

Campus: UCSF
Building Name: Kirkham Child Care
Center
CAAN ID: 3039
Auxiliary Building ID: NA



UNIVERSITY
OF
CALIFORNIA

Date: 8/16/2019

FORM 1
CERTIFICATE OF SEISMIC PERFORMANCE LEVEL
 UC-Designed & Constructed Facility
 Campus-Acquired or Leased Facility

BUILDING DATA

Building Name: Kirkham Child Care Center
Address: 10 Kirkham St. San Francisco
Site location coordinates: Latitude 37.7670 Longitudinal -122.4611

UCOP SEISMIC PERFORMANCE LEVEL (OR "RATING"): III

ASCE 41-17 Model Building Type:

- a. Longitudinal Direction: W1a: Multistory Light Wood Frame
- b. Transverse Direction: W1a: Multistory Light Wood Frame

Gross Square Footage: 7,103
Number of stories *above* grade: 0
Number of basement stories *below* grade: 2

Year Original Building was Constructed: 2009
Original Building Design Code & Year: CBC-2001
Retrofit Building Design Code & Code (if applicable): NA

SITE INFORMATION

Site Class: D Basis: (USGS Soil Type and Shaking Hazard in the San Francisco Bay Area , 8/14/2019, NA)
Geologic Hazards:
Fault Rupture: No Basis: UCSF Presumptive Buildings – Geotechnical Assessment, Egan (2019)
Liquefaction: No Basis: UCSF Presumptive Buildings – Geotechnical Assessment, Egan (2019)
Landslide: No Basis: UCSF Presumptive Buildings – Geotechnical Assessment, Egan (2019)

ATTACHMENT

Original Structural Drawings: (Kirkham Childcare Center, Holmes Culley, 9/1/2008, S1.1) or
Seismic Evaluation: NA
Retrofit Structural Drawings: NA



CERTIFICATION & PRESUMPTIVE RATING VERIFICATION STATEMENT

I, **Maryann T. Phipps**, a California-licensed structural engineer, am responsible for the completion of this certificate, and I have no ownership interest in the property identified above. My scope of review to support the completion of this certificate included both of the following ("No" responses must include an explanation):

- a) the review of structural drawings indicating that they are as-built or record drawings, or that they otherwise are the basis for the construction of the building: Yes No
- b) visiting the building to verify the observable existing conditions are reasonably consistent with those shown on the structural drawings: Yes No

Based on my review, I have verified that the UCOP Seismic Performance Level (SPL) is presumptively permitted by the following UC Seismic Program Guidebook provision (choose one of the following):

- 1) Contract documents indicate that the original design and construction of the aforementioned building is in accordance with the benchmark design code year (or later) building code seismic design provisions for UBC or IBC listed in Table 1 below.
- 2) The existing SPL rating is based on an acceptable basis of seismic evaluation completed in 2006 or later.
- 3) Contract documents indicate that a comprehensive¹ building seismic retrofit design was fully-constructed with an engineered design based on the 1997 UBC/1998 **or later** CBC, and (choose one of the following):
 - the retrofit project was completed by the UC campus. Further, the design was based on ground motion parameters, at a minimum, corresponding to BSE-1E (or BSE-R) and BSE-2E (or BSE-C) as defined in ASCE 41, or the full design basis ground motion required in the 1997 UBC/1998 CBC **or later** for EXISTING buildings, and is presumptively assigned an SPL rating of IV.
 - the retrofit project was completed by the UC campus. Further, the design was based on ground motion parameters, at a minimum, corresponding to BSE-1 (or BSE-1N) and BSE-2 (or BSE-2N) as defined in ASCE 41, or the full design basis ground motion required in the 1997 UBC/1998 **or later** CBC for NEW buildings, and is presumptively assigned an SPL rating of III.
 - the retrofit project was not completed by the UC campus following UC policies, and is presumptively assigned an SPL rating of IV.

