CODE COMPLIANCE

CHAPTER 4 PART 1, TITLE 24 C.C.R. ADMINISTRATIVE REQUIREMENTS (PARTIAL LISTING ONLY)

1. A COPY OF PARTS 1 AND 2, TITLE 24, C.C.R. SHALL BE KEPT ON THE JOB SITE AT ALL TIMES.
2. ALL CHANGE ORDERS AND ADDENDA TO BE SIGNED BY THE ARCHITECT AND THE OWNER AND APPROVED BY DSA. CHANGE ORDERS ARE NOT VALID UNTIL APPROVED BY DSA SECTION 4-338, PART 1, TITLE 24.
3. ALL TESTS TO CONFORM TO THE REQUIREMENTS OF SECTION 4-335, PART 1, TITLE 24, AND APPROVED T&I SHEET
4. TESTS OF MATERIALS AND TESTING LABORATORY SHALL BE IN ACCORDANCE WITH SECTION 4-335 OF PART 1,TITLE 24 AND THE DISTRICT SHALL EMPLOY AND PAY THE LABORATORY. COSTS OF RE-TEST MAY BE BACK CHARGED TO THE CONTRACTOR. TESTING LABORATORY SHALL BE APPROVED BY DSA.
5. DSA SHALL BE NOTIFIED AT THE START OF CONSTRUCTION AND PRIOR TO THE PLACEMENT OF CONCRETE PER SECTION 4-331, PART 1, TITLE 24.
6. INSPECTOR SHALL BE APPROVED BY DSA. INSPECTOR SHALL BE IN ACCORDANCE WITH SECTION 4-333(B). THE DUTY OF THE INSPECTOR SHALL BE IN ACCORDANCE WITH SECTION 4-342, PART 1, TITLE 24.
7. SUPERVISION OF CONSTRUCTION BY DSA SHALL BE IN ACCORDANCE WITH SECTION 4-334, PART 1, TITLE 24.
8. CONTRACTOR, INSPECTOR, ARCHITECT, AND ENGINEERS SHALL SUBMIT VERIFIED REPORTS (FORM SS5-6) IN ACCORDANCE WITH SECTION 4-336 AND 4-343, PART 1, TITLE 24.
9. THE ARCHITECT AND THE STRUCTURAL ENGINEER SHALL PERFORM THEIR DUTIES IN ACCORDANCE WITH SECTION 4-333(A) AND 4-341, PART 1, TITLE 24.
10. THE CONTRACTOR SHALL PERFORM HIS DUTIES IN ACCORDANCE WITH SECTION 4-343, PART 1, TITLE 24.
11. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH TITLE 24, C.C.R. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, C.C.R., A CONSTRUCTION CHANGE DIRECTIVE (CCD) DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT BEFORE PROCEEDING WITH THE WORK.

PARTIAL LIST OF APPLICABLE CODES as of January 1, 2017

2016	BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24, C.C.R.
2016	CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24, C.C.R. (2015 INTERNATIONAL BUILDING CODE WITH 2016 CALIFORNIA AMENDMENTS)
2016	CALIFORNIA ELECTRIC CODE (CEC), PART 3, TITLE 24, C.C.R. (2014 NATIONAL ELECTRIC CODE WITH 2016 CALIFORNIA AMENDMENTS)
2016	CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24, C.C.R. (2015 UNIFORM MECHANICAL CODE WITH 2016 CALIFORNIA AMENDMENTS)
2016	CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24, C.C.R. (2015 UNIFORM PLUMBING CODE WITH 2016 CALIFORNIA AMENDMENTS)
2016	CALIFORNIA ENERGY CODE (CENC), PART 6, TITLE 24, C.C.R.
2016	CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24, C.C.R. (2015 INTERNATIONAL FIRE CODE WITH 2016 CALIFORNIA AMENDMENTS)

CCR TITLE-19, REGULATIONS OF THE STATE FIRE MARSHAL

PARTIAL LIST OF APPLICABLE STANDARDS (as referenced in 2017 CBC/CFC)

NFPA 13	AUTOMATIC SPRINKLER SYSTEMS, 2016 EDITION CA AMENDED)
NFPA 14	STANDPIPE & HOSE SYSTEMS, 2013 EDITION (CA AMENDED)
NFPA 17A	WET CHEMICAL EXTINGUISHING SYSTEMS, 2013 EDITION
NFPA 20	STATIONARY FIRE PUMPS FOR FIRE PROTECTION, 2016 EDITION
NFPA 24	PRIVATE FIRE SERVICE MAINS, 2016 EDITION (CA AMENDED)
NFPA 25	INSPECTION, TESTING AND MAINTENANCE OF WATER BASED FIRE PROTECTION SYSTEMS, 2013 CALIFORNIA EDITION
NFPA 37	INSTALLATION AND USE OF STATIONARY COMBUSTION ENGINES AND GAS TURBINES, 2015 EDITION
NFPA 72	NATIONAL FIRE ALARM AND SIGNALING CODE, 2016 EDITION (CA AMENDED)
NFPA 80	FIRE DOORS AND OTHER OPENING PROTECTIVES, 2016 EDITION
NFPA 110	EMERGENCY AND STANDBY POWER SYSTEMS, 2016 EDITION
NFPA 170	STANDARD FOR FIRE SAFETY AND EMERGENCY SYMBOLS, 2015 EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS, 2015 EDITION
ICC 300	STANDARDS ON BLEACHERS, FOLDING AND TELESCOPING SEATING, AND GRANDSTANDS 2012 EDITION

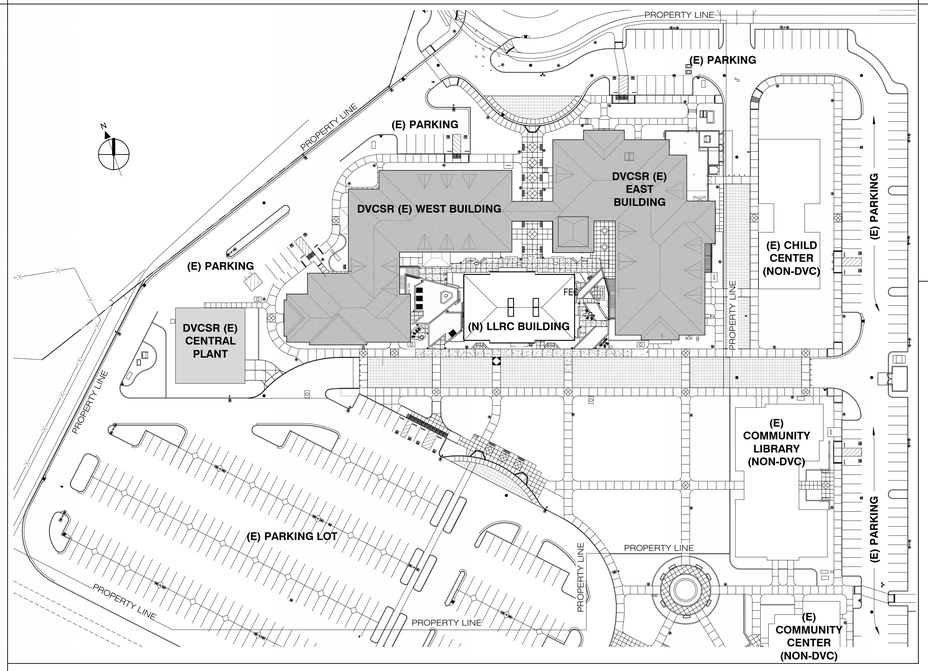
PARTIAL LIST OF APPLICABLE STANDARDS

AISC MANUAL OF STEEL CONSTRUCTION
ACI 318-14 CODE & COMMENTARY
NATIONAL REFERENCE STANDARDS
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

DIVISION OF THE STATE ARCHITECT REQUIREMENTS

1. ADDENDA AND CHANGES AS PER SECTION 4-338.
2. INSPECTOR APPROVED BY DSA.
3. INSPECTOR AND CONTINUOUS INSPECTION OF WORK PER SECTION 4-333(B) AND 4-342.
4. TESTS AND TESTING LABORATORY PER SECTION 4-335 (OWNER SHALL PAY THE TESTING LABORATORY).
5. SPECIAL INSPECTION PER SECTION 4-333(C).
6. CONTRACTOR SHALL SUBMIT VERIFIED REPORT PER SECTION 4-336 & 4-343(C).
7. ADMINISTRATION OF CONSTRUCTION PER PART 1, TITLE 24, C.C.R.
8. DUTIES OF ARCHITECT, STRUCTURAL ENGINEER, OR PROFESSIONAL ENGINEER PER SECTION 4-333(A) AND 4-341.
9. DUTIES OF CONTRACTOR PER SECTION 4-343.
10. VERIFIED REPORTS PER SECTION 4-336.
11. A COPY OF PART 1 & 2 OF TITLE 24, SHALL BE KEPT AND AVAILABLE IN FIELD DURING CONSTRUCTION.
12. DSA SHALL BE NOTIFIED ON START OF CONSTRUCTION PER SECTION 4-331.
13. SUPERVISION BY DSA PER SECTION 4-343.
14. DSA IS NOT SUBJECT TO ARBITRATION.

CAMPUS MAP



BID ALTERNATES

ADD ALTERNATE 1. ROUND STONE FOUNTAIN BETWEEN LIBRARY RESOURCE CENTER AND EXISTING EAST BUILDING -INFRASTRUCTURE TO FOUNTAIN TO BE PART OF BASE BID.

PRIOR DSA APPLICATION NUMBERS

ALL PROJECTS LISTED HAVE BEEN CERTIFIED:

1. SITE IMPROVEMENTS: 01-106062
2. EDUCATIONAL BUILDINGS 7 CENTRAL PLANT: 01-105719

DEFERRED SUBMITTALS

1. STOREFRONTS
2. GLASS SKYLIGHTS

DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582
D-4002 - INCREMENT 2 5/30/2019

ARCHITECT'S STATEMENT

STATEMENT OF GENERAL CONFORMANCE

FOR ARCHITECTS/ENGINEERS WHO UTILIZE PLANS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS

(Application No. 01-117630 File No. 1-C1)

☒ The drawings or sheets listed on the cover or sheet index
☐ This drawing, page of specifications/calculations

have been prepared by other design professionals or consultants who are licensed and/or authorized to prepare such drawings in this state. It has been examined by me for:

1) design intent and appears to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications prepared by me, and
2) coordination with my plans and specifications and is acceptable for incorporation into the construction of this project.

The Statement of General Conformance "shall not be construed as relieving me of my rights, duties, and responsibilities under Sections 17302 and 81138 of the Education Code and Sections 4-336, 4-341 and 4-344" of the Title 24, Part 1. (Title 24, Part 1, Section 4-317 (b))

I certify that:
☒ All drawings or sheets listed on the cover or index sheet
☐ This drawing or page

☒ is/are in general conformance and
☒ have been coordinated

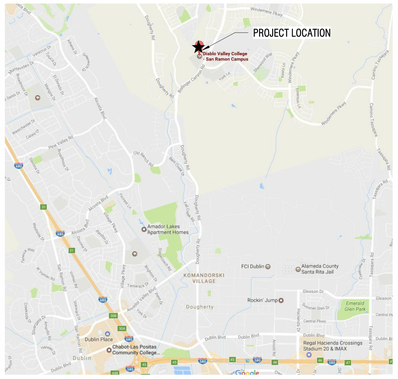
Signature — Date: 11/30/18

Architect or Engineer designated to be in general responsible charge

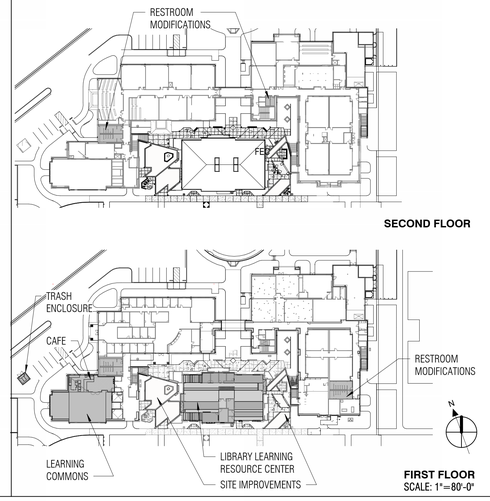
Chris Noll, Principal
Print Name

15916 — License Number
12/31/19 — Expiration Date

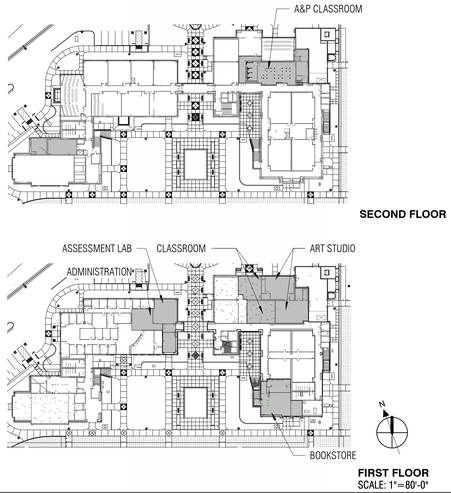
LOCAL STREET MAP



PROJECT SCOPE: INCREMENT 2



PROJECT SCOPE: INCREMENT 1



PROJECT SUMMARY

CONTRA COSTA COMMUNITY COLLEGE DISTRICT PROPOSES IMPROVEMENTS OCCURING IN TWO INCREMENTS AT ITS DIABLO VALLEY COLLEGE IN SAN RAMON. THE WORK INCLUDES RENOVATIONS TO PORTIONS OF THE EXISTING INSTRUCTIONAL BUILDINGS AS WELL AS THE CONSTRUCTION OF A NEW 6600 SF LIBRARY LEARNING RESOURCE CENTER AND SITE IMPROVEMENTS. THE CONSTRUCTION OF INCREMENT 1 WORK IS SLATED AT THE START OF THE 2019 CALENDAR YEAR. INCREMENT 2 WORK WILL BEGIN LATER IN 2019.

INCREMENT 1 WORK INCLUDES, BUT IS NOT LIMITED TO:
1. RENOVATIONS TO CLASSROOMS AS INDICATED IN THE INCREMENT 1 PROJECT SCOPE DIAGRAMS.
2. RENOVATIONS AT EXISTING EAST BUILDING FOR RELOCATION OF BOOKSTORE
3. MODIFICATIONS TO EXISTING WALLS, NEW INTERIOR WALLS, DOORS, INTERIOR GLAZING, CEILINGS, AND FINISHES, COMPLIANCE WITH CURRENT LIFE SAFETY CODES, AND MODIFICATION TO BUILDING SYSTEMS (HVAC, ELECTRICAL, LIGHTING, FIRE ALARM, FIRE PROTECTION, PLUMBING, AND TELECOMMUNICATIONS) FOR THE RENOVATION SCOPE.
4. PARKING LOT AREA MODIFICATIONS

INCREMENT 2 WORK INCLUDES BUT IS NOT LIMITED TO:
1. RENOVATIONS AT THE LEARNING COMMONS
2. RENOVATIONS AT THE EXISTING WEST BUILDING FOR A NEW CAFE INCLUDING SITE IMPROVEMENTS FOR A GREASE INTERCEPTOR AND TRASH/RECYCLE/COMPOST ENCLOSURE AS INDICATED IN THE INCREMENT 2 PROJECT SCOPE DIAGRAM.
3. ACCESSIBILITY UPGRADES TO EXISTING RESTROOMS AS NEEDED.
4. CONSTRUCTION OF A NEW 6600 SF BUILDING - LIBRARY LEARNING RESOURCE CENTER
5. SITE IMPROVEMENTS AT THE NEW BUILDING INCLUDING SUBGRADE PREPARATION, REROUTING OF EXISTING UNDERGROUND UTILITIES, EXTENSION OF UTILITIES TO SERVE THE NEW BUILDING, AND LANDSCAPE IMPROVEMENTS.
6. NO PARKING IS PROPOSED AS PART OF INCREMENT 2

CONTRACTOR WILL BE RESPONSIBLE FOR PREPPING ALL AREAS FOR NEW SCOPE OF WORK INCLUDING PATCHING AND REPAIRING EXISTING CONDITIONS WHERE AFFECTED BY ANY AND ALL DEMOLITION WORK.

THE WORK TO BE PERFORMED UNDER THIS CONTRACT INCLUDES THE FURNISHING OF ALL LABOR, MATERIALS, EQUIPMENT, TRANSPORTATION, SERVICES, PERMITS, TEMPORARY CONTROLS AND CONSTRUCTION FACILITIES, AND ALL GENERAL CONDITIONS, SEISMIC REQUIREMENTS, GENERAL REQUIREMENTS AND INCIDENTALS REQUIRED TO COMPLETE THE WORK ON THE PROJECT IN ITS ENTIRETY AS DESCRIBED IN THE CONTRACT DOCUMENTS.

PROJECT TEAM

Cost Estimator
mack5
1900 Powell Street Suite 470
Emeryville CA 94609
Tel: (510) 595-3020

Food Service Design
RAS Design
649 Main Street
Martinez, CA 94553
Tel: (925) 372-0222

Telecom
CMSalter
130 Sutter St, Flr 5
San Francisco, CA 94104
Tel: (415)470-5436

MEP
Interface Engineering Inc.
135 Main St. Ste 400
San Francisco, CA 94105
Tel: (415) 489-7240

Structural
Walter P. Moore and Associates Inc.
596 Market Street Suite 2130
San Francisco CA 94105
Tel: (415) 963-6303

Landscape
Merrill Morris Partners, Inc.
249 Front Street
San Francisco, CA 94111
Tel: (415) 291-8960

Civil
BKF Engineers
1646 N. California Blvd, #400
Walnut Creek, CA 94596
Tel: (925) 940-2200

Architect
Noll & Tam Architects
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Berkeley, CA 94710
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Fax: 510.542.2201

Client
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500 Court St.
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APPROVALS

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tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE
CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION
1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:
THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS
	DATE	DESCRIPTION

SHEET TITLE
COVER SHEET

SHEET NUMBER
G0.00.2

DSA GENERAL NOTES

- ALL WORK SHALL CONFORM TO 2016 TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
- FABRICATION AND INSTALLATION OF DEFERRED SUBMITTAL ITEMS SHALL NOT BE STARTED UNTIL CONTRACTOR'S DRAWINGS, SPECIFICATIONS, AND ENGINEERING CALCULATIONS FOR THE ACTUAL SYSTEMS TO BE INSTALLED HAVE BEEN ACCEPTED AND SIGNED BY THE ARCHITECT OR STRUCTURAL ENGINEER AND APPROVED BY THE DSA. LIST DEFERRED SUBMITTAL ITEMS FOR THIS PROJECT.
- CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGED DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
- A "DSA CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR.
- A DSA ACCEPTED TESTING LABORATORYDIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
- THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(c), PART 1, TITLE 24, CCR)
- GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

GENERAL NOTES

1. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PROJECT SPECIFICATIONS.
2. ALL WORK SHALL MEET OR EXCEED THE MINIMUM STANDARDS OF THE MOST CURRENT RULES AND REGULATIONS OF ALL APPLICABLE STATE AND/OR LOCAL CODES, LAWS, AND ORDINANCES.
3. INFORMATION CONTAINED WITHIN THESE DOCUMENTS SHALL NOT BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE APPLICABLE CODES.
4. CONTRACTOR SHALL EXAMINE THE DOCUMENTS AND SHALL NOTIFY THE ARCHITECT OF ANY DISCREPANCIES WHICH MAY BE FOUND PRIOR TO THE START OF WORK.
5. CONTRACTOR SHALL REVIEW ALL DOCUMENTS TO COORDINATE W/ THE (E) BLDG CONDITIONS. ANY VARIATIONS AND DISCREPANCIES THAT ARISE IN THIS REVIEW ARE TO BE BROUGHT IMMEDIATELY TO THE ARCHITECT'S ATTENTION.
6. THE CONTRACTOR AND ALL SUBCONTRACTORS ARE REQUIRED TO VISIT AND INSPECT THE SITE PRIOR TO CONSTRUCTION OR ORDERING ANY MATERIALS.
7. ALL DETAILS, SCHEDULES, ADDENDA AND SPECIFICATIONS BOUND SEPARATELY ARE A PART OF THE CONTRACT DOCUMENTS.
8. ITEMS MARKED "NIC" ARE NOT IN CONTRACT. SUCH ITEMS ARE INCLUDED IN THE DOCUMENTS WHEN CONTRACTOR'S COORDINATION IS REQUIRED OR FOR CLARIFICATION OF PROJECT LIMITS.
9. DIMENSIONS:
   - A. IN NO CASE SHALL WORKING DIMENSIONS BE SCALED FROM THE DRAWINGS. IF DIMENSIONS ARE NOT SHOWN AND CANNOT BE DETERMINED FROM LAYOUT CRITERIA PROVIDED, OR IF DISCREPANCIES ARE NOTED, NOTIFY ARCHITECT FOR RESOLUTION.
   - B. OPENINGS: DOOR DIMENSIONS ARE TO THE FACE OF JAMB, UON. LOCATE UNDIMENSIONED DOORS 4" FROM FINISHED FACE OF INTERSECTING PARTITION TO HINGE EDGE EDGE OF DOOR. REFER TO DETAILS FOR LOCATION OF DIMENSIONS OF WINDOWS AND OTHER OPENINGS
   - C. ALL DIMENSIONS TO WALLS ARE TO THE FACE OF STUD, FACE OF CONCRETE, OR FACE OF CONCRETE MASONRY, UON.
   - D. GRID DIMENSIONS ARE TO CENTERLINE OF STRUCTURAL GRID LINE, UON
   - E. ITEMS THAT ARE LOCATED ON A GRID LINE OR OTHERWISE LOCATED BY MODULE, MULLION LAYOUT, SCHEDULE, OR DETAIL ARE NOT OTHERWISE DIMENSIONED.
   - F. ELEVATIONS REFER TO THE TOP OF THE SLAB ON GRADE DATUM. FLOOR & ROOF ELEVATIONS NOTED ARE TO TOP OF CONCRETE SLAB OR STRUCTURAL DECK, UON. BUILDING HEIGHT ELEVATIONS ARE TO TOP OF FRAMING, UON.
   - G. CEILING HEIGHT DIMENSIONS ARE FROM FINISHED FLOOR TO FINISHED FACE OF CEILING, UON.
   - H. ALL DIMENSIONS SHALL BE VERIFIED IN THE FIELD BY GENERAL CONTRACTOR AND ALL SUBCONTRACTORS PRIOR TO PROCEEDING WITH CONSTRUCTION.
   - I. COORDINATE WITH EQUIPMENT CONTRACTORS FOR ROUGH-IN DIMENSIONS AND TEMPLATES.
   - J. ALL DIMENSIONS NOTED "CLEAR" OR "CLR" MUST BE STRICTLY MAINTAINED. "CLEAR" MEANS DIMENSION FROM FACE OF FINISH TO FACE OF FINISH OR OBJECT.
   - K. ALL DIMENSIONS NOTED "VERIFY" OR "VIF" ARE TO BE CHECKED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. ANY VARIANCE FROM THE REQUIRED DIMENSIONS MUST BE BROUGHT IMMEDIATELY TO THE ARCHITECT'S ATTENTION.
   - L. DIMENSIONS ARE BASED UPON SPECIFIED MATERIALS AND EQUIPMENT. SUBSTITUTIONS MAY EFFECT DIMENSIONS. SUBSTITUTION REQUESTS SHALL INDICATE THE IMPACT OF THE SUBSTITUTIONS UPON DIMENSIONS AND CLEARANCES.
   - M. DIMENSIONS FOR EXISTING CONDITIONS ARE TO BE FIELD VERIFIED BY CONTRACTOR. CONTRACTOR SHALL NOTIFY ARCHITEC OF ANY DISCREPANCIES.
10. DETAILS MARKED "TYPICAL" SHALL APPLY IN ALL CASES, UON.
11. WHERE NO SPECIFIC DETAIL IS SHOWN, THE FRAMING OR CONSTRUCTION SHALL BE IDENTICAL OR SIMILAR TO THAT INDICATED FOR LIKE CASES OF CONSTRUCTION ON THE PROJECT.
12. EXISTING CONDITIONS TO REMAIN, UNLESS OTHERWISE NOTED. PROTECT ALL (E) BUILDING CONDITIONS TO REMAIN, INCLUDING BUT NOT LIMITED TO WALLS, DOORS, CEILINGS, AND GLAZING.
13. THE CONTRACTOR SHALL MEET WITH THE ARCHITECT PRIOR TO THE START OF DEMOLITION TO NOTE WHAT ITEMS, IF ANY, ARE TO BE SALVAGED OR REUSED. REFER TO DIVISION 2 OF THE PROJECT SPECIFICATIONS.
14. THE DRAWINGS INDICATE THE GENERAL EXTENT OF (N) CONSTRUCTION NECESSARY FOR THE WORK, BUT ARE NOT INTENDED TO BE ALL-INCLUSIVE. ALL DEMO AND (N) WORK NECESSARY FOR A FINISHED JOB, IN ACCORDANCE w/ THE INTENTIONS OF THE CONTRACT DOCUMENTS, IS INCLUDED REGARDLESS OF WHETHER SHOWN IN THE CONTRACT DOCUMENTS. THIS IS TO INCLUDE, BUT IS NOT LIMITED TO; SELECTIVE REMOVAL, REPLACEMENT, PATCHING & REPAIR OF (E) ASSEMBLIES AND FINISHES TO MATCH (E) ADJACENT ASSEMBLIES AND FINISHES AS REQUIRED TO CONNECT (N) UTILITIES AND (N) BUILDING ELEMENTS TO (E) BUILDING STRUCTURE AND BUILDING SERVICES.
15. (E) BUILDING DOCUMENTATION IS BASED ON "AS-BUILT" DRAWINGS AND OBSERVATIONAL SITE INVESTIGATIONS. ACTUAL BUILT CONDITIONS MAY VARY. CONTRACTOR IS TO USE CAUTION IN DEMOLITION, AND IS TO NOTIFY ARCHITECT IMMEDIATELY IF ANY VARIATIONS OR DISCREPANCIES ARE UNCOVERED.
16. ALL WORK UNDERSTOOD TO BE (N), NEW WORK UNLESS NOTED AS (E), EXISTING.
17. ALL WORK SHALL CONFORM TO 2016 TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
18. FABRICATION AND INSTALLATION OF DEFERRED SUBMITTAL ITEMS SHALL NOT BE STARTED UNTIL CONTRACTOR'S DRAWINGS, SPECIFICATIONS, AND ENGINEERING CALCULATIONS FOR THE ACTUAL SYSTEMS TO BE INSTALLED HAVE BEEN ACCEPTED AND SIGNED BY THE ARCHITECT OR STRUCTURAL ENGINEER AND APPROVED BY THE DSA. LIST DEFERRED SUBMITTAL ITEMS FOR THIS PROJECT.
19. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGED DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
20. A "DSA CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR.
21. A DSA ACCEPTED TESTING LABORATORYDIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
22. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(c), PART 1, TITLE 24, CCR)
23. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

SHEET INDEX

TOTAL SHEETS: : 204

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

REVISIONS

	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03
2	10/15/19	INC 2 - ADDENDUM 03 REV
3	1/17/20	CITY

SHEET TITLE
GENERAL NOTES, SHEET INDEX

SHEET NUMBER
G0.01.2

CALGREEN COMPLIANCE CHECKLIST

NOTE: CALGREEN IS APPLICABLE TO NEW LIBRARY LEARNING RESOURCE CENTER BUILDING ONLY.

STATE OF CALIFORNIA – DEPARTMENT OF GENERAL SERVICES – BUILDING STANDARDS COMMISSION
CALGreen Verification Guidelines – Mandatory Measures Checklist
BSC CG-200 (Rev. 12/16) http://www.bsc.ca.gov/Home/CALGreen.aspx

CALGreen VERIFICATION GUIDELINES MANDATORY MEASURES CHECKLIST

Application: This checklist shall be used for nonresidential projects that meet one of the following: new construction, building additions of 1,000 sq. ft. or greater or building alterations with a permit valuation of $200,000 or more pursuant to CALGreeen Section 301.1 AND do not trigger a Tier 1 or Tier 2 requirement:
Y = Yes (section has been selected and/or included)
N/A = Not Applicable (Code section does not apply to the project, mainly used for additions and...
O = Other (provide explanation)
[N] = New construction pursuant to Section 301.1
[A] = Additions and/or alterations pursuant to Section 301.1

CHAPTER 5 DIVISIONS		SECTION TITLE	CODE SECTION	Y	N/A	O	Plan sheet, Spec or Attach Reference	Explanation
DIVISION 5.1 Planning and Design	Mandatory	Storm Water Pollution Prevention w/ subsections	5.106.1 through 5.106.1.2	Y			Sections 01400 and 01572	Project SWPPP to be prepared by the contractor.
	Mandatory	Short Term Bicycle Parking	5.106.4.1.1		N/A			No vehicle parking added.
		Long Term Bicycle Parking	5.106.4.1.2					
	Mandatory	Designated Parking For Clean Air Vehicles	5.106.5.2		N/A			No vehicle parking added.
		Parking stall marking	5.106.5.2.1					
		Single (EV) Charging space requirements [N]	5.106.5.3.1					
		Multiple (EV) Charging space requirements [N]	5.106.5.3.2					
		EV charging space calculation [N] w/exceptions	5.106.5.3.3					
		[N] Identification	5.106.5.3.4					
		[N] Future charging spaces w/ notes 1-3	5.106.5.3.5					
	Mandatory	Light Pollution Reduction [N] w/ exceptions and note	5.106.8	Y			Sheet E0.02.2	Outdoor luminaire Type 'L24' complies with Table 5.106.8.
	Mandatory	Grading and Paving w/exception for Additions and Alterations not altering the drainage path	5.106.10	Y			C3.0, C4.0	Paving around the proposed building drains away from the structure and is captured by landscaping, water collection and disposal systems, french drains, and water retention gardens.
DIVISION 5.2 Energy Efficiency	Mandatory	Meet the minimum Energy Efficiency Standard	5.201.1	Y			Sheets E0.03.2, E0.04.2, E0.05.2, M0.05.2	Lighting is compliant with Title 24 energy standards. Mechanical Equipment is in compliance with T24 Energy Efficiency Standards
DIVISION 5.3 Water Efficiency and Conservation	Mandatory	Separate Meters (new buildings or additions > 50,000 SF that consume more than 100 gal/day)	5.303.1.1		N/A			
		Separate Meters (for tenants in new buildings or additions that consume more than 1,000 gal/day)	5.303.1.2					
	Mandatory	Water closets shall not exceed 1.28 gallons per flush	5.303.3.1		N/A			
		Wall-mounted urinals shall not exceed 0.125 gpf	5.303.3.2.1		N/A			
		Floor-mounted urinals shall not exceed 0.5 gpf	5.303.3.2.2		N/A			
		Single showerhead shall have maximum flow rate of 2.0 gpm (gallons per minute) at 80 psi	5.303.3.3.1		N/A			
		Multiple showerheads serving one shower shall have a combined flow rate of 2.0 gpm at 80 psi	5.303.3.3.2		N/A			
		Nonresidential lavatory faucets	5.303.3.4.1		N/A			
		Kitchen faucets	5.303.3.4.2	Y			Refer to food service drawings	
		Wash basins	5.303.3.4.3		N/A			
		Metering faucets	5.303.3.4.4		N/A			
	Mandatory	Metering faucets for wash fountains	5.303.3.4.5		N/A			
		Food waste disposers w/note	5.303.4.1		N/A			
	Mandatory	Areas of additions and alterations	5.303.5		N/A			
	Mandatory	Standards for plumbing fixtures and fittings	5.303.6	Y			Sheet G0.00.2	
	Mandatory	Outdoor water use in landscape areas equal to or greater than 500 square feet	5.304.2		N/A			N/A FOR DSA-SS
	Mandatory	Outdoor water use in rehabilitated landscape projects with areas equal to or greater than 2,500 square feet	5.304.3		N/A			N/A FOR DSA-SS
	Mandatory	Outdoor water use in landscape areas of 2,500 square feet or less	5.304.4		N/A			N/A FOR DSA-SS
	Mandatory	Graywater or rainwater use in landscaped areas	5.304.5		N/A			N/A FOR DSA-SS
	Mandatory	Outdoor potable water use in landscape areas.	5.304.6		N/A			Irrigation connects to existing system which uses recycled water.
DIVISION 5.4 Material Conservation and Resource Efficiency	Mandatory	Weather Protection	5.407.1	Y			A6.21.2	
	Mandatory	Moisture Control: sprinklers	5.407.2.1	Y			Sheet L3.01.2~L3.05.2	5.407.2.1 Landscape irrigation systems do not spray on structures. (spec) Bubblers and subsurface drip systm are installed.
		Moisture Control: Exterior door protection	5.407.2.2.1	Y			A2.31.2	5.407.2.2.1...
		Moisture Control: Flashing	5.407.2.2.2	Y			A6.21.2, A6.41.2, A6.61.2	
	Mandatory	Construction waste management-comply with either: sections 5.408.1.1, 5.408.1.2, 5.408.1.3 or more stringent local ordinance	5.408.1.1, 5.408.1.2, 5.408.1.3	Y			Section 01505	
		Construction waste management: Documentation w/notes	5.408.1.4					
	Mandatory	Universal Waste [A]	5.408.2		N/A			N/A FOR DSA-SS
	Mandatory	Excavated soil and land clearing debris w/ exception and notes	5.408.3		N/A			N/A FOR DSA-SS
	Mandatory	Recycling by Occupants w/ exception	5.410.1				1/A4.31.2, A2.39.2	Existing and new trash enclosures provide area for collection bins. Recycling bins to be provided in renovated Learning Commons.
		Recycling by Occupants: Additions w/ exception	5.410.1.1					
		Recycling by Occupants: Sample ordinance	5.410.1.2					
	Mandatory	Commissioning new buildings (≥ 10,000 SF) [N] w/exceptions and notes	5.410.2		N/A			
		Owner's or Owner representative's Project Requirements (OPR) [N]	5.410.2.1					
		Basis of Design (BOD) [N]	5.410.2.2					
		Commissioning Plan [N]	5.410.2.3					
		Functional Performance Testing [N]	5.410.2.4					
		Documentation and Training [N]	5.410.2.5					
		Systems Manual [N]	5.410.2.5.1					
		Systems Operation Training) [N]	5.410.2.5.2					
		Commissioning Report [N]	5.410.2.6					
	Mandatory	Testing and adjusting for new buildings < 10,000 SF or new systems that serve additions or alterations.	5.410.4	Y			Spec Section 23 05 93	
		System Testing Plan for HVAC, Lighting, water heating, renewable energy, landscape irrigation and water reuse.	5.410.4.2					
		Procedures for testing and adjusting	5.410.4.3					
		HVAC balancing	5.410.4.3.1					
		Reporting for testing and adjusting	5.410.4.4					
		Operation and Maintenance (O&M) Manual	5.410.4.5					
		Inspection and reports	5.410.4.5.1					

CHAPTER 5 DIVISIONS		SECTION TITLE	CODE SECTION	Y	N/A	O	Plan sheet, Spec or Attach Reference	Explanation
DIVISION 5.5 Environ-mental Quality	Mandatory	Fireplaces	5.503.1		N/A			No fireplaces in project.
	Mandatory	Woodstoves	5.503.1.1		N/A			No woodstoves in project.
	Mandatory	Temporary ventilation	5.504.1		N/A			
	Mandatory	Covering of ducts openings and protection of mechanical equipment during construction	5.504.3	Y			Plan sheet M0.01.2	Green Building Requirements Notes.
	Mandatory	Adhesives, sealants and caulks	5.504.4.1	Y			Section 07 92 00 Part 1.3	Spec references CALGreen compliance.
	Mandatory	Paints and coatings	5.504.4.3	Y			Section 09 90 00 Part 1.3	Spec references CALGreen compliance.
		Aerosol paints and coatings	5.504.4.3.1					
		Aerosol paints and coatings: Verification	5.504.4.3.2					
	Mandatory	Carpet systems	5.504.4.4	Y			Section 09 68 13 Part 1.3	Spec references CALGreen compliance.
		Carpet cushion	5.504.4.4.1					
		Carpet adhesive	5.504.4.4.2					
	Mandatory	Composite wood products	5.504.4.5	Y			Section 06 20 00 Part 1.3	Spec references CALGreen compliance.
		Composite wood products: Documentation	5.504.4.5.3					
	Mandatory	Resilient flooring systems	5.504.4.6	Y			Section 09 65 00 Part 1.3	Spec references CALGreen compliance.
		Resilient flooring: Verification of compliance	5.504.4.6.1					
	Mandatory	Filters w/ exceptions	5.504.5.3	Y			Plan Sheet M0.05.2 and Spec Section 23 40 00	
	Mandatory	Filters: Labeling	5.504.5.3.1	Y			Spec Section 23 40 00	
	Mandatory	Environmental tobacco smoke (ETS) control	5.504.7	Y			https://www.dvc.edu/communication/policies/collegewide/smoking.html	Smoking, smoking substitutes, smoke inducing devices, and vaping are all prohibited on all college property per owner's policy.
	Mandatory	Indoor moisture control	5.505.1	Y			Plan Sheet M0.03.2	Ventilation requirements.
	Mandatory	Outside air delivery	5.506.1	Y			Plan Sheet M0.03.2	Ventilation requirements.
	Mandatory	Carbon dioxide (CO2) monitoring	5.506.2	Y			Plan Sheets M2.31.2 and M6.01.2	Mechanical plan and control diagrams.
	Mandatory	Acoustical control w/ exception	5.507.4		N/A			
	Mandatory	Exterior noise transmission, prescriptive method w/ exceptions	5.507.4.1		N/A			
	Mandatory	Noise exposure where noise contours are not readily available	5.507.4.1.1		N/A			
	Mandatory	Performance method	5.507.4.2		N/A			
		Site features	5.507.4.2.1					
		Documentation of compliance	5.507.4.2.2					
	Mandatory	Interior sound transmission w/ note	5.507.4.3		N/A			No tenant spaces in project.
	Mandatory	Ozone depletion and greenhouse gas reductions	5.508.1	Y			Plan Sheet M0.01.2	
		Chlorofluorocarbons (CFCs)	5.508.1.1					
		Halons	5.508.1.2					
	Mandatory	Supermarket refrigerant leak reduction for retail food stores 8,000 square feet or more sections 5.508.2 through 5.508.2.6.3	5.508.2 through 5.508.2.6.3		N/A			Food store conditioned area is less than 8,000 square feet.
		END OF MANDATORY PROVISIONS						

Documentation Author's /Responsible Designer's Declaration Statement Mandatory: I attest that this mandatory provisions checklist is accurate and complete.

Signature:

Company: Noll & Tam — Date: 05/30/2019

Address: 729 Heinz Avenue #7 — License: C15916

City/State/Zip: Berkeley, CA 94710

ENERGY COMPLIANCE CHECKLIST

DSA 403-A

2016 ENERGY CODE – CERTIFICATES OF COMPLIANCE CHECKLIST

PRESCRIPTIVE METHOD
(for Performance Method, use Form DSA 403-B)

Energy Forms and Worksheets to be included in Title 24 Report and Plans
Check the appropriate boxes for all required forms included in this DSA submittal
Key: **R** = Report Required **P** = Copy of Form Required on Plans

DESIGN REVIEW	R	☐				NRCC-CXR-01-E Cx Design Review Kickoff
	R	☐				NRCC-CXR-02-E Cx Construction Documents – General
	R	☐				NRCC-CXR-03-E Cx Construction Documents – Simple HVAC
	R	☐				NRCC-CXR-04-E Cx Construction Documents – Complex HVAC
	R	☐				NRCC-CXR-05-E Cx Design Review Signature Page
ENVELOPE	R	☐	P	☒		NRCC-ENV-01-E Envelope Component Approach
	R	☒				NRCC-ENV-02-E Fenestration Component Approach
	R	☐				NRCC-ENV-03-E Solar Reflective Index (SRI) Calculation Worksheet
	R	☒				NRCC-ENV-04-E Envelope - Daylit Zone Worksheet
	R	☐				NRCC-ENV-05-E Fenestration Certificate Label
	R	☐				NRCC-ENV-06-E Area Weighted Average Calculations Worksheet
MECHANICAL	R	☐	P	☒		NRCC-MCH-01-E Mechanical Systems
	R	☒				NRCC-MCH-02-E HVAC System Requirements
	R	☒				NRCC-MCH-03-E Mechanical Ventilation and Reheat
	R	☐				NRCC-MCH-06-E Maximum Cycles of Concentration Worksheet
	R	☐	P	☐		NRCC-MCH-07-E Fan Power Consumption
	R	☐	P	☐		NRCC-MCH-04-E Required Acceptance Tests
	R	☐	P	☐		NRCC-MCH-05-E Requirements for Packaged Single Zone Units
INDOOR LIGHTING	R	☐	P	☒		NRCC-LTI-01-E Indoor Lighting
	R	☐	P	☒		NRCC-LTI-02-E Indoor Lighting Controls
	R	☒				NRCC-LTI-03-E Indoor Lighting Power Allowance
	R	☐				NRCC-LTI-04-E Tailored Method
	R	☐				NRCC-LTI-05-E Line-Voltage Track Lighting Worksheet
	R	☐				NRCC-LTI-06-E Indoor Lighting Existing Conditions
OUTDOOR LIGHTING	R	☐	P	☒		NRCC-LTO-01-E Outdoor Lighting
	R	☐	P	☒		NRCC-LTO-02-E Outdoor Lighting Control
	R	☒				NRCC-LTO-03-E Outdoor Lighting Power Allowance
	R	☐				NRCC-LTO-04-E Outdoor Lighting Existing Conditions
SOLAR	R	☒				NRCC-SRA-01-E Solar Ready Areas
	R	☒				NRCC-SRA-02-E Minimum Solar Zone Area Worksheet
	R	☐				NRCC-STH-01-E OG 100 Solar Water Heating Worksheet

DSA 403-A (rev 03-03-17) Page 1 of 2

DSA 403-A
2016 ENERGY CODE – CERTIFICATES OF COMPLIANCE CHECKLIST

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Key: **R** = Report Required **P** = Copy of Form Required on Plans

SIGN LIGHTING	R	☒	P	☒		NRCC-LTS-01-E Sign Lighting
COVERED PROCESSES	R	☐	P	☐		NRCC-PRC-01-E Process Compliance Forms and Worksheets
	R	☐				NRCC-PRC-02-E Garage Exhaust
	R	☐				NRCC-PRC-03-E Commercial Kitchen Requirements
	R	☐				NRCC-PRC-04-E Computer Room Requirements
	R	☐				NRCC-PRC-05-E Commercial Refrigeration
	R	☐				NRCC-PRC-06-E Refrigerated Warehouse
	R	☐				NRCC-PRC-07-E Refrigerated Warehouse ≥ 3,000 sq. ft.
	R	☐				NRCC-PRC-08-E Refrigerated Warehouses ≥ 3,000 sq. ft. served by same refrigeration system
	R	☐				NRCC-PRC-09-E Laboratory Exhaust
	R	☐				NRCC-PRC-10-E Compressed Air System
	R	☐				NRCC-PRC-11-E Process Boiler Requirements
	R	☐				NRCC=PRC-12-E Elevator Lighting and Ventilation Controls
	R	☐				NRCC-PRC-13-E Escalators and Moving Walkways Speed Controls
ELECTRICAL	R	☐	P	☒		NRCC-ELC-01-E Electrical Power Distribution
PLUMBING	R	☐	P	☐		NRCC-PLB-01-E Water Heating Systems

As Professional in General Responsible Charge, I declare that I have reviewed this project plans submittal and affirm that the project plans are in compliance with the requirements of the current Energy Code (Title 24, Part 6), and the documents checked on pages 1 and 2 of this form are included in the project submittal. I further acknowledge that upon installation of equipment and material identified on compliance forms, I will ensure that the appropriate tests are conducted and the associated acceptance forms (see http://www.energy.ca.gov/title24/2016standards/nonresidential_manual.html) are completed, signed, and submitted and that the project construction complies with Energy Efficiency Regulations.

Chris Noll		05/30/19
Print Name	**Signature**	**Date**

DSA 403-A (rev 03-03-17) Page 2 of 2
DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

ENERGY COMPLIANCE SUMMARY

CLIMATE ZONE: 12

PRESCRIPTIVE REQUIREMENTS, CEC 140.3 & CEC TABLE 140.3-B: SEE T24 COMPLIANCE FORMS FOR MORE INFORMATION.

WEST BUILDING:
NO CHANGE

LEARNING LIBRARY RESOURCE CENTER :

FENESTRATION MAX U-VALUE :
STOREFRONT ≤ 0.41
GLAZED DOORS ≤ 0.45
SKYLIGHTS, GLASS, CURB-MOUNTED ≤ 0.58

FENESTRATION MAX SHGC
STOREFRONT ≤ 0.26
GLAZED DOORS ≤ 0.45
SKYLIGHTS, GLASS, CURB-MOUNTED ≤ 0.25

FENESTRATION MIN VT
STOREFRONT ≥ 0.46
GLAZED DOORS ≥ 0.17
SKYLIGHTS, GLASS, CURB-MOUNTED ≥ 0.49

ENVELOPE :
WALLS WOOD FRAMED:
WEIGHTED AVERAGE U-FACTOR OF ASSEMBLY ≤ 0.059
ROOF/CEILING, WOOD FRAMED:
WEIGHTED AVERAGE U-FACTOR OF ASSEMBLY ≤ 0.034

EXTERIOR DOORS (LESS THAN 50% GLAZED): CEC TABLE 140.3-B

SWINGING, MAX U-FACTOR ≤ 0.70
EXTERIOR DOOR AIR INFILRATION: CEC 110.6, ≤ 0.3 cfm/ft² OF DOOR AREA (SINGLE DOORS)

SOLAR READY (CEC 110.10): SEE ROOF PLAN, A2.51.2

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:
THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

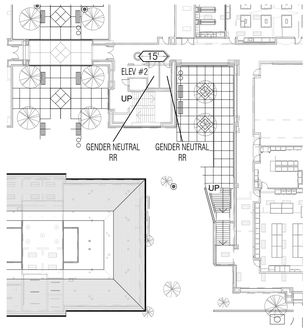
ISSUE TITLE
INCREMENT 2

ISSUE DATE **5/30/2019**
NOLL & TAM JOB NUMBER **21630**

REVISIONS
	DATE	DESCRIPTION

SHEET TITLE
DSA ENERGY CHECKLIST, CALGREEN CHECKLIST, & SUMMARY

SHEET NUMBER
G1.11.2



2 / G2.10.2 **02 - FLOOR PLAN - OVERALL -GENDER NEUTRAL RR**
1" = 30'-0"

1 / G2.10.2 **OVERALL SITE PLAN_ACCESSIBILITY**
1" = 30'-0"

SHEET NOTES

1. EXISTING SITE IMPROVEMENTS ARE PART DSA APPLICATION #01-106062. EXISTING BUILDINGS ARE UNDER DSA APPLICATION # 01-105719
2. ALL ACCESSIBILITY UPGRADES FOR THE SITE ARE INCLUDED WITH INCREMENT 1 WORK, UON. FOR INCREMENT 1 ACCESS COMPLIANCE INFORMATION, SEE DSA APPLICATION #01-117630
3. FOR SCOPE OF WORK FOR THIS INCREMENT, REFER TO CIVIL DWGS, LANDSCAPE DWGS, AND ARCHITECTURAL DWGS INCLUDING A1.01.2, A1.03.2 AND A1.04.2

ACCESSIBILE PATH OF TRAVEL

ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLAN IS A CONTINUOUS, BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" BEVELED AT 1:2 MAX SLOPE, OR VERTICAL CHANGES NOT EXCEEDING 1/4" MAX, AND AT LEAST 48" WIDE. SURFACE IS SLIP RESISTANT, STABLE, FIRM, AND SMOOTH. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL VERIFY THAT ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED OR WILL BE REMOVED UNDER THIS PROJECT, AND PATH OF TRAVEL COMPLIES WITH CBC.

ACCESSIBILITY STATEMENT

ACCESSIBILITY STATEMENT BY DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE

THE PATH-OF-TRAVEL (POT) INDICATED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS.

AS PART OF THE DESIGN OF THIS PROJECT, THE POT WAS EXAMINED, AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT (1) HAVE BEEN IDENTIFIED; AND (2) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DRAWINGS, DETAILS AND SPECIFICATION INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS.

ANY NONCOMPLIANT ELEMENT, COMPONENT, OR PORTION OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT, BASED ON A VALUATION THRESHOLD LIMITATION OR A FINDING OF UNREASONABLE HARDSHIP, IS SO INDICATED IN THESE CONSTRUCTION DOCUMENTS.

DURING CONSTRUCTION, IF ANY POT ITEM WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT IS FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, IT SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

PARKING SUMMARY

EXISTING PARKING:

(E) PARKING SPACE TOTAL = 281
TOTAL ACCESSIBLE STALLS PROVIDED = 10
(E) ACCESSIBLE STALLS = 6
(E) VAN ACCESSIBLE STALLS = 4

DISPERSAL OF ACCESSIBLE STALLS BY LOT A, B, C AND D AS FOLLOWS;
(E) PARKING LOT 'A'
TOTAL PARKING SPACES: 250
STANDARD ACCESSIBLE: 3
VAN ACCESSIBLE: 1

(E) PARKING LOT 'B'
TOTAL PARKING SPACES: 6
STANDARD ACCESSIBLE: 1
VAN ACCESSIBLE: 1

(E) PARKING LOT 'C'
TOTAL PARKING SPACES: 7
STANDARD ACCESSIBLE: 1
VAN ACCESSIBLE: 1

(E) PARKING LOT 'D'
TOTAL PARKING SPACES: 18
STANDARD ACCESSIBLE: 1
VAN ACCESSIBLE: 1

ACCESSIBLE PARKING REQUIRED PER 2016 CBC:

FOR 281 STALLS: (7) TOTAL ACCESSIBLE STALLS REQUIRED PER CBC TABLE 11B-208.2 PER CBC 11B-208.4, (2) OF THE (7) REQUIRED STALLS SHALL BE VAN ACCESSIBLE

NO ADDITIONAL ACCESSIBLE STALLS REQUIRED.

KEY NOTES

Key Value	Keynote Text
32-18	TRASH ENCLOSURE WITH CMU WALLS AND STEEL FRAMED CORRUGATED METAL ROOF
A-33	EXISTING STAIRS TO REMAIN, WITH HANDRAILS EXTENSIONS TREAD WIDTH PLUS 12". NO WORK.

ACCESSIBILITY LEGEND

- SITE AREA NOT IN SCOPE
- ACCESSIBLE ROUTE OF TRAVEL (POT)
- (E) FIRE ACCESS LANE - TURF BLOCKS REFER TO CIVIL FOR EXTENT OF WORK AND REPLACEMENT
- (E)/(N) BUILDING MAIN ENTRANCE

APPROVALS

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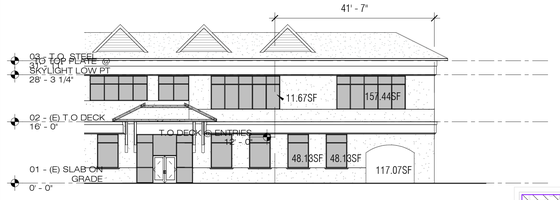
ISSUE TITLE
INCREMENT 2

ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

REVISIONS
| DATE | DESCRIPTION

SHEET TITLE
SITE ACCESSIBILITY PLAN

SHEET NUMBER
G2.10.2



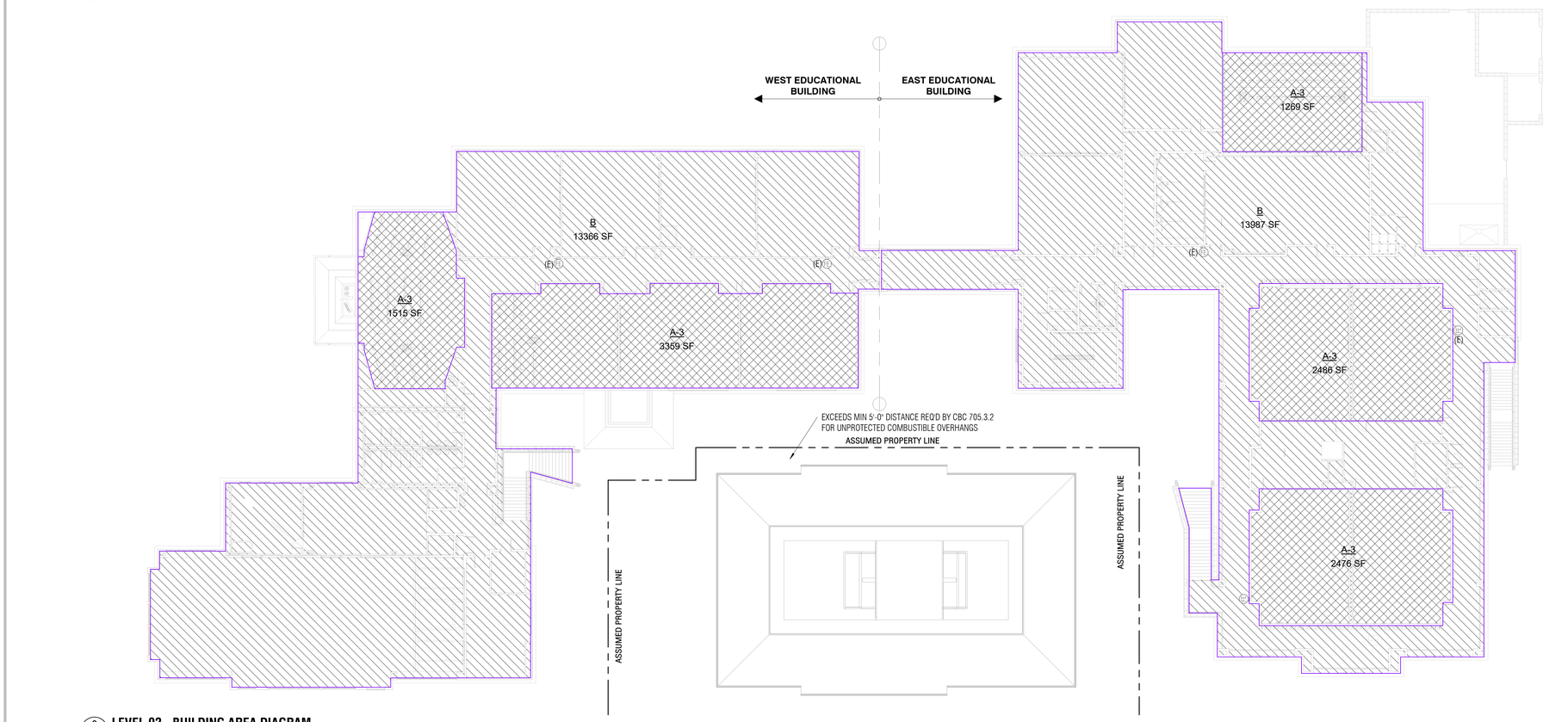
3 (E) EXTERIOR WALL OPENINGS
02.11.2 1/16" = 1'-0"

WINDOW OPENING
1ST FLR: (2)48.13 + 117.07 = 213.33 SF
2ND FLR: 11.67 + 157.44 = 169.11 SF

WALL
1ST FLR: 665
2ND FLR: 662 SF

% OPENINGS:
1ST FLR: 213.33/665 = 32% ; LESS THAN 45%
2ND FLR: 169.11/662 = 25%; LESS THAN 45%

1 LEVEL 01 - BUILDING AREA DIAGRAM
02.11.2 1/16" = 1'-0"



2 LEVEL 02 - BUILDING AREA DIAGRAM
02.11.2 1/16" = 1'-0"

BUILDING CODE SUMMARY

SUMMARY OF EXISTING CONSTRUCTION:

1. EXISTING CAMPUS BUILDINGS WERE PERMITTED UNDER THE 2001 CBC
   A. CONSTRUCTION TYPE OF EAST & WEST EDUCATIONAL BUILDINGS:
      a. II 1-HR, FULLY SPRINKLERED
   B. AUTOMATIC SPRINKLER SYSTEM WAS USED FOR SUBSTITUTION OF 1-HOUR CONSTRUCTION (2001 CBC 508)
   C. OCCUPANCIES:
      a. B: HIGHER ED-COMMUNITY COLLEGE
      b. A-3: CLASSROOMS WITH OCCUPANT LOAD >50, LIBRARY
   D. EAST AND WEST BUILDING WINGS WERE CONSIDERED SEPARATE BUILDINGS WITH THE 2-HR AREA SEPARATION WALL. (SEE PLAN FOR LOCATION: 2001 CBC 504.6)
   E. BUILDING AREAS WERE CALCULATED AS SEPARATED OCCUPANCIES. (2001 CBC 504.3)
      a. NO FIRE RATED SEPARATION WAS REQUIRED BETWEEN B AND M OCCUPANCIES (2001 CBC TABLE 3-B)
   F. ALLOWABLE HEIGHT = 65' (54'-5" ACTUAL)
   G. ALLOWABLE STORIES = 2 STORIES FOR A-2 & A-3, 4 FOR B (2 ACTUAL)
   H. NO INCREASE IN BUILDING AREA OR HEIGHT WAS TAKEN FOR SPRINKLERS.

ACTUAL AREAS OF EXISTING BUILDINGS (INCREMENT 1):

EAST EDUCATIONAL BUILDING	B	A-3	M	
FIRST FLOOR	13,618	4,047	1,982	= 19,647
SECOND FLOOR	13,987	6,230	0	= 20,217
				39,814 TOTAL BLDG. AREA

WEST EDUCATIONAL BUILDING	B	A-3	M	
FIRST FLOOR	12,544	5,048	832	= 18,424
SECOND FLOOR	13,366	4,874	0	= 18,240
				36,664 TOTAL BLDG. AREA

TOTAL SQ FOOT OF TWO BUILDINGS = 76,578 SF

SUMMARY OF PROPOSED RENOVATION:

1. NO CHANGE TO BUILDING AREA, HEIGHT, OR STORIES.
2. CONSTRUCTION TYPE: II-B
   A. APPLIES TO BOTH EAST & WEST EDUCATIONAL BUILDINGS
   B. 1-HR SUBSTITUTION USED IN 2001 CODE IS NOT PERMITTED IN 2016 CODE SO NO LONGER EQUIVALENT TO ORIGINAL TYPE II-1 HR WITH SPRINKLER SUBSTITUTION.
3. EAST & WEST BUILDINGS STILL CONSIDERED SEPARATE BUILDINGS FOR DETERMINING ALLOWABLE AREA.
   A. TYPE II CONSTRUCTION B & A OCCUPANCIES CAN HAVE 2-HR FIRE WALL SEPARATION PER 2016 CBC TABLE 706.A, FOOTNOTE 'a'. (2-HR FIRE SEPARATION PROVIDED IN ORIGINAL CONSTRUCTION)
   B. INCREASE IN AREA TAKEN FOR FULLY AUTOMATIC SPRINKLER SYSTEM
4. PROPOSED OCCUPANCY AREAS:
   A. KITCHEN OCCUPANCY IS ACCESSORY TO WEST BUILDING (<10% OF MAJOR B OCCUPANCY AREA)
      FIRST FLOOR OF WEST BUILDING, B OCC. = 12,544 SF
      12,544 x 0.10 = 1,254 SF
      PROPOSED KITCHEN AREA = 632 SF < 1,254 SF SO OK AS ACCESSORY.

EAST EDUCATIONAL BUILDING:	B	A-3	M	
FIRST FLOOR	13,618	4,047	1,982	= 19,647
SECOND FLOOR	13,987	6,230	0	= 20,217
				39,814 TOTAL BLDG. AREA (NO CHANGE)

WEST EDUCATIONAL BLDG.	B	A-3	M	A-2	
FIRST FLOOR	12,697	1,834	0	3,893	= 18,424
SECOND FLOOR	13,366	4,874	0	0	= 18,240
					36,664 TOTAL BLDG. AREA (NO CHANGE)

ALLOWABLE AREA, NON-SEPARATED OCCUPANCIES:
PER TABLE 506.2, ALLOWABLE AREA FACTORS (SM):
B = 69,000
A-2 = 28,500
A-3 = 28,500
M = 37,500
WORST CASE CONDITION, A-3 OCCUPANCY APPLIED TO BOTH EAST & WEST BLDGS.

CBC 506.2.4: EACH STORY OF A MIXED-OCCUPANCY BUILDING WITH MORE THAN 1 STORY ABOVE GRADE, BUT LESS THAN 3, SHALL COMPLY WITH CBC 508.1.

CBC 508.3. NON-SEPARATED OCCUPANCIES:
EACH FLOOR OF EACH BUILDING CANNOT EXCEED THE LIMIT FOR THE MOST RESTRICTIVE OCCUPANCY.
A-3 (SM) @ 28,500 SF PER FLOOR
EACH FLOOR IN EACH BUILDINGS < 28,500 SF: OK

REFER TO INCREMENT 1 FOR ADDITIONAL INFORMATION

NEW BUILDING SUMMARY- LIBRARY LEARNING RESOURCE CENTER

CONSTRUCTION TYPE: V-B, SPRINKLERED
OCCUPANCIES: A-3 AREA: 6600 SF

ALLOWABLE BUILDING HEIGHT: CBC 504.3
A OCC. SPRINKLERED WITHOUT AREA INCREASE = 60' > 50' MAX ACTUAL HT.

ALLOWABLE STORIES: CBC TABLE 504.4
A-3 OCC, SPRINKLERED = 2 ALLOWED > 1 ACTUAL STORY

BASIC ALLOWABLE AREAS: CBC TABLE 506.2
A-3 OCC., S1 (SPRINKLERED, 1-STORY) = 24,000 > 6,614 GSF ACTUAL

FIRE-RESISTANCE RATING FOR BUILDING ELEMENTS: CBC TABLE 601
FOR TYPES VB & IIB:

PRIMARY STRUCTURAL FRAME	0 HR
BEARING WALLS	0 HR
NONBEARING INTERIOR WALLS	0 HR
FLOOR & ROOF	0 HR

FIRE RATING EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE (FSD): TABLE 602
TYPE V-B (NEW BLDG.) AND II-B (EXISTING BLDGS.)

X<5	1 HR
5≤X<10	1 HR
10≤X<30	0 HR
X ≥ 30	0 HR

MAXIMUM AREA OF EXTERIOR WALL OPENINGS BASED ON FSD: TABLE 705.8
705.8.1 EXCEPTION 1: WHERE WALL FACES A STREET AND FSD > 15' UNPROTECTED OPENING AREA IS UNLIMITED
705.8.1 EXCEPTION 2: BUILDINGS WHOSE EXTERIOR BEARING & NON-BEARING WALLS & EXTERIOR STRUCTURAL FRAME ARE NOT REQ'D TO BE FIRE-RESISTANCE RATED SHALL BE PERMITTED TO HAVE UNLIMITED UNPROTECTED OPENINGS. -- APPLICABLE TO (N) LLRC BUILDING.

FSD < 3	NOT PERMITTED
FSD 3 < 5	15%, UNPROTECTED & SPRINKLERED
FSD 5 < 10	25%, UNPROTECTED & SPRINKLERED
FSD 10 < 15	45%, UNPROTECTED & SPRINKLERED
FSD 15 < 20	75%, UNPROTECTED & SPRINKLERED
FSD ≥ 20	UNLIMITED, UNPROTECTED & SPRINKLERED

OCCUPANCY TYPE

- ASSEMBLY A-2 , UNCONCENTRATED (15 NET SF/OCC)
- ASSEMBLY A-3, UNCONCENTRATED (15 OR 20 NET SF/OCC)
- BUSINESS AREA (100 GROSS SF/OCC)
- LIBRARY- READING ROOM (50 NET SF/OCC)
- ACCESSORY STORAGE / MECH (300 GROSS SF/OCC)
- MERCANTILE (60 OCC/GROSS SF)

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STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

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ISSUE TITLE
INCREMENT 2

ISSUE DATE 5/30/2019
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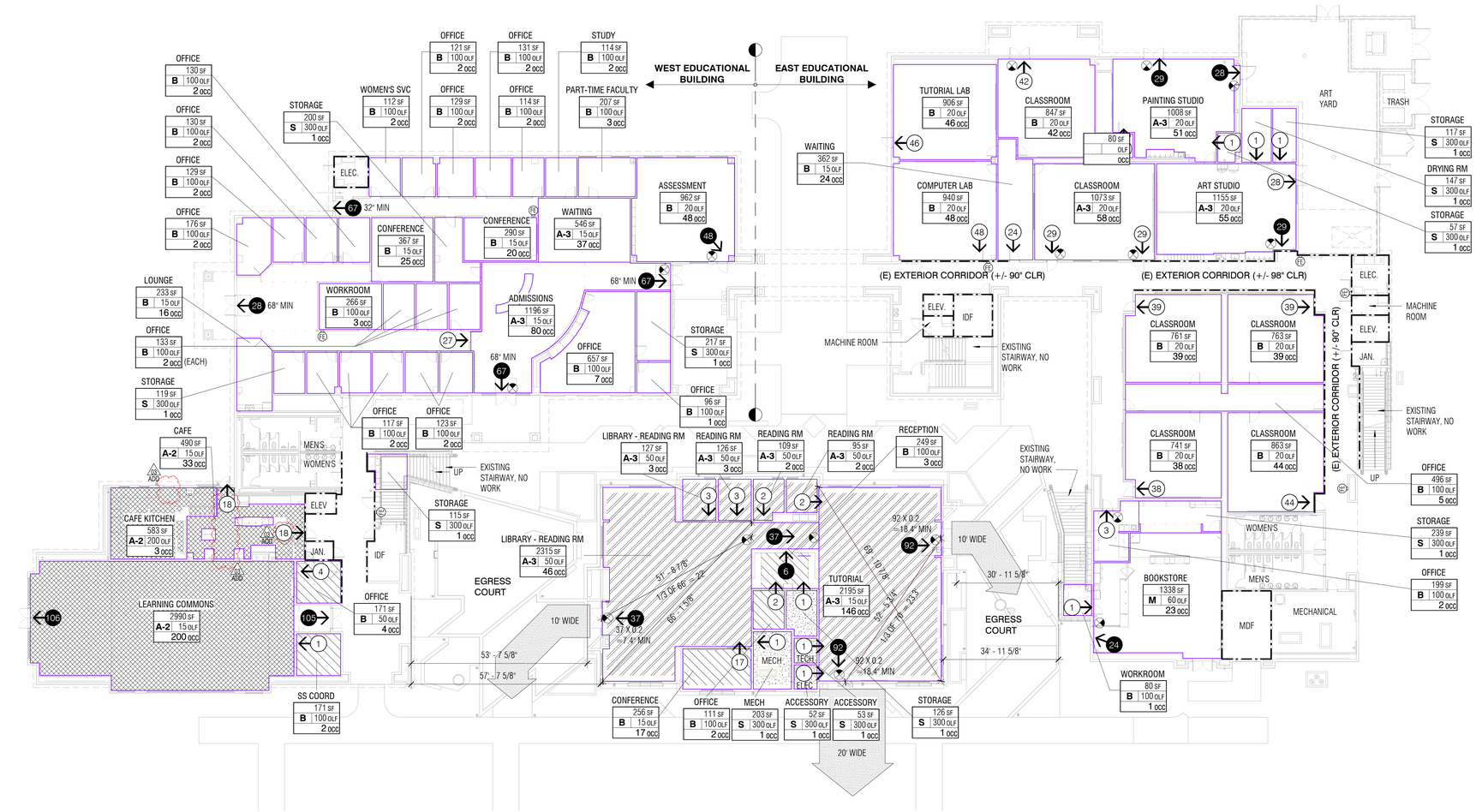
REVISIONS
△ | DATE | DESCRIPTION

SHEET TITLE
CODE ANALYSIS

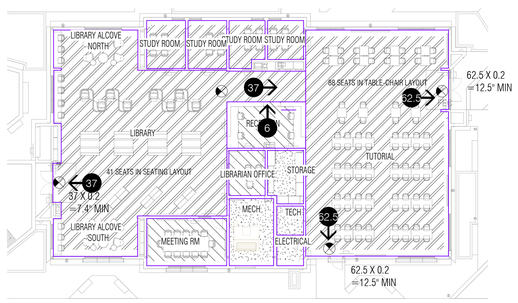
SHEET NUMBER
G2.11.2



1 FLOOR 1 OCCUPANCY / EXITING

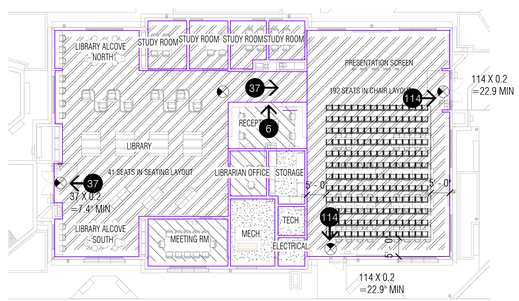
G2.12.2 — 1/16" = 1'-0"

0' 8' 16' 32'



2 LLRC OCCUPANCY / EXITING (TABLE-CHAIR AT TUTORIAL)

G2.12.2 — 1/16" = 1'-0"



3 LLRC OCCUPANCY / EXITING (CHAIRS AT TUTORIAL)

G2.12.2 — 1/16" = 1'-0"

SHEET NOTES:

1. HATCHED AREAS INDICATE AREAS OF RENOVATION AND NEW WORK.
2. EXIT SIGN LOCATIONS ARE SHOWN IN AREA OF WORK ONLY AND ARE DIAGRAMMATIC. SEE RCP's AND ELECTRICAL LIGHTING PLANS FOR INFORMATION REGARDING EXISTING OR NEW, LOCATION, MOUNTING, AND DIRECTION.

APPROVALS

SYMBOL LEGEND

- ASSEMBLY- UNCONCENTRATED / 4000 SF / A-3 15 OLF / 267 OCC — OCCUPANCY TYPE DESCRIPTION; TOTAL ROOM AREA IN SQUARE FEET; OCCUPANT LOAD FACTOR PER CBC TABLE 1004.1.2; TOTAL ROOM OCCUPANCY; OCCUPANCY TYPE PER CBC TABLE 1004.1.2
- 19' — COMMON PATH OF EGRESS TRAVEL (CPOT) CBC SECTION 1014.3 (MAY ALSO INCLUDE EXIT ACCESS TRAVEL DISTANCE)
- 19' — EXIT ACCESS TRAVEL DISTANCE PER CBC SECTION 1017.2
- EXISTING 1- HOUR RATED ASSEMBLY
- EXISTING 2 - HOUR RATED AREA SEPARATION WALL
- NEW 1 - HOUR RATED ASSEMBLY
- 6 — OCCUPANT LOAD
- 24 — ACCUMULATED OCCUPANT LOAD
- (E) FE — (E) FIRE EXTINGUISHER
- EXIT SIGN LOCATION (SEE SHEET NOTE #2)

OCCUPANCY TYPE

- ASSEMBLY A-2 , UNCONCENTRATED (15 NET SF/OCC)
- ASSEMBLY A-3, UNCONCENTRATED (15 OR 20 NET SF/OCC)
- BUSINESS AREA (100 GROSS SF/OCC)
- LIBRARY- READING ROOM (50 NET SF/OCC)
- ACCESSORY STORAGE / MECH (300 GROSS SF/OCC)
- MERCANTILE (60 OCC/GROSS SF)

EGRESS CODE NOTES:

1. OCCUPANCY CLASSIFICATIONS PER DSA IR A-26.cc:
   - A. CLASSROOMS = B OCCUPANCY WITH LOAD FACTOR OF 20 NET.
   - B. CLASSROOMS WITH OCCUPANT LOAD >50 = A-3
   - C. SCIENCE CLASSROOMS (EXEMPT AMOUNTS OF HAZARDOUS MATERIALS) = B OCCUPANCY WITH LOAD FACTOR OF 50 NET.
   - D. READING ROOM AREAS (COMPUTER AREA, CHAIR & TABLE AREAS) = OCCUPANT LOAD FACTOR OF 50 NET
2. MINIMUM EXIT WIDTH (CBC 1005.1):
   - A. DOOR: OCC LOAD x 0.2 EGRESS CAPACITY FACTOR, OR MINIMUM 32" CLEAR BETWEEN STOP & FACE OF DOOR WHEN OPEN 90 DEGREES (CBC 1010.1)
   - B. CORRIDOR: OCC LOAD x 0.2 EGRESS CAPACITY FACTOR, OR 44" MINIMUM CLEAR (CBC TABLE 1020.2)
   - C. STAIR: OCC LOAD x 0.3 EGRESS CAPACITY FACTOR, OR MINIMUM 44" PER CBC 1011.2
3. EXIT DOORS TO SWING IN DIRECTION OF TRAVEL WHEN OCC LOAD > 50 (CBC 1010.1.2.1)
4. MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (CBC TABLE 1006.2.1)
   - A. A, M OCCUPANCY WITH SPRINKLER SYSTEM = 75'
   - B. B OCCUPANCY WITH SPRINKLER SYSTEM = 100'
   - C. MAXIMUM OCCUPANT LOAD OF SPACE = 49
5. MAXIMUM EXIT ACESS TRAVEL DISTANCE WITH AUTOMATIC SPRINKLERS (CBC TABLE 1017.2):
   - A. B OCCUPANCY = 300 FEET
   - B. A, M, S-1 = 250 FEET
   - C. TRAVEL DISTANCE SPECIFIED IN TABLE 1017.2 SHALL BE INCREASED UP TO AN ADDITIONAL 100' PROVIDED THE LAST PORTION OF THE EXIT ACCESS LEADING TO THE EXIT OCCURS ON AN EXTERIOR EGRESS BALCONY.
6. MAXIMUM DEAD-END CORRIDOR (CBC 1020.4) = 50' WITH AUTOMATIC SPRINKLER SYSTEM THROUGHOUT
7. CORRIDOR FIRE-RATING WHEN OCCUPANT LOAD >30 (CBC TABLE 1020.1)
   - A. A, B, M, S OCCUPANCIES = NON-RATED WITH SPRINKLER SYSTEM
8. HORIZONTAL EXITS:
   - A. NUMBER OF EXITS WITHIN THE REFUGE AREA FROM THE HORIZONTAL EXIT IS NOT REQUIRED TO INCLUDE THE NUMBER OF OCCUPANTS SERVED BY THE HORIZONTAL EXIT (CBC 1026.4.2)

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ISSUE TITLE
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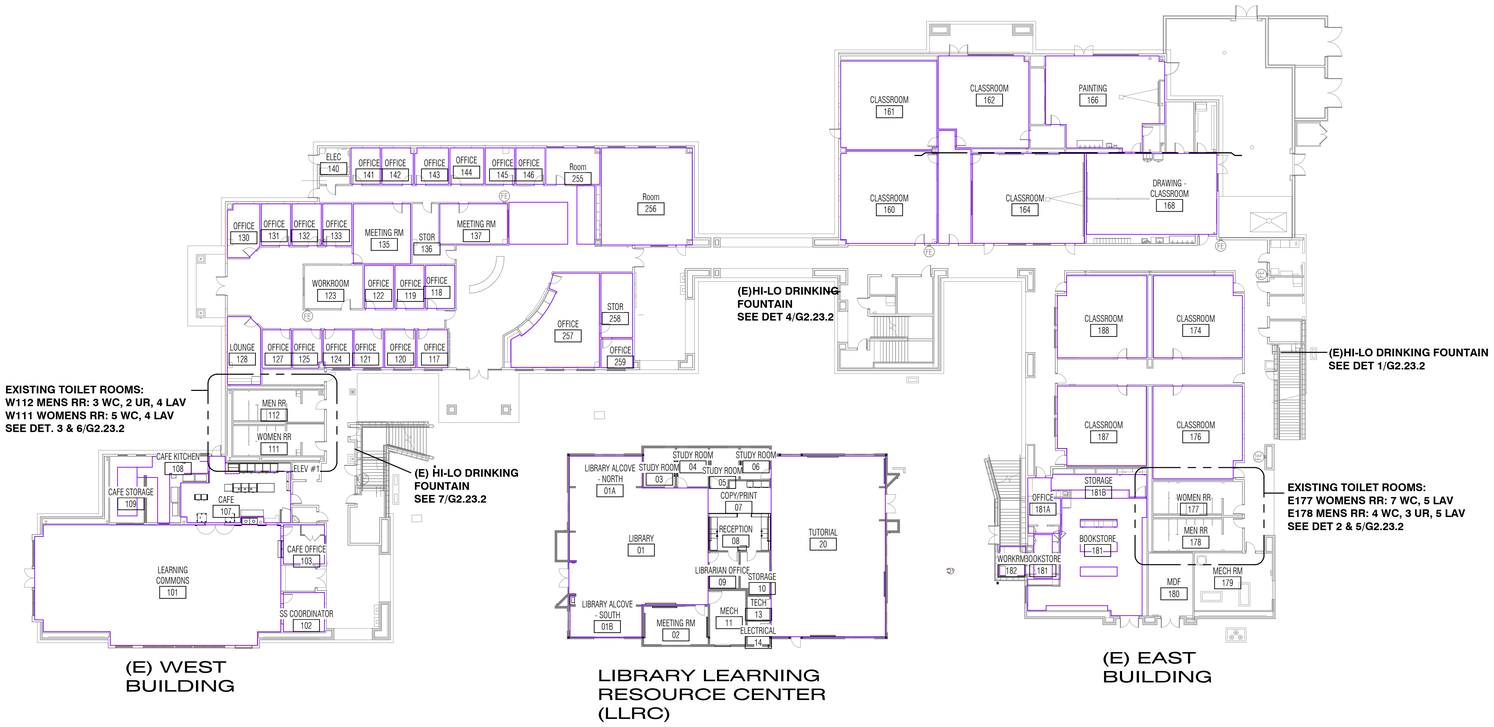
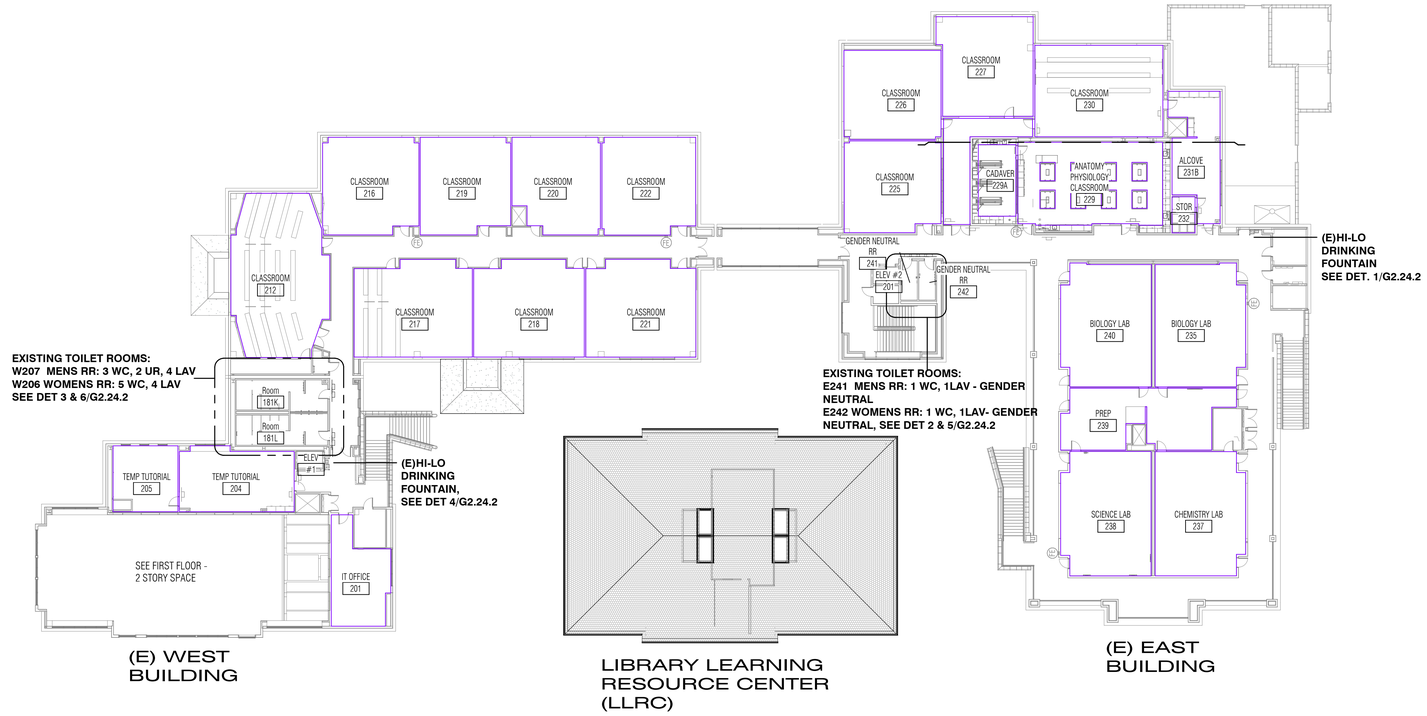
	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03

SHEET TITLE
OCCUPANCY & EGRESS PLAN - 1ST FLOOR

SHEET NUMBER
G2.12.2



1 G2.21.2 **01 - FLOOR - PLUMBING SUMMARY - Increment 2**
1" = 20'-0"



2 G2.21.2 **02 - FLOOR - PLUMBING SUMMARY - Increment 2**
1" = 20'-0"

PLUMBING FIXTURE SUMMARY

LOCATION OF (E) TOILET ROOMS	# FIXTURES
W111 WOMEN'S RR	5 WC, 4 LAV
W112 MEN'S RR	3 WC, 2 UR, 4 LAV
W206 WOMEN'S RR	5 WC, 4 LAV
W207 MEN'S RR	3 WC,2UR,4 LAV
E177 WOMEN'S RR	7 WC, 5 LAV
E178 MEN'S RR	4 WC, 3 UR, 5 LAV
E241 GENDER NEUTRAL	1 WC, 1 LAV
E242 GENDER NEUGRAL	1 WC, 1 LAV

EXISTING EAST AND WEST BUILDINGS (PLUMBING FIXTURES BY MULTIPLE OCCUPANCY CPC, 422.1 - TABLE A)

(E) WEST 1ST FLOOR	SF	LOAD FACTOR	TOTAL OCCUP
GROUP E-C	935	50	19
GROUP A-3/A-2	4131	30	138
GROUP B	6225	200	32
GROUP S	755	5000	1
GROUP M	1213	200	6

(E) WEST 2ND FLOOR	SF	LOAD FACTOR	TOTAL OCCUP
GROUP E-C	9053	50	182
GROUP A-3/A-2	204	30	7
GROUP S	593	5000	1

(E)EAST 1ST FLOOR	SF	LOAD FACTOR	TOTAL OCCUP
GROUP E-C	10340	50	207
GROUP B	80	200	1
GROUP S	1099	5000	1
GROUP M	1386	200	7

(E) EAST 2ND FLOOR	SF	LOAD FACTOR	TOTAL OCCUP
GROUP E-C	12450	50	249
GROUP S	119	5000	1

TOTAL: 852

FROM PLUMBING TABLE THAT CALCULATES TOTAL OCCUPANTS PER TABLE A, TOTAL OCCUPANTS IS 852

WITH 50% MEN AND 50% WOMEN: MEN: 852/2 = 426 WOMEN: 852/2=426

PER CBC 2016 TABLE 422.1, USE B - EDUCATIONAL INSTITUTIONS - ABOVE HIGH SCHOOL

	MINUMUM REQUIRED TOTAL FIXTURES		(E) TOTAL FIXTURES	
	MEN	WOMEN	MEN	WOMEN
WC MALE: 4:201-400, OVER 400, ADD 1 FIXTURE FOR ADDITIONAL 500 MALES	5		11	
WC FEMALE: 11: 201-400		12		18
UR MALE: 4: 401-600	4		7	
LAV MALE: 5:301-400 OVER 400, ADD 1 FIXTURE FOR EACH ADDITIONAL 250	6		14	
LAV FEMALE: 6: 301-400 OVER 400, ADD 1 FIXTURE FOR EACH ADDITIONAL 250		7		14
DRINKING FOUNTAIN: 1 PER 150	7 TOTAL DF		10 EXISTING DF	

NEW LLRC BUILDING	SF	LOAD FACTOR	TOTAL OCCUP
GROUP A-3	2186	30	73
GROUP B	328	200	2
GROUP S	127	5000	1
GROUP E-C	2909	50	59
		TOTAL: 135	

FROM PLUMBING TABLE THAT CALCULATES TOTAL OCCUPANTS PER TABLE A, TOTAL OCCUPANTS IS 852 FOR EXISTING BUILDING PLUS 135 (LLRC) FOR TOTAL OF 987 OCCUPANTS.
WITH 50% MEN AND 50% WOMEN: MEN: 987/2 = 493.5 WOMEN: 987/2=493.5

PER CBC 2016 TABLE 422.1, USE B - EDUCATIONAL INSTITUTIONS - ABOVE HIGH SCHOOL

	MINUMUM REQUIRED TOTAL FIXTURES		(E) TOTAL FIXTURES	
	MEN	WOMEN	MEN	WOMEN
WC MALE: 2:51-100 ADD 1 FIXTURE FOR ADDITIONAL 500 MALES	5		11	
WC FEMALE: 4: 51-100		12		18
UR MALE: 1: 1-100	4		7	
LAV MALE: 1:1-75	6		14	
LAV FEMALE: 2: 51-100		7		14
DRINKING FOUNTAIN: 1 PER 150	6.58 TOTAL DF			

PROVIDE (2) GENDER NEUTRAL RESTROOMS ADJACENT TO LLRC AND THE REMAINDER OF THE RESTROOMS ARE PROVIDED AS PART OF THE EXISTING BUILDING COUNT SINCE THERE IS EXCESS FIXTURES LOCATED NEARBY. NEAREST RESTROOM W111 (WOMEN'S) AND W112 (MENS') IS 130' AWAY IN THE WEST BUILDING

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ISSUE TITLE
INCREMENT 2

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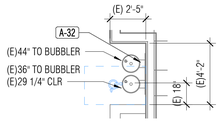
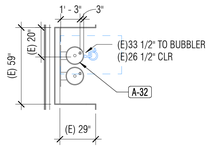
SHEET TITLE
PLUMBING CALCULATION SUMMARY - INCREMENT 2

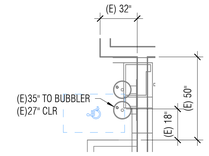
SHEET NUMBER
G2.21.2



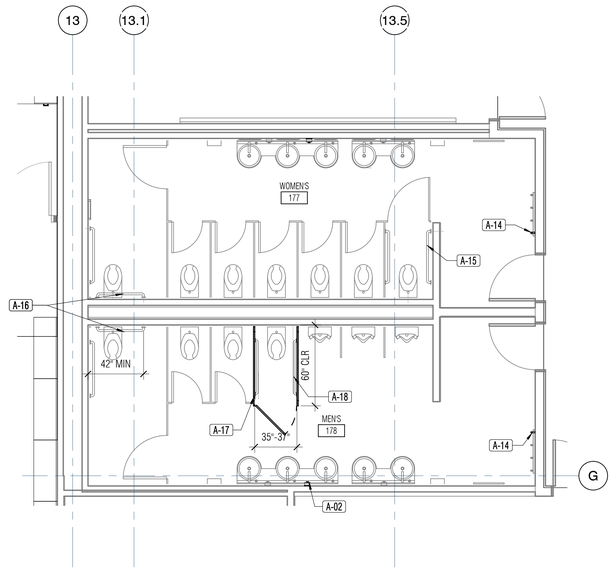
7 02.23.2 **FLOOR 1 (EXISTING) DRINKING FOUNTAIN 3**
1/4" = 1'-0"



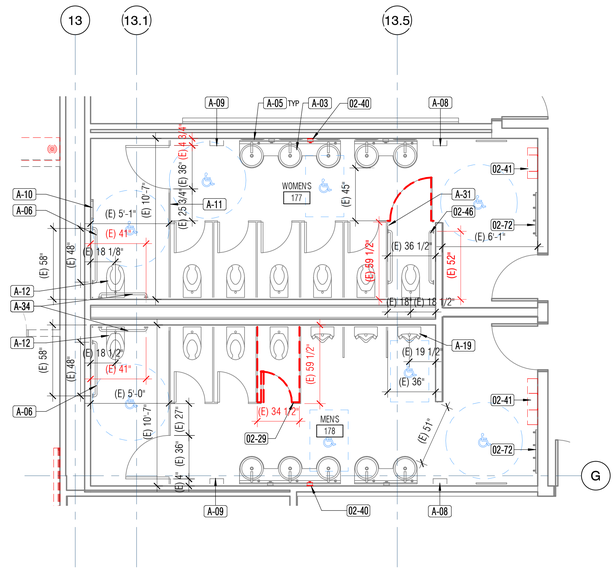
4 02.23.2 **FLOOR 1 (EXISTING) DRINKING FOUNTAIN 2**
1/4" = 1'-0"



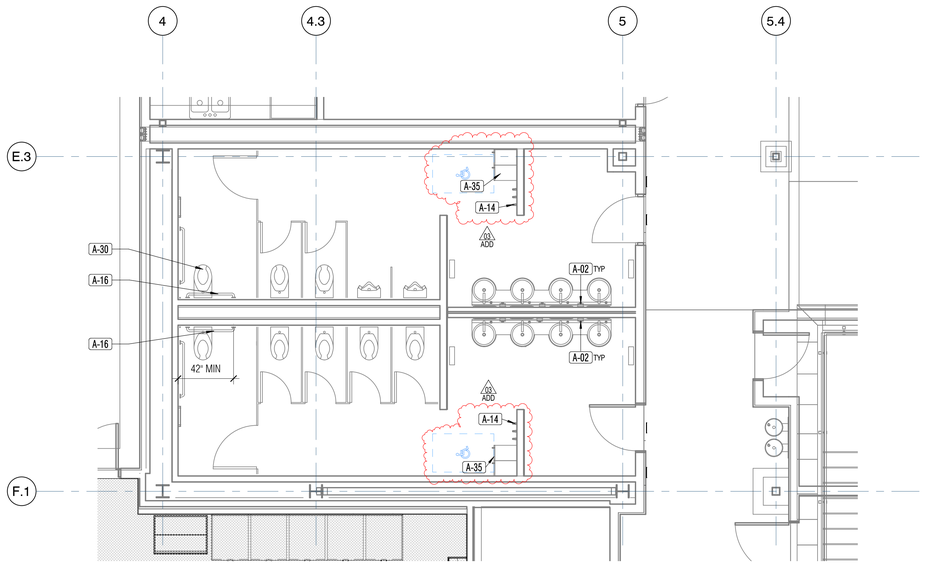
1 02.23.2 **FLOOR 1 (EXISTING) DRINKING FOUNTAIN 1**
1/4" = 1'-0"



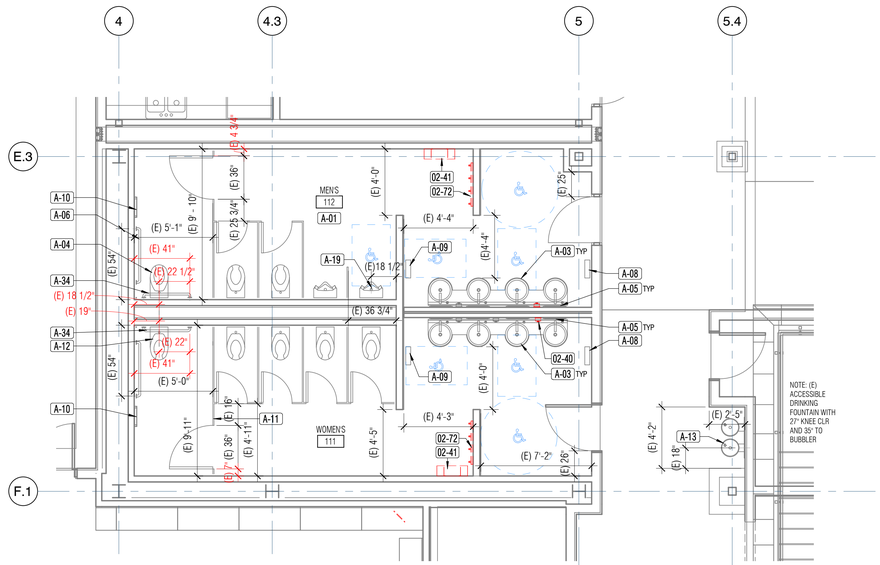
5 02.23.2 **LEVEL 1 - FLOOR PLAN - WOMENS 177, MENS 178**
1/4" = 1'-0"



2 02.23.2 **LEVEL 1 - FLOOR PLAN (EXISTING) - WOMENS 177, MENS 178**
1/4" = 1'-0"



6 02.23.2 **LEVEL 1 - FLOOR PLAN - WOMENS 111, MENS 112**
1/4" = 1'-0"



3 02.23.2 **LEVEL 1 - FLOOR PLAN (EXISTING) - WOMENS 111, MENS 112**
1/4" = 1'-0"

GENERAL NOTES

1. EXISTING RESTROOMS AND DRINKING FOUNTAIN CONSTRUCTED UNDER THE SAN RAMON VALLEY CENTER PROJECT - DSA# 01-105719
2. EXISTING SIGNAGE ON RESTROOM DOOR AND ADJACENT TO DOOR, SIGNAGE, WITH EXCEPTION OF GENDER NEUTRAL RESTROOMS, INSTALLED UNDER DSA# 01-105719
3. REMOVE AND REPLACE EXISTING RESTROOM SIGNAGE. SEE SIGNAGE PLAN
4. REMOVE AND REPLACE EXISTING TOILET PAPER DISPENSER IN EACH ACCESSIBLE TOILET STALL. SEE MOUNTING HEIGHT

KEY NOTES

Key Value	Keynote Text
02-29	REMOVE PORTION OF EXISTING PARTITION AS INDICATED
02-40	REMOVE AND SALVAGE EXISTING SOAP DISPENSER FOR RELOCATION TO LOWER HEIGHT
02-41	REMOVE AND SALVAGE EXISTING 8" STAINLESS STEEL SHELF. RETURN TO OWNER
02-46	REMOVE AND SALVAGE EXISTING GRAB BARS, BOTH SIDES @ AMBULATORY STALL FOR RELOCATION
02-72	REMOVE AND SALVAGE EXISTING HOOK STRIP - NON-ADA HEIGHT. RETURN TO OWNER. SEE KEYNOTE FOR NEW ACCESSIBLE HOOK AT LOWER HEIGHT
A-01	~~LESS THAN TOTAL (6) PLUMBING FIXTURES (WC + URINALS)~~ DOES NOT REQUIRE AN AMBULATORY STALL.
A-02	REMOUNT EXISTING SOAP DISPENSER TO ACCESSIBLE MOUNTING HEIGHT
A-03	EXISTING ACCESSIBLE MULTI-STATION LAVATORY - 29" MIN KNEE CLEAR, 34" MAX TO TOP (ACORN ENG -MODEL 3704, 3703, OR 3702)
A-04	REMOVE EXISTING TOILET SEAT COVER, TOP OF SEAT AT 20" AFF
A-05	EXISTING WALL-MOUNTED MIRROR, 39" TO REFLECTIVE SURFACE
A-06	EXISTING SIDE 48" GRAB BAR, WITHIN 33" MIN, 36" MAX AFF, 1-1/2" MAX DIAM.
A-08	EXISTING PAPER TOWEL DISPENSER, WITHIN THE 40" MAX OPERABLE PART
A-09	EXISTING HAND DRYER, WITHIN THE 40" MAX OPERABLE PART
A-10	EXISTING SEAT COVER DISPENSER, WITHIN THE 40" MAX OPERABLE PART
A-11	EXISTING TOILET PARTITION, @ ACCESSIBLE COMPARTMENT - ACCESSIBLE DOOR WITH SELF-CLOSING HARDWARE, U-SHAPE HANDLE
A-12	EXISTING WATER CLOSET - SENSORED, WITHIN 17" MIN TO 19" TOP OF SEAT
A-13	EXISTING HI-LO DRINKING FOUNTAIN
A-14	NEW SURFACE MOUNTED SINGLE HAT AND COAT HOOK. (3) AT ACCESSIBLE MOUNTING HEIGHT (48" MAX TO TOP), 6" OC SPACING
A-15	REMOUNT EXISTING GRAB BARS, BOTH SIDES @ AMUBULATORY STALL, 54" MIN FROM REAR WALL
A-16	REMOUNT EXISTING GRAB BAR @ ACCESSIBLE COMPARTMENT
A-17	NEW TOILET PARTITION - FLOOR MOUNTED, TO MATCH EXISTING, FOR AMBULATORY STALL. REMOUNT ANY EXISTING ACCESSORIES MOUNTED ON PARTITION. MIN 32" DOOR WITH SELF-CLOSING HARDWARE, U-SHAPE HANDLE AND LATCH
A-18	NEW 42" GRAB BARS, BOTH SIDES OF AMBULATORY STALL
A-19	EXISTING ACCESSIBLE URINAL - SENSORED - LIP WITHIN 17" MAX AFF
A-30	NEW TOILET SEAT COVER AT ACCESSIBLE STALL, TOP OF SEAT AT 19" MAX. AFF
A-31	MODIFY DEPTH OF AMBULATORY STALL TO 60" MIN. TRIM AND REPLACE DOOR AND PARTITION AS REQUIRED.
A-32	REMOVE AND RAISE THE DRINKING FOUNTAIN FOR 27" MIN CLR BELOW ACCESSIBLE SINK. MODIFY PLUMBING AS REQUIRED, PATCH AND REPAIR EXTERIOR PLASTER FINISH IN KIND
A-34	REMOVE AND SALVAGE EXISTING GRAB BARS FOR RE-INSTALLATION AT ACCESSIBLE DISTANCE FROM WALL AND WC
A-35	NEW 2 TIER LOCKERS (12"W X 18"X 36" H @ EACH LOCKER) - TOTAL (4) LOCKERS INCLUDING (1) ACCESSIBLE LOCKER, ON 6" LEGS, SECURE TO WALL, BACKING AS REQUIRED.

APPROVALS

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ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

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ISSUE TITLE

INCREMENT 2

ISSUE DATE **5/30/2019**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

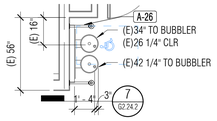
	DATE	DESCRIPTION
3	8/27/19	INC 2 - ADDENDUM 03
4	10/15/19	INC 2 - ADDENDUM 03 REV

SHEET TITLE

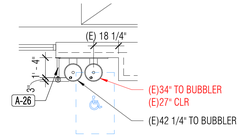
ACCESSIBILITY COMPLIANCE PLANS - RESTROOMS 1ST FLOOR

SHEET NUMBER

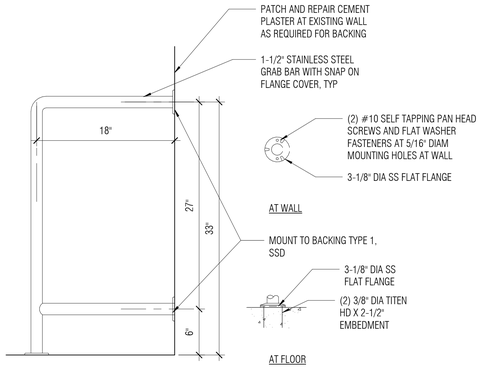
G2.23.2



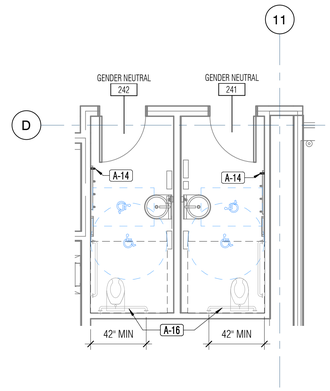
4 G2.24.2 **FLOOR 2 (EXISTING) DRINKING FOUNTAIN 2 -WEST**
1/4" = 1'-0"



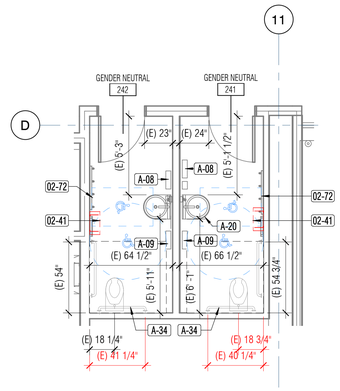
1 G2.24.2 **FLOOR 2 (EXISTING) DRINKING FOUNTAIN 1 - EAST**
1/4" = 1'-0"



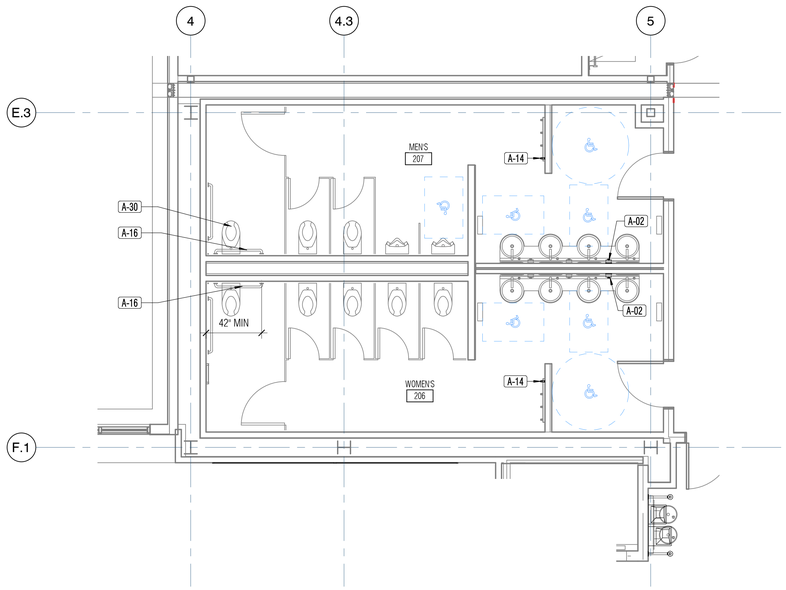
7 G2.24.2 **CANE DETECTION RAIL AT DRINKING FOUNTAIN**
1 1/2" = 1'-0"



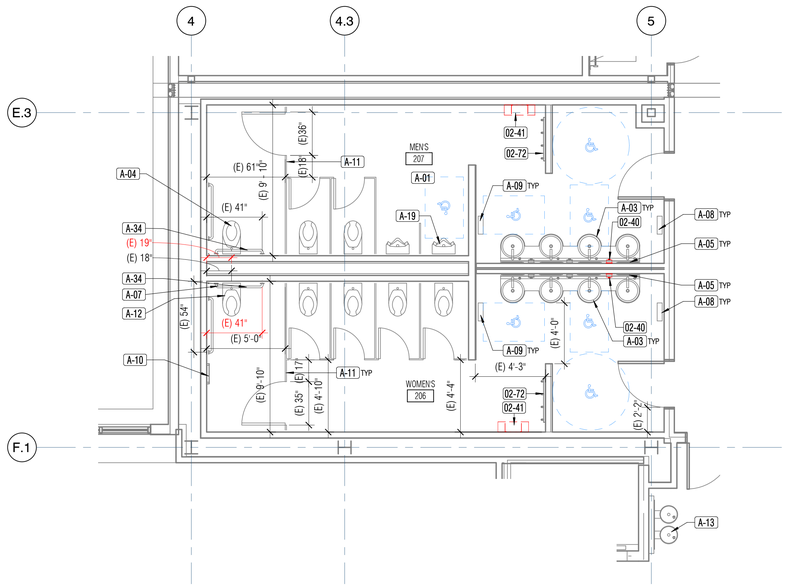
5 G2.24.2 **LEVEL 2 - FLR PLAN - GENDER NEUTRAL 241, 242**
1/4" = 1'-0"



2 G2.24.2 **LEVEL 2 - FLR PLAN (EXISTING) - GENDER NEUTRAL 241, 242**
1/4" = 1'-0"



6 G2.24.2 **LEVEL 2 - FLOOR PLAN - WOMENS 206, MEN'S 207**
1/4" = 1'-0"



3 G2.24.2 **LEVEL 2 - FLOOR PLAN (EXISTING) - WOMENS 206, MEN'S 207**
1/4" = 1'-0"

GENERAL NOTES

1. EXISTING RESTROOMS AND DRINKING FOUNTAIN CONSTRUCTED UNDER THE SAN RAMON VALLEY CENTER PROJECT - DSA# 01-105719
2. EXISTING SIGNAGE ON RESTROOM DOOR AND ADJACENT TO DOOR, TO REMAIN. SIGNAGE , WITH EXCEPTION OF GENDER NEUTRAL RESTROOMS, INSTALLED UNDER DSA# 01-105719
3. REMOVE AND REPLACE EXISTING RESTROOM SIGNAGE. SEE SIGNAGE PLAN
4. REMOVE AND REPLACE EXISTING TOILET PAPER DISPENSER IN ACCESSIBLE TOILET STALL IN WEST BUILDING RESTROOM W111, W112, W206, AND W207. REMOUNT PER MOUNTING DISTANCES & HEIGHT PER G3.21.0
5. REFER TO G3.21.0 FOR MOUNTING HEIGHTS/STANDARD CODE AND ACCESSIBILITY DETAILS
6. PROVIDE BACKING TYPE 1 AND TYPE 2 AS REQUIRED FOR MOUNTING OF GRABBAR AND RESTROOM ACCESSORIES. REPLACE WALL ASSEMBLY AND FINISHES IN KIND

KEY NOTES

Key Value	Keynote Text
02-40	REMOVE AND SALVAGE EXISTING SOAP DISPENSER FOR RELOCATION TO LOWER HEIGHT
02-41	REMOVE AND SALVAGE EXISTING 8" STAINLESS STEEL SHELF. RETURN TO OWNER
02-72	REMOVE AND SALVAGE EXISTING HOOK STRIP - NON-ADA HEIGHT. RETURN TO OWNER. SEE KEYNOTE FOR NEW ACCESSIBLE HOOK AT LOWER HEIGHT
A-01	LESS THAN TOTAL (6) PLUMBING FIXTURES (WC + URINALS) DOES NOT REQUIRE AN AMBULATORY STALL.
A-02	REMOUNT EXISTING SOAP DISPENSER TO ACCESSIBLE MOUNTING HEIGHT
A-03	EXISTING ACCESSIBLE MULTI-STATION LAVATORY - 29" MIN KNEE CLEAR, 34" MAX TO TOP (ACORN ENG -MODEL 3704, 3703, OR 3702)
A-04	REMOVE EXISTING TOILET SEAT COVER, TOP OF SEAT AT 20" AFF
A-05	EXISTING WALL-MOUNTED MIRROR, 39" TO REFLECTIVE SURFACE
A-07	EXISTING REAR 36" GRAB BAR, WITHIN 33" MIN, 36" MAX, AFF, 1-1/2" MAX DIAM.
A-08	EXISTING PAPER TOWEL DISPENSER, WITHIN THE 40" MAX OPERABLE PART
A-09	EXISTING HAND DRYER. WITHIN THE 40" MAX OPERABLE PART
A-10	EXISTING SEAT COVER DISPENSER, WITHIN THE 40" MAX OPERABLE PART
A-11	EXISTING TOILET PARTITION, @ ACCESSIBLE COMPARTMENT - ACCESSIBLE DOOR WITH SELF-CLOSING HARDWARE, U-SHAPE HANDLE
A-12	EXISTING WATER CLOSET - SENSORED, WITHIN 17" MIN TO 19" TOP OF SEAT
A-13	EXISTING HI-LO DRINKING FOUNTAIN
A-14	NEW SURFACE MOUNTED SINGLE HAT AND COAT HOOK. (3) AT ACCESSIBLE MOUNTING HEIGHT (48" MAX TO TOP), 6" OC SPACING
A-16	REMOUNT EXISTING GRAB BAR @ ACCESSIBLE COMPARTMENT
A-19	EXISTING ACCESSIBLE URINAL - SENSORED - LIP WITHIN 17" MAX AFF
A-20	EXISTING SINGLE ACCESSSIBLE LAVATORY - 29" MIN KNEE CLEAR, 34" MAX TO TOP (ACORN ENG - MODEL 3701)
A-26	PROVIDE STAINLESS STEEL CANE DETECTION RAIL AT DRINKING FOUNTAIN, EXTEND 18" HORIZONTAL FROM WALL, WELDED HORIZONTAL SUPPORT BAR AND MOUNTED INTO THE FLOOR
A-30	NEW TOILET SEAT COVER AT ACCESSIBLE STALL, TOP OF SEAT AT 19" MAX. AFF
A-34	REMOVE AND SALVAGE EXISTING GRAB BARS FOR RE-INSTALLATION AT ACCESSIBLE DISTANCE FROM WALL AND WC

APPROVALS

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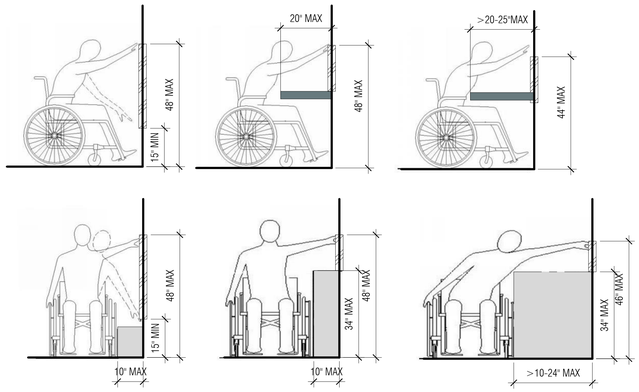
ISSUE TITLE
INCREMENT 2

ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

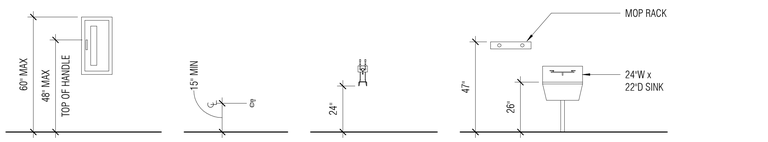
REVISIONS
| DATE | DESCRIPTION

SHEET TITLE
ACCESSIBILITY COMPLIANCE PLANS - RESTROOMS 2ND FLOOR

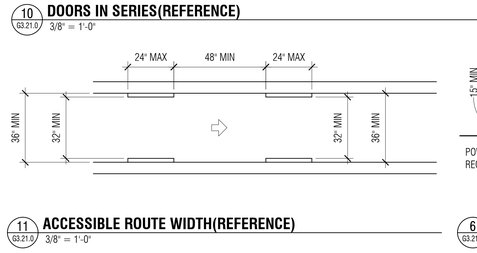
SHEET NUMBER
G2.24.2



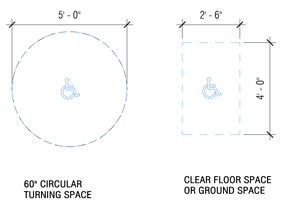
17 REACH RANGES(REFERENCE)
G3.21.0 1/2" = 1'-0"



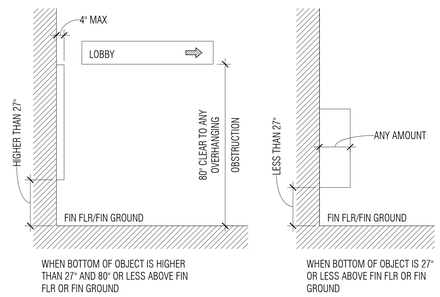
18 TYP MOUNTING HTS (REFERENCE)
G3.21.0 3/8" = 1'-0"



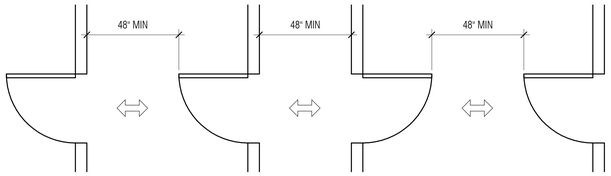
19 ACCESSIBLE SYMBOLS (REFERENCE)
G3.21.0 3/8" = 1'-0"



15 PROTRUDING OBJECTS (REFERENCE)
G3.21.0 3/8" = 1'-0"

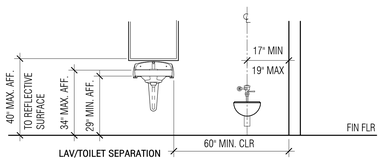


9 LEVEL MANEUVERING CLEARANCES AT DOORS (REFERENCE)
G3.21.0 3/8" = 1'-0"

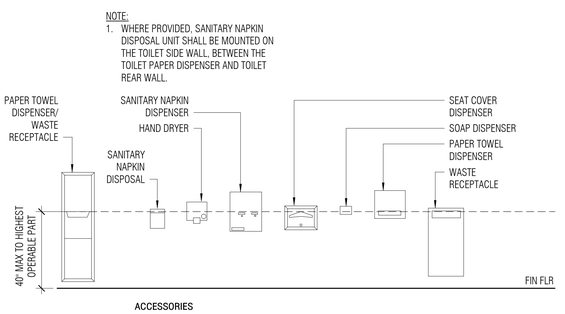


10 DOORS IN SERIES(REFERENCE)
G3.21.0 3/8" = 1'-0"

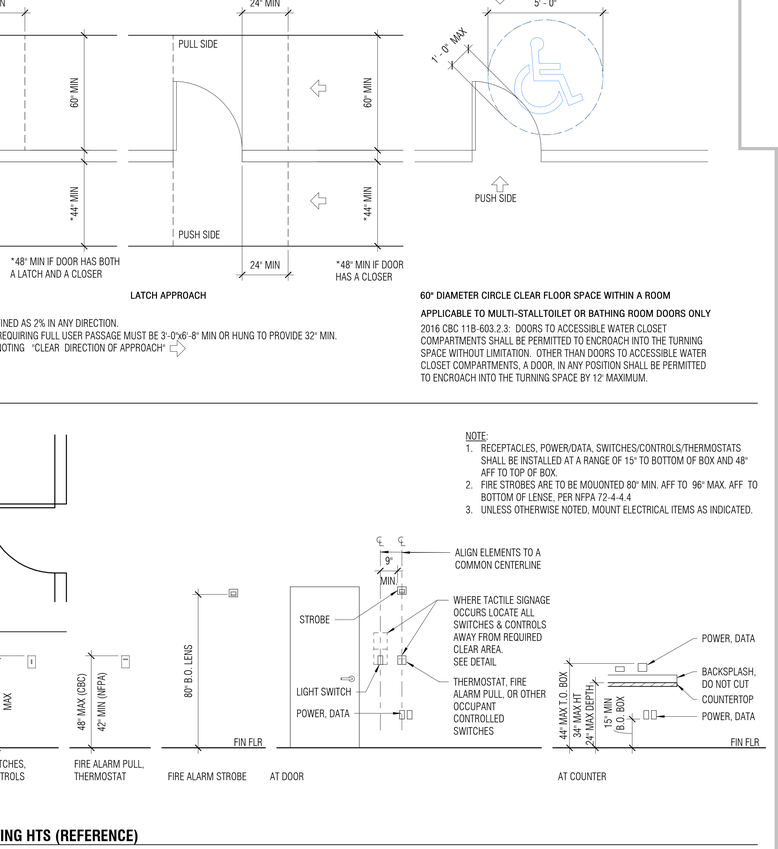
11 ACCESSIBLE ROUTE WIDTH(REFERENCE)
G3.21.0 3/8" = 1'-0"

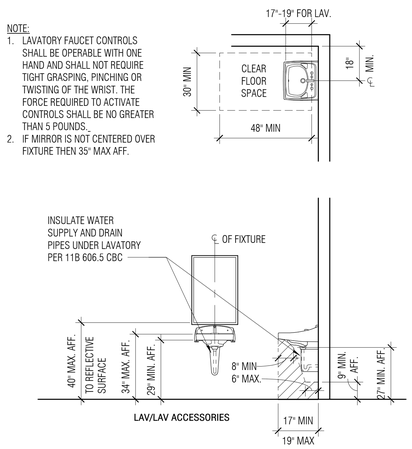


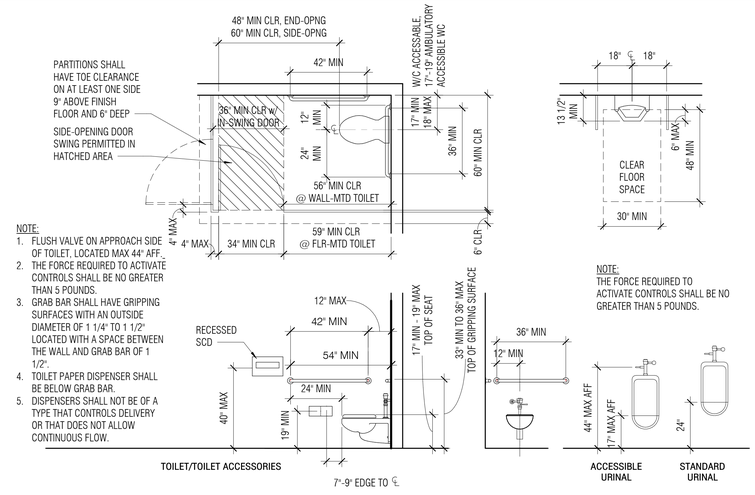
12 TOILET ROOM MOUNTING HEIGHTS(REFERENCE)
G3.21.0 3/8" = 1'-0"

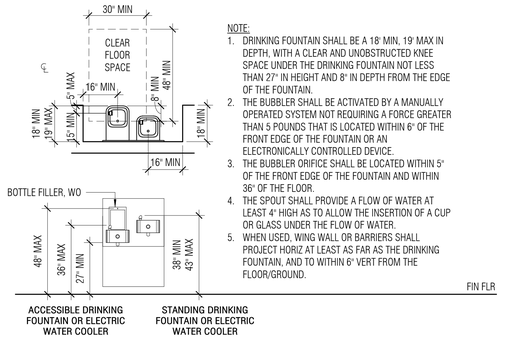


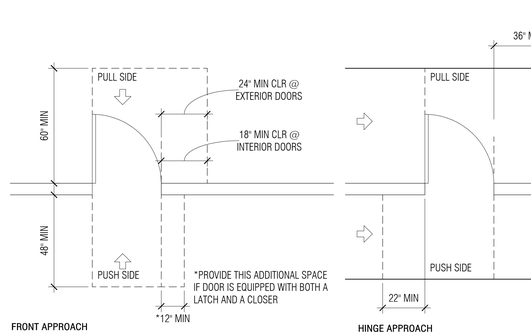
6 ELEC MOUNTING HTS (REFERENCE)
G3.21.0 3/8" = 1'-0"











NOTE:
1. LEVEL IS DEFINED AS 2% IN ANY DIRECTION.
2. ALL DOORS REQUIRING FULL USER PASSAGE MUST BE 3'-0"x6'-8" MIN OR HUNG TO PROVIDE 32" MIN.
3. SYMBOL DENOTING "CLEAR DIRECTION OF APPROACH"

APPROVALS

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ISSUE TITLE
INCREMENT 2

ISSUE DATE **5/30/2019**
NOLL & TAM JOB NUMBER **21630**

REVISIONS
| | DATE | DESCRIPTION |

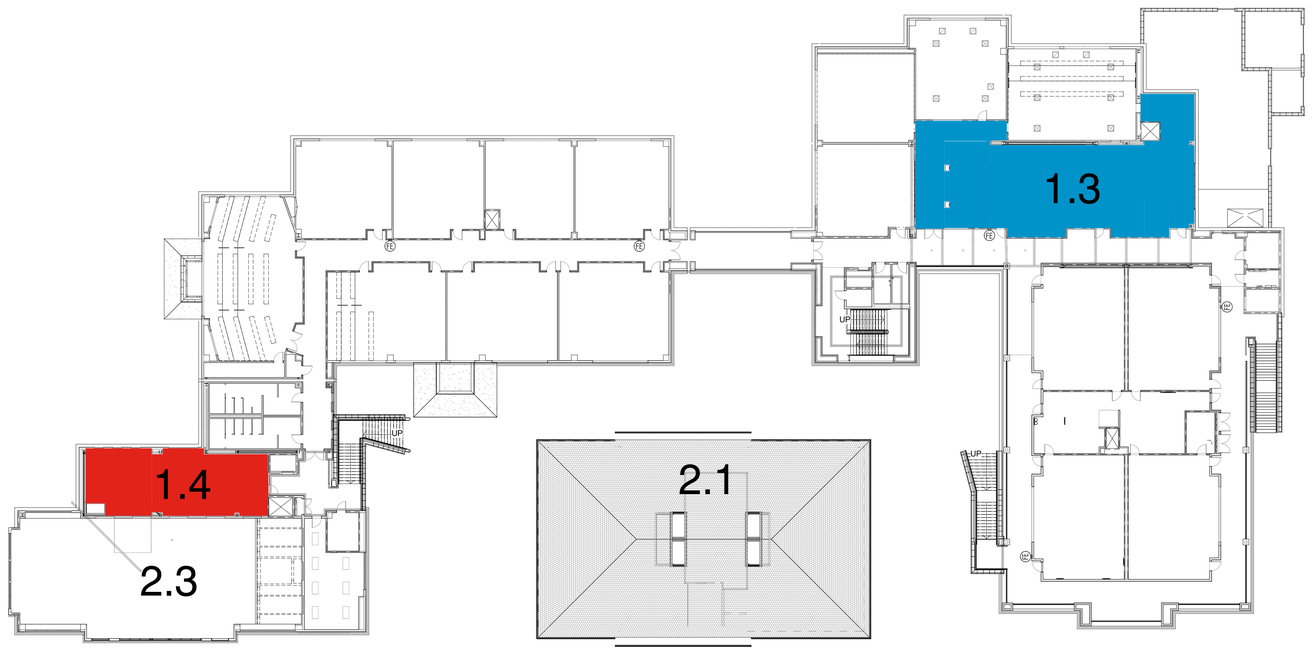
SHEET TITLE
MOUNTING HEIGHTS / STANDARD CODE AND ACCESSIBILITY DETAILS

SHEET NUMBER
G3.21.0

PHASING SEQUENCE Legend

- 1.1
- 1.2
- 1.3
- 1.4
- 1.5
- 2.1
- 2.2
- 2.3

1 G4.11.2 **01 - FLOOR PLAN - OVERALL - PHASING - ESTIMATE (PRESENTATION)**
1" = 20'-0"



PHASING SEQUENCE Legend

- 1.1
- 1.2
- 1.3
- 1.4
- 1.5
- 2.1
- 2.2
- 2.3

2 G4.11.2 **02 - FLOOR PLAN - OVERALL - PHASING - ESTIMATE (PRESENTATION)**
1" = 20'-0"

PROPOSED SEQUENCE OF WORK

INCRMENT 1:

1..1
WORK BEGINS AT EXISTING READ-STUDY TUTORIAL ROOM SINCE IT CAN CO-EXIST IN THE ASSESSMENT LAB 164 DURING CONSTRUCTION DUE TO DIFFERENT OPERATING HOURS. ONCE THIS NEW AREA WITH WAITING AREA IS COMPLETE, THE ASSESSMENT LAB CAN MOVE IN, VACATE THEIR EXISTING SPACE IN EAST BUILDING. WORK INCLUDES REGRADING OF EXISTING ACCESSIBLE PARKING STALLS TO MAKE THEM CODE & ADA COMPLIANT.

1.2
ONCE CERAMIC STUDIO IS NO LONGER OFFERED, AREA IS AVAILABLE FOR CONSTRUCTION ALONG WITH VACATED ASSESSMENT LAB 164. ONCE DRAWING STUDIO AND ENLARGED CLASSROOM 164 ARE COMPLETE, DRAWING STUDIO CAN BE RELOCATED AND CLASSROOM 164 CAN BE USED ALONG WITH CLASSROOM 162. PAINTING IS INDEPEPENDENT AND MINOR

1.2
ONCE CLASSROOM 162 AND 164 ARE COMPLETE, THE 2ND FLOOR CLASSROOM 229 AND 232 CAN BE RELOCATED DOWNSTAIRS

1.3
WORK FOR THE ANATOMY & PHYSIOLOGY-CADAVER LAB AREAS MAY BEGIN.

1.4
CONFERENCE ROOM AND STORAGE RM ARE TEMPORARY SURGE SPACE FOR THE RELOCATION OF THE MATH-SCIENCE TUTORIAL SPACE.

1.5
WITH VACANCY OF THE TUTORIAL, THE BOOKSTORE SCOPE CAN BEGIN.

INCREMENT 2:

2.1
WORK FOR THE NEW BUILDING CAN BEGIN INDEPENDENTLY OF OTHER SCOPE SINCE IT HOUSES EITHER NEW SCOPE (LIBRARY) OR EXISTING SCOPE (TUTORIAL WHICH ALREADY HAS A LOCATION). ONCE NEW BUILDING IS COMPLETE, THE TUTORIAL CAN MOVE IN.

2.2
ONCE BOOKSTORE IS RELOCATED TO TEMPORARY LOCATION, THE CAFE SCOPE AND ASSOCIATED CAFE SITE IMPROVEMENTS CAN BEGIN. TEMPORARY BARRIER WOULD OVERLAP INTO THE LEARNING COMMONS TO ALLOW FOR WORK TO BE COMPLETED IN THE CAFE AND ADJACENT OFFICE - INCLUDING NEW OPENINGS AND ROLL UP DOOR

2.3
LEARNING COMMONS UPGRADE CAN FOLLOW OR BE DONE SIMULTANEOUS WITH THE CAFE WORK. THE LLRC SHOULD BE COMPLETED PRIOR TO ALLOW FOR LLRC TO SERVE AS EVENT SPACE DURING LEARNING COMMONS UPGRADE

NOTE: PATHWAYS SHALL BE MAINTAINED AROUND PROJECT ALLOWING FOR PUBLIC ACCESS / EGRESS AT STAIRWAYS AT EXISTING BUILDINGS AND FOR CIRCULATION BETWEEN EXISTING BUILDINGS.

APPROVALS

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ISSUE TITLE
INCREMENT 2

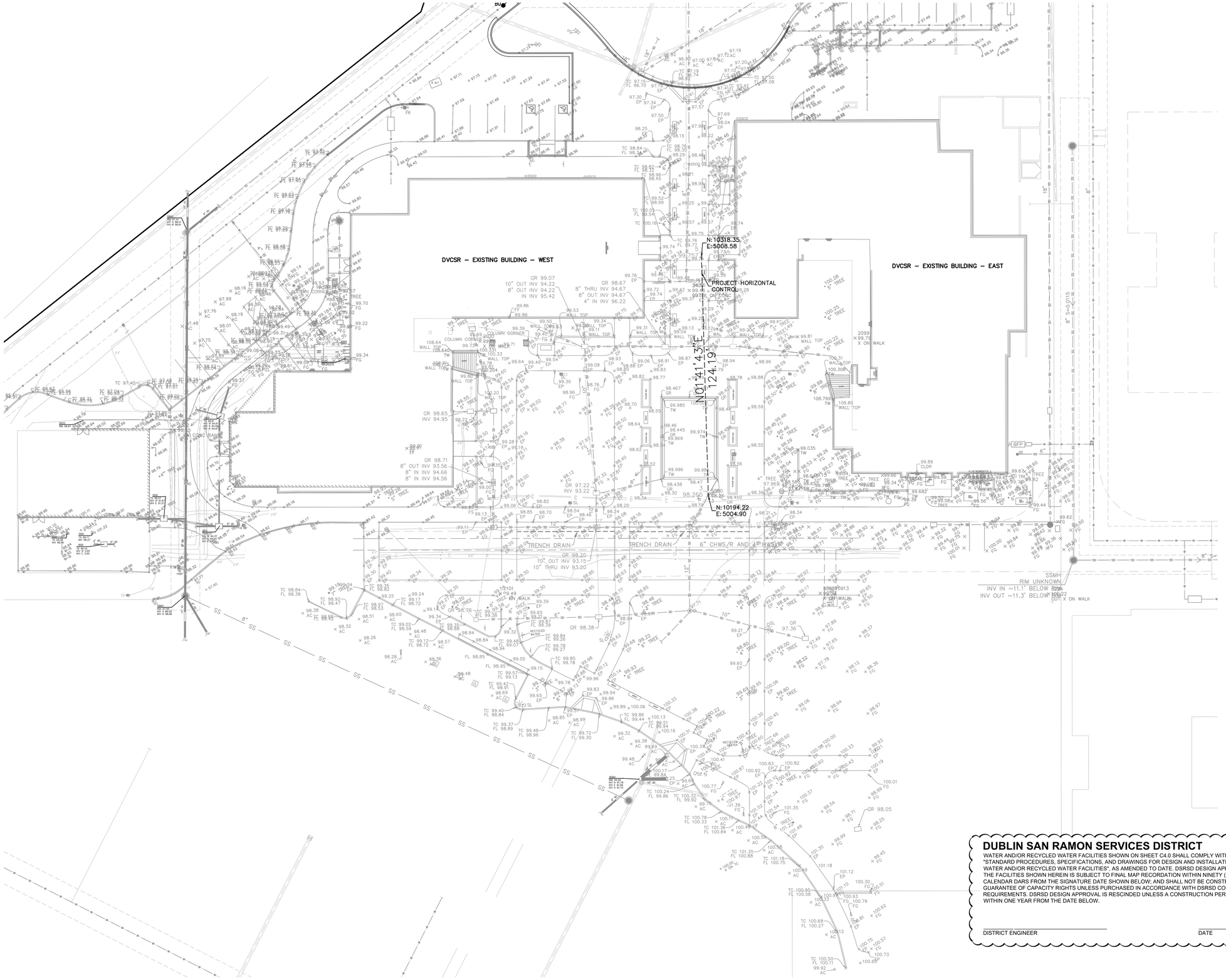
ISSUE DATE **5/30/2019**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

	DATE	DESCRIPTION
3	8/27/19	INC 2 - ADDENDUM 03

SHEET TITLE
PHASING PLAN

SHEET NUMBER
G4.11.2



DUBLIN SAN RAMON SERVICES DISTRICT

WATER AND/OR RECYCLED WATER FACILITIES SHOWN ON SHEET C4.0 SHALL COMPLY WITH DSRSD "STANDARD PROCEDURES, SPECIFICATIONS, AND DRAWINGS FOR DESIGN AND INSTALLATION OF WATER AND/OR RECYCLED WATER FACILITIES", AS AMENDED TO DATE. DSRSD DESIGN APPROVAL OF THE FACILITIES SHOWN HEREIN IS SUBJECT TO FINAL MAP RECORDATION WITHIN NINETY (90) CALENDAR DARS FROM THE SIGNATURE DATE SHOWN BELOW, AND SHALL NOT BE CONSTRUED AS A GUARANTEE OF CAPACITY RIGHTS UNLESS PURCHASED IN ACCORDANCE WITH DSRSD CODE REQUIREMENTS. DSRSD DESIGN APPROVAL IS RESCINDED UNLESS A CONSTRUCTION PERMIT IS ISSUED WITHIN ONE YEAR FROM THE DATE BELOW.

DISTRICT ENGINEER _____ DATE _____ CCD–100

NORTH

GRAPHIC SCALE

20 0 10 20 40 60

(IN FEET)
1 inch = 20 ft.

APPROVALS

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REGISTERED PROFESSIONAL ENGINEER ERIC S. SWANSON No. 64607 CIVIL STATE OF CALIFORNIA
06/21/2023

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE 05/30/2019

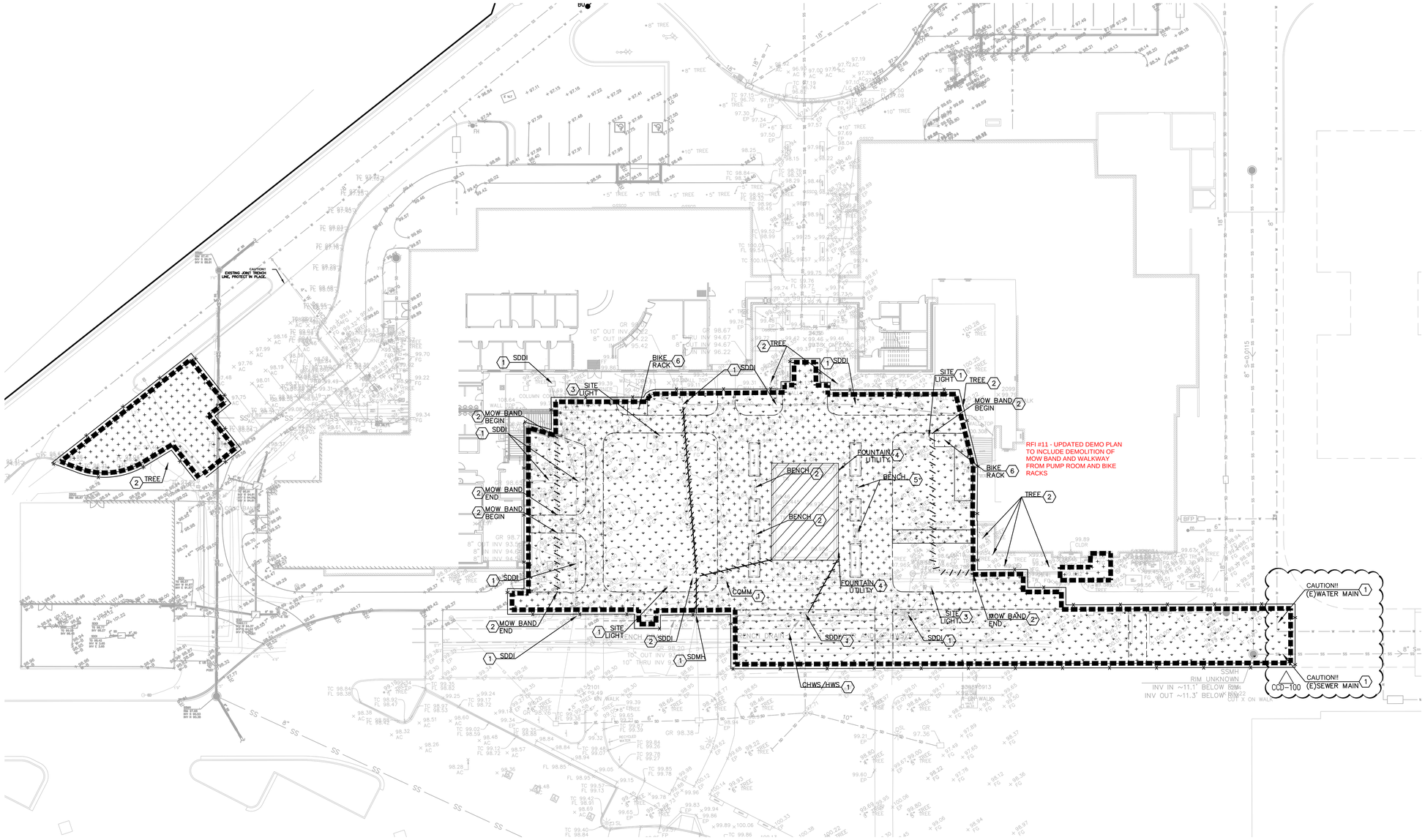
NOLL & TAM JOB NUMBER 21630

REVISIONS

	DATE	DESCRIPTION
	8/2/19	INC 2 - ADDENDUM 02
	8/27/19	INC 2 - ADDENDUM 03
CCDA-1	11/12/19	ASI #3-CCDA-1
CCDA-100	02/07/20	ASI #3-CCDA-100
CCDA-102	04/07/20	CCDA-102
ASI 20	08/11/20	ASI 20

SHEET TITLE
EXISTING CONDITIONS PLAN

SHEET NUMBER
C1.0



DEMOLITION NOTES:

1. WITHIN LIMIT OF DEMOLITION, REMOVE ALL ASPHALT, AGGREGATE BASE, CONCRETE, TOPSOIL, ORGANIC MATERIAL, AND MISCELLANEOUS ITEMS UNLESS OTHERWISE NOTED ON PLANS. EXCAVATE TO PAD ELEVATION OR SUBGRADE DEPTH FOR NEW ASPHALT OR CONCRETE SECTIONS. THIS NOTE DOES NOT APPLY TO EXISTING TREES. EXISTING TREES SHOWN FOR COORDINATION PURPOSES ONLY. SEE LANDSCAPE PLANS FOR ALL TREE PROTECTION AND/OR REMOVAL INFORMATION. SEE ARCHITECTURAL DEMOLITION SITE PLAN FOR REMOVAL INFORMATION. PAVING SHALL BE REMOVED TO NEAREST CONTROL OR CONSTRUCTION JOINT.
2. SEE ARCHITECTURAL AND/OR STRUCTURAL PLANS FOR DEMOLITION OF EXISTING BUILDINGS.
3. PROTECT ALL EXISTING UNDERGROUND UTILITIES UNLESS OTHERWISE NOTED ON THE PLAN.
4. UTILITIES SHOWN ON THIS PLAN ARE DERIVED FROM RECORD DATA, SURFACE OBSERVATION, AND FIELD SURVEY. ACTUAL LOCATIONS AND SIZE, TOGETHER WITH THE PRESENCE OF ANY ADDITIONAL UTILITIES NOT SHOWN ON THIS PLAN SHALL BE VERIFIED BY CONTRACTOR PRIOR TO DEMOLITION.
5. DEMOLITION OF UTILITIES TO BE STAGED BY CONTRACTOR SO THAT EXISTING SERVICES IN USE ARE NOT INTERRUPTED.
6. PROTECT EXISTING TREE ROOTS AND SOIL. COORDINATE EXCAVATION WITH CITY ARBORIST PRIOR TO HAND TRENCHING. HAND TRENCH WITHIN THE ROOT ZONES.
7. LIMIT OF DEMOLITION SHOWN IS APPROXIMATE. REFER TO IMPROVEMENT PLANS FOR LIMITS OF IMPROVEMENT WORK PRIOR TO DEMOLITION.
8. SAWCUTTING, TRENCH EXCAVATION, AND DEMOLITION ASSOCIATED WITH PROPOSED UNDERGROUND UTILITY IMPROVEMENTS IS NOT SHOWN ON THIS PLAN. REFER TO UTILITY PLAN FOR PROPOSED UTILITY INFORMATION. REPLACE PLANTING AND PAVING IN-KIND TO MATCH EXISTING WHERE EXISTING CONDITIONS ARE DISRUPTED FOR NEW WORK. PAVING SHALL BE REMOVED TO NEAREST CONTROL OR CONSTRUCTION JOINT.
9. EXISTING DRAINAGE SHALL BE MAINTAINED UNTIL NEW STORM DRAIN LINES ARE INSTALLED.
10. CONTRACTOR MAY TEMPORARILY CAP UTILITY LINES AT PROPERTY LINE, BUT SHALL REMOVE ALL UTILITY LINES UP TO THE UTILITY MAIN PRIOR TO DEMOBILIZATION.
11. CONTRACTOR SHALL DISCUSS WITH THE DISTRICT AND MAINTAIN PEDESTRIAN AND ACCESSIBLE ACCESS TO ADJACENT EXISTING BUILDINGS.
12. CONTRACTOR SHALL MAINTAIN ACCESSIBE PATH TO ALL EXISTING ENTRANCES.
13. WITHIN THE DEMOLITION LIMIT, CONTRACTOR SHALL REMOVE EXISTING IRRIGATION LINES. CONTRACTOR SHALL RECONNECT ANY AFFECTED IRRIGATION LINES THAT WERE OUTSIDE OF THE DEMOLITION LIMIT AND PROGRAM THEM AS THEY WERE PREVIOUS INTENDED TO FUNCTION. (CCD-100)

DEMOLITION KEYNOTES:

1. TO BE PROTECTED
2. TO BE REMOVED
3. TO BE RELOCATED. SEE HORIZONTAL CONTROL PLAN FOR NEW LOCATION.
4. WATER AND ELECTRICAL LINES ASSOCIATED WITH THE EXISTING FOUNTAIN. REFER TO FOUNTAIN RECORD DRAWINGS FOR MORE INFORMATION
5. SALVAGE AND RETURN TO SCHOOL DISTRICT
6. REMOVE AND SALVAGE FOR RELOCATION

DEMOLITION LEGEND:

- LIMIT OF DEMOLITION
- CONSTRUCTION FENCE
- UTILITY LINE TO BE REMOVED
- DEMOLISH HARDSCAPE
- EXISTING FOUNTAIN DEMOLITION (SEE ARCHITECTURAL PLANS)
- CLEAR AND GRUB

ABBREVIATIONS:

SDDI	STORM DRAIN DRAIN INLET
SD	STORM DRAIN
FG	FINISHED GRADE
TW	TOP OF WALL
CLDR	CENTERLINE OF DOOR
SL	SITE LIGHT
EP	EDGE OF PAVEMENT

NORTH

GRAPHIC SCALE

20 0 10 20 40 60

(IN FEET)
1 inch = 20 ft.

APPROVALS

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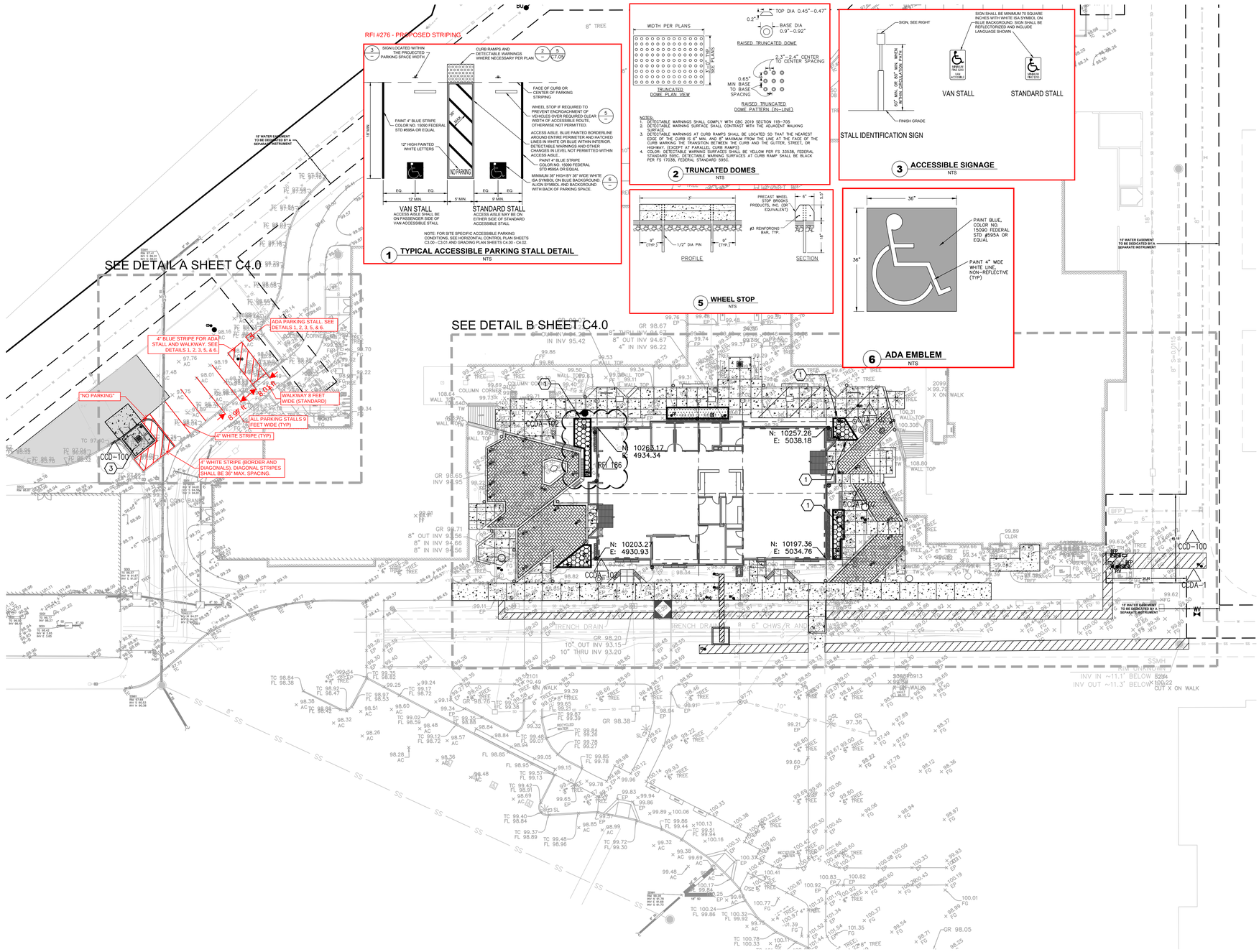
3	08/11/20	ASI 20

SHEET TITLE
DEMOLITION PLAN

SHEET NUMBER
C1.1

RFI #276 - PROPOSED STRIPING



1 TYPICAL ACCESSIBLE PARKING STALL DETAIL
NTS

2 TRUNCATED DOMES
NTS

3 ACCESSIBLE SIGNAGE
NTS

5 WHEEL STOP
NTS

6 ADA EMBLEM
NTS

LEGEND:

- 4" PCC OVER 4" CLASS II AB. SEE LANDSCAPE PLANS FOR COLOR AND FINISH.
- CONCRETE APRON AT TRASH ENCLOSURE. 6" PCC OVER 8" CRUSHED AGGREGATE BASE WITH #3 BARS 18" O.C. BOTH DIRECTIONS.
- PEDESTRIAN PERMEABLE PAVERS PER DETAIL 1, SHEET C5.0
- RAISED FLOW THROUGH PLANTER PER DETAIL 3 SHEET C5.0
- BRACED FLOW THROUGH PLANTER PER DETAIL 4 SHEET C5.0
- TURF BLOCK, SEE NOTE 5.
- ASPHALT (T.I.=7; R–VALUE=5) 5" AC OVER 13.5" CLASS II AB SEE NOTE 6.
- FLOW THROUGH PLANTER WALL

NOTES:

1. ALL DISTANCES AND DIMENSIONS ARE IN FEET AND TO FACE OF CURB UNLESS OTHERWISE NOTED ON PLANS.
2. DESIGN IS BASED ON THE "GEOTECHNICAL INVESTIGATION FOR PROPOSED NEW TUTORIAL LIBRARY BUILDING" PREPARED BY RMA GROUP DATED APRIL 19, 2018.
3. THE CONTRACTOR IS RESPONSIBLE FOR MATCHING EXISTING STREETS, SURROUNDING LANDSCAPE AND OTHER IMPROVEMENTS WITH A SMOOTH TRANSITION IN PAVING, CURBS AND SIDEWALKS, GRADING, ETC. AND TO AVOID ABRUPT OR APPARENT CHANGES.
4. REFER TO LANDSCAPE AND ARCHITECTURAL PLANS FOR BUILDING DETAILS.
5. CONTRACTOR SHALL RESTORE ALL EXISTING WALLS, FENCES, SERVICES, UTILITIES, OR OTHER FEATURES OF WHATEVER NATURE WHICH ARE DAMAGED, DUE TO CONTRACTOR'S WORK, TO THEIR PREVIOUS CONDITION UNLESS OTHERWISE NOTED. REPLACE PAVING AND PLANTING IN KIND TO MATCH EXISTING WHERE EXISTING CONDITIONS ARE DISRUPTED FOR NEW UNDERGROUND WORK. PAVING SHALL BE REMOVED TO NEAREST CONTROL OR CONSTRUCTION JOINT.
6. CONTRACTOR SHALL REPLACE ALL TURF BLOCK "GRASSPAVE2" AND PORTIONS OF WALKWAYS THAT ARE REMOVED FOR NEW IMPROVEMENTS IN THE EXISTING FIRE LANE IN KIND.
7. CONTRACTOR SHALL MATCH EXISTING GRADES OF NEW ASPHALT AT THE TRASH ENCLOSURE AND CONFORM TO EXISTING AT EDGE OF NEW PAVEMENT.
7. REPLACE ANY HARD SCAPE OR LANDSCAPE IN KIND WHERE ANY UTILITY TRENCHING OCCURS.
8. REFERENCE: "GEOTECHNICAL INVESTIGATION FOR PROPOSED NEW TURORIAL LIBRARY BUILDING DIABLO VALLEY COLLEGE – SAN RAMON CAMPUS 1690 WATERMILL ROAD SAN RAMON, CA" BY RMA GROUP

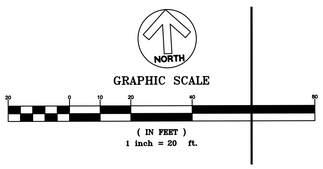
KEYNOTES

1. CURB CUTS PER DETAIL 7 SHEET C5.0
2. PROTECT ENTRY CANOPY FROM INCREMENT 1 IMPROVEMENTS. PAVING SHALL BE REMOVED THE NEAREST CONTROL OR CONSTRUCTION JC
3. TRASH ENCLOSURE PER CENTRAL CONTRA CO SANITARY DISTRICT TYPICAL DETAIL.

ABBREVIATIONS:

SDDI	STORM DRAIN DRAIN INLET
SD	STORM DRAIN
FG	FINISHED GRADE
TW	TOP OF WALL
CLDR	CENTERLINE OF DOOR
SL	SITE LIGHT
EP	EDGE OF PAVEMENT

PER #257 - GRASS PAVE2 - THE SUBGRADE SOILS UNDERLYING THE GRASSPAVE2 SHALL BE COMPACTED TO 95% RELATIVE COMPACTION AND THE CONTRACTOR SHALL PLACE 12" OF CLASS II AB, ALSO COMPACTED TO 95% RELATIVE COMPACTION.



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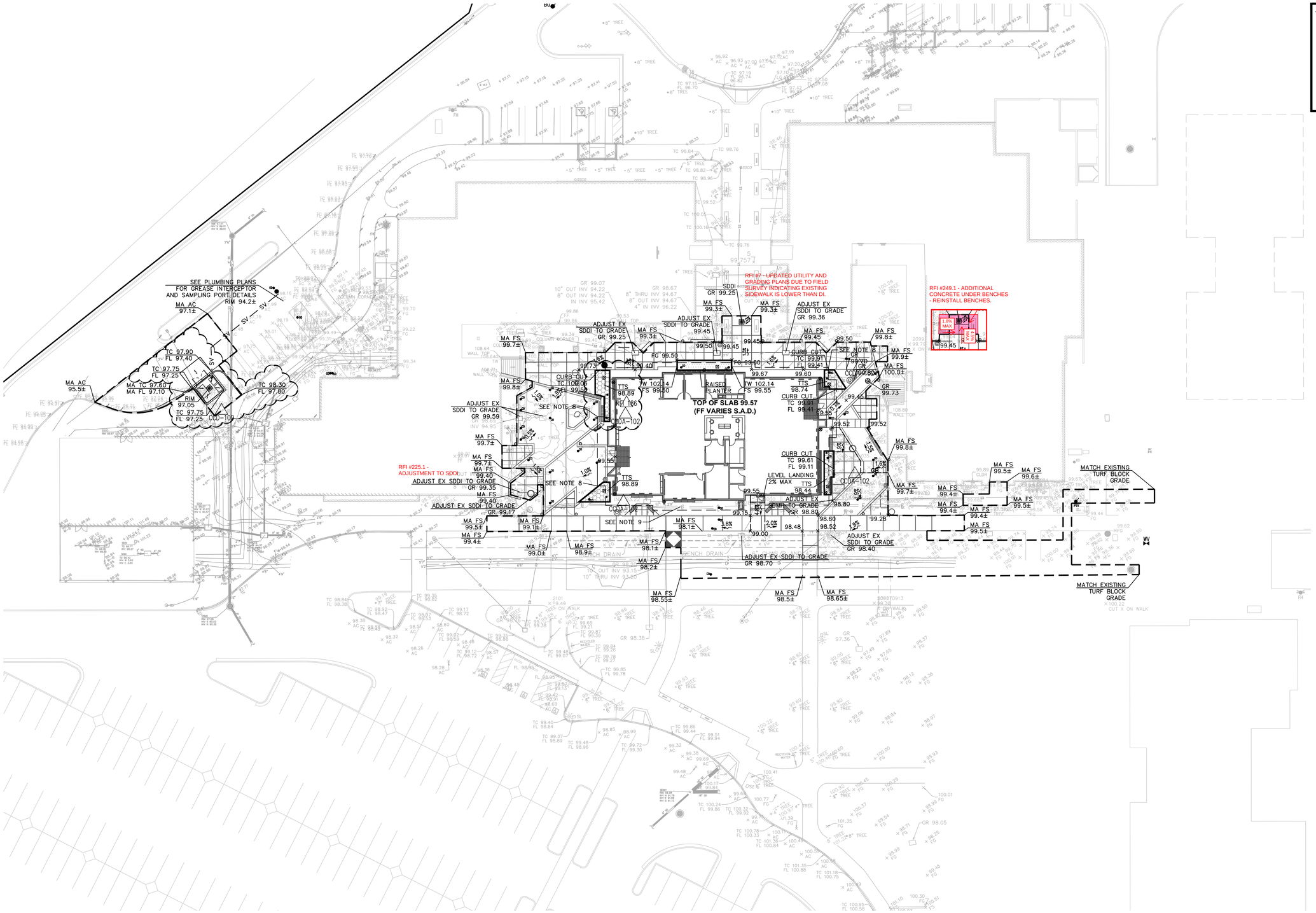
20	08/11/20	ASI 20

SHEET TITLE
HORIZONTAL CONTROL

SHEET NUMBER
C2.0



GRADING LEGEND:

— —	LIMIT OF GRADING
~→	PROPOSED FLOW DIRECTION
———	FLOWLINE
—GB—	GRADE BREAK
▣	DRAINAGE INLET
(E)	EXISTING
(N)	NEW
AC	ASPHALT
BOT	BOTTOM
BW	BACK OF WALK
CO	CLEANOUT
DI	DRAIN INLET
FF	FINISHED FLOOR
FG	FINISHED GRADE (EARTH)
FL	FLOWLINE
FS	FINISHED SURFACE (AC OR PCC)
GB	GRADE BREAK
GR	GRATE
LP	LOW POINT
MA	MATCH
PERF	PERFORATED
SD	STORM DRAIN
SS	SANITARY SEWER
TC	TOP OF CURB
TS	TOP OF SOIL
TTS	TOP OF TREATMENT SOIL
TW	TOP OF WALL

NOTES:

1. TC ELEVATION SHOWN IS FOR 6" CURB HEIGHT UNLESS OTHERWISE NOTED ON PLAN.
2. ALL EXISTING UTILITY COVERS WITHIN LIMIT OF WORK ARE TO BE ADJUSTED TO GRADES SHOWN ON PLAN.
3. SEE LANDSCAPE PLANS FOR ALL GRADING IN LANDSCAPE AREAS.
4. FOR WALKS AND IN ADA ACCESSIBLE AREAS CROSS SLOPES SHOULD NOT EXCEED 2% GRADE.
5. IF DURING CONSTRUCTION, ARCHEOLOGICAL OR NATIVE AMERICAN REMAINS OR ARTIFACTS ARE ENCOUNTERED, THE CONTRACTOR SHALL HALT CONSTRUCTION IN THE VICINITY AND SHALL NOTIFY THE CITY OF SAN RAMON BUILDING DEPARTMENT.
6. REFERENCE: "GEOTECHNICAL INVESTIGATION FOR PROPOSED NEW TUTORIAL LIBRARY BUILDING DIABLO VALLEY COLLEGE – SAN RAMON CAMPUS 1690 WATERMILL ROAD SAN RAMON, CA" BY RMA GROUP
7. CONTRACTOR SHALL CONFORM TO EXISTING TRENCH DRAIN AND MAINTAIN EXISTING DRAINAGE
8. OVEREXCAVATE BUILDING PAD TO A DISTANCE OF 5 FEET FROM THE PROPOSED BUILDING FACE. EXCAVATE DOWN 5 FEET AND SCARIFY 12 INCHES WITH NATIVE BACKFILL. THE REMAINING 4 FEET SHOULD BE REPLACED WITH ENGINEERED FILL OR CHEMICALLY TREATED NATIVE BACKFILL.
9. POTHOLE EXISTING COMMUNICATIONS LINES PRIOR TO EXCAVATING BUILDING FOUNDATION AND PROVIDE DEPTHS TO CIVIL ENGINEER.

NORTH

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

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SHEET TITLE
GRADING PLAN

SHEET NUMBER
C3.0

RFI #71 - UPDATED UTILITY AND GRADING PLANS DUE TO FIELD SURVEY INDICATING EXISTING SIDEWALK IS LOWER THAN DI.

RFI #227.1 - ADA GRATE

RFI #13 - UPDATED PLAN FOR STORM LINE AND AREA DRAIN DUE TO CONFLICT WITH (E) LIGHT POLE

RFI #186 - NEW CONFIGURATION OF BIORETENTION AREA TO AVOID EXISTING MAIN SPRINKLER LINE.

RFI #174 - WATER VALVE FOR FOUNTAIN

RFI #12 - UPDATED PLAN FOR STORM LINE AND STORM DRAIN INLET

RFI #85 - UPDATED UNDERGROUND CONNECTION RWL

RFI # 188 - ONLY LOCATION THAT USES THE AREA DRAIN ON S/C5.1

RFI #116 - FW LINE - PER DSRSD ON NEW LATERAL (1) ISOLATION VALVE IS REQUIRED.

RFI #139- 1" WATER LINE SHALL BE SCHEDULE 40 PVC PIPE

15' WATER EASEMENT TO BE DEDICATED BY A SEPARATE INSTRUMENT

CONNECT TO PROPOSED PIPE DIRECTED TO DRAINAGE BUBBLER UPSTREAM OF THE BIORETENTION AREA WALL.

4" STORM DRAIN LINE S=0.5% MIN

CONTRACTOR SHALL CONNECT TO RWL AND DIRECT PIPE UNDERGROUND.

CONTRACTOR SHALL REMOVE 6" TREE

CONTRACTOR SHALL REINSTALL EX IRRIGATION STRUCTURES AS NEEDED

CAUTION!! EXISTING JOINT TRENCH LINE, PROTECT IN PLACE.

B LLRC - UTILITY PLAN

A TRASH ENCLOSURE - UTILITY PLAN - CAFE

LEGEND:

- W — WATER LINE – PVC C900
- FW — FIREWATER LINE – PVC C900 CLASS 200
- SS — SANITARY SEWER – PVC SDR–26
- SV — SEWER VENT – PVC SDR 26
- STORM DRAIN (PVC SDR 26, UNLESS OTHERWISE NOTED)
- 6" PERFORATED PIPE
- STORM/SEWER MANHOLE (3 C5.1)
- STORM DRAIN INLET (INLET GRATES SHALL BE ADA AND HEEL PROOF) (2 C5.1)
- CO CLEANOUT (6 C5.0)
- DOWNSPOUT BUBBLER (2 C5.0)
- RAINWATER LEADER (5 C5.0)
- OVERFLOW INLET. SEE FLOW THROUGH PLANTER DETAILS.
- BFP BACKFLOW PREVENTER PER DSRSD STANDARDS
- FDC FIRE DEPARTMENT CONNECTION (1 C5.1)
- PIV POST INDICATOR VALVE (1 C5.1)
- WV WATER VALVE
- THURST BLOCKS (8 C5.0)
- GREASE INTERCEPTOR AND SAMPLE MANHOLE. SEE PLUMBING PLANS FOR DETAILS.

KEYNOTES:

1. CONTRACTOR TO VERIFY EXISTING UTILITY LOCATION AND INVERT PRIOR TO CONSTRUCTION IN ORDER TO CONFIRM UTILITY CONNECTIONS AND CLEARANCES.
2. PERFORATED PIPES UNDER PERMEABLE PAVERS SEE DETAIL 1 SHEET C5.0
3. CONTRACTOR SHALL REPLACE EXISTING TRENCH DRAIN IN KIND AS NEEDED AND MAINTAIN EXISTING DRAINAGE.
4. CONTRACTOR SHALL FIELD VERIFY DEPTH AND LOCATION OF EXISTING SEWER LINE PRIOR TO CONSTRUCTION AND CONFIRM UTILITY CROSSINGS.
5. DOWNSPOUT CONNECTION. SEE SHEET C5.0 DETAIL 5
6. 4" SD CONNECTION FOR FOUNTAIN OVERFLOW
7. OVERFLOW PROTECTION DEVICE TYPE 2 PER CCCSD STANDARD PLANS. CCDA–100
8. ADJUST EX STORM DRAIN INLET TO GRADE AND REPLACE GRATE WITH SOLID LID.
9. CONTRACTOR TO FIELD VERIFY SLOPE OF EXISTING 8" STORM DRAIN LINE. IF EXISTING SLOPE IS LESS THAN 1.9%, CONTRACTOR SHALL NOTIFY CIVIL ENGINEER. CONTRACTOR SHALL JET AND CLEAN OUT EXISTING 8" STORM DRAIN LINE TO ENSURE CAPACITY IS MET.
10. GREASE INTERCEPTOR VENT ASSEMBLY, SEE DETAIL 4 SHEET C5.1.
11. GREASE INTERCEPTOR PER CCCSD DWG–37, SEE PLUMBING PLANS. GREASE INTERCEPTOR SHALL HAVE A "CASE B" CONCRETE TRAFFIC SLAB PER CCCSD DWG–39.

NOTES:

1. THIS PROJECT IS SUBJECT TO THE STATE OF CALIFORNIA GENERAL PERMIT (2009–009–DWQ).THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A SWPPP PREPARED BY A QUALIFIED SWPPP DEVELOPER AND A NOTICE OF INTENT. THE CONTRACTOR SHALL HAVE A QUALIFIED SWPPP PRACTITIONER, WHO SHALL BE RESPONSIBLE FOR ALL REQUIREMENTS MANDATED IN THIS PERMIT INCLUDING MONITORING OF RAIN EVENTS, RECORD KEEPING AND UPLOADS TO THE STATE "SMARTS" WEBSITE.
2. NOTICE OF INTENT SHALL BE FILED BY DISTRICT AND AVAILABLE AT TIME OF CONSTRUCTION. CONTRACTOR SHALL PROVIDE WDID NUMBER PRIOR TO GRADING AND DEMOLITION ACTIVITIES.
3. ALL FIRE HYDRANTS SHALL HAVE A 3–FOOT CIRCUMFERENCE OF CLEAR SPACE AND AN 18 INCH CLEARANCE FROM THE CENTER OF THE 4 ½ INCH DISCHARGE TO FINISHED GRADE LEVEL. CFC 507.5.5
4. THE POST INDICATOR VALVES (PIV) SHALL BE SET SO THAT THE TOP OF THE POST WILL BE 32" TO 40" ABOVE FINISHED GRADE.
5. ALL FIRE HYDRANTS SHALL BE INSTALLED WITH BREAK OFF BOLTS AND OR BREAK OFF SPOOLS.
6. ALL MECHANICAL JOINTS ON FIRE SERVICE LINES AND FIRE SPRINKLER LATERALS SHALL BE CLEANED AND THOROUGHLY COATED WITH CORROSION RETARDING MATERIAL. NFPA 42.10.4.1.1
7. CONTRACTOR SHALL INSTALL MEGALUG JOINT RESTRAINTS ON FIRE WATER LINE AND THRUST BLOCKS AT BENDS.
8. CONTRACTOR SHALL REPLACE ALL HARDSCAPE AND LANDSCAPE DUE TO UTILITY PLACEMENT AND TRENCHING IN KIND. ALL DISTURBED CONCRETE SHALL BE SAWCUT AT THE NEAREST SCORELINE AND REPLACED IN KIND. SEE DETAIL 6 SHEET C 5.1
9. CONTRACTOR TO FIELD VERIFY UTILITY INVERTS AND CONNECTION POINTS FOR POSSIBLE CONFLICTS PRIOR TO CONSTRUCTION.
10.

ABBREVIATIONS:

BFP	BACKFLOW PREVENTER	LF	LINEAR FEET
CO	CLEANOUT	PERF	PERFORATED PIPE
DI	DRAINAGE INLET	PIV	POST INDICATOR VALVE
EX	EXISTING	P.O.C.	POINT OF CONNECTION
FDC	FIRE DEPARTMENT CONNECTION	SDAD	STORM DRAIN AREA DRAIN
GI	GREASE INTERCEPTOR	SDDI	STORM DRAIN DRAIN INLET
GR	GRATE	SDO	STORM DRAIN INLET
INV	INVERT	SSMH	SANITARY SEWER MANHOLE

DUBLIN SAN RAMON SERVICES DISTRICT NOTES CCDA–1

1. CONTRACTOR TO COORDINATE WATER MAIN CONSTRUCTION TO PREVENT ANY CONFLICTS WHERE UTILITY LINES CROSS EACH OTHER.
2. ALL REVISIONS TO THIS PLAN MUST BE REVIEWED BY DSRSD PRIOR TO CONSTRUCTION AND SHALL BE ACCURATELY SHOWN ON THE REVISED PLANS SIGNED BY DSRSD.
3. ALL WORK SHALL COMPLY WITH THE STANDARD PROCEDURES, SPECIFICATIONS, AND DRAWINGS OF DUBLIN SAN RAMON SERVICES DISTRICT.
4. WHERE WATER MAIN CROSSES OTHER UTILITIES, BEND PIPE AT UTILITIES, BEND PIPE AT LOCATIONS SHOWN ON PLANS WHENEVER POSSIBLE, IF NECESSARY, PROVIDE A HIGH DEFLECTION COUPLING WITH A 5.0 DEGREE MAXIMUM DEFLECTION AT THE COUPLING FOR VINYL–IRON PIPES SIZE 4" TO 12".
5. UNLESS OTHERWISE SPECIFIED, ALL WATER PIPE TO BE 8" PVC C900 CLASS 200. ALL BOLTS USED ON POTABLE AND RECYCLED WATER MAINS SHALL BE STAINLESS STEEL (304 OR 216 WITH ANTI–SEIZE OR APPROVED EQUAL)
6. INSTALL BLOW–OFFS AT LOCATIONS SHOWN ON PLANS PER CRITERIA BELOW: INSTALL 2" BLOW OFF AT DEAD END OF 6" AND 8" MAIN, PER DSRSD SID. W9 INSTALL L 3" BLOW–OFF AT LOW POINT OF 6", 8", 10", 12", AND 15" MAIN, PER DSRSD SID. W11.
7. PER DSRSD, 1' MAX SEPARATION BETWEEN POTABLE WATER METERS AND BACKFLOW UNITS. WHERE THIS OCCURS, POTABLE WATER METERS & BACKFLOW UNITS ARE TO BE PLACED AT BACK OF SIDEWALK AND NOT IN PARKWAY STRIPS (EXCEPT AT 8' SIDEWALKS).
8. ALL REMOVED WATER SERVICE LINES SHALL BE ABANDONED AT THE SERVICE SADDLE OR TEE AT THE MAIN. (DSRSD 11–82–2.05.02).
9. WHEN CONNECTING TO EXISTING WATER MAIN, USE DSRSD DETAIL W–30 DURING CONSTRUCTION.
10. ALL POTABLE IRRIGATION AND NON–RESIDENTIAL METERS SHALL HAVE A BFP PER DETAIL W–21.
11. PIPE EMBEDMENT MATERIAL SHALL BE FREE OF VEGETABLE MATTER, RECYCLED MATERIAL (INCLUDING RECYCLED AGGREGATE BASE), AND OTHER DELETERIOUS SUBSTANCES PER DUBLIN SAN RAMON SERVICES DISTRICT STANDARD DETAIL G–1.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

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ISSUE TITLE
INCREMENT 2

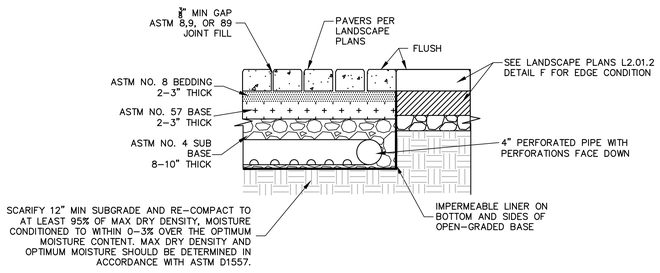
ISSUE DATE	05/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

Δ	DATE	DESCRIPTION
	8/2/19	INC 2 - ADDENDUM 02
	8/27/19	INC 2 - ADDENDUM 03
1	11/12/19	ASI #3-CCDA-1
2	02/07/20	ASI #3-CCDA-100
3	04/07/20	CCDA-102
4	08/11/20	ASI 20

SHEET TITLE
UTILITY PLAN

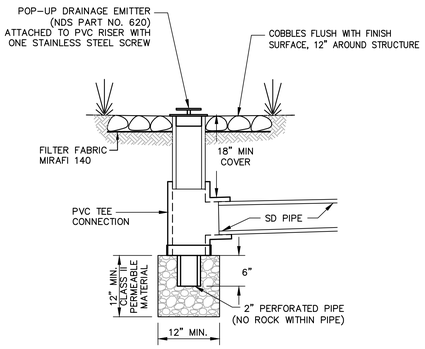
SHEET NUMBER
C4.0



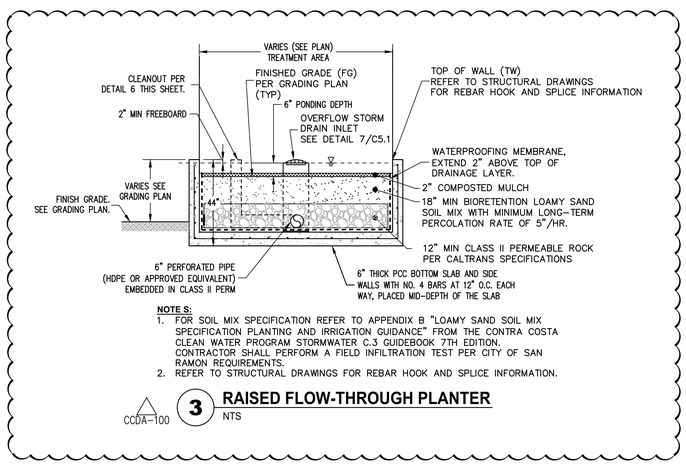
NOTES

1. DESIGN, MATERIAL, AND CONSTRUCTION GUIDELINES TO FOLLOW ICPI GUIDE SPECIFICATIONS.
2. CONNECT ALL DRAIN PIPES TO STORM SEWER
3. APPLY WATERPROOF MEMBRANE VERTICALLY AGAINST HOUSE FOUNDATION PRIOR TO PLACING SUBBASE AND BASE
4. ALL SOIL SUBGRADES SHALL SLOPE TOWARDS THE STREET.
5. SUBGRADE SOIL MAXIMUM CROSS SLOPE IS 0.5%. MAXIMUM LONGITUDINAL SLOPE IS 2% TOWARDS STREET.
6. USE SOIL BERMS FOR LONGITUDINAL SOIL SUBGRADE SLOPES EXCEEDING 2%.
7. 5% MAXIMUM SURFACE SLOPE.
8. CAST–IN–PLACE CONCRTETE CURBS CAN BE WITHOUT PAVERS ON TOP. IN SUCH CASES, CURBS SHOULD BE LEVEL WITH CONCRETE PAVER FIELD.
9. THICKER SUBBASE AND/OR ADDITIONAL DRAIN PIPES MAY BE REQUIRED IF DRIVEWAY RECEIVES RUNOFF FROM ADJACENT IMPERVIOUS SURFACES OR ROOFS.

1 PERMEABLE PAVEMENT
NTS



2 DRAINAGE BUBBLER
NTS

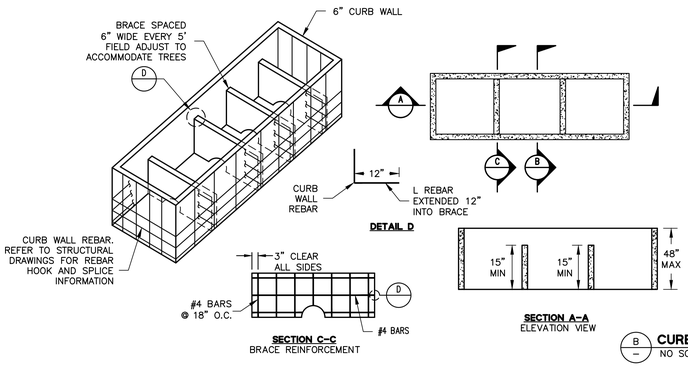


NOTE S:

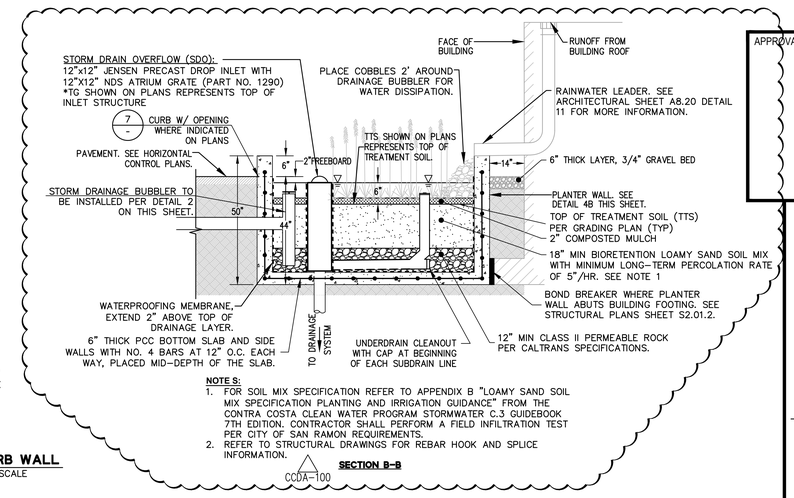
1. FOR SOIL MIX SPECIFICATION REFER TO APPENDIX B "LOAMY SAND SOIL MIX SPECIFICATION PLANTING AND IRRIGATION GUIDANCE" FROM THE CONTRA COSTA CLEAN WATER PROGRAM STORMWATER C.3 GUIDEBOOK 7TH EDITION. CONTRACTOR SHALL PERFORM A FIELD INFILTRATION TEST PER CITY OF SAN RAMON REQUIREMENTS.
2. REFER TO STRUCTURAL DRAWINGS FOR REBAR HOOK AND SPLICE INFORMATION.

CCDA–100

3 RAISED FLOW-THROUGH PLANTER
NTS



B CURB WALL
NO SCALE



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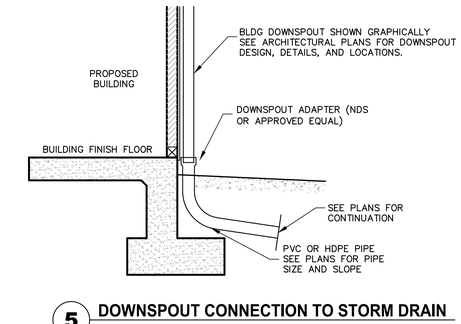
2. REFER TO STRUCTURAL DRAWINGS FOR REBAR HOOK AND SPLICE INFORMATION.

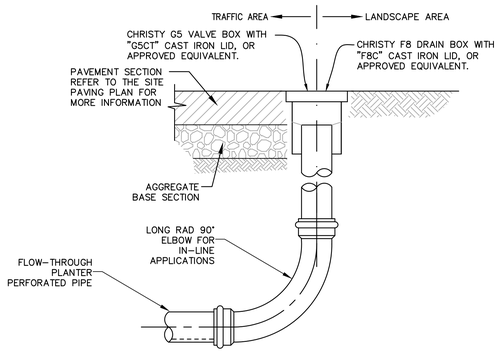
CCDA–100

SECTION B–B

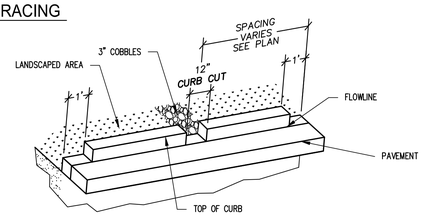
4 IN GROUND FLOW THROUGH PLANTER W/ BRACING
NTS



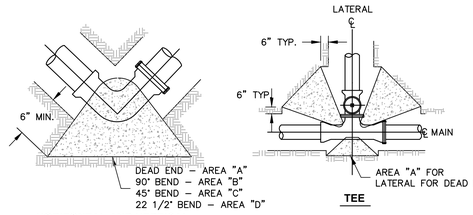
5 DOWNSPOUT CONNECTION TO STORM DRAIN
NTS



6 FLOW-THROUGH PLANTER CLEANOUT
NTS



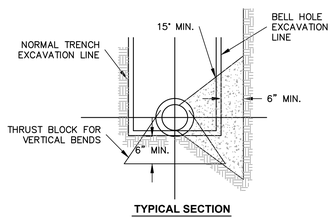
7 12" CURB CUT
NTS



MINIMUM THRUST BLOCK BEARING AREA IN SQUARE FEET				
PIPE SIZE	AREA			
	A	B	C	D
4"	6	8	4.5	2.5
6"	15	21.5	11.5	6
8"	26	36.5	20	10

NOTE: VALUES SHOWN ARE BASED ON ASSUMED 1000 PSF SOIL BEARING PRESSURE AND 200 PSI TEST PRESSURE

NOTE: THRUST BLOCK HEIGHT AND WIDTH SHALL BE EQUAL. THRUST BLOCK BEARING AREA SHALL BE SQUARE.



NFPA Thrust Block Calcs					
Table A-8-6.2 * 2	THRUST FORCES AT BENDS				
200 PSI	Dead End	90	45	22	11
6" PIPE	7,478	10,576	5,724	2,918	1,466
8"	12,866	18,194	9,846	5,020	2,522
10"	19,354	27,370	14,812	3,776	3,794
4"	2,823	3,993	2,161	1,077	541

Thrust Block area = Thrust Force *((Pipe Pressure/100)/Soil Bearing Pressure)

	TEE	90	45	22	11
6" DIA. PIPE	15.0	21.2	11.4	5.8	2.9
8" DIA. PIPE	25.7	36.4	19.7	10.0	5.0
10" DIA. PIPE	38.7	54.7	29.6	7.6	7.6
4" DIA. PIPE	5.6	8.0	4.3	2.2	1.1

The table above shows required thrust block calcs per NFPA 24.

*Soil Bearing Pressure (psf)	1000
Pipe Pressure (psi)	200

NOTES:

1. THRUST BLOCKS SHALL BE CLASS A CONCRETE (3000 PSI).
2. CONCRETE SHALL NOT EXTEND BEYOND FACE OF BELL FOR SLIP–ON JOINTS NOR INTERFERE WITH FLANGES, NUTS OR BOLTS ON FLANGED JOINTS.
3. UNSUPPORTED SURFACES SHALL BE FORMED.
4. A MINIMUM OF 7 DAYS CURING TIME REQUIRED BEFORE WATER INTRODUCED INTO LINE OR PRESSURE TEST.
5. BACK AND BOTTOM OF THRUST BLOCKS TO BE POURED AGAINST UNDISTURBED EARTH.
6. CONTRACTOR IS RESPONSIBLE FOR ALL THRUST BLOCK LOCATIONS.

8 THRUST BLOCK DETAIL & CALCULATIONS
NTS

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

BKF ENGINEERS / SURVEYORS / PLANNERS
1646 N. California Blvd, Suite 400
Walnut Creek, CA 94596
(925) 940-2200
(925) 940-2299 (FAX)

REGISTERED PROFESSIONAL ENGINEER
ERIC S. SWANSON
No. 64607
CIVIL
STATE OF CALIFORNIA
08/21/2023

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

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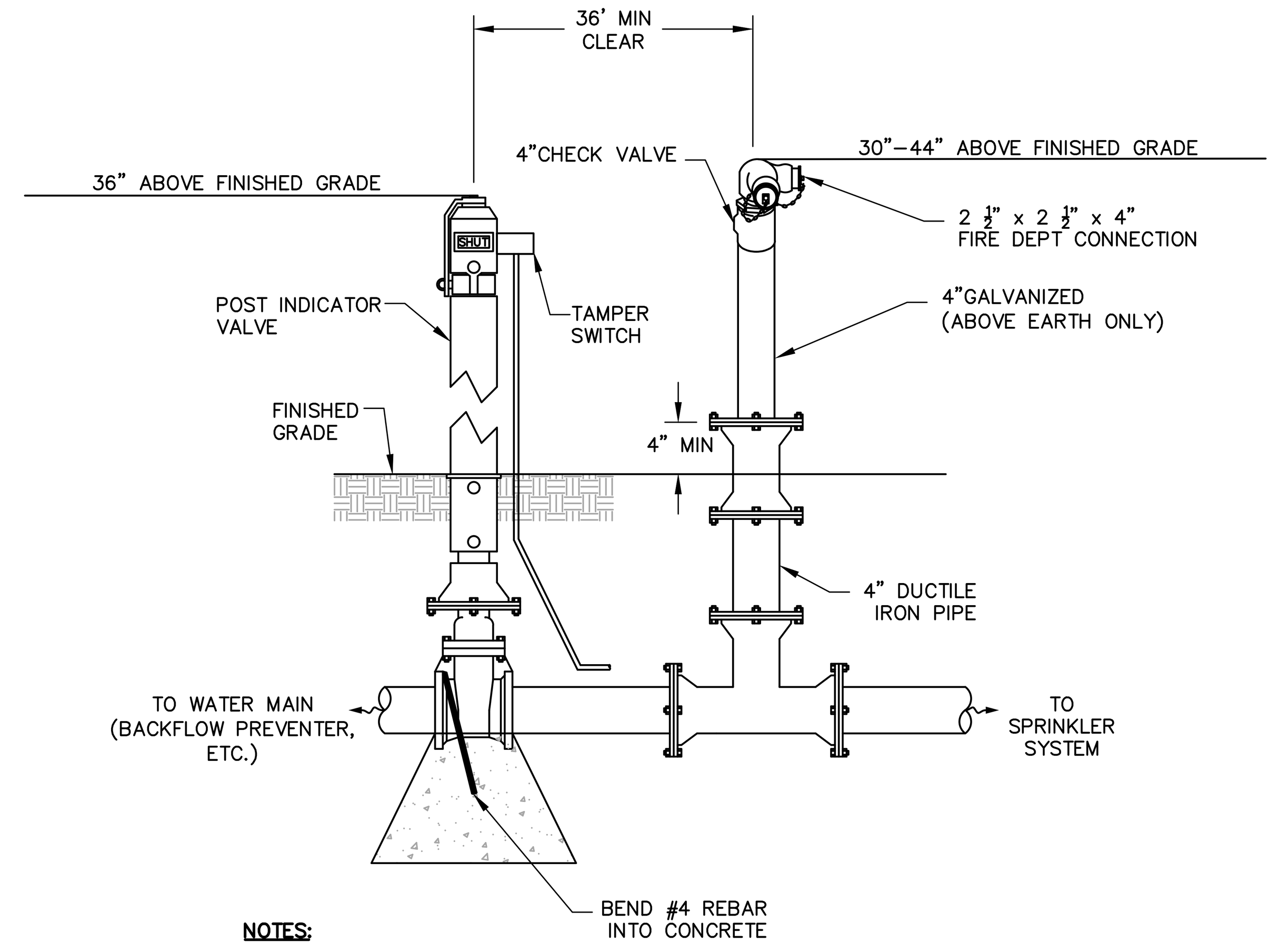
SHEET TITLE
CONSTRUCTION DETAILS

SHEET NUMBER
C5.0

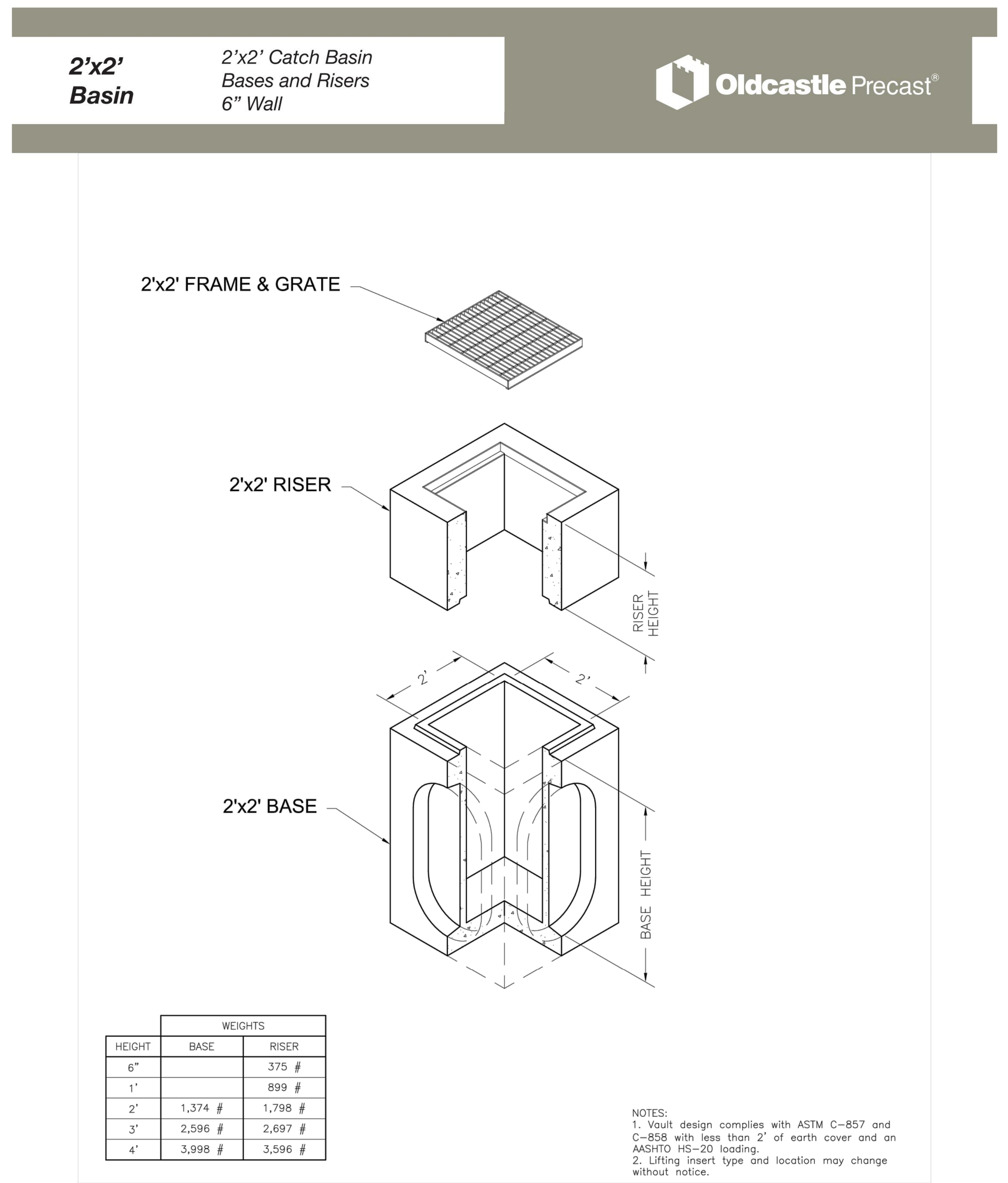


36" MIN CLEAR
36" ABOVE FINISHED GRADE
4" CHECK VALVE
30"–44" ABOVE FINISHED GRADE
2 1/2" x 2 1/2" x 4" FIRE DEPT CONNECTION
POST INDICATOR VALVE
TAMPER SWITCH
4" GALVANIZED (ABOVE EARTH ONLY)
FINISHED GRADE
4" MIN
4" DUCTILE IRON PIPE
TO WATER MAIN (BACKFLOW PREVENTER, ETC.)
TO SPRINKLER SYSTEM
BEND #4 REBAR INTO CONCRETE

NOTES:

1. ALL DUCTILE IRON PIPING SHALL BE CLEANED, MASTIC COATED, AND WRAPPED IN CONFORMANCE TO APPROVED ACCEPTED STANDARDS TO PREVENT CORROSION.
2. ALL EXPOSED UNPROTECTED METAL SHALL BE CLEANED, COATED WITH BITUMEN MASTIC COATING (COLD APPLIED LIQUID BITUMINOUS COATING) USED FOR CORROSION PROTECTION, AND WRAPPED IN 8 MIL POLYETHYLENE OR ANOTHER APPROVED STANDARD.

