposed bike boulevard treatment for the 52nd/Genoa Street bikeway, which will discourage cut-through car traffic on this bike-priority corridor
- Extend the project area to ensure safe bicycle connections between 52nd Street, Shattuck Ave, and Telegraph Ave in all directions
- Provide great biking, walking, and transit facilities and incentives for hospital employees and guests, including but not limited to: Long and short term bicycle parking in convenient locations and in excess of the city's minimum standard - Free bike share bikes, locks, and helmets made available to hospital staff on site - Bike commuting classes for employees and guests, hosted at the hospital - Bicycle accommodation on the free Children's Hospital MacArthur BART shuttle, made available to hospital staff, guests, and neighborhood residents.

2

You can view the existing plan for the 52nd Street bikeway at https://pdf.yt/d/82O6oHh2_OMQ87Qr, and an alternative plan suggested by Bike East Bay at <https://pdf.yt/d/5h8q4vPa77wFI4MD>.

Thank you for your attention!

COMMENTER C39

Razon, Anat

August 21, 2014

Response C39-1: Please see Response to Comment B1-1 regarding the additional traffic generated by the proposed CHRCO project.

Response C39-2: Please see Response to Comment C3-2 and Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

From: Gerald Robinson <gefrobinson@yahoo.com>
Sent: Wednesday, September 03, 2014 2:50 PM
To: Merkamp, Robert; Klein, Heather
Subject: Comments on Genoa St/Childrens Hospital BikeWay proposal

Please find my comments on this project below. Thank you for all the great work on this effort!

1

1. I support the project as it not only improves the existing bike path but also addresses some longstanding issues with traffic in the Sante Fe neighborhood. Neighbors have been struggling with traffic passing between Market/Adaline and MLK via Sante Fe Street. We have racing cars and even tractor trailer trucks moving through and the plan proposed will help reduce this issue.

2

2. I see the proposed plan as also improving the comfort and safety for pedestrians as well due to the traffic calming features. Improving pedestrian conditions will increase the sense of community by enticing more neighbors out to share common areas more.

3

3. The proposed plan will improve the environment of the area with reduced noise and traffic.

4

4. The proposed bike way will increase use of bicycle use by neighbors and thereby reduce related air and noise pollution.

5

5. The proposal gives a much stronger tie to the Sante Fe neighborhood and regional commuter resources.

6

Please feel free to contact me should there be any additional input needed from me.

Gerald T. Robinson
875 57th Street
Oakland, CA 94608

COMMENTER C40

Robinson, Gerald
September 3, 2014

- Response C40-1: This introductory comment is noted.
- Response C40-2: The comment supports the project because it would alleviate current traffic issues. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project.
- Response C40-3: The comment states that the project would increase safety and comfort for pedestrians. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project.
- Response C40-4: The comment states that the project would decrease traffic and noise in the area. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project.
- Response C40-5: The comment states that the project would increase bike usage and improve air quality. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project.
- Response C40-6: The comment states that the proposed project would improve connections between the Santa Fe neighborhood and regional commuter resources. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project.

From: Steve Rosenberg <srosenberg.sf@gmail.com>
Sent: Monday, September 22, 2014 11:17 AM
To: Klein, Heather
Cc: PJ Fully; Kalb, Dan
Subject: Neighborhood concerns

Hi Heather - I am writing to you to address my concerns as a neighbor adjacent the upcoming Children's Hospital construction project. I work as a construction manager and I know first hand the intense impact construction projects have on neighborhoods, especially residential neighborhoods as most of my projects are in such neighborhoods. Rules are best set strongly at the onset as opposed to brought in midstream to correct a problem. That is why I ask you that you do what you can to ensure that there are construction rules that are adopted on Day One of the proposed project. And as we all know, rules are only as good as the corresponding enforcement. So please make sure that swift and strong actions be taken on any construction worker or contracting company not abiding by the rules.

1

I know you have received a lot of communication from my neighbors with regards to their concerns. I generally agree with what has already been voiced and for record I will echo the issues:

1. Construction activity should keep to standard working hours - Monday thru Friday 8am to 6pm. In the event that there are activities that need to be scheduled on the weekends or after hours (which should be rare!) communication should be made in advance to notify neighbors of the inconvenience.

2

2. Construction traffic should be limited to MLK and 51st Street. Construction workers should not park on the street as parking is already tight. Other accommodations should be made such as busing workers from parking lots.

3

3. Any trucks with dirt/debris on their tires should be hosed off before driving onto the street.

4

4. Some guarantees need to be put in place that ensure the project will not go past the draft schedule. This could be accomplished via liquidated damages or payout incentives for early finish.

5

As you know there is also great concern about the impact of the proposed project beyond the 10 yrs of proposed construction.

1. Vehicles entering and exiting the parking garage traffic should be kept to 51st Street and/or off of MLK.

6

2. Helicopter flight paths should be routed to minimize neighborhood impact.

7

3. Noise and light pollution into the neighborhood should be mitigated. The lights at the parking structure currently light-up on my living room a block and half away!

8

4. And in general the design needs to be considerate of how these buildings sit in our neighborhood in terms of appearance, safety, and ideally assets such as a cafe or other positive additions that the neighborhood currently lacks.

9

Please keep in my mind that we are not a group of activists who are against progress. We are a collection of working families who are your neighbors and are concerned with how this project will impact our families and our neighborhood.

10

Sincerely,
Steve Rosenberg & Melissa Fully
736 54th Street

COMMENTER C41

Rosenberg, Steve; Fully, Melissa
September 22, 2014

- Response C41-1: This introductory comment expresses knowledge of construction impacts on neighborhoods. Please see Master Response #1 regarding various aspects of the Construction Management Plan.
- Response C41-2: Please see Master Response #1 regarding days and hours of construction.
- Response C41-3: Please see Master Response #1 regarding construction truck routes and construction worker parking.
- Response C41-4: The comment suggests that truck tires should be hosed off before leaving site. As noted on page 380 of the Draft EIR, SCA AIR-1, point r) requires all trucks and equipment, including tires, to be washed off prior to leaving the site. Please also see Master Response #1 regarding impacts during project construction.
- Response C41-5: The comment express concerns that project will go past schedule and suggests ways to reduce that risk. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. Please see Master Response #1.
- Response C41-6: The comment suggests that vehicular access to garages should on 51st Street and Martin Luther King Jr. Way. 51st Street is located east of the CHRCO campus and east of SR 24. 51st Street does not pass through or otherwise connect to the hospital. As described on page 303 of the Draft EIR, primary access for the existing Main Garage would be on Martin Luther King Jr. Way, with secondary exit provided on 52nd Street, and access for the new garage as part of Phase 2 of the project would be on 52nd Street.
- Response C41-7: Please see Master Response #7 regarding helicopter noise.
- Response C41-8: Please see Response to Comment C2-11. As noted on pages 211 through 212 of the Draft EIR, implementation of SCA AES-1 would ensure that exterior lighting would not necessarily be cast onto adjacent properties.
- Response C41-9: The commenter's suggestions regarding site design, appearance, safety, and amenities are noted. However, they do not relate to the environmental issues in the Draft EIR and no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Please see Master Response #4.

Response C41-10: This concluding comment is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Children's Hospital and Research Center Oakland Campus
Master Plan Project
Draft Environmental Impact Report
August 2014

We have reviewed the Draft Environmental Impact Report and offer the following comments and recommendations.

General Comment

CHRCO's responses to the concerns, input and ideas expressed by the neighborhood over past two years and 23 or so meetings, are reflected in the DEIR. The results are as follows:

- a) having one helistop (not two);
- b) locating new Outpatient Center Building at Martin Luther King Way and 52nd St. (rather than closer into the neighborhood);
- c) relocating Main Garage driveway to Martin Luther King Way (rather than at Dover and 53rd streets);
- d) preserving the character of the neighborhood by retaining the facades of three hospital owned-residential houses on 53rd St. as part of the design for the new Family Residence Building (prevents "big box" structure in neighborhood); and
- e) re-purposing two hospital-owned houses on 52nd St. by moving them to the end of 53rd St. rather than demolishing them.

1

Dover Street Closure Alternative

It is our understanding that there remain concerns expressed by the City and the police and fire departments about the feasibility of allowing street closure as well as how best to design this. Many in the community feel that it will help calm or reduce traffic southbound on Dover toward the hospital and where the new parking structure will be built at the southern end of the campus. It also is a symbolic way of delineating where CHRCO's boundaries end and where the community begins.

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We are ambivalent about this closure. Its effects are hard to predict (but will almost certainly have a negative effect for us since we're on the corner), especially because traffic patterns will be changing as various changes are made to the hospital campus. We suggest putting this off until the end of construction. At that point the hospital should experiment with some variations for a few months each to see what happens and not make any closure permanent until then.

Once experimentation starts we would like to suggest an alternative that as yet hasn't been suggested: block the southbound lane of Dover between 53rd St. and 52nd St. which would allow only northbound traffic on this stretch. We also recommend that whichever path is taken, to limit parking on Dover between 53rd and 52nd streets to passenger loading and hospital or residential-related deliveries or services.

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Regarding our concerns as to how the Dover St. closure will impede our comings and goings from our private driveway on Dover St.: earlier this year we were invited to meet with CHRCO. They offered to us the idea of a driveway for our use on 53rd St., adjacent to our house, as possible compensation for the street closure. We haven't heard further word about this and we are interested in following up on this prospect.

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Proposed Revisions to the General Plan and Zoning Map

We understand that the proposed S-1 Institutional Zone (Medical Center) applies *south* of 53rd St. It is not crystal clear from the DEIR text or Figure III-21 whether the proposed re-zoning will apply to the entire street to include those residents north on 53rd St. Perhaps more narrative and/or a modified graphic in the FEIR to clarify and explain that residents on the northside will not be affected will diffuse any unnecessary alarm over this.

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Comments and Recommendations Regarding Construction

1. Construction Traffic and Parking: The project applicant-developed and City-approved construction management plan (CMP) must be made available to the public in both draft and final forms. The DEIR does not say whether there is a public review process required in this effort. Community input and buy-in would be essential to allay concerns over traffic congestions, staging areas, scheduling of truck trips and deliveries, lane closures, detours, construction workers' parking, etc. Moreover, the advance notification procedures to affected residents will hopefully minimize the inconvenience, irritation, and stress of such a long construction period. More importantly, it will promote public safety and help residents logistically plan around this unsettling period of activity.
2. Phases 1 and 2 Timeline: The FEIR must address the sequencing of or interplay between Phase 1 and Phase 2. With the understanding that construction delays are inevitable, it ought to give the community a sense of how each phase relates to the other . . . does Phase 1 finish before 2 begins? When is Phase 2 expected to begin? Is there overlap? A gap?
3. Scheduling of Demolition/Extreme Noise/Moving Heavy Construction Equipment: Obviously, due to the close proximity of the project construction to the neighborhood, all residents, but in particular, those closest to any demolition, must be notified in advance by at least 30 days or if there is a prepared schedule for this work, have it shared with the community. It is also important to know how long to expect such activities to last (e.g., number of hours in the day, time of day, and/or number days).
4. "Heavy" Construction versus "Light" Construction: The DEIR should provide an estimation of time associated with "heavy" construction (i.e., pile driving, jack hammering, concrete pouring, etc.) versus "light" construction (interior work, wiring, floor installations, etc.). The general concern and expectation of the neighborhood is ten years of constant disruption, extreme noise, dust, and diesel fumes. If there was an explanation about the staging of construction in this sense, it may help calm this angst.
5. Public Health Impacts Due to Construction: The DEIR states that due to prolonged periods during construction where windows may remain closed, forced air ventilation or

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an air conditioning unit and sound-insulating windows will be provided to the residents of 720 52nd St. We contend that residents in close proximity to construction activities, especially demolition, should also be able to ask that this mitigation measure be provided to them. The noise and dust may be especially problematic or pose a health threat to seniors, children, and those with upper respiratory problems in the community.

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cont.

6. Indoor Air Quality: Residents in close proximity to construction activities such as demolition or grading, should be provided with indoor air quality units to monitor and report exposure to diesel particulate matter as well as dust. This is critical for those who suffer from upper respiratory problems. In addition, installation of a high efficiency filter and/or carbon filter to filter particulates and other chemical constituents from entering a home shall be provided to those who need them.

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Other Comments

1. The DEIR should recognize the narrow streets of our neighborhood, such as Dover St., that with parking on each side, cannot accommodate the projected increase in traffic, parking, movement of construction related vehicles (i.e., big trucks), construction equipment and parking, as other streets such as 55th, Shattuck, Martin Luther King Way and 52nd/51st are able to do.
2. CHRCO needs to develop a proactive strategy of outreach and education to the community to promote a better understanding of the project, educate everyone on the general or specific details regarding each phase and construction activities, address or respond to community concerns, reiterate its commitment to public health and safety during ten years of construction, and to continue a positive dialogue with the neighbors initiated at the onset of this project process. Periodic forums with the community should be convened as a means for implementing this strategy and an opportunity to hear back from the community, present updates on the project, and ask for feedback, would be meaningful. This will provide the community a good impression of CHRCO's transparency and accountability over the duration of the project construction and beyond.
3. CHRCO should establish a website with the option for residents to receive email notices, alerts, or project updates to keep the community informed.

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In closing, we expect it will be a horrendous next ten years of disruption and confusion which we dread. But if CHRCO continues to get it right and do right by the community, they will have established a unique and premier pediatric center and a high quality-designed, state-of-the-art LEED building along with achieving the good will of the community.

16

Sincerely,

Bob Schenker and Jovita Pajarillo
685 53rd Street
Oakland

COMMENTER C42

Schenker, Bob; Pajarillo, Jovita
August 2014

- Response C42-1: This introductory comment summarizes the design revisions that CHRCO has made to the proposed project since the initial proposal was set forth. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response C42-2: The comment expresses indifference about closure of Dover Street, and suggests postponing the decision until after the end of project construction. The comment does not relate to the adequacy of the Draft EIR. Therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Please see Response to Comment C5-3.
- Response C42-3: The Draft EIR analyzed the impacts of full closure of Dover Street at 53rd Street as an alternative. The comment suggests another alternative by blocking southbound Dover Street between 52nd and 53rd Streets and only allowing northbound traffic. Since the Draft EIR analyzed conditions without closure (i.e., current conditions) and with full closure and did not identify any significant impacts, it is expected that a partial closure (either northbound or southbound) on Dover Street would also not result in a significant impact. As such, this additional alternative proposed by the commenter, or any other alternative proposing a different Dover Street closure scenario, was not analyzed in the Draft EIR. Also see Response to Comment C5-3.
- Response C42-4: The comment requests that on-street parking on Dover Street between 52nd and 53rd Streets be limited to passenger loading and deliveries. The comment does not relate to the adequacy of the Draft EIR; therefore, no further response is required.
- Response C42-5: The commenter is interested in additional conversations regarding the design of the potential closure of Dover Street. CHRCO met with the commenter subsequent to the City's receipt of this comment letter to discuss the possible construction of a driveway adjacent to their home and for their use on 53rd Street. The comment does not relate to the adequacy of the Draft EIR. Therefore, no further response is required. Please also see Responses to Comments C5-3, C11-5, and C42-2.
- Response C42-6: Figure III-5 on page 75 of the Draft EIR shows the existing zoning for properties within and surrounding the CHRCO campus. The figure shows that properties north of 53rd Street are currently identified as Mixed Housing Type Residential in the City's General Plan Land Use Map and are zoned RM-2 (Mixed Housing). As shown in Figure III-21, no changes are proposed to the

current zoning of properties north of 53rd Street (including CHRCO-owned properties). They will remain zoned RM-2. Only properties south of 53rd Street would be rezoned. Rezoning of the project site is also discussed in Section IV.A, Land Use and Planning (page 173) and in Master Response #4.

- Response C42-7: Please see Master Response #1 regarding potential public review of the Construction Management Plan.
- Response C42-8: Grading and construction for Phase 1 is described on page 121 of the Draft EIR. The total duration for construction of Phase 1 of the project is anticipated to take 58 months. The hospital intends to start construction in mid-2015, assuming certification of the EIR and approval of the project in order to comply with SB 1953 and ensure continued hospital operations during construction. Grading and construction for Phase 2 is described on page 138 of the Draft EIR. Total project construction of Phase 2 is anticipated to begin in 2020 and is anticipated to take approximately 60 months. Construction of Phase 1 and Phase 2 would not overlap. As shown in Figures III-8a through -8d, demolition and construction activities on the site must happen in a specific sequence. Please also see Master Response #1 which describes the total duration of construction and the timeframe for exterior and interior construction.
- Response C42-9: Please see Master Response #1 regarding notification procedure for demolition and other extreme noise activities during construction, as well as hours of construction for extreme noise-generating activities.
- Response C42-10: Please see Master Response #1 regarding impacts during project construction and duration of construction.
- Response C42-11: The commenter erroneously states that “due to prolonged periods *during construction* where windows may remain closed, forced air ventilation or an air conditioning unit and sound-insulating windows will be provided to the residents of 720 52nd Street.” Recommendation NOI-1 would provide forced air and sound insulating windows at 720 52nd Street; however, this recommended measure is due to an increase in helicopter noise associated with the helistop relocation, not due to construction impacts. The measure applies to 720 52nd Street only because it is the only location with a considerable increase in noise attributable to the project (see Table IV.G-16 on page 473). A health risk assessment was conducted for operational and construction emissions. A discussion of the assessment and the findings are presented on pages 389 through page 400. The analysis of construction noise and air quality impacts found that impacts at sensitive receptor locations would be less than significant with implementation of the City’s SCA noise and air quality specific measures, including SCA NOI-2 Noise Control, SCA NOI-5 Operational Noise Control, and SCA AIR-1 Construction Related Air Pollution Controls; therefore, no other measures are recommended and mitigation measures would not be required.

- Response C42-12: Please see Master Response #1 and Response to Comment C42-11 regarding air quality impacts during project construction.
- Response C42-13: Please see Master Response #1 regarding potential use of Dover Street and other residential streets by construction trucks and construction worker parking.
- Response C42-14: This comment, which suggests that CHRCO more proactively engage with the community to inform residents about the project, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. Please see Master Response #1 regarding duration of construction and related traffic, air quality, and noise impacts.
- Response C42-15: This comment, which suggests that CHRCO establish a website specifically to communicate updates on the proposed project, is noted. Also see Response to Comment C42-14.
- Response C42-16: This comment is noted. This comment addresses merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

From: Cynthia Barnes Slater <malaga6@yahoo.com>
Sent: Monday, September 22, 2014 11:33 AM
To: Klein, Heather
Cc: Kalb, Dan; At Large; yanwar24@gmail.com; kristin.kiesel@gmail.com; sparker.sparker.sparker@gmail.com; Chris Vernon
Subject: EIR on the CHO/Benioff Expansion Plan - Comments

Dear Ms. Klein:

As a 20+ year resident of North Oakland, and a neighbor of CHO who owns a home on 58th St., near Dover St., I am very concerned about the upcoming expansion of the CHO/Benioff Hospital at 51st & MLK.

While I have reviewed the architectural plans presented to the community for comment, I was unable to attend the Planning Commission meeting on Sept. 17. I would like my comments registered with the City Planning Commission today.

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My main concern is the estimated length of the project - 10 years - which seems rather excessive for a renovation project considering the two Kaiser Permanente buildings at Broadway and MacArthur were completed in a much shorter period. I urge the Planning Commission to consider the considerable disruption of construction noise, trucks, pollution and ask CHO/Benioff to reduce the construction period considerably. I would also like to see the neighbors' concerns and recommendations regarding pedestrian/bicycle safety and access positively addressed as many of us use that corridor to travel to Temescal, of the Claremont Farmer's Market. I appreciate the time and effort that the Planning Commission and the CHO/Benioff development planners have put into communicating with the neighbors.

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Sincerely,

Cynthia Barnes Slater
malaga6@yahoo.com
58th Street
Oakland, 94609

COMMENTER C43

Slater, Cynthia Barnes
September 22, 2014

- Response C43-1: This introductory comment is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response C43-2: This comment, which expresses the opinion that the length of the construction period is too long when other large construction projects have taken less time, is noted. Please see Master Response #1 regarding duration of construction and related traffic, air quality, and noise impacts.
- Response C43-3: The comment supports neighbors' recommendations regarding pedestrian and bicycle improvements in the project area. Please see Master Response #2 regarding the recommended bicycle and pedestrian facilities on 52nd Street. Also see discussion on pages 336 through 347 of the Draft EIR regarding safety for all travel modes.
- Response C43-4: This comment is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

From: Annie Sloan <Annie.Sloan@rga.com>
Sent: Thursday, August 21, 2014 11:54 AM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital expansion 52nd and Genoa

Hello,

My name is Annie Sloan and I live in the Santa Fe neighborhood at 52nd and Genoa. I'm excited to hear about the hospital expansion and have a couple of questions/comments. First, I've heard that the hospital will be working to improve the traffic situation, particularly due to increased traffic with the expansion. Will there be a traffic circle installed at 52nd and Genoa? And will neighborhood residence have some say in this? We have reported the intersection of 52nd and Genoa as dangerous already (people blow the stop sign here, do doughnuts, etc) but nothing has come of it thus far. There tend to be lots of bike and car accidents right there, since it's a bike lane and bike lane intersection. Secondly, do you know of anything happening to the tiny park at 52nd and MLK?

Thanks so much for your time. I'm a supporter of CHORI and have worked on Notes and Words for several years. I'm happy to live close to and help represent the hospital.

All the best,

Annie Sloan

Annie Sloan Associate Creative Director
Mobile USA 001-415-378-2674
Email annie.sloan@rga.com

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COMMENTS C44

Sloan, Annie

August 21, 2014

- Response C44-1: The comment supports a traffic circle at the 52nd Street/Genoa Street intersection. Please see Master Response #2 regarding a potential traffic circle at this location.
- Response C44-2: This comment requests more information regarding Helen McGregor Plaza Park. Please see Master Response #5.
- Response C44-3: This comment is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

From: Carmen Getit <carmengetit@gmail.com>
Sent: Monday, September 22, 2014 3:57 PM
To: At Large; Klein, Heather; Kalb, Dan
Cc: Carmen Getit
Subject: Comment on the DEIR for the Children's Hospital Modernization/Expansion project

Dear Ms Klein, Oakland Planning Commissioners, Councilmembers Dan Kalb, Rebecca Kaplan and other interested parties,

Thank you for allowing to me to make comments and recommendations regarding the expansion of UCSF Benioff Children's Hospital Oakland, particularly in the wake of the Sept. 17 Planning Commission meeting, which I attended and was granted an opportunity to speak.

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I believe the Draft EIR is erroneous, and hence will need to be redone. Here's why:

1) Impact of the project failed to include the closest public school, which is located within 1/4 mile of the project (contrary to page 533 of the Draft EIR). Santa Fe Elementary encompasses the entire block from Market to Adeline Streets, and 53rd to 54th Streets. Please rewrite the draft EIR to include impacts of the project to this public school.

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In addition, impact to another public school, NOCCS, or North Oakland Community Charter School at 1000 42nd Street, which is as close or closer than the two schools named within the DEIR, Emerson and Hillview Christian Academy, should also be considered.

Other issues of concern are:

2) Heli-Pad
a) Location.

I commend UCSF Benioff Children's Hospital Oakland in the decision to not place an additional heli-pad on top of the proposed outpatient building at 52nd and MLK. However, I still strongly urge consideration of the proposed heli-pad to be placed further South in the campus, and NOT on top of the new LINK building. In the DEIR, it's stated that moving the helipad from it's current location to the proposed location on top of the new LINK building, will impact a greater number of residents. That's because there are more residences from 47th Street North, and fewer South closer to the Highways. So please consider seriously, an alternative to move it further South - where it will have least impact to residents. I realize that moving the helipad further south in the campus was already rejected as an alternative in the Draft EIR, for a few reasons, but I ask that it be reconsidered. Yes, it would require serious design changes. There must be ways to address phasing concerns, as well as transport of critical patients quickly and safely to ICU and NICU, AND have the helipad further South, AWAY from residents.

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b) Noise

I appreciate all the noise studies in the Draft EIR. Anyone who's watched the TV show MASH, knows how loud helicopters are when you are directly underneath them. Most of the studies in DEIR include how loud various things are at a given distance from the project site. But helicopters aren't fixed at the Hospital site. They fly over our houses, many times quite low, and it's a major disruption. Of course we all want critically ill kids to be transported as quickly as possible. I want to stress that everything that can be done to address noise levels as helicopters fly over the residences, SHOULD be done. Moving the helipad further North will mean flight

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patterns further North, over more residences, impacting more people, contrary to what the DEIR says - that because there already is noise from the helicopters , the additional noise will be very small.

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cont.**

3) Parking Problems

a) RPPs and cost

Many residents close to the hospital already experience very limited street parking, because Hospital employees and visitors are parking on the neighboring streets. I urge the Hospital to consider paying for Residential Parking Permits, RPP.

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b) I urge the Hospital to do everything possible to provide incentives for employees and visitors to use public transportation. And to advertise and promote those incentives and options.

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4) Increase in Traffic:

a) Request new study by different vendor.

I urge the city and the hospital to do everything possible to mitigate traffic. In fact, I request another study of traffic on surrounding streets if Dover Street is closed. I find it hard to believe the DEIR says on p. 580 "Similar to the proposed project, the Dover Street Closure alternative would not result in any impacts related to traffic loads". Of course there will be more traffic on surrounding streets, like the small side street of 52nd.

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b) Please ensure reduction of traffic volume on 52nd Streets and Genoa Streets.

The City of Oakland's master bicycle plan includes piloting a traffic circle at the intersection of 52nd and Genoa. I understand a reduction in traffic volume is required on master bike plan routes. I worry that the hospital expansion project, with or without the closure of Dover Street, will bring more traffic to the area. With the closure of Dover, I imagine traffic diverted to other streets will increase. The draft EIR indicates the hospital will have more patients and more visitors and more staff as a result of this project. I ask that everything is being done to ensure traffic calming on surrounding streets like 52nd and Genoa streets.

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5) Helen McGregor Park at 52nd, West and MLK

a) improvements

Many residents, including the Longfellow Community Association, the Santa Fe Community Association & Neighbors, the Dover Street Corridor Residents, have asked CHO for improvements to the triangle park, Helen McGregor Park at 52 and MLK. At a recent meeting, CHO said they have no plans for a children's play structure that the community could also use. We ask for improvements to Helen McGregor Park, with perhaps a few children's play items similar to what Alta Bates has on Ashby east of Telegraph,. Hospital visitors at Alta Bates bring their kids to play at the Berkeley city park nearby. Why doesn't THEE major Children's hospital in the Bay Area have something similar? The Longfellow Community Association and the Sante Fe Community Association & Neighbors (Santa Fe CAN) have officially co-adopted Helen McGregor Park. Regular park cleanups have occurred and will continue to occur. What has CHO done for that park? Imagine if the park was improved, what if the the Tuesday CHO farmer's market was moved there, and food trucks were added, and maybe West Street from MLK to 52nd was closed off one afternoon a week? I ask for an envisioning process for park improvement

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b) Safety

it's the neighborhood who calls with safety and crime issues at helen mc gregor park. The hospital should partner in this and help improve the park, by financial underwriting, as a condition of approval. In the DEIR, project objectives are stated on page 568, indicating "pedestrian safety within the CHRCO campus and on abutting City streets,". Let's see it.

6) Friendlier Pedestrian Construction

I ask that the proposed building at 52 and MLK have parking in the basement , and not at street level. It's

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simply not as safe, it's not as pedestrian friendly. Look what the hospital did to 53rd street between MLK and Dover with the current large parking structure? Please, make a good decision here for the community.

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cont.

7) Public Beautification

According to CHO's website for expansion, http://www.chonext100.org/?page_id=146, they claim they have plans for public art. However when we asked CHO representatives when they presented at our Santa Fe CAN this Spring, if they had plans for public art, they said NO, no plans for anything on the West side of MLK. Please see their 'claim' from their website below:

"Will there be an open space buffer or MLK corridor improvements?

We would like to make our modernization beneficial for our patients, their families, and the neighborhood. We do not have specific plans yet, but we are looking at including artwork and open space into our plans that will contribute to the health, safety and beauty of the neighborhood around it." Let's make sure they stick to their stated objectives here, please.

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8) Public Safety

a) We as residents, are the ones who call OPD regarding safety problems. We, as residents, of course are stakeholders in the safety of our neighborhood. However, CHO is a huge landowner in the neighborhood. They have several properties, in addition to their hospital, parking, outpatient, CHRO research buildings and parking lots. What exactly do they do to increase public safety? I've attended our community beat 10Y NCPC meetings for about 14 years. I've never seen anyone from CHO there. I've seen local business owners and residents there, in addition to OPD, but never the biggest landholder in the area, CHO. What exactly are they bringing to the table in terms of their 'claim' to increase public safety?

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b) In fact, Childrens hospital owned at least one residential building, and rented it to tenants who presented a big safety problem in the neighborhood on 53rd street between MLK and Dover. Local residents attended NCPC meetings and worked with OPD to pressure the hospital to do something about it's criminal tenants. This is one reason why Commissioner Coleman's comments at the DEIR planning commission meeting last Wednesday, about viewing CHO's expansion into the neighborhood as a positive thing in regards to crime were completely off the mark. Equally offensive was his referring to MLK Jr Way as "milky way", instead of referring to it using Martin Luther King's name or MLK.

Thanks for your time!

Patricia "Patsy" Smith
5111 Genoa Street
Oakland, CA

santa fe CAN public safety committee co-chair
santa fe CAN beautification committee member
Longfellow Community Association member
Beat 10Y NCPC volunteer for sector 3

COMMENTER C45

Smith, Patricia
September 22, 2014

Response C45-1: This comment, which states that the Draft EIR is erroneous and needs to be redone, is noted. Specific comments related to the adequacy of the Draft EIR that are provided in Letter C45 are addressed below.

Response C45-2: The comment states that two public schools, Santa Fe Elementary School and North Oakland Community Charter School (NOCCS) are located near the project site and should be considered for impacts.

The school building at Santa Fe Elementary School, at 915 54th Street, is approximately 0.30 mile from the nearest corner of the CHRCO Campus (53rd Street and Martin Luther King Jr. Way). The distance from the nearest corner of the Santa Fe Elementary School property (53rd Street and Market Street) to the nearest corner of the CHRCO campus is 0.26 mile. The distance to NOCCS, at 1000 42nd Street, is greater than 0.5 mile. Neither of the schools mentioned are within 0.25 mile of the proposed project site.

These schools are similar in distance from the project site (0.26 to 0.50 miles) to the two schools identified as examples on page 533 of the Draft EIR. As discussed on that page, no hazardous materials emissions with the potential to affect schools, or other sensitive receptors located closer to the project site than the schools, would occur as a result of the project. In addition, all sensitive receptors within the vicinity of the site were considered in the evaluation of environmental impacts as analyzed in the Draft EIR. In addition to Section IV.J, Hazards and Hazardous Materials, Sections IV.E, Air Quality and IV.G, Noise also consider impacts to sensitive receptors, which would include nearby schools. In particular, on pages 389 through 398 of the Draft EIR, of the air quality analysis identify potential impacts to on- and off-site sensitive receptors and determine that, with implementation of the City's SCAs related to air quality, impacts to sensitive receptors would be less than significant. Noise impacts to sensitive receptors are also discussed on pages 461 through 464 of the Draft EIR and the analysis determined that with implementation of the City's SCAs related to noise, impacts to sensitive receptors would be less than significant. Also refer to Master Response #1 regarding construction period noise and air quality impacts. Impacts to school services are also evaluated in the Draft EIR on page 615 and these impacts were determined to be less than significant. No changes to the text are warranted based on the comment. Also refer to Response to Comment B2-53.

Response C45-3: Please see Master Response #7 regarding helicopter noise.

Response C45-4: Please see Master Response #7 regarding helicopter noise.

- Response C45-5: Please see Master Response #3 regarding implementation of RPP in the project vicinity and CHRCO funding.
- Response C45-6: The comment states that CHRCO should incentivize public transportation use. The comment is consistent with Draft EIR; as described on page 294 of the Draft EIR, SCA TRA-1 requires the project to implement a TDM Plan to provide incentives and encourage use of non-automobile travel modes, including public transportation.
- Response C45-7: The comment questions the Draft EIR's finding that the closure of Dover Street would not result in a significant impact. As correctly stated in the comment, page 580 of the Draft EIR states that the "Dover Street Closure alternative would not result in any impacts related to traffic loads and capacity on surrounding roadways". Page 580 of the Draft EIR is revised as follows:

As stated in Section IV.D, Transportation and Circulation, the closure of Dover Street, between 53rd and 52nd Streets, is recommended as one of several options to reduce traffic at Dover and 52nd Streets as part of the proposed project (see Recommendation TRA-2). If this measure is recommended by the City, ~~t~~The Dover Street closure would only occur ~~under~~ after Phase 2 (project buildout) with implementation of this alternative as Dover Street is needed to accommodate both Phase 1 and Phase 2 construction. Therefore, traffic operations for this alternative are analyzed at the study intersection under the Phase 2 buildout scenarios analyzed for the proposed project. This analysis assumes no other modifications to the project or surrounding roadway network. Traffic operations that would occur under the Dover Street Closure alternative, under each scenario, are described below. Similar to the proposed project, the Dover Street Closure alternative would not result in any significant impacts related to traffic loads and capacity on surrounding roadways, would not exceed established thresholds for traffic safety, or conflict with transportation related policies or plans.

As described in the Draft EIR, and shown on Figures V-2 through V-4, the Dover Street Closure alternative would change traffic patterns in the project vicinity. However, based on the application of City of Oakland's Thresholds of Significance (page 315 of the Draft EIR), the Dover Street Closure alternative would not result in any significant impacts on traffic loads and capacity. Also, see response to Comment C5-3 regarding Dover Street closure.

The comment also requests additional traffic study of the Dover Street Closure alternative. The analysis of Dover Street Closure presented in the Draft EIR has been reviewed by City of Oakland staff and was found to be consistent with the City's guidelines and standard traffic engineering and transportation planning standards. Since the comment does not raise any

specific issues in the analysis, the analysis completed for the Draft EIR is adequate and no additional analysis is necessary. See Response to Comment C5-3 regarding the additional traffic analysis and closure of Dover Street.

- Response C45-8: The comment supports traffic calming measures on surrounding streets like 52nd Street, and a traffic circle at the 52nd Street/Genoa Street intersection. Please see Master Response #2 regarding potential for traffic calming measures along 52nd Street.
- Response C45-9: This comment requests that CHRCO support improvements to Helen McGregor Plaza Park. Please see Master Response #6. Please also see Response to Comment C7-11.
- Response C45-10: Please see Response to Comment B5-8.
- Response C45-11: This comment requests that public art be provided by CHRCO along the west side of Martin Luther King Jr. Way. This comment does not relate to the adequacy of the Draft EIR. Therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project.
- Response C45-12: Please see Response to Comment C7-11.

From: sharon spain <spain.sharon@gmail.com>
Sent: Sunday, September 21, 2014 9:26 AM
To: Merkamp, Robert; Klein, Heather
Subject: response to the draft EIR of Children's Hospital master plan

Dear Ms. Klein and members of the Oakland City Planning Commission:

I live at 54th and Dover Streets and have been here for eight years. My neighbors and I lived through Children's Hospital's initial attempt six years ago to build a tower at 53rd and Dover in the footprint of existing homes, so I am happy that new administrators and a new process have made a greater effort to take into consideration the neighborhood's concerns this time around.

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I want to underscore my support for the 6-story outpatient building to be located at 52nd and MLK as outlined in the DEIR and the location of the parking garage's entrance and exit onto MLK. I am also in support of the current plan for the location of a single helipad to be moved not far from the current helipad's site.

2

I think the biggest concern now for the community is the pending 10 years of construction. There is no clear description in the DEIR as to where construction staging areas will be and how trucks any other heavy equipment will enter and exit the construction zone. Currently the DEIR states that CHO and the construction contractor will meet with the City agencies to develop a construction management plan for review and approval by the Planning and Zoning Division, the Building Services Division, and the Transportation Services Division. **We in the neighborhood would like to be allowed to review the contents of such plans and have input in this process.**

3

Although the DEIR states that only 15% of Children's Hospital employees park in the neighborhood, as someone who is followed to their car by vehicles looking for parking each morning as I leave to go to work, it appears to me that far more people going to the hospital are parking in the neighborhood. A 10-year construction job that will impact existing garage and street parking will only make this situation worse and I think needs further consideration. **Would Children's Hospital be willing to pay for residential parking permits for those living here during this period?**

4

There has been talk of closing off Dover Street at 53rd Street. Some of us would like to see this used as a traffic calming device similar to those used around the Alta Bates Medical Center. Other neighbors are concerned that a street closure will cause traffic backups. We have discussed the pros and cons at community meetings, but this issue remains unresolved. **Where is Children's Hospital on this question?**

5

I appreciate what CHO's leadership has done thus far to address our concerns and hope we can continue to fine tune this plan so that the adverse effect on the neighborhood is limited as much as possible.

6

Thank you,

Sharon Spain

COMMENTS C46

Spain, Sharon
September 21, 2014

- Response C46-1: This comment notes opposition to plans submitted 6 years ago and support of efforts to engage the community with the currently proposed project. The comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response C46-2: This introductory comment expresses support for certain elements of the proposed project. This comment addresses merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; no further response is required.
- Response C46-3: Please see Master Response #1 regarding the duration of construction, construction staging, truck routes, and the Construction Management Plan.
- Response C46-4: Please see Master Response #1 regarding implementation of RPP during the construction of the project and Master Response #3.
- The commenter also believes that more than 15 percent of CHRCO employees and staff/visitors use on-street parking. As described on page 300 of the Draft EIR, it is estimated that about 15 percent of CHRCO employees and staff/visitors use on-street parking. This estimate is based on the results of the employee and patient/visitor surveys conducted at CHRCO and parking occupancy data collected at CHRCO parking facilities and nearby streets. Also, the CHRCO on-street parking demand is about 40 percent of the parking demand on the nearby streets.
- Response C46-5: Please see Response to Comment C5-3 regarding the closure of Dover Street.
- Response C46-6: This comment addresses the merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

From: jeff squires <jeffsq.13@gmail.com>
Sent: Wednesday, August 20, 2014 9:25 PM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital comment

This message is in response to the recently released Draft Environmental Impact Report for the Oakland Children's Hospital expansion project.

The project is good for healthcare and could help to revitalize the neglected MLK corridor, but it could also bring a lot more car traffic to the area. The included plan for a bikeway on 52nd Street is an upgrade from the current conditions, but the design is still outdated and won't do enough to encourage the average person to bike or walk there. I urge you to work with local non-profits Bike East Bay and Walk Oakland Bike Oakland on an improved design that will create a much more compelling and safe connection between the surrounding neighborhoods, and encourage more biking and walking trips by hospital staff, guests, and local residents.

An improved design should:

- Ensure that this plan includes a continuous, separated bikeway throughout the entire project area
- Provide better safety accommodation for bicyclists and pedestrians at conflict points along 52nd Street, especially the Highway 24 on and off ramps
- Adjust on-street car parking under the Highway 24 to create a buffered, parking-protected bikeway
- Implement the City of Oakland's guidelines throughout this project for green paint in bike lanes
- Fund Oakland's proposed bike boulevard treatment for the 52nd/Genoa Street bikeway, which will discourage cut-through car traffic on this bike-priority corridor
- Extend the project area to ensure safe bicycle connections between 52nd Street, Shattuck Ave, and Telegraph Ave in all directions
- Provide great biking, walking, and transit facilities and incentives for hospital employees and guests, including but not limited to: Long and short term bicycle parking in convenient locations and in excess of the city's minimum standard
- Free bike share bikes, locks, and helmets made available to hospital staff on site
- Bike commuting classes for employees and guests, hosted at the hospital
- Bicycle accommodation on the free Children's Hospital MacArthur BART shuttle, made available to hospital staff, guests, and neighborhood residents.

You can view the existing plan for the 52nd Street bikeway at https://pdf.yt/d/82O6oHh2_OMQ87Qr, and an alternative plan suggested by Bike East Bay at <https://pdf.yt/d/5h8q4vPa77wFl4MD>.

Thank you for your attention!

Sent from my iPhone

1

2

COMMENTER C47

Squires, Jeff

August 20, 2014

Response C47-1: Please see Response to Comment B1-1 regarding the additional traffic generated by the proposed project.

Response C47-2: Please see Response to Comment C3-2 and Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

From: Liam Staskawicz <liam@stask.net>
Sent: Wednesday, August 20, 2014 11:12 AM
To: Klein, Heather; Merkamp, Robert
Subject: Oakland Children's Hospital expansion

Hello,

I recently became aware of the draft EIR for the Children's Hospital expansion project and, as a resident of the nearby neighborhood, wanted to share my thoughts.

The expansion is a great opportunity for the neighborhood to grow and evolve, and I'm hoping that a commitment to accessibility for a variety of transit options will be part of that growth. Specifically, I hope the plans will ensure that both bike and pedestrian access are given serious consideration.

As a member of Bike East Bay, I support their proposal for a design that allows for continuous bike/pedestrian access along 52nd St, and both sides of Hwy 24. Please help ensure that this area is safe and welcoming for bicyclists & pedestrians, in addition to the likely increased number of motor vehicles.

Details of Bike East Bay's proposal can be found at <https://docs.google.com/document/d/1mtBdm3bJEJ5Ckrnr9amGDb48lq7smaYLEry9k1YP0qA/edit>

Thank you!
Liam Staskawicz

741 59th St.,
Oakland, CA 94609

COMMENTS C48

Staskawicz, Liam
August 20, 2014

- Response C48-1: The commenter wants to ensure that the proposed project would improve transit, pedestrian, and bicycle access. As described in the Draft EIR, the proposed project would include a number of features that would improve conditions for pedestrian, cyclists, and transit riders. The Draft EIR also includes Recommendations TRA-1 through TRA-8 to improve circulation and safety for various travel modes in the vicinity of the project. In addition, SCA TRA-1 requires the project to implement a TDM Plan to provide incentives and encourage use of non-automobile travel modes by CHRCO employees and patients/visitors.
- Response C48-2: The commenter supports the alternative bikeway design for 52nd Street proposed by Bicycle East Bay. This comment does not relate to the adequacy of the Draft EIR. Therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Please see Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features.

From: Erica Stephan <ericastephan@gmail.com>
Sent: Wednesday, September 17, 2014 12:20 PM
To: Klein, Heather; Merkamp, Robert
Subject: Comments on proposed Children's Hospital Expansion
Attachments: 52nd and Genoa donuts.jpg; 52nd and Genoa.jpg; 52nd looking east.jpg

I live at the corner of 52nd and West, and have several comments on this project.

Traffic calming on 52nd

Despite being considered a neighborhood street by the city (and even part of a main bicycle route), 52nd is constantly used as a high-speed cutthrough to reach the Highway 24 on-ramp, because neighboring streets have speed bumps and 52nd has no traffic calming measures. This means long lines of honking traffic at commute hours, and speeding cars, large trucks, and illegal dirt bikes at other times.

My understanding of the Children's Hospital expansion is that it would drive even more traffic onto both 52nd Street and West Street. Therefore, I ask that the hospital fund planned bike boulevard/ traffic calming measures (roundabout or speed bumps) on 52nd and Genoa as part of its expansion, so that 52nd does not turn into even more of an unofficial freeway than it is already.

In addition to the commute traffic, we have a big problem with frequent late night "donuts" at this intersection. I am attaching some photos showing the skid marks from the most recent performance last week. OPD is called but rarely arrives in time. Installing a roundabout would eliminate this problem.

Parking

CHO employees usually fill all the spaces on 52nd and surrounding streets on weekdays, making it hard for neighbors to park. The expansion will only make matters worse. If Children's offered free parking in its garage for employees, this would greatly lessen this problem. Even better would be incentives for employees to take advantage of the shuttle system. I would like to see a plan for parking demand management as part of this expansion approval.

Helen McGregor Park

In the two years I have lived across the street, this park has been continuously occupied by 2-6 homeless people and filled with trash and excrement, making it essentially unusable for the actual purpose of a park. The effects of periodic neighborhood cleanups last only a few hours. I believe the best way to reclaim this neighborhood park is to have positive, useful programming so that it is used by the community. It has potential for a children's play area, music, food trucks, extension of the CHO farmer's market, or other amenities that would be attractive to kids and their family visiting the hospital. Children's Hospital would be a better neighbor by investing in this area.

Bike lanes

Finally, I would like to echo Bike East Bay's concerns about the discontinuous bike lanes on 51st. It does little good to make a nice bike lane along the safer stretches of the route, only to dump riders into mixed traffic at the most dangerous points near the on-ramps.

Thank you for considering my comments.

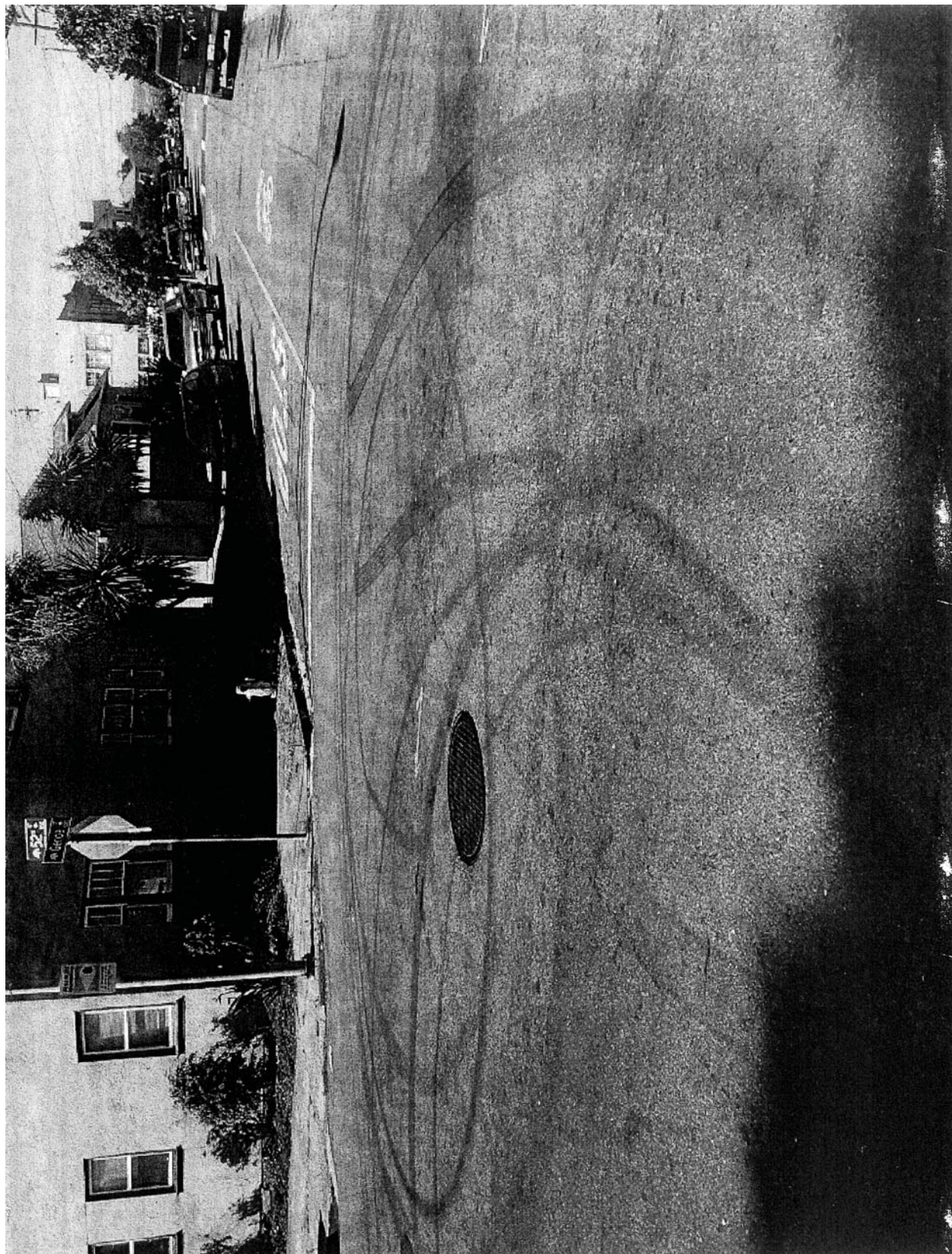
Erica Stephan
 805 52nd St
 Oakland, CA 94608

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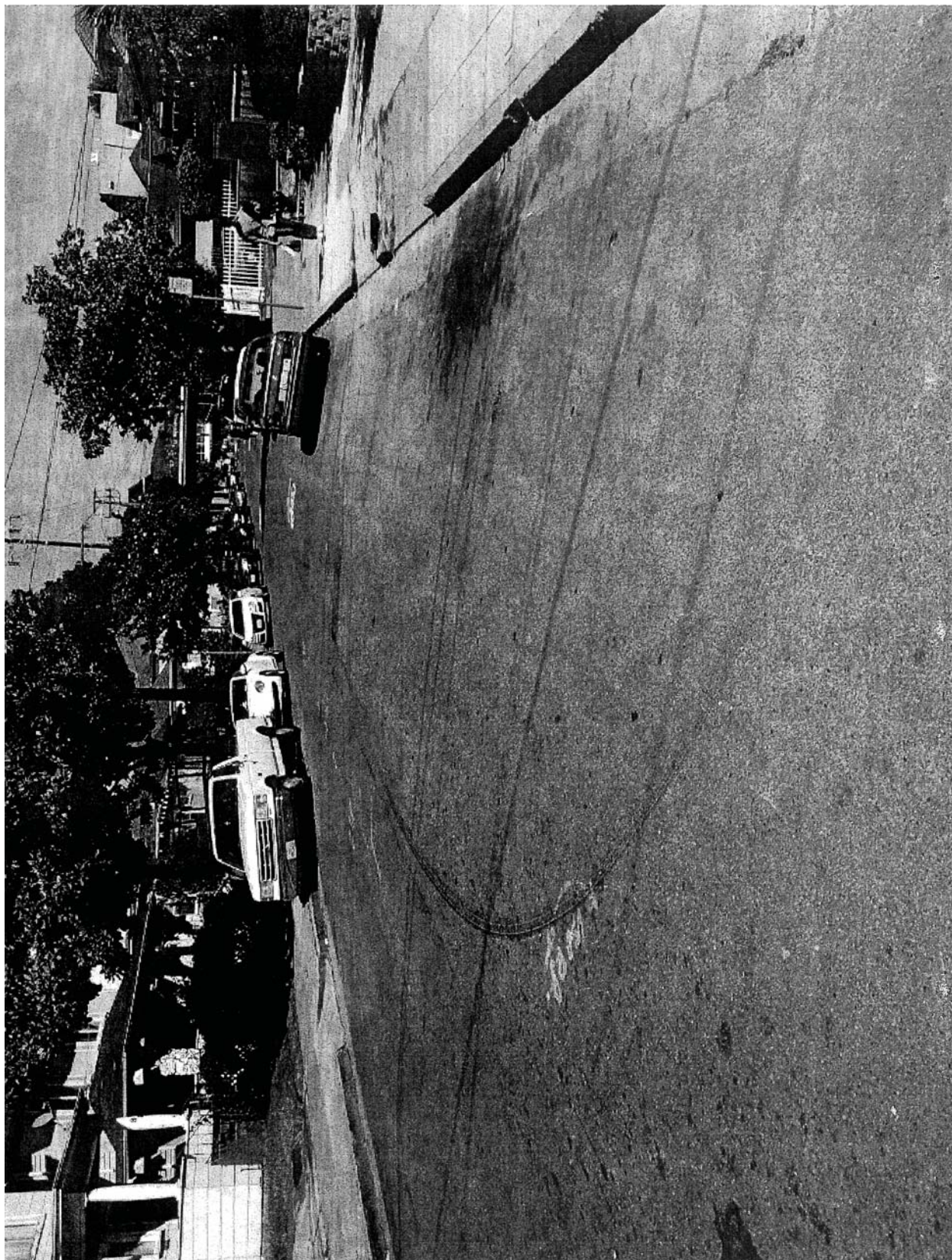
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COMMENTS C49

Stephan, Erica
September 17, 2014

- Response C49-1: The commenter is concerned about increased traffic on 52nd Street and supports traffic calming measures on 52nd Street, such as a traffic circle at the 52nd Street/Genoa Street intersection. See Master Response #2 regarding potential for traffic calming measures along 52nd Street.
- Response C49-2: The commenter states that parking is an issue and would like CHRCO employees to park in the garage for free, and/or provided incentives to use shuttle. As described on page 294 of the Draft EIR, SCA TRA-1 requires the project to implement a TDM Plan to provide incentives and encourage use of non-automobile travel modes, including increased use of the shuttles. However, free parking would encourage further driving, which is inconsistent with the City's Public Transit and Alternative Mode Policy and Complete Street Policy, which discourage single-occupant auto travel.
- Response C49-3: This comment requests that CHRCO support improvements to Helen McGregor Plaza Park. Please see Master Response #6.
- Response C49-4: The commenter supports the alternative bikeway design for 52nd Street proposed by Bike East Bay. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, the City will consider this input on the project merits prior to taking action on the EIR and the proposed project. Please see Master Response #2 regarding the recommended bicycle facilities on 52nd Street and its various features and feasibility of continuous bike lanes.
- Response C49-5: This comment includes photos of existing tire marks on nearby roadways (also referenced in Comment C49-1). This comment is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

From: Joanna Wu <jjordanwu@gmail.com>
Sent: Monday, September 22, 2014 2:18 PM
To: Kalb, Dan; At Large; Klein, Heather
Cc: James Wu
Subject: Concerns about CHO expansion

My husband and I own the 5301 and 5303 Dover St Victorian duplex and share many of the concerns that have been eloquently shared with you by other homeowners and residents of the neighborhood surrounding CHO.

Primarily I want to echo that 10 years is a very long time to have construction constantly occurring right on the neighborhood's doorsteps. Imagine waking up every day, including Saturdays (which for some is a religious day of rest and reflection), to the sound of heavy trucks, power tools, and other construction noise. I appreciate that working on Saturdays as well might contribute to getting the work done more quickly, but it comes at a high cost in the community.

1

Even during the week, the noise and trucks will be problematic for families like mine - Our house is very close to the construction area, my small children nap during the day, I work part-time at home, and we would like the area to remain a place where we can safely walk on weekdays. For that reason, it is very important for the trucks to avoid the residential streets, and for vegetation and other noise minimization techniques to be employed. Double pane windows would likely make a big improvement for a house like ours.

2

We are pleased that some of our biggest prior concerns have been addressed as to placement of the 6 story outpatient building, entrance to the parking deck, and location/usage of helipad. We would expect these to remain as currently set. In addition, we oppose any zoning change to the homes that have been purchased by CHO in the residential buffer zone.

3

4

We remain concerned about parking becoming even more of an issue for residents, with no plan other than for employees, contractors and visitors/patients to spend even more time circling a wider area hunting for street parking, leaving residents unable to park on the streets near their homes on weekdays.

5

In case our concerns are might be misconstrued as NIMBY-ism, we want to reiterate that we are pleased that the hospital is modernizing and committed to remaining in the neighborhood, as we feel it is beneficial overall.

6

Best regards,

Joanna and James Wu

COMMENTER C50

Wu, Joanna
September 22, 2014

- Response C50-1: Please see Master Response #1 regarding duration of construction, construction noise, and days and hours of construction.
- Response C50-2: Please see Master Response #1 regarding construction truck routes, noise control, and accommodation of bicycles and pedestrians during construction. Also see Responses to Comments C4-5 and C4-6 regarding measures to address noise.
- Response C50-3: This comment, which expresses general support for elements of the proposed project and requests that City decision-makers ensure that these specific elements are implemented, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, this comment will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project.
- Response C50-4: This comment, which expresses opposition to the rezoning of residential properties within the CHRCO campus boundaries, is noted. Please see Master Response #4.
- Response C50-5: Please see Master Responses #1 and #3 regarding accommodations for construction worker parking, as well as employee and patient/visitor parking during construction and issuance of Residential Parking Permits.
- Response C50-6: This comment, which expresses general support for the project, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, this comment will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project.

D. PUBLIC HEARINGS

In The Matter Of:
OAKLAND CITY PLANNING COMMISSION
EIR HEARING

September 17, 2014

CLARK REPORTING & VIDEO CONFERENCING
2140 SHATTUCK AVE. STE. 405
BERKELEY, CA 94704
510.486.0700
WWW.CLARKDEPOS.COM

OAKLAND CITY PLANNING COMMISSION

PUBLIC HEARING

ON THE DRAFT ENVIRONMENTAL IMPACT REPORT

Wednesday, September 17, 2014

Item 8, Case File No. ER12-0013

Sgt. Mark Dunakin Hearing Room 1

One Frank Ogawa Plaza

Oakland, California

A P P E A R A N C E S

OAKLAND CITY PLANNING COMMISSION:

Commissioner Chris Pattillo, Chair

Commissioner Jim Moore, Vice-Chair

Commissioner Michael Coleman

Commissioner Jahmese Myres

Commissioner Adhi Nagraj

Commissioner Emily Weinstein

Cheryl Dunaway, Secretary to the Commission

FOR THE PLANNING AND ZONING DIVISION:

Robert Merkamp, Development Planning Manager

Heather Klein, Planner

FROM THE PUBLIC:

Naomi Schiff

Jovita Pajarillo

Martha Kuhl

Robert Brokl

Alfred Crofts

Cindy David

Yasmin Anwar

Patsy Smith

Yuri Jewett

Hastings Hart

Leslie Cleaver Wood

Megan James

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Katie Krolikoski

Jimmé James

--oOo--

1 Wednesday, September 17, 2013 9:23 p.m.

2 COMMENTS BY THE PUBLIC AND THE COMMISSION

3 --oOo--

4 CHAIR PATTILLO: Do we have -- I'm inclined to
5 take speakers as signed.

6 COMMISSION SECRETARY DUNAWAY: You have a
7 total of fourteen speakers. I'm going to call the first
8 five. I have Naomi Schiff, Alfred Crofts, Robert Brokl,
9 Martha Kuhl, and Jovita Parajillo. You may line up in
10 any order.

11 CHAIR PATTILLO: And I am going to again
12 request that everyone respect the two-minute limit,
13 unless you have a ceded time.

14 NAOMI SCHIFF: Naomi Schiff for Oakland
15 Heritage Alliance. I've been at some of the 23
16 meetings, but not all of them.

17 And we would like to thank the hospital and
18 staff for incorporating some suggestions and changes;
19 and we do think the plan is getting better. But,
20 quickly, I would like to address impacts upon cultural
21 resources.

22 Please remove all the stuff about the
23 Secretary Guidelines and moved buildings with facade
24 deck demis, because they do not comply with the
25 Secretary Guidelines. That doesn't mean we shouldn't do 4

1

2

3

1 it, but let's not start the precedent of saying things
2 comply when they don't.

3
cont.

3 I want to talk about this. There's this
4 really big tree. There is talk about moving it. It is
5 not fully explored. It should be further explored.
6 Beyond that, right now somebody should take some
7 cuttings from this tree -- a whole bunch of them -- so
8 that any future magnolia grove actually is the genetic
9 cousin of the one that's there. Propagation is cheap.
10 It requires great patience, but it is not expensive.
11 And I have -- on this little handout -- included just a
12 little paragraph from some British horticultural
13 fanatics on the subject.

4

14 I think that the A/B wing ought to be
15 designated and landmarked and that the hospital should
16 use it on its publicity. It's a great little piece of
17 the past. It is an identity that UCSF doesn't have that
18 Oakland does have at Children's Hospital; and we
19 actually ought to get the folks at the hospital and the
20 people at the City all to line up and have a little
21 landmark.

5

22 We do question about the archeological
23 protections, because if there's this tree this old, then
24 there is undisturbed soil.

6

25 Thank you very much.

1 CHAIR PATTILLO: Thank you.

2 JOVITA PAJARILLO: Good evening. My name is
3 Jovita Pajarillo. And I and my husband live at 685 53rd
4 Street, so we are right at Dover, so we are one of two
5 properties that Children's does not own and we call
6 ourselves being at Ground Zero. I have a few general
7 comments and some specific comments.

8 First, I'd like to underscore what Children's
9 just said about their efforts to -- some of the changes
10 they've done that's reflected in the Draft EIR. We
11 appreciate their efforts to incorporate many of the
12 ideas and input from the community throughout the 23
13 meetings I suppose they had, because a lot of our input
14 is reflected in the Draft EIR: The one heli-stop, the
15 outpatient building on MLK/52nd street, the parking
16 entrance on MLK rather than across the street from us,
17 and retaining the character of the neighborhood with
18 using the facades of these buildings rather than
19 destroying them.

20 Some of my specific comments include the 53rd
21 Street closure. I understand their concerns with the
22 fire and police departments about having to have the
23 flow along Dover Street. And we think that perhaps
24 through the design process some of those concerns can be
25 addressed. We also think that if it is a cul-de-sac,

7

8

1 perhaps there can be some limited parking there just
2 for, like, passenger loading and for deliveries.

8
cont.

3 Another question we have is what is the
4 timeline for Phase One to begin and end and when does
5 Phase Two begin and end? Is it sequential? Is there
6 overlap? I mean it takes us clear out to 2025, and
7 that's a very long time for the neighborhood to undergo
8 all of this construction activity.

9

9 We also ask that our residents and perhaps
10 others be provided with an air ventilation or air
11 conditioning unit and sound-insulating windows, as they
12 are to be closed for prolonged periods of time. Again,
13 we're looking at 2025.

10

14 Anyway, our concerns are mostly about
15 construction. We'd like to see the
16 construction-management plan to know where the staging
17 area is, if that's available to the public; and to have
18 some kind of forum with the community as construction
19 continues through a Website or community meetings, et
20 cetera.

11

21 So thank you.

22 CHAIR PATTILLO: Please put whatever other
23 comments you have in writing and submit them.

24 JOVITA PAJARILLO: I intend to.

25 CHAIR PATTILLO: Thank you.

1 Next speaker.

2 MARTHA KUHL: Hi. I'm Martha Kuhl. And I've
3 lived in the neighborhood of Children's and worked at
4 Children's for 32 years. So I have a perspective of
5 what's happened in that neighborhood. I also bike or
6 walk to work at the hospital all those years.

7 This report that claims that there is no
8 significant or cumulative impacts is just -- can't be
9 correct. I've seen the impacts of the prior builds.
10 The current inpatient building, the current outpatient
11 building, the current parking structures have had
12 significant impacts when they were being built,
13 significant impacts on the neighborhood. They've
14 resulted in increased traffic, increased parking issues,
15 use of residential streets in the neighborhood rather
16 than the main streets, increased litter, increased
17 noise, and significant neighborhood disruption. And
18 although the hospital has attempted to address these
19 issues, they have failed quite significantly. And it's
20 nonsense to assume that an even larger, massive -- what,
21 till 2025? -- project is going to have no impacts on the
22 neighborhood.

23 I want to say that this report is inadequate
24 on its face. I want the hospital rebuilt. I love my
25 job, but this report is inadequate. And as a neighbor, 8

12

13

14

1 we want a healthy neighborhood. And mitigations that
2 aren't offered are truly necessary. And I know other
3 people who have addressed have offered other suggestions
4 for mitigations.

14
cont.

5 Thank you.

6 CHAIR PATTILLO: Thank you.

7 ROBERT BROKL: Good evening, Commissioners.
8 My name is Robert Brokl. I'm a 40-year-plus resident of
9 North Oakland close to the hospital. I actually live
10 close to old Merritt College, the medical research wing;
11 and I actually think that's been a real boon to the
12 neighborhood. But I've also lived through three
13 different administrations of Children's Hospital. And I
14 agree with Martha that, having seen its intrusion into
15 the neighborhood, the loss of many, many residents, et
16 cetera, it's been on the whole, I would say, harmful.

15

17 We are now in the UCSF Benioff administration.
18 And while they have reached out to us and met with us,
19 nevertheless they are a very large corporation and they
20 represent their interests. I in some ways feel --
21 without sounding too pitiful about it, I feel like we're
22 sort of an orphaned neighborhood politically. We've had
23 almost no participation -- none at the moment -- from
24 the Councilperson's office, from the Mayor's office, or
25 from the at-large person. So it's been the neighbors

16

17

1 dealing with Children's Hospital.

17
cont.

2 So we've gotten what we can. Children's did
3 make modifications after their first plan was so
4 outrageous that it was shot down. But the things that
5 they've sort of tentatively, tantalizingly offered and
6 things that we've suggested they have not in any way
7 committed to things, I think, that you should explore.

18

8 And among those I would say that there should
9 be some kind of covenant or agreement from Children's
10 Hospital that they not expand north of 53rd Street --
11 the north side of 53rd Street -- and that properties
12 that they own north of 53rd they return to private use.

19

13 Traffic is indeed an issue. The neighbors
14 repeatedly at meetings suggested Alta Bates as a model
15 of buffers. Heather Klein admitted that the facade
16 indeed was a buffer, but we'd like to see other buffers,
17 including traffic calming.

20

18 Institutional use is different than
19 residential use. Even if those buildings will look like
20 residential units, they are not.

21

21 Moving the hold-out house. Children's
22 Hospital UCSF Benioff said that they could conceivably
23 move it to the Caltrans right-of-way once that's
24 acquired. We suggest that that actually be required or
25 that it be altered in scale.

22

1 Children's Hospital had many meetings about
2 permit parking, but they never committed -- still have
3 not -- to in any way underwriting or helping to support,
4 leaving it up to the neighbors to go around with their
5 petitions asking, suggesting Children's might, but they
6 won't.

23

7 Children's should be required to move the
8 magnolia. They should be required to move the bay.

24

9 And they should also, I think, commit to
10 working with the neighbors to designate the neighborhood
11 as an ASI and also to designate the Baby Hospital.

25

12 Thank you very much.

13 CHAIR PATTILLO: Thank you.

14 Mr. Crofts.

15 ALFRED CROFTS: Members of the Planning
16 Commission, my name is Alfred Crofts.

17 I guess I'd pursue -- it's repetitive. As,
18 again, a long-time resident, like 45 years, the
19 cumulative impacts of Children's Hospital have been
20 extreme and, you know, incredible. I mean it was like a
21 neighborhood with a little street going through -- a
22 couple of them. Now it's, you know -- it's an amazing
23 hospital building which is soon to get, you know, even
24 huger and helicopters and no parking and the traffic.
25 So it is a cumulative impact of great impact to the

26

1 area.

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cont.

2 And if you go around the area now, it's
3 gorgeous. You know, it was like -- before the freeway
4 it was the heart of Temescal. The houses are really
5 beautiful. They are -- you know, as the historic report
6 pointed out, they qualify -- 85 percent of the
7 structures qualify as an area for potential secondary
8 effect -- ASI.

27

9 So it really would be -- I don't know about
10 the specific sort of buffer. Like, if you do Alta
11 Bates, there is no institutional use beyond I believe
12 it's Prince Street, you know. Everything -- there are
13 parks, blah-blah-blah. And then on the other side you
14 can't cross over. You can walk. There are nice little
15 playgrounds. People use it, the neighbors. But they're
16 just that they don't park there. There's no traffic to
17 the hospital. This is not the case with Children's.

28

18 And just to wrap up, the meetings which I
19 attended, most if not all, of UCSF -- excuse me if I
20 call them Children's, they are no longer, they are UCSF
21 Benioff -- they never committed to paying for permit
22 parking. And a lot of our neighbors resent the fact
23 that they cannot park in front of their house; and they
24 don't want to pay for it. So just the fact that they
25 would have said, "Okay, you get the signatures and we'll

29

1 pay for it" would make a huge difference in us being
2 able to go around and get people to sign a petition.

3 Thank you.

4 CHAIR PATTILLO: Thank you.

5 COMMISSION SECRETARY DUNAWAY: Next set of
6 speakers: Patsy Smith, Yasmin Anwar, Cindy David,
7 Lesley Cleaver Wood, and Hastings Hart. You may line up
8 in any order.

9 CINDY DAVID: Hello. My name is Cindy David.
10 I live on Dover Street, just up above Where the proposed
11 project is supposed to start above 53rd.

12 I appreciate -- we worked with the hospital on
13 some of the changes and I appreciate the efforts they
14 made in that area. But I do still have some concerns.
15 I'm concerned that the DEIR is a bit inadequate, because
16 on one hand we're talking about historical designation
17 of the neighborhood; and then on the other hand we're
18 talking about taking away two whole blocks really of
19 that neighborhood and making them institutional; and
20 then saying throughout the whole report that there's no
21 significant impact or no impact really. And because we
22 say there's no impact in the report, no effort is made
23 to mitigate, because we have not looked at it. So I
24 feel like the report is really not doing justice.

25 Other issues that I have are the rezoning -- 13

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cont.

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1 the request to rezone residential housing north of 53rd
2 Street -- which is really right in the neighborhood,
3 people live next door -- to use those as office spaces.
4 There are a lot of office spaces throughout Oakland, a
5 lot of commercial -- already zoned commercial spaces.
6 So I ask you please don't -- zoning is there for a
7 reason for residential houses. Please respect that.

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cont.

8 Also, the applicant is requesting to rezone
9 and redevelop the whole area along 53rd -- from 52nd and
10 across up 53rd and Dover, that whole zone which is
11 really the gateway into the neighborhood. I ask that as
12 this project develops further that more be done to
13 really enhance that area. If the zoning is changed to
14 make it institutional, which I'm not really in favor of,
15 but I feel like that's going to happen. But if it is,
16 the careful efforts with that to see that it's
17 respectful of the neighborhood in terms of more
18 landscaping; that the height restrictions are there so
19 that we're not being towered over by high industrial
20 buildings.

33

21 And I have more comments. Thank you.

22 CHAIR PATTILLO: Thank you.

23 YASMIN ANWAR: Hi. Thank you. My name is
24 Yasmin Anwar.

34

25 I live with my husband and son in a

1 106-year-old house a block and a half north of UCSF
2 Benioff Children's Hospital. We've owned the house for
3 25 years. And we went to lots of meetings and we
4 actually gave tours of our houses to the UCSF Benioff
5 Children's Hospital executives. And so we've had quite
6 a bit of input.

7 And we are so thankful that they have -- they
8 are not putting the six-story outpatient building on our
9 residential side but on the Martin Luther King side;
10 that the parking lot entrance -- that was a huge fear --
11 would be again on the residential side. That's not
12 happening, as far as the DEIR goes. And that the
13 heli-pad is back across on the south side of 52nd. It
14 not far enough for us, but, you know, it's not -- it's
15 on the north side. So thank you, Children's, and thank
16 you to the Planning Commission for encouraging that.

17 I can't begin to describe, however, the
18 anxiety we feel as the construction draws closer. This
19 is a ten-year project. My fifth-grader will be in
20 college by the time it's done.

21 Where is the construction going to be staged?
22 How will the traffic be diverted off on narrow streets?
23 You know, our streets right now can barely handle the
24 traffic. Every time a large vehicle goes by, the
25 windows shake. And with each helicopter landing the

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cont.

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1 windows shake. I would really like to see a serious
2 effort made on the part of the hospital and the City to
3 divert construction traffic from whichever way it can
4 be, even if it's just temporarily for ten years.

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cont.

5 And, also, to provide the double-paned windows
6 for the most impacted homes, because it's really going
7 to take a toll on our health and well-being, ten years
8 of construction.

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9 Thank you.

10 CHAIR PATTILLO: Thank you.

11 PATSY SMITH: Hello. My name is Patsy Smith,
12 Patricia Smith. Thanks for this opportunity to speak.
13 I live at 52nd and Genoa Streets, so we are about one
14 block -- one and a half blocks from the hospital. I'm
15 also a member of our Santa Fe CAN, which stands for
16 Community Association of Neighbors, and public safety
17 co-chair. Also a block captain and represent the Beat
18 10Y NCPC. One of my Sector 3 representatives, Hastings.

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19 And I'm excited about things that are
20 happening in our neighborhood. I've been with my
21 husband and our seven year-old for 22 years. We also
22 work together. And I'm a member of the Longfellow
23 Community Association. And we are actually getting good
24 response from Dan Kalb in our neighborhood on a variety
25 of issues.

1 One of the things -- I think -- I don't know
2 if it's too late in the process for this, but I'm very
3 glad -- we've spoken with what we called the Dover
4 Street corridor folks, like Yasmin who just spoke --
5 that the large building is not going to be on Dover
6 Street. We're like the Dover street, but on the other
7 side of MLK, Genoa. But it would be nice if more would
8 be considered to put parking in the basement. So now
9 they're going to put this huge structure on the
10 northeast corner of MLK and 52nd. And we asked, when
11 they spoke at one of our community meetings, why
12 couldn't they put parking in the basement and give us
13 something more pedestrian, bicycle, and safer
14 environment. And that said that the water table was too
15 low. And I said, "You mean too high." I think it was
16 just a slip of the tongue, but at any rate I think it's
17 because it's more expensive. But that certainly would
18 be nice, you know.

19 And they actually have a cafe where they sell
20 Peet's coffee on the north side of 52nd Street, but no
21 one in the community knows about it because they're
22 walled off from us. And we feel like the neighborhood
23 is becoming a much more vibrant, walkable place; and
24 they could have a great part in doing something like
25 that.

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1 You know what it's like to walk by a parking
2 structure. It's scary at night, you know, sometimes
3 when there's -- you don't know who might be in there.
4 And think it's a wasted opportunity, where they could
5 invite the community. We could be mutual partners.
6 We're the ones who call the police every time there's
7 crime in the neighborhood. We call all the time. We're
8 major stakeholders in that. I think they should do
9 their part.

10 Thank you.

11 CHAIR PATTILLO: Thank you. Sector Three.
12 That's right out of Star Trek.

13 YURI JEWETT: My name is Yuri Jewett and I'm
14 on the board of the Longfellow Community Association.

15 So Longfellow is a little neighborhood nestled
16 in between Temescal and the city of Emeryville. Just a
17 quick geography lesson: To the east of us is State
18 Route 24. To the south of us is Interstate 580. To the
19 west is the Oakland city border, kind of a funky little
20 line, but roughly Adeline Street. And to the north is a
21 boundary, very popular 52nd Street.

22 So the one section of the EIR that we just
23 kind of wanted to focus on, at least for tonight, is in
24 regards to the open space conservation and recreational
25 element. This project is really only going to impact

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1 this sort of the northeastern quadrant of our
2 neighborhood, where there just so happens to be a lovely
3 little city park there called Helen McGregor Plaza Park.
4 Well, "lovely" isn't the word right now. Potentially
5 lovely.

6 So this city park is at the neighborhood
7 border directly across the street from the hospital.
8 The Longfellow Community Association as well as the
9 residents of Santa Fe, many of who are going to speak
10 tonight, we have formally co-adopted the park via the
11 City's Adopt-a-Spot Program.

12 And the park is tiny. It's only 9,650 square
13 feet. And it consists mainly of concrete seat walls and
14 not-so-healthy trees. So as neighbors we do our best to
15 maintain this spot, but it does have the potential to be
16 so much more as greenspace for both the community and
17 the hospital to share and enjoy. And ultimately the
18 park does serve as a gateway to our neighborhood when
19 approaching Longfellow from the north. So we really do
20 love this spot and really want to encourage this project
21 to perhaps look into improving this area and also
22 putting Longfellow on the map.

23 You know, I have to share that, when I did a
24 search of the PDF, the document, I typed the word
25 "Longfellow." It came up once, kind of noting that our 19

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cont.

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1 neighborhood does exist south of the hospital. And I
2 typed in the word "Temescal," and it came up many, many,
3 many times.

4 And so, you know, we just want to let you know
5 that we're here and reach out to us. And thank you very
6 much.

7 CHAIR PATTILLO: Thank you.

8 HASTINGS HART: Hello. My name is Hastings
9 Hart and I'm the chair of the Beat 10Y Neighborhood
10 Crime Prevention Council. Beat 10Y is the area directly
11 across MLK from the hospital. I'm also on the board of
12 the Longfellow Community Association.

13 So my interest is public safety as an NCPC
14 chair. And although crime is obviously not regularly a
15 part of an EIR, I think it's very relevant in regard to
16 this project, especially from the perspective of CPTED,
17 Crime Prevention through Environmental Design. In Helen
18 McGregor Park there were two murders in 2010, two people
19 shot right there at the park. On crimemapping.com you
20 can run a report and see that within the last six months
21 there have been, just within one block of the park, five
22 motor vehicle thefts, three armed robberies, and twelve
23 assaults. That's all just right around the park just in
24 the last six months. The Wikipedia page on CPTED
25 references a study of 28 CEPTED projects and finds that 20

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1 on average they reduce robberies, when done effectively,
2 between 30 and 84 percent.

3 There's another relevant example very
4 recently, just a couple of days ago, Chip Johnson's
5 column in the Chronicle mentions a park, a small little
6 parklet on 11th Avenue and East 19th, where somebody put
7 up an impromptu statue of Buddha which kind of became a
8 shrine, draws a lot of people to that area. And the OPD
9 says the crime around that little park is down
10 82 percent.

11 So given that there have been no design
12 improvements in the park since 1974, when it was
13 constructed, and the crime around the park is
14 significant, I urge everyone to consider what a little
15 attention on the park can do to improve public safety,
16 not only for the neighbors but also the hospital's
17 patients, the parents, and employees.

18 Thank you.

19 CHAIR PATTILLO: Thank you. Interesting
20 statistics.

21 Next speaker.

22 LESLIE CLEAVER WOOD: Hello. My name is
23 Leslie Cleaver Wood. I'm president of the Longfellow
24 Community Association, as well as serving on the
25 District 1 CDBG board for the past six years.

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1 I just wanted to give you a little background
2 on the Longfellow Community Association. We are a group
3 of 700 residents kind of working together in multiple
4 ways to enhance our community. And our committees
5 consist of greening and beautification, land use and
6 transportation, safety and neighborhood watch, arts and
7 culture, visibility and network building, and business
8 and organizational outreach. So we try to have a little
9 say in almost everything that goes on in our community.

10 And while we're not exactly happy about the
11 negative impacts this project will create in our
12 neighborhood, we want to try to do our best to create a
13 partnership and make it a positive experience for
14 everyone. And we have an excellent track record
15 partnering with the City of Oakland as well as other
16 organizations. We've worked with Urban Releaf, Santa Fe
17 CAN, the North Oakland Community Charter School, the
18 NCPC, the Oakland Military Institute. We worked very
19 closely with our district councilpersons, both Jane
20 Brunner and Dan Kalb, on a number of projects.

21 We co-adopted Linden Park and we worked with
22 the City and the North Oakland Community Charter School
23 to improve that park. This project includes the
24 installation of new pathways, trees, landscaping, and a
25 multi-use turf area. It's in construction phase now

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1 after four long years. Well, you know how it works.
2 It's a long process. But we stuck it out and it's
3 scheduled to be completed in November.

4 We've done a lot of urban forestry. We have
5 planted over 40 trees in Longfellow, partnering with
6 Urban Releaf and Jane Brunner. Again, we adopted Helen
7 McGregor Park. We cleaned it up. We maintain it. We
8 do a little greening here and there. We also
9 participate in Earth Day, Creek to Bay Day, Parking Day.

10 I mention all of this just to say again that
11 we have a history of partnering well. And we
12 appreciate, as everyone has mentioned, how Children's
13 Hospital has been receptive through the multiple
14 meetings. They've taken on a lot of ideas and
15 incorporated them.

16 And I just want to finish this with I agree
17 with everything everyone has already said -- we are
18 really concerned about the air quality of the traffic.
19 The report does not adequately represent the impact; and
20 we're hoping that more greening and parks and working
21 together will help alleviate that.

22 Thank you.

23 CHAIR PATTILLO: Thank you.

24 COMMISSION SECRETARY DUNAWAY: Last three
25 speakers. Megan Jacobs, Katie Krolikoski, and Jimmé

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1 James. You may line up in any order.

2 MEGAN JACOBS: Good evening, Councilmembers.
3 My name is Dr. Megan Jacobs. I'm a member of the
4 Committee of Interns And residents, otherwise known as
5 CIR. CIR is composed of doctors, interns, and resident
6 physicians at UCSF Benioff Children's Hospital Oakland.
7 As healthcare professionals, our goal is to improve the
8 health of our patients in the local community. Of
9 course, we fully support the goal of making the hospital
10 earthquake safe. However, we want to ensure that this
11 is done in a manner that minimizes environmental and
12 public health impacts. We are in the process of
13 reviewing the EIR and have been prepared -- that has
14 been prepared.

15 Our experts inform us that there are serious
16 flaws with the EIR. In particular, I want to bring up
17 two topics.

18 First is cancer risk. The EIR concludes that
19 the project's almost ten-year construction phase will
20 not have significant cancer risks. Our experts have
21 actually concluded that the cancer risk analysis was
22 seriously miscalculated, that when conducted properly
23 the project creates a cancer risk well above applicable
24 CEQA significant thresholds. The EIR erroneously
25 calculates cancer risk using a seven-year construction

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1 pay despite the fact that the construction will take
2 nine years and ten months. These risks must be properly
3 analyzed and mitigated in a revised EIR.

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4 Secondly, soil and groundwater contamination.
5 The EIR states that the hospital requested a low-threat
6 closure status for underground storage tanks. We have
7 obtained documents from the Regional Water Board showing
8 the Water Board flatly declined this status and has
9 ordered further investigation of potentially significant
10 contamination. The Water Board found very significant
11 levels of total petroleum hydrocarbons and may pose a
12 risk to the nearby Temescal Creek.

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13 I am submitting and have available the Water
14 Board denial of closure requests for your review. The
15 EIR must be revised to disclose this risk and develop an
16 adequate clean-up and abatement plan.

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17 As healthcare providers we are deeply
18 concerned that the EIR appears to ignore serious risks
19 in human health and the environment. We urge the City
20 to analyze these impacts in a revised EIR.

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21 Thank you very much.

22 CHAIR PATTILLO: Thank you.

23 KATIE KROLIKOSKI: Good evening. My name is
24 Katie Krolikoski and I live on Dover street, also very
25 close to Yasmin, and with Cindy David, my partner.

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1 And I want to point out that it's Constitution
2 Day. And so thank you for your public service. And I'm
3 actually really glad to be here talking with my
4 representatives here in the City of Oakland. I'm a new
5 resident, been here about a year.

6 So I want to start big and then get to a few
7 specific details. Children's Hospital is at the crux of
8 many different neighborhoods. And it's kind of a
9 joining point. There's the northward neighborhood to
10 Ashby BART, which is the Dover Street neighborhood; west
11 over MLK is another wonderful neighborhood, which I just
12 learned the name of. And then there's sort of east of
13 Telegraph, right? And the hospital site is right in the
14 middle of all that.

15 And so, big picture, I've seen this as an
16 historic neighborhood. It's a changing neighborhood,
17 but it also is interested in community and connections.
18 And we don't know what's going to happen in ten years.
19 But I hope that you, as the scrutinizers of the EIR,
20 will help us maintain this nice neighborhood, the
21 historic character, and the liveable character, both
22 walkable and for the residents here.

23 Short term, ten years is a long time; and I am
24 very concerned about the mitigations for construction.
25 I think that need to be addressed carefully in the EIR. 26

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1 And it's hard for me to tell from reading it whether
2 they are. So I hope that that's taken under
3 consideration.

4 I am against, also, the rezoning of 53rd
5 Street area. It's a residential neighborhood. I am in
6 favor of zoning laws. I've lived in Houston, where they
7 don't have them. Houston's neat, but it's weird to have
8 a big building next to a residential street. So if the
9 zoning does change, it should be a conditional use and
10 Oakland should always have some power and say over what
11 it's like.

12 I think that's my two minutes, so I'll just
13 stop. Thank you.

14 CHAIR PATTILLO: Welcome to Oakland.

15 KATIE KROLIKOSKI: Thank you.

16 CHAIR PATTILLO: Come again.

17 KATIE KROLIKOSKI: I'm here.

18 JIMMÉ JAMES: Hi. My name is Jimmé James and
19 I live on 53rd Street. And my home faces the parking
20 garage, so I'm right there.

21 My question and concern -- and I'd like to
22 bring this, too -- I have never heard Monday through
23 Friday what time construction will begin and what time
24 it will end. Will also construction happen on Saturday?
25 What time will it happen and begin? And will Sunday

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1 come in? So I have to ask.

2 CHAIR PATTILLO: I have the answer to that.
3 7:00 a.m. to 7:00 p.m. Monday through Saturday.

4 So no other speakers? Okay. Why don't we
5 start with questions for staff or the applicant.

6 Yes. Commissioner Nagraj.

7 COMMISSIONER NAGRAJ: All right. So I have
8 questions based on some of the comments we just heard
9 and I have questions based on my reading. So I think
10 I'll start with questions based on the comments that we
11 heard.

12 Let's see, in any random order. I'll take
13 construction time off my list.

14 So discussion -- there was discussion about
15 parking permits or restrictions on adjacent streets.
16 Can you talk about that?

17 HEATHER KLEIN: Well, I think that the
18 community meeting -- the hospital has been working with
19 the community to develop or flesh out a residential
20 parking permit program. There so far has not been, you
21 know, I think a clear proposal on what streets, how many
22 permits, how long. We do discuss parking in the EIR,
23 even though that's not a CEQA topic anymore. And so I
24 think that's a further topic that staff will be working
25 with the hospital and the community on.

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1 COMMISSIONER NAGRAJ: It certainly seems like
2 a fair topic, certainly when you drive around Kaiser and
3 there are few restrictions on parking in that area. And
4 there seem to be large impacts for the residents who are
5 living there. And, frankly, as a garage builder and
6 owner, Children's Hospital might be incentivized to have
7 more restrictions on the streets that the employers and
8 patients are utilizing and the hospital's garage.

9 Second question about -- so the discussion
10 about rezoning north of 53rd Street. Can you talk
11 through what the proposed -- what the proposal is and
12 kind of justifications for that.

13 HEATHER KLEIN: Well, I think that the
14 hospital is interested -- let me see if I can find these
15 figures in my EIR. Actually, I was just looking at this
16 and I think I've ripped them out. I know Figures
17 3-21 -- and that's the proposed -- 3-21. So let's talk
18 about that.

19 So the hospital -- the area south of 52nd
20 Street and pretty much most of the area between 52nd and
21 53rd, as part of wanting to consolidate their campus and
22 because they own property and want to be able to use
23 that for medical services. Part of it is RM-2. So the
24 idea -- the proposal is to rezone -- we call it the
25 "notch" -- from Dover Street -- actually, it's from the 29

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1 parking garage in OPC-1 all the way over to the freeway
2 area. So it includes the area -- a little bit of area
3 for rezone sort of west of Dover and then also this
4 notch area east of Dover to the freeway.

5 There's also a proposal that is analyzed in
6 the EIR -- the City -- there's two properties that are
7 within that area. One is on 52nd and one is at the
8 corner of 53rd and Dover. And the City is considering
9 rezoning those two properties just so that that whole
10 area is consistent and we don't have these sort of
11 individual properties in the middle of a larger S-1
12 zone. So it's really -- it's a hospital-driven proposal
13 for the most part and it's to consolidate and be
14 consistent with their use and what's actually happening
15 on the site.

16 And I just want to say that we have reached --
17 the City staff has reached out to the two property
18 owners who the City is proposing to rezone the property
19 and have met with them and are interested in their
20 feedback on that.

21 CHAIR PATTILLO: If we didn't do the rezoning,
22 what effect would that have?

23 HEATHER KLEIN: If we did not do the rezoning
24 then -- I think that -- along the 53rd Street buffer?

25 CHAIR PATTILLO: Uh-huh.

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cont.

1 HEATHER KLEIN: I think that it probably would
2 not have a lot of effect, in that the hospital is asking
3 for conditional use permits to change the use from
4 residential to a medical-service non-residential use. I
5 think it does limit their ability to, you know -- it
6 limits their ability to do things with those properties
7 that they might want to do in the future.

8 COMMISSIONER NAGRAJ: I can imagine -- I can
9 imagine both sides of that issue. I can imagine by not
10 changing the zoning it really creates a natural buffer
11 or barrier against any kind of future expansion. And
12 the downside is that it creates a natural barrier
13 against future expansion.

14 So and the last --

15 HEATHER KLEIN: I would just say that I think
16 that that's -- we wanted to analyze it in the EIR and
17 make sure that we analyze the impacts. I feel like that
18 is a sort of planning/design issue in a way and
19 something that we're going to be further exploring with
20 the hospital and the community sort of outside of a CEQA
21 process.

22 COMMISSIONER NAGRAJ: Uh-huh. I mean I can
23 imagine the desire to study the kind of more intense
24 zoning; and the EIR falls within that. Then it gives
25 the applicant a range of options. But I can imagine the₃₁

1 community's concern about essentially up-zoning that
2 area north, because so much of this plan that -- I know
3 we get to comments later -- but so much of this plan
4 that I really like is that it concentrates the higher
5 intensities to the southern part of the plan and closer
6 to the freeways, close to MLK, scales down toward Dover;
7 and I think that's the right approach. And I think the
8 up-zoning kind of takes away from that.

9 I think I'll just have one more question. And
10 that relates to -- it's always the most acute thing one
11 can hear at these hearings are questions and concerns
12 about health risks. So if you can speak about that.

13 Certainly, if there is toxicity of soil, if
14 there is high water table, if there's vapor coming from
15 the soil, those are things that the applicant following
16 state rules will have to go through various state
17 departments to get kind of sign-off on; and it'll yield
18 a higher construction cost for it. But what assurance
19 can you give us that the applicant will be kind of
20 following all those steps that they need to follow to
21 ensure a healthy construction site, address concerns
22 about higher cancer risks, address the real challenge
23 that we have of having a ten-year -- I think we can see
24 ten-year construction projects in more isolated areas
25 like the Army base or Brooklyn Basin, but this is

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1 harder. It's a long construction project,
2 unfortunately.

3 HEATHER KLEIN: Well, I think that staff is
4 not prepared to answer questions related to the document
5 that was just handed to us that were -- we would need to
6 review that. And I think we would respond to those
7 issues in the EIR.

8 What I would say is that our standard
9 conditions of approval address issues related to hazards
10 that's noted in this section -- let me just sort of flip
11 to that section.

12 CHAIR PATTILLO: While she's flipping, we just
13 got the four-minute notice. So we're going to need to
14 take a one-minute break.

15 You want to do it right now? Okay.

16 Flip away. You got a minute to find it.

17 HEATHER KLEIN: I found it.

18 CHAIR PATTILLO: All right. Good to go.

19 HEATHER KLEIN: All right. So, yeah, on pages
20 526 through, really, 529, there is a whole host of
21 standard conditions of approval related to hazards,
22 including hazard best-management practices related to
23 groundwater and soils; conformance with other
24 requirements like the City Fire Prevention Bureau, who
25 looks at hazardous sites; Phase One and Phase Two

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cont.

1 reports; environmental site assessment report,
2 remediations; health and safety plan assessments;
3 best-management practices for soil and groundwater;
4 radon and vapor intrusion. We have a whole -- probably
5 13 standard conditions of approval that relate to this.
6 So we'll look at the letter and respond in the EIR to
7 that issue.

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8 In terms of construction management, we
9 understand absolutely that that is an important issue
10 for the community. This is a very large institution
11 within a neighborhood; and certainly the community is
12 going to want to know about where this construction
13 staging is going to occur, how that's all going to
14 happen. There is a standard condition of approval in
15 the, I think, transportation section that's related to
16 construction management, requires that the hospital
17 submit all sorts of documents and plans that talk and
18 address what you're talking about. If we can get that
19 completed and finalized prior to the final EIR, I think we
20 would include that in there. But there is a condition
21 that is -- that addresses all those issues, we believe.

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22 COMMISSIONER NAGRAJ: Thank you.

23 CHAIR PATTILLO: Other questions?

24 Yes, Ms. Weinstein, Commissioner Weinstein.

25 COMMISSIONER WEINSTEIN: Can you address the 34

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1 issue around the definition of rehabilitation and how
2 it's being used in the EIR?

3 HEATHER KLEIN: I think that we would like to
4 save that response for the final EIR. We'll look at
5 that more closely. There's several Secretary of
6 Interior standards. I think that we picked four --
7 Chair Pattillo is saying. I think we worked with our
8 historic consultant to identify the one that he believed
9 was the right one and we'll need to take another look at
10 that.

11 CHAIR PATTILLO: There are four. And that one
12 is the most flexible. It's the one that's almost always
13 used.

14 COMMISSIONER MOORE: I had a question about
15 where we stand with the closure of Dover Street. We've
16 had plans that kind of show it both ways. I've heard
17 neighbors voice opinions both ways. And I'm just
18 curious kind of where that stands.

19 HEATHER KLEIN: Right. So where that stands
20 is that the -- we're still in discussions with the
21 hospital about it. The hospital actually submitted two
22 tentative tract maps to the City. So they would be
23 reviewed in parallel. We're going to have to pick one
24 at the end of this process to present to the Planning
25 Commission. But we wanted to make sure that was

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1 analyzed, the effects of the closure of Dover Street, in
2 the EIR. So it's included as an alternative. So it's
3 something that we are still working with other City
4 departments to review. And we'll have -- we'll have a
5 decision on whether that's something that the City as a
6 whole wants to recommend by the time the final EIR comes
7 back to you.

8 CHAIR PATTILLO: Other questions?

9 I have some questions. But to finish
10 answering your question, the other three are
11 preservation, restoration, and reconstruction. And the
12 reason why rehabilitation is most frequently used is
13 because it's really the more suitable one for sort of an
14 adaptive reuse. Certainly. Simple answer.

15 COMMISSIONER WEINSTEIN: So I thought the
16 issue was that that definition of rehabilitation doesn't
17 apply in this case, based on the limited preservation
18 of -- preservation may not be the word -- the
19 maintaining of the facade of the changing of the rest of
20 the building. And so I thought the issue was whether in
21 fact it should fall into that category at all.

22 CHAIR PATTILLO: Well, if you consider what
23 the other three are -- preservation, restoration, or
24 reconstruction -- I would say, yes, that's the -- of the
25 four choices that's --

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1 COMMISSIONER WEINSTEIN: Of the four, but
2 maybe it does not even meet that, I guess is the
3 question.

4 CHAIR PATTILLO: Yes. That's a good question.

5 So I have questions. Actually, the first one
6 is about this time. I was a little surprised to see
7 7:00 a.m. to 7:00 p.m. Monday through Saturday. I
8 imagine that's something that the City thinks a lot
9 about. It's in there. Could you just maybe elaborate a
10 little bit on how you arrived at that schedule of --
11 work schedule.

12 HEATHER KLEIN: In the noise ordinance.

13 CHAIR PATTILLO: It's in the noise -- so it's
14 a standard --

15 HEATHER KLEIN: That's the standard City
16 construction period. I think that, you know, it can be
17 a little bit flexible in that we have allowed projects,
18 for example, that are downtown to work on Sundays,
19 because no one -- there's less people living downtown --
20 or maybe there was when the project was going through a
21 couple of years ago. But that is the standard.

22 CHAIR PATTILLO: Okay.

23 Second question: On page 145 there's what I
24 believe is intended to be a pedestrian pathway that
25 connects 52nd and 53rd. It's over near the freeway.

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cont.

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1 And it's really wide. So wide, it's wide enough for a
2 vehicle. And I'm wondering if -- is it that wide
3 because they need fire access? Will there be regular
4 vehicular access? Or is it really going to be a
5 pedestrian path?

6 HEATHER KLEIN: My understanding from the
7 hospital is that it's going to be a pedestrian path.
8 That is an area that is currently under Caltrans
9 jurisdiction. Hasn't been acquired yet. The design of
10 that has not been fleshed out. And so I think, unless
11 the hospital wants to elaborate on it further, it is
12 meant to be pedestrian. It is not meant to be -- and
13 probably for bicycles. It was not meant to be for
14 vehicular access.

15 CHAIR PATTILLO: He's nodding his head yes.
16 Okay.

17 And then my third question, page 221 is the
18 section on history, which I thoroughly enjoyed. It's
19 very well written, no doubt by Page & Turnbull. And the
20 question is I'm assuming that that information will
21 routinely go to Betty Marvin and become part of our
22 permanent culture. If you could confirm that.

23 And if we can also -- it's interesting, when
24 you get to page 226, they're talking about the more
25 modern architecture. And at that point they stopped

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cont.

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1 identifying who the architects were. And it may be just
2 be somebody is being modest. But 50 years from now I
3 think we're going to want to know who those architects
4 were. So if we could include those in the permanent and
5 complete history, that would be an improvement. Okay.

6 So, comments.

7 Commissioner Myres? No?

8 Commissioner Coleman?

9 COMMISSIONER COLEMAN: Just some comments. I
10 really applaud the changes that the hospital has made in
11 moving the heli-pad and moving the garage entrance. I
12 think those were major steps.

13 And one thing, in my travels through the
14 neighborhood -- I mean I've driven on Milky Way
15 thousands of times, but I've only driven on Dover and
16 52nd a few times. And I understand your love of the
17 neighborhood, but my experience on 53rd was there's
18 major drug deals going on down there. So I'm not so
19 sure about how much we want to preserve that kind of
20 thing. So I think the expansion of the hospital from
21 that standpoint is a very good thing.

22 It's where I get mine.

23 I think that the hope to get permit parking in
24 front of homes is very good. I think that we ought to
25 look into that. I think the -- several comments on open₃₉

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cont.

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1 space retention in the parks, the local parks. I don't
2 know what we can do to get the hospital interested in
3 that, but I think those are some excellent thoughts that
4 we ought to see how we can pursue and push the -- I do
5 think we have the standard conditions of approval do
6 cover the problem with groundwater soil contamination,
7 but those are serious concerns. And the cancer risk, we
8 just need to be aware of.

9 CHAIR PATTILLO: Commissioner Moore.

10 COMMISSIONER MOORE: I agree with some of
11 those comments, not quite all of them.

12 But we have clearly seen a lot of progress on
13 this project so far, using the -- whatever -- we're
14 using a significant portion of the facade, so I don't
15 think it's rehabilitation. And I don't think it's -- I
16 don't think any of those categories actually apply, but
17 I'm not sure how much that really matters. The
18 important part is that we are responding to that request
19 from the neighborhood and it's done in a fairly
20 meaningful way. And the fact that it isn't just the
21 front two or three feet, it goes back enough that it
22 creates enough of, I guess, relief between the
23 buildings. It could be better, but it's -- it's done.

24 The big change from the access to the parking
25 garage to Martin Luther King is huge. When we kind of 40

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1 discussed that and threw that out the last time or last
2 two times, it felt like something -- that we might be
3 asking for something that can't be. And I think that
4 the Children's Hospital -- I'm just going to call them
5 that, I don't know if they have a DBA for that anymore
6 or not -- but Children's Hospital responded to that and
7 then really took that seriously. And to me that was a
8 pretty big step forward moving the heli-pad to the Link
9 Building. The Link Building is now something that it
10 wasn't before, but the heli-pad belongs there, I think.
11 It's closer to the "golden 15 minutes" or whatever that
12 was. We now have an entrance onto Martin Luther King
13 Junior Way from the new garage, which I'm a little
14 unclear about how well that's going to work with traffic
15 coming off of 24.

16 My main focus right now is kind of shifting
17 towards the Martin Luther King Junior Way/Milky Way side
18 of the building. I made some comments in the past about
19 how I think the project kind of turns its back on that a
20 little bit. And I personally think that that is an
21 important elevation to the project and the whole Martin
22 Luther King Junior Road, or whatever it is, down to 40th
23 is historically a pretty vibrant retail area that's kind
24 of faded away over many, many decades. But it is kind
25 of coming back there. There are some makers' studios

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cont.

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1 along there. There is some interesting things
2 happening. There's some new residential there. And it
3 is, I think, the shortest connection to the MacArthur
4 BART, so it's a neighborhood that we should be
5 embracing. I think we might even want to, as a city,
6 look at changing the zoning along that portion of Martin
7 Luther King to CN and kind of embrace that a little bit
8 more.

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cont.

9 For this project I'd really like to see their
10 employee parking lot kind of be more part of the
11 project, show up a little bit more often as a part of
12 the project. Focus a little bit on connection from one
13 side of street to the other to help kind the
14 neighborhood make that happen a little bit sooner.

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15 The park is -- from the park there's a block
16 that really isn't Children's Hospital and then the
17 parking lot. But I don't see why maybe they couldn't
18 embrace that park a little bit and definitely make the
19 parking lot part of the project.

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20 Oh, the magnolia tree. Wow, the magnolia
21 tree. So I don't know how you can take a tree like that
22 and put it in a box for four or five years and expect it
23 to survive. I just don't know if that's possible. So
24 moving it is very difficult because of the size of the
25 tree and the structures in the road. I have -- I've

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1 hired helicopters to place HVAC equipment on top of
2 buildings frequently. I don't know if that's a
3 possibility or if that is going to really not work with
4 the tree. I've never done it with a tree. But it does
5 work really well for HVAC equipment. So short of that,
6 I just don't see it sitting there for five years. So
7 helicopters are not that expensive. They're really
8 super loud, but it would be a one-time thing. So it
9 might be worth looking into.

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cont.

10 Those are my comments.

11 CHAIR PATTILLO: Commissioner Weinstein.

12 COMMISSIONER WEINSTEIN: I just had a similar
13 thought with the MLK elevation. I mean I know right now
14 on the EIR, just looking at the larger envelope of the
15 project and its impact. But I think as the design gets
16 refined, especially with the garage entrance being on
17 MLK, we really want to think about how it feels along
18 that corridor as a pedestrian so that it's just not a
19 throughway.

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20 Also, just picky, but in the EIR it would be
21 great if we had the current zoning and the future zoning
22 next to each other so we can see a comparison.

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23 And then, also, I just want to reiterate I
24 don't think it's clear sometimes in these EIRs that what
25 it's saying here is not that there's no impacts but that₄₃

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1 the impact when mitigated will be less than significant.
2 So the "less than significant" comes only after the
3 mitigation measures. And I think that's important just
4 as a community because it can feel like, of course,
5 there's going to be impacts. It's going to impact your
6 life on a day-to-day basis for ten years. And I don't
7 want you to feel like that's neglected in its entirety
8 in this document.

9 CHAIR PATTILLO: Commissioner Nagraj.

10 COMMISSIONER NAGRAJ: I'll try to be as brief
11 as possible.

12 So overall -- I mentioned this last time when
13 this matter came to us, that I lived at 56th and Dover
14 for, like, six years and have great affinity for this
15 neighborhood and experienced not the extreme despair
16 that Commissioner Coleman talks about, but also did not
17 experience windows rattling when helicopters came by. I
18 experienced -- you heard BART, you heard the helicopter.
19 You kind of got used to it over time, or at least that
20 was my experience in being there. And I have great
21 affinity for this neighborhood.

22 And I also cannot think of a more important
23 institution in Oakland than Children's Hospital. They
24 do such great, such important work for a large
25 percentage of the population that they take care of are ⁴⁴

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cont.

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1 extremely poor and on federal aid or state aid. And I
2 think our job and my job I see is to try to have these
3 two great -- a great institution and a great
4 neighborhood grow compatibly with each other.

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cont.

5 So with that as the framework, I -- as I said
6 before, I do appreciate that the intensity is
7 concentrated on the southern side of the site, that it
8 is oriented towards MLK. I do have concerns, as was
9 said earlier, going off the off-ramp from 24, you kind
10 of speed onto MLK from there. So how that works with
11 the site plan here is something that I hope is looked
12 into to make sure there's no accidents, basically, as
13 people are coming and going off of and onto MLK.

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14 I -- let's see. Looking at the site plan, I
15 know that there's an open question as to whether we
16 have, like, a street buffer at 53rd and Dover. It
17 seems -- it seems like something that I would be in
18 favor of, because if you look at the point of 53rd and
19 Dover, everything south becomes hospital land,
20 everything north is neighborhood. And just like, you
21 know, there are intersections in Berkeley where there
22 are traffic-calming measures because of constructions in
23 the street or little roadways in the street -- something
24 to help differentiate the more intensive hospital use
25 from the quieter neighborhood use I think would be

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1 appropriate.

2 I -- it was interesting looking at the numbers
3 of the percent of people who drive, who drive alone, who
4 use BART, who use shuttles. And basically I won't
5 search for the stats, but a large number of people -- I
6 have the stats -- 81 percent drive alone -- 81 percent
7 of employees drive alone. And something like 40 or
8 50 percent of patients carpool. And, theoretically,
9 those are because they're parents or guardians with
10 children dropping them off. And basically no one uses
11 BART. And the shuttle seems to have moderate use and it
12 could be better. You know, just from the public-transit
13 perspective, it would be great if we had more BART use,
14 had more shuttle use and took the burden off cars. We'd
15 all love that. So that would be something that I would
16 love to explore the possibilities, maybe not necessarily
17 as part of this EIR but as part of a broader
18 transportation plan.

19 I also did notice, as two other Commissioners,
20 did that -- I know it's not a design review committee,
21 but the blank facade -- the rendering on the elevation
22 on MLK. It did not scream to be a very inviting place
23 to walk through. And we want that to be more than a
24 driving corridor, so I really want to see that rendered
25 better at the appropriate time.

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1 And I think that's it. Thanks.

2 CHAIR PATTILLO: All right. My first comment
3 is also on there are no significant impacts. And
4 Commissioner Weinstein is correct. There are none,
5 because they've done what they can to mitigate things.
6 Even with that, to me it's kind of like -- I was raised
7 as a Catholic; and the message was you could do just
8 about anything, but as soon as you went to confession
9 the slate was wiped clean, you're good to go.

10 There are going to be impacts. This
11 neighborhood is going to be impacted for ten very long
12 years. And so even though technically mitigations are
13 not required, they're in order. And I concur with my
14 fellow Commissioners. I'm very pleased with the efforts
15 that Children's have already made. I think they've made
16 some very significant -- not just gestures but
17 significant changes to the project. But I do think that
18 it's not unreasonable to ask for some other things,
19 because these neighbors will deserve some compensation
20 for the impacts.

21 I think the suggestion of doing something with
22 Helen McGregor is actually a very modest suggestion.
23 It's a very small little park and it really has been
24 pathetic and desperate. You said it hasn't been changed
25 since the '70s. I actually believe that. I too used to₄₇

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1 live in this neighborhood and used to drive by that
2 ragged old park. And, you know, how to make that
3 happen, I would suggest the neighbors talk to the women
4 with Kaiser Hospital. They made it happen. And we were
5 part of that. So something I think Children's should
6 probably seriously look at.

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cont.

7 Just some of the minor comments. I really
8 like the way this EIR was written and organized. We
9 sort of touched on that. But a lot of little details
10 about the way they explained things and their
11 suggestions and ideas for little minor tweaks and
12 refinements. The things that they've incorporated to do
13 those mitigations to make these less than significant.
14 And one of them was they're going to put some sort of
15 electronic sign that will tell people who are coming in
16 to park that there's either spaces there or what floor
17 it's on or they're not. So the whole driving around
18 searching for parking will actually be -- they've got a
19 way to address that.

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20 I also really liked that they talked about
21 that they're going to put in a certain amount of
22 parking -- bicycle parking; and then they're actually
23 going to monitor it and they're going to see is it
24 enough; and if it isn't enough then they're going to do
25 something about it, which, you know, that's good

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1 thinking. And I think that the probably came right from
2 LSA, the environmental people here.

3 I think this gesture of saving that front
4 ten feet, I'm okay with it. Now, it's -- is it a
5 rehabilitation? I don't know. Is it a perfect
6 solution? No. But it's a pretty darned good gesture.
7 And we do see examples around here where we have a
8 really cherished little gem of an historic building and
9 everyone loves it, so they build this huge 20-story
10 thing over the top of it. And, you know, it's not a
11 perfect solution, but we have saved that little gem.
12 And this is a little bit like that. So you know, it's a
13 creative approach. I don't know that I want it to be a
14 precedent that gets repeated over and over and over, but
15 I'd rather see that than demolish those houses and sort
16 of create the missing tooth in the smile in that
17 streetscape.

18 I also really appreciate the improvements that
19 Children's is proposing to do on the Caltrans land. If
20 I read the EIR correctly, you don't actually have to do
21 it to get what they need to work right. Doing so will
22 improve their internal circulation, but I also think
23 it's going to make a nice contribution. They've done
24 some nice little details the way the pedestrian path
25 sneaks through. There's this beautiful little

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1 serpentine wall. So I'm very pleased to see that being
2 proposed.

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3 I am also glad to see that you are proposing
4 to replace the existing trees on 52nd street. I made a
5 note of those on the meeting I went to. We did a site
6 tour and those trees are really dogs. I think there's
7 room to put in four more in addition to what you showed.
8 And I would encourage you to get as many street trees
9 there as can you.

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10 There's talk in this EIR -- in a lot of EIRs,
11 there's sort of this magic phrase, "Use California
12 natives." The reality is the California natives do
13 really well out in the California native landscape. But
14 in these urban -- very dense, urban environments
15 California natives are typically -- a lot of them are
16 not very happy. So I would like the City to basically
17 change that requirement and to say "appropriate
18 California natives and other Mediterranean species that
19 are well adapted to Oakland's climate." So don't overdo
20 the California natives, even though it says you're
21 supposed to.

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22 With regard to saving the magnolia, I have
23 some specific recommendations. I have seen evidence
24 that pretty amazing things can be done to transplant
25 trees. And I think the condition should be that

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1 Children's should be required to solicit proposals from
2 Valley Crest Tree Moving Company. And if they come in
3 and look at this and say, "Can't do it," then I would
4 say ask for one more proposal from somebody else. And
5 if you don't get Valley Crest, then get proposals from
6 three tree movers but -- okay. Get three bids, but
7 Valley Crest, they are the kings of tree moving. If
8 they say they can't do it, then I wouldn't waste the
9 money. It's just, you know -- it would be pointless.

10 But I do have a proposal for an alternate
11 mitigation. And my idea is for Children's Hospital to
12 fund the planting of new magnolia trees at each of the
13 homes within the Dover Street neighborhood. And I
14 looked at Google Earth. I counted up the number of
15 trees. I'm thinking it's in the neighborhood of
16 probably 75 trees. I think it would be great if they
17 would give the money to Urban Releaf or West Oakland
18 Green Initiatives and have them actually do the planting
19 and arrange for some sort of maintenance for them. So
20 that might be -- if we can't save this tree, let's plant
21 more magnolia trees.

22 One of the other things I really like about
23 what they're doing are all of the streetscape
24 improvements on 52nd for pedestrians and bicyclists. I
25 think they've got a lot of good ideas. And it really is

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1 going to improve that area.

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2 Page 344, one of the mitigations that the LSA
3 put on the table was possibly requiring suggested bus
4 route changes as traffic-impact mitigations. And I
5 think we should definitely do those.

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6 And also TRA-7 and -8. I think we should
7 definitely do.

8 I support the OHA's recommendation to
9 designate the historic A/B wing at the hospital as an
10 historic building and also the designation of Dover
11 Street as a historic district. I'd like to see that
12 happen.

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13 And my last comment: Starting on page 400,
14 there are 37 pages discussing an analysis of impacts to
15 air quality. And after all of that, they come to the
16 conclusion that there aren't any significant impacts.
17 And somehow wasting 37 pages on that tells me that CEQA
18 environmental impact reports need to change. So -- and
19 how we do them.

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20 Any last words on that one?

21 Do we need to take any action?

22 ROBERT MERKAMP: No. But we'd like to thank
23 you, the Commission, and the public who came tonight for
24 their comments. We've received a number of written
25 comments as well and we'll probably continue to receive 52

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1 them up to the comment deadline, which is Monday,
2 September 22nd. And we will respond to all the comments
3 we've heard through various mediums in the final EIR.

4 So thank you very much.

5 [Discussion on the item concluded at
6 10:34 p.m.]

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cont.

PLANNING COMMISSION HEARING COMMENTERS

September 17, 2014

Please note that the hearing transcript does not include staff or applicant presentations made at the beginning of the item. The transcript begins at the start of the public comment portion of the hearing. No comments on the Draft EIR and/or the project were made during the project presentation by either staff or the applicant.

- Response PC1-1: This comment relates to the hearing proceedings and process. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-2: This introductory comment, which thanks the hospital and City staff for considering and incorporating some suggested changes to the project into the project design, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-3: Please see Response to Comment B4-1.
- Response PC1-4: Please see Master Response #6 which addresses relocation of the magnolia tree.
- Response PC1-5: Please see Response to Comment B4-3.
- Response PC1-6: Please see Response to Comment A2-4.
- Response PC1-7: This comment, which thanks the hospital for considering and incorporating some suggested changes to the project into the project design, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-8: This comment expresses that, possibly through the design process, the City's emergency response department's concerns with the closure of Dover Street could be addressed. This comment will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project. Also see Responses to Comments C5-3 and C42-4.
- Response PC1-9: Please see Response to Comment C42-8 and Master Response #1, which address the timing and duration of the construction period and impacts during project construction.
- Response PC1-10: Please see Master Response #1 and Response to Comment C42-11 regarding the need for alternative forms of air ventilation and double pane windows.

- Response PC1-11: Please see Master Response #1, which details the elements of the proposed Construction Management Plan that are intended to reduce noise and air quality impacts.
- Response PC1-12: This comment expresses disagreement with the Draft EIR's finding that impacts associated with the proposed project would be less than significant with implementation of the City's SCAs. The evaluation of environmental impacts associated with the proposed project, including cumulative impacts, is based on the City of Oakland's established thresholds of significance and these are identified in each topical section of the Draft EIR, prior to the impact discussion. This comment suggests that past development occurring within the CHRCO campus boundaries has resulted in increased traffic, increased parking issues, use of residential streets rather than main streets, increased litter, increased noise, and neighborhood disruption. This comment is noted. The context for evaluation of the project's cumulative impacts is described in the Draft EIR, pages 156 through 160.
- Response PC1-13: This comment expresses support for rebuilding of hospital facilities but states that the Draft EIR is inadequate. This comment does not identify specific areas of the Draft EIR that are believed to be inadequate; therefore, no further response is required.
- Response PC1-14: This comment suggests that mitigation measures are necessary to reduce significant impacts of the proposed project. This comment does not identify specific environmental issues that are believed to be significant and require mitigation; therefore, no further response is required.
- Response PC1-15: This introductory comment, which expresses the opinion that previous CHRCO expansions have resulted in negative impacts to the neighborhood, including the loss of residents, is noted. Evaluation of the project's cumulative impacts is described in the Draft EIR, pages 156 through 160. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-16: This comment, which expresses an opinion about the hospital's administration, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-17: This comment, which expresses an opinion about the City government and administration's participation in the planning process, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-18: This comment, which requests that the Planning Commission pursue or require additional community concessions that have been discussed, is noted. Please see Master Response #4 regarding expansion of CHRCO facilities

north of 53rd Street. Please see Responses to Comments B4-5 and C2-5. This comment will be forwarded to City decision-makers for their consideration prior to taking action on the EIR and the proposed project.

- Response PC1-19: This comment, which requests that the two CHRCO-owned properties located north of 53rd Street be returned to residential use, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-20: This comment requests that additional buffers be provided to address traffic-related concerns. Please see Master Response #2 regarding traffic calming measures proposed along 52nd Street. Also refer to Response C12-4.
- Response PC1-21: This comment, which notes that institutional uses are different from residential uses, is noted. Please see Master Response #4.
- Response PC1-22: Please see Response to Comment B5-6 regarding relocation of the “hold-out house” at 5204 Martin Luther King Jr. Way.
- Response PC1-23: Please see Master Response #3 regarding Residential Permit Parking.
- Response PC1-24: Please see Master Response #6 regarding relocation of the existing magnolia tree. Please see Response to Comment C12-13 regarding the bay window in the B/C Wing.
- Response PC1-25: Please see Responses to Comments B4-3.
- Response PC1-26: This comment states that the proposed project would result in cumulative impacts due to project’s size and scale, but does not specify where the Draft EIR did not analyze and identify such impacts. The Draft EIR evaluates the project’s contribution to cumulative impacts, including cumulative impacts related to noise, traffic and parking in the respective Draft EIR topical sections.
- Response PC1-27: This comment states that houses in the area are beautiful and that 85 percent of the buildings in the Residential District qualify the area as a potential ASI. The technical analysis conducted for the project, which included an inventory and evaluation of the Residential District for its eligibility for listing in the California Register of Historical Resources, supports the status of the district as an ASI. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-28: This comment notes the differences between how the Alta Bates Hospital relates with the adjacent neighborhood and how the CHRCO project relates to the neighborhood. This comment, which expresses an opinion, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

- Response PC1-29: Please see Master Response #3 regarding Residential Permit Parking.
- Response PC1-30: This introductory comment, which thanks the hospital for considering and incorporating some suggested changes to the project into the project design, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-31: This comment expresses concern that the historical designation of the neighborhood is being threatened by the proposed CHRCO institutional uses. The commenter also expresses concern that no effort is made in the Draft EIR to mitigate impacts from the project. See Master Response #4. Section IV.C, Cultural and Historic Resources, beginning on page 217 of the Draft EIR includes the analysis of potential impacts to historic resources. No significant impacts to historical resources are identified and as such, no mitigation measures are required. However, recommendations are proposed related to the magnolia tree. Also see to Master Response #6.
- Response PC1-32: This comment states that the proposed rezoning would occur north of 53rd Street, which is incorrect. Please see Master Response #4.
- Response PC1-33: Please see Master Response #4. This comment requests that more should be done to enhance the area along 53rd Street. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. This comment will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project.
- However, it should be noted that, as described on page 173 of the Draft EIR, although there are no height restrictions within the S-1 zone, the City is recommending measures to ensure that the height and other aspects of the residential character are maintained as a buffer. Properties north of 53rd Street will remain within the RM-2 zone, and building heights are limited to 30 feet. See Recommendation LU-1 in Master Response #4. Also see Response to Comment C2-13 regarding project landscaping.
- Response PC1-34: This comment, which thanks the hospital for considering and incorporating some suggested changes to the project into the project design, is noted.
- Response PC1-35: Please see Master Response #1 regarding construction-period traffic.
- Response PC1-36: Please see Master Response #1 and Responses to Comments C4-6 and C42-11 regarding double pane windows.
- Response PC1-37: This introductory comment is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

- Response PC1-38: This comment, which thanks CHRCO for considering and incorporating some suggested changes to the project into the project design, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-39: This comment suggests that the Emergency Department parking proposed for the ground floor of OPC2 be provided in a subsurface garage. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. This comment will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project. Please see Response to Comment B5-8.
- Response PC1-40: This comment, which suggests that CHRCO could contribute to the vibrancy of the neighborhood, is noted. This comment addresses the merits of the proposed project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, this comment will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project.
- Response PC1-41: This comment, which states that there are safety issues associated with locating the parking structure at ground level, is noted. This comment addresses the merits of the proposed project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. However, this comment will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project. Also see Response to Comment C7-11.
- Response PC1-42: This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. Please see Master Response #5 regarding Helen McGregor Plaza Park.
- Response PC1-43: This comment, which notes the proximity of the Longfellow neighborhood to the project site, is noted. Section IV.A, Land Use and Planning in the Draft EIR identifies the neighborhoods that surround the project site and evaluates potential conflicts between proposed and existing uses in the vicinity. These impacts were determined to be less than significant. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-44: This comment summarizes some of the crimes that have occurred in the area around the hospital over the last several years, and notes that while crime is not typically included in the CEQA analysis, it is requested that it be considered by all stakeholders. The commenter's suggestions regarding ways to improve the park, and decrease crime are noted. However, they do not

relate to the environmental issues in the Draft EIR and no further response is required. Also see Master Response #5 and Response to Comment C7-11.

- Response PC1-45: This comment, which summarizes the background of the Longfellow Community Association and states that there will be negative impacts to the neighborhood as a result of the project, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-46: This comment, which states that traffic and air quality impacts are not adequately addressed in the Draft EIR, is noted. Traffic is addressed in Section IV.D and air quality is addressed in Section IV.E of the Draft EIR. Impacts related to traffic and air quality were determined to be less than significant with implementation of the City's SCAs. This comment does not identify how the Draft EIR's analysis of these topics is believed to be inadequate. Therefore, this comment is noted and no further response can be provided. Please see Responses to Comments C2-13 and C4-8. Also refer to Chapter IV of this RTC Document, which includes the Revised Landscaping Plan for the proposed project. As shown, additional landscaped and open space areas would be included as part of the proposed project.
- Response PC1-47: This introductory comment is noted. This comment does identify specific issues associated with the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-48: Please see Responses to Comments B2-14 and B2-16 regarding cancer risks associated with the proposed project.
- Response PC1-49: Please see Responses to Comments B2-4, B2-19 through B2-22 and B2-50 regarding soil and groundwater contamination.
- Response PC1-50: Please see Responses to Comments B2-4 and B2-19 through B2-22.
- Response PC1-51: This comment, which expresses general concerns related to risks to human health and the environment, is noted. This comment does not identify how the Draft EIR's analysis of these topics is believed to be inadequate. Therefore, this comment is noted and no further response is required.
- Response PC1-52: This introductory comment, which requests that the Planning Commission maintain the historic character of the neighborhood, is noted. Please see Master Response #4. This comment will be forwarded to City decision-makers for their consideration prior to taking action on the Final EIR and the proposed project.
- Response PC1-53: Please see Master Response #1 regarding duration of construction and construction impacts.

- Response PC1-54: Please see Master Response #4 regarding the proposed rezoning.
- Response PC1-55: Please see Master Response #1 regarding construction hours.
- Response PC1-56: This comment relates to the provision of residential parking permits. Please see Master Response #3.
- Response PC1-57: This comment, which notes the community concern regarding the rezoning that would occur under the proposed project, is noted. The commenter supports the current design because it concentrates the higher intensity development toward the southern portion of the campus boundary and away from the neighborhood. The commenter's opinions regarding the design of the project and land use controls are noted. However, they do not relate to the environmental issues in the Draft EIR; therefore, no further response is required. Also see Master Response #4.
- Response PC1-58: Impacts associated with potential soil contamination and hazardous materials releases are addressed in Section IV.J, Hazards and Hazardous Materials in the Draft EIR. As noted, impacts related to hazardous materials would be less than significant with implementation of the City's SCAs. Impacts associated with air quality and potential toxic air contaminants are addressed in Section IV.E, Air Quality of the Draft EIR and these impacts were also determined to be less than significant with implementation of the City's SCAs. Please see Master Response #1 regarding the length of the construction period and associated impacts.
- Response PC1-59: Please see Master Response #1 regarding the proposed elements of the Construction Management Plan.
- Response PC1-60: Please see Responses to Comments A2-2 and B4-1 regarding the use and applicability of the Secretary of the Interior's Standards for Rehabilitation.
- Response PC1-61: Please refer to Response to Comment C5-3 regarding the closure of Dover Street.
- Response PC1-62: Please see Response to Comment B4-1 regarding the use and applicability of the Secretary of the Interior's Standards for Rehabilitation.
- Response PC1-63: Please see Master Response #1 regarding construction-period noise.
- Response PC1-64: This comment relates to the design of pedestrian facilities proposed as part of the project. This comment does not relate to the environmental issues in the Draft EIR; therefore, no further response is required.
- Response PC1-65: The information and analysis provided in the Draft EIR, including associated technical reports, is part of the permanent record for the proposed project. The commenter requests that the architects of the modern buildings evaluated

for the project be identified. The Historic Resource Evaluation (Appendix B1 of the Draft EIR) provides the names of architects of non-historic buildings on the CHRCO campus when these firms and individuals were identified as part of the background research.

- Response PC1-66: This comment, which expresses support for the design changes that have occurred as a result of meetings with the neighborhood, is noted. This comment addresses merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; no further response is required.
- Response PC1-67: This comment, which expresses support for expansion of the hospital facilities, is noted. This comment addresses merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; no further response is required.
- Response PC1-68: Please see Master Response #3 regarding Residential Parking Permits.
- Response PC1-69: Please see Master Response #5 regarding Helen McGregor Park.
- Response PC1-70: Please see Response to Comment B2-4, B2-19 through B2-22, and B2-50 regarding hazardous soil conditions and Response B2-14 through B2-16 regarding cancer risks.
- Response PC1-71: Please see Response to Comment B4-1 regarding application of the Secretary of the Interior's Standards for Rehabilitation to the proposed partial demolition of buildings in the Residential District by the project.
- Response PC1-72: This comment, which expresses support for the design changes that have occurred through development of the proposed project, is noted. Potential impacts associated with the location of the garage access are evaluated in Section IV.D, Transportation and Circulation in the Draft EIR. Please also see Response to Comment B3-2.
- Response PC1-73: The commenter's suggestions regarding existing and future land uses and design options in the area are noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; no further response is required.
- Response PC1-74: The commenter's opinion that the existing parking lot located across Martin Luther King Jr. Way that is used by CHRCO employees should be incorporated into the proposed project is noted. As described in Chapter III, Project Description, the existing lot is part of the proposed project site and will continue to provide parking for use by hospital employees. This comment addresses merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. Please note that expansion of campus uses to the

existing parking lot annex was an alternative considered but rejected in the Draft EIR (see pages 564 through 565). It should also be noted that Recommendations TRA-2 through TRA-4 are intended to improve bicycle and pedestrian connections within the vicinity of the project site.

- Response PC1-75: Please see Response to Comment PC1-74 and Master Response #5.
- Response PC1-76: Please see Master Response #6.
- Response PC1-77: This comment, which supports the previous commenter's suggestion to look closely at the elevation along the western project boundary, because of the opinion that it will be important for a pedestrian to feel comfortable in that space, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. Also see Response to Comment PC-73.
- Response PC1-78: Please see Table RTC-1 in Master Response #4.
- Response PC1-79: This comment attempts to clarify the differences between "no impact" and "less than significant impacts" and states that implementation of mitigation measures ensure that although there may be impacts to the neighborhood resulting from the proposed project, they are not significant as defined by CEQA. As described in the Draft EIR on page 8, under CEQA, a significant impact on the environment is defined as "...a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance." As discussed in more detail in Chapter IV, Setting, Impacts, Standard Conditions of Approval and Mitigation Measures and summarized in Table II-1, with implementation of the City's standard conditions of approval, all of the potential impacts of the proposed project would be less than significant. Please see Response to Comment A2-4.
- Response PC1-80: This comment states that the commenter lived in the adjacent neighborhood for 6 years and, during that time, he did not experience severe noise and vibration impacts from hospital-related helicopter flights or the severe crime that Commissioner Coleman described. This comment which expresses an opinion is noted. This comment does not relate to the environmental issues addressed in the Draft EIR; therefore, no further response is required.
- Response PC1-81: This comment, which expresses support for the work of the hospital and states that it is important for the Planning Commission to make sure that the hospital and neighborhood grow in a compatible way, is noted. This comment does not relate to the environmental issues addressed in the Draft EIR; therefore, no further response is required.

- Response PC1-82: This comment, which expresses support for certain elements of the project, is noted. This comment addresses merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; no further response is required.
- Response PC1-83: This comment expresses concerns related to traffic safety in the vicinity of the project site as it is the commenter's experience that motorists exiting SR 24 speed on Martin Luther King Jr. Way. Although the CHRCO Main Campus is along Martin Luther King Jr. Way just north of the SR 24 off-ramp, the proposed project would not provide a major driveway on this segment of Martin Luther King Jr. Way. Phase 1 of the project would provide a new driveway for the Main Garage on Martin Luther King Jr. Way just north of 52nd Street. Although motorists exiting the freeway may be traveling at higher speeds immediately north of the off-ramp on Martin Luther King Jr. Way, their speed at the new driveway would be similar or the same as current speeds at 52nd Street. In addition, the signal on Martin Luther King Jr. Way at 52nd Street would also result in slower travel speeds north of 52nd Street.
- The Project Traffic Impact Analysis section of the Draft EIR (pages 316 through 335) evaluated the potential impacts of both Phase 1 and Phase 2 of the project on intersections along Martin Luther King Jr. Way at SR 24 Ramps, 52nd Street and the relocated Main Garage Driveway, during weekday AM and PM peak hours of commute under Existing as well as 2020 and 2035 conditions and did not identify a significant impact at these locations.
- Response PC1-84: Please see Master Response #2 regarding traffic calming.
- Response PC1-85: This comment, which generally summarizes existing use of alternatives modes of transportation as described in Section IV.E, Transportation and Circulation, of the Draft EIR and expresses support for increased use of these alternative options, is noted. The TDM Plan will specify how the hospital will encourage hospital employees and visitors to use alternative modes of transportation.
- Response PC1-86: This comment, which expresses concerns related to the project design (specifically the façade of the proposed OPC2 Building) and its relationship to the pedestrian environment, is noted. This comment addresses merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; no further response is required.
- Response PC1-87: The commenter states that she understands the confusion surrounding the finding of no significant impacts, and while she is supportive of the design changes that CHRCO has made, she believes that there are unresolved concerns that may impact the community and support additional mitigations. It should be noted that with implementation of the City's SCAs, all impacts

of the project were identified to be less than significant. Although not required by CEQA, the City has recommended several measures in certain instances to further reduce already less than significant impacts. These measures relate to transportation and circulation and cultural resources. This comment is noted and as the commenter does not address specific concerns related to the adequacy of the information and analysis within the Draft EIR; therefore, no response is required. Please also see Response to Comment PC1-79.

Response PC1-88: This comment, which expresses support for the suggestion that CHRCO should contribute to improvements at Helen McGregor Plaza Park, is noted. Please see Master Response #5.

Response PC1-89: This comment, which states that the Draft EIR is well written and organized, is noted. The comment also request additional information related to the idea that there should be an electronic sign in the parking garage that informs motorists of the location of available spaces. This improvement is recommended as part of Recommendation TRA-1. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response PC1-90: This comment, which expresses support for the installation of bicycle parking spaces and ongoing monitoring of the adequacy of the number of spaces (per Recommendation TRA-7 on page 356 of the Draft EIR), is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response PC1-91: This comment, which states that preserving the façade of the historic buildings that would be partially demolished by the project is preferable to their demolition, is noted. It should be noted that new construction would be located at the rear of these existing buildings and that no new building elements would be added on top of the existing building façades. This comment addresses merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response PC1-92: This comment, which expresses support for proposed landscaping and pedestrian improvements to the existing Caltrans' right of way, is noted. The final landscape plan will be considered as part of project approvals and the project applicant would be required to provide replacement trees per City requirements. This comment addresses merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response PC1-93: This comment, which expresses support for including additional street trees along 52nd Street, is noted. The proposed landscape concept is presented in Figure III-20 on page 147 of the Draft EIR. This comment does not relate to

the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

- Response PC1-94: The commenter's suggestion that the landscape plan should incorporate plantings that not only consist of California natives, but also "other Mediterranean species that are well adapted to Oakland's climate," is noted. As noted on page 111 of the Draft EIR, one of the main project objectives is to plant "Bay-friendly and native landscaping." This comment does not relate to the adequacy of the information or analysis within the Draft EIR; no further response is required.
- Response PC1-95: This comment suggests that CHRCO should be required to solicit proposals from three companies that specialize in tree relocation (specifically, Valley Crest Tree Moving Company) prior to determining with certainty that relocation of the magnolia is not feasible. Please see Master Response #6 for a full discussion regarding this topic.
- Response PC1-96: This comment suggests an alternate mitigation for replacing the magnolia tree which includes the requirement for CHRCO to fund new magnolia trees at each of the homes within the Dover Street neighborhood (approximately 75 trees). Further, the comment suggests that Urban Releaf or West Oakland Green Initiatives could do the planting and maintenance as part of this mitigation. Please see Master Response #6 for a full discussion regarding this topic.
- Response PC1-97: This comment, which expresses support for the bicycle and pedestrian focused improvements proposed along 52nd Street, is noted. Please also see Master Response #2 for additional details.
- Response PC1-98: This comment, which expresses support for Recommendations TRA-5, TRA-7, and TRA-8, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-99: Please see Responses to Comments B4-3 and C11-7 regarding the designation of the A/B Wing and the Residential District.
- Response PC1-100: This comment, which states that the length of the analysis in EIRs in general should be examined, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response PC1-101: This comment concludes the Planning Commission proceedings on the Draft EIR. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

In The Matter Of:
*LANDMARKS PRESERVATION ADVISORY BOARD
HEARING*

*PROCEEDINGS
September 8, 2014*

*CLARK REPORTING & VIDEO CONFERENCING
2140 SHATTUCK AVE. STE. 405*

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1 LANDMARKS PRESERVATION ADVISORY BOARD

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MEETING PROCEEDINGS

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Monday, September 8, 2014

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REPORTER'S TRANSCRIPT OF PROCEEDINGS

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BY STACY L. LOZANO, CSR 12831

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PROCEEDINGS

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PROCEEDINGS

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Item 1.

VALERIE GARRY: Thank you. So, at this point we have the opportunity for public comments. And I assume we have some folks signed up to speak.

LA TISHA RUSSELL: Ms. Schiff?

MS. SCHIFF: We will be putting in written comments. We haven't done so yet. Just a few remarks.

First of all, we really appreciate the hospital's willingness to redesign the project to face -- or to take traffic from Martin Luther King, and not to the neighborhood. And I think some of the redesign ideas are good, but the neighbors will probably speak to that more than I will.

First of all, I would like to suggest that there ought to be a good cooperative effort between the hospital, the City and the neighborhood to just go ahead and put that district on the California register, fill out the form. The neighbors could do the work, the hospital could support it, and we would have a little bit of a measure of clarity moving forward for the next hundred years about what that neighborhood is.

And I don't think there's any reason to resist that. I think that everybody could work together and do

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1 that and it would be excellent if the landmarks board
2 would support such an idea. I think it should be done in
3 such a way not to put a huge burden on the city. I think
4 the neighborhood can step up and do the paperwork, and I
5 think the hospital ought to support them.

6 I don't understand the part about being
7 consistent with the secretary of interior standards when
8 you're lopping off a large part of the building. I
9 understand the compromise and the removal of the backs of
10 buildings, but I don't think we should fool ourselves that
11 conforms to the secretary of interior standards. Saving
12 ten percent of a building, the front of it, even isn't
13 really consistent with the secretary of interior
14 standards. Let's just lose that in our rhetoric.

15 And speaking about the magnolia tree, I think
16 that there should be in the plan to replace it, something
17 about the size of the replacement. Let's not start out
18 with a teeny stick, let's start out with something that's
19 already kind of got some momentum, so that we don't have
20 to wait too long to have a big tree. So, I'm not a
21 landscape person, but I think that consulting with a
22 landscape person, that the hospital ought to commit to
23 putting in a tree of some size. And the renderings show
24 it, so maybe that wouldn't be very hard.

25 I also think that the hospital ought to be

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1 willing to have the A/B Wing declared a local landmark,
2 and that it ought to be brought forward and that the
3 hospital ought not to oppose it. And I would be happy to
4 work with them on that.

5 Last, just to satisfy myself, when we talk about
6 bay windows, we mean that the glass projects out from the
7 wall of the building? And in those renderings it looked
8 to me like the glass was on the inside of those frames,
9 not the outside of those frames.

10 So, if we are talking about bay windows, could
11 you clarify that, please? And is the glass actually out
12 on the surface or is it just like a picture frame around a
13 piece of a curtain wall?

14 I notice that we're getting these squares around
15 things. They're on some other buildings, some very
16 notable and large buildings. I'm not convinced and I
17 don't think it needs a bay window. And I don't mind a
18 flat wall now and then, you know, it doesn't break my
19 heart. But I was curious about it anyway, because the
20 renderings are not clear.

21 Thank you.

22 LA TISHA RUSSELL: Darlene Drapkin.

23 DARLENE DRAPKIN: Hello. My name is Darlene
24 Drapkin, and I'm with the Temescal Telegraph Community
25 Association. I'm the executive director of the -- that

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1 manages the Temescal Telegraph Business Improvement
2 District. And I just wanted to mention that Children's
3 Hospital has been a major partner and contributor to the
4 Temescal Telegraph Business Improvement District since its
5 formation ten years ago. And also has been involved with
6 our board for the management for the transformation of the
7 Temescal District. And for that, the community is very
8 grateful.

9 We just recently -- the Temescal BID has just
10 recently become renewed, and we were quite pleased that
11 Children's Hospital has made a commitment to support us
12 yet again. So, they've been quite a tremendous partner
13 with us.

14 What's interesting about the Temescal BID is that
15 we're actually not a certified Main Street program, but we
16 actually operate under the Main Street approach, which is
17 a program of the National Trust For Historic Preservation.
18 So, we're quite sensitive to the preservation principles.

19 We're really pleased that Children's Hospital has
20 agreed to partner with us throughout, because they are our
21 largest employer in the neighborhood. And, of course,
22 they know that attracting and retaining employees is
23 really key, and that's why having them be involved in
24 creating a very vibrant commercial district has been key
25 to attracting -- to attracting and retaining really good

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1 employees in the neighborhood.

2 So, we understand and we're a witness to also
3 Children's Hospital's need to modernize and remain
4 competitive.

5 So, while we know that's -- it's trying to be
6 aware of the preservation principles. So, we're just here
7 to say that to let you know that we support Children's
8 Hospital, and we hope that you'll do what's best in giving
9 your thumbs up for the EIR.

10 Thank you very much.

11 LA TISHA RUSSELL: Cindy David.

12 CINDY DAVID: Thank you. I live along Dover
13 Street between 53rd and 54th.

14 First, I'd like to thank Children's Hospital for
15 the changes they've made to the draft EIR with the
16 driveway entrance to the parking garage on MLK is a big
17 improvement. And the willingness to move the proposed
18 helipad and some of the other changes.

19 I do have a few comments.

20 A lot of the area that's being modified above
21 52nd Street where the old historic homes are, there's a
22 lot of plans as we just heard to modify and move and in
23 some -- not as many cases, totally destroy those
24 hundred-year-old homes. I do believe that's still going
25 to have a major impact on our neighborhood as far as the

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1 overall historical character. And I saw very little in
2 the EIR, and maybe I missed it because it's really large,
3 about how that area is going to be enhanced, which I
4 thought was something we're always looking for when there
5 are major improvements of this type.

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cont.

6 A lot of those buildings are somewhat degraded
7 now. Other buildings in the nearby area have been
8 improved over the years, but those buildings have not.
9 And I just kind of expected the same level of attention to
10 improvements, enhancements towards the historical nature
11 of the neighborhood as a whole, for that section from 52nd
12 up Dover and then across 53rd, which I didn't see in the
13 EIR.

11

14 The zoning changes, I'm concerned about the
15 historical character again on how the -- changing zoning
16 to have more office space, especially the houses along
17 53rd Street, and the increase in the number of transient
18 housing and the number of people who are going to be
19 staying in those houses, the cultural impact to the
20 neighborhood, because it definitely is going to change the
21 demographic in many ways.

12

22 And that if those zoning changes are approved, I
23 would ask that conditions be included to allow continuous
24 public process so that the neighbors and in these
25 different planning commissions such as yours, have input.

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1 I'm concerned that if the zoning is made
2 industrial and hospital services, that we'll lose all
3 input in the future.

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4 And my final comment is that I personally find
5 the proposed design for the -- I think the OPC building
6 with the colors quite jarring. I would like to see more
7 of a continual flow of how the old baby hospital, which is
8 actually quite beautiful, and the CHORI Gymnasium and the
9 surrounding neighborhood would blend together a bit more.
10 The colors kind of -- I could see the reason for it with
11 the children, but I live there, so -- and I'm not child.

14

12 Thank you.

13 LA TISHA RUSSELL: Jamae James.

14 Did I pronounce that right?

15 JAMAE JAMES: It's Jamae.

16 Hi, I'm Jamae James, and I'm on 53rd Street, and
17 the parking garage, that's what I see. But I'm here to
18 talk about the helistop. They want to move it closer to
19 53rd Street, but higher up. Has anybody -- I think the
20 question has been asked, what kind of noise is -- more
21 noise will the 53rd Street residents -- we already have
22 because as it stands right now, within the last three days
23 the helicopters have landed coming up from 24 and turned
24 back towards Berkeley. That's not -- you come in through
25 24, you go out by 24. I guess the operators of the

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1 helicopter do not know this. Again, and that's within a
2 two-day span, and I have already called and spoken about
3 that already to the hospital.

4 And the noise of the helipad, the echo in the
5 garage already is quite loud. You could hear an ant walk
6 some days across the concrete, it's just that noisy. So,
7 I'd like to know about a noise, the movement of the
8 helipad, how much noise will that be? And the echoing,
9 and how much more is going to impact 53rd Street with
10 that?

11 Thank you.

12 LA TISHA RUSSELL: Cathy Leonard.

13 CATHY LEONARD: My name is Cathy Leonard, and I
14 represent the Santa Fe Community Association and
15 Neighbors. And we have a few comments.

16 We are glad that Children's Hospital has this
17 time around consulted with the community. And, in fact,
18 we're meeting with Children's Hospital higher-ups in the
19 next couple of weeks concerning some other things with
20 respect to this modernization plan. So, we are thankful
21 for that.

22 We are concerned about -- and I've talked to --
23 briefly this afternoon -- with some of the Children's
24 Hospital people about the loss of parking in the
25 residential area; the construction staging area; the hours

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1 of construction; parking for construction workers and
2 shading and lighting issues with the new building that's
3 going to be constructed on 51st -- 52nd and MLK, and also
4 the distance of the setback from the street.

19, 20

5 We're also concerned about traffic on MLK due to
6 the new parking street entrance and how that's going to be
7 mitigated. And I think Jamae just talked about demolition
8 of the helistop structure and the relocation of it further
9 north than we would like it to be. We would like it to be
10 a little further south.

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11 So, I think those are our main concerns and we
12 would like Children's to address those concerns. And
13 we'll talk about it more in depth on the 17th.

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14 Thank you very much.

15 LA TISHA RUSSELL: Robert Brokl.

16 ROBERT BROKL: Good evening, Board Members, my
17 name is Robert Brokl. I'm a 40-year resident of the
18 neighborhood, in the same house. We live directly beyond
19 -- behind CHORI. Our neighborhood group NOVA, and as
20 individuals, we were involved in a lot of the Children's
21 Hospital expansions over the years, so we've seen the
22 impacts. Our group was the group that placed the old
23 Merritt College on the national register of historic
24 places.

