

HUMBOLDT STATE UNIVERSITY

Sunset Residence Hall Roofing

Arcata, California

Attachment A

Construction Documents

APRIL 3, 2019

Project Team

Architect: Suarez-Kuehne Architecture
2412 14th Avenue
San Francisco, CA 94116
Attn: John Suarez
(415) 242-1400

PLUMBING: Interface Engineering
135 Main Street, Suite 400
San Francisco, CA 94105
Attn: Rick Russell
(415) 489-7248

BUILDING PERMIT APPROVAL
This project has demonstrated conformance with applicable codes and standards established by state and University policy. Based on this determination these documents are:
'APPROVED FOR CONSTRUCTION'
Michael Fisher
Campus Deputy Building Official
Humboldt State University
The California State University
Date: _____
Permit #: _____
Other approvals, as applicable:
SFM Approval: _____
DSD Access Approval: _____
Seismic Peer Review: _____
Mech Peer Review: _____

CALIFORNIA STATE FIRE MARSHAL APPROVED
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. Set of approved plans shall be available on the project site at all times.
Reviewed by: _____
Date: _____

CSFM #
???

ARCHITECTURAL ABBREVIATIONS

Table of architectural abbreviations organized by letter (A, B, C, F, G, H, I-J-K, L, M, N, O, P, Q-R, S, T, U, V, W, X-Y-Z). Includes sections for RESPONSIBILITY CODES, ABBREVIATIONS AS SYMBOLS, and DEFERRED APPROVALS.

HUMBOLDT STATE UNIVERSITY

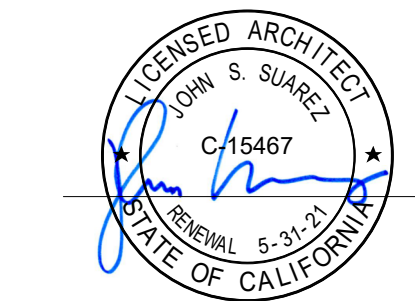
SUNSET RESIDENCE HALL ROOFING

SUAREZ-KUEHNE ARCHITECTURE

2412 14th Avenue San Francisco California 94116 tel 415.242.1400

HUMBOLDT STATE UNIVERSITY Sunset Residence Hall Roofing Arcata, California

Project Team Owner: Trustees of the California State University Arch: Suarez-Kuehne Architecture Attn: John Suarez (415) 242-1400 Plumb: Interface Engineering (415) 489-7240



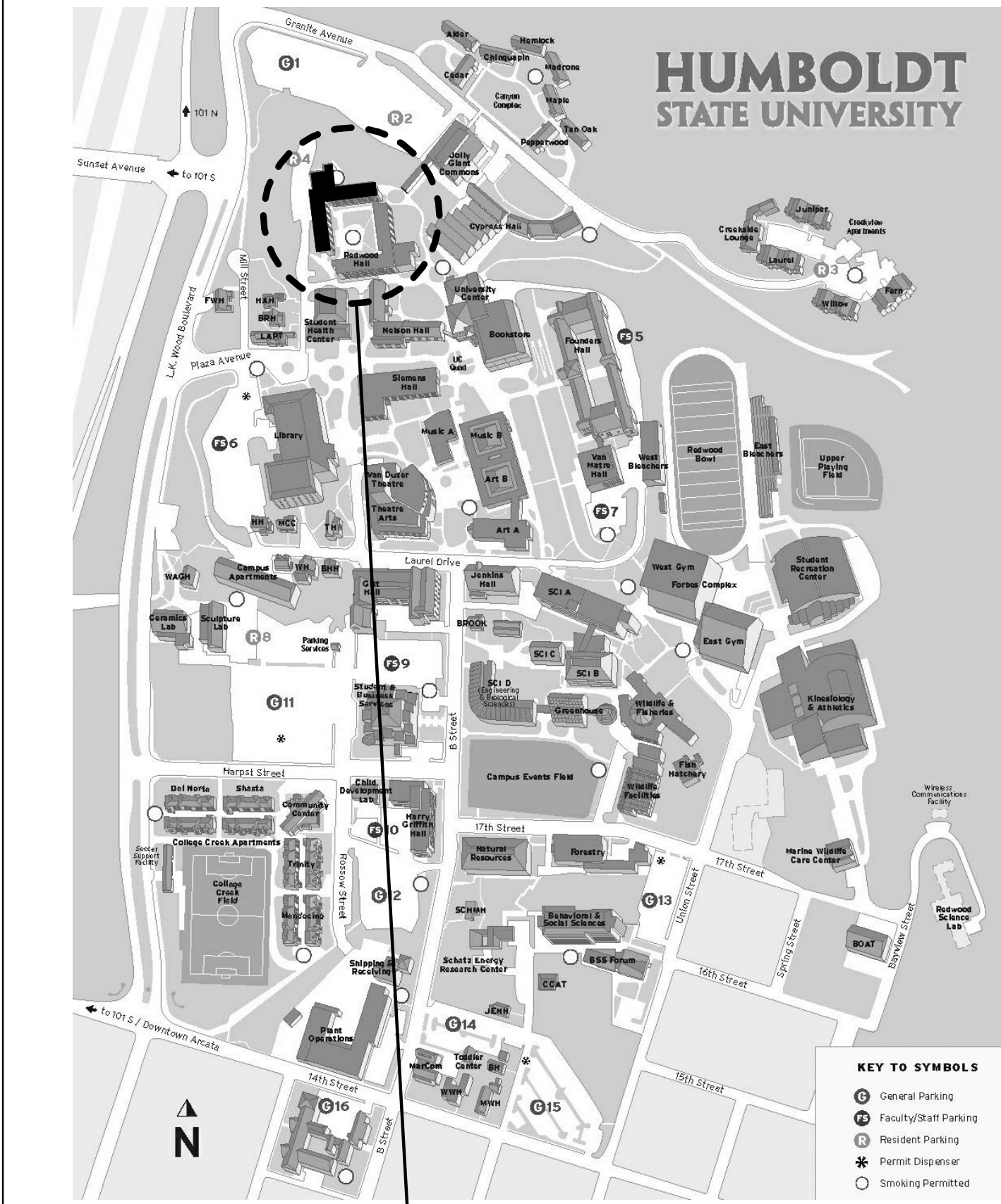
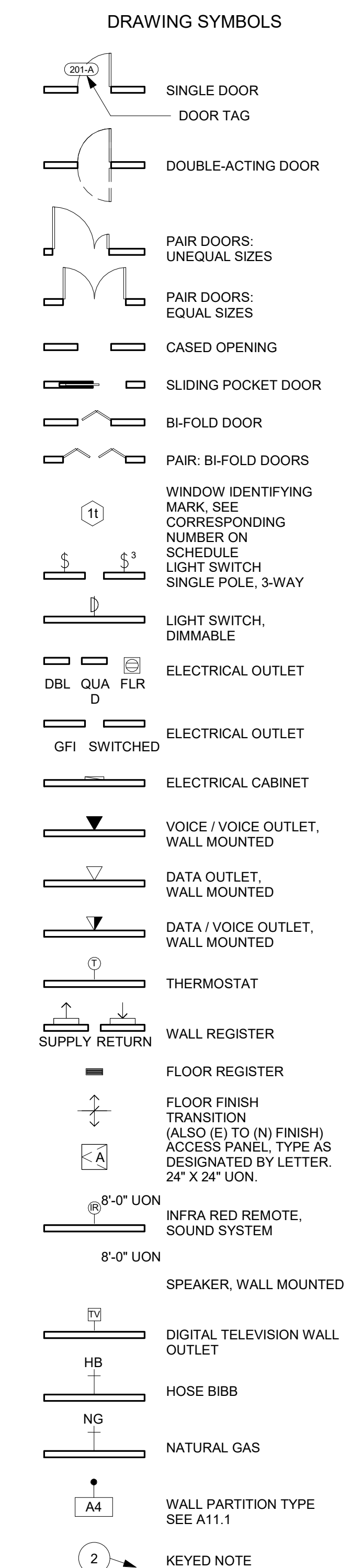
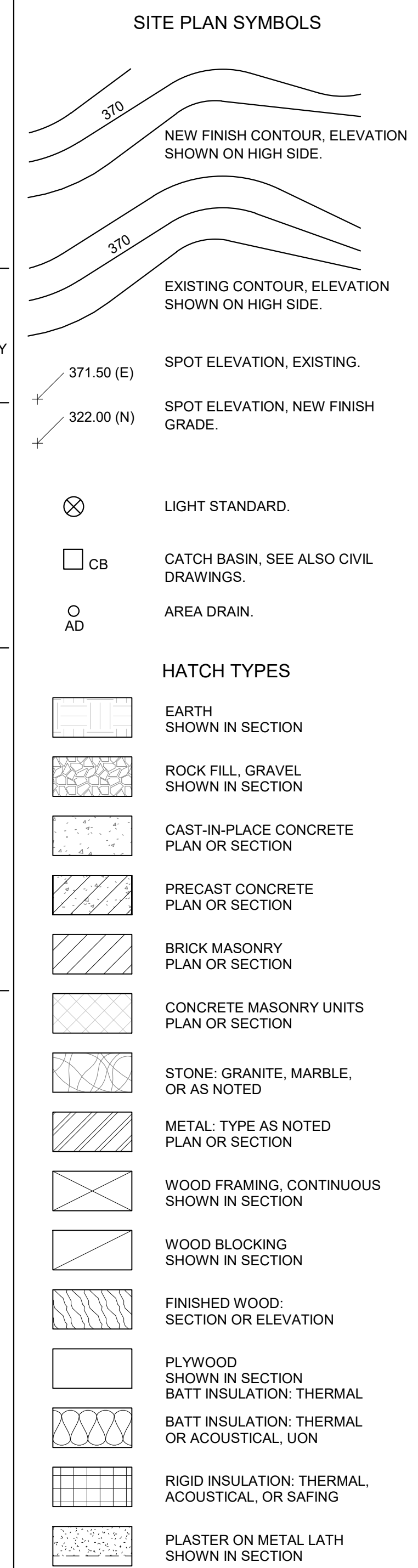
Revisions

INDEX, ABBREVIATIONS, SYMBOLS, & CODES

Date: APRIL 3, 2019 Sheet Number AS0.0

ARCHITECTURAL SYMBOLS

VICINITY MAP



APPLICABLE CODES

OCCUPANCY GROUP

- List of applicable codes including California Building Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Fire Code, California Energy Code, California Green Building Code, California Code of Regulations, and various NFPA standards.

R-2 RESIDENTIAL ASSEMBLY NOTE - THE ENTIRE BUILDING IS ONE CONTROL AREA PER CBC 307 & CFC 2702. THIS BUILDING DOES NOT CONTAIN MORE THAN THE MAXIMUM ALLOWABLE QUANTITIES PER CONTROL AREA OF HAZARDOUS MATERIALS LISTED IN CBC TABLE 307.1(1) AND 307.1(2).

CONSTRUCTION TYPE

TYPE II - B

SCOPE OF WORK

- Roofing of existing three-story student housing to include: 1. Replacement of (E) roof membrane and roof insulation w/ (N) single-ply roof membrane and tapered roof insulation. 2. Remove and replace (E) roof drains with (N) and provision of (N) roof overflow drain system. 3. (N) raised eave detail to accept thicker roof insulation. 4. Selective removal and replacement in-kind of areas of third floor non-fire rated ceiling assemblies to allow access for (N) roof roof drain & overflow drain piping.

UNIV CLIENT REP

HUMBOLDT STATE UNIVERSITY FACILITIES PLANNING 1 HARPST STREET ARCATA, CA 95521 TEL: (707) 828-4111 FAX: (707) 828-5703 CONTACT: MICHAEL D. FISHER ASSOC DIRECTOR PLANNING & DESIGN HUMBOLDT STATE UNIVERSITY

DEFERRED APPROVALS

FOR SYMBOLS USED ON REFLECTED CEILING PLANS - SEE REFLECTED CEILING PLAN SHEET

BUILDING PERMIT APPROVAL APPROVED Michael Fisher Campus Deputy Building Official Humboldt State University The California State University Date: [Signature] Title: [Signature] Date: [Signature] Date: [Signature] Title: [Signature] Title: [Signature]

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NOTES

ARCHITECTURAL GENERAL NOTES

1. THE FOLLOWING GENERAL NOTES APPLY TO ALL ARCHITECTURAL DRAWINGS.

2. ALL PARTS OF THE WORK, INCLUDING MATERIALS, METHODS, ASSEMBLIES, ETC. MUST COMPLY WITH THE MINIMUM REQUIREMENTS OF THE GOVERNING REGULATIONS OF ALL FEDERAL, STATE, DISTRICT, AND LOCAL AUTHORITIES HAVING JURISDICTION OVER THE PROJECT AS WELL AS THOSE GREATER REQUIREMENTS INDICATED BY THE CONTRACT DOCUMENTS. NO PART OF THE CONTRACT DOCUMENTS MAY BE CONSTRUED TO REQUIRE OR PERMIT WORK CONTRARY TO A GOVERNING REGULATION.

3. THE ARCHITECTURAL DRAWINGS ARE A PART OF A LARGER SET OF DRAWINGS WHICH, WHEN COMPLETE, CONSISTS OF ALL DRAWINGS LISTED BY THE INDEX OF DRAWINGS. THE WORK DESCRIBED BY THE DRAWINGS OF ANY ONE DISCIPLINE MAY BE AFFECTED BY THE WORK DESCRIBED ON DRAWINGS OF ANOTHER DISCIPLINE AND MAY REQUIRE REFERENCE TO THE DRAWINGS OF ANOTHER DISCIPLINE. PARTIAL SETS OF DRAWINGS ARE INCOMPLETE AND SHOULD NOT BE DISTRIBUTED OR UTILIZED BY THE CONTRACTOR. IT IS THE CONTRACTOR'S RESPONSIBILITY TO REVIEW AND COORDINATE THE WORK OF ALL SUB-CONTRACTORS, TRADES, AND/OR SUPPLIERS WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BEFORE COMMENCING CONSTRUCTION, AND TO ASSURE THAT ALL PARTIES ARE AWARE OF ALL REQUIREMENTS, REGARDLESS OF WHERE THE REQUIREMENTS OCCUR IN THE CONTRACT DOCUMENTS, WHICH MIGHT AFFECT THE WORK OF THAT PARTY.

4. AS PART OF THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE WORK OF ALL SUB-CONTRACTORS, TRADES, AND/OR SUPPLIERS, THE CONTRACTOR SHALL ENDEAVOR TO IDENTIFY AND NOTIFY THE ARCHITECT OF ANY CONFLICTS BETWEEN THE WORK OF DIFFERENT PARTIES AT THE EARLIEST POSSIBLE DATE SO AS TO ALLOW REASONABLE AND ADEQUATE TIME FOR THE CONFLICT TO BE RESOLVED WITHOUT DELAYING THE WORK. ALL DEVIATIONS FROM THAT WHICH IS REQUIRED BY THE CONTRACT DOCUMENTS MUST BE APPROVED IN ADVANCE BY THE ARCHITECT.

5. THE ARCHITECTURAL DRAWINGS ESTABLISH AND COORDINATE THE FINISHED APPEARANCE AND EXACT LOCATION OF ALL EXPOSED ELEMENTS OF THE WORK OF ALL TRADES, INCLUDING THAT WORK WHICH IS ILLUSTRATED PRIMARILY ON DRAWINGS OF OTHER DISCIPLINES. LOCATIONS SHOWN ON OTHER DRAWINGS ARE SCHEMATIC, UNLESS OTHERWISE NOTED ON THE ARCHITECTURAL DRAWINGS. THE ARCHITECTURAL DRAWINGS TAKE PRECEDENCE FOR THE FINISHED APPEARANCE AND EXACT LOCATION OF ALL PARTS OF THE WORK.

EXCEPTION: DIMENSIONED LOCATIONS SHOWN ON DRAWINGS OF OTHER DISCIPLINES SHALL GOVERN ONLY WHERE:

A. SPECIFICALLY AND INDIVIDUALLY INDICATED BY SYMBOL, KEYS NOTE, OR NOTATION ON THE ARCHITECTURAL DRAWINGS.

B. OCCURRING WITHIN A ROOM OR OTHER IDENTIFIED SPACE FOR WHICH ARCH SHEET OR SCHEDULE NOTES INDICATE THAT DIMENSIONS PROVIDED ELSEWHERE SHALL GOVERN.

6. THE ARCHITECTURAL FLOOR PLANS, REFLECTED CEILING PLANS, SECTIONS, AND ELEVATIONS ILLUSTRATE THE EXACT LOCATION OF MANY, BUT NOT ALL, EXPOSED PARTS OF THE WORK. APPLY THE RULES INDICATED BY THE DRAWINGS "MOUNTING HEIGHTS RULES & LOCATIONS" TO DETERMINE THE EXACT LOCATION OF EACH EXPOSED PART OF THE WORK.

7. REFER TO THE STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR THE DETAILED DESIGN OF STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS, OF WHICH PORTIONS MAY BE SHOWN ON THE ARCHITECTURAL DRAWINGS.

8. ALL PIPE, CONDUIT, AND OTHER PENETRATIONS THROUGH RATED PARTITIONS AND RATED FLOOR/CEILING ASSEMBLIES SHALL BE SEALED AIR-TIGHT WITH THE APPROPRIATE U.L. RATED ASSEMBLY. SEE ARCHITECTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL DRAWINGS.

9. FINISH FLOOR ELEVATIONS ARE TO THE TOP OF CONCRETE FLOOR SLAB, UNLESS OTHERWISE NOTED. WHERE THE CONCRETE IS DEPRESSED TO ACCOMMODATE MORTAR BEDS, SETTING BEDS, RAISED ACCESS FLOORS, AND OTHER SIMILAR FLOOR ASSEMBLIES, FINISHED FLOOR ELEVATIONS ARE TO TOP OF FINISH FLOOR ASSEMBLY INDICATED. DIMENSIONS TAKEN TO FINISH FLOOR ARE TO TOP OF CONCRETE PLUS ANY APPLIED FINISH.

10. CEILING HEIGHT DIMENSIONS ARE TO FINISHED SURFACES, UNLESS OTHERWISE NOTED.

11. FOR ILLUSTRATION AND DEFINITION OF TYP SYMBOLS USED ON THE ARCHITECTURAL DRAWINGS, SEE THE DRAWING "ARCHITECTURAL SYMBOLS"

12. ADDITIONAL SYMBOLS NOT SHOWN OR DEFINED ON THE DRAWING "ARCHITECTURAL SYMBOLS" MAY OCCUR AND ARE DEFINED ON OTHER ARCH DRAWINGS.

13. GENERALLY, ALL GRID LINES BEGINNING WITH A LETTER DESIGNATION ARE PARALLEL WITH EACH OTHER UNLESS OTHERWISE NOTED. ALL GRID LINES BEGINNING WITH A NUMBER ARE PARALLEL WITH EACH OTHER UNLESS OTHERWISE NOTED. ALL GRID LINES BEGINNING WITH LETTERS ARE PERPENDICULAR TO GRID LINES BEGINNING WITH NUMBERS UNLESS OTHERWISE NOTED.

COMPLETE BUILDING ANALYSIS

- Occupancy Classification and Use: R-2 Student Housing (Dormitory)
Secondary Occupancies: A-3 Assembly
- Building Construction Type: Type II - B
- Number of Stories: 3 stories (4 allowed)
- Actual Building Height: 29'-10" (55' allowed)
- Building Area in Square Feet:
Level 1 Area: 14,804 (R-2: 10,052 sf + A-3: 4,752 sf)
Level 2 Area: 11,704 (R-2)
Level 3 Area: 11,704 (R-2)
Total Area: 38,212 sf
- Area of Project in Square Feet:
51 sf (ceiling remodel at Level 1)
821 sf (ceiling remodel at Level 3)
14,804 sf (roof replacement at Roof Level)
15,676 sf total
- Separated or Non-Separated Use: Separated Use (at Level 1)
- Allowable Area per CBC (Type II - B):
R-2: At = 16,000 sf
A-3: At = 9,000 sf
- Area Increase (per floor):
R-2: (16,000 + 16,000 (.725)) (1) = 27,600 sf
A-3: (9,000 + 9,000 (.725)) (1) = 16,387 sf
R-2: (16,000 + 16,000 (.725)) (2) = 55,200 sf
A-3: (9,000 + 9,000 (.725)) (2) = 32,775 sf
Mixed Use (CBC 508.4)
Level 1: R-2 (10,297 / 27,600) = .38
A-3 (4,752 / 16,387) = .29
Is sum less than 1? = .67 (yes OK)
- Allowable Height per CBC: 55' and 4 Stories
- Height Increase: (not applicable)
- Fire Sprinklers: No
- Fire Alarm: (yes type: manual)
- Other Fire Protection: No
- Smoke Control: No
- Occupant Load for Building and Each Floor:
i. First Level: 264 occupants (R-2: 52 occ/ A3: 212 occ)
ii. Second Level: 59 occupants (R-2)
iii. Third Level: 59 occupants (R-2)
Building Total: 382 occupants
- Year Building Was Constructed: 1958
- In a High Fire Severity Zone?: No
- Seismic Joints (location)? : No
- Emergency Responder Radio Coverage?: (Campus system coverage OK)
- CBC 1.2.1 - 2.; BSC: Specific scope of application of the enforcing agency responsible for enforcement, the enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated:
California State Universities:
Application - Standards for lighting for parking lots and primary campus walkways at California State Universities.
Enforcing Agency - State or local agency specified by the applicable provisions of law.
Authority cited: Government Code Section 14617
Reference: Government Code Section 14617
- CBC 11B-202.4 Exception 7.: Project consists of reroofing and associated roof plumbing rework which does not trigger compliance with 11B-202.4 Path of Travel requirements.

SHEET INDEX (TOTAL 27 SHEETS)

PLUMBING (10 SHEETS)

- P0.1 SYMBOL LIST, GENERAL NOTES AND SHEET INDEX - PLUMBING
- P0.2 SCHEDULES - PLUMBING
- PD2.3 LOWER ROOF DEMOLITION PLAN - PLUMBING
- PD2.4 UPPER ROOF DEMOLITION PLAN - PLUMBING
- P2.1 LEVEL 1 FLOOR PLAN - PLUMBING
- P2.2 LEVEL 3 FLOOR PLAN - PLUMBING
- P2.3 LOWER ROOF PLAN - PLUMBING
- P2.4 UPPER ROOF PLAN - PLUMBING
- P3.1 DETAILS - PLUMBING
- P4.1 RISER DIAGRAM - PLUMBING

ARCHITECTURAL (17 SHEETS)

- AS0 COVER SHEET
- AS0.0 INDEX, ABBREVIATIONS, SYMBOLS, & CODES
- AS0.1 DRAWING INDEX / GENERAL NOTES
- AS0.5 EGRESS PLANS
- AS0.6 PARTIAL CAMPUS SITE PLAN
- AS1.0 CALGREEN
- AS1.1 CALGREEN
- AS1.2 CALGREEN
- AS2.1 LEVEL 1 - FLOOR & CEILING PLANS
- AS2.2 ROOF PLANS - LOWER
- AS3.1 LEVEL 3 - FLOOR PLAN
- AS3.2 LEVEL 3 - REFLECTED CEILING PLAN
- AS3.3 ROOF PLAN - UPPER - EXISTING / DEMOLITION
- AS3.4 ROOF PLAN - UPPER - PROPOSED
- AS9.0 DETAILS
- AS9.1 DETAILS
- AS10.1 CEILING NOTES & DETAILS

SUAREZ-KUEHNE ARCHITECTURE

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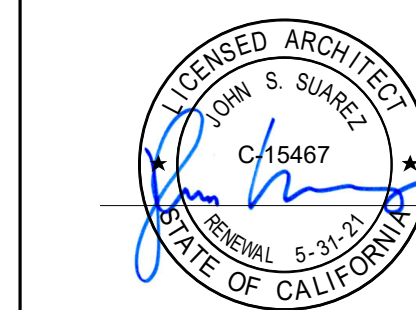
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Seals



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Michael Fisher
Campus Deputy Building Official
Humboldt State University
The California State University

Date: _____

Permit #: _____

Site approval, as applicable: _____

SEM Approval: _____

DSA Access Approval: _____

Seismic Peer Review: _____

Mech Peer Review: _____

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Reviewed by: _____
Date: _____

Sheet Name

DRAWING INDEX / GENERAL NOTES

Date

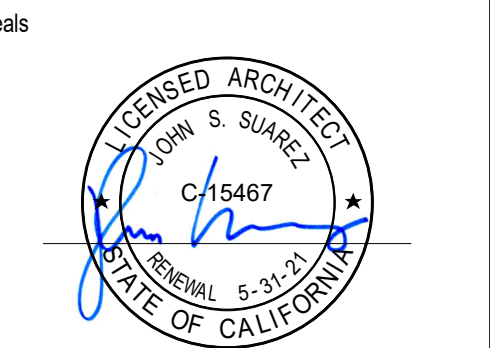
APRIL 3, 2019

Owner #

Sheet Number

SKA #

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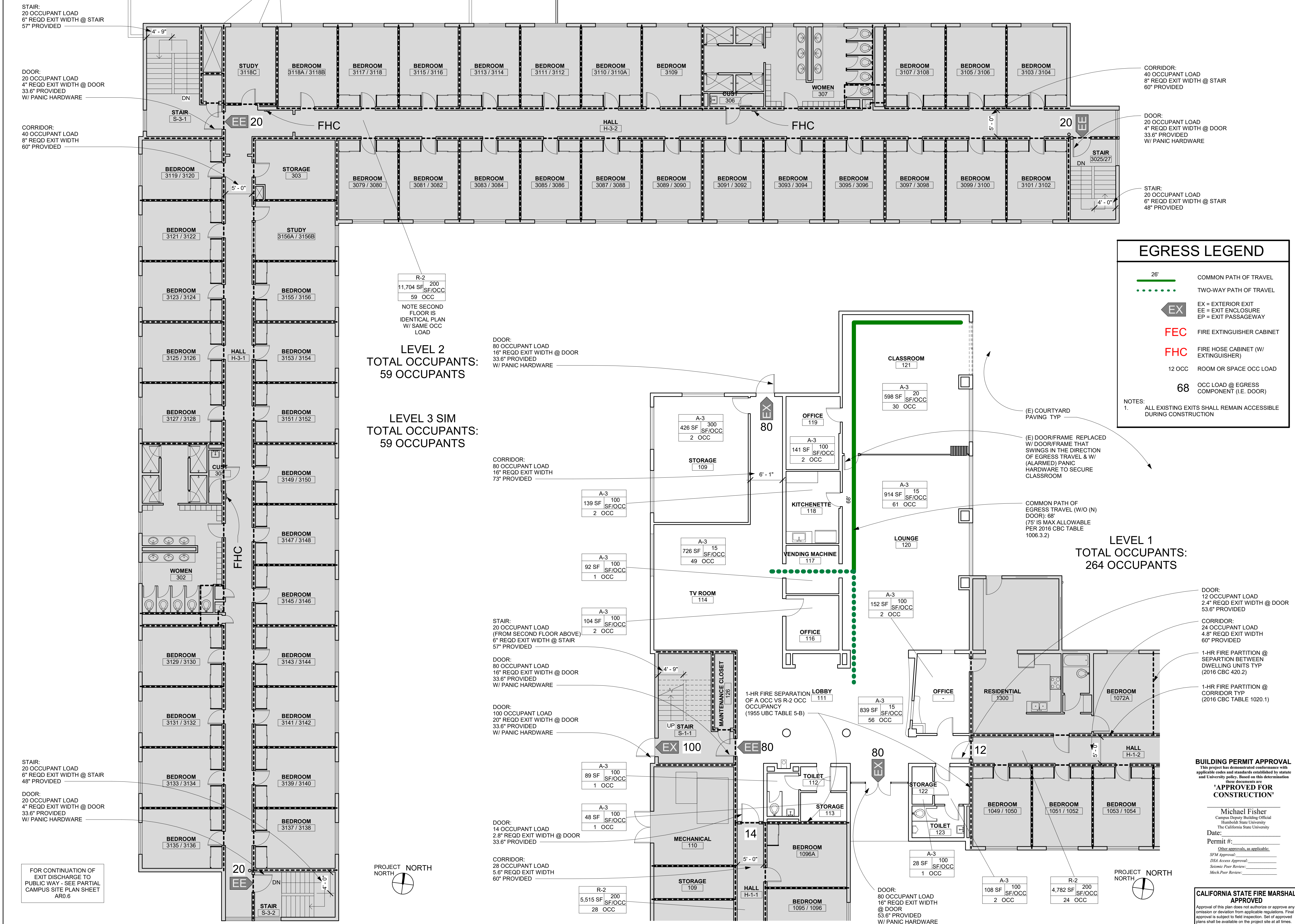


Revisions

Sheet Name
EGRESS PLANS

Date
APRIL 3, 2019

Owner #
Sheet Number
AS0.5



EGRESS LEGEND

- 26' COMMON PATH OF TRAVEL
- ⋯ TWO-WAY PATH OF TRAVEL
- EX** EX = EXTERIOR EXIT
EE = EXIT ENCLOSURE
EP = EXIT PASSAGEWAY
- FEC** FIRE EXTINGUISHER CABINET
- FHC** FIRE HOSE CABINET (W/ EXTINGUISHER)
- 12 OCC ROOM OR SPACE OCC LOAD
- 68 OCC LOAD @ EGRESS COMPONENT (I.E. DOOR)

NOTES:
1. ALL EXISTING EXITS SHALL REMAIN ACCESSIBLE DURING CONSTRUCTION

LEVEL 2
TOTAL OCCUPANTS:
59 OCCUPANTS

LEVEL 3 SIM
TOTAL OCCUPANTS:
59 OCCUPANTS

LEVEL 1
TOTAL OCCUPANTS:
264 OCCUPANTS

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② S - Level 3 Plan - Egress Plan
1/8" = 1'-0"

① S - Level 1 Plan - Egress Plan
1/8" = 1'-0"

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Project

HUMBOLDT STATE UNIVERSITY

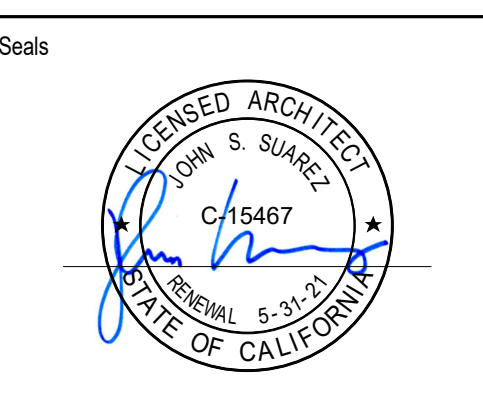
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Revisions

Sheet Name

PARTIAL CAMPUS SITE PLAN

Date

APRIL 3, 2019

Owner #

Sheet Number

SKA #

AS0.6



① S - PARTIAL CAMPUS SITE PLAN
 1" = 40'-0"



2016 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (INCLUDING JANUARY 1, 2017 ERRATA)

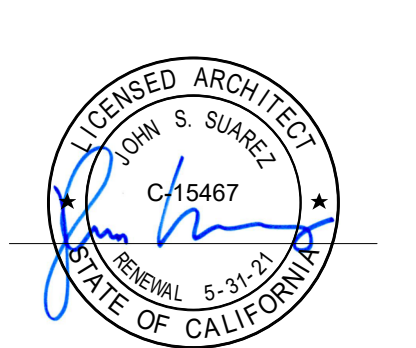
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Revisions

Sheet Name
CALGREEN

Date
APRIL 3, 2019

Owner #
Sheet Number

Sheet #
AS1.0

INSPECTOR SIGNOFF

CHAPTER 3 GREEN BUILDING SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

301.3 NONRESIDENTIAL ADDITIONS AND ALTERATIONS. [BSC] The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of \$200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work.

A code section will be designated by a banner to indicate where the code section only applies to newly constructed building [N] or to additions and alterations [A]. When the code section applies to both, no banner will be used.

301.3.1 Nonresidential additions and alterations that cause updates to plumbing fixtures only:

Note: On and after January 1, 2014, certain commercial real property, as defined in Civil Code Section 1101.3, shall have its noncompliant plumbing fixtures replaced with appropriate water-conserving plumbing fixtures under specific circumstances. See Civil Code Section 1101.1 et seq. for definitions, types of commercial real property affected, effective dates, circumstances necessitating replacement of noncompliant plumbing fixtures, and duties and responsibilities for ensuring compliance.

301.3.2 Waste Diversion. The requirements of Section 5.408 shall be required for additions and alterations whenever a permit is required for work.

301.4 PUBLIC SCHOOLS AND COMMUNITY COLLEGES. (see GBSC) SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

SECTION 303 PHASED PROJECTS

303.1 Phased projects. For shell buildings and others constructed for future tenant improvements, only those code measures relevant to the building components and systems considered to be new construction (or newly constructed) shall apply.

303.1.1 Tenant Improvements. The provisions of this code shall apply only to the initial tenant or occupant improvements to a project. Subsequent tenant improvements shall comply with the seeping provisions in Section 301.3 non-residential additions and alterations.

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSH/PD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 5 NONRESIDENTIAL MANDATORY MEASURES DIVISION 5.1 PLANNING AND DESIGN

SECTION 5.101 GENERAL

5.101.1 Scope The provisions of this chapter outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties.

SECTION 5.102 DEFINITIONS

The following terms are defined in Chapter 2 (and are included here for reference)

CUTOFF LUMINAIRES. Luminaires whose light distribution is such that the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle of 90 degrees above nadir, and 100 (10 percent) at a vertical angle of 80 degrees above nadir. This applies to all lateral angles around the luminaire.

LOW-EMITTING AND FUEL EFFICIENT VEHICLES.

Eligible vehicles are limited to the following:

- Zero emission vehicle (ZEV), including neighborhood electric vehicles (NEV), partial zero emission vehicle (PZEV), advanced technology PZEV (AT ZEV) or CNG fueled (original equipment manufacturer only) regulated under Health and Safety Code section 43800 and CCR, Title 13, Sections 1961 and 1962.
- High-efficiency vehicles, regulated by U.S. EPA, bearing High-Occupancy Vehicle (HOV) car pool lane stickers issued by the Department of Motor Vehicles.

NEIGHBORHOOD ELECTRIC VEHICLE (NEV). A motor vehicle that meets the definition of "low-speed vehicle" either in Section 385.5 of the Vehicle Code or in 49CFR571.500 (as it existed on July 1, 2000), and is certified to zero-emission vehicle standards.