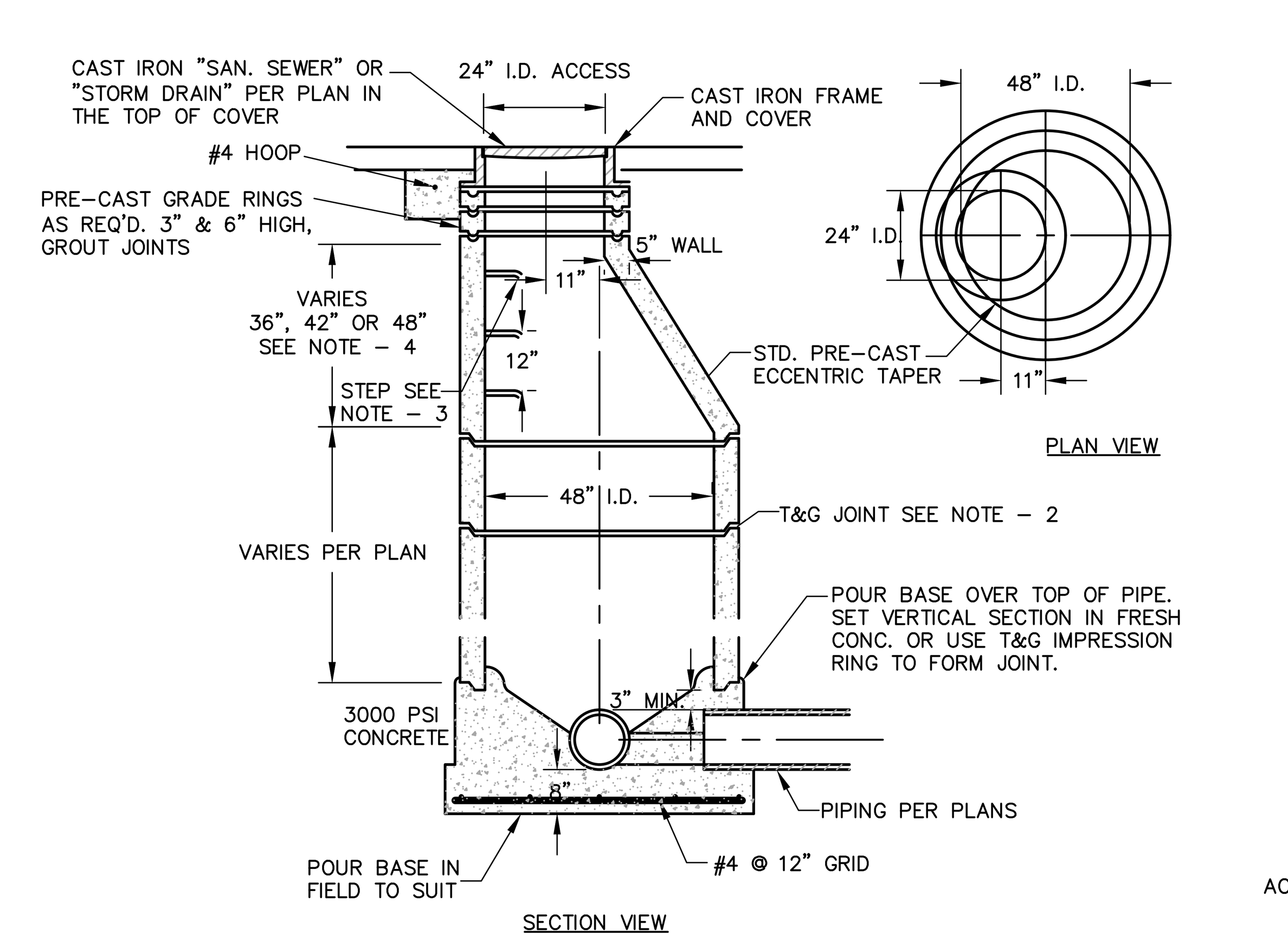
1 POST INDICATOR VALVE AND FIRE DEPARTMENT CONNECTION
NTS



NOTES:

1. ALL DRAIN INLETS SHALL HAVE ADA AND HEEL PROOF GRATES.

2 24"x24" DRAIN INLET
NO SCALE

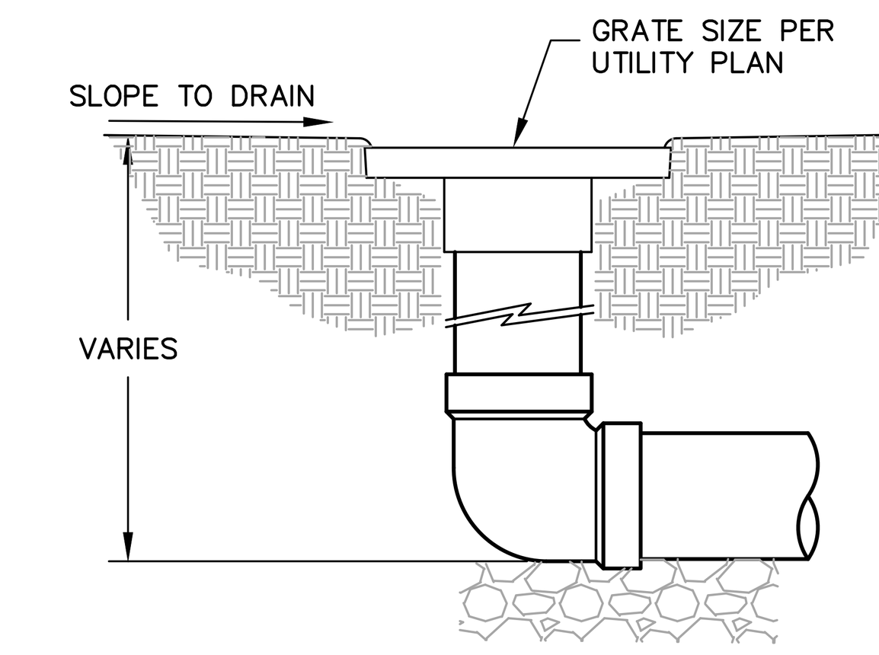


CAST IRON "SAN. SEWER" OR "STORM DRAIN" PER PLAN IN THE TOP OF COVER
24" I.D. ACCESS
CAST IRON FRAME AND COVER
#4 HOOP
PRE-CAST GRADE RINGS AS REQ'D. 3" & 6" HIGH, GROUT JOINTS
5" WALL
VARIES 36", 42" OR 48" SEE NOTE – 4
STEP SEE NOTE – 3
STD. PRE-CAST ECCENTRIC TAPER
48" I.D.
T&G JOINT SEE NOTE – 2
VARIES PER PLAN
POUR BASE OVER TOP OF PIPE. SET VERTICAL SECTION IN FRESH CONC. OR USE T&G IMPRESSION RING TO FORM JOINT.
3000 PSI CONCRETE
3" MIN
PIPING PER PLANS
POUR BASE IN FIELD TO SUIT
#4 @ 12" GRID
SECTION VIEW
48" I.D.
24" I.D.
PLAN VIEW

NOTES:

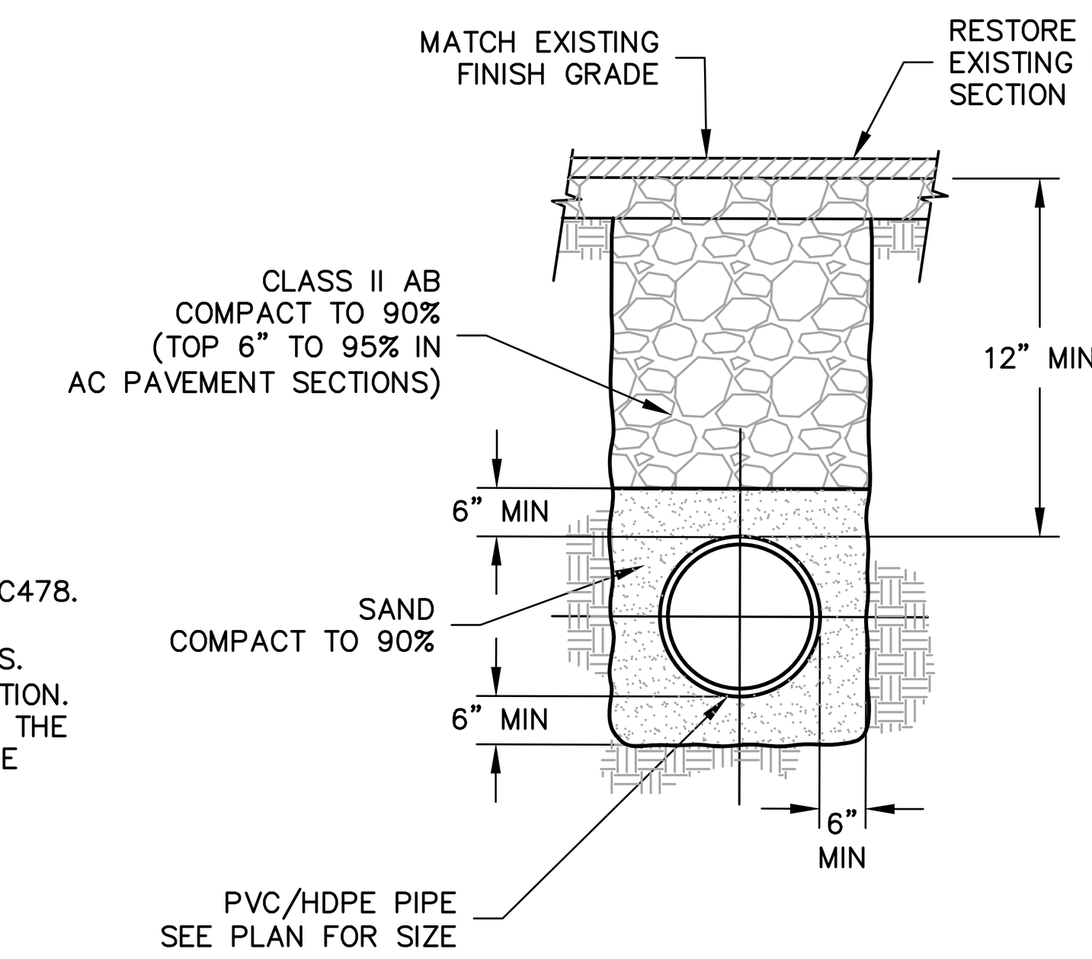
1. USE 48" MANHOLE FOR ALL PIPES LESS THAN 30" DIAMETER.
2. PRE-CAST MANHOLE MATERIAL SHALL BE MANUFACTURED TO ASTM SPECIFICATION C478.
3. GROUT JOINTS WITH 1:3 MORTAR MIX OR USE RAM-NEK JOINT COMPOUND.
4. 3/4" DIA. GALV. STEEL STEPS ARE SPACED 12" O.C. VERTICALLY & 6" FROM JOINTS.
5. A 36" TAPER MAY BE COMBINED WITH A 12" VERTICAL TO FORM A 48" TAPER SECTION.
6. ALL CONCRETE JOINTS SHALL BE LEANED, WETTED, A MORTARED PRIOR TO SETTING THE NEXT SECTION. THE JOINTS SHALL BE PACKED, TOWELLED AND BRUSHED WHILE THE MORTAR IS PLASTIC.
7. MANHOLE SHALL BE SET TO GRADE SUBSEQUENT TO PLACING AC OR RCC.
8. COAT ALL CONCRETE SURFACES INSIDE SANITARY SEWER MANHOLES WITH XYPEX "CHRISTALLINE" OR APPROVED EQUAL.

3 TYPICAL MANHOLE DETAIL
NTS



RFI # 188 - AREA DRAIN 12"X12" NDS 1200 SERIES WITH H-20 LOADING AND ADA COMPLIANT GRATE. DRAIN PIPE SHALL BE 6" DIA. ONLY LOCATION THAT USES THIS AREA DRAIN

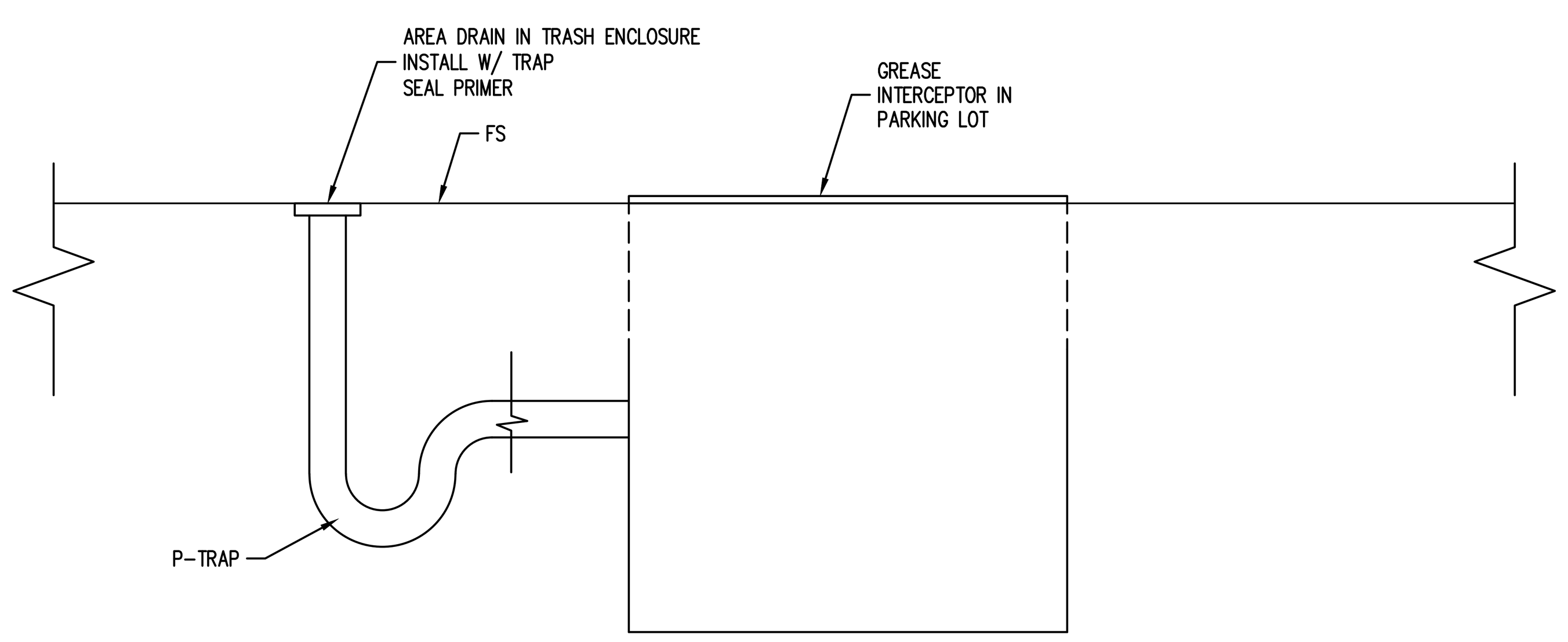
5 AREA DRAIN
NO SCALE



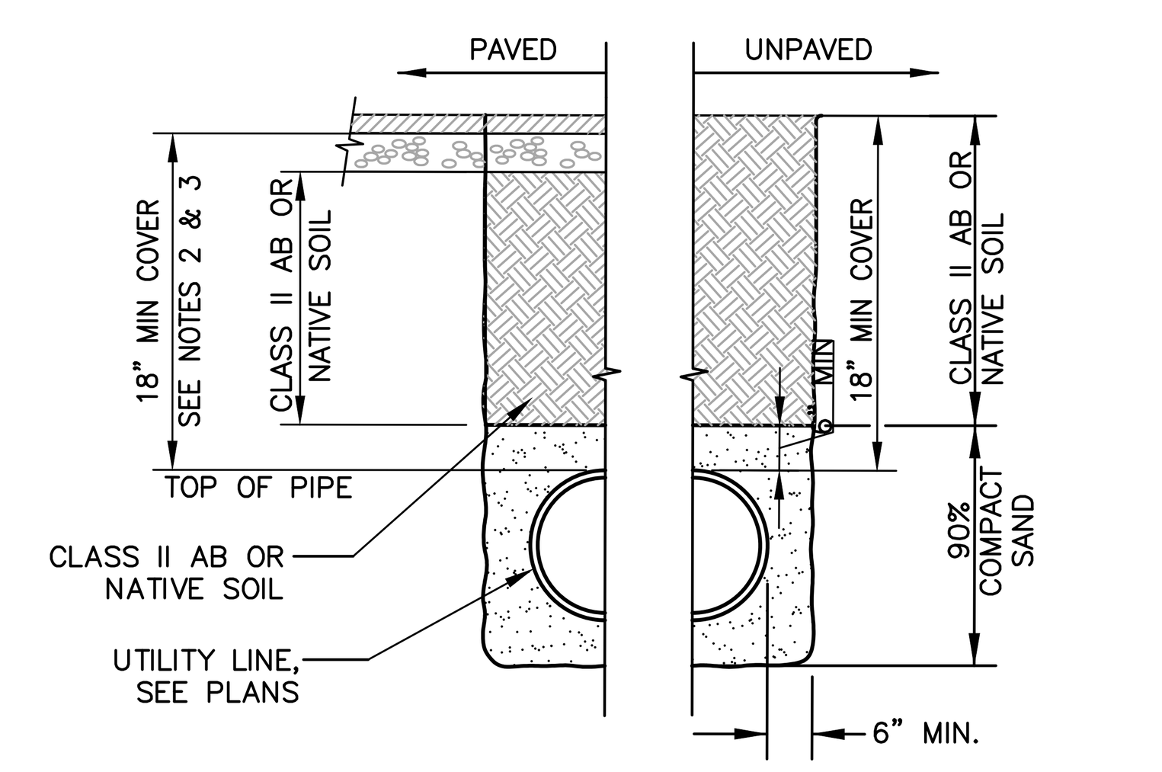
NOTES:

1. FOR TRENCHES IN LANDSCAPE AREAS THAT CROSS HARDSCAPE, BACKFILL WITH APPROVED NATIVE MATERIALS AS DETAILED IN THE GEOTECHNICAL REPORT.
2. FOR TRENCHES INSTALLED IN EXISTING CONCRETE, THE CONCRETE MUST BE RESTORED WITH DOWELS.

6 TRENCH RESTORATION
NO SCALE



4 GREASE INTERCEPTOR VENT
NO SCALE



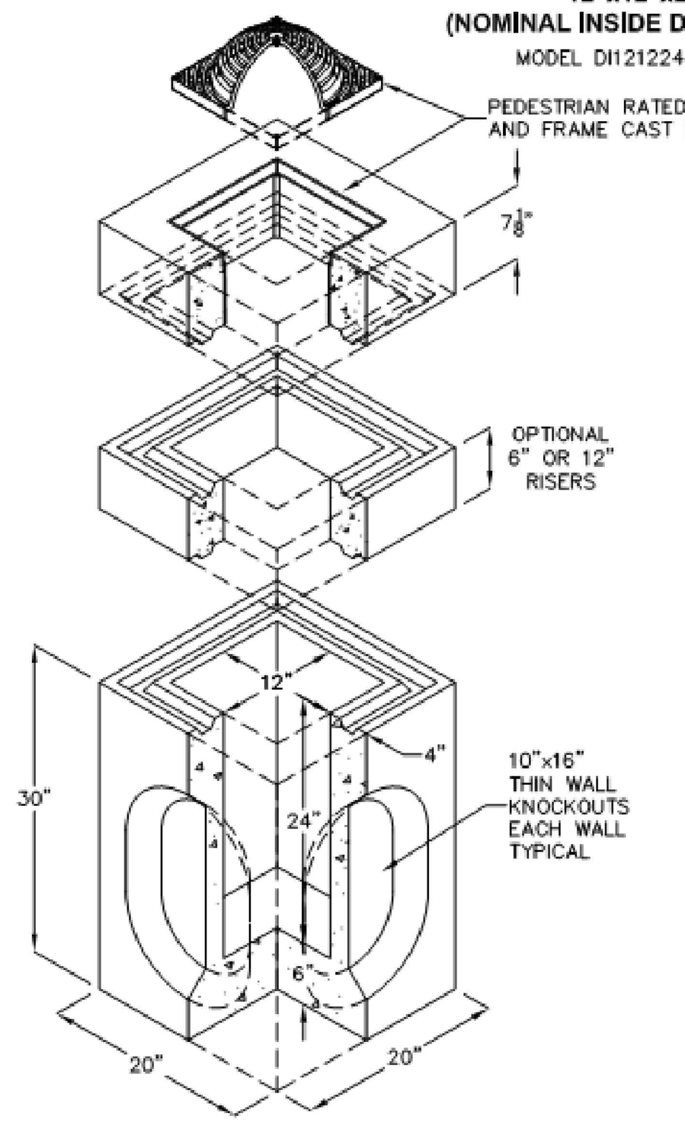
NOTES:

1. RESTORE EXISTING SURFACE TO EXISTING CONDITIONS AFTER TRENCH WORK AND COMPACTION IS COMPLETE.
2. COVER FOR ASPHALT AREAS IS DEFINED FROM TOP OF PIPE TO TOP OF AGGREGATE BASE.
3. COVER FOR CONCRETE AREAS IS DEFINED FROM TOP OF PIPE TO TOP OF FINISHED SURFACE.
4. REFER TO GEOTECHNICAL REPORT FOR BACKFILL MATERIAL COMPACTION AND REQUIREMENTS

8 PRIVATE UTILITY TRENCH
NTS

RFI #220 - GC INDICATES FROM CCCSD INSPECTOR THAT ZURN FLOW CONTROL DEVICE AT GREASE INTERCEPTOR IS NOT A REQUIREMENT.

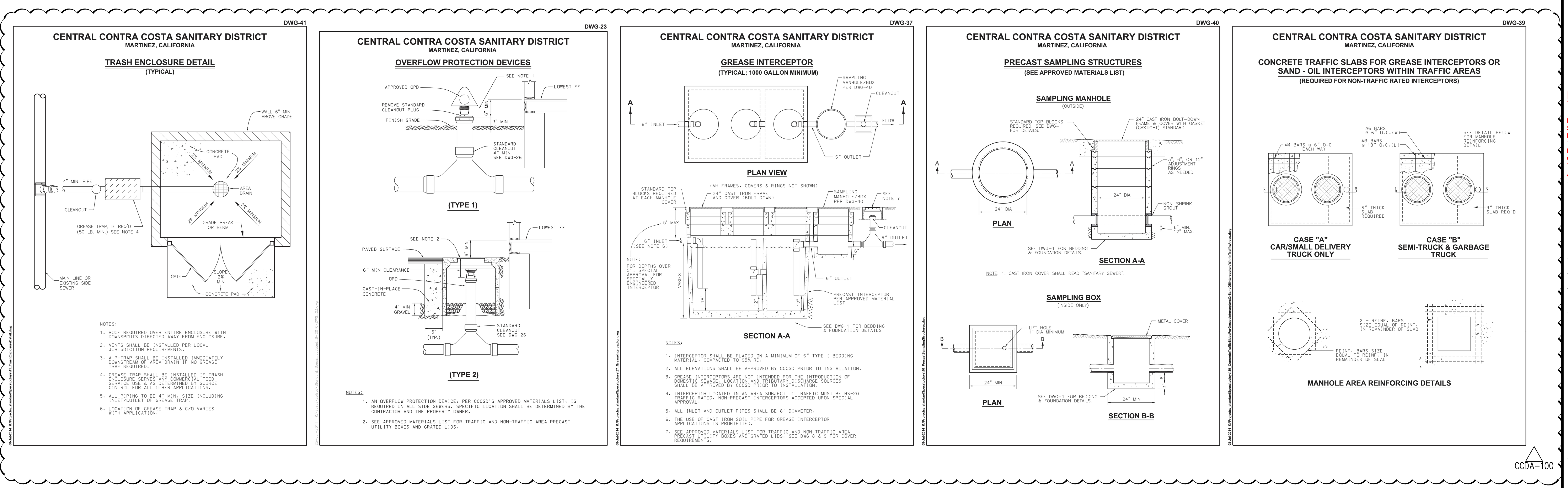
12x12 DROP INLET ATRIUM GRATE
12"x12"x24" (NOMINAL INSIDE DIMENSIONS)
MODEL DI121224-ATRIUM



DESIGN LOAD: 300 PSF PEDESTRIAN LOADING.
WATER TABLE ASSUMED TO BE BELOW BOTTOM OF STRUCTURE.
FOR COMPLETE DESIGN AND PRODUCT INFORMATION CONTACT JENSEN PRECAST.

JENSEN PRECAST

7 12" X 12" DRAIN INLET
NO SCALE



DWG-41
CENTRAL CONTRA COSTA SANITARY DISTRICT
MARTINEZ, CALIFORNIA
TRASH ENCLOSURE DETAIL
(TYPICAL)
DWG-23
CENTRAL CONTRA COSTA SANITARY DISTRICT
MARTINEZ, CALIFORNIA
OVERFLOW PROTECTION DEVICES
(TYPE 1)
(TYPE 2)
DWG-37
CENTRAL CONTRA COSTA SANITARY DISTRICT
MARTINEZ, CALIFORNIA
GREASE INTERCEPTOR
(TYPICAL; 1000 GALLON MINIMUM)
PLAN VIEW
SECTION A-A
DWG-40
CENTRAL CONTRA COSTA SANITARY DISTRICT
MARTINEZ, CALIFORNIA
PRECAST SAMPLING STRUCTURES
(SEE APPROVED MATERIALS LIST)
SAMPLING MANHOLE
PLAN
SECTION A-A
SAMPLING BOX
PLAN
SECTION B-B
DWG-39
CENTRAL CONTRA COSTA SANITARY DISTRICT
MARTINEZ, CALIFORNIA
CONCRETE TRAFFIC SLABS FOR GREASE INTERCEPTORS OR SAND - OIL INTERCEPTORS WITHIN TRAFFIC AREAS
(REQUIRED FOR NON-TRAFFIC RATED INTERCEPTORS)
CASE "A" CAR/SMALL DELIVERY TRUCK ONLY
CASE "B" SEMI-TRUCK & GARBAGE TRUCK
MANHOLE AREA REINFORCING DETAILS
CCDA-100

APPROVALS

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729 Heinz Avenue
Berkeley, CA 94710
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REGISTERED PROFESSIONAL ENGINEER ERIC S. SWANSON No. 64607 CIVIL STATE OF CALIFORNIA
08/21/2023

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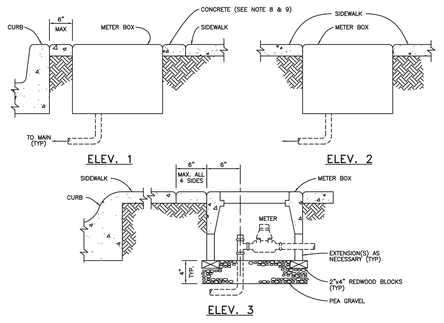
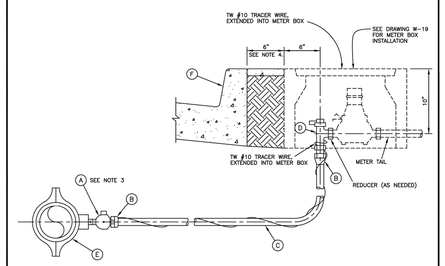


NOTES:

1. SEE TO SECTION II-B2-10. METER BOXES, FOR METER BOX SCHEDULE
2. H20 TRAFFIC LOADING BOXES & LIDS TO BE USED IN TRAFFIC AREAS.
3. ALL METER BOXES MUST BE SET TRUE, PERPENDICULAR TO STREET, AND FLUSH WITH SIDEWALK.
4. SPACE BETWEEN BOXES IN MULTIPLE METER INSTALLATIONS SHALL BE 2".
5. DO NOT SET METER BOXES ON PRIVATE PROPERTY.
6. LID TO BE ONE PIECE, MARKED WATER, AND TOUCH-READ READY.
7. IN SLOPED AREA METER BOX MAY REQUIRE REDWOOD RETAINING BOARDS.
8. METER BOXES OUTSIDE TRAFFIC AREA SHALL BE CHRISTY FIBERLYTE BOX WITH FIBRELYTE LIDS, OR APPROVED EQUAL. METER BOXES IN TRAFFIC AREAS SHALL BE CHRISTY CONCRETE METER BOX WITH H-20 TRAFFIC RATED LIDS, OR APPROVED EQUAL. INSTALL 6" CONCRETE COLLAR AROUND THE METER BOX.
9. METER BOXES FOR RECYCLED WATER METERS, OR METERS WITH ASSOCIATED BACKFLOW PREVENTION DEVICES, SHALL HAVE A 6" CONCRETE COLLAR AROUND THE METER BOX.
10. RECYCLED WATER METER BOX INSTALLATION SHALL BE IDENTIFIED AS RECYCLED WATER FACILITIES PER SECTION IV-B1-2.04.

Dublin San Ramon Services District	REVISION DATE NOV 2012
METER BOX INSTALLATIONS 5/8 INCH TO 6 INCH	REVISED BY BCD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-19

CCD-100



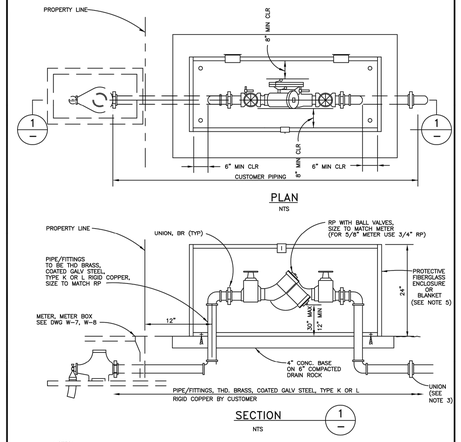
SERVICE WITH 90° TAP W/ POLYETHYLENE

ITEM	DESCRIPTION
A	CORPORATION STOP (MUELLER 300 SERIES, MCDONALD 74701 BQ, OR EQUAL)
B	COMPRESSION JOINT
C	POLYETHYLENE TUBING WITH COPPER WIRE (BLUE HDPE FOR POTABLE AND PURPLE HDPE FOR RECYCLED WATER)
D	ANGLE CURB STOP W/WING LOCK – BRONZE (MUELLER 300 SERIES, MCDONALD 74602 BT, OR EQUAL)
E	SERVICE SADDLE – BRONZE (ROCKWELL 323, MUELLER 16100, MCDONALD 3825, OR APPROVED EQUAL)
F	FACE OF CURB MARKED "W" FOR POTABLE WATER AND "RW" FOR RECYCLED WATER.

NOTES:

1. MINIMUM COVER FOR THE SERVICE LINE SHALL BE 36 INCHES.
2. SERVICE LINE SHALL REST ON UNDISTURBED EARTH.
3. STAINLESS STEEL INSERT STIFFENERS SHALL BE USED AT CORP. AND ANGLE STOPS IN POLYETHYLENE SERVICE LINES WHEN RECOMMENDED BY THE FITTING MANUFACTURER.
4. SEE DWG. W-19 FOR METER BOX INSTALLATION.
5. ANGLE CURB STOP SHALL BE 1"x1" MINIMUM.

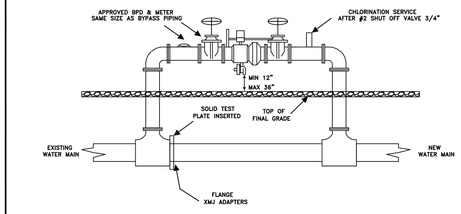
Dublin San Ramon Services District	REVISION DATE NOV 2011
1" SERVICE INSTALLATION	REVISED BY BCD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-7



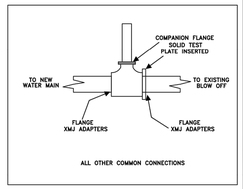
NOTES:

1. SET RP ON PRIVATE PROPERTY.
2. IF RP IS LOCATED NEAR TRAFFIC AREA, A MIN. OF TWO 4" GALVANIZED STEEL GUARD POSTS SHALL BE PROVIDED. POSTS SHALL BE 42" HIGH, EMBEDDED 36" BELOW GROUND IN CONCRETE, AND FILLED WITH CONCRETE.
3. FITTING SHALL BE DIELECTRIC WHERE JOINING DISSIMILAR METALS.
4. 3/4" TO 2" MUST HAVE BALL VALVE SHUT OFF VALVES.
5. PROVIDE LOCKABLE FIBERGLASS ENCLOSURE WITH FOAM INSULATION AND GASKETED SEALS, OR BLANKET (SEE DRAWING W-25).
6. DIMENSION OF CONCRETE PAD TO BE AS RECOMMENDED BY ENCLOSURE MANUFACTURER.
7. DEVICE SHALL BE TESTED BY CERTIFIED TESTER. TEST REPORT SHALL BE SUBMITTED TO DSRSD.

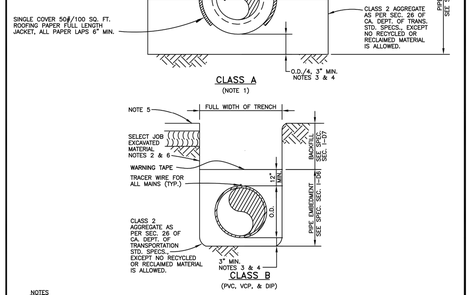
Dublin San Ramon Services District	REVISION DATE MAR 21012
BACKFLOW PREVENTER INSTALLATION 3/4" TO 2"	REVISED BY BCD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-21



NOTE:
RP SHALL BE SIZED BY CONTRACTOR TO MEET AWWA STANDARD FOR FLUSHING.



Dublin San Ramon Services District	REVISION DATE MAR 2012
CONSTRUCTION JUMPER	REVISED BY BCD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-30



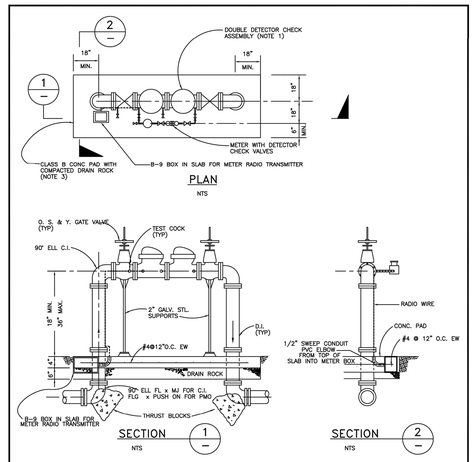
NOTES

1. REQUIRED IN SPECIAL CASES SUCH AS WHERE LESS THAN MINIMUM COVER CAN BE ATTAINED.
2. IMPORTED MATERIAL SHALL BE USED WHEN NATIVE MATERIAL IS UNSUITABLE AS PER SPEC. SEC. I-07.
3. SHALL BE 5 INCHES MIN. WHEN TRENCH BOTTOM IS UNSUITABLE AS PER SPEC. SEC I-04-5.
4. ADDITIONAL EXCAVATION REQUIRED AT BELL ENDS TO MAINTAIN 3 INCH DEPTH OF AGGREGATE BELOW PIPE BELL.
5. FOR RESURFACING AND RESTORATION REQUIREMENTS, SEE SPEC. I-09.
6. BACKFILL REQUIREMENTS IN THESE STANDARD SPECIFI-CATIONS AND DRAWINGS APPLY ONLY WHEN THERE ARE NO GOVERNING CITY OR AGENCY REQUIREMENTS.
7. FOR TRENCH BOTTOMS WITH SOFT OR UNSTABLE MATERIAL, REFERENCE SPEC. SEC. I-04-5.
8. PIPE EMBEDMENT MATERIAL SHALL BE FREE OF VEGETABLE MATTER, RECYCLED MATERIAL (INCLUDING RECYCLED AGGREGATE BASE), AND OTHER DELETERIOUS SUBSTANCES.

REV. 08/2011

Dublin San Ramon Services District	DATE MAY 1987
STANDARD TRENCH SECTION FOR WATER AND SEWER MAINS AND SIDE SEWER INSTALLATIONS	DESIGNED DJM
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING G-1

CCD-100



NOTES:

1. DOUBLE DETECTOR CHECK ASSEMBLY SHALL BE FACTORY ASSEMBLED COMPLETE, WITH METER AND DETECTOR CHECKS AND SHALL BE ON DISTRICT APPROVED LIST. THE DETECTOR METER SHALL BE SUPPLIED WITH A RADIO-READ NEPTUNE OR SENSUS METER. THE METER INTERFACE UNITS SHALL BE DATAMATIC FIREFLY METER INTERFACE UNITS FOR AMR SYSTEMS USING ENCODED REGISTERS WITH PROFILE PLUS LOAD PROFILING CAPABILITY.
2. INSTALL AS REQUIRED.
3. RADIO WIRE TO BE FIRMLY AFFIXED TO PIPING WITH WIRE TIES.
4. TRANSMITTER TO BE SPLICED TO INCOMING WIRES WITH WATER PROOF CONNECTORS.
5. METER SHALL BE SET TO READ IN CUBIC FEET.
6. DEVICE SHALL BE TESTED BY CERTIFIED TESTER. TEST REPORT SHALL BE SUBMITTED TO DSRSD.

Dublin San Ramon Services District	REVISION DATE MAR 2012
DOUBLE DETECTOR CHECK FOR 2" – 10" FIRE LINES ABOVE GROUND INSTALLATION	REVISED BY BCD
SIGNED COPY ON FILE AT DISTRICT OFFICE	DRAWING W-23

CCD-100

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

BKF ENGINEERS / SURVEYORS / PLANNERS
1646 N. California Blvd, Suite 400
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REGISTERED PROFESSIONAL ENGINEER ERIC S. SWANSON No. 64607 CIVIL STATE OF CALIFORNIA
08/21/2023

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

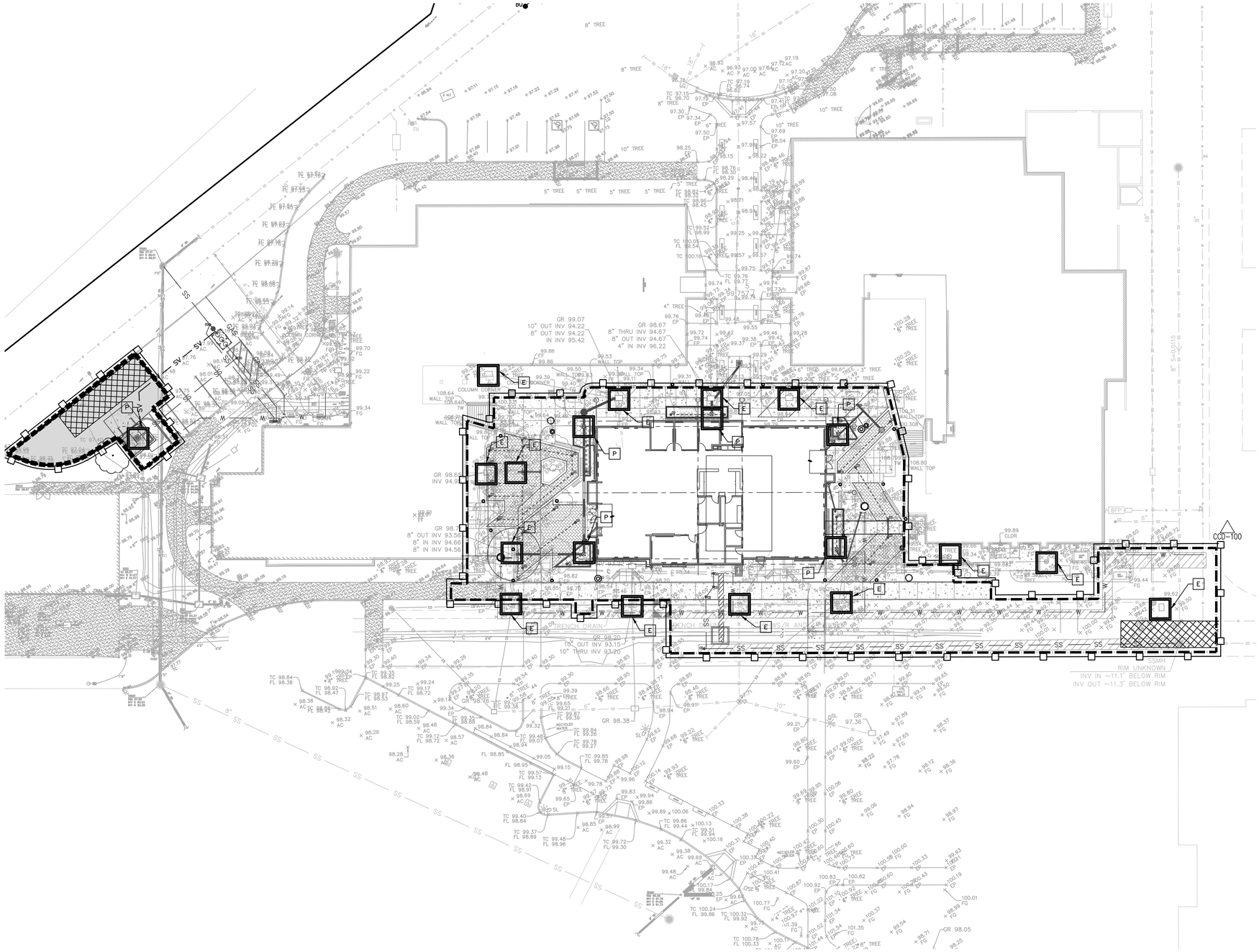
ISSUE DATE **05/30/2019**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

	DATE	DESCRIPTION
	8/2/19	INC 2 - ADDENDUM 02
	8/27/19	INC 2 - ADDENDUM 03
CCDA-1	11/12/19	ASI #3-CCDA-1
CCD-100	02/07/20	ASI #3-CCDA-100
CCDA-102	04/07/20	CCDA-102
ASI 20	08/11/20	ASI 20

SHEET TITLE
CONSTRUCTION DETAILS

SHEET NUMBER
CCDA-1 **C5.2**



EROSION CONTROL NOTES:

1. CONTRACTOR SHALL PROVIDE THE CITY INSPECTOR AND ENGINEER UPDATED EROSION CONTROL PLANS TO REFLECT SITE AND CONSTRUCTION PHASING CHANGES.
2. SEE SHEET C6.1 FOR ADDITIONAL NOTES AND DETAILS

DEMOLITION LEGEND:

- STORM DRAIN INLET PROTECTION, SHEET C6.1 DETAIL 1
- FIBER ROLLS, SHEET C6.1 DETAIL 2
- E — EXISTING CATCH BASIN LOCATION
- P — PROPOSED CATCH BASIN LOCATION
- CONSTRUCTION SITE ENTRANCE, SHEET C6.1 DETAIL 3
- CONSTRUCTION FENCE LINE

ABBREVIATIONS:

E	EXISTING
P	PROPOSED

NORTH

GRAPHIC SCALE

20 0 10 20 40 60

(IN FEET)
1 inch = 20 ft.

APPROVALS

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ISSUE DATE 05/30/2019
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CCDA-102	04/07/20	CCDA-102
ASI 20	08/11/20	ASI 20

SHEET TITLE
EROSION CONTROL

SHEET NUMBER
C6.0

TEMPORARY MEASURES EFFECTIVE DURING RAINY SEASON (OCTOBER 1 TO APRIL 30)

1. TEMPORARY EROSION CONTROL DEVICES SHOWN ON GRADING PLAN WHICH INTERFERE WITH THE WORK SHALL BE RELOCATED OR MODIFIED WHEN THE INSPECTOR SO DIRECTS AS THE WORK PROGRESSES.
2. EXCEPT AS OTHERWISE DIRECTED BY THE INSPECTOR, ALL DEVICES SHOWN ON THE EROSION CONTROL PLAN SHALL BE IN PLACE AT THE END OF EACH WORKING DAY. ALL EROSION CONTROL FACILITIES MUST BE INSPECTED AND REPAIRED AT THE END OF EACH WORKING DAY DURING THE RAINY SEASON AND MAINTAINED DURING THE RAINY SEASON (OCTOBER 1 TO APRIL 15).
3. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CONSTRUCTED AND MAINTAINED IN ACCORDANCE WITH THE PROVISIONS OF THE ASSOCIATION OF BAY AREA GOVERNMENTS (ABAG) 'MANUAL OF STANDARDS FOR EROSION AND SEDIMENT CONTROL MEASURES' UNLESS OTHERWISE STATED WITHIN THESE GENERAL NOTES. CONTROL MEASURES ARE SUBJECT TO THE INSPECTION AND APPROVAL OF THE ENGINEERING DIVISION OF THE PUBLIC SERVICES DEPARTMENT. SCHEDULE AN ENGINEERING INSPECTION BY CALLING 925-943-5839 AT LEAST 48 HOURS PRIOR TO THE START OF ANY WORK.
4. ALL LOOSE SOIL AND DEBRIS SHALL BE REMOVED FROM THE STREET AREAS UPON STARTING OPERATIONS AND PERIODICALLY THEREAFTER AS DIRECTED BY THE INSPECTOR. THE SITE SHALL BE MAINTAINED SO AS TO MINIMIZE SEDIMENT LADEN RUNOFF TO ANY STORM DRAIN SYSTEM.
5. THE CONTRACTOR SHALL PLACE 3'-4' FRACTURED STONE AGGREGATE AS A GRAVEL ROADWAY (6" MINIMUM THICKNESS FOR THE FULL WIDTH AND 50 FEET LONG) AT EACH ROAD ENTRANCE TO THE SITE. ANY MUD THAT IS TRACKED ONTO PUBLIC STREETS SHALL BE REMOVED THE SAME DAY AS REQUIRED BY THE CITY ENGINEER. MINIMUM WIDTH OF GRAVEL ROADWAY IS 10 FEET.
6. A CONCRETE WASHOUT IS REQUIRED FOR ALL CONCRETE WORK. THE WASHOUT SHALL CONSIST OF A CONTAINMENT AREA ENCLOSED BY AN EARTHEN DIKE. PLASTIC TARP, COVERING THE CONTAINMENT AREA AND EARTHEN DIKE, SHALL BE STAKED IN AT OUTSIDE EDGE OF EARTHEN DIKE.
7. ADDITIONAL CONTAINMENT METHODS MUST BE PROVIDED FOR ANY WASTE STORAGE AREA, STOCKPILE/MATERIAL STORAGE AREA AND/OR CONSTRUCTION TOILET AREA.
8. IF THE PROJECT REQUIRES A STORMWATER POLLUTION PREVENTION PLAN (SWPPP), PROVIDE THE FOLLOWING:

   WASTE DISCHARGE IDENTIFICATION NUMBER (WDID):
   _____

   CONTACT PERSON'S NAME:
   ERIC SWANSON

   ADDRESS:
   1646 N. CALIFORNIA BLVD., SUITE 400, WALNUT CREEK, CA 94596

   TELEPHONE NUMBER:
   925-940-2206

9. STAND-BY CREWS SHALL BE ALERTED BY THE PERMITTEE OR CONTRACTOR FOR EMERGENCY WORK DURING RAINSTORMS.
10. AFTER OCTOBER 1, ALL EROSION CONTROL MEASURES WILL BE INSPECTED DAILY AND AFTER EACH STORM. AFTER OCTOBER 1, BREACHES IN DIKES AND SWALES WILL BE REPAIRED AT THE CLOSE OF EACH DAY AND WHENEVER RAIN IS FORECAST.
11. AS A PART OF THE EROSION CONTROL MEASURES, UNDERGROUND STORM DRAIN FACILITIES AND CONCRETE SHALL BE INSTALLED COMPLETE AS SHOWN ON THE IMPROVEMENT PLANS.
12. ALL STORM DRAIN INLET STRUCTURES GREATER THAN FOUR FEET IN DEPTH SHALL HAVE STEPS INSTALLED PER THE LATEST ACCEPTED SAFETY STANDARDS. A 6" CONCRETE COVER SLAB SHALL BE INSTALLED OVER PIPE WITH LESS THAN 2.5 FEET OF COVER TO SUBGRADE. ALL PIPE TO BE CLASS III UNLESS OTHERWISE NOTED.
13. ALL GRADED AREAS, INCLUDING, BUT NOT LIMITED TO, CUT AND FILL SLOPES, STREETS, PARKING AREAS, AND BUILDING PADS SHALL BE HYDROSEEDED PER ABAG. IN ADDITION TO HYDROSEEDING, APPLICATION OF STRAW WITH A TACKIFIER OR MULCH MAY BE REQUIRED BY THE CITY ENGINEER.
14. IF ANY GRADING OPERATIONS, OTHER THAN LOT FINISH GRADING, ARE TO BE PERFORMED DURING THE RAINY SEASON, OCTOBER 1 THROUGH APRIL 30, AN EROSION CONTROL PLAN MUST BE SUBMITTED BY SEPTEMBER 1 AND THE PLAN MUST BE APPROVED BY THE CITY OF WALNUT CREEK PRIOR TO THE COMMENCEMENT OF ANY SUCH GRADING OPERATIONS.
15. TO MINIMIZE EROSION OF GRADED BANKS, ALL GRADED BANKS STEEPER THAN 2% AND HIGHER THAN 3 FEET, SHALL BE HYDROSEEDED, LANDSCAPED, OR SEALED. IN ADDITION TO HYDROSEEDING, APPLICATION OF STRAW WITH A TACKIFIER OR MULCH MAY BE REQUIRED BY THE CITY ENGINEER. IF THE PERMANENT STORM DRAIN SYSTEM IS NOT INSTALLED BY OCTOBER 1, TEMPORARY DITCHES SHALL BE CONSTRUCTED TO CONTAIN THE STORM WATER AND DIRECT IT, IN A MANNER THAT AVOIDS EROSION OF THE BANKS, TO THE EROSION AND SEDIMENT CONTROL FACILITIES.
16. ALL CUT AND FILL SLOPES ARE TO BE PROTECTED TO PREVENT OVERBANK FLOW USING 4" EARTH BERMS OR SILT FENCES.
17. ALL GRADED AREAS, INCLUDING, BUT NOT LIMITED TO, CUT AND FILL SLOPES, STREETS, PARKING AREAS, AND BUILDING PADS SHALL BE HYDROSEEDED PER CITY'S REQUIREMENT. SUGGESTED MIX DESIGN FOLLOWS:

'BLANDO' BROME	40 LBS/ACRE
ZORRO FESCUE	10 LBS/ACRE
HYKON ROSE CLOVER	9 LBS/ACRE
SUB CLOVER	5 LBS/ACRE
CALIFORNIA NATIVE WILDFLOWER	8 LBS/ACRE
FERTILIZER	300 LBS/ACRE
ORGANIC BINDER	100 LBS/ACRE
STRAW MULCH	4000 LBS/ACRE

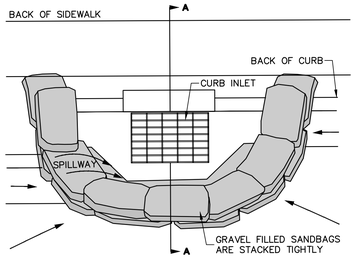
18. BORROW AREAS AND TEMPORARY STOCKPILES SHALL BE PROTECTED WITH APPROPRIATE EROSION CONTROL MEASURES TO THE SATISFACTION OF THE CITY ENGINEER.
19. SANDBAGS, STRAW WATTLES AND/OR STRAW BALES SHALL BE STOCKPILED ON SITE AND PLACED AT INTERVALS SHOWN ON EROSION CONTROL PLANS, WHEN THE RAIN FORECAST IS 40% OR GREATER, OR WHEN DIRECTED BY THE INSPECTOR.
20. SANDBAGS REFERRED TO IN THE PRECEDING ITEMS MUST BE FULL. APPROVED SANDBAG FILL MATERIALS ARE DECOMPOSED GRANITE AND/OR GRAVEL, OR OTHER MATERIALS APPROVED BY THE INSPECTOR.
21. WHEN DIRECTED BY THE INSPECTOR, A 12-INCH BERM SHALL BE MAINTAINED ALONG THE TOP OF THE SLOPE OF THOSE FILLS ON WHICH GRADING IS NOT IN PROGRESS.
22. WHEN PAD ELEVATIONS OF ADJACENT LOTS OR ELEVATIONS BETWEEN THE STREET AND THE LOT ARE SEPARATED BY MORE THAN 6 FEET, A MINIMUM 12" BERM SHALL BE MAINTAINED ALONG THE PROPERTY LINE SEPARATING THE LOTS, AND THE BERM SHALL DIRECT THE WATER TO THE OUTLET. VELOCITY CHECK DAMS SHALL BE INSTALLED BETWEEN THE OUTLET ON THE LOT AND THE STREET.
23. PROVIDE VELOCITY CHECK DAMS IN ALL UNPAVED STREETS AT THE INTERVALS INDICATED BELOW IN NOTE #24. VELOCITY CHECK DAMS MAY BE CONSTRUCTED OF STRAW BALES, SANDBAGS OR OTHER EROSION RESISTANT MATERIALS APPROVED BY THE INSPECTOR, AND SHALL EXTEND COMPLETELY ACROSS THE STREET OR CHANNEL AT RIGHT ANGLES TO THE CENTERLINE. EARTH DIKES MAY NOT BE USED AS VELOCITY CHECK DAMS.
24. PROVIDE VELOCITY CHECK DAMS IN ALL UNPAVED GRADED CHANNELS AT THE INTERVALS INDICATED BELOW:

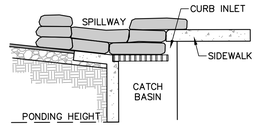
GRADE OF CHANNEL	INTERVAL
LESS THAN 3%	100 FEET
3% TO 6%	50 FEET
OVER 6%	25 FEET

25. SEWER OR STORM DRAIN TRENCHES THAT ARE CUT THROUGH BASIN DIKES OR BASIN INLET DIKES, SHALL BE PLUGGED WITH SANDBAGS FROM TOP OF PIPE TO TOP OF DIKE. SEWER LINES SHALL FIRST BE ENCASED IN CONCRETE BEFORE SANDBAGS ARE PLACED.
26. ALL OPEN UTILITY TRENCHES SHALL BE BLOCKED AT THE PRESCRIBED INTERVALS FROM THE BOTTOM TO TOP WITH A DOUBLE ROW OF SANDBAGS PRIOR TO BACKFILL. SEWER TRENCHES SHALL BE BLOCKED AT THE PRESCRIBED INTERVALS WITH A DOUBLE ROW OF SANDBAGS EXTENDING DOWNWARD, TWO SANDBAGS FROM THE GRADED SURFACE OF THE STREET. SANDBAGS ARE TO BE PLACED WITH ALTERNATE HEADER AND STRETCHER COURSES. THE INTERVALS PRESCRIBED BETWEEN SANDBAG LOCKING SHALL DEPEND ON THE SLOPE OF THE GROUND SURFACE, BUT NOT EXCEED THE FOLLOWING:

GRADE OF THE STREET	INTERVAL
LESS THAN 2%	AS REQUIRED
2% TO 4%	100 FEET
4% TO 10%	50 FEET
OVER 10%	25 FEET

27. AFTER STORM DRAIN, SANITARY SEWER AND UTILITY TRENCHES ARE BACKFILLED AND COMPACTED, THE SURFACES OVER SUCH TRENCHES SHALL BE MOUNDED SLIGHTLY TO PREVENT CHANNELING OF WATER IN THE TRENCH AREA. CARE SHOULD BE EXERCISED TO PROVIDE FOR CROSS FLOW AT FREQUENT INTERVALS WHERE TRENCHES ARE NOT ON THE CENTER LINE OF A CROWNED STREET.
28. SEDIMENT TRAPS SHALL BE CLEANED OUT WHENEVER SEDIMENT REACHES THE SEDIMENT CLEANOUT LEVEL INDICATED ON THE DETAIL ON THIS SHEET. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CLEAN THE DESILTING BASINS AND THE SEDIMENT TRAPS.
29. THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS MAY BE MADE TO THESE PLANS IN THE FIELD, SUBJECT TO APPROVAL OF THE CITY ENGINEER.
30. EROSION CONTROL STRUCTURES SHALL BE ADJUSTED BY THE CONTRACTOR TO REFLECT ALL CHANGES IN DRAINAGE AS STREETS AND BUILDING PADS ARE BEING INSTALLED.
31. PRIOR TO ISSUANCE OF PERMIT, CONTRACTOR SHALL SUBMIT TO CITY A PLAN THAT SHOWS: LOCATION OF CONSTRUCTION ENTRANCE, CONCRETE WASHOUT LOCATION, WASTE STORAGE AND STOCKPILE LOCATIONS AND CONTAINMENT THEREOF, AND LOCATION OF CONSTRUCTION TOILETS.



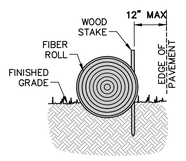


SECTION A-A

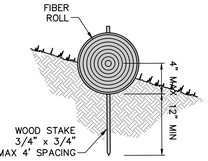
NOTES:

1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. SANDBAGS OF EITHER BURLAP OR WOVEN 'GEOTEXTILE' FABRIC, ARE FILLED WITH GRAVEL LAYERED AND PACKED TIGHTLY.
3. LEAVE A ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

1 CURB INLET SEDIMENT BARRIER
NOT TO SCALE



ENTRENCHMENT DETAIL
IN FLAT AREA

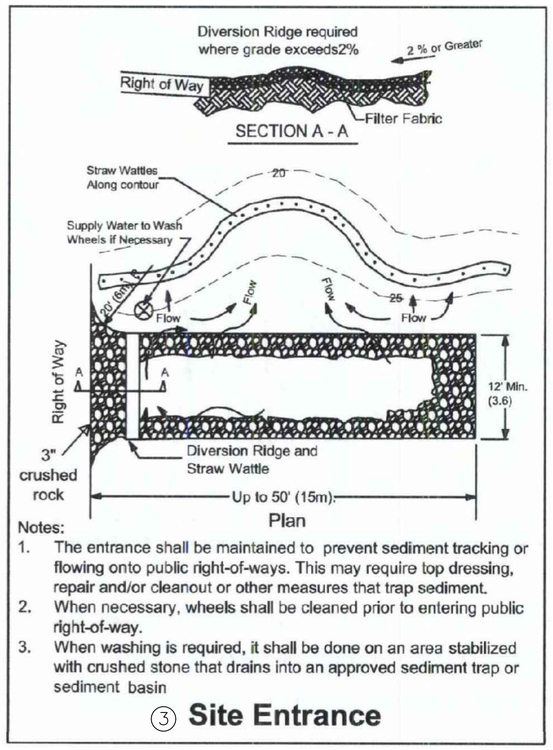


ENTRENCHMENT DETAIL
IN SLOPED AREA

NOTES

1. FIBER ROLLS ARE TUBES MADE FROM POROUS BIODEGRADABLE FIBER STUFFED IN A PHOTO-DEGRADABLE OPEN WEAVE NETTING. THEY ARE APPROXIMATELY 8" DIAMETER.
2. FIBER ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH, 2"-4" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWED TO RUN UNDER OR AROUND ROLL. ROLLS SHOULD BE ABUTTED SECURELY TO PROVIDE A TIGHT JOINT, NOT OVERLAPPED.

2 FIBER ROLL
NOT TO SCALE



3 Site Entrance

APPROVALS

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06/21/2023

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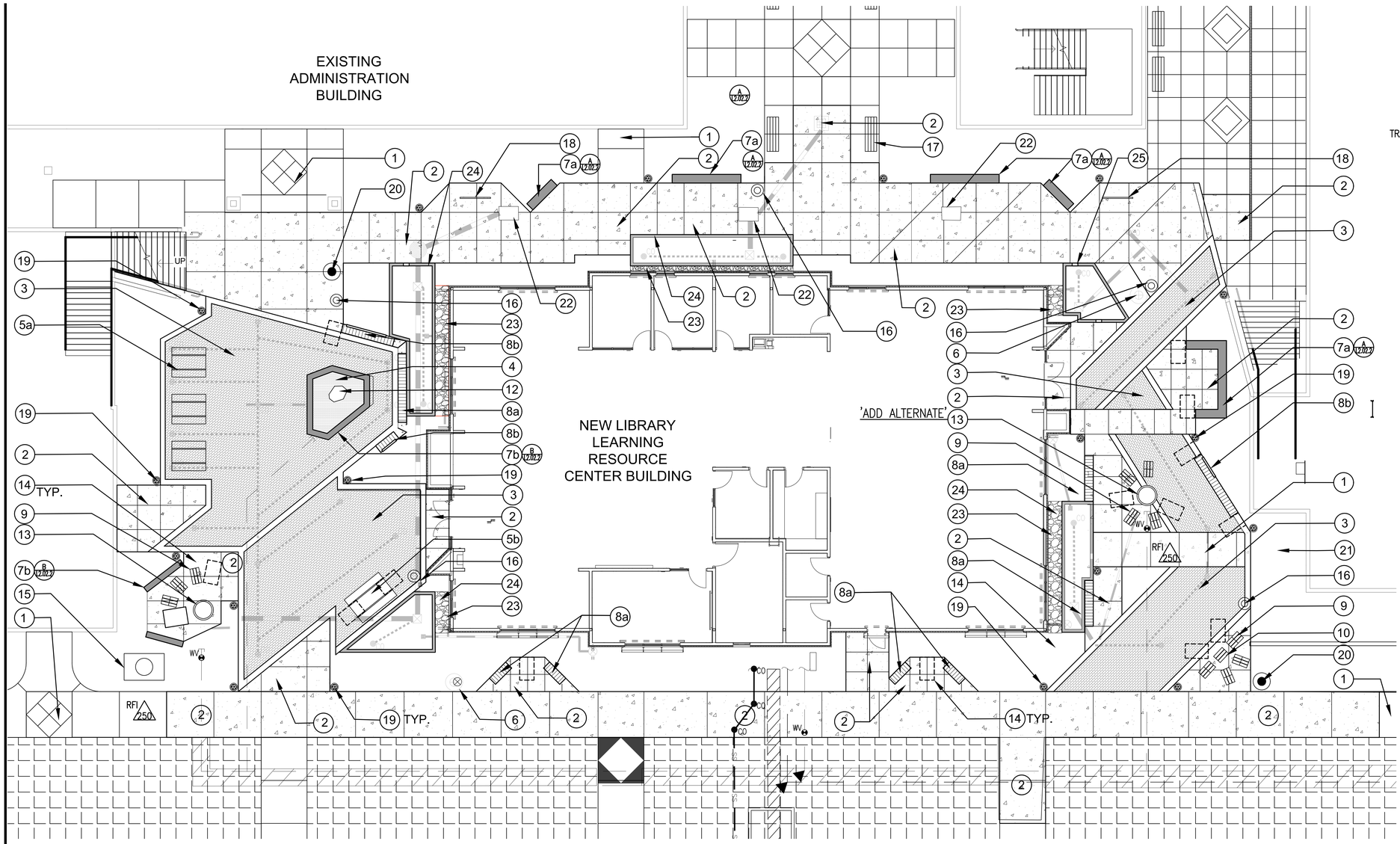
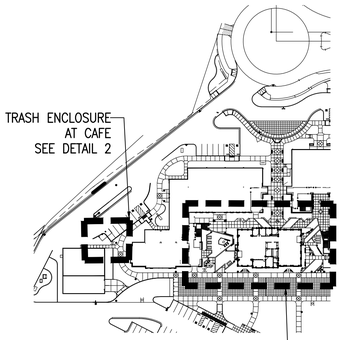
102	04/07/20	CCDA-102
20	08/11/20	ASI 20

SHEET TITLE
EROSION CONTROL

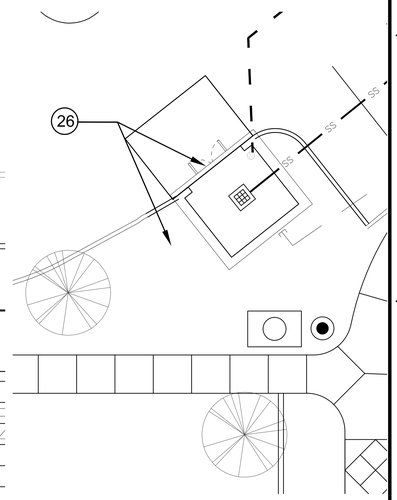
SHEET NUMBER
C6.1



1 SITE PLAN AT LLRC



KEY MAP
N.T.S.



2 TRASH ENCLOSURE AT CAFE

0 4 8 16

LANDSCAPE SITE KEY NOTES

1. EXISTING CONCRETE PAVING TO REMAIN, TYP
2. NEW COLORED CONCRETE PAVING, TYP
   SEE DETAIL A, B & C, SHEET L2.01.2
3. PERMEABLE PAVING FIELD AND ACCENT BANDS, TYP
   SEE DETAIL E & F, SHEET L2.01.2
4. PEBBLE PAVING, TYP
   SEE DETAIL G & H, SHEET L2.01.2 AND DETAIL J, SHHET L2.03.2 FOR LAYOUT
5a. TABLE AND BENCH (71" LENGTH), TYP
   SEE DETAIL E, SHEET L2.03.2 (SIM): *OWNER FURNISHED AND CONTRACTOR INSTALLED*
5b. ADA ACCESSIBLE TABLE AND BENCH (92" LENGTH).
   SEE DETAIL E, SHEET L2.03.2: *OWNER FURNISHED AND CONTRACTOR INSTALLED*
   (WHEEL CHAIR ACCESSIBLE SPACE)
6. EXISTING LIGHT POST TO REMAIN AND PROTECTED
7a. CONCRETE SEAT WALL-A, TYP.
   SEE DETAIL A, SHEET L2.02.2, DETAIL D, SHEET L2.01.2 & LAYOUT PLAN FOR LENGTH
7b. CONCRETE SEAT WALL-B,SEE DETAIL B, SHEET L2.02.2, DETAIL D, SHEET L2.01.2 & LAYOUT PLAN FOR LENGTH
8a. CONCRETE SEAT WALL WITH WOOD SLAT SEATING,TYP.
   SEE DETAIL C, SHEET L2.02.2 FOR DETAIL (SIM), LAYOUT PLAN FOR LENGTH, & DETAIL F & G, SHEET L2.01.2
8b. CONCRETE SEAT WALL WITH WOOD SLAT SEATING AND BACK REST, TYP.
   SEE DETAIL C, SHEET L2.02.2 FOR DETAIL, LAYOUT PLAN FOR LENGTH, & DETAIL D & E, SHEET L2.01.2
9. WOOD SLAT LOUNGE BENCH, TYP.
   SEE DETAIL C, SHEET L2.03.2. : *OWNER FURNISHED AND CONTRACTOR INSTALLED*
10. WOOD SLAT LOUNGE TABLE
   SEE DETAIL D, SHEET L2.03.2: *OWNER FURNISHED AND CONTRACTOR INSTALLED*
11. NOT USED
12. GRANITE COLUMN FOUNTAIN
   SEE DETAIL G & I SHEET L2.03.2
13. ROUND STONE FOUNTAIN, TYP.
   SEE DETAIL H, SHEET L2.03.2
14. 30" X 48" WHEEL CHAIR ACCESSIBLE SPACE
15. EXISTING UTILITY VAULT TO REMAIN.
16. TRASH RECEPTACLES, TYP.
   SEE DETAIL B, SHEET L2.03.2: *OWNER FURNISHED AND CONTRACTOR INSTALLED*
17. EXISTING SITE FURNISHING TO REMAIN.
18. BIKE RACK,TYP.
   SEE DETAIL A, SHEET L2.03.2
19. LIGHT BOLLARD, TYP.
   SEE DETAIL F, SHEET L2.03.2
20. PROPOSED LOCATION FOR EXISTING LIGHT
   SEE ELECTRICAL PLAN
21. EXISTING BUILDING CANOPY TO REMAIN AND PROTECTED
22. EXISTING SSDI TO REMAIN. SCP
23. GRAVEL MULCH BETWEEN BUILDING AND FTP WALL
   SEE DETAIL E, SHEET L4.02.2
24. PROPOSED FTP. SCP
25. TRASH ENCLOSURE, SAP.
   INSTALL NEW PLATING AT IMPACTED PLANTING AREA.
   SEE DETAIL 2, SHEET L4.01.2

RFI #242 - SOD LAYDOWN AREA REPAIR - 90/10 TALL FESCUE

90/10 Tall Fescue
Penn RK4 Tall Fescue
Rebel XLR Tall Fescue
Firecracker SLS Tall Fescue
Ridgeline Kentucky Bluegrass

RFI #246 - TIMECLOCKS FOR (3) FOUNTAINS. USE SINGLE TIMECLOCK FOR 3 FOUNTAIN PUMPS. CIRCUIT THE 2 SMALLER PUMPS (PAF-40SV) TO LLRC-59 WITH 20A GFCI CIRCUIT BREAKERS AS SHOWN ON E4.01.2. PROVIDE ADDITIONAL CIRCUIT FOR LARGE FOUNTAIN PUMP (PAF-75SV), LLRC-57, 20A GFCI CIRCUIT BREAKER.

RFI #277/275 - NO ANCHOR REQUIRED FOR TABLE AND BENCH. ANCHOR WITH THREAD ROD AT TRASH CAN UNITS.

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PROJECT TITLE

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D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

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ISSUE TITLE
INCREMENT 2

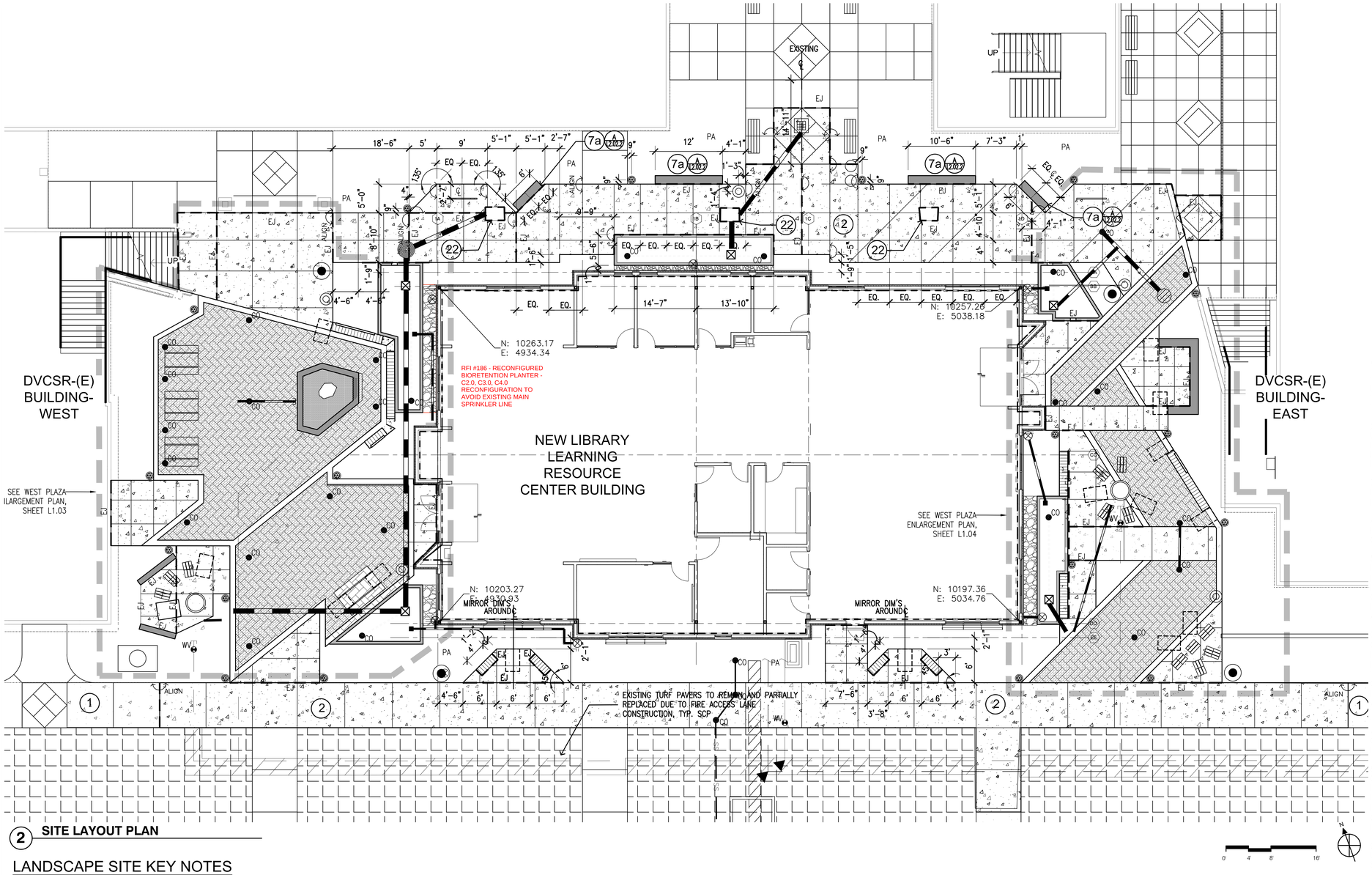
ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION
250	3/9/2021	RFI 250

SHEET TITLE
LANDSCAPE SITE MATERIAL PLAN

SHEET NUMBER
L1.01.2



2 SITE LAYOUT PLAN

LANDSCAPE SITE KEY NOTES

1. EXISTING CONCRETE PAVING TO REMAIN, TYP
2. NEW COLORED CONCRETE PAVING, TYP
   SEE DETAIL A, B & C, SHEET L2.01.2
3. PERMEABLE PAVING FIELD AND ACCENT BANDS, TYP
   SEE DETAIL E & F, SHEET L2.01.2
4. PEBBLE PAVING, TYP
   SEE DETAIL G & H, SHEET L2.01.2 AND DETAIL J, SHHET L2.03.2 FOR LAYOUT
5a. TABLE AND BENCH (71" LENGTH), TYP
   SEE DETAIL E, SHEET L2.03.2 (SIM): *OWNER FURNISHED AND CONTRACTOR INSTALLED*
5b. ADA ACCESSIBLE TABLE AND BENCH (92" LENGTH).
   SEE DETAIL E, SHEET L2.03.2: *OWNER FURNISHED AND CONTRACTOR INSTALLED*
   (WHEEL CHAIR ACCESSIBLE SPACE)
6. EXISTING LIGHT POST TO REMAIN AND PROTECTED
7a. CONCRETE SEAT WALL-A, TYP.
   SEE DETAIL A, SHEET L2.02.2, DETAIL D, SHEET L2.01.2 & LAYOUT PLAN FOR LENGTH
7b. CONCRETE SEAT WALL-B,SEE DETAIL B, SHEET L2.02.2, DETAIL D, SHEET L2.01.2 & LAYOUT PLAN FOR LENGTH
8a. CONCRETE SEAT WALL WITH WOOD SLAT SEATING,TYP.
   SEE DETAIL C, SHEET L2.02.2 FOR DETAIL (SIM), LAYOUT PLAN FOR LENGTH, & DETAIL F & G, SHEET L2.01.2
8b. CONCRETE SEAT WALL WITH WOOD SLAT SEATING AND BACK REST, TYP.
   SEE DETAIL C, SHEET L2.02.2 FOR DETAIL, LAYOUT PLAN FOR LENGTH, & DETAIL D & E, SHEET L2.01.2
9. WOOD SLAT LOUNGE BENCH, TYP.
   SEE DETAIL C, SHEET L2.03.2. : *OWNER FURNISHED AND CONTRACTOR INSTALLED*
10. WOOD SLAT LOUNGE TABLE
   SEE DETAIL D, SHEET L2.03.2: *OWNER FURNISHED AND CONTRACTOR INSTALLED*
11. NOT USED
12. GRANITE COLUMN FOUNTAIN
   SEE DETAIL G & I SHEET L2.03.2
13. ROUND STONE FOUNTAIN, TYP.
   SEE DETAIL H, SHEET L2.03.2
14. 30" X 48" WHEEL CHAIR ACCESSIBLE SPACE
15. EXISTING UTILITY VAULT TO REMAIN.
16. TRASH RECEPTACLES, TYP.
   SEE DETAIL B, SHEET L2.03.2: *OWNER FURNISHED AND CONTRACTOR INSTALLED*
17. EXISTING SITE FURNISHING TO REMAIN.
18. BIKE RACK,TYP.
   SEE DETAIL A, SHEET L2.03.2
19. LIGHT BOLLARD, TYP.
   SEE DETAIL F, SHEET L2.03.2
20. PROPOSED LOCATION FOR EXISTING LIGHT
   SEE ELECTRICAL PLAN
21. EXISTING BUILDING CANOPY TO REMAIN AND PROTECTED
22. EXISTING SSDI TO REMAIN. SCP
23. GRAVEL MULCH BETWEEN BUILDING AND FTP WALL
   SEE DETAIL E, SHEET L4.02.2
24. PROPOSED FTP. SCP
25. TRASH ENCLOSURE, SAP.
   INSTALL NEW PLATING AT IMPACTED PLANTING AREA.
   SEE DETAIL 2, SHEET L4.01.2

ABBREVIATIONS

SYMBOL	DESCRIPTION
EQ	EQUAL
(E)	EXISTING
EXIST	EXISTING
(N)	NEW
PA	PLANTING AREA
R	RADIUS
TYP	TYPICAL
EJ	EXPANSION JOINT
SC	SCORE MARK
℄	CENTER LINE
CTR	CENTER
BLDG	BUILDING
FOB	FACE OF BUILDING
CONT	CONTINUOUS
NTS	NOT TO SCALE
W/	WITH
W/OUT	WITHOUT
SAP	SEE ARCHTECTS PLANS
SCP	SEE CIVIL PLANS
SEP	SEE ELECTRICAL PLANS
SDDI	STORM DRAIN DRAIN INLET

GENERAL LAYOUT NOTES

1. FOR MARKING UNDERGROUND FACILITIES, CALL UNDERGROUND SERVICE ALERT MINIMUM TWO DAYS PRIOR TO DIGGING: 1–800–227–2600, BETWEEN 6:00 AM – 7:00 PM, MONDAY – FRIDAY, EXCEPT HOLIDAYS.
2. CONTRACTOR SHALL VERIFY LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION, LOCATIONS OF ALL PROPOSED UTILITIES, INCLUDING AREA DRAINS, MANHOLES AND VAULTS AS INDICATED ON CIVIL DRAWINGS.
3. STAKE LOCATION OF ALL LANDSCAPE ELEMENTS INCLUDING PAVING, SITE FURNITURE, ETC. FOR APPROVAL BY OWNER'S REPRESENTATIVE PRIOR TO CONSTRUCTION.
4. DIMENSIONS ARE TO: EDGE OF PAVING, EDGE OF HEADER, FACE OF CURB OR FACE OF WALL, UNLESS OTHERWISE NOTED.
5. DRAWINGS SHALL NOT BE SCALED. WRITTEN DIMENSIONS TAKE PRECEDENCE. IF CONTRACTOR FINDS A DISCREPANCY WITH WRITTEN DIMENSIONS, NOTIFY OWNER'S REPRESENTATIVE BEFORE PROCEEDING WITH WORK. COORDINATE ALL CONSTRUCTION ELEMENTS PRIOR TO INSTALLATION. VERIFY CRITICAL DIMENSIONS, REFERENCE, AND CONSTRUCTION CONDITIONS PRIOR TO INITIATING WORK.
6. LAYOUT OF PAVED AREAS MUST BE APPROVED BY THE OWNER'S REPRESENTATIVE PRIOR TO PLACEMENT OF PAVING. IF NECESSARY, THE CONTRACTOR SHALL ADJUST LAYOUT AS DIRECTED BY THE OWNER'S REPRESENTATIVE. IN THE EVENT WORK IS ACCOMPLISHED WITHOUT APPROVAL, CONTRACTOR SHALL REMOVE AND REPLACE WORK, AS DIRECTED BY THE OWNER'S REPRESENTATIVE, AT NO ADDITIONAL COST TO THE OWNER.
7. TRANSITIONS BETWEEN SLOPES AND RELATIVELY FLAT AREAS, WHETHER EXISTING OR NEW, SHALL BE ROUNDED, GRADUAL AND SLOPED TO DRAIN. LOW SPOTS WHICH HOLD WATER SHALL NOT BE PERMITTED.
8. THE CONTRACTOR SHALL BE RESPONSIBLE UNDER THIS CONTRACT FOR REPAIRING OR REPLACING AT HIS OWN EXPENSE, ANY STRUCTURES, WALLS, PLANT MATERIAL, SITE FURNISHINGS, OR PAVING DAMAGED OR DESTROYED. THE DAMAGED ITEM(S) WILL BE RESTORED TO THEIR ORIGINAL CONDITION OR REPLACED TO THE OWNER'S REPRESENTATIVE.
9. THE CONTRACTOR SHALL COORDINATE WITH THE LOCAL UTILITY COMPANIES FOR SERVICE RELOCATIONS, SHUTDOWNS, ETC.

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION

SHEET TITLE

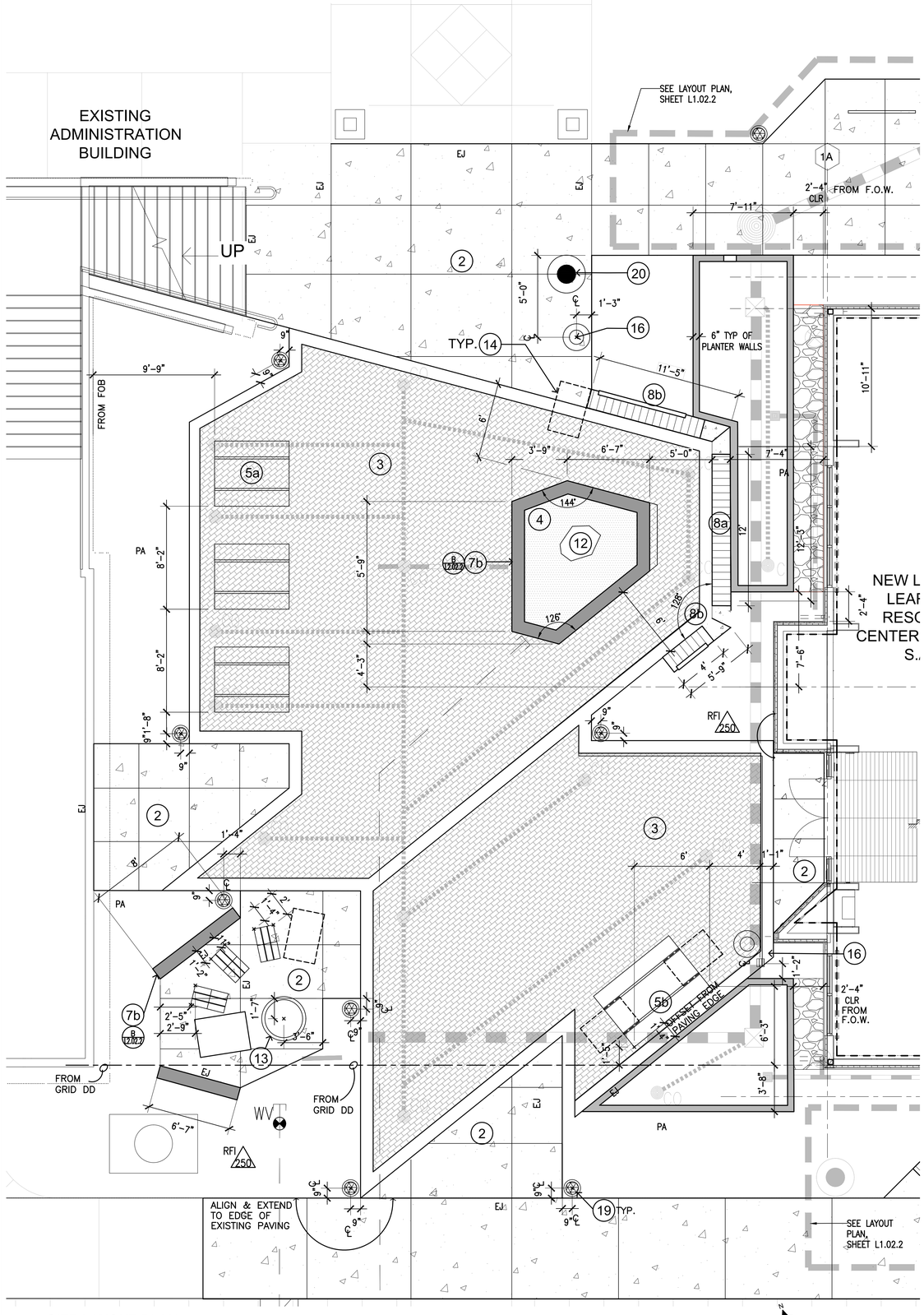
LANDSCAPE SITE LAYOUT PLAN

SHEET NUMBER

L1.02.2

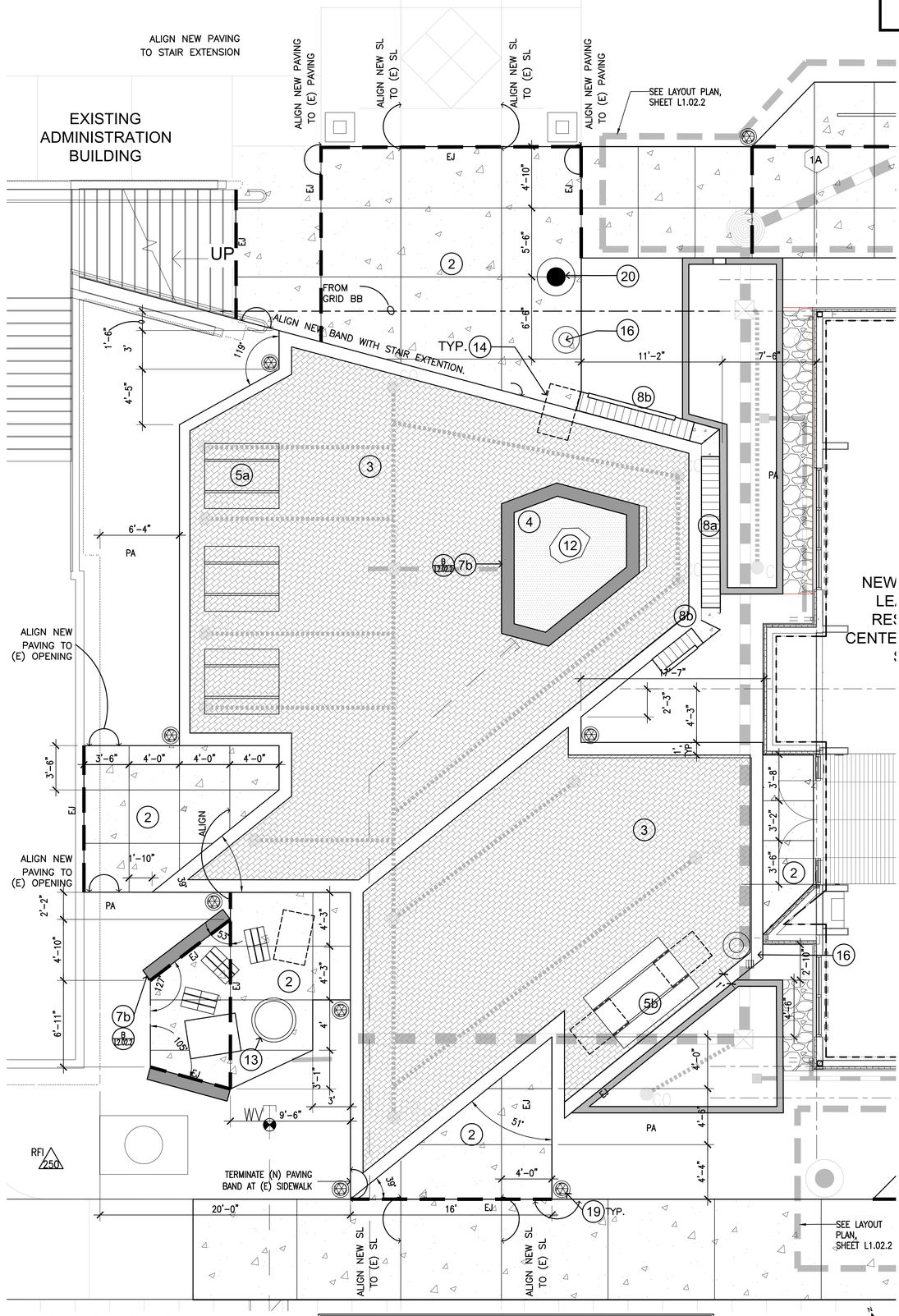
SEE SHEET L1.01.2 FOR LANDSCAPE SITE KEY NOTES

DVCSR-(E) BUILDING-WEST



2 **SITE LAYOUT PLAN**

DVCSR-(E) BUILDING-WEST



1 **PAVING LAYOUT PLAN**

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION
186	11/20/2020	RFI 186
250	3/9/2020	RFI 250

SHEET TITLE
WEST PLAZA ENLARGEMENT PLAN

SHEET NUMBER
L1.03.2

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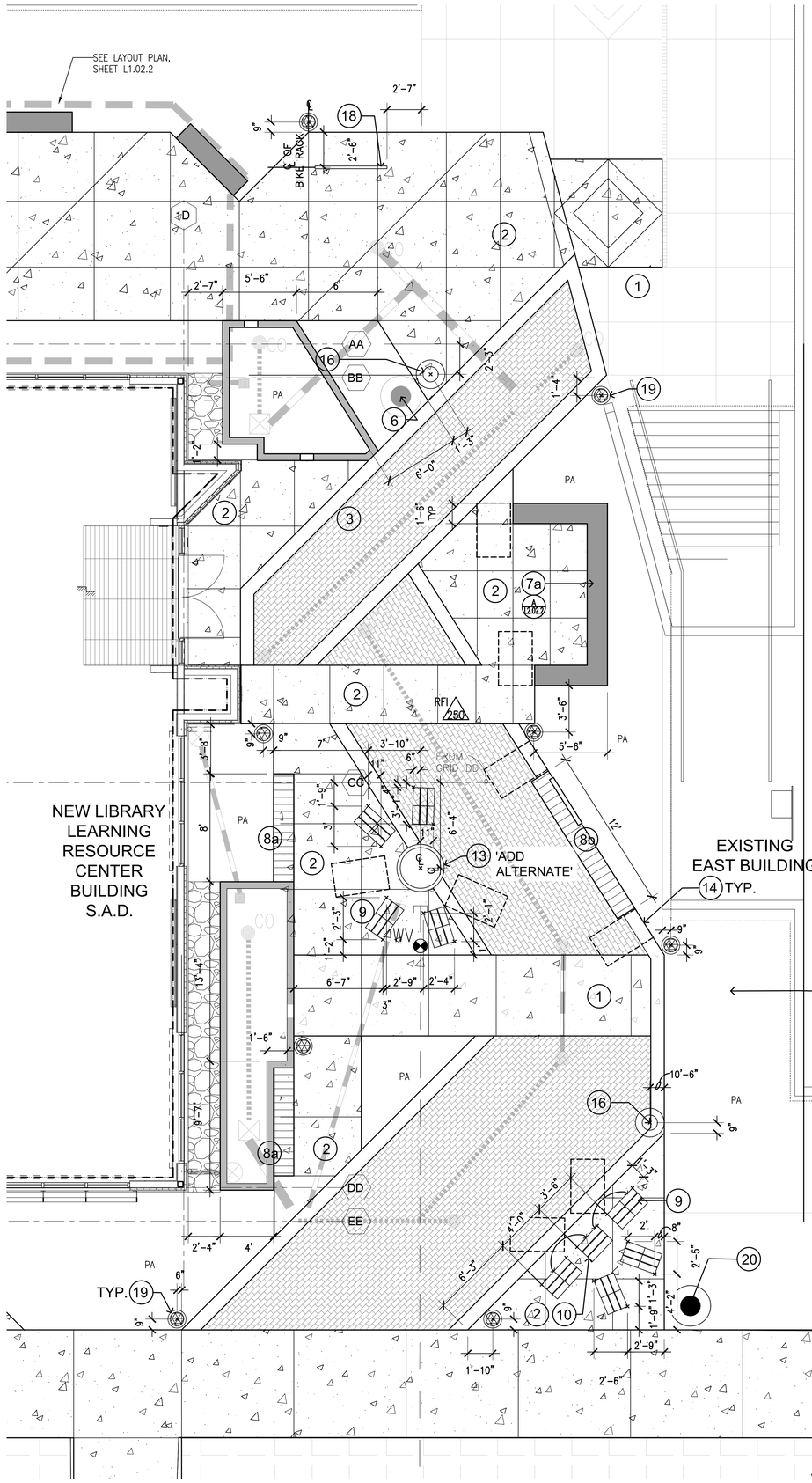
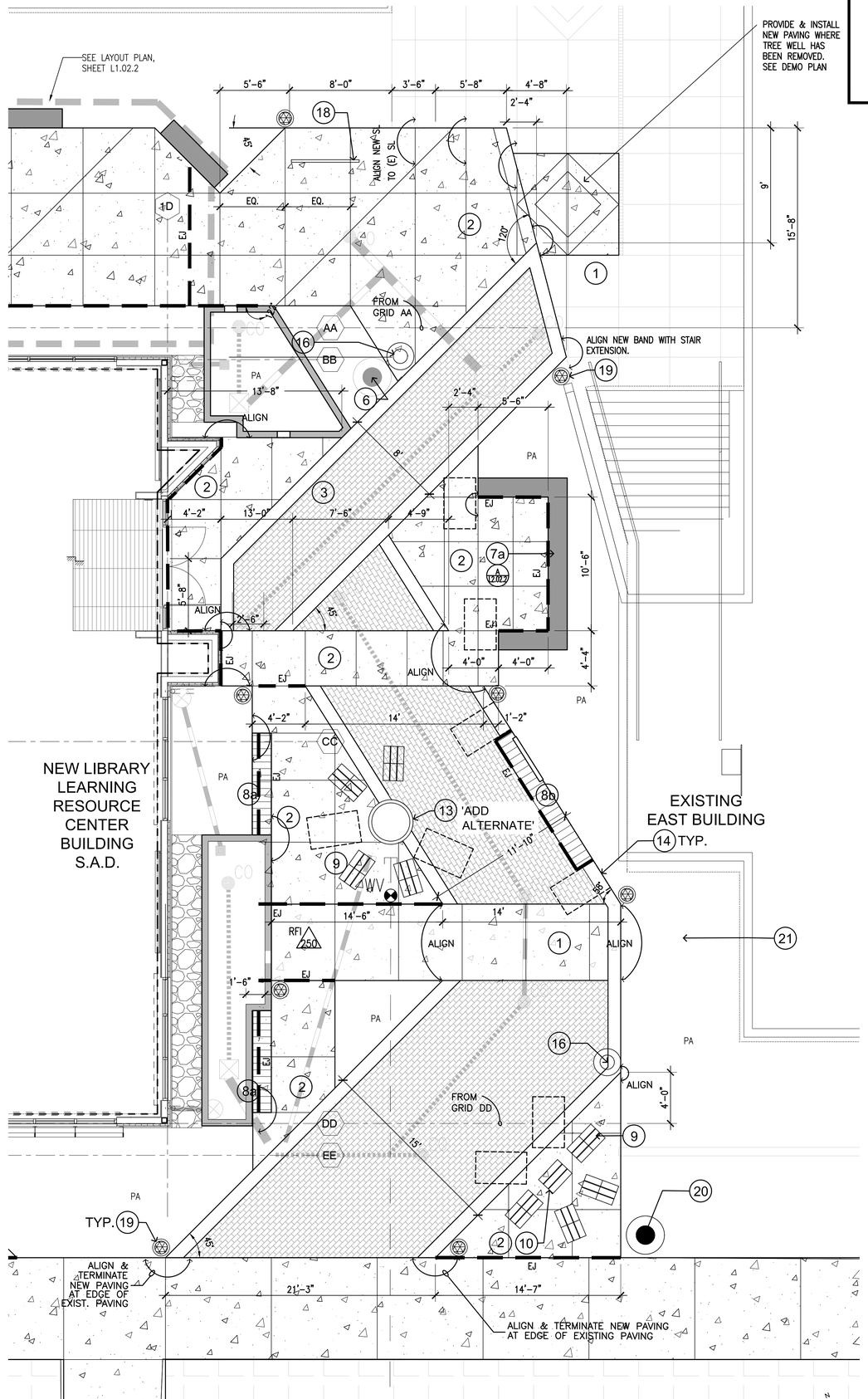
SEE SHEET L1.01.2 FOR LANDSCAPE SITE KEY NOTES



2 SITE LAYOUT PLAN



2 PAVING LAYOUT PLAN

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ISSUE TITLE
INCREMENT 2

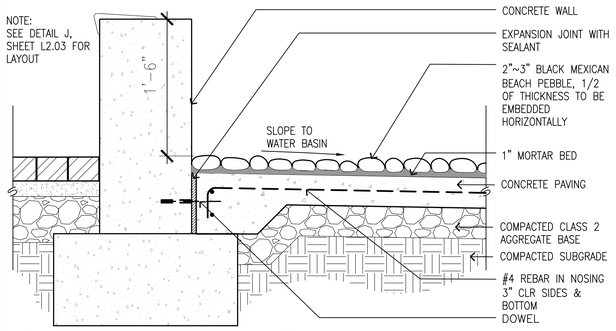
ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION
250	3/9/2021	RFI 250

SHEET TITLE
EAST PLAZA ENLARGEMENT PLAN

SHEET NUMBER
L1.04.2



H PEBBLE EMBEDDED PAVING
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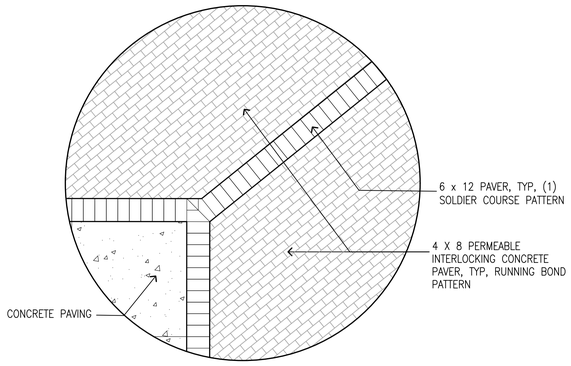

TYPICAL PAVING LAYOUT
PLAN
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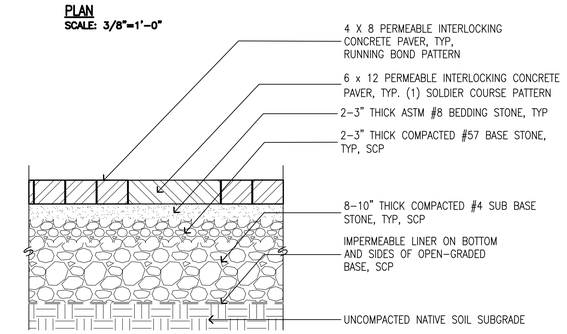
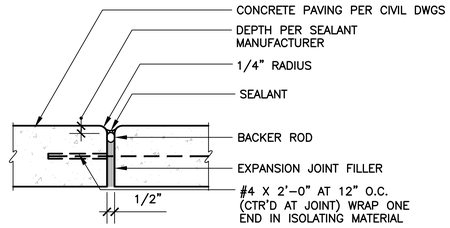


E PERM. INTERLOCKING CONC. PAVER BAND at MID-PLAZA, TYP
SECTION — SCALE: 3/2"=1'-0"
DTL-PERM-PAVER BAND.dwg

F PERMEABLE INTERLOCKING CONCRETE PAVER
SECTION — SCALE: 3/2"=1'-0"
DTL-PERM-PAVER.dwg

G STACK PEBBLE TILE PAVING
SECTION — SCALE: 3/2"=1'-0"
DTL-PERM-PAVER.dwg



A EXPANSION JOINT
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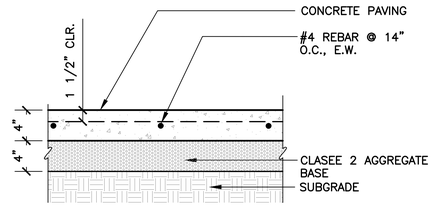

B CONCRETE PAVING - PEDESTRIAN
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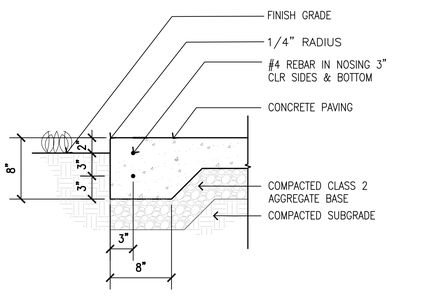
F_CONC01.dwg



NOTE: INTEGRAL COLOR CONCRETE

C CONCRETE THICKENED EDGE
SECTION — SCALE: 3/2"=1'-0"
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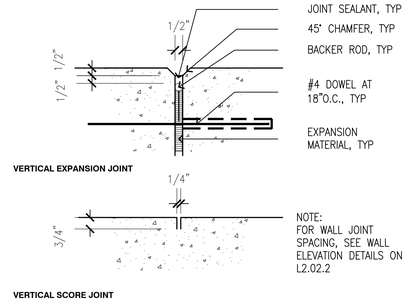

D WALL JOINTS
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ISSUE TITLE
INCREMENT 2

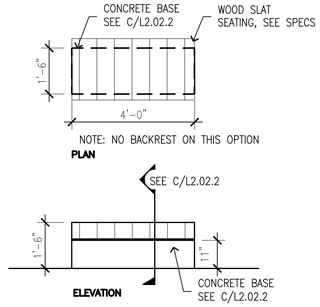
ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

REVISIONS

	DATE	DESCRIPTION

SHEET TITLE
LANDSCAPE SITE DETAILS- PAVING & WALLS

SHEET NUMBER
L2.01.2



F WALL ELEVATION-3

SCALE: 1/2"=1'-0"

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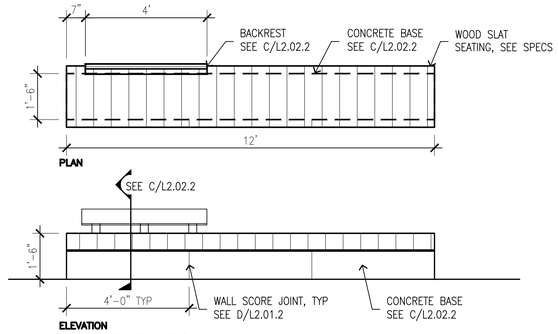
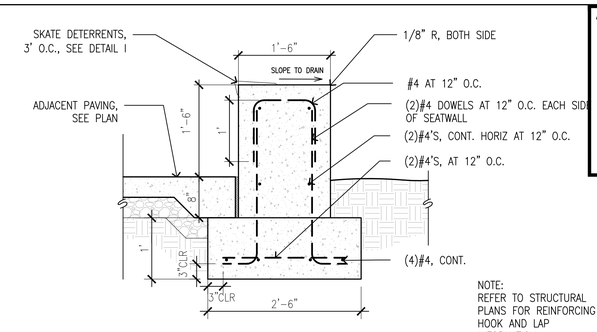


D WALL ELEVATION-1

SCALE: 1/2"=1'-0"

DTL1-2in.dwg

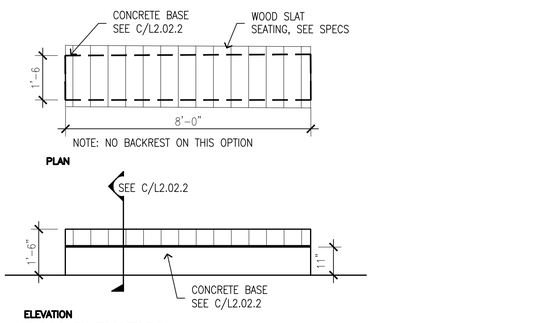


A CONCRETE SEAT WALL -A

SECTION

SCALE: 1"=1'-0"

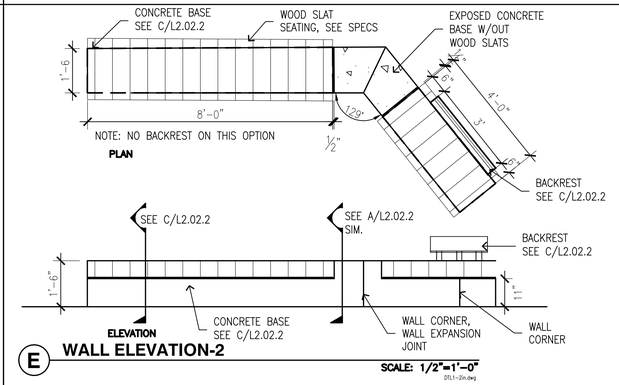
L2.02 LANDSCAPE SITE DETAILS-WALL.DWG



G WALL ELEVATION-4

SCALE: 1/2"=1'-0"

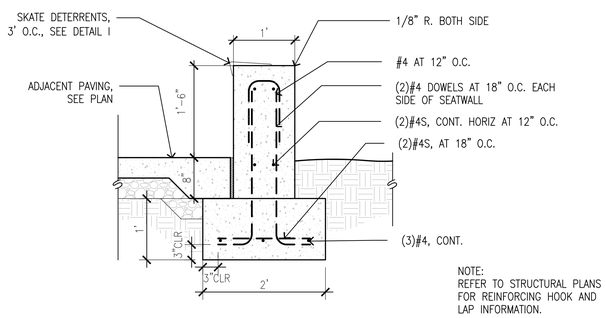
DTL1-2in.dwg



E WALL ELEVATION-2

SCALE: 1/2"=1'-0"

DTL1-2in.dwg

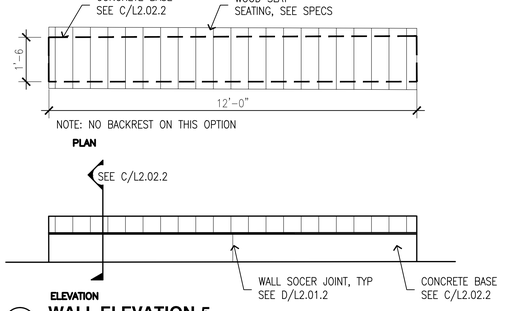


B CONCRETE SEAT WALL-B

SECTION

SCALE: 1"=1'-0"

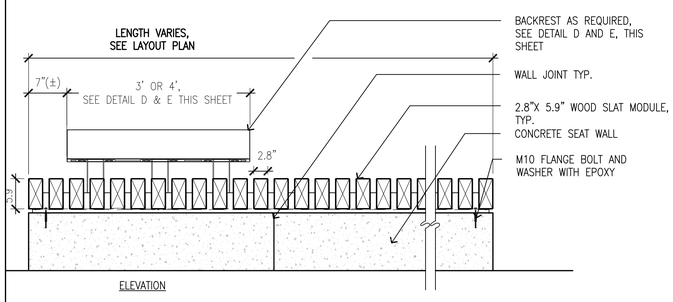
L2.02 LANDSCAPE SITE DETAILS-WALL.DWG

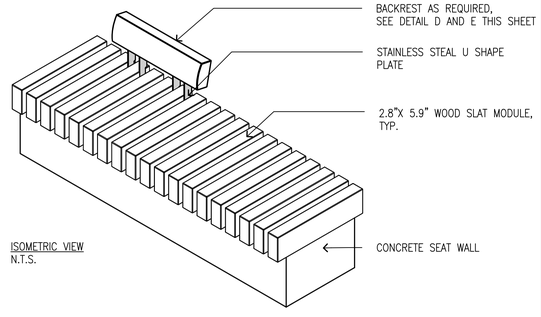


H WALL ELEVATION-5

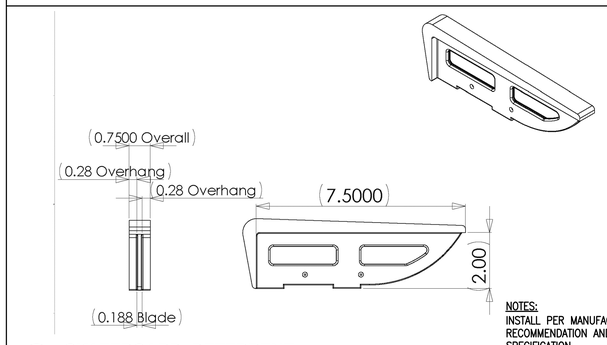
SCALE: 1/2"=1'-0"

DTL1-2in.dwg





ISOMETRIC VIEW
N.T.S.



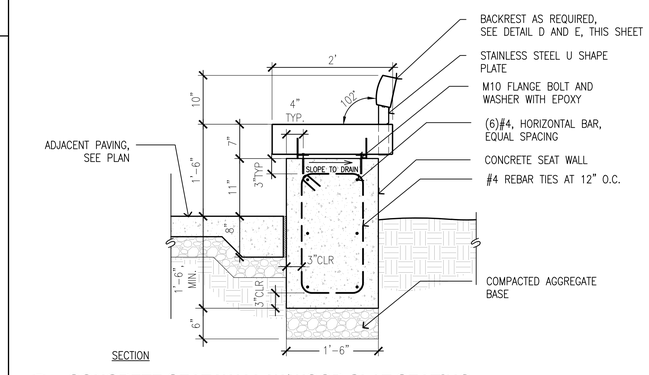
NOTES:
INSTALL PER MANUFACTURES' RECOMMENDATION AND SPECIFICATION

I SKATEBOARD DETERRENT

SECTION

SCALE: N.T.S.

L2.02 LANDSCAPE SITE DETAILS-WALL.DWG



C CONCRETE SEAT WALL W/WOOD SLAT SEATING

SECTION

SCALE: 1"=1'-0"

L2.02 LANDSCAPE SITE DETAILS-WALL.DWG

NOTES:
1. INSTALL PER MANUFACTURES' RECOMMENDATION AND SPECIFICATION
2. REFER TO STRUCTURAL PLANS FOR REINFORCING HOOK AND LAP INFORMATION.

APPROVALS

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

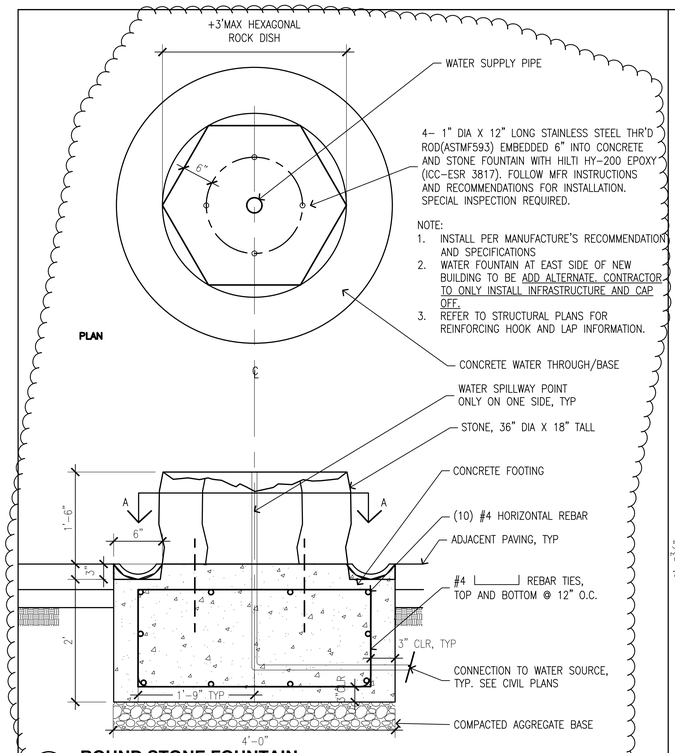
REVISIONS

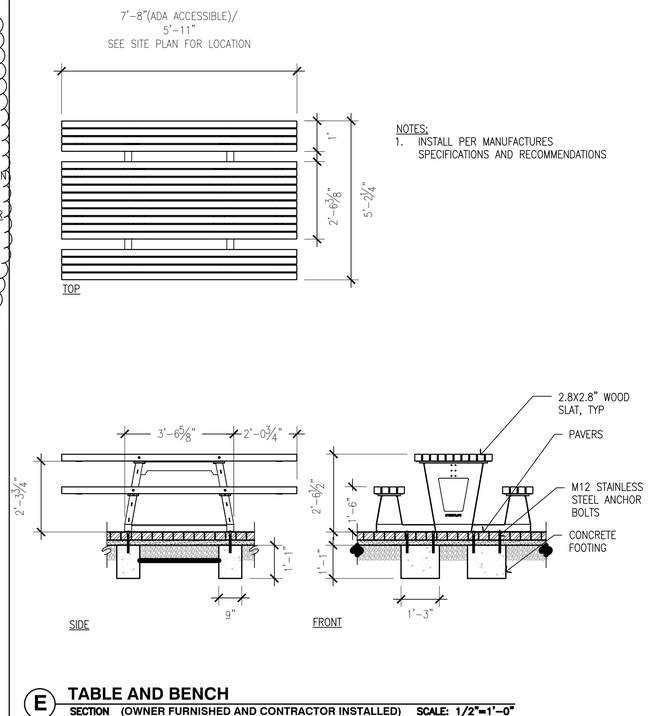
	DATE	DESCRIPTION

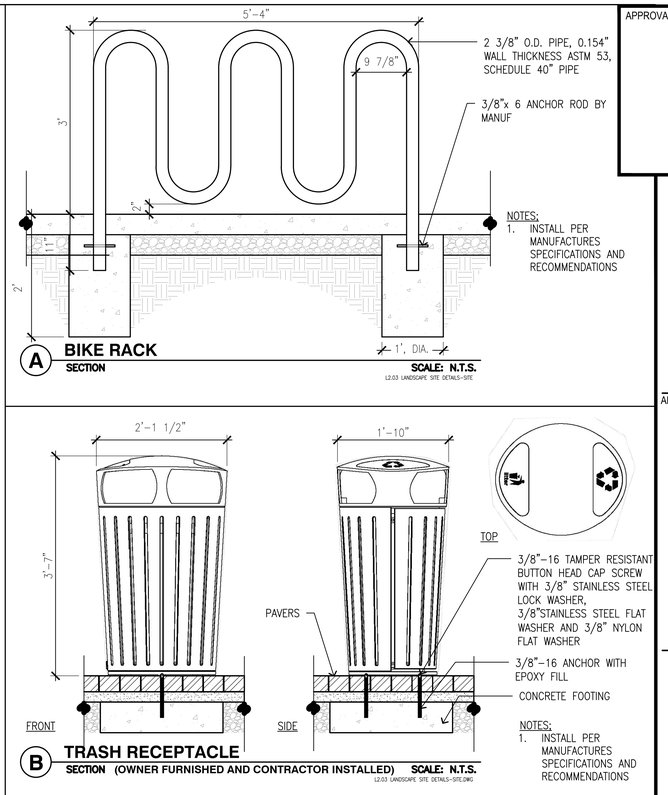
SHEET TITLE
LANDSCAPE SITE DETAILS-WALL

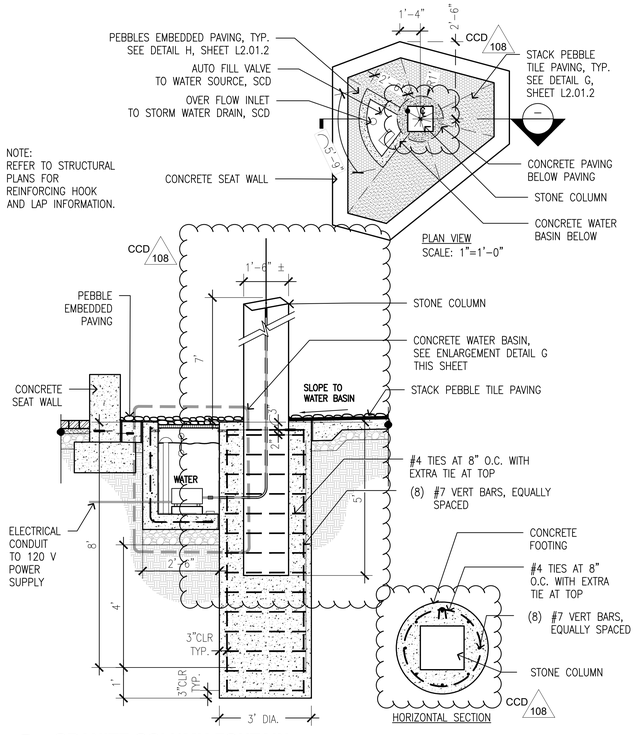
SHEET NUMBER
L2.02.2

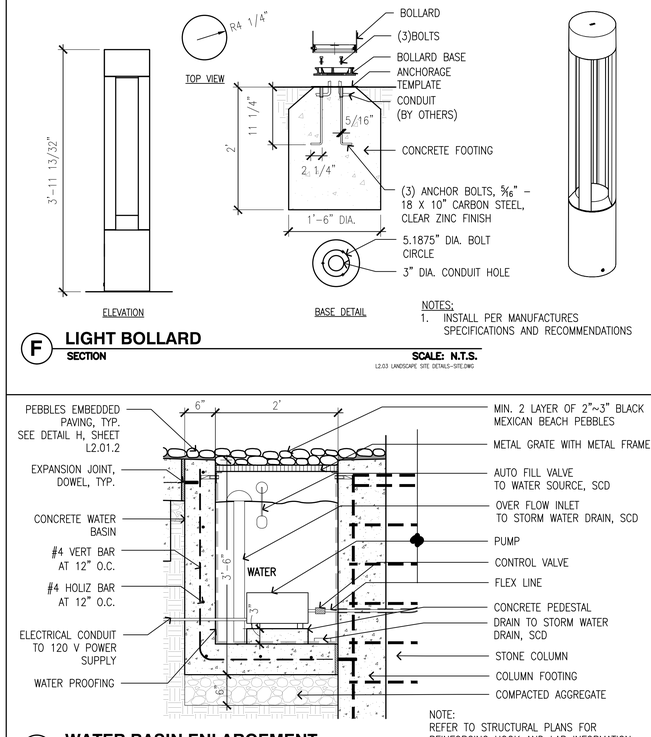
These drawingshave been prepared based on information submitted, in part, by others. Landscape Architect has provided a review consistent with its legal standard of care.

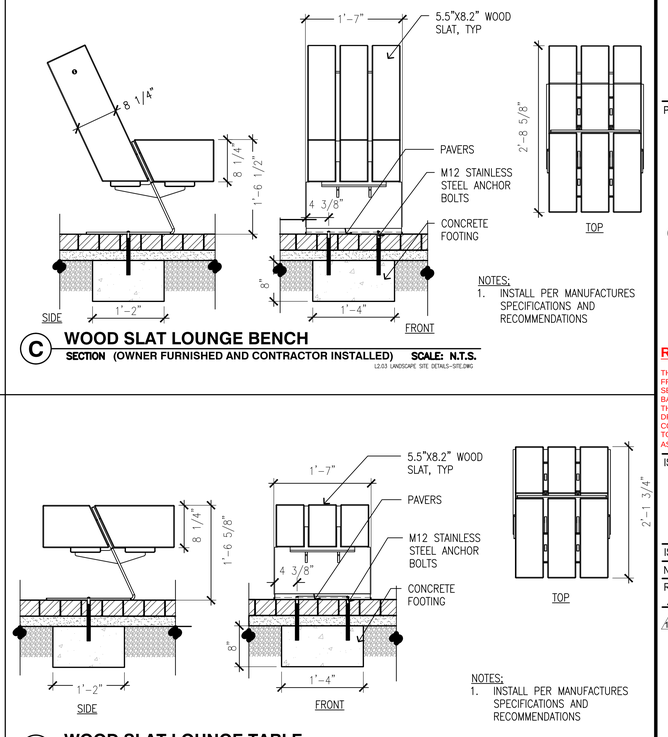












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ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION
108	12/09/2020	CCD 108

SHEET TITLE
LANDSCAPE SITE DETAILS- SITE FURNISHING

SHEET NUMBER
L2.03.2

11/29/2018 6:03:13 PM C:\Users\suraj.reddy\Documents\Revit Locals\DVCSR Expansion_Central 2019_suraj.reddy.rvt

DUBLIN SAN RAMON SERVICES DISTRICT
RECYCLED WATER USE GUIDELINES

TYPICAL CONSTRUCTION NOTES FOR ON-SITE RECYCLED WATER IRRIGATION PLANS

GENERAL: THE FOLLOWING NOTES AND SPECIFICATIONS ARE INTENDED TO ASSIST IRRIGATION CONTRACTORS IN THE INSTALLATION OF AN IRRIGATION SYSTEM THAT COMPLIES WITH THE DUBLIN SAN RAMON SERVICES DISTRICT (DISTRICT) STANDARD PROCEDURES, SPECIFICATIONS AND DRAWINGS FOR DESIGN AND INSTALLATION OF POTABLE WATER, RECYCLED WATER AND WASTEWATER UTILITIES (STANDARDS) SECTION IV, RECYCLED WATER SYSTEM REQUIREMENTS AND DISTRICT RECYCLED WATER USE GUIDELINES AND REQUIREMENTS. THE NOTES INCLUDED BELOW ARE GENERALLY THE MOST SIGNIFICANT REQUIREMENTS. HOWEVER, IT SHOULD BE NOTED THAT NOT ALL OF THE DISTRICT STANDARDS ARE IDENTIFIED BELOW. WHERE DIFFERENCES BETWEEN DISTRICT STANDARDS SECTION IV AND THE FOLLOWING NOTES OCCUR, DISTRICT STANDARDS SHALL APPLY. THE CONTRACTOR SHALL BECOME FAMILIAR WITH AND COMPLY WITH ALL OF THE REQUIREMENTS OF THE DISTRICT STANDARDS SECTION IV AND RECYCLED WATER USE GUIDELINES AND REQUIREMENTS.

1. NO WORK SHALL START UNTIL THE CONTRACTOR HAS COMPLETE FAMILIARIZATION WITH THE DISTRICT STANDARDS AND ISSUANCE OF THE REQUIRED PERMITS.
2. NOTIFY THE DISTRICT'S AUTHORIZED REPRESENTATIVE NO LESS THAN 2 WORKING DAYS PRIOR TO THE START OF WORK FOR INSPECTION SCHEDULE COORDINATION.
3. THE IRRIGATION SYSTEM DESIGN FOR THIS SITE IS BASED ON A STATIC PRESSURE AT THE RECYCLED WATER METER OF 96 PSI. THE CONTRACTOR SHALL VERIFY THE AVAILABLE PRESSURE AT THE POINT OF CONNECTION PRIOR TO THE START OF CONSTRUCTION. ANY DEVIATION FROM THE DESIGN PRESSURE SHOWN ABOVE SHALL BE REPORTED TO THE IRRIGATION SYSTEM DESIGNER OR PROPERTY OWNER IMMEDIATELY.
4. ALL PIPING AND IRRIGATION SYSTEMS SHALL BE DESIGNED AND CONSTRUCTED SO THAT SPRAY OR RUNOFF SHALL NOT ENTER A DWELLING, FOOD HANDLING FACILITY, OR EATING AREA AND SHALL NOT CONTACT ANY DRINKING WATER FOUNTAIN. IRRIGATION WITH RECYCLED WATER SHALL BE ACCOMPLISHED AT A TIME AND MANNER THAT MINIMIZES THE POSSIBILITY OF PUBLIC CONTACT. THE CONTRACTOR SHALL CONDUCT PRESSURE AND COVERAGE TESTS WHEN WIND CONDITIONS ARE SUCH THAT WATER WILL NOT BE WINDBLOWN. RECYCLED WATER OVERSPRAY ON TO AREAS NOT CONTROLLED BY THE OWNER IS PROHIBITED.
5. THE CONTRACTOR SHALL PROPERLY SUPERVISE AND INFORM ALL INDIVIDUALS INVOLVED IN THE INSTALLATION OF THE RECYCLED WATER IRRIGATION SYSTEM THAT RECYCLED WATER IS UNFIT FOR CONSUMPTION OR FOR HYGIENIC USE. A FIRST AID KIT SHALL BE AVAILABLE AT ALL TIMES DURING INSTALLATION AND OPERATION OF IRRIGATION SYSTEM.
6. ALL RECYCLED WATER PIPING SHALL USE PURPLE COLORED AND STENCILED PIPE, PURPLE RECYCLED WATER WARNING TAPE CONTINUOUSLY APPLIED TO THE PIPE, OR MARKED PLASTIC ENCASEMENT. ALL MARKING SHALL INCLUDE THE FOLLOWING OR SIMILAR WORDS: "CAUTION: RECYCLED WATER – DO NOT DRINK".
7. WARNING TAPE OR PIPE ENCASEMENT INSTALLED SHALL BE AS MANUFACTURED BY T. CHRISTY ENTERPRISES, RENCOR OR EQUAL.
8. INSTALL VALVES, METERS AND APPURTENANCES IN PURPLE COLORED VALVE BOXES WITH PURPLE LIDS. THE VALVE BOX LID SHALL HAVE THE FOLLOWING WARNINGS MOLDED OR HOT-STAMPED UPON IT: "RECYCLED WATER", OR USE WARNING LABEL BY T. CHRISTY ENTERPRISES 3800 OR EQUAL.
9. ALL SPRINKLERS USED IN CUSTOMER RECYCLED WATER FACILITIES SHALL HAVE AN EXPOSED SURFACE COLORED PURPLE TO ASSOCIATE THEM WITH RECYCLED WATER USE. THE EXPOSED SURFACE MAY BE COLORED PURPLE THROUGH THE USE OF: (1) DYED PLASTIC OR RUBBER, OR (2) WEATHERPROOF PAINT.
10. INSTALL WARNING TAGS AS MANUFACTURED BY T. CHRISTY ENTERPRISES 3150 OR EQUIVALENT TO ALL SUCH CONTROL VALVES, GATE VALVES, QUICK COUPLER VALVES, CONTROLLERS, METERS, ETC. TAGS SHALL BE WEATHERPROOF PLASTIC, 3-INCH BY 4-INCH, PURPLE IN COLOR WITH THE WORDS "WARNING: RECYCLED WATER – DO NOT DRINK" IMPRINTED ON ONE SIDE AND "AVISO: AQUA IMPURA – NO TOMAR" ON THE OTHER SIDE, OR SIMILAR AS APPROVED BY THE DISTRICT ENGINEER. IMPRINTING SHALL BE PERMANENT AND BLACK IN COLOR.
11. PRIOR TO INSTALLATION, LOCATE DOMESTIC WATER MAINS AND/OR LATERALS (AS APPROPRIATE). RECYCLED WATER IRRIGATION PIPELINES AND PRIVATE POTABLE WATER PIPELINES SHALL BE INSTALLED IN SEPARATE TRENCHES WITH THE GREATEST POSSIBLE HORIZONTAL SEPARATION FROM PRIVATE POTABLE WATER PIPELINES. WHERE POSSIBLE MINIMUM CLEARANCES OF 10' FOOT HORIZONTAL AND 1' FOOT VERTICAL SHALL BE MAINTAINED BETWEEN POTABLE AND RECYCLED WATER LINES. WHERE RECYCLED WATER IRRIGATION PIPELINES AND PRIVATE POTABLE WATER PIPELINES CROSS, THE POTABLE WATER PIPE SHALL BE INSTALLED A MINIMUM OF TWELVE (12) INCHES ABOVE THE RECYCLED WATER PIPING.
12. RECYCLED WATER PIPING SHALL BE INSTALLED AT THE FOLLOWING MINIMUM DEPTHS FROM FINISHED GRADE TO TOP OF PIPE (MINIMUM COVER) SHALL BE AS FOLLOWS:

    a) CONSTANT PRESSURE LINES 3 INCHES OR LARGER: 24 INCHES
    b) CONSTANT PRESSURE LINES 2-1/2 INCHES AND SMALLER: 18 INCHES
    c) INTERMITTENT PRESSURE LINES: 12 INCHES

    WHERE PIPING IS UNDER PAVED AREAS, THESE DIMENSIONS SHALL BE INCREASED TO INCLUDE THE ROADWAY SECTION AND ADEQUATELY PROTECT THE PIPING FROM DAMAGE FROM TRAFFIC LOADS.
13. (USE THIS NOTE ONLY IF POTABLE WATER SERVICE IS AVAILABLE.) NO HOSE BIBS SHALL BE USED FOR RECYCLED WATER SYSTEMS. QUICK-COUPLING VALVES SHALL BE CONSTRUCTED OF BRASS WITH A PURPLE RUBBER OR VINYL COVER, AND SHALL HAVE A 1-INCH INLET WITH ACME THREAD BODY, NELSON MODEL 7645 OR EQUAL, AND KEY, NELSON MODEL 7640 OR EQUAL.
14. RECORD DRAWINGS OF CUSTOMER FACILITY IRRIGATION SYSTEMS SHALL BE PROVIDED TO THE DISTRICT.
15. THE IRRIGATION CONTROLLER SHALL BE PROGRAMMED TO WATER BETWEEN THE HOURS OF 9:00 PM AND 7:00 AM ONLY. ADDITIONAL RESTRICTED WATERING TIMES MAY BE ESTABLISHED BASED ON SITE CONDITIONS AS APPROVED BY THE DISTRICT REPRESENTATIVE.
16. FLUSHING OF RECYCLED WATER THROUGH IRRIGATION SYSTEM PIPING SHALL BE PERFORMED IN A MANNER THAT MINIMIZES DISCHARGE FROM THE SITE OR CREATES PONDING. FLUSHING SHALL NOT BE PERMITTED IN A WAY THAT CREATES PUDDLES THAT ALLOWS THE RECYCLED WATER TO BECOME STAGNANT. FLUSHING INTO THE SANITARY SEWER IS THE MOST ACCEPTABLE WAY TO DISCHARGE RECYCLED WATER. IF THIS IS NOT POSSIBLE, THEN FLUSHING MAY BE DONE BY DIVERTING RECYCLED WATER INTO A STORAGE TANK, TANK TRUCK OR OTHER APPROVED HOLDING FACILITY. HOLDING FACILITIES MUST BE CLEARLY MARKED WITH WARNING SIGNS. RECYCLED WATER SHALL BE TRANSPORTED AND DISCHARGED AT AN APPROVED SITE IN AN APPROVED MANNER.
17. WHERE BOTH POTABLE AND RECYCLED WATER CUSTOMER FACILITIES ARE PRESENT AT A SITE, A CROSS-CONNECTION INSPECTION AND TEST SHALL BE PERFORMED ON BOTH THE POTABLE AND RECYCLED WATER SYSTEMS. THE CROSS-CONNECTION TEST WILL BE CONDUCTED BY DISTRICT STAFF IN ACCORDANCE WITH SECTION IV-B3 OF THE DISTRICT STANDARDS. THE CONTRACTOR SHALL REQUEST THE CROSS-CONNECTION TEST BY THE DISTRICT A MINIMUM OF 2 DAYS PRIOR TO THE PERFORMING THE TEST. RECYCLED WATER PIPING SHALL BE TESTED USING POTABLE WATER WITH AN APPROVED BACKFLOW PREVENTION DEVICE. THE BACKFLOW TESTING SHALL BE PERFORMED IN ACCORDANCE WITH DISTRICT SPECIFICATIONS, SECTION II-B3 AND SHALL BE CERTIFIED PRIOR TO ANY CROSS-CONNECTION TESTING.
18. THE CONTRACTOR SHALL PERFORM A COVERAGE TEST IN THE PRESENCE OF DISTRICT INSPECTION STAFF TO CONFIRM THAT EXCESSIVE OVERSPRAY DOES NOT OCCUR IN ACCORDANCE WITH SECTION IV-B3-4. ANY MODIFICATIONS IN EITHER THE SYSTEM EQUIPMENT, OR ADJUSTMENT IDENTIFIED BY THE DISTRICT DURING THE COVERAGE TEST SHALL BE COMPLETED IN ACCORDANCE WITH THE SCHEDULE AND CONDITIONS DETERMINED BY THE DISTRICT AT THE TIME OF THE TEST.
19. IN ALL AREAS WHERE THE PUBLIC MAY BE EXPOSED TO RECYCLED WATER, WARNING SIGNS SHALL BE INSTALLED AT JOINTLY APPROVED CITY AND DISTRICT LOCATIONS. SIGNS SHALL BE IN ACCORDANCE WITH DISTRICT STANDARD DETAILS, AND INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE DISTRICT'S STANDARD DETAILS.

GENERAL IRRIGATION NOTES

1. THE CONTRACTOR SHALL REVIEW RELATED DRAWINGS INCLUDING RECORD DRAWING DATED ON JULY 13TH, 2004 BY tBP/ARCHITECTURE (THE APPROVED PLAN, "SITE IMPROVEMENTS, SAN RAMON VALLEY CENTERM CONTRA COST COMMUNITY COLLEGE DISTRICT", DATED ON MARCH 9, 2004, DSA APPL 01-106062), AND SHALL ENSURE COORDINATION WITH ALL APPLICABLE TRADES PRIOR TO SUBMITTING BID.
2. THE IRRIGATION SYSTEM SHALL BE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE STATE AND LOCAL CODES AND ORDINANCES BY LICENSED CONTRACTORS AND EXPERIENCED WORKMEN. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL REQUIRED PERMITS AND FEES RELATING TO HIS WORK.
3. THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN WITHIN PAVED AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN PLANTING AREAS WHERE POSSIBLE. AVOID ANY CONFLICTS BETWEEN THE SPRINKLER SYSTEM, PLANTING AND ARCHITECTURAL FEATURES. PARALLEL PIPES MAY BE INSTALLED IN COMMON TRENCH. PIPES ARE NOT TO BE INSTALLED DIRECTLY ABOVE ONE ANOTHER.
4. DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE OWNER'S AUTHORIZED REPRESENTATIVE. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
5. IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, ETC. HE SHALL COORDINATE HIS WORK WITH THE GENERAL CONTRACTOR AND OTHER SUBCONTRACTORS FOR THE LOCATION AND THE INSTALLATION OF PIPE SLEEVES THROUGH WALLS, UNDER ROADWAYS, PAVING, STRUCTURES, ETC. CONTRACTOR TO VERIFY THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND STRUCTURES PRIOR TO THE EXCAVATION OF TRENCHES. CONTRACTOR IS TO REPAIR ANY DAMAGE CAUSED BY HIS WORK AT NO ADDITIONAL COST TO THE OWNER.
6. DUE TO THE SCALE OF THE DRAWINGS, IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC., WHICH MAY BE REQUIRED. THE CONTRACTOR SHALL CAREFULLY INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING ALL OF HIS WORK AND PLAN HIS WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC., AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. THE WORK SHALL BE INSTALLED IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEMS, PLANTING, AND ARCHITECTURAL FEATURES.
7. EACH CONTROLLER SHALL HAVE ITS OWN INDEPENDENT GROUND WIRE.
8. REMOTE CONTROL VALVES SHALL BE WIRED TO CONTROLLER IN SEQUENCE AS SHOWN ON PLANS. RUN EXISTING WIRE FROM EACH RCV TO THE CONTROLLER. SPLICING WIRES TOGETHER OUTSIDE OF VALVE BOXES WILL NOT BE PERMITTED.
9. SPLICING OF 24-VOLT WIRES WILL NOT BE PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 36" COIL OF EXCESS WIRE AT EACH SPLICE AND 100 FEET ON CENTER ALONG WIRE RUN. TAPE WIRE IN BUNDLES 10 FEET ON CENTER. NO TAPING PERMITTED INSIDE SLEEVES.
10. VALVE LOCATIONS SHOWN ARE DIAGRAMMATIC. INSTALL IN GROUND COVER/SHRUB AREAS WHERE POSSIBLE.
11. INSTALL VALVE BOXES MINIMUM 12" FROM AND PERPENDICULAR TO WALK, CURB, , BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, ETC. AND EACH BOX SHALL BE MINIMUM 12" APART. SHORT SIDE OF VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, ETC.
12. ALL SPRINKLER HEADS SHALL BE SET PERPENDICULAR TO FINISH GRADE OF THE AREA TO BE IRRIGATED UNLESS OTHERWISE DESIGNATED ON THE PLANS.
13. IN LOCATIONS WHERE LOW HEAD DRAINAGE WILL CAUSE EROSION AND EXCESS WATER, USE POP-UP SPRINKLER MODELS WITH INTEGRAL CHECK VALVE OR A KING BROS. CV SERIES CHECK VALVE ON DRIP RISERS.
14. THE IRRIGATION CONTRACTOR SHALL FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVERSPRAY ONTO WALKS, ROADWAYS AND/OR BUILDINGS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF FIXED ARC (OR AN ADJUSTABLE ARC IF FIXED ARC DOES NOT MATCH THE ARC TO BE IRRIGATED) TO FIT THE SITE CONDITIONS AND TO THROTTLE THE FLOW CONTROL AT EACH VALVE TO OBTAIN THE OPTIMUM OPERATING PRESSURE FOR EACH SYSTEM. ALL MAIN LINES SHALL BE FLUSHED PRIOR TO THE INSTALLATION OF IRRIGATION HEADS. AT 30 DAYS AFTER INSTALLATION EACH SYSTEM SHALL BE FLUSHED TO ELIMINATE GLUE AND DIRT PARTICLES FROM THE LINES.
15. WHEN VERTICAL OBSTRUCTIONS (STREET LIGHTS, TREES, FIRE HYDRANTS, ETC.) INTERFERE WITH THE SPRAY PATTERN OF THE HEADS SO AS TO PREVENT PROPER COVERAGE, THE IRRIGATION CONTRACTOR SHALL FIELD ADJUST THE SPRINKLER SYSTEM BY INSTALLING A QUARTER, THIRD OR HALF CIRCLE HEAD AT THE SIDES OF THE OBSTRUCTION SO AS TO PROVIDE PROPER COVERAGE. ALL ADJUSTMENTS SHALL BE MADE AT NO ADDITIONAL COST TO THE OWNER.
16. NOTIFY ARCHITECT/LANDSCAPE ARCHITECT OF ANY ASPECTS OF LAYOUT THAT WILL PROVIDE INCOMPLETE OR INSUFFICIENT WATER COVERAGE OF PLANT MATERIAL AND DO NOT PROCEED UNTIL HIS INSTRUCTIONS ARE OBTAINED.
17. INSTALL BUBBLERS ON UPHILL SIDE OF PLANT.
18. IN ADDITION TO THE SLEEVES AND CONDUITS SHOWN ON THE DRAWINGS, THE IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF SLEEVES AND CONDUITS OF SUFFICIENT SIZE UNDER ALL PAVED AREAS.
19. ALL EXCAVATIONS ARE TO BE FILLED WITH COMPACTED BACKFILL. CONTRACTOR TO REPAIR ALL SETTLED TRENCHES PROMPTLY, FOR A PERIOD OF 1 YEAR AFTER COMPLETION OF WORK. ADDITIONALLY, CONTRACTOR SHALL WARRANT THAT THE IRRIGATION SYSTEM WILL BE FREE FROM DEFECTS IN MATERIALS AND WORKMANSHIP FOR A PERIOD OF 1 YEAR AFTER FINAL ACCEPTANCE OF WORK.
20. EXISTING SPRINKLER SYSTEM DESIGN IS BASED ON RECORD DRAWINGS. THE IRRIGATION CONTRACTOR SHALL VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO THE OWNER'S AUTHORIZED REPRESENTATIVE.
21. IRRIGATION DEMAND: SEE NOTE BELOW
22. OPERATE IRRIGATION CONTROLLER(S) TO MATCH EXISTING OPERATION SCHEDULE.
23. PRIOR TO TRENCHING, CALL UNDERGROUND SERVICE ALERT, USA NORTH 811 AT 811 AND AFFECTED UTILITY COMPANIES 48 HOURS BEFORE DIGGING
24. CONTRACTOR TO VERIFY EXISTING IRRIGATION SYSTEM IN FIELD AND REVIEW RECORD DRAWING PRIOR TO CONSTRUCTION. CONTRACTOR TO BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ARCHITECT/LANDSCAPE ARCHITECT.
25. CONTRACTOR TO MAKE SURE EXISTING IRRIGATION VALVES OPERATE CORRECTLY WHEN EXISTING IRRIGATION VALVES ARE SALVAGED AND REUSED FOR NEW IRRIGATION SYSTEM. CONTRACTOR TO REPLACE EXISTING IRRIGATION VALVES WITH NEW IRRIGATION VALVES OF SAME MODEL WHEN EXISTING VALVES ARE NOT WORKABLE.

WATER PRESSURE & SYSTEM DESIGN INFORMATION:

THE DESIGN OF THIS IRRIGATION SYSTEM IS BASED ON THE EXISTING WATER SERVICE PRESSURE OF 96 PSI STATIC PRESSURE AT POINT OF CONNECTION OF EXISTING WATER METER BASED ON THE RECORD IRRIGATION PLAN DATED ON JULY 13, 2004(THE APPROVED PLAN DATED ON MARCH 9, 2004 PER tBP/ARCHITECTURE)

IRRIGATION DEMAND: 115 GPM @ 65 PSI AFTER PRESSURE REDUCING VALVE. CONTRACTOR TO CONFIRM PRESSURE AT POINT OF CONNECTION PRIOR TO INSTALLING NEW SYSTEM AND BRING ANY DISCREPANCIES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.

IRRIGATION LEGEND

SYMBOL	MANUF.	DESCRIPTION
(A)	CALSENSE	EXISTING CALSENSE CONTROLLER ASSEMBLY-TELEPHONE COMMUNICATION AND HARD WIRE TO CONTROLLER 'B', STAINLESS STEEL PEDESTAL MOUNT ENCLOSURE, RADIO REMOTE RECEIVERS AND TRANSIENT BOARDS, AC LINE PROTECTION WITH FLOWSENSE OPTION. REFER TO RECORD DRAWINGS AND VERIFY IN FIELD.
(B)	CALSENSE	EXISTING CALSENSE CONTROLLER ASSEMBLY-HARD WIRE TO CONTROLLER 'A', STAINLESS STEEL PEDESTAL MOUNT ENCLOSURE, RADIO REMOTE RECEIVERS AND TRANSIENT BOARDS, AC LINE PROTECTION WITH FLOWSENSE OPTION. REFER TO RECORD DRAWINGS AND VERIFY IN FIELD.
(M)	TORO	EXISTING TORO PRESSURE REGULATING MASTER CONTROL. NOT SHOWN IN PLAN AND VERIFY IN FIELD. REFER TO RECORD DRAWINGS.
[F]	CALSENSE	EXISTING CALSENSE FLOW METER, FM-1.5. NOT SHOWN IN PLAN. REFER TO RECORD DRAWINGS AND VERIFY IN FIELD.
	GRISWOLD	EXISTING GRISWOLD PRESSURE REDUCING VALVE, WILKINS WYE STRAINER, AND NIBCO GATE VALVE. NOT SHOWN IN PLAN. REFER TO AS BUILT DRAWINGS AND VERIFY IN FIELD.
	TORO	EXISTING REMOTE CONTROL VALES REMAIN AND PROTECTED (220-27), SIZE AS NOTED. REFER TO RECORD DRAWINGS AND VERIFY IN FIELD.
	RAINBIRD	NEW REMOTE CONTROL VALES, MODEL:-RAINBIRD-PESB-R SERIES, VALVE SIZES INDICATED/TBD ON PLANS. INSTALL IN BOX
	RAINBIRD	NEW DRIP CONTROL ZONE KIT, MODEL; RAINBIRD-XCZ-150-LCDR, VALVE SIZES INDICATED ON PLANS. INSTALL IN BOX PURPLE BOX
	NIBCO	EXISTING GATE VALVE(T-113-IRR FOR 3" & SMALLER, P-619-RW FOR 4" AND LARGER). REFER TO RECORD DRAWINGS AND VERIFY IN FIELD.
	NIBCO	NEW GATE VALVE TO MATCH EXISTING MODEL (T-113-IRR FOR 3" & SMALLER, P-619-RW FOR 4" AND LARGER). REFER TO RECORD DRAWINGS AND VERIFY IN FIELD.
	NELSON	EXISTING NELSON QUICK COUPLING VALVES. REFER TO RECORD DRAWINGS AND VERIFY IN FIELD.
[R]	CALSENSE	EXISTING CALSENSE TIPPING RAIN BUCKET, RB-1 REFER TO RECORD DRAWINGS AND VERIFY IN FIELD.
MP	NETAFIM USA	MANUAL LINE FLUSHING VALVE, MODEL TLSOV. OR APPROVED EQUAL
○	RAINBIRD	NEW DEEP ROOT WATERING SYSTEM, MODEL-RWS-B-C-1401-R, DEEP WATERING BUBBLER ASSEMBLY AND CHECK VALVE(TREE).
●	RAINBIRD	NEW BUBBLER, MODEL-1401 SERIES, 0.25GPM, FULL CIRCLE, TRICKLE PATTERN(TREE/SHRUB)
		SUBSURFACE DRIP LINE: NETAFIM USA, TECHLINE HCVXR DRIPPERLINE TLHCVXR-RWP3-18-XX (COIL LENGTH) LATERAL SPACING AT 18-INCHES AT SHRUB / GROUND COVER AREAS AND AT 12-INCHES FOR BIORETENTION AREA; INSTALL WITH TECHLINE TL6 6" WIRE STAPLE AT 4' O.C. OR APPROVED EQUAL.
		LATERAL LINE: PVC SCH 40, SOLVENT WELD FITTINGS, 12" MIN. SOIL COVER. 36" MIN. COVER FROM FINISH GRADE OR 12" BELOW GRADE, WHICHEVER IS DEEPER OVER SLEEVING INSTALLED UNDER PAVING. COLOR: PURPLE
		EXISTING 4" AND 2½" WATER MAINLINE. REFER TO RECORD DRAWINGS AND VERIFY IN FIELD.
		NEW 4" AND 2½" WATER MAINLINE. 1120-CL 200 GASKETED PVC PLASTIC PIPE FOR 4" & LARGER, 1120-SCHEDULE 40 PVC PLASTIC PIPE FOR 3"& SMALLER, 24" MIN. SOIL COVER, 36" MIN. COVER FROM FINISH GRADE OR 12" BELOW SUBGRADE, WHICHEVER IS DEEPER OVER SLEEVING INSTALLED UNDER PAVING. REFER TO AS BUILT DRAWINGS AND VERIFY IN FIELD. COLOR:PURPLE
		NEW SLEEVE (SL): :SCHEDULE 40 HDPE PIPE, SIZE SHALL BE A MINIMUM OF 6" AND AT LEAST TWO TIMES THE TOTAL SUM DIAMETER OF ALL PIPES CONTAINED WITHIN SLEEVE. INSTALL A SEPARATE SLEEVE FOR WIRES. 24" COVER.
		EXISTING SLEEVING (SL), REFER TO RECORD DRAWINGS AND VERIFY IN FIELD.

(N) A-1 / 1" / 15

- REMOTE CONTROL VALVE SEQUENCE NUMBER PER RECORD DRAWINGS.
- APPROXIMATE GALLONS PER MINUTE
- REMOTE CONTROL VALVE SIZE
- NEW VALVE(N) OR EXISTING VALVE(E)

*SEE NOTES FOR ADDITIONAL INFORMATION FOR RECYCLED WATER IRRIGATION SYSTEM.

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

#	DATE	DESCRIPTION

SHEET TITLE
IRRIGATION NOTES AND LEGEND

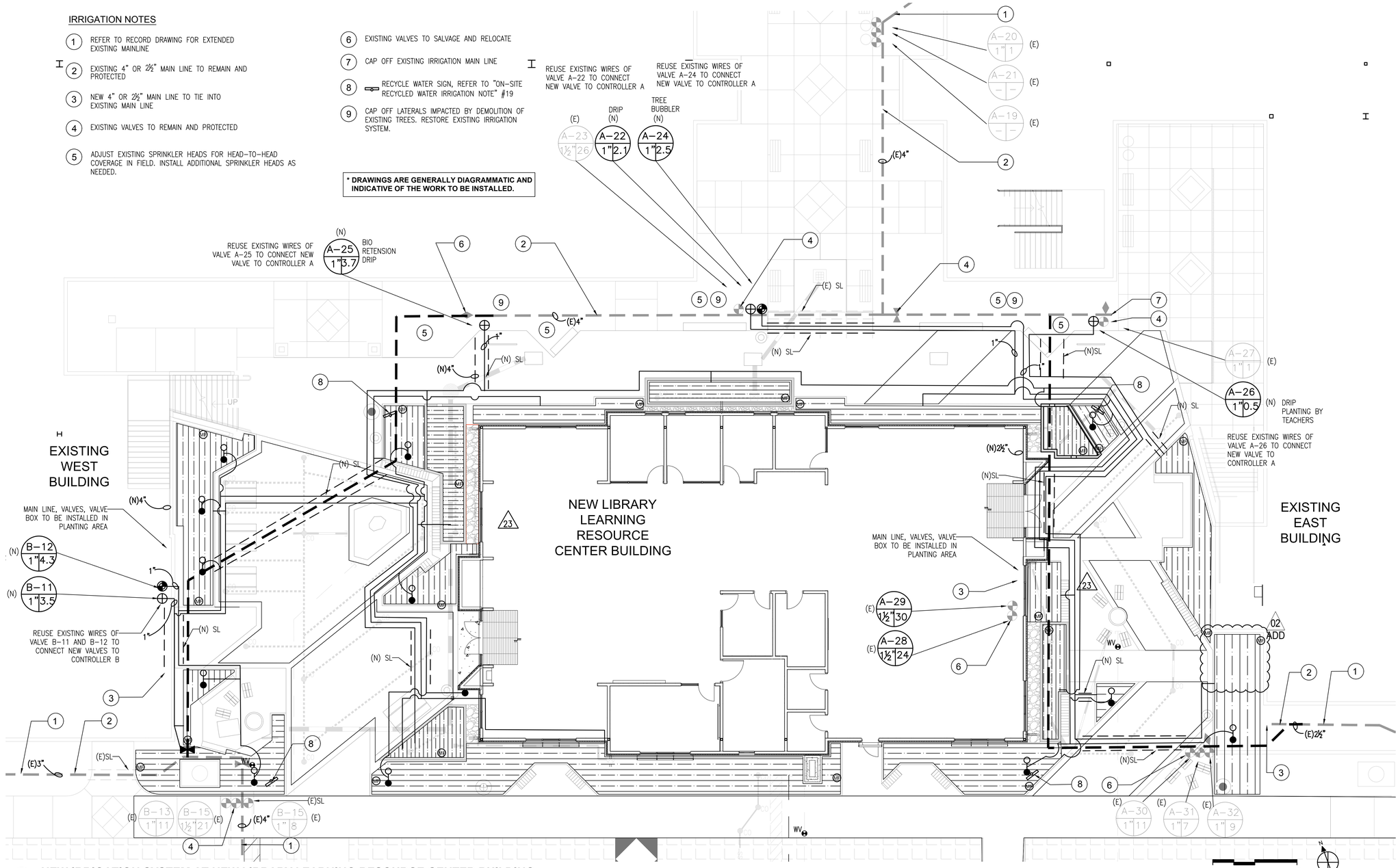
SHEET NUMBER
L3.01.2

11/29/2018 6:03:13 PM C:\Users\suraj.reddy\Documents\Revit Local\DVCSR Expansion_Central 2019_suraj.reddy.rvt

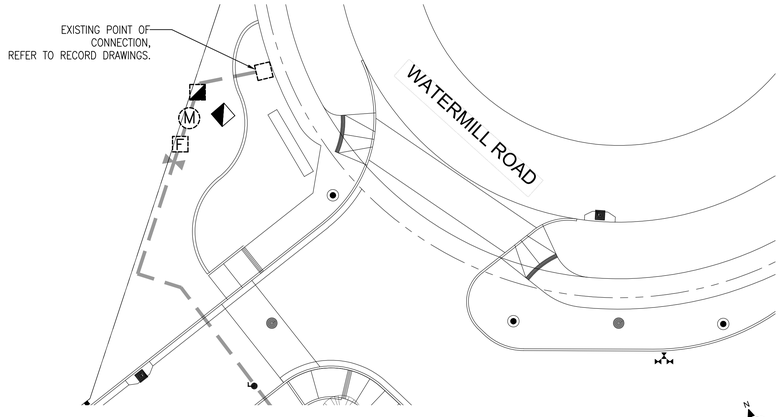
IRRIGATION NOTES

1. REFER TO RECORD DRAWING FOR EXTENDED EXISTING MAINLINE
2. EXISTING 4" OR 2½" MAIN LINE TO REMAIN AND PROTECTED
3. NEW 4" OR 2½" MAIN LINE TO TIE INTO EXISTING MAIN LINE
4. EXISTING VALVES TO REMAIN AND PROTECTED
5. ADJUST EXISTING SPRINKLER HEADS FOR HEAD-TO-HEAD COVERAGE IN FIELD. INSTALL ADDITIONAL SPRINKLER HEADS AS NEEDED.
6. EXISTING VALVES TO SALVAGE AND RELOCATE
7. CAP OFF EXISTING IRRIGATION MAIN LINE
8. RECYCLE WATER SIGN, REFER TO "ON-SITE RECYCLED WATER IRRIGATION NOTE" #19
9. CAP OFF LATERALS IMPACTED BY DEMOLITION OF EXISTING TREES. RESTORE EXISTING IRRIGATION SYSTEM.

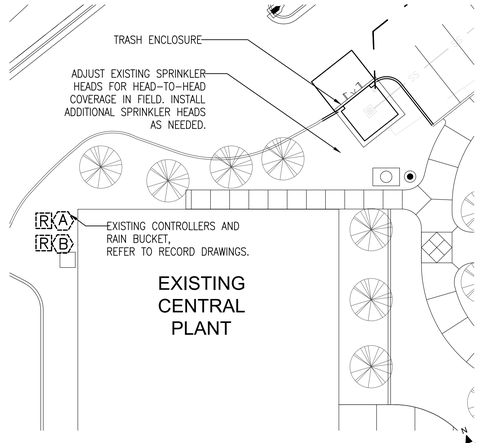
*** DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED.**



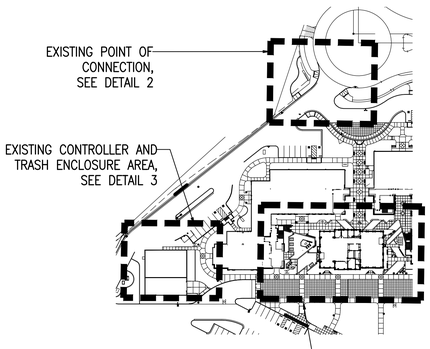
1 NEW IRRIGATION SYSTEM AT NEW LIBRARY LEARNING RESOURCE CENTER BUILDING



2 EXISTING POINT OF CONNECTOIN



3 EXISTING CONTROLLERS AND TRASH ENCLOSURE AREA



KEY MAP N.T.S.

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

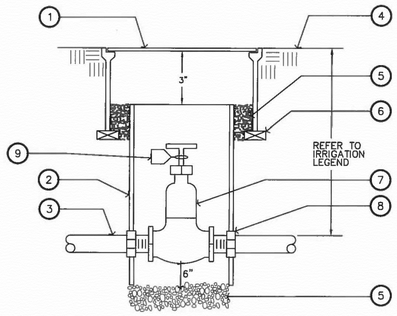
REVISIONS

	DATE	DESCRIPTION
1	8/2/19	INCC2-ADDENDUM 2
2	11/20/2020	ASI 23 - PLANT REVS

SHEET TITLE
IRRIGATION PLAN

SHEET NUMBER
L3.02.2

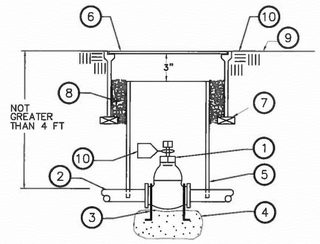
11/29/2018 6:03:13 PM C:\Users\suraj.reddy\Documents\Revit Locals\DVCSR Expansion_Central 2019_suraj.reddy.rvt



1. ROUND PLASTIC VALVE BOX WITH T-COVER LOCKING LID. TOP 10" DIAMETER. INSTALL AS SHOWN IN VALVE BOX DETAIL.
2. 8" CLASS 160 OR SCHEDULE 40 PVC PIPE (NOTCH TO FIT OVER MAIN LINE PIPE).
3. PVC MAIN LINE.
4. FINISH GRADE.
5. 3/4" DRAIN ROCK - 6" DEEP MINIMUM.
6. BRICK: ONE ON EACH SIDE - 2 TOTAL.
7. GATE VALVE AS SPECIFIED.
8. SCHEDULE 80 PVC MALE ADAPTER.
9. PROVIDE RECYCLED WATER TAG WITHIN BOX - FOR RECYCLED SYSTEMS.

2.5" AND SMALLER GATE VALVE DETAIL

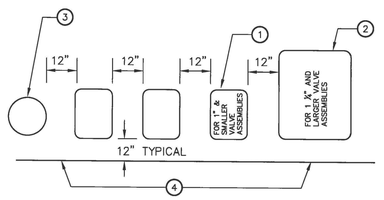
Drawn by: SP/ER	Date: March 2016		Scale: NTS
Checked by: Jeff Gault	Revisions		
Approved by: Brian R. Bunsen CITY ENGINEER Date: 3/14/16	No. Date App. Description		Drawing I-16



1. GATE VALVE WITH 2" OPERATING NUT AS SPECIFIED (GASKETED CONNECTION).
2. GASKETED PVC MAINLINE.
3. #4 REBAR - BEND OVER VALVE BODY WITH "L" BENDS AT ENDS.
4. CONCRETE THRUST BLOCK (SEE DETAIL).
5. 6" CL. 160 PVC PIPE. NOTCH TO FIT OVER MAINLINE PIPE.
6. ROUND PLASTIC VALVE BOX WITH T-COVER LOCKING LID. 10" DIAMETER. INSTALL BOX AS SHOWN IN VALVE BOX DETAIL.
7. BRICK: ONE ON EACH SIDE - 2 TOTAL.
8. 3/4" DRAIN ROCK - 6" DEEP MINIMUM.
9. FINISH GRADE.
10. PROVIDE RECYCLED WATER TAG WITHIN BOX - FOR RECYCLED SYSTEMS.

3" OR LARGER GATE VALVE DETAIL

Drawn by: SP/ER	Date: March 2016		Scale: NTS
Checked by: Jeff Gault	Revisions		
Approved by: Brian R. Bunsen CITY ENGINEER Date: 3/14/16	No. Date App. Description		Drawing I-15

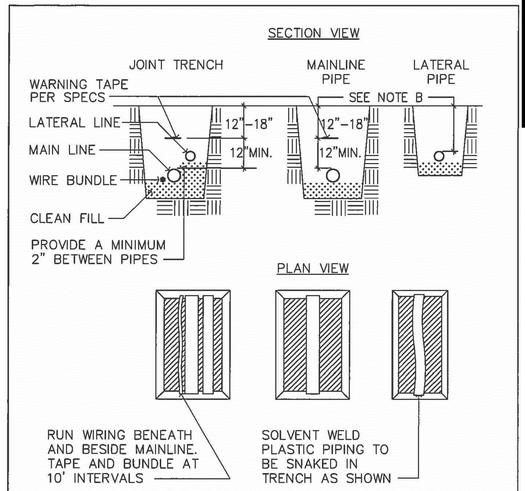


1. 11-3/4" X 17" X 12" DEEP VALVE BOX.
2. 16" X 25-1/2" X 15" DEEP RECTANGULAR VALVE BOX FOR 1-1/4" AND LARGER VALVE ASSEMBLIES.
3. 10" DIAMETER ROUND PLASTIC VALVE BOX FOR QUICK COUPLING VALVE, OR ISOLATION BALL VALVE
4. EDGE OF LAWN, PAVING, FENCE, CURB, ETC.

NOTES:
A. ALIGN VALVE BOX OVER ASSEMBLY TO FACILITATE SERVICING COMPONENTS. ALL COMPONENTS WITHIN VALVE BOXES SHALL BE COMPLETELY ACCESSIBLE FOR SERVICE AND MAINTENANCE (TYPICAL).
B. SET BOXES 1-1/2" ABOVE FINISH GRADE OR MULCH COVER IN GROUND COVER/SHRUB AREA AND 1" ABOVE FINISH GRADE IN TURF AREA.
C. SET RCV AND VALVE BOX ASSEMBLY IN GROUND COVER/SHRUB AREA WHERE POSSIBLE. INSTALL IN LAWN ONLY IF GROUND COVER DOES NOT EXIST ADJACENT TO LAWN.
D. SET BOXES PARALLEL TO EACH OTHER AND PERPENDICULAR TO EDGE OF LAWN, WALK, FENCE, CURB, ETC.
E. AVOID HEAVILY COMPACTING SOIL AROUND VALVE BOXES TO PREVENT COLLAPSE AND DEFORMATION OF VALVE BOX SIDES. COVER BOX CUT-OUTS TO PREVENT SOIL IN BOX.
F. INSTALL EXTENSION BY VALVE BOX MANUFACTURER AS REQUIRED TO COMPLETELY ENCLOSE ASSEMBLY FOR EASY ACCESS.
G. HOT STAMP ALL VALVE BOX LIDS WITH 2" MINIMUM LETTER HEIGHT PER LANDSCAPE STANDARD SPECIFICATIONS.
H. USE PURPLE VALVE BOXES FOR RECYCLED SYSTEMS.

VALVE BOX DETAIL

Drawn by: SP/ER	Date: March 2016		Scale: NTS
Checked by: Jeff Gault	Revisions		
Approved by: Brian R. Bunsen CITY ENGINEER Date: 3/14/16	No. Date App. Description		Drawing I-14



NOTES:
A. SLEEVE BELOW HARDSCAPE ELEMENTS WITH CLASS 200 PVC PIPE, TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
B. FOR PIPE AND WIRE BURIAL DEPTHS REFER TO IRRIGATION LEGEND AND SPECIFICATIONS.
C. TIE A 24" LOOP IN ALL WIRING AT CHANGES OF DIRECTION OF 30 DEGREES OR GREATER. UNTIE AFTER ALL CONNECTIONS BEEN MADE.

TRENCH DETAIL

Drawn by: SP/ER	Date: March 2016		Scale: NTS
Checked by: Jeff Gault	Revisions		
Approved by: Brian R. Bunsen CITY ENGINEER Date: 3/14/16	No. Date App. Description		Drawing I-11

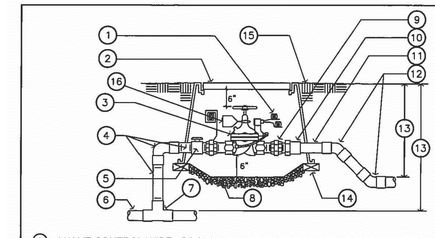
1. POP-UP SPRINKLER AS SPECIFIED.
2. FINISH GRADE.
3. SCHEDULE 80 PVC THREADED NIPPLE (LENGTH AS REQUIRED).
4. 10" LONG SCHEDULE 80 PVC THREADED NIPPLE.
5. SCHEDULE 40 PVC TEE OR ELBOW.
6. PVC LATERAL LINE.
7. 3" LONG SCHEDULE 80 PVC THREADED NIPPLE FOR 3/4" AND LARGER ASSEMBLIES.
8. SCHEDULE 80 PVC THREADED 90° ELBOWS FOR 3/4" AND LARGER ASSEMBLIES, MARLEX STREET ELLS FOR 1/2" ASSEMBLIES.
9. 2" IN TURF AREAS, 4"-6" IN GROUNDCOVER AREAS, 6" IN STREET MEDIANS.
10. WALL, WALK, CURB OR HEADER.
11. 6" BELOW BOTTOM OF SPRINKLER BODY.
12. 12" MINIMUM DEPTH.

NOTES:

A. SET SPRINKLER 2" ABOVE FINISH GRADE IN SHRUB AREAS AND 1" ABOVE FINISH GRADE IN TURF AREAS.
B. NIPPLES AND FITTINGS TO BE SAME IPT SIZE AS SPRINKLER IPT INLET THREAD SIZE.
C. PRE-ASSMBLED SWING JOINTS BY LESCO OR OTHERS ARE NOT PERMITTED FOR USE ON ANY CITY IRRIGATION SYSTEM.

POP-UP SPRINKLER RISER DETAIL

Drawn by: SP/ER	Date: March 2016		Scale: NTS
Checked by: Jeff Gault	Revisions		
Approved by: Brian R. Bunsen CITY ENGINEER Date: 3/14/16	No. Date App. Description		Drawing I-22

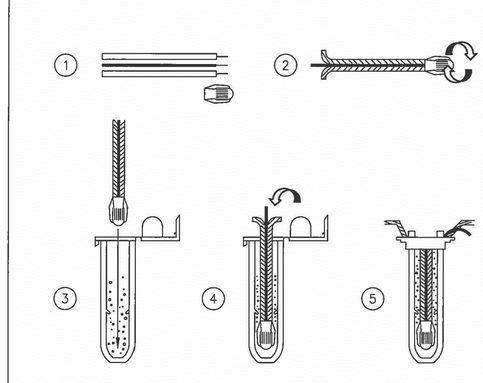


1. VALVE CONTROL WIRE - PROVIDE 3M DBR/Y-6 SEAL PACKS AT ALL SPLICES AND 36" OF EXCESS UF WIRE IN A 1" DIAMETER COIL. ATTACH VALVE I.D. TAGS PER SPECIFICATIONS.
2. RECTANGULAR PLASTIC VALVE BOX WITH T-COVER LOCKING LID. ONE VALVE PER BOX - NO EXCEPTIONS. INSTALL BOX AS SHOWN IN VALVE BOX DETAIL. TOP DIMENSION AS FOLLOWS:
   A. FOR 1" AND SMALLER CONTROL VALVES INSTALL A VALVE BOX WITH AN OUTSIDE TOP DIMENSION OF 11-3/4" X 17" X 12" DEEP.
   B. FOR 1-1/4" AND LARGER CONTROL VALVES INSTALL A VALVE BOX WITH A MINIMUM OUTSIDE TOP DIMENSION OF 16" X 25-1/2" X 15" DEEP.
3. REMOTE CONTROL VALVE WITH FLOW CONTROL AND MANUAL BLEED.
4. SCHEDULE 80 PVC THREADED FITTINGS (AS REQUIRED).
5. THREADED PVC BALL VALVE IN 1-1/2" AND SMALLER ASSEMBLIES, THREADED BRONZE GATE VALVE IN 2" AND LARGER ASSEMBLIES (SEE NOTE BELOW).
6. PVC MAIN LINE.
7. SCHEDULE 80 PVC MAINLINE TEE CONNECTION.
8. 3/4" DRAIN ROCK - 4" DEEP BELOW VALVE (NO SOIL IN VALVE BOX). INSTALL WELDED WIRE MESH BELOW VALVE BOX IN ACCORDANCE WITH CALTRANS STANDARDS.
9. SCHEDULE 80 PVC THREADED UNION (2 TOTAL).
10. SCHEDULE 80 PVC MALE ADAPTER.
11. PVC LATERAL LINE.
12. LOWER LATERAL LINE WITH SCHEDULE 80 PVC 45° ELBOWS.
13. REFER TO IRRIGATION LEGEND FOR PIPE DEPTHS.
14. BRICK - 1 EACH CORNER OF VALVE BOX.
15. FINISH GRADE.
16. PROVIDE RECYCLED WATER TAG WITHIN BOX - FOR RECYCLED SYSTEMS.

NOTE: INSTALL ONE ISOLATION VALVE FOR EACH ISOLATED RCV, OR ONE ISOLATION VALVE FOR A GROUP OF RCV'S (SIZE TO MATCH LARGEST RCV).

REMOTE CONTROL VALVE DETAIL

Drawn by: SP/ER	Date: March 2016		Scale: NTS
Checked by: Jeff Gault	Revisions		
Approved by: Brian R. Bunsen CITY ENGINEER Date: 3/14/16	No. Date App. Description		Drawing I-21



INSTRUCTIONS:

1. STRIP INSULATION 3/4".
2. WITH WIRE ENDS EVEN, INSERT WIRES INTO THE CONNECTOR AND TIGHTEN UNTIL SECURE.
3. INSERT THE CONNECTOR ALL THE WAY INTO THE TUBE UNTIL THE CONNECTOR RESTS ON THE BOTTOM.
4. FOLD THE WIRE INTO THE CHANNELS.
5. CLOSE THE CAP. INSPECT FINAL SPLICE ASSEMBLY TO BE SECURE AND FINISHED.

WATERPROOF SPLICE ASSEMBLY DETAIL

Drawn by: SP/ER	Date: March 2016		Scale: NTS
Checked by: Jeff Gault	Revisions		
Approved by: Brian R. Bunsen CITY ENGINEER Date: 3/14/16	No. Date App. Description		Drawing I-9

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APPROVALS

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

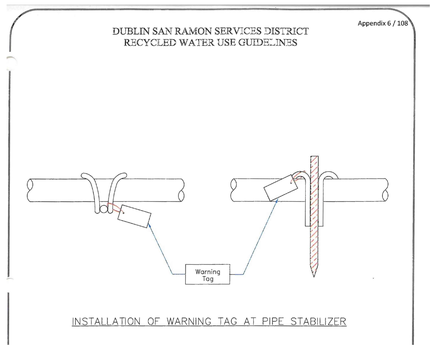
	DATE	DESCRIPTION

SHEET TITLE
IRRIGATION DETAILS

SHEET NUMBER
L3.03.2

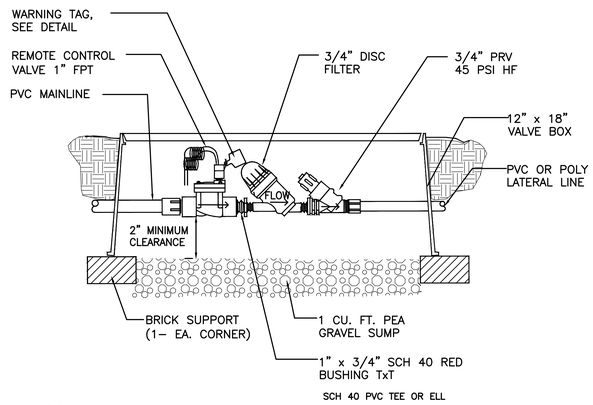
9 RECYCLED WATER SIGN

NOT TO SCALE



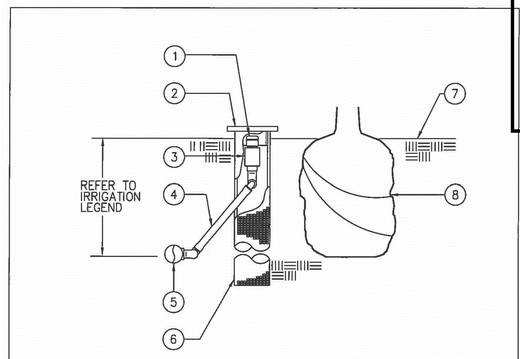
6 WARNING TAG AT PIPE STABILIZER

NOT TO SCALE



3 LOW VOLUME CONTROL ZONE ASSEMBLY

NOT TO SCALE

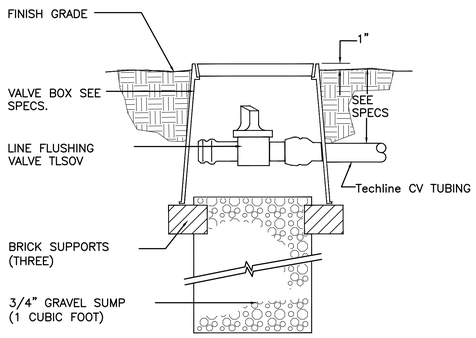


1. BUBBLER AS SPECIFIED
2. GRATE – SET 2" ABOVE FINISH GRADE IN SHRUB AREAS AND 1" ABOVE FINISH GRADE IN TURF AREAS
3. CHECK VALVE
4. BUILT-IN SWING JOINT
5. PVC LATERAL LINE
6. HUNTER 3"x8" ROOT ZONE WATERING SYSTEM WITH FILTER FABRIC SLEEVE OR APPROVED EQUAL
7. FINISH GRADE
8. TREE ROOTBALL

NOTE: INSTALL BUBBLER ON UPHILL SIDE OF ROOTBALL.

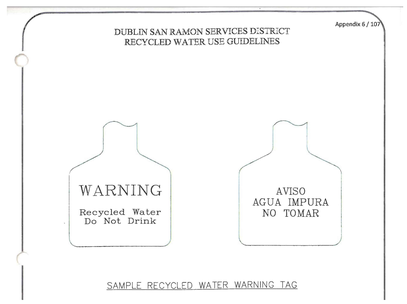
TREE BUBBLER DETAIL

Drawn by: SP/ER | Date: March 2016 | Scale: NTS
Checked by: Jeff Gault | Revisions
Approved by: CITY ENGINEER | Date: 3/14/16
No. | Date | App. | Description
Drawing I-26



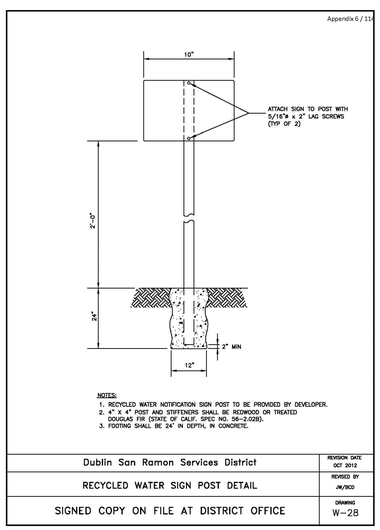
4 TECHLINE MANUAL LINE FLUSHING VALVE TLSOV (PLUMBED TO TUBING)

NOT TO SCALE



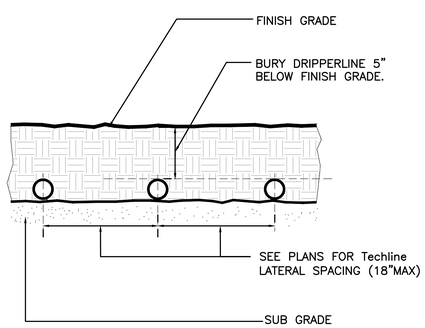
7 RECYCLE WATER TAG

NOT TO SCALE



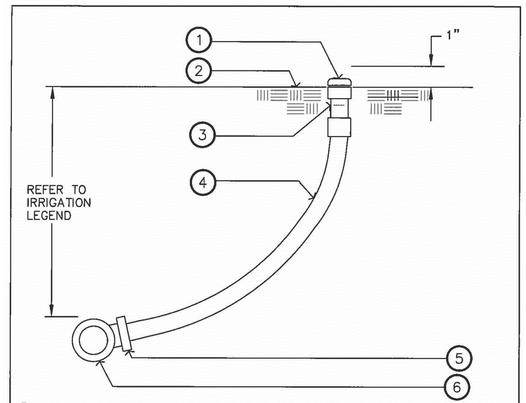
8 RECYCLED WATER SIGN POST

NOT TO SCALE



6 TECHLINE SUBGRADE INSTALLATION

NOT TO SCALE



1. BUBBLER (SEE LEGEND).
2. FINISH GRADE.
3. 1/2" SCHEDULE 40 (WHITE) PVC MALE ADAPTER. INSTALL SPRING-LOADED CHECK VALVE BETWEEN MALE ADAPTER AND BUBBLER NOZZLE WHERE NECESSARY TO CONTROL LOW OUTLET DRAINAGE.
4. 1/2" IPS FLEXIBLE HOSE (PVC) (.840 O.D.) USE ONLY IPS WELD-ON #795 SOLVENT CEMENT WITH P-70 PRIMER ON THIS HOSE.
5. PVC TEE OR ELBOW.
6. PVC LATERAL LINE.

NOTES: A. INSTALL ONE BUBBLER WITHIN PLANTING BASIN ON EDGE OF ROOT-BALL AT A MAXIMUM OF 12" FROM TRUNK OF TREE AND 6" FROM TRUNK OF SHRUB. STAKE BUBBLER TO GRADE WITH 8" WIRE STAPLE.
B. THIS DETAIL DOES NOT APPLY TO TREE BUBBLERS IN TURF AREAS.

SHRUB & TREE BUBBLER DETAIL

Drawn by: SP/ER | Date: March 2016 | Scale: NTS
Checked by: Jeff Gault | Revisions
Approved by: CITY ENGINEER | Date: 3/14/16
No. | Date | App. | Description
Drawing I-25

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ISSUE TITLE
INCREMENT 2

ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630
REVISIONS
DATE | DESCRIPTION

SHEET TITLE
IRRIGATION DETAILS

SHEET NUMBER
L3.04.2

WATER EFFICIENT LANDSCAPE WORKSEET

TO CALCULATE MAWA - Maximum Applied Water Allowance	
ETo	46.2
LA	3,001
SLA	487
MAWA (Gallons)	53,556
MAWA (Inches per sq.ft.)	28.6
MAWA (Inches per DAY)	0.08

DEFINITIONS	
Eto	Evapotranspiration
LA	Landscaped area
SLA	Special landscaped area WITHIN the landscaped area
P.F.	Plant water use factor- WUCLOS
H.A.	Hydro zone area = Irrigated area
I.E.	Irrigation efficiency. Must exceed 0.71.

Maximum Applied Water Allowance Equation:
MAWA = (ETo) (0.62) [(0.55 x LA) + (0.45 x SLA)]

TO CALCULATE ETWU - Estimated Total Water Use	
ETo	46.2
PFxHA (see chart)	987
HA (same as LA)	3,001
IE (see chart)	0.81
SLA	487
ETWU (Gallons)	48,853
ETWU (Inches per sq.ft.)	26.1
ETWU (Inches per DAY)	0.07

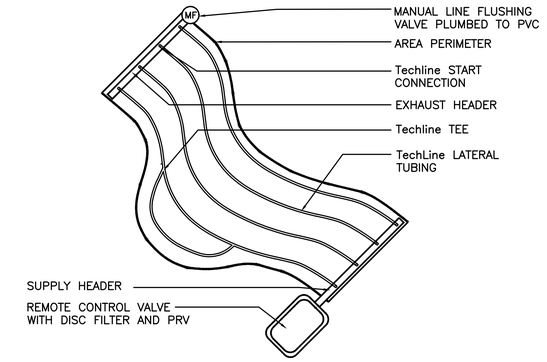
Estimate Total Water Use Equation:
ETWU = (ETo x 0.62) [(PF x HA)/IE) +SLA]

To Determine Plant Factor with Multiple Hydro Zones				
H.Z.	Type	P.F.	H.A.	Weighted P.F.
1	MEDIUM	0.4	1,487	594.8
2	MEDIUM	0.4	826	330.4
3	LOW	0.3	206	61.8
4				0
5				0
6				0
		Totals	2519	987

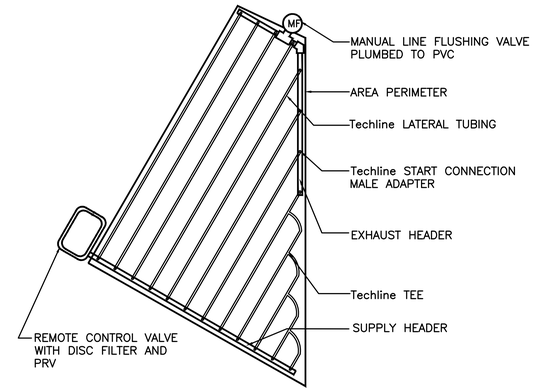
To Determine Average System "IE" exceeds .71					
H.Z.	Type	Sprinkler	HA	"IE"	Weighted Area
1	Drip(Subsurface)		1,487	0.81	1204.47
2	Drip(Subsurface)		826	0.81	669.06
3	Drip(Subsurface)		206	0.81	166.86
4					0
5					0
6					0
			2,519	Totals	2,040
					0.81

Average System IE (IE is a derivative of DU defined as
IE = DU x IME. Where IME= Irrigation Management Efficiency

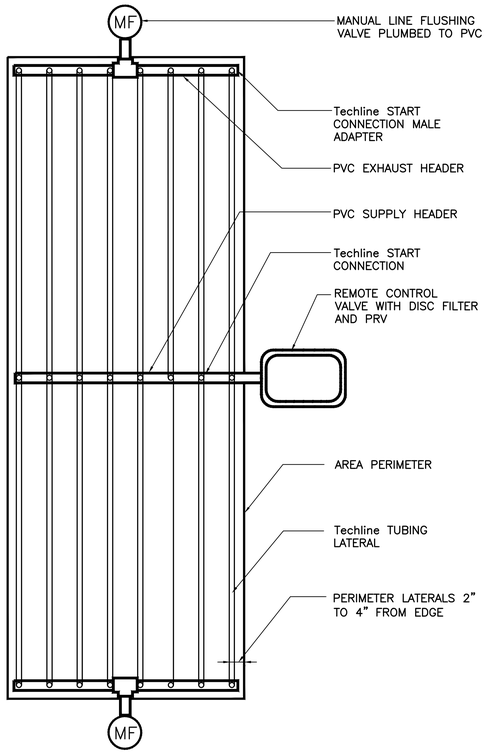
Does ETWU Qualify?	Yes - ETWU Does Not Exceed Maximum Allowed



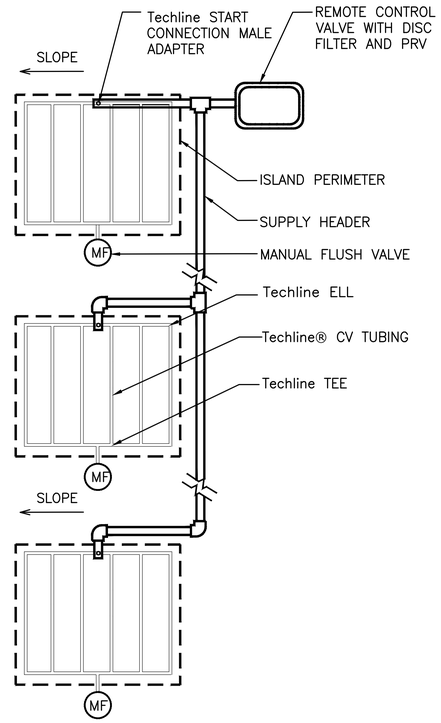
3 TECHLINE IRREGULAR AREAS/ODD CURVES
NOT TO SCALE



1 TECHLINE IRREGULAR AREAS: TRIANGULAR
NOT TO SCALE



4 TECHLINE CENTER FEED LAYOUT
NOT TO SCALE



2 TECHLINE ISLAND LAYOUT
NOT TO SCALE

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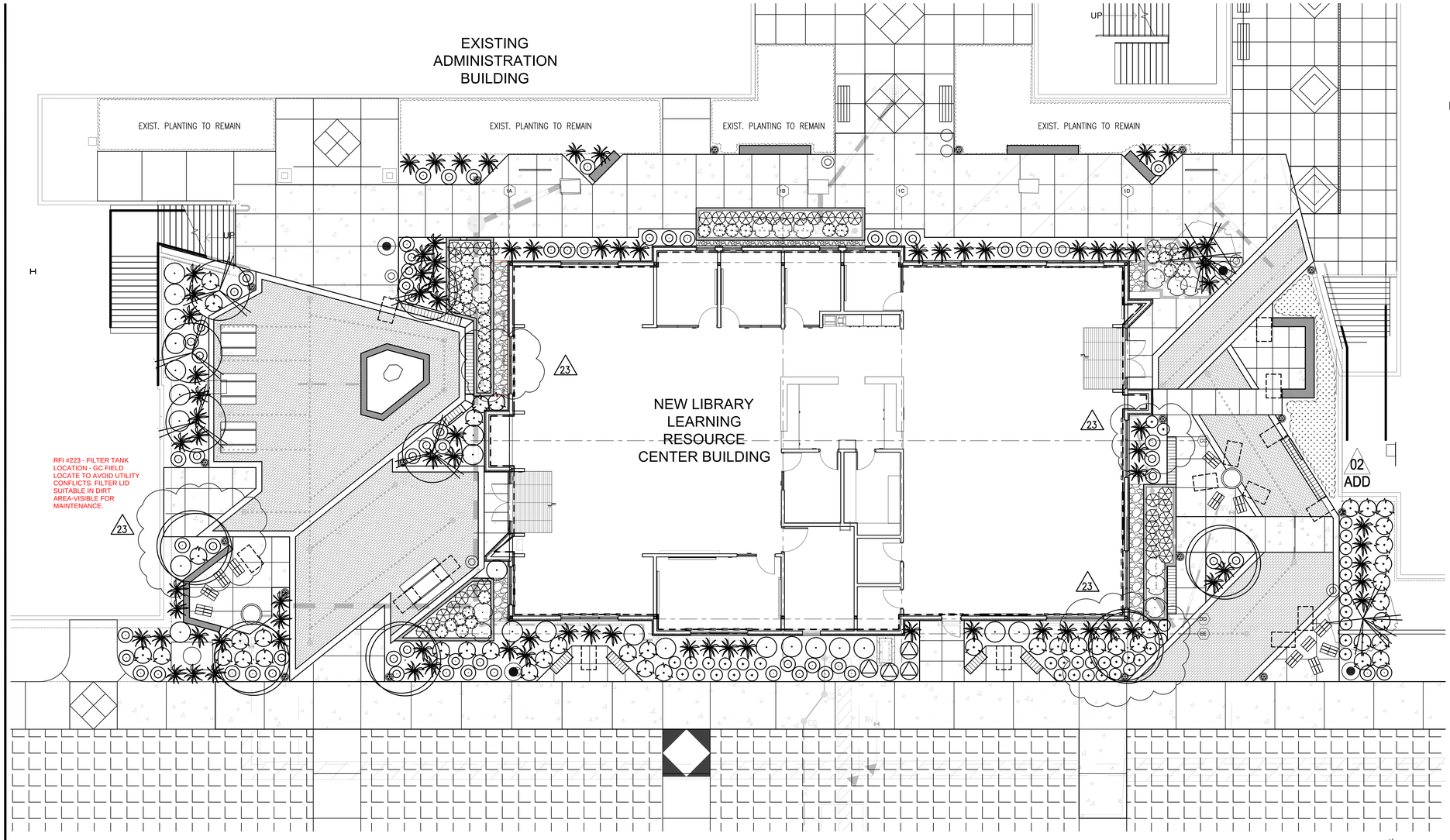
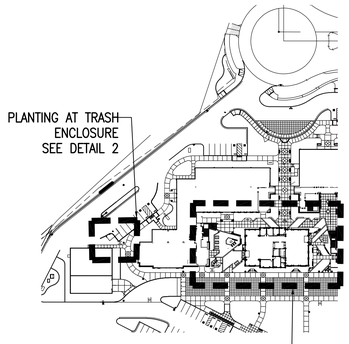
ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

REVISIONS
	DATE	DESCRIPTION

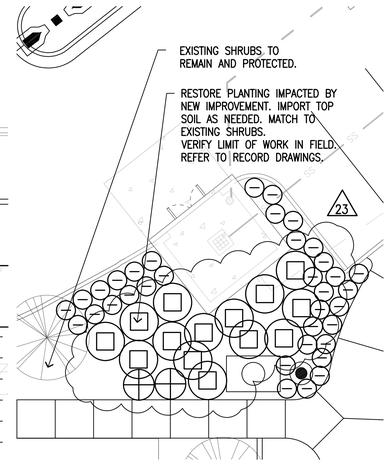
SHEET TITLE
IRRIGATION DETAILS

SHEET NUMBER
L3.05.2





KEY MAP
N.T.S.



1 PLANTING PLAN AT LLRC

2 PLANTING AT TRASH ENCLOSURE

0' 4' 8' 16'

PLANT LEGEND

BOTANICAL NAME	COMMON NAME	SIZE	WATER USE	REMARK
PLAZA TREES				
TRISTANIA LAURINA 'ELEGANT'	ELEGANT WATER GUM	24" BOX	LOW	STANDARD
CERCIS OCCIDENTALIS	WESTERN REDBUD	24" BOX	VERY LOW	MULTI
LAGERSTROEMIA INDICA 'NATCHEZ'	NATCHEZ CRAPE MYRTLE	24" BOX	LOW	STANDARD

BOTANICAL NAME	COMMON NAME	SIZE	SPACING	WATER USE	REMARK
PLAZA SHRUBS					
ANIGOZANTHUS 'BUSH RANGER'	KANGAROO PAW 'BUSH RANGER'	1 GAL	30"	LOW	
BAMBUSA ALTRIPLEX 'ALPHONSE KARR'	ALPHONSE KARR BAMBOO	15 GAL	36"	LOW	
NANDINA DOMESTICA	HEAVENLY BAMBOO	5 GAL	36"	LOW	
NANDINA DOMESTICA 'GULF STREAM'	GULF STREAM HEAVENLY BAMBOO	5 GAL	36"	LOW	
PHORMIUM TENAX 'MARGARET JONES'	MARGARET JONES FLAX	5 GAL	36"	LOW	
PODOCARPUS MACROPHYLLUS 'MAKI'	SHRUBBY YEW PINE	15 GAL	42"	MEDIUM	
SANTOLINA CHAMAECYPARISSUS	LAVENDAR COTTON	1 GAL	24"	LOW	
TRASH ENCLOSURE AREA					
LIGUSTRUM JAPONICUM 'TEXANUM'	WAXLEAF PRIVET	5 GAL	48"	MEDIUM	
TRACHELOSPERMUM	STAR JASMINE	1 GAL	30"	MEDIUM	
PHORMIUM 'PINK STRIPE'	PINK STRIKE NEW ZEALAND FLAX	5 GAL	48"	LOW	
BIORETENTION SHRUBS					
CAREX DIVULSA	BERKELEY SEDGE	5 GAL	24"	LOW	
CHONDRAPETALUM TECTORUM	SMALL CAPE RUSH	5 GAL	42"	LOW	
JUNCUS EFFUSUS	SOFT RUSH	5 GAL	24"	MEDIUM	
NATIVE PLANTS BY OTHERS					

FOR PLANTING NOTES & DETAILS, SEE L4.02.2

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INCREMENT 2

ISSUE DATE	5/30/2019
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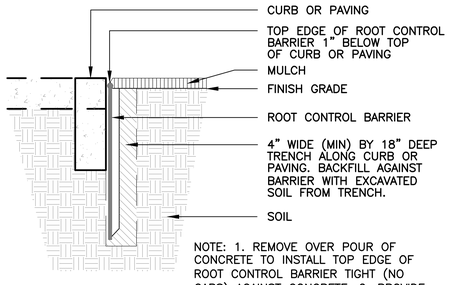
REVISIONS

	DATE	DESCRIPTION
2	8/2/19	INC 2-ADDENDUM 02
23	11/20/2020	ASI 23 - PLANT REVS

SHEET TITLE
PLANTING PLAN

SHEET NUMBER
L4.01.2

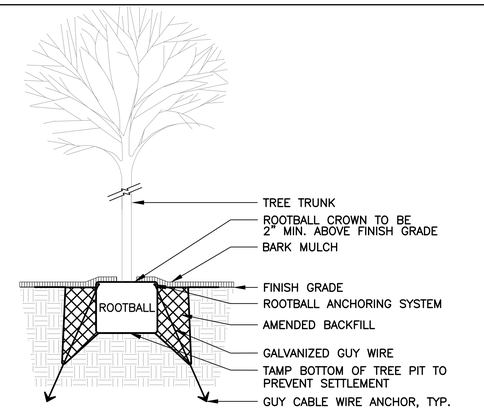


NOTE: 1. REMOVE OVER POUR OF CONCRETE TO INSTALL TOP EDGE OF ROOT CONTROL BARRIER TIGHT (NO GAPS) AGAINST CONCRETE. 2. PROVIDE 20 LINEAR FEET OF ROOTBARRIER PER TREE WITHIN 5 FEET OF CURB OR PAVING CENTER BARRIER 10 FEET EACH WAY FROM TRUNK.