25

25 I have several comments. One, I'm glad that the

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1 City did do a bit more research on the Dover, 53rd Street
2 ASI historic district. But I'd like to point out that
3 it's -- the entire area actually, from Children's Hospital
4 north to the Berkeley border and probably beyond, is a
5 streetcar suburb.

6 It's lucky that that area ended up on some kind
7 of official status, but it's pretty arbitrary, because it
8 goes all the way on both sides. Most of the buildings
9 were constructed post-earthquake when people moved over to
10 the East Bay, both sides of MLK. There's a restored --
11 your point about historic -- about industrial buildings
12 being rehabilitated. There's a great car barn at 57th and
13 MLK that was really wonderfully restored.

14 So, it's in a sense an improvement to acknowledge
15 that there is some historic significance, but I think we
16 must also have to acknowledge that probably about
17 20 percent of the buildings the residences in that area
18 have been lost from previous and the proposed expansions
19 of Children's Hospital. Which was, originally, late 19th
20 Century and Italianate that was converted to hospital
21 uses, and it was surrounded by houses. They were actually
22 used as houses, lived in by people and not institutional
23 uses, which that conversion is an impact.

24 A process issue. I'm really grateful that -- I
25 agree with what other people have said that the Children's

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cont.

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1 Hospital has listened to the community. They have
2 convened meetings, but in my 40 years and since about 1985
3 being actively involved with Children's Hospital and their
4 various expansions, this one has been really unusual in
5 that it's been very much just the Children's -- and it's
6 actually not -- parenthetically to back up, I'm sort of
7 amazed that planning staff continues to refer to it as
8 "Children's Hospital Oakland," when I've seen all the
9 billboards and the sides of buses, et cetera, it is as of
10 January 1st, "UCSF Benioff Children's Hospital, Oakland."
11 And I would appreciate it if at least planning staff could
12 get that right.

13 So, there has been an institutional use.
14 Basically there hasn't been enough analysis, and we also
15 would like to say that cumulative impacts have not been
16 studied. So, we've lost probably 20 percent of the
17 residences in that area, and probably most notoriously the
18 symbolic house at 52nd and MLK, we call it a "hold-out
19 house." It was a previous owner who refused to sell for
20 -- it would have been torn down along with the other
21 residences in that area.

22 Children's Hospital has made various noises, the
23 possibility that that house might be separated into
24 various sections and moved. There's also been talk at
25 these various meetings about possibly not expanding beyond

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1 53rd Street, et cetera. But I think that the problem has
2 been that, unique in my experience dealing with Children's
3 Hospital, is that the council person has been absent.
4 There's been no representative, except for a couple of
5 appearances by an ex-aide of the District 1 council
6 person. And that a planner has appeared at various
7 meetings, but basically her mantra has been that traffic
8 is not an environmental issue, it's not a CEQA issue. And
9 that the City adamantly opposes closing off any grids, so
10 basically any street closures.

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11 I think the neighbors have repeatedly cited
12 example, for instance, Alta Bates, where you have a
13 historic neighborhood, where you have buffers, you have
14 mini parks, you have street closures. And the
15 neighborhood has actually flourished next to a major
16 institutional presence.

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17 I agree with Cindy David's comment that while we
18 certainly support the uses of Children's Hospital, they
19 are a major employer and an important asset to Oakland.
20 Nevertheless, it doesn't help them, and it doesn't help us
21 if the neighborhood around them is degraded and encroached
22 upon.

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23 Our neighborhood is -- there's another boom
24 probably bigger than the last, but the neighborhood is
25 still very edgy. We have major issues with crime. Houses

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1 that have been turned into institutional uses. They're
2 dark at night. We don't have eyes on the street.

3 So, I think buffering the neighborhood,
4 acknowledging that it's historic, working to protect it
5 and come up with measures how that can be enhanced and
6 protected are really important. And hopefully that would
7 be something this board would consider.

8 One, obviously that area should have some kind of
9 official status. Their baby hospital should have some
10 kind of official status.

11 The traffic is an impact. We do need bumpers.
12 We do need protection. And I think that as much as
13 possible, all of the houses should be retained, including
14 the hold-out house. There should be some kind of
15 condition that that house, if possible, be moved. There's
16 talk that there's space near Caltrans -- the Caltrans,
17 whatever -- edge of the freeway, that would be great.

18 But again, because of the process, the flawed
19 process, the neighbors really haven't had an advocate in
20 terms of mediation, trying to get the best possible deal,
21 something that can help us into the future and prepare us
22 for the next expansion, because that probably will occur.
23 It's basically been Children's Hospital negotiating with
24 individuals. And that's, I think, really unfortunate.

25 Thank you very much.

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1 LA TISHA RUSSELL: Alfred Croddi. Did I produce
2 that right, sir?

3 ALFRED CROFTS: Members of the board, I'm Alfred
4 Crofts, actually, but my writing's not great.

5 I would just quickly like to encourage you to
6 officially designate, encourage Children's, et cetera, to
7 designate the site of Dover, 55th Street ASI -- as
8 official. As Naomi also said the A/B Wing of the
9 Children's Hospital, the old baby hospital. I think that
10 would go some way towards the continued degradation of the
11 neighborhood.

12 Also, I'm very concerned that mention of the
13 historic grid as a landmarks board issue. The historic
14 grid is like -- it's gone. You know, you can't -- BART
15 tracks, you can't get through oftentimes on the MLK side,
16 the west. The east is like a berm where the freeway goes
17 over.

18 So, Dover is like, the last -- you know, in the
19 district, it's the last little connection. And maybe the
20 neighbors want to keep it. I think it should be not
21 officially sort of decided upon, but it's not, you know,
22 historically accurate any longer as a part of a grid, it's
23 just one of the little connecting streets to 52nd. So, if
24 you wouldn't take a stand there, that would be great.

25 You know, as Bob said, I mean, we have watched

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1 the area degrade rapidly. And now it's, like, coming
2 back. And they're very distinctive houses as the speaker
3 said to the planning commission last year. That was the
4 heart of Temescal before the freeway and BART, et cetera
5 came through. It was right there. Temescal Creek was
6 right there.

7 The mansion, which became the hospital, which
8 became the baby hospital, which was then mimicked in the
9 50s, I believe, when the B/C Wing was added, which was an
10 architectural reflection of the earlier, which now is
11 considered not at all important, so the bay windows, et
12 cetera. I prefer a more sort of calm exterior as well.
13 But, you know, if children are going to sit outside and
14 feel better, fine, I think mostly inside the building.

15 Those are mostly my comments, and thank you very
16 much.

17 VALERIE GARRY: So, I guess we have no more
18 speakers. And so that actually closes off the public
19 forum portion of this agenda item. And I will now turn to
20 the board for its comments, its questions.

21 I actually -- well, maybe while the board is
22 trying to form their thoughts on some of those questions
23 or thoughts, I would like to ask Betty if she could
24 clarify, since this came up in a couple of comments, the
25 status of a ASI District and what process would be

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1 required to change that status, and/or what kind of
2 involvement? I mean, I think the landmarking sort of
3 official status is often confusing for people to
4 understand. And the Dover District, I guess, is the area
5 of secondary importance. Is there any action that could
6 be taken? I guess, who would initiate it? And what would
7 it become? So, we can have some clarification on this.

8 BETTY MARVIN: Yeah, we have two large
9 residential neighborhood districts, Oak Center and
10 Sheffield Village, which were designated at the request of
11 the neighborhood associations.

12 And Oak Center came in around 2000, looking for
13 designation, because their redevelopment area status was
14 about to expire, and they wanted to retain some of the
15 design review jurisdiction that the neighborhood had had.

16 So, essentially what a district designation takes
17 is near unanimous agreement of the property owners. And
18 that was relatively easy, like it only took about four
19 years for Oak Center. And relatively easy for Sheffield
20 Village, because both of them have homeowners'
21 associations that are able to take votes and make
22 decisions and so on.

23 That's not to say that a less officially
24 organized neighborhood couldn't get together and do a
25 nomination, or that a resident or two couldn't submit a

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1 nomination and then go about getting buy-in from the
2 residents. As, I guess, it was Bob said that the boundary
3 is rather arbitrary. The survey drew the boundary kind of
4 where there was an uninterrupted area of buildings with a
5 consistent type and period and fairly good integrity.

6 Oak Center, the survey had mapped as a lot of
7 small areas of secondary importance, but the neighborhood
8 decided they wanted the whole redevelopment area to be the
9 designated district, so that was fine. And that's how it
10 was done.

11 So, if Bob wanted to get everything to the
12 Berkeley border and could get the buy-in, that would be
13 fine. If a smaller part of what the survey called out as
14 55th and Dover District wanted to do it, but there were
15 hold-outs in another part of the neighborhood that said
16 "over our dead body."

17 But it's largely a political process. Like
18 individual designations, there's a description and a
19 statement of significance and then although our ordinance
20 doesn't really require near unanimous owner consent,
21 that's been the practice forever.

22 ELEANOR CASSON: May I ask a follow-up question
23 on that?

24 So, this kind of shows my, maybe lack of
25 knowledge, but if that were to happen and the neighborhood

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1 were to be designated as a historic neighborhood, what is
2 the overview of the benefits and then the challenges of
3 what would come with that?

4 BETTY MARVIN: Yeah. As I kind of hinted with
5 Oak Center, back in the day and when we had our first
6 residential district, small one on 10th Avenue in East
7 Oakland, what they were looking for was design review
8 authority. And in Sheffield Village it was about
9 expressly standing up for the uniform design of the
10 neighbors, and was a remodeling of the 40s period revival
11 houses to a nice little modern house, but not in keeping
12 with the neighborhood.

13 That inspired that, because this is already
14 called out of the area of secondary importance, which puts
15 it in a broader definition of historic under the
16 preservation element. And because we now have design
17 review of all exterior changes to all residential
18 buildings as long as the applicants come in and then
19 submit their projects for review.

20 It's not a huge difference. There's a bit of a
21 statement of principle that it's the historic character of
22 the building that we're looking for that a remodel into a
23 '90s Mediterranean revival might not be encouraged, that
24 -- again, working with the character of the building is
25 usually encouraged in our everyday design review anyway.

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1 Design review fees are waived for designated historic
2 properties. If you're doing the right thing, it may be
3 only 50 bucks or a few hundred dollars, but it's
4 something. And a house or building that's already
5 designated as part of the district would be prequalified
6 for Mills Act contract. They wouldn't have to go for a
7 heritage property designation separately.

8 But hopefully, our normal design review processes
9 and what we do for historic properties are kind of
10 converging.

11 ELEANOR CASSON: Okay.

12 BETTY MARVIN: So, it wouldn't make a huge
13 difference to anybody's life. That's not to say that
14 people who are really concerned about their freedom and
15 their property rights wouldn't perceive it as making a
16 huge difference, which is why Oak Center was a long
17 political sales process.

18 ELEANOR CASSON: Got it. Thank you very much.

19 VALERIE GARRY: Are there any comments?

20 CHRISTOPHER ANDREWS: No, but can you also ask
21 about the landmarking of the Children's wing? Is that one
22 of your questions?

23 VALERIE GARRY: Actually, I forgot to include
24 that but I should have. It was a -- there was a new
25 rating given to the A/B Wing, the baby wing. And it's a

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1 B-plus, if my memory serves me.

2 And again, I don't know, given the way it would
3 have to be designated as a landmark, correct?

4 BETTY MARVIN: Well, or a heritage property.

5 VALERIE GARRY: And that would again -- pardon?

6 BETTY MARVIN: Or a heritage property.

7 VALERIE GARRY: Or a heritage property. But I
8 think generally that cannot be done easily over the
9 owner's objection.

10 BETTY MARVIN: Well, and I think both Naomi and
11 Bob put it in terms of that Children's -- they were
12 suggesting that Children's Hospital go ahead and landmark
13 it. And this is not unheard of that that designation of
14 property is part of a project that ends up incorporating
15 the old building.

16 Chapel of the Chimes did that. That their
17 designation which they -- the ownership put forth and had
18 prepared -- came as a condition of the addition of their
19 new wing. And they have since embraced it and they can
20 use a Distinguished City of Oakland Landmark in lots of
21 their publicities.

22 FRANK FLORES: Well, does the applicant have
23 interest in doing that, or does staff know if the
24 applicant has responded to that request?

25 It seems like it's come up. It must have come up

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1 at the neighborhood meetings. Would the applicant like to
2 respond to the A/B building being designated, or if it's
3 been discussed behind close doors, so to speak?

4 APPLICANT: I don't think the applicant
5 understands the downstream implications of that or what
6 that entails. That hasn't been, I don't think, that's
7 been a major point of discussion during the meetings. So,
8 it's not something we've even considered.

9 FRANK FLORES: Okay.

10 STAFFORD BUCKLEY: I have a couple of questions.
11 I'm one of the newer members of the board here, and so
12 have not sat through other presentations. Can I -- just a
13 point of clarification.

14 You spoke to previous actions by this board
15 regarding the tree. Could you repeat that, please?

16 HEATHER KLEIN: Yeah, sure. So, there's a
17 magnolia tree on the site. I think the applicant sort of
18 touched on it in his presentation.

19 In the draft EIR, there's actually several
20 historic appendices, one that deals specifically with with
21 the magnolia tree, and sort of talking about the history
22 of the magnolia tree. And supposedly, it was planted, and
23 I don't see that in front of me --

24 STAFFORD BUCKLEY: Actually, my question was a
25 little more specific.

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1 HEATHER KLEIN: Oh, I'm sorry.

2 STAFFORD BUCKLEY: What previous actions has this
3 board taken or recommendations has this board made
4 regarding that tree?

5 HEATHER KLEIN: So basically they made the
6 determination that the tree was not an individual historic
7 resource. That it was not, combined with the courtyard,
8 considered a cultural landscape, but that it was a
9 contributing element to the A/B Wing.

10 So, as I said in my presentation, that
11 essentially it acts like the ornamentation of the
12 building. That that's one of the contributing elements of
13 the building or the *tension operation or other parts of
14 the building. It's not on the building, but it is a
15 contributing feature of the building. So, it's -- the
16 tree or the courtyard are not individual historic
17 resources. They are not cultural landscapes. It's tied
18 to the A/B Wing.

19 STAFFORD BUCKLEY: Thank you.

20 Would the board consider revisiting the tree?

21 CHRISTOPHER ANDREWS: Well, I think this is
22 rather elaborate. We actually did do a site visit. We
23 all looked at the condition. And although the tree is a
24 wonderful tree, and the courtyard has some elements which
25 are very pleasant, I mean, especially when we think about

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1 it as an outdoor spot where patients might sit, it's
2 actually not intact enough as a kind of a landscape
3 structure, the tree in the courtyard itself, to be
4 designated on its own. That it really has to be seen, as
5 Heather elaborated, contributing to the character of that
6 building.

7 So, it's kind of a difficult piece for us to -- I
8 -- I'm just talking personally now. I can't speak for the
9 whole board -- for us to revisit, because it's not really
10 intact enough as a landscape. It's kind of a piece of
11 something.

12 STAFFORD BUCKLEY: The tree is not intact enough?

13 CHRISTOPHER ANDREWS: Well, the tree -- the tree
14 as a place that might -- as part of a larger cultural
15 landscape. It's more that it contributes to the character
16 of the building. This is, again, this is -- we're kind of
17 splitting hairs here about -- have you been to the site?

18 STAFFORD BUCKLEY: I have.

19 CHRISTOPHER ANDREWS: So, maybe you want to
20 verbalize your own feelings about it.

21 STAFFORD BUCKLEY: I would like to do that, thank
22 you.

23 Just a couple of things.

24 So, the tree that's been referred to as
25 supposedly 160 years old, I think is documented that it

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1 was planted by the owners of the house that was the first
2 baby hospital when it was still a private residence.

3 That whole area was the Alden Ranch at one time,
4 and then the Aldens married the McElraths, and then it was
5 the Alden/McElrath property. And supposedly a number of
6 women family members planted the tree in 1860.

7 So, when the baby hospital was built, the house
8 was still there, and so the tree had a function of the
9 house, which was -- had been the hospital. And then at a
10 certain point, I think maybe when the 1946 structure was
11 built, the house was torn down, but the decision was made
12 to preserve the tree.

13 Now in Oakland, you know, Mr. Carpenter went up
14 to Sacramento and Oakland was incorporated in 1854. So,
15 it's, you know, six years after the founding of Oakland as
16 an incorporated city that this tree was planted.

17 And so, I'd kind of like to make the point that
18 in my opinion in and of itself, the tree really is
19 something. We have Mountain View Cemetery, 1863, there
20 are no original trees there, according to Planning
21 Commission member Chris Patilla. So, it is conceivably
22 one of the oldest planted trees in the City of Oakland.
23 And I think that given that, I -- and my opinion, is worth
24 a little further consideration about the preservation of
25 the tree.

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1 The research that was done was in terms of moving
2 the tree. Well, moving the tree's is nonstarter, because
3 the roots are under the 1946 structure. So, that's not
4 going to happen. It's going to die anyway.

5 But I have not heard anything about pruning the
6 tree. And doing the pruning, that means something. The
7 tree, which is a gross horizontally, essentially has a
8 bunch of spurts that just go straight up. Now, I'm not an
9 arborist, but I would think that would be worth looking
10 into. And I think further that the tree might mitigate
11 that elevation of the new structure, which some people
12 have commented on. And so, I just -- I'd like to raise
13 that topic, thank you.

14 VALERIE GARRY: Again, going back a year ago on
15 this conversation that took place, I think it was a very
16 difficult area for the board, because frankly, there
17 aren't a lot of landmarked trees. There are a couple, I
18 guess, right, the ones in front of the city hall here.

19 But I think the -- what it came down to, if I
20 understand it correctly and I could be wrong, is that the
21 sort of the programatic needs, this expansion and the area
22 where it would occur, sort of precluded keeping the tree
23 in that location. That it would be either be too
24 compromised or it would certainly impede the ability to do
25 the development that was being proposed.

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1 I think that there is no one here on the board,
2 certainly, I'm probably the only one that's still on the
3 board from that time. I think pretty much everybody else
4 -- and you, Chris, sorry -- when we had that conversation,
5 the general feeling was yes, it would be a shame to lose
6 that tree. But given all the other factors involved in
7 trying to plan and develop and expand a hospital with
8 seismic issues involved and the programatic expansion
9 that's being proposed, that the tree would be one of the
10 -- one of the problems in doing that.

11 And I think, again, in an ideal world, I
12 certainly would like to see it kept. But then again, you
13 can also argue that over time trees will die anyway. So,
14 we have to be realistic about the -- what becomes the
15 greatest priority -- what's the greatest importance here
16 is to have a hospital be able to serve a future generation
17 of children and so forth and do it well or keep the tree?

18 I think the tree replacement with a younger tree,
19 a smaller tree, was a compromise. And I -- it's not --
20 while it's not a perfect compromise, I think it's a
21 reasonable one.

22 And I -- so I guess that's kind of where I think
23 this thing -- how it came about. And I also feel that
24 frankly, I don't think it would be, in my opinion and I
25 could be wrong, from the standpoint of the CEQA review and

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1 planning and public comments, appropriate to go back and
2 revisit it at this point.

3 So, I think this is kind of where we are. And if
4 Betty or anyone else on the staff cares to comment on
5 that, I would be -- I wouldn't mind hearing their thoughts
6 on it.

7 I think -- I think we can have a new generation
8 of magnolia trees from the same way that we have new
9 generation of new buildings that go up. I think it is,
10 you know, based on some of the things you just said, it's
11 a very important tree and it represents some history.

12 I don't know -- frankly, I don't recall, unless
13 Chris recalls, whether there was any absolute, you know,
14 impossible to do anything around that tree keep -- and
15 have this plan work.

16 So, I don't know, I'm not -- I didn't -- I don't
17 know what the designers and the architect would have to
18 say about that. I would be -- perhaps they should comment
19 on that at this point, but I'm just trying to put this in
20 perspective for you, because this was -- we did have a
21 long conversation about it. And the board did act, and I
22 think, I'm not sure whether it's reasonable to go back and
23 revisit that. Perhaps it is, but I haven't heard anybody
24 on the staff comment on it. I'd like to hear whether this
25 kind of thing happens. It's a little tricky at this

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1 point.

2 STAFFORD BUCKLEY: I'm sorry, I don't understand
3 what's tricky about a new board member expressing an
4 opinion.

5 VALERIE GARRY: None whatsoever.

6 STAFFORD BUCKLEY: And as I sit here, I notice
7 that three of the five of us are new board members. So, I
8 would think that in and of itself that -- I don't know
9 what anybody else thinks, but you know, things may from
10 time to have to be revisited.

11 VALERIE GARRY: I appreciate that. And I know
12 it's difficult when you -- when -- new board members to be
13 trying to play catch up on a project. This happens with
14 this board and with the planning commissioner and everyone
15 else, these things take a long time. So, it's not a
16 criticism of your comment, I'm just trying to give you
17 kind of a review of the process that took place and what
18 would -- basically the thinking that was involved when we
19 made our decision.

20 Okay. Do we have some comments on any aspect of
21 the recommendations? There are no mitigations. I would
22 like to comment that I -- if no one else is.

23 FRANK FLORES: Well, since we are on the tree, I
24 think I have the same feeling that board member Buckley
25 has. I am an arborist. I went to Humboldt State, UMass

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1 and Stockbridge School of Agriculture. So, I'm a
2 tree-hugging hippie.

3 And -- but I've also sat on the planning
4 commission for eight years, and only -- new to this board.
5 I can understand that a process that started a tree survey
6 had been done, the tree had been looked at. It is found
7 to be in good condition. I assume that the applicant took
8 a look at the tree and must have seen the asset of the
9 tree itself as part of the overall development in the
10 building if it is juxtaposed to fit in its location, based
11 on the new design.

12 But I would like to hear what behind closed doors
13 -- talked about the magnolia tree.

14 APPLICANT: Right. That's correct. If you take
15 a look, and it's difficult now without something to look
16 at, but if you take a look at the shape of the patient
17 pavilion that we're going to build in phase two, you can't
18 build around the tree. It would result in a building
19 that's not functional at all for patient care. You'd have
20 very narrow corridors, you wouldn't be able to fit patient
21 rooms on both sides of the building.

22 So, it just -- we wouldn't get the size that we
23 need. So, based on the decision and the direction that we
24 had last year, we proceeded with the design, the patient
25 pavillion as-is.

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1 And we're really trying to, as a greater goal,
2 we're trying to respect the building. We don't want to
3 build past 53rd, so we're trying to densify as much as
4 possible south of the 52nd. And the A/B Wing -- between
5 the A/B Wing and the tree, we really don't have a whole
6 lot of space down there to build what we need to do.
7 We're building a parking structure there. We are building
8 a central utility plant there, and we're building the
9 patient pavillion. And we're trying to respect the
10 neighbors' wishes and everyone else's wishes to really, to
11 densify as much as we can. We just found we couldn't
12 build around the tree.

13 HEATHER KLEIN: So, I would -- you had asked if I
14 had any comments. And I just remember from the scoping
15 session that board member Schulman had had an interest in
16 the tree. He did not believe, I think, that our sort of
17 initial recommendation that the tree not be considered a
18 historic resource. And actually asked that the applicant
19 and city staff go back and sort of analyze the tree, both
20 as an individual resource, and as a culturally -- and as a
21 cultural landscape per historic criteria.

22 So, when we came back to the board in November,
23 we had had a supplemental report. And that's what I said
24 was in the appendix. So, there's actually several
25 documents in appendix B. The first one has to do with all

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1 the buildings that I mentioned and the updated ratings,
2 and sort of looking at that since, I think, 1986 to see
3 what the character of the area was and how that had
4 changed, and whether buildings had been improved or
5 whether the character had sort of declined and update
6 those ratings.

7 The second piece was a report solely on the
8 magnolia tree and the courtyard. And basically, the
9 analysis sort of looked at best practices, both the
10 nationally and per state guidance, and just best
11 practices, and considered that the tree could not be an
12 individual resource.

13 It was associated with this person. It was
14 definitely associated with the branches, but those were
15 sort of tangential associations, and not associations that
16 really would rise to the level that would designate it
17 individually.

18 Then in terms of the cultural landscape, there
19 was a whole discussion about what a cultural landscape
20 involves. Like, the geography of it being a landscape.
21 It being an area with elements in it. So that's why we
22 looked at the courtyard with this tree in it as
23 potentially a resource.

24 And the analysis that we presented to the board,
25 and the findings that we presented to the board basically

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cont.

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1 said it's not an individual resource, neither the tree or
2 the courtyard, it's not a cultural landscape. Those
3 things are tied, however, to the A/B Wing. They're tied
4 to the branches and the fundraising of the A/B Wing.
5 They're tied to the A/B Wing as the hospital and the first
6 building that was built after the Alden family's mansion
7 was demolished.

8 And that's why they're considering -- why both of
9 them are considered supporting the elements of the A/B
10 Wing, and why we analyzed it in the EIR as such.

11 So, I would say that we should look at that. It
12 is a beautiful tree. It is something that I think we
13 really looked at. You know, we did all the analysis
14 regarding feasibility of moving it. Health of the tree,
15 we've had two arborists come out and look at it. There
16 are a lot of constraints to moving it. Keeping it in
17 place really doesn't seem like an option, given that the
18 program of the hospital and basically the whole
19 configuration of the link building and the patient
20 pavillion would need to be redesigned.

21 So, we did look at feasibility of relocating it.
22 We found two potential sites. We have not -- there's not
23 a recommendation in the draft EIR about that, we're just
24 presenting information to you. So, hopefully that helps
25 answer your question a little bit.

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cont.

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1 FRANK FLORES: In closing, I think personally it
2 would be great to see a relocation of the tree. Maybe not
3 completely in its entirety. You're going to have to trim
4 it way down, and it's going to be a difficult for a
5 160-year-old tree, but -- and then I definitely support
6 both recommendations of a plaque and a new tree of older
7 age and an older box that needs to be put in.

8 VALERIE GARRY: Yeah. I actually, I think that
9 was one of the things that I was -- unless I didn't read
10 enough carefully -- I didn't see any reference to -- I
11 know the recommendations for a new tree to go in and some
12 signage to -- to highlight the significance of the
13 original tree that was in that place, but there's no
14 follow-up as far as I can see on the relocation of the
15 tree.

16 Is that -- is that still something that can be
17 recommended by this board? I mean, we -- it hasn't really
18 been -- the tree has kind of now left out of this as far
19 as what happens next. We know it's not going to be that
20 tree in that place, but what is -- what happens to that
21 and is that -- I don't know what the -- I don't imagine
22 it's easy to -- I know it's done, but I don't imagine it's
23 easy or inexpensive to move trees, but it would be nice if
24 that tree could be preserved and moved to some other
25 location. That might help allay some of the, you know,

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1 concerns about the loss of this cultural attribute or
2 contributing thing.

3 But it doesn't -- it doesn't appear anywhere in
4 here, so that would be one comment I would like to have.
5 I'm just echoing what Frank just said.

6 And then I guess the other big piece that sticks
7 out in my mind and it has the recommendation of the
8 refinement of the design. I could see in some of the
9 presentations tonight that that sort of colorful
10 patterned, colored squares is being shown throughout the
11 complex. We hadn't seen any of that before. And I
12 certainly understand the thought that goes into that as
13 far as modern hospital services for children. You want to
14 emphasize bright, positive places and environment for
15 children as part of the -- part of the service you bring
16 for them and put them in a place that's colorful and
17 attractive.

18 I do think it is, and I guess the recommendation
19 more or less supports my thinking that it's a little bit,
20 in my mind, jarring in its juxtaposition and its
21 relationship to the baby -- baby wing.

22 I know it was mentioned of the squares, the sort
23 of -- in scale, sort of paying some reference to the -- to
24 the baby -- the -- I'm trying to say the wing itself, at
25 the end -- the -- help me out. The five-sided -- bay

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1 window, thank you. I knew it would come to me. But it
2 still feels -- I know it -- to me it doesn't yet, as the
3 new building, putting -- put in this place, it doesn't to
4 me, quite feel like it pays enough homage to the original,
5 the oldest remaining building. I just feel like there's
6 something there that doesn't quite read right. It just
7 seems very jarring.

8 And I just think it's also, and somebody -- one
9 of the public remarks, I think -- I also thought was sort
10 of an important consideration, which is that it is, in
11 terms of its design, it is in the middle of or at one end
12 of an area of secondary importance where you have a lot of
13 1920s-kind of bungalows and stuff, and there is something
14 about those two things that don't seem to be exactly
15 compatible.

16 So, I support that recommendation that the
17 curtain wall facade be -- be reexamined and relooked at to
18 make it a little more compatible and perhaps sort of
19 respectful of the baby -- the baby wing building.

20 And I have a couple of other comments, but I'll
21 allow the board members to speak.

22 ELEANOR CASSON: I have a question for one of the
23 speakers from the audience. The gentleman who talked
24 about the grid, the street grid. Sir, would you mind
25 coming back up here? I think that the question may

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cont.

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1 actually be answered by member Klein.

2 But -- so I'm not -- I'm familiar with the area
3 that you're talking about. I'm interested in your comment
4 about the fact that the historical grid has been broken up
5 already. And so -- but I wasn't clear on what your
6 recommendation or request was instead of maintaining the
7 grid, since the grid is really no longer intact anyway.

8 ALFRED CROFTS: Right. It was mentioned, I
9 believe, in the EIR, the grid was mentioned in terms of
10 not closing off Dover Street in order to maintain the
11 historic grid. And in numerous meetings of the
12 neighborhood, fairly well attended, it was discussed at
13 length, as to, you know, if you have a lot of traffic
14 coming through Dover, how people would access the
15 neighborhood from the hospital. And, you know, huge
16 increases of traffic, more likely to park, blah, blah,
17 blah. So, the closing off Dover Street was always a
18 possibility.

19 And I simply didn't want you all to foreclose it
20 by somehow making it more difficult by saying it was an
21 important historic element. I think that there certainly
22 was a grid, but if you drive there, there really isn't any
23 longer. You know, it's like, sort of -- Dover is the only
24 thing that goes through.

25 ELEANOR CASSON: Because of the freeway --

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1 ALFRED CROFTS: The freeway, exactly.

2 ELEANOR CASSON: -- it's difficult to -- it's
3 just chopped up.

4 ALFRED CROFTS: -- and Children's Hospital
5 itself. It's, like, banked up south, so --

6 ELEANOR CASSON: Right. I hear you.

7 ALFRED CROFTS: So, but also MLK and BART, you
8 can't always get through --

9 ELEANOR CASSON: Right.

10 ALFRED CROFTS: -- because the elevated tracks
11 block you.

12 So, it's -- it's a very sort of isolated area in
13 a lot of ways.

14 ELEANOR CASSON: And were you looking for the
15 street to be closed off? Was that the request?

16 ALFRED CROFTS: Well, I wouldn't like to
17 necessarily see Dover stay open as a matter of course, as
18 a matter of intent on the landmarks board part. I don't
19 think it's an important historic element any longer.

20 So, if the neighbors want it, because of traffic
21 issues, if it developed it's a good idea in their opinion
22 to close it down, that that could be done without coming
23 back before the landmarks board. Is that clear?

24 ELEANOR CASSON: Okay. Yeah, that answers my
25 question about the -- thank you.

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1 And then if anyone has any follow-up comments?

2 ALFRED CROFTS: Thank you.

3 ELEANOR CASSON: Thank you for elaborating on
4 that.

5 I'm not opposed to exploring that more. I, in
6 general, would say that I do tend to prefer that closing
7 down streets for certain purposes can be a very good
8 thing. I don't know if it's worth pursuing more or not.
9 I was just interested in, like, the reference to the fact
10 that the historical integrity of the grid is kind of
11 broken down in that area, which I think is a valid point.
12 And so was that reason to keep it open or not. So, I
13 don't know if that requires any further discussion, but
14 thank you for the clarity. If anyone has comments?

15 FRANK FLORES: I know the City of Oakland is very
16 anti-closure of streets. I've tried to do it myself. And
17 I lived at 53rd and Adeline close to the hospital for
18 almost 15 years, and I can understand where this resident
19 is coming from.

20 If the street was closed at Dover and 52nd
21 Street, that would probably pretty much cut off that
22 neighborhood to any kind of through traffic, except coming
23 from the Berkeley side or the Shattuck side. It's -- if
24 you've never driven around back there, it is, it's closed
25 off because of the BART and the highway.

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1 But -- and so, I could see the neighborhood,
2 there'd probably be some divided ideas on whether that
3 would be a good or a bad thing, but closing it at Dover
4 would create -- would stop a lot of traffic from going
5 into that neighborhood, from Children's Hospital traffic
6 and cut-through traffic.

7 People could come from the Emeryville and North
8 Oakland side, across MLK through the Dover neighborhood,
9 and over to 52nd Street. I've done it myself, so -- but I
10 don't know if they've explored that. But again, I think
11 the city is pretty staunch on that.

12 CHRISTOPHER ANDREWS: I just want to make a
13 couple of comments.

14 First, just to note that although we talk about
15 all kinds of things at these meetings, I'm looking at the
16 staff report, and it actually directs us to very limited
17 things that we really should be commenting on at this
18 point. And now I'm trying to find out where it says that.

19 You know, this meeting is not intended to take
20 comments on the merits of the project or the project's
21 detailed design. There will be other opportunities to
22 discuss these topics in future public hearings. No
23 decisions will be made on the EIR proposed project at this
24 hearing.

25 And it's mostly about the adequacy of the EIR and

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cont.

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1 discussing possible historic or cultural impacts of the
2 physical environment, and the ways that these potential
3 adverse affects might be minimized the alternatives
4 project in light of the EIR's purpose to provide useful
5 and accurate information about such factors.

6 In looking at the EIR report, I think it's mostly
7 -- it does mostly address these issues. I think some of
8 the residents and the -- Naomi Schiff of HOA have also
9 highlighted some things, which I think are important as
10 well.

11 And the one piece I -- although we are not really
12 directed to comment on this, I would agree with some other
13 board members about the Link building and the patient
14 pavillion wing.

15 I think -- it's very difficult to believe that
16 the design that we're shown again and again actually is
17 of, you know, equal or better design quality than the
18 building that we're taking down.

19 I mean, I don't know what's happened in the last
20 50 years where healthcare has improved by leaps and
21 bounds, and architectural design seems to have gone to,
22 like, the second grade or something. And it's -- I mean,
23 I'm an architect, so it's a reflection on my profession.
24 I don't know what -- it's -- if we design buildings for
25 children, that doesn't mean they have to look like they

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1 were designed by children.

2 But, you know, this is -- this is a challenge.
3 How do you -- how -- are we just giving up on making
4 buildings of the quality of the original baby wing? It's
5 -- it's really sad.

6 So, but that's addressed in the EIR as well, so,
7 although probably a little more politically gentle.

8 VALERIE GARRY: Well, your point is a good one
9 though, because that's one of the things that happens
10 about the purview of this board. I mean, we are -- this
11 is a meeting that's a public hearing. Public is, you
12 know, invited and is free to comment. We hear some of
13 those comments and we may agree and we may disagree, but
14 the point of fact is that our role here is to comment and
15 receive comments, which we have done on cultural
16 resource-related comments in the draft EIR.

17 So, a lot of other things can come down way and I
18 think the traffic concerns, transportation, some of those
19 things, you know, you could argue that it impacts a very
20 important historic area, but it is essentially not part of
21 what we're here to do.

22 And I think what Chris just said about the
23 architecture, again, we're not commenting on the quality
24 of the architecture, but what is -- what the draft EIR
25 contains. Although I do tend to share his feelings about

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Hearing
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1 it, that's why I commented about the -- primarily about
2 the use of color and I understand the rationale for that,
3 and it's explained in here, but I'm not entirely
4 comfortable with what feels like a jarring juxtaposition
5 of the old and the new without much attempt to blend those
6 two. I know they have to be distinguished, but it feels
7 like this needs a ways to go. And fortunately there's a
8 recommendation to reexamine that, so I think that's
9 something good.

10 Another comment that I wanted to make was on your
11 question is on those -- I have to refer to the addresses
12 here. The buildings where the back portions are being
13 proposed for demolition, and the front facades would be
14 maintained. We saw one sketch that showed that. And then
15 we saw another drawing that sort of looked like there was
16 a little more thought given to the design. But there was
17 a couple of questions about demolition findings and how
18 that applies in this instance, since the -- you know, this
19 is sort of a -- sort of unusual to see residential
20 buildings where the facades are intact, but there's
21 something entirely new going on that doesn't necessarily
22 -- a residential housing behind it.

23 The scale of that, I know it sort of steps back
24 typically, because you've got the front of the existing
25 buildings remaining, but I certainly think that has to be

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1 carefully thought through, because otherwise I think it's
2 going to look pretty strange to just have a thin slice of
3 an old building -- what might appear to be tacked onto the
4 front of a new building behind it that's going to sit up
5 high enough so you see it. You're not fooling anyone.
6 That's the real building. So, that has to be done with a
7 great deal of sensitivity, and I don't think that has been
8 -- at this point there's not much to reassure us that that
9 would be done carefully and sensitively.

10 So, you know, it -- I think I would agree with
11 what Naomi Schiff said, that there is -- it's a pretty big
12 stretch to say it's consistent with rehabilitation
13 standards since virtually 85 percent or more of the
14 existing building would be demolished and then something
15 new put there, that's kind of a hard one to -- and there's
16 nothing we can see that that assures us that's going to be
17 consistent with -- that's something I think we wanted to
18 see exactly how that's going to look as we go along.

19 I think that was -- that's all my comments, and
20 I'll -- if board members have other comments, this is a
21 good time to...

22 STAFFORD BUCKLEY: Can I comment on your comment?

23 So, I think it's on Dover Street there was a
24 graphic of three buildings which are going to have the
25 maps redone. One of them's already significantly altered

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1 to where all of the architecture, if I'm thinking --
2 talking about the right facility, all the architectural
3 original detail has all been stripped off, and it seems to
4 be stucco-clad. And I just wonder what the perceived
5 benefit is of retaining that facade?

6 VALERIE GARRY: I'm not sure. I think there's
7 one building that is a different style, and there's two
8 craftsman bungalows --

9 STAFFORD BUCKLEY: Right. And one --

10 VALERIE GARRY: This one is a four-square kind of
11 thing with a flatter --

12 STAFFORD BUCKLEY: Anyway...

13 VALERIE GARRY: I don't think we can tell from
14 those drawings whether the original details are stripped
15 off.

16 And the other question, I guess that comes up
17 with this proposal is, will the quality of the existing
18 facades be restored in any fashion to make it even more --
19 I mean, we're talking about making sure that the
20 neighborhood which is -- has different degrees of
21 integrity, certainly a lot of integrity, but some houses
22 have problems and have been altered considerably, but it
23 would be nice if those could, if there's very little of
24 the original building left, then what is left I would hope
25 that the details that make it -- it's architectural

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1 significance apparent are going to be maintained and it
2 will be restored, so it won't look like some very sad,
3 little flat screen of buildings, behind which is a big new
4 building. That doesn't do anything for anybody. It
5 doesn't add to the historic integrity of the area at all.

6 FRANK FLORES: I think that begs the question
7 where is it coming from? I mean, this is called -- a
8 facade is when you knock everything down in the back and
9 you leave the facades up to for some, you know, retaining
10 the integrity of the historic neighborhood. But for
11 others like myself, I think it's foolish that the houses
12 aren't -- the buildings aren't significant enough to keep
13 as a whole, why are we trying to keep the facades?

14 So, I guess I would ask the question that maybe
15 staff knows, is this something that the neighborhood
16 wanted, or is this something that the applicant just
17 thought they would -- that it would be nice to keep those
18 facades in place and keep some kind of housing that
19 doesn't disrupt the neighborhood and that was -- came from
20 the applicant. That came from the applicant?

21 HEATHER KLEIN: It -- you know, I think I don't
22 have the PowerPoint in front of me, but the original --
23 thank you. But originally, I think the proposal was to
24 demolish those three buildings and build a new family
25 house.

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1 And I think from conversations with the
2 community, they really wanted to -- they saw the hospital
3 as, you know, further encroaching on the 53rd and Dover
4 District. They wanted this buffer that -- you know. And
5 felt -- something that felt residential along that street,
6 both on the north and the south side of 53rd Street. So,
7 it was a compromise, you know, in design about whether --

8 FRANK FLORES: Sure.

9 HEATHER KLEIN: -- to keep that character in
10 those particular homes, and also move forward with their
11 proposal to provide residences for families of sick
12 children.

13 FRANK FLORES: So, I think the only way -- the
14 only time I would approve of facadism is that very time --
15 is when the neighborhood actually requested it. It has
16 nothing to do with this -- or should it even follow this
17 standard practices of *Chabot or anybody? I think they
18 probably will remodel the facades or keep them exactly the
19 way they look, because they're charming and they are cute,
20 even in the two-story one with the stucco, it looks like
21 they're keeping not just the facade, it looks like it
22 might be going about 20 feet back.

23 APPLICANT: Ten feet back.

24 FRANK FLORES: Ten feet back? So, it really --
25 it's truly just a facade. But it's something that was

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1 generated from the neighborhood, so I had a comment to
2 talk about that, but I think I generally support that just
3 because it came from the neighborhood side.

4 VALERIE GARRY: Are there any other board
5 comments before we -- we have a whole other agenda item we
6 want to allow time for.

7 FRANK FLORES: I'll ask Naomi's question. Is the
8 glass on the outside of the bay window or is it tucked
9 back? Is it a box?

10 APPLICANT: At this point this is a phase two
11 design of the building, so the details aren't precisely
12 where the glass is, but the intent of those box windows
13 are to provide a place where children can go sit up in a
14 windowsill and be outside. So, technically, in the
15 detailing of it, that glass within those frames would most
16 likely be pushed forward away from, say, the surface of
17 the general curtain wall. But it is to create a little
18 bit of a pop-out. And you can kind of go out there and
19 curl up and read a book or look out into the garden.

20 FRANK FLORES: Cool. Naomi comes to every
21 meeting, she needs her questions answered.

22 VALERIE GARRY: All right. If there are no more
23 comments, I would like to move onto the next agenda item,
24 and I'd like to thank you --

25 BETTY MARVIN: Wait, wait, wait. Do you feel

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1 that there's enough unanimity in to comments that we can
2 sort of forward them by consensus/SEPb the way we did the
3 last time? Or do you want to pull things out for a
4 motion?

5 CHRISTOPHER ANDREWS: Well, the thing that I
6 think we had -- I think I would move that we just move --
7 that we just forward our comments as they are. I don't
8 have any problem with any of the comments that were made
9 that I'd want to say that I would want to abstain from any
10 particular comment.

11 VALERIE GARRY: Yeah. I think we asked a lot of
12 questions. I'm okay with that.

13 ELEANOR CASSON: I got the impression that there
14 was a specific request to explore moving the tree -- or
15 that we were recommending moving the tree. And so, if we
16 are -- I think we should forward our general comments with
17 the caveat that we are making a specific recommendation to
18 the planning commission that the tree be moved. I mean,
19 actually, I personally don't have a strong feeling on
20 this, but that was what I heard. No?

21 VALERIE GARRY: Well, I was actually commenting
22 that there wasn't -- there was no reference, there was no
23 inclusion in the draft EIR to make any accommodation for
24 the possibility of moving it. Not that -- that that would
25 be more, I think, to the purpose of the meeting is to

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1 comment on what's in here. And so what we're saying is
2 there's nothing in here that addresses the possibility --

3 ELEANOR CASSON: Okay. So, the recommendation
4 would be to -- that there should be some further
5 exploration of that.

6 BETTY MARVIN: Yeah, I felt that most of the
7 comments were in the nature of further explore the design
8 of the new hospital buildings, the design of the
9 incorporation of the buildings in the family houses and
10 also the possible designations of the district and/or the
11 A/B Wing. Is that fair?

12 CHRISTOPHER ANDREWS: I think so.

13 VALERIE GARRY: Yeah. I think that's fair.

14 HEATHER KLEIN: Excuse me. I just wanted to
15 bring up one point, and that is that we did talk about
16 moving the tree. We actually had four locations to move
17 the tree to. That is in the draft EIR, and I think it's
18 also in again, one of the appendices. Of the four, two
19 were possibilities.

20 What we did not do in the EIR is make a
21 recommendation as to which one to choose. We're just
22 providing the information.

23 So, there is a discussion about relocation.
24 There's not a recommended measure that says "move
25 forward."

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1 So, I just wanted to clarify.

2 BETTY MARVIN: Could it be moved offsite?

3 FRANK FLORES: Do you have a place? My front
4 yard?

5 BETTY MARVIN: How about Mountain View Cemetery
6 where they have no original trees?

7 STAFFORD BUCKLEY: To there.

8 FRANK FLORES: I like offsite mitigation.
9 Especially when it comes to 160-year-old trees. Are you
10 suggesting that we could make that recommendation here,
11 Heather?

12 HEATHER KLEIN: (Nods head). Yes.

13 FRANK FLORES: I think further exploration in
14 relocating the tree -- it sounds like there's at least
15 consensus here among the five of us that are here tonight,
16 even though we're the new board members, and we came in a
17 little late, further exploration of removing the tree,
18 whether onsite or offsite, would be appreciated.

19 VALERIE GARRY: So, just from a procedural
20 standpoint, if this board were to say tonight we would
21 like to see a recommendation that the tree be moved to an
22 appropriate setting, relocated not destroyed, that is --
23 that would be -- would the board agree with that, and do
24 we want to put that in, or are we saying that just
25 commenting that it's not included is equivalent to the

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1 same thing? I never am clear with EIRs whether we're
2 supposed to be saying, "You need to add a recommendation
3 here," or do we just say, "That wasn't included"?

4 HEATHER: I think you can add a recommendation.
5 I think that the -- I think of the sites, there were two,
6 one -- let me see if I can find them.

7 VALERIE GARRY: And can you point us to that?

8 HEATHER: Perhaps --

9 VALERIE GARRY: It's a matter of not having -- my
10 report virtually fell apart as I started reading it, so it
11 became harder and harder to find things.

12 HEATHER KLEIN: Well, I think it would be helpful
13 to know the locations, because then you know which ones
14 the options are.

15 Let's see if I can find it.

16 ELEANOR CASSON: Would we then have to make a
17 decision tonight on which of the two locations we
18 recommend moving the tree to? Could we leave it at we
19 would like that option explored further?

20 HEATHER KLEIN: Yes. I found it, actually.

21 ELEANOR CASSON: Okay.

22 HEATHER: It's in the CEQA considerations, but
23 under "Biology."

24 And so, site A is at the end of the 53rd Street,
25 east of Dover ---

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1 CHRISTOPHER ANDREW: What page are you on?

2 HEATHER: Sorry, I'm on page 611 of the EIR.

3 So basically, those two houses, the pink and the
4 yellow one, that were on that PowerPoint presentation that
5 are going to be moved from 52nd to 53rd, it would be
6 relocated to the east. Okay, so that's site A. That is
7 according to the analysis of possible sites.

8 Okay. And partly that has to do with the fact
9 that, one, again, this tree's really large. Everyone's
10 seen it. There is the pedestrian bridge that is basically
11 as you head west toward Martin Luther King. So that
12 represents sort of a really large obstacle to try to get
13 this tree underneath it, which is why site A is an option.

14 And then you've got the elevated BART tracks and
15 the Temescal bridge to the east, so that represents
16 another constraint to moving it.

17 And then site B is located at the center of the
18 reconfigured turnaround patient drop-off area. So,
19 onsite.

20 So there is an offsite and an onsite alternative.

21 STAFFORD BUCKLEY: I think I read somewhere along
22 the line that the sites require boxing it for, like, up to
23 five years. I don't know if you want to get this
24 granular, but it seems like it would be good to not box it
25 for five years and add that to the stress, to find a

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1 location that we could just take it to.

2 HEATHER KLEIN: Right. Unfortunately due to the
3 construction phasing, it's -- you know, it basically needs
4 to be boxed up and moved.

5 And that's partly because, you know, this is an
6 entirely new hospital that is being built. The idea is
7 that the -- to accommodate the seismic requirements,
8 certain services are being moved out of existing buildings
9 into other buildings, which is why the first phase is
10 OPC 1. So, that's the outpatient, that's not the patient
11 pavillion area or acute care. That's really -- the
12 purpose of that building is to provide space within the
13 hospital to move all these services. And there's the
14 whole chart in the EIR that describes this very
15 complicated -- and Doug may be able to describe it
16 better -- coordinated sequence of moving services.

17 So unfortunately, our understanding from the
18 sequence of services that need to be moved in the
19 construction is that really those sites wouldn't be
20 available for it for years.

21 We have really analyzed trying to move this tree.
22 We recognize how special it is.

23 CHRISTOPHER ANDREWS: The location A as defined
24 in the alternatives, would actually move it into the
25 residential neighborhood?

69
cont.

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1 HEATHER KLEIN: That's right. But I would stay
2 away from its association with the A/B Wing.

3 VALERIE GARRY: All right. Okay, so now we have
4 some -- it's not a recommendation, but it was included as
5 within the analysis what to do.

6 So, I guess the question is, does the board
7 favor, and I said we possibly don't want to get too
8 specific tonight, but we favor the relocation of the tree
9 to one of the four recommended sites? We don't have to
10 make it.

11 And frankly, the fact that two of them are within
12 the hospital complex, I think it's kind of exciting that
13 the tree can stand being boxed up for several years, but
14 it seems like it might be a nice way to have the tree
15 still in the hospital, still symbolic in that spot. But
16 is the board comfortable with making that part of our
17 comments that we forward.

18 STAFFORD BUCKLEY: I am.

19 FRANK FLORES: I am as well. There does seem to
20 be someone in the audience that has a comment on it. I
21 don't know if the Chair would like to -- he looks like an
22 arborist.

23 VALERIE GARRY: Sure. Why don't you comment on
24 the -- you're -- you are the arborist for this -- did this
25 report?

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cont.

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1 JOE JORDY: Just by looks, I'm an arborist. But,
2 thanks.

3 My name is Joe Jordy. I live on 57th just west
4 of MLK.

5 There's a location, of course, which I know that
6 the hospital itself has some leasing agreement with, if
7 not ownership, I don't know entirely, but Oakland High
8 School right there on MLK has beautiful sort of green
9 lawns that would certainly benefit. There's so much -- I
10 mean, there's so much effect that comes from having a
11 raised BART track there, that really does affect the
12 community there.

13 The addition of a magnificent tree on this --
14 it's really kind of a green lawn there in front of the
15 high school, you might be familiar with it, between 56th,
16 I think, and 59th. That's just a location. I'm putting
17 it forth. Maybe it's been considered. It's right down
18 the street. It would be very prominent as well.

19 FRANK FLORES: Okay.

20 VALERIE GARRY: Thank you.

21 BETTY MARVIN: And can we get a speaker's card
22 for you for the record? Get your name for the record, can
23 we get a speaker's card?

24 VALERIE GARRY: I think this begs the question,
25 we cannot make a recommendation as to a location. I think

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1 what we're in agreement in is that the -- we would like to
2 see a recommendation in the draft EIR to relocate the
3 historic magnolia tree to one of the identified sites
4 and/or possibly others. There's a lot of places you can
5 put a tree, so I mean, I don't think we want to go down
6 that road this evening.

7 But if the board agrees with that, then I think
8 that would be -- I would suggest that that be part of the
9 comments we forward, unless anyone doesn't agree with
10 that.

11 I think that was the piece that was missing. And
12 is there any other area where we -- okay, I think that we
13 -- does that satisfy what you were looking for in terms of
14 comments that go forward from here?

15 BETTY MARVIN: Yeah. I think that all of them --
16 given that this is a long-term project, that the first
17 phase is described as five years, the second phase beyond
18 that, that designs are going to be evolving and tree
19 locations are going to evolve or not.

20 And that -- I don't know, do you want to put some
21 kind of a time on this that the design for the family has
22 the design for the new buildings continue to be looked at,
23 as opposed to be looked at once and for all and in signing
24 off on the final EIR? Is that a distinction that makes
25 sense?

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cont.

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1 VALERIE GARRY: Yes, it is, absolutely. I would
2 like to have that included that the design aspects of this
3 continue to be examined, certainly looked at and reviewed
4 by this board.

5 BETTY MARVIN: Yeah, that was with the
6 designations aren't something that would happen overnight,
7 either.

8 VALERIE GARRY: No. But you walked us through
9 that, so I that's a better...

10 Okay. I'd like to -- I think we need to
11 continue, because we have another big item, and I'd like
12 to thank everybody that came and spoke tonight, and
13 appreciate your comments. And thank the applicants for
14 your very careful review of this project.

15 And we appreciate it.

16 (Off the record at 8:30 p.m.)

17 ---oOo---

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cont.

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1 CERTIFICATE OF REPORTER

2 I, STACY L. LOZANO, hereby certify that the
3 witness in the foregoing deposition was by me duly sworn
4 to tell the truth, the whole truth, and nothing but the
5 truth in the within-entitled cause;

6
7 That said deposition was taken in shorthand by
8 me, a Certified Shorthand Reporter of the State of
9 California, and was thereafter transcribed into
10 typewriting, and that the foregoing transcript constitutes
11 a full, true and correct report of said deposition and of
12 the proceedings which took place;

13
14 That I am a disinterested person to the said
15 action.

16
17 IN WITNESS WHEREOF, I have hereunto set my hand
18 this day of , 2014.

19
20
21 _____
22 STACY L. LOZANO, CSR No. 12831
23
24
25

LANDMARKS PRESERVATION ADVISORY BOARD HEARING COMMENTERS

September 8, 2014

Please note that the hearing transcript does not include staff or applicant presentations made at the beginning of the item. The transcript begins at the start of the public comment portion of the hearing. No comments on the Draft EIR and/or the project were made during the project presentation by either staff or the applicant.

- Response LP1-1: This comment relates to the hearing proceedings. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-2: This comment, which expresses support for some of the design changes incorporated into the project, is noted. This comment addresses the merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-3: Please see Responses to Comments B4-3 and C11-7.
- Response LP1-4: Please see Response to Comment B4-1.
- Response LP1-5: This comment requests that the magnolia tree be replaced with a large tree. Please see Master Response #6 regarding the magnolia tree.
- Response LP1-6: Please see Response to Comment B4-3.
- Response LP1-7: The commenter asks if the boxes are actual bay windows or just decoration; later in the meeting it was clarified that these would be bay windows. This comment does not relate to the adequacy of the information or analysis in the Draft EIR; therefore, no further response is required.
- Response LP1-8: This comment, which described the Temescal-Telegraph Business Improvements District and expresses support for CHRCO's mission and approval of the EIR, is noted. This comment addresses merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-9: This comment, which expresses support for some of the design changes incorporated into the project, is noted. This comment addresses the merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-10: The commenter notes that the project would modify and relocate historic homes and furthermore, in some cases "totally destroy those hundred-year-old homes." The commenter also states that the Draft EIR does not

adequately discuss how the project would enhance the area. Section IV.C, Cultural and Historic Resources, beginning on page 217 of the Draft EIR includes the analysis of potential impacts to historic resources.

The proposed project would only affect a small portion of the historic Residential District. Specifically, two existing homes would be modified with the more recent rear yard additions removed. Two homes would have their rear portions removed but their existing façades would be retained. None of the homes along 53rd Street would be “totally destroyed.” Two homes would be moved from 52nd Street to 53rd Street.

Outside the District, two homes at 5204 Martin Luther King Jr. Way and 5212-5214 Dover Street, which are over 100 years old but not contributors to the 55th and Dover Residential District, are proposed for demolition. An evaluation of the properties was completed and was included in Appendix B1 of the Draft EIR. Per that analysis and the updated historic ratings approved by the LPAB on August 12, 2013, the home at 5204 Martin Luther King Jr. Way remains a potentially-designated historic resource. However, because the property at 5212-5214 Dover Street has been altered significantly, specifically the original design and detail lost to alterations and façade reconfiguration, this property’s rating was downgraded and the property no longer is considered a potentially designated historic property. As noted in Response to Comment B5-6, SCA CUL-4 requires the project applicant to make a good faith effort to relocate the building prior to demolition pursuant to Policy 3.7. Because the building at 5212-5214 is no longer a potentially designated historic property, SCA CUL-4 would not apply.

In sum, no significant impacts to historical resources are identified and as such, no mitigation measures are required.

- Response LP1-11: Please see Response to Comment LP1-10. The commenter notes that other buildings in the area have been improved, and expected that such improvements and enhancements of the historical district would have been included in the Draft EIR. The comment is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-12: This comment, which expresses concern regarding the effect upon historical character that rezoning could have along 53rd Street due to allowing more office space, is noted. It should also be noted that the buildings that would be rezoned are currently functioning as office uses in support of the hospital. The Draft EIR evaluated the effects of rezoning of the site and determined that impacts associated with rezoning would be less than significant. Please see Master Response #4.
- Response LP1-13: This comment expresses the desire to see conditions attached to the rezoned parcels in order to maintain continuous public input. Please see Master

Response #4. It should also be noted that the General Plan designation would change to Institutional.

Response LP1-14: This comment expresses an opinion regarding the color scheme proposed for the new OPC2 Building. This comment addresses the merits of the proposed project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response LP1-15: Noise impacts associated with the existing parking garage would not change with implementation of the proposed project. Construction of OPC2 would partially shield the parking garage from helicopter noise during take-off and landings. Therefore, helicopter noise, including echoing in the parking garage, and subsequent noise levels from the garage audible on 53rd Street associated with helicopter noise would not be expected to change substantially from existing conditions with implementation of the project. Please see Master Response #7 regarding noise associated with the proposed helistop.

Response LP1-16: This comment, which expresses support for the collaborative process that CHRCO has engaged in with the community, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response LP1-17: This comment, which expresses concerns related to the loss of parking in the residential area, is noted. Please see Master Response #3.

Response LP1-18: This comment, which expresses concerns related to construction staging, is noted. Please see Master Response #1.

Response LP1-19: This comment, which expresses concerns related to the hours of construction, is noted. Please see Master Response #1.

Response LP1-20: This comment, which expresses concerns related to parking for construction workers, is noted. Please see Master Response #1.

Response LP1-21: This comment expresses concern regarding shading and lighting issues with the new OPC2 Building. The comment does not express explicit concerns; however, both topics are fully addressed in the Draft EIR. In Section IV.B, Aesthetics and Shadow pages 213 through 215 describe the findings of the analysis regarding the potential for shadows to be cast upon solar collectors, public open spaces, and historic resources. The results of the analysis determined that there would not be any significant impacts with regard to shadows created by new buildings constructed as part of the project.

Additionally, Section IV.B, Aesthetics and Shadow subsection h (1), SCA AES-1: Lighting Plan conditions the proposed project such that prior to the issuance of building permits, a lighting plan would be required to be

approved by the City such that exterior lighting fixtures are adequately shielded so as to limit the spillover onto adjacent properties. Additional analysis is provided on page 211 regarding the potential effects of light and glare upon the surrounding properties generated by the proposed project. While the new buildings in Phase 1 and 2 have the potential to increase the amount of reflection within the vicinity of the project, generally, glazing, window treatments, and new landscaping would absorb the light and provide a buffer between the new campus buildings and adjacent roadways and existing buildings.

The commenter also expresses concern regarding the setback of the new OPC2 Building. Setbacks are regulated by the City of Oakland and are related to the Design Standards which govern the project. The commenter's concern regarding setbacks is noted. However, it does not relate to the environmental issues in the Draft EIR and no further response is required. However, it should be noted that the proposed project is consistent with the setback requirements in the Planning Code and therefore no setback variance is requested.

- Response LP1-22: This comment, which expresses concerns related to increased traffic on Martin Luther King Jr. Way and the location of the new parking garage, is noted. Transportation and circulation impacts are addressed in Section IV.D, Transportation and Circulation, of the Draft EIR and all impacts would be reduced to a less-than-significant level. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-23: This comment, which expresses support for relocating the helistop further south than proposed by the project, is noted. The alternatives discussion in the Draft EIR evaluated several potential locations for the helistop further to the south and these alternate locations were determined to be infeasible and were rejected from further analysis (see Draft EIR pages 566 through 567). This comment addresses the merits of the proposed project and does not relate to the adequacy of the information or analysis within the Draft EIR; no further response is required.
- Response LP1-24: This comment is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-25: The commenter notes that the street-car suburb historic district character extends to the Berkeley border. A boundary justification for the Residential District is included in Appendix B4. As described on page 222 of the Draft EIR, the connection between real estate subdivision and Key Route expansion that is illustrated in this neighborhood—specifically ownership of this land by E.A. Heron—is a representative example of an important development pattern that shaped much of Oakland in the first decade of the 20th century. The Residential District exemplifies the rapid expansion of

North Oakland after the turn of the twentieth century in response to rapid population increase and improvements made to public transportation. The Residential District's uniformity of single-family residences, built during a tightly-bounded era of construction (1906-1913), was determined through architectural survey and research. The association with the neighborhood's residences constructed during 1906-1913 with Mr. Heron is best illustrated in the current boundary of the district, as defined in the Draft EIR and Appendix B4. Please see Responses to Comments C12-5 and LP1-11.

Response LP1-26: Please see Response to Comment C11-8.

Response LP1-27: This comment, which expresses support for the collaborative process that CHRCO has engaged with the community, is noted. This comment addresses merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response LP1-28: Please see Response to Comment C11-2.

Response LP1-29: This comment is noted. Please see Master Response #4.

Response LP1-30: The analysis in the Draft EIR concluded that potential impacts to the 55th and Dover Residential District would be less than significant with development of the proposed project. Physical impacts to the integrity of the District from past and future development were also considered and determined to be less than significant. Please also see Master Response #4.

Response LP1-31: Please see Response to Comment B5-6.

Response LP1-32: This comment, which states that CHRCO has stated that they would not expand beyond 53rd Street, is noted. However, it does not relate to the environmental issues in the Draft EIR and no further response is required. Please also see Master Response #4 and Responses to Comments B4-5 and C2-5.

Response LP1-33: This comment, which expresses concern that during the process of community engagement for this project, City representatives have been limited to a staff planner and a former aide to the District 1 council member, is noted. This comment addresses merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response LP1-34: This comment, which expresses the opinion that the staff planner for the proposed project has stated that traffic is not a CEQA issue and that the City is opposed to any alternative which would require street closures, is noted. These issues are fully addressed in Section IV.D, Transportation and Circulation and Chapter V, Alternatives of the Draft EIR. Also see Responses to Comments C5-3 and A2-3.

- Response LP1-35: The commenter states that the neighborhood near Alta Bates Hospital has flourished due to buffers, mini parks, and street closures. The commenter also notes that, while CHRCO is an important asset to Oakland, it does not help the local community if the hospital degrades and encroaches upon the surrounding neighborhood. The comment is noted. Please also see Master Response #4 regarding the buffers between CHRCO and the neighborhood.
- Response LP1-36: The commenter remarks on crime in the neighborhood and requests an acknowledgment of the historic Residential District and measures to enhance and protect the resource. Please see Response to Comment C45-12 regarding potential impacts to police services and Responses to Comments B4-3 and C11-7 regarding the official designation of the Residential District as a Preservation District. Also see Master Response #4 regarding development of institutional uses.
- Response LP1-37: Please see Responses to Comments B4-3 and C11-7 regarding the designation of the A/B Wing and the Residential District.
- Response LP1-38: This comment, which expresses concerns about traffic impacts, is noted. Traffic impacts are addressed in Section IV.D, Transportation and Circulation and impacts were determined to be less than significant with implementation of the City's SCAs. Also refer to Master Response #2.
- Response LP1-39: Please see Response to Comment B5-6.
- Response LP1-40: This comment, which expresses the opinion that the neighborhood has not had an advocate to get the best possible deal from CHRCO for this project and "for the next expansion," is noted. The current project would be phased over 20 years, and there are presently no plans for additional expansion beyond what is described in the Draft EIR.
- Response LP1-41: Please see Responses to Comments B4-3 and C11-7 regarding the designation of the A/B Wing and the Residential District.
- Response LP1-42: The commenter expresses concern regarding the street grid as a historic issue, which in the commenter's opinion, is compromised. The street grid within the boundary of the Residential District, as described in the Draft EIR and Appendix B4, retains good integrity and is a character-defining feature of the historical district, even though it has been compromised due to BART and SR 24 construction. This conclusion is supported by archival research conducted for the Historic Resource Evaluations conducted for the project. This issue was evaluated in Section IV.C, Cultural Resources in the Draft EIR and impacts were identified as less than significant.
- Response LP1-43: The commenter has observed the condition of the neighborhood rapidly degrading and notes that conditions are now improving. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

- Response LP1-44: The commenter describes the succession of buildings constructed on the CHRCO campus: the original mansion [no longer extant], the A/B Wing, and the B/C Wing. The commenter expresses his preference for a calm exterior for the new hospital. The comment is noted. This comment addresses the merits of the proposed project does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-45: This comment relates to the process that would be required to obtain landmark status for the 55th and Dover Residential District. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-46: This comment relates to the process that would be required to obtain landmark status for the A/B Wing. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-47: This comment addresses the status and past evaluation of the magnolia tree on the project site. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. Also see Master Response #6.
- Response LP1-48: This comment suggests that preservation of the existing magnolia tree is worth further consideration. The commenter also suggests that pruning may be a feasible option in preserving the tree in place. Please see Master Response #6.
- Response LP1-49: This comment states that although it might be preferred to preserve the tree, retaining the tree in place is likely infeasible due to the hospital's programming needs. Further, the comment states the replacement of the tree with a younger tree is likely a good compromise. Please see Master Response #6.
- Response LP1-50: This comment is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-51: This comment is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-52: This comment summarizes the previous process to confirm the historic rating of the tree and the feasibility of relocating it (refer to Draft EIR pages 608 through 612 for additional discussion). This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

- Response LP1-53: This comment, which expresses support for relocating the magnolia tree if feasible and recommends follow-up on relocation sites, and if not feasible, support for the recommendation of placing a plaque commemorating the tree with a new replacement tree, in a location close to where the old tree was, is noted. Please see Master Response #6.
- Response LP1-54: This comment, which expresses support for relocating the magnolia tree if feasible, and questions whether that is something that the LPAB can recommend, is noted. Please see Master Response #6.
- Response LP1-55: The commenter references Project Recommendation CUL-3 regarding refinement of the Patient Pavilion design and notes the colorful, patterned squares shown in the proposed design. The comment is noted.
- Response LP1-56: The commenter describes the current proposed Patient Pavilion design as “jarring” in relation to the historic A/B Wing and Residential District. The commenter recommends that a curtain wall façade be considered to make the Patient Pavilion design more compatible with the A/B Wing. Pages 249 through 250 of the Draft EIR discuss the design compatibility between the A/B Wing, the Link Building, and the Patient Pavilion. Although the design of the Patient Pavilion is not necessarily fully compatible with the A/B Wing, this impact was found to be less than significant. However, to further reduce this less-than-significant impact, the Draft EIR recommended measure CUL-3 which would require additional design refinements and incorporation of more direct cues from the A/B Wing, as feasible. This comment relates to the merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-57: Please see Responses to Comments C5-3 and LP1-42.
- Response LP1-58: Please see Responses to Comments C5-3, C11-5, and LP1-42.
- Response LP1-59: This comment states the opinion that the City of Oakland is opposed to road closures generally; however, the commenter believes that it could be an issue that the neighborhood may be interested in due to traffic impacts from the project. Closure of Dover Street was evaluated in the Draft EIR and no impacts were identified specific to this alternative. This comment relates to the merits of the proposed project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. Please also see Responses to Comments C5-3 and C11-5.
- Response LP1-60: This comment primarily relates to the hearing proceedings and process. This comment does not identify any specific issues related to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

- Response LP1-61: The commenter expresses an opinion regarding the design of the Link Building and Patient Pavilion relative to the A/B Wing. This comment addresses the merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-62: The commenter describes the current proposed hospital design as a “jarring” juxtaposition between the modern and historic. Please see Response to Comment LP1-56. This comment addresses the merits of the project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-63: Please see Response to Comment B4-1.
- Response LP1-64: This comment relates to the merits of the proposed project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-65: This comment relates to the merits of the proposed project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-66: This comment relates to the design of the proposed project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response LP1-67: This comment primarily relates to the hearing proceedings and process. Relocation of the magnolia tree is addressed in Chapter VI, Other CEQA Considerations, on pages 611 through 612 of the Draft EIR. Removal of the tree was determined to be a less-than-significant impact and no mitigation measures were required. Please see Master Response #6 regarding the magnolia tree.
- Response LP1-68: Relocation of the magnolia tree is addressed in Chapter VI, Other CEQA Considerations, on pages 611 through 612 of the Draft EIR. Please see Master Response #6 regarding the magnolia tree.
- Response LP1-69: Relocation of the magnolia tree is addressed in Chapter VI, Other CEQA Considerations, on pages 611 through 612 of the Draft EIR. Please see Master Response #6 regarding the magnolia tree.
- Response LP1-70: Relocation of the magnolia tree is addressed in Chapter VI, Other CEQA Considerations, on pages 611 through 612 of the Draft EIR. Please see Master Response #6 regarding the magnolia tree.

Response LP1-71: This comment is noted. This comment relates to the design of the proposed project and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

MEMORANDUM

TO: Planning Commission

FROM: Landmarks Preservation Advisory Board

SUBJECT: LPAB Comments – Children’s Hospital & Research Center Oakland
Campus Master Plan Project

DATE: September 17, 2014

At its regular meeting of September 8, 2014, the Landmarks Preservation Advisory Board (LPAB) heard public comments and provided cultural resource related comments on the Draft Environmental Impact Report (DEIR) for redevelopment of the Children’s Hospital and Research Center Oakland (CHRCO) campus.

1

Public Comments

Naomi Schiff, Oakland Heritage Alliance, recommended that the neighborhood should nominate the 55th and Dover Streets Residential District to the California Register and the A/B Building should be landmarked by the hospital. She questioned whether the Family House proposal met the Secretary of the Interior’s Standards; asked whether the “boxes” on the Patient Pavilion were real bay windows or just decoration; and wanted a size specified for any replacement magnolia tree.

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Darlene Drapkin, Temescal Business Improvement District, noted the hospital’s economic importance to the community.

6

Cindy David, Dover Street resident, said expansion of office and institutional use changes the character of the neighborhood even if houses as physical structures are moved and reused; she found the new building designs “jarring.”

7

Jamae James, 53rd Street, was concerned about noise and echoes from the relocated helistop.

8

Cathy Leonard, Santa Fe Community Association, expressed concerns about the helistop location and about loss of parking, construction staging, lighting, and work hours during construction.

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Robert Brokl, NOVA, said the streetcar-suburb historic district character really extended all the way to the Berkeley border. The neighborhood had already been significantly “degraded and encroached upon” by institutional expansion – cumulative impacts needed to be considered more seriously. The “hold-out house” at 52nd and MLK should be moved, and *no* houses should be demolished. He reiterated that the A/B Wing and the District should be given official status.

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Alfred Crofts, NOVA, noted that the street grid is already substantially disrupted by the hospital and freeway, and therefore its “historic” nature should not be used to preclude the option of closing Dover Street, which might be better for traffic in the neighborhood.

15

James Gerardi suggested the lawn in front of University High-Children’s Hospital Research Center as a relocation site for the magnolia tree.

16

Board Comments

Magnolia Tree:

Tree was discussed at length, its value and the feasibility of building around it or moving it, with input from two new Board members with expertise in landscape and forestry.

- **Recommendation that relocation of the tree be seriously explored, to one of the four sites mentioned in the DEIR or to another location.**
- **Support for the Recommended Measures in the EIR to plant a new magnolia tree on-site of box size and install a commemorative plaque.**

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Link Building and Patient Pavilion:

- **Continue design development of the Patient Pavilion and the colors and ornamentation to make it more compatible with the A/B Wing.**

19

Family House:

Board was concerned about the “facadism” of adding behind a “thin slice” of the 53rd Street houses, and wanted “reassurance that it would be done carefully and sensitively.”

- **Disagree with the DEIR that the Secretary of the Interior’s Standards for Rehabilitation would support removal of such large rear portions of the buildings along 53rd Street, but acknowledge neighborhood’s desire to maintain the streetscape.**
- **Request that applicant continue to work on the design of the Family House, considering depth of the retained front sections and restoration of their facades.**

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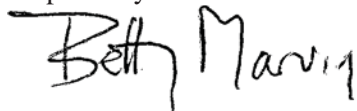
Board supported public requests that:

- **The DEIR further explore closure of Dover Street, as the historical integrity of the grid is already broken down in that area and it could resolve Hospital cut-through traffic in neighborhood.**
- **Neighborhood and applicant consider historic designation for the 55th and Dover District and the A/B Wing.**

22

23

Prepared by:



Betty Marvin, Interim Secretary to the LPAB
Oakland Cultural Heritage Survey

cc: Heather Klein, Planner III
ref: Draft EIR comments/CHRCO

LANDMARKS PRESERVATION ADVISORY BOARD MEMORANDUM COMMENTERS

September 17, 2014

- Response LP2-1: The comments in this letter are a summary of the verbal comments provided at the September 8, 2014 Landmarks Preservation Advisory Board Meeting. This introductory comment does not relate to the adequacy of the information or analysis in the Draft EIR; therefore, no further response is required.
- Response LP2-2: Please see Responses to Comments B4-3 and C11-7.
- Response LP2-3: Please see Response to Comment B4-1.
- Response LP2-4: Please see Response to Comment LP1-7.
- Response LP2-5: Please see Master Response #6.
- Response LP2-6: Please see Response to Comment LP1-8.
- Response LP2-7: Please see Responses to Comments LP1-9 through LP1-14. Also see Master Response #4.
- Response LP2-8: Please see Response to Comment LP1-15.
- Response LP2-9: Please see Response to Comment LP1-15.
- Response LP2-10: Please see Master Response #1, which addresses construction issues and Response to Comment LP1-21 which addresses lighting.
- Response LP2-11: Please see Response to Comment LP1-25.
- Response LP2-12: Please see Response to Comment C11-8.
- Response LP2-13: Please see Responses to Comments B4-1 and B5-6 regarding the “hold-out house” at 5204 Martin Luther King Jr. Way.
- Response LP2-14: Please see Responses to Comments B4-3 and C11-7 regarding the designation of the A/B Wing and the Residential District.
- Response LP2-15: Please see Responses to Comments C5-3 and LP1-42.
- Response LP2-16: Please see Master Response #6.
- Response LP2-17: Please see Master Response #6.
- Response LP2-18: Please see Response to Comment LP1-53.

- Response LP2-19: Please see Responses to Comments LP1-55, LP1-56, LP1-61 and LP1-62.
- Response LP2-20: Please see Response to Comment B4-1.
- Response LP2-21: Please see Response to Comment LP1-71.
- Response LP2-22: Please refer to Responses to Comments C5-3 and C11-5.
- Response LP2-23: Please see Responses to Comments B4-3 and C11-7 regarding the designation of the A/B Wing and the Residential District.

In The Matter Of:
CITY OF OAKLAND
BICYCLIST & PEDESTRIAN ADVISORY COMMISSION

September 18, 2014

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CITY OF OAKLAND
BICYCLIST AND PEDESTRIAN ADVISORY COMMISSION

RE: CHILDREN'S HOSPITAL AND RESEARCH CENTER OAKLAND
PUBLIC HEARING
ON THE DRAFT ENVIRONMENTAL IMPACT REPORT

Thursday, September 18, 2014

Sgt. Daniel Sakai Hearing Room
One Frank Ogawa Plaza
Oakland, California

REPORTED BY: FREDDIE REPPOND, STENOGRAPHIC REPORTER

A P P E A R A N C E S

OAKLAND CITY BICYCLIST AND PEDESTRIAN ADVISORY COMMISSION:

Commissioner Chris Hwang, Co-Chair

Commissioner Christopher Kidd, Co-Chair

Commissioner Fred McWilliams

Commissioner Robert Prinz

Commissioner Midori Tabata

Commissioner Royston Taylor

Commissioner Rosa Villalobis

Commissioner Kenya Wheeler

Jennifer Staley, Secretary to the Commission

FOR THE PUBLIC WORKS AGENCY:

Iris Starr

FOR THE PLANNING AND ZONING DIVISION:

Heather Klein, Planner

FOR THE APPLICANT:

Doug Nelson, Director of Development &

Construction, Children's Hospital

Mike Kuykendall

FROM THE PUBLIC:

Katie Korikowski

Sara Fein

Sarah Dwine

Joe Morse

1 --oOo--

2 COMMISSIONER TAYLOR: I'm sorry, but I'm
3 little confused. This lady just ran off a series of
4 things. And one of the problems that I was -- maybe I'm
5 a visual person -- but I was trying to figure out where
6 are you moving the buses? Where are you putting the
7 bike places?

8 I think those are all very interesting things.
9 But is there any way that we can have a tying together
10 of specifically what are the things that are being done
11 as it relates to bicycles and pedestrians and how that
12 relates to that document? Because when you tell me that
13 you're moving a bus stop and you're running a shuttle,
14 well, is that a little problem or is that a big problem?
15 Because I understand those are all the different things.
16 But at a high level. And we're not going make any
17 decisions on those things or make any comments. But we
18 are going to be able to say, Well, why did you address
19 the bus stop? And I don't know why.

20 HEATHER KLEIN: May I suggest that we bring in
21 the areas that pertain to bicyclists and pedestrians to
22 that particular document so that we can definitely see
23 --

24 COMMISSIONER TAYLOR: If she was able to read
25 through those things and then you're able to point to

1 them, again, as a visual person, it would make a lot
2 more sense to me, because I was trying to -- where is
3 that on that street and so forth?

4 HEATHER KLEIN: Do you want to go ahead and do
5 that. You've got the other board.

6 And I think what Doug was trying to do is this
7 is not a bike and ped project. This is a hospital
8 master plan/construction renovation/project. So as part
9 of what Doug is explaining we are asking for additional
10 improvements because of this.

11 So do you just want to go to the next board?

12 ///

13 COMMISSIONER TAYLOR: You said you were
14 including a certain number of bikes. So I assume that
15 the permanent bike spaces that you're adding would be
16 for employees to use to get to work. Where are they
17 located?

18 TODD: They are located in the first level of
19 the front construction, right in the existing parking
20 structure. So there's space in there that will be
21 converted to bike storage.

22 COMMISSIONER WHEELER: What type of bike
23 storage are you providing? Racks? Secured locks?
24 Unsecured locking facility?

25 HEATHER KLEIN: It's just a rack.

1 COMMISSIONER WHEELER: Will it provide
2 security?

3 MIKE KUYKENDALL: The garage has gate arms on
4 it, so there is some degree of security and observation.
5 But to be honest, I'm not sure though what the specifics
6 are.

7 COMMISSIONER TAYLOR: So my idea is that if
8 somebody goes to Home Depot and buys a bolt cutter, puts
9 into their backpack, walks into the garage, pops a
10 chain, because they know there are a thousand bikes
11 lined up, the gate arm is not going to prevent --

12 MIKE KUYKENDALL: No. It's not going to
13 prevent somebody from walking in off the street. But
14 it is a 24-hour facility. The hospital doesn't sleep.
15 There are people here all the time. So it is a little
16 different from a public structure that might be a ghost
17 town in the middle of the night. But I understand your
18 concern. And unfortunately I don't have a detailed
19 answer for you.

20 COMMISSIONER TAYLOR: But I'm just saying it
21 takes five seconds to steal a bike, whether it's crowded
22 or not. Let me understand. If I was an employee, I'm
23 not riding my bike to somewhere and parking it if you're
24 not going to provide cameras and some type of a cage.
25 I'm just not going to ride my bike.

3
cont.

1 HEATHER KLEIN: Basically, those spaces that
2 are in the garage will meet the bike parking ordinance,
3 which means the long-term spaces will be secure.
4 They're not just going to be racks. And we're expecting
5 that, if we move forward with the recommended measure,
6 that those additional spaces that we're recommending --
7 long-term spaces -- will meet the ordinance. All of the
8 spaces will meet the ordinance.

9 IRIS STARR: What year will those be
10 installed?

11 HEATHER KLEIN: They're probably going to be
12 installed with the parking garage.

13 IRIS STARR: The existing parking garage?

14 HEATHER KLEIN: No, the second parking garage.

15 DOUG NELSON: So the second parking garage
16 that we're talking about, because the existing garage is
17 in the ballpark of 800 spaces, if I remember correctly.
18 Down here, just sort of off the page, this is where the
19 new garage is proposed. This is about another 300-ish
20 spaces. And this is forming sort of a nexus with the
21 acute-care facility so that we have parking demand
22 adjacent to where the need is. So that would be where
23 some of the this bike parking occurs is with the better
24 garage.

25 COMMISSIONER WHEELER: So there won't be

3
cont.

4

1 retrofitting of parking to the existing garage?

2 DOUG NELSON: There are changes, because we
3 are changing where the entrance is, obviously. And
4 there's also, as mentioned, some form of monitoring and
5 so forth and there will be some bike storage in there.
6 I'm not sure what the proportionality exactly will be
7 between the two.

8 HEATHER KLEIN: The required bike parking per
9 the code will be in the existing garage. What we are
10 asking as part of the recommended measure is they go
11 above and beyond what the code requires to what they
12 would need to provide if the hospital was essentially
13 new.

14 So that will happen, if adopted by the
15 Planning Commission, in the proposed parking garage,
16 which is Phase Two, further down.

17 COMMISSIONER TABATA: Are we taking public
18 comments first? I have some questions.

19 CO-CHAIR HWANG: So we're going to open up to
20 public comments. Please introduce yourselves.

21 KATIE KORIKOWSKI: May I use your neat
22 graphic? Would that be okay?

23 DOUG NELSON: Sure.

24 KATIE KORIKOWSKI: So my name is Katie
25 Korikowski and I'm a resident of Dover Street. And I'd

4
cont.

5

1 love to go fast so I can also share my girlfriend's
2 text. She couldn't be here.

3 So the comments I wanted to point out are
4 mostly about page 16 of the document that's posted on
5 the Planning Commission's Website. And there's, like,
6 eight recommendations. I'm interested in No. 2 and 4.

7 There's an evaluation of the traffic flow and
8 things at No. 2. I think that should occur during the
9 whole construction process. So that's my one comment.
10 Not after the thing is down, because that's a ten-year
11 process.

12 And No. 4, I think, was the bike lanes along
13 here. And I think that passage of bicycles and people
14 walking through this street while the construction is
15 going on over those ten years, I think, is also
16 important, not just after the project is done.

17 I just wanted to point out that no one has
18 mentioned Dover Street here. So there's a great
19 neighborhood over here, there's a great neighborhood
20 over here, and there's a great neighborhood this way.
21 And that's the MLK BART -- no.

22 And so people do come from all these
23 directions back and forth to BART along here, so I'm
24 definitely in support of those lanes. But people also
25 come this way; and the hospital property goes up to

5
cont.

6

7

8

1 53rd. And so pedestrian safety along 53rd is currently
2 poor, as brought up by the Planning Commission Board
3 Member last night, in not a nice way. But it would be
4 nice to improve the safety along this corridor for
5 pedestrians and bicyclists. And this is pretty safe and
6 nice right now, but it would be nice to make sure that
7 that's maintained and improved for the walkability and
8 bike-ability along Dover Street. So that's what I
9 wanted to say.

10 May I be a second person?

11 CO-CHAIR HWANG: You may try to be a second
12 person.

13 KATIE KORIKOWSKI: I'll just read it. So she
14 is Cindy David and also lives on Dover Street. And she
15 says, "Still more can be done to improve the area along
16 52nd where it will cross the southern portion of Dover
17 and go under the freeway. This is an extremely
18 dangerous area and the additional opening of Dover,
19 while I support it, further adds to unsafe conditions.
20 Pedestrian and bike safety along that section should be
21 a higher priority than parking spaces."

22 She also agrees with the alternative proposal
23 being circulated by Longfellow.

24 So thank you so much for the picture.

25 CO-CHAIR HWANG: Thank you.

8
cont.

9

10

1 Any other public comments on this item?

2 Midori, you had a question?

3 COMMISSIONER TABATA: Sure.

4 Heather, you mentioned that there were three
5 recommendations that you made that the hospital was
6 not -- that you've been going back and forth with. So
7 what is it that they are opposed to?

8 HEATHER KLEIN: Well, I think our
9 recommendation is that the bike lane go from Shattuck to
10 west, basically where the proposed -- where the City's
11 bicycle master plan -- maybe it's Genoa -- where the
12 City's bicycle master plan has a lane. So the idea is
13 to connect lane to lane and not just have it basically a
14 bicycle lane along a frontage and then it just sort of
15 dies there, that we don't think that that makes sense.
16 I don't think that it actually improves access for
17 bicyclists. That actually might be more of a hazard.
18 So we want them to put the entire lane in.

19 And we actually have in the Draft EIR we
20 propose something. I ripped it out. I'll pass it
21 along. And so that was one of the things that they were
22 concerned about.

23 And then I think the other thing, like we
24 talked about this addition of more bike parking spaces
25 than really required by the code right now. So the code 10

1 says -- and it's in the zoning code -- it actually was
2 put into the Planning Code -- that if you do new
3 construction and renovation, then you're supposed to --
4 and that's over a certain number of square feet and a
5 certain dollar amount -- then you're supposed to put in
6 this much bike parking spaces. And the hospital is
7 meeting that. What we want them to do is go above and
8 beyond that.

9 COMMISSIONER PRINZ: So I was here when the
10 Commission met on this item last August, I believe. I
11 took an opportunity to review the notes and minutes of
12 the comments that the Commission Members made at that
13 time as well.

14 There was some talk about a Caltrans project
15 as part of the Caldecott fourth-bore settlement that
16 might have potentially performed some of the work around
17 the highway on- and off-ramps for Highway 24 to deal
18 with some of the bike and pedestrian safety issues
19 around that area. I know some of the project got cut.
20 So I was wondering if there's any updates on that
21 potential funding source to supplement this project.

22 HEATHER KLEIN: I think that would be a
23 comment that we would need to further investigate in the
24 final EIR. I can't answer that right now.

25 COMMISSIONER PRINZ: Without that funding

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cont.

12

11

13

1 source, I personally feel that it's imperative to have
2 continuous bicycle facilities and safe and convenient
3 pedestrian environments to connect some of these
4 neighborhoods that have a lot of historical disconnects
5 with specifically the highway and specifically MLK,
6 which along the frontage of Children's Hospital
7 basically serves as an extended on-ramp to Highway 24.

13
cont.

8 These are significant barriers to active
9 transportation in the neighborhood and real barriers to
10 connectivity between neighborhoods, which affects not
11 only safety but also the vitality of these areas. I
12 think to ignore these connections does a big disservice
13 not only to the people but to the hospital itself.

14 One thing I think that would be important to
15 consider is, especially when we're talking about a
16 Children's Hospital, is whether these facilities would
17 be safe enough to bring your kid on them. This is a
18 real children's health issue that we have an opportunity
19 here to affect. And I think it would be a real missed
20 opportunity not to only have bike facilities from Genoa
21 Street to Shattuck, but actually continuous bike lanes.

14

22 And I've looked at the project area. And with
23 a couple of small modifications to the City's proposal,
24 it might be fairly cost effective to be able to
25 implement bike lanes now and just share them throughout

15

1 the entire project area as recommended by the City, and
2 at a very minimal cost. I mean seriously we're talking
3 about probably the road project areas are going to be
4 paved anyway due to construction damage. It's going to
5 be restriped anyway. So the cost of the bike lanes is
6 basically free. So what we are talking about is
7 expending a couple of thousand dollars' worth of paint
8 down to Shattuck, with most of the cost absorbed in the
9 design phase. So I don't really see in a project this
10 big as being that substantial an ask. I think it's
11 really the least we can do ensure that this project has
12 really big impact, possibly, on the community.

13 CO-CHAIR HWANG: Any comments?

14 SARA FEIN: Sara Fein, a friend of the
15 Commission.

16 Can we clarify whether there'd be a road diet
17 on 52nd approaching Shattuck? I am not clear on this
18 plan. Can you just confirm whether the existing lanes
19 would remain? Or is there a road diet that would be
20 proposed as part of the bike lanes?

21 CO-CHAIR KIDD: It appears there is not. It
22 appears that, as I understand that roadway
23 configuration, it does retain all existing lanes. So
24 you would have three through northbound lanes, a
25 left-turn lane northbound, two on-ramp lanes southbound,

1 and one through southbound lane at 52nd.

2 Yeah. I guess to make my comments, I want to
3 kind of echo what Robert put so well.

4 The other major concern that I have is that if
5 we are indeed ending bike lanes at the frontage of
6 Children's Hospital at Dover Street, the current
7 configuration -- and I believe that on that board -- did
8 it have two northbound lanes for the configuration
9 there? Or just one?

10 DOUG NELSON: Just one lane.

11 CO-CHAIR KIDD: Anyhow, the main concern of
12 mine is that the only logical bike network connection
13 ending the bike lines at that location is to go up Dover
14 Street as a bike route. The main concern I have with
15 that is that for northbound bicyclists, who are then
16 expected to turn left onto Dover street, there is no
17 traffic control at that intersection. That is an
18 uncontrolled crosswalk and you're expecting people --
19 possibly people who live in the neighborhood -- who are
20 not experienced bicyclists, children, and other folks
21 like that to make a left turn across a roadway where you
22 have traffic that can reach a pretty decent speed,
23 especially for the southbound traffic that's coming
24 towards MLK, especially people rushing to get onto
25 Highway 24. That creates a very dangerous situation.

16
cont.

17

18

1 And to have no traffic control and be expecting that to
2 be the key bike network connection that you're making,
3 that should be addressed.

4 COMMISSIONER WHEELER: So I would also echo
5 Commissioners Prinz and Kidd on the comments about the
6 need to really ensure that we don't leave gaps as we are
7 investing in this really great institution in Oakland,
8 having been years of debate whether Children's Hospital
9 would relocate or the depart the city for a different
10 part of the region. And I'm really glad to see they're
11 here. As I kid I had surgery there, so I may be a
12 little biased. But I'm happy to have this institution
13 here to serve the next generation of Oaklanders and East
14 Bay residents as part of the UCSF collaboration.

15 Being from here and having grown up in the
16 Oakland/Berkeley area, I'm really glad to see treatments
17 that are being made to reconnect this area between the
18 Children's Hospital and North Oakland. The construction
19 of both the BART line and Highway 24 really severed a
20 large part of Oakland. And it's only taken the last 15
21 years that we've seen these areas really rebound and
22 become more robust neighborhoods.

23 But I think leaving these gaps that were
24 discussed, like Chris just mentioned, I've not seen --
25 the bike lane that's proposed from 52nd Street to

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cont.

19

1 Shattuck is truly problematic, because it does dump
2 cyclists either at Dover or continues the current
3 condition, which I've biked. And it's really quite
4 treacherous when you're crossing Pleasant Valley to
5 51st, 52nd street and going under the freeway to get a
6 Martin Luther King. So I really support the staff's
7 recommendation about continuing the bike lanes up to
8 Shattuck.

9 I'd almost like to see the consultant team
10 working on the EIR look at additional treatments that
11 might help provide facilities that would be good for
12 families to use to bike to the hospital, such as -- I
13 know that the roadways are very narrow there between
14 Shattuck and Highway 24; but if there would be a way to,
15 perhaps using green paint, working with Jennifer and
16 Jason, to see if that could be a treatment that could be
17 used to really highlight the bike lane at the on-ramp.

18 This is heading on 52nd Street, to give you a
19 visual realm, heading west towards the Bay from
20 Shattuck. We have a really great reconstruction that
21 was done along Shattuck where we have bike lanes. And
22 there's a really great separation where bikes are pushed
23 away from traffic on the freeway. But if you're biking
24 across to these new bike lanes, you're sort of in
25 between two lanes of passing traffic, one going to 24

19
cont.

20

1 and then traffic going to Children's Hospital.

2 Another treatment I have seen used in San
3 Francisco, which we have not done as much of here, but I
4 know it's been proposed in some parts, are safe-hit
5 posts. These are plastic posts that are mounted in the
6 street. Cars can drive over them if they have to, but
7 they shouldn't because they're for bikes. But it does
8 give a visual queue for both drivers and cyclists that
9 cars should stay in one area and bicyclists stay in
10 another. And since especially in this area it doesn't
11 look like the language can accommodate a buffer, that
12 might just be another safe treatment.

13 I am glad to see additional bike parking. I
14 also am really in support of the measure for that. I
15 don't know if there's been -- I haven't had a chance to
16 read the full EIR, but I do know that additional bike
17 parking in the city is something that I definitely would
18 support. Perhaps the transportation demand management
19 program that I know Children's Hospital already has with
20 the shuttle would really help also reduce vehicle trips.

21 The last thing I did want to bring up is it
22 would also be good to see how much utilization is
23 happening of the pedestrian street space around
24 Children's Hospital. Right now on the west side of
25 Martin Luther King, I know there's currently a parking

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cont.

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23

1 lot. There are commuter spaces that are usually used by
2 workers and visitors. At night it gets kind of sketchy
3 in that area and I have passed by and seen cars with
4 broken glass. I didn't see any treatments for a
5 pedestrian streetscape on the west side of MLK or
6 heading towards the west at 52nd. So I don't know what
7 is planned. But if we're looking at especially
8 connectivity, you do have neighbors that walk in this
9 area and may have employees. I don't know if you're
10 still planning on utilizing that -- I imagine that
11 Children's Hospital is planning on utilizing that parcel
12 across the street. But at least as an interim measure
13 until that second garage is built, there should be some
14 examination of that in the EIR. But overall I'm really
15 glad to see the improvement of that space.

16 Oh, one last thing: The relocation of the
17 parking entry from 52nd Street to Martin Luther King
18 reminds me of a situation that we have right now with
19 the new Kaiser Hospital master plan on Broadway, where
20 there is large curb cuts that were put in for the garage
21 that is used to access the medical office building at
22 the corner of Broadway and West MacArthur, which creates
23 kind of a dicey situation for pedestrians, because there
24 are really large curb cuts and they require special walk
25 signals. And I think there's some large sign that says, 18

23
cont.

24

1 like, "Watch for bikes," because there's a bike lane,
2 like, going there. While there's not a bike lane along
3 Martin Luther King, there will be bike parking in that
4 existing garage. I would suggest providing some way to
5 have bike access off of 52nd Street so cyclists don't
6 have to mix with traffic going into the garage and cars
7 coming off Highway 24 and heading towards Berkeley.

8 That's all.

9 CO-CHAIR HWANG: Any more comments?

10 COMMISSIONER TAYLOR: I guess the only thing
11 in the description I would like -- when you're talking
12 about having a thousand bikes for employees, that to me
13 says that at a certain time you're going to have a mass
14 number of people going out and a mass number of people
15 coming in. So I just didn't hear enough description of
16 how that's going to be handled.

17 I'm thinking a lot of bikes going toward a
18 garage with people either trying to get to work or go
19 home, that just sounds dangerous to me. So I guess what
20 I was looking for is more of a description of how we're
21 going to make sure, in terms of traffic flow, how many
22 bikes are going to be coming in per hour? How many
23 cars? Do they have a designated lane? How do they go
24 out?

25 The other thing is I didn't hear a description 19

24
cont.

25

26

1 of the short-term parking. So I assume that's going to
2 be patients who are going to ride their bikes to the
3 hospital. Again, will their bikes be secure outside?
4 Will it have light and so forth? So I need a bit more
5 description of that.

26
cont.

6 And the last thing is on that street there's a
7 lot of traffic trying to get on to the freeway.
8 Signals. There has to be some way of either managing
9 making that left turn there, because if you have a large
10 number of people trying to make that left turn, for them
11 to try to hold their own with cars versus having a
12 dedicated signal that says bikes can pass --

27

13 HEATHER KLEIN: Left turn where?

14 COMMISSIONER TAYLOR: I'm sorry. Left turn.

15 HEATHER KLEIN: Left turn where?

16 COMMISSIONER TAYLOR: When you're coming off
17 52nd over.

18 HEATHER KLEIN: Okay.

19 COMMISSIONER TAYLOR: Those are my thoughts.

20 COMMISSIONER WHEELER: Actually, that reminds
21 me of one other. I don't know if you've done any bike
22 simulation studies or examinations. But if there is a
23 large amount of bike traffic, which we hope to see in
24 the future, MacArthur BART is to the southeast of the
25 station. And while west is our designated bike route, I 20

28

1 think a lot of cyclists will probably use MLK, which
2 does get much calmer. It goes down to four lanes -- two
3 in each direction -- south of the freeway on-ramp.

4 So I don't know how that can be treated in
5 this EIR, but it might be something to look at, because
6 I would imagine cyclists would want a short route. I
7 think cyclists would be biking from the hospital, like
8 workers, to BART. So I would just ask that they might
9 want to have that transition. So are there treatments
10 that can be done to provide access to that way to
11 MacArthur BART?

12 KATIE KORIKOWSKI: Cindy does go on her bike
13 to MacArthur BART on her bike; and she likes to go south
14 in the morning on Shattuck and then she likes to go
15 north on MLK. So you're right that that's preferred. I
16 don't know why.

17 IRIS STARR: Heather, can I ask a process
18 question?

19 HEATHER KLEIN: Sure.

20 IRIS STARR: We're hearing a lot of good
21 comments tonight, both from the public and the
22 Commission. And you mentioned that the close of the
23 comment period for the Draft Environmental Impact Report
24 is Monday --

25 HEATHER KLEIN: At four o'clock.

28
cont.

29

1 IRIS STARR: So we don't have anything going
2 on this weekend, so that's really good. So let's assume
3 that some people have comments that they would like to
4 send in; and let's assume they're written, because
5 that's what works. What happens after that?

6 HEATHER KLEIN: What happens after all the
7 comments are received?

8 IRIS STARR: Yeah. How does -- do the
9 comments affect the project? How does everything work?

10 HEATHER KLEIN: Yes. So I would say that part
11 of what we're doing here is both an environmental review
12 process as well as a project entitlement process. The
13 hospital has requested a certain number of permits from
14 the planning and zoning division, so we are processing
15 the CEQA document and those permits concurrently. Those
16 permits have to do with design. And they have to do
17 with things like street improvements. So we are looking
18 at these things concurrently.

19 So questions and comments that you're bringing
20 up we'll respond in the EIR as well as talking with the
21 hospital about other design improvements to the project
22 for the final EIR and the final project plans, yes.

23 JENNIFER STALEY: Kind of a follow-on to that,
24 I mean is there any -- is this person taking notes?

25 THE REPORTER: Yes.

29
cont.

1 JENNIFER STALEY: Okay. So I mean will those
2 be somehow presented as part of --

3 HEATHER KLEIN: Yes. So Freddie here is
4 taking a transcript of everything that's being said.
5 And basically the final EIR response to comments
6 document is really a comment and response, comment and
7 response. So we will respond to the comments as
8 appropriate in the final EIR.

9 JENNIFER STALEY: So the comments that were
10 made tonight will be included in that?

11 HEATHER KLEIN: Yeah.

12 JENNIFER STALEY: Okay. That sounds fine.

13 CO-CHAIR KIDD: One final comment. I wanted
14 to just express my approval for the City's design
15 striping then plan that they have dashed, colored
16 treatments across the various driveways entrances across
17 the frontage for the hospital. And I just wanted to
18 point out that while they are in the City's plans they
19 were not in the figure that was presented by the
20 hospital staff. So just wanted to register my approval
21 of that treatment being utilized.

22 COMMISSIONER PRINZ: Just a quick one to make
23 sure it gets entered into the minutes, that the local
24 advocacy group Bike East Bay has submitted some
25 additional ideas about what can be done with the exact

1 same number of lanes and roadway width to help improve
2 the bicycle and pedestrian experience between Shattuck
3 and MLK, both with the intention of making it easier for
4 residents to travel, but also to encourage hospital
5 patrons and employees to get outside of the hospital and
6 have the surrounding community benefit and have more
7 relationship with the facility so it's not just an
8 inward-facing facility but actually interacts with the
9 community.

10 And with that in mind, I think anything we can
11 do with this project to not turn its back to MLK is a
12 positive thing. There is a plan for MLK south of here
13 to 40th Street, I believe. Berkeley is also working on
14 a plan for their portion of Adeline that turns into MLK
15 at the border. But in between those two areas there's
16 no real plan. There's no way of really turning what is
17 currently a traffic sewer into a vital street, a vital
18 corridor again. So I feel like any of these
19 opportunities that come up, the individual projects
20 along the corridor are just one small step that we can
21 make to affect the streetscape long-term, especially
22 when we're talking about plans that go out another
23 probably ten-plus years.

24 When I think about how different the corridor
25 is even ten years previous and project out another

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cont.

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1 decade and try to imagine what the streets are going to
2 look like then, it really encourages me to think as
3 progressively as possible, because this part of the city
4 is not going to look the way it does today and the
5 people who use these facilities are not going to have
6 the same expectations as they do today.

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cont.

7 CO-CHAIR HWANG: We have one public comment.

8 SARAH DWINE: Yeah. I'm from the Santa Fe
9 District. I am Sarah Dwine [phonetic spelling]. So we
10 are on that opposite side of MLK from the hospital. And
11 I just love all of Robert's ideas.

12 We're an exploding community of children and
13 we're families that bike together, who walk their dogs.
14 There's a lot of people outside. We love the idea of
15 connecting to other neighborhoods. We have great
16 friends in the Longfellow neighborhood. So we really
17 support his ideas.

33

18 CO-CHAIR HWANG: Great. Thank you.

19 JOE MORSE: My name is Joe Morse. I live in
20 another part of Oakland, but I used to live near north
21 on Dover. I would frequently bike south of there. And
22 just psychologically you want to keep going until it
23 ends; and it ends at 52nd. So, just repeating again,
24 it's very important to, like, if you're continuing
25 south, it's important to have as much of full bike lanes 25

34

1 the full length to engage with those other routes on
2 Shattuck west or north.

3 CO-CHAIR HWANG: Thank you for all your great
4 comments.

5 So we will conclude this item. For those who
6 have additional written comments to send in, they should
7 send it to hklein@oaklandnet.com. Just reminding folks
8 that the comment period does end on Monday at
9 four o'clock, not five. Four o'clock. Thank you so
10 much.

11 [End of discussion on this item]
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cont.

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BICYCLE AND PEDESTRIAN ADVISORY COMMITTEE HEARING COMMENTERS

September 18, 2014

Please note that the hearing transcript does not include staff or applicant presentations made at the beginning of the item. The transcript begins at the start of the public comment portion of the hearing. No comments on the Draft EIR and/or the project were made during the project presentation by either staff or the applicant.

- Response BP1-1: This comment requests clarification on the proposed improvements associated with bus stops and bicycle parking. Recommended bus stop improvements are addressed on pages 344 through 347 of the Draft EIR. Proposed bicycle parking improvements are addressed on pages 354 through 356 of the Draft EIR. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response BP1-2: Proposed bicycle parking improvements are addressed on pages 354 through 356 of the Draft EIR. Bicycle parking spaces would be located in the existing and proposed parking structure. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response BP1-3: This comment relates to the type of bicycle parking facilities that would be provided as part of the project. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response BP1-4: This comment relates to the location and phasing of bicycle parking facilities that would be provided as part of the project. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response BP1-5: This comment, which expresses support for Recommendation TRA-2, is noted. If implemented, improvements identified in Recommendation TRA-2 would be installed as part of Phase 2 development, when buildout of the proposed project would determine the appropriate improvements to be installed. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response BP1-6: This comment, which expresses concerns related to bicycle and pedestrian safety during the construction period, is noted. Please see Master Responses #1 and #2.
- Response BP1-7: This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

- Response BP1-8: The commenter reiterates support for additional bicycle and pedestrian improvements along 53rd Street and Dover Street. Bicycle and pedestrian safety issues are discussed in Section IV.D, Transportation and Circulation of the Draft EIR on pages 341 through 344. Impacts were determined to be less than significant and recommendations were made to further reduce these impacts.
- Response BP1-9: This comment, which notes that bicycle and pedestrian safety should be a priority over vehicle parking on 52nd and Dover Street, is noted. This comment does not identify any specific improvements that are not already proposed or recommended and does relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response BP1-10: This comment, which expresses support for alternative bicycle and pedestrian improvement suggestions circulated by other neighborhood groups, is noted. This comment does not identify any specific improvements that are not already proposed or recommended and does relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. Also see Master Response #2 and Response to Comment B5-3.
- Response BP1-11: This comment relates to possible implementation of the transportation-related recommendations identified in the Draft EIR and does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response BP1-12: Please refer to page 284 of the Draft EIR for a discussion of planned transportation network improvements that would occur with implementation of the Caldecott Tunnel Improvement Project.
- Response BP1-13: Please see Master Response #2 regarding feasibility of a continuous bicycle facility on 51st and 52nd Streets.
- Response BP1-14: This comment, which reiterates the importance of safe bicycle facilities and connections, particularly where children are concerned, is noted. This comment does not identify any specific improvements that are not already proposed or recommended and does relate to the adequacy of the information or analysis within the Draft EIR; no further response is required. Also see Master Response #2 regarding feasibility of continuous bicycle lanes along 52nd Street.
- Response BP1-15: Please see Master Response #2, which addresses improvements to off-site bicycle facilities.
- Response BP1-16: This comment requests clarification related to the configuration of vehicle travel lanes. Existing lane configurations would be maintained as part of the

project. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

- Response BP1-17: This comment, which expresses support for previous comments related to bicycle and pedestrian connections and safety, is noted.
- Response BP1-18: This comment expresses concern about safety for bicyclists on eastbound 52nd Street turning left onto northbound Dover Street, especially potential conflicts between bicyclists and motorists on westbound 52nd Street. Recommendation TRA-4, which would install a bikeway on 52nd Street, would also result in narrower travel lanes, which would result in slower moving automobiles and improve bicyclist safety. In addition, Recommendation TRA-2 includes monitoring of conditions at the Dover Street/52nd Street intersection after completion of Phase 2 of project and recommendations to reduce traffic volumes at the intersection, if necessary. Also, please see Master Response #2 regarding the planned bicycle facilities on 52nd Street.
- Response BP1-19: This comment, which expresses support for the hospital and for the provision of adequate bicycle and pedestrian connections and complete facilities within the project area, is noted. Please see Master Response #2. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response BP1-20: This comment, which describes existing hazardous conditions in the area related to bicycle safety and provides suggestions for increased buffers and more defined boundaries between vehicle and bicycle lanes, is noted. Please see Master Response #2 regarding the use of green paint on the recommended bicycle facilities on 52nd Street.
- Response BP1-21: This comment, which expresses support for bicycle parking on site per Recommendations TRA-7, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response BP1-22: This comment, which expresses support for continued implementation of transportation demand management measures, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.
- Response BP1-23: This comment requests consideration of pedestrian improvements along the west side of Martin Luther King Jr. Way, heading towards 52nd Street. This comment, which relates to the design of the proposed project, is noted. However, it does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required. Please see Master Response #2.

- Response BP1-24: This comment requests consideration of providing a bicycle access point on 52nd Street to limit possible conflicts with bicyclists and vehicles accessing the garage on Martin Luther King Jr. Way. As described on page 343 of the Draft EIR, cyclists would be able to use both Martin Luther King Jr. Way and 52nd Street to access the bicycle parking and exit from the existing Main Garage as requested in the comment.
- Response BP1-25: As stated in the comment, the proposed project is expected to increase bicycle activity in the project vicinity. The commenter is concerned about bicycle safety at the Garage driveways. As described in the Bicyclist Safety discussion on pages 342 and 343 of the Draft EIR, cyclists would be able to use both Martin Luther King Jr. Way and 52nd Street to access the bicycle parking and exit from the existing Main Garage and use 52nd Street and the extension of Dover Street to access the bicycle parking in the new Phase 2 Garage. As described on page 339 of the Draft EIR, the garage driveways would provide adequate sight distance between vehicles exiting the driveways, the pedestrians on the adjacent sidewalks, and vehicles, including bicyclists, on the adjacent street.
- Therefore, as discussed in the Bicycle Safety discussion of the Draft EIR, neither Phase 1 nor Phase 2 of the project would have a significant impact on bicycle safety at the project driveways. Please see Master Response #2 regarding the recommended bicycle and pedestrian facilities on 52nd Street.
- Response BP1-26: This comment requests more information about short-term bicycle parking. While the project would provide short-term bicycle parking and comply with the Oakland Bicycle Parking Ordinance, as described in the Bicycle Parking discussion starting on page 354 of the Draft EIR, short term bicycle parking would be provided at the concourse entry of the OPC2 along 52nd Street in Phase 1, and at the entrance of the Patient Pavilion and the Family Residence Building in Phase 2. Recommendation TRA-7 includes provision for adequate short-term and long-term bicycle parking consistent with the Oakland Bicycle Parking Ordinance.
- Response BP1-27: The comment is concerned with potential conflicts between left-turning automobiles and cyclists on westbound 52nd Street at Martin Luther King Jr. Way. As shown on Figure IV.D-24, Recommendation TRA-4 would provide a green bicycle lane between a right-turn lane and a shared left/through lane on the westbound 52nd Street approach at Martin Luther King Jr. Way. This bicycle lane would be painted green to increase visibility and highlight the potential conflict zone, where cyclists and autos are expected to cross paths. Also, please see Master Response #2.
- Response BP1-28: This comment, which requests additional improvements to off-site bicycle facilities south of the project site, is noted. This comment relates to the design of the proposed project and does not relate to the adequacy of the

information or analysis within the Draft EIR; therefore, no further response is required.

Response BP1-29: This comment primarily relates to the hearing proceedings and process. This comment does not identify any specific issues related to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response BP1-30: This comment expresses support for striping of driveway entrances across the hospital frontages, as shown on Figure IV.D-24 on page 345 of the Draft EIR. The commenter notes that the proposed striping details were not included in the original CHRCO plans; however, they were developed as part of Recommendation TRA-4 and will be imposed as part of the Conditions of Approval for the project.

Response BP1-31: Please see Master Response #2.

Response BP1-32: The commenter expresses support for additional improvements to the Martin Luther King Jr. Way corridor between the project site and City of Berkeley city limit. The commenter notes that the City of Oakland is developing improvement plans for the corridor south of the project site and the City of Berkeley is starting a planning study on the segment of the corridor within its jurisdiction. Developing improvement plans for the corridor is beyond the scope of this project and the Draft EIR. Furthermore, the Draft EIR did not identify any significant impacts along this corridor associated with the project and, therefore, no mitigation measures are required. This comment does not identify any specific issues related to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response BP1-33: This comment, which expresses support for additional bicycle and pedestrian connections and safety improvements, is noted. See Master Response #2. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

Response BP1-34: This comment, which expresses support for additional bicycle and pedestrian connections and safety improvements, is noted. This comment does not relate to the adequacy of the information or analysis within the Draft EIR; no further response is required. Also see Master Response #2.

Response BP1-35: This comment primarily relates to the hearing proceedings and process. This comment does not identify any specific issues related to the adequacy of the information or analysis within the Draft EIR; therefore, no further response is required.

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APPENDIX A

EVALUATION OF SOUTHERN MAGNOLIA TREE

***APPENDIX A1: City of Oakland Public Works Agency
Memorandum***

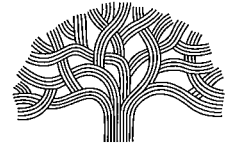
APPENDIX A2: HortScience Appraisal

APPENDIX A3: Valley Crest Tree Company Letter

APPENDIX A1

***City of Oakland
Public Works Agency Memorandum***

CITY OF OAKLAND



MUNICIPAL SERVICE CENTER • 7101 EDGEWATER DRIVE • OAKLAND, CALIFORNIA 94621

Public Works Agency

(510) 615-5566
FAX (510) 615-5550
TDD (510) 238-3254

To: Heather Klein, Planner, Bureau of Planning

From: Mitchell Thomson, Arboricultural Inspector, Oakland Public Works, Tree Services Unit

Date: February 6, 2015

Re: *Magnolia grandiflora* (Southern magnolia) #82 on the Children's Hospital Campus

This memo provides the City of Oakland's Bureau of Planning with the Tree Services Unit's recommendation regarding:

- The feasibility of relocating the Southern magnolia tree on the Children's Hospital campus, either to another location on-site or to an off-site location
- How the Tree Preservation Ordinance would affect the removal or retention of the tree
- Recommended Measures for inclusion in the Final Environmental Impact Report / Response to Comments document.

BACKGROUND

I thoroughly reviewed and analyzed the health of the Southern magnolia tree and the biological and physical feasibility of relocating the tree, either on-site or to an off-site location. I visited the project site on January 28, 2014 and examined the tree with HortScience, Inc. I made an additional site visit on October 16, 2014 and conducted a Level 2 assessment, which included a visual inspection of the tree canopy, branches, trunk, buttress roots and its surrounding site. The trunk and the limbs were sounded with a mallet, listening for tonal variations that could indicate internal decay or dead bark. Binoculars were used to inspect the upper tree crown for cavities, cracks, decay, etc. I also reviewed the following technical reports and analyses:

- The Southern Magnolia Tree Report, prepared by The Davey Tree Expert Company, dated October 25, 2013, that included a Level 1 assessment of the Southern magnolia tree
- The Tree Inventory Report, prepared by HortScience, Inc., dated May 2014, that evaluated the health and structural condition of the campus's trees on the project site, including the Southern magnolia tree
- The Magnolia Tree Transplant Feasibility Analysis, prepared by HortScience, Inc., dated May 30, 2014, that analyzed the biological and physical feasibility of transplanting the Southern magnolia tree to one of four locations proposed by the Hospital's landscape architect, and noted that transplanting costs could be \$400,000 to \$600,000



An American Public Works Association Accredited Agency

- The analysis of the Southern magnolia tree, and the feasibility of relocation, contained within the Children's Hospital's Draft Environmental Impact Report (EIR) Chapter VI, Section D: Effects Found Not to Be Significant, Biological Resources
- The email and website link sent by Naomi Schiff to Heather Klein on October 28, 2014 describing the relocation of an approximately 250 year old Bur Oak tree on the University of Michigan campus, and Ms. Schiff's request that the City review the information to determine whether a similar process could be used to relocate the Southern magnolia tree
- The Magnolia Grandiflora #82 analysis, prepared by The Valley Crest Tree Company, dated January 9, 2015, analyzing the feasibility of relocating the Southern magnolia tree
- The Southern magnolia #82 appraisal of value, prepared by HortScience, Inc., dated February 3, 2015, which appraised the value of the Southern magnolia tree per the tree industry's standard methods developed by The Council of Tree and Landscape Appraisers (CTLA).

DISCUSSION

I concur with the analysis in the Draft EIR and the technical reports listed above. There are significant constraints to relocating the Southern magnolia tree, including: logistical phasing concerns; on-site and off-site physical barriers; the physiology of the tree (i.e. age, species, health, and structure); the damage that will be imposed on the tree if it is transplanted; and magnolia trees' intolerance to disturbance.

Logistical Constraints

As noted in the technical documents, the Southern magnolia tree is growing next to the B/C Wing of the hospital. Per the project description in the Draft EIR, this building and others are slated for demolition in order to construct the Link Building, the Patient Pavilion, and the Parking Garage. Given the tree's location in the middle of the Phase 2 construction area, and the construction phasing for each building, the Southern Magnolia tree cannot remain on-site.

The tree would need to either be stored off-site for about three to five years before it could be replanted, or re-planted immediately at an off-site location. The roots would need to be cut, and the branches shortened, to box the tree for moving.

Physical Constraints

The reports listed above recommended the following root ball sizes:

- 78-foot radius (156-foot diameter): HortScience, Inc., May 30, 2014
- 30 feet by 30 feet: The Valley Crest Tree Company, January 9, 2015.

The magnolia tree is growing in a relatively small area, restricted by buildings and infrastructure. If the tree was moved, it would not be possible to excavate enough soil and roots for the tree to survive. HortScience estimated that the root ball size would be limited to 17 feet on the west side, and 25 feet on the other three sides. The surface area of the root ball would only be 1,570 square feet. In my opinion, a root ball this size would be grossly inadequate. If this was attempted, it would kill the tree.

The tree industry has standards for transplanting trees¹. A root ball should have one foot of diameter for every inch of trunk diameter. The magnolia would require a 78-foot diameter root ball. It would be physically impossible to excavate a root ball of this size. The hospital site is already developed, and that amount of undeveloped soil would not be available.

HortScience, Inc. recommended a root ball with a diameter of 156 feet, with a surface area of 19,104 square feet. This was recommended due to the large size of the tree, its advanced age, and magnolia trees' intolerance to disturbance. I agreed with their recommendation. A massive root ball would be needed in order to minimize the risk of killing the tree when transplanting. However, it would be physically impossible to do this because:

- The developed site limits access to create a root ball that large.
- The tree and root ball (4' depth) would weigh approximately 7 million pounds.
- The 156-foot diameter root ball could not be moved through neighborhood streets that are 50-65 feet wide.
- The weight of the root ball would crush streets and underlying infrastructure.

Valley Crest recommended a root ball of 30 feet by 30 feet. This was a size that could realistically be moved off site and through adjacent streets. The recommendation was made from a functional perspective, how to physically accomplish the move. The recommendation was not based on ensuring survival of the tree. And again, even this relatively small root ball could not be created due to the buildings and infrastructure at the site.

Physiological Constraints

Southern magnolias have a maximum life span of approximately 120-150 years. The magnolia tree located on the Children's Hospital Campus is about 160 years old. The tree already exceeded the reported maximum life span for the species. Old trees have little capacity to handle damage (root cutting, limb cutting, leaf loss) compared to younger, more vigorous trees.

I agreed with the Draft EIR, as well as the HortScience, Inc. and The Valley Crest Tree Company reports, regarding the problems of moving magnolia trees. Southern magnolia trees tend to drop their leaves when roots are disturbed, and it may take several years (if ever) for the tree to recover once relocated. This generalization assumes an adequate size root ball is provided, which won't be possible for this tree.

The United States National Arboretum website notes: "Magnolias have a very unusual root system. Unlike most other trees and shrubs, the roots are largely un-branched and rope-like. For this reason, magnolias tend to suffer more than many other trees if they are moved after they reach a large size. Most magnolias can safely be moved if the trunk is less than four inches in diameter."

¹ American National Standard for Tree Care Operations: Tree, Shrub, and Other Woody Plant Management – Standard Practices (Planting and Transplanting), Tree Care Industry Association, Inc., Londonderry, NH, 2012.

The trunk diameter of this Magnolia is 78 inches, which is roughly twenty times larger than the diameter recommended for transplanting by the United States National Arboretum. However, this understates the magnitude of the difference between magnolia #82 and largest recommended transplant size. The cross-sectional surface area (the area of the circle) of a four-inch diameter trunk is 13 square inches. The cross-section of magnolia #82 is 4,776 square inches. From this perspective, magnolia #82 is 367 times larger than the maximum size recommended for transplanting. A magnolia tree this large should not be transplanted due to the extreme root loss that would occur.

Furthermore, Trees and Development, by Matheny and Clark, rated a Southern magnolia's tolerance to development impacts as "poor" outside its native range (southeast U.S.). They state, "In California, it declines following root injury and site disturbance."

Public Input

I reviewed the information submitted by Naomi Schiff. There are significant differences between relocation of a bur oak in Michigan and a Southern magnolia tree in California, in terms of survivability. First, bur oaks have an average life span of approximately 500 years and the oak tree at the University campus, at 250 years old, was at about 50% life expectancy. In contrast, the Southern magnolia at Children's Hospital is approximately 160 years old and at about 110%-130% of life expectancy, depending on which reference source is used. The burr oak was relatively young and vigorous compared to the very old magnolia #82. Old trees have less capacity to survive damage and disturbance than younger trees.

Second, many oak tree species have good tolerance to root and limb cutting, and site disturbance. Southern magnolia trees have a poor tolerance for root cutting as noted in the Magnolia Tree Feasibility Analysis prepared by HortScience, Inc., Matheny and Clark, and by the National Arboretum.

CONCLUSION

In all likelihood, based on the reports from HortScience, Inc., and The Valley Crest Tree Company reports, as well as my own professional experience as a City of Oakland arborist, the magnolia tree will not survive transplanting. The Valley Crest Tree Company stated that the chance of survival would be less than 50%. I believe the chance of survival would be highly unlikely, within one year of transplanting, whether the tree was held in a box or immediately replanted. The Valley Crest Tree Company, a leading expert in large tree relocations, indicated that they would not guarantee or warranty the tree for any period of time if it was moved.

If the tree survived the transplanting procedure, no expert could accurately predict how long it would live. But, if it lived, it would be a relatively short time compared to its current age. The tree would not be expected to live much longer given its already advanced age, health, a magnolia's well-known intolerance to disturbance outside its native range, and the damage that would be imposed on the tree in order to be transplanted.

Tree Permit

In order to grant a Tree Removal Permit, the Tree Services Unit must make several findings, including whether the monetary value of the tree is greater than the cost of its preservation to the property owner. The Protected Trees Ordinance requires the value of the tree to be calculated using the CTLA formula. The cost of preservation includes any additional design and construction expenses required to retain the tree. Tree Services staff reviewed the appraisal report prepared by HortScience, Inc. and concurred with the findings. The monetary value of the tree, using the depreciated replacement cost method, was \$45,800. The estimated \$400,000 to \$600,000 cost of preservation by transplanting would greatly exceed the value of the tree. Therefore, the Tree Services Unit can make all of the required findings to grant a Tree Removal Permit for the magnolia tree located on the Children's Hospital Campus, when a tree removal permit is processed.

RECOMMENDATION

The City of Oakland's Tree Services Unit cannot require relocation of the Southern magnolia tree per the Tree Preservation Ordinance. Tree Services does NOT recommend relocation of the tree either onsite, or to another site, based on the significant restraints listed above, and the very low probability of success. However, the tree is a beautiful specimen and an asset to both the Children's Hospital and the City of Oakland. In order to address the removal of such a significant tree, Tree Services Unit staff recommends that the following Recommended Measures be included in the Final Environmental Impact Report / Response to Comments document:

- 1. Children's Hospital shall enter into a contract with Valley Crest, or another qualified tree company, to grow a specimen tree. The Hospital shall select the largest, good quality, boxed specimen, and the tree company shall grow the tree for five more years. The tree shall be installed on the main Hospital campus in Phase 2. The cost to contract grow the Southern magnolia shall not exceed the \$45, 800 appraised value of magnolia #82.*
- 2. Children's Hospital shall retain a qualified tree company to take seeds or cutting from the existing Southern magnolia. The contracted firm shall propagate these seeds or cuttings and continue to grow them until they reach a typical landscape tree size, 24" box minimum. The trees shall be planted along the entrance to the main campus as part of the Phase 2 proposed landscape plan.*

Currently, Valley Crest has three, seven-foot boxed magnolias in their nursery. If one of the trees was selected, the tree would probably be re-boxed at least once and, at the end of the five year waiting period, end up in a ten-foot box. The tree height would be approximately 25 feet, and the crown width would be approximately 18-20 feet. It would be practical to relocate a tree of this size and age given the site constraints. The Hospital and the City would have a magnolia that could potentially grow another 150 years.

Given the uncommon age of magnolia #82, it may have genetic characteristics that are desirable in future trees. Taking seeds or cuttings, and propagating new trees, could result in magnolia trees that

have a longer than normal life span. If propagation was started now, the Hospital and the City could have magnolia trees that would be of reasonable size for inclusion in the Phase 2 landscape plan.

Please contact me if you have any further questions or concerns.

A handwritten signature in cursive script, reading "Mitchell Thomson".

Mitchell Thomson
Arboricultural Inspector
Oakland Public Works, Tree Services Unit

APPENDIX A2

HortScience Appraisal

February 3, 2015

Mitchell Thomson
City of Oakland Tree Services Unit, Public Works
7101 Edgewater Dr., Bldg. 4
Oakland, CA 94621



Subject: **Southern Magnolia #82 appraisal of value**
Children's Hospital Oakland

Dear Mr. Thomson:

This letter is submitted on behalf of Children's Hospital Oakland. Southern magnolia (*Magnolia grandiflora*) #82 is located within the footprint of a proposed new building on the Children's Hospital main campus. The City of Oakland requested HortScience, Inc. provide an appraisal of the value of the tree. This letter responds to that request.

Description of Tree

I evaluated the health of the Southern magnolia on December 18th, 2014. A plaque at the base of the tree indicated it was planted in 1860.

The tree is over-mature in form and development, with a trunk diameter of 78 inches. It has good vigor, a spreading form, and fair structure (Photo 1, following page). The crown is formed by several limbs arising at approximately 8 feet. These extend horizontally to the north and south. Most of the limbs have been reduced at the ends, producing smaller-diameter vertical growth along their length. Several cables have been installed in the crown to reduce the likelihood of a branch failure.

The lower canopy is dense with dark green leaves. The upper canopy is slightly thin. Some of the leaves in the upper canopy are yellow or chlorotic. Shoot growth and new leaf growth appear normal throughout the crown. There are no visible signs of insect damage or decay. Overall, the tree is in moderately good health (rated a 4 out of 5). This analysis is consistent with the Hortscience **Inventory Report**, dated May, 2014.

The tree is located in a relatively small landscape bed for its size. Surface roots extend in all directions. Mounds and cracks in the asphalt and roots in the circular planter across the road suggest that roots extend well beyond the landscape bed.

Appraisal of Value

To establish the value of Southern magnolia #82, I employed the standard methods found in the **Guide for Plant Appraisal**, 9th edition (published in 2000 by the International Society of Arboriculture, Savoy IL). In addition, I referred to **Species Classification and Group Assignment** (2004), a publication of the Western Chapter of the International Society of Arboriculture. These two documents outline the industry recognized standard methods employed in tree appraisal.

The **Guide for Plant Appraisal** outlines three methods for establishing the value of plants: the Cost approach, the Income approach and the Market approach. The income approach would not be appropriate as the magnolia is an amenity rather than an orchard or forest stand. The market comparison approach is not appropriate as there are no properties to compare to and no research on the contribution of individual trees to the overall value of the landscape of institutional properties. For these reasons, I chose to use the cost approach.



Photo 1: Looking northwest at tree #82. This over-mature Southern magnolia is in moderately good condition and provides aesthetic, environmental and health benefits.

Benefits are, however, limited to the users of the courtyard and the surrounding buildings.

Among the cost approaches, the **Guide for Plant Appraisal** outlines three methods: replacement cost, cost of repair and trunk formula. The replacement method is typically used where the plant in question can be replaced in-kind and is commonly available in the nursery trade. The cost of repair method is typically used where damage has occurred that can be repaired through accepted arboricultural practices. The trunk formula method is most appropriate for establishing the value of plants that cannot be replaced in-kind or are unavailable in the nursery trade, typically due to the size or rarity of the plant material.

There is no option for purchasing a tree comparable to Southern magnolia #82 and no repair for its loss. In this case, the **trunk formula method** is the most appropriate approach to establish the value of Southern magnolia #82. The **trunk formula method** is based upon four factors: size, species, condition and location. Size is measured as trunk diameter, normally 54" above grade. The species factor considers the adaptability and appropriateness of the plant in the region. The **Species Classification and Group Assignment** lists recommended species ratings and evaluations. Condition reflects tree health and structural integrity at the time of my December 18th inspection.

The location factor considers the site, placement and contribution of the tree in its surrounding landscape. In this case, the tree is located in a landscape bed on the west side of an interior courtyard at the Children's Hospital facility. The neighborhood includes a mix of hospital, retail and residential buildings in a transitional area of Oakland. While the tree contributes to the aesthetics of the courtyard, it is not visible to the general public and can only be seen by those in the courtyard or surrounding buildings, all of which are administrative. The tree also provides some shading to the building immediately to the west while the sun was rising in the east. Screening and privacy are not contributory factors in this case.

I also reviewed the CEQA analysis and supplemental tree reports in the Draft EIR, dated August 2014. The tree was planted around 1860; located adjacent to the entrance to the first baby hospital (A/B wing) in 1912 and is the source of the name "branches" used for the hospital's fundraising efforts. The tree was found to not be an individual historic resource or an element in a historic landscape. According to the DEIR, the tree is a character defining feature of the A/B wing. However, the DEIR notes that the removal of the tree would not result in a significant impact to the A/B wing.

For clarity, the relevant condition and location factors are described in the attached **Tree Appraisal Worksheet**.

Based on my assessment, I establish the value of the tree to be \$45,800.

Summary

This over-mature Southern magnolia is in moderately good health. It is located in a relatively small landscape bed on the west side of an interior courtyard at the Children's Hospital facility in Oakland, CA. It was planted in 1860 and later became the source of the Children's Hospital Branches name.

I used the trunk formula method to determine the appraised value of the tree. Based on my assessment of the tree, the benefits provided, and using the methodology described in the **Guide for Plant Appraisal**, 9th edition (published in 2000 by the International Society of Arboriculture, Savoy IL) and the **Species Classification and Group Assignment** (2004), I established its value at \$45,800.

If you have any questions regarding my observations or opinion, please feel free to contact me.

Sincerely,

John Leffingwell



Board Certified Master Arborist WE-3966B
Registered Consulting Arborist #442

Attached: Tree Appraisal Worksheet

Appraisal Worksheet

(Taken from a form found in: *Guide for Plant Appraisal*, 9th edition)

OWNER: CLEO Construction Management
Children's Hospital Oakland

SITUATION: Appraised value for tree #82

1. **Species** Southern magnolia (*Magnolia grandiflora*)
 2. **Condition rating** 70%
Based upon observations of the health and structure made on December 18, 2014
 3. **Trunk diameter** 78"
Measured at 54" above grade.
 4. **Location rating** 70%
Based upon site rating of 65%, contribution rating of 67.5% and placement rating of 77.5%.
 5. **Species rating** 90%
Based upon guidelines provided in *Species Classification and Group Assignment*.
 6. **Replacement tree size** 3.8 sq. in.
Based upon guidelines provided in *Species Classification and Group Assignment* for a Group 3 tree.
 7. **Replacement tree cost** \$172.73
 8. **Installation cost** \$172.73
 9. **Installed cost** \$345.46
Based upon guidelines provided in *Species Classification and Group Assignment* for the installed cost of a 24" box tree.
 10. **Unit tree cost** \$45.46
Based upon guidelines provided in *Species Classification and Group Assignment* for a Group 3 tree.
 11. **Appraised trunk area** 2,280 sq. in.
(Taken from Table 4.4, 9th Edition)
 12. **Appraised trunk area increase** (over 24" box) 2,276.2 sq. in.
(Line 11 – Line 6)
 13. **Basic tree cost** \$103,822
(Line 12 x Line 10 + Line 9)
 14. **Appraised value** **\$45,800**
(Line 13 x Line 2 x Line 4 x Line 5, rounded to the nearest \$50.00)
-

References

International Society of Arboriculture. 2000. *Guide for Plant Appraisal*. 9th Edition. Champaign IL. 143pp.

Western Chapter, International Society of Arboriculture. 1992. *Species Classification and Group Assignment*. Sacramento CA. 23pp.

APPENDIX A3

Valley Crest Tree Company Letter

January 9, 2015

Ms. Heather Klein
City of Oakland
250 Frank H. Ogawa Plaza
Suite 2114
Oakland, California 94612

Re: Magnolia Grandiflora # 82
Children's Hospital
Oakland, California

Dear Ms. Klein,

This letter is submitted on behalf of Children's Hospital Oakland and in regards to my site visit on November 5, 2014 to review the large Southern Magnolia (*Magnolia grandiflora*) tree located at the Children's Hospital main campus in Oakland California.

My site visit was to review the possibility of relocating the tree to a few pre-determined locations. There are many challenges to relocating this tree (current health of the tree, age and structural condition of the tree, underground and overhead utility obstructions, and route to transplant site, cost and survivability). There are a handful of health assessments reports that I have read from HortScience, Davey Tree and Deanne Ecklund and they all seem to show the tree in good condition, but extremely old. Valley Crest Tree Company did a site review to evaluate what it would take to relocate the tree and in addition to reviewing these reports the challenges associated with the relocation.

One of the most concerning parts of relocating this particular tree is the age and size. Anytime you reduce/disrupt the root mass of any tree the tree is in jeopardy of dying. The amount of root mass that would be required to be removed for the relocation process would most likely kill this tree. The tree has surpassed its life expectancy, and by relocating it the trees remaining life would be shortened. Even if the tree is successfully relocated it would require many many years of maintenance by a certified arborist. A rule of thumb is that for every one inch of caliper the tree is currently it will take that many years to re-develop the root mass that was disrupted to move the tree. For example the Magnolia tree at the Children's Hospital site has a 76" caliper so it would take approximately 76 years to re-develop the root mass that was removed for the relocation to take place. Based on the age of the tree, it will never develop a root mass similar to what it is now or enough to ever support the crown.

Another concern is exactly where the tree would be relocated to. The tree must remain on the property and could not be moved off-site unless the tree was either pruned back severely or a much smaller than recommended rootball was created. Please note by pruning the tree back severely or by reducing the size of the recommended rootball it would definitely kill this tree. Per the ANSI A300 (Part 6) Planting and Transplanting standards, the rootball should have a minimum 12 inches or more of diameter for every inch of trunk diameter. The 76" diameter Magnolia should have a minimum root ball diameter of 76'. ANSI does not have a formula for the rootball depth. A 76' diameter rootball

Specimen Division

9500 Foothill Blvd., Sunland, CA 91040

Tel: 818-951-5500 Fax: 818-951-8106

would have a surface area of 4,536 square feet and a weight of approximately 1,200,000 pounds. The application of these standards as opposed to our recommended 30' x 30' rootball would make moving the tree even more infeasible and likely kill the tree.

The size of the recommended rootball is approximately 30' x 30' x 5' deep and the size of the canopy are approximately 80' wide and 60' high. The tree must remain on-site. Given the size and weight of the tree moving a tree of this size requires extremely specialized equipment and a very large path of travel. I reviewed the 2 locations identified on Exhibit A to HortScience, letters to Jeff Fyffe, dated May 30, 2014. Both locations have overhead power lines, very narrow streets, street light, traffic signals, BART crossings overhead and power poles. Given all of these obstacles moving the tree to these off-site locations or sites located further away are not viable options. Because the tree weighs approximately 500,000 pounds the underground utilities (power, water, communications, gas, street lighting, traffic signals, and sewer) can be damaged or severely compromised. The utilities could be crushed by the weight of the tree and in addition the city streets could also be damaged severely.

The tree will have less than a 50% chance of surviving the relocation process and I do not recommend moving the tree. It would most likely die once moved and it could potentially cause a public safety hazard. When a tree is relocated it may develop hazardous limbs that could fall without notice. In the event that Valley Crest Tree Company was awarded a contract to relocate the Magnolia tree Valley Crest Tree Company would not be able to guarantee or warranty the tree for any period of time. Also if the decision is to relocate the tree you could expect to spend an additional \$18,000.00 annually to maintain the tree.

One possibility of keeping the legacy of the tree is to take seeds from the existing tree and propagate new trees from those seeds or take cutting from the tree and propagate those cuttings. If this is a direction that sounds attractive it should be done soon so that by the time the project gets completed the trees will be decent size.

Please let me know if you have any questions or need any further assistance.