TENANT OCCUPANTS. Building occupants who inhabit a building during its normal hours of operation as permanent occupants, such as employees, as distinguished from customers and other transient visitors.

VANPOOL VEHICLE. Eligible vehicles are limited to any motor vehicle, other than a motortruck or truck tractor, designed for carrying more than 10 but not more than 15 persons including the driver, which is maintained and used primarily for the non-profit work-related transportation of adults for the purpose of ridesharing.

Note: Source: Vehicle Code, Division 1, Section 668

ZEV. Any vehicle certified to zero-emission standards.

SECTION 5.106 SITE DEVELOPMENT

5.106.1 STORM WATER POLLUTION PREVENTION. Newly constructed projects and additions which disturb less than one acre of land shall prevent the pollution of storm water runoff from the construction activities through one or more of the following measures:

5.106.1.1 Local ordinance. Comply with a lawfully enacted storm water management and/or erosion control ordinance.

5.106.1.2 Best Management Practices (BMP). Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and good housekeeping BMP.

1. Soil loss BMP that should be considered for each project include, but are not limited to, the following:

- Scheduling construction activity.
 - Preservation of natural features, vegetation and soil.
 - Drainage swales or lined ditches to control stormwater flow.
 - Mulching or hydroseeding to stabilize disturbed soils.
 - Erosion control to protect slopes.
 - Protection of storm drain inlets (gravel bags or catch basin inserts).
 - Perimeter sediment control (perimeter silt fence, fiber rolls).
 - Sediment trap or sediment basin to retain sediment on site.
 - Stabilized construction exits.
 - Wind erosion control.
 - Other soil loss BMP acceptable to the enforcing agency.
2. Good housekeeping BMP to manage construction equipment, materials and wastes that should be considered for implementation as appropriate for each project include, but are not limited to, the following:
- Material handling and waste management.
 - Building materials stockpile management.
 - Management of washout areas (concrete, paints, stucco, etc.).
 - Control of vehicle/equipment fueling to contractor's staging area.
 - Vehicle and equipment cleaning performed off site.
 - Spill prevention and control.
 - Other housekeeping BMP acceptable to the enforcing agency.

INSPECTOR SIGNOFF

5.106.4 BICYCLE PARKING. For buildings within the authority of California Building Standards Commission as specified in Section 103, comply with Section 5.106.4.1. For buildings within the authority of the Division of the State Architect pursuant to Section 105, comply with Section 5.106.4.2

5.106.4.1 Bicycle parking. [BSC-CG] Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the applicable local ordinance, whichever is stricter.

5.106.4.1.1 Short-term bicycle parking. If the project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack. **Exception:** Additions or alterations which add nine or less visitor vehicular parking spaces.

5.106.4.1.2 Long-term bicycle parking. For new buildings with 10 or more tenant-occupants or for additions or alterations that add 10 or more tenant-occupants or for additions or alterations that add 10 or more tenant vehicular parking spaces, provide secure bicycle parking for 5 percent of the tenant vehicle parking spaces being added, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and shall meet one of the following:

- Covered, lockable enclosures with permanently anchored racks for bicycles;
- Lockable bicycle rooms with permanently anchored racks; or
- Lockable, permanently anchored bicycle lockers.

Note: Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates.

5.106.4.2 Bicycle parking. [DSA-SS] For public schools and community colleges, comply with Sections 5.106.4.2.1 and 5.106.4.2.2

5.106.4.2.1 Student bicycle parking. Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building.

5.106.4.2.2 Staff bicycle parking. Provide permanent, secure bicycle parking conveniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable bicycle parking facilities shall be convenient from the street or staff parking area and shall meet one of the following:

- Covered, lockable enclosures with permanently anchored racks for bicycles;
- Lockable bicycle rooms with permanently anchored racks; or
- Lockable, permanently anchored bicycle lockers.

5.106.5.2 DESIGNATED PARKING FOR CLEAN AIR VEHICLES. In new projects or additions or alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as follows:

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED SPACES
0-9	0
10-25	1
25-50	3
51-75	6
76-100	11
101-150	18
151-200	16
201 AND OVER	AT LEAST 8% OF TOTAL

5.106.5.2.1 - Parking stall marking. Paint, in the paint used for stall striping, the following characters such that the lower edge of the last word aligns with the end of the stall striping and is visible beneath a parked vehicle: CLEAN AIR / VAN POOL / EV

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces.

5.106.5.3 Electric vehicle (EV) charging. [N] Construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation of electric vehicle supply equipment (EVSE). When EVSE(s) is/are installed, it shall be in accordance with the *California Building Code*, the California Energy Commission (CEC) and as follows:

5.106.5.3.1 Single charging space requirements. [N] When only a single charging space is required per Table 5.106.5.3.3, a raceway is required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code*. Construction plans and specifications shall include, but are not limited to, the following:

- The type and location of the EVSE.
- A listed raceway capable of accommodating a 2081240-volt dedicated branch circuit.
- The raceway shall not be less than trade size 1".
- The raceway shall originate at a service panel or a subpanel serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and listed suitable cabinet, box, enclosure or equivalent.
- The service panel or subpanel shall have sufficient capacity to accommodate a minimum 40-ampere dedicated branch circuit for the future installation of the EVSE.

5.106.5.3.2 Multiple charging space requirements. [N] When multiple charging spaces are required per Table 5.106.5.3.3 raceway(s) is/are required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code*. Construction plans and specifications shall include, but are not limited to, the following:

- The type and location of the EVSE.
- The raceway(s) shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into listed suitable cabinet(s), box(es), enclosure(s) or equivalent.
- Plan design shall be based upon 40-ampere minimum branch circuits.
- Electrical calculations shall substantiate the design of the electrical system, to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to simultaneously charge all required EVs at its full rated ampereage.
- The service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.

5.106.5.3.3 EV charging space calculations. [N] Table 5.106.5.3.3 shall be used to determine if single or multiple charging space requirements apply for the future installation of EVSE.

Exceptions: On a case-by-case basis where the local enforcing agency has determined EV charging and infrastructure is not feasible based upon one or more of the following conditions:

- Where there is insufficient electrical supply.
- Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.

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TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED SPACES
0-9	0
10-25	1
26-50	2
51-75	4
76-100	5
101-200	7
201 AND OVER	6% of total*

1. Calculation for spaces shall be rounded up to the nearest whole number.

5.106.5.3.4 [N] Identification. The service panel or subpanel(s) circuit directory shall identify the reserved overcurrent protective device space(s) for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

5.106.5.3.5 [N] Future charging spaces qualify as designated parking as described in Section 5.106.5.2 Designated parking for clean air vehicles.

Notes:

- The California Department of Transportation adopts and publishes the California Manual on Uniform Traffic Control Devices (California MUTCD) to provide uniform standards and specifications for all official traffic control devices in California. Zero Emission Vehicle Signs and Pavement Markings can be found in the New Policies & Directives number 13-01. www.dot.ca.gov/hq/traffops/policy/13-01.pdf.
- See Vehicle Code Section 22511 for EV charging spaces signage in off-street parking facilities and for use of EV charging spaces.
- The Governor's Office of Planning and Research published a Zero-Emission Vehicle Community Readiness Guidebook which provides helpful information for local governments, residents and businesses. www.opr.ca.gov/docs/ZEV_Guidebook.pdf.

5.106.8 LIGHT POLLUTION REDUCTION. [N] Outdoor lighting systems shall be designed and installed to comply with the following:

- The minimum requirements in the California Energy Code for Lighting Zones 1-4 as defined in Chapter 10 of the California Administrative Code; and
- Backlight, Uplight and Glare (BUG) ratings as defined in IES TM-15-11; and
- Allowable BUG ratings not exceeding those shown in Table 5.106.8, or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

Exceptions: [N]

- Luminaires that qualify as exceptions in Section 140.7 of the California Energy Code.
- Emergency lighting.
- Building facade meeting the requirements in Table 140.7-B of the California Energy Code, Part 6.
- Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs and methods of construction.

Note: [N] See also California Building Code, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.

5.106.10 GRADING AND PAVING. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

- Swales.
- Water collection and disposal systems.
- French drains.
- Water retention gardens.
- Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

TABLE 5.106.8 [N] MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG) RATINGS 1,2

ALLOWABLE RATING	LIGHTING ZONE 1	LIGHTING ZONE 2	LIGHTING ZONE 3	LIGHTING ZONE 4
MAXIMUM ALLOWABLE BACKLIGHT RATING 1: Luminaires greater than 2' mounting heights (M) from property line	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1-2 MH from property line	B2	B3	B4	B4
Luminaire back hemisphere is 0.5-1 MH from property line	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	B0	B0	B1	B2
MAXIMUM ALLOWABLE UPLIGHT RATING For area lighting +	U0	U0	U0	U0
For all other outdoor lighting, including decorative luminaires	U1	U2	U3	U4
MAXIMUM ALLOWABLE GLARE RATING 1: Luminaire greater than 2 MH from property line	G1	G2	G3	G4
Luminaire front hemisphere is 1-2 MH from property line	G0	G1	G1	G2
Luminaire front hemisphere is 0.5-1 MH from property line	G0	G0	G1	G1
Luminaire back hemisphere is less than 0.5 MH from property line	G0	G0	G0	G1

1. IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the *California Energy Code* and Chapter 10 of the *California Administrative Code*.

2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section.

3. If the nearest property line is less than or equal to two mounting heights from the back hemisphere of the luminaire distribution, the applicable reduced Backlight rating shall be met.

4. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaires located in these areas shall meet U-value limits for "all other outdoor lighting".

5. If the nearest property line is less than or equal to two mounting heights from the front hemisphere of the luminaire distribution, the applicable reduced Glare rating shall be met.

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DIVISION 5.2 ENERGY EFFICIENCY

SECTION 5.201 GENERAL

5.201.1 Scope [BSC-CG]. *California Energy Code (DSA-SS).* For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards.

DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION

SECTION 5.301 GENERAL

5.301.1 Scope. The provisions of this chapter shall establish the means of conserving water use indoors, outdoors and in wastewater conveyance.

SECTION 5.302 DEFINITIONS

5.302.1 Definitions. The following terms are defined in Chapter 2 (and are included here for reference)

EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF) [DSA,SS]. An adjustment factor when applied to reference evapotranspiration that adjusts for plant factors and irrigation efficiency, which are two major influences on the amount of water that needs to be applied to the landscape.

FOOTPRINT AREA [DSA,SS]. The total area of the furthest exterior wall of the structure projected to natural grade, not including exterior areas such as stairs, covered walkways, patios and decks.

METERING FAUCET. A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The volume or cycle duration can be fixed or adjustable.

GRAYWATER. Pursuant to Health and Safety Code Section 17922.12, "graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines and laundry tubs, but does not include waste water from kitchen sinks or dishwashers.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). The California ordinance regulating landscape design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed landscapes greater than 2500 square feet meet an irrigation water budget developed based on landscaped area and climatological parameters.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). [HCD] The California model ordinance (California Code of Regulations, Title 23, Division 2, Chapter 2.7), regulating landscape design, installation and maintenance practices. Local agencies are required to adopt the updated MWELO, or adopt a local ordinance at least as effective as the MWELO.

POTABLE WATER. Water that is drinkable and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards. See definition in the California Plumbing Code, Part 5.

POTABLE WATER. [HCD] Water that is satisfactory for drinking, culinary, and domestic purposes, and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards and the requirements of the Health Authority Having Jurisdiction.

RECYCLED WATER. Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur [Water Code Section 13050 (n)]. Simply put, recycled water is water treated to remove waste matter attaining a quality that is suitable to use the water again.

SUBMETER. A meter installed subordinate to a site meter. Usually used to measure water intended for one purpose, such as landscape irrigation. For the purposes of CALGreen, a dedicated meter may be considered a submeter.

WATER BUDGET. Is the estimated total landscape irrigation water use which shall not exceed the maximum applied water allowance calculated in accordance with the Department of Water Resources Model Efficient Landscape Ordinance (MWELO).

SECTION 5.303 INDOOR WATER USE

5.303.1 METERS. Separate submeters or metering devices shall be installed for the uses described in Sections 5.303.1.1 and 5.303.1.2.

5.303.1.1 Buildings in excess of 60,000 square feet. Separate submeters shall be installed as follows:

- For each individual leased, rented or other tenant space within the building projected to consume more than 100 gal/day (380 L/day), including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop.
- Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems:

- Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s).
- Makeup water for evaporative coolers greater than 6 gpm (0.04 Us).
- Steam and hot water boilers with energy input more than 500,000 Btu/h (147 kW).

5.303.1.2 Excess consumption. A separate submeter or metering device shall be provided for any tenant within a new building or within an addition that is projected to consume more than 1,000 gal/day.

5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

5.303.3.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-Type toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

5.303.3.2 Urinals. The effective flush volume of urinals shall not exceed 0.5 gallons per flush.

5.303.3 Showerheads.

5.303.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 2.0 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

5.303.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 2.0 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.

Note: A hand-held shower shall be considered a showerhead.

5.303.3.4 Faucets and fountains.

5.303.3.4.1 Nonresidential Lavatory faucets. Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.

5.303.3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute/20 [in space (inches)] at 60 psi.

5.303.3.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle.

5.303.3.4.5 Metering faucets for wash fountains. Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per minute/20 [in space (inches)] at 60 psi.

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

5.303.4 COMMERCIAL KITCHEN EQUIPMENT.

5.303.4.1 Food Waste Disposers. Disposers shall either modulate the use of water to not more than 1 gpm when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water.

Note: This code section does not affect local jurisdiction authority to prohibit or require disposer installation.

5.303.5 AREAS OF ADDITION ALTERATION. For those occupancies within the authority of the California Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shall apply to new fixtures in additions or areas of alteration to the building.



2016 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 2 (INCLUDING JANUARY 1, 2017 ERRATA)

INSPECTOR SIGNOFF	<p>SECTION 5.304 OUTDOOR WATER USE</p> <p>5.304.1 SCOPE. The provisions of Section 5.304, Outdoor Water Use reference the mandatory Model Water Efficiency Landscape Ordinance (MWLEO) contained within Chapter 2.7, Division 2, Title 23, California Code of Regulations.</p> <p>5.304.2 OUTDOOR WATER USE IN LANDSCAPE AREAS EQUAL TO OR GREATER THAN 500 SQUARE FEET. When water is used for outdoor irrigation for new construction projects with an aggregate landscape area equal to or greater than 500 square feet requiring a building or landscape permit, plan check or design review, one of the following shall apply:</p> <ol style="list-style-type: none"> 1. A local water efficient landscape ordinance that is, based on evidence in the record, at least as effective in conserving water as the updated model ordinance adopted by the Department of Water Resources (DWR) per Government Code Section 65595(c). 2. The California Department of Water Resources Model Water Efficient Landscape Ordinance (MWLEO) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, California Code of Regulations. <p>5.304.3 OUTDOOR WATER USE IN REHABILITATED LANDSCAPE PROJECTS EQUAL TO OR GREATER THAN 2,500 SQUARE FEET. Rehabilitated landscape project with an aggregate landscape area equal to or greater than 2,500 square feet requiring a building or landscape permit, plan check, or design review shall comply with Section 5.304.2, Item 1 or 2.</p> <p>5.304.4 OUTDOOR WATER USE IN LANDSCAPE AREAS OF 2,500 SQUARE FEET OR LESS. Any project with an aggregate area of 2,500 square feet or less may comply with the performance requirements of MWLEO or conform to the prescriptive compliance measures contained in MWLEO's Appendix D.</p> <p>5.304.5 GRAYWATER OR RAINWATER USE IN LANDSCAPE AREAS. For projects using treated or untreated graywater or rainwater captured on site, any lot or parcel within the project that has less than 2,500 square feet of landscape and meets the lot or parcel's landscape water requirement (Estimate Total Water Use) entirely with treated or untreated graywater or through stored rainwater captured on site is subject only to Appendix D Section (5).</p> <p>Notes:</p> <ol style="list-style-type: none"> 1. DWR's Model Water Efficient Landscape Ordinance, definitions and supporting documents are available at the following link: http://water.ca.gov/wateruseefficiency/landscapeordinance/ 2. A water budget calculator is available at the following link: http://water.ca.gov/wateruseefficiency/landscapeordinance/ 3. The MWLEO prescriptive compliance measure Appendix D may be found at the following link: http://water.ca.gov/wateruseefficiency/landscapeordinance/ In addition, a copy of MWLEO Appendix D may be found in Chapter 8 of this code. <p>5.304.6 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS [DSA-SS]. For public schools and community colleges, landscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with the California Department of Water Resources Model Water Efficient Landscape Ordinance (MWLEO) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, California Code of Regulations, except that the evapotranspiration adjustment factor (ETAF) shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35.</p> <p>Exception: Any project with an aggregate landscape area of 2,500 square feet or less may comply with the prescriptive measures contained in Appendix D of MWLEO.</p> <p>5.304.6.1 Newly constructed landscapes. [DSA-SS] New construction projects with an aggregate landscape area equal to or greater than 500 square feet.</p> <p>5.304.6.2 Rehabilitated landscapes. [DSA-SS] Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet.</p> <p>5.304.3 IRRIGATION DESIGN. In new nonresidential construction with at least 1,000 but not more than 2,500 square feet of cumulative landscaped area (the level of which the MWLEO applies), install irrigation controllers and sensors which include the following criteria, and meet manufacturer's recommendations.</p> <p>5.304.3.1 Irrigation controllers. Automatic irrigation system controllers installed at the time of final inspection shall comply with the following:</p> <ol style="list-style-type: none"> 1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change. 2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input. <p>Note: More information regarding irrigation controller function and specifications is available from the Irrigation Association.</p>
INSPECTOR SIGNOFF	<p>SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING</p> <p>5.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 65% of the non-hazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3, or meet a local construction and demolition waste management ordinance, whichever is more stringent.</p> <p>5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and demolition waste management ordinance, submit a construction waste management plan that:</p> <ol style="list-style-type: none"> 1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale. 2. Determines if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream). 3. Identifies diversion facilities where construction and demolition waste material collected will be taken. 4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated byweight or volume, but not by both. <p>5.408.1.2 Waste Management Company. Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with this section.</p> <p>Note: The owner or contractor shall make the determination if the construction and demolition waste material will be diverted by a waste management company.</p> <p>Exceptions to Sections 5.408.1.1 and 5.408.1.2:</p> <ol style="list-style-type: none"> 1. Excavated soil and land-clearing debris. 2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist. 3. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets. <p>5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does not exceed two pounds per square foot of building area may be deemed to meet the 65% minimum requirement as approved by the enforcing agency.</p> <p>5.408.1.4 Documentation. Documentation shall be provided to the enforcing agency which demonstrates compliance with Sections 5.408.1.1, through 5.408.1.3. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.</p> <p>Notes:</p> <ol style="list-style-type: none"> 1. Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)" located at www.bsc.ca.gov/home/CALGreen.aspx may be used to assist in documenting compliance with the waste management plan. 2. Mixed construction and demolition debris processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle). <p>5.408.2 UNIVERSAL WASTE. [A] Additions and alterations to a building or tenant space that meet the scoping provisions in Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste items such as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited Universal Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste materials shall be included in the construction documents.</p> <p>Note: Refer to the Universal Waste Rule link at: http://www.dtsc.ca.gov/LawsRegsPolicies/Regs/uload/OEAR_A_REGG_UWR_FinalText.pdf</p> <p>5.408.3 EXCAVATED SOIL AND LAND CLEARING DEBRIS. 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed.</p> <p>Exception: Reuse, either on or off-site, of vegetation or soil contaminated by disease or pest infestation.</p> <p>Notes:</p> <ol style="list-style-type: none"> 1. If contamination by disease or pest infestation is suspected, contact the County Agricultural Commissioner and follow its direction for recycling or disposal of the material. 2. For a map of known pest and/or disease quarantine zones, consult with the California Department of Food and Agriculture. (www.cdffa.ca.gov)
INSPECTOR SIGNOFF	<p>SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS</p> <p>5.410.1 RECYCLING BY OCCUPANTS. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive.</p> <p>Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code 42649.82 (a)(2)(A) at eqs. shall also be exempt from the organic waste portion of this section.</p> <p>5.410.1.1 Additions. All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site.</p> <p>Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space floor area.</p> <p>5.410.1.2 Sample ordinance. Space allocation for recycling areas shall comply with Chapter 18, Part 3, Division 30 of the Public Resources Code. Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991 (Act).</p> <p>Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the Cal Recycle's web site.</p> <p>5.410.2 COMMISSIONING. [N] For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity. All occupancies other than I-occupancies and L-occupancies shall comply with the California Energy Code as prescribed in California Energy Code Section 120.8. For I-occupancies that are not regulated by OSHPD or for L-occupancies and L-occupancies that are not regulated by the California Energy Code Section 100.0 Scope, all requirements in Sections 5.410.2 through 5.410.2.6 shall apply.</p> <p>Commissioning requirements shall include:</p> <ol style="list-style-type: none"> 1. Owner's or Owner representative's project requirements. 2. Basis of design. 3. Commissioning measures shown in the construction documents. 4. Commissioning plan. 5. Functional performance testing. 6. Documentation and training. 7. Commissioning report. <p>Exceptions:</p> <ol style="list-style-type: none"> 1. Unconditioned warehouses of any size. 2. Areas less than 10,000 square feet used for offices or other conditioned accessory spaces within unconditioned warehouses. 3. Tenant improvements less than 10,000 square feet as described in Section 303.1.1. 4. Open parking garages of any size, or open parking garage areas, of any size, within a structure. <p>Note: For the purposes of this section, unconditioned shall mean a building, area, or room which does not provide heating and/or air conditioning.</p> <p>Informational Notes:</p> <ol style="list-style-type: none"> 1. IAS AC 476 is an accreditation criteria for organizations providing training and/or certification of commissioning personnel. AC 476 is available to the Authority Having Jurisdiction as a reference for qualifications of commissioning personnel. AC 476 does not certify individuals to conduct functional performance tests or to adjust and balance systems. 2. Functional performance testing for heating, ventilation, air conditioning systems and lighting controls must be performed in compliance with the California Energy Code.
INSPECTOR SIGNOFF	<p>5.410.2.1 Owner's or Owner Representative's Project Requirements (OPR). [N] The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins. This documentation shall include the following:</p> <ol style="list-style-type: none"> 1. Environmental and sustainability goals. 2. Energy efficiency goals. 3. Indoor environmental quality requirements. 4. Project program, including facility functions and hours of operation, and need for after hours operation. 5. Equipment and systems expectations. 6. Building occupant and operation and maintenance (O&M) personnel expectations. <p>5.410.2.2 Basis of Design (BOD). [N] A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project. The Basis of Design document shall cover the following systems:</p> <ol style="list-style-type: none"> 1. Heating, ventilation, air conditioning (HVAC) systems and controls. 2. Indoor lighting system and controls. 3. Water heating system. 4. Renewable energy systems. 5. Water reuse systems. <p>5.410.2.3 Commissioning plan. [N] Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned. The commissioning plan shall include the following:</p> <ol style="list-style-type: none"> 1. General project information. 2. Commissioning goals. 3. Systems to be commissioned. Plans to test systems and components shall include: <ol style="list-style-type: none"> a. An explanation of the original design intent. b. Equipment and systems to be tested, including the extent of tests. c. Functions to be tested. d. Conditions under which the test shall be performed. e. Measurable criteria for acceptable performance. 4. Commissioning team information. 5. Commissioning process activities, schedules and responsibilities. Plans for the completion of commissioning shall be included. <p>5.410.2.4 Functional performance testing. [N] Functional performance tests shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications. Functional performance testing reports shall contain information addressing each of the building components tested, the testing methods utilized, and include any readings and adjustments made.</p> <p>5.410.2.5 Documentation and training. [N] A Systems Manual and Systems Operations Training are required, including Occupational Safety and Health Act (OSHA) requirements in California Code of Regulations (CCR), Title 8, Section 5142, and other related regulations.</p> <p>5.410.2.5.1 Systems manual. [N] Documentation of the operational aspects of the building shall be completed within the systems manual and delivered to the building owner or representative. The systems manual shall include the following:</p> <ol style="list-style-type: none"> 1. Site information, including facility description, history and current requirements. 2. Site contact information. 3. Basic operations and maintenance, including general site operating procedures, basic troubleshooting, recommended maintenance requirements, site events log. 4. Major systems. 5. Site equipment inventory and maintenance notes. 6. A copy of verifications required by the enforcing agency or this code. 7. Other resources and documentation, if applicable. <p>5.410.2.5.2 Systems operations training. [N] A program for training of the appropriate maintenance staff for each equipment type and/or system shall be developed and documented in the commissioning report and shall include the following:</p> <ol style="list-style-type: none"> 1. System/equipment overview (what it is, what it does and with what other systems and/or equipment it interfaces). 2. Review and demonstration of servicing/preventive maintenance. 3. Review of the information in the Systems Manual. 4. Review of the record drawings on the system/equipment. <p>5.410.2.6 Commissioning report. [N] A report of commissioning process activities undertaken through the design and construction phases of the building project shall be completed and provided to the owner or representative.</p> <p>5.410.4 TESTING AND ADJUSTING. Testing and adjusting of systems shall be required for buildings less than 10,000 square feet or new systems to serve an addition or alteration subject to Section 303.1.</p> <p>5.410.4.2 Systems. Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project:</p> <ol style="list-style-type: none"> 1. HVAC systems and controls. 2. Indoor and outdoor lighting and controls. 3. Water heating systems. 4. Renewable energy systems. 5. Landscape irrigation systems. 6. Water reuse systems. <p>5.410.4.3 Procedures. Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.</p> <p>5.410.4.3.1 HVAC balancing. In addition to testing and adjusting, before a new space-conditioning system serving a building or space is operated for normal use, the system shall be balanced in accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance Council National Standards or as approved by the enforcing agency.</p> <p>5.410.4.4 Reporting. After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.</p> <p>5.410.4.5 Operation and maintenance (O & M) manual. Provide the building owner or representative with detailed operating and maintenance instructions and copies of warranties/warranties for each system. O & M instructions shall be consistent with OSHA requirements in CCR, Title 8, Section 5142, and other related regulations.</p> <p>5.410.4.5.1 Inspections and reports. Include a copy of all inspection verifications and reports required by the enforcing agency.</p>

INSPECTOR SIGNOFF	<p>DIVISION 5.5 ENVIRONMENTAL QUALITY</p> <p>SECTION 5.501 GENERAL</p> <p>5.501.1 SCOPE. The provisions of this chapter shall outline means of reducing the quantity of air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of a building's installers, occupants and neighbors.</p> <p>SECTION 5.502 DEFINITIONS The following terms are defined in Chapter 2 (<i>and are included here for reference</i>)</p> <p>ARTERIAL HIGHWAY. A general term denoting a highway primarily for through traffic usually on a continuous route.</p> <p>A-WEIGHTED SOUND LEVEL (dBA). The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made.</p> <p>1 BTU/HOUR. British thermal units per hour; also referred to as Btu. The amount of heat required to raise one pound of water one degree Fahrenheit per hour, a common measure of heat transfer rate. A ton of refrigeration is 12,000 Btu, the amount of heat required to melt a ton (2,000 pounds) of ice at 32° Fahrenheit.</p> <p>COMMUNITY NOISE EQUIVALENT LEVEL (CNEL). A metric similar to the day-night average sound level (Ldn), except that a 5 decibel adjustment is added to the equivalent continuous sound exposure level for evening hours (7pm to 10pm) in addition to the 10 dB nighttime adjustment used in the Ldn.</p> <p>COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, timber, prefabricated wood joists or finger-jointed lumber, all as specified in California Code of Regulations (CCR), Title 17, Section 93120.1(a).</p> <p>Note: See CCR, Title 17, Section 93120.1</p> <p>DAY-NIGHT AVERAGE SOUND LEVEL (Ldn). The A-weighted equivalent continuous sound exposure level for a 24-hour period with a 10 dB adjustment added to sound levels occurring during nighttime hours (10pm to 7am).</p> <p>DECIBEL (db). A measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, sound intensity) with respect to a reference quantity.</p> <p>ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the California Electrical Code, off-road, self-propelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats, and the like, are not included.</p> <p>ELECTRIC VEHICLE CHARGING STATION(S) (EVCS). One or more spaces intended for charging electric vehicles.</p> <p>ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.</p> <p>ENERGY EQUIVALENT NOISE (Leq). The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time of period of interest.</p> <p>EXPRESSWAY. An arterial highway for through traffic which may have partial control of access, but which may or may not be divided or have grade separations at intersections.</p> <p>FREEWAY. A divided arterial highway with full control of access and with grade separations at intersections.</p> <p>GLOBAL WARMING POTENTIAL (GWP). The radiative forcing impact of one mass-based unit of a given greenhouse gas relative to an equivalent unit of carbon dioxide over a given period of time. Carbon dioxide is the reference compound with a GWP of one.</p> <p>GLOBAL WARMING POTENTIAL VALUE (GWP VALUE). A 100-year GWP value published by the Intergovernmental Panel on Climate Change (IPCC) in either its Second Assessment Report (SAR) (IPCC, 1995), or its Fourth Assessment A-3 Report (AR4) (IPCC, 2007). The SAR GWP values are found in column "SAR (100-yr)" of Table 2.14.; the AR4 GWP values are found in column "100 yr" of Table 2.14.</p> <p>HIGH-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that is: (a) a chlorofluorocarbon, a hydrochlorofluorocarbon, a hydrofluorocarbon, a perfluorocarbon, or any compound or blend of compounds, with a GWP value equal to or greater than 150, or (B) any ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).</p> <p>LONG RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.5 times the pipe diameter.</p> <p>LOW-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that: (A) has a GWP value less than 150, and (B) is not an ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).</p> <p>MERV. Filter minimum efficiency reporting value, based on ASHRAE 52.2-1999.</p> <p>MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base Reactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundredths of a gram (g)/g (ROG).</p> <p>PRODUCT-WEIGHTED MIR (PWWIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWWIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).</p> <p>PSIG. Pounds per square inch, gauge.</p> <p>REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.</p> <p>SCHRADER ACCESS VALVES. Access fittings with a valve core installed.</p> <p>SHORT RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.0 times the pipe diameter.</p> <p>SUPERMARKET. For the purposes of Section 5.508.2, a supermarket is any retail food facility with 8,000 square feet or more conditioned area, and that utilizes either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units.</p> <p>VOC. A volatile organic compound broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a)</p> <p>Note: Where specific regulations are cited from different agencies such as SCAQMD, ARB, etc., the VOC definition included in that specific regulation is the one that prevails for the specific measure in question.</p> <p>SECTION 5.503 FIREPLACES</p> <p>5.503.1 FIREPLACES. Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove or pellet stove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves, pellet stoves and pellet stoves shall comply with applicable local ordinances.</p> <p>5.503.1.1 Woodstoves. Woodstoves and pellet stoves shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits.</p> <p>SECTION 5.504 POLLUTANT CONTROL</p> <p>5.504.1 TEMPORARY VENTILATION. The permanent HVAC system shall only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a Minimum Efficiency Reporting Value (MERV) of 8, based on ASH RAE 52.2-1999, or an average efficiency of 30% based on ASH RAE 52.1-1992. Replace all filters immediately prior to occupancy, or, if the building is occupied during alteration, at the conclusion of construction.</p> <p>5.504.3 Covering of duct openings and protection of mechanical equipment during construction. At the time of rough installation, or during storage on the construction site and until final startup of the heating, cooling and ventilating equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheet metal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may collect in the system.</p>
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INSPECTOR SIGNOFF	<p>SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT</p> <p>5.407.1 WEATHER PROTECTION. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1403.2 (Weather Protection) and California Energy Code Section 150, (Mandatory Features and Devices), manufacturer's installation instructions or local ordinance, whichever is more stringent.</p> <p>5.407.2 MOISTURE CONTROL. Employ moisture control measures by the following methods.</p> <p>5.407.2.1 Sprinklers. Design and maintain landscape irrigation systems to prevent spray on structures.</p> <p>5.407.2.2 Entries and openings. Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings as follows:</p> <p>5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following:</p> <ol style="list-style-type: none"> 1. An installed awning at least 4 feet in depth. 2. The door is protected by a roof overhang at least 4 feet in depth. 3. The door is recessed at least 4 feet. 4. Other methods which provide equivalent protection. <p>5.407.2.2.2 Flashing. Install flashings integrated with a drainage plane.</p>
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INSPECTOR SIGNOFF	<p>SECTION 5.402 DEFINITIONS</p> <p>5.402.1 DEFINITIONS. The following terms are defined in Chapter 2 (<i>and are included here for reference</i>)</p> <p>ADJUST. To regulate fluid flow rate and air patterns at the terminal equipment, such as to reduce fan speed or adjust a damper.</p> <p>BALANCE. To proportion flows within the distribution system, including sub-mains, branches and terminals, according to design quantities.</p> <p>BUILDING COMMISSIONING. A systematic quality assurance process that spans the entire design and construction process, including verifying and documenting that building systems and components are planned, designed, installed, tested, operated and maintained to meet the owner's project requirements.</p> <p>ORGANIC WASTE. Food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food soiled paper waste that is mixed in with food waste.</p> <p>TEST. A procedure to determine quantitative performance of a system or equipment.</p>
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HUMBOLDT STATE UNIVERSITY

Sunset Residence Hall Roofing Arcata, California

PROJECT TEAM

Owner: Trustees of the California State University

Arch: Suarez-Kuehne Architecture
2412 14th Avenue
San Francisco, CA 94116
Attn: John Suarez
(415) 242-1400

Plumb: Interface Engineering
135 Main St, Ste 400
San Francisco, CA 94105
Attn: Rick Russell
(415) 489-7240

SEALS

REVISIONS

Sheet Name
CALGREEN

Date **APRIL 3, 2019**

Owner # **AS1.1**

SKA #

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2016 CALIFORNIA GREEN BUILDING STANDARDS CODE NONRESIDENTIAL MANDATORY MEASURES, SHEET 3 (INCLUDING JANUARY 1, 2017 ERRATA)

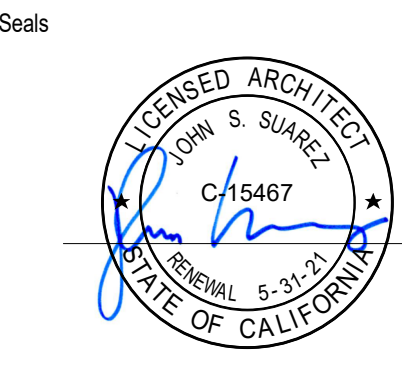
SUAREZ-KUEHNE ARCHITECTURE

2412 14th Avenue San Francisco California 94116 tel 415.242.1400

HUMBOLDT STATE UNIVERSITY

Sunset Residence Hall Roofing Arcata, California

Project Team Owner: Trustees of the California State University...