SECTION
1" = 1'-0"

D ROOT CONTROL BARRIER - LINEAR
SECTION

P_RTBAR1

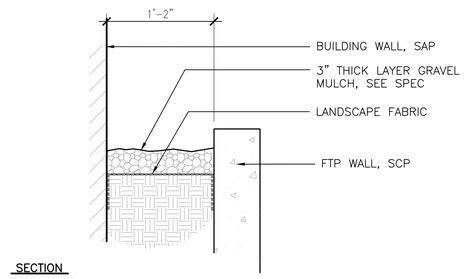


NOTE:
3 ANCHORS PER TREE
UNLESS OTHERWISE NOTED

SECTION
1/2" = 1'-0"

A TREE PLANTING
SECTION

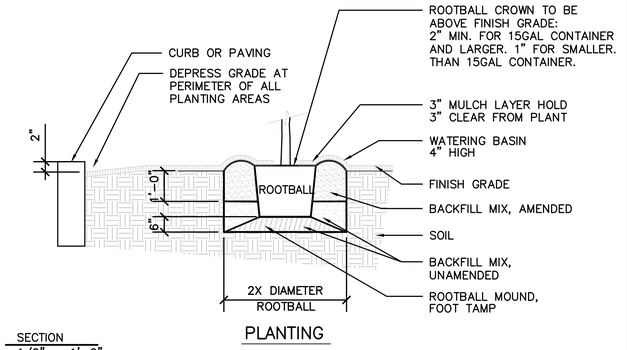
L-DT-TREE PLANTING AT SEAT CUBE



SECTION
3/2" = 1'-0"

E GRAVEL MULCH
SECTION

P_GRAVEL MULCH

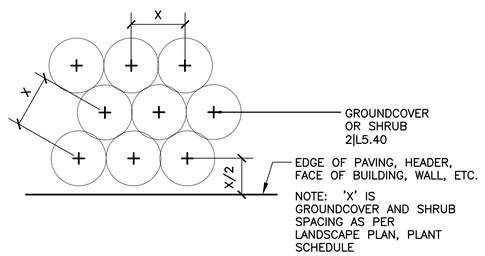


PLANTING

SECTION
1/2" = 1'-0"

B SHRUB PLANTING
SECTION

DTL-SHRUB PLANTING 2



NOTE: 'X' IS GROUNDCOVER AND SHRUB SPACING AS PER LANDSCAPE PLAN, PLANT SCHEDULE

C GROUND COVER AND SHRUB SPACING
N.T.S.

L-DT-SHRUB PLANTING

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REVISIONS
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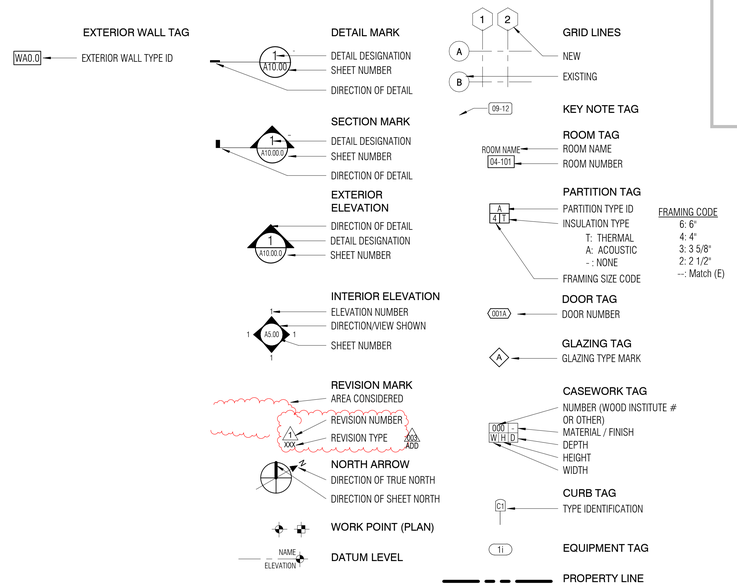
SHEET TITLE
PLANTING NOTES & DETAILS

SHEET NUMBER
L4.02.2

11/29/2018 6:03:13 PM C:\Users\suraj.reddy\Documents\Revit Locals\DVCSR Expansion_Central 2019_suraj.reddy.rvt

SYMBOLS LEGEND



ABBREVIATIONS

&	AND
(E)	EXISTING
(N)	NEW
@	AT
AB	ANCHOR BOLT
AC	ASPHALTIC CONCRETE
ACC	ACCESS
ACOUS	ACOUSTICAL
ACT	ACOUSTIC CEIILING TILE
AD	AREA DRAIN
ADDL	ADDITIONAL
ADJ	ADJACENT/ADJUSTABLE
AESS	ARCHITECTURAL EXPOSED STRUCTURAL STEEL
AFF	ABOVE FINISHED FLOOR
AGG	AGGREGATE
ALT	ALTERNATE
ALUM	ALUMINUM
ANOD	ANODIZED
APPROX	APPROXIMATE
AV	AUDIO VISUAL
BD	BOARD
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BO	BOTTOM OF
BOT	BOTTOM
BUR	BUILT UP ROOF
CAB	CABINET
CB	CARRIAGE BOLT
CE	CIVIL ENGINEER
CEM	CEMENT/CEMENTITIOUS
CER	CERAMIC
CFMF	COLD FORMED METAL FRAMING
CI	CAST IRON
CJ	CONTROL JOINT
CLG	CEILING
CLKG	CAULKING
CLO	CLOSET
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CNTR	COUNTER
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
CONTR	CONTRACTOR
CORR	CORRIDOR
CPT	CARPET
CSMT	CASEMENT
CTR	CENTER
CTSK	COUNTERSINK
D	DEPTH
DBL	DOUBLE
DEMO	DEMOLITION
DEPT	DEPARTMENT
DF	DOUGLAS FIR/DRINKING FOUNTAIN
DH	DOUBLE HUNG
DIA	DIAMETER
DIM	DIMENSION
DISP	DISPOSAL
DN	DOWN
DR	DOOR
DS	DOWNSPOUT
DTL	DETAIL
DWG	DRAWING
DWR	DRAWER
E	EAST
EA	EACH
EJ	EXPANSION JOINT
ELEC	ELECTRICAL
ELEV	ELEVATION/ELEVATOR
ENLG	ENLARGED
EO	EDGE OF
EOS	EDGE OF SLAB
EP	ELECTRICAL PANEL
EQ	EQUAL
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXP	EXPANSION
EXT	EXTERIOR
FA	FIRE ALARM
FD	FLOOR DRAIN
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FACTORY FINISH
FHC	FIRE HOSE CABINET
FIN	FINISH
FIN FLR	FINISH FLOOR
FIXT	FIXTURE
FLR	FLOOR
FLRG	FLOORING
FLUOR	FLUORESCENT
FOC	FACE OF CONCRETE
FOF	FACE OF FINISH
FOS	FACE OF STUD
FR	FIRE RESISTANT/FIRE RETARDANT
FRP	FIBERGLASS REINFORCED PANEL
FRT	FIRE RETARDANT TREATED
FSD	FIRE SEPARATION DISTANCE
FSP	FIBERGLASS SANDWICH PANEL
FT	FOOT/FEET
FTG	FOOTING
FURN	FURNITURE
FX	FIXED
GA	GAUGE
GALV	GALVANIZED
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPT
GI	GALVANIZED IRON
GL	GLASS/GLAZING
GLAM	GLUE LAMINATED
GR	GRADE
GSM	GALVANIZED SHEET METAL
GWB	GYPSUM WALL BOARD
GYP	GYPSUM
H	HIGH
HB	HOSE BIB
HC	HOLLOW CORE
HD	HEAD
HDR	HEADER
HDW	HARDWARE
HDWD	HARDWOOD
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HR	HOUR
HT	HEIGHT
HVAC	HEATING VENTILATION & AIR CONDITIONING
ID	INSIDE DIAMETER
IF	INSIDE FACE
INC	INCANDESCENT
INCL	INCLUDE/INCLUDING
INSUL	INSULATION
INT	INTERIOR
JAN	JANITOR
JBOX	JUNCTION BOX
JST	JOIST
JT	JOINT
LAM	LAMINATE
LAV	LAVATORY
LB	LAG BOLT
LF	LINEAR FEET
LKR	LOCKER
LT	LIGHT
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MTD	MOUNTED
MTL	METAL
MUL	MULLION
N	NORTH
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
O/	OVER
OA	OVERALL
OC	ON CENTER
OCC	OCCUPANT
OD	OUTSIDE DIAMETER/OVERFLOW DRAIN
OF	OUTSIDE FACE
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFD	OVERFLOW DRAIN
OFF	OFFICE
OP	OPERABLE
OPNG	OPENING
OPP	OPPOSITE
OPP HD	OPPOSITE HAND
PA	PUBLIC ADDRESS
PARTN	PARTITION
PCP	PORTLAND CEMENT PLASTER
PL	PLATE
PLAM	PLASTIC LAMINATE
PLAS	PLASTIC
PLY	PLYWOOD
PR	PAIR
PROJ	PROJECT/PROJECTOR
PT	POINT/PRESSURE TREATED
PTD	PAINTED
PVC	POLYVINYLCHLORIDE
QTY	QUANTITY
R	RISER
RAD	RADIUS
RD	ROOF DRAIN
REF	REFERENCE
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCE/REINFORCING
REQD	REQUIRED
REQT	REQUIREMENTS
RES	RESILIENT
REV	REVISION
RM	ROOM
RO	ROUGH OPENING
RWL	RAIN WATER LEADER
S	SOUTH
SASF	SELF ADHERING SHEET FLASHING
SASM	SELF ADHERING SHEET MEMBRANE
SC	SOLID CORE
SCD	SEE CIVIL DRAWINGS
SCHED	SCHEDULE
SE	STRUCTURAL ENGINEER
SEC	SECTION
SED	SEE ELECTRICAL DRAWINGS
SF	SUPPLY FAN
SFAD	SEE FIRE ALARM DRAWINGS
SFSD	SEE FIRE SPRINKLER DRAWINGS
SH	SINGLE HUNG
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SLD	SEE LANDSCAPE DRAWINGS
SMD	SEE MECHANICAL DRAWINGS
SOG	SLAB ON GRADE
SP	SPACE
SPA	SANDWICH PANEL ASSEMBLY
SPD	SEE PLUMBING DRAWINGS
SPEC	SPECIFICATION
SQ	SQUARE
SS	STAINLESS STEEL
SSD	SEE STRUCTURAL DRAWINGS
SSGD	SEE SIGNAGE DRAWINGS
SSK	SERVICE SINK
SSTL	STAINLESS STEEL
STD	STANDARD
STED	SEE TELECOM DRAWINGS
STL	STEEL
STOR	STORAGE
STRL	STRUCTURAL
STRUC	STRUCTURAL
SUSP	SUSPENDED
SYS	SYSTEM
T	TREAD
T&G	TONGUE & GROOVE
TBD	TO BE DETERMINED
TEL	TELEPHONE
TEMP	TEMPERED
THK	THICK/THICKNESS
THRESH	THRESHOLD
TJI	TRUSS JOIST
TO	TOP OF
TOC	TOP OF CONCRETE/CURB
TOP	TOP OF PAVING
TOS	TOP OF STEEL
TOW	TOP OF WALL
TS	TUBE STEEL
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UR	URINAL
VCT	VINYL COMPOSITION TILE
VENT	VENTILATION
VERT	VERTICAL
VEST	VESTIBULE
VIF	VERIFY IN FIELD
W	WEST/WIDTH
W/	WITH
W/O	WITHOUT
WC	WATER CLOSET
WD	WOOD
WH	WATER HEATER
WIN	WINDOW
WO	WHERE OCCURS
WP	WORK POINT
WR	WATER RESISTANT
WRB	WEATHER RESISTANT BARRIER
WT	WEIGHT

APPROVALS

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ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

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ISSUE TITLE
INCREMENT 2

ISSUE DATE **5/30/2019**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

	DATE	DESCRIPTION
1	1/30/19	BID ADDENDUM 3

SHEET TITLE
ABBREVIATIONS / SYMBOLS

SHEET NUMBER
A0.01.0

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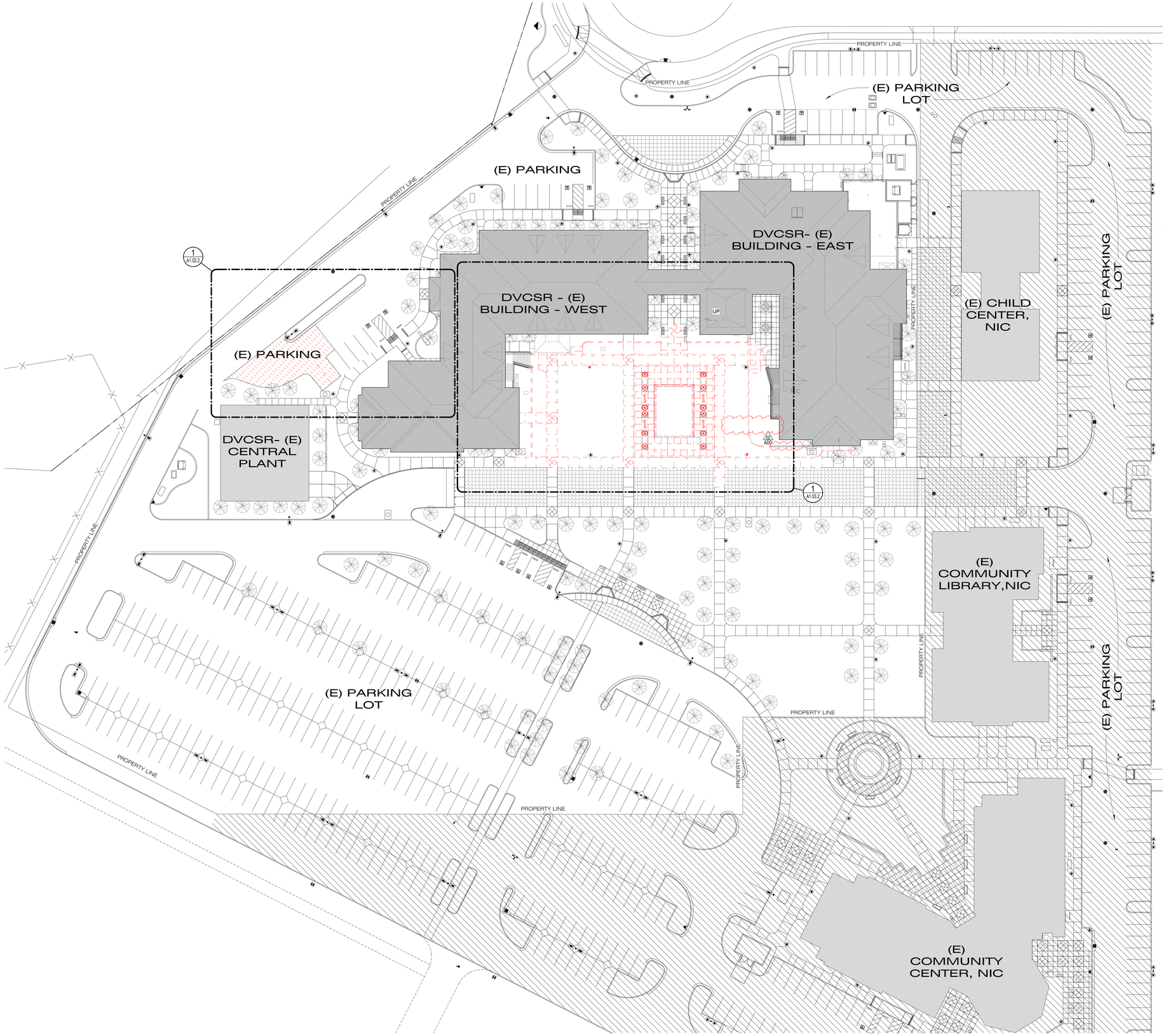

1 A1.01.2 **SITE PLAN - OVERALL DEMOLITION PLAN - LLRC**
1" = 30'-0"

SHEET NOTES

1. EXISTING SITE IMPROVEMENTS ARE PART DSA APPLICATION # 01-106062. EXISTING BUILDINGS ARE UNDER DSA APPLICATION # 01-105719
2. ALL ACCESSIBILITY UPGRADES FOR THE SITE ARE INCLUDED WITH INCREMENT 1 WORK, UON. FOR INCREMENT 1 ACCESS COMPLIANCE INFORMATION, SEE DSA APPLICATION #01-117630
3. SEE CIVIL, ELECTRICAL, FIRE, AND LANDSCAPE DRAWINGS FOR IMPROVEMENTS THAT AFFECT EXISTING CONDITIONS AND WILL REQUIRE PATCHING AND REPAIRING NOT SPECIFICALLY SHOWN OR NOTED THE DEMOLITION PLAN AND ENLARGED DEMOLITION PLAN
4. PROVIDE PROTECTION OF EXISTING PLANTS THAT ARE TO REMAIN
5. REFER TO INCREMENT 1 DSA # 01-117630 FOR MODIFICATIONS AT ACCESSIBLE PARKING AREAS INCLUDING STRIPING, SIGNAGE, AND DETECTABLE WARNING

SITE DEMOLITION LEGEND

- DEMO (E) SITE OBJECT (SHOWN DASHED), UON
- (E) BUILDING FOOTPRINT
- AREA OF VEHICULAR PAVING TO BE REMOVED FOR TRASH TRUCK ACCESS AND NEW TRASH ENCLOSURE. SCD
- SITE AREA NOT IN SCOPE
- (E) FIRE ACCESS LANE - TURF PAVERS

RFI #6 - IN THE FIRE LANES THERE IS EXISTING TURF BLOCK ' GRASS PAVE 2' . PER GENERAL NOTE 6 ON C2.0, THE CONTRACTOR RESPONSIBLE FOR REPLACEMENT OF ALL TURF BLOCK THAT ARE REMOVED FOR NEW IMPROVEMENTS. ALSO PER NOTE 5 CONTRACTOR TO RESTORE FEATURES WHCH ARE DAMAGED TO PREVIOUS CONDITION.

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ISSUE TITLE
INCREMENT 2

ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

REVISIONS

	DATE	DESCRIPTION
1	8/2/19	INC 2 - ADDENDUM 02

SHEET TITLE
OVERALL SITE DEMOLITION PLAN

SHEET NUMBER
A1.01.2

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KEY NOTES

Key Value	Keynote Text
02-38	(E) LIGHT POLE TO REMAIN
02-116	(E) WATER METER & BACKFLOW PREVENTER
22-01	NEW 750 GALLON GREASE INTERCEPTOR, SPD & SCD
32-04	RESTORE PLANTING IMPACTED BY NEW ABOVE & BELOW-GRADE IMPROVEMENTS, SLD
32-08	EXTEND (E) PLANTING AREA, SLD

Key Value	Keynote Text
32-18	TRASH ENCLOSURE WITH CMU WALLS AND STEEL FRAMED CORRUGATED METAL ROOF
32-19	RESTRIPE AS REQUIRED ADJACENT TO TRASH ENCLOSURE FOR AREAS AFFECTED BY WORK. LAYOUT OF STALLS TO REMAIN.
32-24	(E) HARDSCAPE AND LANDSCAPE TO REMAIN. PATCH & REPAIR IN-KIND THE EXISTING SITE PAVING SECTION AND SITE LANDSCAPE REQUIRED FOR INSTALLATION OF NEW UNDERGROUND UTILITIES. SED & SCD.

SITE LEGEND

- DEMO (E) SITE OBJECT (SHOWN DASHED), UON
- (E) BUILDING FOOTPRINT
- AREA OF VEHICULAR PAVING TO BE REMOVED FOR TRASH TRUCK ACCESS AND NEW TRASH ENCLOSURE, SCD
- SITE AREA NOT IN SCOPE
- (E) FIRE ACCESS LANE - TURF PAVERS REFER TO SITE PLAN FOR EXTENT OF WORK AND REPLACEMENT
- (N) PAVING, SCD, SLD

SHEET NOTES

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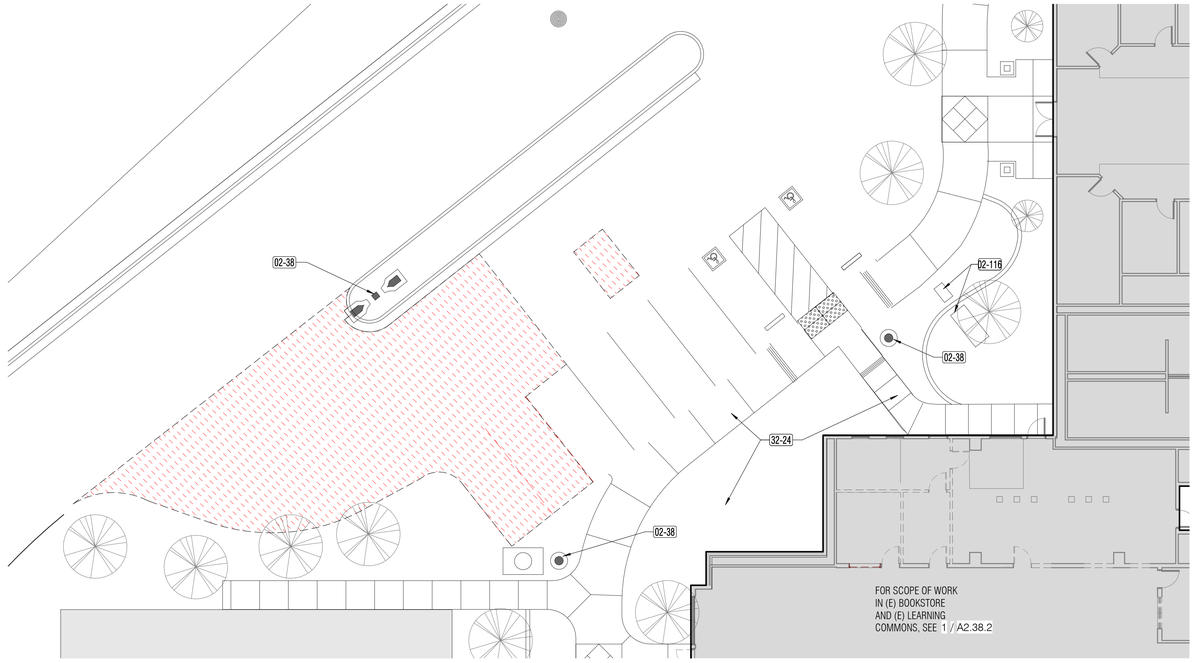
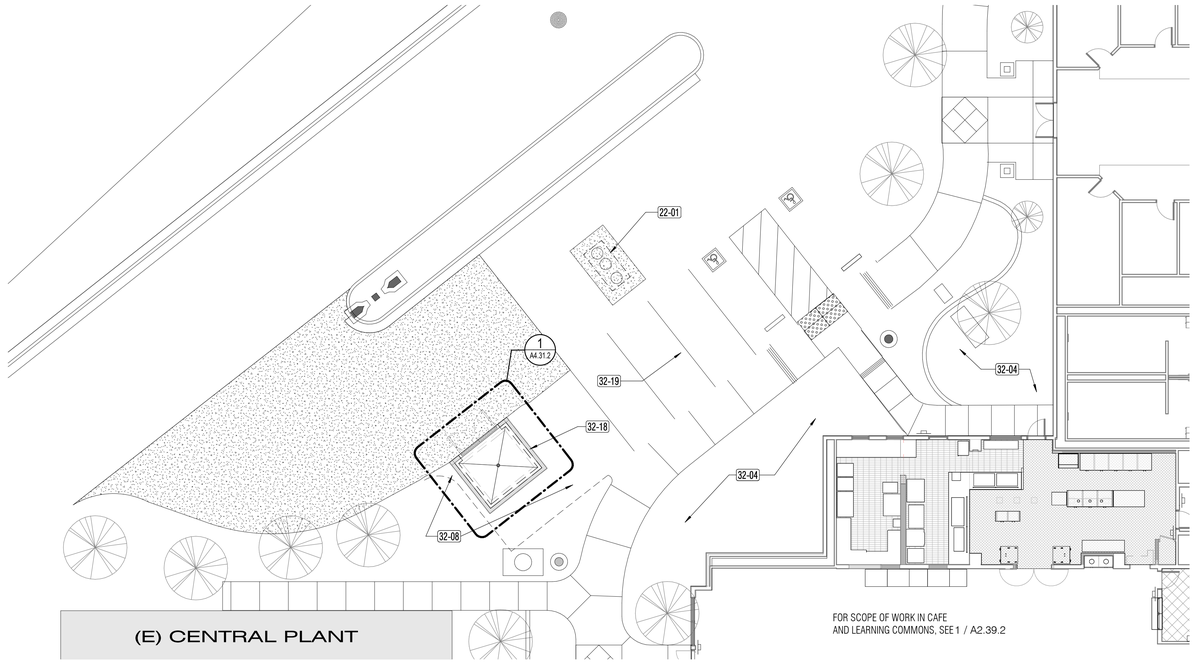


1 / A1.02.2 **ENLARGED SITE DEMOLITION PLAN @ CAFE**
3/32" = 1'-0"



2 / A1.02.2 **ENLARGED SITE PLAN @ CAFE**
3/32" = 1'-0"

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ISSUE TITLE
INCREMENT 2

ISSUE DATE **5/30/2019**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

	DATE	DESCRIPTION

SHEET TITLE
ENLARGED DEMO AND SITE PLAN @ CAFE

SHEET NUMBER
A1.02.2

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KEY NOTES

Key Value	Keynote Text
02-05	REMOVE & SALVAGE (E) BIKE RACK FOR RE-USE, SLD
02-38	(E) LIGHT POLE TO REMAIN
02-80	REMOVE AND SALVAGE (E) LIGHT POLE FOR RE-INSTALLATION. SEE SITE PLAN FOR NEW LOCATION. SED AND SLD
31-01	REMOVE EXSITING CONCRETE WALK, SLD
31-02	REMOVE EXISTING LAWN & VEGETATION. MODIFY IRRIGATION & UNDERGROUND UTILITIES AS REQUIRED, SCD, SLD, SED. PROVIDE SITE DEMOLITION IN PREPARATION FOR (N) BUILDING & IMPROVEMENTS.
31-03	REMOVE EXISTING PLANTER CURB, VEGETATION, AND TREES
31-04	REMOVE EXISTING BORDER, SLD

Key Value	Keynote Text
31-05	EXISTING FIRE LANE, TO REMAIN. SCD, SMD, SED, AND STED FOR (N) UTILITY WORK IN THIS ZONE. PATCH & REPAIR AS REQUIRED FOR IMPROVEMENTS. SEE CIVIL DWG FOR TYP PAVING SECTION
32-01	REMOVE AND SALVAGE EXISTING EXTERIOR METAL BENCH AND RETURN TO SCHOOL DISTRICT
32-02	REMOVE (E) FOUNTAIN AND RELATED SITE FOUNTAIN PIPING BACK TO PUMP ROOM IN (E)EAST BUILDING. CAP INSIDE ROOM.
32-03	REMOVE LINEAR DRAIN @ FOUNTAIN, ALL SIDES
32-07	EXISTING CONCRETE WALK TO REMAIN

SITE DEMOLITION LEGEND

- DEMO (E) SITE OBJECT (SHOWN DASHED), UON
- (E) BUILDING FOOTPRINT
- AREA OF VEHICULAR PAVING TO BE REMOVED FOR TRASH TRUCK ACCESS AND NEW TRASH ENCLOSURE, SCD
- SITE AREA NOT IN SCOPE
- (E) FIRE ACCESS LANE - TURF PAVERS

SHEET NOTES

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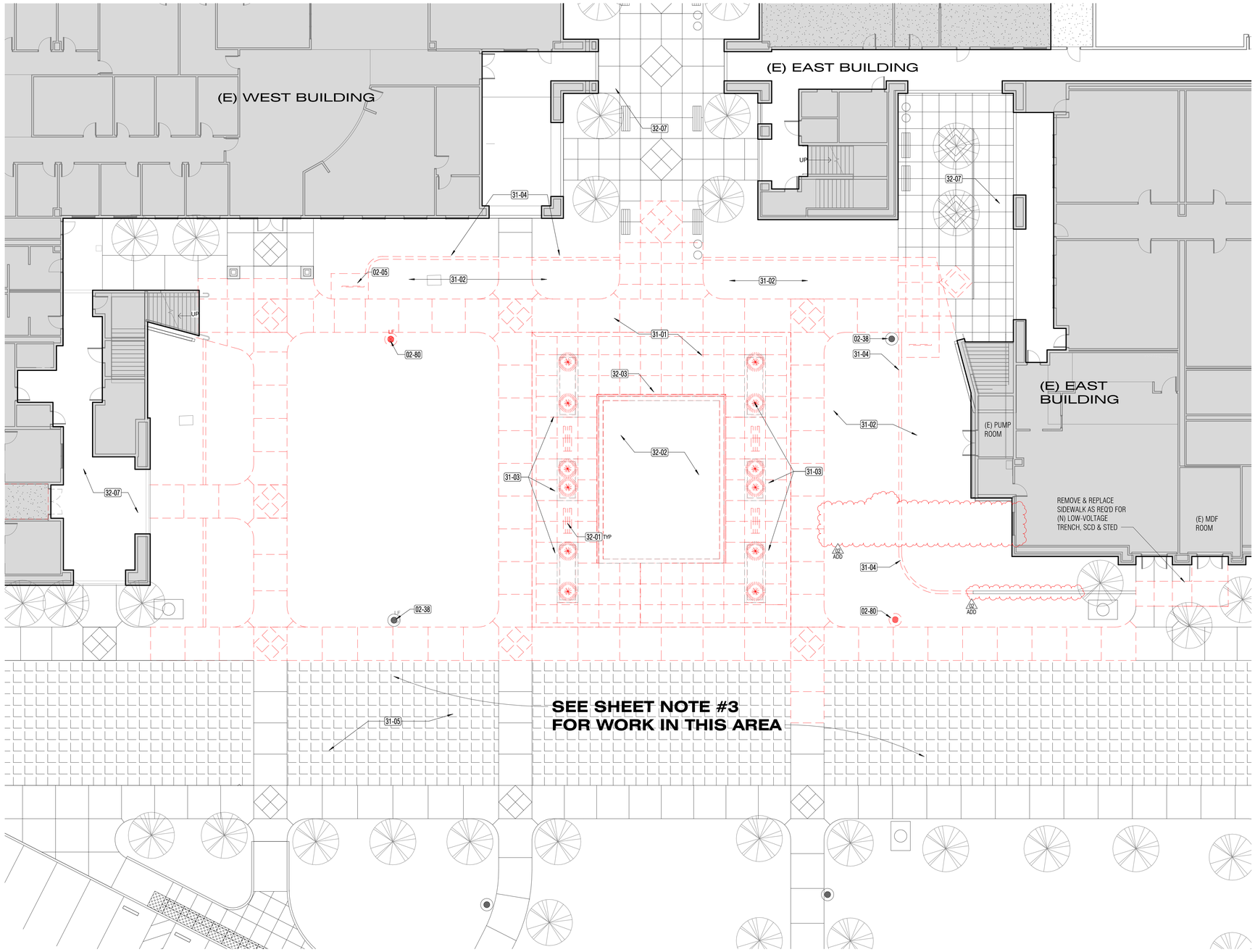

1 A1.03.2 ENLARGED SITE DEMO PLAN @ LLRC
3/32" = 1'-0"

APPROVALS

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STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

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San Ramon, CA 94582

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

△	DATE	DESCRIPTION
	8/2/19	INC 2 - ADDENDUM 02

SHEET TITLE
ENLARGED SITE DEMOLITION PLAN @ LLRC

SHEET NUMBER
A1.03.2

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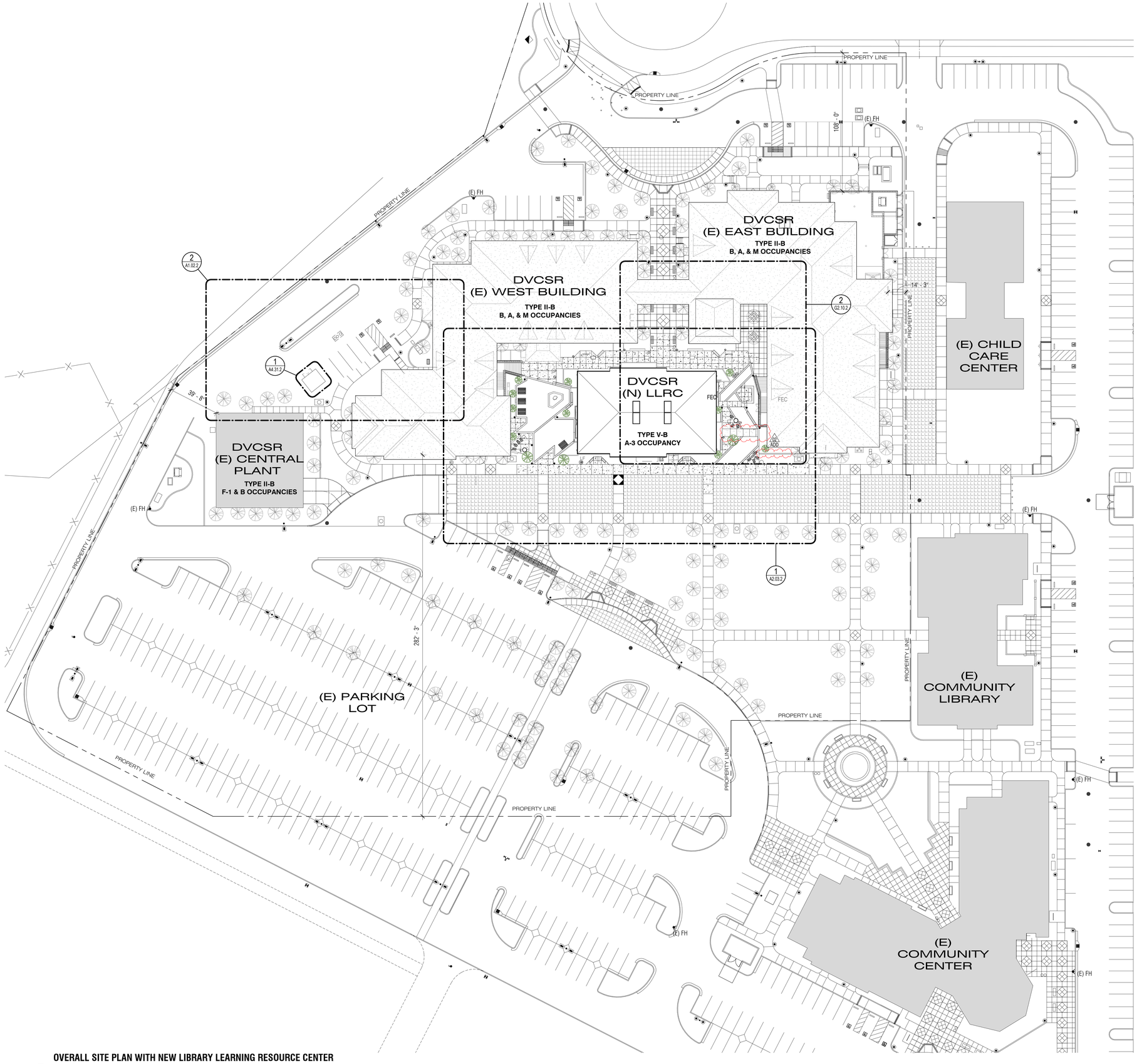

OVERALL SITE PLAN WITH NEW LIBRARY LEARNING RESOURCE CENTER (LLRC) BUILDING

1 A2.01.2 1" = 30'-0"

SHEET NOTES

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3. PATICHING AND REPAIRING OF EXISTING SITE CONDITIONS IMPACTED BY ABOVE AND BELOW GROUND IMPROVEMENTS SHALL BE PROVIDED. SEE CIVIL, ELECTRICAL, FIRE, AND LANDSCAPE SITE PLANS FOR MORE INFORMATION.

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	5/30/2019
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△	DATE	DESCRIPTION
1	8/2/19	INC 2 - ADDENDUM 02

SHEET TITLE

OVERALL SITE PLAN

SHEET NUMBER

A2.01.2

KEY NOTES

Key Value	Keynote Text
02-38	(E) LIGHT POLE TO REMAIN
23-10	CONDENSER UNIT ON HOUSEKEEPING PAD, SMD
26-17	RELOCATED POLE LIGHT, SED
26-18	NEW BOLLARD LIGHT, SED
32-04	RESTORE PLANTING IMPACTED BY NEW ABOVE & BELOW-GRADE IMPROVEMENTS, SLD
32-05	PERMEABLE PAVERS, SLD
32-06	NEW CONCRETE SIDEWALK, SLD & SCD
32-08	EXTEND (E) PLANTING AREA, SLD
32-23	(N) FOUNTAIN, SLD

SHEET NOTES

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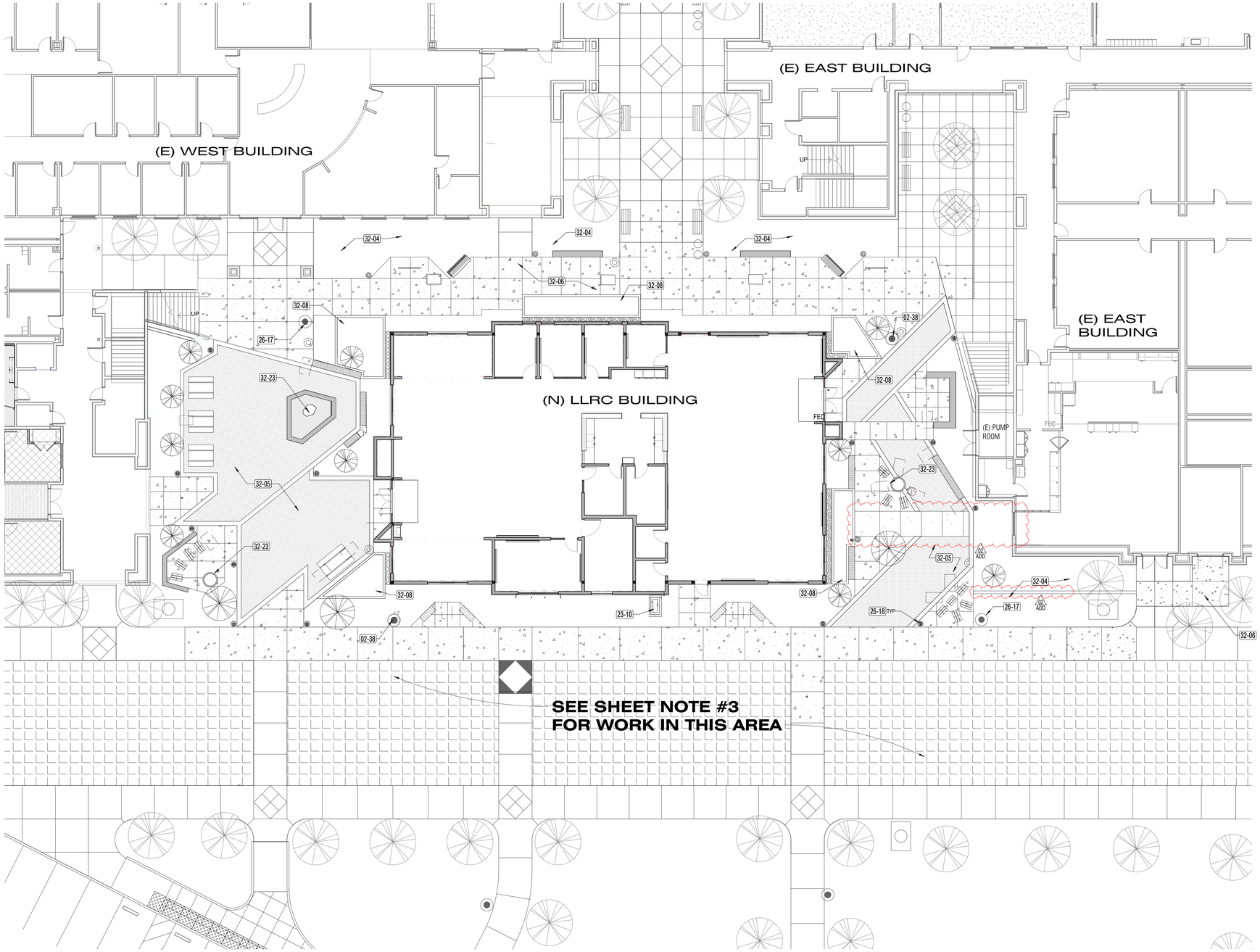

1 A2.03.2 **ENLARGED SITE PLAN @ (N) LIBRARY LEARNING RESOURCE CENTER BUILDING**
3/32" = 1'-0"

APPROVALS

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ISSUE TITLE
INCREMENT 2

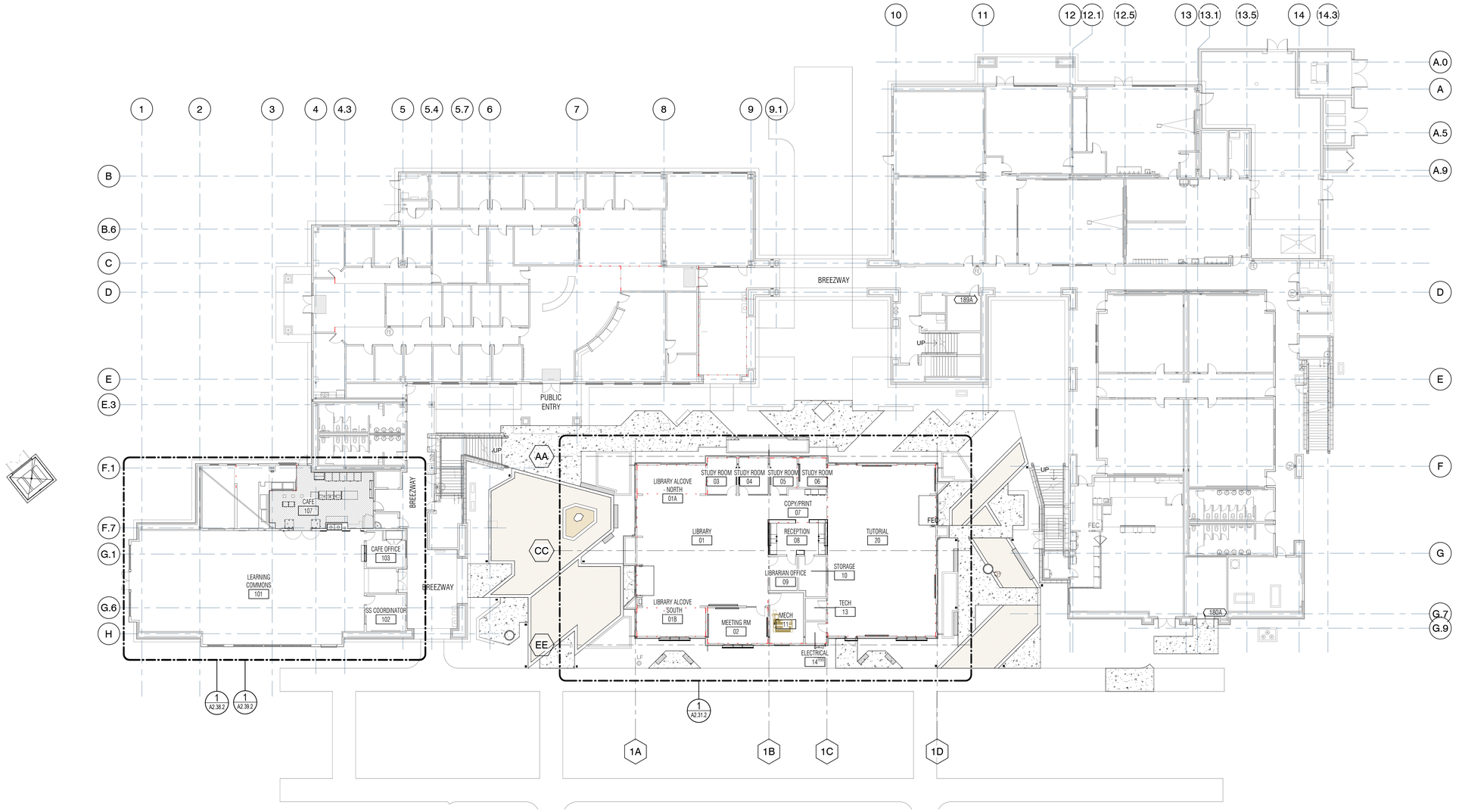
ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

REVISIONS

△	DATE	DESCRIPTION
	8/2/19	INC 2 - ADDENDUM 02

SHEET TITLE
ENLARGED SITE PLAN @ LLRC

SHEET NUMBER
A2.03.2



1 A2.30A.2 **01 - FLOOR PLAN (EXISTING) _Incr 2**

1/16" = 1'-0"

APPROVALS

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

△	DATE	DESCRIPTION

SHEET TITLE

OVERALL PLAN - 1ST FLOOR - EXISTING BUILDINGS

SHEET NUMBER

A2.30A.2

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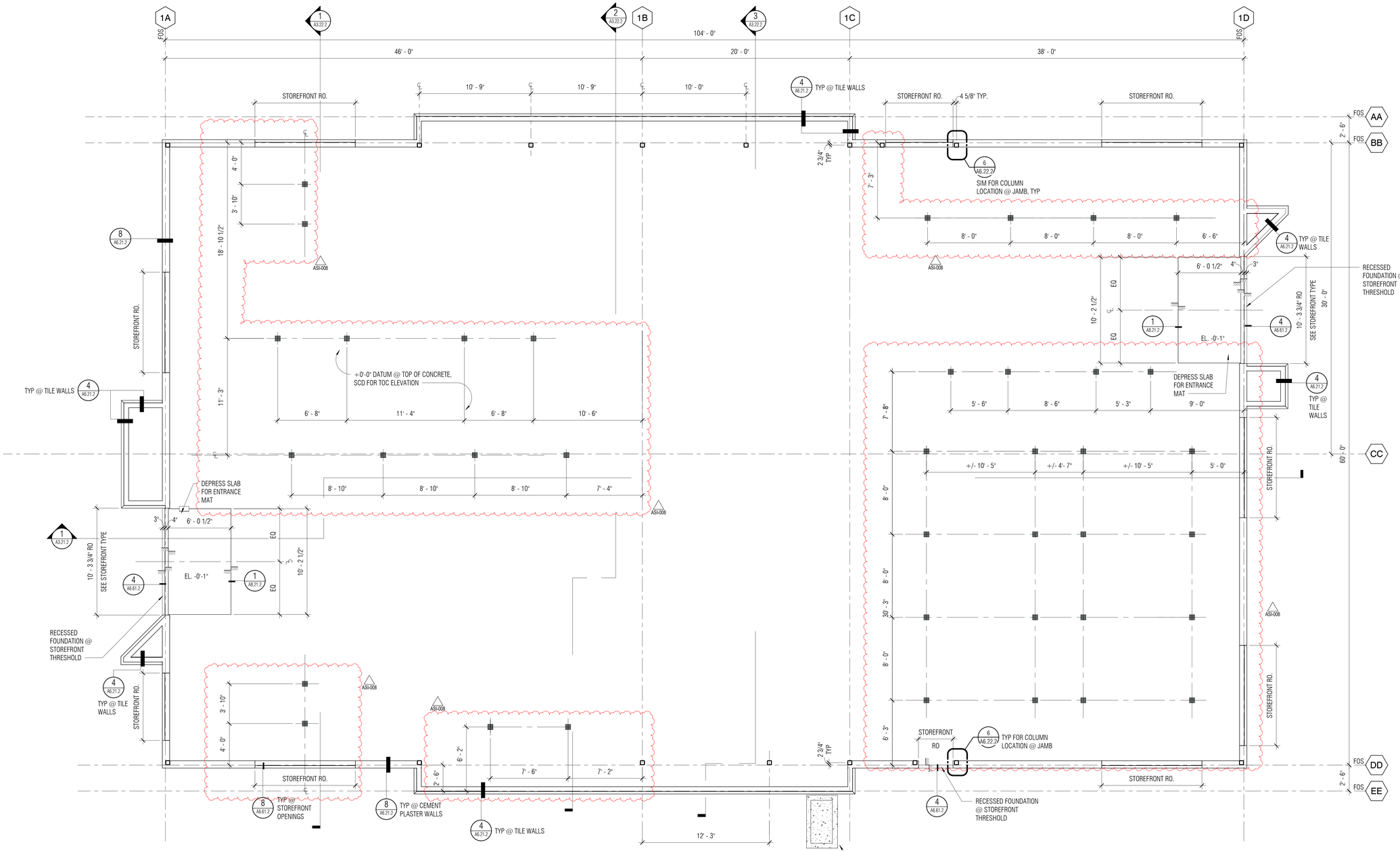
GENERAL NOTES

1. SSD FOR FOUNDATION INFORMATION
2. SEE FLOOR PLAN FOR LOCATION OF OPENINGS. SEE STOREFRONT SCHEDULE AND DETAILS FOR SIZES OF ROUGH OPENINGS.
3. SPD, SMD, AND SFSD FOR PENETRATIONS AND/OR FLOOR DRAINS
4. WHERE RECESSED ENTRANCE MATS OCCURS PROVIDE AND INSTALL BUILT-UP MORTAR BED OR SELF-LEVELING COMPOUND TO SET MAT AT HEIGHT TO MATCH ADJACENT FLOOR FINISHES AS DETAILED.
5. FOR STRUCTURAL SLAB CONTROL JOINTS SSD
6. COLUMNS WITHIN EXTERIOR WALLS ARE TO BE CENTERED WITHIN STUD CAVITY DEPTH, TYPICAL UON



ASI #8 - SEE ATTACHED DRAWING A9.51.2 FOR PROPOSED LOCATION OF FLOOR BOX LOCATION RELATIVE TO THE PROPOSED FURNITURE. A SLAB PLAN A2.30C IS ALSO ATTACHED WITH LOCATION OF FLOOR BOXES.

0' 2' 4' 8'

N

1 A2.30C.2 **01 - SLAB PLAN - LIBRARY LEARNING RESOURCE CENTER**
1/4" = 1'-0"

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION
2	2/12/2020	ASI 008

SHEET TITLE
SLAB PLAN - LIBRARY LEARNING RESOURCE CENTER

SHEET NUMBER
A2.30C.2

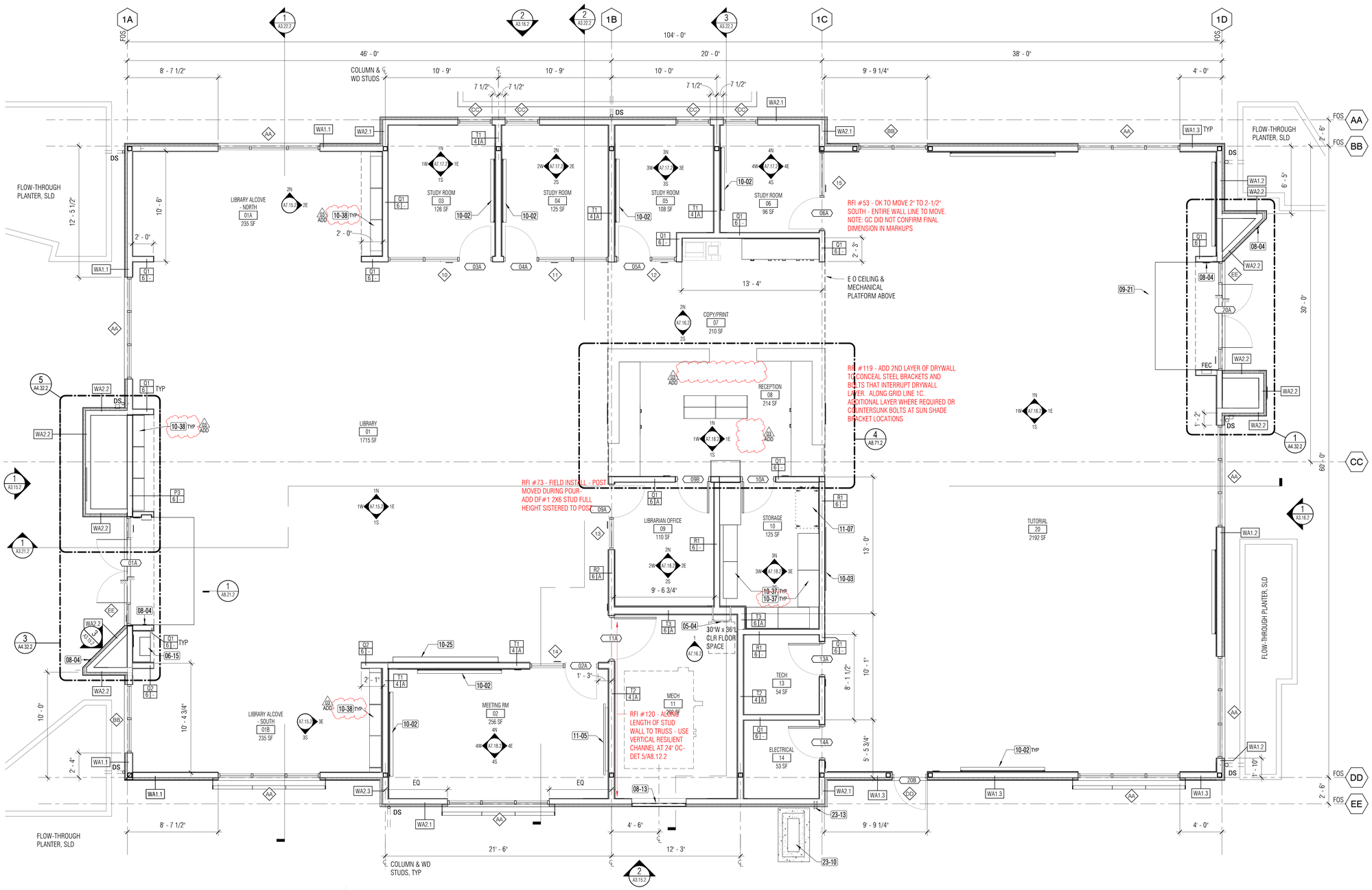
KEY NOTES

Key Value	Keynote Text
05-04	METAL ACCESS LADDER
06-15	NEW WOOD DISPLAY UNIT FOR NEWSPAPERS - ROUTED SLOTS - HINGED PANEL DOOR
08-04	(N) WALL MOUNTED PUSH PLATE DOOR ACTUATOR
08-13	FIXED MECHANICAL LOUVER, SMD
09-21	RECESSED ENTRANCE MAT
10-02	NEW MARKERBOARD
10-03	NEW BULLETIN BOARD (SIZE PER ELEVATIONS)
10-25	3' D X 48 H'X 10'-0"W" GLASS DISPLAY CASE
10-37	NEW HEAVY DUTY METAL STORAGE SHELVING 24" DEEP AND 84" HIGH. WIDTH VARIES.
10-38	LIBRARY BOOK SHELVING, 36" WIDE x 84" HIGH x 12" DEEP EA. QUANTITY AS SHOWN.

Key Value	Keynote Text
11-05	WALL MOUNTED FLAT SCREEN TV, WITH LAPTOP COMPUTER INTERFACE - POWER & DATA, STED
11-07	LAPTOP DISPENSER CART - 32 LAPTOP CAPACITY - POWER
23-10	CONDENSER UNIT ON HOUSEKEEPING PAD, SMD
23-13	CONDENSER UNIT PIPING, SMD. PENETRATE EXTERIOR WALL ABOVE CONCRETE CURB & CONTINUE WITHIN EXTERIOR WALL FRAMING TO CEILING

SHEET NOTES

1. SEE REFLECTED CEILING PLANS, SSD, SMP, SED, SPD, SFAD, SFSD, STED FOR MORE DEMOLITION INFORMATION.
2. (E) GYPSUM BOARD OR OTHER INTERIOR FINISHES ON WALLS NOT BEING DEMOLISHED SHALL REMAIN IN PLACE UON. SEE SHEET NOTE #5. PATCH, REPAIR & PAINT EXISTING FINISHES AS AFFECTED BY SCOPE OF WORK,TO MATCH (E) ADJACENT SURFACES AS REQUIRED.
3. DIMENSIONS PROVIDED ON THE DRAWING ARE FOR REFERENCE ONLY. CONTRACTOR SHALL PROVIDE FIELD VERIFICATION AS REQUIRED IN AREA OF WORK
4. REFER TO FURNITURE PLAN FOR NON-FIXED FURNISHINGS AND EQUIPMENT
5. PROVIDE BACKING IN WALLS WHERE REQUIRED FOR MOUNTING OF WALL MOUNTED EQUIPMENT, ACCESSORIES, FIXTURES, FIXED CASEWORK..ETC. SEE STRUCTURAL DWG FOR BACKING DETAILS. FOR WALL-MOUNTED FURNITURE ITEMS SEE FURNITURE PLAN. AT EXISTING WALLS TO RECEIVE WALL MOUNTED UPPER CABINETS OR ITEMS EXCEEDING 50 LBS, WHERE EXISTING STUDS ARE LIGHTER THAN 16 GA, GYPSUM BOARD WILL NEED TO BE REMOVED TO INSTALL MIN 16 GA STUDS SISTERED TO EXISTING STUDS PER STRUCTRURAL DWGS. PATCH & REPAIR ADJACENT SURFACES AS REQUIRED.
6. WHERE NEW ROOM ID SIGNAGE IS PROVIDED, REMOVE EXISTING ROOM SIGNAGE THAT IS NO LONGER APPLICABLE & REPAIR WALL AS REQUIRED - APPLIES TO RENOVATION SCOPE.
7. REFER TO SHEET A9.21.2- A9.25.2 FOR NEW SIGNAGE DETAILS.
8. EXISTING ACCESS FLOOR BETWEEN GRIDLINE 2 AND 4.3 SHALL BE PROTECTED WITH PLYWOOD OR PATH OVERLAY WHEN MOVING OF HEAVY LOADS EXCEEDING 2,000 LBS OR 1,500 LBS WITH WHEELBASE OF LESS THAN 24" OVER FLOOR. DISTRIBUTION OF WEIGHT NEEDS TO BE EVEN ACROSS FLOORING.



1 A2.31.2 **01 - FLOOR PLAN - LIBRARY LEARNING RESOURCE CENTER**
1/4" = 1'-0"

0' 2' 4' 8'

NOLL & TAM ARCHITECTS
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APPROVALS

ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

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ISSUE TITLE
INCREMENT 2

ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

REVISIONS

	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03

SHEET TITLE
FLOOR PLAN - LIBRARY LEARNING RESOURCE CENTER

SHEET NUMBER
A2.31.2

FLOOR DEMO LEGEND

(SYMBOLS SHOWN - NOT ALL WILL BE USED ON PLAN)

REMOVE (E) WALL OR ASSEMBLY, INCLUDING WINDOWS (SHOWN DASHED)

REMOVE (E) DOOR AND FRAME, UON

EXISTING WALLS AND COLUMNS

03 ADD

REMOVE (E) CONDITION AS NOTED ON PLAN

KEY NOTES

Key Value	Keynote Text
02-01	REMOVE EXISTING FLOOR FINISH AND BASE
02-08	REMOVE EXISTING INTERIOR WINDOW
02-09	REMOVE AND SALVAGE EXISTING BOOKSTORE GONDOLA FOR RE-INSTALLATION IN NEW BOOKSTORE
02-10	REMOVE EXISTING PLAM COUNTERTOP AND BASE CABINETS
02-36	REMOVE EXISTING RESILIENT TILE FLOORING
02-37	REMOVE AND SALVAGE EXISTING VENDING MACHINE FOR RELOCATION. FINAL LOCATION TO BE DETERMINED
02-95	EXISTING BEVERAGE COOLERS. REMOVAL BY BEVERAGE VENDOR.
02-96	EXISTING PEET'S COFFEE DISPENSER. REMOVAL BY BEVERAGE VENDOR

Key Value	Keynote Text
02-100	(E) CONCRETE GRADE BEAM OR FOOTING BELOW TO REMAIN. CONTRACTOR TO VERIFY (E) FOUNDATION LOCATIONS IN FIELD AND COORDINATE NEW WORK WITH EXISTING GRADE BEAMS & FOOTINGS. SEE ALSO FOOD SERVICE DRAWINGS, SPD.
02-101	REMOVE (E) WALL FINISHES TO STUDS
02-102	REMOVE (E) RECESSED FE CABINET
02-112	SELECTIVE REMOVAL OF EXISTING CONC. SLAB & BELOW GRADE TRENCHING IS REQUIRED FOR INSTALLATION OF NEW PLUMBING AND ELECTRICAL UTILITIES. SPD, SED & SEE FOOD SERVICE DRAWINGS FOR LOCATIONS. ALL EXISTING STRUCTURAL FOOTINGS, GRADE BEAMS, AND CURBS ARE TO REMAIN UNDISTURBED. LOCATE IN-FIELD AND PROTECT IN PLACE.
02-114	REMOVE EXISTING FLOOR BOXES, PATCH & REPAIR SLAB AS REQUIRED, SEE NEW FLOOR PLANS. SED.
02-115	EXISTING RAISED FLOOR SYSTEM TO REMAIN. RECONFIGURE UTILITIES AND LOW VOLTAGE CABLING AS REQUIRED FOR NEW LAYOUT. REMOVE AND REPAIR EXISTING SYSTEM AS REQUIRED FOR NEW WORK.
02-120	REMOVE (E) PAIR OF STOREFRONT DOORS ONLY. FRAME TO REMAIN.

SHEET NOTES

1. SEE REFLECTED CEILING PLANS, SSD, SMP, SED, SPD, SFAD, SFSD, STED FOR MORE DEMOLITION INFORMATION.
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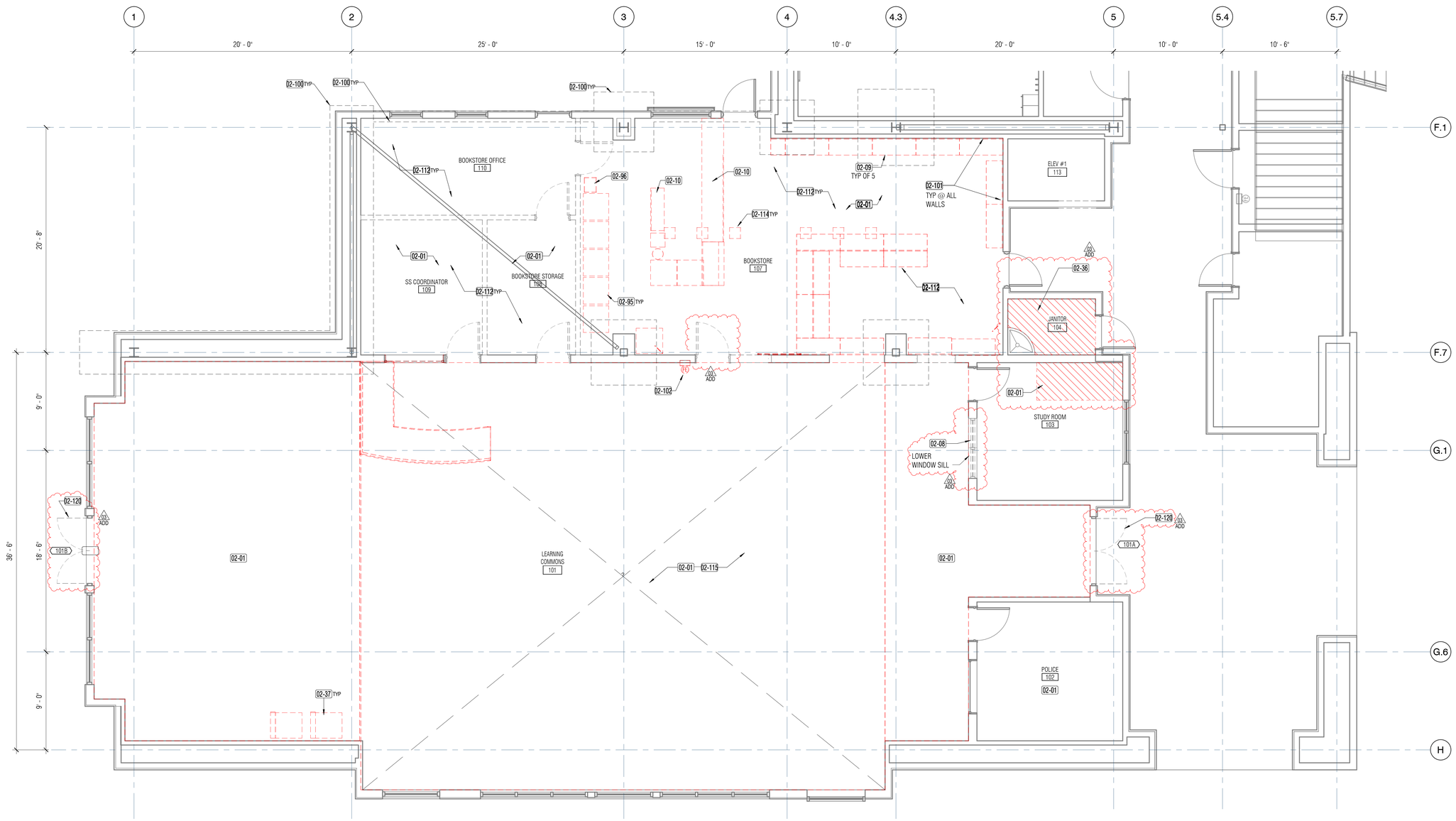

1 A2.38.2 **01 - FLOOR PLAN - WEST - CAFE & LEARNING COMMONS (DEMO)**

1/4" = 1'-0"

0' 2' 4' 8'

N

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ISSUE TITLE

INCREMENT 2

ISSUE DATE 5/30/2019

NOLL & TAM JOB NUMBER 21630

REVISIONS

	DATE	DESCRIPTION
2	8/27/19	INC 2 - ADDENDUM 03

SHEET TITLE

DEMO - 1ST FLOOR - WEST - (E) BOOKSTORE & LEARNING COMMONS

SHEET NUMBER

A2.38.2

KEY NOTES

Key Value	Keynote Text
02-100	(E) CONCRETE GRADE BEAM OR FOOTING BELOW TO REMAIN. CONTRACTOR TO VERIFY (E) FOUNDATION LOCATIONS IN FIELD AND COORDINATE NEW WORK WITH EXISTING GRADE BEAMS & FOOTINGS. SEE ALSO FOOD SERVICE DRAWINGS, SPD.
02-117	(E) JANITOR SINK WITH TILE WAINSCOT TO REMAIN.
02-118	(E) WALL-MOUNTED CLEANING CHEMICAL STORAGE & DISPENSER TO REMAIN
02-119	(E) STORAGE CABINET TO REMAIN
03-14	PATCH & REPAIR EXISTING CONCRETE SLAB & VAPOR BARRIER AS REQUIRED AT ALL LOCATIONS OF REMOVED UTILITY BOXES & TRENCHING. PREPARE FLOOR FOR NEW FINISHES. SEE FINISH PLANS & SSD.
03-15	(N) CONC HOUSEKEEPING PAD, SED FOR DIMENSIONS & SSD FOR DETAILS. VIF PAD WILL FIT WITHIN ROOM CONTRAINTS SET BY (E) EXTERIOR WINDOW. NOTIFY ARCHITECT OF ANY CONFLICT.
05-13	CONTRACTOR TO VIF (N) & (E) STUD LOCATIONS & COORDINATE WITH REQUIRED FOOD SERVICE EQUIPMENT ANCHORAGE POINTS. PROVIDE (N) IN WALL BACKING WHERE EQUIPMENT DOES NOT ALIGN WITH STUD LOCATIONS AS REQUIRED, SEE FOOD SERVICE DRAWINGS. REMOVE (E) GYPSUM AS REQUIRED TO INSTALL BACKING, PATCH AND REPAIR TO MATCH (E) WALL ASSEMBLY, FINISH AS SCHEDULED.
06-08	NEW CUSTOM BUILT BASE CABINET WITH RECYCLE/COMPOST/TRASH OPENINGS, PLASTIC LAMINATE PANELING, SOLID SURFACE COUNTERTOP, CONTINUOUS HINGES DOORS

Key Value	Keynote Text
06-11	NEW CUSTOM BUILT SERVERY-PREP CASEWORK - SOLID SURFACE COUNTERTOP, PLASTIC LAMINATE PANELING, CUTOUT IN COUNTERTOP FOR SERVERY DROP IN PANS WHERE OCCURS. SNEEZEGUARD WITH INTEGRAL LIGHTING, HEAT LAMP. POWER, UTILITY CONNECTIONS AS REQUIRED
06-12	NEW CUSTOM BUILT SERVERY-PREP CASEWORK - SOLID SURFACE COUNTERTOP, PLASTIC LAMINATE PANELING, FLUSH PANEL DOORS AND ADJUSTABLE SHELVING BASE CABINETS, POWER, UTILITY CONNECTIONS AS REQUIRED FOR COUNTERTOP EQUIPMENT
06-28	INSTALL FRP OVER (E) GYP BD WALLS THROUGHOUT ROOM. ABUT & SEAL EDGE TRIM TO (E) TILE WAINSCOT AT MOP SINK.
08-15	MOTORIZED ROLL-UP DOOR - ALUM - FACE MOUNTED GUIDERAILS
08-17	(N) STOREFRONT DOOR IN (E) FRAME
08-18	NEW VERTICAL SLIDING SERVICE WINDOW UNIT. PROVIDE COUNTERTOP BELOW WINDOW UNIT.
09-25	NEW RESILIENT SHEET FLOORING OVER EXISTING RAISED ACCESS FLOOR AREA. PROVIDE MODIFICATION OF EXISTING 2X2 RAISED ACCESS FLOOR SYSTEM FOR DATA/POWER RE-LOCATION AND NEW LOCATIONS. WHERE REQUIRED, REPLACE ACCESS FLOOR SYSTEM IN KIND. PROVIDE ONE LAYER OF 'UNDERLAYMENT GRADE' PLYWOOD SUBSTRATE TO ADDRESS ANY LEVEL DIFFERENCES BETWEEN ACCESS FLOORING AND EXISTING ADJACENT CONCRETE SLAB, THICKNESS 1/4" MIN TO 1/2" AS REQUIRED; FIELD VERIFY. TRIM BOARDS TO ALLOW FLOOR ACCESS - GAPS BETWEEN BOARDS TO NOT EXCEED 1MM.
09-38	NEW WALL MOUNTED WOOD GRILLE. SEE ELEVATIONS.
10-13	CORNER WALL PROTECTION

Key Value	Keynote Text
10-24	NEW SNEEZEGUARDS MOUNTED TO CASEWORK- INTERMEDIATE STAINLESS STEEL POSTS AND GLASS TOP AND GUARDS. SEE FOOD SERVICE DWG
10-32	(N) SEMI RECESSED FIRE EXTINGUISHER CABINET w/ TYPE K EXTINGUISHER, 6L MIN. LOCATED MAX. 30' FROM COOKING APPLIANCES
10-34	2-TIER LOCKERS FOR CAFÉ EMPLOYEES. PROVIDE MINIMUM OF 1 ADA COMPLIANT LOCKER IN EACH CLUSTER.
10-35	NEW METAL 4-POST SHELVING WITH SECURITY ROLL-DOWN SHUTTER AND END PANELS. 8 SHELVES PER UNIT. EACH UNIT TO BE 36"W x 12"D x 88"H IN QUANTITY SHOWN
10-36	NEW METAL 4-POST SLIDING SHELF SYSTEM. 8 SHELVES PER UNIT. EACH UNIT TO BE 36"W x 12"D x 88"H
11-09	NEW REFRIGERATED DISPLAY FOOD CASE, SED, SPD FOR ELECTRICAL AND PLUMBING REQUIREMENTS. SEE FOOD SERVICE DWGS
11-27	NON-REFRIGERATED FOOD SERVICE CASE, SEE FOOD SERVICE DRAWINGS, SED FOR POWER
11-35	MOVABLE CONDIMENT CART. SEE FOOD SERVICE DRAWINGS.
11-45	NEW VENDING MACHINES (OFOI) - BOOKSTORE SUPPLY - DRY GOODS - COFFEE- REFRIGERATED FRESH GOODS, REFERIGERATED BEVERAGES AND MICROWAVE. CONTRACTOR TO PROVIDE (6) 20 AMP POWER AND 1/2" WATER LINE FOR COFFEE MACHINE. 40" MAX TO OPERABLE PARTS. OWNER VENDING INSTALLATION TO REFER TO DET A-22/FS5.1.2 AND B-2/FS5.1.2 FOR ANCHORAGE TO FLOOR AND WALL. BLOCKING TO BE FURNISHED BY CONTRACTOR.

HEALTH DEPT. GENERAL NOTES

1. SMOOTH, DURABLE, EASILY CLEANABLE, LIGHT-COLORED, AND NON-ABSORBENT WALL AND CEILING FINISHES ARE REQUIRED IN THE FOLLOWING AREAS:\
   A. WHERE FOOD IS PREPARED OR PACKAGED
   B. CUSTOMER SELF-SERVICE LOCATIONS WHERE OPEN FOOD OR BEVERAGE IS DISPENSED (E.G., SALAD BARS, BUFFETS, CONDIMENT STATIONS, BEVERAGE STATIONS, ETC.)
   C. WAITSTATIONS
   D. WHERE UTENSILS ARE WASHED OR STORED
   E. JANITORIAL AREAS
   F. RESTROOMS (EXCEPTION: CUSTOMER RESTROOMS)
   G. EMPLOYEE LOCKER ROOMS
   H. WALK-IN REFRIGERATORS/FREEZERS
   I. WHERE ANY FOOD IS NOT STORED IN THE ORIGINAL UNOPENED CONTAINERS
   J. GARBAGE AND REFUSE STORAGE

LEGEND

- FRAMED PARTITION WALL, EXTEND TO FLOOR ABOVE, NON-RATED U.O.N. (SEE A0.01.0 FOR MORE INFORMATION)
- EXISTING WALL, PARTITION, COLUMNS, & MISCELLANEOUS OBJECTS
- EXISTING 1-HR-RATED ASSEMBLY
- EXISTING 2-HR FIRE SEPARATION WALL
- NEW 1-HR RATED ASSEMBLY

SHEET NOTES

1. SEE REFLECTED CEILING PLANS, SSD, SMP, SED, SPD, SFAD, SFSD, STED FOR MORE DEMOLITION INFORMATION.
2. (E) GYPSUM BOARD OR OTHER INTERIOR FINISHES ON WALLS NOT BEING DEMOLISHED SHALL REMAIN IN PLACE UON. SEE SHEET NOTE #5. PATCH, REPAIR & PAINT EXISTING FINISHES AS AFFECTED BY SCOPE OF WORK,TO MATCH (E) ADJACENT SURFACES AS REQUIRED.
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ASI #28 AT DOOR 108A:
IN LIEU OF PROVIDING HARDWARE GROUP 5 AND 'SEAL DOOR TO MAKE INOPERABLE' PER A9.13.2, PROVIDE A PLYWOOD PANEL, SIZED TO FIT INSIDE EXISTING DOOR OPENING (3'X7', FIELD VERIFY). SECURE PLYWOOD WITH SHIM, FLUSH TO FACE OF HOLLOW METAL FRAME. THE ABOVE TRANSOM WINDOW DOES NOT RECEIVE A PLYWOOD PANEL. THE EXISTING PANIC HARDWARE AT EXISTING HM DOOR IS TO REMAIN. CLOSER MAY BE DETACHED PARTIALLY AS REQUIRED TO INSTALL NEW PLYWOOD. CONFIRM EXISTING HM DOOR WILL REMAIN CLOSED. APPLY FRP PANEL, FULL HEIGHT OVER ENTIRE DOOR FRAME AND TRANSOM, TO UNDERSIDE OF CEILING. VISIBLE PANEL BEHIND THE TRANSOM TO BE PAINTED GRAY. PROVIDE COVED FLOORING UP AND AROUND NEW FRP.

ASI #29 AT JANITOR 104:
PROVIDE 2X WOOD BLOCKING IN FRONT AND SIDES AROUND THE EXISTING ELECTRICAL CONDUITS TO ALLOW FINISH FLOOR TO COVE UP. SECURE BLOCKING TO WALL. SEE 9/A9.21.2

FINISHES AT (E) RESTROOMS INCLUDE CERAMIC FLOOR TILE THROUGHOUT, COVED TILE WALL BASE, CERAMIC TILE WAINSCOT THROUGHOUT (MIN. 4 FT, MAX 6 FT HT) WITH PAINTED GYP BD ABOVE, & A PAINTED GYP BD CEILING. SEE RESTROOM PLANS FOR LAYOUT & IMPROVEMENT INFORMATION IN THIS AREA.

RFI #29 - UPSIDE PLUMBING WALL TO MIN. 10"-12" ROUGH WALL FOR PLUMBING/ELECTRICAL

RFI #98 - 101A AND 101B IN LIEU OF NEW HINGE, USE EXISTING PIVOTS AND 1 EACH POWER TRANSFER EL-SEPT-C5E SECURITRON

RFI #101 - REPAIR OF EXISTING SLAB AT REMOVED ELECTRICAL BOXES - PER 6/S5.02

RFI#149 - PROVIDE DEMO AND REPLACEMENT WITH NEW GYP BD LAYER

RFI # 125 - 2 LAYERS OF GYP BD ON KITCHEN SIDE AND 1 LAYER ON LEARNING COMMONS SIDE

RFI #253 - (3) GROMMETS AT COUNTERTOP

RFI #61 - REVISE SIZE TO 6" ROUGH WALL TO ACCOMODATE 3" WCO

RFI #123 - WATER HEATER ROOM - NEW WALLS TERMINATE BELOW EXISTING DUCTS WITH CONTINUOUS TOP TRACKS. FASTEN TO EXISTING STUD WALL PER 17/S9.01.2

RFI # 255 - CABLE CHASE CONFLICT WITH WOOD GRILLE WALL. ADJUST WOOD GRILLE. SEE A7.19.2

RFI #82 - INTEGRATED SWITCHBOARD - 7'10" HEIGHT INCLUDING 4" HOUSEKEEPING PAD. DOOR HEIGHT AND CEILING RAISED.

RFI #98 - ADJUST DOOR HEIGHT TO 8' PAIR DOORS. RAISE CEILING TO CLEAR SWITCHBOARD ON TOP OF HOUSEKEEPING PAD.

LOCATION OF KEYED CONTROL STATION FOR COILING DOOR ASI #26

CENTER BETWEEN WD GRILLES

COORDINATE OPENING LOCATIONS W/ EVEN SPACING OF WOOD GRILLE SLATS ON WALL, TYP. SEE ELEV

ALIGN FOF @ (N) WALL W/ FOF @ INSIDE FACE OF WINDOW JAMB

ALIGN (N) WALL W/ (E) STUDS

(2) LAYERS 5/8" GYP O/ (E) STUD FRAMING

(N) WALL INFILL TO MATCH (E)

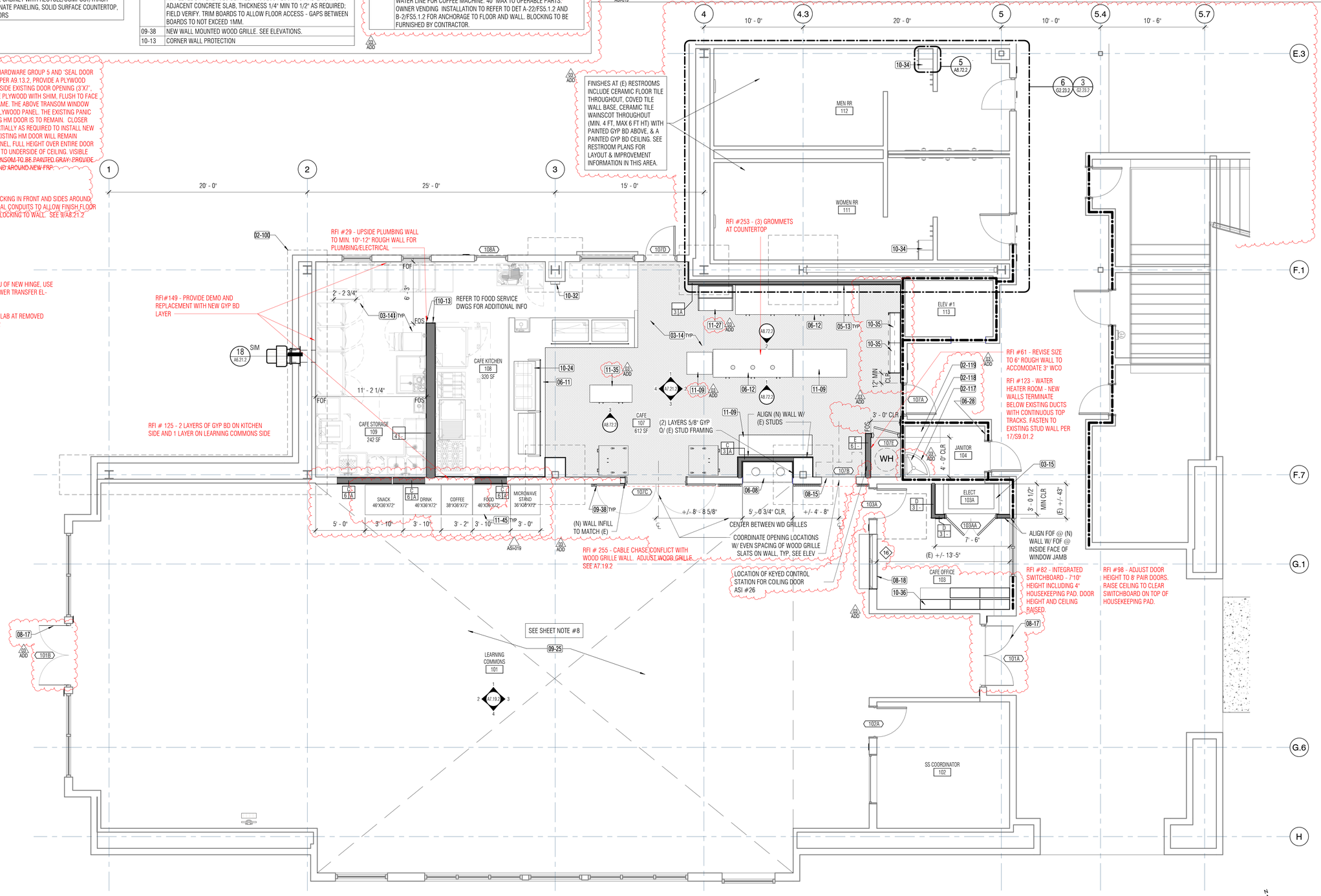
SEE SHEET NOTE #8

REFER TO FOOD SERVICE DWGS FOR ADDITIONAL INFO

MEN RR 112 · WOMEN RR 111 · ELEV #1 113 · CAFE KITCHEN 108 320 SF · CAFE STORAGE 109 242 SF · CAFE 107 612 SF · WH 107E · JANITOR 104 · ELECT 103A · CAFE OFFICE 103 · LEARNING COMMONS 101 · SS COORDINATOR 102

SNACK 46"X36"X72" · DRINK 46"X36"X72" · COFFEE 36"X36"X72" · FOOD 46"X36"X72" · MICROWAVE STAND 36"X36"X72"

4 - 0" CLR · 3' - 0" CLR · 12" MIN CLR · 3' - 0 1/2" MIN CLR · (E) +/- 43" · (E) +/- 13'-5" · 7' - 6" · +/- 8' - 8 5/8" · 5' - 0 3/4" CLR. · +/- 4' - 8"



1 A2.39.2 01 - FLOOR PLAN - WEST - CAFE & LEARNING COMMONS
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ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

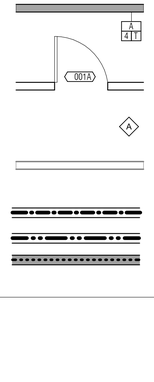
△	DATE	DESCRIPTION
	8/27/19	INC 2 - ADDENDUM 03
	10/15/19	INC 2 - ADDENDUM 03 REV
	7/30/20	INC2 ASI 019
	3/4/21	INC2 ASI 026
	3/23/21	INC2 ASI 028
	4/15/21	INC2 ASI 029

SHEET TITLE
NEW - 1ST FLOOR - WEST - CAFE & LEARNING COMMONS

SHEET NUMBER
A2.39.2

LEGEND

(SYMBOLS SHOWN - NOT ALL WILL BE USED ON PLAN)



- FRAMED PARTITION WALL, EXTEND TO FLOOR/ROOF STRUCTURE ABOVE, NON-RATED U.O.N. (SEE A0.01.0 FOR MORE INFORMATION)
- DOOR TYPE
- WINDOW / STOREFRONT TYPE
- EXISTING WALL, PARTITION, COLUMNS, & MISCELLANEOUS OBJECTS
- EXISTING 1-HR-RATED ASSEMBLY
- EXISTING 2-HR FIRE SEPARATION WALL
- NEW 1-HR RATED ASSEMBLY

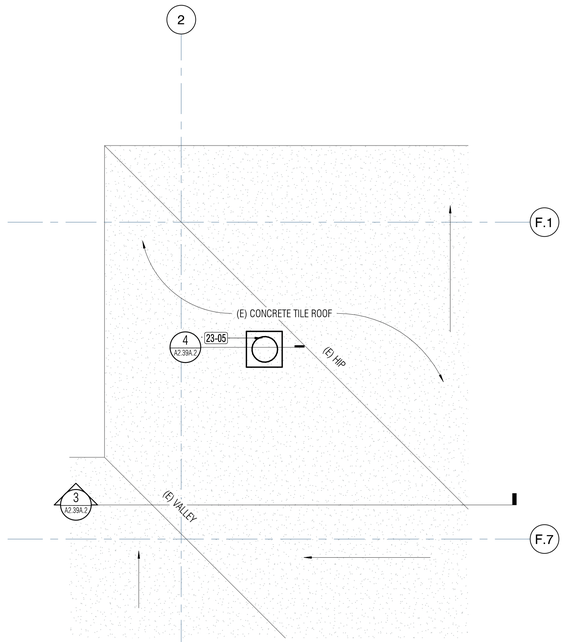
KEY NOTES

Key Value	Keynote Text
02-73	EXISTING SEISMIC JOINT TO REMAIN
02-87	EXISTING STRUCTURAL STEEL BRACE FRAME
02-103	EXISTING GUARDRAIL, POSTS TO REMAIN. REMOVE AND REPLACE CABLING AS REQUIRED TO INSTALL NEW MECHANICAL EQUIPMENT.
02-106	EXISTING ROOF DORMER ABOVE
02-107	EXISTING ATTIC ACCESS LADDER @ JANITOR'S CLOSET
02-108	EXISTING ATTIC SLAB EDGE
02-109	EXISTING ROOF FRAMING ABOVE
02-110	EXISTING SURFACE MOUNTED LIGHT FIXTURE ABOVE. REMOVE AND RELOCATE AS REQUIRED TO AVOID NEW MECHANICAL WORK. SMD, SED.

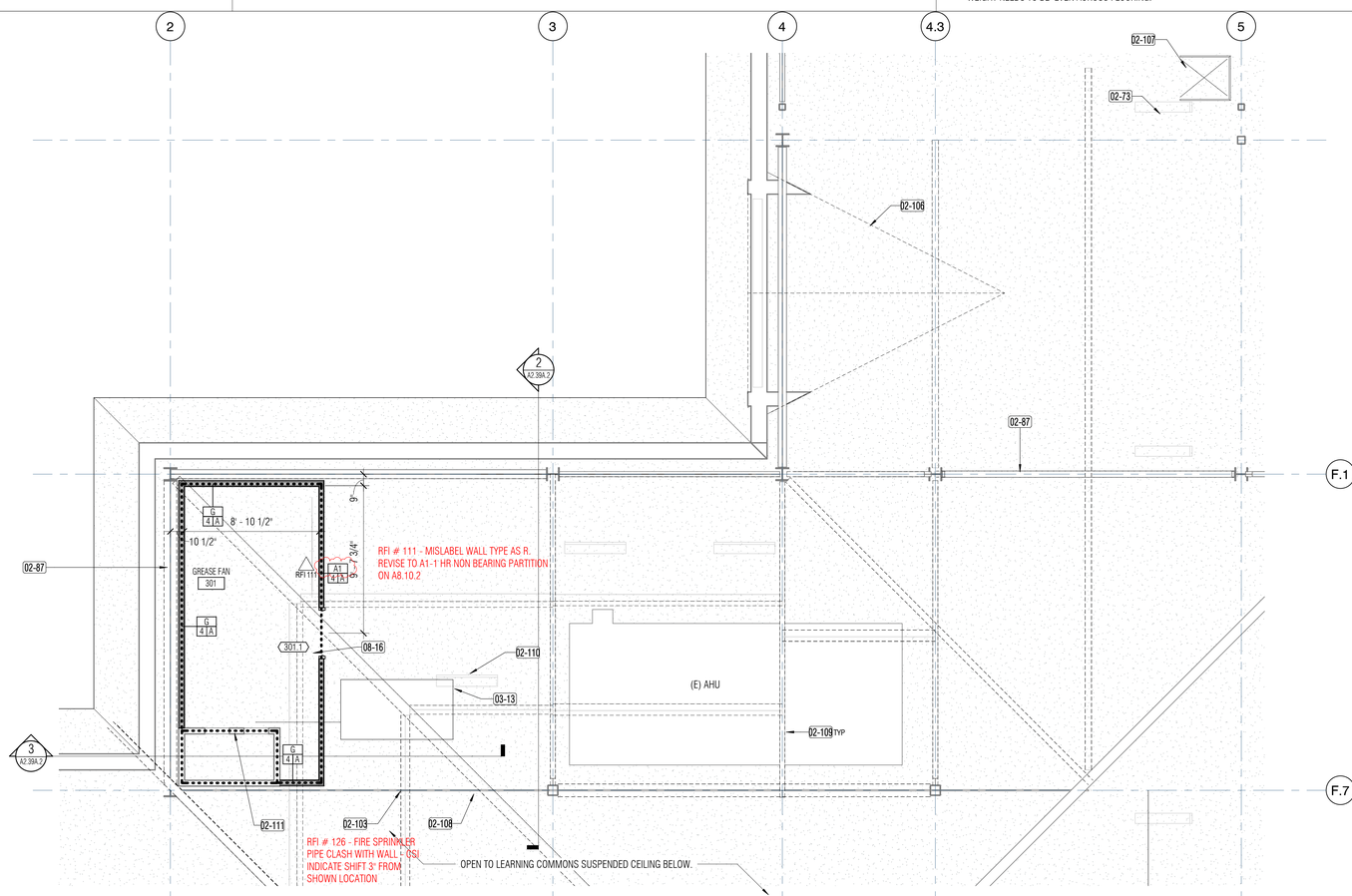
Key Value	Keynote Text
02-111	EXISTING SHAFT AND SHAFTWALL ENCLOSURE FROM INCREMENT 1 WORK. MODIFY AS REQUIRED FOR NEW MEP WORK. SMD.
03-13	6" HIGH CONCRETE PAD FOR NEW MECHANICAL UNIT. SSD.
08-16	CUSTOM SIZE FIRE-RATED ACCESS DOOR W/ CONT. SS. HINGE @ JAMB. CONTRACTOR TO VIF HEAD HEIGHTS & DOOR SWING CLEARANCES. ALSO SEE DOOR SCHEDULE.
23-05	NEW EXHAUST ROOF VENT, SMD

SHEET NOTES

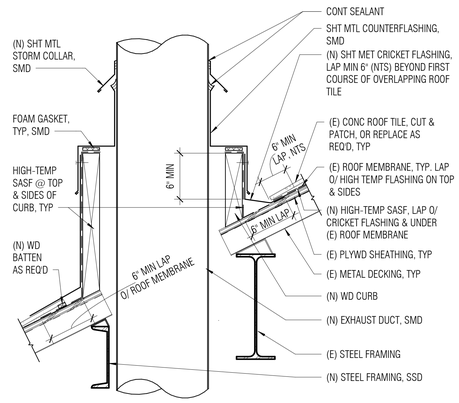
1. SEE REFLECTED CEILING PLANS, SSD, SMP, SED, SPD, SFAD, SFSD, STED FOR MORE DEMOLITION INFORMATION.
2. (E) GYPSUM BOARD OR OTHER INTERIOR FINISHES ON WALLS NOT BEING DEMOLISHED SHALL REMAIN IN PLACE UON. SEE SHEET NOTE #5. PATCH, REPAIR & PAINT EXISTING FINISHES AS AFFECTED BY SCOPE OF WORK,TO MATCH (E) ADJACENT SURFACES AS REQUIRED.
3. DIMENSIONS PROVIDED ON THE DRAWING ARE FOR REFERENCE ONLY. CONTRACTOR SHALL PROVIDE FIELD VERIFICATION AS REQUIRED IN AREA OF WORK
4. REFER TO FURNITURE PLAN FOR NON-FIXED FURNISHINGS AND EQUIPMENT
5. PROVIDE BACKING IN WALLS WHERE REQUIRED FOR MOUNTING OF WALL MOUNTED EQUIPMENT, ACCESSORIES, FIXTURES, FIXED CASEWORK,.ETC. SEE STRUCTURAL DWG FOR BACKING DETAILS. FOR WALL-MOUNTED FURNITURE ITEMS SEE FURNITURE PLAN. AT EXISTING WALLS TO RECEIVE WALL MOUNTED UPPER CABINETS OR ITEMS EXCEEDING 50 LBS, WHERE EXISTING STUDS ARE LIGHTER THAN 16 GA, GYPSUM BOARD WILL NEED TO BE REMOVED TO INSTALL MIN 16 GA STUDS SISTERED TO EXISTING STUDS PER STRUCTRURAL DWGS. PATCH & REPAIR ADJACENT SURFACES AS REQUIRED.
6. WHERE NEW ROOM ID SIGNAGE IS PROVIDED, REMOVE EXISTING ROOM SIGNAGE THAT IS NO LONGER APPLICABLE & REPAIR WALL AS REQUIRED - APPLIES TO RENOVATION SCOPE.
7. REFER TO SHEET A9.21.2- A9.25.2 FOR NEW SIGNAGE DETAILS.
8. EXISTING ACCESS FLOOR BETWEEN GRIDLINE 2 AND 4.3 SHALL BE PROTECTED WITH PLYWOOD OR PATH OVERLAY WHEN MOVING OF HEAVY LOADS EXCEEDING 2,000 LBS OR 1,500 LBS WITH WHEELBASE OF LESS THAN 24" OVER FLOOR. DISTRIBUTION OF WEIGHT NEEDS TO BE EVEN ACROSS FLOORING.



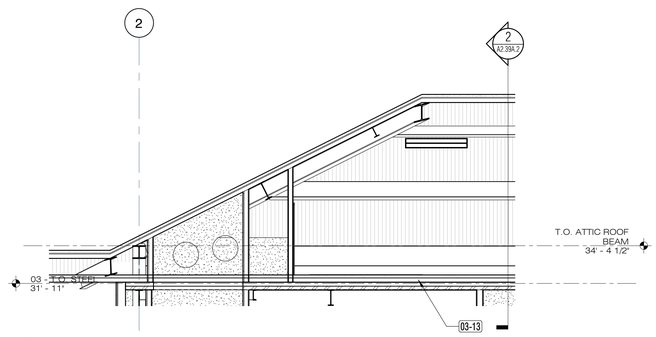
5 03 PARTIAL ROOF PLAN - WEST
A2.39A.2 1/4" = 1'-0"



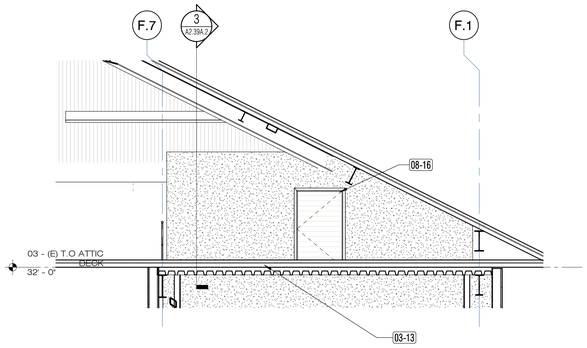
1 03 MECHANICAL ATTIC PLAN - WEST
A2.39A.2 1/4" = 1'-0"



4 FLASHING @ (N) ROOF EXHAUST
A2.39A.2 1 1/2" = 1'-0"



3 MECHANICAL ATTIC - NORTH
A2.39A.2 1/4" = 1'-0"



2 03 MECHANICAL ATTIC - WEST - SECTION AT NEW EQUIPMENT
A2.39A.2 1/4" = 1'-0"

APPROVALS

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ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

INCREMENT 2

ISSUE DATE: **5/30/2019**

NOLL & TAM JOB NUMBER: **21630**

REVISIONS

△	DATE	DESCRIPTION
	7/21/20	INC2 RFI 111

SHEET TITLE

NEW - 3RD FLOOR - WEST - PARTIAL MECHANICAL ATTIC/ROOF PLAN

SHEET NUMBER

A2.39A.2

KEY NOTES

KEYNOTE LEGEND

Key Value	Keynote Text
05-04	METAL ACCESS LADDER
06-19	WOOD TRUSS, SSD
06-26	GLULAM BEAM, SSD

SHEET NOTES

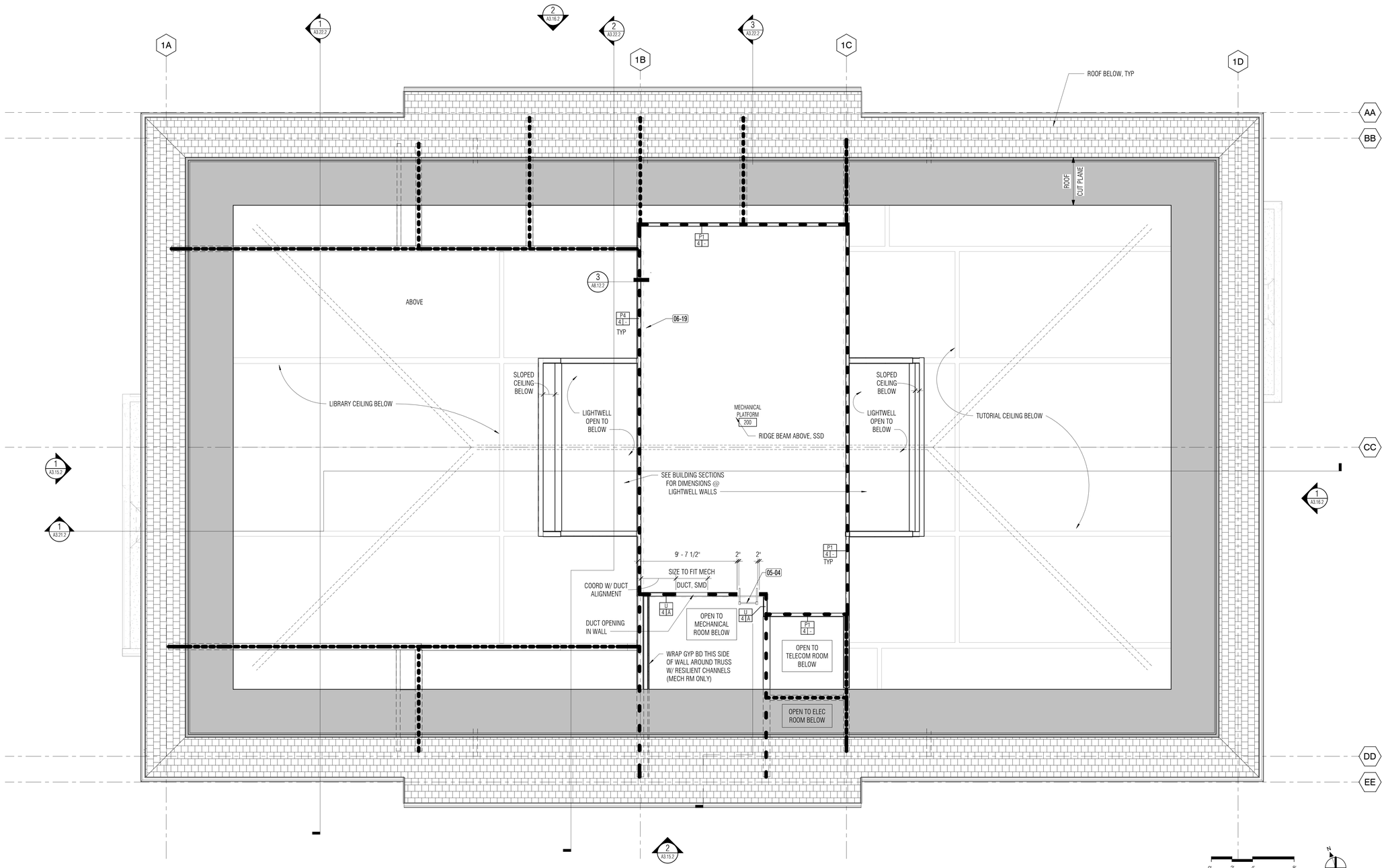
1. FOR PARTITION TYPES AT LEVEL 1, SEE FLOOR PLAN.
2. FOR PLATFORM PERIMETER, SEE FLOOR PLAN DIMENSIONS. EDGE OF PLATFORM TO ALIGN WITH FOS OF WALLS BELOW.
3. FOR BRACING @ WALLS PARALLEL TO ROOF FRAMING, SEE 1 / A8.12.2
4. FOR BRACING @ WALLS PERPENDICULAR TO ROOF FRAMING, SEE 2 / A8.12.2

LEGEND

PARTITION EXTENDS TO UNDERSIDE OF ROOF (PROVIDE BRACING WHERE WALL W/ 2x4 STUDS EXCEEDS 14'-0" HT)

PARTITION HT @ 14'-0" (PROVIDE BRACING)

PARTITION HT @ 10'-6" (PROVIDE BRACING)



1 / A2.40.2 **T O DECK @ MECHANICAL PLATFORM**
1/4" = 1'-0"

APPROVALS

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION

SHEET TITLE
MECHANICAL PLATFORM PLAN - LIBRARY LEARNING RESOURCE CENTER

SHEET NUMBER
A2.40.2

RCP LEGEND

(SYMBOLS SHOWN - NOT ALL WILL BE USED ON PLAN SMD, SED, SPD FOR ADDITIONAL LEGEND INFORMATION)

- 24"x48" WITH SECOND LOOK (ACT TYPE AS NOTED ON PLAN)
- LINEAR WOOD CEILING
- GYPSUM BOARD
- CEMENT PLASTER SOFFIT WITH VENT
- (N) ILLUMINATED EXIT SIGN - CEILING OR WALL MOUNTED
- MECHANICAL DIFFUSER, SMD
- EXTERIOR LIGHT, SED
- 2X4 LIGHT, SED
- SMALL PENDANT, SED
- PENDANT, SED
- DOWNLIGHT, SED
- STRIP LIGHT, SED

KEY NOTES

Key Value	Keynote Text
06-26	GLULAM BEAM, SSD
09-20	GYPSUM BOARD FINISH AROUND GLU-LAM BEAM - EXPOSED AT SKYLIGHT WELL
09-42	LINEAR WOOD CEILING OCCURS ABOVE THE INTERIOR ENTRY SOFFIT - EXTENDS TO THE EXTERIOR WALL GRIDLINE 1A ON LIBRARY SIDE, GRIDLINE 1D ON THE TUTORIAL SIDE
11-35	MOVABLE CONDIMENT CART. SEE FOOD SERVICE DRAWINGS.
11-39	SHORT THROW PROJECTOR & MOUNT, OFCI.
26-08	NEW LIGHT FIXTURES (PENDANT, RECESSED,ETC) SED

RFI #271 -OWNER REQUEST TO CONCEAL MEP MATERIALS AND FRAMING ABOVE WOOD GRILLE CEILING - ADD BLACK FACE INSULATION AT GAP, MIN 12" WIDE. THROUGHOUT

SHEET NOTES

1. SEE FLOOR PLANS, SSD, SMP, SED, SPD, SFAD, SFSD, STED FOR MORE INFORMATION @ DEMO AND NEW.
2. SEE ROOM FINISH SCHEDULE FOR ADDITIONAL INFORMATION.
3. ACOUSTIC TILE GRID SHALL BE CENTERED IN ROOM UON.
4. FOR PROJECTOR MOUNTING DETAIL SEE 6/A8.33.1. FINAL LOCATION OF PROJECTORS TO BE COORDINATED WITH OWNER.
5. ALTERATIONS TO EXISTING ACT CEILINGS WHERE GRID AREA CUT OR ALTERED IS LESS THAN 10% OF THE ENTIRE CEILING AREA:
   A. RE-USE OF EXSITING CEILING HANGER WIRES AND BRACING WIRES: THE INSTALLING CONTRACTOR IS TO PERFORM THE FOLLOWING OBSERVATIONS & FIELD TESTS & REPLACE ALL EXISTING WIRE/ANCHOR ASSEMBLIES THAT FAIL TO MEET THE INDICATED REQUIREMENTS:
      a. VERIFY IN FIELD THAT THE GUAGE AND SPACING OF THE EXISTING WIRES COMPLY WITH DETAILS ON SHEET A8.31.2.
      b. ALL EXISTING CEILING HANGER WIRE/ANCHOR ASSEMBLIES MUST BE FIELD TESTED TO 200 LBS
      c. ALL EXISTING BRACING WIRE/ANCHOR ASSEMBLIES MUST BE FIELD TESTED TO 440 LBS.
   B. PATCH AND REPAIR CEILING GRID TO MEET THE REQUIREMENTS OF THE SUSPENDED ACOUSTICAL CEILING DETAILS ON SHEET A8.31.2.
   C. PROVIDE NEW ACT TILES AS INDICATED ON NEW RCP PLANS.
6. ALTERATIONS TO ACT CEILINGS NOTED AS EXISTING TO REMAIN: IF THE GRID AREA CUT OR ALTERED EXCEEDS 10% OF THE ENTIRE CEILING AREA, THE ENTIRE CEILING IN THE AFFECTED SPACE SHALL BE UPGRADED TO MEET ALL BRACING & SUPPORT REQUIREMENTS FOR NEW CEILINGS. SEE SHEET A8.3.1.1

1 A2.41.2 **01 - CEILING PLAN - LIBRARY LEARNING RESOURCE CENTER**
1/4" = 1'-0"

0' 2' 4' 8'

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APPROVALS

ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

△	DATE	DESCRIPTION
	7/29/20	INC2 RFI 122
	7/21/20	INC2 RFI 112

SHEET TITLE
REFLECTED CEILING PLAN - LIBRARY LEARNING RESOURCE CENTER

SHEET NUMBER
A2.41.2

RCP LEGEND

(SYMBOLS SHOWN - NOT ALL WILL BE USED ON PLAN SMD, SED, SPD FOR ADDITIONAL LEGEND INFORMATION)

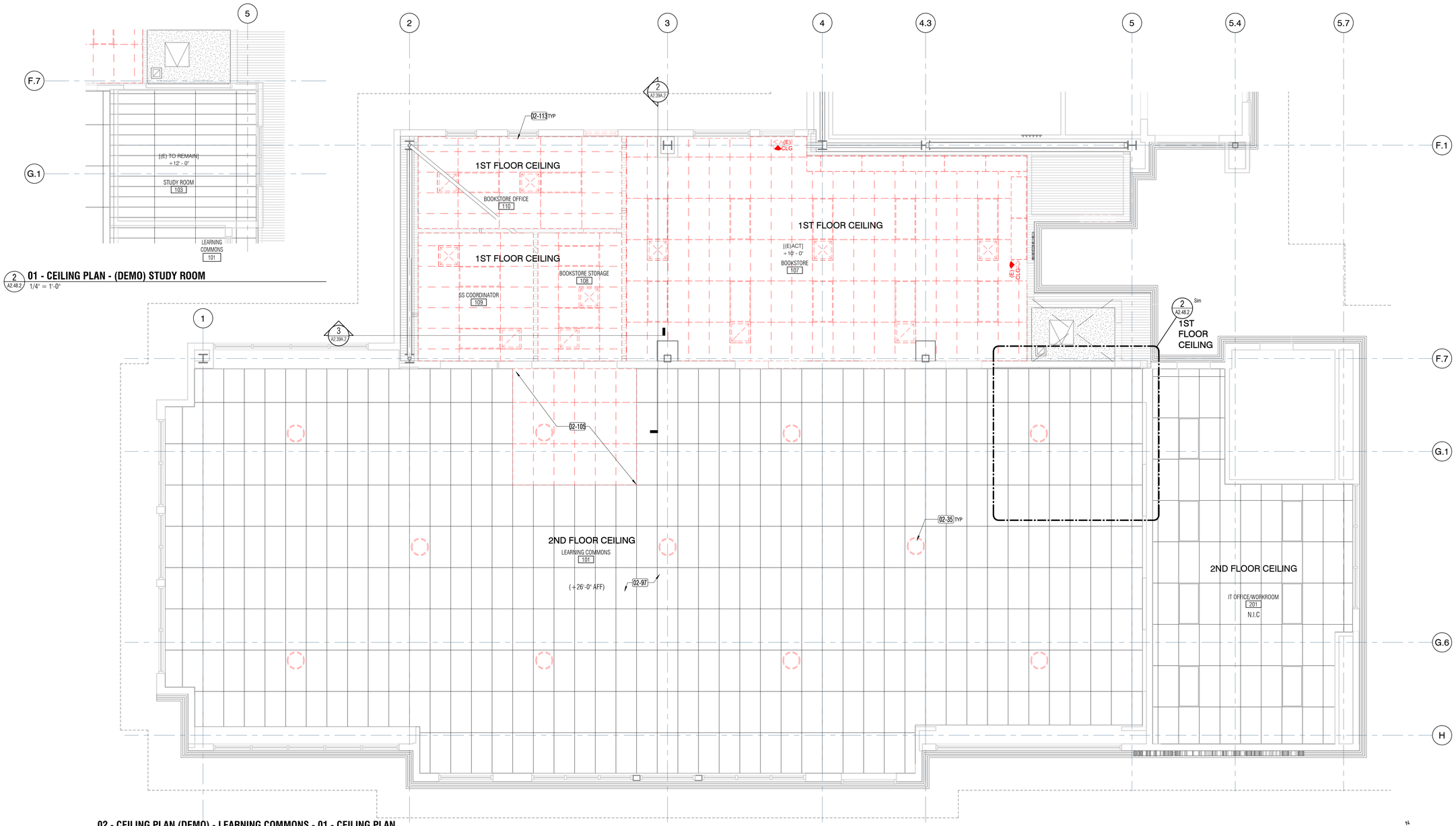
- (E) PARTITION TO REMAIN, OUTSIDE AREA OF WORK
- (E) PARTITION TO BE REMOVED
- (E) 24"x48" ACT SUSPENDED GRID CEILING TO REMAIN
- (E) 24"x48" CEILING PANELS AND SUPPORT GRID TO BE REMOVED
- (E) GYP BD CEILING TO REMAIN
- (E) GYP BD CEILING TO BE REMOVED
- E) EXPOSED METAL DECK
- (E) LIGHT FIXTURE TO REMAIN, SED
- (E) LIGHT FIXTURE TO BE REMOVED, SED
- (E) ILLUMINATED EXIT SIGN TO BE REMOVED
- (E) MECHANICAL DIFFUSER TO BE REMOVED, SMD
- (E) MECHANICAL DIFFUSER TO REMAIN, SMD
- (N) MECHANICAL DIFFUSER, SMD

KEY NOTES

Key Value	Keynote Text
02-35	REMOVE EXISTING LIGHT FIXTURES (RECESSED, PENDANTS, ETC) SED
02-97	REMOVE EXISTING ACOUSTIC CEILING PANELS. EXISTING CEILING GRID SYSTEM TO REMAIN.
02-105	REMOVE & REPLACE PORTION OF EXISTING CEILING, AS REQUIRED FOR INSTALLATION OF NEW ATTIC MECHANICAL EQUIPMENT. LIMIT MODIFIED AREA TO LESS THAN 10% THE ENTIRE CEILING AREA. SEE SHEET NOTES 5 & 6 THIS SHEET.
02-113	EXISTING SHADE POCKETS @ BOOKSTORE NORTH WALL: PROTECT IN PLACE, OR REMOVE AND RETAIN FOR REINSTALLATION IN SAME LOCATION.

SHEET NOTES

1. SEE FLOOR PLANS, SSD, SMP, SED, SPD, SFAD, SFSD, STED FOR MORE INFORMATION @ DEMO AND NEW.
2. SEE ROOM FINISH SCHEDULE FOR ADDITIONAL INFORMATION.
3. ACOUSTIC TILE GRID SHALL BE CENTERED IN ROOM UON.
4. FOR PROJECTOR MOUNTING DETAIL SEE 6/A8.33.1. FINAL LOCATION OF PROJECTORS TO BE COORDINATED WITH OWNER.
5. ALTERATIONS TO EXISTING ACT CEILINGS WHERE GRID AREA CUT OR ALTERED IS LESS THAN 10% OF THE ENTIRE CEILING AREA:
   A. RE-USE OF EXSITING CEILING HANGER WIRES AND BRACING WIRES: THE INSTALLING CONTRACTOR IS TO PERFORM THE FOLLOWING OBSERVATIONS & FIELD TESTS & REPLACE ALL EXISTING WIRE/ANCHOR ASSEMBLIES THAT FAIL TO MEET THE INDICATED REQUIREMENTS:
      a. VERIFY IN FIELD THAT THE GUAGE AND SPACING OF THE EXISTING WIRES COMPLY WITH DETAILS ON SHEET A8.31.2.
      b. ALL EXISTING CEILING HANGER WIRE/ANCHOR ASSEMBLIES MUST BE FIELD TESTED TO 200 LBS
      c. ALL EXISTING BRACING WIRE/ANCHOR ASSEMBLIES MUST BE FIELD TESTED TO 440 LBS.
   B. PATCH AND REPAIR CEILING GRID TO MEET THE REQUIREMENTS OF THE SUSPENDED ACOUSTICAL CEILING DETAILS ON SHEET A8.31.2.
   C. PROVIDE NEW ACT TILES AS INDICATED ON NEW RCP PLANS.
6. ALTERATIONS TO ACT CEILINGS NOTED AS EXISTING TO REMAIN: IF THE GRID AREA CUT OR ALTERED EXCEEDS 10% OF THE ENTIRE CEILING AREA, THE ENTIRE CEILING IN THE AFFECTED SPACE SHALL BE UPGRADED TO MEET ALL BRACING & SUPPORT REQUIREMENTS FOR NEW CEILINGS. SEE SHEET A8.3.1.1



2 A2.48.2 **01 - CEILING PLAN - (DEMO) STUDY ROOM**
1/4" = 1'-0"

1 A2.48.2 **02 - CEILING PLAN (DEMO) - LEARNING COMMONS - 01 - CEILING PLAN (DEMO) BOOKSTORE - SS COORD**
1/4" = 1'-0"

APPROVALS

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No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

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ISSUE TITLE
INCREMENT 2

ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

REVISIONS

	DATE	DESCRIPTION

SHEET TITLE
DEMO RCP - 2ND FLOOR - WEST - LEARNING COMMONS

SHEET NUMBER
A2.48.2

RCP LEGEND

(SYMBOLS SHOWN - NOT ALL WILL BE USED ON PLAN SMD, SED, SPD FOR ADDITIONAL LEGEND INFORMATION)

- (N) PARTITION
- 24"x48" WITH SCORE LINE
- 24" x 48" ACT, SEE FINISH SCHEDULE
- GYPSUM BOARD
- (E) GYP BD CEILING TO REMAIN
- (E) EXPOSED METAL DECK
- ILLUMINATED EXIT SIGN - CEILING OR WALL MOUNTED
- MECHANICAL DIFFUSER, SMD
- EXTERIOR LIGHT, SED
- 2X4 LIGHT, SED
- SMALL PENDANT, SED
- PENDANT, SED
- DOWNLIGHT, SED
- STRIP LIGHT, SED

KEY NOTES

Key Value	Keynote Text
02-105	REMOVE & REPLACE PORTION OF EXISTING CEILING, AS REQUIRED FOR INSTALLATION OF NEW ATTIC MECHANICAL EQUIPMENT. LIMIT MODIFIED AREA TO LESS THAN 10% THE ENTIRE CEILING AREA. SEE SHEET NOTES 5 & 6 THIS SHEET.
02-113	EXISTING SHADE POCKETS @ BOOKSTORE NORTH WALL: PROTECT IN PLACE, OR REMOVE AND RETAIN FOR REINSTALLATION IN SAME LOCATION.
09-02	NEW GYPSUM BOARD CEILING, FRAMED OR SUSPENSION TYPE
09-29	REPLACE EXISTING 2X4 ACOUSTICAL PANELS WITH NEW AT EXISTING CEILING GRID SYSTEM. EXISTING DIFFUSERS, WHERE OCCURS, SHALL REMAIN.
11-38	KITCHEN EXHAUST HOOD, SEE FOOD SERVICE DRAWINGS, SMD, SSD. SEE 4/S7.01.2 FOR STRUCTURAL FRAMING FOR MOUNTING OF HOODS
26-08	NEW LIGHT FIXTURES (PENDANT, RECESSED,ETC) SED

SHEET NOTES

1. SEE FLOOR PLANS, SSD, SMP, SED, SPD, SFAD, SFSD, STED FOR MORE INFORMATION @ DEMO AND NEW.
2. SEE ROOM FINISH SCHEDULE FOR ADDITIONAL INFORMATION.
3. ACOUSTIC TILE GRID SHALL BE CENTERED IN ROOM UON.
4. FOR PROJECTOR MOUNTING DETAIL SEE 6/A8.33.1. FINAL LOCATION OF PROJECTORS TO BE COORDINATED WITH OWNER.
5. ALTERATIONS TO EXISTING ACT CEILINGS WHERE GRID AREA CUT OR ALTERED IS LESS THAN 10% OF THE ENTIRE CEILING AREA:
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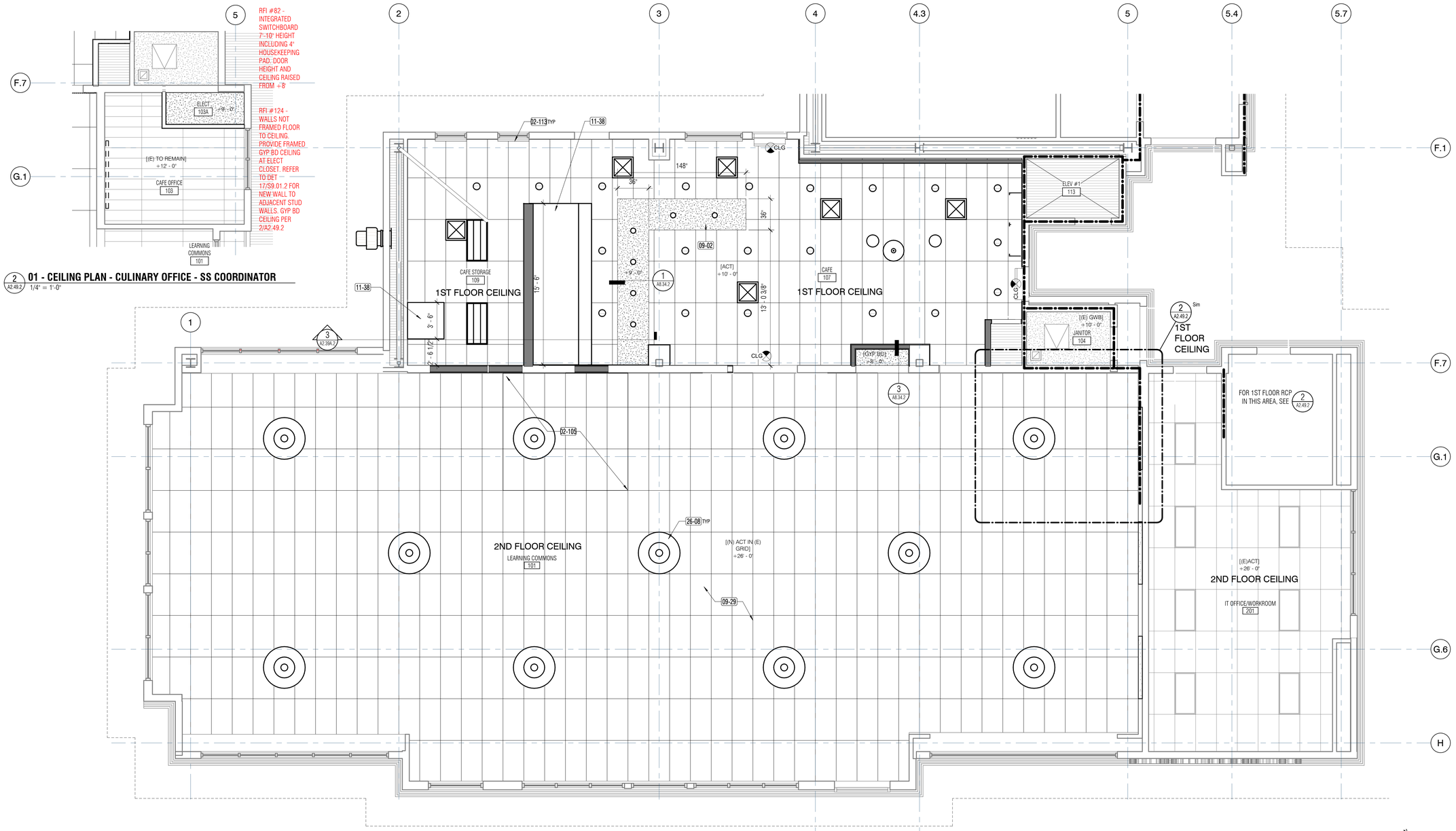
     - c. ALL EXISTING BRACING WIRE/ANCHOR ASSEMBLIES MUST BE FIELD TESTED TO 440 LBS.
   - B. PATCH AND REPAIR CEILING GRID TO MEET THE REQUIREMENTS OF THE SUSPENDED ACOUSTICAL CEILING DETAILS ON SHEET A8.31.2.
   - C. PROVIDE NEW ACT TILES AS INDICATED ON NEW RCP PLANS.
6. ALTERATIONS TO ACT CEILINGS NOTED AS EXISTING TO REMAIN: IF THE GRID AREA CUT OR ALTERED EXCEEDS 10% OF THE ENTIRE CEILING AREA, THE ENTIRE CEILING IN THE AFFECTED SPACE SHALL BE UPGRADED TO MEET ALL BRACING & SUPPORT REQUIREMENTS FOR NEW CEILINGS. SEE SHEET A8.3.1.1



2 A2.49.2 **01 - CEILING PLAN - CULINARY OFFICE - SS COORDINATOR**
1/4" = 1'-0"

1 A2.49.2 **01 - CEILING PLAN - CAFE AREA & LEARNING COMMONS**
1/4" = 1'-0"

0' 2' 4' 8'

APPROVALS

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ARCHITECTS SEAL

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REN. 12-31-21
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ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION

SHEET TITLE
NEW RCP - 1ST FLOOR - WEST - CAFE & LEARNING COMMONS

SHEET NUMBER
A2.49.2

KEY NOTES

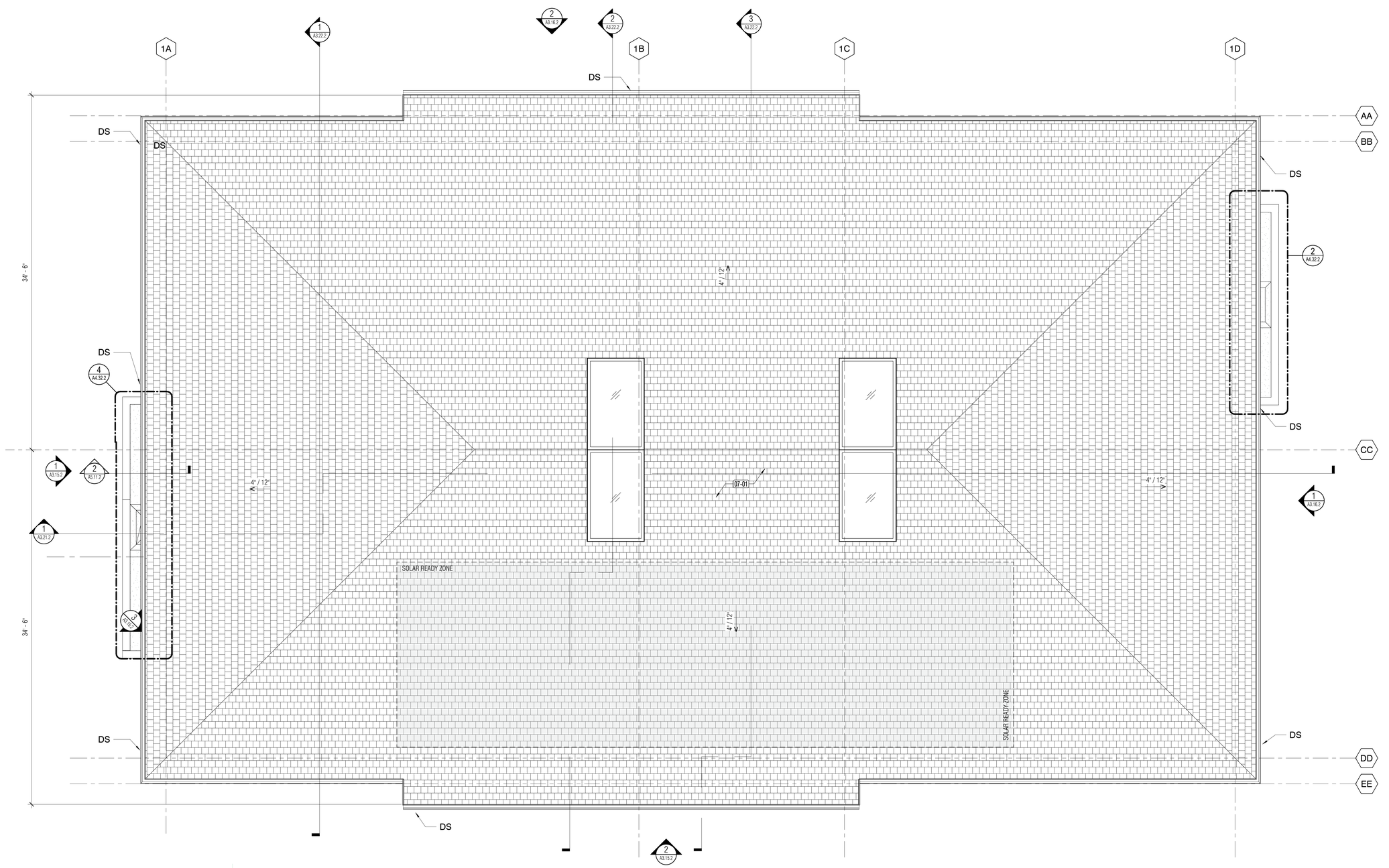
Key Value	Keynote Text
07-01	CONCRETE TILE ROOF

GENERAL NOTES

1. EXISTING BUILDING IS FIRE-SPRINKLERED. NEW BUILDING SHALL ALSO BE FIRE-SPRINKLERED.

GENERAL NOTES: SOLAR READY

1. ROOF AREA IS 7142 SF. 15% OF ROOF AREA TO BE SOLAR READY.
0.15 X 7142SF = 1,071 SF
2. REFER TO ELECTRICAL OR PLUMBING SYSTEM FOR PLAN FOR CONNECTING PV OR SWH SYSTEM. SED FOR LOCATION OF INVERTER AND METERING EQUPMENT, PATHWAY FOR INTERCONNECTION OF SERVICE. CONDUIT INSTALLATION IS NOT REQUIRED. PATHWAY ROUTING FOR PLUMBING FROM SOLAR ZONE TO WATER HEATING SYSTEM. PIPING INSTALLATION IS NOT REQUIRED
3. REFER TO STRUCTURAL DWG FOR STRUCTURAL DESIGN LOADS FOR ROOF DEAD LOAD AND ROOF LIVE LOAD.
4. NO INFRASTRUCTURE IS REQUIRED TO MEET ENERGY STANDARDS.



1 A2.51.2 **ROOF PLAN - LIBRARY LEARNING RESOURCE CENTER**
1/4" = 1'-0"

0' 2' 4' 8'

APPROVALS

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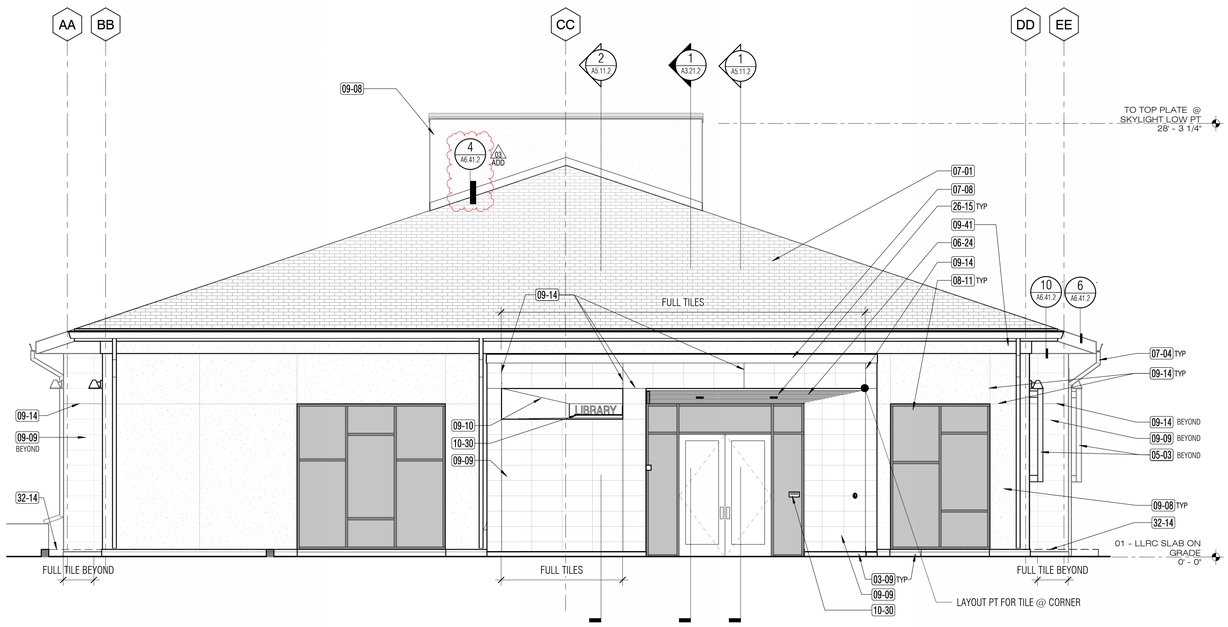
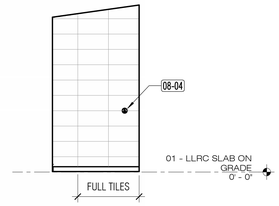
SHEET TITLE
ROOF PLAN - LIBRARY LEARNING RESOURCE CENTER

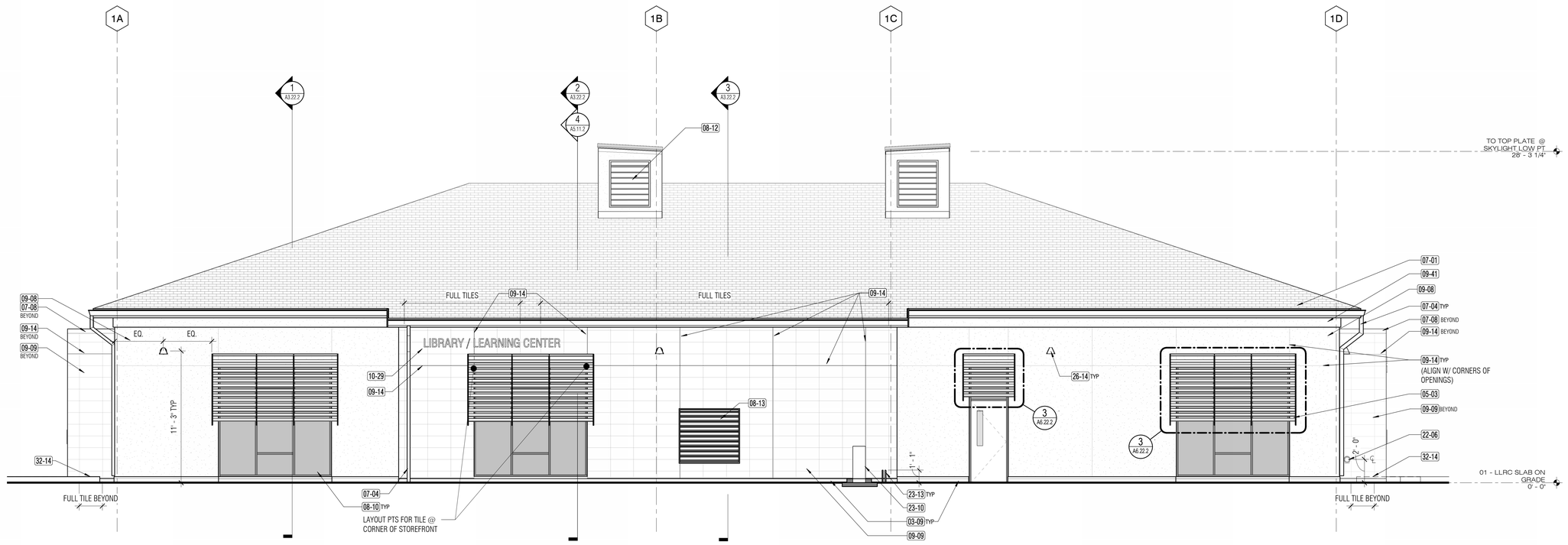
SHEET NUMBER
A2.51.2



1 A3.15.2 **WEST ELEVATION - LIBRARY LEARNING RESOURCE CENTER**
1/4" = 1'-0"



3 A3.15.2 **ANGLED WALL @ LLRC ENTRANCE (TUTORIAL SIM)**
1/4" = 1'-0"



2 A3.15.2 **SOUTH ELEVATION - LIBRARY LEARNING RESOURCE CENTER**
1/4" = 1'-0"

KEY NOTES

Key Value	Keynote Text
03-09	CONCRETE CURB WITH ELASTOMERIC COATING
05-03	METAL SUN SHADE
06-24	EXTERIOR SOFFIT WITH WOOD SLATS
07-01	CONCRETE TILE ROOF
07-04	3" DIA DOWNSPOUT
07-08	SHEET METAL COPING
08-04	(N) WALL MOUNTED PUSH PLATE DOOR ACTUATOR
08-10	(N) STOREFRONT
08-11	STOREFRONT
08-12	COMBINATION MECHANICAL RELIEF AIR LOUVER & DAMPER, SMD
08-13	FIXED MECHANICAL LOUVER, SMD
09-08	CEMENT PLASTER, PAINTED
09-09	EXTERIOR TILE
09-10	TILED RECESS FOR SIGNAGE
09-14	CONTROL JOINT
09-41	CEMENT PLASTER OVER FOAM SHAPE
10-29	NEW SIGN AS SCHEDULED
10-30	SIGN AS SCHEDULED
22-06	OVERFLOW ROOF DRAIN, SPD
23-10	CONDENSER UNIT ON HOUSEKEEPING PAD, SMD
23-13	CONDENSER UNIT PIPING, SMD. PENETRATE EXTERIOR WALL ABOVE CONCRETE CURB & CONTINUE WITHIN EXTERIOR WALL FRAMING TO CEILING
26-14	LIGHT FIXTURE AS SCHEDULED, SED
26-15	NEW LIGHT FIXTURE AS SCHEDULED, SED
32-14	FLOW THRU PLANTER AREA IN FOREGROUND, SCD & SLD

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ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

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ISSUE TITLE
INCREMENT 2

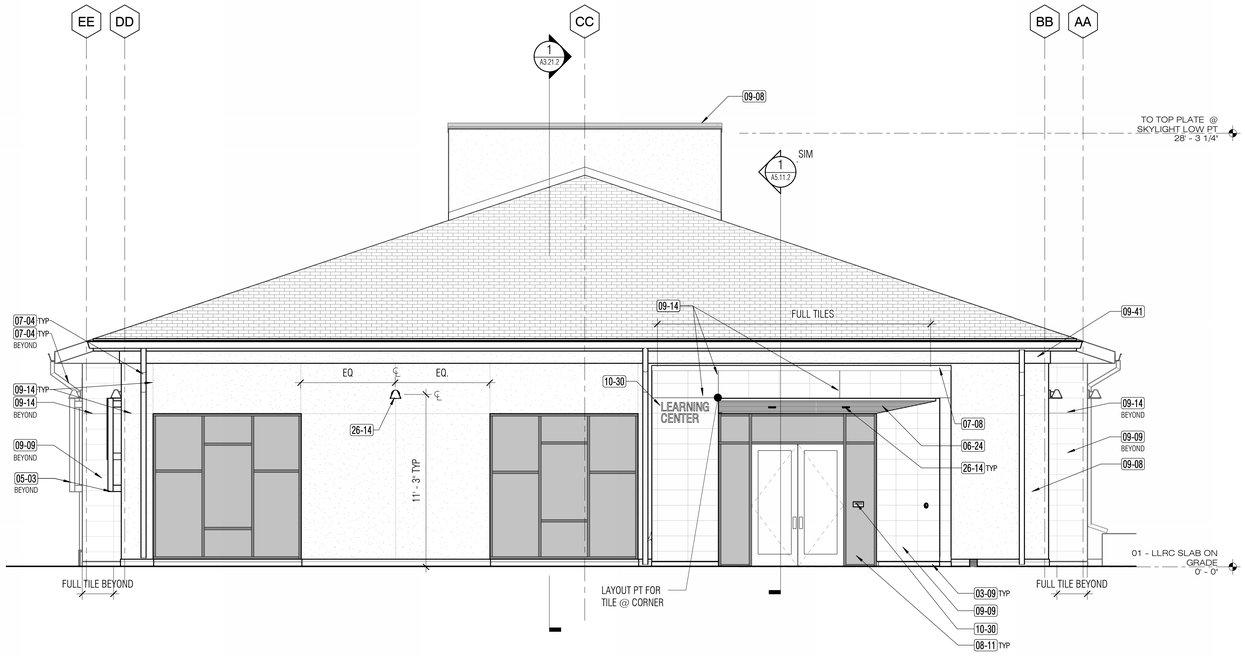
ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

REVISIONS

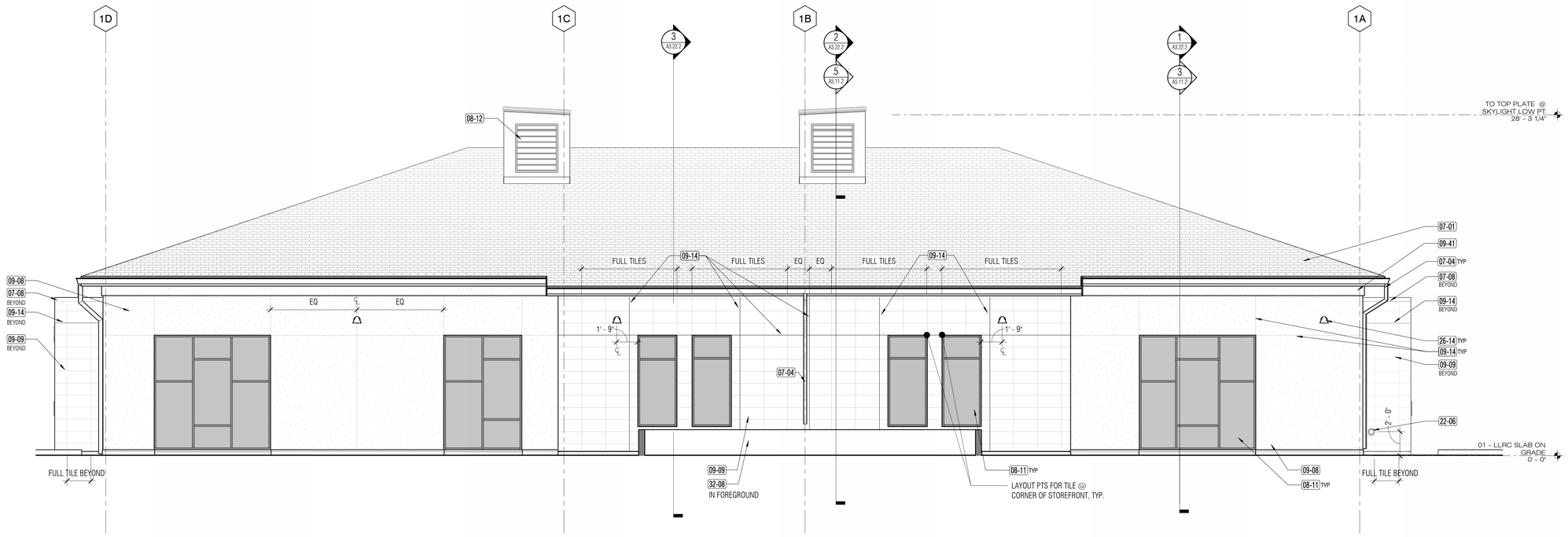
	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03

SHEET TITLE
EXTERIOR ELEVATIONS - LIBRARY LEARNING RESOURCE CENTER

SHEET NUMBER
A3.15.2



1 A3.16.2 **EAST ELEVATION - LIBRARY LEARNING RESOURCE CENTER**
1/4" = 1'-0"



2 A3.16.2 **NORTH ELEVATION - LIBRARY LEARNING RESOURCE CENTER**
1/4" = 1'-0"

KEY NOTES

Key Value	Keynote Text
03-09	CONCRETE CURB WITH ELASTOMERIC COATING
05-03	METAL SUN SHADE
06-24	EXTERIOR SOFFIT WITH WOOD SLATS
07-01	CONCRETE TILE ROOF
07-04	3" DIA DOWNSPOUT
07-08	SHEET METAL COPING
08-11	STOREFRONT
08-12	COMBINATION MECHANICAL RELIEF AIR LOUVER & DAMPER, SMD
09-08	CEMENT PLASTER, PAINTED
09-09	EXTERIOR TILE
09-14	CONTROL JOINT
09-41	CEMENT PLASTER OVER FOAM SHAPE
10-30	SIGN AS SCHEDULED
22-06	OVERFLOW ROOF DRAIN, SPD
26-14	LIGHT FIXTURE AS SCHEDULED, SED
32-08	EXTEND (E) PLANTING AREA, SLD

APPROVALS

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ISSUE TITLE
INCREMENT 2

ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

REVISIONS
	DATE	DESCRIPTION

SHEET TITLE
EXTERIOR ELEVATIONS - LIBRARY LEARNING RESOURCE CENTER

SHEET NUMBER
A3.16.2

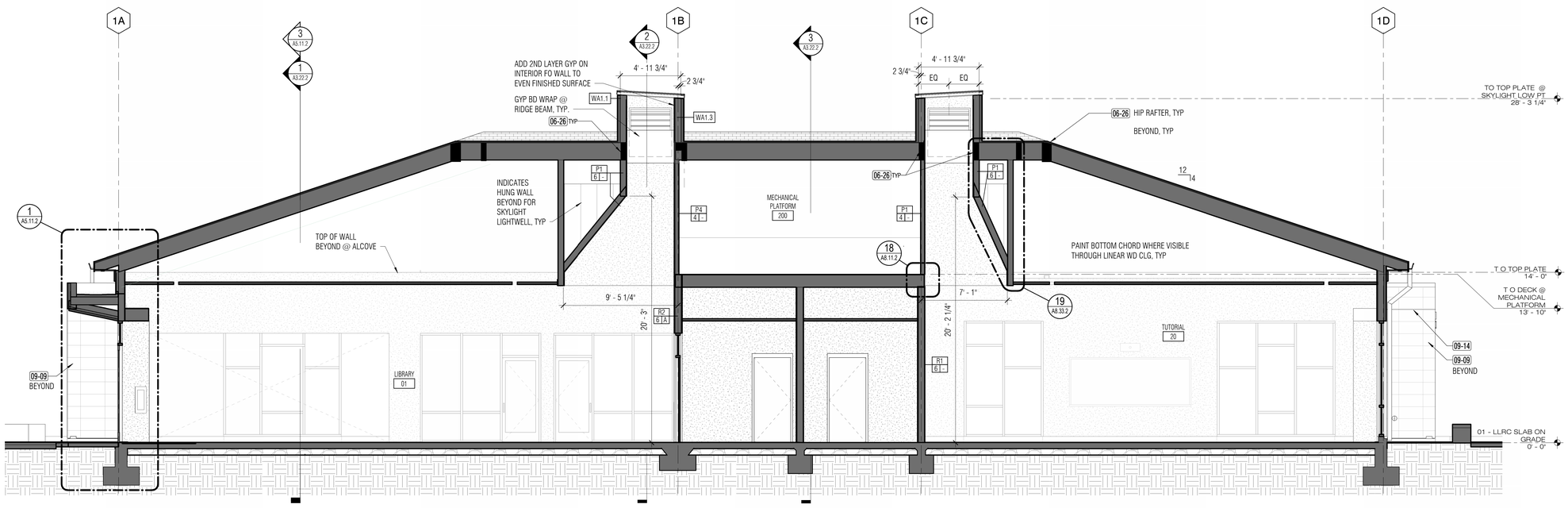
SHEET NOTES

1. MECHANICAL, ELECTRICAL, PLUMBING, TECH/DATA, FIRE ALARM AND FIRE PROTECTION INFORMATION NOT SHOWN FOR CLARITY. SEE RESPECTIVE DRAWINGS FOR MORE INFORMATION.
2. PROVIDE BRACING AT ALL INTERIOR WALLS THAT DO NOT EXTEND TO UNDERSIDE OF ROOF. BRACING NOT SHOWN IN ALL INSTANCES FOR CLARITY.

APPROVALS

KEY NOTES

KEYNOTE LEGEND	
Key Value	Keynote Text
06-19	WOOD TRUSS, SSD
06-26	GLULAM BEAM, SSD
09-09	EXTERIOR TILE
09-14	CONTROL JOINT



1 A3.21.2 **BUILDING SECTION - LLRC - THROUGH LIBRARY & TUTORIAL**
1/4" = 1'-0"

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ISSUE TITLE
INCREMENT 2

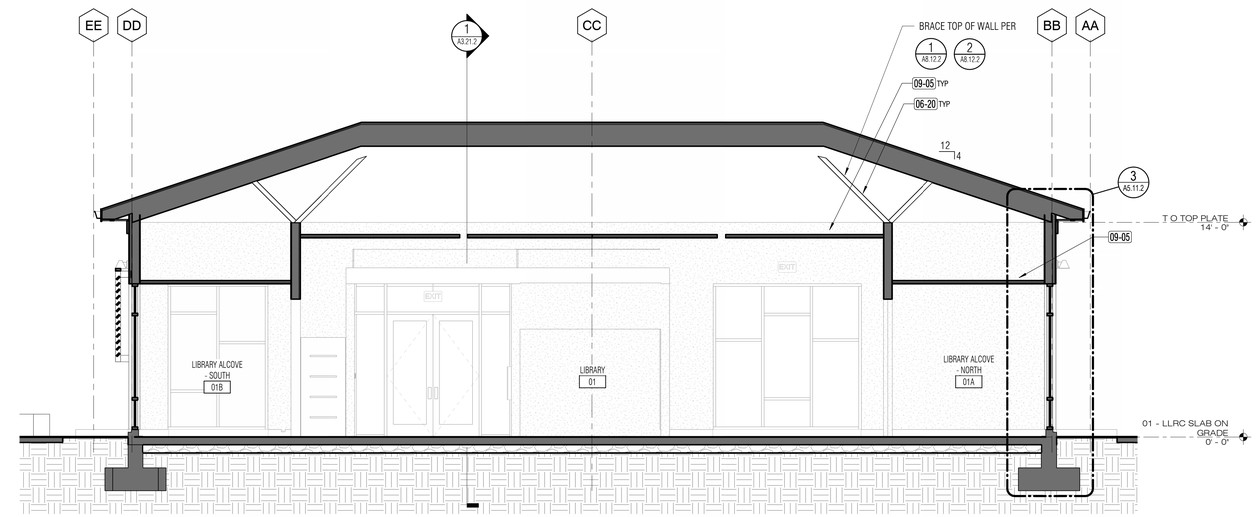
ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

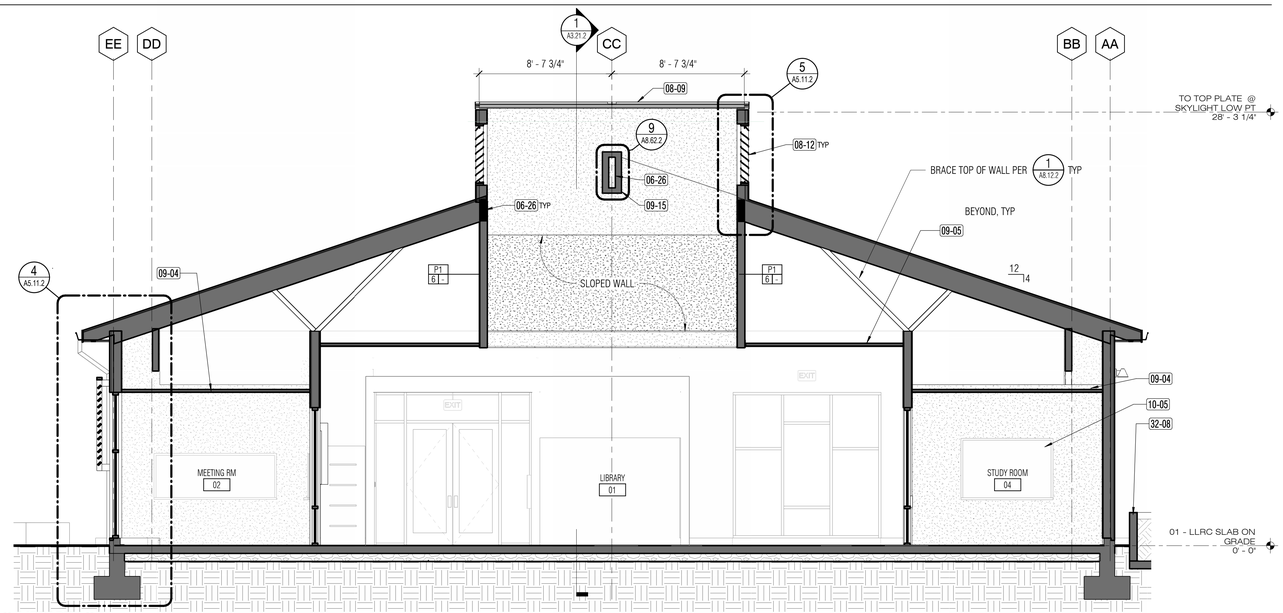
△	DATE	DESCRIPTION

SHEET TITLE
BUILDING SECTION - LIBRARY LEARNING RESOURCE CENTER

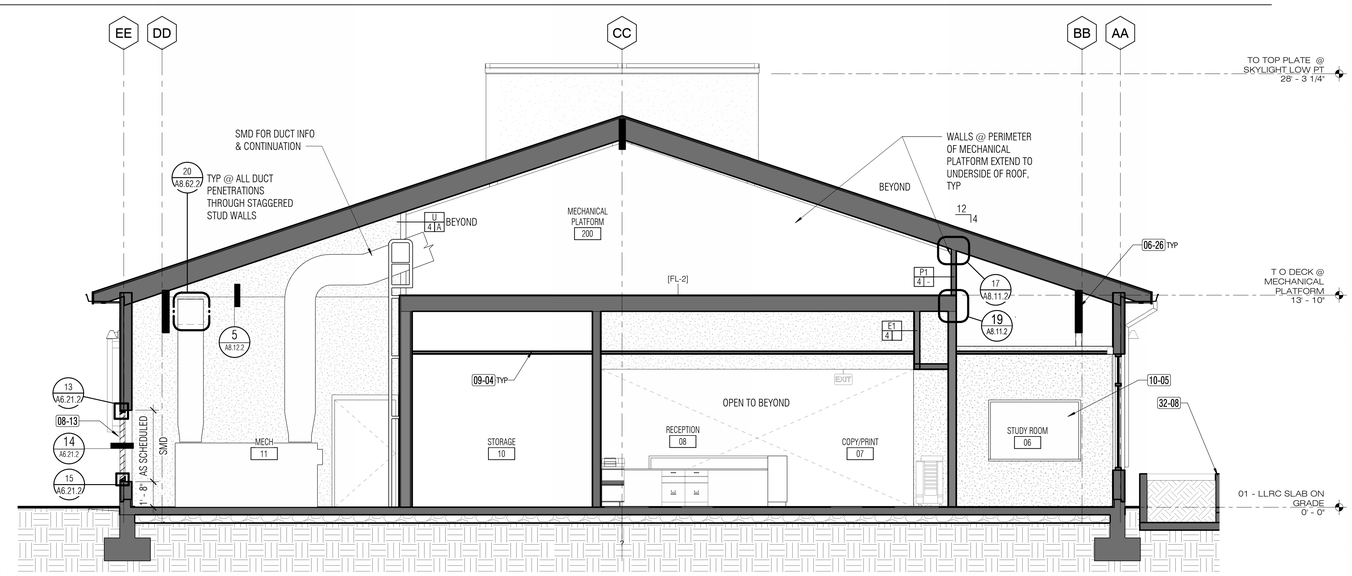
SHEET NUMBER
A3.21.2



1 BUILDING SECTION - LLRC - THROUGH LIBRARY
A3.22.2 1/4" = 1'-0"



BUILDING SECTION - LLRC - THROUGH SKYLIGHT @ LIBRARY (@ TUTORIAL SIM)
2 A3.22.2 1/4" = 1'-0"



BUILDING SECTION - LLRC - THROUGH RECEPTION
3 A3.22.2 1/4" = 1'-0"

SHEET NOTES

1. MECHANICAL, ELECTRICAL, PLUMBING, TECH/DATA, FIRE ALARM AND FIRE PROTECTION INFORMATION NOT SHOWN FOR CLARITY. SEE RESPECTIVE DRAWINGS FOR MORE INFORMATION.
2. PROVIDE BRACING AT ALL INTERIOR WALLS THAT DO NOT EXTEND TO UNDERSIDE OF ROOF. BRACING NOT SHOWN IN ALL INSTANCES FOR CLARITY.

APPROVALS

KEY NOTES

Key Value	Keynote Text
06-19	WOOD TRUSS, SSD
06-20	2x WD WALL BRACING. ATTACH TO UNDERSIDE OF ROOF FRAMING
06-26	GLULAM BEAM, SSD
08-09	METAL-FRAMED SKYLIGHT
08-12	COMBINATION MECHANICAL RELIEF AIR LOUVER & DAMPER, SMD
08-13	FIXED MECHANICAL LOUVER, SMD
09-04	2X4 ACOUSTICAL CEILING SYSTEM, SEE FINISH SCHEDULE
09-05	SUSPENDED LINEAR WOOD CEILING
09-15	FURRED GYPSUM BD WRAP @ RIDGE BEAM
10-05	MARKERBOARD
32-08	EXTEND (E) PLANTING AREA, SLD

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ISSUE TITLE

INCREMENT 2

ISSUE DATE **5/30/2019**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

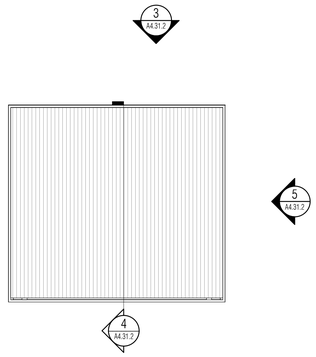
	DATE	DESCRIPTION

SHEET TITLE

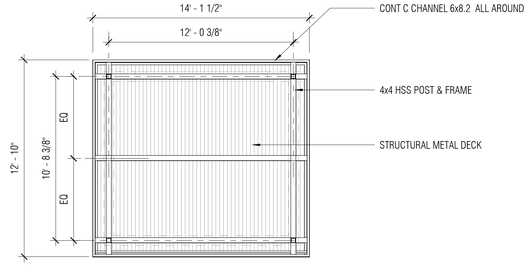
BUILDING SECTIONS - LIBRARY LEARNING RESOURCE CENTER

SHEET NUMBER

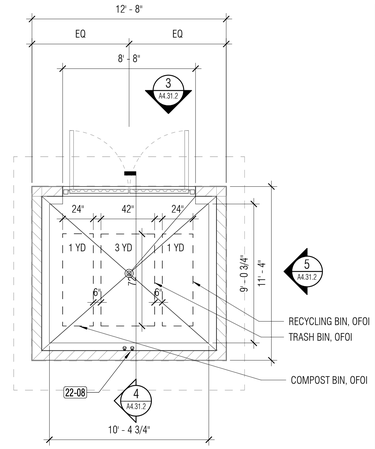
A3.22.2



17 A4.31.2 TRASH ENCLOSURE - ROOF PLAN
1/4" = 1'-0"



9 A4.31.2 TRASH ENCLOSURE RCP
1/4" = 1'-0"



1 A4.31.2 TRASH ENCLOSURE PLAN
1/4" = 1'-0"

GENERAL NOTES - TRASH ENCLOSURE

1. ALL EXPOSED STEEL TO BE SHOP APPLIED GALVANIZED, TOUCH UP IN FIELD AS REQUIRED
2. PAINT GALVANIZED METAL WITH ANTI-CORROSIVE PAINT FOR GALVANIZED SURFACES, TNEMEC OR EQUAL, COLOR TO MATCH EXISTING CAMPUS EXTERIOR BUILDINGS.
3. ALL EXPOSED WELDS TO BE AESS CATEGORY 1
4. CONCRETE CAP & CMU TO MATCH EXISTING CAMPUS CAPS & SPLIT BLOCK COLOR & TEXTURE

KEY NOTES

Key Value	Keynote Text
22-08	HOT AND COLD HOSE BIB, SPD

CCDA_115

TEST ANCHORS AT 80% TENSION LOAD OF CAPACITY IN REPORT AND TEST ALL THE ANCHORS.

IF HIT RE 500 IS NOT AVAILABLE, AN ACCEPTABLE ALTERNATIVE IS HIT HY 270 (ICC ESR-4143).

3" DIA. ACCESS HOLE FOR ANCHOR INSTALLATION SHALL BE PATCHED FLUSH WITH HSS. GALVANIZED
REPAIR REQUIRED. OFFSET HINGES TO THE ACCESS HOLES. SEE UPDATED A4.31.2

RFI #275 - INTERIOR SMOOTH FACE OF CMU TO RECEIVE - 2 FINISH COATS OF MONOCHEM EPOXYGUARD ENAMEL OVER 521 PRIMER. - COLOR TO MATCH CMU WALL COLOR.
EXPOSED GALVANIZED STEEL TO MATCH STOREFRONT FRAME COLOR.

APPROVALS

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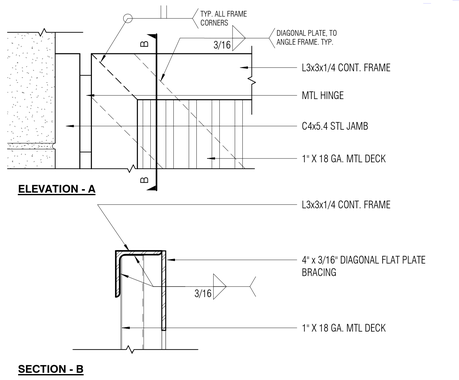
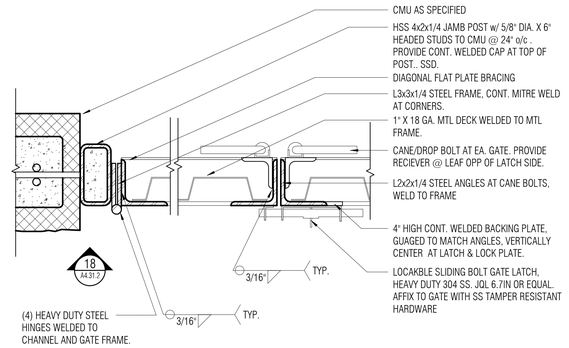
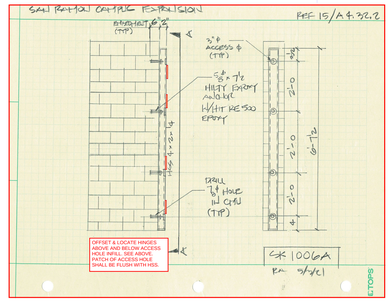


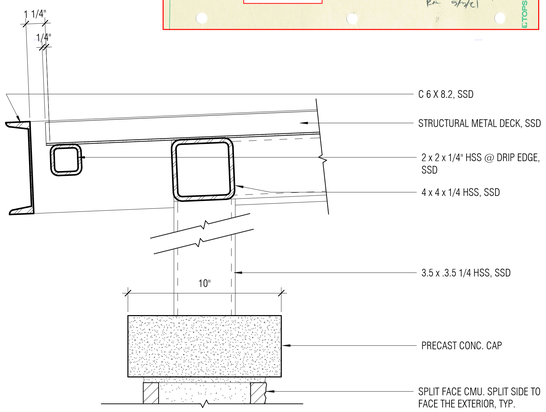
18 A4.31.2 TRASH ENCL GATE - SECTION-ELEVATION DETAIL
3" = 1'-0"



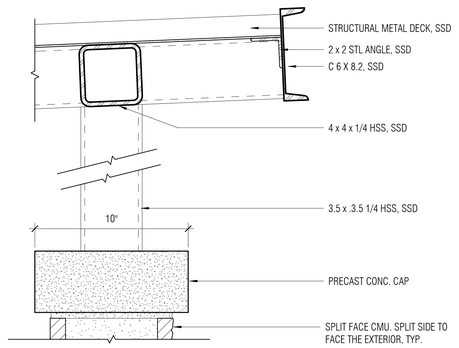
15 A4.31.2 TRASH ENCL GATE - PLAN DETAIL
3" = 1'-0"

RFI #260.1 - NELSON STUD JAMBS NOT INSTALLED AT TIME OF CMU BLOCKERS.
5/8" DIA GALV ANCHORS AND 6" EMBED. IN LEU OF EMBEDED HEADED STUDS.
HINGES TO BE ADJUSTED.

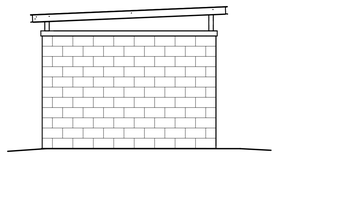




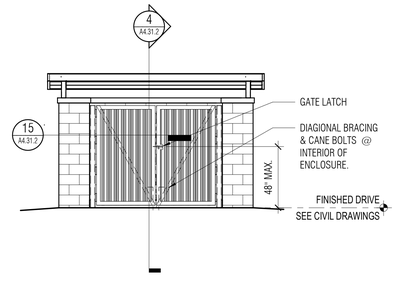
16 A4.31.2 TRASH ENCLOSURE CANOPY SECTION DETAIL END
3" = 1'-0"



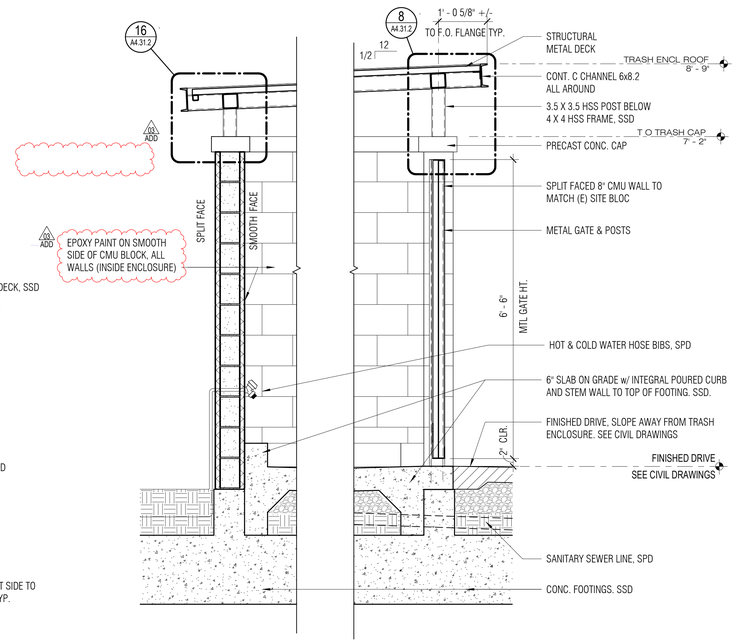
8 A4.31.2 TRASH ENCLOSURE CANOPY SECTION DETAIL
3" = 1'-0"



5 A4.31.2 TRASH ENCLOSURE - SIDE ELEVATION
1/4" = 1'-0"



3 A4.31.2 TRASH ENCLOSURE - FRONT ELEVATION
1/4" = 1'-0"



4 A4.31.2 TRASH ENCLOSURE - SECTION
3/4" = 1'-0"

PROJECT TITLE

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ISSUE TITLE
INCREMENT 2

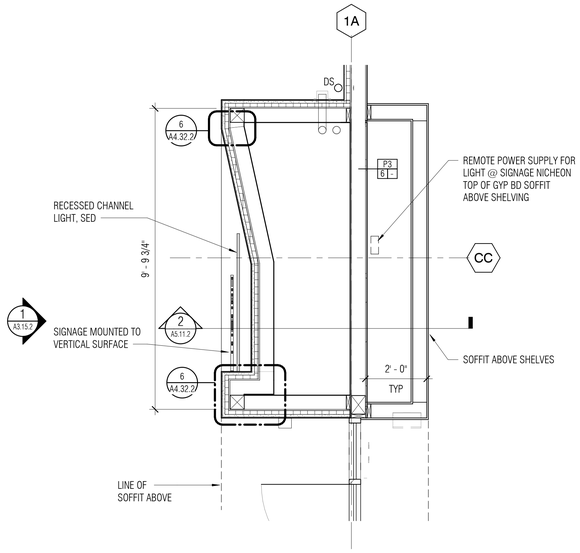
ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

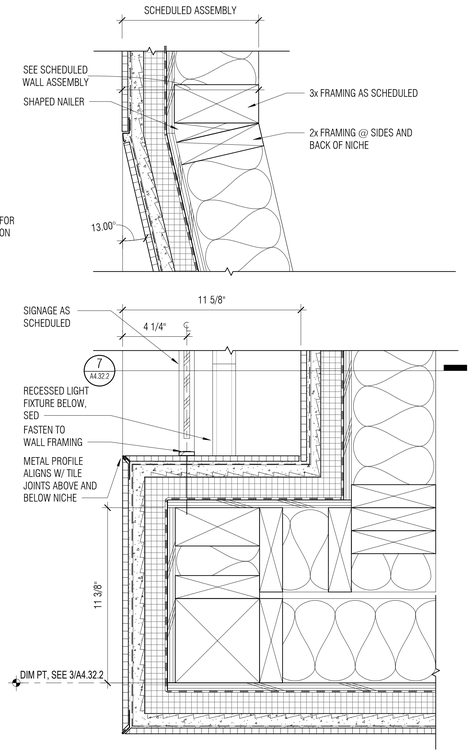
	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03
2	3/10/2020	TRASH ENCLOSURE

SHEET TITLE
TRASH ENCLOSURE PLANS & ELEVATIONS

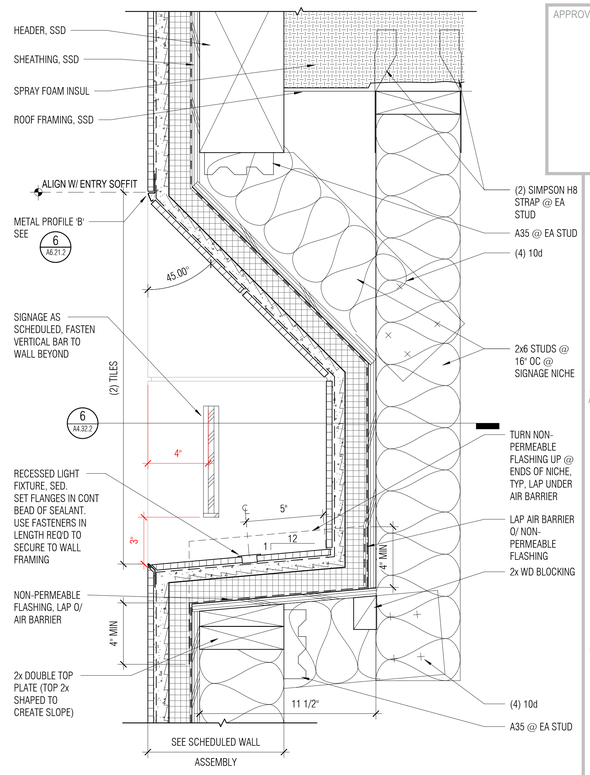
SHEET NUMBER
A4.31.2



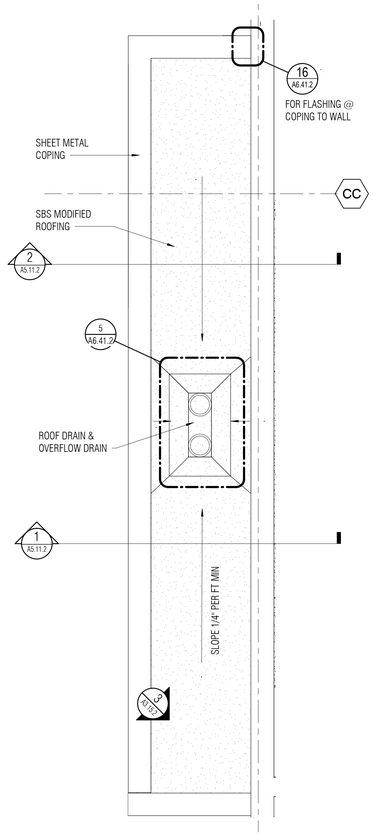
5 A4.32.2 **01 - ENLARGED FLOOR PLAN @ LLRC LIBRARY SIGNAGE NICHE**
1/2" = 1'-0"



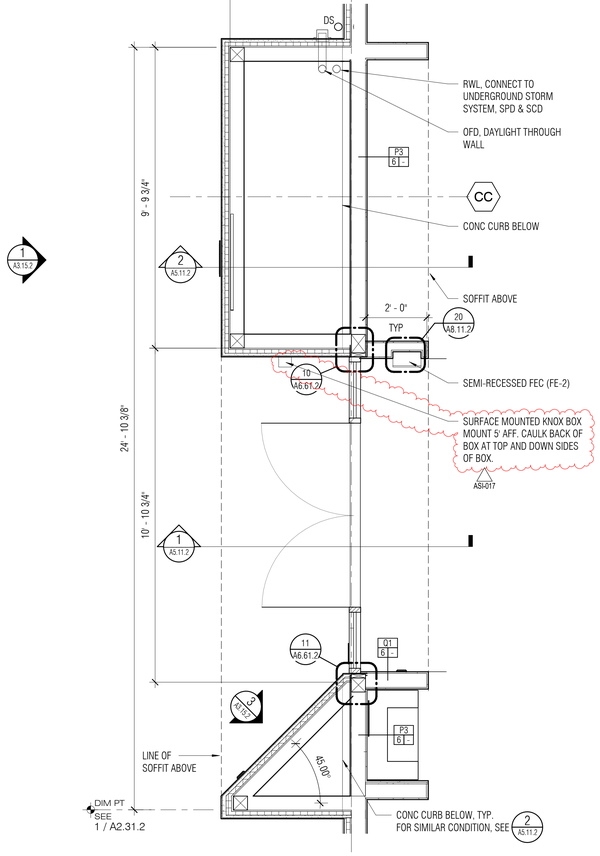
6 A4.32.2 **ENTRANCE SIGNAGE NICHE - PLAN**
3" = 1'-0"



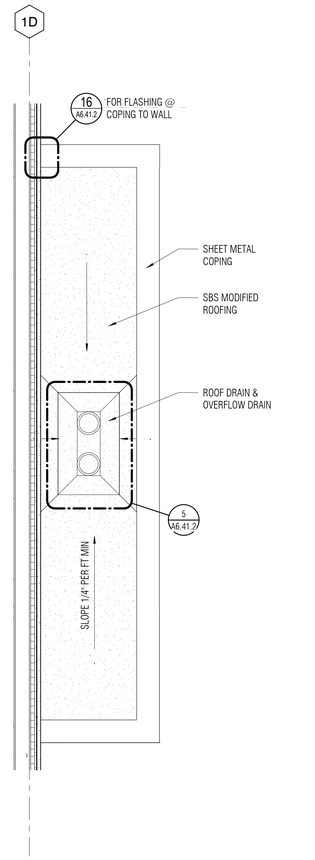
7 A4.32.2 **ENTRANCE SIGNAGE NICHE - SECTION**
3" = 1'-0"



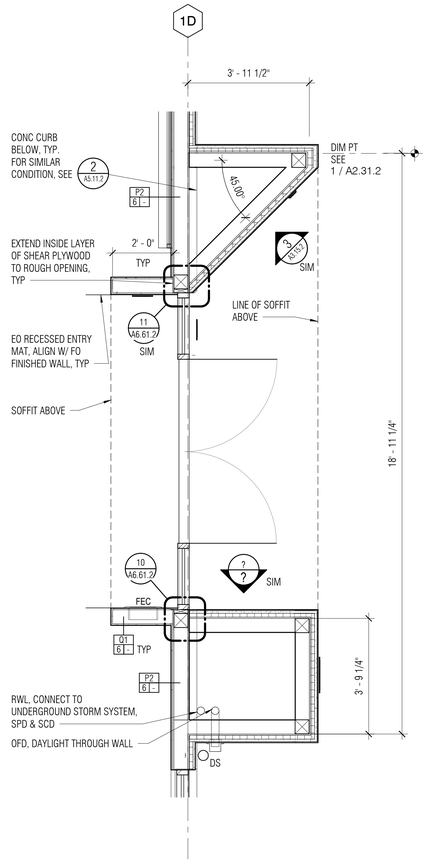
4 A4.32.2 **ROOF PLAN - LIBRARY ENTRY**
1/2" = 1'-0"



3 A4.32.2 **01 - ENLARGED FLOOR PLAN @ LLRC LIBARY ENTRY**
1/2" = 1'-0"



2 A4.32.2 **ROOF PLAN - LEARNING SUPPORT ENTRY**
1/2" = 1'-0"



1 A4.32.2 **01 - ENLARGED FLOOR PLAN @ TUTORIAL ENTRY**
1/2" = 1'-0"

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ISSUE TITLE
INCREMENT 2

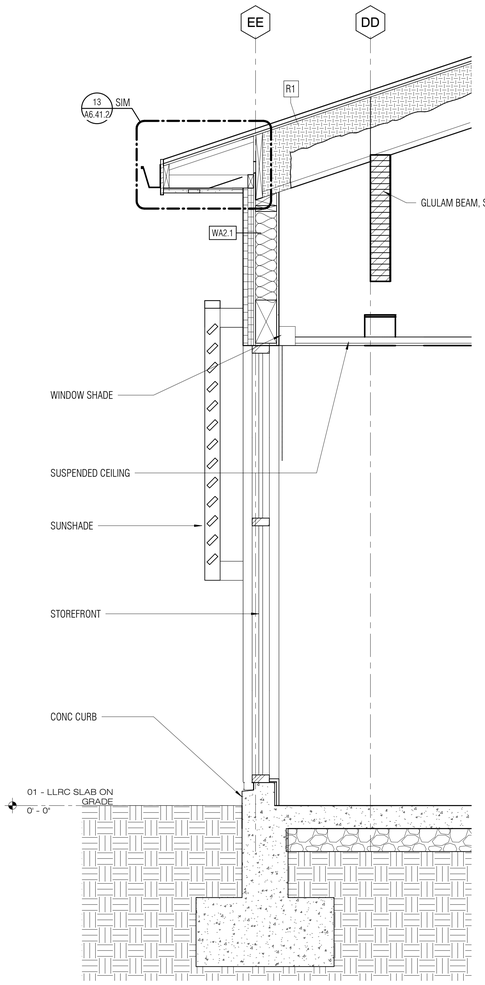
ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

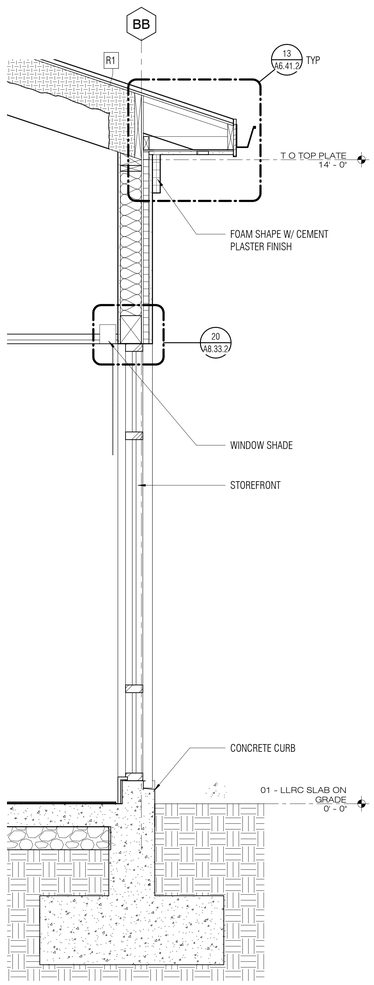
	DATE	DESCRIPTION
2	7/15/20	INC 2 ASI 017

SHEET TITLE
ENLARGED FLOOR & ROOF PLANS @ LLRC ENTRIES

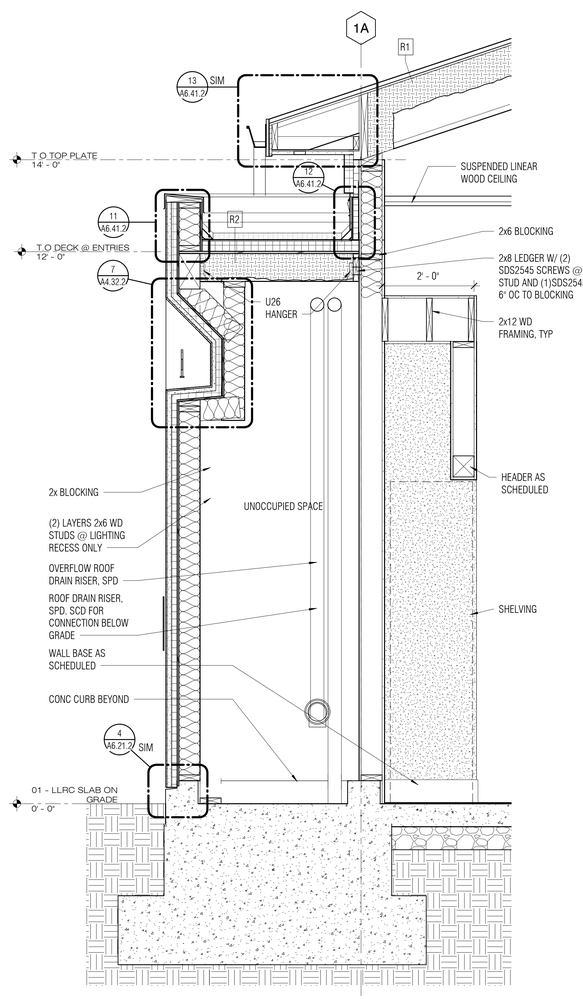
SHEET NUMBER
A4.32.2



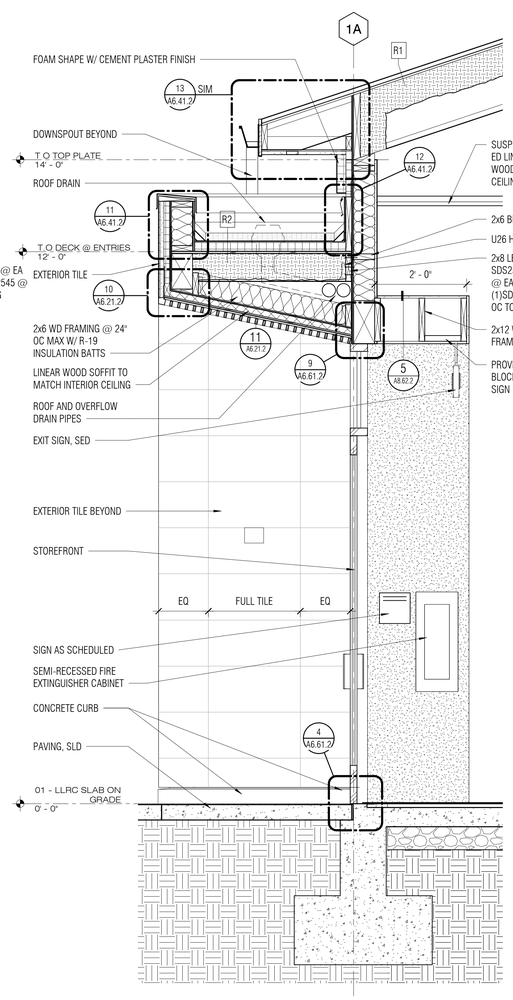
4 A5.11.2 **WALL SECTION @ ROOF EXTENSION & SUN SHADE**
3/4" = 1'-0"



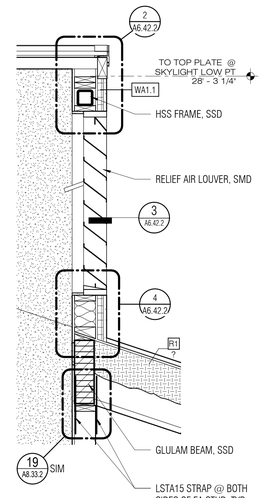
3 A5.11.2 **WALL SECTION @ TYPICAL LLRC STOREFRONT**
3/4" = 1'-0"



2 A5.11.2 **WALL SECTION @ ENTRANCE SIGNAGE**
3/4" = 1'-0"



1 A5.11.2 **WALL SECTION @ LLRC ENTRANCE**
3/4" = 1'-0"



5 A5.11.2 **WALL SECTION @ LIGHTWELL LOUVER**
3/4" = 1'-0"

APPROVALS

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ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

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INCREMENT 2

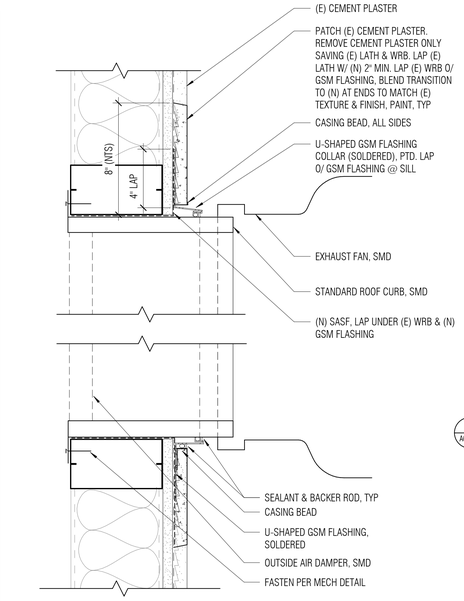
ISSUE DATE **5/30/2019**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

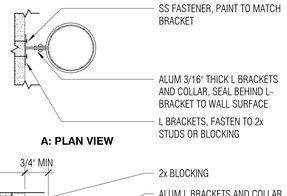
	DATE	DESCRIPTION

SHEET TITLE
WALL SECTIONS @ LLRC

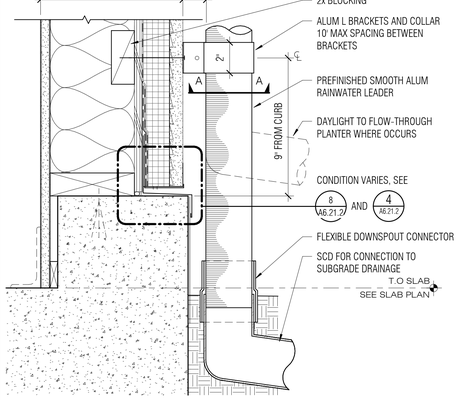
SHEET NUMBER
A5.11.2



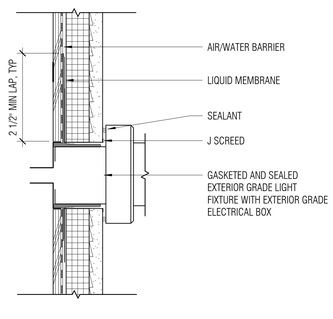
18 A6.21.2 EXHAUST FAN PENETRATION @ EXTERIOR WALL
3" = 1'-0"



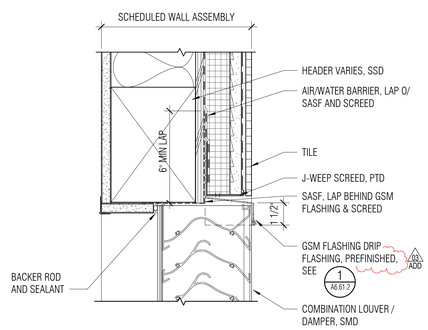
A: PLAN VIEW



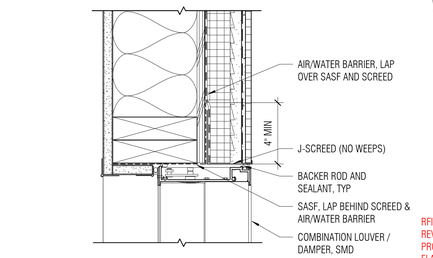
19 A6.21.2 DOWNSPOUT CONNECTION TO STORM DRAINAGE
3" = 1'-0"



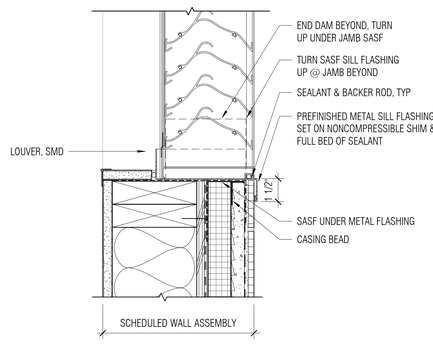
20 A6.21.2 ELECTRIC OUTLET / LIGHT FIXTURE AT EXTERIOR
3" = 1'-0"



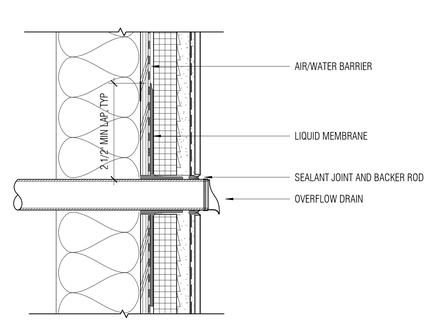
13 A6.21.2 LOUVER HEAD @ MECH RM
3" = 1'-0"



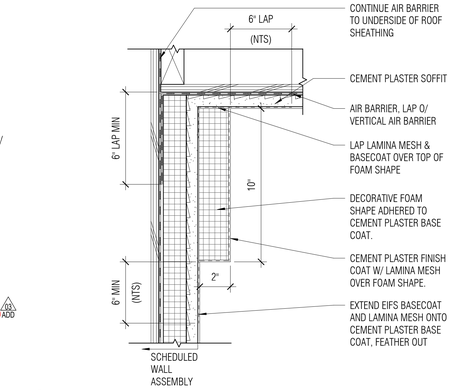
14 A6.21.2 LOUVER JAMB @ MECH RM
3" = 1'-0"



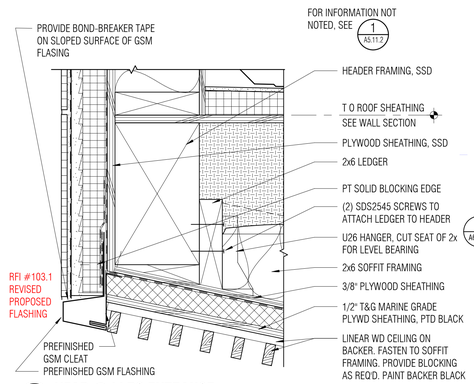
15 A6.21.2 LOUVER FLASHING @ MECH RM
3" = 1'-0"



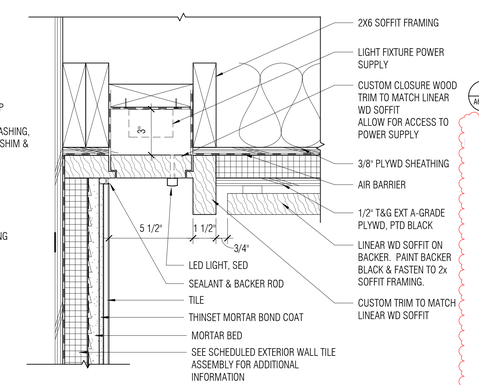
16 A6.21.2 FLASHING @ OVERFLOW DRAIN
3" = 1'-0"



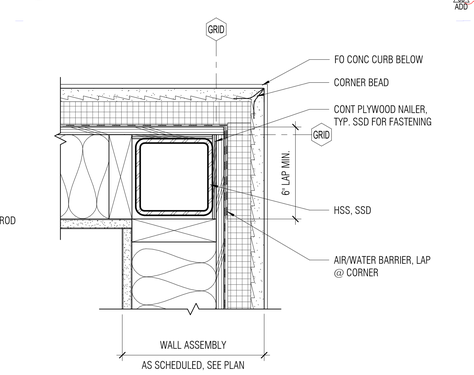
9 A6.21.2 FOAM SHAPE @ SOFFIT
3" = 1'-0"



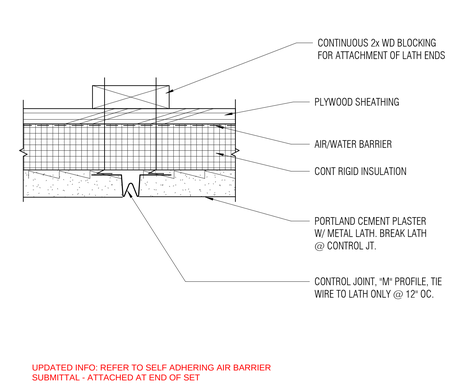
10 A6.21.2 HEAD @ LLRC ENTRANCE
3" = 1'-0"



11 A6.21.2 RECESSED LIGHT FIXTURE @ LLRC ENTRANCE
3" = 1'-0"

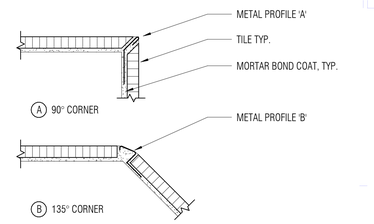


12 A6.21.2 OUTSIDE CORNER @ CEMENT PLASTER - PLAN VIEW
3" = 1'-0"

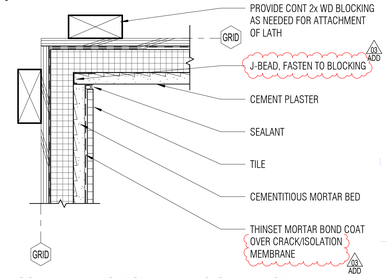


UPDATED INFO: REFER TO SELF ADHERING AIR BARRIER SUBMITTAL - ATTACHED AT END OF SET

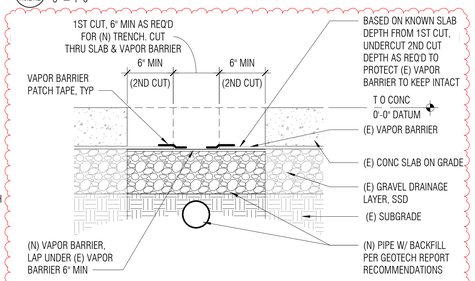
5 A6.21.2 CONTROL JT @ CEMENT PLASTER
6" = 1'-0"



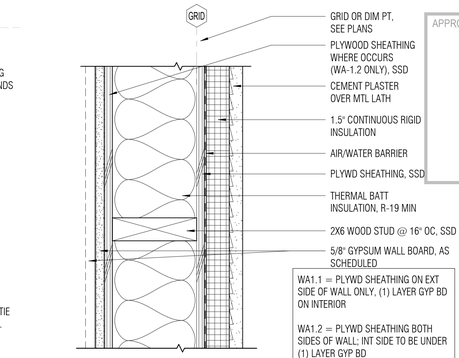
6 A6.21.2 TILE CORNER DETAILS
6" = 1'-0"



7 A6.21.2 INSIDE CORNER TRANSITION @ TILE & CEM PLASTER
3" = 1'-0"



7A A6.21.2 VAPOR BARRIER REPAIR @ (E) SLAB ON GRADE
1 1/2" = 1'-0"
ADD

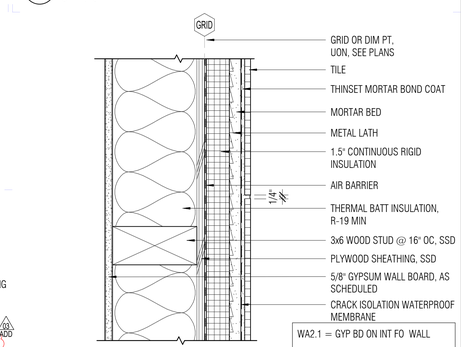


WA1.1 = PLYWD SHEATHING ON EXT SIDE OF WALL ONLY, (1) LAYER GYP BD ON INTERIOR

WA1.2 = PLYWD SHEATHING BOTH SIDES OF WALL; INT SIDE TO BE UNDER (1) LAYER GYP BD

WA1.3 = PLYWD SHEATHING ON EXT SIDE OF WALL ONLY, (2) LAYERS GYP BD ON INT SIDE OF WALL

1 A6.21.2 CEMENT PLASTER O/ CONT INSUL - ASSEMBLY WA1.1/WA1.2
3" = 1'-0"



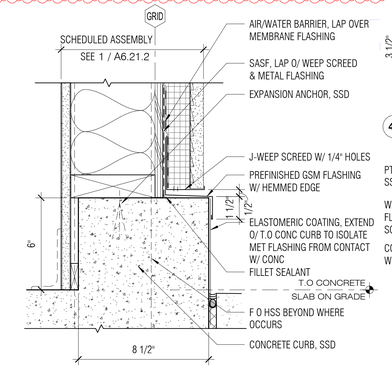
WA2.1 = GYP BD ON INT FO WALL

WA2.2 = NO GYP BD ON INT FO WALL

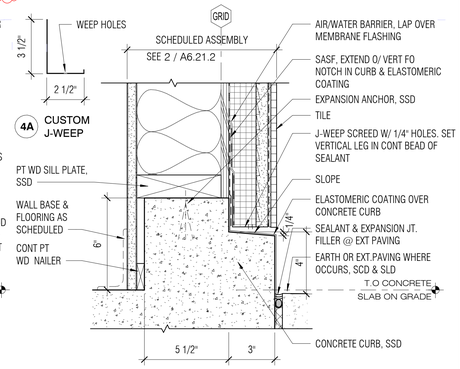
WA2.3 = (2) LAYERS GYP BD ON INT FO WALL

2 A6.21.2 TILE OVER CONT INSUL - ASSEMBLY WA2.1/WA2.2
3" = 1'-0"

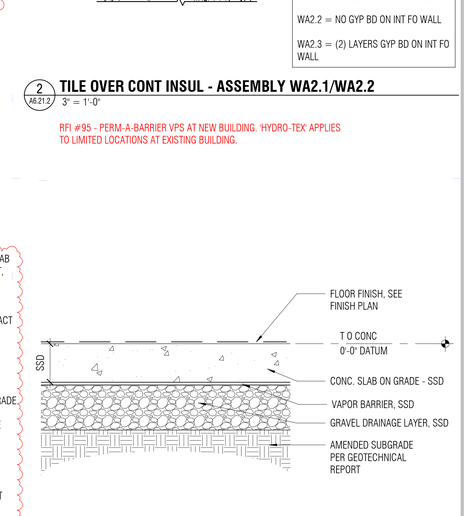
RFI #95 - PERM-A-BARRIER VPS AT NEW BUILDING. 'HYDRO-TEX' APPLIES TO LIMITED LOCATIONS AT EXISTING BUILDING.