Sincerely,
VALLEY CREST TREE COMPANY



Scott Soper
Branch Manager
ssoper@vctree.com

APPENDIX B

10-YEAR CONSTRUCTION RISK ASSESSMENT

10 Year Construction Risk Assessment

10 Year Cumulative Project Impact										
Phase I					Phase II					Sum
Year 1	Year 2	Year 3	Year 4*	Year 5*	Year 1	Year 2	Year 3	Year 4	Year 5**	
3.85E-06	1.82E-06	1.92E-07	1.92E-07	1.92E-07	3.67E-07	7.68E-07	2.83E-07	2.48E-07	2.48E-07	8.16E-06

* Assumes risk is the same as the 3rd year of exposure

** Assumes risk is the same as the 4th year of exposure

7 Year Cumulative Project Impact										
Phase I					Phase II					Sum
Year 1	Year 2	Year 3	Year 4	Year 5	Year 1	Year 2	Year 3	Year 4	Year 5	
3.85E-06	1.82E-06	1.92E-07			3.67E-07	7.68E-07	2.83E-07	2.48E-07		7.53E-06

PHASE 1 Emission Summary

	2015	2016	2017
	PM 10 (Ton/Yr)		
Const. Equip	9.10E-02	2.27E-01	6.07E-03
Const. Mobil Onsite		1.73E-06	
Const. Mobil Idling		1.01E-05	

Units	2015	2016	2017
	PM 10 (Ton/Yr)		
CUP	5.26E-03	8.51E-03	5.11E-03
DEMO_GAR	2.10E-02	1.70E-03	3.40E-03
IDL_CUP	1.17E-07	1.21E-06	0.00E+00
IDL_GAR	3.04E-07	1.01E-07	5.60E-07
IDL_OPC2	5.79E-08	8.87E-06	0.00E+00
IDL_REN	1.20E-06	0.00E+00	0.00E+00
OPC2	7.89E-02	2.04E-02	3.40E-02
TRL_CUP	1.67E-08	1.20E-06	0.00E+00
TRL_GAR	3.81E-08	1.73E-08	7.04E-08
TRL_OPC2	9.93E-09	1.52E-06	0.00E+00
TRL_REN	1.49E-06	0.00E+00	0.00E+00

	2015	2016	2017
Garage	20%	1%	8%
OPC2	75%	88%	80%
CUP	5%	12%	12%

75%

2015	1	0.0625
2016	12	0.75
2017	3	0.1875
	16	

Units	2015	2016	2017	Sum
	PM 10 (g/sec)			
CUP	1.51E-04	2.45E-04	1.47E-04	5.43E-04
DEMO_GAR	6.05E-04	4.90E-05	9.79E-05	7.52E-04
IDL_CUP	3.38E-09	3.48E-08	0.00E+00	3.82E-08
IDL_GAR	8.73E-09	2.90E-09	1.61E-08	2.78E-08
IDL_OPC2	1.67E-09	2.55E-07	0.00E+00	2.57E-07
IDL_REN	3.46E-08	0.00E+00	0.00E+00	3.46E-08
OPC2	2.27E-03	5.88E-04	9.79E-04	3.84E-03
TRL_CUP	4.82E-10	3.45E-08	0.00E+00	3.50E-08
TRL_GAR	1.10E-09	4.97E-10	2.03E-09	3.62E-09
TRL_OPC2	2.86E-10	4.37E-08	0.00E+00	4.40E-08
TRL_REN	4.29E-08	0.00E+00	0.00E+00	4.29E-08

Phase 2 Emission Summary

	2020	2021	2022	2023
	PM 10 (Ton/Yr)			
Const. Equip	2.32E-01	2.65E-01	0.10	0.090746
Const. Mobil Onsite	1.47E-05	1.30E-05	1.67E-05	1.51E-05
Const. Mobil Idling	4.48E-06	6.47E-06	5.41E-06	4.77E-06

	2020	2021	2022	2023
Admin	9%	9%	9%	9%
Residence	1%	1%	1%	1%
Pavilion	50%	35%	35%	35%
Parking	40%	55%	55%	55%
	100.00%	100.00%	100.00%	100.00%

	Months	
2020	6	0.146341
2021	12	0.292683
2022	12	0.292683
2023	11	0.268293
	41	

Units	2020	2021	2022	2023
	PM 10 (Ton/Yr)			
ADMIN	2.09E-02	2.38E-02	8.76E-03	8.17E-03
HOSP_RES	2.32E-03	2.65E-03	9.74E-04	9.07E-04
IDL_ADM	1.32E-06	1.17E-06	1.50E-06	1.36E-06
STCK1	2.24E-06	2.27E-06	1.90E-06	1.67E-06
IDL_RES	4.48E-08	6.47E-08	5.41E-08	4.77E-08
PAREA1	5.81E-03	4.63E-03	1.70E-03	1.59E-03
PAREA3	1.76E-02	1.40E-02	5.16E-03	4.81E-03
PAREA4	1.87E-02	1.49E-02	5.49E-03	5.12E-03
PAREA5	2.09E-02	1.67E-02	6.14E-03	5.72E-03
PAREA6	2.04E-02	1.63E-02	5.99E-03	5.58E-03
PAREA7	1.74E-02	1.39E-02	5.11E-03	4.76E-03
PAREA8	1.51E-02	1.20E-02	4.43E-03	4.13E-03
PARKING1	1.67E-02	2.62E-02	9.64E-03	8.98E-03
PARKING2	9.30E-03	1.46E-02	5.36E-03	4.99E-03
PARKING3	9.30E-03	1.46E-02	5.36E-03	4.99E-03
PARKING4	1.49E-02	2.33E-02	8.57E-03	7.99E-03
PARKING5	1.49E-02	2.33E-02	8.57E-03	7.99E-03
PARKING6	1.49E-02	2.33E-02	8.57E-03	7.99E-03
PARKING7	1.30E-02	2.04E-02	7.50E-03	6.99E-03
TRL_ADM	1.32E-06	1.17E-06	1.50E-06	1.36E-06
TRL_MAIN	7.33E-06	4.54E-06	5.83E-06	5.28E-06
TRL_RES	1.47E-07	1.30E-07	1.67E-07	1.51E-07

Units	2020	2021	2022	2023	
	PM 10 (g/sec)				Sum
ADMIN	6.02E-04	6.86E-04	2.52E-04	2.35E-04	1.77E-03
HOSP_RES	6.69E-05	7.62E-05	2.80E-05	2.61E-05	1.97E-04
IDL_ADM	3.80E-08	3.36E-08	4.32E-08	3.90E-08	1.54E-07
STCK1	6.44E-08	6.52E-08	5.45E-08	4.80E-08	2.32E-07
IDL_RES	1.29E-09	1.86E-09	1.56E-09	1.37E-09	6.08E-09
PAREA1	1.67E-04	1.33E-04	4.90E-05	4.57E-05	3.95E-04
PAREA3	5.07E-04	4.04E-04	1.49E-04	1.38E-04	1.20E-03
PAREA4	5.39E-04	4.30E-04	1.58E-04	1.47E-04	1.27E-03
PAREA5	6.02E-04	4.80E-04	1.77E-04	1.64E-04	1.42E-03
PAREA6	5.87E-04	4.68E-04	1.72E-04	1.60E-04	1.39E-03
PAREA7	5.02E-04	4.00E-04	1.47E-04	1.37E-04	1.19E-03
PAREA8	4.35E-04	3.47E-04	1.27E-04	1.19E-04	1.03E-03
PARKING1	4.81E-04	7.54E-04	2.77E-04	2.58E-04	1.77E-03
PARKING2	2.67E-04	4.19E-04	1.54E-04	1.44E-04	9.84E-04
PARKING3	2.67E-04	4.19E-04	1.54E-04	1.44E-04	9.84E-04
PARKING4	4.28E-04	6.70E-04	2.47E-04	2.30E-04	1.57E-03
PARKING5	4.28E-04	6.70E-04	2.47E-04	2.30E-04	1.57E-03
PARKING6	4.28E-04	6.70E-04	2.47E-04	2.30E-04	1.57E-03
PARKING7	3.74E-04	5.87E-04	2.16E-04	2.01E-04	1.38E-03
TRL_ADM	3.80E-08	3.36E-08	4.32E-08	3.90E-08	1.54E-07
TRL_MAIN	2.11E-07	1.31E-07	1.68E-07	1.52E-07	6.61E-07
TRL_RES	4.22E-09	3.73E-09	4.80E-09	4.34E-09	1.71E-08

PAREA1	3387	5%	PAREA2
PAREA3	3742.9	15%	
PAREA4	3979.8	16%	
PAREA5	4065.7	18%	24701.8
PAREA6	4339.2	18%	
PAREA7	3123.9	15%	
PAREA8	2063.3	13%	
PARKING1	4092.50	18%	
PARKING2	3320.50	10%	
PARKING3	7171.10	10%	
PARKING4	7703.40	16%	
PARKING5	8010.00	16%	
PARKING6	11519.20	16%	
PARKING7	5572.80	14%	
		100%	47389.5

Hospital Filter Controls 0%
100%

Phase 1 Consturction

							1187
							Phase 1 Max
Phase I Risk By Year							6.27E-06
X	Y	Ph1 - Yr1	Ph1 - Yr2	Ph1 - Yr3	Ph1 - Yr4	Ph1 - Yr5	Sum
564462.69	4187757.5	2.49E-07	3.9E-07	2.54E-08	2.54E-08	2.54E-08	7.15E-07
564453.81	4187759.25	2.46E-07	3.77E-07	2.49E-08	2.49E-08	2.49E-08	6.98E-07
564444.94	4187761	2.42E-07	3.6E-07	2.42E-08	2.42E-08	2.42E-08	6.75E-07
564427.25	4187764.5	2.31E-07	3.24E-07	2.27E-08	2.27E-08	2.27E-08	6.24E-07
564418.38	4187766.25	2.25E-07	3.06E-07	2.18E-08	2.18E-08	2.18E-08	5.97E-07
564409.5	4187768	2.18E-07	2.9E-07	2.1E-08	2.1E-08	2.1E-08	5.71E-07
564465.69	4187748	2.34E-07	3.6E-07	2.37E-08	2.37E-08	2.37E-08	6.65E-07
564451.88	4187749.5	2.28E-07	3.4E-07	2.28E-08	2.28E-08	2.28E-08	6.36E-07
564434.19	4187753	2.2E-07	3.11E-07	2.16E-08	2.16E-08	2.16E-08	5.96E-07
564425.31	4187754.75	2.15E-07	2.96E-07	2.09E-08	2.09E-08	2.09E-08	5.73E-07
564407.63	4187758	2.02E-07	2.66E-07	1.93E-08	1.93E-08	1.93E-08	5.26E-07
564466.25	4187738.5	2.19E-07	3.3E-07	2.2E-08	2.2E-08	2.2E-08	6.14E-07
564450	4187739.75	2.12E-07	3.09E-07	2.1E-08	2.1E-08	2.1E-08	5.84E-07
564441.13	4187741.5	2.09E-07	2.97E-07	2.05E-08	2.05E-08	2.05E-08	5.67E-07
564432.25	4187743	2.04E-07	2.84E-07	1.99E-08	1.99E-08	1.99E-08	5.48E-07
564414.56	4187746.5	1.94E-07	2.57E-07	1.86E-08	1.86E-08	1.86E-08	5.07E-07
564405.69	4187748.25	1.88E-07	2.45E-07	1.79E-08	1.79E-08	1.79E-08	4.87E-07
564463.5	4187728.5	2.03E-07	2.98E-07	2.02E-08	2.02E-08	2.02E-08	5.62E-07
564448.06	4187729.75	1.97E-07	2.81E-07	1.94E-08	1.94E-08	1.94E-08	5.37E-07
564439.25	4187731.5	1.94E-07	2.71E-07	1.89E-08	1.89E-08	1.89E-08	5.22E-07
564421.5	4187735	1.86E-07	2.49E-07	1.78E-08	1.78E-08	1.78E-08	4.88E-07
564412.63	4187736.75	1.81E-07	2.38E-07	1.73E-08	1.73E-08	1.73E-08	4.70E-07
564463.25	4187718.75	1.91E-07	2.75E-07	1.88E-08	1.88E-08	1.88E-08	5.22E-07
564446.19	4187720	1.84E-07	2.58E-07	1.8E-08	1.8E-08	1.8E-08	4.97E-07
564437.31	4187721.75	1.81E-07	2.5E-07	1.76E-08	1.76E-08	1.76E-08	4.84E-07
564428.44	4187723.5	1.78E-07	2.4E-07	1.71E-08	1.71E-08	1.71E-08	4.69E-07
564410.75	4187727	1.69E-07	2.2E-07	1.61E-08	1.61E-08	1.61E-08	4.37E-07
564401.88	4187728.75	1.65E-07	2.1E-07	1.56E-08	1.56E-08	1.56E-08	4.22E-07
564460.5	4187709	1.78E-07	2.52E-07	1.74E-08	1.74E-08	1.74E-08	4.82E-07
564444.25	4187710.25	1.73E-07	2.38E-07	1.67E-08	1.67E-08	1.67E-08	4.61E-07
564435.38	4187712	1.7E-07	2.3E-07	1.64E-08	1.64E-08	1.64E-08	4.49E-07
564417.69	4187715.5	1.62E-07	2.13E-07	1.55E-08	1.55E-08	1.55E-08	4.22E-07
564408.81	4187717	1.58E-07	2.04E-07	1.5E-08	1.5E-08	1.5E-08	4.07E-07
564459.88	4187699.25	1.68E-07	2.33E-07	1.63E-08	1.63E-08	1.63E-08	4.50E-07
564442.31	4187700.5	1.62E-07	2.2E-07	1.56E-08	1.56E-08	1.56E-08	4.29E-07
564424.63	4187703.75	1.56E-07	2.05E-07	1.49E-08	1.49E-08	1.49E-08	4.06E-07
564415.75	4187705.5	1.52E-07	1.98E-07	1.44E-08	1.44E-08	1.44E-08	3.93E-07
564398.06	4187709	1.45E-07	1.83E-07	1.36E-08	1.36E-08	1.36E-08	3.69E-07
564456.31	4187679.5	1.49E-07	2.01E-07	1.43E-08	1.43E-08	1.43E-08	3.93E-07
564438.5	4187680.75	1.43E-07	1.9E-07	1.37E-08	1.37E-08	1.37E-08	3.74E-07
564420.81	4187684.25	1.38E-07	1.78E-07	1.31E-08	1.31E-08	1.31E-08	3.56E-07
564411.94	4187686	1.35E-07	1.72E-07	1.27E-08	1.27E-08	1.27E-08	3.46E-07

564394.25	4187689.5	1.29E-07	1.61E-07	1.21E-08	1.21E-08	1.21E-08	3.26E-07
564453.75	4187669.75	1.4E-07	1.87E-07	1.34E-08	1.34E-08	1.34E-08	3.68E-07
564486.75	4187671.75	1.5E-07	2.07E-07	1.45E-08	1.45E-08	1.45E-08	4.01E-07
564436.63	4187671	1.35E-07	1.77E-07	1.29E-08	1.29E-08	1.29E-08	3.51E-07
564427.75	4187672.75	1.33E-07	1.72E-07	1.26E-08	1.26E-08	1.26E-08	3.43E-07
564418.88	4187674.5	1.3E-07	1.67E-07	1.23E-08	1.23E-08	1.23E-08	3.34E-07
564401.19	4187677.75	1.25E-07	1.56E-07	1.16E-08	1.16E-08	1.16E-08	3.16E-07
564392.31	4187679.5	1.22E-07	1.51E-07	1.14E-08	1.14E-08	1.14E-08	3.07E-07
564451.31	4187659.75	1.33E-07	1.74E-07	1.26E-08	1.26E-08	1.26E-08	3.45E-07
564482.44	4187661.75	1.42E-07	1.91E-07	1.36E-08	1.36E-08	1.36E-08	3.74E-07
564434.69	4187661.25	1.28E-07	1.66E-07	1.21E-08	1.21E-08	1.21E-08	3.30E-07
564417	4187664.5	1.23E-07	1.56E-07	1.16E-08	1.16E-08	1.16E-08	3.14E-07
564408.13	4187666.25	1.2E-07	1.52E-07	1.13E-08	1.13E-08	1.13E-08	3.06E-07
564390.44	4187669.75	1.16E-07	1.42E-07	1.07E-08	1.07E-08	1.07E-08	2.90E-07
564450.13	4187650	1.26E-07	1.64E-07	1.19E-08	1.19E-08	1.19E-08	3.25E-07
564484.06	4187652	1.35E-07	1.81E-07	1.29E-08	1.29E-08	1.29E-08	3.54E-07
564432.81	4187651.25	1.21E-07	1.55E-07	1.14E-08	1.14E-08	1.14E-08	3.11E-07
564423.94	4187653	1.19E-07	1.51E-07	1.12E-08	1.12E-08	1.12E-08	3.04E-07
564415.06	4187654.75	1.17E-07	1.47E-07	1.09E-08	1.09E-08	1.09E-08	2.96E-07
564397.38	4187658.25	1.12E-07	1.38E-07	1.04E-08	1.04E-08	1.04E-08	2.82E-07
564388.5	4187660	1.1E-07	1.34E-07	1.02E-08	1.02E-08	1.02E-08	2.75E-07
564447.75	4187640.25	1.19E-07	1.54E-07	1.12E-08	1.12E-08	1.12E-08	3.07E-07
564479.94	4187642.25	1.28E-07	1.68E-07	1.21E-08	1.21E-08	1.21E-08	3.32E-07
564496.06	4187643	1.31E-07	1.76E-07	1.25E-08	1.25E-08	1.25E-08	3.45E-07
564430.88	4187641.5	1.15E-07	1.46E-07	1.08E-08	1.08E-08	1.08E-08	2.93E-07
564422	4187643.25	1.13E-07	1.42E-07	1.06E-08	1.06E-08	1.06E-08	2.87E-07
564404.31	4187646.75	1.08E-07	1.35E-07	1.01E-08	1.01E-08	1.01E-08	2.73E-07
564395.44	4187648.5	1.06E-07	1.31E-07	9.86E-09	9.86E-09	9.86E-09	2.67E-07
564446.5	4187630.5	1.13E-07	1.45E-07	1.07E-08	1.07E-08	1.07E-08	2.90E-07
564481.13	4187632.5	1.22E-07	1.59E-07	1.16E-08	1.16E-08	1.16E-08	3.16E-07
564498.5	4187633.5	1.26E-07	1.67E-07	1.2E-08	1.2E-08	1.2E-08	3.29E-07
564429	4187631.75	1.09E-07	1.38E-07	1.02E-08	1.02E-08	1.02E-08	2.77E-07
564420.13	4187633.5	1.07E-07	1.34E-07	9.99E-09	9.99E-09	9.99E-09	2.71E-07
564411.25	4187635.25	1.05E-07	1.31E-07	9.78E-09	9.78E-09	9.78E-09	2.65E-07
564402.44	4187636.75	1.03E-07	1.27E-07	9.55E-09	9.55E-09	9.55E-09	2.59E-07
564384.69	4187640.25	9.94E-08	1.2E-07	9.17E-09	9.17E-09	9.17E-09	2.47E-07
564444.19	4187620.75	1.08E-07	1.37E-07	1.01E-08	1.01E-08	1.01E-08	2.75E-07
564477.19	4187622.5	1.16E-07	1.49E-07	1.09E-08	1.09E-08	1.09E-08	2.98E-07
564493.69	4187623.5	1.19E-07	1.56E-07	1.13E-08	1.13E-08	1.13E-08	3.09E-07
564427.06	4187622	1.04E-07	1.3E-07	9.67E-09	9.67E-09	9.67E-09	2.63E-07
564418.19	4187623.5	1.02E-07	1.27E-07	9.47E-09	9.47E-09	9.47E-09	2.57E-07
564400.5	4187627	9.81E-08	1.2E-07	9.07E-09	9.07E-09	9.07E-09	2.46E-07
564391.63	4187628.75	9.64E-08	1.17E-07	8.89E-09	8.89E-09	8.89E-09	2.40E-07
564478	4187613	1.11E-07	1.42E-07	1.04E-08	1.04E-08	1.04E-08	2.84E-07
564495.63	4187614	1.14E-07	1.49E-07	1.08E-08	1.08E-08	1.08E-08	2.95E-07
564507.81	4187605	1.11E-07	1.45E-07	1.05E-08	1.05E-08	1.05E-08	2.88E-07
564423.25	4187602.25	9.39E-08	1.16E-07	8.72E-09	8.72E-09	8.72E-09	2.37E-07

564414.38	4187604	9.24E-08	1.14E-07	8.56E-09	8.56E-09	8.56E-09	2.32E-07
564405.5	4187605.75	9.08E-08	1.11E-07	8.39E-09	8.39E-09	8.39E-09	2.27E-07
564387.81	4187609.25	8.79E-08	1.06E-07	8.08E-09	8.08E-09	8.08E-09	2.18E-07
564378.94	4187610.75	8.65E-08	1.03E-07	7.93E-09	7.93E-09	7.93E-09	2.14E-07
564439.13	4187591.25	9.33E-08	1.16E-07	8.68E-09	8.68E-09	8.68E-09	2.35E-07
564474.75	4187593.25	1.01E-07	1.27E-07	9.43E-09	9.43E-09	9.43E-09	2.56E-07
564421.31	4187592.5	8.97E-08	1.11E-07	8.31E-09	8.31E-09	8.31E-09	2.25E-07
564403.63	4187595.75	8.67E-08	1.06E-07	7.99E-09	7.99E-09	7.99E-09	2.16E-07
564394.75	4187597.5	8.53E-08	1.03E-07	7.84E-09	7.84E-09	7.84E-09	2.12E-07
564377.06	4187601	8.28E-08	9.86E-08	7.58E-09	7.58E-09	7.58E-09	2.04E-07
564436.81	4187581.5	8.91E-08	1.1E-07	8.26E-09	8.26E-09	8.26E-09	2.24E-07
564471	4187583.5	9.63E-08	1.2E-07	8.97E-09	8.97E-09	8.97E-09	2.43E-07
564488.13	4187584.5	9.92E-08	1.25E-07	9.27E-09	9.27E-09	9.27E-09	2.52E-07
564505.25	4187585.5	1.02E-07	1.3E-07	9.55E-09	9.55E-09	9.55E-09	2.61E-07
564419.44	4187582.5	8.56E-08	1.05E-07	7.91E-09	7.91E-09	7.91E-09	2.14E-07
564410.56	4187584.25	8.43E-08	1.03E-07	7.77E-09	7.77E-09	7.77E-09	2.10E-07
564401.69	4187586	8.29E-08	1E-07	7.63E-09	7.63E-09	7.63E-09	2.06E-07
564384	4187589.5	8.05E-08	9.61E-08	7.37E-09	7.37E-09	7.37E-09	1.99E-07
564375.13	4187591.25	7.94E-08	9.41E-08	7.25E-09	7.25E-09	7.25E-09	1.95E-07
564435.38	4187571.5	8.52E-08	1.05E-07	7.88E-09	7.88E-09	7.88E-09	2.13E-07
564471.38	4187573.75	9.25E-08	1.15E-07	8.59E-09	8.59E-09	8.59E-09	2.33E-07
564480.38	4187574.25	9.4E-08	1.17E-07	8.74E-09	8.74E-09	8.74E-09	2.37E-07
564489.38	4187574.75	9.54E-08	1.2E-07	8.89E-09	8.89E-09	8.89E-09	2.42E-07
564498.38	4187575.25	9.67E-08	1.22E-07	9.03E-09	9.03E-09	9.03E-09	2.46E-07
564507.38	4187575.75	9.79E-08	1.25E-07	9.16E-09	9.16E-09	9.16E-09	2.50E-07
564426.38	4187571	8.32E-08	1.02E-07	7.68E-09	7.68E-09	7.68E-09	2.08E-07
564417.5	4187572.75	8.19E-08	9.99E-08	7.55E-09	7.55E-09	7.55E-09	2.05E-07
564408.63	4187574.5	8.07E-08	9.79E-08	7.42E-09	7.42E-09	7.42E-09	2.01E-07
564390.94	4187578	7.83E-08	9.38E-08	7.17E-09	7.17E-09	7.17E-09	1.94E-07
564382.06	4187579.75	7.72E-08	9.18E-08	7.05E-09	7.05E-09	7.05E-09	1.90E-07
564433.13	4187561.75	8.15E-08	9.96E-08	7.52E-09	7.52E-09	7.52E-09	2.04E-07
564467.75	4187563.75	8.82E-08	1.09E-07	8.17E-09	8.17E-09	8.17E-09	2.21E-07
564485.13	4187564.75	9.1E-08	1.13E-07	8.45E-09	8.45E-09	8.45E-09	2.29E-07
564502.44	4187565.75	9.34E-08	1.18E-07	8.71E-09	8.71E-09	8.71E-09	2.37E-07
564415.63	4187563	7.85E-08	9.53E-08	7.22E-09	7.22E-09	7.22E-09	1.95E-07
564406.75	4187564.75	7.73E-08	9.34E-08	7.1E-09	7.1E-09	7.1E-09	1.92E-07
564397.88	4187566.5	7.62E-08	9.15E-08	6.98E-09	6.98E-09	6.98E-09	1.89E-07
564380.19	4187569.75	7.4E-08	8.77E-08	6.75E-09	6.75E-09	6.75E-09	1.82E-07
564371.31	4187571.5	7.31E-08	8.6E-08	6.66E-09	6.66E-09	6.66E-09	1.79E-07
564430.94	4187552	7.8E-08	9.49E-08	7.19E-09	7.19E-09	7.19E-09	1.94E-07
564464.44	4187554	8.43E-08	1.03E-07	7.8E-09	7.8E-09	7.8E-09	2.11E-07
564481.19	4187554.75	8.69E-08	1.07E-07	8.05E-09	8.05E-09	8.05E-09	2.18E-07
564497.94	4187555.75	8.93E-08	1.11E-07	8.29E-09	8.29E-09	8.29E-09	2.25E-07
564413.69	4187553.25	7.53E-08	9.1E-08	6.91E-09	6.91E-09	6.91E-09	1.87E-07
564404.81	4187555	7.42E-08	8.92E-08	6.8E-09	6.8E-09	6.8E-09	1.84E-07
564387.13	4187558.25	7.21E-08	8.56E-08	6.58E-09	6.58E-09	6.58E-09	1.77E-07
564378.25	4187560	7.12E-08	8.4E-08	6.48E-09	6.48E-09	6.48E-09	1.75E-07

564429.38	4187542.25	7.49E-08	9.07E-08	6.89E-09	6.89E-09	6.89E-09	1.86E-07
564464.44	4187544.25	8.12E-08	9.88E-08	7.49E-09	7.49E-09	7.49E-09	2.02E-07
564481.94	4187545.25	8.38E-08	1.03E-07	7.75E-09	7.75E-09	7.75E-09	2.10E-07
564499.44	4187546.25	8.62E-08	1.07E-07	7.99E-09	7.99E-09	7.99E-09	2.17E-07
564411.75	4187543.25	7.22E-08	8.68E-08	6.61E-09	6.61E-09	6.61E-09	1.79E-07
564394.06	4187546.75	7.02E-08	8.36E-08	6.41E-09	6.41E-09	6.41E-09	1.73E-07
564385.19	4187548.5	6.93E-08	8.2E-08	6.31E-09	6.31E-09	6.31E-09	1.70E-07
564367.5	4187552	6.77E-08	7.91E-08	6.14E-09	6.14E-09	6.14E-09	1.65E-07
564461.19	4187534.25	7.77E-08	9.4E-08	7.15E-09	7.15E-09	7.15E-09	1.93E-07
564478.13	4187535.25	8.02E-08	9.76E-08	7.4E-09	7.4E-09	7.4E-09	2.00E-07
564495.13	4187536.25	8.25E-08	1.01E-07	7.62E-09	7.62E-09	7.62E-09	2.07E-07
564425.63	4187522.5	6.91E-08	8.29E-08	6.33E-09	6.33E-09	6.33E-09	1.71E-07
564461	4187524.5	7.48E-08	9.02E-08	6.88E-09	6.88E-09	6.88E-09	1.86E-07
564478.69	4187525.5	7.74E-08	9.38E-08	7.12E-09	7.12E-09	7.12E-09	1.93E-07
564496.38	4187526.75	7.97E-08	9.75E-08	7.36E-09	7.36E-09	7.36E-09	1.99E-07
564407.94	4187523.75	6.67E-08	7.96E-08	6.09E-09	6.09E-09	6.09E-09	1.65E-07
564390.25	4187527.25	6.5E-08	7.69E-08	5.91E-09	5.91E-09	5.91E-09	1.60E-07
564381.38	4187529	6.42E-08	7.55E-08	5.83E-09	5.83E-09	5.83E-09	1.57E-07
564363.69	4187532.25	6.28E-08	7.3E-08	5.68E-09	5.68E-09	5.68E-09	1.53E-07
564423.5	4187512.75	6.64E-08	7.94E-08	6.07E-09	6.07E-09	6.07E-09	1.64E-07
564457.81	4187514.75	7.18E-08	8.61E-08	6.58E-09	6.58E-09	6.58E-09	1.78E-07
564475	4187515.75	7.42E-08	8.94E-08	6.82E-09	6.82E-09	6.82E-09	1.84E-07
564492.13	4187516.75	7.64E-08	9.27E-08	7.03E-09	7.03E-09	7.03E-09	1.90E-07
564406.06	4187514	6.42E-08	7.64E-08	5.85E-09	5.85E-09	5.85E-09	1.58E-07
564397.19	4187515.5	6.34E-08	7.5E-08	5.77E-09	5.77E-09	5.77E-09	1.56E-07
564388.31	4187517.25	6.26E-08	7.38E-08	5.69E-09	5.69E-09	5.69E-09	1.53E-07
564370.63	4187520.75	6.12E-08	7.13E-08	5.54E-09	5.54E-09	5.54E-09	1.49E-07
564361.75	4187522.5	6.06E-08	7.02E-08	5.48E-09	5.48E-09	5.48E-09	1.47E-07
564421.88	4187503	6.4E-08	7.62E-08	5.84E-09	5.84E-09	5.84E-09	1.58E-07
564457.56	4187505	6.93E-08	8.28E-08	6.34E-09	6.34E-09	6.34E-09	1.71E-07
564475.38	4187506	7.17E-08	8.6E-08	6.57E-09	6.57E-09	6.57E-09	1.77E-07
564493.19	4187507	7.39E-08	8.93E-08	6.79E-09	6.79E-09	6.79E-09	1.84E-07
564404.13	4187504	6.18E-08	7.33E-08	5.63E-09	5.63E-09	5.63E-09	1.52E-07
564395.25	4187505.75	6.11E-08	7.21E-08	5.55E-09	5.55E-09	5.55E-09	1.50E-07
564377.56	4187509.25	5.97E-08	6.98E-08	5.41E-09	5.41E-09	5.41E-09	1.46E-07
564368.75	4187511	5.91E-08	6.87E-08	5.34E-09	5.34E-09	5.34E-09	1.44E-07
564419.75	4187493	6.16E-08	7.31E-08	5.61E-09	5.61E-09	5.61E-09	1.51E-07
564454.38	4187495	6.65E-08	7.91E-08	6.08E-09	6.08E-09	6.08E-09	1.64E-07
564471.75	4187496	6.88E-08	8.21E-08	6.3E-09	6.3E-09	6.3E-09	1.70E-07
564489.06	4187497	7.09E-08	8.51E-08	6.5E-09	6.5E-09	6.5E-09	1.76E-07
564402.25	4187494.25	5.96E-08	7.04E-08	5.42E-09	5.42E-09	5.42E-09	1.46E-07
564393.38	4187496	5.89E-08	6.93E-08	5.35E-09	5.35E-09	5.35E-09	1.44E-07
564384.5	4187497.75	5.83E-08	6.82E-08	5.28E-09	5.28E-09	5.28E-09	1.42E-07
564366.81	4187501.25	5.71E-08	6.61E-08	5.15E-09	5.15E-09	5.15E-09	1.39E-07
564357.94	4187503	5.66E-08	6.52E-08	5.1E-09	5.1E-09	5.1E-09	1.37E-07
564418.13	4187483.25	5.94E-08	7.03E-08	5.4E-09	5.4E-09	5.4E-09	1.46E-07
564427.13	4187483.75	6.06E-08	7.18E-08	5.52E-09	5.52E-09	5.52E-09	1.49E-07

564454.06	4187485.25	6.42E-08	7.62E-08	5.86E-09	5.86E-09	5.86E-09	1.58E-07
564472	4187486.5	6.66E-08	7.92E-08	6.09E-09	6.09E-09	6.09E-09	1.64E-07
564489.94	4187487.5	6.87E-08	8.22E-08	6.29E-09	6.29E-09	6.29E-09	1.70E-07
564400.31	4187484.5	5.76E-08	6.78E-08	5.22E-09	5.22E-09	5.22E-09	1.41E-07
564391.44	4187486.25	5.69E-08	6.67E-08	5.15E-09	5.15E-09	5.15E-09	1.39E-07
564373.75	4187489.5	5.57E-08	6.47E-08	5.03E-09	5.03E-09	5.03E-09	1.35E-07
564364.88	4187491.25	5.52E-08	6.37E-08	4.97E-09	4.97E-09	4.97E-09	1.34E-07
564416	4187473.5	5.73E-08	6.76E-08	5.2E-09	5.2E-09	5.2E-09	1.40E-07
564450.94	4187475.5	6.18E-08	7.3E-08	5.63E-09	5.63E-09	5.63E-09	1.52E-07
564468.44	4187476.5	6.4E-08	7.58E-08	5.84E-09	5.84E-09	5.84E-09	1.57E-07
564485.88	4187477.5	6.6E-08	7.85E-08	6.03E-09	6.03E-09	6.03E-09	1.63E-07
564398.44	4187474.75	5.56E-08	6.52E-08	5.04E-09	5.04E-09	5.04E-09	1.36E-07
564380.69	4187478	5.44E-08	6.33E-08	4.91E-09	4.91E-09	4.91E-09	1.32E-07
564371.81	4187479.75	5.38E-08	6.24E-08	4.86E-09	4.86E-09	4.86E-09	1.31E-07
564354.13	4187483.25	5.29E-08	6.06E-08	4.76E-09	4.76E-09	4.76E-09	1.28E-07
564413.88	4187463.5	5.53E-08	6.5E-08	5.01E-09	5.01E-09	5.01E-09	1.35E-07
564448	4187465.5	5.95E-08	7E-08	5.41E-09	5.41E-09	5.41E-09	1.46E-07
564465	4187466.5	6.15E-08	7.26E-08	5.6E-09	5.6E-09	5.6E-09	1.51E-07
564482.06	4187467.5	6.35E-08	7.51E-08	5.79E-09	5.79E-09	5.79E-09	1.56E-07
564396.5	4187464.75	5.37E-08	6.28E-08	4.86E-09	4.86E-09	4.86E-09	1.31E-07
564387.63	4187466.5	5.31E-08	6.19E-08	4.8E-09	4.8E-09	4.8E-09	1.29E-07
564369.94	4187470	5.21E-08	6.02E-08	4.7E-09	4.7E-09	4.7E-09	1.26E-07
564361.06	4187471.75	5.17E-08	5.94E-08	4.65E-09	4.65E-09	4.65E-09	1.25E-07
564402.69	4187788	2.43E-07	3.2E-07	2.33E-08	2.33E-08	2.33E-08	6.33E-07
564403.88	4187797	2.61E-07	3.47E-07	2.52E-08	2.52E-08	2.52E-08	6.83E-07
564406.25	4187814.75	3.05E-07	4.12E-07	2.96E-08	2.96E-08	2.96E-08	8.05E-07
564392.81	4187789.25	2.33E-07	2.99E-07	2.22E-08	2.22E-08	2.22E-08	5.99E-07
564394	4187798.25	2.5E-07	3.23E-07	2.39E-08	2.39E-08	2.39E-08	6.45E-07
564395.13	4187807.25	2.7E-07	3.5E-07	2.58E-08	2.58E-08	2.58E-08	6.98E-07
564383.5	4187774.5	2.02E-07	2.52E-07	1.9E-08	1.9E-08	1.9E-08	5.12E-07
564393.31	4187756.25	1.88E-07	2.38E-07	1.77E-08	1.77E-08	1.77E-08	4.78E-07
564382.88	4187790.5	2.24E-07	2.81E-07	2.12E-08	2.12E-08	2.12E-08	5.69E-07
564384.06	4187799.5	2.41E-07	3.03E-07	2.28E-08	2.28E-08	2.28E-08	6.12E-07
564385.25	4187808.5	2.59E-07	3.29E-07	2.46E-08	2.46E-08	2.46E-08	6.61E-07
564386.44	4187817.5	2.8E-07	3.59E-07	2.67E-08	2.67E-08	2.67E-08	7.19E-07
564373.56	4187775.75	1.95E-07	2.39E-07	1.83E-08	1.83E-08	1.83E-08	4.89E-07
564377.19	4187761.5	1.81E-07	2.23E-07	1.7E-08	1.7E-08	1.7E-08	4.55E-07
564385.19	4187750.5	1.75E-07	2.18E-07	1.64E-08	1.64E-08	1.64E-08	4.42E-07
564397.56	4187742.5	1.75E-07	2.23E-07	1.66E-08	1.66E-08	1.66E-08	4.48E-07
564372.94	4187792	2.17E-07	2.66E-07	2.04E-08	2.04E-08	2.04E-08	5.44E-07
564375.31	4187809.75	2.49E-07	3.1E-07	2.36E-08	2.36E-08	2.36E-08	6.30E-07
564376.5	4187818.75	2.69E-07	3.38E-07	2.55E-08	2.55E-08	2.55E-08	6.83E-07
564363.69	4187777	1.89E-07	2.27E-07	1.76E-08	1.76E-08	1.76E-08	4.69E-07
564367.25	4187762.75	1.76E-07	2.12E-07	1.64E-08	1.64E-08	1.64E-08	4.37E-07
564377.06	4187744.5	1.64E-07	2.01E-07	1.53E-08	1.53E-08	1.53E-08	4.10E-07
564389.5	4187736.5	1.64E-07	2.05E-07	1.54E-08	1.54E-08	1.54E-08	4.15E-07
564363.06	4187793.25	2.1E-07	2.53E-07	1.96E-08	1.96E-08	1.96E-08	5.21E-07

564364.25	4187802.25	2.24E-07	2.72E-07	2.1E-08	2.1E-08	2.1E-08	5.60E-07
564366.56	4187820	2.58E-07	3.2E-07	2.44E-08	2.44E-08	2.44E-08	6.51E-07
564354.13	4187777	1.82E-07	2.15E-07	1.69E-08	1.69E-08	1.69E-08	4.48E-07
564358.44	4187759.75	1.67E-07	1.99E-07	1.55E-08	1.55E-08	1.55E-08	4.12E-07
564370.19	4187738	1.54E-07	1.86E-07	1.43E-08	1.43E-08	1.43E-08	3.83E-07
564385.06	4187728.25	1.54E-07	1.9E-07	1.44E-08	1.44E-08	1.44E-08	3.87E-07
564353.13	4187794.5	2.02E-07	2.41E-07	1.88E-08	1.88E-08	1.88E-08	4.99E-07
564354.31	4187803.5	2.16E-07	2.59E-07	2.02E-08	2.02E-08	2.02E-08	5.36E-07
564356.69	4187821.25	2.48E-07	3.02E-07	2.33E-08	2.33E-08	2.33E-08	6.20E-07
564344.13	4187778.5	1.76E-07	2.05E-07	1.62E-08	1.62E-08	1.62E-08	4.29E-07
564348.31	4187761.75	1.62E-07	1.9E-07	1.5E-08	1.5E-08	1.5E-08	3.98E-07
564352.5	4187745.25	1.51E-07	1.78E-07	1.39E-08	1.39E-08	1.39E-08	3.70E-07
564361.88	4187732.25	1.45E-07	1.73E-07	1.34E-08	1.34E-08	1.34E-08	3.58E-07
564376.31	4187723	1.45E-07	1.76E-07	1.35E-08	1.35E-08	1.35E-08	3.61E-07
564344.38	4187804.75	2.07E-07	2.47E-07	1.93E-08	1.93E-08	1.93E-08	5.12E-07
564345.56	4187813.75	2.21E-07	2.65E-07	2.07E-08	2.07E-08	2.07E-08	5.49E-07
564334.19	4187780	1.69E-07	1.96E-07	1.56E-08	1.56E-08	1.56E-08	4.11E-07
564338.31	4187763.75	1.57E-07	1.82E-07	1.45E-08	1.45E-08	1.45E-08	3.83E-07
564342.38	4187747.25	1.47E-07	1.7E-07	1.35E-08	1.35E-08	1.35E-08	3.57E-07
564353.63	4187726.5	1.37E-07	1.61E-07	1.26E-08	1.26E-08	1.26E-08	3.36E-07
564367.75	4187717.25	1.37E-07	1.64E-07	1.26E-08	1.26E-08	1.26E-08	3.38E-07
564382	4187708.25	1.36E-07	1.67E-07	1.27E-08	1.27E-08	1.27E-08	3.42E-07
564334.5	4187806	1.98E-07	2.34E-07	1.84E-08	1.84E-08	1.84E-08	4.86E-07
564335.69	4187815	2.11E-07	2.5E-07	1.96E-08	1.96E-08	1.96E-08	5.19E-07
564336.81	4187824	2.24E-07	2.67E-07	2.1E-08	2.1E-08	2.1E-08	5.54E-07
564324.25	4187781.5	1.62E-07	1.87E-07	1.49E-08	1.49E-08	1.49E-08	3.93E-07
564328.25	4187765.25	1.51E-07	1.73E-07	1.39E-08	1.39E-08	1.39E-08	3.66E-07
564332.31	4187749.25	1.42E-07	1.63E-07	1.3E-08	1.3E-08	1.3E-08	3.44E-07
564336.38	4187733.25	1.33E-07	1.54E-07	1.22E-08	1.22E-08	1.22E-08	3.24E-07
564345.38	4187720.75	1.29E-07	1.51E-07	1.19E-08	1.19E-08	1.19E-08	3.16E-07
564359.31	4187711.75	1.29E-07	1.53E-07	1.19E-08	1.19E-08	1.19E-08	3.18E-07
564325.75	4187816.25	1.99E-07	2.34E-07	1.85E-08	1.85E-08	1.85E-08	4.89E-07
564326.94	4187825.25	2.12E-07	2.49E-07	1.97E-08	1.97E-08	1.97E-08	5.20E-07
564314.31	4187782.75	1.54E-07	1.78E-07	1.42E-08	1.42E-08	1.42E-08	3.74E-07
564318.31	4187767	1.45E-07	1.66E-07	1.33E-08	1.33E-08	1.33E-08	3.50E-07
564322.25	4187751	1.37E-07	1.56E-07	1.25E-08	1.25E-08	1.25E-08	3.30E-07
564326.25	4187735.25	1.29E-07	1.47E-07	1.18E-08	1.18E-08	1.18E-08	3.12E-07
564378.56	4187688.5	1.22E-07	1.48E-07	1.13E-08	1.13E-08	1.13E-08	3.04E-07
564314.63	4187808.75	1.77E-07	2.07E-07	1.64E-08	1.64E-08	1.64E-08	4.34E-07
564317	4187826.5	1.99E-07	2.31E-07	1.84E-08	1.84E-08	1.84E-08	4.85E-07
564304.56	4187783.25	1.46E-07	1.68E-07	1.34E-08	1.34E-08	1.34E-08	3.54E-07
564309	4187766	1.37E-07	1.56E-07	1.26E-08	1.26E-08	1.26E-08	3.31E-07
564311.19	4187757.25	1.33E-07	1.51E-07	1.22E-08	1.22E-08	1.22E-08	3.21E-07
564313.38	4187748.5	1.29E-07	1.46E-07	1.18E-08	1.18E-08	1.18E-08	3.11E-07
564315.56	4187739.75	1.25E-07	1.42E-07	1.14E-08	1.14E-08	1.14E-08	3.02E-07
564317.75	4187731	1.22E-07	1.38E-07	1.11E-08	1.11E-08	1.11E-08	2.93E-07
564319.94	4187722.25	1.18E-07	1.34E-07	1.08E-08	1.08E-08	1.08E-08	2.85E-07

564344.94	4187699	1.16E-07	1.35E-07	1.06E-08	1.06E-08	1.06E-08	2.83E-07
564352.5	4187694	1.16E-07	1.36E-07	1.07E-08	1.07E-08	1.07E-08	2.84E-07
564367.69	4187684.25	1.16E-07	1.38E-07	1.07E-08	1.07E-08	1.07E-08	2.86E-07
564304.75	4187810	1.67E-07	1.94E-07	1.55E-08	1.55E-08	1.55E-08	4.08E-07
564305.94	4187819	1.77E-07	2.04E-07	1.63E-08	1.63E-08	1.63E-08	4.30E-07
564294.63	4187784.75	1.39E-07	1.6E-07	1.28E-08	1.28E-08	1.28E-08	3.37E-07
564298.94	4187767.75	1.31E-07	1.49E-07	1.2E-08	1.2E-08	1.2E-08	3.16E-07
564301.13	4187759	1.27E-07	1.44E-07	1.16E-08	1.16E-08	1.16E-08	3.06E-07
564305.44	4187742	1.21E-07	1.36E-07	1.1E-08	1.1E-08	1.1E-08	2.89E-07
564307.56	4187733.25	1.17E-07	1.32E-07	1.07E-08	1.07E-08	1.07E-08	2.81E-07
564321.5	4187702.75	1.09E-07	1.24E-07	9.93E-09	9.93E-09	9.93E-09	2.63E-07
564336.38	4187693.25	1.1E-07	1.27E-07	1.01E-08	1.01E-08	1.01E-08	2.67E-07
564351.25	4187683.75	1.1E-07	1.29E-07	1.01E-08	1.01E-08	1.01E-08	2.69E-07
564366.19	4187674.25	1.1E-07	1.31E-07	1.01E-08	1.01E-08	1.01E-08	2.71E-07
564294.81	4187811.25	1.57E-07	1.82E-07	1.45E-08	1.45E-08	1.45E-08	3.83E-07
564296	4187820.25	1.66E-07	1.9E-07	1.53E-08	1.53E-08	1.53E-08	4.02E-07
564297.19	4187829.25	1.75E-07	1.99E-07	1.61E-08	1.61E-08	1.61E-08	4.22E-07
564284.69	4187786.25	1.32E-07	1.51E-07	1.21E-08	1.21E-08	1.21E-08	3.19E-07
564288.94	4187769.5	1.25E-07	1.42E-07	1.14E-08	1.14E-08	1.14E-08	3.02E-07
564293.19	4187752.5	1.19E-07	1.34E-07	1.08E-08	1.08E-08	1.08E-08	2.85E-07
564297.44	4187735.5	1.13E-07	1.26E-07	1.02E-08	1.02E-08	1.02E-08	2.69E-07
564313.25	4187697	1.03E-07	1.17E-07	9.36E-09	9.36E-09	9.36E-09	2.48E-07
564327.94	4187687.75	1.05E-07	1.19E-07	9.53E-09	9.53E-09	9.53E-09	2.53E-07
564342.63	4187678.25	1.05E-07	1.21E-07	9.59E-09	9.59E-09	9.59E-09	2.55E-07
564357.25	4187669	1.05E-07	1.23E-07	9.61E-09	9.61E-09	9.61E-09	2.57E-07
564371.94	4187659.5	1.05E-07	1.25E-07	9.62E-09	9.62E-09	9.62E-09	2.59E-07
564286.06	4187821.5	1.55E-07	1.77E-07	1.43E-08	1.43E-08	1.43E-08	3.75E-07
564287.25	4187830.5	1.63E-07	1.85E-07	1.5E-08	1.5E-08	1.5E-08	3.93E-07
564274.75	4187787.75	1.25E-07	1.43E-07	1.15E-08	1.15E-08	1.15E-08	3.02E-07
564278.94	4187771	1.19E-07	1.36E-07	1.09E-08	1.09E-08	1.09E-08	2.88E-07
564283.13	4187754.25	1.13E-07	1.28E-07	1.03E-08	1.03E-08	1.03E-08	2.72E-07
564287.31	4187737.75	1.08E-07	1.21E-07	9.81E-09	9.81E-09	9.81E-09	2.58E-07
564295.69	4187704.25	9.84E-08	1.1E-07	8.91E-09	8.91E-09	8.91E-09	2.35E-07
564305.06	4187691.25	9.74E-08	1.1E-07	8.83E-09	8.83E-09	8.83E-09	2.33E-07
564319.5	4187682	9.91E-08	1.12E-07	9.01E-09	9.01E-09	9.01E-09	2.39E-07
564334	4187672.75	1E-07	1.15E-07	9.1E-09	9.1E-09	9.1E-09	2.42E-07
564348.5	4187663.5	1E-07	1.16E-07	9.14E-09	9.14E-09	9.14E-09	2.44E-07
564363	4187654.25	9.98E-08	1.18E-07	9.15E-09	9.15E-09	9.15E-09	2.45E-07
564275	4187814	1.39E-07	1.59E-07	1.28E-08	1.28E-08	1.28E-08	3.36E-07
564277.38	4187831.75	1.53E-07	1.72E-07	1.4E-08	1.4E-08	1.4E-08	3.67E-07
564268.94	4187772.5	1.13E-07	1.29E-07	1.04E-08	1.04E-08	1.04E-08	2.74E-07
564273.13	4187756	1.08E-07	1.22E-07	9.87E-09	9.87E-09	9.87E-09	2.60E-07
564277.25	4187739.5	1.04E-07	1.16E-07	9.39E-09	9.39E-09	9.39E-09	2.47E-07
564285.56	4187706.5	9.48E-08	1.06E-07	8.57E-09	8.57E-09	8.57E-09	2.26E-07
564296.88	4187685.5	9.2E-08	1.03E-07	8.33E-09	8.33E-09	8.33E-09	2.20E-07
564311.19	4187676.25	9.39E-08	1.06E-07	8.52E-09	8.52E-09	8.52E-09	2.26E-07
564325.5	4187667.25	9.51E-08	1.08E-07	8.64E-09	8.64E-09	8.64E-09	2.29E-07

564339.81	4187658	9.55E-08	1.1E-07	8.69E-09	8.69E-09	8.69E-09	2.31E-07
564354.13	4187648.75	9.53E-08	1.11E-07	8.71E-09	8.71E-09	8.71E-09	2.33E-07
564368.44	4187639.75	9.51E-08	1.13E-07	8.72E-09	8.72E-09	8.72E-09	2.34E-07
564263.06	4187757.75	1.03E-07	1.17E-07	9.43E-09	9.43E-09	9.43E-09	2.49E-07
564267.19	4187741.5	9.92E-08	1.11E-07	9E-09	9E-09	9E-09	2.37E-07
564275.44	4187708.75	9.13E-08	1.01E-07	8.24E-09	8.24E-09	8.24E-09	2.17E-07
564279.5	4187692.5	8.76E-08	9.73E-08	7.91E-09	7.91E-09	7.91E-09	2.09E-07
564288.69	4187679.75	8.71E-08	9.72E-08	7.87E-09	7.87E-09	7.87E-09	2.08E-07
564302.88	4187670.75	8.91E-08	1E-07	8.07E-09	8.07E-09	8.07E-09	2.13E-07
564317.06	4187661.5	9.05E-08	1.02E-07	8.2E-09	8.2E-09	8.2E-09	2.17E-07
564331.25	4187652.5	9.12E-08	1.04E-07	8.28E-09	8.28E-09	8.28E-09	2.20E-07
564345.44	4187643.5	9.13E-08	1.06E-07	8.31E-09	8.31E-09	8.31E-09	2.22E-07
564359.63	4187634.25	9.09E-08	1.07E-07	8.31E-09	8.31E-09	8.31E-09	2.23E-07
564256.31	4187825.5	1.29E-07	1.44E-07	1.17E-08	1.17E-08	1.17E-08	3.08E-07
564245.06	4187791.25	1.06E-07	1.2E-07	9.65E-09	9.65E-09	9.65E-09	2.55E-07
564247.25	4187782.5	1.04E-07	1.18E-07	9.48E-09	9.48E-09	9.48E-09	2.50E-07
564266.94	4187704.5	8.65E-08	9.55E-08	7.8E-09	7.8E-09	7.8E-09	2.05E-07
564269.06	4187695.75	8.47E-08	9.36E-08	7.63E-09	7.63E-09	7.63E-09	2.01E-07
564271.25	4187687	8.29E-08	9.18E-08	7.47E-09	7.47E-09	7.47E-09	1.97E-07
564281	4187673.5	8.25E-08	9.17E-08	7.44E-09	7.44E-09	7.44E-09	1.96E-07
564296.06	4187664	8.47E-08	9.47E-08	7.65E-09	7.65E-09	7.65E-09	2.02E-07
564311.13	4187654.25	8.62E-08	9.71E-08	7.8E-09	7.8E-09	7.8E-09	2.07E-07
564326.19	4187644.75	8.71E-08	9.9E-08	7.9E-09	7.9E-09	7.9E-09	2.10E-07
564333.75	4187639.75	8.72E-08	9.97E-08	7.92E-09	7.92E-09	7.92E-09	2.11E-07
564242.88	4187800	1.08E-07	1.22E-07	9.81E-09	9.81E-09	9.81E-09	2.59E-07
564246.44	4187826.75	1.22E-07	1.35E-07	1.1E-08	1.1E-08	1.1E-08	2.90E-07
564247.63	4187835.75	1.27E-07	1.4E-07	1.15E-08	1.15E-08	1.15E-08	3.02E-07
564235.13	4187792.75	1E-07	1.13E-07	9.14E-09	9.14E-09	9.14E-09	2.41E-07
564237.31	4187784	9.86E-08	1.12E-07	8.98E-09	8.98E-09	8.98E-09	2.37E-07
564241.63	4187767	9.53E-08	1.08E-07	8.68E-09	8.68E-09	8.68E-09	2.29E-07
564243.75	4187758.25	9.35E-08	1.06E-07	8.51E-09	8.51E-09	8.51E-09	2.25E-07
564256.69	4187707	8.32E-08	9.17E-08	7.5E-09	7.5E-09	7.5E-09	1.97E-07
564258.88	4187698.25	8.16E-08	8.99E-08	7.35E-09	7.35E-09	7.35E-09	1.94E-07
564263.19	4187681.25	7.86E-08	8.67E-08	7.07E-09	7.07E-09	7.07E-09	1.86E-07
564272.75	4187667.75	7.82E-08	8.66E-08	7.04E-09	7.04E-09	7.04E-09	1.86E-07
564287.69	4187658.25	8.03E-08	8.95E-08	7.24E-09	7.24E-09	7.24E-09	1.92E-07
564302.56	4187648.75	8.2E-08	9.19E-08	7.41E-09	7.41E-09	7.41E-09	1.96E-07
564362.19	4187610.5	8.32E-08	9.77E-08	7.59E-09	7.59E-09	7.59E-09	2.04E-07
564236.5	4187828	1.15E-07	1.27E-07	1.04E-08	1.04E-08	1.04E-08	2.73E-07
564237.69	4187837	1.2E-07	1.32E-07	1.09E-08	1.09E-08	1.09E-08	2.84E-07
564225.19	4187794	9.54E-08	1.07E-07	8.66E-09	8.66E-09	8.66E-09	2.29E-07
564229.5	4187777	9.22E-08	1.04E-07	8.39E-09	8.39E-09	8.39E-09	2.22E-07
564233.75	4187760	8.92E-08	1.01E-07	8.11E-09	8.11E-09	8.11E-09	2.14E-07
564238	4187743.25	8.61E-08	9.67E-08	7.81E-09	7.81E-09	7.81E-09	2.06E-07
564250.81	4187692.25	7.72E-08	8.48E-08	6.94E-09	6.94E-09	6.94E-09	1.83E-07
564255.06	4187675.25	7.45E-08	8.19E-08	6.69E-09	6.69E-09	6.69E-09	1.76E-07
564264.56	4187662	7.42E-08	8.2E-08	6.67E-09	6.67E-09	6.67E-09	1.76E-07

564279.31	4187652.5	7.62E-08	8.46E-08	6.86E-09	6.86E-09	6.86E-09	1.81E-07
564338.31	4187614.75	8.01E-08	9.19E-08	7.27E-09	7.27E-09	7.27E-09	1.94E-07
564353	4187605.5	7.99E-08	9.3E-08	7.27E-09	7.27E-09	7.27E-09	1.95E-07
564225.44	4187820.5	1.05E-07	1.16E-07	9.49E-09	9.49E-09	9.49E-09	2.49E-07
564227.75	4187838.25	1.14E-07	1.24E-07	1.03E-08	1.03E-08	1.03E-08	2.69E-07
564215.25	4187795.5	9.1E-08	1.02E-07	8.24E-09	8.24E-09	8.24E-09	2.17E-07
564219.5	4187778.75	8.8E-08	9.93E-08	7.99E-09	7.99E-09	7.99E-09	2.11E-07
564223.75	4187761.75	8.51E-08	9.63E-08	7.73E-09	7.73E-09	7.73E-09	2.05E-07
564227.94	4187745	8.23E-08	9.26E-08	7.47E-09	7.47E-09	7.47E-09	1.97E-07
564256.38	4187656.25	7.05E-08	7.77E-08	6.33E-09	6.33E-09	6.33E-09	1.67E-07
564314.81	4187618.75	7.65E-08	8.61E-08	6.91E-09	6.91E-09	6.91E-09	1.83E-07
564329.44	4187609.5	7.69E-08	8.75E-08	6.96E-09	6.96E-09	6.96E-09	1.85E-07
564344	4187600	7.68E-08	8.85E-08	6.97E-09	6.97E-09	6.97E-09	1.86E-07
564358.63	4187590.75	7.65E-08	8.93E-08	6.96E-09	6.96E-09	6.96E-09	1.87E-07
564215.5	4187821.75	9.98E-08	1.1E-07	9.01E-09	9.01E-09	9.01E-09	2.36E-07
564216.69	4187830.75	1.04E-07	1.13E-07	9.35E-09	9.35E-09	9.35E-09	2.45E-07
564205.31	4187796.75	8.69E-08	9.65E-08	7.85E-09	7.85E-09	7.85E-09	2.07E-07
564209.5	4187780.25	8.41E-08	9.44E-08	7.62E-09	7.62E-09	7.62E-09	2.01E-07
564213.75	4187763.5	8.14E-08	9.19E-08	7.39E-09	7.39E-09	7.39E-09	1.95E-07
564217.94	4187746.75	7.88E-08	8.88E-08	7.14E-09	7.14E-09	7.14E-09	1.89E-07
564226.31	4187713.5	7.39E-08	8.16E-08	6.66E-09	6.66E-09	6.66E-09	1.75E-07
564230.5	4187696.75	7.16E-08	7.84E-08	6.43E-09	6.43E-09	6.43E-09	1.69E-07
564291.69	4187622.5	7.21E-08	8.02E-08	6.49E-09	6.49E-09	6.49E-09	1.72E-07
564306.13	4187613.25	7.32E-08	8.19E-08	6.59E-09	6.59E-09	6.59E-09	1.75E-07
564320.63	4187604	7.37E-08	8.33E-08	6.66E-09	6.66E-09	6.66E-09	1.77E-07
564335.13	4187594.75	7.39E-08	8.45E-08	6.69E-09	6.69E-09	6.69E-09	1.78E-07
564349.63	4187585.5	7.37E-08	8.53E-08	6.68E-09	6.68E-09	6.68E-09	1.79E-07
564205.63	4187823	9.49E-08	1.04E-07	8.56E-09	8.56E-09	8.56E-09	2.24E-07
564206.75	4187832	9.84E-08	1.07E-07	8.86E-09	8.86E-09	8.86E-09	2.32E-07
564207.94	4187841	1.02E-07	1.11E-07	9.19E-09	9.19E-09	9.19E-09	2.40E-07
564195.5	4187797.75	8.3E-08	9.18E-08	7.49E-09	7.49E-09	7.49E-09	1.97E-07
564197.75	4187789	8.17E-08	9.08E-08	7.38E-09	7.38E-09	7.38E-09	1.95E-07
564199.94	4187780.25	8.03E-08	8.98E-08	7.26E-09	7.26E-09	7.26E-09	1.92E-07
564202.13	4187771.5	7.89E-08	8.87E-08	7.14E-09	7.14E-09	7.14E-09	1.89E-07
564204.31	4187762.75	7.76E-08	8.74E-08	7.03E-09	7.03E-09	7.03E-09	1.86E-07
564206.5	4187754	7.63E-08	8.6E-08	6.91E-09	6.91E-09	6.91E-09	1.83E-07
564208.69	4187745.25	7.5E-08	8.44E-08	6.79E-09	6.79E-09	6.79E-09	1.80E-07
564215.31	4187719	7.14E-08	7.92E-08	6.44E-09	6.44E-09	6.44E-09	1.70E-07
564219.69	4187701.75	6.92E-08	7.6E-08	6.22E-09	6.22E-09	6.22E-09	1.64E-07
564221.88	4187693	6.81E-08	7.46E-08	6.11E-09	6.11E-09	6.11E-09	1.61E-07
564224.06	4187684.25	6.71E-08	7.32E-08	6.01E-09	6.01E-09	6.01E-09	1.58E-07
564226.25	4187675.5	6.6E-08	7.2E-08	5.92E-09	5.92E-09	5.92E-09	1.56E-07
564255.63	4187634.75	6.58E-08	7.24E-08	5.9E-09	5.9E-09	5.9E-09	1.56E-07
564263.19	4187629.75	6.66E-08	7.35E-08	5.98E-09	5.98E-09	5.98E-09	1.58E-07
564278.38	4187620	6.83E-08	7.56E-08	6.13E-09	6.13E-09	6.13E-09	1.62E-07
564293.56	4187610.25	6.96E-08	7.74E-08	6.26E-09	6.26E-09	6.26E-09	1.66E-07
564308.75	4187600.75	7.06E-08	7.91E-08	6.36E-09	6.36E-09	6.36E-09	1.69E-07

564316.31	4187595.75	7.09E-08	7.98E-08	6.39E-09	6.39E-09	6.39E-09	1.70E-07
564331.5	4187586	7.1E-08	8.1E-08	6.42E-09	6.42E-09	6.42E-09	1.71E-07
564346.69	4187576.25	7.08E-08	8.17E-08	6.42E-09	6.42E-09	6.42E-09	1.72E-07
564361.81	4187566.75	7.05E-08	8.23E-08	6.4E-09	6.4E-09	6.4E-09	1.72E-07
564193.31	4187806.5	8.44E-08	9.28E-08	7.6E-09	7.6E-09	7.6E-09	2.00E-07
564196.88	4187833.25	9.35E-08	1.01E-07	8.4E-09	8.4E-09	8.4E-09	2.20E-07
564198.06	4187842.25	9.67E-08	1.05E-07	8.69E-09	8.69E-09	8.69E-09	2.27E-07
564185.56	4187799.25	7.95E-08	8.74E-08	7.15E-09	7.15E-09	7.15E-09	1.88E-07
564187.75	4187790.5	7.82E-08	8.66E-08	7.05E-09	7.05E-09	7.05E-09	1.86E-07
564189.94	4187781.75	7.69E-08	8.56E-08	6.94E-09	6.94E-09	6.94E-09	1.83E-07
564194.31	4187764.5	7.44E-08	8.36E-08	6.73E-09	6.73E-09	6.73E-09	1.78E-07
564196.5	4187755.75	7.32E-08	8.24E-08	6.63E-09	6.63E-09	6.63E-09	1.75E-07
564205.19	4187721.25	6.87E-08	7.64E-08	6.19E-09	6.19E-09	6.19E-09	1.64E-07
564207.38	4187712.5	6.76E-08	7.48E-08	6.08E-09	6.08E-09	6.08E-09	1.61E-07
564211.69	4187695.25	6.56E-08	7.18E-08	5.88E-09	5.88E-09	5.88E-09	1.55E-07
564216.06	4187678	6.37E-08	6.94E-08	5.7E-09	5.7E-09	5.7E-09	1.50E-07
564218.25	4187669.25	6.28E-08	6.83E-08	5.61E-09	5.61E-09	5.61E-09	1.48E-07
564247.31	4187629	6.27E-08	6.89E-08	5.62E-09	5.62E-09	5.62E-09	1.48E-07
564262.31	4187619.25	6.43E-08	7.09E-08	5.77E-09	5.77E-09	5.77E-09	1.53E-07
564277.31	4187609.75	6.59E-08	7.28E-08	5.91E-09	5.91E-09	5.91E-09	1.56E-07
564292.38	4187600	6.71E-08	7.45E-08	6.03E-09	6.03E-09	6.03E-09	1.60E-07
564307.38	4187590.5	6.8E-08	7.61E-08	6.12E-09	6.12E-09	6.12E-09	1.62E-07
564322.44	4187580.75	6.83E-08	7.73E-08	6.16E-09	6.16E-09	6.16E-09	1.64E-07
564337.44	4187571.25	6.83E-08	7.82E-08	6.18E-09	6.18E-09	6.18E-09	1.65E-07
564352.5	4187561.5	6.8E-08	7.87E-08	6.16E-09	6.16E-09	6.16E-09	1.65E-07
564185.75	4187825.75	8.59E-08	9.34E-08	7.72E-09	7.72E-09	7.72E-09	2.02E-07
564188.13	4187843.5	9.16E-08	9.89E-08	8.22E-09	8.22E-09	8.22E-09	2.15E-07
564175.69	4187800.5	7.6E-08	8.33E-08	6.83E-09	6.83E-09	6.83E-09	1.80E-07
564180	4187783.25	7.38E-08	8.18E-08	6.65E-09	6.65E-09	6.65E-09	1.76E-07
564184.25	4187766.25	7.15E-08	8E-08	6.46E-09	6.46E-09	6.46E-09	1.71E-07
564188.63	4187749	6.93E-08	7.78E-08	6.26E-09	6.26E-09	6.26E-09	1.66E-07
564195.06	4187723.25	6.6E-08	7.36E-08	5.95E-09	5.95E-09	5.95E-09	1.58E-07
564199.38	4187706.25	6.41E-08	7.07E-08	5.76E-09	5.76E-09	5.76E-09	1.52E-07
564201.56	4187697.5	6.31E-08	6.93E-08	5.66E-09	5.66E-09	5.66E-09	1.49E-07
564205.88	4187680.5	6.14E-08	6.69E-08	5.49E-09	5.49E-09	5.49E-09	1.45E-07
564208	4187671.75	6.05E-08	6.58E-08	5.41E-09	5.41E-09	5.41E-09	1.43E-07
564239	4187623.25	5.98E-08	6.56E-08	5.35E-09	5.35E-09	5.35E-09	1.41E-07
564253.88	4187613.75	6.14E-08	6.75E-08	5.5E-09	5.5E-09	5.5E-09	1.45E-07
564268.75	4187604.25	6.29E-08	6.93E-08	5.63E-09	5.63E-09	5.63E-09	1.49E-07
564283.69	4187594.5	6.42E-08	7.1E-08	5.75E-09	5.75E-09	5.75E-09	1.52E-07
564298.56	4187585	6.51E-08	7.25E-08	5.85E-09	5.85E-09	5.85E-09	1.55E-07
564313.44	4187575.5	6.57E-08	7.39E-08	5.91E-09	5.91E-09	5.91E-09	1.57E-07
564328.38	4187566	6.59E-08	7.48E-08	5.94E-09	5.94E-09	5.94E-09	1.59E-07
564343.25	4187556.5	6.57E-08	7.54E-08	5.94E-09	5.94E-09	5.94E-09	1.59E-07
564175.88	4187827	8.17E-08	8.86E-08	7.33E-09	7.33E-09	7.33E-09	1.92E-07
564177	4187836	8.42E-08	9.1E-08	7.55E-09	7.55E-09	7.55E-09	1.98E-07
564165.75	4187802	7.26E-08	7.94E-08	6.52E-09	6.52E-09	6.52E-09	1.72E-07

564170	4187784.75	7.08E-08	7.81E-08	6.37E-09	6.37E-09	6.37E-09	1.68E-07
564174.25	4187767.75	6.88E-08	7.66E-08	6.2E-09	6.2E-09	6.2E-09	1.64E-07
564178.56	4187750.75	6.67E-08	7.47E-08	6.02E-09	6.02E-09	6.02E-09	1.59E-07
564187.13	4187716.75	6.26E-08	6.97E-08	5.64E-09	5.64E-09	5.64E-09	1.49E-07
564191.38	4187699.75	6.08E-08	6.7E-08	5.46E-09	5.46E-09	5.46E-09	1.44E-07
564195.69	4187682.75	5.92E-08	6.46E-08	5.29E-09	5.29E-09	5.29E-09	1.40E-07
564199.94	4187665.75	5.76E-08	6.26E-08	5.15E-09	5.15E-09	5.15E-09	1.36E-07
564215.94	4187627	5.56E-08	6.05E-08	4.96E-09	4.96E-09	4.96E-09	1.31E-07
564245.44	4187608	5.86E-08	6.43E-08	5.24E-09	5.24E-09	5.24E-09	1.39E-07
564260.25	4187598.5	6.01E-08	6.6E-08	5.37E-09	5.37E-09	5.37E-09	1.42E-07
564275	4187589	6.13E-08	6.76E-08	5.49E-09	5.49E-09	5.49E-09	1.45E-07
564289.81	4187579.75	6.25E-08	6.92E-08	5.6E-09	5.6E-09	5.6E-09	1.48E-07
564304.56	4187570.25	6.32E-08	7.06E-08	5.67E-09	5.67E-09	5.67E-09	1.51E-07
564319.38	4187560.75	6.35E-08	7.16E-08	5.72E-09	5.72E-09	5.72E-09	1.52E-07
564165.94	4187828.25	7.77E-08	8.4E-08	6.96E-09	6.96E-09	6.96E-09	1.83E-07
564167.13	4187837.25	8E-08	8.62E-08	7.16E-09	7.16E-09	7.16E-09	1.88E-07
564168.31	4187846.25	8.25E-08	8.87E-08	7.38E-09	7.38E-09	7.38E-09	1.93E-07
564155.81	4187803.25	6.94E-08	7.56E-08	6.22E-09	6.22E-09	6.22E-09	1.64E-07
564160.06	4187786.25	6.79E-08	7.46E-08	6.1E-09	6.1E-09	6.1E-09	1.61E-07
564164.31	4187769.5	6.62E-08	7.34E-08	5.96E-09	5.96E-09	5.96E-09	1.57E-07
564168.56	4187752.5	6.43E-08	7.18E-08	5.79E-09	5.79E-09	5.79E-09	1.53E-07
564177.06	4187718.75	6.04E-08	6.74E-08	5.44E-09	5.44E-09	5.44E-09	1.44E-07
564181.25	4187702	5.87E-08	6.48E-08	5.26E-09	5.26E-09	5.26E-09	1.39E-07
564185.5	4187685	5.7E-08	6.24E-08	5.1E-09	5.1E-09	5.1E-09	1.35E-07
564189.75	4187668	5.56E-08	6.04E-08	4.96E-09	4.96E-09	4.96E-09	1.31E-07
564198.25	4187634.25	5.29E-08	5.74E-08	4.72E-09	4.72E-09	4.72E-09	1.24E-07
564207.75	4187621.25	5.31E-08	5.77E-08	4.74E-09	4.74E-09	4.74E-09	1.25E-07
564237.06	4187602.5	5.61E-08	6.14E-08	5.01E-09	5.01E-09	5.01E-09	1.33E-07
564251.75	4187593	5.74E-08	6.3E-08	5.13E-09	5.13E-09	5.13E-09	1.36E-07
564266.44	4187583.5	5.87E-08	6.45E-08	5.25E-09	5.25E-09	5.25E-09	1.39E-07
564281.06	4187574.25	5.98E-08	6.61E-08	5.36E-09	5.36E-09	5.36E-09	1.42E-07
564295.75	4187564.75	6.07E-08	6.74E-08	5.44E-09	5.44E-09	5.44E-09	1.44E-07
564339.75	4187536.5	6.11E-08	6.98E-08	5.51E-09	5.51E-09	5.51E-09	1.47E-07
564157.19	4187838.5	7.62E-08	8.19E-08	6.81E-09	6.81E-09	6.81E-09	1.79E-07
564158.38	4187847.5	7.86E-08	8.43E-08	7.02E-09	7.02E-09	7.02E-09	1.84E-07
564145.88	4187804.75	6.63E-08	7.21E-08	5.94E-09	5.94E-09	5.94E-09	1.56E-07
564150.06	4187787.75	6.5E-08	7.12E-08	5.83E-09	5.83E-09	5.83E-09	1.54E-07
564154.31	4187771	6.36E-08	7.03E-08	5.72E-09	5.72E-09	5.72E-09	1.51E-07
564158.5	4187754.25	6.2E-08	6.9E-08	5.58E-09	5.58E-09	5.58E-09	1.48E-07
564166.94	4187720.75	5.84E-08	6.51E-08	5.25E-09	5.25E-09	5.25E-09	1.39E-07
564171.19	4187704	5.67E-08	6.27E-08	5.09E-09	5.09E-09	5.09E-09	1.35E-07
564175.38	4187687.25	5.51E-08	6.04E-08	4.93E-09	4.93E-09	4.93E-09	1.30E-07
564179.63	4187670.25	5.37E-08	5.84E-08	4.79E-09	4.79E-09	4.79E-09	1.26E-07
564188.06	4187636.75	5.12E-08	5.54E-08	4.56E-09	4.56E-09	4.56E-09	1.20E-07
564199.56	4187615.25	5.08E-08	5.51E-08	4.53E-09	4.53E-09	4.53E-09	1.20E-07
564214.13	4187606	5.23E-08	5.7E-08	4.67E-09	4.67E-09	4.67E-09	1.23E-07
564243.31	4187587.25	5.5E-08	6.01E-08	4.91E-09	4.91E-09	4.91E-09	1.30E-07

564257.88	4187578	5.62E-08	6.16E-08	5.02E-09	5.02E-09	5.02E-09	1.33E-07
564272.44	4187568.75	5.73E-08	6.31E-08	5.13E-09	5.13E-09	5.13E-09	1.36E-07
564316.13	4187540.75	5.91E-08	6.66E-08	5.31E-09	5.31E-09	5.31E-09	1.42E-07
564330.75	4187531.25	5.91E-08	6.71E-08	5.32E-09	5.32E-09	5.32E-09	1.42E-07
564345.31	4187522	5.88E-08	6.74E-08	5.3E-09	5.3E-09	5.3E-09	1.42E-07
564148.5	4187848.75	7.52E-08	8.04E-08	6.71E-09	6.71E-09	6.71E-09	1.76E-07
564136	4187805.5	6.33E-08	6.87E-08	5.66E-09	5.66E-09	5.66E-09	1.49E-07
564140.44	4187788.25	6.23E-08	6.8E-08	5.58E-09	5.58E-09	5.58E-09	1.47E-07
564142.56	4187779.5	6.16E-08	6.76E-08	5.53E-09	5.53E-09	5.53E-09	1.46E-07
564144.75	4187770.75	6.1E-08	6.72E-08	5.47E-09	5.47E-09	5.47E-09	1.45E-07
564147	4187762	6.03E-08	6.67E-08	5.41E-09	5.41E-09	5.41E-09	1.43E-07
564153.5	4187736	5.78E-08	6.45E-08	5.2E-09	5.2E-09	5.2E-09	1.38E-07
564155.75	4187727.25	5.69E-08	6.36E-08	5.12E-09	5.12E-09	5.12E-09	1.36E-07
564157.94	4187718.5	5.61E-08	6.25E-08	5.04E-09	5.04E-09	5.04E-09	1.34E-07
564162.31	4187701.25	5.44E-08	6.02E-08	4.88E-09	4.88E-09	4.88E-09	1.29E-07
564164.5	4187692.5	5.36E-08	5.9E-08	4.8E-09	4.8E-09	4.8E-09	1.27E-07
564166.69	4187683.75	5.28E-08	5.79E-08	4.72E-09	4.72E-09	4.72E-09	1.25E-07
564168.88	4187675	5.21E-08	5.68E-08	4.65E-09	4.65E-09	4.65E-09	1.23E-07
564175.44	4187649	5.02E-08	5.43E-08	4.47E-09	4.47E-09	4.47E-09	1.18E-07
564177.63	4187640.25	4.96E-08	5.36E-08	4.41E-09	4.41E-09	4.41E-09	1.16E-07
564179.81	4187631.5	4.9E-08	5.3E-08	4.36E-09	4.36E-09	4.36E-09	1.15E-07
564191.75	4187609.25	4.87E-08	5.28E-08	4.34E-09	4.34E-09	4.34E-09	1.14E-07
564206.81	4187599.75	5.02E-08	5.46E-08	4.47E-09	4.47E-09	4.47E-09	1.18E-07
564237.06	4187580.25	5.28E-08	5.77E-08	4.71E-09	4.71E-09	4.71E-09	1.25E-07
564289.94	4187546.5	5.65E-08	6.26E-08	5.06E-09	5.06E-09	5.06E-09	1.34E-07
564297.5	4187541.5	5.68E-08	6.32E-08	5.09E-09	5.09E-09	5.09E-09	1.35E-07
564312.63	4187532	5.71E-08	6.41E-08	5.13E-09	5.13E-09	5.13E-09	1.37E-07
564320.19	4187527	5.71E-08	6.44E-08	5.13E-09	5.13E-09	5.13E-09	1.37E-07
564335.25	4187517.5	5.7E-08	6.49E-08	5.13E-09	5.13E-09	5.13E-09	1.37E-07
564342.81	4187512.5	5.68E-08	6.49E-08	5.12E-09	5.12E-09	5.12E-09	1.37E-07
564133.81	4187814.25	6.39E-08	6.91E-08	5.71E-09	5.71E-09	5.71E-09	1.50E-07
564138.56	4187850	7.22E-08	7.7E-08	6.43E-09	6.43E-09	6.43E-09	1.68E-07
564126.13	4187807	6.06E-08	6.56E-08	5.41E-09	5.41E-09	5.41E-09	1.42E-07
564128.25	4187798.25	6.01E-08	6.53E-08	5.37E-09	5.37E-09	5.37E-09	1.41E-07
564132.63	4187781	5.91E-08	6.47E-08	5.3E-09	5.3E-09	5.3E-09	1.40E-07
564136.94	4187763.75	5.8E-08	6.4E-08	5.2E-09	5.2E-09	5.2E-09	1.38E-07
564145.63	4187729.25	5.51E-08	6.14E-08	4.95E-09	4.95E-09	4.95E-09	1.31E-07
564147.81	4187720.5	5.43E-08	6.05E-08	4.88E-09	4.88E-09	4.88E-09	1.29E-07
564152.19	4187703.25	5.27E-08	5.84E-08	4.72E-09	4.72E-09	4.72E-09	1.25E-07
564156.5	4187686	5.11E-08	5.62E-08	4.57E-09	4.57E-09	4.57E-09	1.21E-07
564165.19	4187651.5	4.85E-08	5.25E-08	4.32E-09	4.32E-09	4.32E-09	1.14E-07
564169.5	4187634.25	4.74E-08	5.12E-08	4.22E-09	4.22E-09	4.22E-09	1.11E-07
564171.69	4187625.5	4.69E-08	5.06E-08	4.17E-09	4.17E-09	4.17E-09	1.10E-07
564183.56	4187603.5	4.67E-08	5.05E-08	4.15E-09	4.15E-09	4.15E-09	1.10E-07
564198.56	4187594	4.81E-08	5.22E-08	4.29E-09	4.29E-09	4.29E-09	1.13E-07
564258.56	4187555.5	5.29E-08	5.79E-08	4.72E-09	4.72E-09	4.72E-09	1.25E-07
564273.56	4187546	5.39E-08	5.93E-08	4.82E-09	4.82E-09	4.82E-09	1.28E-07

564281.06	4187541	5.43E-08	5.99E-08	4.86E-09	4.86E-09	4.86E-09	1.29E-07
564296.06	4187531.5	5.49E-08	6.11E-08	4.92E-09	4.92E-09	4.92E-09	1.31E-07
564311.06	4187522	5.52E-08	6.2E-08	4.96E-09	4.96E-09	4.96E-09	1.32E-07
564318.56	4187517	5.52E-08	6.22E-08	4.96E-09	4.96E-09	4.96E-09	1.32E-07
564333.56	4187507.5	5.51E-08	6.26E-08	4.95E-09	4.95E-09	4.95E-09	1.33E-07
564348.56	4187497.75	5.48E-08	6.27E-08	4.93E-09	4.93E-09	4.93E-09	1.32E-07
564123.94	4187815.75	6.12E-08	6.6E-08	5.46E-09	5.46E-09	5.46E-09	1.44E-07
564127.44	4187842.5	6.72E-08	7.16E-08	5.98E-09	5.98E-09	5.98E-09	1.57E-07
564116.19	4187808.25	5.81E-08	6.28E-08	5.18E-09	5.18E-09	5.18E-09	1.36E-07
564120.5	4187791.25	5.72E-08	6.22E-08	5.11E-09	5.11E-09	5.11E-09	1.35E-07
564124.81	4187774	5.63E-08	6.16E-08	5.04E-09	5.04E-09	5.04E-09	1.33E-07
564129.13	4187757	5.53E-08	6.1E-08	4.96E-09	4.96E-09	4.96E-09	1.31E-07
564135.56	4187731.25	5.33E-08	5.93E-08	4.79E-09	4.79E-09	4.79E-09	1.27E-07
564137.75	4187722.5	5.26E-08	5.85E-08	4.72E-09	4.72E-09	4.72E-09	1.25E-07
564142.06	4187705.5	5.11E-08	5.67E-08	4.58E-09	4.58E-09	4.58E-09	1.22E-07
564144.19	4187696.75	5.03E-08	5.57E-08	4.51E-09	4.51E-09	4.51E-09	1.19E-07
564148.5	4187679.75	4.89E-08	5.36E-08	4.37E-09	4.37E-09	4.37E-09	1.16E-07
564155	4187654	4.7E-08	5.09E-08	4.18E-09	4.18E-09	4.18E-09	1.10E-07
564159.31	4187636.75	4.59E-08	4.95E-08	4.08E-09	4.08E-09	4.08E-09	1.08E-07
564163.63	4187619.75	4.5E-08	4.85E-08	3.99E-09	3.99E-09	3.99E-09	1.05E-07
564165.75	4187611	4.45E-08	4.79E-08	3.95E-09	3.95E-09	3.95E-09	1.04E-07
564175.38	4187597.75	4.48E-08	4.83E-08	3.98E-09	3.98E-09	3.98E-09	1.05E-07
564190.25	4187588.25	4.62E-08	5E-08	4.11E-09	4.11E-09	4.11E-09	1.08E-07
564234.94	4187559.5	4.97E-08	5.41E-08	4.42E-09	4.42E-09	4.42E-09	1.17E-07
564249.88	4187550	5.08E-08	5.54E-08	4.52E-09	4.52E-09	4.52E-09	1.20E-07
564264.75	4187540.5	5.18E-08	5.68E-08	4.62E-09	4.62E-09	4.62E-09	1.22E-07
564279.63	4187531	5.26E-08	5.8E-08	4.7E-09	4.7E-09	4.7E-09	1.25E-07
564294.56	4187521.5	5.32E-08	5.91E-08	4.76E-09	4.76E-09	4.76E-09	1.27E-07
564309.44	4187511.75	5.34E-08	5.98E-08	4.79E-09	4.79E-09	4.79E-09	1.28E-07
564324.31	4187502.25	5.34E-08	6.03E-08	4.79E-09	4.79E-09	4.79E-09	1.28E-07
564339.25	4187492.75	5.32E-08	6.05E-08	4.78E-09	4.78E-09	4.78E-09	1.28E-07
564114	4187817	5.88E-08	6.33E-08	5.24E-09	5.24E-09	5.24E-09	1.38E-07
564117.56	4187843.75	6.49E-08	6.89E-08	5.77E-09	5.77E-09	5.77E-09	1.51E-07
564118.75	4187852.75	6.76E-08	7.14E-08	6E-09	6E-09	6E-09	1.57E-07
564106.25	4187809.75	5.59E-08	6.02E-08	4.98E-09	4.98E-09	4.98E-09	1.31E-07
564110.5	4187792.75	5.48E-08	5.95E-08	4.89E-09	4.89E-09	4.89E-09	1.29E-07
564114.81	4187775.75	5.4E-08	5.9E-08	4.83E-09	4.83E-09	4.83E-09	1.28E-07
564116.94	4187767	5.36E-08	5.88E-08	4.8E-09	4.8E-09	4.8E-09	1.27E-07
564125.5	4187733	5.16E-08	5.72E-08	4.63E-09	4.63E-09	4.63E-09	1.23E-07
564129.81	4187716	5.03E-08	5.59E-08	4.51E-09	4.51E-09	4.51E-09	1.20E-07
564134.13	4187699	4.89E-08	5.41E-08	4.38E-09	4.38E-09	4.38E-09	1.16E-07
564138.38	4187682	4.75E-08	5.22E-08	4.24E-09	4.24E-09	4.24E-09	1.12E-07
564140.5	4187673.25	4.68E-08	5.12E-08	4.17E-09	4.17E-09	4.17E-09	1.11E-07
564144.81	4187656.25	4.56E-08	4.95E-08	4.05E-09	4.05E-09	4.05E-09	1.07E-07
564149.13	4187639.25	4.45E-08	4.8E-08	3.95E-09	3.95E-09	3.95E-09	1.04E-07
564153.38	4187622.25	4.35E-08	4.69E-08	3.86E-09	3.86E-09	3.86E-09	1.02E-07
564157.69	4187605.25	4.27E-08	4.6E-08	3.79E-09	3.79E-09	3.79E-09	1.00E-07

564167.25	4187592	4.3E-08	4.64E-08	3.82E-09	3.82E-09	3.82E-09	1.01E-07
564226.44	4187554	4.77E-08	5.19E-08	4.25E-09	4.25E-09	4.25E-09	1.12E-07
564241.25	4187544.5	4.87E-08	5.31E-08	4.34E-09	4.34E-09	4.34E-09	1.15E-07
564256	4187535	4.97E-08	5.43E-08	4.43E-09	4.43E-09	4.43E-09	1.17E-07
564270.81	4187525.5	5.06E-08	5.56E-08	4.51E-09	4.51E-09	4.51E-09	1.20E-07
564285.63	4187516	5.13E-08	5.67E-08	4.58E-09	4.58E-09	4.58E-09	1.22E-07
564300.44	4187506.5	5.16E-08	5.75E-08	4.62E-09	4.62E-09	4.62E-09	1.23E-07
564315.25	4187497.25	5.18E-08	5.81E-08	4.64E-09	4.64E-09	4.64E-09	1.24E-07
564330	4187487.75	5.16E-08	5.84E-08	4.63E-09	4.63E-09	4.63E-09	1.24E-07
564344.81	4187478.25	5.14E-08	5.85E-08	4.61E-09	4.61E-09	4.61E-09	1.24E-07
564105.25	4187827.25	5.86E-08	6.25E-08	5.2E-09	5.2E-09	5.2E-09	1.37E-07
564107.63	4187845	6.3E-08	6.66E-08	5.59E-09	5.59E-09	5.59E-09	1.46E-07
564108.81	4187854	6.57E-08	6.91E-08	5.82E-09	5.82E-09	5.82E-09	1.52E-07
564413.06	4187804	2.9E-07	3.98E-07	2.83E-08	2.83E-08	2.83E-08	7.73E-07
564400.69	4187766	2.06E-07	2.67E-07	1.97E-08	1.97E-08	1.97E-08	5.33E-07
564385.25	4187718.25	1.46E-07	1.8E-07	1.36E-08	1.36E-08	1.36E-08	3.66E-07
564386.88	4187828.5	3.07E-07	3.99E-07	2.95E-08	2.95E-08	2.95E-08	7.95E-07
564376.88	4187828	2.9E-07	3.68E-07	2.77E-08	2.77E-08	2.77E-08	7.41E-07
564346.94	4187826.5	2.43E-07	2.93E-07	2.28E-08	2.28E-08	2.28E-08	6.04E-07
564366.19	4187748	1.61E-07	1.93E-07	1.49E-08	1.49E-08	1.49E-08	3.99E-07
564307.31	4187707.75	1.05E-07	1.18E-07	9.54E-09	9.54E-09	9.54E-09	2.52E-07
564292.31	4187695	9.36E-08	1.05E-07	8.47E-09	8.47E-09	8.47E-09	2.24E-07
564189.25	4187627.5	5.03E-08	5.45E-08	4.48E-09	4.48E-09	4.48E-09	1.18E-07
564100.94	4187795.75	5.3E-08	5.73E-08	4.72E-09	4.72E-09	4.72E-09	1.24E-07
564182.13	4187621	4.83E-08	5.22E-08	4.3E-09	4.3E-09	4.3E-09	1.13E-07
564097.75	4187804.5	5.33E-08	5.75E-08	4.75E-09	4.75E-09	4.75E-09	1.25E-07
564097.25	4187814	5.46E-08	5.86E-08	4.85E-09	4.85E-09	4.85E-09	1.28E-07
564090.88	4187795.5	5.08E-08	5.49E-08	4.52E-09	4.52E-09	4.52E-09	1.19E-07
564094.06	4187786.75	5.05E-08	5.48E-08	4.5E-09	4.5E-09	4.5E-09	1.19E-07
564097.25	4187778	5.03E-08	5.48E-08	4.49E-09	4.49E-09	4.49E-09	1.19E-07
564100.44	4187769.5	5.02E-08	5.48E-08	4.48E-09	4.48E-09	4.48E-09	1.18E-07
564103.56	4187760.75	5.01E-08	5.48E-08	4.47E-09	4.47E-09	4.47E-09	1.18E-07
564109.94	4187743.5	4.97E-08	5.48E-08	4.45E-09	4.45E-09	4.45E-09	1.18E-07
564113.13	4187735	4.94E-08	5.47E-08	4.43E-09	4.43E-09	4.43E-09	1.17E-07
564116.31	4187726.25	4.91E-08	5.44E-08	4.4E-09	4.4E-09	4.4E-09	1.17E-07
564119.44	4187717.5	4.86E-08	5.4E-08	4.36E-09	4.36E-09	4.36E-09	1.16E-07
564122.63	4187709	4.82E-08	5.35E-08	4.32E-09	4.32E-09	4.32E-09	1.15E-07
564173.75	4187615.25	4.62E-08	4.99E-08	4.11E-09	4.11E-09	4.11E-09	1.08E-07
564087.75	4187804	5.13E-08	5.51E-08	4.56E-09	4.56E-09	4.56E-09	1.20E-07
564087.25	4187813.5	5.26E-08	5.62E-08	4.67E-09	4.67E-09	4.67E-09	1.23E-07
564393	4187841	3.55E-07	4.73E-07	3.45E-08	3.45E-08	3.45E-08	9.32E-07
564380.44	4187840.25	3.27E-07	4.21E-07	3.14E-08	3.14E-08	3.14E-08	8.43E-07
564389.13	4187852.75	3.85E-07	5.07E-07	3.73E-08	3.73E-08	3.73E-08	1.00E-06
564370.44	4187839.75	3.08E-07	3.86E-07	2.93E-08	2.93E-08	2.93E-08	7.82E-07
564376.56	4187852.25	3.54E-07	4.47E-07	3.38E-08	3.38E-08	3.38E-08	9.03E-07
564362.25	4187845.5	3.07E-07	3.75E-07	2.9E-08	2.9E-08	2.9E-08	7.69E-07
564358.69	4187833.25	2.74E-07	3.35E-07	2.58E-08	2.58E-08	2.58E-08	6.86E-07

564368.31	4187858	3.53E-07	4.31E-07	3.34E-08	3.34E-08	3.34E-08	8.83E-07
564354	4187851.25	3.04E-07	3.62E-07	2.85E-08	2.85E-08	2.85E-08	7.52E-07
564350.5	4187838.75	2.71E-07	3.26E-07	2.55E-08	2.55E-08	2.55E-08	6.73E-07
564360.13	4187863.75	3.5E-07	4.15E-07	3.29E-08	3.29E-08	3.29E-08	8.64E-07
564345.75	4187857	2.99E-07	3.48E-07	2.79E-08	2.79E-08	2.79E-08	7.31E-07
564342.25	4187844.5	2.67E-07	3.14E-07	2.49E-08	2.49E-08	2.49E-08	6.56E-07
564351.88	4187869.25	3.45E-07	3.99E-07	3.22E-08	3.22E-08	3.22E-08	8.41E-07
564337.25	4187861.5	2.89E-07	3.31E-07	2.68E-08	2.68E-08	2.68E-08	7.00E-07
564333.13	4187847	2.53E-07	2.94E-07	2.36E-08	2.36E-08	2.36E-08	6.18E-07
564343.69	4187875	3.38E-07	3.85E-07	3.14E-08	3.14E-08	3.14E-08	8.17E-07
564329.06	4187867.5	2.81E-07	3.17E-07	2.6E-08	2.6E-08	2.6E-08	6.77E-07
564325.06	4187853.25	2.48E-07	2.82E-07	2.29E-08	2.29E-08	2.29E-08	5.99E-07
564321	4187839	2.2E-07	2.54E-07	2.04E-08	2.04E-08	2.04E-08	5.35E-07
564335.44	4187880.75	3.28E-07	3.69E-07	3.04E-08	3.04E-08	3.04E-08	7.89E-07
564320.88	4187873.25	2.72E-07	3.04E-07	2.5E-08	2.5E-08	2.5E-08	6.50E-07
564316.94	4187859.25	2.4E-07	2.7E-07	2.21E-08	2.21E-08	2.21E-08	5.77E-07
564312.94	4187845.25	2.14E-07	2.44E-07	1.98E-08	1.98E-08	1.98E-08	5.17E-07
564309	4187831.5	1.93E-07	2.21E-07	1.78E-08	1.78E-08	1.78E-08	4.68E-07
564327.19	4187886.5	3.16E-07	3.54E-07	2.92E-08	2.92E-08	2.92E-08	7.58E-07
564312.69	4187879	2.62E-07	2.9E-07	2.4E-08	2.4E-08	2.4E-08	6.24E-07
564308.75	4187865.25	2.32E-07	2.59E-07	2.13E-08	2.13E-08	2.13E-08	5.55E-07
564304.88	4187851.5	2.08E-07	2.34E-07	1.91E-08	1.91E-08	1.91E-08	4.99E-07
564300.94	4187837.75	1.87E-07	2.13E-07	1.72E-08	1.72E-08	1.72E-08	4.52E-07
564319	4187892.25	3.04E-07	3.38E-07	2.8E-08	2.8E-08	2.8E-08	7.26E-07
564304.5	4187884.75	2.51E-07	2.77E-07	2.3E-08	2.3E-08	2.3E-08	5.97E-07
564300.63	4187871.25	2.24E-07	2.47E-07	2.05E-08	2.05E-08	2.05E-08	5.33E-07
564296.75	4187857.5	2.01E-07	2.23E-07	1.84E-08	1.84E-08	1.84E-08	4.79E-07
564292.81	4187844	1.82E-07	2.04E-07	1.67E-08	1.67E-08	1.67E-08	4.36E-07
564310.75	4187897.75	2.9E-07	3.22E-07	2.67E-08	2.67E-08	2.67E-08	6.92E-07
564296.31	4187890.5	2.41E-07	2.65E-07	2.21E-08	2.21E-08	2.21E-08	5.72E-07
564292.44	4187877	2.15E-07	2.37E-07	1.97E-08	1.97E-08	1.97E-08	5.11E-07
564288.56	4187863.5	1.94E-07	2.14E-07	1.77E-08	1.77E-08	1.77E-08	4.61E-07
564284.75	4187850	1.76E-07	1.95E-07	1.61E-08	1.61E-08	1.61E-08	4.19E-07
564302.56	4187903.5	2.78E-07	3.07E-07	2.55E-08	2.55E-08	2.55E-08	6.61E-07
564294.31	4187909.25	2.66E-07	2.92E-07	2.44E-08	2.44E-08	2.44E-08	6.31E-07
564271.5	4187907.25	2.13E-07	2.32E-07	1.94E-08	1.94E-08	1.94E-08	5.03E-07
564267.44	4187893	1.91E-07	2.08E-07	1.73E-08	1.73E-08	1.73E-08	4.50E-07
564263.38	4187878.5	1.72E-07	1.87E-07	1.56E-08	1.56E-08	1.56E-08	4.05E-07
564259.31	4187864.25	1.55E-07	1.7E-07	1.41E-08	1.41E-08	1.41E-08	3.67E-07
564255.19	4187850	1.42E-07	1.55E-07	1.29E-08	1.29E-08	1.29E-08	3.36E-07
564263.31	4187913	2.04E-07	2.22E-07	1.86E-08	1.86E-08	1.86E-08	4.82E-07
564259.25	4187898.75	1.83E-07	2E-07	1.67E-08	1.67E-08	1.67E-08	4.33E-07
564255.25	4187884.75	1.66E-07	1.8E-07	1.51E-08	1.51E-08	1.51E-08	3.92E-07
564251.19	4187870.5	1.51E-07	1.64E-07	1.37E-08	1.37E-08	1.37E-08	3.56E-07
564247.19	4187856.25	1.38E-07	1.5E-07	1.25E-08	1.25E-08	1.25E-08	3.26E-07
564269.69	4187926.25	2.32E-07	2.53E-07	2.12E-08	2.12E-08	2.12E-08	5.48E-07
564255.13	4187918.75	1.95E-07	2.13E-07	1.78E-08	1.78E-08	1.78E-08	4.61E-07

564251.13	4187904.75	1.77E-07	1.92E-07	1.6E-08	1.6E-08	1.6E-08	4.17E-07
564247.13	4187890.75	1.61E-07	1.74E-07	1.45E-08	1.45E-08	1.45E-08	3.78E-07
564243.13	4187876.5	1.46E-07	1.58E-07	1.32E-08	1.32E-08	1.32E-08	3.45E-07
564239.06	4187862.5	1.34E-07	1.46E-07	1.21E-08	1.21E-08	1.21E-08	3.16E-07
564235.06	4187848.5	1.24E-07	1.35E-07	1.12E-08	1.12E-08	1.12E-08	2.92E-07
564261.44	4187932	2.22E-07	2.42E-07	2.02E-08	2.02E-08	2.02E-08	5.24E-07
564246.88	4187924.5	1.88E-07	2.04E-07	1.71E-08	1.71E-08	1.71E-08	4.44E-07
564242.94	4187910.5	1.7E-07	1.84E-07	1.54E-08	1.54E-08	1.54E-08	4.00E-07
564238.94	4187896.5	1.54E-07	1.67E-07	1.4E-08	1.4E-08	1.4E-08	3.64E-07
564235	4187882.75	1.42E-07	1.53E-07	1.28E-08	1.28E-08	1.28E-08	3.33E-07
564231	4187868.75	1.3E-07	1.41E-07	1.18E-08	1.18E-08	1.18E-08	3.07E-07
564227	4187854.75	1.2E-07	1.3E-07	1.09E-08	1.09E-08	1.09E-08	2.83E-07
564253.25	4187937.75	2.15E-07	2.33E-07	1.95E-08	1.95E-08	1.95E-08	5.06E-07
564238.69	4187930.25	1.83E-07	1.98E-07	1.66E-08	1.66E-08	1.66E-08	4.31E-07
564234.75	4187916.25	1.64E-07	1.78E-07	1.49E-08	1.49E-08	1.49E-08	3.86E-07
564230.81	4187902.5	1.49E-07	1.61E-07	1.35E-08	1.35E-08	1.35E-08	3.51E-07
564226.88	4187888.75	1.37E-07	1.48E-07	1.24E-08	1.24E-08	1.24E-08	3.22E-07
564222.88	4187874.75	1.26E-07	1.36E-07	1.14E-08	1.14E-08	1.14E-08	2.96E-07
564218.94	4187861	1.17E-07	1.26E-07	1.05E-08	1.05E-08	1.05E-08	2.75E-07
564215	4187847.25	1.09E-07	1.18E-07	9.8E-09	9.8E-09	9.8E-09	2.56E-07
564245	4187943.5	2.11E-07	2.27E-07	1.91E-08	1.91E-08	1.91E-08	4.95E-07
564230.38	4187935.5	1.8E-07	1.93E-07	1.63E-08	1.63E-08	1.63E-08	4.22E-07
564226.19	4187921	1.59E-07	1.72E-07	1.44E-08	1.44E-08	1.44E-08	3.74E-07
564222.06	4187906.5	1.43E-07	1.54E-07	1.29E-08	1.29E-08	1.29E-08	3.36E-07
564217.88	4187891.75	1.3E-07	1.4E-07	1.17E-08	1.17E-08	1.17E-08	3.05E-07
564213.75	4187877.25	1.2E-07	1.29E-07	1.08E-08	1.08E-08	1.08E-08	2.81E-07
564209.56	4187862.75	1.11E-07	1.19E-07	9.96E-09	9.96E-09	9.96E-09	2.60E-07
564236.75	4187949	2.08E-07	2.22E-07	1.88E-08	1.88E-08	1.88E-08	4.86E-07
564222.19	4187941.25	1.78E-07	1.9E-07	1.61E-08	1.61E-08	1.61E-08	4.17E-07
564218.06	4187926.75	1.57E-07	1.68E-07	1.42E-08	1.42E-08	1.42E-08	3.68E-07
564213.94	4187912.5	1.4E-07	1.51E-07	1.26E-08	1.26E-08	1.26E-08	3.29E-07
564209.81	4187898	1.27E-07	1.36E-07	1.14E-08	1.14E-08	1.14E-08	2.97E-07
564205.69	4187883.5	1.16E-07	1.25E-07	1.04E-08	1.04E-08	1.04E-08	2.72E-07
564201.56	4187869	1.07E-07	1.15E-07	9.65E-09	9.65E-09	9.65E-09	2.52E-07
564197.44	4187854.5	1E-07	1.08E-07	8.98E-09	8.98E-09	8.98E-09	2.35E-07
564228.56	4187954.75	2.05E-07	2.17E-07	1.85E-08	1.85E-08	1.85E-08	4.78E-07
564213.94	4187947	1.76E-07	1.87E-07	1.59E-08	1.59E-08	1.59E-08	4.11E-07
564209.88	4187932.75	1.56E-07	1.66E-07	1.41E-08	1.41E-08	1.41E-08	3.65E-07
564205.75	4187918.25	1.39E-07	1.48E-07	1.25E-08	1.25E-08	1.25E-08	3.24E-07
564201.69	4187904	1.24E-07	1.34E-07	1.12E-08	1.12E-08	1.12E-08	2.92E-07
564197.63	4187889.75	1.13E-07	1.22E-07	1.02E-08	1.02E-08	1.02E-08	2.66E-07
564193.5	4187875.25	1.04E-07	1.12E-07	9.37E-09	9.37E-09	9.37E-09	2.45E-07
564189.44	4187861	9.72E-08	1.04E-07	8.72E-09	8.72E-09	8.72E-09	2.28E-07
564220.31	4187960.5	2E-07	2.11E-07	1.8E-08	1.8E-08	1.8E-08	4.64E-07
564205.75	4187952.75	1.73E-07	1.81E-07	1.55E-08	1.55E-08	1.55E-08	4.00E-07
564201.69	4187938.5	1.55E-07	1.64E-07	1.39E-08	1.39E-08	1.39E-08	3.61E-07
564197.63	4187924.25	1.38E-07	1.47E-07	1.24E-08	1.24E-08	1.24E-08	3.22E-07

564193.56	4187910	1.24E-07	1.32E-07	1.11E-08	1.11E-08	1.11E-08	2.89E-07
564189.5	4187895.75	1.12E-07	1.19E-07	1E-08	1E-08	1E-08	2.61E-07
564185.44	4187881.5	1.02E-07	1.09E-07	9.16E-09	9.16E-09	9.16E-09	2.39E-07
564181.38	4187867.25	9.46E-08	1.01E-07	8.48E-09	8.48E-09	8.48E-09	2.21E-07
564177.31	4187853	8.84E-08	9.5E-08	7.92E-09	7.92E-09	7.92E-09	2.07E-07
564212.13	4187966.25	1.92E-07	2.02E-07	1.72E-08	1.72E-08	1.72E-08	4.45E-07
564197.56	4187958.5	1.66E-07	1.75E-07	1.49E-08	1.49E-08	1.49E-08	3.86E-07
564193.5	4187944.25	1.52E-07	1.6E-07	1.37E-08	1.37E-08	1.37E-08	3.53E-07
564189.5	4187930.25	1.38E-07	1.45E-07	1.23E-08	1.23E-08	1.23E-08	3.20E-07
564185.44	4187916	1.23E-07	1.31E-07	1.11E-08	1.11E-08	1.11E-08	2.87E-07
564181.38	4187902	1.11E-07	1.18E-07	9.95E-09	9.95E-09	9.95E-09	2.59E-07
564177.38	4187887.75	1.01E-07	1.08E-07	9.04E-09	9.04E-09	9.04E-09	2.36E-07
564173.31	4187873.5	9.28E-08	9.91E-08	8.3E-09	8.3E-09	8.3E-09	2.17E-07
564169.25	4187859.5	8.63E-08	9.24E-08	7.72E-09	7.72E-09	7.72E-09	2.02E-07
564189.31	4187964.25	1.59E-07	1.66E-07	1.42E-08	1.42E-08	1.42E-08	3.67E-07
564185.31	4187950.25	1.48E-07	1.55E-07	1.32E-08	1.32E-08	1.32E-08	3.43E-07
564181.31	4187936	1.36E-07	1.42E-07	1.21E-08	1.21E-08	1.21E-08	3.15E-07
564177.31	4187922	1.23E-07	1.3E-07	1.1E-08	1.1E-08	1.1E-08	2.86E-07
564173.25	4187908	1.11E-07	1.17E-07	9.93E-09	9.93E-09	9.93E-09	2.58E-07
564169.25	4187893.75	1E-07	1.07E-07	8.97E-09	8.97E-09	8.97E-09	2.34E-07
564165.25	4187879.75	9.18E-08	9.76E-08	8.2E-09	8.2E-09	8.2E-09	2.14E-07
564161.25	4187865.75	8.48E-08	9.04E-08	7.58E-09	7.58E-09	7.58E-09	1.98E-07
564176.88	4187955	1.41E-07	1.48E-07	1.26E-08	1.26E-08	1.26E-08	3.27E-07
564172.69	4187940.25	1.31E-07	1.37E-07	1.17E-08	1.17E-08	1.17E-08	3.04E-07
564168.5	4187925.75	1.2E-07	1.26E-07	1.07E-08	1.07E-08	1.07E-08	2.78E-07
564164.31	4187911	1.09E-07	1.14E-07	9.69E-09	9.69E-09	9.69E-09	2.52E-07
564160.19	4187896.5	9.82E-08	1.04E-07	8.76E-09	8.76E-09	8.76E-09	2.28E-07
564156	4187881.75	8.91E-08	9.43E-08	7.94E-09	7.94E-09	7.94E-09	2.07E-07
564151.81	4187867.25	8.18E-08	8.69E-08	7.29E-09	7.29E-09	7.29E-09	1.91E-07
564187.44	4187983.25	1.61E-07	1.69E-07	1.44E-08	1.44E-08	1.44E-08	3.73E-07
564168.69	4187960.75	1.35E-07	1.41E-07	1.2E-08	1.2E-08	1.2E-08	3.12E-07
564164.5	4187946.25	1.27E-07	1.33E-07	1.13E-08	1.13E-08	1.13E-08	2.93E-07
564160.38	4187931.75	1.18E-07	1.23E-07	1.05E-08	1.05E-08	1.05E-08	2.73E-07
564156.25	4187917.25	1.08E-07	1.13E-07	9.64E-09	9.64E-09	9.64E-09	2.50E-07
564152.06	4187902.75	9.83E-08	1.03E-07	8.76E-09	8.76E-09	8.76E-09	2.28E-07
564147.94	4187888.25	8.93E-08	9.4E-08	7.95E-09	7.95E-09	7.95E-09	2.07E-07
564143.81	4187873.5	8.15E-08	8.61E-08	7.25E-09	7.25E-09	7.25E-09	1.89E-07
564139.63	4187859	7.51E-08	7.97E-08	6.68E-09	6.68E-09	6.68E-09	1.75E-07
564179.25	4187989	1.51E-07	1.59E-07	1.35E-08	1.35E-08	1.35E-08	3.51E-07
564164.63	4187981.25	1.34E-07	1.41E-07	1.19E-08	1.19E-08	1.19E-08	3.10E-07
564156.38	4187952.25	1.22E-07	1.27E-07	1.08E-08	1.08E-08	1.08E-08	2.81E-07
564152.25	4187937.75	1.15E-07	1.2E-07	1.02E-08	1.02E-08	1.02E-08	2.65E-07
564148.13	4187923.25	1.07E-07	1.11E-07	9.49E-09	9.49E-09	9.49E-09	2.47E-07
564139.88	4187894.5	8.95E-08	9.37E-08	7.95E-09	7.95E-09	7.95E-09	2.07E-07
564135.75	4187880	8.17E-08	8.58E-08	7.25E-09	7.25E-09	7.25E-09	1.89E-07
564131.63	4187865.5	7.49E-08	7.9E-08	6.66E-09	6.66E-09	6.66E-09	1.74E-07
564171	4187994.5	1.42E-07	1.5E-07	1.27E-08	1.27E-08	1.27E-08	3.31E-07

564156.44	4187986.75	1.26E-07	1.33E-07	1.13E-08	1.13E-08	1.13E-08	2.93E-07
564148.19	4187958.25	1.16E-07	1.21E-07	1.03E-08	1.03E-08	1.03E-08	2.68E-07
564144.13	4187943.75	1.11E-07	1.15E-07	9.82E-09	9.82E-09	9.82E-09	2.55E-07
564131.81	4187900.75	8.95E-08	9.32E-08	7.94E-09	7.94E-09	7.94E-09	2.06E-07
564127.75	4187886.25	8.19E-08	8.56E-08	7.26E-09	7.26E-09	7.26E-09	1.89E-07
564123.63	4187872	7.51E-08	7.88E-08	6.66E-09	6.66E-09	6.66E-09	1.74E-07
564162.81	4188000.25	1.34E-07	1.42E-07	1.2E-08	1.2E-08	1.2E-08	3.12E-07
564148.19	4187992.5	1.2E-07	1.27E-07	1.07E-08	1.07E-08	1.07E-08	2.78E-07
564144.13	4187978.25	1.15E-07	1.21E-07	1.02E-08	1.02E-08	1.02E-08	2.66E-07
564127.81	4187921.25	9.52E-08	9.89E-08	8.44E-09	8.44E-09	8.44E-09	2.19E-07
564123.75	4187906.75	8.87E-08	9.21E-08	7.86E-09	7.86E-09	7.86E-09	2.04E-07
564119.69	4187892.5	8.19E-08	8.52E-08	7.26E-09	7.26E-09	7.26E-09	1.89E-07
564115.56	4187878.25	7.53E-08	7.86E-08	6.67E-09	6.67E-09	6.67E-09	1.74E-07
564111.5	4187864	6.94E-08	7.27E-08	6.14E-09	6.14E-09	6.14E-09	1.61E-07
564154.56	4188006	1.27E-07	1.35E-07	1.13E-08	1.13E-08	1.13E-08	2.96E-07
564140	4187998.25	1.13E-07	1.21E-07	1.01E-08	1.01E-08	1.01E-08	2.64E-07
564127.81	4187955.75	1.01E-07	1.06E-07	8.95E-09	8.95E-09	8.95E-09	2.33E-07
564123.75	4187941.5	9.7E-08	1.01E-07	8.59E-09	8.59E-09	8.59E-09	2.24E-07
564119.69	4187927.25	9.25E-08	9.6E-08	8.19E-09	8.19E-09	8.19E-09	2.13E-07
564115.63	4187913	8.73E-08	9.05E-08	7.72E-09	7.72E-09	7.72E-09	2.01E-07
564111.56	4187898.75	8.15E-08	8.44E-08	7.2E-09	7.2E-09	7.2E-09	1.87E-07
564107.56	4187884.5	7.54E-08	7.83E-08	6.67E-09	6.67E-09	6.67E-09	1.74E-07
564103.5	4187870.25	6.96E-08	7.25E-08	6.15E-09	6.15E-09	6.15E-09	1.61E-07
564099.44	4187856	6.43E-08	6.74E-08	5.69E-09	5.69E-09	5.69E-09	1.49E-07
564095.38	4187842	5.98E-08	6.3E-08	5.29E-09	5.29E-09	5.29E-09	1.39E-07
564091.31	4187827.75	5.59E-08	5.93E-08	4.95E-09	4.95E-09	4.95E-09	1.30E-07
564146.38	4188011.75	1.21E-07	1.29E-07	1.08E-08	1.08E-08	1.08E-08	2.81E-07
564391.13	4187868.5	4.53E-07	5.86E-07	4.37E-08	4.37E-08	4.37E-08	1.17E-06
564389.56	4187878	4.93E-07	6.25E-07	4.73E-08	4.73E-08	4.73E-08	1.26E-06
564388.06	4187887.5	5.4E-07	6.76E-07	5.17E-08	5.17E-08	5.17E-08	1.37E-06
564386.56	4187897.25	5.97E-07	7.41E-07	5.72E-08	5.72E-08	5.72E-08	1.51E-06
564381.25	4187867	4.16E-07	5.21E-07	3.98E-08	3.98E-08	3.98E-08	1.06E-06
564379.75	4187876.5	4.51E-07	5.54E-07	4.29E-08	4.29E-08	4.29E-08	1.13E-06
564378.19	4187886	4.92E-07	5.96E-07	4.67E-08	4.67E-08	4.67E-08	1.23E-06
564376.69	4187895.5	5.39E-07	6.49E-07	5.11E-08	5.11E-08	5.11E-08	1.34E-06
564369.81	4187875	4.14E-07	4.95E-07	3.9E-08	3.9E-08	3.9E-08	1.03E-06
564368.31	4187884.5	4.49E-07	5.31E-07	4.22E-08	4.22E-08	4.22E-08	1.11E-06
564366.81	4187894	4.88E-07	5.74E-07	4.6E-08	4.6E-08	4.6E-08	1.20E-06
564359.94	4187873.25	3.79E-07	4.44E-07	3.55E-08	3.55E-08	3.55E-08	9.30E-07
564358.44	4187883	4.09E-07	4.74E-07	3.83E-08	3.83E-08	3.83E-08	9.98E-07
564356.94	4187892.5	4.42E-07	5.1E-07	4.13E-08	4.13E-08	4.13E-08	1.08E-06
564347.06	4187890.75	3.98E-07	4.52E-07	3.7E-08	3.7E-08	3.7E-08	9.61E-07
564129.75	4187856.25	7.14E-08	7.57E-08	6.35E-09	6.35E-09	6.35E-09	1.66E-07
564090.25	4187850	6.09E-08	6.38E-08	5.38E-09	5.38E-09	5.38E-09	1.41E-07
564392.56	4187908	7.2E-07	9.12E-07	6.95E-08	6.95E-08	6.95E-08	1.84E-06
564383.81	4187912.75	7.07E-07	8.64E-07	6.76E-08	6.76E-08	6.76E-08	1.77E-06
564379.94	4187922	7.69E-07	9.19E-07	7.32E-08	7.32E-08	7.32E-08	1.91E-06

564369.06	4187906.75	5.73E-07	6.74E-07	5.41E-08	5.41E-08	5.41E-08	1.41E-06
564374.44	4187929.75	8.05E-07	9.4E-07	7.62E-08	7.62E-08	7.62E-08	1.97E-06
564359.94	4187909.5	5.41E-07	6.25E-07	5.08E-08	5.08E-08	5.08E-08	1.32E-06
564371	4187939.25	8.83E-07	1.01E-06	8.31E-08	8.31E-08	8.31E-08	2.14E-06
564358.81	4187928.5	6.63E-07	7.53E-07	6.21E-08	6.21E-08	6.21E-08	1.60E-06
564351.31	4187915	5.24E-07	5.95E-07	4.89E-08	4.89E-08	4.89E-08	1.27E-06
564367.38	4187948.75	9.65E-07	1.08E-06	9.04E-08	9.04E-08	9.04E-08	2.31E-06
564355.69	4187938.25	7.16E-07	8.02E-07	6.69E-08	6.69E-08	6.69E-08	1.72E-06
564342.63	4187920.25	4.98E-07	5.6E-07	4.64E-08	4.64E-08	4.64E-08	1.20E-06
564339.88	4187904.75	4.18E-07	4.71E-07	3.89E-08	3.89E-08	3.89E-08	1.01E-06
564362.5	4187957.25	1.02E-06	1.11E-06	9.47E-08	9.47E-08	9.47E-08	2.41E-06
564355.69	4187951	8.39E-07	9.24E-07	7.82E-08	7.82E-08	7.82E-08	2.00E-06
564348.88	4187945	7.03E-07	7.78E-07	6.55E-08	6.55E-08	6.55E-08	1.68E-06
564342.06	4187938.75	5.95E-07	6.6E-07	5.53E-08	5.53E-08	5.53E-08	1.42E-06
564333.69	4187923.75	4.6E-07	5.13E-07	4.27E-08	4.27E-08	4.27E-08	1.10E-06
564332.06	4187914.75	4.17E-07	4.67E-07	3.87E-08	3.87E-08	3.87E-08	1.00E-06
564330.5	4187905.75	3.8E-07	4.26E-07	3.52E-08	3.52E-08	3.52E-08	9.12E-07
564328.88	4187896.75	3.48E-07	3.89E-07	3.22E-08	3.22E-08	3.22E-08	8.33E-07
564358.94	4187966.75	1.1E-06	1.18E-06	1.02E-07	1.02E-07	1.02E-07	2.58E-06
564346	4187955	7.54E-07	8.24E-07	7E-08	7E-08	7E-08	1.79E-06
564333	4187943.5	5.47E-07	6.03E-07	5.07E-08	5.07E-08	5.07E-08	1.30E-06
564325	4187929	4.32E-07	4.78E-07	3.99E-08	3.99E-08	3.99E-08	1.03E-06
564322	4187912	3.63E-07	4.04E-07	3.36E-08	3.36E-08	3.36E-08	8.68E-07
564355.31	4187976	1.18E-06	1.23E-06	1.09E-07	1.09E-07	1.09E-07	2.73E-06
564342.81	4187965	8.02E-07	8.64E-07	7.43E-08	7.43E-08	7.43E-08	1.89E-06
564330.31	4187953.75	5.8E-07	6.34E-07	5.37E-08	5.37E-08	5.37E-08	1.38E-06
564316.31	4187934.25	4.04E-07	4.45E-07	3.73E-08	3.73E-08	3.73E-08	9.61E-07
564313.38	4187917.75	3.44E-07	3.81E-07	3.17E-08	3.17E-08	3.17E-08	8.20E-07
564350.75	4187984.75	1.21E-06	1.25E-06	1.11E-07	1.11E-07	1.11E-07	2.79E-06
564343.81	4187978.5	9.61E-07	1.01E-06	8.86E-08	8.86E-08	8.86E-08	2.24E-06
564336.81	4187972.25	7.82E-07	8.35E-07	7.22E-08	7.22E-08	7.22E-08	1.83E-06
564329.88	4187966	6.5E-07	7.01E-07	6E-08	6E-08	6E-08	1.53E-06
564322.94	4187959.75	5.49E-07	5.97E-07	5.07E-08	5.07E-08	5.07E-08	1.30E-06
564316	4187953.5	4.71E-07	5.14E-07	4.34E-08	4.34E-08	4.34E-08	1.11E-06
564307.44	4187938.25	3.74E-07	4.11E-07	3.44E-08	3.44E-08	3.44E-08	8.88E-07
564305.81	4187929	3.43E-07	3.77E-07	3.16E-08	3.16E-08	3.16E-08	8.15E-07
564304.19	4187919.75	3.15E-07	3.48E-07	2.9E-08	2.9E-08	2.9E-08	7.50E-07
564333.75	4187982.25	8.28E-07	8.72E-07	7.62E-08	7.62E-08	7.62E-08	1.93E-06
564320.38	4187970.25	5.82E-07	6.27E-07	5.37E-08	5.37E-08	5.37E-08	1.37E-06
564307	4187958.25	4.34E-07	4.71E-07	3.99E-08	3.99E-08	3.99E-08	1.02E-06
564298.75	4187943.25	3.5E-07	3.83E-07	3.21E-08	3.21E-08	3.21E-08	8.29E-07
564295.63	4187925.75	3E-07	3.29E-07	2.75E-08	2.75E-08	2.75E-08	7.12E-07
564317.5	4187980.25	6.18E-07	6.57E-07	5.68E-08	5.68E-08	5.68E-08	1.45E-06
564304.5	4187968.75	4.59E-07	4.95E-07	4.22E-08	4.22E-08	4.22E-08	1.08E-06
564332	4188006	1.11E-06	1.11E-06	1.01E-07	1.01E-07	1.01E-07	2.52E-06
564328.56	4188015.5	1.16E-06	1.15E-06	1.06E-07	1.06E-07	1.06E-07	2.63E-06
564321.75	4188009.5	9.49E-07	9.57E-07	8.64E-08	8.64E-08	8.64E-08	2.17E-06

564314.94	4188003.5	7.87E-07	8.06E-07	7.18E-08	7.18E-08	7.18E-08	1.81E-06
564280.88	4187972.75	3.67E-07	3.91E-07	3.35E-08	3.35E-08	3.35E-08	8.59E-07
564272.5	4187957.75	2.95E-07	3.18E-07	2.69E-08	2.69E-08	2.69E-08	6.93E-07
564270.88	4187948.75	2.7E-07	2.93E-07	2.47E-08	2.47E-08	2.47E-08	6.37E-07
564269.31	4187939.75	2.5E-07	2.72E-07	2.28E-08	2.28E-08	2.28E-08	5.91E-07
564318.44	4188019.25	9.72E-07	9.69E-07	8.82E-08	8.82E-08	8.82E-08	2.21E-06
564305.13	4188007.25	6.93E-07	7.1E-07	6.31E-08	6.31E-08	6.31E-08	1.59E-06
564263.81	4187962.75	2.86E-07	3.06E-07	2.6E-08	2.6E-08	2.6E-08	6.70E-07
564260.69	4187945.25	2.41E-07	2.61E-07	2.19E-08	2.19E-08	2.19E-08	5.67E-07
564320.31	4188033.5	1.11E-06	1.09E-06	1.01E-07	1.01E-07	1.01E-07	2.51E-06
564313.19	4188027.25	9.11E-07	9.06E-07	8.25E-08	8.25E-08	8.25E-08	2.07E-06
564306.13	4188020.75	7.65E-07	7.72E-07	6.94E-08	6.94E-08	6.94E-08	1.75E-06
564299.06	4188014.5	6.54E-07	6.67E-07	5.93E-08	5.93E-08	5.93E-08	1.50E-06
564292	4188008.25	5.64E-07	5.81E-07	5.13E-08	5.13E-08	5.13E-08	1.30E-06
564284.94	4188001.75	4.91E-07	5.09E-07	4.46E-08	4.46E-08	4.46E-08	1.13E-06
564277.81	4187995.5	4.3E-07	4.49E-07	3.91E-08	3.91E-08	3.91E-08	9.96E-07
564254.94	4187967.25	2.76E-07	2.93E-07	2.51E-08	2.51E-08	2.51E-08	6.44E-07
564253.31	4187957.75	2.52E-07	2.69E-07	2.28E-08	2.28E-08	2.28E-08	5.89E-07
564316.75	4188043	1.12E-06	1.08E-06	1.01E-07	1.01E-07	1.01E-07	2.50E-06
564309.88	4188037	9.02E-07	8.91E-07	8.15E-08	8.15E-08	8.15E-08	2.04E-06
564303	4188030.75	7.51E-07	7.54E-07	6.79E-08	6.79E-08	6.79E-08	1.71E-06
564296.13	4188024.5	6.42E-07	6.53E-07	5.82E-08	5.82E-08	5.82E-08	1.47E-06
564289.19	4188018.5	5.59E-07	5.73E-07	5.06E-08	5.06E-08	5.06E-08	1.28E-06
564282.31	4188012.25	4.92E-07	5.08E-07	4.46E-08	4.46E-08	4.46E-08	1.13E-06
564275.44	4188006	4.36E-07	4.53E-07	3.95E-08	3.95E-08	3.95E-08	1.01E-06
564268.56	4187999.75	3.89E-07	4.06E-07	3.52E-08	3.52E-08	3.52E-08	9.00E-07
564261.63	4187993.75	3.48E-07	3.65E-07	3.16E-08	3.16E-08	3.16E-08	8.08E-07
564246.25	4187972.25	2.65E-07	2.8E-07	2.4E-08	2.4E-08	2.4E-08	6.18E-07
564244.63	4187963.25	2.46E-07	2.61E-07	2.23E-08	2.23E-08	2.23E-08	5.73E-07
564299.75	4188040.5	7.53E-07	7.5E-07	6.8E-08	6.8E-08	6.8E-08	1.71E-06
564293	4188034.5	6.36E-07	6.42E-07	5.75E-08	5.75E-08	5.75E-08	1.45E-06
564286.25	4188028.5	5.49E-07	5.61E-07	4.97E-08	4.97E-08	4.97E-08	1.26E-06
564272.81	4188016.5	4.3E-07	4.47E-07	3.89E-08	3.89E-08	3.89E-08	9.94E-07
564266.06	4188010.25	3.86E-07	4.03E-07	3.49E-08	3.49E-08	3.49E-08	8.93E-07
564259.31	4188004.25	3.49E-07	3.65E-07	3.15E-08	3.15E-08	3.15E-08	8.08E-07
564245.88	4187992.25	2.88E-07	3.03E-07	2.6E-08	2.6E-08	2.6E-08	6.69E-07
564301.5	4188054.75	9.03E-07	8.81E-07	8.14E-08	8.14E-08	8.14E-08	2.03E-06
564294.38	4188048.5	7.31E-07	7.25E-07	6.59E-08	6.59E-08	6.59E-08	1.65E-06
564287.25	4188042	6.06E-07	6.11E-07	5.47E-08	5.47E-08	5.47E-08	1.38E-06
564280.13	4188035.75	5.15E-07	5.27E-07	4.66E-08	4.66E-08	4.66E-08	1.18E-06
564273.06	4188029.25	4.48E-07	4.63E-07	4.05E-08	4.05E-08	4.05E-08	1.03E-06
564265.94	4188023	3.96E-07	4.12E-07	3.58E-08	3.58E-08	3.58E-08	9.15E-07
564258.81	4188016.5	3.54E-07	3.7E-07	3.2E-08	3.2E-08	3.2E-08	8.21E-07
564251.69	4188010.25	3.2E-07	3.35E-07	2.89E-08	2.89E-08	2.89E-08	7.42E-07
564244.63	4188003.75	2.91E-07	3.05E-07	2.62E-08	2.62E-08	2.62E-08	6.75E-07
564237.5	4187997.5	2.65E-07	2.79E-07	2.39E-08	2.39E-08	2.39E-08	6.16E-07
564227.06	4187972.25	2.23E-07	2.35E-07	2.01E-08	2.01E-08	2.01E-08	5.19E-07

564298.06	4188064.5	9.28E-07	8.99E-07	8.36E-08	8.36E-08	8.36E-08	2.08E-06
564291.13	4188058.25	7.57E-07	7.44E-07	6.82E-08	6.82E-08	6.82E-08	1.71E-06
564284.19	4188052	6.27E-07	6.26E-07	5.66E-08	5.66E-08	5.66E-08	1.42E-06
564277.25	4188045.75	5.28E-07	5.36E-07	4.77E-08	4.77E-08	4.77E-08	1.21E-06
564270.31	4188039.5	4.54E-07	4.66E-07	4.1E-08	4.1E-08	4.1E-08	1.04E-06
564263.31	4188033.25	3.97E-07	4.12E-07	3.59E-08	3.59E-08	3.59E-08	9.16E-07
564256.38	4188027	3.52E-07	3.68E-07	3.19E-08	3.19E-08	3.19E-08	8.16E-07
564249.44	4188020.75	3.17E-07	3.33E-07	2.87E-08	2.87E-08	2.87E-08	7.36E-07
564242.5	4188014.5	2.88E-07	3.03E-07	2.6E-08	2.6E-08	2.6E-08	6.70E-07
564235.56	4188008.5	2.64E-07	2.78E-07	2.38E-08	2.38E-08	2.38E-08	6.13E-07
564228.56	4188002.25	2.42E-07	2.55E-07	2.18E-08	2.18E-08	2.18E-08	5.63E-07
564220	4187986.75	2.17E-07	2.28E-07	1.95E-08	1.95E-08	1.95E-08	5.04E-07
564294.63	4188074	9.38E-07	9.03E-07	8.45E-08	8.45E-08	8.45E-08	2.10E-06
564287.81	4188068	7.75E-07	7.56E-07	6.98E-08	6.98E-08	6.98E-08	1.74E-06
564281	4188061.75	6.47E-07	6.4E-07	5.83E-08	5.83E-08	5.83E-08	1.46E-06
564274.19	4188055.75	5.47E-07	5.49E-07	4.94E-08	4.94E-08	4.94E-08	1.24E-06
564267.38	4188049.5	4.67E-07	4.76E-07	4.22E-08	4.22E-08	4.22E-08	1.07E-06
564260.56	4188043.5	4.06E-07	4.18E-07	3.66E-08	3.66E-08	3.66E-08	9.33E-07
564253.75	4188037.5	3.57E-07	3.71E-07	3.23E-08	3.23E-08	3.23E-08	8.25E-07
564246.94	4188031.25	3.18E-07	3.33E-07	2.87E-08	2.87E-08	2.87E-08	7.38E-07
564240.13	4188025.25	2.87E-07	3.02E-07	2.59E-08	2.59E-08	2.59E-08	6.68E-07
564233.31	4188019	2.62E-07	2.76E-07	2.36E-08	2.36E-08	2.36E-08	6.09E-07
564226.5	4188013	2.41E-07	2.54E-07	2.17E-08	2.17E-08	2.17E-08	5.60E-07
564219.75	4188007	2.22E-07	2.35E-07	2E-08	2E-08	2E-08	5.18E-07
564211.31	4187991.75	2.01E-07	2.12E-07	1.8E-08	1.8E-08	1.8E-08	4.67E-07
564342	4188103.75	2.45E-06	2.25E-06	2.19E-07	2.19E-07	2.19E-07	5.36E-06
564351	4188107.5	2.57E-06	2.35E-06	2.29E-07	2.29E-07	2.29E-07	5.61E-06
564360	4188111.25	2.59E-06	2.36E-06	2.3E-07	2.3E-07	2.3E-07	5.63E-06
564289.81	4188082.25	9.02E-07	8.66E-07	8.11E-08	8.11E-08	8.11E-08	2.01E-06
564282.63	4188076	7.47E-07	7.27E-07	6.72E-08	6.72E-08	6.72E-08	1.68E-06
564275.5	4188069.5	6.24E-07	6.16E-07	5.63E-08	5.63E-08	5.63E-08	1.41E-06
564268.38	4188063.25	5.29E-07	5.3E-07	4.77E-08	4.77E-08	4.77E-08	1.20E-06
564261.25	4188056.75	4.52E-07	4.59E-07	4.08E-08	4.08E-08	4.08E-08	1.03E-06
564254.13	4188050.5	3.9E-07	4.01E-07	3.53E-08	3.53E-08	3.53E-08	8.97E-07
564247	4188044	3.4E-07	3.54E-07	3.08E-08	3.08E-08	3.08E-08	7.87E-07
564239.81	4188037.5	3.01E-07	3.15E-07	2.72E-08	2.72E-08	2.72E-08	6.97E-07
564232.69	4188031.25	2.7E-07	2.84E-07	2.43E-08	2.43E-08	2.43E-08	6.27E-07
564225.56	4188024.75	2.44E-07	2.58E-07	2.2E-08	2.2E-08	2.2E-08	5.69E-07
564218.44	4188018.5	2.24E-07	2.37E-07	2.01E-08	2.01E-08	2.01E-08	5.21E-07
564211.31	4188012	2.06E-07	2.18E-07	1.85E-08	1.85E-08	1.85E-08	4.80E-07
564202.5	4187996.25	1.86E-07	1.96E-07	1.67E-08	1.67E-08	1.67E-08	4.32E-07
564200.81	4187986.75	1.81E-07	1.91E-07	1.62E-08	1.62E-08	1.62E-08	4.21E-07
564338.13	4188112.75	2.02E-06	1.86E-06	1.8E-07	1.8E-07	1.8E-07	4.42E-06
564347.13	4188116.75	2.08E-06	1.9E-06	1.85E-07	1.85E-07	1.85E-07	4.54E-06
564356.06	4188120.5	2.09E-06	1.9E-06	1.85E-07	1.85E-07	1.85E-07	4.55E-06
564272.38	4188079.5	6.35E-07	6.22E-07	5.72E-08	5.72E-08	5.72E-08	1.43E-06
564265.38	4188073.25	5.42E-07	5.38E-07	4.88E-08	4.88E-08	4.88E-08	1.23E-06

564258.38	4188067	4.66E-07	4.69E-07	4.2E-08	4.2E-08	4.2E-08	1.06E-06
564251.38	4188060.75	4.04E-07	4.12E-07	3.65E-08	3.65E-08	3.65E-08	9.26E-07
564244.38	4188054.25	3.53E-07	3.64E-07	3.18E-08	3.18E-08	3.18E-08	8.12E-07
564237.38	4188048	3.11E-07	3.23E-07	2.8E-08	2.8E-08	2.8E-08	7.18E-07
564230.38	4188041.75	2.76E-07	2.9E-07	2.49E-08	2.49E-08	2.49E-08	6.41E-07
564223.38	4188035.5	2.48E-07	2.62E-07	2.24E-08	2.24E-08	2.24E-08	5.77E-07
564216.44	4188029.25	2.25E-07	2.39E-07	2.03E-08	2.03E-08	2.03E-08	5.25E-07
564209.44	4188023	2.07E-07	2.19E-07	1.86E-08	1.86E-08	1.86E-08	4.82E-07
564202.44	4188016.75	1.91E-07	2.03E-07	1.72E-08	1.72E-08	1.72E-08	4.45E-07
564193.81	4188001.25	1.73E-07	1.83E-07	1.55E-08	1.55E-08	1.55E-08	4.03E-07
564192.19	4187992	1.69E-07	1.78E-07	1.51E-08	1.51E-08	1.51E-08	3.92E-07
564334.25	4188122	1.69E-06	1.55E-06	1.5E-07	1.5E-07	1.5E-07	3.68E-06
564343.25	4188125.75	1.73E-06	1.58E-06	1.53E-07	1.53E-07	1.53E-07	3.77E-06
564352.25	4188129.75	1.73E-06	1.57E-06	1.52E-07	1.52E-07	1.52E-07	3.76E-06
564282.81	4188101.5	8.65E-07	8.24E-07	7.76E-08	7.76E-08	7.76E-08	1.92E-06
564255.38	4188077	4.75E-07	4.75E-07	4.28E-08	4.28E-08	4.28E-08	1.08E-06
564248.5	4188070.75	4.15E-07	4.19E-07	3.74E-08	3.74E-08	3.74E-08	9.46E-07
564241.63	4188064.5	3.64E-07	3.72E-07	3.29E-08	3.29E-08	3.29E-08	8.35E-07
564234.75	4188058.5	3.22E-07	3.33E-07	2.91E-08	2.91E-08	2.91E-08	7.42E-07
564227.88	4188052.25	2.86E-07	2.98E-07	2.58E-08	2.58E-08	2.58E-08	6.61E-07
564221	4188046.25	2.56E-07	2.69E-07	2.31E-08	2.31E-08	2.31E-08	5.94E-07
564214.19	4188040	2.31E-07	2.44E-07	2.08E-08	2.08E-08	2.08E-08	5.37E-07
564207.31	4188033.75	2.1E-07	2.22E-07	1.89E-08	1.89E-08	1.89E-08	4.89E-07
564200.44	4188027.75	1.93E-07	2.05E-07	1.73E-08	1.73E-08	1.73E-08	4.49E-07
564193.56	4188021.5	1.78E-07	1.89E-07	1.6E-08	1.6E-08	1.6E-08	4.16E-07
564185.06	4188006.25	1.61E-07	1.71E-07	1.45E-08	1.45E-08	1.45E-08	3.76E-07
564183.5	4187997.25	1.58E-07	1.67E-07	1.41E-08	1.41E-08	1.41E-08	3.67E-07
564330.38	4188131.25	1.43E-06	1.31E-06	1.26E-07	1.26E-07	1.26E-07	3.11E-06
564339.38	4188135	1.46E-06	1.33E-06	1.28E-07	1.28E-07	1.28E-07	3.17E-06
564348.31	4188138.75	1.47E-06	1.32E-06	1.28E-07	1.28E-07	1.28E-07	3.18E-06
564285.25	4188116.25	9.13E-07	8.61E-07	8.16E-08	8.16E-08	8.16E-08	2.02E-06
564278.13	4188110	8.13E-07	7.73E-07	7.27E-08	7.27E-08	7.27E-08	1.80E-06
564270.94	4188103.5	7.06E-07	6.79E-07	6.33E-08	6.33E-08	6.33E-08	1.58E-06
564235.19	4188071.5	3.5E-07	3.57E-07	3.15E-08	3.15E-08	3.15E-08	8.01E-07
564228	4188065	3.09E-07	3.19E-07	2.79E-08	2.79E-08	2.79E-08	7.11E-07
564220.88	4188058.75	2.75E-07	2.86E-07	2.48E-08	2.48E-08	2.48E-08	6.35E-07
564213.75	4188052.25	2.45E-07	2.57E-07	2.21E-08	2.21E-08	2.21E-08	5.69E-07
564206.56	4188045.75	2.2E-07	2.32E-07	1.98E-08	1.98E-08	1.98E-08	5.12E-07
564199.44	4188039.5	1.99E-07	2.12E-07	1.8E-08	1.8E-08	1.8E-08	4.65E-07
564192.25	4188033	1.82E-07	1.94E-07	1.64E-08	1.64E-08	1.64E-08	4.25E-07
564185.13	4188026.75	1.68E-07	1.79E-07	1.51E-08	1.51E-08	1.51E-08	3.92E-07
564176.25	4188010.75	1.51E-07	1.61E-07	1.35E-08	1.35E-08	1.35E-08	3.52E-07
564326.5	4188140.5	1.23E-06	1.12E-06	1.08E-07	1.08E-07	1.08E-07	2.67E-06
564335.5	4188144.25	1.25E-06	1.13E-06	1.09E-07	1.09E-07	1.09E-07	2.71E-06
564344.5	4188148	1.26E-06	1.13E-06	1.09E-07	1.09E-07	1.09E-07	2.72E-06
564274.63	4188119.5	7.73E-07	7.33E-07	6.9E-08	6.9E-08	6.9E-08	1.71E-06
564267.56	4188113.25	6.89E-07	6.59E-07	6.16E-08	6.16E-08	6.16E-08	1.53E-06

564260.56	4188107	6.04E-07	5.84E-07	5.41E-08	5.41E-08	5.41E-08	1.35E-06
564253.5	4188100.75	5.27E-07	5.16E-07	4.73E-08	4.73E-08	4.73E-08	1.19E-06
564246.5	4188094.25	4.61E-07	4.56E-07	4.14E-08	4.14E-08	4.14E-08	1.04E-06
564218.38	4188069.25	2.83E-07	2.93E-07	2.56E-08	2.56E-08	2.56E-08	6.53E-07
564211.38	4188062.75	2.54E-07	2.65E-07	2.29E-08	2.29E-08	2.29E-08	5.87E-07
564204.31	4188056.5	2.28E-07	2.4E-07	2.06E-08	2.06E-08	2.06E-08	5.29E-07
564197.31	4188050.25	2.06E-07	2.18E-07	1.86E-08	1.86E-08	1.86E-08	4.80E-07
564190.31	4188044	1.87E-07	1.99E-07	1.69E-08	1.69E-08	1.69E-08	4.37E-07
564183.25	4188037.75	1.71E-07	1.83E-07	1.54E-08	1.54E-08	1.54E-08	4.00E-07
564176.25	4188031.5	1.58E-07	1.69E-07	1.42E-08	1.42E-08	1.42E-08	3.69E-07
564167.56	4188015.75	1.42E-07	1.51E-07	1.27E-08	1.27E-08	1.27E-08	3.31E-07
564322.63	4188149.75	1.07E-06	9.69E-07	9.3E-08	9.3E-08	9.3E-08	2.31E-06
564331.63	4188153.5	1.09E-06	9.79E-07	9.4E-08	9.4E-08	9.4E-08	2.35E-06
564340.63	4188157.25	1.09E-06	9.77E-07	9.39E-08	9.39E-08	9.39E-08	2.35E-06
564271.06	4188129	7.28E-07	6.88E-07	6.48E-08	6.48E-08	6.48E-08	1.61E-06
564264.19	4188122.75	6.63E-07	6.32E-07	5.92E-08	5.92E-08	5.92E-08	1.47E-06
564257.25	4188116.75	5.93E-07	5.71E-07	5.3E-08	5.3E-08	5.3E-08	1.32E-06
564250.31	4188110.5	5.25E-07	5.1E-07	4.7E-08	4.7E-08	4.7E-08	1.18E-06
564243.44	4188104.25	4.63E-07	4.55E-07	4.15E-08	4.15E-08	4.15E-08	1.04E-06
564236.5	4188098	4.09E-07	4.07E-07	3.67E-08	3.67E-08	3.67E-08	9.26E-07
564229.63	4188092	3.63E-07	3.66E-07	3.27E-08	3.27E-08	3.27E-08	8.27E-07
564201.94	4188067	2.35E-07	2.46E-07	2.12E-08	2.12E-08	2.12E-08	5.45E-07
564195.06	4188061	2.13E-07	2.24E-07	1.92E-08	1.92E-08	1.92E-08	4.95E-07
564188.13	4188054.75	1.94E-07	2.05E-07	1.75E-08	1.75E-08	1.75E-08	4.51E-07
564181.19	4188048.5	1.77E-07	1.88E-07	1.59E-08	1.59E-08	1.59E-08	4.12E-07
564174.31	4188042.25	1.62E-07	1.73E-07	1.46E-08	1.46E-08	1.46E-08	3.78E-07
564167.38	4188036.25	1.5E-07	1.6E-07	1.34E-08	1.34E-08	1.34E-08	3.50E-07
564158.88	4188020.75	1.34E-07	1.43E-07	1.2E-08	1.2E-08	1.2E-08	3.13E-07
564318.75	4188159	9.36E-07	8.48E-07	8.12E-08	8.12E-08	8.12E-08	2.03E-06
564327.75	4188162.75	9.53E-07	8.56E-07	8.2E-08	8.2E-08	8.2E-08	2.05E-06
564336.75	4188166.5	9.62E-07	8.55E-07	8.19E-08	8.19E-08	8.19E-08	2.06E-06
564266.44	4188137.5	6.74E-07	6.36E-07	5.99E-08	5.99E-08	5.99E-08	1.49E-06
564259.25	4188131.25	6.21E-07	5.91E-07	5.52E-08	5.52E-08	5.52E-08	1.38E-06
564252.13	4188124.75	5.61E-07	5.39E-07	5E-08	5E-08	5E-08	1.25E-06
564244.94	4188118.25	4.99E-07	4.85E-07	4.46E-08	4.46E-08	4.46E-08	1.12E-06
564237.75	4188112	4.43E-07	4.34E-07	3.96E-08	3.96E-08	3.96E-08	9.96E-07
564230.56	4188105.5	3.92E-07	3.89E-07	3.51E-08	3.51E-08	3.51E-08	8.86E-07
564223.44	4188099	3.48E-07	3.5E-07	3.13E-08	3.13E-08	3.13E-08	7.91E-07
564216.25	4188092.5	3.1E-07	3.15E-07	2.79E-08	2.79E-08	2.79E-08	7.09E-07
564180.44	4188060.5	1.86E-07	1.96E-07	1.68E-08	1.68E-08	1.68E-08	4.33E-07
564173.25	4188054	1.7E-07	1.8E-07	1.53E-08	1.53E-08	1.53E-08	3.95E-07
564166.06	4188047.75	1.55E-07	1.65E-07	1.4E-08	1.4E-08	1.4E-08	3.63E-07
564158.88	4188041.25	1.43E-07	1.52E-07	1.28E-08	1.28E-08	1.28E-08	3.34E-07
564150.06	4188025.25	1.27E-07	1.36E-07	1.14E-08	1.14E-08	1.14E-08	2.97E-07
564314.88	4188168.25	8.3E-07	7.5E-07	7.15E-08	7.15E-08	7.15E-08	1.79E-06
564323.88	4188172	8.45E-07	7.55E-07	7.22E-08	7.22E-08	7.22E-08	1.82E-06
564332.88	4188175.75	8.54E-07	7.55E-07	7.22E-08	7.22E-08	7.22E-08	1.83E-06

564262.94	4188147	6.29E-07	5.93E-07	5.57E-08	5.57E-08	5.57E-08	1.39E-06
564255.88	4188140.75	5.9E-07	5.6E-07	5.23E-08	5.23E-08	5.23E-08	1.31E-06
564248.81	4188134.5	5.42E-07	5.19E-07	4.82E-08	4.82E-08	4.82E-08	1.21E-06
564241.75	4188128.25	4.91E-07	4.74E-07	4.38E-08	4.38E-08	4.38E-08	1.10E-06
564234.69	4188121.75	4.4E-07	4.29E-07	3.93E-08	3.93E-08	3.93E-08	9.87E-07
564227.63	4188115.5	3.93E-07	3.88E-07	3.52E-08	3.52E-08	3.52E-08	8.87E-07
564220.56	4188109.25	3.52E-07	3.5E-07	3.15E-08	3.15E-08	3.15E-08	7.97E-07
564213.5	4188102.75	3.15E-07	3.17E-07	2.82E-08	2.82E-08	2.82E-08	7.17E-07
564206.5	4188096.5	2.83E-07	2.88E-07	2.54E-08	2.54E-08	2.54E-08	6.48E-07
564199.44	4188090.25	2.55E-07	2.63E-07	2.3E-08	2.3E-08	2.3E-08	5.87E-07
564164.13	4188058.75	1.61E-07	1.7E-07	1.45E-08	1.45E-08	1.45E-08	3.75E-07
564157.13	4188052.25	1.48E-07	1.57E-07	1.33E-08	1.33E-08	1.33E-08	3.45E-07
564150.06	4188046	1.36E-07	1.45E-07	1.22E-08	1.22E-08	1.22E-08	3.18E-07
564141.31	4188030.25	1.21E-07	1.29E-07	1.08E-08	1.08E-08	1.08E-08	2.83E-07
564139.69	4188021	1.17E-07	1.25E-07	1.05E-08	1.05E-08	1.05E-08	2.73E-07
564311	4188177.5	7.42E-07	6.68E-07	6.36E-08	6.36E-08	6.36E-08	1.60E-06
564320	4188181.25	7.55E-07	6.72E-07	6.41E-08	6.41E-08	6.41E-08	1.62E-06
564329	4188185	7.65E-07	6.73E-07	6.42E-08	6.42E-08	6.42E-08	1.63E-06
564266.31	4188162.75	6.05E-07	5.65E-07	5.32E-08	5.32E-08	5.32E-08	1.33E-06
564259.38	4188156.5	5.85E-07	5.5E-07	5.16E-08	5.16E-08	5.16E-08	1.29E-06
564252.38	4188150.5	5.56E-07	5.26E-07	4.92E-08	4.92E-08	4.92E-08	1.23E-06
564245.44	4188144.25	5.2E-07	4.95E-07	4.61E-08	4.61E-08	4.61E-08	1.15E-06
564238.5	4188138	4.78E-07	4.6E-07	4.25E-08	4.25E-08	4.25E-08	1.07E-06
564231.56	4188131.75	4.35E-07	4.22E-07	3.87E-08	3.87E-08	3.87E-08	9.72E-07
564224.63	4188125.5	3.92E-07	3.84E-07	3.5E-08	3.5E-08	3.5E-08	8.82E-07
564217.63	4188119.25	3.53E-07	3.49E-07	3.16E-08	3.16E-08	3.16E-08	7.97E-07
564210.69	4188113	3.18E-07	3.18E-07	2.85E-08	2.85E-08	2.85E-08	7.22E-07
564203.75	4188106.75	2.87E-07	2.9E-07	2.57E-08	2.57E-08	2.57E-08	6.54E-07
564196.81	4188100.5	2.6E-07	2.65E-07	2.33E-08	2.33E-08	2.33E-08	5.95E-07
564189.88	4188094.25	2.36E-07	2.43E-07	2.12E-08	2.12E-08	2.12E-08	5.42E-07
564182.88	4188088	2.15E-07	2.23E-07	1.93E-08	1.93E-08	1.93E-08	4.96E-07
564148.13	4188057	1.41E-07	1.5E-07	1.26E-08	1.26E-08	1.26E-08	3.28E-07
564141.19	4188050.75	1.3E-07	1.39E-07	1.17E-08	1.17E-08	1.17E-08	3.04E-07
564132.63	4188035.25	1.16E-07	1.24E-07	1.04E-08	1.04E-08	1.04E-08	2.71E-07
564131	4188026.25	1.12E-07	1.19E-07	9.98E-09	9.98E-09	9.98E-09	2.61E-07
564122.88	4187980.25	9.97E-08	1.05E-07	8.86E-09	8.86E-09	8.86E-09	2.31E-07
564121.25	4187971	9.79E-08	1.03E-07	8.69E-09	8.69E-09	8.69E-09	2.27E-07
564118	4187952.75	9.47E-08	9.89E-08	8.38E-09	8.38E-09	8.38E-09	2.19E-07
564307.13	4188186.5	6.7E-07	6.01E-07	5.7E-08	5.7E-08	5.7E-08	1.44E-06
564316.13	4188190.5	6.8E-07	6.03E-07	5.73E-08	5.73E-08	5.73E-08	1.46E-06
564261.94	4188171.75	5.55E-07	5.18E-07	4.86E-08	4.86E-08	4.86E-08	1.22E-06
564254.75	4188165.25	5.4E-07	5.07E-07	4.75E-08	4.75E-08	4.75E-08	1.19E-06
564247.63	4188158.75	5.18E-07	4.89E-07	4.57E-08	4.57E-08	4.57E-08	1.14E-06
564240.44	4188152.25	4.88E-07	4.64E-07	4.32E-08	4.32E-08	4.32E-08	1.08E-06
564233.25	4188146	4.52E-07	4.34E-07	4.01E-08	4.01E-08	4.01E-08	1.01E-06
564226.06	4188139.5	4.13E-07	4E-07	3.67E-08	3.67E-08	3.67E-08	9.23E-07
564218.88	4188133	3.74E-07	3.66E-07	3.33E-08	3.33E-08	3.33E-08	8.40E-07