Revisions

Sheet Name CALGREEN

Date APRIL 3, 2019

Owner # AS1.2

SKA #

INSPECTOR SIGNOFF

5.504.4 FINISH MATERIAL POLLUTANT CONTROL. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6.

- 5.504.4.1 Adhesives, sealants and caulks. Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards: 1. Adhesives, adhesive bonding primers adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable...

TABLE 5.504.4.1 - ADHESIVE VOC LIMIT 1,2

Less Water and Less Exempt Compounds in Grams per Liter

Table with 2 columns: ARCHITECTURAL APPLICATIONS and CURRENT VOC LIMIT. Lists various materials like INDOOR CARPET ADHESIVES, CARPET PAD ADHESIVES, etc.

- 1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED. 2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE...

TABLE 5.504.4.2 - SEALANT VOC LIMIT

Less Water and Less Exempt Compounds in Grams per Liter

Table with 2 columns: SEALANTS and CURRENT VOC LIMIT. Lists materials like ARCHITECTURAL, MARINE DECK, NONMEMBRANE ROOF, etc.

NOTE: FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, unless more stringent local limits apply.

5.504.4.3.1 Aerosol Paints and coatings. Aerosol paints and coatings shall meet the PWMIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances...

INSPECTOR SIGNOFF

TABLE 5.504.4.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS 2,3

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

Table with 2 columns: COATING CATEGORY and CURRENT VOC LIMIT. Lists categories like FLAT COATINGS, NONFLAT COATINGS, SPECIALTY COATINGS, ALUMINUM ROOF COATINGS, etc.

- 1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS 2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE. 3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD...

5.504.4.3.2 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following: 1. Manufacturer's product specification...

5.504.4.4 Carpet Systems. All carpet installed in the building interior shall meet at least one of the testing and product requirements:

- 1. Carpet and Rug Institute's Green Label Plus Program. 2. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1, February 2010 (also known as CDPH Standard Method V1.1 or Specification 01350).

5.504.4.4.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label Program.

5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 5.504.4.1.

5.504.4.5 Composite wood products. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure for Composite Wood (17 CCR 93120 et seq.).

5.504.4.5.3 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

- 1. Product certifications and specifications. 2. Chain of custody certifications. 3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).

INSPECTOR SIGNOFF

TABLE 5.504.4.5 - FORMALDEHYDE LIMITS 1

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

Table with 2 columns: PRODUCT and CURRENT LIMIT. Lists products like HARDWOOD PLYWOOD VENEER CORE, HARDWOOD PLYWOOD COMPOSITE CORE, etc.

- 1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12. 2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16 INCHES (8 MM).

5.504.4.6 Resilient flooring systems. For 80 percent of floor area receiving resilient flooring, installed resilient flooring shall meet at least one of the following:

- 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program; 2. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health's 2010 Standard Method for the Testing and Evaluation Chambers, Version 1.1, February 2010;

5.504.4.6.1 Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.

5.504.5.3 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 8. MERV 8 filters shall be installed prior to occupancy...

- 5.504.5.3.1 An ASHRAE 10% to 15% efficiency filter shall be permitted for an HVAC unit meeting the 2013 California Energy Code having 60,000 Btu/h or less capacity per fan coil, if the energy use of the air delivery system is 0.4 W/cfm or less at design air flow. 5.504.5.3.2 Existing mechanical equipment.

5.504.7 ENVIRONMENTAL TOBACCO SMOKE (ETS) CONTROL. Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and within the building as already prohibited by other laws or regulations...

SECTION 5.505 INDOOR MOISTURE CONTROL

5.505.1 INDOOR MOISTURE CONTROL. Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1203 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures not applicable to low-rise residential occupancies, see Section 5.407.2 of this code.

SECTION 5.506 INDOOR AIR QUALITY

5.506.1 OUTSIDE AIR DELIVERY. For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements For Ventilation) of the California Energy Code, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.

5.506.2 CARBON DIOXIDE (CO2) MONITORING. For buildings or additions equipped with demand control ventilation, CO2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, Section 120(c)(4).

SECTION 5.507 ENVIRONMENTAL COMFORT

5.507.4 ACOUSTICAL CONTROL. Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413, or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.

Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.

Exception: [DSA-SS] For public schools and community colleges, the requirements of this section and all subsections apply only to new construction.

5.507.4.1 Exterior noise transmission, prescriptive method. Wall and roof-ceiling assemblies exposed to the noise source making up the building's addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

- 1. Within the 65 CNEL noise contour of an airport. Exceptions: a. L⁵⁰ or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan. b. L⁵⁰ or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.

- 2. Within the 65 CNEL or L⁵⁰ noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

5.507.4.1.1 Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB L_{eq}-1hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).

5.507.4.2 Performance Method. For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq-1 Hr) of 50 dBA in occupied areas during any hour of operation.

5.507.4.2.1 Site Features. Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.

5.507.4.2.2 Documentation of Compliance. An acoustical analysis documenting complying interior sound levels shall be prepared by personnel approved by the architect or engineer of record.

5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have a STC of at least 40.

Note: Examples of assemblies and their various STC ratings may be found at the California Office of Noise Control: www.toobase.org/PDF/CasesStudies/stc_icc_ratings.pdf.

SECTION 5.508 OUTDOOR AIR QUALITY

5.508.1 Ozone depletion and greenhouse gas reductions. Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.

5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs.

5.508.1.2 Halons. Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.

5.508.2 Supermarket refrigerant leak reduction. New commercial refrigeration systems shall comply with the provisions of this section when installed in retail food stores 8,000 square feet or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.

INSPECTOR SIGNOFF

Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO2), and potentially other refrigerants.

5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than 1/4 inch, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted below.

5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack.

5.508.2.1.2 Copper pipe. Copper tubing with an OD less than 1/4 inch may be used in systems with a refrigerant charge of 5 pounds or less.

5.508.2.1.2.1 Anchorage. One-fourth-inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.

5.508.2.1.3 Flared tubing connections. Double-flared tubing connections may be used for pressure controls, valve pilot lines and oil.

Exception: Single-flared tubing connections may be used with a multiring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's recommendations.

5.508.2.1.4 Elbows. Short radius elbows are only permitted where space limitations prohibit use of long radius elbows.

5.508.2.2 Valves. Valves and fittings shall comply with the California Mechanical Code and as follows.

5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.

5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.

5.508.2.2.2 Access valves. Only Schrader access valves with a brass or steel body are permitted for use.

5.508.2.2.2.1 Valve caps. For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.

5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place.

5.508.2.2.2.2.1 Chain tethers. Chain tethers to fit over the stem are required for valves designed to have seal caps.

Exception: Valves with seal caps that are not removed from the valve during stem operation.

5.508.2.3 Refrigerated service cases. Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel, or be coated to prevent corrosion from these substances.

5.508.2.3.1 Coil coating. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.

5.508.2.4 Refrigerant receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device that indicates the level of refrigerant in the receiver.

5.508.2.5 Pressure testing. The system shall be pressure tested during installation prior to evacuation and charging.

5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.

5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.

5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.

5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging.

5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.

5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns and hold for 30 minutes.

5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.

CHAPTER 7 INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS 702.1 INSTALLER TRAINING HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

- 1. Certification by a national or regional green building program or standard publisher. 2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors. 3. Successful completion of a third party apprentice training program in the appropriate trade. 4. Other programs acceptable to the enforcing agency.

Notes: 1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code. 2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC-CG] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

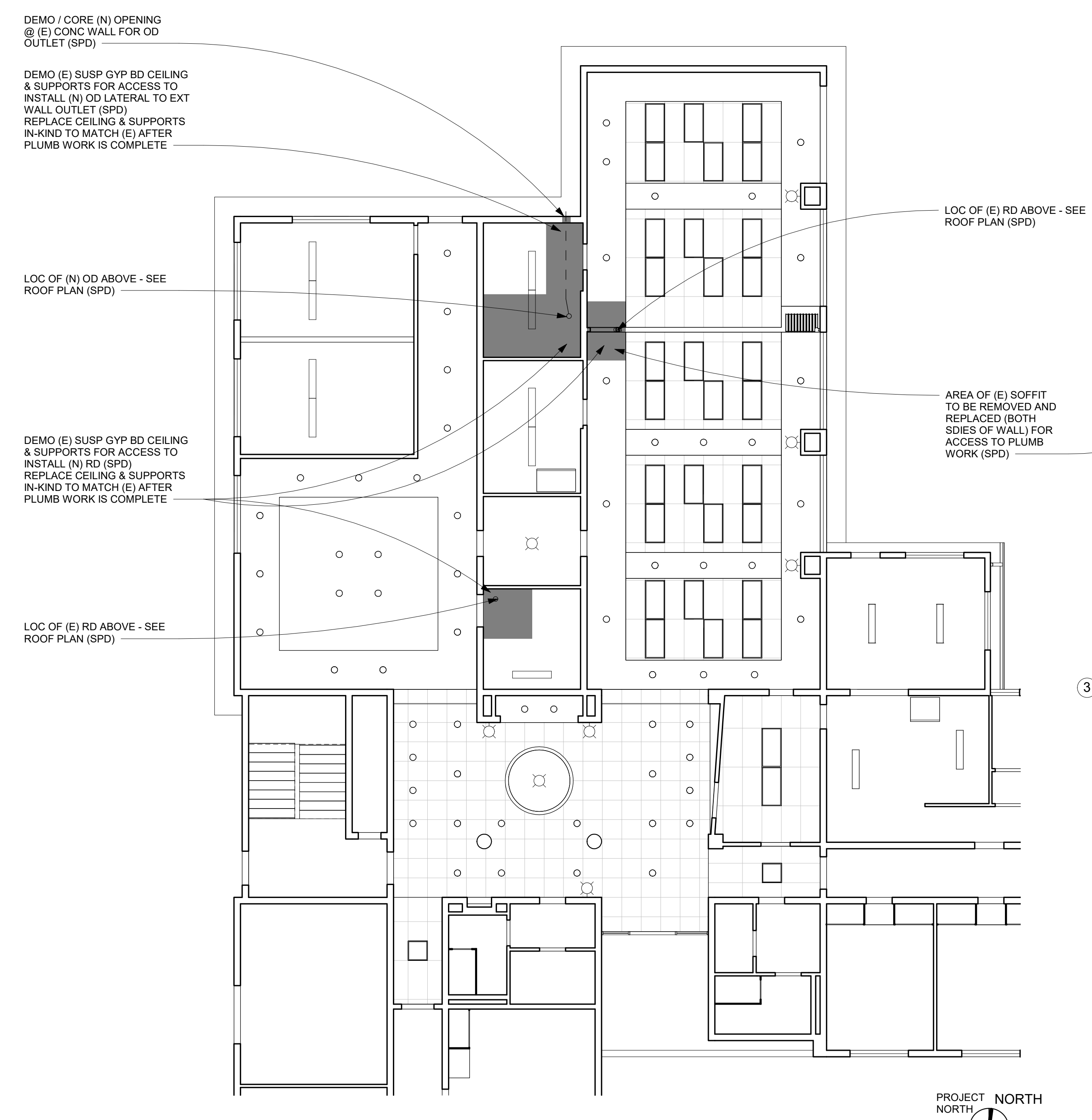
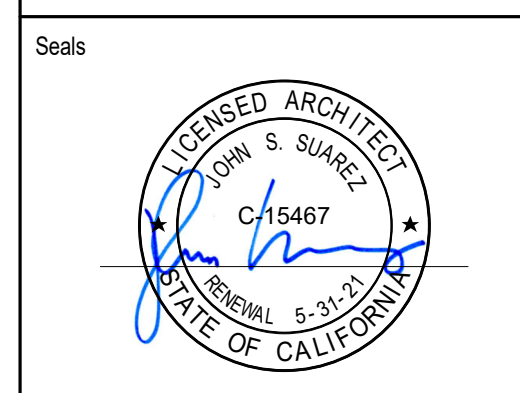
702 VERIFICATIONS 703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

SUAREZ-KUEHNE ARCHITECTURE

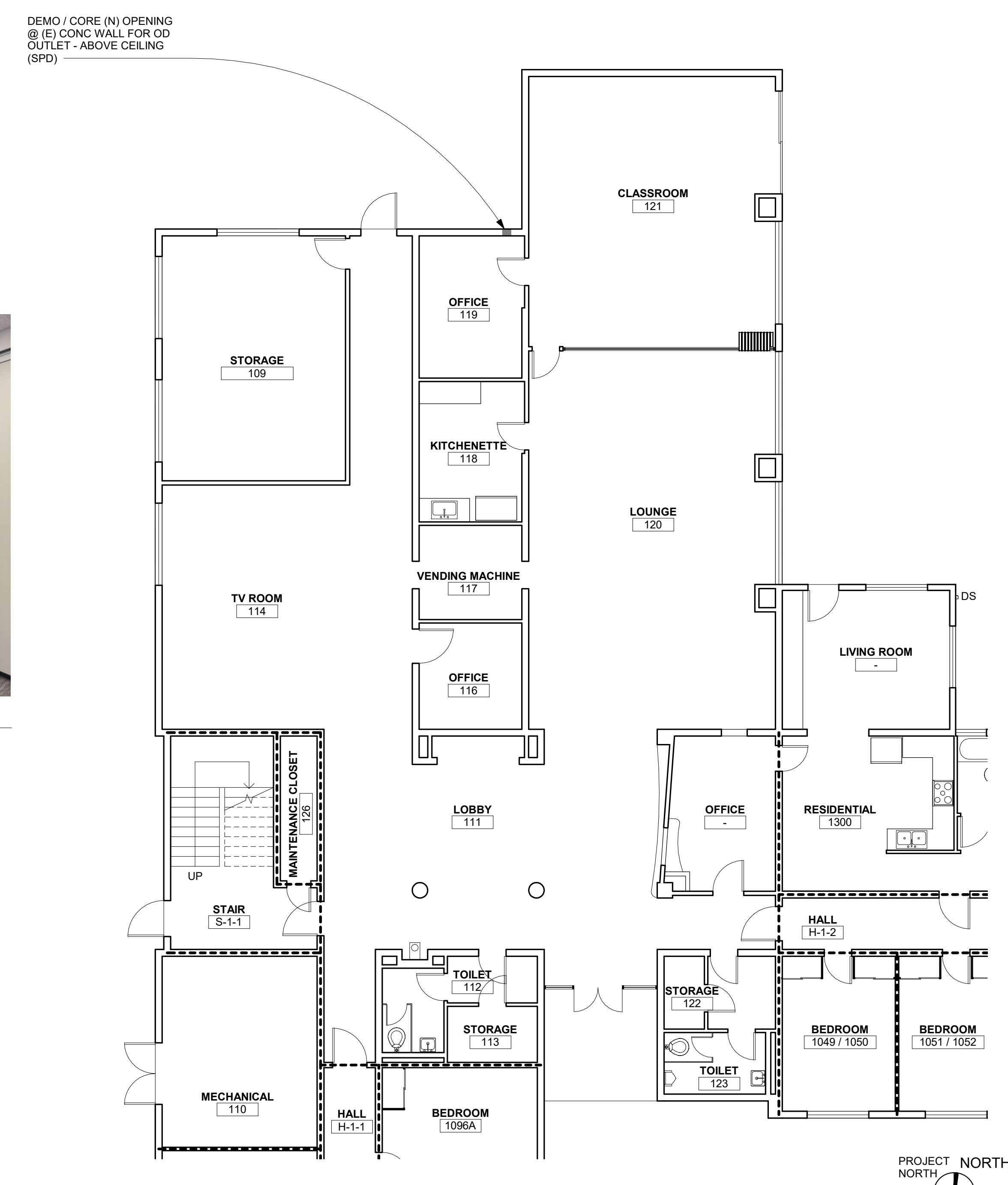
2412 14th Avenue
San Francisco
California 94116
tel 415.242.1400

HUMBOLDT STATE UNIVERSITY
Sunset Residence
Hall Roofing
Arcata, California

Project Team
Owner: Trustees of the California State University
Arch: Suarez-Kuehne Architecture
2412 14th Avenue
San Francisco, CA 94116
Attr: John Suarez
(415) 242-1400
Plumb: Interface Engineering
135 Main St, Ste 400
San Francisco, CA 94105
Attr: Rick Russell
(415) 489-7240



2 S - Level 1 RCP - Lounge / Lobby Demolition/Proposed
1/8" = 1'-0"



1 S - Level 1 Plan - Lounge / Lobby Demolition/Proposed
1/8" = 1'-0"

RCP SYMBOLS			
●	PENDANT SPRINKLER HEAD	▶	SIDEWALL SPRINKLER
⊗	LIGHT FXT - WALL MTD	▬	FLUOR WALL MTD LINEAR SCNCE
⊗	LIGHT FXT - SURFACE MTD	▬	FLUOR SURF MTD OR CHAIN-HUNG FIX
○	LIGHT FXT - RECESSED CAN	▬	2x4 FLUOR LAY-IN FXT
●	LIGHT FXT - RECESSED CAN WALL WASHER - SHADED SIDE INDICATES LIGHTED FACE	▬	2x2 FLUOR LAY-IN FXT
○	LIGHT FXT - SPOT OR MONOPOINT - ARROW INDICATES	▬	LINEAR SURF MTD FXT
⊗	LIGHT FXT - TRACK	▬	2X2 RETURN - SMD
▬	LIGHT FXT - UNDERCABINET STRIP	▬	2X2 SUPPLY - SMD
▬	LINEAR RETURN - SMD	▬	LINEAR SUPPLY - SMD

RCP GENERAL NOTES
1. SEE TYPICAL CEILING NOTES AS10.1
2. ALL DIMENSIONS NOTED ARE TO FACE OF FINISH OR GRID LINES UON
3. FOR ADDL PLUMB DETAIL: SPD
4. ALL CEILING HEIGHTS NOTED ARE FROM FIN FLOOR TO FIN CEILING (VIF ALL (E) CEILING HEIGHTS)

WALL LEGEND - PROPOSED
▬ (E) WALL TO REMAIN SHOWN SOLID
▬ (N) WALL SHOWN HATCHED GRAY (NON-RATED UON AS SHOWN BELOW WITH RATED DASHED LINES)
▬ (E) 1-HR FIRE RESISTIVE CONSTRUCTION

GENERAL PLAN NOTES
1. FOR RCPS SEE AS2.1 & AS3.2
2. FOR FLOOR PLANS SEE AS2.1, AS3.2
3. FOR ROOF PLANS SEE AS2.2, AS3.3 & AS3.4
4. FOR CEILING FRAMING DETAILS SEE AS10.1
5. ALL DIMENSIONS NOTED ARE TO FACE OF FINISH, CENTER OF WALL ASSEMBLY, OR GRID LINES UON

BUILDING PERMIT APPROVAL
This project has demonstrated conformance with applicable codes and standards established by statute and University policy. Based on this determination these documents are:

'APPROVED FOR CONSTRUCTION'

Michael Fisher
Campus Deputy Building Official
Humboldt State University
The California State University

Date: _____
Permit #: _____
Site approval, as applicable.
SEM Approval: _____
DSA Access Approval: _____
Seismic Peer Review: _____
Mech Peer Review: _____

CALIFORNIA STATE FIRE MARSHAL APPROVED
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. Set of approved plans shall be available on the project site at all times.

Reviewed by: _____
Date: _____

Revisions

Sheet Name
LEVEL 1 - FLOOR & CEILING PLANS

Date: APRIL 3, 2019

Owner # _____
Date: _____
SKA # _____

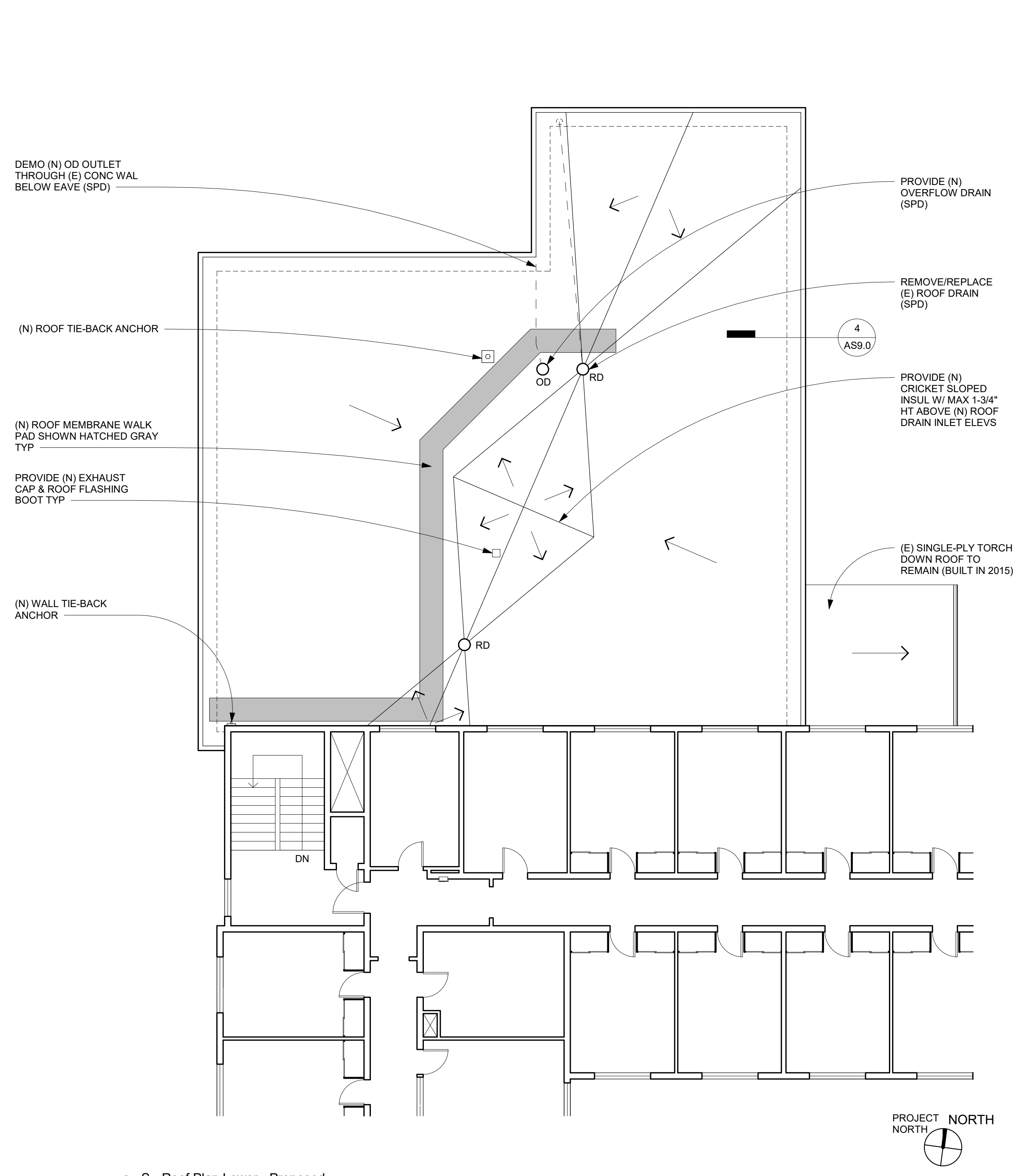
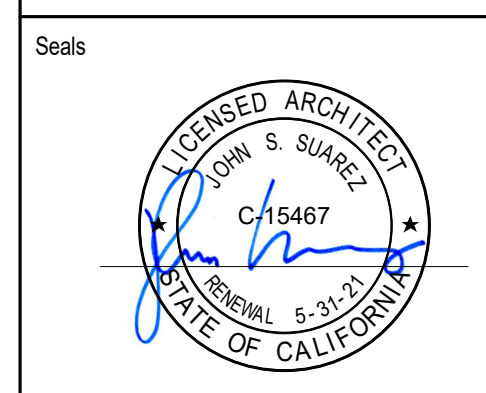
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AS2.1

SUAREZ·KUEHNE ARCHITECTURE

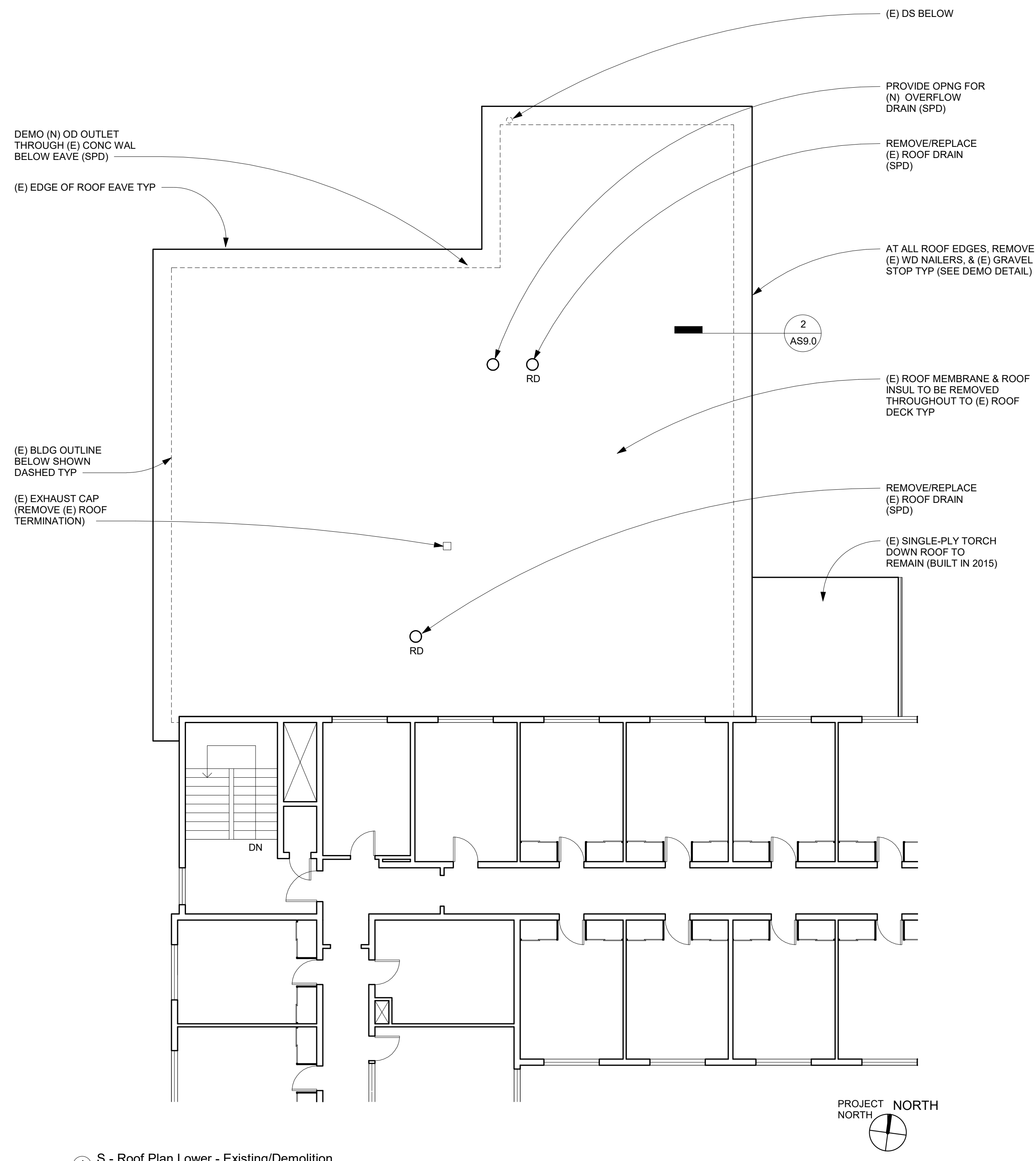
2412 14th Avenue
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Project
HUMBOLDT STATE UNIVERSITY
Sunset Residence Hall Roofing
Arcata, California

Project Team
Owner: Trustees of the California State University
Arch: Suarez-Kuehne Architecture
2412 14th Avenue
San Francisco, CA 94116
Attn: John Suarez
(415) 242-1400
Plumb: Interface Engineering
135 Main St, Ste 400
San Francisco, CA 94105
Attn: Rick Russell
(415) 489-7240



2 S - Roof Plan Lower - Proposed
1/8" = 1'-0"



1 S - Roof Plan Lower - Existing/Demolition
1/8" = 1'-0"

- GENERAL PLAN NOTES**
- FOR RCPS SEE AS2.1 & AS3.2
 - FOR FLOOR PLANS SEE AS2.1, AS3.2
 - FOR ROOF PLANS SEE AS2.2, AS3.3 & AS3.4
 - FOR CEILING FRAMING DETAILS SEE AS10.1
 - ALL DIMENSIONS NOTED ARE TO FACE OF FINISH, CENTER OF WALL ASSEMBLY, OR GRID LINES UNO

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The California State University
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State approval, as applicable.
SEM Approval: _____
DSA Access Approval: _____
Seismic Peer Review: _____
Mech Peer Review: _____

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Date: _____

Revisions

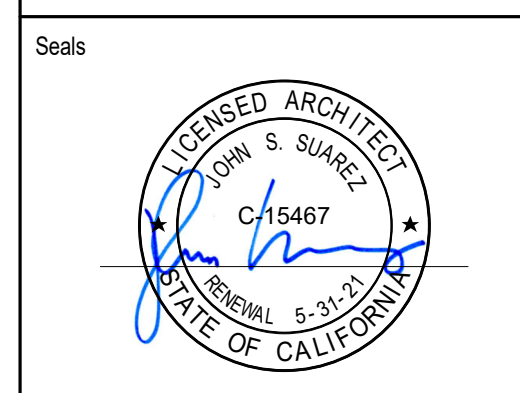
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Date	APRIL 3, 2019
Owner #	Sheet Number
SKA #	AS2.2

SUAREZ·KUEHNE·ARCHITECTURE

2412 14th Avenue
San Francisco
California 94116
tel 415.242.1400

Project
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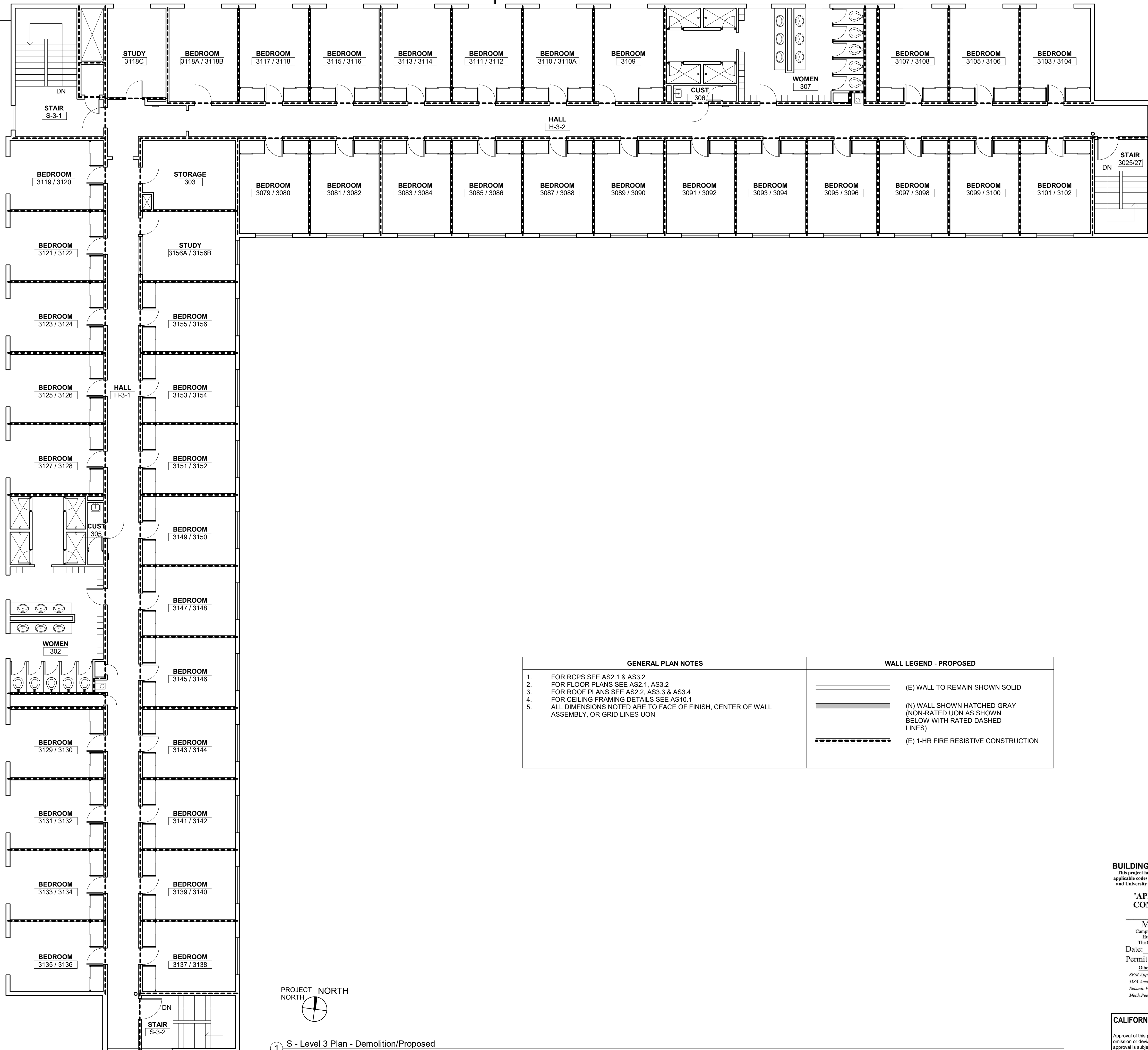
Revisions