8 A6.21.2 CONCRETE CURB @ CEMENT PLASTER EXTERIOR WALL
3" = 1'-0"



4 A6.21.2 CONCRETE CURB @ TILE EXTERIOR WALL
3" = 1'-0"



3 A6.21.2 SLAB ON GRADE - ASSEMBLY FL-1
1 1/2" = 1'-0"

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APPROVALS

ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

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INCREMENT 2

ISSUE DATE	5/30/2019
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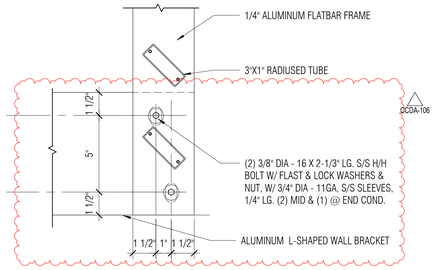
REVISIONS

	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03

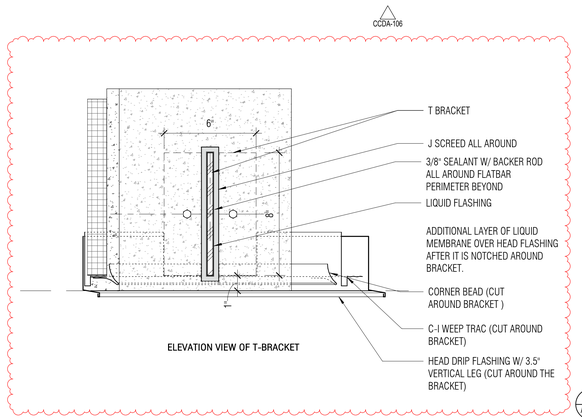
UPDATED INFO: REFER TO SELF ADHERING AIR BARRIER SUBMITTAL - ATTACHED AT END OF SET

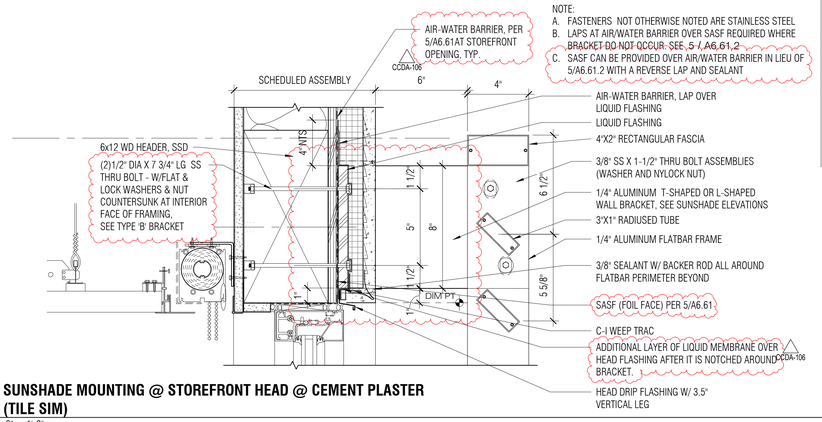
SHEET TITLE
EXTERIOR WALL ASSEMBLIES & DETAILS

SHEET NUMBER
A6.21.2

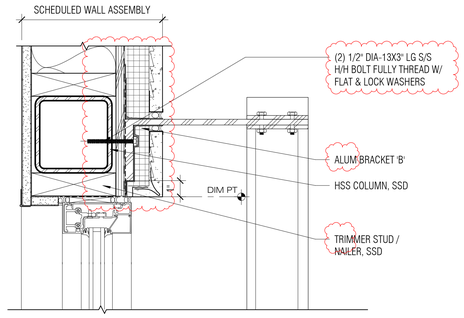


5 A6.22.2 SUNSHADE BOTTOM BRACKET
3" = 1'-0"

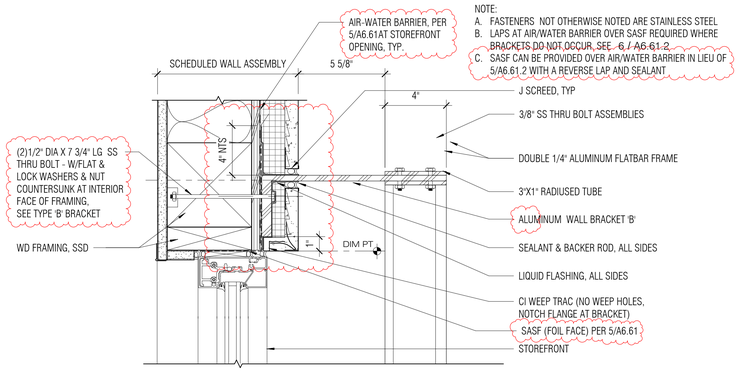




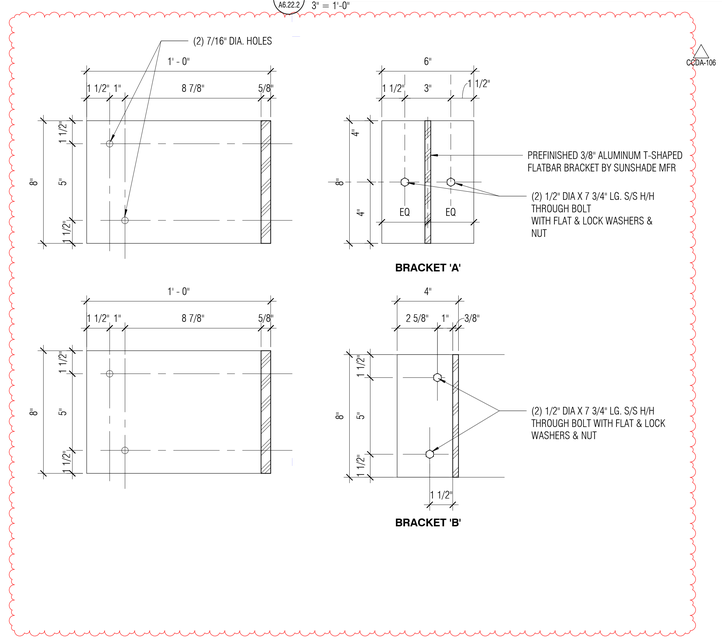
1 A6.22.2 SUNSHADE MOUNTING @ STOREFRONT HEAD @ CEMENT PLASTER (TILE SIM)
3" = 1'-0"



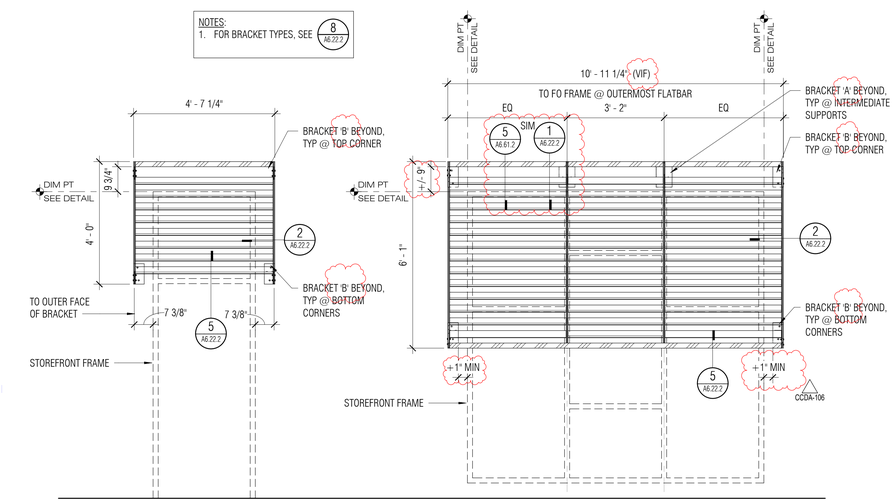
6 A6.22.2 SUNSHADE MOUNTING @ STOREFRONT JAMB @ CEMENT PLASTER & HSS
3" = 1'-0"



2 A6.22.2 SUNSHADE MOUNTING @ STOREFRONT JAMB @ CEMENT PLASTER (TILE SIM)
3" = 1'-0"



8 A6.22.2 SUNSHADE BRACKETS
3" = 1'-0"



SUNSHADE @ STOREFRONT TYPE 'DD'

SUNSHADE @ STOREFRONT TYPE 'AA'

3 A6.22.2 SUNSHADE ELEVATIONS
1/2" = 1'-0"

NOLL & TAM ARCHITECTS
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REVISIONS

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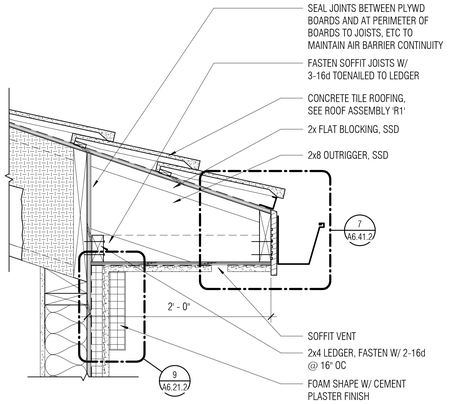
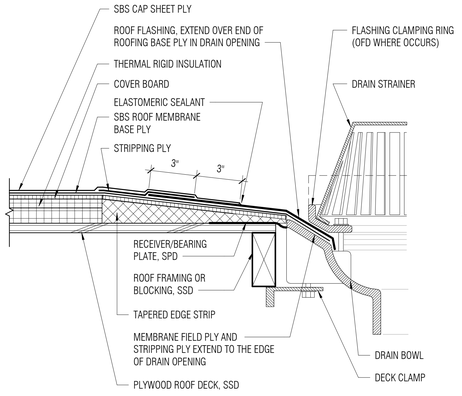
1	7/28/20	INC 2 RFI 117

SHEET TITLE
EXTERIOR SUN CONTROL DEVICES

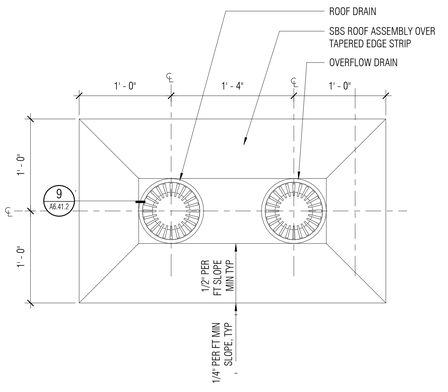
SHEET NUMBER
A6.22.2



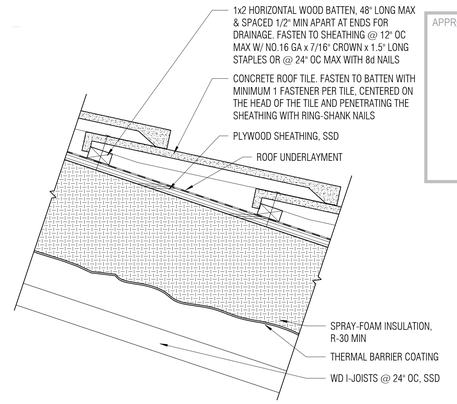
13 A6.41.2 **LLRC EAVE DETAIL**
1 1/2" = 1'-0"



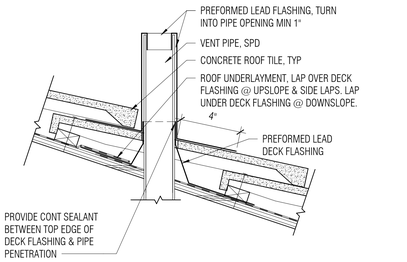
9 A6.41.2 **ROOF DRAIN @ SBS ROOFING AND WOOD DECK**
3" = 1'-0"



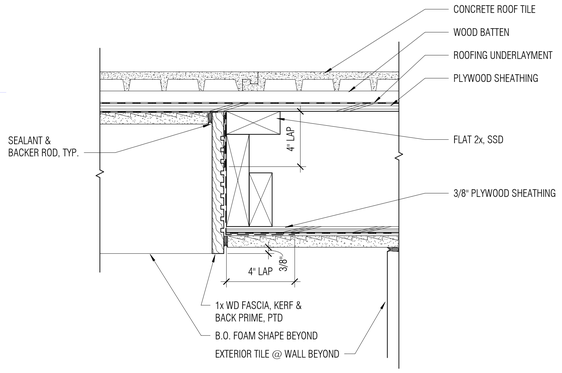
5 A6.41.2 **ROOF DRAIN / OVERFLOW PLAN (SMALL DRAINS)**
1 1/2" = 1'-0"



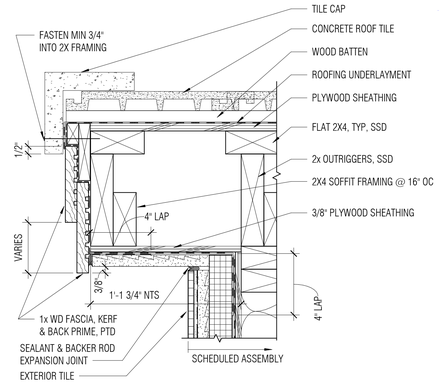
1 A6.41.2 **CONCRETE TILE ROOFING @ NEW LLRC, ASSEMBLY R1**
3" = 1'-0"



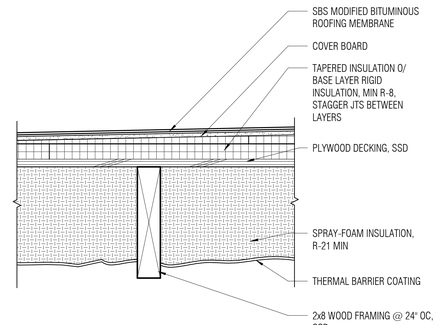
14 A6.41.2 **PIPE PENETRATION @ CONCRETE TILE ROOFING**
3" = 1'-0"



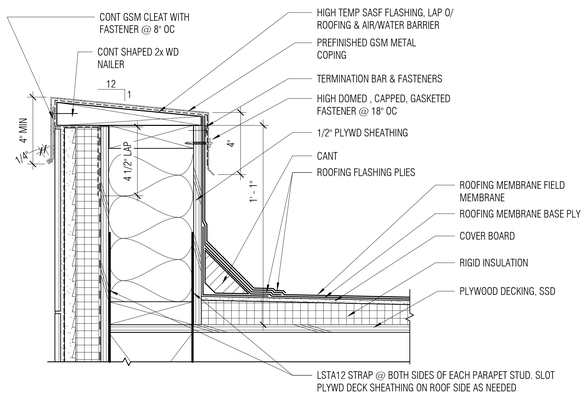
10 A6.41.2 **EAVE @ TILE ROOF RAKE AT SOFFITS**
3" = 1'-0"



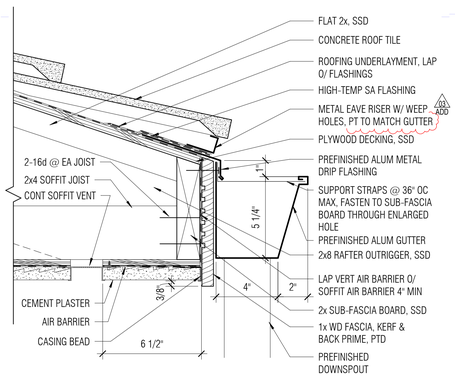
6 A6.41.2 **EAVE @ TILE ROOF RAKE AT LOWER SOFFIT**
3" = 1'-0"



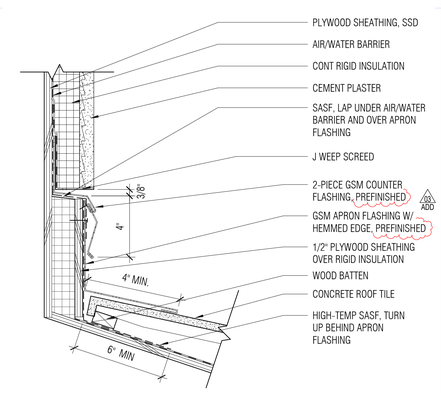
2 A6.41.2 **SBS ROOFING @ NEW LLRC, ASSEMBLY R2**
3" = 1'-0"



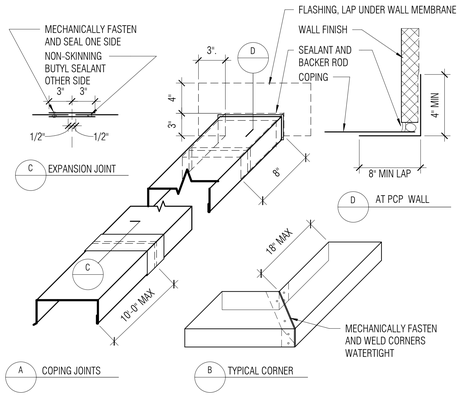
11 A6.41.2 **ROOF EDGE @ LLRC ENTRANCE**
3" = 1'-0"



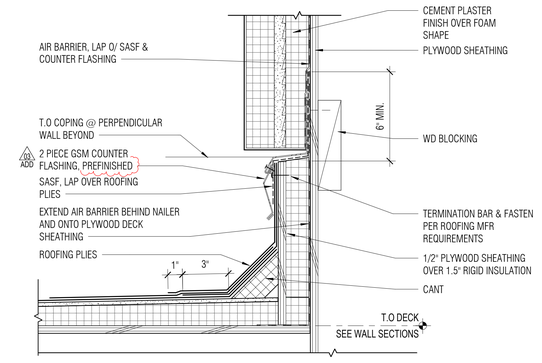
7 A6.41.2 **GUTTER FLASHING @ TILE ROOF**
3" = 1'-0"



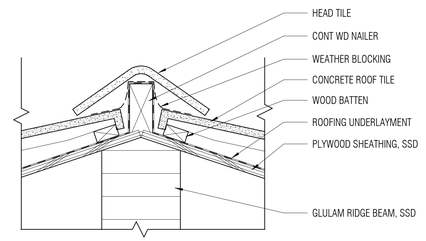
3 A6.41.2 **HEADWALL FLASHING @ TILE ROOF**
3" = 1'-0"



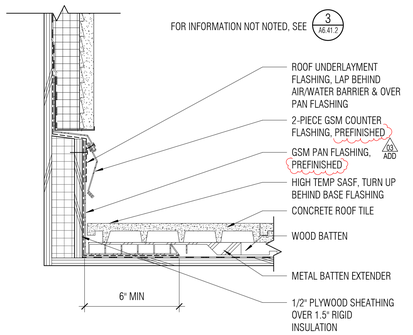
16 A6.41.2 **TYPICAL COPING DETAILS**
1 1/2" = 1'-0"



12 A6.41.2 **WALL TO ROOF @ LLRC ENTRANCE**
3" = 1'-0"



8 A6.41.2 **RIDGE FLASHING @ TILE ROOF (HIP SIM.)**
3" = 1'-0"



4 A6.41.2 **SIDEWALL FLASHING @ TILE ROOF**
3" = 1'-0"

APPROVALS

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ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

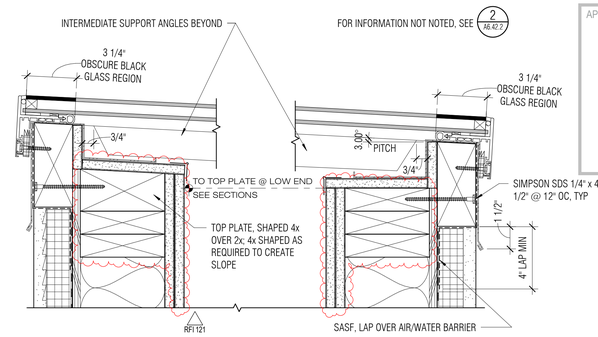
REVISIONS

	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03

SHEET TITLE
EXTERIOR ROOF ASSEMBLIES & DETAILS

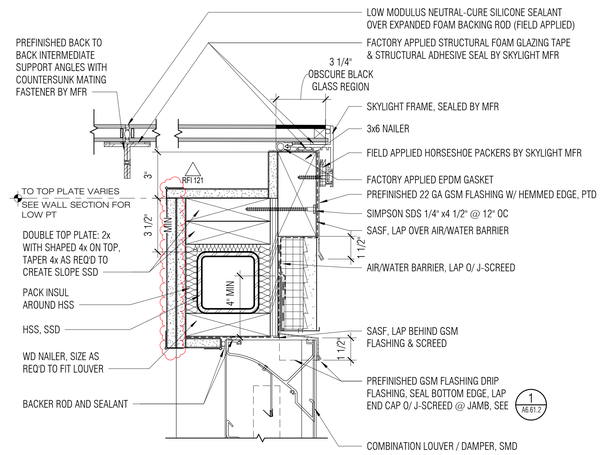
SHEET NUMBER
A6.41.2

RFI#121 - ADD 2ND LAYER OF DRYWALL TO COVER DEEP BOLTS- ADD BLOCKING OVER TOP PLATE



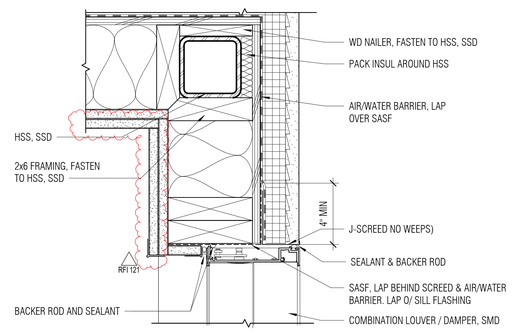
1 / A6.42.2 SKYLIGHT CURB - CROSS SECTION

3" = 1'-0"



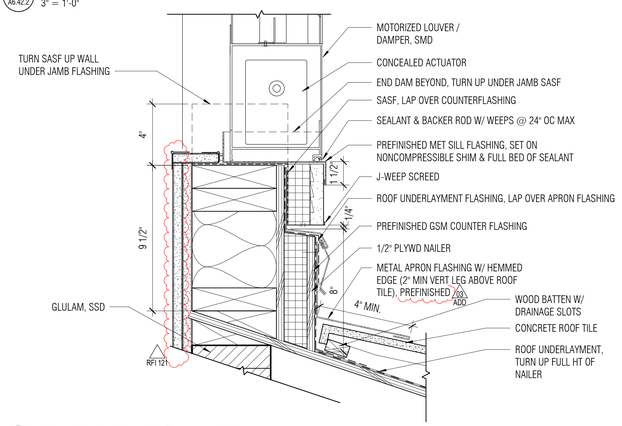
2 / A6.42.2 SKYLIGHT CURB & LOUVER HEAD

3" = 1'-0"



3 / A6.42.2 LOUVER JAMB

3" = 1'-0"



4 / A6.42.2 LOUVER FLASHING @ TILE ROOF

3" = 1'-0"

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INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

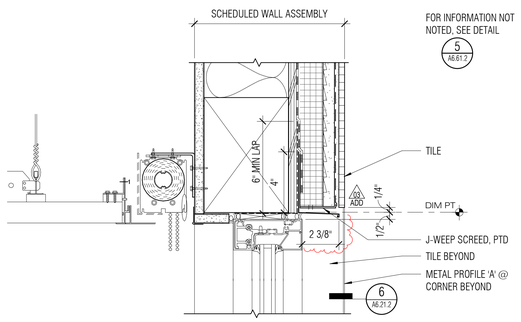
	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03
2	8/20/20	INC2 RFI 121

SHEET TITLE

EXTERIOR ROOF & SKYLIGHT DETAILS

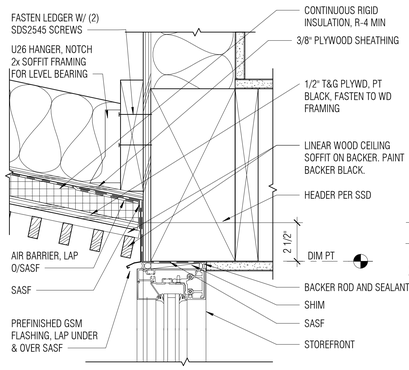
SHEET NUMBER

A6.42.2



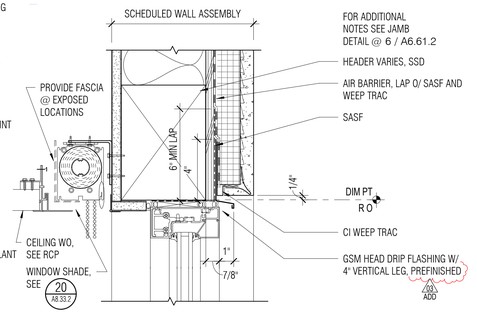
13 A6.61.2 STOREFRONT HEAD @ TILE

3" = 1'-0"



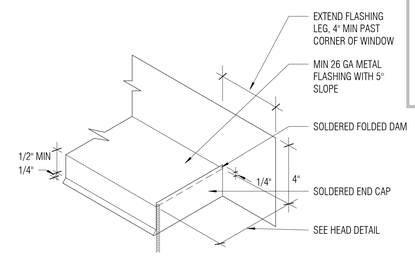
9 A6.61.2 STOREFRONT HEAD @ LLRC ENTRANCE

3" = 1'-0"



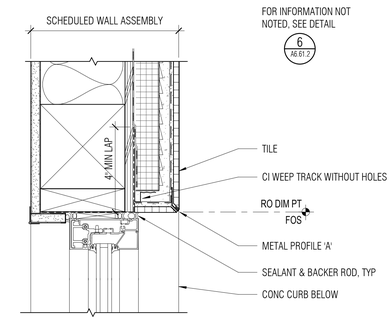
5 A6.61.2 STOREFRONT HEAD @ CEMENT PLASTER

3" = 1'-0"



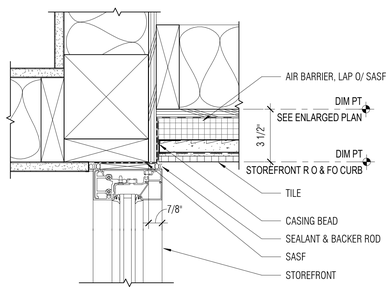
1 A6.61.2 SHEET METAL HEAD FLASHING

3" = 1'-0"



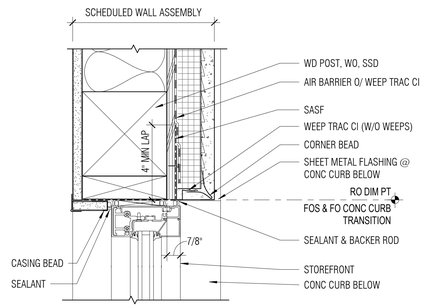
14 A6.61.2 STOREFRONT JAMB @ TILE

3" = 1'-0"



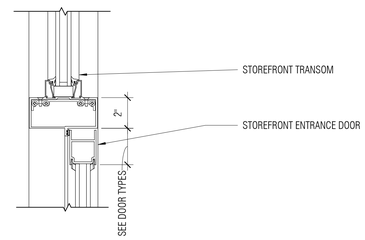
10 A6.61.2 STOREFRONT JAMB @ LLRC ENTRANCE

3" = 1'-0"



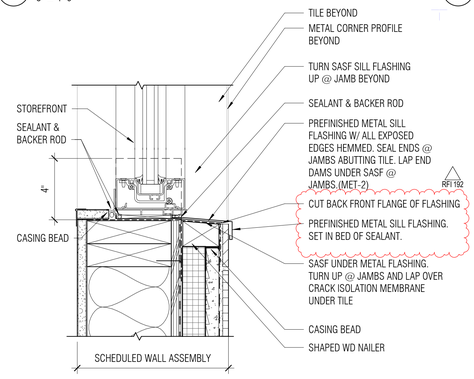
6 A6.61.2 STOREFRONT JAMB @ CEMENT PLASTER

3" = 1'-0"



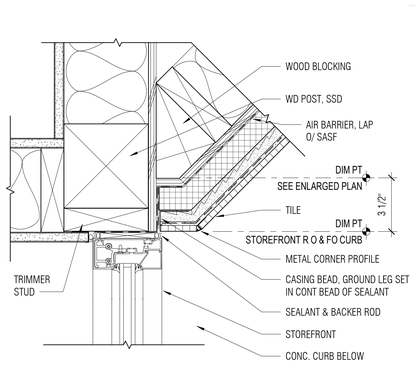
2 A6.61.2 STOREFRONT DOOR HEAD @ TRANSOM

3" = 1'-0"



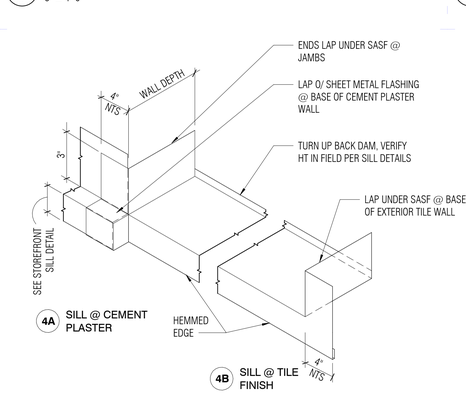
15 A6.61.2 STOREFRONT SILL @ TILE

3" = 1'-0"



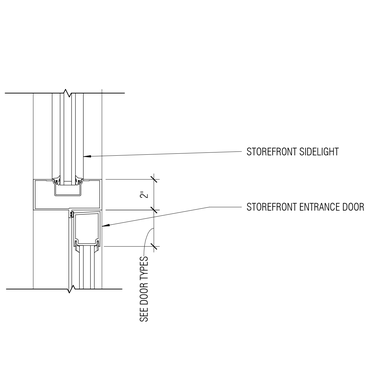
11 A6.61.2 STOREFRONT JAMB @ LLRC ENTRANCE

3" = 1'-0"



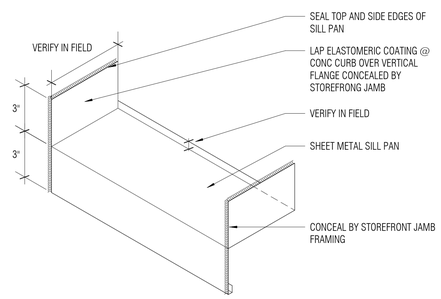
7 A6.61.2 SILL PAN FLASHING @ STOREFRONT

NOT TO SCALE



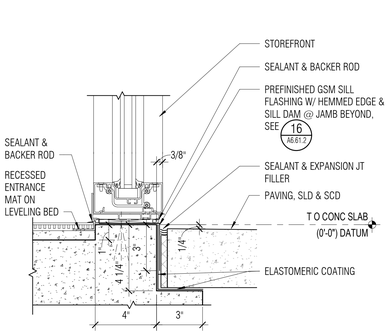
3 A6.61.2 STOREFRONT DOOR JAMB @ SIDELIGHT

3" = 1'-0"



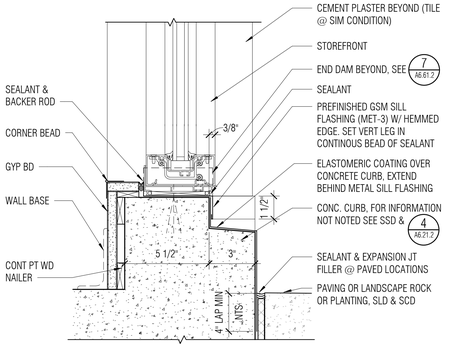
16 A6.61.2 SILL PAN FLASHING ABUTTING CONC CURB

3" = 1'-0"



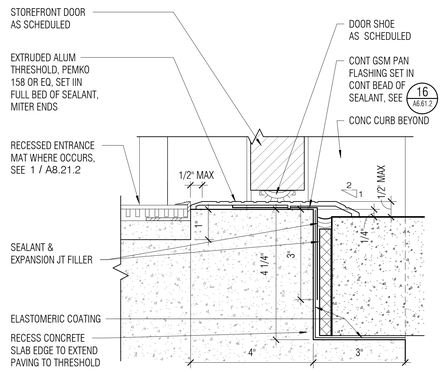
12 A6.61.2 STOREFRONT SILL @ LLRC ENTRANCE

3" = 1'-0"



8 A6.61.2 STOREFRONT SILL @ CURB @ CEMENT PLASTER (TILE SIM)

3" = 1'-0"



4 A6.61.2 EXTERIOR THRESHOLD

6" = 1'-0"

NOLL & TAM ARCHITECTS

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APPROVALS

ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
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REN. 12-31-21
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PROJECT TITLE

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D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

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ISSUE TITLE

INCREMENT 2

ISSUE DATE **5/30/2019**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

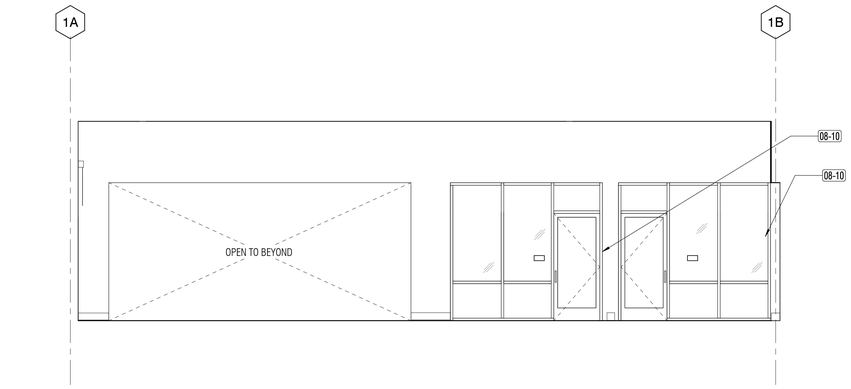
	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03
2	12/2/20	INC2 RFI 192

SHEET TITLE

EXTERIOR STOREFRONT DETAILS

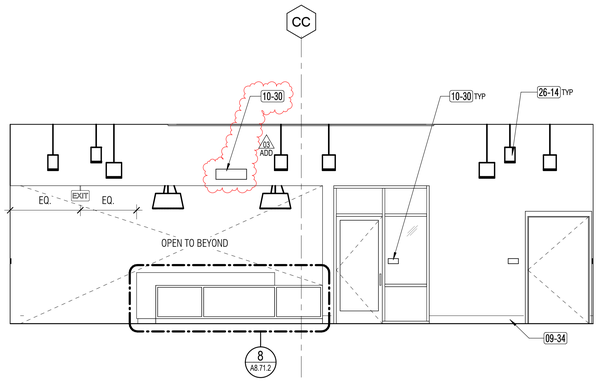
SHEET NUMBER

A6.61.2

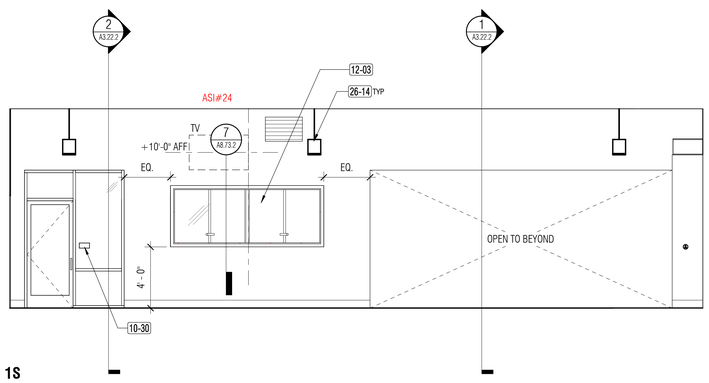


1N

1N INTERIOR ELEVATION - LIBRARY
A7.15.2 1/4" = 1'-0"

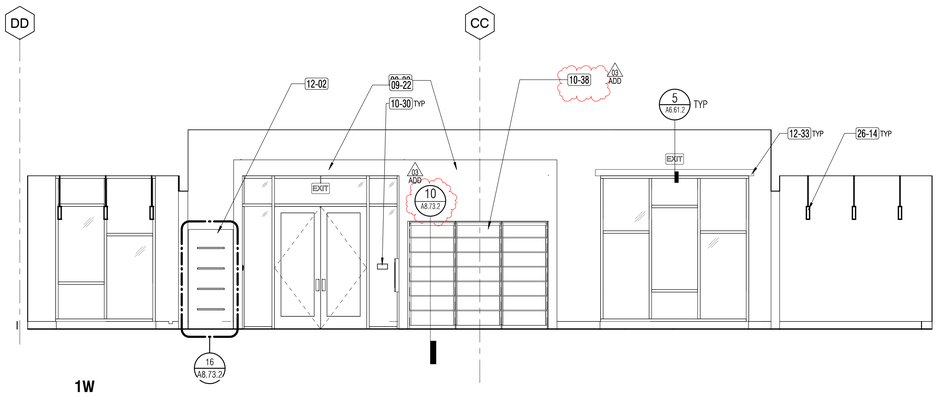


1E

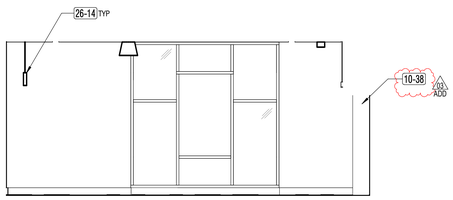


1S

1S INTERIOR ELEVATION - LIBRARY
A7.15.2 1/4" = 1'-0"

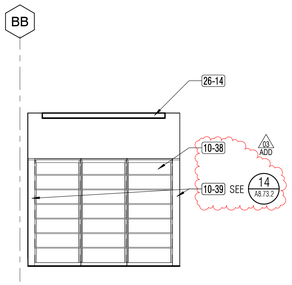


1W

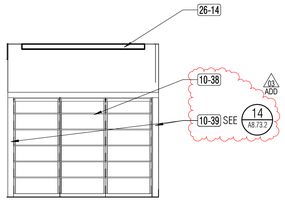


2N

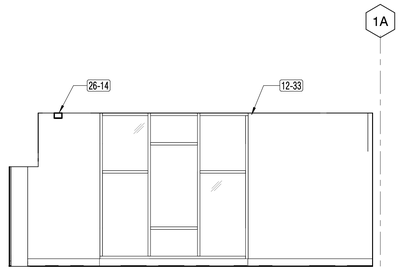
2N INTERIOR ELEVATION - N. LIBRARY ALCOVE
A7.15.2 1/4" = 1'-0"



2E



3E



3S

3E INTERIOR ELEVATION - S. LIBRARY ALCOVE
A7.15.2 1/4" = 1'-0"

SHEET NOTES

1. REFER TO ELECTRICAL, FIRE SPRINKLER, FIRE ALARM, & TECH DRAWINGS FOR MORE INFORMATION AND LOCATIONS OF SWITCHES, RECEPTACLES, DATA OUTLETS AND DEVICES, ETC.
2. SEE ACCESSIBILITY DETAILS ON G3.21.0 & ELECTRICAL AND TECH DRAWINGS FOR MOUNTING HEIGHTS INCLUDING BUT NOT LIMITED TO LIGHT SWITCHES, ELECTRICAL RECEPTACLES & DATA OUTLETS, FEC, ACCESSORIES, & EQUIPMENT WITH OPERABLE PARTS, ETC.
3. REFER TO FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION ON CASEWORK.
4. REFER TO INTERIOR FINISH SCHEDULE FOR FLOOR, WALL AND CEILING FINISHES.
5. ADD WHERE LIBRARY BOOK STACKS EXCEED 54" HEIGHT, AN ATTENDANT WILL BE AVAILABLE TO ASSIST DISABLED LIBRARY PATRONS. CBC 11B-225.2.3

KEY NOTES

Key Value	Keynote Text
08-10	(N) STOREFRONT
09-22	GYPSUM BOARD OVER FRAMED ENTRY OPENING AND SOFFIT
09-34	(N) WALL BASE AS SCHEDULED
10-30	SIGN AS SCHEDULED
10-38	LIBRARY BOOK SHELVING, 36" WIDE x 84" HIGH x 12" DEEP EA. QUANTITY AS SHOWN.
10-39	PLASTIC LAMINATE FILLER STRIP TO MATCH SHELVING END CAP
12-02	NEWSPAPER RACK
12-03	NEW GLASS DISPLAY CASE
12-33	NEW MANUAL WINDOW SHADES WITH FASCIA
26-14	LIGHT FIXTURE AS SCHEDULED, SED

ASI #24 PROVIDE PROPOSED RELOCATION OF POWER AND DATA RECEPTACLES TO ACCOMODATE THE LOCATION OF PROPOSED TV MONITOR, AS FURNISHED BY THE DISTRICT, ABOVE THE 10'X4' GLASS DISPLAY CASE. CONFIRM FINAL SIZE OF TV

APPROVALS

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ISSUE TITLE
INCREMENT 2

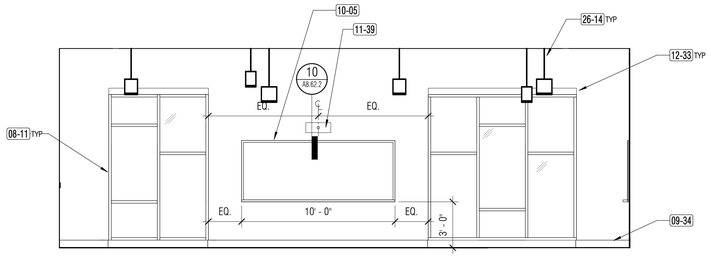
ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

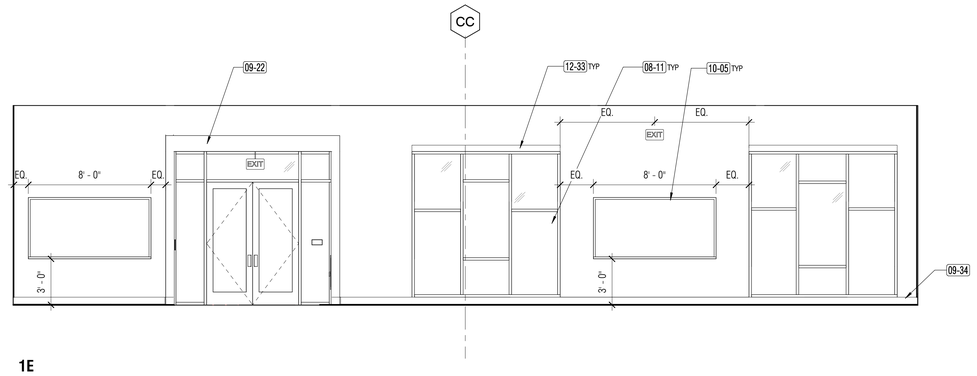
REVISIONS

	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03
	10/15/19	INC 2 - ADDENDUM 03 REV

SHEET TITLE
INTERIOR ELEVATIONS - LIBRARY LEARNING RESOURCE CENTER

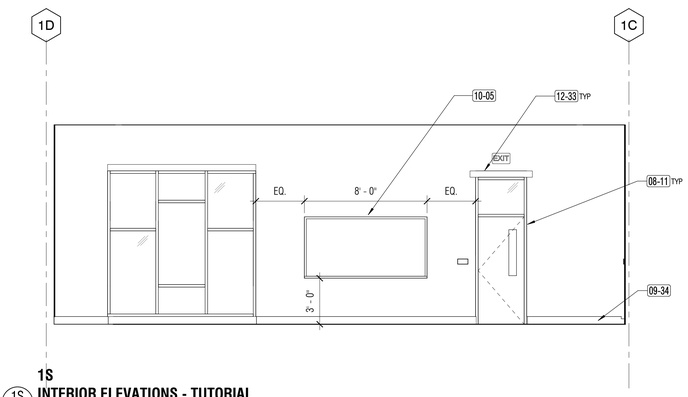
SHEET NUMBER
A7.15.2

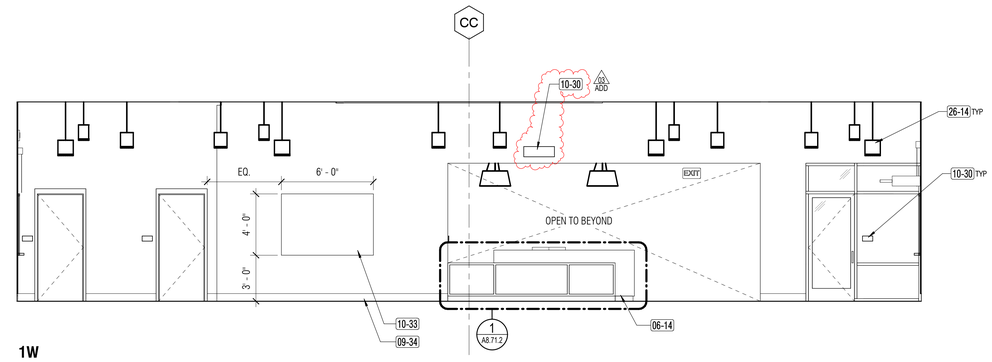




1N
INTERIOR ELEVATIONS - TUTORIAL
1N / A7.16.2 — 1/4" = 1'-0"

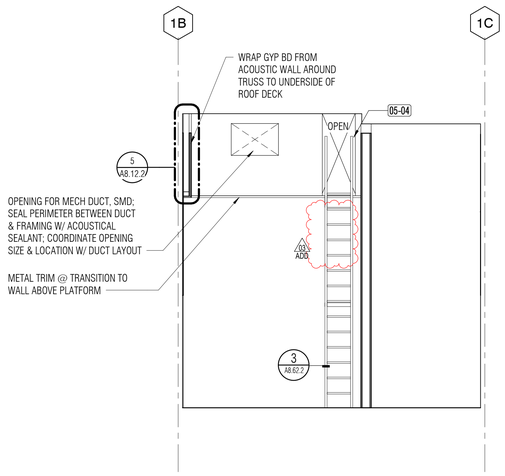
1E

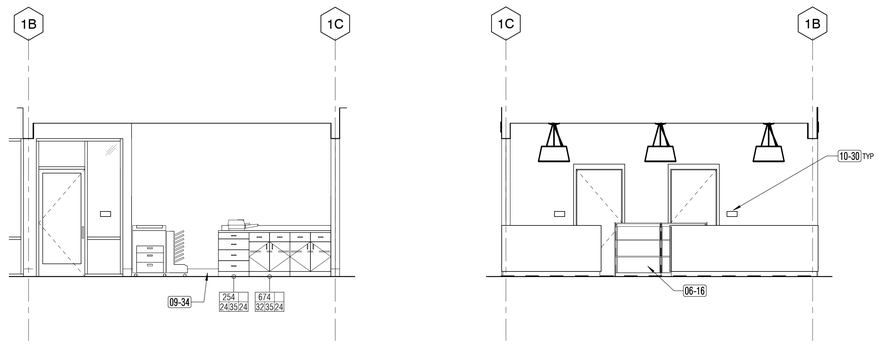




1S
INTERIOR ELEVATIONS - TUTORIAL
1S / A7.16.2 — 1/4" = 1'-0"

1W





1
MECHANICAL ROOM NORTH ELEVATION
A7.16.2 — 1/4" = 1'-0"

2N
INTERIOR ELEVATION - HALLWAY
2N / A7.16.2 — 1/4" = 1'-0"

2S

SHEET NOTES

1. REFER TO ELECTRICAL, FIRE SPRINKLER, FIRE ALARM, & TECH DRAWINGS FOR MORE INFORMATION AND LOCATIONS OF SWITCHES, RECEPTACLES, DATA OUTLETS AND DEVICES, ETC.
2. SEE ACCESSIBILITY DETAILS ON G3.21.0 & ELECTRICAL AND TECH DRAWINGS FOR MOUNTING HEIGHTS INCLUDING BUT NOT LIMITED TO LIGHT SWITCHES, ELECTRICAL RECEPTACLES & DATA OUTLETS, FEC, ACCESSORIES, & EQUIPMENT WITH OPERABLE PARTS, ETC.
3. REFER TO FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION ON CASEWORK.
4. REFER TO INTERIOR FINISH SCHEDULE FOR FLOOR, WALL AND CEILING FINISHES.

KEY NOTES

Key Value	Keynote Text
05-04	METAL ACCESS LADDER
06-14	RECEPTION DESK WITH SOLID SURFACE TOP, WOOD VENEER BASE CABINETS, WOOD TRIM, AND RESIN PANELS
06-16	42" HIGH WOOD SHELVING UNIT FOR RESERVES COLLECTION, WITH ADJUSTABLE SHELVES
08-11	STOREFRONT
09-22	GYPSUM BOARD OVER FRAMED ENTRY OPENING AND SOFFIT
09-34	(N) WALL BASE AS SCHEDULED
10-05	MARKERBOARD
10-30	SIGN AS SCHEDULED
10-33	BULLETIN BOARD
11-39	SHORT THROW PROJECTOR & MOUNT, OFCI.
12-33	NEW MANUAL WINDOW SHADES WITH FASCIA
26-14	LIGHT FIXTURE AS SCHEDULED, SED

03 ADD

APPROVALS

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ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

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ISSUE TITLE

INCREMENT 2

ISSUE DATE **5/30/2019**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

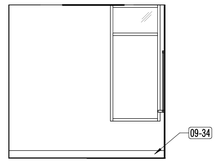
△	DATE	DESCRIPTION
	8/27/19	INC 2 - ADDENDUM 03

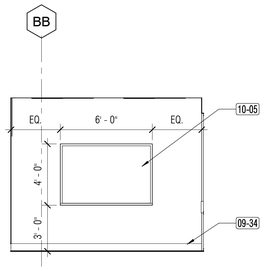
SHEET TITLE

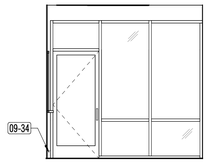
INTERIOR ELEVATIONS - LIBRARY LEARNING RESOURCE CENTER

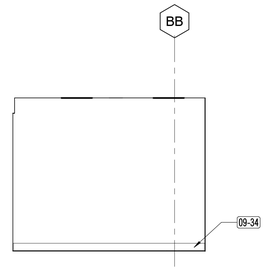
SHEET NUMBER

A7.16.2





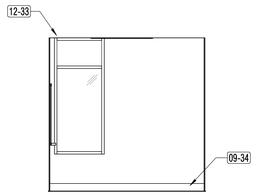


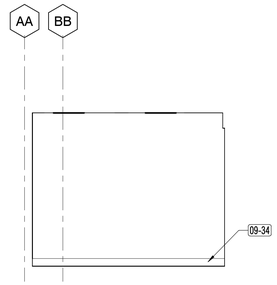


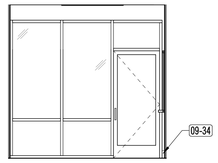
1N **1E** **1S** **1W**

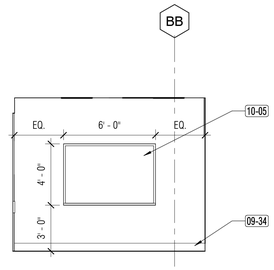
1N A7.17.2 **INTERIOR ELEVATION - STUDY ROOM 03**

1/4" = 1'-0"





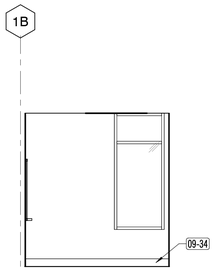


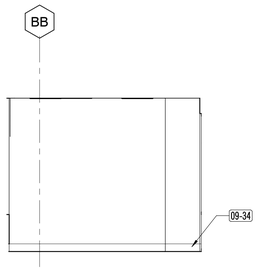


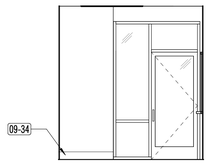
2N **2E** **2S** **2W**

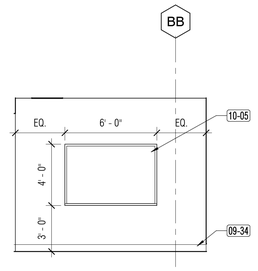
2N A7.17.2 **INTERIOR ELEVATION - STUDY ROOM 04**

1/4" = 1'-0"





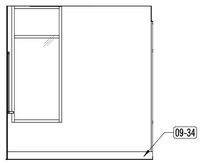


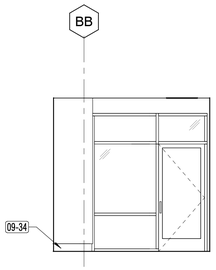


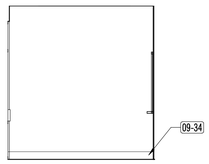
3N **3E** **3S** **3W**

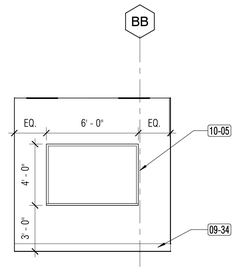
3N A7.17.2 **INTERIOR ELEVATION - STUDY ROOM 05**

1/4" = 1'-0"









4N **4E** **4S** **4W**

4N A7.17.2 **INTERIOR ELEVATION - STUDY ROOM 06**

1/4" = 1'-0"

SHEET NOTES

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4. REFER TO INTERIOR FINISH SCHEDULE FOR FLOOR, WALL AND CEILING FINISHES.

KEY NOTES

Key Value	Keynote Text
09-34	(N) WALL BASE AS SCHEDULED
10-05	MARKERBOARD
12-33	NEW MANUAL WINDOW SHADES WITH FASCIA

APPROVALS

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ARCHITECTS SEAL

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CHRISTOPHER NOLL
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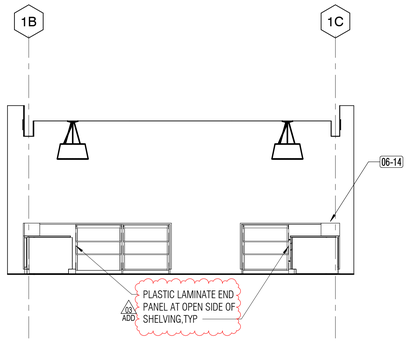
ISSUE TITLE
INCREMENT 2

ISSUE DATE: **5/30/2019**
NOLL & TAM JOB NUMBER: **21630**

REVISIONS
| | DATE | DESCRIPTION |

SHEET TITLE
INTERIOR ELEVATIONS - LIBRARY LEARNING RESOURCE CENTER

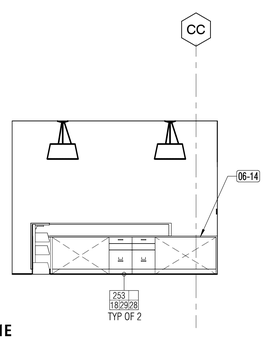
SHEET NUMBER
A7.17.2



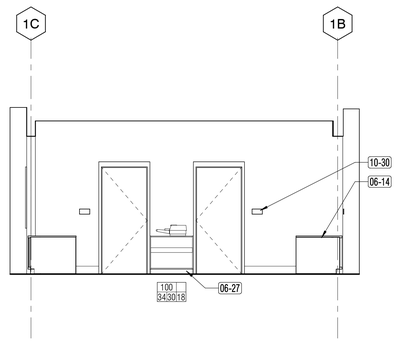
1N

1N A7.18.2 **INTERIOR ELEVATION - RECEPTION**

1/4" = 1'-0"



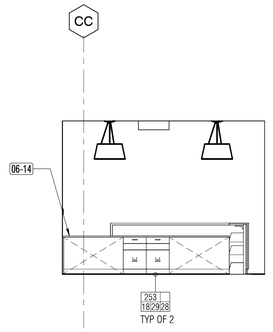
1E



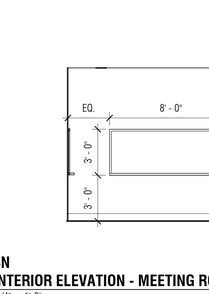
1S

1S A7.18.2 **INTERIOR ELEVATION - RECEPTION**

1/4" = 1'-0"



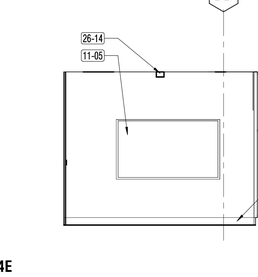
1W



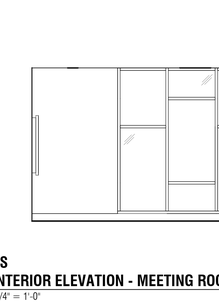
2N

2N A7.18.2 **INTERIOR ELEVATION - LIBRARY OFFICE**

1/4" = 1'-0"



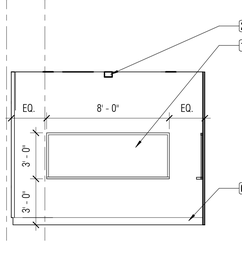
2E



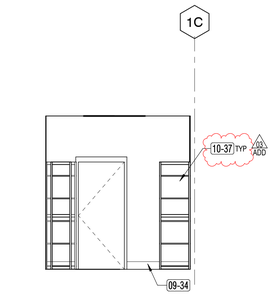
2S

2S A7.18.2 **INTERIOR ELEVATION - LIBRARY OFFICE**

1/4" = 1'-0"



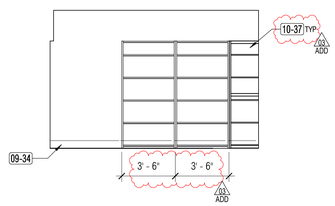
2W



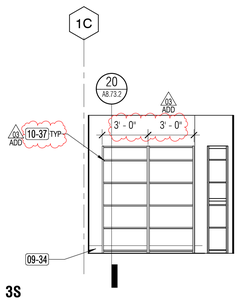
3N

3N A7.18.2 **INTERIOR ELEVATION - STORAGE**

1/4" = 1'-0"



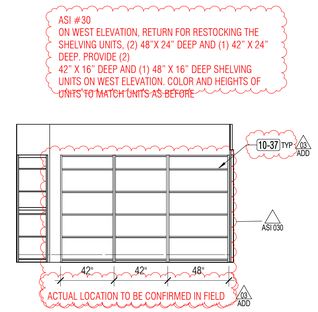
3E



3S

3S A7.18.2 **INTERIOR ELEVATION - STORAGE**

1/4" = 1'-0"



3W

4N

4N A7.18.2 **INTERIOR ELEVATION - MEETING ROOM**

1/4" = 1'-0"

4E

4S

4S A7.18.2 **INTERIOR ELEVATION - MEETING ROOM SOUTH**

1/4" = 1'-0"

4W

SHEET NOTES

1. REFER TO ELECTRICAL, FIRE SPRINKLER, FIRE ALARM, & TECH DRAWINGS FOR MORE INFORMATION AND LOCATIONS OF SWITCHES, RECEPTACLES, DATA OUTLETS AND DEVICES, ETC.
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KEY NOTES

Key Value	Keynote Text
06-14	RECEPTION DESK WITH SOLID SURFACE TOP, WOOD VENEER BASE CABINETS, WOOD TRIM, AND RESIN PANELS
06-27	36" HIGH OPEN WOOD SHELVING
09-34	(N) WALL BASE AS SCHEDULED
10-05	MARKERBOARD
10-30	SIGN AS SCHEDULED
10-37 (03 ADD)	NEW HEAVY DUTY METAL STORAGE SHELVING 24" DEEP AND 84" HIGH, WIDTH VARIES.
11-05	WALL MOUNTED FLAT SCREEN TV, WITH LAPTOP COMPUTER INTERFACE - POWER & DATA, STED
12-33	NEW MANUAL WINDOW SHADES WITH FASCIA
26-14	LIGHT FIXTURE AS SCHEDULED, SED

APPROVALS

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ISSUE TITLE

INCREMENT 2

ISSUE DATE **5/30/2019**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

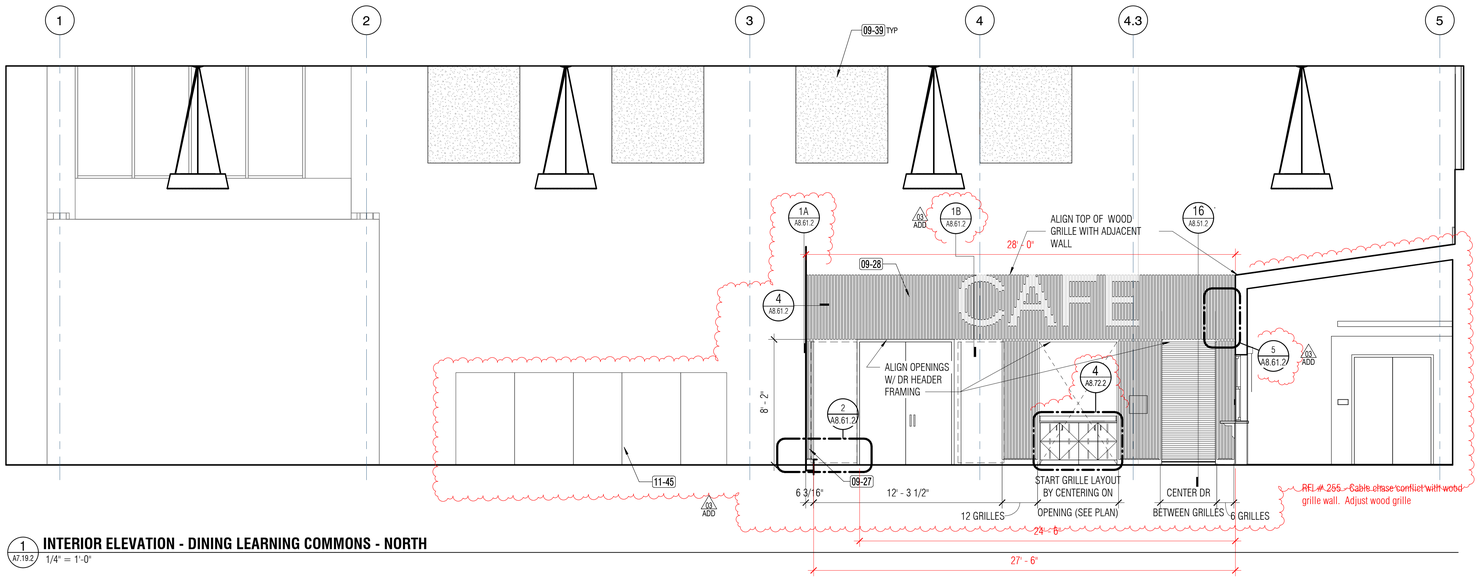
	DATE	DESCRIPTION
2	8/27/19	INC 2 - ADDENDUM 03
	4/20/21	INC2 ASI 030

SHEET TITLE

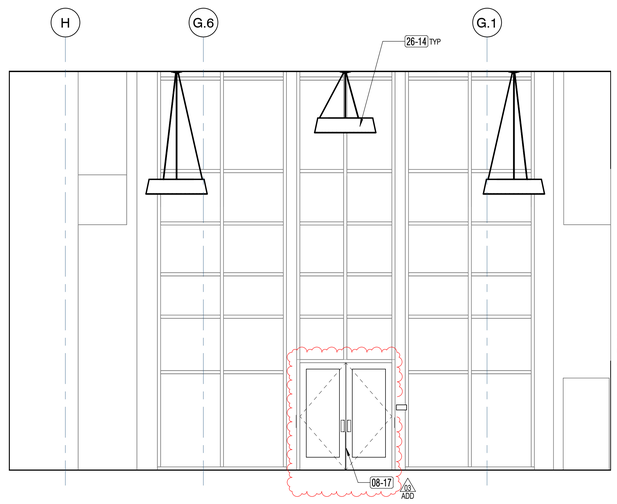
INTERIOR ELEVATIONS - LIBRARY LEARNING RESOURCE CENTER

SHEET NUMBER

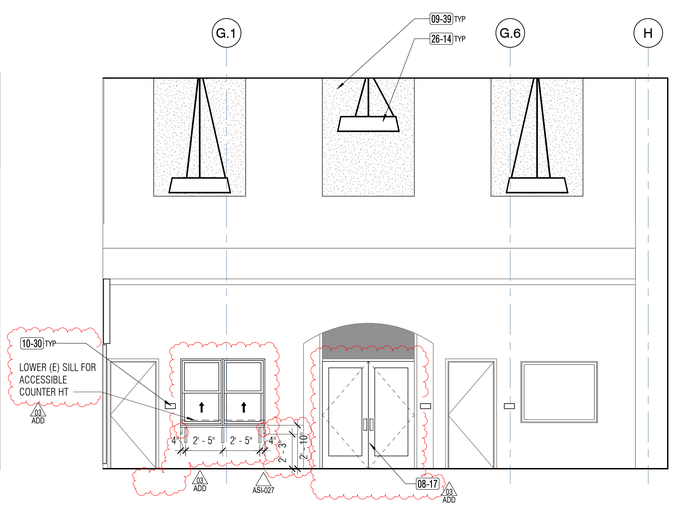
A7.18.2



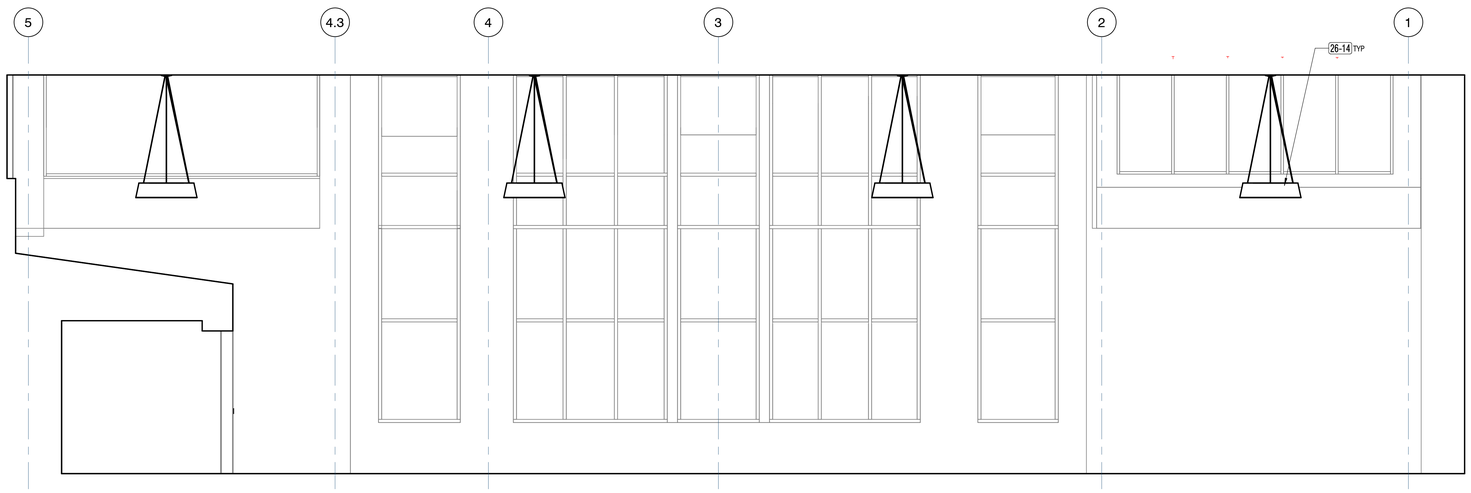
1 A7.19.2 **INTERIOR ELEVATION - DINING LEARNING COMMONS - NORTH**
1/4" = 1'-0"



2 A7.19.2 **INTERIOR ELEVATION - DINING - LEARNING COMMONS - WEST**
1/4" = 1'-0"



3 A7.19.2 **INTERIOR ELEVATION - DINING - LEARNING COMMONS -EAST**
1/4" = 1'-0"



4 A7.19.2 **INTERIOR ELEVATION - DINING - LEARNING COMMONS - SOUTH**
1/4" = 1'-0"

SHEET NOTES

1. REFER TO ELECTRICAL, FIRE SPRINKLER, FIRE ALARM, & TECH DRAWINGS FOR MORE INFORMATION AND LOCATIONS OF SWITCHES, RECEPTACLES, DATA OUTLETS AND DEVICES, ETC.
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KEY NOTES

Key Value	Keynote Text
08-17	(N) STOREFRONT DOOR IN (E) FRAME
09-27	NEW WALL MOUNTED WOOD GRILLE, 1 3/8" x 1 3/8". NO FABRIC.
09-28	NEW WALL MOUNTED WOOD GRILLE, 5 1/4" x 1 3/8". NO FABRIC. AT 'CAFÉ' GRAPHIC REDUCE DEPTH TO FORM LETTERS. SEE DETAILS.
09-39	WALL INFILL AT EXISTING FRAMED OPENING, ALIGN FINISH FACE TO EXISTING ADJACENT
10-30	SIGN AS SCHEDULED
11-45	NEW VENDING MACHINES (OFOI) - BOOKSTORE SUPPLY - DRY GOODS - COFFEE- REFRIGERATED FRESH GOODS, REFERIGERATED BEVERAGES AND MICROWAVE. CONTRACTOR TO PROVIDE (6) 20 AMP POWER AND 1/2" WATER LINE FOR COFFEE MACHINE. 40" MAX TO OPERABLE PARTS. OWNER VENDING INSTALLATION TO REFER TO DET A-22/FS5.1.2 AND B-2/FS5.1.2 FOR ANCHORAGE TO FLOOR AND WALL. BLOCKING TO BE FURNISHED BY CONTRACTOR.
26-14	LIGHT FIXTURE AS SCHEDULED, SED

APPROVALS

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729 Heinz Avenue
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ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

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ISSUE TITLE
INCREMENT 2

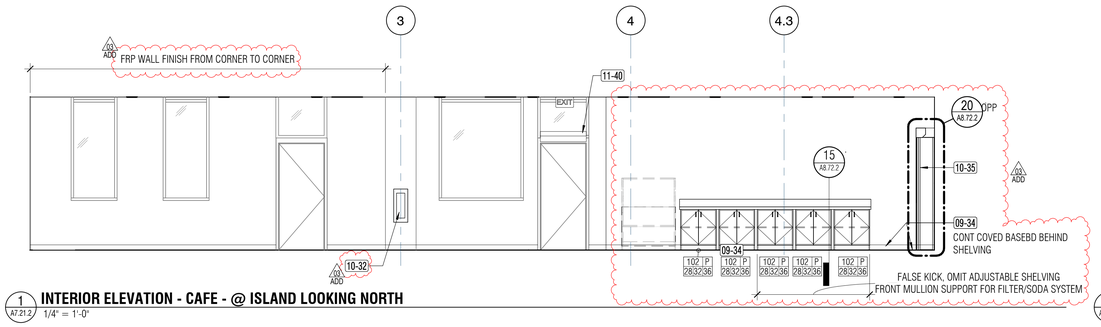
ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

REVISIONS

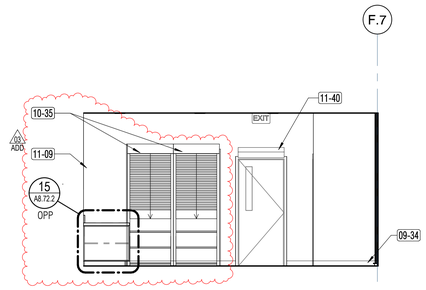
	DATE	DESCRIPTION
	8/27/19	INC 2 - ADDENDUM 03
	10/15/19	INC 2 - ADDENDUM 03 REV
	3/5/21	ASI 027

SHEET TITLE
INTERIOR ELEVATIONS - LEARNING COMMONS

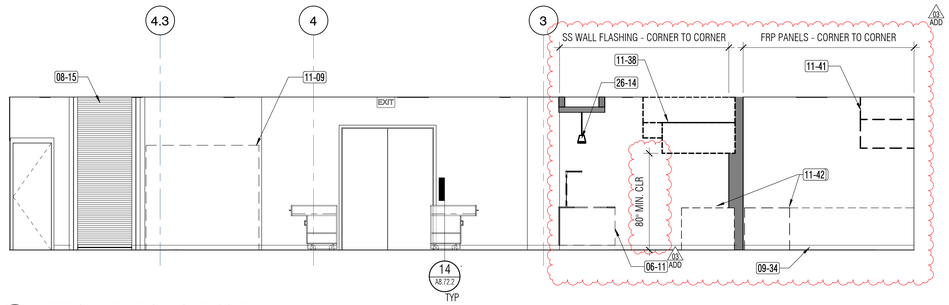
SHEET NUMBER
A7.19.2



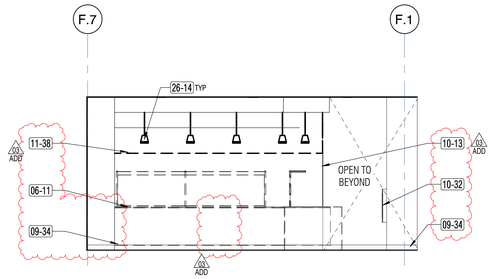
1 A7.21.2 **INTERIOR ELEVATION - CAFE - @ ISLAND LOOKING NORTH**
1/4" = 1'-0"



2 A7.21.2 **INTERIOR ELEVATION - CAFE EAST**
1/4" = 1'-0"



3 A7.21.2 **INTERIOR ELEVATION - CAFE SOUTH**
1/4" = 1'-0"



4 A7.21.2 **INTERIOR ELEVATION - CAFE WEST**
1/4" = 1'-0"

SHEET NOTES

1. REFER TO ELECTRICAL, FIRE SPRINKLER, FIRE ALARM, & TECH DRAWINGS FOR MORE INFORMATION AND LOCATIONS OF SWITCHES, RECEPTACLES, DATA OUTLETS AND DEVICES, ETC.
2. SEE ACCESSIBILITY DETAILS ON G3.21.0 & ELECTRICAL AND TECH DRAWINGS FOR MOUNTING HEIGHTS INCLUDING BUT NOT LIMITED TO LIGHT SWITCHES, ELECTRICAL RECEPTACLES & DATA OUTLETS, FEC, ACCESSORIES, & EQUIPMENT WITH OPERABLE PARTS, ETC.
3. REFER TO FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION ON CASEWORK.
4. REFER TO INTERIOR FINISH SCHEDULE FOR FLOOR, WALL AND CEILING FINISHES.
5. WHERE FRP OCCURS, RETURN FRP INTO OPENINGS TO F.O (E) WINDOW JAMB. COORDINATE PANEL JOINT LAYOUT WITH (E) WINDOW OPENINGS. 03 ADD

KEY NOTES

KEYNOTE LEGEND	
Key Value	Keynote Text
06-11	NEW CUSTOM BUILT SERVERY-PREP CASEWORK - SOLID SURFACE COUNTERTOP, PLASTIC LAMINATE PANELING, CUTOUT IN COUNTERTOP FOR SERVERY DROP IN PANS WHERE OCCURS. SNEEZEGUARD WITH INTEGRAL LIGHTING, HEAT LAMP, POWER, UTILITY CONNECTIONS AS REQUIRED
08-15	MOTORIZED ROLL-UP DOOR - ALUM - FACE MOUNTED GUIDERAILS
09-34	(N) WALL BASE AS SCHEDULED
10-13	CORNER WALL PROTECTION
10-32	(N) SEMI RECESSED FIRE EXTINGUISHER CABINET w/ TYPE K EXTINGUISHER, 6L MIN. LOCATED MAX. 30' FROM COOKING APPLIANCES
10-35	NEW METAL 4-POST SHELVING WITH SECURITY ROLL-DOWN SHUTTER AND END PANELS. 8 SHELVES PER UNIT. EACH UNIT TO BE 36"W x 12"D x 88"H IN QUANTITY SHOWN
11-09	NEW REFRIGERATED DISPLAY FOOD CASE, SED, SPD FOR ELECTRICAL AND PLUMBING REQUIREMENTS. SEE FOOD SERVICE DWGS
11-38	KITCHEN EXHAUST HOOD, SEE FOOD SERVICE DRAWINGS, SMD, SSD. SEE 4/S7.01.2 FOR STRUCTURAL FRAMING FOR MOUNTING OF HOODS
11-40	AIR CURTAIN, SEE FOOD SERVICE DRAWINGS
11-41	DISHWASHER EXHAUST HOOD, SEE FOOD SERVICE DRAWINGS
11-42	FOR FOOD SERVICE EQUIPMENT INFORMATION, SEE FOOD SERVICE DRAWINGS
26-14	LIGHT FIXTURE AS SCHEDULED, SED

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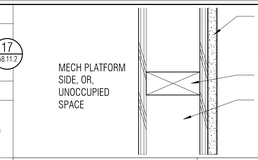
SHEET TITLE
INTERIOR ELEVATIONS - CAFE

SHEET NUMBER
A7.21.2

INT. PARTITION TYPES - WOOD STUD

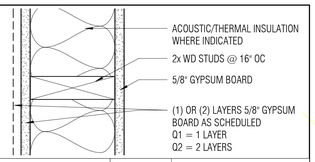
HEAD: 13 A8.11.2, 17 A8.11.2
SILL: 14 A8.11.2



FIRE	NON-RATED	SOUND	N/A

P **INTERIOR PARTITION (PLAN VIEW)**

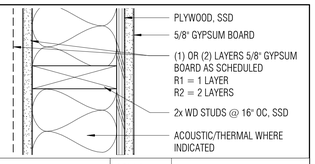
HEAD: 1 A8.12.2, 2 A8.12.2
SILL: 14 A8.11.2



FIRE	NON-RATED	SOUND	N/A

Q **INT. NON-LOADBEARING TYP PARTITION (PLAN VIEW)**

HEAD: 18 A8.11.2, 19 A8.11.2
SILL: 14 A8.11.2



FIRE	NON-RATED	SOUND	

R **INTERIOR SHEAR WALL**

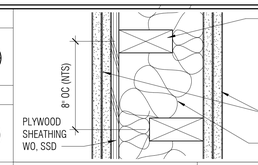
HEAD
SILL

NOT USED

FIRE	NON-RATED	SOUND	

S

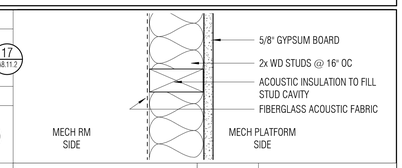
HEAD: 15 A8.11.2
SILL: 14 A8.11.2



FIRE	NON-RATED	SOUND	STC - 52

T **SOUND-RATED PARTITION (PLAN VIEW)**

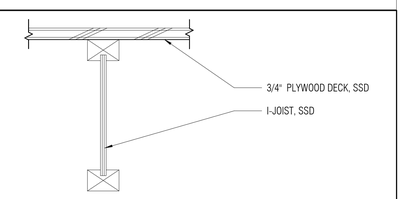
HEAD: 13 A8.11.2, 17 A8.11.2
SILL: 15 A8.11.2



FIRE	NON-RATED	SOUND	

U **INTERIOR NON-LOADBEARING ACOUSTIC PARTITION**

FLOOR TYPES - WOOD

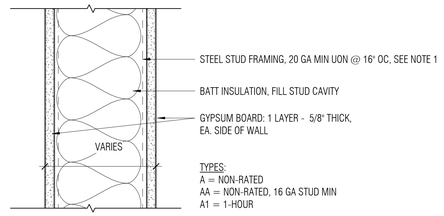


FIRE	NON-RATED	SOUND	-

FL-1 **WOOD FLOOR @ PLATFORM**

INTERIOR PARTITION TYPES - METAL STUD

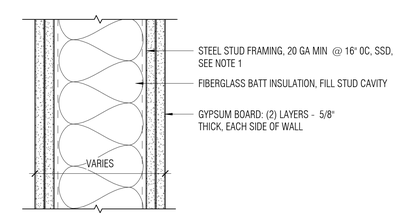
HEAD DETAILS
NON-RATED: 1 A8.11.2
FIRE-RATED: 2 A8.11.2, 3 A8.11.2, 5 A8.11.2
SILL DETAILS: 4 A8.11.2



LISTED ASSEMBLY	RATED WALL ONLY = UL #U419	ACOUSTICAL DATA	STC-40

A INTERIOR NON-BEARING PARTITION

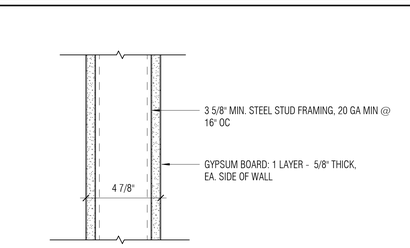
HEAD DETAILS: 1 A8.11.2
SILL DETAILS: 4 A8.11.2



LISTED ASSEMBLY	NON-RATED	ACOUSTICAL DATA	SOUND-RATED ASSEMBLY

C INTERIOR NON-BEARING PARTITION

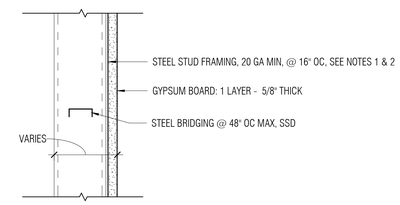
HEAD DETAILS: 1 A8.11.2
SILL DETAILS: 4 A8.11.2



LISTED ASSEMBLY	NON-RATED	ACOUSTICAL DATA	N/A

D INTERIOR NON-BEARING PARTITION

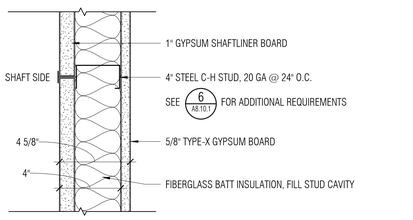
HEAD DETAILS: 1 A8.11.2
SILL DETAILS: 4 A8.11.2



LISTED ASSEMBLY	NON-RATED	ACOUSTICAL DATA	N/A

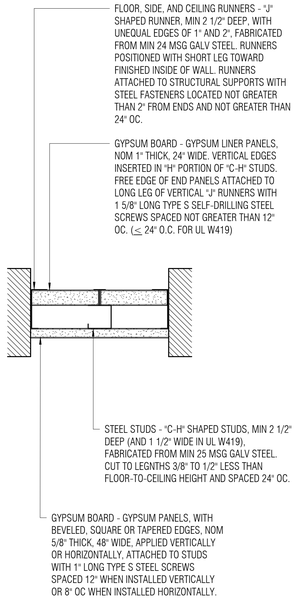
E INTERIOR WALL FURRING

HEAD DETAILS: 5 A8.11.2
SILL DETAILS: 6 A8.11.2



LISTED ASSEMBLY	1 HOUR RATED - UL# U415, W419	ACOUSTICAL DATA	STC-47

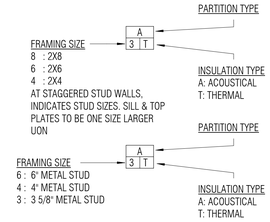
G SHAFT WALL - 1 HOUR FIRE RATED



UL DESIGN NO. U415
(UL W419 SIM. AS NOTED)
NER DESIGN NO. 258
1HR FIRE RATED
ASSEMBLY

1 A8.10.2 **1 HOUR SHAFT WALL**
3" = 1'-0"

PARTITION TYPE PLAN TAG



PARTITION NOTES

1. FOR STEEL FRAMING SIZES NOT NOTED, SEE WALL TAGS ON PLANS
2. FOR PARTITIONS W/ METAL STUDS, GAUGES SHALL BE DETERMINED BY THE INTERIOR WALL STUD SCHEDULE, SSD. AT FIRE RATED PARTITIONS, ALSO SEE SPECIFIED UL LISTING. THE MOST RESTRICTIVE REQUIREMENT GOVERNS.
3. AT WALLS SUPPORTING WALL-HUNG UPPER CABINETS, PROVIDE 16 GA MIN STEEL STUDS WITH A STUD BACKING @ THE CABINET LOCATIONS. PROVIDE BACKING @ ATTACHED EQUIPMENT, CASEWORK, AND ACCESSORIES AS REQUIRED TO SUPPORT WEIGHT. SEE BACKING DETAILS ON SHEET A8.62.2 WOOD FRAMED WALLS, SSD FOR BACKING AT METAL STUD WALLS.
4. REFER TO STRUCTURAL DRAWINGS FOR TYPICAL BEARING WALL WOOD FRAMING AND SHEAR WALL DETAILS AND SCHEDULES.
5. REFER TO SHEET A8.13.2 FOR TYPICAL NON-LOADBEARING WOOD PARTITION FRAMING DETAILS.
6. ALL GYP BOARD TO BE 5/8" TYPE X UON. WATER-RESISTIVE GYP BOARD SHALL BE USED AT WALLS WITH PLUMBING FIXTURES.
7. WHERE WALL TILE IS INDICATED, PROVIDE WATER RESISTIVE GYPSUM BOARD WITH LEVEL 2 FINISH AS DEFINED IN THE SPECIFICATIONS.
8. WHERE PARTITIONS DO NOT EXTEND TO UNDERSIDE OF THE STRUCTURE AND WHERE CEILING HEIGHTS DIFFER IN ADJOINING ROOMS, EXTEND PARTITION APPROX 6" MINIMUM ABOVE THE HIGHER CEILING OR AS NOTED ON PLANS.
9. PARTITIONS REQUIRED TO PROVIDE FIRE RATED SEPARATION BETWEEN ROOMS OR SPACES SHALL EXTEND TO UNDERSIDE OF THE STRUCTURE ABOVE. ALL PENETRATIONS THROUGH THE PARTITION SHALL BE PROTECTED.
10. PENETRATIONS THROUGH ACOUSTIC PARTITIONS SHALL BE ISOLATED FROM PENTRATING OBJECT AND SEALED WITH ACOUSTIC SEALANT.
11. WHERE A NON-SHEAR WALL IS IN LINE WITH A SHEAR WALL, PROVIDE ADDITIONAL LAYER OF GYPSUM BOARD OR PLYWOOD AS REQUIRED TO MATCH THICKNESS OF SHEAR WALL PLYWOOD TO FLUSH OUT SURFACE OF WALL. DO SAME AT ANY TRANSITION BETWEEN ADJACENT IN-LINE WALLS OF DIFFERENT TYPES WHEN WALLS HAVE DIFFERING LAYERS OF GYPSUM BOARD.
12. REFER TO A8.11.2 FOR PARTITION DETAILS.

APPROVALS

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ISSUE TITLE
INCREMENT 2

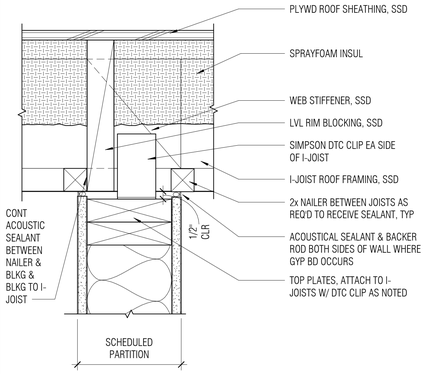
ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION

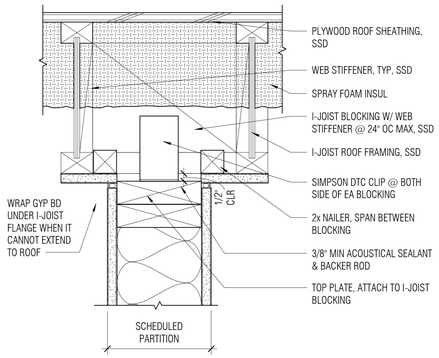
SHEET TITLE
INTERIOR- PARTITION & FLOOR TYPES

SHEET NUMBER
A8.10.2



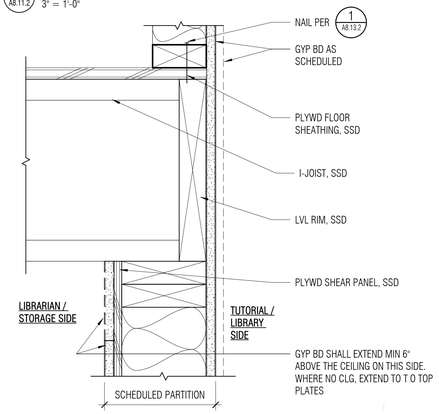
17 A8.11.2 TOP OF NON-BEARING WD PARTITION PERPENDICULAR TO ROOF FRAMING

3" = 1'-0"



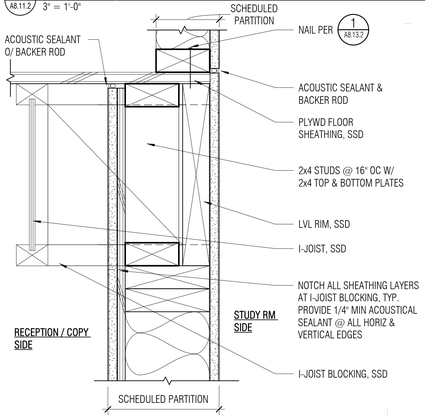
13 A8.11.2 TOP OF NON-BEARING WD PARTITION PARALLEL TO ROOF FRAMING

3" = 1'-0"



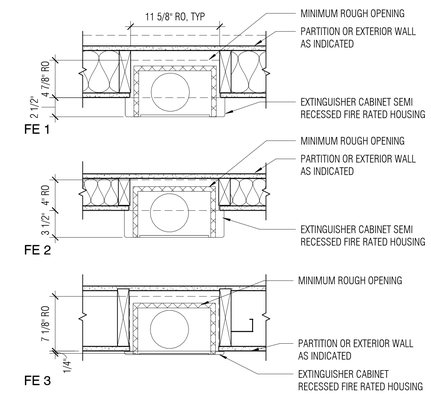
18 A8.11.2 TYP WALL @ PLATFORM EDGE - PERPENDICULAR TO FRAMING

3" = 1'-0"



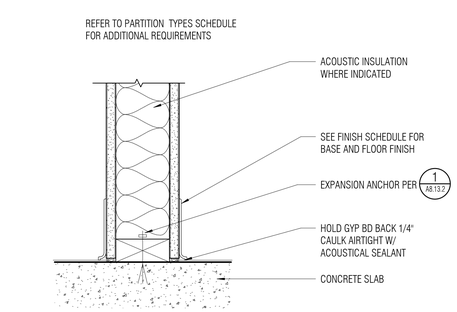
19 A8.11.2 TYPICAL WALL @ PLATFORM EDGE - PARALLEL TO FRAMING

3" = 1'-0"



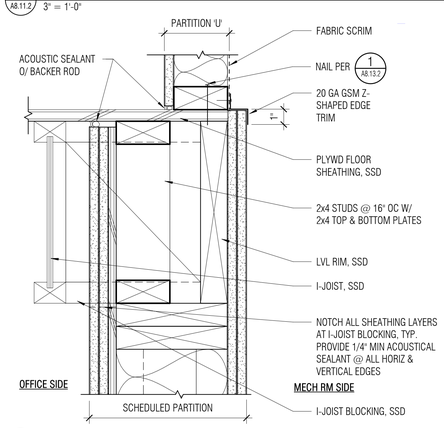
20 A8.11.2 FIRE EXTINGUISHER CABINET DSA - WOOD STUD

1 1/2" = 1'-0"



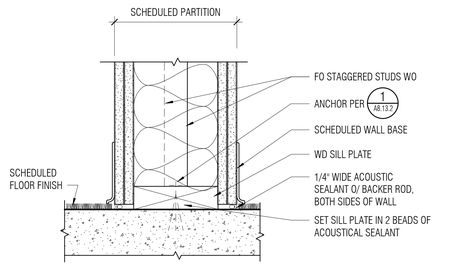
14 A8.11.2 NON-BEARING PARTITION SILL PLATE

3" = 1'-0"



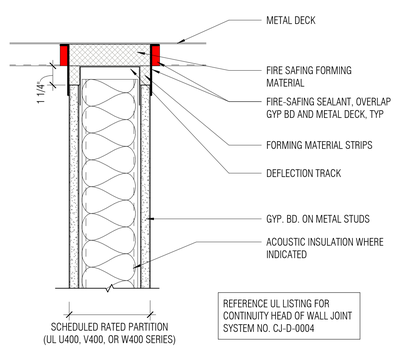
15 A8.11.2 ACOUSTIC WALL @ PLATFORM EDGE @ MECHANIC

3" = 1'-0"



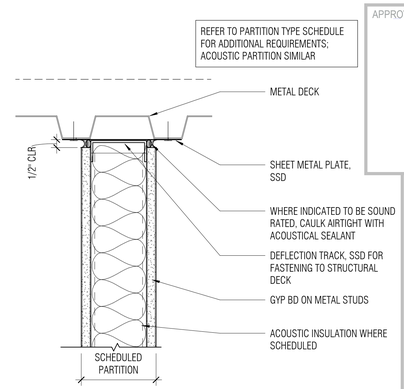
16 A8.11.2 BASE OF ACOUSTIC PARTITION

3" = 1'-0"



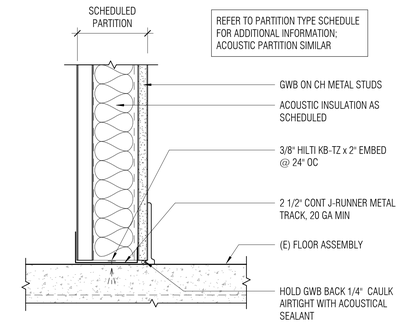
5 A8.11.2 RATED PARTITION TO UNRATED ROOF W/ TOP TRACK PERPENDICULAR TO FLUTES

3" = 1'-0"



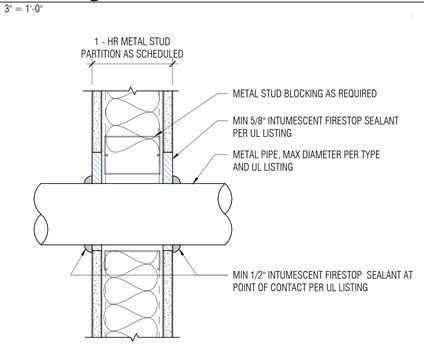
1 A8.11.2 NON-RATED TOP TRACK PARALLEL TO FLUTES

3" = 1'-0"



6 A8.11.2 SHAFT WALL @ BOTTOM

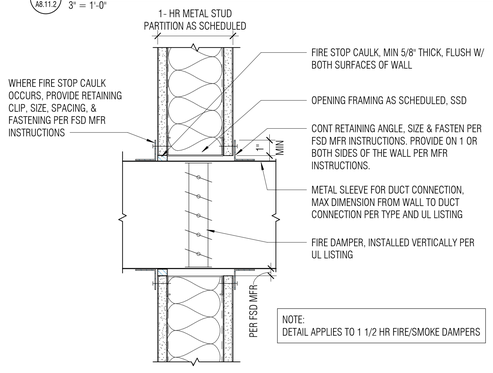
3" = 1'-0"



UL SYSTEM NO. W-L-1054: METAL PIPE THROUGH 1-HR GYPSUM WALL ASSEMBLY
FOR INSULATED METAL PIPE PROVIDE UL SYSTEM NO. W-L-5028
FOR FLEXIBLE METAL-CLAD CABLE PROVIDE UL SYSTEM NO. W-L-3083

7 A8.11.2 PIPE PENETRATION AT FIRE RATED PARTITION

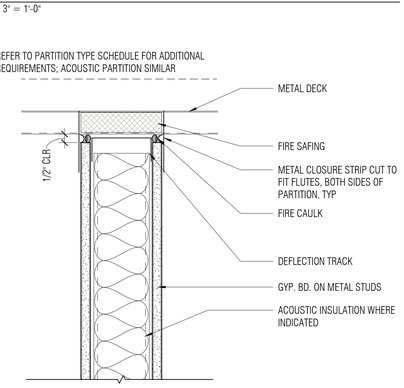
3" = 1'-0"



UL555 LISTING R5531: DYNAMIC TYPE FIRE DAMPER AT DUCT PENETRATION THROUGH FLOOR ASSEMBLY (FOLLOW MANUFACTURER INSTALLATION INSTRUCTIONS)

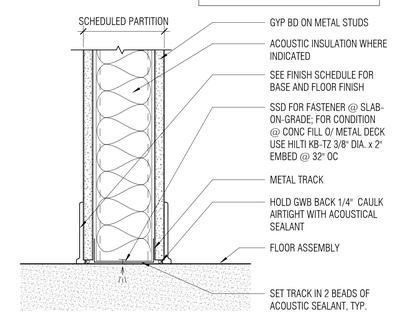
8 A8.11.2 DUCT PENETRATION AT FIRE RATED PARTITION

3" = 1'-0"



2 A8.11.2 RATED TOP TRACK PARALLEL TO FLUTES

3" = 1'-0"



3 A8.11.2 RATED TOP TRACK PERPENDICULAR TO FLUTES

3" = 1'-0"

4 A8.11.2 TYPICAL PARTITION BOTTOM TRACK

3" = 1'-0"

APPROVALS

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STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

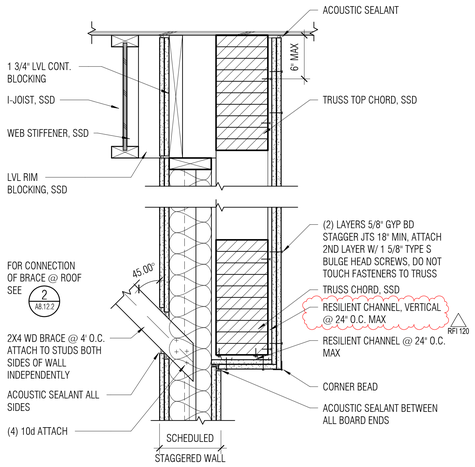
	DATE	DESCRIPTION

SHEET TITLE

PARTITION DETAILS, WOOD & METAL STUDS

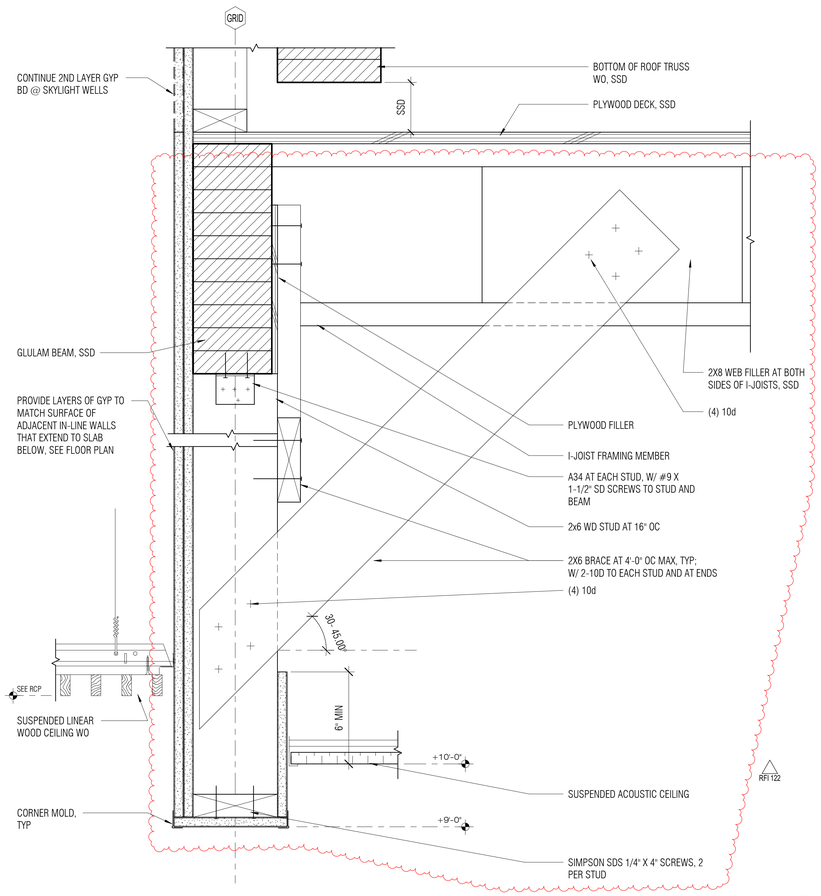
SHEET NUMBER

A8.11.2



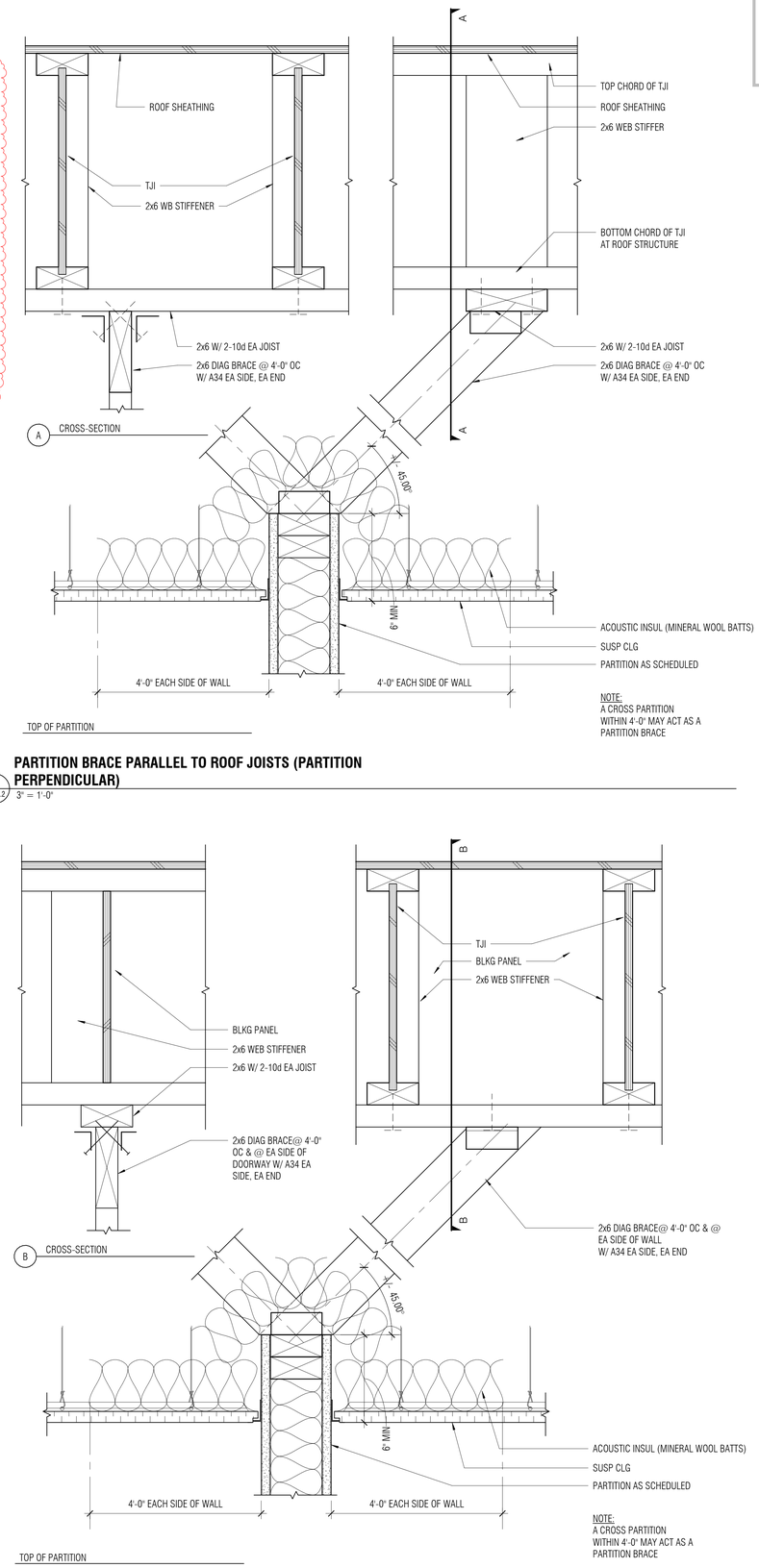
5 A8.12.2 BRACING @ STAGGERED STUD WALL TO TRUSS

1 1/2" = 1'-0"



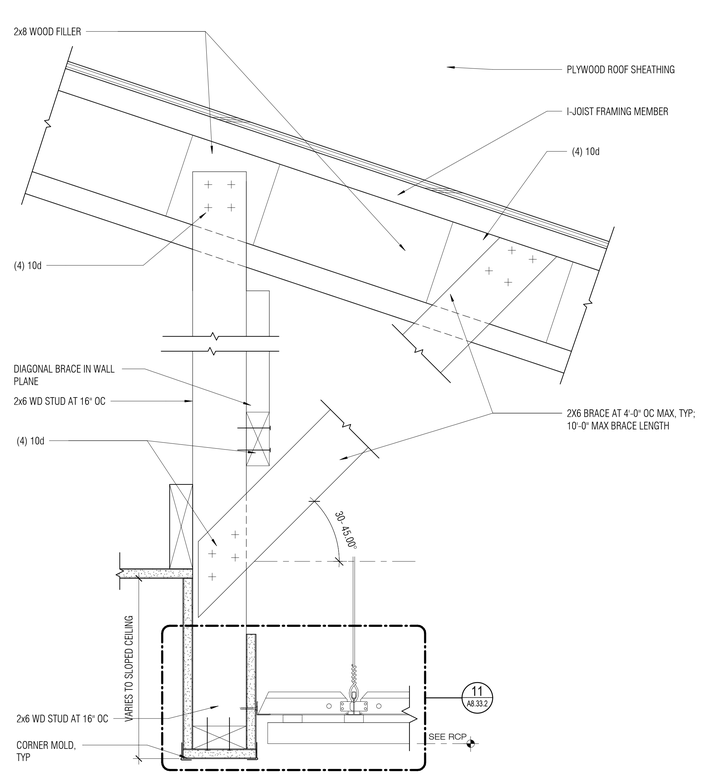
3 A8.12.2 SOFFIT OPENING BELOW MECHANICAL PLATFORM

3" = 1'-0"



1 A8.12.2 PARTITION BRACE PARALLEL TO ROOF JOISTS (PARTITION PERPENDICULAR)

3" = 1'-0"



4 A8.12.2 WOOD WALL HUNG FROM ROOF - PERPENDICULAR TO FRAMING

3" = 1'-0"

2 A8.12.2 PARTITION BRACE PERPENDICULAR TO ROOF JOISTS (PARTITION PARALLEL)

3" = 1'-0"

APPROVALS

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

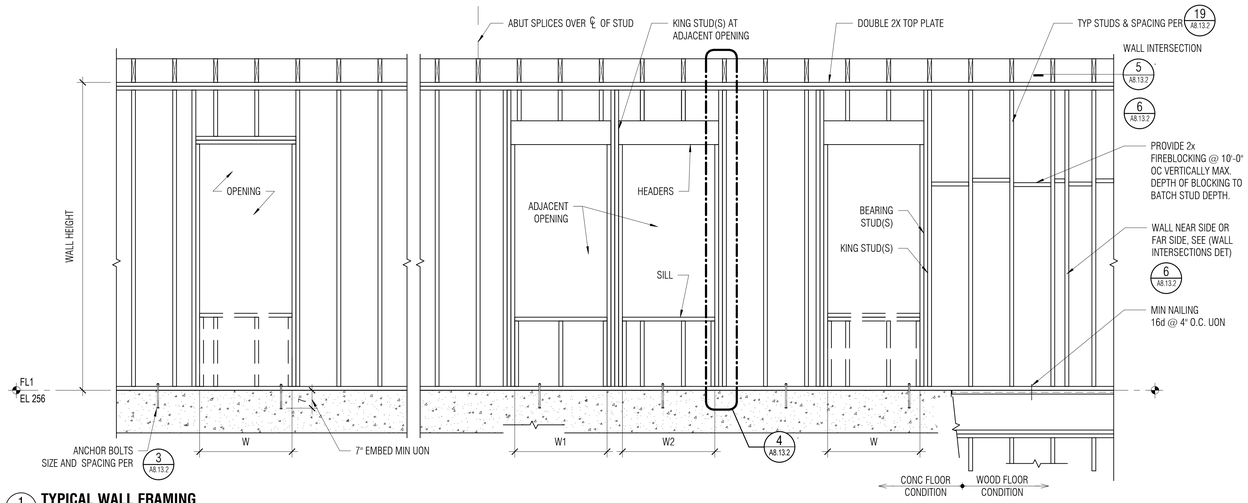
	DATE	DESCRIPTION
1	7/29/20	INC2 RFI 122
2	7/30/20	INC2 RFI 120

SHEET TITLE

INTERIOR DETAILS - PARTITION BRACING (WOOD STUD)

SHEET NUMBER

A8.12.2



1 A8.13.2 TYPICAL WALL FRAMING
1/2" = 1'-0"

NON-BEARING PARTITION WALL OPENING SCHEDULE						
OPENING WIDTH	KING STUD(S)	ADJACENT OPENINGS		HEADER SIZE	BEARING STUD(S)	SILL SIZE
		COMBINED WIDTH W1+W2	KING STUD(S)			
H<6'-0"	2-2X SW	6'-0" MAX	3-2X SW	2-2X SW	1-2X SW	2-2X SW
H<10'-0"	2-2X SW	10'-0" MAX	3-2X SW	4-2X SW	1-2X SW	2-2X SW
H<20'-0"	3-2X SW	NONE	NONE	SWX12	1 SW	3-SW

NOTES:
1. SW IS DEFINED AS STUD WIDTH.
2. INTERNAIL 2X HEADER & SILL WITH 10d @ 6" MINIMUM.

RFI # 107 NON-BEARING PARTITION WALL OPENING APPLIES TO OPENING INTO ALCOVE- NORTH 01A AND ALCOVE - SOUTH 01B

NON-BEARING (L/120, CONVENTIONAL LUMBER, DOUGLAS FIR#2)		
WALL HEIGHT	STUD SIZE	SPACING
H≤14'-0"	2X4	16"
H≤16'-0"	2X6	16"
15'-0"<H<24'-0"	2X6	8"

NON-BEARING (L/120, ENGINEERED LSL STUDS, MOE = 1.6)		
WALL HEIGHT	STUD SIZE	SPACING
H≤16'-0"	1.5" X 3.5"	16"
H≤24'-0"	1.5" X 5.5"	16"

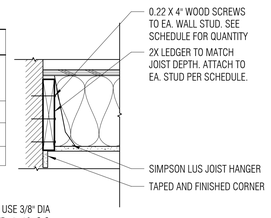
NOTES:
1. WHERE WALL SHEATHING DOES NOT EXTEND FULL HEIGHT, PROVIDE LATERAL BRACING @ 48" OC MAX
2. WHERE WALL HEIGHTS EXCEED THOSE IN THE CHARTS ABOVE FOR ANY GIVEN STUD SIZE, PROVIDE LATERAL BRACING @ 48" OC MAX AND CONNECTED AT A HEIGHT NOT TO EXCEED THE ABOVE LIMITS. IF WALLS EXTEND TO UNDERSIDE OF STRUCTURE, PROVIDE BRACING ON ONE SIDE OF THE WALL FOR SINGLE LAYER STUDS. IF STAGGERED STUDS ARE USED, BRACING SHALL BE REQUIRED ON BOTH SIDE OF THE WALL.

NON-BEARING PARTITION ANCHORAGE						
TYPE	NO CURB			CURB		
	ANCHOR SIZE	SPACING	EMBEDMENT	ANCHOR SIZE	SPACING	EMBEDMENT
ANCHOR BOLT	1/2" DIA	4'-0"	3"	3/8" DIA	2'-8"	3"
EXPANSION ANCHOR	1/2" DIA	4'-0"	2" (ESR-1917)	3/8" DIA	2'-8"	2" (ESR-1917)
SCREW	1/2" DIA	4'-0"	3 1/4" (ESR-2713)	3/8" DIA	2'-8"	2 1/2" (ESR-2713)
PAF	0.145" DIA	2'-8"	1/4" (ESR-2379)	NOT ALLOWED		

SHEET NOTES:

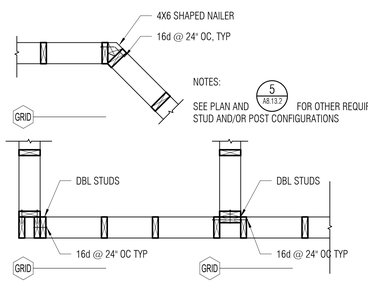
1. SEE STRUCTURAL DRAWINGS FOR LOAD-BEARING WOOD STUD FRAMING DETAILS.

CEILING JOIST ATTACHMENT	
JOIST SPAN	QUANTITY OF 0.22" X 4" WOOD SCREWS TO EACH STUD
9'-0"	2
14'-0"	3
19'-0"	4

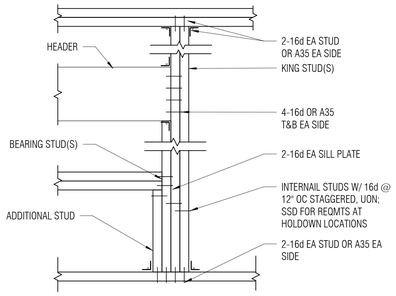


NOTES:
1. AT CONCRETE OR MASONRY WALL, USE 3/8" DIA EXPANSION ANCHOR WITH 2 1/2" EMBED @ 16" O.C. IN LIEU OF WOOD SCREWS

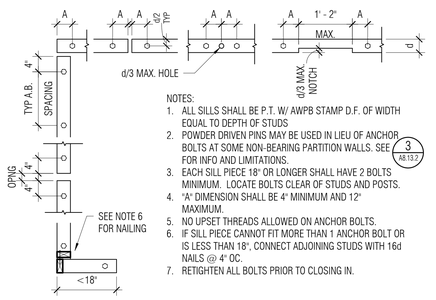
9 A8.13.2 TYP CEILING EDGE CONDITIONS DTL
1 1/2" = 1'-0"



6 A8.13.2 WALL INTERSECTIONS - PLAN
3/4" = 1'-0"



4 A8.13.2 NAILING AT WALL OPENING
NOT TO SCALE

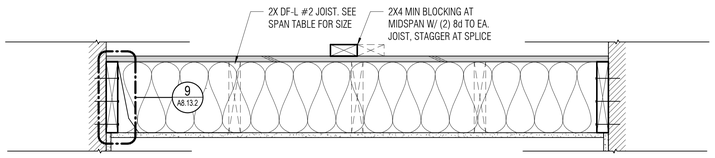


NOTES:
1. ALL SILLS SHALL BE P.T. W/ AWPB STAMP D.F. OF WIDTH EQUAL TO DEPTH OF STUDS
2. POWDER DRIVEN PINS MAY BE USED IN LIEU OF ANCHOR BOLTS AT SOME NON-BEARING PARTITION WALLS. SEE 3 A8.13.2 FOR INFO AND LIMITATIONS.
3. EACH SILL PIECE 18" OR LONGER SHALL HAVE 2 BOLTS MINIMUM. LOCATE BOLTS CLEAR OF STUDS AND POSTS.
4. "A" DIMENSION SHALL BE 4" MINIMUM AND 12" MAXIMUM.
5. NO UPSET THREADS ALLOWED ON ANCHOR BOLTS.
6. IF SILL PIECE CANNOT FIT MORE THAN 1 ANCHOR BOLT OR IS LESS THAN 18", CONNECT ADJOINING STUDS WITH 16d NAILS @ 4" OC.
7. RETIGHTEN ALL BOLTS PRIOR TO CLOSING IN.

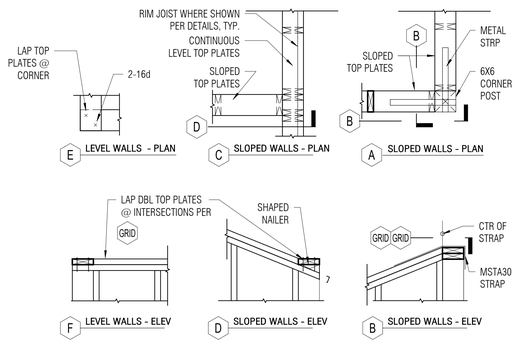
2 A8.13.2 ANCHOR BOLT AND SILL PLATE
3/4" = 1'-0"

MAXIMUM CEILING JOIST SPANS FOR UNINHABITED SPACES / NO STORAGE DOUGLAS FIR - LARCH #2				
CEILING JOIST SPACING	MAXIMUM SPAN (DEFLECTION IS A MAX OF L/240)			
	MAXIMUM = 5 PSF DEAD LOAD /10 PSF LIVE LOAD			
	PROVIDE MID-SPAN BLOCKING TYP			
	2 X 4	2 X 6	2 X 8	2 X 10
12"	10'-5"	19'-6"	25'-8"	EXCEEDS 26'
16"	11'-3"	17'-8"	2'-8"	EXCEEDS 26'
19.2"	10'-7"	16'-7"	21'-0"	25'-8"
24"	9'-10"	14'-10"	18'-9"	22'-11"

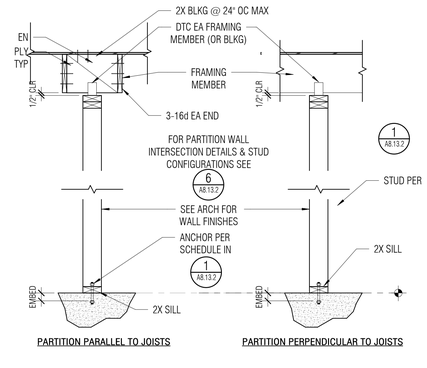
MAXIMUM CEILING JOIST SPANS FOR UNINHABITED SPACES / LIMITED STORAGE DOUGLAS FIR - LARCH #2				
CEILING JOIST SPACING	MAXIMUM SPAN (DEFLECTION IS A MAX OF L/240)			
	MAXIMUM = 10 PSF DEAD LOAD /20 PSF LIVE LOAD			
	PROVIDE MID-SPAN BLOCKING TYP			
	2 X 4	2 X 6	2 X 8	2 X 10
12"	9'-10"	14'-10"	18'-9"	22'-11"
16"	8'-9"	12'-10"	16'-3"	19'-10"
19.2"	8'-0"	11'-9"	14'-10"	18'-2"
24"	7'-2"	10'-6"	13'-3"	16'-3"



7 A8.13.2 TYPICAL CEILING JOIST SCHEDULES
NOT TO SCALE



5 A8.13.2 TOP PLATE INTERSECTIONS
NOT TO SCALE



3 A8.13.2 NON-BEARING PARTITION CONNECTIONS
1/2" = 1'-0"

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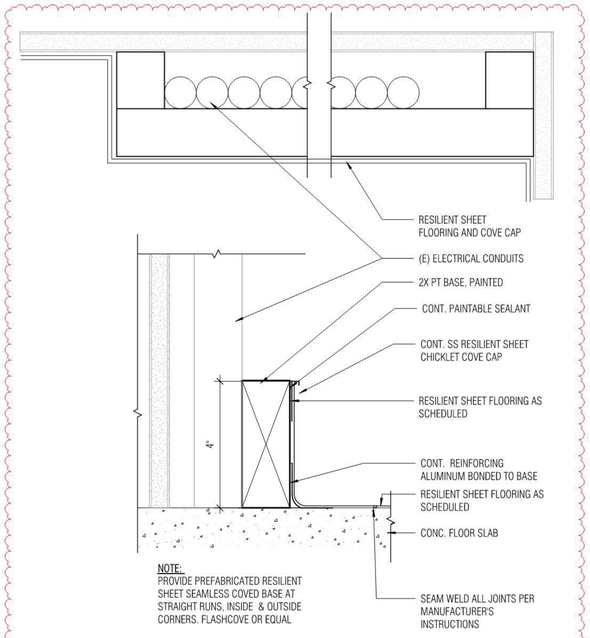
ISSUE TITLE
INCREMENT 2

ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

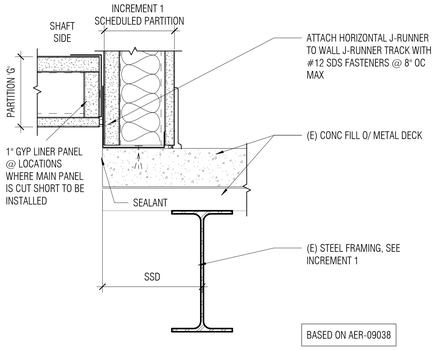
REVISIONS
| | DATE | DESCRIPTION |

SHEET TITLE
INTERIOR DETAILS - TYP NON-BEARING WOOD FRAMING

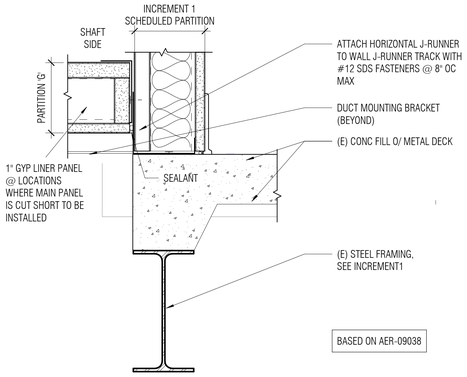
SHEET NUMBER
A8.13.2



9 A8.21.2 SHEET FLOORING COVED BASE @ JANITOR RM
6" = 1'-0"



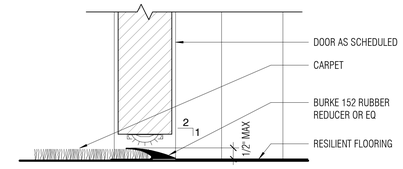
9 A8.21.2 SHAFT BOTTOM @ PARTITION 'G'
3" = 1'-0"



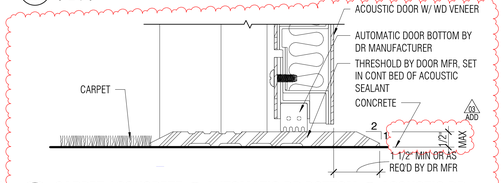
10 A8.21.2 SHAFT BOTTOM @ PARTITION 'G' (PARALLEL DECK)
3" = 1'-0"

ASI #29

RFI 213

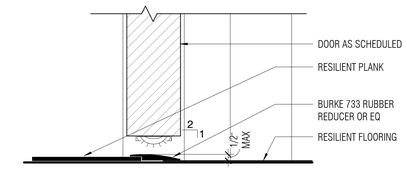


5A A8.21.2 CARPET / RESILIENT FLOORING
6" = 1'-0"

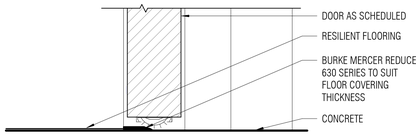


02 ADD

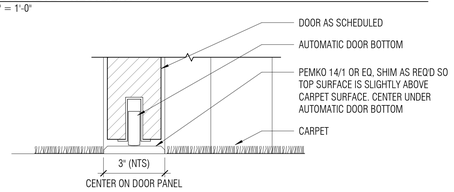
5B A8.21.2 CARPET / CONCRETE @ AUTOMATIC DR BOTTOM @ ACOUSTIC DR
6" = 1'-0"



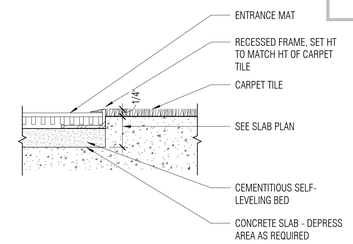
6A A8.21.2 RESILIENT PLANK / RESILIENT FLOORING
6" = 1'-0"



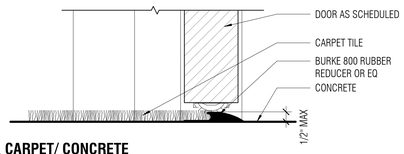
6B A8.21.2 CONCRETE / RESILIENT
6" = 1'-0"



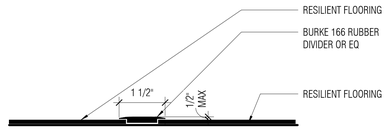
7A A8.21.2 CARPET / CARPET WITH AUTOMATIC DOOR BOTTOM
6" = 1'-0"



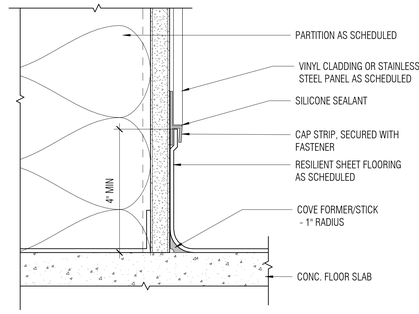
1 A8.21.2 ENTRANCE MAT @ INTERIOR
6" = 1'-0"



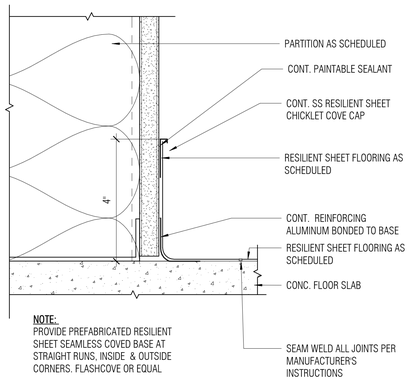
2A A8.21.2 CARPET/ CONCRETE
6" = 1'-0"



2B A8.21.2 RESILIENT SHEET / RESILIENT SHEET
6" = 1'-0"



3 A8.21.2 SHEET FLOORING COVED BASE @ KITCHEN-STORAGE
6" = 1'-0"



4 A8.21.2 SHEET FLOORING COVED BASE @ CAFE SERVERY
6" = 1'-0"

APPROVALS

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INCREMENT 2

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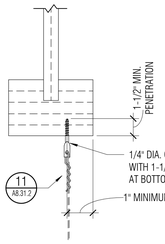
REVISIONS

	DATE	DESCRIPTION
	8/27/19	INC 2 - ADDENDUM 03
	10/15/19	INC 2 - ADDENDUM 03 REV
	1/11/21	INC2 RFI 213

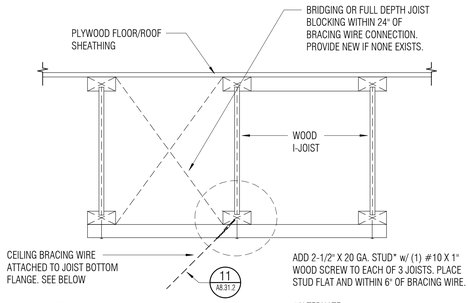
SHEET TITLE
INTERIOR FLOOR DETAILS

SHEET NUMBER
A8.21.2



NOTES:
WHEN FIRE RATED GYP.BOARD IS INSTALLED ON THE BOTTOM FLANGES, USE SCREW EYES W/SUFFICIENT LENGTH TO AVOID DAMAGING THE FIRE RATED GYP.BOARD AND MEET MIN. PENETRATION.

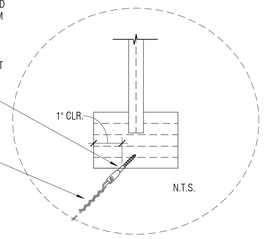
SOURCE:
DSA IR 25-2.13
SHEET NO: 4.26

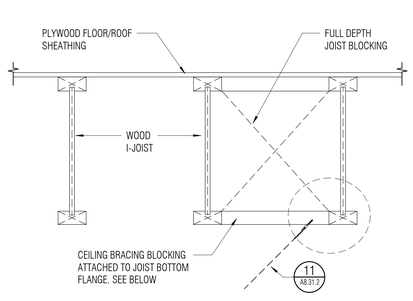


ADD 2-1/2" X 20 GA. STUD* w/ (1) #10 X 1" WOOD SCREW TO EACH OF 3 JOISTS. PLACE STUD FLAT AND WITHIN 6" OF BRACING WIRE.

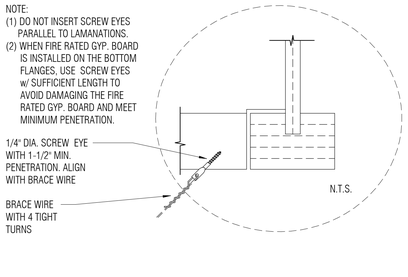
*ALTERNATE:
2 X 4 FLAT w/ 1-10d OR 1-#10 X 3" SCREW TO EACH OF 3 TRUSS BOTTOM FLANGES

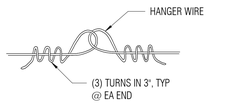
NOTE:
(1) DO NOT INSERT SCREW EYES PARALLEL TO LAMANATIONS.
(2) WHEN FIRE RATED GYP. BOARD IS INSTALLED ON THE BOTTOM FLANGES, USE SCREW EYES w/ SUFFICIENT LENGTH TO AVOID DAMAGING THE FIRE RATED GYP. BOARD AND MEET MINIMUM PENETRATION.



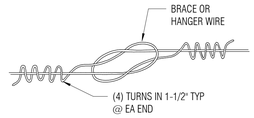


NOTE:
(1) DO NOT INSERT SCREW EYES PARALLEL TO LAMANATIONS.
(2) WHEN FIRE RATED GYP. BOARD IS INSTALLED ON THE BOTTOM FLANGES, USE SCREW EYES w/ SUFFICIENT LENGTH TO AVOID DAMAGING THE FIRE RATED GYP. BOARD AND MEET MINIMUM PENETRATION.





HANGER WIRE ONLY



HANGER OR BRACE WIRE

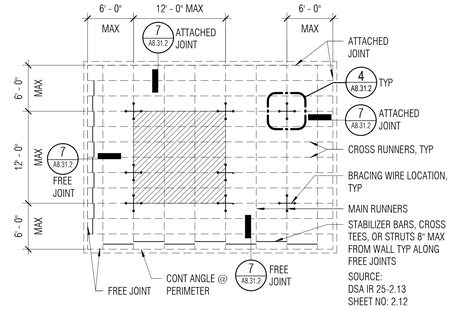
NOTES:
WIRE SPLICES ARE SHOWN LOOSELY TIED FOR ILLUSTRATIVE PURPOSES ONLY AND SHALL BE DRAWN TIGHT TO COMPLETE INSTALLATION WHEN CONSTRUCTED.

SOURCE:
DSA IR 25-2.13
SHEET NO: 6.10

SUSPENDED ACOUSTICAL CEILING GENERAL NOTES

1. DETAILS APPLY TO FLAT AND LEVEL CEILING SYSTEMS WHOSE TOTAL WEIGHT (INCLUDING CEILING MOUNTED AIR TERMINALS, SERVICES AND LIGHT FIXTURES) DOES NOT EXCEED 4 PSF.
2. EXPANSION JOINTS SHALL BE PROVIDED IN THE CEILING INTERSECTIONS OF CORRIDORS AND JUNCTIONS OF CORRIDORS WITH LOBBIES OR OTHER SIMILAR AREAS.
3. FOR CEILING AREAS EXCEEDING 2,500 SQ FT A SEISMIC SEPARATION JOINT SHALL BE PROVIDED TO DIVIDE THE CEILING INTO AREAS NOT EXCEEDING 2,500 SQ FT.
4. PENETRATIONS THORUGH THE CEILING FOR SPRINKLER HEADS AND OTHER SIMILAR DEVICES THAT ARE NOT INTEGRALLY TIED TO THE CEILING SYSTEM IN THE LATERAL DIRECTION SHALL HAVE A 2" OVERSIZE RING, SLEEVE, OR ADAPTER THROUGH THE CEILING TILE TO ALLOW FREE MOVEMENT OF 1" IN ALL HORIZONTAL DIRECTIONS.
5. SUPPORT SURFACE MOUNTED LIGHT FIXTURES BY AT LEAST 2 POSITIVE DEVICES WHICH SURROUND THE CEILING RUNNER AND WHICH ARE EACH SUPPORTED FROM THE STRUCTURE ABOVE BY #12 GAGE WIRE. SPRING CLIPS OR CLAMPS THAT CONNECT ONLY TO THE RUNNER ARE NOT ACCPETABLE. PROVIDE ADDITIONAL SUPPORTS WHEN LIGHT FIXTURES ARE 8 FT OR LONGER. MAXIMUM SPACING BETWEEN SUPPORTS SHALL NOT EXCEED 8 FT.
6. SUPPORT PENDANT MOUNTED LIGHT FIXTURES DIRECTLY FROM THE STRUCTURE ABOVE WITH HANGER WIRES OR CABLES PASSING THROUGH EACH PENDANT HANGER AND CAPABLE OF SUPPORTING 2 TIMES THE WEIGHT OF THE FIXTURE. A BRACING ASSEMBLY IS REQUIRED WHERE THE PENDANT HANGER PENETRATES THE CEILING. SPECIAL DETAILS ARE REQUIRED TO ATTACH THE PENDANT HANGER TO THE BRACING ASSEMBLY TO TRANSMIT HORIZONTAL FORCE. IF THE PENDANT MOUNTED LIGHT FIXTURE IS DIRECTLY AND INDEPENDENTLY BRACED BELOW THE CEILING (FOR EXAMPLE, AIRCRAFT CABLES TO WALLS) THEN BRACE ASSEMBLY IS NOT REQUIRED ABOVE THE CEILING.

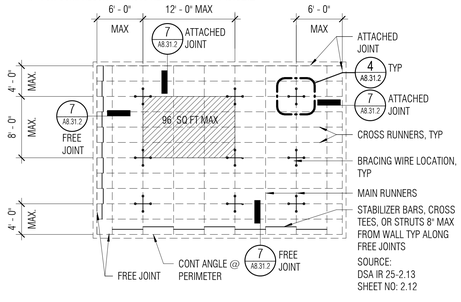
NOTE:
1. PLAN SCHEMATIC ONLY - SEE RCP FOR CEILING LAYOUT.
2. BRACING WIRES AND COMPRESSION STRUT SHALL OCCUR AT EVERY 144 SQ FT MAX IN ROOMS OVER 144 SQ FT.
3. WHERE PERIMETER SEISMIC CLIPS ARE USED, STABILIZER BARS ARE NOT REQUIRED. FOR DETAILS SEE 8 / A8.31.2
4. FOR COMPRESSION STRUTS REFER TO SHEET A8.32.2



SOURCE:
DSA IR 25-2.13
SHEET NO: 2.12

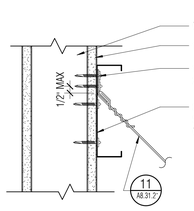
2 A8.31.2 1ST FLR @ (E) BLDG - TYP CLG PLAN - 12' X 12' BRACE ASSEMBLY
NTS

NOTE:
1. PLAN SCHEMATIC ONLY - SEE RCP FOR CEILING LAYOUT.
2. BRACING WIRES AND COMPRESSION STRUT SHALL OCCUR AS INDICATED BELOW IN ALL ROOMS OVER 144 SQ FT.
3. WHERE PERIMETER SEISMIC CLIPS ARE USED, STABILIZER BARS ARE NOT REQUIRED. FOR DETAILS SEE 8 / A8.31.2
4. FOR COMPRESSION STRUTS REFER TO SHEET A8.32.2



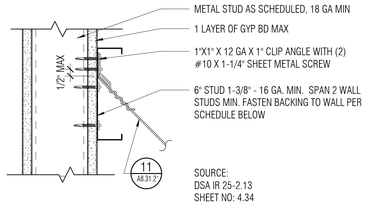
SOURCE:
DSA IR 25-2.13
SHEET NO: 2.12

17 A8.31.2 HANGER WIRE CONNECTION TO WOOD I JOIST
1 1/2" = 1'-0"



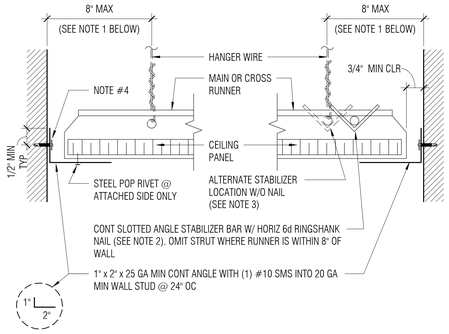
13 A8.31.2 BRACING WIRE CONNECTION TO WOOD I - JOIST
N.T.S

SOURCE: DSA IR 25-2.13, SHEET NO: 4.36, 4.37



SOURCE:
DSA IR 25-2.13
SHEET NO: 4.34

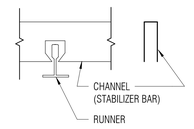
5 A8.31.2 CEILING WIRE SPLICES
NTS



ATTACHED JOINT **FREE JOINT**

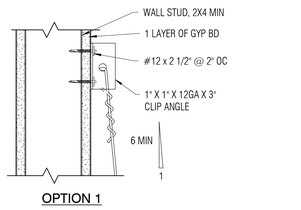
SOURCE :
DSA IR 25-2.13
SHEET NO: 2.60

NOTES:
1. PROVIDE #12 GA HANGER WIRES AT THE ENDS OF ALL MAIN AND CROSS RUNNERS WITHIN 8" OF THE SUPPORT OR WITHIN ONE-FOURTH (1/4) OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS, FOR THE PERIMETER OF THE CEILING AREA. PERIMETER WIRES ARE NOT REQUIRED WHEN THE LENGTH OF THE END TEE IS 8" OR LESS.
2. NAILS AT ENDS OF HORIZONTAL STABILIZERS ARE TO BE PLACED WITH NAIL HEAD TOWARD CENTER LINE OF SPAN OF STRUT.
3. STABILIZER BAR MAY BE SLOTTED APPROVED ANGLES OR CHANNELS WITH 'DIAMOND POINTS' OF SPRING STEEL WHICH SNAP TIGHT TO PREVENT MOVEMENT OF STRUT.
4. (1) #10 SMS TO 20 GA MIN WALL STUD @ 24" OC.

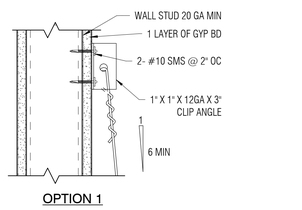


APPROVED STABILIZER
(SEE NOTE 3)

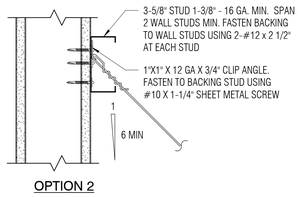
6 A8.31.2 R-BRACING WIRE CONNECTION TO WOOD STUD WALL
N.T.S



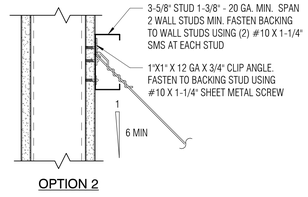
OPTION 1



OPTION 1

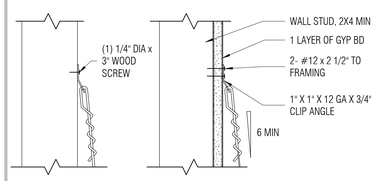


OPTION 2

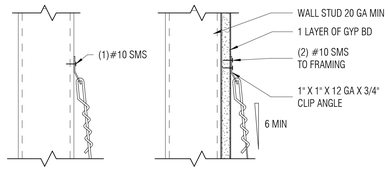


SOURCE:
DSA IR 25-2.13
SHEET NO: 4.24

OPTION 2



OPTION 3

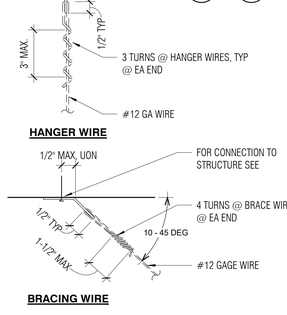


OPTION 3

NOTE:
1. THIS DETAIL IS APPLIED FOR PERIMETER WIRE ATTACHMENT OR WHERE OBSTRUCTION PREVENTS ATTACHMENT TO STRUCTURE ABOVE

NOTE:
1. THIS DETAIL IS APPLIED FOR PERIMETER WIRE DETAIL OR WHERE OBSTRUCTION PREVENTS ATTACHMENT TO STRUCTURE ABOVE

14 A8.31.2 R-BRACING WIRE CONNECTION TO MTL STUD WALL
N.T.S

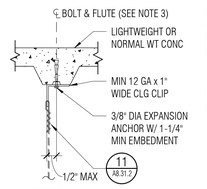


HANGER WIRE

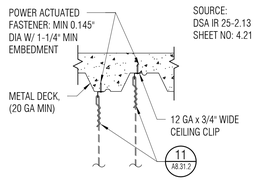
BRACING WIRE

SOURCE:
DSA IR 25-2.13
SHEET NO: 4.10

11 A8.31.2 TYP WIRE TURNS @ HANGER & BRACING WIRE CONNECTION
NTS

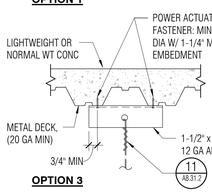


OPTION 1



SOURCE:
DSA IR 25-2.13
SHEET NO: 4.21

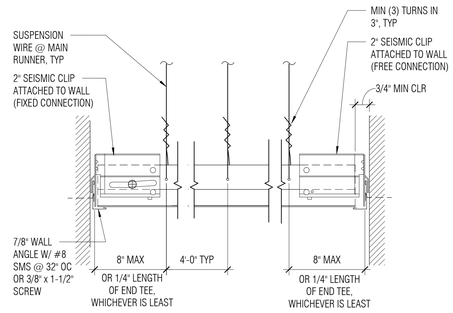
OPTION 2



OPTION 3

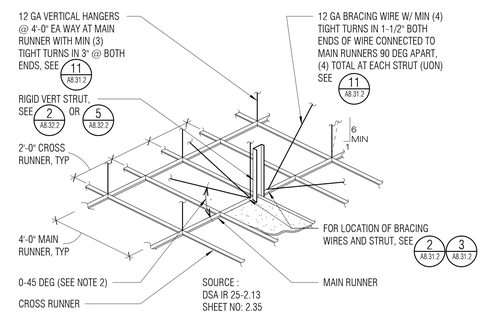
NOTES:
1. POST INSTALLED ANCHORS TO BE PLACED NO MORE THAN 1" OFFSET FROM CENTERLINE OF DECK LOW FLUTE.
2. POST-INSTALLED ANCHORS IN CONCRETE USED TO SUPPORT HANGER WIRES SHALL BE TESTED AT A FREQUENCY OF 10 PERCENT. POWER ACTUATED FASTENERS IN CONCRETE SHALL BE FIELD TESTED FOR 200 LBS IN TENSION. ALL OTHER POST-INSTALLED ANCHORS IN CONCRETE SHALL BE TESTED IN ACCORDANCE WITH CBC SECTION 1913A.7.

7 A8.31.2 SUSPENDED ACOUSTICAL CEILING PERIMETER DETAIL
NTS



NOTE :
1. TYP VERTICAL SUSPENSION WIRE: 12 GA GALV SOFT ANNEALED MILD STEEL; INSTALL WIRES NO MORE THAN 1 TO 6 OUT OF PLUMB.
2. CEILING PANEL NOT SHOWN FOR CLARITY.

3 A8.31.2 2ND FLR & LLRC - TYP CEILING PLAN - 8' X 12' BRACE ASSEMBLY
NTS



SOURCE :
DSA IR 25-2.13
SHEET NO: 2.35

NOTES :
1. STRUTS SHALL NOT REPLACE HANGER WIRES.
2. THE MINIMUM ACCEPTABLE ANGLE IS DETERMINED SUCH THAT THE WIRES DO NOT INTERFERE WITH THE RUNNERS, LIGHT FIXTURES, ETC AND REMAIN STRAIGHT AND UNOBSTRUCTED
3. FOR 2'X2' GRID, ADD ADDITIONAL RUNNERS EVERY 2'

20 A8.31.2 R-HANGER WIRE CONNECTION TO WOOD STUD WALL
N.T.S

16 A8.31.2 R-HANGER WIRE CONNECTION TO METAL STUD WALL
N.T.S

12 A8.31.2 HANGER WIRE CONNECTION TO CONC OVER MTL DECK
NTS

8 A8.31.2 SUSPENDED ACOUSTICAL CEILING PERIMETER (SEISMIC CLIP)
NTS

4 A8.31.2 SUSPENDED CEILING- SUSPENSION & BRACING ASSEMBLY
NTS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
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APPROVALS

ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:
THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

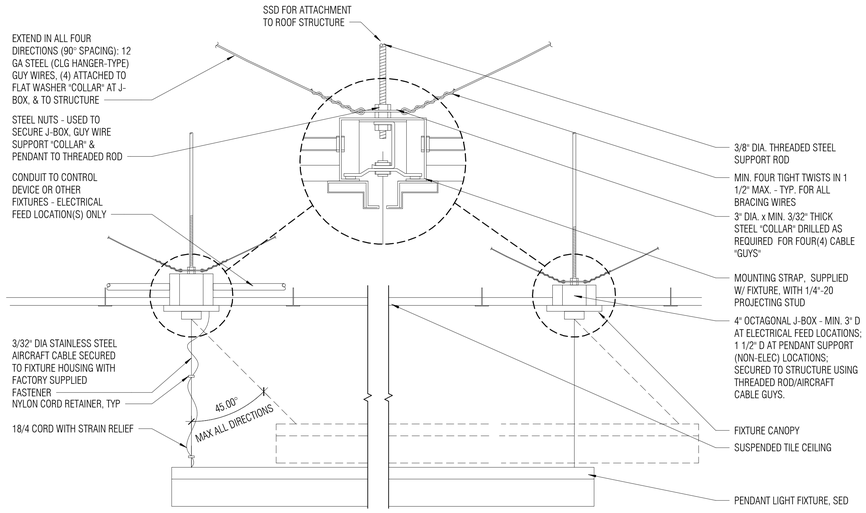
REVISIONS

	DATE	DESCRIPTION

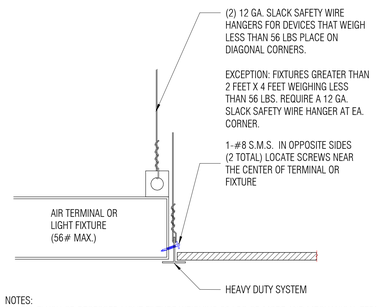
SHEET TITLE
INTERIOR CEILING DETAILS

SHEET NUMBER
A8.31.2

NOTES:
1. ALL FLUSH OR RECESSED LIGHT FIXTURE WEIGHING 56 LBS OR MORE AND MECHANICAL TERMINALS AND SERVICES, WEIGHING 20 LBS OR MORE, MUST BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN (4) TAUT #12 GA WIRES, EACH ATTACHED TO FIXTURE AND THE STRUCTURE ABOVE. THE 4 TAUT #12 GA WIRES, INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE, MUST BE CAPABLE OF SUPPORTING 4 TIMES THE WEIGHT OF THE UNIT.



6 A8.32.2 PENDANT FIXTURE MOUNTING @ SUSPENDED CLG DETAIL
1 1/2" = 1'-0"

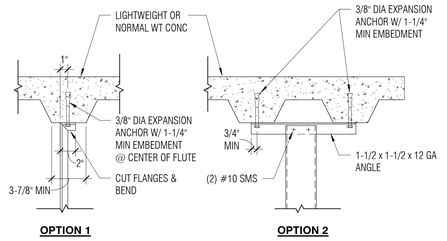


NOTES:
1. ALL FLUSH OR RECESSED LIGHT FIXTURE WEIGHING 56 LBS OR MORE AND MECHANICAL TERMINALS AND SERVICES, WEIGHING 20 LBS OR MORE, MUST BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN (4) TAUT #12 GA WIRES, EACH ATTACHED TO FIXTURE AND THE STRUCTURE ABOVE. THE 4 TAUT #12 GA WIRES, INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE, MUST BE CAPABLE OF SUPPORTING 4 TIMES THE WIEGHT OF THE UNIT.

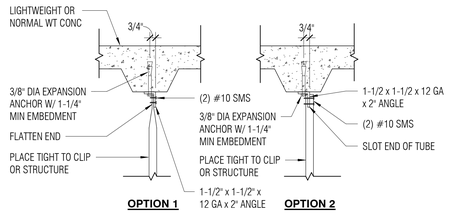
3 A8.32.2 SUSPENDED ACOUSTICAL CEILING - LIGHT FIXTURE / AIR TERMINAL SUPPORT
3" = 1'-0"

EMT COMPRESSION STRUT	MAXIMUM LENGTH
1/2" DIAMETER EMT (0.042" WALL THICKNESS)	3'-11"
3/4" DIAMETER EMT (0.049" WALL THICKNESS)	6'-4"
1" DIAMETER EMT (0.057" WALL THICKNESS)	9'-9"
1-1/4" DIAMETER EMT (0.065" WALL THICKNESS)	12'-9"
1-1/2" DIAMETER EMT (0.065" WALL THICKNESS)	14'-9"
2" DIAMETER EMT (0.065" WALL THICKNESS)	18'-10"

CHANNEL COMPRESSION STRUT	MAXIMUM LENGTH
2-1/2" STUD W/ 1-1/4" FLANGE - 20 GA	5'-0"
2-1/2" STUD W/ 1-3/8" FLANGE - 20 GA	6'-10"
3-5/8" STUD W/ 1-3/8" FLANGE - 20 GA	8'-0"
2-1/2" STUD W/ 1-3/8" FLANGE - 18 GA	8'-10"
4" STUD W/ 1-3/8" FLANGE - 18 GA	10'-10"



CHANNEL STRUT



TUBE STRUT

SOURCE:
DSA IR 25-2.13
SHEET NO: 5.21

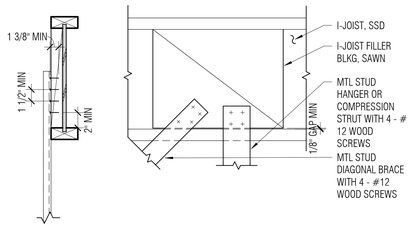
NOTES:
1. POST-INSTALLED ANCHORS TO BE PLACED NO MORE THAN 1" OFFSET FROM CENTERLINE OF DECK LOW FLUTE.
2. POST-INSTALLED ANCHORS IN CONCRETE USED TO SUPPORT HANGER WIRES SHALL BE TESTED AT A FREQUENCY OF 10 PERCENT. POWER ACTUATED FASTENERS IN CONCRETE SHALL BE FIELD TESTED FOR 200 LBS IN TENSION. ALL OTHER POST-INSTALLED ANCHORS IN CONCRETE SHALL BE TESTED IN ACCORDANCE WITH CBC SECTION 1913A.7.

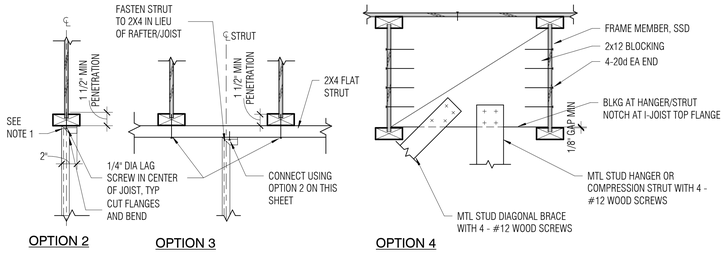
NOTE:
1. LATERAL FORCE BRACING MEMBERS SHALL BE SPACED A MINIMUM OF 6' FROM ALL HORIZONTAL PIPING OR DUCT WORK THAT IS NOT PROVIDED WITH BRACING RESTRAINTS FOR HORIZONTAL FORCES. BRACING WIRES SHALL BE ATTACHED TO THE GRID AND TO THE STRUCTURE IN SUCH A MANNER THAT THEY CAN SUPPORT A DESIGN LOAD OF NOT LESS THAN 200 POUNDS OR THE ACTUAL LOAD, WHICHEVER IS GREATER, WITH A SAFETY FACTOR OF 2.
2. REFERENCE IR-25-2 FOR TESTING REQUIREMENTS.

SOURCE :
DSA IR 25 - 2.13
SHEET NO: 3.21

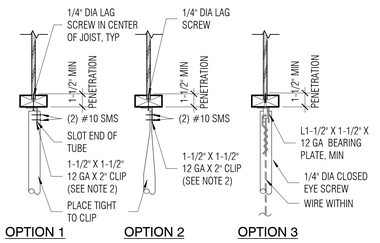
TESTING REQUIREMENTS:
WHEN DRILLED-IN CONCRETE ANCHORS OR SHOT-IN ANCHORS ARE USED IN REINFORCED CONCRETE FOR HANGER WIRES, 1 OUT OF 10 WIRE/ANCHOR ASSEMBLIES MUST BE FIELD TESTED FOR 200 LBS IN TENSION. WHEN DRILLED-IN CONCRETE ANCHORS ARE USED FOR BRACING WIRES, 1 OUT OF 2 WIRE/ANCHOR ASSEMBLIES MUST BE FIELD TESTED FOR 440 LBS IN TENSION IN THE DIRECTION OF THE WIRE. SHOT-IN ANCHORS IN CONCRETE ARE NOT PERMITTED FOR BRACING WIRES (REFERENCE IR 25-2.13).

1 A8.32.2 COMPRESSION STRUT TABLE
NTS





CHANNEL STRUT

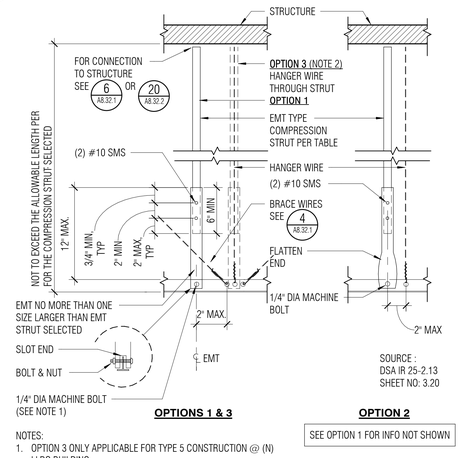


TUBE STRUT

NOTE:
1. WEB OF CHANNEL TO BEAR WITHIN WIDTH OF WOOD MEMBER.
2. VERTICAL LEG OF MEMBER TO FALL WITHIN THE WIDTH OF THE WOOD MEMBER.
3. SEE 5 A8.32.2 OR 2 A8.32.2 FOR ADDITIONAL INFORMATION.

20 A8.32.2 R-STRUT CONNECTION TO I-JOISTS WITHOUT GYPSUM BOARD
N.T.S

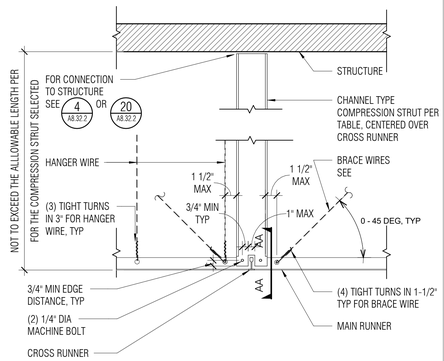
4 A8.32.2 STRUT CONNECTION TO CONC OVER MTL DECK
NTS

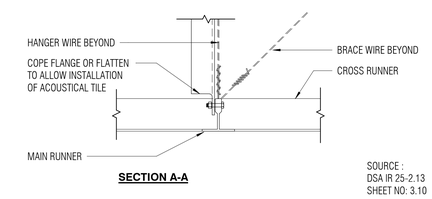


SOURCE :
DSA IR 25-2.13
SHEET NO: 3.20

NOTES:
1. OPTION 3 ONLY APPLICABLE FOR TYPE 5 CONSTRUCTION @ (N) LLRC BUILDING
2. MACHINE BOLT IS NOT REQUIRED FOR OPTION 3
3. APPLICABLE WITHOUT GYP BD ONLY
4. CEILING PANELS NOT SHOWN FOR CLARITY

5 A8.32.2 SUSPENDED ACOUSTICAL CEILING EMT TYPE STRUT
NTS





SECTION A-A

SOURCE :
DSA IR 25-2.13
SHEET NO: 3.10

NOTE:
1. LATERAL BRACING SHALL CONSIST OF (4) 12 GA WIRES AND COMPRESSION STRUT SECURED TO MAIN RUNNER WITHIN 2" OF CROSS RUNNER INTERSECTION. WIRES SHALL BE SPLAYED 90 DEG IN PLAN FROM EACH OTHER AND AT AN ANGLE NOT EXCEEDING 45 DEG FROM PLANE OF CEILING.
2. CEILING PANELS NOT SHOWN FOR CLARITY.

2 A8.32.2 SUSPENDED ACOUSTICAL CEILING CHANNEL TYPE STRUT
NTS

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ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

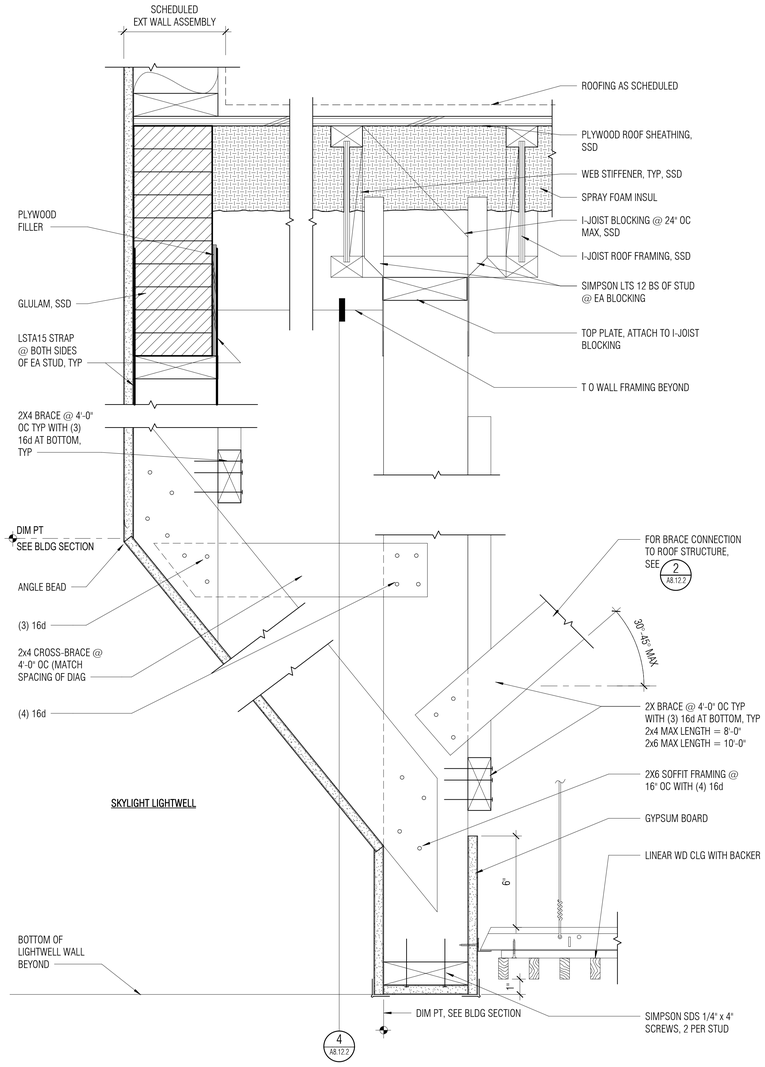
ISSUE TITLE
INCREMENT 2

ISSUE DATE **5/30/2019**
NOLL & TAM JOB NUMBER **21630**

REVISIONS
| | DATE | DESCRIPTION |

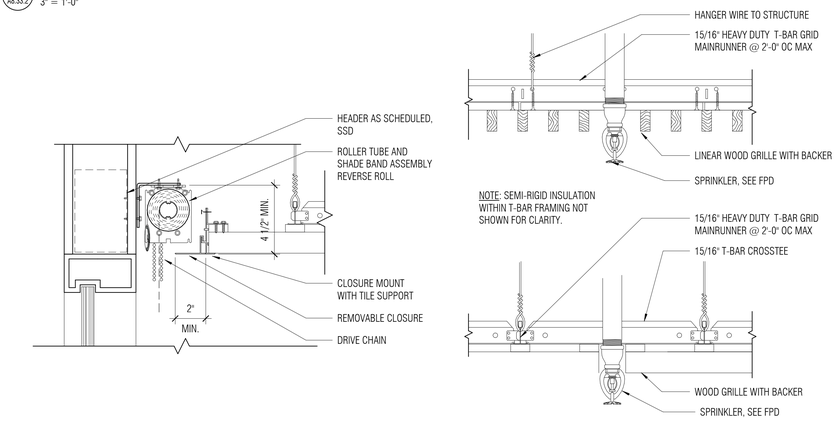
SHEET TITLE
INTERIOR CEILING DETAILS

SHEET NUMBER
A8.32.2



19 A8.33.2 WOOD GRILLE -TRANSITION TO HUNG WALLS AT LIGHTWELL

3" = 1'-0"

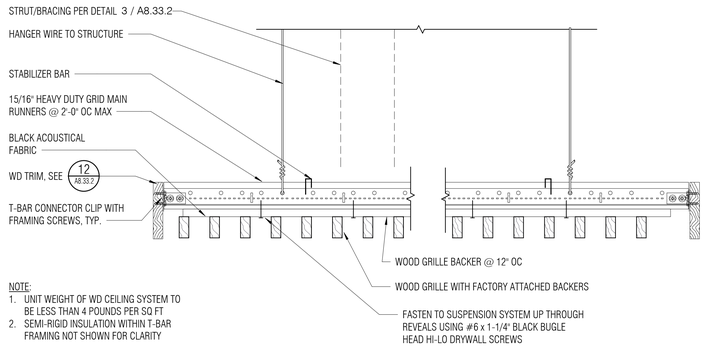


20 A8.33.2 WINDOW SHADE SECTION

3" = 1'-0"

16 A8.33.2 SECTION - SPRINKLER

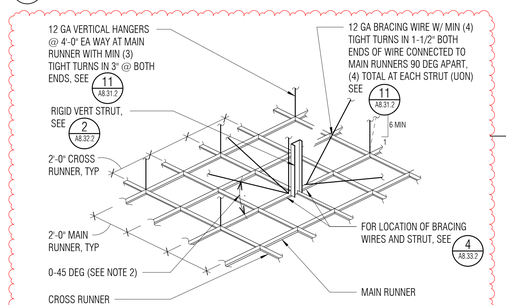
3" = 1'-0"



NOTE:
1. UNIT WEIGHT OF WD CEILING SYSTEM TO BE LESS THAN 4 POUNDS PER SQ FT
2. SEMI-RIGID INSULATION WITHIN T-BAR FRAMING NOT SHOWN FOR CLARITY

9 A8.33.2 SUSPENDED WOOD CEILING

3" = 1'-0"

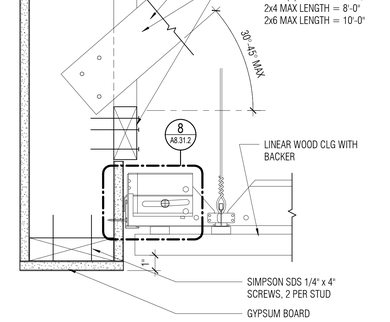


NOTES :
1. STRUTS SHALL NOT REPLACE HANGER WIRES.
2. THE MINIMUM ACCEPTABLE ANGLE IS DETERMINED SUCH THAT THE WIRES DO NOT INTERFERE WITH THE RUNNERS, LIGHT FIXTURES, ETC AND REMAIN STRAIGHT AND UNOBSTRUCTE

CCDA-109

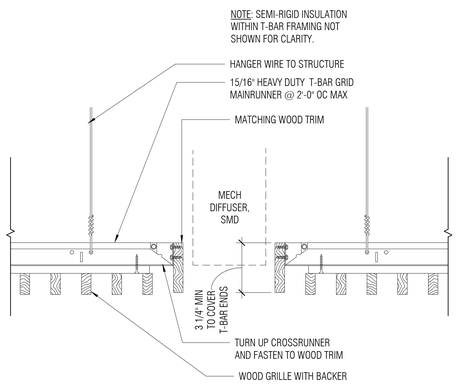
10 A8.33.2 SUSPENSION & BRACING @ FLOATING WD CEILING - ALTERNATE

NTS



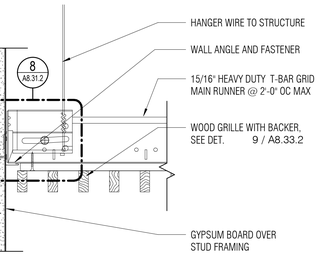
11 A8.33.2 LINEAR WOOD CLG -TRANSITION TO LIGHTWELL @ ENDS

3" = 1'-0"



12 A8.33.2 PARALLEL GRILLE - OPEN PERIMETER W/ TRIM

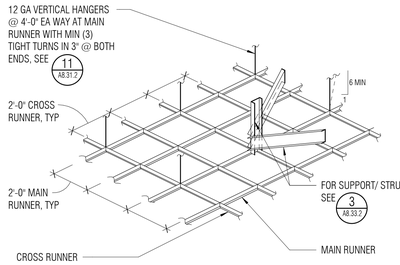
3" = 1'-0"



NOTE:
1. ACOUSTICAL INSULATION NOT SHOWN FOR CLARITY.

1 A8.33.2 SUSPENDED WD CEILING GENERAL NOTES

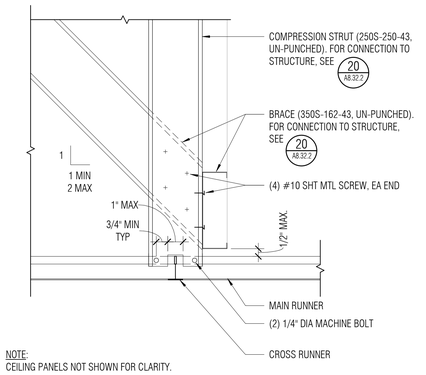
3" = 1'-0"



NOTES: STRUTS SHALL NOT REPLACE HANGER WIRES.

2 A8.33.2 SUSPENSION & BRACING @ FLOATING WD CEILING

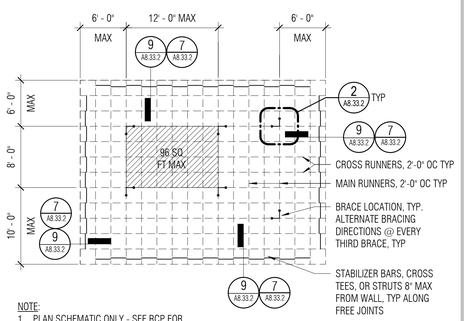
NTS



NOTE:
CEILING PANELS NOT SHOWN FOR CLARITY.

3 A8.33.2 SUSPENDED WOOD CEILING STUD TYPE STRUT/ BRACING

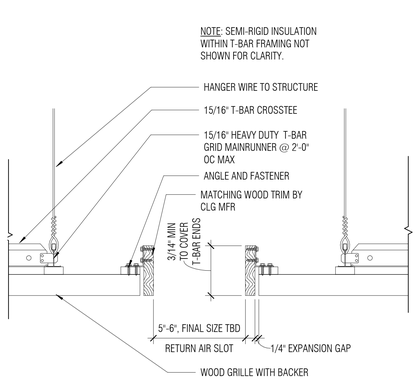
3" = 1'-0"



NOTE:
1. PLAN SCHEMATIC ONLY - SEE RCP FOR CEILING LAYOUT

4 A8.33.2 BRACE ASSEMBLY SPACING PLAN @ FLOATING WD CEILING

NTS



8 A8.33.2 PERPENDICULAR GRILLE - OPEN PERIMETER w/ TRIM

3" = 1'-0"

APPROVALS

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ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

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ISSUE TITLE

INCREMENT 2

ISSUE DATE **5/30/2019**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

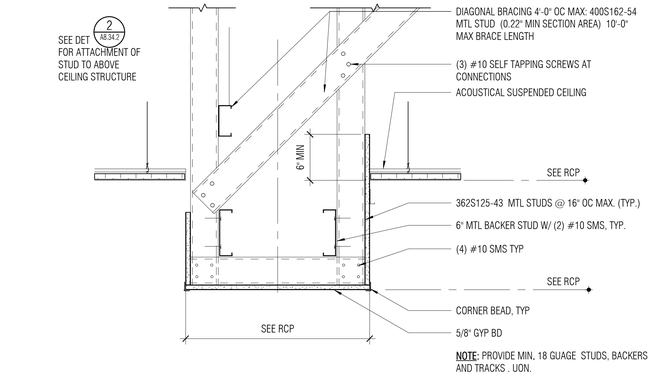
	DATE	DESCRIPTION
1	1/19/21	INC2 RFI 216

SHEET TITLE

INTERIOR CEILING DETAILS - LINEAR WOOD CEILINGS

SHEET NUMBER

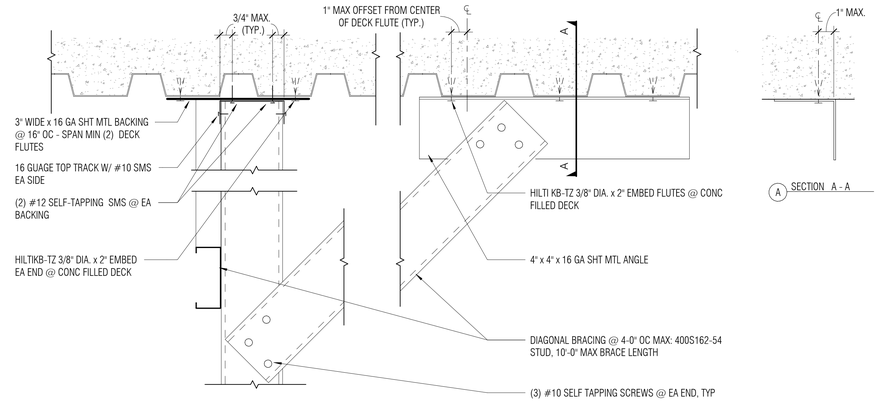
A8.33.2



NOTE: PROVIDE MIN, 18 GUAGE STUDS, BACKERS AND TRACKS . UON.

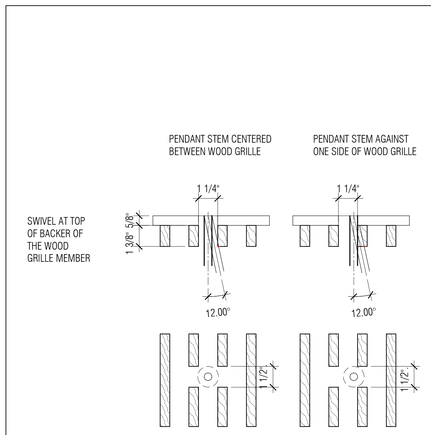
1 A8.34.2 SUSPENDED STUD CEILING

1 1/2" = 1'-0"

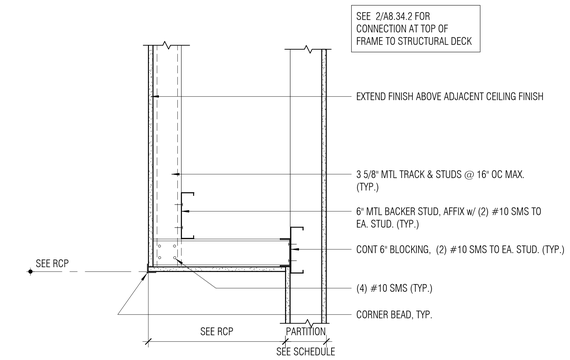


2 A8.34.2 CEILING HUNG WALL- SOFFIT - ATTACHMENT TO STRUCTURE

3" = 1'-0"



ASI#25 - CONTRACTOR IT TO TRIM WOOD GRILLE MEMBER TO ALLOW FOR THE FREE SWING 12 DEGREE FROM VERTICAL. SEE ATTACHED SKETCHES. FINISH EDGES OF GRILLE MEMBER



NOTE: PROVIDE MIN, 18 GUAGE STUDS, BACKERS AND TRACKS . UON.

3 A8.34.2 GYPSUM BOARD SOFFIT

1 1/2" = 1'-0"

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Chris Noll
No. C-15916
REN. 12-31-21
STATE OF CALIFORNIA

DVC SAN RAMON CAMPUS EXPANSION 1690 Watermill Rd San Ramon, CA 94582	SKETCH #: ASK-001
PROJECT #: 21630	SCALE: 1/8" = 1'-0"
REF #: ASI 25	DRAWING REF: 6/A8.32.2
	DATE: 2/12/21

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PROJECT TITLE

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ISSUE TITLE
INCREMENT 2

ISSUE DATE **5/30/2019**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

	DATE	DESCRIPTION

SHEET TITLE
INTERIOR SOFFIT DETAILS

SHEET NUMBER
A8.34.2

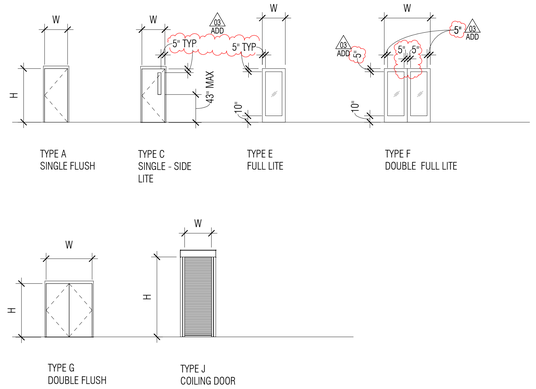
RFI #231 - DOOR 101A, DOOR 101B - SURFACE RACEWAY ON MULLION; DOOR 107D - INTEGRATED LOCKS PER RFI 46; DOOR 107A - INTEGRATED LOCKS

RFI #248 - DOOR 101A, DOOR 101B - REINSTALLED IN KIND WITH EXISTING HARDWARE. DOOR 101B - DOOR NEW - REUSE EXISTING HARDWARE - PROVIDE NEW FOR OTHERS.

DOOR SCHEDULE - INCREMENT 2

Door Number	Type	Door Width	Door Height	Door Thickness	Door Material	Door Finish	Fire Rating	Hardware Group	Frame Material	Frame Finish	Details Head Detail	Details Jamb Detail	Details Threshold Detail	Comments
01A	F	6' - 0"	8' - 0"	0' - 1 3/4"	AL	FF	NON-RATED	1.0	AL	FF	2/A6.61.2	3/A6.61.2	4/A6.61.2	PANIC HARDWARE - ACCESS CONTROL- POWERED DOOR - ACTIVATE ONE LEAF - THEORY OF OPERATION NARRATIVE - - FAIL SECURE -POWER VERTICAL ACUATOR
02A	E	3' - 0"	7' - 0"	0' - 1 3/4"	SC	FF	NON-RATED	3.0	AL	FF	4/A8.51.2	2/A8.51.2	7A/A8.51.2	MORTISE - INIDICATOR ON ESCUTCHEON FOR LOCKED/UNLOCKED - THUMBTURN
03A	E	3' - 0"	7' - 0"	0' - 1 3/4"	SC	FF	NON-RATED	3.0	AL	FF	4/A8.51.2	2/A8.51.2	7A/A8.51.2	MORTISE - INIDICATOR ON ESCUTCHEON FOR LOCKED/UNLOCKED - THUMBTURN
04A	E	3' - 0"	7' - 0"	0' - 1 3/4"	SC	FF	NON-RATED	3.0	AL	FF	4/A8.51.2	2/A8.51.2	7A/A8.51.2	MORTISE - INIDICATOR ON ESCUTCHEON FOR LOCKED/UNLOCKED - THUMBTURN
05A	E	3' - 0"	7' - 0"	0' - 1 3/4"	SC	FF	NON-RATED	3.0	AL	FF	4/A8.51.2	2/A8.51.2	7A/A8.51.2	MORTISE - INIDICATOR ON ESCUTCHEON FOR LOCKED/UNLOCKED - THUMBTURN
06A	E	3' - 0"	7' - 0"	0' - 1 3/4"	SC	FF	NON-RATED	3.0	AL	FF	4/A8.51.2	2/A8.51.2	7A/A8.51.2	MORTISE - INIDICATOR ON ESCUTCHEON FOR LOCKED/UNLOCKED - THUMBTURN
09A	E	3' - 0"	7' - 0"	0' - 1 3/4"	SC	FF	NON-RATED	3.0	AL	FF	4/A8.51.2	2/A8.51.2	7A/A8.51.2	MORTISE - INIDICATOR ON ESCUTCHEON FOR LOCKED/UNLOCKED - THUMBTURN
09B	A	3' - 0"	7' - 0"	0' - 1 3/4"	SC	FF	NON-RATED	3.0	AL	FF	1/A8.51.2	2/A8.51.2	7A/A8.51.2	MORTISE - INIDICATOR ON ESCUTCHEON FOR LOCKED/UNLOCKED - THUMBTURN
10A	A	3' - 0"	7' - 0"	0' - 1 3/4"	SC	FF	NON-RATED	5.0	AL	FF	1/A8.51.2	2/A8.51.2	2A/A8.51.2	STORAGE LOCK
11A	A	4' - 0"	7' - 0"	0' - 1 3/4"	SC	FF	NON-RATED	25.0	HM	PTD	14/A8.51.2	14/A8.51.2	5B/A8.21.2	STORAGE LOCK, STC 45 MIN, PAINT FRAME TO LOOK SIMILAR TO ANODIZED ALUM INTERIOR FRAMES, COLOR TBD (03 ADD)
13A	A	3' - 0"	7' - 0"	0' - 1 3/4"	SC	FF	NON-RATED	6.0	AL	FF	1/A8.51.2	2/A8.51.2	2A/A8.21.2	
14A	A	3' - 0"	7' - 0"	0' - 1 3/4"	SC	FF	NON-RATED	5.0	AL	FF	1/A8.51.2	2/A8.51.2	2A/A8.21.2	
20A	F	6' - 0"	8' - 0"	0' - 1 3/4"	AL	FF	NON-RATED	1.0	AL	FF	2/A6.61.2	3/A6.61.2	4/A6.61.2	PANIC HARDWARE - ACCESS CONTROL- POWERED DOOR - ACTIVATE ONE LEAF - THEORY OF OPERATION NARRATIVE - - FAIL SECURE -POWER VERTICAL ACUATOR
20B	C	3' - 0"	7' - 0"	0' - 1 3/4"	AL	FF	NON-RATED	7.0	AL	FF	2/A6.61.2	6/A6.22.2 SIM	4/A6.61.2 SIM	PANIC HARDWARE WITH LOCAL BUZZER EXIT ONLY ALARM - KEYED MASTER FOR POLICE SERVICE ACCESS -
101A	F	6' - 0"	7' - 0"	0' - 1 3/4"	AL	FF	NON-RATED	8.0	(E) AL	(E)	-	-	-	(01 ADD) REPLACE (E) DOOR WITHIN (E) FRAME FOR ACCESS CONTROL UPGRADE. DOOR FINISH TO MATCH (E) FRAME & BY SAME MFR AS (E). REPLACE THRESHOLD AS NEEDED FOR (N) FLOORING (ADA / CH.11B COMPLIANT).
101B	F	6' - 0"	7' - 0"	0' - 1 3/4"	AL	FF	NON-RATED	8.0	(E) AL	(E)	-	-	-	(02 ADD) REPLACE (E) DOOR WITHIN (E) FRAME FOR ACCESS CONTROL UPGRADE. DOOR FINISH TO MATCH (E) FRAME & BY SAME MFR AS (E). REPLACE THRESHOLD AS NEEDED FOR (N) FLOORING (ADA / CH.11B COMPLIANT).
102A	A	3' - 0"	7' - 0"	0' - 1 3/4"	(E) SC	(E)	NON-RATED	3.0	(E) HM	PTD	-	-	-	HARDWARE UPGRADE - OFFICE LOCK - MORTISE THUMBTURN
103A	A	3' - 0"	7' - 0"	0' - 1 3/4"	(E) SC	(E)	NON-RATED	10.0	(E) HM	PTD	-	-	5A/A8.21.2	ACCESS CONTROL - OFFICE LOCK - MORTISE THUMBTURN
103AA	G	5' - 0"	7' - 0"	0' - 1 3/4"	SC	FF	NON-RATED	20.0	HM	PTD	6/A8.51.2 SIM	6/A8.51.2	2A/A8.21.2 SIM	STORAGE LOCK; PAINT FRAME TO MATCH FRAME ON (E) DOOR 103A
107A	C	3' - 0"	7' - 0"	0' - 1 3/4"	(E) HM	PTD	NON-RATED	8.0	(E) HM	PTD	-	-	-	(03 ADD) (E) PANIC HARDWARE TO REMAIN - HARDWARE UPGRADE - ACCESS CONTROL
107B	H	3' - 6"	10' - 0"	0' - 1 3/4"	AL	FF	NON-RATED	15.0	AL	FF	16C/A8.51	10/A8.51.2	6A/A8.21.2	(03 ADD) MOTORIZED ROLL-UP DOOR - ALUM - FACE MOUNTED GUIDERAILS
107C	G	6' - 0"	8' - 0"	0' - 1 3/4"	SC	FF	NON-RATED	21.0	HM	PTD	6/A8.51.2 SIM	6/A8.51.2	2A/A8.21.2 SIM	(03 ADD) STORAGE LOCK; PAINT FRAME TO MATCH FRAME ON (E) DOOR 103A
107D	A	3' - 0"	7' - 0"	0' - 1 3/4"	(E) HM	PTD	NON-RATED	8.0	(E) HM	PTD	-	-	-	(03 ADD) (E) PANIC HARDWARE TO REMAIN - EXIT ONLY - NO ALARM - VERIFY WITH CAFE USER GROUP. REPLACE (E) THRESHOLD IF NOT COMPATIBLE W/ NEW INTERIOR FLOORING. NOTIFY ARCHITECT.
107E	A	2' - 6"	7' - 0"	0' - 1 3/4"	SC	FF	NON-RATED	5.0	HM	PTD	6/A8.51.2	6/A8.51.2	6B/A8.21.2	STORAGE LOCK
108A	A	3' - 0"	7' - 0"	0' - 1 3/4"	(E) HM	PTD	NON-RATED	5.0	(E) HM	PTD	-	-	-	SEAL DOOR TO MAKE INOPERABLE
168A	C	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PTD	45 MIN.	27.0	(E) HM	(E)	-	-	4/A6.11.1 sim	(03 ADD) PANIC HARDWARE - ACCESS CONTROL
229A	C	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PTD	45 MIN.	28.0	(E) HM	(E)	-	-	4/A6.11.1 sim	ACCESS CONTROL
229B	C	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PTD	45 MIN.	28.0	(E) HM	(E)	-	-	4/A6.11.1 sim	ACCESS CONTROL
231BA	C	3' - 0"	7' - 0"	0' - 1 3/4"	HM	PTD	45 MIN.	27.0	(E) HM	(E)	-	-	4/A6.11.1 sim	PANIC HARDWARE - ACCESS CONTROL
301.1	A	3' - 0"	5' - 0"	0' - 1 3/4"	HM	PTD	60 MIN.	26.0	HM	PTD	6/A8.51.2	6/A8.51.2	-	PAINT DOOR AND FRAME TO MATCH (E) INTERIOR HM DOORS

(ASI-010)



DOOR TYPES

DOOR GENERAL NOTES

1. FOR THRESHOLDS, MAXIMUM 1/2" HIGH ABOVE FINISH FLOOR OR LANDINGS ON BOTH SIDES AND AT ENTRANCE DOORS. CBC 11B 404.2.5 AND 11B-303.3
2. FOR DOOR CLOSERS, RESISTANCE TO PRESSURE TO BE SET AT 5 LBS FOR INTERIOR OR EXTERIOR DOORS, MAX. CBC 11B 404.2.9
3. ALL NEW DOORS TO BE EQUIPPED WITH SINGLE EFFORT, NON-GRASP HARDWARE (I.E. LEVER) CENTERED BETWEEN 34" AND 44" ABOVE THE FLOOR. CBC 11B 404.2.7
4. 10" KICKPLATE TO BE INSTALLED AT BOTTOM OF ALL NEW STOREFRONT TYPE DOORS. CBC 11B 404.2.1
5. ALL NEW DOORS THAT ARE A MINIMUM OF 36" WIDE SHALL BE REQUIRED TO HAVE A CLEAR WIDTH OF 32" WHEN FULLY OPEN. CBC 11B-404.2.3
6. DOOR HARDWARE AT EXISTING AND NEW EGRESS DOORS SHALL ALLOW DOORS TO BE READILY OPENED FROM THE EGRESS SIDE, WITHOUT THE USE OF THE KEY, SPECIAL KNOWLEDGE, OR EFFORT. CBC 1010.19
7. WITHIN 24" OF EITHER SIDE OF ANY DOOR, AND / OR WHERE THERE ARE AREAS GREATER THAN 9 SQ FT IN AREA OF GLAZING WITH A BOTTOM EDGE LESS THAN 18" ABOVE THE FLOOR AND WITHIN 36" OF A WALKING SURFACE SHALL BE SAFETY GLAZED (I.E. TEMPERED), CBC 2406.4.3 AND 2406.4.5.
8. HARDWARE AT NEW AND EXISTING DOORS IN AREA OF WORK SHALL BE COORDINATED AND REVIEWED WITH DISTRICT
9. WHERE HARDWARE MODIFICATIONS ARE PROPOSED TO EXISTING DOORS, PROVIDE FIELD VERIFICATION OF EXISTING CONDITIONS, DOOR THICKNESS, AND MATERIAL TO CONFIRM COMPATIBILITY. NOTIFY ARCHITECT OF ANY DISCREPANCIES.
10. WHERE EXISTING ALARM DEVICES/SYSTEM (BAY ALARM) ARE PRESENT AT EXISTING DOOR, THEY SHALL BE RE-INSTALLED AND MAINTAINED OPERABLE AFTER DOOR/DOOR HARDWARE MODIFICATIONS
11. EXTERIOR AND INTERIOR DOOR WITH WINDOW LITE SHALL RECEIVE TEMPERED GLASS.