564211.69	4188126.5	3.38E-07	3.34E-07	3.01E-08	3.01E-08	3.01E-08	7.62E-07
564204.5	4188120.25	3.05E-07	3.05E-07	2.73E-08	2.73E-08	2.73E-08	6.91E-07
564197.31	4188113.75	2.75E-07	2.78E-07	2.47E-08	2.47E-08	2.47E-08	6.28E-07
564190.13	4188107.25	2.49E-07	2.54E-07	2.24E-08	2.24E-08	2.24E-08	5.71E-07
564182.94	4188100.75	2.26E-07	2.33E-07	2.03E-08	2.03E-08	2.03E-08	5.20E-07
564175.75	4188094.5	2.06E-07	2.14E-07	1.86E-08	1.86E-08	1.86E-08	4.76E-07
564168.63	4188088	1.89E-07	1.97E-07	1.7E-08	1.7E-08	1.7E-08	4.37E-07
564161.44	4188081.5	1.73E-07	1.82E-07	1.56E-08	1.56E-08	1.56E-08	4.01E-07
564132.69	4188055.75	1.25E-07	1.33E-07	1.12E-08	1.12E-08	1.12E-08	2.92E-07
564117.13	4188002	9.79E-08	1.04E-07	8.72E-09	8.72E-09	8.72E-09	2.28E-07
564115.44	4187992.5	9.6E-08	1.02E-07	8.54E-09	8.54E-09	8.54E-09	2.24E-07
564113.75	4187983	9.43E-08	9.97E-08	8.37E-09	8.37E-09	8.37E-09	2.19E-07
564112.06	4187973.5	9.26E-08	9.76E-08	8.22E-09	8.22E-09	8.22E-09	2.15E-07
564108.75	4187954.5	8.96E-08	9.37E-08	7.93E-09	7.93E-09	7.93E-09	2.07E-07
564107.06	4187945	8.8E-08	9.18E-08	7.78E-09	7.78E-09	7.78E-09	2.03E-07
564105.38	4187935.5	8.64E-08	8.98E-08	7.63E-09	7.63E-09	7.63E-09	1.99E-07
564103.69	4187926	8.45E-08	8.76E-08	7.46E-09	7.46E-09	7.46E-09	1.94E-07
564102	4187916.5	8.23E-08	8.51E-08	7.26E-09	7.26E-09	7.26E-09	1.89E-07
564100.38	4187907	7.97E-08	8.24E-08	7.03E-09	7.03E-09	7.03E-09	1.83E-07
564098.69	4187897.5	7.68E-08	7.93E-08	6.77E-09	6.77E-09	6.77E-09	1.76E-07
564097	4187888	7.36E-08	7.61E-08	6.49E-09	6.49E-09	6.49E-09	1.69E-07
564095.31	4187878.5	7.03E-08	7.28E-08	6.2E-09	6.2E-09	6.2E-09	1.62E-07
564093.63	4187869	6.7E-08	6.96E-08	5.92E-09	5.92E-09	5.92E-09	1.54E-07
564257.75	4187835.25	1.35E-07	1.5E-07	1.23E-08	1.23E-08	1.23E-08	3.23E-07
564380.94	4187939	9.92E-07	1.16E-06	9.4E-08	9.4E-08	9.4E-08	2.43E-06
564369.44	4187920	6.73E-07	7.85E-07	6.35E-08	6.35E-08	6.35E-08	1.65E-06
564317.94	4187944.25	4.47E-07	4.91E-07	4.13E-08	4.13E-08	4.13E-08	1.06E-06
564120.75	4187862.25	7.1E-08	7.47E-08	6.3E-09	6.3E-09	6.3E-09	1.65E-07
564264.44	4187973	3.15E-07	3.34E-07	2.86E-08	2.86E-08	2.86E-08	7.34E-07
564234.56	4187988.75	2.53E-07	2.66E-07	2.28E-08	2.28E-08	2.28E-08	5.87E-07
564102.81	4187985.25	8.83E-08	9.35E-08	7.84E-09	7.84E-09	7.84E-09	2.05E-07
564097.75	4187972.75	8.49E-08	8.95E-08	7.53E-09	7.53E-09	7.53E-09	1.97E-07
564093.81	4187981	8.35E-08	8.83E-08	7.41E-09	7.41E-09	7.41E-09	1.94E-07
564096.75	4187952	8.33E-08	8.7E-08	7.36E-09	7.36E-09	7.36E-09	1.92E-07
564088.81	4187968.5	8.04E-08	8.46E-08	7.12E-09	7.12E-09	7.12E-09	1.86E-07
564095.69	4187931.25	8.14E-08	8.45E-08	7.18E-09	7.18E-09	7.18E-09	1.87E-07
564091.75	4187939.5	8.02E-08	8.35E-08	7.08E-09	7.08E-09	7.08E-09	1.85E-07
564087.75	4187947.75	7.89E-08	8.23E-08	6.96E-09	6.96E-09	6.96E-09	1.82E-07
564079.81	4187964	7.62E-08	8.01E-08	6.74E-09	6.74E-09	6.74E-09	1.77E-07
564075.81	4187972.25	7.5E-08	7.91E-08	6.64E-09	6.64E-09	6.64E-09	1.74E-07
564090.69	4187918.75	7.79E-08	8.06E-08	6.87E-09	6.87E-09	6.87E-09	1.79E-07
564086.69	4187927	7.72E-08	7.99E-08	6.8E-09	6.8E-09	6.8E-09	1.77E-07
564082.75	4187935.25	7.61E-08	7.91E-08	6.71E-09	6.71E-09	6.71E-09	1.75E-07
564089.63	4187898	7.4E-08	7.62E-08	6.52E-09	6.52E-09	6.52E-09	1.70E-07
564085.69	4187906.25	7.42E-08	7.65E-08	6.54E-09	6.54E-09	6.54E-09	1.70E-07
564081.69	4187914.5	7.4E-08	7.63E-08	6.51E-09	6.51E-09	6.51E-09	1.70E-07
564073.75	4187930.75	7.23E-08	7.5E-08	6.36E-09	6.36E-09	6.36E-09	1.66E-07

564069.75	4187939	7.11E-08	7.4E-08	6.27E-09	6.27E-09	6.27E-09	1.64E-07
564057.81	4187963.5	6.78E-08	7.13E-08	5.99E-09	5.99E-09	5.99E-09	1.57E-07
564374.44	4188115.25	2.61E-06	2.36E-06	2.3E-07	2.3E-07	2.3E-07	5.66E-06
564384.25	4188116.75	2.67E-06	2.38E-06	2.33E-07	2.33E-07	2.33E-07	5.75E-06
564394.13	4188118.5	2.68E-06	2.37E-06	2.32E-07	2.32E-07	2.32E-07	5.75E-06
564404	4188120	2.69E-06	2.33E-06	2.29E-07	2.29E-07	2.29E-07	5.71E-06
564413.88	4188121.5	2.7E-06	2.28E-06	2.23E-07	2.23E-07	2.23E-07	5.64E-06
564423.69	4188123	2.73E-06	2.2E-06	2.17E-07	2.17E-07	2.17E-07	5.58E-06
564433.56	4188124.75	2.8E-06	2.11E-06	2.09E-07	2.09E-07	2.09E-07	5.54E-06
564443.44	4188126.25	2.98E-06	2.03E-06	2.03E-07	2.03E-07	2.03E-07	5.62E-06
564453.25	4188127.75	3.27E-06	1.97E-06	2.01E-07	2.01E-07	2.01E-07	5.85E-06
564463.13	4188129.25	3.55E-06	1.93E-06	1.99E-07	1.99E-07	1.99E-07	6.07E-06
564473	4188131	3.79E-06	1.89E-06	1.98E-07	1.98E-07	1.98E-07	6.27E-06
564482.88	4188132.50	3.85E-06	1.82E-06	1.92E-07	1.92E-07	1.92E-07	6.25E-06
564492.69	4188134	3.63E-06	1.68E-06	1.78E-07	1.78E-07	1.78E-07	5.85E-06
564502.56	4188135.75	3.23E-06	1.51E-06	1.58E-07	1.58E-07	1.58E-07	5.21E-06
564522.25	4188138.75	2.22E-06	1.13E-06	1.15E-07	1.15E-07	1.15E-07	3.69E-06
564532.13	4188140.25	1.79E-06	9.69E-07	9.74E-08	9.74E-08	9.74E-08	3.06E-06
564542	4188142	1.48E-06	8.45E-07	8.35E-08	8.35E-08	8.35E-08	2.57E-06
564551.81	4188143.5	1.24E-06	7.5E-07	7.3E-08	7.3E-08	7.3E-08	2.21E-06
564561.69	4188145	1.06E-06	6.72E-07	6.45E-08	6.45E-08	6.45E-08	1.93E-06
564571.56	4188146.5	9.24E-07	6.08E-07	5.76E-08	5.76E-08	5.76E-08	1.70E-06
564581.44	4188148.25	8.1E-07	5.52E-07	5.18E-08	5.18E-08	5.18E-08	1.52E-06
564591.25	4188149.75	7.19E-07	5.06E-07	4.71E-08	4.71E-08	4.71E-08	1.37E-06
564601.13	4188151.25	6.44E-07	4.66E-07	4.3E-08	4.3E-08	4.3E-08	1.24E-06
564372.88	4188125.25	2.11E-06	1.89E-06	1.84E-07	1.84E-07	1.84E-07	4.55E-06
564382.69	4188126.75	2.15E-06	1.91E-06	1.86E-07	1.86E-07	1.86E-07	4.62E-06
564392.56	4188128.25	2.19E-06	1.91E-06	1.87E-07	1.87E-07	1.87E-07	4.67E-06
564402.44	4188129.75	2.24E-06	1.91E-06	1.86E-07	1.86E-07	1.86E-07	4.70E-06
564412.25	4188131.5	2.29E-06	1.88E-06	1.85E-07	1.85E-07	1.85E-07	4.73E-06
564422.13	4188133	2.38E-06	1.86E-06	1.83E-07	1.83E-07	1.83E-07	4.79E-06
564432	4188134.5	2.52E-06	1.83E-06	1.82E-07	1.82E-07	1.82E-07	4.89E-06
564441.88	4188136	2.7E-06	1.79E-06	1.8E-07	1.8E-07	1.8E-07	5.04E-06
564451.69	4188137.75	2.89E-06	1.74E-06	1.77E-07	1.77E-07	1.77E-07	5.16E-06
564461.56	4188139.25	3.03E-06	1.69E-06	1.73E-07	1.73E-07	1.73E-07	5.23E-06
564471.44	4188140.75	3.11E-06	1.62E-06	1.68E-07	1.68E-07	1.68E-07	5.23E-06
564481.25	4188142.5	3.05E-06	1.53E-06	1.59E-07	1.59E-07	1.59E-07	5.06E-06
564491.13	4188144	2.86E-06	1.41E-06	1.47E-07	1.47E-07	1.47E-07	4.71E-06
564501	4188145.5	2.58E-06	1.28E-06	1.33E-07	1.33E-07	1.33E-07	4.26E-06
564520.69	4188148.75	1.87E-06	9.93E-07	1.01E-07	1.01E-07	1.01E-07	3.17E-06
564530.56	4188150.25	1.56E-06	8.71E-07	8.69E-08	8.69E-08	8.69E-08	2.69E-06
564540.44	4188151.75	1.31E-06	7.72E-07	7.6E-08	7.6E-08	7.6E-08	2.31E-06
564550.25	4188153.25	1.12E-06	6.93E-07	6.73E-08	6.73E-08	6.73E-08	2.02E-06
564560.13	4188155	9.74E-07	6.26E-07	6E-08	6E-08	6E-08	1.78E-06
564570	4188156.5	8.56E-07	5.71E-07	5.4E-08	5.4E-08	5.4E-08	1.59E-06
564579.81	4188158	7.6E-07	5.23E-07	4.91E-08	4.91E-08	4.91E-08	1.43E-06
564589.69	4188159.5	6.8E-07	4.81E-07	4.48E-08	4.48E-08	4.48E-08	1.30E-06

564599.56	4188161.25	6.11E-07	4.44E-07	4.1E-08	4.1E-08	4.1E-08	1.18E-06
564361.44	4188133.5	1.72E-06	1.54E-06	1.49E-07	1.49E-07	1.49E-07	3.71E-06
564371.31	4188135	1.76E-06	1.56E-06	1.51E-07	1.51E-07	1.51E-07	3.77E-06
564381.13	4188136.5	1.8E-06	1.57E-06	1.53E-07	1.53E-07	1.53E-07	3.83E-06
564391	4188138.25	1.84E-06	1.57E-06	1.53E-07	1.53E-07	1.53E-07	3.87E-06
564400.88	4188139.75	1.9E-06	1.58E-06	1.54E-07	1.54E-07	1.54E-07	3.94E-06
564410.69	4188141.25	1.98E-06	1.59E-06	1.56E-07	1.56E-07	1.56E-07	4.03E-06
564420.56	4188142.75	2.09E-06	1.59E-06	1.57E-07	1.57E-07	1.57E-07	4.15E-06
564430.44	4188144.5	2.21E-06	1.58E-06	1.57E-07	1.57E-07	1.57E-07	4.26E-06
564440.25	4188146	2.33E-06	1.55E-06	1.56E-07	1.56E-07	1.56E-07	4.35E-06
564450.13	4188147.5	2.43E-06	1.51E-06	1.52E-07	1.52E-07	1.52E-07	4.39E-06
564460	4188149	2.46E-06	1.44E-06	1.47E-07	1.47E-07	1.47E-07	4.35E-06
564469.88	4188150.75	2.43E-06	1.36E-06	1.39E-07	1.39E-07	1.39E-07	4.21E-06
564479.69	4188152.25	2.36E-06	1.28E-06	1.31E-07	1.31E-07	1.31E-07	4.04E-06
564489.56	4188153.75	2.24E-06	1.19E-06	1.22E-07	1.22E-07	1.22E-07	3.79E-06
564499.44	4188155.5	2.05E-06	1.09E-06	1.11E-07	1.11E-07	1.11E-07	3.47E-06
564519.13	4188158.5	1.6E-06	8.86E-07	8.91E-08	8.91E-08	8.91E-08	2.75E-06
564529	4188160	1.37E-06	7.89E-07	7.83E-08	7.83E-08	7.83E-08	2.39E-06
564538.81	4188161.75	1.17E-06	7.07E-07	6.92E-08	6.92E-08	6.92E-08	2.08E-06
564548.69	4188163.25	1.02E-06	6.4E-07	6.18E-08	6.18E-08	6.18E-08	1.84E-06
564558.56	4188164.75	8.92E-07	5.84E-07	5.58E-08	5.58E-08	5.58E-08	1.64E-06
564568.44	4188166.25	7.92E-07	5.36E-07	5.06E-08	5.06E-08	5.06E-08	1.48E-06
564578.25	4188168	7.08E-07	4.93E-07	4.62E-08	4.62E-08	4.62E-08	1.34E-06
564588.13	4188169.5	6.38E-07	4.56E-07	4.24E-08	4.24E-08	4.24E-08	1.22E-06
564598	4188171	5.78E-07	4.23E-07	3.9E-08	3.9E-08	3.9E-08	1.12E-06
564359.88	4188143.25	1.46E-06	1.3E-06	1.26E-07	1.26E-07	1.26E-07	3.14E-06
564369.75	4188145	1.49E-06	1.31E-06	1.27E-07	1.27E-07	1.27E-07	3.18E-06
564379.56	4188146.5	1.53E-06	1.32E-06	1.28E-07	1.28E-07	1.28E-07	3.23E-06
564389.44	4188148	1.57E-06	1.32E-06	1.29E-07	1.29E-07	1.29E-07	3.28E-06
564399.31	4188149.5	1.64E-06	1.34E-06	1.3E-07	1.3E-07	1.3E-07	3.37E-06
564409.13	4188151.25	1.72E-06	1.35E-06	1.32E-07	1.32E-07	1.32E-07	3.46E-06
564419	4188152.75	1.82E-06	1.36E-06	1.34E-07	1.34E-07	1.34E-07	3.58E-06
564428.88	4188154.25	1.91E-06	1.36E-06	1.35E-07	1.35E-07	1.35E-07	3.68E-06
564438.69	4188155.75	1.98E-06	1.34E-06	1.34E-07	1.34E-07	1.34E-07	3.73E-06
564448.56	4188157.5	2.01E-06	1.3E-06	1.3E-07	1.3E-07	1.3E-07	3.70E-06
564458.44	4188159	2E-06	1.24E-06	1.25E-07	1.25E-07	1.25E-07	3.61E-06
564468.25	4188160.5	1.95E-06	1.17E-06	1.18E-07	1.18E-07	1.18E-07	3.47E-06
564478.13	4188162.25	1.87E-06	1.09E-06	1.1E-07	1.1E-07	1.1E-07	3.29E-06
564488	4188163.75	1.78E-06	1.02E-06	1.03E-07	1.03E-07	1.03E-07	3.11E-06
564497.88	4188165.25	1.67E-06	9.45E-07	9.54E-08	9.54E-08	9.54E-08	2.90E-06
564517.56	4188168.5	1.37E-06	7.93E-07	7.9E-08	7.9E-08	7.9E-08	2.40E-06
564527.44	4188170	1.2E-06	7.18E-07	7.08E-08	7.08E-08	7.08E-08	2.13E-06
564537.25	4188171.5	1.05E-06	6.51E-07	6.35E-08	6.35E-08	6.35E-08	1.89E-06
564547.13	4188173	9.24E-07	5.94E-07	5.72E-08	5.72E-08	5.72E-08	1.69E-06
564557	4188174.75	8.17E-07	5.44E-07	5.18E-08	5.18E-08	5.18E-08	1.52E-06
564566.81	4188176.25	7.31E-07	5.02E-07	4.73E-08	4.73E-08	4.73E-08	1.38E-06
564576.69	4188177.75	6.59E-07	4.65E-07	4.35E-08	4.35E-08	4.35E-08	1.25E-06

564586.56	4188179.25	5.98E-07	4.32E-07	4.01E-08	4.01E-08	4.01E-08	1.15E-06
564596.44	4188181	5.45E-07	4.02E-07	3.71E-08	3.71E-08	3.71E-08	1.06E-06
564358.31	4188153.25	1.26E-06	1.11E-06	1.07E-07	1.07E-07	1.07E-07	2.69E-06
564368.13	4188154.75	1.29E-06	1.12E-06	1.08E-07	1.08E-07	1.08E-07	2.74E-06
564378	4188156.25	1.33E-06	1.13E-06	1.09E-07	1.09E-07	1.09E-07	2.78E-06
564387.88	4188158	1.37E-06	1.13E-06	1.1E-07	1.1E-07	1.1E-07	2.82E-06
564397.75	4188159.5	1.43E-06	1.14E-06	1.11E-07	1.11E-07	1.11E-07	2.91E-06
564407.56	4188161	1.5E-06	1.16E-06	1.14E-07	1.14E-07	1.14E-07	3.00E-06
564417.44	4188162.5	1.58E-06	1.17E-06	1.15E-07	1.15E-07	1.15E-07	3.10E-06
564427.31	4188164.25	1.64E-06	1.17E-06	1.16E-07	1.16E-07	1.16E-07	3.16E-06
564437.13	4188165.75	1.68E-06	1.16E-06	1.15E-07	1.15E-07	1.15E-07	3.18E-06
564447	4188167.25	1.69E-06	1.13E-06	1.12E-07	1.12E-07	1.12E-07	3.15E-06
564456.88	4188168.75	1.66E-06	1.08E-06	1.08E-07	1.08E-07	1.08E-07	3.06E-06
564466.69	4188170.5	1.6E-06	1.01E-06	1.01E-07	1.01E-07	1.01E-07	2.92E-06
564476.56	4188172	1.54E-06	9.53E-07	9.53E-08	9.53E-08	9.53E-08	2.78E-06
564486.44	4188173.5	1.47E-06	8.94E-07	8.93E-08	8.93E-08	8.93E-08	2.63E-06
564496.25	4188175.25	1.38E-06	8.32E-07	8.31E-08	8.31E-08	8.31E-08	2.46E-06
564516	4188178.25	1.19E-06	7.16E-07	7.09E-08	7.09E-08	7.09E-08	2.12E-06
564525.88	4188179.75	1.07E-06	6.57E-07	6.45E-08	6.45E-08	6.45E-08	1.92E-06
564535.69	4188181.5	9.47E-07	6.01E-07	5.83E-08	5.83E-08	5.83E-08	1.72E-06
564545.56	4188183	8.42E-07	5.51E-07	5.3E-08	5.3E-08	5.3E-08	1.55E-06
564555.44	4188184.5	7.53E-07	5.09E-07	4.84E-08	4.84E-08	4.84E-08	1.41E-06
564565.25	4188186	6.78E-07	4.72E-07	4.44E-08	4.44E-08	4.44E-08	1.28E-06
564575.13	4188187.75	6.14E-07	4.38E-07	4.09E-08	4.09E-08	4.09E-08	1.17E-06
564585	4188189.25	5.6E-07	4.09E-07	3.79E-08	3.79E-08	3.79E-08	1.08E-06
564594.81	4188190.75	5.14E-07	3.83E-07	3.52E-08	3.52E-08	3.52E-08	1.00E-06
564356.75	4188163	1.11E-06	9.64E-07	9.28E-08	9.28E-08	9.28E-08	2.35E-06
564366.56	4188164.75	1.13E-06	9.69E-07	9.34E-08	9.34E-08	9.34E-08	2.38E-06
564376.44	4188166.25	1.16E-06	9.74E-07	9.41E-08	9.41E-08	9.41E-08	2.42E-06
564386.31	4188167.75	1.2E-06	9.8E-07	9.49E-08	9.49E-08	9.49E-08	2.47E-06
564396.13	4188169.25	1.25E-06	9.91E-07	9.64E-08	9.64E-08	9.64E-08	2.53E-06
564406	4188171	1.31E-06	1E-06	9.79E-08	9.79E-08	9.79E-08	2.60E-06
564415.88	4188172.5	1.36E-06	1.01E-06	9.94E-08	9.94E-08	9.94E-08	2.67E-06
564425.75	4188174	1.41E-06	1.02E-06	1E-07	1E-07	1E-07	2.72E-06
564435.56	4188175.5	1.43E-06	1.01E-06	9.96E-08	9.96E-08	9.96E-08	2.74E-06
564445.44	4188177.25	1.43E-06	9.82E-07	9.72E-08	9.72E-08	9.72E-08	2.70E-06
564455.31	4188178.75	1.4E-06	9.43E-07	9.35E-08	9.35E-08	9.35E-08	2.62E-06
564465.13	4188180.25	1.35E-06	8.96E-07	8.87E-08	8.87E-08	8.87E-08	2.51E-06
564475	4188182	1.29E-06	8.42E-07	8.34E-08	8.34E-08	8.34E-08	2.38E-06
564484.88	4188183.5	1.23E-06	7.92E-07	7.84E-08	7.84E-08	7.84E-08	2.26E-06
564494.69	4188185	1.17E-06	7.45E-07	7.36E-08	7.36E-08	7.36E-08	2.14E-06
564514.44	4188188.25	1.03E-06	6.5E-07	6.38E-08	6.38E-08	6.38E-08	1.88E-06
564524.25	4188189.75	9.49E-07	6.03E-07	5.89E-08	5.89E-08	5.89E-08	1.73E-06
564534.13	4188191.25	8.58E-07	5.57E-07	5.39E-08	5.39E-08	5.39E-08	1.58E-06
564544	4188192.75	7.73E-07	5.15E-07	4.93E-08	4.93E-08	4.93E-08	1.44E-06
564553.88	4188194.5	6.95E-07	4.76E-07	4.52E-08	4.52E-08	4.52E-08	1.31E-06
564563.69	4188196	6.3E-07	4.43E-07	4.17E-08	4.17E-08	4.17E-08	1.20E-06

564573.56	4188197.5	5.74E-07	4.14E-07	3.86E-08	3.86E-08	3.86E-08	1.10E-06
564583.44	4188199	5.26E-07	3.87E-07	3.58E-08	3.58E-08	3.58E-08	1.02E-06
564593.25	4188200.75	4.83E-07	3.63E-07	3.34E-08	3.34E-08	3.34E-08	9.47E-07
564345.31	4188171.5	9.51E-07	8.32E-07	7.98E-08	7.98E-08	7.98E-08	2.02E-06
564355.13	4188173	9.79E-07	8.44E-07	8.1E-08	8.1E-08	8.1E-08	2.07E-06
564365	4188174.5	1.01E-06	8.51E-07	8.19E-08	8.19E-08	8.19E-08	2.10E-06
564374.88	4188176	1.03E-06	8.54E-07	8.24E-08	8.24E-08	8.24E-08	2.13E-06
564384.75	4188177.75	1.06E-06	8.56E-07	8.28E-08	8.28E-08	8.28E-08	2.17E-06
564394.56	4188179.25	1.1E-06	8.64E-07	8.38E-08	8.38E-08	8.38E-08	2.22E-06
564404.44	4188180.75	1.14E-06	8.75E-07	8.52E-08	8.52E-08	8.52E-08	2.27E-06
564414.31	4188182.25	1.18E-06	8.84E-07	8.64E-08	8.64E-08	8.64E-08	2.33E-06
564424.13	4188184	1.21E-06	8.85E-07	8.68E-08	8.68E-08	8.68E-08	2.35E-06
564434	4188185.5	1.23E-06	8.81E-07	8.65E-08	8.65E-08	8.65E-08	2.37E-06
564443.88	4188187	1.22E-06	8.64E-07	8.51E-08	8.51E-08	8.51E-08	2.34E-06
564453.75	4188188.5	1.2E-06	8.36E-07	8.23E-08	8.23E-08	8.23E-08	2.28E-06
564463.56	4188190.25	1.16E-06	7.95E-07	7.83E-08	7.83E-08	7.83E-08	2.19E-06
564473.44	4188191.75	1.11E-06	7.54E-07	7.41E-08	7.41E-08	7.41E-08	2.09E-06
564483.25	4188193.25	1.06E-06	7.12E-07	6.99E-08	6.99E-08	6.99E-08	1.98E-06
564493.13	4188195	1.01E-06	6.71E-07	6.58E-08	6.58E-08	6.58E-08	1.88E-06
564512.88	4188198	9.12E-07	5.95E-07	5.81E-08	5.81E-08	5.81E-08	1.68E-06
564522.69	4188199.5	8.49E-07	5.57E-07	5.41E-08	5.41E-08	5.41E-08	1.57E-06
564532.56	4188201.25	7.78E-07	5.17E-07	4.99E-08	4.99E-08	4.99E-08	1.44E-06
564542.44	4188202.75	7.09E-07	4.81E-07	4.6E-08	4.6E-08	4.6E-08	1.33E-06
564552.25	4188204.25	6.46E-07	4.48E-07	4.25E-08	4.25E-08	4.25E-08	1.22E-06
564562.13	4188205.75	5.89E-07	4.19E-07	3.93E-08	3.93E-08	3.93E-08	1.13E-06
564572	4188207.5	5.38E-07	3.91E-07	3.64E-08	3.64E-08	3.64E-08	1.04E-06
564581.88	4188209	4.94E-07	3.67E-07	3.39E-08	3.39E-08	3.39E-08	9.63E-07
564591.69	4188210.5	4.56E-07	3.46E-07	3.17E-08	3.17E-08	3.17E-08	8.97E-07
564343.75	4188181.25	8.52E-07	7.39E-07	7.07E-08	7.07E-08	7.07E-08	1.80E-06
564353.56	4188182.75	8.77E-07	7.48E-07	7.17E-08	7.17E-08	7.17E-08	1.84E-06
564363.44	4188184.5	8.98E-07	7.51E-07	7.21E-08	7.21E-08	7.21E-08	1.87E-06
564373.31	4188186	9.2E-07	7.54E-07	7.25E-08	7.25E-08	7.25E-08	1.89E-06
564383.13	4188187.5	9.44E-07	7.56E-07	7.29E-08	7.29E-08	7.29E-08	1.92E-06
564393	4188189	9.73E-07	7.61E-07	7.37E-08	7.37E-08	7.37E-08	1.95E-06
564402.88	4188190.75	1E-06	7.67E-07	7.44E-08	7.44E-08	7.44E-08	1.99E-06
564412.75	4188192.25	1.03E-06	7.74E-07	7.54E-08	7.54E-08	7.54E-08	2.03E-06
564422.56	4188193.75	1.05E-06	7.78E-07	7.59E-08	7.59E-08	7.59E-08	2.06E-06
564432.44	4188195.25	1.06E-06	7.76E-07	7.59E-08	7.59E-08	7.59E-08	2.07E-06
564442.31	4188197	1.06E-06	7.63E-07	7.47E-08	7.47E-08	7.47E-08	2.05E-06
564452.13	4188198.5	1.04E-06	7.43E-07	7.27E-08	7.27E-08	7.27E-08	2.00E-06
564462	4188200	1.01E-06	7.14E-07	6.98E-08	6.98E-08	6.98E-08	1.93E-06
564471.88	4188201.75	9.66E-07	6.78E-07	6.62E-08	6.62E-08	6.62E-08	1.84E-06
564481.75	4188203.25	9.25E-07	6.43E-07	6.28E-08	6.28E-08	6.28E-08	1.76E-06
564491.56	4188204.75	8.88E-07	6.1E-07	5.95E-08	5.95E-08	5.95E-08	1.68E-06
564511.25	4188208	8.08E-07	5.46E-07	5.3E-08	5.3E-08	5.3E-08	1.51E-06
564521.13	4188209.5	7.62E-07	5.14E-07	4.97E-08	4.97E-08	4.97E-08	1.43E-06
564531	4188211	7.09E-07	4.83E-07	4.64E-08	4.64E-08	4.64E-08	1.33E-06

564540.88	4188212.5	6.53E-07	4.52E-07	4.31E-08	4.31E-08	4.31E-08	1.23E-06
564550.69	4188214.25	5.99E-07	4.22E-07	3.99E-08	3.99E-08	3.99E-08	1.14E-06
564560.56	4188215.75	5.5E-07	3.95E-07	3.71E-08	3.71E-08	3.71E-08	1.06E-06
564570.44	4188217.25	5.06E-07	3.71E-07	3.45E-08	3.45E-08	3.45E-08	9.81E-07
564580.25	4188218.75	4.67E-07	3.49E-07	3.23E-08	3.23E-08	3.23E-08	9.13E-07
564590.13	4188220.5	4.31E-07	3.29E-07	3.02E-08	3.02E-08	3.02E-08	8.50E-07
564342.19	4188191.25	7.67E-07	6.59E-07	6.3E-08	6.3E-08	6.3E-08	1.62E-06
564352	4188192.75	7.88E-07	6.67E-07	6.38E-08	6.38E-08	6.38E-08	1.65E-06
564361.88	4188194.25	8.07E-07	6.7E-07	6.42E-08	6.42E-08	6.42E-08	1.67E-06
564371.75	4188195.75	8.25E-07	6.72E-07	6.45E-08	6.45E-08	6.45E-08	1.69E-06
564381.56	4188197.5	8.4E-07	6.71E-07	6.45E-08	6.45E-08	6.45E-08	1.70E-06
564391.44	4188199	8.6E-07	6.74E-07	6.5E-08	6.5E-08	6.5E-08	1.73E-06
564401.31	4188200.5	8.82E-07	6.79E-07	6.57E-08	6.57E-08	6.57E-08	1.76E-06
564411.13	4188202	9.01E-07	6.84E-07	6.64E-08	6.64E-08	6.64E-08	1.79E-06
564421	4188203.75	9.15E-07	6.86E-07	6.67E-08	6.67E-08	6.67E-08	1.80E-06
564430.88	4188205.25	9.25E-07	6.86E-07	6.68E-08	6.68E-08	6.68E-08	1.81E-06
564440.75	4188206.75	9.25E-07	6.8E-07	6.62E-08	6.62E-08	6.62E-08	1.80E-06
564450.56	4188208.5	9.09E-07	6.64E-07	6.46E-08	6.46E-08	6.46E-08	1.77E-06
564460.44	4188210	8.86E-07	6.42E-07	6.25E-08	6.25E-08	6.25E-08	1.71E-06
564470.31	4188211.5	8.53E-07	6.15E-07	5.98E-08	5.98E-08	5.98E-08	1.65E-06
564480.13	4188213	8.2E-07	5.86E-07	5.69E-08	5.69E-08	5.69E-08	1.58E-06
564490	4188214.75	7.86E-07	5.57E-07	5.4E-08	5.4E-08	5.4E-08	1.50E-06
564509.69	4188217.75	7.25E-07	5.04E-07	4.87E-08	4.87E-08	4.87E-08	1.37E-06
564519.56	4188219.25	6.89E-07	4.78E-07	4.6E-08	4.6E-08	4.6E-08	1.30E-06
564529.44	4188221	6.46E-07	4.5E-07	4.31E-08	4.31E-08	4.31E-08	1.23E-06
564539.25	4188222.5	6.02E-07	4.24E-07	4.03E-08	4.03E-08	4.03E-08	1.15E-06
564549.13	4188224	5.58E-07	3.99E-07	3.76E-08	3.76E-08	3.76E-08	1.07E-06
564559	4188225.5	5.15E-07	3.75E-07	3.51E-08	3.51E-08	3.51E-08	9.96E-07
564568.88	4188227.25	4.76E-07	3.52E-07	3.28E-08	3.28E-08	3.28E-08	9.26E-07
564578.69	4188228.75	4.41E-07	3.32E-07	3.07E-08	3.07E-08	3.07E-08	8.65E-07
564588.56	4188230.25	4.09E-07	3.14E-07	2.88E-08	2.88E-08	2.88E-08	8.09E-07
564309.75	4188212	5.53E-07	4.85E-07	4.59E-08	4.59E-08	4.59E-08	1.18E-06
564317.75	4188217.75	5.49E-07	4.75E-07	4.5E-08	4.5E-08	4.5E-08	1.16E-06
564327.56	4188219.25	5.65E-07	4.83E-07	4.58E-08	4.58E-08	4.58E-08	1.19E-06
564337.44	4188220.75	5.78E-07	4.88E-07	4.64E-08	4.64E-08	4.64E-08	1.21E-06
564347.31	4188222.25	5.89E-07	4.91E-07	4.67E-08	4.67E-08	4.67E-08	1.22E-06
564357.19	4188224	5.96E-07	4.9E-07	4.67E-08	4.67E-08	4.67E-08	1.23E-06
564367	4188225.5	6.03E-07	4.9E-07	4.66E-08	4.66E-08	4.66E-08	1.23E-06
564376.88	4188227	6.09E-07	4.88E-07	4.66E-08	4.66E-08	4.66E-08	1.24E-06
564386.75	4188228.5	6.15E-07	4.88E-07	4.66E-08	4.66E-08	4.66E-08	1.24E-06
564396.56	4188230.25	6.21E-07	4.88E-07	4.67E-08	4.67E-08	4.67E-08	1.25E-06
564406.44	4188231.75	6.29E-07	4.9E-07	4.69E-08	4.69E-08	4.69E-08	1.26E-06
564416.31	4188233.25	6.37E-07	4.92E-07	4.73E-08	4.73E-08	4.73E-08	1.27E-06
564426.19	4188234.75	6.43E-07	4.94E-07	4.75E-08	4.75E-08	4.75E-08	1.28E-06
564436	4188236.5	6.43E-07	4.93E-07	4.74E-08	4.74E-08	4.74E-08	1.28E-06
564445.88	4188238	6.4E-07	4.89E-07	4.71E-08	4.71E-08	4.71E-08	1.27E-06
564455.75	4188239.5	6.3E-07	4.81E-07	4.63E-08	4.63E-08	4.63E-08	1.25E-06

564465.56	4188241.25	6.13E-07	4.68E-07	4.49E-08	4.49E-08	4.49E-08	1.22E-06
564475.44	4188242.75	5.95E-07	4.53E-07	4.34E-08	4.34E-08	4.34E-08	1.18E-06
564485.31	4188244.25	5.76E-07	4.36E-07	4.17E-08	4.17E-08	4.17E-08	1.14E-06
564505	4188247.5	5.39E-07	4.02E-07	3.83E-08	3.83E-08	3.83E-08	1.06E-06
564514.88	4188249	5.2E-07	3.86E-07	3.67E-08	3.67E-08	3.67E-08	1.02E-06
564524.75	4188250.5	5E-07	3.69E-07	3.51E-08	3.51E-08	3.51E-08	9.75E-07
564534.56	4188252	4.77E-07	3.53E-07	3.34E-08	3.34E-08	3.34E-08	9.31E-07
564544.44	4188253.75	4.51E-07	3.36E-07	3.16E-08	3.16E-08	3.16E-08	8.82E-07
564554.31	4188255.25	4.25E-07	3.2E-07	2.99E-08	2.99E-08	2.99E-08	8.35E-07
564564.13	4188256.75	4E-07	3.04E-07	2.82E-08	2.82E-08	2.82E-08	7.89E-07
564574	4188258.25	3.75E-07	2.89E-07	2.67E-08	2.67E-08	2.67E-08	7.45E-07
564583.88	4188260	3.52E-07	2.75E-07	2.52E-08	2.52E-08	2.52E-08	7.02E-07
564308.25	4188221.75	5.11E-07	4.45E-07	4.2E-08	4.2E-08	4.2E-08	1.08E-06
564300.38	4188216.25	5.12E-07	4.52E-07	4.26E-08	4.26E-08	4.26E-08	1.09E-06
564237.06	4188170.5	4.53E-07	4.28E-07	3.98E-08	3.98E-08	3.98E-08	1.00E-06
564229.19	4188164.75	4.27E-07	4.07E-07	3.77E-08	3.77E-08	3.77E-08	9.47E-07
564221.13	4188149.5	3.96E-07	3.82E-07	3.51E-08	3.51E-08	3.51E-08	8.83E-07
564316.19	4188227.5	5.06E-07	4.36E-07	4.12E-08	4.12E-08	4.12E-08	1.07E-06
564326	4188229	5.19E-07	4.42E-07	4.19E-08	4.19E-08	4.19E-08	1.09E-06
564335.88	4188230.75	5.29E-07	4.45E-07	4.22E-08	4.22E-08	4.22E-08	1.10E-06
564345.75	4188232.25	5.37E-07	4.47E-07	4.24E-08	4.24E-08	4.24E-08	1.11E-06
564355.56	4188233.75	5.43E-07	4.47E-07	4.24E-08	4.24E-08	4.24E-08	1.12E-06
564365.44	4188235.25	5.48E-07	4.46E-07	4.23E-08	4.23E-08	4.23E-08	1.12E-06
564375.31	4188237	5.51E-07	4.43E-07	4.22E-08	4.22E-08	4.22E-08	1.12E-06
564385.19	4188238.5	5.55E-07	4.43E-07	4.21E-08	4.21E-08	4.21E-08	1.12E-06
564395	4188240	5.6E-07	4.43E-07	4.22E-08	4.22E-08	4.22E-08	1.13E-06
564404.88	4188241.5	5.66E-07	4.44E-07	4.24E-08	4.24E-08	4.24E-08	1.14E-06
564414.75	4188243.25	5.7E-07	4.45E-07	4.26E-08	4.26E-08	4.26E-08	1.14E-06
564424.56	4188244.75	5.76E-07	4.47E-07	4.28E-08	4.28E-08	4.28E-08	1.15E-06
564434.44	4188246.25	5.78E-07	4.48E-07	4.29E-08	4.29E-08	4.29E-08	1.15E-06
564444.31	4188248	5.75E-07	4.45E-07	4.26E-08	4.26E-08	4.26E-08	1.15E-06
564454.19	4188249.5	5.68E-07	4.39E-07	4.21E-08	4.21E-08	4.21E-08	1.13E-06
564464	4188251	5.56E-07	4.3E-07	4.12E-08	4.12E-08	4.12E-08	1.11E-06
564473.88	4188252.5	5.42E-07	4.18E-07	4E-08	4E-08	4E-08	1.08E-06
564483.75	4188254.25	5.25E-07	4.04E-07	3.85E-08	3.85E-08	3.85E-08	1.04E-06
564503.44	4188257.25	4.94E-07	3.75E-07	3.57E-08	3.57E-08	3.57E-08	9.76E-07
564513.31	4188258.75	4.79E-07	3.61E-07	3.43E-08	3.43E-08	3.43E-08	9.43E-07
564523.13	4188260.5	4.61E-07	3.47E-07	3.28E-08	3.28E-08	3.28E-08	9.06E-07
564533	4188262	4.43E-07	3.32E-07	3.13E-08	3.13E-08	3.13E-08	8.69E-07
564542.88	4188263.5	4.22E-07	3.18E-07	2.99E-08	2.99E-08	2.99E-08	8.30E-07
564552.75	4188265	4E-07	3.04E-07	2.84E-08	2.84E-08	2.84E-08	7.89E-07
564562.56	4188266.75	3.77E-07	2.9E-07	2.69E-08	2.69E-08	2.69E-08	7.48E-07
564572.44	4188268.25	3.56E-07	2.76E-07	2.55E-08	2.55E-08	2.55E-08	7.08E-07
564582.31	4188269.75	3.35E-07	2.63E-07	2.41E-08	2.41E-08	2.41E-08	6.71E-07
564306.75	4188231.75	4.72E-07	4.09E-07	3.86E-08	3.86E-08	3.86E-08	9.96E-07
564298.88	4188226	4.74E-07	4.16E-07	3.92E-08	3.92E-08	3.92E-08	1.01E-06
564259.56	4188197.75	4.69E-07	4.32E-07	4.05E-08	4.05E-08	4.05E-08	1.02E-06

564220.25	4188169.5	3.9E-07	3.72E-07	3.44E-08	3.44E-08	3.44E-08	8.66E-07
564212.25	4188154	3.61E-07	3.5E-07	3.2E-08	3.2E-08	3.2E-08	8.07E-07
564212.13	4188144.5	3.56E-07	3.47E-07	3.16E-08	3.16E-08	3.16E-08	7.98E-07
564314.63	4188237.5	4.67E-07	4.01E-07	3.78E-08	3.78E-08	3.78E-08	9.81E-07
564324.44	4188239	4.77E-07	4.06E-07	3.83E-08	3.83E-08	3.83E-08	9.98E-07
564334.31	4188240.5	4.86E-07	4.09E-07	3.86E-08	3.86E-08	3.86E-08	1.01E-06
564344.19	4188242	4.92E-07	4.1E-07	3.87E-08	3.87E-08	3.87E-08	1.02E-06
564354	4188243.75	4.95E-07	4.08E-07	3.86E-08	3.86E-08	3.86E-08	1.02E-06
564363.88	4188245.25	4.98E-07	4.07E-07	3.85E-08	3.85E-08	3.85E-08	1.02E-06
564373.75	4188246.75	5.01E-07	4.05E-07	3.84E-08	3.84E-08	3.84E-08	1.02E-06
564383.56	4188248.25	5.04E-07	4.04E-07	3.84E-08	3.84E-08	3.84E-08	1.02E-06
564393.44	4188250	5.06E-07	4.03E-07	3.83E-08	3.83E-08	3.83E-08	1.02E-06
564403.31	4188251.5	5.1E-07	4.04E-07	3.84E-08	3.84E-08	3.84E-08	1.03E-06
564413.19	4188253	5.15E-07	4.05E-07	3.86E-08	3.86E-08	3.86E-08	1.04E-06
564423	4188254.5	5.2E-07	4.07E-07	3.88E-08	3.88E-08	3.88E-08	1.04E-06
564432.88	4188256.25	5.21E-07	4.07E-07	3.89E-08	3.89E-08	3.89E-08	1.04E-06
564442.75	4188257.75	5.2E-07	4.07E-07	3.88E-08	3.88E-08	3.88E-08	1.04E-06
564452.56	4188259.25	5.15E-07	4.03E-07	3.85E-08	3.85E-08	3.85E-08	1.03E-06
564462.44	4188261	5.06E-07	3.96E-07	3.77E-08	3.77E-08	3.77E-08	1.01E-06
564472.31	4188262.5	4.94E-07	3.87E-07	3.68E-08	3.68E-08	3.68E-08	9.92E-07
564482.13	4188264	4.82E-07	3.76E-07	3.57E-08	3.57E-08	3.57E-08	9.65E-07
564501.88	4188267.25	4.54E-07	3.5E-07	3.32E-08	3.32E-08	3.32E-08	9.04E-07
564511.75	4188268.75	4.41E-07	3.38E-07	3.2E-08	3.2E-08	3.2E-08	8.75E-07
564521.56	4188270.25	4.27E-07	3.26E-07	3.08E-08	3.08E-08	3.08E-08	8.46E-07
564531.44	4188271.75	4.12E-07	3.14E-07	2.95E-08	2.95E-08	2.95E-08	8.14E-07
564541.31	4188273.5	3.94E-07	3.01E-07	2.82E-08	2.82E-08	2.82E-08	7.80E-07
564551.13	4188275	3.76E-07	2.89E-07	2.69E-08	2.69E-08	2.69E-08	7.45E-07
564561	4188276.5	3.57E-07	2.76E-07	2.56E-08	2.56E-08	2.56E-08	7.10E-07
564570.88	4188278	3.38E-07	2.64E-07	2.44E-08	2.44E-08	2.44E-08	6.75E-07
564580.75	4188279.75	3.19E-07	2.52E-07	2.31E-08	2.31E-08	2.31E-08	6.41E-07
564305.19	4188241.75	4.37E-07	3.77E-07	3.55E-08	3.55E-08	3.55E-08	9.21E-07
564297.38	4188236	4.4E-07	3.84E-07	3.61E-08	3.61E-08	3.61E-08	9.32E-07
564250.44	4188202.25	4.32E-07	4E-07	3.73E-08	3.73E-08	3.73E-08	9.44E-07
564242.63	4188196.5	4.24E-07	3.95E-07	3.68E-08	3.68E-08	3.68E-08	9.30E-07
564203.38	4188158.75	3.32E-07	3.22E-07	2.94E-08	2.94E-08	2.94E-08	7.42E-07
564203.25	4188149.25	3.27E-07	3.19E-07	2.9E-08	2.9E-08	2.9E-08	7.33E-07
564203.13	4188139.5	3.19E-07	3.14E-07	2.84E-08	2.84E-08	2.84E-08	7.18E-07
564203	4188129.75	3.1E-07	3.07E-07	2.76E-08	2.76E-08	2.76E-08	7.00E-07
564313	4188247.25	4.32E-07	3.7E-07	3.48E-08	3.48E-08	3.48E-08	9.07E-07
564322.88	4188248.75	4.41E-07	3.74E-07	3.53E-08	3.53E-08	3.53E-08	9.21E-07
564332.75	4188250.5	4.46E-07	3.75E-07	3.54E-08	3.54E-08	3.54E-08	9.28E-07
564342.63	4188252	4.51E-07	3.76E-07	3.54E-08	3.54E-08	3.54E-08	9.33E-07
564352.44	4188253.5	4.54E-07	3.75E-07	3.54E-08	3.54E-08	3.54E-08	9.35E-07
564362.31	4188255	4.56E-07	3.74E-07	3.53E-08	3.53E-08	3.53E-08	9.35E-07
564372.19	4188256.75	4.57E-07	3.71E-07	3.51E-08	3.51E-08	3.51E-08	9.33E-07
564382	4188258.25	4.59E-07	3.7E-07	3.5E-08	3.5E-08	3.5E-08	9.34E-07
564391.88	4188259.75	4.61E-07	3.7E-07	3.5E-08	3.5E-08	3.5E-08	9.36E-07

564401.75	4188261.25	4.64E-07	3.7E-07	3.51E-08	3.51E-08	3.51E-08	9.39E-07
564411.56	4188263	4.67E-07	3.7E-07	3.52E-08	3.52E-08	3.52E-08	9.43E-07
564421.44	4188264.5	4.7E-07	3.72E-07	3.53E-08	3.53E-08	3.53E-08	9.48E-07
564431.31	4188266	4.73E-07	3.73E-07	3.55E-08	3.55E-08	3.55E-08	9.52E-07
564441.19	4188267.75	4.71E-07	3.72E-07	3.54E-08	3.54E-08	3.54E-08	9.50E-07
564451	4188269.25	4.68E-07	3.7E-07	3.52E-08	3.52E-08	3.52E-08	9.44E-07
564460.88	4188270.75	4.62E-07	3.66E-07	3.48E-08	3.48E-08	3.48E-08	9.32E-07
564470.75	4188272.25	4.54E-07	3.59E-07	3.41E-08	3.41E-08	3.41E-08	9.15E-07
564480.56	4188274	4.43E-07	3.49E-07	3.31E-08	3.31E-08	3.31E-08	8.91E-07
564500.31	4188277	4.2E-07	3.29E-07	3.11E-08	3.11E-08	3.11E-08	8.42E-07
564510.13	4188278.5	4.09E-07	3.18E-07	3E-08	3E-08	3E-08	8.16E-07
564520	4188280.25	3.96E-07	3.07E-07	2.89E-08	2.89E-08	2.89E-08	7.89E-07
564529.88	4188281.75	3.83E-07	2.96E-07	2.78E-08	2.78E-08	2.78E-08	7.63E-07
564539.75	4188283.25	3.69E-07	2.85E-07	2.67E-08	2.67E-08	2.67E-08	7.34E-07
564549.56	4188284.75	3.54E-07	2.74E-07	2.55E-08	2.55E-08	2.55E-08	7.05E-07
564559.44	4188286.5	3.37E-07	2.63E-07	2.44E-08	2.44E-08	2.44E-08	6.73E-07
564569.31	4188288	3.2E-07	2.52E-07	2.33E-08	2.33E-08	2.33E-08	6.42E-07
564579.13	4188289.5	3.04E-07	2.42E-07	2.22E-08	2.22E-08	2.22E-08	6.13E-07
564303.69	4188251.5	4.06E-07	3.5E-07	3.29E-08	3.29E-08	3.29E-08	8.54E-07
564295.88	4188246	4.09E-07	3.55E-07	3.34E-08	3.34E-08	3.34E-08	8.64E-07
564249.19	4188212.25	4.06E-07	3.73E-07	3.48E-08	3.48E-08	3.48E-08	8.84E-07
564241.38	4188206.75	4E-07	3.71E-07	3.45E-08	3.45E-08	3.45E-08	8.74E-07
564233.56	4188201	3.91E-07	3.66E-07	3.4E-08	3.4E-08	3.4E-08	8.59E-07
564225.81	4188195.5	3.8E-07	3.57E-07	3.31E-08	3.31E-08	3.31E-08	8.37E-07
564218	4188189.75	3.66E-07	3.47E-07	3.2E-08	3.2E-08	3.2E-08	8.09E-07
564194.5	4188163.5	3.06E-07	2.97E-07	2.7E-08	2.7E-08	2.7E-08	6.84E-07
564194.38	4188153.75	3.01E-07	2.95E-07	2.67E-08	2.67E-08	2.67E-08	6.76E-07
564194.25	4188144.25	2.94E-07	2.9E-07	2.62E-08	2.62E-08	2.62E-08	6.63E-07
564194.13	4188134.75	2.86E-07	2.85E-07	2.55E-08	2.55E-08	2.55E-08	6.48E-07
564194	4188125	2.77E-07	2.78E-07	2.48E-08	2.48E-08	2.48E-08	6.29E-07
564311.44	4188257.25	4E-07	3.42E-07	3.22E-08	3.22E-08	3.22E-08	8.39E-07
564321.31	4188258.75	4.07E-07	3.45E-07	3.25E-08	3.25E-08	3.25E-08	8.50E-07
564331.19	4188260.25	4.12E-07	3.47E-07	3.26E-08	3.26E-08	3.26E-08	8.56E-07
564341	4188261.75	4.15E-07	3.47E-07	3.26E-08	3.26E-08	3.26E-08	8.59E-07
564350.88	4188263.5	4.16E-07	3.45E-07	3.25E-08	3.25E-08	3.25E-08	8.59E-07
564360.75	4188265	4.18E-07	3.44E-07	3.24E-08	3.24E-08	3.24E-08	8.58E-07
564370.63	4188266.5	4.19E-07	3.42E-07	3.22E-08	3.22E-08	3.22E-08	8.58E-07
564380.44	4188268	4.2E-07	3.41E-07	3.22E-08	3.22E-08	3.22E-08	8.57E-07
564390.31	4188269.75	4.21E-07	3.4E-07	3.21E-08	3.21E-08	3.21E-08	8.57E-07
564400.19	4188271.25	4.23E-07	3.4E-07	3.21E-08	3.21E-08	3.21E-08	8.59E-07
564410	4188272.75	4.26E-07	3.4E-07	3.22E-08	3.22E-08	3.22E-08	8.63E-07
564419.88	4188274.5	4.28E-07	3.41E-07	3.23E-08	3.23E-08	3.23E-08	8.66E-07
564429.75	4188276	4.3E-07	3.42E-07	3.24E-08	3.24E-08	3.24E-08	8.69E-07
564439.56	4188277.5	4.3E-07	3.42E-07	3.25E-08	3.25E-08	3.25E-08	8.70E-07
564449.44	4188279	4.28E-07	3.41E-07	3.24E-08	3.24E-08	3.24E-08	8.67E-07
564459.31	4188280.75	4.23E-07	3.38E-07	3.2E-08	3.2E-08	3.2E-08	8.57E-07
564469.19	4188282.25	4.17E-07	3.33E-07	3.15E-08	3.15E-08	3.15E-08	8.44E-07

564479	4188283.75	4.09E-07	3.26E-07	3.08E-08	3.08E-08	3.08E-08	8.27E-07
564498.75	4188287	3.89E-07	3.08E-07	2.9E-08	2.9E-08	2.9E-08	7.84E-07
564508.56	4188288.5	3.79E-07	2.99E-07	2.81E-08	2.81E-08	2.81E-08	7.62E-07
564518.44	4188290	3.69E-07	2.89E-07	2.72E-08	2.72E-08	2.72E-08	7.40E-07
564528.31	4188291.5	3.58E-07	2.8E-07	2.62E-08	2.62E-08	2.62E-08	7.17E-07
564538.13	4188293.25	3.46E-07	2.7E-07	2.52E-08	2.52E-08	2.52E-08	6.91E-07
564548	4188294.75	3.33E-07	2.6E-07	2.42E-08	2.42E-08	2.42E-08	6.66E-07
564557.88	4188296.25	3.19E-07	2.51E-07	2.32E-08	2.32E-08	2.32E-08	6.39E-07
564567.75	4188297.75	3.04E-07	2.41E-07	2.22E-08	2.22E-08	2.22E-08	6.12E-07
564577.56	4188299.5	2.9E-07	2.32E-07	2.12E-08	2.12E-08	2.12E-08	5.85E-07
564302.13	4188261.5	3.77E-07	3.25E-07	3.04E-08	3.04E-08	3.04E-08	7.93E-07
564294.38	4188255.75	3.81E-07	3.31E-07	3.1E-08	3.1E-08	3.1E-08	8.05E-07
564247.81	4188222.25	3.81E-07	3.49E-07	3.25E-08	3.25E-08	3.25E-08	8.28E-07
564240.06	4188216.75	3.77E-07	3.48E-07	3.24E-08	3.24E-08	3.24E-08	8.22E-07
564232.31	4188211.25	3.7E-07	3.45E-07	3.2E-08	3.2E-08	3.2E-08	8.11E-07
564224.56	4188205.5	3.62E-07	3.39E-07	3.15E-08	3.15E-08	3.15E-08	7.96E-07
564216.81	4188200	3.51E-07	3.31E-07	3.06E-08	3.06E-08	3.06E-08	7.75E-07
564209.06	4188194.5	3.38E-07	3.21E-07	2.96E-08	2.96E-08	2.96E-08	7.47E-07
564201.31	4188188.75	3.22E-07	3.08E-07	2.83E-08	2.83E-08	2.83E-08	7.15E-07
564185.5	4188158.5	2.78E-07	2.73E-07	2.47E-08	2.47E-08	2.47E-08	6.25E-07
564185.38	4188149	2.72E-07	2.69E-07	2.42E-08	2.42E-08	2.42E-08	6.14E-07
564185.25	4188139.5	2.65E-07	2.64E-07	2.36E-08	2.36E-08	2.36E-08	6.01E-07
564185.13	4188129.75	2.57E-07	2.58E-07	2.3E-08	2.3E-08	2.3E-08	5.85E-07
564185	4188120.25	2.49E-07	2.52E-07	2.23E-08	2.23E-08	2.23E-08	5.67E-07
564309.88	4188267	3.72E-07	3.18E-07	2.98E-08	2.98E-08	2.98E-08	7.79E-07
564319.75	4188268.5	3.77E-07	3.21E-07	3.01E-08	3.01E-08	3.01E-08	7.88E-07
564329.63	4188270.25	3.8E-07	3.21E-07	3.01E-08	3.01E-08	3.01E-08	7.91E-07
564339.44	4188271.75	3.82E-07	3.2E-07	3.01E-08	3.01E-08	3.01E-08	7.93E-07
564349.31	4188273.25	3.84E-07	3.19E-07	3E-08	3E-08	3E-08	7.93E-07
564359.19	4188274.75	3.85E-07	3.18E-07	2.98E-08	2.98E-08	2.98E-08	7.92E-07
564369	4188276.5	3.84E-07	3.16E-07	2.97E-08	2.97E-08	2.97E-08	7.89E-07
564378.88	4188278	3.85E-07	3.15E-07	2.96E-08	2.96E-08	2.96E-08	7.89E-07
564388.75	4188279.5	3.87E-07	3.14E-07	2.96E-08	2.96E-08	2.96E-08	7.89E-07
564398.63	4188281	3.89E-07	3.14E-07	2.96E-08	2.96E-08	2.96E-08	7.91E-07
564408.44	4188282.75	3.9E-07	3.13E-07	2.96E-08	2.96E-08	2.96E-08	7.92E-07
564418.31	4188284.25	3.92E-07	3.14E-07	2.97E-08	2.97E-08	2.97E-08	7.95E-07
564428.19	4188285.75	3.93E-07	3.15E-07	2.98E-08	2.98E-08	2.98E-08	7.98E-07
564438	4188287.5	3.93E-07	3.15E-07	2.98E-08	2.98E-08	2.98E-08	7.98E-07
564447.88	4188289	3.92E-07	3.15E-07	2.98E-08	2.98E-08	2.98E-08	7.97E-07
564457.75	4188290.5	3.89E-07	3.13E-07	2.96E-08	2.96E-08	2.96E-08	7.92E-07
564467.56	4188292	3.85E-07	3.1E-07	2.93E-08	2.93E-08	2.93E-08	7.82E-07
564477.44	4188293.75	3.78E-07	3.04E-07	2.87E-08	2.87E-08	2.87E-08	7.68E-07
564497.19	4188296.75	3.62E-07	2.9E-07	2.73E-08	2.73E-08	2.73E-08	7.33E-07
564507	4188298.25	3.53E-07	2.82E-07	2.65E-08	2.65E-08	2.65E-08	7.14E-07
564516.88	4188300	3.44E-07	2.73E-07	2.56E-08	2.56E-08	2.56E-08	6.93E-07
564526.75	4188301.5	3.35E-07	2.65E-07	2.47E-08	2.47E-08	2.47E-08	6.73E-07
564536.56	4188303	3.25E-07	2.56E-07	2.39E-08	2.39E-08	2.39E-08	6.53E-07

564546.44	4188304.5	3.14E-07	2.48E-07	2.3E-08	2.3E-08	2.3E-08	6.31E-07
564556.31	4188306.25	3.01E-07	2.39E-07	2.21E-08	2.21E-08	2.21E-08	6.06E-07
564566.13	4188307.75	2.89E-07	2.31E-07	2.12E-08	2.12E-08	2.12E-08	5.83E-07
564576	4188309.25	2.76E-07	2.22E-07	2.03E-08	2.03E-08	2.03E-08	5.59E-07
564300.56	4188271.25	3.52E-07	3.03E-07	2.83E-08	2.83E-08	2.83E-08	7.39E-07
564292.88	4188265.75	3.55E-07	3.08E-07	2.88E-08	2.88E-08	2.88E-08	7.49E-07
564246.5	4188232.25	3.58E-07	3.27E-07	3.04E-08	3.04E-08	3.04E-08	7.76E-07
564238.75	4188226.75	3.55E-07	3.27E-07	3.04E-08	3.04E-08	3.04E-08	7.73E-07
564231	4188221.25	3.51E-07	3.25E-07	3.01E-08	3.01E-08	3.01E-08	7.66E-07
564223.31	4188215.75	3.44E-07	3.21E-07	2.97E-08	2.97E-08	2.97E-08	7.55E-07
564215.56	4188210	3.36E-07	3.16E-07	2.92E-08	2.92E-08	2.92E-08	7.39E-07
564207.81	4188204.5	3.26E-07	3.08E-07	2.84E-08	2.84E-08	2.84E-08	7.19E-07
564200.13	4188199	3.13E-07	2.98E-07	2.74E-08	2.74E-08	2.74E-08	6.93E-07
564192.38	4188193.5	2.98E-07	2.86E-07	2.62E-08	2.62E-08	2.62E-08	6.63E-07
564184.63	4188187.75	2.82E-07	2.72E-07	2.48E-08	2.48E-08	2.48E-08	6.29E-07
564176.69	4188163.25	2.58E-07	2.54E-07	2.29E-08	2.29E-08	2.29E-08	5.81E-07
564176.5	4188153.75	2.53E-07	2.51E-07	2.25E-08	2.25E-08	2.25E-08	5.71E-07
564176.38	4188144.25	2.47E-07	2.46E-07	2.2E-08	2.2E-08	2.2E-08	5.59E-07
564176.25	4188134.75	2.4E-07	2.41E-07	2.14E-08	2.14E-08	2.14E-08	5.45E-07
564176.13	4188125	2.32E-07	2.35E-07	2.07E-08	2.07E-08	2.07E-08	5.30E-07
564176	4188115.5	2.24E-07	2.29E-07	2.01E-08	2.01E-08	2.01E-08	5.13E-07
564308.31	4188277	3.46E-07	2.96E-07	2.77E-08	2.77E-08	2.77E-08	7.24E-07
564318.19	4188278.5	3.5E-07	2.98E-07	2.78E-08	2.78E-08	2.78E-08	7.31E-07
564328	4188280	3.53E-07	2.98E-07	2.79E-08	2.79E-08	2.79E-08	7.34E-07
564337.88	4188281.5	3.54E-07	2.98E-07	2.78E-08	2.78E-08	2.78E-08	7.35E-07
564347.75	4188283.25	3.54E-07	2.96E-07	2.77E-08	2.77E-08	2.77E-08	7.33E-07
564357.63	4188284.75	3.55E-07	2.94E-07	2.76E-08	2.76E-08	2.76E-08	7.32E-07
564367.44	4188286.25	3.55E-07	2.93E-07	2.75E-08	2.75E-08	2.75E-08	7.30E-07
564377.31	4188287.75	3.56E-07	2.92E-07	2.74E-08	2.74E-08	2.74E-08	7.30E-07
564387.19	4188289.5	3.56E-07	2.91E-07	2.73E-08	2.73E-08	2.73E-08	7.28E-07
564397	4188291	3.57E-07	2.9E-07	2.73E-08	2.73E-08	2.73E-08	7.29E-07
564406.88	4188292.5	3.59E-07	2.9E-07	2.73E-08	2.73E-08	2.73E-08	7.31E-07
564416.75	4188294.25	3.6E-07	2.9E-07	2.73E-08	2.73E-08	2.73E-08	7.32E-07
564426.63	4188295.75	3.61E-07	2.91E-07	2.74E-08	2.74E-08	2.74E-08	7.34E-07
564436.44	4188297.25	3.61E-07	2.92E-07	2.75E-08	2.75E-08	2.75E-08	7.36E-07
564446.31	4188298.75	3.61E-07	2.92E-07	2.75E-08	2.75E-08	2.75E-08	7.36E-07
564456.19	4188300.5	3.58E-07	2.91E-07	2.74E-08	2.74E-08	2.74E-08	7.32E-07
564466	4188302	3.55E-07	2.89E-07	2.72E-08	2.72E-08	2.72E-08	7.25E-07
564495.56	4188306.75	3.37E-07	2.72E-07	2.56E-08	2.56E-08	2.56E-08	6.86E-07
564505.44	4188308.25	3.29E-07	2.65E-07	2.49E-08	2.49E-08	2.49E-08	6.69E-07
564515.31	4188309.75	3.22E-07	2.58E-07	2.42E-08	2.42E-08	2.42E-08	6.52E-07
564525.19	4188311.25	3.14E-07	2.51E-07	2.34E-08	2.34E-08	2.34E-08	6.35E-07
564535	4188313	3.05E-07	2.43E-07	2.26E-08	2.26E-08	2.26E-08	6.16E-07
564544.88	4188314.5	2.96E-07	2.36E-07	2.19E-08	2.19E-08	2.19E-08	5.97E-07
564554.75	4188316	2.85E-07	2.28E-07	2.11E-08	2.11E-08	2.11E-08	5.77E-07
564564.56	4188317.5	2.74E-07	2.2E-07	2.03E-08	2.03E-08	2.03E-08	5.56E-07
564574.44	4188319.25	2.63E-07	2.13E-07	1.95E-08	1.95E-08	1.95E-08	5.34E-07

564299.06	4188281.25	3.28E-07	2.82E-07	2.63E-08	2.63E-08	2.63E-08	6.89E-07
564291.31	4188275.75	3.32E-07	2.87E-07	2.68E-08	2.68E-08	2.68E-08	6.99E-07
564245.13	4188242.5	3.37E-07	3.05E-07	2.84E-08	2.84E-08	2.84E-08	7.27E-07
564237.38	4188236.75	3.35E-07	3.07E-07	2.85E-08	2.85E-08	2.85E-08	7.27E-07
564229.69	4188231.25	3.32E-07	3.06E-07	2.84E-08	2.84E-08	2.84E-08	7.23E-07
564222	4188225.75	3.27E-07	3.04E-07	2.81E-08	2.81E-08	2.81E-08	7.15E-07
564214.25	4188220.25	3.2E-07	3E-07	2.77E-08	2.77E-08	2.77E-08	7.03E-07
564206.56	4188214.75	3.12E-07	2.94E-07	2.71E-08	2.71E-08	2.71E-08	6.88E-07
564198.88	4188209	3.03E-07	2.87E-07	2.64E-08	2.64E-08	2.64E-08	6.69E-07
564191.19	4188203.5	2.91E-07	2.78E-07	2.54E-08	2.54E-08	2.54E-08	6.45E-07
564183.44	4188198	2.77E-07	2.66E-07	2.43E-08	2.43E-08	2.43E-08	6.16E-07
564175.75	4188192.5	2.62E-07	2.54E-07	2.31E-08	2.31E-08	2.31E-08	5.85E-07
564167.69	4188158.5	2.36E-07	2.34E-07	2.09E-08	2.09E-08	2.09E-08	5.33E-07
564167.56	4188149	2.3E-07	2.3E-07	2.05E-08	2.05E-08	2.05E-08	5.22E-07
564167.44	4188139.5	2.24E-07	2.26E-07	2E-08	2E-08	2E-08	5.10E-07
564167.25	4188130	2.17E-07	2.2E-07	1.94E-08	1.94E-08	1.94E-08	4.96E-07
564167.13	4188120.5	2.1E-07	2.15E-07	1.88E-08	1.88E-08	1.88E-08	4.82E-07
564167	4188111	2.03E-07	2.09E-07	1.82E-08	1.82E-08	1.82E-08	4.67E-07
564166.88	4188101.5	1.96E-07	2.03E-07	1.76E-08	1.76E-08	1.76E-08	4.51E-07
564306.75	4188286.75	3.22E-07	2.76E-07	2.58E-08	2.58E-08	2.58E-08	6.76E-07
564316.63	4188288.25	3.26E-07	2.78E-07	2.59E-08	2.59E-08	2.59E-08	6.81E-07
564326.44	4188290	3.27E-07	2.77E-07	2.59E-08	2.59E-08	2.59E-08	6.82E-07
564336.31	4188291.5	3.28E-07	2.77E-07	2.58E-08	2.58E-08	2.58E-08	6.82E-07
564346.19	4188293	3.29E-07	2.75E-07	2.57E-08	2.57E-08	2.57E-08	6.81E-07
564356	4188294.5	3.29E-07	2.74E-07	2.56E-08	2.56E-08	2.56E-08	6.79E-07
564365.88	4188296.25	3.28E-07	2.72E-07	2.54E-08	2.54E-08	2.54E-08	6.77E-07
564375.75	4188297.75	3.29E-07	2.71E-07	2.54E-08	2.54E-08	2.54E-08	6.76E-07
564385.63	4188299.25	3.29E-07	2.7E-07	2.53E-08	2.53E-08	2.53E-08	6.76E-07
564395.44	4188300.75	3.3E-07	2.7E-07	2.53E-08	2.53E-08	2.53E-08	6.76E-07
564405.31	4188302.5	3.31E-07	2.69E-07	2.53E-08	2.53E-08	2.53E-08	6.76E-07
564415.19	4188304	3.32E-07	2.7E-07	2.53E-08	2.53E-08	2.53E-08	6.77E-07
564425	4188305.5	3.33E-07	2.7E-07	2.54E-08	2.54E-08	2.54E-08	6.79E-07
564434.88	4188307.25	3.32E-07	2.71E-07	2.54E-08	2.54E-08	2.54E-08	6.80E-07
564444.75	4188308.75	3.32E-07	2.71E-07	2.55E-08	2.55E-08	2.55E-08	6.80E-07
564454.63	4188310.25	3.32E-07	2.71E-07	2.55E-08	2.55E-08	2.55E-08	6.79E-07
564464.44	4188311.75	3.29E-07	2.69E-07	2.53E-08	2.53E-08	2.53E-08	6.75E-07
564494	4188316.5	3.15E-07	2.57E-07	2.41E-08	2.41E-08	2.41E-08	6.44E-07
564503.88	4188318	3.08E-07	2.51E-07	2.35E-08	2.35E-08	2.35E-08	6.30E-07
564513.75	4188319.75	3.01E-07	2.44E-07	2.28E-08	2.28E-08	2.28E-08	6.14E-07
564523.56	4188321.25	2.95E-07	2.38E-07	2.22E-08	2.22E-08	2.22E-08	5.99E-07
564533.44	4188322.75	2.87E-07	2.31E-07	2.15E-08	2.15E-08	2.15E-08	5.83E-07
564543.31	4188324.25	2.79E-07	2.24E-07	2.08E-08	2.08E-08	2.08E-08	5.66E-07
564553.19	4188326	2.7E-07	2.17E-07	2.01E-08	2.01E-08	2.01E-08	5.48E-07
564563	4188327.5	2.61E-07	2.11E-07	1.94E-08	1.94E-08	1.94E-08	5.29E-07
564572.88	4188329	2.51E-07	2.04E-07	1.87E-08	1.87E-08	1.87E-08	5.11E-07
564289.81	4188285.5	3.11E-07	2.69E-07	2.51E-08	2.51E-08	2.51E-08	6.55E-07
564243.69	4188252.5	3.17E-07	2.86E-07	2.66E-08	2.66E-08	2.66E-08	6.84E-07

564236	4188246.75	3.16E-07	2.88E-07	2.67E-08	2.67E-08	2.67E-08	6.85E-07
564228.31	4188241.25	3.14E-07	2.88E-07	2.67E-08	2.67E-08	2.67E-08	6.83E-07
564220.63	4188235.75	3.1E-07	2.87E-07	2.66E-08	2.66E-08	2.66E-08	6.77E-07
564213	4188230.25	3.06E-07	2.85E-07	2.63E-08	2.63E-08	2.63E-08	6.69E-07
564205.31	4188224.75	2.99E-07	2.81E-07	2.59E-08	2.59E-08	2.59E-08	6.57E-07
564197.63	4188219.25	2.91E-07	2.75E-07	2.53E-08	2.53E-08	2.53E-08	6.42E-07
564189.94	4188213.75	2.82E-07	2.68E-07	2.46E-08	2.46E-08	2.46E-08	6.23E-07
564182.25	4188208	2.71E-07	2.59E-07	2.37E-08	2.37E-08	2.37E-08	6.01E-07
564174.56	4188202.5	2.58E-07	2.49E-07	2.26E-08	2.26E-08	2.26E-08	5.75E-07
564166.88	4188197	2.45E-07	2.37E-07	2.15E-08	2.15E-08	2.15E-08	5.46E-07
564159.06	4188182	2.28E-07	2.24E-07	2.01E-08	2.01E-08	2.01E-08	5.12E-07
564158.81	4188163	2.2E-07	2.19E-07	1.95E-08	1.95E-08	1.95E-08	4.98E-07
564158.69	4188153.75	2.15E-07	2.16E-07	1.91E-08	1.91E-08	1.91E-08	4.88E-07
564158.56	4188144.25	2.1E-07	2.11E-07	1.87E-08	1.87E-08	1.87E-08	4.77E-07
564158.44	4188134.75	2.04E-07	2.07E-07	1.82E-08	1.82E-08	1.82E-08	4.65E-07
564158.25	4188125.25	1.98E-07	2.02E-07	1.77E-08	1.77E-08	1.77E-08	4.52E-07
564158.13	4188115.75	1.91E-07	1.97E-07	1.71E-08	1.71E-08	1.71E-08	4.39E-07
564158	4188106.25	1.84E-07	1.91E-07	1.65E-08	1.65E-08	1.65E-08	4.25E-07
564157.88	4188096.75	1.78E-07	1.85E-07	1.6E-08	1.6E-08	1.6E-08	4.11E-07
564231	4188254.25	2.98E-07	2.71E-07	2.51E-08	2.51E-08	2.51E-08	6.45E-07
564222.94	4188248.5	2.96E-07	2.72E-07	2.51E-08	2.51E-08	2.51E-08	6.43E-07
564198.75	4188231	2.82E-07	2.65E-07	2.43E-08	2.43E-08	2.43E-08	6.20E-07
564190.63	4188225.25	2.74E-07	2.59E-07	2.38E-08	2.38E-08	2.38E-08	6.05E-07
564182.56	4188219.25	2.65E-07	2.52E-07	2.31E-08	2.31E-08	2.31E-08	5.87E-07
564174.5	4188213.5	2.55E-07	2.44E-07	2.22E-08	2.22E-08	2.22E-08	5.65E-07
564166.44	4188207.75	2.43E-07	2.34E-07	2.12E-08	2.12E-08	2.12E-08	5.40E-07
564158.38	4188202	2.29E-07	2.23E-07	2.01E-08	2.01E-08	2.01E-08	5.12E-07
564150.19	4188186.25	2.13E-07	2.1E-07	1.88E-08	1.88E-08	1.88E-08	4.79E-07
564149.75	4188156.25	2.01E-07	2.02E-07	1.78E-08	1.78E-08	1.78E-08	4.56E-07
564149.63	4188146.5	1.96E-07	1.98E-07	1.74E-08	1.74E-08	1.74E-08	4.45E-07
564149.5	4188136.5	1.9E-07	1.93E-07	1.69E-08	1.69E-08	1.69E-08	4.34E-07
564149.38	4188126.5	1.84E-07	1.89E-07	1.64E-08	1.64E-08	1.64E-08	4.22E-07
564148.81	4188086.75	1.59E-07	1.67E-07	1.43E-08	1.43E-08	1.43E-08	3.69E-07
564148.13	4188037	1.3E-07	1.39E-07	1.16E-08	1.16E-08	1.16E-08	3.03E-07
564294	4188310.5	2.7E-07	2.33E-07	2.16E-08	2.16E-08	2.16E-08	5.67E-07
564237.81	4188270.25	2.83E-07	2.54E-07	2.35E-08	2.35E-08	2.35E-08	6.07E-07
564229.75	4188264.25	2.82E-07	2.56E-07	2.37E-08	2.37E-08	2.37E-08	6.09E-07
564221.75	4188258.5	2.81E-07	2.57E-07	2.37E-08	2.37E-08	2.37E-08	6.09E-07
564213.69	4188252.75	2.79E-07	2.57E-07	2.37E-08	2.37E-08	2.37E-08	6.06E-07
564205.69	4188247	2.75E-07	2.55E-07	2.35E-08	2.35E-08	2.35E-08	6.01E-07
564197.63	4188241.25	2.7E-07	2.52E-07	2.32E-08	2.32E-08	2.32E-08	5.92E-07
564189.63	4188235.5	2.64E-07	2.49E-07	2.28E-08	2.28E-08	2.28E-08	5.81E-07
564181.56	4188229.75	2.57E-07	2.43E-07	2.23E-08	2.23E-08	2.23E-08	5.67E-07
564173.56	4188223.75	2.48E-07	2.37E-07	2.16E-08	2.16E-08	2.16E-08	5.50E-07
564165.5	4188218	2.38E-07	2.29E-07	2.08E-08	2.08E-08	2.08E-08	5.29E-07
564157.5	4188212.25	2.27E-07	2.19E-07	1.99E-08	1.99E-08	1.99E-08	5.06E-07
564149.5	4188206.5	2.15E-07	2.09E-07	1.89E-08	1.89E-08	1.89E-08	4.81E-07

564141.31	4188190.75	2E-07	1.97E-07	1.76E-08	1.76E-08	1.76E-08	4.50E-07
564141.19	4188181	1.97E-07	1.95E-07	1.74E-08	1.74E-08	1.74E-08	4.45E-07
564140.75	4188151.25	1.84E-07	1.86E-07	1.64E-08	1.64E-08	1.64E-08	4.19E-07
564140.63	4188141.25	1.79E-07	1.82E-07	1.59E-08	1.59E-08	1.59E-08	4.09E-07
564140.5	4188131.5	1.74E-07	1.78E-07	1.55E-08	1.55E-08	1.55E-08	3.98E-07
564140.38	4188121.5	1.68E-07	1.73E-07	1.5E-08	1.5E-08	1.5E-08	3.87E-07
564140.25	4188111.75	1.62E-07	1.69E-07	1.46E-08	1.46E-08	1.46E-08	3.75E-07
564140.13	4188101.75	1.57E-07	1.64E-07	1.41E-08	1.41E-08	1.41E-08	3.63E-07
564140	4188092	1.51E-07	1.59E-07	1.36E-08	1.36E-08	1.36E-08	3.51E-07
564139.81	4188082	1.46E-07	1.54E-07	1.31E-08	1.31E-08	1.31E-08	3.39E-07
564302.06	4188316.5	2.64E-07	2.27E-07	2.11E-08	2.11E-08	2.11E-08	5.55E-07
564311.88	4188318	2.65E-07	2.28E-07	2.11E-08	2.11E-08	2.11E-08	5.57E-07
564321.75	4188319.5	2.66E-07	2.27E-07	2.11E-08	2.11E-08	2.11E-08	5.57E-07
564331.63	4188321	2.66E-07	2.26E-07	2.1E-08	2.1E-08	2.1E-08	5.55E-07
564341.5	4188322.75	2.65E-07	2.25E-07	2.09E-08	2.09E-08	2.09E-08	5.53E-07
564351.31	4188324.25	2.65E-07	2.24E-07	2.08E-08	2.08E-08	2.08E-08	5.51E-07
564361.19	4188325.75	2.65E-07	2.23E-07	2.07E-08	2.07E-08	2.07E-08	5.50E-07
564371.06	4188327.25	2.65E-07	2.22E-07	2.06E-08	2.06E-08	2.06E-08	5.49E-07
564380.88	4188329	2.65E-07	2.21E-07	2.05E-08	2.05E-08	2.05E-08	5.48E-07
564390.75	4188330.5	2.65E-07	2.2E-07	2.05E-08	2.05E-08	2.05E-08	5.47E-07
564400.63	4188332	2.65E-07	2.2E-07	2.05E-08	2.05E-08	2.05E-08	5.47E-07
564410.44	4188333.75	2.65E-07	2.19E-07	2.04E-08	2.04E-08	2.04E-08	5.46E-07
564420.31	4188335.25	2.65E-07	2.19E-07	2.04E-08	2.04E-08	2.04E-08	5.46E-07
564430.19	4188336.75	2.65E-07	2.2E-07	2.05E-08	2.05E-08	2.05E-08	5.47E-07
564440	4188338.25	2.66E-07	2.21E-07	2.06E-08	2.06E-08	2.06E-08	5.48E-07
564449.88	4188340	2.65E-07	2.21E-07	2.06E-08	2.06E-08	2.06E-08	5.48E-07
564459.75	4188341.5	2.65E-07	2.21E-07	2.06E-08	2.06E-08	2.06E-08	5.48E-07
564489.31	4188346.25	2.59E-07	2.16E-07	2.01E-08	2.01E-08	2.01E-08	5.35E-07
564499.19	4188347.75	2.55E-07	2.12E-07	1.97E-08	1.97E-08	1.97E-08	5.27E-07
564509	4188349.25	2.51E-07	2.08E-07	1.94E-08	1.94E-08	1.94E-08	5.17E-07
564518.88	4188350.75	2.46E-07	2.04E-07	1.89E-08	1.89E-08	1.89E-08	5.07E-07
564528.75	4188352.5	2.41E-07	1.99E-07	1.84E-08	1.84E-08	1.84E-08	4.96E-07
564538.56	4188354	2.36E-07	1.94E-07	1.8E-08	1.8E-08	1.8E-08	4.84E-07
564548.44	4188355.5	2.31E-07	1.9E-07	1.75E-08	1.75E-08	1.75E-08	4.73E-07
564558.31	4188357.25	2.24E-07	1.85E-07	1.69E-08	1.69E-08	1.69E-08	4.59E-07
564568.19	4188358.75	2.17E-07	1.8E-07	1.64E-08	1.64E-08	1.64E-08	4.46E-07
564292.5	4188320.5	2.53E-07	2.19E-07	2.03E-08	2.03E-08	2.03E-08	5.33E-07
564284.5	4188314.75	2.57E-07	2.23E-07	2.07E-08	2.07E-08	2.07E-08	5.43E-07
564228.5	4188274.5	2.67E-07	2.41E-07	2.23E-08	2.23E-08	2.23E-08	5.76E-07
564220.5	4188268.75	2.67E-07	2.43E-07	2.24E-08	2.24E-08	2.24E-08	5.76E-07
564212.5	4188263	2.65E-07	2.43E-07	2.24E-08	2.24E-08	2.24E-08	5.75E-07
564204.5	4188257.25	2.62E-07	2.42E-07	2.23E-08	2.23E-08	2.23E-08	5.71E-07
564196.5	4188251.5	2.58E-07	2.41E-07	2.21E-08	2.21E-08	2.21E-08	5.65E-07
564188.56	4188245.75	2.54E-07	2.38E-07	2.18E-08	2.18E-08	2.18E-08	5.57E-07
564180.56	4188240	2.48E-07	2.34E-07	2.14E-08	2.14E-08	2.14E-08	5.46E-07
564172.56	4188234.25	2.41E-07	2.29E-07	2.09E-08	2.09E-08	2.09E-08	5.32E-07
564164.56	4188228.5	2.33E-07	2.22E-07	2.02E-08	2.02E-08	2.02E-08	5.16E-07

564156.56	4188222.75	2.23E-07	2.15E-07	1.95E-08	1.95E-08	1.95E-08	4.97E-07
564148.56	4188217	2.13E-07	2.06E-07	1.86E-08	1.86E-08	1.86E-08	4.75E-07
564140.56	4188211	2.02E-07	1.97E-07	1.77E-08	1.77E-08	1.77E-08	4.52E-07
564132.44	4188195.5	1.88E-07	1.86E-07	1.66E-08	1.66E-08	1.66E-08	4.24E-07
564132.31	4188185.75	1.85E-07	1.84E-07	1.64E-08	1.64E-08	1.64E-08	4.18E-07
564132.19	4188175.75	1.82E-07	1.82E-07	1.61E-08	1.61E-08	1.61E-08	4.12E-07
564131.88	4188156	1.74E-07	1.76E-07	1.54E-08	1.54E-08	1.54E-08	3.96E-07
564131.75	4188146.25	1.69E-07	1.72E-07	1.5E-08	1.5E-08	1.5E-08	3.87E-07
564131.63	4188136.5	1.64E-07	1.69E-07	1.47E-08	1.47E-08	1.47E-08	3.77E-07
564131.5	4188126.5	1.59E-07	1.64E-07	1.42E-08	1.42E-08	1.42E-08	3.66E-07
564131.38	4188116.75	1.54E-07	1.6E-07	1.38E-08	1.38E-08	1.38E-08	3.56E-07
564131.25	4188106.75	1.49E-07	1.56E-07	1.34E-08	1.34E-08	1.34E-08	3.45E-07
564131.13	4188097	1.44E-07	1.51E-07	1.29E-08	1.29E-08	1.29E-08	3.34E-07
564131	4188087.25	1.39E-07	1.47E-07	1.25E-08	1.25E-08	1.25E-08	3.23E-07
564130.81	4188077.25	1.34E-07	1.42E-07	1.21E-08	1.21E-08	1.21E-08	3.12E-07
564300.5	4188326.25	2.48E-07	2.14E-07	1.98E-08	1.98E-08	1.98E-08	5.22E-07
564310.31	4188327.75	2.49E-07	2.14E-07	1.98E-08	1.98E-08	1.98E-08	5.23E-07
564320.19	4188329.5	2.49E-07	2.14E-07	1.97E-08	1.97E-08	1.97E-08	5.22E-07
564330.06	4188331	2.49E-07	2.13E-07	1.97E-08	1.97E-08	1.97E-08	5.21E-07
564339.88	4188332.5	2.49E-07	2.12E-07	1.96E-08	1.96E-08	1.96E-08	5.19E-07
564349.75	4188334	2.48E-07	2.1E-07	1.95E-08	1.95E-08	1.95E-08	5.17E-07
564359.63	4188335.75	2.48E-07	2.09E-07	1.94E-08	1.94E-08	1.94E-08	5.15E-07
564369.5	4188337.25	2.48E-07	2.08E-07	1.93E-08	1.93E-08	1.93E-08	5.14E-07
564379.31	4188338.75	2.48E-07	2.08E-07	1.93E-08	1.93E-08	1.93E-08	5.14E-07
564389.19	4188340.5	2.48E-07	2.07E-07	1.92E-08	1.92E-08	1.92E-08	5.12E-07
564399.06	4188342	2.48E-07	2.06E-07	1.91E-08	1.91E-08	1.91E-08	5.11E-07
564408.88	4188343.5	2.48E-07	2.06E-07	1.91E-08	1.91E-08	1.91E-08	5.11E-07
564418.75	4188345	2.48E-07	2.06E-07	1.91E-08	1.91E-08	1.91E-08	5.11E-07
564428.63	4188346.75	2.47E-07	2.06E-07	1.92E-08	1.92E-08	1.92E-08	5.11E-07
564438.44	4188348.25	2.48E-07	2.07E-07	1.92E-08	1.92E-08	1.92E-08	5.12E-07
564448.31	4188349.75	2.48E-07	2.07E-07	1.93E-08	1.93E-08	1.93E-08	5.13E-07
564458.19	4188351.25	2.48E-07	2.08E-07	1.93E-08	1.93E-08	1.93E-08	5.14E-07
564487.75	4188356	2.44E-07	2.04E-07	1.9E-08	1.9E-08	1.9E-08	5.04E-07
564497.63	4188357.5	2.41E-07	2.01E-07	1.87E-08	1.87E-08	1.87E-08	4.98E-07
564507.44	4188359.25	2.37E-07	1.98E-07	1.83E-08	1.83E-08	1.83E-08	4.89E-07
564517.31	4188360.75	2.33E-07	1.94E-07	1.8E-08	1.8E-08	1.8E-08	4.81E-07
564527.19	4188362.25	2.29E-07	1.9E-07	1.76E-08	1.76E-08	1.76E-08	4.71E-07
564537	4188363.75	2.24E-07	1.86E-07	1.71E-08	1.71E-08	1.71E-08	4.61E-07
564546.88	4188365.5	2.19E-07	1.81E-07	1.67E-08	1.67E-08	1.67E-08	4.50E-07
564556.75	4188367	2.13E-07	1.77E-07	1.62E-08	1.62E-08	1.62E-08	4.39E-07
564566.56	4188368.5	2.08E-07	1.72E-07	1.58E-08	1.58E-08	1.58E-08	4.27E-07
564290.94	4188330.5	2.38E-07	2.07E-07	1.91E-08	1.91E-08	1.91E-08	5.02E-07
564283	4188324.75	2.42E-07	2.11E-07	1.95E-08	1.95E-08	1.95E-08	5.11E-07
564275	4188319	2.46E-07	2.14E-07	1.98E-08	1.98E-08	1.98E-08	5.19E-07
564203.31	4188267.25	2.5E-07	2.3E-07	2.12E-08	2.12E-08	2.12E-08	5.44E-07
564195.38	4188261.5	2.47E-07	2.29E-07	2.11E-08	2.11E-08	2.11E-08	5.40E-07
564187.44	4188255.75	2.44E-07	2.27E-07	2.09E-08	2.09E-08	2.09E-08	5.34E-07

564179.44	4188250.25	2.39E-07	2.24E-07	2.05E-08	2.05E-08	2.05E-08	5.25E-07
564171.5	4188244.5	2.33E-07	2.2E-07	2.01E-08	2.01E-08	2.01E-08	5.14E-07
564163.5	4188238.75	2.26E-07	2.16E-07	1.96E-08	1.96E-08	1.96E-08	5.01E-07
564155.56	4188233	2.19E-07	2.1E-07	1.9E-08	1.9E-08	1.9E-08	4.85E-07
564147.56	4188227.25	2.1E-07	2.02E-07	1.83E-08	1.83E-08	1.83E-08	4.67E-07
564139.63	4188221.5	2E-07	1.94E-07	1.75E-08	1.75E-08	1.75E-08	4.47E-07
564131.69	4188215.75	1.9E-07	1.86E-07	1.66E-08	1.66E-08	1.66E-08	4.25E-07
564123.56	4188200.25	1.77E-07	1.75E-07	1.56E-08	1.56E-08	1.56E-08	3.99E-07
564123.44	4188190.25	1.75E-07	1.74E-07	1.54E-08	1.54E-08	1.54E-08	3.95E-07
564123.31	4188180.5	1.71E-07	1.72E-07	1.52E-08	1.52E-08	1.52E-08	3.89E-07
564122.88	4188151	1.6E-07	1.63E-07	1.42E-08	1.42E-08	1.42E-08	3.66E-07
564122.75	4188141.25	1.56E-07	1.6E-07	1.39E-08	1.39E-08	1.39E-08	3.57E-07
564122.63	4188131.5	1.51E-07	1.56E-07	1.35E-08	1.35E-08	1.35E-08	3.48E-07
564122.5	4188121.75	1.46E-07	1.52E-07	1.31E-08	1.31E-08	1.31E-08	3.38E-07
564122.38	4188111.75	1.42E-07	1.48E-07	1.27E-08	1.27E-08	1.27E-08	3.28E-07
564122.25	4188102	1.37E-07	1.44E-07	1.23E-08	1.23E-08	1.23E-08	3.18E-07
564122.13	4188092.25	1.33E-07	1.4E-07	1.19E-08	1.19E-08	1.19E-08	3.08E-07
564122	4188082.5	1.28E-07	1.36E-07	1.15E-08	1.15E-08	1.15E-08	2.98E-07
564298.88	4188336.25	2.33E-07	2.02E-07	1.86E-08	1.86E-08	1.86E-08	4.91E-07
564308.75	4188337.75	2.34E-07	2.02E-07	1.86E-08	1.86E-08	1.86E-08	4.92E-07
564318.63	4188339.25	2.34E-07	2.01E-07	1.86E-08	1.86E-08	1.86E-08	4.91E-07
564328.5	4188340.75	2.34E-07	2E-07	1.85E-08	1.85E-08	1.85E-08	4.90E-07
564338.31	4188342.5	2.33E-07	1.99E-07	1.84E-08	1.84E-08	1.84E-08	4.87E-07
564348.19	4188344	2.33E-07	1.98E-07	1.83E-08	1.83E-08	1.83E-08	4.86E-07
564358.06	4188345.5	2.33E-07	1.97E-07	1.82E-08	1.82E-08	1.82E-08	4.85E-07
564367.88	4188347	2.33E-07	1.96E-07	1.82E-08	1.82E-08	1.82E-08	4.84E-07
564377.75	4188348.75	2.33E-07	1.95E-07	1.81E-08	1.81E-08	1.81E-08	4.82E-07
564387.63	4188350.25	2.32E-07	1.95E-07	1.8E-08	1.8E-08	1.8E-08	4.81E-07
564397.5	4188351.75	2.32E-07	1.94E-07	1.8E-08	1.8E-08	1.8E-08	4.81E-07
564407.31	4188353.5	2.32E-07	1.94E-07	1.79E-08	1.79E-08	1.79E-08	4.79E-07
564417.19	4188355	2.31E-07	1.94E-07	1.79E-08	1.79E-08	1.79E-08	4.79E-07
564427.06	4188356.5	2.31E-07	1.94E-07	1.8E-08	1.8E-08	1.8E-08	4.79E-07
564436.88	4188358	2.32E-07	1.94E-07	1.8E-08	1.8E-08	1.8E-08	4.80E-07
564446.75	4188359.75	2.32E-07	1.95E-07	1.81E-08	1.81E-08	1.81E-08	4.81E-07
564456.63	4188361.25	2.32E-07	1.95E-07	1.81E-08	1.81E-08	1.81E-08	4.82E-07
564486.19	4188366	2.29E-07	1.93E-07	1.79E-08	1.79E-08	1.79E-08	4.76E-07
564496	4188367.5	2.27E-07	1.91E-07	1.77E-08	1.77E-08	1.77E-08	4.70E-07
564505.88	4188369	2.24E-07	1.88E-07	1.74E-08	1.74E-08	1.74E-08	4.64E-07
564515.75	4188370.5	2.2E-07	1.85E-07	1.71E-08	1.71E-08	1.71E-08	4.56E-07
564525.63	4188372.25	2.16E-07	1.81E-07	1.67E-08	1.67E-08	1.67E-08	4.48E-07
564535.44	4188373.75	2.13E-07	1.77E-07	1.63E-08	1.63E-08	1.63E-08	4.39E-07
564545.31	4188375.25	2.08E-07	1.74E-07	1.6E-08	1.6E-08	1.6E-08	4.30E-07
564555.19	4188377	2.03E-07	1.69E-07	1.55E-08	1.55E-08	1.55E-08	4.19E-07
564565	4188378.5	1.98E-07	1.65E-07	1.51E-08	1.51E-08	1.51E-08	4.09E-07
564289.38	4188340.25	2.25E-07	1.95E-07	1.8E-08	1.8E-08	1.8E-08	4.74E-07
564281.44	4188334.5	2.29E-07	1.99E-07	1.84E-08	1.84E-08	1.84E-08	4.83E-07
564273.5	4188329	2.32E-07	2.02E-07	1.87E-08	1.87E-08	1.87E-08	4.90E-07

564233.88	4188300.25	2.4E-07	2.14E-07	1.97E-08	1.97E-08	1.97E-08	5.13E-07
564186.25	4188266	2.34E-07	2.17E-07	1.99E-08	1.99E-08	1.99E-08	5.10E-07
564178.31	4188260.25	2.3E-07	2.15E-07	1.97E-08	1.97E-08	1.97E-08	5.04E-07
564170.38	4188254.5	2.25E-07	2.12E-07	1.94E-08	1.94E-08	1.94E-08	4.95E-07
564162.44	4188249	2.19E-07	2.08E-07	1.9E-08	1.9E-08	1.9E-08	4.85E-07
564154.5	4188243.25	2.13E-07	2.03E-07	1.85E-08	1.85E-08	1.85E-08	4.72E-07
564146.56	4188237.5	2.06E-07	1.98E-07	1.79E-08	1.79E-08	1.79E-08	4.57E-07
564138.63	4188231.75	1.98E-07	1.91E-07	1.72E-08	1.72E-08	1.72E-08	4.40E-07
564130.69	4188226	1.89E-07	1.83E-07	1.65E-08	1.65E-08	1.65E-08	4.21E-07
564122.75	4188220.25	1.79E-07	1.75E-07	1.57E-08	1.57E-08	1.57E-08	4.01E-07
564114.69	4188204.75	1.67E-07	1.66E-07	1.47E-08	1.47E-08	1.47E-08	3.77E-07
564114.56	4188195	1.65E-07	1.64E-07	1.45E-08	1.45E-08	1.45E-08	3.73E-07
564114.44	4188185.25	1.62E-07	1.63E-07	1.43E-08	1.43E-08	1.43E-08	3.68E-07
564114.31	4188175.5	1.59E-07	1.6E-07	1.41E-08	1.41E-08	1.41E-08	3.61E-07
564114.06	4188156	1.52E-07	1.55E-07	1.35E-08	1.35E-08	1.35E-08	3.47E-07
564113.94	4188146.25	1.48E-07	1.52E-07	1.32E-08	1.32E-08	1.32E-08	3.39E-07
564113.75	4188136.5	1.44E-07	1.48E-07	1.28E-08	1.28E-08	1.28E-08	3.30E-07
564113.63	4188126.5	1.39E-07	1.45E-07	1.24E-08	1.24E-08	1.24E-08	3.21E-07
564112.44	4188038.5	1.02E-07	1.1E-07	9.17E-09	9.17E-09	9.17E-09	2.40E-07
564112.31	4188028.75	9.95E-08	1.07E-07	8.89E-09	8.89E-09	8.89E-09	2.33E-07
564297.31	4188346	2.2E-07	1.91E-07	1.76E-08	1.76E-08	1.76E-08	4.63E-07
564307.19	4188347.5	2.2E-07	1.91E-07	1.76E-08	1.76E-08	1.76E-08	4.64E-07
564317.06	4188349.25	2.2E-07	1.9E-07	1.75E-08	1.75E-08	1.75E-08	4.62E-07
564326.88	4188350.75	2.2E-07	1.89E-07	1.74E-08	1.74E-08	1.74E-08	4.61E-07
564336.75	4188352.25	2.19E-07	1.88E-07	1.73E-08	1.73E-08	1.73E-08	4.59E-07
564346.63	4188353.75	2.19E-07	1.87E-07	1.72E-08	1.72E-08	1.72E-08	4.58E-07
564356.5	4188355.5	2.19E-07	1.86E-07	1.71E-08	1.71E-08	1.71E-08	4.56E-07
564366.31	4188357	2.19E-07	1.85E-07	1.71E-08	1.71E-08	1.71E-08	4.55E-07
564376.19	4188358.5	2.19E-07	1.85E-07	1.7E-08	1.7E-08	1.7E-08	4.54E-07
564386.06	4188360.25	2.18E-07	1.84E-07	1.7E-08	1.7E-08	1.7E-08	4.53E-07
564395.88	4188361.75	2.18E-07	1.83E-07	1.69E-08	1.69E-08	1.69E-08	4.52E-07
564405.75	4188363.25	2.18E-07	1.83E-07	1.69E-08	1.69E-08	1.69E-08	4.51E-07
564415.63	4188364.75	2.17E-07	1.83E-07	1.69E-08	1.69E-08	1.69E-08	4.50E-07
564425.5	4188366.5	2.17E-07	1.82E-07	1.69E-08	1.69E-08	1.69E-08	4.50E-07
564435.31	4188368	2.17E-07	1.83E-07	1.69E-08	1.69E-08	1.69E-08	4.51E-07
564445.19	4188369.5	2.17E-07	1.84E-07	1.7E-08	1.7E-08	1.7E-08	4.52E-07
564455	4188371	2.18E-07	1.84E-07	1.7E-08	1.7E-08	1.7E-08	4.53E-07
564484.63	4188375.75	2.16E-07	1.83E-07	1.69E-08	1.69E-08	1.69E-08	4.50E-07
564494.44	4188377.25	2.14E-07	1.81E-07	1.68E-08	1.68E-08	1.68E-08	4.46E-07
564504.31	4188379	2.11E-07	1.79E-07	1.65E-08	1.65E-08	1.65E-08	4.40E-07
564514.19	4188380.5	2.09E-07	1.76E-07	1.63E-08	1.63E-08	1.63E-08	4.33E-07
564524	4188382	2.06E-07	1.73E-07	1.6E-08	1.6E-08	1.6E-08	4.26E-07
564533.88	4188383.5	2.02E-07	1.7E-07	1.56E-08	1.56E-08	1.56E-08	4.19E-07
564543.75	4188385.25	1.98E-07	1.66E-07	1.53E-08	1.53E-08	1.53E-08	4.10E-07
564553.63	4188386.75	1.94E-07	1.63E-07	1.49E-08	1.49E-08	1.49E-08	4.01E-07
564563.44	4188388.25	1.89E-07	1.59E-07	1.45E-08	1.45E-08	1.45E-08	3.92E-07
564287.88	4188350.25	2.12E-07	1.85E-07	1.7E-08	1.7E-08	1.7E-08	4.47E-07

564279.94	4188344.5	2.16E-07	1.88E-07	1.73E-08	1.73E-08	1.73E-08	4.56E-07
564272.06	4188338.75	2.19E-07	1.92E-07	1.77E-08	1.77E-08	1.77E-08	4.64E-07
564232.5	4188310.25	2.27E-07	2.02E-07	1.86E-08	1.86E-08	1.86E-08	4.86E-07
564224.56	4188304.75	2.28E-07	2.04E-07	1.88E-08	1.88E-08	1.88E-08	4.88E-07
564216.69	4188299	2.28E-07	2.06E-07	1.89E-08	1.89E-08	1.89E-08	4.91E-07
564169.25	4188264.75	2.17E-07	2.04E-07	1.86E-08	1.86E-08	1.86E-08	4.77E-07
564161.31	4188259	2.12E-07	2.01E-07	1.83E-08	1.83E-08	1.83E-08	4.68E-07
564153.44	4188253.5	2.07E-07	1.97E-07	1.79E-08	1.79E-08	1.79E-08	4.58E-07
564145.5	4188247.75	2.01E-07	1.92E-07	1.74E-08	1.74E-08	1.74E-08	4.46E-07
564137.63	4188242	1.94E-07	1.87E-07	1.69E-08	1.69E-08	1.69E-08	4.32E-07
564129.69	4188236.25	1.86E-07	1.81E-07	1.63E-08	1.63E-08	1.63E-08	4.16E-07
564121.75	4188230.5	1.78E-07	1.73E-07	1.56E-08	1.56E-08	1.56E-08	3.98E-07
564113.88	4188225	1.69E-07	1.66E-07	1.48E-08	1.48E-08	1.48E-08	3.80E-07
564105.81	4188209.5	1.58E-07	1.57E-07	1.39E-08	1.39E-08	1.39E-08	3.57E-07
564105.69	4188199.75	1.56E-07	1.56E-07	1.38E-08	1.38E-08	1.38E-08	3.53E-07
564105.56	4188190	1.53E-07	1.54E-07	1.36E-08	1.36E-08	1.36E-08	3.48E-07
564105.44	4188180.25	1.5E-07	1.52E-07	1.33E-08	1.33E-08	1.33E-08	3.42E-07
564105.31	4188170.5	1.47E-07	1.5E-07	1.31E-08	1.31E-08	1.31E-08	3.36E-07
564104.25	4188092.5	1.17E-07	1.24E-07	1.05E-08	1.05E-08	1.05E-08	2.73E-07
564104.13	4188082.75	1.14E-07	1.2E-07	1.02E-08	1.02E-08	1.02E-08	2.65E-07
564104	4188073	1.1E-07	1.17E-07	9.86E-09	9.86E-09	9.86E-09	2.56E-07
564103.56	4188043.75	9.86E-08	1.06E-07	8.83E-09	8.83E-09	8.83E-09	2.31E-07
564103.44	4188034	9.56E-08	1.02E-07	8.54E-09	8.54E-09	8.54E-09	2.24E-07
564103.31	4188024.25	9.31E-08	9.97E-08	8.31E-09	8.31E-09	8.31E-09	2.18E-07
564103.19	4188014.5	9.13E-08	9.76E-08	8.14E-09	8.14E-09	8.14E-09	2.13E-07
564103.06	4188004.75	9E-08	9.6E-08	8.02E-09	8.02E-09	8.02E-09	2.10E-07
564102.94	4187995	8.91E-08	9.47E-08	7.92E-09	7.92E-09	7.92E-09	2.08E-07
564295.75	4188356	2.07E-07	1.8E-07	1.66E-08	1.66E-08	1.66E-08	4.37E-07
564305.63	4188357.5	2.08E-07	1.8E-07	1.66E-08	1.66E-08	1.66E-08	4.37E-07
564315.5	4188359	2.07E-07	1.79E-07	1.65E-08	1.65E-08	1.65E-08	4.36E-07
564325.31	4188360.5	2.07E-07	1.79E-07	1.64E-08	1.64E-08	1.64E-08	4.35E-07
564335.19	4188362.25	2.06E-07	1.77E-07	1.63E-08	1.63E-08	1.63E-08	4.33E-07
564345.06	4188363.75	2.06E-07	1.77E-07	1.62E-08	1.62E-08	1.62E-08	4.32E-07
564354.88	4188365.25	2.06E-07	1.76E-07	1.62E-08	1.62E-08	1.62E-08	4.31E-07
564364.75	4188366.75	2.06E-07	1.75E-07	1.61E-08	1.61E-08	1.61E-08	4.30E-07
564374.63	4188368.5	2.06E-07	1.74E-07	1.61E-08	1.61E-08	1.61E-08	4.28E-07
564384.5	4188370	2.06E-07	1.74E-07	1.6E-08	1.6E-08	1.6E-08	4.27E-07
564394.31	4188371.5	2.05E-07	1.73E-07	1.6E-08	1.6E-08	1.6E-08	4.26E-07
564404.19	4188373.25	2.04E-07	1.73E-07	1.59E-08	1.59E-08	1.59E-08	4.25E-07
564414.06	4188374.75	2.04E-07	1.72E-07	1.59E-08	1.59E-08	1.59E-08	4.24E-07
564423.88	4188376.25	2.04E-07	1.72E-07	1.59E-08	1.59E-08	1.59E-08	4.24E-07
564433.75	4188377.75	2.04E-07	1.73E-07	1.59E-08	1.59E-08	1.59E-08	4.25E-07
564443.63	4188379.5	2.04E-07	1.73E-07	1.6E-08	1.6E-08	1.6E-08	4.25E-07
564453.5	4188381	2.05E-07	1.74E-07	1.6E-08	1.6E-08	1.6E-08	4.27E-07
564473.19	4188384	2.05E-07	1.74E-07	1.61E-08	1.61E-08	1.61E-08	4.27E-07
564483	4188385.75	2.04E-07	1.73E-07	1.6E-08	1.6E-08	1.6E-08	4.25E-07
564492.88	4188387.25	2.02E-07	1.72E-07	1.59E-08	1.59E-08	1.59E-08	4.22E-07

564502.75	4188388.75	2E-07	1.7E-07	1.57E-08	1.57E-08	1.57E-08	4.18E-07
564512.63	4188390.25	1.98E-07	1.68E-07	1.55E-08	1.55E-08	1.55E-08	4.12E-07
564522.44	4188392	1.95E-07	1.65E-07	1.52E-08	1.52E-08	1.52E-08	4.06E-07
564532.31	4188393.5	1.92E-07	1.62E-07	1.49E-08	1.49E-08	1.49E-08	3.99E-07
564542.19	4188395	1.89E-07	1.59E-07	1.46E-08	1.46E-08	1.46E-08	3.92E-07
564552	4188396.75	1.85E-07	1.56E-07	1.43E-08	1.43E-08	1.43E-08	3.84E-07
564561.88	4188398.25	1.81E-07	1.53E-07	1.39E-08	1.39E-08	1.39E-08	3.75E-07
564286.31	4188360	2E-07	1.75E-07	1.61E-08	1.61E-08	1.61E-08	4.24E-07
564278.44	4188354.5	2.04E-07	1.78E-07	1.64E-08	1.64E-08	1.64E-08	4.32E-07
564270.56	4188348.75	2.07E-07	1.81E-07	1.67E-08	1.67E-08	1.67E-08	4.39E-07
564231.13	4188320.25	2.16E-07	1.92E-07	1.77E-08	1.77E-08	1.77E-08	4.61E-07
564223.25	4188314.75	2.17E-07	1.93E-07	1.78E-08	1.78E-08	1.78E-08	4.63E-07
564215.38	4188309	2.17E-07	1.95E-07	1.79E-08	1.79E-08	1.79E-08	4.66E-07
564207.5	4188303.25	2.18E-07	1.97E-07	1.81E-08	1.81E-08	1.81E-08	4.68E-07
564199.56	4188297.75	2.17E-07	1.98E-07	1.81E-08	1.81E-08	1.81E-08	4.69E-07
564191.69	4188292	2.16E-07	1.98E-07	1.82E-08	1.82E-08	1.82E-08	4.69E-07
564144.38	4188258	1.96E-07	1.87E-07	1.69E-08	1.69E-08	1.69E-08	4.33E-07
564136.5	4188252.25	1.9E-07	1.82E-07	1.65E-08	1.65E-08	1.65E-08	4.21E-07
564128.63	4188246.5	1.83E-07	1.77E-07	1.59E-08	1.59E-08	1.59E-08	4.08E-07
564120.75	4188240.75	1.76E-07	1.71E-07	1.54E-08	1.54E-08	1.54E-08	3.93E-07
564112.88	4188235.25	1.68E-07	1.64E-07	1.47E-08	1.47E-08	1.47E-08	3.77E-07
564105	4188229.5	1.6E-07	1.57E-07	1.4E-08	1.4E-08	1.4E-08	3.59E-07
564095.94	4188136.5	1.27E-07	1.31E-07	1.13E-08	1.13E-08	1.13E-08	2.92E-07
564095.75	4188126.75	1.23E-07	1.28E-07	1.1E-08	1.1E-08	1.1E-08	2.84E-07
564095.63	4188117	1.19E-07	1.25E-07	1.07E-08	1.07E-08	1.07E-08	2.77E-07
564095.5	4188107.25	1.16E-07	1.22E-07	1.04E-08	1.04E-08	1.04E-08	2.69E-07
564095.38	4188097.5	1.12E-07	1.19E-07	1.01E-08	1.01E-08	1.01E-08	2.61E-07
564095.25	4188087.75	1.09E-07	1.15E-07	9.77E-09	9.77E-09	9.77E-09	2.54E-07
564095.13	4188078	1.06E-07	1.12E-07	9.46E-09	9.46E-09	9.46E-09	2.46E-07
564094.75	4188049	9.52E-08	1.02E-07	8.52E-09	8.52E-09	8.52E-09	2.23E-07
564094.56	4188039.25	9.2E-08	9.85E-08	8.23E-09	8.23E-09	8.23E-09	2.15E-07
564094.44	4188029.5	8.94E-08	9.58E-08	7.98E-09	7.98E-09	7.98E-09	2.09E-07
564094.31	4188019.75	8.75E-08	9.36E-08	7.8E-09	7.8E-09	7.8E-09	2.04E-07
564094.19	4188010	8.6E-08	9.18E-08	7.66E-09	7.66E-09	7.66E-09	2.01E-07
564094.06	4188000.5	8.5E-08	9.05E-08	7.56E-09	7.56E-09	7.56E-09	1.98E-07
564093.94	4187990.75	8.42E-08	8.93E-08	7.48E-09	7.48E-09	7.48E-09	1.96E-07
564294.19	4188365.75	1.96E-07	1.71E-07	1.57E-08	1.57E-08	1.57E-08	4.14E-07
564304.06	4188367.25	1.96E-07	1.71E-07	1.57E-08	1.57E-08	1.57E-08	4.14E-07
564313.94	4188369	1.96E-07	1.7E-07	1.56E-08	1.56E-08	1.56E-08	4.12E-07
564323.75	4188370.5	1.95E-07	1.69E-07	1.55E-08	1.55E-08	1.55E-08	4.11E-07
564333.63	4188372	1.95E-07	1.68E-07	1.54E-08	1.54E-08	1.54E-08	4.09E-07
564343.5	4188373.5	1.95E-07	1.67E-07	1.54E-08	1.54E-08	1.54E-08	4.08E-07
564353.31	4188375.25	1.94E-07	1.66E-07	1.53E-08	1.53E-08	1.53E-08	4.07E-07
564363.19	4188376.75	1.94E-07	1.66E-07	1.52E-08	1.52E-08	1.52E-08	4.06E-07
564373.06	4188378.25	1.94E-07	1.65E-07	1.52E-08	1.52E-08	1.52E-08	4.05E-07
564382.88	4188380	1.94E-07	1.64E-07	1.51E-08	1.51E-08	1.51E-08	4.04E-07
564392.75	4188381.5	1.93E-07	1.64E-07	1.51E-08	1.51E-08	1.51E-08	4.02E-07

564402.63	4188383	1.93E-07	1.63E-07	1.5E-08	1.5E-08	1.5E-08	4.01E-07
564412.5	4188384.5	1.92E-07	1.63E-07	1.5E-08	1.5E-08	1.5E-08	4.01E-07
564422.31	4188386.25	1.92E-07	1.63E-07	1.5E-08	1.5E-08	1.5E-08	4.00E-07
564432.19	4188387.75	1.92E-07	1.63E-07	1.5E-08	1.5E-08	1.5E-08	4.00E-07
564442.06	4188389.25	1.92E-07	1.64E-07	1.51E-08	1.51E-08	1.51E-08	4.01E-07
564451.88	4188390.75	1.93E-07	1.64E-07	1.51E-08	1.51E-08	1.51E-08	4.03E-07
564471.63	4188394	1.93E-07	1.65E-07	1.52E-08	1.52E-08	1.52E-08	4.03E-07
564481.44	4188395.5	1.93E-07	1.64E-07	1.52E-08	1.52E-08	1.52E-08	4.03E-07
564491.31	4188397	1.92E-07	1.64E-07	1.51E-08	1.51E-08	1.51E-08	4.00E-07
564501.19	4188398.75	1.9E-07	1.62E-07	1.49E-08	1.49E-08	1.49E-08	3.97E-07
564511	4188400.25	1.88E-07	1.6E-07	1.47E-08	1.47E-08	1.47E-08	3.92E-07
564520.88	4188401.75	1.86E-07	1.58E-07	1.45E-08	1.45E-08	1.45E-08	3.87E-07
564530.75	4188403.5	1.83E-07	1.55E-07	1.43E-08	1.43E-08	1.43E-08	3.81E-07
564540.63	4188405	1.8E-07	1.53E-07	1.4E-08	1.4E-08	1.4E-08	3.74E-07
564550.44	4188406.5	1.77E-07	1.5E-07	1.37E-08	1.37E-08	1.37E-08	3.68E-07
564560.31	4188408	1.73E-07	1.47E-07	1.34E-08	1.34E-08	1.34E-08	3.60E-07
564284.75	4188370	1.9E-07	1.66E-07	1.52E-08	1.52E-08	1.52E-08	4.01E-07
564276.88	4188364.25	1.93E-07	1.69E-07	1.55E-08	1.55E-08	1.55E-08	4.09E-07
564269.06	4188358.75	1.96E-07	1.72E-07	1.58E-08	1.58E-08	1.58E-08	4.16E-07
564229.75	4188330.25	2.05E-07	1.82E-07	1.67E-08	1.67E-08	1.67E-08	4.37E-07
564221.88	4188324.75	2.06E-07	1.84E-07	1.69E-08	1.69E-08	1.69E-08	4.40E-07
564214	4188319	2.07E-07	1.85E-07	1.7E-08	1.7E-08	1.7E-08	4.43E-07
564206.13	4188313.5	2.07E-07	1.87E-07	1.71E-08	1.71E-08	1.71E-08	4.45E-07
564198.31	4188307.75	2.07E-07	1.88E-07	1.72E-08	1.72E-08	1.72E-08	4.47E-07
564190.44	4188302	2.07E-07	1.89E-07	1.73E-08	1.73E-08	1.73E-08	4.47E-07
564182.56	4188296.5	2.05E-07	1.89E-07	1.73E-08	1.73E-08	1.73E-08	4.46E-07
564174.69	4188290.75	2.04E-07	1.88E-07	1.72E-08	1.72E-08	1.72E-08	4.44E-07
564127.5	4188256.75	1.8E-07	1.73E-07	1.56E-08	1.56E-08	1.56E-08	3.99E-07
564119.69	4188251	1.74E-07	1.68E-07	1.51E-08	1.51E-08	1.51E-08	3.87E-07
564111.81	4188245.5	1.67E-07	1.62E-07	1.45E-08	1.45E-08	1.45E-08	3.72E-07
564103.94	4188239.75	1.59E-07	1.56E-07	1.39E-08	1.39E-08	1.39E-08	3.57E-07
564096.06	4188234	1.52E-07	1.49E-07	1.33E-08	1.33E-08	1.33E-08	3.41E-07
564087.56	4188180	1.33E-07	1.35E-07	1.18E-08	1.18E-08	1.18E-08	3.04E-07
564087.44	4188170.25	1.3E-07	1.33E-07	1.15E-08	1.15E-08	1.15E-08	2.98E-07
564087.19	4188151	1.24E-07	1.28E-07	1.1E-08	1.1E-08	1.1E-08	2.86E-07
564087.06	4188141.25	1.21E-07	1.26E-07	1.08E-08	1.08E-08	1.08E-08	2.79E-07
564086.94	4188131.5	1.18E-07	1.23E-07	1.05E-08	1.05E-08	1.05E-08	2.72E-07
564086.75	4188122	1.14E-07	1.2E-07	1.02E-08	1.02E-08	1.02E-08	2.65E-07
564086.63	4188112.25	1.11E-07	1.17E-07	9.93E-09	9.93E-09	9.93E-09	2.58E-07
564086.5	4188102.5	1.08E-07	1.14E-07	9.65E-09	9.65E-09	9.65E-09	2.50E-07
564086.38	4188092.75	1.05E-07	1.11E-07	9.37E-09	9.37E-09	9.37E-09	2.44E-07
564086.25	4188083.25	1.02E-07	1.08E-07	9.1E-09	9.1E-09	9.1E-09	2.37E-07
564086.13	4188073.5	9.84E-08	1.05E-07	8.81E-09	8.81E-09	8.81E-09	2.29E-07
564085.75	4188044.5	8.89E-08	9.51E-08	7.94E-09	7.94E-09	7.94E-09	2.08E-07
564085.63	4188034.75	8.62E-08	9.23E-08	7.69E-09	7.69E-09	7.69E-09	2.02E-07
564085.5	4188025	8.4E-08	9E-08	7.49E-09	7.49E-09	7.49E-09	1.97E-07
564085.31	4188015.25	8.24E-08	8.81E-08	7.34E-09	7.34E-09	7.34E-09	1.92E-07

564085.19	4188005.75	8.12E-08	8.67E-08	7.22E-09	7.22E-09	7.22E-09	1.90E-07
564085.06	4187996	8.04E-08	8.55E-08	7.14E-09	7.14E-09	7.14E-09	1.87E-07
564084.94	4187986.25	7.97E-08	8.44E-08	7.07E-09	7.07E-09	7.07E-09	1.85E-07
564292.63	4188375.75	1.86E-07	1.62E-07	1.49E-08	1.49E-08	1.49E-08	3.92E-07
564302.5	4188377.25	1.86E-07	1.62E-07	1.48E-08	1.48E-08	1.48E-08	3.92E-07
564312.31	4188378.75	1.85E-07	1.61E-07	1.48E-08	1.48E-08	1.48E-08	3.91E-07
564322.19	4188380.25	1.85E-07	1.6E-07	1.47E-08	1.47E-08	1.47E-08	3.89E-07
564332.06	4188382	1.84E-07	1.59E-07	1.46E-08	1.46E-08	1.46E-08	3.87E-07
564341.94	4188383.5	1.84E-07	1.59E-07	1.45E-08	1.45E-08	1.45E-08	3.86E-07
564351.75	4188385	1.84E-07	1.58E-07	1.45E-08	1.45E-08	1.45E-08	3.85E-07
564361.63	4188386.5	1.84E-07	1.57E-07	1.44E-08	1.44E-08	1.44E-08	3.85E-07
564371.5	4188388.25	1.83E-07	1.57E-07	1.44E-08	1.44E-08	1.44E-08	3.83E-07
564381.31	4188389.75	1.83E-07	1.56E-07	1.43E-08	1.43E-08	1.43E-08	3.82E-07
564391.19	4188391.25	1.83E-07	1.56E-07	1.43E-08	1.43E-08	1.43E-08	3.81E-07
564401.06	4188393	1.82E-07	1.55E-07	1.42E-08	1.42E-08	1.42E-08	3.79E-07
564410.88	4188394.5	1.81E-07	1.55E-07	1.42E-08	1.42E-08	1.42E-08	3.79E-07
564420.75	4188396	1.81E-07	1.54E-07	1.42E-08	1.42E-08	1.42E-08	3.78E-07
564430.63	4188397.5	1.81E-07	1.55E-07	1.42E-08	1.42E-08	1.42E-08	3.79E-07
564440.5	4188399.25	1.81E-07	1.55E-07	1.42E-08	1.42E-08	1.42E-08	3.79E-07
564450.31	4188400.75	1.82E-07	1.56E-07	1.43E-08	1.43E-08	1.43E-08	3.80E-07
564470.06	4188403.75	1.82E-07	1.56E-07	1.44E-08	1.44E-08	1.44E-08	3.82E-07
564479.88	4188405.5	1.82E-07	1.56E-07	1.44E-08	1.44E-08	1.44E-08	3.81E-07
564489.75	4188407	1.81E-07	1.56E-07	1.43E-08	1.43E-08	1.43E-08	3.80E-07
564499.63	4188408.5	1.8E-07	1.54E-07	1.42E-08	1.42E-08	1.42E-08	3.77E-07
564509.44	4188410	1.79E-07	1.53E-07	1.41E-08	1.41E-08	1.41E-08	3.74E-07
564519.31	4188411.75	1.76E-07	1.51E-07	1.39E-08	1.39E-08	1.39E-08	3.69E-07
564529.19	4188413.25	1.74E-07	1.49E-07	1.36E-08	1.36E-08	1.36E-08	3.64E-07
564539	4188414.75	1.72E-07	1.46E-07	1.34E-08	1.34E-08	1.34E-08	3.58E-07
564548.88	4188416.5	1.69E-07	1.44E-07	1.31E-08	1.31E-08	1.31E-08	3.52E-07
564558.75	4188418	1.66E-07	1.41E-07	1.29E-08	1.29E-08	1.29E-08	3.45E-07
564283.25	4188380	1.8E-07	1.58E-07	1.44E-08	1.44E-08	1.44E-08	3.81E-07
564275.38	4188374.25	1.83E-07	1.61E-07	1.47E-08	1.47E-08	1.47E-08	3.88E-07
564267.5	4188368.5	1.86E-07	1.64E-07	1.5E-08	1.5E-08	1.5E-08	3.95E-07
564228.31	4188340.25	1.95E-07	1.73E-07	1.59E-08	1.59E-08	1.59E-08	4.16E-07
564220.5	4188334.75	1.96E-07	1.75E-07	1.6E-08	1.6E-08	1.6E-08	4.19E-07
564212.63	4188329	1.97E-07	1.76E-07	1.62E-08	1.62E-08	1.62E-08	4.22E-07
564204.81	4188323.5	1.97E-07	1.78E-07	1.63E-08	1.63E-08	1.63E-08	4.24E-07
564197	4188317.75	1.98E-07	1.79E-07	1.64E-08	1.64E-08	1.64E-08	4.26E-07
564189.13	4188312.25	1.97E-07	1.8E-07	1.65E-08	1.65E-08	1.65E-08	4.27E-07
564181.31	4188306.5	1.97E-07	1.8E-07	1.65E-08	1.65E-08	1.65E-08	4.27E-07
564173.44	4188300.75	1.96E-07	1.8E-07	1.65E-08	1.65E-08	1.65E-08	4.25E-07
564165.63	4188295.25	1.93E-07	1.8E-07	1.64E-08	1.64E-08	1.64E-08	4.22E-07
564157.75	4188289.5	1.91E-07	1.79E-07	1.62E-08	1.62E-08	1.62E-08	4.18E-07
564102.88	4188250	1.58E-07	1.54E-07	1.38E-08	1.38E-08	1.38E-08	3.53E-07
564095.06	4188244.25	1.51E-07	1.48E-07	1.32E-08	1.32E-08	1.32E-08	3.39E-07
564079.25	4188223.5	1.35E-07	1.35E-07	1.19E-08	1.19E-08	1.19E-08	3.06E-07
564079.06	4188213.75	1.34E-07	1.34E-07	1.18E-08	1.18E-08	1.18E-08	3.03E-07

564078.94	4188204	1.31E-07	1.33E-07	1.16E-08	1.16E-08	1.16E-08	2.99E-07
564078.81	4188194.5	1.29E-07	1.31E-07	1.14E-08	1.14E-08	1.14E-08	2.94E-07
564078.69	4188184.75	1.27E-07	1.29E-07	1.12E-08	1.12E-08	1.12E-08	2.89E-07
564078.56	4188175	1.24E-07	1.27E-07	1.1E-08	1.1E-08	1.1E-08	2.84E-07
564078.19	4188146	1.16E-07	1.2E-07	1.03E-08	1.03E-08	1.03E-08	2.66E-07
564078.06	4188136.5	1.13E-07	1.17E-07	1E-08	1E-08	1E-08	2.60E-07
564077.94	4188126.75	1.1E-07	1.15E-07	9.77E-09	9.77E-09	9.77E-09	2.53E-07
564077.75	4188117.25	1.07E-07	1.12E-07	9.51E-09	9.51E-09	9.51E-09	2.47E-07
564077.63	4188107.5	1.04E-07	1.09E-07	9.25E-09	9.25E-09	9.25E-09	2.40E-07
564077.5	4188097.75	1.01E-07	1.06E-07	9E-09	9E-09	9E-09	2.34E-07
564077.38	4188088.25	9.77E-08	1.04E-07	8.75E-09	8.75E-09	8.75E-09	2.28E-07
564077.25	4188078.5	9.48E-08	1.01E-07	8.48E-09	8.48E-09	8.48E-09	2.21E-07
564077.13	4188068.75	9.18E-08	9.78E-08	8.21E-09	8.21E-09	8.21E-09	2.14E-07
564076.75	4188039.75	8.32E-08	8.91E-08	7.42E-09	7.42E-09	7.42E-09	1.95E-07
564076.63	4188030.25	8.1E-08	8.67E-08	7.22E-09	7.22E-09	7.22E-09	1.89E-07
564076.5	4188020.5	7.92E-08	8.47E-08	7.05E-09	7.05E-09	7.05E-09	1.85E-07
564076.31	4188010.75	7.78E-08	8.31E-08	6.92E-09	6.92E-09	6.92E-09	1.82E-07
564076.19	4188001.25	7.69E-08	8.19E-08	6.83E-09	6.83E-09	6.83E-09	1.79E-07
564076.06	4187991.5	7.61E-08	8.08E-08	6.75E-09	6.75E-09	6.75E-09	1.77E-07
564075.94	4187981.75	7.55E-08	7.99E-08	6.69E-09	6.69E-09	6.69E-09	1.76E-07
564266	4188378.5	1.77E-07	1.56E-07	1.43E-08	1.43E-08	1.43E-08	3.76E-07
564226.94	4188350.25	1.86E-07	1.65E-07	1.51E-08	1.51E-08	1.51E-08	3.96E-07
564219.06	4188344.75	1.86E-07	1.66E-07	1.52E-08	1.52E-08	1.52E-08	3.98E-07
564211.25	4188339	1.88E-07	1.68E-07	1.54E-08	1.54E-08	1.54E-08	4.01E-07
564203.44	4188333.5	1.88E-07	1.69E-07	1.55E-08	1.55E-08	1.55E-08	4.04E-07
564195.63	4188327.75	1.89E-07	1.71E-07	1.56E-08	1.56E-08	1.56E-08	4.06E-07
564187.81	4188322.25	1.89E-07	1.71E-07	1.57E-08	1.57E-08	1.57E-08	4.07E-07
564180	4188316.5	1.89E-07	1.72E-07	1.57E-08	1.57E-08	1.57E-08	4.08E-07
564172.19	4188311	1.88E-07	1.72E-07	1.57E-08	1.57E-08	1.57E-08	4.07E-07
564164.31	4188305.25	1.86E-07	1.72E-07	1.57E-08	1.57E-08	1.57E-08	4.05E-07
564156.5	4188299.75	1.84E-07	1.71E-07	1.56E-08	1.56E-08	1.56E-08	4.02E-07
564148.69	4188294	1.82E-07	1.7E-07	1.55E-08	1.55E-08	1.55E-08	3.98E-07
564140.88	4188288.5	1.79E-07	1.68E-07	1.53E-08	1.53E-08	1.53E-08	3.93E-07
564133.06	4188282.75	1.75E-07	1.66E-07	1.5E-08	1.5E-08	1.5E-08	3.86E-07
564070.38	4188228	1.29E-07	1.29E-07	1.13E-08	1.13E-08	1.13E-08	2.92E-07
564070.25	4188218.5	1.27E-07	1.28E-07	1.12E-08	1.12E-08	1.12E-08	2.89E-07
564070.06	4188208.75	1.25E-07	1.26E-07	1.1E-08	1.1E-08	1.1E-08	2.85E-07
564069.94	4188199.25	1.23E-07	1.25E-07	1.09E-08	1.09E-08	1.09E-08	2.81E-07
564069.81	4188189.5	1.21E-07	1.23E-07	1.07E-08	1.07E-08	1.07E-08	2.76E-07
564069.69	4188179.75	1.18E-07	1.21E-07	1.05E-08	1.05E-08	1.05E-08	2.71E-07
564069.56	4188170.25	1.16E-07	1.19E-07	1.03E-08	1.03E-08	1.03E-08	2.66E-07
564069.19	4188141.25	1.08E-07	1.12E-07	9.6E-09	9.6E-09	9.6E-09	2.49E-07
564069.06	4188131.75	1.05E-07	1.1E-07	9.36E-09	9.36E-09	9.36E-09	2.43E-07
564068.94	4188122	1.02E-07	1.07E-07	9.12E-09	9.12E-09	9.12E-09	2.37E-07
564068.81	4188112.5	9.95E-08	1.05E-07	8.88E-09	8.88E-09	8.88E-09	2.31E-07
564068.69	4188102.75	9.67E-08	1.02E-07	8.65E-09	8.65E-09	8.65E-09	2.25E-07
564068.5	4188093.25	9.41E-08	9.96E-08	8.41E-09	8.41E-09	8.41E-09	2.19E-07

564068.38	4188083.5	9.13E-08	9.7E-08	8.17E-09	8.17E-09	8.17E-09	2.13E-07
564068.25	4188073.75	8.86E-08	9.43E-08	7.92E-09	7.92E-09	7.92E-09	2.07E-07
564068.13	4188064.25	8.58E-08	9.16E-08	7.67E-09	7.67E-09	7.67E-09	2.00E-07
564067.88	4188045	8.05E-08	8.61E-08	7.18E-09	7.18E-09	7.18E-09	1.88E-07
564067.75	4188035.25	7.81E-08	8.37E-08	6.97E-09	6.97E-09	6.97E-09	1.83E-07
564067.63	4188025.75	7.63E-08	8.17E-08	6.79E-09	6.79E-09	6.79E-09	1.78E-07
564067.5	4188016	7.48E-08	8E-08	6.65E-09	6.65E-09	6.65E-09	1.75E-07
564067.38	4188006.5	7.37E-08	7.87E-08	6.55E-09	6.55E-09	6.55E-09	1.72E-07
564067.25	4187996.75	7.29E-08	7.76E-08	6.47E-09	6.47E-09	6.47E-09	1.70E-07
564067.06	4187987	7.23E-08	7.66E-08	6.4E-09	6.4E-09	6.4E-09	1.68E-07
564066.94	4187977.5	7.18E-08	7.58E-08	6.35E-09	6.35E-09	6.35E-09	1.67E-07
564279.81	4188399.5	1.62E-07	1.43E-07	1.31E-08	1.31E-08	1.31E-08	3.45E-07
564271.75	4188393.75	1.66E-07	1.46E-07	1.33E-08	1.33E-08	1.33E-08	3.52E-07
564223.25	4188358.75	1.77E-07	1.57E-07	1.44E-08	1.44E-08	1.44E-08	3.78E-07
564215.19	4188353	1.78E-07	1.59E-07	1.45E-08	1.45E-08	1.45E-08	3.80E-07
564207.13	4188347	1.79E-07	1.6E-07	1.47E-08	1.47E-08	1.47E-08	3.84E-07
564190.94	4188335.5	1.8E-07	1.63E-07	1.49E-08	1.49E-08	1.49E-08	3.88E-07
564158.63	4188312.25	1.78E-07	1.65E-07	1.5E-08	1.5E-08	1.5E-08	3.88E-07
564142.44	4188300.5	1.74E-07	1.63E-07	1.48E-08	1.48E-08	1.48E-08	3.81E-07
564134.38	4188294.75	1.71E-07	1.61E-07	1.46E-08	1.46E-08	1.46E-08	3.76E-07
564126.25	4188289	1.67E-07	1.59E-07	1.44E-08	1.44E-08	1.44E-08	3.70E-07
564118.19	4188283	1.64E-07	1.56E-07	1.41E-08	1.41E-08	1.41E-08	3.62E-07
564069.69	4188248.25	1.31E-07	1.29E-07	1.14E-08	1.14E-08	1.14E-08	2.94E-07
564061.5	4188232.25	1.23E-07	1.23E-07	1.08E-08	1.08E-08	1.08E-08	2.78E-07
564061.38	4188222.5	1.21E-07	1.22E-07	1.07E-08	1.07E-08	1.07E-08	2.75E-07
564061.19	4188212.5	1.19E-07	1.21E-07	1.05E-08	1.05E-08	1.05E-08	2.71E-07
564061.06	4188202.5	1.17E-07	1.19E-07	1.03E-08	1.03E-08	1.03E-08	2.67E-07
564060.94	4188192.5	1.15E-07	1.17E-07	1.02E-08	1.02E-08	1.02E-08	2.63E-07
564060.81	4188182.5	1.13E-07	1.16E-07	9.98E-09	9.98E-09	9.98E-09	2.58E-07
564060.69	4188172.5	1.1E-07	1.14E-07	9.78E-09	9.78E-09	9.78E-09	2.53E-07
564060.25	4188142.75	1.03E-07	1.07E-07	9.12E-09	9.12E-09	9.12E-09	2.37E-07
564059.19	4188063	8.13E-08	8.68E-08	7.27E-09	7.27E-09	7.27E-09	1.90E-07
564058.94	4188043.25	7.63E-08	8.17E-08	6.8E-09	6.8E-09	6.8E-09	1.78E-07
564058.75	4188033.25	7.41E-08	7.94E-08	6.6E-09	6.6E-09	6.6E-09	1.73E-07
564058.63	4188023.25	7.24E-08	7.74E-08	6.44E-09	6.44E-09	6.44E-09	1.69E-07
564058.5	4188013.25	7.1E-08	7.59E-08	6.31E-09	6.31E-09	6.31E-09	1.66E-07
564058.38	4188003.25	7.01E-08	7.47E-08	6.22E-09	6.22E-09	6.22E-09	1.63E-07
564058.25	4187993.25	6.94E-08	7.37E-08	6.15E-09	6.15E-09	6.15E-09	1.61E-07
564058.13	4187983.5	6.88E-08	7.28E-08	6.09E-09	6.09E-09	6.09E-09	1.60E-07
564058	4187973.5	6.83E-08	7.21E-08	6.04E-09	6.04E-09	6.04E-09	1.58E-07
564287.94	4188405.25	1.59E-07	1.4E-07	1.28E-08	1.28E-08	1.28E-08	3.37E-07
564297.75	4188406.75	1.59E-07	1.4E-07	1.27E-08	1.27E-08	1.27E-08	3.36E-07
564307.63	4188408.5	1.58E-07	1.39E-07	1.26E-08	1.26E-08	1.26E-08	3.35E-07
564317.5	4188410	1.58E-07	1.38E-07	1.26E-08	1.26E-08	1.26E-08	3.34E-07
564327.31	4188411.5	1.57E-07	1.37E-07	1.25E-08	1.25E-08	1.25E-08	3.32E-07
564337.19	4188413	1.57E-07	1.37E-07	1.25E-08	1.25E-08	1.25E-08	3.31E-07
564347.06	4188414.75	1.57E-07	1.36E-07	1.24E-08	1.24E-08	1.24E-08	3.30E-07

564356.94	4188416.25	1.57E-07	1.36E-07	1.24E-08	1.24E-08	1.24E-08	3.29E-07
564366.75	4188417.75	1.57E-07	1.35E-07	1.23E-08	1.23E-08	1.23E-08	3.29E-07
564376.63	4188419.5	1.56E-07	1.34E-07	1.23E-08	1.23E-08	1.23E-08	3.27E-07
564386.5	4188421	1.55E-07	1.34E-07	1.22E-08	1.22E-08	1.22E-08	3.26E-07
564396.31	4188422.5	1.55E-07	1.33E-07	1.22E-08	1.22E-08	1.22E-08	3.25E-07
564406.19	4188424	1.54E-07	1.33E-07	1.21E-08	1.21E-08	1.21E-08	3.24E-07
564416.06	4188425.75	1.54E-07	1.33E-07	1.21E-08	1.21E-08	1.21E-08	3.23E-07
564425.94	4188427.25	1.54E-07	1.33E-07	1.21E-08	1.21E-08	1.21E-08	3.23E-07
564435.75	4188428.75	1.54E-07	1.33E-07	1.21E-08	1.21E-08	1.21E-08	3.23E-07
564445.63	4188430.25	1.54E-07	1.33E-07	1.22E-08	1.22E-08	1.22E-08	3.24E-07
564465.31	4188433.5	1.55E-07	1.34E-07	1.23E-08	1.23E-08	1.23E-08	3.26E-07
564475.19	4188435	1.55E-07	1.35E-07	1.23E-08	1.23E-08	1.23E-08	3.27E-07
564485.06	4188436.5	1.55E-07	1.35E-07	1.23E-08	1.23E-08	1.23E-08	3.27E-07
564494.88	4188438.25	1.55E-07	1.34E-07	1.23E-08	1.23E-08	1.23E-08	3.26E-07
564504.75	4188439.75	1.54E-07	1.33E-07	1.22E-08	1.22E-08	1.22E-08	3.24E-07
564514.63	4188441.25	1.53E-07	1.32E-07	1.21E-08	1.21E-08	1.21E-08	3.22E-07
564524.5	4188443	1.51E-07	1.31E-07	1.2E-08	1.2E-08	1.2E-08	3.18E-07
564534.31	4188444.5	1.5E-07	1.29E-07	1.18E-08	1.18E-08	1.18E-08	3.15E-07
564544.19	4188446	1.48E-07	1.28E-07	1.16E-08	1.16E-08	1.16E-08	3.11E-07
564554.06	4188447.5	1.46E-07	1.26E-07	1.14E-08	1.14E-08	1.14E-08	3.06E-07
564609.13	4188159	5.69E-07	4.21E-07	3.86E-08	3.86E-08	3.86E-08	1.11E-06
564614.19	4188167.5	5.17E-07	3.89E-07	3.55E-08	3.55E-08	3.55E-08	1.01E-06
564619.44	4188175.75	4.71E-07	3.61E-07	3.28E-08	3.28E-08	3.28E-08	9.31E-07
564607.94	4188178.25	5.07E-07	3.81E-07	3.49E-08	3.49E-08	3.49E-08	9.93E-07
564615.38	4188186.25	4.56E-07	3.49E-07	3.18E-08	3.18E-08	3.18E-08	9.01E-07
564605.13	4188188.5	4.84E-07	3.66E-07	3.35E-08	3.35E-08	3.35E-08	9.50E-07
564620.25	4188194.75	4.18E-07	3.25E-07	2.95E-08	2.95E-08	2.95E-08	8.32E-07
564609.44	4188197	4.43E-07	3.4E-07	3.1E-08	3.1E-08	3.1E-08	8.77E-07
564625.25	4188203	3.85E-07	3.04E-07	2.74E-08	2.74E-08	2.74E-08	7.71E-07
564614.06	4188205.5	4.07E-07	3.17E-07	2.88E-08	2.88E-08	2.88E-08	8.11E-07
564602.88	4188208	4.31E-07	3.31E-07	3.02E-08	3.02E-08	3.02E-08	8.52E-07
564630.44	4188211.5	3.55E-07	2.84E-07	2.55E-08	2.55E-08	2.55E-08	7.16E-07
564618.94	4188214	3.75E-07	2.96E-07	2.68E-08	2.68E-08	2.68E-08	7.51E-07
564607.38	4188216.5	3.96E-07	3.09E-07	2.81E-08	2.81E-08	2.81E-08	7.89E-07
564626.31	4188221.75	3.43E-07	2.75E-07	2.48E-08	2.48E-08	2.48E-08	6.92E-07
564615.56	4188224.25	3.6E-07	2.85E-07	2.58E-08	2.58E-08	2.58E-08	7.22E-07
564604.75	4188226.75	3.78E-07	2.96E-07	2.69E-08	2.69E-08	2.69E-08	7.54E-07
564631.25	4188230.25	3.19E-07	2.58E-07	2.32E-08	2.32E-08	2.32E-08	6.46E-07
564620.19	4188232.75	3.34E-07	2.67E-07	2.41E-08	2.41E-08	2.41E-08	6.73E-07
564609.13	4188235.25	3.5E-07	2.77E-07	2.51E-08	2.51E-08	2.51E-08	7.03E-07
564598.06	4188237.75	3.69E-07	2.88E-07	2.63E-08	2.63E-08	2.63E-08	7.36E-07
564625	4188241.25	3.1E-07	2.51E-07	2.26E-08	2.26E-08	2.26E-08	6.29E-07
564711.38	4188159.5	2.72E-07	2.32E-07	2.03E-08	2.03E-08	2.03E-08	5.65E-07
564716.5	4188172.25	2.54E-07	2.18E-07	1.91E-08	1.91E-08	1.91E-08	5.29E-07
564641.38	4188247	2.77E-07	2.28E-07	2.04E-08	2.04E-08	2.04E-08	5.67E-07
564595.38	4188257.25	3.35E-07	2.65E-07	2.41E-08	2.41E-08	2.41E-08	6.72E-07
564721.13	4188161.5	2.55E-07	2.2E-07	1.92E-08	1.92E-08	1.92E-08	5.33E-07