Sheet Name
LEVEL 3 - FLOOR PLAN

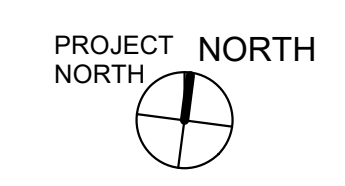
Date
APRIL 3, 2019

Owner #
SKA #

Sheet Number
AS3.1



GENERAL PLAN NOTES	WALL LEGEND - PROPOSED
1. FOR RCPS SEE AS2.1 & AS3.2	(E) WALL TO REMAIN SHOWN SOLID (N) WALL SHOWN HATCHED GRAY (NON-RATED UNON AS SHOWN BELOW WITH RATED DASHED LINES) (E) 1-HR FIRE RESISTIVE CONSTRUCTION
2. FOR FLOOR PLANS SEE AS2.1, AS3.2	
3. FOR ROOF PLANS SEE AS2.2, AS3.3 & AS3.4	
4. FOR CEILING FRAMING DETAILS SEE AS10.1	
5. ALL DIMENSIONS NOTED ARE TO FACE OF FINISH, CENTER OF WALL ASSEMBLY, OR GRID LINES UNON	



1 S - Level 3 Plan - Demolition/Proposed
1/8" = 1'-0"

BUILDING PERMIT APPROVAL
This project has demonstrated conformance with applicable codes and standards established by statute and University policy. Based on this determination these documents are
'APPROVED FOR CONSTRUCTION'

Michael Fisher
Campus Deputy Building Official
Humboldt State University
The California State University

Date: _____
Permit #: _____
Site approval, as applicable: _____
SEM Approval: _____
DSA Access Approval: _____
Seismic Peer Review: _____
Mech Peer Review: _____

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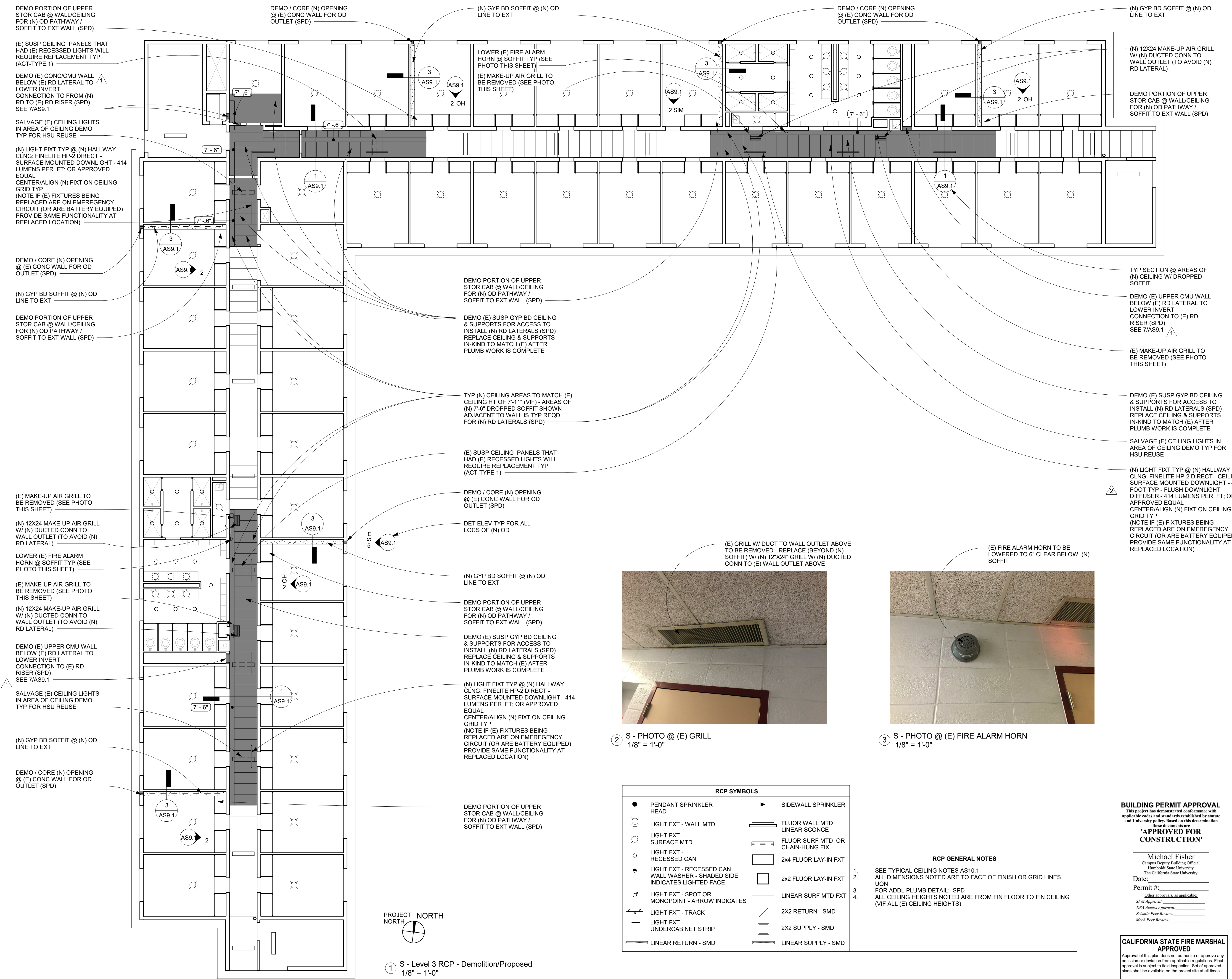
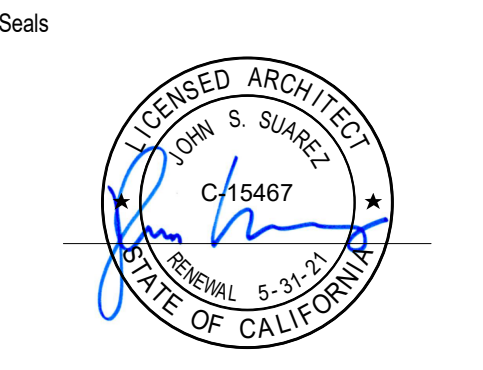
Reviewed by: _____
Date: _____

SUAREZ-KUEHNE ARCHITECTURE

2412 14th Avenue
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California 94116
tel 415.242.1400

HUMBOLDT STATE UNIVERSITY
Sunset Residence Hall Roofing
Arcata, California

Project Team
Owner: Trustees of the California State University
Arch: Suarez-Kuehne Architecture
Plumb: Interface Engineering



2 S - PHOTO @ (E) GRILL
1/8" = 1'-0"



3 S - PHOTO @ (E) FIRE ALARM HORN
1/8" = 1'-0"

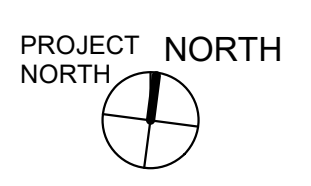
RCP SYMBOLS	
● PENDANT SPRINKLER HEAD	▶ SIDEWALL SPRINKLER
○ LIGHT FXT - WALL MTD	▬ FLUOR WALL MTD LINEAR SCNCE
○ LIGHT FXT - SURFACE MTD	▬ FLUOR SURF MTD OR CHAIN-HUNG FIX
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▬ LINEAR RETURN - SMD	▬ LINEAR SUPPLY - SMD

- RCP GENERAL NOTES**
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 -

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Michael Fisher
Campus Deputy Building Official
Humboldt State University
The California State University
Date: _____
Permit #: _____
Site approval, as applicable:
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DSA Access Approval: _____
Seismic Peer Review: _____
Mech Peer Review: _____

CALIFORNIA STATE FIRE MARSHAL APPROVED
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Reviewed by: _____
Date: _____



1 S - Level 3 RCP - Demolition/Proposed
1/8" = 1'-0"

Revisions

1 SFM REV MAY 21, 2019
2 OWN REV OCT 27, 2021

Sheet Name
LEVEL 3 - REFLECTED CEILING PLAN

Date
APRIL 3, 2019

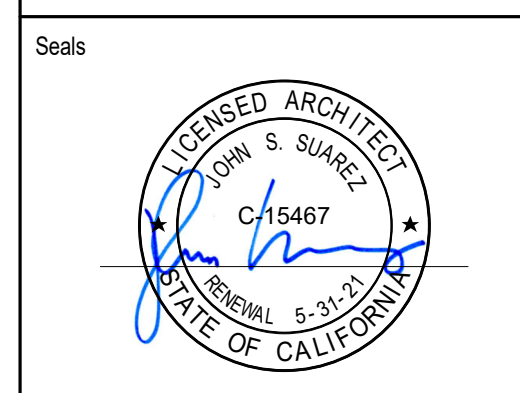
Owner #
Sheet Number
AS3.2

SUAREZ·KUEHNE·ARCHITECTURE

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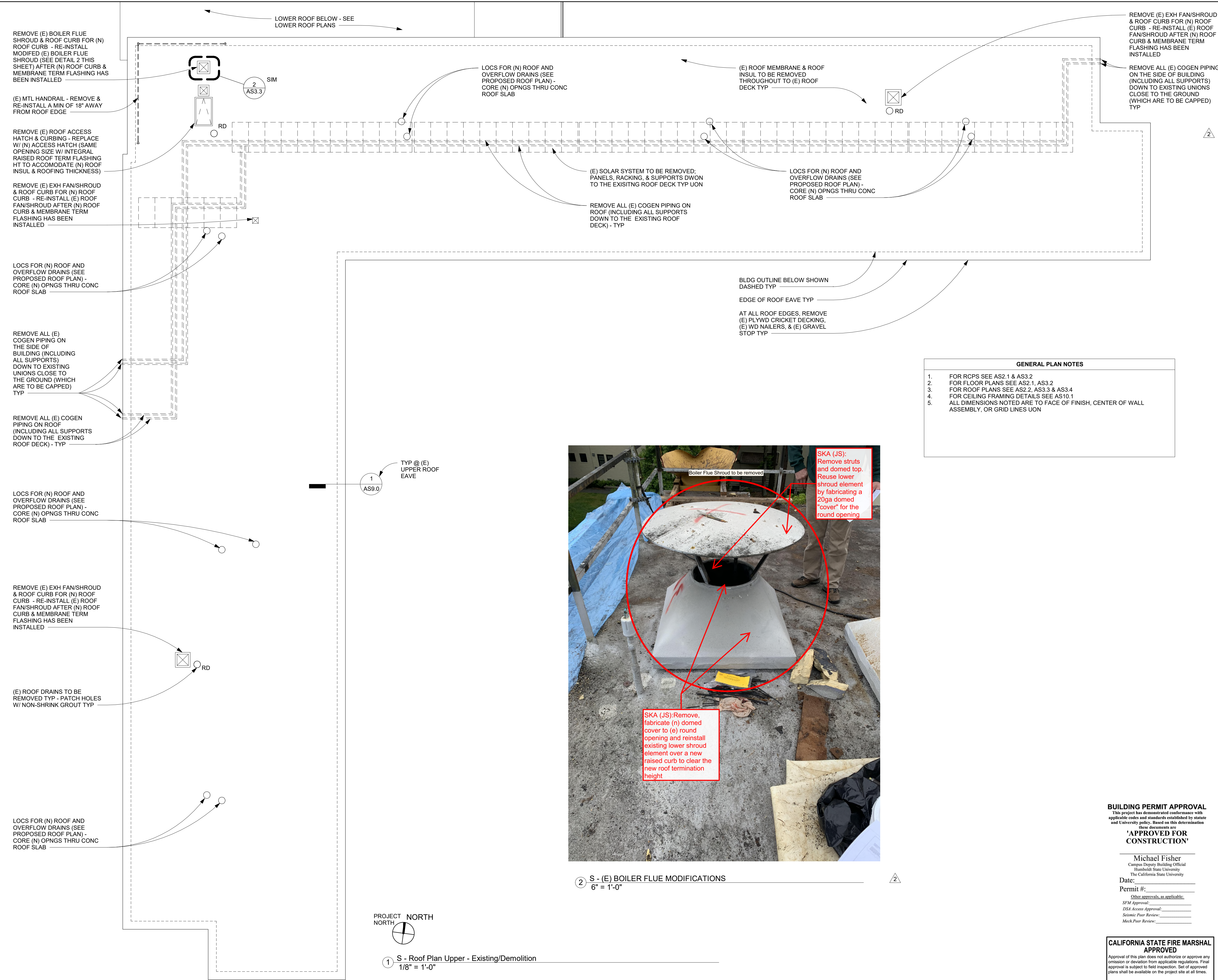


Revisions
1 SFM REV MAY 21, 2019
2 OWN REV OCT 27, 2021

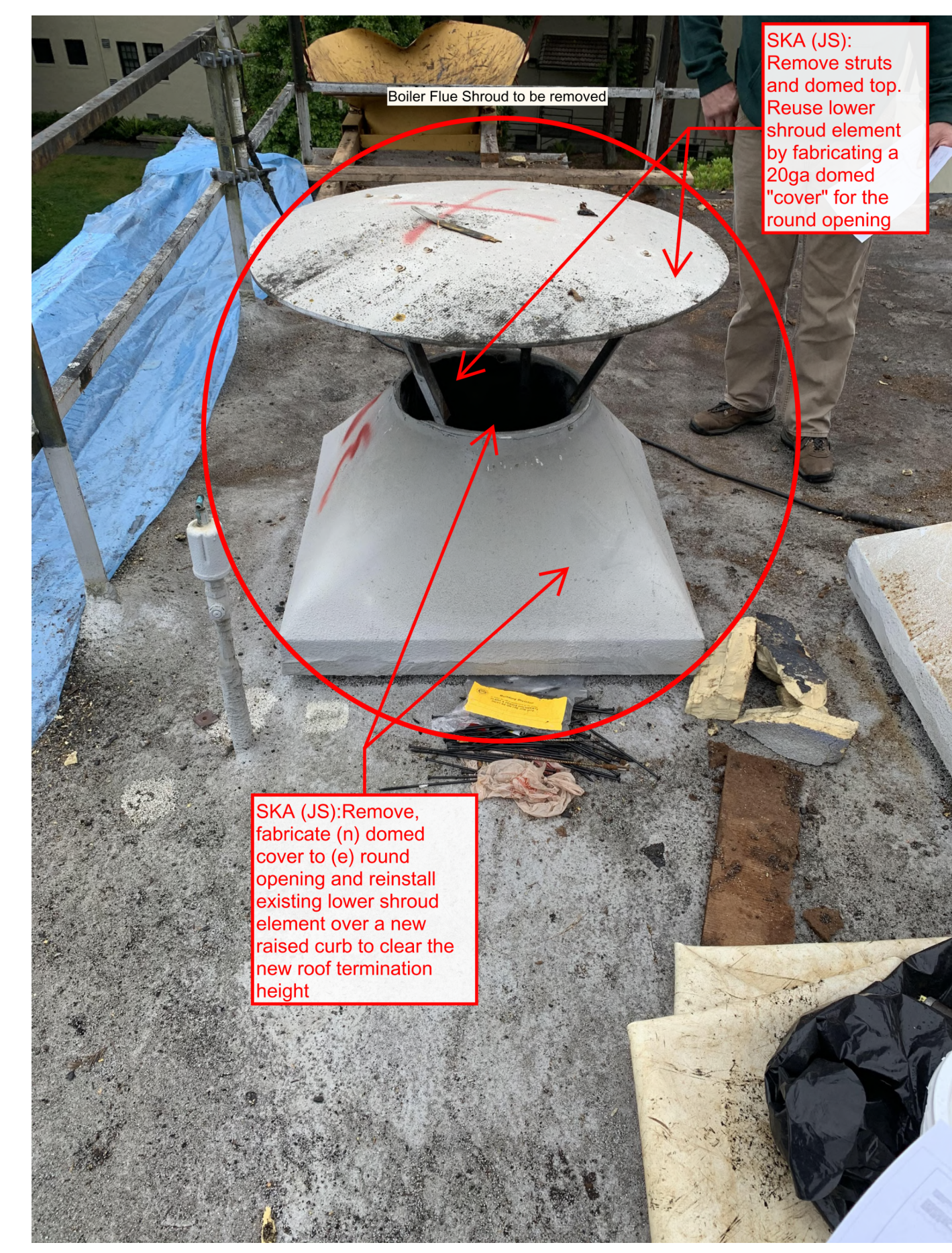
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ROOF PLAN - UPPER - EXISTING / DEMOLITION

Date
APRIL 3, 2019

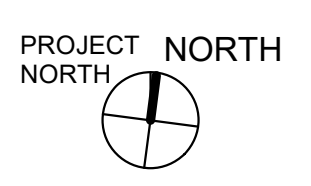
Owner #
Sheet Number
AS3.3



- GENERAL PLAN NOTES**
- FOR RCPS SEE AS2.1 & AS3.2
 - FOR FLOOR PLANS SEE AS2.1, AS3.2
 - FOR ROOF PLANS SEE AS2.2, AS3.3 & AS3.4
 - FOR CEILING FRAMING DETAILS SEE AS10.1
 - ALL DIMENSIONS NOTED ARE TO FACE OF FINISH, CENTER OF WALL ASSEMBLY, OR GRID LINES UON



2 S - (E) BOILER FLUE MODIFICATIONS
6" = 1'-0"



1 S - Roof Plan Upper - Existing/Demolition
1/8" = 1'-0"

BUILDING PERMIT APPROVAL
This project has demonstrated conformance with applicable codes and standards established by statute and University policy. Based on this determination these documents are
'APPROVED FOR CONSTRUCTION'
Michael Fisher
Campus Deputy Building Official
Humboldt State University
The California State University
Date: _____
Permit #: _____
State approval, as applicable.
SFM Approval: _____
DSA Access Approval: _____
Seismic Peer Review: _____
Mech Peer Review: _____

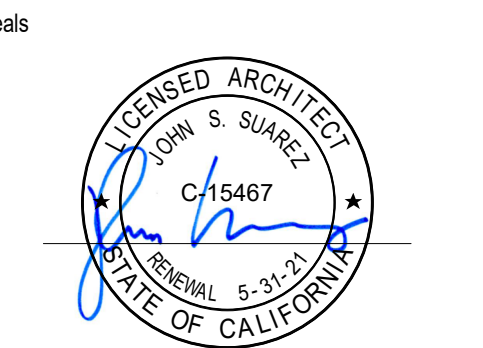
CALIFORNIA STATE FIRE MARSHAL APPROVED
Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. Set of approved plans shall be available on the project site at all times.
Reviewed by: _____
Date: _____

SUAREZ·KUEHNE·ARCHITECTURE

2412 14th Avenue
San Francisco
California 94116
tel 415.242.1400

Project
HUMBOLDT STATE UNIVERSITY
Sunset Residence
Hall Roofing
Arcata, California

Project Team
Owner: Trustees of the California State University
Arch: Suarez-Kuehne Architecture
2412 14th Avenue
San Francisco, CA 94116
Attn: John Suarez
(415) 242-1400
Plumb: Interface Engineering
135 Main St, Ste 400
San Francisco, CA 94105
Attn: Rick Russell
(415) 489-7240



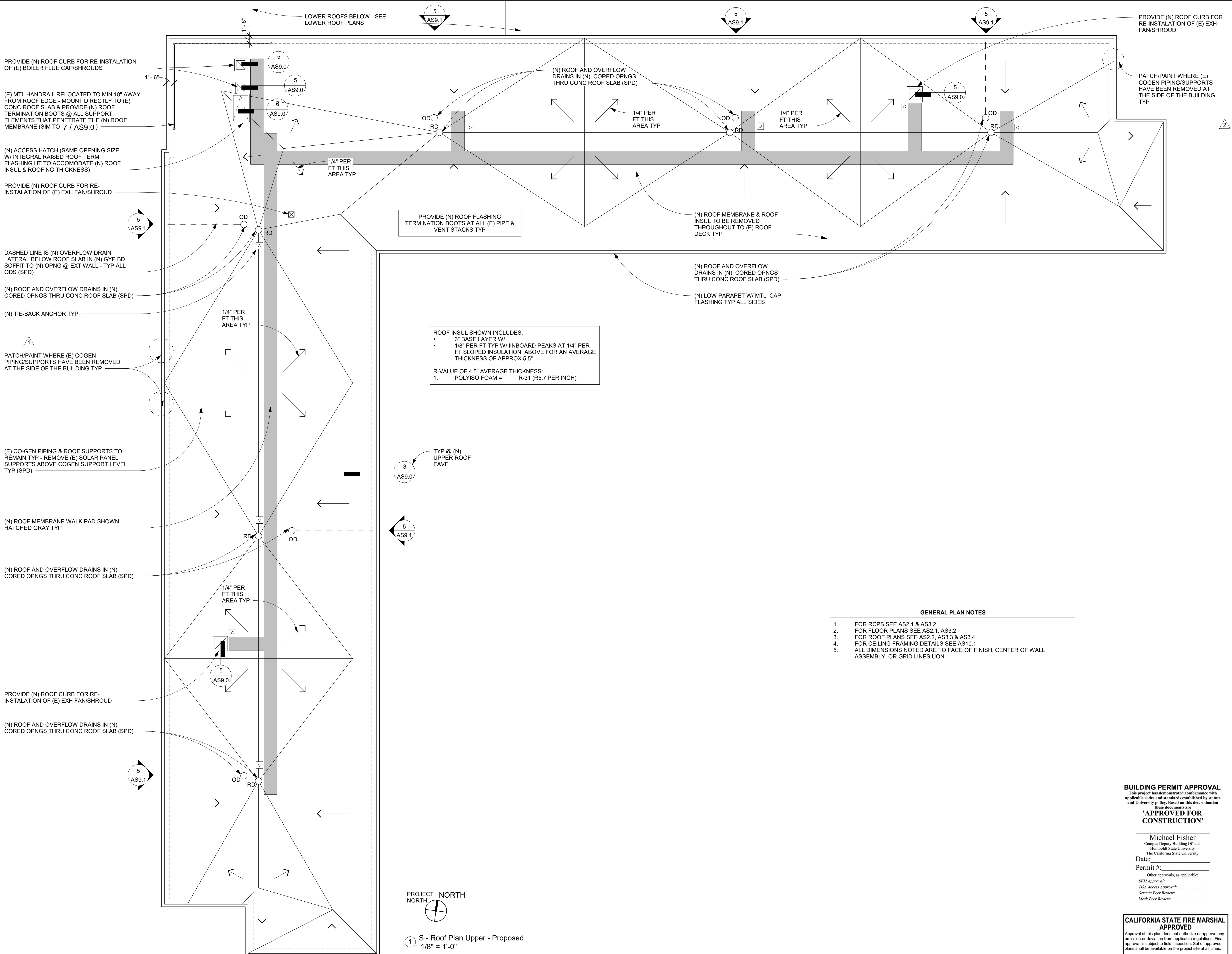
Revisions
1 OWN REV MAY 20, 2019
2 OWN REV OCT 27, 2021

Sheet Name
ROOF PLAN - UPPER - PROPOSED

Date
APRIL 3, 2019

Owner #
Sheet Number
AS3.4

SKA #



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Seismic Peer Review: _____
Mech Peer Review: _____

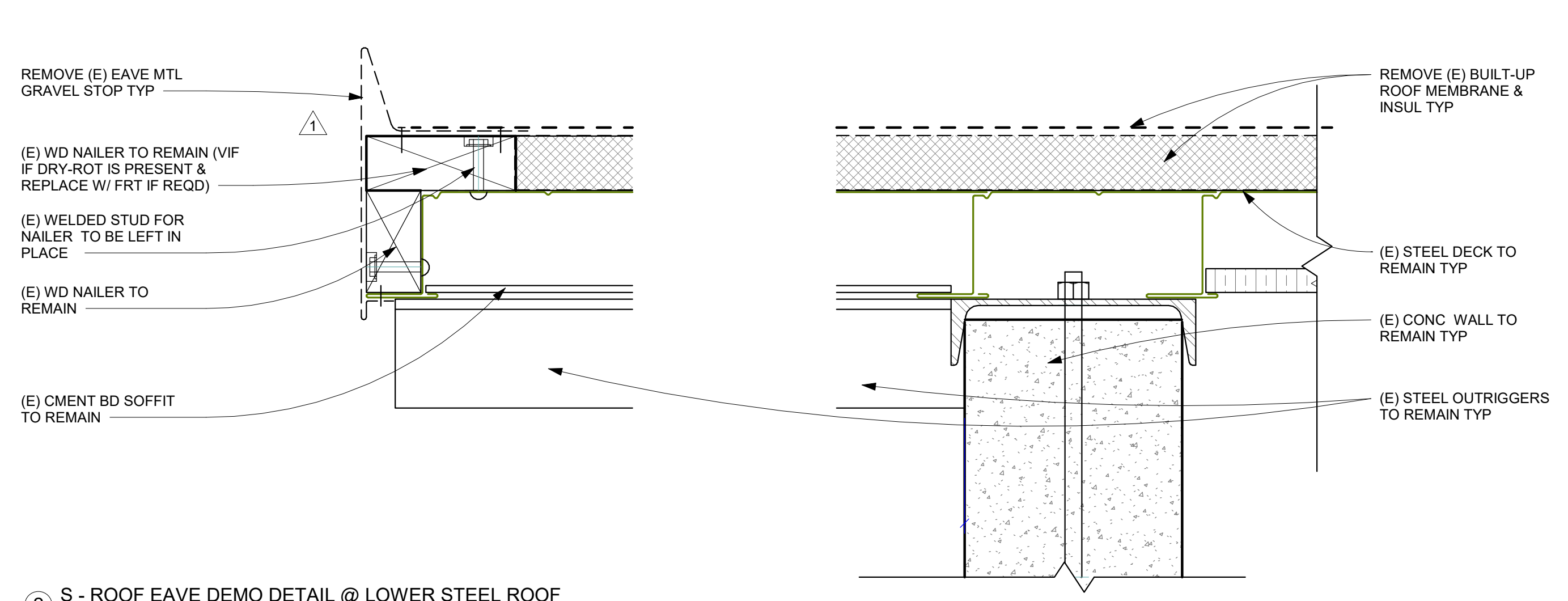
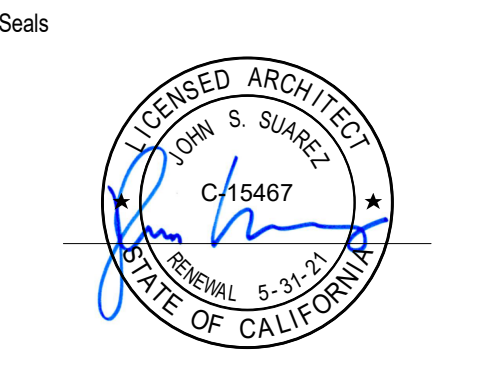
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1 S - Roof Plan Upper - Proposed
1/8" = 1'-0"

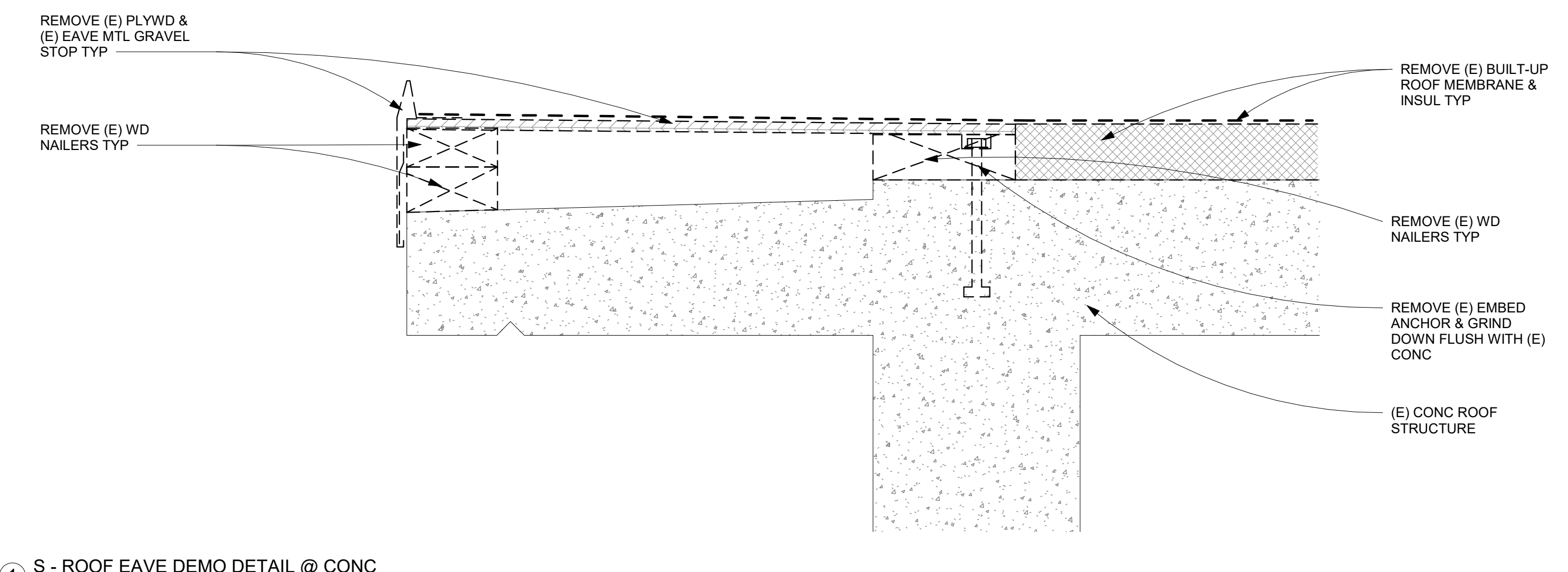
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HUMBOLDT STATE UNIVERSITY
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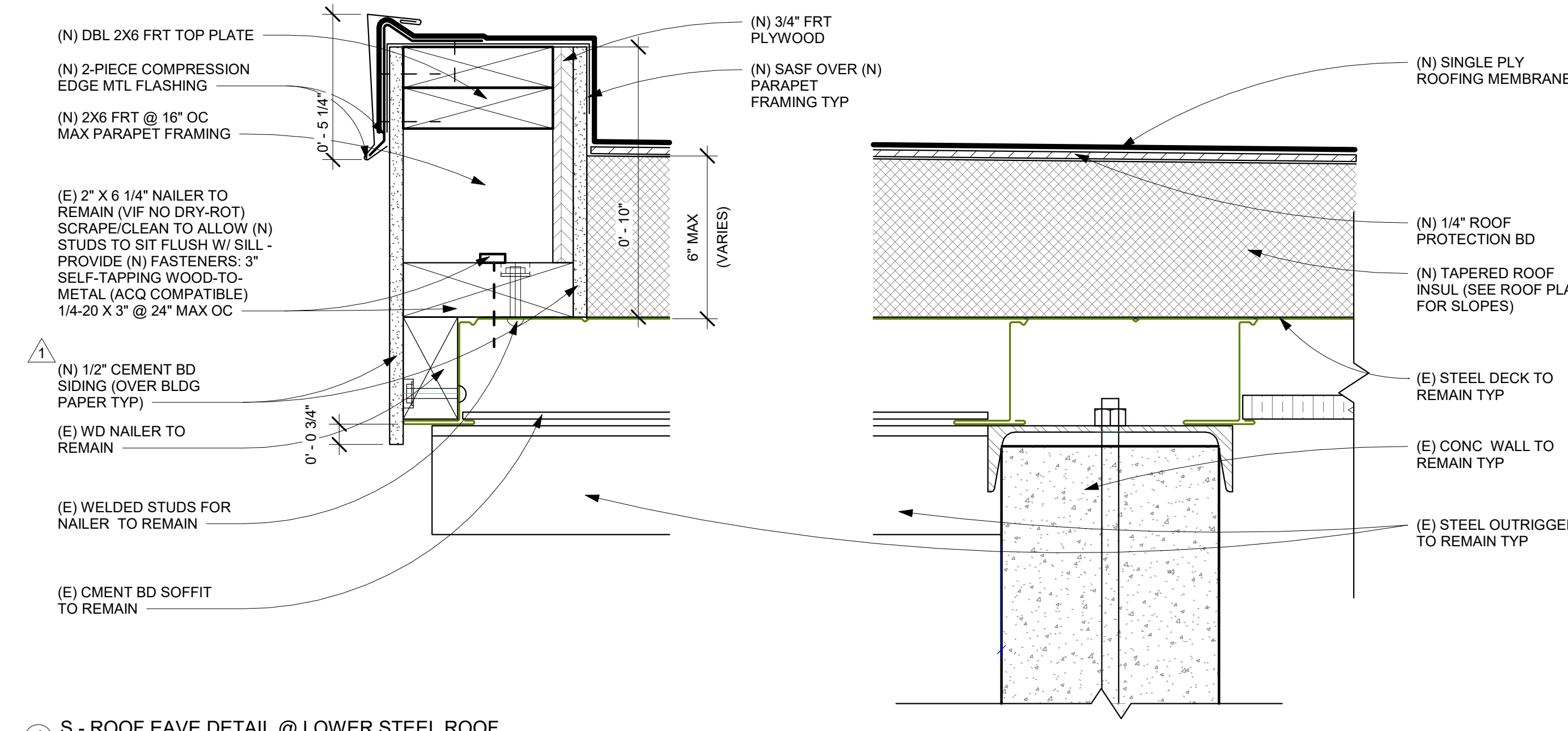
Project Team
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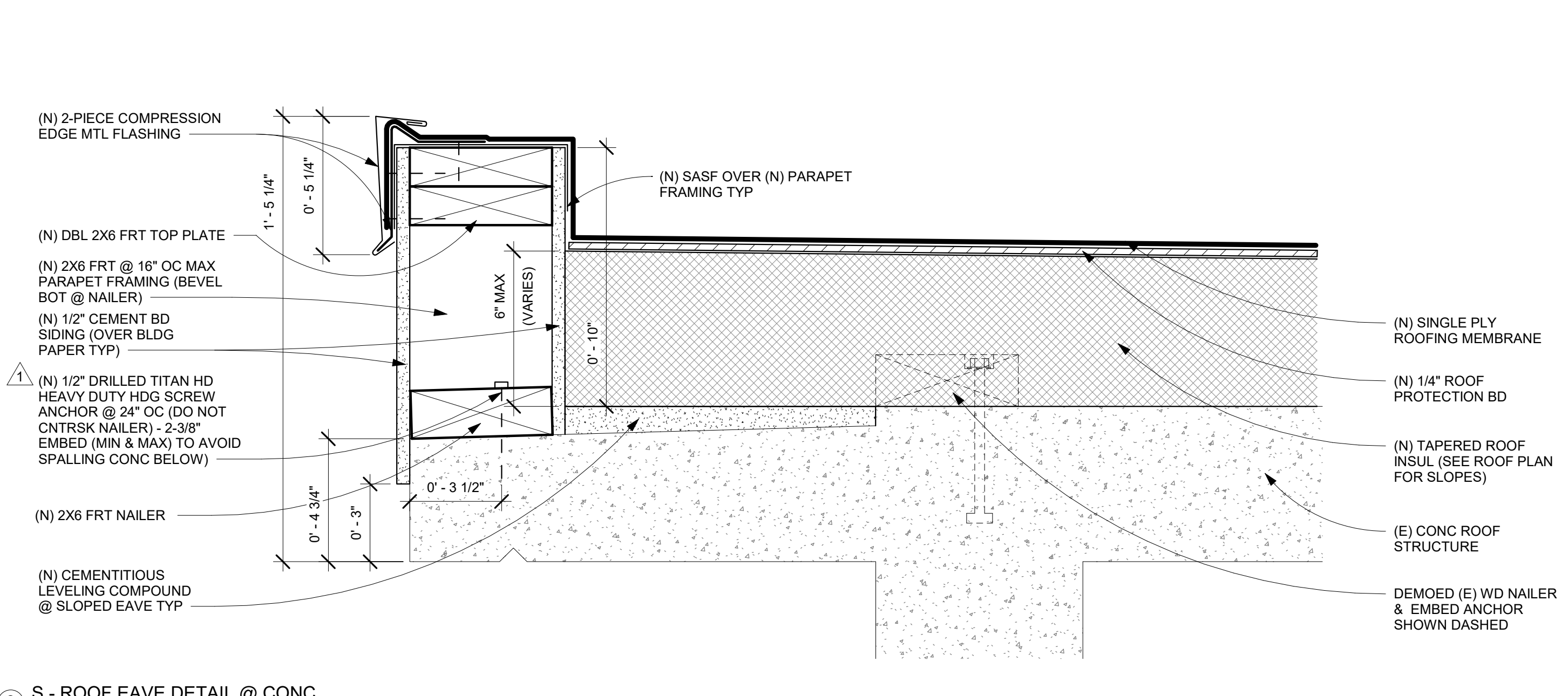
2 S - ROOF EAVE DEMO DETAIL @ LOWER STEEL ROOF
3" = 1'-0"