¹ A comprehensive retrofit addresses the entire building structural system as indicated by the associated seismic evaluation, as opposed to addressing selective portions of the structural system.

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CERTIFICATION SIGNATURE

Maryann T. Phipps	President
Print Name	Title
S2995	6/30/2020
CA Professional Registration No.	License Expiration Date
<i>Maryann T. Phipps</i>	8/16/2019
Signature	Date

AFFIX SEAL HERE



Estructure, (510) 235-3116, 1144 65th St Suite A, Oakland
Firm Name, Phone Number, and Address



Table 1: Benchmark Building Codes and Standards

Building Type ^{a,b}	Building Seismic Design Provisions	
	UBC	IBC
Wood frame, wood shear panels (Types W1 and W2)	1976	2000
Wood frame, wood shear panels (Type W1a)	1976	2000
Steel moment-resisting frame (Types S1 and S1a)	1997	2000
Steel concentrically braced frame (Types S2 and S2a)	1997	2000
Steel eccentrically braced frame (Types S2 and S2a)	1988 ^g	2000
Buckling-restrained braced frame (Types S2 and S2a)	f	2006
Metal building frames (Type S3)	f	2000
Steel frame with concrete shear walls (Type S4)	1994	2000
Steel frame with URM infill (Types S5 and S5a)	f	2000
Steel plate shear wall (Type S6)	f	2006
Cold-formed steel light-frame construction—shear wall system (Type CFS1)	1997 ^h	2000
Cold-formed steel light-frame construction—strap-braced wall system (Type CFS2)	f	2003
Reinforced concrete moment-resisting frame (Type C1) ⁱ	1994	2000
Reinforced concrete shear walls (Types C2 and C2a)	1994	2000
Concrete frame with URM infill (Types C3 and C3a)	f	f
Tilt-up concrete (Types PC1 and PC1a)	1997	2000
Precast concrete frame (Types PC2 and PC2a)	f	2000
Reinforced masonry (Type RM1)	1997	2000
Reinforced masonry (Type RM2)	1994	2000
Unreinforced masonry (Type URM)	f	f
Unreinforced masonry (Type URMa)	f	f
Seismic isolation or passive dissipation	1991	2000

Note: This table has been adapted from ASCE 41-17 Table 3-2. Benchmark Building Codes and Standards for Life Safety Structural Performed at BSE-1E.

Note: UBC = Uniform Building Code. IBC = International Building Code.

^a Building type refers to one of the common building types defined in Table 3-1 of ASCE 41-17.

^b Buildings on hillside sites shall not be considered Benchmark Buildings.

^c not used

^d not used

^e not used

^f No benchmark year; buildings shall be evaluated in accordance with Section III.J.

^g Steel eccentrically braced frames with links adjacent to columns shall comply with the 1994 UBC Emergency Provisions, published September/October 1994, or subsequent requirements.

^h Cold-formed steel shear walls with wood structural panels only.

ⁱ Flat slab concrete moment frames shall not be considered Benchmark Buildings.

I. GENERAL

- A. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AT THE JOB SITE BEFORE COMMENCING WORK AND SHALL REPORT ANY DISCREPANCIES TO THE UNIVERSITY REPRESENTATIVE AND SPECIAL INSPECTOR.
B. OMISSIONS OR CONFLICTS BETWEEN VARIOUS ELEMENTS OF THE DRAWINGS, NOTES, AND DETAILS SHALL BE BROUGHT TO THE ATTENTION OF THE UNIVERSITY'S REPRESENTATIVE, AND RESOLVED BEFORE PROCEEDING WITH THE WORK.
C. THE CONTRACTOR MUST SUBMIT IN WRITING ANY REQUESTS FOR MODIFICATIONS TO THE PLANS AND SPECIFICATIONS. SHOP DRAWINGS SUBMITTED TO THE UNIVERSITY'S REPRESENTATIVE FOR REVIEW DO NOT CONSTITUTE "IN WRITING" UNLESS IT IS CLEARLY NOTED THAT SPECIFIC CHANGES ARE BEING REQUESTED.