564726.25	4188174.5	2.39E-07	2.06E-07	1.8E-08	1.8E-08	1.8E-08	4.99E-07
564719.5	4188184.5	2.4E-07	2.07E-07	1.81E-08	1.81E-08	1.81E-08	5.01E-07
564611.5	4188263.25	2.97E-07	2.4E-07	2.17E-08	2.17E-08	2.17E-08	6.02E-07
564599.81	4188266	3.12E-07	2.49E-07	2.26E-08	2.26E-08	2.26E-08	6.29E-07
564730.88	4188163.75	2.4E-07	2.08E-07	1.82E-08	1.82E-08	1.82E-08	5.03E-07
564736.13	4188176.5	2.25E-07	1.96E-07	1.71E-08	1.71E-08	1.71E-08	4.72E-07
564729.69	4188186	2.27E-07	1.96E-07	1.72E-08	1.72E-08	1.72E-08	4.74E-07
564723.25	4188195.5	2.27E-07	1.96E-07	1.72E-08	1.72E-08	1.72E-08	4.75E-07
564642.25	4188266	2.51E-07	2.09E-07	1.87E-08	1.87E-08	1.87E-08	5.17E-07
564631.06	4188268.5	2.62E-07	2.16E-07	1.94E-08	1.94E-08	1.94E-08	5.37E-07
564619.88	4188271	2.74E-07	2.24E-07	2.01E-08	2.01E-08	2.01E-08	5.59E-07
564608.69	4188273.5	2.87E-07	2.32E-07	2.1E-08	2.1E-08	2.1E-08	5.82E-07
564597.5	4188276	3E-07	2.4E-07	2.18E-08	2.18E-08	2.18E-08	6.05E-07
564740.69	4188166	2.27E-07	1.97E-07	1.72E-08	1.72E-08	1.72E-08	4.76E-07
564745.88	4188178.75	2.13E-07	1.86E-07	1.62E-08	1.62E-08	1.62E-08	4.48E-07
564739.31	4188188.5	2.14E-07	1.87E-07	1.63E-08	1.63E-08	1.63E-08	4.50E-07
564732.75	4188198	2.15E-07	1.87E-07	1.63E-08	1.63E-08	1.63E-08	4.51E-07
564670	4188269.25	2.19E-07	1.86E-07	1.65E-08	1.65E-08	1.65E-08	4.55E-07
564658.63	4188271.75	2.27E-07	1.92E-07	1.71E-08	1.71E-08	1.71E-08	4.71E-07
564647.31	4188274.25	2.36E-07	1.98E-07	1.77E-08	1.77E-08	1.77E-08	4.88E-07
564635.94	4188276.75	2.47E-07	2.05E-07	1.83E-08	1.83E-08	1.83E-08	5.07E-07
564624.56	4188279.5	2.57E-07	2.12E-07	1.9E-08	1.9E-08	1.9E-08	5.26E-07
564613.25	4188282	2.69E-07	2.19E-07	1.98E-08	1.98E-08	1.98E-08	5.48E-07
564601.88	4188284.5	2.81E-07	2.27E-07	2.06E-08	2.06E-08	2.06E-08	5.70E-07
564590.5	4188287	2.93E-07	2.35E-07	2.14E-08	2.14E-08	2.14E-08	5.91E-07
564750.44	4188168	2.14E-07	1.88E-07	1.63E-08	1.63E-08	1.63E-08	4.51E-07
564755.56	4188181	2.02E-07	1.77E-07	1.54E-08	1.54E-08	1.54E-08	4.25E-07
564748.94	4188190.75	2.03E-07	1.78E-07	1.55E-08	1.55E-08	1.55E-08	4.27E-07
564742.31	4188200.5	2.04E-07	1.78E-07	1.55E-08	1.55E-08	1.55E-08	4.28E-07
564735.69	4188210.25	2.04E-07	1.78E-07	1.55E-08	1.55E-08	1.55E-08	4.28E-07
564686.94	4188275	1.99E-07	1.72E-07	1.51E-08	1.51E-08	1.51E-08	4.16E-07
564675.44	4188277.5	2.06E-07	1.77E-07	1.56E-08	1.56E-08	1.56E-08	4.30E-07
564663.88	4188280.25	2.14E-07	1.82E-07	1.61E-08	1.61E-08	1.61E-08	4.45E-07
564652.38	4188282.75	2.23E-07	1.88E-07	1.67E-08	1.67E-08	1.67E-08	4.61E-07
564640.88	4188285.25	2.32E-07	1.94E-07	1.73E-08	1.73E-08	1.73E-08	4.78E-07
564629.38	4188287.75	2.42E-07	2.01E-07	1.8E-08	1.8E-08	1.8E-08	4.97E-07
564617.88	4188290.5	2.53E-07	2.08E-07	1.87E-08	1.87E-08	1.87E-08	5.17E-07
564606.38	4188293	2.64E-07	2.15E-07	1.94E-08	1.94E-08	1.94E-08	5.37E-07
564594.81	4188295.5	2.74E-07	2.22E-07	2.02E-08	2.02E-08	2.02E-08	5.57E-07
564760.19	4188170.25	2.03E-07	1.79E-07	1.55E-08	1.55E-08	1.55E-08	4.28E-07
564765.31	4188183.25	1.91E-07	1.69E-07	1.47E-08	1.47E-08	1.47E-08	4.04E-07
564758.56	4188193	1.93E-07	1.7E-07	1.48E-08	1.48E-08	1.48E-08	4.06E-07
564751.88	4188203	1.93E-07	1.7E-07	1.48E-08	1.48E-08	1.48E-08	4.07E-07
564745.19	4188212.75	1.94E-07	1.7E-07	1.48E-08	1.48E-08	1.48E-08	4.08E-07
564738.5	4188222.75	1.94E-07	1.69E-07	1.48E-08	1.48E-08	1.48E-08	4.07E-07
564692.5	4188283.25	1.88E-07	1.63E-07	1.44E-08	1.44E-08	1.44E-08	3.95E-07
564680.81	4188286	1.95E-07	1.68E-07	1.48E-08	1.48E-08	1.48E-08	4.08E-07

564669.19	4188288.5	2.02E-07	1.73E-07	1.53E-08	1.53E-08	1.53E-08	4.22E-07
564657.5	4188291	2.1E-07	1.79E-07	1.59E-08	1.59E-08	1.59E-08	4.37E-07
564645.88	4188293.75	2.19E-07	1.85E-07	1.64E-08	1.64E-08	1.64E-08	4.53E-07
564634.25	4188296.25	2.28E-07	1.91E-07	1.7E-08	1.7E-08	1.7E-08	4.70E-07
564622.56	4188299	2.38E-07	1.97E-07	1.77E-08	1.77E-08	1.77E-08	4.88E-07
564610.94	4188301.5	2.48E-07	2.04E-07	1.84E-08	1.84E-08	1.84E-08	5.07E-07
564599.31	4188304	2.58E-07	2.11E-07	1.91E-08	1.91E-08	1.91E-08	5.26E-07
564587.69	4188306.75	2.67E-07	2.16E-07	1.97E-08	1.97E-08	1.97E-08	5.43E-07
564769.94	4188172.5	1.92E-07	1.7E-07	1.48E-08	1.48E-08	1.48E-08	4.07E-07
564775.19	4188185.25	1.82E-07	1.61E-07	1.4E-08	1.4E-08	1.4E-08	3.85E-07
564768.69	4188194.75	1.83E-07	1.62E-07	1.41E-08	1.41E-08	1.41E-08	3.87E-07
564762.19	4188204.25	1.84E-07	1.62E-07	1.41E-08	1.41E-08	1.41E-08	3.88E-07
564755.75	4188214	1.84E-07	1.62E-07	1.41E-08	1.41E-08	1.41E-08	3.88E-07
564749.25	4188223.5	1.84E-07	1.62E-07	1.41E-08	1.41E-08	1.41E-08	3.88E-07
564742.75	4188233	1.84E-07	1.61E-07	1.41E-08	1.41E-08	1.41E-08	3.87E-07
564698.31	4188291.5	1.78E-07	1.55E-07	1.36E-08	1.36E-08	1.36E-08	3.75E-07
564687	4188294	1.84E-07	1.6E-07	1.41E-08	1.41E-08	1.41E-08	3.86E-07
564675.75	4188296.5	1.91E-07	1.64E-07	1.45E-08	1.45E-08	1.45E-08	3.99E-07
564664.5	4188299	1.98E-07	1.69E-07	1.5E-08	1.5E-08	1.5E-08	4.12E-07
564653.25	4188301.5	2.05E-07	1.75E-07	1.55E-08	1.55E-08	1.55E-08	4.26E-07
564642	4188304	2.13E-07	1.8E-07	1.6E-08	1.6E-08	1.6E-08	4.42E-07
564630.75	4188306.5	2.22E-07	1.86E-07	1.66E-08	1.66E-08	1.66E-08	4.58E-07
564619.5	4188309.25	2.31E-07	1.92E-07	1.72E-08	1.72E-08	1.72E-08	4.74E-07
564608.25	4188311.75	2.39E-07	1.97E-07	1.78E-08	1.78E-08	1.78E-08	4.90E-07
564596.94	4188314.25	2.48E-07	2.03E-07	1.84E-08	1.84E-08	1.84E-08	5.06E-07
564585.69	4188316.75	2.56E-07	2.08E-07	1.9E-08	1.9E-08	1.9E-08	5.21E-07
564779.69	4188174.5	1.83E-07	1.63E-07	1.41E-08	1.41E-08	1.41E-08	3.88E-07
564784.88	4188187.5	1.73E-07	1.54E-07	1.34E-08	1.34E-08	1.34E-08	3.67E-07
564778.31	4188197	1.74E-07	1.55E-07	1.34E-08	1.34E-08	1.34E-08	3.69E-07
564771.81	4188206.75	1.75E-07	1.55E-07	1.35E-08	1.35E-08	1.35E-08	3.70E-07
564765.25	4188216.5	1.75E-07	1.55E-07	1.35E-08	1.35E-08	1.35E-08	3.71E-07
564758.69	4188226	1.75E-07	1.55E-07	1.35E-08	1.35E-08	1.35E-08	3.71E-07
564752.13	4188235.75	1.75E-07	1.54E-07	1.35E-08	1.35E-08	1.35E-08	3.70E-07
564703.88	4188299.75	1.69E-07	1.48E-07	1.3E-08	1.3E-08	1.3E-08	3.57E-07
564692.44	4188302.25	1.75E-07	1.53E-07	1.34E-08	1.34E-08	1.34E-08	3.68E-07
564681.06	4188305	1.81E-07	1.57E-07	1.38E-08	1.38E-08	1.38E-08	3.79E-07
564669.69	4188307.5	1.87E-07	1.61E-07	1.42E-08	1.42E-08	1.42E-08	3.91E-07
564658.31	4188310	1.94E-07	1.66E-07	1.47E-08	1.47E-08	1.47E-08	4.05E-07
564646.88	4188312.5	2.02E-07	1.72E-07	1.52E-08	1.52E-08	1.52E-08	4.19E-07
564635.5	4188315	2.1E-07	1.77E-07	1.58E-08	1.58E-08	1.58E-08	4.34E-07
564624.13	4188317.5	2.18E-07	1.83E-07	1.64E-08	1.64E-08	1.64E-08	4.50E-07
564612.75	4188320.25	2.26E-07	1.88E-07	1.69E-08	1.69E-08	1.69E-08	4.64E-07
564601.31	4188322.75	2.34E-07	1.93E-07	1.74E-08	1.74E-08	1.74E-08	4.79E-07
564589.94	4188325.25	2.41E-07	1.98E-07	1.8E-08	1.8E-08	1.8E-08	4.93E-07
564789.5	4188176.75	1.74E-07	1.56E-07	1.34E-08	1.34E-08	1.34E-08	3.70E-07
564794.63	4188189.75	1.65E-07	1.48E-07	1.28E-08	1.28E-08	1.28E-08	3.51E-07
564788	4188199.5	1.66E-07	1.48E-07	1.28E-08	1.28E-08	1.28E-08	3.52E-07

564781.38	4188209.25	1.66E-07	1.48E-07	1.29E-08	1.29E-08	1.29E-08	3.53E-07
564774.75	4188219	1.67E-07	1.48E-07	1.29E-08	1.29E-08	1.29E-08	3.54E-07
564768.13	4188228.75	1.67E-07	1.48E-07	1.29E-08	1.29E-08	1.29E-08	3.54E-07
564761.5	4188238.5	1.67E-07	1.48E-07	1.29E-08	1.29E-08	1.29E-08	3.53E-07
564754.88	4188248.25	1.66E-07	1.47E-07	1.28E-08	1.28E-08	1.28E-08	3.52E-07
564709.44	4188308	1.61E-07	1.42E-07	1.24E-08	1.24E-08	1.24E-08	3.40E-07
564697.88	4188310.75	1.66E-07	1.46E-07	1.28E-08	1.28E-08	1.28E-08	3.50E-07
564686.38	4188313.25	1.72E-07	1.5E-07	1.31E-08	1.31E-08	1.31E-08	3.61E-07
564674.88	4188315.75	1.78E-07	1.54E-07	1.36E-08	1.36E-08	1.36E-08	3.73E-07
564663.38	4188318.25	1.84E-07	1.59E-07	1.4E-08	1.4E-08	1.4E-08	3.85E-07
564651.88	4188321	1.91E-07	1.64E-07	1.45E-08	1.45E-08	1.45E-08	3.99E-07
564640.38	4188323.5	1.99E-07	1.69E-07	1.5E-08	1.5E-08	1.5E-08	4.13E-07
564628.88	4188326	2.06E-07	1.74E-07	1.55E-08	1.55E-08	1.55E-08	4.27E-07
564617.31	4188328.75	2.14E-07	1.79E-07	1.61E-08	1.61E-08	1.61E-08	4.41E-07
564605.81	4188331.25	2.21E-07	1.84E-07	1.66E-08	1.66E-08	1.66E-08	4.54E-07
564594.31	4188333.75	2.28E-07	1.88E-07	1.7E-08	1.7E-08	1.7E-08	4.67E-07
564582.81	4188336.25	2.34E-07	1.92E-07	1.75E-08	1.75E-08	1.75E-08	4.78E-07
564799.25	4188179	1.65E-07	1.49E-07	1.29E-08	1.29E-08	1.29E-08	3.53E-07
564804.38	4188192	1.57E-07	1.42E-07	1.22E-08	1.22E-08	1.22E-08	3.35E-07
564797.69	4188201.75	1.58E-07	1.42E-07	1.23E-08	1.23E-08	1.23E-08	3.37E-07
564791	4188211.5	1.59E-07	1.42E-07	1.23E-08	1.23E-08	1.23E-08	3.38E-07
564784.31	4188221.5	1.59E-07	1.42E-07	1.23E-08	1.23E-08	1.23E-08	3.39E-07
564777.63	4188231.25	1.6E-07	1.42E-07	1.23E-08	1.23E-08	1.23E-08	3.39E-07
564770.94	4188241.25	1.59E-07	1.42E-07	1.23E-08	1.23E-08	1.23E-08	3.38E-07
564764.25	4188251	1.59E-07	1.41E-07	1.23E-08	1.23E-08	1.23E-08	3.37E-07
564703.38	4188319	1.58E-07	1.39E-07	1.22E-08	1.22E-08	1.22E-08	3.34E-07
564691.75	4188321.5	1.63E-07	1.43E-07	1.25E-08	1.25E-08	1.25E-08	3.44E-07
564680.13	4188324.25	1.69E-07	1.47E-07	1.29E-08	1.29E-08	1.29E-08	3.55E-07
564668.5	4188326.75	1.75E-07	1.52E-07	1.34E-08	1.34E-08	1.34E-08	3.67E-07
564656.88	4188329.25	1.82E-07	1.56E-07	1.38E-08	1.38E-08	1.38E-08	3.80E-07
564645.25	4188332	1.89E-07	1.61E-07	1.43E-08	1.43E-08	1.43E-08	3.93E-07
564633.63	4188334.5	1.96E-07	1.66E-07	1.48E-08	1.48E-08	1.48E-08	4.06E-07
564622	4188337.25	2.02E-07	1.7E-07	1.53E-08	1.53E-08	1.53E-08	4.19E-07
564610.38	4188339.75	2.09E-07	1.75E-07	1.57E-08	1.57E-08	1.57E-08	4.31E-07
564809	4188181.25	1.58E-07	1.43E-07	1.23E-08	1.23E-08	1.23E-08	3.37E-07
564814.19	4188194	1.5E-07	1.36E-07	1.17E-08	1.17E-08	1.17E-08	3.21E-07
564807.69	4188203.5	1.51E-07	1.36E-07	1.18E-08	1.18E-08	1.18E-08	3.23E-07
564801.19	4188213	1.52E-07	1.36E-07	1.18E-08	1.18E-08	1.18E-08	3.24E-07
564794.69	4188222.75	1.52E-07	1.36E-07	1.18E-08	1.18E-08	1.18E-08	3.24E-07
564788.19	4188232.25	1.52E-07	1.36E-07	1.18E-08	1.18E-08	1.18E-08	3.24E-07
564781.69	4188241.75	1.52E-07	1.36E-07	1.18E-08	1.18E-08	1.18E-08	3.24E-07
564775.19	4188251.5	1.52E-07	1.36E-07	1.18E-08	1.18E-08	1.18E-08	3.23E-07
564768.69	4188261	1.52E-07	1.35E-07	1.18E-08	1.18E-08	1.18E-08	3.22E-07
564709.44	4188327	1.5E-07	1.33E-07	1.16E-08	1.16E-08	1.16E-08	3.18E-07
564698.19	4188329.75	1.55E-07	1.36E-07	1.2E-08	1.2E-08	1.2E-08	3.27E-07
564686.88	4188332.25	1.6E-07	1.4E-07	1.23E-08	1.23E-08	1.23E-08	3.37E-07
564675.56	4188334.75	1.66E-07	1.44E-07	1.27E-08	1.27E-08	1.27E-08	3.48E-07

564664.25	4188337.25	1.72E-07	1.48E-07	1.31E-08	1.31E-08	1.31E-08	3.59E-07
564652.94	4188339.75	1.78E-07	1.53E-07	1.35E-08	1.35E-08	1.35E-08	3.71E-07
564641.63	4188342.25	1.84E-07	1.57E-07	1.4E-08	1.4E-08	1.4E-08	3.83E-07
564630.31	4188344.75	1.9E-07	1.62E-07	1.44E-08	1.44E-08	1.44E-08	3.95E-07
564818.75	4188183.25	1.51E-07	1.37E-07	1.18E-08	1.18E-08	1.18E-08	3.23E-07
564823.94	4188196.25	1.44E-07	1.3E-07	1.12E-08	1.12E-08	1.12E-08	3.08E-07
564817.38	4188205.75	1.44E-07	1.31E-07	1.13E-08	1.13E-08	1.13E-08	3.09E-07
564810.81	4188215.5	1.45E-07	1.31E-07	1.13E-08	1.13E-08	1.13E-08	3.10E-07
564804.25	4188225.25	1.46E-07	1.31E-07	1.13E-08	1.13E-08	1.13E-08	3.11E-07
564797.69	4188234.75	1.46E-07	1.31E-07	1.14E-08	1.14E-08	1.14E-08	3.11E-07
564791.13	4188244.5	1.46E-07	1.31E-07	1.13E-08	1.13E-08	1.13E-08	3.11E-07
564784.56	4188254.25	1.46E-07	1.3E-07	1.13E-08	1.13E-08	1.13E-08	3.10E-07
564778	4188264	1.45E-07	1.3E-07	1.13E-08	1.13E-08	1.13E-08	3.09E-07
564771.44	4188273.5	1.45E-07	1.29E-07	1.12E-08	1.12E-08	1.12E-08	3.08E-07
564703.5	4188338	1.48E-07	1.31E-07	1.14E-08	1.14E-08	1.14E-08	3.13E-07
564692.13	4188340.5	1.53E-07	1.34E-07	1.18E-08	1.18E-08	1.18E-08	3.22E-07
564680.69	4188343	1.58E-07	1.38E-07	1.21E-08	1.21E-08	1.21E-08	3.33E-07
564669.25	4188345.5	1.64E-07	1.42E-07	1.25E-08	1.25E-08	1.25E-08	3.43E-07
564657.88	4188348.25	1.69E-07	1.46E-07	1.29E-08	1.29E-08	1.29E-08	3.54E-07
564589.44	4188363.5	2.01E-07	1.68E-07	1.52E-08	1.52E-08	1.52E-08	4.14E-07
564578	4188366	2.05E-07	1.7E-07	1.55E-08	1.55E-08	1.55E-08	4.21E-07
564828.5	4188185.5	1.44E-07	1.31E-07	1.13E-08	1.13E-08	1.13E-08	3.10E-07
564833.69	4188198.25	1.38E-07	1.25E-07	1.08E-08	1.08E-08	1.08E-08	2.95E-07
564827.06	4188208	1.38E-07	1.26E-07	1.08E-08	1.08E-08	1.08E-08	2.97E-07
564820.44	4188218	1.39E-07	1.26E-07	1.09E-08	1.09E-08	1.09E-08	2.97E-07
564813.81	4188227.75	1.39E-07	1.26E-07	1.09E-08	1.09E-08	1.09E-08	2.98E-07
564807.19	4188237.5	1.4E-07	1.26E-07	1.09E-08	1.09E-08	1.09E-08	2.98E-07
564800.56	4188247.25	1.4E-07	1.26E-07	1.09E-08	1.09E-08	1.09E-08	2.98E-07
564793.94	4188257	1.39E-07	1.25E-07	1.09E-08	1.09E-08	1.09E-08	2.98E-07
564787.31	4188266.75	1.39E-07	1.25E-07	1.08E-08	1.08E-08	1.08E-08	2.97E-07
564780.69	4188276.5	1.39E-07	1.25E-07	1.08E-08	1.08E-08	1.08E-08	2.96E-07
564741	4188335	1.32E-07	1.18E-07	1.03E-08	1.03E-08	1.03E-08	2.81E-07
564731.94	4188341.25	1.33E-07	1.19E-07	1.04E-08	1.04E-08	1.04E-08	2.83E-07
564697.38	4188348.75	1.46E-07	1.29E-07	1.13E-08	1.13E-08	1.13E-08	3.09E-07
564685.88	4188351.5	1.51E-07	1.32E-07	1.16E-08	1.16E-08	1.16E-08	3.18E-07
564616.81	4188366.75	1.82E-07	1.55E-07	1.39E-08	1.39E-08	1.39E-08	3.78E-07
564605.31	4188369.5	1.86E-07	1.58E-07	1.42E-08	1.42E-08	1.42E-08	3.87E-07
564593.81	4188372	1.91E-07	1.6E-07	1.45E-08	1.45E-08	1.45E-08	3.94E-07
564582.31	4188374.5	1.94E-07	1.63E-07	1.48E-08	1.48E-08	1.48E-08	4.01E-07
564838.25	4188187.75	1.38E-07	1.26E-07	1.08E-08	1.08E-08	1.08E-08	2.97E-07
564843.38	4188200.5	1.32E-07	1.21E-07	1.04E-08	1.04E-08	1.04E-08	2.84E-07
564836.75	4188210.5	1.33E-07	1.21E-07	1.04E-08	1.04E-08	1.04E-08	2.85E-07
564830.06	4188220.25	1.33E-07	1.21E-07	1.04E-08	1.04E-08	1.04E-08	2.86E-07
564823.38	4188230	1.34E-07	1.21E-07	1.05E-08	1.05E-08	1.05E-08	2.86E-07
564816.69	4188240	1.34E-07	1.21E-07	1.05E-08	1.05E-08	1.05E-08	2.86E-07
564810	4188249.75	1.34E-07	1.21E-07	1.05E-08	1.05E-08	1.05E-08	2.86E-07
564803.38	4188259.5	1.34E-07	1.21E-07	1.05E-08	1.05E-08	1.05E-08	2.86E-07

564796.69	4188269.5	1.33E-07	1.2E-07	1.04E-08	1.04E-08	1.04E-08	2.85E-07
564790	4188279.25	1.33E-07	1.2E-07	1.04E-08	1.04E-08	1.04E-08	2.84E-07
564783.31	4188289	1.33E-07	1.19E-07	1.04E-08	1.04E-08	1.04E-08	2.83E-07
564737.5	4188349.5	1.27E-07	1.14E-07	9.95E-09	9.95E-09	9.95E-09	2.72E-07
564702.69	4188357.25	1.39E-07	1.24E-07	1.08E-08	1.08E-08	1.08E-08	2.95E-07
564644.69	4188370.25	1.64E-07	1.41E-07	1.26E-08	1.26E-08	1.26E-08	3.43E-07
564633.06	4188372.75	1.69E-07	1.45E-07	1.29E-08	1.29E-08	1.29E-08	3.52E-07
564621.44	4188375.25	1.73E-07	1.48E-07	1.32E-08	1.32E-08	1.32E-08	3.61E-07
564609.88	4188378	1.77E-07	1.51E-07	1.35E-08	1.35E-08	1.35E-08	3.69E-07
564598.25	4188380.5	1.81E-07	1.53E-07	1.38E-08	1.38E-08	1.38E-08	3.76E-07
564586.69	4188383.25	1.85E-07	1.55E-07	1.41E-08	1.41E-08	1.41E-08	3.82E-07
564575.06	4188385.75	1.87E-07	1.57E-07	1.43E-08	1.43E-08	1.43E-08	3.88E-07
564848.06	4188189.75	1.32E-07	1.22E-07	1.04E-08	1.04E-08	1.04E-08	2.85E-07
564853.13	4188202.75	1.27E-07	1.16E-07	9.98E-09	9.98E-09	9.98E-09	2.73E-07
564846.44	4188212.75	1.27E-07	1.16E-07	1E-08	1E-08	1E-08	2.74E-07
564839.69	4188222.5	1.28E-07	1.17E-07	1E-08	1E-08	1E-08	2.75E-07
564832.94	4188232.5	1.28E-07	1.17E-07	1.01E-08	1.01E-08	1.01E-08	2.75E-07
564826.25	4188242.5	1.29E-07	1.17E-07	1.01E-08	1.01E-08	1.01E-08	2.75E-07
564819.5	4188252.25	1.29E-07	1.17E-07	1.01E-08	1.01E-08	1.01E-08	2.75E-07
564812.81	4188262.25	1.28E-07	1.16E-07	1.01E-08	1.01E-08	1.01E-08	2.75E-07
564806.06	4188272.25	1.28E-07	1.16E-07	1E-08	1E-08	1E-08	2.74E-07
564799.31	4188282	1.28E-07	1.16E-07	1E-08	1E-08	1E-08	2.74E-07
564792.63	4188292	1.27E-07	1.15E-07	9.97E-09	9.97E-09	9.97E-09	2.72E-07
564752.25	4188351.5	1.21E-07	1.09E-07	9.49E-09	9.49E-09	9.49E-09	2.59E-07
564661.25	4188376	1.52E-07	1.32E-07	1.17E-08	1.17E-08	1.17E-08	3.19E-07
564649.56	4188378.5	1.56E-07	1.36E-07	1.2E-08	1.2E-08	1.2E-08	3.28E-07
564637.88	4188381.25	1.61E-07	1.39E-07	1.24E-08	1.24E-08	1.24E-08	3.37E-07
564626.19	4188383.75	1.65E-07	1.42E-07	1.27E-08	1.27E-08	1.27E-08	3.45E-07
564614.5	4188386.5	1.69E-07	1.44E-07	1.29E-08	1.29E-08	1.29E-08	3.52E-07
564602.81	4188389	1.73E-07	1.47E-07	1.32E-08	1.32E-08	1.32E-08	3.59E-07
564591.13	4188391.75	1.76E-07	1.49E-07	1.35E-08	1.35E-08	1.35E-08	3.65E-07
564579.44	4188394.25	1.79E-07	1.51E-07	1.37E-08	1.37E-08	1.37E-08	3.70E-07
564857.81	4188192	1.27E-07	1.17E-07	1E-08	1E-08	1E-08	2.74E-07
564863	4188204.75	1.22E-07	1.12E-07	9.6E-09	9.6E-09	9.6E-09	2.62E-07
564856.38	4188214.5	1.22E-07	1.12E-07	9.64E-09	9.64E-09	9.64E-09	2.63E-07
564849.81	4188224.25	1.23E-07	1.12E-07	9.67E-09	9.67E-09	9.67E-09	2.64E-07
564843.25	4188234	1.23E-07	1.12E-07	9.69E-09	9.69E-09	9.69E-09	2.65E-07
564836.69	4188243.5	1.23E-07	1.12E-07	9.71E-09	9.71E-09	9.71E-09	2.65E-07
564830.13	4188253.25	1.24E-07	1.12E-07	9.71E-09	9.71E-09	9.71E-09	2.65E-07
564823.56	4188263	1.24E-07	1.12E-07	9.69E-09	9.69E-09	9.69E-09	2.65E-07
564817	4188272.75	1.23E-07	1.12E-07	9.67E-09	9.67E-09	9.67E-09	2.64E-07
564810.38	4188282.25	1.23E-07	1.12E-07	9.65E-09	9.65E-09	9.65E-09	2.64E-07
564803.81	4188292	1.23E-07	1.11E-07	9.62E-09	9.62E-09	9.62E-09	2.63E-07
564797.25	4188301.75	1.22E-07	1.11E-07	9.58E-09	9.58E-09	9.58E-09	2.61E-07
564691.69	4188378.75	1.36E-07	1.2E-07	1.05E-08	1.05E-08	1.05E-08	2.87E-07
564680.25	4188381.25	1.4E-07	1.23E-07	1.08E-08	1.08E-08	1.08E-08	2.96E-07
564668.88	4188383.75	1.44E-07	1.26E-07	1.11E-08	1.11E-08	1.11E-08	3.04E-07

564657.44	4188386.5	1.48E-07	1.29E-07	1.14E-08	1.14E-08	1.14E-08	3.12E-07
564646	4188389	1.52E-07	1.32E-07	1.17E-08	1.17E-08	1.17E-08	3.20E-07
564634.56	4188391.5	1.56E-07	1.35E-07	1.2E-08	1.2E-08	1.2E-08	3.27E-07
564623.13	4188394	1.6E-07	1.38E-07	1.23E-08	1.23E-08	1.23E-08	3.34E-07
564611.75	4188396.5	1.63E-07	1.4E-07	1.25E-08	1.25E-08	1.25E-08	3.41E-07
564600.31	4188399.25	1.66E-07	1.42E-07	1.28E-08	1.28E-08	1.28E-08	3.46E-07
564588.88	4188401.75	1.69E-07	1.44E-07	1.3E-08	1.3E-08	1.3E-08	3.52E-07
564577.44	4188404.25	1.71E-07	1.45E-07	1.32E-08	1.32E-08	1.32E-08	3.56E-07
564867.56	4188194.25	1.22E-07	1.13E-07	9.64E-09	9.64E-09	9.64E-09	2.64E-07
564872.69	4188207	1.17E-07	1.08E-07	9.25E-09	9.25E-09	9.25E-09	2.53E-07
564866.06	4188216.75	1.17E-07	1.08E-07	9.29E-09	9.29E-09	9.29E-09	2.54E-07
564859.5	4188226.5	1.18E-07	1.08E-07	9.32E-09	9.32E-09	9.32E-09	2.54E-07
564852.88	4188236.25	1.18E-07	1.08E-07	9.34E-09	9.34E-09	9.34E-09	2.55E-07
564846.25	4188246	1.19E-07	1.08E-07	9.35E-09	9.35E-09	9.35E-09	2.55E-07
564839.63	4188255.75	1.19E-07	1.08E-07	9.35E-09	9.35E-09	9.35E-09	2.55E-07
564833	4188265.5	1.19E-07	1.08E-07	9.35E-09	9.35E-09	9.35E-09	2.55E-07
564826.38	4188275.25	1.19E-07	1.08E-07	9.33E-09	9.33E-09	9.33E-09	2.55E-07
564819.75	4188285	1.18E-07	1.08E-07	9.31E-09	9.31E-09	9.31E-09	2.54E-07
564813.13	4188294.75	1.18E-07	1.07E-07	9.28E-09	9.28E-09	9.28E-09	2.53E-07
564806.5	4188304.75	1.17E-07	1.07E-07	9.24E-09	9.24E-09	9.24E-09	2.52E-07
564742.88	4188376.75	1.15E-07	1.04E-07	9.06E-09	9.06E-09	9.06E-09	2.47E-07
564731.38	4188379.25	1.19E-07	1.07E-07	9.3E-09	9.3E-09	9.3E-09	2.54E-07
564696.88	4188387	1.3E-07	1.15E-07	1.01E-08	1.01E-08	1.01E-08	2.76E-07
564685.38	4188389.75	1.34E-07	1.18E-07	1.04E-08	1.04E-08	1.04E-08	2.83E-07
564673.81	4188392.25	1.38E-07	1.21E-07	1.07E-08	1.07E-08	1.07E-08	2.91E-07
564662.31	4188394.75	1.42E-07	1.24E-07	1.1E-08	1.1E-08	1.1E-08	2.99E-07
564650.81	4188397.5	1.46E-07	1.27E-07	1.13E-08	1.13E-08	1.13E-08	3.06E-07
564639.31	4188400	1.49E-07	1.3E-07	1.15E-08	1.15E-08	1.15E-08	3.13E-07
564627.81	4188402.5	1.53E-07	1.32E-07	1.18E-08	1.18E-08	1.18E-08	3.20E-07
564616.31	4188405	1.56E-07	1.34E-07	1.2E-08	1.2E-08	1.2E-08	3.26E-07
564604.75	4188407.75	1.59E-07	1.36E-07	1.22E-08	1.22E-08	1.22E-08	3.32E-07
564593.25	4188410.25	1.61E-07	1.38E-07	1.24E-08	1.24E-08	1.24E-08	3.37E-07
564581.75	4188412.75	1.64E-07	1.39E-07	1.26E-08	1.26E-08	1.26E-08	3.41E-07
564570.25	4188415.5	1.65E-07	1.4E-07	1.27E-08	1.27E-08	1.27E-08	3.43E-07
564877.31	4188196.25	1.17E-07	1.09E-07	9.29E-09	9.29E-09	9.29E-09	2.54E-07
564882.44	4188209.25	1.12E-07	1.04E-07	8.92E-09	8.92E-09	8.92E-09	2.43E-07
564875.75	4188219	1.13E-07	1.05E-07	8.95E-09	8.95E-09	8.95E-09	2.44E-07
564869.13	4188229	1.13E-07	1.05E-07	8.98E-09	8.98E-09	8.98E-09	2.45E-07
564862.44	4188238.75	1.14E-07	1.05E-07	9E-09	9E-09	9E-09	2.46E-07
564855.75	4188248.5	1.14E-07	1.05E-07	9.02E-09	9.02E-09	9.02E-09	2.46E-07
564849.13	4188258.5	1.14E-07	1.05E-07	9.02E-09	9.02E-09	9.02E-09	2.46E-07
564842.44	4188268.25	1.14E-07	1.04E-07	9.01E-09	9.01E-09	9.01E-09	2.46E-07
564835.75	4188278	1.14E-07	1.04E-07	9E-09	9E-09	9E-09	2.46E-07
564829.13	4188287.75	1.14E-07	1.04E-07	8.98E-09	8.98E-09	8.98E-09	2.45E-07
564822.44	4188297.75	1.14E-07	1.04E-07	8.95E-09	8.95E-09	8.95E-09	2.44E-07
564815.75	4188307.5	1.13E-07	1.03E-07	8.92E-09	8.92E-09	8.92E-09	2.43E-07
564769.13	4188376.25	1.07E-07	9.77E-08	8.45E-09	8.45E-09	8.45E-09	2.30E-07

564760	4188382.5	1.08E-07	9.83E-08	8.51E-09	8.51E-09	8.51E-09	2.32E-07
564748.38	4188385	1.11E-07	1.01E-07	8.72E-09	8.72E-09	8.72E-09	2.38E-07
564736.81	4188387.75	1.14E-07	1.03E-07	8.95E-09	8.95E-09	8.95E-09	2.44E-07
564725.25	4188390.25	1.17E-07	1.06E-07	9.19E-09	9.19E-09	9.19E-09	2.51E-07
564702.06	4188395.5	1.25E-07	1.11E-07	9.72E-09	9.72E-09	9.72E-09	2.65E-07
564690.44	4188398	1.28E-07	1.14E-07	1E-08	1E-08	1E-08	2.72E-07
564678.88	4188400.75	1.32E-07	1.17E-07	1.03E-08	1.03E-08	1.03E-08	2.80E-07
564667.25	4188403.25	1.36E-07	1.2E-07	1.05E-08	1.05E-08	1.05E-08	2.87E-07
564655.69	4188405.75	1.39E-07	1.22E-07	1.08E-08	1.08E-08	1.08E-08	2.94E-07
564644.13	4188408.5	1.43E-07	1.25E-07	1.11E-08	1.11E-08	1.11E-08	3.00E-07
564632.5	4188411	1.46E-07	1.27E-07	1.13E-08	1.13E-08	1.13E-08	3.07E-07
564620.94	4188413.5	1.49E-07	1.29E-07	1.15E-08	1.15E-08	1.15E-08	3.13E-07
564609.31	4188416.25	1.52E-07	1.31E-07	1.17E-08	1.17E-08	1.17E-08	3.18E-07
564597.75	4188418.75	1.54E-07	1.32E-07	1.19E-08	1.19E-08	1.19E-08	3.22E-07
564586.13	4188421.25	1.56E-07	1.34E-07	1.21E-08	1.21E-08	1.21E-08	3.26E-07
564574.56	4188424	1.58E-07	1.35E-07	1.22E-08	1.22E-08	1.22E-08	3.29E-07
564887.06	4188198.5	1.13E-07	1.05E-07	8.95E-09	8.95E-09	8.95E-09	2.45E-07
564892.19	4188211.5	1.08E-07	1.01E-07	8.6E-09	8.6E-09	8.6E-09	2.35E-07
564885.5	4188221.25	1.09E-07	1.01E-07	8.64E-09	8.64E-09	8.64E-09	2.36E-07
564878.75	4188231.25	1.09E-07	1.01E-07	8.67E-09	8.67E-09	8.67E-09	2.36E-07
564872.06	4188241	1.1E-07	1.01E-07	8.69E-09	8.69E-09	8.69E-09	2.37E-07
564865.38	4188251	1.1E-07	1.01E-07	8.7E-09	8.7E-09	8.7E-09	2.37E-07
564858.63	4188261	1.1E-07	1.01E-07	8.7E-09	8.7E-09	8.7E-09	2.37E-07
564851.94	4188270.75	1.1E-07	1.01E-07	8.7E-09	8.7E-09	8.7E-09	2.37E-07
564845.25	4188280.75	1.1E-07	1.01E-07	8.68E-09	8.68E-09	8.68E-09	2.37E-07
564838.5	4188290.5	1.1E-07	1E-07	8.67E-09	8.67E-09	8.67E-09	2.36E-07
564831.81	4188300.5	1.1E-07	1E-07	8.64E-09	8.64E-09	8.64E-09	2.36E-07
564825.06	4188310.25	1.09E-07	9.99E-08	8.62E-09	8.62E-09	8.62E-09	2.35E-07
564818.38	4188320.25	1.09E-07	9.94E-08	8.58E-09	8.58E-09	8.58E-09	2.34E-07
564778.13	4188379.5	1.03E-07	9.47E-08	8.18E-09	8.18E-09	8.18E-09	2.23E-07
564765.56	4188390.75	1.04E-07	9.48E-08	8.2E-09	8.2E-09	8.2E-09	2.23E-07
564753.94	4188393.5	1.07E-07	9.69E-08	8.4E-09	8.4E-09	8.4E-09	2.29E-07
564742.25	4188396	1.1E-07	9.93E-08	8.62E-09	8.62E-09	8.62E-09	2.35E-07
564730.56	4188398.5	1.13E-07	1.02E-07	8.86E-09	8.86E-09	8.86E-09	2.41E-07
564718.94	4188401.25	1.16E-07	1.04E-07	9.1E-09	9.1E-09	9.1E-09	2.48E-07
564695.56	4188406.5	1.23E-07	1.1E-07	9.62E-09	9.62E-09	9.62E-09	2.62E-07
564683.94	4188409	1.27E-07	1.12E-07	9.88E-09	9.88E-09	9.88E-09	2.69E-07
564672.25	4188411.75	1.3E-07	1.15E-07	1.01E-08	1.01E-08	1.01E-08	2.76E-07
564660.56	4188414.25	1.34E-07	1.18E-07	1.04E-08	1.04E-08	1.04E-08	2.82E-07
564648.94	4188416.75	1.37E-07	1.2E-07	1.06E-08	1.06E-08	1.06E-08	2.89E-07
564637.25	4188419.5	1.4E-07	1.22E-07	1.08E-08	1.08E-08	1.08E-08	2.94E-07
564625.63	4188422	1.43E-07	1.24E-07	1.11E-08	1.11E-08	1.11E-08	3.00E-07
564613.94	4188424.75	1.45E-07	1.26E-07	1.12E-08	1.12E-08	1.12E-08	3.05E-07
564602.25	4188427.25	1.48E-07	1.27E-07	1.14E-08	1.14E-08	1.14E-08	3.09E-07
564590.63	4188430	1.5E-07	1.28E-07	1.16E-08	1.16E-08	1.16E-08	3.13E-07
564896.88	4188200.75	1.09E-07	1.01E-07	8.63E-09	8.63E-09	8.63E-09	2.36E-07
564902	4188213.5	1.04E-07	9.74E-08	8.31E-09	8.31E-09	8.31E-09	2.27E-07

564895.44	4188223.25	1.05E-07	9.75E-08	8.34E-09	8.34E-09	8.34E-09	2.27E-07
564888.88	4188233	1.05E-07	9.77E-08	8.36E-09	8.36E-09	8.36E-09	2.28E-07
564882.25	4188242.5	1.06E-07	9.78E-08	8.39E-09	8.39E-09	8.39E-09	2.29E-07
564875.69	4188252.25	1.06E-07	9.78E-08	8.4E-09	8.4E-09	8.4E-09	2.29E-07
564869.13	4188262	1.06E-07	9.77E-08	8.41E-09	8.41E-09	8.41E-09	2.29E-07
564862.56	4188271.75	1.06E-07	9.76E-08	8.4E-09	8.4E-09	8.4E-09	2.29E-07
564856	4188281.5	1.06E-07	9.74E-08	8.39E-09	8.39E-09	8.39E-09	2.29E-07
564849.38	4188291	1.06E-07	9.72E-08	8.38E-09	8.38E-09	8.38E-09	2.28E-07
564842.81	4188300.75	1.06E-07	9.69E-08	8.36E-09	8.36E-09	8.36E-09	2.28E-07
564836.25	4188310.5	1.05E-07	9.66E-08	8.33E-09	8.33E-09	8.33E-09	2.27E-07
564829.69	4188320.25	1.05E-07	9.63E-08	8.3E-09	8.3E-09	8.3E-09	2.26E-07
564783.63	4188388	9.96E-08	9.14E-08	7.89E-09	7.89E-09	7.89E-09	2.15E-07
564771.31	4188399	1E-07	9.15E-08	7.91E-09	7.91E-09	7.91E-09	2.15E-07
564759.88	4188401.5	1.03E-07	9.35E-08	8.1E-09	8.1E-09	8.1E-09	2.20E-07
564748.44	4188404.25	1.05E-07	9.57E-08	8.29E-09	8.29E-09	8.29E-09	2.26E-07
564737	4188406.75	1.08E-07	9.8E-08	8.51E-09	8.51E-09	8.51E-09	2.32E-07
564725.56	4188409.25	1.11E-07	1E-07	8.74E-09	8.74E-09	8.74E-09	2.38E-07
564691.25	4188417	1.21E-07	1.08E-07	9.46E-09	9.46E-09	9.46E-09	2.57E-07
564679.81	4188419.5	1.24E-07	1.1E-07	9.7E-09	9.7E-09	9.7E-09	2.64E-07
564668.38	4188422	1.27E-07	1.13E-07	9.93E-09	9.93E-09	9.93E-09	2.70E-07
564656.94	4188424.5	1.3E-07	1.15E-07	1.01E-08	1.01E-08	1.01E-08	2.76E-07
564645.5	4188427.25	1.33E-07	1.17E-07	1.04E-08	1.04E-08	1.04E-08	2.81E-07
564634.06	4188429.75	1.36E-07	1.19E-07	1.05E-08	1.05E-08	1.05E-08	2.86E-07
564622.63	4188432.25	1.38E-07	1.2E-07	1.07E-08	1.07E-08	1.07E-08	2.91E-07
564576.94	4188442.5	1.45E-07	1.25E-07	1.13E-08	1.13E-08	1.13E-08	3.04E-07
564565.5	4188445	1.46E-07	1.25E-07	1.14E-08	1.14E-08	1.14E-08	3.06E-07
564906.63	4188202.75	1.05E-07	9.79E-08	8.34E-09	8.34E-09	8.34E-09	2.28E-07
564705.19	4188124.75	3.12E-07	2.66E-07	2.33E-08	2.33E-08	2.33E-08	6.48E-07
564707.69	4188138.75	2.96E-07	2.51E-07	2.2E-08	2.2E-08	2.2E-08	6.13E-07
564713.69	4188119.75	3E-07	2.57E-07	2.24E-08	2.24E-08	2.24E-08	6.24E-07
564716.19	4188133.75	2.84E-07	2.44E-07	2.13E-08	2.13E-08	2.13E-08	5.92E-07
564718.63	4188147.75	2.7E-07	2.31E-07	2.02E-08	2.02E-08	2.02E-08	5.62E-07
564722.19	4188114.5	2.88E-07	2.49E-07	2.17E-08	2.17E-08	2.17E-08	6.03E-07
564724.69	4188128.75	2.74E-07	2.37E-07	2.06E-08	2.06E-08	2.06E-08	5.72E-07
564727.13	4188142.75	2.6E-07	2.25E-07	1.96E-08	1.96E-08	1.96E-08	5.43E-07
564701.25	4188046.5	3.77E-07	3.36E-07	2.86E-08	2.86E-08	2.86E-08	7.99E-07
564730.63	4188109.5	2.77E-07	2.42E-07	2.1E-08	2.1E-08	2.1E-08	5.82E-07
564733.13	4188123.5	2.64E-07	2.3E-07	2E-08	2E-08	2E-08	5.54E-07
564735.63	4188137.75	2.51E-07	2.18E-07	1.9E-08	1.9E-08	1.9E-08	5.26E-07
564738.13	4188151.75	2.39E-07	2.08E-07	1.81E-08	1.81E-08	1.81E-08	5.01E-07
564709.63	4188041	3.58E-07	3.23E-07	2.74E-08	2.74E-08	2.74E-08	7.63E-07
564739.06	4188104.25	2.67E-07	2.35E-07	2.03E-08	2.03E-08	2.03E-08	5.62E-07
564741.63	4188118.5	2.54E-07	2.23E-07	1.93E-08	1.93E-08	1.93E-08	5.35E-07
564744.13	4188132.75	2.42E-07	2.12E-07	1.84E-08	1.84E-08	1.84E-08	5.10E-07
564746.63	4188146.75	2.31E-07	2.02E-07	1.76E-08	1.76E-08	1.76E-08	4.86E-07
564726.19	4188048.25	3.18E-07	2.88E-07	2.44E-08	2.44E-08	2.44E-08	6.80E-07
564718.06	4188035.5	3.4E-07	3.11E-07	2.62E-08	2.62E-08	2.62E-08	7.30E-07

564747.56	4188099	2.57E-07	2.28E-07	1.96E-08	1.96E-08	1.96E-08	5.43E-07
564750.06	4188113.25	2.45E-07	2.17E-07	1.87E-08	1.87E-08	1.87E-08	5.18E-07
564752.56	4188127.5	2.34E-07	2.07E-07	1.79E-08	1.79E-08	1.79E-08	4.94E-07
564755.13	4188141.75	2.23E-07	1.97E-07	1.71E-08	1.71E-08	1.71E-08	4.71E-07
564757.63	4188156	2.13E-07	1.88E-07	1.63E-08	1.63E-08	1.63E-08	4.49E-07
564734.63	4188043	3.03E-07	2.78E-07	2.35E-08	2.35E-08	2.35E-08	6.52E-07
564726.5	4188030.25	3.24E-07	2.99E-07	2.51E-08	2.51E-08	2.51E-08	6.98E-07
564758.5	4188108.25	2.36E-07	2.11E-07	1.81E-08	1.81E-08	1.81E-08	5.02E-07
564761.06	4188122.5	2.26E-07	2.01E-07	1.73E-08	1.73E-08	1.73E-08	4.79E-07
564763.63	4188136.75	2.16E-07	1.92E-07	1.66E-08	1.66E-08	1.66E-08	4.57E-07
564766.13	4188151	2.06E-07	1.83E-07	1.58E-08	1.58E-08	1.58E-08	4.37E-07
564734.88	4188024.75	3.08E-07	2.88E-07	2.41E-08	2.41E-08	2.41E-08	6.69E-07
564756.81	4188045.5	2.65E-07	2.45E-07	2.06E-08	2.06E-08	2.06E-08	5.72E-07
564759.31	4188060	2.56E-07	2.34E-07	1.98E-08	1.98E-08	1.98E-08	5.50E-07
564767	4188103	2.28E-07	2.05E-07	1.76E-08	1.76E-08	1.76E-08	4.86E-07
564769.5	4188117.25	2.19E-07	1.96E-07	1.68E-08	1.68E-08	1.68E-08	4.65E-07
564772.06	4188131.5	2.09E-07	1.87E-07	1.61E-08	1.61E-08	1.61E-08	4.45E-07
564774.63	4188146	2E-07	1.78E-07	1.54E-08	1.54E-08	1.54E-08	4.25E-07
564777.19	4188160.25	1.91E-07	1.7E-07	1.47E-08	1.47E-08	1.47E-08	4.06E-07
564765.25	4188040.25	2.54E-07	2.37E-07	1.99E-08	1.99E-08	1.99E-08	5.50E-07
564767.75	4188054.5	2.46E-07	2.27E-07	1.92E-08	1.92E-08	1.92E-08	5.31E-07
564775.44	4188097.75	2.2E-07	2E-07	1.7E-08	1.7E-08	1.7E-08	4.71E-07
564778	4188112	2.11E-07	1.91E-07	1.64E-08	1.64E-08	1.64E-08	4.51E-07
564780.5	4188126.5	2.03E-07	1.82E-07	1.57E-08	1.57E-08	1.57E-08	4.32E-07
564783.06	4188140.75	1.94E-07	1.74E-07	1.5E-08	1.5E-08	1.5E-08	4.13E-07
564785.63	4188155.25	1.86E-07	1.66E-07	1.44E-08	1.44E-08	1.44E-08	3.95E-07
564759.88	4188026.75	2.65E-07	2.5E-07	2.09E-08	2.09E-08	2.09E-08	5.78E-07
564773.63	4188034.75	2.44E-07	2.29E-07	1.92E-08	1.92E-08	1.92E-08	5.31E-07
564776.19	4188049.25	2.37E-07	2.2E-07	1.85E-08	1.85E-08	1.85E-08	5.12E-07
564778.75	4188063.75	2.29E-07	2.11E-07	1.78E-08	1.78E-08	1.78E-08	4.93E-07
564786.44	4188107	2.04E-07	1.86E-07	1.59E-08	1.59E-08	1.59E-08	4.38E-07
564789	4188121.25	1.96E-07	1.78E-07	1.52E-08	1.52E-08	1.52E-08	4.20E-07
564791.56	4188135.75	1.88E-07	1.7E-07	1.46E-08	1.46E-08	1.46E-08	4.02E-07
564794.13	4188150.25	1.8E-07	1.63E-07	1.4E-08	1.4E-08	1.4E-08	3.85E-07
564796.69	4188164.5	1.73E-07	1.56E-07	1.34E-08	1.34E-08	1.34E-08	3.69E-07
564768.31	4188021.25	2.54E-07	2.42E-07	2.01E-08	2.01E-08	2.01E-08	5.56E-07
564782.06	4188029.5	2.34E-07	2.22E-07	1.85E-08	1.85E-08	1.85E-08	5.11E-07
564784.63	4188044	2.27E-07	2.13E-07	1.79E-08	1.79E-08	1.79E-08	4.94E-07
564787.19	4188058.25	2.2E-07	2.05E-07	1.72E-08	1.72E-08	1.72E-08	4.77E-07
564794.88	4188101.75	1.98E-07	1.81E-07	1.54E-08	1.54E-08	1.54E-08	4.25E-07
564797.44	4188116.25	1.9E-07	1.74E-07	1.48E-08	1.48E-08	1.48E-08	4.08E-07
564800	4188130.5	1.83E-07	1.66E-07	1.42E-08	1.42E-08	1.42E-08	3.92E-07
564802.56	4188145	1.75E-07	1.59E-07	1.37E-08	1.37E-08	1.37E-08	3.75E-07
564805.13	4188159.5	1.68E-07	1.52E-07	1.31E-08	1.31E-08	1.31E-08	3.60E-07
564776.69	4188016	2.44E-07	2.33E-07	1.94E-08	1.94E-08	1.94E-08	5.36E-07
564768.56	4188003.25	2.57E-07	2.49E-07	2.05E-08	2.05E-08	2.05E-08	5.67E-07
564790.5	4188024	2.25E-07	2.15E-07	1.79E-08	1.79E-08	1.79E-08	4.93E-07

564793.06	4188038.5	2.19E-07	2.07E-07	1.73E-08	1.73E-08	1.73E-08	4.77E-07
564795.63	4188053	2.12E-07	1.99E-07	1.67E-08	1.67E-08	1.67E-08	4.61E-07
564803.31	4188096.5	1.92E-07	1.76E-07	1.5E-08	1.5E-08	1.5E-08	4.13E-07
564805.88	4188111	1.84E-07	1.69E-07	1.44E-08	1.44E-08	1.44E-08	3.97E-07
564808.5	4188125.5	1.77E-07	1.62E-07	1.39E-08	1.39E-08	1.39E-08	3.81E-07
564811.06	4188139.75	1.71E-07	1.56E-07	1.33E-08	1.33E-08	1.33E-08	3.66E-07
564813.63	4188154.25	1.64E-07	1.49E-07	1.28E-08	1.28E-08	1.28E-08	3.51E-07
564816.19	4188168.75	1.57E-07	1.43E-07	1.23E-08	1.23E-08	1.23E-08	3.37E-07
564785.13	4188010.5	2.34E-07	2.26E-07	1.87E-08	1.87E-08	1.87E-08	5.16E-07
564777	4187997.75	2.46E-07	2.4E-07	1.97E-08	1.97E-08	1.97E-08	5.45E-07
564798.94	4188018.75	2.17E-07	2.08E-07	1.73E-08	1.73E-08	1.73E-08	4.76E-07
564801.5	4188033.25	2.11E-07	2E-07	1.67E-08	1.67E-08	1.67E-08	4.61E-07
564804.06	4188047.75	2.05E-07	1.93E-07	1.61E-08	1.61E-08	1.61E-08	4.46E-07
564811.75	4188091.25	1.85E-07	1.72E-07	1.45E-08	1.45E-08	1.45E-08	4.01E-07
564814.38	4188105.75	1.79E-07	1.65E-07	1.4E-08	1.4E-08	1.4E-08	3.86E-07
564816.94	4188120.25	1.72E-07	1.59E-07	1.35E-08	1.35E-08	1.35E-08	3.71E-07
564819.5	4188134.75	1.66E-07	1.52E-07	1.3E-08	1.3E-08	1.3E-08	3.57E-07
564822.06	4188149.25	1.59E-07	1.46E-07	1.25E-08	1.25E-08	1.25E-08	3.43E-07
564824.63	4188163.75	1.53E-07	1.4E-07	1.2E-08	1.2E-08	1.2E-08	3.29E-07
564793.56	4188005	2.25E-07	2.18E-07	1.8E-08	1.8E-08	1.8E-08	4.97E-07
564785.44	4187992.5	2.36E-07	2.31E-07	1.9E-08	1.9E-08	1.9E-08	5.23E-07
564807.31	4188013.25	2.08E-07	2.01E-07	1.67E-08	1.67E-08	1.67E-08	4.60E-07
564809.94	4188027.75	2.03E-07	1.94E-07	1.62E-08	1.62E-08	1.62E-08	4.46E-07
564812.5	4188042.25	1.98E-07	1.87E-07	1.56E-08	1.56E-08	1.56E-08	4.32E-07
564820.25	4188086	1.8E-07	1.67E-07	1.41E-08	1.41E-08	1.41E-08	3.89E-07
564822.81	4188100.5	1.73E-07	1.61E-07	1.36E-08	1.36E-08	1.36E-08	3.75E-07
564825.38	4188115	1.67E-07	1.55E-07	1.31E-08	1.31E-08	1.31E-08	3.61E-07
564827.94	4188129.5	1.61E-07	1.49E-07	1.27E-08	1.27E-08	1.27E-08	3.48E-07
564830.56	4188144	1.55E-07	1.43E-07	1.22E-08	1.22E-08	1.22E-08	3.35E-07
564833.13	4188158.5	1.49E-07	1.37E-07	1.17E-08	1.17E-08	1.17E-08	3.22E-07
564835.69	4188173	1.44E-07	1.32E-07	1.13E-08	1.13E-08	1.13E-08	3.09E-07
564802	4187999.75	2.16E-07	2.11E-07	1.74E-08	1.74E-08	1.74E-08	4.79E-07
564793.81	4187987	2.26E-07	2.23E-07	1.83E-08	1.83E-08	1.83E-08	5.03E-07
564815.75	4188008	2.01E-07	1.95E-07	1.61E-08	1.61E-08	1.61E-08	4.44E-07
564818.31	4188022.5	1.96E-07	1.88E-07	1.56E-08	1.56E-08	1.56E-08	4.31E-07
564820.94	4188037	1.91E-07	1.82E-07	1.52E-08	1.52E-08	1.52E-08	4.18E-07
564828.69	4188080.75	1.74E-07	1.63E-07	1.37E-08	1.37E-08	1.37E-08	3.78E-07
564831.25	4188095.25	1.68E-07	1.57E-07	1.33E-08	1.33E-08	1.33E-08	3.65E-07
564833.81	4188109.75	1.62E-07	1.51E-07	1.28E-08	1.28E-08	1.28E-08	3.52E-07
564836.44	4188124.25	1.57E-07	1.45E-07	1.24E-08	1.24E-08	1.24E-08	3.39E-07
564839	4188139	1.51E-07	1.4E-07	1.19E-08	1.19E-08	1.19E-08	3.27E-07
564841.56	4188153.5	1.46E-07	1.34E-07	1.15E-08	1.15E-08	1.15E-08	3.14E-07
564844.19	4188168	1.4E-07	1.29E-07	1.1E-08	1.1E-08	1.1E-08	3.02E-07
564810.38	4187994.25	2.08E-07	2.04E-07	1.68E-08	1.68E-08	1.68E-08	4.62E-07
564802.25	4187981.5	2.17E-07	2.15E-07	1.76E-08	1.76E-08	1.76E-08	4.84E-07
564824.19	4188002.5	1.93E-07	1.89E-07	1.56E-08	1.56E-08	1.56E-08	4.29E-07
564826.75	4188017	1.89E-07	1.83E-07	1.52E-08	1.52E-08	1.52E-08	4.17E-07

564829.31	4188031.75	1.84E-07	1.77E-07	1.47E-08	1.47E-08	1.47E-08	4.05E-07
564837.13	4188075.5	1.69E-07	1.59E-07	1.33E-08	1.33E-08	1.33E-08	3.67E-07
564839.69	4188090	1.63E-07	1.53E-07	1.29E-08	1.29E-08	1.29E-08	3.55E-07
564842.25	4188104.5	1.58E-07	1.47E-07	1.25E-08	1.25E-08	1.25E-08	3.43E-07
564844.88	4188119	1.53E-07	1.42E-07	1.2E-08	1.2E-08	1.2E-08	3.31E-07
564847.44	4188133.75	1.47E-07	1.37E-07	1.16E-08	1.16E-08	1.16E-08	3.19E-07
564850.06	4188148.25	1.42E-07	1.32E-07	1.12E-08	1.12E-08	1.12E-08	3.07E-07
564852.63	4188162.75	1.37E-07	1.27E-07	1.08E-08	1.08E-08	1.08E-08	2.96E-07
564855.19	4188177.5	1.32E-07	1.22E-07	1.04E-08	1.04E-08	1.04E-08	2.85E-07
564818.81	4187989	2E-07	1.97E-07	1.62E-08	1.62E-08	1.62E-08	4.45E-07
564810.69	4187976.25	2.08E-07	2.07E-07	1.69E-08	1.69E-08	1.69E-08	4.66E-07
564832.56	4187997.25	1.87E-07	1.83E-07	1.51E-08	1.51E-08	1.51E-08	4.15E-07
564835.19	4188011.75	1.83E-07	1.77E-07	1.47E-08	1.47E-08	1.47E-08	4.04E-07
564837.75	4188026.25	1.78E-07	1.72E-07	1.42E-08	1.42E-08	1.42E-08	3.92E-07
564845.56	4188070	1.63E-07	1.55E-07	1.3E-08	1.3E-08	1.3E-08	3.57E-07
564848.13	4188084.75	1.58E-07	1.49E-07	1.26E-08	1.26E-08	1.26E-08	3.45E-07
564850.75	4188099.25	1.53E-07	1.44E-07	1.21E-08	1.21E-08	1.21E-08	3.34E-07
564853.31	4188114	1.48E-07	1.39E-07	1.17E-08	1.17E-08	1.17E-08	3.22E-07
564855.88	4188128.5	1.43E-07	1.34E-07	1.14E-08	1.14E-08	1.14E-08	3.11E-07
564858.5	4188143	1.38E-07	1.29E-07	1.1E-08	1.1E-08	1.1E-08	3.00E-07
564861.06	4188157.75	1.34E-07	1.24E-07	1.06E-08	1.06E-08	1.06E-08	2.89E-07
564863.69	4188172.25	1.29E-07	1.19E-07	1.02E-08	1.02E-08	1.02E-08	2.79E-07
564827.25	4187983.5	1.92E-07	1.9E-07	1.56E-08	1.56E-08	1.56E-08	4.29E-07
564819.06	4187970.75	2E-07	2E-07	1.63E-08	1.63E-08	1.63E-08	4.49E-07
564841	4187991.75	1.8E-07	1.77E-07	1.46E-08	1.46E-08	1.46E-08	4.01E-07
564843.63	4188006.25	1.76E-07	1.72E-07	1.42E-08	1.42E-08	1.42E-08	3.91E-07
564846.19	4188021	1.72E-07	1.67E-07	1.38E-08	1.38E-08	1.38E-08	3.80E-07
564854	4188064.75	1.59E-07	1.51E-07	1.26E-08	1.26E-08	1.26E-08	3.47E-07
564856.56	4188079.5	1.54E-07	1.45E-07	1.22E-08	1.22E-08	1.22E-08	3.36E-07
564859.19	4188094	1.49E-07	1.4E-07	1.18E-08	1.18E-08	1.18E-08	3.25E-07
564861.75	4188108.75	1.44E-07	1.36E-07	1.15E-08	1.15E-08	1.15E-08	3.14E-07
564864.38	4188123.25	1.4E-07	1.31E-07	1.11E-08	1.11E-08	1.11E-08	3.04E-07
564866.94	4188137.75	1.35E-07	1.26E-07	1.07E-08	1.07E-08	1.07E-08	2.93E-07
564869.56	4188152.5	1.3E-07	1.22E-07	1.03E-08	1.03E-08	1.03E-08	2.83E-07
564872.13	4188167	1.26E-07	1.17E-07	9.98E-09	9.98E-09	9.98E-09	2.73E-07
564874.75	4188181.75	1.21E-07	1.13E-07	9.62E-09	9.62E-09	9.62E-09	2.63E-07
564835.63	4187978	1.85E-07	1.84E-07	1.51E-08	1.51E-08	1.51E-08	4.15E-07
564827.5	4187965.5	1.92E-07	1.93E-07	1.57E-08	1.57E-08	1.57E-08	4.32E-07
564849.44	4187986.5	1.74E-07	1.72E-07	1.41E-08	1.41E-08	1.41E-08	3.88E-07
564852	4188001	1.7E-07	1.67E-07	1.38E-08	1.38E-08	1.38E-08	3.79E-07
564854.63	4188015.75	1.67E-07	1.62E-07	1.34E-08	1.34E-08	1.34E-08	3.69E-07
564862.44	4188059.5	1.54E-07	1.47E-07	1.23E-08	1.23E-08	1.23E-08	3.37E-07
564865	4188074.25	1.49E-07	1.42E-07	1.19E-08	1.19E-08	1.19E-08	3.27E-07
564867.63	4188088.75	1.45E-07	1.37E-07	1.15E-08	1.15E-08	1.15E-08	3.17E-07
564870.19	4188103.5	1.4E-07	1.33E-07	1.12E-08	1.12E-08	1.12E-08	3.07E-07
564872.81	4188118	1.36E-07	1.28E-07	1.08E-08	1.08E-08	1.08E-08	2.97E-07
564875.38	4188132.75	1.32E-07	1.24E-07	1.05E-08	1.05E-08	1.05E-08	2.87E-07

564878	4188147.25	1.27E-07	1.19E-07	1.01E-08	1.01E-08	1.01E-08	2.77E-07
564880.56	4188162	1.23E-07	1.15E-07	9.77E-09	9.77E-09	9.77E-09	2.67E-07
564883.19	4188176.5	1.19E-07	1.11E-07	9.44E-09	9.44E-09	9.44E-09	2.58E-07
564844.06	4187972.75	1.78E-07	1.78E-07	1.46E-08	1.46E-08	1.46E-08	4.00E-07
564835.94	4187960	1.85E-07	1.87E-07	1.52E-08	1.52E-08	1.52E-08	4.17E-07
564857.88	4187981	1.68E-07	1.66E-07	1.37E-08	1.37E-08	1.37E-08	3.75E-07
564860.44	4187995.75	1.65E-07	1.62E-07	1.34E-08	1.34E-08	1.34E-08	3.67E-07
564863.06	4188010.25	1.61E-07	1.57E-07	1.3E-08	1.3E-08	1.3E-08	3.58E-07
564870.88	4188054.25	1.49E-07	1.43E-07	1.19E-08	1.19E-08	1.19E-08	3.28E-07
564873.44	4188068.75	1.45E-07	1.38E-07	1.16E-08	1.16E-08	1.16E-08	3.18E-07
564876.06	4188083.5	1.41E-07	1.34E-07	1.12E-08	1.12E-08	1.12E-08	3.09E-07
564878.63	4188098.25	1.37E-07	1.3E-07	1.09E-08	1.09E-08	1.09E-08	2.99E-07
564881.25	4188112.75	1.33E-07	1.25E-07	1.06E-08	1.06E-08	1.06E-08	2.90E-07
564883.88	4188127.5	1.28E-07	1.21E-07	1.02E-08	1.02E-08	1.02E-08	2.80E-07
564886.44	4188142	1.24E-07	1.17E-07	9.9E-09	9.9E-09	9.9E-09	2.71E-07
564889.06	4188156.75	1.2E-07	1.13E-07	9.57E-09	9.57E-09	9.57E-09	2.62E-07
564891.63	4188171.25	1.16E-07	1.09E-07	9.25E-09	9.25E-09	9.25E-09	2.53E-07
564894.25	4188186	1.12E-07	1.05E-07	8.94E-09	8.94E-09	8.94E-09	2.44E-07
564852.5	4187967.25	1.72E-07	1.72E-07	1.41E-08	1.41E-08	1.41E-08	3.87E-07
564844.38	4187954.75	1.78E-07	1.8E-07	1.46E-08	1.46E-08	1.46E-08	4.02E-07
564866.25	4187975.5	1.62E-07	1.61E-07	1.32E-08	1.32E-08	1.32E-08	3.63E-07
564868.88	4187990.25	1.59E-07	1.57E-07	1.29E-08	1.29E-08	1.29E-08	3.55E-07
564871.5	4188005	1.56E-07	1.53E-07	1.26E-08	1.26E-08	1.26E-08	3.47E-07
564879.25	4188049	1.45E-07	1.39E-07	1.16E-08	1.16E-08	1.16E-08	3.19E-07
564881.88	4188063.5	1.41E-07	1.35E-07	1.13E-08	1.13E-08	1.13E-08	3.10E-07
564884.5	4188078.25	1.37E-07	1.31E-07	1.1E-08	1.1E-08	1.1E-08	3.01E-07
564887.06	4188092.75	1.33E-07	1.27E-07	1.06E-08	1.06E-08	1.06E-08	2.92E-07
564889.69	4188107.5	1.29E-07	1.23E-07	1.03E-08	1.03E-08	1.03E-08	2.83E-07
564892.31	4188122.25	1.25E-07	1.18E-07	1E-08	1E-08	1E-08	2.74E-07
564894.88	4188136.75	1.21E-07	1.15E-07	9.69E-09	9.69E-09	9.69E-09	2.65E-07
564897.5	4188151.5	1.18E-07	1.11E-07	9.38E-09	9.38E-09	9.38E-09	2.56E-07
564900.13	4188166.25	1.14E-07	1.07E-07	9.07E-09	9.07E-09	9.07E-09	2.48E-07
564902.69	4188180.75	1.1E-07	1.03E-07	8.77E-09	8.77E-09	8.77E-09	2.40E-07
564860.88	4187962	1.66E-07	1.67E-07	1.36E-08	1.36E-08	1.36E-08	3.74E-07
564852.75	4187949.25	1.71E-07	1.74E-07	1.41E-08	1.41E-08	1.41E-08	3.88E-07
564685.88	4188036	4.25E-07	3.8E-07	3.23E-08	3.23E-08	3.23E-08	9.02E-07
564695	4188031.75	3.99E-07	3.62E-07	3.06E-08	3.06E-08	3.06E-08	8.53E-07
564691.25	4188023.5	4.12E-07	3.78E-07	3.18E-08	3.18E-08	3.18E-08	8.85E-07
564704.13	4188027.75	3.76E-07	3.45E-07	2.9E-08	2.9E-08	2.9E-08	8.08E-07
564700.38	4188019.5	3.87E-07	3.59E-07	3.01E-08	3.01E-08	3.01E-08	8.37E-07
564713.25	4188023.75	3.54E-07	3.29E-07	2.75E-08	2.75E-08	2.75E-08	7.66E-07
564709.5	4188015.25	3.65E-07	3.42E-07	2.85E-08	2.85E-08	2.85E-08	7.92E-07
564722.38	4188019.5	3.35E-07	3.14E-07	2.62E-08	2.62E-08	2.62E-08	7.27E-07
564718.63	4188011.25	3.44E-07	3.26E-07	2.71E-08	2.71E-08	2.71E-08	7.51E-07
564731.5	4188015.5	3.17E-07	2.99E-07	2.49E-08	2.49E-08	2.49E-08	6.91E-07
564727.75	4188007.25	3.25E-07	3.11E-07	2.57E-08	2.57E-08	2.57E-08	7.13E-07
564736.88	4188003	3.08E-07	2.97E-07	2.45E-08	2.45E-08	2.45E-08	6.78E-07

564764.19	4187990.75	2.64E-07	2.59E-07	2.12E-08	2.12E-08	2.12E-08	5.86E-07
564773.31	4187986.5	2.51E-07	2.48E-07	2.03E-08	2.03E-08	2.03E-08	5.60E-07
564782.44	4187982.5	2.39E-07	2.37E-07	1.94E-08	1.94E-08	1.94E-08	5.35E-07
564791.56	4187978.25	2.29E-07	2.27E-07	1.86E-08	1.86E-08	1.86E-08	5.12E-07
564682.69	4188012.25	4.38E-07	4.09E-07	3.42E-08	3.42E-08	3.42E-08	9.50E-07
564683.69	4188002.5	4.33E-07	4.14E-07	3.42E-08	3.42E-08	3.42E-08	9.49E-07
564684.75	4187993	4.26E-07	4.17E-07	3.41E-08	3.41E-08	3.41E-08	9.45E-07
564692.63	4188013.25	4.09E-07	3.82E-07	3.19E-08	3.19E-08	3.19E-08	8.87E-07
564693.69	4188003.75	4.05E-07	3.86E-07	3.2E-08	3.2E-08	3.2E-08	8.87E-07
564694.69	4187994	4E-07	3.89E-07	3.2E-08	3.2E-08	3.2E-08	8.85E-07
564703.63	4188004.75	3.79E-07	3.62E-07	3E-08	3E-08	3E-08	8.31E-07
564704.63	4187995.25	3.75E-07	3.65E-07	3E-08	3E-08	3E-08	8.30E-07
564714.56	4187996.25	3.53E-07	3.42E-07	2.82E-08	2.82E-08	2.82E-08	7.79E-07
564724.5	4187997.25	3.32E-07	3.22E-07	2.65E-08	2.65E-08	2.65E-08	7.33E-07
564676	4187911.25	3.88E-07	4.64E-07	3.43E-08	3.43E-08	3.43E-08	9.55E-07
564685.38	4187982.25	4.19E-07	4.2E-07	3.41E-08	3.41E-08	3.41E-08	9.42E-07
564685.5	4187964.75	4.09E-07	4.27E-07	3.39E-08	3.39E-08	3.39E-08	9.38E-07
564685.63	4187955.75	4.03E-07	4.29E-07	3.38E-08	3.38E-08	3.38E-08	9.34E-07
564685.75	4187938	3.91E-07	4.33E-07	3.34E-08	3.34E-08	3.34E-08	9.24E-07
564685.94	4187920.25	3.76E-07	4.34E-07	3.27E-08	3.27E-08	3.27E-08	9.08E-07
564695.38	4187982.5	3.93E-07	3.93E-07	3.19E-08	3.19E-08	3.19E-08	8.82E-07
564695.44	4187973.5	3.89E-07	3.97E-07	3.19E-08	3.19E-08	3.19E-08	8.81E-07
564695.63	4187955.75	3.79E-07	4.01E-07	3.17E-08	3.17E-08	3.17E-08	8.75E-07
564695.75	4187938.25	3.68E-07	4.05E-07	3.14E-08	3.14E-08	3.14E-08	8.67E-07
564695.81	4187929.25	3.62E-07	4.06E-07	3.11E-08	3.11E-08	3.11E-08	8.61E-07
564696	4187911.5	3.48E-07	4.05E-07	3.04E-08	3.04E-08	3.04E-08	8.44E-07
564705.38	4187982.5	3.7E-07	3.69E-07	3E-08	3E-08	3E-08	8.28E-07
564705.5	4187964.75	3.61E-07	3.74E-07	2.99E-08	2.99E-08	2.99E-08	8.25E-07
564705.69	4187947	3.52E-07	3.78E-07	2.96E-08	2.96E-08	2.96E-08	8.19E-07
564705.81	4187929.25	3.42E-07	3.8E-07	2.93E-08	2.93E-08	2.93E-08	8.09E-07
564706	4187911.75	3.3E-07	3.79E-07	2.87E-08	2.87E-08	2.87E-08	7.95E-07
564715.38	4187982.75	3.48E-07	3.46E-07	2.82E-08	2.82E-08	2.82E-08	7.79E-07
564715.44	4187973.75	3.45E-07	3.49E-07	2.82E-08	2.82E-08	2.82E-08	7.78E-07
564715.63	4187956	3.37E-07	3.53E-07	2.8E-08	2.8E-08	2.8E-08	7.74E-07
564715.75	4187938.25	3.28E-07	3.56E-07	2.78E-08	2.78E-08	2.78E-08	7.67E-07
564715.94	4187920.5	3.18E-07	3.56E-07	2.74E-08	2.74E-08	2.74E-08	7.57E-07
564725.38	4187982.75	3.28E-07	3.26E-07	2.65E-08	2.65E-08	2.65E-08	7.33E-07
564725.44	4187973.75	3.25E-07	3.28E-07	2.65E-08	2.65E-08	2.65E-08	7.33E-07
564725.63	4187956.25	3.18E-07	3.32E-07	2.64E-08	2.64E-08	2.64E-08	7.29E-07
564725.69	4187947.25	3.14E-07	3.33E-07	2.63E-08	2.63E-08	2.63E-08	7.27E-07
564725.81	4187929.5	3.06E-07	3.35E-07	2.61E-08	2.61E-08	2.61E-08	7.19E-07
564726	4187911.75	2.97E-07	3.35E-07	2.56E-08	2.56E-08	2.56E-08	7.09E-07
564734.88	4187990.5	3.11E-07	3.05E-07	2.5E-08	2.5E-08	2.5E-08	6.92E-07
564735.44	4187974	3.07E-07	3.09E-07	2.51E-08	2.51E-08	2.51E-08	6.92E-07
564735.5	4187965	3.04E-07	3.11E-07	2.5E-08	2.5E-08	2.5E-08	6.91E-07
564735.69	4187947.25	2.98E-07	3.14E-07	2.49E-08	2.49E-08	2.49E-08	6.86E-07
564735.81	4187929.75	2.9E-07	3.16E-07	2.47E-08	2.47E-08	2.47E-08	6.80E-07

564735.94	4187920.75	2.86E-07	3.16E-07	2.45E-08	2.45E-08	2.45E-08	6.75E-07
564745.38	4187983	2.92E-07	2.9E-07	2.36E-08	2.36E-08	2.36E-08	6.53E-07
564745.44	4187974	2.91E-07	2.92E-07	2.37E-08	2.37E-08	2.37E-08	6.54E-07
564745.63	4187956.25	2.85E-07	2.95E-07	2.36E-08	2.36E-08	2.36E-08	6.52E-07
564745.75	4187938.5	2.79E-07	2.97E-07	2.35E-08	2.35E-08	2.35E-08	6.47E-07
564745.94	4187920.75	2.72E-07	2.98E-07	2.32E-08	2.32E-08	2.32E-08	6.40E-07
564756	4187912	2.55E-07	2.82E-07	2.19E-08	2.19E-08	2.19E-08	6.03E-07
564775.44	4187974.25	2.48E-07	2.48E-07	2.02E-08	2.02E-08	2.02E-08	5.56E-07
564775.63	4187956.5	2.45E-07	2.51E-07	2.02E-08	2.02E-08	2.02E-08	5.56E-07
564775.75	4187938.75	2.4E-07	2.52E-07	2.01E-08	2.01E-08	2.01E-08	5.53E-07
564775.94	4187921.25	2.35E-07	2.53E-07	1.99E-08	1.99E-08	1.99E-08	5.48E-07
564776	4187912.25	2.32E-07	2.53E-07	1.98E-08	1.98E-08	1.98E-08	5.45E-07
564785.5	4187965.5	2.35E-07	2.37E-07	1.92E-08	1.92E-08	1.92E-08	5.29E-07
564785.69	4187947.75	2.31E-07	2.39E-07	1.92E-08	1.92E-08	1.92E-08	5.28E-07
564785.81	4187930	2.27E-07	2.4E-07	1.91E-08	1.91E-08	1.91E-08	5.24E-07
564786	4187912.25	2.22E-07	2.4E-07	1.89E-08	1.89E-08	1.89E-08	5.19E-07
564795.5	4187965.75	2.23E-07	2.25E-07	1.83E-08	1.83E-08	1.83E-08	5.03E-07
564795.56	4187956.75	2.22E-07	2.26E-07	1.83E-08	1.83E-08	1.83E-08	5.03E-07
564795.75	4187939	2.19E-07	2.28E-07	1.82E-08	1.82E-08	1.82E-08	5.01E-07
564795.94	4187921.25	2.15E-07	2.28E-07	1.81E-08	1.81E-08	1.81E-08	4.97E-07
564805.5	4187965.75	2.13E-07	2.14E-07	1.74E-08	1.74E-08	1.74E-08	4.79E-07
564805.56	4187956.75	2.12E-07	2.15E-07	1.74E-08	1.74E-08	1.74E-08	4.80E-07
564805.75	4187939.25	2.09E-07	2.17E-07	1.74E-08	1.74E-08	1.74E-08	4.78E-07
564805.81	4187930.25	2.07E-07	2.17E-07	1.73E-08	1.73E-08	1.73E-08	4.77E-07
564806	4187912.5	2.03E-07	2.18E-07	1.72E-08	1.72E-08	1.72E-08	4.72E-07
564815.56	4187957	2.02E-07	2.05E-07	1.66E-08	1.66E-08	1.66E-08	4.58E-07
564815.69	4187948	2.01E-07	2.06E-07	1.66E-08	1.66E-08	1.66E-08	4.57E-07
564815.81	4187930.25	1.98E-07	2.07E-07	1.66E-08	1.66E-08	1.66E-08	4.55E-07
564816	4187912.75	1.95E-07	2.07E-07	1.64E-08	1.64E-08	1.64E-08	4.52E-07
564825.69	4187948.25	1.93E-07	1.97E-07	1.59E-08	1.59E-08	1.59E-08	4.37E-07
564825.75	4187939.25	1.91E-07	1.97E-07	1.59E-08	1.59E-08	1.59E-08	4.36E-07
564825.94	4187921.5	1.88E-07	1.98E-07	1.58E-08	1.58E-08	1.58E-08	4.34E-07
564835.69	4187948.25	1.84E-07	1.88E-07	1.52E-08	1.52E-08	1.52E-08	4.18E-07
564835.81	4187930.5	1.82E-07	1.89E-07	1.52E-08	1.52E-08	1.52E-08	4.17E-07
564836	4187912.75	1.79E-07	1.89E-07	1.51E-08	1.51E-08	1.51E-08	4.14E-07
564845.75	4187939.5	1.76E-07	1.8E-07	1.46E-08	1.46E-08	1.46E-08	4.00E-07
564845.94	4187921.75	1.73E-07	1.81E-07	1.45E-08	1.45E-08	1.45E-08	3.98E-07
564855.75	4187939.5	1.69E-07	1.73E-07	1.4E-08	1.4E-08	1.4E-08	3.83E-07
564855.94	4187921.75	1.67E-07	1.73E-07	1.39E-08	1.39E-08	1.39E-08	3.82E-07
564865.69	4187948.5	1.62E-07	1.65E-07	1.34E-08	1.34E-08	1.34E-08	3.67E-07
564865.81	4187930.75	1.61E-07	1.66E-07	1.34E-08	1.34E-08	1.34E-08	3.67E-07
564866	4187913	1.59E-07	1.66E-07	1.33E-08	1.33E-08	1.33E-08	3.65E-07
564875.38	4187984	1.55E-07	1.54E-07	1.27E-08	1.27E-08	1.27E-08	3.48E-07
564875.5	4187966.5	1.56E-07	1.56E-07	1.28E-08	1.28E-08	1.28E-08	3.51E-07
564875.56	4187957.5	1.56E-07	1.57E-07	1.28E-08	1.28E-08	1.28E-08	3.52E-07
564875.75	4187939.75	1.55E-07	1.59E-07	1.29E-08	1.29E-08	1.29E-08	3.53E-07
564875.94	4187922	1.54E-07	1.59E-07	1.28E-08	1.28E-08	1.28E-08	3.52E-07

564884.94	4187991.75	1.49E-07	1.47E-07	1.21E-08	1.21E-08	1.21E-08	3.32E-07
564885.44	4187975.25	1.5E-07	1.49E-07	1.22E-08	1.22E-08	1.22E-08	3.35E-07
564885.56	4187957.5	1.5E-07	1.51E-07	1.23E-08	1.23E-08	1.23E-08	3.38E-07
564674.94	4187898.75	3.75E-07	4.65E-07	3.36E-08	3.36E-08	3.36E-08	9.40E-07
564684.81	4187897.5	3.55E-07	4.34E-07	3.16E-08	3.16E-08	3.16E-08	8.83E-07
564682.63	4187881.75	3.4E-07	4.35E-07	3.09E-08	3.09E-08	3.09E-08	8.68E-07
564681	4187872.75	3.32E-07	4.37E-07	3.06E-08	3.06E-08	3.06E-08	8.61E-07
564677.75	4187855	3.16E-07	4.38E-07	2.97E-08	2.97E-08	2.97E-08	8.43E-07
564674.5	4187837.25	3.01E-07	4.34E-07	2.88E-08	2.88E-08	2.88E-08	8.21E-07
564672.81	4187828.25	2.94E-07	4.3E-07	2.83E-08	2.83E-08	2.83E-08	8.09E-07
564694.69	4187896.5	3.37E-07	4.06E-07	2.99E-08	2.99E-08	2.99E-08	8.32E-07
564692.44	4187880	3.23E-07	4.07E-07	2.92E-08	2.92E-08	2.92E-08	8.18E-07
564690.81	4187871	3.16E-07	4.08E-07	2.88E-08	2.88E-08	2.88E-08	8.10E-07
564687.56	4187853.25	3.01E-07	4.08E-07	2.8E-08	2.8E-08	2.8E-08	7.93E-07
564685.94	4187844.25	2.94E-07	4.06E-07	2.76E-08	2.76E-08	2.76E-08	7.83E-07
564682.69	4187826.5	2.8E-07	4E-07	2.67E-08	2.67E-08	2.67E-08	7.60E-07
564681.06	4187817.5	2.73E-07	3.95E-07	2.62E-08	2.62E-08	2.62E-08	7.47E-07
564677.81	4187799.75	2.59E-07	3.82E-07	2.52E-08	2.52E-08	2.52E-08	7.17E-07
564704.63	4187895.25	3.19E-07	3.8E-07	2.82E-08	2.82E-08	2.82E-08	7.84E-07
564702.25	4187878.25	3.07E-07	3.81E-07	2.76E-08	2.76E-08	2.76E-08	7.71E-07
564700.63	4187869.25	3.01E-07	3.82E-07	2.73E-08	2.73E-08	2.73E-08	7.65E-07
564699	4187860.25	2.94E-07	3.82E-07	2.69E-08	2.69E-08	2.69E-08	7.57E-07
564695.75	4187842.5	2.8E-07	3.8E-07	2.61E-08	2.61E-08	2.61E-08	7.38E-07
564692.5	4187824.75	2.67E-07	3.74E-07	2.53E-08	2.53E-08	2.53E-08	7.16E-07
564690.88	4187815.75	2.6E-07	3.7E-07	2.48E-08	2.48E-08	2.48E-08	7.04E-07
564687.63	4187798	2.48E-07	3.58E-07	2.38E-08	2.38E-08	2.38E-08	6.77E-07
564714.5	4187894	3.03E-07	3.57E-07	2.66E-08	2.66E-08	2.66E-08	7.40E-07
564715.25	4187903	3.08E-07	3.57E-07	2.69E-08	2.69E-08	2.69E-08	7.46E-07
564712.13	4187876.5	2.92E-07	3.58E-07	2.61E-08	2.61E-08	2.61E-08	7.29E-07
564710.5	4187867.5	2.86E-07	3.59E-07	2.58E-08	2.58E-08	2.58E-08	7.22E-07
564708.88	4187858.5	2.8E-07	3.59E-07	2.55E-08	2.55E-08	2.55E-08	7.15E-07
564705.63	4187840.75	2.67E-07	3.56E-07	2.47E-08	2.47E-08	2.47E-08	6.97E-07
564704	4187831.75	2.61E-07	3.53E-07	2.43E-08	2.43E-08	2.43E-08	6.87E-07
564700.75	4187814	2.49E-07	3.46E-07	2.35E-08	2.35E-08	2.35E-08	6.65E-07
564699.13	4187805	2.43E-07	3.42E-07	2.31E-08	2.31E-08	2.31E-08	6.54E-07
564724.19	4187890.5	2.87E-07	3.36E-07	2.52E-08	2.52E-08	2.52E-08	6.98E-07
564721.94	4187874.5	2.78E-07	3.37E-07	2.47E-08	2.47E-08	2.47E-08	6.89E-07
564718.69	4187856.75	2.67E-07	3.37E-07	2.42E-08	2.42E-08	2.42E-08	6.77E-07
564717.06	4187847.75	2.61E-07	3.36E-07	2.38E-08	2.38E-08	2.38E-08	6.69E-07
564713.81	4187830	2.49E-07	3.32E-07	2.31E-08	2.31E-08	2.31E-08	6.51E-07
564712.19	4187821	2.44E-07	3.29E-07	2.27E-08	2.27E-08	2.27E-08	6.40E-07
564708.94	4187803.25	2.33E-07	3.21E-07	2.19E-08	2.19E-08	2.19E-08	6.20E-07
564734.06	4187889.25	2.73E-07	3.17E-07	2.39E-08	2.39E-08	2.39E-08	6.61E-07
564735.38	4187904.25	2.79E-07	3.16E-07	2.42E-08	2.42E-08	2.42E-08	6.68E-07
564731.81	4187872.75	2.65E-07	3.18E-07	2.35E-08	2.35E-08	2.35E-08	6.53E-07
564728.5	4187855	2.55E-07	3.18E-07	2.3E-08	2.3E-08	2.3E-08	6.42E-07
564726.94	4187846	2.5E-07	3.17E-07	2.26E-08	2.26E-08	2.26E-08	6.35E-07

564723.69	4187828.25	2.39E-07	3.13E-07	2.19E-08	2.19E-08	2.19E-08	6.17E-07
564722	4187819.25	2.33E-07	3.1E-07	2.16E-08	2.16E-08	2.16E-08	6.08E-07
564718.75	4187801.5	2.23E-07	3.03E-07	2.09E-08	2.09E-08	2.09E-08	5.88E-07
564717.13	4187792.5	2.18E-07	2.98E-07	2.05E-08	2.05E-08	2.05E-08	5.78E-07
564743.94	4187888	2.6E-07	3E-07	2.27E-08	2.27E-08	2.27E-08	6.27E-07
564745.31	4187904	2.66E-07	2.99E-07	2.29E-08	2.29E-08	2.29E-08	6.33E-07
564741.63	4187871	2.52E-07	3E-07	2.23E-08	2.23E-08	2.23E-08	6.20E-07
564740	4187862	2.48E-07	3.01E-07	2.21E-08	2.21E-08	2.21E-08	6.15E-07
564736.75	4187844.25	2.39E-07	2.99E-07	2.16E-08	2.16E-08	2.16E-08	6.03E-07
564735.13	4187835.25	2.34E-07	2.97E-07	2.12E-08	2.12E-08	2.12E-08	5.95E-07
564731.88	4187817.5	2.24E-07	2.93E-07	2.06E-08	2.06E-08	2.06E-08	5.78E-07
564730.25	4187808.5	2.19E-07	2.89E-07	2.02E-08	2.02E-08	2.02E-08	5.69E-07
564727	4187790.75	2.09E-07	2.82E-07	1.95E-08	1.95E-08	1.95E-08	5.50E-07
564753.81	4187886.75	2.47E-07	2.83E-07	2.15E-08	2.15E-08	2.15E-08	5.95E-07
564751.44	4187869.25	2.41E-07	2.84E-07	2.12E-08	2.12E-08	2.12E-08	5.89E-07
564749.81	4187860.25	2.37E-07	2.85E-07	2.1E-08	2.1E-08	2.1E-08	5.85E-07
564746.56	4187842.5	2.29E-07	2.83E-07	2.05E-08	2.05E-08	2.05E-08	5.74E-07
564744.94	4187833.5	2.24E-07	2.82E-07	2.02E-08	2.02E-08	2.02E-08	5.67E-07
564741.69	4187815.75	2.15E-07	2.77E-07	1.96E-08	1.96E-08	1.96E-08	5.51E-07
564740.06	4187806.75	2.1E-07	2.74E-07	1.93E-08	1.93E-08	1.93E-08	5.42E-07
564736.81	4187789	2.01E-07	2.67E-07	1.86E-08	1.86E-08	1.86E-08	5.24E-07
564759.69	4187858.5	2.27E-07	2.7E-07	2.01E-08	2.01E-08	2.01E-08	5.57E-07
564758.06	4187849.5	2.23E-07	2.69E-07	1.98E-08	1.98E-08	1.98E-08	5.52E-07
564754.81	4187831.75	2.15E-07	2.67E-07	1.93E-08	1.93E-08	1.93E-08	5.40E-07
564753.19	4187822.75	2.11E-07	2.65E-07	1.9E-08	1.9E-08	1.9E-08	5.33E-07
564749.94	4187805	2.02E-07	2.6E-07	1.84E-08	1.84E-08	1.84E-08	5.17E-07
564748.31	4187796	1.98E-07	2.57E-07	1.81E-08	1.81E-08	1.81E-08	5.09E-07
564764.63	4187830	2.06E-07	2.54E-07	1.85E-08	1.85E-08	1.85E-08	5.15E-07
564763	4187821	2.02E-07	2.52E-07	1.82E-08	1.82E-08	1.82E-08	5.09E-07
564759.75	4187803.25	1.94E-07	2.47E-07	1.76E-08	1.76E-08	1.76E-08	4.94E-07
564758.13	4187794.25	1.9E-07	2.44E-07	1.74E-08	1.74E-08	1.74E-08	4.86E-07
564783.25	4187880.75	2.15E-07	2.43E-07	1.86E-08	1.86E-08	1.86E-08	5.13E-07
564784.63	4187896.5	2.19E-07	2.42E-07	1.88E-08	1.88E-08	1.88E-08	5.17E-07
564768	4187792.5	1.83E-07	2.32E-07	1.66E-08	1.66E-08	1.66E-08	4.65E-07
564766.31	4187783.5	1.8E-07	2.3E-07	1.64E-08	1.64E-08	1.64E-08	4.58E-07
564793.13	4187879.25	2.05E-07	2.31E-07	1.78E-08	1.78E-08	1.78E-08	4.90E-07
564794.56	4187895.75	2.09E-07	2.3E-07	1.79E-08	1.79E-08	1.79E-08	4.93E-07
564787.56	4187844.25	1.96E-07	2.32E-07	1.73E-08	1.73E-08	1.73E-08	4.80E-07
564785.94	4187835.25	1.94E-07	2.31E-07	1.71E-08	1.71E-08	1.71E-08	4.76E-07
564803	4187877.75	1.97E-07	2.2E-07	1.7E-08	1.7E-08	1.7E-08	4.68E-07
564804.5	4187895.25	2E-07	2.19E-07	1.71E-08	1.71E-08	1.71E-08	4.71E-07
564799	4187851.25	1.91E-07	2.21E-07	1.67E-08	1.67E-08	1.67E-08	4.62E-07
564795.75	4187833.5	1.86E-07	2.2E-07	1.64E-08	1.64E-08	1.64E-08	4.55E-07
564794.13	4187824.5	1.83E-07	2.19E-07	1.62E-08	1.62E-08	1.62E-08	4.51E-07
564790.88	4187806.75	1.77E-07	2.16E-07	1.58E-08	1.58E-08	1.58E-08	4.40E-07
564789.25	4187797.75	1.74E-07	2.14E-07	1.56E-08	1.56E-08	1.56E-08	4.34E-07
564812.75	4187875	1.88E-07	2.1E-07	1.62E-08	1.62E-08	1.62E-08	4.47E-07

564814.06	4187890	1.91E-07	2.09E-07	1.64E-08	1.64E-08	1.64E-08	4.49E-07
564808.88	4187849.5	1.83E-07	2.11E-07	1.6E-08	1.6E-08	1.6E-08	4.42E-07
564805.63	4187831.75	1.79E-07	2.1E-07	1.58E-08	1.58E-08	1.58E-08	4.36E-07
564804	4187822.75	1.76E-07	2.09E-07	1.56E-08	1.56E-08	1.56E-08	4.32E-07
564800.75	4187805	1.7E-07	2.06E-07	1.52E-08	1.52E-08	1.52E-08	4.22E-07
564799.13	4187796	1.67E-07	2.04E-07	1.5E-08	1.5E-08	1.5E-08	4.16E-07
564795.88	4187778.25	1.61E-07	2E-07	1.45E-08	1.45E-08	1.45E-08	4.05E-07
564822.63	4187873.5	1.81E-07	2.01E-07	1.56E-08	1.56E-08	1.56E-08	4.28E-07
564824	4187889.25	1.83E-07	2E-07	1.57E-08	1.57E-08	1.57E-08	4.30E-07
564825.31	4187904.75	1.86E-07	1.99E-07	1.57E-08	1.57E-08	1.57E-08	4.32E-07
564818.69	4187847.75	1.76E-07	2.02E-07	1.54E-08	1.54E-08	1.54E-08	4.24E-07
564817.06	4187838.75	1.74E-07	2.02E-07	1.53E-08	1.53E-08	1.53E-08	4.21E-07
564813.81	4187821	1.7E-07	2E-07	1.5E-08	1.5E-08	1.5E-08	4.15E-07
564812.19	4187812	1.67E-07	1.99E-07	1.48E-08	1.48E-08	1.48E-08	4.10E-07
564808.94	4187794.25	1.61E-07	1.95E-07	1.44E-08	1.44E-08	1.44E-08	4.00E-07
564807.31	4187785.25	1.59E-07	1.94E-07	1.42E-08	1.42E-08	1.42E-08	3.95E-07
564832.5	4187872	1.73E-07	1.92E-07	1.49E-08	1.49E-08	1.49E-08	4.10E-07
564833.88	4187888.25	1.76E-07	1.91E-07	1.5E-08	1.5E-08	1.5E-08	4.12E-07
564826.94	4187837	1.67E-07	1.93E-07	1.47E-08	1.47E-08	1.47E-08	4.04E-07
564823.69	4187819.25	1.63E-07	1.91E-07	1.44E-08	1.44E-08	1.44E-08	3.98E-07
564822	4187810.25	1.61E-07	1.9E-07	1.42E-08	1.42E-08	1.42E-08	3.94E-07
564818.75	4187792.5	1.56E-07	1.87E-07	1.39E-08	1.39E-08	1.39E-08	3.85E-07
564817.19	4187783.5	1.53E-07	1.85E-07	1.37E-08	1.37E-08	1.37E-08	3.80E-07
564842.38	4187870.5	1.67E-07	1.84E-07	1.43E-08	1.43E-08	1.43E-08	3.93E-07
564843.81	4187887.5	1.69E-07	1.83E-07	1.44E-08	1.44E-08	1.44E-08	3.95E-07
564845.25	4187904.5	1.71E-07	1.82E-07	1.44E-08	1.44E-08	1.44E-08	3.96E-07
564836.75	4187835.25	1.61E-07	1.85E-07	1.41E-08	1.41E-08	1.41E-08	3.88E-07
564835.13	4187826.25	1.59E-07	1.84E-07	1.4E-08	1.4E-08	1.4E-08	3.86E-07
564831.88	4187808.5	1.55E-07	1.82E-07	1.37E-08	1.37E-08	1.37E-08	3.79E-07
564830.25	4187799.5	1.53E-07	1.81E-07	1.35E-08	1.35E-08	1.35E-08	3.75E-07
564827	4187781.75	1.48E-07	1.78E-07	1.32E-08	1.32E-08	1.32E-08	3.65E-07
564825.38	4187772.75	1.46E-07	1.76E-07	1.3E-08	1.3E-08	1.3E-08	3.61E-07
564852.25	4187869	1.6E-07	1.76E-07	1.38E-08	1.38E-08	1.38E-08	3.78E-07
564853.75	4187886.5	1.63E-07	1.75E-07	1.38E-08	1.38E-08	1.38E-08	3.79E-07
564854.5	4187895.5	1.64E-07	1.75E-07	1.38E-08	1.38E-08	1.38E-08	3.80E-07
564848.19	4187842.25	1.57E-07	1.77E-07	1.36E-08	1.36E-08	1.36E-08	3.75E-07
564844.94	4187824.5	1.54E-07	1.77E-07	1.34E-08	1.34E-08	1.34E-08	3.71E-07
564843.31	4187815.5	1.52E-07	1.76E-07	1.33E-08	1.33E-08	1.33E-08	3.68E-07
564840.06	4187797.75	1.48E-07	1.74E-07	1.3E-08	1.3E-08	1.3E-08	3.61E-07
564836.81	4187780	1.43E-07	1.71E-07	1.27E-08	1.27E-08	1.27E-08	3.52E-07
564835.19	4187771	1.41E-07	1.69E-07	1.25E-08	1.25E-08	1.25E-08	3.48E-07
564862	4187866.25	1.54E-07	1.69E-07	1.32E-08	1.32E-08	1.32E-08	3.63E-07
564863.31	4187881.75	1.56E-07	1.68E-07	1.33E-08	1.33E-08	1.33E-08	3.64E-07
564864.69	4187897.5	1.58E-07	1.67E-07	1.33E-08	1.33E-08	1.33E-08	3.65E-07
564858.06	4187840.5	1.51E-07	1.7E-07	1.31E-08	1.31E-08	1.31E-08	3.60E-07
564854.81	4187822.75	1.48E-07	1.7E-07	1.29E-08	1.29E-08	1.29E-08	3.57E-07
564853.19	4187813.75	1.46E-07	1.69E-07	1.28E-08	1.28E-08	1.28E-08	3.54E-07

564849.94	4187796	1.43E-07	1.67E-07	1.26E-08	1.26E-08	1.26E-08	3.47E-07
564848.31	4187787	1.41E-07	1.66E-07	1.24E-08	1.24E-08	1.24E-08	3.43E-07
564845.06	4187769.25	1.36E-07	1.63E-07	1.21E-08	1.21E-08	1.21E-08	3.35E-07
564873.25	4187880.75	1.5E-07	1.61E-07	1.28E-08	1.28E-08	1.28E-08	3.50E-07
564874.63	4187897	1.52E-07	1.61E-07	1.28E-08	1.28E-08	1.28E-08	3.51E-07
564861.38	4187803	1.4E-07	1.62E-07	1.23E-08	1.23E-08	1.23E-08	3.38E-07
564675.5	4187791	2.53E-07	3.74E-07	2.46E-08	2.46E-08	2.46E-08	7.01E-07
564673.19	4187782.25	2.47E-07	3.65E-07	2.4E-08	2.4E-08	2.4E-08	6.83E-07
564685.13	4187788.5	2.42E-07	3.51E-07	2.33E-08	2.33E-08	2.33E-08	6.63E-07
564682.63	4187779	2.35E-07	3.42E-07	2.28E-08	2.28E-08	2.28E-08	6.46E-07
564679.38	4187769.5	2.29E-07	3.33E-07	2.22E-08	2.22E-08	2.22E-08	6.29E-07
564676.13	4187760	2.23E-07	3.23E-07	2.16E-08	2.16E-08	2.16E-08	6.11E-07
564693.88	4187782.5	2.29E-07	3.27E-07	2.2E-08	2.2E-08	2.2E-08	6.22E-07
564688.81	4187766.25	2.2E-07	3.14E-07	2.11E-08	2.11E-08	2.11E-08	5.96E-07
564685.56	4187756.75	2.14E-07	3.05E-07	2.06E-08	2.06E-08	2.06E-08	5.80E-07
564703.5	4187779.75	2.19E-07	3.08E-07	2.09E-08	2.09E-08	2.09E-08	5.90E-07
564698.31	4187763	2.1E-07	2.96E-07	2.01E-08	2.01E-08	2.01E-08	5.67E-07
564695.06	4187753.5	2.05E-07	2.88E-07	1.96E-08	1.96E-08	1.96E-08	5.52E-07
564713.06	4187777	2.1E-07	2.91E-07	1.99E-08	1.99E-08	1.99E-08	5.61E-07
564707.75	4187759.75	2.02E-07	2.8E-07	1.91E-08	1.91E-08	1.91E-08	5.39E-07
564704.5	4187750.25	1.97E-07	2.73E-07	1.87E-08	1.87E-08	1.87E-08	5.26E-07
564722.63	4187774.25	2.02E-07	2.75E-07	1.89E-08	1.89E-08	1.89E-08	5.34E-07
564717.19	4187756.5	1.94E-07	2.65E-07	1.83E-08	1.83E-08	1.83E-08	5.14E-07
564713.94	4187747	1.89E-07	2.59E-07	1.79E-08	1.79E-08	1.79E-08	5.02E-07
564732.25	4187771.5	1.94E-07	2.61E-07	1.81E-08	1.81E-08	1.81E-08	5.08E-07
564734.5	4187780.25	1.97E-07	2.64E-07	1.84E-08	1.84E-08	1.84E-08	5.17E-07
564729.94	4187762.5	1.9E-07	2.56E-07	1.78E-08	1.78E-08	1.78E-08	4.99E-07
564726.63	4187753.25	1.86E-07	2.52E-07	1.75E-08	1.75E-08	1.75E-08	4.90E-07
564723.38	4187743.75	1.82E-07	2.46E-07	1.71E-08	1.71E-08	1.71E-08	4.80E-07
564741.81	4187768.75	1.86E-07	2.47E-07	1.73E-08	1.73E-08	1.73E-08	4.85E-07
564744.25	4187778	1.9E-07	2.51E-07	1.76E-08	1.76E-08	1.76E-08	4.93E-07
564739.38	4187759.25	1.82E-07	2.43E-07	1.7E-08	1.7E-08	1.7E-08	4.76E-07
564736.13	4187750	1.79E-07	2.39E-07	1.67E-08	1.67E-08	1.67E-08	4.68E-07
564732.88	4187740.5	1.75E-07	2.34E-07	1.64E-08	1.64E-08	1.64E-08	4.59E-07
564750.75	4187763.5	1.78E-07	2.34E-07	1.65E-08	1.65E-08	1.65E-08	4.62E-07
564754.56	4187778	1.84E-07	2.39E-07	1.69E-08	1.69E-08	1.69E-08	4.73E-07
564745.56	4187746.75	1.72E-07	2.27E-07	1.6E-08	1.6E-08	1.6E-08	4.47E-07
564742.31	4187737.25	1.69E-07	2.23E-07	1.57E-08	1.57E-08	1.57E-08	4.39E-07
564760.31	4187760.5	1.71E-07	2.23E-07	1.58E-08	1.58E-08	1.58E-08	4.41E-07
564755	4187743.5	1.66E-07	2.17E-07	1.53E-08	1.53E-08	1.53E-08	4.28E-07
564751.75	4187734	1.63E-07	2.13E-07	1.51E-08	1.51E-08	1.51E-08	4.21E-07
564769.81	4187757.5	1.65E-07	2.13E-07	1.51E-08	1.51E-08	1.51E-08	4.23E-07
564764.5	4187740	1.6E-07	2.07E-07	1.47E-08	1.47E-08	1.47E-08	4.10E-07
564761.19	4187730.75	1.57E-07	2.03E-07	1.45E-08	1.45E-08	1.45E-08	4.04E-07
564773.94	4187736.75	1.54E-07	1.98E-07	1.41E-08	1.41E-08	1.41E-08	3.94E-07
564770.69	4187727.5	1.51E-07	1.95E-07	1.39E-08	1.39E-08	1.39E-08	3.88E-07
564791.25	4187760.75	1.56E-07	1.96E-07	1.41E-08	1.41E-08	1.41E-08	3.95E-07

564793.56	4187769.5	1.59E-07	1.98E-07	1.43E-08	1.43E-08	1.43E-08	4.00E-07
564798.5	4187749	1.48E-07	1.86E-07	1.34E-08	1.34E-08	1.34E-08	3.74E-07
564800.88	4187758	1.51E-07	1.88E-07	1.36E-08	1.36E-08	1.36E-08	3.79E-07
564803.31	4187767.25	1.53E-07	1.9E-07	1.38E-08	1.38E-08	1.38E-08	3.84E-07
564796.06	4187739.75	1.46E-07	1.83E-07	1.32E-08	1.32E-08	1.32E-08	3.69E-07
564808	4187746	1.43E-07	1.78E-07	1.29E-08	1.29E-08	1.29E-08	3.60E-07
564810.5	4187755.5	1.46E-07	1.8E-07	1.31E-08	1.31E-08	1.31E-08	3.65E-07
564813	4187765	1.48E-07	1.82E-07	1.33E-08	1.33E-08	1.33E-08	3.70E-07
564805.5	4187736.5	1.41E-07	1.76E-07	1.27E-08	1.27E-08	1.27E-08	3.55E-07
564802.25	4187727	1.39E-07	1.74E-07	1.26E-08	1.26E-08	1.26E-08	3.50E-07
564799	4187717.75	1.36E-07	1.71E-07	1.24E-08	1.24E-08	1.24E-08	3.45E-07
564817.06	4187741.25	1.38E-07	1.7E-07	1.24E-08	1.24E-08	1.24E-08	3.45E-07
564821.25	4187757	1.42E-07	1.73E-07	1.27E-08	1.27E-08	1.27E-08	3.53E-07
564811.75	4187723.75	1.34E-07	1.67E-07	1.21E-08	1.21E-08	1.21E-08	3.37E-07
564808.5	4187714.25	1.32E-07	1.64E-07	1.19E-08	1.19E-08	1.19E-08	3.32E-07
564826.56	4187738.25	1.33E-07	1.64E-07	1.2E-08	1.2E-08	1.2E-08	3.33E-07
564830.88	4187754.75	1.37E-07	1.67E-07	1.23E-08	1.23E-08	1.23E-08	3.41E-07
564821.19	4187720.5	1.3E-07	1.6E-07	1.17E-08	1.17E-08	1.17E-08	3.25E-07
564817.94	4187711	1.28E-07	1.58E-07	1.15E-08	1.15E-08	1.15E-08	3.20E-07
564836.13	4187735.25	1.29E-07	1.57E-07	1.15E-08	1.15E-08	1.15E-08	3.21E-07
564840.56	4187752.25	1.33E-07	1.6E-07	1.18E-08	1.18E-08	1.18E-08	3.28E-07
564830.63	4187717.25	1.25E-07	1.54E-07	1.13E-08	1.13E-08	1.13E-08	3.13E-07
564827.38	4187707.75	1.24E-07	1.52E-07	1.11E-08	1.11E-08	1.11E-08	3.09E-07
564845.63	4187732.25	1.25E-07	1.51E-07	1.12E-08	1.12E-08	1.12E-08	3.10E-07
564847.94	4187741	1.27E-07	1.53E-07	1.13E-08	1.13E-08	1.13E-08	3.13E-07
564850.25	4187749.75	1.28E-07	1.54E-07	1.14E-08	1.14E-08	1.14E-08	3.17E-07
564843.38	4187723.5	1.23E-07	1.5E-07	1.1E-08	1.1E-08	1.1E-08	3.06E-07
564840.06	4187714	1.21E-07	1.48E-07	1.09E-08	1.09E-08	1.09E-08	3.02E-07
564836.81	4187704.5	1.2E-07	1.46E-07	1.08E-08	1.08E-08	1.08E-08	2.98E-07
564513.81	4187710	1.96E-07	3.03E-07	1.98E-08	1.98E-08	1.98E-08	5.59E-07
564517.69	4187700.75	1.86E-07	2.83E-07	1.86E-08	1.86E-08	1.86E-08	5.25E-07
564673.56	4187744	2.1E-07	3.03E-07	2.03E-08	2.03E-08	2.03E-08	5.74E-07
564692.56	4187737.5	1.94E-07	2.72E-07	1.86E-08	1.86E-08	1.86E-08	5.22E-07
564687.94	4187706	1.73E-07	2.42E-07	1.66E-08	1.66E-08	1.66E-08	4.65E-07
564711.56	4187731	1.8E-07	2.46E-07	1.7E-08	1.7E-08	1.7E-08	4.77E-07
564679.88	4187683.75	1.6E-07	2.24E-07	1.53E-08	1.53E-08	1.53E-08	4.29E-07
564691.63	4187696.5	1.65E-07	2.29E-07	1.58E-08	1.58E-08	1.58E-08	4.42E-07
564703.44	4187709	1.7E-07	2.32E-07	1.61E-08	1.61E-08	1.61E-08	4.50E-07
564660.13	4187649.5	1.4E-07	1.94E-07	1.34E-08	1.34E-08	1.34E-08	3.73E-07
564683.56	4187674.5	1.53E-07	2.12E-07	1.46E-08	1.46E-08	1.46E-08	4.08E-07
564695.31	4187687	1.58E-07	2.18E-07	1.5E-08	1.5E-08	1.5E-08	4.21E-07
564707.06	4187699.5	1.62E-07	2.21E-07	1.54E-08	1.54E-08	1.54E-08	4.29E-07
564730.56	4187724.75	1.68E-07	2.23E-07	1.57E-08	1.57E-08	1.57E-08	4.38E-07
564659.25	4187635.25	1.32E-07	1.8E-07	1.25E-08	1.25E-08	1.25E-08	3.49E-07
564677.75	4187655	1.41E-07	1.94E-07	1.34E-08	1.34E-08	1.34E-08	3.76E-07
564690.13	4187668	1.47E-07	2.03E-07	1.4E-08	1.4E-08	1.4E-08	3.92E-07
564696.25	4187674.75	1.5E-07	2.06E-07	1.43E-08	1.43E-08	1.43E-08	3.99E-07

564708.63	4187687.75	1.55E-07	2.1E-07	1.46E-08	1.46E-08	1.46E-08	4.09E-07
564714.75	4187694.5	1.57E-07	2.11E-07	1.48E-08	1.48E-08	1.48E-08	4.12E-07
564727.13	4187707.5	1.6E-07	2.12E-07	1.5E-08	1.5E-08	1.5E-08	4.17E-07
564745.56	4187727.25	1.62E-07	2.13E-07	1.51E-08	1.51E-08	1.51E-08	4.20E-07
564656.94	4187619.25	1.23E-07	1.66E-07	1.17E-08	1.17E-08	1.17E-08	3.24E-07
564669.19	4187632.5	1.29E-07	1.75E-07	1.22E-08	1.22E-08	1.22E-08	3.41E-07
564693.75	4187658.5	1.41E-07	1.92E-07	1.34E-08	1.34E-08	1.34E-08	3.73E-07
564699.88	4187665.25	1.44E-07	1.96E-07	1.36E-08	1.36E-08	1.36E-08	3.80E-07
564712.13	4187678.25	1.48E-07	2E-07	1.4E-08	1.4E-08	1.4E-08	3.90E-07
564724.38	4187691.25	1.52E-07	2.02E-07	1.42E-08	1.42E-08	1.42E-08	3.97E-07
564730.5	4187698	1.53E-07	2.03E-07	1.43E-08	1.43E-08	1.43E-08	3.99E-07
564660.69	4187610	1.18E-07	1.58E-07	1.12E-08	1.12E-08	1.12E-08	3.10E-07
564672.94	4187623	1.24E-07	1.67E-07	1.17E-08	1.17E-08	1.17E-08	3.25E-07
564685.13	4187636	1.29E-07	1.75E-07	1.22E-08	1.22E-08	1.22E-08	3.41E-07
564697.38	4187649.25	1.35E-07	1.83E-07	1.28E-08	1.28E-08	1.28E-08	3.56E-07
564709.56	4187662.25	1.4E-07	1.89E-07	1.32E-08	1.32E-08	1.32E-08	3.69E-07
564721.81	4187675.25	1.44E-07	1.92E-07	1.35E-08	1.35E-08	1.35E-08	3.77E-07
564734	4187688.25	1.47E-07	1.94E-07	1.38E-08	1.38E-08	1.38E-08	3.83E-07
564746.25	4187701.25	1.49E-07	1.95E-07	1.39E-08	1.39E-08	1.39E-08	3.86E-07
564652.31	4187587.75	1.09E-07	1.44E-07	1.02E-08	1.02E-08	1.02E-08	2.84E-07
564664.5	4187600.75	1.14E-07	1.51E-07	1.07E-08	1.07E-08	1.07E-08	2.97E-07
564676.69	4187613.75	1.19E-07	1.59E-07	1.12E-08	1.12E-08	1.12E-08	3.11E-07
564688.81	4187626.75	1.24E-07	1.67E-07	1.17E-08	1.17E-08	1.17E-08	3.26E-07
564713.19	4187652.75	1.34E-07	1.8E-07	1.26E-08	1.26E-08	1.26E-08	3.52E-07
564725.38	4187665.75	1.39E-07	1.84E-07	1.3E-08	1.3E-08	1.3E-08	3.61E-07
564737.5	4187678.75	1.42E-07	1.86E-07	1.32E-08	1.32E-08	1.32E-08	3.67E-07
564749.69	4187691.75	1.44E-07	1.86E-07	1.33E-08	1.33E-08	1.33E-08	3.70E-07
564656.19	4187578.5	1.05E-07	1.38E-07	9.85E-09	9.85E-09	9.85E-09	2.72E-07
564668.31	4187591.5	1.1E-07	1.44E-07	1.03E-08	1.03E-08	1.03E-08	2.85E-07
564680.44	4187604.25	1.14E-07	1.51E-07	1.07E-08	1.07E-08	1.07E-08	2.98E-07
564692.56	4187617.25	1.19E-07	1.59E-07	1.12E-08	1.12E-08	1.12E-08	3.11E-07
564704.69	4187630.25	1.24E-07	1.66E-07	1.17E-08	1.17E-08	1.17E-08	3.25E-07
564728.94	4187656.25	1.33E-07	1.76E-07	1.25E-08	1.25E-08	1.25E-08	3.46E-07
564741.06	4187669	1.36E-07	1.78E-07	1.27E-08	1.27E-08	1.27E-08	3.52E-07
564753.19	4187682	1.39E-07	1.79E-07	1.28E-08	1.28E-08	1.28E-08	3.56E-07
564765.31	4187695	1.4E-07	1.79E-07	1.29E-08	1.29E-08	1.29E-08	3.58E-07
564672.13	4187582	1.06E-07	1.38E-07	9.87E-09	9.87E-09	9.87E-09	2.73E-07
564684.19	4187595	1.1E-07	1.44E-07	1.03E-08	1.03E-08	1.03E-08	2.85E-07
564696.31	4187608	1.15E-07	1.51E-07	1.07E-08	1.07E-08	1.07E-08	2.98E-07
564708.38	4187620.75	1.19E-07	1.58E-07	1.12E-08	1.12E-08	1.12E-08	3.11E-07
564732.56	4187646.75	1.28E-07	1.68E-07	1.2E-08	1.2E-08	1.2E-08	3.32E-07
564744.63	4187659.5	1.31E-07	1.7E-07	1.22E-08	1.22E-08	1.22E-08	3.38E-07
564756.75	4187672.5	1.34E-07	1.71E-07	1.23E-08	1.23E-08	1.23E-08	3.42E-07
564768.81	4187685.25	1.35E-07	1.72E-07	1.24E-08	1.24E-08	1.24E-08	3.44E-07
564645.69	4187559.25	9.82E-08	1.27E-07	9.16E-09	9.16E-09	9.16E-09	2.53E-07
564663.88	4187560	9.78E-08	1.26E-07	9.12E-09	9.12E-09	9.12E-09	2.51E-07
564675.94	4187572.75	1.02E-07	1.32E-07	9.5E-09	9.5E-09	9.5E-09	2.62E-07

564688	4187585.75	1.06E-07	1.38E-07	9.9E-09	9.9E-09	9.9E-09	2.74E-07
564700.06	4187598.5	1.1E-07	1.44E-07	1.03E-08	1.03E-08	1.03E-08	2.86E-07
564712.06	4187611.5	1.15E-07	1.51E-07	1.07E-08	1.07E-08	1.07E-08	2.98E-07
564724.13	4187624.25	1.19E-07	1.57E-07	1.11E-08	1.11E-08	1.11E-08	3.09E-07
564748.25	4187650	1.26E-07	1.63E-07	1.17E-08	1.17E-08	1.17E-08	3.25E-07
564760.31	4187663	1.29E-07	1.65E-07	1.19E-08	1.19E-08	1.19E-08	3.29E-07
564772.31	4187675.75	1.3E-07	1.65E-07	1.2E-08	1.2E-08	1.2E-08	3.31E-07
564649.56	4187550	9.48E-08	1.22E-07	8.82E-09	8.82E-09	8.82E-09	2.43E-07
564667.75	4187550.75	9.45E-08	1.21E-07	8.78E-09	8.78E-09	8.78E-09	2.42E-07
564691.81	4187576.5	1.02E-07	1.32E-07	9.52E-09	9.52E-09	9.52E-09	2.63E-07
564703.81	4187589.25	1.06E-07	1.38E-07	9.9E-09	9.9E-09	9.9E-09	2.74E-07
564715.81	4187602	1.1E-07	1.44E-07	1.03E-08	1.03E-08	1.03E-08	2.86E-07
564727.81	4187615	1.15E-07	1.5E-07	1.07E-08	1.07E-08	1.07E-08	2.97E-07
564751.88	4187640.5	1.22E-07	1.57E-07	1.13E-08	1.13E-08	1.13E-08	3.12E-07
564763.88	4187653.25	1.24E-07	1.58E-07	1.14E-08	1.14E-08	1.14E-08	3.17E-07
564775.88	4187666.25	1.26E-07	1.59E-07	1.15E-08	1.15E-08	1.15E-08	3.19E-07
564799.94	4187691.75	1.27E-07	1.59E-07	1.16E-08	1.16E-08	1.16E-08	3.21E-07
564653.44	4187540.75	9.16E-08	1.17E-07	8.51E-09	8.51E-09	8.51E-09	2.34E-07
564645.13	4187537.25	9.05E-08	1.15E-07	8.41E-09	8.41E-09	8.41E-09	2.31E-07
564671.63	4187541.5	9.13E-08	1.16E-07	8.47E-09	8.47E-09	8.47E-09	2.33E-07
564683.63	4187554.25	9.49E-08	1.22E-07	8.81E-09	8.81E-09	8.81E-09	2.43E-07
564695.56	4187567	9.86E-08	1.27E-07	9.16E-09	9.16E-09	9.16E-09	2.53E-07
564707.56	4187580	1.02E-07	1.32E-07	9.53E-09	9.53E-09	9.53E-09	2.63E-07
564719.56	4187592.75	1.06E-07	1.38E-07	9.9E-09	9.9E-09	9.9E-09	2.74E-07
564731.5	4187605.5	1.1E-07	1.43E-07	1.03E-08	1.03E-08	1.03E-08	2.85E-07
564743.5	4187618.25	1.14E-07	1.48E-07	1.06E-08	1.06E-08	1.06E-08	2.94E-07
564767.5	4187643.75	1.2E-07	1.52E-07	1.1E-08	1.1E-08	1.1E-08	3.05E-07
564779.44	4187656.75	1.22E-07	1.53E-07	1.11E-08	1.11E-08	1.11E-08	3.08E-07
564803.44	4187682.25	1.23E-07	1.53E-07	1.12E-08	1.12E-08	1.12E-08	3.10E-07
564657.31	4187531.5	8.85E-08	1.12E-07	8.21E-09	8.21E-09	8.21E-09	2.26E-07
564649	4187528	8.76E-08	1.11E-07	8.11E-09	8.11E-09	8.11E-09	2.23E-07
564640.69	4187524.5	8.65E-08	1.09E-07	8E-09	8E-09	8E-09	2.20E-07
564675.5	4187532.25	8.83E-08	1.12E-07	8.17E-09	8.17E-09	8.17E-09	2.25E-07
564687.44	4187545	9.17E-08	1.17E-07	8.5E-09	8.5E-09	8.5E-09	2.34E-07
564711.31	4187570.5	9.88E-08	1.27E-07	9.16E-09	9.16E-09	9.16E-09	2.53E-07
564723.31	4187583.25	1.03E-07	1.32E-07	9.52E-09	9.52E-09	9.52E-09	2.63E-07
564735.25	4187596	1.06E-07	1.37E-07	9.87E-09	9.87E-09	9.87E-09	2.73E-07
564747.19	4187608.75	1.1E-07	1.42E-07	1.02E-08	1.02E-08	1.02E-08	2.82E-07
564771.13	4187634.5	1.16E-07	1.47E-07	1.06E-08	1.06E-08	1.06E-08	2.94E-07
564783.06	4187647.25	1.17E-07	1.47E-07	1.08E-08	1.08E-08	1.08E-08	2.97E-07
564806.94	4187672.75	1.19E-07	1.48E-07	1.08E-08	1.08E-08	1.08E-08	2.99E-07
564818.94	4187685.5	1.2E-07	1.47E-07	1.08E-08	1.08E-08	1.08E-08	2.99E-07
564661.19	4187522.5	8.58E-08	1.08E-07	7.93E-09	7.93E-09	7.93E-09	2.18E-07
564652.88	4187519	8.48E-08	1.07E-07	7.84E-09	7.84E-09	7.84E-09	2.15E-07
564644.56	4187515.5	8.38E-08	1.05E-07	7.74E-09	7.74E-09	7.74E-09	2.12E-07
564679.31	4187523	8.55E-08	1.08E-07	7.9E-09	7.9E-09	7.9E-09	2.17E-07
564691.25	4187535.75	8.87E-08	1.12E-07	8.2E-09	8.2E-09	8.2E-09	2.26E-07

564703.19	4187548.5	9.2E-08	1.17E-07	8.51E-09	8.51E-09	8.51E-09	2.34E-07
564727.06	4187574	9.9E-08	1.27E-07	9.17E-09	9.17E-09	9.17E-09	2.53E-07
564739	4187586.75	1.03E-07	1.32E-07	9.5E-09	9.5E-09	9.5E-09	2.63E-07
564750.88	4187599.5	1.06E-07	1.36E-07	9.82E-09	9.82E-09	9.82E-09	2.72E-07
564762.81	4187612.25	1.09E-07	1.39E-07	1.01E-08	1.01E-08	1.01E-08	2.79E-07
564786.69	4187637.75	1.14E-07	1.42E-07	1.04E-08	1.04E-08	1.04E-08	2.87E-07
564810.5	4187663	1.15E-07	1.42E-07	1.05E-08	1.05E-08	1.05E-08	2.89E-07
564822.44	4187675.75	1.16E-07	1.42E-07	1.05E-08	1.05E-08	1.05E-08	2.89E-07
564665.06	4187513.25	8.3E-08	1.04E-07	7.66E-09	7.66E-09	7.66E-09	2.10E-07
564656.75	4187509.75	8.21E-08	1.03E-07	7.58E-09	7.58E-09	7.58E-09	2.08E-07
564648.44	4187506.25	8.11E-08	1.01E-07	7.48E-09	7.48E-09	7.48E-09	2.05E-07
564640.06	4187502.75	8.01E-08	9.99E-08	7.38E-09	7.38E-09	7.38E-09	2.02E-07
564497.56	4187715	1.98E-07	3.01E-07	1.98E-08	1.98E-08	1.98E-08	5.58E-07
564500.56	4187705.5	1.87E-07	2.8E-07	1.86E-08	1.86E-08	1.86E-08	5.23E-07
564503.63	4187696	1.77E-07	2.62E-07	1.76E-08	1.76E-08	1.76E-08	4.91E-07
564488.88	4187691.25	1.68E-07	2.4E-07	1.65E-08	1.65E-08	1.65E-08	4.58E-07
564506.69	4187686.25	1.68E-07	2.45E-07	1.65E-08	1.65E-08	1.65E-08	4.62E-07
564505.38	4187665	1.49E-07	2.09E-07	1.44E-08	1.44E-08	1.44E-08	4.01E-07
564508.44	4187655.5	1.42E-07	1.97E-07	1.37E-08	1.37E-08	1.37E-08	3.80E-07
564511.44	4187646	1.36E-07	1.87E-07	1.31E-08	1.31E-08	1.31E-08	3.62E-07

Phase 2 Construction

2922						Maximum REC	1188	1188
Phase II Max							Total 10 yr. Project	Total 7 yr. Project
Phase II Risk By Year						3.82E-06	8.16E-06	7.53E-06
Ph2 - yr 1	Ph2 - yr 2	Ph2 - yr 3	Ph2 - yr 4	Ph2 - yr 5	Sum		Total	Total
3.12E-07	7.01E-07	2.58E-07	2.27E-07	2.27E-07	1.72E-06		2.44E-06	2.16E-06
2.85E-07	6.37E-07	2.34E-07	2.06E-07	2.06E-07	1.57E-06		2.27E-06	2.01E-06
2.6E-07	5.8E-07	2.13E-07	1.87E-07	1.87E-07	1.43E-06		2.10E-06	1.87E-06
2.19E-07	4.86E-07	1.79E-07	1.57E-07	1.57E-07	1.20E-06		1.82E-06	1.62E-06
2.02E-07	4.47E-07	1.64E-07	1.44E-07	1.44E-07	1.10E-06		1.70E-06	1.51E-06
1.87E-07	4.13E-07	1.52E-07	1.33E-07	1.33E-07	1.02E-06		1.59E-06	1.41E-06
2.94E-07	6.64E-07	2.44E-07	2.14E-07	2.14E-07	1.63E-06		2.30E-06	2.03E-06
2.56E-07	5.71E-07	2.1E-07	1.84E-07	1.84E-07	1.41E-06		2.04E-06	1.81E-06
2.16E-07	4.8E-07	1.77E-07	1.55E-07	1.55E-07	1.18E-06		1.78E-06	1.58E-06
2E-07	4.42E-07	1.62E-07	1.43E-07	1.43E-07	1.09E-06		1.66E-06	1.48E-06
1.71E-07	3.78E-07	1.39E-07	1.22E-07	1.22E-07	9.32E-07		1.46E-06	1.30E-06
2.71E-07	6.1E-07	2.24E-07	1.97E-07	1.97E-07	1.50E-06		2.11E-06	1.87E-06
2.31E-07	5.16E-07	1.9E-07	1.67E-07	1.67E-07	1.27E-06		1.85E-06	1.64E-06
2.14E-07	4.74E-07	1.74E-07	1.53E-07	1.53E-07	1.17E-06		1.74E-06	1.54E-06
1.97E-07	4.37E-07	1.61E-07	1.41E-07	1.41E-07	1.08E-06		1.62E-06	1.44E-06
1.7E-07	3.74E-07	1.38E-07	1.21E-07	1.21E-07	9.23E-07		1.43E-06	1.27E-06
1.58E-07	3.48E-07	1.28E-07	1.12E-07	1.12E-07	8.58E-07		1.35E-06	1.20E-06
2.41E-07	5.42E-07	1.99E-07	1.75E-07	1.75E-07	1.33E-06		1.89E-06	1.68E-06
2.1E-07	4.67E-07	1.72E-07	1.51E-07	1.51E-07	1.15E-06		1.69E-06	1.50E-06
1.95E-07	4.32E-07	1.59E-07	1.4E-07	1.4E-07	1.07E-06		1.59E-06	1.41E-06
1.68E-07	3.71E-07	1.37E-07	1.2E-07	1.2E-07	9.16E-07		1.40E-06	1.25E-06
1.57E-07	3.45E-07	1.27E-07	1.12E-07	1.12E-07	8.52E-07		1.32E-06	1.18E-06
2.21E-07	4.97E-07	1.83E-07	1.61E-07	1.61E-07	1.22E-06		1.74E-06	1.55E-06
1.92E-07	4.26E-07	1.57E-07	1.38E-07	1.38E-07	1.05E-06		1.55E-06	1.37E-06
1.79E-07	3.96E-07	1.46E-07	1.28E-07	1.28E-07	9.76E-07		1.46E-06	1.30E-06
1.67E-07	3.68E-07	1.35E-07	1.19E-07	1.19E-07	9.08E-07		1.38E-06	1.22E-06
1.45E-07	3.2E-07	1.18E-07	1.03E-07	1.03E-07	7.89E-07		1.23E-06	1.09E-06
1.36E-07	2.99E-07	1.1E-07	9.66E-08	9.66E-08	7.38E-07		1.16E-06	1.03E-06
2E-07	4.48E-07	1.65E-07	1.45E-07	1.45E-07	1.10E-06		1.58E-06	1.40E-06
1.76E-07	3.9E-07	1.43E-07	1.26E-07	1.26E-07	9.61E-07		1.42E-06	1.26E-06
1.64E-07	3.64E-07	1.34E-07	1.18E-07	1.18E-07	8.98E-07		1.35E-06	1.20E-06
1.44E-07	3.18E-07	1.17E-07	1.03E-07	1.03E-07	7.84E-07		1.21E-06	1.07E-06
1.35E-07	2.97E-07	1.09E-07	9.59E-08	9.59E-08	7.33E-07		1.14E-06	1.01E-06
1.85E-07	4.13E-07	1.52E-07	1.34E-07	1.34E-07	1.02E-06		1.47E-06	1.30E-06
1.62E-07	3.59E-07	1.32E-07	1.16E-07	1.16E-07	8.84E-07		1.31E-06	1.17E-06
1.43E-07	3.14E-07	1.16E-07	1.02E-07	1.02E-07	7.76E-07		1.18E-06	1.05E-06
1.34E-07	2.95E-07	1.08E-07	9.52E-08	9.52E-08	7.27E-07		1.12E-06	9.97E-07
1.18E-07	2.6E-07	9.57E-08	8.41E-08	8.41E-08	6.42E-07		1.01E-06	9.00E-07
1.56E-07	3.48E-07	1.28E-07	1.13E-07	1.13E-07	8.58E-07		1.25E-06	1.11E-06
1.38E-07	3.07E-07	1.13E-07	9.9E-08	9.9E-08	7.56E-07		1.13E-06	1.00E-06
1.24E-07	2.72E-07	1E-07	8.8E-08	8.8E-08	6.72E-07		1.03E-06	9.14E-07
1.17E-07	2.57E-07	9.44E-08	8.3E-08	8.3E-08	6.34E-07		9.79E-07	8.71E-07

1.04E-07	2.29E-07	8.42E-08	7.4E-08	7.4E-08	5.65E-07	8.91E-07	7.93E-07
1.44E-07	3.2E-07	1.18E-07	1.03E-07	1.03E-07	7.89E-07	1.16E-06	1.03E-06
1.77E-07	4E-07	1.47E-07	1.29E-07	1.29E-07	9.83E-07	1.38E-06	1.23E-06
1.29E-07	2.85E-07	1.05E-07	9.21E-08	9.21E-08	7.03E-07	1.05E-06	9.36E-07
1.22E-07	2.69E-07	9.91E-08	8.71E-08	8.71E-08	6.65E-07	1.01E-06	8.95E-07
1.16E-07	2.55E-07	9.36E-08	8.22E-08	8.22E-08	6.28E-07	9.62E-07	8.55E-07
1.04E-07	2.27E-07	8.36E-08	7.34E-08	7.34E-08	5.61E-07	8.77E-07	7.80E-07
9.81E-08	2.15E-07	7.91E-08	6.95E-08	6.95E-08	5.31E-07	8.38E-07	7.46E-07
1.33E-07	2.95E-07	1.09E-07	9.54E-08	9.54E-08	7.28E-07	1.07E-06	9.52E-07
1.6E-07	3.62E-07	1.33E-07	1.17E-07	1.17E-07	8.88E-07	1.26E-06	1.12E-06
1.2E-07	2.66E-07	9.77E-08	8.58E-08	8.58E-08	6.55E-07	9.85E-07	8.75E-07
1.08E-07	2.38E-07	8.76E-08	7.7E-08	7.7E-08	5.88E-07	9.02E-07	8.02E-07
1.03E-07	2.26E-07	8.3E-08	7.29E-08	7.29E-08	5.57E-07	8.63E-07	7.67E-07
9.26E-08	2.03E-07	7.46E-08	6.56E-08	6.56E-08	5.01E-07	7.91E-07	7.04E-07
1.24E-07	2.76E-07	1.02E-07	8.92E-08	8.92E-08	6.80E-07	1.01E-06	8.92E-07
1.5E-07	3.39E-07	1.25E-07	1.09E-07	1.09E-07	8.32E-07	1.19E-06	1.05E-06
1.12E-07	2.48E-07	9.12E-08	8.01E-08	8.01E-08	6.12E-07	9.22E-07	8.19E-07
1.07E-07	2.36E-07	8.67E-08	7.61E-08	7.61E-08	5.81E-07	8.85E-07	7.87E-07
1.02E-07	2.24E-07	8.23E-08	7.23E-08	7.23E-08	5.52E-07	8.49E-07	7.54E-07
9.19E-08	2.02E-07	7.42E-08	6.52E-08	6.52E-08	4.98E-07	7.80E-07	6.94E-07
8.75E-08	1.92E-07	7.05E-08	6.19E-08	6.19E-08	4.73E-07	7.48E-07	6.66E-07
1.15E-07	2.57E-07	9.44E-08	8.29E-08	8.29E-08	6.32E-07	9.39E-07	8.34E-07
1.38E-07	3.1E-07	1.14E-07	1E-07	1E-07	7.61E-07	1.09E-06	9.69E-07
1.48E-07	3.35E-07	1.23E-07	1.08E-07	1.08E-07	8.23E-07	1.17E-06	1.03E-06
1.05E-07	2.32E-07	8.55E-08	7.51E-08	7.51E-08	5.73E-07	8.66E-07	7.70E-07
1E-07	2.21E-07	8.14E-08	7.15E-08	7.15E-08	5.46E-07	8.33E-07	7.40E-07
9.12E-08	2E-07	7.37E-08	6.47E-08	6.47E-08	4.95E-07	7.68E-07	6.83E-07
8.69E-08	1.91E-07	7.01E-08	6.16E-08	6.16E-08	4.71E-07	7.37E-07	6.56E-07
1.08E-07	2.41E-07	8.86E-08	7.78E-08	7.78E-08	5.94E-07	8.84E-07	7.85E-07
1.29E-07	2.91E-07	1.07E-07	9.41E-08	9.41E-08	7.16E-07	1.03E-06	9.15E-07
1.4E-07	3.16E-07	1.16E-07	1.02E-07	1.02E-07	7.75E-07	1.10E-06	9.78E-07
9.88E-08	2.18E-07	8.03E-08	7.05E-08	7.05E-08	5.39E-07	8.16E-07	7.25E-07
9.45E-08	2.08E-07	7.66E-08	6.73E-08	6.73E-08	5.14E-07	7.86E-07	6.98E-07
9.03E-08	1.99E-07	7.31E-08	6.42E-08	6.42E-08	4.90E-07	7.55E-07	6.72E-07
8.61E-08	1.89E-07	6.96E-08	6.11E-08	6.11E-08	4.67E-07	7.26E-07	6.46E-07
7.85E-08	1.72E-07	6.32E-08	5.55E-08	5.55E-08	4.24E-07	6.72E-07	5.98E-07
1.02E-07	2.25E-07	8.29E-08	7.28E-08	7.28E-08	5.55E-07	8.30E-07	7.37E-07
1.19E-07	2.68E-07	9.86E-08	8.66E-08	8.66E-08	6.59E-07	9.57E-07	8.48E-07
1.28E-07	2.89E-07	1.06E-07	9.32E-08	9.32E-08	7.09E-07	1.02E-06	9.02E-07
9.3E-08	2.05E-07	7.56E-08	6.64E-08	6.64E-08	5.07E-07	7.70E-07	6.84E-07
8.91E-08	1.96E-07	7.22E-08	6.34E-08	6.34E-08	4.84E-07	7.41E-07	6.59E-07
8.15E-08	1.79E-07	6.58E-08	5.78E-08	5.78E-08	4.42E-07	6.88E-07	6.12E-07
7.8E-08	1.71E-07	6.28E-08	5.52E-08	5.52E-08	4.22E-07	6.62E-07	5.89E-07
1.13E-07	2.53E-07	9.31E-08	8.18E-08	8.18E-08	6.23E-07	9.07E-07	8.04E-07
1.21E-07	2.73E-07	1E-07	8.81E-08	8.81E-08	6.70E-07	9.65E-07	8.55E-07
1.19E-07	2.68E-07	9.87E-08	8.67E-08	8.67E-08	6.60E-07	9.48E-07	8.40E-07
8.29E-08	1.83E-07	6.73E-08	5.91E-08	5.91E-08	4.51E-07	6.88E-07	6.11E-07