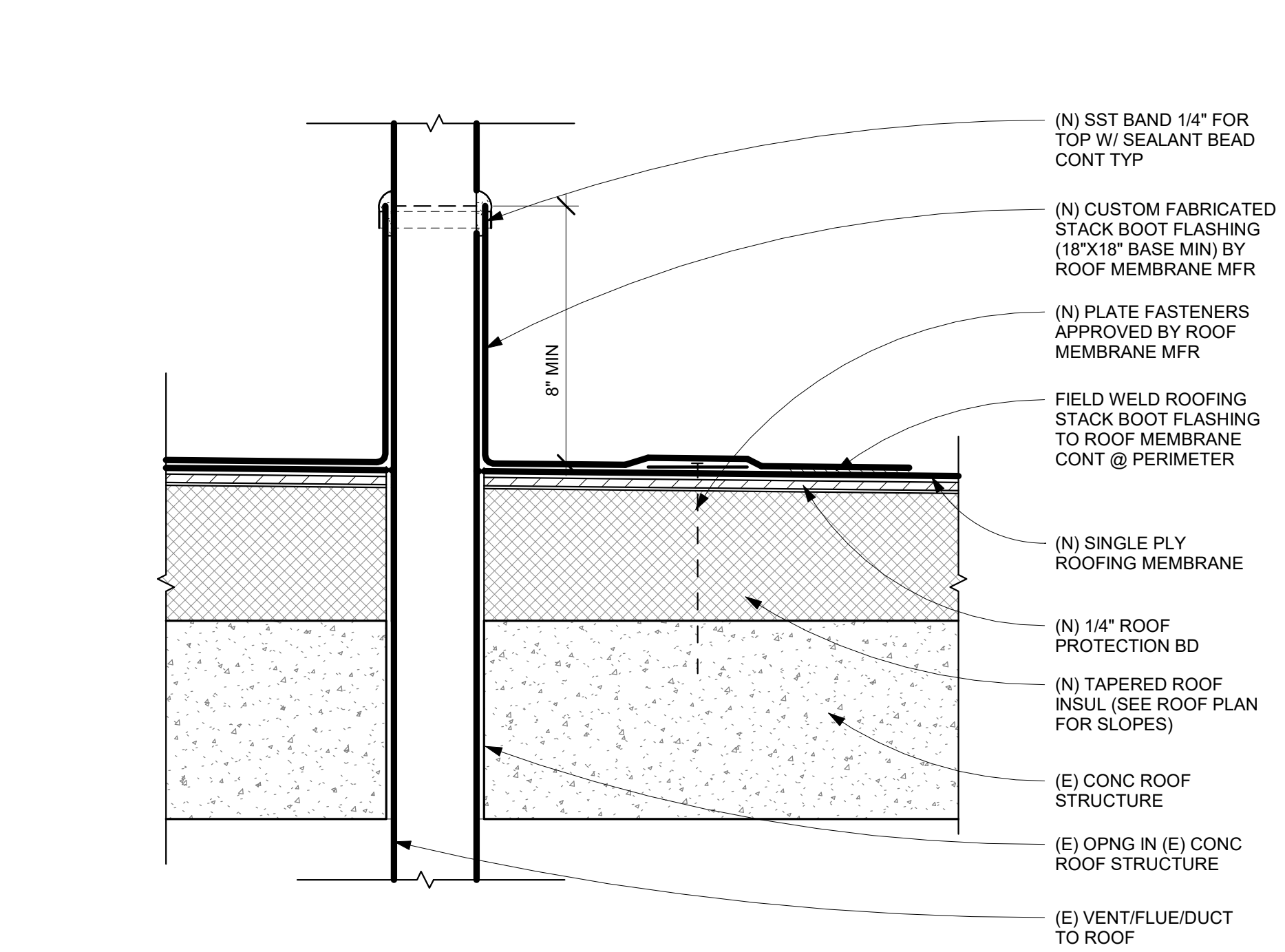
1 S - ROOF EAVE DEMO DETAIL @ CONC
3" = 1'-0"



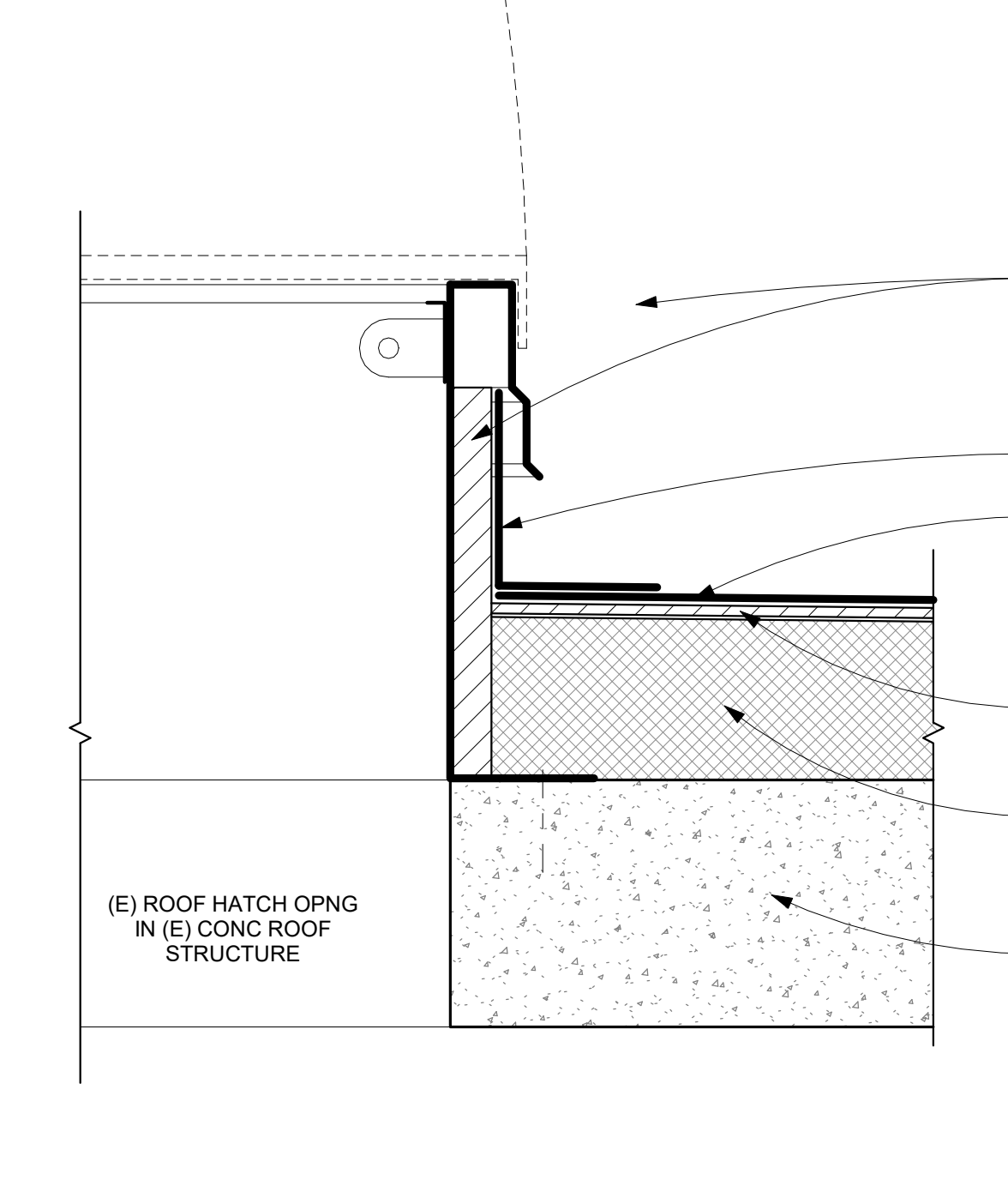
4 S - ROOF EAVE DETAIL @ LOWER STEEL ROOF
3" = 1'-0"



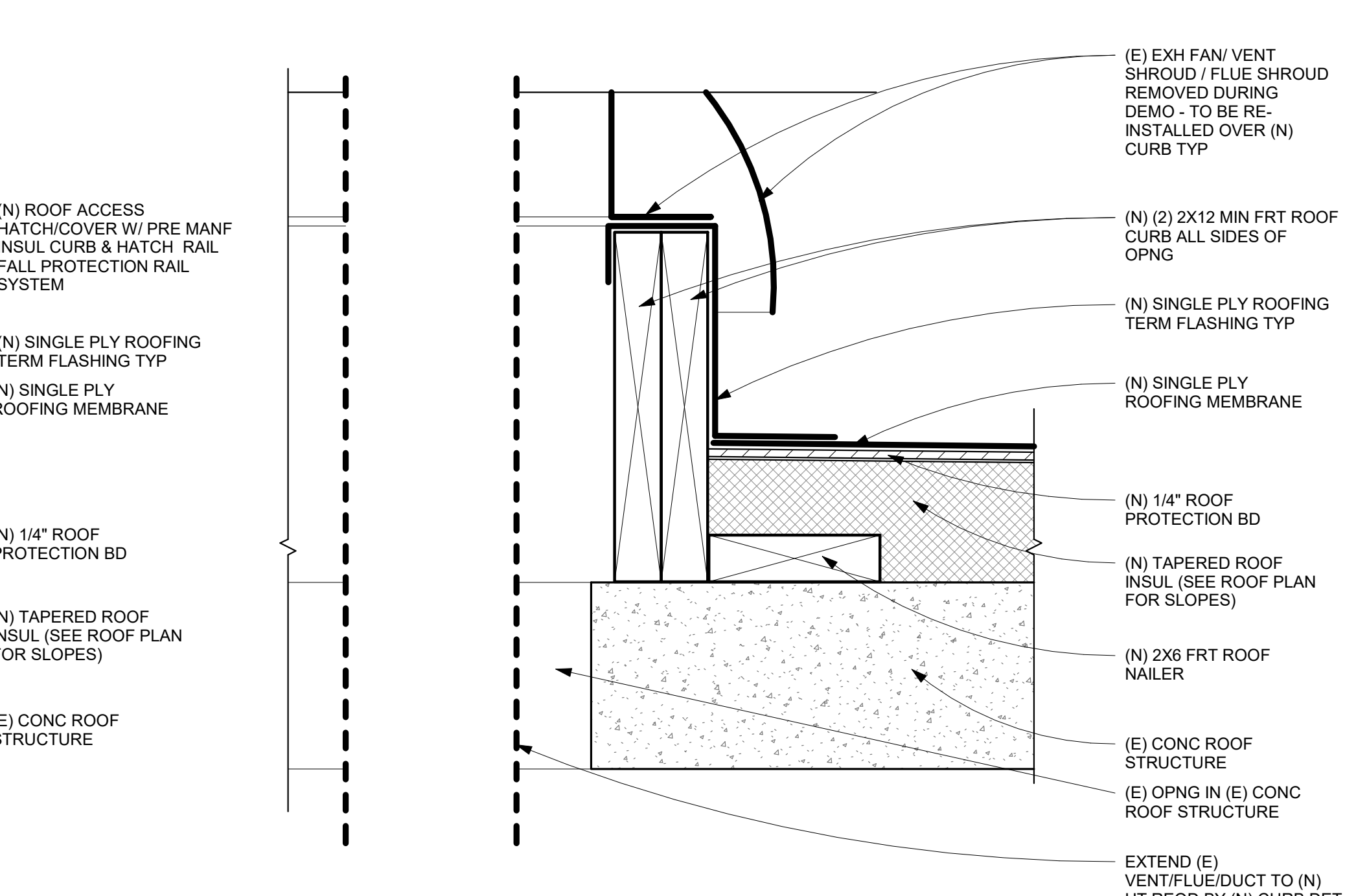
3 S - ROOF EAVE DETAIL @ CONC
3" = 1'-0"



7 S - ROOF BOOT @ VENT PIPE
3" = 1'-0"



6 S - ROOF CURB @ ROOF ACCESS HATCH
3" = 1'-0"



5 S - ROOF CURB @ VENT/EQUIP
3" = 1'-0"

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Seismic Peer Review: _____
Mech Peer Review: _____

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Revisions
1 OWN REV OCT 27, 2021

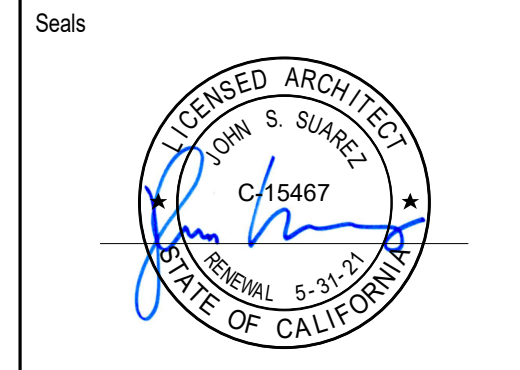
Sheet Name
DETAILS
Date
APRIL 3, 2019
Owner #
Sheet Number
SKA #
AS9.0

SUAREZ·KUEHNE·ARCHITECTURE

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San Francisco
California 94116
tel 415.242.1400

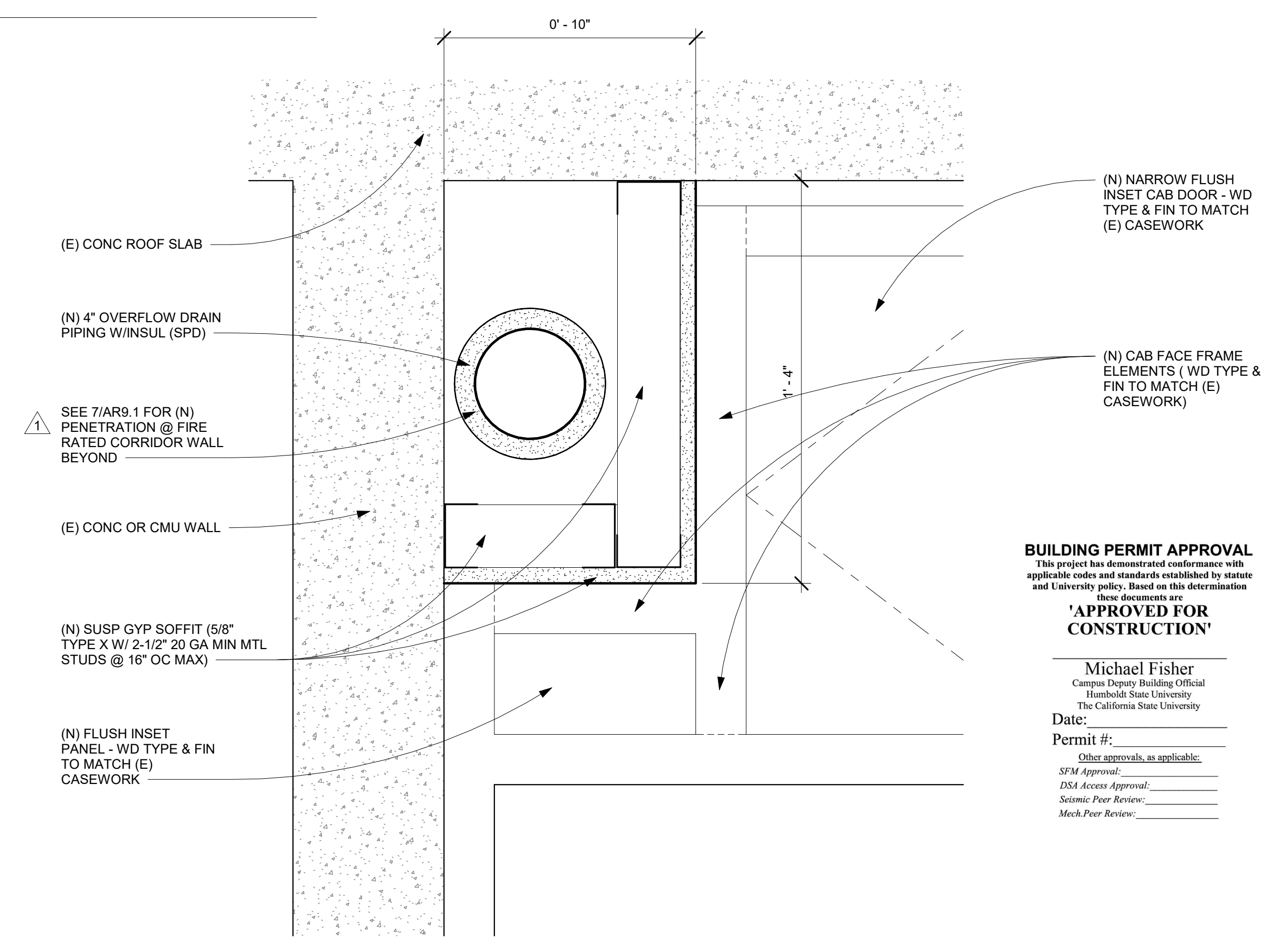
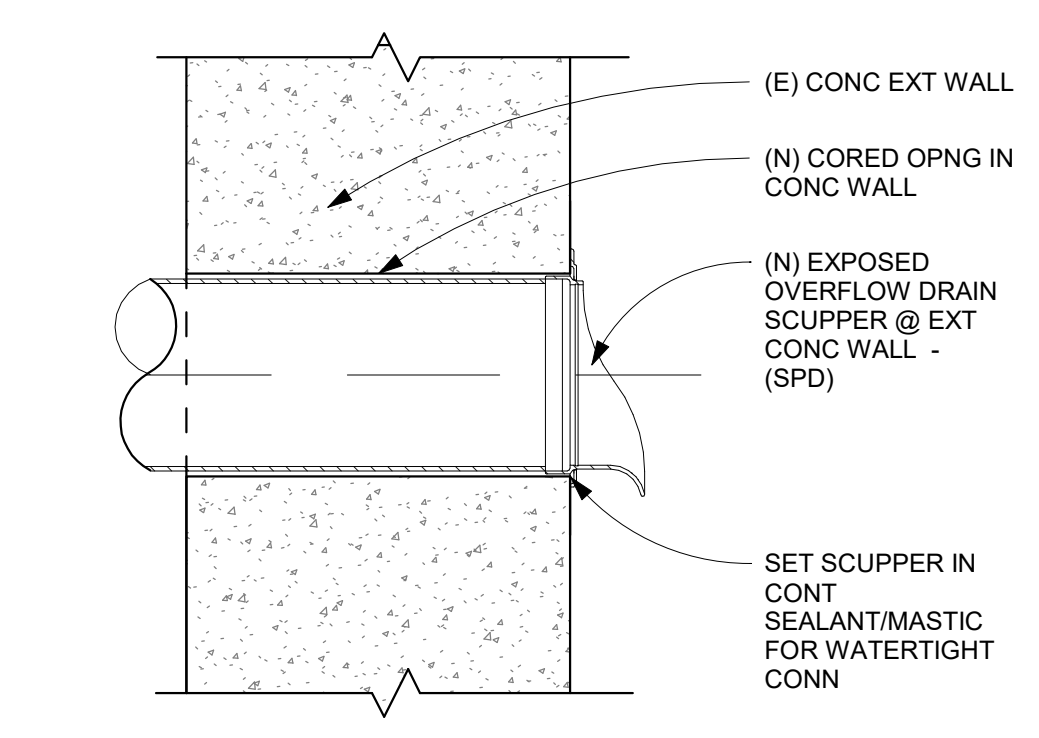
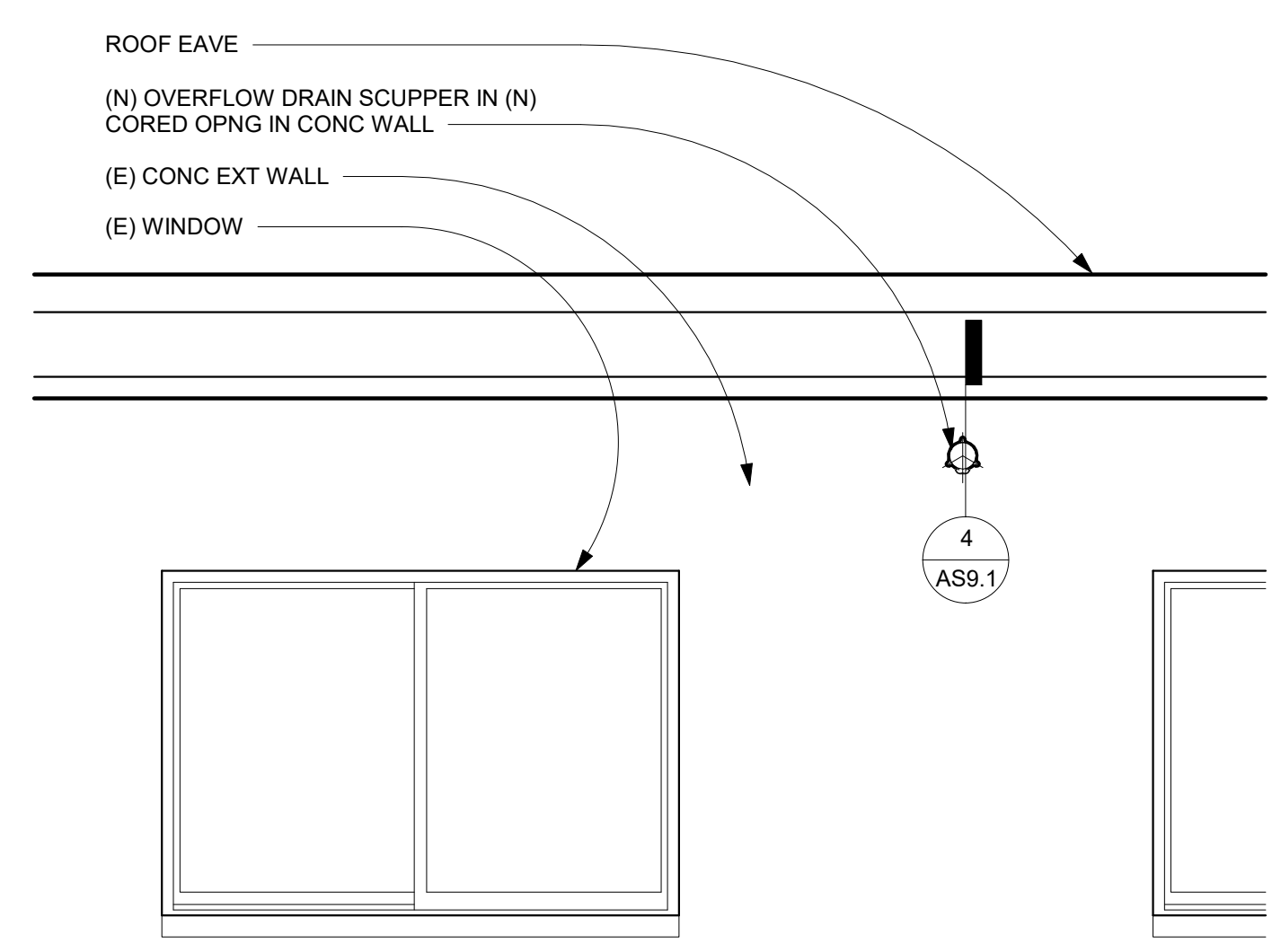
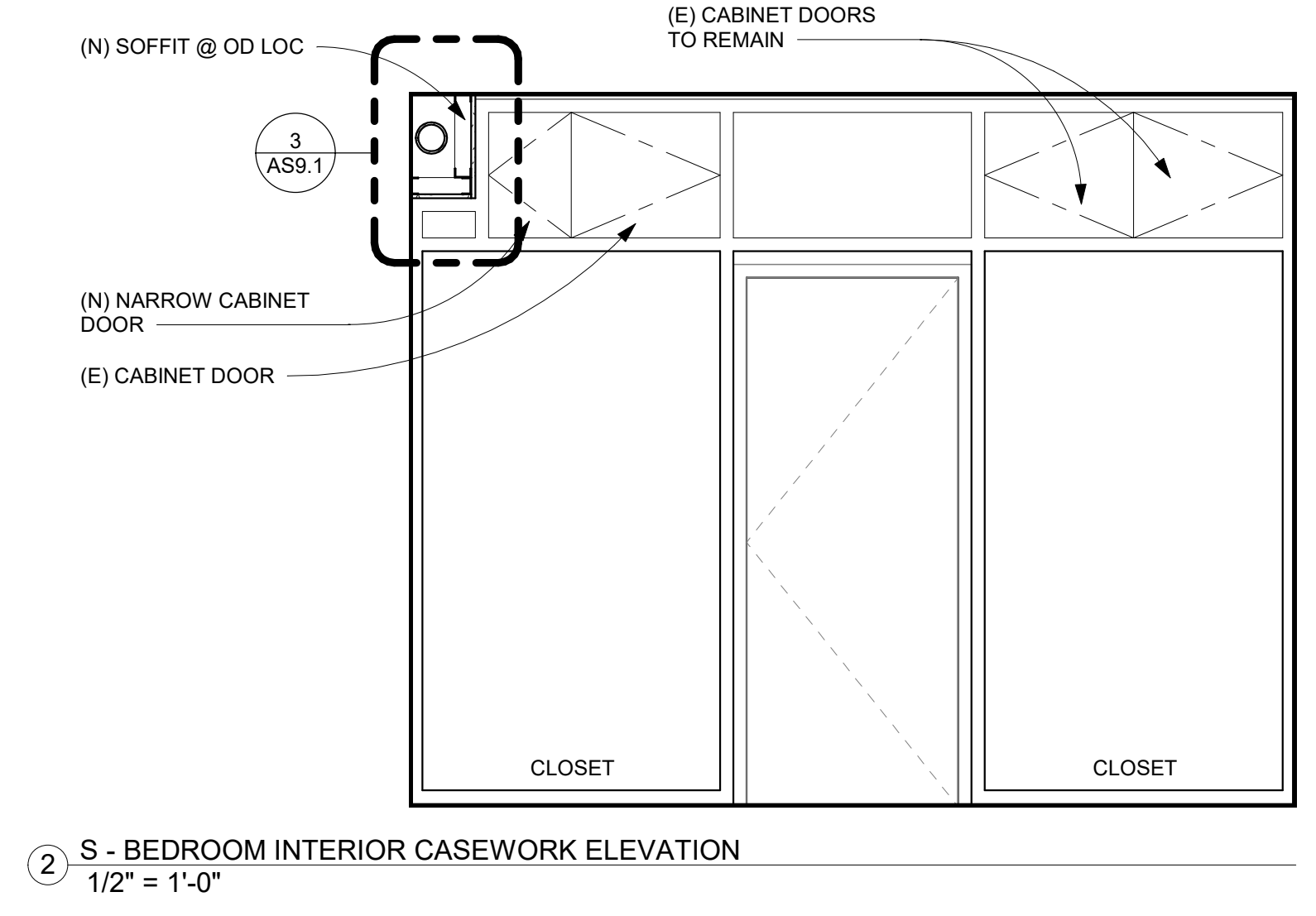
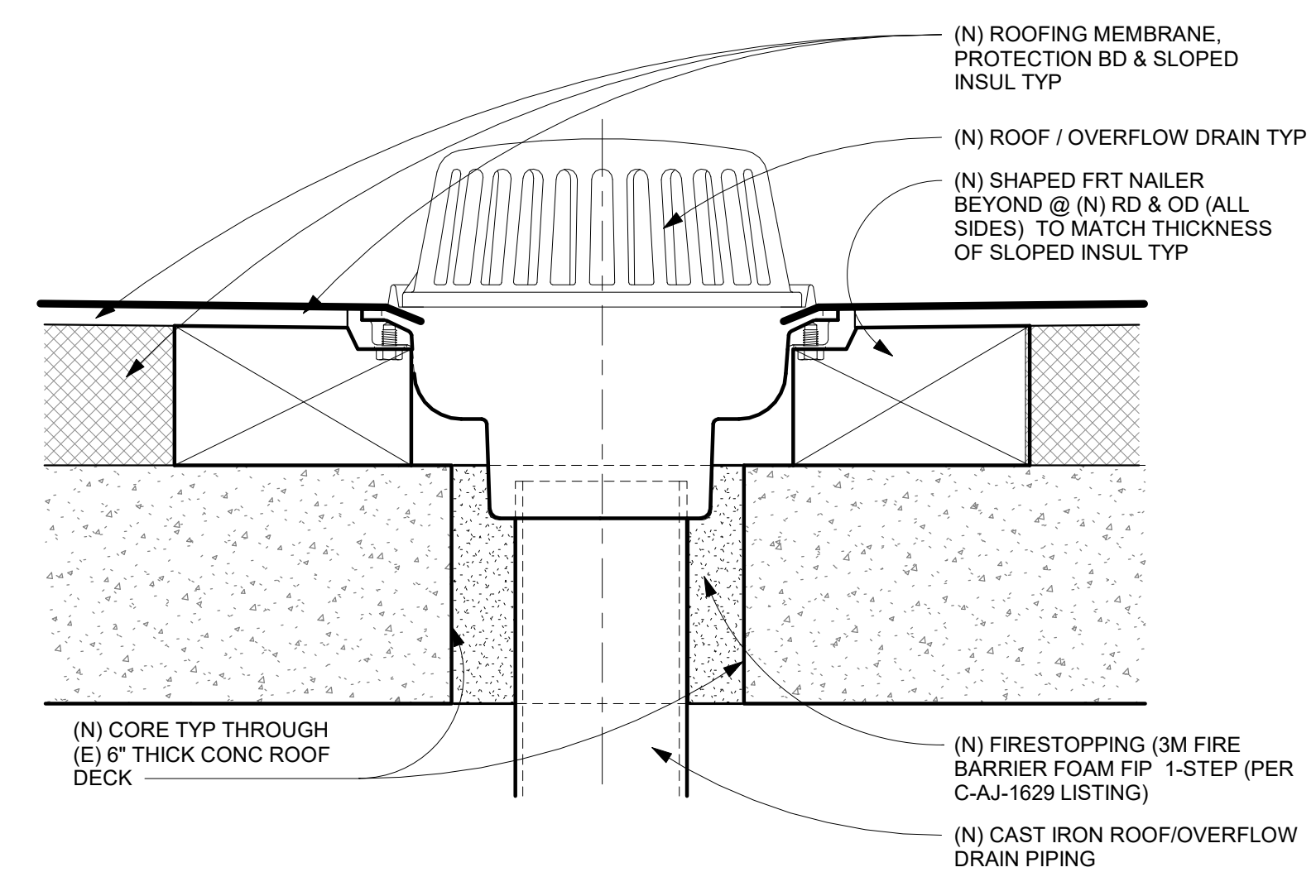
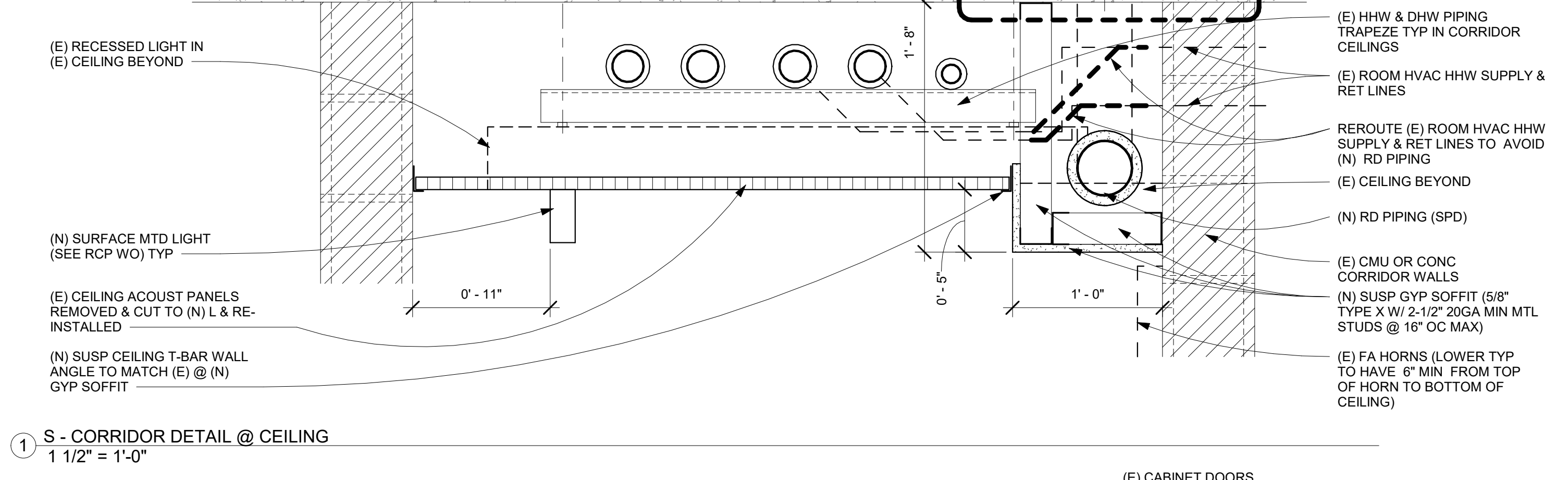
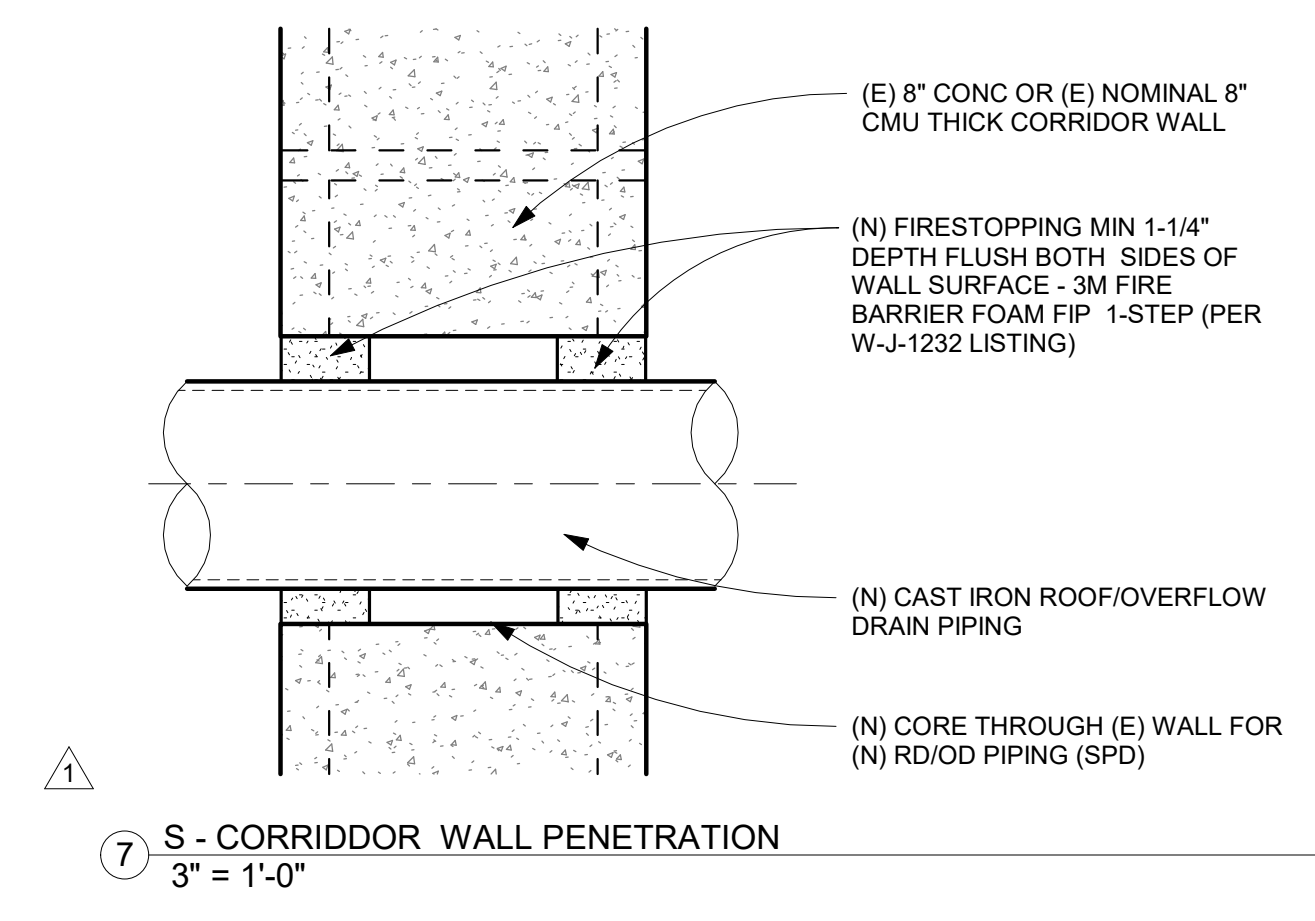
Project
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(415) 489-7240