II. DESIGN CRITERIA

- A. APPLICABLE CODE: CALIFORNIA CODE OF REGULATIONS, (CALIFORNIA BUILDING CODE), 2001 EDITION.
FIRE DESIGN OF WOOD MEMBERS SHALL BE BASED ON AF&PA'S DCA No.2 AND AITC TECHNICAL NOTE 7 FOR ONE (1) HOUR FIRE RATING.

- B. DESIGN PARAMETERS:
1. GRAVITY LOADING:
LIVE LOAD = 100 PSF, OR 300 lb POINT LOAD

- 2. SEISMIC:
V = (2.5*Ca)*W
Ca = 0.43 PER GEOTECHNICAL REPORT
I = 1
R = 1
V = 1.07W (USD)
V = 0.77W (WSD)

- 3. WIND:
q w = ce cq qs lw
WIND SPEED = 70 MPH -> qs = 12.6 PSF
EXPOSURE B

C. FOUNDATION DESIGN

- 1. FOUNDATION DESIGN IS PER GEOTECHNICAL INVESTIGATION REPORT ENTITLED, "KIRKHAM CHILD CARE CENTER - UNIVERSITY OF CALIFORNIA, SAN FRANCISCO, CALIFORNIA", DATED MARCH 10, 2005, BY RUTHERFORD & CHEKENE.

III. MATERIALS

A. CONCRETE:

- 1. CONCRETE SHALL BE NORMAL WEIGHT, MIXED AND PLACED IN ACCORDANCE WITH ACI 318, AND SHALL ATTAIN MINIMUM COMPRESSIVE STRENGTH OF 2500 PSI AT 28 DAY.
2. CEMENTITIOUS MATERIAL: AN INTIMATE BLEND OF PORTLAND CEMENT & FLY ASH. SEE SPECIFICATION.
3. PORTLAND CEMENT: ASTM C150, TYPE II, LOW ALKALI
4. FLY ASH: ASTM C618, CLASS F
5. AGGREGATE: ASTM C33

B. REINFORCING STEEL:

- 1. ALL REINFORCING BARS SHALL CONFORM TO ASTM A615, GRADE 60.
2. DETAIL, FABRICATE, LABEL, SUPPORT AND SPACE ALL CONCRETE REINFORCEMENT IN ACCORDANCE WITH ACI 315, AND ACI 318, AND THE 2001 CBC.
3. ALL REINFORCING BAR BENDS SHALL BE MADE COLD.
4. ALL CONCRETE REINFORCING DETAILS SHALL CONFORM WITH "MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES", ACI 315.
5. MINIMUM CLEAR REINFORCEMENT COVER, TYPICAL UNLESS NOTED OTHERWISE:
CONCRETE POURED DIRECTLY AGAINST EARTH: 3 IN.
FORMED CONCRETE WITH EARTH BACKFILL: 2 IN.
SLAB & WALLS - EXPOSED TO WEATHER: 1 1/2 IN.
6. CONTRACTOR SHALL SUBMIT REINFORCING BAR LAYOUTS AND DETAILS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
7. REINFORCEMENT AND EMBEDMENTS SHALL BE ACCURATELY POSITIONED AND SECURED AGAINST DISPLACEMENT PRIOR TO PLACING CONCRETE. PROVIDE SUFFICIENT SUPPORTS TO PREVENT DAMAGE OR DISPLACEMENT FOR CONSTRUCTION TRAFFIC ON REINFORCEMENT.
8. PROVIDE CONTINUOUS REINFORCEMENT WHEREVER POSSIBLE, SPLICE ONLY AS SHOWN OR APPROVED.
9. REINFORCEMENT CROSSING CONSTRUCTION JOINTS SHALL BE CONTINUOUS OR LAPPED SPLICED.
10. ALL REINFORCING BARS THAT ARE SPLICED SHALL BE LAPPED FOR FULL TENSION IN ACCORDANCE WITH ACI 315. LAP LENGTH FOR #4 BARS SHALL BE 2'-6" MIN.
11. CONTRACTOR SHALL SUBMIT REINFORCING MILL TEST REPORTS FOR REVIEW AND APPROVAL PRIOR TO PLACEMENT.
12. IT IS THE RESPONSIBILITY OF THE REINFORCING BARS SUBCONTRACTOR TO REVIEW THE CONTRACT DRAWINGS. SHOP DRAWINGS MUST INDICATE ALL PENETRATIONS LARGER THAN 6" DIAMETER AND PROVIDE THE NECESSARY TRIM REINFORCEMENT.