7.97E-08	1.76E-07	6.46E-08	5.67E-08	5.67E-08	4.33E-07	6.65E-07	5.91E-07
7.65E-08	1.68E-07	6.19E-08	5.44E-08	5.44E-08	4.15E-07	6.43E-07	5.71E-07
7.05E-08	1.54E-07	5.68E-08	4.99E-08	4.99E-08	3.81E-07	5.99E-07	5.33E-07
6.75E-08	1.48E-07	5.43E-08	4.77E-08	4.77E-08	3.65E-07	5.79E-07	5.15E-07
8.51E-08	1.88E-07	6.93E-08	6.09E-08	6.09E-08	4.65E-07	7.00E-07	6.22E-07
9.92E-08	2.22E-07	8.17E-08	7.18E-08	7.18E-08	5.46E-07	8.03E-07	7.12E-07
7.85E-08	1.73E-07	6.37E-08	5.59E-08	5.59E-08	4.27E-07	6.52E-07	5.80E-07
7.27E-08	1.6E-07	5.87E-08	5.16E-08	5.16E-08	3.94E-07	6.10E-07	5.43E-07
6.98E-08	1.53E-07	5.63E-08	4.95E-08	4.95E-08	3.78E-07	5.90E-07	5.25E-07
6.44E-08	1.41E-07	5.18E-08	4.55E-08	4.55E-08	3.48E-07	5.52E-07	4.92E-07
8.03E-08	1.78E-07	6.54E-08	5.74E-08	5.74E-08	4.38E-07	6.62E-07	5.88E-07
9.27E-08	2.07E-07	7.62E-08	6.7E-08	6.7E-08	5.10E-07	7.53E-07	6.69E-07
9.84E-08	2.21E-07	8.13E-08	7.14E-08	7.14E-08	5.43E-07	7.95E-07	7.06E-07
1.04E-07	2.35E-07	8.64E-08	7.59E-08	7.59E-08	5.77E-07	8.38E-07	7.43E-07
7.44E-08	1.64E-07	6.03E-08	5.3E-08	5.3E-08	4.05E-07	6.19E-07	5.50E-07
7.17E-08	1.58E-07	5.81E-08	5.1E-08	5.1E-08	3.90E-07	6.00E-07	5.34E-07
6.91E-08	1.52E-07	5.58E-08	4.91E-08	4.91E-08	3.75E-07	5.81E-07	5.17E-07
6.4E-08	1.4E-07	5.15E-08	4.53E-08	4.53E-08	3.46E-07	5.45E-07	4.85E-07
6.15E-08	1.35E-07	4.95E-08	4.35E-08	4.35E-08	3.32E-07	5.28E-07	4.70E-07
7.62E-08	1.69E-07	6.2E-08	5.44E-08	5.44E-08	4.16E-07	6.29E-07	5.59E-07
8.81E-08	1.97E-07	7.24E-08	6.36E-08	6.36E-08	4.84E-07	7.17E-07	6.37E-07
9.08E-08	2.03E-07	7.48E-08	6.57E-08	6.57E-08	5.00E-07	7.37E-07	6.54E-07
9.34E-08	2.1E-07	7.71E-08	6.77E-08	6.77E-08	5.16E-07	7.57E-07	6.72E-07
9.62E-08	2.16E-07	7.95E-08	6.98E-08	6.98E-08	5.31E-07	7.77E-07	6.89E-07
9.92E-08	2.23E-07	8.2E-08	7.2E-08	7.2E-08	5.48E-07	7.98E-07	7.08E-07
7.31E-08	1.61E-07	5.93E-08	5.21E-08	5.21E-08	3.98E-07	6.06E-07	5.38E-07
7.07E-08	1.56E-07	5.73E-08	5.03E-08	5.03E-08	3.84E-07	5.89E-07	5.23E-07
6.82E-08	1.5E-07	5.52E-08	4.85E-08	4.85E-08	3.71E-07	5.71E-07	5.08E-07
6.34E-08	1.39E-07	5.12E-08	4.5E-08	4.5E-08	3.44E-07	5.37E-07	4.78E-07
6.11E-08	1.34E-07	4.92E-08	4.32E-08	4.32E-08	3.31E-07	5.21E-07	4.63E-07
7.22E-08	1.6E-07	5.87E-08	5.16E-08	5.16E-08	3.94E-07	5.97E-07	5.31E-07
8.27E-08	1.84E-07	6.78E-08	5.96E-08	5.96E-08	4.54E-07	6.75E-07	5.99E-07
8.74E-08	1.96E-07	7.2E-08	6.32E-08	6.32E-08	4.82E-07	7.11E-07	6.31E-07
9.23E-08	2.07E-07	7.61E-08	6.69E-08	6.69E-08	5.09E-07	7.46E-07	6.62E-07
6.73E-08	1.48E-07	5.45E-08	4.79E-08	4.79E-08	3.66E-07	5.61E-07	4.99E-07
6.5E-08	1.43E-07	5.26E-08	4.62E-08	4.62E-08	3.53E-07	5.45E-07	4.85E-07
6.28E-08	1.38E-07	5.07E-08	4.46E-08	4.46E-08	3.41E-07	5.29E-07	4.71E-07
5.84E-08	1.28E-07	4.7E-08	4.13E-08	4.13E-08	3.16E-07	4.98E-07	4.43E-07
5.63E-08	1.23E-07	4.53E-08	3.98E-08	3.98E-08	3.04E-07	4.83E-07	4.30E-07
6.86E-08	1.51E-07	5.57E-08	4.89E-08	4.89E-08	3.74E-07	5.68E-07	5.05E-07
7.79E-08	1.74E-07	6.39E-08	5.61E-08	5.61E-08	4.28E-07	6.38E-07	5.67E-07
8.2E-08	1.83E-07	6.74E-08	5.93E-08	5.93E-08	4.51E-07	6.69E-07	5.94E-07
8.62E-08	1.93E-07	7.11E-08	6.24E-08	6.24E-08	4.75E-07	7.01E-07	6.22E-07
6.41E-08	1.41E-07	5.19E-08	4.56E-08	4.56E-08	3.48E-07	5.35E-07	4.76E-07
6.2E-08	1.36E-07	5.01E-08	4.41E-08	4.41E-08	3.37E-07	5.20E-07	4.63E-07
5.79E-08	1.27E-07	4.67E-08	4.1E-08	4.1E-08	3.14E-07	4.91E-07	4.37E-07
5.59E-08	1.22E-07	4.5E-08	3.95E-08	3.95E-08	3.02E-07	4.77E-07	4.24E-07

6.54E-08	1.44E-07	5.31E-08	4.66E-08	4.66E-08	3.56E-07	5.42E-07	4.82E-07
7.43E-08	1.65E-07	6.09E-08	5.35E-08	5.35E-08	4.08E-07	6.10E-07	5.42E-07
7.83E-08	1.75E-07	6.43E-08	5.65E-08	5.65E-08	4.31E-07	6.40E-07	5.68E-07
8.23E-08	1.84E-07	6.78E-08	5.95E-08	5.95E-08	4.53E-07	6.70E-07	5.95E-07
6.11E-08	1.34E-07	4.94E-08	4.34E-08	4.34E-08	3.32E-07	5.11E-07	4.54E-07
5.73E-08	1.26E-07	4.63E-08	4.06E-08	4.06E-08	3.11E-07	4.84E-07	4.30E-07
5.54E-08	1.21E-07	4.47E-08	3.92E-08	3.92E-08	3.00E-07	4.70E-07	4.18E-07
5.17E-08	1.13E-07	4.16E-08	3.66E-08	3.66E-08	2.80E-07	4.45E-07	3.96E-07
7.02E-08	1.56E-07	5.74E-08	5.05E-08	5.05E-08	3.85E-07	5.78E-07	5.13E-07
7.37E-08	1.65E-07	6.06E-08	5.32E-08	5.32E-08	4.05E-07	6.05E-07	5.37E-07
7.73E-08	1.73E-07	6.36E-08	5.59E-08	5.59E-08	4.26E-07	6.32E-07	5.61E-07
5.94E-08	1.31E-07	4.82E-08	4.24E-08	4.24E-08	3.23E-07	4.94E-07	4.39E-07
6.71E-08	1.49E-07	5.49E-08	4.82E-08	4.82E-08	3.68E-07	5.53E-07	4.91E-07
7.05E-08	1.57E-07	5.78E-08	5.08E-08	5.08E-08	3.87E-07	5.80E-07	5.15E-07
7.4E-08	1.65E-07	6.08E-08	5.34E-08	5.34E-08	4.07E-07	6.06E-07	5.38E-07
5.58E-08	1.23E-07	4.51E-08	3.96E-08	3.96E-08	3.03E-07	4.68E-07	4.16E-07
5.25E-08	1.15E-07	4.24E-08	3.73E-08	3.73E-08	2.85E-07	4.44E-07	3.95E-07
5.09E-08	1.12E-07	4.11E-08	3.61E-08	3.61E-08	2.76E-07	4.33E-07	3.85E-07
4.77E-08	1.04E-07	3.84E-08	3.37E-08	3.37E-08	2.58E-07	4.11E-07	3.66E-07
5.68E-08	1.25E-07	4.6E-08	4.04E-08	4.04E-08	3.09E-07	4.73E-07	4.20E-07
6.37E-08	1.42E-07	5.21E-08	4.57E-08	4.57E-08	3.49E-07	5.26E-07	4.68E-07
6.67E-08	1.49E-07	5.47E-08	4.81E-08	4.81E-08	3.66E-07	5.51E-07	4.89E-07
6.97E-08	1.56E-07	5.73E-08	5.03E-08	5.03E-08	3.83E-07	5.74E-07	5.09E-07
5.34E-08	1.17E-07	4.32E-08	3.8E-08	3.8E-08	2.90E-07	4.48E-07	3.99E-07
5.19E-08	1.14E-07	4.19E-08	3.68E-08	3.68E-08	2.81E-07	4.37E-07	3.89E-07
5.03E-08	1.1E-07	4.06E-08	3.57E-08	3.57E-08	2.73E-07	4.26E-07	3.79E-07
4.74E-08	1.04E-07	3.81E-08	3.35E-08	3.35E-08	2.56E-07	4.05E-07	3.61E-07
4.59E-08	1E-07	3.69E-08	3.24E-08	3.24E-08	2.48E-07	3.95E-07	3.52E-07
5.44E-08	1.2E-07	4.41E-08	3.87E-08	3.87E-08	2.96E-07	4.53E-07	4.03E-07
6.1E-08	1.36E-07	4.98E-08	4.38E-08	4.38E-08	3.34E-07	5.05E-07	4.49E-07
6.39E-08	1.42E-07	5.24E-08	4.6E-08	4.6E-08	3.51E-07	5.28E-07	4.69E-07
6.68E-08	1.49E-07	5.48E-08	4.81E-08	4.81E-08	3.67E-07	5.50E-07	4.89E-07
5.12E-08	1.12E-07	4.14E-08	3.63E-08	3.63E-08	2.78E-07	4.30E-07	3.82E-07
4.98E-08	1.09E-07	4.02E-08	3.53E-08	3.53E-08	2.70E-07	4.20E-07	3.73E-07
4.69E-08	1.03E-07	3.78E-08	3.32E-08	3.32E-08	2.54E-07	4.00E-07	3.56E-07
4.56E-08	9.98E-08	3.67E-08	3.22E-08	3.22E-08	2.46E-07	3.90E-07	3.47E-07
5.2E-08	1.15E-07	4.21E-08	3.7E-08	3.7E-08	2.83E-07	4.34E-07	3.86E-07
5.8E-08	1.29E-07	4.74E-08	4.16E-08	4.16E-08	3.17E-07	4.81E-07	4.28E-07
6.07E-08	1.35E-07	4.97E-08	4.36E-08	4.36E-08	3.33E-07	5.02E-07	4.46E-07
6.32E-08	1.41E-07	5.18E-08	4.55E-08	4.55E-08	3.47E-07	5.23E-07	4.64E-07
4.91E-08	1.08E-07	3.97E-08	3.49E-08	3.49E-08	2.66E-07	4.13E-07	3.67E-07
4.78E-08	1.05E-07	3.86E-08	3.39E-08	3.39E-08	2.59E-07	4.03E-07	3.59E-07
4.65E-08	1.02E-07	3.75E-08	3.29E-08	3.29E-08	2.52E-07	3.94E-07	3.51E-07
4.38E-08	9.6E-08	3.53E-08	3.1E-08	3.1E-08	2.37E-07	3.76E-07	3.35E-07
4.26E-08	9.31E-08	3.42E-08	3.01E-08	3.01E-08	2.30E-07	3.67E-07	3.27E-07
4.99E-08	1.1E-07	4.04E-08	3.55E-08	3.55E-08	2.71E-07	4.17E-07	3.71E-07
5.15E-08	1.14E-07	4.17E-08	3.67E-08	3.67E-08	2.80E-07	4.29E-07	3.81E-07

5.57E-08	1.24E-07	4.55E-08	3.99E-08	3.99E-08	3.05E-07	4.63E-07	4.11E-07
5.83E-08	1.3E-07	4.77E-08	4.19E-08	4.19E-08	3.19E-07	4.83E-07	4.29E-07
6.07E-08	1.35E-07	4.98E-08	4.37E-08	4.37E-08	3.33E-07	5.03E-07	4.47E-07
4.72E-08	1.04E-07	3.81E-08	3.35E-08	3.35E-08	2.56E-07	3.97E-07	3.53E-07
4.59E-08	1.01E-07	3.71E-08	3.26E-08	3.26E-08	2.49E-07	3.88E-07	3.45E-07
4.34E-08	9.52E-08	3.5E-08	3.07E-08	3.07E-08	2.35E-07	3.71E-07	3.30E-07
4.22E-08	9.24E-08	3.4E-08	2.99E-08	2.99E-08	2.28E-07	3.62E-07	3.22E-07
4.79E-08	1.05E-07	3.88E-08	3.41E-08	3.41E-08	2.60E-07	4.01E-07	3.56E-07
5.32E-08	1.18E-07	4.34E-08	3.81E-08	3.81E-08	2.91E-07	4.42E-07	3.93E-07
5.55E-08	1.23E-07	4.54E-08	3.98E-08	3.98E-08	3.04E-07	4.61E-07	4.10E-07
5.77E-08	1.28E-07	4.72E-08	4.15E-08	4.15E-08	3.16E-07	4.79E-07	4.25E-07
4.53E-08	9.95E-08	3.66E-08	3.22E-08	3.22E-08	2.46E-07	3.82E-07	3.40E-07
4.3E-08	9.42E-08	3.47E-08	3.05E-08	3.05E-08	2.33E-07	3.65E-07	3.25E-07
4.18E-08	9.17E-08	3.37E-08	2.96E-08	2.96E-08	2.26E-07	3.57E-07	3.18E-07
3.96E-08	8.66E-08	3.18E-08	2.8E-08	2.8E-08	2.14E-07	3.42E-07	3.04E-07
4.59E-08	1.01E-07	3.72E-08	3.27E-08	3.27E-08	2.50E-07	3.85E-07	3.42E-07
5.08E-08	1.13E-07	4.14E-08	3.64E-08	3.64E-08	2.77E-07	4.23E-07	3.76E-07
5.29E-08	1.18E-07	4.32E-08	3.8E-08	3.8E-08	2.90E-07	4.40E-07	3.91E-07
5.49E-08	1.22E-07	4.49E-08	3.95E-08	3.95E-08	3.01E-07	4.57E-07	4.06E-07
4.36E-08	9.57E-08	3.52E-08	3.09E-08	3.09E-08	2.36E-07	3.67E-07	3.27E-07
4.25E-08	9.32E-08	3.43E-08	3.01E-08	3.01E-08	2.30E-07	3.60E-07	3.20E-07
4.03E-08	8.84E-08	3.25E-08	2.86E-08	2.86E-08	2.18E-07	3.45E-07	3.07E-07
3.93E-08	8.6E-08	3.16E-08	2.78E-08	2.78E-08	2.12E-07	3.37E-07	3.00E-07
2.01E-07	4.47E-07	1.64E-07	1.44E-07	1.44E-07	1.10E-06	1.73E-06	1.54E-06
2.17E-07	4.84E-07	1.78E-07	1.56E-07	1.56E-07	1.19E-06	1.88E-06	1.67E-06
2.54E-07	5.65E-07	2.08E-07	1.82E-07	1.82E-07	1.39E-06	2.20E-06	1.96E-06
1.84E-07	4.08E-07	1.5E-07	1.32E-07	1.32E-07	1.01E-06	1.60E-06	1.43E-06
1.98E-07	4.4E-07	1.62E-07	1.42E-07	1.42E-07	1.08E-06	1.73E-06	1.54E-06
2.13E-07	4.72E-07	1.74E-07	1.53E-07	1.53E-07	1.16E-06	1.86E-06	1.66E-06
1.53E-07	3.38E-07	1.24E-07	1.09E-07	1.09E-07	8.34E-07	1.35E-06	1.20E-06
1.48E-07	3.27E-07	1.2E-07	1.06E-07	1.06E-07	8.07E-07	1.29E-06	1.14E-06
1.69E-07	3.74E-07	1.38E-07	1.21E-07	1.21E-07	9.22E-07	1.49E-06	1.33E-06
1.81E-07	4.01E-07	1.47E-07	1.29E-07	1.29E-07	9.87E-07	1.60E-06	1.42E-06
1.93E-07	4.27E-07	1.57E-07	1.38E-07	1.38E-07	1.05E-06	1.71E-06	1.53E-06
2.06E-07	4.54E-07	1.67E-07	1.47E-07	1.47E-07	1.12E-06	1.84E-06	1.64E-06
1.41E-07	3.14E-07	1.15E-07	1.01E-07	1.01E-07	7.73E-07	1.26E-06	1.12E-06
1.34E-07	2.95E-07	1.08E-07	9.52E-08	9.52E-08	7.27E-07	1.18E-06	1.05E-06
1.34E-07	2.94E-07	1.08E-07	9.5E-08	9.5E-08	7.26E-07	1.17E-06	1.04E-06
1.42E-07	3.12E-07	1.15E-07	1.01E-07	1.01E-07	7.70E-07	1.22E-06	1.08E-06
1.56E-07	3.45E-07	1.27E-07	1.11E-07	1.11E-07	8.50E-07	1.39E-06	1.24E-06
1.76E-07	3.87E-07	1.42E-07	1.25E-07	1.25E-07	9.56E-07	1.59E-06	1.41E-06
1.87E-07	4.09E-07	1.5E-07	1.32E-07	1.32E-07	1.01E-06	1.69E-06	1.51E-06
1.32E-07	2.92E-07	1.07E-07	9.43E-08	9.43E-08	7.19E-07	1.19E-06	1.06E-06
1.24E-07	2.75E-07	1.01E-07	8.88E-08	8.88E-08	6.78E-07	1.12E-06	9.94E-07
1.21E-07	2.66E-07	9.77E-08	8.59E-08	8.59E-08	6.56E-07	1.07E-06	9.50E-07
1.28E-07	2.81E-07	1.03E-07	9.08E-08	9.08E-08	6.94E-07	1.11E-06	9.87E-07
1.44E-07	3.18E-07	1.17E-07	1.03E-07	1.03E-07	7.84E-07	1.30E-06	1.16E-06

1.52E-07	3.35E-07	1.23E-07	1.08E-07	1.08E-07	8.28E-07	1.39E-06	1.24E-06
1.7E-07	3.69E-07	1.36E-07	1.19E-07	1.19E-07	9.13E-07	1.56E-06	1.40E-06
1.22E-07	2.71E-07	9.96E-08	8.75E-08	8.75E-08	6.68E-07	1.12E-06	9.94E-07
1.14E-07	2.53E-07	9.3E-08	8.17E-08	8.17E-08	6.24E-07	1.04E-06	9.23E-07
1.11E-07	2.43E-07	8.94E-08	7.85E-08	7.85E-08	6.00E-07	9.83E-07	8.76E-07
1.18E-07	2.59E-07	9.53E-08	8.38E-08	8.38E-08	6.40E-07	1.03E-06	9.15E-07
1.33E-07	2.93E-07	1.08E-07	9.47E-08	9.47E-08	7.23E-07	1.22E-06	1.09E-06
1.4E-07	3.08E-07	1.13E-07	9.94E-08	9.94E-08	7.60E-07	1.30E-06	1.16E-06
1.55E-07	3.36E-07	1.23E-07	1.08E-07	1.08E-07	8.31E-07	1.45E-06	1.30E-06
1.14E-07	2.53E-07	9.3E-08	8.17E-08	8.17E-08	6.24E-07	1.05E-06	9.39E-07
1.08E-07	2.38E-07	8.76E-08	7.7E-08	7.7E-08	5.87E-07	9.85E-07	8.78E-07
1.01E-07	2.23E-07	8.2E-08	7.2E-08	7.2E-08	5.50E-07	9.20E-07	8.20E-07
1.01E-07	2.22E-07	8.16E-08	7.17E-08	7.17E-08	5.48E-07	9.06E-07	8.08E-07
1.07E-07	2.36E-07	8.67E-08	7.61E-08	7.61E-08	5.82E-07	9.43E-07	8.40E-07
1.29E-07	2.83E-07	1.04E-07	9.13E-08	9.13E-08	6.99E-07	1.21E-06	1.08E-06
1.36E-07	2.95E-07	1.08E-07	9.52E-08	9.52E-08	7.29E-07	1.28E-06	1.14E-06
1.07E-07	2.36E-07	8.69E-08	7.64E-08	7.64E-08	5.83E-07	9.95E-07	8.87E-07
1.02E-07	2.25E-07	8.27E-08	7.27E-08	7.27E-08	5.54E-07	9.37E-07	8.36E-07
9.56E-08	2.11E-07	7.76E-08	6.82E-08	6.82E-08	5.20E-07	8.78E-07	7.83E-07
9.28E-08	2.03E-07	7.48E-08	6.57E-08	6.57E-08	5.03E-07	8.39E-07	7.48E-07
9.82E-08	2.15E-07	7.91E-08	6.95E-08	6.95E-08	5.31E-07	8.69E-07	7.75E-07
1.04E-07	2.29E-07	8.42E-08	7.4E-08	7.4E-08	5.66E-07	9.07E-07	8.08E-07
1.2E-07	2.61E-07	9.59E-08	8.42E-08	8.42E-08	6.45E-07	1.13E-06	1.01E-06
1.25E-07	2.71E-07	9.96E-08	8.75E-08	8.75E-08	6.70E-07	1.19E-06	1.06E-06
1.3E-07	2.81E-07	1.03E-07	9.08E-08	9.08E-08	6.97E-07	1.25E-06	1.12E-06
1E-07	2.21E-07	8.13E-08	7.14E-08	7.14E-08	5.46E-07	9.39E-07	8.37E-07
9.57E-08	2.12E-07	7.79E-08	6.84E-08	6.84E-08	5.22E-07	8.89E-07	7.92E-07
9.06E-08	2E-07	7.36E-08	6.47E-08	6.47E-08	4.94E-07	8.38E-07	7.47E-07
8.57E-08	1.88E-07	6.93E-08	6.09E-08	6.09E-08	4.65E-07	7.89E-07	7.04E-07
8.56E-08	1.87E-07	6.89E-08	6.05E-08	6.05E-08	4.63E-07	7.79E-07	6.94E-07
9.02E-08	1.98E-07	7.26E-08	6.38E-08	6.38E-08	4.88E-07	8.06E-07	7.18E-07
1.16E-07	2.5E-07	9.18E-08	8.07E-08	8.07E-08	6.18E-07	1.11E-06	9.90E-07
1.2E-07	2.59E-07	9.52E-08	8.36E-08	8.36E-08	6.42E-07	1.16E-06	1.04E-06
9.42E-08	2.07E-07	7.6E-08	6.68E-08	6.68E-08	5.10E-07	8.84E-07	7.89E-07
9.05E-08	2E-07	7.35E-08	6.46E-08	6.46E-08	4.93E-07	8.44E-07	7.52E-07
8.59E-08	1.9E-07	6.99E-08	6.14E-08	6.14E-08	4.68E-07	7.98E-07	7.12E-07
8.14E-08	1.79E-07	6.59E-08	5.79E-08	5.79E-08	4.42E-07	7.54E-07	6.73E-07
9.3E-08	2.04E-07	7.5E-08	6.59E-08	6.59E-08	5.03E-07	8.08E-07	7.19E-07
1.03E-07	2.24E-07	8.22E-08	7.22E-08	7.22E-08	5.54E-07	9.88E-07	8.83E-07
1.11E-07	2.39E-07	8.79E-08	7.72E-08	7.72E-08	5.93E-07	1.08E-06	9.64E-07
8.83E-08	1.93E-07	7.11E-08	6.24E-08	6.24E-08	4.78E-07	8.32E-07	7.43E-07
8.49E-08	1.87E-07	6.89E-08	6.06E-08	6.06E-08	4.62E-07	7.94E-07	7.08E-07
8.28E-08	1.83E-07	6.73E-08	5.91E-08	5.91E-08	4.51E-07	7.72E-07	6.89E-07
8.05E-08	1.78E-07	6.55E-08	5.75E-08	5.75E-08	4.39E-07	7.50E-07	6.69E-07
7.81E-08	1.73E-07	6.35E-08	5.58E-08	5.58E-08	4.26E-07	7.27E-07	6.49E-07
7.59E-08	1.67E-07	6.15E-08	5.4E-08	5.4E-08	4.13E-07	7.06E-07	6.29E-07
7.38E-08	1.62E-07	5.96E-08	5.24E-08	5.24E-08	4.00E-07	6.85E-07	6.11E-07

7.78E-08	1.7E-07	6.25E-08	5.49E-08	5.49E-08	4.20E-07	7.03E-07	6.27E-07
8E-08	1.75E-07	6.44E-08	5.65E-08	5.65E-08	4.32E-07	7.17E-07	6.39E-07
8.48E-08	1.86E-07	6.83E-08	6E-08	6E-08	4.59E-07	7.45E-07	6.64E-07
9.65E-08	2.08E-07	7.65E-08	6.72E-08	6.72E-08	5.15E-07	9.23E-07	8.25E-07
1E-07	2.15E-07	7.89E-08	6.93E-08	6.93E-08	5.32E-07	9.62E-07	8.60E-07
8.32E-08	1.81E-07	6.67E-08	5.86E-08	5.86E-08	4.48E-07	7.85E-07	7.01E-07
8.04E-08	1.77E-07	6.51E-08	5.72E-08	5.72E-08	4.37E-07	7.53E-07	6.72E-07
7.86E-08	1.74E-07	6.38E-08	5.61E-08	5.61E-08	4.28E-07	7.34E-07	6.55E-07
7.46E-08	1.65E-07	6.07E-08	5.33E-08	5.33E-08	4.07E-07	6.96E-07	6.21E-07
7.25E-08	1.6E-07	5.88E-08	5.17E-08	5.17E-08	3.95E-07	6.76E-07	6.03E-07
6.85E-08	1.5E-07	5.51E-08	4.84E-08	4.84E-08	3.70E-07	6.33E-07	5.65E-07
7.21E-08	1.58E-07	5.79E-08	5.09E-08	5.09E-08	3.89E-07	6.57E-07	5.86E-07
7.62E-08	1.67E-07	6.13E-08	5.39E-08	5.39E-08	4.12E-07	6.81E-07	6.07E-07
8.06E-08	1.76E-07	6.49E-08	5.7E-08	5.7E-08	4.36E-07	7.07E-07	6.30E-07
9.02E-08	1.94E-07	7.13E-08	6.26E-08	6.26E-08	4.80E-07	8.63E-07	7.71E-07
9.32E-08	2E-07	7.34E-08	6.45E-08	6.45E-08	4.95E-07	8.97E-07	8.02E-07
9.63E-08	2.06E-07	7.57E-08	6.65E-08	6.65E-08	5.11E-07	9.33E-07	8.34E-07
7.84E-08	1.7E-07	6.27E-08	5.5E-08	5.5E-08	4.22E-07	7.41E-07	6.62E-07
7.62E-08	1.67E-07	6.15E-08	5.4E-08	5.4E-08	4.13E-07	7.15E-07	6.38E-07
7.3E-08	1.61E-07	5.93E-08	5.21E-08	5.21E-08	3.98E-07	6.82E-07	6.09E-07
6.93E-08	1.53E-07	5.64E-08	4.95E-08	4.95E-08	3.78E-07	6.47E-07	5.77E-07
6.4E-08	1.4E-07	5.14E-08	4.51E-08	4.51E-08	3.45E-07	5.93E-07	5.29E-07
6.72E-08	1.47E-07	5.39E-08	4.74E-08	4.74E-08	3.62E-07	6.15E-07	5.49E-07
7.08E-08	1.55E-07	5.69E-08	5E-08	5E-08	3.82E-07	6.37E-07	5.68E-07
7.46E-08	1.63E-07	6.01E-08	5.28E-08	5.28E-08	4.04E-07	6.61E-07	5.89E-07
7.86E-08	1.72E-07	6.33E-08	5.56E-08	5.56E-08	4.25E-07	6.84E-07	6.09E-07
8.7E-08	1.86E-07	6.84E-08	6.01E-08	6.01E-08	4.62E-07	8.37E-07	7.48E-07
8.97E-08	1.91E-07	7.04E-08	6.19E-08	6.19E-08	4.75E-07	8.69E-07	7.77E-07
7.4E-08	1.6E-07	5.89E-08	5.18E-08	5.18E-08	3.97E-07	6.99E-07	6.24E-07
7.22E-08	1.58E-07	5.8E-08	5.1E-08	5.1E-08	3.90E-07	6.78E-07	6.05E-07
6.95E-08	1.53E-07	5.64E-08	4.95E-08	4.95E-08	3.78E-07	6.50E-07	5.80E-07
6.64E-08	1.47E-07	5.4E-08	4.74E-08	4.74E-08	3.62E-07	6.20E-07	5.53E-07
6E-08	1.32E-07	4.84E-08	4.25E-08	4.25E-08	3.25E-07	5.60E-07	5.00E-07
5.99E-08	1.31E-07	4.81E-08	4.22E-08	4.22E-08	3.23E-07	5.57E-07	4.97E-07
6.27E-08	1.37E-07	5.03E-08	4.42E-08	4.42E-08	3.38E-07	5.77E-07	5.15E-07
6.59E-08	1.44E-07	5.3E-08	4.65E-08	4.65E-08	3.56E-07	5.98E-07	5.33E-07
6.93E-08	1.52E-07	5.58E-08	4.9E-08	4.9E-08	3.75E-07	6.19E-07	5.51E-07
7.29E-08	1.6E-07	5.87E-08	5.15E-08	5.15E-08	3.94E-07	6.39E-07	5.70E-07
7.92E-08	1.69E-07	6.23E-08	5.48E-08	5.48E-08	4.21E-07	7.57E-07	6.77E-07
8.37E-08	1.79E-07	6.57E-08	5.77E-08	5.77E-08	4.44E-07	8.10E-07	7.25E-07
6.84E-08	1.49E-07	5.48E-08	4.82E-08	4.82E-08	3.69E-07	6.42E-07	5.73E-07
6.63E-08	1.46E-07	5.36E-08	4.71E-08	4.71E-08	3.60E-07	6.20E-07	5.53E-07
6.35E-08	1.4E-07	5.16E-08	4.54E-08	4.54E-08	3.46E-07	5.94E-07	5.29E-07
5.76E-08	1.27E-07	4.65E-08	4.09E-08	4.09E-08	3.12E-07	5.38E-07	4.80E-07
5.62E-08	1.23E-07	4.51E-08	3.96E-08	3.96E-08	3.03E-07	5.23E-07	4.67E-07
5.87E-08	1.28E-07	4.71E-08	4.14E-08	4.14E-08	3.16E-07	5.42E-07	4.84E-07
6.16E-08	1.34E-07	4.95E-08	4.35E-08	4.35E-08	3.32E-07	5.62E-07	5.01E-07

6.46E-08	1.41E-07	5.2E-08	4.57E-08	4.57E-08	3.49E-07	5.81E-07	5.18E-07
6.78E-08	1.48E-07	5.45E-08	4.79E-08	4.79E-08	3.66E-07	5.99E-07	5.34E-07
7.11E-08	1.56E-07	5.72E-08	5.03E-08	5.03E-08	3.84E-07	6.19E-07	5.51E-07
6.32E-08	1.39E-07	5.1E-08	4.48E-08	4.48E-08	3.42E-07	5.91E-07	5.27E-07
6.09E-08	1.34E-07	4.94E-08	4.34E-08	4.34E-08	3.32E-07	5.69E-07	5.07E-07
5.54E-08	1.22E-07	4.49E-08	3.94E-08	3.94E-08	3.01E-07	5.18E-07	4.62E-07
5.29E-08	1.16E-07	4.26E-08	3.75E-08	3.75E-08	2.86E-07	4.95E-07	4.42E-07
5.29E-08	1.15E-07	4.24E-08	3.73E-08	3.73E-08	2.85E-07	4.93E-07	4.40E-07
5.51E-08	1.2E-07	4.42E-08	3.88E-08	3.88E-08	2.97E-07	5.11E-07	4.56E-07
5.77E-08	1.26E-07	4.63E-08	4.07E-08	4.07E-08	3.11E-07	5.29E-07	4.71E-07
6.04E-08	1.32E-07	4.86E-08	4.27E-08	4.27E-08	3.26E-07	5.47E-07	4.87E-07
6.33E-08	1.38E-07	5.09E-08	4.47E-08	4.47E-08	3.42E-07	5.64E-07	5.03E-07
6.62E-08	1.45E-07	5.32E-08	4.68E-08	4.68E-08	3.58E-07	5.81E-07	5.17E-07
7.16E-08	1.53E-07	5.62E-08	4.93E-08	4.93E-08	3.79E-07	6.87E-07	6.14E-07
6.25E-08	1.34E-07	4.94E-08	4.34E-08	4.34E-08	3.33E-07	5.88E-07	5.25E-07
6.21E-08	1.34E-07	4.93E-08	4.33E-08	4.33E-08	3.32E-07	5.82E-07	5.20E-07
5.24E-08	1.15E-07	4.24E-08	3.73E-08	3.73E-08	2.85E-07	4.90E-07	4.37E-07
5.11E-08	1.12E-07	4.13E-08	3.62E-08	3.62E-08	2.77E-07	4.78E-07	4.27E-07
4.99E-08	1.09E-07	4.02E-08	3.53E-08	3.53E-08	2.70E-07	4.67E-07	4.17E-07
4.99E-08	1.09E-07	4E-08	3.51E-08	3.51E-08	2.69E-07	4.65E-07	4.15E-07
5.21E-08	1.13E-07	4.17E-08	3.67E-08	3.67E-08	2.81E-07	4.83E-07	4.31E-07
5.46E-08	1.19E-07	4.38E-08	3.85E-08	3.85E-08	2.94E-07	5.01E-07	4.47E-07
5.73E-08	1.25E-07	4.6E-08	4.05E-08	4.05E-08	3.09E-07	5.19E-07	4.63E-07
5.86E-08	1.28E-07	4.71E-08	4.14E-08	4.14E-08	3.17E-07	5.28E-07	4.70E-07
6.28E-08	1.35E-07	4.95E-08	4.35E-08	4.35E-08	3.34E-07	5.93E-07	5.29E-07
6.72E-08	1.44E-07	5.28E-08	4.64E-08	4.64E-08	3.56E-07	6.46E-07	5.78E-07
6.88E-08	1.47E-07	5.4E-08	4.75E-08	4.75E-08	3.65E-07	6.67E-07	5.96E-07
5.93E-08	1.27E-07	4.67E-08	4.11E-08	4.11E-08	3.15E-07	5.56E-07	4.97E-07
5.9E-08	1.27E-07	4.67E-08	4.1E-08	4.1E-08	3.15E-07	5.52E-07	4.93E-07
5.8E-08	1.26E-07	4.63E-08	4.07E-08	4.07E-08	3.12E-07	5.41E-07	4.83E-07
5.72E-08	1.25E-07	4.59E-08	4.03E-08	4.03E-08	3.09E-07	5.33E-07	4.76E-07
5.06E-08	1.12E-07	4.1E-08	3.6E-08	3.6E-08	2.75E-07	4.73E-07	4.22E-07
4.93E-08	1.09E-07	3.99E-08	3.51E-08	3.51E-08	2.68E-07	4.61E-07	4.12E-07
4.72E-08	1.03E-07	3.8E-08	3.34E-08	3.34E-08	2.55E-07	4.42E-07	3.94E-07
4.71E-08	1.03E-07	3.77E-08	3.32E-08	3.32E-08	2.54E-07	4.40E-07	3.92E-07
4.91E-08	1.07E-07	3.93E-08	3.45E-08	3.45E-08	2.64E-07	4.56E-07	4.07E-07
5.14E-08	1.12E-07	4.12E-08	3.62E-08	3.62E-08	2.77E-07	4.73E-07	4.22E-07
6.16E-08	1.35E-07	4.95E-08	4.35E-08	4.35E-08	3.32E-07	5.36E-07	4.77E-07
6.33E-08	1.35E-07	4.97E-08	4.37E-08	4.37E-08	3.35E-07	6.09E-07	5.44E-07
6.47E-08	1.38E-07	5.08E-08	4.47E-08	4.47E-08	3.43E-07	6.28E-07	5.61E-07
5.62E-08	1.2E-07	4.42E-08	3.89E-08	3.89E-08	2.98E-07	5.27E-07	4.71E-07
5.57E-08	1.2E-07	4.41E-08	3.88E-08	3.88E-08	2.97E-07	5.19E-07	4.64E-07
5.47E-08	1.19E-07	4.37E-08	3.84E-08	3.84E-08	2.94E-07	5.09E-07	4.54E-07
5.32E-08	1.17E-07	4.29E-08	3.77E-08	3.77E-08	2.88E-07	4.94E-07	4.41E-07
4.66E-08	1.02E-07	3.77E-08	3.31E-08	3.31E-08	2.53E-07	4.36E-07	3.89E-07
4.46E-08	9.76E-08	3.59E-08	3.15E-08	3.15E-08	2.41E-07	4.18E-07	3.73E-07
4.45E-08	9.7E-08	3.57E-08	3.14E-08	3.14E-08	2.40E-07	4.16E-07	3.71E-07

4.63E-08	1.01E-07	3.71E-08	3.26E-08	3.26E-08	2.49E-07	4.31E-07	3.85E-07
5.52E-08	1.21E-07	4.43E-08	3.89E-08	3.89E-08	2.98E-07	4.92E-07	4.38E-07
5.76E-08	1.26E-07	4.63E-08	4.07E-08	4.07E-08	3.11E-07	5.06E-07	4.51E-07
5.85E-08	1.25E-07	4.59E-08	4.04E-08	4.04E-08	3.10E-07	5.59E-07	5.00E-07
6.09E-08	1.3E-07	4.79E-08	4.21E-08	4.21E-08	3.23E-07	5.92E-07	5.29E-07
5.33E-08	1.14E-07	4.19E-08	3.68E-08	3.68E-08	2.83E-07	5.00E-07	4.47E-07
5.3E-08	1.14E-07	4.19E-08	3.68E-08	3.68E-08	2.83E-07	4.94E-07	4.41E-07
5.22E-08	1.13E-07	4.16E-08	3.66E-08	3.66E-08	2.80E-07	4.85E-07	4.33E-07
5.1E-08	1.12E-07	4.1E-08	3.6E-08	3.6E-08	2.76E-07	4.73E-07	4.22E-07
4.22E-08	9.19E-08	3.38E-08	2.97E-08	2.97E-08	2.27E-07	3.95E-07	3.52E-07
4.97E-08	1.09E-07	4E-08	3.51E-08	3.51E-08	2.69E-07	4.52E-07	4.03E-07
5.19E-08	1.13E-07	4.17E-08	3.66E-08	3.66E-08	2.80E-07	4.65E-07	4.15E-07
5.41E-08	1.18E-07	4.34E-08	3.81E-08	3.81E-08	2.92E-07	4.78E-07	4.26E-07
5.64E-08	1.23E-07	4.53E-08	3.98E-08	3.98E-08	3.05E-07	4.91E-07	4.38E-07
5.53E-08	1.18E-07	4.34E-08	3.82E-08	3.82E-08	2.93E-07	5.30E-07	4.73E-07
5.64E-08	1.2E-07	4.43E-08	3.89E-08	3.89E-08	2.99E-07	5.44E-07	4.86E-07
5.06E-08	1.08E-07	3.98E-08	3.49E-08	3.49E-08	2.68E-07	4.75E-07	4.25E-07
5.04E-08	1.08E-07	3.98E-08	3.5E-08	3.5E-08	2.69E-07	4.70E-07	4.20E-07
4.99E-08	1.08E-07	3.97E-08	3.49E-08	3.49E-08	2.67E-07	4.63E-07	4.13E-07
4.89E-08	1.07E-07	3.92E-08	3.44E-08	3.44E-08	2.64E-07	4.53E-07	4.04E-07
4.57E-08	1.01E-07	3.71E-08	3.26E-08	3.26E-08	2.49E-07	4.24E-07	3.78E-07
4.37E-08	9.63E-08	3.54E-08	3.11E-08	3.11E-08	2.38E-07	4.07E-07	3.63E-07
4.51E-08	9.84E-08	3.62E-08	3.18E-08	3.18E-08	2.43E-07	4.15E-07	3.70E-07
4.69E-08	1.03E-07	3.77E-08	3.31E-08	3.31E-08	2.53E-07	4.28E-07	3.82E-07
4.89E-08	1.07E-07	3.92E-08	3.45E-08	3.45E-08	2.64E-07	4.41E-07	3.93E-07
5.09E-08	1.11E-07	4.08E-08	3.59E-08	3.59E-08	2.74E-07	4.53E-07	4.04E-07
5.3E-08	1.16E-07	4.25E-08	3.74E-08	3.74E-08	2.86E-07	4.65E-07	4.14E-07
5.24E-08	1.12E-07	4.11E-08	3.61E-08	3.61E-08	2.78E-07	5.02E-07	4.49E-07
5.33E-08	1.14E-07	4.19E-08	3.68E-08	3.68E-08	2.83E-07	5.15E-07	4.61E-07
5.44E-08	1.17E-07	4.29E-08	3.77E-08	3.77E-08	2.89E-07	5.30E-07	4.74E-07
4.81E-08	1.03E-07	3.78E-08	3.32E-08	3.32E-08	2.55E-07	4.52E-07	4.04E-07
4.81E-08	1.03E-07	3.79E-08	3.33E-08	3.33E-08	2.55E-07	4.50E-07	4.02E-07
4.8E-08	1.03E-07	3.79E-08	3.33E-08	3.33E-08	2.55E-07	4.47E-07	4.00E-07
4.79E-08	1.03E-07	3.79E-08	3.33E-08	3.33E-08	2.55E-07	4.44E-07	3.97E-07
4.76E-08	1.03E-07	3.78E-08	3.32E-08	3.32E-08	2.54E-07	4.41E-07	3.93E-07
4.72E-08	1.02E-07	3.76E-08	3.31E-08	3.31E-08	2.53E-07	4.36E-07	3.89E-07
4.67E-08	1.02E-07	3.74E-08	3.28E-08	3.28E-08	2.51E-07	4.31E-07	3.85E-07
4.45E-08	9.8E-08	3.6E-08	3.17E-08	3.17E-08	2.42E-07	4.12E-07	3.67E-07
4.26E-08	9.42E-08	3.46E-08	3.04E-08	3.04E-08	2.32E-07	3.96E-07	3.53E-07
4.17E-08	9.19E-08	3.38E-08	2.97E-08	2.97E-08	2.27E-07	3.88E-07	3.46E-07
4.07E-08	8.96E-08	3.3E-08	2.9E-08	2.9E-08	2.21E-07	3.80E-07	3.39E-07
3.98E-08	8.74E-08	3.21E-08	2.82E-08	2.82E-08	2.16E-07	3.72E-07	3.32E-07
3.96E-08	8.61E-08	3.17E-08	2.78E-08	2.78E-08	2.13E-07	3.69E-07	3.29E-07
4.04E-08	8.79E-08	3.23E-08	2.84E-08	2.84E-08	2.17E-07	3.75E-07	3.35E-07
4.21E-08	9.18E-08	3.38E-08	2.97E-08	2.97E-08	2.27E-07	3.89E-07	3.47E-07
4.39E-08	9.59E-08	3.53E-08	3.1E-08	3.1E-08	2.37E-07	4.03E-07	3.59E-07
4.58E-08	9.99E-08	3.68E-08	3.23E-08	3.23E-08	2.47E-07	4.16E-07	3.71E-07

4.67E-08	1.02E-07	3.75E-08	3.29E-08	3.29E-08	2.52E-07	4.22E-07	3.76E-07
4.86E-08	1.06E-07	3.9E-08	3.43E-08	3.43E-08	2.62E-07	4.34E-07	3.86E-07
5.07E-08	1.11E-07	4.07E-08	3.58E-08	3.58E-08	2.74E-07	4.45E-07	3.97E-07
5.29E-08	1.16E-07	4.25E-08	3.73E-08	3.73E-08	2.86E-07	4.58E-07	4.07E-07
4.8E-08	1.03E-07	3.77E-08	3.31E-08	3.31E-08	2.55E-07	4.55E-07	4.06E-07
5.05E-08	1.08E-07	3.98E-08	3.5E-08	3.5E-08	2.68E-07	4.89E-07	4.37E-07
5.16E-08	1.11E-07	4.07E-08	3.57E-08	3.57E-08	2.74E-07	5.02E-07	4.49E-07
4.57E-08	9.78E-08	3.6E-08	3.16E-08	3.16E-08	2.43E-07	4.31E-07	3.85E-07
4.58E-08	9.79E-08	3.6E-08	3.16E-08	3.16E-08	2.43E-07	4.29E-07	3.83E-07
4.58E-08	9.81E-08	3.61E-08	3.17E-08	3.17E-08	2.43E-07	4.27E-07	3.81E-07
4.55E-08	9.8E-08	3.6E-08	3.17E-08	3.17E-08	2.43E-07	4.21E-07	3.76E-07
4.52E-08	9.77E-08	3.59E-08	3.16E-08	3.16E-08	2.42E-07	4.18E-07	3.73E-07
4.3E-08	9.45E-08	3.47E-08	3.05E-08	3.05E-08	2.33E-07	3.97E-07	3.54E-07
4.22E-08	9.3E-08	3.42E-08	3E-08	3E-08	2.29E-07	3.90E-07	3.48E-07
4.04E-08	8.92E-08	3.28E-08	2.88E-08	2.88E-08	2.20E-07	3.75E-07	3.35E-07
3.86E-08	8.51E-08	3.13E-08	2.75E-08	2.75E-08	2.10E-07	3.60E-07	3.21E-07
3.78E-08	8.3E-08	3.05E-08	2.68E-08	2.68E-08	2.05E-07	3.53E-07	3.15E-07
3.76E-08	8.18E-08	3.01E-08	2.64E-08	2.64E-08	2.02E-07	3.51E-07	3.13E-07
3.92E-08	8.52E-08	3.13E-08	2.75E-08	2.75E-08	2.11E-07	3.63E-07	3.24E-07
4.08E-08	8.89E-08	3.27E-08	2.87E-08	2.87E-08	2.20E-07	3.76E-07	3.36E-07
4.24E-08	9.26E-08	3.41E-08	2.99E-08	2.99E-08	2.29E-07	3.89E-07	3.47E-07
4.41E-08	9.63E-08	3.54E-08	3.11E-08	3.11E-08	2.38E-07	4.01E-07	3.57E-07
4.59E-08	1E-07	3.68E-08	3.23E-08	3.23E-08	2.48E-07	4.12E-07	3.67E-07
4.78E-08	1.04E-07	3.83E-08	3.37E-08	3.37E-08	2.58E-07	4.23E-07	3.77E-07
4.98E-08	1.09E-07	3.99E-08	3.51E-08	3.51E-08	2.69E-07	4.34E-07	3.86E-07
4.71E-08	1.01E-07	3.71E-08	3.26E-08	3.26E-08	2.50E-07	4.53E-07	4.05E-07
4.89E-08	1.05E-07	3.86E-08	3.39E-08	3.39E-08	2.61E-07	4.76E-07	4.25E-07
4.36E-08	9.31E-08	3.42E-08	3.01E-08	3.01E-08	2.31E-07	4.11E-07	3.67E-07
4.37E-08	9.35E-08	3.44E-08	3.02E-08	3.02E-08	2.32E-07	4.07E-07	3.64E-07
4.35E-08	9.35E-08	3.44E-08	3.02E-08	3.02E-08	2.32E-07	4.03E-07	3.60E-07
4.3E-08	9.31E-08	3.42E-08	3.01E-08	3.01E-08	2.31E-07	3.96E-07	3.54E-07
4.15E-08	9.1E-08	3.35E-08	2.94E-08	2.94E-08	2.25E-07	3.82E-07	3.41E-07
4.01E-08	8.83E-08	3.25E-08	2.85E-08	2.85E-08	2.18E-07	3.70E-07	3.30E-07
3.92E-08	8.66E-08	3.19E-08	2.8E-08	2.8E-08	2.14E-07	3.63E-07	3.24E-07
3.76E-08	8.29E-08	3.05E-08	2.68E-08	2.68E-08	2.04E-07	3.49E-07	3.12E-07
3.67E-08	8.09E-08	2.97E-08	2.61E-08	2.61E-08	2.00E-07	3.42E-07	3.05E-07
3.58E-08	7.79E-08	2.86E-08	2.52E-08	2.52E-08	1.93E-07	3.34E-07	2.98E-07
3.72E-08	8.1E-08	2.98E-08	2.62E-08	2.62E-08	2.00E-07	3.46E-07	3.09E-07
3.87E-08	8.44E-08	3.1E-08	2.73E-08	2.73E-08	2.09E-07	3.58E-07	3.19E-07
4.02E-08	8.78E-08	3.23E-08	2.84E-08	2.84E-08	2.17E-07	3.69E-07	3.30E-07
4.18E-08	9.12E-08	3.35E-08	2.95E-08	2.95E-08	2.25E-07	3.81E-07	3.39E-07
4.34E-08	9.47E-08	3.48E-08	3.06E-08	3.06E-08	2.34E-07	3.91E-07	3.49E-07
4.51E-08	9.84E-08	3.62E-08	3.18E-08	3.18E-08	2.43E-07	4.02E-07	3.58E-07
4.69E-08	1.02E-07	3.77E-08	3.31E-08	3.31E-08	2.53E-07	4.12E-07	3.67E-07
4.48E-08	9.6E-08	3.53E-08	3.1E-08	3.1E-08	2.38E-07	4.30E-07	3.85E-07
4.56E-08	9.79E-08	3.6E-08	3.16E-08	3.16E-08	2.43E-07	4.41E-07	3.94E-07
4.15E-08	8.88E-08	3.26E-08	2.87E-08	2.87E-08	2.20E-07	3.92E-07	3.50E-07

4.17E-08	8.91E-08	3.28E-08	2.88E-08	2.88E-08	2.21E-07	3.89E-07	3.48E-07
4.16E-08	8.93E-08	3.29E-08	2.89E-08	2.89E-08	2.22E-07	3.85E-07	3.44E-07
4.13E-08	8.91E-08	3.28E-08	2.88E-08	2.88E-08	2.21E-07	3.80E-07	3.39E-07
3.95E-08	8.66E-08	3.19E-08	2.8E-08	2.8E-08	2.14E-07	3.63E-07	3.24E-07
3.81E-08	8.4E-08	3.09E-08	2.71E-08	2.71E-08	2.07E-07	3.51E-07	3.13E-07
3.65E-08	8.07E-08	2.97E-08	2.61E-08	2.61E-08	1.99E-07	3.39E-07	3.02E-07
3.5E-08	7.7E-08	2.83E-08	2.49E-08	2.49E-08	1.90E-07	3.26E-07	2.91E-07
3.3E-08	7.18E-08	2.64E-08	2.32E-08	2.32E-08	1.78E-07	3.09E-07	2.76E-07
3.55E-08	7.71E-08	2.84E-08	2.49E-08	2.49E-08	1.91E-07	3.29E-07	2.94E-07
3.68E-08	8.02E-08	2.95E-08	2.59E-08	2.59E-08	1.98E-07	3.41E-07	3.04E-07
3.82E-08	8.34E-08	3.07E-08	2.69E-08	2.69E-08	2.06E-07	3.52E-07	3.14E-07
3.97E-08	8.66E-08	3.18E-08	2.8E-08	2.8E-08	2.14E-07	3.62E-07	3.23E-07
4.11E-08	8.97E-08	3.3E-08	2.9E-08	2.9E-08	2.22E-07	3.73E-07	3.32E-07
4.27E-08	9.31E-08	3.42E-08	3.01E-08	3.01E-08	2.30E-07	3.82E-07	3.41E-07
4.27E-08	9.15E-08	3.37E-08	2.96E-08	2.96E-08	2.27E-07	4.10E-07	3.66E-07
4.35E-08	9.33E-08	3.43E-08	3.01E-08	3.01E-08	2.31E-07	4.19E-07	3.75E-07
4.43E-08	9.54E-08	3.51E-08	3.08E-08	3.08E-08	2.36E-07	4.30E-07	3.84E-07
3.96E-08	8.47E-08	3.12E-08	2.74E-08	2.74E-08	2.10E-07	3.74E-07	3.34E-07
3.98E-08	8.51E-08	3.13E-08	2.75E-08	2.75E-08	2.11E-07	3.72E-07	3.32E-07
3.98E-08	8.54E-08	3.14E-08	2.76E-08	2.76E-08	2.12E-07	3.69E-07	3.30E-07
3.96E-08	8.54E-08	3.14E-08	2.76E-08	2.76E-08	2.12E-07	3.65E-07	3.26E-07
3.82E-08	8.35E-08	3.07E-08	2.7E-08	2.7E-08	2.06E-07	3.51E-07	3.13E-07
3.7E-08	8.14E-08	2.99E-08	2.63E-08	2.63E-08	2.01E-07	3.40E-07	3.03E-07
3.56E-08	7.85E-08	2.89E-08	2.54E-08	2.54E-08	1.94E-07	3.28E-07	2.93E-07
3.41E-08	7.51E-08	2.76E-08	2.43E-08	2.43E-08	1.85E-07	3.16E-07	2.82E-07
3.15E-08	6.89E-08	2.53E-08	2.23E-08	2.23E-08	1.70E-07	2.95E-07	2.63E-07
3.15E-08	6.87E-08	2.52E-08	2.22E-08	2.22E-08	1.70E-07	2.95E-07	2.63E-07
3.38E-08	7.35E-08	2.7E-08	2.38E-08	2.38E-08	1.82E-07	3.14E-07	2.81E-07
3.51E-08	7.64E-08	2.81E-08	2.47E-08	2.47E-08	1.89E-07	3.25E-07	2.90E-07
3.64E-08	7.93E-08	2.92E-08	2.56E-08	2.56E-08	1.96E-07	3.35E-07	2.99E-07
3.77E-08	8.22E-08	3.02E-08	2.66E-08	2.66E-08	2.03E-07	3.45E-07	3.08E-07
3.9E-08	8.51E-08	3.13E-08	2.75E-08	2.75E-08	2.10E-07	3.55E-07	3.16E-07
4.36E-08	9.5E-08	3.49E-08	3.07E-08	3.07E-08	2.35E-07	3.82E-07	3.41E-07
4.15E-08	8.91E-08	3.28E-08	2.88E-08	2.88E-08	2.21E-07	3.99E-07	3.57E-07
4.23E-08	9.1E-08	3.35E-08	2.94E-08	2.94E-08	2.26E-07	4.09E-07	3.66E-07
3.79E-08	8.1E-08	2.98E-08	2.62E-08	2.62E-08	2.01E-07	3.57E-07	3.19E-07
3.8E-08	8.14E-08	2.99E-08	2.63E-08	2.63E-08	2.02E-07	3.56E-07	3.18E-07
3.81E-08	8.17E-08	3E-08	2.64E-08	2.64E-08	2.03E-07	3.54E-07	3.16E-07
3.8E-08	8.18E-08	3.01E-08	2.64E-08	2.64E-08	2.03E-07	3.50E-07	3.13E-07
3.69E-08	8.05E-08	2.96E-08	2.6E-08	2.6E-08	1.99E-07	3.38E-07	3.02E-07
3.59E-08	7.88E-08	2.9E-08	2.55E-08	2.55E-08	1.95E-07	3.29E-07	2.94E-07
3.46E-08	7.63E-08	2.81E-08	2.47E-08	2.47E-08	1.88E-07	3.19E-07	2.84E-07
3.32E-08	7.32E-08	2.69E-08	2.37E-08	2.37E-08	1.81E-07	3.07E-07	2.74E-07
3.07E-08	6.72E-08	2.47E-08	2.17E-08	2.17E-08	1.66E-07	2.86E-07	2.55E-07
3.02E-08	6.56E-08	2.41E-08	2.12E-08	2.12E-08	1.62E-07	2.82E-07	2.52E-07
3.12E-08	6.77E-08	2.49E-08	2.19E-08	2.19E-08	1.67E-07	2.91E-07	2.60E-07
3.35E-08	7.28E-08	2.68E-08	2.35E-08	2.35E-08	1.80E-07	3.10E-07	2.77E-07

3.47E-08	7.56E-08	2.78E-08	2.44E-08	2.44E-08	1.87E-07	3.20E-07	2.85E-07
3.59E-08	7.83E-08	2.88E-08	2.53E-08	2.53E-08	1.94E-07	3.29E-07	2.94E-07
3.98E-08	8.68E-08	3.19E-08	2.8E-08	2.8E-08	2.15E-07	3.56E-07	3.18E-07
4.13E-08	9E-08	3.31E-08	2.91E-08	2.91E-08	2.22E-07	3.65E-07	3.25E-07
4.28E-08	9.34E-08	3.43E-08	3.02E-08	3.02E-08	2.31E-07	3.73E-07	3.32E-07
4.04E-08	8.7E-08	3.2E-08	2.81E-08	2.81E-08	2.16E-07	3.91E-07	3.50E-07
3.62E-08	7.75E-08	2.85E-08	2.5E-08	2.5E-08	1.92E-07	3.41E-07	3.05E-07
3.64E-08	7.79E-08	2.86E-08	2.52E-08	2.52E-08	1.93E-07	3.40E-07	3.04E-07
3.65E-08	7.81E-08	2.87E-08	2.52E-08	2.52E-08	1.94E-07	3.40E-07	3.03E-07
3.65E-08	7.82E-08	2.88E-08	2.53E-08	2.53E-08	1.94E-07	3.39E-07	3.02E-07
3.65E-08	7.83E-08	2.88E-08	2.53E-08	2.53E-08	1.94E-07	3.37E-07	3.01E-07
3.61E-08	7.81E-08	2.87E-08	2.52E-08	2.52E-08	1.93E-07	3.31E-07	2.96E-07
3.58E-08	7.78E-08	2.86E-08	2.51E-08	2.51E-08	1.93E-07	3.28E-07	2.93E-07
3.55E-08	7.73E-08	2.84E-08	2.5E-08	2.5E-08	1.91E-07	3.25E-07	2.90E-07
3.45E-08	7.57E-08	2.79E-08	2.45E-08	2.45E-08	1.87E-07	3.16E-07	2.82E-07
3.39E-08	7.46E-08	2.74E-08	2.41E-08	2.41E-08	1.84E-07	3.11E-07	2.77E-07
3.33E-08	7.33E-08	2.7E-08	2.37E-08	2.37E-08	1.81E-07	3.06E-07	2.73E-07
3.26E-08	7.19E-08	2.64E-08	2.32E-08	2.32E-08	1.77E-07	3.00E-07	2.68E-07
3.06E-08	6.73E-08	2.47E-08	2.17E-08	2.17E-08	1.66E-07	2.84E-07	2.53E-07
3E-08	6.58E-08	2.42E-08	2.13E-08	2.13E-08	1.62E-07	2.79E-07	2.49E-07
2.94E-08	6.44E-08	2.37E-08	2.08E-08	2.08E-08	1.59E-07	2.74E-07	2.45E-07
2.89E-08	6.29E-08	2.31E-08	2.03E-08	2.03E-08	1.56E-07	2.70E-07	2.41E-07
2.99E-08	6.49E-08	2.39E-08	2.1E-08	2.1E-08	1.61E-07	2.79E-07	2.49E-07
3.21E-08	6.99E-08	2.57E-08	2.26E-08	2.26E-08	1.73E-07	2.98E-07	2.66E-07
3.63E-08	7.91E-08	2.91E-08	2.56E-08	2.56E-08	1.96E-07	3.30E-07	2.94E-07
3.69E-08	8.05E-08	2.96E-08	2.6E-08	2.6E-08	1.99E-07	3.34E-07	2.98E-07
3.83E-08	8.35E-08	3.07E-08	2.7E-08	2.7E-08	2.06E-07	3.43E-07	3.06E-07
3.9E-08	8.5E-08	3.13E-08	2.75E-08	2.75E-08	2.10E-07	3.47E-07	3.09E-07
4.05E-08	8.83E-08	3.25E-08	2.85E-08	2.85E-08	2.18E-07	3.56E-07	3.17E-07
4.12E-08	8.99E-08	3.31E-08	2.9E-08	2.9E-08	2.22E-07	3.59E-07	3.20E-07
3.61E-08	7.74E-08	2.85E-08	2.5E-08	2.5E-08	1.92E-07	3.42E-07	3.06E-07
3.86E-08	8.32E-08	3.06E-08	2.69E-08	2.69E-08	2.06E-07	3.75E-07	3.35E-07
3.47E-08	7.43E-08	2.73E-08	2.4E-08	2.4E-08	1.84E-07	3.27E-07	2.92E-07
3.48E-08	7.44E-08	2.74E-08	2.4E-08	2.4E-08	1.85E-07	3.26E-07	2.91E-07
3.49E-08	7.48E-08	2.75E-08	2.42E-08	2.42E-08	1.86E-07	3.25E-07	2.90E-07
3.5E-08	7.51E-08	2.76E-08	2.43E-08	2.43E-08	1.86E-07	3.24E-07	2.89E-07
3.46E-08	7.49E-08	2.75E-08	2.42E-08	2.42E-08	1.85E-07	3.17E-07	2.83E-07
3.43E-08	7.45E-08	2.74E-08	2.41E-08	2.41E-08	1.84E-07	3.14E-07	2.80E-07
3.35E-08	7.33E-08	2.7E-08	2.37E-08	2.37E-08	1.81E-07	3.06E-07	2.73E-07
3.24E-08	7.13E-08	2.62E-08	2.3E-08	2.3E-08	1.76E-07	2.97E-07	2.65E-07
2.99E-08	6.58E-08	2.42E-08	2.13E-08	2.13E-08	1.62E-07	2.76E-07	2.46E-07
2.87E-08	6.3E-08	2.32E-08	2.03E-08	2.03E-08	1.56E-07	2.67E-07	2.38E-07
2.82E-08	6.17E-08	2.27E-08	1.99E-08	1.99E-08	1.52E-07	2.62E-07	2.34E-07
2.77E-08	6.03E-08	2.22E-08	1.95E-08	1.95E-08	1.49E-07	2.59E-07	2.31E-07
2.86E-08	6.22E-08	2.29E-08	2.01E-08	2.01E-08	1.54E-07	2.67E-07	2.38E-07
3.29E-08	7.17E-08	2.64E-08	2.32E-08	2.32E-08	1.77E-07	3.02E-07	2.70E-07
3.4E-08	7.41E-08	2.73E-08	2.4E-08	2.4E-08	1.83E-07	3.11E-07	2.77E-07

3.45E-08	7.53E-08	2.77E-08	2.43E-08	2.43E-08	1.86E-07	3.15E-07	2.81E-07
3.58E-08	7.79E-08	2.87E-08	2.52E-08	2.52E-08	1.93E-07	3.24E-07	2.89E-07
3.71E-08	8.08E-08	2.97E-08	2.61E-08	2.61E-08	2.00E-07	3.32E-07	2.96E-07
3.77E-08	8.22E-08	3.02E-08	2.66E-08	2.66E-08	2.03E-07	3.36E-07	2.99E-07
3.91E-08	8.53E-08	3.14E-08	2.76E-08	2.76E-08	2.11E-07	3.43E-07	3.06E-07
4.04E-08	8.83E-08	3.25E-08	2.85E-08	2.85E-08	2.18E-07	3.50E-07	3.12E-07
3.46E-08	7.42E-08	2.73E-08	2.4E-08	2.4E-08	1.84E-07	3.28E-07	2.93E-07
3.63E-08	7.81E-08	2.87E-08	2.52E-08	2.52E-08	1.94E-07	3.50E-07	3.13E-07
3.32E-08	7.12E-08	2.62E-08	2.3E-08	2.3E-08	1.77E-07	3.13E-07	2.80E-07
3.34E-08	7.15E-08	2.63E-08	2.31E-08	2.31E-08	1.77E-07	3.12E-07	2.79E-07
3.36E-08	7.19E-08	2.64E-08	2.32E-08	2.32E-08	1.78E-07	3.11E-07	2.78E-07
3.36E-08	7.22E-08	2.65E-08	2.33E-08	2.33E-08	1.79E-07	3.10E-07	2.77E-07
3.34E-08	7.2E-08	2.65E-08	2.33E-08	2.33E-08	1.78E-07	3.05E-07	2.73E-07
3.31E-08	7.18E-08	2.64E-08	2.32E-08	2.32E-08	1.78E-07	3.03E-07	2.70E-07
3.25E-08	7.09E-08	2.61E-08	2.29E-08	2.29E-08	1.75E-07	2.97E-07	2.65E-07
3.2E-08	7.02E-08	2.58E-08	2.27E-08	2.27E-08	1.73E-07	2.93E-07	2.61E-07
3.1E-08	6.82E-08	2.51E-08	2.21E-08	2.21E-08	1.68E-07	2.84E-07	2.53E-07
2.92E-08	6.44E-08	2.37E-08	2.08E-08	2.08E-08	1.59E-07	2.69E-07	2.40E-07
2.8E-08	6.16E-08	2.27E-08	1.99E-08	1.99E-08	1.52E-07	2.60E-07	2.32E-07
2.7E-08	5.92E-08	2.18E-08	1.91E-08	1.91E-08	1.46E-07	2.52E-07	2.25E-07
2.66E-08	5.81E-08	2.14E-08	1.88E-08	1.88E-08	1.44E-07	2.48E-07	2.21E-07
2.66E-08	5.79E-08	2.13E-08	1.87E-08	1.87E-08	1.43E-07	2.48E-07	2.22E-07
2.74E-08	5.96E-08	2.19E-08	1.93E-08	1.93E-08	1.47E-07	2.56E-07	2.28E-07
3.04E-08	6.62E-08	2.44E-08	2.14E-08	2.14E-08	1.64E-07	2.81E-07	2.51E-07
3.14E-08	6.85E-08	2.52E-08	2.21E-08	2.21E-08	1.69E-07	2.89E-07	2.58E-07
3.24E-08	7.07E-08	2.6E-08	2.29E-08	2.29E-08	1.75E-07	2.97E-07	2.65E-07
3.35E-08	7.3E-08	2.69E-08	2.36E-08	2.36E-08	1.81E-07	3.05E-07	2.72E-07
3.47E-08	7.55E-08	2.78E-08	2.44E-08	2.44E-08	1.87E-07	3.13E-07	2.79E-07
3.59E-08	7.82E-08	2.87E-08	2.53E-08	2.53E-08	1.93E-07	3.21E-07	2.86E-07
3.72E-08	8.1E-08	2.98E-08	2.62E-08	2.62E-08	2.00E-07	3.28E-07	2.93E-07
3.84E-08	8.39E-08	3.08E-08	2.71E-08	2.71E-08	2.07E-07	3.35E-07	2.99E-07
3.32E-08	7.12E-08	2.62E-08	2.3E-08	2.3E-08	1.77E-07	3.14E-07	2.81E-07
3.48E-08	7.49E-08	2.76E-08	2.42E-08	2.42E-08	1.86E-07	3.37E-07	3.01E-07
3.55E-08	7.65E-08	2.81E-08	2.47E-08	2.47E-08	1.90E-07	3.47E-07	3.10E-07
3.19E-08	6.84E-08	2.52E-08	2.21E-08	2.21E-08	1.70E-07	3.01E-07	2.69E-07
3.2E-08	6.86E-08	2.52E-08	2.22E-08	2.22E-08	1.70E-07	2.99E-07	2.67E-07
3.22E-08	6.9E-08	2.54E-08	2.23E-08	2.23E-08	1.71E-07	2.99E-07	2.67E-07
3.23E-08	6.91E-08	2.54E-08	2.23E-08	2.23E-08	1.72E-07	2.98E-07	2.66E-07
3.22E-08	6.93E-08	2.55E-08	2.24E-08	2.24E-08	1.72E-07	2.94E-07	2.63E-07
3.18E-08	6.89E-08	2.54E-08	2.23E-08	2.23E-08	1.71E-07	2.90E-07	2.59E-07
3.11E-08	6.8E-08	2.5E-08	2.2E-08	2.2E-08	1.68E-07	2.84E-07	2.53E-07
3.02E-08	6.64E-08	2.44E-08	2.15E-08	2.15E-08	1.64E-07	2.76E-07	2.46E-07
2.97E-08	6.53E-08	2.4E-08	2.11E-08	2.11E-08	1.61E-07	2.72E-07	2.42E-07
2.85E-08	6.29E-08	2.32E-08	2.03E-08	2.03E-08	1.55E-07	2.63E-07	2.34E-07
2.74E-08	6.04E-08	2.22E-08	1.95E-08	1.95E-08	1.49E-07	2.53E-07	2.26E-07
2.64E-08	5.79E-08	2.13E-08	1.87E-08	1.87E-08	1.43E-07	2.45E-07	2.19E-07
2.56E-08	5.58E-08	2.05E-08	1.8E-08	1.8E-08	1.38E-07	2.38E-07	2.12E-07

2.56E-08	5.56E-08	2.05E-08	1.8E-08	1.8E-08	1.38E-07	2.38E-07	2.13E-07
2.91E-08	6.34E-08	2.33E-08	2.05E-08	2.05E-08	1.57E-07	2.69E-07	2.40E-07
3.01E-08	6.55E-08	2.41E-08	2.12E-08	2.12E-08	1.62E-07	2.77E-07	2.47E-07
3.1E-08	6.76E-08	2.49E-08	2.18E-08	2.18E-08	1.67E-07	2.84E-07	2.54E-07
3.2E-08	6.97E-08	2.56E-08	2.25E-08	2.25E-08	1.72E-07	2.92E-07	2.61E-07
3.3E-08	7.2E-08	2.65E-08	2.33E-08	2.33E-08	1.78E-07	3.00E-07	2.67E-07
3.42E-08	7.44E-08	2.74E-08	2.4E-08	2.4E-08	1.84E-07	3.07E-07	2.74E-07
3.54E-08	7.71E-08	2.84E-08	2.49E-08	2.49E-08	1.91E-07	3.14E-07	2.80E-07
3.66E-08	7.98E-08	2.93E-08	2.58E-08	2.58E-08	1.97E-07	3.21E-07	2.86E-07
3.77E-08	8.24E-08	3.03E-08	2.66E-08	2.66E-08	2.04E-07	3.27E-07	2.91E-07
3.23E-08	6.94E-08	2.55E-08	2.24E-08	2.24E-08	1.72E-07	3.09E-07	2.76E-07
3.34E-08	7.2E-08	2.65E-08	2.32E-08	2.32E-08	1.78E-07	3.25E-07	2.90E-07
3.4E-08	7.35E-08	2.7E-08	2.37E-08	2.37E-08	1.82E-07	3.34E-07	2.99E-07
2.54E-07	5.67E-07	2.09E-07	1.83E-07	1.83E-07	1.40E-06	2.17E-06	1.93E-06
1.69E-07	3.73E-07	1.37E-07	1.21E-07	1.21E-07	9.20E-07	1.45E-06	1.29E-06
1.12E-07	2.47E-07	9.07E-08	7.97E-08	7.97E-08	6.09E-07	9.75E-07	8.68E-07
2.2E-07	4.81E-07	1.77E-07	1.55E-07	1.55E-07	1.19E-06	1.98E-06	1.77E-06
1.96E-07	4.27E-07	1.57E-07	1.38E-07	1.38E-07	1.06E-06	1.80E-06	1.60E-06
1.44E-07	3.11E-07	1.14E-07	1.01E-07	1.01E-07	7.71E-07	1.38E-06	1.23E-06
1.13E-07	2.5E-07	9.18E-08	8.06E-08	8.06E-08	6.16E-07	1.01E-06	9.04E-07
6.46E-08	1.42E-07	5.21E-08	4.58E-08	4.58E-08	3.50E-07	6.02E-07	5.37E-07
5.69E-08	1.24E-07	4.58E-08	4.02E-08	4.02E-08	3.07E-07	5.31E-07	4.74E-07
3E-08	6.56E-08	2.41E-08	2.12E-08	2.12E-08	1.62E-07	2.80E-07	2.50E-07
3.09E-08	6.61E-08	2.43E-08	2.14E-08	2.14E-08	1.64E-07	2.88E-07	2.58E-07
2.88E-08	6.29E-08	2.31E-08	2.03E-08	2.03E-08	1.55E-07	2.69E-07	2.40E-07
3.07E-08	6.58E-08	2.42E-08	2.12E-08	2.12E-08	1.63E-07	2.88E-07	2.57E-07
3.09E-08	6.62E-08	2.43E-08	2.14E-08	2.14E-08	1.64E-07	2.92E-07	2.61E-07
2.96E-08	6.35E-08	2.33E-08	2.05E-08	2.05E-08	1.57E-07	2.77E-07	2.47E-07
2.98E-08	6.39E-08	2.35E-08	2.06E-08	2.06E-08	1.58E-07	2.77E-07	2.48E-07
3E-08	6.43E-08	2.36E-08	2.08E-08	2.08E-08	1.60E-07	2.78E-07	2.48E-07
3.02E-08	6.47E-08	2.38E-08	2.09E-08	2.09E-08	1.61E-07	2.79E-07	2.49E-07
3.04E-08	6.51E-08	2.4E-08	2.1E-08	2.1E-08	1.62E-07	2.80E-07	2.50E-07
3.07E-08	6.59E-08	2.42E-08	2.13E-08	2.13E-08	1.63E-07	2.81E-07	2.51E-07
3.07E-08	6.61E-08	2.43E-08	2.14E-08	2.14E-08	1.64E-07	2.81E-07	2.51E-07
3.07E-08	6.63E-08	2.44E-08	2.14E-08	2.14E-08	1.64E-07	2.81E-07	2.51E-07
3.07E-08	6.64E-08	2.44E-08	2.15E-08	2.15E-08	1.64E-07	2.80E-07	2.50E-07
3.06E-08	6.64E-08	2.44E-08	2.14E-08	2.14E-08	1.64E-07	2.79E-07	2.49E-07
2.76E-08	6.03E-08	2.22E-08	1.95E-08	1.95E-08	1.49E-07	2.57E-07	2.30E-07
2.94E-08	6.31E-08	2.32E-08	2.04E-08	2.04E-08	1.57E-07	2.77E-07	2.47E-07
2.96E-08	6.36E-08	2.34E-08	2.05E-08	2.05E-08	1.58E-07	2.80E-07	2.51E-07
2.54E-07	5.52E-07	2.03E-07	1.78E-07	1.78E-07	1.37E-06	2.30E-06	2.05E-06
2.17E-07	4.7E-07	1.73E-07	1.52E-07	1.52E-07	1.16E-06	2.01E-06	1.79E-06
2.59E-07	5.6E-07	2.06E-07	1.81E-07	1.81E-07	1.39E-06	2.39E-06	2.13E-06
1.93E-07	4.17E-07	1.53E-07	1.35E-07	1.35E-07	1.03E-06	1.82E-06	1.62E-06
2.21E-07	4.76E-07	1.75E-07	1.54E-07	1.54E-07	1.18E-06	2.08E-06	1.86E-06
1.82E-07	3.91E-07	1.44E-07	1.26E-07	1.26E-07	9.69E-07	1.74E-06	1.55E-06
1.66E-07	3.58E-07	1.32E-07	1.16E-07	1.16E-07	8.87E-07	1.57E-06	1.41E-06

2.07E-07	4.45E-07	1.64E-07	1.44E-07	1.44E-07	1.10E-06	1.99E-06	1.78E-06
1.71E-07	3.67E-07	1.35E-07	1.19E-07	1.19E-07	9.11E-07	1.66E-06	1.49E-06
1.57E-07	3.37E-07	1.24E-07	1.09E-07	1.09E-07	8.35E-07	1.51E-06	1.35E-06
1.94E-07	4.17E-07	1.53E-07	1.35E-07	1.35E-07	1.03E-06	1.90E-06	1.70E-06
1.61E-07	3.46E-07	1.27E-07	1.12E-07	1.12E-07	8.58E-07	1.59E-06	1.42E-06
1.48E-07	3.17E-07	1.17E-07	1.03E-07	1.03E-07	7.87E-07	1.44E-06	1.29E-06
1.82E-07	3.91E-07	1.44E-07	1.26E-07	1.26E-07	9.69E-07	1.81E-06	1.62E-06
1.51E-07	3.24E-07	1.19E-07	1.05E-07	1.05E-07	8.03E-07	1.50E-06	1.35E-06
1.37E-07	2.94E-07	1.08E-07	9.49E-08	9.49E-08	7.29E-07	1.35E-06	1.21E-06
1.71E-07	3.67E-07	1.35E-07	1.19E-07	1.19E-07	9.10E-07	1.73E-06	1.55E-06
1.43E-07	3.06E-07	1.13E-07	9.89E-08	9.89E-08	7.59E-07	1.44E-06	1.29E-06
1.3E-07	2.79E-07	1.03E-07	9.02E-08	9.02E-08	6.93E-07	1.29E-06	1.16E-06
1.2E-07	2.57E-07	9.43E-08	8.29E-08	8.29E-08	6.37E-07	1.17E-06	1.05E-06
1.6E-07	3.45E-07	1.27E-07	1.12E-07	1.12E-07	8.55E-07	1.64E-06	1.47E-06
1.34E-07	2.9E-07	1.07E-07	9.36E-08	9.36E-08	7.18E-07	1.37E-06	1.22E-06
1.24E-07	2.65E-07	9.74E-08	8.56E-08	8.56E-08	6.57E-07	1.23E-06	1.10E-06
1.14E-07	2.44E-07	8.98E-08	7.89E-08	7.89E-08	6.06E-07	1.12E-06	1.00E-06
1.06E-07	2.27E-07	8.35E-08	7.34E-08	7.34E-08	5.63E-07	1.03E-06	9.22E-07
1.5E-07	3.25E-07	1.2E-07	1.05E-07	1.05E-07	8.05E-07	1.56E-06	1.40E-06
1.27E-07	2.74E-07	1.01E-07	8.86E-08	8.86E-08	6.80E-07	1.30E-06	1.17E-06
1.17E-07	2.52E-07	9.26E-08	8.13E-08	8.13E-08	6.24E-07	1.18E-06	1.05E-06
1.09E-07	2.33E-07	8.55E-08	7.52E-08	7.52E-08	5.77E-07	1.08E-06	9.63E-07
1.01E-07	2.17E-07	7.96E-08	7E-08	7E-08	5.37E-07	9.89E-07	8.85E-07
1.42E-07	3.07E-07	1.13E-07	9.92E-08	9.92E-08	7.60E-07	1.49E-06	1.33E-06
1.2E-07	2.6E-07	9.58E-08	8.41E-08	8.41E-08	6.45E-07	1.24E-06	1.11E-06
1.11E-07	2.4E-07	8.81E-08	7.74E-08	7.74E-08	5.94E-07	1.13E-06	1.01E-06
1.03E-07	2.22E-07	8.15E-08	7.16E-08	7.16E-08	5.50E-07	1.03E-06	9.21E-07
9.67E-08	2.07E-07	7.6E-08	6.67E-08	6.67E-08	5.13E-07	9.48E-07	8.48E-07
1.34E-07	2.9E-07	1.07E-07	9.38E-08	9.38E-08	7.19E-07	1.41E-06	1.26E-06
1.14E-07	2.48E-07	9.11E-08	8.01E-08	8.01E-08	6.13E-07	1.19E-06	1.06E-06
1.06E-07	2.28E-07	8.39E-08	7.37E-08	7.37E-08	5.65E-07	1.08E-06	9.63E-07
9.83E-08	2.11E-07	7.77E-08	6.83E-08	6.83E-08	5.24E-07	9.85E-07	8.81E-07
9.22E-08	1.97E-07	7.25E-08	6.37E-08	6.37E-08	4.89E-07	9.09E-07	8.13E-07
1.27E-07	2.76E-07	1.01E-07	8.91E-08	8.91E-08	6.83E-07	1.34E-06	1.20E-06
1.21E-07	2.63E-07	9.66E-08	8.48E-08	8.48E-08	6.50E-07	1.28E-06	1.15E-06
9.92E-08	2.16E-07	7.94E-08	6.97E-08	6.97E-08	5.34E-07	1.04E-06	9.29E-07
9.14E-08	1.98E-07	7.3E-08	6.41E-08	6.41E-08	4.91E-07	9.41E-07	8.42E-07
8.46E-08	1.83E-07	6.73E-08	5.92E-08	5.92E-08	4.53E-07	8.58E-07	7.68E-07
7.9E-08	1.7E-07	6.26E-08	5.5E-08	5.5E-08	4.22E-07	7.89E-07	7.06E-07
7.43E-08	1.59E-07	5.86E-08	5.15E-08	5.15E-08	3.95E-07	7.31E-07	6.54E-07
9.52E-08	2.07E-07	7.61E-08	6.69E-08	6.69E-08	5.12E-07	9.94E-07	8.90E-07
8.77E-08	1.91E-07	7.01E-08	6.16E-08	6.16E-08	4.72E-07	9.05E-07	8.10E-07
8.14E-08	1.76E-07	6.49E-08	5.7E-08	5.7E-08	4.37E-07	8.28E-07	7.41E-07
7.59E-08	1.64E-07	6.03E-08	5.29E-08	5.29E-08	4.06E-07	7.62E-07	6.82E-07
7.14E-08	1.53E-07	5.64E-08	4.95E-08	4.95E-08	3.80E-07	7.06E-07	6.31E-07
1.05E-07	2.29E-07	8.41E-08	7.39E-08	7.39E-08	5.66E-07	1.11E-06	9.98E-07
9.14E-08	1.99E-07	7.31E-08	6.42E-08	6.42E-08	4.92E-07	9.53E-07	8.54E-07

8.45E-08	1.84E-07	6.75E-08	5.93E-08	5.93E-08	4.54E-07	8.71E-07	7.80E-07
7.84E-08	1.7E-07	6.26E-08	5.5E-08	5.5E-08	4.21E-07	7.99E-07	7.15E-07
7.31E-08	1.58E-07	5.81E-08	5.11E-08	5.11E-08	3.91E-07	7.36E-07	6.58E-07
6.86E-08	1.48E-07	5.43E-08	4.77E-08	4.77E-08	3.66E-07	6.82E-07	6.10E-07
6.49E-08	1.39E-07	5.12E-08	4.5E-08	4.5E-08	3.45E-07	6.37E-07	5.70E-07
1.01E-07	2.19E-07	8.05E-08	7.08E-08	7.08E-08	5.42E-07	1.07E-06	9.55E-07
8.79E-08	1.91E-07	7.03E-08	6.17E-08	6.17E-08	4.73E-07	9.16E-07	8.20E-07
8.13E-08	1.77E-07	6.51E-08	5.72E-08	5.72E-08	4.38E-07	8.38E-07	7.50E-07
7.55E-08	1.64E-07	6.03E-08	5.3E-08	5.3E-08	4.06E-07	7.70E-07	6.89E-07
7.05E-08	1.53E-07	5.62E-08	4.94E-08	4.94E-08	3.78E-07	7.12E-07	6.37E-07
6.61E-08	1.43E-07	5.25E-08	4.61E-08	4.61E-08	3.54E-07	6.60E-07	5.91E-07
6.25E-08	1.34E-07	4.94E-08	4.34E-08	4.34E-08	3.33E-07	6.16E-07	5.51E-07
9.67E-08	2.1E-07	7.72E-08	6.78E-08	6.78E-08	5.19E-07	1.03E-06	9.19E-07
8.46E-08	1.84E-07	6.76E-08	5.94E-08	5.94E-08	4.55E-07	8.86E-07	7.93E-07
7.84E-08	1.71E-07	6.27E-08	5.51E-08	5.51E-08	4.22E-07	8.08E-07	7.23E-07
7.29E-08	1.59E-07	5.83E-08	5.12E-08	5.12E-08	3.92E-07	7.43E-07	6.65E-07
6.81E-08	1.48E-07	5.44E-08	4.78E-08	4.78E-08	3.66E-07	6.87E-07	6.15E-07
6.38E-08	1.38E-07	5.08E-08	4.46E-08	4.46E-08	3.42E-07	6.38E-07	5.71E-07
6.03E-08	1.3E-07	4.78E-08	4.2E-08	4.2E-08	3.22E-07	5.97E-07	5.34E-07
5.73E-08	1.23E-07	4.52E-08	3.97E-08	3.97E-08	3.05E-07	5.61E-07	5.02E-07
9.27E-08	2.01E-07	7.4E-08	6.5E-08	6.5E-08	4.98E-07	9.92E-07	8.89E-07
8.12E-08	1.76E-07	6.49E-08	5.7E-08	5.7E-08	4.37E-07	8.58E-07	7.69E-07
7.52E-08	1.64E-07	6.01E-08	5.28E-08	5.28E-08	4.04E-07	7.78E-07	6.96E-07
6.98E-08	1.52E-07	5.58E-08	4.9E-08	4.9E-08	3.75E-07	7.11E-07	6.36E-07
6.49E-08	1.41E-07	5.19E-08	4.56E-08	4.56E-08	3.49E-07	6.54E-07	5.85E-07
6.08E-08	1.32E-07	4.84E-08	4.25E-08	4.25E-08	3.26E-07	6.07E-07	5.43E-07
5.72E-08	1.23E-07	4.54E-08	3.99E-08	3.99E-08	3.06E-07	5.66E-07	5.06E-07
8.89E-08	1.93E-07	7.09E-08	6.23E-08	6.23E-08	4.77E-07	9.63E-07	8.63E-07
7.83E-08	1.7E-07	6.25E-08	5.49E-08	5.49E-08	4.20E-07	8.37E-07	7.50E-07
7.26E-08	1.58E-07	5.81E-08	5.1E-08	5.1E-08	3.91E-07	7.58E-07	6.79E-07
6.75E-08	1.47E-07	5.4E-08	4.75E-08	4.75E-08	3.63E-07	6.92E-07	6.19E-07
6.3E-08	1.37E-07	5.03E-08	4.42E-08	4.42E-08	3.39E-07	6.36E-07	5.69E-07
5.89E-08	1.28E-07	4.7E-08	4.13E-08	4.13E-08	3.16E-07	5.89E-07	5.26E-07
5.54E-08	1.2E-07	4.41E-08	3.87E-08	3.87E-08	2.97E-07	5.49E-07	4.91E-07
5.25E-08	1.13E-07	4.16E-08	3.65E-08	3.65E-08	2.80E-07	5.15E-07	4.60E-07
8.54E-08	1.85E-07	6.81E-08	5.98E-08	5.98E-08	4.58E-07	9.36E-07	8.39E-07
7.54E-08	1.64E-07	6.02E-08	5.29E-08	5.29E-08	4.05E-07	8.16E-07	7.31E-07
7.02E-08	1.53E-07	5.61E-08	4.93E-08	4.93E-08	3.77E-07	7.42E-07	6.65E-07
6.53E-08	1.42E-07	5.23E-08	4.59E-08	4.59E-08	3.52E-07	6.76E-07	6.05E-07
6.1E-08	1.33E-07	4.88E-08	4.29E-08	4.29E-08	3.28E-07	6.20E-07	5.55E-07
5.72E-08	1.24E-07	4.57E-08	4.02E-08	4.02E-08	3.07E-07	5.73E-07	5.13E-07
5.38E-08	1.17E-07	4.28E-08	3.76E-08	3.76E-08	2.88E-07	5.33E-07	4.77E-07
5.09E-08	1.1E-07	4.04E-08	3.55E-08	3.55E-08	2.72E-07	5.00E-07	4.47E-07
8.21E-08	1.78E-07	6.54E-08	5.74E-08	5.74E-08	4.40E-07	9.05E-07	8.11E-07
7.27E-08	1.58E-07	5.8E-08	5.1E-08	5.1E-08	3.90E-07	7.91E-07	7.09E-07
6.79E-08	1.47E-07	5.42E-08	4.76E-08	4.76E-08	3.65E-07	7.25E-07	6.50E-07
6.33E-08	1.38E-07	5.07E-08	4.45E-08	4.45E-08	3.41E-07	6.63E-07	5.94E-07

5.92E-08	1.29E-07	4.74E-08	4.16E-08	4.16E-08	3.19E-07	6.08E-07	5.44E-07
5.55E-08	1.21E-07	4.44E-08	3.9E-08	3.9E-08	2.99E-07	5.60E-07	5.01E-07
5.23E-08	1.13E-07	4.17E-08	3.66E-08	3.66E-08	2.81E-07	5.20E-07	4.65E-07
4.94E-08	1.07E-07	3.93E-08	3.45E-08	3.45E-08	2.65E-07	4.86E-07	4.35E-07
4.7E-08	1.01E-07	3.72E-08	3.27E-08	3.27E-08	2.51E-07	4.58E-07	4.09E-07
7.9E-08	1.71E-07	6.29E-08	5.52E-08	5.52E-08	4.23E-07	8.69E-07	7.79E-07
7.02E-08	1.52E-07	5.6E-08	4.92E-08	4.92E-08	3.77E-07	7.62E-07	6.83E-07
6.56E-08	1.42E-07	5.24E-08	4.6E-08	4.6E-08	3.53E-07	7.06E-07	6.33E-07
6.14E-08	1.34E-07	4.91E-08	4.31E-08	4.31E-08	3.30E-07	6.50E-07	5.82E-07
5.75E-08	1.25E-07	4.6E-08	4.04E-08	4.04E-08	3.09E-07	5.97E-07	5.34E-07
5.4E-08	1.17E-07	4.32E-08	3.79E-08	3.79E-08	2.91E-07	5.50E-07	4.92E-07
5.08E-08	1.1E-07	4.06E-08	3.57E-08	3.57E-08	2.73E-07	5.09E-07	4.55E-07
4.8E-08	1.04E-07	3.83E-08	3.36E-08	3.36E-08	2.58E-07	4.74E-07	4.24E-07
4.56E-08	9.85E-08	3.62E-08	3.18E-08	3.18E-08	2.44E-07	4.46E-07	3.99E-07
6.77E-08	1.47E-07	5.4E-08	4.74E-08	4.74E-08	3.63E-07	7.31E-07	6.55E-07
6.35E-08	1.38E-07	5.07E-08	4.45E-08	4.45E-08	3.41E-07	6.84E-07	6.13E-07
5.95E-08	1.29E-07	4.76E-08	4.18E-08	4.18E-08	3.20E-07	6.35E-07	5.69E-07
5.58E-08	1.22E-07	4.47E-08	3.93E-08	3.93E-08	3.01E-07	5.86E-07	5.25E-07
5.25E-08	1.14E-07	4.2E-08	3.69E-08	3.69E-08	2.82E-07	5.41E-07	4.84E-07
4.94E-08	1.07E-07	3.95E-08	3.47E-08	3.47E-08	2.66E-07	5.00E-07	4.47E-07
4.67E-08	1.01E-07	3.73E-08	3.28E-08	3.28E-08	2.51E-07	4.65E-07	4.16E-07
4.44E-08	9.6E-08	3.53E-08	3.1E-08	3.1E-08	2.38E-07	4.36E-07	3.89E-07
6.12E-08	1.33E-07	4.88E-08	4.29E-08	4.29E-08	3.29E-07	6.56E-07	5.88E-07
5.73E-08	1.25E-07	4.58E-08	4.02E-08	4.02E-08	3.08E-07	6.12E-07	5.48E-07
5.37E-08	1.17E-07	4.3E-08	3.78E-08	3.78E-08	2.89E-07	5.67E-07	5.08E-07
5.04E-08	1.1E-07	4.03E-08	3.54E-08	3.54E-08	2.71E-07	5.23E-07	4.68E-07
4.75E-08	1.03E-07	3.8E-08	3.34E-08	3.34E-08	2.55E-07	4.83E-07	4.33E-07
4.48E-08	9.72E-08	3.58E-08	3.14E-08	3.14E-08	2.41E-07	4.48E-07	4.01E-07
4.25E-08	9.19E-08	3.38E-08	2.97E-08	2.97E-08	2.28E-07	4.18E-07	3.74E-07
7.04E-08	1.52E-07	5.6E-08	4.92E-08	4.92E-08	3.77E-07	7.50E-07	6.72E-07
5.93E-08	1.29E-07	4.73E-08	4.15E-08	4.15E-08	3.18E-07	6.30E-07	5.64E-07
5.57E-08	1.21E-07	4.44E-08	3.9E-08	3.9E-08	2.99E-07	5.93E-07	5.31E-07
5.23E-08	1.14E-07	4.18E-08	3.67E-08	3.67E-08	2.81E-07	5.54E-07	4.96E-07
4.91E-08	1.07E-07	3.93E-08	3.45E-08	3.45E-08	2.64E-07	5.15E-07	4.61E-07
4.62E-08	1.01E-07	3.7E-08	3.25E-08	3.25E-08	2.49E-07	4.77E-07	4.27E-07
4.37E-08	9.49E-08	3.49E-08	3.07E-08	3.07E-08	2.35E-07	4.42E-07	3.95E-07
4.14E-08	8.97E-08	3.3E-08	2.9E-08	2.9E-08	2.22E-07	4.11E-07	3.68E-07
3.94E-08	8.52E-08	3.13E-08	2.75E-08	2.75E-08	2.11E-07	3.86E-07	3.45E-07
6.79E-08	1.47E-07	5.4E-08	4.74E-08	4.74E-08	3.64E-07	7.14E-07	6.40E-07
6.1E-08	1.32E-07	4.86E-08	4.27E-08	4.27E-08	3.27E-07	6.37E-07	5.71E-07
5.41E-08	1.17E-07	4.32E-08	3.79E-08	3.79E-08	2.90E-07	5.72E-07	5.12E-07
5.08E-08	1.11E-07	4.06E-08	3.57E-08	3.57E-08	2.73E-07	5.38E-07	4.82E-07
4.78E-08	1.04E-07	3.83E-08	3.36E-08	3.36E-08	2.57E-07	5.04E-07	4.51E-07
4.26E-08	9.27E-08	3.41E-08	3E-08	3E-08	2.29E-07	4.36E-07	3.91E-07
4.04E-08	8.77E-08	3.23E-08	2.83E-08	2.83E-08	2.17E-07	4.06E-07	3.63E-07
3.85E-08	8.32E-08	3.06E-08	2.69E-08	2.69E-08	2.06E-07	3.80E-07	3.40E-07
6.54E-08	1.41E-07	5.2E-08	4.57E-08	4.57E-08	3.50E-07	6.81E-07	6.10E-07

5.9E-08	1.28E-07	4.7E-08	4.13E-08	4.13E-08	3.16E-07	6.10E-07	5.46E-07
5.25E-08	1.14E-07	4.19E-08	3.68E-08	3.68E-08	2.82E-07	5.50E-07	4.93E-07
4.95E-08	1.08E-07	3.95E-08	3.47E-08	3.47E-08	2.66E-07	5.21E-07	4.67E-07
4.16E-08	9.06E-08	3.33E-08	2.93E-08	2.93E-08	2.24E-07	4.30E-07	3.85E-07
3.94E-08	8.57E-08	3.15E-08	2.77E-08	2.77E-08	2.12E-07	4.01E-07	3.59E-07
3.75E-08	8.14E-08	2.99E-08	2.63E-08	2.63E-08	2.01E-07	3.75E-07	3.36E-07
6.32E-08	1.37E-07	5.02E-08	4.41E-08	4.41E-08	3.38E-07	6.51E-07	5.83E-07
5.71E-08	1.24E-07	4.54E-08	3.99E-08	3.99E-08	3.06E-07	5.84E-07	5.23E-07
5.4E-08	1.17E-07	4.3E-08	3.78E-08	3.78E-08	2.90E-07	5.56E-07	4.98E-07
4.3E-08	9.35E-08	3.44E-08	3.02E-08	3.02E-08	2.31E-07	4.51E-07	4.04E-07
4.06E-08	8.84E-08	3.25E-08	2.86E-08	2.86E-08	2.19E-07	4.23E-07	3.79E-07
3.85E-08	8.38E-08	3.08E-08	2.71E-08	2.71E-08	2.07E-07	3.96E-07	3.55E-07
3.67E-08	7.96E-08	2.93E-08	2.57E-08	2.57E-08	1.97E-07	3.71E-07	3.32E-07
3.5E-08	7.58E-08	2.79E-08	2.45E-08	2.45E-08	1.88E-07	3.48E-07	3.11E-07
6.1E-08	1.32E-07	4.85E-08	4.26E-08	4.26E-08	3.27E-07	6.23E-07	5.57E-07
5.53E-08	1.2E-07	4.4E-08	3.86E-08	3.86E-08	2.96E-07	5.60E-07	5.02E-07
4.69E-08	1.02E-07	3.74E-08	3.29E-08	3.29E-08	2.52E-07	4.85E-07	4.35E-07
4.43E-08	9.64E-08	3.54E-08	3.11E-08	3.11E-08	2.38E-07	4.62E-07	4.14E-07
4.19E-08	9.12E-08	3.36E-08	2.95E-08	2.95E-08	2.26E-07	4.39E-07	3.93E-07
3.97E-08	8.64E-08	3.18E-08	2.79E-08	2.79E-08	2.14E-07	4.15E-07	3.71E-07
3.77E-08	8.2E-08	3.01E-08	2.65E-08	2.65E-08	2.03E-07	3.90E-07	3.49E-07
3.58E-08	7.79E-08	2.86E-08	2.52E-08	2.52E-08	1.93E-07	3.66E-07	3.28E-07
3.42E-08	7.41E-08	2.73E-08	2.4E-08	2.4E-08	1.84E-07	3.44E-07	3.08E-07
3.28E-08	7.08E-08	2.61E-08	2.29E-08	2.29E-08	1.75E-07	3.24E-07	2.90E-07
3.16E-08	6.8E-08	2.5E-08	2.2E-08	2.2E-08	1.69E-07	3.07E-07	2.75E-07
3.05E-08	6.56E-08	2.41E-08	2.12E-08	2.12E-08	1.63E-07	2.93E-07	2.62E-07
5.9E-08	1.27E-07	4.69E-08	4.12E-08	4.12E-08	3.16E-07	5.97E-07	5.34E-07
2.94E-07	6.35E-07	2.33E-07	2.05E-07	2.05E-07	1.57E-06	2.74E-06	2.45E-06
3.06E-07	6.62E-07	2.43E-07	2.14E-07	2.14E-07	1.64E-06	2.90E-06	2.59E-06
3.18E-07	6.89E-07	2.53E-07	2.23E-07	2.23E-07	1.71E-06	3.08E-06	2.75E-06
3.31E-07	7.16E-07	2.63E-07	2.31E-07	2.31E-07	1.77E-06	3.28E-06	2.94E-06
2.55E-07	5.49E-07	2.02E-07	1.77E-07	1.77E-07	1.36E-06	2.42E-06	2.16E-06
2.64E-07	5.71E-07	2.1E-07	1.85E-07	1.85E-07	1.41E-06	2.55E-06	2.28E-06
2.74E-07	5.92E-07	2.18E-07	1.91E-07	1.91E-07	1.47E-06	2.69E-06	2.41E-06
2.83E-07	6.13E-07	2.25E-07	1.98E-07	1.98E-07	1.52E-06	2.86E-06	2.56E-06
2.31E-07	4.97E-07	1.83E-07	1.61E-07	1.61E-07	1.23E-06	2.26E-06	2.02E-06
2.38E-07	5.15E-07	1.89E-07	1.66E-07	1.66E-07	1.27E-06	2.38E-06	2.13E-06
2.45E-07	5.31E-07	1.95E-07	1.72E-07	1.72E-07	1.32E-06	2.52E-06	2.25E-06
2.03E-07	4.37E-07	1.61E-07	1.41E-07	1.41E-07	1.08E-06	2.01E-06	1.80E-06
2.09E-07	4.52E-07	1.66E-07	1.46E-07	1.46E-07	1.12E-06	2.12E-06	1.89E-06
2.15E-07	4.65E-07	1.71E-07	1.5E-07	1.5E-07	1.15E-06	2.23E-06	1.99E-06
1.9E-07	4.1E-07	1.51E-07	1.33E-07	1.33E-07	1.02E-06	1.98E-06	1.77E-06
3.75E-08	8.09E-08	2.98E-08	2.61E-08	2.61E-08	2.00E-07	3.67E-07	3.28E-07
3.13E-08	6.75E-08	2.48E-08	2.18E-08	2.18E-08	1.67E-07	3.08E-07	2.75E-07
3.88E-07	8.4E-07	3.09E-07	2.72E-07	2.72E-07	2.08E-06	3.92E-06	3.51E-06
3.47E-07	7.51E-07	2.76E-07	2.43E-07	2.43E-07	1.86E-06	3.63E-06	3.25E-06
3.44E-07	7.43E-07	2.73E-07	2.4E-07	2.4E-07	1.84E-06	3.75E-06	3.36E-06

2.7E-07	5.86E-07	2.16E-07	1.89E-07	1.89E-07	1.45E-06	2.86E-06	2.56E-06
3.3E-07	7.11E-07	2.61E-07	2.3E-07	2.3E-07	1.76E-06	3.73E-06	3.35E-06
2.43E-07	5.26E-07	1.94E-07	1.7E-07	1.7E-07	1.30E-06	2.62E-06	2.35E-06
3.29E-07	7.06E-07	2.6E-07	2.28E-07	2.28E-07	1.75E-06	3.89E-06	3.50E-06
2.64E-07	5.7E-07	2.1E-07	1.84E-07	1.84E-07	1.41E-06	3.01E-06	2.71E-06
2.24E-07	4.85E-07	1.78E-07	1.57E-07	1.57E-07	1.20E-06	2.47E-06	2.21E-06
3.27E-07	6.98E-07	2.57E-07	2.25E-07	2.25E-07	1.73E-06	4.04E-06	3.64E-06
2.66E-07	5.73E-07	2.11E-07	1.85E-07	1.85E-07	1.42E-06	3.14E-06	2.82E-06
2.07E-07	4.49E-07	1.65E-07	1.45E-07	1.45E-07	1.11E-06	2.31E-06	2.07E-06
1.86E-07	4.04E-07	1.49E-07	1.3E-07	1.3E-07	9.99E-07	2.01E-06	1.80E-06
3.17E-07	6.73E-07	2.48E-07	2.17E-07	2.17E-07	1.67E-06	4.08E-06	3.68E-06
2.82E-07	6.04E-07	2.22E-07	1.95E-07	1.95E-07	1.50E-06	3.50E-06	3.14E-06
2.52E-07	5.42E-07	1.99E-07	1.75E-07	1.75E-07	1.34E-06	3.02E-06	2.71E-06
2.25E-07	4.86E-07	1.79E-07	1.57E-07	1.57E-07	1.20E-06	2.62E-06	2.36E-06
1.9E-07	4.12E-07	1.52E-07	1.33E-07	1.33E-07	1.02E-06	2.12E-06	1.90E-06
1.79E-07	3.88E-07	1.43E-07	1.25E-07	1.25E-07	9.61E-07	1.96E-06	1.76E-06
1.69E-07	3.66E-07	1.35E-07	1.18E-07	1.18E-07	9.06E-07	1.82E-06	1.63E-06
1.59E-07	3.46E-07	1.27E-07	1.12E-07	1.12E-07	8.56E-07	1.69E-06	1.51E-06
3.13E-07	6.6E-07	2.43E-07	2.13E-07	2.13E-07	1.64E-06	4.23E-06	3.81E-06
2.54E-07	5.44E-07	2E-07	1.76E-07	1.76E-07	1.35E-06	3.14E-06	2.82E-06
2.07E-07	4.47E-07	1.64E-07	1.44E-07	1.44E-07	1.11E-06	2.41E-06	2.16E-06
1.77E-07	3.84E-07	1.41E-07	1.24E-07	1.24E-07	9.51E-07	1.98E-06	1.78E-06
1.59E-07	3.45E-07	1.27E-07	1.11E-07	1.11E-07	8.53E-07	1.72E-06	1.54E-06
3.06E-07	6.43E-07	2.37E-07	2.08E-07	2.08E-07	1.60E-06	4.34E-06	3.91E-06
2.54E-07	5.42E-07	1.99E-07	1.75E-07	1.75E-07	1.35E-06	3.23E-06	2.91E-06
2.1E-07	4.52E-07	1.66E-07	1.46E-07	1.46E-07	1.12E-06	2.50E-06	2.24E-06
1.66E-07	3.59E-07	1.32E-07	1.16E-07	1.16E-07	8.90E-07	1.85E-06	1.66E-06
1.49E-07	3.25E-07	1.19E-07	1.05E-07	1.05E-07	8.03E-07	1.62E-06	1.46E-06
2.95E-07	6.17E-07	2.27E-07	1.99E-07	1.99E-07	1.54E-06	4.33E-06	3.91E-06
2.68E-07	5.66E-07	2.08E-07	1.83E-07	1.83E-07	1.41E-06	3.65E-06	3.29E-06
2.43E-07	5.16E-07	1.9E-07	1.67E-07	1.67E-07	1.28E-06	3.12E-06	2.80E-06
2.2E-07	4.7E-07	1.73E-07	1.52E-07	1.52E-07	1.17E-06	2.70E-06	2.42E-06
1.99E-07	4.27E-07	1.57E-07	1.38E-07	1.38E-07	1.06E-06	2.36E-06	2.12E-06
1.8E-07	3.88E-07	1.43E-07	1.25E-07	1.25E-07	9.61E-07	2.08E-06	1.86E-06
1.55E-07	3.35E-07	1.23E-07	1.08E-07	1.08E-07	8.29E-07	1.72E-06	1.54E-06
1.46E-07	3.17E-07	1.17E-07	1.02E-07	1.02E-07	7.84E-07	1.60E-06	1.43E-06
1.38E-07	3E-07	1.1E-07	9.69E-08	9.69E-08	7.42E-07	1.49E-06	1.34E-06
2.41E-07	5.1E-07	1.88E-07	1.65E-07	1.65E-07	1.27E-06	3.20E-06	2.88E-06
2.01E-07	4.3E-07	1.58E-07	1.39E-07	1.39E-07	1.07E-06	2.44E-06	2.19E-06
1.67E-07	3.6E-07	1.33E-07	1.16E-07	1.16E-07	8.93E-07	1.92E-06	1.72E-06
1.45E-07	3.14E-07	1.16E-07	1.02E-07	1.02E-07	7.79E-07	1.61E-06	1.44E-06
1.31E-07	2.84E-07	1.05E-07	9.19E-08	9.19E-08	7.04E-07	1.42E-06	1.27E-06
2.01E-07	4.28E-07	1.58E-07	1.38E-07	1.38E-07	1.06E-06	2.51E-06	2.26E-06
1.7E-07	3.64E-07	1.34E-07	1.18E-07	1.18E-07	9.03E-07	1.98E-06	1.78E-06
2.46E-07	5.13E-07	1.89E-07	1.66E-07	1.66E-07	1.28E-06	3.80E-06	3.43E-06
2.39E-07	4.96E-07	1.82E-07	1.6E-07	1.6E-07	1.24E-06	3.87E-06	3.50E-06
2.22E-07	4.65E-07	1.71E-07	1.5E-07	1.5E-07	1.16E-06	3.32E-06	3.00E-06

2.06E-07	4.35E-07	1.6E-07	1.4E-07	1.4E-07	1.08E-06	2.89E-06	2.61E-06
1.37E-07	2.96E-07	1.09E-07	9.56E-08	9.56E-08	7.33E-07	1.59E-06	1.43E-06
1.21E-07	2.62E-07	9.65E-08	8.48E-08	8.48E-08	6.50E-07	1.34E-06	1.20E-06
1.16E-07	2.51E-07	9.23E-08	8.11E-08	8.11E-08	6.21E-07	1.26E-06	1.13E-06
1.11E-07	2.4E-07	8.82E-08	7.75E-08	7.75E-08	5.94E-07	1.18E-06	1.06E-06
2.17E-07	4.52E-07	1.66E-07	1.46E-07	1.46E-07	1.13E-06	3.33E-06	3.01E-06
1.88E-07	3.98E-07	1.46E-07	1.29E-07	1.29E-07	9.90E-07	2.58E-06	2.33E-06
1.15E-07	2.48E-07	9.12E-08	8.02E-08	8.02E-08	6.14E-07	1.28E-06	1.15E-06
1.05E-07	2.28E-07	8.39E-08	7.37E-08	7.37E-08	5.65E-07	1.13E-06	1.01E-06
2.2E-07	4.55E-07	1.67E-07	1.47E-07	1.47E-07	1.14E-06	3.65E-06	3.30E-06
2.07E-07	4.31E-07	1.58E-07	1.39E-07	1.39E-07	1.07E-06	3.14E-06	2.84E-06
1.93E-07	4.06E-07	1.49E-07	1.31E-07	1.31E-07	1.01E-06	2.76E-06	2.49E-06
1.8E-07	3.8E-07	1.4E-07	1.23E-07	1.23E-07	9.45E-07	2.44E-06	2.20E-06
1.67E-07	3.54E-07	1.3E-07	1.15E-07	1.15E-07	8.81E-07	2.18E-06	1.96E-06
1.55E-07	3.3E-07	1.21E-07	1.06E-07	1.06E-07	8.18E-07	1.95E-06	1.76E-06
1.43E-07	3.06E-07	1.12E-07	9.88E-08	9.88E-08	7.59E-07	1.75E-06	1.58E-06
1.08E-07	2.34E-07	8.61E-08	7.57E-08	7.57E-08	5.80E-07	1.22E-06	1.10E-06
1.04E-07	2.25E-07	8.26E-08	7.25E-08	7.25E-08	5.56E-07	1.14E-06	1.03E-06
2.12E-07	4.37E-07	1.61E-07	1.41E-07	1.41E-07	1.09E-06	3.60E-06	3.25E-06
2.01E-07	4.17E-07	1.53E-07	1.35E-07	1.35E-07	1.04E-06	3.08E-06	2.78E-06
1.89E-07	3.95E-07	1.45E-07	1.28E-07	1.28E-07	9.85E-07	2.69E-06	2.43E-06
1.77E-07	3.73E-07	1.37E-07	1.2E-07	1.2E-07	9.28E-07	2.40E-06	2.16E-06
1.66E-07	3.5E-07	1.29E-07	1.13E-07	1.13E-07	8.71E-07	2.15E-06	1.94E-06
1.54E-07	3.28E-07	1.21E-07	1.06E-07	1.06E-07	8.15E-07	1.95E-06	1.75E-06
1.43E-07	3.06E-07	1.13E-07	9.89E-08	9.89E-08	7.60E-07	1.77E-06	1.59E-06
1.33E-07	2.85E-07	1.05E-07	9.22E-08	9.22E-08	7.08E-07	1.61E-06	1.45E-06
1.24E-07	2.66E-07	9.77E-08	8.59E-08	8.59E-08	6.59E-07	1.47E-06	1.32E-06
1.03E-07	2.22E-07	8.17E-08	7.18E-08	7.18E-08	5.50E-07	1.17E-06	1.05E-06
9.88E-08	2.14E-07	7.86E-08	6.9E-08	6.9E-08	5.29E-07	1.10E-06	9.89E-07
1.84E-07	3.84E-07	1.41E-07	1.24E-07	1.24E-07	9.57E-07	2.66E-06	2.40E-06
1.74E-07	3.64E-07	1.34E-07	1.18E-07	1.18E-07	9.07E-07	2.36E-06	2.13E-06
1.63E-07	3.44E-07	1.27E-07	1.11E-07	1.11E-07	8.57E-07	2.12E-06	1.91E-06
1.43E-07	3.05E-07	1.12E-07	9.85E-08	9.85E-08	7.57E-07	1.75E-06	1.57E-06
1.34E-07	2.85E-07	1.05E-07	9.22E-08	9.22E-08	7.09E-07	1.60E-06	1.44E-06
1.25E-07	2.67E-07	9.82E-08	8.63E-08	8.63E-08	6.63E-07	1.47E-06	1.32E-06
1.09E-07	2.34E-07	8.59E-08	7.55E-08	7.55E-08	5.79E-07	1.25E-06	1.12E-06
1.85E-07	3.83E-07	1.41E-07	1.24E-07	1.24E-07	9.57E-07	2.98E-06	2.70E-06
1.76E-07	3.66E-07	1.35E-07	1.18E-07	1.18E-07	9.14E-07	2.57E-06	2.32E-06
1.66E-07	3.48E-07	1.28E-07	1.12E-07	1.12E-07	8.67E-07	2.25E-06	2.03E-06
1.56E-07	3.29E-07	1.21E-07	1.06E-07	1.06E-07	8.19E-07	2.00E-06	1.80E-06
1.46E-07	3.1E-07	1.14E-07	1E-07	1E-07	7.71E-07	1.80E-06	1.62E-06
1.37E-07	2.91E-07	1.07E-07	9.4E-08	9.4E-08	7.23E-07	1.64E-06	1.47E-06
1.28E-07	2.72E-07	1E-07	8.8E-08	8.8E-08	6.76E-07	1.50E-06	1.34E-06
1.19E-07	2.55E-07	9.36E-08	8.23E-08	8.23E-08	6.32E-07	1.37E-06	1.23E-06
1.11E-07	2.38E-07	8.74E-08	7.68E-08	7.68E-08	5.90E-07	1.26E-06	1.13E-06
1.03E-07	2.22E-07	8.17E-08	7.17E-08	7.17E-08	5.50E-07	1.17E-06	1.05E-06
8.92E-08	1.93E-07	7.09E-08	6.23E-08	6.23E-08	4.77E-07	9.96E-07	8.93E-07

1.78E-07	3.69E-07	1.36E-07	1.19E-07	1.19E-07	9.21E-07	3.00E-06	2.71E-06
1.7E-07	3.55E-07	1.3E-07	1.15E-07	1.15E-07	8.85E-07	2.59E-06	2.34E-06
1.62E-07	3.39E-07	1.25E-07	1.1E-07	1.1E-07	8.45E-07	2.27E-06	2.04E-06
1.54E-07	3.23E-07	1.19E-07	1.04E-07	1.04E-07	8.03E-07	2.01E-06	1.81E-06
1.45E-07	3.06E-07	1.12E-07	9.88E-08	9.88E-08	7.61E-07	1.80E-06	1.62E-06
1.36E-07	2.89E-07	1.06E-07	9.32E-08	9.32E-08	7.17E-07	1.63E-06	1.47E-06
1.27E-07	2.72E-07	9.99E-08	8.78E-08	8.78E-08	6.75E-07	1.49E-06	1.34E-06
1.19E-07	2.55E-07	9.38E-08	8.24E-08	8.24E-08	6.33E-07	1.37E-06	1.23E-06
1.12E-07	2.39E-07	8.8E-08	7.73E-08	7.73E-08	5.94E-07	1.26E-06	1.13E-06
1.04E-07	2.24E-07	8.25E-08	7.25E-08	7.25E-08	5.56E-07	1.17E-06	1.05E-06
9.77E-08	2.1E-07	7.73E-08	6.79E-08	6.79E-08	5.21E-07	1.08E-06	9.73E-07
8.83E-08	1.91E-07	7.01E-08	6.16E-08	6.16E-08	4.72E-07	9.76E-07	8.75E-07
1.71E-07	3.54E-07	1.3E-07	1.15E-07	1.15E-07	8.85E-07	2.98E-06	2.70E-06
1.65E-07	3.43E-07	1.26E-07	1.11E-07	1.11E-07	8.55E-07	2.60E-06	2.34E-06
1.58E-07	3.29E-07	1.21E-07	1.06E-07	1.06E-07	8.21E-07	2.28E-06	2.06E-06
1.5E-07	3.15E-07	1.16E-07	1.02E-07	1.02E-07	7.85E-07	2.03E-06	1.83E-06
1.43E-07	3E-07	1.1E-07	9.7E-08	9.7E-08	7.47E-07	1.82E-06	1.64E-06
1.35E-07	2.85E-07	1.05E-07	9.21E-08	9.21E-08	7.09E-07	1.64E-06	1.48E-06
1.27E-07	2.7E-07	9.92E-08	8.71E-08	8.71E-08	6.70E-07	1.50E-06	1.34E-06
1.19E-07	2.54E-07	9.36E-08	8.22E-08	8.22E-08	6.32E-07	1.37E-06	1.23E-06
1.12E-07	2.4E-07	8.82E-08	7.75E-08	7.75E-08	5.95E-07	1.26E-06	1.13E-06
1.05E-07	2.26E-07	8.29E-08	7.29E-08	7.29E-08	5.59E-07	1.17E-06	1.05E-06
9.87E-08	2.12E-07	7.8E-08	6.85E-08	6.85E-08	5.26E-07	1.09E-06	9.74E-07
9.27E-08	2E-07	7.34E-08	6.45E-08	6.45E-08	4.95E-07	1.01E-06	9.08E-07
8.42E-08	1.82E-07	6.68E-08	5.87E-08	5.87E-08	4.50E-07	9.17E-07	8.22E-07
2.02E-07	4.12E-07	1.52E-07	1.33E-07	1.33E-07	1.03E-06	6.40E-06	5.82E-06
2.06E-07	4.22E-07	1.55E-07	1.36E-07	1.36E-07	1.06E-06	6.66E-06	6.07E-06
2.11E-07	4.3E-07	1.58E-07	1.39E-07	1.39E-07	1.08E-06	6.71E-06	6.11E-06
1.63E-07	3.38E-07	1.24E-07	1.09E-07	1.09E-07	8.45E-07	2.86E-06	2.58E-06
1.58E-07	3.27E-07	1.2E-07	1.06E-07	1.06E-07	8.17E-07	2.49E-06	2.25E-06
1.51E-07	3.15E-07	1.16E-07	1.02E-07	1.02E-07	7.86E-07	2.20E-06	1.98E-06
1.44E-07	3.02E-07	1.11E-07	9.75E-08	9.75E-08	7.52E-07	1.95E-06	1.76E-06
1.37E-07	2.88E-07	1.06E-07	9.3E-08	9.3E-08	7.16E-07	1.75E-06	1.57E-06
1.29E-07	2.73E-07	1E-07	8.83E-08	8.83E-08	6.79E-07	1.58E-06	1.42E-06
1.22E-07	2.58E-07	9.5E-08	8.35E-08	8.35E-08	6.42E-07	1.43E-06	1.28E-06
1.14E-07	2.44E-07	8.96E-08	7.87E-08	7.87E-08	6.05E-07	1.30E-06	1.17E-06
1.07E-07	2.29E-07	8.44E-08	7.41E-08	7.41E-08	5.69E-07	1.20E-06	1.07E-06
1.01E-07	2.16E-07	7.93E-08	6.97E-08	6.97E-08	5.35E-07	1.10E-06	9.90E-07
9.43E-08	2.03E-07	7.45E-08	6.55E-08	6.55E-08	5.02E-07	1.02E-06	9.18E-07
8.84E-08	1.9E-07	7E-08	6.15E-08	6.15E-08	4.72E-07	9.52E-07	8.53E-07
8.02E-08	1.73E-07	6.37E-08	5.59E-08	5.59E-08	4.29E-07	8.61E-07	7.72E-07
7.74E-08	1.67E-07	6.15E-08	5.41E-08	5.41E-08	4.14E-07	8.35E-07	7.49E-07
1.9E-07	3.89E-07	1.43E-07	1.26E-07	1.26E-07	9.73E-07	5.39E-06	4.90E-06
1.94E-07	3.97E-07	1.46E-07	1.28E-07	1.28E-07	9.92E-07	5.54E-06	5.04E-06
1.97E-07	4.04E-07	1.49E-07	1.31E-07	1.31E-07	1.01E-06	5.56E-06	5.06E-06
1.47E-07	3.06E-07	1.12E-07	9.87E-08	9.87E-08	7.62E-07	2.19E-06	1.98E-06
1.41E-07	2.94E-07	1.08E-07	9.51E-08	9.51E-08	7.33E-07	1.96E-06	1.77E-06

1.34E-07	2.82E-07	1.04E-07	9.11E-08	9.11E-08	7.02E-07	1.76E-06	1.59E-06
1.27E-07	2.69E-07	9.89E-08	8.69E-08	8.69E-08	6.69E-07	1.60E-06	1.44E-06
1.21E-07	2.56E-07	9.4E-08	8.26E-08	8.26E-08	6.36E-07	1.45E-06	1.30E-06
1.14E-07	2.42E-07	8.91E-08	7.83E-08	7.83E-08	6.02E-07	1.32E-06	1.19E-06
1.07E-07	2.29E-07	8.43E-08	7.4E-08	7.4E-08	5.69E-07	1.21E-06	1.09E-06
1.01E-07	2.16E-07	7.95E-08	6.99E-08	6.99E-08	5.37E-07	1.11E-06	9.99E-07
9.51E-08	2.04E-07	7.5E-08	6.59E-08	6.59E-08	5.06E-07	1.03E-06	9.25E-07
8.94E-08	1.92E-07	7.07E-08	6.21E-08	6.21E-08	4.76E-07	9.59E-07	8.59E-07
8.41E-08	1.81E-07	6.66E-08	5.85E-08	5.85E-08	4.49E-07	8.94E-07	8.01E-07
7.67E-08	1.65E-07	6.08E-08	5.35E-08	5.35E-08	4.10E-07	8.13E-07	7.28E-07
7.42E-08	1.6E-07	5.89E-08	5.18E-08	5.18E-08	3.97E-07	7.89E-07	7.07E-07
1.79E-07	3.67E-07	1.35E-07	1.19E-07	1.19E-07	9.18E-07	4.60E-06	4.18E-06
1.82E-07	3.74E-07	1.38E-07	1.21E-07	1.21E-07	9.36E-07	4.71E-06	4.28E-06
1.85E-07	3.81E-07	1.4E-07	1.23E-07	1.23E-07	9.53E-07	4.71E-06	4.29E-06
1.5E-07	3.11E-07	1.14E-07	1E-07	1E-07	7.76E-07	2.70E-06	2.44E-06
1.31E-07	2.75E-07	1.01E-07	8.9E-08	8.9E-08	6.86E-07	1.77E-06	1.59E-06
1.25E-07	2.64E-07	9.71E-08	8.53E-08	8.53E-08	6.57E-07	1.60E-06	1.44E-06
1.19E-07	2.52E-07	9.28E-08	8.15E-08	8.15E-08	6.27E-07	1.46E-06	1.32E-06
1.13E-07	2.4E-07	8.83E-08	7.76E-08	7.76E-08	5.97E-07	1.34E-06	1.20E-06
1.07E-07	2.28E-07	8.39E-08	7.37E-08	7.37E-08	5.66E-07	1.23E-06	1.10E-06
1.01E-07	2.16E-07	7.95E-08	6.98E-08	6.98E-08	5.36E-07	1.13E-06	1.01E-06
9.55E-08	2.05E-07	7.52E-08	6.61E-08	6.61E-08	5.07E-07	1.04E-06	9.36E-07
9.01E-08	1.93E-07	7.11E-08	6.25E-08	6.25E-08	4.79E-07	9.68E-07	8.68E-07
8.5E-08	1.83E-07	6.72E-08	5.9E-08	5.9E-08	4.53E-07	9.02E-07	8.08E-07
8.02E-08	1.73E-07	6.35E-08	5.57E-08	5.57E-08	4.28E-07	8.43E-07	7.55E-07
7.34E-08	1.58E-07	5.82E-08	5.11E-08	5.11E-08	3.92E-07	7.68E-07	6.88E-07
7.11E-08	1.54E-07	5.65E-08	4.96E-08	4.96E-08	3.80E-07	7.47E-07	6.69E-07
1.69E-07	3.47E-07	1.28E-07	1.12E-07	1.12E-07	8.67E-07	3.98E-06	3.61E-06
1.72E-07	3.54E-07	1.3E-07	1.14E-07	1.14E-07	8.84E-07	4.06E-06	3.69E-06
1.75E-07	3.6E-07	1.32E-07	1.16E-07	1.16E-07	9.00E-07	4.08E-06	3.70E-06
1.46E-07	3.02E-07	1.11E-07	9.75E-08	9.75E-08	7.54E-07	2.77E-06	2.51E-06
1.43E-07	2.97E-07	1.09E-07	9.59E-08	9.59E-08	7.41E-07	2.54E-06	2.30E-06
1.4E-07	2.9E-07	1.07E-07	9.39E-08	9.39E-08	7.25E-07	2.30E-06	2.08E-06
1.15E-07	2.42E-07	8.91E-08	7.83E-08	7.83E-08	6.03E-07	1.40E-06	1.26E-06
1.09E-07	2.31E-07	8.49E-08	7.45E-08	7.45E-08	5.73E-07	1.28E-06	1.15E-06
1.03E-07	2.19E-07	8.06E-08	7.08E-08	7.08E-08	5.44E-07	1.18E-06	1.06E-06
9.72E-08	2.08E-07	7.63E-08	6.71E-08	6.71E-08	5.15E-07	1.08E-06	9.73E-07
9.16E-08	1.96E-07	7.21E-08	6.34E-08	6.34E-08	4.87E-07	9.99E-07	8.96E-07
8.64E-08	1.85E-07	6.82E-08	5.99E-08	5.99E-08	4.60E-07	9.25E-07	8.29E-07
8.14E-08	1.75E-07	6.43E-08	5.65E-08	5.65E-08	4.34E-07	8.59E-07	7.69E-07
7.68E-08	1.65E-07	6.08E-08	5.34E-08	5.34E-08	4.10E-07	8.01E-07	7.18E-07
7.01E-08	1.51E-07	5.57E-08	4.89E-08	4.89E-08	3.75E-07	7.27E-07	6.51E-07
1.59E-07	3.29E-07	1.21E-07	1.06E-07	1.06E-07	8.21E-07	3.49E-06	3.17E-06
1.62E-07	3.35E-07	1.23E-07	1.08E-07	1.08E-07	8.36E-07	3.55E-06	3.22E-06
1.65E-07	3.4E-07	1.25E-07	1.1E-07	1.1E-07	8.51E-07	3.57E-06	3.24E-06
1.37E-07	2.84E-07	1.05E-07	9.19E-08	9.19E-08	7.10E-07	2.42E-06	2.19E-06
1.34E-07	2.79E-07	1.03E-07	9.02E-08	9.02E-08	6.97E-07	2.23E-06	2.02E-06

1.31E-07	2.73E-07	1E-07	8.82E-08	8.82E-08	6.81E-07	2.03E-06	1.84E-06
1.27E-07	2.66E-07	9.77E-08	8.58E-08	8.58E-08	6.62E-07	1.85E-06	1.67E-06
1.23E-07	2.58E-07	9.47E-08	8.32E-08	8.32E-08	6.42E-07	1.68E-06	1.52E-06
1.02E-07	2.18E-07	8E-08	7.03E-08	7.03E-08	5.40E-07	1.19E-06	1.07E-06
9.7E-08	2.07E-07	7.61E-08	6.68E-08	6.68E-08	5.14E-07	1.10E-06	9.88E-07
9.18E-08	1.96E-07	7.22E-08	6.34E-08	6.34E-08	4.87E-07	1.02E-06	9.12E-07
8.69E-08	1.86E-07	6.84E-08	6.01E-08	6.01E-08	4.62E-07	9.41E-07	8.44E-07
8.21E-08	1.76E-07	6.48E-08	5.69E-08	5.69E-08	4.37E-07	8.74E-07	7.83E-07
7.76E-08	1.67E-07	6.13E-08	5.39E-08	5.39E-08	4.13E-07	8.14E-07	7.29E-07
7.33E-08	1.58E-07	5.81E-08	5.1E-08	5.1E-08	3.91E-07	7.61E-07	6.81E-07
6.73E-08	1.45E-07	5.34E-08	4.69E-08	4.69E-08	3.60E-07	6.91E-07	6.19E-07
1.51E-07	3.12E-07	1.15E-07	1.01E-07	1.01E-07	7.79E-07	3.09E-06	2.80E-06
1.53E-07	3.17E-07	1.17E-07	1.02E-07	1.02E-07	7.92E-07	3.14E-06	2.85E-06
1.56E-07	3.23E-07	1.19E-07	1.04E-07	1.04E-07	8.06E-07	3.16E-06	2.87E-06
1.31E-07	2.72E-07	1E-07	8.8E-08	8.8E-08	6.80E-07	2.29E-06	2.07E-06
1.29E-07	2.68E-07	9.87E-08	8.67E-08	8.67E-08	6.70E-07	2.14E-06	1.94E-06
1.26E-07	2.63E-07	9.68E-08	8.5E-08	8.5E-08	6.56E-07	1.98E-06	1.79E-06
1.23E-07	2.57E-07	9.46E-08	8.31E-08	8.31E-08	6.41E-07	1.82E-06	1.64E-06
1.2E-07	2.5E-07	9.2E-08	8.09E-08	8.09E-08	6.24E-07	1.67E-06	1.50E-06
1.15E-07	2.42E-07	8.92E-08	7.83E-08	7.83E-08	6.04E-07	1.53E-06	1.38E-06
1.11E-07	2.34E-07	8.6E-08	7.56E-08	7.56E-08	5.82E-07	1.41E-06	1.27E-06
9.18E-08	1.96E-07	7.2E-08	6.33E-08	6.33E-08	4.86E-07	1.03E-06	9.25E-07
8.71E-08	1.86E-07	6.85E-08	6.02E-08	6.02E-08	4.62E-07	9.58E-07	8.59E-07
8.25E-08	1.77E-07	6.5E-08	5.71E-08	5.71E-08	4.39E-07	8.90E-07	7.98E-07
7.81E-08	1.68E-07	6.17E-08	5.42E-08	5.42E-08	4.16E-07	8.28E-07	7.42E-07
7.4E-08	1.59E-07	5.85E-08	5.14E-08	5.14E-08	3.95E-07	7.73E-07	6.92E-07
7.01E-08	1.51E-07	5.55E-08	4.88E-08	4.88E-08	3.74E-07	7.24E-07	6.48E-07
6.46E-08	1.39E-07	5.12E-08	4.5E-08	4.5E-08	3.45E-07	6.59E-07	5.90E-07
1.43E-07	2.96E-07	1.09E-07	9.57E-08	9.57E-08	7.39E-07	2.77E-06	2.51E-06
1.45E-07	3.01E-07	1.11E-07	9.73E-08	9.73E-08	7.52E-07	2.81E-06	2.54E-06
1.48E-07	3.06E-07	1.13E-07	9.89E-08	9.89E-08	7.64E-07	2.83E-06	2.56E-06
1.25E-07	2.61E-07	9.58E-08	8.42E-08	8.42E-08	6.50E-07	2.14E-06	1.94E-06
1.23E-07	2.57E-07	9.44E-08	8.3E-08	8.3E-08	6.41E-07	2.02E-06	1.82E-06
1.21E-07	2.52E-07	9.28E-08	8.15E-08	8.15E-08	6.29E-07	1.88E-06	1.70E-06
1.18E-07	2.47E-07	9.08E-08	7.98E-08	7.98E-08	6.15E-07	1.73E-06	1.56E-06
1.15E-07	2.4E-07	8.84E-08	7.76E-08	7.76E-08	5.99E-07	1.59E-06	1.44E-06
1.11E-07	2.33E-07	8.57E-08	7.53E-08	7.53E-08	5.80E-07	1.47E-06	1.32E-06
1.07E-07	2.25E-07	8.28E-08	7.27E-08	7.27E-08	5.60E-07	1.35E-06	1.22E-06
1.02E-07	2.16E-07	7.96E-08	6.99E-08	6.99E-08	5.38E-07	1.25E-06	1.12E-06
7.94E-08	1.7E-07	6.26E-08	5.5E-08	5.5E-08	4.22E-07	8.55E-07	7.66E-07
7.52E-08	1.61E-07	5.93E-08	5.21E-08	5.21E-08	4.00E-07	7.95E-07	7.13E-07
7.12E-08	1.53E-07	5.63E-08	4.94E-08	4.94E-08	3.79E-07	7.42E-07	6.64E-07
6.73E-08	1.45E-07	5.33E-08	4.68E-08	4.68E-08	3.59E-07	6.93E-07	6.21E-07
6.2E-08	1.34E-07	4.92E-08	4.32E-08	4.32E-08	3.31E-07	6.28E-07	5.62E-07
1.36E-07	2.82E-07	1.04E-07	9.1E-08	9.1E-08	7.03E-07	2.50E-06	2.26E-06
1.38E-07	2.86E-07	1.05E-07	9.25E-08	9.25E-08	7.14E-07	2.53E-06	2.29E-06
1.4E-07	2.91E-07	1.07E-07	9.4E-08	9.4E-08	7.26E-07	2.55E-06	2.31E-06

1.2E-07	2.5E-07	9.19E-08	8.08E-08	8.08E-08	6.24E-07	2.01E-06	1.82E-06
1.19E-07	2.47E-07	9.08E-08	7.98E-08	7.98E-08	6.16E-07	1.92E-06	1.74E-06
1.17E-07	2.43E-07	8.94E-08	7.85E-08	7.85E-08	6.06E-07	1.81E-06	1.64E-06
1.14E-07	2.39E-07	8.77E-08	7.71E-08	7.71E-08	5.95E-07	1.69E-06	1.53E-06
1.11E-07	2.33E-07	8.58E-08	7.54E-08	7.54E-08	5.81E-07	1.57E-06	1.41E-06
1.08E-07	2.27E-07	8.35E-08	7.33E-08	7.33E-08	5.65E-07	1.45E-06	1.31E-06
1.05E-07	2.2E-07	8.09E-08	7.11E-08	7.11E-08	5.48E-07	1.34E-06	1.21E-06
1.01E-07	2.13E-07	7.82E-08	6.87E-08	6.87E-08	5.29E-07	1.25E-06	1.12E-06
9.66E-08	2.05E-07	7.52E-08	6.61E-08	6.61E-08	5.09E-07	1.16E-06	1.04E-06
9.24E-08	1.96E-07	7.21E-08	6.34E-08	6.34E-08	4.87E-07	1.07E-06	9.65E-07
7.17E-08	1.54E-07	5.67E-08	4.98E-08	4.98E-08	3.82E-07	7.57E-07	6.78E-07
6.81E-08	1.46E-07	5.38E-08	4.73E-08	4.73E-08	3.63E-07	7.07E-07	6.34E-07
6.46E-08	1.39E-07	5.11E-08	4.49E-08	4.49E-08	3.45E-07	6.63E-07	5.94E-07
5.96E-08	1.29E-07	4.73E-08	4.15E-08	4.15E-08	3.18E-07	6.01E-07	5.38E-07
5.79E-08	1.25E-07	4.6E-08	4.04E-08	4.04E-08	3.10E-07	5.83E-07	5.22E-07
1.29E-07	2.68E-07	9.87E-08	8.67E-08	8.67E-08	6.69E-07	2.27E-06	2.06E-06
1.31E-07	2.72E-07	1E-07	8.8E-08	8.8E-08	6.80E-07	2.30E-06	2.08E-06
1.33E-07	2.77E-07	1.02E-07	8.94E-08	8.94E-08	6.90E-07	2.32E-06	2.10E-06
1.16E-07	2.42E-07	8.89E-08	7.81E-08	7.81E-08	6.03E-07	1.93E-06	1.75E-06
1.15E-07	2.4E-07	8.82E-08	7.75E-08	7.75E-08	5.98E-07	1.89E-06	1.71E-06
1.14E-07	2.37E-07	8.72E-08	7.66E-08	7.66E-08	5.91E-07	1.82E-06	1.65E-06
1.12E-07	2.34E-07	8.61E-08	7.56E-08	7.56E-08	5.84E-07	1.74E-06	1.57E-06
1.1E-07	2.3E-07	8.47E-08	7.44E-08	7.44E-08	5.74E-07	1.64E-06	1.48E-06
1.08E-07	2.26E-07	8.31E-08	7.3E-08	7.3E-08	5.63E-07	1.54E-06	1.39E-06
1.05E-07	2.21E-07	8.12E-08	7.13E-08	7.13E-08	5.50E-07	1.43E-06	1.29E-06
1.02E-07	2.15E-07	7.9E-08	6.94E-08	6.94E-08	5.35E-07	1.33E-06	1.20E-06
9.88E-08	2.08E-07	7.66E-08	6.73E-08	6.73E-08	5.18E-07	1.24E-06	1.12E-06
9.52E-08	2.01E-07	7.4E-08	6.5E-08	6.5E-08	5.01E-07	1.15E-06	1.04E-06
9.14E-08	1.94E-07	7.13E-08	6.26E-08	6.26E-08	4.82E-07	1.08E-06	9.67E-07
8.75E-08	1.86E-07	6.84E-08	6.01E-08	6.01E-08	4.62E-07	1.00E-06	9.02E-07
8.35E-08	1.78E-07	6.55E-08	5.75E-08	5.75E-08	4.42E-07	9.38E-07	8.42E-07
6.52E-08	1.4E-07	5.16E-08	4.53E-08	4.53E-08	3.47E-07	6.76E-07	6.05E-07
6.2E-08	1.33E-07	4.91E-08	4.31E-08	4.31E-08	3.31E-07	6.35E-07	5.68E-07
5.74E-08	1.24E-07	4.55E-08	4E-08	4E-08	3.07E-07	5.77E-07	5.17E-07
5.59E-08	1.21E-07	4.44E-08	3.9E-08	3.9E-08	2.99E-07	5.60E-07	5.01E-07
4.85E-08	1.05E-07	3.86E-08	3.39E-08	3.39E-08	2.60E-07	4.91E-07	4.40E-07
4.71E-08	1.02E-07	3.75E-08	3.3E-08	3.3E-08	2.53E-07	4.80E-07	4.29E-07
4.43E-08	9.63E-08	3.54E-08	3.11E-08	3.11E-08	2.38E-07	4.57E-07	4.09E-07
1.23E-07	2.56E-07	9.42E-08	8.27E-08	8.27E-08	6.39E-07	2.08E-06	1.88E-06
1.25E-07	2.6E-07	9.55E-08	8.39E-08	8.39E-08	6.48E-07	2.10E-06	1.90E-06
1.11E-07	2.31E-07	8.51E-08	7.47E-08	7.47E-08	5.77E-07	1.80E-06	1.62E-06
1.1E-07	2.3E-07	8.45E-08	7.42E-08	7.42E-08	5.73E-07	1.76E-06	1.59E-06
1.09E-07	2.28E-07	8.37E-08	7.35E-08	7.35E-08	5.68E-07	1.71E-06	1.55E-06
1.08E-07	2.25E-07	8.27E-08	7.26E-08	7.26E-08	5.61E-07	1.64E-06	1.48E-06
1.06E-07	2.21E-07	8.14E-08	7.15E-08	7.15E-08	5.52E-07	1.56E-06	1.41E-06
1.04E-07	2.17E-07	7.99E-08	7.02E-08	7.02E-08	5.41E-07	1.46E-06	1.32E-06
1.01E-07	2.12E-07	7.81E-08	6.86E-08	6.86E-08	5.29E-07	1.37E-06	1.23E-06