ASI #10 - DOORS FROM INCREMENT 1 - ADDED INTO INCREMENT 2 FOR REVISIONS

APPROVALS

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ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD

D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

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ISSUE TITLE
INCREMENT 2

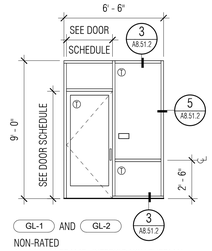
ISSUE DATE **5/30/2019**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03
2	4/17/20	INC 2- ASI 010

SHEET TITLE
DOOR SCHEDULE & TYPES

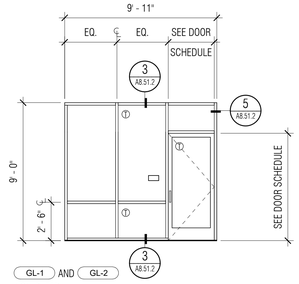
SHEET NUMBER
A8.40.2



GL-1 AND GL-2

NON-RATED
ALUMINUM FRAME -INTERIOR NON THERMAL
TEMPERED GLASS AS REQ BY CODE
SEE DOOR SCHEDULE FOR DOOR TYPE

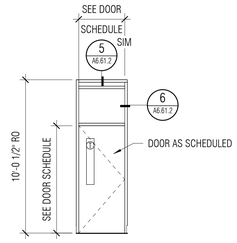
10 A8.50.2 INTERIOR WINDOW - TYPE 14
1/4" = 1'-0"



GL-1 AND GL-2

NON-RATED
ALUMINUM FRAME -INTERIOR NON THERMAL
TEMPERED GLASS AS REQ BY CODE
SEE DOOR SCHEDULE FOR DOOR TYPE

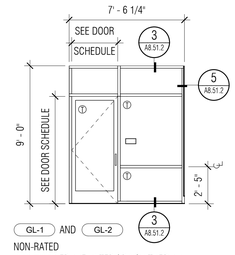
6 A8.50.2 INTERIOR WINDOW - TYPE 10
1/4" = 1'-0"



GL-20 AND GL-21

ALUMINUM FRAME - EXTERIOR THERMAL PERFORMANCE
TEMPERED GLASS AS REQ BY CODE

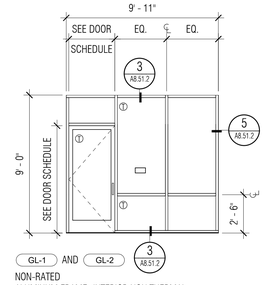
4 A8.50.2 STOREFRONT - TYPE DD
1/4" = 1'-0"



GL-1 AND GL-2

NON-RATED
ALUMINUM FRAME -INTERIOR NON THERMAL
TEMPERED GLASS AS REQ BY CODE
SEE DOOR SCHEDULE FOR DOOR TYPE

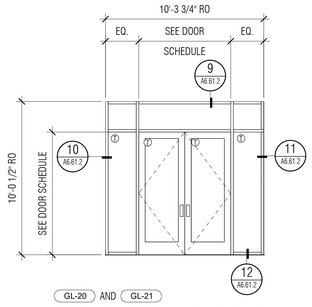
11 A8.50.2 INTERIOR WINDOW - TYPE 15
1/4" = 1'-0"



GL-1 AND GL-2

NON-RATED
ALUMINUM FRAME -INTERIOR NON THERMAL
TEMPERED GLASS AS REQ BY CODE
SEE DOOR SCHEDULE FOR DOOR TYPE

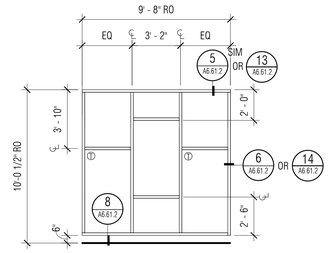
7 A8.50.2 INTERIOR WINDOW - TYPE 11
1/4" = 1'-0"



GL-20 AND GL-21

ALUMINUM FRAME - EXTERIOR THERMAL PERFORMANCE
TEMPERED GLASS AS REQ BY CODE

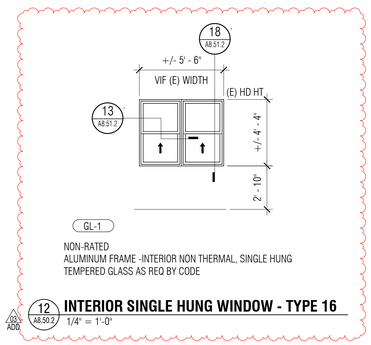
5 A8.50.2 STOREFRONT - TYPE EE
1/4" = 1'-0"



GL-20 AND GL-21

ALUMINUM FRAME - EXTERIOR THERMAL PERFORMANCE
TEMPERED GLASS AS REQ BY CODE

1 A8.50.2 STOREFRONT - TYPE AA
1/4" = 1'-0"

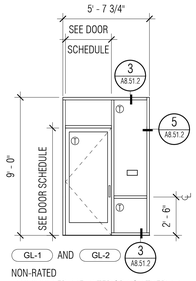


GL-1

NON-RATED
ALUMINUM FRAME -INTERIOR NON THERMAL, SINGLE HUNG
TEMPERED GLASS AS REQ BY CODE

12 A8.50.2 INTERIOR SINGLE HUNG WINDOW - TYPE 16
1/4" = 1'-0"

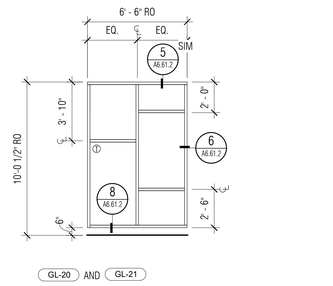
CD's ADD



GL-1 AND GL-2

NON-RATED
ALUMINUM FRAME -INTERIOR NON THERMAL
TEMPERED GLASS AS REQ BY CODE
SEE DOOR SCHEDULE FOR DOOR TYPE

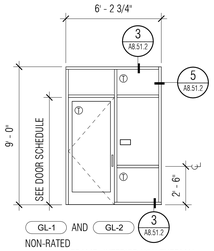
8 A8.50.2 INTERIOR WINDOW - TYPE 12
1/4" = 1'-0"



GL-20 AND GL-21

ALUMINUM FRAME - EXTERIOR THERMAL PERFORMANCE
TEMPERED GLASS AS REQ BY CODE

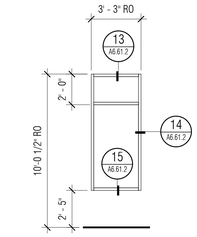
2 A8.50.2 STOREFRONT - TYPE BB
1/4" = 1'-0"



GL-1 AND GL-2

NON-RATED
ALUMINUM FRAME -INTERIOR NON THERMAL
TEMPERED GLASS AS REQ BY CODE
SEE DOOR SCHEDULE FOR DOOR TYPE

9 A8.50.2 INTERIOR WINDOW - TYPE 13
1/4" = 1'-0"



GL-20

ALUMINUM FRAME - EXTERIOR THERMAL PERFORMANCE
TEMPERED GLASS AS REQ BY CODE

3 A8.50.2 STOREFRONT - TYPE CC
1/4" = 1'-0"

SHEET NOTES

1. OVERALL DIMENSIONS ARE TO ROUGH OPENING TYPICAL UON. REFER TO SILL, JAMB, AND HEAD DETAILS FOR DIMENSION POINTS.

WINDOW ELEVATION LEGEND

(T)	TEMPERED GLASS
GL-00	GLAZING TYPE TAG, SEE SPECIFICATION

APPROVALS

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ARCHITECTS SEAL

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CHRISTOPHER NOLL
No. C15916
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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

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ISSUE TITLE
INCREMENT 2

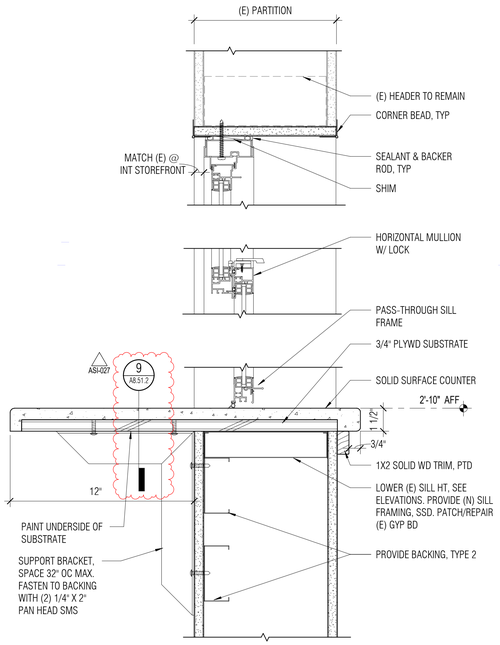
ISSUE DATE **5/30/2019**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

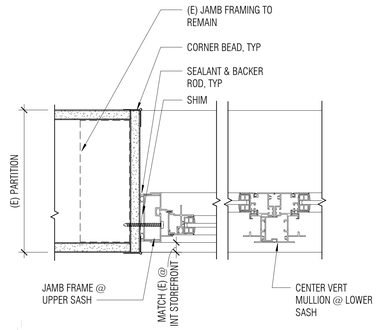
	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03

SHEET TITLE
EXTERIOR STOREFRONT & INTERIOR WINDOW TYPES

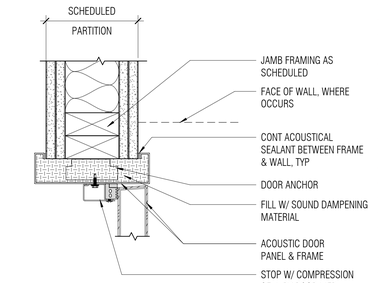
SHEET NUMBER
A8.50.2



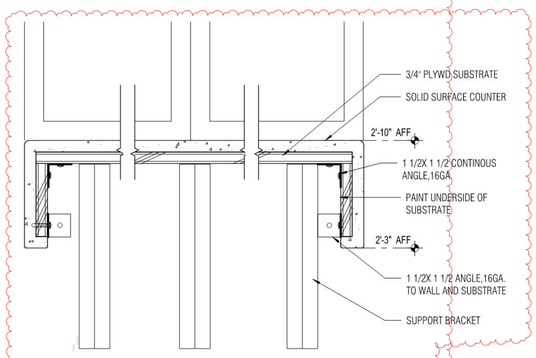
18 A8.51.2 **SILL & HEAD @ INTERIOR SINGLE HUNG WINDOW**
3" = 1'-0"



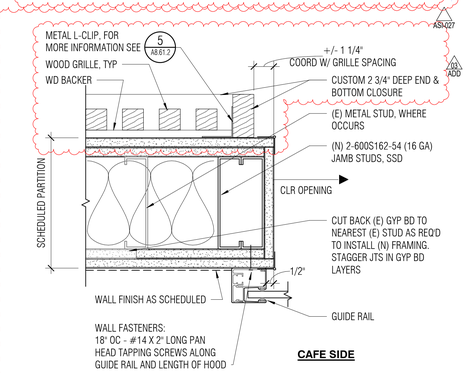
13 A8.51.2 **JAMB & VERT MULLION @ INT SINGLE HUNG WINDOW**
3" = 1'-0"



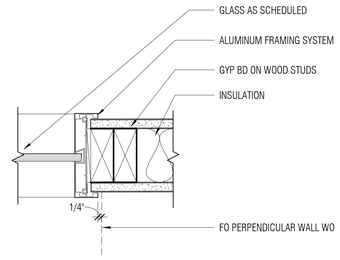
14 A8.51.2 **ACOUSTICAL DOOR JAMB - HEAD SIM**
3" = 1'-0"



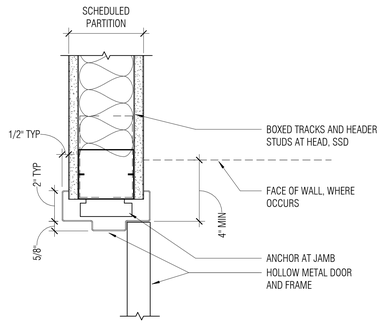
9 A8.51.2 **COUNTERTOP @ INTERIOR SINGLE HUNG WINDOW**
3" = 1'-0"



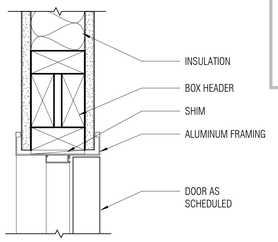
10 A8.51.2 **JAMB @ COILING DOOR**
3" = 1'-0"



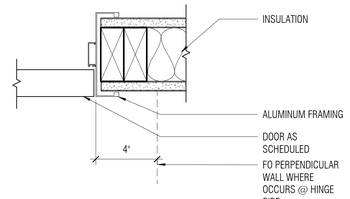
5 A8.51.2 **INTERIOR GLAZING JAMB DETAILS**
3" = 1'-0"



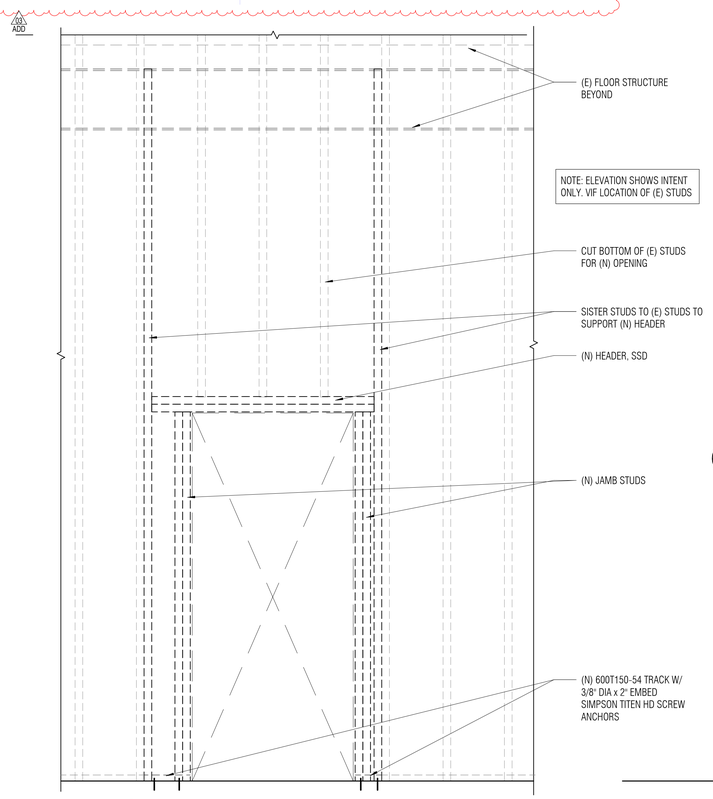
6 A8.51.2 **HOLLOW METAL DOOR JAMB - HEAD SIM**
3" = 1'-0"



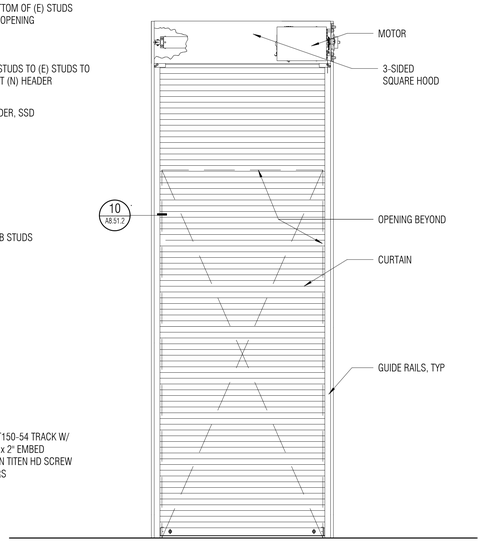
1 A8.51.2 **DOOR HEAD @ INTERIOR GLAZING SYSTEM W/O TRANSOM**
3" = 1'-0"



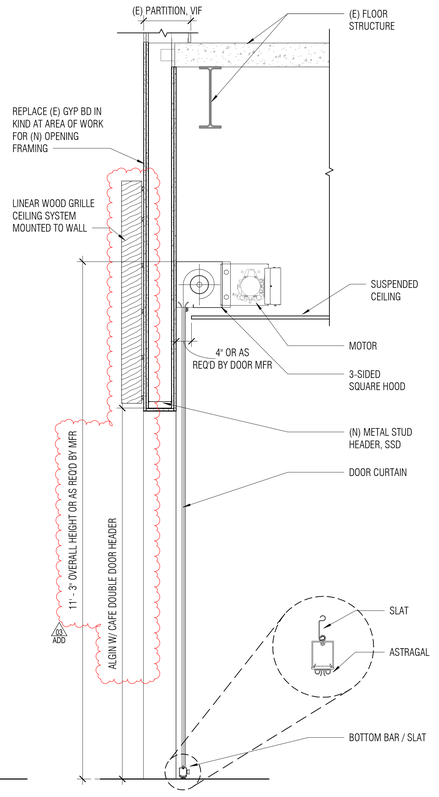
2 A8.51.2 **TYPICAL DOOR JAMB @ INTERIOR GLAZING SYSTEM (HEAD SIM)**
3" = 1'-0"



16A FRAMING ELEVATION

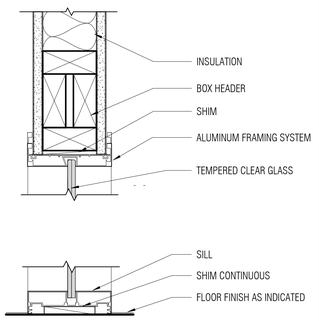


16B DOOR ELEVATION (CAFE SIDE)

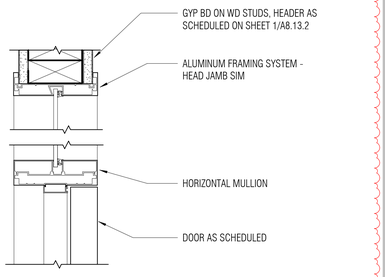


16C SECTION @ DOOR

16 A8.51.2 **FACE MOUNTED COILING DOOR**
3/4" = 1'-0"



3 A8.51.2 **INTERIOR GLAZING HEAD AND SILL DETAIL**
3" = 1'-0"



03 ADD 4 A8.51.2 **INTERIOR GLAZING SYSTEM DOOR HEAD @ TRANSOM**
3" = 1'-0"

NOLL & TAM ARCHITECTS
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APPROVALS

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ISSUE TITLE
INCREMENT 2

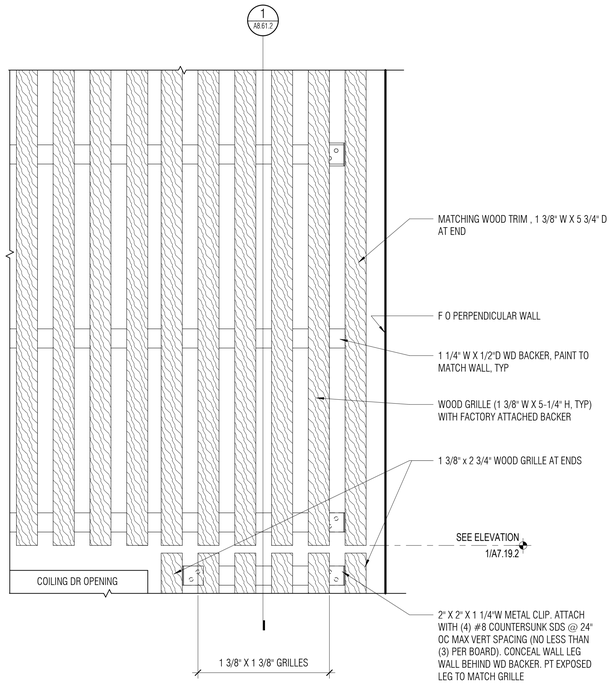
ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

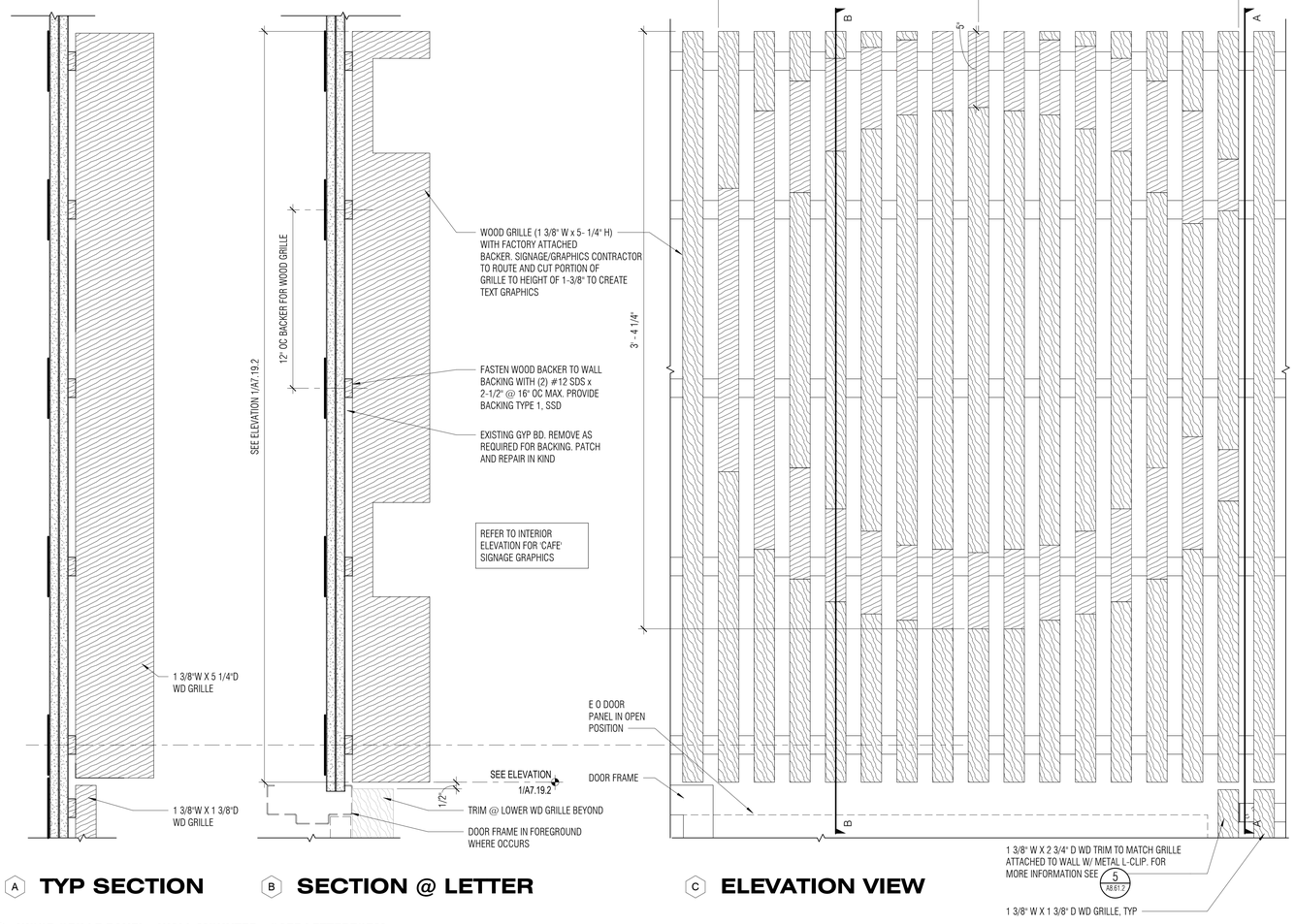
	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03
2	3/5/21	ASI 027

SHEET TITLE
INTERIOR - DOOR & WINDOW DETAILS

SHEET NUMBER
A8.51.2



5 A8.61.2 **WOOD GRILLE -PANEL WALL MOUNTED - CAFE ENTRY**
3" = 1'-0"

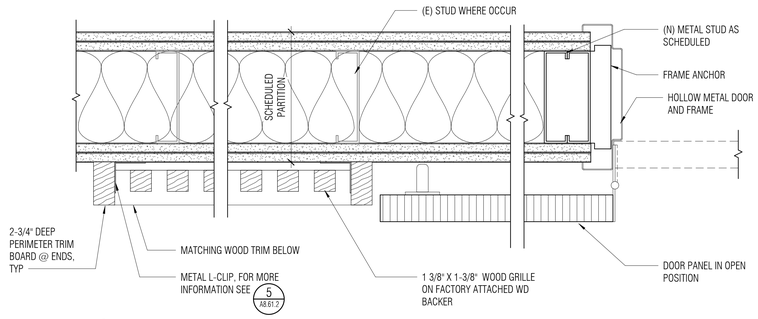


A **TYP SECTION**

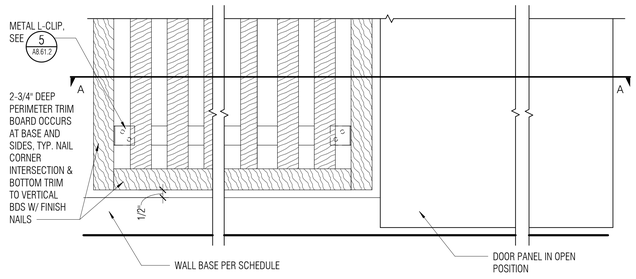
B **SECTION @ LETTER**

C **ELEVATION VIEW**

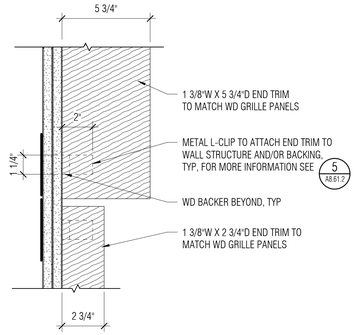
1 A8.61.2 **WOOD GRILLE PANEL - WALL MOUNTED - CAFE LETTERFORM**
3" = 1'-0"



A **PLAN VIEW**



B **ELEVATION VIEW**



4 A8.61.2 **WOOD GRILLE - PANEL WALL MOUNTED - END TRIM**
3" = 1'-0"

2 A8.61.2 **WOOD GRILLE PANEL - WALL MOUNTED - DOOR JAMB**
3" = 1'-0"

APPROVALS

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ARCHITECTS SEAL

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NOLL & TAM JOB NUMBER **21630**

REVISIONS

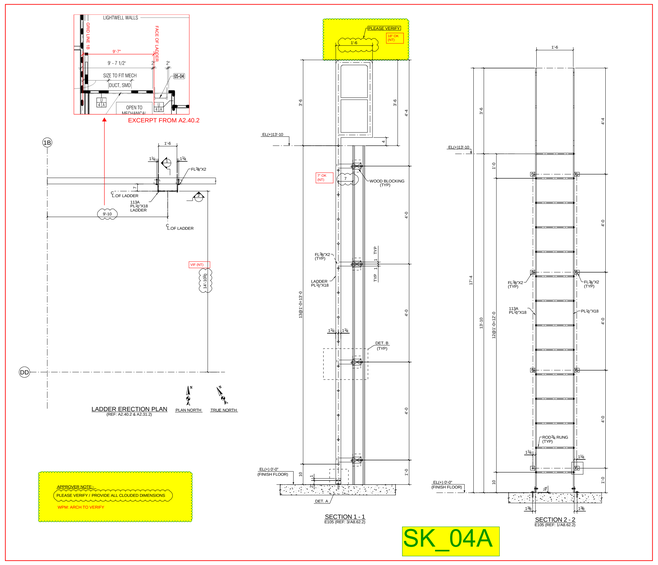
	DATE	DESCRIPTION
03 ADD	8/27/19	INC 2 - ADDENDUM 03

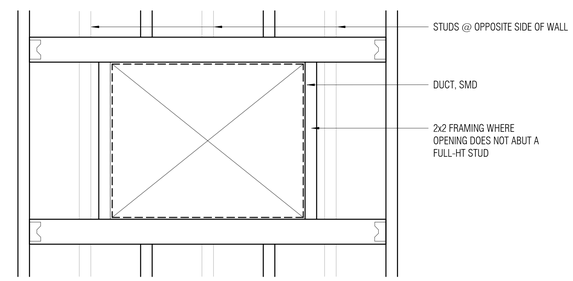
SHEET TITLE
INTERIOR DETAILS - CAFE WALL

SHEET NUMBER
A8.61.2

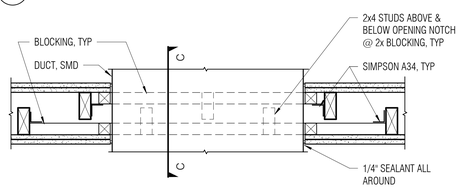
9/11/2023 3:35:09 PM C:\Users\phan.dung\Documents\Revit Locals\DVCSR Expansion_Central 2020_2021_phan.dung@nollandtam.com.rvt

RFI#43 - LADDER
DELTA STEEL CONSTRUCTION INC.
REFER TO RFI#43 FOR ADDITIONAL INFORMATION

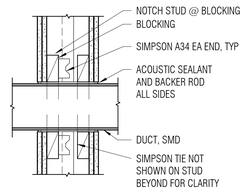




A **ELEVATION VIEW**

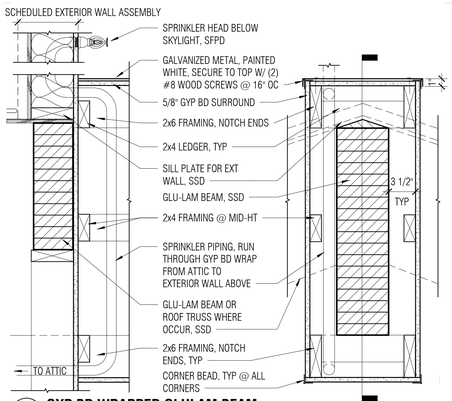


B **PLAN VIEW**

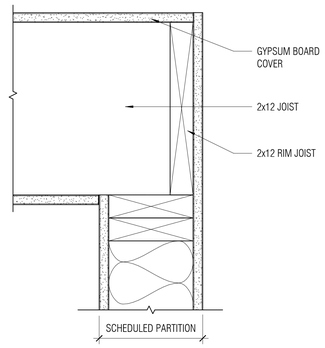


C **CROSS SECTION VIEW**

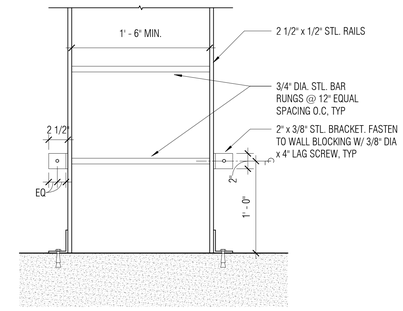
20 A8.62.2 **FRAMING @ DUCT THROUGH STAGGERED STUD ACOUSTIC PARTITION**
1 1/2" = 1'-0"



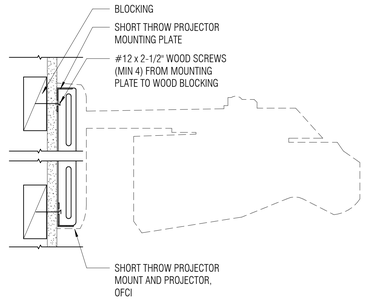
9 A8.62.2 **GYP BD WRAPPED GLULAM BEAM**
1 1/2" = 1'-0"



5 A8.62.2 **INTERIOR FRAMING AT LLRC ENTRIES**
3" = 1'-0"

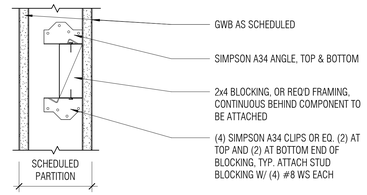


1 A8.62.2 **LADDER ELEVATION**
1 1/2" = 1'-0"

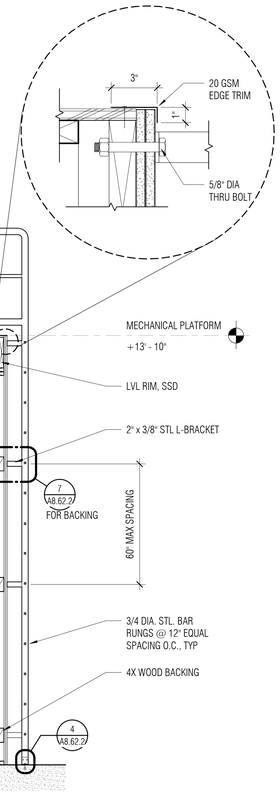


10 A8.62.2 **SHORT THROW PROJECTOR MOUNTING**
3" = 1'-0"

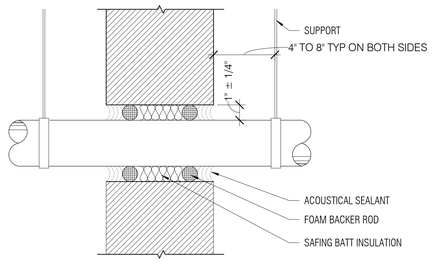
NOTES:
1. FOR SURFACE MOUNTED MIRRORS, WASTE RECEPTACLES, TOWEL DISPENSERS, WALL MOUNTED DOOR STOPS, OR OTHER MISC ITEMS NOT EXCEEDING MAX WEIGTH 50 LBS/LF
2. LENGTH, HEIGHT, AND LOCATION TO SUIT ITEMS BEING FASTENED. SEE ANCHORAGE DETAIL OF SPECIFIC ITEMS FOR ADDITIONAL INFORMATION.
3. ATTACH TO THREE STUDS MIN.
4. USE DOUBLE STUDS WHEN STUD IS SUPPORTING MORE THAN (2) BLOCKING STUDS



6 A8.62.2 **BACKING @ WD PARTITION - MAX 50 LBS/LF LOAD**
3" = 1'-0"



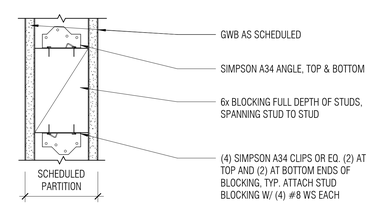
3 A8.62.2 **LADDER SECTION**
1/2" = 1'-0"



NOTE: APPLICABLE AT ALL SOUND-RATED CONSTRUCTION INCLUDING INTERIOR INSULATED ASSEMBLIES.

11 A8.62.2 **ACOUSTIC- SOUND-RATED WALL PENETRATION - SMALL DIA.**
3" = 1'-0"

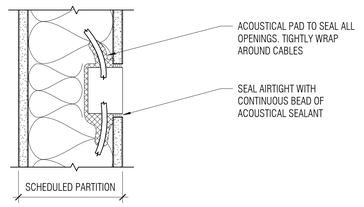
NOTES:
1. USE FOR GRAB BARS AND EQUIPMENT OR OTHER MISC ITEMS NOT EXCEEDING MAX WEIGTH 300 LBS/LF
2. LENGTH, HEIGHT, AND LOCATION TO SUIT ITEMS BEING FASTENED. SEE ANCHORAGE DETAIL OF SPECIFIC ITEMS FOR ADDITIONAL INFORMATION.
3. ATTACH TO THREE STUDS MIN.
4. USE DOUBLE STUDS WHEN STUD IS SUPPORTING MORE THAN (2) BLOCKING STUDS



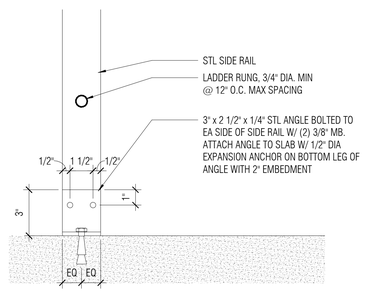
7 A8.62.2 **BACKING @ WD PARTITION - MAX 300 LBS/LF LOAD**
3" = 1'-0"

NOTE: APPLICABLE AT ALL SOUND-RATED CONSTRUCTION INCLUDING ITNERIOR INSULATED ASSEMBLIES

12 A8.62.2 **ACOUSTIC- SOUND-RATED WALL PENETRATION - LARGE DIA.**
3" = 1'-0"



8 A8.62.2 **ACOUSTICAL SEALING OF ELECTRICAL BOX**
3" = 1'-0"



4 A8.62.2 **LADDER ANCHORAGE DETAIL**
3" = 1'-0"

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

APPROVALS

ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

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ISSUE TITLE
INCREMENT 2

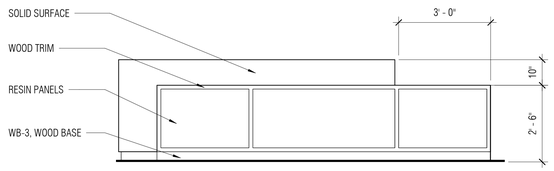
ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

REVISIONS
| | DATE | DESCRIPTION |

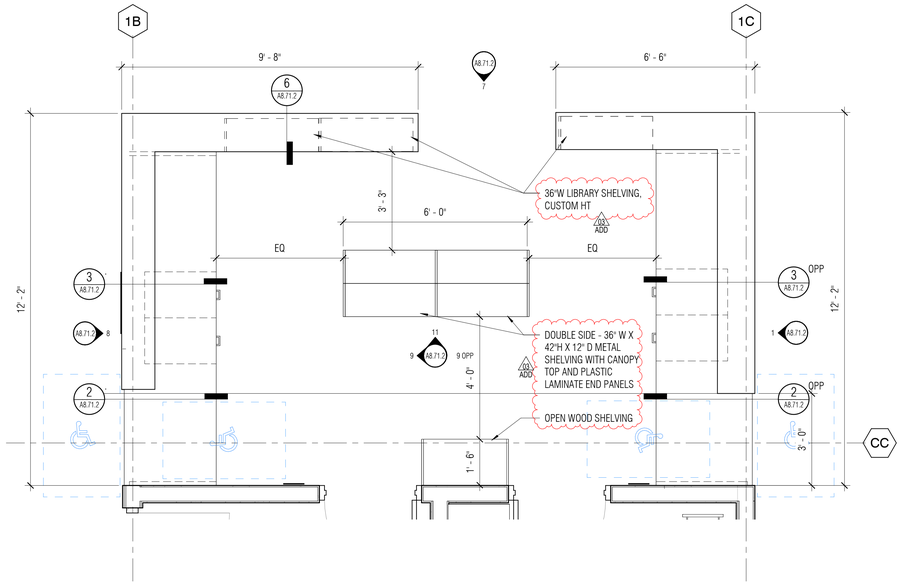
SHEET TITLE
INTERIOR DETAILS - MISCELLANEOUS

SHEET NUMBER
A8.62.2

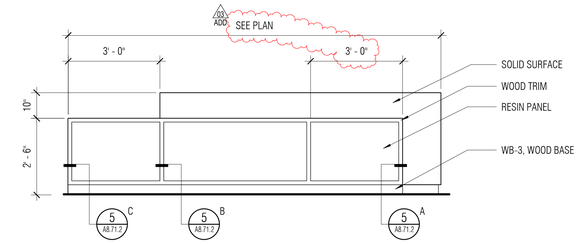
9/11/2023 3:35:16 PM C:\Users\phan.dung\Documents\Revit Local\DVCSR Expansion_Central 2020_2021_phan.dung@nollandtam.com.rvt



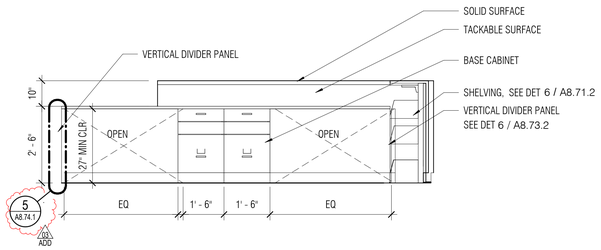
8 A8.71.2 ELEVATION - LIBRARY RECEPTION DESK
1/2" = 1'-0"



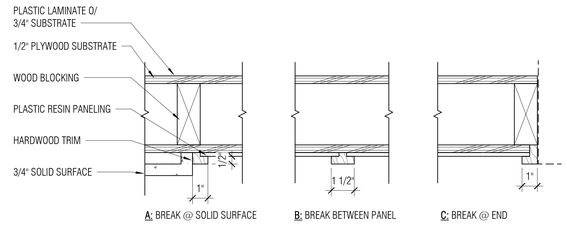
4 A8.71.2 ENLARGED PLAN - RECEPTION
1/2" = 1'-0"



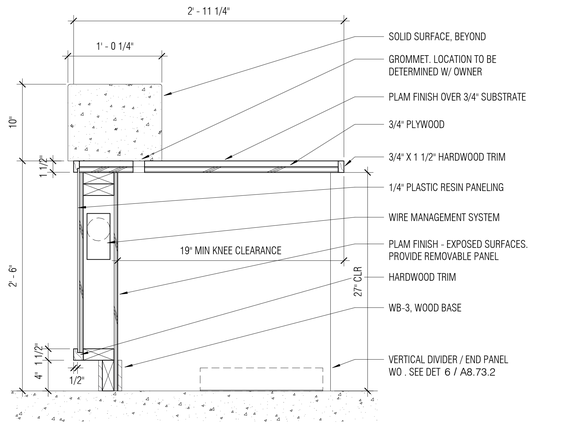
1 A8.71.2 ELEVATION - TUTORIAL RECEPTION DESK
1/2" = 1'-0"



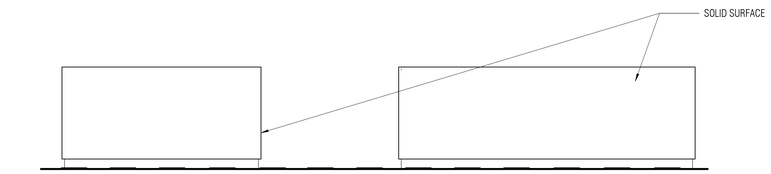
9 A8.71.2 WEST RECEPTION
1/2" = 1'-0"



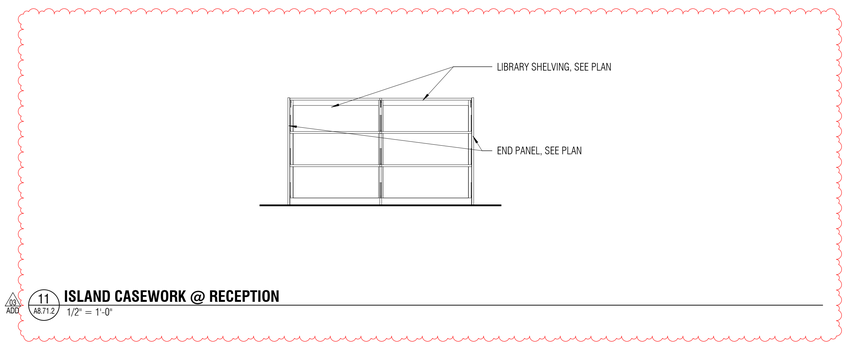
5 A8.71.2 RECEPTION DESK WOOD TRIM DETAIL
3" = 1'-0"



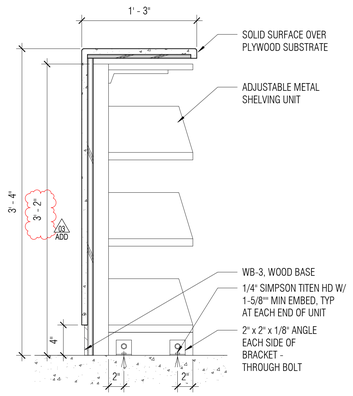
2 A8.71.2 RECEPTION DESK ACCESSIBLE LOCATION
1 1/2" = 1'-0"



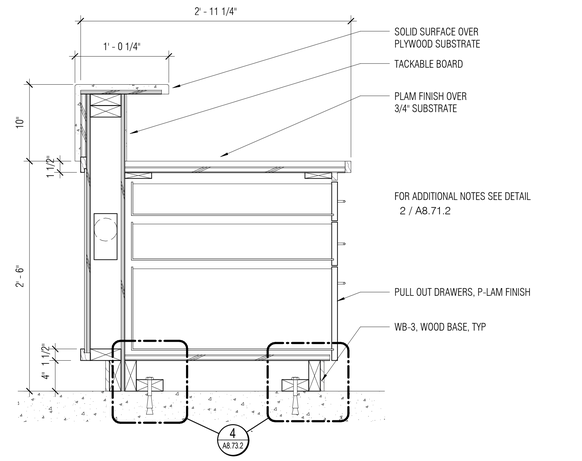
7 A8.71.2 RECEPTION DESKS @ HALLWAY
1/2" = 1'-0"



ADD 11 A8.71.2 **ISLAND CASEWORK @ RECEPTION**
1/2" = 1'-0"



6 A8.71.2 RECEPTION DESK SHELVING
1 1/2" = 1'-0"



3 A8.71.2 RECEPTION DESK SECTION
1 1/2" = 1'-0"

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

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ISSUE TITLE
INCREMENT 2

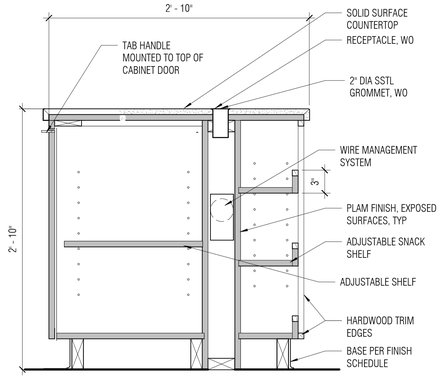
ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

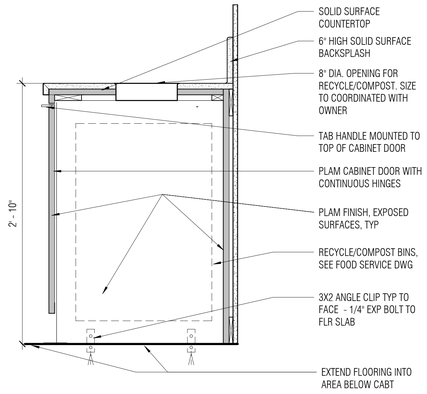
	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03

SHEET TITLE
INTERIOR DETAILS - CASEWORK - RECEPTION DESKS

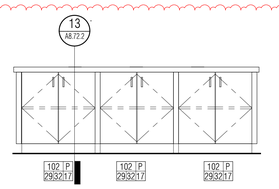
SHEET NUMBER
A8.71.2



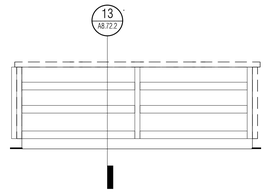
13 A8.72.2 **CAFE- ISLAND COUNTER**
1 1/2" = 1'-0"



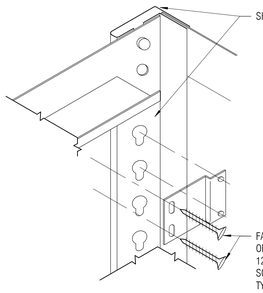
9 A8.72.2 **CAFE- COMPOST RECYCLE BASE CABINET**
1 1/2" = 1'-0"



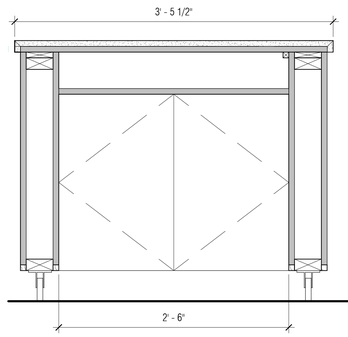
1 A8.72.2 **SERVING ISLAND COUNTER LOOKING NORTH**
1/2" = 1'-0"

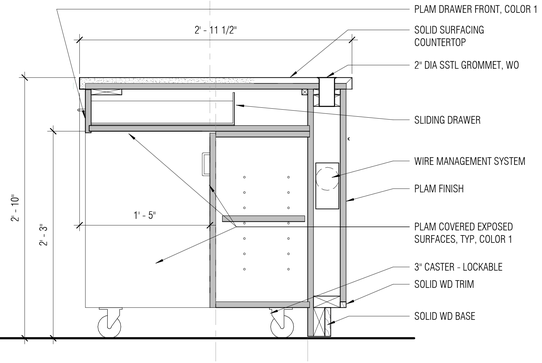


2 A8.72.2 **SERVING ISLAND COUNTER LOOKING SOUTH**
1/2" = 1'-0"

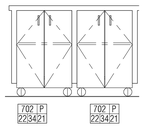


18 A8.72.2 **4-POST SHELVING WALL ANCHOR**
6" = 1'-0"



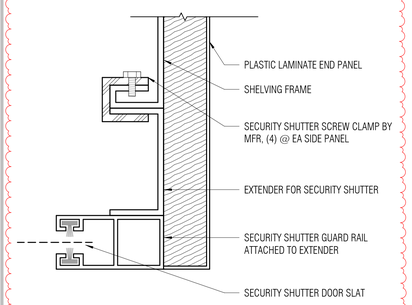


14 A8.72.2 **CAFE POS DESK**
1 1/2" = 1'-0"

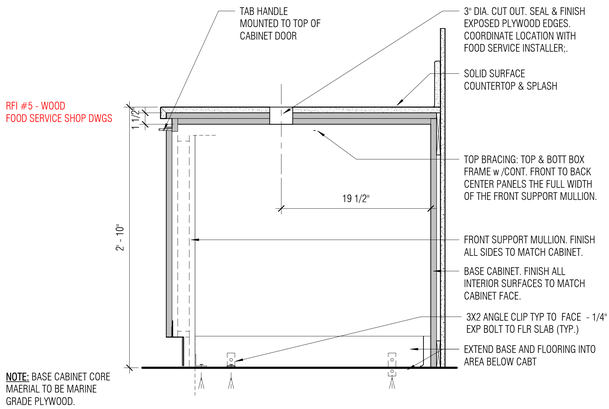


03 ADD

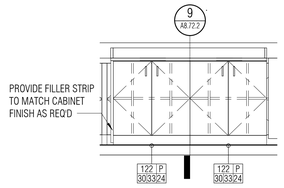
3 A8.72.2 **MOBILE CONDIMENTS CABINET**
1/2" = 1'-0"



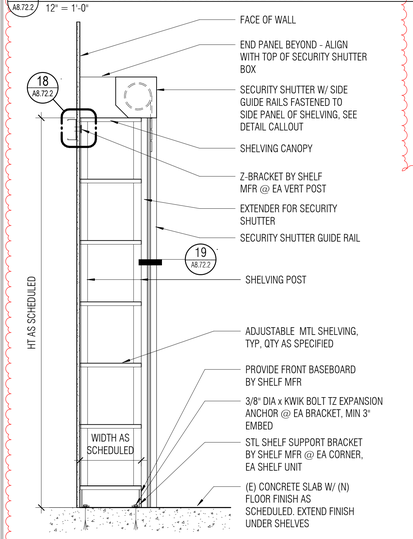
19 A8.72.2 **SECURITY SHUTTER ATTACHMENT DETAIL**
12" = 1'-0"



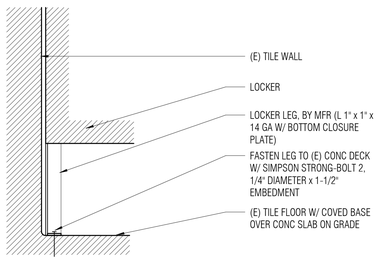
15 A8.72.2 **CAFE- BEVERAGE COUNTER**
1 1/2" = 1'-0"



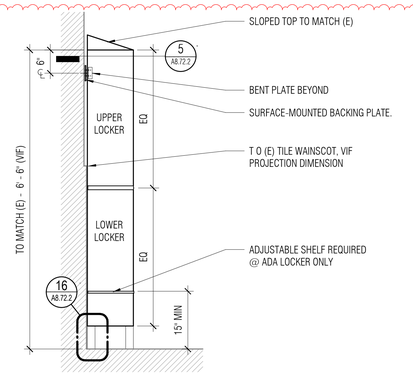
4 A8.72.2 **RECYCLE/COMPOST/TRASH CABINET**
1/2" = 1'-0"



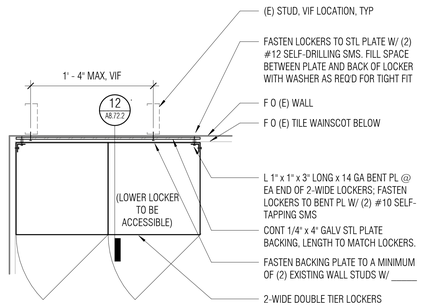
20 A8.72.2 **BOOKSTORE SHELVING (STATIONARY)**
1" = 1'-0"



16 A8.72.2 **LOCKER ANCHORAGE @ BASE**
3" = 1'-0"



12 A8.72.2 **2-TIER LOCKER ANCHORAGE - SECTION**
3/4" = 1'-0"



5 A8.72.2 **LOCKER ANCHORAGE - ENLARGED PLAN**
1 1/2" = 1'-0"

SHEET NOTES

1. REFER TO FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION.

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

LICENSED ARCHITECT
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ISSUE TITLE
INCREMENT 2

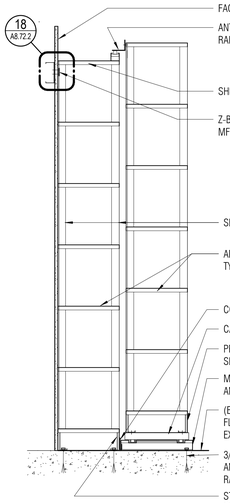
ISSUE DATE **5/30/2019**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

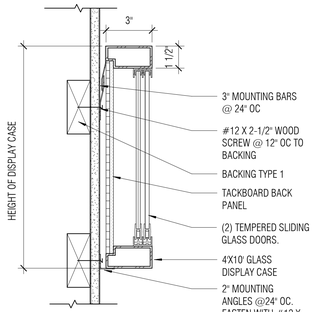
	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03

SHEET TITLE
INTERIOR DETAILS - CASEWORK - CAFE

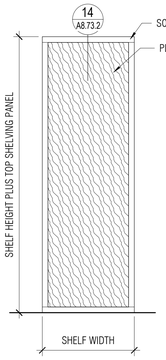
SHEET NUMBER
A8.72.2



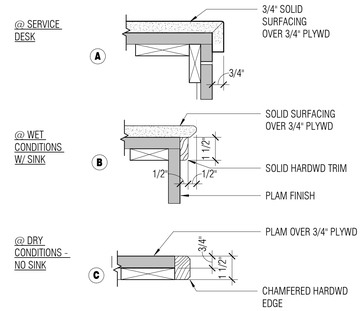
19 A8.73.2 BOOKSTORE SHELVING (BI-SLIDE) 1" = 1'-0"



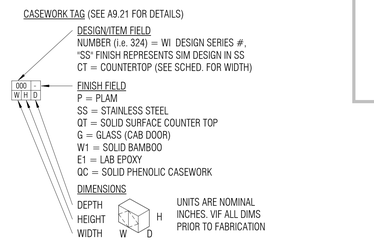
7 A8.73.2 GLASS DISPLAY CASE 3" = 1'-0"



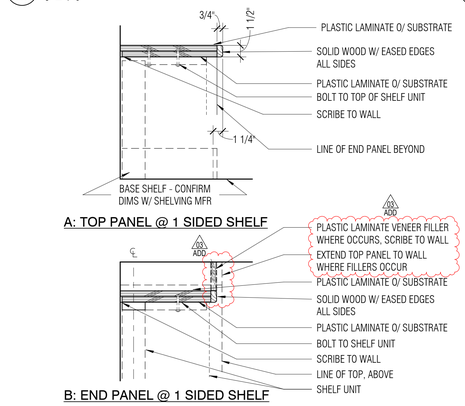
9 A8.73.2 END PANEL 3/4" = 1'-0"



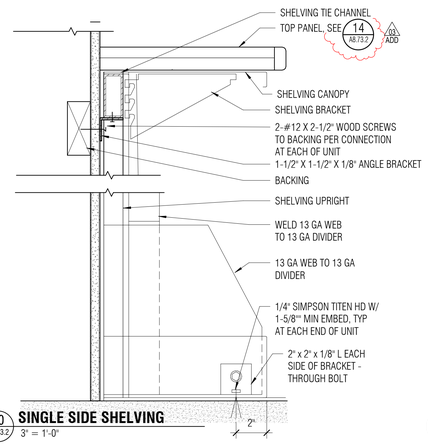
5 A8.73.2 TYPICAL COUNTERTOP EDGES 3" = 1'-0"



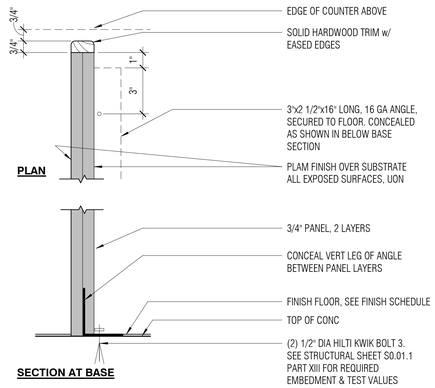
1 A8.73.2 CASEWORK SCHEDULE LEGEND 1/4" = 1'-0"



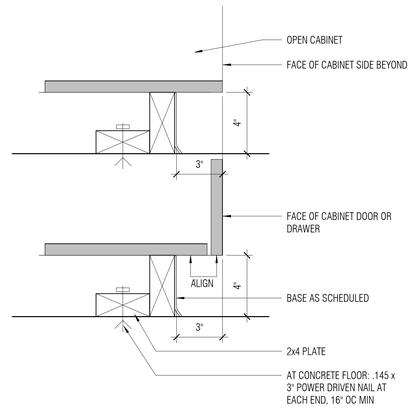
14 A8.73.2 TOP SHELVING PANEL & END PANEL 1 1/2" = 1'-0"



10 A8.73.2 SINGLE SIDE SHELVING 3" = 1'-0"



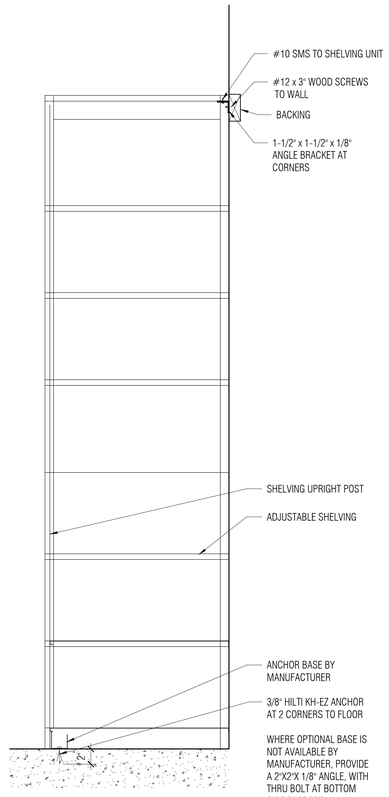
6 A8.73.2 VERTICAL DIVIDER PANEL AT DESK 3" = 1'-0"



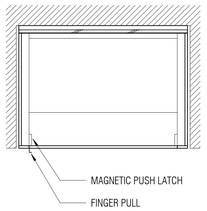
2 A8.73.2 TOEKICK ANCHORAGE (GENERIC) 3" = 1'-0"

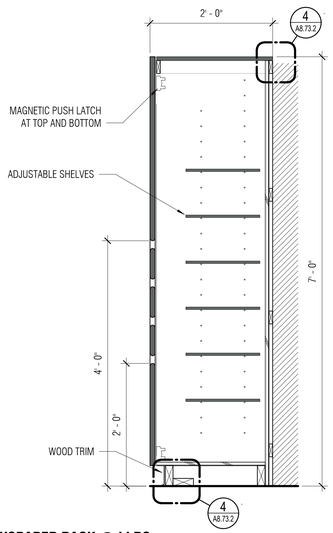
1. CASEWORK (FRONT) (BACK) (TOP) (BOTTOM) - 3/4" THICKNESS
2. FACE OF WALL
3. 1X4 CONTINUOUS WOOD CLEAT
4. 1X2 CONTINUOUS WOOD CLEAT
5. ANCHORAGE - TYPE VARIES BASE UPON WALL CONSTRUCTION AS FOLLOWS:
WOOD STUD FRAMING - #10 X 3 1/2" FHWS @ 16" OC, 2" MAXIMUM FROM EACH END AT STUD OR BLOCKING. MINIMUM 2 PER CABINET W/ 3X4 WOOD BLOCKING WITH A34 EACH END AND TOP AND BOTTOM, OR
METAL STUD FRAMING - #8 X 2 1/2" FHMS @ 16" OC, 2" MAXIMUM FROM EACH END. MINIMUM 2 PER CABINET W/ CONT 18 GA X 4" STEEL PLATE X CABINET LENGTH,
OR
MASONRY OR CONCRETE - 3/8" DIA RAMSET DYNABOLT SLEEVE ANCHORS (2" MIN EMBEDMENT) @ 24" OC, MINIMUM 2 PER CABINET.

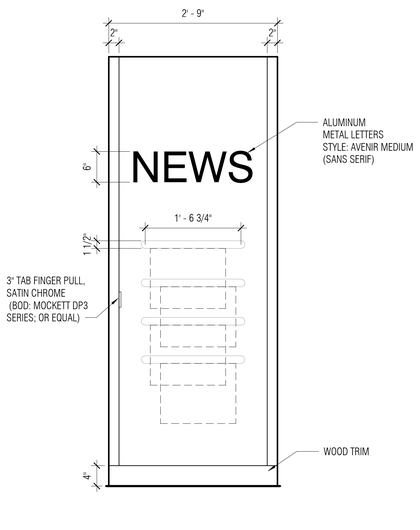
6. 2X SKIRT - BASE AS SCHEDULED
7. 2X4 PLATE
8. #10 X 3" FLAT HEAD WOOD SCREWS @ 24" OC.
9. NAILER AS REQUIRED



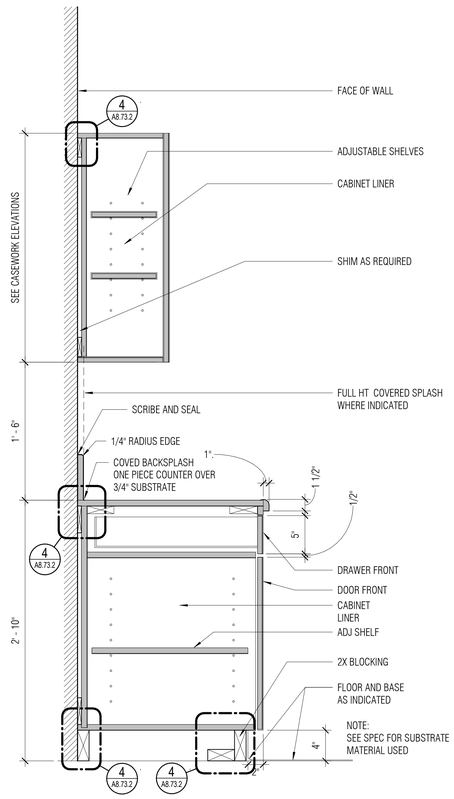
20 A8.73.2 METAL STORAGE SHELVING 1 1/2" = 1'-0"



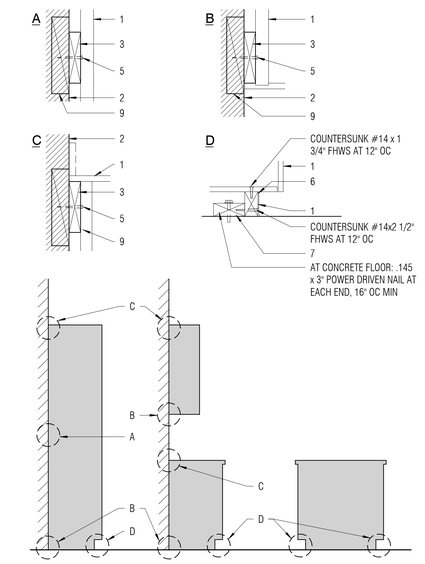




16 A8.73.2 NEWSPAPER RACK @ LLRC 1" = 1'-0"



8 A8.73.2 BASE AND UPPER CABINET 1 1/2" = 1'-0"



4 A8.73.2 TYPICAL CASEWORK ANCHORAGE 1/2" = 1'-0"

APPROVALS

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ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

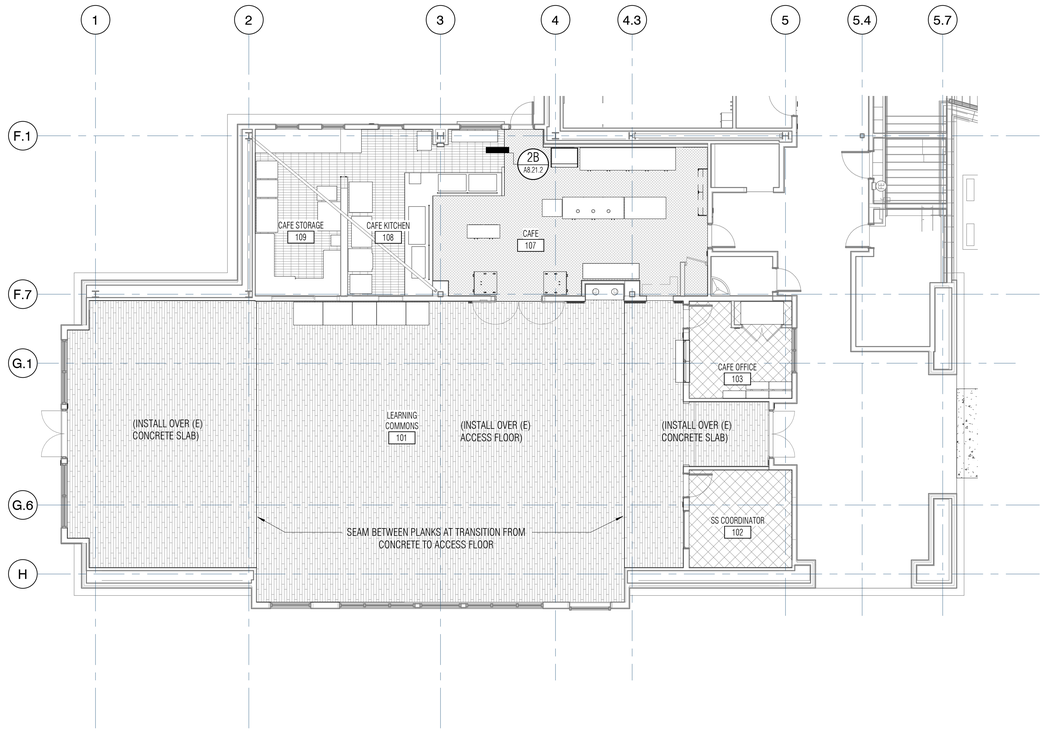
ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

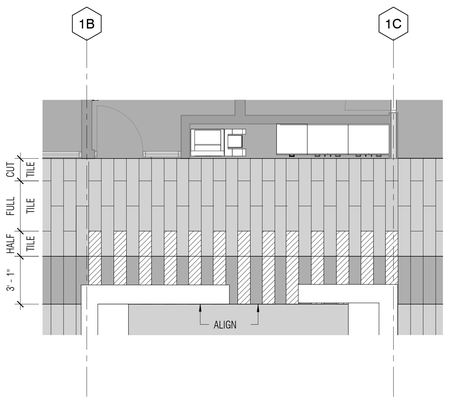
	DATE	DESCRIPTION
2	8/27/19	INC 2 - ADDENDUM 03

SHEET TITLE
INTERIOR - CASEWORK DETAILS

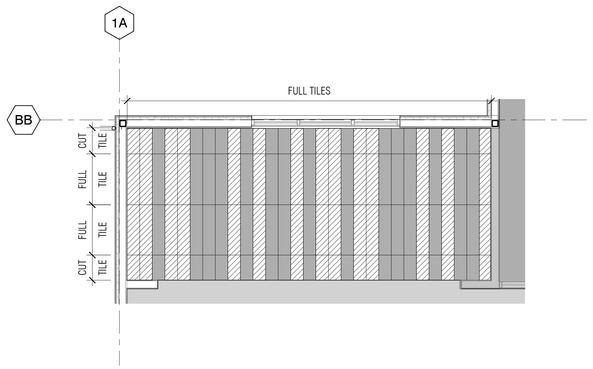
SHEET NUMBER
A8.73.2



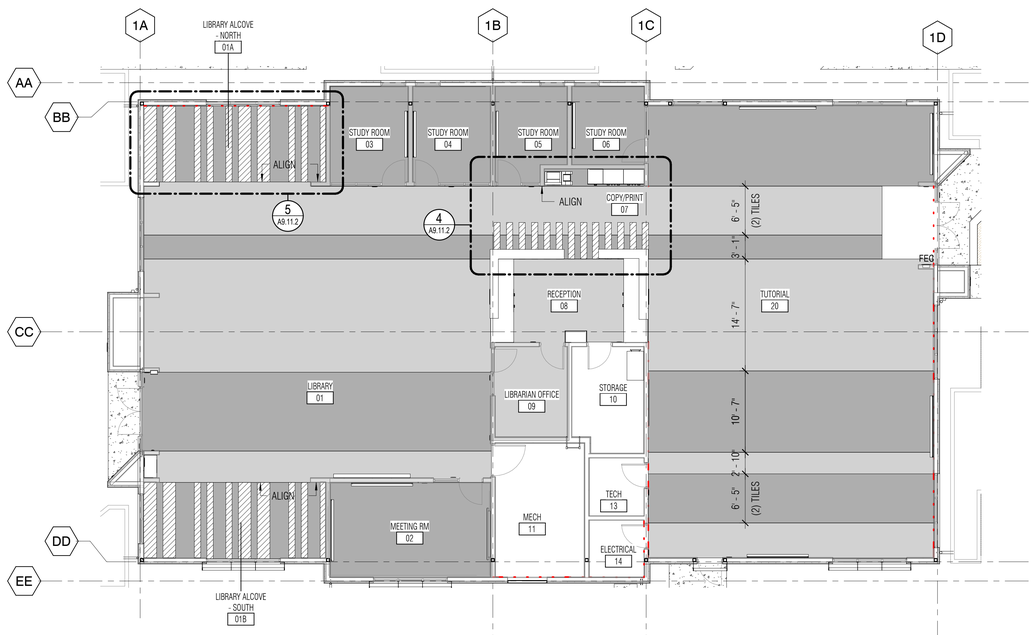
1 A9.11.2 **01 - FINISH PLAN - CAFE - LEARNING COMMONS**
1/8" = 1'-0"



4 A9.11.2 **CARPET LAYOUT PLAN - RECEPTION**
1/4" = 1'-0"



5 A9.11.2 **CARPET LAYOUT PLAN - ALCOVE**
1/4" = 1'-0"



2 A9.11.2 **01 - FINISH PLAN - LIBRARY LEARNING RESOURCE CENTER**
1/8" = 1'-0"

GENERAL

1. ALL WALLS TO BE PT-1 UON
2. REFER TO SHEET A8.21.2 FOR FINISH TRANSITION DETAILS

FINISH PLAN LEGEND

- FF-1 FLOORING - LVT
- FF-2 FLOORING - SHEET VINYL
- FF-3 FLOORING - SHEET VINYL
- CPT-1 CARPET TILE - RENOVATION
- CPT-2 CARPET TILE - FIELD
- CPT-3 CARPET TILE - FIELD
- CPT-4 CARPET TILE - ACCENT
- CF-2 CONCRETE, SEAL

APPROVALS

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ISSUE TITLE
INCREMENT 2

ISSUE DATE **5/30/2019**
NOLL & TAM JOB NUMBER **21630**

REVISIONS
| DATE | DESCRIPTION

SHEET TITLE
FINISH PLAN - CAFE & LEARNING COMMONS - LIBRARY LEARNING RESOUCE CENTER

SHEET NUMBER
A9.11.2

LIBRARY LEARNING COMMONS & (E) WEST BUILDING CAFE - ROOM FINISH SCHEDULE

#	ROOM	FLOOR FINISH	BASE FINISH	WALL FINISH	CEILING FINISH	COMMENTS
01	LIBRARY	CPT-2,CPT-3	WB-1	PT-1	WD-2, GB-1	
01A	LIBRARY ALCOVE - NORTH	CPT-2,CPT-3,CPT-4	WB-1	PT-1	WD-2	
01B	LIBRARY ALCOVE - SOUTH	CPT-2,CPT-3,CPT-4	WB-1	PT-1	WD-2	
02	MEETING RM	CPT-3	WB-1	PT-1	ACT-5	
03	STUDY ROOM	CPT-3	WB-1	PT-1	ACT-5	
04	STUDY ROOM	CPT-3	WB-1	PT-1	ACT-5	
05	STUDY ROOM	CPT-3	WB-1	PT-1	ACT-5	
06	STUDY ROOM	CPT-3	WB-1	PT-1	ACT-5	
07	COPY/PRINT	CPT-2,CPT-3,CPT-4	WB-1	PT-1	ACT-1	
08	RECEPTION	CPT-2	WB-1	PT-1	ACT-1	
09	LIBRARIAN OFFICE	CPT-2	WB-1	PT-1	ACT-1	
10	STORAGE	CF-2	WB-1	PT-1	ACT-1	
11	MECH	CF-2	WB-1	PT-1	EXPOSED	
13	TECH	CF-2	WB-1	PT-1	EXPOSED	
14	ELECTRICAL	CONCRETE, SEALED	WB-1	PT-1	EXPOSED	
20	TUTORIAL	CPT-2,CPT-3	WB-1	PT-1	WD-2, GB-1	
101	LEARNING COMMONS	FF-1	WB-1	PT-1, WD-4	ACT-1	(E) CEILING GRID SYSTEM TO REMAIN, REPLACE ACOUSTIC CEILING PANELS, AS EQUIRED
102	SS COORDINATOR	CPT-1	WB-1	PT-1	EXISTING TO REMAIN	
103	CAFE OFFICE	CPT-1	WB-1	PT-1	EXISTING TO REMAIN	
103A	ELECT	CF-2	WB-1	PT-1	GB-1	PREPARE (E) CONC SLAB ON GRADE AS REQUIRED FOR ADDITION CONC OF HOUSEKEEPING PAD
104	JANITOR	FF-3	FF-3 COVE	WF-1, (E) CERAMIC TILE	PT-2 (OVER EXISTING GYP BD)	SKIM COAT (E) GYP BD @ CEILING TO CREATE SMOOTH SURFACE PRIOR TO PAINTING
107	CAFE	FF-3	FF-3 COVE	PT-2	ACT-4, GB-1	
108	CAFE KITCHEN	FF-2	FF-2 COVE	WF-1, PT-2	ACT-4	STAINLESS STEEL PANEL BEHIND AND PERPENDICULAR TO KITCHEN EQUIPMENT, SEE FOOD SERVICE DWG
109	CAFE STORAGE	FF-2	FF-2 COVE	WF-1	ACT-4	

RFI #140 - LEARNING COMMONS 101 WALL

RFI #155 - CEMENT PLASTER AT LLRC - KM SW7740
MESSENGER BAG

RFI #231 - JANITOR - FRP FULL HEIGHT WITHIN ROOM AROUND JANITOR SINK. REMAINDER TO BE SEMI-GLOSS ENAMEL OR EPOXY PAINT.

SCHEDULE OF INTERIOR FINISHES

SECTION 03 30 00 - CONCRETE

CF-1 NOT USED
CF-2 CONCRETE, SEALED

SECTION 06 41 00 - CUSTOM CASEWORK

PLASTIC LAMINATE:

PL-1:
- LOCATION: CAFE SERVERY
- MANUFACTURER: FORMICA
- COLOR AND FINISH: MAPLE WOODLINE - NATURELLE FINISH

PL-2:
- LOCATION: LIBRARY RECEPTION DESK & COPY AREA
- MANUFACTURER: WILSONART
- COLOR AND FINISH: NATURAL RECON 7996-38, FINE VELVET FINISH

PL-3:
- LOCATION: LIBRARY COPY AREA COUNTERTOPS
- MANUFACTURER: NEVAMAR
- PRODUCT: THRUCOLOR LAMINATE
- COLOR AND FINISH: WROUGHT IRON S60S4T, TEXTURED

WOOD TRIM:
- SPECIES: RIFT CUT WHITE OAK
- FINISH: CLEAR STAIN TO MATCH ARCHITECT'S SAMPLE, LOW-VOC POLYURETHANE

WOOD BASE TRIM:
WB-3:
- SPECIES: RIFT CUT WHITE OAK
- FINISH: CLEAR STAIN TO MATCH ARCHITECT'S SAMPLE, LOW-VOC POLYURETHANE

RESIN PANELS:
- MANUFACTURER: LUMICOR
- PRODUCT: LUMINOUS
- COLOR: GLACIER
- GAUGE: 1/4"
- FRONT FINISH: MATTE
- BACK FINISH: MATTE WHITE OPAQUE

SECTION 06 64 00 - PLASTIC PANELING

FRP PANELS:
WF-1:
- MANUFACTURER: MARLITE, CRANE COMPOSITES/KEMLITE OR EQUAL
- COLOR: TO BE SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE
- TEXTURE: SMOOTH

SECTION 09 51 23 - ACOUSTICAL TILE CEILINGS

ACOUSTICAL TILE CEILINGS:

ACT-1:
- MANUFACTURER: ARMSTRONG OR EQUAL
- PRODUCT: TO MATCH (E) CAMPUS STANDARD, CIRRUS SECOND LOOK II
- EDGE PROFILE: BEVELED TEGULAR
- SIZE: 24"x48" (24"x24" SCORED PATTERN)
- COLOR: WHITE
- SUSPENSION SYSTEM: TO MATCH EXISTING CAMPUS STANDARD

ACT-4:
- MANUFACTURER: CERTAINTEED OR USG
- PRODUCT: VINYLROCK, SHEETROCK BRAND LAY-IN GYP CEILING PANELS
- EDGE PROFILE: SQUARE LAY-IN
- SIZE: 24"x48"
- COLOR: WHITE
- SUSPENSION SYSTEM: 15/16" EXPOSED TEE - HEAVY DUTY

ACT-5:
- MANUFACTURER: KINETICS OR EQUAL
- PRODUCT: QUIETTILE W/ CIRRUS SECOND LOOK II FACE TILE TO MATCH (E) CAMPUS STANDARD
- EDGE PROFILE: BEVELED TEGULAR
- SIZE: 24"x48" (24"x24" SCORED PATTERN)
- COLOR: WHITE
- SUSPENSION SYSTEM: TO MATCH EXISTING CAMPUS STANDARD

SECTION 09 54 26 - LINEAR WOOD CEILINGS

WOOD CEILING GRILLE:
WD-2:
- MANUFACTURER: 9 WOOD OR EQUAL
- PRODUCT: 1100 CROSS PIECE GRILLE
- SPECIES: WESTERN HEMLOCK

SECTION 09 65 00- RESILIENT FLOORING

RESILIENT PLANK FLOORING (LVT):
FF-1
- MANUFACTURER: MANNINGTON COMMERICAL , OR EQUAL
- PRODUCT: AMTICO ACCESS LVT
- COLOR: SHIBORI JASMINE
- THICKNESS: 5MM
- WEAR LAYER THICKNESS: 20 MIL
- SIZE: 5.91"x39.37"
- INSTALLATION PATTERN: REFER TO FINISH PLANS FOR PATTERN DIRECTION, RANDOM STAGGER JOINTS W/ MINIMUM 6" OFFSET FROM END OF ADJACENT PLANK

RESILIENT SHEET FLOORING:
FF-2
- MANUFACTURER: ALTRO FLOORS, OR EQUAL
- PRODUCT: STRONGHOLD 30
- COLOR: CANNON-K30911
- THICKNESS: 3MM
- SEAMS: HEAT WELDED
- BASE: COVED

FF-3
- MANUFACTURER: ARMSTRONG, OR EQUAL
- PRODUCT: MEDINTONE
- COLOR: H8310 ROCK BROWN
- THICKNESS: 2.00MM
- SEAMS: HEAT WELDED
- BASE: COVED

SECTION 09 65 13.13- RESILIENT BASE

RESILIENT WALL BASE:
WB-1:
- MANUFACTURER: BURKE, ROPPE, OR EQUAL
- PRODUCT: BURKE BASE TYPE TS
- COLOR: TBD
- HEIGHT: 4 INCHES
- PROFILE: COVED (TOE)

RESILIENT ACCESSORIES:
- MANUFACTURER: BURKE, ROPPE, OR EQUAL
- COLORS: TO MATCH BASE, UON

SECTION 09 68 13 - TILE CARPETING

CARPET TILE:

CPT-1:
- MANUFACTURER: INTERFACE
- PATTERN: CUBIC
- STYLE #: 138102500
- COLOR: SHAPE #287
- SIZE: 50 CM X 50 CM MODULAR
- BACKING: GLASBAC
- DYE METHOD: 100% SOLUTION DYED
- INSTALLATION METHOD: RANDOM

CPT-2:
- MANUFACTURER: INTERFACE OR EQUAL
- PATTERN: WORLD WOVEN WW880
- STYLE #: 28200AK00
- COLOR: CHARCOAL LOOM 105361
- SIZE: 25 CM X 1 M
- BACKING: GLASBAC
- DYE METHOD: 100% SOLUTION DYED
- INSTALLATION METHOD: ASHLAR

CPT-3:
- MANUFACTURER: INTERFACE OR EQUAL
- PATTERN: WORLD WOVEN WW870
- STYLE #: 38930AK00
- COLOR: CHARCOAL WEFT 105345
- SIZE: 25 CM X 1 M
- BACKING: GLASBAC
- DYE METHOD: 100% SOLUTION DYED
- INSTALLATION METHOD: ASHLAR

CPT-4:
- MANUFACTURER: INTERFACE OR EQUAL
- PATTERN: WORLD WOVEN WW880
- STYLE #: 28200AK00
- COLOR: SISAL LOOM 105366
- SIZE: 25 CM X 1 M
- BACKING: GLASBAC
- DYE METHOD: 100% SOLUTION DYED
- INSTALLATION METHOD: REFER TO FINISH PLANS

SECTION 09 90 00 - PAINTING AND COATING

TYPICAL INTERIOR PAINT FINISHES:
CEILINGS & SOFFITS: FLAT
WALLS: EGGSHELL
TOILET ROOM, CUSTODIAL ROOM WALLS: SEMI-GLOSS
PAINTED DOORS & FRAMES: SEMI-GLOSS

INTERIOR PAINT COLORS:

PT-1 (INTERIOR GENERAL, EGGSHELL): COLOR TO MATCH (E) CAMPUS STANDARD
PT-2 (INTERIOR GENERAL, SEMIGLOSS): COLOR TO MATCH (E) CAMPUS STANDARD
PT-3 : NOT USED
PT-4: NOT USED
PT-5: NOT USED
PT-6 (INTERIOR HOLLOW METAL DOOR FRAME): TBD, SEE DOOR SCHEDULE
PT-7 (INTERIOR ACCENT): TBD

SECTION 10 11 00 - VISUAL DISPLAY SURFACES

MARKERBOARDS:
- MANUFACTURER: CLARIDGE OR EQUAL
- PRODUCT: CONCEPT SERIES
- MATERIAL: PORCELAIN ENAMEL STEEL
- COLOR: WHITE
- FRAME SIZE: 5/16"
- FRAME FINISH: ANODIZED ALUMINUM
- SIZE: REFER TO DRAWINGS
- ACCESSORIES: FULL LENGTH TRAY AT BOTTOM
- MOUNTING: CONCEALED WALL BRACKETS

TACKBOARDS:
- MANUFACTURER: CLARIDGE OR EQUAL
- PRODUCT: CONCEPT SERIES
- FINISH: CLARIDGE CORK
- COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURERS FULL RANGE
- FRAME SIZE: 5/16"
- FRAME FINISH: ANODIZED ALUMINUM
- SIZE: VARIES, REFER TO DRAWINGS
- MOUNTING: CONCEALED WALL BRACKETS

SECTION 12 24 00 - WINDOW SHADES

ROLLER WINDOW SHADES:
S-1:
- MANUFACTURER: MECHOSHADE OR EQUAL
- SHADE CLOTH: ECOVEIL
- OPENNESS FACTOR: 3% OPEN AT NORTH, EAST, WEST 5% OPEN AT SOUTH
- CLOTH COLOR: AS SELECTED BY ARCHITECT
- FASCIA/TRIM COLOR: AS SELECTED BY ARCHITECT FROM MANUFACTURERS FULL RANGE.
- MOUNTING METHOD: REFER TO DRAWINGS

VERIFY OPENNESS FACTOR WITH OWNER PRIOR TO ORDERING

RFI #236 - SERVERY - BACKSPLASH MATCHING COUNTERTOP - 3CM

SECTION 12 36 61.16 - SOLID SURFACING COUNTERTOPS

QUARTZ SOLID SURFACING:

SS-1 (LIBRARY):
- MANUFACTURER: SILESTONE OR EQUAL
- PRODUCT/COLOR: MARENGO
- THICKNESS: 3CM

SS-1 (LIBRARY ALTERNATE):
- MANUFACTURER: DUPONT
- PRODUCT: CORIAN
- COLOR: CARBON CONCRETE

SS-2 (CAFE):
- MANUFACTURER: DUPONT
- PRODUCT: CORIAN QUARTZ (ZODIAQ)
- COLOR: SNOW FLURRY
- THICKNESS: 3CM

SECTION 12 48 13.13 - ENTRANCE FLOOR MATS

ENTRANCE FLOORING GRILLE:
- MANUFACTURER: MATS INC.
- PRODUCT: SOFT GRID
- COLOR: BLACK

FINISH SCHEDULE NOTES

1. WHERE NEW PAINTING OCCURS, IT APPLIES TO FULL WALL ELEVATION
2. REFER TO SHEET A8.21.2 FOR FINISH TRANSITION DETAILS
3. AT CAFE KITCHEN, CAFE STORAGE AND SEVERY, FLOOR FINISH SHALL EXTEND UP THE TOE-KICK OF CASEWORK AND WALLS AT LEAST 4" MIN, MIN. 3/8" RADIUS AT FLOOR/WALL AND TOE KICK/FLOOR JUNCTURE, INCLUDING INSIDE OF SELF SERVE SODA DISPENSING AREA.

APPROVALS

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ISSUE TITLE
INCREMENT 2

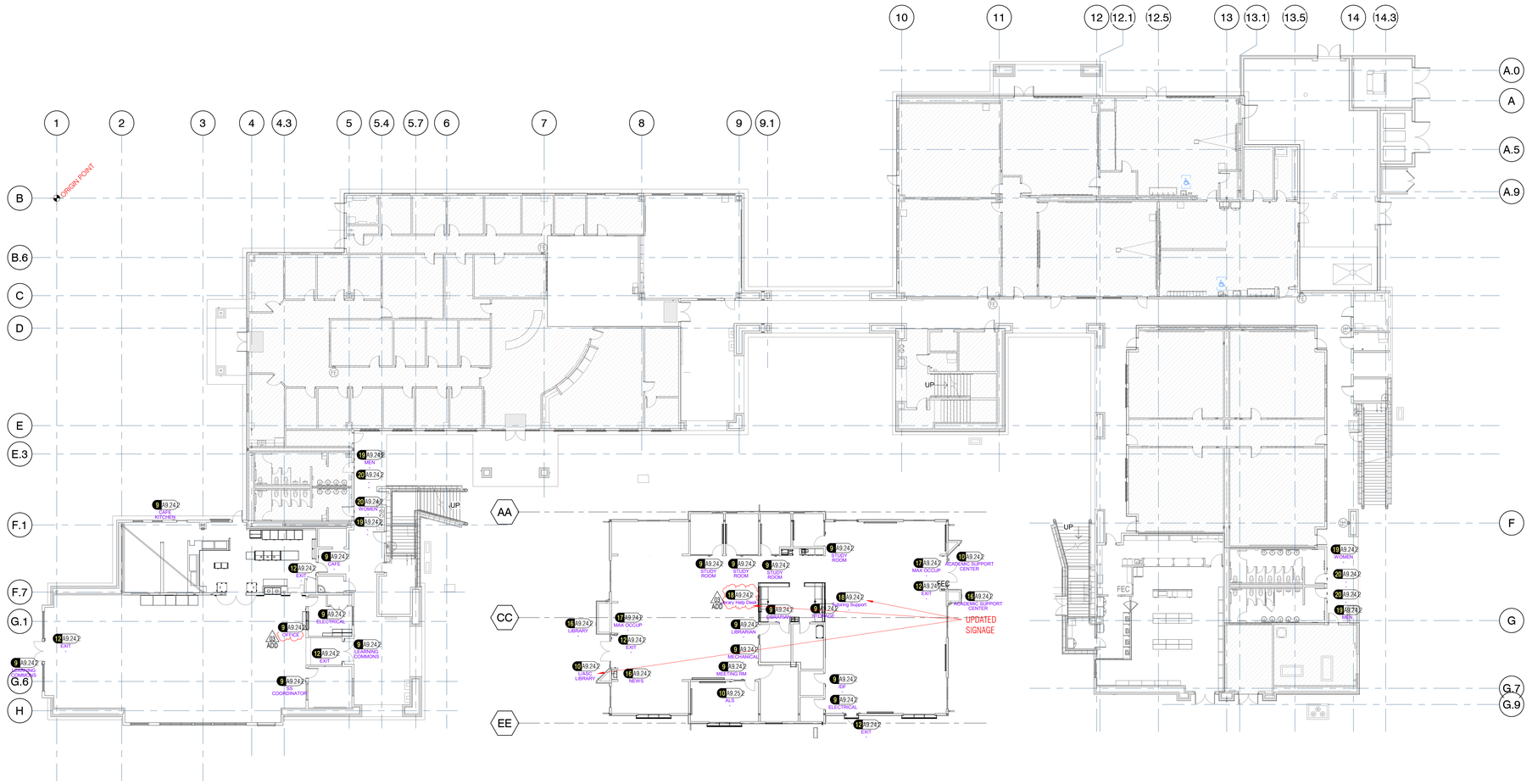
ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

REVISIONS

	DATE	DESCRIPTION
2	8/27/19	INC 2 - ADDENDUM 03

SHEET TITLE
FINISH SCHEDULES

SHEET NUMBER
A9.13.2



1 A9.21.2 **01 - FLOOR PLAN - OVERALL - SIGNAGE - LLRC- CAFE- LC**
1/16" = 1'-0"

LEGEND

DETAIL NUMBER / SHEET NUMBER — ROOM/WAYFINDING ID SIGNAGE

NO SIGNAGE WORK IN THIS AREA

NOTE:
INCREMENT 2 COVERS RESTROOM MODIFICATIONS INCLUDING NEW SIGNAGE. RESTROOM SIGNAGE WILL NOT BE UPGRADED AS PART OF INCREMENT 1. RESTROOM SIGNAGE SHOWN ON 9.25.1 IS FOR REFERENCE ONLY.

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STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

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ISSUE DATE 5/30/2019
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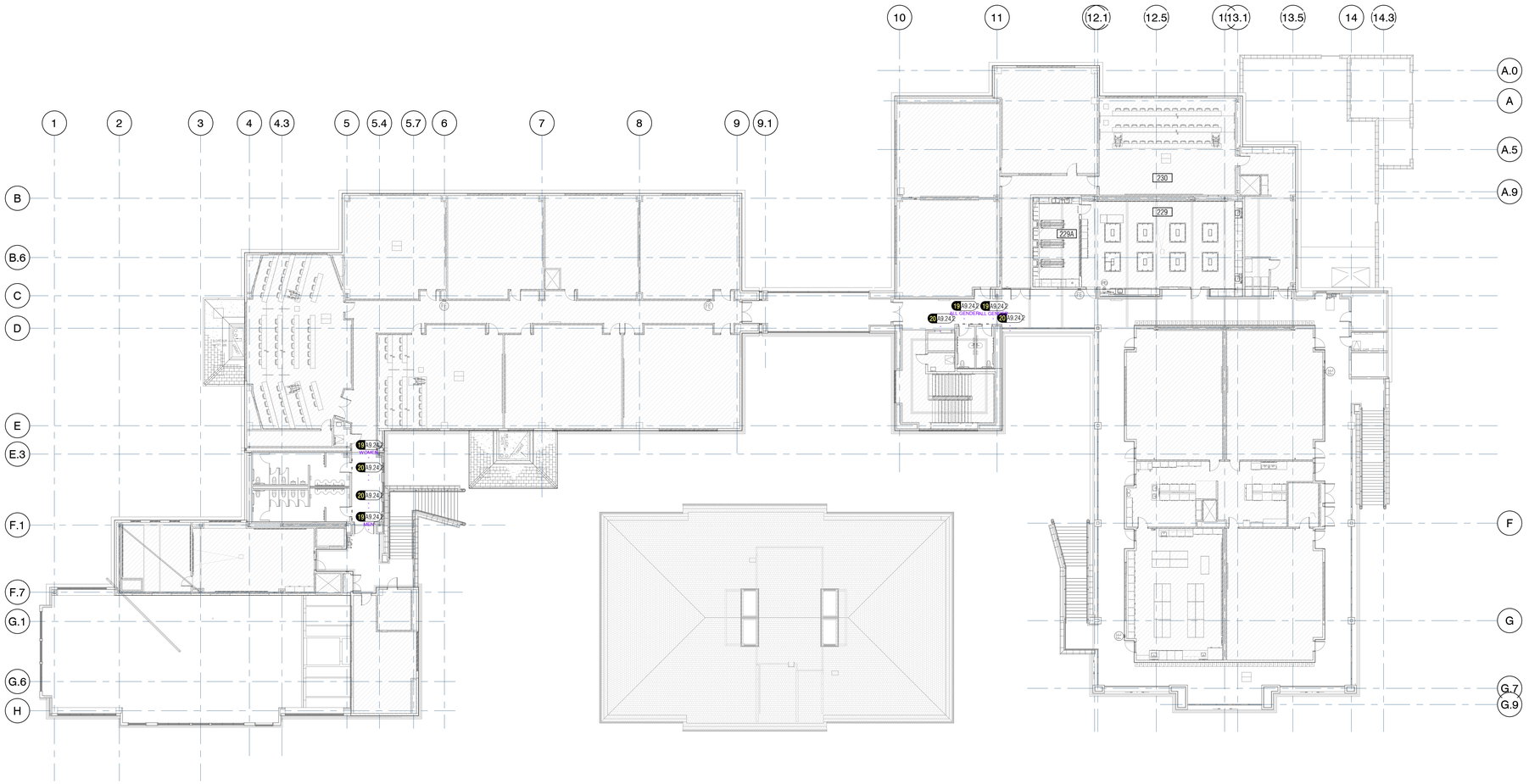
REVISIONS

	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03

SHEET TITLE
SIGNAGE PLAN - 1ST FLOOR - LLRC - CAFE - LEARNING COMMONS

SHEET NUMBER
A9.21.2



1 A9.22.2 **02 - FLOOR PLAN - OVERALL - SIGNAGE - RESTROOMS**

1/16" = 1'-0"

LEGEND

DETAIL NUMBER / SHEET NUMBER — ROOM/WAYFINDING ID SIGNAGE

NO SIGNAGE WORK IN THIS AREA

NOTE:
INCREMENT 2 COVERS RESTROOM MODIFICATIONS INCLUDING NEW SIGNAGE. RESTROOM SIGNAGE WILL NOT BE UPGRADED AS PART OF INCREMENT 1. RESTROOM SIGNAGE SHOWN ON 9.25.1 IS FOR REFERENCE ONLY.

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ISSUE DATE 5/30/2019
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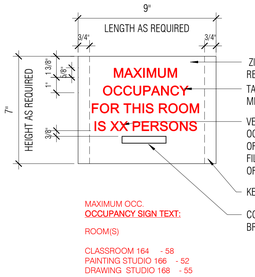
REVISIONS
| | DATE | DESCRIPTION |

SHEET TITLE
SIGNAGE PLAN - 2ND FLOOR - RESTROOMS

SHEET NUMBER
A9.22.2



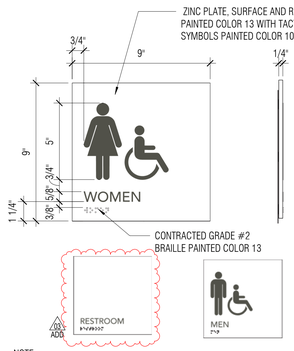
MAXIMUM OCC.
OCCUPANCY SIGN TEXT:

ROOM(S)

CLASSROOM 164 - 58
PAINTING STUDIO 166 - 52
DRAWING STUDIO 168 - 55

NOTE:
1. REFER TO SIGNAGE GENERAL NOTES FOR FURTHER INFORMATION.
2. FOR MOUNTING LOCATION AND HEIGHT REQUIREMENTS SEE DETAIL 8 / A9.24.2

17 A9.24.2 MAX OCCUPANCY SIGN
3" = 1'-0"



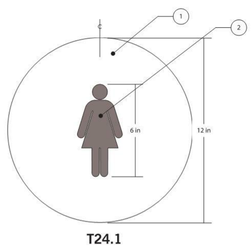
NOTE:
1. REFER TO SIGNAGE GENERAL NOTES FOR FURTHER INFORMATION.
2. FOR MOUNTING LOCATION AND HEIGHT REQUIREMENTS SEE DETAIL 8 / A9.24.1

19 A9.24.2 RESTROOM SIGNAGE
3" = 1'-0"

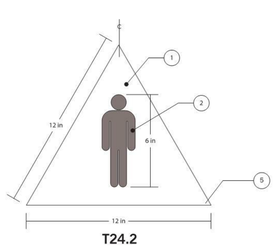
1. ACRYLIC PANEL SURFACE AND RETURNS PAINTED COLOR 13
2. SURFACE APPLIED SILK SCREENED SYMBOL, COLOR 6
3. ACRYLIC PANEL SURFACE AND RETURNS PAINTED COLOR 6
4. SURFACE APPLIED SILK SCREEN SYMBOLS, COLOR 13
5. 1/8" RADIUS ROUNDED COLORS

T24 SIGNS IDENTIFY RESTROOMS AND ARE TO BE PLACED ON DOORS LEADING INTO SPACE. USE DARK SIGNS ON LIGHT COLORED DOORS. COLORS ON SIGN ARE REVERSED

NOTE:
1. REFER TO SIGNAGE GENERAL NOTES FOR FURTHER INFORMATION.
2. FOR MOUNTING LOCATION AND HEIGHT REQUIREMENTS SEE DETAIL 8 / A9.24.2

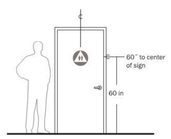


1. WOMEN'S ELEVATION
SCALE = 1/4" = 1"

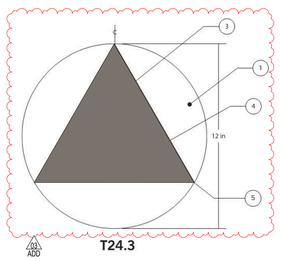


2. MEN'S ELEVATION
SCALE = 1/4" = 1"

3. SIDE ELEVATION
SCALE = 1/4" = 1"

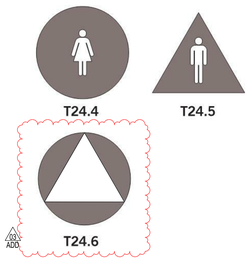


7. LOCATION DIAGRAM
SCALE = 1/4" = 1"



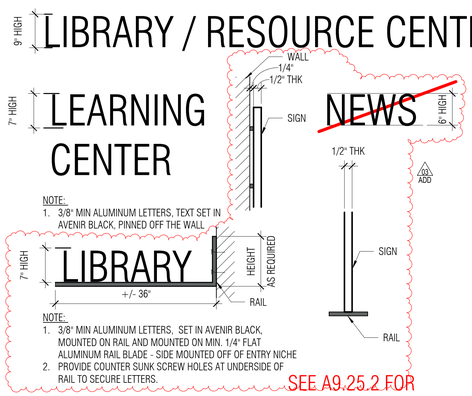
4. UNISEX ELEVATION
SCALE = 1/4" = 1"

5. UNISEX SIDE ELEVATION
SCALE = 1/4" = 1"



6. VERSIONS
SCALE = 1/4" = 1"

20 A9.24.2 RESTROOM SIGNAGE
3" = 1'-0"

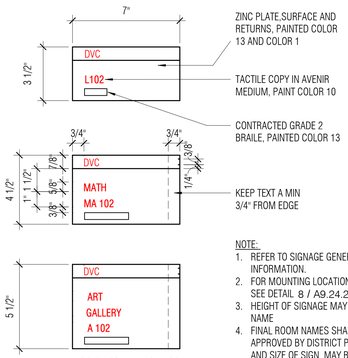


NOTE:
1. 3/8" MIN ALUMINUM LETTERS, TEXT SET IN AVENIR BLACK, PINNED OFF THE WALL.

NOTE:
1. 3/8" MIN ALUMINUM LETTERS, SET IN AVENIR BLACK, MOUNTED ON RAIL AND MOUNTED ON MIN. 1/4" FLAT ALUMINUM RAIL BLADE - SIDE MOUNTED OFF OF ENTRY NICHE
2. PROVIDE COUNTER SUNK SCREW HOLES AT UNDERSIDE OF RAIL TO SECURE LETTERS.

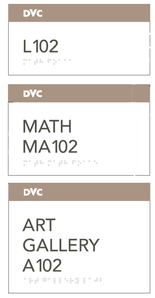
SEE A9.25.2 FOR UPDATED SIGNAGE

16 A9.24.2 ROOM TITLE ON BUILDING
3" = 1'-0"

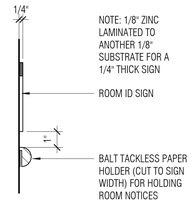


NOTE:
1. REFER TO SIGNAGE GENERAL NOTES FOR FURTHER INFORMATION.
2. FOR MOUNTING LOCATION AND HEIGHT REQUIREMENTS SEE DETAIL 8 / A9.24.2 AND 3 / A9.24.1
3. HEIGHT OF SIGNAGE MAY VARY ACCORDING TO ROOM NAME
4. FINAL ROOM NAMES SHALL BE REVIEWED AND APPROVED BY DISTRICT PRIOR TO FABRICATION. TEXT AND SIZE OF SIGN MAY BE SUBJECT TO CHANGE AND SHALL BE FURNISHED AT NO ADDITIONAL COST TO THE OWNER
5. MOUNT WITH VHB TAPE AND SILICONE ADHESIVE

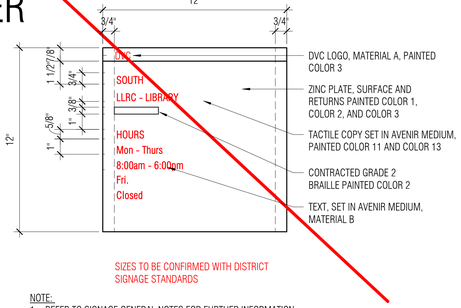
EXAMPLE : COLOR SCHEME TO BE CONFIRMED WITH DISTRICT SIGNAGE STANDARDS



EXAMPLE : TACTILE CLASROOM ID . DESIGN TO COINCIDE WITH DISTRICT SIGNAGE STANDARDS

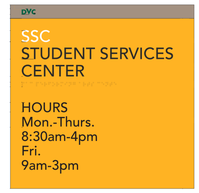


9 A9.24.2 CLASSROOM NAME/NUMBER
3" = 1'-0"



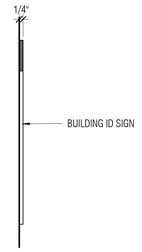
SIZES TO BE CONFIRMED WITH DISTRICT SIGNAGE STANDARDS

NOTE:
1. REFER TO SIGNAGE GENERAL NOTES FOR FURTHER INFORMATION.
2. FOR MOUNTING LOCATION AND HEIGHT REQUIREMENTS SEE DETAIL AND
3. FINAL ROOM NAMES SHALL BE REVIEWED AND APPROVED BY DISTRI8t/rA9.24.2-ABRIC3Y/(A9.24.1 CAMPUS NAMES ROOMS. HOURS TO BE REVIEWED BY DISTRICT. TEXT AND SIZE OF SIGN MAY BE SUBJECT TO CHANGE AND SHALL BE FURNISHED AT NO ADDITIONAL COST TO THE OWNER
4.



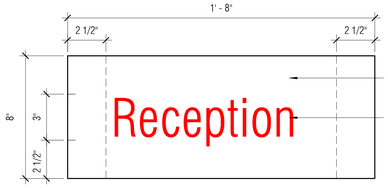
EXAMPLE : TACTILE BUILDING ID W/ MESSAGE. DESIGN TO COINCIDE WITH DISTRICT SIGNAGE STANDARDS

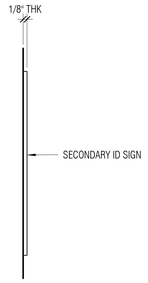
SEE A9.25.2 FOR UPDATED ROOM ID SIGNAGE



NOTE: 1/8" ZINC LAMINATED TO ANOTHER 1/8" SUBSTRATE FOR A 1/4" THICK SIGN

10 A9.24.2 ROOM ID_HOURS
3" = 1'-0"



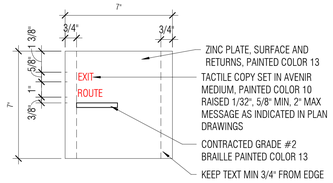


EXAMPLE : BUILDING SECONDARY SIGN. DESIGN TO COINCIDE WITH DISTRICT SIGNAGE STANDARDS

NOTE:
1. REFER TO SIGNAGE GENERAL NOTES FOR FURTHER INFORMATION.
2. FOR MOUNTING PLACEMENT ABOVE 96 INCHES
3. FOR PLACEMENT ON DARK BACKGROUND, USE VERSION WITH LIGHT SURFACE. FOR PLACMENT ON LIGHT BACKGROUND, USE VERSION WITH DARK SURFACE

UPDATED SIGNAGE SAYS ' Library Help Desk' and 'Tutoring Support'

18 A9.24.2 SECONDARY BUILDING ID
3" = 1'-0"

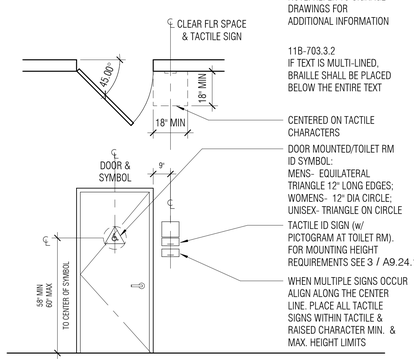


SIGN MESSAGE VARIANTS
(AS INDICATED IN PLAN DRAWINGS)

EXIT
EXIT ROUTE
TO EXIT
EXIT STAIR UP
EXIT STAIR DOWN
EXIT RAMP UP
EXIT RAMP DOWN
NOT AN EXIT

NOTE:
1. REFER TO SIGNAGE GENERAL NOTES FOR FURTHER INFORMATION.
2. FOR MOUNTING LOCATION AND HEIGHT REQUIREMENTS SEE DETAIL 8 / A9.24.2
3. 1/8" ZINC LAMINATED TO ANOTHER 1/8" SUBSTRATE FOR A 1/4" THICK SIGN

12 A9.24.2 TACTILE EXIT SIGN
3" = 1'-0"



8 A9.24.2 SIGNAGE AT DOORS
3/8" = 1'-0"

SIGNAGE GENERAL NOTES

1. WHERE PERMANENT IDENTIFICATION IS PROVIDED FOR ROOMS AND SPACES, SIGNS SHALL BE INSTALLED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO WALL SPACE TO THE LATCH SIDE OF THE DOOR, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL. WHERE A TACTILE SIGN IS PROVIDED AT DOUBLE DOORS WITH ONE ACTIVE LEAF, THE SIGN SHALL BE LOCATED ON THE INACTIVE LEAD. WHE TWO ACTIVE LEAFS, THE SIGN SHALL BE LOCATED TO THE RIGHT OF THE RIGHT HAND DOOR. MOUNTING LOCATION FOR SUCH SIGNAGE SHALL BE SO THAT A PERSON MAY APPROACH WITHIN 3" OF SIGNAGE WITHOUT ENCOUNTERING PROTRUDING OBJECTS OR STANDING WITHIN THE SWING OF A DOOR. MOUNTING HEIGHT SHALL BE PER DETAIL 3 / A9.24.1
2. ALL INTERIOR SIGNS SHALL BE 1/8" THICK MINIMUM. (UON)
3. ALL EXTERIOR SIGNS SHALL BE 1/4" THICK MINIMUM. (UON)
4. RAISED CHARACTERS: ALL TACTILE SIGNS (SIGNS WHICH INCLUDE BRAILLE) SHALL HAVE THE SIGN LETTERING THAT COMPLY WITH CBC 11B-703.2 AND SHALL BE DUPLICATED IN BRAILLE COMPLYING WITH CBC 11B-703.3. RAISED CHARACTERS SHALL BE INSTALLED IN ACCORDANCE WITH CBC 11B-703.4.
   A. DEPTH: RAISED 1/32"
   B. CASE: LETTER CHARACTERS TO BE UPPERCASE
   C. STYLE: AVINER MEDIUM (SANS SERIF) (UON). SEE SIGNAGE DETAIL FOR ADDITIONAL INFO (ADD)
   D. CHARACTER PROPORTIONS, STROKE THICKNESS, SPACING, LINE SPACING AND FORMAT TO MEET CBC 11B-703.2.
   E. CHARACTER HEIGHT: SHALL BE 5/8" MIN. TO 2" MAX. IN HEIGHT, USE LARGEST LETTER HEIGHT PRACTICAL (UON) VERIFY ALL TEXT SIZES PRIOR TO FABRICATION.
5. PER CBC TABLE 11B-703.3.1: CONTRACTED CALIFORNIA (GRADE 2) BRAILLE SHALL BE USED WHENEVER BRAILLE SYMBOLS ARE REQUIRED.
   A. DIMENSIONS AND CAPITALIZATION: REFER TO DETAIL 8 / A9.24.2FOR DIMENSIONS. CAPITALIZATION TO MEET CBC 11-703.3.1.
   B. FOR BRAILLE POSITION, INSTALLATION HEIGHT AND LOCATION REQUIREMENTS ON THE SIGN SEE
6. PICTOGRAM FIELD: PICTOGRAMS SHALL HAVE A FIELD HEIGHT OF 6" MINIMUM. CHARACTERS AND BRAILLE SHALL NOT BE LOCATED IN THE PICTOGRAM FIELD.
7. PICTOGRAMS SHALL HAVE TEXT DESCRIPTORS LOCATED DIRECTLY BELOW THE PICTOGRAM FIELD.
8. ALL CHARACTERS, PICTOGRAMS & THE FIELD UPON WHICH THEY ARE PLACED ARE TO BE OF A NON-GLARE FINISH AND SHALL CONTRAST WITH THEIR BACKGROUND, EITHER LIGHT ON DARK OR DARK ON LIGHT.
9. ASSISTIVE LISTENING SYSTEMS: SHALL BE IDENTIFIED BY THE INTERNATIONAL SYMBOL OF ACCESS FOR HEARING LOSS.
10. EDGES AND VERTICES ON GEOMETRIC SYMBOLS: EDGES SHALL BE EASED OR ROUNDED AT 1/16" INCH MIN. OR CHAMFERED AT 1/8" MAX. SEE DETAIL
11. ALL SIGNS SHALL HAVE ALL EDGES EASED.
12. SUBMIT A DRAWING SET FOR APPROVAL WHICH IDENTIFIES SIGNAGE TYPES, MATERIALS & FINISHES, LOCATIONS, ROOM NUMBERS, TEXT & ORIENTATION OF DIRECTIONAL ARROWS TO OWNER & ARCHITECT PRIOR TO FABRICATION
13. ALL SIGNS SHALL BE MOUNTED ACCORDING TO MANUFACTURER'S INSTRUCTIONS.
14. ALL EXTERIOR MOUNTED SIGNS TO BE RATED FOR EXTERIOR USE BY MANUFACTURER.
15. ALL PLASTIC SIGNS ADHESIVELY APPLIED TO GLASS SHALL HAVE AN ADDITIONAL PLASTIC BACKING THE SAME SIZE AS THE SIGN ALIGNED AND ADHESIVELY APPLIED TO THE OTHER SIDE OF THE GLASS.
16. GRAPHIC LAYOUT, FONTS, COLOR, AND MATERIALS OF SIGNAGE TO COMPLY WITH DISTRICT STANDARDS.
17. CODE-GOVERENED SIGNS TO BE FIELD INSPECTED PER CBC 11B.703.1.1.2.

TYPICAL SIGN FINISHES (UON):

PANEL FINISH:	-70% CONTRASTING COLOR TO MATCH DISTRICT STANDARDS, NON-GLARE FINISH
GRAPHIC METHOD:	-SCREEN PROCESS
GRAPHIC COLOR:	-BONE WHITE, NON-GLARE FINISH

TABLE 11B-703.3.1
BRAILLE DIMENSIONS

MEASUREMENT RANGE	MINIMUM IN INCHES MAXIMUM IN INCHES
DOT BASE DIAMETER	0.059 (1.5MM) TO 0.063 (1.6MM)
DISTANCE BETWEEN TWO DOTS IN THE SAME CELL[1]	0.100 (2.5MM)
DISTANCE BETWEEN CORRESPONDING DOTS IN ADJACENT CELLS[1]	0.300 (7.6MM)
DOT HEIGHT	0.025 (0.6MM) TO 0.037 (0.9MM)
DISTANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW[1]	0.395 (10MM) TO 0.400 (10.2MM)

1. MEASURED CENTER TO CENTER.

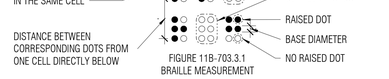


FIGURE 11B-703.3.1
BRAILLE MEASUREMENT

1 A9.24.2 BRAILLE DIMENSIONS (REFERENCE)
3" = 1'-0"

11B-703.2.6.4 EDGES AND VERTICES ON GEOMETRIC SYMBOLS. EDGES SHALL BE EASED OR ROUNDED AT 1/16 INCH (1.59 mm) MINIMUM, OR CHAMFERED AT 1/8 INCH (3.2 mm) MAXIMUM. VERTICES SHALL BE RADIUSED BETWEEN 1/8 INCH (3.2mm) MINIMUM AND 1/4 INCH (6.4mm) MAXIMUM.

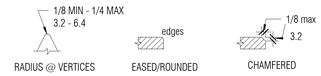
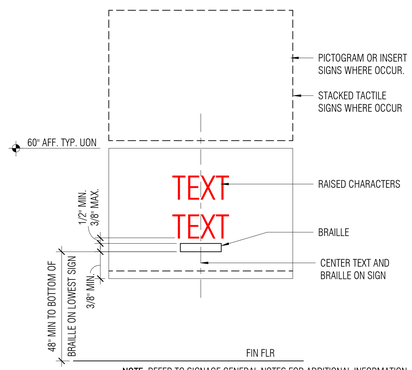


FIGURE 11B-703.2.6.4
EDGES AND VERTICES ON GEOMETRIC SYMBOLS

2 A9.24.2 ACCESSIBLE SIGN -GEOMETRIC SYMBOLS
3" = 1'-0"



NOTE: REFER TO SIGNAGE GENERAL NOTES FOR ADDITIONAL INFORMATION

3 A9.24.2 TACTILE SIGNAGE MOUNTING HT
3" = 1'-0"

APPROVALS

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No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

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D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

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INCREMENT 2

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NOLL & TAM JOB NUMBER	21630

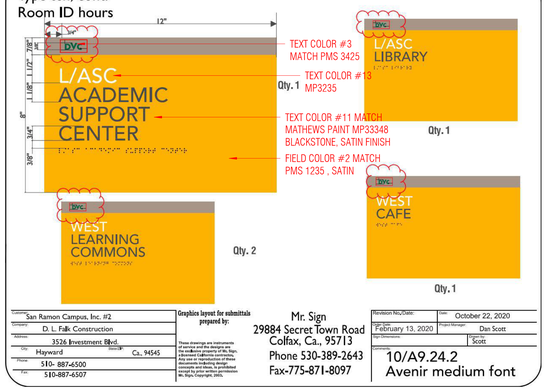
REVISIONS

	DATE	DESCRIPTION
1	8/27/19	INC 2 - ADDENDUM 03

SHEET TITLE
SIGNAGE DETAILS

SHEET NUMBER
A9.24.2

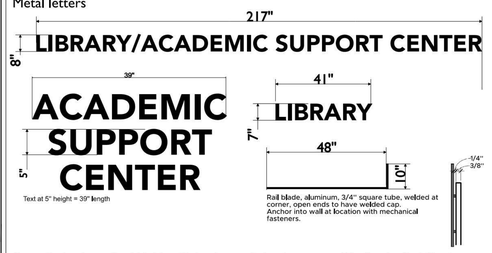
Type ten, cont.
Room ID hours



Customer: San Ramon Campus, Inc. #2	Graphics layout for submittals prepared by:	Mr. Sign 29884 Secret Town Road Colfax, Ca., 95713 Phone 530-389-2643 Fax-775-871-8097	Revision No./Date: — Date: October 22, 2020 Plot Date: February 13, 2020 — Project Manager: Dan Scott Sign Dimensions: — Scott Comments: 10/A9.24.2 Avenir medium font
Contact: D. L. Falk Construction			
Address: 3526 Investment Blvd.			
City: Hayward State/Zip: Ca., 94545			
Phone: 510- 887-6500			
Fax: 510-887-6507			

UPDATED ROOM ID SIGNAGE

Type nine
Metal letters



Cut out aluminum letters, Avenir black font, blind stud mounted in locations as note on West Elevation, South Elevation, and East Elevation. Letters to project off of mounting surface 1/4". Select color from standard range, color chart attached, or provide color to match during review.

Customer: San Ramon Campus, Inc. #2	Graphics layout for submittals prepared by:	Mr. Sign 29884 Secret Town Road Colfax, Ca., 95713 Phone 530-389-2643 Fax-775-871-8097	Revision No./Date: — Date: October 22, 2020 Plot Date: February 13, 2020 — Project Manager: Dan Scott Sign Dimensions: — Scott Comments: 16/A9.24.2
Contact: D. L. Falk Construction			
Address: 3526 Investment Blvd.			
City: Hayward State/Zip: Ca., 94545			
Phone: 510- 887-6500			
Fax: 510-887-6507			

UPDATED ROOM TITLE ON BUILDING

NOTE:
1. INDICATE LOCATION OF SIGN ON SUBMITTED SIGNAGE PLAN FOR EACH SPACE/ROOM REQUIRED TO BE EQUIPPED WITH AN ALS, EVEN IF THE SYSTEM IS N.I.C. THE SIGN SHALL COMPLY WITH SECTION 2013 CBC CH. 11B, DIVISION 7
2. REFER TO SIGNAGE GENERAL NOTES FOR FURTHER INFORMATION.
3. FOR MOUNTING LOCATION AND HEIGHT REQUIREMENTS SEE DETAIL 8 / A9.24.2

UPDATED SIGNAGE WITH

'ASSISTIVE LISTENING SYSTEM AVAILABLE AT

INFORMATION DESK AT WEST BUILDING LOBBY

10 / A9.25.2 **ASSISTIVE LISTENING SYSTEM**
3" = 1'-0"

Colors & Finishes

Paint

COLOR 1
MATCH
PMS 7530
SATIN FINISH

COLOR 2
MATCH
PMS 1235
SATIN FINISH

COLOR 3
MATCH
PMS 3425
SATIN FINISH

COLOR 4
MATCH
PMS 2612
SATIN FINISH

COLOR 5
MATCH
#15090 in Fed Standard 595B
SATIN FINISH

COLOR 6
MATCH
PMS 409
SATIN FINISH

COLOR 7
MATCH
PMS 7510
SATIN FINISH

COLOR 8
MATCH
PMS 3302
SATIN FINISH

COLOR 9
MATCH
PMS 519
SATIN FINISH

COLOR 10
MATCH
PMS 418
SATIN FINISH

COLOR 11
MATCH
ICI
DARK SECRET
#00NN 05/000
SATIN FINISH

COLOR 12
MATCH
ICI
DEEP ONYX
#00NN 07/000
SATIN FINISH

COLOR 13
MATCH
ICI
DRIFTING SNOW
#10BB 83/014
SATIN FINISH

COLOR 14
MATCH
PMS 186
SATIN FINISH

NOTE: NOTE THAT COLOR 13 ICI SHALL BE REPLACED WITH MATTHEWS PAINT MP32351 WHITE SPIRIT

CONTACT ARCHITECTURAL TEAM FOR ICI REPLACEMENT COLORS WHERE ICI COLORS ARE NO LONGER AVAILABLE

Materials

MATERIAL A
GERBER 220—
OPAQUE
WHITE VINYL

MATERIAL B
GERBER 220—
OPAQUE
BLACK VINYL

MATERIAL C
GERBER 220—
OPAQUE
DARK GREEN
VINYL

MATERIAL D
GERBER 220—
OPAQUE
FOREST GREEN
VINYL

MATERIAL E
GERBER 220—
OPAQUE
IMITATION GOLD
VINYL

MATERIAL F
TELEGRAY
ORACAL 751
HIGH
PERFORMANCE
CAST VINYL

MATERIAL G
GERBER 220—
OPAQUE
SANDSTONE
VINYL

MATERIAL H
GERBER 220—
OPAQUE
VIVID BLUE
VINYL

MATERIAL I
GERBER 220—
OPAQUE
PERFECT MATCH
RED
VINYL

MATERIAL J
GERBER 280—
REFLECTIVE
WHITE
VINYL

11 / A9.25.2 **SIGNAGE COLORS AND MATERIALS**
3" = 1'-0"

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE 5/30/2019
NOLL & TAM JOB NUMBER 21630

REVISIONS
	DATE	DESCRIPTION

SHEET TITLE
SIGNAGE DETAILS

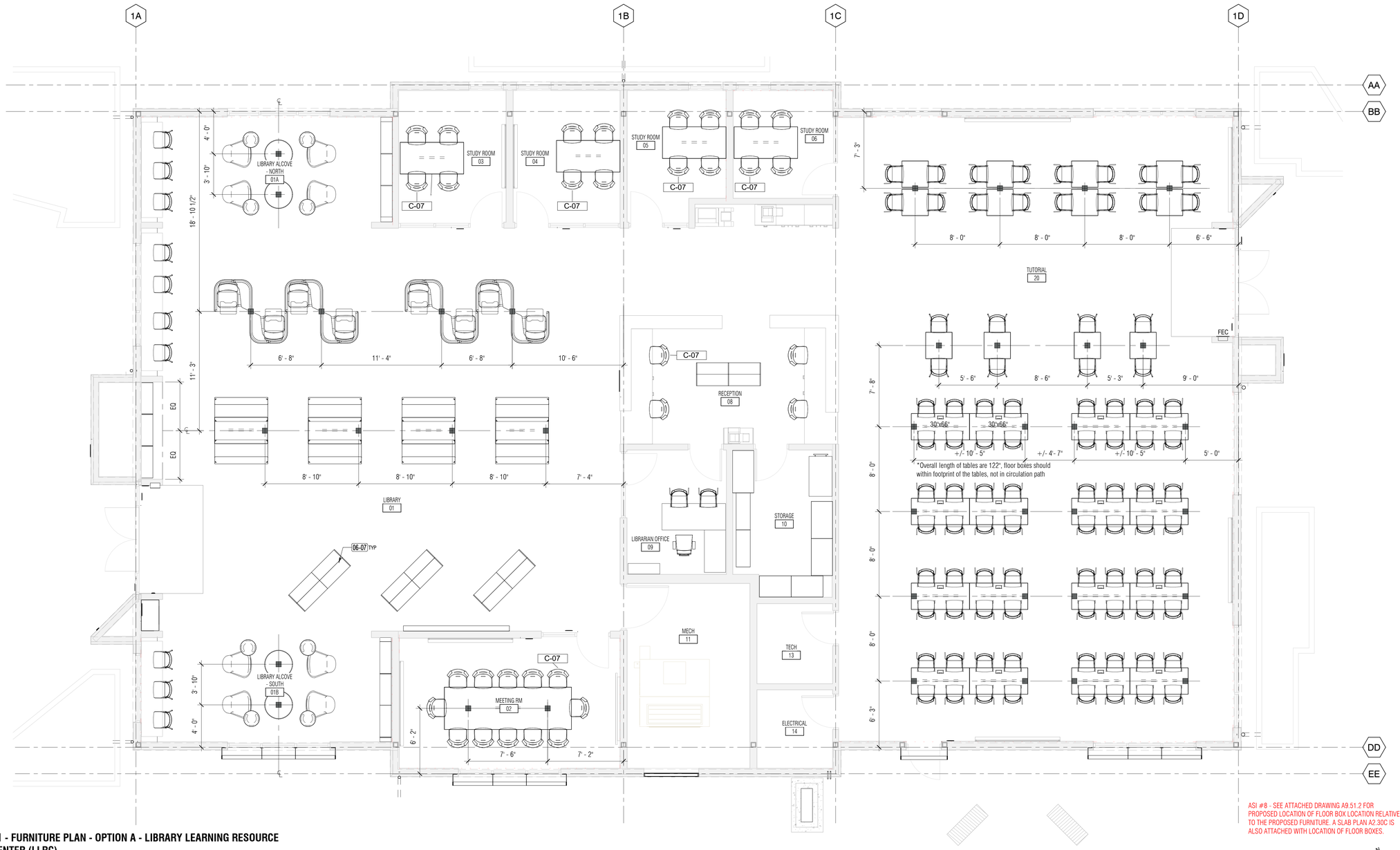
SHEET NUMBER
A9.25.2

KEY NOTES

Key Value	Keynote Text
06-07	NEW 42" HIGH WOOD BOOK SHELVING UNIT WITH SLOPED DISPLAY SHELVES

GENERAL NOTES

1. FURNITURE SHOWN IS FOR REFERENCE ONLY. LOOSE FURNITURE, FIXTURE, EQUIPMENT ARE ACQUIRED UNDER A SEPARATE CONTRACT AND FF&E BUDGET. ITEMS SHOWN ARE SCHEMATIC AND SELECTION LAYOUT IS TO BE DETERMINED WITH DISTRICT, AND USER GROUPS
2. DEMOLITION, REMOVAL AND SALVAGE FOR RE-USE FURNITURE IS TO BE DETERMINED WITH DISTRICT AND USER GROUP.



01 - FURNITURE PLAN - OPTION A - LIBRARY LEARNING RESOURCE CENTER (LLRC)

1 / A9.51.2 — 1/4" = 1'-0"

ASI #8 - SEE ATTACHED DRAWING A9.51.2 FOR PROPOSED LOCATION OF FLOOR BOX LOCATION RELATIVE TO THE PROPOSED FURNITURE. A SLAB PLAN A2.30C IS ALSO ATTACHED WITH LOCATION OF FLOOR BOXES.

0' 2' 4' 8'

APPROVALS

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729 Heinz Avenue
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ISSUE TITLE

INCREMENT 2

ISSUE DATE	5/30/2019
NOLL & TAM JOB NUMBER	21630

REVISIONS

△	DATE	DESCRIPTION
	2/12/2020	ASI 008

SHEET TITLE

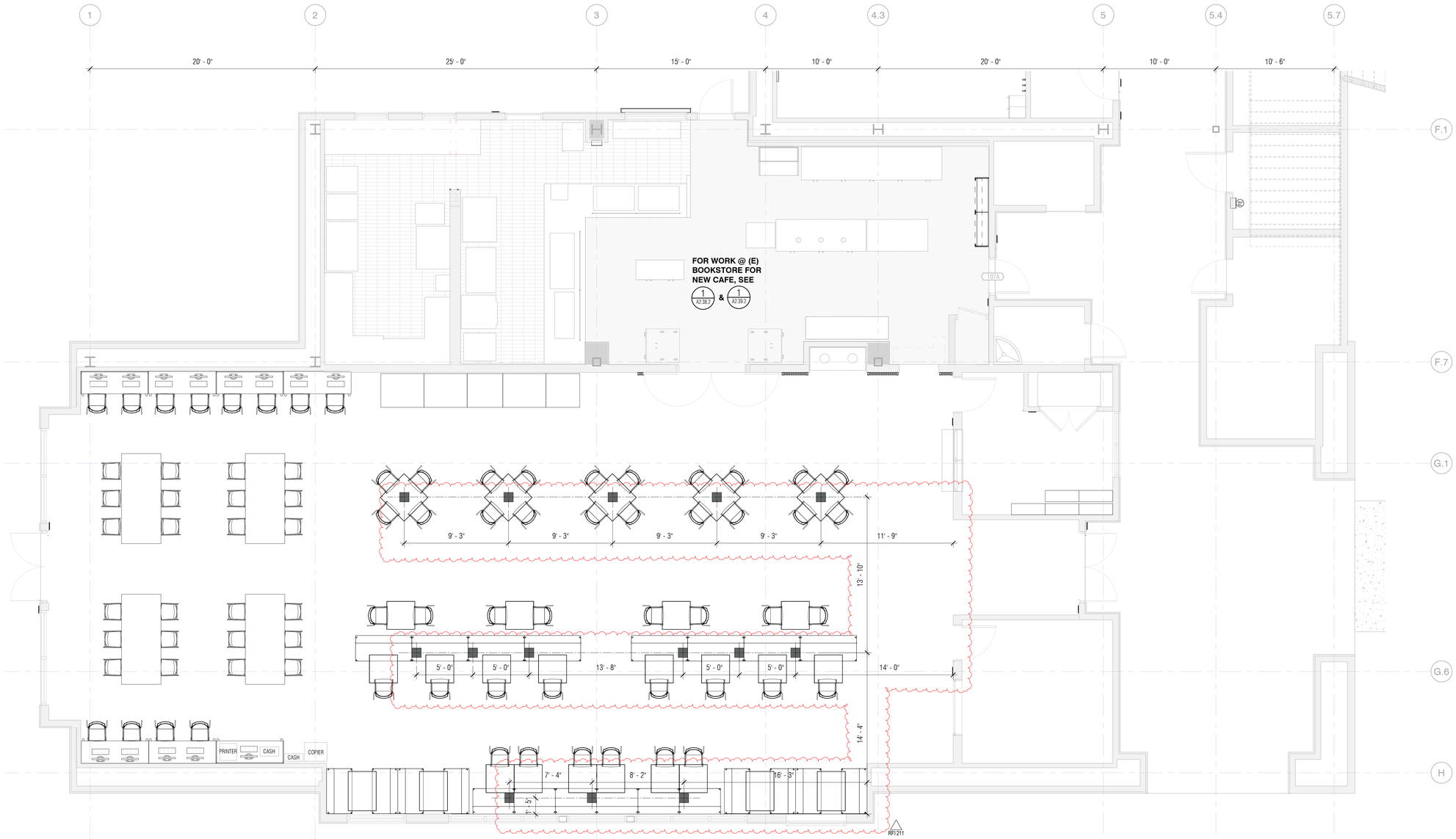
FURNITURE PLAN - LIBRARY LEARNING RESOURCE CENTER (FOR REFERENCE ONLY)

SHEET NUMBER

△ ASI-008 **A9.51.2**

GENERAL NOTES

1. FURNITURE SHOWN IS FOR REFERENCE ONLY. LOOSE FURNITURE, FIXTURE, EQUIPMENT ARE ACQUIRED UNDER A SEPARATE CONTRACT AND FF&E BUDGET. ITEMS SHOWN ARE SCHEMATIC AND SELECTION LAYOUT IS TO BE DETERMINED WITH DISTRICT, AND USER GROUPS
2. DEMOLITION, REMOVAL AND SALVAGE FOR RE-USE FURNITURE IS TO BE DETERMINED WITH DISTRICT AND USER GROUP.



1 A9.59.2 **01 - FURNITURE PLAN - WEST - LEARNING COMMONS**
1/4" = 1'-0"

0' 2' 4' 8'

N

APPROVALS

NOLL & TAM ARCHITECTS

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Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-21
STATE OF CALIFORNIA

PROJECT TITLE

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ISSUE TITLE

INCREMENT 2

ISSUE DATE **5/30/2019**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

△	DATE	DESCRIPTION
	12/22/20	INC2 RFI 211

SHEET TITLE

FURNITURE PLAN - 1ST FLOOR - WEST - LEARNING COMMONS (FOR REFERENCE ONLY)

SHEET NUMBER

A9.59.2

9/11/2023 3:36:17 PM C:\Users\phan.dung\Documents\Revit Locals\DVCSR Expansion_Central 2020_2021_phan.dung@nollandtam.com.rvt

* UTILITIES SHOWN ARE FOR A QUANTITY OF 1 PER EACH ITEM – MULTIPLY UTILITY NUMBERS BY QUANTITIES SHOWN IN ORDER TO DETERMINE OVERALL UTILITY LOADS REQUIRED.

E Q U I P M E N T S C H E D U L E

* SEE NOTE ABOVE REGARDING UTILITY LOAD CALCULATIONS.

ITEM NO	QTY	EQUIPMENT CATEGORY	MANUFACTURER	MODEL NUMBER	EQUIPMENT REMARKS	AMPS	KW	HP	VOLTS	PHASE	CYCLE	DIRECT PLUG	NEMA	ELECTRICAL REMARKS	COLD WATER SIZE (IN)	HOT WATER (IN)	HOT WATER (IN)	DIRECT DRAIN SIZE (IN)	INDIR DRAIN SIZE (IN)	GAS SIZE (IN)	MBTUH	PLUMBING REMARKS	HVAC EXHAUST DUCT SIZE (IN)	HVAC EXHAUST CFM	HVAC EXHAUST SP/WG	HVAC REMARKS	EQUIPMENT WEIGHT/ CAPACITY – LBS.	REFERENCED PINNING/ BRACING DETAIL – SEE FS5.1.2
1	LOT	DRY STORAGE HIGH DENSITY SHELVING	METRO	BR SERIES – TOP TRACK																							350 LBS.	B–1
2	1	FREEZER, REACH–IN	TRUE MANUFACTURING CO., INC.	STA1F–1S–HC		6.8	0.8	0.3	115	1	60	X	5–15R														205 LBS./200 LBS. PRODUCT	B–2
3	1	REFRIGERATOR, REACH–IN	TRUE MANUFACTURING CO., INC.	STA1R–1S–HC		4.8	0.6	0.3	115	1	60	X	5–15R														195 LBS./200 LBS. PRODUCT	B–2
4	1	REFRIGERATOR, REACH–IN	TRUE MANUFACTURING CO., INC.	STA2R–2S–HC		9.1	1.1	0.5	115	1	60	X	5–15R														295 LBS./300 LBS. PRODUCT	B–2
5	1	CLEAN DISH TABLE	STAINLESS STEEL FABRICATOR	CUSTOM																							100 LBS.	A–2/A–28
6	4	WALL SHELVING	STAINLESS STEEL FABRICATOR	CUSTOM																							300 LBS.	A–17/A–24
7	1	WAREWASHER, DOOR TYPE, HIGH TEMP	JACKSON WWS	TEMPSTAR W/ BOOSTER		42.1	13.1	0.8	208	3	60	X			0.75	0.75	52.2		1.5			TO FLOOR SINK					350 LBS.	A–11
8	1	SOILED DISH TABLE WITH SINK	STAINLESS STEEL FABRICATOR	CUSTOM											0.5	0.5	20		1.5			TO FLOOR SINK					200 LBS.	A–2/A–28
9	1	PRE–RINSE FAUCET, BACKSPLASH MOUNT	FISHER	34436																		SEE ITEM #8					INSTALLED AS PART OF #8	NA – INSTALLED AS PART OF #8
10	1	DRAIN, LEVER HANDLE	FISHER	22209																		SEE ITEM #8					INSTALLED AS PART OF #8	NA – INSTALLED AS PART OF #8
11	1	DROP–IN STRAINER/SCRAP BASKET	STAINLESS STEEL FABRICATOR	CUSTOM																							INSTALLED AS PART OF #8	NA – INSTALLED AS PART OF #8
12	2	WALL SHELVES/POT RACK	STAINLESS STEEL FABRICATOR	CUSTOM																							200 LBS.	A–17/A–24
13	1	CONDENSATE HOOD – TYPE 2	STREIVOR	REFER TO SHOP DRAWING															1.0			TO FLOOR SINK	09X08X03	700	0.50	TYPE 2	133 LBS.	A–13/A–14
14	LOT	CLOSURES AND TRIM	STAINLESS STEEL FABRICATOR	CUSTOM																							150 LBS.	NA – INSTALLED AS PART OF #13
15	LOT	TRASH CAN	RUBBERMAID	BRUTE W/ DOLLY																							100 LBS. EACH	NA – MOBILE/PORTABLE
16	1	3 COMPARTMENT POT WASH SINK	ADVANCE TABCO	94–K2–24D											(2)0.5	(2)0.5	20		(3)1.5			TO FLOOR SINK					350 LBS.	A–2/A–28
17	1	PRE–RINSE FAUCET, BACKSPLASH MOUNT	FISHER	34436																		SEE ITEM #16					INSTALLED AS PART OF #16	NA – INSTALLED AS PART OF #16
18	1	FAUCET, BACKSPLASH MOUNT	FISHER	60526																		SEE ITEM #16					INSTALLED AS PART OF #16	NA – INSTALLED AS PART OF #16
19	3	DRAIN, LEVER HANDLE	FISHER	22209																		SEE ITEM #16					INSTALLED AS PART OF #16	NA – INSTALLED AS PART OF #16
20	1	WALL MOUNTED TANK SUPPORT SHELF	STAINLESS STEEL FABRICATOR	CUSTOM	FOR ITEM #21																						75 LBS.	A–17/A–24
21	1	REPRESSURIZATION STORAGE TANK/PUMP	OPTIPURE	OP350/16	16 GALLON CAPACITY	2.0			120	1	60	X	5–15P		0.5							CW FROM #22					INSTALLED AS PART OF #20	NA – INSTALLED AS PART OF #20
22	1	REVERSE OSMOSIS WATER FILTER SYSTEM	OPTIPURE	OP350/16	RO PROCESSOR		0.006		120	1	60	X	5–15P		0.5				0.5			TO FLOOR SINK					30 LBS.	A–17/A–24 SIMILAR
23	1	HAND SINK, WALL MOUNT	ADVANCE TABCO	7–PS–25											0.5	0.5	5	1.5								03 ADD	25 LBS.	A–24/A–17 SIMILAR
24		NOT USED																										
25	1	PREP TABLE WITH SINK	STAINLESS STEEL FABRICATOR	CUSTOM	WITH MARINE EDGE	(2)20A	DED		120	1	60	X		GFCI CONV. OUTLETS	0.5	0.5	20		1.5			TO FLOOR SINK					150 LBS.	A–2/A–28
26	1	FAUCET, DECK MOUNT	FISHER	3313																		SEE ITEM #25					INSTALLED AS PART OF #25	NA – INSTALLED AS PART OF #25
27	1	DRAIN, LEVER HANDLE	FISHER	22209																		SEE ITEM #25					INSTALLED AS PART OF #25	NA – INSTALLED AS PART OF #25
28		NOT USED																										
29	1	ICE MAKER W/O BIN	MANITOWOC	IYT0620A	MOUNTED ON TOP OF #30	12.2			115	1	60	X			0.375				0.5			TO FLOOR SINK; CW FROM #31					INSTALLED AS PART OF #30	NA – INSTALLED AS PART OF #30
30	1	BIN, ICE	MANITOWOC	D420															0.75			TO FLOOR SINK					650 LBS.	A–11
31	1	FILTER SYSTEM, ICEMAKER	MANITOWOC ICE	AR–10000											0.375												10 LBS.	A–24
32	2	AIR CURTAIN, UNHEATED	MARS AIR SYSTEMS	LPV236–1U*		2.4		1.0	115	1	60	X															32 LBS. EACH	REFER TO SHEET FS1.4.2
33	1	FIRE SUPPRESSION SYSTEM	PYROCHEM	KITCHEN KNIGHT II	WITH REMOTE FIRE PULL	15.0			120	1	60	X		DEDICATED CIRCUIT													150 LBS.	A–6 SIMILAR
34	1	EXHAUST HOOD – TYPE 1	STREIVOR	REFER TO SHOP DRAWING		(3)20A	DED		120	1	60	X		DEDICATED CIRCUIT									16X10X08	1647	0.77	TYPE 1	1213 LBS.	A–13/A–14/SEE SHEET FS3.1.2
35	LOT	CLOSURES, TRIM AND WALL FLASHING	STAINLESS STEEL FABRICATOR	CUSTOM	BACK AND LEFT SIDE																						400 LBS.	NA – INSTALLED AS PART OF #34
36		NOT USED																										
37	2	FRYER, DEEP FAT, GAS	PITCO	SSH55–1FD – ENERGY STAR	SELF–CLEANING; WITH FILTER	10.0			120	1	60		5–15P							0.75	80						400 LBS. EACH	B–3 SIMILAR/MOBILE ON CASTERS
38	1	GRIDDLE, HEAVY DUTY, GAS	MONTAGUE	DG2424–SAT	WITH AUTO PILOT RELIGHT	0.2			120	1	60	X	5–15P							0.75	60						300 LBS.	NA – MOUNTED ON #40
39	1	BROILER, UNDER–FIRED, GAS, COUNTER	MONTAGUE	UFLCS–24R	LEGEND SERIES															0.75	76						230 LBS.	NA – MOUNTED ON #40
40	1	REFRIGERATOR, SHORTY	TRUE MANUFACTURING CO., INC.	TRCB–48		5.4		0.2	115	1	60	X	5–15P														350 LBS.	B–3 SIMILAR/MOBILE ON CASTERS
41	1	RANGE, HEAVY DUTY, GAS W/ CONVECTION OVEN	MONTAGUE	V136–5		3.4			120	1	60	X	5–15P							1.25	220						600 LBS.	B–3 SIMILAR/MOBILE ON CASTERS
42	1	FILLER, KETTLE & POT	FISHER	4230											0.5	0.5	20										6 LBS.	A–24
43	1	OVEN–STEAMER, COMBINATION, GAS, WITH STAND	ELECTROLUX PROF. NORTH AMERICA	219683 RFI 133	SELF–CLEANING; MOBILE	12.5			120	1	60	X			0.75				2.0	0.5	141	TO FLOOR SINK					700 LBS.	B–2 SIMILAR/MOBILE ON CASTERS
44	LOT	HEAT LAMP WITH LIGHTS	BSI, LLC	605 SERIES – STAINLESS STEEL		12.0			120	1	60	X															INSTALLED AS PART OF #46	NA – INSTALLED AS PART OF #46
45	1	FRONT SERVING COUNTER	MILLWORK/SOLID SURFACE MATERIAL	CUSTOM		(4)20A	DED		120	1	60		X	GFCI CONV. OUTLETS													1700 LBS.	A–4/A–22/A–26/A–33
46	LOT	SNEEZE GUARDS	BSI, LLC	DECO–205–N																							INSTALLED AS PART OF #45	NA – INSTALLED AS PART OF #45
47	2	FILL FAUCET	FISHER	58017											0.5												INSTALLED AS PART OF #45	NA – INSTALLED AS PART OF #45
48	1	DROP–IN, HEATED SHELF	HATCO	GRSB–48–I		8.3	1.0		120	1	60		X 5–15P														INSTALLED AS PART OF #45	NA – INSTALLED AS PART OF #45
49	1	DROP–IN, HOT WELLS	RANDELL	95604–208Z	WITH DRAINS	21.2	4.4		208	1	60	X							1.0			TO FLOOR SINK					INSTALLED AS PART OF #45	NA – INSTALLED AS PART OF #45
50	1	SINK, HAND WITH SOAP DISPENSER, DROP–IN	ADVANCE TABCO	7–PS–42											0.5	0.5	5	1.5									INSTALLED AS PART OF #45	NA – INSTALLED AS PART OF #45
51	2	DROP–IN, HOT/COLD WELLS	RANDELL	RCHB–3–208 RFI 56		10.6		0.25	120/208	1	60	X							1.0			TO FLOOR SINK					INSTALLED AS PART OF #45	NA – INSTALLED AS PART OF #45
52	1	SLICER WITH STAND	HOBART	HS7N–1	WITH MOBILE EQUIPMENT STAND	5.6			120	1	60	X	5–15P														200 LBS.	A–18/MOBILE ON CASTERS
53	1	TOASTER, CONVEYOR	HATCO	TQ–400		15.0	1.8		120	1	60	X	5–15P														50 LBS.	A–18/A–24
54	1	CABINET, MOBILE, WARMING & HOLDING	ALTO–SHAAM	1000–UP		16.0	1.9		120	1	60	X	5–20P														360 LBS.	NA – MOBILE ON CASTERS
55	LOT	DRY STORAGE SHELVING	METRO	BR SERIES – 5 TIER	MOBILE ON CASTERS																						150 LBS. EACH	NA – MOBILE ON CASTERS
56	1	TRASH COUNTER	MILLWORK/SOLID SURFACE MATERIAL	CUSTOM																							150 LBS.	A–4/A–33
57	2	MOBILE CONDIMENTS COUNTER	MILLWORK/SOLID SURFACE MATERIAL	CUSTOM	ONE (1) UNIT FUTURE																						150 LBS. EACH	NA – MOBILE ON CASTERS
58	2	MOBILE POS COUNTER	MILLWORK/SOLID SURFACE MATERIAL	CUSTOM																							90 LBS. EACH	NA – MOBILE ON CASTERS
59	2	POS STATION	BY COLLEGE DISTRICT	NOT IN FSE CONTRACT	WITH DATA	(2)20A	DED		120	1	60	X		GFCI CONV. OUTLETS													25 LBS. EACH	NA – PORTABLE
60	LOT	TRASH CAN	RUBBERMAID	3536 (40–GAL SQUARE BRUTE)	WITH #3530 DOLLY; #3539 LID																						150 LBS. EACH	NA – MOBILE ON CASTERS
61	2	REFRIGERATED SELF–SERVICE CASE	STRUCTURAL CONCEPTS	B42	SELF–CONTAINED	16.0	1.6		120	1	60	X	5–20P														1100 LBS. EACH	B–2, INSTALL AT +78" AFF CCD 111
62	1	ICE CREAM CABINET & FREEZER	NOR–LAKE (BY VENDOR)	FTB31–6 (NOT IN FSE CONTRACT)		1.1		0.33	115	1	60	X	5–15P														200 LBS.	NA – MOBILE ON CASTERS
63	1	FRONT SERVING COUNTER	MILLWORK/SS	CUSTOM	SEE ARCHITECT'S DRAWINGS	(6)20A	DED		120	1	60	X		GFCI CONV. OUTLETS													350 LBS.	A–22/A–26
64	1	COFFEE CONDIMENTS	BY VENDOR	NOT IN FSE CONTRACT																							20 LBS.	NA – PORTABLE
65	3	COFFEE SERVER, INSULATED	CURTIS (BY VENDOR)	NOT IN FSE CONTRACT																							10 LBS. EACH	NA – PORTABLE
66	1	REFRIGERATED SELF–SERVICE CASE	BY VENDOR	NOT IN FSE CONTRACT		15.0			120	1	60	X	5–15P														950 LBS.	A–8/A–22
67	1	BAKERY CASE, SELF SERVICE, NON–REFRIGERATED	FEDERAL INDUSTRIES	WDC4276SS		2.0			120	1	60	X	5–15P														750 LBS.	B–2, INSTALL AT +60" AFF CCD 111
68	1	BEVERAGE SERVING COUNTER	MILLWORK/SOLID SURFACE MATERIAL	CUSTOM	SEE ARCHITECT'S DRAWINGS	(3)20A	DED		120	1	60	X		GFCI CONV. OUTLETS													1000 LBS.	A–4/A–33
69		NOT USED																										
70		NOT USED																										
71	1	DISPENSER, BEVERAGE/NON–CARBONATED	BUNN–O–MATIC (BY VENDOR)	JDF–2S (NOT IN FSE CONTRACT)		4.5	0.54		120	1	60		X 5–15P		0.375												120 LBS.	A–18/A–24
72	2	DISPENSER, CUP	SAN JAMAR (BY VENDOR)	C8504WF (NOT IN FSE CONTRACT)																							10 LBS. EACH	NA – PORTABLE
73	1	DISPENSER, BREWER, TEA	CURTIS (BY VENDOR)	SCTCTS10103 (NOT IN FSE CONTRACT)		14.0	1.7		120	1	60	X			0.25												50 LBS.	NA – PORTABLE
74	1	COFFEE MAKER, SATELLITE SYSTEM	CURTIS (BY VENDOR)	TP15T TWIN (NOT IN FSE CONTRACT)		34.5			220	1	60	X			0.375												80 LBS.	NA – PORTABLE
75		NOT USED																										
76	1	DISPENSER, BEVERAGE/CARBONATED & NON.	LANCER (BY VENDOR)	FS3016 (NOT IN FSE CONTRACT)	WITH (8) DISPENSING HEADS	7.0			115	1	60	X			0.375				0.5			TO FLOOR SINK; CW FROM #78					610 LBS.	A–18/A–24
77	1	ICE MAKER W/O BIN	MANITOWOC	IYT0420A		11.3			115	1	60	X			0.375				0.5			TO FLOOR SINK; CW FROM #78					400 LBS.	A–24/MOUNTED ON #76
78	1	FILTER SYSTEM	EVERPURE	EV9272–22/EV9613–21/EV9607–25	WITH (2) EV9692–21 RFI 160										0.75												15 LBS.	NA – INSTALLED AS PART OF #68
79	1	SODA SYSTEM	BY VENDOR	NOT IN FSE CONTRACT		15.0			115	1	60	X	5–15P														200 LBS.	NA – MOBILE ON CASTERS
80	2	SHELVING WITH MANUAL ROLL–DOWN SHUTTERS	SEE ARCH.'S SHEET A2.39.2	CUSTOM																							300 LBS.	B–1

RFI#38- AIR CURTAIN IS PEARL WHITE

RFI #56 - DELETE REQUIREMENT FOR REMOVABLE PERFORATED STRAINER PLATE AT ITEM #51

RFI #129 - ITEM 67 - EXTERIOR COLOR OF BAKERY DISPLAY - WHITE

RFI # 176 - #78 FILTER IS FOR ITEMS #76 & 77 PER FS DRAWINGS. WATER FILTERS IF REQUIRED FOR VENDOR PROVIDED #71, 73 AND 74 ARE PROVIDED AND INSTALLED BY VENDOR AT BACK OF THE MACHINES. VENDOR THAT SERVICES #71, 73 AND 74 RESPONSIBLE TO SERVICE FILTER AS WELL. #79 DOES NOT HAVE A CW REPLACEMENT.

FS = FLOOR SINK F–ST = FROM STUB GFCI = GROUND FAULT CONVENIENCE OUTLET AFF = ABOVE FINISHED FLOOR FLR = FLOOR WP = WATER PROOF
SP = SEE PLAN PED = PEDESTAL SSM = SOLID SURFACE MATERIAL TBV = TO BE VERIFIED S/S = STAINLESS STEEL FA = FROM ABOVE
ALL DIMENSIONS FOR ROUGH–INS ARE FROM FINSHED FLOOR TO CENTERLINE OF R–I. ALL CONVENIENCE OUTLETS TO BE MINIMUM 20A DEDICATED CIRCUITS

GENERAL NOTES AND CONDITIONS

1. RAS DESIGN GROUP LLC - DOES NOT REPRESENT ITSELF AS AN ARCHITECT, A CONTRACTOR OR AN ENGINEER. THESE DRAWINGS ARE PROVIDED FOR THE CONVENIENCE OF THE ARCHITECT, CONTRACTOR AND/OR SUBCONTRACTOR TO SHOW THE GENERAL PLACEMENT OF EQUIPMENT, FIXTURES, FURNISHINGS AND/OR MATERIALS, AND WERE MADE FROM AVAILABLE INFORMATION AT THE TIME THEY WERE DRAWN.
2. ALL PLUMBING, ELECTRICAL, ROUGH-IN WORK, FINAL CONNECTIONS TO ALL FOOD SERVICE EQUIPMENT AND FIXTURES INCLUDING TAPS, VALVES, GREASE TRAPS, WATER SOFTENERS, MISC. FITTINGS, SWITCHES, WIRING, CONDUIT OR FLEX, MAGNETIC STARTERS, DISCONNECTS, ELECTRICAL PANELS, THERMAL OVERLOAD PROTECTORS, CORDS AND PLUGS, ETC., MUST BE PROVIDED BY THE GENERAL CONTRACTOR OR LICENSED TRADE CONTRACTOR.
3. WORK BY ANY TRADE INDICATED ON THESE PLANS DOES NOT NECESSARILY REFLECT COMPLIANCE WITH EACH TRADE'S RESPECTIVE CODES, ORDINANCES AND REGULATIONS AND THEREFORE DOES NOT RELIEVE THEM OF THEIR RESPONSIBILITY TO ASSURE SUCH.
4. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED AT THE JOB SITE. DETAILS SHOWN ARE TYPICAL.
5. ALL DIMENSIONS WHEN SHOWN IN PLAN ARE TO THE FACE OF FINISHED SURFACES UNLESS OTHERWISE NOTED. INSTALLER MUST VERIFY ALL FIELD DIMENSIONS AND RELAY ANY DISCREPANCIES AND PROBLEMS TO THE ARCHITECT AND FOOD SERVICE CONSULTANT FOR RESOLUTION IN A TIMELY MANNER.
6. CONTRACTORS, SUBCONTRACTORS, SHEET METAL FABRICATORS AND TRADES SHALL PROVIDE AND SUBMIT THEIR OWN NECESSARY ROUGH-IN PLANS, ELEVATIONS AND DRAWINGS.
7. GENERAL CONTRACTOR SHALL PROVIDE ALL CEILING, WALL AND FLOOR PENETRATIONS, ALL SLEEVES FOR PLUMBING, ELECTRICAL, REFRIGERATION, CO2 LINES AND VENTILATION DUCTS AS REQUIRED. ALL PENETRATIONS AND REMOTE LOCATION SITES MUST BE VERIFIED AND APPROVED BY PROJECT ENGINEERS.
8. PLUMBING CONTRACTOR SHALL SELECT, PROVIDE AND LOCATE CORRECTLY-SIZED GREASE TRAPS, FLOOR SINKS, DRAINS AS REQUIRED AND COORDINATE THE INSTALLATION OF THESE TO COMPLY WITH THE REQUIREMENTS AS SPECIFIED BY THE FOOD SERVICE EQUIPMENT SUPPLIER.
9. ANY ERRORS, OMISSIONS OR CONFLICT FOUND IN THE VARIOUS PARTS OF THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND/OR PROJECT MANAGER BEFORE PROCEEDING WITH THE WORK.
10. FOOD SERVICE EQUIPMENT SUPPLIER AGREES TO CARRY OUT COMMISSIONING ON ALL EQUIPMENT, MATERIALS, AND SYSTEMS IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS AND UPON COMPLETION OF THE INSTALLATION AT THE TIME DESIGNATED BY EMPLOYER OR PROJECT MANAGER.
11. FOOD SERVICE EQUIPMENT SUPPLIER WARRANTS THAT ALL STANDARDS, FABRICATIONS AND DESIGNS MEET OR EXCEED LOCAL ENVIRONMENTAL HEALTH, FIRE AND SAFETY CODES AND REGULATIONS. ANY ISSUE, DESIGN OR STANDARD OF MANUFACTURE FOUND TO NOT MEET THESE CODES AND REGULATIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND/OR PROJECT MANAGER BEFORE PROCEEDING WITH THE WORK.

MEP CONTRACTORS AND ENGINEERS: PLEASE NOTE THAT THESE DRAWINGS ARE FOR PLANNING LOCATIONS AND COSTS FOR ROUGH-IN CONNECTIONS TO EQUIPMENT AS NOTED IN THESE PLANS. THE FINAL SELECTION OF EQUIPMENT MAY CHANGE AND EFFECT THE SIZE, LOCATION AND COST OF THE ASSOCIATED WORK. ALL SERVICES TO THE EQUIPMENT SHOWN SHOULD BE RE-VERIFIED WITH THE FINAL "FOR CONSTRUCTION" DRAWINGS PRODUCED BY THE INSTALLER.

SUMMARY OF WORK

1. THE WORK TO BE PERFORMED BY THE CONTRACTOR(S) UNDER THIS SET OF CONTRACT DOCUMENTS IS THE DEMOLITION, ALTERATION AND NEW CONSTRUCTION AS IS NECESSARY TO PROVIDE FOR THE INSTALLATION OF THE FOOD SERVICE EQUIPMENT SHOWN HEREIN.
2. IT IS THE INTENT OF THE CONTRACT NOTES AND DOCUMENTATION THAT ALL MATERIALS, EQUIPMENT, AND ALL SYSTEMS BE INSTALLED PROPERLY AND COMPLETELY FOR THEIR INTENDED FUNCTION IN THE COMPLETED WORK.
3. THE WORK INCLUDES, BUT IS NOT LIMITED TO, ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, MACHINERY, CONSTRUCTION, FACILITIES AND TEMPORARY CONTROLS, TRANSPORTATION AND OTHER FACILITIES AND SERVICES NECESSARY TO PRODUCE THE CONSTRUCTION REQUIRED BY THE CONTRACT DOCUMENTS.
4. ALL SPECIFICATIONS BOOKS, ADDENDA, INQUIRIES AND REQUESTS ATTACHED TO OR DISTRIBUTED WITH THESE DRAWINGS CONSTITUTE THE COMPLETE SCOPE OF WORK TO BE FULFILLED IN THESE PLANS.

REFER TO SHEET FS5.1.2 FOR SMACNA DETAILS

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

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INCREMENT 2

ISSUE DATE	9/01/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

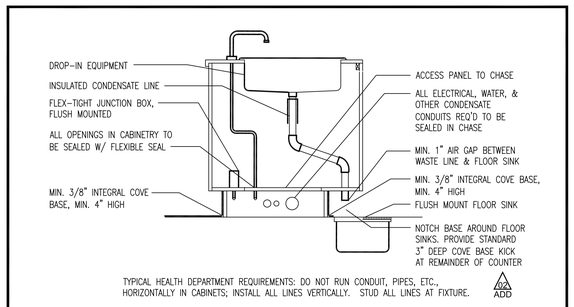
	DATE	DESCRIPTION
2	8/2/19	INC 2 - ADDENDUM 02
3	10/15/19	INC 2 - ADDENDUM 03
CCD 111	4/15/21	CCD 111

SHEET TITLE

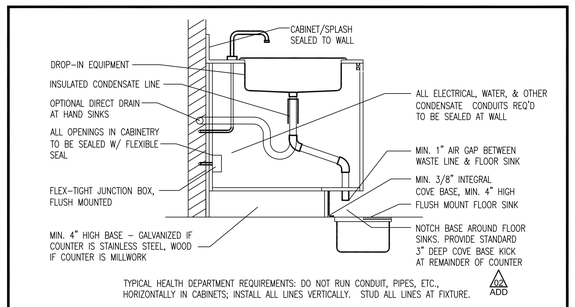
FIRST FLOOR CAFE FOOD SERVICE ITEMIZED EQUIPMENT & SMACNA SCHEDULE WITH UTILITY INFORMATION

SHEET NUMBER

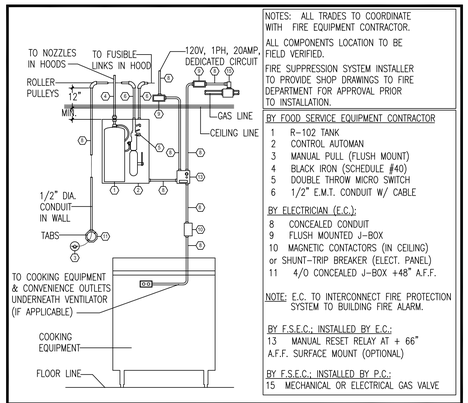
FS1.0.2



HEALTH DEPARTMENT ISLAND COUNTER DETAIL SCALE: NONE



HEALTH DEPARTMENT COUNTER AGAINST WALL DETAIL SCALE: NONE



NOTES: ALL TRADES TO COORDINATE WITH FIRE EQUIPMENT CONTRACTOR.

ALL COMPONENTS LOCATION TO BE FIELD VERIFIED.

FIRE SUPPRESSION SYSTEM INSTALLER TO PROVIDE SHOP DRAWINGS TO FIRE DEPARTMENT FOR APPROVAL PRIOR TO INSTALLATION.

BY FOOD SERVICE EQUIPMENT CONTRACTOR

1 R-102 TANK
2 CONTROL AUTOMAN
3 MANUAL PULL (FLUSH MOUNT)
4 BLACK IRON (SCHEDULE #40)
5 DOUBLE THROW MICRO SWITCH
6 1/2" E.M.T. CONDUIT W/ CABLE

BY ELECTRICIAN (E.C.):

8 CONCEALED CONDUIT
9 FLUSH MOUNTED J-BOX
10 MAGNETIC CONTACTORS (IN CEILING) or SHUNT-TRIP BREAKER (ELECT. PANEL)
11 4/O CONCEALED J-BOX +48" A.F.F.

NOTE: E.C. TO INTERCONNECT FIRE PROTECTION SYSTEM TO BUILDING FIRE ALARM.

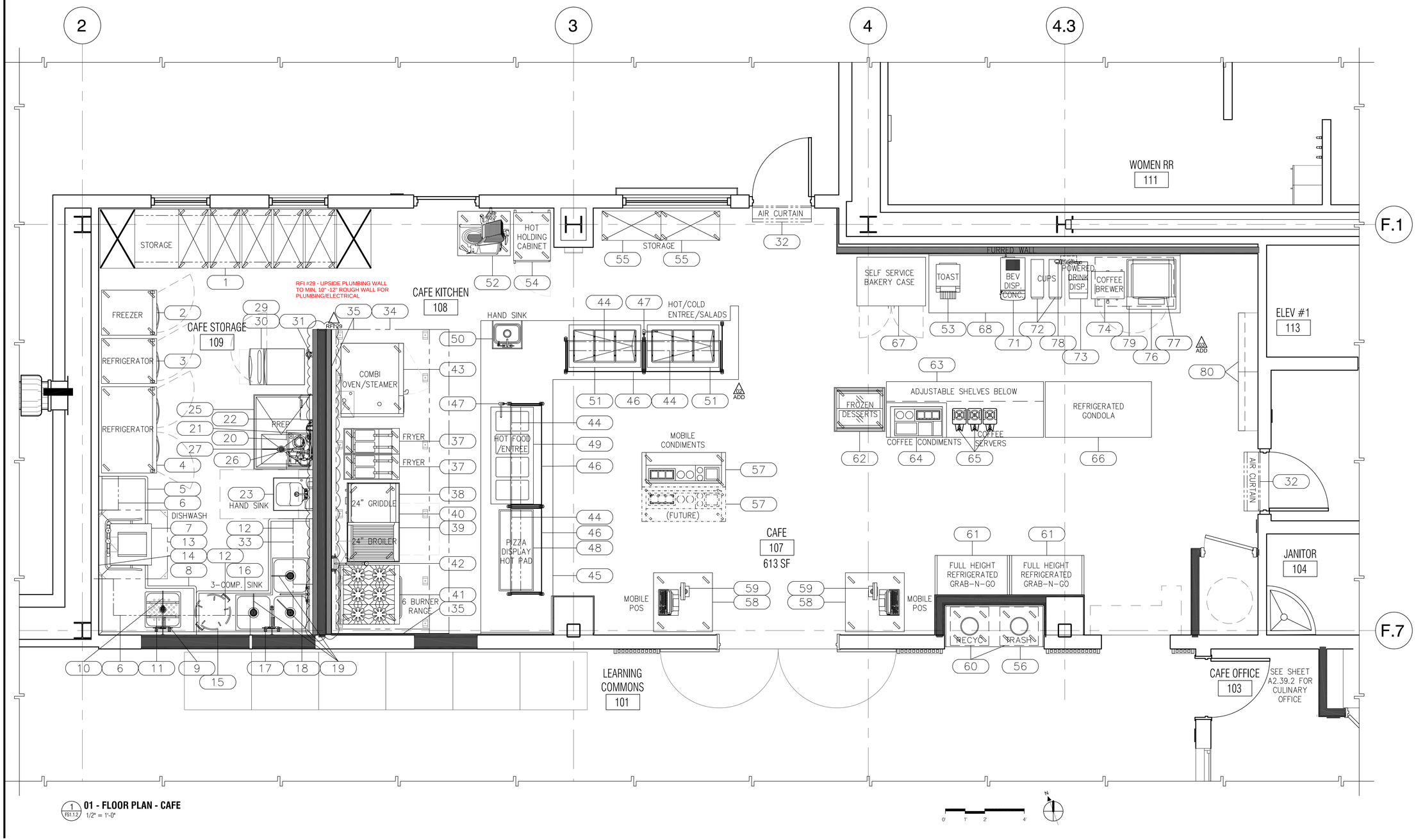
BY F.S.E.C.; INSTALLED BY E.C.:

13 MANUAL RESET RELAY AT + 66" A.F.F. SURFACE MOUNT (OPTIONAL)

BY F.S.E.C.; INSTALLED BY P.C.:

15 MECHANICAL OR ELECTRICAL GAS VALVE

TYPICAL FIRE SUPPRESSION SYSTEM DETAIL SCALE: NONE
REFER TO SHEET FS4.1.2



1 FS1.1.2 **01 - FLOOR PLAN - CAFE**
1/2" = 1'-0"

APPROVALS

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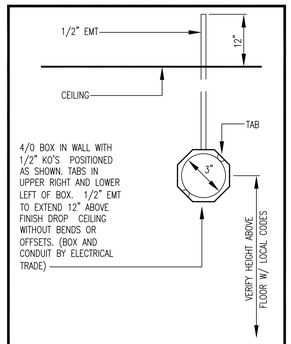
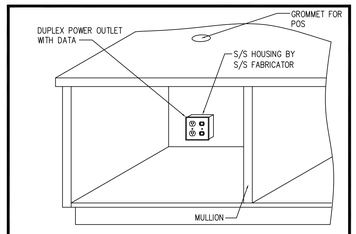
2	8/2/19	INC 2 - ADDENDUM 02
3	8/27/19	INC 2 - ADDENDUM 03
111	4/15/21	CCD 111

SHEET TITLE
FIRST FLOOR CAFE FOOD SERVICE ITEMIZED EQUIPMENT FLOOR PLAN

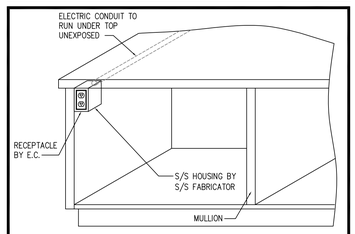
SHEET NUMBER
FS1.1.2



EMERGENCY FIRE PULL BOX DETAIL SCALE: NONE



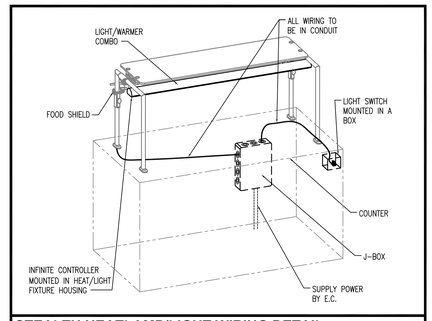
U/C RECEPTACLE/DATA SCALE: NONE



UNDER COUNTER RECEPTACLE SCALE: NONE

FOOD SERVICE ELECTRICAL NOTES

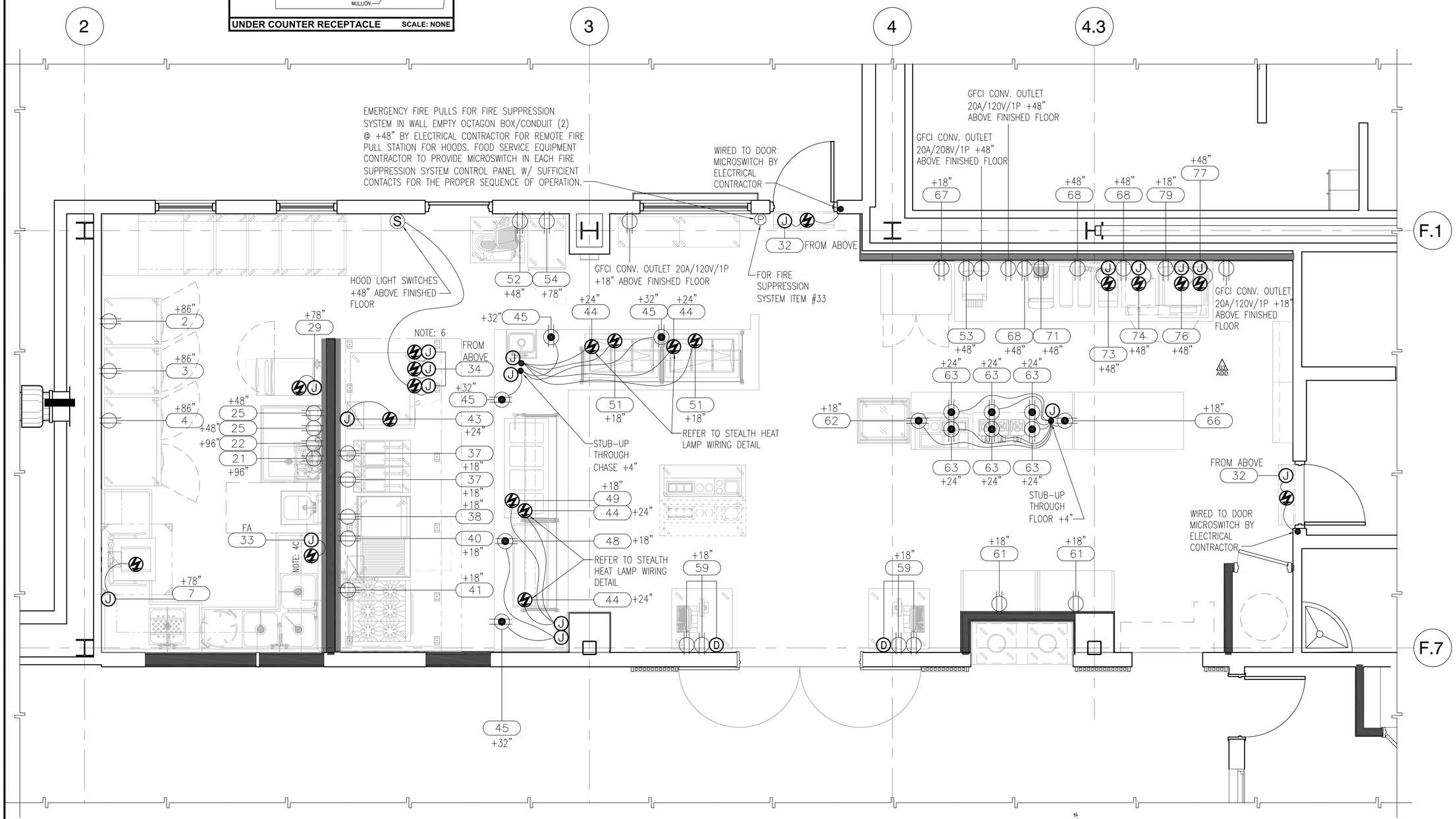
1. ALL OUTLETS AND CONNECTIONS SHOWN RELATE TO FOOD SERVICE (FS) EQUIPMENT ONLY.
2. THIS ELECTRICAL ROUGH-IN PLAN IS INTENDED TO SHOW OUTLET LOCATIONS, CONNECTION POSITIONS AND LOADS. ANY DIMENSIONS SHOWN ARE FROM FINISHED WALL SURFACES.
3. THE FINAL CONNECTIONS TO THE FS EQUIPMENT AT THE JUNCTION-BOX OR CIRCUIT PANEL WILL BE BY THE ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR TO INCLUDE ALL MATERIALS.
4. ELECTRICAL DIVISION TO FURNISH AND INSTALL THE FOLLOWING:
   - A. ALL JUNCTION-BOXES, ELECTRICAL OUTLETS, COVER PLATES, SWITCHES, ETC., NOT BUILT INTO FIXTURES OR EQUIPMENT. ALL OUTLETS, JUNCTION-BOXES, COVER PLATES, ETC. IN DISHROOMS, OR AS INDICATED ON SCHEDULES MUST BE VAPOR PROOF. ALL OUTLETS ABOVE TABLE/COUNTER BACK SPLASHES TO BE MOUNTED HORIZONTALLY.
   - B. ALL CORDS AND PLUGS, AS NOTED ON SCHEDULE, SHALL BE N.E.M.A. RATED AND U.L. APPROVED.
   - C. SHUNT-TRIP CIRCUIT BREAKERS OR DISCONNECTS FOR FIRE CONTROL SYSTEM SHUT-OFF OF FOOD SERVICE EQUIPMENT BELOW HOODS/VENTILATORS AS REQUIRED BY N.F.P.A.-96, AND LOCAL CODES.
   - D. DISCONNECTS OR OTHER DEVICES AS REQUIRED BY CODES.
5. ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT, WIRING J-BOXES, OUTLETS, ETC., AND INSTALL. ELECTRICAL COMPONENTS AND INTERWIRE, BETWEEN ALL FS EQUIPMENT (WHERE REQUIRED) INCLUDING BUT NOT LIMITED TO, THE FOLLOWING:
   - A. KITCHEN EXHAUST HOOD FIRE CONTROL SYSTEM TO GAS SOLENOID VALVE, SHUNT-TRIP CIRCUIT BREAKER(S) AND BUILDING FIRE ALARM SYSTEM (IF APPLICABLE).
   - B. FROM JUNCTION BOXES TO OUTLETS MOUNTED ON/IN CUSTOM FABRICATED EQUIPMENT ITEMS.
   - C. FROM DISHWASHERS INTERNAL ON/OFF FAN CONTROL OPTION TO EXTERIOR TYPE 2 EXHAUST FAN.
6. ELECTRICAL CONTRACTOR TO PROVIDE AND WIRE EXHAUST HOOD LIGHT SWITCH WITH JUNCTION BOX ON TOP OF HOOD, INTER-WIRE TO LIGHTS, SENSORS, ETC.
7. ELECTRICAL CONTRACTOR TO COORDINATE FAN ON/OFF SWITCH REQUIREMENTS WITH MECHANICAL CONTRACTOR. EXHAUST AND M-U AIR FANS MUST BE INTERLOCKED TO RUN SIMULTANEOUSLY.
8. ELECTRICAL CONTRACTOR TO INTERCONNECT TEMPERATURE SENSORS AND LIGHT FIXTURES IN HOODS. REFER TO SHOP DRAWINGS FOR DIAGRAM.



STEALTH HEATLAMP/LIGHT WIRING DETAIL SCALE: NONE

ELECTRICAL ABBREVIATIONS AND SYMBOLS

SWITCH	SW	(S)
ELECTRICAL CONNECTION	EC	
JUNCTION BOX	JB	(J)
STUB-UP TO JUNCTION BOX	JBS	(J)●
SINGLE RECEPTACLE	SR	
DUPLEX RECEPTACLE	DR	
DUPLEX RECEPTACLE MOUNTED ON EQUIPMENT AT HEIGHT INDICATED, POWER FROM STUB	DRS	●
FIRE PULL STATION	FP	(P)
DATA/COMM. PORT	DP	(D)



1 / FS1.2.2 **01 - ELECTRICAL PLAN - CAFE**
1/2" = 1'-0"

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	9/01/2023
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REVISIONS

△	DATE	DESCRIPTION
	8/2/19	INC 2 - ADDENDUM 02
	8/27/19	INC 2 - ADDENDUM 03
	4/15/21	CCD 111

SHEET TITLE
FIRST FLOOR CAFE FOOD SERVICE ELECTRICAL ROUGH-IN PLAN

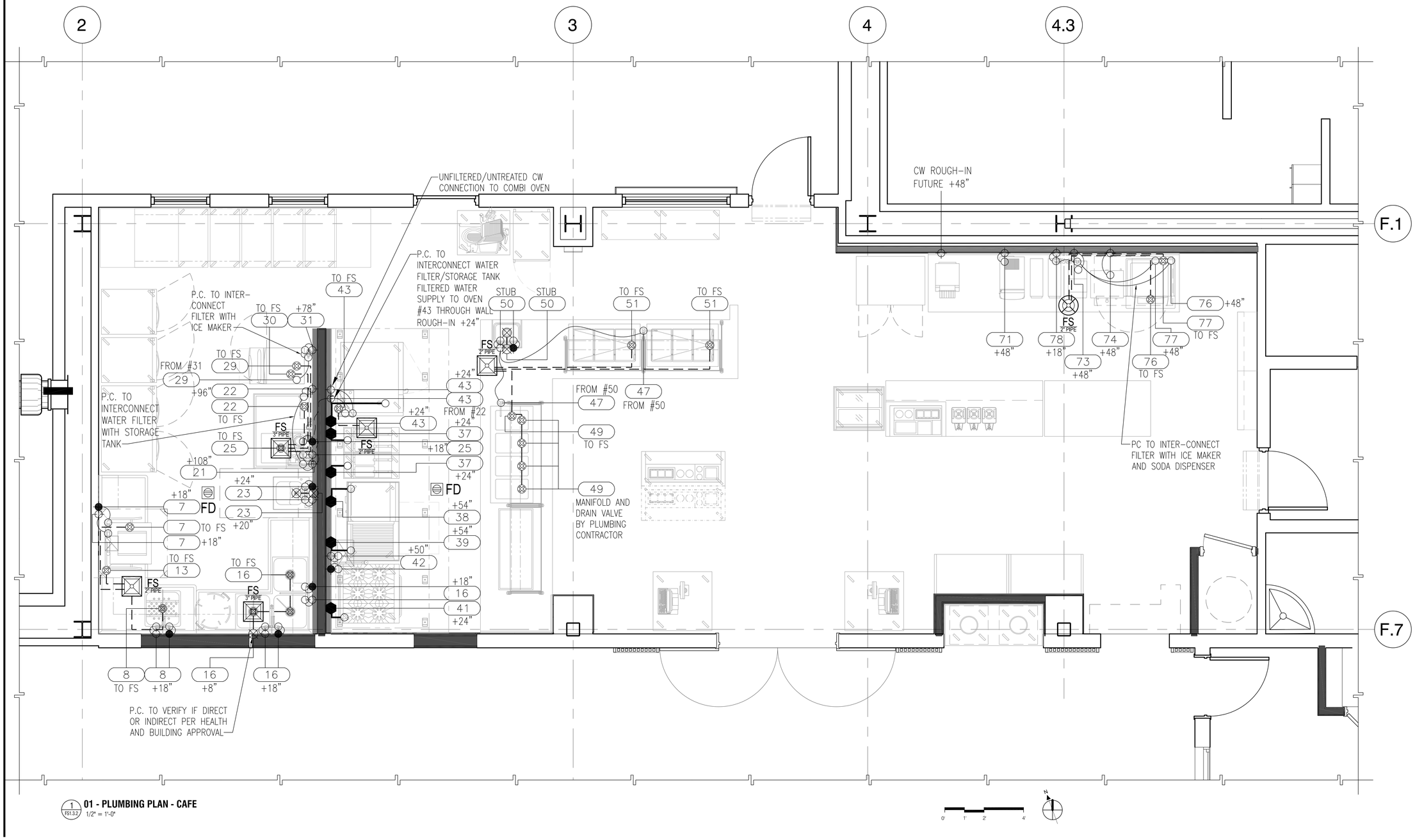
SHEET NUMBER
FS1.2.2

FOOD SERVICE MECHANICAL/PLUMBING NOTES

1. ALL CONNECTIONS SHOWN RELATE TO FOOD SERVICE EQUIPMENT ONLY. SEE ENGINEERING PLANS FOR ADDITIONAL INFORMATION.
2. PLUMBING ROUGH-IN PLAN IS INTENDED TO SHOW LOCATIONS, HEIGHTS, CONNECTION SIZES, POSITIONS AND LOAD REQUIREMENTS. ANY DIMENSIONS SHOWN ARE FROM FINISHED SURFACES.
3. FINAL CONNECTIONS AND INTERCONNECTIONS TO/BETWEEN ALL EQUIPMENT TO ALL EQUIPMENT TO BE BY MECHANICAL DIVISION INCLUDING REQUIRED MATERIAL, SUCH AS STOPS, VALVES, FILTERS, TRAPS, CHECK VALVES, MIXING VALVES, PIPING, TUBING, ETC.
4. MECHANICAL DIVISION TO FURNISH AND INSTALL THE FOLLOWING:
   - A. ALL WATER, WASTE, AND GAS, SERVICE TO POINT OF ROUGH-IN AS SHOWN ON PLAN.
   - B. PROVIDE HOT WATER AS FOLLOWS: 140 DEGREE MINIMUM TO DISHWASHER AND POT WASHING; 120 DEGREE MINIMUM TO PREP SINKS; AND, 110 DEGREE MINIMUM TO HAND SINKS.
   - C. PRESSURE REDUCING AND/OR REGULATING VALVES FOR DISHWASHERS, BOOSTER HEATERS AND ANY OTHER EQUIPMENT AS REQUIRED BY MANUFACTURER.
   - D. ALL FLOOR SINKS, COMPLETE WITH THE INDICATED TOP GRATES, AND REMOVABLE SEDIMENT BUCKETS, SET FLUSH WITH FINISHED FLOOR, UNLESS OTHERWISE NOTED OR REQUIRED BY CODES.
   - E. ALL WASTE LINES AS NOTED. MINIMUM DIAMETER OF LINE SHALL BE AS INDICATED ON PLAN, REGARDLESS OF CONNECTION SIZE, AND SHALL BE DOWNWARD WITH ADEQUATE CLEAN-OUT PROVISIONS. MAINTAIN DRAINS AS HIGH AS POSSIBLE ABOVE FLOOR.
   - F. INSTALL FIRE CONTROL GAS SHUT-OFF VALVE(S) AS SUPPLIED BY FOOD SERVICE EQUIPMENT CONTRACTOR (F.S.E.C.).
   - G. VACUUM BREAKERS AS REQUIRED.
   - H. ANY COLD WATER TEMPERING KITS FOR HIGH HEAT DRAINAGE EQUIPMENT (E.G., DISH/POT WASHERS, STEAMERS, ETC.) IF REQUIRED BY LOCAL PLUMBING CODES.
5. ALL VENT PIPES ARE TO BE CONCEALED IN WALLS OR COLUMN CHASES. USE LOOP-VENTS FOR ISLAND FIXTURES.
6. PLUMBING CONTRACTOR TO TURN BACK DRAIN CONNECTIONS; THEN, DOWN TO MAXIMIZE STORAGE - TYPICAL FOR ALL DRAINS.

MECHANICAL ABBREV. AND SYMBOLS

GAS ROUGH-INS	G	⬢
WATER CONNECTION	WC	○
HOT WATER ROUGH-INS	HW	⊕
COLD WATER ROUGH-INS	CW	⊕
WASTE	W	⊗
INDIRECT WASTE	IW	⊗
FLOOR SINK- 2" PIPE	FS	▣ ◎
FLOOR SINK- 3" PIPE	FS	▣ ◎
FLOOR DRAIN	FD	▭
FILTERED COLD WATER	FCW	Ⓕ



1 FS1.3.2 **01 - PLUMBING PLAN - CAFE**
1/2" = 1'-0"

0' 1' 2' 4'

APPROVALS

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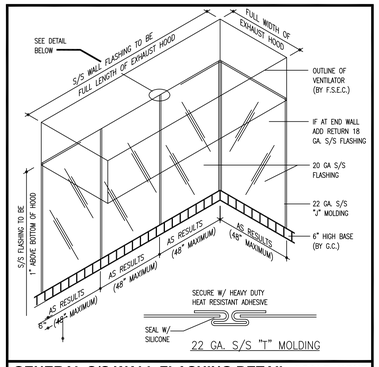
1	8/2/19	INC 2 - ADDENDUM 02
2	8/27/19	INC 2 - ADDENDUM 03
3	4/15/21	CCD 111

SHEET TITLE
FIRST FLOOR CAFE FOOD SERVICE PLUMBING ROUGH-IN PLAN

SHEET NUMBER
FS1.3.2

FOOD SERVICE BUILDING CONDITIONS/MECHANICAL NOTES

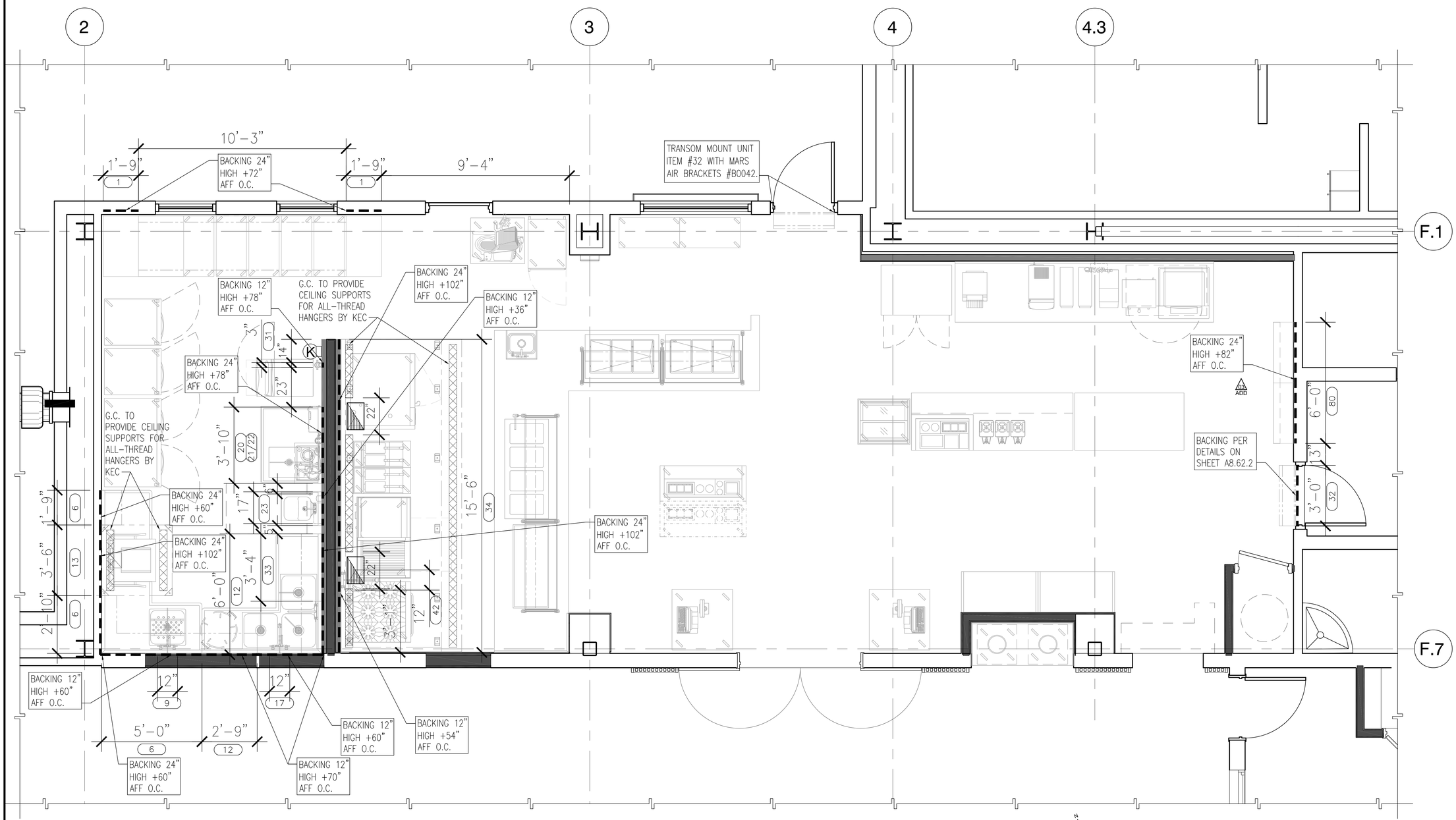
1. ALL CEILINGS IN KITCHEN AREAS TO BE NO LESS THAN 9'-0" ABOVE FINISHED FLOOR.
2. ALL WORK INDICATED ON THIS PLAN AND IN THESE NOTES SHALL BE BY OTHER THAN THE FOOD SERVICE EQUIPMENT CONTRACTOR (F.S.E.C).
3. WALLS, FLOORS AND CEILINGS IN FOOD SERVICE AND WASHING AREAS, OR ANY OTHER LOCATION WHERE FOOD OR BEVERAGES ARE PREPARED, SHALL BE SMOOTH, EASILY CLEANABLE, NON-ABSORBENT, AND DURABLE. WALLS AND CEILINGS SHALL BE LIGHT IN COLOR.
4. PARTITION WALLS BETWEEN FOODSERVICE/WASHING AREAS AND PUBLIC AREAS TO BE CONSTRUCTED FOR MAXIMUM SOUND CONTROL.
5. FINAL DUCT CONNECTIONS TO EQUIPMENT SHALL BE BY MECHANICAL CONTRACTOR.
6. GENERAL CONTRACTOR (G.C.) OR EQUIVALENT, SHALL:
   - A. PROVIDE IN-WALL REINFORCING OR BACKING AS REQUIRED FOR WALL MOUNTED FOOD SERVICE EQUIPMENT; REFER TO PLAN AND DETAIL.
   - B. SLOPE FLOORS TO FLOOR SINKS, FLOOR DRAINS, OR FLOOR TROUGHS.
   - C. PROVIDE DOOR/WALL OPENINGS FOR PASSAGE OF ALL FOOD SERVICE EQUIPMENT TO KITCHEN AREAS; G.C. TO COORDINATE WITH F.S.E.C.
   - D. PROVIDE FIRE RATED MATERIALS AND OR INSULATION AS REQUIRED FOR EXHAUST DUCTS, VENT STACKS, HEAT PRODUCING EQUIPMENT, ROOF/WALL PENETRATIONS, ETC.; PER LOCAL CODES.
   - E. PROVIDE COVED BASE OR INTEGRAL FLOOR MATERIALS AS REQUIRED AT ALL VERTICAL SURFACES OF FOOD SERVICE AREA FLOORS.
   - F. PROVIDE SLEEVES OR CONDUITS AT WALL/FLOOR PENETRATIONS AS REQUIRED FOR THROUGH WALL DRAIN LINES.
   - G. PROVIDE ANGLE IRON AT STRUCTURE FOR EXHAUST HOOD SECURING. HOOD HANGER BRACKET LOCATIONS PER MANUFACTURERS' SHOP DRAWINGS. 1/2" THREADED HANGER RODS, PROVIDED AND INSTALLED BY F.S.E.C. ANGLE IRON AND STRUCTURE ABOVE BETWEEN ROOF TRUSSES, BEAMS, ETC., BY G.C. THE G.C. IS TO COORDINATE STRUCTURAL SUPPORT LOCATIONS WITH F.S.E.C.
   - H. FIRE SUPPRESSION SYSTEM CONTRACTOR TO PROVIDE TYPE "K" FIRE EXTINGUISHER ADJACENT TO COOKING AREAS.
7. PROVIDE FOR A MINIMUM OF 500 CFM ADDITIONAL VENTILATION (EXHAUST AND SUPPLY) IN ALL DISHWASHING/POT WASHING ROOMS. THIS IS TO BE IN addition TO THE SCHEDULED HOOD/DUCT EXHAUST SHOWN ABOVE DISHWASHERS/POT WASHERS.