III. MATERIALS, CONT'D

- C. NON-SHRINK GROUT:
SAME AS MASTERFLOW 928, OR EQUAL.

D. STEEL:

- 1. PLATES, BARS AND ANGLES: ASTM A36 (HOT-DIPPED GALVANIZED)
2. THREADED RODS: ASTM A307 (HOT-DIPPED GALVANIZED (HDG) ASTM A153)
3. ANCHOR BOLTS: ASTM A307 (HOT-DIPPED GALVANIZED (HDG) ASTM A153)
4. MACHINE BOLTS (MB): ASTM A307 (HOT-DIPPED GALVANIZED). ALL BOLTED JOINTS SHALL HAVE SQUARE PLATE WASHER UNDER HEAD & NUT WHERE BEARING IS AGAINST WOOD, AS FOLLOWS:

Table with 4 columns: BOLT DIA., 1/2"Ø, 5/8"Ø, 3/4"Ø; CUT WASHER SIZE, 2"SQ.x3/16", 2.5"SQ.x3/16", 3"SQ.x1/4"

MALLEABLE IRON WASHERS MAY BE USED IN LIEU OF SQUARE PLATE WASHERS. (ALL STEEL ELEMENTS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION)

E. DRILLED DOWELS AND BOLTS:

- 1. ALL DRILLED DOWELS SHALL BE REINFORCING STEEL AS DEFINED ABOVE. ALL DRILLED ANCHORS SHALL BE A36 THREADED RODS. DRILLED DOWELS AND DRILLED ANCHORS IN CONCRETE SHALL BE SET IN HILTI HIT HY150 RESIN (ESR 1967) OR EQUAL.
2. WHEN INSTALLING DRILLED DOWELS AND DRILLED ANCHORS IN EXISTING REINFORCED CONCRETE, USE CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. HOLES FOR DRILLED DOWELS SHALL NOT BE CORED. HOLE DIAMETERS SHOWN SHALL BE USED UNLESS SPECIFICALLY RECOMMENDED BY MANUFACTURER OF RESIN MATERIAL. WHERE EXISTING REINFORCING STEEL IS ENCOUNTERED, SHIFT THE DOWEL AS REQUIRED TO AVOID IT. DRILLED DOWELS SHALL HAVE MINIMUM EMBEDMENTS TABULATED BELOW UNLESS NOTED OTHERWISE ON THE DRAWINGS. THE TESTING LABORATORY SHALL LOAD TEST 10% OF EACH SIZE DOWEL TO THE LOAD SPECIFIED. IF ANY ONE DOWEL INSTALLED IN ANY ONE DAY FAILS THIS TEST, ALL DOWELS OF ALL SIZES INSTALLED THAT DAY SHALL BE TESTED.
3. EPOXY DRILLED DOWELS AND ANCHORS SHALL HAVE THE FOLLOWING MINIMUM EMBEDMENTS AND SHALL BE TESTED TO THE FOLLOWING TENSIONS LOADS.