9.84E-08	2.07E-07	7.61E-08	6.69E-08	6.69E-08	5.15E-07	1.28E-06	1.15E-06
9.52E-08	2.01E-07	7.38E-08	6.49E-08	6.49E-08	5.00E-07	1.19E-06	1.07E-06
9.18E-08	1.94E-07	7.14E-08	6.27E-08	6.27E-08	4.83E-07	1.11E-06	9.98E-07
8.82E-08	1.87E-07	6.87E-08	6.04E-08	6.04E-08	4.65E-07	1.04E-06	9.30E-07
8.44E-08	1.79E-07	6.6E-08	5.8E-08	5.8E-08	4.46E-07	9.66E-07	8.67E-07
8.06E-08	1.72E-07	6.32E-08	5.55E-08	5.55E-08	4.27E-07	9.03E-07	8.10E-07
7.69E-08	1.64E-07	6.04E-08	5.31E-08	5.31E-08	4.08E-07	8.44E-07	7.57E-07
7.31E-08	1.57E-07	5.76E-08	5.06E-08	5.06E-08	3.89E-07	7.90E-07	7.08E-07
5.97E-08	1.28E-07	4.73E-08	4.15E-08	4.15E-08	3.18E-07	6.10E-07	5.46E-07
4.94E-08	1.07E-07	3.93E-08	3.45E-08	3.45E-08	2.65E-07	4.93E-07	4.41E-07
4.8E-08	1.04E-07	3.82E-08	3.36E-08	3.36E-08	2.57E-07	4.81E-07	4.30E-07
4.66E-08	1.01E-07	3.71E-08	3.26E-08	3.26E-08	2.50E-07	4.69E-07	4.20E-07
4.52E-08	9.8E-08	3.61E-08	3.17E-08	3.17E-08	2.43E-07	4.57E-07	4.09E-07
4.26E-08	9.24E-08	3.4E-08	2.99E-08	2.99E-08	2.29E-07	4.36E-07	3.90E-07
4.13E-08	8.97E-08	3.3E-08	2.9E-08	2.9E-08	2.22E-07	4.25E-07	3.80E-07
4E-08	8.7E-08	3.2E-08	2.81E-08	2.81E-08	2.15E-07	4.14E-07	3.71E-07
3.88E-08	8.44E-08	3.1E-08	2.73E-08	2.73E-08	2.09E-07	4.03E-07	3.61E-07
3.76E-08	8.19E-08	3.01E-08	2.65E-08	2.65E-08	2.02E-07	3.92E-07	3.51E-07
3.65E-08	7.95E-08	2.92E-08	2.57E-08	2.57E-08	1.97E-07	3.80E-07	3.40E-07
3.54E-08	7.71E-08	2.84E-08	2.49E-08	2.49E-08	1.91E-07	3.67E-07	3.29E-07
3.45E-08	7.49E-08	2.76E-08	2.42E-08	2.42E-08	1.85E-07	3.55E-07	3.17E-07
3.35E-08	7.28E-08	2.68E-08	2.35E-08	2.35E-08	1.80E-07	3.42E-07	3.06E-07
3.27E-08	7.09E-08	2.61E-08	2.29E-08	2.29E-08	1.75E-07	3.30E-07	2.95E-07
7.35E-08	1.57E-07	5.77E-08	5.07E-08	5.07E-08	3.90E-07	7.12E-07	6.37E-07
3.81E-07	8.14E-07	2.99E-07	2.63E-07	2.63E-07	2.02E-06	4.45E-06	4.00E-06
2.91E-07	6.31E-07	2.32E-07	2.04E-07	2.04E-07	1.56E-06	3.21E-06	2.88E-06
1.76E-07	3.81E-07	1.4E-07	1.23E-07	1.23E-07	9.45E-07	2.01E-06	1.80E-06
3.64E-08	7.87E-08	2.89E-08	2.54E-08	2.54E-08	1.95E-07	3.59E-07	3.21E-07
1.19E-07	2.57E-07	9.46E-08	8.31E-08	8.31E-08	6.37E-07	1.37E-06	1.23E-06
9.87E-08	2.13E-07	7.82E-08	6.87E-08	6.87E-08	5.27E-07	1.11E-06	9.99E-07
4.44E-08	9.61E-08	3.53E-08	3.1E-08	3.1E-08	2.38E-07	4.43E-07	3.97E-07
4.21E-08	9.13E-08	3.36E-08	2.95E-08	2.95E-08	2.26E-07	4.23E-07	3.78E-07
4.21E-08	9.12E-08	3.36E-08	2.95E-08	2.95E-08	2.26E-07	4.20E-07	3.76E-07
4E-08	8.68E-08	3.19E-08	2.81E-08	2.81E-08	2.15E-07	4.07E-07	3.64E-07
4E-08	8.68E-08	3.19E-08	2.8E-08	2.8E-08	2.15E-07	4.01E-07	3.59E-07
3.79E-08	8.24E-08	3.03E-08	2.66E-08	2.66E-08	2.04E-07	3.91E-07	3.50E-07
3.79E-08	8.25E-08	3.03E-08	2.66E-08	2.66E-08	2.04E-07	3.89E-07	3.48E-07
3.8E-08	8.25E-08	3.04E-08	2.67E-08	2.67E-08	2.04E-07	3.86E-07	3.46E-07
3.8E-08	8.25E-08	3.03E-08	2.67E-08	2.67E-08	2.04E-07	3.81E-07	3.41E-07
3.8E-08	8.25E-08	3.03E-08	2.66E-08	2.66E-08	2.04E-07	3.78E-07	3.38E-07
3.59E-08	7.82E-08	2.88E-08	2.53E-08	2.53E-08	1.94E-07	3.73E-07	3.34E-07
3.6E-08	7.84E-08	2.88E-08	2.53E-08	2.53E-08	1.94E-07	3.71E-07	3.32E-07
3.61E-08	7.85E-08	2.89E-08	2.54E-08	2.54E-08	1.94E-07	3.69E-07	3.31E-07
3.41E-08	7.42E-08	2.73E-08	2.4E-08	2.4E-08	1.84E-07	3.53E-07	3.16E-07
3.42E-08	7.44E-08	2.74E-08	2.4E-08	2.4E-08	1.84E-07	3.54E-07	3.17E-07
3.42E-08	7.45E-08	2.74E-08	2.41E-08	2.41E-08	1.84E-07	3.54E-07	3.17E-07
3.43E-08	7.47E-08	2.75E-08	2.41E-08	2.41E-08	1.85E-07	3.51E-07	3.14E-07

3.44E-08	7.48E-08	2.75E-08	2.42E-08	2.42E-08	1.85E-07	3.49E-07	3.12E-07
3.45E-08	7.49E-08	2.75E-08	2.42E-08	2.42E-08	1.85E-07	3.42E-07	3.06E-07
2.19E-07	4.48E-07	1.65E-07	1.45E-07	1.45E-07	1.12E-06	6.78E-06	6.17E-06
2.27E-07	4.65E-07	1.71E-07	1.5E-07	1.5E-07	1.16E-06	6.91E-06	6.30E-06
2.36E-07	4.82E-07	1.77E-07	1.56E-07	1.56E-07	1.21E-06	6.95E-06	6.33E-06
2.46E-07	5.03E-07	1.85E-07	1.62E-07	1.62E-07	1.26E-06	6.97E-06	6.35E-06
2.57E-07	5.25E-07	1.93E-07	1.7E-07	1.7E-07	1.31E-06	6.96E-06	6.34E-06
2.68E-07	5.51E-07	2.02E-07	1.78E-07	1.78E-07	1.38E-06	6.96E-06	6.34E-06
2.81E-07	5.78E-07	2.12E-07	1.87E-07	1.87E-07	1.44E-06	6.98E-06	6.38E-06
2.95E-07	6.09E-07	2.24E-07	1.97E-07	1.97E-07	1.52E-06	7.14E-06	6.54E-06
3.11E-07	6.44E-07	2.37E-07	2.08E-07	2.08E-07	1.61E-06	7.46E-06	6.85E-06
3.29E-07	6.84E-07	2.52E-07	2.21E-07	2.21E-07	1.71E-06	7.78E-06	7.16E-06
3.47E-07	7.25E-07	2.67E-07	2.34E-07	2.34E-07	1.81E-06	8.08E-06	7.45E-06
3.67E-07	7.68E-07	2.83E-07	2.48E-07	2.48E-07	1.91E-06	8.16E-06	7.53E-06
3.87E-07	8.11E-07	2.98E-07	2.62E-07	2.62E-07	2.02E-06	7.87E-06	7.25E-06
4.08E-07	8.58E-07	3.15E-07	2.77E-07	2.77E-07	2.14E-06	7.34E-06	6.75E-06
4.69E-07	9.88E-07	3.63E-07	3.19E-07	3.19E-07	2.46E-06	6.15E-06	5.60E-06
5.02E-07	1.06E-06	3.9E-07	3.43E-07	3.43E-07	2.64E-06	5.69E-06	5.16E-06
5.24E-07	1.11E-06	4.07E-07	3.58E-07	3.58E-07	2.75E-06	5.32E-06	4.80E-06
5.26E-07	1.11E-06	4.09E-07	3.59E-07	3.59E-07	2.76E-06	4.98E-06	4.47E-06
5.01E-07	1.06E-06	3.9E-07	3.42E-07	3.42E-07	2.64E-06	4.56E-06	4.09E-06
4.59E-07	9.69E-07	3.57E-07	3.13E-07	3.13E-07	2.41E-06	4.12E-06	3.69E-06
4.09E-07	8.62E-07	3.17E-07	2.79E-07	2.79E-07	2.14E-06	3.66E-06	3.28E-06
3.67E-07	7.75E-07	2.85E-07	2.51E-07	2.51E-07	1.93E-06	3.30E-06	2.95E-06
3.33E-07	7.05E-07	2.59E-07	2.28E-07	2.28E-07	1.75E-06	2.99E-06	2.68E-06
2.07E-07	4.24E-07	1.56E-07	1.37E-07	1.37E-07	1.06E-06	5.61E-06	5.11E-06
2.14E-07	4.39E-07	1.61E-07	1.42E-07	1.42E-07	1.10E-06	5.72E-06	5.20E-06
2.22E-07	4.56E-07	1.68E-07	1.47E-07	1.47E-07	1.14E-06	5.81E-06	5.29E-06
2.32E-07	4.76E-07	1.75E-07	1.54E-07	1.54E-07	1.19E-06	5.89E-06	5.37E-06
2.42E-07	4.97E-07	1.83E-07	1.6E-07	1.6E-07	1.24E-06	5.97E-06	5.44E-06
2.52E-07	5.2E-07	1.91E-07	1.68E-07	1.68E-07	1.30E-06	6.09E-06	5.55E-06
2.64E-07	5.45E-07	2E-07	1.76E-07	1.76E-07	1.36E-06	6.25E-06	5.71E-06
2.76E-07	5.71E-07	2.1E-07	1.84E-07	1.84E-07	1.43E-06	6.46E-06	5.92E-06
2.88E-07	5.98E-07	2.2E-07	1.93E-07	1.93E-07	1.49E-06	6.65E-06	6.11E-06
3.01E-07	6.27E-07	2.31E-07	2.03E-07	2.03E-07	1.56E-06	6.80E-06	6.25E-06
3.14E-07	6.57E-07	2.42E-07	2.12E-07	2.12E-07	1.64E-06	6.87E-06	6.32E-06
3.27E-07	6.85E-07	2.52E-07	2.21E-07	2.21E-07	1.71E-06	6.77E-06	6.23E-06
3.42E-07	7.17E-07	2.64E-07	2.32E-07	2.32E-07	1.79E-06	6.50E-06	5.98E-06
3.59E-07	7.54E-07	2.77E-07	2.44E-07	2.44E-07	1.88E-06	6.13E-06	5.63E-06
3.94E-07	8.31E-07	3.06E-07	2.68E-07	2.68E-07	2.07E-06	5.24E-06	4.77E-06
4.08E-07	8.6E-07	3.16E-07	2.78E-07	2.78E-07	2.14E-06	4.83E-06	4.38E-06
4.15E-07	8.74E-07	3.22E-07	2.83E-07	2.83E-07	2.18E-06	4.49E-06	4.05E-06
4.16E-07	8.77E-07	3.22E-07	2.83E-07	2.83E-07	2.18E-06	4.20E-06	3.78E-06
4.05E-07	8.53E-07	3.14E-07	2.76E-07	2.76E-07	2.12E-06	3.90E-06	3.51E-06
3.87E-07	8.14E-07	2.99E-07	2.63E-07	2.63E-07	2.03E-06	3.61E-06	3.24E-06
3.58E-07	7.55E-07	2.78E-07	2.44E-07	2.44E-07	1.88E-06	3.31E-06	2.97E-06
3.3E-07	6.95E-07	2.56E-07	2.25E-07	2.25E-07	1.73E-06	3.02E-06	2.71E-06

3.03E-07	6.4E-07	2.35E-07	2.07E-07	2.07E-07	1.59E-06	2.77E-06	2.48E-06
1.89E-07	3.88E-07	1.43E-07	1.25E-07	1.25E-07	9.71E-07	4.68E-06	4.25E-06
1.95E-07	4.02E-07	1.48E-07	1.3E-07	1.3E-07	1.00E-06	4.78E-06	4.35E-06
2.02E-07	4.16E-07	1.53E-07	1.35E-07	1.35E-07	1.04E-06	4.87E-06	4.43E-06
2.1E-07	4.32E-07	1.59E-07	1.4E-07	1.4E-07	1.08E-06	4.95E-06	4.50E-06
2.19E-07	4.51E-07	1.66E-07	1.46E-07	1.46E-07	1.13E-06	5.07E-06	4.61E-06
2.28E-07	4.7E-07	1.73E-07	1.52E-07	1.52E-07	1.17E-06	5.21E-06	4.75E-06
2.38E-07	4.91E-07	1.8E-07	1.59E-07	1.59E-07	1.23E-06	5.37E-06	4.90E-06
2.47E-07	5.11E-07	1.88E-07	1.65E-07	1.65E-07	1.28E-06	5.53E-06	5.05E-06
2.56E-07	5.32E-07	1.96E-07	1.72E-07	1.72E-07	1.33E-06	5.68E-06	5.20E-06
2.66E-07	5.53E-07	2.03E-07	1.79E-07	1.79E-07	1.38E-06	5.77E-06	5.29E-06
2.75E-07	5.75E-07	2.11E-07	1.86E-07	1.86E-07	1.43E-06	5.78E-06	5.30E-06
2.85E-07	5.95E-07	2.19E-07	1.92E-07	1.92E-07	1.48E-06	5.69E-06	5.22E-06
2.95E-07	6.17E-07	2.27E-07	1.99E-07	1.99E-07	1.54E-06	5.58E-06	5.12E-06
3.06E-07	6.41E-07	2.36E-07	2.07E-07	2.07E-07	1.60E-06	5.39E-06	4.94E-06
3.17E-07	6.66E-07	2.45E-07	2.15E-07	2.15E-07	1.66E-06	5.12E-06	4.69E-06
3.36E-07	7.07E-07	2.6E-07	2.28E-07	2.28E-07	1.76E-06	4.51E-06	4.11E-06
3.41E-07	7.17E-07	2.64E-07	2.32E-07	2.32E-07	1.78E-06	4.18E-06	3.79E-06
3.41E-07	7.16E-07	2.63E-07	2.31E-07	2.31E-07	1.78E-06	3.87E-06	3.50E-06
3.42E-07	7.17E-07	2.64E-07	2.32E-07	2.32E-07	1.79E-06	3.63E-06	3.27E-06
3.39E-07	7.13E-07	2.62E-07	2.3E-07	2.3E-07	1.77E-06	3.42E-06	3.08E-06
3.32E-07	6.97E-07	2.56E-07	2.25E-07	2.25E-07	1.74E-06	3.22E-06	2.89E-06
3.16E-07	6.63E-07	2.44E-07	2.14E-07	2.14E-07	1.65E-06	2.99E-06	2.68E-06
2.96E-07	6.24E-07	2.29E-07	2.02E-07	2.02E-07	1.55E-06	2.77E-06	2.49E-06
2.77E-07	5.84E-07	2.15E-07	1.89E-07	1.89E-07	1.45E-06	2.57E-06	2.31E-06
1.79E-07	3.69E-07	1.36E-07	1.19E-07	1.19E-07	9.22E-07	4.06E-06	3.69E-06
1.85E-07	3.81E-07	1.4E-07	1.23E-07	1.23E-07	9.53E-07	4.13E-06	3.76E-06
1.92E-07	3.95E-07	1.45E-07	1.28E-07	1.28E-07	9.88E-07	4.21E-06	3.83E-06
1.99E-07	4.11E-07	1.51E-07	1.33E-07	1.33E-07	1.03E-06	4.31E-06	3.92E-06
2.07E-07	4.27E-07	1.57E-07	1.38E-07	1.38E-07	1.07E-06	4.44E-06	4.04E-06
2.15E-07	4.44E-07	1.63E-07	1.44E-07	1.44E-07	1.11E-06	4.57E-06	4.17E-06
2.23E-07	4.62E-07	1.7E-07	1.49E-07	1.49E-07	1.15E-06	4.73E-06	4.31E-06
2.31E-07	4.79E-07	1.76E-07	1.55E-07	1.55E-07	1.20E-06	4.87E-06	4.45E-06
2.38E-07	4.95E-07	1.82E-07	1.6E-07	1.6E-07	1.24E-06	4.97E-06	4.54E-06
2.45E-07	5.11E-07	1.88E-07	1.65E-07	1.65E-07	1.27E-06	4.98E-06	4.55E-06
2.52E-07	5.26E-07	1.94E-07	1.7E-07	1.7E-07	1.31E-06	4.93E-06	4.51E-06
2.59E-07	5.42E-07	1.99E-07	1.75E-07	1.75E-07	1.35E-06	4.82E-06	4.41E-06
2.66E-07	5.57E-07	2.05E-07	1.8E-07	1.8E-07	1.39E-06	4.68E-06	4.28E-06
2.74E-07	5.75E-07	2.11E-07	1.86E-07	1.86E-07	1.43E-06	4.54E-06	4.15E-06
2.82E-07	5.92E-07	2.18E-07	1.91E-07	1.91E-07	1.47E-06	4.37E-06	3.99E-06
2.9E-07	6.09E-07	2.24E-07	1.97E-07	1.97E-07	1.52E-06	3.92E-06	3.56E-06
2.91E-07	6.12E-07	2.25E-07	1.98E-07	1.98E-07	1.52E-06	3.66E-06	3.32E-06
2.91E-07	6.12E-07	2.25E-07	1.98E-07	1.98E-07	1.52E-06	3.42E-06	3.09E-06
2.92E-07	6.12E-07	2.25E-07	1.98E-07	1.98E-07	1.52E-06	3.21E-06	2.90E-06
2.91E-07	6.09E-07	2.24E-07	1.97E-07	1.97E-07	1.52E-06	3.03E-06	2.73E-06
2.88E-07	6.04E-07	2.22E-07	1.95E-07	1.95E-07	1.50E-06	2.88E-06	2.59E-06
2.8E-07	5.89E-07	2.17E-07	1.9E-07	1.9E-07	1.47E-06	2.72E-06	2.44E-06

2.68E-07	5.64E-07	2.07E-07	1.82E-07	1.82E-07	1.40E-06	2.55E-06	2.29E-06
2.54E-07	5.34E-07	1.96E-07	1.73E-07	1.73E-07	1.33E-06	2.39E-06	2.14E-06
1.7E-07	3.51E-07	1.29E-07	1.13E-07	1.13E-07	8.77E-07	3.57E-06	3.24E-06
1.76E-07	3.63E-07	1.33E-07	1.17E-07	1.17E-07	9.06E-07	3.64E-06	3.31E-06
1.82E-07	3.76E-07	1.38E-07	1.21E-07	1.21E-07	9.39E-07	3.72E-06	3.38E-06
1.88E-07	3.9E-07	1.43E-07	1.26E-07	1.26E-07	9.74E-07	3.80E-06	3.45E-06
1.96E-07	4.05E-07	1.49E-07	1.31E-07	1.31E-07	1.01E-06	3.92E-06	3.56E-06
2.03E-07	4.2E-07	1.54E-07	1.36E-07	1.36E-07	1.05E-06	4.05E-06	3.69E-06
2.09E-07	4.34E-07	1.6E-07	1.4E-07	1.4E-07	1.08E-06	4.18E-06	3.81E-06
2.15E-07	4.47E-07	1.65E-07	1.45E-07	1.45E-07	1.12E-06	4.27E-06	3.90E-06
2.21E-07	4.6E-07	1.69E-07	1.49E-07	1.49E-07	1.15E-06	4.33E-06	3.95E-06
2.26E-07	4.72E-07	1.74E-07	1.53E-07	1.53E-07	1.18E-06	4.33E-06	3.95E-06
2.31E-07	4.84E-07	1.78E-07	1.56E-07	1.56E-07	1.21E-06	4.27E-06	3.90E-06
2.36E-07	4.95E-07	1.82E-07	1.6E-07	1.6E-07	1.23E-06	4.15E-06	3.79E-06
2.42E-07	5.07E-07	1.86E-07	1.64E-07	1.64E-07	1.26E-06	4.04E-06	3.68E-06
2.47E-07	5.19E-07	1.91E-07	1.68E-07	1.68E-07	1.29E-06	3.92E-06	3.57E-06
2.51E-07	5.28E-07	1.94E-07	1.7E-07	1.7E-07	1.31E-06	3.78E-06	3.44E-06
2.55E-07	5.36E-07	1.97E-07	1.73E-07	1.73E-07	1.34E-06	3.45E-06	3.14E-06
2.55E-07	5.36E-07	1.97E-07	1.73E-07	1.73E-07	1.34E-06	3.25E-06	2.95E-06
2.54E-07	5.33E-07	1.96E-07	1.72E-07	1.72E-07	1.33E-06	3.05E-06	2.76E-06
2.54E-07	5.33E-07	1.96E-07	1.72E-07	1.72E-07	1.33E-06	2.88E-06	2.60E-06
2.55E-07	5.34E-07	1.96E-07	1.72E-07	1.72E-07	1.33E-06	2.74E-06	2.47E-06
2.54E-07	5.33E-07	1.96E-07	1.72E-07	1.72E-07	1.33E-06	2.61E-06	2.35E-06
2.5E-07	5.25E-07	1.93E-07	1.7E-07	1.7E-07	1.31E-06	2.48E-06	2.23E-06
2.43E-07	5.1E-07	1.88E-07	1.65E-07	1.65E-07	1.27E-06	2.35E-06	2.11E-06
2.33E-07	4.9E-07	1.8E-07	1.58E-07	1.58E-07	1.22E-06	2.22E-06	1.99E-06
1.62E-07	3.35E-07	1.23E-07	1.08E-07	1.08E-07	8.35E-07	3.18E-06	2.89E-06
1.67E-07	3.45E-07	1.27E-07	1.12E-07	1.12E-07	8.62E-07	3.24E-06	2.95E-06
1.73E-07	3.58E-07	1.31E-07	1.16E-07	1.16E-07	8.93E-07	3.31E-06	3.01E-06
1.79E-07	3.7E-07	1.36E-07	1.2E-07	1.2E-07	9.25E-07	3.39E-06	3.08E-06
1.85E-07	3.83E-07	1.41E-07	1.24E-07	1.24E-07	9.57E-07	3.49E-06	3.17E-06
1.91E-07	3.96E-07	1.46E-07	1.28E-07	1.28E-07	9.88E-07	3.59E-06	3.27E-06
1.96E-07	4.08E-07	1.5E-07	1.32E-07	1.32E-07	1.02E-06	3.69E-06	3.36E-06
2.01E-07	4.18E-07	1.54E-07	1.35E-07	1.35E-07	1.04E-06	3.77E-06	3.43E-06
2.05E-07	4.28E-07	1.58E-07	1.38E-07	1.38E-07	1.07E-06	3.81E-06	3.47E-06
2.09E-07	4.37E-07	1.61E-07	1.41E-07	1.41E-07	1.09E-06	3.79E-06	3.45E-06
2.13E-07	4.45E-07	1.64E-07	1.44E-07	1.44E-07	1.11E-06	3.73E-06	3.40E-06
2.17E-07	4.54E-07	1.67E-07	1.47E-07	1.47E-07	1.13E-06	3.64E-06	3.32E-06
2.2E-07	4.61E-07	1.7E-07	1.49E-07	1.49E-07	1.15E-06	3.53E-06	3.21E-06
2.24E-07	4.69E-07	1.73E-07	1.52E-07	1.52E-07	1.17E-06	3.43E-06	3.12E-06
2.26E-07	4.75E-07	1.75E-07	1.54E-07	1.54E-07	1.18E-06	3.32E-06	3.02E-06
2.27E-07	4.77E-07	1.75E-07	1.54E-07	1.54E-07	1.19E-06	3.06E-06	2.78E-06
2.27E-07	4.76E-07	1.75E-07	1.54E-07	1.54E-07	1.19E-06	2.91E-06	2.64E-06
2.26E-07	4.75E-07	1.75E-07	1.53E-07	1.53E-07	1.18E-06	2.76E-06	2.50E-06
2.26E-07	4.74E-07	1.74E-07	1.53E-07	1.53E-07	1.18E-06	2.62E-06	2.36E-06
2.26E-07	4.73E-07	1.74E-07	1.53E-07	1.53E-07	1.18E-06	2.49E-06	2.24E-06
2.27E-07	4.74E-07	1.75E-07	1.53E-07	1.53E-07	1.18E-06	2.38E-06	2.14E-06

2.25E-07	4.72E-07	1.74E-07	1.53E-07	1.53E-07	1.18E-06	2.28E-06	2.05E-06
2.21E-07	4.64E-07	1.71E-07	1.5E-07	1.5E-07	1.16E-06	2.18E-06	1.96E-06
2.14E-07	4.5E-07	1.65E-07	1.45E-07	1.45E-07	1.12E-06	2.07E-06	1.85E-06
1.49E-07	3.09E-07	1.14E-07	9.99E-08	9.99E-08	7.72E-07	2.79E-06	2.53E-06
1.54E-07	3.19E-07	1.17E-07	1.03E-07	1.03E-07	7.96E-07	2.86E-06	2.60E-06
1.59E-07	3.29E-07	1.21E-07	1.06E-07	1.06E-07	8.22E-07	2.92E-06	2.65E-06
1.64E-07	3.4E-07	1.25E-07	1.1E-07	1.1E-07	8.49E-07	2.98E-06	2.71E-06
1.69E-07	3.51E-07	1.29E-07	1.14E-07	1.14E-07	8.77E-07	3.04E-06	2.76E-06
1.75E-07	3.63E-07	1.33E-07	1.17E-07	1.17E-07	9.05E-07	3.12E-06	2.84E-06
1.79E-07	3.73E-07	1.37E-07	1.21E-07	1.21E-07	9.31E-07	3.20E-06	2.91E-06
1.84E-07	3.83E-07	1.41E-07	1.24E-07	1.24E-07	9.55E-07	3.28E-06	2.99E-06
1.87E-07	3.91E-07	1.44E-07	1.26E-07	1.26E-07	9.74E-07	3.33E-06	3.03E-06
1.91E-07	3.98E-07	1.47E-07	1.29E-07	1.29E-07	9.93E-07	3.36E-06	3.06E-06
1.94E-07	4.05E-07	1.49E-07	1.31E-07	1.31E-07	1.01E-06	3.35E-06	3.05E-06
1.96E-07	4.12E-07	1.51E-07	1.33E-07	1.33E-07	1.03E-06	3.31E-06	3.01E-06
1.99E-07	4.17E-07	1.53E-07	1.35E-07	1.35E-07	1.04E-06	3.23E-06	2.93E-06
2.01E-07	4.23E-07	1.55E-07	1.37E-07	1.37E-07	1.05E-06	3.14E-06	2.85E-06
2.04E-07	4.28E-07	1.57E-07	1.38E-07	1.38E-07	1.07E-06	3.05E-06	2.77E-06
2.05E-07	4.3E-07	1.58E-07	1.39E-07	1.39E-07	1.07E-06	2.95E-06	2.68E-06
2.05E-07	4.3E-07	1.58E-07	1.39E-07	1.39E-07	1.07E-06	2.75E-06	2.50E-06
2.04E-07	4.29E-07	1.58E-07	1.39E-07	1.39E-07	1.07E-06	2.64E-06	2.39E-06
2.03E-07	4.26E-07	1.57E-07	1.38E-07	1.38E-07	1.06E-06	2.51E-06	2.27E-06
2.03E-07	4.26E-07	1.57E-07	1.38E-07	1.38E-07	1.06E-06	2.39E-06	2.16E-06
2.04E-07	4.26E-07	1.57E-07	1.38E-07	1.38E-07	1.06E-06	2.28E-06	2.06E-06
2.04E-07	4.28E-07	1.57E-07	1.38E-07	1.38E-07	1.07E-06	2.19E-06	1.97E-06
2.04E-07	4.27E-07	1.57E-07	1.38E-07	1.38E-07	1.06E-06	2.10E-06	1.89E-06
2.02E-07	4.23E-07	1.56E-07	1.37E-07	1.37E-07	1.05E-06	2.02E-06	1.81E-06
1.97E-07	4.15E-07	1.52E-07	1.34E-07	1.34E-07	1.03E-06	1.93E-06	1.73E-06
1.42E-07	2.96E-07	1.09E-07	9.55E-08	9.55E-08	7.38E-07	2.54E-06	2.30E-06
1.47E-07	3.04E-07	1.12E-07	9.84E-08	9.84E-08	7.60E-07	2.60E-06	2.36E-06
1.51E-07	3.14E-07	1.15E-07	1.01E-07	1.01E-07	7.83E-07	2.65E-06	2.40E-06
1.56E-07	3.24E-07	1.19E-07	1.05E-07	1.05E-07	8.07E-07	2.70E-06	2.45E-06
1.6E-07	3.33E-07	1.23E-07	1.08E-07	1.08E-07	8.32E-07	2.75E-06	2.50E-06
1.65E-07	3.43E-07	1.26E-07	1.11E-07	1.11E-07	8.56E-07	2.81E-06	2.55E-06
1.69E-07	3.51E-07	1.29E-07	1.14E-07	1.14E-07	8.76E-07	2.87E-06	2.60E-06
1.72E-07	3.59E-07	1.32E-07	1.16E-07	1.16E-07	8.96E-07	2.92E-06	2.66E-06
1.75E-07	3.66E-07	1.35E-07	1.18E-07	1.18E-07	9.12E-07	2.97E-06	2.70E-06
1.78E-07	3.72E-07	1.37E-07	1.2E-07	1.2E-07	9.26E-07	2.99E-06	2.72E-06
1.79E-07	3.76E-07	1.38E-07	1.21E-07	1.21E-07	9.37E-07	2.98E-06	2.71E-06
1.81E-07	3.8E-07	1.4E-07	1.23E-07	1.23E-07	9.47E-07	2.95E-06	2.68E-06
1.83E-07	3.85E-07	1.41E-07	1.24E-07	1.24E-07	9.58E-07	2.89E-06	2.63E-06
1.85E-07	3.88E-07	1.43E-07	1.25E-07	1.25E-07	9.66E-07	2.81E-06	2.55E-06
1.86E-07	3.91E-07	1.44E-07	1.26E-07	1.26E-07	9.75E-07	2.73E-06	2.48E-06
1.87E-07	3.93E-07	1.45E-07	1.27E-07	1.27E-07	9.79E-07	2.66E-06	2.41E-06
1.86E-07	3.91E-07	1.44E-07	1.26E-07	1.26E-07	9.73E-07	2.49E-06	2.25E-06
1.85E-07	3.89E-07	1.43E-07	1.26E-07	1.26E-07	9.70E-07	2.40E-06	2.17E-06
1.85E-07	3.88E-07	1.43E-07	1.25E-07	1.25E-07	9.66E-07	2.30E-06	2.08E-06

1.85E-07	3.87E-07	1.42E-07	1.25E-07	1.25E-07	9.64E-07	2.20E-06	1.99E-06
1.85E-07	3.87E-07	1.42E-07	1.25E-07	1.25E-07	9.63E-07	2.10E-06	1.90E-06
1.85E-07	3.88E-07	1.43E-07	1.25E-07	1.25E-07	9.67E-07	2.02E-06	1.82E-06
1.86E-07	3.89E-07	1.43E-07	1.26E-07	1.26E-07	9.70E-07	1.95E-06	1.76E-06
1.85E-07	3.88E-07	1.43E-07	1.25E-07	1.25E-07	9.67E-07	1.88E-06	1.69E-06
1.82E-07	3.82E-07	1.41E-07	1.24E-07	1.24E-07	9.52E-07	1.80E-06	1.62E-06
1.36E-07	2.82E-07	1.04E-07	9.12E-08	9.12E-08	7.04E-07	2.32E-06	2.10E-06
1.4E-07	2.91E-07	1.07E-07	9.39E-08	9.39E-08	7.25E-07	2.37E-06	2.15E-06
1.44E-07	2.99E-07	1.1E-07	9.66E-08	9.66E-08	7.46E-07	2.42E-06	2.19E-06
1.48E-07	3.08E-07	1.13E-07	9.95E-08	9.95E-08	7.68E-07	2.46E-06	2.23E-06
1.52E-07	3.16E-07	1.16E-07	1.02E-07	1.02E-07	7.88E-07	2.49E-06	2.26E-06
1.56E-07	3.24E-07	1.19E-07	1.05E-07	1.05E-07	8.08E-07	2.54E-06	2.30E-06
1.59E-07	3.31E-07	1.22E-07	1.07E-07	1.07E-07	8.26E-07	2.58E-06	2.35E-06
1.62E-07	3.38E-07	1.24E-07	1.09E-07	1.09E-07	8.42E-07	2.63E-06	2.38E-06
1.64E-07	3.42E-07	1.26E-07	1.11E-07	1.11E-07	8.53E-07	2.65E-06	2.41E-06
1.66E-07	3.47E-07	1.27E-07	1.12E-07	1.12E-07	8.64E-07	2.68E-06	2.43E-06
1.67E-07	3.5E-07	1.29E-07	1.13E-07	1.13E-07	8.72E-07	2.68E-06	2.43E-06
1.68E-07	3.53E-07	1.3E-07	1.14E-07	1.14E-07	8.78E-07	2.65E-06	2.40E-06
1.69E-07	3.56E-07	1.31E-07	1.15E-07	1.15E-07	8.86E-07	2.60E-06	2.36E-06
1.71E-07	3.58E-07	1.32E-07	1.16E-07	1.16E-07	8.93E-07	2.54E-06	2.30E-06
1.72E-07	3.61E-07	1.33E-07	1.17E-07	1.17E-07	8.98E-07	2.47E-06	2.24E-06
1.72E-07	3.61E-07	1.33E-07	1.17E-07	1.17E-07	8.98E-07	2.40E-06	2.18E-06
1.71E-07	3.59E-07	1.32E-07	1.16E-07	1.16E-07	8.93E-07	2.27E-06	2.05E-06
1.7E-07	3.57E-07	1.31E-07	1.15E-07	1.15E-07	8.89E-07	2.19E-06	1.99E-06
1.69E-07	3.55E-07	1.3E-07	1.15E-07	1.15E-07	8.84E-07	2.11E-06	1.91E-06
1.69E-07	3.54E-07	1.3E-07	1.14E-07	1.14E-07	8.82E-07	2.03E-06	1.83E-06
1.69E-07	3.54E-07	1.3E-07	1.14E-07	1.14E-07	8.82E-07	1.95E-06	1.76E-06
1.7E-07	3.55E-07	1.31E-07	1.15E-07	1.15E-07	8.86E-07	1.88E-06	1.70E-06
1.7E-07	3.56E-07	1.31E-07	1.15E-07	1.15E-07	8.88E-07	1.81E-06	1.63E-06
1.7E-07	3.56E-07	1.31E-07	1.15E-07	1.15E-07	8.88E-07	1.75E-06	1.58E-06
1.69E-07	3.54E-07	1.3E-07	1.14E-07	1.14E-07	8.82E-07	1.69E-06	1.52E-06
1.13E-07	2.35E-07	8.64E-08	7.59E-08	7.59E-08	5.85E-07	1.76E-06	1.59E-06
1.13E-07	2.35E-07	8.66E-08	7.61E-08	7.61E-08	5.87E-07	1.75E-06	1.58E-06
1.15E-07	2.41E-07	8.86E-08	7.79E-08	7.79E-08	6.01E-07	1.79E-06	1.62E-06
1.18E-07	2.47E-07	9.08E-08	7.98E-08	7.98E-08	6.15E-07	1.82E-06	1.65E-06
1.21E-07	2.53E-07	9.3E-08	8.17E-08	8.17E-08	6.30E-07	1.85E-06	1.68E-06
1.24E-07	2.59E-07	9.51E-08	8.36E-08	8.36E-08	6.45E-07	1.87E-06	1.69E-06
1.27E-07	2.64E-07	9.72E-08	8.54E-08	8.54E-08	6.59E-07	1.89E-06	1.71E-06
1.29E-07	2.7E-07	9.92E-08	8.72E-08	8.72E-08	6.72E-07	1.91E-06	1.73E-06
1.31E-07	2.75E-07	1.01E-07	8.87E-08	8.87E-08	6.84E-07	1.93E-06	1.75E-06
1.33E-07	2.78E-07	1.02E-07	8.99E-08	8.99E-08	6.93E-07	1.94E-06	1.76E-06
1.34E-07	2.81E-07	1.03E-07	9.09E-08	9.09E-08	7.01E-07	1.96E-06	1.78E-06
1.35E-07	2.83E-07	1.04E-07	9.16E-08	9.16E-08	7.06E-07	1.98E-06	1.79E-06
1.36E-07	2.85E-07	1.05E-07	9.21E-08	9.21E-08	7.10E-07	1.99E-06	1.80E-06
1.36E-07	2.86E-07	1.05E-07	9.23E-08	9.23E-08	7.11E-07	1.99E-06	1.80E-06
1.36E-07	2.87E-07	1.05E-07	9.26E-08	9.26E-08	7.14E-07	1.98E-06	1.80E-06
1.37E-07	2.88E-07	1.06E-07	9.3E-08	9.3E-08	7.16E-07	1.97E-06	1.78E-06

1.37E-07	2.88E-07	1.06E-07	9.31E-08	9.31E-08	7.17E-07	1.93E-06	1.75E-06
1.37E-07	2.88E-07	1.06E-07	9.31E-08	9.31E-08	7.18E-07	1.90E-06	1.72E-06
1.37E-07	2.88E-07	1.06E-07	9.3E-08	9.3E-08	7.16E-07	1.85E-06	1.68E-06
1.35E-07	2.85E-07	1.05E-07	9.2E-08	9.2E-08	7.09E-07	1.76E-06	1.60E-06
1.35E-07	2.83E-07	1.04E-07	9.15E-08	9.15E-08	7.05E-07	1.72E-06	1.56E-06
1.34E-07	2.82E-07	1.04E-07	9.11E-08	9.11E-08	7.02E-07	1.68E-06	1.52E-06
1.34E-07	2.81E-07	1.03E-07	9.09E-08	9.09E-08	7.01E-07	1.63E-06	1.47E-06
1.34E-07	2.81E-07	1.03E-07	9.07E-08	9.07E-08	6.99E-07	1.58E-06	1.43E-06
1.34E-07	2.81E-07	1.03E-07	9.09E-08	9.09E-08	7.01E-07	1.54E-06	1.38E-06
1.35E-07	2.82E-07	1.04E-07	9.13E-08	9.13E-08	7.04E-07	1.49E-06	1.34E-06
1.35E-07	2.84E-07	1.04E-07	9.17E-08	9.17E-08	7.07E-07	1.45E-06	1.31E-06
1.36E-07	2.84E-07	1.05E-07	9.18E-08	9.18E-08	7.08E-07	1.41E-06	1.27E-06
1.08E-07	2.26E-07	8.29E-08	7.29E-08	7.29E-08	5.62E-07	1.64E-06	1.49E-06
1.08E-07	2.25E-07	8.27E-08	7.27E-08	7.27E-08	5.61E-07	1.65E-06	1.49E-06
1.01E-07	2.12E-07	7.79E-08	6.85E-08	6.85E-08	5.28E-07	1.53E-06	1.38E-06
9.98E-08	2.09E-07	7.67E-08	6.74E-08	6.74E-08	5.20E-07	1.47E-06	1.32E-06
9.96E-08	2.09E-07	7.67E-08	6.74E-08	6.74E-08	5.20E-07	1.40E-06	1.27E-06
1.08E-07	2.26E-07	8.3E-08	7.3E-08	7.3E-08	5.63E-07	1.63E-06	1.47E-06
1.1E-07	2.31E-07	8.49E-08	7.46E-08	7.46E-08	5.75E-07	1.66E-06	1.50E-06
1.13E-07	2.36E-07	8.68E-08	7.62E-08	7.62E-08	5.88E-07	1.69E-06	1.53E-06
1.15E-07	2.41E-07	8.88E-08	7.8E-08	7.8E-08	6.01E-07	1.71E-06	1.55E-06
1.18E-07	2.47E-07	9.07E-08	7.97E-08	7.97E-08	6.15E-07	1.73E-06	1.57E-06
1.2E-07	2.52E-07	9.26E-08	8.13E-08	8.13E-08	6.27E-07	1.75E-06	1.58E-06
1.22E-07	2.56E-07	9.42E-08	8.27E-08	8.27E-08	6.38E-07	1.76E-06	1.59E-06
1.24E-07	2.6E-07	9.56E-08	8.4E-08	8.4E-08	6.48E-07	1.77E-06	1.60E-06
1.26E-07	2.63E-07	9.68E-08	8.5E-08	8.5E-08	6.56E-07	1.78E-06	1.62E-06
1.27E-07	2.65E-07	9.76E-08	8.58E-08	8.58E-08	6.61E-07	1.80E-06	1.63E-06
1.27E-07	2.67E-07	9.81E-08	8.62E-08	8.62E-08	6.64E-07	1.81E-06	1.64E-06
1.27E-07	2.68E-07	9.85E-08	8.65E-08	8.65E-08	6.67E-07	1.82E-06	1.65E-06
1.28E-07	2.68E-07	9.87E-08	8.67E-08	8.67E-08	6.68E-07	1.82E-06	1.65E-06
1.28E-07	2.69E-07	9.88E-08	8.68E-08	8.68E-08	6.69E-07	1.82E-06	1.64E-06
1.28E-07	2.69E-07	9.91E-08	8.71E-08	8.71E-08	6.71E-07	1.80E-06	1.63E-06
1.28E-07	2.7E-07	9.92E-08	8.72E-08	8.72E-08	6.72E-07	1.78E-06	1.61E-06
1.28E-07	2.7E-07	9.92E-08	8.72E-08	8.72E-08	6.72E-07	1.75E-06	1.58E-06
1.28E-07	2.69E-07	9.88E-08	8.68E-08	8.68E-08	6.69E-07	1.71E-06	1.55E-06
1.26E-07	2.66E-07	9.79E-08	8.6E-08	8.6E-08	6.63E-07	1.64E-06	1.48E-06
1.26E-07	2.65E-07	9.74E-08	8.56E-08	8.56E-08	6.59E-07	1.60E-06	1.45E-06
1.25E-07	2.63E-07	9.68E-08	8.51E-08	8.51E-08	6.55E-07	1.56E-06	1.41E-06
1.25E-07	2.63E-07	9.66E-08	8.48E-08	8.48E-08	6.54E-07	1.52E-06	1.38E-06
1.25E-07	2.62E-07	9.65E-08	8.48E-08	8.48E-08	6.53E-07	1.48E-06	1.34E-06
1.25E-07	2.63E-07	9.66E-08	8.49E-08	8.49E-08	6.54E-07	1.44E-06	1.30E-06
1.26E-07	2.63E-07	9.68E-08	8.51E-08	8.51E-08	6.56E-07	1.40E-06	1.26E-06
1.26E-07	2.65E-07	9.73E-08	8.55E-08	8.55E-08	6.59E-07	1.37E-06	1.23E-06
1.27E-07	2.66E-07	9.77E-08	8.59E-08	8.59E-08	6.62E-07	1.33E-06	1.20E-06
1.03E-07	2.16E-07	7.96E-08	6.99E-08	6.99E-08	5.39E-07	1.54E-06	1.39E-06
1.03E-07	2.16E-07	7.95E-08	6.99E-08	6.99E-08	5.39E-07	1.55E-06	1.40E-06
1.01E-07	2.12E-07	7.79E-08	6.84E-08	6.84E-08	5.28E-07	1.55E-06	1.40E-06

9.52E-08	1.99E-07	7.33E-08	6.44E-08	6.44E-08	4.97E-07	1.36E-06	1.23E-06
9.5E-08	1.99E-07	7.33E-08	6.44E-08	6.44E-08	4.96E-07	1.30E-06	1.18E-06
9.65E-08	2.02E-07	7.44E-08	6.54E-08	6.54E-08	5.04E-07	1.30E-06	1.17E-06
1.03E-07	2.16E-07	7.96E-08	6.99E-08	6.99E-08	5.39E-07	1.52E-06	1.37E-06
1.06E-07	2.21E-07	8.13E-08	7.14E-08	7.14E-08	5.51E-07	1.55E-06	1.40E-06
1.08E-07	2.26E-07	8.31E-08	7.3E-08	7.3E-08	5.63E-07	1.57E-06	1.42E-06
1.1E-07	2.31E-07	8.48E-08	7.45E-08	7.45E-08	5.75E-07	1.59E-06	1.44E-06
1.12E-07	2.35E-07	8.64E-08	7.59E-08	7.59E-08	5.86E-07	1.60E-06	1.45E-06
1.14E-07	2.39E-07	8.81E-08	7.74E-08	7.74E-08	5.97E-07	1.62E-06	1.46E-06
1.16E-07	2.43E-07	8.95E-08	7.86E-08	7.86E-08	6.06E-07	1.63E-06	1.47E-06
1.18E-07	2.47E-07	9.07E-08	7.97E-08	7.97E-08	6.14E-07	1.64E-06	1.48E-06
1.19E-07	2.49E-07	9.15E-08	8.04E-08	8.04E-08	6.20E-07	1.64E-06	1.49E-06
1.19E-07	2.51E-07	9.22E-08	8.1E-08	8.1E-08	6.24E-07	1.65E-06	1.50E-06
1.2E-07	2.52E-07	9.26E-08	8.13E-08	8.13E-08	6.27E-07	1.66E-06	1.50E-06
1.2E-07	2.52E-07	9.28E-08	8.15E-08	8.15E-08	6.28E-07	1.67E-06	1.51E-06
1.2E-07	2.53E-07	9.29E-08	8.16E-08	8.16E-08	6.29E-07	1.67E-06	1.51E-06
1.2E-07	2.53E-07	9.3E-08	8.17E-08	8.17E-08	6.30E-07	1.67E-06	1.51E-06
1.2E-07	2.53E-07	9.32E-08	8.19E-08	8.19E-08	6.31E-07	1.66E-06	1.51E-06
1.2E-07	2.53E-07	9.31E-08	8.18E-08	8.18E-08	6.30E-07	1.64E-06	1.49E-06
1.2E-07	2.53E-07	9.3E-08	8.17E-08	8.17E-08	6.30E-07	1.62E-06	1.47E-06
1.2E-07	2.52E-07	9.28E-08	8.15E-08	8.15E-08	6.28E-07	1.59E-06	1.44E-06
1.18E-07	2.49E-07	9.17E-08	8.06E-08	8.06E-08	6.21E-07	1.52E-06	1.38E-06
1.18E-07	2.48E-07	9.12E-08	8.01E-08	8.01E-08	6.17E-07	1.49E-06	1.35E-06
1.17E-07	2.47E-07	9.08E-08	7.98E-08	7.98E-08	6.15E-07	1.46E-06	1.32E-06
1.17E-07	2.46E-07	9.06E-08	7.96E-08	7.96E-08	6.13E-07	1.43E-06	1.29E-06
1.17E-07	2.46E-07	9.03E-08	7.94E-08	7.94E-08	6.12E-07	1.39E-06	1.26E-06
1.17E-07	2.46E-07	9.04E-08	7.94E-08	7.94E-08	6.12E-07	1.36E-06	1.22E-06
1.18E-07	2.47E-07	9.07E-08	7.97E-08	7.97E-08	6.14E-07	1.32E-06	1.19E-06
1.18E-07	2.48E-07	9.12E-08	8.01E-08	8.01E-08	6.18E-07	1.29E-06	1.16E-06
1.19E-07	2.49E-07	9.15E-08	8.04E-08	8.04E-08	6.20E-07	1.26E-06	1.13E-06
9.91E-08	2.08E-07	7.64E-08	6.71E-08	6.71E-08	5.17E-07	1.44E-06	1.30E-06
9.92E-08	2.08E-07	7.64E-08	6.71E-08	6.71E-08	5.18E-07	1.45E-06	1.31E-06
9.71E-08	2.03E-07	7.46E-08	6.56E-08	6.56E-08	5.06E-07	1.45E-06	1.31E-06
9.63E-08	2.01E-07	7.4E-08	6.5E-08	6.5E-08	5.02E-07	1.43E-06	1.29E-06
9.07E-08	1.9E-07	7E-08	6.15E-08	6.15E-08	4.74E-07	1.22E-06	1.10E-06
9.2E-08	1.93E-07	7.11E-08	6.24E-08	6.24E-08	4.81E-07	1.21E-06	1.09E-06
9.31E-08	1.96E-07	7.2E-08	6.32E-08	6.32E-08	4.87E-07	1.21E-06	1.09E-06
9.39E-08	1.98E-07	7.27E-08	6.39E-08	6.39E-08	4.92E-07	1.19E-06	1.07E-06
9.91E-08	2.08E-07	7.64E-08	6.71E-08	6.71E-08	5.17E-07	1.42E-06	1.29E-06
1.01E-07	2.12E-07	7.79E-08	6.85E-08	6.85E-08	5.28E-07	1.45E-06	1.31E-06
1.03E-07	2.16E-07	7.94E-08	6.98E-08	6.98E-08	5.38E-07	1.47E-06	1.33E-06
1.05E-07	2.2E-07	8.1E-08	7.12E-08	7.12E-08	5.49E-07	1.48E-06	1.34E-06
1.07E-07	2.24E-07	8.25E-08	7.25E-08	7.25E-08	5.59E-07	1.49E-06	1.35E-06
1.09E-07	2.28E-07	8.39E-08	7.37E-08	7.37E-08	5.68E-07	1.50E-06	1.36E-06
1.1E-07	2.31E-07	8.5E-08	7.47E-08	7.47E-08	5.76E-07	1.51E-06	1.36E-06
1.12E-07	2.34E-07	8.6E-08	7.56E-08	7.56E-08	5.83E-07	1.52E-06	1.37E-06
1.12E-07	2.36E-07	8.68E-08	7.62E-08	7.62E-08	5.88E-07	1.52E-06	1.38E-06

1.13E-07	2.37E-07	8.72E-08	7.66E-08	7.66E-08	5.91E-07	1.53E-06	1.38E-06
1.13E-07	2.38E-07	8.74E-08	7.68E-08	7.68E-08	5.92E-07	1.53E-06	1.39E-06
1.13E-07	2.38E-07	8.76E-08	7.69E-08	7.69E-08	5.93E-07	1.54E-06	1.39E-06
1.13E-07	2.38E-07	8.77E-08	7.7E-08	7.7E-08	5.93E-07	1.55E-06	1.40E-06
1.13E-07	2.38E-07	8.76E-08	7.7E-08	7.7E-08	5.93E-07	1.54E-06	1.39E-06
1.13E-07	2.38E-07	8.77E-08	7.71E-08	7.71E-08	5.93E-07	1.54E-06	1.39E-06
1.13E-07	2.38E-07	8.77E-08	7.7E-08	7.7E-08	5.93E-07	1.53E-06	1.38E-06
1.13E-07	2.38E-07	8.76E-08	7.69E-08	7.69E-08	5.93E-07	1.51E-06	1.36E-06
1.12E-07	2.37E-07	8.72E-08	7.66E-08	7.66E-08	5.90E-07	1.48E-06	1.34E-06
1.11E-07	2.35E-07	8.63E-08	7.58E-08	7.58E-08	5.84E-07	1.43E-06	1.29E-06
1.11E-07	2.33E-07	8.58E-08	7.54E-08	7.54E-08	5.81E-07	1.40E-06	1.26E-06
1.1E-07	2.32E-07	8.53E-08	7.5E-08	7.5E-08	5.78E-07	1.37E-06	1.23E-06
1.1E-07	2.31E-07	8.51E-08	7.48E-08	7.48E-08	5.76E-07	1.34E-06	1.21E-06
1.1E-07	2.31E-07	8.5E-08	7.47E-08	7.47E-08	5.75E-07	1.31E-06	1.18E-06
1.1E-07	2.31E-07	8.5E-08	7.47E-08	7.47E-08	5.76E-07	1.28E-06	1.15E-06
1.1E-07	2.31E-07	8.51E-08	7.48E-08	7.48E-08	5.76E-07	1.25E-06	1.13E-06
1.11E-07	2.33E-07	8.55E-08	7.52E-08	7.52E-08	5.79E-07	1.22E-06	1.10E-06
1.11E-07	2.34E-07	8.6E-08	7.55E-08	7.55E-08	5.82E-07	1.19E-06	1.07E-06
9.51E-08	2E-07	7.34E-08	6.45E-08	6.45E-08	4.97E-07	1.35E-06	1.22E-06
9.52E-08	2E-07	7.34E-08	6.45E-08	6.45E-08	4.97E-07	1.36E-06	1.23E-06
9.38E-08	1.96E-07	7.22E-08	6.34E-08	6.34E-08	4.89E-07	1.37E-06	1.24E-06
9.31E-08	1.95E-07	7.16E-08	6.29E-08	6.29E-08	4.85E-07	1.36E-06	1.23E-06
9.22E-08	1.93E-07	7.1E-08	6.23E-08	6.23E-08	4.81E-07	1.34E-06	1.21E-06
9.12E-08	1.91E-07	7.02E-08	6.17E-08	6.17E-08	4.76E-07	1.31E-06	1.18E-06
9E-08	1.89E-07	6.93E-08	6.09E-08	6.09E-08	4.70E-07	1.28E-06	1.15E-06
8.67E-08	1.82E-07	6.7E-08	5.88E-08	5.88E-08	4.53E-07	1.14E-06	1.02E-06
8.78E-08	1.85E-07	6.79E-08	5.97E-08	5.97E-08	4.60E-07	1.14E-06	1.02E-06
8.88E-08	1.87E-07	6.87E-08	6.04E-08	6.04E-08	4.65E-07	1.13E-06	1.02E-06
8.95E-08	1.89E-07	6.93E-08	6.09E-08	6.09E-08	4.69E-07	1.12E-06	1.00E-06
8.99E-08	1.9E-07	6.98E-08	6.13E-08	6.13E-08	4.72E-07	1.10E-06	9.91E-07
9.49E-08	1.99E-07	7.32E-08	6.43E-08	6.43E-08	4.96E-07	1.33E-06	1.21E-06
9.68E-08	2.03E-07	7.47E-08	6.56E-08	6.56E-08	5.06E-07	1.36E-06	1.22E-06
9.86E-08	2.07E-07	7.61E-08	6.68E-08	6.68E-08	5.15E-07	1.37E-06	1.24E-06
1E-07	2.11E-07	7.75E-08	6.81E-08	6.81E-08	5.25E-07	1.38E-06	1.25E-06
1.02E-07	2.14E-07	7.87E-08	6.92E-08	6.92E-08	5.33E-07	1.39E-06	1.26E-06
1.04E-07	2.17E-07	7.99E-08	7.02E-08	7.02E-08	5.41E-07	1.40E-06	1.26E-06
1.05E-07	2.2E-07	8.1E-08	7.11E-08	7.11E-08	5.48E-07	1.41E-06	1.27E-06
1.06E-07	2.22E-07	8.18E-08	7.18E-08	7.18E-08	5.54E-07	1.41E-06	1.28E-06
1.06E-07	2.24E-07	8.22E-08	7.23E-08	7.23E-08	5.57E-07	1.41E-06	1.28E-06
1.07E-07	2.25E-07	8.26E-08	7.26E-08	7.26E-08	5.59E-07	1.42E-06	1.28E-06
1.07E-07	2.25E-07	8.28E-08	7.27E-08	7.27E-08	5.60E-07	1.42E-06	1.29E-06
1.07E-07	2.25E-07	8.28E-08	7.27E-08	7.27E-08	5.60E-07	1.43E-06	1.29E-06
1.07E-07	2.25E-07	8.28E-08	7.28E-08	7.28E-08	5.60E-07	1.43E-06	1.29E-06
1.07E-07	2.25E-07	8.28E-08	7.28E-08	7.28E-08	5.61E-07	1.43E-06	1.29E-06
1.07E-07	2.25E-07	8.29E-08	7.28E-08	7.28E-08	5.61E-07	1.43E-06	1.29E-06
1.07E-07	2.25E-07	8.27E-08	7.26E-08	7.26E-08	5.59E-07	1.42E-06	1.28E-06
1.06E-07	2.24E-07	8.25E-08	7.25E-08	7.25E-08	5.58E-07	1.40E-06	1.27E-06

1.06E-07	2.24E-07	8.22E-08	7.22E-08	7.22E-08	5.56E-07	1.38E-06	1.25E-06
1.05E-07	2.21E-07	8.13E-08	7.14E-08	7.14E-08	5.50E-07	1.33E-06	1.20E-06
1.04E-07	2.2E-07	8.09E-08	7.1E-08	7.1E-08	5.47E-07	1.31E-06	1.18E-06
1.04E-07	2.19E-07	8.05E-08	7.07E-08	7.07E-08	5.45E-07	1.28E-06	1.16E-06
1.04E-07	2.18E-07	8.03E-08	7.05E-08	7.05E-08	5.43E-07	1.26E-06	1.14E-06
1.03E-07	2.18E-07	8E-08	7.03E-08	7.03E-08	5.42E-07	1.23E-06	1.11E-06
1.04E-07	2.18E-07	8.01E-08	7.03E-08	7.03E-08	5.42E-07	1.21E-06	1.09E-06
1.04E-07	2.18E-07	8.02E-08	7.05E-08	7.05E-08	5.43E-07	1.18E-06	1.07E-06
1.04E-07	2.19E-07	8.06E-08	7.08E-08	7.08E-08	5.46E-07	1.16E-06	1.04E-06
1.05E-07	2.2E-07	8.09E-08	7.11E-08	7.11E-08	5.48E-07	1.13E-06	1.02E-06
9.12E-08	1.92E-07	7.05E-08	6.19E-08	6.19E-08	4.77E-07	1.27E-06	1.15E-06
9.15E-08	1.92E-07	7.06E-08	6.2E-08	6.2E-08	4.78E-07	1.28E-06	1.16E-06
9.06E-08	1.9E-07	6.97E-08	6.13E-08	6.13E-08	4.73E-07	1.30E-06	1.17E-06
9E-08	1.88E-07	6.93E-08	6.09E-08	6.09E-08	4.69E-07	1.29E-06	1.17E-06
8.92E-08	1.87E-07	6.87E-08	6.04E-08	6.04E-08	4.66E-07	1.28E-06	1.15E-06
8.84E-08	1.85E-07	6.81E-08	5.98E-08	5.98E-08	4.61E-07	1.26E-06	1.13E-06
8.74E-08	1.83E-07	6.73E-08	5.92E-08	5.92E-08	4.56E-07	1.23E-06	1.11E-06
8.62E-08	1.81E-07	6.65E-08	5.84E-08	5.84E-08	4.50E-07	1.20E-06	1.08E-06
8.49E-08	1.78E-07	6.55E-08	5.76E-08	5.76E-08	4.44E-07	1.16E-06	1.04E-06
8.39E-08	1.77E-07	6.5E-08	5.71E-08	5.71E-08	4.40E-07	1.07E-06	9.59E-07
8.48E-08	1.79E-07	6.57E-08	5.77E-08	5.77E-08	4.44E-07	1.06E-06	9.53E-07
8.54E-08	1.8E-07	6.62E-08	5.82E-08	5.82E-08	4.48E-07	1.05E-06	9.43E-07
8.57E-08	1.81E-07	6.66E-08	5.85E-08	5.85E-08	4.51E-07	1.04E-06	9.31E-07
8.58E-08	1.82E-07	6.68E-08	5.87E-08	5.87E-08	4.52E-07	1.02E-06	9.16E-07
9.11E-08	1.91E-07	7.03E-08	6.18E-08	6.18E-08	4.76E-07	1.26E-06	1.13E-06
9.27E-08	1.95E-07	7.16E-08	6.29E-08	6.29E-08	4.85E-07	1.27E-06	1.15E-06
9.43E-08	1.98E-07	7.28E-08	6.4E-08	6.4E-08	4.93E-07	1.28E-06	1.16E-06
9.59E-08	2.01E-07	7.41E-08	6.51E-08	6.51E-08	5.02E-07	1.29E-06	1.17E-06
9.75E-08	2.05E-07	7.53E-08	6.61E-08	6.61E-08	5.10E-07	1.30E-06	1.18E-06
9.88E-08	2.07E-07	7.63E-08	6.7E-08	6.7E-08	5.17E-07	1.31E-06	1.18E-06
9.98E-08	2.1E-07	7.71E-08	6.77E-08	6.77E-08	5.22E-07	1.31E-06	1.18E-06
1.01E-07	2.11E-07	7.77E-08	6.83E-08	6.83E-08	5.26E-07	1.31E-06	1.19E-06
1.01E-07	2.13E-07	7.82E-08	6.87E-08	6.87E-08	5.29E-07	1.32E-06	1.19E-06
1.01E-07	2.13E-07	7.84E-08	6.89E-08	6.89E-08	5.31E-07	1.32E-06	1.19E-06
1.01E-07	2.13E-07	7.84E-08	6.89E-08	6.89E-08	5.31E-07	1.32E-06	1.19E-06
1.01E-07	2.13E-07	7.85E-08	6.89E-08	6.89E-08	5.31E-07	1.33E-06	1.20E-06
1.01E-07	2.13E-07	7.85E-08	6.89E-08	6.89E-08	5.31E-07	1.33E-06	1.20E-06
1.01E-07	2.13E-07	7.84E-08	6.88E-08	6.88E-08	5.30E-07	1.33E-06	1.20E-06
1.01E-07	2.13E-07	7.83E-08	6.88E-08	6.88E-08	5.30E-07	1.33E-06	1.20E-06
1.01E-07	2.13E-07	7.82E-08	6.87E-08	6.87E-08	5.29E-07	1.32E-06	1.19E-06
1.01E-07	2.12E-07	7.8E-08	6.86E-08	6.86E-08	5.28E-07	1.31E-06	1.18E-06
1E-07	2.11E-07	7.76E-08	6.82E-08	6.82E-08	5.25E-07	1.29E-06	1.17E-06
9.91E-08	2.09E-07	7.69E-08	6.75E-08	6.75E-08	5.20E-07	1.25E-06	1.13E-06
9.86E-08	2.08E-07	7.65E-08	6.72E-08	6.72E-08	5.17E-07	1.23E-06	1.11E-06
9.81E-08	2.07E-07	7.6E-08	6.68E-08	6.68E-08	5.15E-07	1.21E-06	1.09E-06
9.78E-08	2.06E-07	7.58E-08	6.66E-08	6.66E-08	5.13E-07	1.19E-06	1.07E-06
9.77E-08	2.06E-07	7.57E-08	6.65E-08	6.65E-08	5.12E-07	1.16E-06	1.05E-06

9.78E-08	2.06E-07	7.57E-08	6.65E-08	6.65E-08	5.12E-07	1.14E-06	1.03E-06
9.79E-08	2.06E-07	7.57E-08	6.65E-08	6.65E-08	5.12E-07	1.12E-06	1.01E-06
9.83E-08	2.07E-07	7.6E-08	6.67E-08	6.67E-08	5.14E-07	1.10E-06	9.88E-07
9.89E-08	2.08E-07	7.64E-08	6.71E-08	6.71E-08	5.17E-07	1.08E-06	9.68E-07
8.76E-08	1.84E-07	6.77E-08	5.95E-08	5.95E-08	4.58E-07	1.20E-06	1.08E-06
8.78E-08	1.84E-07	6.78E-08	5.96E-08	5.96E-08	4.59E-07	1.21E-06	1.09E-06
8.75E-08	1.83E-07	6.74E-08	5.92E-08	5.92E-08	4.57E-07	1.23E-06	1.11E-06
8.7E-08	1.82E-07	6.71E-08	5.89E-08	5.89E-08	4.54E-07	1.23E-06	1.11E-06
8.64E-08	1.81E-07	6.66E-08	5.85E-08	5.85E-08	4.51E-07	1.22E-06	1.10E-06
8.57E-08	1.8E-07	6.6E-08	5.8E-08	5.8E-08	4.47E-07	1.20E-06	1.08E-06
8.48E-08	1.78E-07	6.54E-08	5.75E-08	5.75E-08	4.43E-07	1.18E-06	1.07E-06
8.38E-08	1.76E-07	6.47E-08	5.68E-08	5.68E-08	4.38E-07	1.16E-06	1.04E-06
8.27E-08	1.74E-07	6.38E-08	5.61E-08	5.61E-08	4.32E-07	1.13E-06	1.01E-06
8.14E-08	1.71E-07	6.29E-08	5.52E-08	5.52E-08	4.26E-07	1.09E-06	9.81E-07
8E-08	1.68E-07	6.18E-08	5.43E-08	5.43E-08	4.19E-07	1.05E-06	9.43E-07
8.03E-08	1.69E-07	6.23E-08	5.47E-08	5.47E-08	4.21E-07	1.00E-06	9.02E-07
8.1E-08	1.71E-07	6.29E-08	5.52E-08	5.52E-08	4.25E-07	9.96E-07	8.96E-07
8.15E-08	1.72E-07	6.33E-08	5.56E-08	5.56E-08	4.28E-07	9.87E-07	8.88E-07
8.18E-08	1.73E-07	6.37E-08	5.59E-08	5.59E-08	4.30E-07	9.76E-07	8.77E-07
8.19E-08	1.74E-07	6.38E-08	5.61E-08	5.61E-08	4.31E-07	9.61E-07	8.63E-07
8.17E-08	1.74E-07	6.38E-08	5.61E-08	5.61E-08	4.31E-07	9.45E-07	8.48E-07
8.73E-08	1.84E-07	6.75E-08	5.93E-08	5.93E-08	4.57E-07	1.18E-06	1.07E-06
8.89E-08	1.87E-07	6.87E-08	6.03E-08	6.03E-08	4.65E-07	1.20E-06	1.08E-06
9.04E-08	1.9E-07	6.98E-08	6.13E-08	6.13E-08	4.73E-07	1.21E-06	1.09E-06
9.18E-08	1.93E-07	7.09E-08	6.23E-08	6.23E-08	4.80E-07	1.22E-06	1.10E-06
9.3E-08	1.95E-07	7.19E-08	6.32E-08	6.32E-08	4.87E-07	1.22E-06	1.10E-06
9.42E-08	1.98E-07	7.28E-08	6.39E-08	6.39E-08	4.93E-07	1.22E-06	1.11E-06
9.51E-08	2E-07	7.35E-08	6.46E-08	6.46E-08	4.98E-07	1.23E-06	1.11E-06
9.57E-08	2.01E-07	7.4E-08	6.5E-08	6.5E-08	5.01E-07	1.23E-06	1.11E-06
9.6E-08	2.02E-07	7.43E-08	6.53E-08	6.53E-08	5.03E-07	1.23E-06	1.11E-06
9.62E-08	2.02E-07	7.45E-08	6.54E-08	6.54E-08	5.04E-07	1.23E-06	1.11E-06
9.62E-08	2.03E-07	7.45E-08	6.55E-08	6.55E-08	5.04E-07	1.24E-06	1.12E-06
9.6E-08	2.02E-07	7.44E-08	6.54E-08	6.54E-08	5.04E-07	1.24E-06	1.12E-06
9.59E-08	2.02E-07	7.44E-08	6.54E-08	6.54E-08	5.03E-07	1.24E-06	1.12E-06
9.58E-08	2.02E-07	7.44E-08	6.53E-08	6.53E-08	5.03E-07	1.24E-06	1.12E-06
9.57E-08	2.02E-07	7.43E-08	6.53E-08	6.53E-08	5.03E-07	1.24E-06	1.12E-06
9.54E-08	2.01E-07	7.41E-08	6.51E-08	6.51E-08	5.01E-07	1.23E-06	1.11E-06
9.52E-08	2.01E-07	7.39E-08	6.49E-08	6.49E-08	5.00E-07	1.22E-06	1.11E-06
9.37E-08	1.98E-07	7.27E-08	6.39E-08	6.39E-08	4.92E-07	1.18E-06	1.06E-06
9.33E-08	1.97E-07	7.24E-08	6.36E-08	6.36E-08	4.90E-07	1.16E-06	1.05E-06
9.29E-08	1.96E-07	7.21E-08	6.33E-08	6.33E-08	4.88E-07	1.14E-06	1.03E-06
9.27E-08	1.95E-07	7.19E-08	6.31E-08	6.31E-08	4.86E-07	1.12E-06	1.01E-06
9.24E-08	1.95E-07	7.16E-08	6.29E-08	6.29E-08	4.85E-07	1.10E-06	9.92E-07
9.24E-08	1.95E-07	7.16E-08	6.29E-08	6.29E-08	4.84E-07	1.08E-06	9.74E-07
9.26E-08	1.95E-07	7.17E-08	6.3E-08	6.3E-08	4.85E-07	1.06E-06	9.57E-07
9.3E-08	1.96E-07	7.19E-08	6.32E-08	6.32E-08	4.87E-07	1.04E-06	9.39E-07
9.34E-08	1.96E-07	7.22E-08	6.34E-08	6.34E-08	4.89E-07	1.02E-06	9.20E-07

8.41E-08	1.77E-07	6.51E-08	5.72E-08	5.72E-08	4.40E-07	1.13E-06	1.02E-06
8.44E-08	1.77E-07	6.52E-08	5.73E-08	5.73E-08	4.42E-07	1.14E-06	1.03E-06
8.45E-08	1.77E-07	6.51E-08	5.72E-08	5.72E-08	4.41E-07	1.17E-06	1.05E-06
8.42E-08	1.76E-07	6.49E-08	5.7E-08	5.7E-08	4.39E-07	1.17E-06	1.05E-06
8.37E-08	1.75E-07	6.45E-08	5.67E-08	5.67E-08	4.37E-07	1.16E-06	1.05E-06
8.3E-08	1.74E-07	6.4E-08	5.63E-08	5.63E-08	4.34E-07	1.15E-06	1.04E-06
8.23E-08	1.73E-07	6.35E-08	5.58E-08	5.58E-08	4.30E-07	1.13E-06	1.02E-06
8.14E-08	1.71E-07	6.28E-08	5.52E-08	5.52E-08	4.25E-07	1.11E-06	1.00E-06
8.05E-08	1.69E-07	6.21E-08	5.46E-08	5.46E-08	4.21E-07	1.09E-06	9.82E-07
7.94E-08	1.67E-07	6.13E-08	5.39E-08	5.39E-08	4.15E-07	1.06E-06	9.55E-07
7.81E-08	1.64E-07	6.04E-08	5.3E-08	5.3E-08	4.09E-07	1.03E-06	9.24E-07
7.67E-08	1.61E-07	5.94E-08	5.22E-08	5.22E-08	4.02E-07	9.87E-07	8.89E-07
7.75E-08	1.64E-07	6.02E-08	5.29E-08	5.29E-08	4.07E-07	9.40E-07	8.45E-07
7.8E-08	1.65E-07	6.06E-08	5.33E-08	5.33E-08	4.10E-07	9.32E-07	8.38E-07
7.82E-08	1.66E-07	6.09E-08	5.35E-08	5.35E-08	4.12E-07	9.21E-07	8.28E-07
7.82E-08	1.66E-07	6.1E-08	5.36E-08	5.36E-08	4.12E-07	9.08E-07	8.16E-07
7.81E-08	1.66E-07	6.1E-08	5.36E-08	5.36E-08	4.12E-07	8.94E-07	8.02E-07
7.77E-08	1.65E-07	6.08E-08	5.34E-08	5.34E-08	4.11E-07	8.77E-07	7.87E-07
7.71E-08	1.64E-07	6.05E-08	5.31E-08	5.31E-08	4.08E-07	8.59E-07	7.71E-07
8.39E-08	1.76E-07	6.49E-08	5.7E-08	5.7E-08	4.39E-07	1.12E-06	1.01E-06
8.53E-08	1.79E-07	6.59E-08	5.79E-08	5.79E-08	4.46E-07	1.13E-06	1.02E-06
8.65E-08	1.82E-07	6.69E-08	5.88E-08	5.88E-08	4.53E-07	1.14E-06	1.02E-06
8.78E-08	1.85E-07	6.79E-08	5.97E-08	5.97E-08	4.60E-07	1.14E-06	1.03E-06
8.9E-08	1.87E-07	6.88E-08	6.04E-08	6.04E-08	4.66E-07	1.15E-06	1.03E-06
9E-08	1.89E-07	6.96E-08	6.11E-08	6.11E-08	4.71E-07	1.15E-06	1.04E-06
9.06E-08	1.91E-07	7.01E-08	6.16E-08	6.16E-08	4.74E-07	1.15E-06	1.04E-06
9.11E-08	1.92E-07	7.05E-08	6.19E-08	6.19E-08	4.77E-07	1.15E-06	1.04E-06
9.14E-08	1.92E-07	7.08E-08	6.22E-08	6.22E-08	4.79E-07	1.15E-06	1.04E-06
9.15E-08	1.93E-07	7.09E-08	6.23E-08	6.23E-08	4.80E-07	1.16E-06	1.04E-06
9.13E-08	1.93E-07	7.08E-08	6.22E-08	6.22E-08	4.79E-07	1.16E-06	1.04E-06
9.13E-08	1.93E-07	7.08E-08	6.22E-08	6.22E-08	4.79E-07	1.16E-06	1.04E-06
9.11E-08	1.92E-07	7.08E-08	6.22E-08	6.22E-08	4.79E-07	1.16E-06	1.04E-06
9.09E-08	1.92E-07	7.06E-08	6.2E-08	6.2E-08	4.78E-07	1.16E-06	1.04E-06
9.08E-08	1.92E-07	7.05E-08	6.19E-08	6.19E-08	4.77E-07	1.16E-06	1.04E-06
9.06E-08	1.91E-07	7.04E-08	6.18E-08	6.18E-08	4.76E-07	1.15E-06	1.04E-06
9.03E-08	1.91E-07	7.01E-08	6.16E-08	6.16E-08	4.74E-07	1.15E-06	1.04E-06
8.9E-08	1.88E-07	6.91E-08	6.07E-08	6.07E-08	4.67E-07	1.11E-06	1.00E-06
8.86E-08	1.87E-07	6.87E-08	6.04E-08	6.04E-08	4.65E-07	1.09E-06	9.87E-07
8.81E-08	1.86E-07	6.84E-08	6.01E-08	6.01E-08	4.62E-07	1.08E-06	9.71E-07
8.78E-08	1.85E-07	6.81E-08	5.99E-08	5.99E-08	4.61E-07	1.06E-06	9.55E-07
8.77E-08	1.85E-07	6.8E-08	5.97E-08	5.97E-08	4.60E-07	1.04E-06	9.40E-07
8.77E-08	1.85E-07	6.79E-08	5.97E-08	5.97E-08	4.60E-07	1.03E-06	9.24E-07
8.77E-08	1.85E-07	6.79E-08	5.97E-08	5.97E-08	4.60E-07	1.01E-06	9.07E-07
8.8E-08	1.85E-07	6.81E-08	5.98E-08	5.98E-08	4.61E-07	9.90E-07	8.92E-07
8.85E-08	1.86E-07	6.84E-08	6.01E-08	6.01E-08	4.63E-07	9.74E-07	8.76E-07
8.11E-08	1.71E-07	6.28E-08	5.52E-08	5.52E-08	4.25E-07	1.08E-06	9.75E-07
8.16E-08	1.71E-07	6.3E-08	5.53E-08	5.53E-08	4.26E-07	1.11E-06	1.00E-06

8.14E-08	1.71E-07	6.28E-08	5.52E-08	5.52E-08	4.25E-07	1.11E-06	1.00E-06
8.1E-08	1.7E-07	6.25E-08	5.49E-08	5.49E-08	4.23E-07	1.11E-06	9.97E-07
8.05E-08	1.69E-07	6.21E-08	5.45E-08	5.45E-08	4.20E-07	1.10E-06	9.90E-07
7.98E-08	1.68E-07	6.16E-08	5.41E-08	5.41E-08	4.17E-07	1.09E-06	9.80E-07
7.91E-08	1.66E-07	6.11E-08	5.37E-08	5.37E-08	4.14E-07	1.07E-06	9.66E-07
7.82E-08	1.64E-07	6.04E-08	5.31E-08	5.31E-08	4.09E-07	1.05E-06	9.48E-07
7.73E-08	1.62E-07	5.97E-08	5.25E-08	5.25E-08	4.04E-07	1.03E-06	9.26E-07
7.62E-08	1.6E-07	5.9E-08	5.18E-08	5.18E-08	3.99E-07	1.00E-06	9.01E-07
7.5E-08	1.58E-07	5.81E-08	5.1E-08	5.1E-08	3.93E-07	9.68E-07	8.72E-07
7.37E-08	1.55E-07	5.71E-08	5.01E-08	5.01E-08	3.86E-07	9.32E-07	8.39E-07
7.3E-08	1.54E-07	5.67E-08	4.98E-08	4.98E-08	3.83E-07	8.95E-07	8.05E-07
7.43E-08	1.57E-07	5.78E-08	5.07E-08	5.07E-08	3.91E-07	8.88E-07	7.99E-07
7.47E-08	1.58E-07	5.81E-08	5.11E-08	5.11E-08	3.93E-07	8.81E-07	7.92E-07
7.49E-08	1.59E-07	5.83E-08	5.13E-08	5.13E-08	3.94E-07	8.72E-07	7.83E-07
7.49E-08	1.59E-07	5.84E-08	5.13E-08	5.13E-08	3.95E-07	8.60E-07	7.73E-07
7.46E-08	1.59E-07	5.84E-08	5.13E-08	5.13E-08	3.94E-07	8.47E-07	7.60E-07
7.43E-08	1.58E-07	5.82E-08	5.11E-08	5.11E-08	3.93E-07	8.32E-07	7.46E-07
7.37E-08	1.57E-07	5.78E-08	5.08E-08	5.08E-08	3.91E-07	8.16E-07	7.32E-07
7.3E-08	1.56E-07	5.74E-08	5.04E-08	5.04E-08	3.87E-07	7.98E-07	7.16E-07
7.85E-08	1.65E-07	6.06E-08	5.33E-08	5.33E-08	4.11E-07	1.06E-06	9.52E-07
7.81E-08	1.64E-07	6.03E-08	5.3E-08	5.3E-08	4.09E-07	1.05E-06	9.48E-07
7.63E-08	1.6E-07	5.9E-08	5.18E-08	5.18E-08	3.99E-07	1.02E-06	9.18E-07
7.55E-08	1.59E-07	5.83E-08	5.12E-08	5.12E-08	3.95E-07	1.00E-06	9.01E-07
7.45E-08	1.57E-07	5.76E-08	5.06E-08	5.06E-08	3.90E-07	9.77E-07	8.80E-07
7.34E-08	1.55E-07	5.68E-08	4.99E-08	4.99E-08	3.85E-07	9.50E-07	8.55E-07
7.22E-08	1.52E-07	5.59E-08	4.91E-08	4.91E-08	3.78E-07	9.19E-07	8.27E-07
7.08E-08	1.49E-07	5.49E-08	4.83E-08	4.83E-08	3.72E-07	8.84E-07	7.96E-07
7.01E-08	1.48E-07	5.45E-08	4.79E-08	4.79E-08	3.69E-07	8.48E-07	7.62E-07
7.16E-08	1.52E-07	5.58E-08	4.9E-08	4.9E-08	3.77E-07	8.33E-07	7.48E-07
7.17E-08	1.52E-07	5.6E-08	4.92E-08	4.92E-08	3.78E-07	8.24E-07	7.40E-07
7.16E-08	1.52E-07	5.6E-08	4.92E-08	4.92E-08	3.78E-07	8.12E-07	7.29E-07
7.14E-08	1.52E-07	5.59E-08	4.91E-08	4.91E-08	3.77E-07	7.99E-07	7.17E-07
6.86E-08	1.47E-07	5.41E-08	4.75E-08	4.75E-08	3.65E-07	7.34E-07	6.58E-07
6.28E-08	1.35E-07	4.97E-08	4.37E-08	4.37E-08	3.35E-07	6.39E-07	5.72E-07
7.48E-08	1.58E-07	5.8E-08	5.09E-08	5.09E-08	3.92E-07	9.60E-07	8.66E-07
7.61E-08	1.6E-07	5.88E-08	5.17E-08	5.17E-08	3.98E-07	1.01E-06	9.07E-07
7.6E-08	1.6E-07	5.87E-08	5.16E-08	5.16E-08	3.98E-07	1.01E-06	9.08E-07
7.57E-08	1.59E-07	5.85E-08	5.14E-08	5.14E-08	3.96E-07	1.01E-06	9.06E-07
7.53E-08	1.58E-07	5.82E-08	5.11E-08	5.11E-08	3.94E-07	1.00E-06	9.02E-07
7.48E-08	1.57E-07	5.78E-08	5.08E-08	5.08E-08	3.91E-07	9.92E-07	8.94E-07
7.42E-08	1.56E-07	5.73E-08	5.04E-08	5.04E-08	3.88E-07	9.80E-07	8.83E-07
7.34E-08	1.54E-07	5.68E-08	4.99E-08	4.99E-08	3.84E-07	9.65E-07	8.70E-07
7.26E-08	1.53E-07	5.62E-08	4.93E-08	4.93E-08	3.80E-07	9.47E-07	8.53E-07
7.17E-08	1.51E-07	5.55E-08	4.88E-08	4.88E-08	3.76E-07	9.26E-07	8.34E-07
7.06E-08	1.49E-07	5.47E-08	4.81E-08	4.81E-08	3.70E-07	9.00E-07	8.10E-07
6.95E-08	1.46E-07	5.38E-08	4.73E-08	4.73E-08	3.64E-07	8.70E-07	7.83E-07
6.81E-08	1.44E-07	5.29E-08	4.65E-08	4.65E-08	3.58E-07	8.38E-07	7.54E-07

6.74E-08	1.43E-07	5.24E-08	4.6E-08	4.6E-08	3.54E-07	8.04E-07	7.23E-07
6.8E-08	1.44E-07	5.29E-08	4.65E-08	4.65E-08	3.58E-07	8.02E-07	7.21E-07
6.87E-08	1.46E-07	5.37E-08	4.72E-08	4.72E-08	3.63E-07	7.82E-07	7.02E-07
6.86E-08	1.46E-07	5.37E-08	4.72E-08	4.72E-08	3.63E-07	7.72E-07	6.93E-07
6.84E-08	1.46E-07	5.36E-08	4.71E-08	4.71E-08	3.62E-07	7.60E-07	6.82E-07
6.79E-08	1.45E-07	5.33E-08	4.68E-08	4.68E-08	3.60E-07	7.47E-07	6.70E-07
6.74E-08	1.44E-07	5.29E-08	4.65E-08	4.65E-08	3.57E-07	7.32E-07	6.57E-07
6.66E-08	1.43E-07	5.25E-08	4.61E-08	4.61E-08	3.54E-07	7.17E-07	6.42E-07
6.58E-08	1.41E-07	5.19E-08	4.56E-08	4.56E-08	3.50E-07	7.01E-07	6.28E-07
6.48E-08	1.39E-07	5.12E-08	4.49E-08	4.49E-08	3.45E-07	6.84E-07	6.13E-07
7.44E-08	1.57E-07	5.77E-08	5.07E-08	5.07E-08	3.90E-07	9.45E-07	8.52E-07
7.55E-08	1.59E-07	5.85E-08	5.14E-08	5.14E-08	3.96E-07	9.52E-07	8.59E-07
7.65E-08	1.61E-07	5.92E-08	5.2E-08	5.2E-08	4.01E-07	9.57E-07	8.63E-07
7.73E-08	1.63E-07	5.99E-08	5.26E-08	5.26E-08	4.06E-07	9.61E-07	8.66E-07
7.8E-08	1.64E-07	6.05E-08	5.31E-08	5.31E-08	4.09E-07	9.62E-07	8.67E-07
7.86E-08	1.66E-07	6.09E-08	5.35E-08	5.35E-08	4.12E-07	9.63E-07	8.68E-07
7.9E-08	1.67E-07	6.13E-08	5.38E-08	5.38E-08	4.15E-07	9.64E-07	8.69E-07
7.93E-08	1.67E-07	6.15E-08	5.4E-08	5.4E-08	4.16E-07	9.65E-07	8.70E-07
7.93E-08	1.67E-07	6.15E-08	5.4E-08	5.4E-08	4.16E-07	9.64E-07	8.69E-07
7.93E-08	1.67E-07	6.15E-08	5.41E-08	5.41E-08	4.16E-07	9.63E-07	8.68E-07
7.92E-08	1.67E-07	6.15E-08	5.4E-08	5.4E-08	4.16E-07	9.62E-07	8.68E-07
7.89E-08	1.67E-07	6.13E-08	5.39E-08	5.39E-08	4.15E-07	9.60E-07	8.66E-07
7.88E-08	1.67E-07	6.12E-08	5.38E-08	5.38E-08	4.14E-07	9.60E-07	8.65E-07
7.86E-08	1.66E-07	6.11E-08	5.37E-08	5.37E-08	4.13E-07	9.60E-07	8.65E-07
7.84E-08	1.66E-07	6.1E-08	5.36E-08	5.36E-08	4.12E-07	9.60E-07	8.66E-07
7.81E-08	1.65E-07	6.07E-08	5.33E-08	5.33E-08	4.11E-07	9.59E-07	8.64E-07
7.78E-08	1.65E-07	6.05E-08	5.32E-08	5.32E-08	4.09E-07	9.57E-07	8.63E-07
7.67E-08	1.62E-07	5.96E-08	5.24E-08	5.24E-08	4.03E-07	9.38E-07	8.45E-07
7.63E-08	1.61E-07	5.93E-08	5.21E-08	5.21E-08	4.01E-07	9.28E-07	8.36E-07
7.6E-08	1.61E-07	5.91E-08	5.19E-08	5.19E-08	4.00E-07	9.17E-07	8.26E-07
7.58E-08	1.6E-07	5.89E-08	5.17E-08	5.17E-08	3.98E-07	9.05E-07	8.16E-07
7.55E-08	1.6E-07	5.87E-08	5.16E-08	5.16E-08	3.97E-07	8.93E-07	8.04E-07
7.55E-08	1.59E-07	5.86E-08	5.15E-08	5.15E-08	3.96E-07	8.81E-07	7.93E-07
7.55E-08	1.59E-07	5.86E-08	5.15E-08	5.15E-08	3.96E-07	8.69E-07	7.82E-07
7.56E-08	1.59E-07	5.86E-08	5.15E-08	5.15E-08	3.96E-07	8.56E-07	7.70E-07
7.59E-08	1.6E-07	5.88E-08	5.16E-08	5.16E-08	3.98E-07	8.44E-07	7.59E-07
7.2E-08	1.52E-07	5.58E-08	4.9E-08	4.9E-08	3.78E-07	9.11E-07	8.21E-07
7.23E-08	1.52E-07	5.61E-08	4.93E-08	4.93E-08	3.79E-07	9.22E-07	8.32E-07
7.35E-08	1.54E-07	5.68E-08	4.99E-08	4.99E-08	3.85E-07	9.60E-07	8.66E-07
7.33E-08	1.54E-07	5.67E-08	4.98E-08	4.98E-08	3.84E-07	9.60E-07	8.65E-07
7.3E-08	1.53E-07	5.64E-08	4.96E-08	4.96E-08	3.82E-07	9.57E-07	8.63E-07
7.26E-08	1.53E-07	5.61E-08	4.93E-08	4.93E-08	3.80E-07	9.51E-07	8.57E-07
7.21E-08	1.52E-07	5.57E-08	4.9E-08	4.9E-08	3.77E-07	9.43E-07	8.49E-07
7.15E-08	1.5E-07	5.53E-08	4.86E-08	4.86E-08	3.74E-07	9.31E-07	8.39E-07
7.07E-08	1.49E-07	5.47E-08	4.81E-08	4.81E-08	3.71E-07	9.16E-07	8.26E-07
6.99E-08	1.47E-07	5.41E-08	4.76E-08	4.76E-08	3.66E-07	8.99E-07	8.09E-07
6.9E-08	1.45E-07	5.35E-08	4.7E-08	4.7E-08	3.62E-07	8.78E-07	7.90E-07

6.8E-08	1.43E-07	5.27E-08	4.63E-08	4.63E-08	3.57E-07	8.53E-07	7.68E-07
6.68E-08	1.41E-07	5.19E-08	4.56E-08	4.56E-08	3.51E-07	8.26E-07	7.43E-07
6.56E-08	1.39E-07	5.09E-08	4.48E-08	4.48E-08	3.45E-07	7.96E-07	7.16E-07
6.48E-08	1.37E-07	5.04E-08	4.43E-08	4.43E-08	3.41E-07	7.65E-07	6.87E-07
6.53E-08	1.38E-07	5.09E-08	4.47E-08	4.47E-08	3.44E-07	7.62E-07	6.85E-07
6.57E-08	1.39E-07	5.12E-08	4.5E-08	4.5E-08	3.46E-07	7.58E-07	6.81E-07
6.6E-08	1.4E-07	5.16E-08	4.53E-08	4.53E-08	3.48E-07	7.44E-07	6.68E-07
6.58E-08	1.4E-07	5.15E-08	4.53E-08	4.53E-08	3.48E-07	7.35E-07	6.59E-07
6.56E-08	1.4E-07	5.14E-08	4.52E-08	4.52E-08	3.47E-07	7.24E-07	6.50E-07
6.52E-08	1.39E-07	5.12E-08	4.5E-08	4.5E-08	3.45E-07	7.12E-07	6.38E-07
6.46E-08	1.38E-07	5.08E-08	4.46E-08	4.46E-08	3.43E-07	6.98E-07	6.26E-07
6.39E-08	1.37E-07	5.03E-08	4.42E-08	4.42E-08	3.40E-07	6.84E-07	6.13E-07
6.31E-08	1.35E-07	4.98E-08	4.37E-08	4.37E-08	3.36E-07	6.70E-07	6.00E-07
6.23E-08	1.34E-07	4.92E-08	4.32E-08	4.32E-08	3.31E-07	6.55E-07	5.87E-07
6.13E-08	1.32E-07	4.84E-08	4.25E-08	4.25E-08	3.26E-07	6.39E-07	5.72E-07
7.16E-08	1.51E-07	5.56E-08	4.88E-08	4.88E-08	3.76E-07	8.98E-07	8.09E-07
7.26E-08	1.53E-07	5.63E-08	4.94E-08	4.94E-08	3.81E-07	9.04E-07	8.15E-07
7.34E-08	1.55E-07	5.69E-08	5E-08	5E-08	3.85E-07	9.07E-07	8.17E-07
7.42E-08	1.56E-07	5.75E-08	5.05E-08	5.05E-08	3.89E-07	9.10E-07	8.20E-07
7.49E-08	1.58E-07	5.8E-08	5.1E-08	5.1E-08	3.93E-07	9.11E-07	8.21E-07
7.54E-08	1.59E-07	5.84E-08	5.13E-08	5.13E-08	3.95E-07	9.13E-07	8.22E-07
7.56E-08	1.59E-07	5.87E-08	5.15E-08	5.15E-08	3.97E-07	9.12E-07	8.22E-07
7.58E-08	1.6E-07	5.88E-08	5.17E-08	5.17E-08	3.98E-07	9.12E-07	8.22E-07
7.58E-08	1.6E-07	5.89E-08	5.17E-08	5.17E-08	3.98E-07	9.12E-07	8.22E-07
7.57E-08	1.6E-07	5.88E-08	5.17E-08	5.17E-08	3.98E-07	9.10E-07	8.20E-07
7.56E-08	1.6E-07	5.88E-08	5.16E-08	5.16E-08	3.97E-07	9.09E-07	8.19E-07
7.54E-08	1.6E-07	5.87E-08	5.15E-08	5.15E-08	3.97E-07	9.08E-07	8.18E-07
7.53E-08	1.59E-07	5.86E-08	5.15E-08	5.15E-08	3.96E-07	9.07E-07	8.17E-07
7.5E-08	1.59E-07	5.84E-08	5.13E-08	5.13E-08	3.95E-07	9.06E-07	8.16E-07
7.48E-08	1.58E-07	5.82E-08	5.11E-08	5.11E-08	3.94E-07	9.06E-07	8.16E-07
7.46E-08	1.58E-07	5.8E-08	5.1E-08	5.1E-08	3.92E-07	9.06E-07	8.16E-07
7.43E-08	1.57E-07	5.78E-08	5.08E-08	5.08E-08	3.91E-07	9.05E-07	8.15E-07
7.32E-08	1.55E-07	5.7E-08	5E-08	5E-08	3.85E-07	8.90E-07	8.02E-07
7.29E-08	1.54E-07	5.67E-08	4.98E-08	4.98E-08	3.84E-07	8.81E-07	7.94E-07
7.26E-08	1.53E-07	5.64E-08	4.96E-08	4.96E-08	3.82E-07	8.71E-07	7.85E-07
7.23E-08	1.53E-07	5.62E-08	4.94E-08	4.94E-08	3.80E-07	8.61E-07	7.76E-07
7.22E-08	1.53E-07	5.61E-08	4.93E-08	4.93E-08	3.79E-07	8.51E-07	7.66E-07
7.21E-08	1.52E-07	5.6E-08	4.92E-08	4.92E-08	3.79E-07	8.40E-07	7.56E-07
7.2E-08	1.52E-07	5.59E-08	4.91E-08	4.91E-08	3.78E-07	8.28E-07	7.46E-07
7.21E-08	1.52E-07	5.6E-08	4.92E-08	4.92E-08	3.79E-07	8.18E-07	7.36E-07
7.24E-08	1.53E-07	5.61E-08	4.93E-08	4.93E-08	3.80E-07	8.07E-07	7.26E-07
6.93E-08	1.46E-07	5.38E-08	4.72E-08	4.72E-08	3.64E-07	8.66E-07	7.80E-07
6.96E-08	1.47E-07	5.4E-08	4.75E-08	4.75E-08	3.65E-07	8.77E-07	7.90E-07
6.99E-08	1.47E-07	5.42E-08	4.77E-08	4.77E-08	3.67E-07	8.86E-07	7.99E-07
7.05E-08	1.48E-07	5.45E-08	4.79E-08	4.79E-08	3.69E-07	9.13E-07	8.23E-07
7E-08	1.47E-07	5.42E-08	4.76E-08	4.76E-08	3.67E-07	9.07E-07	8.17E-07
6.95E-08	1.46E-07	5.38E-08	4.73E-08	4.73E-08	3.64E-07	8.98E-07	8.09E-07

6.89E-08	1.45E-07	5.33E-08	4.68E-08	4.68E-08	3.61E-07	8.85E-07	7.98E-07
6.82E-08	1.44E-07	5.28E-08	4.64E-08	4.64E-08	3.57E-07	8.71E-07	7.85E-07
6.74E-08	1.42E-07	5.22E-08	4.59E-08	4.59E-08	3.53E-07	8.54E-07	7.69E-07
6.65E-08	1.4E-07	5.15E-08	4.53E-08	4.53E-08	3.49E-07	8.34E-07	7.51E-07
6.55E-08	1.38E-07	5.08E-08	4.46E-08	4.46E-08	3.44E-07	8.11E-07	7.30E-07
6.44E-08	1.36E-07	5E-08	4.39E-08	4.39E-08	3.38E-07	7.85E-07	7.06E-07
6.32E-08	1.33E-07	4.91E-08	4.31E-08	4.31E-08	3.32E-07	7.57E-07	6.81E-07
6.24E-08	1.32E-07	4.86E-08	4.27E-08	4.27E-08	3.28E-07	7.28E-07	6.54E-07
6.28E-08	1.33E-07	4.9E-08	4.3E-08	4.3E-08	3.31E-07	7.26E-07	6.52E-07
6.32E-08	1.34E-07	4.93E-08	4.33E-08	4.33E-08	3.33E-07	7.22E-07	6.48E-07
6.32E-08	1.35E-07	4.95E-08	4.35E-08	4.35E-08	3.34E-07	7.00E-07	6.28E-07
6.3E-08	1.34E-07	4.94E-08	4.34E-08	4.34E-08	3.33E-07	6.90E-07	6.19E-07
6.26E-08	1.34E-07	4.92E-08	4.32E-08	4.32E-08	3.32E-07	6.79E-07	6.09E-07
6.2E-08	1.33E-07	4.88E-08	4.29E-08	4.29E-08	3.29E-07	6.67E-07	5.98E-07
6.14E-08	1.32E-07	4.84E-08	4.25E-08	4.25E-08	3.26E-07	6.54E-07	5.86E-07
6.07E-08	1.3E-07	4.78E-08	4.2E-08	4.2E-08	3.23E-07	6.41E-07	5.74E-07
5.98E-08	1.28E-07	4.73E-08	4.15E-08	4.15E-08	3.19E-07	6.27E-07	5.61E-07
5.89E-08	1.27E-07	4.66E-08	4.09E-08	4.09E-08	3.14E-07	6.13E-07	5.49E-07
6.89E-08	1.45E-07	5.35E-08	4.7E-08	4.7E-08	3.62E-07	8.53E-07	7.69E-07
6.98E-08	1.47E-07	5.42E-08	4.76E-08	4.76E-08	3.66E-07	8.58E-07	7.73E-07
7.06E-08	1.49E-07	5.48E-08	4.81E-08	4.81E-08	3.70E-07	8.61E-07	7.76E-07
7.13E-08	1.5E-07	5.53E-08	4.86E-08	4.86E-08	3.74E-07	8.64E-07	7.78E-07
7.18E-08	1.51E-07	5.57E-08	4.89E-08	4.89E-08	3.77E-07	8.64E-07	7.78E-07
7.22E-08	1.52E-07	5.6E-08	4.92E-08	4.92E-08	3.79E-07	8.65E-07	7.79E-07
7.25E-08	1.53E-07	5.63E-08	4.94E-08	4.94E-08	3.81E-07	8.65E-07	7.79E-07
7.26E-08	1.53E-07	5.64E-08	4.95E-08	4.95E-08	3.81E-07	8.65E-07	7.79E-07
7.26E-08	1.53E-07	5.64E-08	4.95E-08	4.95E-08	3.81E-07	8.64E-07	7.78E-07
7.25E-08	1.53E-07	5.64E-08	4.95E-08	4.95E-08	3.81E-07	8.63E-07	7.77E-07
7.24E-08	1.53E-07	5.63E-08	4.95E-08	4.95E-08	3.81E-07	8.61E-07	7.76E-07
7.21E-08	1.53E-07	5.61E-08	4.93E-08	4.93E-08	3.80E-07	8.59E-07	7.73E-07
7.2E-08	1.52E-07	5.6E-08	4.92E-08	4.92E-08	3.79E-07	8.58E-07	7.72E-07
7.18E-08	1.52E-07	5.59E-08	4.91E-08	4.91E-08	3.78E-07	8.57E-07	7.72E-07
7.16E-08	1.51E-07	5.57E-08	4.89E-08	4.89E-08	3.77E-07	8.57E-07	7.72E-07
7.13E-08	1.51E-07	5.55E-08	4.87E-08	4.87E-08	3.75E-07	8.56E-07	7.71E-07
7.1E-08	1.5E-07	5.52E-08	4.85E-08	4.85E-08	3.74E-07	8.55E-07	7.71E-07
7E-08	1.48E-07	5.45E-08	4.78E-08	4.78E-08	3.68E-07	8.44E-07	7.60E-07
6.97E-08	1.47E-07	5.42E-08	4.76E-08	4.76E-08	3.67E-07	8.37E-07	7.54E-07
6.94E-08	1.47E-07	5.4E-08	4.75E-08	4.75E-08	3.65E-07	8.29E-07	7.47E-07
6.92E-08	1.46E-07	5.38E-08	4.73E-08	4.73E-08	3.64E-07	8.20E-07	7.39E-07
6.89E-08	1.46E-07	5.36E-08	4.71E-08	4.71E-08	3.63E-07	8.10E-07	7.30E-07
6.88E-08	1.46E-07	5.35E-08	4.7E-08	4.7E-08	3.62E-07	8.01E-07	7.21E-07
6.88E-08	1.45E-07	5.35E-08	4.7E-08	4.7E-08	3.62E-07	7.91E-07	7.12E-07
6.88E-08	1.45E-07	5.35E-08	4.7E-08	4.7E-08	3.62E-07	7.81E-07	7.03E-07
6.91E-08	1.46E-07	5.36E-08	4.71E-08	4.71E-08	3.62E-07	7.71E-07	6.94E-07
6.68E-08	1.41E-07	5.19E-08	4.56E-08	4.56E-08	3.51E-07	8.25E-07	7.43E-07
6.72E-08	1.42E-07	5.21E-08	4.58E-08	4.58E-08	3.53E-07	8.35E-07	7.53E-07
6.74E-08	1.42E-07	5.23E-08	4.6E-08	4.6E-08	3.54E-07	8.44E-07	7.60E-07

6.87E-08	1.45E-07	5.32E-08	4.67E-08	4.67E-08	3.60E-07	8.73E-07	7.87E-07
6.76E-08	1.42E-07	5.23E-08	4.6E-08	4.6E-08	3.54E-07	8.65E-07	7.79E-07
6.71E-08	1.41E-07	5.2E-08	4.56E-08	4.56E-08	3.52E-07	8.55E-07	7.70E-07
6.65E-08	1.4E-07	5.15E-08	4.52E-08	4.52E-08	3.48E-07	8.44E-07	7.60E-07
6.57E-08	1.39E-07	5.1E-08	4.48E-08	4.48E-08	3.45E-07	8.29E-07	7.47E-07
6.49E-08	1.37E-07	5.04E-08	4.43E-08	4.43E-08	3.41E-07	8.13E-07	7.32E-07
6.41E-08	1.35E-07	4.97E-08	4.37E-08	4.37E-08	3.36E-07	7.94E-07	7.14E-07
6.31E-08	1.33E-07	4.9E-08	4.31E-08	4.31E-08	3.32E-07	7.72E-07	6.94E-07
6.21E-08	1.31E-07	4.82E-08	4.24E-08	4.24E-08	3.26E-07	7.48E-07	6.72E-07
6.09E-08	1.29E-07	4.74E-08	4.16E-08	4.16E-08	3.20E-07	7.22E-07	6.49E-07
6.01E-08	1.27E-07	4.68E-08	4.11E-08	4.11E-08	3.17E-07	6.94E-07	6.23E-07
6.05E-08	1.28E-07	4.72E-08	4.15E-08	4.15E-08	3.19E-07	6.92E-07	6.21E-07
6.08E-08	1.29E-07	4.74E-08	4.17E-08	4.17E-08	3.21E-07	6.88E-07	6.18E-07
6.09E-08	1.29E-07	4.76E-08	4.18E-08	4.18E-08	3.22E-07	6.83E-07	6.13E-07
6.08E-08	1.3E-07	4.76E-08	4.19E-08	4.19E-08	3.22E-07	6.69E-07	6.00E-07
6.05E-08	1.29E-07	4.75E-08	4.17E-08	4.17E-08	3.21E-07	6.60E-07	5.92E-07
6.01E-08	1.29E-07	4.73E-08	4.15E-08	4.15E-08	3.19E-07	6.49E-07	5.82E-07
5.96E-08	1.28E-07	4.69E-08	4.12E-08	4.12E-08	3.17E-07	6.38E-07	5.72E-07
5.19E-08	1.12E-07	4.12E-08	3.62E-08	3.62E-08	2.77E-07	5.17E-07	4.63E-07
5.09E-08	1.1E-07	4.04E-08	3.55E-08	3.55E-08	2.72E-07	5.05E-07	4.52E-07
6.64E-08	1.4E-07	5.16E-08	4.53E-08	4.53E-08	3.49E-07	8.12E-07	7.32E-07
6.72E-08	1.42E-07	5.22E-08	4.58E-08	4.58E-08	3.53E-07	8.17E-07	7.36E-07
6.79E-08	1.43E-07	5.27E-08	4.63E-08	4.63E-08	3.56E-07	8.19E-07	7.37E-07
6.85E-08	1.45E-07	5.32E-08	4.67E-08	4.67E-08	3.60E-07	8.20E-07	7.39E-07
6.9E-08	1.46E-07	5.35E-08	4.7E-08	4.7E-08	3.62E-07	8.21E-07	7.40E-07
6.93E-08	1.46E-07	5.38E-08	4.73E-08	4.73E-08	3.64E-07	8.22E-07	7.40E-07
6.95E-08	1.47E-07	5.4E-08	4.74E-08	4.74E-08	3.65E-07	8.21E-07	7.39E-07
6.96E-08	1.47E-07	5.41E-08	4.75E-08	4.75E-08	3.66E-07	8.21E-07	7.39E-07
6.96E-08	1.47E-07	5.41E-08	4.75E-08	4.75E-08	3.66E-07	8.20E-07	7.39E-07
6.94E-08	1.47E-07	5.4E-08	4.74E-08	4.74E-08	3.65E-07	8.18E-07	7.37E-07
6.93E-08	1.47E-07	5.39E-08	4.74E-08	4.74E-08	3.65E-07	8.16E-07	7.35E-07
6.91E-08	1.46E-07	5.38E-08	4.73E-08	4.73E-08	3.64E-07	8.15E-07	7.34E-07
6.9E-08	1.46E-07	5.37E-08	4.72E-08	4.72E-08	3.63E-07	8.13E-07	7.32E-07
6.87E-08	1.45E-07	5.35E-08	4.7E-08	4.7E-08	3.62E-07	8.12E-07	7.31E-07
6.85E-08	1.45E-07	5.33E-08	4.68E-08	4.68E-08	3.60E-07	8.11E-07	7.31E-07
6.82E-08	1.44E-07	5.31E-08	4.67E-08	4.67E-08	3.59E-07	8.11E-07	7.31E-07
6.8E-08	1.44E-07	5.29E-08	4.65E-08	4.65E-08	3.58E-07	8.11E-07	7.30E-07
6.7E-08	1.42E-07	5.22E-08	4.58E-08	4.58E-08	3.53E-07	8.02E-07	7.23E-07
6.68E-08	1.41E-07	5.2E-08	4.56E-08	4.56E-08	3.51E-07	7.97E-07	7.18E-07
6.64E-08	1.41E-07	5.17E-08	4.54E-08	4.54E-08	3.50E-07	7.89E-07	7.11E-07
6.62E-08	1.4E-07	5.15E-08	4.53E-08	4.53E-08	3.48E-07	7.82E-07	7.04E-07
6.6E-08	1.4E-07	5.14E-08	4.51E-08	4.51E-08	3.47E-07	7.74E-07	6.97E-07
6.59E-08	1.39E-07	5.13E-08	4.51E-08	4.51E-08	3.47E-07	7.65E-07	6.89E-07
6.58E-08	1.39E-07	5.12E-08	4.5E-08	4.5E-08	3.46E-07	7.56E-07	6.81E-07
6.59E-08	1.39E-07	5.12E-08	4.5E-08	4.5E-08	3.46E-07	7.47E-07	6.73E-07
6.61E-08	1.39E-07	5.13E-08	4.51E-08	4.51E-08	3.47E-07	7.39E-07	6.65E-07
6.44E-08	1.36E-07	5E-08	4.39E-08	4.39E-08	3.38E-07	7.86E-07	7.08E-07

6.47E-08	1.37E-07	5.03E-08	4.42E-08	4.42E-08	3.40E-07	7.96E-07	7.17E-07
6.51E-08	1.37E-07	5.05E-08	4.44E-08	4.44E-08	3.42E-07	8.05E-07	7.26E-07
6.64E-08	1.4E-07	5.14E-08	4.52E-08	4.52E-08	3.48E-07	8.34E-07	7.51E-07
6.64E-08	1.4E-07	5.15E-08	4.52E-08	4.52E-08	3.48E-07	8.37E-07	7.54E-07
6.65E-08	1.4E-07	5.15E-08	4.53E-08	4.53E-08	3.49E-07	8.40E-07	7.57E-07
6.47E-08	1.36E-07	5.02E-08	4.41E-08	4.41E-08	3.40E-07	8.16E-07	7.35E-07
6.41E-08	1.35E-07	4.97E-08	4.37E-08	4.37E-08	3.36E-07	8.05E-07	7.24E-07
6.34E-08	1.34E-07	4.92E-08	4.32E-08	4.32E-08	3.33E-07	7.91E-07	7.12E-07
6.27E-08	1.32E-07	4.86E-08	4.27E-08	4.27E-08	3.29E-07	7.75E-07	6.97E-07
6.18E-08	1.31E-07	4.8E-08	4.22E-08	4.22E-08	3.25E-07	7.56E-07	6.80E-07
6.09E-08	1.29E-07	4.73E-08	4.16E-08	4.16E-08	3.20E-07	7.36E-07	6.62E-07
5.99E-08	1.27E-07	4.65E-08	4.09E-08	4.09E-08	3.15E-07	7.13E-07	6.41E-07
5.87E-08	1.24E-07	4.57E-08	4.01E-08	4.01E-08	3.09E-07	6.88E-07	6.19E-07
5.79E-08	1.23E-07	4.52E-08	3.97E-08	3.97E-08	3.05E-07	6.63E-07	5.95E-07
5.83E-08	1.24E-07	4.55E-08	4E-08	4E-08	3.07E-07	6.61E-07	5.93E-07
5.85E-08	1.24E-07	4.57E-08	4.02E-08	4.02E-08	3.09E-07	6.57E-07	5.90E-07
5.86E-08	1.25E-07	4.59E-08	4.03E-08	4.03E-08	3.10E-07	6.52E-07	5.85E-07
5.86E-08	1.25E-07	4.59E-08	4.03E-08	4.03E-08	3.10E-07	6.46E-07	5.80E-07
5.46E-08	1.17E-07	4.32E-08	3.79E-08	3.79E-08	2.91E-07	5.64E-07	5.05E-07
5.38E-08	1.16E-07	4.26E-08	3.74E-08	3.74E-08	2.87E-07	5.52E-07	4.94E-07
5.29E-08	1.14E-07	4.19E-08	3.68E-08	3.68E-08	2.82E-07	5.39E-07	4.82E-07
5.01E-08	1.08E-07	3.98E-08	3.49E-08	3.49E-08	2.68E-07	4.99E-07	4.46E-07
4.91E-08	1.06E-07	3.9E-08	3.43E-08	3.43E-08	2.63E-07	4.86E-07	4.35E-07
4.82E-08	1.04E-07	3.83E-08	3.36E-08	3.36E-08	2.58E-07	4.76E-07	4.25E-07
4.72E-08	1.02E-07	3.76E-08	3.3E-08	3.3E-08	2.53E-07	4.66E-07	4.17E-07
4.63E-08	1E-07	3.68E-08	3.24E-08	3.24E-08	2.48E-07	4.58E-07	4.10E-07
4.53E-08	9.81E-08	3.61E-08	3.17E-08	3.17E-08	2.43E-07	4.50E-07	4.03E-07
6.4E-08	1.35E-07	4.97E-08	4.37E-08	4.37E-08	3.36E-07	7.74E-07	6.97E-07
6.47E-08	1.37E-07	5.03E-08	4.42E-08	4.42E-08	3.40E-07	7.77E-07	7.00E-07
6.54E-08	1.38E-07	5.08E-08	4.46E-08	4.46E-08	3.43E-07	7.80E-07	7.02E-07
6.59E-08	1.39E-07	5.12E-08	4.5E-08	4.5E-08	3.46E-07	7.81E-07	7.03E-07
6.63E-08	1.4E-07	5.15E-08	4.52E-08	4.52E-08	3.48E-07	7.81E-07	7.03E-07
6.66E-08	1.41E-07	5.17E-08	4.54E-08	4.54E-08	3.50E-07	7.81E-07	7.03E-07
6.67E-08	1.41E-07	5.19E-08	4.56E-08	4.56E-08	3.51E-07	7.81E-07	7.03E-07
6.68E-08	1.41E-07	5.19E-08	4.56E-08	4.56E-08	3.51E-07	7.81E-07	7.03E-07
6.67E-08	1.41E-07	5.19E-08	4.56E-08	4.56E-08	3.51E-07	7.79E-07	7.01E-07
6.66E-08	1.41E-07	5.18E-08	4.56E-08	4.56E-08	3.51E-07	7.78E-07	7.00E-07
6.65E-08	1.41E-07	5.18E-08	4.55E-08	4.55E-08	3.50E-07	7.76E-07	6.99E-07
6.62E-08	1.4E-07	5.16E-08	4.53E-08	4.53E-08	3.49E-07	7.73E-07	6.96E-07
6.61E-08	1.4E-07	5.15E-08	4.52E-08	4.52E-08	3.48E-07	7.72E-07	6.95E-07
6.59E-08	1.4E-07	5.13E-08	4.51E-08	4.51E-08	3.47E-07	7.71E-07	6.94E-07
6.57E-08	1.39E-07	5.11E-08	4.49E-08	4.49E-08	3.46E-07	7.70E-07	6.94E-07
6.54E-08	1.38E-07	5.09E-08	4.47E-08	4.47E-08	3.44E-07	7.69E-07	6.93E-07
6.51E-08	1.38E-07	5.07E-08	4.45E-08	4.45E-08	3.43E-07	7.69E-07	6.93E-07
6.46E-08	1.37E-07	5.03E-08	4.42E-08	4.42E-08	3.40E-07	7.67E-07	6.91E-07
6.42E-08	1.36E-07	5E-08	4.39E-08	4.39E-08	3.38E-07	7.63E-07	6.87E-07
6.4E-08	1.35E-07	4.98E-08	4.38E-08	4.38E-08	3.37E-07	7.59E-07	6.83E-07

6.37E-08	1.35E-07	4.96E-08	4.36E-08	4.36E-08	3.35E-07	7.53E-07	6.78E-07
6.35E-08	1.34E-07	4.94E-08	4.34E-08	4.34E-08	3.34E-07	7.47E-07	6.72E-07
6.33E-08	1.34E-07	4.93E-08	4.33E-08	4.33E-08	3.33E-07	7.39E-07	6.65E-07
6.31E-08	1.34E-07	4.91E-08	4.32E-08	4.32E-08	3.32E-07	7.31E-07	6.58E-07
6.31E-08	1.33E-07	4.91E-08	4.31E-08	4.31E-08	3.32E-07	7.24E-07	6.51E-07
6.31E-08	1.33E-07	4.9E-08	4.31E-08	4.31E-08	3.32E-07	7.15E-07	6.44E-07
6.32E-08	1.34E-07	4.91E-08	4.31E-08	4.31E-08	3.32E-07	7.08E-07	6.37E-07
6.22E-08	1.31E-07	4.83E-08	4.24E-08	4.24E-08	3.27E-07	7.50E-07	6.76E-07
6.25E-08	1.32E-07	4.85E-08	4.26E-08	4.26E-08	3.28E-07	7.60E-07	6.84E-07
6.28E-08	1.33E-07	4.88E-08	4.28E-08	4.28E-08	3.30E-07	7.69E-07	6.92E-07
6.41E-08	1.35E-07	4.98E-08	4.37E-08	4.37E-08	3.37E-07	7.97E-07	7.18E-07
6.43E-08	1.36E-07	4.98E-08	4.38E-08	4.38E-08	3.37E-07	8.01E-07	7.21E-07
6.44E-08	1.36E-07	4.99E-08	4.39E-08	4.39E-08	3.38E-07	8.04E-07	7.24E-07
6.44E-08	1.36E-07	4.99E-08	4.39E-08	4.39E-08	3.38E-07	8.06E-07	7.26E-07
6.43E-08	1.36E-07	4.98E-08	4.38E-08	4.38E-08	3.37E-07	8.06E-07	7.26E-07
6.41E-08	1.35E-07	4.97E-08	4.37E-08	4.37E-08	3.36E-07	8.05E-07	7.25E-07
6.12E-08	1.29E-07	4.75E-08	4.18E-08	4.18E-08	3.22E-07	7.55E-07	6.79E-07
6.05E-08	1.28E-07	4.7E-08	4.13E-08	4.13E-08	3.18E-07	7.39E-07	6.65E-07
5.97E-08	1.26E-07	4.64E-08	4.07E-08	4.07E-08	3.14E-07	7.22E-07	6.49E-07
5.88E-08	1.24E-07	4.57E-08	4.02E-08	4.02E-08	3.09E-07	7.02E-07	6.31E-07
5.78E-08	1.22E-07	4.5E-08	3.95E-08	3.95E-08	3.04E-07	6.81E-07	6.12E-07
5.67E-08	1.2E-07	4.41E-08	3.88E-08	3.88E-08	2.98E-07	6.58E-07	5.91E-07
5.52E-08	1.18E-07	4.35E-08	3.82E-08	3.82E-08	2.93E-07	5.86E-07	5.25E-07
5.47E-08	1.17E-07	4.31E-08	3.79E-08	3.79E-08	2.91E-07	5.75E-07	5.15E-07
5.41E-08	1.16E-07	4.27E-08	3.75E-08	3.75E-08	2.88E-07	5.64E-07	5.05E-07
5.34E-08	1.15E-07	4.22E-08	3.71E-08	3.71E-08	2.84E-07	5.53E-07	4.95E-07
5.26E-08	1.13E-07	4.16E-08	3.66E-08	3.66E-08	2.81E-07	5.42E-07	4.85E-07
5.18E-08	1.12E-07	4.1E-08	3.61E-08	3.61E-08	2.77E-07	5.30E-07	4.75E-07
5.1E-08	1.1E-07	4.04E-08	3.55E-08	3.55E-08	2.72E-07	5.18E-07	4.64E-07
4.84E-08	1.04E-07	3.84E-08	3.38E-08	3.38E-08	2.59E-07	4.81E-07	4.31E-07
4.75E-08	1.03E-07	3.77E-08	3.31E-08	3.31E-08	2.54E-07	4.69E-07	4.20E-07
4.66E-08	1.01E-07	3.7E-08	3.25E-08	3.25E-08	2.49E-07	4.59E-07	4.10E-07
4.57E-08	9.88E-08	3.63E-08	3.19E-08	3.19E-08	2.45E-07	4.49E-07	4.02E-07
4.48E-08	9.69E-08	3.56E-08	3.13E-08	3.13E-08	2.40E-07	4.41E-07	3.94E-07
4.39E-08	9.5E-08	3.5E-08	3.07E-08	3.07E-08	2.35E-07	4.33E-07	3.88E-07
4.3E-08	9.31E-08	3.43E-08	3.01E-08	3.01E-08	2.31E-07	4.27E-07	3.81E-07
6.18E-08	1.31E-07	4.8E-08	4.22E-08	4.22E-08	3.25E-07	7.39E-07	6.65E-07
6.24E-08	1.32E-07	4.85E-08	4.26E-08	4.26E-08	3.28E-07	7.42E-07	6.68E-07
6.29E-08	1.33E-07	4.89E-08	4.3E-08	4.3E-08	3.31E-07	7.43E-07	6.69E-07
6.34E-08	1.34E-07	4.93E-08	4.33E-08	4.33E-08	3.33E-07	7.44E-07	6.70E-07
6.38E-08	1.35E-07	4.96E-08	4.35E-08	4.35E-08	3.35E-07	7.45E-07	6.70E-07
6.4E-08	1.35E-07	4.98E-08	4.37E-08	4.37E-08	3.37E-07	7.45E-07	6.70E-07
6.41E-08	1.36E-07	4.98E-08	4.38E-08	4.38E-08	3.37E-07	7.44E-07	6.69E-07
6.41E-08	1.36E-07	4.99E-08	4.38E-08	4.38E-08	3.37E-07	7.43E-07	6.69E-07
6.41E-08	1.36E-07	4.99E-08	4.38E-08	4.38E-08	3.37E-07	7.42E-07	6.68E-07
6.39E-08	1.35E-07	4.98E-08	4.37E-08	4.37E-08	3.37E-07	7.40E-07	6.66E-07
6.38E-08	1.35E-07	4.97E-08	4.37E-08	4.37E-08	3.36E-07	7.38E-07	6.64E-07

6.36E-08	1.35E-07	4.96E-08	4.35E-08	4.35E-08	3.35E-07	7.36E-07	6.63E-07
6.34E-08	1.34E-07	4.94E-08	4.34E-08	4.34E-08	3.34E-07	7.35E-07	6.61E-07
6.32E-08	1.34E-07	4.92E-08	4.33E-08	4.33E-08	3.33E-07	7.32E-07	6.59E-07
6.29E-08	1.33E-07	4.91E-08	4.31E-08	4.31E-08	3.32E-07	7.32E-07	6.59E-07
6.27E-08	1.33E-07	4.89E-08	4.29E-08	4.29E-08	3.30E-07	7.32E-07	6.59E-07
6.25E-08	1.32E-07	4.87E-08	4.28E-08	4.28E-08	3.29E-07	7.32E-07	6.59E-07
6.19E-08	1.31E-07	4.82E-08	4.24E-08	4.24E-08	3.26E-07	7.29E-07	6.57E-07
6.16E-08	1.31E-07	4.8E-08	4.22E-08	4.22E-08	3.25E-07	7.27E-07	6.55E-07
6.14E-08	1.3E-07	4.78E-08	4.2E-08	4.2E-08	3.23E-07	7.24E-07	6.52E-07
6.11E-08	1.29E-07	4.76E-08	4.18E-08	4.18E-08	3.22E-07	7.18E-07	6.47E-07
6.09E-08	1.29E-07	4.75E-08	4.17E-08	4.17E-08	3.21E-07	7.13E-07	6.42E-07
6.07E-08	1.29E-07	4.73E-08	4.16E-08	4.16E-08	3.20E-07	7.07E-07	6.36E-07
6.06E-08	1.28E-07	4.72E-08	4.14E-08	4.14E-08	3.19E-07	7.00E-07	6.30E-07
6.05E-08	1.28E-07	4.71E-08	4.14E-08	4.14E-08	3.18E-07	6.93E-07	6.23E-07
6.05E-08	1.28E-07	4.71E-08	4.13E-08	4.13E-08	3.18E-07	6.86E-07	6.17E-07
6.06E-08	1.28E-07	4.71E-08	4.14E-08	4.14E-08	3.19E-07	6.79E-07	6.11E-07
6E-08	1.27E-07	4.66E-08	4.1E-08	4.1E-08	3.15E-07	7.17E-07	6.45E-07
6.03E-08	1.28E-07	4.69E-08	4.12E-08	4.12E-08	3.17E-07	7.27E-07	6.54E-07
6.06E-08	1.28E-07	4.71E-08	4.14E-08	4.14E-08	3.19E-07	7.35E-07	6.61E-07
6.2E-08	1.31E-07	4.81E-08	4.23E-08	4.23E-08	3.26E-07	7.63E-07	6.87E-07
6.22E-08	1.31E-07	4.83E-08	4.24E-08	4.24E-08	3.26E-07	7.67E-07	6.90E-07
6.23E-08	1.32E-07	4.84E-08	4.25E-08	4.25E-08	3.27E-07	7.70E-07	6.94E-07
6.24E-08	1.32E-07	4.84E-08	4.25E-08	4.25E-08	3.27E-07	7.72E-07	6.96E-07
6.24E-08	1.32E-07	4.84E-08	4.25E-08	4.25E-08	3.27E-07	7.74E-07	6.97E-07
6.23E-08	1.31E-07	4.83E-08	4.24E-08	4.24E-08	3.27E-07	7.74E-07	6.97E-07
6.21E-08	1.31E-07	4.81E-08	4.23E-08	4.23E-08	3.26E-07	7.72E-07	6.95E-07
6.18E-08	1.3E-07	4.79E-08	4.21E-08	4.21E-08	3.24E-07	7.68E-07	6.91E-07
5.84E-08	1.24E-07	4.54E-08	3.99E-08	3.99E-08	3.07E-07	7.06E-07	6.35E-07
5.77E-08	1.22E-07	4.48E-08	3.94E-08	3.94E-08	3.03E-07	6.90E-07	6.20E-07
5.68E-08	1.2E-07	4.42E-08	3.88E-08	3.88E-08	2.99E-07	6.71E-07	6.03E-07
5.58E-08	1.18E-07	4.34E-08	3.82E-08	3.82E-08	2.94E-07	6.51E-07	5.85E-07
5.47E-08	1.16E-07	4.27E-08	3.75E-08	3.75E-08	2.88E-07	6.29E-07	5.65E-07
5.44E-08	1.16E-07	4.27E-08	3.75E-08	3.75E-08	2.88E-07	5.92E-07	5.31E-07
5.42E-08	1.16E-07	4.26E-08	3.74E-08	3.74E-08	2.87E-07	5.85E-07	5.25E-07
5.36E-08	1.15E-07	4.22E-08	3.71E-08	3.71E-08	2.85E-07	5.70E-07	5.11E-07
5.32E-08	1.14E-07	4.19E-08	3.68E-08	3.68E-08	2.83E-07	5.62E-07	5.03E-07
5.27E-08	1.13E-07	4.16E-08	3.65E-08	3.65E-08	2.80E-07	5.52E-07	4.95E-07
5.21E-08	1.12E-07	4.11E-08	3.61E-08	3.61E-08	2.77E-07	5.42E-07	4.86E-07
5.15E-08	1.11E-07	4.07E-08	3.57E-08	3.57E-08	2.74E-07	5.32E-07	4.76E-07
5.08E-08	1.09E-07	4.02E-08	3.53E-08	3.53E-08	2.71E-07	5.21E-07	4.67E-07
5E-08	1.08E-07	3.96E-08	3.48E-08	3.48E-08	2.67E-07	5.10E-07	4.57E-07
4.93E-08	1.06E-07	3.9E-08	3.43E-08	3.43E-08	2.63E-07	5.00E-07	4.47E-07
4.85E-08	1.04E-07	3.84E-08	3.37E-08	3.37E-08	2.59E-07	4.88E-07	4.37E-07
4.59E-08	9.92E-08	3.65E-08	3.21E-08	3.21E-08	2.46E-07	4.54E-07	4.06E-07
4.51E-08	9.75E-08	3.58E-08	3.15E-08	3.15E-08	2.41E-07	4.43E-07	3.96E-07
4.42E-08	9.57E-08	3.52E-08	3.09E-08	3.09E-08	2.37E-07	4.33E-07	3.87E-07
4.34E-08	9.38E-08	3.45E-08	3.03E-08	3.03E-08	2.32E-07	4.25E-07	3.80E-07

4.25E-08	9.21E-08	3.39E-08	2.97E-08	2.97E-08	2.28E-07	4.18E-07	3.73E-07
4.17E-08	9.03E-08	3.32E-08	2.92E-08	2.92E-08	2.23E-07	4.11E-07	3.67E-07
4.08E-08	8.85E-08	3.25E-08	2.86E-08	2.86E-08	2.19E-07	4.04E-07	3.62E-07
5.96E-08	1.26E-07	4.63E-08	4.07E-08	4.07E-08	3.13E-07	7.06E-07	6.35E-07
6.02E-08	1.27E-07	4.68E-08	4.11E-08	4.11E-08	3.16E-07	7.08E-07	6.37E-07
6.07E-08	1.28E-07	4.72E-08	4.14E-08	4.14E-08	3.19E-07	7.10E-07	6.39E-07
6.11E-08	1.29E-07	4.75E-08	4.17E-08	4.17E-08	3.21E-07	7.11E-07	6.39E-07
6.14E-08	1.3E-07	4.77E-08	4.19E-08	4.19E-08	3.23E-07	7.10E-07	6.39E-07
6.16E-08	1.3E-07	4.79E-08	4.21E-08	4.21E-08	3.24E-07	7.10E-07	6.39E-07
6.17E-08	1.3E-07	4.8E-08	4.22E-08	4.22E-08	3.24E-07	7.10E-07	6.39E-07
6.17E-08	1.31E-07	4.8E-08	4.22E-08	4.22E-08	3.25E-07	7.09E-07	6.38E-07
6.16E-08	1.3E-07	4.79E-08	4.21E-08	4.21E-08	3.24E-07	7.07E-07	6.37E-07
6.15E-08	1.3E-07	4.79E-08	4.21E-08	4.21E-08	3.24E-07	7.06E-07	6.35E-07
6.13E-08	1.3E-07	4.78E-08	4.2E-08	4.2E-08	3.23E-07	7.04E-07	6.34E-07
6.11E-08	1.29E-07	4.76E-08	4.18E-08	4.18E-08	3.22E-07	7.01E-07	6.31E-07
6.09E-08	1.29E-07	4.75E-08	4.17E-08	4.17E-08	3.21E-07	6.99E-07	6.29E-07
6.07E-08	1.29E-07	4.73E-08	4.16E-08	4.16E-08	3.20E-07	6.98E-07	6.28E-07
6.05E-08	1.28E-07	4.72E-08	4.14E-08	4.14E-08	3.19E-07	6.97E-07	6.27E-07
6.02E-08	1.28E-07	4.69E-08	4.12E-08	4.12E-08	3.17E-07	6.96E-07	6.26E-07
6E-08	1.27E-07	4.67E-08	4.11E-08	4.11E-08	3.16E-07	6.96E-07	6.26E-07
5.95E-08	1.26E-07	4.64E-08	4.07E-08	4.07E-08	3.13E-07	6.95E-07	6.26E-07
5.92E-08	1.25E-07	4.61E-08	4.05E-08	4.05E-08	3.12E-07	6.93E-07	6.24E-07
5.9E-08	1.25E-07	4.59E-08	4.04E-08	4.04E-08	3.11E-07	6.90E-07	6.21E-07
5.87E-08	1.24E-07	4.58E-08	4.02E-08	4.02E-08	3.09E-07	6.87E-07	6.18E-07
5.85E-08	1.24E-07	4.56E-08	4.01E-08	4.01E-08	3.08E-07	6.82E-07	6.14E-07
5.83E-08	1.24E-07	4.54E-08	3.99E-08	3.99E-08	3.07E-07	6.76E-07	6.09E-07
5.82E-08	1.23E-07	4.53E-08	3.98E-08	3.98E-08	3.06E-07	6.70E-07	6.03E-07
5.81E-08	1.23E-07	4.53E-08	3.98E-08	3.98E-08	3.06E-07	6.64E-07	5.98E-07
5.81E-08	1.23E-07	4.52E-08	3.97E-08	3.97E-08	3.06E-07	6.57E-07	5.91E-07
5.81E-08	1.23E-07	4.52E-08	3.97E-08	3.97E-08	3.06E-07	6.51E-07	5.86E-07
5.79E-08	1.22E-07	4.5E-08	3.96E-08	3.96E-08	3.05E-07	6.85E-07	6.17E-07
5.83E-08	1.23E-07	4.53E-08	3.98E-08	3.98E-08	3.06E-07	6.95E-07	6.26E-07
5.86E-08	1.24E-07	4.56E-08	4E-08	4E-08	3.08E-07	7.03E-07	6.33E-07
5.99E-08	1.27E-07	4.66E-08	4.09E-08	4.09E-08	3.15E-07	7.31E-07	6.58E-07
6.02E-08	1.27E-07	4.67E-08	4.1E-08	4.1E-08	3.16E-07	7.35E-07	6.61E-07
6.03E-08	1.27E-07	4.68E-08	4.12E-08	4.12E-08	3.17E-07	7.38E-07	6.65E-07
6.04E-08	1.28E-07	4.69E-08	4.12E-08	4.12E-08	3.17E-07	7.41E-07	6.67E-07
6.05E-08	1.28E-07	4.7E-08	4.13E-08	4.13E-08	3.18E-07	7.44E-07	6.70E-07
6.04E-08	1.28E-07	4.69E-08	4.12E-08	4.12E-08	3.17E-07	7.44E-07	6.70E-07
6.03E-08	1.27E-07	4.68E-08	4.11E-08	4.11E-08	3.17E-07	7.43E-07	6.69E-07
6.01E-08	1.27E-07	4.66E-08	4.1E-08	4.1E-08	3.16E-07	7.41E-07	6.67E-07
5.98E-08	1.26E-07	4.64E-08	4.08E-08	4.08E-08	3.14E-07	7.36E-07	6.63E-07
5.94E-08	1.25E-07	4.61E-08	4.05E-08	4.05E-08	3.12E-07	7.30E-07	6.57E-07
5.49E-08	1.16E-07	4.27E-08	3.75E-08	3.75E-08	2.89E-07	6.42E-07	5.77E-07
5.39E-08	1.14E-07	4.2E-08	3.69E-08	3.69E-08	2.84E-07	6.23E-07	5.60E-07
5.21E-08	1.11E-07	4.07E-08	3.58E-08	3.58E-08	2.75E-07	5.81E-07	5.22E-07
5.23E-08	1.11E-07	4.09E-08	3.6E-08	3.6E-08	2.76E-07	5.79E-07	5.20E-07

5.25E-08	1.12E-07	4.11E-08	3.61E-08	3.61E-08	2.77E-07	5.76E-07	5.17E-07
5.25E-08	1.12E-07	4.12E-08	3.62E-08	3.62E-08	2.78E-07	5.72E-07	5.13E-07
5.25E-08	1.12E-07	4.12E-08	3.62E-08	3.62E-08	2.78E-07	5.67E-07	5.09E-07
5.23E-08	1.12E-07	4.11E-08	3.61E-08	3.61E-08	2.77E-07	5.61E-07	5.03E-07
5.13E-08	1.1E-07	4.04E-08	3.55E-08	3.55E-08	2.73E-07	5.39E-07	4.83E-07
5.08E-08	1.09E-07	4.01E-08	3.52E-08	3.52E-08	2.70E-07	5.31E-07	4.75E-07
5.03E-08	1.08E-07	3.97E-08	3.49E-08	3.49E-08	2.68E-07	5.21E-07	4.67E-07
4.97E-08	1.07E-07	3.93E-08	3.45E-08	3.45E-08	2.65E-07	5.12E-07	4.58E-07
4.9E-08	1.05E-07	3.88E-08	3.41E-08	3.41E-08	2.61E-07	5.02E-07	4.49E-07
4.83E-08	1.04E-07	3.82E-08	3.36E-08	3.36E-08	2.58E-07	4.92E-07	4.40E-07
4.76E-08	1.03E-07	3.77E-08	3.31E-08	3.31E-08	2.54E-07	4.82E-07	4.31E-07
4.68E-08	1.01E-07	3.71E-08	3.26E-08	3.26E-08	2.50E-07	4.71E-07	4.21E-07
4.6E-08	9.93E-08	3.65E-08	3.21E-08	3.21E-08	2.46E-07	4.60E-07	4.12E-07
4.36E-08	9.43E-08	3.47E-08	3.05E-08	3.05E-08	2.34E-07	4.28E-07	3.83E-07
4.28E-08	9.26E-08	3.41E-08	2.99E-08	2.99E-08	2.29E-07	4.19E-07	3.74E-07
4.2E-08	9.09E-08	3.34E-08	2.94E-08	2.94E-08	2.25E-07	4.10E-07	3.67E-07
4.12E-08	8.92E-08	3.28E-08	2.88E-08	2.88E-08	2.21E-07	4.03E-07	3.60E-07
4.04E-08	8.75E-08	3.22E-08	2.83E-08	2.83E-08	2.17E-07	3.96E-07	3.54E-07
3.96E-08	8.58E-08	3.16E-08	2.77E-08	2.77E-08	2.13E-07	3.90E-07	3.49E-07
3.88E-08	8.41E-08	3.09E-08	2.72E-08	2.72E-08	2.08E-07	3.84E-07	3.43E-07
5.66E-08	1.2E-07	4.4E-08	3.87E-08	3.87E-08	2.98E-07	6.73E-07	6.06E-07
5.8E-08	1.23E-07	4.51E-08	3.96E-08	3.96E-08	3.05E-07	7.01E-07	6.31E-07
5.82E-08	1.23E-07	4.52E-08	3.97E-08	3.97E-08	3.06E-07	7.04E-07	6.34E-07
5.84E-08	1.23E-07	4.54E-08	3.99E-08	3.99E-08	3.07E-07	7.08E-07	6.38E-07
5.86E-08	1.24E-07	4.55E-08	4E-08	4E-08	3.08E-07	7.11E-07	6.40E-07
5.87E-08	1.24E-07	4.56E-08	4E-08	4E-08	3.08E-07	7.14E-07	6.43E-07
5.87E-08	1.24E-07	4.55E-08	4E-08	4E-08	3.08E-07	7.15E-07	6.44E-07
5.86E-08	1.24E-07	4.55E-08	4E-08	4E-08	3.08E-07	7.16E-07	6.44E-07
5.84E-08	1.23E-07	4.54E-08	3.99E-08	3.99E-08	3.07E-07	7.14E-07	6.43E-07
5.82E-08	1.23E-07	4.52E-08	3.97E-08	3.97E-08	3.06E-07	7.11E-07	6.40E-07
5.79E-08	1.22E-07	4.5E-08	3.95E-08	3.95E-08	3.04E-07	7.06E-07	6.36E-07
5.75E-08	1.21E-07	4.47E-08	3.92E-08	3.92E-08	3.02E-07	7.00E-07	6.30E-07
5.7E-08	1.21E-07	4.43E-08	3.89E-08	3.89E-08	3.00E-07	6.92E-07	6.23E-07
5.65E-08	1.19E-07	4.39E-08	3.86E-08	3.86E-08	2.97E-07	6.84E-07	6.15E-07
5.04E-08	1.07E-07	3.94E-08	3.46E-08	3.46E-08	2.66E-07	5.58E-07	5.00E-07
5.06E-08	1.08E-07	3.96E-08	3.48E-08	3.48E-08	2.67E-07	5.56E-07	4.99E-07
5.07E-08	1.08E-07	3.97E-08	3.49E-08	3.49E-08	2.68E-07	5.53E-07	4.96E-07
5.07E-08	1.08E-07	3.98E-08	3.49E-08	3.49E-08	2.68E-07	5.49E-07	4.92E-07
5.06E-08	1.08E-07	3.97E-08	3.49E-08	3.49E-08	2.68E-07	5.44E-07	4.88E-07
5.05E-08	1.08E-07	3.97E-08	3.48E-08	3.48E-08	2.68E-07	5.39E-07	4.83E-07
5.02E-08	1.07E-07	3.95E-08	3.47E-08	3.47E-08	2.67E-07	5.33E-07	4.78E-07
4.9E-08	1.05E-07	3.87E-08	3.4E-08	3.4E-08	2.61E-07	5.10E-07	4.57E-07
4.85E-08	1.04E-07	3.83E-08	3.37E-08	3.37E-08	2.58E-07	5.02E-07	4.49E-07
4.8E-08	1.03E-07	3.79E-08	3.33E-08	3.33E-08	2.56E-07	4.92E-07	4.41E-07
4.73E-08	1.02E-07	3.75E-08	3.29E-08	3.29E-08	2.53E-07	4.83E-07	4.33E-07
4.67E-08	1.01E-07	3.7E-08	3.25E-08	3.25E-08	2.49E-07	4.74E-07	4.24E-07
4.6E-08	9.91E-08	3.64E-08	3.2E-08	3.2E-08	2.46E-07	4.65E-07	4.16E-07

4.53E-08	9.76E-08	3.59E-08	3.15E-08	3.15E-08	2.42E-07	4.55E-07	4.07E-07
4.45E-08	9.61E-08	3.53E-08	3.1E-08	3.1E-08	2.38E-07	4.45E-07	3.98E-07
4.38E-08	9.45E-08	3.48E-08	3.05E-08	3.05E-08	2.34E-07	4.35E-07	3.89E-07
4.23E-08	9.14E-08	3.36E-08	2.95E-08	2.95E-08	2.26E-07	4.14E-07	3.71E-07
4.15E-08	8.97E-08	3.3E-08	2.9E-08	2.9E-08	2.22E-07	4.05E-07	3.62E-07
4.07E-08	8.82E-08	3.24E-08	2.85E-08	2.85E-08	2.18E-07	3.97E-07	3.55E-07
4E-08	8.65E-08	3.18E-08	2.8E-08	2.8E-08	2.14E-07	3.89E-07	3.48E-07
3.92E-08	8.5E-08	3.12E-08	2.75E-08	2.75E-08	2.10E-07	3.82E-07	3.42E-07
3.85E-08	8.34E-08	3.07E-08	2.69E-08	2.69E-08	2.06E-07	3.76E-07	3.36E-07
3.77E-08	8.17E-08	3.01E-08	2.64E-08	2.64E-08	2.02E-07	3.70E-07	3.31E-07
3.7E-08	8.01E-08	2.95E-08	2.59E-08	2.59E-08	1.98E-07	3.65E-07	3.26E-07
5.41E-08	1.15E-07	4.21E-08	3.7E-08	3.7E-08	2.85E-07	6.30E-07	5.66E-07
5.45E-08	1.15E-07	4.24E-08	3.72E-08	3.72E-08	2.87E-07	6.38E-07	5.74E-07
5.62E-08	1.19E-07	4.37E-08	3.84E-08	3.84E-08	2.95E-07	6.73E-07	6.06E-07
5.64E-08	1.19E-07	4.38E-08	3.85E-08	3.85E-08	2.97E-07	6.77E-07	6.09E-07
5.67E-08	1.2E-07	4.4E-08	3.87E-08	3.87E-08	2.98E-07	6.81E-07	6.13E-07
5.69E-08	1.2E-07	4.42E-08	3.88E-08	3.88E-08	2.99E-07	6.87E-07	6.18E-07
5.65E-08	1.19E-07	4.39E-08	3.86E-08	3.86E-08	2.97E-07	6.85E-07	6.16E-07
5.58E-08	1.18E-07	4.34E-08	3.81E-08	3.81E-08	2.93E-07	6.75E-07	6.07E-07
5.54E-08	1.17E-07	4.31E-08	3.78E-08	3.78E-08	2.91E-07	6.67E-07	6.00E-07
5.49E-08	1.16E-07	4.27E-08	3.75E-08	3.75E-08	2.89E-07	6.58E-07	5.92E-07
5.43E-08	1.15E-07	4.23E-08	3.71E-08	3.71E-08	2.86E-07	6.48E-07	5.83E-07
4.95E-08	1.05E-07	3.87E-08	3.4E-08	3.4E-08	2.61E-07	5.55E-07	4.99E-07
4.87E-08	1.04E-07	3.81E-08	3.35E-08	3.35E-08	2.57E-07	5.36E-07	4.80E-07
4.89E-08	1.04E-07	3.83E-08	3.36E-08	3.36E-08	2.59E-07	5.34E-07	4.79E-07
4.9E-08	1.04E-07	3.84E-08	3.37E-08	3.37E-08	2.59E-07	5.31E-07	4.76E-07
4.9E-08	1.04E-07	3.84E-08	3.38E-08	3.38E-08	2.59E-07	5.27E-07	4.72E-07
4.89E-08	1.04E-07	3.84E-08	3.37E-08	3.37E-08	2.59E-07	5.22E-07	4.68E-07
4.87E-08	1.04E-07	3.83E-08	3.36E-08	3.36E-08	2.58E-07	5.17E-07	4.63E-07
4.84E-08	1.04E-07	3.81E-08	3.35E-08	3.35E-08	2.57E-07	5.11E-07	4.58E-07
4.72E-08	1.01E-07	3.73E-08	3.27E-08	3.27E-08	2.51E-07	4.88E-07	4.37E-07
4.2E-08	9.06E-08	3.33E-08	2.93E-08	2.93E-08	2.24E-07	4.14E-07	3.71E-07
4.05E-08	8.75E-08	3.22E-08	2.83E-08	2.83E-08	2.17E-07	3.95E-07	3.53E-07
3.97E-08	8.59E-08	3.16E-08	2.77E-08	2.77E-08	2.13E-07	3.86E-07	3.45E-07
3.89E-08	8.43E-08	3.1E-08	2.72E-08	2.72E-08	2.09E-07	3.78E-07	3.38E-07
3.82E-08	8.27E-08	3.04E-08	2.67E-08	2.67E-08	2.05E-07	3.71E-07	3.31E-07
3.75E-08	8.11E-08	2.98E-08	2.62E-08	2.62E-08	2.01E-07	3.64E-07	3.26E-07
3.67E-08	7.96E-08	2.93E-08	2.57E-08	2.57E-08	1.97E-07	3.58E-07	3.20E-07
3.6E-08	7.81E-08	2.87E-08	2.52E-08	2.52E-08	1.93E-07	3.53E-07	3.16E-07
3.53E-08	7.65E-08	2.81E-08	2.47E-08	2.47E-08	1.89E-07	3.48E-07	3.11E-07
5.38E-08	1.14E-07	4.19E-08	3.68E-08	3.68E-08	2.83E-07	6.20E-07	5.58E-07
5.42E-08	1.15E-07	4.22E-08	3.71E-08	3.71E-08	2.85E-07	6.21E-07	5.59E-07
5.45E-08	1.15E-07	4.24E-08	3.73E-08	3.73E-08	2.87E-07	6.22E-07	5.59E-07
5.48E-08	1.16E-07	4.27E-08	3.75E-08	3.75E-08	2.88E-07	6.22E-07	5.59E-07
5.5E-08	1.16E-07	4.28E-08	3.76E-08	3.76E-08	2.89E-07	6.22E-07	5.59E-07
5.51E-08	1.17E-07	4.29E-08	3.77E-08	3.77E-08	2.90E-07	6.22E-07	5.59E-07
5.51E-08	1.17E-07	4.29E-08	3.77E-08	3.77E-08	2.90E-07	6.20E-07	5.58E-07