GENERAL S/S WALL FLASHING DETAIL SCALE: NONE
ITEM #35

BUILDING CONDITIONS/VENTILATION SYMBOLS

- EXHAUST DUCT CONNECTION
- WALL BACKING
- 3"x 3"x 1/4" SUPPORT AT STRUCTURE
- (K) "K" TYPE FIRE EXTINGUSHER



1 FS1.4.2 **01 - BUILDING CONDITIONS PLAN - CAFE**
1/2" = 1'-0"

0' 1' 2' 4'

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
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ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

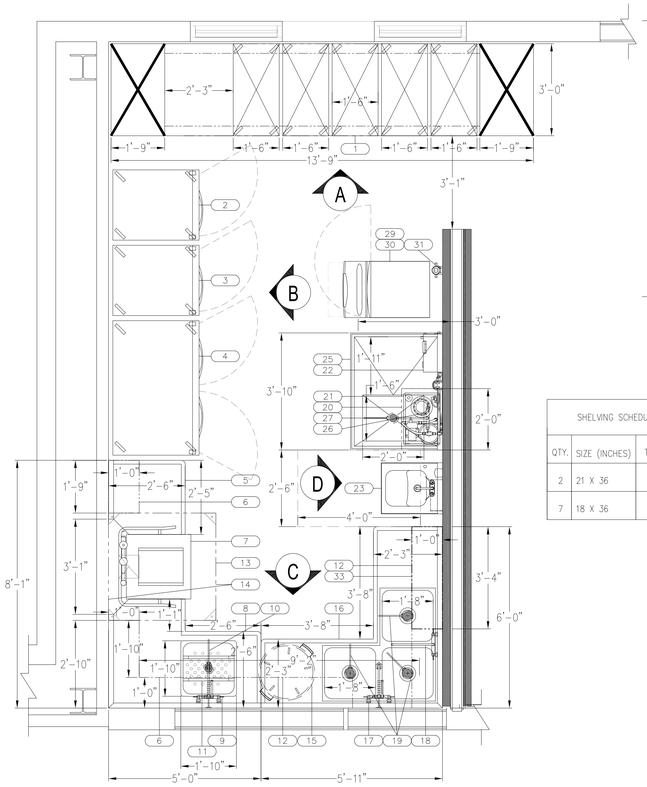
ISSUE DATE	9/01/2023
NOLL & TAM JOB NUMBER	21630

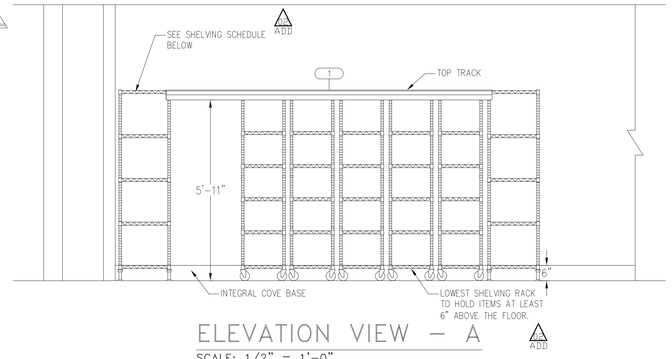
REVISIONS

	DATE	DESCRIPTION
	8/2/19	INC 2 - ADDENDUM 02
	8/27/19	INC 2 - ADDENDUM 03
	4/15/21	CCD 111

SHEET TITLE
FIRST FLOOR CAFE FOOD SERVICE BUILDING CONDITIONS PLAN

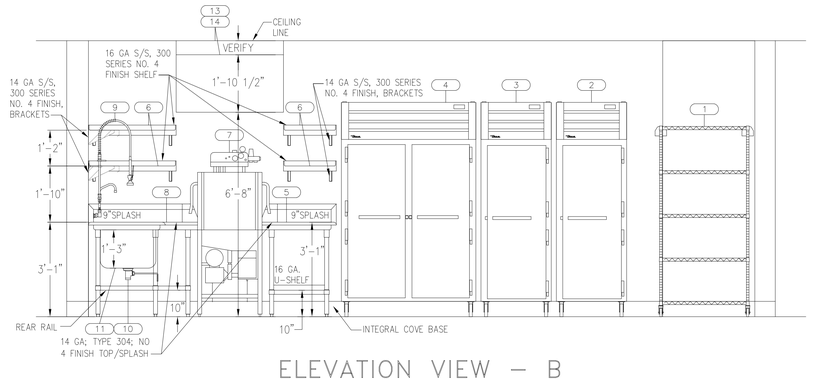
SHEET NUMBER
FS1.4.2





ELEVATION VIEW – A

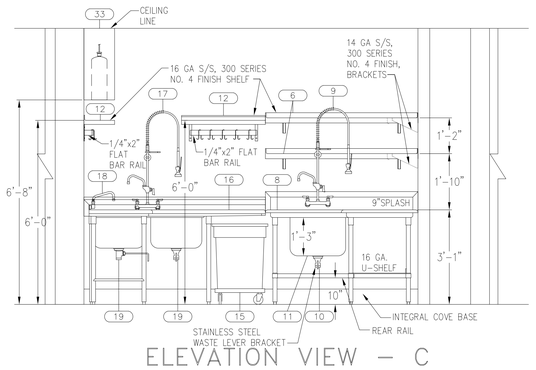
SCALE: 1/2" = 1'-0"



ELEVATION VIEW – B

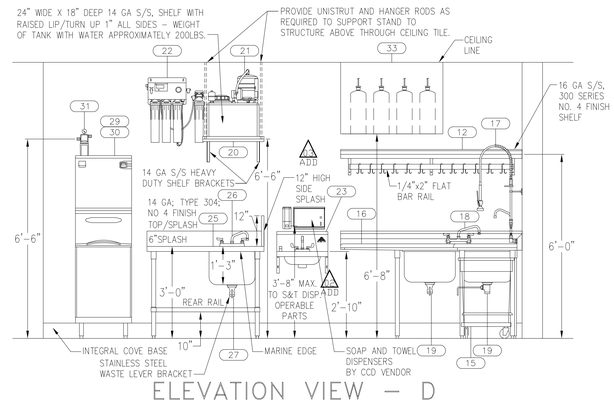
SCALE: 1/2" = 1'-0"

SHELVING SCHEDULE (ITEM #1 AND #55)			
QTY.	SIZE (INCHES)	TIERS	TOTAL SQ. FT.
2	21 X 36	5	52.5
7	18 X 36	5	157.5
			210.0



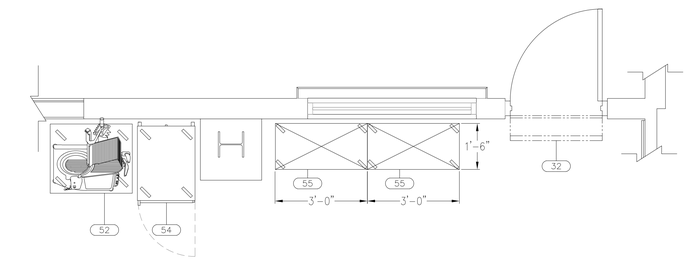
ELEVATION VIEW – C

SCALE: 1/2" = 1'-0"

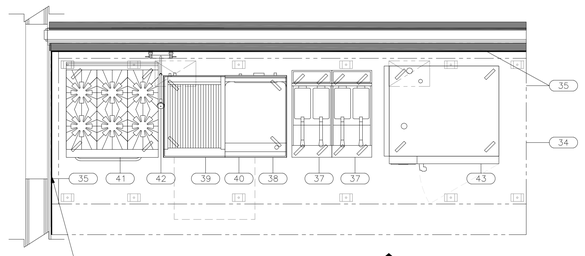


ELEVATION VIEW – D

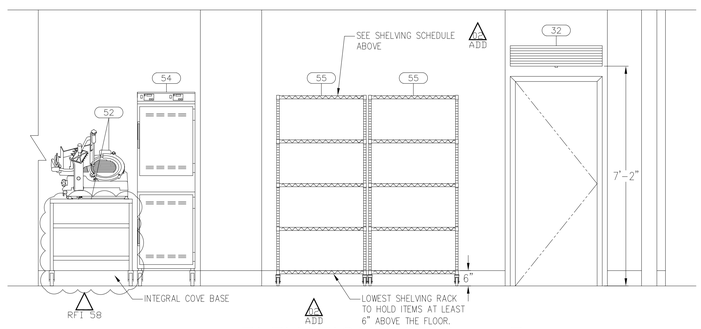
SCALE: 1/2" = 1'-0"



PLAN VIEW E

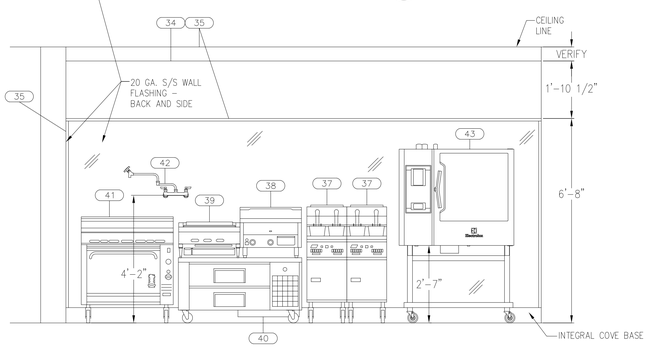


PLAN VIEW F



ELEVATION VIEW – E

SCALE: 1/2" = 1'-0"
ITEM #32 (QUANTITY OF 2)



ELEVATION VIEW – F

SCALE: 1/2" = 1'-0"

GENERAL FABRICATION / EQUIPMENT INSTALLATION NOTES (APPLICABLE TO ALL SHEETS):

A. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
B. CONTRACTOR TO VERIFY MATERIALS, FINISHES, HARDWARE, ETC., WITH ARCHITECT.
C. CONTRACTOR TO VERIFY AND PROVIDE ALL CUTOUT DIMENSIONS FOR DROP–IN EQUIPMENT.
D. CONTRACTOR TO COORDINATE WORK BETWEEN TRADES/SECTIONS.
E. CONTRACTOR TO VERIFY FABRICATION AND INSTALLATION OF SNEEZE GUARDS.
F. THESE DRAWINGS ARE NOT SHOP DRAWINGS AND SHALL NOT BE CONSIDERED AND USED AS SUCH.
G. ALL S/S TOPS TO BE 14 GA S/S – UNLESS NOTED OTHERWISE.
H. ALL UNDERSHELVES TO BE 16 GA S/S – UNLESS NOTED OTHERWISE.
I. ALL CABINET BODY CONST TO BE 18 GA STAINLESS TO BE TYPE 304 #4 FINISH – UNLESS NOTED OTHERWISE.
J. ALL LEGS AND FEET TO BE S/S 1–5/8" WITH S/S ADJUSTABLE FEET.
K. USE STRAIGHT TURN–DOWN EDGE ALL CUSTOM FABRICATED TABLES/SHELVES ETC., UNLESS SHOWN OTHERWISE.
L. ALL CUSTOM FABRICATED STAINLESS STEEL EQUIPMENT WILL BE CONSTRUCTED IN ACCORDANCE WITH NSF 2 STANDARDS AND WILL BE FABRICATED BY A NSF CERTIFIED FABRICATOR.
M. ALL COUNTER TOPS, EXPOSED INTERIOR AND BELOW/UNDERSIDE OF TOP TO BE CONSTRUCTED OF SMOOTH, NON–ABSORBENT, EASILY CLEANABLE FINISH (E.G., ACCEPTABLE PLASTIC LAMINATE, STAINLESS STEEL, ETC., PAINT, VARNISH, LACQUER, OR POLYURETHANE FINISHED WOOD IS NOT ACCEPTABLE).
N. FAUCETS, DRAINS AND FABRICATION ACCESSORIES PER GENERAL SPECIFICATIONS SECTION 11400, TYPICAL.
O. ALL FABRICATION KITCHEN FAUCETS FOR HAND SINKS, PREP TABLES, AND POTWASH SINKS TO BE PROVIDED WITH ON/OFF CONTROLS AS FOLLOWS: (1) OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE GRASPING, PINCHING OR TWISTING OF THE WRIST; (2) REQUIRE NO MORE THAN 5–LBS. FORCE TO ACTIVATE; (3) BE LEVER OPERATED, PUSH–TYPE, ELECTRONICALLY CONTROLLED, OR SIMILAR. TYPICAL.
P. ALL FOOD SERVICE EQUIPMENT ITEMS: WHERE SEPARATE FIXTURES ABUT EACH OTHER AS IN A BATTERY OF COOKING EQUIPMENT REFRIGERATORS, HOT CABINETS, TABLES, ETC., FSEC IS TO, JOIN/SEAL TO ELIMINATE CREVICES. WHERE FIXTURES PENETRATE OR ABUT WALLS, FIT WALL WITH MATCHING TRIM STRIPS AND/OR MATCHING SILICONE TO EDGES WITH TRIM MOLDING, OF MATCHING MATERIAL, TO CLOSE SPACES BETWEEN FIXTURE AND BUILDING STRUCTURE. AT WALL PENETRATIONS, MOUNT FIXTURE ON ENCLOSED CHANNEL BASE OF SIMILAR MATERIAL TO CLOSE SPACES, WHERE SPECIFIED.

APPROVALS

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	9/01/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

△	DATE	DESCRIPTION
	8/2/19	INC 2 - ADDENDUM 02
	10/15/19	INC 2 - ADDENDUM 03
	4/15/21	CCD 111

SHEET TITLE
FIRST FLOOR CAFE FOOD SERVICE EQUIPMENT ELEVATION DETAILS

SHEET NUMBER
FS2.1.2

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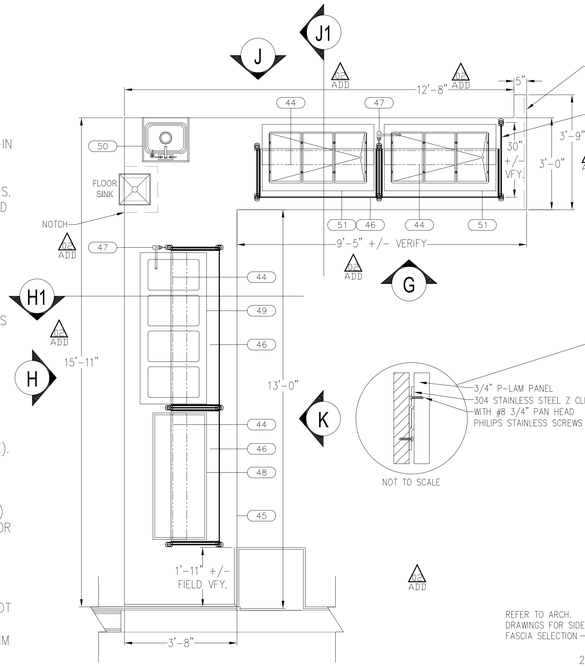
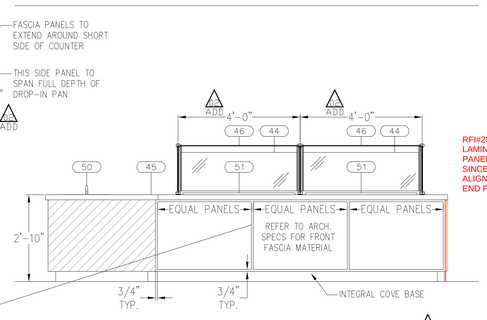
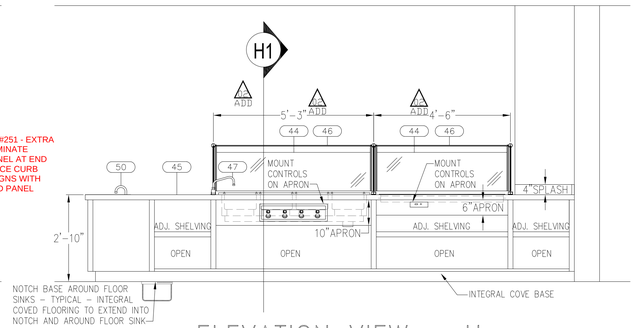


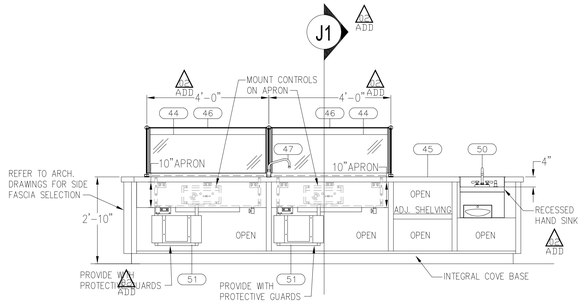


ELEVATION VIEW - G
SCALE: 1/2" = 1'-0"

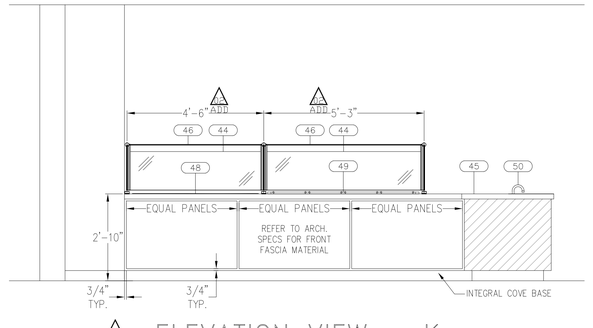
RFI#251 - EXTRA LAMINATE PANEL AT END SINCE CURB ALIGNS WITH END PANEL



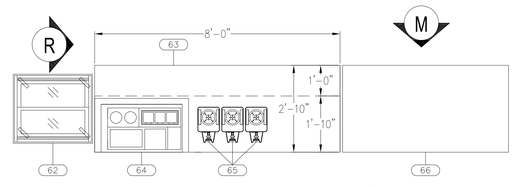
ELEVATION VIEW - H
SCALE: 1/2" = 1'-0"



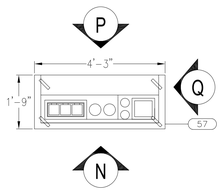
ELEVATION VIEW - J
SCALE: 1/2" = 1'-0"



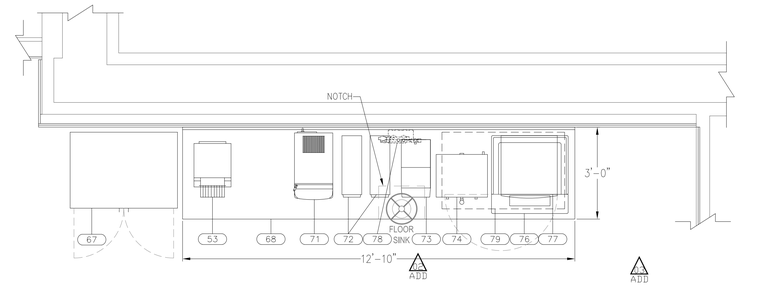
ELEVATION VIEW - K
SCALE: 1/2" = 1'-0"

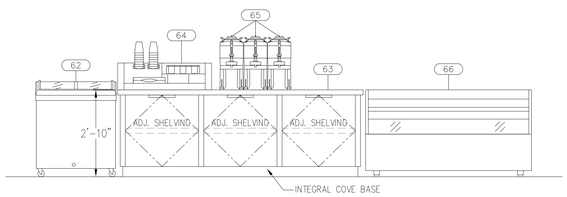


PLAN VIEW L

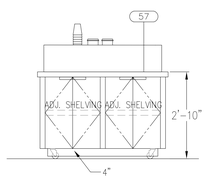


PLAN VIEW

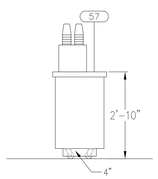




ELEVATION VIEW - L
SCALE: 1/2" = 1'-0"

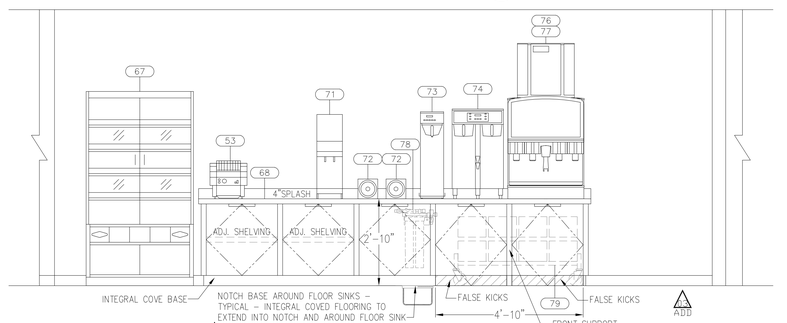


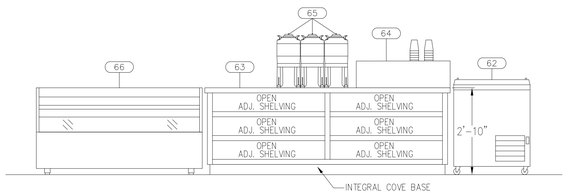
ELEVATION VIEW - N
SCALE: 1/2" = 1'-0"



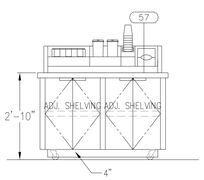
ELEVATION VIEW - Q
SCALE: 1/2" = 1'-0"

PLAN VIEW S

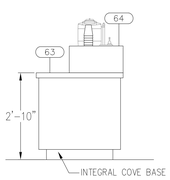




ELEVATION VIEW - M
SCALE: 1/2" = 1'-0"



ELEVATION VIEW - P
SCALE: 1/2" = 1'-0"



ELEVATION VIEW - R
SCALE: 1/2" = 1'-0"

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
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tel 510.542.2200
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ARCHITECTS SEAL

LICENSED ARCHITECT
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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
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ISSUE TITLE
INCREMENT 2

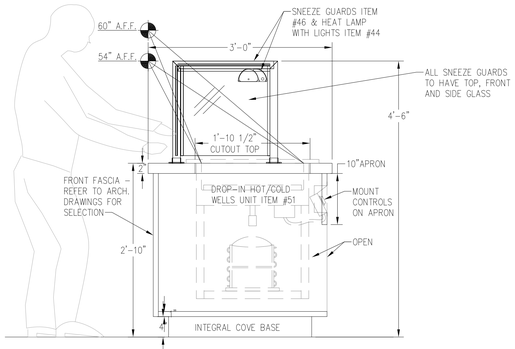
ISSUE DATE 9/01/2023
NOLL & TAM JOB NUMBER 21630

REVISIONS

DATE	DESCRIPTION
8/2/19	INC 2 - ADDENDUM 02
8/27/19	INC 2 - ADDENDUM 03
4/15/21	CCD 111

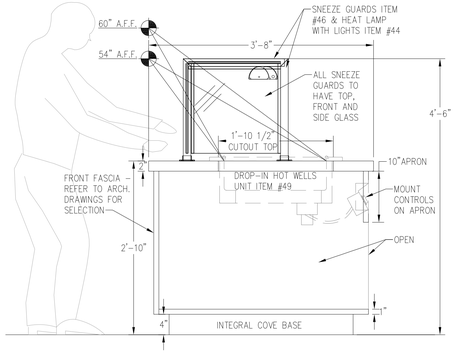
SHEET TITLE
FIRST FLOOR CAFE FOOD SERVICE EQUIPMENT ELEVATION DETAILS

SHEET NUMBER
FS2.2.2



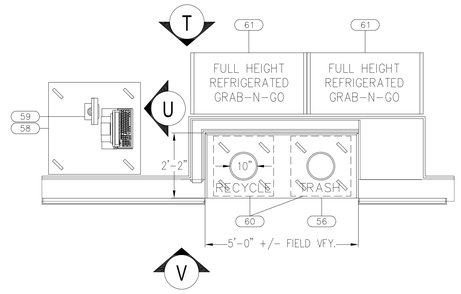
SECTION VIEW – J1

SCALE: 1" = 1'-0"



SECTION VIEW – H1

SCALE: 1" = 1'-0"

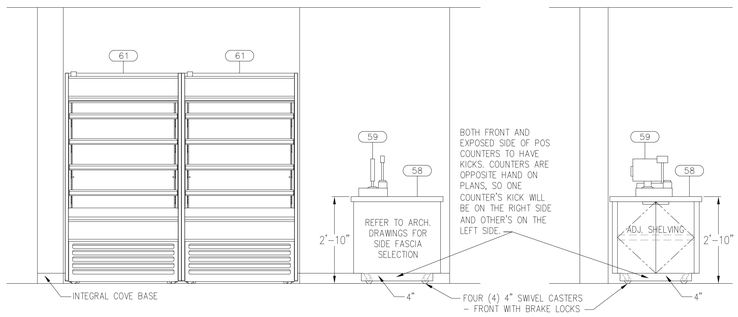


PLAN VIEW

GENERAL FABRICATION / EQUIPMENT INSTALLATION NOTES (APPLICABLE TO ALL SHEETS):

A. CONTRACTOR TO VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
B. CONTRACTOR TO VERIFY MATERIALS, FINISHES, HARDWARE, ETC., WITH ARCHITECT.
C. CONTRACTOR TO VERIFY AND PROVIDE ALL CUTOUT DIMENSIONS FOR DROP-IN EQUIPMENT.
D. CONTRACTOR TO COORDINATE WORK BETWEEN TRADES/SECTIONS.
E. CONTRACTOR TO VERIFY FABRICATION AND INSTALLATION OF SNEEZE GUARDS.
F. THESE DRAWINGS ARE NOT SHOP DRAWINGS AND SHALL NOT BE CONSIDERED AND USED AS SUCH.
G. ALL S/S TOPS TO BE 14 GA S/S – UNLESS NOTED OTHERWISE.
H. ALL UNDERSHELVES TO BE 16 GA S/S – UNLESS NOTED OTHERWISE.
I. ALL CABINET BODY CONST TO BE 18 GA STAINLESS TO BE TYPE 304 #4 FINISH – UNLESS NOTED OTHERWISE.
J. ALL LEGS AND FEET TO BE S/S 1-5/8" WITH S/S ADJUSTABLE FEET.
K. USE STRAIGHT TURN-DOWN EDGE ALL CUSTOM FABRICATED TABLES/SHELVES ETC., UNLESS SHOWN OTHERWISE.
L. ALL CUSTOM FABRICATED STAINLESS STEEL EQUIPMENT WILL BE CONSTRUCTED IN ACCORDANCE WITH NSF 2 STANDARDS AND WILL BE FABRICATED BY A NSF CERTIFIED FABRICATOR.
M. ALL COUNTER TOPS, EXPOSED INTERIOR AND BELOW/UNDERSIDE OF TOP TO BE CONSTRUCTED OF SMOOTH, NON-ABSORBENT, EASILY CLEANABLE FINISH (E.G., ACCEPTABLE PLASTIC LAMINATE, STAINLESS STEEL, ETC., PAINT, VARNISH, LACQUER, OR POLYURETHANE FINISHED WOOD IS NOT ACCEPTABLE).
N. FAUCETS, DRAINS AND FABRICATION ACCESSORIES PER GENERAL SPECIFICATIONS SECTION 11400, TYPICAL.
O. ALL FABRICATION KITCHEN FAUCETS FOR HAND SINKS, PREP TABLES, AND POTWASH SINKS TO BE PROVIDED WITH ON/OFF CONTROLS AS FOLLOWS: (1) OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE GRASPING, PINCHING OR TWISTING OF THE WRIST; (2) REQUIRE NO MORE THAN 5-LBS. FORCE TO ACTIVATE; (3) BE LEVER OPERATED, PUSH-TYPE, ELECTRONICALLY CONTROLLED, OR SIMILAR. TYPICAL.
P. ALL FOOD SERVICE EQUIPMENT ITEMS: WHERE SEPARATE FIXTURES ABUT EACH OTHER AS IN A BATTERY OF COOKING EQUIPMENT REFRIGERATORS, HOT CABINETS, TABLES, ETC., FSEC IS TO, JOIN/SEAL TO ELIMINATE CREVICES. WHERE FIXTURES PENETRATE OR ABUT WALLS, FIT WALL WITH MATCHING TRIM STRIPS AND/OR MATCHING SILICONE TO EDGES WITH TRIM MOLDING, OF MATCHING MATERIAL, TO CLOSE SPACES BETWEEN FIXTURE AND BUILDING STRUCTURE. AT WALL PENETRATIONS, MOUNT FIXTURE ON ENCLOSED CHANNEL BASE OF SIMILAR MATERIAL TO CLOSE SPACES, WHERE SPECIFIED.

ADD

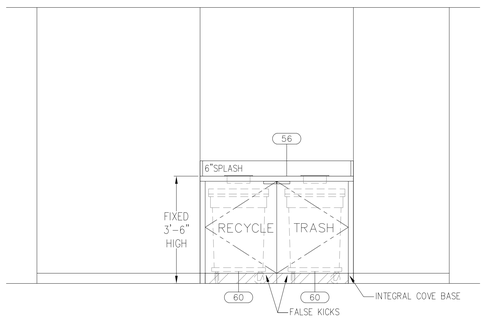


ELEVATION VIEW – T

SCALE: 1/2" = 1'-0"

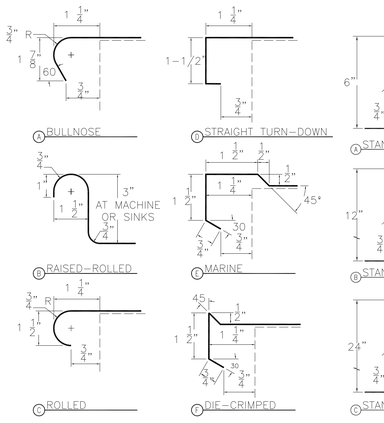
ELEVATION VIEW – U

SCALE: 1/2" = 1'-0"
ITEM #58 (QUANTITY OF 2)

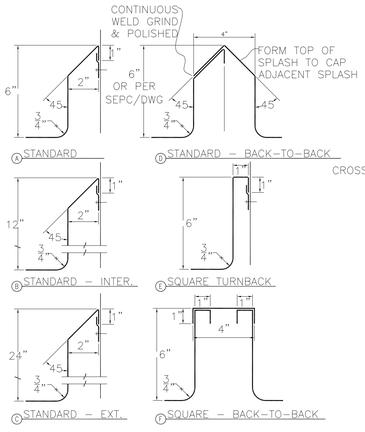


ELEVATION VIEW – V

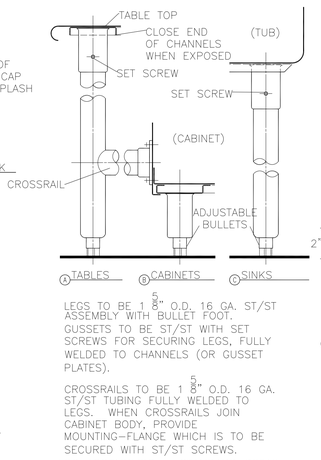
SCALE: 1/2" = 1'-0"



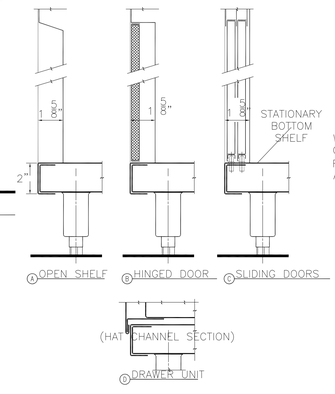
1 WORKTOP EDGES – STANDARD DETAIL
NO SCALE



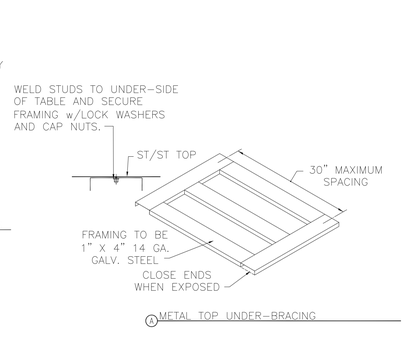
2 WORKTOP BACKSPLASHES – STANDARD DETAIL
NO SCALE



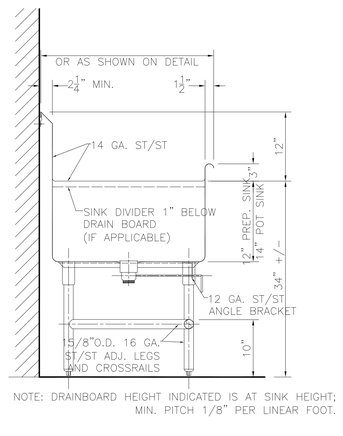
3 LEG ASSEMBLIES – STANDARD DETAIL
NO SCALE



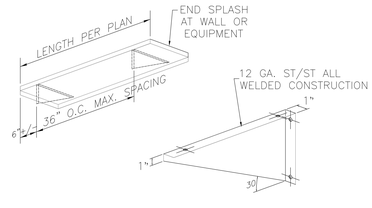
4 COUNTER/CABINET ASSEMBLIES – STANDARD DETAIL
NO SCALE



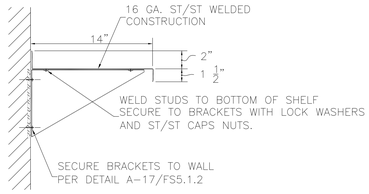
5 UNDER-BRACING ASSEMBLIES METAL TOPS – STANDARD DETAIL
NO SCALE

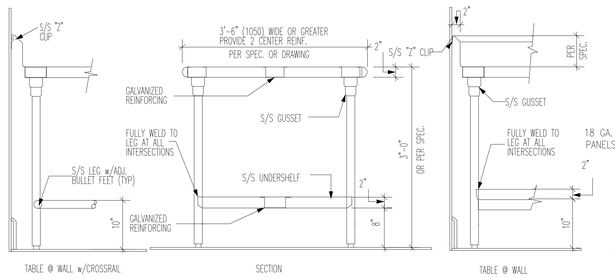


6 POT SINK SECTION VIEW – STANDARD DETAIL
NO SCALE

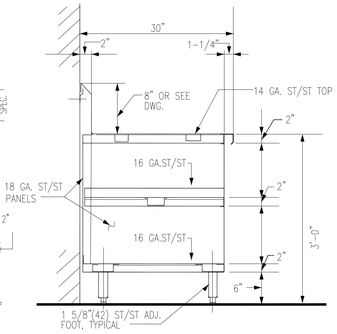


7 SHELF WALL MOUNT – STANDARD DETAIL
NO SCALE





8 WORK TABLE – STANDARD DETAIL
NO SCALE



9 WORK COUNTER – STANDARD DETAIL
NO SCALE

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

LICENSED ARCHITECT
CHRISTOPHER NOLL
No. C15916
REN. 12-31-19
STATE OF CALIFORNIA

RAS Design Group
RAS Design Group LLC
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630 Escobar Street
Martinez, CA 94553
Phone: 925/372-0222
Email: ron@rasdes.com
Website: rasdes.com

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

INCREMENT 2

ISSUE DATE	9/01/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION
2	8/2/19	INC 2 - ADDENDUM 02
3	8/27/19	INC 2 - ADDENDUM 03
111	4/15/21	CCD 111

SHEET TITLE

FIRST FLOOR CAFE FOOD SERVICE EQUIPMENT ELEVATION AND FABRICATION DETAILS

SHEET NUMBER

FS2.3.2

APPROVALS

NOLL & TAM ARCHITECTS

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ARCHITECTS SEAL

LICENSED ARCHITECT — CHRISTOPHER NOLL — No. C15916 — REN. 12-31-19 — STATE OF CALIFORNIA

RAS Design Group — RAS Design Group® Foodservice and Laundry Consulting — 630 Escobar Street, Martinez, CA 94553

PROJECT TITLE

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	9/01/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

△	DATE	DESCRIPTION
	8/2/19	INC 2 - ADDENDUM 02
	8/27/19	INC 2 - ADDENDUM 03
	4/15/21	CCD 111

SHEET TITLE
FIRST FLOOR CAFE FOOD SERVICE HOOD DETAILS

SHEET NUMBER
FS3.1.2

HOOD SCHEDULE

UL LISTED STD 710 — NFPA — NSF

NO.	MODEL	L	W	H	WEIGHT	EXHAUST SPEC. CFM	SP	CFM/FT	DIST. FROM COOKING SURFACE TO LOWER EDGE OF HOOD (UL1) MIN.	MAX.	MINIMUM OVERHANG OPEN SIDES SIDE (UL2)	FRONT (UL3)	EQUIP. DUTY TEMPERATURE (UL4) MAX.
13	DMH 424220.5	42	42	20.5	133	700	0.50	200	36	48	6	6	N/A
34	SAWCBD 1835724	183	57	24	1213	3294	0.77	216	36	48	6	6	600

1. GREATER EXHAUST AND/OR LESSER SUPPLY AIR FLOW RATES MAY BE REQUIRED FOR COMPLETE VAPOR AND SMOKE REMOVAL IN SPECIFIC INSTALLATION(S).
2. THE EXHAUST FAN MUST BE OPERATED WHENEVER THE COOKING EQUIPMENT IS TURNED ON. (NFPA SECTION 11.1.1)

HOOD CANOPY MATERIAL: ALL 304 SERIES STAINLESS STEEL

HOOD LEGEND

1. ALL WELDED ENCLOSURE
2. 16 GA. SIDES, REMAINDER OF HOOD TO BE NO LESS THAN 18 GA.
3. PITCHED GREASE DRIP TRAY
4. ENCLOSED METAL CONTAINER
5. CONTAINMENT PANEL: LIGHT DUTY
6. ENCLOSURE PANEL: INCLUDED
8. 12" HOOD OVERHANG IS RECOMMENDED FOR ALL HEAVY DUTY COOKING APPLIANCES
9. 8" ROUND INTERNAL HOOD FAN (IHF) COLLAR WITH UL LISTED FIRE DAMPER 6"X6"
10. 8" ROUND IHF SUPPLY DUCT (SHIPPED LOOSE): INCLUDED
13. INTERNAL HOOD FAN W/SPEED CONTROL
14. SEE ELECTRICAL SCHEDULE - CONSULT FACTORY FOR ALTERNATE INPUT POWER LOCATION(S)

ELECTRICAL SCHEDULE

CIRCUIT	DESCRIPTION	VOLTS/PHASE	AMPS	FEED FROM
E1	LIGHTS	120/1	2	CB
E2	STM	---	---	CB
E3	IHF	120/1	2	CB
---	---	---	---	CB

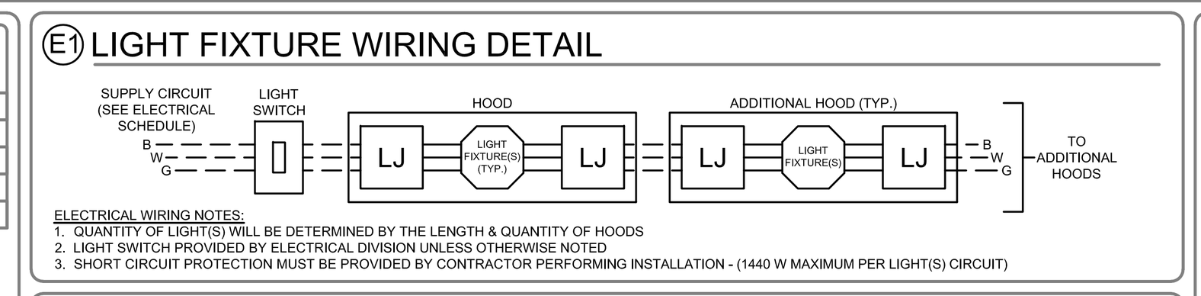
CB: CIRCUIT BREAKER BY ELECTRICAL CONTRACTOR

NOTE:
IF AN ELECTRICAL CONTROL PANEL FOR THE HOODS IS INCLUDED, THE ABOVE SCHEDULE IS NOT VALID. REFER TO DEMANDAIRE DRAWINGS.

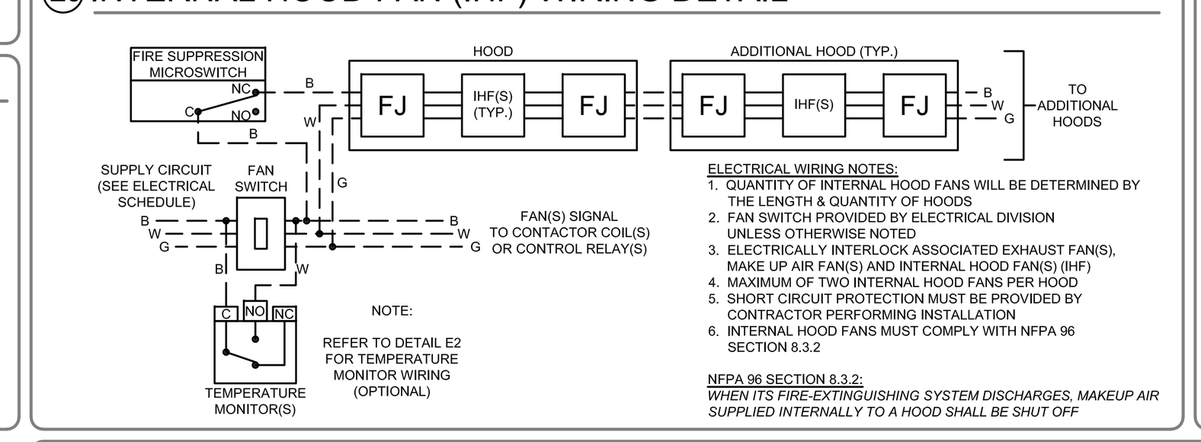
ELECTRICAL LEGEND

———	STREIVOR FACTORY WIRING
– – – –	FIELD WIRING BY OTHERS
LJ	LIGHT(S) JUNCTION BOX
TJ	TEMPERATURE MONITOR(S) JUNCTION BOX
FJ	INTERNAL HOOD FAN(S) JUNCTION BOX

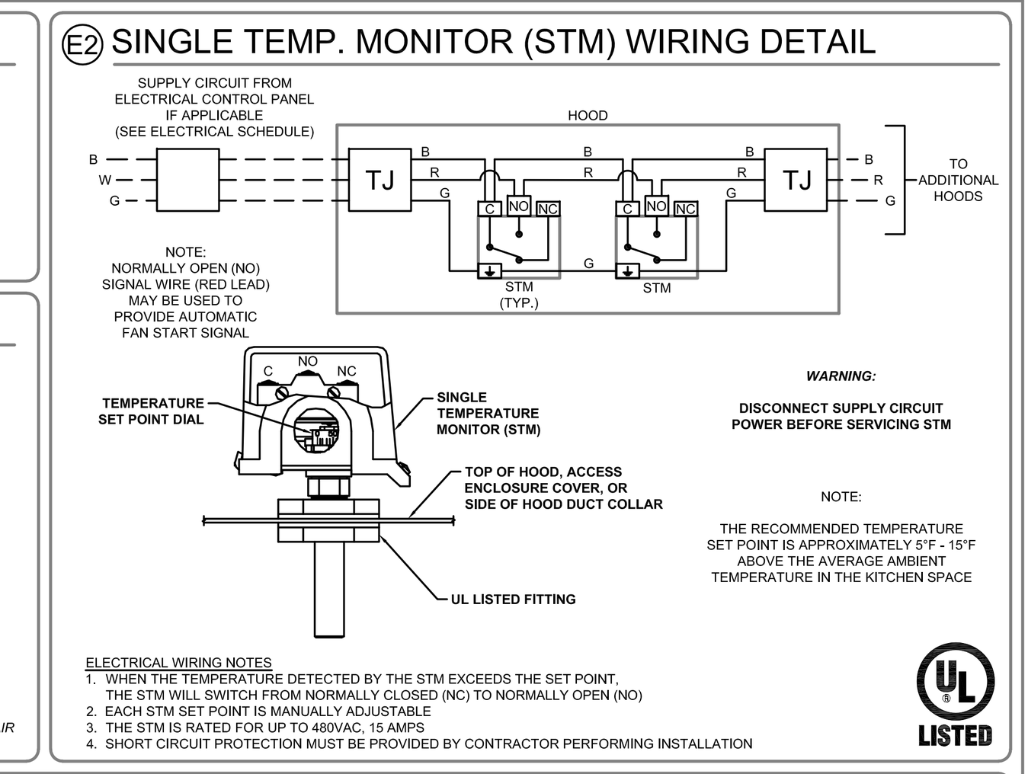
(E1) LIGHT FIXTURE WIRING DETAIL



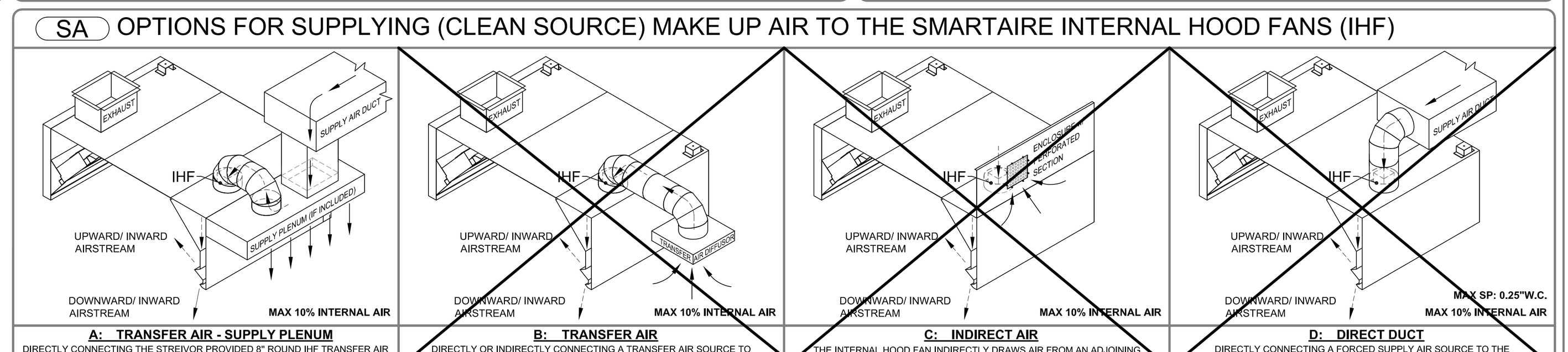
(E3) INTERNAL HOOD FAN (IHF) WIRING DETAIL



(E2) SINGLE TEMP. MONITOR (STM) WIRING DETAIL



(SA) OPTIONS FOR SUPPLYING (CLEAN SOURCE) MAKE UP AIR TO THE SMARTAIRE INTERNAL HOOD FANS (IHF)

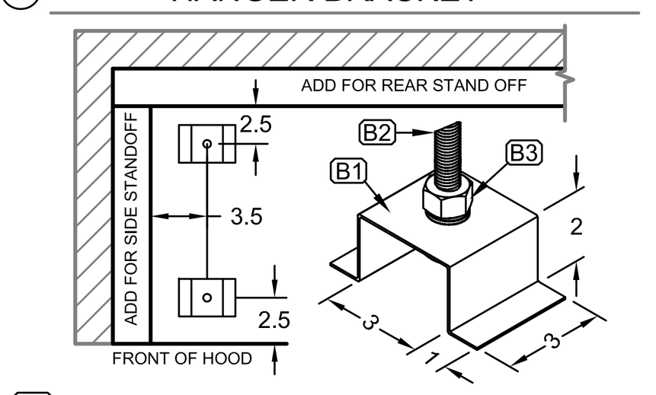


STREIVOR'S SMARTAIRE HOOD MODEL (SAWCBD) HAS INTERNAL HOOD FANS MOUNTED INSIDE OF THE HOOD'S SMARTAIRE PLENUM. THE INTERNAL HOOD FANS HAVE THE CAPABILITY OF OVERCOMING STATIC PRESSURES OF UP TO 0.25 IN. WATER COLUMN AND CAN PULL TRANSFER AIR INTO THE HOOD'S SMARTAIRE PLENUM.

THE SMARTAIRE TECHNOLOGY INCLUDES TWO LOW-VOLUME, HIGH-VELOCITY AIR STREAMS INCORPORATED INTO THE LOWER FRONT EDGE OF THE HOOD. THE AIR STREAMS RUN CONTINUOUSLY ACROSS THE INNER FRONT EDGE OF THE HOOD. ONE AIR STREAM IS DIRECTED IN AN UPWARD, INWARD DIRECTION AND ONE AIR STREAM IS DIRECTED IN A DOWNWARD, INWARD DIRECTION. THE SMARTAIRE TECHNOLOGY SIGNIFICANTLY IMPROVES THE HOOD'S ABILITY TO CAPTURE AND CONTAIN THE THERMAL PLUME AND COOKING EFFLUENTS GENERATED FROM COOKING APPLIANCES UNDER THE HOOD. THE AIR STREAMS ARE LOCATED WITHIN THE HOOD'S CANOPY AND ARE THEREFORE CONSIDERED TO BE PROCESS AIR, NOT MAKEUP/REPLACEMENT/COMPENSATING AIR. EFFORTS SHOULD BE TAKEN TO ENSURE THAT UNCLEAN TRANSFER AIR (SUCH AS ATTIC AIR) IS NOT USED FOR THE SMARTAIRE TECHNOLOGY AIR STREAMS.

ASHRAE/ANSI 90.1 AND CALIFORNIA TITLE24 ENERGY CODES LIMIT THE AMOUNT OF REPLACEMENT AIR THAT CAN BE INTRODUCED INTO A HOOD TO 10% OF THE HOOD EXHAUST AIRFLOW RATE. SMARTAIRE HOODS ARE DESIGNED TO COMPLY WITH THESE ENERGY CODES.

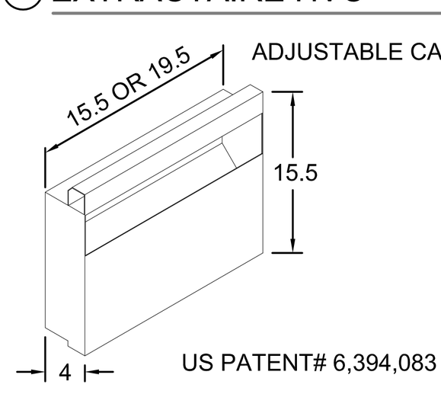
(A1) HANGER BRACKET



- (B1) STAINLESS STEEL HANGER BRACKET
- (B2) ½" THREADED ROD
- (B3) ½" HEAVY DUTY LOCK NUTS, (1) ABOVE (1) BELOW (THREADED ROD & LOCK NUTS NOT PROVIDED)

(A2) EXTRACTAIRE HVC — STAINLESS STEEL

ADJUSTABLE CARTRIDGE FILTER

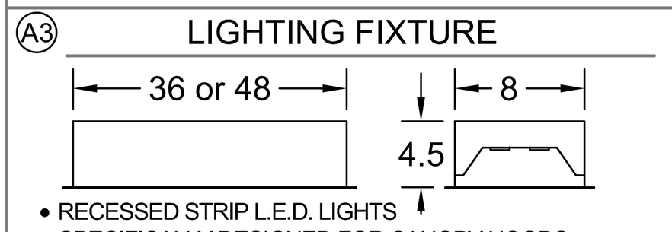


US PATENT# 6,394,083

FILTER: H x L	EFF AREA		#34 QTY	AREA	QTY	AREA	QTY	AREA
1616	0.40	X	5	2.00				
1620	0.51	X	5	2.55				
TOTAL EFF AREA =				4.55	=		=	

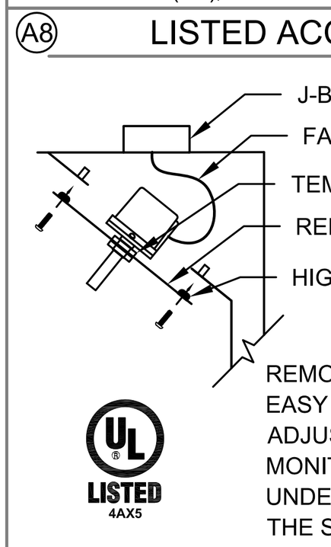
HOOD EX. CFM ÷ TOTAL EFF AREA = FPM
OPERATING RANGE OF THE FILTER (250 TO 1400 FPM)

(A3) LIGHTING FIXTURE



- RECESSED STRIP L.E.D. LIGHTS
- SPECIFICALLY DESIGNED FOR CANOPY HOODS
- TEMPERATURE RATED TO 76°C (167°F)
- MEETS NFPA CODE 96 & NEC 410
- TOTAL LUMENS OUTPUT = 3500
- 43 WATTS (36"), 53 WATTS (48")

(A4) LISTED ACCESS PANEL

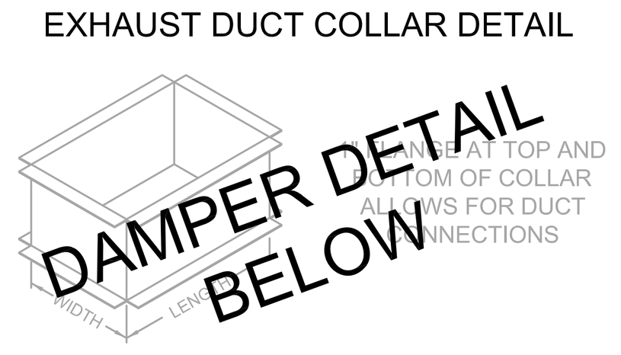


REMOVABLE COVER ALLOWS EASY ACCESS FOR INSTALLATION, ADJUSTMENTS AND SERVICE OF MONITORING EQUIPMENT FROM UNDER THE HOOD AND INSIDE THE SMARTAIRE PLENUM.

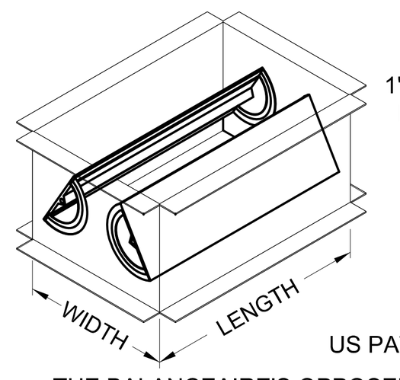
*FOR TEMPERATURE MONITOR WIRING SEE DETAIL E2

(A5) DUCT CONNECTION DETAIL

EXHAUST DUCT COLLAR DETAIL



BALANCEAIRE INCLUDED
INTERNALLY ADJUSTABLE VARIABLE VOLUME DAMPER



US PATENT# D634,419 S

THE BALANCEAIRE'S OPPOSED BLADES CAN BE ADJUSTED TO VARYING POSITIONS FROM 100% OPEN TO 95% CLOSED TO INCREASE OR DECREASE THE AMOUNT OF RESISTANCE IN THE HOODS EXHAUST COLLAR. THE EXHAUST FAN MUST BE SIZED TO ACCOUNT FOR THE BALANCEAIRE'S ADDED RESISTANCE.

EXHAUST COLLAR APPROVAL

OPTIONS

- ☐ SHIP COLLAR LOOSE (THE PURCHASER ACCEPTS THE OBLIGATION AND COST OF CUTTING/WELDING COLLAR)
- ☐ WELD COLLAR TO HOOD (DIMENSIONS REQUIRED)

DRAWING APPROVAL

THIS DRAWING MUST BE REVIEWED, SIGNED & RETURNED TO STREIVOR AIR SYSTEMS PRIOR TO THE START OF FABRICATION.

VERIFY THE FOLLOWING:
1. ALL DIMENSIONAL INFORMATION, MOUNTING LOCATIONS & CLEARANCES.
2. THE LOCATION & TYPE OF COOKING EQUIPMENT.

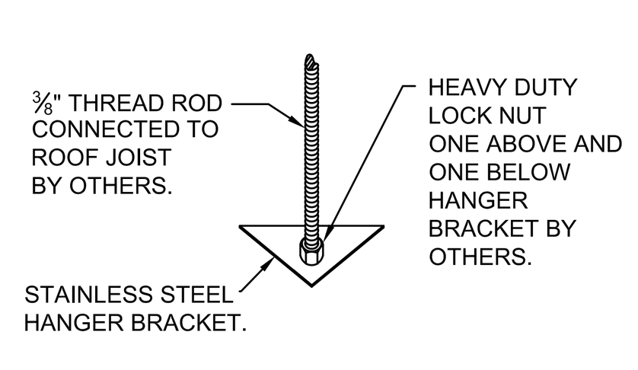
APPROVED FOR FABRICATION

- ☐ APPROVED
- ☐ APPROVED AS NOTED
- ☐ REVISE & RESUBMIT

APPROVED BY ____________ DATE

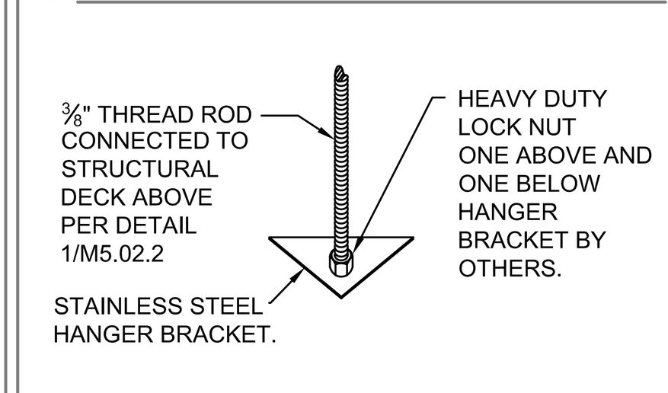
NOTE TO REVIEWER:
ANY CHANGES IN COOKING EQUIPMENT SUCH AS EQUIPMENT POSITION, TYPE AND/OR INCREASE IN ENERGY OUTPUT MAY AFFECT EXHAUST AIRFLOW. STREIVOR AIR SYSTEMS MUST BE NOTIFIED OF ANY CHANGES THAT OCCUR PRIOR TO FABRICATION. A RE-ENGINEERING OF THE EXHAUST AIRFLOW MAY BE REQUIRED.

(A6) HANGER BRACKET HOOD #34



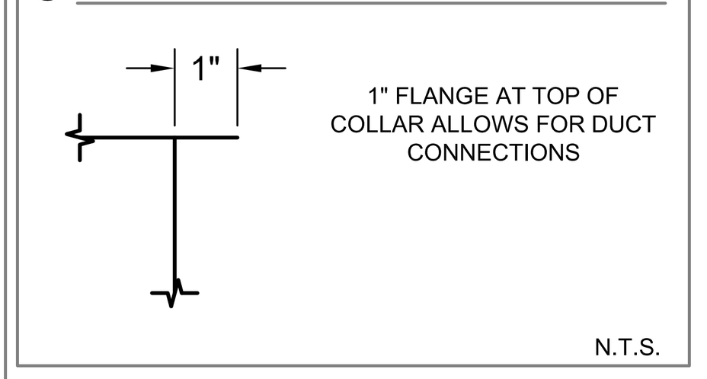
TREADED ROD AND LOCK NUTS TO BE SUPPLIED BY INSTALLING CONTRACTOR. HANGER BRACKET IS PRE-PUNCHED AT FACTORY

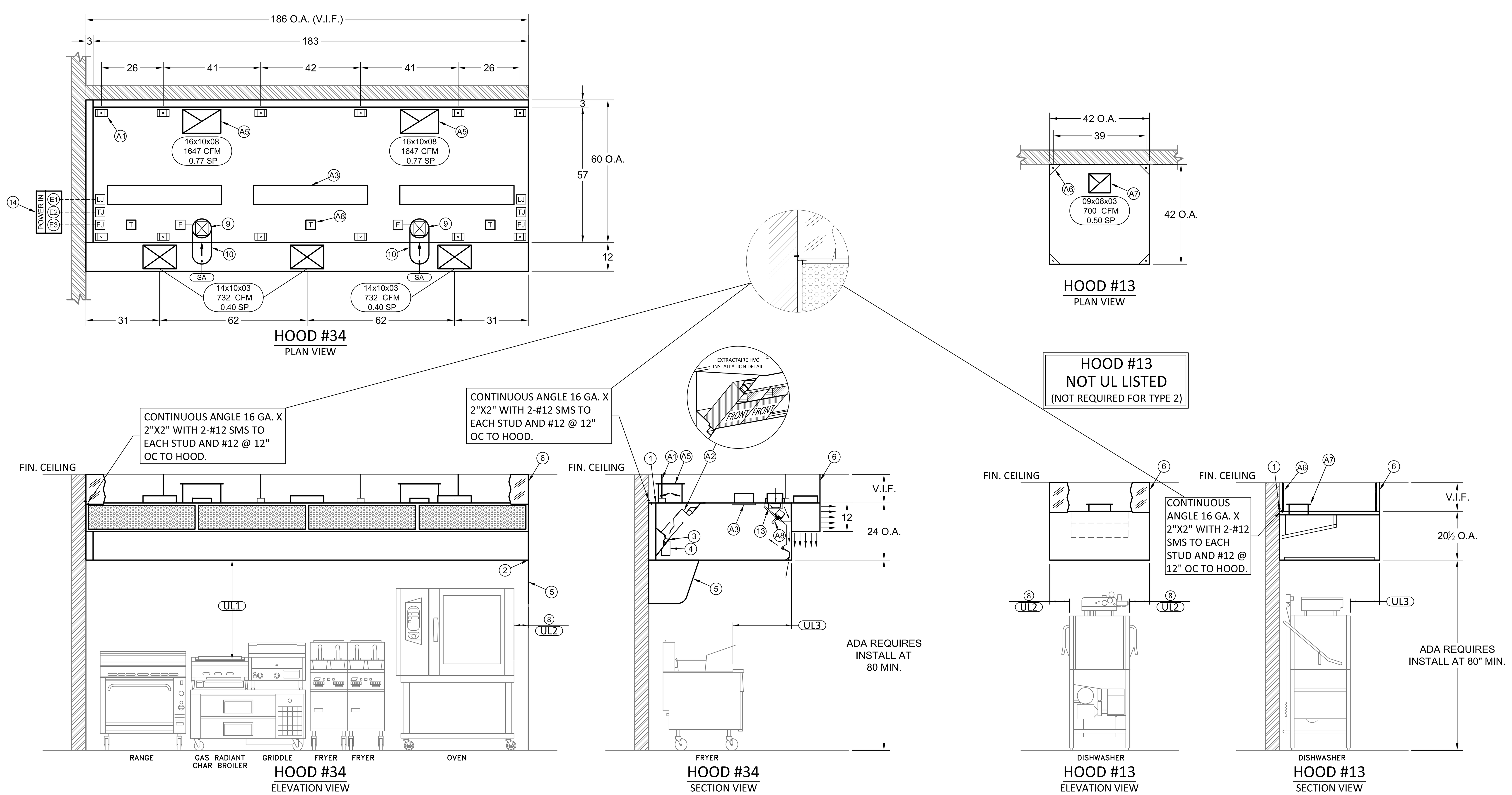
(A6) HANGER BRACKET HOOD #13



TREADED ROD AND LOCK NUTS TO BE SUPPLIED BY INSTALLING CONTRACTOR. HANGER BRACKET IS PRE-PUNCHED AT FACTORY

(A7) EXHAUST COLLAR DETAIL





186 O.A. (V.I.F.)
183
3
26
41
42
41
26
60 O.A.
57
12
16x10x08 1647 CFM 0.77 SP
14x10x03 732 CFM 0.40 SP
SA
31
62
62
31
HOOD #34
PLAN VIEW
42 O.A.
39
09x08x03 700 CFM 0.50 SP
42 O.A.
HOOD #13
PLAN VIEW
HOOD #13 NOT UL LISTED (NOT REQUIRED FOR TYPE 2)
CONTINUOUS ANGLE 16 GA. X 2"X2" WITH 2-#12 SMS TO EACH STUD AND #12 @ 12" OC TO HOOD.
FIN. CEILING
EXTRACTAIRE HVC INSTALLATION DETAIL
FRONT
V.I.F.
12
24 O.A.
20½ O.A.
ADA REQUIRES INSTALL AT 80 MIN.
ADA REQUIRES INSTALL AT 80" MIN.
RANGE
GAS CHAR
RADIANT BROILER
GRIDDLE
FRYER
FRYER
OVEN
HOOD #34
ELEVATION VIEW
FRYER
HOOD #34
SECTION VIEW
DISHWASHER
HOOD #13
ELEVATION VIEW
DISHWASHER
HOOD #13
SECTION VIEW

GENERAL NOTES:

NOTES TO ARCHITECT AND/OR CONTRACTOR: STREIVOR, INC. (STREIVOR AIR SYSTEMS, STREIVOR STAINLESS) IS A SPECIALIST IN THE LAYOUT AND DESIGN OF KITCHEN VENTILATION SYSTEMS, AND IN NO WAY PURPORTS TO BE ARCHITECTS OR ENGINEERS.

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ANY ERRORS, AMBIGUITIES OR OMISSIONS IN THIS PLAN OR SPECIFICATIONS SHALL BE REPORTED TO STREIVOR, INC. FOR CORRECTIONS BEFORE ANY OF THE WORK IS STARTED. UNLESS EXPRESSLY STIPULATED, NO ADDITIONAL ALLOWANCE WILL BE MADE IN FAVOR OF THE OWNER OR CONTRACTOR. BY VIRTUE OF ERROR, AMBIGUITY OR OMISSION WHICH SHOULD HAVE BEEN DISCOVERED DURING THE PREPARATION OF BID ESTIMATES, AND DIRECTED TO THE ATTENTION OF STREIVOR, INC. IN A TIMELY MANNER.

PRE-INSTALLATION

OBTAIN, READ AND UNDERSTAND STREIVOR'S HOOD INSTALLATION, OPERATION AND MAINTENANCE MANUAL PRIOR TO INSTALLATION, STARTUP OR BALANCING.

INSTALLATION

ALL INSTALLATION, STARTUP AND BALANCING MUST BE PERFORMED BY QUALIFIED PERSONS AND IN ACCORDANCE WITH ALL APPLICABLE PREVAILING CODES AND STANDARDS.
A 10" MINIMUM CLEARANCE IS REQUIRED ABOVE ALL STANDARD CONSTRUCTION HOODS. CONSULT THE FACTORY FOR VARIANCES.

STREIVOR™ AIR SYSTEMS
"STRIVING FOR EXCELLENCE"
2150 KITTY HAWK ROAD, LIVERMORE, CA 94551
PHONE: (925) 960-9090 FAX:(925) 960-9055
WWW.STREIVOR.COM

PROJECT:
DVC - SAN RAMON EXPANSION

SAN RAMON, CA 94582

RAS DESIGN GROUP

HOOD #:	14 & 34
DATE:	05/29/2018
DRAWN BY:	AQQ
CHECKED BY:	JML
CONSULTANT:	RAS DESIGN GROUP
SCALE: (UNLESS OTHERWISE NOTED)	1/2" = 1'-0"

IF BAR DOES NOT MEASURE 1" THIS DRAWING IS NOT PLOTTED TO SCALE

△	DESCRIPTION	DATE	INT
A	ADDED A7 DETAIL	06/18/18	KCS
B	APPLIANCE LAYOUT	04/29/19	KCS
-	---	--/--/--	---
-	---	--/--/--	---
-	---	--/--/--	---

DRAWING:
H-01
SHEET 01 OF 01

APPROVALS

LISTINGS & STANDARDS

THIS WET CHEMICAL EXTINGUISHING SYSTEM IS ENGINEERED TO PROVIDE FIRE PROTECTION FOR RESTAURANT HOODS, DUCTS AND COOKING APPLIANCES, IS **UL 300** LISTED AND IS TO BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS:

- NFPA 17A 2017 EDITION
- NFPA 10 2018 EDITION
- NFPA 96 2017 EDITION

APPLICABLE CODES

NFPA 10 2018 EDITION

(6.6.2) MAXIMUM TRAVEL DISTANCE SHALL NOT EXCEED 30 FT (9.15m) FROM THE HAZARD TO THE EXTINGUISHER(S)

NFPA 17A 2017 EDITION

(5.2.1.1) MANUAL PULL STATIONS INSTALLED NO MORE THAN 48" AND NO LESS THAN 42" ABOVE THE FLOOR

NFPA 96 2017 EDITION

(8.2.3) EXHAUST FANS & DAMPERS SHALL NOT BE REQUIRED TO SHUT DOWN ON SYSTEM ACTUATION

(8.3.2) WHEN ITS FIRE-EXTINGUISHING SYSTEM DISCHARGES, MAKEUP AIR SUPPLIED INTERNALLY TO A HOOD SHALL SHUT DOWN.

(10.4.1) UPON ACTIVATION OF ANY FIRE EXTINGUISHING SYSTEM FOR A COOKING OPERATION, ALL SOURCES OF FUEL AND ELECTRICAL POWER THAT PRODUCE HEAT TO ALL EQUIPMENT REQUIRING PROTECTION BY THAT SYSTEM SHALL AUTOMATICALLY SHUT OFF.

(10.4.3) ANY GAS APPLIANCES NOT REQUIRING PROTECTION BUT LOCATED UNDER THE SAME VENTALATING EQUIPMENT SHALL ALSO AUTOMATICALLY SHUT OFF UPON ACTIVATION OF ANY EXTINGUISHING SYSTEM.

(10.4.4) SHUTOFF DEVICE SHALL REQUIRE MANUAL RESET.

(10.5.1.1) AT LEAST ONE MANUAL ACTUATION DEVICE SHALL BE LOCATED A MINIMUM OF 3 M (10 FT) AND A MAXIMUM OF 6 M (20 FT) FROM THE PROTECTED KITCHEN APPLIANCE(S) WITHIN THE PATH OF EGRESS.

INSTALLATION REQUIREMENTS/SCOPE OF WORK

1. ALL PIPE SHALL BE SCHEDULE 40 BLACK IRON. CHROME PLATED/SLEEVED WHERE EXPOSED.
2. ALL CYLINDER SYSTEMS SHALL HAVE 3/8" SUPPLY LINES AND 3/8" BRANCH LINES.
3. ALL WIRE ROPE SHALL BE 1/16" STAINLESS STEEL AND RUN THROUGH 1/2" EMT CONDUIT.
4. U.L. LISTED CORNER PULLEYS REQUIRED WHENEVER THE STAINLESS STEEL CABLE DIRECTION CHANGES.
5. ALL EQUIPMENT WITH FIRE PROTECTION MUST BE SECURED TO FLOOR. (NOT BY STREIVOR)
6. SWIVEL ADAPTERS MAY BE ADDED TO NOZZLES FOR UP TO 30° ROTATION.

SYSTEM #01

PAGE NUMBERS REFERENCED FROM THE PYROCHEM FIRE SUPPRESSION SYSTEM TECHNICAL MANUAL

CABLE/LINE LIMITATIONS

		LENGTH	PULLEYS	BRACKETS
FUSIBLE LINK (pg. 4-5)	MAXIMUM	150.00 FT	40	20
	ALLOTTED	30.00 FT	4	6 **
PULL STATION(S) (pg. 4-9)	MAXIMUM	150.00 FT	40	N/A
	ALLOTTED	35.00 FT	2	N/A
GAS VALVE(S) (pg. 4-10)	MAXIMUM	100.00 FT	30	N/A
	ALLOTTED	--.-- FT	--	N/A

* CALCULATIONS BASED ON 3/8" PIPE (37.5 ML/FT) (SEE pg. 3-18)
**ML STYLE FUSIBLE LINK INCLUDED WITH SYSTEM (NOT SUPPLIED BY STREIVOR). FUSIBLE LINK TEMPERATURE RATING TO BE VERIFIED AND DETERMINED IN FIELD.

CYLINDER #1

ZONE COVERAGE (DUCT / PLENUM / APPLIANCE)	COVERAGE DESCRIPTION	NOZZLE	QTY.	FLOW POINTS	PAGE
■ □ □	DUCT	2D	1	2	3-1
□ ■ □	PLENUM	1H	1	1	3-3
□ □ ■	FRYER	2H	1	2	3-5
			TOTAL FLOW POINTS	5	

PIPING LIMITATIONS

CYLINDER	FLOW POINTS		TOTAL LENGTH*	TOTAL VOLUME	FIRST TO LAST NOZZZLE LENGTH*	FIRST TO LAST NOZZZLE VOLUME
PCL-160	MAXIMUM	5	40.00 FT	1500 ML	16.00 FT	600 ML
	ALLOTTED	5	32.00 FT	1200 ML	15.00 FT	563 ML

CYLINDER #2

ZONE COVERAGE (DUCT / PLENUM / APPLIANCE)	COVERAGE DESCRIPTION	NOZZLE	QTY.	FLOW POINTS	PAGE
■ □ □	DUCT	2D	1	2	3-1
□ ■ □	PLENUM	1H	1	1	3-3
□ □ ■	BROILER	1H	1	1	3-11
□ □ ■	FRYER	2H	1	2	3-5
□ □ ■	RANGE	1H	2	2	3-6
□ □ ■	RANGE	2L	2	4	3-6
□ □ ■	GRIDDLE	2H	1	2	3-10
			TOTAL FLOW POINTS	14	

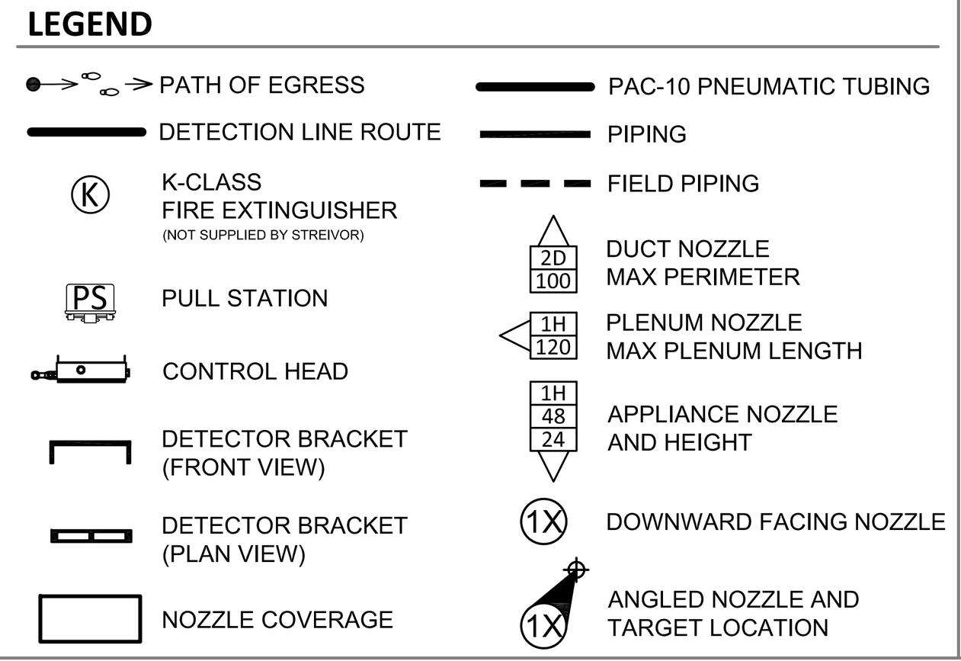
PIPING LIMITATIONS

CYLINDER	FLOW POINTS		TOTAL LENGTH*	TOTAL VOLUME	FIRST TO LAST NOZZZLE LENGTH*	FIRST TO LAST NOZZZLE VOLUME
PCL-460	MAXIMUM	14	90.67 FT	3400 ML	80.00 FT	3000 ML
	ALLOTTED	14	52.00 FT	1950 ML	32.00 FT	1200 ML

SEQUENCE OF OPERATION

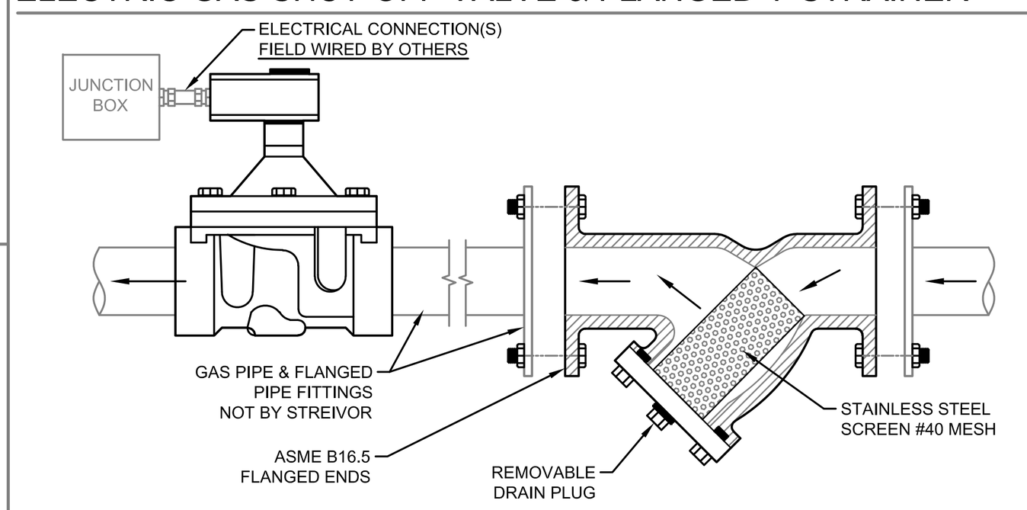
1. SYSTEM IS MANUALLY OR AUTOMATICALLY ACTIVATED.
2. APPLIANCE ENERGY SOURCES (ELECTRICAL/GAS) ARE AUTOMATICALLY SHUT OFF BY ACCESSORY EQUIPMENT (GAS VALVE, SHUNT TRIPS).
3. THE FIRE SUPPRESSING AGENT IS DISCHARGED INTO THE PLENUM AND DUCT AND ONTO THE COOKING APPLIANCES.
4. SIGNAL IS SENT TO EXHAUST/MAKE-UP AIR FANS TO:
   - 4.1. EXHAUST FAN SERVING EXHAUST HOOD TO CONTINUE RUNNING TO REMOVE SMOKE AND ASSIST IN DISPERSING SUPPRESSANT INTO DUCT SYSTEM.
   - 4.2. MAKE-UP AIR SERVING KITCHEN/CAFE AREA TO BE SHUT DOWN.
5. SIGNAL SENT VIA ALARM SWITCH AT CONTROL HEAD TO SIGNAL BUILDING FIRE ALARM TO ACTIVATE.

LEGEND



ELECTRIC GAS SHUT-OFF VALVE & FLANGED Y-STRAINER

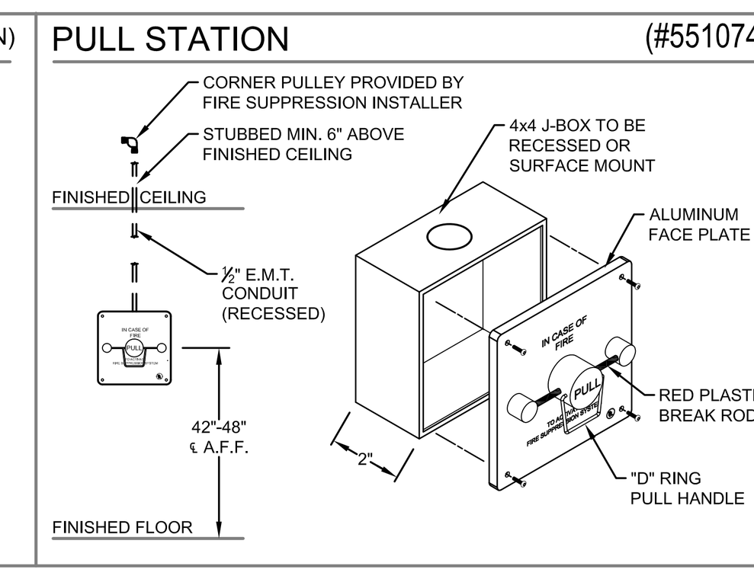
(SEE MEP DRAWINGS FOR LOCATION)



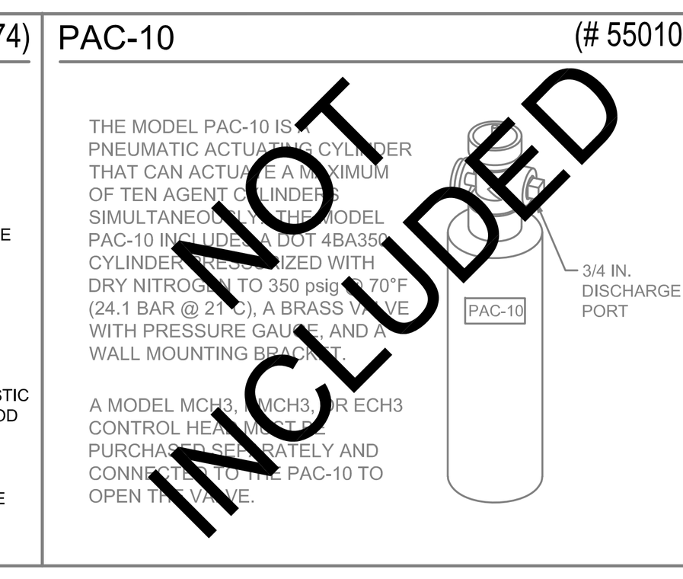
- GAS SHUT-OFF VALVE(S) TO BE SIZED AND LOCATED PER MEP DRAWINGS **(MAXIMUM VALVE SIZE: 3" NPT)**
- VALVE(S) AND STRAINERS TO BE INSTALLED BY DIVISION 22 (PLUMBING)
- EACH VALVE REQUIRES SEPARATE 120VAC/1, 15A CIRCUIT
- ACTIVATION OF THE FIRE EXTINGUISHING SYSTEM WILL SHUT OFF THE VALVE PREVENTING GAS FLOW AND WILL REMAIN CLOSED UNTIL THE RESET RELAY IS MANUALLY PRESSED.
- Y-STRAINER REQUIRED FOR THE PROTECTION OF THE GAS VALVE. INSTALL A Y-STRAINER ON THE INLET SIDE OF THE GAS VALVE (AS CLOSE AS POSSIBLE).

Y-STRAINER NOT PROVIDED BY STREIVOR UNLESS SPECIFICALLY INCLUDED IN PURCHASE ORDER.

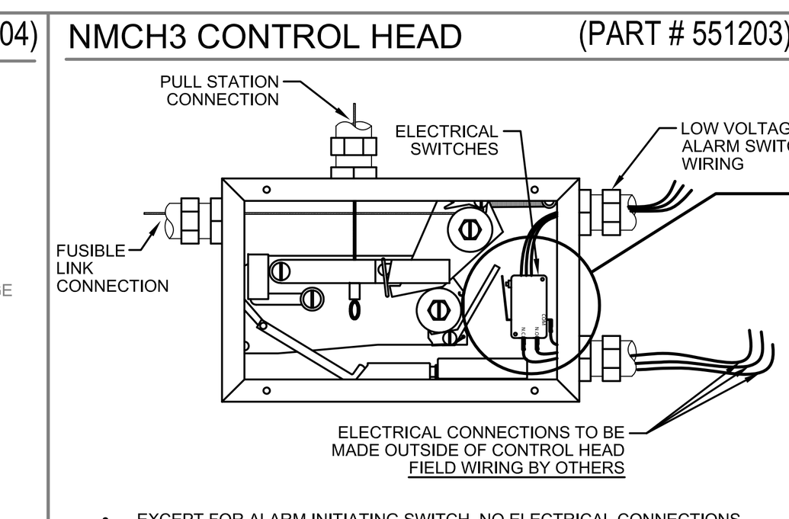
PULL STATION (#551074)



PAC-10 (# 550104)

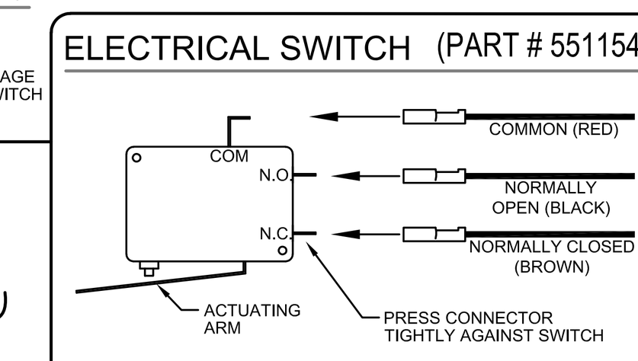


NMCH3 CONTROL HEAD (PART # 551203)



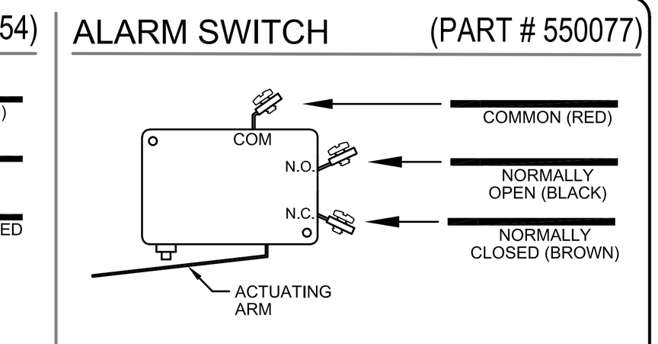
- EXCEPT FOR ALARM INITIATING SWITCH, NO ELECTRICAL CONNECTIONS ARE TO BE MADE INSIDE THE CONTROL HEAD ENCLOSURE.

ELECTRICAL SWITCH (PART # 551154)



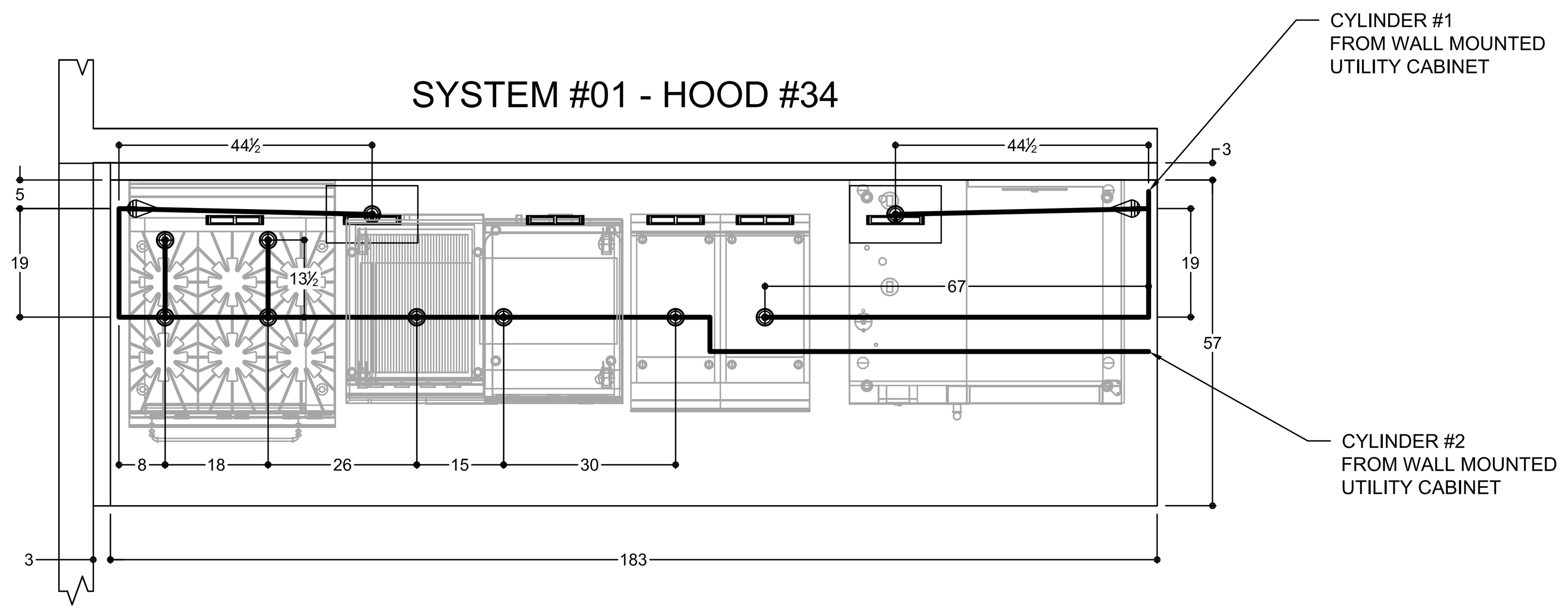
- QUANITITY: 3
- SWITCH IS RATED AT 250 VAC, 21A RESISTIVE; 250 VAC, 2 HP; 125 VAC, 1 HP

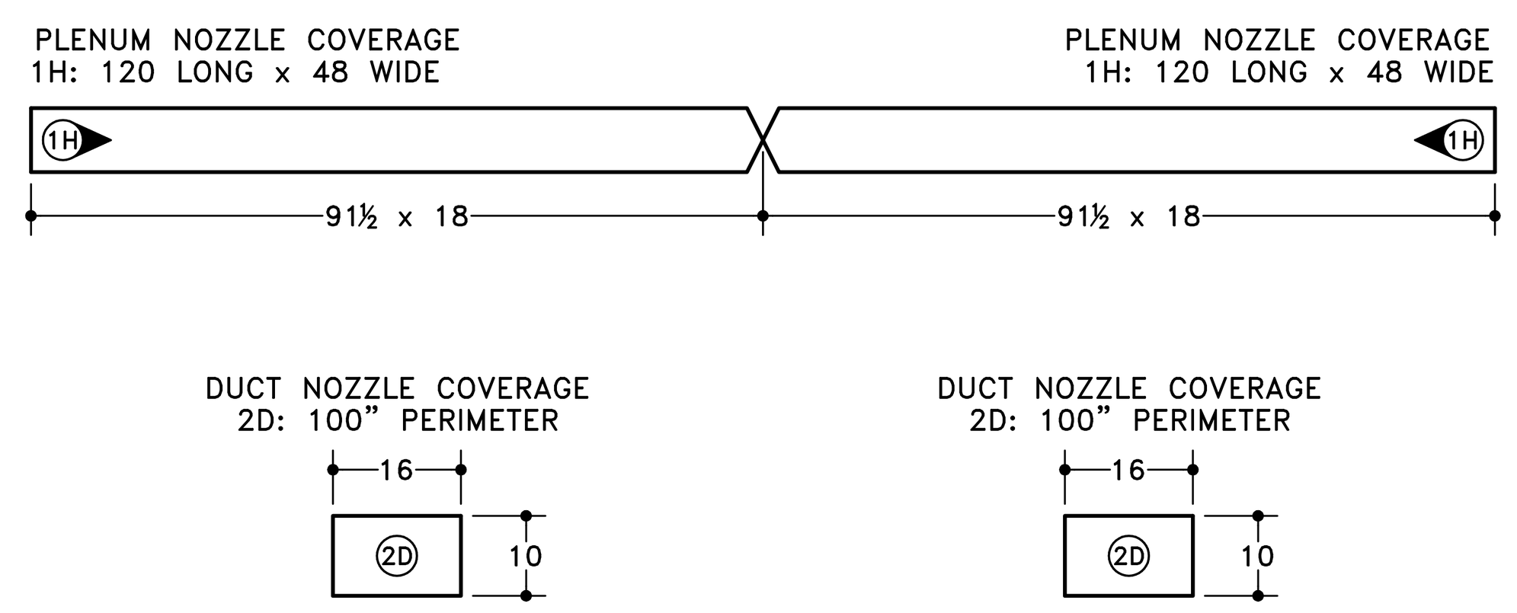
ALARM SWITCH (PART # 550077)

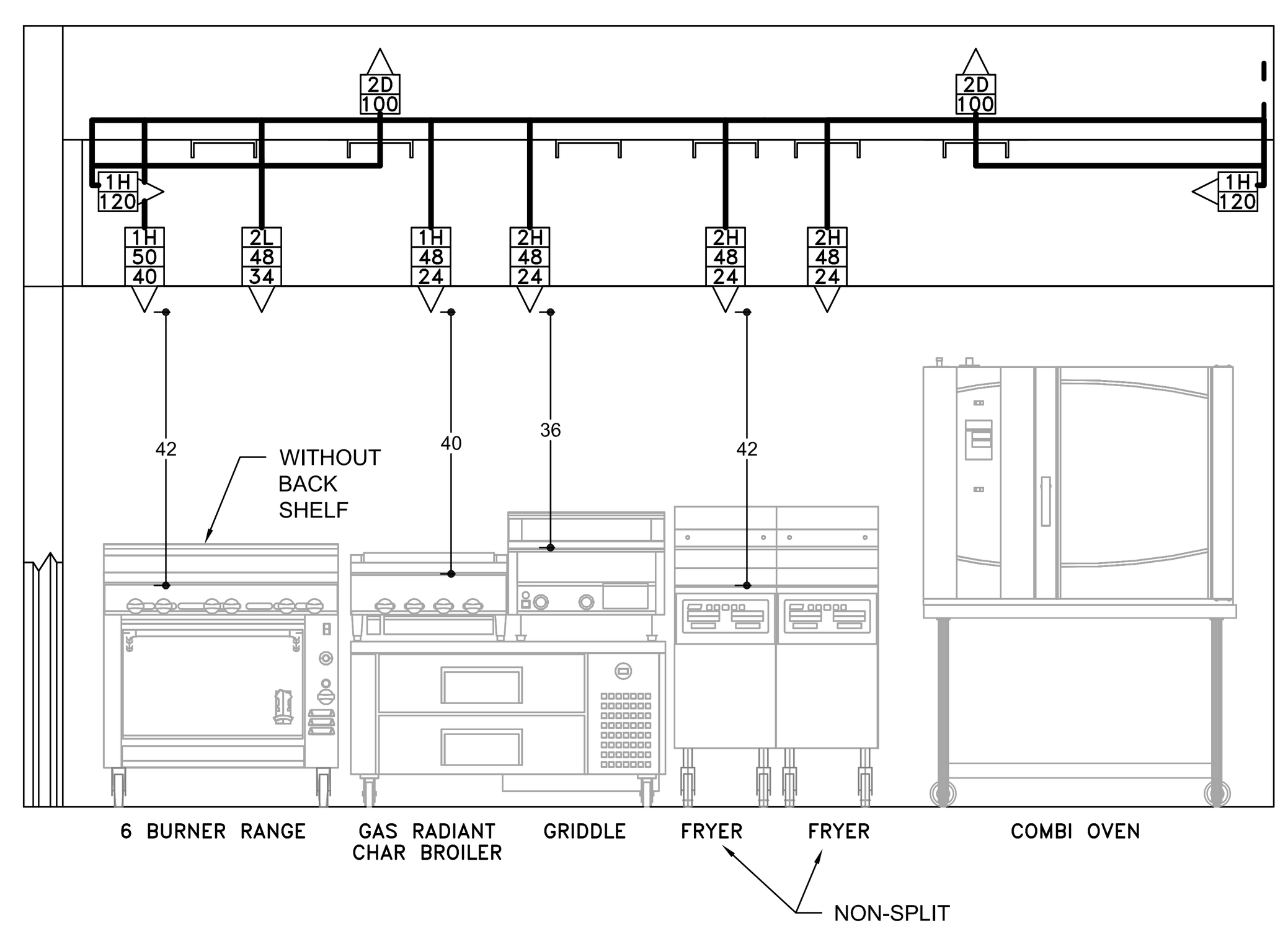


- QUANITITY: 1
- SWITCH IS RATED AT 28 VDC, 50 mA
- FIRE SUPPRESSION SYSTEM TO BE FIELD WIRED INTO BUILDING FIRE ALARM SYSTEM (BY OTHERS).

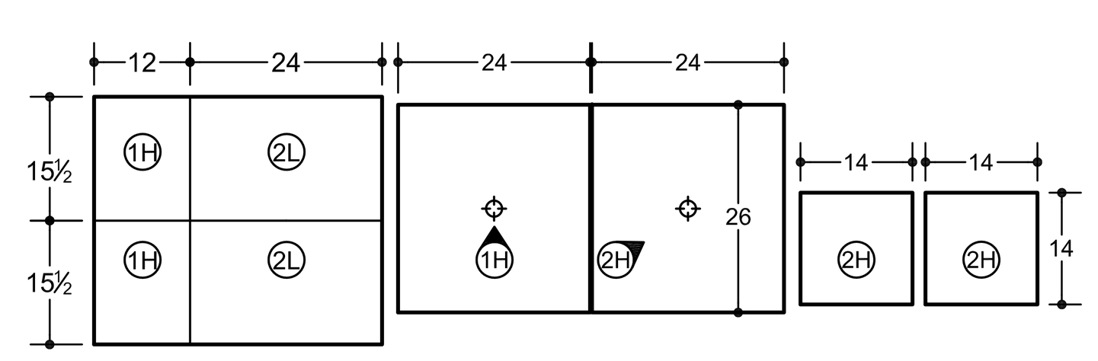
SYSTEM #01 - HOOD #34







MAX COVERAGE: 1H: 28x12 2L: 28x28 1H: 24x26 2H: 30x36 2H: 19x19.5

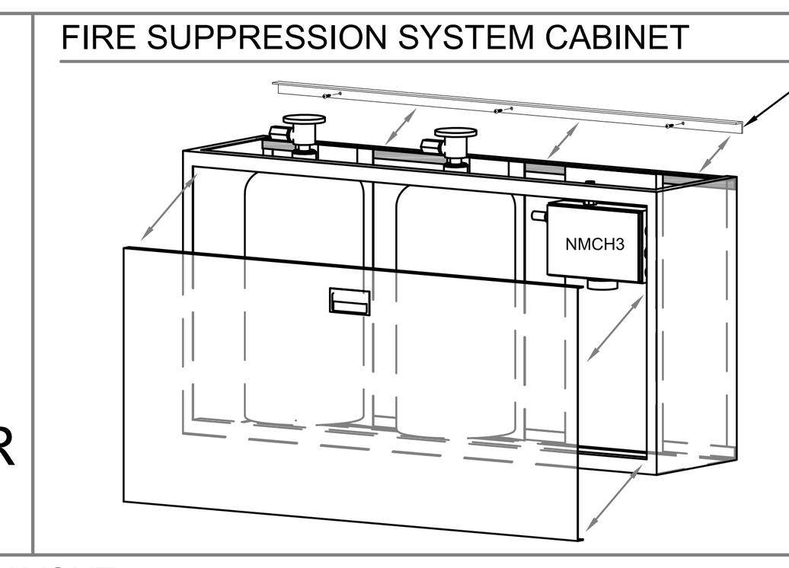


NOTE: FIELD PIPING TO BE INSTALLED BY A STREIVOR APPOINTED FIRE INSTALLER

NOTES

1. SEE SHEET FA2.39.2 FOR LOCATION OF AUDIBLE/VISUAL ALARM/INDICATOR.
2. SEE SHEET E2.39.2 FOR ELECTRICAL PANEL LOCATION - SHUNT TRIP BREAKERS INSIDE PANEL(S).

FIRE SUPPRESSION SYSTEM CABINET

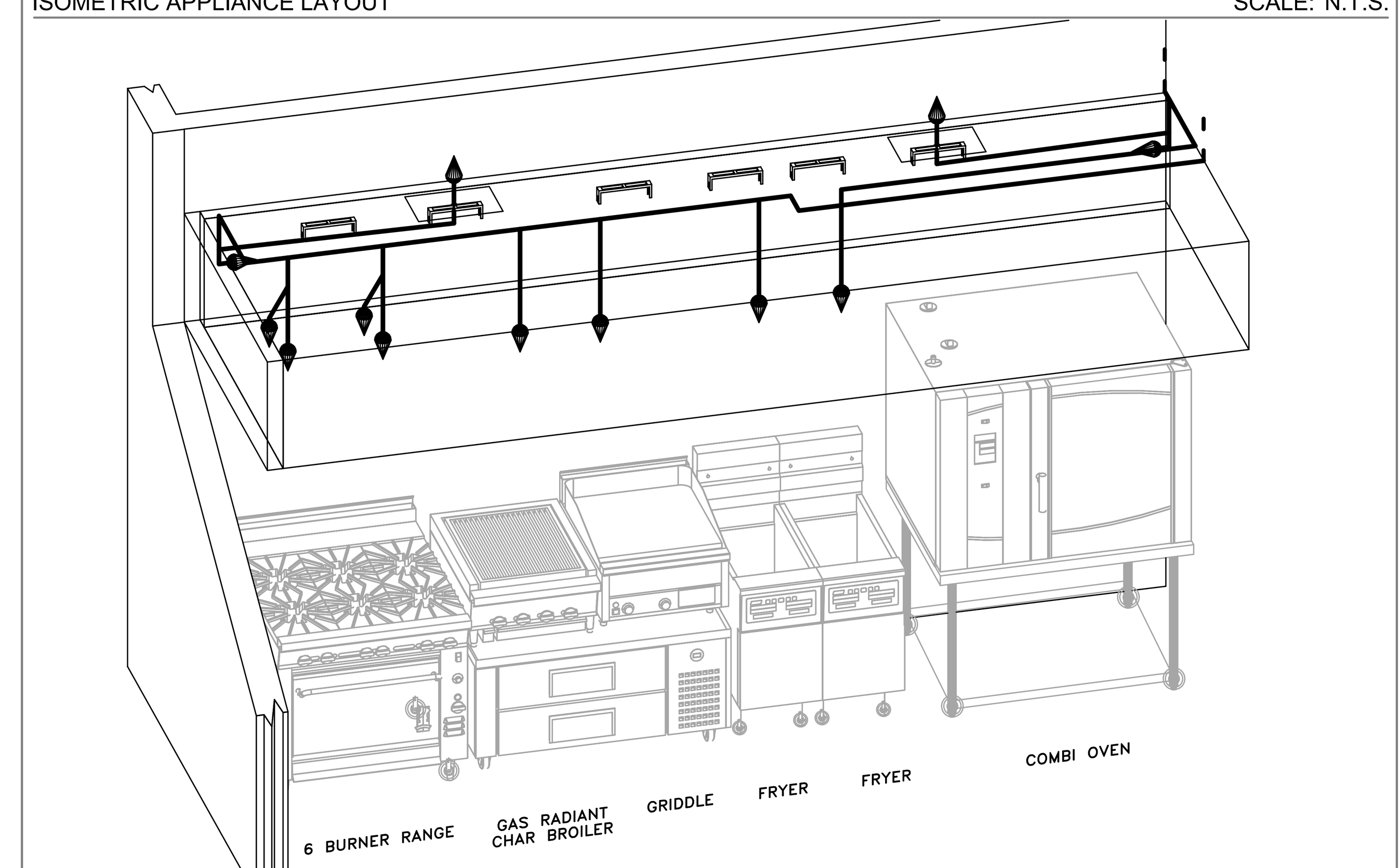


- 36" MINIMUM CLEARANCE REQURIED IN FRONT OF THEREMOVABLE CABINET DOOR.
- SUPPORT BACKING REQUIRED IF CABINET MOUNTS TO WALL
- CABINET AND FIRE SUPPRESSION SYSTEM COMPONENTS APPROXIMATELY 100 LBS/FT. SEE PATH OF EGRESS DRAWING FOR CABINET DIMENSIONS)

CYLINDER	PCL-160	PCL-300	PCL-460
WEIGHT	34 LBS	53 LBS	63 LBS

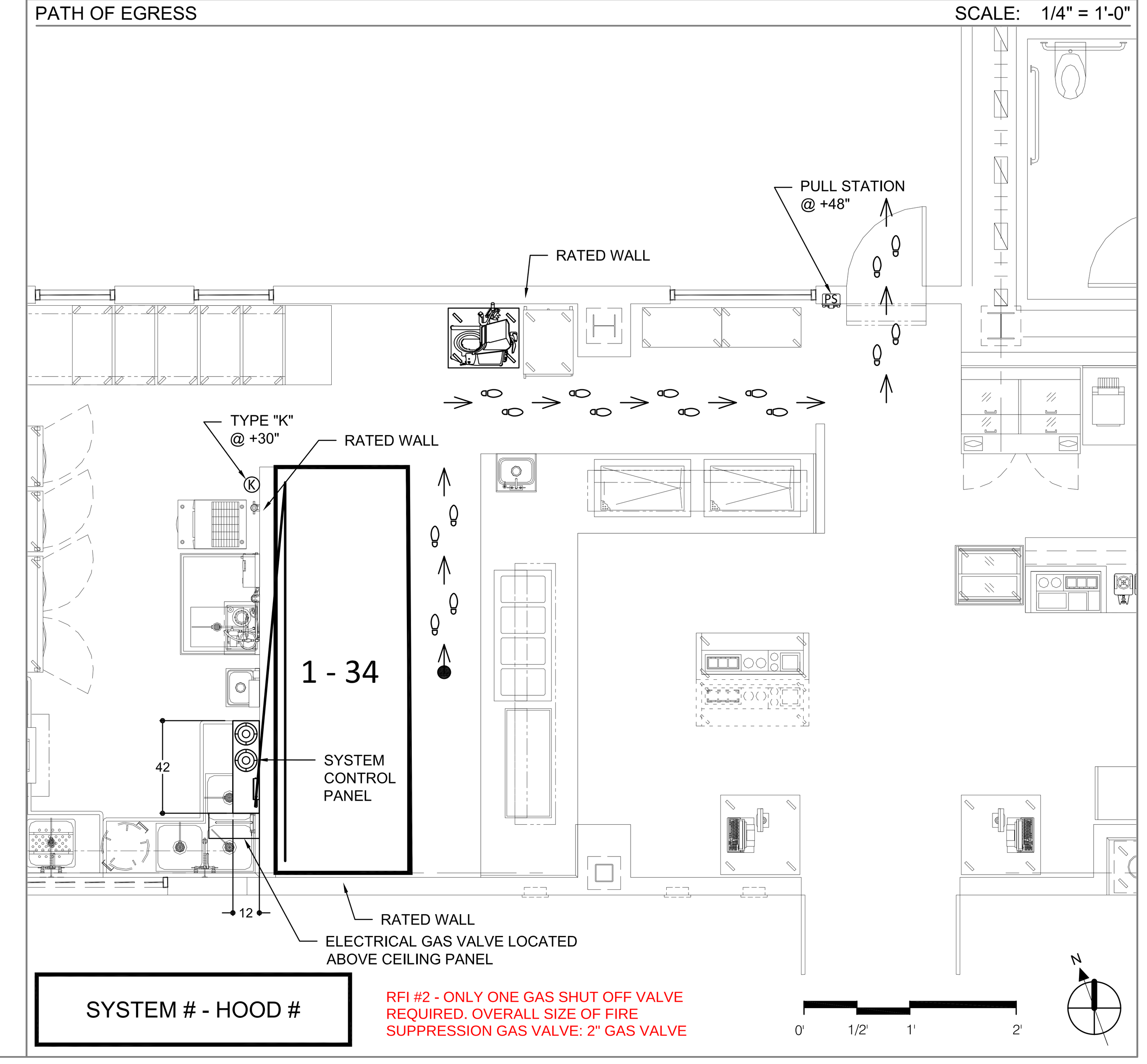
ISOMETRIC APPLIANCE LAYOUT

SCALE: N.T.S.



PATH OF EGRESS

SCALE: 1/4" = 1'-0"



SYSTEM # - HOOD #

RFI #2 - ONLY ONE GAS SHUT OFF VALVE REQUIRED. OVERALL SIZE OF FIRE SUPPRESSION GAS VALVE: 2" GAS VALVE

INSTALLER:

GENERAL NOTES:

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2150 KITTY HAWK ROAD, LIVERMORE, CA 94551
PHONE: (925) 960-9090 FAX:(925) 960-9055
WWW.STREIVOR.COM

CUSTOMER APPROVAL

COOKING EQUIPMENT VERIFICATION

VERIFY THE FOLLOWING:

HIGH BACK SHELVES	□ YES	□ NO
RANGE COOKING SURFACE DEPTH GREATER THAN 28"	□ YES	□ NO
PULL STATION LOCATION(S)	□ YES	□ NO
UTILITY CABINET LOCATION(S)	□ YES	□ NO
AGENT DISTRIBUTION HOSE AND RESTRAINING CABLE KIT	□ YES	□ NO
CEILING HEIGHT	____' - ____"	

APPROVED BY ______ DATE

NOTE TO REVIEWER:
ANY CHANGES IN COOKING EQUIPMENT SUCH AS EQUIPMENT POSITION, TYPE AND/OR INCREASE IN ENERGY OUTPUT MAY EFFECT EXHAUST AIRFLOW. STREIVOR AIR SYSTEMS MUST BE NOTIFIED OF ANY CHANGES THAT OCCUR PRIOR TO FABRICATION, A RE-ENGINEERING OF THE EXHAUST AIRFLOW MAY BE REQUIRED. ADDITIONAL SITE VISIT FOR FIRE SUPPRESSION PRE-TEST IS NOT INCLUDED UNLESS SPECIFICALLY LISTED IN QUOTE.

PROJECT:

DVC - SAN RAMON EXPANSION

SAN RAMON, CA 94582

RAS DESIGN GROUP

ITEM #:	F1
SYSTEM #:	1
HOOD #:	34
DATE:	04/24/19
DRAWN BY:	SWB
CHECKED BY:	KCS
CONSULTANT:	RAS DESIGN GROUP
SCALE: (UNLESS OTHERWISE NOTED)	1/2" = 1' - 0"

IF BAR DOES NOT MEASURE 1" THIS DRAWING IS NOT PLOTTED TO SCALE

△	DESCRIPTION	DATE	INT
B	APPLIANCE LAYOUT	04/29/19	KCS
-	---	--/--/--	---
-	---	--/--/--	---
-	---	--/--/--	---
-	---	--/--/--	---

DRAWING:

F-01

SHEET 01 OF 01

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

LICENSED ARCHITECT CHRISTOPHER NOLL No. C15916 REN. 12-31-19 STATE OF CALIFORNIA

RAS Design Group
RAS Design Group Foodservice and Laundry Consulting
630 Escobar Street
Martinez, CA 94553
Phone: 925/372-0222
Email: ron@rasdes.com
Website: rasdes.com

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

INCREMENT 2

ISSUE DATE	9/01/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

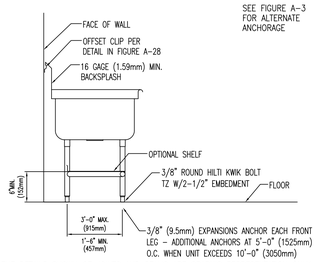
△	DATE	DESCRIPTION
	8/2/19	INC 2 - ADDENDUM 02
	8/27/19	INC 2 - ADDENDUM 03
	4/15/21	CCD 111

SHEET TITLE

FIRST FLOOR CAFE FOOD SERVICE FIRE SUPPRESSION SYSTEM DETAILS

SHEET NUMBER

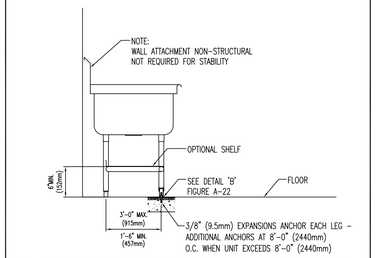
FS4.1.2



NOTE: THE DETAILS SHOWN OF JOINTS AND SEAMS ARE GRAPHIC REPRESENTATION ONLY AND ARE NOT INTENDED TO INDICATE SPACING BETWEEN THE METAL ELEMENTS.

WALL ATTACHED SINK, WORKTABLE WITH WALL CLIP

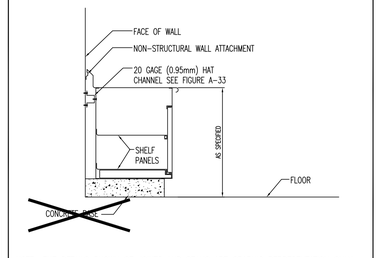
SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-2**



NOTE: THE DETAILS SHOWN OF JOINTS AND SEAMS ARE GRAPHIC REPRESENTATION ONLY AND ARE NOT INTENDED TO INDICATE SPACING BETWEEN THE METAL ELEMENTS.

WALL ATTACHED SINK, WORKTABLE WITHOUT WALL CLIP

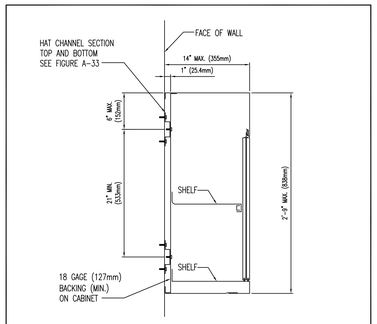
SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-3**



NOTE: THE DETAILS SHOWN OF JOINTS AND SEAMS ARE GRAPHIC REPRESENTATION ONLY AND ARE NOT INTENDED TO INDICATE SPACING BETWEEN THE METAL ELEMENTS.

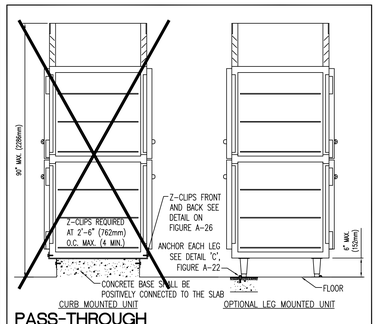
ENCLOSED CABINET

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-4**



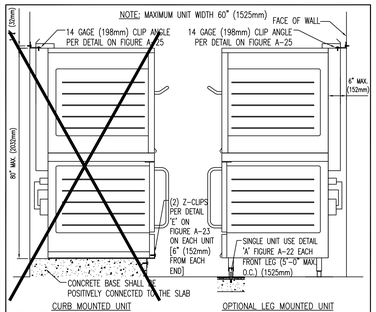
WALL CABINET

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-6**



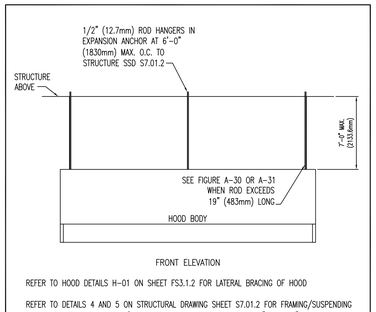
PASS-THROUGH MOUNTED APPLIANCES

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-8**



FLOOR MOUNTED APPLIANCE AGAINST WALL

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-11**

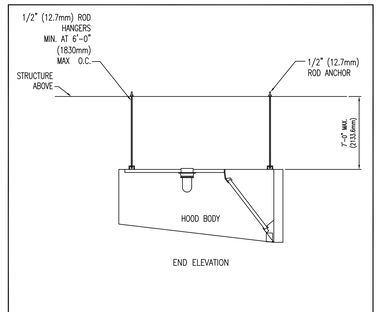


REFER TO HOOD DETAILS H-01 ON SHEET FS3.1.2 FOR LATERAL BRACING OF HOOD

REFER TO DETAILS 4 AND 5 ON STRUCTURAL DRAWING SHEET S7.01.2 FOR FRAMING/SUSPENDING THE HOOD FROM THE CEILING/FLOOR STRUCTURE ABOVE FOR HOODS #13 AND #34.

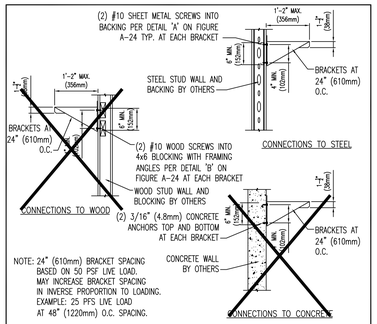
HOOD DETAIL

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-13**



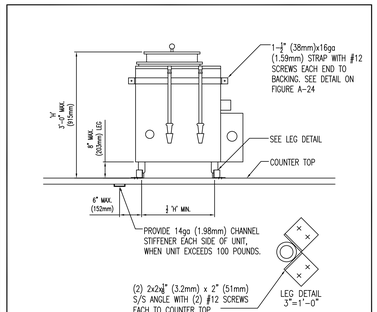
HOOD DETAIL

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-14**



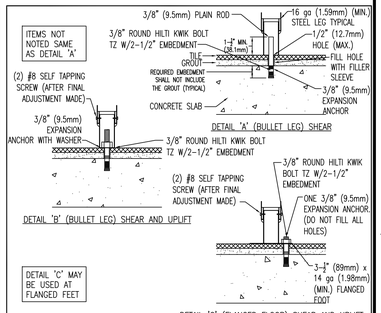
WALL MOUNTED SHELVES

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-17**



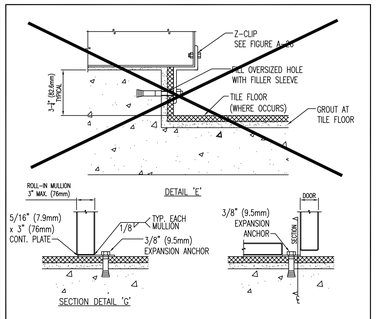
COUNTER TOP EQUIPMENT

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-18**



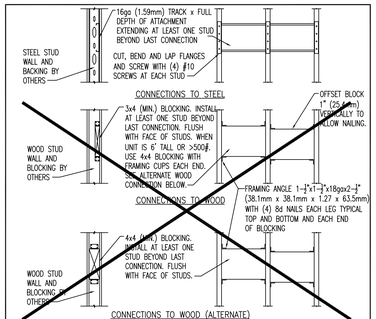
FOOT DETAILS

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-22**



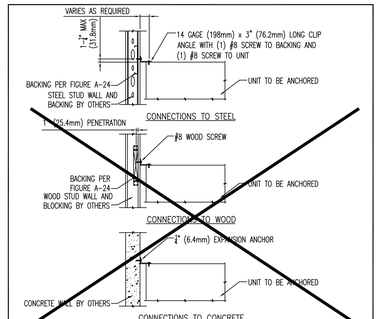
BASE ATTACHMENTS

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-23**



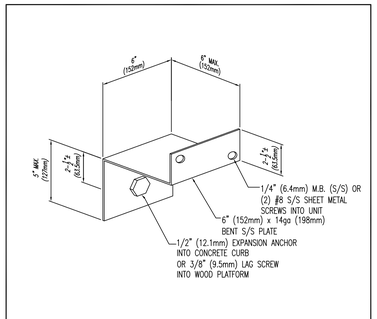
WALL SUPPORT BACKING

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-24**



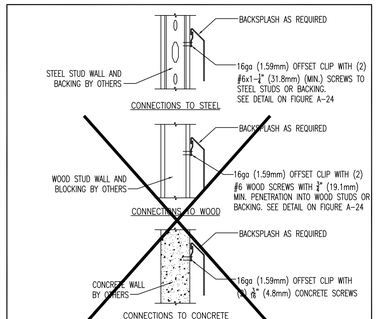
TOP ANGLE CONNECTION

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-25**



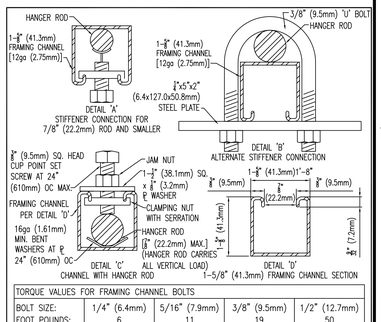
Z-CLIP DETAIL

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-26**



OFFSET CLIP DETAILS

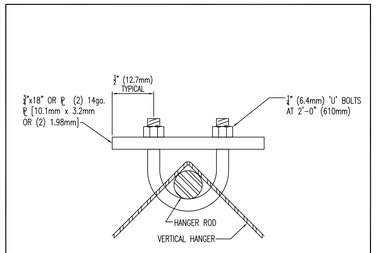
SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-28**



TORQUE VALUES FOR FRAMING CHANNEL BOLTS				
BOLT SIZE:	1/4" (6.4mm)	5/16" (7.9mm)	3/8" (9.5mm)	1/2" (12.7mm)
FOOT POUNDS:	6	11	19	50

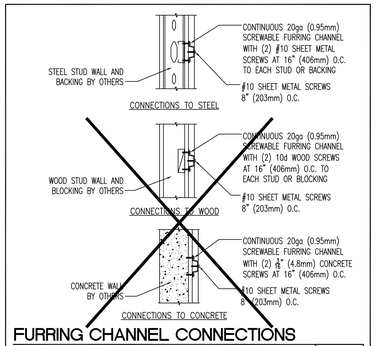
FRAMING CHANNEL / ROD STIFFENER

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-30**



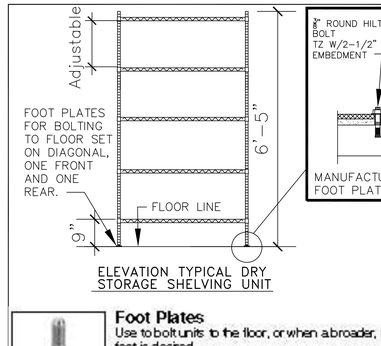
ALTERNATE ROD STIFFENER

SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-31**



FURRING CHANNEL CONNECTIONS

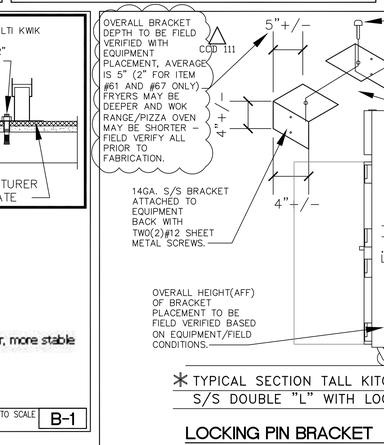
SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION NOT TO SCALE **A-33**



Foot Plates
Use to bolt units to the floor, or when a broader, more stable foot is desired.

SHELVING FOOT PLATE

~~SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION~~ NOT TO SCALE **B-1**

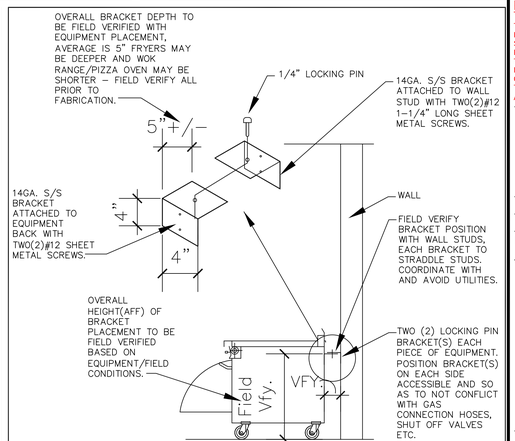


✱TYPICAL SECTION TALL KITCHEN EQUIPMENT –
S/S DOUBLE "L" WITH LOCKING PIN BRACKET

LOCKING PIN BRACKET

~~SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION~~ NOT TO SCALE **B-2**

GENERAL NOTES:
ALL EXPANSION ANCHORS TO BE – 3/8" DIAMETER SIMPSON STRONG BOLT 2 WITH 2" MINIMUM EMBEDMENT, UON.



✱TYPICAL SECTION COOKING EQUIPMENT
S/S DOUBLE "L" WITH LOCKING PIN BRACKET

LOCKING PIN BRACKET

~~SMACNA FOODSERVICE EQUIPMENT – FIRST EDITION~~ NOT TO SCALE **B-3**

REFER TO SHEET FS1.0.2 FOR ITEMIZED EQUIPMENT SMACNA SCHEDULE

APPROVALS

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REN. 12-31-19
STATE OF CALIFORNIA

RAS Design Group

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Phone: 925/372-0222
Email: ron@rasdes.com
Website: rasdes.com

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

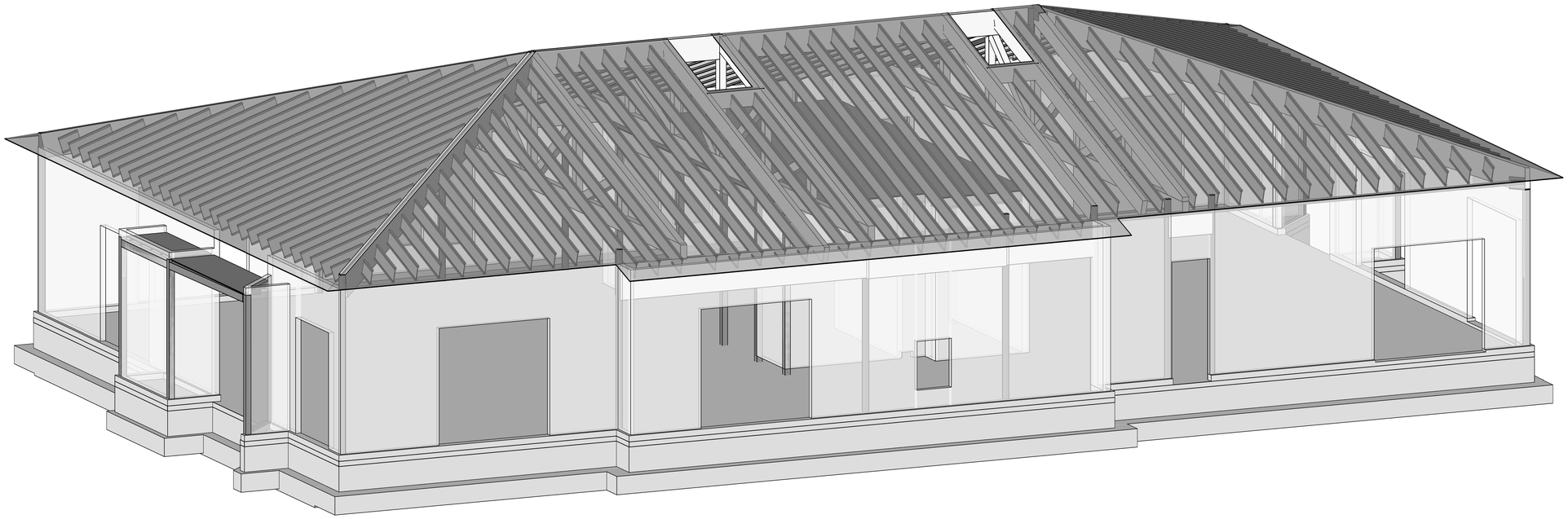
ISSUE DATE	9/01/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION
2	8/2/19	INC 2 - ADDENDUM 02
3	8/27/19	INC 2 - ADDENDUM 03
111	4/15/21	CCD 111

SHEET TITLE
FIRST FLOOR CAFE FOOD SERVICE ITEMIZED EQUIPMENT SMACNA DETAILS

SHEET NUMBER
FS5.1.2



SHEET LIST	
SHEET NUMBER	SHEET NAME
S0.00.2	STRUCTURAL COVER SHEET
S0.01.2	STRUCTURAL GENERAL NOTES
S0.02.2	STRUCTURAL GENERAL NOTES
S0.03.2	SYMBOLS & ABBREVIATIONS
S2.01.2	FOUNDATION PLAN
S2.02.2	ROOF FRAMING PLAN
S2.40.2	ROOF PLAN - WEST
S5.01.2	TYPICAL CONCRETE REINFORCEMENT DETAILS
S5.02.2	TYPICAL CONCRETE SLAB DETAILS
S5.03.2	TYPICAL CONCRETE FOUNDATION DETAILS
S6.01.2	TRASH ENCLOSURE PLANS & DETAILS
S7.01.2	STEEL DETAILS
S8.01.2	TYPICAL WOOD DETAILS
S8.02.2	TYPICAL WOOD DETAILS
S8.03.2	TYPICAL WOOD DETAILS
S8.04.2	TYPICAL WOOD I-JOIST DETAILS
S8.05.2	WOOD I-JOIST DETAILS
S8.06.2	WOOD DETAILS
S8.07.2	WOOD ROOF TRUSSES
S9.01.2	METAL STUD WALL DETAILS
S9.02.2	METAL STUD WALL DETAILS

Total Sheets: 21

APPROVALS

NOLL & TAM ARCHITECTS

729 Heinz Avenue
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S5722
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STATE OF CALIFORNIA

WALTER P MOORE

595 Market Street, Ste. 2130
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tel 415.963.6300

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

INCREMENT 2 - AS-BUILT - FINAL

ISSUE DATE **08/23/2023**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

	DATE	DESCRIPTION

SHEET TITLE

STRUCTURAL COVER SHEET

SHEET NUMBER

S0.00.2

8/23/2023 4:42:51 PM C:\Users\princeton\Downloads\S_DVCSR_EXPANSION_INCR2_R19.rvt

GENERAL STRUCTURAL NOTES

PART I - DESIGN CRITERIA

A. GENERAL BUILDING CODE

1. THE CONSTRUCTION DOCUMENTS ARE BASED ON THE REQUIREMENTS OF THE CALIFORNIA BUILDING CODE 2016.
2. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS ARE INTENDED TO PROVIDE FOR STRUCTURAL DESIGN OF THE BUILDING IN ACCORDANCE WITH THE 2016 CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2. IF CONDITIONS NOT COVERED BY THE CONTRACT DOCUMENTS ARISE DURING CONSTRUCTION SUCH THAT THE COMPLETED WORK WILL NOT BE IN COMPLIANCE WITH THESE REGULATIONS, A CHANGE ORDER DETAILING SUCH WORK REQUIRED TO BE IN COMPLIANCE SHALL BE SUBMITTED TO DSA AND APPROVED PRIOR TO THE CONTRACTOR PROCEEDING WITH SAID WORK.
3. NEW LIBRARY/TUTORIAL BUILDING: RISK CATEGORY (CBC TABLE 1604A.5): II
4. EXISTING BUILDING: RISK CATEGORY III

B. DEAD LOADS

1. HANGING CEILING AND MECHANICAL LOADS: AN ALLOWANCE OF 8 PSF HAS BEEN MADE FOR HANGING CEILING AND MECHANICAL EQUIPMENT LOADS SUCH AS DUCT WORK AND SPRINKLER PIPES IN THE NEW LIBRARY/TUTORIAL.
2. FUTURE ROOF SOLAR PANELS: AN ALLOWANCE OF 5 PSF HAS BEEN MADE FOR SOLAR PANELS IN THE ROOF AREA DESIGNATED "SOLAR READY ZONE" ON A2.51.2 ROOF PLAN.

C. LIVE LOADS

1. PARTITIONS: IN AREAS WITH PARTITIONS SUBJECT TO CHANGE, AN ALLOWANCE OF 15 PSF HAS BEEN MADE FOR PARTITIONS AS A UNIFORMLY DISTRIBUTED LIVE LOAD WHERE THE LIVE LOAD AS STATED BELOW IS 80 PSF OR LESS.
2. DESIGN LIVE LOADS ARE BASED ON THE MORE RESTRICTIVE OF THE UNIFORM LOAD LISTED BELOW OR THE CONCENTRATED LOAD LISTED ACTING OVER AN AREA 2.5 FEET SQUARE.

a. ASSEMBLY AREAS:	100 PSF
b. CORRIDORS, FIRST FLOOR:	100 PSF | 1,000 LBS
c. LIBRARIES, READING ROOMS:	60 PSF | 1,000 LBS
d. LIBRARIES, STACK ROOMS:	150 PSF | 1,500 LBS
e. MECHANICAL ROOM FIRST FLOOR:	100 PSF | EQUIP. WT.
f. RESTROOMS:	SAME AS OCCUPANCY SERVED
g. ROOFS:	20 PSF | 300 LBS; REDUCIBLE PER CODE
h. CLASSROOM FLOORS:	50 PSF | 1,000 LBS
i. STAIRS AND EXITS:	100 PSF | 300 LBS
j. STORAGE, LIGHT:	125 PSF
k. MECHANICAL PLATFORM:	40 PSF

4. REDUCTION OF LIVE LOADS:
   a. LIVE LOADS HAVE BEEN REDUCED USING THE STANDARD PROCEDURE FROM THE BUILDING CODE.
   b. FOR LIVE LOADS EXCEEDING 100 POUNDS PER SQUARE FOOT, NO REDUCTION HAS BEEN MADE, EXCEPT THAT THE DESIGN LIVE LOAD ON MEMBERS SUPPORTING TWO OR MORE FLOORS HAS BEEN REDUCED A MAXIMUM OF 20 PERCENT BUT THE LIVE LOAD IS NOT TO BE LESS THAN THAT CALCULATED BY THE FORMULA ABOVE.

D. WIND LOADS

1. WIND PRESSURES ARE BASED ON THE PROVISIONS OF THE AMERICAN SOCIETY OF CIVIL ENGINEERS, MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE 7-10, THE ALL HEIGHT METHOD OF CBC 1609A.6 AND THE FOLLOWING CRITERIA:
   a. ULTIMATE DESIGN WIND SPEED (VULT): 110 MPH (3 SECOND GUST)
   b. NOMINAL DESIGN WIND SPEED (VASD): 85 MPH (3-SECOND GUST)
   c. WIND EXPOSURE CATEGORY: [C]
   d. WIND IMPORTANCE FACTOR: I_w = 1.0

E. SNOW LOADS – NOT APPLICABLE

F. SEISMIC DESIGN CRITERIA

1. THE STRUCTURE AND COMPONENTS OF THE NEW LIBRARY/TUTORIAL BUILDING HAVE BEEN DESIGNED IN ACCORDANCE WITH AFOREMENTIONED BUILDING CODE WITH THE FOLLOWING CRITERIA:

a. 0.2 SEC. SPECTRAL ACCELERATION (SS):	1.969G
b. 1 SEC. SPECTRAL ACCELERATION (S1):	0.674G
c. SITE CLASS:	D
d. SITE COEFFICIENT, SHORT PERIOD (FA):	1.0
e. SITE COEFFICIENT, 1 SEC. PERIOD (FV):	1.5
f. 0.2 SEC SPECTRAL RESPONSE COEFF. (SDS):	1.313G
g. 1 SEC SPECTRAL RESPONSE COEFF. (SD1):	0.674G
h. SEISMIC IMPORTANCE FACTOR, I_e:	1.0
i. SEISMIC DESIGN CATEGORY:	D
j. SEISMIC REDUNDANCY FACTOR, RHO:	1.0
k. SEISMIC RESPONSE COEFFICIENT, CS:	0.202
l. BASIC SEISMIC-FORCE RESISTING SYSTEM:	PLYWOOD SHEAR WALLS / BEARING WALLS
m. RESPONSE MODIFICATION FACTOR, R:	6.5
n. SYSTEM OVERSTRENGTH FACTOR, OMEGA-O:	3.0
o. DEFLECTION AMPLIFICATION FACTOR, CD:	4.0
p. PLAN STRUCTURAL IRREGULARITY TYPE:	NONE
q. VERTICAL STRUCTURAL IRREGULARITY TYPE:	NONE
r. ANALYTICAL PROCEDURE:	EQUIVALENT LATERAL FORCE PROCEDURE

2. SEISMIC DEMANDS ON NONSTRUCTURAL COMPONENTS, STRUCTURAL COMPONENTS ENGINEERED AS PART OF DEFERRED SUBMITTALS, AND CONNECTIONS OF THOSE COMPONENTS TO THE PRIMARY STRUCTURE SHALL BE DESIGNED IN ACCORDANCE WITH THE AFOREMENTIONED BUILDING CODE, THE GENERAL SEISMIC CRITERIA LISTED ABOVE, AND THE REQUIREMENTS OF ASCE 7-10, CHAPTERS 12.11, 13.3, AND 13.4 AS APPROPRIATE.

G. FUTURE EXPANSION

1. NO PROVISIONS FOR ANY FUTURE EXPANSIONS HAVE BEEN MADE IN THE STRUCTURAL DESIGN.

H. BUILDING MOVEMENT AND DEFLECTIONS

1. THE BUILDING MOVEMENT SPECIFIED HEREIN IS ANTICIPATED TO OCCUR AND SHOULD BE CONSIDERED BY THE CONTRACTOR IN THE PERFORMANCE OF THE WORK.
2. SPANDREL BEAM DEFLECTIONS. THE FOLLOWING PROVISION SHOULD BE MADE FOR SUPERIMPOSED LOAD DEFLECTION OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR IN THE DESIGN, FABRICATION, AND ERECTION OF THE BUILDING CLADDING: 3/8". SUPERIMPOSED LOAD DEFLECTION IS DEFINED AS ALL DEFLECTION ANTICIPATED TO OCCUR AFTER THE CLADDING HAS BEEN ERECTED. THE RELATIVE DEFLECTION ABOVE DOES NOT INCLUDE THE FLOOR DEFLECTION CAUSED BY THE WEIGHT OF THE CLADDING ITSELF OR THE DEAD LOAD DEFLECTION OF THE FLOOR FRAMING ITSELF, NOR DOES IT INCLUDE ANY ALLOWANCE FOR FABRICATION OR ERECTION TOLERANCES.
3. LATERAL FRAME WIND DEFLECTION (DRIFT): THE FOLLOWING PROVISION FOR LATERAL FRAME DEFLECTION IN THE PLANE OF THE WALL OF ONE FLOOR RELATIVE TO AN ADJACENT FLOOR SHALL BE MADE IN THE DESIGN, FABRICATION AND INSTALLATION OF THE BUILDING CLADDING: FLOOR TO ROOF HEIGHT/400. THE DEFLECTIONS LISTED ABOVE ARE BASED ON WIND LOADS WITH A 10-YEAR MEAN RECURRENCE INTERVAL.
4. LATERAL FRAME SEISMIC DEFLECTION: THE FOLLOWING PROVISION FOR INELASTIC LATERAL FRAME DEFLECTION IN THE PLANE OF THE WALL ONE FLOOR RELATIVE TO AN ADJACENT FLOOR/ROOF SHALL BE MADE IN THE DESIGN, FABRICATION AND INSTALLATION OF BUILDING CLADDING AS SPECIFIED IN THE BUILDING CODE: FLOOR TO FLOOR HEIGHT X 0.02.

PART II - FOUNDATION

A. GEOTECHNICAL REPORT

1. FOUNDATION DESIGN IS BASED ON THE GEOTECHNICAL INVESTIGATION REPORT TITLED "GEOTECHNICAL INVESTIGATION FOR PROPOSED NEW TUTORIAL LIBRARY BUILDING, DIABLO VALLEY COLLEGE - SAN RAMON CAMPUS", PREPARED BY RMA GROUP, AND DATED SEPTEMBER 11, 2018.
2. THE GEOTECHNICAL REPORT IS AVAILABLE TO THE GENERAL CONTRACTOR UPON REQUEST TO THE OWNER. THE ARCHITECT AND ENGINEER WILL NOT BE RESPONSIBLE FOR THE ACCURACY OR APPLICABILITY OF SUCH DATA THEREIN.

B. SHALLOW FOUNDATION

1. THE SIZES AND BOTTOM ELEVATIONS OF SPREAD FOOTINGS ARE ESTABLISHED BASED ON THE REQUIREMENTS OF THE PROJECT GEOTECHNICAL REPORT. AS EXCAVATIONS PROGRESS, CONDITIONS MAY DEVELOP WHICH REQUIRE CHANGES IN THE FOOTING ELEVATIONS AND/OR SIZES. SUCH CHANGES SHALL BE MADE ONLY AS DIRECTED BY THE GEOTECHNICAL ENGINEER WITH THE APPROVAL OF DSA.
   a. DESIGN (NET) PRESSURES
      1) DEAD AND LIVE LOAD: 2,000 PSF WITH 18" MIN WIDTH AND 24" MIN DEPTH; MAY BE INCREASED 10% FOR EACH ADDITIONAL FOOT OF WIDTH OR DEPTH TO A MAXIMUM OF 3,000 PSF
      2) DEAD, LIVE AND SEISMIC (WIND) LOAD: 1/3 INCREASE OVER DEAD + LIVE ALLOWABLE PRESSURE
   b. FOOTINGS SHALL EXTEND A MINIMUM OF 2'-0" INCHES BELOW LOWEST ADJACENT GRADE AND BEAR ON ENGINEERED FILL.
2. GRADE BEAMS:
   a. GRADE BEAM SIDES. EXCEPT AS NOTED ON THE DRAWINGS, NON-EXPOSED GRADE BEAM SIDES MAY BE EARTH FORMED. REFER TO SPECIFICATIONS FOR COMPLETE REQUIREMENTS.
   b. BAR SUPPORTS FOR GRADE BEAM CAGES. GRADE BEAM BOTTOM STEEL SHALL BE CHAIRED AT 5'-0" MAXIMUM CENTERS USING BEAM BOLSTERS PROVIDING 3" BOTTOM COVER TO REINFORCING STEEL. BEAM BOLSTERS USED SHALL BE DESIGNED AND MANUFACTURED FOR SUPPORT ON SOIL.

C. RETAINING WALLS

1. DESIGN CRITERIA
   a. ACTIVE SOIL PRESSURE: 47 PSF PER FOOT OF DEPTH (LEVEL SURFACE SLOPE).
   b. AT-REST SOIL PRESSURE: 66 PSF PER FOOT OF DEPTH (LEVEL SURFACE SLOPE).
   c. SEISMIC LATERAL EARTH PRESSURE: 19 PCF, APPLIED AS AN INVERTED TRIANGLE WITH RESULTANT APPLIED AT UPPER 1/3 OF WALL HEIGHT
   d. THE DESIGN PRESSURES SPECIFIED ABOVE ARE BASED ON DRAINED BACKFILL WITH NO BUILDUP OF WATER PRESSURE BEHIND THE WALLS.

D. LATERAL RESISTANCE

1. PASSIVE PRESSURE = 247 PCF
2. COEFFICIENT OF FRICTION = 0.28

PART III - REINFORCED CONCRETE

A. CLASSES OF CONCRETE

1. ALL CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE "CLASSES OF CONCRETE MATRIX" ON SHEET S5.01 UNLESS NOTED OTHERWISE ON THE DRAWINGS.

B. HORIZONTAL CONSTRUCTION JOINTS IN CONCRETE POURS

1. THERE SHALL BE NO HORIZONTAL CONSTRUCTION JOINTS IN ANY CONCRETE POURS UNLESS SHOWN ON THE DRAWINGS. THE ARCHITECT/ENGINEER SHALL APPROVE ALL DEVIATIONS OR ADDITIONAL JOINTS IN WRITING.

C. REINFORCING STEEL

1. ALL REINFORCING STEEL SHALL BE ASTM A 615 GRADE 60 UNLESS NOTED OTHERWISE ON THE DRAWINGS OR IN THESE NOTES.
2. REINFORCING STEEL: PROVIDE REINFORCING STEEL CONFORMING TO ASTM A 706 GRADE 60 FOR ALL REINFORCING STEEL REQUIRED TO BE WELDED AND WHERE NOTED ON THE DRAWINGS.
3. DEFORMED BAR ANCHORS: AWS D1.1 TYPE C (TABLE 7.1) STUDS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A 1064 WITH A MINIMUM YIELD STRENGTH 70,000 PSI. REINFORCING BARS SHALL NOT BE SUBSTITUTED FOR DEFORMED BAR ANCHORS.
4. HEADED STUD ANCHORS FOR EMBEDDED PLATES: AWS D1.1 TYPE A STUDS MANUFACTURED IN CONFORMANCE WITH SPECIFICATION ASTM A 108 WITH A MINIMUM TENSILE STRENGTH OF 61,000 PSI.
5. SMOOTH WELDED WIRE REINFORCEMENT: ASTM A 185, YIELD STRENGTH 65,000 PSI.
6. TERMINATION OF REINFORCEMENT (UNLESS NOTED OTHERWISE)
   a. TERMINATE ALL BARS IN LAPS, 90 DEGREE BENDS, OR WITH DOWELS INTO EXISTING CONCRETE.
   b. FOOTINGS AND GRADE BEAMS
      1) BEND TOP BARS DOWN WITH STANDARD 90 DEGREE BENDS
      2) BEND BOTTOM BARS UP WITH STANDARD 90 DEGREE BENDS
         a) PROVIDE DOWELS INTO FOOTINGS OF SAME SIZE AND SPACING AS SLAB REINFORCEMENT

D. PLACEMENT OF WELDED WIRE REINFORCEMENT

1. WHEREVER WELDED WIRE REINFORCEMENT IS SPECIFIED AS REINFORCEMENT, IT SHALL BE CONTINUOUS ACROSS THE ENTIRE CONCRETE SURFACE AND PROPERLY LAPPED PER ACI 318, 12.18 AND 12.19.

E. REINFORCEMENT IN TOPPING SLABS

1. PROVIDE MINIMUM REINFORCEMENT AS NOTED BELOW IN ALL TOPPING SLABS UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS.
   a. WELDED SMOOTH WIRE REINFORCEMENT 6X6-W2.9XW2.9.

F. REINFORCEMENT IN HOUSEKEEPING PADS

1. PROVIDE MINIMUM REINFORCEMENT AS NOTED BELOW IN ALL HOUSEKEEPING PADS SUPPORTING MECHANICAL EQUIPMENT UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS.
   a. WELDED SMOOTH WIRE REINFORCEMENT 6X6-W2.9XW2.9.

G. REINFORCING STEEL COVERAGE

1. REINFORCING STEEL COVERAGE SHOULD CONFORM TO THE REQUIREMENTS SPECIFIED IN DETAILS LABELED "TYPICAL CLEAR CONCRETE COVER" ON SHEETS S5.01 UNLESS NOTED OTHERWISE ON THE DRAWINGS. COVER SPECIFIED SHALL BE CONSIDERED MINIMUMS THAT MAY REQUIRE INCREASING WHERE REINFORCING STEEL INTERSECTS FOR DIFFERENT MEMBER TYPES. COVER IN STRUCTURAL MEMBERS NOT SPECIFIED IN THE DETAILS SHALL CONFORM TO THE REQUIREMENTS OF ACI 318 UNLESS SPECIFIED OTHERWISE ON THE DRAWINGS. THE REINFORCING STEEL DETAILER SHALL ADJUST REINFORCING STEEL CAGE SIZES AT INTERSECTING STRUCTURAL MEMBERS AS REQUIRED TO ALLOW CLEARANCE FOR INTERSECTING REINFORCING BAR LAYERS WITH MINIMUM SPECIFIED COVER.

PART IV - WOOD

A. FRAMING LUMBER

ALL FRAMING LUMBER SHALL BE DOUGLAS FIR UNLESS OTHERWISE NOTED. MOISTURE CONTENT SHALL BE S-DRY FOR ALL LUMBER UNLESS NOTED OTHERWISE IN THE SPECIFICATIONS.

1. JOISTS AND RAFTERS: NO. 1, UON
2. POSTS, BEAMS, AND HEADERS: NO. 1, UON
3. STUDS, PLATES, BLOCKS, AND MISCELLANEOUS LIGHT FRAMING: NO. 2, UON
4. LUMBER IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED DOUGLAS FIR.
5. PROVISIONS IN THE APPLICABLE LUMBER GRADING RULES WHICH PERMIT 5 PERCENT OF THE MATERIAL TO FALL BELOW GRADE SHALL NOT BE CONSTRUED TO PERMIT BELOW GRADE LUMBER AS LOAD BEARING STRUCTURAL FRAMING. LUMBER WHICH FALLS BELOW GRADE SHALL BE REJECTED FOR USE AS LOAD BEARING STRUCTURAL FRAMING. STRUCTURAL MEMBERS JUDGED BY THE PROJECT INSPECTOR, ARCHITECT OR STRUCTURAL ENGINEER TO BE MIS-GRADED SHALL BE RE-INSPECTED BY A CERTIFIED LUMBER GRADING INSPECTOR TO VERIFY THE PROPER GRADING OF THE MEMBER. WOOD MEMBERS WITH PERMISSIBLE GRADE CHARACTERISTICS OR DEFECTS IN SUCH COMBINATION JUDGED TO AFFECT THE SERVICEABILITY OF THE MEMBER SHALL BE REJECTED BY THE PROJECT INSPECTOR WITH THE CONCURRENCE OF THE ARCHITECT OR STRUCTURAL ENGINEER.

B. GLUED LAMINATED FRAMING

1. APPEARANCE
   a. CONCEALED: INDUSTRIAL GRADE
   b. EXPOSED: ARCHITECTURAL GRADE; SEE ARCHITECTURAL DRAWINGS FOR EXPOSED LOCATIONS
2. SIMPLE SPAN BEAMS: GRADE 24F-V4
3. CANTILEVER AND CONTINUOUS BEAMS AND TRUSS MEMBERS: GRADE 24F-V8
4. CAMBER GLULAM BEAMS TO A RADIUS OF 3500 FT. UON.
5. MANUFACTURE OF GLULAM BEAMS AND COLUMNS SHALL BE CONTINUOUSLY INSPECTED BY A QUALIFIED SPECIAL INSPECTOR APPROVED BY DSA. EACH INSPECTED MEMBER SHALL BE STAMPED BY THE INSPECTOR WITH AN IDENTIFICATION MARK.

PART IV - WOOD (CONTINUED)

C. STRUCTURAL SHEATHING

ROOF SHEATHING: UON - 5/8" PLYWOOD, APA RATED, GRADE STRUCTURAL I, EXPOSURE 1, 5 PLY.

WALL SHEATHING: UON - 15/32" PLYWOOD, APA RATED, GRADE STRUCTURAL I, EXPOSURE 1, 5 PLY.

FLOOR SHEATHING: 3/4" PLYWOOD, TONGUE & GROOVE EDGES, APA RATED, GRADE STRUCTURAL I, EXPOSURE 1, 5 PLY.

D. PREFABRICATED WOOD I-JOISTS

BY REDBUILT LLC, ICC REPORT ESR 2994 (DATED JULY 2017) OR APPROVED EQUAL IN COMPLIANCE WITH DSA IR 23-9.10. SEE SPECIFICATIONS AND NOTES ON SHEET S8.03.2.

E. PARALLAM PARALLEL STRAND LUMBER (PSL), LAMINATED STRAND LUMBER (LSL), AND RIM BOARD

BY WEYERHAEUSER, ICC REPORT ESR 1387 (DATED FEBRUARY 2019).

1. LSL: E = 1,600,000 PSI; FT = 1700 PSI; FC = 2150 PSI, FB = 2400 PSI, FV = 400 PSI
2. PSL: DOUGLAS FIR (DF) E = 2,000,000 PSI; FT = 2025 PSI; FC = 2900 PSI, FB = 2900 PSI, FV = 290 PSI.

F. LAMINATED VENEER LUMBER (LVL)

BY REDBUILT LLC, ICC REPORT ESR 2993 (DATED FEBRUARY 2019); GRADE 2.6E DF/LP/WH UNLESS OTHERWISE NOTED.

G. FASTENERS

1. BOLTS – BOLTS IN WOOD CONNECTIONS SHALL BE ASTM A307, STANDARD CUT THREADS, FULL DIAMETER BOLTS.
2. NAILS – COMMON WIRE GAGE UON. NAILING SHALL CONFORM TO CBC TABLE 2304.10.1, REPRODUCED ON SHEET S8.01.
3. NAILS, BOLTS, AND SCREWS INTO PRESERVATIVE TREATED AND FIRE RETARDANT TREATED WOOD SHALL BE HOT-DIPPED ZINC-COATED STEEL WITH COATING WEIGHTS PER ASTM A153. BOLTS ARE PERMITTED TO BE OF MECHANICALLY DEPOSITED ZINC-COATED STEEL WITH COATING WEIGHTS PER ASTM B695, CLASS 55 MINIMUM.

H. FRAMING HARDWARE

AS MANUFACTURED BY SIMPSON STRONG TIE CO. SEE SPECIFICATIONS FOR COMPLETE INFORMATION.

PART V - STRUCTURAL STEEL

A. MATERIAL

1. HOT ROLLED STRUCTURAL MEMBERS: ALL HOT ROLLED STEEL PLATES, SHAPES, SHEET PILING, AND BARS SHALL BE NEW STEEL CONFORMING TO ASTM SPECIFICATION A6.
2. ASTM SPECIFICATION AND GRADE: CLEARLY MARK THE GRADE OF STEEL ON EACH PIECE, WITH A DISTINGUISHING MARK VISIBLE FROM FLOOR SURFACES, FOR THE PURPOSE OF FIELD INSPECTION OF PROPER GRADE OF STEEL. UNLESS NOTED OTHERWISE ON THE DRAWINGS, STRUCTURAL STEEL SHALL BE AS FOLLOWS:

a. WF- AND WT-SHAPES:	ASTM A 992
b. M- AND S-SHAPES:	ASTM A 36
c. C-SHAPES:	ASTM A 36
d. L-SHAPES:	ASTM A 36
e. ROUND HSS:	ASTM A 500, GRADE B OR C
f. RECTANGULAR HSS:	ASTM A 500, GRADE B OR C
g. STEEL PIPES:	ASTM A 53, TYPE E OR S, GRADE B.
h. BASE PLATES:	ASTM A 572, GRADE 50
i. CONTINUITY PLATES:	ASTM A 572, GRADE 50
j. DOUBLER PLATES:	ASTM A 572, GRADE 50
k. GUSSET PLATES:	ASTM A 572, GRADE 50
l. ALL OTHER PLATES:	ASTM A 36

B. STRUCTURAL BOLTS AND THREADED FASTENERS

1. BOLTS IN STEEL-TO-STEEL CONNECTIONS SHALL CONFORM TO ASTM A325 TYPE 1, UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
2. BOLTS IN STEEL-TO-WOOD CONNECTIONS SHALL CONFORM TO ASTM A307 MACHINE BOLTS.
3. THREADED ROUND STOCK: THREADED RODS SHALL CONFORM TO ASTM A 36.

C. WELDING

1. UNLESS NOTED OTHERWISE, ELECTRODES FOR WELDING SHALL CONFORM TO E70XX (SMAW), F7XX-EXXX (SAW), ER70S-X (GMAW), OR E7XT-X (FCAW).

D. ANCHOR RODS

1. UNLESS INDICATED OTHERWISE ON THE DRAWINGS, ANCHOR RODS SHALL CONFORM TO ASTM F 1554 GRADE 36 (WITH SUPPLEMENTARY REQUIREMENT S1) AND THE SIZE SHALL BE 3/4" DIAMETER AND SHALL EMBED INTO THE CONCRETE FOUNDATION A DISTANCE OF 1'-6" WITH A HEAVY HEX NUT AT THE EMBEDDED END. STRIKE BOLT THREADS AT THE EMBEDDED END AT TWO PLACES BELOW THE NUT.

E. GROUT

1. GROUT BELOW STRUCTURAL STEEL BASE PLATES SHALL BE NON-METALLIC, NON-SHRINK GROUT WITH A MINIMUM STRENGTH OF 8,000 PSI.

PART VI - CONCRETE MASONRY

A. REINFORCED CONCRETE MASONRY

1. LOCATION: TRASH ENCLOSURE WALLS
2. CMU ASSEMBLY, F'm = 1900 PSI
3. CMU BLOCKS: ASTM C90, LIGHTWEIGHT, OPEN END BLOCKS, UNIT STRENGTH F'c = 1,900 PSI
4. MORTAR: ASTM C270, GRADE S
5. GROUT: ASTM C476, F'c = 2,000 PSI
6. REINFORCING STEEL: ASTM A615, GRADE 60.

B. ALL MASONRY WALLS SHALL BE REINFORCED AND FULLY GROUTED SOLID.

C. STABILITY AND BRACING OF MASONRY WALLS DURING CONSTRUCTION: ALL MASONRY WALLS HAVE BEEN DESIGNED TO RESIST THE REQUIRED CODE VERTAIL AND LATERAL FORCES APPLIED TO THEM IN THE FINAL CONSTRUCTION ASSUMING FULL BRACING OF TOP, BOTTOM AND/OR SIDES OF WALLS AS SHOWN IN THE DRAWINGS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROPERLY BRACE ALL MASONRY WALLS AT ALL STAGES DURING CONSTRUCTION TO RESIST ERECTION LOADS AND LATERAL LOADS THAT COULD OCCUR PRIOR TO COMPLETION OF CONSTRUCTION.

PART VII - COLD-FORMED METAL FRAMING

A. MATERIALS

1. STUD AND TRACK PROFILES SHALL BE STANDARD SECTIONS USED BY MEMBERS OF THE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA). SSMA MEMBER DESIGNATIONS AS SHOWN ON THE FOLLOWING EXAMPLE:

   600 S 162-43 REPRESENTS A 6.00" DEEP, STUD SECTION, 1.625" WIDE FLANGE, 0.043" (43 MILS) MINIMUM STEEL THICKNESS.
   NOTES:
   S = STUD SECTION
   T = TRACK SECTION
   U = CHANNEL SECTION
   F = FURRING CHANNEL

2. UNLESS NOTED OTHERWISE ON THE DRAWINGS, MEMBERS SHALL HAVE THE FOLLOWING YIELD STRENGTHS:
   a. STUDS: 33, 43 MIL THICKNESS — FY = 33 KSI
   b. STUDS: 54, 68, 97 MIL THICKNESS — FY = 50 KSI
   c. TRACKS: 33, 43, 54, 68, 97 MIL — FY = 33 KSI
   d. U-CHANNELS, FURRING CHANNELS: — FY = 33 KSI
3. ALL COLD-FORMED STEEL FRAMING MATERIALS SHALL HAVE A MINIMUM G60 GALVANIZED COATING.

B. CONNECTIONS

1. SCREWS: UNLESS NOTED OTHERWISE SCREWS SHALL BE AS FOLLOWS:
   a. SHEET STEEL TO SHEET STEEL: #10-16, 5/8 INCH LONG SELF DRILLING SCREWS.
   b. SHEET STEEL TO STRUCTURAL STEEL: #12-24, 1-1/2 INCH LONG SELF DRILLING SCREWS WITH NO 5 TIP STYLE.
2. POWDER ACTUATED FASTENERS: UNLESS NOTED OTHERWISE, PAF SHALL BE AS FOLLOWS:
   a. SHEET STEEL TO CONCRETE: 0.145" DIAMETER, 1-1/4" LONG, SMOOTH SHANK.
   b. SHEET STEEL TO POST-TENSIONED CONCRETE: 0.145" DIAMETER, 3/4" LONG, SMOOTH SHANK.
   c. SHEET STEEL TO STRUCTURAL STEEL: 0.145" DIAMETER, 3/4" LONG, KNURLED SHANK.
3. WELDING:
   a. WELDING PROCEDURES FOR SHEET STEEL TO BE IN ACCORDANCE WITH AWS D1.3. WELDERS SHALL BE CERTIFIED FOR SHEET STEEL IN ALL POSITIONS REQUIRED PER AWS D1.3
   b. SUGGESTED WELD METAL AND PROCESS FOR SHOP WELDING ARE: 60KSI WELD METAL STRENGTH (MINIMUM) - MIG.
   c. SUGGESTED METHODS FOR FIELD WELDING: 1/8 INCH E60XX (MINIMUM) ELECTRODE - SMAW.
   d. MINIMUM WELD THROAT THICKNESS (T) MUST MATCH OR EXCEED THE BASE STEEL THICKNESS OF THE THINNEST CONNECTED STEEL SHEET UNLESS NOTED OTHERWISE.
   e. AFTER WELDING ALL FLUX SHALL BE REMOVED, AND A ZINC-RICH PAINT, WITH A DRY FILM CONTAINING 94% ZINC DUST BY WEIGHT, SHALL BE APPLIED TO THE WELD AREA TO RESTORE CORROSION RESISTANCE.

PART VIII - STRUCTURAL OBSERVATION

A. A PRE-CONSTRUCTION MEETING INCLUDING THE ENGINEER RESPONSIBLE FOR THE STRUCTURAL OBSERVATION, THE STRUCTURAL OBSERVER, THE CONTRACTOR, AFFECTED SUBCONTRACTORS, AND INSPECTOR OF RECORD (IOR) SHALL BE HELD TO REVIEW THE APPROVED STRUCTURAL PLANS AND INSPECTION SCOPE AND SCHEDULE. THE DISTRICT'S REPRESENTATIVE SHALL COORDINATE AND CALL THE MEETING, AND THE STRUCTURAL OBSERVER SHALL PRESIDE OVER THE MEETING.

B. THE PURPOSE OF THE PRECONSTRUCTION MEETING SHALL BE TO IDENTIFY THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS THAT AFFECT THE VERTICAL AND LATERAL LOAD SYSTEMS OF THE STRUCTURE AND TO REVIEW SCHEDULING OF THE REQUIRED OBSERVATIONS. A RECORD OF THE MEETING SHALL BE INCLUDED IN THE FIRST OBSERVATION REPORT SUBMITTED TO THE DIVISION OF THE STATE ARCHITECT (DSA).

C. OBSERVED DEFICIENCIES SHALL BE REPORTED IN WRITING TO THE DISTRICT'S REPRESENTATIVE, INSPECTOR OF RECORD, CONTRACTOR AND DSA FIELD ENGINEER.

D. UPON THE FORM PRESCRIBED BY THE DIVISION OF THE STATE ARCHITECT (DSA), THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE DSA FIELD ENGINEER A WRITTEN STATEMENT AT EACH SIGNIFICANT CONSTRUCTION STAGE STATING THAT THE SITE VISITS HAVE BEEN MADE AND IDENTIFYING ANY REPORTED DEFICIENCIES, WHICH, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.

E. A FINAL REPORT BY THE STRUCTURAL OBSERVER, WHICH STATES THAT ALL OBSERVED DEFICIENCIES HAVE BEEN RESOLVED, IS REQUIRED BEFORE ACCEPTANCE OF THE WORK BY THE DIVISION OF THE STATE ARCHITECT (DSA).

F. AT THE CONCLUSION OF THE WORK INCLUDED IN THE PERMIT, THE STRUCTURAL OBSERVER SHALL SUBMIT TO THE DIVISION OF THE STATE ARCHITECT (DSA) A WRITTEN STATEMENT THAT THE SITE VISITS HAVE BEEN MADE AND SHALL IDENTIFY ANY REPORTED DEFICIENCIES THAT, TO THE BEST OF THE STRUCTURAL OBSERVER'S KNOWLEDGE, HAVE NOT BEEN RESOLVED.

G. THE STRUCTURAL OBSERVER SHALL PERFORM STRUCTURAL OBSERVATION IN ACCORDANCE WITH THE STRUCTURAL OBSERVATION REPORT FORM AND THE APPROVED PLANS. UPON COMPLETION OF STRUCTURAL OBSERVATION, THE STRUCTURAL OBSERVER OF RECORD SHALL COMPLETE THE OBSERVATION FORM.

H. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE STRUCTURAL SYSTEM, FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATIONS, AT SIGNIFICANT CONSTRUCTION STAGES AND AT COMPLETION OF THE STRUCTURAL SYSTEM, WHICH INCLUDES THE LATERAL AND GRAVITY LOAD PATHS.

I. STRUCTURAL OBSERVATION DOES NOT INCLUDE OR WAIVE THE RESPONSIBILITY FOR THE INSPECTION REQUIRED BY THE BUILDING CODE.

PART IX - SPECIAL INSPECTIONS

A. THE DISTRICT'S TESTING LABORATORY SHALL PROVIDE SPECIAL INSPECTIONS SERVICES IN ACCORDANCE WITH CBC 1704A BY A SPECIAL INSPECTOR CERTIFIED BY THE DIVISION OF THE STATE ARCHITECT (DSA). FOR SPECIFIC REQUIREMENTS, REFER TO THE SPECIFICATIONS.

B. SPECIAL INSPECTION REPORTS AND A FINAL REPORT IN ACCORDANCE WITH THE CALIFORNIA BUILDING CODE SHALL BE SUBMITTED TO DISTRICT'S REPRESENTATIVE, INSPECTOR OF RECORD, CONTRACTOR AND DSA FIELD ENGINEER.

1. STEEL CONSTRUCTION:
   a. SHOP AND FIELD WELDING
   b. HIGH-STRENGTH BOLTING
   c. INSPECTION OF STRUCTURAL STEEL, BOLTING, WELDING MATERIALS
2. CONCRETE CONSTRUCTION:
   a. POST-INSTALLED CONCRETE ANCHORS
   b. CONCRETE PLACEMENT
   c. REINFORCING STEEL PLACEMENT
   d. WELDING OF REINFORCING STEEL
3. SOILS:
   a. PREPARED EARTH FILL
4. WOOD CONSTRUCTION:
   a. WOOD ROOF DIAPHRAGMS - SHEATHING FASTENERS AND STRAPS
   b. WOOD SHEAR WALLS - SHEATHING FASTENERS, STRAPS, AND TIE-DOWN ANCHORS
5. CONCRETE MASONRY:
   a. MASONRY UNIT PLACEMENT
   b. REINFORCING STEEL PLACEMENT
   c. GROUT PLACEMENT

C. STATEMENT OF SPECIAL INSPECTIONS

1. SPECIAL INSPECTION IS REQUIRED FOR THE ITEMS LISTED ABOVE. REFER TO SPECIFICATION FOR TYPE AND EXTENT OF EACH SPECIAL INSPECTION AND EACH TEST. THE SPECIFICATION ALSO INDICATES WHETHER CONTINUOUS OR PERIODIC INSPECTION IS REQUIRED FOR THE ITEMS LISTED ABOVE ADDITIONAL INFORMATION.

PART X - SUBMITTALS

A. SUBMITTAL LIST AND SCHEDULE

1. THE GENERAL CONTRACTOR SHALL PREPARE A DETAILED LIST AND SCHEDULE OF ALL SUBMITTAL ITEMS TO BE SENT TO THE STRUCTURAL ENGINEER PRIOR TO THE START OF CONSTRUCTION. THIS LIST SHALL BE UPDATED AND REVISED AND KEPT CURRENT AS THE JOB PROGRESSES. THE SUBMITTAL LIST SHALL BE ORGANIZED AS SHOWN BELOW:
   a. SHOP DRAWINGS
   b. DESIGN CALCULATIONS
   c. PRODUCT DATA, CERTIFICATES, REPORTS, AND OTHER LITERATURE

B. SUBMITTALS TO BE PROVIDED TO STRUCTURAL ENGINEER

1. STRUCTURAL SUBMITTALS: IN ADDITION TO THE SUBMITTALS REQUIRED BY THE STRUCTURAL SPECIFICATIONS, THE FOLLOWING SUBMITTALS SHALL BE PROVIDED:
   a. LAYOUT OF EMBEDDED ITEMS (PLATES, ANGLES, BOLTS, ETC.) OR ITEMS ATTACHED TO THE STRUCTURAL FRAME FOR BUILDING CLADDING ATTACHMENT OR FOR ATTACHMENT OF OTHER ITEMS.
2. DEFERRED SUBMITTALS:
   a. THE FOLLOWING ITEMS ARE CONSIDERED DEFERRED SUBMITTALS BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE:
      1) EXTERIOR WINDOW WALL SYSTEM (S&S, REC)
   b. (S&S) - ITEMS MARKED THUS SHALL HAVE THE SHOP DRAWINGS AND DELEGATED DESIGN SUBMITTALS (INCLUDING CALCULATIONS) SEALED PER THE PROJECT SPECIFICATIONS BY AN ENGINEER REGISTERED IN THE STATE WHERE THE PROJECT IS LOCATED.
   c. (REC) - ITEMS MARKED THUS SHALL BE SUBMITTED TO ENGINEER FOR RECORD ONLY AND WILL NOT HAVE THE ENGINEER'S SHOP DRAWING STAMP AFFIXED.
   d. DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE REGISTERED DESIGN PROFESSIONAL AND THE DIVISION OF THE STATE ARCHITECT (DSA).
   e. DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN APPROVED BY DSA.
3. SUBMITTALS WITH IMPACT TO STRUCTURE:
   a. MECHANICAL EQUIPMENT WEIGHTS
4. SUBMITTAL REQUIREMENTS:
   a. ALL SHOP DRAWINGS MUST BE REVIEWED AND ELECTRONICALLY STAMPED BY THE GENERAL CONTRACTOR PRIOR TO SUBMITTAL.
   b. CONTRACTOR SHALL PROVIDE THE SUBMITTAL IN ELECTRONIC PORTABLE DOCUMENT FORMAT (PDF) PER THE SPECIFICATIONS.
   c. THE OMISSION FROM THE SHOP DRAWINGS OF ANY MATERIALS REQUIRED BY THE CONTRACT DOCUMENTS TO BE FURNISHED SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF FURNISHING AND INSTALLING SUCH MATERIALS, REGARDLESS OF WHETHER THE SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED.

C. REPRODUCTION

1. THE USE OF ELECTRONIC FILES OR REPRODUCTIONS OF THESE CONTRACT DOCUMENTS BY ANY CONTRACTOR, SUBCONTRACTOR, ERECTOR, FABRICATOR, OR MATERIAL SUPPLIER IN LIEU OF PREPARATION OF SHOP DRAWINGS SIGNIFIES THEIR ACCEPTANCE OF ALL INFORMATION SHOWN HEREON AS CORRECT, AND OBLIGATES THEMSELVES TO ANY JOB EXPENSE, REAL OR IMPLIED, ARISING DUE TO ANY ERRORS THAT MAY OCCUR HEREON.

PART XI - MISCELLANEOUS

A. CONTRACT DOCUMENTS

1. IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO OBTAIN ALL CONTRACT DOCUMENTS AND LATEST ADDENDA AND TO SUBMIT SUCH DOCUMENTS TO ALL SUBCONTRACTORS AND MATERIAL SUPPLIERS PRIOR TO THE SUBMITTAL OF SHOP DRAWINGS, FABRICATION OF ANY STRUCTURAL MEMBERS, AND ERECTION IN THE FIELD.
2. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE, AND, EXCEPT WHERE SPECIFICALLY SHOWN, DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE.
3. OPENINGS THROUGH FLOORS, ROOFS, AND WALLS FOR DUCTS, PIPING, AND/OR CONDUIT SHALL BE COORDINATED BY THE CONTRACTOR. CONTRACTOR SHALL VERIFY SIZES AND LOCATIONS OF HOLES AND OPENINGS WITH THE MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS AND THE RESPECTIVE SUBCONTRACTORS.
4. REFER TO DRAWINGS OTHER THAN STRUCTURAL FOR COMPLETE INFORMATION INCLUDING: TYPES OF FLOOR SLAB FINISHES AND THEIR LOCATIONS, FLOOR SLAB DEPRESSIONS AND CURBS, OPENINGS IN STRUCTURAL WALLS, ROOFS AND FLOORS REQUIRED BY ARCHITECTURAL AND MEP FEATURES, STAIRS, RAMPS, ETC.
5. WHERE MEMBER LOCATIONS ARE NOT SPECIFICALLY DIMENSIONED, MEMBERS ARE EITHER LOCATED ON COLUMNS LINES OR ARE EQUALLY SPACED BETWEEN LOCATED MEMBERS.
6. IF CERTAIN FEATURES ARE NOT FULLY SHOWN OR SPECIFIED ON THE DRAWINGS OR IN THE SPECIFICATIONS, THEIR CONSTRUCTION SHALL BE OF THE SAME CHARACTER AS SHOWN OR SPECIFIED IN SIMILAR CONDITIONS.

B. DRAWING CONFLICTS

1. THE GENERAL CONTRACTOR SHALL COMPARE THE ARCHITECTURAL AND STRUCTURAL DRAWINGS AND REPORT ANY DISCREPANCY BETWEEN EACH SET OF DRAWINGS AND WITHIN EACH SET OF DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND INSTALLATION OF ANY STRUCTURAL MEMBERS.

C. CONFLICTS IN STRUCTURAL REQUIREMENTS

1. WHERE CONFLICT EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL CONTRACT DOCUMENTS, STRUCTURAL DRAWINGS, GENERAL NOTES, AND SPECIFICATIONS, THE STRICTEST REQUIREMENTS, AS INDICATED BY THE ENGINEER, SHALL GOVERN.

D. EXISTING CONDITIONS

1. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS OF THE EXISTING BUILDING AT THE JOB SITE AND REPORT ANY DISCREPANCIES FROM ASSUMED CONDITIONS SHOWN ON THE DRAWINGS TO THE ARCHITECT AND ENGINEER PRIOR TO THE FABRICATION AND ERECTION OF ANY MEMBERS.
2. WORK SHOWN ON THE DRAWINGS IS NEW, UNLESS NOTED AS EXISTING.
3. EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS WAS OBTAINED FROM EXISTING CONSTRUCTION DOCUMENTS AND LIMITED SITE OBSERVATION. THESE DRAWINGS OF EXISTING CONSTRUCTION ARE AVAILABLE FOR CONTRACTOR USE. HOWEVER, THE AVAILABLE DRAWINGS OF EXISTING CONSTRUCTION ARE NOT NECESSARILY COMPLETE. THE CONTRACTOR SHALL FIELD VERIFY ALL PERTINENT INFORMATION.
4. DEMOLITION, CUTTING, DRILLING, ETC. OF EXISTING WORK SHALL BE PERFORMED WITH GREAT CARE SO AS NOT TO JEOPARDIZE THE STRUCTURAL INTEGRITY OF THE EXISTING BUILDING. IF ANY ARCHITECTURAL, STRUCTURAL, OR MEP MEMBERS NOT DESIGNATED FOR REMOVAL INTERFERE WITH THE NEW WORK, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY AND APPROVAL OBTAINED PRIOR TO REMOVAL OF THOSE MEMBERS.
5. THE CONTRACTOR SHALL SAFELY SHORE EXISTING CONSTRUCTION WHEREVER EXISTING SUPPORTS ARE REMOVED TO ALLOW THE INSTALLATION OF NEW WORK. ALL SHORING METHODS AND SEQUENCING OF DEMOLITION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND HIS ENGINEER.
6. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES PRIOR TO THE START OF CONSTRUCTION AND TAKE CARE TO PROTECT EXISTING UTILITIES THAT ARE TO REMAIN IN SERVICE.
7. THE CONTRACTOR SHALL REPAIR ALL DAMAGE CAUSED DURING CONSTRUCTION WITH SIMILAR MATERIALS AND WORKMANSHIP TO RESTORE CONDITIONS TO LEVELS ACCEPTABLE TO THE ARCHITECT.

E. ADJACENT BUILDINGS AND PROPERTY

1. THE GENERAL CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION METHODS USED WILL NOT CAUSE DAMAGE TO THE ADJACENT BUILDINGS AND PROPERTY. THIS SHALL INCLUDE ALL FOUNDATION INSTALLATION.
2. THE GENERAL CONTRACTOR IS ADVISED TO PERFORM ALL PHOTOGRAPHIC SURVEYS AND OTHER DOCUMENTATION OF THE ADJACENT BUILDINGS BEFORE THE START OF AND DURING CONSTRUCTION.

F. RESPONSIBILITY OF THE CONTRACTOR FOR STABILITY OF THE STRUCTURE DURING CONSTRUCTION

1. ALL STRUCTURAL ELEMENTS OF THE PROJECT HAVE BEEN DESIGNED BY THE STRUCTURAL ENGINEER TO RESIST THE REQUIRED CODE VERTICAL AND LATERAL FORCES THAT COULD OCCUR IN THE FINAL COMPLETED STRUCTURE ONLY. THE ABILITY OF THE STRUCTURAL FRAME TO RESIST THE REQUIRED CODE FORCES DERIVES FROM THE COMPLETE INSTALLATION OF THE LATERAL FORCE RESISTING SYSTEMS AND DIAPHRAGMS DESCRIBED BELOW. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN AND PROVIDE ALL REQUIRED BRACING DURING CONSTRUCTION TO MAINTAIN THE STABILITY AND SAFETY OF ALL STRUCTURAL ELEMENTS DURING THE CONSTRUCTION PROCESS UNTIL THE LATERAL-LOAD RESISTING OR STABILITY-PROVIDING SYSTEM IS COMPLETELY INSTALLED AND ALL DESIGNATED CONCRETE ELEMENTS (IF ANY) HAVE REACHED A MINIMUM OF 75% OF THEIR DESIGN STRENGTH. THIS INCLUDES DESIGNING FOR ALL APPLICABLE TEMPORARY, CONSTRUCTION AND ENVIRONMENTAL FORCES PER ASCE 37 INCLUDING BUT NOT LIMITED TO WIND AND SEISMIC ON THE STRUCTURE DURING CONSTRUCTION. THE REQUIRED STRUCTURAL ELEMENTS ARE:
   a. LIGHT FRAMED WOOD LOADBEARING WALL SYSTEM: NEW LIBRARY/TUTORIAL BUILDING
      1) LATERAL-FORCE RESISTING SYSTEM: WOOD FRAMED AND PLYWOOD SHEATHED SHEAR WALLS UPON WHICH ROOF FRAMING ELEMENTS BEAR.
      2) DIAPHRAGM: WOOD FRAMED AND PLYWOOD SHEATHED ROOF.
   b. SLAB-ON-GRADE: THE SLAB-ON-GRADE IS NOT USED AS A STRUCTURAL DIAPHRAGM.

G. RESPONSIBILITY OF THE CONTRACTOR FOR CONSTRUCTION LOADS

1. THE STRUCTURE HAS BEEN DESIGNED FOR THE LOADS IDENTIFIED WITHIN THESE STRUCTURAL DRAWINGS THAT ARE ANTICIPATED TO BE APPLIED TO THE FINAL STRUCTURE ONCE COMPLETED AND OCCUPIED. THE CONTRACTOR SHALL NOT OVERLOAD THE STRUCTURE DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING THE ADEQUACY OF THE STRUCTURE TO SUPPORT ANY APPLIED CONSTRUCTION LOADS, INCLUDING THOSE DUE TO CONSTRUCTION VEHICLES OR EQUIPMENT, MATERIAL HANDLING OR STORAGE, SHORING OR RESHORING, OR ANY OTHER CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL SUBMIT CALCULATIONS SIGNED AND SEALED BY AN ENGINEER LICENSED IN THE STATE OF CALIFORNIA VERIFYING THE ADEQUACY OF THE STRUCTURE FOR ANY PROPOSED CONSTRUCTION LOADS THAT ARE IN EXCESS OF THE STATED DESIGN LOADS. THE STRUCTURAL ENGINEER IS NOT RESPONSIBLE TO DESIGN OR CHECK THE STRUCTURE FOR LOADS APPLIED TO THE STRUCTURE FOR ANY CONSTRUCTION ACTIVITY.

H. CONTRACTOR SUBSTITUTIONS

1. ANY MATERIALS OR PRODUCTS SUBMITTED FOR APPROVAL THAT ARE DIFFERENT FROM THE MATERIAL OR PRODUCTS SPECIFIED IN THE STRUCTURAL CONTRACT DOCUMENTS WILL BE APPROVED ONLY IF THE FOLLOWING CRITERIA ARE SATISFIED:
   a. A COST SAVINGS TO THE DISTRICT IS DOCUMENTED AND SUBMITTED WITH THE REQUEST.
   b. THE MATERIAL OR PRODUCT HAS BEEN APPROVED BY THE INTERNATIONAL CODE COUNCIL (ICC) AND THE ICC REPORT IS SUBMITTED WITH THE REQUEST.
      1) THE ICC ESR THAT IS SUBMITTED MUST REFERENCE THE BUILDING CODE UNDER WHICH THE PROJECT IS PERMITTED.
      2) ICC REPORTS THAT HAVE BEEN DISCONTINUED AT THE TIME OF PRODUCT INSTALLATION WILL NOT BE ACCEPTED.
   c. THE CONTRACTOR AGREES TO BEAR THE COST OF OBTAINING APPROVAL FROM DSA.
2. SUBMITTALS NOT SATISFYING THE ABOVE CRITERIA WILL NOT BE CONSIDERED.

I. THE STRUCTURAL ENGINEER'S ROLE DURING CONSTRUCTION

1. THE ENGINEER SHALL NOT HAVE CONTROL NOR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
2. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF WALTER P. MOORE AND ASSOCIATES IS SOLELY FOR THE PURPOSE OF BECOMING GENERALLY FAMILIAR WITH THE PROGRESS AND QUALITY OF THE WORK COMPLETED AND DETERMINING, IN GENERAL, IF THE WORK OBSERVED IS BEING PERFORMED IN A MANNER INDICATING THAT THE WORK, WHEN FULLY COMPLETED, WILL BE IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF THE WORK, BUT RATHER PERIODIC IN AN EFFORT TO KEEP THE OWNER REASONABLY INFORMED ABOUT THE PROGRESS AND QUALITY OF THE PORTION OF THE STRUCTURE COMPLETED.

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

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ISSUE DATE	08/23/2023
NOLL & TAM JOB NUMBER	21630

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#	DATE	DESCRIPTION
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STRUCTURAL GENERAL NOTES

SHEET NUMBER

S0.01.2

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GENERAL STRUCTURAL NOTES

PART XII - DRAWING INTERPRETATION

A. DRAWING VIEWS LABELED AS "TYPICAL"

1. PARTIAL PLANS, ELEVATIONS, SECTIONS, DETAILS, OR SCHEDULES LABELED WITH "TYPICAL" AT THE BEGINNING OF THEIR TITLE SHALL APPLY TO ALL SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY SHOWN. THE APPLICABILITY OF THE CONTENT OF THESE VIEWS TO LOCATIONS ON THE PLAN CAN BE DETERMINED FROM THE TITLE OF THE VIEWS. SUCH VIEWS SHALL APPLY WHETHER OR NOT THEY ARE KEYED IN AT EACH LOCATION. DECISIONS REGARDING APPLICABILITY OF THESE "TYPICAL" VIEWS SHALL BE DETERMINED BY THE STRUCTURAL ENGINEER.

B. STRUCTURAL ABBREVIATIONS, SYMBOLS, AND NOTATIONS

1. REFER TO SHEET S0.03 FOR ABBREVIATIONS, SYMBOLS, AND NOTATIONS USED ON THE STRUCTURAL DRAWINGS.

PART XIII - POST INSTALLED ANCHORS IN CONCRETE

A. GENERAL

1. INSTALL ANCHORS IN ACCORDANCE WITH THE ANCHOR'S ICC-ES REPORT AND THE MANUFACTURER'S RECOMMENDATIONS. IN CASE OF CONFLICT, THE REQUIREMENTS OF THE ICC-ES REPORT SHALL GOVERN.
2. TAKE NECESSARY STEPS TO AVOID CUTTING OR DAMAGING EXISTING REINFORCING BARS.
3. SPECIAL INSPECTION, AS DEFINED BY THE 2016 CBC, IS REQUIRED FOR ALL POST-INSTALLED CONCRETE ANCHORS.
4. FIELD TESTING OF POST-INSTALLED ANCHORS IS REQUIRED UNLESS NOTED OTHERWISE.

B. EXPANSION ANCHORS

1. EXPANSION ANCHORS 3/8" DIA. THROUGH 3/4" DIA. SHALL BE HILTI KWIK BOLT TZ, CARBON STEEL, ICC-ES REPORT ESR-1917 DATED 05/2017.
2. EXPANSION ANCHORS 1/4" DIA. SHALL BE HILTI KWIK BOLT 3, ICC-ES REPORT ESR-2302 DATED 12/2017, USED IN NON-SEISMIC APPLICATIONS ONLY.
3. THE USE OF CARBON STEEL ANCHORS IS LIMITED TO DRY, INTERIOR LOCATIONS. AT EXTERIOR APPLICATIONS AND OTHER WET CONDITIONS OF USE, EXPANSION ANCHORS SHALL BE STAINLESS STEEL ANCHORS.
4. FOLLOW THE MANUFACTURER'S INSTRUCTIONS TO DETERMINE PROPER ANCHOR HOLE DIAMETER AND HOLE DEPTH, SPACING AND EDGE DISTANCES. ANCHOR HOLE DEPTH FOR INSTALLATION IS GREATER THAN THE EFFECTIVE EMBEDMENT DEPTH.
5. EXPANSION ANCHOR MINIMUM EMBEDMENT VALUES AND FIELD TEST VALUES FOR ANCHORS INSTALLED IN NORMAL WEIGHT CONCRETE SHALL BE THE FOLLOWING, UNLESS NOTED OTHERWISE IN THE DRAWINGS:

ANCHOR DIAMETER (in)	MIN. EFFECTIVE EMBEDMENT (in)	MIN. SLAB OR MEMBER THICKNESS (in)	MIN. ANCHOR SPACING (in)	TENSION TEST VALUE FOR 3000 PSI CONCRETE	TORQUE TEST VALUE (ft-lbs)
1/4	1.5	4.0	4.5	800	4
3/8	2.0	4.5	6.0	1100	25
1/2	3.25	6.0	9.75	2000	40
5/8	4	7.25	12.0	2300	60
3/4	4.75	8.0	14.25	3700	110

6. FIELD TESTING OF ANCHORS SHALL BE PERFORMED IN THE PRESENCE OF THE PROJECT INSPECTOR AND BE IN ACCORDANCE WITH CBC 1910A.5.
   a. TESTING MAY BE PERFORMED AS A TENSION TEST OR TORQUE TEST. IF THE MANUFACTURER'S RECOMMENDED INSTALLATION TORQUE IS LESS THAN THE TEST TORQUE NOTED IN THE TABLE, THE INSTALLATION TORQUE SHALL BE USED IN LIEU OF THE TABULATED TEST VALUE.
   b. TEST 50% OF ANCHORS IN EACH DIAMETER GROUP IN NON-STRUCTURAL APPLICATIONS, INCLUDING BUT NOT LIMITED TO EQUIPMENT ANCHORAGE, CONDUIT AND PIPING SUPPORT, CEILING WIRES, ETC., EXCEPT WHERE NOTED OTHERWISE.
   c. TEST 10% OF ANCHORS IN EACH DIAMETER GROUP WHERE USED IN SILL PLATE BOLTING APPLICATIONS.
   d. IF ANY ANCHOR FAILS TESTING, TEST ALL ANCHORS OF THE SAME TYPE NOT PREVIOUSLY TESTED, UNTIL 20 CONSECUTIVE ANCHORS PASS, THEN RESUME THE INITIAL TEST FREQUENCY. IN NONSTRUCTURAL APPLICATIONS, THE 20 ANCHORS SHALL BE ONLY THOSE INSTALLED BY THE SAME TRADE.
   e. TEST ACCEPTANCE CRITERIA – ACCEPTANCE CRITERIA FOR EXPANSION ANCHORS SHALL BE BASED ON THE ICC-ESR OR MANUFACTURER'S WRITTEN INSTRUCTION, ACCEPTABLE TO THE ENFORCEMENT AGENCY. FIELD TESTS SHALL SATISFY THE FOLLOWING MINIMUM REQUIREMENTS:
      - TENSION TESTS – ANCHORS TESTED WITH A HYDRAULIC JACK OR SPRING LOADED DEVICE SHALL MAINTAIN THE TEST LOAD FOR A MINIMUM OF 15 SECONDS AND SHALL EXHIBIT NO DISCERNABLE MOVEMENT DURING THE TENSION TEST, SUCH AS EVIDENCED BY LOOSENING OF THE WASHER UNDER THE NUT. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED SO LONG AS THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE.
      - TORQUE TESTS – TEST WITH A CALIBRATED TORQUE WRENCH; THE SPECIFIED TEST TORQUE MUST BE REACHED WITHIN ONE-HALF TURN OF THE NUT.
   f. TESTING PROCEDURES SHALL BE AS REQUIRED BY THE ICC-ESR. MANUFACTURER'S RECOMMENDATION FOR TESTING MAY BE APPROVED BY THE ENFORCEMENT AGENCY WHEN ICC-ESR DOES NOT PROVIDE A TESTING PROCEDURE.
   g. TEST EQUIPMENT, INCLUDING TORQUE WRENCHES, SHALL BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.

C. EPOXY ANCHORS

1. EPOXY FOR ANCHORING REBAR AND THREADED ROD TO CONCRETE SHALL BE SIMPSON SET-3G EPOXY, ICC-ESR #4057, DATED 04/2018.
2. COMPLY WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS FOR THE INSTALLATION OF EPOXY ANCHORED REBAR. PROVIDE HOLES WITH DIAMETER AND DEPTH AS SPECIFIED BY THE MANUFACTURER UNLESS NOTED OTHERWISE ON THE DRAWINGS.
3. SPECIAL INSPECTION OF EPOXY REBAR DOWELS IS REQUIRED.

PART XIV - STEEL DECK

A. STEEL ROOF DECK - TRASH ENCLOSURE

1. DECK MATERIAL: ASTM A1008 OR A1039, GALVANIZED, PER ASTM A653, G60; GRADE 50, BY VERCO DECKING (UES ER-217) OR APPROVED EQUAL.
2. DECK PROPERTIES:
   a. HSB-36, 18 GAGE, I = 0.302 IN^4; +S = 0.322 IN^3; -S = 0.335 IN^3.

APPROVALS

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STRUCTURAL SYMBOLS AND NOTATIONS

MATERIAL IDENTIFICATION SYMBOLS

THE FOLLOWING MATERIAL IDENTIFICATION SYMBOLS MAY BE USED IN THE SECTIONS AND DETAILS:

ALUMINUM | CAST-IN-PLACE CONCRETE | EARTH | EARTH (UNDISTURBED) | EXISTING CONSTRUCTION | GRAVEL | GROUT

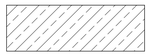
MASONRY | POLYSTYRENE | RIGID INSULATION | ROCK | STEEL | GLULAM | WOOD

THE FOLLOWING MATERIAL IDENTIFICATION SYMBOLS MAY BE USED IN THE PLANS:

STEEL COLUMN | CONCRETE COLUMN | CONCRETE WALL | LOADBEARING MASONRY WALL | NON-LOADBEARING MASONRY WALL | WOOD COLUMN | GRATING

BOUNDARY OF EXISTING CONSTRUCTION

BOUNDARY OF EXISTING CONSTRUCTION TO BE DEMOLISHED



BOUNDARY OF FUTURE EXPANSION

BOUNDARY OF CONCRETE TOPPING SLAB POURED ON SUBSTRUCTURE

SYMBOLIC LINEWORK

THE FOLLOWING SYMBOLIC LINEWORK MAY BE USED THROUGHOUT THE DRAWINGS:

REFERENCE GRID LINE SYMBOL

CENTERLINE SYMBOL

PLAN MATCHLINE SYMBOL

NON-STRUCTURAL LINE SYMBOL

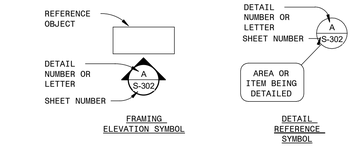
WELDED WIRE REINFORCEMENT SYMBOL

STEEL JOIST LINE SYMBOL

OPENING LINE SYMBOL

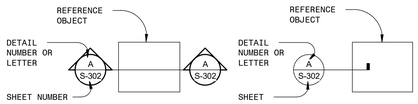
VIEW REFERENCE SYMBOLS

THESE FOLLOWING SYMBOLS MAY BE USED THROUGHOUT THE DRAWINGS TO REFER TO OTHER VIEWS:



FRAMING ELEVATION SYMBOL

DETAIL REFERENCE SYMBOL

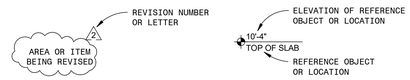


OVERALL SECTION SYMBOL

PARTIAL SECTION SYMBOL

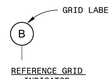
UNIVERSAL SYMBOLS

THESE FOLLOWING SYMBOLS MAY BE USED THROUGHOUT THE DRAWINGS:



REVISION CLOUD SYMBOL

ELEVATION DESIGNATION SYMBOL



REFERENCE GRID INDICATOR SYMBOL

WORK POINT SYMBOL

FLAT FACE BREAK MARK

CURVED FACE BREAK MARK

LINE BREAK MARK

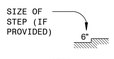
PLAN SYMBOLS

THE FOLLOWING SYMBOLS MAY BE USED THROUGHOUT THE PLANS.