Table with 4 columns: DOWEL OR ANCHOR SIZE, DIAMETER OF HOLE, MINIMUM EMBEDMENT U.O.N., TENSION TEST LOAD (LBS)

F. DECKING BOARDS:

- 1. DECKING BOARDS SHALL BE STRUCTURAL PLASTICS SAME AS TREX COMPOSITE LUMBER, TREX HS24 (ESR-1190), OR EQUAL.
2. INSTALLATION - DECKING BOARDS SHALL BE INSTALLED PER ESR 1190, OR EQUAL.
A. DECKING SHALL BE GAPPED TO PERMIT ADEQUATE DRAINAGE IN ACCORDANCE OF THE MANUFACTURER'S PUBLISHED INSTALLATION INSTRUCTIONS.
B. INSTALL DECKING USING No.12 SCREWS. MINIMUM TWO SCREWS @ EACH SUPPORT FOR EACH DECKING BOARD, UNLESS OTHERWISE RECOMMENDED BY MANUFACTURER.

G. WOOD:

- 1. ALL LUMBER SHALL BE PRESSURE TREATED DOUGLAS FIR NO.1.
2. FRAMING HARDWARE: AS MANUFACTURED BY SIMPSON CO. OR APPROVED EQUAL. SIMPSON DESIGNATIONS USED. ALL SHEET METAL FRAMING HARDWARE TO BE GALVANIZED.
3. ALL FASTENERS SHALL BE HOT DIPPED GALVANIZED (ASTM A153) OR STAINLESS STEEL.
4. NAILS: COMMON WIRE GAGE U.O.N. NAILING TO CONFORM TO UBC TABLE 23-11-B-1 UON.
5. COVER ALL EXPOSED STEEL & SHEET METAL FRAMING HARDWARE W/ 2x WOOD TO PROTECT STEEL.

H. EXPANSION ANCHORS IN CONCRETE:

- 1. SAME AS HILTI KWIK BOLT TZ (ESR 1917), OR EQUAL.

I. GLU-LAM BEAMS:

- 1. ALL MEMBERS SHALL BE FABRICATED IN ACCORDANCE WITH AITC STANDARD SPECIFICATIONS FOR STRUCTURAL GLUED LAMINATED TIMBERS (AITC 203), U.S. COMMERCIAL STANDARD CS253 FOR STRUCTURAL GLUED LAMINATED TIMBERS, AND SHALL HAVE A ONE-HOUR FIRE RATING. AITC CERTIFICATES SHALL BE FURNISHED TO THE UNIVERSITY'S REPRESENTATIVE FOR ALL MEMBERS.
2. USE COMBINATION OF 24F-V8 DF/DF FOR ALL JOISTS & BEAMS & POSTS. SLOPE IN GRAIN IN TOP & BOTTOM 10% OF LAMINATION SHALL NOT EXCEED 1:14.
3. GLU-LAM MEMBERS SHALL MEET 1 HR FIRE RESISTANCE RATING, AS SPECIFIED IN NATIONAL DESIGN SPECIFICATION FOR WOOD.

III. MATERIALS, CONT'D

- 3. MOISTURE CONTENT OF LUMBER SHALL NOT BE LESS THAN 7% OR GREATER THAN 12% AT THE TIME OF FABRICATION.
4. ALL GLUING SHALL BE DONE IN SHOP BY QUALIFIED PERSONNEL AND CONFORM TO ALL REQUIREMENTS SET OUT IN CS253.
5. SUBMIT SHOP DRAWINGS TO THE UNIVERSITY'S REPRESENTATIVE FOR APPROVAL.
6. USE EXTERIOR GLUE UNLESS OTHERWISE SPECIFIED.
7. USE INDUSTRIAL APPEARANCE GRADE, UNLESS OTHERWISE NOTED.