Revisions
1 SFM REV MAY 21, 2019

Sheet Name
DETAILS
Date
APRIL 3, 2019
Owner #
Sheet Number
SKA #
AS9.1



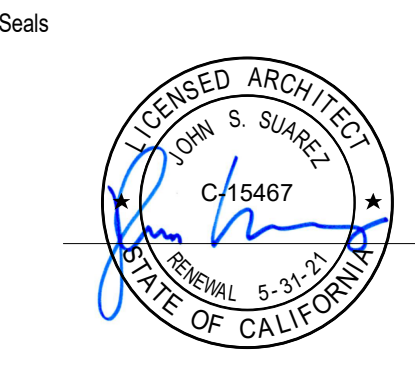
BUILDING PERMIT APPROVAL
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Michael Fisher
Campus Deputy Building Official
Humboldt State University
The California State University
Date: _____
Permit #: _____
Other approvals, as applicable:
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DSS Access Approval: _____
Seismic Peer Review: _____
Mech Peer Review: _____

SUAREZ-KUEHNE ARCHITECTURE

2412 14th Avenue
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Revisions

Sheet Name
CEILING NOTES & DETAILS
Date
APRIL 3, 2019
Owner #
Sheet Number
SKA #
AS10.1

SUSPENDED GYPSUM BOARD NOTES:

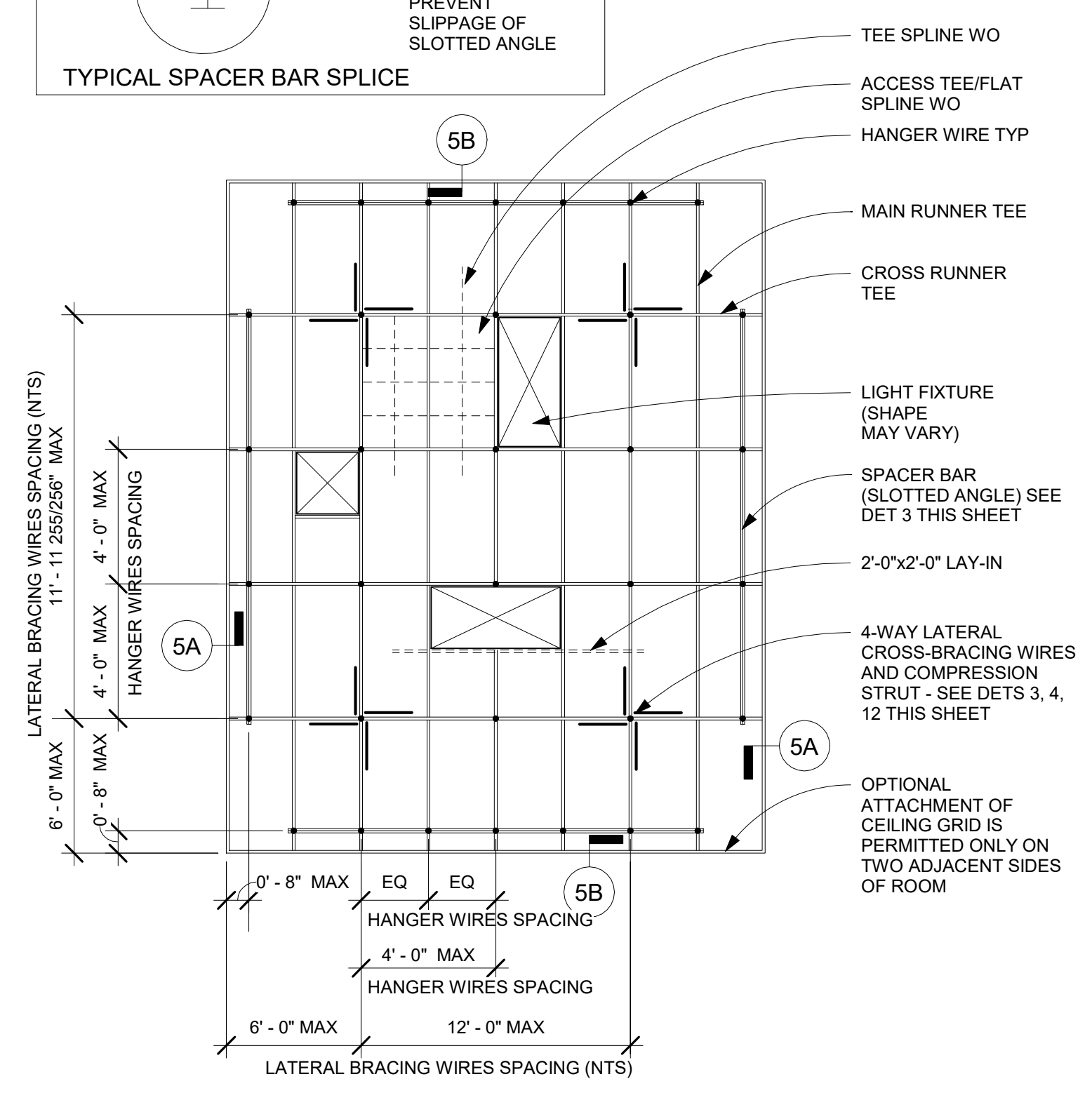
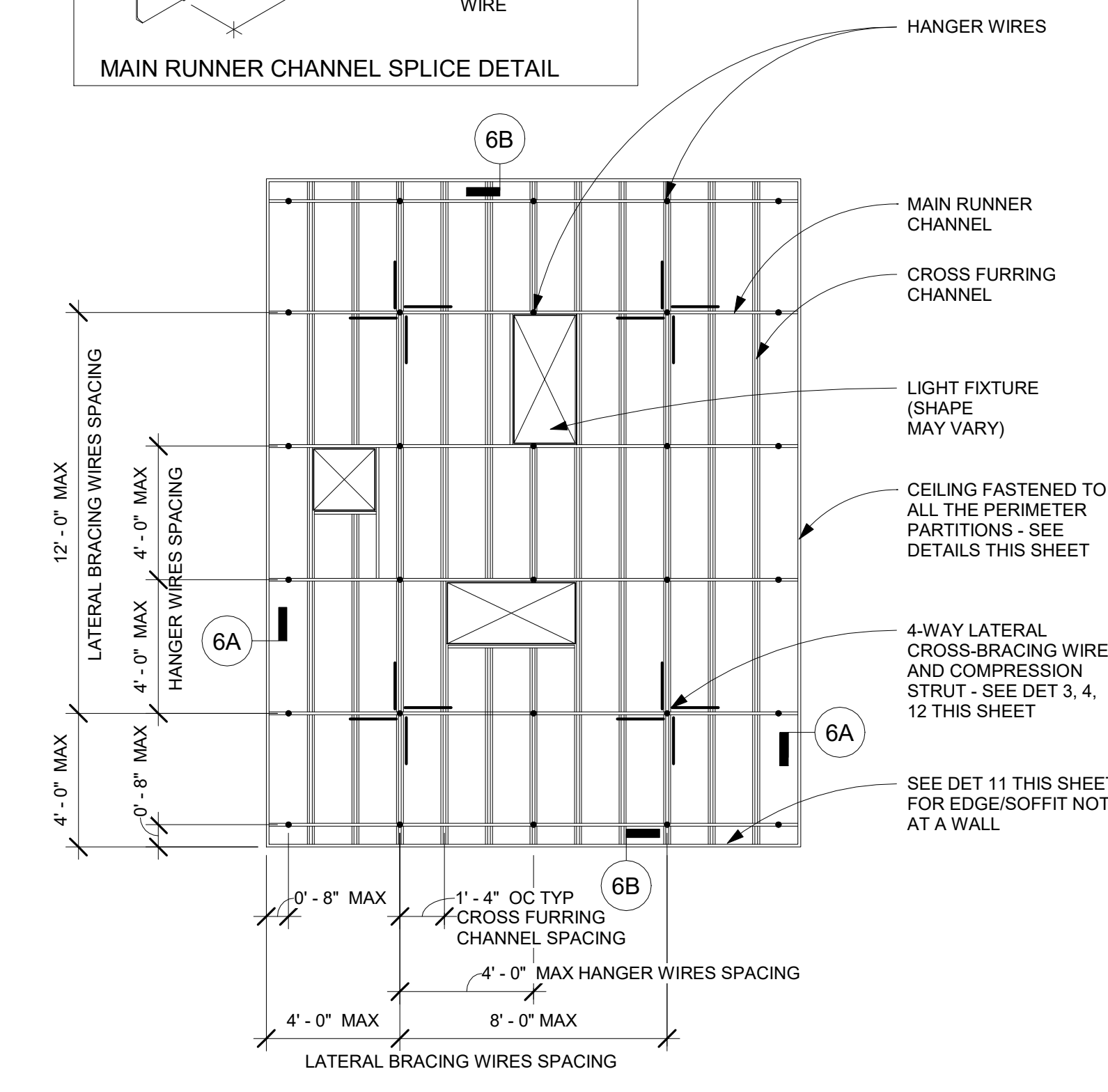
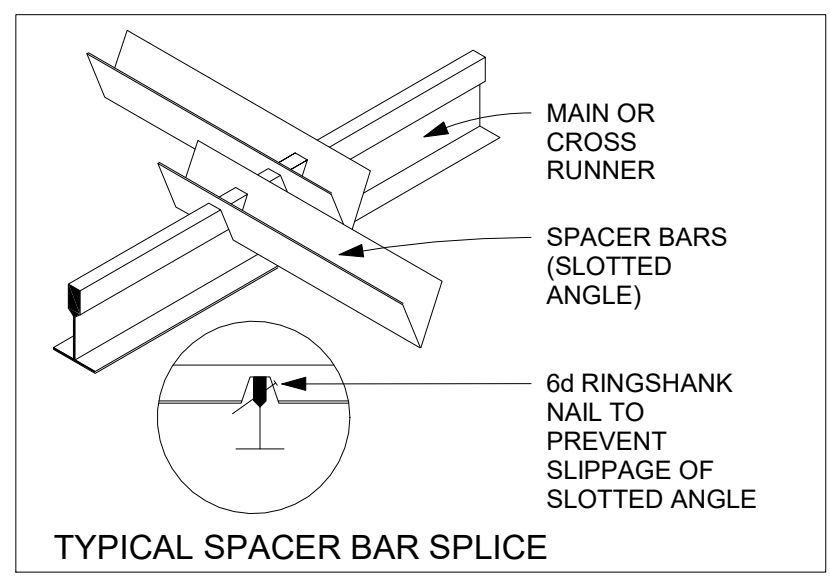
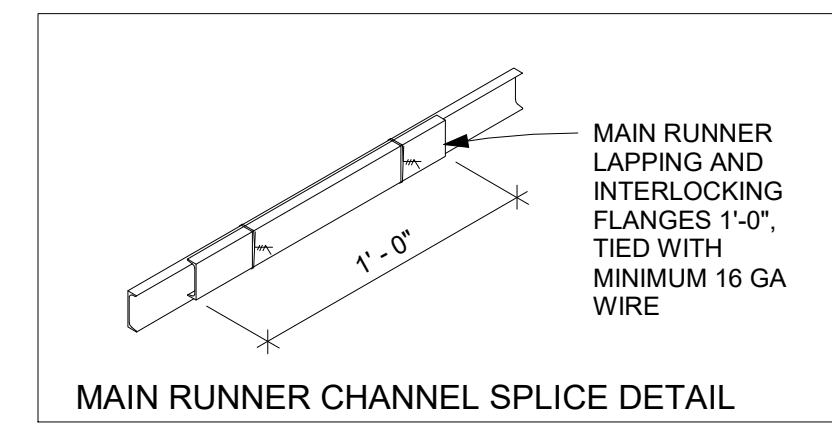
- #8 GA MIN. HANGER WIRES SHALL BE PROVIDED AT 4'-0" O.C. MAX. ALONG ALL MAIN RUNNER CHANNELS.
- ALL VERTICAL HANGER WIRES SHALL BE WITHIN 1 IN 6 OF TRUE VERTICAL. HANGER WIRES THAT ARE MORE THAN 1 IN 6 OUT OF PLUMB ARE REQUIRED TO HAVE COUNTERBRACED WIRES. PROVIDE TRAPEZE OR OTHER SUPPLEMENTARY SUPPORT MEMBERS AT OBSTRUCTIONS TO MAIN HANGER SPACING.
- SETS OF 4-WAY #12 GA MIN. SPLAYED LATERAL BRACING WIRES ORIENTED AT 90 DEGREES FROM EACH OTHER SHALL BE PROVIDED AS FOLLOWS:
 - 8'-0" O.C. MAX. IN ONE DIRECTION AND 12'-0" O.C. MAX. IN THE OTHER (PERPENDICULAR) DIRECTION. LOCATE THE FIRST SET OF WIRES AT 4'-0" MAX. FROM ANY PARTITION.
 - PROVIDE #12 SHEET METAL SCREWS TO MAIN RUNNER CHANNELS TO PREVENT SLIPPAGE OF DIAGONAL BRACE WIRES.
- SURFACE MOUNTED LIGHT FIXTURES SHALL BE SUPPORTED BY POSITIVE CLAMPING DEVICES MADE OF MATERIAL WITH A MINIMUM THICKNESS OF 14 GA. ROTATIONAL SPRING CLIPS ARE NOT ACCEPTABLE.
- HANGER WIRES SHALL BE SADDLE-TIED TO MAIN RUNNER CHANNELS; CROSS CHANNEL RUNNERS SHALL BE SADDLE-TIED TO MAIN RUNNER CHANNELS WITH #16 GA (SINGLE STRAND) OR #18 GA (DOUBLE STRAND) TIE WIRES.
- CROSS RUNNER CHANNELS SHALL BE SPICED BY LAPPING AND INTERLOCKING 8" MIN AT EACH END AND TIED WITH DOUBLE LOOPS OF #16 GA WIRE.
- PROVIDE 1" CLEARANCE BETWEEN MAIN RUNNER CHANNEL ENDS AND CROSS FURRING CHANNEL ENDS AND ABUTTING PARTITIONS.
- AT LIGHT TROFFERS OR ANY OTHER OPENING THAT INTERRUPTS THE CARRYING OF RUNNER/FURRING CHANNELS, INSTALL ADDITIONAL CROSS REINFORCING TO RESTORE LATERAL STABILITY OF GRILLAGE.

ACOUSTICAL PANEL NOTES:

- 12 GA MIN. HANGER WIRES SHALL BE PROVIDED AT 4'-0" O.C. ALONG ALL MAIN RUNNER TEES.
- #12 GA MIN. HANGER WIRES SHALL BE PROVIDED WITHIN 8" MAX OF THE ENDS OF ALL MAIN AND CROSS RUNNER TEES, OR WITHIN 1/4 OF THE LENGTH OF THE END MAIN OR CROSS RUNNER TEES, WHICHEVER IS LEAST, AT THE PERIMETER OF THE CEILING AREA.
- ALL VERTICAL HANGER WIRES SHALL BE WITHIN 1 IN 6 OF TRUE VERTICAL. HANGER WIRES THAT ARE MORE THAN 1 IN 6 OUT OF PLUMB ARE REQUIRED TO HAVE COUNTERBRACED WIRES. PROVIDE TRAPEZE OR OTHER SUPPLEMENTARY SUPPORT MEMBERS AT OBSTRUCTIONS TO MAIN HANGER SPACING.
- (CEILINGS OVER 144 SQ FT) A STRUT FASTENED TO THE MAIN RUNNER SHALL BE EXTENDED AND FASTENED TO THE STRUCTURAL MEMBERS SUPPORTING THE ROOF OR FLOOR ABOVE. THE STRUT SHALL BE ADEQUATE TO RESIST THE VERTICAL COMPONENT INDUCED BY THE BRACING WIRES OR AS DETAILED ON THIS SHEET. HORIZONTAL RESTRAINT POINTS SHALL BE PLACED AT 12'-0" X 12'-0" MAX. WITH THE FIRST POINT WITHIN 6'-0" FROM EACH WALL. REFER TO DETAIL THIS SHEET.
- (CEILINGS OVER 1,000 SQ FT) SETS OF 4-WAY #12 GA MIN. SPLAYED LATERAL BRACING WIRES ORIENTED AT 90 DEGREES FROM EACH OTHER SHALL BE PROVIDED AS FOLLOWS:
 - 12'-0" O.C. MAX. IN BOTH DIRECTIONS. THE FIRST SET SHALL BE LOCATED AT 6'-0" MAX. FROM PARTITIONS IN BOTH DIRECTIONS. WHERE VERTICAL OFFSETS OCCUR IN THE CEILING PLANE, ALL THE ABOVE SPACINGS SHALL BE REDUCED BY HALF, IN BOTH DIRECTIONS AND FOR ALL CONDITIONS.
 - A MINIMUM OF ONE SET OF BRACING WIRES IS REQUIRED BETWEEN ANY TWO ADJACENT EXPANSION CUTOUTS ON RUNNERS BEING BRACED.
- (CEILINGS OVER 1,000 SQ FT) THE SLOPE OF BRACING WIRES SHALL NOT EXCEED 45 DEGREES FROM THE PLANE OF THE CEILING AND SHALL BE TAUT WITHOUT CAUSING THE CEILING TO LIFT. AT THE PERIMETER OF THE CEILING, THE FREE ENDS OF ALL MAIN OR CROSS RUNNERS SHALL BE INTERCONNECTED WITH SPACER SLOTTED ANGLES AT 8" MIN. MEASURED PERPENDICULAR TO THE ADJACENT PARTITION, IN ORDER TO PREVENT LATERAL SPREADING. WHERE THE PERPENDICULAR DISTANCE FROM THE PARTITION TO THE FIRST PARALLEL RUNNER IS 1'-0" OR LESS, THE INTERLOCK IS NOT REQUIRED.
- CEILING GRID MEMBERS MAY BE ATTACHED TO NO MORE THAN 2 ADJACENT PARTITIONS. CEILING GRID MEMBERS SHOULD BE AT LEAST 1/2" FREE OF ALL OTHER PARTITIONS. IF PARTITIONS RUN DIAGONALLY TO CEILING GRID, ONE END OF MAIN AND CROSS RUNNERS SHOULD BE FREE AND A MINIMUM OF 1/2" CLEAR FROM THE PARTITION.
- MECHANICAL AND ELECTRICAL ITEMS SHALL BE FASTENED TO CEILING RUNNERS WITH MIN. 2 S.M.S. AT EACH END UOIN.

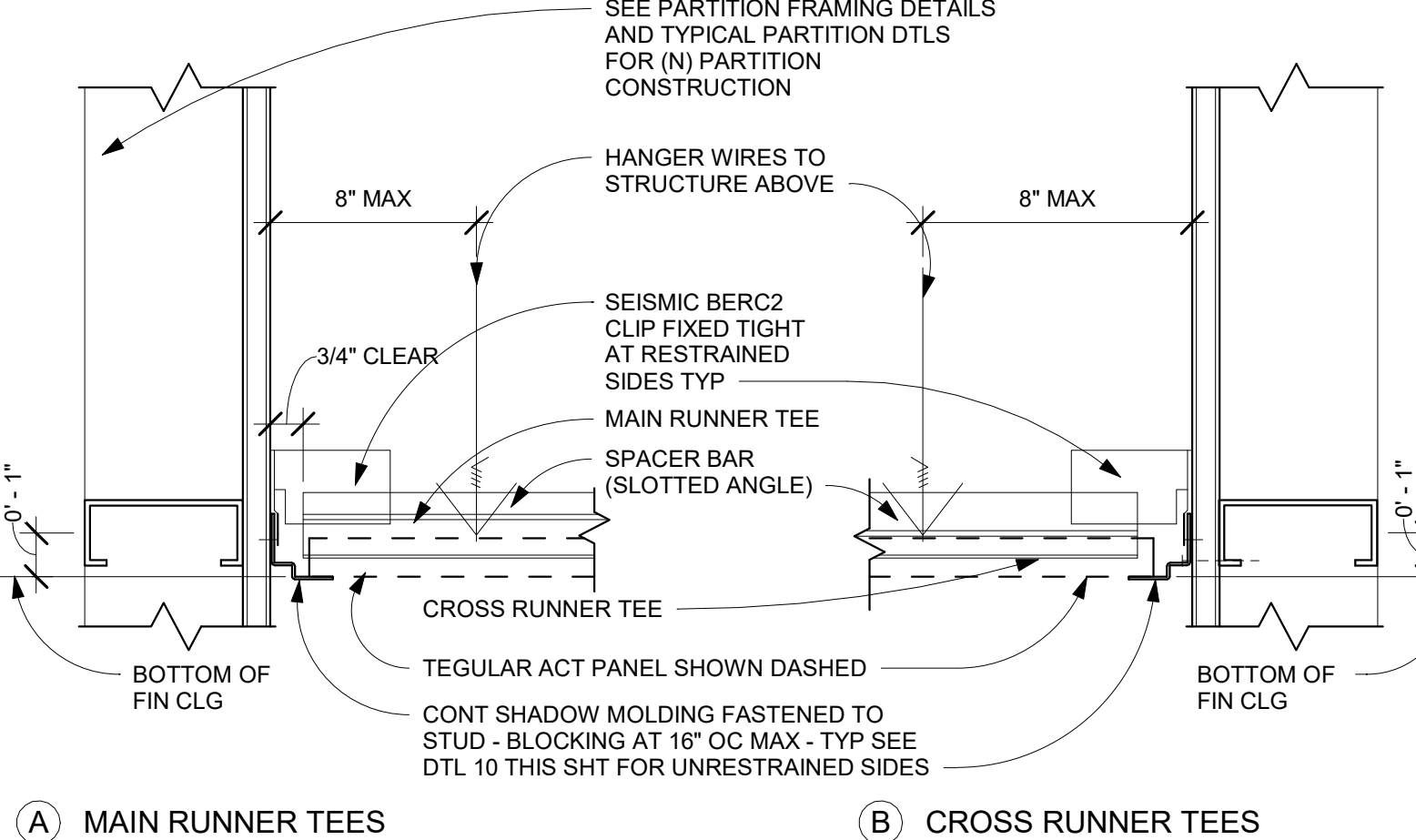
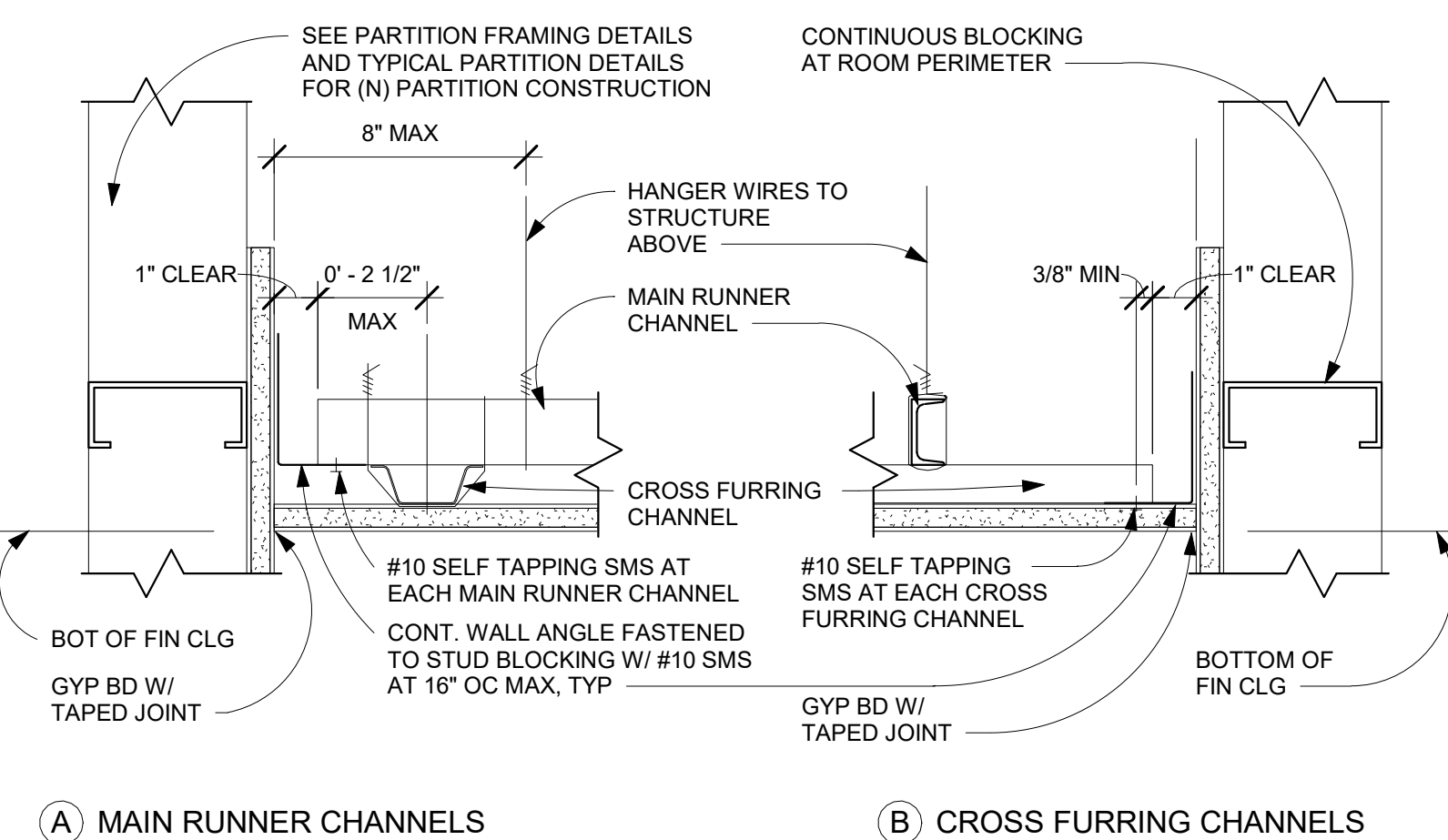
GENERAL NOTES (FOR BOTH GYPSUM AND ACOUSTICAL):

- VERTICAL WIRES MAY BE ATTACHED TO CONC STRUCTURE ABOVE AS FOLLOWS:
 - EXP ANCHORS (W/ SERVICE LOAD TO NOT EXCEED CAPACITY OF FASTENER) - SEE DTL 12 THIS SHEET
 - LATERAL BRACING WIRES SHALL BE ATTACHED TO STRUCTURE ABOVE WITH LAG BOLTS - SEE DTL 12 THIS SHEET
 - HANGER OR BRACING WIRE ANCHORS TO THE STRUCTURE SHALL BE INSTALLED IN SUCH A MANNER THAT THE DIRECTION OF THE FORCE ALIGNS AS CLOSELY AS POSSIBLE WITH THE DIRECTION OF THE FORCE ACTING ON THE WIRE.
 - FASTEN HANGER WIRES WITH A MINIMUM OF 3 TIGHT TURNS AND BRACING WIRES WITH A MINIMUM OF 4 TIGHT TURNS. MAKE ALL TIGHT TURNS WITHIN A DISTANCE OF 1 - 1 1/2".
 - ATTACH ALL LIGHT FIXTURES TO THE CEILING GRID RUNNERS TO RESIST A HORIZONTAL FORCE EQUAL TO THE WEIGHT OF THE FIXTURES.
 - ALL FLUSH OR RECESSED LIGHT FIXTURES AND VENTILATION GRILLES WEIGHING LESS THAN 56 LBS SHALL BE SUPPORTED DIRECTLY ON THE MAIN RUNNER CHANNELS OR ON SUPPLEMENTAL FRAMING SUPPORTED BY MAIN RUNNER CHANNELS AND, IN ADDITION, SHALL HAVE A MINIMUM OF 2 - #12 GA SLACK SAFETY WIRES ATTACHED TO THE FIXTURE AT DIAGONAL CORNERS AND ANCHORED TO THE STRUCTURE ABOVE. ALL 4'-0" X 4'-0" LIGHT FIXTURES SHALL HAVE SLACK WIRES AT EACH CORNER.
 - ALL FLUSH OR RECESSED FIXTURES AND VENTILATION GRILLES WEIGHING 56 LBS OR MORE SHALL BE INDEPENDENTLY SUPPORTED BY MIN. 4 TAUT #12 GA WIRES, ATTACHED TO THE FIXTURE AND TO THE STRUCTURE ABOVE REGARDLESS OF THE TYPE OF CEILING GRID SYSTEM USED. THE 4 TAUT WIRES AND THEIR ATTACHMENT TO THE STRUCTURE ABOVE MUST BE CAPABLE OF SUPPORTING 4 TIMES THE WEIGHT OF THE UNIT. PROVIDE ADDL SUPPORTS WHEN LIGHT FIXTURES ARE 8'-0" OR LONGER.
- SEE SPECIFIC UL LISTING REQUIREMENTS FOR LIGHT FIXTURE AND SPEAKER PROTECTION ABOVE RATED CEILINGS.
- KEEP ALL CEILING HANGER AND BRACING WIRES AT LEAST 6" AWAY FROM ALL UNBRACED DUCTS, PIPES, CONDUIT ETC. DO NOT PENETRATE DUCTWORK WITH HANGER WIRES. IT IS ACCEPTABLE TO ATTACH LIGHT-WEIGHT ITEMS, SUCH AS SINGLE ELECTRICAL CONDUIT NOT EXCEEDING 3/4" NOMINAL DIAMETER, TO HANGER WIRES.
- SUSPENDED CEILINGS IN SEISMIC DESIGN CATEGORIES D, E & F TO COMPLY WITH ASCE 7-10 SEC 13.5.6.2.1 & ASTM E580 AS FOLLOWS:
 - ALL CEILINGS SHALL USE A HEAVY DUTY T-BAR GRID SYSTEM.
 - THE WIDTH OF THE PERIMETER SUPPORTING CLOSURE ANGLE SHALL BE NOT LESS THAN 2" (7/8" PERIMETER CLOSURE W/ SEISMIC CLIP ALLOWED - SEE DRAWINGS & SPECIFICATIONS).
 - IN EACH ORTHOGONAL HORIZONTAL DIRECTION, ONE END OF THE CEILING GRID SHALL BE ATTACHED TIGHT TO THE CLOSURE ANGLE.
 - THE OTHER END IN EACH HORIZONTAL DIRECTION SHALL HAVE A 3/4" CLEARANCE FROM THE WALL AND SHALL REST UPON AND BE FREE TO SLIDE ON A CLOSURE ANGLE OR A LISTED ASSEMBLY.
 - CEILING AREAS OVER 144 SQ FT MUST HAVE COMPRESSION STRUTS @ 12 FEET O.C.
 - CEILING AREAS OVER 1,000 SQ FT MUST HAVE HORIZONTAL RESTRAINT WIRES (TYPICALLY RESTRAINT WOULD CONSIST OF 4)12-GA WIRES SPLAYED 90° TO EACH OTHER & SLOPED 45° TO HORIZONTAL @ 12 FEET O.C.)
 - CEILING AREAS OVER 2500 SQ FT MUST HAVE SEISMIC SEPARATION JOINTS OR FULL HEIGHT PARTITIONS.
 - CEILINGS WITHOUT RIGID BRACING MUST HAVE 2" OVERSIZE TRIM RINGS FOR SPRINKLERS AND OTHER CEILING PENETRATIONS.