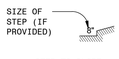
SLOPE TRANSITION INDICATOR SYMBOL

RAMP SLOPE INDICATOR SYMBOL

SLOPE PITCH INDICATOR SYMBOL



STEP INDICATOR SYMBOL

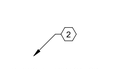


STEP TO SLOPE INDICATOR SYMBOL

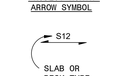
RIDGE INDICATOR SYMBOL

PROJECT NORTH ARROW SYMBOL

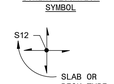
BORING LOCATION SYMBOL



KEYNOTE INDICATOR SYMBOL



SLAB OR DECK TYPE (IF PROVIDED) ONE-WAY SLAB OR DECK SPAN INDICATOR SYMBOL

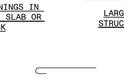


TWO-WAY SLAB SPAN INDICATOR SYMBOL

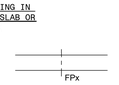
SMALL OPENINGS IN STRUCTURAL SLAB OR DECK

LARGE OPENING IN STRUCTURAL SLAB OR DECK

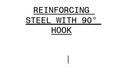
REINFORCING STEEL WITH 90° HOOK



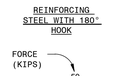
REINFORCING STEEL WITH 180° HOOK



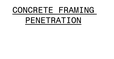
CONCRETE FRAMING PENETRATION



STEEL FRAMING PENETRATION

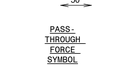


PASS-THROUGH FORCE SYMBOL

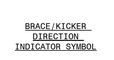


BRACE/KICKER DIRECTION INDICATOR SYMBOL

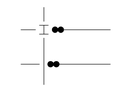
CONNECTION WITH PASS THROUGH FORCE



MOMENT CONNECTION (NON-SEISMIC)



CONNECTION TO CONCRETE WITH EMBEDDED PLATE



CONNECTION WITH TWO COLUMNS OF BOLTS

CONNECTION WITH DOUBLE SHEAR PLATE

CONNECTION WITH FULL-DEPTH SHEAR PLATE

CONNECTION WITH GUSSET AND WELDED FLANGES

CONNECTION WITH GUSSET

SPECIAL CONNECTION (TYPE X)

CONNECTION WITH WELDED TOP FLANGE

BEAM SPLICE CONNECTION (SHEAR ONLY)

MOMENT CONNECTION (SEISMIC)

MECHANICAL UNIT OR OTHER EQUIPMENT

STRUCTURAL ELEMENTS TAGS

THE FOLLOWING STRUCTURAL ELEMENT TAGS, USED IN CONJUNCTION WITH SCHEDULES, MAY APPEAR ON THE DRAWINGS:

- Bxx DENOTES SLAB BOTTOM REINFORCEMENT TYPE "xx"
- BMxx DENOTES CONCRETE BEAM TYPE "xx"
- BPxx DENOTES BASE PLATE TYPE "xx"
- Cxx DENOTES COLUMN TYPE "xx"
- CFxx DENOTES CONTINUOUS FOOTING TYPE "xx"
- DPxx DENOTES DRILLED PIER TYPE "xx"
- EPxx DENOTES EMBEDDED PLATE TYPE "xx"
- Fxx DENOTES SPREAD FOOTING TYPE "xx"
- FPxx DENOTES FRAMING PENETRATION TYPE "xx"
- GBxx DENOTES GRADE BEAM TYPE "xx"
- MNxx DENOTES CMU WALL TYPE "xx"
- Pxx DENOTES PIER TYPE "xx"
- PCxx DENOTES PILE OR PIER CAP TYPE "xx"
- Sxx DENOTES ONE-WAY SLAB TYPE "xx"
- SRxx DENOTES HEADED SHEAR STUD REINFORCEMENT TYPE "xx"
- SFxx DENOTES STRIP FOOTING TYPE "xx"
- Txx DENOTES SLAB TOP REINFORCEMENT TYPE "xx"
- WFxx DENOTES WALL FOOTING TYPE "xx"

ABBREVIATIONS

THE FOLLOWING ABBREVIATIONS MAY BE USED IN THE DRAWINGS:

@	AT
&	AND
#	NUMBER
ø	ROUND, DIAMETER
ADDL	ADDITIONAL
AESS	ARCHITECTURAL EXPOSED STRUCTURAL STEEL
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
ALT	ALTERNATE
APPROX	APPROXIMATE
AR	ANCHOR ROD
ARCH	ARCHITECTURAL
BC	BOTTOM OF COLUMN
BF	BRACED FRAME
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BO	BOTTOM OF
BOD	BOTTOM OF DECK
BOT	BOTTOM
BRDG	BRIDGING
BRG	BEARING
BTWN	BETWEEN
C	CAMBER
CANTIL	CANTILEVER
CFSF	COLD-FORMED STEEL FRAMING
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION/CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION
CL	CENTERLINE
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS
COORD	COORDINATE
COV	COVER
CTRS	CENTERS
db	BAR DIAMETER
DBA	DEFORMED BAR ANCHOR
DCW	DEMAND CRITICAL WELD
DET	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DWG	DRAWING
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL	ELEVATION
ELEV	ELEVATOR
EMBED	EMBEDMENT, EMBEDDED
EN	EDGE NAIL
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
EW	EACH WAY
(E)	EXISTING
EXP	EXPANSION
EXT	EXTERIOR
FAB	FABRICATE
f'c=	28 DAY CONCRETE STRENGTH=
f'm=	28 DAY MASONRY STRENGTH=
FD	FLOOR DRAIN
FDTN	FOUNDATION
FF	FAR FACE
FIN	FINISH(ED)
FLR	FLOOR
FS	FAR SIDE
FTG	FOOTING
FUT	FUTURE
FV	FIELD VERIFY
Fy=	YIELD STRENGTH=
GALV	GALVANIZE(D)
GEN	GENERAL
GLB	GLULAM BEAM
GR	GRADE
H	HORIZONTAL REACTION
HGR	HANGER
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
HSS	HOLLOW STRUCTURAL SECTION
ID	INSIDE DIAMETER
INFO	INFORMATION
INT	INTERIOR
JST	JOIST
JT	JOINT
K	KIPS (1000 LBS)
KSF	KIPS PER SQUARE FOOT
KSI	KIPS PER SQUARE INCH
LBS	POUNDS
Ld	DEVELOPMENT LENGTH
LLBB	LONG LEG BACK TO BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
LSH	LONG SIDE HORIZONTAL
LSLP	LONG-SLOTTED HOLE PARALLEL
LSLT	LONG-SLOTTED HOLE TRANSVERSE
LSV	LONG SIDE VERTICAL
LWC	LIGHTWEIGHT CONCRETE
M	MOMENT
MAS	MASONRY
MAX	MAXIMUM
MC	MOMENT CONNECTION
MECH	MECHANICAL
MEZZ	MEZZANINE
MFR	MANUFACTURER
MH	HORIZONTAL MOMENT
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
NF	NEAR FACE
NIC	NOT IN CONTRACT
NS	NEAR SIDE
NTS	NOT TO SCALE
NWC	NORMALWEIGHT CONCRETE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OVS	OVERSIZED HOLE
P	AXIAL LOAD
PAF	POWDER ACTUATED FASTENER
PAR	PARALLEL
PCC	PRECAST CONCRETE
PCF	POUNDS PER CUBIC FOOT
PCY	POUNDS PER CUBIC YARD
PERP	PERPENDICULAR
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PJP	PARTIAL JOINT PENETRATION
PRELIM	PRELIMINARY
PROP	PROPERTY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POST-TENSION(ED)
PWD	PLYWOOD
QTY	QUANTITY
R	REACTION
RAD	RADIUS
REF	REFERENCE
REINF	REINFORCEMENT
REM	REMAINDER
REQD	REQUIRED
REV	REVISION
RTU	ROOF TOP UNIT
SAD	SEE ARCHITECTURAL DRAWINGS
SC	SLIP CRITICAL
SCD	SEE CIVIL DRAWINGS
SCHED	SCHEDULE(D)
SDS	SELF-DRILLING SCREW
SECT	SECTION
SED	SEE ELECTRICAL DRAWINGS
SHT	SHEET
SIM	SIMILAR
SLBB	SHORT LEG BACK TO BACK
SLRS	SEISMIC LOAD RESISTING SYSTEM
SMD	SEE MECHANICAL DRAWINGS
SOG	SLAB-ON-GRADE
SPA	SPACING
SPEC	SPECIFICATION
SPRT	SUPPORT
SQ	SQUARE
SS	STAINLESS STEEL
SSLP	SHORT-SLOTTED HOLE PARALLEL
SSLT	SHORT-SLOTTED HOLE TRANSVERSE
STD	STANDARD
STIF	STIFFENER
STIR	STIRRUP
STL	STEEL
STRUCT	STRUCTURE, STRUCTURAL
SW	SHEAR WALL
SYMM	SYMMETRIC, SYMMETRICAL
T	TORSION
TC	TOP OF COLUMN
THD	THREADED
TO	TOP OF
TOC	TOP OF CONCRETE
TOM	TOP OF MASONRY
TOS	TOP OF STEEL, TOP OF SLAB
TRANS	TRANSVERSE
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
WF	WIDE FLANGE
WP	WORK POINT
WS	WATERSTOP
WT	WEIGHT
WWR	WELDED WIRE REINFORCEMENT
XS	EXTRA STRONG
XXS	DOUBLE EXTRA STRONG

FOUNDATION ANNOTATION STYLES

THE FOLLOWING STRUCTURAL ANNOTATIONS MAY APPEAR ON THE FOUNDATION PLANS:

CONCRETE ANNOTATION STYLES

THE FOLLOWING STRUCTURAL ANNOTATIONS MAY APPEAR ON THE CONCRETE FRAMING PLANS

STEEL ANNOTATION STYLES

THE FOLLOWING STRUCTURAL ANNOTATIONS MAY APPEAR ON THE STEEL FRAMING PLANS. ALL LOADS INDICATED ARE FACTORED:

NON-COMPOSITE BEAM

WOOD ANNOTATION STYLES

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

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SYMBOLS & ABBREVIATIONS

SHEET NUMBER

S0.03.2

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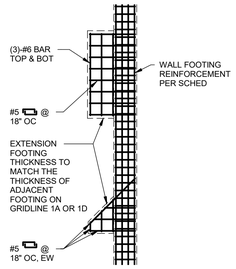
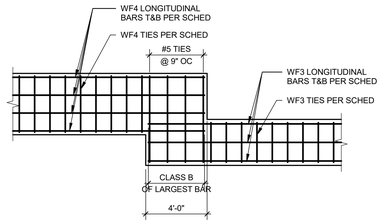
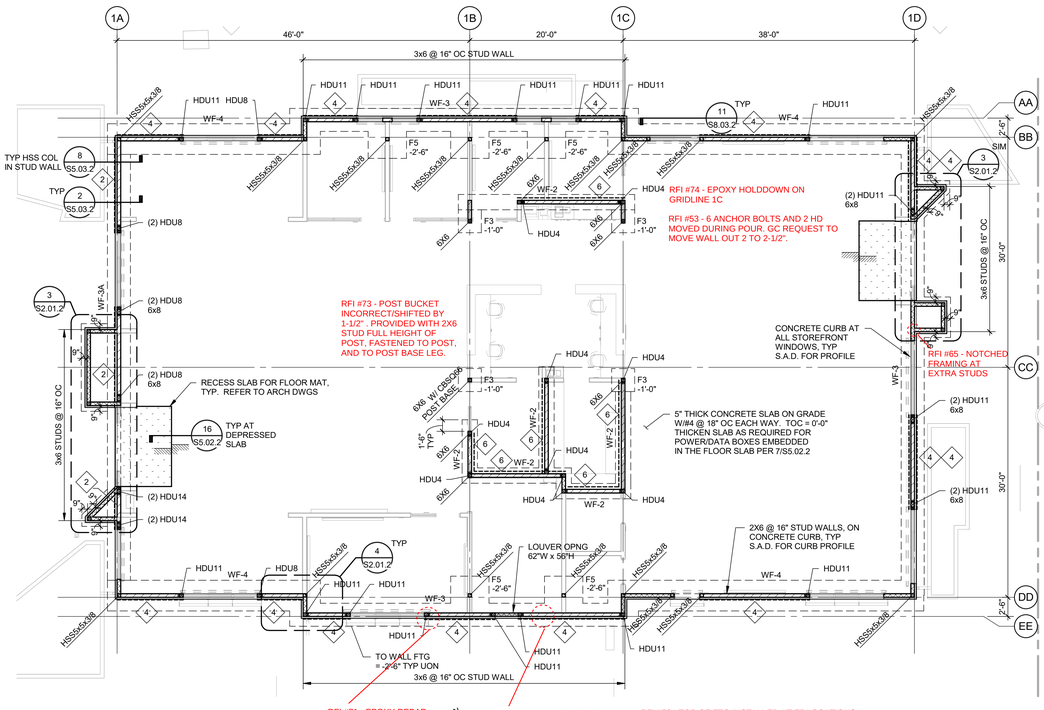


3 FOUNDATION DETAIL
1/8" = 1'-0"



4 WF-3 AND WF-4 INTERSECTION TYP DETAIL
1/4" = 1'-0"

FOUNDATION NOTES:
1. SEE SHEETS S0.01-S0.03 FOR GENERAL STRUCTURAL NOTES, FOUNDATION DESIGN CRITERIA, AND DEFINITION OF SYMBOLS AND NOTATIONS.
2. SEE TYPICAL CONCRETE DETAILS ON SHEETS S5.01,2-S5.03.2.
3. FOUNDATION PLAN IS TAKEN ABOVE SLAB-ON-GRADE. TOP OF SLAB ELEVATION IS NOTED ON PLAN. REFER TO CIVIL FOR DATUM ELEVATION. TOP OF CONCRETE ELEVATIONS WITH RESPECT TO THE SLAB REFERENCE ELEVATION ARE SHOWN THUS: (-0" - 2").
4. ELEVATIONS OF TOP OF FOOTINGS WITH RESPECT TO SLAB REFERENCE ELEVATIONS ARE SHOWN THUS: -3'-0".
5. EXCAVATIONS SHALL BE MADE AS NEAR AS POSSIBLE TO THE NEAT LINES REQUIRED BY THE SIZE AND SHAPE OF THE FOUNDATION. NO MATERIAL IS TO BE EXCAVATED UNNECESSARILY.
6. ALL FOUNDATION EXCAVATIONS MUST BE REVIEWED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF CONCRETE.
7. VERIFY THE LOCATION OF UNDERGROUND UTILITIES BEFORE EXCAVATION AND NOTIFY THE ARCHITECT OF UNANTICIPATED UTILITY LINES PRIOR TO EXCAVATION.
8. FOR DRAINAGE DETAILS, SUMPS, MOISTURE PROTECTION, TRENCHES, CURBS, EXTERIOR FLATWORK CONCRETE, STEPS, UTILITIES, EQUIPMENT DETAILS, ETC., SEE DRAWINGS OTHER THAN STRUCTURAL.
9. MARKS "FS" DENOTE FOOTING TYPE. SEE FOOTING SCHEDULE ON SHEET S5.03.2.
10. MARKS "WF-1" DENOTE WALL FOOTING TYPE. SEE WALL FOOTING SCHEDULE ON SHEET S5.03.2.
11. SLAB CONSTRUCTION AND CONTROL JOINT LOCATIONS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO PLACING CONCRETE.
12. FOR TYPICAL WOOD FRAMING DETAILS SEE SHEETS S8.01.2 THROUGH S8.04.2.
13. SILL BOLTS ARE REQUIRED AT ALL STUD WALLS SHOWN ON THE STRUCTURAL DRAWINGS. SEE DETAILS ON SHEET S8.02.2.
14. ALL EXTERIOR WALLS SHALL HAVE 15/32" PLYWOOD SHEATHING ON EXTERIOR FACE OF STUDS UNO. SEE SHEAR WALL SCHEDULE ON SHEET S8.03.2 FOR PLYWOOD NAILING, SOLE PLATE NAILING AND SHEAR CLIPS.
15. MARKS DENOTE PLYWOOD SHEAR WALLS WITH SHEATHING ON SIDE(S) OF WALL NOTED. SEE SHEAR WALL SCHEDULE ON SHEET S8.03.2.
16. HOLDOWNS ARE DENOTED THUS ON PLAN: "HDU#". SEE HOLDOWN DETAILS ON SHEET S8.03.2.
17. STRUCTURAL STUD WALLS SHOWN SHALL BE 2X6 STUDS AT 16" ON CENTER TYPICAL UNO. FOR TYPICAL FRAMING OF STRUCTUAL STUD WALLS SEE TYPICAL DETAILS ON SHEET S8.02.2.
18. FOR ALL OPENING SIZES AND LOCATIONS THROUGH STRUCTURAL WALLS (WINDOWS, DOORS, ETC.), SEE ARCHITECTURAL DRAWINGS.



1 FOUNDATION PLAN
1/8" = 1'-0"

2 MECHANICAL PLATFORM FRAMING PLAN
1/8" = 1'-0"

APPROVALS

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FOUNDATION PLAN

SHEET NUMBER
S2.01.2

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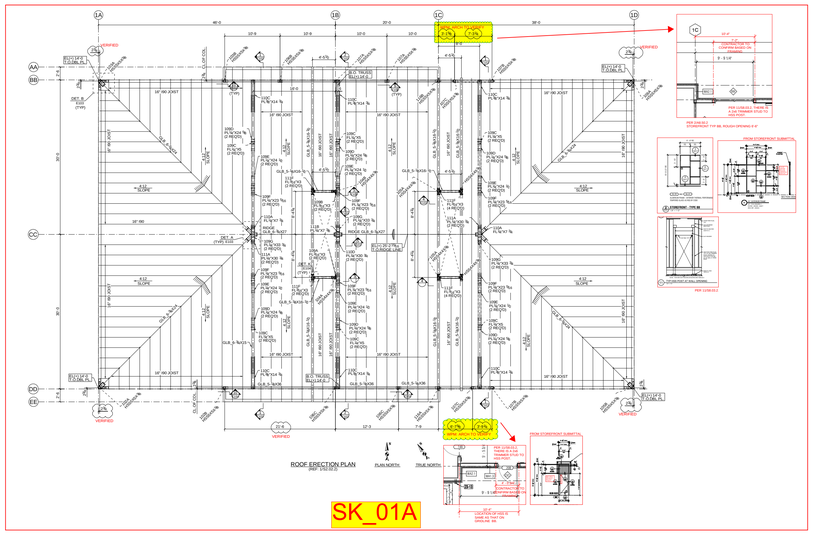
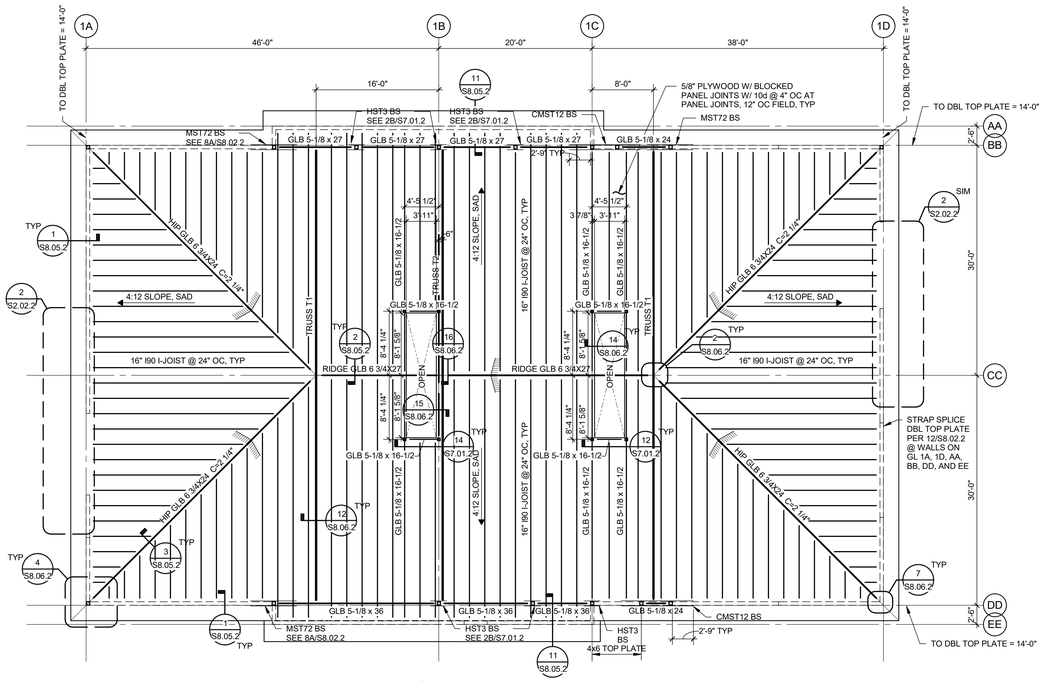
ROOF FRAMING NOTES:

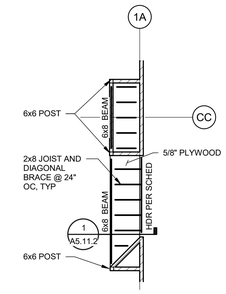
1. SEE GENERAL STRUCTURAL NOTES AND SYMBOLS ON SHEETS S0.01-S0.03. SEE TYPICAL WOOD FRAME DETAILS ON SHEETS S8.01.2, S8.02.2 AND S8.03.2.
2. NOMINAL ROOF TOP OF PLYWOOD ELEVATION VARIES AND IS CALLED OUT ON PLAN RELATIVE TO THE FIRST FLOOR SLAB.
3. MARKS "GLB 5-1/8 x 12 C=X" " DENOTE GLULAM BEAMS WITH CAMBER. CAMBER MEASUREMENT IS UP AT MIDSPAN IN THE UNSTRESSED CONDITION.
4. MARKS "16" I90 I-JOIST" DENOTE WOOD I-JOISTS. SEE I-JOIST SCHEDULE AND TYPICAL I-JOIST DETAILS ON SHEET S8.04.2 AND S8.05.2.
5. OPENING INFORMATION ON THE STRUCTURAL ROOF FRAMING PLAN IS NOT COMPLETE AS TO NUMBER, SIZE, AND LOCATION. FOR COMPLETE INFORMATION ON OPENINGS FOR ROOF DRAINS, VENTS, SKYLIGHTS, DUCTS, ETC. SEE ARCHITECTURAL AND MEP DRAWINGS.
6. FOR DRAINAGE SLOPES, GUTTERS, CRICKETS, FASCIA DETAILS, ETC. SEE ARCHITECTURAL DRAWINGS.
7. FOR SIZES AND LOCATIONS OF MECHANICAL EQUIPMENT AND DUCT OPENINGS, SEE MECHANICAL DRAWINGS. CONTRACTOR SHALL COORDINATE THE LOCATIONS OF EQUIPMENT SUPPORT FRAMING WITH EQUIPMENT SPECIFICATIONS.
8. FOR TYPICAL WOOD POST DETAILS SEE SHEET S8.02.2.
   FOR HOLDOWN POSTS SEE DETAILS 14/S8.03.2.
9. WHERE METAL FRAMING CONNECTORS ARE DENOTED, "SIMPSON" CONNECTORS ARE SPECIFIED.
10. NONLOAD BEARING PARTITION WALLS SHOWN ON PLAN ARE FOR REFERENCE ONLY. SEE ARCHITECTURAL DRAWINGS FOR PARTITION WALL INFORMATION.
11. TAPERED BEAM DEPTH CALLED OUT IS BEAM DEPTH AT RIDGE.
12. FOR JOIST HANGERS, SEE SCHEDULE ON SHEET S8.02.2.

RFI #40-
SEE RFI#40 FOR ADDITIONAL INFORMATION





1 ROOF PLAN
1/8" = 1'-0"



2 ENTRY FRAMING PLAN
1/8" = 1'-0"

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ROOF FRAMING PLAN

SHEET NUMBER

S2.02.2

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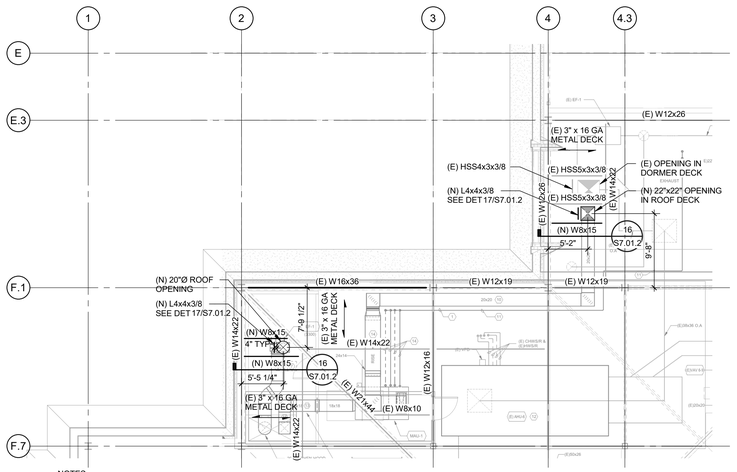

NOTES:
1. INSTALL NEW FRAMING PRIOR TO CUTTING NEW DECK OPENING.
2. WHERE NEW BEAMS FRAME OPENING PARALLEL TO DECK RIBS LOCATE BEAMS UNDER TROUGH OF DECK NEAREST OPENING.

1 ROOF PLAN - WEST

1/8" = 1'-0"

APPROVALS

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ROOF PLAN - WEST

SHEET NUMBER

S2.40.2

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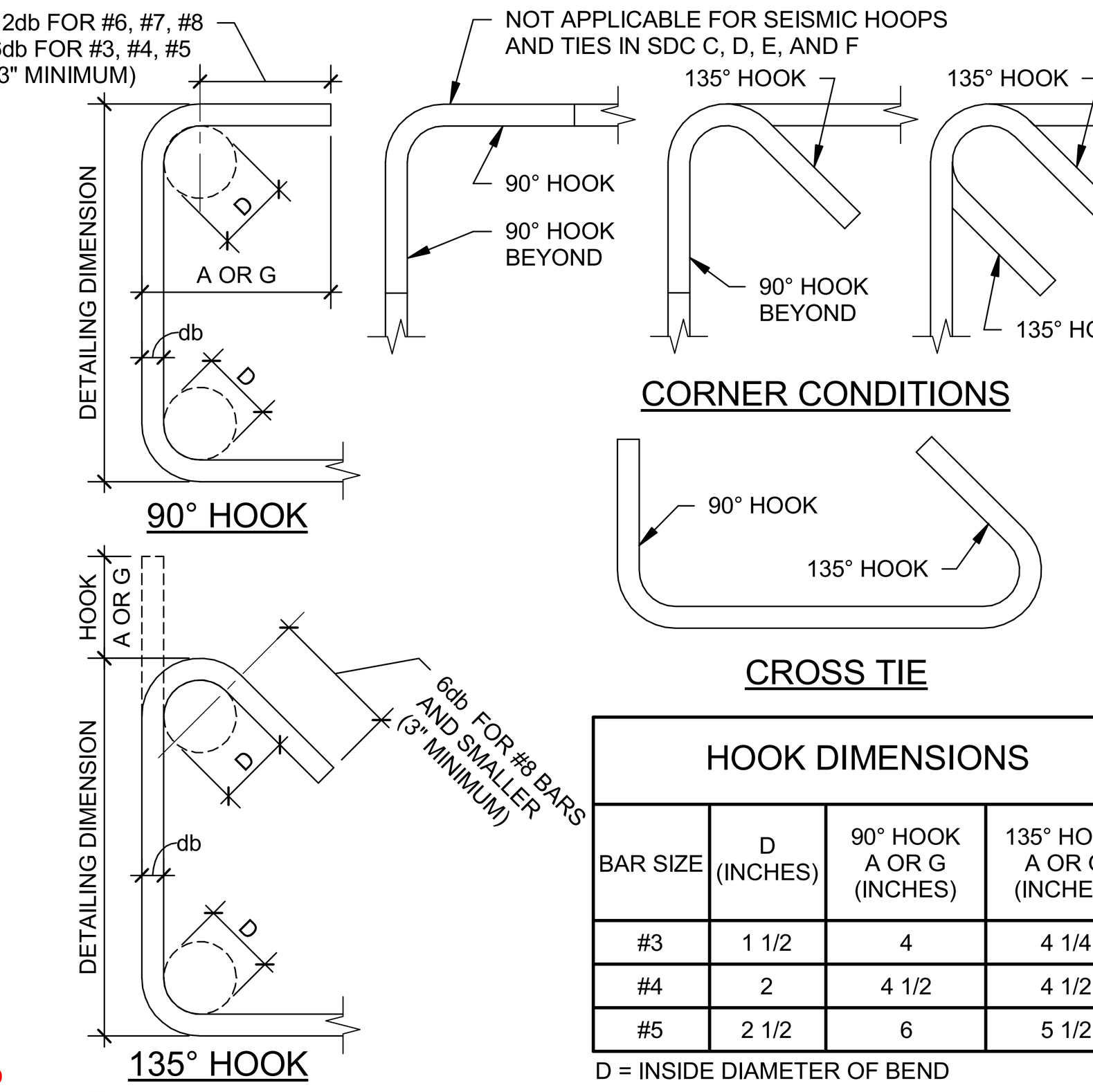
4 CLASSES OF CONCRETE MATRIX
NO SCALE

CLASSES OF CONCRETE MATRIX							
CONCRETE USAGE	MINIMUM COMPRESSIVE STRENGTH (f'c)	CONCRETE TYPE	EXPOSURE CLASSES	MAXIMUM W/ CM RATIO	PERMISSIBLE AIR CONTENT	REQUIRED CEMENT REPLACEMENT	MAXIMUM AGGREGATE SIZE
FOUNDATIONS							
ALL FOOTINGS	4,000 PSI AT 28 DAYS	NWC	-	N/A	N/A	15-25%	1-1/2"
SLABS-ON-GRADE							
BUILDING SLABS-ON-GRADE, CURBS, HOUSEKEEPING PADS	3,000 PSI AT 28 DAYS	NWC	-	0.45	N/A	15-25%	3/4"

NOTES:
1. ALL CONCRETE SHALL BE CONSIDERED TO BE IN EXPOSURE CLASS F0, S0, P0, AND C0 ACCORDING TO ACI 318-14 UNLESS NOTED OTHERWISE IN TABLE ABOVE, IN NOTES BELOW, OR ELSEWHERE ON THE STRUCTURAL DRAWINGS.
2. CONCRETE NOTED ABOVE OR ON PLAN TO BE IN EXPOSURE CLASSES F1, F2, F3, S1, S2, S3, P1, C1, OR C2 SHALL BE PROPORTIONED TO COMPLY WITH ACI 318-14 TABLES 19.3.2.1, 19.3.3.1, AND 26.4.2.2b IN ADDITION TO THE NOTATIONS IN THE TABLE ABOVE AND THE STRICTER REQUIREMENTS SHALL GOVERN. REFER TO THE SPECIFICATIONS FOR OTHER REQUIREMENTS FOR VARIOUS EXPOSURE CLASSES RELATIVE TO CEMENT TYPE, AIR ENTRAINMENT REQUIREMENTS, CHLORIDE ION LIMITS, AND POZZOLAN LIMITS.
3. WHERE INDICATED IN THE "ADDITIONAL REMARKS" COLUMN OF THE TABLE ABOVE, CONCRETE SHALL BE PROPORTIONED FOR A MAXIMUM ALLOWABLE UNIT SHRINKAGE OF 0.035% MEASURED AT 28 DAYS AFTER CURING IN LIME WATER AS DETERMINED BY ASTM C157, USING AIR STORAGE.

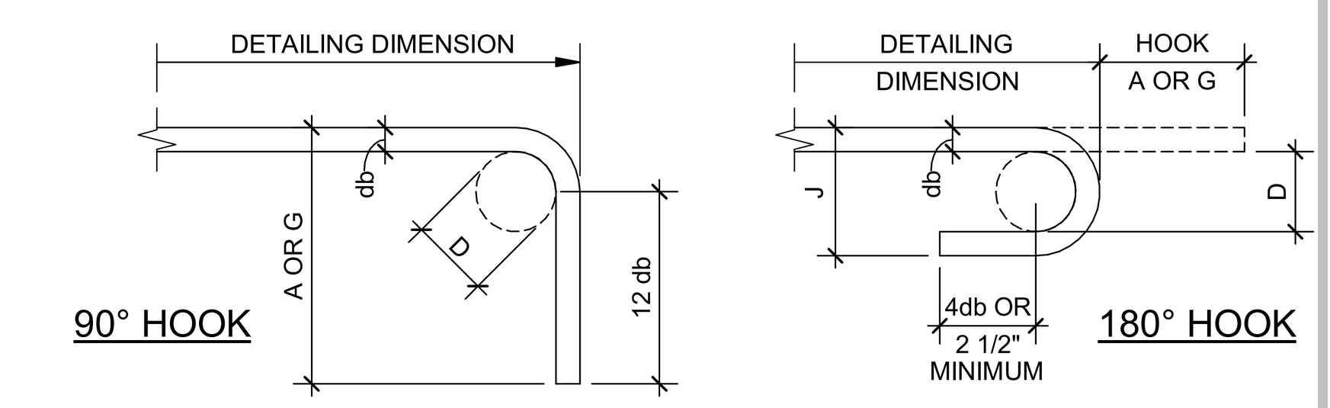
RFI #16 - GC REQUEST CHANGING REBAR TIES FROM SINGLE TO TWO WAY. SINGLE CLOSED HOOP TIE TO TWO-PIECE ACCEPTABLE. PLACEMENT OF 90 DEGREE HOOK ON TOP PIECE ALTERNATE ONE TIE TO NEXT.



HOOK DIMENSIONS			
BAR SIZE	D (INCHES)	90° HOOK A OR G (INCHES)	135° HOOK A OR G (INCHES)
#3	1 1/2	4	4 1/4
#4	2	4 1/2	4 1/2
#5	2 1/2	6	5 1/2

D = INSIDE DIAMETER OF BEND

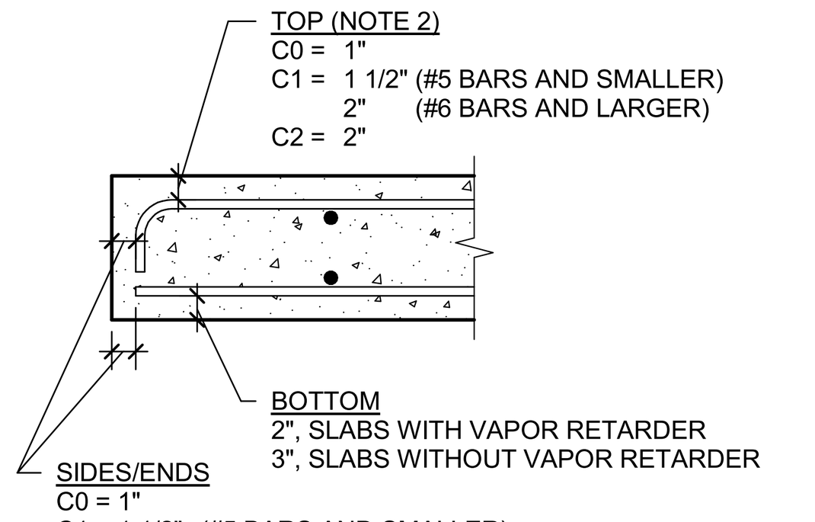
2 TYPICAL STIRRUP, HOOP, AND TIE HOOKS
NO SCALE



END HOOK DIMENSIONS				
BAR SIZE	FINISHED BEND DIAMETER D, (INCHES)	180° HOOKS		90° HOOK
		A OR G, (INCHES)	J, (INCHES)	A OR G, (INCHES)
#3	2 1/4	5	3	6
#4	3	6	4	8
#5	3 3/4	7	5	10
#6	4 1/2	8	6	12
#7	5 1/4	10	7	14
#8	6	11	8	16
#9	9 1/2	15	11 3/4	19
#10	10 3/4	17	13 1/4	22
#11	12	19	14 3/4	24
#14	18 1/4	27	21 3/4	31
#18	24	36	28 1/2	41

D = INSIDE DIAMETER OF BEND

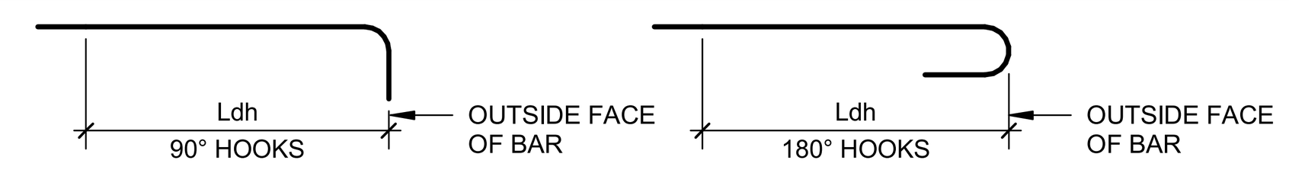
1 TYPICAL END HOOK TYPES
NO SCALE



NOTES:
1. CONCRETE PROFILES AND REINFORCING STEEL CONFIGURATIONS ARE SCHEMATIC AND ARE PROVIDED FOR ESTABLISHING TYPICAL CLEAR CONCRETE COVERS ONLY. REFER TO STRUCTURAL PLANS AND DETAILS FOR ALL OTHER INFORMATION.
2. ALL COVERS SHOWN ARE CLEAR FROM THE OUTERMOST SURFACE OF REINFORCING STEEL TO THE CLOSEST OUTER SURFACE OF THE CONCRETE, INCLUDING REVEALS, DRIP GROOVES, OR RUSTICATIONS.
3. WHERE COVERS ARE DIFFERENT AS A FUNCTION OF BAR SIZE, DETAILER SHALL ADJUST LOCATION OF TRANSVERSE REINFORCING STEEL AS REQUIRED SUCH THAT CLEAR COVERS ARE MET FOR BOTH TRANSVERSE AND LONGITUDINAL STEEL.
4. C0, C1, AND C2 REFER TO THE CORROSION EXPOSURE CLASS OF THE CONCRETE ELEMENT. REFER TO THE CLASSES OF CONCRETE MATRIX AND GENERAL NOTES FOR ADDITIONAL INFORMATION.
5. REFER TO "TYPICAL CONSTRUCTION AND CONTROL JOINTS IN SLAB-ON-GRADE" FOR MORE STRINGENT TOP COVER REQUIREMENTS FOR SLABS-ON-GRADE WITH CONSTRUCTION OR CONTROL JOINTS.

9 TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL IN SLABS-ON-GRADE
NO SCALE

DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION — GRADE 60 REINFORCEMENT, NORMALWEIGHT CONCRETE													
BAR SIZE	f'c=3000 PSI		f'c=4000 PSI		f'c=5000 PSI								BAR SIZE
	Lhb	0.7 Lhb	Lhb	0.7 Lhb	Lhb	0.7 Lhb							
#3	9	7	8	6	7	6							#3
#4	11	8	10	7	9	7							#4
#5	14	10	12	9	11	8							#5
#6	17	12	15	11	13	10							#6
#7	20	14	17	12	15	11							#7
#8	22	16	19	14	17	12							#8
#9	25	18	22	16	20	14							#9
#10	28	20	25	18	22	16							#10
#11	31	22	27	19	24	17							#11
#14	38	-	33	-	29	-							#14
#18	50	-	43	-	39	-							#18



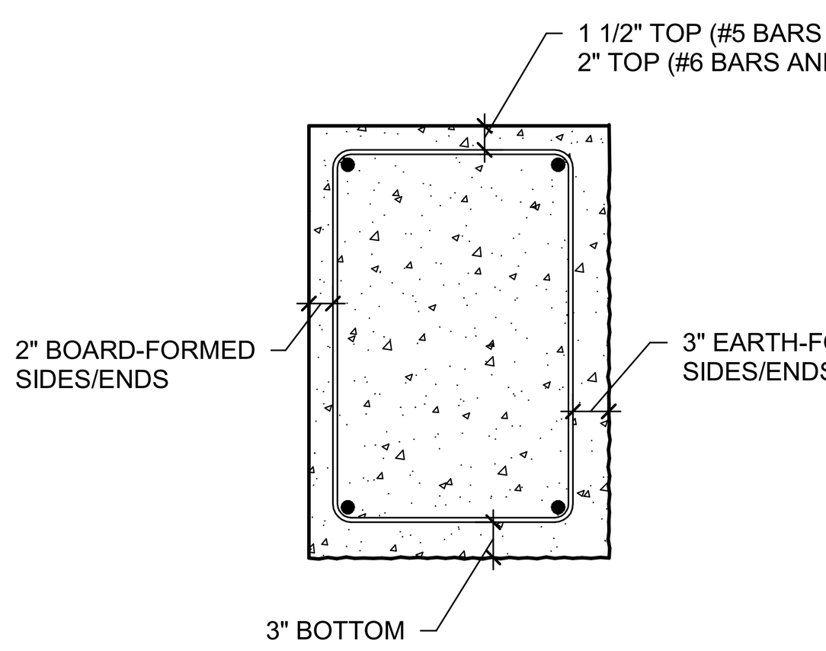
NOTES:
1. Ldh = DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION (INCHES).
2. Ldh = Lhb UNLESS CONDITIONS OF NOTE 3 ARE SATISFIED.
3. Ldh = 0.7Lhb FOR #11 BARS AND SMALLER WHEN SIDE COVER (NORMAL TO PLANE OF HOOK) IS NOT LESS THAN 2 1/2 INCHES AND FOR 90° HOOKS COVER ON BAR EXTENSION BEYOND HOOK IS NOT LESS THAN 2 INCHES.
4. HOOKS ARE NOT CONSIDERED EFFECTIVE FOR DEVELOPING BARS IN COMPRESSION.

8 TYPICAL DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION
NO SCALE

SLAB TENSION DEVELOPMENT AND LAP SPLICE LENGTHS — GRADE 60 REINFORCEMENT, NORMALWEIGHT CONCRETE							
BAR SIZE	LAP CLASS	f'c = 3000 PSI		f'c = 4000 PSI		f'c = 5000 PSI	
		BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS
#3	A	12	13	12	12	12	12
	B	16	17	16	16	16	16
#4	A	17	22	15	19	13	17
	B	23	29	20	25	17	23
#5	A	25	32	21	28	19	25
	B	33	42	28	37	25	33
#6	A	33	43	29	37	26	34
	B	43	56	38	49	34	45
#7	A	53	69	46	60	42	54
	B	69	90	60	78	55	71
#8	A	66	86	57	74	51	67
	B	86	112	75	97	67	88
#9	A	80	104	69	90	62	81
	B	104	136	90	117	81	106
#10	A	96	125	83	108	75	97
	B	125	163	108	141	98	127
#11	A	113	146	98	127	87	114
	B	147	190	128	166	114	149

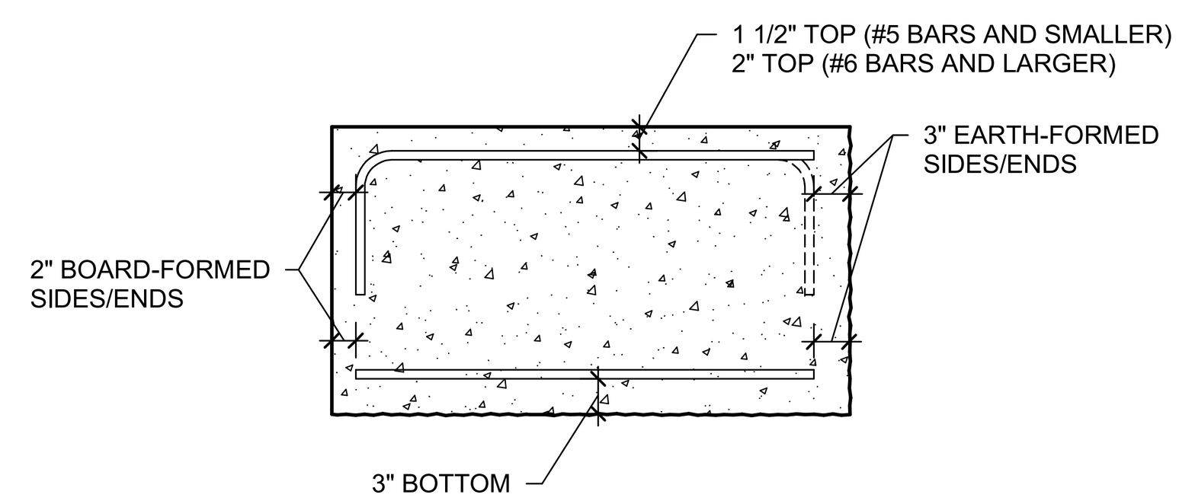
NOTES:
1. ALL SPLICE LENGTHS ARE IN INCHES.
2. THIS TABLE SHALL BE USED FOR SLABS ONLY. REFER TO OTHER DEVELOPMENT LENGTH TABLES FOR OTHER MEMBERS.
3. THE TENSION DEVELOPMENT LENGTH (Ld) IS EQUAL TO THE SCHEDULED "CLASS A" LAP SPLICE LENGTH.
4. A BOTTOM BAR IS DEFINED AS ANY BAR THAT DOES NOT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR.
5. OTHER BARS INCLUDE TOP BARS AND ALL OTHER BARS THAT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR. FOR TOP REINFORCEMENT IN SLABS THAT ARE 12" THICK OR LESS, TABULATED SPLICE LENGTHS FOR BOTTOM BARS SHALL BE USED.
6. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR BUT MAY NOT BE LESS THAN THE "CLASS A" SPLICE LENGTH OF THE LARGER BAR.
7. FOR CONCRETE STRENGTHS IN BETWEEN THOSE TABULATED HERE, USE DEVELOPMENT AND LAP SPLICE LENGTHS OF LOWER CONCRETE STRENGTH.

7 TYPICAL SLAB TENSION DEVELOPMENT AND LAP SPLICE LENGTHS
NO SCALE



NOTES:
1. CONCRETE PROFILES AND REINFORCING STEEL CONFIGURATIONS ARE SCHEMATIC AND ARE PROVIDED FOR ESTABLISHING TYPICAL CLEAR CONCRETE COVERS ONLY. REFER TO STRUCTURAL PLANS AND DETAILS FOR ALL OTHER INFORMATION.
2. ALL COVERS SHOWN ARE CLEAR FROM THE OUTERMOST SURFACE OF REINFORCING STEEL TO THE CLOSEST OUTER SURFACE OF THE CONCRETE, INCLUDING REVEALS, DRIP GROOVES, OR RUSTICATIONS.
3. WHERE COVERS ARE DIFFERENT AS A FUNCTION OF BAR SIZE, DETAILER SHALL ADJUST LOCATION OF TRANSVERSE REINFORCING STEEL AS REQUIRED SUCH THAT CLEAR COVERS ARE MET FOR BOTH TRANSVERSE AND LONGITUDINAL STEEL.
4. C0, C1, AND C2 REFER TO THE CORROSION EXPOSURE CLASS OF THE CONCRETE ELEMENT. REFER TO THE CLASSES OF CONCRETE MATRIX AND GENERAL NOTES FOR ADDITIONAL INFORMATION.

14 TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL IN GRADE BEAMS
NO SCALE



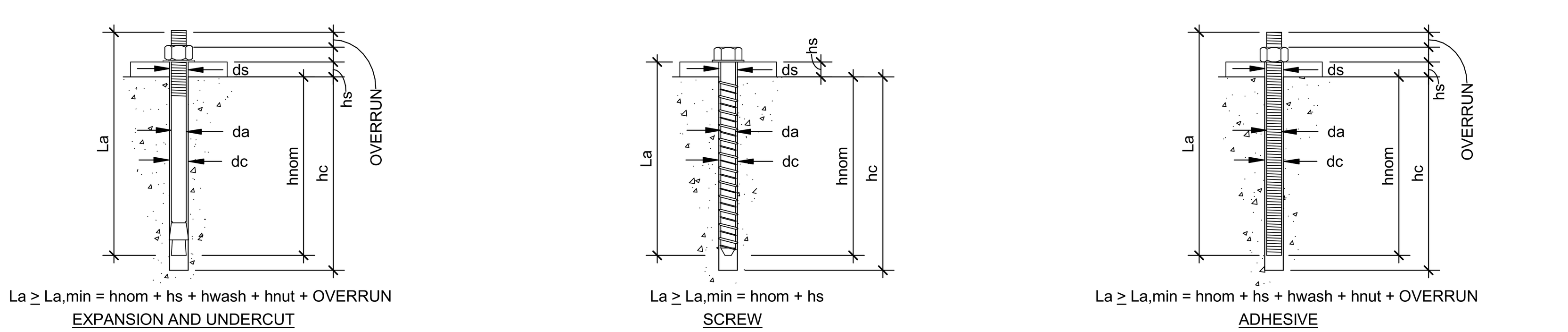
NOTES:
1. CONCRETE PROFILES AND REINFORCING STEEL CONFIGURATIONS ARE SCHEMATIC AND ARE PROVIDED FOR ESTABLISHING TYPICAL CLEAR CONCRETE COVERS ONLY. REFER TO STRUCTURAL PLANS AND DETAILS FOR ALL OTHER INFORMATION.
2. ALL COVERS SHOWN ARE CLEAR FROM THE OUTERMOST SURFACE OF REINFORCING STEEL TO THE CLOSEST OUTER SURFACE OF THE CONCRETE, INCLUDING REVEALS, DRIP GROOVES, OR RUSTICATIONS.
3. WHERE COVERS ARE DIFFERENT AS A FUNCTION OF BAR SIZE, DETAILER SHALL ADJUST LOCATION OF TRANSVERSE REINFORCING STEEL AS REQUIRED SUCH THAT CLEAR COVERS ARE MET FOR BOTH TRANSVERSE AND LONGITUDINAL STEEL.
4. C0, C1, AND C2 REFER TO THE CORROSION EXPOSURE CLASS OF THE CONCRETE ELEMENT. REFER TO THE CLASSES OF CONCRETE MATRIX AND GENERAL NOTES FOR ADDITIONAL INFORMATION.

13 TYPICAL CLEAR CONCRETE COVER FOR REINFORCING STEEL IN SPREAD FOOTINGS AND MATS
NO SCALE

FOUNDATION LAP SPLICE LENGTHS — GRADE 60 REINFORCEMENT, NORMALWEIGHT CONCRETE							
BAR SIZE	LAP CLASS	f'c = 3000 PSI		f'c = 4000 PSI		f'c = 5000 PSI	
		BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS	BOTTOM BARS	OTHER BARS
#5	A	17	22	15	19	13	17
	B	22	28	19	25	17	22
#6	A	20	26	18	23	16	20
	B	26	34	23	29	20	26
#7	A	29	38	25	33	23	29
	B	38	49	33	43	29	38
#8	A	33	43	29	37	26	34
	B	43	56	37	49	34	44
#9	A	41	54	36	46	32	42
	B	54	69	46	60	42	54
#10	A	51	66	44	57	39	51
	B	66	85	57	74	51	66
#11	A	61	79	53	68	47	61
	B	79	103	68	89	61	80

NOTES:
1. ALL SPLICE LENGTHS ARE IN INCHES.
2. THIS TABLE SHALL ONLY BE USED FOR MAT FOUNDATION LAP SPLICE LENGTHS OF BARS MEETING THE REQUIREMENTS IN NOTES 3 THROUGH 5. REFER TO "TYPICAL SLAB TENSION DEVELOPMENT AND LAP SPLICE LENGTHS" FOR OTHER CONDITIONS AND FOR MAT FOUNDATION TENSION DEVELOPMENT LENGTHS. REFER TO OTHER DEVELOPMENT LENGTH TABLES FOR OTHER MEMBERS.
3. CENTER TO CENTER SPACING OF BARS SHALL NOT BE LESS THAN 4".
4. WHERE BAR SPACING IS LESS THAN 8", LAP SPLICES AT ALL LOCATIONS SHALL BE STAGGERED. REFER TO "TYPICAL CONCRETE MAT REINFORCEMENT STAGGERED STEEL LAP SPLICE".
5. CONCRETE COVER TO THE SPLICED BARS SHALL NOT BE LESS THAN 2" (CLEAR).
6. A BOTTOM BAR IS DEFINED AS ANY BAR THAT DOES NOT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR.
7. OTHER BARS INCLUDE TOP BARS AND ALL OTHER BARS THAT HAVE MORE THAN 12" OF FRESH CONCRETE BELOW THE BAR.
8. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR BUT MAY NOT BE LESS THAN THE "CLASS A" SPLICE LENGTH OF THE LARGER BAR.
9. FOR CONCRETE STRENGTHS IN BETWEEN THOSE TABULATED HERE, USE DEVELOPMENT AND LAP SPLICE LENGTHS OF LOWER CONCRETE STRENGTH.

12 TYPICAL FOUNDATION LAP SPLICE LENGTHS
NO SCALE



ANCHOR SIZE FOR ORDER: "da" DIAMETER x "La" ANCHOR LENGTH
DRILLED HOLE: "dc" DIAMETER x "hc" DEEP

DEFINITIONS:

da = DIAMETER OF ANCHOR (IN)
dc = DIAMETER OF HOLE IN CONCRETE = DIAMETER OF DRILL BIT (IN)
ds = DIAMETER OF HOLE IN STEEL ATTACHMENT (IN)

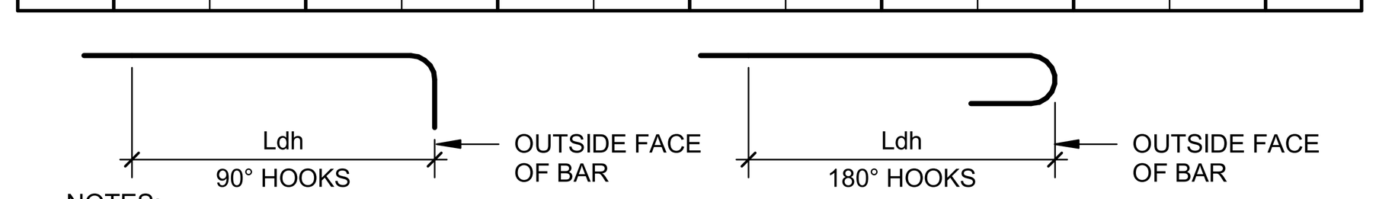
La,min = MINIMUM LENGTH OF ANCHOR (IN)
La = ORDERED LENGTH OF ANCHOR (IN)

hnom = NOMINAL EMBEDMENT DEPTH (IN)
hc = DEPTH OF HOLE IN CONCRETE (IN)
hs = THICKNESS OF STEEL ATTACHMENT (IN)
hwash = THICKNESS OF WASHER (IN)
hnut = HEIGHT OF HEX NUT (IN)
OVERRUN =1/4" UNLESS NOTED OTHERWISE

CONTRACTOR AND INSTALLER NOTES:
1. ONLY POST-INSTALLED ANCHOR PRODUCTS SPECIFIED IN THE CONTRACT DOCUMENTS SHALL BE USED WHERE SPECIFIED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL PROVIDE SIGNED AND SEALED CALCULATIONS TO THE ENGINEER OF RECORD (EOR) FOR ANCHOR PRODUCTS SUBSTITUTED FOR THOSE INDICATED IN THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE EOR PRIOR TO USING POST-INSTALLED ANCHORS FOR MISSING OR MISPLACED CAST-IN ANCHORS AND REINFORCEMENT.
2. ANCHOR LENGTHS SPECIFIED IN THE CONTRACT DOCUMENTS INDICATE THE *NOMINAL EMBEDMENT DEPTH*. REFER TO THE ANCHOR TYPE FOR THE DEFINITION OF NOMINAL EMBEDMENT DEPTH "hnom". IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE CORRECT ANCHOR LENGTH "La" FOR ORDER BASED ON THE SPECIFIED NOMINAL EMBEDMENT DEPTH, ATTACHMENT THICKNESS AND OTHER ANCHOR CHARACTERISTICS NOTED.
3. MINIMUM ANCHOR LENGTH "La,min" IS DETERMINED AS SHOWN FOR EACH ANCHOR. ORDER AND INSTALL AN ANCHOR LENGTH EQUAL TO OR GREATER THAN THIS VALUE. INSTALLED ANCHOR LENGTHS SHALL NOT HAVE NOMINAL EMBEDMENT DEPTHS THAT EXCEED THEIR CORRESPONDING MINIMUM CONCRETE THICKNESS LIMITS. REFER TO ANCHOR'S ICC-ES EVALUATION SERVICE REPORT (ESR).
4. REFER TO THE ANCHOR'S ICC-ES EVALUATION SERVICE REPORT (ESR) FOR DRILL BIT TYPE AND DIAMETER, AND DEPTH OF HOLE TO BE DRILLED IN THE CONCRETE.
5. FOLLOW THE MANUFACTURER'S PRINTED INSTALLATION INSTRUCTIONS (MPII).
6. ALL DRILLED HOLES FOR ADHESIVE ANCHORS SHALL BE WITHIN SIX DEGREES OF PERPENDICULAR TO THE SURFACE OF THE CONCRETE MEMBER.

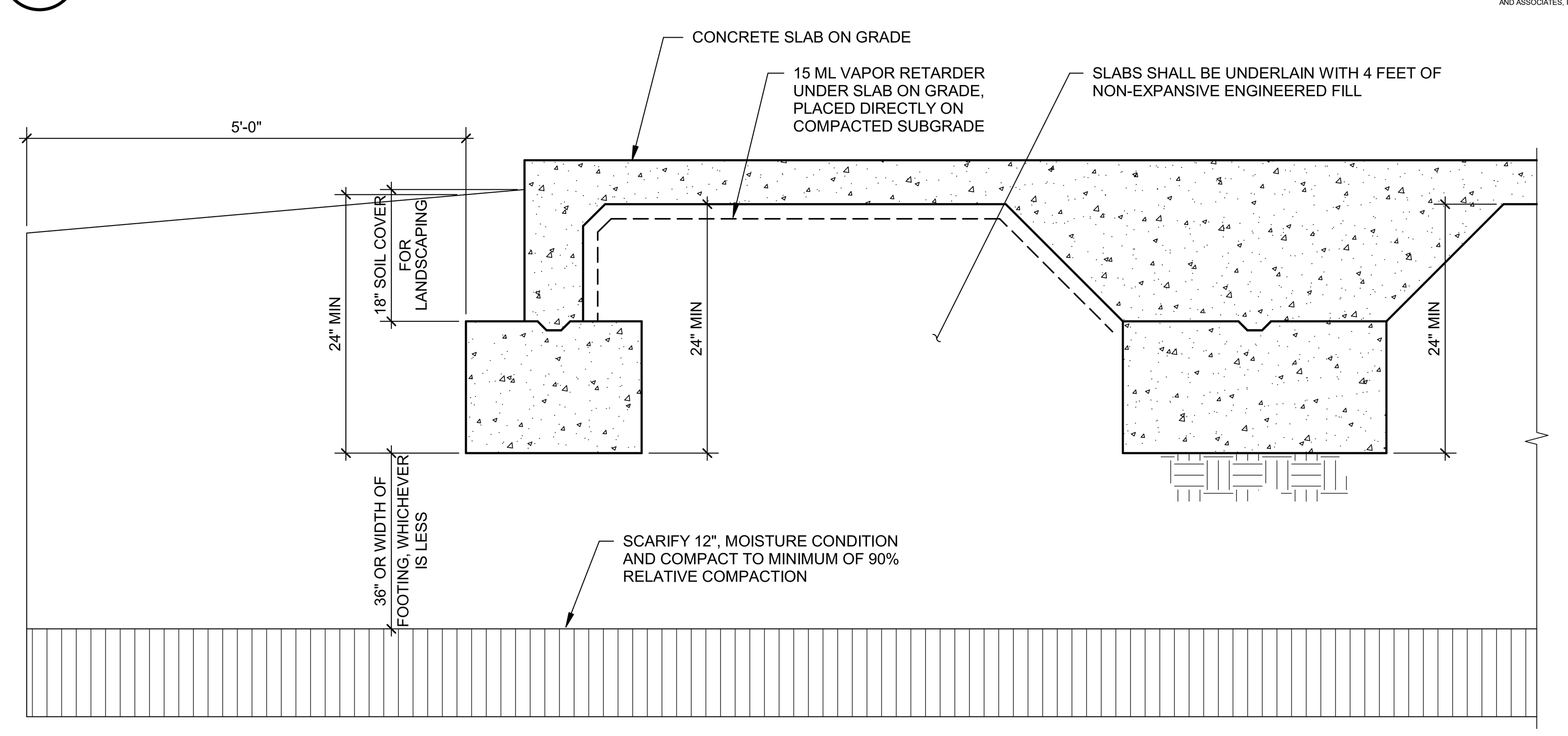
20 TYPICAL POST-INSTALLED ANCHOR INFORMATION
NO SCALE

DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION — GRADE 60 REINFORCEMENT, LIGHTWEIGHT CONCRETE													
BAR SIZE	f'c=3000 PSI		f'c=4000 PSI		f'c=5000 PSI		f'c=6000 PSI		f'c=7000 PSI		f'c=8000 PSI		BAR SIZE
	Lhb	0.7 Lhb	Lhb	0.7 Lhb	Lhb	0.7 Lhb	Lhb	0.7 Lhb	Lhb	0.7 Lhb	Lhb	0.7 Lhb	
#3	11	8	10	7	9	7	8	6	8	6	7	6	#3
#4	15	11	13	10	12	9	11	8	10	7	9	7	#4
#5	19	14	16	12	15	11	13	10	12	9	12	9	#5
#6	22	16	19	14	17	12	16	12	15	11	14	10	#6
#7	26	19	23	17	20	14	19	14	17	12	16	12	#7
#8	30	21	26	19	23	17	21	15	20	14	18	13	#8
#9	33	24	29	21	26	19	24	17	22	16	21	15	#9
#10	38	27	33	24	29	21	27	19	25	18	23	17	#10
#11	42	30	36	26	32	23	30	21	27	19	26	19	#11
#14	50	-	43	-	39	-	35	-	33	-	31	-	#14
#18	66	-	58	-	52	-	47	-	44	-	41	-	#18



NOTES:
1. Ldh = DEVELOPMENT LENGTH OF STANDARD HOOKS IN TENSION (INCHES).
2. Ldh = Lhb UNLESS CONDITIONS OF NOTE 3 ARE SATISFIED.
3. Ldh = 0.7Lhb FOR #11 BARS AND SMALLER WHEN SIDE COVER (NORMAL TO PLANE OF HOOK) IS NOT LESS THAN 2 1/2 INCHES AND FOR 90° HOOKS COVER ON BAR EXTENSION BEYOND HOOK IS NOT LESS THAN 2 INCHES.
4. HOOKS ARE NOT CONSIDERED EFFECTIVE FOR DEVELOPING BARS IN COMPRESSION.
5. Ldh SHALL BE MULTIPLIED BY 1.2 FOR EPOXY-COATED HOOKED REINFORCING BARS.

18 TYPICAL DEVELOPMENT LENGTHS OF STANDARD HOOKS IN TENSION
NO SCALE



17 SUBGRADE PREPARATION BELOW BUILDING FOUNDATION AND SLAB ON GRADE
NO SCALE

APPROVALS

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

INCREMENT 2 - AS-BUILT - FINAL

ISSUE DATE	08/23/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

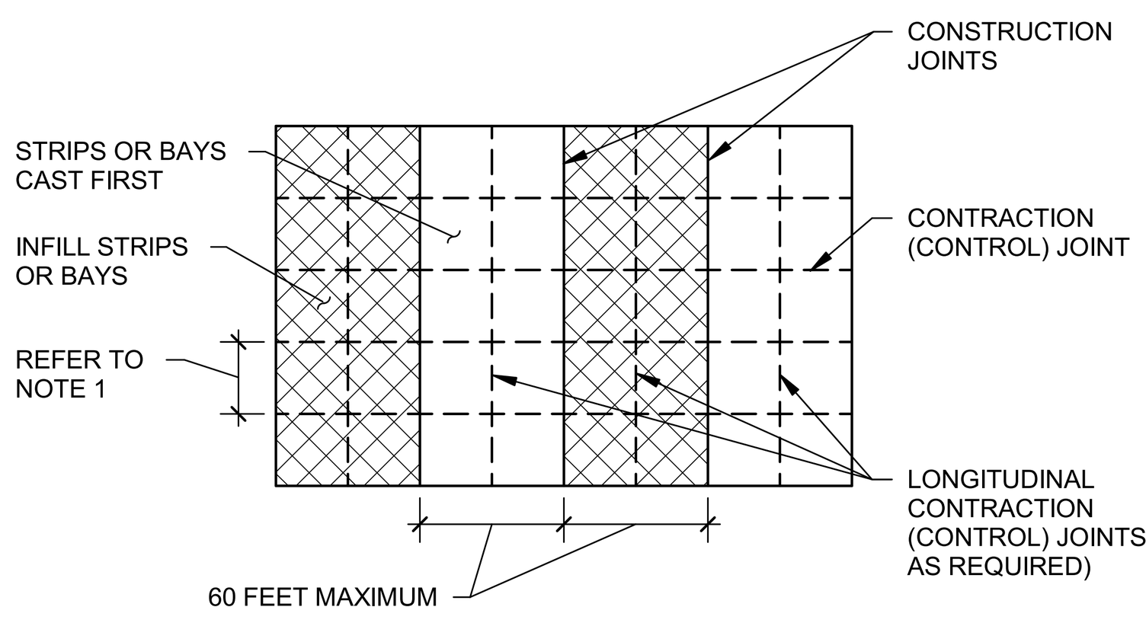
	DATE	DESCRIPTION

SHEET TITLE

TYPICAL CONCRETE REINFORCEMENT DETAILS

SHEET NUMBER

S5.01.2

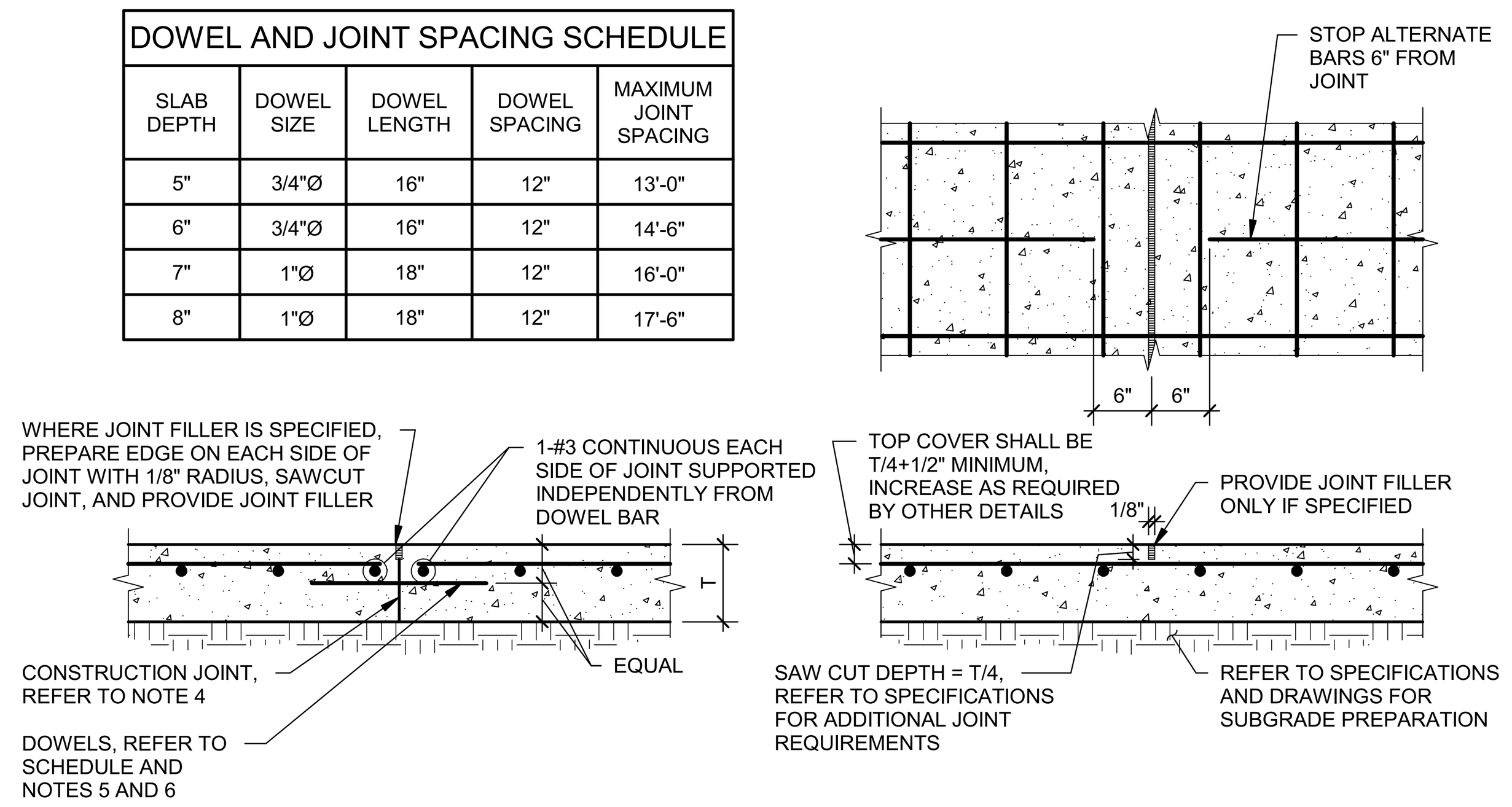


NOTES:
1. REFER TO "TYPICAL CONSTRUCTION AND CONTROL JOINTS - SLAB-ON-GRADE" FOR ADDITIONAL INFORMATION, INCLUDING JOINT SPACING REQUIREMENTS.

5 TYPICAL LONG STRIP CONSTRUCTION SCHEMATIC JOINT LAYOUT
3/4" = 1'-0"

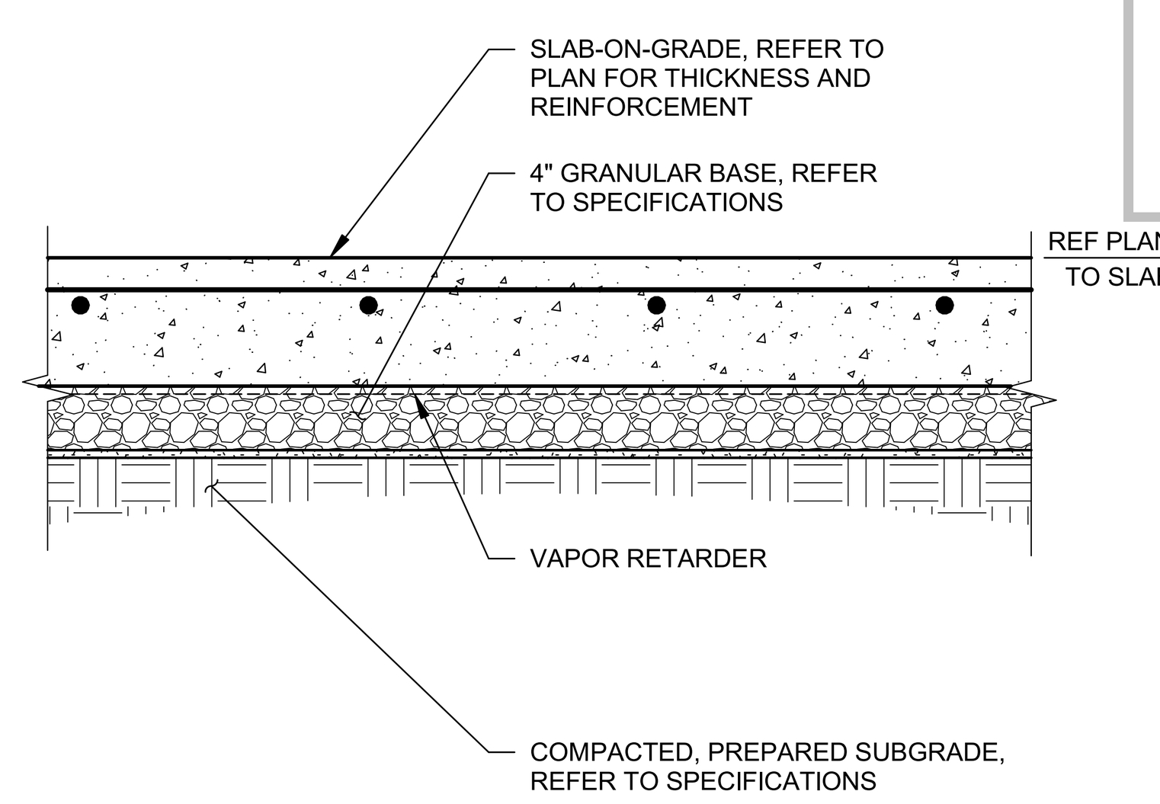
DOWEL AND JOINT SPACING SCHEDULE

SLAB DEPTH	DOWEL SIZE	DOWEL LENGTH	DOWEL SPACING	MAXIMUM JOINT SPACING
5"	3/4"Ø	16"	12"	13'-0"
6"	3/4"Ø	16"	12"	14'-6"
7"	1"Ø	18"	12"	16'-0"
8"	1"Ø	18"	12"	17'-6"

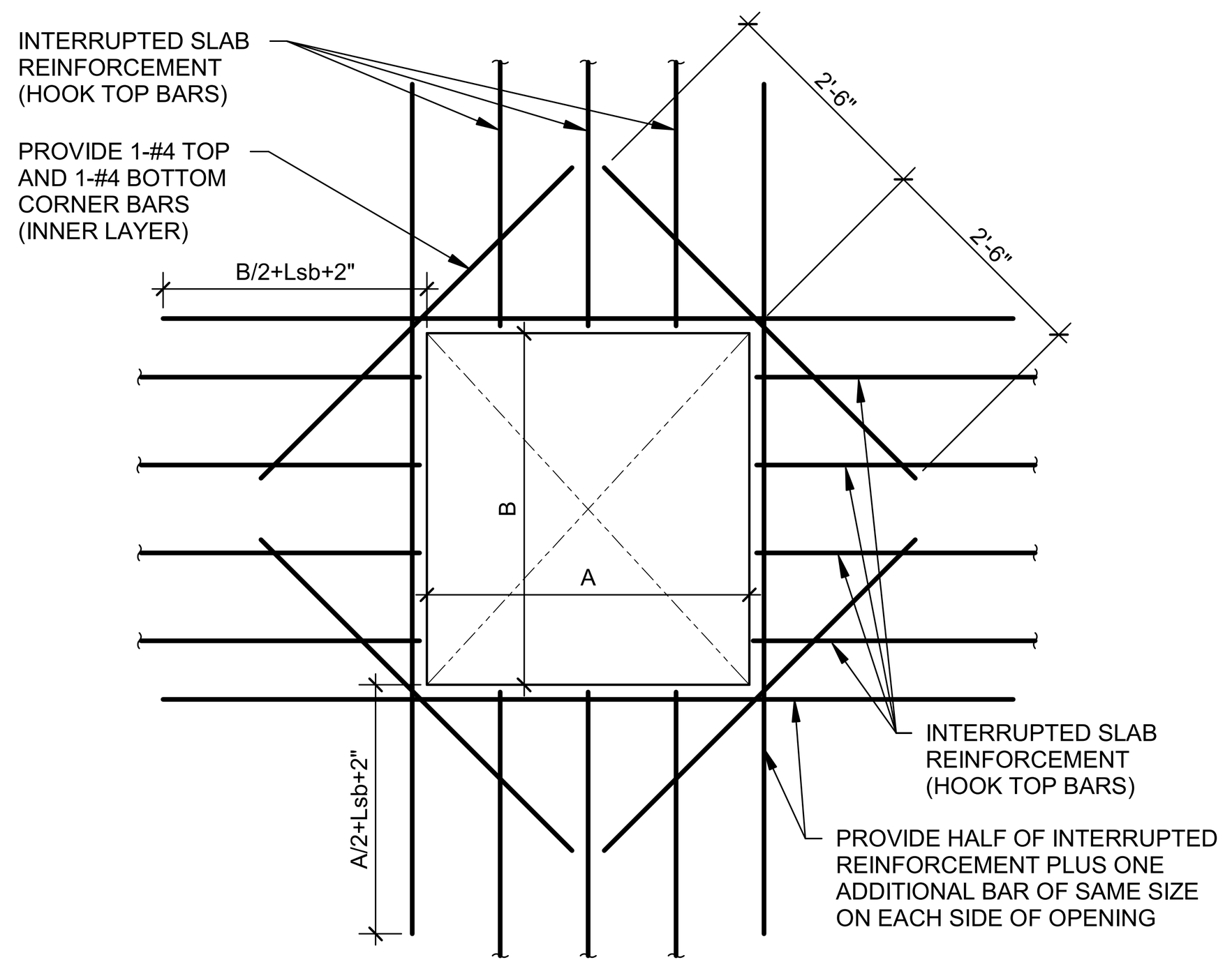


NOTES:
1. REFER TO PLAN FOR SLAB THICKNESS (T) AND REINFORCEMENT.
2. SLAB REINFORCEMENT SHALL BE CHAIRED BY SOIL SUPPORTED SLAB BOLSTERS.
3. LONG STRIP CONSTRUCTION METHOD SHALL BE USED IN PLACING CONCRETE FOR ALL SLABS-ON-GRADE UNLESS NOTED OTHERWISE. REFER TO "TYPICAL LONG STRIP CONSTRUCTION SCHEMATIC JOINT LAYOUT" FOR COMPLETE PLACING SEQUENCE. AT CONTRACTOR'S OPTION, LARGER SLAB AREAS MAY BE POURED PROVIDED THE EARLY-ENTRY DRY-CUT METHOD OF INSTALLING CONTRACTION JOINTS IS USED. REFER TO THE SPECIFICATIONS.
4. AT CONSTRUCTION JOINTS, BREAK BOND BETWEEN NEW AND PREVIOUSLY PLACED SLAB BY SPRAYING OR PAINTING EXPOSED SIDES OF JOINT WITH A CURING COMPOUND, BONDBREAKER, OR FORM OIL.
5. DOWELS SHOULD BE SMOOTH, ALIGNED, AND SUPPORTED SO THEY WILL REMAIN PARALLEL IN BOTH THE HORIZONTAL AND VERTICAL PLANES.
6. TO PREVENT A BOND BETWEEN THE DOWEL AND THE CONCRETE, LIGHTLY COAT THE EXPOSED END OF THE DOWELS WITH A PARAFFIN-BASED LUBRICANT, ASPHALT EMULSION, FORM OIL, OR GREASE IMMEDIATELY BEFORE PLACING CONCRETE ON THE SECOND SIDE OF THE JOINT. ALTERNATIVELY, USE A PLASTIC OR METAL SLEEVE SPECIFICALLY MANUFACTURED FOR THIS PURPOSE.
7. AT CONTRACTION (CONTROL) JOINTS, MAKE SAW CUT AS SOON AS SLAB IS ABLE TO SUPPORT WEIGHT OF WORKERS AND SAWING EQUIPMENT WITHOUT DAMAGE TO FINISH SURFACE OF SLAB. REFER TO SPECIFICATIONS.
8. PROVIDE CONTRACTION OR CONSTRUCTION JOINTS AT EVERY COLUMN LINE AND IN BETWEEN THE COLUMN LINES SUCH THAT THE JOINT SPACING DOES NOT EXCEED TABULATED DISTANCES.
9. FOR SLAB THICKNESS IN BETWEEN TABULATED VALUES, USE DOWEL INFORMATION FOR THICKER SLAB. MAXIMUM JOINT SPACING SHALL BE INTERPOLATED.

4 TYPICAL CONSTRUCTION AND CONTROL JOINTS IN SLAB-ON-GRADE
NO SCALE

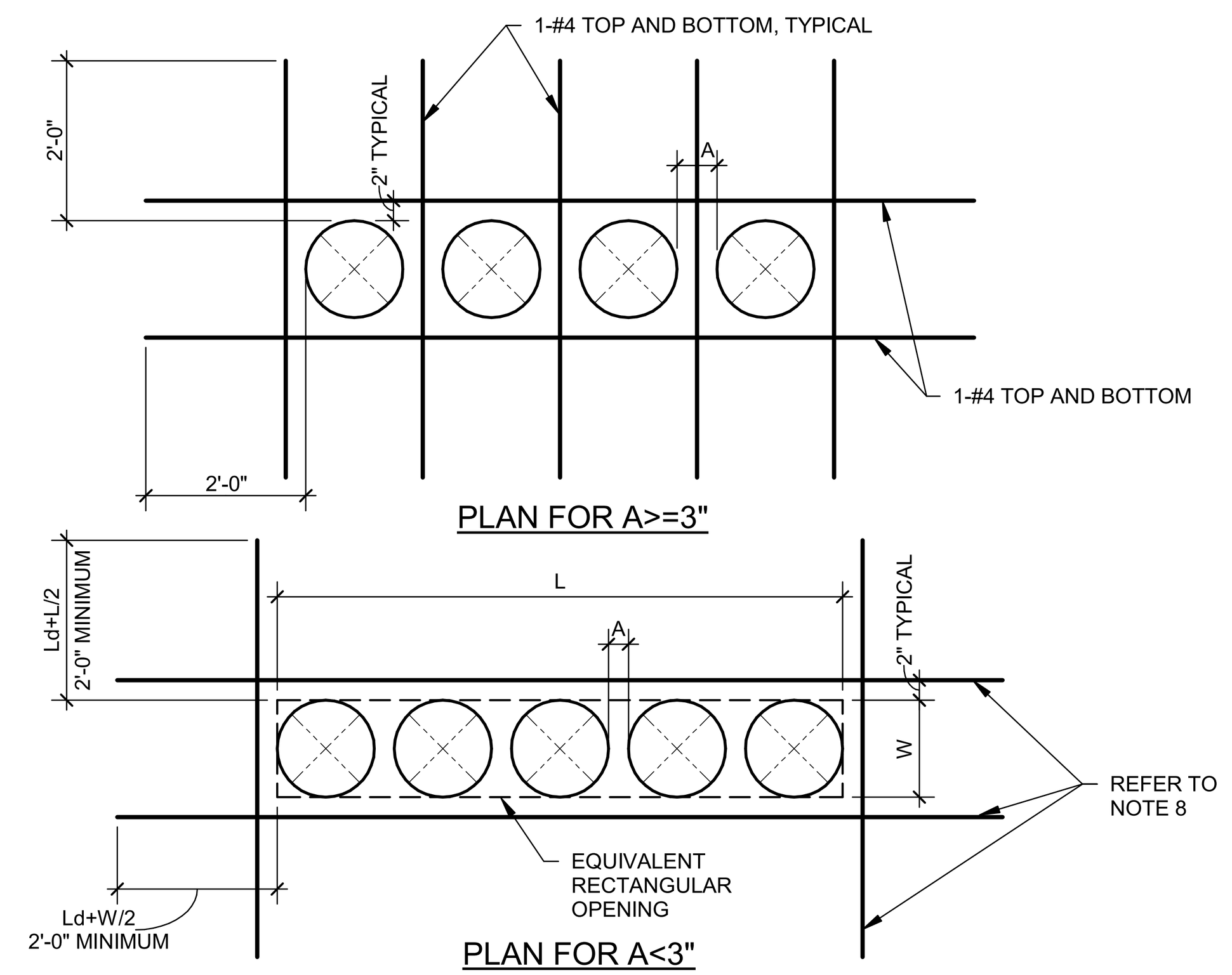


1 TYPICAL SLAB-ON-GRADE SUBGRADE PREPARATION
NO SCALE



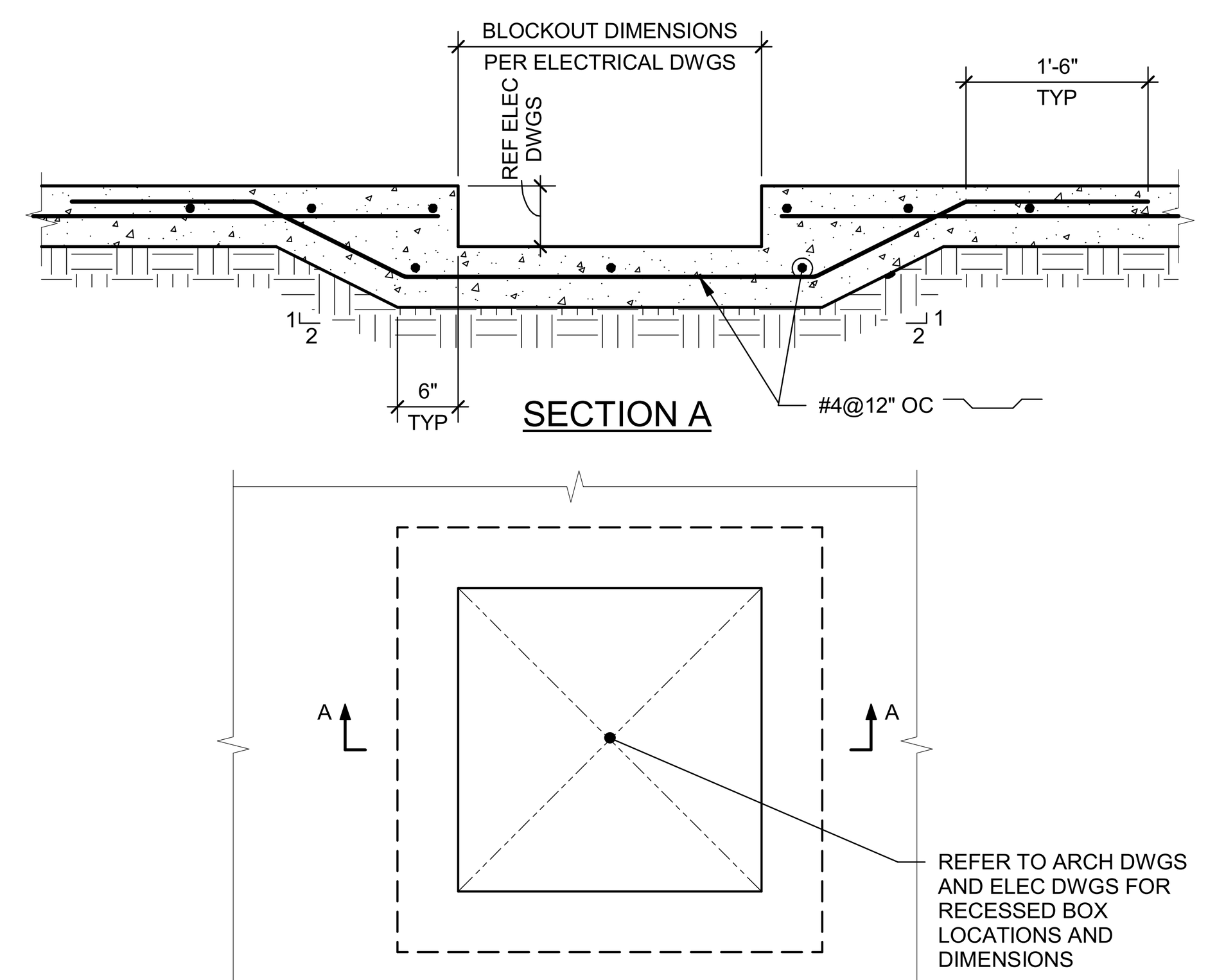
NOTES:
1. Lsb EQUALS BAR "CLASS B" TENSION LAP SPLICE LENGTH, UNLESS NOTED OTHERWISE.
2. SLAB OPENINGS ARE ONLY PERMITTED WHERE INDICATED ON THE STRUCTURAL PLANS OR AS APPROVED BY THE STRUCTURAL ENGINEER.

10 TYPICAL SLAB OPENING REINFORCEMENT
NO SCALE

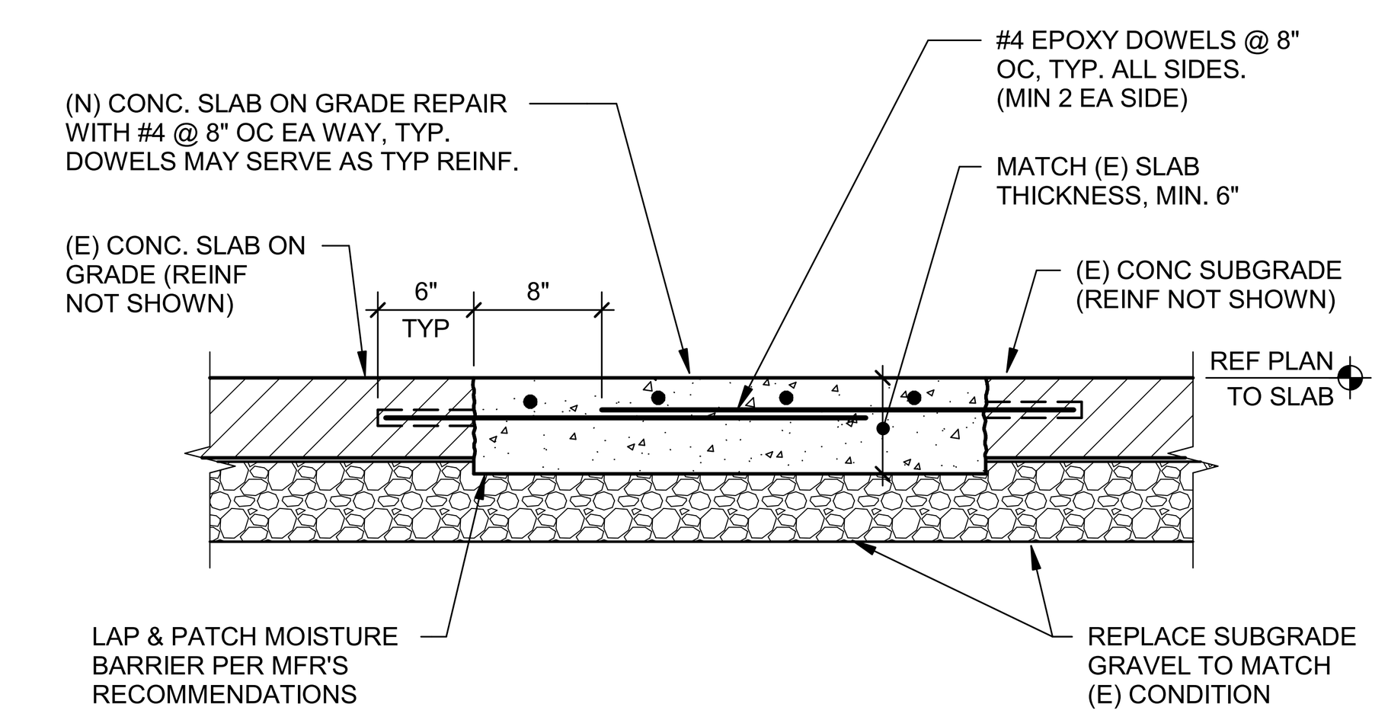


NOTES:
1. WHERE CLEAR SPACING BETWEEN ADJACENT SLEEVES IS LESS THAN 3", THE SLEEVE GROUP SHALL BE TREATED AS AN EQUIVALENT RECTANGULAR OPENING WITH LENGTH "L" AND WIDTH "W" AS SHOWN.
2. WHERE CLEAR SPACING BETWEEN ADJACENT SLEEVES IS GREATER THAN OR EQUAL TO 3", SCHEDULED SLAB BAR REINFORCEMENT SHALL BE OFFSET AS REQUIRED TO MISS SLEEVES.
3. REINFORCEMENT SHOWN IS IN ADDITION TO SCHEDULED SLAB REINFORCEMENT.
4. SCHEDULED SLAB MESH REINFORCEMENT MAY BE CUT AS REQUIRED TO MISS PIPE SLEEVES.
5. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR LOCATION AND SIZE OF SLEEVES.
6. ISOLATED PIPE SLEEVES THAT ARE SMALLER THAN 5" AND DO NOT INTERRUPT REINFORCEMENT DO NOT REQUIRE THE USE OF THIS DETAIL.
7. THIS DETAIL SHOULD NOT BE USED FOR OPENING GROUPS WITH DIAMETERS LARGER THAN 12". CONSULT STRUCTURAL ENGINEER FOR FRAMING OF SUCH CONDITIONS.
8. PROVIDE HALF OF INTERRUPTED REINFORCEMENT PLUS ONE ADDITIONAL BAR OF SAME SIZE ON EACH SIDE OF EQUIVALENT RECTANGULAR OPENING. PROVIDE A MINIMUM OF 1-#4 TOP AND BOTTOM EACH SIDE OF OPENING.

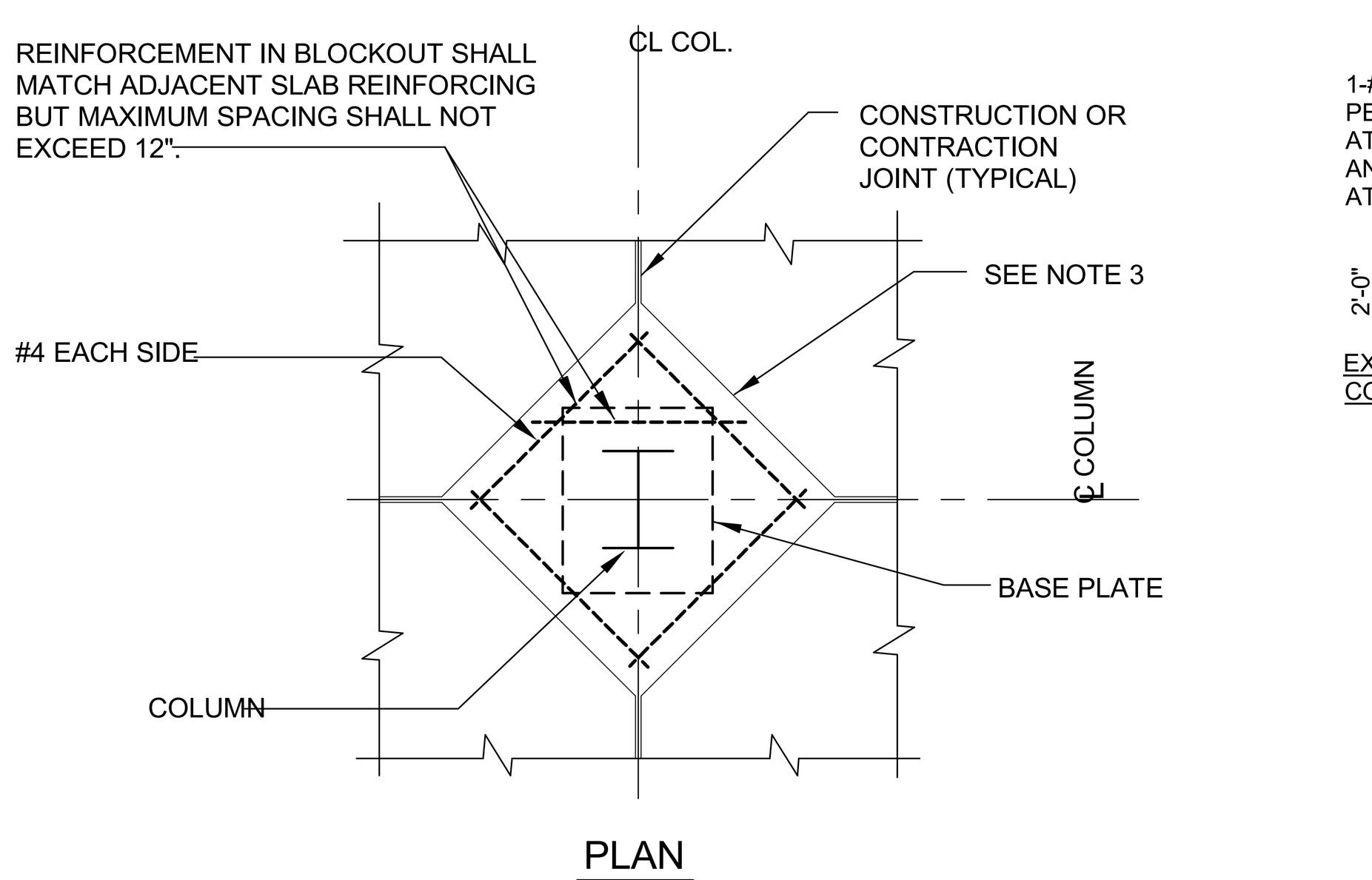
9 ADDITIONAL REINFORCEMENT AROUND PIPE SLEEVES
NO SCALE



7 SLAB AT RECESSED FLOOR BOX
3/4" = 1'-0"

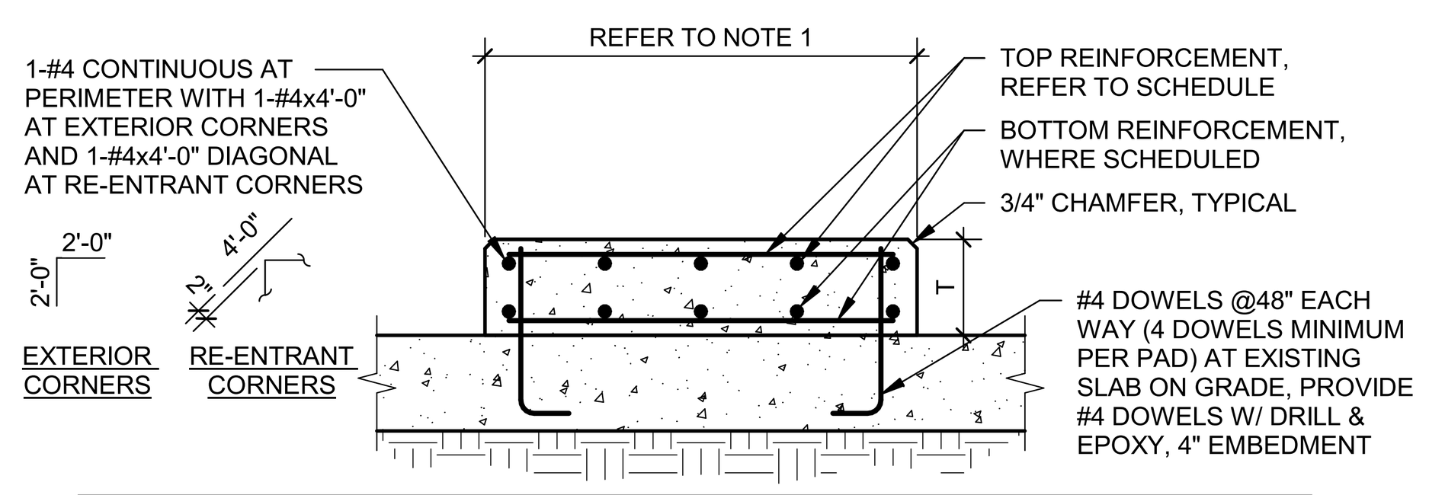


6 REPAIR OF (E) SLAB-ON-GRADE
NO SCALE



NOTES:
1. GENERAL CONTRACTOR TO COORDINATE REQUIRED SIZE OF BLOCKOUT FOR STRUCTURAL STEEL COLUMNS WITH STEEL ERECTOR. SUBMIT THE DESIRED BLOCKOUT SIZE TO ARCHITECT FOR APPROVAL.
2. PROVIDE 3" MINIMUM CONCRETE COVER ALL AROUND COLUMN AND BASE PLATE.
3. BLOCKOUT SLAB FOR INSTALLATION OF COLUMN. POUR BLOCKOUT AREA AFTER COLUMN IS INSTALLED.

15 SOG BLOCKOUT AROUND STEEL COLUMN
NO SCALE

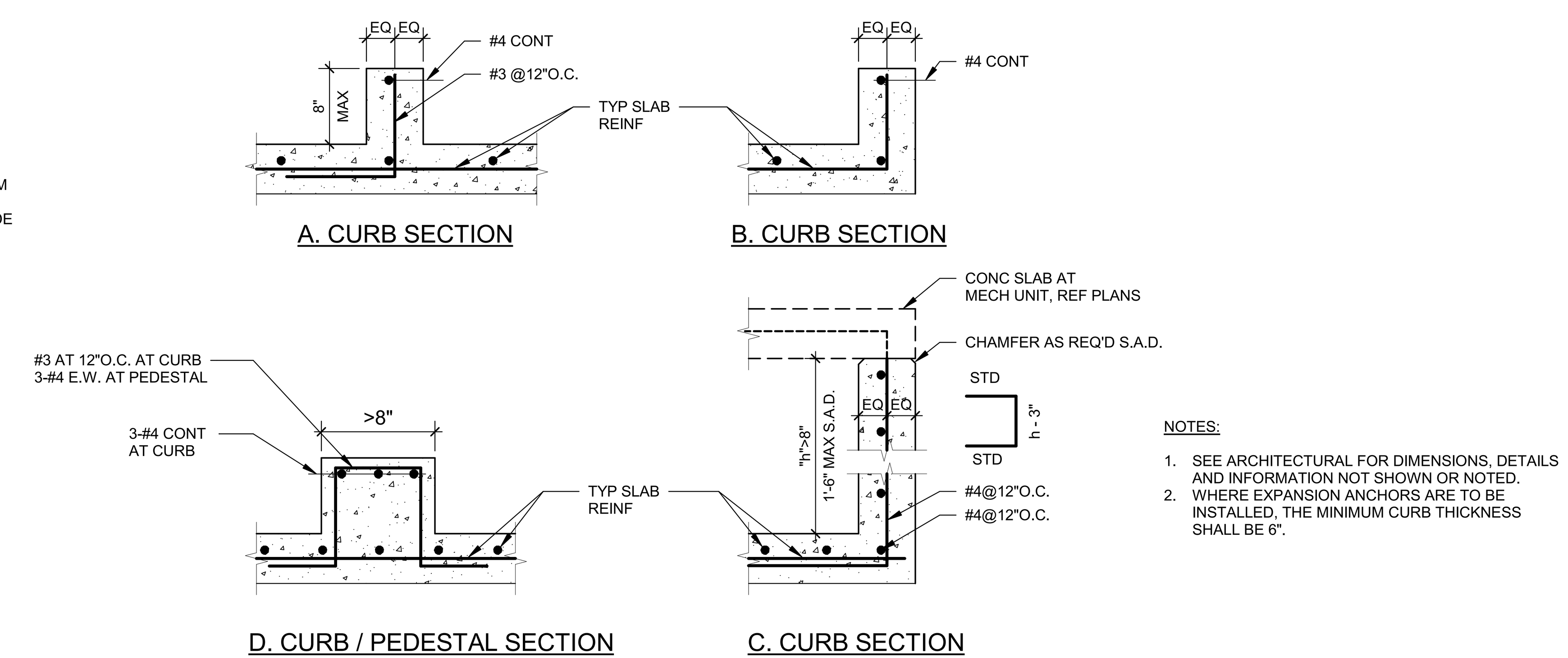


HOUSEKEEPING PAD REINFORCEMENT SCHEDULE

PAD THICKNESS	TOP REINFORCEMENT	BOTTOM REINFORCEMENT
T = 4"	WWR4x4-W2.9xW2.9 OR #3@12" EACH WAY	NONE
4" < T <= 6"	WWR4x4-W4xW4 OR #4@18" EACH WAY	NONE
6" < T <= 8"	WWR4x4-W6xW6 OR #4@12" EACH WAY	NONE
8" < T <= 12"	#4@18" EACH WAY	#4@18" EACH WAY
12" < T <= 16"	#4@12" EACH WAY	#4@12" EACH WAY

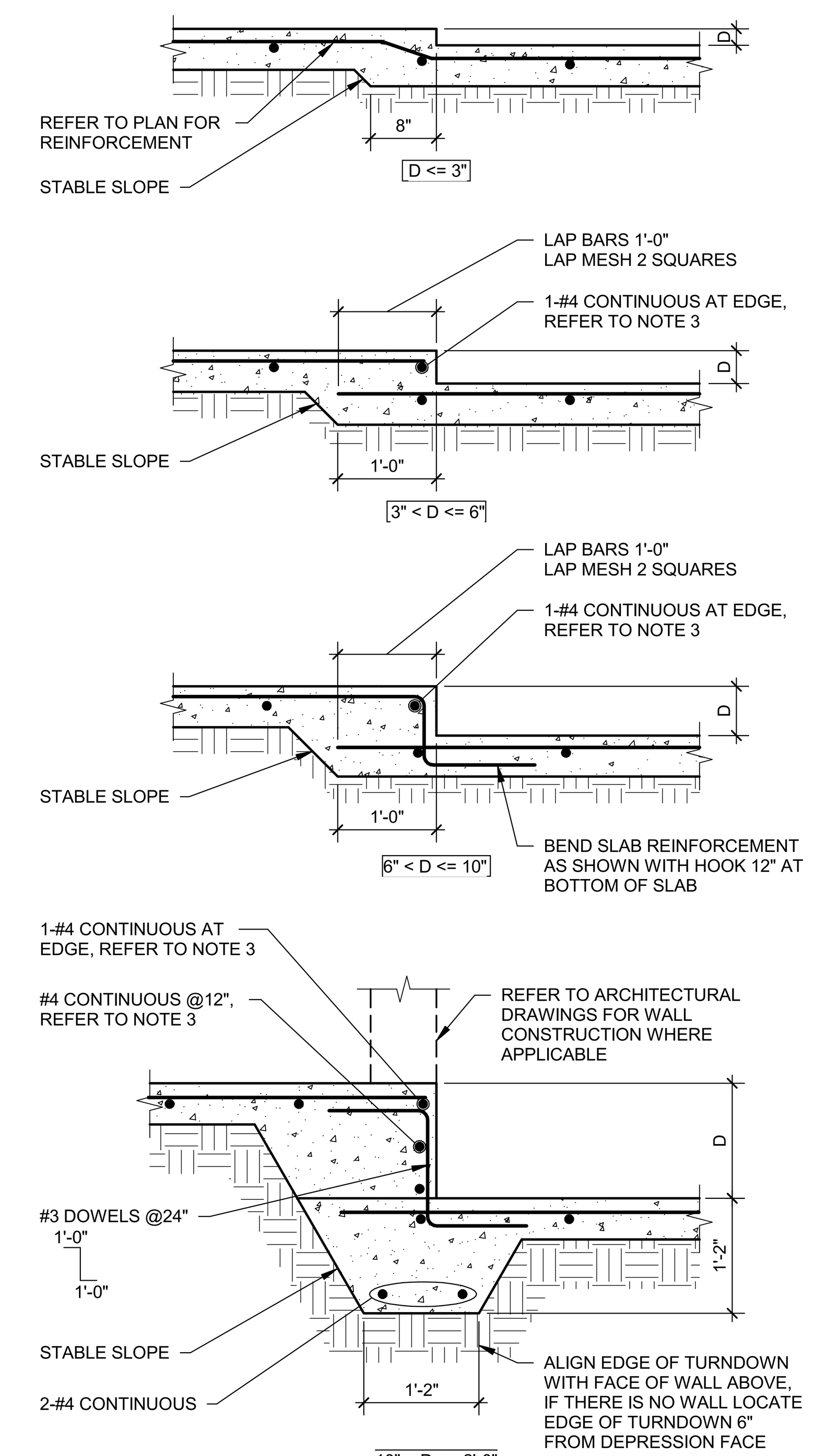
NOTES:
1. REFER TO ARCHITECTURAL, STRUCTURAL, OR MEP DRAWINGS FOR HOUSEKEEPING PAD PLAN DIMENSIONS AND THICKNESS (4" MINIMUM THICKNESS).
2. CONTRACTOR SHALL COORDINATE DIMENSIONS AND OTHER SPECIAL REQUIREMENTS WITH EQUIPMENT MANUFACTURERS AND PROVIDE WHERE REQUIRED WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT.

14 TYPICAL HOUSEKEEPING PAD OVER SLAB-ON-GRADE
NO SCALE

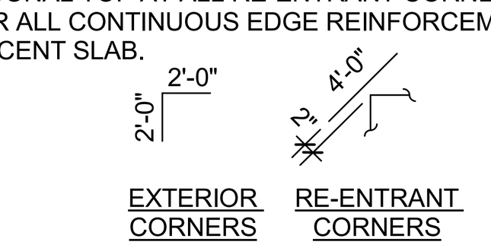


NOTES:
1. SEE ARCHITECTURAL FOR DIMENSIONS, DETAILS AND INFORMATION NOT SHOWN OR NOTED.
2. WHERE EXPANSION ANCHORS ARE TO BE INSTALLED, THE MINIMUM CURB THICKNESS SHALL BE 6".

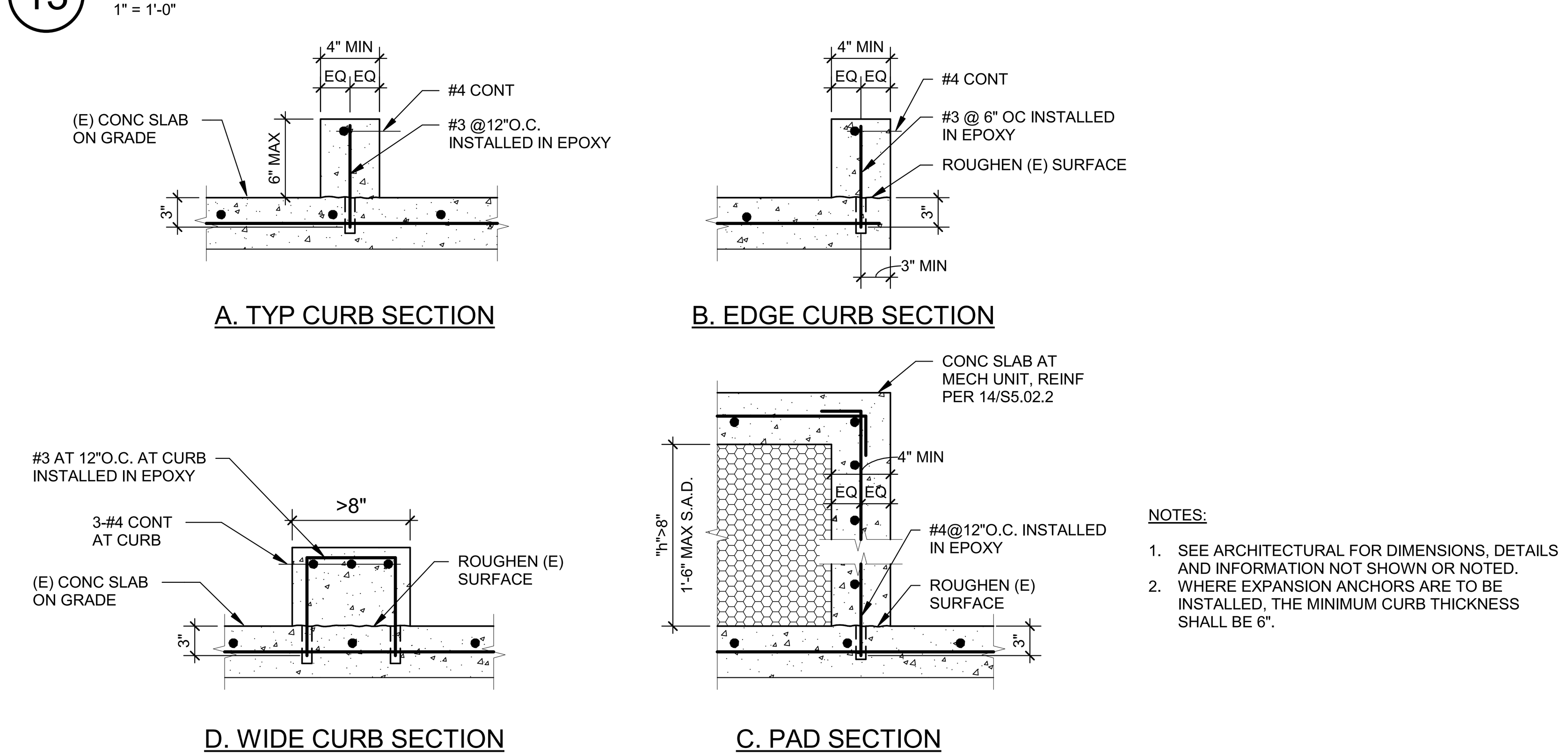
13 TYPICAL CURBS ON SLAB ON GRADE
1" = 1'-0"



NOTES:
1. CONTRACTOR SHALL COORDINATE DEPTH AND LOCATION OF ALL FLOOR DEPRESSIONS WITH ARCHITECTURAL DRAWINGS.
2. PROVIDE ADDITIONAL 1-#4x4'-0" DIAGONAL TOP AT ALL RE-ENTRANT CORNERS.
3. PROVIDE #4x4'-0" CORNER BARS FOR ALL CONTINUOUS EDGE REINFORCEMENT THAT CAN NOT DEVELOP INTO ADJACENT SLAB.

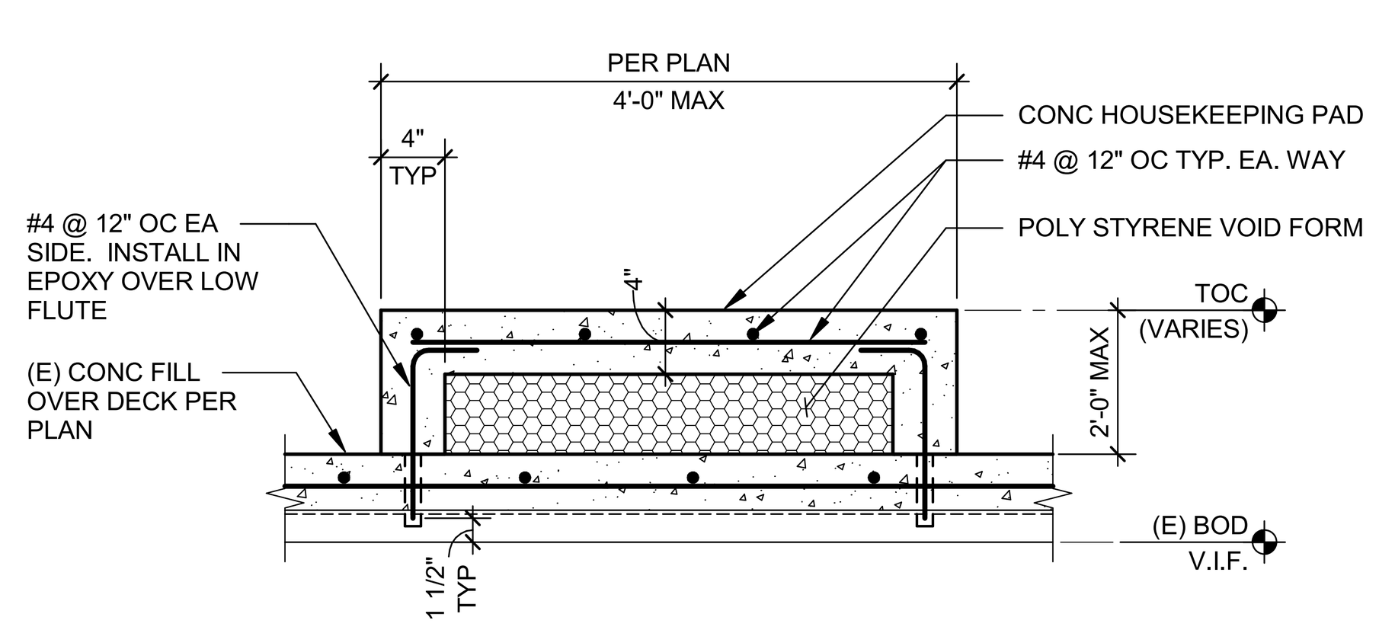


16 TYPICAL SLAB-ON-GRADE DEPRESSIONS
NO SCALE

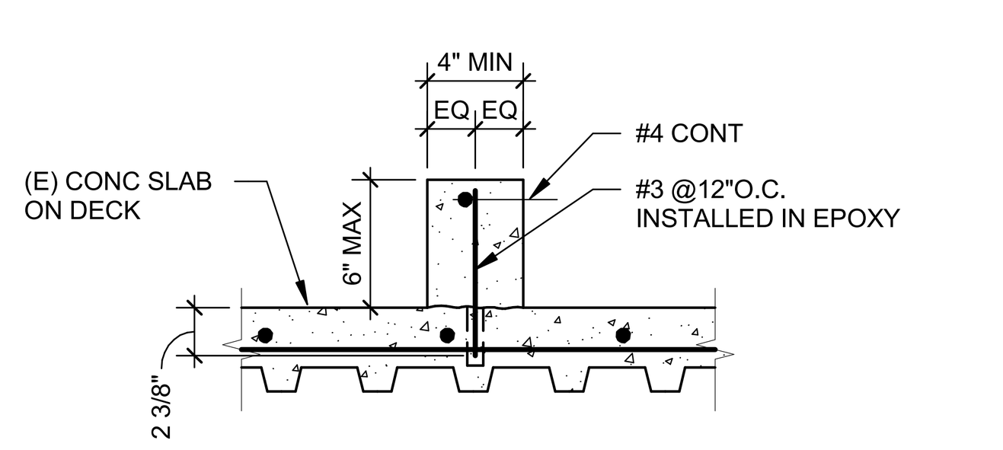


NOTES:
1. SEE ARCHITECTURAL FOR DIMENSIONS, DETAILS AND INFORMATION NOT SHOWN OR NOTED.
2. WHERE EXPANSION ANCHORS ARE TO BE INSTALLED, THE MINIMUM CURB THICKNESS SHALL BE 6".

18 TYPICAL CURBS ON EXISTING SLAB ON GRADE
1" = 1'-0"



19 HOUSEKEEPING PAD ON (E) SLAB OVER DECK
1" = 1'-0"



20 TYPICAL NEW CURBS ON EXISTING CONCRETE OVER METAL DECK SLAB
1" = 1'-0"

APPROVALS

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S5722
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STATE OF CALIFORNIA

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2 - AS-BUILT - FINAL

ISSUE DATE	08/23/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION

SHEET TITLE
TYPICAL CONCRETE SLAB DETAILS

SHEET NUMBER
S5.02.2

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ISSUE DATE 08/23/2023
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REVISIONS

#	DATE	DESCRIPTION
	TBD	TBD

SHEET TITLE

TYPICAL CONCRETE FOUNDATION DETAILS

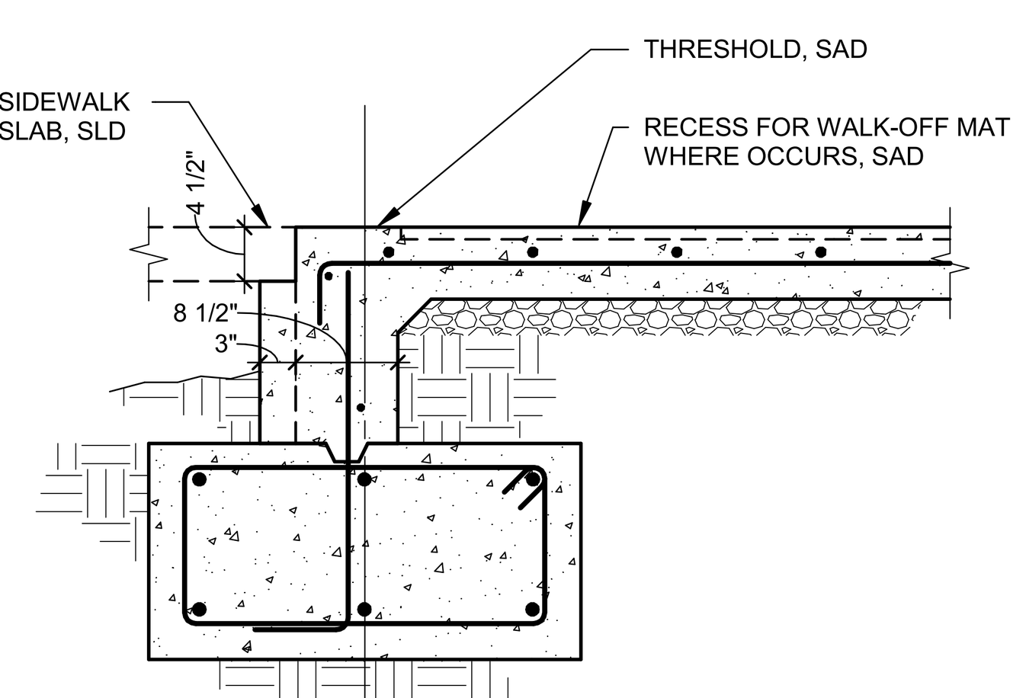
SHEET NUMBER

S5.03.2

1 WALL FOOTING SCHEDULE
NO SCALE

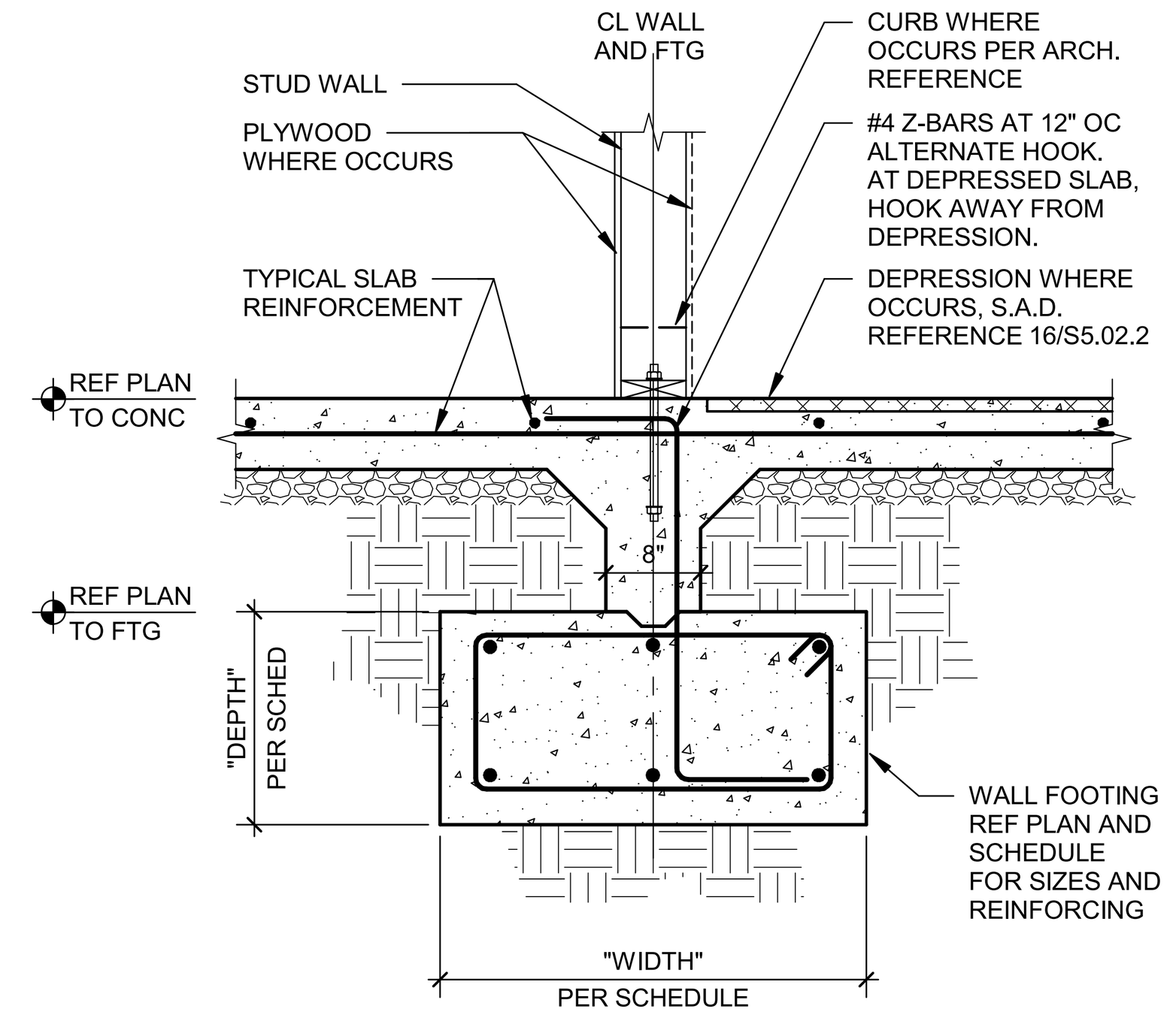
WALL FOOTING SCHEDULE

WALL FOOTING	WIDTH	DEPTH	TOP BARS	BOTTOM BARS	TIES	REMARKS
WF-2	2'-0"	1'-6"	(4)-#5	(4)-#5	#4 @ 12" OC	
WF-3	3'-0"	1'-6"	(4)-#6	(4)-#6	#5 @ 12" OC	
WF-3A	3'-0"	1'-8"	(4)-#6	(4)-#6	#5 @ 12" OC	
WF-4	4'-0"	1'-6"	(4)-#7	(4)-#7	#5 @ 9" OC	

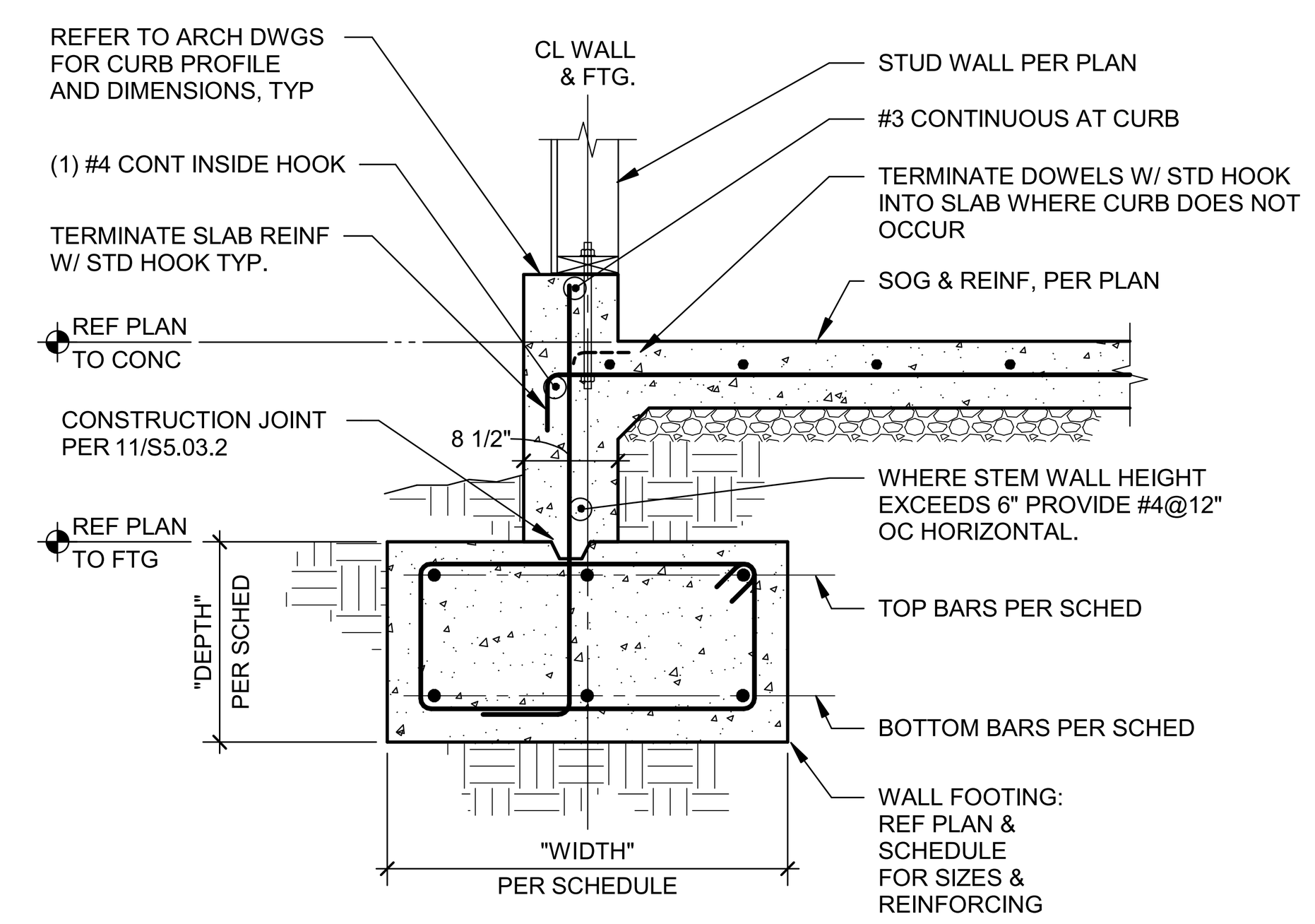


FOR INFO NOT SHOWN OR NOTED SEE 2/S5.03.2

4 TYPICAL FOOTING AT DOOR THRESHOLD
3/4" = 1'-0"

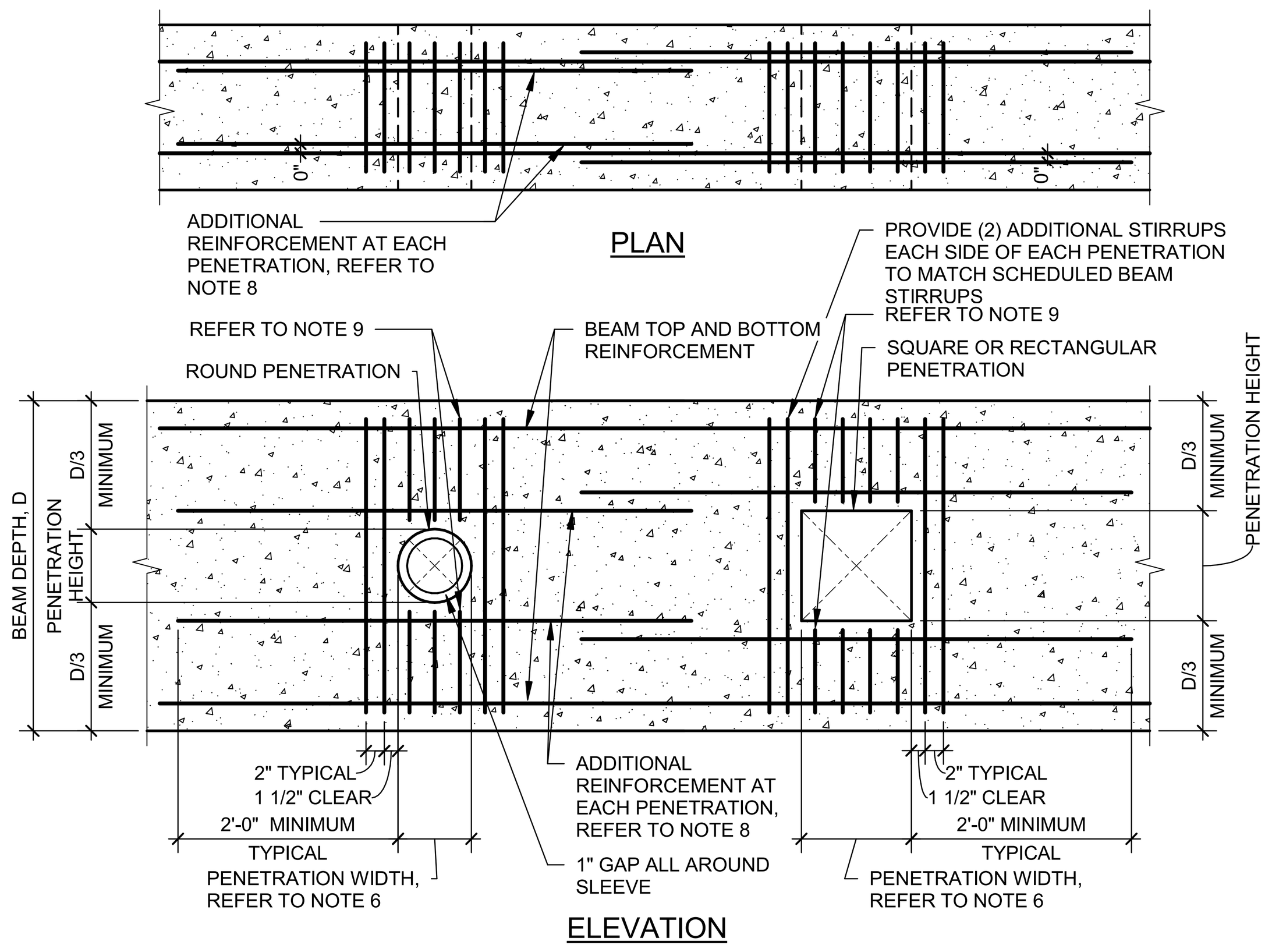


3 TYPICAL INTERIOR WALL FOOTING
3/4" = 1'-0"



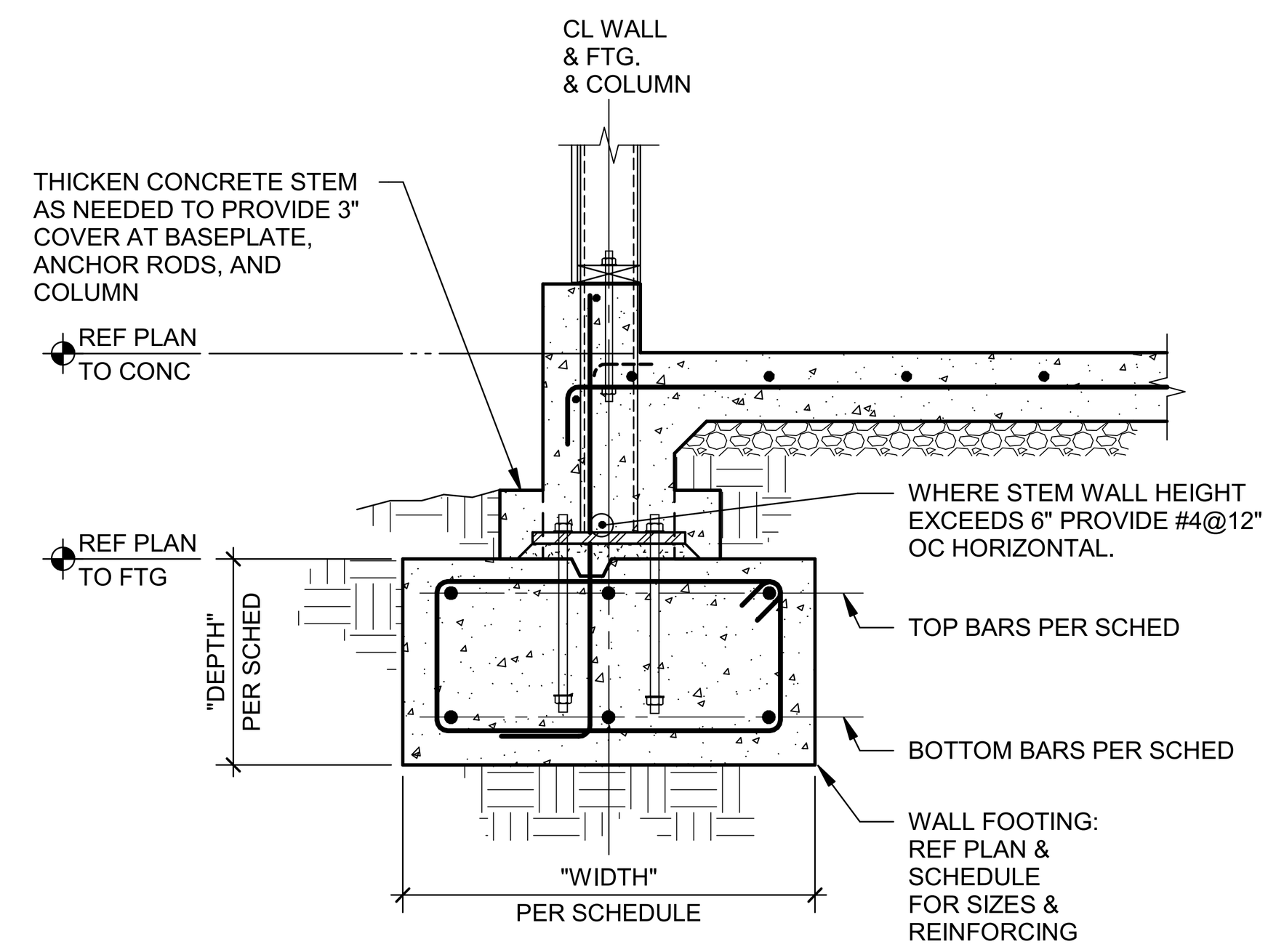
NOTE: WHERE WALL FOOTING INTERSECTS COLUMN FOOTING, RUN WALL FOOTING REINFORCEMENT THROUGH COLUMN FOOTING.

2 TYPICAL EXTERIOR WALL FOOTING
3/4" = 1'-0"



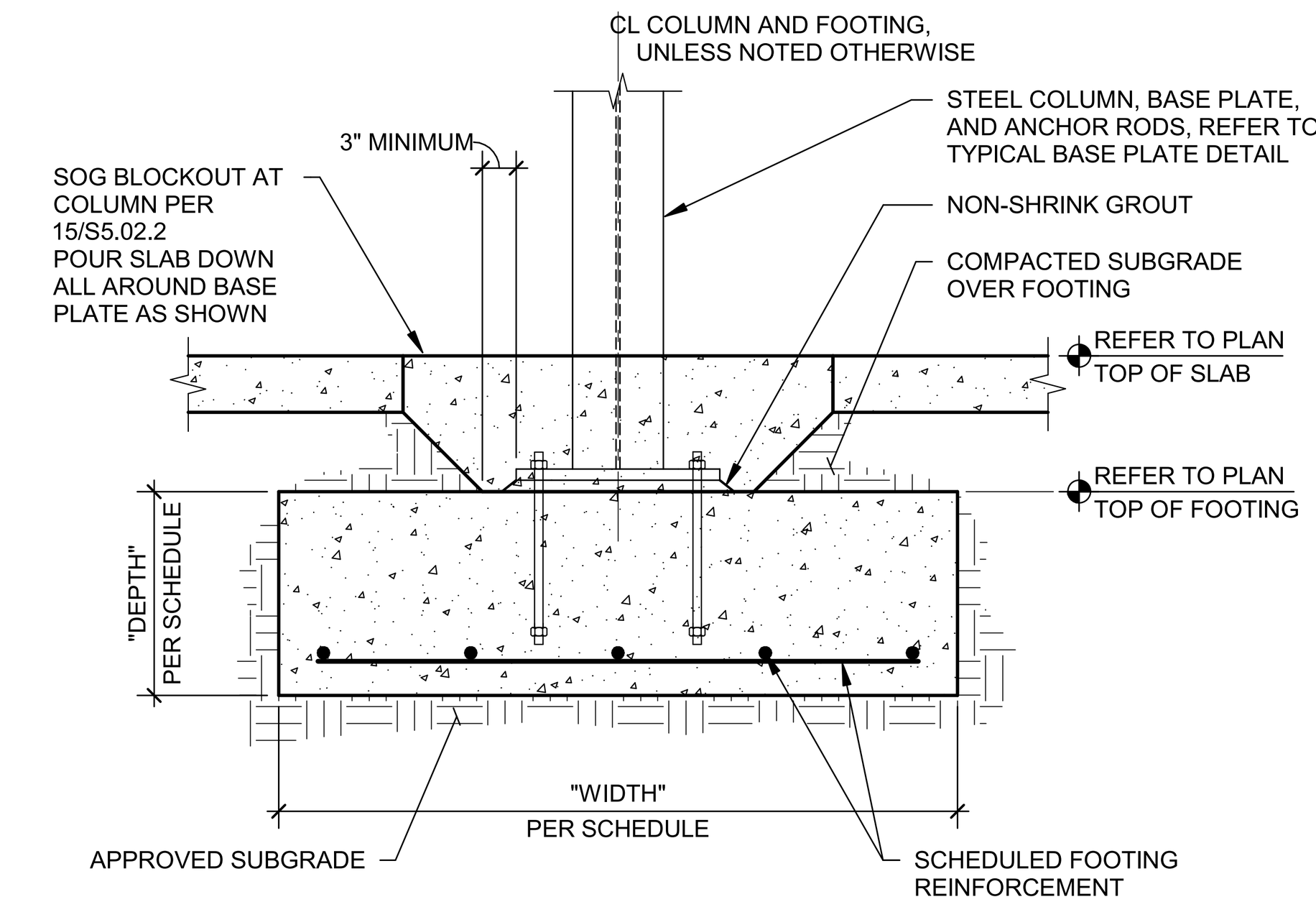
NOTES:
1. GENERAL CONTRACTOR SHALL COORDINATE LOCATION, SIZE, AND ELEVATION AND INCLUDE IN HIS CONTRACT PRICE ALL REQUIRED HORIZONTAL PENETRATIONS THROUGH CONCRETE BEAMS WHETHER SHOWN ON STRUCTURAL DRAWINGS OR NOT.
2. WHERE BEAM PENETRATIONS ARE REQUIRED BUT ARE NOT SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS, CONTRACTOR SHALL SUBMIT DRAWINGS SHOWING DIMENSIONS AND LOCATIONS OF ALL REQUIRED PENETRATIONS FOR REVIEW AND APPROVAL.
3. "D" DENOTES THE DEPTH OF BEAM.
4. CLEAR SPACING BETWEEN PENETRATIONS SHALL BE 24" MINIMUM UNLESS NOTED OTHERWISE BY THE STRUCTURAL ENGINEER.
5. PENETRATIONS SHALL BE LOCATED WHERE SHOWN ON THE CIVIL, PLUMBING AND ELECTRICAL DRAWINGS.
6. PENETRATION WIDTH MUST NOT EXCEED PENETRATION HEIGHT, UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS.
7. FOR LOCATIONS AND/OR SIZES OF PENETRATIONS NOT CONFORMING TO THE ABOVE CRITERIA AND NOT OTHERWISE DETAILED ON THE STRUCTURAL DRAWINGS, CONTRACTOR SHALL COORDINATE REQUIRED ADDITIONAL REINFORCEMENT WITH THE STRUCTURAL ENGINEER.
8. PROVIDE THE FOLLOWING REINFORCEMENT AT EACH SLEEVE, UNLESS NOTED OTHERWISE ON THE STRUCTURAL DRAWINGS:
   1-#5 TOP AND BOTTOM AT BEAMS WITH WIDTHS LESS THAN 9".
   2-#5 TOP AND BOTTOM AT BEAMS WITH 2-LEG STIRRUPS.
   4-#5 TOP AND BOTTOM AT BEAMS WITH 4-LEG STIRRUPS.
   "N"-#5 TOP AND BOTTOM AT BEAMS WITH "N"-LEG STIRRUPS.
9. PROVIDE ADDITIONAL STIRRUPS ABOVE AND BELOW PENETRATIONS AT SPACING NOT TO EXCEED ONE THIRD OF THE SCHEDULED STIRRUP SPACING, UNLESS DETAILED OTHERWISE ON THE STRUCTURAL DRAWINGS.
10. SCHEDULED BEAM STIRRUPS NOT SHOWN FOR CLARITY.

10 TYPICAL HORIZONTAL PENETRATION IN GRADE BEAM AND CONTINUOUS FOOTING
NO SCALE



NOTE: FOR INFORMATION NOT SHOWN OR NOTED SEE 2/S5.03.2

8 TYPICAL HSS COLUMN IN STUD WALL
3/4" = 1'-0"



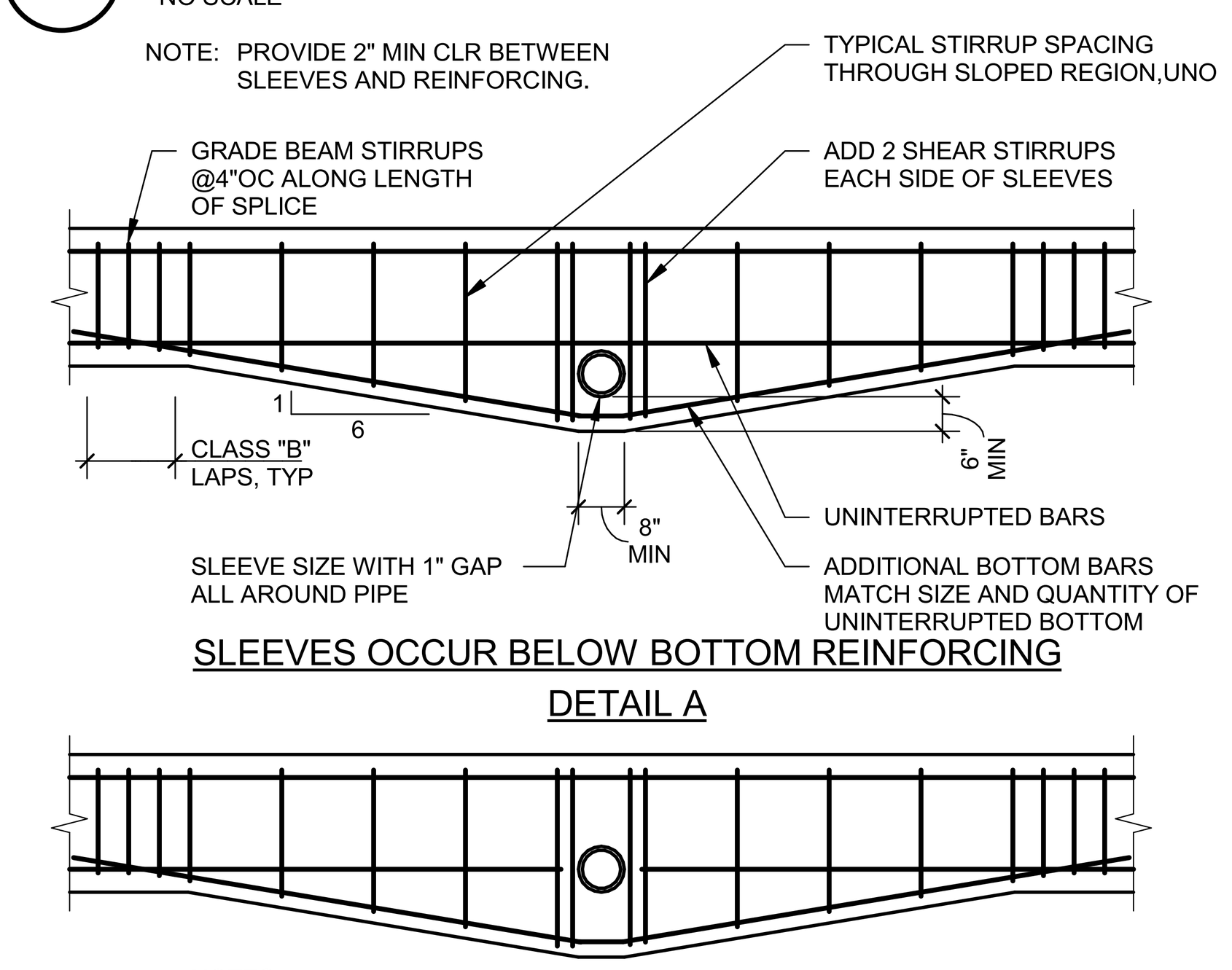
NOTE: WHERE COLUMN FOOTING INTERSECTS WALL FOOTING, CONTINUE FOOTING REINFORCEMENT INTO WALL FOOTING.

7 TYPICAL STEEL COLUMN ON SPREAD FOOTING
3/4" = 1'-0"

SPREAD FOOTING SCHEDULE

MARK	PLAN WIDTH	PLAN LENGTH	DEPTH	REINFORCEMENT EACH WAY
F3	3'-0"	3'-0"	1'-3"	(5)-#5 TOP&BOT
F5	5'-0"	5'-0"	1'-6"	(6)-#6 TOP&BOT

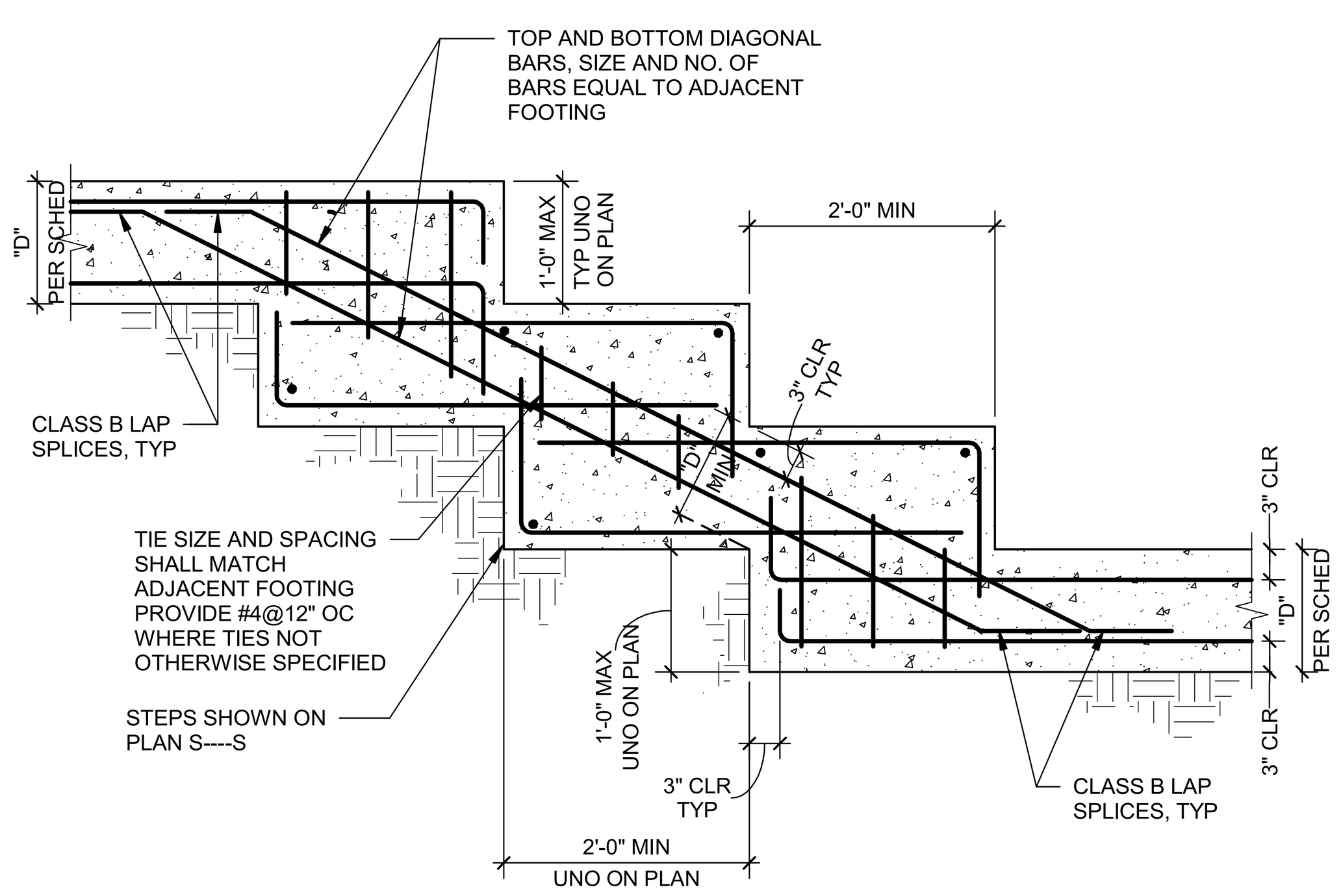
6 SPREAD FOOTING SCHEDULE
NO SCALE



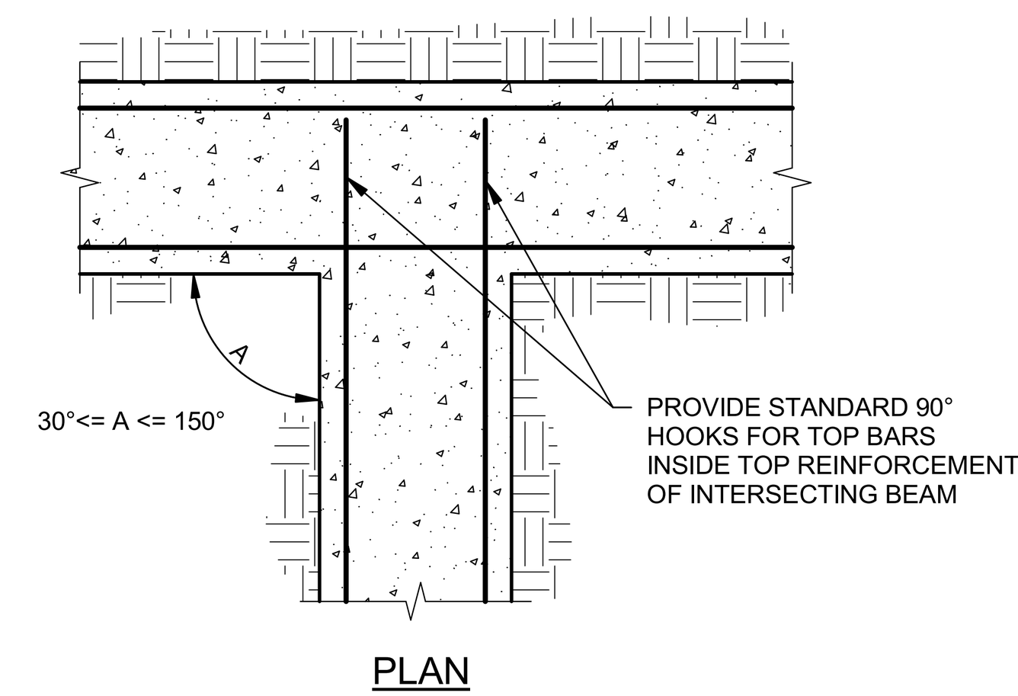
NOTES:
1. REFER TO DETAIL A FOR INFORMATION NOT SHOWN.
2. FOR SLEEVES IN MIDDLE THIRD OF GRADE BEAM, REFER TO 20/S5.01.

SLEEVES IN LOWER THIRD OR INTERRUPT BOTTOM REINFORCING
DETAIL B

15 TYPICAL SLEEVE THROUGH FOOTING AT BOTTOM REINFORCING
1/2" = 1'-0"

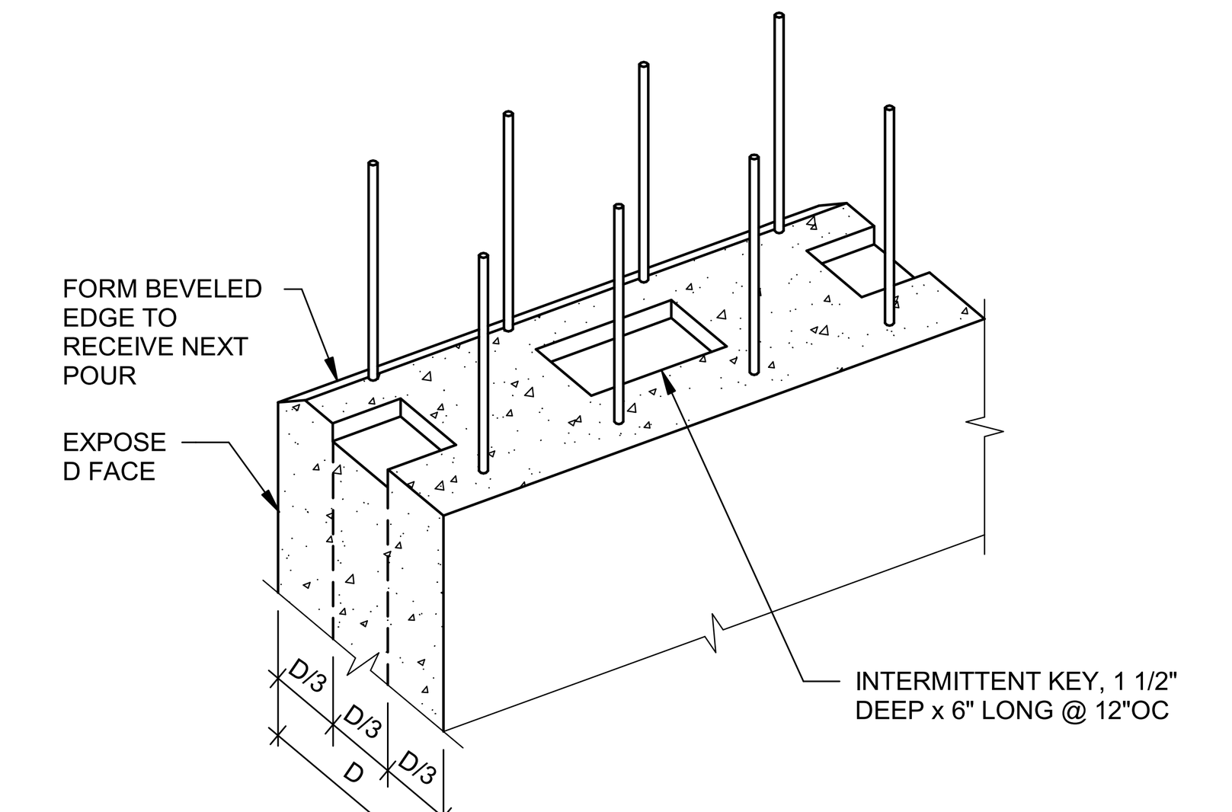


14 TYPICAL STEPS IN FOOTING
NO SCALE



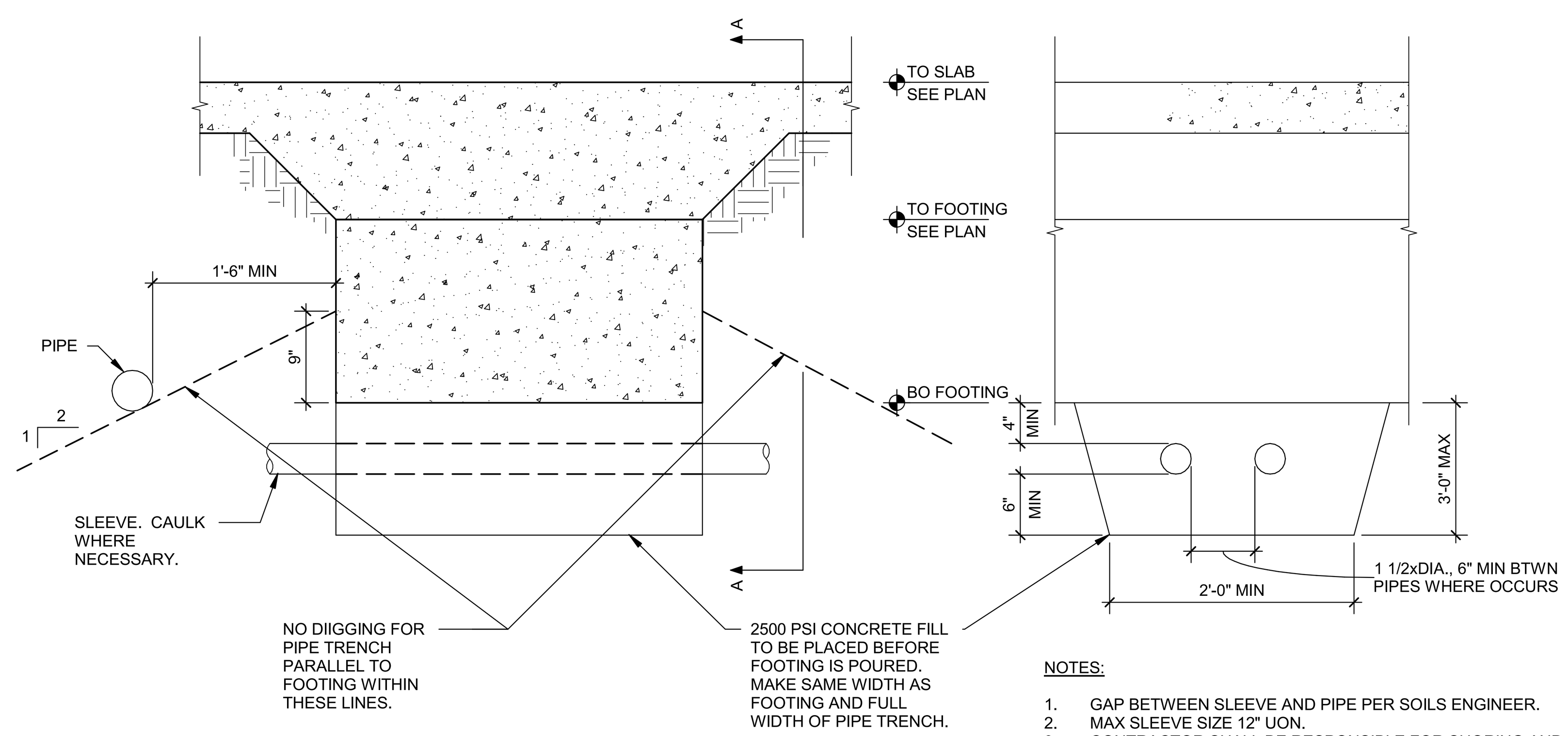
NOTES:
1. GRADE BEAMS SHALL BE POURED MONOLITHICALLY AT INTERSECTIONS. REFER TO "TYPICAL CONSTRUCTION JOINT IN GRADE BEAM" FOR ACCEPTABLE CONSTRUCTION JOINT LOCATIONS.
2. STIRRUPS NOT SHOWN.

12 TYPICAL GRADE BEAM OR WALL FOOTING REINFORCEMENT AT INTERSECTION
NO SCALE



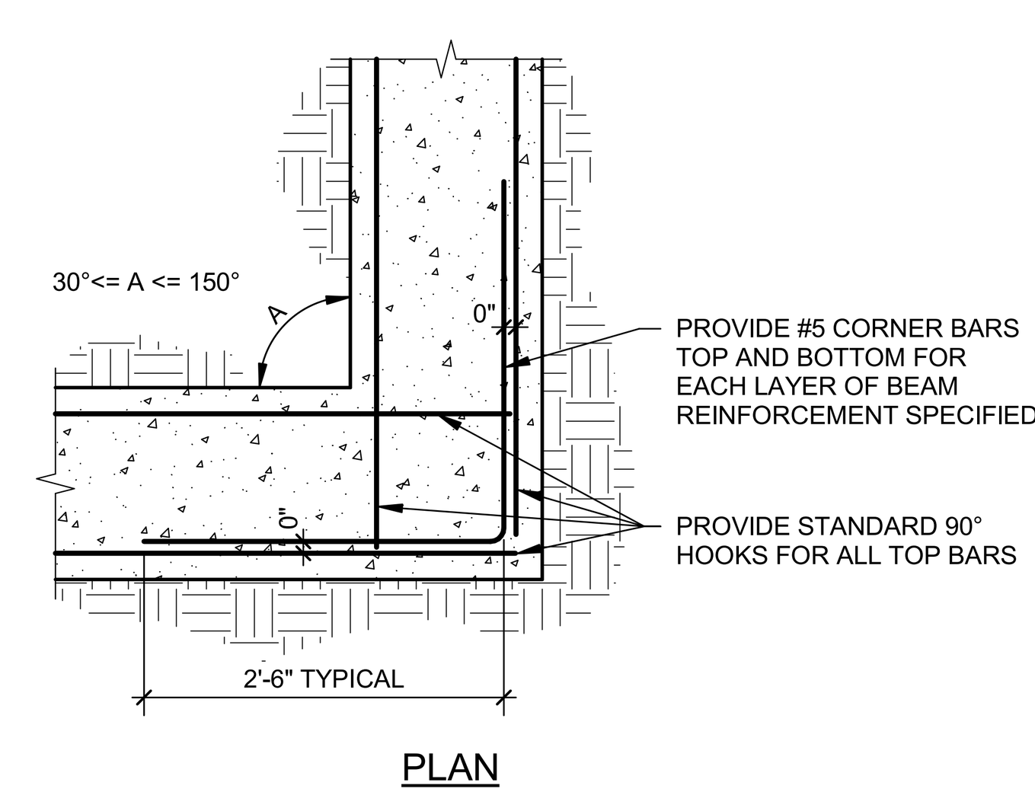
NOTES:
1. REFER TO LAP SPLICE SCHEDULE AND LOCATION SPECIFIC DETAILS FOR INFORMATION NOT NOTED.
2. REFER TO SPECIFICATIONS FOR JOINT ROUGHENING REQUIREMENTS.

11 TYPICAL KEYED CONSTRUCTION JOINT
NO SCALE



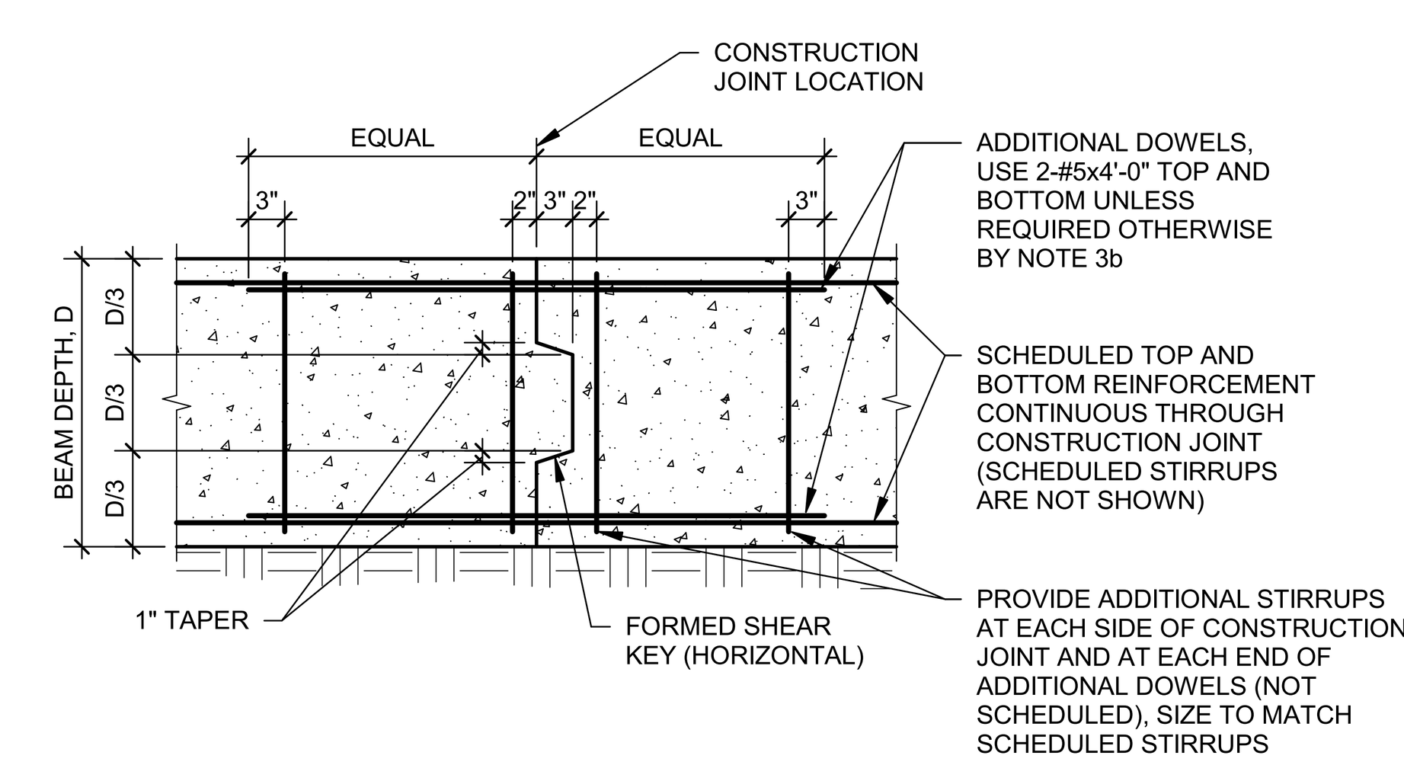
NOTES:
1. GAP BETWEEN SLEEVE AND PIPE PER SOILS ENGINEER.
2. MAX SLEEVE SIZE 12" UON.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR SHORING AND SHEATHING OR OTHERWISE MAINTAINING THE SIDES OF THE EXCAVATION FROM CAVE-IN UNTIL ALL BACKFILL IS COMPLETED.

19 TYPICAL PIPE CLEARANCE AT FOOTINGS
1" = 1'-0"



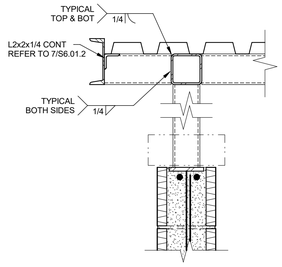
NOTES:
1. GRADE BEAMS SHALL BE POURED MONOLITHICALLY AROUND CORNERS. REFER TO "TYPICAL CONSTRUCTION JOINT IN GRADE BEAM" FOR ACCEPTABLE CONSTRUCTION JOINT LOCATIONS.
2. STIRRUPS NOT SHOWN.

17 TYPICAL GRADE BEAM OR WALL FOOTING REINFORCEMENT AT CORNER
NO SCALE



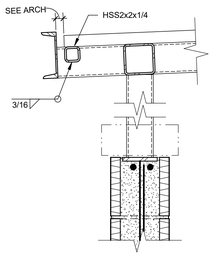
NOTES:
1. CONTRACTOR SHALL SUBMIT PROPOSED CONSTRUCTION JOINT LAYOUT AS A SHOP DRAWING FOR APPROVAL PRIOR TO DETAILING REINFORCEMENT AND A MINIMUM OF TWO WEEKS PRIOR TO POUR.
2. CONSTRUCTION JOINT LOCATIONS SHALL BE COORDINATED WITH REINFORCING STEEL SUPPLIER AND ERECTOR.
3. ACCEPTABLE JOINT LOCATIONS ARE AS FOLLOWS:
   a. FOR BEAMS NOT SUPPORTING INTERSECTING BEAMS, PLACE JOINT WITHIN MIDDLE THIRD OF SPAN.
   b. FOR BEAMS SUPPORTING INTERSECTING BEAMS, CHECK WITH STRUCTURAL ENGINEER FOR JOINT LOCATIONS AND DOWEL REQUIREMENTS.
4. SHOP DRAWINGS SHALL SHOW ALL REQUIRED ADDITIONAL REINFORCEMENT AT JOINTS.

16 TYPICAL CONSTRUCTION JOINT IN GRADE BEAM OR WALL FOOTING
NO SCALE



FOR INFO NOT SHOWN OR NOTED SEE DETAIL 7/S6.01.2

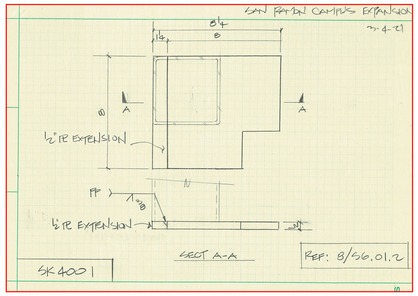
10 DETAIL
1 1/2" = 1'-0"

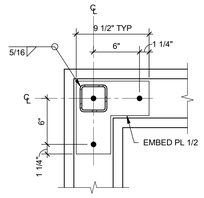


FOR INFO NOT SHOWN OR NOTED SEE DETAIL 7/S6.01.2

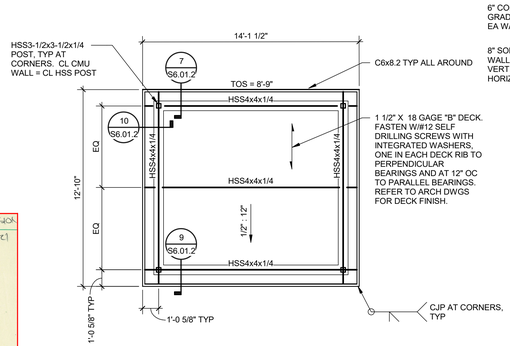
9 DETAIL
1 1/2" = 1'-0"

RFI # 254 - GC INSTALLED 1-1/2" EMBED PLATE OFF AT TRASH ENCLOSURE. MODIFICATION EXTENSION REQUIRED.

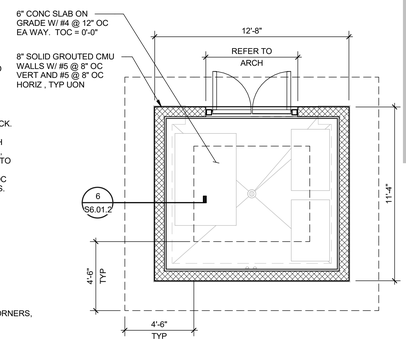




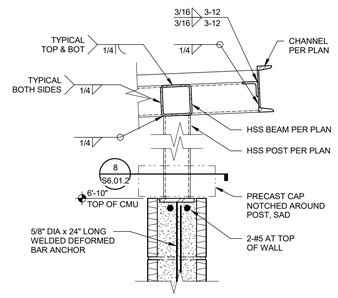
8 DETAIL
1 1/2" = 1'-0"



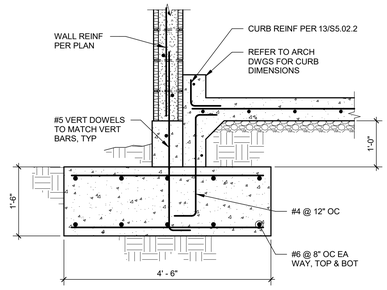
2 TRASH ENCLOSURE ROOF FRAMING PLAN
1/4" = 1'-0"



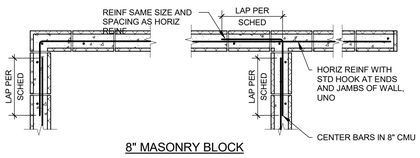
1 TRASH ENCLOSURE FOUNDATION PLAN
1/4" = 1'-0"



7 DETAIL
1 1/2" = 1'-0"



6 TRASH ENCLOSURE FOOTING
3/4" = 1'-0"



8" MASONRY BLOCK

NOTES:
1. GROUT ALL CELLS SOLID.
2. USE DOUBLE OPEN END BLOCKS TYP, USE SINGLE OPEN END UNITS AT CORNERS.
3. FOR BAR LAP LENGTHS SEE LAP SPLICE SCHEDULE.

17 TYPICAL CMU WALL AT CORNERS
1/2" = 1'-0"

CMU WALL, REINFORCEMENT DEVELOPMENT AND LAP SPLICE LENGTHS

BAR SIZE	8" CMU			
	1 BAR/ CELL	2 BARS/ CELL		
#3	16	17		
#4	21	29		
#5	27	45		
#6	51	54		
#7	63	63		

NOTES:
1. ALL DEVELOPMENT AND LAP SPLICE LENGTHS ARE IN INCHES.
2. THE LAP SPLICE LENGTH TABLE SHALL BE USED FOR ALL REINFORCED CMU WALLS UNLESS NOTED OTHERWISE IN DETAILS.
3. THIS TABLE IS DEVELOPED WITH F'M = 1,900 PSI. REFER TO GENERAL NOTES AND SPECIFICATIONS FOR CMU F'M.
4. WITH APPROVAL BY THE ENGINEER, WELDED SPLICES AND TYPE 1 MECHANICAL SPLICES DEVELOPING AT LEAST 125% OF THE YIELD STRENGTH, FY, OF THE BAR MAY BE SUBSTITUTED IN SOME LOCATIONS.
5. WHEN LAP SPLICING BARS OF DIFFERENT SIZES, THE LAP LENGTH IS DETERMINED BY THE SMALLER BAR.
6. REFER TO THE TYPICAL DETAIL AND SPECIFICATIONS FOR CMU VERTICAL REINFORCEMENT PLACEMENT FOR BAR POSITIONING IN CELLS.
7. STAGGER LOCATIONS OF HORIZONTAL LAP SPLICES IN ADJACENT BARS BY 24" MINIMUM.

16 TYPICAL CMU REBAR LAP SCHEDULE
NO SCALE

APPROVALS

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ISSUE DATE **08/23/2023**
NOLL & TAM JOB NUMBER **21630**

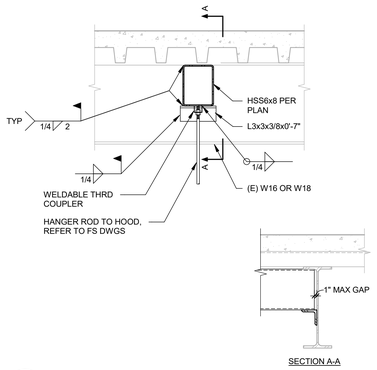
REVISIONS

	DATE	DESCRIPTION
TBD	TBD	

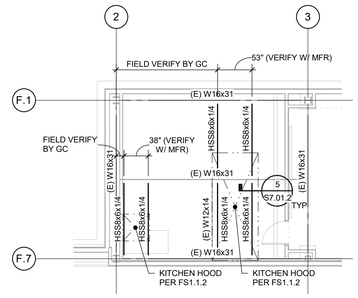
SHEET TITLE
TRASH ENCLOSURE PLANS & DETAILS

SHEET NUMBER
S6.01.2

8/23/2023 4:43:01 PM C:\Users\princetonc\Downloads\S_DVCSR_EXPANSION_INCR2_R19.rvt

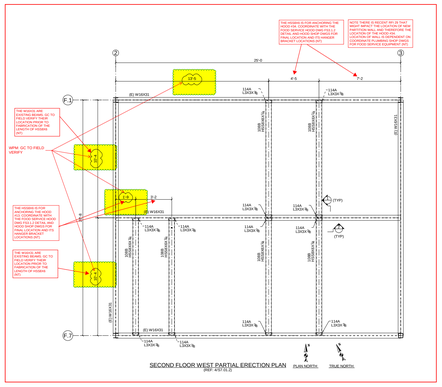


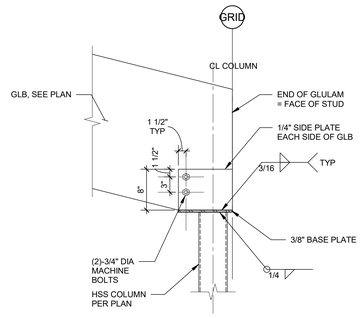
5 DETAIL
1" = 1'-0"



4 SECOND FLOOR - WEST PARTIAL PLAN
1/8" = 1'-0"

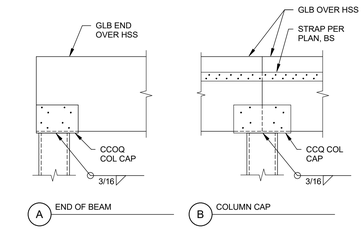
RFI#44 - FRAMING
REFER TO RFI#44 FOR ADDITIONAL INFO





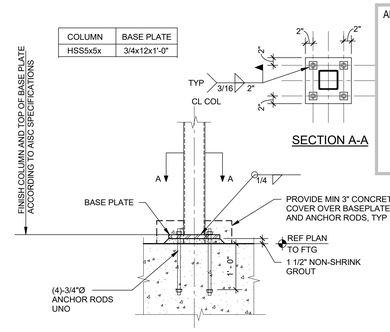
NOTES:
1. SLOPE BEAM SEAT AS NECESSARY TO MATCH ROOF SLOPE.
2. EASE GLB CORNERS AS REQUIRED.

3 GLB TO COLUMN CONNECTION
1" = 1'-0"



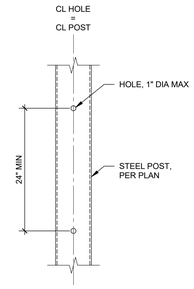
NOTES:
1. SLOPE COLUMN CAP AS REQUIRED TO MATCH BEAM SLOPE.
2. EASE GLB CORNERS AS REQUIRED TO FIT COLUMN CAP.

2 GLB TO COLUMN CONNECTION
1" = 1'-0"

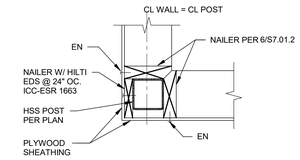


NOTES:
1. USE OVERSIZED HOLES FOR ANCHOR RODS ACCORDING TO AISC SPECIFICATIONS.
2. 3" SQ x 1/4" PLATE WASHERS SHALL BE INSTALLED OVER OVERSIZED HOLES.
3. CONTRACTOR SHALL PROVIDE 1/8" THICK TEMPLATE FOR ANCHOR ROD INSTALLATION.

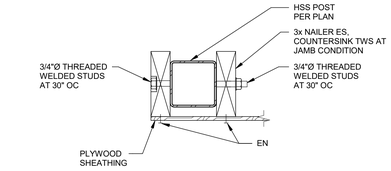
1 STEEL COLUMN BASE PLATE CONNECTION
3/4" = 1'-0"



8 TYPICAL PENETRATION THROUGH STEEL POST
1" = 1'-0"

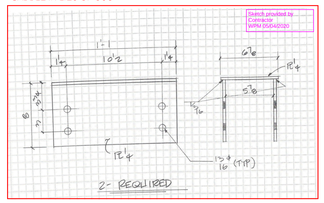


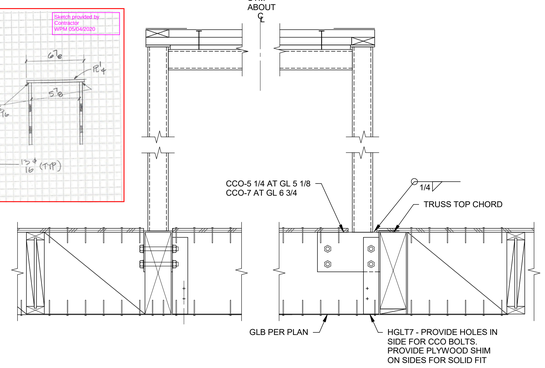
7 TYPICAL NAILER AT CORNER POST
1" = 1'-0"



6 TYPICAL NAILER CONNECTION TO STEEL POST
1 1/2" = 1'-0"

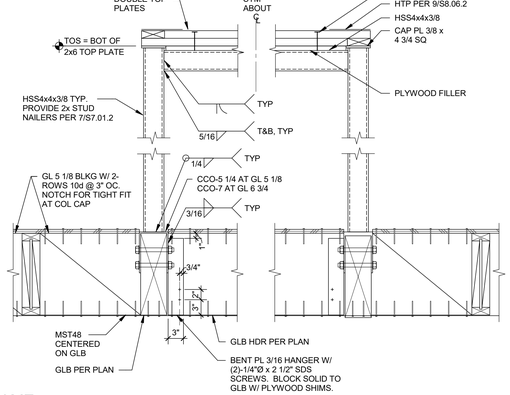
RFI 71- SHOP FAB STEEL SADDLE IN LIEU OF CCO



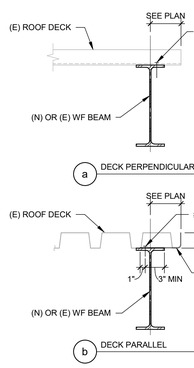


NOTE: FOR INFORMATION NOT SHOWN SEE DETAIL12/S7.01.2

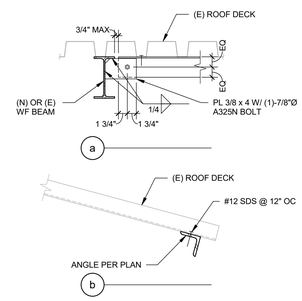
14 SKYLIGHT FRAME AT TRUSS
1" = 1'-0"



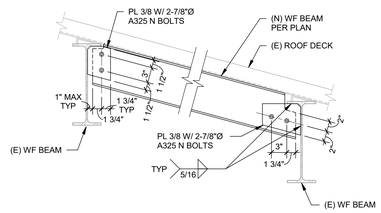
12 SKYLIGHT FRAME
1" = 1'-0"



18 TYPICAL EDGE OF ROOF DECK AT NEW OPENINGS
1" = 1'-0"



17 TYPICAL ANGLE SUPPORT AT NEW ROOF OPENING
1" = 1'-0"



16 TYPICAL SLOPING BEAM CONNECTION
1" = 1'-0"

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

SEAL

REGISTERED PROFESSIONAL ENGINEER TANGEET JUNEJA S5722 STRUCTURAL STATE OF CALIFORNIA

WALTER P MOORE
595 Market Street, Ste. 2130
San Francisco, CA 94105
tel 415.963.6300

APPROVALS

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2 - AS-BUILT - FINAL

ISSUE DATE	08/23/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION

SHEET TITLE
STEEL DETAILS

SHEET NUMBER
S7.01.2

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DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
ROOF		
1. BLOCKING BETWEEN CEILING JOISTS, RAFTERS OR TRUSSES TO TOP PLATE OR OTHER FRAMING BELOW	3-8d COMMON (2 1/2" x 0.131"); OR 3-10d BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	EACH END, TOENAIL
BLOCKING BETWEEN RAFTERS OR TRUSS NOT AT THE WALL TOP PLATE, TO RAFTER OR TRUSS	2-8d COMMON (2 1/2" x 0.131") 2-3" x 0.131" NAILS 2-3" 14 GAGE STAPLES	EACH END, TOENAIL
	2-16d COMMON (3 1/2" x 0.162") 3-3" x 0.131" NAILS 3-3" 14 GAGE STAPLES	END NAIL
FLAT BLOCKING TO TRUSS AND WEB FILLER	16d COMMON (3 1/2" x 0.162") @ 6" O.C. 3" x 0.131" NAILS @ 6" O.C. 3" 14 GAGE STAPLES @ 6" O.C.	FACE NAIL
2. CEILING JOISTS TO TOP PLATE	3-8d COMMON (2 1/2" x 0.131"); OR 3-10d BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	EACH JOIST, TOENAIL
3. CEILING JOIST NOT ATTACHED TO PARALLEL RAFTER, LAPS OVER PARTITIONS (NO THRUST) (SEE IBC SECTION 2308.7.3.1, TABLE 2308.7.3.1)	3-16d COMMON (3 1/2" x 0.162"); OR 4-10d BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
4. CEILING JOIST ATTACHED TO PARALLEL RAFTER (HEEL JOINT) (SEE IBC SECTION 2308.7.3.1, TABLE 2308.7.3.1)	PER TABLE 2308.7.3.1	FACE NAIL
5. COLLAR TIE TO RAFTER	3-10d COMMON (3" x 0.148"); OR 4-10d BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
6. RAFTER OR ROOF TRUSS TO TOP PLATE (SEE IBC SECTION 2308.7.5, TABLE 2308.7.5)	3-10d COMMON (3" x 0.148"); OR 3-16d BOX (3 1/2" x 0.135"); OR 4-10d BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL[c]
7. ROOF RAFTERS TO RIDGE VALLEY OR HIP RAFTERS; OR ROOF RAFTER TO 2-INCH RIDGE BEAM	2-16d COMMON (3 1/2" x 0.162"); OR 3-10d BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES	END NAIL
	3-10d COMMON (3" x 0.148"); OR 3-16d BOX (3 1/2" x 0.135"); OR 4-10d BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
WALL		
8. STUD TO STUD (NOT AT BRACED WALL PANELS)	16d COMMON (3 1/2" x 0.162")	24" O.C. FACE NAIL
	10d BOX (3" x 0.128"); OR 3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	16" O.C. FACE NAIL
9. STUD TO STUD AND ABUTTING STUDS AT INTERSECTING WALL CORNERS (AT BRACED WALL PANELS)	16d COMMON (3 1/2" x 0.162"); OR	16" O.C. FACE NAIL
	16d BOX (3 1/2" x 0.135"); OR 3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	12" O.C. FACE NAIL
10. BUILT-UP HEADER (2" TO 2" HEADER)	16d COMMON (3 1/2" x 0.162")	16" O.C. EACH EDGE, FACE NAIL
	16d BOX (3 1/2" x 0.135")	12" O.C. EACH EDGE, FACE NAIL
11. CONTINUOUS HEADER TO STUD	4-8d COMMON (2 1/2" x 0.131"); OR 4-10d BOX (3" x 0.128")	TOENAIL
12. TOP PLATE TO TOP PLATE	16d COMMON (3 1/2" x 0.162")	16" O.C. FACE NAIL
	10d BOX (3" x 0.128"); OR 3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	12" O.C. FACE NAIL
13. TOP PLATE TO TOP PLATE, AT END JOINTS	8-16d COMMON (3 1/2" x 0.162"); OR 12-10d BOX (3" x 0.128"); OR 12-3" x 0.131" NAILS; OR 12-3" 14 GAGE STAPLES, 7/16" CROWN	EACH SIDE OF END JOINT, FACE NAIL (MINIMUM 24" LAP SPLICE LENGTH EACH SIDE OF END JOINT)
14. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING (NOT AT BRACED WALL PANELS)	16d COMMON (3 1/2" x 0.162"); OR	16" O.C. FACE NAIL
	16d BOX (3" x 0.135"); OR 3" x 0.131" NAILS; OR 3" 14 GAGE STAPLES, 7/16" CROWN	12" O.C. FACE NAIL
15. BOTTOM PLATE TO JOIST, RIM JOIST, BAND JOIST, OR BLOCKING AT BRACED WALL PANELS	2-16d COMMON (3 1/2" x 0.162"); OR 3-16d BOX (3 1/2" x 0.135"); OR 4-3" x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	16" O.C. FACE NAIL
16. STUD TO TOP OR BOTTOM PLATE	4-8d COMMON (2 1/2" x 0.131"); OR 4-10d BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
	2-16d COMMON (3 1/2" x 0.162"); OR 3-10d BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	END NAIL
17. TOP OR BOTTOM PLATE TO STUD	2-16d COMMON (3 1/2" x 0.162"); OR 3-10d BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	END NAIL
18. TOP PLATES, LAPS AT CORNERS AND INTERSECTIONS	2-16d COMMON (3 1/2" x 0.162"); OR 3-10d BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
19. 1" BRACE TO EACH STUD AND PLATE	2-8d COMMON (2 1/2" x 0.131"); OR 2-10d BOX (3" x 0.128"); OR 2-3" x 0.131" NAILS; OR 2-3" 14 GAGE STAPLES, 7/16" CROWN	FACE NAIL
20. 1" x 6" SHEATHING TO EACH BEARING	2-8d COMMON (2 1/2" x 0.131"); OR 2-10d BOX (3" x 0.128")	FACE NAIL
21. 1" x 8" AND WIDER SHEATHING TO EACH BEARING	3-8d COMMON (2 1/2" x 0.131"); OR 3-10d BOX (3" x 0.128")	FACE NAIL
FLOOR		
22. JOIST TO SILL, TOP PLATE OR GIRDER	3-8d COMMON (2 1/2" x 0.131"); OR 3-10d BOX (3" x 0.128") 3-3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	TOENAIL
23. RIM JOIST, BAND JOIST, OR BLOCKING TO TOP PLATE, SILL OR OTHER FRAMING BELOW	8d COMMON (2 1/2" x 0.131"); OR 10d BOX (3" x 0.128") 3" x 0.131" NAILS; OR 3" 14 GAGE STAPLES, 7/16" CROWN	6" O.C., TOENAIL
24. 1" x 6" SUBFLOOR OR LESS TO EACH JOIST	2-8d COMMON (2 1/2" x 0.131"); OR 2-10d BOX (3" x 0.128")	FACE NAIL

DESCRIPTION OF BUILDING ELEMENTS	NUMBER AND TYPE OF FASTENER	SPACING AND LOCATION
FLOOR (CONTINUED)		
25. 2" SUBFLOOR TO JOIST OR GIRDER	2-16d COMMON (3 1/2" x 0.162")	FACE NAIL
26. 2" PLANKS (PLANK & BEAM - FLOOR & ROOF)	2-16d COMMON (3 1/2" x 0.162")	EACH BEARING, FACE NAIL
27. BUILT-UP GIRDERS AND BEAMS, 2" LUMBER LAYERS	20d COMMON (4" x 0.192")	32" O.C., FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
	10d BOX (3" x 0.128"); OR 3" x 0.131" NAILS; OR 3" 14 GAGE STAPLES, 7/16" CROWN	24" O.C., FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES
	AND; 2-20d COMMON (4" x 0.192"); OR 3-10d BOX (3" x 0.128"); OR 3-3" x 0.131" NAILS; OR 3-3" 14 GAGE STAPLES, 7/16" CROWN	END AND AT EACH SPLICE, FACE NAIL
28. LEDGER STRIP SUPPORTING JOISTS OR RAFTERS	3-16d COMMON (3 1/2" x 0.162"); OR 4-10d BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	EACH JOIST OR RAFTER, FACE NAIL
29. JOIST TO BAND JOIST OR RIM JOIST	3-16d COMMON (3 1/2" x 0.162"); OR 4-10d BOX (3" x 0.128"); OR 4-3" x 0.131" NAILS; OR 4-3" 14 GAGE STAPLES, 7/16" CROWN	END NAIL
30. BRIDGING OR BLOCKING TO JOIST, RAFTER OR TRUSS	2-8d COMMON (2 1/2" x 0.131"); OR 2-10d BOX (3" x 0.128"); OR 2-3" x 0.131" NAILS; OR 2-3" 14 GAGE STAPLES, 7/16" CROWN	EACH END, TOENAIL
WOOD STRUCTURAL PANELS (WSP), SUBFLOOR, ROOF AND INTERIOR WALL SHEATHING[1] TO FRAMING AND PARTICLEBOARD WALL SHEATHING TO FRAMING		
		EDGES (INCHES) / INTERMEDIATE SUPPORTS (INCHES)
31. 3/8" - 1/2"	6d COMMON OR DEFORMED (2" x 0.113") (SUBFLOOR AND WALL)	6 / 12
	8d BOX OR DEFORMED (2 1/2" x 0.113") (ROOF)	6 / 12
	2 3/8" x 0.113" NAIL (SUBFLOOR AND WALL)	6 / 12
	1 3/4" 16 GAGE STAPLE, 7/16" CROWN (SUBFLOOR AND WALL)	4 / 8
	2 3/8" x 0.113" NAIL (ROOF)	4 / 8
	1 3/4" 16 GAGE STAPLE, 7/16" CROWN (ROOF)	3 / 6
32. 19/32" - 3/4"	8d COMMON (2" x 0.131"); OR 6d DEFORMED (2" x 0.113")	6 / 12
	2 3/8" x 0.113" NAIL; OR 2" 16 GAGE STAPLE, 7/16" CROWN	4 / 8
33. 7/8" - 1 1/4"	10d COMMON (3" x 0.148"); OR 8d DEFORMED (2 1/2" x 0.131")	6 / 12
OTHER EXTERIOR WALL SHEATHING		
34. 1/2" FIBERBOARD SHEATHING[2]	1 1/2" GALVANIZED ROOFING NAIL (7/16" HEAD DIAMETER); OR 1 1/4" 16 GAGE STAPLE WITH 7/16" OR 1" CROWN	3 / 6
35. 25/32" FIBERBOARD SHEATHING	1 3/4" GALVANIZED ROOFING NAIL (7/16" HEAD DIAMETER); OR 1 1/4" 16 GAGE STAPLE WITH 7/16" OR 1" CROWN	3 / 6
WOOD STRUCTURAL PANELS, COMBINATION SUBFLOOR UNDERLAYMENT TO FRAMING		
36. 3/4" AND LESS	8d COMMON (2 1/2" x 0.131"); OR 6d DEFORMED (2" x 0.113")	6 / 12
37. 7/8" - 1"	8d COMMON (2 1/2" x 0.131"); OR 8d DEFORMED (2 1/2" x 0.131")	6 / 12
38. 1 1/8" - 1 1/4"	10d COMMON (3" x 0.148"); OR 8d DEFORMED (2 1/2" x 0.131")	6 / 12
PANEL SIDING TO FRAMING		
39. 1/2" OR LESS	6d CORROSION-RESISTANT SIDING (1 7/8" x 0.106"); OR 6d CORROSION-RESISTANT CASING (2" x 0.099")	6 / 12
40. 5/8"	8d CORROSION-RESISTANT SIDING (2 3/8" x 0.128"); OR 8d CORROSION-RESISTANT CASING (2 1/2" x 0.113")	6 / 12
INTERIOR PANELING		
41. 1/4"	4d CASING (1 1/2" x 0.080"); OR 4d FINISH (1 1/2" x 0.072")	6 / 12
42. 3/8"	6d CASING (2" x 0.099"); OR 6d FINISH (PANEL SUPPORTS AT 24 INCHES)	6 / 12

NOTES:
1. NAILS SPACED AT 6 INCHES AT INTERMEDIATE SUPPORTS WHERE SPANS ARE 48 INCHES OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAGMS AND SHEAR WALLS, REFER TO SECTION 2305. NAILS FOR WALL SHEATHING ARE PERMITTED TO BE COMMON, BOX OR CASING.
2. SPACING SHALL BE 6 INCHES ON CENTER ON THE EDGES AND 12 INCHES ON CENTER AT INTERMEDIATE SUPPORTS FOR NONSTRUCTURAL APPLICATIONS. PANEL SUPPORTS AT 16 INCHES (20 INCHES IF STRENGTH AXIS IN THE LONG DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED).
3. WHERE A RAFTER IS FASTENED TO AN ADJACENT PARALLEL CEILING JOIST IN ACCORDANCE WITH THIS SCHEDULE AND THE CEILING JOIST IS FASTENED TO THE TOP PLATE IN ACCORDANCE WITH THIS SCHEDULE, THE NUMBER OF TOENAILS IN THE RAFTER SHALL BE PERMITTED TO BE REDUCED BY ONE NAIL.