5.51E-08	1.17E-07	4.29E-08	3.77E-08	3.77E-08	2.90E-07	6.20E-07	5.57E-07
5.5E-08	1.17E-07	4.29E-08	3.77E-08	3.77E-08	2.90E-07	6.18E-07	5.56E-07
5.48E-08	1.16E-07	4.28E-08	3.76E-08	3.76E-08	2.89E-07	6.16E-07	5.54E-07
5.47E-08	1.16E-07	4.27E-08	3.75E-08	3.75E-08	2.88E-07	6.14E-07	5.52E-07
5.45E-08	1.16E-07	4.25E-08	3.74E-08	3.74E-08	2.87E-07	6.12E-07	5.50E-07
5.43E-08	1.15E-07	4.24E-08	3.72E-08	3.72E-08	2.86E-07	6.10E-07	5.49E-07
5.4E-08	1.15E-07	4.22E-08	3.71E-08	3.71E-08	2.85E-07	6.08E-07	5.47E-07
5.38E-08	1.14E-07	4.2E-08	3.69E-08	3.69E-08	2.84E-07	6.07E-07	5.46E-07
5.36E-08	1.14E-07	4.19E-08	3.68E-08	3.68E-08	2.83E-07	6.06E-07	5.45E-07
5.34E-08	1.13E-07	4.17E-08	3.66E-08	3.66E-08	2.82E-07	6.06E-07	5.45E-07
5.3E-08	1.12E-07	4.13E-08	3.63E-08	3.63E-08	2.79E-07	6.05E-07	5.44E-07
5.28E-08	1.12E-07	4.12E-08	3.62E-08	3.62E-08	2.78E-07	6.05E-07	5.44E-07
5.26E-08	1.12E-07	4.1E-08	3.6E-08	3.6E-08	2.77E-07	6.04E-07	5.43E-07
5.24E-08	1.11E-07	4.09E-08	3.59E-08	3.59E-08	2.76E-07	6.02E-07	5.41E-07
5.22E-08	1.11E-07	4.07E-08	3.58E-08	3.58E-08	2.75E-07	5.99E-07	5.39E-07
5.2E-08	1.1E-07	4.06E-08	3.57E-08	3.57E-08	2.74E-07	5.96E-07	5.36E-07
5.19E-08	1.1E-07	4.05E-08	3.55E-08	3.55E-08	2.73E-07	5.92E-07	5.32E-07
5.18E-08	1.1E-07	4.04E-08	3.55E-08	3.55E-08	2.73E-07	5.88E-07	5.28E-07
5.17E-08	1.1E-07	4.03E-08	3.54E-08	3.54E-08	2.73E-07	5.83E-07	5.24E-07
5.17E-08	1.1E-07	4.03E-08	3.54E-08	3.54E-08	2.72E-07	5.79E-07	5.20E-07
2.92E-07	6.17E-07	2.27E-07	1.99E-07	1.99E-07	1.53E-06	2.64E-06	2.36E-06
2.62E-07	5.54E-07	2.04E-07	1.79E-07	1.79E-07	1.38E-06	2.39E-06	2.14E-06
2.38E-07	5.04E-07	1.85E-07	1.63E-07	1.63E-07	1.25E-06	2.18E-06	1.95E-06
2.47E-07	5.21E-07	1.92E-07	1.68E-07	1.68E-07	1.30E-06	2.29E-06	2.05E-06
2.23E-07	4.72E-07	1.74E-07	1.53E-07	1.53E-07	1.17E-06	2.07E-06	1.86E-06
2.29E-07	4.83E-07	1.78E-07	1.56E-07	1.56E-07	1.20E-06	2.15E-06	1.93E-06
2.05E-07	4.34E-07	1.6E-07	1.4E-07	1.4E-07	1.08E-06	1.91E-06	1.71E-06
2.1E-07	4.44E-07	1.63E-07	1.43E-07	1.43E-07	1.10E-06	1.98E-06	1.78E-06
1.9E-07	4.02E-07	1.48E-07	1.3E-07	1.3E-07	1.00E-06	1.77E-06	1.59E-06
1.94E-07	4.1E-07	1.51E-07	1.32E-07	1.32E-07	1.02E-06	1.83E-06	1.64E-06
1.97E-07	4.14E-07	1.52E-07	1.34E-07	1.34E-07	1.03E-06	1.88E-06	1.69E-06
1.76E-07	3.73E-07	1.37E-07	1.21E-07	1.21E-07	9.28E-07	1.64E-06	1.47E-06
1.8E-07	3.8E-07	1.4E-07	1.23E-07	1.23E-07	9.46E-07	1.70E-06	1.52E-06
1.83E-07	3.85E-07	1.41E-07	1.24E-07	1.24E-07	9.57E-07	1.75E-06	1.57E-06
1.67E-07	3.54E-07	1.3E-07	1.14E-07	1.14E-07	8.80E-07	1.57E-06	1.41E-06
1.69E-07	3.57E-07	1.31E-07	1.16E-07	1.16E-07	8.89E-07	1.61E-06	1.44E-06
1.7E-07	3.59E-07	1.32E-07	1.16E-07	1.16E-07	8.93E-07	1.65E-06	1.48E-06
1.56E-07	3.31E-07	1.22E-07	1.07E-07	1.07E-07	8.23E-07	1.47E-06	1.32E-06
1.58E-07	3.35E-07	1.23E-07	1.08E-07	1.08E-07	8.32E-07	1.51E-06	1.35E-06
1.59E-07	3.36E-07	1.23E-07	1.08E-07	1.08E-07	8.35E-07	1.54E-06	1.38E-06
1.59E-07	3.34E-07	1.23E-07	1.08E-07	1.08E-07	8.31E-07	1.57E-06	1.41E-06
1.49E-07	3.14E-07	1.15E-07	1.01E-07	1.01E-07	7.81E-07	1.41E-06	1.26E-06
1.63E-07	3.5E-07	1.29E-07	1.13E-07	1.13E-07	8.69E-07	1.43E-06	1.28E-06
1.5E-07	3.22E-07	1.19E-07	1.04E-07	1.04E-07	8.00E-07	1.33E-06	1.19E-06
1.38E-07	2.93E-07	1.08E-07	9.46E-08	9.46E-08	7.28E-07	1.29E-06	1.16E-06
1.39E-07	2.92E-07	1.07E-07	9.43E-08	9.43E-08	7.27E-07	1.40E-06	1.26E-06
1.54E-07	3.31E-07	1.22E-07	1.07E-07	1.07E-07	8.21E-07	1.35E-06	1.21E-06

1.42E-07	3.06E-07	1.12E-07	9.87E-08	9.87E-08	7.58E-07	1.26E-06	1.12E-06
1.4E-07	3.01E-07	1.11E-07	9.74E-08	9.74E-08	7.47E-07	1.25E-06	1.11E-06
1.33E-07	2.8E-07	1.03E-07	9.03E-08	9.03E-08	6.96E-07	1.30E-06	1.16E-06
1.31E-07	2.76E-07	1.01E-07	8.91E-08	8.91E-08	6.87E-07	1.32E-06	1.18E-06
1.46E-07	3.13E-07	1.15E-07	1.01E-07	1.01E-07	7.77E-07	1.28E-06	1.14E-06
1.35E-07	2.9E-07	1.07E-07	9.37E-08	9.37E-08	7.19E-07	1.19E-06	1.06E-06
1.33E-07	2.87E-07	1.05E-07	9.26E-08	9.26E-08	7.11E-07	1.19E-06	1.06E-06
1.32E-07	2.83E-07	1.04E-07	9.13E-08	9.13E-08	7.01E-07	1.18E-06	1.05E-06
1.24E-07	2.64E-07	9.7E-08	8.52E-08	8.52E-08	6.56E-07	1.17E-06	1.05E-06
1.25E-07	2.65E-07	9.75E-08	8.57E-08	8.57E-08	6.60E-07	1.20E-06	1.07E-06
1.26E-07	2.65E-07	9.75E-08	8.57E-08	8.57E-08	6.60E-07	1.22E-06	1.09E-06
1.25E-07	2.63E-07	9.68E-08	8.5E-08	8.5E-08	6.55E-07	1.24E-06	1.11E-06
1.23E-07	2.59E-07	9.52E-08	8.36E-08	8.36E-08	6.45E-07	1.25E-06	1.12E-06
1.38E-07	2.97E-07	1.09E-07	9.59E-08	9.59E-08	7.35E-07	1.21E-06	1.08E-06
1.28E-07	2.76E-07	1.01E-07	8.91E-08	8.91E-08	6.83E-07	1.13E-06	1.01E-06
1.27E-07	2.73E-07	1E-07	8.81E-08	8.81E-08	6.76E-07	1.13E-06	1.00E-06
1.25E-07	2.69E-07	9.9E-08	8.7E-08	8.7E-08	6.68E-07	1.12E-06	9.99E-07
1.14E-07	2.44E-07	8.96E-08	7.87E-08	7.87E-08	6.05E-07	1.06E-06	9.48E-07
1.16E-07	2.47E-07	9.1E-08	8E-08	8E-08	6.15E-07	1.09E-06	9.71E-07
1.18E-07	2.5E-07	9.2E-08	8.09E-08	8.09E-08	6.22E-07	1.11E-06	9.94E-07
1.19E-07	2.52E-07	9.26E-08	8.14E-08	8.14E-08	6.26E-07	1.13E-06	1.01E-06
1.19E-07	2.52E-07	9.25E-08	8.13E-08	8.13E-08	6.26E-07	1.15E-06	1.03E-06
1.19E-07	2.5E-07	9.19E-08	8.08E-08	8.08E-08	6.22E-07	1.17E-06	1.05E-06
1.17E-07	2.46E-07	9.06E-08	7.96E-08	7.96E-08	6.13E-07	1.18E-06	1.06E-06
1.15E-07	2.41E-07	8.85E-08	7.78E-08	7.78E-08	6.00E-07	1.19E-06	1.07E-06
1.31E-07	2.82E-07	1.04E-07	9.1E-08	9.1E-08	6.98E-07	1.15E-06	1.03E-06
1.22E-07	2.62E-07	9.64E-08	8.47E-08	8.47E-08	6.50E-07	1.08E-06	9.60E-07
1.21E-07	2.6E-07	9.55E-08	8.39E-08	8.39E-08	6.44E-07	1.07E-06	9.56E-07
1.19E-07	2.57E-07	9.44E-08	8.29E-08	8.29E-08	6.36E-07	1.06E-06	9.51E-07
1.18E-07	2.53E-07	9.31E-08	8.18E-08	8.18E-08	6.28E-07	1.06E-06	9.44E-07
1.06E-07	2.27E-07	8.36E-08	7.34E-08	7.34E-08	5.64E-07	9.80E-07	8.76E-07
1.09E-07	2.32E-07	8.52E-08	7.48E-08	7.48E-08	5.75E-07	1.01E-06	8.99E-07
1.1E-07	2.35E-07	8.64E-08	7.59E-08	7.59E-08	5.83E-07	1.03E-06	9.20E-07
1.12E-07	2.38E-07	8.74E-08	7.68E-08	7.68E-08	5.90E-07	1.05E-06	9.41E-07
1.13E-07	2.39E-07	8.8E-08	7.73E-08	7.73E-08	5.95E-07	1.07E-06	9.61E-07
1.13E-07	2.4E-07	8.81E-08	7.74E-08	7.74E-08	5.96E-07	1.09E-06	9.80E-07
1.13E-07	2.38E-07	8.75E-08	7.69E-08	7.69E-08	5.92E-07	1.11E-06	9.95E-07
1.12E-07	2.35E-07	8.64E-08	7.59E-08	7.59E-08	5.85E-07	1.12E-06	1.01E-06
1.09E-07	2.3E-07	8.46E-08	7.43E-08	7.43E-08	5.72E-07	1.13E-06	1.02E-06
1.24E-07	2.68E-07	9.85E-08	8.65E-08	8.65E-08	6.63E-07	1.09E-06	9.74E-07
1.16E-07	2.5E-07	9.19E-08	8.07E-08	8.07E-08	6.19E-07	1.02E-06	9.13E-07
1.15E-07	2.48E-07	9.11E-08	8E-08	8E-08	6.14E-07	1.02E-06	9.11E-07
1.14E-07	2.45E-07	9.01E-08	7.91E-08	7.91E-08	6.07E-07	1.01E-06	9.06E-07
1.13E-07	2.42E-07	8.9E-08	7.82E-08	7.82E-08	6.00E-07	1.01E-06	9.00E-07
1.11E-07	2.38E-07	8.77E-08	7.7E-08	7.7E-08	5.91E-07	9.98E-07	8.92E-07
1.01E-07	2.16E-07	7.95E-08	6.99E-08	6.99E-08	5.37E-07	9.31E-07	8.33E-07
1.03E-07	2.2E-07	8.09E-08	7.11E-08	7.11E-08	5.46E-07	9.54E-07	8.53E-07

1.05E-07	2.24E-07	8.22E-08	7.22E-08	7.22E-08	5.55E-07	9.77E-07	8.74E-07
1.06E-07	2.26E-07	8.32E-08	7.31E-08	7.31E-08	5.62E-07	9.99E-07	8.94E-07
1.07E-07	2.28E-07	8.37E-08	7.35E-08	7.35E-08	5.66E-07	1.02E-06	9.12E-07
1.08E-07	2.28E-07	8.39E-08	7.37E-08	7.37E-08	5.67E-07	1.04E-06	9.30E-07
1.08E-07	2.27E-07	8.34E-08	7.33E-08	7.33E-08	5.64E-07	1.05E-06	9.44E-07
1.06E-07	2.24E-07	8.25E-08	7.24E-08	7.24E-08	5.58E-07	1.07E-06	9.56E-07
1.05E-07	2.2E-07	8.09E-08	7.1E-08	7.1E-08	5.47E-07	1.07E-06	9.64E-07
1.02E-07	2.14E-07	7.87E-08	6.91E-08	6.91E-08	5.33E-07	1.08E-06	9.67E-07
1.18E-07	2.55E-07	9.37E-08	8.23E-08	8.23E-08	6.31E-07	1.04E-06	9.26E-07
1.11E-07	2.38E-07	8.76E-08	7.7E-08	7.7E-08	5.90E-07	9.76E-07	8.71E-07
1.1E-07	2.36E-07	8.7E-08	7.64E-08	7.64E-08	5.86E-07	9.73E-07	8.68E-07
1.09E-07	2.34E-07	8.62E-08	7.57E-08	7.57E-08	5.81E-07	9.69E-07	8.65E-07
1.08E-07	2.32E-07	8.52E-08	7.48E-08	7.48E-08	5.74E-07	9.62E-07	8.59E-07
1.06E-07	2.29E-07	8.42E-08	7.39E-08	7.39E-08	5.67E-07	9.56E-07	8.53E-07
1.05E-07	2.26E-07	8.3E-08	7.29E-08	7.29E-08	5.60E-07	9.47E-07	8.46E-07
9.64E-08	2.06E-07	7.57E-08	6.65E-08	6.65E-08	5.11E-07	8.86E-07	7.92E-07
9.82E-08	2.1E-07	7.71E-08	6.77E-08	6.77E-08	5.20E-07	9.07E-07	8.11E-07
9.98E-08	2.13E-07	7.82E-08	6.87E-08	6.87E-08	5.28E-07	9.27E-07	8.29E-07
1.01E-07	2.15E-07	7.92E-08	6.95E-08	6.95E-08	5.35E-07	9.47E-07	8.47E-07
1.02E-07	2.17E-07	7.98E-08	7.01E-08	7.01E-08	5.39E-07	9.65E-07	8.64E-07
1.03E-07	2.18E-07	8E-08	7.03E-08	7.03E-08	5.41E-07	9.83E-07	8.80E-07
1.03E-07	2.17E-07	7.99E-08	7.02E-08	7.02E-08	5.40E-07	9.98E-07	8.95E-07
1.02E-07	2.15E-07	7.91E-08	6.95E-08	6.95E-08	5.35E-07	1.01E-06	9.05E-07
1.01E-07	2.12E-07	7.8E-08	6.85E-08	6.85E-08	5.28E-07	1.02E-06	9.14E-07
9.87E-08	2.07E-07	7.63E-08	6.7E-08	6.7E-08	5.16E-07	1.02E-06	9.18E-07
9.61E-08	2.02E-07	7.43E-08	6.52E-08	6.52E-08	5.03E-07	1.02E-06	9.20E-07
1.13E-07	2.43E-07	8.93E-08	7.84E-08	7.84E-08	6.02E-07	9.89E-07	8.83E-07
1.06E-07	2.27E-07	8.37E-08	7.35E-08	7.35E-08	5.64E-07	9.31E-07	8.31E-07
1.05E-07	2.26E-07	8.31E-08	7.3E-08	7.3E-08	5.60E-07	9.29E-07	8.29E-07
1.04E-07	2.24E-07	8.24E-08	7.24E-08	7.24E-08	5.55E-07	9.25E-07	8.26E-07
1.03E-07	2.22E-07	8.15E-08	7.16E-08	7.16E-08	5.49E-07	9.20E-07	8.21E-07
1.02E-07	2.19E-07	8.07E-08	7.09E-08	7.09E-08	5.44E-07	9.14E-07	8.16E-07
1.01E-07	2.16E-07	7.96E-08	6.99E-08	6.99E-08	5.37E-07	9.06E-07	8.10E-07
9.19E-08	1.96E-07	7.23E-08	6.35E-08	6.35E-08	4.88E-07	8.44E-07	7.55E-07
9.37E-08	2E-07	7.36E-08	6.46E-08	6.46E-08	4.97E-07	8.64E-07	7.73E-07
9.51E-08	2.03E-07	7.46E-08	6.55E-08	6.55E-08	5.04E-07	8.82E-07	7.89E-07
9.64E-08	2.05E-07	7.55E-08	6.63E-08	6.63E-08	5.10E-07	9.01E-07	8.06E-07
9.74E-08	2.07E-07	7.61E-08	6.69E-08	6.69E-08	5.14E-07	9.19E-07	8.23E-07
9.8E-08	2.08E-07	7.64E-08	6.71E-08	6.71E-08	5.17E-07	9.36E-07	8.38E-07
9.81E-08	2.08E-07	7.63E-08	6.71E-08	6.71E-08	5.16E-07	9.51E-07	8.52E-07
9.77E-08	2.06E-07	7.58E-08	6.66E-08	6.66E-08	5.13E-07	9.62E-07	8.63E-07
9.64E-08	2.03E-07	7.47E-08	6.56E-08	6.56E-08	5.05E-07	9.70E-07	8.70E-07
9.46E-08	1.99E-07	7.32E-08	6.43E-08	6.43E-08	4.95E-07	9.74E-07	8.75E-07
9.23E-08	1.94E-07	7.14E-08	6.27E-08	6.27E-08	4.83E-07	9.76E-07	8.77E-07
1.07E-07	2.31E-07	8.51E-08	7.48E-08	7.48E-08	5.74E-07	9.43E-07	8.41E-07
1.01E-07	2.17E-07	7.99E-08	7.02E-08	7.02E-08	5.39E-07	8.89E-07	7.94E-07
1E-07	2.16E-07	7.94E-08	6.98E-08	6.98E-08	5.35E-07	8.87E-07	7.92E-07

9.94E-08	2.14E-07	7.88E-08	6.92E-08	6.92E-08	5.31E-07	8.84E-07	7.89E-07
9.86E-08	2.12E-07	7.81E-08	6.86E-08	6.86E-08	5.26E-07	8.80E-07	7.86E-07
9.76E-08	2.1E-07	7.73E-08	6.79E-08	6.79E-08	5.21E-07	8.75E-07	7.81E-07
9.66E-08	2.08E-07	7.64E-08	6.71E-08	6.71E-08	5.15E-07	8.68E-07	7.75E-07
9.54E-08	2.05E-07	7.54E-08	6.62E-08	6.62E-08	5.08E-07	8.60E-07	7.68E-07
8.78E-08	1.88E-07	6.91E-08	6.07E-08	6.07E-08	4.66E-07	8.06E-07	7.20E-07
8.94E-08	1.91E-07	7.02E-08	6.17E-08	6.17E-08	4.74E-07	8.24E-07	7.37E-07
9.09E-08	1.94E-07	7.13E-08	6.26E-08	6.26E-08	4.81E-07	8.42E-07	7.53E-07
9.21E-08	1.96E-07	7.22E-08	6.34E-08	6.34E-08	4.87E-07	8.60E-07	7.69E-07
9.31E-08	1.98E-07	7.28E-08	6.4E-08	6.4E-08	4.92E-07	8.77E-07	7.85E-07
9.36E-08	1.99E-07	7.31E-08	6.42E-08	6.42E-08	4.94E-07	8.92E-07	7.99E-07
9.38E-08	1.99E-07	7.3E-08	6.42E-08	6.42E-08	4.94E-07	9.06E-07	8.12E-07
9.35E-08	1.97E-07	7.26E-08	6.38E-08	6.38E-08	4.91E-07	9.18E-07	8.23E-07
9.24E-08	1.95E-07	7.16E-08	6.29E-08	6.29E-08	4.85E-07	9.25E-07	8.30E-07
9.08E-08	1.91E-07	7.03E-08	6.18E-08	6.18E-08	4.76E-07	9.30E-07	8.35E-07
8.87E-08	1.87E-07	6.86E-08	6.03E-08	6.03E-08	4.65E-07	9.31E-07	8.37E-07
8.64E-08	1.82E-07	6.68E-08	5.87E-08	5.87E-08	4.52E-07	9.30E-07	8.37E-07
1.03E-07	2.21E-07	8.13E-08	7.14E-08	7.14E-08	5.48E-07	9.01E-07	8.03E-07
9.64E-08	2.08E-07	7.65E-08	6.72E-08	6.72E-08	5.15E-07	8.51E-07	7.59E-07
9.58E-08	2.07E-07	7.6E-08	6.68E-08	6.68E-08	5.12E-07	8.49E-07	7.58E-07
9.52E-08	2.05E-07	7.55E-08	6.63E-08	6.63E-08	5.09E-07	8.47E-07	7.56E-07
9.44E-08	2.04E-07	7.49E-08	6.58E-08	6.58E-08	5.04E-07	8.43E-07	7.52E-07
9.36E-08	2.02E-07	7.42E-08	6.52E-08	6.52E-08	5.00E-07	8.38E-07	7.49E-07
9.26E-08	1.99E-07	7.33E-08	6.44E-08	6.44E-08	4.94E-07	8.32E-07	7.43E-07
9.16E-08	1.97E-07	7.24E-08	6.36E-08	6.36E-08	4.88E-07	8.25E-07	7.37E-07
8.55E-08	1.83E-07	6.72E-08	5.9E-08	5.9E-08	4.53E-07	7.87E-07	7.04E-07
8.69E-08	1.86E-07	6.82E-08	5.99E-08	5.99E-08	4.61E-07	8.04E-07	7.19E-07
8.8E-08	1.88E-07	6.9E-08	6.06E-08	6.06E-08	4.66E-07	8.21E-07	7.34E-07
8.9E-08	1.89E-07	6.96E-08	6.12E-08	6.12E-08	4.70E-07	8.37E-07	7.49E-07
8.97E-08	1.9E-07	7E-08	6.15E-08	6.15E-08	4.73E-07	8.53E-07	7.64E-07
8.98E-08	1.9E-07	7E-08	6.15E-08	6.15E-08	4.73E-07	8.66E-07	7.75E-07
8.96E-08	1.89E-07	6.96E-08	6.12E-08	6.12E-08	4.71E-07	8.77E-07	7.86E-07
8.87E-08	1.87E-07	6.88E-08	6.04E-08	6.04E-08	4.65E-07	8.84E-07	7.93E-07
8.73E-08	1.84E-07	6.76E-08	5.94E-08	5.94E-08	4.58E-07	8.89E-07	7.98E-07
9.81E-08	2.11E-07	7.77E-08	6.83E-08	6.83E-08	5.24E-07	8.61E-07	7.68E-07
9.24E-08	1.99E-07	7.33E-08	6.44E-08	6.44E-08	4.94E-07	8.15E-07	7.27E-07
9.19E-08	1.98E-07	7.29E-08	6.4E-08	6.4E-08	4.91E-07	8.13E-07	7.26E-07
9.13E-08	1.97E-07	7.24E-08	6.36E-08	6.36E-08	4.88E-07	8.12E-07	7.24E-07
9.06E-08	1.95E-07	7.19E-08	6.31E-08	6.31E-08	4.84E-07	8.08E-07	7.22E-07
8.99E-08	1.94E-07	7.13E-08	6.26E-08	6.26E-08	4.80E-07	8.05E-07	7.18E-07
8.92E-08	1.92E-07	7.06E-08	6.21E-08	6.21E-08	4.76E-07	8.00E-07	7.14E-07
8.82E-08	1.9E-07	6.98E-08	6.14E-08	6.14E-08	4.71E-07	7.94E-07	7.09E-07
8.73E-08	1.88E-07	6.9E-08	6.06E-08	6.06E-08	4.65E-07	7.87E-07	7.03E-07
8.18E-08	1.75E-07	6.43E-08	5.65E-08	5.65E-08	4.34E-07	7.52E-07	6.73E-07
8.3E-08	1.77E-07	6.52E-08	5.73E-08	5.73E-08	4.40E-07	7.67E-07	6.86E-07
8.42E-08	1.8E-07	6.6E-08	5.8E-08	5.8E-08	4.46E-07	7.83E-07	7.00E-07
8.51E-08	1.81E-07	6.66E-08	5.85E-08	5.85E-08	4.50E-07	7.98E-07	7.14E-07

8.58E-08	1.82E-07	6.7E-08	5.89E-08	5.89E-08	4.53E-07	8.12E-07	7.27E-07
8.61E-08	1.83E-07	6.72E-08	5.9E-08	5.9E-08	4.54E-07	8.25E-07	7.39E-07
8.6E-08	1.82E-07	6.7E-08	5.88E-08	5.88E-08	4.53E-07	8.36E-07	7.49E-07
8.55E-08	1.81E-07	6.64E-08	5.84E-08	5.84E-08	4.49E-07	8.44E-07	7.57E-07
9.4E-08	2.02E-07	7.44E-08	6.54E-08	6.54E-08	5.02E-07	8.25E-07	7.36E-07
8.86E-08	1.91E-07	7.02E-08	6.17E-08	6.17E-08	4.73E-07	7.81E-07	6.97E-07
8.81E-08	1.9E-07	6.99E-08	6.14E-08	6.14E-08	4.71E-07	7.80E-07	6.96E-07
8.76E-08	1.89E-07	6.95E-08	6.1E-08	6.1E-08	4.68E-07	7.78E-07	6.94E-07
8.7E-08	1.88E-07	6.9E-08	6.06E-08	6.06E-08	4.65E-07	7.75E-07	6.92E-07
8.64E-08	1.86E-07	6.85E-08	6.02E-08	6.02E-08	4.61E-07	7.72E-07	6.90E-07
8.56E-08	1.85E-07	6.79E-08	5.96E-08	5.96E-08	4.57E-07	7.68E-07	6.86E-07
8.48E-08	1.83E-07	6.72E-08	5.9E-08	5.9E-08	4.53E-07	7.63E-07	6.81E-07
8.39E-08	1.81E-07	6.64E-08	5.83E-08	5.83E-08	4.48E-07	7.57E-07	6.76E-07
8.3E-08	1.78E-07	6.56E-08	5.77E-08	5.77E-08	4.42E-07	7.50E-07	6.70E-07
7.96E-08	1.7E-07	6.26E-08	5.5E-08	5.5E-08	4.22E-07	7.35E-07	6.57E-07
8.07E-08	1.72E-07	6.33E-08	5.56E-08	5.56E-08	4.28E-07	7.50E-07	6.71E-07
8.16E-08	1.74E-07	6.4E-08	5.62E-08	5.62E-08	4.32E-07	7.64E-07	6.84E-07
8.23E-08	1.75E-07	6.44E-08	5.65E-08	5.65E-08	4.35E-07	7.78E-07	6.97E-07
8.26E-08	1.75E-07	6.45E-08	5.66E-08	5.66E-08	4.36E-07	7.90E-07	7.07E-07
7.62E-08	1.6E-07	5.9E-08	5.18E-08	5.18E-08	3.99E-07	8.13E-07	7.31E-07
7.42E-08	1.56E-07	5.75E-08	5.05E-08	5.05E-08	3.89E-07	8.10E-07	7.29E-07
9.01E-08	1.94E-07	7.13E-08	6.27E-08	6.27E-08	4.81E-07	7.90E-07	7.05E-07
8.51E-08	1.83E-07	6.75E-08	5.93E-08	5.93E-08	4.54E-07	7.50E-07	6.69E-07
8.46E-08	1.82E-07	6.71E-08	5.89E-08	5.89E-08	4.52E-07	7.49E-07	6.68E-07
8.4E-08	1.81E-07	6.67E-08	5.86E-08	5.86E-08	4.49E-07	7.46E-07	6.66E-07
8.35E-08	1.8E-07	6.63E-08	5.82E-08	5.82E-08	4.46E-07	7.44E-07	6.64E-07
8.29E-08	1.79E-07	6.58E-08	5.78E-08	5.78E-08	4.43E-07	7.42E-07	6.62E-07
8.23E-08	1.77E-07	6.53E-08	5.73E-08	5.73E-08	4.40E-07	7.38E-07	6.59E-07
8.16E-08	1.76E-07	6.47E-08	5.68E-08	5.68E-08	4.36E-07	7.33E-07	6.55E-07
8.08E-08	1.74E-07	6.4E-08	5.62E-08	5.62E-08	4.31E-07	7.28E-07	6.50E-07
8E-08	1.72E-07	6.33E-08	5.56E-08	5.56E-08	4.26E-07	7.22E-07	6.45E-07
7.38E-08	1.58E-07	5.82E-08	5.11E-08	5.11E-08	3.92E-07	6.74E-07	6.02E-07
7.39E-08	1.58E-07	5.82E-08	5.11E-08	5.11E-08	3.93E-07	6.76E-07	6.04E-07
7.74E-08	1.65E-07	6.08E-08	5.34E-08	5.34E-08	4.10E-07	7.19E-07	6.43E-07
7.83E-08	1.67E-07	6.14E-08	5.39E-08	5.39E-08	4.14E-07	7.32E-07	6.55E-07
7.71E-08	1.63E-07	5.98E-08	5.25E-08	5.25E-08	4.05E-07	7.83E-07	7.03E-07
7.54E-08	1.59E-07	5.85E-08	5.14E-08	5.14E-08	3.96E-07	7.82E-07	7.02E-07
7.36E-08	1.55E-07	5.71E-08	5.01E-08	5.01E-08	3.86E-07	7.80E-07	7.01E-07
7.18E-08	1.51E-07	5.56E-08	4.89E-08	4.89E-08	3.76E-07	7.78E-07	6.99E-07
8.64E-08	1.86E-07	6.85E-08	6.01E-08	6.01E-08	4.61E-07	7.58E-07	6.76E-07
8.18E-08	1.76E-07	6.48E-08	5.69E-08	5.69E-08	4.37E-07	7.20E-07	6.43E-07
8.13E-08	1.75E-07	6.44E-08	5.66E-08	5.66E-08	4.34E-07	7.19E-07	6.41E-07
8.08E-08	1.74E-07	6.41E-08	5.63E-08	5.63E-08	4.32E-07	7.17E-07	6.40E-07
8.03E-08	1.73E-07	6.37E-08	5.6E-08	5.6E-08	4.29E-07	7.16E-07	6.39E-07
7.98E-08	1.72E-07	6.33E-08	5.56E-08	5.56E-08	4.26E-07	7.13E-07	6.36E-07
7.92E-08	1.71E-07	6.29E-08	5.52E-08	5.52E-08	4.23E-07	7.10E-07	6.34E-07
7.86E-08	1.69E-07	6.23E-08	5.48E-08	5.48E-08	4.20E-07	7.06E-07	6.30E-07

7.79E-08	1.68E-07	6.17E-08	5.42E-08	5.42E-08	4.16E-07	7.01E-07	6.26E-07
7.71E-08	1.66E-07	6.1E-08	5.36E-08	5.36E-08	4.11E-07	6.96E-07	6.21E-07
7.63E-08	1.64E-07	6.03E-08	5.3E-08	5.3E-08	4.07E-07	6.90E-07	6.16E-07
7.1E-08	1.52E-07	5.59E-08	4.91E-08	4.91E-08	3.77E-07	6.49E-07	5.80E-07
7.43E-08	1.59E-07	5.84E-08	5.13E-08	5.13E-08	3.94E-07	6.90E-07	6.17E-07
7.61E-08	1.61E-07	5.92E-08	5.2E-08	5.2E-08	4.00E-07	7.43E-07	6.66E-07
7.54E-08	1.59E-07	5.86E-08	5.15E-08	5.15E-08	3.97E-07	7.49E-07	6.71E-07
7.44E-08	1.57E-07	5.77E-08	5.07E-08	5.07E-08	3.91E-07	7.52E-07	6.74E-07
7.29E-08	1.54E-07	5.65E-08	4.97E-08	4.97E-08	3.82E-07	7.51E-07	6.74E-07
7.12E-08	1.5E-07	5.52E-08	4.85E-08	4.85E-08	3.74E-07	7.50E-07	6.73E-07
6.94E-08	1.46E-07	5.38E-08	4.72E-08	4.72E-08	3.64E-07	7.46E-07	6.71E-07
6.76E-08	1.43E-07	5.25E-08	4.61E-08	4.61E-08	3.55E-07	7.43E-07	6.68E-07
8.3E-08	1.79E-07	6.58E-08	5.78E-08	5.78E-08	4.43E-07	7.28E-07	6.50E-07
7.87E-08	1.69E-07	6.23E-08	5.48E-08	5.48E-08	4.20E-07	6.93E-07	6.18E-07
7.82E-08	1.68E-07	6.2E-08	5.44E-08	5.44E-08	4.18E-07	6.91E-07	6.17E-07
7.77E-08	1.68E-07	6.17E-08	5.42E-08	5.42E-08	4.15E-07	6.90E-07	6.16E-07
7.73E-08	1.67E-07	6.13E-08	5.39E-08	5.39E-08	4.13E-07	6.88E-07	6.14E-07
7.67E-08	1.66E-07	6.09E-08	5.35E-08	5.35E-08	4.10E-07	6.86E-07	6.12E-07
7.63E-08	1.65E-07	6.05E-08	5.32E-08	5.32E-08	4.08E-07	6.83E-07	6.10E-07
7.57E-08	1.63E-07	6E-08	5.28E-08	5.28E-08	4.04E-07	6.80E-07	6.07E-07
7.5E-08	1.62E-07	5.95E-08	5.23E-08	5.23E-08	4.01E-07	6.75E-07	6.03E-07
7.44E-08	1.6E-07	5.89E-08	5.18E-08	5.18E-08	3.97E-07	6.71E-07	5.99E-07
7.36E-08	1.58E-07	5.83E-08	5.12E-08	5.12E-08	3.93E-07	6.65E-07	5.94E-07
6.82E-08	1.46E-07	5.38E-08	4.72E-08	4.72E-08	3.63E-07	6.21E-07	5.55E-07
7.35E-08	1.56E-07	5.74E-08	5.04E-08	5.04E-08	3.88E-07	7.07E-07	6.33E-07
7.33E-08	1.55E-07	5.72E-08	5.02E-08	5.02E-08	3.86E-07	7.15E-07	6.40E-07
7.27E-08	1.54E-07	5.66E-08	4.97E-08	4.97E-08	3.83E-07	7.19E-07	6.45E-07
7.18E-08	1.52E-07	5.58E-08	4.9E-08	4.9E-08	3.77E-07	7.22E-07	6.48E-07
7.05E-08	1.49E-07	5.47E-08	4.8E-08	4.8E-08	3.70E-07	7.22E-07	6.48E-07
6.89E-08	1.45E-07	5.35E-08	4.7E-08	4.7E-08	3.62E-07	7.21E-07	6.47E-07
6.72E-08	1.42E-07	5.21E-08	4.58E-08	4.58E-08	3.52E-07	7.17E-07	6.45E-07
6.55E-08	1.38E-07	5.08E-08	4.47E-08	4.47E-08	3.44E-07	7.14E-07	6.42E-07
7.99E-08	1.72E-07	6.33E-08	5.56E-08	5.56E-08	4.26E-07	7.00E-07	6.25E-07
7.58E-08	1.63E-07	6E-08	5.27E-08	5.27E-08	4.04E-07	6.67E-07	5.95E-07
7.53E-08	1.62E-07	5.97E-08	5.24E-08	5.24E-08	4.02E-07	6.66E-07	5.94E-07
7.49E-08	1.61E-07	5.94E-08	5.22E-08	5.22E-08	4.00E-07	6.64E-07	5.93E-07
7.44E-08	1.61E-07	5.9E-08	5.19E-08	5.19E-08	3.98E-07	6.62E-07	5.91E-07
7.4E-08	1.6E-07	5.87E-08	5.16E-08	5.16E-08	3.96E-07	6.61E-07	5.90E-07
7.35E-08	1.59E-07	5.84E-08	5.13E-08	5.13E-08	3.93E-07	6.58E-07	5.88E-07
7.3E-08	1.58E-07	5.8E-08	5.09E-08	5.09E-08	3.91E-07	6.55E-07	5.85E-07
7.25E-08	1.56E-07	5.75E-08	5.05E-08	5.05E-08	3.87E-07	6.52E-07	5.82E-07
7.2E-08	1.55E-07	5.7E-08	5.01E-08	5.01E-08	3.84E-07	6.48E-07	5.79E-07
7.13E-08	1.54E-07	5.65E-08	4.96E-08	4.96E-08	3.81E-07	6.43E-07	5.74E-07
7.06E-08	1.52E-07	5.59E-08	4.91E-08	4.91E-08	3.76E-07	6.38E-07	5.70E-07
7.01E-08	1.5E-07	5.5E-08	4.83E-08	4.83E-08	3.71E-07	6.58E-07	5.89E-07
7.06E-08	1.5E-07	5.53E-08	4.86E-08	4.86E-08	3.73E-07	6.69E-07	5.99E-07
7.08E-08	1.51E-07	5.54E-08	4.86E-08	4.86E-08	3.74E-07	6.78E-07	6.07E-07

7.07E-08	1.5E-07	5.52E-08	4.85E-08	4.85E-08	3.73E-07	6.85E-07	6.13E-07
7.04E-08	1.49E-07	5.48E-08	4.81E-08	4.81E-08	3.70E-07	6.90E-07	6.19E-07
6.97E-08	1.47E-07	5.42E-08	4.76E-08	4.76E-08	3.66E-07	6.94E-07	6.22E-07
6.87E-08	1.45E-07	5.33E-08	4.68E-08	4.68E-08	3.61E-07	6.95E-07	6.24E-07
6.73E-08	1.42E-07	5.22E-08	4.59E-08	4.59E-08	3.53E-07	6.94E-07	6.23E-07
6.58E-08	1.39E-07	5.1E-08	4.48E-08	4.48E-08	3.45E-07	6.92E-07	6.21E-07
6.42E-08	1.35E-07	4.98E-08	4.37E-08	4.37E-08	3.37E-07	6.88E-07	6.19E-07
6.27E-08	1.32E-07	4.86E-08	4.27E-08	4.27E-08	3.29E-07	6.85E-07	6.16E-07
7.69E-08	1.66E-07	6.09E-08	5.35E-08	5.35E-08	4.10E-07	6.74E-07	6.01E-07
7.3E-08	1.57E-07	5.78E-08	5.08E-08	5.08E-08	3.90E-07	6.42E-07	5.73E-07
7.26E-08	1.56E-07	5.75E-08	5.05E-08	5.05E-08	3.88E-07	6.41E-07	5.72E-07
7.21E-08	1.56E-07	5.72E-08	5.03E-08	5.03E-08	3.85E-07	6.40E-07	5.71E-07
7.17E-08	1.55E-07	5.69E-08	5E-08	5E-08	3.83E-07	6.38E-07	5.70E-07
7.13E-08	1.54E-07	5.66E-08	4.97E-08	4.97E-08	3.81E-07	6.37E-07	5.68E-07
7.09E-08	1.53E-07	5.63E-08	4.95E-08	4.95E-08	3.79E-07	6.35E-07	5.66E-07
7.05E-08	1.52E-07	5.59E-08	4.92E-08	4.92E-08	3.77E-07	6.32E-07	5.64E-07
7E-08	1.51E-07	5.55E-08	4.88E-08	4.88E-08	3.74E-07	6.29E-07	5.61E-07
6.95E-08	1.5E-07	5.51E-08	4.84E-08	4.84E-08	3.71E-07	6.25E-07	5.58E-07
6.89E-08	1.48E-07	5.46E-08	4.8E-08	4.8E-08	3.68E-07	6.21E-07	5.55E-07
6.82E-08	1.47E-07	5.4E-08	4.74E-08	4.74E-08	3.64E-07	6.16E-07	5.50E-07
6.43E-08	1.38E-07	5.07E-08	4.45E-08	4.45E-08	3.42E-07	5.89E-07	5.26E-07
6.53E-08	1.4E-07	5.14E-08	4.52E-08	4.52E-08	3.47E-07	6.00E-07	5.37E-07
6.75E-08	1.44E-07	5.3E-08	4.66E-08	4.66E-08	3.58E-07	6.34E-07	5.67E-07
6.8E-08	1.45E-07	5.33E-08	4.68E-08	4.68E-08	3.60E-07	6.43E-07	5.76E-07
6.82E-08	1.45E-07	5.34E-08	4.69E-08	4.69E-08	3.61E-07	6.52E-07	5.84E-07
6.83E-08	1.45E-07	5.33E-08	4.68E-08	4.68E-08	3.60E-07	6.59E-07	5.91E-07
6.79E-08	1.44E-07	5.29E-08	4.65E-08	4.65E-08	3.58E-07	6.64E-07	5.95E-07
6.73E-08	1.42E-07	5.24E-08	4.6E-08	4.6E-08	3.54E-07	6.68E-07	5.99E-07
6.64E-08	1.4E-07	5.16E-08	4.53E-08	4.53E-08	3.49E-07	6.69E-07	6.00E-07
6.52E-08	1.38E-07	5.06E-08	4.45E-08	4.45E-08	3.43E-07	6.69E-07	6.00E-07
6.38E-08	1.35E-07	4.95E-08	4.35E-08	4.35E-08	3.35E-07	6.66E-07	5.98E-07
6.23E-08	1.31E-07	4.83E-08	4.24E-08	4.24E-08	3.27E-07	6.63E-07	5.96E-07
6.08E-08	1.28E-07	4.72E-08	4.15E-08	4.15E-08	3.19E-07	6.60E-07	5.93E-07
5.94E-08	1.25E-07	4.61E-08	4.05E-08	4.05E-08	3.12E-07	6.55E-07	5.89E-07
7.41E-08	1.6E-07	5.87E-08	5.16E-08	5.16E-08	3.96E-07	6.49E-07	5.79E-07
7.04E-08	1.52E-07	5.58E-08	4.9E-08	4.9E-08	3.76E-07	6.19E-07	5.53E-07
7E-08	1.51E-07	5.55E-08	4.88E-08	4.88E-08	3.74E-07	6.18E-07	5.52E-07
6.96E-08	1.5E-07	5.52E-08	4.85E-08	4.85E-08	3.72E-07	6.17E-07	5.50E-07
6.92E-08	1.49E-07	5.49E-08	4.82E-08	4.82E-08	3.70E-07	6.15E-07	5.49E-07
6.88E-08	1.48E-07	5.46E-08	4.8E-08	4.8E-08	3.68E-07	6.14E-07	5.48E-07
6.84E-08	1.48E-07	5.43E-08	4.77E-08	4.77E-08	3.66E-07	6.12E-07	5.46E-07
6.8E-08	1.47E-07	5.4E-08	4.74E-08	4.74E-08	3.64E-07	6.09E-07	5.44E-07
6.76E-08	1.46E-07	5.36E-08	4.71E-08	4.71E-08	3.61E-07	6.07E-07	5.42E-07
6.71E-08	1.45E-07	5.32E-08	4.68E-08	4.68E-08	3.59E-07	6.04E-07	5.39E-07
6.65E-08	1.43E-07	5.28E-08	4.64E-08	4.64E-08	3.55E-07	6.00E-07	5.35E-07
6.6E-08	1.42E-07	5.23E-08	4.59E-08	4.59E-08	3.52E-07	5.95E-07	5.32E-07
6.09E-08	1.31E-07	4.81E-08	4.22E-08	4.22E-08	3.24E-07	5.54E-07	4.95E-07

6.1E-08	1.31E-07	4.81E-08	4.23E-08	4.23E-08	3.24E-07	5.56E-07	4.97E-07
6.2E-08	1.33E-07	4.89E-08	4.29E-08	4.29E-08	3.30E-07	5.67E-07	5.07E-07
6.29E-08	1.35E-07	4.95E-08	4.35E-08	4.35E-08	3.34E-07	5.78E-07	5.16E-07
6.37E-08	1.36E-07	5.02E-08	4.41E-08	4.41E-08	3.38E-07	5.89E-07	5.26E-07
6.51E-08	1.39E-07	5.11E-08	4.49E-08	4.49E-08	3.45E-07	6.10E-07	5.45E-07
6.56E-08	1.4E-07	5.14E-08	4.52E-08	4.52E-08	3.47E-07	6.20E-07	5.54E-07
6.58E-08	1.4E-07	5.15E-08	4.53E-08	4.53E-08	3.48E-07	6.28E-07	5.62E-07
6.59E-08	1.4E-07	5.15E-08	4.52E-08	4.52E-08	3.48E-07	6.35E-07	5.68E-07
6.57E-08	1.39E-07	5.12E-08	4.5E-08	4.5E-08	3.46E-07	6.40E-07	5.74E-07
6.51E-08	1.38E-07	5.07E-08	4.45E-08	4.45E-08	3.43E-07	6.43E-07	5.77E-07
6.43E-08	1.36E-07	5E-08	4.39E-08	4.39E-08	3.38E-07	6.45E-07	5.78E-07
6.32E-08	1.34E-07	4.91E-08	4.31E-08	4.31E-08	3.32E-07	6.45E-07	5.79E-07
6.19E-08	1.31E-07	4.8E-08	4.22E-08	4.22E-08	3.25E-07	6.42E-07	5.77E-07
6.04E-08	1.28E-07	4.69E-08	4.12E-08	4.12E-08	3.17E-07	6.40E-07	5.75E-07
5.9E-08	1.25E-07	4.58E-08	4.03E-08	4.03E-08	3.10E-07	6.36E-07	5.72E-07
5.76E-08	1.22E-07	4.48E-08	3.93E-08	3.93E-08	3.03E-07	6.32E-07	5.68E-07
7.14E-08	1.54E-07	5.66E-08	4.97E-08	4.97E-08	3.81E-07	6.26E-07	5.58E-07
6.8E-08	1.46E-07	5.39E-08	4.73E-08	4.73E-08	3.63E-07	5.98E-07	5.33E-07
6.76E-08	1.46E-07	5.36E-08	4.71E-08	4.71E-08	3.61E-07	5.97E-07	5.32E-07
6.72E-08	1.45E-07	5.33E-08	4.68E-08	4.68E-08	3.59E-07	5.95E-07	5.31E-07
6.68E-08	1.44E-07	5.3E-08	4.65E-08	4.65E-08	3.57E-07	5.94E-07	5.30E-07
6.64E-08	1.43E-07	5.27E-08	4.63E-08	4.63E-08	3.55E-07	5.92E-07	5.28E-07
6.6E-08	1.43E-07	5.24E-08	4.6E-08	4.6E-08	3.53E-07	5.90E-07	5.27E-07
6.56E-08	1.42E-07	5.21E-08	4.58E-08	4.58E-08	3.51E-07	5.88E-07	5.25E-07
6.52E-08	1.41E-07	5.18E-08	4.55E-08	4.55E-08	3.49E-07	5.86E-07	5.23E-07
6.48E-08	1.4E-07	5.15E-08	4.52E-08	4.52E-08	3.47E-07	5.83E-07	5.20E-07
6.43E-08	1.39E-07	5.1E-08	4.48E-08	4.48E-08	3.44E-07	5.79E-07	5.17E-07
6.38E-08	1.38E-07	5.06E-08	4.45E-08	4.45E-08	3.41E-07	5.76E-07	5.14E-07
6.33E-08	1.36E-07	5.01E-08	4.4E-08	4.4E-08	3.38E-07	5.71E-07	5.10E-07
5.92E-08	1.27E-07	4.67E-08	4.1E-08	4.1E-08	3.15E-07	5.38E-07	4.80E-07
5.88E-08	1.26E-07	4.64E-08	4.08E-08	4.08E-08	3.13E-07	5.36E-07	4.79E-07
5.97E-08	1.28E-07	4.71E-08	4.14E-08	4.14E-08	3.18E-07	5.46E-07	4.88E-07
6.06E-08	1.3E-07	4.78E-08	4.2E-08	4.2E-08	3.22E-07	5.57E-07	4.98E-07
6.15E-08	1.32E-07	4.84E-08	4.25E-08	4.25E-08	3.27E-07	5.68E-07	5.08E-07
6.22E-08	1.33E-07	4.89E-08	4.3E-08	4.3E-08	3.30E-07	5.78E-07	5.17E-07
6.33E-08	1.35E-07	4.96E-08	4.36E-08	4.36E-08	3.35E-07	5.97E-07	5.34E-07
6.36E-08	1.35E-07	4.98E-08	4.37E-08	4.37E-08	3.36E-07	6.05E-07	5.42E-07
6.36E-08	1.35E-07	4.97E-08	4.37E-08	4.37E-08	3.36E-07	6.12E-07	5.48E-07
6.35E-08	1.35E-07	4.95E-08	4.35E-08	4.35E-08	3.35E-07	6.17E-07	5.53E-07
6.31E-08	1.34E-07	4.91E-08	4.32E-08	4.32E-08	3.32E-07	6.21E-07	5.56E-07
6.23E-08	1.32E-07	4.85E-08	4.26E-08	4.26E-08	3.28E-07	6.22E-07	5.58E-07
6.13E-08	1.3E-07	4.76E-08	4.19E-08	4.19E-08	3.22E-07	6.22E-07	5.58E-07
6E-08	1.27E-07	4.66E-08	4.1E-08	4.1E-08	3.15E-07	6.20E-07	5.56E-07
5.87E-08	1.24E-07	4.56E-08	4E-08	4E-08	3.08E-07	6.17E-07	5.54E-07
5.73E-08	1.21E-07	4.45E-08	3.91E-08	3.91E-08	3.01E-07	6.14E-07	5.51E-07
6.89E-08	1.48E-07	5.46E-08	4.8E-08	4.8E-08	3.68E-07	6.04E-07	5.38E-07
6.57E-08	1.42E-07	5.2E-08	4.57E-08	4.57E-08	3.51E-07	5.77E-07	5.15E-07

6.53E-08	1.41E-07	5.17E-08	4.55E-08	4.55E-08	3.49E-07	5.76E-07	5.14E-07
6.49E-08	1.4E-07	5.14E-08	4.52E-08	4.52E-08	3.47E-07	5.75E-07	5.13E-07
6.46E-08	1.39E-07	5.12E-08	4.5E-08	4.5E-08	3.45E-07	5.74E-07	5.12E-07
6.42E-08	1.38E-07	5.09E-08	4.47E-08	4.47E-08	3.43E-07	5.72E-07	5.11E-07
6.38E-08	1.38E-07	5.07E-08	4.45E-08	4.45E-08	3.41E-07	5.70E-07	5.09E-07
6.35E-08	1.37E-07	5.04E-08	4.43E-08	4.43E-08	3.40E-07	5.69E-07	5.07E-07
6.31E-08	1.36E-07	5.01E-08	4.4E-08	4.4E-08	3.38E-07	5.66E-07	5.05E-07
6.28E-08	1.36E-07	4.99E-08	4.38E-08	4.38E-08	3.36E-07	5.64E-07	5.04E-07
6.24E-08	1.35E-07	4.95E-08	4.35E-08	4.35E-08	3.33E-07	5.61E-07	5.01E-07
6.19E-08	1.34E-07	4.91E-08	4.31E-08	4.31E-08	3.31E-07	5.58E-07	4.98E-07
6.14E-08	1.32E-07	4.87E-08	4.28E-08	4.28E-08	3.28E-07	5.54E-07	4.95E-07
5.71E-08	1.23E-07	4.51E-08	3.96E-08	3.96E-08	3.04E-07	5.19E-07	4.63E-07
5.68E-08	1.22E-07	4.48E-08	3.94E-08	3.94E-08	3.02E-07	5.17E-07	4.62E-07
5.77E-08	1.24E-07	4.55E-08	4E-08	4E-08	3.07E-07	5.27E-07	4.71E-07
5.85E-08	1.25E-07	4.61E-08	4.05E-08	4.05E-08	3.11E-07	5.37E-07	4.80E-07
5.92E-08	1.27E-07	4.67E-08	4.1E-08	4.1E-08	3.15E-07	5.47E-07	4.89E-07
5.99E-08	1.28E-07	4.72E-08	4.14E-08	4.14E-08	3.18E-07	5.56E-07	4.97E-07
6.13E-08	1.31E-07	4.81E-08	4.23E-08	4.23E-08	3.25E-07	5.82E-07	5.21E-07
6.15E-08	1.31E-07	4.81E-08	4.23E-08	4.23E-08	3.25E-07	5.89E-07	5.27E-07
6.15E-08	1.31E-07	4.8E-08	4.22E-08	4.22E-08	3.24E-07	5.94E-07	5.32E-07
6.12E-08	1.3E-07	4.77E-08	4.19E-08	4.19E-08	3.23E-07	5.98E-07	5.36E-07
6.06E-08	1.28E-07	4.72E-08	4.14E-08	4.14E-08	3.19E-07	6.00E-07	5.38E-07
5.98E-08	1.26E-07	4.65E-08	4.08E-08	4.08E-08	3.14E-07	6.00E-07	5.38E-07
5.87E-08	1.24E-07	4.56E-08	4.01E-08	4.01E-08	3.09E-07	5.99E-07	5.38E-07
5.38E-08	1.14E-07	4.18E-08	3.67E-08	3.67E-08	2.83E-07	5.87E-07	5.27E-07
5.27E-08	1.11E-07	4.1E-08	3.6E-08	3.6E-08	2.77E-07	5.83E-07	5.24E-07
6.66E-08	1.44E-07	5.28E-08	4.64E-08	4.64E-08	3.56E-07	5.83E-07	5.20E-07
1.99E-07	4.27E-07	1.57E-07	1.38E-07	1.38E-07	1.06E-06	1.71E-06	1.52E-06
1.83E-07	3.94E-07	1.45E-07	1.27E-07	1.27E-07	9.76E-07	1.59E-06	1.42E-06
1.93E-07	4.16E-07	1.53E-07	1.34E-07	1.34E-07	1.03E-06	1.65E-06	1.48E-06
1.79E-07	3.85E-07	1.41E-07	1.24E-07	1.24E-07	9.54E-07	1.55E-06	1.38E-06
1.66E-07	3.57E-07	1.31E-07	1.15E-07	1.15E-07	8.84E-07	1.45E-06	1.29E-06
1.88E-07	4.05E-07	1.49E-07	1.31E-07	1.31E-07	1.00E-06	1.61E-06	1.43E-06
1.74E-07	3.75E-07	1.38E-07	1.21E-07	1.21E-07	9.31E-07	1.50E-06	1.34E-06
1.62E-07	3.49E-07	1.28E-07	1.13E-07	1.13E-07	8.65E-07	1.41E-06	1.26E-06
2.92E-07	6.28E-07	2.31E-07	2.03E-07	2.03E-07	1.56E-06	2.36E-06	2.10E-06
1.83E-07	3.94E-07	1.45E-07	1.27E-07	1.27E-07	9.77E-07	1.56E-06	1.39E-06
1.7E-07	3.67E-07	1.35E-07	1.18E-07	1.18E-07	9.09E-07	1.46E-06	1.30E-06
1.59E-07	3.41E-07	1.25E-07	1.1E-07	1.1E-07	8.46E-07	1.37E-06	1.22E-06
1.48E-07	3.18E-07	1.17E-07	1.03E-07	1.03E-07	7.89E-07	1.29E-06	1.15E-06
2.81E-07	6.05E-07	2.22E-07	1.95E-07	1.95E-07	1.50E-06	2.26E-06	2.01E-06
1.79E-07	3.84E-07	1.41E-07	1.24E-07	1.24E-07	9.52E-07	1.51E-06	1.35E-06
1.66E-07	3.57E-07	1.31E-07	1.16E-07	1.16E-07	8.86E-07	1.42E-06	1.27E-06
1.55E-07	3.33E-07	1.23E-07	1.08E-07	1.08E-07	8.26E-07	1.34E-06	1.19E-06
1.45E-07	3.12E-07	1.15E-07	1.01E-07	1.01E-07	7.72E-07	1.26E-06	1.12E-06
2.44E-07	5.24E-07	1.93E-07	1.69E-07	1.69E-07	1.30E-06	1.98E-06	1.76E-06
2.71E-07	5.83E-07	2.14E-07	1.88E-07	1.88E-07	1.45E-06	2.18E-06	1.93E-06

1.74E-07	3.74E-07	1.38E-07	1.21E-07	1.21E-07	9.27E-07	1.47E-06	1.31E-06
1.62E-07	3.49E-07	1.28E-07	1.13E-07	1.13E-07	8.65E-07	1.38E-06	1.23E-06
1.51E-07	3.26E-07	1.2E-07	1.05E-07	1.05E-07	8.08E-07	1.30E-06	1.16E-06
1.42E-07	3.05E-07	1.12E-07	9.85E-08	9.85E-08	7.56E-07	1.23E-06	1.09E-06
1.33E-07	2.86E-07	1.05E-07	9.23E-08	9.23E-08	7.08E-07	1.16E-06	1.03E-06
2.35E-07	5.07E-07	1.86E-07	1.64E-07	1.64E-07	1.26E-06	1.91E-06	1.70E-06
2.61E-07	5.62E-07	2.07E-07	1.82E-07	1.82E-07	1.39E-06	2.09E-06	1.86E-06
1.58E-07	3.4E-07	1.25E-07	1.1E-07	1.1E-07	8.44E-07	1.35E-06	1.20E-06
1.48E-07	3.18E-07	1.17E-07	1.03E-07	1.03E-07	7.89E-07	1.27E-06	1.13E-06
1.39E-07	2.98E-07	1.1E-07	9.63E-08	9.63E-08	7.39E-07	1.20E-06	1.07E-06
1.3E-07	2.8E-07	1.03E-07	9.04E-08	9.04E-08	6.93E-07	1.13E-06	1.01E-06
2.52E-07	5.43E-07	2E-07	1.76E-07	1.76E-07	1.35E-06	2.02E-06	1.79E-06
2.03E-07	4.38E-07	1.61E-07	1.42E-07	1.42E-07	1.09E-06	1.66E-06	1.47E-06
1.9E-07	4.08E-07	1.5E-07	1.32E-07	1.32E-07	1.01E-06	1.56E-06	1.39E-06
1.55E-07	3.33E-07	1.22E-07	1.07E-07	1.07E-07	8.24E-07	1.31E-06	1.17E-06
1.45E-07	3.11E-07	1.15E-07	1.01E-07	1.01E-07	7.72E-07	1.24E-06	1.10E-06
1.36E-07	2.92E-07	1.07E-07	9.44E-08	9.44E-08	7.24E-07	1.17E-06	1.04E-06
1.27E-07	2.74E-07	1.01E-07	8.85E-08	8.85E-08	6.79E-07	1.10E-06	9.85E-07
1.2E-07	2.58E-07	9.48E-08	8.33E-08	8.33E-08	6.39E-07	1.04E-06	9.32E-07
1.97E-07	4.25E-07	1.56E-07	1.37E-07	1.37E-07	1.05E-06	1.60E-06	1.43E-06
1.85E-07	3.98E-07	1.46E-07	1.29E-07	1.29E-07	9.86E-07	1.52E-06	1.35E-06
1.51E-07	3.25E-07	1.2E-07	1.05E-07	1.05E-07	8.06E-07	1.28E-06	1.14E-06
1.42E-07	3.05E-07	1.12E-07	9.85E-08	9.85E-08	7.55E-07	1.21E-06	1.08E-06
1.33E-07	2.86E-07	1.05E-07	9.24E-08	9.24E-08	7.09E-07	1.14E-06	1.02E-06
1.25E-07	2.69E-07	9.88E-08	8.68E-08	8.68E-08	6.66E-07	1.08E-06	9.63E-07
1.17E-07	2.53E-07	9.3E-08	8.17E-08	8.17E-08	6.27E-07	1.02E-06	9.11E-07
2.13E-07	4.61E-07	1.69E-07	1.49E-07	1.49E-07	1.14E-06	1.72E-06	1.53E-06
1.91E-07	4.13E-07	1.52E-07	1.34E-07	1.34E-07	1.02E-06	1.55E-06	1.38E-06
1.79E-07	3.87E-07	1.42E-07	1.25E-07	1.25E-07	9.59E-07	1.47E-06	1.31E-06
1.68E-07	3.62E-07	1.33E-07	1.17E-07	1.17E-07	8.98E-07	1.39E-06	1.24E-06
1.39E-07	2.98E-07	1.1E-07	9.63E-08	9.63E-08	7.39E-07	1.18E-06	1.05E-06
1.3E-07	2.8E-07	1.03E-07	9.05E-08	9.05E-08	6.94E-07	1.11E-06	9.93E-07
1.22E-07	2.63E-07	9.69E-08	8.51E-08	8.51E-08	6.53E-07	1.06E-06	9.41E-07
1.15E-07	2.48E-07	9.12E-08	8.01E-08	8.01E-08	6.15E-07	1.00E-06	8.92E-07
1.09E-07	2.34E-07	8.61E-08	7.56E-08	7.56E-08	5.80E-07	9.49E-07	8.46E-07
2.06E-07	4.46E-07	1.64E-07	1.44E-07	1.44E-07	1.11E-06	1.66E-06	1.48E-06
1.85E-07	4.01E-07	1.47E-07	1.3E-07	1.3E-07	9.93E-07	1.50E-06	1.34E-06
1.74E-07	3.77E-07	1.38E-07	1.22E-07	1.22E-07	9.33E-07	1.43E-06	1.27E-06
1.64E-07	3.53E-07	1.3E-07	1.14E-07	1.14E-07	8.76E-07	1.35E-06	1.20E-06
1.36E-07	2.92E-07	1.07E-07	9.44E-08	9.44E-08	7.24E-07	1.15E-06	1.02E-06
1.28E-07	2.75E-07	1.01E-07	8.87E-08	8.87E-08	6.81E-07	1.09E-06	9.70E-07
1.2E-07	2.59E-07	9.51E-08	8.35E-08	8.35E-08	6.41E-07	1.03E-06	9.21E-07
1.13E-07	2.44E-07	8.96E-08	7.87E-08	7.87E-08	6.04E-07	9.79E-07	8.73E-07
1.07E-07	2.3E-07	8.46E-08	7.43E-08	7.43E-08	5.70E-07	9.30E-07	8.29E-07
2E-07	4.32E-07	1.59E-07	1.4E-07	1.4E-07	1.07E-06	1.61E-06	1.43E-06
2.18E-07	4.72E-07	1.74E-07	1.53E-07	1.53E-07	1.17E-06	1.74E-06	1.54E-06
1.8E-07	3.89E-07	1.43E-07	1.26E-07	1.26E-07	9.64E-07	1.46E-06	1.30E-06

1.7E-07	3.66E-07	1.35E-07	1.18E-07	1.18E-07	9.07E-07	1.38E-06	1.23E-06
1.6E-07	3.45E-07	1.27E-07	1.11E-07	1.11E-07	8.53E-07	1.31E-06	1.17E-06
1.33E-07	2.86E-07	1.05E-07	9.25E-08	9.25E-08	7.09E-07	1.12E-06	1.00E-06
1.25E-07	2.69E-07	9.91E-08	8.7E-08	8.7E-08	6.68E-07	1.06E-06	9.49E-07
1.18E-07	2.54E-07	9.33E-08	8.19E-08	8.19E-08	6.29E-07	1.01E-06	9.00E-07
1.11E-07	2.39E-07	8.8E-08	7.73E-08	7.73E-08	5.93E-07	9.59E-07	8.55E-07
1.05E-07	2.26E-07	8.31E-08	7.3E-08	7.3E-08	5.60E-07	9.11E-07	8.13E-07
9.93E-08	2.14E-07	7.86E-08	6.91E-08	6.91E-08	5.30E-07	8.67E-07	7.73E-07
1.93E-07	4.18E-07	1.54E-07	1.35E-07	1.35E-07	1.04E-06	1.55E-06	1.38E-06
2.1E-07	4.56E-07	1.68E-07	1.47E-07	1.47E-07	1.13E-06	1.67E-06	1.49E-06
1.74E-07	3.77E-07	1.39E-07	1.22E-07	1.22E-07	9.34E-07	1.41E-06	1.25E-06
1.65E-07	3.56E-07	1.31E-07	1.15E-07	1.15E-07	8.82E-07	1.34E-06	1.19E-06
1.55E-07	3.36E-07	1.23E-07	1.08E-07	1.08E-07	8.31E-07	1.28E-06	1.14E-06
1.3E-07	2.8E-07	1.03E-07	9.06E-08	9.06E-08	6.95E-07	1.10E-06	9.76E-07
1.23E-07	2.64E-07	9.72E-08	8.54E-08	8.54E-08	6.55E-07	1.04E-06	9.27E-07
1.16E-07	2.49E-07	9.16E-08	8.05E-08	8.05E-08	6.17E-07	9.89E-07	8.81E-07
1.09E-07	2.35E-07	8.65E-08	7.6E-08	7.6E-08	5.83E-07	9.39E-07	8.38E-07
1.03E-07	2.22E-07	8.17E-08	7.18E-08	7.18E-08	5.51E-07	8.93E-07	7.97E-07
9.77E-08	2.1E-07	7.73E-08	6.79E-08	6.79E-08	5.21E-07	8.50E-07	7.58E-07
1.87E-07	4.05E-07	1.49E-07	1.31E-07	1.31E-07	1.00E-06	1.50E-06	1.33E-06
2.02E-07	4.4E-07	1.62E-07	1.42E-07	1.42E-07	1.09E-06	1.61E-06	1.43E-06
1.69E-07	3.66E-07	1.35E-07	1.18E-07	1.18E-07	9.06E-07	1.37E-06	1.21E-06
1.6E-07	3.46E-07	1.27E-07	1.12E-07	1.12E-07	8.57E-07	1.30E-06	1.16E-06
1.51E-07	3.27E-07	1.2E-07	1.06E-07	1.06E-07	8.10E-07	1.24E-06	1.10E-06
1.27E-07	2.75E-07	1.01E-07	8.87E-08	8.87E-08	6.80E-07	1.07E-06	9.53E-07
1.2E-07	2.59E-07	9.53E-08	8.38E-08	8.38E-08	6.42E-07	1.02E-06	9.07E-07
1.14E-07	2.45E-07	9E-08	7.91E-08	7.91E-08	6.07E-07	9.68E-07	8.63E-07
1.07E-07	2.31E-07	8.5E-08	7.47E-08	7.47E-08	5.73E-07	9.21E-07	8.21E-07
1.02E-07	2.19E-07	8.04E-08	7.06E-08	7.06E-08	5.42E-07	8.76E-07	7.81E-07
9.61E-08	2.07E-07	7.61E-08	6.69E-08	6.69E-08	5.13E-07	8.35E-07	7.44E-07
9.11E-08	1.96E-07	7.22E-08	6.34E-08	6.34E-08	4.86E-07	7.95E-07	7.09E-07
1.8E-07	3.91E-07	1.44E-07	1.26E-07	1.26E-07	9.68E-07	1.45E-06	1.29E-06
1.95E-07	4.24E-07	1.56E-07	1.37E-07	1.37E-07	1.05E-06	1.55E-06	1.38E-06
1.63E-07	3.55E-07	1.31E-07	1.15E-07	1.15E-07	8.78E-07	1.32E-06	1.18E-06
1.55E-07	3.37E-07	1.24E-07	1.09E-07	1.09E-07	8.33E-07	1.26E-06	1.12E-06
1.47E-07	3.19E-07	1.17E-07	1.03E-07	1.03E-07	7.89E-07	1.21E-06	1.07E-06
1.25E-07	2.69E-07	9.89E-08	8.69E-08	8.69E-08	6.66E-07	1.04E-06	9.30E-07
1.18E-07	2.54E-07	9.35E-08	8.21E-08	8.21E-08	6.30E-07	9.95E-07	8.86E-07
1.12E-07	2.4E-07	8.84E-08	7.77E-08	7.77E-08	5.96E-07	9.48E-07	8.44E-07
1.06E-07	2.27E-07	8.36E-08	7.35E-08	7.35E-08	5.63E-07	9.03E-07	8.04E-07
9.98E-08	2.15E-07	7.91E-08	6.95E-08	6.95E-08	5.33E-07	8.59E-07	7.66E-07
9.46E-08	2.04E-07	7.49E-08	6.58E-08	6.58E-08	5.05E-07	8.19E-07	7.30E-07
8.97E-08	1.93E-07	7.1E-08	6.24E-08	6.24E-08	4.79E-07	7.81E-07	6.97E-07
1.74E-07	3.79E-07	1.39E-07	1.22E-07	1.22E-07	9.37E-07	1.40E-06	1.24E-06
1.88E-07	4.1E-07	1.51E-07	1.32E-07	1.32E-07	1.01E-06	1.50E-06	1.33E-06
1.58E-07	3.44E-07	1.27E-07	1.11E-07	1.11E-07	8.51E-07	1.28E-06	1.14E-06
1.51E-07	3.27E-07	1.2E-07	1.06E-07	1.06E-07	8.09E-07	1.23E-06	1.09E-06

1.43E-07	3.1E-07	1.14E-07	1E-07	1E-07	7.68E-07	1.17E-06	1.04E-06
1.22E-07	2.63E-07	9.68E-08	8.5E-08	8.5E-08	6.52E-07	1.02E-06	9.07E-07
1.15E-07	2.49E-07	9.17E-08	8.05E-08	8.05E-08	6.17E-07	9.72E-07	8.66E-07
1.09E-07	2.36E-07	8.68E-08	7.63E-08	7.63E-08	5.85E-07	9.28E-07	8.26E-07
1.04E-07	2.24E-07	8.22E-08	7.22E-08	7.22E-08	5.54E-07	8.85E-07	7.88E-07
9.82E-08	2.12E-07	7.78E-08	6.84E-08	6.84E-08	5.24E-07	8.43E-07	7.52E-07
9.32E-08	2.01E-07	7.38E-08	6.48E-08	6.48E-08	4.97E-07	8.04E-07	7.17E-07
8.84E-08	1.9E-07	7E-08	6.15E-08	6.15E-08	4.72E-07	7.68E-07	6.85E-07
8.4E-08	1.81E-07	6.65E-08	5.84E-08	5.84E-08	4.48E-07	7.33E-07	6.54E-07
1.68E-07	3.66E-07	1.35E-07	1.18E-07	1.18E-07	9.05E-07	1.35E-06	1.20E-06
1.81E-07	3.95E-07	1.45E-07	1.28E-07	1.28E-07	9.76E-07	1.44E-06	1.28E-06
1.53E-07	3.33E-07	1.23E-07	1.08E-07	1.08E-07	8.25E-07	1.24E-06	1.10E-06
1.46E-07	3.17E-07	1.17E-07	1.03E-07	1.03E-07	7.85E-07	1.19E-06	1.06E-06
1.39E-07	3.02E-07	1.11E-07	9.75E-08	9.75E-08	7.47E-07	1.14E-06	1.01E-06
1.19E-07	2.58E-07	9.48E-08	8.32E-08	8.32E-08	6.38E-07	9.95E-07	8.86E-07
1.13E-07	2.44E-07	8.98E-08	7.89E-08	7.89E-08	6.05E-07	9.50E-07	8.46E-07
1.07E-07	2.32E-07	8.52E-08	7.48E-08	7.48E-08	5.74E-07	9.08E-07	8.08E-07
1.02E-07	2.2E-07	8.08E-08	7.09E-08	7.09E-08	5.44E-07	8.66E-07	7.72E-07
9.66E-08	2.08E-07	7.66E-08	6.73E-08	6.73E-08	5.16E-07	8.27E-07	7.37E-07
9.17E-08	1.98E-07	7.27E-08	6.39E-08	6.39E-08	4.90E-07	7.90E-07	7.04E-07
8.71E-08	1.88E-07	6.9E-08	6.06E-08	6.06E-08	4.65E-07	7.54E-07	6.73E-07
8.28E-08	1.78E-07	6.56E-08	5.76E-08	5.76E-08	4.42E-07	7.21E-07	6.43E-07
1.63E-07	3.54E-07	1.3E-07	1.14E-07	1.14E-07	8.75E-07	1.30E-06	1.16E-06
1.75E-07	3.81E-07	1.4E-07	1.23E-07	1.23E-07	9.42E-07	1.39E-06	1.24E-06
1.48E-07	3.23E-07	1.19E-07	1.04E-07	1.04E-07	7.99E-07	1.20E-06	1.07E-06
1.42E-07	3.08E-07	1.13E-07	9.96E-08	9.96E-08	7.63E-07	1.15E-06	1.03E-06
1.35E-07	2.94E-07	1.08E-07	9.49E-08	9.49E-08	7.27E-07	1.11E-06	9.84E-07
1.16E-07	2.52E-07	9.27E-08	8.14E-08	8.14E-08	6.24E-07	9.71E-07	8.64E-07
1.11E-07	2.39E-07	8.8E-08	7.73E-08	7.73E-08	5.92E-07	9.28E-07	8.27E-07
1.05E-07	2.27E-07	8.36E-08	7.34E-08	7.34E-08	5.63E-07	8.88E-07	7.91E-07
1E-07	2.16E-07	7.93E-08	6.97E-08	6.97E-08	5.34E-07	8.49E-07	7.56E-07
9.5E-08	2.05E-07	7.54E-08	6.62E-08	6.62E-08	5.08E-07	8.12E-07	7.23E-07
9.03E-08	1.95E-07	7.16E-08	6.29E-08	6.29E-08	4.83E-07	7.76E-07	6.92E-07
8.58E-08	1.85E-07	6.8E-08	5.98E-08	5.98E-08	4.58E-07	7.41E-07	6.61E-07
8.17E-08	1.76E-07	6.47E-08	5.69E-08	5.69E-08	4.36E-07	7.09E-07	6.32E-07
7.77E-08	1.67E-07	6.16E-08	5.41E-08	5.41E-08	4.15E-07	6.78E-07	6.05E-07
1.57E-07	3.42E-07	1.26E-07	1.11E-07	1.11E-07	8.47E-07	1.26E-06	1.12E-06
1.68E-07	3.67E-07	1.35E-07	1.19E-07	1.19E-07	9.08E-07	1.34E-06	1.19E-06
1.44E-07	3.13E-07	1.15E-07	1.01E-07	1.01E-07	7.73E-07	1.16E-06	1.03E-06
1.38E-07	2.99E-07	1.1E-07	9.67E-08	9.67E-08	7.40E-07	1.12E-06	9.95E-07
1.31E-07	2.85E-07	1.05E-07	9.22E-08	9.22E-08	7.06E-07	1.08E-06	9.56E-07
1.14E-07	2.46E-07	9.06E-08	7.96E-08	7.96E-08	6.10E-07	9.47E-07	8.43E-07
1.08E-07	2.34E-07	8.61E-08	7.57E-08	7.57E-08	5.80E-07	9.07E-07	8.07E-07
1.03E-07	2.23E-07	8.19E-08	7.2E-08	7.2E-08	5.52E-07	8.68E-07	7.73E-07
9.81E-08	2.12E-07	7.79E-08	6.85E-08	6.85E-08	5.25E-07	8.31E-07	7.41E-07
9.34E-08	2.02E-07	7.41E-08	6.51E-08	6.51E-08	4.99E-07	7.96E-07	7.09E-07
8.88E-08	1.92E-07	7.05E-08	6.19E-08	6.19E-08	4.75E-07	7.61E-07	6.79E-07

8.46E-08	1.82E-07	6.71E-08	5.89E-08	5.89E-08	4.52E-07	7.29E-07	6.50E-07
8.05E-08	1.74E-07	6.38E-08	5.61E-08	5.61E-08	4.30E-07	6.97E-07	6.22E-07
7.67E-08	1.65E-07	6.08E-08	5.34E-08	5.34E-08	4.10E-07	6.68E-07	5.95E-07
1.52E-07	3.31E-07	1.22E-07	1.07E-07	1.07E-07	8.18E-07	1.22E-06	1.08E-06
1.62E-07	3.55E-07	1.3E-07	1.15E-07	1.15E-07	8.76E-07	1.29E-06	1.15E-06
1.39E-07	3.03E-07	1.11E-07	9.79E-08	9.79E-08	7.49E-07	1.12E-06	9.99E-07
1.33E-07	2.9E-07	1.07E-07	9.38E-08	9.38E-08	7.18E-07	1.08E-06	9.64E-07
1.28E-07	2.78E-07	1.02E-07	8.97E-08	8.97E-08	6.87E-07	1.04E-06	9.29E-07
1.11E-07	2.41E-07	8.86E-08	7.78E-08	7.78E-08	5.96E-07	9.24E-07	8.22E-07
1.06E-07	2.29E-07	8.44E-08	7.41E-08	7.41E-08	5.68E-07	8.86E-07	7.89E-07
1.01E-07	2.18E-07	8.03E-08	7.06E-08	7.06E-08	5.41E-07	8.49E-07	7.56E-07
9.62E-08	2.08E-07	7.65E-08	6.72E-08	6.72E-08	5.15E-07	8.14E-07	7.25E-07
9.17E-08	1.98E-07	7.29E-08	6.4E-08	6.4E-08	4.91E-07	7.80E-07	6.95E-07
8.74E-08	1.89E-07	6.94E-08	6.09E-08	6.09E-08	4.67E-07	7.47E-07	6.66E-07
8.33E-08	1.8E-07	6.61E-08	5.81E-08	5.81E-08	4.45E-07	7.16E-07	6.38E-07
7.94E-08	1.71E-07	6.29E-08	5.53E-08	5.53E-08	4.24E-07	6.86E-07	6.11E-07
7.57E-08	1.63E-07	6E-08	5.27E-08	5.27E-08	4.04E-07	6.57E-07	5.86E-07
7.22E-08	1.56E-07	5.72E-08	5.03E-08	5.03E-08	3.86E-07	6.30E-07	5.62E-07
1.47E-07	3.2E-07	1.18E-07	1.03E-07	1.03E-07	7.91E-07	1.18E-06	1.05E-06
1.57E-07	3.42E-07	1.26E-07	1.11E-07	1.11E-07	8.45E-07	1.25E-06	1.11E-06
1.35E-07	2.94E-07	1.08E-07	9.49E-08	9.49E-08	7.26E-07	1.09E-06	9.68E-07
1.29E-07	2.82E-07	1.04E-07	9.1E-08	9.1E-08	6.97E-07	1.05E-06	9.35E-07
1.24E-07	2.7E-07	9.92E-08	8.72E-08	8.72E-08	6.67E-07	1.01E-06	9.02E-07
1.09E-07	2.35E-07	8.66E-08	7.6E-08	7.6E-08	5.83E-07	9.02E-07	8.02E-07
1.04E-07	2.24E-07	8.26E-08	7.25E-08	7.25E-08	5.56E-07	8.66E-07	7.71E-07
9.89E-08	2.14E-07	7.87E-08	6.91E-08	6.91E-08	5.30E-07	8.31E-07	7.39E-07
9.44E-08	2.04E-07	7.51E-08	6.6E-08	6.6E-08	5.06E-07	7.97E-07	7.10E-07
9.01E-08	1.95E-07	7.16E-08	6.29E-08	6.29E-08	4.82E-07	7.65E-07	6.81E-07
8.59E-08	1.86E-07	6.83E-08	6E-08	6E-08	4.60E-07	7.33E-07	6.53E-07
8.2E-08	1.77E-07	6.51E-08	5.72E-08	5.72E-08	4.39E-07	7.04E-07	6.27E-07
7.82E-08	1.69E-07	6.21E-08	5.45E-08	5.45E-08	4.18E-07	6.75E-07	6.01E-07
7.46E-08	1.61E-07	5.92E-08	5.2E-08	5.2E-08	3.99E-07	6.47E-07	5.76E-07
7.13E-08	1.54E-07	5.65E-08	4.97E-08	4.97E-08	3.81E-07	6.20E-07	5.53E-07
1.42E-07	3.09E-07	1.14E-07	1E-07	1E-07	7.65E-07	1.14E-06	1.01E-06
1.51E-07	3.3E-07	1.21E-07	1.07E-07	1.07E-07	8.16E-07	1.20E-06	1.07E-06
3.45E-07	7.4E-07	2.72E-07	2.39E-07	2.39E-07	1.84E-06	2.74E-06	2.43E-06
3.26E-07	7.01E-07	2.58E-07	2.26E-07	2.26E-07	1.74E-06	2.59E-06	2.30E-06
3.48E-07	7.47E-07	2.75E-07	2.41E-07	2.41E-07	1.85E-06	2.74E-06	2.43E-06
3.09E-07	6.65E-07	2.45E-07	2.15E-07	2.15E-07	1.65E-06	2.46E-06	2.18E-06
3.29E-07	7.07E-07	2.6E-07	2.28E-07	2.28E-07	1.75E-06	2.59E-06	2.30E-06
2.94E-07	6.32E-07	2.33E-07	2.04E-07	2.04E-07	1.57E-06	2.33E-06	2.07E-06
3.12E-07	6.72E-07	2.47E-07	2.17E-07	2.17E-07	1.67E-06	2.46E-06	2.18E-06
2.8E-07	6.03E-07	2.22E-07	1.95E-07	1.95E-07	1.49E-06	2.22E-06	1.97E-06
2.96E-07	6.39E-07	2.35E-07	2.06E-07	2.06E-07	1.58E-06	2.33E-06	2.07E-06
2.67E-07	5.75E-07	2.12E-07	1.86E-07	1.86E-07	1.43E-06	2.12E-06	1.88E-06
2.82E-07	6.08E-07	2.24E-07	1.97E-07	1.97E-07	1.51E-06	2.22E-06	1.97E-06
2.68E-07	5.8E-07	2.13E-07	1.87E-07	1.87E-07	1.44E-06	2.11E-06	1.88E-06

2.32E-07	5.04E-07	1.85E-07	1.63E-07	1.63E-07	1.25E-06	1.83E-06	1.63E-06
2.22E-07	4.82E-07	1.77E-07	1.56E-07	1.56E-07	1.19E-06	1.75E-06	1.56E-06
2.11E-07	4.6E-07	1.69E-07	1.49E-07	1.49E-07	1.14E-06	1.67E-06	1.49E-06
2.02E-07	4.4E-07	1.62E-07	1.42E-07	1.42E-07	1.09E-06	1.60E-06	1.42E-06
3.9E-07	8.37E-07	3.08E-07	2.7E-07	2.7E-07	2.08E-06	3.03E-06	2.69E-06
4.01E-07	8.63E-07	3.17E-07	2.79E-07	2.79E-07	2.14E-06	3.09E-06	2.74E-06
4.12E-07	8.88E-07	3.26E-07	2.87E-07	2.87E-07	2.20E-06	3.14E-06	2.79E-06
3.58E-07	7.7E-07	2.83E-07	2.49E-07	2.49E-07	1.91E-06	2.80E-06	2.48E-06
3.68E-07	7.92E-07	2.91E-07	2.56E-07	2.56E-07	1.96E-06	2.85E-06	2.53E-06
3.78E-07	8.17E-07	3E-07	2.64E-07	2.64E-07	2.02E-06	2.91E-06	2.58E-06
3.39E-07	7.31E-07	2.69E-07	2.36E-07	2.36E-07	1.81E-06	2.64E-06	2.35E-06
3.48E-07	7.53E-07	2.77E-07	2.43E-07	2.43E-07	1.86E-06	2.69E-06	2.39E-06
3.22E-07	6.96E-07	2.56E-07	2.25E-07	2.25E-07	1.72E-06	2.50E-06	2.22E-06
2.98E-07	6.45E-07	2.37E-07	2.09E-07	2.09E-07	1.60E-06	2.33E-06	2.07E-06
6.13E-07	1.36E-06	5.01E-07	4.4E-07	4.4E-07	3.36E-06	4.31E-06	3.80E-06
4.26E-07	9.21E-07	3.39E-07	2.98E-07	2.98E-07	2.28E-06	3.22E-06	2.86E-06
4.55E-07	9.88E-07	3.63E-07	3.19E-07	3.19E-07	2.44E-06	3.38E-06	3.00E-06
4.7E-07	1.02E-06	3.77E-07	3.31E-07	3.31E-07	2.53E-06	3.47E-06	3.07E-06
5.03E-07	1.1E-06	4.06E-07	3.57E-07	3.57E-07	2.72E-06	3.65E-06	3.23E-06
5.35E-07	1.18E-06	4.35E-07	3.82E-07	3.82E-07	2.92E-06	3.82E-06	3.38E-06
3.92E-07	8.49E-07	3.12E-07	2.74E-07	2.74E-07	2.10E-06	2.98E-06	2.65E-06
4.05E-07	8.78E-07	3.23E-07	2.84E-07	2.84E-07	2.17E-06	3.05E-06	2.71E-06
4.3E-07	9.38E-07	3.45E-07	3.03E-07	3.03E-07	2.32E-06	3.20E-06	2.83E-06
4.57E-07	1E-06	3.69E-07	3.24E-07	3.24E-07	2.48E-06	3.34E-06	2.96E-06
4.71E-07	1.04E-06	3.81E-07	3.35E-07	3.35E-07	2.56E-06	3.42E-06	3.02E-06
4.97E-07	1.1E-06	4.05E-07	3.56E-07	3.56E-07	2.71E-06	3.56E-06	3.14E-06
3.62E-07	7.85E-07	2.89E-07	2.54E-07	2.54E-07	1.94E-06	2.77E-06	2.46E-06
3.84E-07	8.36E-07	3.07E-07	2.7E-07	2.7E-07	2.07E-06	2.89E-06	2.56E-06
4.06E-07	8.89E-07	3.27E-07	2.87E-07	2.87E-07	2.20E-06	3.01E-06	2.67E-06
4.29E-07	9.45E-07	3.47E-07	3.05E-07	3.05E-07	2.33E-06	3.14E-06	2.78E-06
4.51E-07	9.98E-07	3.67E-07	3.22E-07	3.22E-07	2.46E-06	3.26E-06	2.88E-06
3.35E-07	7.26E-07	2.67E-07	2.35E-07	2.35E-07	1.80E-06	2.58E-06	2.29E-06
3.45E-07	7.49E-07	2.76E-07	2.42E-07	2.42E-07	1.85E-06	2.63E-06	2.33E-06
3.64E-07	7.94E-07	2.92E-07	2.56E-07	2.56E-07	1.96E-06	2.74E-06	2.42E-06
3.83E-07	8.4E-07	3.09E-07	2.71E-07	2.71E-07	2.08E-06	2.84E-06	2.52E-06
4.02E-07	8.87E-07	3.26E-07	2.86E-07	2.86E-07	2.19E-06	2.94E-06	2.60E-06
3.11E-07	6.75E-07	2.48E-07	2.18E-07	2.18E-07	1.67E-06	2.40E-06	2.13E-06
3.2E-07	6.95E-07	2.56E-07	2.24E-07	2.24E-07	1.72E-06	2.45E-06	2.17E-06
3.36E-07	7.33E-07	2.7E-07	2.37E-07	2.37E-07	1.81E-06	2.54E-06	2.25E-06
3.44E-07	7.53E-07	2.77E-07	2.43E-07	2.43E-07	1.86E-06	2.59E-06	2.29E-06
3.61E-07	7.93E-07	2.92E-07	2.56E-07	2.56E-07	1.96E-06	2.68E-06	2.37E-06
3.77E-07	8.32E-07	3.06E-07	2.69E-07	2.69E-07	2.05E-06	2.76E-06	2.44E-06
2.83E-07	6.14E-07	2.26E-07	1.98E-07	1.98E-07	1.52E-06	2.21E-06	1.96E-06
2.97E-07	6.45E-07	2.37E-07	2.09E-07	2.09E-07	1.60E-06	2.29E-06	2.03E-06
3.04E-07	6.63E-07	2.44E-07	2.14E-07	2.14E-07	1.64E-06	2.33E-06	2.07E-06
3.18E-07	6.97E-07	2.56E-07	2.25E-07	2.25E-07	1.72E-06	2.41E-06	2.13E-06
3.33E-07	7.31E-07	2.69E-07	2.36E-07	2.36E-07	1.80E-06	2.48E-06	2.20E-06

3.39E-07	7.47E-07	2.75E-07	2.41E-07	2.41E-07	1.84E-06	2.52E-06	2.23E-06
2.69E-07	5.85E-07	2.15E-07	1.89E-07	1.89E-07	1.45E-06	2.10E-06	1.86E-06
2.76E-07	6.01E-07	2.21E-07	1.94E-07	1.94E-07	1.49E-06	2.14E-06	1.90E-06
2.89E-07	6.31E-07	2.32E-07	2.04E-07	2.04E-07	1.56E-06	2.21E-06	1.96E-06
3.02E-07	6.61E-07	2.43E-07	2.14E-07	2.14E-07	1.63E-06	2.28E-06	2.02E-06
3.14E-07	6.9E-07	2.54E-07	2.23E-07	2.23E-07	1.70E-06	2.34E-06	2.07E-06
2.96E-07	6.51E-07	2.4E-07	2.1E-07	2.1E-07	1.61E-06	2.21E-06	1.96E-06
2.26E-07	4.91E-07	1.81E-07	1.59E-07	1.59E-07	1.22E-06	1.77E-06	1.57E-06
2.35E-07	5.13E-07	1.89E-07	1.66E-07	1.66E-07	1.27E-06	1.82E-06	1.62E-06
2.44E-07	5.34E-07	1.96E-07	1.73E-07	1.73E-07	1.32E-06	1.87E-06	1.66E-06
2.52E-07	5.53E-07	2.03E-07	1.79E-07	1.79E-07	1.37E-06	1.91E-06	1.70E-06
2.56E-07	5.63E-07	2.07E-07	1.82E-07	1.82E-07	1.39E-06	1.93E-06	1.71E-06
2.16E-07	4.71E-07	1.73E-07	1.52E-07	1.52E-07	1.17E-06	1.69E-06	1.50E-06
2.24E-07	4.9E-07	1.8E-07	1.58E-07	1.58E-07	1.21E-06	1.74E-06	1.54E-06
2.32E-07	5.08E-07	1.87E-07	1.64E-07	1.64E-07	1.26E-06	1.78E-06	1.58E-06
2.39E-07	5.25E-07	1.93E-07	1.7E-07	1.7E-07	1.30E-06	1.82E-06	1.61E-06
2.03E-07	4.43E-07	1.63E-07	1.43E-07	1.43E-07	1.09E-06	1.60E-06	1.42E-06
2.07E-07	4.52E-07	1.66E-07	1.46E-07	1.46E-07	1.12E-06	1.62E-06	1.44E-06
2.14E-07	4.68E-07	1.72E-07	1.51E-07	1.51E-07	1.16E-06	1.66E-06	1.47E-06
2.2E-07	4.84E-07	1.78E-07	1.56E-07	1.56E-07	1.19E-06	1.69E-06	1.50E-06
1.91E-07	4.17E-07	1.53E-07	1.35E-07	1.35E-07	1.03E-06	1.51E-06	1.34E-06
1.95E-07	4.25E-07	1.56E-07	1.37E-07	1.37E-07	1.05E-06	1.53E-06	1.36E-06
2.01E-07	4.4E-07	1.62E-07	1.42E-07	1.42E-07	1.09E-06	1.57E-06	1.39E-06
2.04E-07	4.47E-07	1.64E-07	1.44E-07	1.44E-07	1.10E-06	1.58E-06	1.40E-06
2.1E-07	4.61E-07	1.69E-07	1.49E-07	1.49E-07	1.14E-06	1.61E-06	1.43E-06
1.83E-07	4E-07	1.47E-07	1.29E-07	1.29E-07	9.90E-07	1.45E-06	1.28E-06
1.86E-07	4.07E-07	1.5E-07	1.32E-07	1.32E-07	1.01E-06	1.46E-06	1.30E-06
1.92E-07	4.21E-07	1.55E-07	1.36E-07	1.36E-07	1.04E-06	1.49E-06	1.33E-06
1.97E-07	4.33E-07	1.59E-07	1.4E-07	1.4E-07	1.07E-06	1.52E-06	1.35E-06
1.76E-07	3.84E-07	1.41E-07	1.24E-07	1.24E-07	9.49E-07	1.39E-06	1.23E-06
1.78E-07	3.9E-07	1.44E-07	1.26E-07	1.26E-07	9.65E-07	1.40E-06	1.24E-06
1.83E-07	4.02E-07	1.48E-07	1.3E-07	1.3E-07	9.93E-07	1.43E-06	1.27E-06
1.66E-07	3.63E-07	1.34E-07	1.17E-07	1.17E-07	8.97E-07	1.32E-06	1.17E-06
1.71E-07	3.74E-07	1.38E-07	1.21E-07	1.21E-07	9.25E-07	1.34E-06	1.19E-06
1.75E-07	3.84E-07	1.41E-07	1.24E-07	1.24E-07	9.49E-07	1.36E-06	1.21E-06
1.59E-07	3.49E-07	1.28E-07	1.13E-07	1.13E-07	8.62E-07	1.26E-06	1.12E-06
1.64E-07	3.59E-07	1.32E-07	1.16E-07	1.16E-07	8.86E-07	1.28E-06	1.14E-06
1.51E-07	3.31E-07	1.22E-07	1.07E-07	1.07E-07	8.17E-07	1.20E-06	1.07E-06
1.55E-07	3.4E-07	1.25E-07	1.1E-07	1.1E-07	8.39E-07	1.22E-06	1.08E-06
1.41E-07	3.09E-07	1.14E-07	9.99E-08	9.99E-08	7.64E-07	1.13E-06	1.00E-06
1.45E-07	3.18E-07	1.17E-07	1.03E-07	1.03E-07	7.85E-07	1.15E-06	1.02E-06
1.49E-07	3.26E-07	1.2E-07	1.05E-07	1.05E-07	8.05E-07	1.17E-06	1.04E-06
1.27E-07	2.76E-07	1.02E-07	8.93E-08	8.93E-08	6.83E-07	1.03E-06	9.16E-07
1.31E-07	2.85E-07	1.05E-07	9.22E-08	9.22E-08	7.05E-07	1.06E-06	9.38E-07
1.33E-07	2.9E-07	1.07E-07	9.36E-08	9.36E-08	7.16E-07	1.07E-06	9.49E-07
1.36E-07	2.98E-07	1.1E-07	9.63E-08	9.63E-08	7.36E-07	1.09E-06	9.67E-07
1.4E-07	3.06E-07	1.12E-07	9.87E-08	9.87E-08	7.55E-07	1.11E-06	9.82E-07

1.2E-07	2.6E-07	9.57E-08	8.41E-08	8.41E-08	6.44E-07	9.76E-07	8.67E-07
1.23E-07	2.68E-07	9.84E-08	8.65E-08	8.65E-08	6.62E-07	9.97E-07	8.86E-07
1.26E-07	2.76E-07	1.01E-07	8.91E-08	8.91E-08	6.82E-07	1.02E-06	9.06E-07
6.46E-07	1.44E-06	5.31E-07	4.67E-07	4.67E-07	3.56E-06	4.50E-06	3.96E-06
5.81E-07	1.3E-06	4.77E-07	4.19E-07	4.19E-07	3.19E-06	4.07E-06	3.59E-06
6.16E-07	1.39E-06	5.1E-07	4.48E-07	4.48E-07	3.41E-06	4.28E-06	3.77E-06
6.36E-07	1.44E-06	5.29E-07	4.65E-07	4.65E-07	3.53E-06	4.39E-06	3.87E-06
6.66E-07	1.52E-06	5.6E-07	4.92E-07	4.92E-07	3.73E-06	4.57E-06	4.02E-06
6.76E-07	1.56E-06	5.73E-07	5.04E-07	5.04E-07	3.82E-06	4.64E-06	4.08E-06
6.72E-07	1.56E-06	5.73E-07	5.04E-07	5.04E-07	3.81E-06	4.62E-06	4.06E-06
5.25E-07	1.17E-06	4.3E-07	3.78E-07	3.78E-07	2.88E-06	3.71E-06	3.27E-06
5.55E-07	1.25E-06	4.59E-07	4.03E-07	4.03E-07	3.07E-06	3.88E-06	3.42E-06
5.72E-07	1.29E-06	4.74E-07	4.17E-07	4.17E-07	3.17E-06	3.98E-06	3.51E-06
5.97E-07	1.36E-06	5E-07	4.39E-07	4.39E-07	3.33E-06	4.13E-06	3.63E-06
6.04E-07	1.38E-06	5.08E-07	4.46E-07	4.46E-07	3.38E-06	4.17E-06	3.67E-06
6.03E-07	1.39E-06	5.12E-07	4.5E-07	4.5E-07	3.41E-06	4.17E-06	3.66E-06
5.95E-07	1.38E-06	5.07E-07	4.46E-07	4.46E-07	3.37E-06	4.12E-06	3.62E-06
5.67E-07	1.33E-06	4.87E-07	4.28E-07	4.28E-07	3.24E-06	3.95E-06	3.47E-06
4.76E-07	1.06E-06	3.9E-07	3.42E-07	3.42E-07	2.61E-06	3.39E-06	3.00E-06
5.03E-07	1.13E-06	4.15E-07	3.64E-07	3.64E-07	2.78E-06	3.55E-06	3.13E-06
5.17E-07	1.16E-06	4.28E-07	3.76E-07	3.76E-07	2.86E-06	3.63E-06	3.20E-06
5.29E-07	1.2E-06	4.4E-07	3.86E-07	3.86E-07	2.94E-06	3.69E-06	3.25E-06
5.44E-07	1.24E-06	4.56E-07	4.01E-07	4.01E-07	3.04E-06	3.78E-06	3.33E-06
5.44E-07	1.25E-06	4.6E-07	4.04E-07	4.04E-07	3.07E-06	3.78E-06	3.33E-06
5.38E-07	1.24E-06	4.57E-07	4.01E-07	4.01E-07	3.04E-06	3.74E-06	3.29E-06
5.16E-07	1.2E-06	4.41E-07	3.87E-07	3.87E-07	2.93E-06	3.61E-06	3.17E-06
4.35E-07	9.66E-07	3.55E-07	3.12E-07	3.12E-07	2.38E-06	3.12E-06	2.75E-06
4.23E-07	9.38E-07	3.45E-07	3.03E-07	3.03E-07	2.31E-06	3.06E-06	2.70E-06
4.58E-07	1.02E-06	3.77E-07	3.31E-07	3.31E-07	2.52E-06	3.25E-06	2.87E-06
4.7E-07	1.06E-06	3.88E-07	3.41E-07	3.41E-07	2.60E-06	3.32E-06	2.93E-06
4.8E-07	1.08E-06	3.98E-07	3.5E-07	3.5E-07	2.66E-06	3.37E-06	2.97E-06
4.93E-07	1.12E-06	4.12E-07	3.62E-07	3.62E-07	2.75E-06	3.45E-06	3.04E-06
4.95E-07	1.13E-06	4.16E-07	3.65E-07	3.65E-07	2.77E-06	3.46E-06	3.04E-06
4.89E-07	1.12E-06	4.14E-07	3.63E-07	3.63E-07	2.75E-06	3.42E-06	3.01E-06
4.81E-07	1.11E-06	4.08E-07	3.59E-07	3.59E-07	2.72E-06	3.37E-06	2.97E-06
4.01E-07	8.9E-07	3.27E-07	2.88E-07	2.88E-07	2.19E-06	2.89E-06	2.55E-06
4.19E-07	9.36E-07	3.44E-07	3.03E-07	3.03E-07	2.30E-06	2.99E-06	2.64E-06
4.38E-07	9.85E-07	3.62E-07	3.18E-07	3.18E-07	2.42E-06	3.10E-06	2.73E-06
4.45E-07	1E-06	3.69E-07	3.25E-07	3.25E-07	2.47E-06	3.14E-06	2.76E-06
4.51E-07	1.03E-06	3.78E-07	3.32E-07	3.32E-07	2.52E-06	3.17E-06	2.79E-06
4.5E-07	1.03E-06	3.78E-07	3.32E-07	3.32E-07	2.52E-06	3.16E-06	2.79E-06
4.4E-07	1.01E-06	3.72E-07	3.27E-07	3.27E-07	2.48E-06	3.10E-06	2.73E-06
3.68E-07	8.17E-07	3.01E-07	2.64E-07	2.64E-07	2.01E-06	2.68E-06	2.36E-06
3.54E-07	7.82E-07	2.88E-07	2.53E-07	2.53E-07	1.93E-06	2.60E-06	2.30E-06
3.85E-07	8.58E-07	3.16E-07	2.77E-07	2.77E-07	2.11E-06	2.77E-06	2.44E-06
4.01E-07	9.01E-07	3.31E-07	2.91E-07	2.91E-07	2.22E-06	2.86E-06	2.52E-06
4.07E-07	9.17E-07	3.37E-07	2.96E-07	2.96E-07	2.25E-06	2.89E-06	2.55E-06

4.13E-07	9.38E-07	3.45E-07	3.03E-07	3.03E-07	2.30E-06	2.92E-06	2.57E-06
4.13E-07	9.4E-07	3.46E-07	3.04E-07	3.04E-07	2.31E-06	2.91E-06	2.57E-06
4.05E-07	9.27E-07	3.41E-07	3E-07	3E-07	2.27E-06	2.86E-06	2.52E-06
3.97E-07	9.12E-07	3.36E-07	2.95E-07	2.95E-07	2.23E-06	2.81E-06	2.48E-06
3.4E-07	7.54E-07	2.77E-07	2.43E-07	2.43E-07	1.86E-06	2.48E-06	2.20E-06
3.27E-07	7.21E-07	2.65E-07	2.33E-07	2.33E-07	1.78E-06	2.41E-06	2.13E-06
3.55E-07	7.9E-07	2.91E-07	2.55E-07	2.55E-07	1.95E-06	2.57E-06	2.27E-06
3.62E-07	8.09E-07	2.98E-07	2.62E-07	2.62E-07	1.99E-06	2.61E-06	2.30E-06
3.74E-07	8.42E-07	3.09E-07	2.72E-07	2.72E-07	2.07E-06	2.67E-06	2.36E-06
3.78E-07	8.53E-07	3.14E-07	2.76E-07	2.76E-07	2.10E-06	2.69E-06	2.37E-06
3.8E-07	8.62E-07	3.17E-07	2.79E-07	2.79E-07	2.12E-06	2.69E-06	2.37E-06
3.77E-07	8.59E-07	3.16E-07	2.78E-07	2.78E-07	2.11E-06	2.68E-06	2.36E-06
3.67E-07	8.4E-07	3.09E-07	2.71E-07	2.71E-07	2.06E-06	2.61E-06	2.30E-06
3.15E-07	6.97E-07	2.56E-07	2.25E-07	2.25E-07	1.72E-06	2.31E-06	2.05E-06
3.28E-07	7.3E-07	2.68E-07	2.36E-07	2.36E-07	1.80E-06	2.39E-06	2.11E-06
3.35E-07	7.47E-07	2.75E-07	2.41E-07	2.41E-07	1.84E-06	2.42E-06	2.14E-06
3.45E-07	7.75E-07	2.85E-07	2.5E-07	2.5E-07	1.91E-06	2.48E-06	2.19E-06
3.49E-07	7.85E-07	2.89E-07	2.54E-07	2.54E-07	1.93E-06	2.50E-06	2.20E-06
3.5E-07	7.94E-07	2.92E-07	2.57E-07	2.57E-07	1.95E-06	2.50E-06	2.20E-06
3.49E-07	7.92E-07	2.91E-07	2.56E-07	2.56E-07	1.94E-06	2.49E-06	2.19E-06
3.4E-07	7.76E-07	2.86E-07	2.51E-07	2.51E-07	1.90E-06	2.43E-06	2.14E-06
3.1E-07	6.91E-07	2.54E-07	2.23E-07	2.23E-07	1.70E-06	2.26E-06	2.00E-06
3.15E-07	7.05E-07	2.59E-07	2.28E-07	2.28E-07	1.73E-06	2.29E-06	2.02E-06
3.23E-07	7.25E-07	2.67E-07	2.34E-07	2.34E-07	1.78E-06	2.32E-06	2.05E-06
3.24E-07	7.31E-07	2.69E-07	2.36E-07	2.36E-07	1.80E-06	2.33E-06	2.05E-06
3.23E-07	7.32E-07	2.69E-07	2.37E-07	2.37E-07	1.80E-06	2.32E-06	2.04E-06
3.2E-07	7.28E-07	2.68E-07	2.35E-07	2.35E-07	1.79E-06	2.29E-06	2.02E-06
2.99E-07	6.72E-07	2.47E-07	2.17E-07	2.17E-07	1.65E-06	2.17E-06	1.91E-06
3.01E-07	6.78E-07	2.49E-07	2.19E-07	2.19E-07	1.67E-06	2.17E-06	1.92E-06
3E-07	6.8E-07	2.5E-07	2.2E-07	2.2E-07	1.67E-06	2.16E-06	1.91E-06
2.98E-07	6.76E-07	2.49E-07	2.18E-07	2.18E-07	1.66E-06	2.15E-06	1.89E-06
2.55E-07	5.64E-07	2.07E-07	1.82E-07	1.82E-07	1.39E-06	1.90E-06	1.68E-06
2.47E-07	5.45E-07	2E-07	1.76E-07	1.76E-07	1.34E-06	1.86E-06	1.65E-06
2.78E-07	6.29E-07	2.31E-07	2.03E-07	2.03E-07	1.54E-06	2.01E-06	1.77E-06
2.75E-07	6.24E-07	2.29E-07	2.01E-07	2.01E-07	1.53E-06	1.99E-06	1.75E-06
2.39E-07	5.27E-07	1.94E-07	1.7E-07	1.7E-07	1.30E-06	1.79E-06	1.58E-06
2.31E-07	5.1E-07	1.87E-07	1.65E-07	1.65E-07	1.26E-06	1.75E-06	1.55E-06
2.55E-07	5.67E-07	2.09E-07	1.83E-07	1.83E-07	1.40E-06	1.88E-06	1.66E-06
2.58E-07	5.75E-07	2.12E-07	1.86E-07	1.86E-07	1.42E-06	1.89E-06	1.67E-06
2.24E-07	4.94E-07	1.82E-07	1.6E-07	1.6E-07	1.22E-06	1.69E-06	1.49E-06
2.17E-07	4.78E-07	1.76E-07	1.54E-07	1.54E-07	1.18E-06	1.65E-06	1.46E-06
2.35E-07	5.22E-07	1.92E-07	1.69E-07	1.69E-07	1.29E-06	1.75E-06	1.55E-06
2.41E-07	5.38E-07	1.98E-07	1.74E-07	1.74E-07	1.32E-06	1.78E-06	1.57E-06
2.43E-07	5.44E-07	2E-07	1.76E-07	1.76E-07	1.34E-06	1.79E-06	1.58E-06
2.45E-07	5.51E-07	2.03E-07	1.78E-07	1.78E-07	1.35E-06	1.79E-06	1.59E-06
2.45E-07	5.51E-07	2.03E-07	1.78E-07	1.78E-07	1.36E-06	1.79E-06	1.58E-06
2.11E-07	4.66E-07	1.71E-07	1.5E-07	1.5E-07	1.15E-06	1.60E-06	1.41E-06

2.06E-07	4.53E-07	1.67E-07	1.46E-07	1.46E-07	1.12E-06	1.57E-06	1.39E-06
2.21E-07	4.89E-07	1.8E-07	1.58E-07	1.58E-07	1.21E-06	1.65E-06	1.46E-06
2.26E-07	5.04E-07	1.85E-07	1.63E-07	1.63E-07	1.24E-06	1.68E-06	1.48E-06
2.28E-07	5.09E-07	1.87E-07	1.65E-07	1.65E-07	1.25E-06	1.69E-06	1.49E-06
2.3E-07	5.16E-07	1.9E-07	1.67E-07	1.67E-07	1.27E-06	1.69E-06	1.49E-06
2.3E-07	5.16E-07	1.9E-07	1.67E-07	1.67E-07	1.27E-06	1.69E-06	1.49E-06
2.27E-07	5.12E-07	1.88E-07	1.66E-07	1.66E-07	1.26E-06	1.66E-06	1.47E-06
1.99E-07	4.38E-07	1.61E-07	1.42E-07	1.42E-07	1.08E-06	1.51E-06	1.34E-06
1.94E-07	4.26E-07	1.57E-07	1.38E-07	1.38E-07	1.05E-06	1.48E-06	1.31E-06
1.89E-07	4.14E-07	1.52E-07	1.34E-07	1.34E-07	1.02E-06	1.45E-06	1.29E-06
2.08E-07	4.6E-07	1.69E-07	1.49E-07	1.49E-07	1.13E-06	1.56E-06	1.38E-06
2.1E-07	4.67E-07	1.72E-07	1.51E-07	1.51E-07	1.15E-06	1.57E-06	1.39E-06
2.14E-07	4.78E-07	1.76E-07	1.54E-07	1.54E-07	1.18E-06	1.59E-06	1.41E-06
2.16E-07	4.82E-07	1.77E-07	1.56E-07	1.56E-07	1.19E-06	1.60E-06	1.41E-06
2.16E-07	4.85E-07	1.78E-07	1.57E-07	1.57E-07	1.19E-06	1.59E-06	1.41E-06
2.16E-07	4.84E-07	1.78E-07	1.56E-07	1.56E-07	1.19E-06	1.59E-06	1.40E-06
1.88E-07	4.13E-07	1.52E-07	1.34E-07	1.34E-07	1.02E-06	1.43E-06	1.27E-06
1.83E-07	4.02E-07	1.48E-07	1.3E-07	1.3E-07	9.93E-07	1.41E-06	1.25E-06
1.98E-07	4.39E-07	1.62E-07	1.42E-07	1.42E-07	1.08E-06	1.49E-06	1.32E-06
2.02E-07	4.5E-07	1.65E-07	1.45E-07	1.45E-07	1.11E-06	1.51E-06	1.33E-06
2.03E-07	4.53E-07	1.67E-07	1.46E-07	1.46E-07	1.12E-06	1.51E-06	1.34E-06
2.04E-07	4.56E-07	1.68E-07	1.47E-07	1.47E-07	1.12E-06	1.51E-06	1.33E-06
2.03E-07	4.56E-07	1.68E-07	1.47E-07	1.47E-07	1.12E-06	1.50E-06	1.33E-06
1.77E-07	3.91E-07	1.44E-07	1.26E-07	1.26E-07	9.64E-07	1.36E-06	1.20E-06
1.73E-07	3.8E-07	1.4E-07	1.23E-07	1.23E-07	9.39E-07	1.33E-06	1.18E-06
1.68E-07	3.69E-07	1.36E-07	1.19E-07	1.19E-07	9.11E-07	1.31E-06	1.16E-06
1.87E-07	4.14E-07	1.52E-07	1.34E-07	1.34E-07	1.02E-06	1.41E-06	1.25E-06
1.89E-07	4.2E-07	1.54E-07	1.36E-07	1.36E-07	1.03E-06	1.42E-06	1.26E-06
1.92E-07	4.27E-07	1.57E-07	1.38E-07	1.38E-07	1.05E-06	1.43E-06	1.26E-06
1.92E-07	4.29E-07	1.58E-07	1.39E-07	1.39E-07	1.06E-06	1.43E-06	1.27E-06
1.92E-07	4.3E-07	1.58E-07	1.39E-07	1.39E-07	1.06E-06	1.42E-06	1.26E-06
1.91E-07	4.28E-07	1.58E-07	1.38E-07	1.38E-07	1.05E-06	1.41E-06	1.25E-06
1.68E-07	3.7E-07	1.36E-07	1.19E-07	1.19E-07	9.13E-07	1.29E-06	1.14E-06
1.64E-07	3.6E-07	1.32E-07	1.16E-07	1.16E-07	8.89E-07	1.27E-06	1.12E-06
1.62E-07	3.55E-07	1.3E-07	1.15E-07	1.15E-07	8.76E-07	1.26E-06	1.11E-06
1.75E-07	3.86E-07	1.42E-07	1.25E-07	1.25E-07	9.53E-07	1.33E-06	1.18E-06
1.79E-07	3.96E-07	1.46E-07	1.28E-07	1.28E-07	9.77E-07	1.35E-06	1.19E-06
1.8E-07	4E-07	1.47E-07	1.29E-07	1.29E-07	9.86E-07	1.35E-06	1.20E-06
1.82E-07	4.05E-07	1.49E-07	1.31E-07	1.31E-07	9.98E-07	1.36E-06	1.20E-06
1.82E-07	4.06E-07	1.49E-07	1.31E-07	1.31E-07	1.00E-06	1.35E-06	1.20E-06
1.81E-07	4.05E-07	1.49E-07	1.31E-07	1.31E-07	9.96E-07	1.34E-06	1.19E-06
1.6E-07	3.51E-07	1.29E-07	1.14E-07	1.14E-07	8.67E-07	1.23E-06	1.09E-06
1.56E-07	3.43E-07	1.26E-07	1.11E-07	1.11E-07	8.48E-07	1.21E-06	1.07E-06
1.53E-07	3.35E-07	1.23E-07	1.08E-07	1.08E-07	8.27E-07	1.19E-06	1.06E-06
1.66E-07	3.66E-07	1.35E-07	1.18E-07	1.18E-07	9.02E-07	1.26E-06	1.12E-06
1.69E-07	3.75E-07	1.38E-07	1.21E-07	1.21E-07	9.24E-07	1.28E-06	1.13E-06
1.7E-07	3.78E-07	1.39E-07	1.22E-07	1.22E-07	9.32E-07	1.29E-06	1.14E-06

1.72E-07	3.83E-07	1.41E-07	1.24E-07	1.24E-07	9.44E-07	1.29E-06	1.14E-06
1.72E-07	3.84E-07	1.41E-07	1.24E-07	1.24E-07	9.46E-07	1.29E-06	1.14E-06
1.71E-07	3.83E-07	1.41E-07	1.24E-07	1.24E-07	9.43E-07	1.28E-06	1.13E-06
1.48E-07	3.26E-07	1.2E-07	1.05E-07	1.05E-07	8.05E-07	1.16E-06	1.02E-06
1.45E-07	3.18E-07	1.17E-07	1.03E-07	1.03E-07	7.85E-07	1.14E-06	1.01E-06
1.62E-07	3.61E-07	1.33E-07	1.17E-07	1.17E-07	8.90E-07	1.23E-06	1.09E-06
5.52E-07	1.29E-06	4.76E-07	4.18E-07	4.18E-07	3.16E-06	3.86E-06	3.39E-06
5.35E-07	1.25E-06	4.61E-07	4.05E-07	4.05E-07	3.06E-06	3.74E-06	3.29E-06
5.02E-07	1.17E-06	4.31E-07	3.78E-07	3.78E-07	2.86E-06	3.52E-06	3.10E-06
4.86E-07	1.14E-06	4.18E-07	3.67E-07	3.67E-07	2.77E-06	3.42E-06	3.01E-06
4.71E-07	1.1E-06	4.05E-07	3.55E-07	3.55E-07	2.69E-06	3.32E-06	2.92E-06
4.53E-07	1.06E-06	3.89E-07	3.42E-07	3.42E-07	2.58E-06	3.20E-06	2.81E-06
4.54E-07	1.06E-06	3.88E-07	3.41E-07	3.41E-07	2.58E-06	3.20E-06	2.82E-06
4.31E-07	1E-06	3.69E-07	3.24E-07	3.24E-07	2.45E-06	3.05E-06	2.68E-06
4.16E-07	9.69E-07	3.56E-07	3.13E-07	3.13E-07	2.37E-06	2.95E-06	2.59E-06
4.16E-07	9.64E-07	3.55E-07	3.11E-07	3.11E-07	2.36E-06	2.95E-06	2.59E-06
3.96E-07	9.2E-07	3.38E-07	2.97E-07	2.97E-07	2.25E-06	2.81E-06	2.48E-06
3.83E-07	8.9E-07	3.27E-07	2.88E-07	2.88E-07	2.18E-06	2.73E-06	2.40E-06
3.83E-07	8.85E-07	3.26E-07	2.86E-07	2.86E-07	2.17E-06	2.73E-06	2.40E-06
3.65E-07	8.46E-07	3.11E-07	2.73E-07	2.73E-07	2.07E-06	2.61E-06	2.30E-06
3.54E-07	8.21E-07	3.02E-07	2.65E-07	2.65E-07	2.01E-06	2.53E-06	2.23E-06
3.54E-07	8.16E-07	3E-07	2.64E-07	2.64E-07	2.00E-06	2.53E-06	2.23E-06
3.38E-07	7.81E-07	2.87E-07	2.52E-07	2.52E-07	1.91E-06	2.42E-06	2.14E-06
3.29E-07	7.59E-07	2.79E-07	2.45E-07	2.45E-07	1.86E-06	2.36E-06	2.08E-06
3.28E-07	7.54E-07	2.77E-07	2.44E-07	2.44E-07	1.85E-06	2.36E-06	2.08E-06
3.35E-07	7.67E-07	2.82E-07	2.48E-07	2.48E-07	1.88E-06	2.40E-06	2.11E-06
3.21E-07	7.38E-07	2.71E-07	2.38E-07	2.38E-07	1.81E-06	2.31E-06	2.03E-06
3.14E-07	7.23E-07	2.66E-07	2.34E-07	2.34E-07	1.77E-06	2.26E-06	1.99E-06
3.06E-07	7.05E-07	2.59E-07	2.28E-07	2.28E-07	1.72E-06	2.20E-06	1.94E-06
3.06E-07	7E-07	2.57E-07	2.26E-07	2.26E-07	1.72E-06	2.20E-06	1.94E-06
3.11E-07	7.11E-07	2.62E-07	2.3E-07	2.3E-07	1.74E-06	2.24E-06	1.97E-06
2.99E-07	6.85E-07	2.52E-07	2.21E-07	2.21E-07	1.68E-06	2.15E-06	1.90E-06
2.92E-07	6.72E-07	2.47E-07	2.17E-07	2.17E-07	1.65E-06	2.11E-06	1.86E-06
2.85E-07	6.55E-07	2.41E-07	2.12E-07	2.12E-07	1.61E-06	2.06E-06	1.82E-06
2.84E-07	6.48E-07	2.38E-07	2.09E-07	2.09E-07	1.59E-06	2.05E-06	1.81E-06
2.91E-07	6.64E-07	2.44E-07	2.14E-07	2.14E-07	1.63E-06	2.10E-06	1.85E-06
2.73E-07	6.26E-07	2.3E-07	2.02E-07	2.02E-07	1.53E-06	1.98E-06	1.75E-06
2.67E-07	6.12E-07	2.25E-07	1.98E-07	1.98E-07	1.50E-06	1.94E-06	1.71E-06
2.65E-07	6.05E-07	2.22E-07	1.95E-07	1.95E-07	1.48E-06	1.92E-06	1.70E-06
2.56E-07	5.85E-07	2.15E-07	1.89E-07	1.89E-07	1.43E-06	1.86E-06	1.64E-06
2.5E-07	5.72E-07	2.1E-07	1.85E-07	1.85E-07	1.40E-06	1.82E-06	1.61E-06
2.49E-07	5.66E-07	2.08E-07	1.83E-07	1.83E-07	1.39E-06	1.81E-06	1.60E-06
2.4E-07	5.47E-07	2.01E-07	1.77E-07	1.77E-07	1.34E-06	1.75E-06	1.55E-06
2.35E-07	5.36E-07	1.97E-07	1.73E-07	1.73E-07	1.32E-06	1.72E-06	1.52E-06
2.25E-07	5.14E-07	1.89E-07	1.66E-07	1.66E-07	1.26E-06	1.65E-06	1.46E-06
2.21E-07	5.04E-07	1.85E-07	1.63E-07	1.63E-07	1.24E-06	1.62E-06	1.43E-06
2.23E-07	5.05E-07	1.86E-07	1.63E-07	1.63E-07	1.24E-06	1.64E-06	1.44E-06

2.26E-07	5.1E-07	1.87E-07	1.65E-07	1.65E-07	1.25E-06	1.65E-06	1.46E-06
2.08E-07	4.7E-07	1.73E-07	1.52E-07	1.52E-07	1.15E-06	1.53E-06	1.35E-06
2.1E-07	4.75E-07	1.75E-07	1.54E-07	1.54E-07	1.17E-06	1.55E-06	1.37E-06
2.13E-07	4.79E-07	1.76E-07	1.55E-07	1.55E-07	1.18E-06	1.56E-06	1.38E-06
2.04E-07	4.63E-07	1.7E-07	1.5E-07	1.5E-07	1.14E-06	1.50E-06	1.33E-06
1.96E-07	4.43E-07	1.63E-07	1.43E-07	1.43E-07	1.09E-06	1.45E-06	1.28E-06
1.99E-07	4.49E-07	1.65E-07	1.45E-07	1.45E-07	1.10E-06	1.47E-06	1.30E-06
2.01E-07	4.52E-07	1.66E-07	1.46E-07	1.46E-07	1.11E-06	1.48E-06	1.31E-06
1.93E-07	4.37E-07	1.61E-07	1.41E-07	1.41E-07	1.07E-06	1.43E-06	1.26E-06
1.9E-07	4.31E-07	1.58E-07	1.39E-07	1.39E-07	1.06E-06	1.41E-06	1.24E-06
1.87E-07	4.24E-07	1.56E-07	1.37E-07	1.37E-07	1.04E-06	1.38E-06	1.22E-06
1.85E-07	4.18E-07	1.54E-07	1.35E-07	1.35E-07	1.03E-06	1.37E-06	1.21E-06
1.89E-07	4.25E-07	1.56E-07	1.37E-07	1.37E-07	1.05E-06	1.40E-06	1.24E-06
1.8E-07	4.07E-07	1.5E-07	1.32E-07	1.32E-07	1.00E-06	1.34E-06	1.18E-06
1.77E-07	4.01E-07	1.47E-07	1.29E-07	1.29E-07	9.84E-07	1.32E-06	1.16E-06
1.76E-07	3.96E-07	1.46E-07	1.28E-07	1.28E-07	9.73E-07	1.31E-06	1.15E-06
1.79E-07	4.03E-07	1.48E-07	1.3E-07	1.3E-07	9.90E-07	1.33E-06	1.18E-06
1.71E-07	3.86E-07	1.42E-07	1.25E-07	1.25E-07	9.49E-07	1.27E-06	1.13E-06
1.68E-07	3.8E-07	1.4E-07	1.23E-07	1.23E-07	9.33E-07	1.25E-06	1.11E-06
1.67E-07	3.76E-07	1.38E-07	1.21E-07	1.21E-07	9.23E-07	1.24E-06	1.10E-06
1.7E-07	3.82E-07	1.4E-07	1.23E-07	1.23E-07	9.38E-07	1.27E-06	1.12E-06
1.62E-07	3.67E-07	1.35E-07	1.18E-07	1.18E-07	9.01E-07	1.21E-06	1.07E-06
1.6E-07	3.61E-07	1.33E-07	1.17E-07	1.17E-07	8.87E-07	1.20E-06	1.06E-06
1.59E-07	3.57E-07	1.31E-07	1.15E-07	1.15E-07	8.77E-07	1.19E-06	1.05E-06
1.6E-07	3.6E-07	1.32E-07	1.16E-07	1.16E-07	8.85E-07	1.20E-06	1.06E-06
1.62E-07	3.62E-07	1.33E-07	1.17E-07	1.17E-07	8.91E-07	1.21E-06	1.07E-06
1.57E-07	3.53E-07	1.3E-07	1.14E-07	1.14E-07	8.67E-07	1.17E-06	1.04E-06
1.55E-07	3.49E-07	1.28E-07	1.13E-07	1.13E-07	8.57E-07	1.16E-06	1.02E-06
1.52E-07	3.44E-07	1.26E-07	1.11E-07	1.11E-07	8.44E-07	1.14E-06	1.01E-06
2.95E-07	6.82E-07	2.51E-07	2.2E-07	2.2E-07	1.67E-06	2.23E-06	1.97E-06
2.74E-07	6.32E-07	2.32E-07	2.04E-07	2.04E-07	1.55E-06	2.07E-06	1.83E-06
4.12E-07	9.61E-07	3.53E-07	3.1E-07	3.1E-07	2.35E-06	2.92E-06	2.57E-06
3.54E-07	8.19E-07	3.01E-07	2.65E-07	2.65E-07	2.00E-06	2.53E-06	2.22E-06
2.97E-07	6.85E-07	2.52E-07	2.21E-07	2.21E-07	1.68E-06	2.14E-06	1.89E-06
3.06E-07	7.06E-07	2.6E-07	2.28E-07	2.28E-07	1.73E-06	2.21E-06	1.94E-06
2.62E-07	6.05E-07	2.22E-07	1.95E-07	1.95E-07	1.48E-06	1.91E-06	1.68E-06
2.75E-07	6.33E-07	2.33E-07	2.05E-07	2.05E-07	1.55E-06	1.99E-06	1.76E-06
2.82E-07	6.49E-07	2.39E-07	2.1E-07	2.1E-07	1.59E-06	2.04E-06	1.80E-06
2.12E-07	4.87E-07	1.79E-07	1.57E-07	1.57E-07	1.19E-06	1.57E-06	1.38E-06
2.43E-07	5.6E-07	2.06E-07	1.81E-07	1.81E-07	1.37E-06	1.78E-06	1.57E-06
2.55E-07	5.87E-07	2.16E-07	1.9E-07	1.9E-07	1.44E-06	1.86E-06	1.64E-06
2.63E-07	6.04E-07	2.22E-07	1.95E-07	1.95E-07	1.48E-06	1.91E-06	1.68E-06
2.68E-07	6.15E-07	2.26E-07	1.99E-07	1.99E-07	1.51E-06	1.94E-06	1.71E-06
1.92E-07	4.39E-07	1.62E-07	1.42E-07	1.42E-07	1.08E-06	1.43E-06	1.26E-06
2.15E-07	4.94E-07	1.82E-07	1.6E-07	1.6E-07	1.21E-06	1.59E-06	1.40E-06
2.29E-07	5.26E-07	1.94E-07	1.7E-07	1.7E-07	1.29E-06	1.68E-06	1.48E-06
2.35E-07	5.41E-07	1.99E-07	1.75E-07	1.75E-07	1.32E-06	1.72E-06	1.52E-06

2.44E-07	5.6E-07	2.06E-07	1.81E-07	1.81E-07	1.37E-06	1.78E-06	1.57E-06
2.48E-07	5.67E-07	2.09E-07	1.83E-07	1.83E-07	1.39E-06	1.80E-06	1.59E-06
2.5E-07	5.74E-07	2.11E-07	1.85E-07	1.85E-07	1.41E-06	1.82E-06	1.61E-06
2.51E-07	5.74E-07	2.11E-07	1.85E-07	1.85E-07	1.41E-06	1.83E-06	1.61E-06
1.72E-07	3.93E-07	1.45E-07	1.27E-07	1.27E-07	9.64E-07	1.29E-06	1.14E-06
1.86E-07	4.26E-07	1.57E-07	1.38E-07	1.38E-07	1.04E-06	1.39E-06	1.22E-06
2.13E-07	4.89E-07	1.8E-07	1.58E-07	1.58E-07	1.20E-06	1.57E-06	1.39E-06
2.19E-07	5.03E-07	1.85E-07	1.63E-07	1.63E-07	1.23E-06	1.61E-06	1.42E-06
2.29E-07	5.23E-07	1.92E-07	1.69E-07	1.69E-07	1.28E-06	1.67E-06	1.48E-06
2.34E-07	5.35E-07	1.97E-07	1.73E-07	1.73E-07	1.31E-06	1.71E-06	1.51E-06
2.35E-07	5.38E-07	1.98E-07	1.74E-07	1.74E-07	1.32E-06	1.72E-06	1.52E-06
1.62E-07	3.69E-07	1.36E-07	1.19E-07	1.19E-07	9.04E-07	1.21E-06	1.07E-06
1.74E-07	3.98E-07	1.46E-07	1.29E-07	1.29E-07	9.75E-07	1.30E-06	1.15E-06
1.87E-07	4.28E-07	1.57E-07	1.38E-07	1.38E-07	1.05E-06	1.39E-06	1.23E-06
1.99E-07	4.57E-07	1.68E-07	1.48E-07	1.48E-07	1.12E-06	1.48E-06	1.30E-06
2.1E-07	4.8E-07	1.77E-07	1.55E-07	1.55E-07	1.18E-06	1.55E-06	1.36E-06
2.17E-07	4.96E-07	1.83E-07	1.6E-07	1.6E-07	1.22E-06	1.59E-06	1.41E-06
2.21E-07	5.05E-07	1.86E-07	1.63E-07	1.63E-07	1.24E-06	1.62E-06	1.43E-06
2.22E-07	5.08E-07	1.87E-07	1.64E-07	1.64E-07	1.24E-06	1.63E-06	1.44E-06
1.41E-07	3.2E-07	1.18E-07	1.03E-07	1.03E-07	7.85E-07	1.07E-06	9.44E-07
1.52E-07	3.46E-07	1.27E-07	1.12E-07	1.12E-07	8.50E-07	1.15E-06	1.01E-06
1.63E-07	3.73E-07	1.37E-07	1.21E-07	1.21E-07	9.15E-07	1.23E-06	1.08E-06
1.75E-07	4E-07	1.47E-07	1.29E-07	1.29E-07	9.81E-07	1.31E-06	1.15E-06
1.97E-07	4.49E-07	1.65E-07	1.45E-07	1.45E-07	1.10E-06	1.45E-06	1.28E-06
2.04E-07	4.66E-07	1.71E-07	1.5E-07	1.5E-07	1.14E-06	1.50E-06	1.33E-06
2.08E-07	4.75E-07	1.75E-07	1.53E-07	1.53E-07	1.16E-06	1.53E-06	1.35E-06
2.1E-07	4.78E-07	1.76E-07	1.55E-07	1.55E-07	1.17E-06	1.54E-06	1.36E-06
1.33E-07	3.02E-07	1.11E-07	9.75E-08	9.75E-08	7.41E-07	1.01E-06	8.96E-07
1.43E-07	3.26E-07	1.2E-07	1.05E-07	1.05E-07	8.00E-07	1.08E-06	9.59E-07
1.54E-07	3.5E-07	1.29E-07	1.13E-07	1.13E-07	8.58E-07	1.16E-06	1.02E-06
1.64E-07	3.75E-07	1.38E-07	1.21E-07	1.21E-07	9.18E-07	1.23E-06	1.09E-06
1.75E-07	3.99E-07	1.47E-07	1.29E-07	1.29E-07	9.78E-07	1.30E-06	1.15E-06
1.92E-07	4.37E-07	1.61E-07	1.41E-07	1.41E-07	1.07E-06	1.42E-06	1.25E-06
1.96E-07	4.47E-07	1.64E-07	1.44E-07	1.44E-07	1.10E-06	1.45E-06	1.28E-06
1.98E-07	4.51E-07	1.66E-07	1.46E-07	1.46E-07	1.11E-06	1.46E-06	1.29E-06
1.99E-07	4.52E-07	1.66E-07	1.46E-07	1.46E-07	1.11E-06	1.47E-06	1.29E-06
1.35E-07	3.07E-07	1.13E-07	9.92E-08	9.92E-08	7.54E-07	1.03E-06	9.08E-07
1.45E-07	3.29E-07	1.21E-07	1.06E-07	1.06E-07	8.08E-07	1.09E-06	9.67E-07
1.54E-07	3.52E-07	1.29E-07	1.14E-07	1.14E-07	8.63E-07	1.16E-06	1.03E-06
1.64E-07	3.74E-07	1.38E-07	1.21E-07	1.21E-07	9.18E-07	1.23E-06	1.09E-06
1.81E-07	4.11E-07	1.51E-07	1.33E-07	1.33E-07	1.01E-06	1.34E-06	1.18E-06
1.85E-07	4.21E-07	1.55E-07	1.36E-07	1.36E-07	1.03E-06	1.37E-06	1.21E-06
1.88E-07	4.26E-07	1.57E-07	1.38E-07	1.38E-07	1.05E-06	1.39E-06	1.23E-06
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1.72E-07	3.91E-07	1.44E-07	1.26E-07	1.26E-07	9.59E-07	1.34E-06	1.19E-06
1.62E-07	3.67E-07	1.35E-07	1.19E-07	1.19E-07	9.01E-07	1.26E-06	1.12E-06

APPENDIX C

**ENVIRON AIR QUALITY
PEER REVIEW MEMORANDUM**

January 5, 2015

Via Electronic Mail

Ms. Heather Klein
Mr. Robert Merkamp
City of Oakland, Bureau of Planning
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Oakland, CA 94612
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Email: hklein@oaklandnet.com
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Re: Children's Hospital & Research Center Oakland Campus Master Plan Project Draft EIR (SCH No. 2013072058); Review of CIR's Comments Regarding Potential Air Quality Impacts

Dear Ms. Klein and Mr. Merkamp:

At the request of the City of Oakland ("City"), this letter provides ENVIRON's independent review of comments made by the Committee of Interns and Residents ("CIR") regarding the proposed Children's Hospital & Research Center Oakland¹ Campus Master Plan Project's ("Project") potential impacts to air quality.

The City published a Draft Environmental Impact Report (DEIR) (SCH No. 2013072058) for the Project in August 2014. In the DEIR, LSA Associates, Inc. (LSA) evaluated the Project's impacts to air quality and prepared a health risk assessment (HRA) to evaluate the Project's potential for air quality and human health impacts. On behalf of CIR, Lozeau Drury LLP submitted a comment letter expressing concerns regarding the DEIR's analysis of air quality impacts and in particular certain calculations in the HRA. Exhibit A to the Lozeau Drury letter is a technical review of these issues by a consulting firm Soil / Water / Air Protection Enterprise (SWAPE). In our review of these issues, ENVIRON reviewed Section E. Air Quality Section of the DEIR, and Appendix E. Air Quality and Greenhouse Gas Data. We also had two phone conversations with LSA to get further clarifications on the calculations presented in Appendix E.

To summarize ENVIRON's conclusions based on this review, the comments presented in the Lozeau Drury letter were based on misunderstandings of the construction HRA, the BAAQMD recommended model, and the City of Oakland Standard Conditions of Approval (SCAs). The methodologies and analyses conducted for the HRA and for the Draft EIR's overall evaluation of the Project's potential air quality impacts were done in substantial conformity with generally acceptable air quality and toxic air contaminants protocols and industry standards, and conclusions reached by LSA as to the Project's less-than-significant air quality impacts are consistent with these protocols and standards.

The following discussion identifies the main comments raised in the Lozeau Drury letter regarding the Project's potential air quality impacts and ENVIRON's independent review of those comments:

¹ ENVIRON understands that the Hospital's official name changed as of January 1, 2014 to UCSF Benioff Children's Hospital Oakland. For consistency, this letter still uses the previous name Children's Hospital & Research Center Oakland.

1. Analysis of Cancer Risk

The Lozeau Drury letter states that the DEIR "significantly underestimated" the cancer risk created by construction of the Project because it inappropriately shortened the exposure duration assumed for the nearby sensitive receptors. Based on our review of the DEIR, these statements are inaccurate and based on a misunderstanding of the construction intensity during that period of time. Even though the DEIR specifies 58 months for Phase I construction, and 60 months for Phase II construction, the intensity of construction, and therefore the intensity of impacts, within each of the phases will vary over time. Specifically, as discussed on page 87 of the DEIR, the Project includes interior renovations in the OPC1 Building, the 1982 Tower, the D&T Building, and the Cardiac Catheterization Lab Building. These interior renovation activities were included within the Project construction duration (i.e., 58 months for Phase I and 60 months for Phase II), but will generate only a minimal amount of outdoor construction activities involving diesel equipment, the major sources of toxic air contaminants (TAC) considered in the HRA, or other outdoor equipment that generates TACs. Therefore, it is reasonable to reduce the exposure duration of the overall construction period to a duration when a measureable amount of outdoor construction emissions would occur. SWAPE improperly calculated the cancer risks associated with TACs from the Project assuming that the intensity of the construction would be constant over the entire phase duration for each of the two phases. Because SWAPE's approach did not reduce the overall exposure period to account for the minimal TAC emissions associated with the interior renovation activities, SWAPE overestimated the overall emissions associated with the Project.

In addition, the off-site maximally exposed individual (MEI) determined in the DEIR for Phases I and II occur at different locations due to the construction areas of these two phases being in different locations. As shown in Figures III-8a to 8d of the DEIR, Phase I construction (excluding renovation) occurs at the northwest and middle of the Project site, while Phase II construction (excluding renovation) occurs at the northeast and south side of the Project site, closer to the freeway. Because the dominant wind direction in this area is from west to east, the MEI for Phase II is within the residential community across the freeway, downwind from the Phase II south side construction area. The MEI for Phase I, however, is on the north side of the Project. Because of the differences in their locations and assumption that the MEI is an infant born just after the start of each phase even though the phases do not overlap, the composite cancer risk from Phases I and II will always be smaller than the summed risks of the two MEIs independently. Therefore, SWAPE's methodology of adding the adjusted risk values at the two MEIs, despite revising exposure assumptions, results in an overestimation of impacts.

2. Use of the ISCST3 Model

The Lozeau Drury letter states that the HRA was conducted using an outdated air dispersion model, ISCST3, and therefore has to be redone using the more current AERMOD model. This is incorrect. ISCST3 is an appropriate air dispersion model for the Project. ISCST3 is a recommended model for refined modeling analysis as stated in the Bay Area Air Quality Management District (BAAQMD) Recommended Methods for Screening and Modeling Local Risks and Hazards.² The District continues to use ISCST3 regularly to conduct health risk screening analysis (HRSA) for permitting purposes. In fact, it is the District's standard practice to not use AERMOD unless the involved facility is a major facility subject to Federal permit regulations (i.e., Title V facility), which the Hospital is not.

3. Application of BAAQMD's Screening Levels

² BAAQMD. 2012. Recommended Methods for Screening and Modeling Local Risks and Hazards. May. Available at: <http://www.baaqmd.gov/~media/Files/Planning%20and%20Research/CEQA/Risk%20Modeling%20Approach%20May%202012.ashx?la=en>. Accessed November 2014.

The Lozeau Drury letter states that because the net square footage expansion of the Project exceeds the screening level sizes as put forward in Table 3-1 of the May 2010 BAAQMD CEQA Guidance, the Project has significant air quality impacts. This statement is inaccurate and misleading, and is based on Lozeau Drury's misunderstanding of the use of BAAQMD's screening criteria. Section 3.1.1 of the 2010 BAAQMD CEQA Guidance indicates that "if the project meets the screening criteria in Table 3-1, the project would not result in the generation of operational-related criteria air pollutants and/or precursors that exceed the Thresholds of Significance". This does not mean that if the project exceeds the screening criteria, the project's air quality impacts are significant for purposes of CEQA. It only means that a refined analysis may be warranted to evaluate a project's potential air quality operational impacts. It is standard practice in the industry to approach screening criteria for construction impacts in the same way. Consistent with this approach, the DEIR conducted refined analyses for both construction- and operational-related emissions, compared those to the mass emissions threshold, and concluded that the impacts from those emissions are less than significant based on the City's thresholds of significance for determining whether an impact is significant for purposes of CEQA. (See Tables IV.E-5, IV.E-6, IV.E-8, and IV.E-9).


4. The DEIR's Description of the Project's Construction Period

The Lozeau Drury letter states that the DEIR's description of the Project's construction duration in the DEIR itself and in the DEIR's Air Quality Appendix (Appendix E) is inconsistent. As discussed above, the overall construction duration referenced in the DEIR itself includes the overall construction period – which includes the construction time associated with interior renovations of several hospital buildings – while the DEIR's Air Quality Appendix analyzed health impact for the construction duration when construction TAC emissions from outdoor equipment that generate diesel emissions and other TACs occur. In our view, this was an appropriate approach to evaluating the Project's air quality impacts.

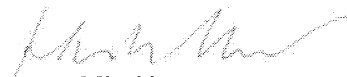
Conclusion

Based on ENVIRON's independent review of the comments raised in the Lozeau Drury letter regarding the Project's potential air quality impacts, we conclude that these comments were based on misunderstandings of the construction HRA, the BAAQMD recommended model, and City of Oakland SCAs. Additionally, the methodology and analysis conducted for the HRA and for the Draft EIR's overall evaluation of the Project's potential air quality impacts was done in substantial conformity with generally acceptable air quality and toxic air contaminants protocols and industry standards, and conclusions reached by LSA as to the Project's less-than-significant air quality impacts are consistent with these protocols and standards.

Sincerely,



Michael Keinath, PE
Principal



Min Hou
Sr. Associate