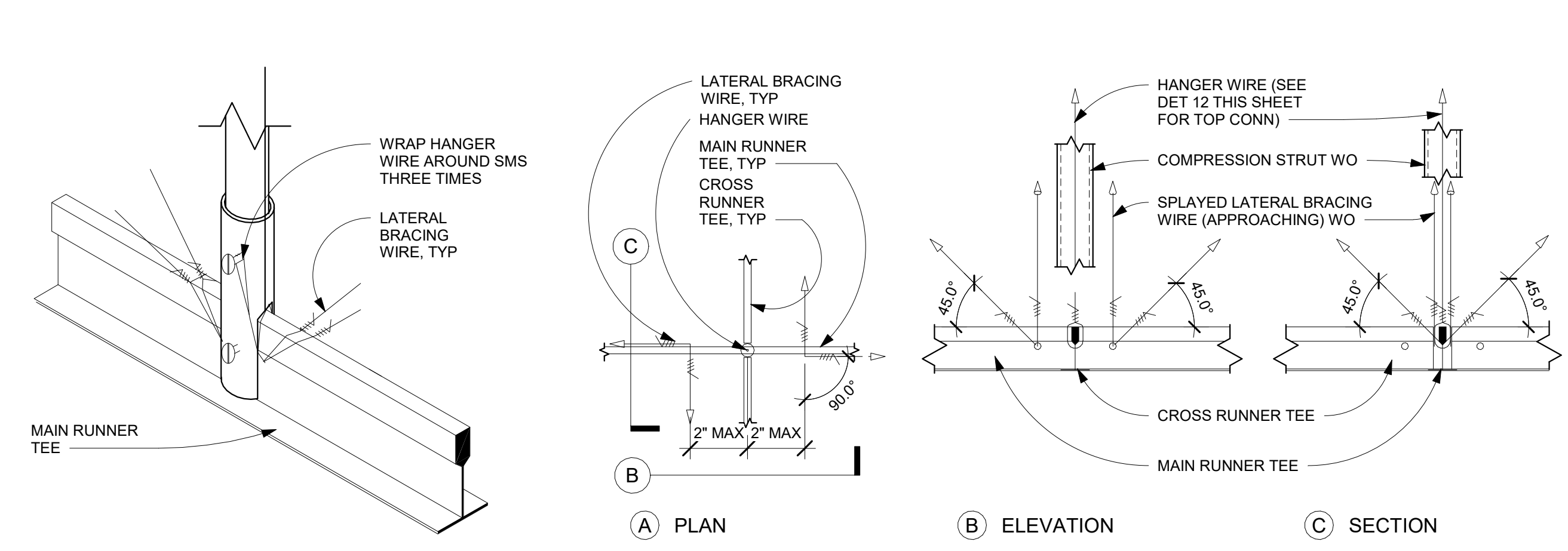
2 S - DIAGRAMMATIC CEILING FRAMING PLAN - GYP BOARD
1/4" = 1'-0"

1 S - DIAGRAMMATIC CEILING FRAMING PLAN - AC PANEL
1/4" = 1'-0"

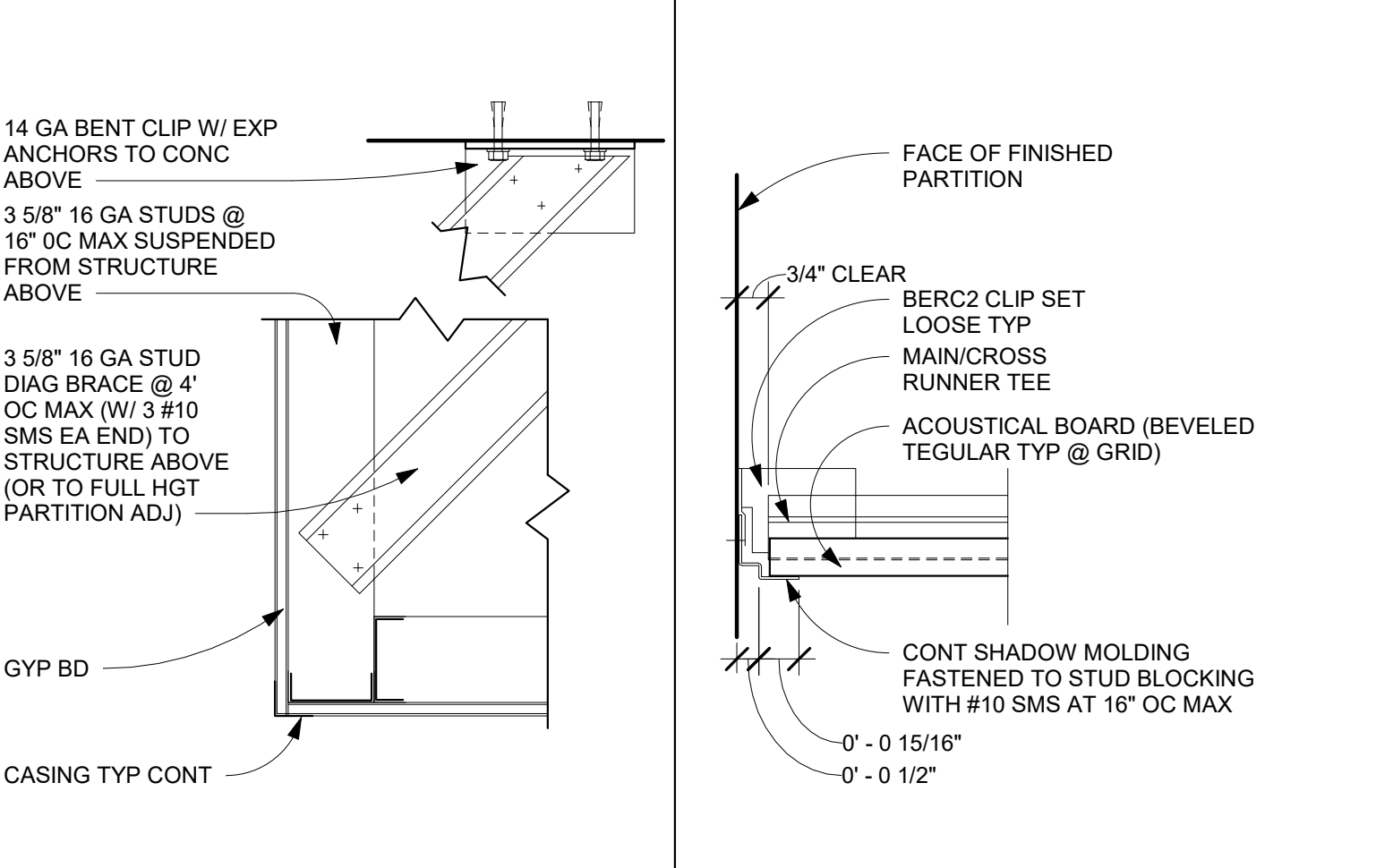
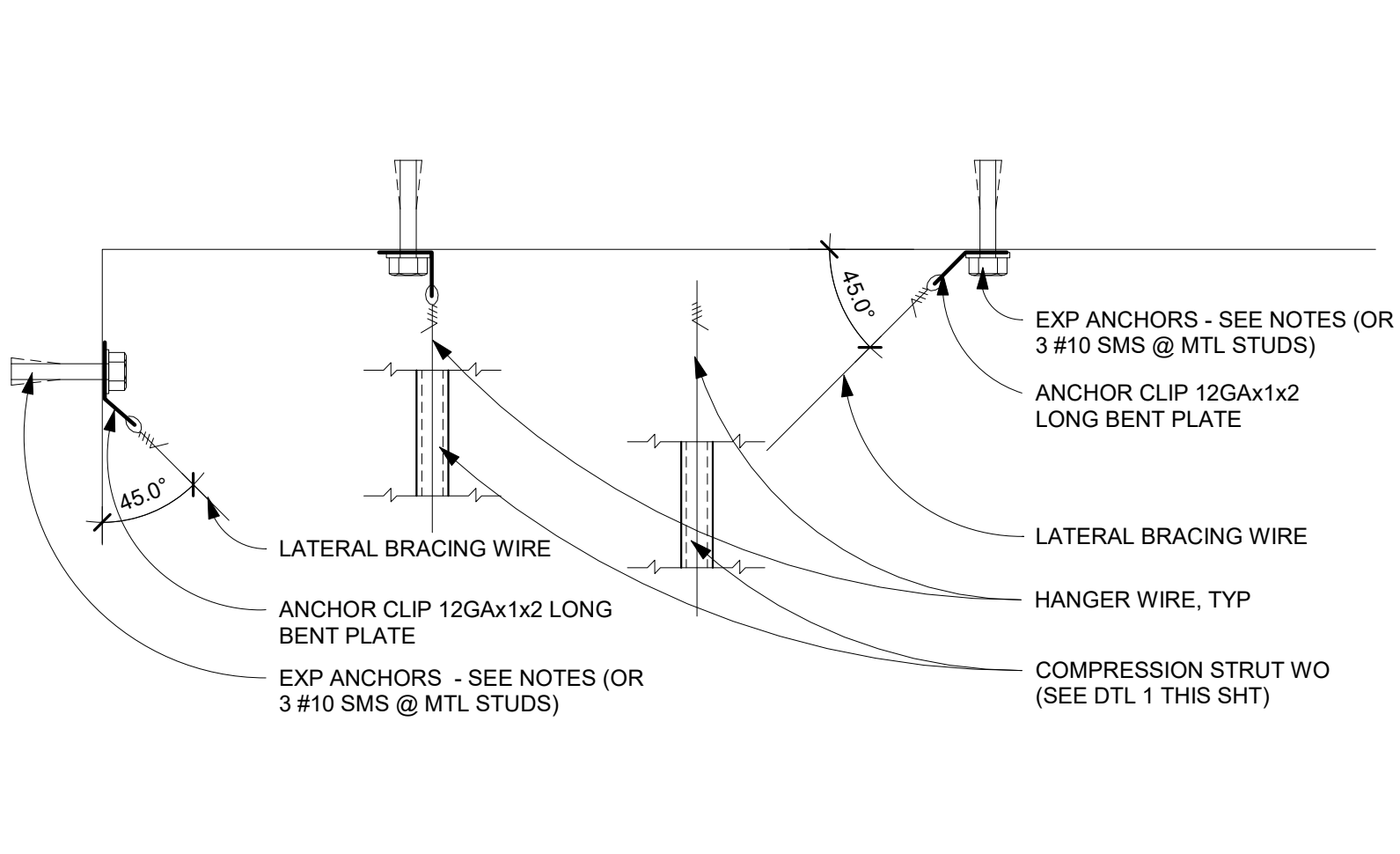


6 S - CEILING FRAMING DETAILS - SUSPENDED GYP BD
3" = 1'-0"

5 S - CEILING FRAMING DETAILS - SUSPENDED AC PANEL (RESTRAINED SIDES)
3" = 1'-0"

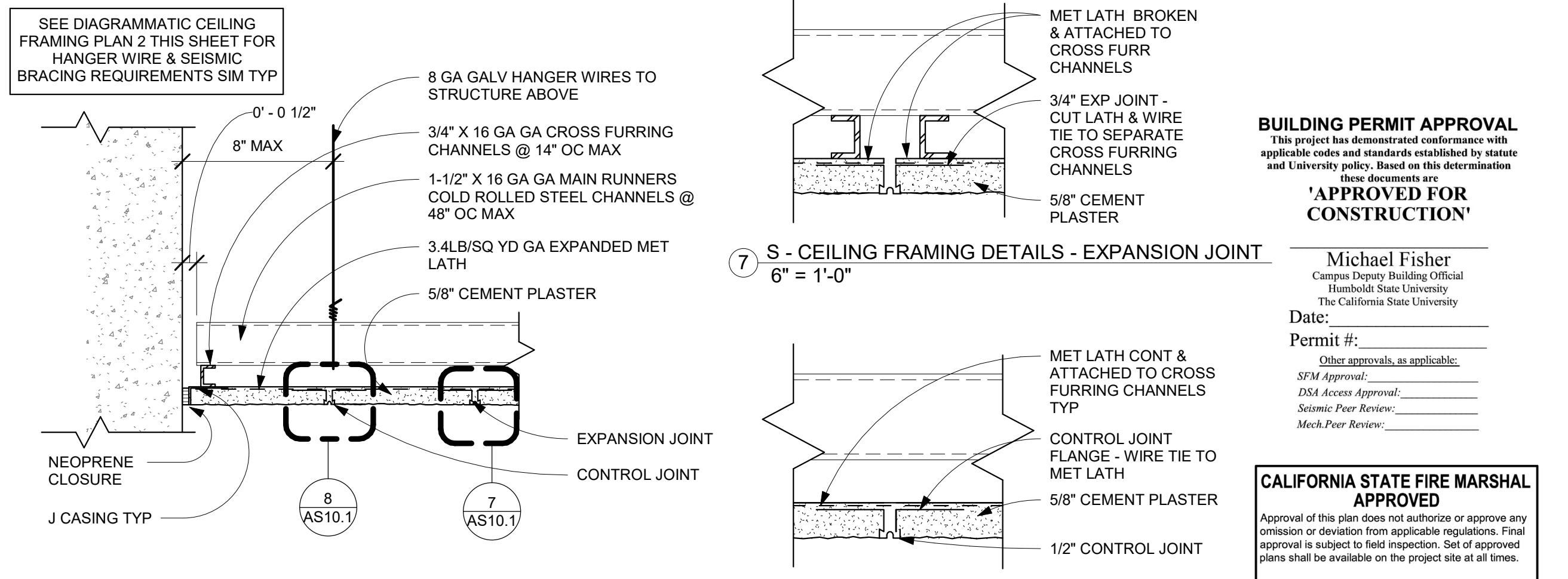


3 S - CEILING DETAILS - HANGER & BRACING WIRES
3" = 1'-0"

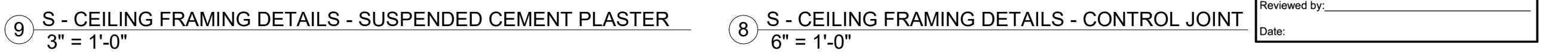


12 S - WIRE ATTACHMENT @ STRUCTURE
3" = 1'-0"

11 S - SOFFIT @ GYP BD
1 1/2" = 1'-0"



7 S - CEILING FRAMING DETAILS - EXPANSION JOINT
6" = 1'-0"



8 S - CEILING FRAMING DETAILS - CONTROL JOINT
6" = 1'-0"

BUILDING PERMIT APPROVAL
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'APPROVED FOR CONSTRUCTION'

Michael Fisher
Campus Deputy Building Official
Humboldt State University
The California State University
Date: _____
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SEM Approval: _____
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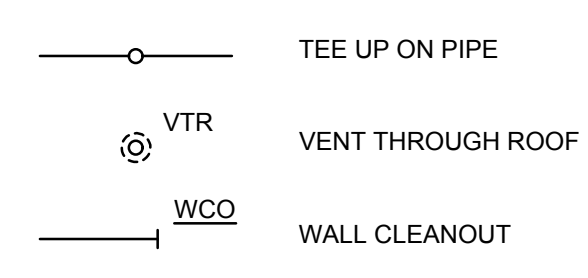
PLUMBING SYMBOL LIST

NOTE: This is a standard symbol list and not all items listed may be used.

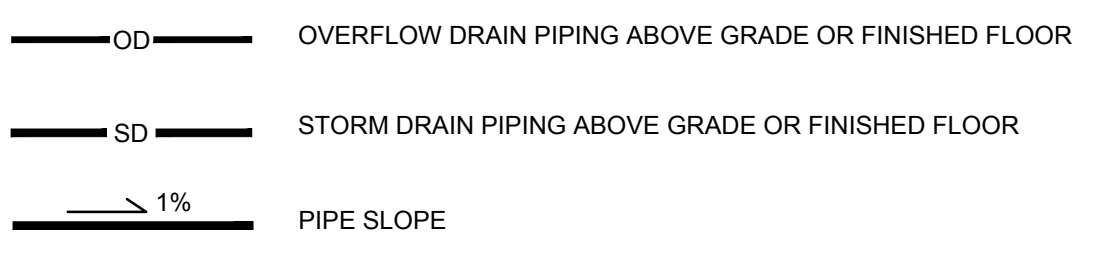
Abbreviations

#	NUMBER
&	AND
(A)	ABANDON IN PLACE
(E)	EXISTING
(F)	FUTURE
(N)	NEW
(R)	RELOCATE / RELOCATED LOCATION
(X)	DEMOLISH
@	AT
'	FOOT, FEET
A	AQUASTAT, ARCHITECT, ANCHOR, AMPHERE
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
BFF	BELOW FINISHED FLOOR
BFP	BACKFLOW PREVENTER
BLDG	BUILDING
CD	CONDENSATE DRAIN
CO	CLEANOUT
CONT.	CONTINUATION
D	DRAIN
DN	DOWN
DS	DOWNSPOUT
DSN	DOWNSPOUT NOZZLE
FFE	FINISHED FLOOR ELEVATION
FL	FLOOR
FT	FEET
HB	HOSE BIBB
IN, "	INCHES
INV	INVERT ELEVATION
IW	INDIRECT WASTE
MIN	MINIMUM
N	NORTH
NIC	NOT IN CONTRACT
NO.	NUMBER
NTS	NOT TO SCALE
OD	OVERFLOW DRAIN, OUTSIDE DIAMETER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
P	PLUMBING, PUMP
PD	PRESSURE DROP, PLUMBING DEMOLITION, PUMPED DISCHARGE
PLBG	PLUMBING
POC	POINT OF CONNECTION
QTY	QUANTITY

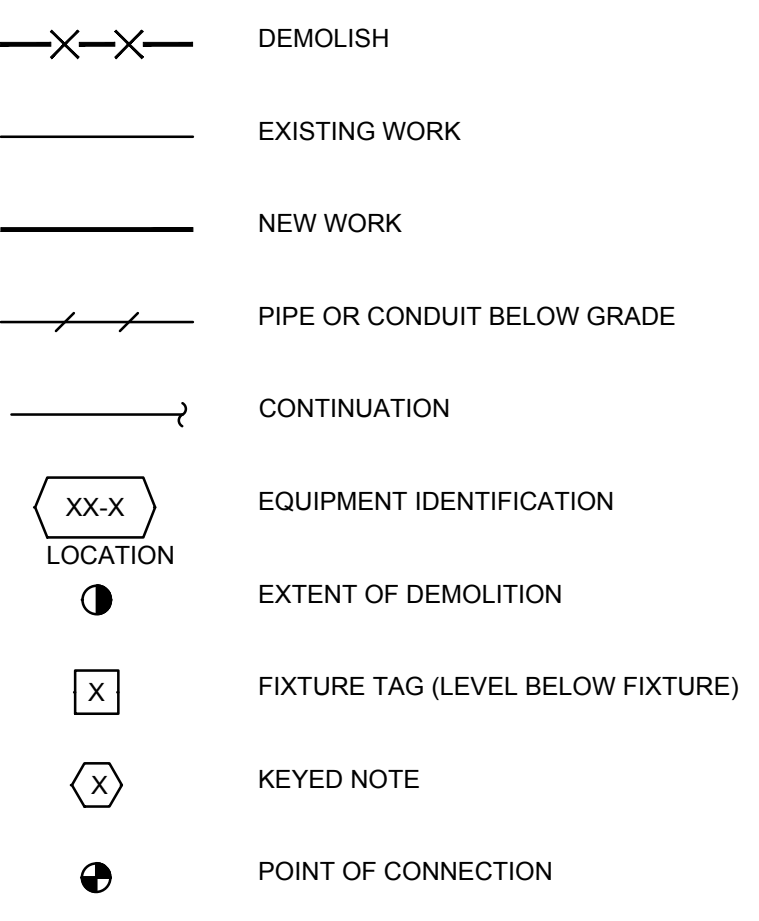
RD	ROOF DRAIN
RWL	RAINWATER LEADER
SAN	SANITARY
SD	STORM DRAIN
SF	SQUARE FEET
SHT	SHEET
TYP	TYPICAL
U, UR	URINAL
VTR	VENT THRU ROOF
W	WITH
WCO	WALL CLEANOUT



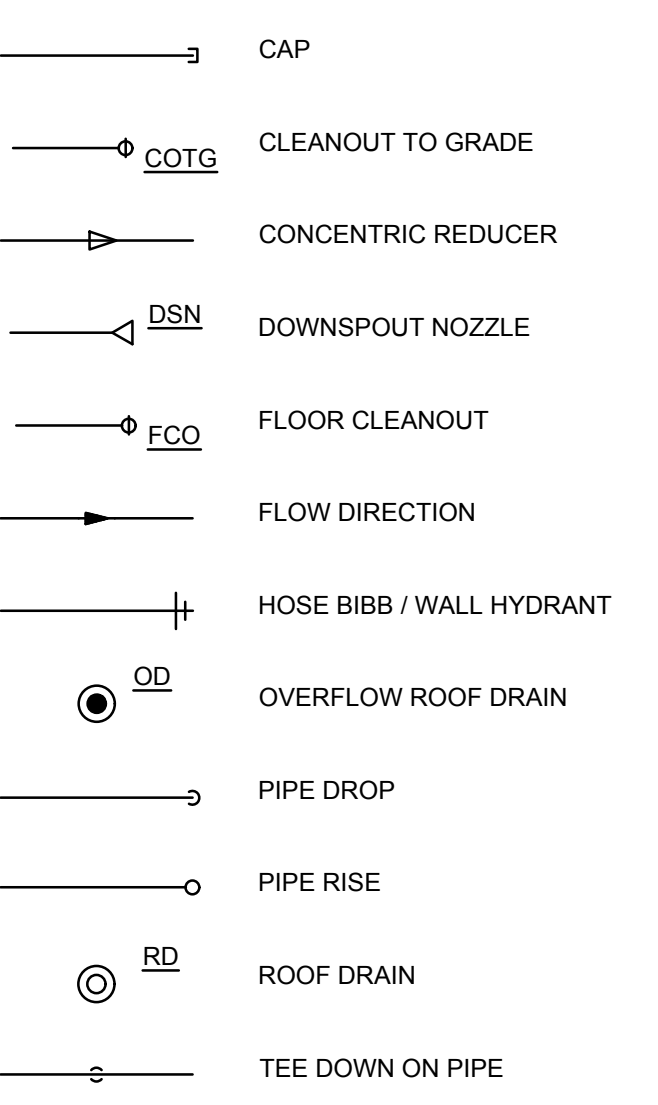
Piping Systems



General



Piping Fittings



GENERAL PLUMBING NOTES

- A. ALL WORK UNDER THIS CONTRACT SHALL CONFORM TO THE CURRENT STATE, COUNTY AND NATIONAL CODES AND STANDARDS ADOPTED BY THE LOCAL JURISDICTIONS INCLUDING APPLICABLE AMENDMENTS.
- B. CONDITIONS SHOW ON THE PLANS RELATIVE TO THE WORK TO BE PERFORMED ARE BASED ON THE BEST INFORMATION AVAILABLE AND SUBJECT TO VERIFICATION. VERIFY LOCATIONS AND ELEVATIONS OF UTILITIES TO BE CROSSED OR CONNECTED. CORRECT DEFICIENCIES CAUSED BY FAILURE TO PERFORM SUCH VERIFICATIONS AT NO EXPENSE TO OWNER. IMMEDIATELY NOTIFY ARCHITECT AND ENGINEER OF CONDITION IN CONFLICT WITH THE DETAILS/PLANS.
- C. COORDINATE INSTALLATION OF PIPING, FIXTURES, EQUIPMENT AND THE LIKE BELOW AND ABOVE GRADE WITH STRUCTURAL COMPONENTS AND OTHER SYSTEMS INSTALLATION.
- D. COORDINATE FIXTURES, EQUIPMENT, PIPE ROUGH-IN/CONNECTION LOCATIONS AND DRAIN LOCATIONS WITH ARCHITECTURAL DRAWINGS.
- E. SEWER VENTS SHALL TERMINATE AT LEAST 10 FEET HORIZONTALLY (25 FEET FOR OSHPD PROJECTS) FROM AND AT LEAST 3 FEET ABOVE OPENABLE WINDOW, DOOR OPENING, AIR INTAKE OR VENT SHAFT. VENT MUST BE AT LEAST 3 FEET FROM PROPERTY LINE.
- F. PRIOR TO BEING CONCEALED, PIPING PENETRATIONS AT THE FIRE RESISTIVE ASSEMBLIES SHALL BE INSPECTED TO VERIFY COMPLIANCE WITH THE FIRE RESISTANCE RATING.
- G. INDIRECT WASTE SHALL DISCHARGE TO THE BUILDING DRAINAGE THROUGH AN APPROVED AIR GAP OR AIR BREAK WITH A MINIMUM 1" DISTANCE FROM THE LOWEST POINT OF INDIRECT PIPE TO THE FLOOD LEVEL RIM OF THE RECEPTOR.
- H. FOR PIPES PASSING THRU RATED PENETRATIONS, PROVIDE UL LISTED FIRE STOP SYSTEM IN ACCORDANCE WITH CBC SECTION 714.

GENERAL DEMOLITION NOTES

- A. COORDINATE DEMOLITION, CUTTING PATCHING, ETC. WITH GENERAL CONTRACTOR AND EXISTING FIELD CONDITIONS PRIOR TO SUBMITTING CONSTRUCTION CONTRACT BIDS. SEE SPECIFICATIONS GENERAL PROVISIONS, NOT ALL PIPING IS ILLUSTRATED.
- B. REFER TO ARCHITECTURAL DRAWINGS FOR SPACE ALLOTMENT, BEAM LOCATION AND COORDINATION PURPOSES. CONFLICTS REGARDING SPACE REQUIREMENTS, CLEARANCES, INTERFERENCE WITH STRUCTURE OR OTHER WORK, ETC., SHALL BE DIRECTED TO THE ARCHITECT FOR RESOLUTION PRIOR TO INSTALLATION OF WORK.
- C. THE COST OF CUTTING, PATCHING AND PAINTING OF EXISTING WALLS, CEILINGS AND FLOOR AS REQUIRED TO ACCOMMODATE WORK AS SHOWN OR SPECIFIED HEREIN, SHALL BE INCLUDED IN THE COST THE WORK FOR EACH TRADE. EMPLOY SKILLED WORKMEN TO PERFORM CUTTING AND PATCHING AND RESTORE DISTURBED SURFACES TO ORIGINAL CONDITION. THE MATERIALS AND WORKMANSHIP FOR ALL PATCHING SHALL BE AS SPECIFIED IN THE RESPECTIVE SECTIONS OF THE ARCHITECTURAL SPECIFICATIONS, OR AS DIRECTED BY THE ARCHITECT.
- D. CONTRACTOR SHALL VERIFY AND COORDINATE EXISTING WASTE, VENT AND WATER PIPING TO REMAIN IN SERVICE. EXISTING WASTE, VENT AND WATER PIPING SERVING EXISTING PLUMBING FIXTURES, FLOOR SINKS AND FLOOR DRAINS TO BE REMOVED ARE TO BE CAPPED BELOW FLOOR OR REMOVED BACK TO PLUMBING PIPING REMAINING IN SERVICE THEN CAPPED, EXCEPT AS NOTED. CONTRACTOR SHALL REROUTE/REPIPE EXISTING PIPING TO REMAIN AS REQUIRED TO MAINTAIN SERVICE. EXISTING PIPING SERVING OTHER TENANTS/BUILDING SPACES IS TO REMAIN.
- E. COORDINATE LOCATION OF EACH FIXTURE WITH ARCHITECT.

SHEET INDEX

P0.1	SYMBOL LIST, GENERAL NOTES AND SHEET INDEX - PLUMBING
P0.2	SCHEDULES - PLUMBING
PD2.3	LOWER ROOF DEMOLITION PLAN - PLUMBING
PD2.4	UPPER ROOF DEMOLITION PLAN - PLUMBING
P2.1	LEVEL 1 FLOOR PLAN - PLUMBING
P2.2	LEVEL 3 FLOOR PLAN - PLUMBING
P2.3	LOWER ROOF PLAN - PLUMBING
P2.4	UPPER ROOF PLAN - PLUMBING
P3.1	DETAILS - PLUMBING
P4.1	RISER DIAGRAM - PLUMBING

BUILDING PERMIT APPROVAL

This project has demonstrated conformance with applicable codes and standards established by statute and University policy. Based on this determination these documents are

'APPROVED FOR CONSTRUCTION'

Michael Fisher
Campus Deputy Building Official
Humboldt State University
The California State University

Date: _____
Permit #: _____

Other approvals, as applicable:
SFM Approval: _____
DSA Access Approval: _____
Seismic Peer Review: _____
Mech Peer Review: _____

CALIFORNIA STATE FIRE MARSHAL APPROVED

Approval of this plan does not authorize or approve any omission or deviation from applicable regulations. Final approval is subject to field inspection. Set of approved plans shall be available on the project site at all times.

Reviewed by: _____
Date: _____

SUAREZ KUEHNE ARCHITECTURE

2412 14th Avenue
San Francisco
California, 94116
tel 415.242.1400

HUMBOLDT STATE UNIVERSITY

Sunset Residence Hall Roofing
Arcata, California

Project Team

Owner: Trustees of the California State University

Arch: Suarez-Kuehne Architecture
2412 14th Avenue
San Francisco, CA 94116
Attn: John Suarez
(415) 242-1400

MEPT: Interface Engineering
135 Main St, Ste 400
San Francisco, CA 94105
Attn: Rick Russell
(415) 489-7240

Seals

Date Signed: 5/24/19

Revisions

Sheet Name

Symbol list,
General Notes
& Sheet Index -
Plumbing

Date: APRIL 3, 2019

Owner #

P0.1

PLUMBING FIXTURE SCHEDULE											
SYMBOL	FIXTURE TYPE	DESCRIPTION	MFR	MODEL	BASIS OF DESIGN	NOTES	CONNECTION				NOTES
							W	V	CW	HW	
RD-1	ROOF DRAIN	15 1/4" OD ROOF DRAIN WITH UNDERDECK CLAMP	JAY R SMITH	1015Y-C-R-CID		ADJUSTABLE EXTENSION-TYPE ROOF DRAIN WITH SUMP RECEIVER, UNDERDECK CLAMP AND CAST IRON DOME					NH OUTLET, CAST IRON DOME
OD-1	OVERFLOW ROOF DRAIN	15 1/4" OD OVERFLOW DRAIN WITH UNDERDECK CLAMP	JAY R SMITH	1045Y-C-R-CID		ADJUSTABLE EXTENSION-TYPE OVERFLOW DRAIN WITH SUMP RECEIVER, UNDERDECK CLAMP AND CAST IRON DOME					NH OUTLET, CAST IRON DOME
DN-1	DOWNSPOUT NOZZLE	"COW'S TONGUE"-TYPE OVERFLOW STORMWATER OUTLET	JAY R SMITH	1770Y-2							NICKEL BRONZE FINISH
NOTES:											

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 △ OWNER REVISION 05/21/2019

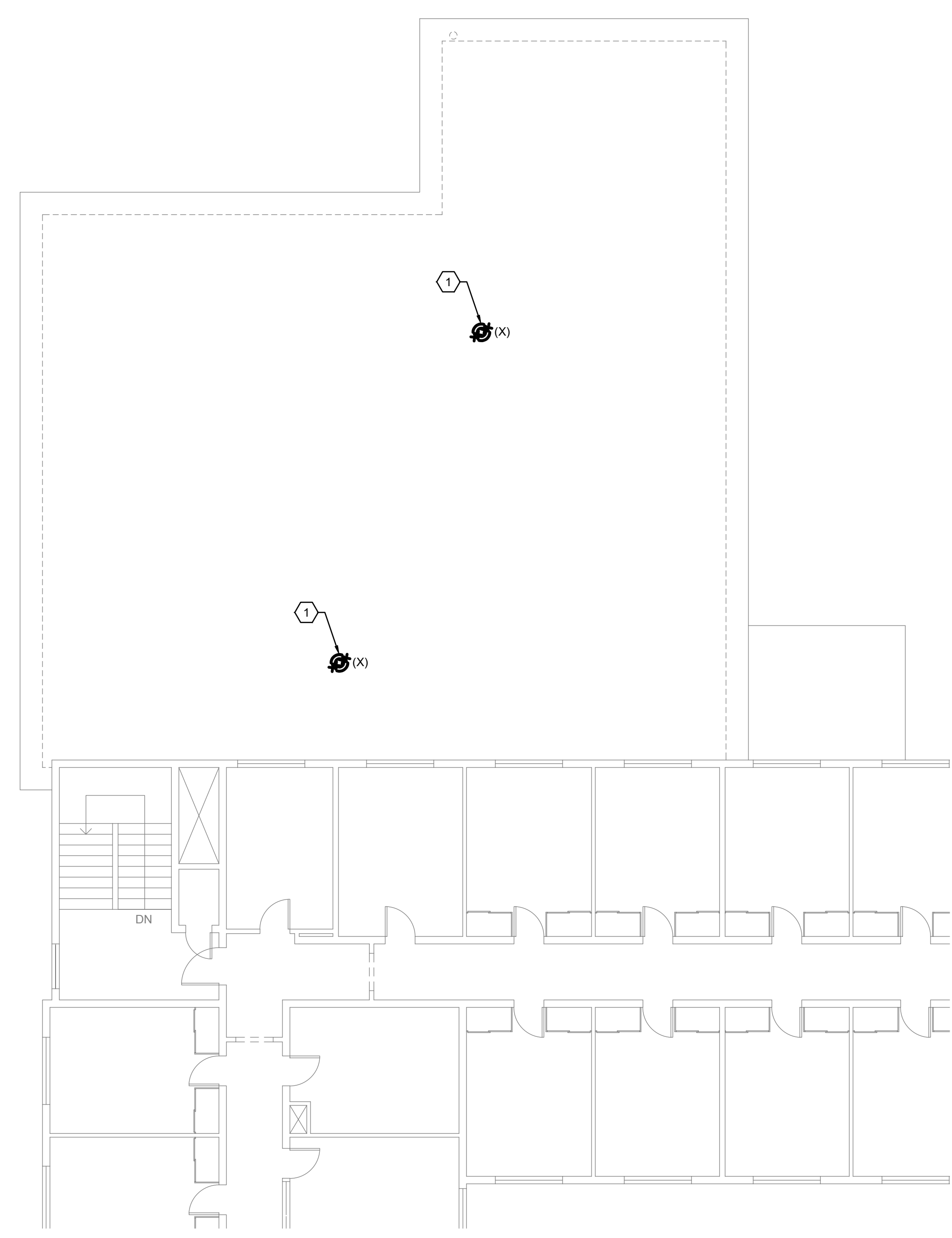
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Sheet Name
Schedules - Plumbing
 Date
 APRIL 3, 2019
 Owner #
 Sheet Number
P0.2

SHEET KEYNOTES

- 1 REMOVE ROOF DRAIN. PRESERVE AND PROTECT RISER FOR RE-CONNECTION TO NEW DRAIN.