IV. SPECIAL INSPECTION

- A. THE UNIVERSITY SHALL EMPLOY QUALIFIED SPECIAL INSPECTORS TO PERFORM INSPECTIONS IN ACCORDANCE WITH CHAPTER 17 OF 2001 CBC AS A MINIMUM. THE ITEMS REQUIRING SPECIAL INSPECTION ON THIS PROJECT INCLUDE THE FOLLOWING:
1. REINFORCING STEEL: ALL REINFORCING STEEL IN CONCRETE.
2. DRILLED DOWELS.
3. BOLTS PLACED IN CONCRETE.
4. EXPANSION ANCHORS. TEST PER ESR RECOMMENDATIONS.
5. SPECIAL GRADING, EXCAVATION & FILLING.
B. INSPECTORS SHALL BE QUALIFIED BY TRAINING AND EXPERIENCE FOR THE REQUIRED INSPECTIONS AND MUST BE ACCEPTABLE TO THE BUILDING OFFICIAL. INSPECTORS SHALL THOROUGHLY REVIEW THE APPLICABLE PORTIONS OF THE DOCUMENTS. INSPECTORS SHALL PERFORM ALL DUTIES AND RESPONSIBILITIES AS REQUIRED BY CHAPTER 17 OF 2001 CBC.
C. THE STRUCTURAL ENGINEER WILL REVIEW THE PROGRESS OF THE WORK FOR GENERAL CONFORMANCE WITH THE CONTRACT DOCUMENTS, BUT THIS REVIEW SHALL NOT BE CONSTRUED AS ANY SPECIAL INSPECTION REQUIRED BY 2001 CBC CHAPTER 17.

V. SUBMITTALS

- A. SUBMIT THE FOLLOWING IN ACCORDANCE WITH DIVISION 1 OF SPECIFICATION:
1. CONCRETE MIX
2. REBAR SHOP DRAWINGS
3. PRODUCT DATA OF DECKING BOARDS
4. PRODUCT DATA FOR EXPANSION ANCHORS
5. PRODUCT DATA FOR FRAMING HARDWARE

V. STRUCTURAL DRAWING LIST

Table with 2 columns: Drawing No., Description

VI. ABBREVIATIONS

THE FOLLOWING ABBREVIATIONS MAY BE USED IN THE DRAWINGS TO DENOTE THE WORDS INDICATED.

Table with 4 columns: Abbreviation, Full Name, Abbreviation, Full Name



UNIVERSITY OF CALIFORNIA, SAN FRANCISCO
5TH AND KIRKHAM
CHILDCARE CENTER
LANDSCAPING
10 KIRKHAM STREET
SAN FRANCISCO, CA 94143

Table with 3 columns: Date, No., Revisions

Architect Stamp

Consultant Stamp

Jurisdiction Stamp
CDF-OFFICE OF STATE FIRE MARSHAL
APPROVED 6/11/09

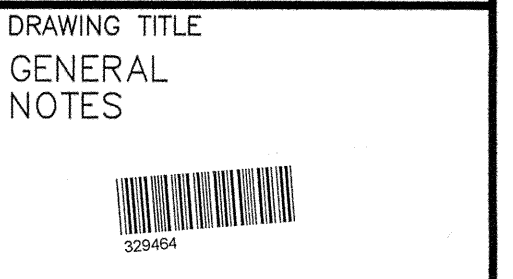
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. One set of approved plans shall be available on the project site at all times.
Reviewed by: [Signature]

Consultants
LANDSCAPE ARCHITECT
LANDSCAPE OFFICE LTD.
2558 BRIDGEWAY #203
SAUSALITO, CA 94965
415-332-5566

STRUCTURAL ENGINEER OF RECORD
RAMP STRUCTURE
ANSARI STRUCTURAL ENGINEERS, INC.
235 MONTGOMERY STREET # 440
SAN FRANCISCO, CA 94104
415-348-8948

CLIENT
UCSF
CAPITAL PROGRAMS & FACILITIES MANAGEMENT
654 MINNESOTA STREET, 2ND FLR
SAN FRANCISCO, CA 94143-0894
415-476-3943

DRAWING TITLE
GENERAL NOTES



SHEET NO.
SO

DATE: UCSF PROJECT No.: M2446
08-01-08 UCSF FILE No.: 10804
SCALE
AS NOTED