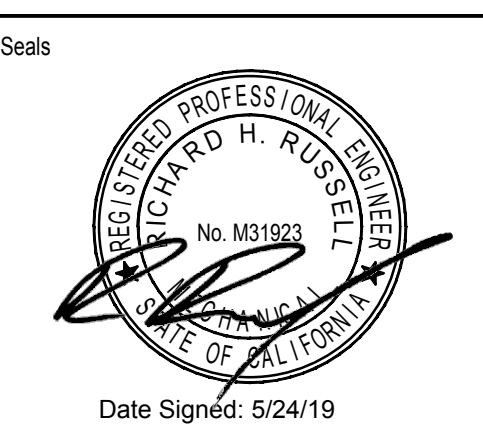
1 LOWER ROOF DEMOLITION PLAN - PLUMBING
 0 4' 8' 16'
 SCALE: 1/8"=1'-0"

SUAREZ KUEHNE ARCHITECTURE

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 San Francisco, CA 94116
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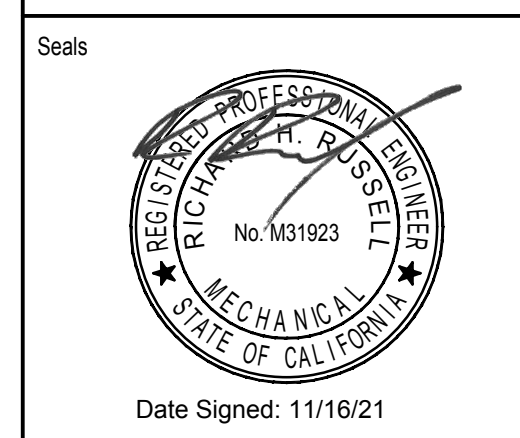
Revisions	
Sheet Name	Lower Roof Demolition Plan - Plumbing
Date	APRIL 3, 2019
Owner #	Sheet Number
	PD2.3

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San Francisco
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San Francisco, CA 94116
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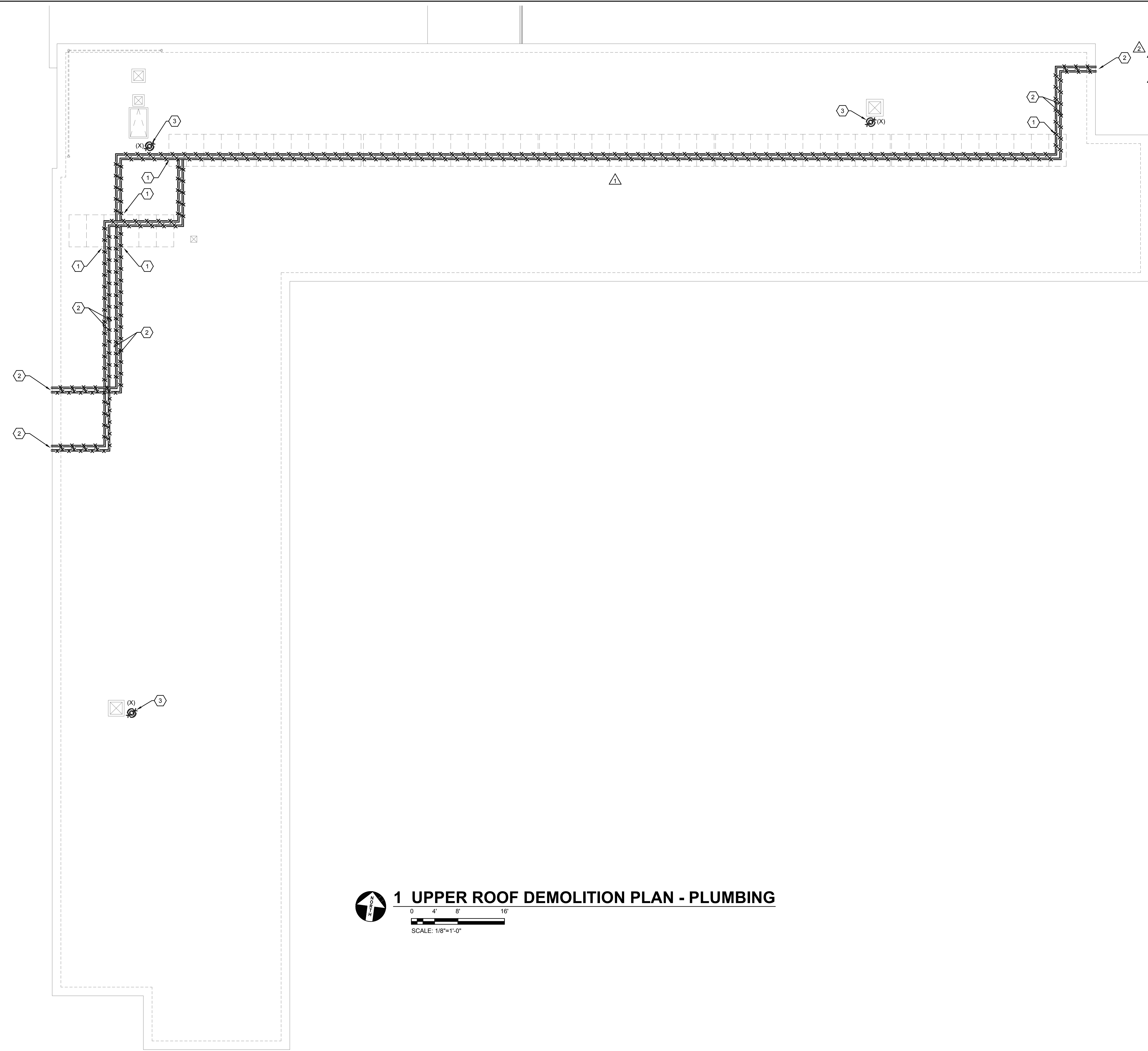
Revisions		
△	OWNER REVISION	05/21/2019
△	OWN REV	10/27/2021

Sheet Name
Upper Roof Demolition Plan - Plumbing

Date: APRIL 3, 2019
Owner #
Sheet Number
PD2.4

SHEET KEYNOTES

- 1 DISCONNECT SOLAR BRANCH PIPING FROM SOLAR COLLECTORS, REMOVE BACK AS FAR AS POSSIBLE AND CAP.
- 2 DEMO COGEN PIPING.
- 3 REMOVE ROOF DRAIN.



1 UPPER ROOF DEMOLITION PLAN - PLUMBING
SCALE: 1/8"=1'-0"

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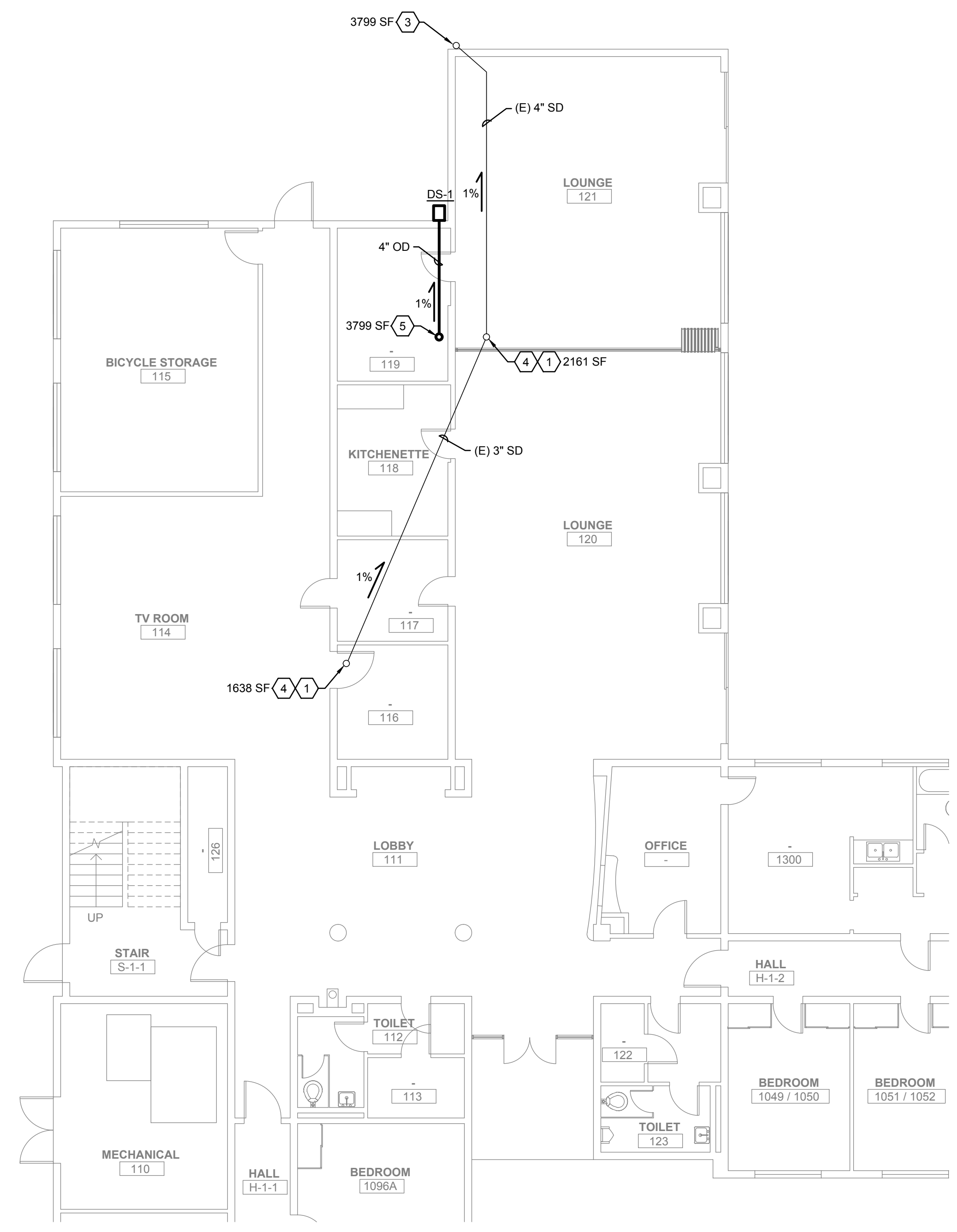
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Reviewed by: _____
Date: _____

GENERAL PLUMBING NOTES

- A. INSTALL PIPING AS HIGH AS POSSIBLE.
- B. SLOPE ALL PIPING SHOWN ON THIS SHEET AT 1% SLOPE.

SHEET KEYNOTES

- 1 EXISTING 3" STORM DRAIN UP.
- 2 4" OVERFLOW DRAIN UP.
- 3 EXISTING 4" STORM DRAIN DOWN.
- 4 CONNECT 3" ROOF DRAIN TO EXISTING 3" RISER.
- 5 4" STORM DRAIN UP.



1 LEVEL 1 FLOOR PLAN - PLUMBING
 0 4' 8' 16'
 SCALE: 1/8"=1'-0"

SUAREZ KUEHNE ARCHITECTURE

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 2412 14th Avenue
 San Francisco, CA 94116
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Revisions

Sheet Name
Level 1 Floor Plan - Plumbing

Date **APRIL 3, 2019**
 Owner # **P2.1**
 Sheet Number

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HUMBOLDT STATE UNIVERSITY
Sunset Residence
Hall Roofing
Arcata, California

Project Team
Owner: Trustees of the California State University
Arch: Suarez-Kuehne Architecture
2412 14th Avenue
San Francisco, CA 94116
Attn: John Suarez
(415) 242-1400
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Sheet Name
Level 3 Floor Plan - Plumbing

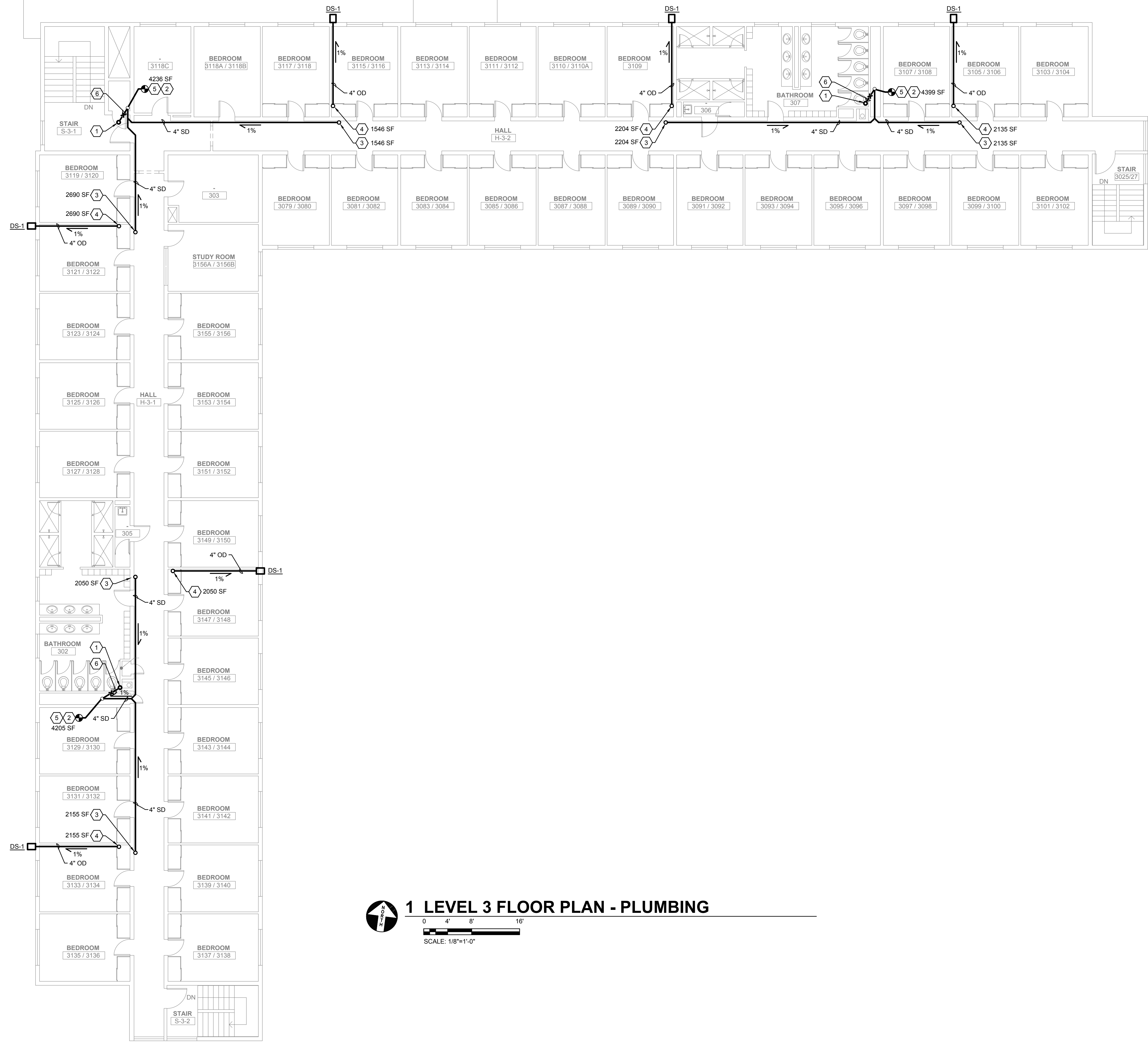
Date: APRIL 3, 2019
Owner #
Sheet Number
P2.2

GENERAL PLUMBING NOTES

- A. INSTALL PIPING AS HIGH AS POSSIBLE.
- B. SLOPE ALL PIPING SHOWN ON THIS SHEET AT 1% SLOPE.

SHEET KEYNOTES

- 1 EXISTING 4" SD UP (TO BE REMOVED).
- 2 EXISTING 4" SD DOWN.
- 3 4" SD UP.
- 4 4" OD UP.
- 5 CONNECT 4" SD TO EXISTING 4" SD DOWN.
- 6 REMOVE EXISTING HORIZONTAL STORM DRAIN AND EXISTING STORM DRAIN UP.



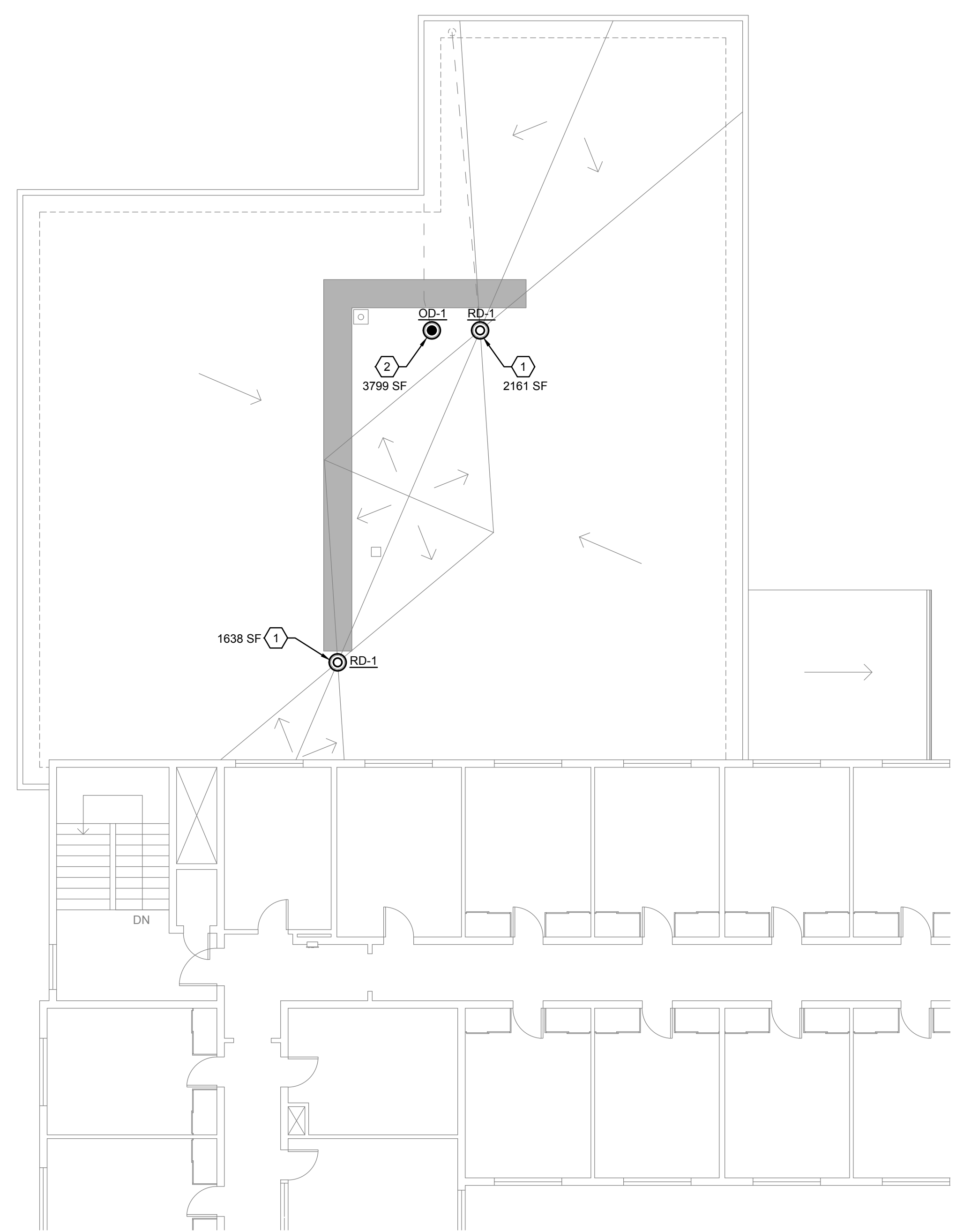
1 LEVEL 3 FLOOR PLAN - PLUMBING
SCALE: 1/8"=1'-0"

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Mech Peer Review: _____

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SHEET KEYNOTES

- 1 CONNECT 3" RD-1 TO EXISTING 3" SD RISER.
- 2 CONNECT 4" OD-1 TO 4" OD RISER.



1 LOWER ROOF PLAN - PLUMBING
 0 4' 8' 16'
 SCALE: 1/8"=1'-0"

SUAREZ KUEHNE ARCHITECTURE

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 2412 14th Avenue
 San Francisco, CA 94116
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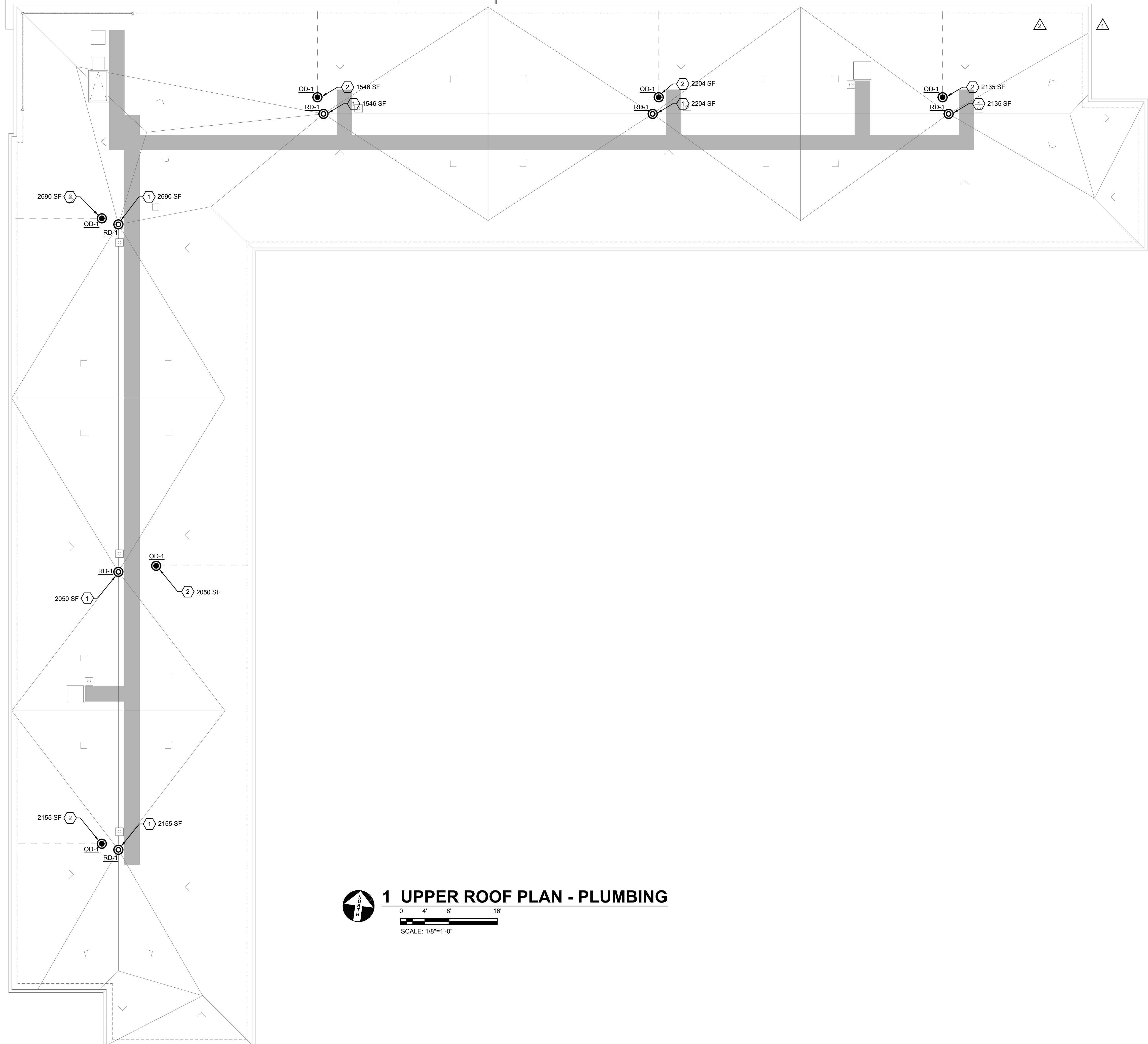
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 Date: _____

Revisions	
Sheet Name	Lower Roof Plan - Plumbing
Date	APRIL 3, 2019
Owner #	Sheet Number P2.3

SHEET KEYNOTES

- 1 CONNECT 4" RD-1 TO 4" SD RISER.
- 2 CONNECT 4" OD-1 TO 4" OD RISER.



1 UPPER ROOF PLAN - PLUMBING

0 4' 8' 16'

SCALE: 1/8"=1'-0"

SUAREZ KUEHNE ARCHITECTURE

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San Francisco
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HUMBOLDT STATE UNIVERSITY
Sunset Residence
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Project Team
Owner: Trustees of the California State University
Arch: Suarez-Kuehne Architecture
2412 14th Avenue
San Francisco, CA 94116
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Revisions

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Mech Peer Review: _____

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Sheet Name
Upper Roof Plan - Plumbing

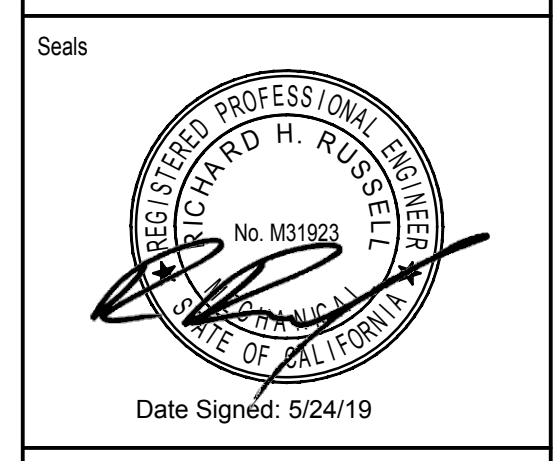
Date: APRIL 3, 2019
Owner # Sheet Number
P2.4

SUAREZ KUEHNE ARCHITECTURE

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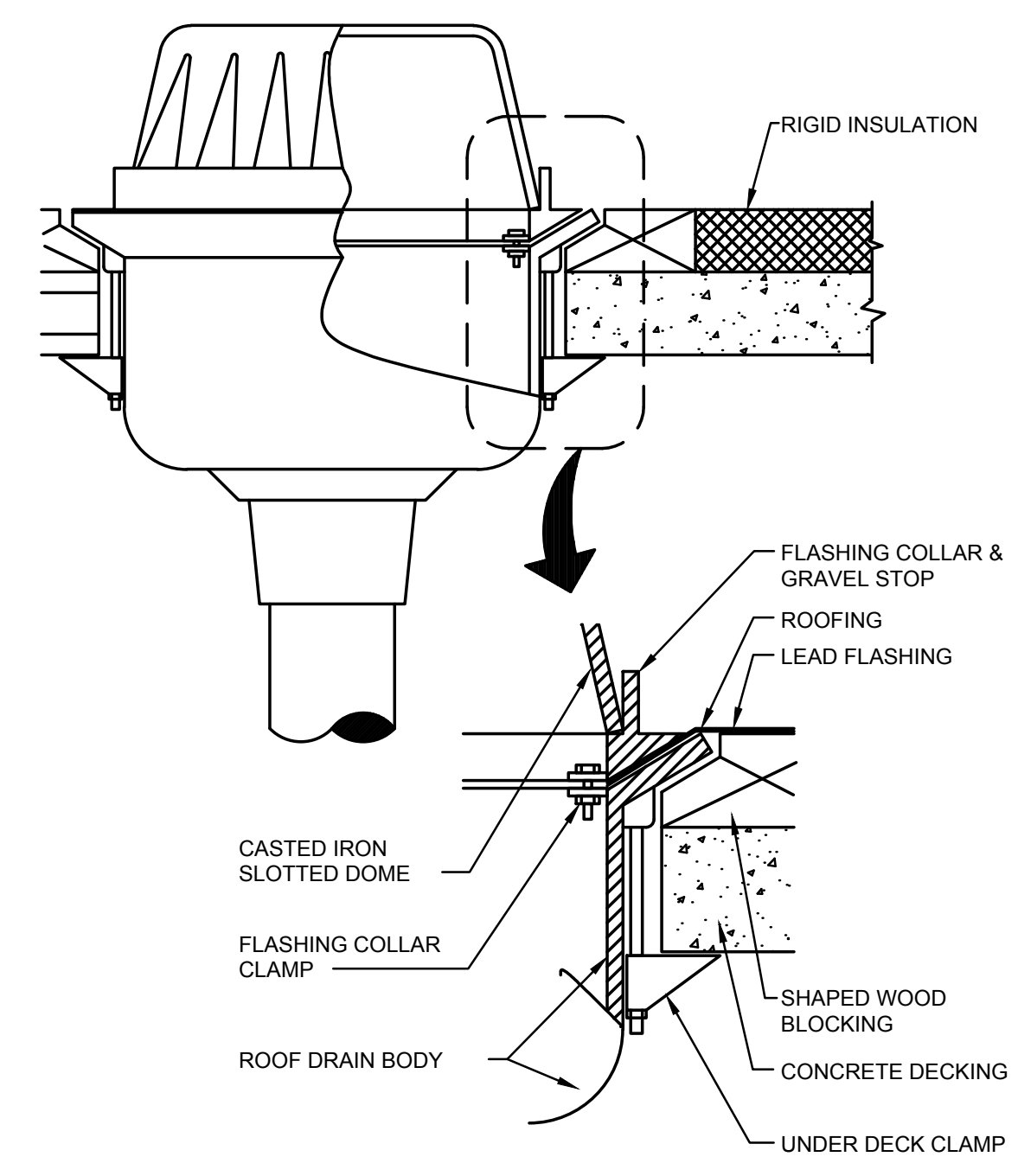
Project
HUMBOLDT STATE UNIVERSITY
Sunset Residence Hall Roofing
Arcata, California

Project Team
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OWNER REVISION 05/21/2019

Sheet Name
Details - Plumbing
Date
APRIL 3, 2019
Owner #
Sheet Number
P3.1



NOTE:
SEE MANUFACTURER'S CUTSHEET FOR DETAILED DRAWINGS

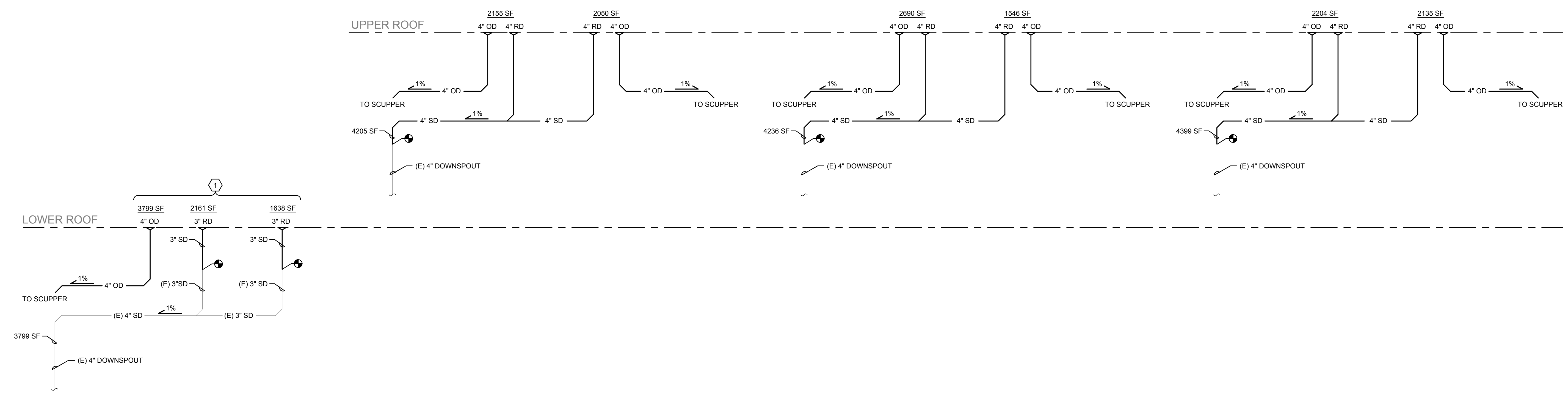
1 ROOF DRAIN DETAIL
NO SCALE

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Date: _____

SHEET KEYNOTES

1 ON LOWER ROOF, SINGLE OVERFLOW DRAIN SERVES AREA DRAINED BY 2 ROOF DRAIN.



1 STORM DRAIN RISER DIAGRAM
NO SCALE

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Sheet Name
Riser Diagram - Plumbing

Date: APRIL 3, 2019
Owner #
Sheet Number
P4.1