13 NAILING SCHEDULE - CBC TABLE 2304.10.1
1" = 1'-0"

APPROVALS

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2 - AS-BUILT - FINAL

ISSUE DATE 08/23/2023
NOLL & TAM JOB NUMBER 21630

REVISIONS
| DATE | DESCRIPTION |

SHEET TITLE
TYPICAL WOOD DETAILS

SHEET NUMBER
S8.01.2

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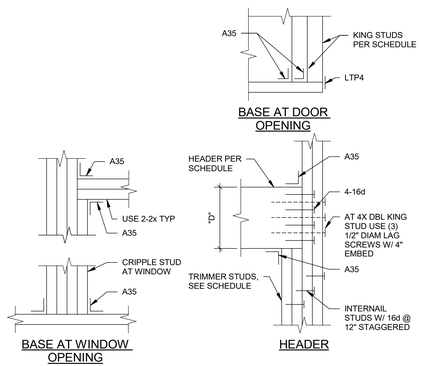
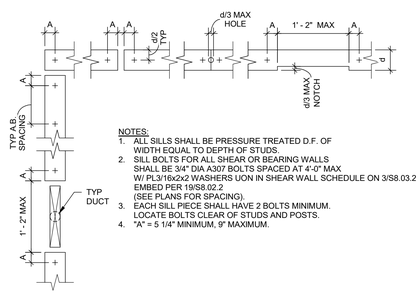


4 WALL OPENING DETAIL

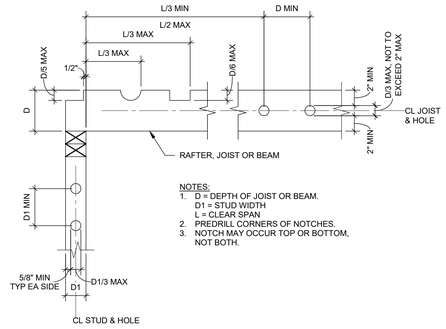
1" = 1'-0"



NOTES:
1. ALL SILLS SHALL BE PRESSURE TREATED D.F. OF WIDTH EQUAL TO DEPTH OF STUDS.
2. SILL BOLTS FOR ALL SHEAR OR BEARING WALLS SHALL BE 3/4" DIA A307 BOLTS SPACED AT 4'-0" MAX W/ PL3/16x2x2 WASHERS UON IN SHEAR WALL SCHEDULE ON 3/S8.03.2, EMBED PER 19/S8.02.2 (SEE PLANS FOR SPACING).
3. EACH SILL PIECE SHALL HAVE 2 BOLTS MINIMUM. LOCATE BOLTS CLEAR OF STUDS AND POSTS.
4. "A" = 5 1/4" MINIMUM, 9" MAXIMUM.

3 ANCHOR BOLT AND SILL PLATE

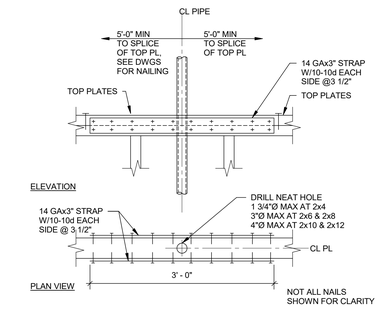
1" = 1'-0"



NOTES:
1. D = DEPTH OF JOIST OR BEAM. D1 = STUD WIDTH L = CLEAR SPAN
2. PREDRILL CORNERS OF NOTCHES.
3. NOTCH MAY OCCUR TOP OR BOTTOM, NOT BOTH.

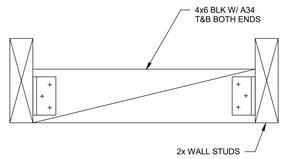
2 HOLES AND NOTCHES AT FRAMING MEMBERS

1" = 1'-0"



1 PLUMBING PENETRATIONS AT WALL

1" = 1'-0"



9 TYP BACKING

3" = 1'-0"

SOLID SAWN	EQUIV ENG LUMBER
4x4	3 1/2"x3 1/2" PSL
4x6	3 1/2"x5 1/4" PSL
6x6	5 1/4"x5 1/4" PSL
6x8	5 1/4"x7" PSL
8x8	7"x7" PSL
2x10	1 3/4"x9 1/4" 1.55E LSL
3x10	1 3/4"x9 1/4" 1.55E LSL
4x10	3 1/2"x9 1/4" 1.3E LSL
6x10	5 1/4"x9 1/4" PSL
8x10	7"x9 1/4" PSL
10x12	7"x11 1/4" PSL W/ PLY FILLER BS

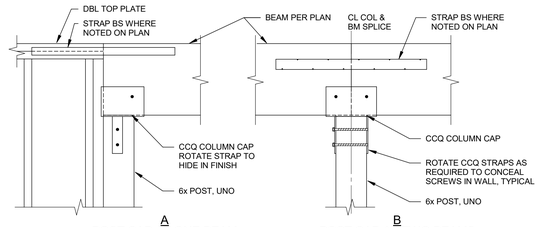
NOTE:
EQUIVALENT ENGINEERED LUMBER MAY BE SUBSTITUTED FOR SPECIFIED SOLID SAWN. SOLID SAWN MAY NOT BE SUBSTITUTED FOR SPECIFIED ENGINEERED LUMBER.

14 EQUIVALENCY TABLE SOLID SAWN - ENGINEERED LUMBER

NTS

8 BEAM AND POST CONNECTION

1" = 1'-0"



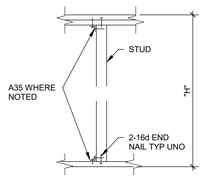
HANGER SCHEDULE			
JOIST SIZE	SIMPSON HANGER	BEAM SIZE	SIMPSON HANGER
2x4	U24	3x12	HU312
2x6	U26	4x6	HU46
2x8	U26	4x8	HU48
2x10	U210	4x10	HU410
2x12	U210	4x12	HU412
(2)-2x4	HU24-2	6x6	HU66
(2)-2x6	HU26-2	6x8	HU68
(2)-2x8	HU28-2	6x10	HU610
(2)-2x10	HU210-2	6x12	HU612
(2)-2x12	HU212-2		
		3 1/8x GLB	HGL T3
11-7/8" Red-I65	MIT3 or MIU2.56	5 1/8x GLB	HGL T5
16" Red-I90	HU416	6 3/4x GLB	HGL T7

NOTES:
1. HANGERS ARE TYPICAL UNLESS NOTED OTHERWISE.
2. INSTALL PER MANUFACTURER'S INSTRUCTIONS. FILL ALL HOLES WITH SPECIFIED FASTENERS.
3. USE SKEWED AND SLOPED HANGERS AS REQUIRED.

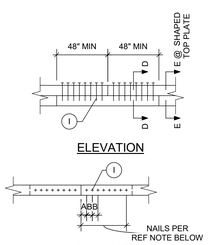
13 HANGER SCHEDULE

3/4" = 1'-0"

WALL STUD SCHEDULE		
MAXIMUM HEIGHT "H"	STUD SIZE AND SPACING UNO	REMARKS
H ≤ 14'-0"	2x6 @ 16"	



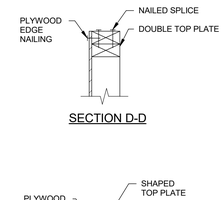
NOTES:
1. HEADERS, KINGSTUDS AND OTHER REFERENCES ON PLAN GOVERN OVER TYPICAL DETAIL.
2. REFER TO SHEARWALL SCHEDULE FOR ADDITIONAL INFORMATION.
3. AT HOLD DOWNS, USE HD POST IN PLACE OF KING STUDS.

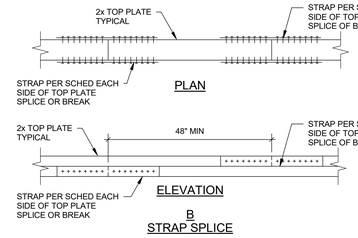


I	A	B
16d NAILS	2"	1 3/4"

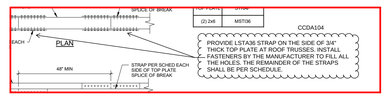
NOTE:
1. USE 16d COMMON NAILS @ EACH SIDE OF EACH TOP PLATE SPLICE.
2. AT LSL STUD WALLS USE STRAP SPLICE.

A
TYPICAL UNO ON PLAN





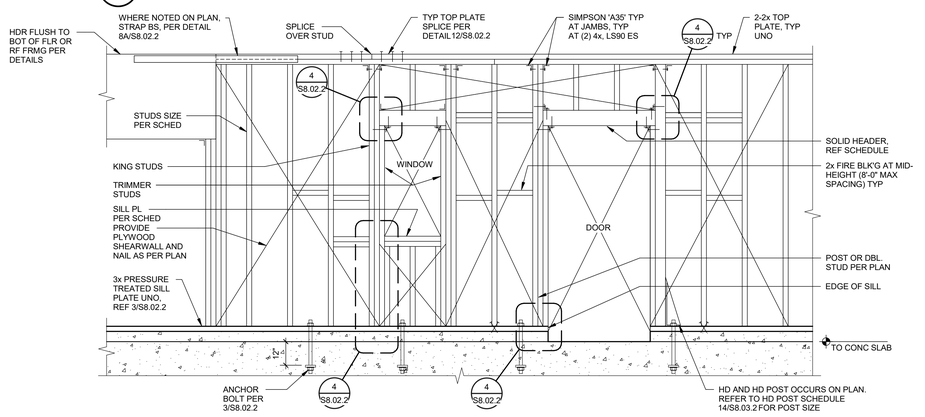
TOP PLATE	STRAP
(2) 2x6	MSTI36



RFI #67 - WHERE THERE IS SPLICE IN TOP PLATE, STRAP REQUIRED ON 3/4" THICK SIDE

12 TOP PLATE SPLICES

1" = 1'-0"



19 TYPICAL WALL FRAMING

1" = 1'-0"

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2 - AS-BUILT - FINAL

ISSUE DATE 08/23/2023
NOLL & TAM JOB NUMBER 21630

REVISIONS

	DATE	DESCRIPTION
1	TBD	TBD

SHEET TITLE
TYPICAL WOOD DETAILS

SHEET NUMBER
S8.02.2

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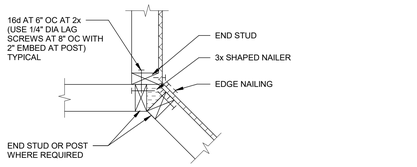
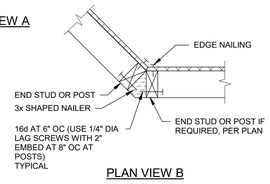


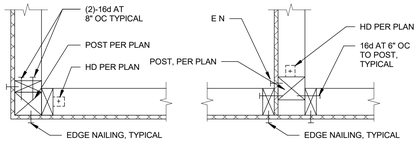
PLAN VIEW A

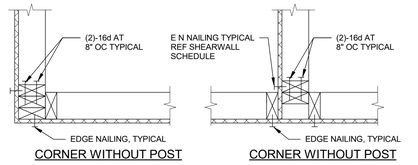


PLAN VIEW B

NOTES:
1. ALL NAILING SHOWN SHALL BE PLYWOOD SHEAR WALL E N, UNLESS NOTED OTHERWISE.

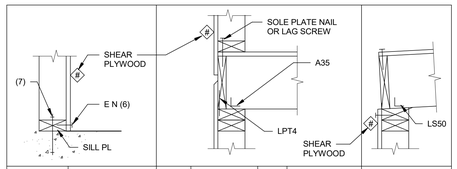
5 SKEWED SHEAR WALL INTERSECTIONS
NO SCALE





NOTES:
1. REFER TO FRAMING PLAN FOR SHEARWALL FACE OF WALL, ONE SIDE, TWO SIDE AND SCHEDULE REFERENCES.
2. ALL STUDS ARE 2x UNLESS NOTED OTHERWISE IN SHEAR WALL SCHEDULES.

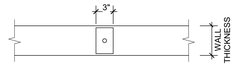
4 TYPICAL SHEARWALL INTERSECTION FRAMING
NO SCALE



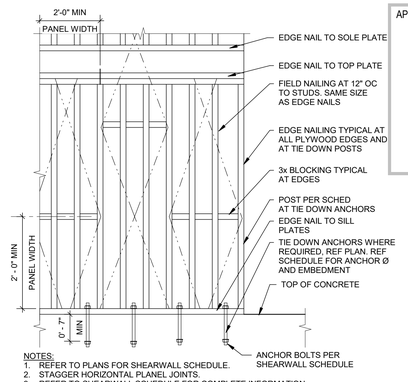
SHEARWALL SYMBOL (1) (3)	SILL PLATE BOLTS	SILL PLATE	SOLE PLATE FASTENER (8)	SOLE PLATE	SHEAR CLIPS AT FLOOR	SHEAR CLIPS AT ROOF
◇6◇	3/4" DIA @ 4'-0" OC	3x	16d @ 4" OC	2x	A35 @ 1'-4" OC	LS50 @ 12" OC
◇4◇	3/4" DIA @ 2'-8" OC	3x	20d @ 3" OC	3x	A35 @ 12" OC	
◇3◇ (4)	3/4" DIA @ 2'-8" OC	3x	30d @ 4" OC	3x	A35 @ 8" OC	
◇2◇ (4)	3/4" DIA @ 1'-4" OC	3x	30d @ 3" OC	3x	A35 @ 8" OC	
◇4◇◇4◇ (2)(4) (5)	3/4" DIA @ 1'-4" OC	3x	1/2" DIAx7" LAG SCREW AT 8" OC	3x	A35 @ 6" OC	
◇3◇◇3◇ (4)(5)	7/8" DIA @ 1'-4" OC	3x	1/2" DIAx7" LAG SCREW AT 8" OC	3x	A35 AND LPT4 AT 8" OC, OPP SIDES	
◇2◇◇2◇ (4)(5)	7/8" DIA @ 1'-4" OC	3x	1/2" DIAx7" LAG SCREW AT 6" OC	3x	A35 AND LPT4 AT 8" OC, OPP SIDES	

NOTES:
1. ◇6◇ NUMBER SHOWN IN SYMBOL INDICATES PLYWOOD PANEL EDGE NAIL (EN) SPACING (INCHES).
2. ◇6◇◇6◇ INDICATES PLYWOOD ON BOTH SIDES OF STUD WALL.
3. NAILS SHALL BE 10d "SHORTS" (2 1/8" LONG) COMMON WIRE UNO.
4. PROVIDE 3x FRAMING MEMBERS AT ADJOINING PANEL EDGES, AND NAILS ON EACH SIDE OF PANEL JOINT SHALL BE STAGGERED.
5. WHERE PLYWOOD IS APPLIED ON BOTH FACES OF WALL, PANEL JOINTS SHALL BE OFFSET TO OCCUR ON DIFFERENT FRAMING MEMBERS.
6. NAILS INTO PT SILL PLATE SHALL BE HOT DIPPED GALVANIZED.
7. ANCHOR BOLTS SHALL HAVE STEEL PLATE WASHERS PER SCHED BELOW. REFER TO DETAIL 3/S8.02.2 FOR ADDITIONAL SILL BOLT INFORMATION.
8. PREDRILL FOR NAILS 20d AND LARGER.

WALL THICKNESS	PLATE WASHER
x6	3"x4 1/2"x1/4"

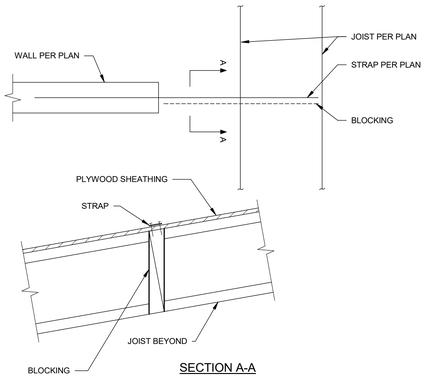


3 SHEAR WALL SCHEDULE
NO SCALE



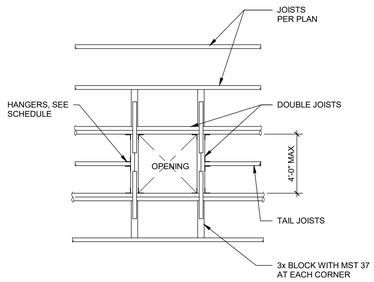
NOTES:
1. REFER TO PLANS FOR SHEARWALL SCHEDULE.
2. STAGGER HORIZONTAL PLANEL JOINTS.
3. REFER TO SHEARWALL SCHEDULE FOR COMPLETE INFORMATION.

1 TYPICAL SHEAR PANEL
NO SCALE



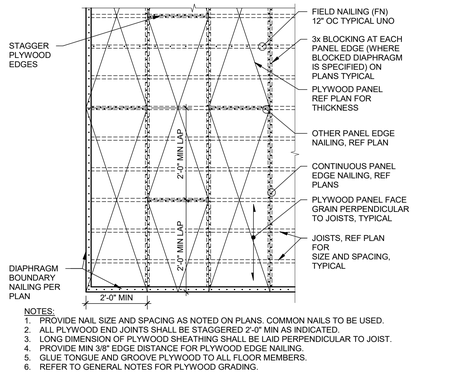
SECTION A-A

10 TYPICAL BLOCKING AND STRAP
1" = 1'-0"



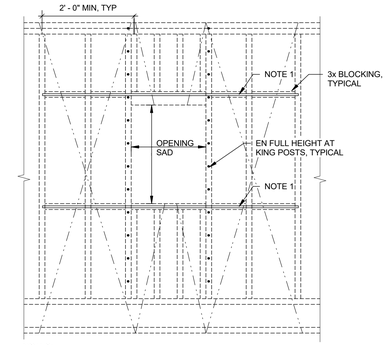
NOTES:
1. REFER TO ARCHITECTURAL, PLUMBING, MECHANICAL AND ELECTRICAL DRAWINGS FOR SIZE AND LOCATION OF OPENINGS.

9 TYPICAL ROOF OPENING
NO SCALE



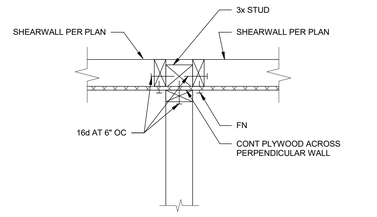
NOTES:
1. PROVIDE NAIL SIZE AND SPACING AS NOTED ON PLANS. COMMON NAILS TO BE USED.
2. ALL PLYWOOD END JOINTS SHALL BE STAGGERED 2'-0" MIN AS INDICATED.
3. LONG DIMENSION OF PLYWOOD SHEATHING SHALL BE LAID PERPENDICULAR TO JOIST.
4. PROVIDE MIN 3/8" EDGE DISTANCE FOR PLYWOOD EDGE NAILING.
5. GLUE TONGUE AND GROOVE PLYWOOD TO ALL FLOOR MEMBERS.
6. REFER TO GENERAL NOTES FOR PLYWOOD GRADING.

8 TYPICAL ROOF AND FLOOR PLYWOOD SHEATHING
NO SCALE



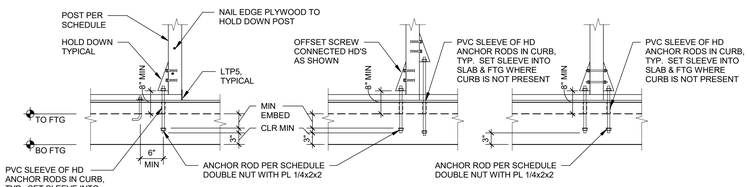
NOTES:
1. CS16 STRAP OVER PLYWOOD. FASTEN WITH 10d SHORTS (2 1/8" LONG) TO ACHIEVE FULL VALUE. PROVIDE STRAP ON BOTH SIDES OF WALL IF PLYWOOD IS ON BOTH SIDES.

7 SHEAR WALL OPENING
NO SCALE



PLAN VIEW

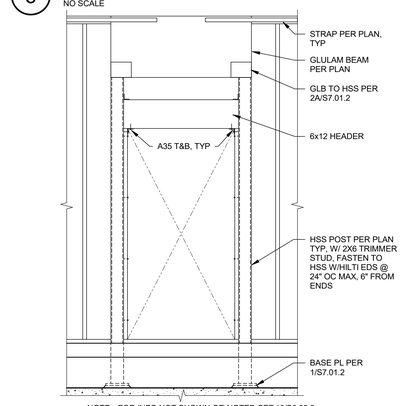
6 TYPICAL SHEARWALL PLYWOOD ACROSS PERPENDICULAR WALL
NO SCALE



NOTES:
1. SEE PLAN FOR SIZES AND LOCATIONS OF HOLDOWNS; SIMPSON DESIGNATIONS USED.
2. USE FASTENERS SPECIFIED BY MANUFACTURER TO ACHIEVE MAXIMUM DESIGN VALUE.
3. FOLLOW ALL MANUFACTURER'S GUIDELINES NECESSARY TO ACHIEVE MAXIMUM DESIGN VALUES.
4. HD ANCHOR RODS SHALL BE ASTM F1554 GR 36.

HOLD DOWN	MIN POST SIZE UNO	ANCHOR ROD DIA	ANCHOR ROD EMBED
HDU2	6x	5/8"	12"
HDU4	6x	5/8"	12"
HDU5	6x	5/8"	12"
HDU8	6x	7/8"	12"
HDU11	6x	1"	12"
HDU14	6x	1"	15"

14 HOLDOWN AT FOUNDATION
NO SCALE



NOTE: FOR INFO NOT SHOWN OR NOTED SEE 19/S8.02.2

11 TYP HSS POST AT WALL OPENING
1/2" = 1'-0"

APPROVALS

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

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ISSUE TITLE
INCREMENT 2 - AS-BUILT - FINAL

ISSUE DATE 08/23/2023
NOLL & TAM JOB NUMBER 21630

REVISIONS

	DATE	DESCRIPTION
1	TBD	TBD

SHEET TITLE
TYPICAL WOOD DETAILS

SHEET NUMBER
S8.03.2

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TABLE 1 - HOLE SIZE FACTORS AND LOACTIONS

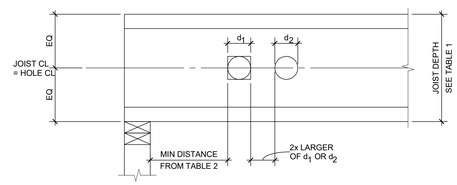
ROUND HOLE SIZE	RECTANGULAR HOLE SIZE[2]	JOIST DEPTH							
		11 7/8"	14"	16"	18"	20"	22"	24"	26"
2"	1 1/4"	A	A	A	4"	4"	4"	4"	4"
3"	1 3/4"	A	A	A	1'-3"	1'-3"	1'-3"	4"	4"
4"	2 1/4"	B	B	A	A	A	1'-3"	1'-3"	1'-3"
5"	3"	C	C	B	A	A	A	A	A
6"	3 1/2"	E	C	C	B	B	A	A	A
7"	4"		D	C	C	B	B	A	A
8"	4 3/4"		E	D	C	C	B	B	B
9"	5 1/4"			E	D	C	C	B	B
10"	6"			E	E	D	C	C	B
11"	6 1/2"				E	D	D	C	C
12"	7"					E	D	D	C
13"	7 3/4"					E	E	D	D
14"	8 1/4"						E	E	D
15"	9"							E	D
16"	9 1/2"							E	E
17"	10"								E

RED-I45, RED-I65, RED-I90, RED-I90H, AND RED-I90HS ALLOWABLE HOLES

NOTE: SEE TABLE 2 FOR DIMENSIONS A, B, C, D, & E

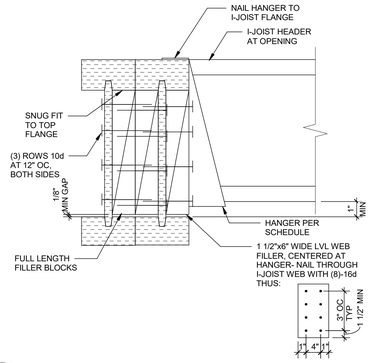
TABLE 2 - HOLE LOCATIONS

JOIST SPAN	HOLE FACTOR				
	A	B	C	D	E
14'	1'-3"	2'-0"	2'-6"	3'-9"	5'-0"
15'	1'-3"	2'-0"	3'-0"	4'-0"	5'-3"
16'	1'-3"	2'-3"	3'-3"	4'-6"	5'-9"
17'	1'-6"	2'-9"	3'-9"	5'-0"	6'-3"
18'	1'-6"	3'-0"	4'-3"	5'-6"	6'-9"
19'	1'-9"	3'-0"	4'-3"	5'-6"	7'-0"
20'	1'-9"	3'-0"	4'-3"	5'-6"	7'-0"
21'	2'-0"	3'-0"	4'-3"	5'-9"	7'-3"
22'	2'-0"	3'-0"	4'-3"	5'-9"	7'-3"
23'	2'-0"	3'-3"	4'-3"	5'-9"	7'-6"
24'	2'-3"	3'-3"	4'-6"	5'-9"	7'-6"
25'	2'-3"	3'-6"	4'-9"	5'-9"	7'-9"
26'	2'-3"	3'-9"	4'-9"	6'-0"	7'-9"
27'	2'-6"	3'-9"	5'-0"	6'-3"	7'-9"
28'	2'-6"	4'-0"	5'-3"	6'-6"	8'-0"
29'	2'-6"	4'-0"	5'-6"	6'-9"	8'-3"
30'	2'-9"	4'-3"	5'-9"	7'-0"	8'-6"
31'	3'-0"	4'-3"	5'-9"	7'-3"	8'-9"
32'	3'-0"	4'-6"	6'-0"	7'-6"	9'-3"
33'	3'-0"	4'-9"	6'-3"	7'-9"	9'-6"
34'	3'-0"	5'-0"	6'-6"	8'-0"	9'-9"
35'	3'-3"	5'-0"	6'-6"	8'-3"	10'-0"
36'	3'-3"	5'-0"	6'-9"	8'-6"	10'-3"



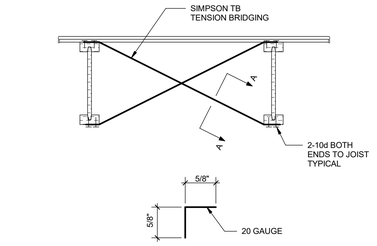
NOTES:
1. TABLES ARE BASED ON SIMPLE SPANS WITH 45 PSF MAX. DEAD LOADS.
2. RECTANGULAR HOLES ARE BASED ON MEASUREMENT OF THE LONGEST SIDE.
3. MULTIPLE HOLES REQUIRE SPACING 2 TIMES THE LENGTH OF THE LARGEST HOLE.
4. DO NOT CUT HOLES IN JOIST CANTILEVER AREAS.
5. INFORMATION SHOWN IS FOR THE WEYERHAEUSER/RED-BUILT I-JOIST PRODUCT. OTHER PRODECTS SUBSTITUTED SHALL SUBMIT COMPARABLE HOLE SCHEDULE FOR APPROVAL.

5 TYPICAL I-JOIST WEB HOLES
NO SCALE



2 TYPICAL DOUBLE I-JOIST DETAIL
NO SCALE

RFI #23 - PRODUCTION OF CAMBERED RED I-90 JOIST. CAMBER RED-I90 JOIST TO 2250' RADIUS

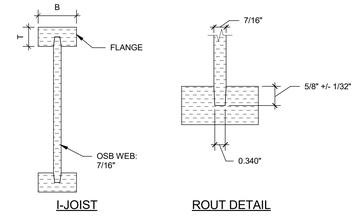


SECTION A-A

NOTES:
1. BRIDGING IS REQUIRED IN ROOF AT 16'-0" OC AND IN FLOOR AT 10'-0" OC MAX, WHERE SPANS ARE > 20'-0".
2. FULL DEPTH I-JOIST BLOCKING MAY BE USED AS AN ALTERNATE TO THE METAL BRIDGING.

WOOD I-JOIST NOTES
1. WOOD I-JOISTS SHALL BE PREFABRICATED BY A MANUFACTURER WITH A MINIMUM OF 5 YEARS EXPERIENCE PERFORMING SIMILAR WORK. DESIGN, FABRICATION, AND TESTING SHALL COMPLY WITH ASTM D5055, "STRUCTURAL CAPACITIES OF PREFABRICATED WOOD I-JOISTS." MANUFACTURER SHALL HAVE A CURRENT ICC REPORT FOR I-JOISTS WHICH INDICATES COMPLIANCE WITH 2015 IBC, ASTM D5055-04, AND ICC ES AC-14. THE ICC REPORT SHALL ALSO REQUIRE A QUALITY CONTROL/ ASSURANCE PROGRAM COMPLYING WITH THE REQUIREMENTS OF ICC AC-14 AND ASTM D5055-04
2. I-JOIST MANUFACTURER SHALL RETAIN A CIVIL ENGINEER LICENSED IN THE STATE OF CALIFORNIA TO DIRECT THE FABRICATION AND ERECTION OF THE JOISTS.
3. PRIOR TO FABRICATION OF I-JOISTS, THE FOLLOWING MATERIAL BEARING THE APPROVAL OF THE MANUFACTURER'S ENGINEER MUST BE SUBMITTED TO THE ARCHITECT FOR REVIEW:
   A. SHOP DRAWINGS CLEARLY SHOWING JOIST LAYOUT AND JOIST MEMBER SIZES (INCLUDING GRADE AND SPECIES OF LUMBER USED), ELEVATION OF TAPERED JOISTS (IF ANY), BRIDGING REQUIREMENTS, WEB OPENINGS, WEB STIFFENERS, CONNECTION DETAILS, AND BEARING DETAILS.
4. PROVIDE ALL BLOCKING, WEB STIFFENERS, LATERAL AND DIAGONAL BRACING, CLIPS, AND ANCHORS AS DETAILED IN THESE DRAWINGS. DO NOT CUT, NOTCH, DRILL OR MODIFY I-JOISTS EXCEPT AS DETAILED IN THE STRUCTURAL DRAWINGS.
5. THE CONTRACTOR SHALL INSTALL ERECTION BRACING IN ACCORDANCE WITH THE JOIST MANUFACTURER'S REQUIREMENTS.
6. THE CONTRACTOR SHALL COORDINATE ALL PLUMBING, ELECTRICAL, MECHANICAL, FIRE PROTECTION, AND FEATURES REQUIRED BY OTHER TRADES. CONFLICTS BETWEEN M/E/P AND JOIST STRUCTURAL REQUIREMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT.
7. PROVIDE WEB STIFFENERS AT ALL BEARINGS. NAIL JOISTS AT BEARING WITH 2-16d NAILS WITH ONE NAIL EACH SIDE OF WEB, 1-1/2" MINIMUM FROM JOIST END TO AVOID SPLITTING. NO TOE NAILS.
8. PROVIDE 1-1/2" DIA KNOCKOUT HOLES AT 12" OC. JOISTS MAY BE ORIENTED WITH KNOCKOUTS AT THE TOP OR BOTTOM. HOLES THROUGH I-JOIST WEBS SHALL BE PERMITTED WHERE NOTED ON THE PLANS AND PER DETAIL 5 OF THIS SHEET.
9. PROVIDE LATERAL BRACING OF I-JOISTS WITH SPANS GREATER THAN 20'-0" PER BRIDGING DETAIL 7 OF THIS SHEET.
10. PROVIDE CAMBER IN I-JOISTS AS FOLLOWS:
    A. CAMBER FLOOR JOISTS IN EXCESS OF 20 FEET LONG TO RADIUS = 3000 FEET.
    B. CAMBER ROOF JOISTS IN EXCESS OF 20 FEET LONG TO RADIUS = 2000 FEET.
    C. Red-I90HS JOISTS DO NOT NEED TO BE CAMBERED.
11. SEISMIC BRACING TO JOISTS -- SEE DETAIL 8 FOR SEISMIC BRACING DETAILS AND LOAD LIMITS. TOTAL BRACE LOAD PER JOIST DUE TO MULTIPLE BRACES SHALL NOT EXCEED THE MAX BRACE FORCES SPECIFIED IN DETAIL 8.

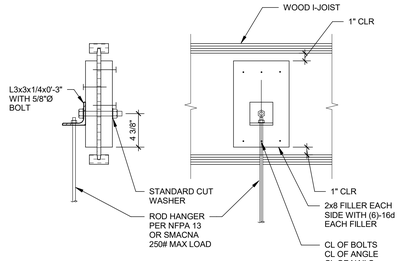
6 WOOD I-JOIST NOTES
NO SCALE



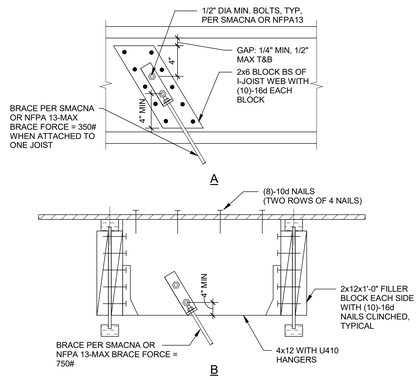
I-JOIST ROUT DETAIL

I JOIST SECTION PROPERTIES (ESR 2994)					WEB STIFFENERS	
JOIST TYPE	T x B FLANGE	EI (JOIST) 10^6 LBS IN^2	M ALLOW. FT-LBS	V ALLOW. LBS	SIZE	NAILS
11 7/8" Red-I65	1 1/2 x 2 1/2	450	6,750	2,255	1" x 2 5/16"	(3) 8d
16" Red-I90	1 1/2 x 3 1/2	1246	13,115	2,810	1 1/2" x 5 1/2"	(6) 16d

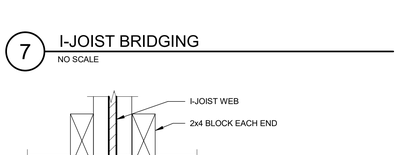
NOTE: WEB STIFFENERS AT RED-I65 JOISTS ARE SHEATHING MATERIAL, FACE GRAIN ORIENTED VERTICALLY.



9 TYPICAL HANGER FROM I-JOIST 250 LB MAXIMUM PER JOIST
NTS



8 TYPICAL SEISMIC BRACING TO I-JOISTS
NO SCALE



NOTES:
1. USE THIS DETAIL WHERE FACTORY INSTALLED END BLOCKS ARE NOT PROVIDED.

7 I-JOIST BRIDGING
NO SCALE

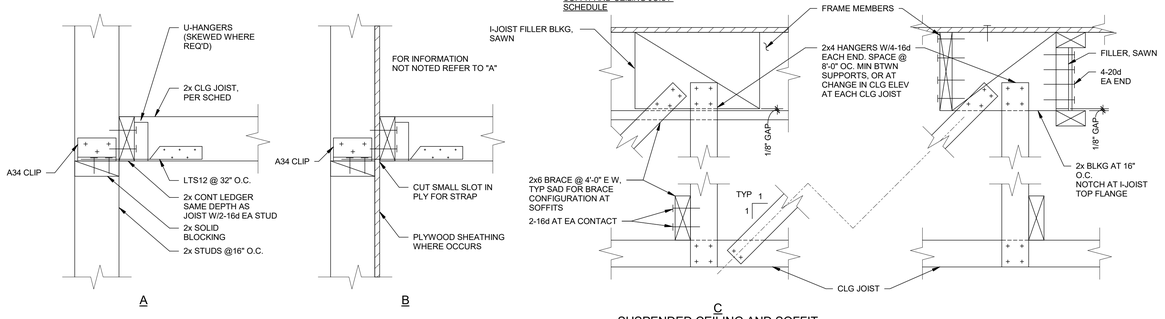
12 ALTERNATE I-JOIST BLOCKING
NO SCALE

11 WOOD I-JOIST SCHEDULE
NO SCALE

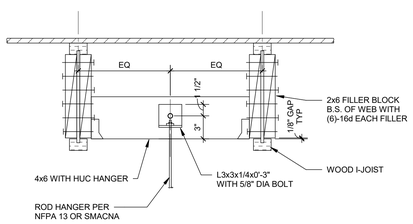
MAX SPAN	JOIST	REMARKS
8'-0"	2x6 @ 24" O.C.	-
10'-0"	2x8 @ 16" O.C.	-
12'-0"	2x10 @ 16" O.C.	-
OVER 12'-0"	2x6 @ 24" O.C.	PROVIDE 2x4 HGRS PER DET "C"

NOTES:
1. MEMBER SIZES BASED ON DEAD LOAD = 12 PSF PLUS LIVE LOAD = 10 PSF MAX.
2. REF ARCH DRAWINGS FOR TYPICAL CEILING AND SOFFIT LOCATIONS.

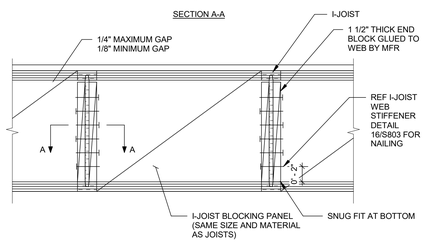
SOFFIT AND CEILING JOIST SCHEDULE



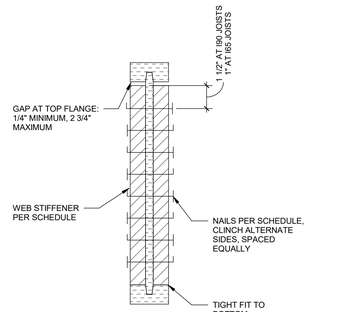
15 TYPICAL SOFFIT AND CEILING JOIST SCHEDULE
NO SCALE



18 HANGER BETWEEN I-JOISTS 500 LB MAXIMUM
NO SCALE



17 I-JOIST BLOCKING
NO SCALE



16 WOOD I-JOIST STIFFENER
NO SCALE

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

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ISSUE TITLE
INCREMENT 2 - AS-BUILT - FINAL

ISSUE DATE 08/23/2023
NOLL & TAM JOB NUMBER 21630

REVISIONS
	DATE	DESCRIPTION

SHEET TITLE
TYPICAL WOOD I-JOIST DETAILS

SHEET NUMBER
S8.04.2

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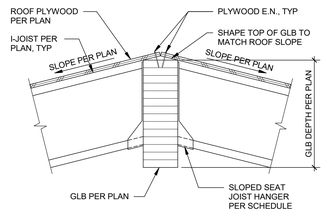
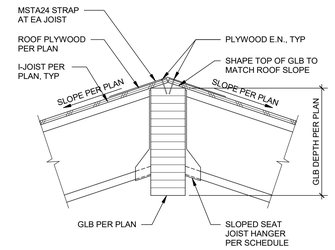


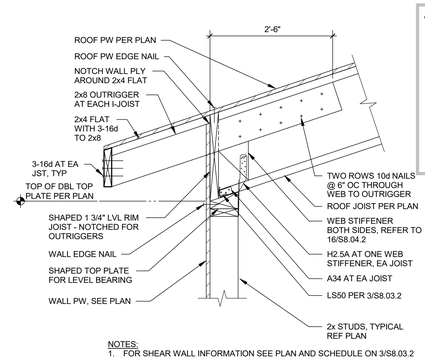
3 TYPICAL HIP BEAM DETAIL

1" = 1'-0"



2 TYPICAL RIDGE BEAM DETAIL

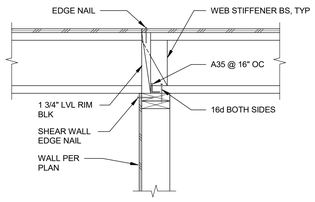
1" = 1'-0"



NOTES:
1. FOR SHEAR WALL INFORMATION SEE PLAN AND SCHEDULE ON 3/S8.03.2

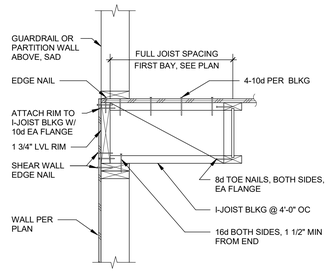
1 TYPICAL JOIST BEARING ON EXTERIOR STUD WALL

1" = 1'-0"



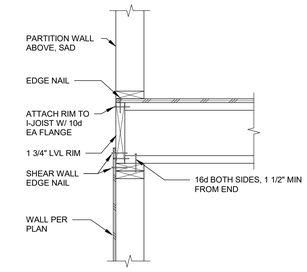
8 I-JOIST PERPENDICULAR OVER INTERIOR WALL

1" = 1'-0"



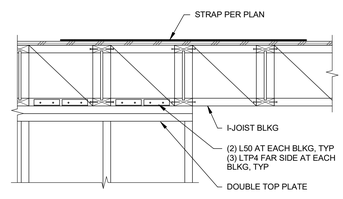
7 I-JOIST PARALLEL TO WALL

1" = 1'-0"



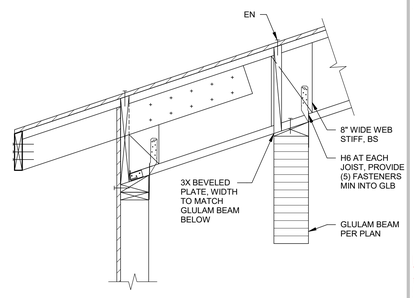
6 I-JOIST PERPENDICULAR TO WALL

1" = 1'-0"



12 I-JOIST PARALLEL TO WALL

1" = 1'-0"



NOTE: FOR INFO NOT SHOWN OR NOTED SEE 1/S8.05.2

11 DETAIL

1" = 1'-0"

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INCREMENT 2 - AS-BUILT - FINAL

ISSUE DATE	08/23/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION
1	TBD	TBD

SHEET TITLE
WOOD I-JOIST DETAILS

SHEET NUMBER
S8.05.2

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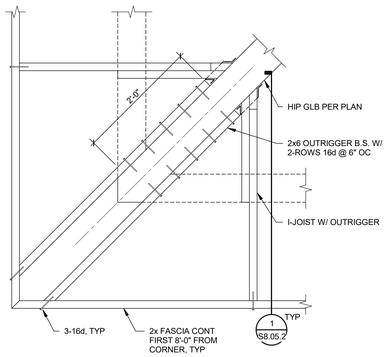
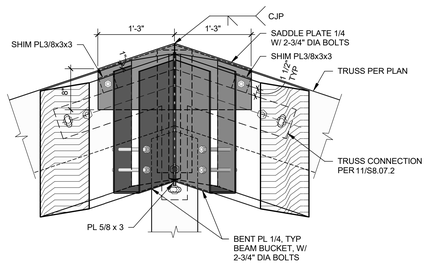
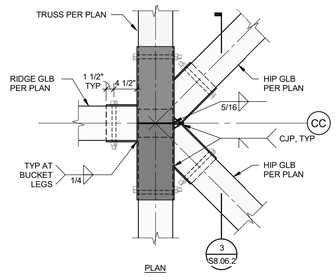


4 TYPICAL ROOF CORNER
1" = 1'-0"



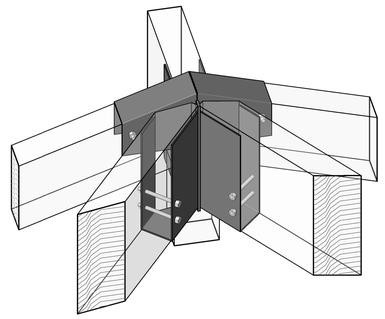
NOTES:
1. COORDINATE CONFIGURATION OF SADDLE PLATE WITH TRUSS TOP CHORD BOLTED CONNECTION.
2. BEVEL CORNERS OF GL BEAMS AS NEEDED TO SIT SQUARELY IN BEAM BUCKETS.
3. PROVIDE STEEL PLATE SHIMS AS NEEDED FOR SNUG TIGHT FIT OF SADDLE PLATE OVER TRUSS CHORD CONNECTION.

3 SECTION
1" = 1'-0"



PLAN

2 HIP AND RIDGE BEAMS TO TRUSS CONNECTION
1" = 1'-0"



1 HIP AND RIDGE BEAMS TO TRUSS ISOMETRIC

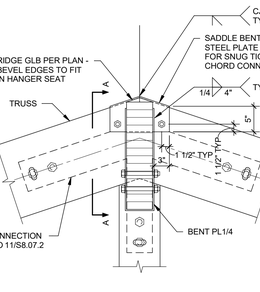
9 DETAIL
NO SCALE

NOTE: BEVEL CORNERS OF GL BEAM AS NEEDED TO SIT SQUARELY IN BEAM BUCKET.

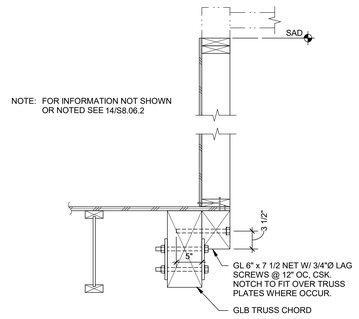
8 SECTION
1" = 1'-0"

PLAN

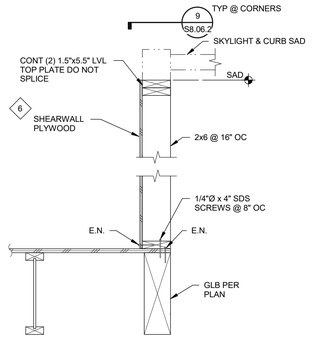
7 HIP BEAM TO CORNER COLUMN CONNECTION
1" = 1'-0"



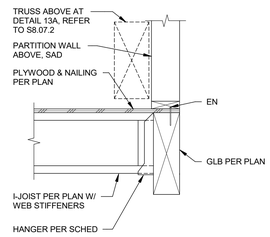
6 HIP BEAM TO CORNER COLUMN ISOMETRIC



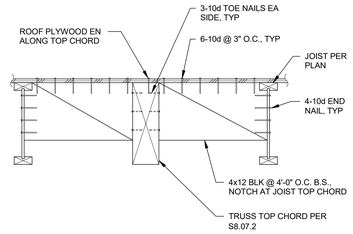
15 SKYLIGHT WALL AT TRUSS
1" = 1'-0"



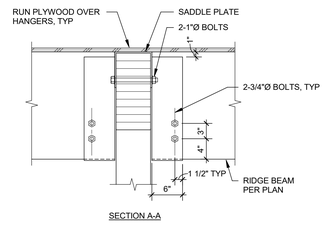
14 TYPICAL SKYLIGHT WALL
1" = 1'-0"



13 DETAIL
1" = 1'-0"



12 ROOF AT TRUSS TOP CHORD
1" = 1'-0"



SECTION A-A

16 RIDGE BEAM CONNECTION
1" = 1'-0"

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ISSUE DATE	08/23/2023
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REVISIONS

	DATE	DESCRIPTION
TBD	TBD	

SHEET TITLE
WOOD DETAILS

SHEET NUMBER
S8.06.2

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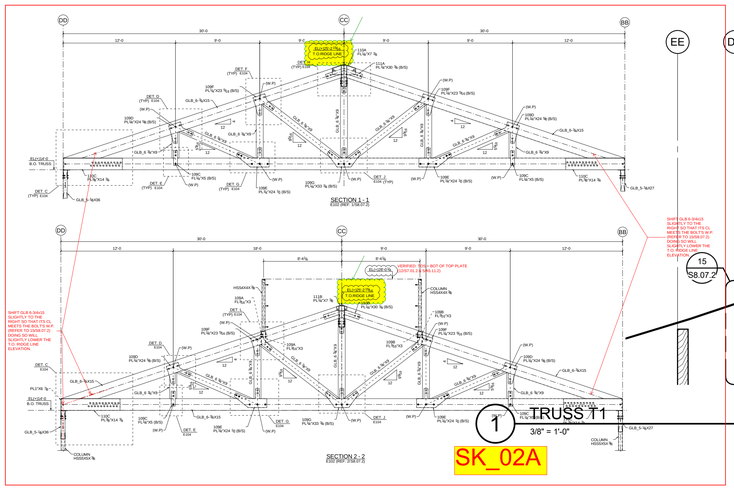
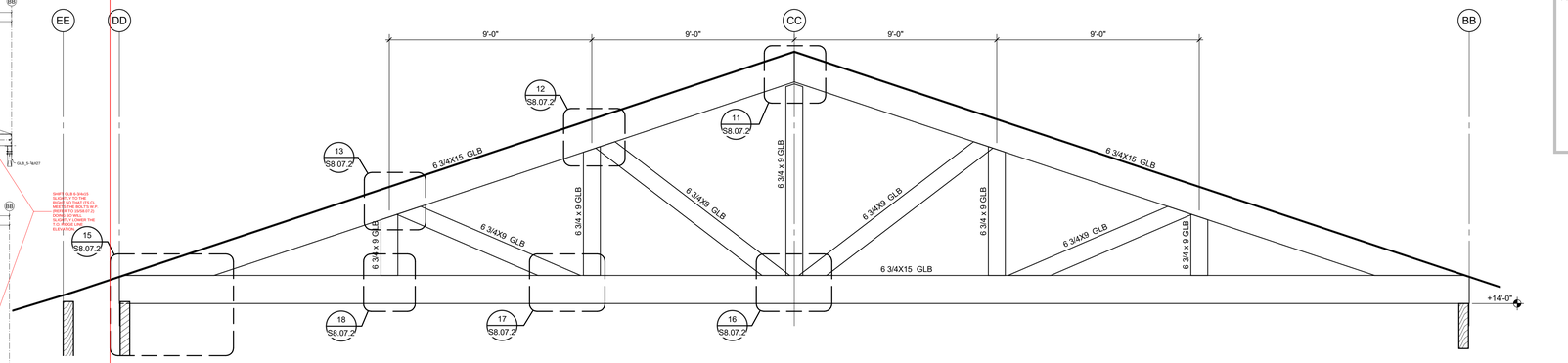


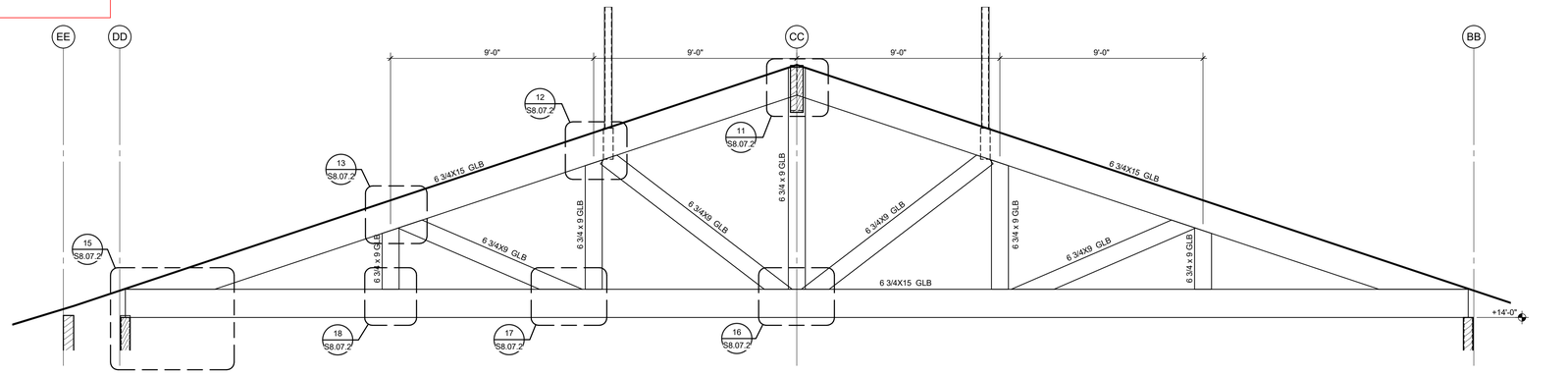
1 TRUSS T1
3/8" = 1'-0"

SK_02A

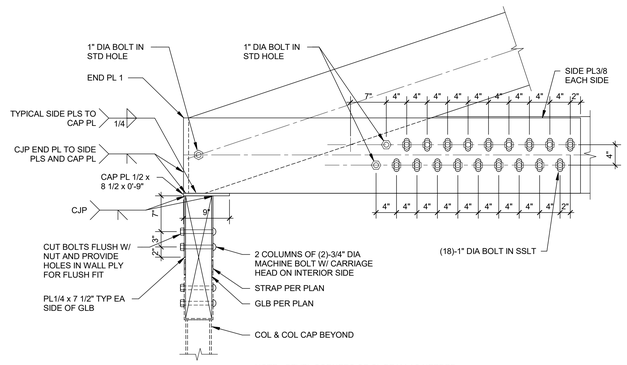


RFI #41- RIDGE ELEVATION. DELTA STEEL CONSTRUCTION SEE RFI#41 FOR ADDITIONAL INFORMATION

RFI#70- T2 TOP BOLT AND GLULAM BUCKET INTERFERENCE. NOTCH BUCKET AND GLULAM BEAM TO CLEAR CONNECTION BOLT. SEE FRIF #70 FOR ADDITIONAL INFORMATION

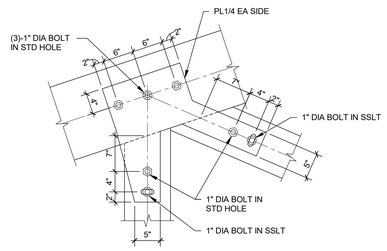


2 TRUSS T2
3/8" = 1'-0"

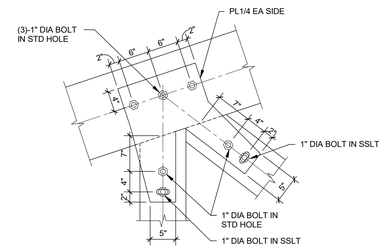


NOTE: BEVEL CORNERS OF GL BEAM AS NEEDED.

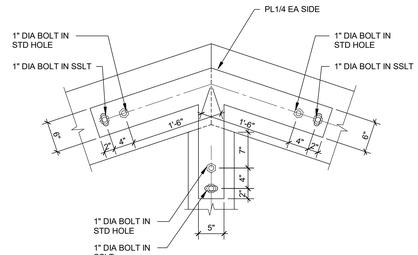
15 ROOF TRUSS DETAIL
1" = 1'-0"



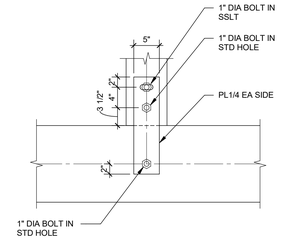
13 ROOF TRUSS DETAIL
1" = 1'-0"



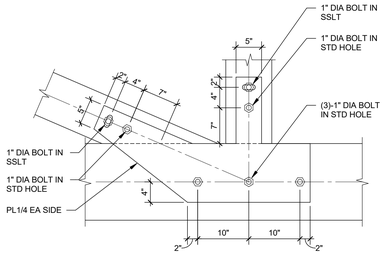
12 ROOF TRUSS DETAIL
1" = 1'-0"



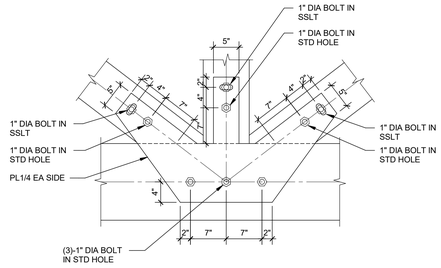
11 ROOF TRUSS DETAIL
1" = 1'-0"



18 ROOF TRUSS DETAIL
1" = 1'-0"



17 ROOF TRUSS DETAIL
1" = 1'-0"



16 ROOF TRUSS DETAIL
1" = 1'-0"

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SEAL

REGISTERED PROFESSIONAL ENGINEER TANJEET JUNEJA S5722 STRUCTURAL STATE OF CALIFORNIA

WALTER P MOORE
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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2 - AS-BUILT - FINAL

ISSUE DATE	08/23/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION
TBD	TBD	

SHEET TITLE
WOOD ROOF TRUSSES

SHEET NUMBER
S8.07.2

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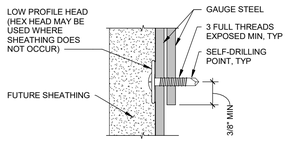
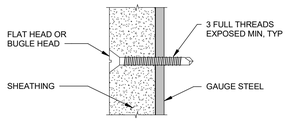


STEEL TO STEEL

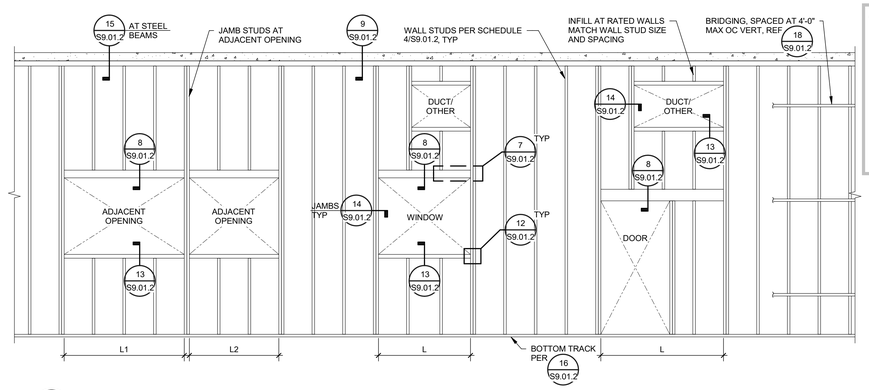


SHEATHING TO STEEL

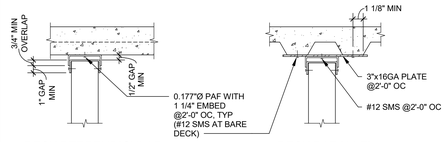
NOMINAL SIZE	CATALOG SIZE	MINIMUM PROPERTIES			SPACING (INCHES)	MAX HT (FEET)
		Ix (in)⁴	Sx (in)³	Ma (in-k)		
WALL STUDS						
2 ½" x 20 GA	250S125-33	0.1780	0.1420	2.4100	12.0000	13'-2"
3 5/8" x 20 GA	362S125-33	0.4150	0.2010	3.5900	16.0000	16'-0"
3 5/8" x 18 GA	362S125-43	0.5360	0.2850	5.3100	16.0000	17'-5"
3 5/8" x 16 GA	362S125-54	0.6550	0.3410	9.6200	16.0000	18'-7"
6" x 20 GA	600S125-33	1.4090	0.4700	6.3200	16.0000	23'-9"
6" x 18 GA	600S125-43	1.8170	0.6060	9.4600	16.0000	26'-1"
6" x 16 GA	600S125-54	2.2360	0.7450	17.3400	12.0000	27'-11"
WALL TRACKS						
2 ½" x 16 GA	250T125-54	0.2970	0.1880	5.6400	TYP TRACK AT 2 ½" STUDS	
2 ½" x 16 GA	250T150-54	0.3250	0.1970	5.8900	TOP TRACK	
2 ½" x 16 GA	250T200-54	0.3710	0.2090	6.2500	CAPPING TRACK	
3 5/8" x 16 GA	362T125-54	0.6780	0.3120	9.3400	TYP TRACK AT 3 5/8" STUDS	
3 5/8" x 16 GA	362T150-54	0.7350	0.3250	9.7400	TOP TRACK	
3 5/8" x 16 GA	362T200-54	0.8320	0.3450	10.3400	CAPPING TRACK	
6" x 16 GA	600T125-54	2.2410	0.5920	17.7300	TYP TRACK AT 6" STUDS	
6" x 16 GA	600T150-54	2.4000	0.6090	18.2400	TOP TRACK	
6" x 16 GA	600T200-54	2.6410	0.7170	21.4800	CAPPING TRACK	

1. PROVIDE STUDS, TRACKS, AND BRACING PER THE SCHEDULE ON 4/S9.01.2
2. SEE ARCH DWGS FOR WALL TYPES, AND FINISHES. SEE PLANS FOR RATED WALL LOCATIONS.
3. ALL STUDS AND TRACKS SHALL CONFORM TO ASTM A653 OR A1003.
   a. 18 GAGE AND LIGHTER: MINIMUM YIELD OF 33 KSI
   b. 16 GAGE AND HEAVIER: MINIMUM YIELD OF 50 KSI
   c. ALL STUDS AND TRACKS SHALL BE MANUFACTURED BY CURRENT MEMBERS OF THE STEEL STUD MANUFACTURER'S ASSOCIATION (SSMA). ALL STUDS AND TRACKS SHALL COMPLY WITH AISI S201-07.
4. ALL FRAMING COMPONENTS SHALL BE CUT SQUARELY OR ON AN ANGLE (SUCH AS BRACING) TO SQUARELY FIT AGAINST ABUTTING MEMBERS. MEMBERS SHALL BE HELD FIRMLY IN POSITION UNTIL PROPERLY FASTENED.
5. WHEN PROVIDED, FACTORY PUNCHOUTS SHALL BE LOCATED ALONG THE CENTERLINE OF THE WEBS OF STUDS AND HAVE MINIMUM CENTER TO CENTER SPACING OF 24". PUNCHOUTS FOR MEMBERS LESS THAN 2.5" DEEP SHALL BE A MAXIMUM OF 3/4" WIDE x 4" LONG.
6. SPLICES IN STUDS AND BRACES SHALL NOT BE PERMITTED.
7. ALL FRAMING SHALL BE COORDINATED WITH GLAZING MANUFACTURER, MECHANICAL, ELECTRICAL, PLUMBING AND OTHER TRADES.
8. POWER ACTUATED FASTENERS (PAF) SHALL BE HILTI® DS (0.177" DIA. x 1 1/4" EMBEDMENT) PER ICC-ESR REPORT NO. 1663. PROVIDE 0.08" THICK x 1.1" SQ OR 1.425" ROUND WASHERS FOR ALL POWER ACTUATED FASTENERS.
9. PROVIDE SELF DRILLING SHEET METAL SCREWS (SMS) PER DETAIL
10. SEE 18/S9.01.2 OR 19/S9.01.2 FOR TYPICAL BRIDGING DETAILS USING EITHER COLD ROLLED CHANNELS (CRC) OR FLAT STRAPS WITH BLOCKING. BRIDGING MAY BE OMITTED WHERE THE FOLLOWING SHEATHING AND FASTENERS ARE PROVIDED OF BOTH FACES OF STUD WALLS:

WALL SHEATHING	FASTENER
SINGLE PLY GYPSUM WALLBOARD AND/OR GYPSUM LATH	#6 x 1 1/4" LONG x 0.3145" DIA FLAT HEAD SELF DRILLING SCREW AT 8" O.C. PER ASTM C954 AND ASTM C1280
TWO PLY GYPSUM WALL BOARD	#6 x 1 3/4" LONG x 0.3145" DIA FLAT HEAD SELF DRILLING SCREW AT 8" O.C. PER ASTM C954 AND ASTM C1280
PLYWOOD	#6 PHILLIPS BUGLE HEAD x 1 1/4" SCREWS SPACED PER TABLE ASTM C1280 AT 8" O.C.

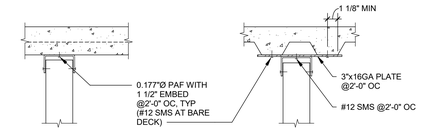


5 SHEET METAL SCREW (SMS)
1 1/2" = 1'-0"



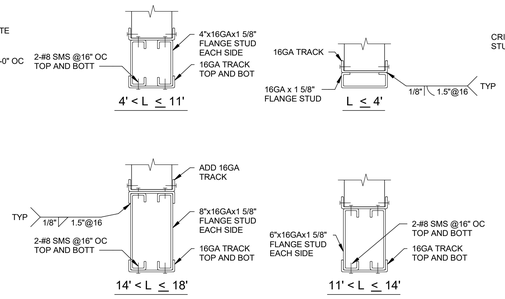
DECK PERPENDICULAR DECK PARALLEL

4 INTERIOR WALL STUD SCHEDULE
NO SCALE



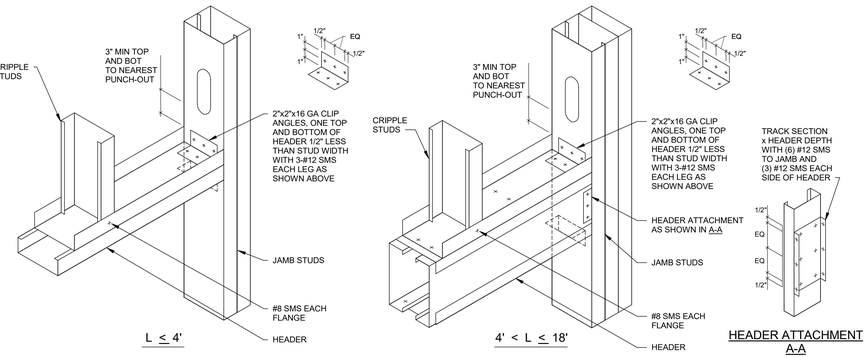
DECK PERPENDICULAR DECK PARALLEL

3 METAL STUD FRAMING NOTES
NO SCALE

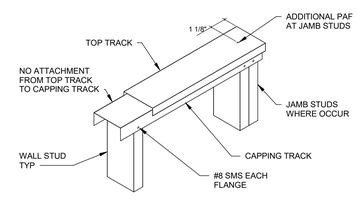


NOTE: HEADERS SHALL USE UNPUNCHED STUDS AND TRACKS

2 TYPICAL INTERIOR METAL STUD FRAMING ELEVATION
NO SCALE

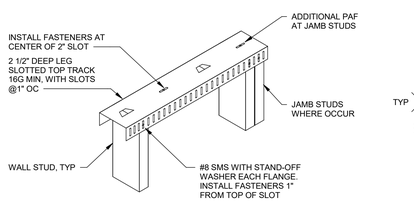


7 HEADER AND JAMB CONNECTION
1 1/2" = 1'-0"

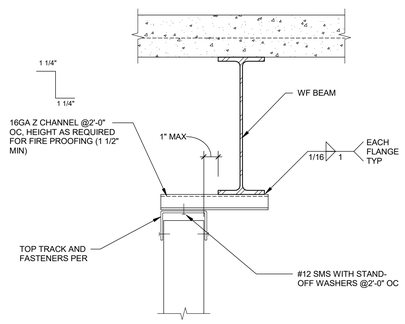


NOTE: INSIDE DIMENSION OF OUTER TRACK TO BE 1/8" MORE THAN STUD WIDTH.

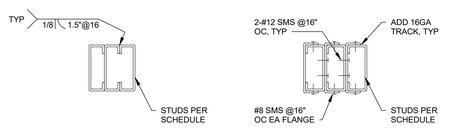
10 ALTERNATE TOP TRACK
1" = 1'-0"



9 INTERIOR TOP TRACK
1" = 1'-0"



15 TOP TRACK AT PARALLEL WF BEAM
1 1/2" = 1'-0"



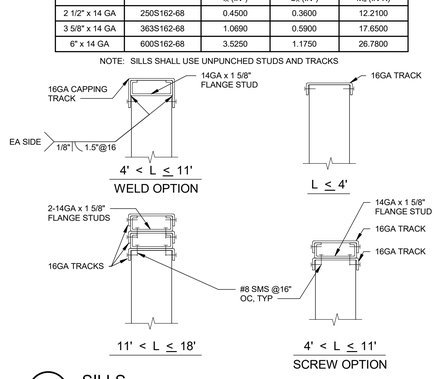
WELD OPTION SCREW OPTION

JAMB STUD SCHEDULE

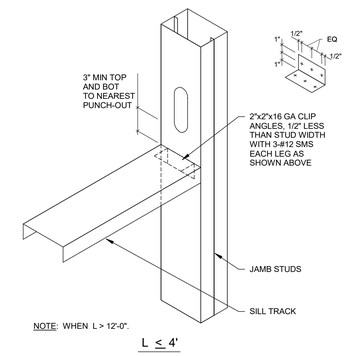
NUMBER OF STUDS AND GAGE	MAX ALLOWABLE OPENING	MIN JAMB STUD DEPTH (1)	MIN FLANGE WIDTH
(2) STUDS 18GA	6' - 0"	-------	1 5/8" MIN
(2) STUDS 16GA	12' - 0"	3 5/8" MIN	1 5/8" MIN
(3) STUDS 16GA	18' - 0"	6" MIN	1 5/8" MIN

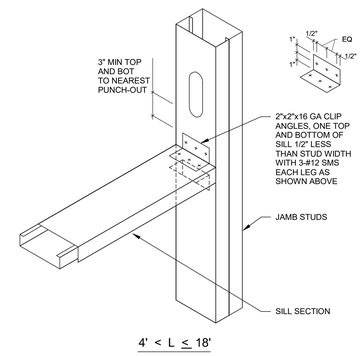
NOTE:
1. JAMB STUD DEPTHS SHALL MATCH TYPICAL WALL STUD DETPHS, UNLESS NOTED OTHERWISE.
2. MAX ALLOWABLE OPENING WIDTH IS THE COMBINED OPENING WIDTH L1 + L2 AT ADJACENT OPENINGS.

14 JAMBS
1 1/2" = 1'-0"

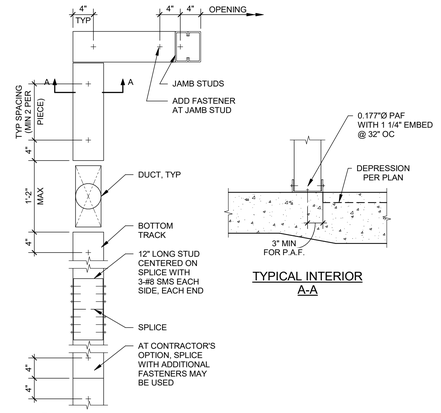


13 SILLS
1 1/2" = 1'-0"

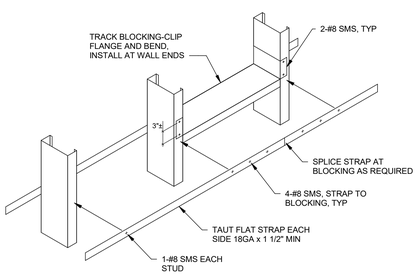




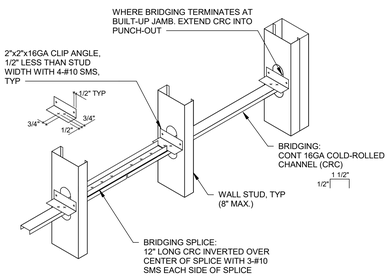
12 SILL AND JAMB CONNECTION
1 1/2" = 1'-0"



16 BOTTOM TRACK
1" = 1'-0"

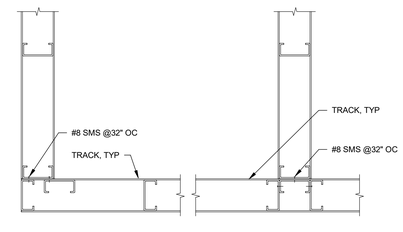


19 BRIDGING - ALTERNATE
1" = 1'-0"



NOTE: DETAIL 17 ON THIS SHEET MAY BE USED AS AN ALTERNATE.

18 BRIDGING
1" = 1'-0"



CORNER A-A INTERSECTION B-B

17 WALL CORNERS AND INTERSECTION
1" = 1'-0"

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APPROVALS

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METAL STUD WALL DETAILS

SHEET NUMBER
S9.01.2

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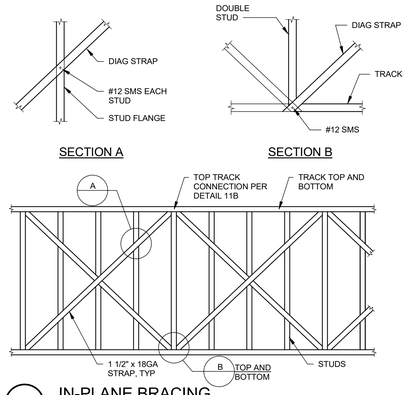
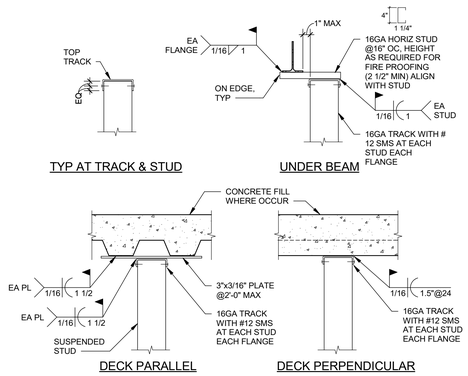


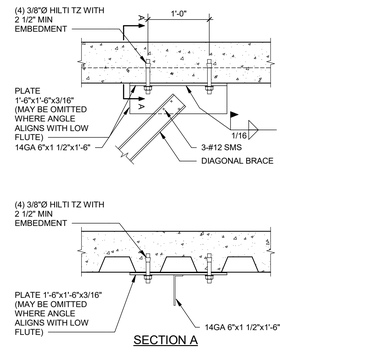
4 IN-PLANE BRACING

1" = 1'-0"



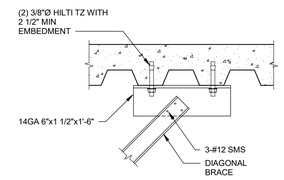
3 SUSPENDED STUD

1" = 1'-0"



2 BRACE AT METAL DECK WITH CONCRETE

1" = 1'-0"



1 BRACE AT METAL DECK WITH CONCRETE

1" = 1'-0"

10 CEILING JOIST TO WALL STUD PARALLEL

1" = 1'-0"

9 TYPICAL SOFFIT CORNER

1 1/2" = 1'-0"

8 CLG JOIST TO WALL STUD PERPENDICULAR

1 1/2" = 1'-0"

NOTES:

1. USE FOR UPPER WALL HUNG CABINET, FULL HEIGHT CABINET, GRAB BARS, HANDRAILS, WALL HUNG EQUIPMENT, ETC. MAX WT 300 LBS/LN FT.
2. LENGTH, HEIGHT AND LOCATION TO SUIT ITEMS BEING FASTENED. SEE ANCHORAGE DETAIL OF SPECIFIC ITEMS FOR ADDITIONAL INFORMATION.
3. ATTACH TO THREE STUDS MIN (DOUBLE STUD COUNTS AS ONE STUD).
4. USE #12 SCREWS MIN WHEN ATTACHING ITEMS.
5. USE DOUBLE STUDS WHEN STUD IS SUPPORTING BACKING ON BOTH SIDES.

7 BACKING - TYPE 2

1" = 1'-0"

NOTES:

1. USE FOR MISC ITEMS (EG. SURFACE MOUNTED MIRROR, WASTE RECEPTACLE, TOWEL DISPENSERS, WALL MOUNTED DOOR STOPS, ETC. MAX WT 50 LB POINT LOAD.
2. VERIFY NUMBER, LENGTH, HEIGHT AND LOCATION OF BACKING PLATE REQUIRED WITH ACCESSORY MANUFACTURERS.
3. USE #12 SHEET METAL SCREWS MIN WHEN ATTACHING ITEMS TO BACKING.

6 BACKING - TYPE 1

1" = 1'-0"

APPROVALS

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SHEET TITLE
METAL STUD WALL DETAILS

SHEET NUMBER
S9.02.2

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FIRE PROTECTION SYMBOL LIST

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

Abbreviations

(A)	ABANDON IN PLACE
(E)	EXISTING
(F)	FUTURE
(N)	NEW
(R)	RELOCATE/RELOCATED LOCATION
(X)	DEMOLITION
AFF	ABOVE FINISHED FLOOR
AS	AUTOMATIC SPRINKLER
BOB	BOTTOM OF BEAM
BOD	BOTTOM OF DECK
BOP	BOTTOM OF PIPE
BOR	BOTTOM OF RISER
BV	BUTTERFLY VALVE
C	CENTER LINE
CV	CHECK VALVE
DDCV	DOUBLE DETECTOR CHECK VALVE ASSEMBLY
DN	DROP NIPPLE
EC	EXTENDED COVERAGE
EL	ELEVATION
F	FAHRENHEIT
FDC	FIRE DEPARTMENT CONNECTION
FF	FINISHED FLOOR
FFL	FLOOR FLANGE
FHC	FIRE HOSE CABINET
FHS	FIRE HOSE STATION
FS	FLOW SWITCH
FT	FEET
G	GRADE
GPM	GALLONS PER MINUTE
GV	GATE VALVE
H	HANGER
HSW	HORIZONTAL SIDE WALL
HV	HOSE VALVE
ID	INSIDE DIAMETER
IN	INCHES
MAX	MAXIMUM
MIN	MINIMUM
N&C	NIPPLE AND CAP
NIC	NOT IN CONTRACT
NO	NUMBER
NTS	NOT TO SCALE
OBJ	OPEN BAR JOIST
OD	OUTSIDE DIAMETER
OS & Y	OUTSIDE SCREW & YOKE
PIV	POST INDICATOR VALVE
PRV	PRESSURE REDUCING VALVE
PS	PRESSURE SWITCH
RM	ROOF MANIFOLD
RN	RISER NIPPLE
SB	SWAY BRACE
SF	SQUARE FEET
SOV	SHUT OFF VALVE
SP	STANDPIPE
SSP	STANDARD SPRAY PENDENT
SSU	STANDARD SPRAY UPRIGHT
TOB	TOP OF BEAM
TOP	TOP OF PIPE
TOR	TOP OF RISER
TOS	TOP OF STEEL
TS	TAMPER SWITCH
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE

Control

- BELL/GONG
- CONTROL PANEL
- FLOW DETECTION SWITCH
- MONITOR SWITCH
- PRESSURE GAUGE
- TAMPER DETECTOR
- WATER MOTOR ALARM

Miscellaneous

- 2-WAY SWAY BRACE
- 4-WAY SWAY BRACE
- AUXILIARY DRAIN
- CONTINUATION OF PIPE
- COUPLING
- DEMOLITION PIPE
- DEMOLITION PIPE
- DRY HOSE STATION
- 14'-0" — ELEVATION ABOVE FINISHED FLOOR
- EXISTING PIPE
- FELXIBLE PIPE
- FLANGED COUPLING
- FLEX — FLEXIBLE COUPLING
- GROOVED CAP
- GROOVED COUPLING
- H1 — HANGER (TEXT INDICATES TYPE)
- BRANCHLINE RESTRAINT
- HYDRAULIC CALCULATION NODE
- NEW PIPE
- POINT OF CONNECTION
- RISER
- SCREWED CAP
- SCREWED PLUG
- UNION

Valves

- ALARM CHECK VALVE, ELEVATION VIEW
- ALARM CHECK VALVE, PLAN VIEW
- ANGLE VALVE
- CHECK VALVE
- DELUGE VALVE
- DRY PIPE VALVE, PLAN VIEW
- INDICATING BUTTERFLY VALVE
- NON-RISING STEM VALVE
- PREACTION VALVE
- VALVE WITH TAMPER SWITCH

Water Service

- DOUBLE CHECK BACKFLOW PREVENTER
- FIRE DEPARTMENT CONNECTION
- FREE STANDING F.D. CONNECTION
- O.S.&Y. VALVE
- POST INDICATOR VALVE

FIRE PROTECTION HYDRAULIC NOTES

A. THE ESTABLISHED PIPE SIZING SCHEDULE OF THE EXISTING FIRE SPRINKLER SYSTEM TO BE MAINTAINED DURING THE REMODEL PROJECT. NO NEW HYDRAULIC CALCULATIONS WILL BE PROVIDED FOR THE EXISTING BUILDING.

B. EXISTING SPRINKLER SYSTEM PIPE SIZING IS BASED ON THE LOCATION OF THE UPRIGHT SPRINKLER HEADS AND IS SIZED AS 1" / 1" / 1-1/4" / 1-1/4". NO MORE THAN 4 INTERIOR SPRINKLER HEADS SHALL BE LOCATED ON ANY 1 BRANCHLINE (4 UPRIGHT AND 4 PENDENT SPRINKLERS).

FIRE PROTECTION SEISMIC NOTES

A. SEISMIC BRACING CALCULATIONS FOR THE LIBRARY RESOURCE LEARNING CENTER WERE PERFORMED USING THE INFORMATION IN NFPA 13 (2016) CHAPTER 9 AND (2016) CBC, 1613 A.6.3 AND CHAPTER 35.

B. NO SEISMIC CALCULATIONS WILL BE PROVIDED FOR EXISTING BUILDING (CAFE) AS IT IS CURRENTLY BRACED AND NO CHANGES WILL BE MADE TO THE EXISTING FIRE MAINS.

SPRINKLER HEAD LEGEND

SYMBOL	DESCRIPTION	MODEL NO.	K-FACTOR	ORIFICE SIZE	RESPONSE	TEMP	COVERAGE	FINISH	ESCHUTCHEON	COUNT	COMMENTS
⊠	HIP SPRINKLER	TY3187	5.6	1/2"	Quick	200	Standard	Metal-Victaulic-Brass	N/A	24	
○	UPRIGHT SPRINKLER	TY3131	8	1/2"	Quick	200	Standard	Metal-Victaulic-Brass	N/A	15	
◎	BACK TO BACK SPRINKLER	TY4180	8	1/2"	Quick	200	Standard	Metal-Victaulic-Brass	N/A	9	
⊕	HORIZONTAL SIDEWALL SPRINKLER	TY3321	5.6	1/2"	Quick	155	Standard	Metal-Victaulic-White		4	
◉	CONCEALED PENDENT SPRINKLER	TY3531	5.6	1/2"	Quick	155	Standard	WHITE POLY	WT	25	
■	CONCEALED PENDENT SPRINKLER - WOOD CEILING	TY3531	5.6	1/2"	Quick	155	Standard	WHITE POLY		31	CHROME COVER PLATE

TOTAL SPRINKLERS: 108

HAZARD CLASSIFICATIONS

OCCUPANCY	DESCRIPTION	MAX SPRINKLER SPACING	DESIGN DENSITY	REMOTE AREA
LIGHT HAZARD	VESTIBULES, HALLS, RESTROOMS, OFFICES, CLASSROOMS, CAFE	225 SQ FT	0.10 GPM/SQ FT	1500 SQ FT
ORDINARY HAZARD GROUP 1	ELECTRICAL ROOMS, MECHANICAL ROOMS, JANITORS CLOSEST, STORAGE ROOMS	130 SQ FT	0.15 GPM/SQ FT	1500 SQ FT

GENERAL FIRE PROTECTION NOTES

A. CARRY OUT ALL WORK IN ACCORDANCE WITH 2016 CBC. SHOULD ANY CONDITIONS DEVELOP WHICH ARE NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH SAID 2016 CBC, A CHANGE ORDER DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY OSHPD BEFORE PROCEEDING WITH THE WORK.

B. ALL WORK SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF LATEST EDITIONS OF TITLE 22, CALIFORNIA CODE OF REGULATIONS AND TITLE 24.

C. ALL ADDENDA AND CHANGE ORDERS SHALL BE SIGNED BY THE ARCHITECT/ENGINEER OF RECORD, THE RESPONSIBLE ENGINEER(S), THE OWNER, AND CONTRACTOR PRIOR TO SUBMITTING FOR APPROVAL TO DEPARTMENT OF THE STATE ARCHITECT (DSA).

D. RESPONSIBILITIES OF ARCHITECT/ENGINEER OF RECORD AND CONSULTANTS, PROJECT INSPECTOR, AND GENERAL CONTRACTOR SHALL BE IN ACCORDANCE WITH C.C.R. TITLE 24, PART 1, SECTIONS 7-141, 7-145, 7-143. VERIFIED REPORTS OF THE CONSTRUCTION ARE REQUIRED BY C.C.R. TITLE 24, PART 1, SECTION 7-151.

E. NO WORK SHALL COMMENCE AT THE PROJECT SITE BEFORE THE BUILDING PERMIT IS FULLY EXECUTED WITH THE START DATE ENTERED AND SIGNED BY THE OWNER, AND GENERAL CONTRACTOR, AND AVAILABLE FOR POSTING AT JOBSITE.

F. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL CONFORM TO THE FOLLOWING CODES AND REGULATIONS AS APPLICABLE:
   a. CALIFORNIA CODE OF REGULATIONS TITLE 8 - INDUSTRIAL REGULATIONS (CHAPTER 1).
   b. CALIFORNIA CODE OF REGULATIONS TITLE 17 - PUBLIC HEALTH (CHAPTER 7).
   c. CALIFORNIA CODE OF REGULATIONS TITLE 19 - PUBLIC SAFETY.
   d. CALIFORNIA CODE OF REGULATIONS TITLE 21 - PUBLIC WORKS.
   e. CALIFORNIA CODE OF REGULATIONS TITLE 22 - SOCIAL SECURITY.
   f. CALIFORNIA CODE OF REGULATIONS TITLE 24 - PARTS 2, 3, 4, 5, AND 9.
   g. CALIFORNIA CODE OF REGULATIONS TITLE 24 - ENERGY INSULATION STANDARDS.
   h. 2016 CALIFORNIA ADMINISTRATIVE CODE (CAC) - PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
   i. 2016 CALIFORNIA BUILDING CODE (CBC) - PART 2, TITLE 24, CCR.
   j. 2016 CALIFORNIA ELECTRICAL CODE (CEC) - PART 3, TITLE 24, CCR.
   k. 2016 CALIFORNIA MECHANICAL CODE (CMC) - PART 4, TITLE 24, CCR.
   l. 2016 CALIFORNIA PLUMBING CODE (CPC) - PART 5, TITLE 24, CCR.
   m. 2016 CALIFORNIA FIRE CODE (CFC) - PART 9, TITLE 24, CCR.
   n. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARDS

G. UNLESS OTHERWISE STATED, IT IS INTENDED THAT THE ABOVE CODES AND REGULATIONS REFER TO THE LATEST EDITION OR REVISION IN EFFECT ON THE DATE OF THE CONTRACT. NOTHING ON THE DRAWING IS TO BE CONSTRUED AS REQUIRING OR PERMITTING WORK THAT IS CONTRARY TO THE ABOVE LISTED CODES AND REGULATIONS, OR OTHER LOCAL, STATE OR FEDERAL CODES OR REGULATIONS WHICH MAY BE APPLICABLE.

H. 2016 NFPA 13 SECTION 10.10.2.1.1, UNDERGROUND MAINS AND LEAD-IN CONNECTIONS TO SYSTEM RISERS SHALL BE COMPLETELY FLUSHED BEFORE CONNECTION IS MADE TO OVERHEAD SPRINKLER PIPING. RISER "STUB-UP" SHALL BE PROTECTED TO PREVENT INSECTS, ANIMALS, AND DEBRIS, ETC. FROM ENTERING THE PIPE.

I. PROVIDE FLOW TEST DATA AND INDICATE THE LOCATIONS AND HEIGHT ELEVATIONS OF THE TEST AND RESIDUAL FLOW HYDRANTS. DATA MUST BE NO MORE THAN 6 MONTHS OLD AND PROVIDE INFORMATION ABOUT AVAILABLE WATER AT THE SITE. INFORMATION MAY COME FROM THE LOCAL WATER PURVEYOR, UTILITIES COMPANY, OR LOCAL FIRE DEPARTMENT.

J. 2016 NFPA 13 SECTION 10.10.1: A COPY OF COMPLETED AND SIGNED "CONTRACTOR'S MATERIALS AND TEST CERTIFICATE FOR UNDERGROUND / ABOVE GROUND PIPING" SHALL BE INCLUDED IN OPERATION AND MAINTENANCE MANUAL.

K. 2016 NFPA 13 SECTION 10.10.2.2.1: ALL PIPING AND ATTACHED APPURTENANCES SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT 200 PSI, OR 50 PSI ABOVE WORKING PRESSURE, WHICHEVER IS GREATER, AND SHALL MAINTAIN WITHOUT LOSS FOR 2 HOURS.

L. 2016 NFPA 13 SECTION 6.2.9: PROVIDE SPARE SPRINKLER HEAD CABINET, SPRINKLER WRENCH, AND NO FEWER THAN 6 SPARE SPRINKLER HEADS MATCHING THE TYPES AND TEMPERATURE RATING IN EACH PROTECTED AREA FOR SYSTEMS LESS THAN 300 SPRINKLERS (12 SPARE SPRINKLER HEADS FOR SYSTEMS 300 TO 1,000 SPRINKLERS).

M. 2016 NFPA 13 SECTION 9.3.6.3: THE END SPRINKLER ON EACH LINE SHALL BE RESTRAINED AGAINST EXCESSIVE VERTICAL AND LATERAL MOVEMENT. BRANCH LINES SHALL BE LATERALLY RESTRAINED AT INTERVALS NOT EXCEEDING THOSE SPECIFIED IN NFPA13, TABLE 9.3.6.4 (a) BASED ON BRANCH LINE DIAMETER AND VALUE OF Cp.

N. 2016 NFPA 13 SECTION 25.2.3.1: THE SPRINKLER FLOW SWITCH SHALL BE TESTED TO CONFIRM THAT WHEN THE INSPECTORS TEST VALVE IS ACTIVATED AN AUDIBLE ALARM WILL SOUND NO MORE THAN 5 MINUTES AFTER INITIAL FLOW. TEST TO BE WITNESSED BY PROJECT INSPECTOR.

O. 2016 CBC 904.4.3: CONNECTIONS TO PROTECTED PREMISES AND SUPERVISING STATION FIRE ALARM SYSTEMS SHALL BE TESTED TO VERIFY PROPER IDENTIFICATION AND TRANSMISSION OF ALARMS FROM AUTOMATIC FIRE EXTINGUISHING SYSTEM.

P. 2016 NFPA 13 SECTION 8.17.2.4.7: SIGNAGE SHALL BE PROVIDED AS REQUIRED.

Q. 2016 NFPA 13 SECTION 6.9.1 AND 2010 CBC 903.4.2: FLOW SWITCH SHALL BE CONNECTED TO A 10 INCH OUTSIDE ALARM BELL AT EACH RISER. APPROVED IDENTIFICATION SIGNS SHALL BE PROVIDED TO OUTSIDE ALARM BELL "SPRINKLER FIRE ALARM - WHEN BELL RINGS CALL 911 / FIRE DEPARTMENT."

R. 2016 NFPA 13 FIGURE 25.1: SPRINKLER CONTRACTOR SHALL COMPLETE AND SIGN CONTRACTORS MATERIAL AND TEST CERTIFICATE FOR THE ABOVEGROUND PIPING. THIS FORM SHALL BE GIVEN TO THE PROJECT INSPECTOR WHO WILL FORWARD TO DSA FOR FILING IN PROJECT RECORDS.

S. ALL PIPE LENGTHS SHOWN ON PLANS ARE CENTER TO CENTER LENGTHS ROUNDED TO THE NEAREST INCH.

T. ALL BRANCH LINE PIPING IS SCHEDULE 40 BLACK STEEL.

U. ALL MAIN PIPING IS SCHEDULE 10 BLACK STEEL UNLESS NOTED ON PLANS.

V. 36-INCH AND 60-IN FLEXIBLE SPRINKLER CONNECTIONS WILL BE PROVIDED ON ALL SPRINKLERS INSTALLED AT SUSPENDED CEILINGS WITHIN NEW LIBRARY RESOURCE BUILDING. LENGTH DEPENDENT ON ELEVATION OF BRANCHLINE AND SUSPENDED CEILING.

SHEET INDEX

SCOPE OF WORK

THE SCOPE OF WORK IS TO PROVIDE A HYDRAULICALLY CALCULATED AUTOMATIC WET FIRE SPRINKLER SYSTEM AT THE LIBRARY LEARNING RESOURCE BUILDING (LLRC) AND RENOVATE A PORTION OF THE EXISTING SYSTEM LOCATED WITHIN THE EXISTING WEST BUILDING. THE LLRC IS CLASSIFIED AS AN A-3 OCCUPANCY AND IS OF TYPE VB CONSTRUCTION.

THE FIRE SPRINKLER SYSTEM IS SUPPLIED FROM THE PRIVATE ON-SITE FIRE SERVICE WHICH ALSO SUPPLIES ON-SITE PRIVATE FIRE HYDRANTS. THE FIRE SPRINKLER SYSTEM WILL BE HYDRAULICALLY CALCULATED FOR LIGHT HAZARD OCCUPANCIES AND HAVE SPRINKLERS ABOVE AND BELOW FINISHED/SUSPENDED CEILINGS.

NOTES FOR UNDERGROUND PIPING

A. PRIOR TO INSTALLATION ALL PLANS AND SPECIFICATIONS SHALL BE APPROVED BY DSA. REFER TO DSA 1R A-25 FOR DESIGN, INSTALLATION AND MAINTENANCE GENERAL REQUIREMENTS.

B. INSPECTIONS ARE REQUIRED: 1) PRIOR TO POURING THRUST BLOCKS. 2) FOR HYRDOSTATIC TESTING, AND 3) FOR FLUSH.

C. INSTALLATION, INSPECTION, AND TESTING SHALL CONFORM TO 2016 EDITIONS CFC, NFPA 13, AND NFPA 24.

D. PRIVATE FIRE HYDRANTS SHALL BE APPROVED WET BARREL STYLE WITH A MINIMUM OF ON 2 ½" AND ONE 4" OUTLET. THE 4" OUTLET SHALL FACE THE FIRE DEPARTMENT ACCESS ROAD. ALL OUTLET SHALL BE PROVIDED WITH NATIONAL STANDARD THREADS (NST). NFPA 24, § 7.1.1.2.

E. FIRE HYDRANT SUPPLY PIPING SHALL BE A MINIMUM OF SIX INCHES IN DIAMETER. THE CENTER OF THE HOSE OUTLET SHALL BE NOT LESS THAN 18" ABOVE FINAL GRADE OR, WHERE LOCATED IN A HOSE HOUSE, 12" ABOVE THE FLOOR. NFPA 24, §7.1.1 & 7.3.3.

F. FIRE HYDRANTS SHALL BE A MINIMUM OF 40 FEET FROM ALL STRUCTURES. NFPA 24, §7.2.3.

G. A KEYED GATE VALVE SHALL BE PROVIDED FOR EACH HYDRANT IN AN ACCESSIBLE LOCATION. VALVES SHALL NOT BE LOCATED IN PARKING STALLS. NFPA 24, §7.1.1.1.

H. ALL PIPING SHALL BE LISTED FOR USE IN FIRE PROTECTION SERVICE AND COMPLY WITH AWWA STANDARDS (CLASS 150 MINIMUM) CLASS 200 PIPE SHALL BE USED WHERE THE PRESSURE MAY EXCEED 150 PSI. NFPA 24, §10.1.1.

I. ALL BOLTED JOINTS SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION RETARDING MATERIAL AFTER INSTALLATION. NFPA 24, § 10.4.1.1

J. BACKFILL SHALL BE WELL TAMPED LAYERS TO CONSIST OF 6" MINIMUM BED OF CLEAN FILL SAND OR PEA GRAVEL BELOW AND 12" ABOVE THE PIPE (TOTAL 18" MINIMUM). NFPA 24, §10.9.1.

K. FITTINGS SHALL BE AN APPROVED TYPE. NFPA 24, §10.2.1.

L. A MINIMUM OF 30" OF COVER, FROM FINISH GRADE TO THE TOP OF THE PIPE, SHALL BE PROVIDED. WHEN SURFACE LOADS ARE EXPECTED, A MINIMUM OF 36" COVER SHALL BE PROVIDED. NFPA 24, § 10.4.2.2.2&.3.

M. THRUST BLOCKS, OR OTHER APPROVED METHOD OF THRUST RESTRAINT, SHALL BE PROVIDED WHEREVER PIPE CHANGES DIRECTION. BACK-FILL BETWEEN THE JOINTS TO PREVENT MOVEMENT OF THE PIPE. PROVIDE DETAILS AND CALCULATIONS FOR SIZING THRUST BLOCKS BASE ON ACTUAL SOIL CONDITIONS. NFPA 24, §10.6

N. A HYDROSTATIC TEST (200 PSI FOR TOW HOURS OR 50 PSI OVER MAXIMUM STATIC PRESSURE, WHICHEVER IS GREATER) SHALL BE PERFORMED. NFPA 24, §10.10.2.2.1.

O. THE SYSTEM SHALL BE THOROUGHLY FLUSHED BEFORE CONNECTION IS MADE TO OVERHEAD PIPING. FLOW SHALL BE THROUGH A MINIMUM OF 4" HOSE OF PIPE. NFPA 24, §10.10.2.1.

P. ALL CONTROL VALVES SHALL BE LOCKED IN THE OPEN POSITION. VALVES SHALL BE MONITORED IS THE SERVE 6 OR MORE SPRINKLER HEADS. CBC/CFC§ 903.4.

Q. ALL CONTROL VALVES SHALL BE LISTED INDICATING TYPE UNLESS A NON-INDICATING VALVE, SUCH AS AN UNDERGROUND GATE VALVE WITH APPROVED ROADWAY BOX COMPLETE WITH T-WRENCH, IS ACCEPTABLE TO AUTHORITY HAVING JURISDICTION.

R. POST INDICATING VALVES (PIC_ SHALL BE TESTED TO ENSURE THAT THE "TARGETS" (OPEN, CLOSED) ARE CLEARLY IDENTIFIED WHEN VALVE IS OPEN AND CLOSED. NFPA 24, § 10.10.1 & 14.1.

S. TEST SHALL BE MADE BY THE INSTALLING CONTRACTOR IN THE PRESENCE OF THE (AHJ). PROVIDE A COMPLETED CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR UNDERGROUND PIPING TO DSA. NFPA 24, §10.10.1.1 & 14.1, CFC §901.5 & 6.

These Record Documents have been prepared based on information provided by others. The design professional has not verified the accuracy and/or completeness of this information and shall not be responsible for any error or omissions which may be incorporated herein as a result.

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

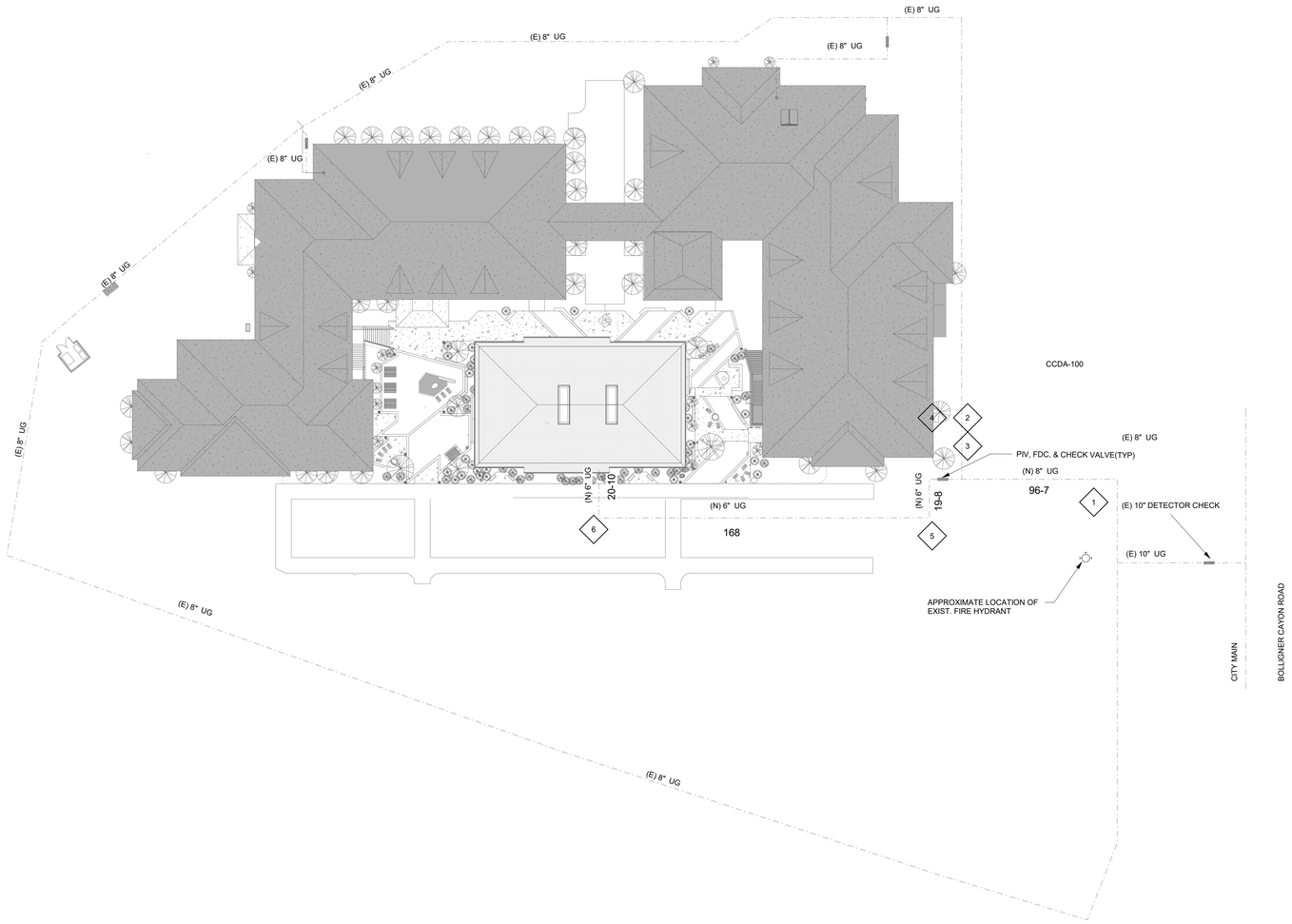
SYMBOLS LIST AND GENERAL NOTES - FIRE PROTECTION

SHEET NUMBER

FP0.00.2

GENERAL SHEET NOTES

1. SITE PLAN IS SHOWN FOR IDENTIFICATION OF HYDRAULIC NODES. SEE CIVIL DRAWINGS FOR UNDERGROUND DETAILS AND LOCATIONS (INCLUDING BACKFLOW PREVENTION AND FDC) AND INSTALLATION.



1 FIRE PROTECTION SITE PLAN

0' 30' 60'

1" = 30'-0"

WATER FLOW INFORMATION

DATE OF REPORT/TEST	9/4/2018
LOCATION	DVC, 1690 Watermill Road, San Ramon
MAIN SIZE	
STATIC PRESSURE	100 PSI
RESIDUAL PRESSURE	80 PSI
FLOW AT RESIDUAL	3000 GPM
COMMENTS:	
HYDRAULIC MODEL.	

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ISSUE TITLE

INCREMENT 2

ISSUE DATE **08/22/2023**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

	DATE	DESCRIPTION
CCDA-100	02/21/20	CCDA-100

SHEET TITLE

FIRE PROTECTION SITE PLAN

SHEET NUMBER

FP0.01.2

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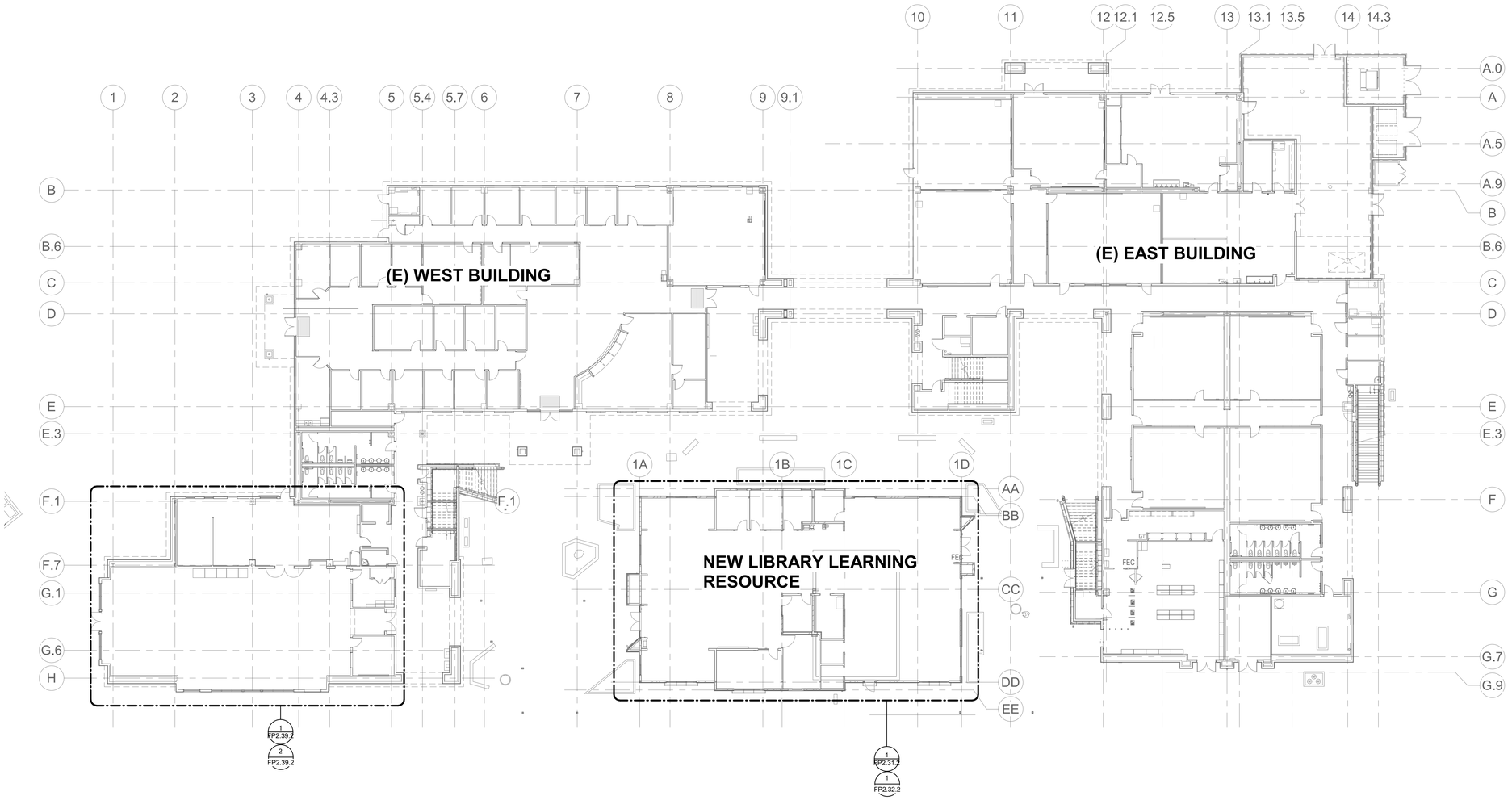

1 FIRST FLOOR OVERALL PLAN - FIRE PROTECTION

0' 8' 16' 32'

1/16" = 1'-0"

APPROVALS

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ISSUE TITLE

INCREMENT 2

ISSUE DATE **08/22/2023**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

#	DATE	DESCRIPTION

SHEET TITLE

1ST FLOOR OVERALL PLAN - FIRE PROTECTION

SHEET NUMBER

FP2.30A.2

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SPRINKLER HEAD LEGEND

SYMBOL	DESCRIPTION	MODEL NO.	K-FACTOR	ORIFICE SIZE	RESPONSE	TEMP	COVERAGE	FINISH	ESCHUTCHEON	COUNT	COMMENTS
O	UPRIGHT SPRINKLER	TY3131	8	1/2"	Quick	200	Standard	Metal-Victaulic-Brass	N/A	10	
⊡	CONCEALED PENDENT SPRINKLER	TY3531	5.6	1/2"	Quick	155	Standard	WHITE POLY	WT	13	
■	CONCEALED PENDENT SPRINKLER - WOOD CEILING	TY3531	5.6	1/2"	Quick	155	Standard	WHITE POLY		29	CHROME COVER PLATE

TOTAL SPRINKLERS: 52

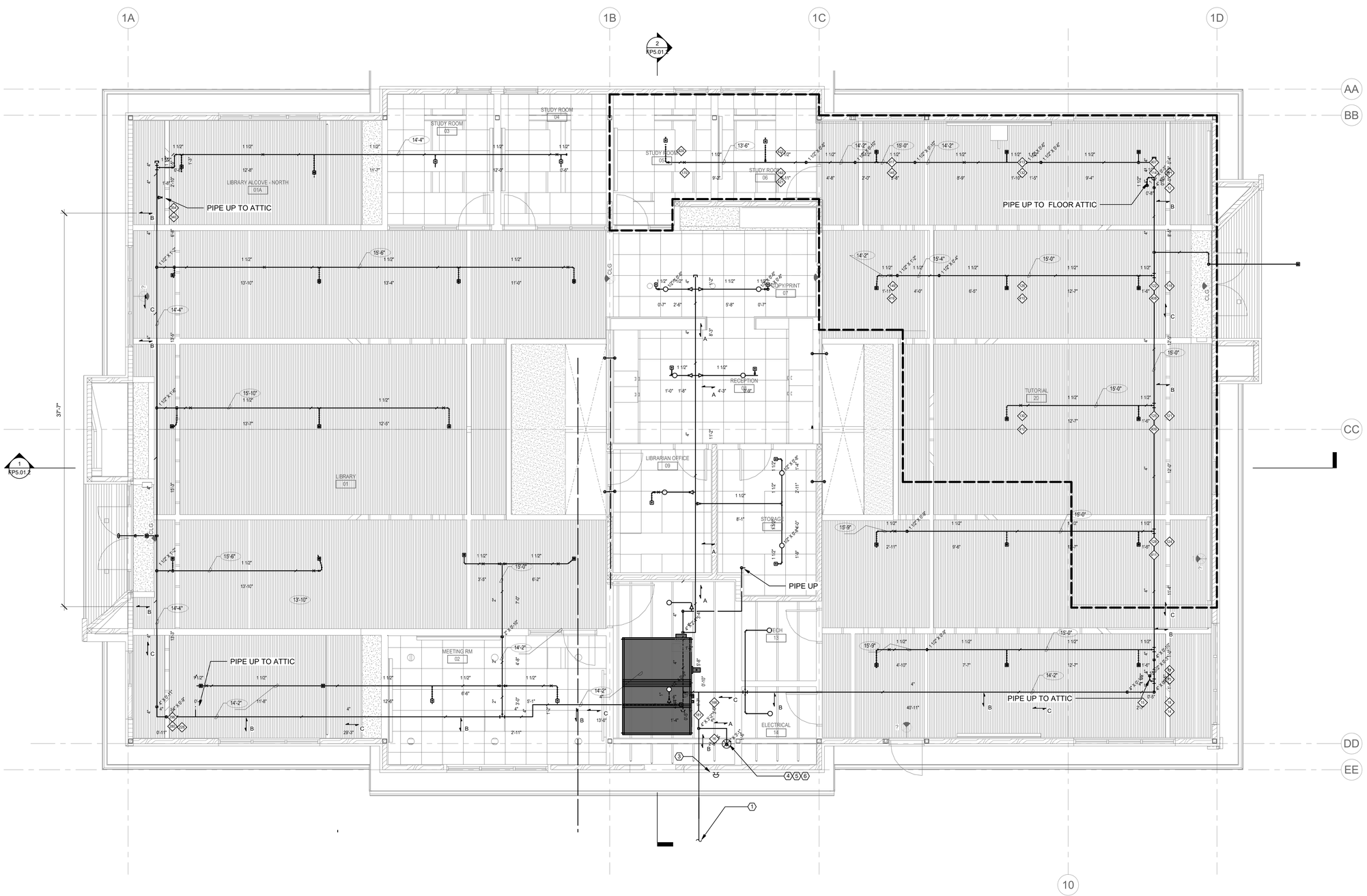
Hydraulic Information	
Remote Area Name	TUTORIAL
Occupancy Classification	Light Hazard
Density	0.10
Total Hose Streams	100.00
Flowing Heads	1 @ 36.90 + 11 @ 22.50
K-Factor	5.6
Total Water Required	468.61
Total Pressure Required	62.66
Base of Riser	468.61
Base of Riser	62.66
Safety Margin	+36.69 (36.93%)

SHEET KEYNOTES

1. SEE CIVIL UTILITY PLAN FOR PIPE CONTINUATION. SEE DRAWING FP0.01.2, SITE PLAN - FIRE PROTECTION, FOR HYDRAULIC NODE INFORMATION.
2. 6 IN FIRE SUPPLY.
3. SPRINKLER BELL.
4. 4 IN FIRE SPRINKLER RISER WITH TEST AND DRAIN.
5. FIRE SPRINKLER TEST AND DRAIN ASSEMBLY MUST BE PROVIDED WITH A GAP THAT ALLOWS FOR THE HOSE TO TRAVERSE A FILTER SYSTEM APPROVED BY CCSD ENVIRONMENTAL COMPLIANCE BEFORE IT IS DRAINED TO THE SANITARY SEWER.
6. PROVIDE A PLACARD AT THE INSPECTOR'S TEST AND DRAIN WITH THE FOLLOWING: "A SPECIAL DISCHARGE PERMIT IS REQUIRED TO DISCHARGE FIRE SPRINKLER WATER TO THE SEWER. CONTACT THE ENVIRONMENTAL COMPLIANCE SECTION AT CENTRAL CONTRA COSTA SANITARY DISTRICT, (925)229-7268, TO OBTAIN A PERMIT."

GENERAL SHEET NOTES

1. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING SET DOWN DETAILS AND LOCATIONS OF SOFFITS.
2. PIPE LENGTHS SHOW DO NOT INCLUDE TAKE OFF FOR FITTINGS.
3. MAXIMUM HEAD SPACING FOR LIGHT HAZARD OCCUPANCIES 225 SQ FT MAXIMUM.
4. MAXIMUM HEAD SPACING FOR ORDINARY HAZARD GROUP I OCCUPANCIES 130 SQ FT MAXIMUM.
5. FLEXIBLE SPRINKLER LENGTH SHALL BE EITHER 36 OR 60 INCHES DEPENDING ON EVELVATION OF ASSOCIATED BRANCHLINE.



1 LIBRARY LEARNING RESOURCE CENTER FLOOR PLAN - FIRE PROTECTION

0' 2' 4' 8'

1/4" = 1'-0"

APPROVALS

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

LIBRARY LEARNING RESOURCE CENTER FLOOR PLAN - FIRE PROTECTION

SHEET NUMBER

FP2.31.2

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SPRINKLER HEAD LEGEND

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TOTAL SPRINKLERS: 52

1 LIBRARY LEARNING RESOURCE CENTER RCP - FIRE PROTECTION

0' 4' 8' 16'
1/4" = 1'-0"

10

APPROVALS

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

	DATE	DESCRIPTION

SHEET TITLE
LIBRARY LEARNING RESOURCE CENTER RCP - FIRE PROTECTION

SHEET NUMBER
FP2.32.2

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SPRINKLER HEAD LEGEND

SYMBOL	DESCRIPTION	MODEL NO.	K-FACTOR	ORIFICE SIZE	RESPONSE	TEMP	COVERAGE	FINISH	ESCHUTCHEON	COUNT	COMMENTS
⊠	HIP SPRINKLER	TY3187	5.6	1/2"	Quick	200	Standard	Metal-Victaulic-Brass	N/A	24	
◎	BACK TO BACK SPRINKLER	TY4180	8	1/2"	Quick	200	Standard	Metal-Victaulic-Brass	N/A	7	
⍒	HORIZONTAL SIDEWALL SPRINKLER	TY3321	5.6	1/2"	Quick	155	Standard	Metal-Victaulic-White		4	

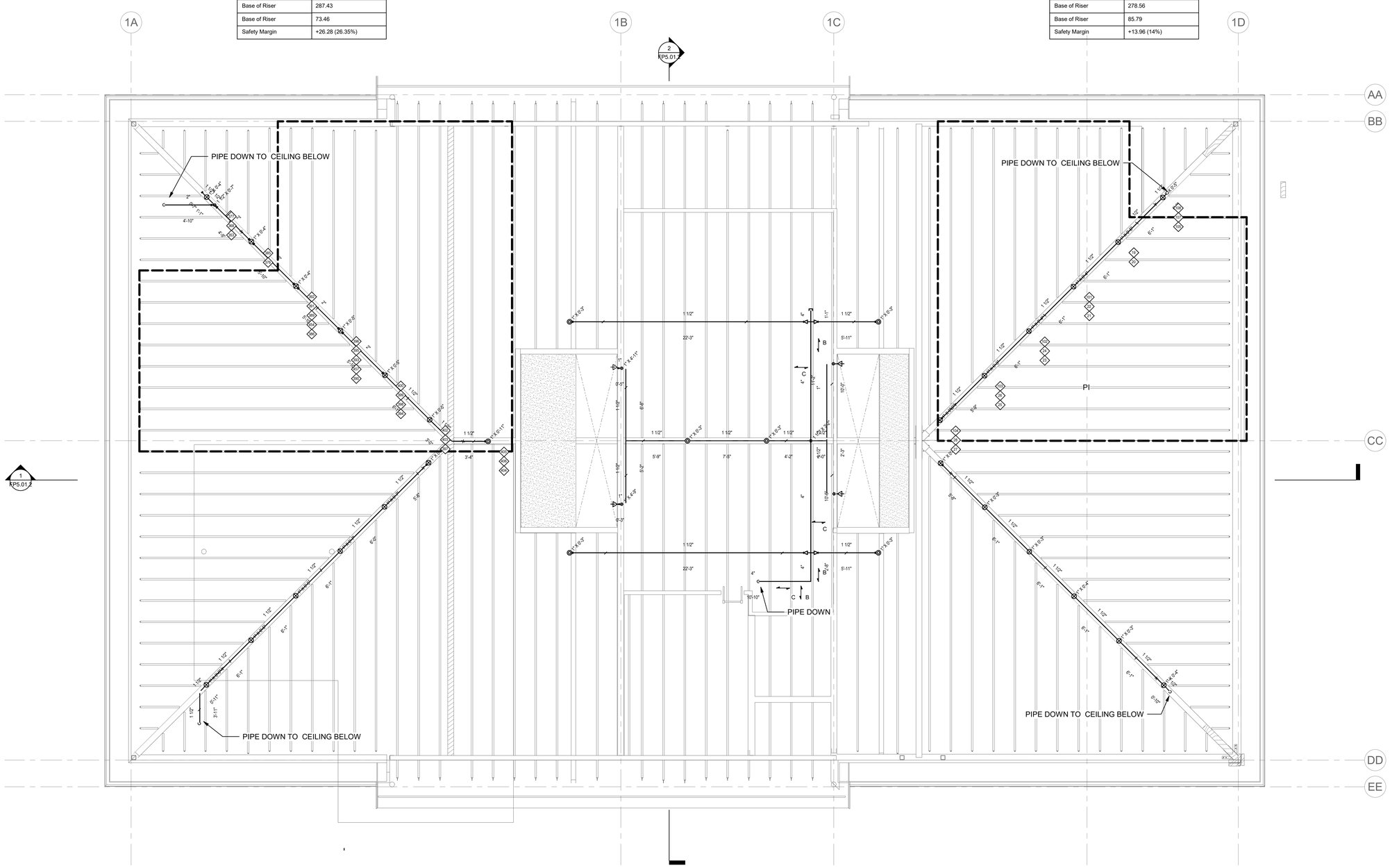
TOTAL SPRINKLERS: 35

Hydraulic Information	
Remote Area Name	NW HIP
Occupancy Classification	Light Hazard
Density	0.10
Total Hose Streams	100.00
Flowing Heads	4 @ 36.90 + 1 @ 22.60
K-Factor	5.6
Total Water Required	287.43
Total Pressure Required	73.46
Base of Riser	287.43
Base of Riser	73.46
Safety Margin	+26.28 (26.35%)

Hydraulic Information	
Remote Area Name	NE HIP
Occupancy Classification	Light Hazard
Density	0.10
Total Hose Streams	100.00
Flowing Heads	5 @ 36.90
K-Factor	5.6
Total Water Required	278.56
Total Pressure Required	85.79
Base of Riser	278.56
Base of Riser	85.79
Safety Margin	+13.96 (14%)

GENERAL SHEET NOTES

1. REFER TO ARCHITECTURAL DRAWINGS FOR CEILING SET DOWN DETAILS AND LOCATIONS OF SOFFITS.
2. PIPE LENGTHS SHOW DO NOT INCLUDE TAKE OFF FOR FITTINGS.
3. PIPE LENGTH SHOWN ON ATTIC HIP IS MEASURED ALONG HIP RIDGE.



1 LIBRARY LEARNING RESOURCE CENTER ATTIC PLAN - FIRE PROTECTION

1/4" = 1'-0"

APPROVALS

NOLL & TAM ARCHITECTS

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PROJECT 2016-0538

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

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ISSUE TITLE

INCREMENT 2

ISSUE DATE **08/22/2023**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

LIBRARY LEARNING RESOURCE CENTER ATTIC - FIRE PROTECTION

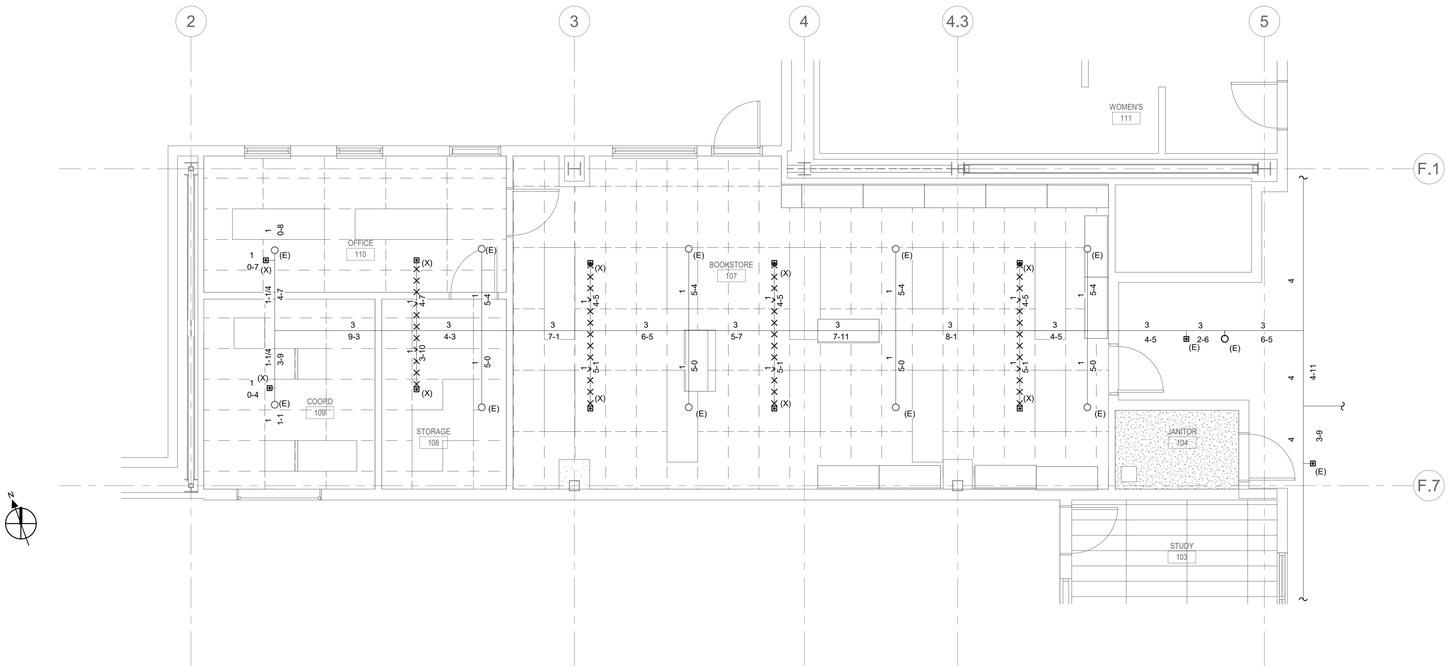
SHEET NUMBER

FP2.33.2

SPRINKLER HEAD LEGEND

SYMBOL	DESCRIPTION	MODEL NO.	K-FACTOR	ORIFICE SIZE	RESPONSE	TEMP	COVERAGE	FINISH	ESCHUTCHEON	COUNT	COMMENTS
○	UPRIGHT SPRINKLER	TY3131	8	1/2"	Quick	200	Standard	Metal-Victaulic-Brass	N/A	12	
◘	CONCEALED PENDENT SPRINKLER	TY3531	5.6	1/2"	Quick	155	Standard	WHITE POLY	WT	11	

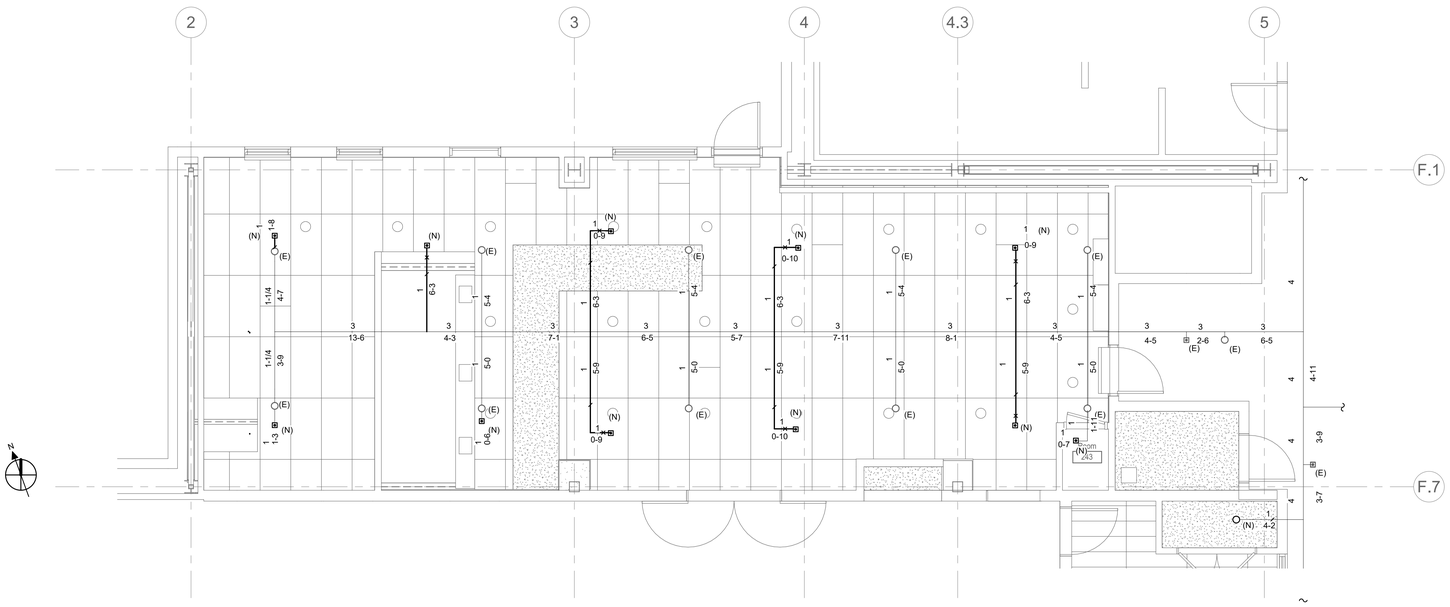
TOTAL SPRINKLERS: 23



1 DEMO - 1ST FLOOR PLAN - CAFE AND LEARNING - FIRE PROTECTION

0' 2' 4' 8'

1/4" = 1'-0"



2 NEW - 1ST FLOOR PLAN -CAFE AND LEARNING - FIRE PROTECTION

0' 2' 4' 8'

1/4" = 1'-0"

GENERAL SHEET NOTES

1 PROTECT ALL EXISTING SPRINKLER HEADS TO REMAIN. REMOVE PROTECTIVE COVER(S) ONCE NEW SPRINKLER COMPONENTS ARE INSTALLED.

2 PROTECT EXISTING SPRINKLER PIPING DURING DEMO WORK FOR NEW CONNECTION(S) TO NEW SPRINKLER PIPING.

APPROVALS

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PROJECT TITLE

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

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NO.	DATE	DESCRIPTION

SHEET TITLE

DEMO & NEW - 1ST FLOOR - WEST - CAFÉ & LEARNING COMMONS - FIRE PROTECTION

SHEET NUMBER

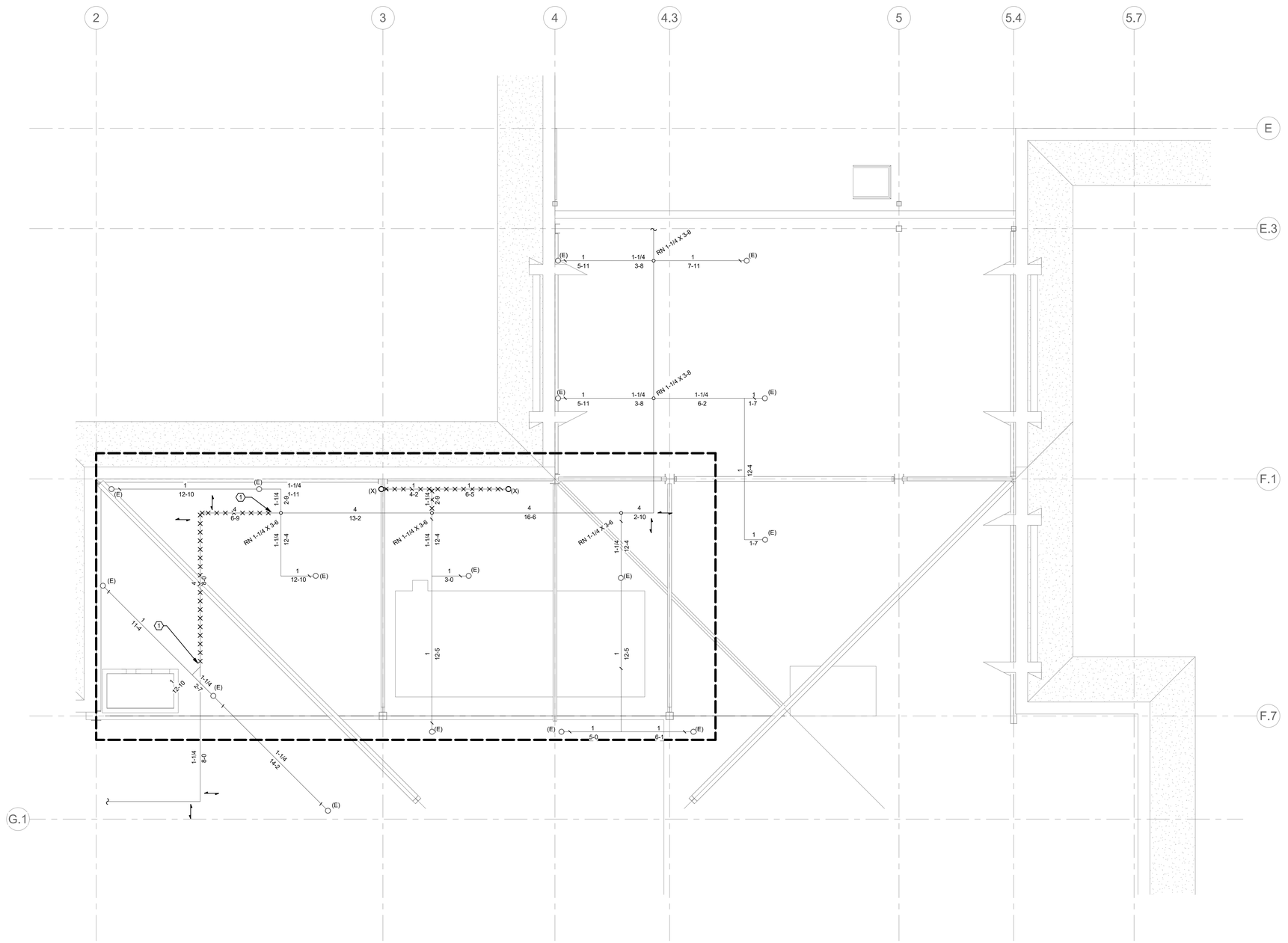
FP2.39.2

GENERAL SHEET NOTES

1. EXISTING CONDITIONS BASED ON SHOP DRAWINGS DATED 06/2005. ANY DISCREPANCIES OR DEFICIENCIES DISCOVERED ON SITE SHALL BE CORRECTED IN ACCORDANCE WITH ADOPTED CODES AND STANDARDS.
2. PROTECT ALL EXISTING SPRINKLER HEADS TO REMAIN. REMOVE PROTECTIVE COVER(S) ONCE NEW SPRINKLER COMPONENTS ARE INSTALLED.
3. PROTECT EXISTING SPRINKLER PIPING DURING DEMO WORK FOR NEW CONNECTION(S) TO NEW SPRINKLER PIPING.

SHEET KEYNOTES

1. CAP BRANCHLINE/MAIN.



1 DEMO PARTIAL ATTIC PLAN PLAN - WEST- FIRE PROTECTION

0' 4' 8' 16'

1/4" = 1'-0"

APPROVALS

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REVISIONS

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SHEET TITLE

DEMO PARTIAL ATTIC PLAN PLAN - WEST- FIRE PROTECTION

SHEET NUMBER

CCDA-103

FP2.40.2

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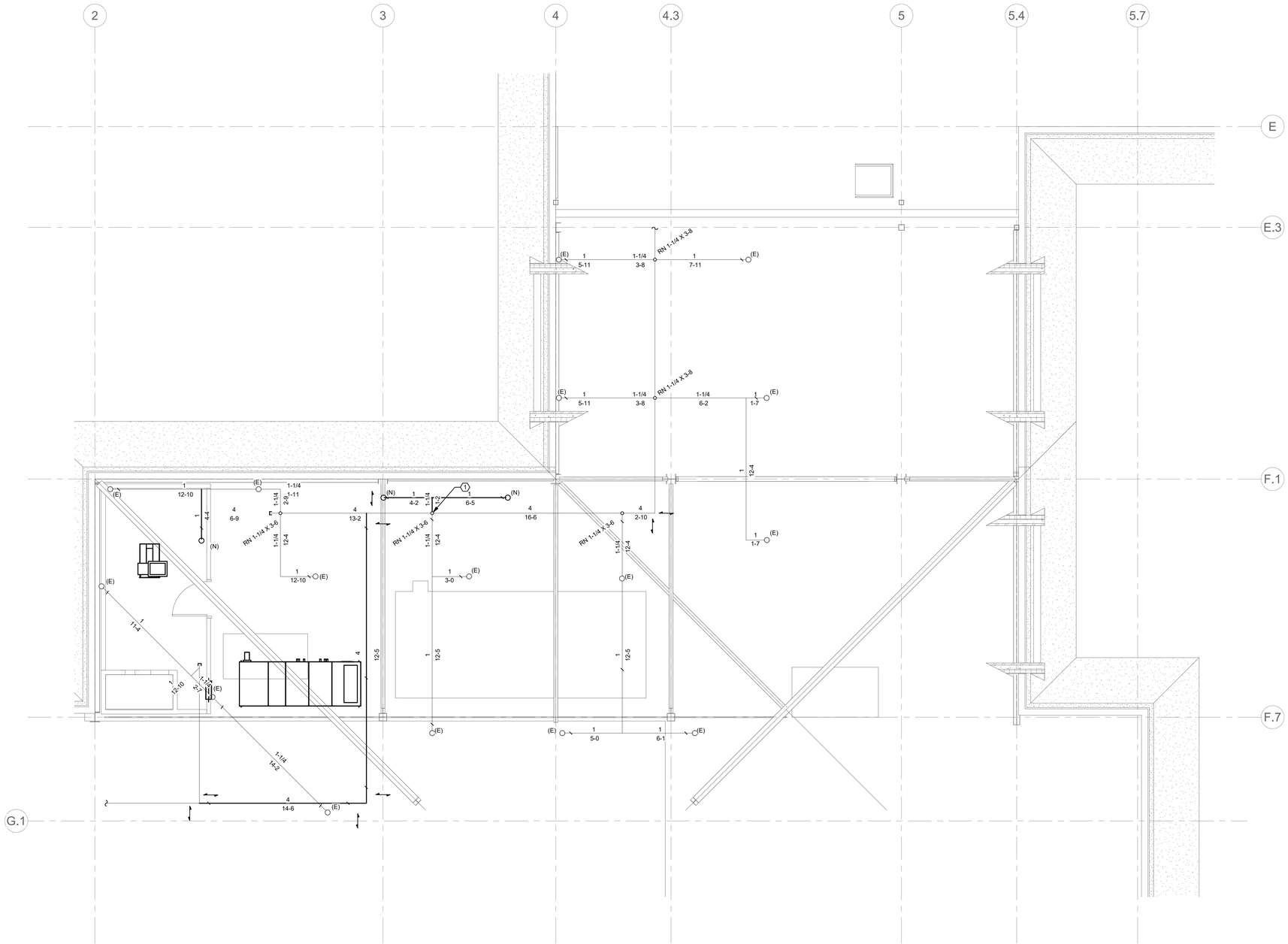
SHEET KEYNOTES

1. CONNECT TO BRANCHLINE WITH A 1-1/2" X 4" MECHANCIAL TEE. NEW SPRINKLERS TO BE MIN 3" ABOVE NEW DUCT WORK.



1 PARTIAL ATTIC PLAN PLAN - WEST- FIRE PROTECTION

0' 4' 8' 16'

1/4" = 1'-0"

APPROVALS

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NOLL & TAM JOB NUMBER	21630

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SHEET TITLE

PARTIAL ATTIC PLAN PLAN - WEST- FIRE PROTECTION

SHEET NUMBER

FP2.41.2

CCDA-103

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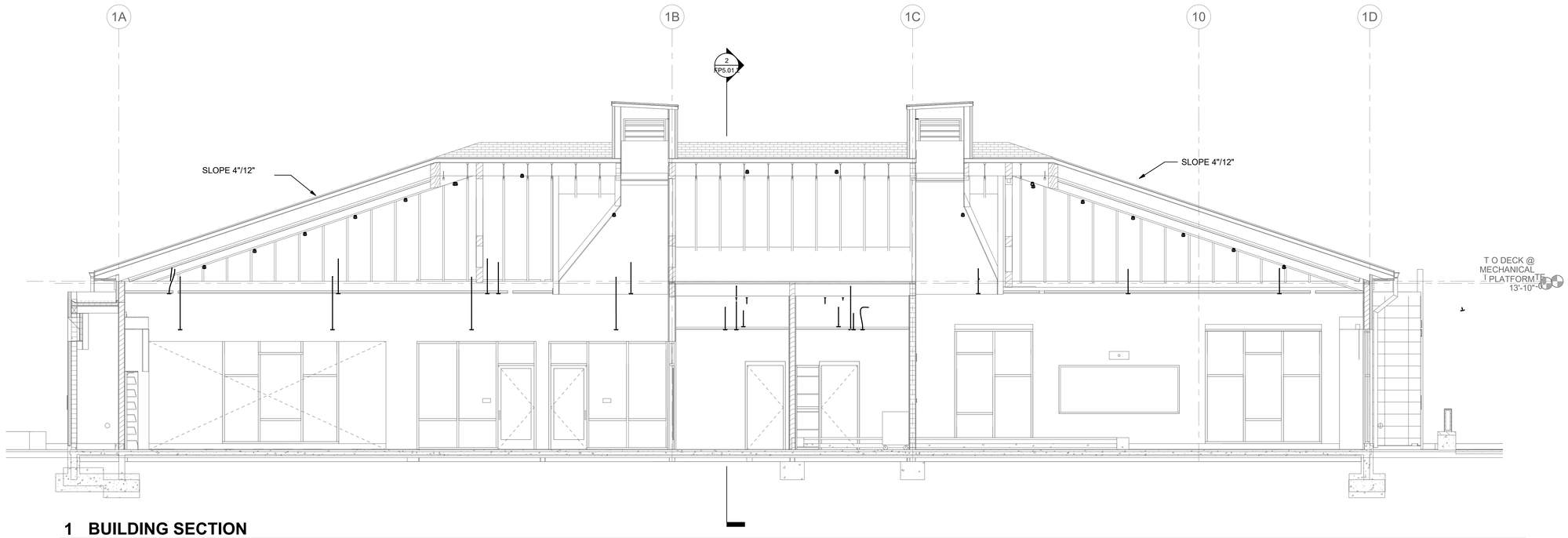
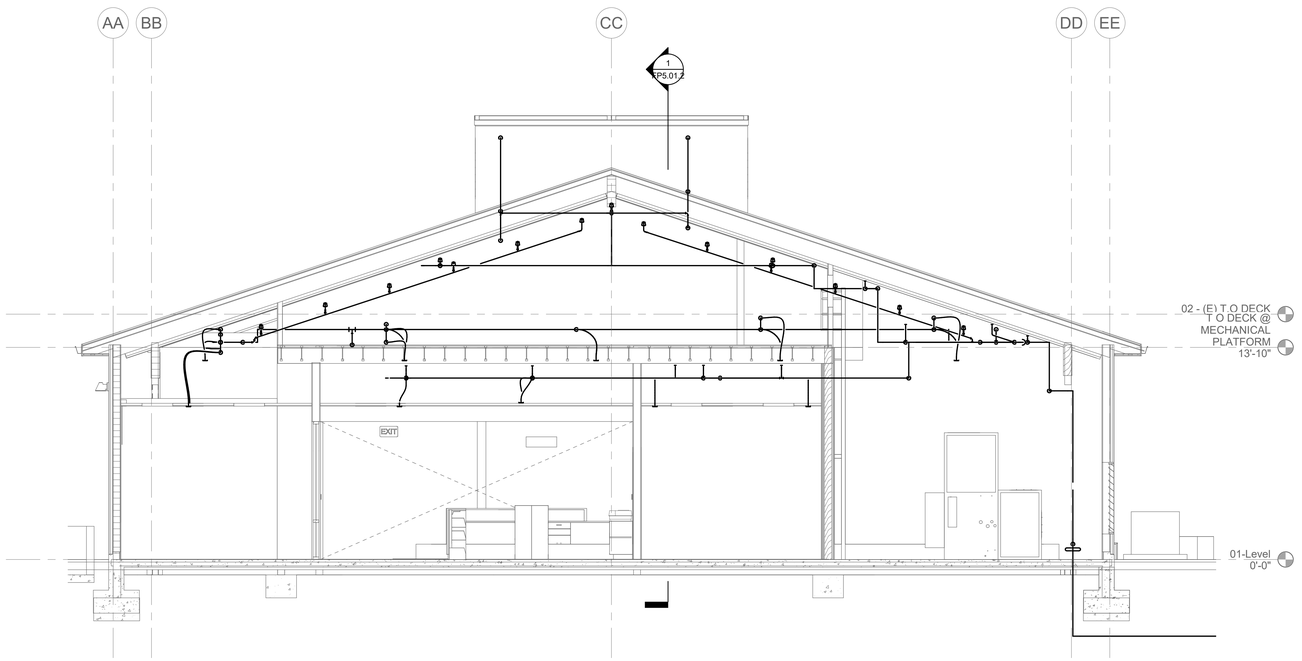


1 BUILDING SECTION

0' 2' 4' 8'

1/4" = 1'-0"



2 BUIDLING SECTION 2

0' 2' 4' 8'

1/4" = 1'-0"

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APPROVALS

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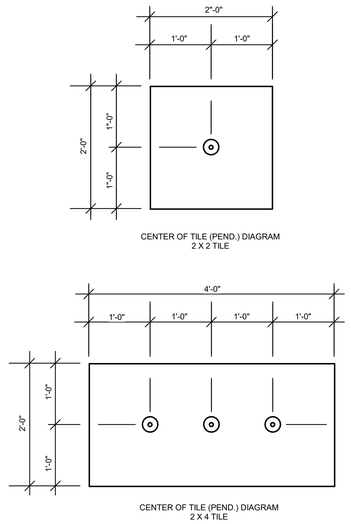
SHEET TITLE

SECTIONS - FIRE PROTECTION

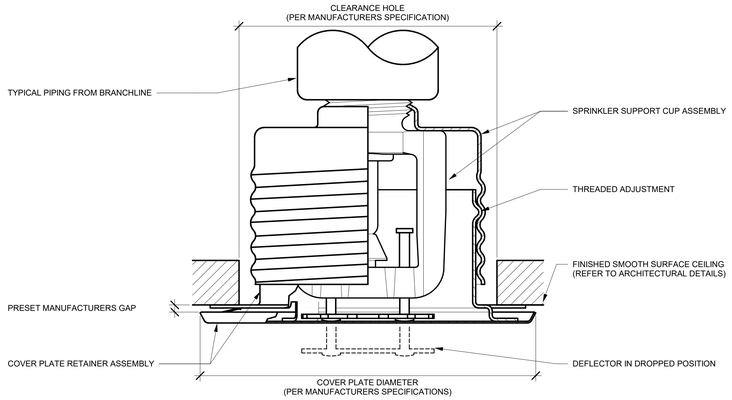
SHEET NUMBER

FP5.01.2



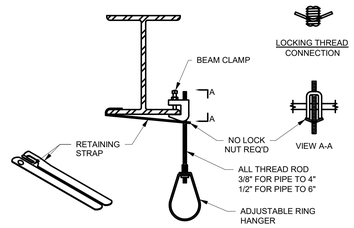
1 TILE DETAIL

NO SCALE



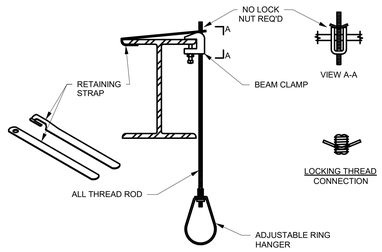
4 CONCEALED FLAT PLATE SPRINKLER

NO SCALE



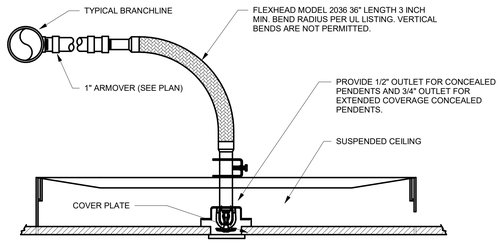
7 C-CLAMP HANGER WITH RETAINER STRAP

NO SCALE



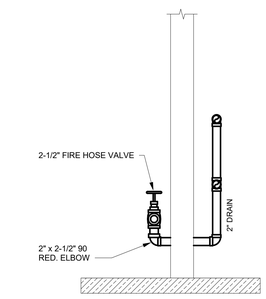
2 REVERSIBLE BEAM CLAMP

NO SCALE



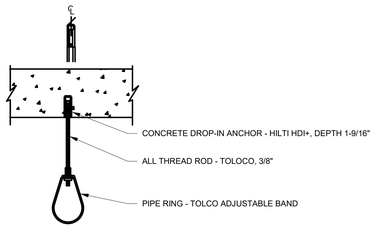
5 DROP TILE CEILINGS - SPRINKLER ON FLEX

NO SCALE



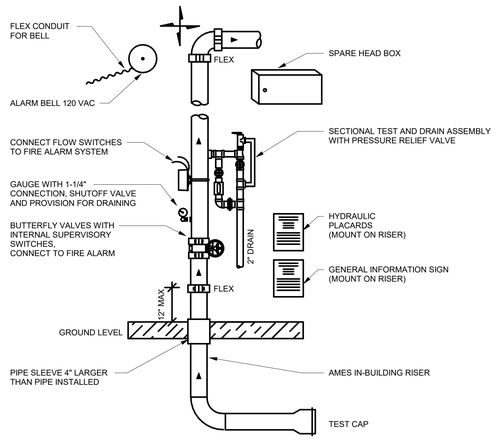
8 MAIN DRAIN WITH HOSE VALVE

NO SCALE



3 DRILLED CONCRETE ANCHOR HANGER

NO SCALE



6 WET SPRINKLER RISER

NO SCALE

APPROVALS

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PROJECT TITLE

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ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

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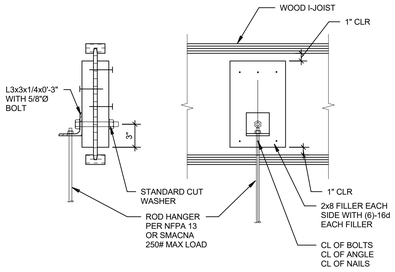
SHEET TITLE
DETAILS - FIRE PROTECTION

SHEET NUMBER
FP5.02.2



RFI #83- SUBSTITUTE TOLCO FIG 58 FOR CURRENT SIDE BEAM USED IN 1 TYPICAL HANGER JOIST. TOLCO FIG 58 USABLE FOR UP TO 4 PIPE.

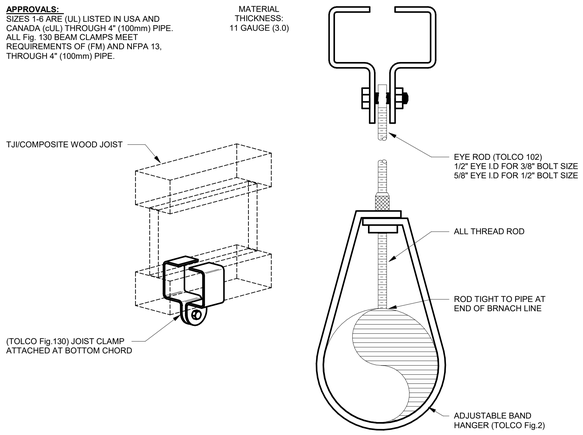
SUBSTITE VERTICAL WOOD SAMMYS FOR USE UNDER LARGE SOLID WOOD BEAMS.

1 TYPICAL HANGER FROM I-JOIST

NO SCALE

APPROVALS:
SIZES 1-6 ARE (UL) LISTED IN USA AND CANADA (cUL) THROUGH 4" (100mm) PIPE. ALL Fig. 130 BEAM CLAMPS MEET REQUIREMENTS OF (FM) AND NFPA 13, THROUGH 4" (100mm) PIPE.

MATERIAL THICKNESS: 11 GAUGE (3.0)

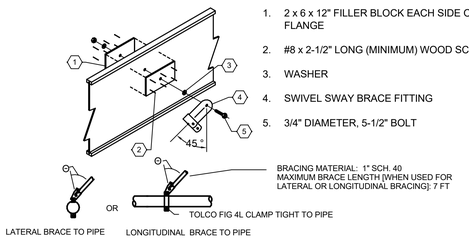


2 COMPOSITE WOOD JOIST CLAMP

NO SCALE

DETAIL KEYNOTES

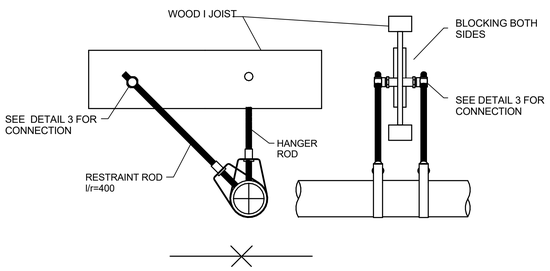
1. 2 x 6 x 12" FILLER BLOCK EACH SIDE OF WEB UNDER TOP FLANGE
2. #8 x 2-1/2" LONG (MINIMUM) WOOD SCREWS (6 EACH SIDE)
3. WASHER
4. SWIVEL SWAY BRACE FITTING
5. 3/4" DIAMETER, 5-1/2" BOLT



A — A

3 BRACE ATTACHMENT - FORCES PARALLEL OR PERPENDICULAR TO JOISTS

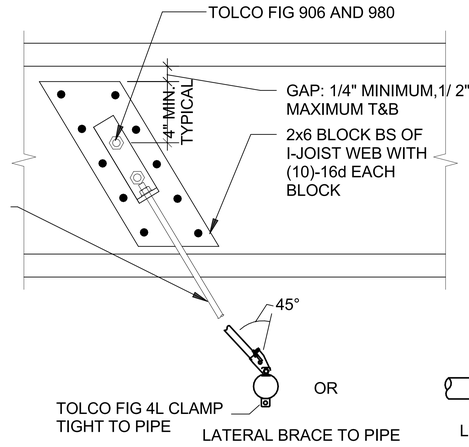
NO SCALE

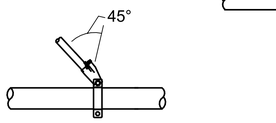


4 BRANCHLINE RESTRAINT

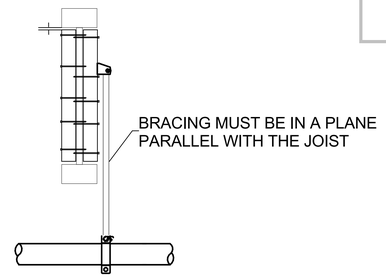
NO SCALE

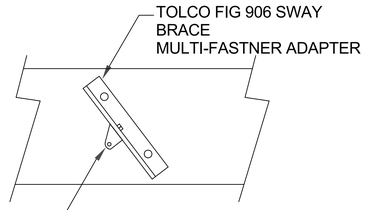
BRACING MATERIAL: 1" SCH. 40
MAXIMUM BRACE LENGTH: 7 FT
FASTENER:
TYPE: DUAL THROUGH-BOLTS
- TOLCO FIG 906
DIAMETER: $\frac{1}{2}$"



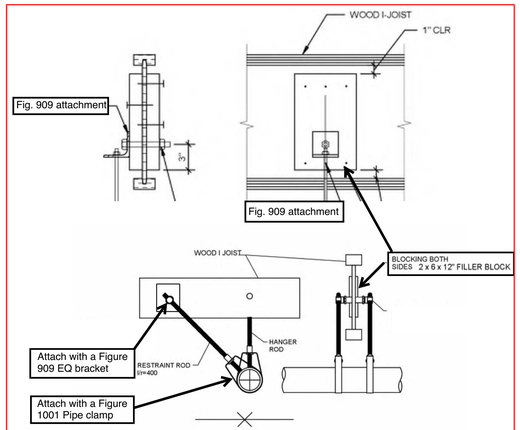


GAP(AT TOP AND BOTTOM), 1/4 " MIN, $\frac{1}{2}$" MAX.





RFI #143 - 1" PIPE WITH FIG. 909 FOR STRUCTURE ATTACHMENT WITH FIGURE 1001 FOR PIPE ATTACHMENT



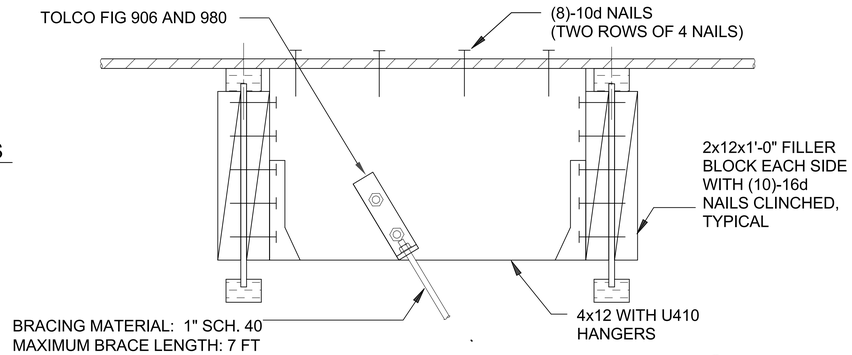
4 BRANCHLINE RESTRAINT

NO SCALE

B — B

5 BRACE ATTACHMENT - FORCES PARALLEL TO JOISTS

NO SCALE



MAKE ATTACHMENT PER NFPA 13 NEAR THE CENTER OF THE 4X BLOCK. FASTENER MUST BE AT LEAST 7 DIAMETERS FROM THE END OF THE BLOCK AND 4 DIAMETERS FROM ALL OTHER EDGES.

6 BRACE ATTACHMENT - FORCES PERPENDICULAR TO JOISTS

NO SCALE

C — C

APPROVALS

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DETAILS - FIRE PROTECTION

SHEET NUMBER
FP5.03.2

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PLUMBING SYMBOL LIST

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

Abbreviations

(A)	ABANDON IN PLACE
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
AR	ACID-RESISTANT
ADA	AMERICANS WITH DISABILITIES ACT
&	AND
A	AQUASTAT, ARCHITECT, ANCHOR, AMPHERE
@	AT
BFP	BACKFLOW PREVENTER
BV	BALANCING VALVE
BFF	BELOW FINISHED FLOOR
BF	BLIND FLANGE
BTUH	BRITISH THERMAL UNITS PER HOUR
BLDG	BUILDING
CV	CHECK VALVE
CO	CLEANOUT
COTF	CLEANOUT TO FLOOR
COTG	CLEANOUT TO GRADE
CW	COLD WATER
CD	CONDENSATE DRAIN
CONT.	CONTINUATION
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CF	CUBIC FOOT
(X)	DEMOLISH
DW	DISHWASHER, DOMESTIC WATER
DET	DOMESTIC EXPANSION TANK
DCVA	DOUBLE CHECK VALVE ASSEMBLY
DN	DOWN
DS	DOWNSPOUT
DSN	DOWNSPOUT NOZZLE
D	DRAIN
DFU	DRAINAGE FIXTURE UNIT
DWV	DRAINAGE, WASTE AND VENT
DF	DRINKING FOUNTAIN
EWH	ELECTRIC WATER HEATER
ELECT	ELECTRICAL
EEW	EMERGENCY EYE WASH
ESH	EMERGENCY SHOWER
(E)	EXISTING
EJ	EXPANSION JOINT
FT	FEET
FFE	FINISHED FLOOR ELEVATION
F	FIRE, FAHRENHEIT
FC	FLEXIBLE CONNECTOR
FL	FLOOR
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK, FLOW SWITCH
FV	FLUSH VALVE
'	FOOT, FEET
(F)	FUTURE
GAL	GALLONS
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GWH	GAS WATER HEATER
GW	GREASE WASTE
HD	HEAD, HUB DRAIN
HP	HEAT PUMP, HORSE POWER, HOUSEKEEPING PAD
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HZ	HERTZ
HB	HOSE BIBB
HW	HOT WATER
HWFU	HOT WATER FIXTURE UNIT
HWR	HOT WATER RETURN
IN, "	INCHES
IW	INDIRECT WASTE
INV	INVERT ELEVATION
KW	KILOWATT
L	LAVATORY
MW	MAKE-UP WATER
MAX	MAXIMUM
HG	MERCURY
MIN	MINIMUM
MX	MIXING VALVE
MS	MOP SINK
MH	MOUNTING HEIGHT, MANHOLE
(N)	NEW
NPCW	NON-POTABLE COLD WATER
NC	NORMALLY CLOSED
NOP	NORMALLY OPEN
N	NORTH
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
#	NUMBER
NO.	NUMBER
OD	OVERFLOW DRAIN, OUTSIDE DIAMETER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
PH	PHASE
PLBG	PLUMBING
P	PLUMBING, PUMP
POC	POINT OF CONNECTION
PSI	POUNDS PER SQUARE INCH
PD	PRESSURE DROP, PLUMBING DEMOLITION, PUMPED DISCHARGE
PG	PRESSURE GAUGE
PRV	PRESSURE REDUCING VALVE
PS	PRESSURE SWITCH
QTY	QUANTITY
RWL	RAINWATER LEADER
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
RV	RELIEF VENT, RELIEF VALVE
(R)	RELOCATE / RELOCATED LOCATION
RPM	REVOLUTIONS PER MINUTE
RD	ROOF DRAIN
SAN	SANITARY
SJ	SEISMIC JOINT
SB	SERVICE BOX
SS	SERVICE SINK
SHT	SHEET
SA	SHOCK ARRESTOR
SH	SHOWER
SOV	SHUT OFF VALVE
S, SK	SINK
SF	SQUARE FEET
SD	STORM DRAIN
SP	SUMP PUMP, STATIC PRESSURE
TEMP	TEMPERATURE
T&P	TEMPERATURE AND PRESSURE
T	TEMPERATURE, THERMOMETER
MBH	THOUSAND BTU'S PER HOUR
TP	TRAP PRIMER, TOTAL PRESSURE
TD	TRENCH DRAIN
TYP	TYPICAL
U, UR	URINAL
V	VACUUM, VENT, VOLT
VFD	VARIABLE FREQUENCY DRIVE
VS	VENT STACK
VTR	VENT THRU ROOF
WCO	WALL CLEANOUT
WB	WASHER BOX
W	WASTE
WS	WASTE STACK
WC	WATER COLUMN
WC	WATER COLUMN, WATER CLOSET
WHA	WATER HAMMER ARRESTOR
WH	WATER HEATER, WALL HYDRANT
WSFU	WATER SUPPLY FIXTURE UNIT
W/	WITH

General

- CONTINUATION
- X / X — DETAIL NUMBER AND SHEET LOCATION
- XX-X / LOCATION — EQUIPMENT IDENTIFICATION
- EXTENT OF DEMOLITION
- X — FIXTURE TAG (LEVEL BELOW FIXTURE)
- XX — FOOD SERVICE EQUIPMENT / CALCULATION TAG
- X — KEYED NOTE
- PIPE BELOW GRADE
- POINT OF CONNECTION
- X / XXX — SECTION NUMBER AND SHEET LOCATION
- DEMOLISH
- EXISTING WORK
- NEW WORK
- PIPE OR CONDUIT BELOW GRADE

Piping Fittings

- AP — ACCESS PANEL
- AQUASTAT
- AD — AREA DRAIN
- BLIND FLANGE
- CAP
- CB — CATCH BASIN
- COTG — CLEANOUT TO GRADE
- CONCENTRIC REDUCER
- DSN — DOWNSPOUT NOZZLE
- EXPANSION JOINT
- FLEXIBLE CONNECTION
- FCO — FLOOR CLEANOUT
- FD — FLOOR DRAIN
- FS — FLOOR SINK
- FLOW DIRECTION
- HOSE BIBB / WALL HYDRANT
- HD — HUB DRAIN
- M — METER
- OD — OVERFLOW ROOF DRAIN
- PIPE DROP
- PIPE RISE
- PRESSURE GAUGE WITH COCK

- PUMP
- RD — ROOF DRAIN
- TEE DOWN ON PIPE
- TEE UP ON PIPE
- TP — TRAP PRIMER MANIFOLD
- TRENCH DRAIN
- UNION
- VTR — VENT THROUGH ROOF
- WCO — WALL CLEANOUT

Piping Systems

- 140°HW — 140%%d HOT WATER PIPING
- 140°HWR — 140%%d HOT WATER RETURN PIPING
- COLD WATER PIPING
- CA — COMPRESSED AIR PIPING
- D — CONDENSATE / INDIRECT DRAIN PIPING
- GV — GAS VENT PIPING
- GW — GREASE WASTE ABOVE GRADE OR FINISHED FLOOR
- GW — GREASE WASTE BELOW GRADE OR FINISHED FLOOR
- HOT WATER PIPING
- HOT WATER RETURN PIPING
- 2#G — NATURAL GAS PIPING, 2 LB
- 5#G — NATURAL GAS PIPING, 5 LB
- G — NATURAL GAS PIPING, 7" WC PRESSURE
- OD — OVERFLOW DRAIN PIPING ABOVE GRADE OR FINISHED FLOOR
- PD — PUMPED DISCHARGE
- SANITARY VENT PIPING
- SANITARY WASTE OR SOIL PIPING ABOVE GRADE OR FINISHED FLOOR
- SANITARY WASTE OR SOIL PIPING BELOW GRADE OR FINISHED FLOOR
- SD — STORM DRAIN PIPING ABOVE GRADE OR FINISHED FLOOR
- SD — STORM DRAIN PIPING BELOW GRADE OR FINISHED FLOOR
- TP — TRAP PRIMER PIPING

Valves

- BFP — BACKFLOW PREVENTER
- CHECK VALVE
- EARTHQUAKE GAS VALVE
- HOSE END DRAIN VALVE
- NATURAL GAS PIPING CONNECTION ASSEMBLY
- PRESSURE REDUCING VALVE
- SHUTOFF VALVE, GENERAL

RFI#60 - REQUEST TO SUBMIT UNDERGROUND NATURAL GAS PIPING.
PIPE: POLYETHYLENE, GRADE 23, TYPE II, ASTM 1784, ASTM 2513-88B, PE 2406-SD11 PLAIN ENDS, YELLOW.
FITTINGS: ASTM D2683, PE 2406, SDR11 POLYETHYLENE SOCKET.
JOINTS: SOCKET HEAT FUSION IN CONFORMANCE WITH ASTM D3261

GENERAL PLUMBING NOTES

A. PLUMBING SYSTEM DESIGN, INSTALLATION AND MATERIALS SHALL CONFORM TO THE 2016 CALIFORNIA PLUMBING CODE, LOCAL AMENDMENTS AND ALL APPLICABLE REGULATIONS.

B. CONDITIONS SHOW ON THE PLANS RELATIVE TO THE WORK TO BE PERFORMED ARE BASED ON THE BEST INFORMATION AVAILABLE BUT ARE 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 CONFLICT WITH THE DETAILS/PLANS.

C. COORDINATE INSTALLATION OF PIPING 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. PIPING ROUTED THROUGH ROOF TO BE INSTALLED PER ARCHITECTURAL REQUIREMENTS (SEE ARCHITECTURAL DETAILS).

F. LOCATE ALL VTR A MINIMUM OF 10'-0" FROM OUTSIDE AIR OPENINGS OF ROOFTOP HVAC EQUIPMENT.

G. LOCATE VALVES FOR SERVICE ACCESSIBILITY. VALVES INSTALLED ABOVE CEILING SHALL BE WITHIN 18" OF CEILING.

H. INSTALL OVERHEAD PIPING AS CLOSE TO STRUCTURE AS POSSIBLE IN AREAS WITH EXPOSED ROOF STRUCTURE.

I. ALL PIPING SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC, SECTIONS 1616A.1.24, 1616A.1.25, AND 1616A.1.26.

J. SUPPORT AND BRACE DUCTWORK, PIPING, AND APPURTENANCES WITH OSHPD PRE-APPROVED SYSTEMS (WHETHER AN OSHPD PROJECT OR NOT):

1. OPM-0043-13 MASON SEISMIC RESTRAINT COMPONENTS FOR SUSPENDED UTILITIES.
2. OPM 0052-13 EATON/TOLCO SEISMIC BRACING & HANGERS.

K. PROVIDE CLEANOUTS FOR SANITARY WASTE AND STORM DRAINAGE SYSTEMS WHERE SHOWN AND AS OTHERWISE REQUIRED BY CODE.

L. FURNISH AND INSTALL VALVES, TRAPS, STRAINERS, BACK FLOW PREVENTERS, ETC. NOT FURNISHED BY EQUIPMENT SUPPLIER, BUT REQUIRED FOR PROPER EQUIPMENT OPERATION.

M. SHUT-OFF VALVES TO BE INSTALLED IN ALL WATER PIPING. PROVIDE ACCESS PANELS IF CEILING AND STRUCTURAL CONDITIONS DO NOT ALLOW NORMAL ACCESS. COORDINATE EXACT TYPE AND LOCATION WITH OWNER AND GENERAL CONTRACTOR PRIOR TO ROUGH-IN.

N. CONTRACTOR TO PROVIDE LOCATE/SCOPING SERVICES FOR EXISTING PIPING BELOW GRADE AND DOCUMENT/RECORD, COORDINATE WITH NEW WORK PRIOR TO START OF CONSTRUCTION.

O. ROOF PENETRATIONS TO BE MINIMUM 5'-0" CLEAR OF TWO HOUR WALL SEPARATIONS.

P. COORDINATE INSTALLATION OF DUCTWORK, PIPING, FIXTURES, EQUIPMENT, ETC. WITH ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND FIRE PROTECTION SYSTEMS PRIOR TO INSTALLATION.

Q. REFER TO ARCHITECTURAL DRAWINGS FOR ADA ACCESSIBILITY REQUIREMENTS.

R. PROVIDE CEILING ACCESS PANELS FOR VALVES LOCATED ABOVE INACCESSIBLE CEILING SYSTEMS. VALVES INSTALLED ABOVE CEILING SHALL BE WITHIN 18" OF CEILING. MAINTAIN FIRE RATINGS WHERE REQUIRED.

S. SEE ARCHITECTURAL DRAWINGS FOR EXACT FIXTURE LOCATIONS.

T. PROVIDE NEW FIXTURES WITH CONNECTION TO ADEQUATELY SIZED EXISTING LINES. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE CONNECTION SIZES.

U. INSTALL INSULATION TO EXPOSED P-TRAP, DRAIN, COLD AND HOT WATER SUPPLY PIPING AT ACCESSIBLE LAVATORIES.

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. SAW CUTTING OF ANY FLOOR, AND CORE DRILLING HOLES LARGER THAN EIGHT INCHES DIAMETER IN STRUCTURAL WALLS, FLOOR OR ROOF REQUIRES THE APPROVAL OF A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA. CONTRACTOR TO RETAIN THE SERVICES OF THE STRUCTURAL ENGINEER FORWARD WET STAMPED STRUCTURAL CALCULATIONS TO THE ARCHITECT PRIOR TO BEGINNING WORK. HOLES SMALLER THAN EIGHT INCHES DIAMETER IN STRUCTURAL WALLS, FLOOR OR ROOF SHALL BE REVIEWED BY ARCHITECT AND AUTHORIZED IN WRITING PRIOR TO BEGINNING OF WORK .

C. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS FOR SPACE ALLOCATION 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.

D. THE COST OF CUTTING, PATCHING AND PAINTING OF EXISTING WALLS, CEILINGS, AND FLOOR INCLUDING CONCRETE SLAB AS REQUIRED ACCOMMODATE WORK AS SHOWN OR SPECIFIED HEREIN, SHALL BE INCLUDED IN THE COST OF 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 .

E. CONTRACTOR SHALL VERIFY AND COORDINATE ALL EXISTING WASTE, VENT AND WATER PIPING TO REMAIN IN SERVICE. EXISTING WASTE, VENT AND WATER PIPING SERVING EXISTING PLUMBING FIXTURES, FLOOR SINK 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

F. FOR FIXTURE DEMOLITION, REMOVE AND DISPOSE FIXTURE INCLUDING RELATED PIPING AND ACCESSORIES CAP PIPES BEHIND WALL AND ABOVE CEILING. PATCH TO MATCH ADJACENT SURFACES AND HOT WATER SUPPLY PIPING AT ACCESSIBLE LAVATORIES.

SHEET INDEX

These Record Documents have been prepared based on information provided by others. The design professional has not verified the accuracy and/or completeness of this information and shall not be responsible for any error or omissions which may be incorporated herein as a result.

APPROVALS

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE
SYMBOLS LIST AND GENERAL NOTES - PLUMBING

SHEET NUMBER
P0.01.2

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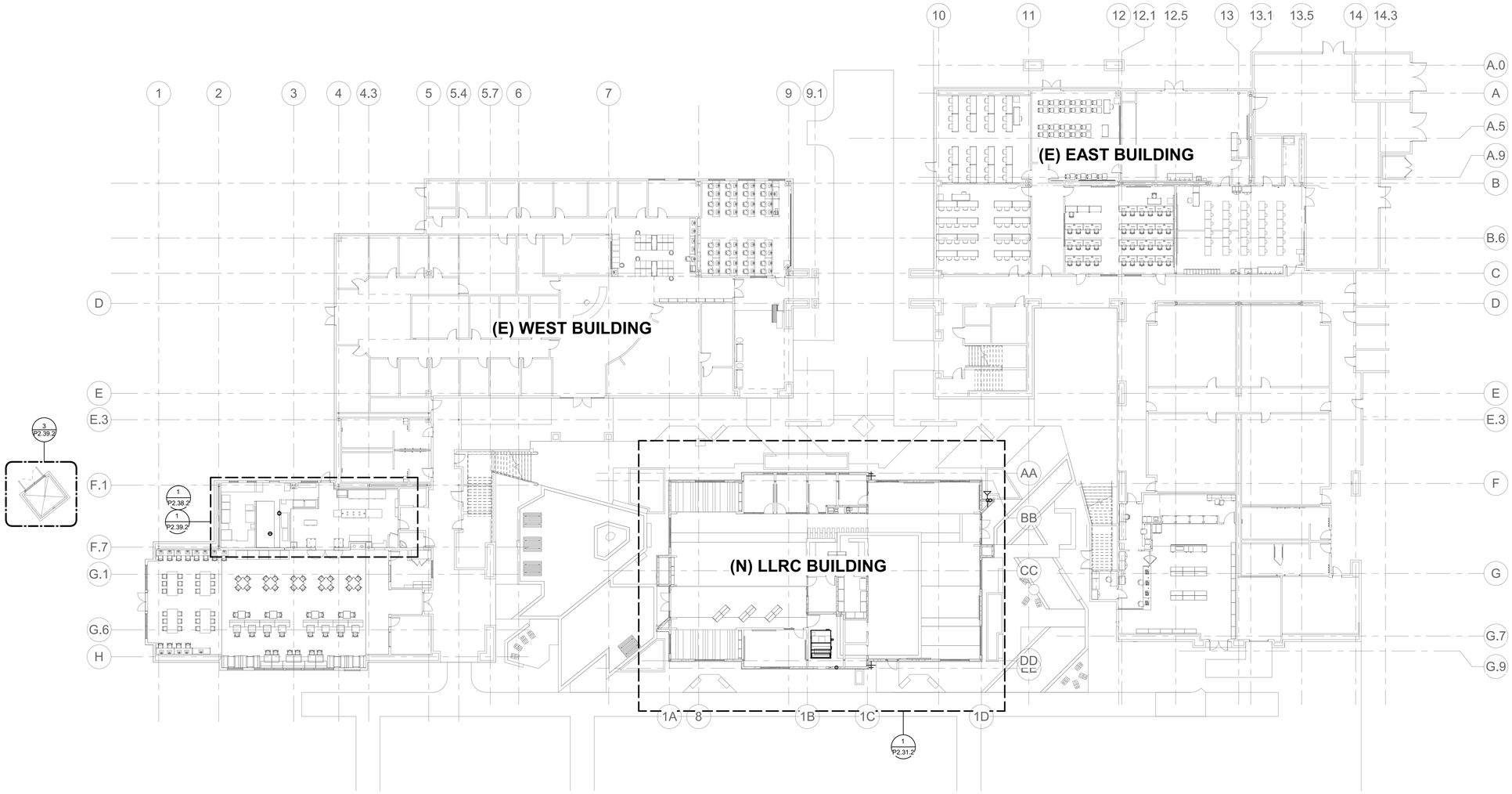

1 LEVEL 1 - PLUMBING PLAN - OVERALL FLOOR PLAN

0' 4' 8' 16'

1/16" = 1'-0"

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

1ST FLOOR OVERALL PLAN - PLUMBING

SHEET NUMBER

P2.30A.2

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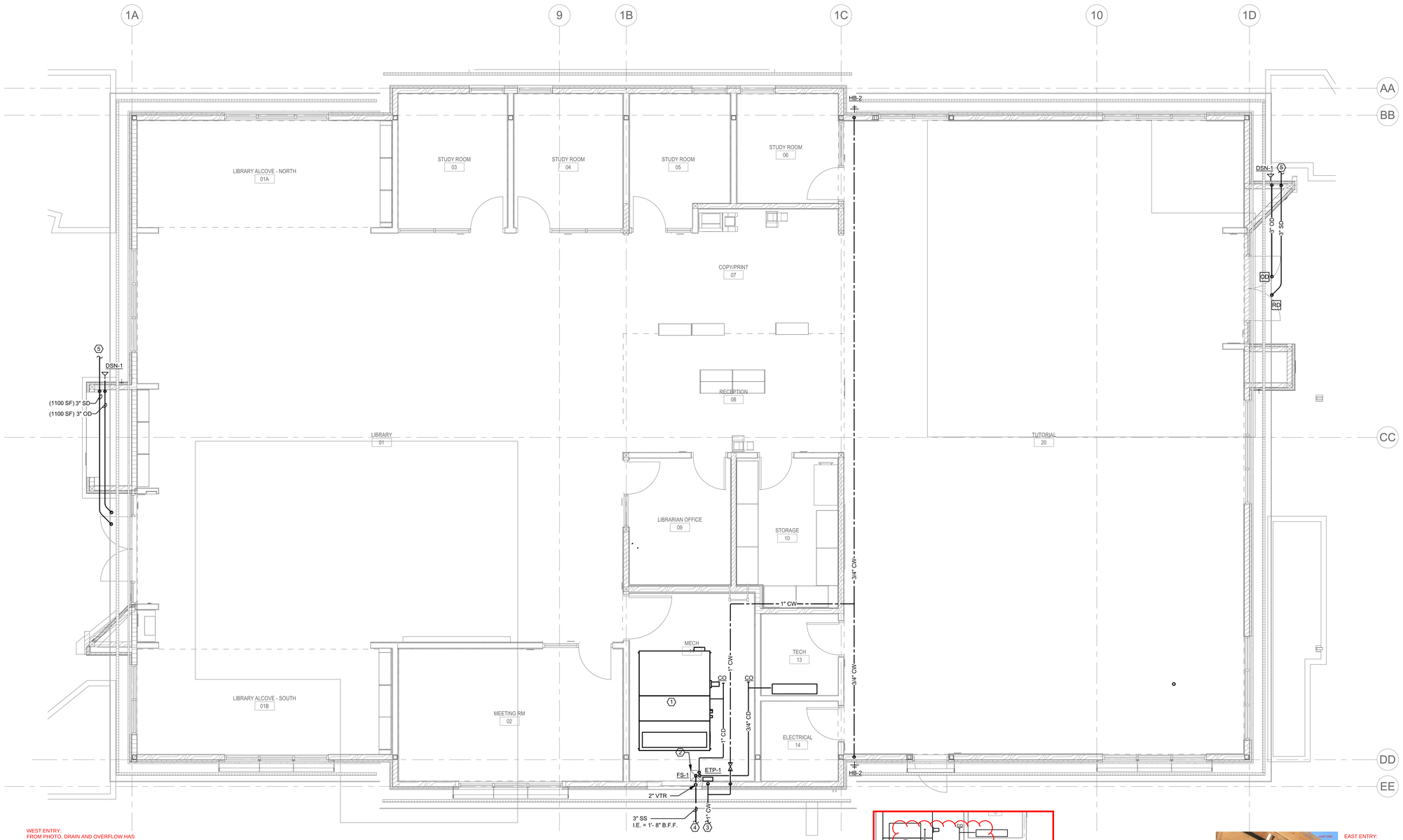
SHEET KEYNOTES

1. MECHANICAL UNIT. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION.
2. FLOOR SINK TO SEWER MAIN. REFER TO CIVIL DRAWINGS FOR LOCATION.
3. 1" CW LINE. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION.
4. 3" SS LINE. REFER TO CIVIL DRAWINGS FOR EXACT LOCATION.
5. 3" SD LINE. REFER TO CIVIL DRAWINGS FOR CONTINUATION



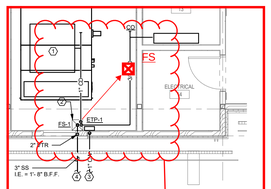
1 PLUMBING PLAN

0' 2' 4' 8'

1/4" = 1'-0"

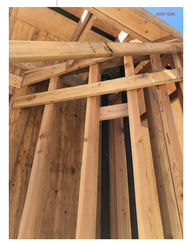
WEST ENTRY:
FROM PHOTO. DRAIN AND OVERFLOW HAS BEEN SHIFTED NORTHWARD BY GC WITH SLOPED RUN TO NORTH AND VERTICAL DROP

RFI #85- RWL LOCATION ADJUSTMENT



RFI#34 - PROPOSED RELOCATION OF FLOOR SINK AND ETP

Relocate floor sink and ETP to plan east wall of mechanical room, beyond the perimeter footing.



EAST ENTRY:
FROM PHOTO. DRAIN AND OVERFLOW HAS BEEN SHIFTED NORTH BY GC WITH STRAIGHT VERTICAL RUN DOWN

RFI #85- RWL LOCATION ADJUSTMENT

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

LIBRARY LEARNING RESOURCE CENTER FLOOR PLAN - PLUMBING

SHEET NUMBER

P2.31.2

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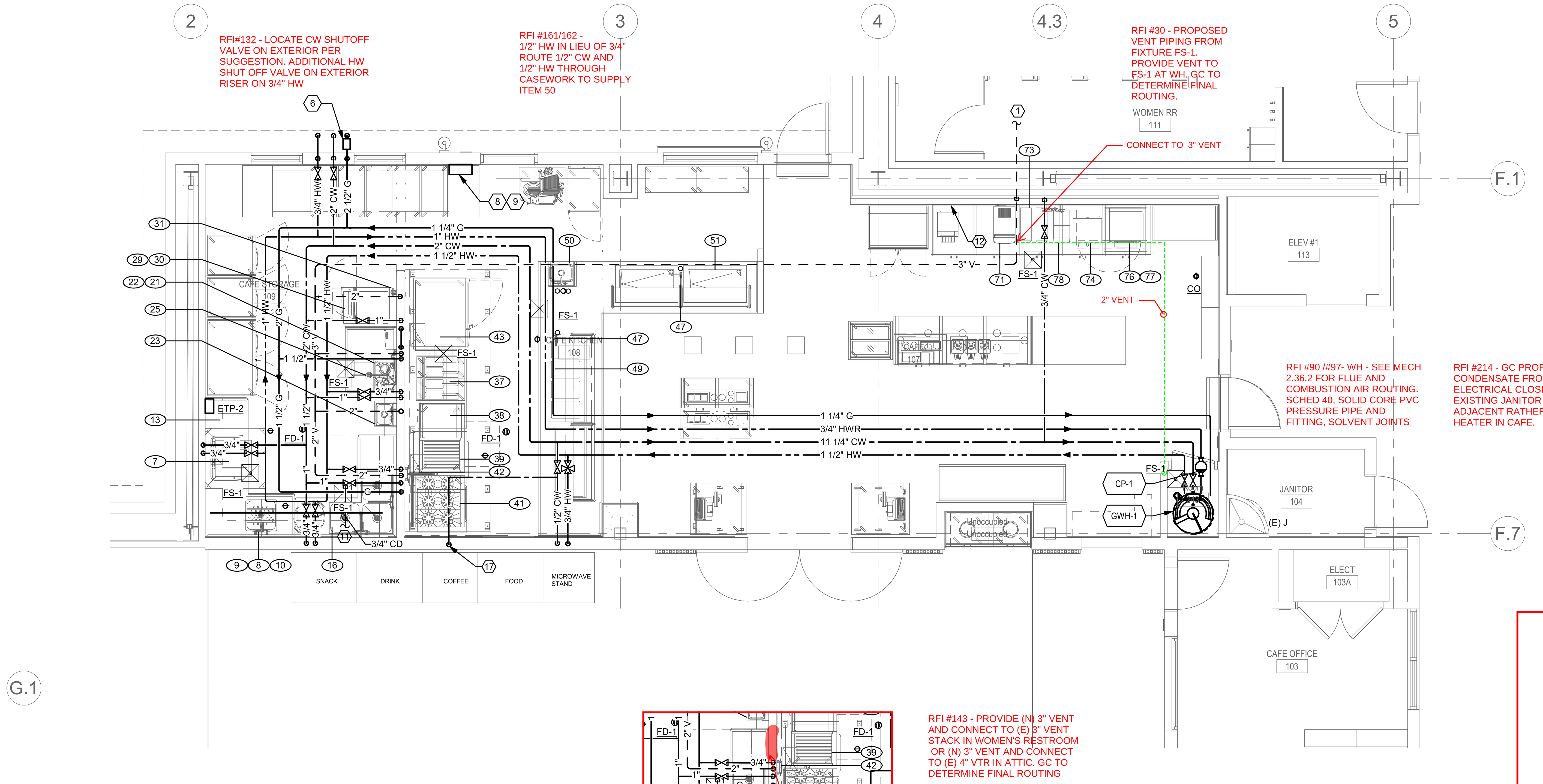
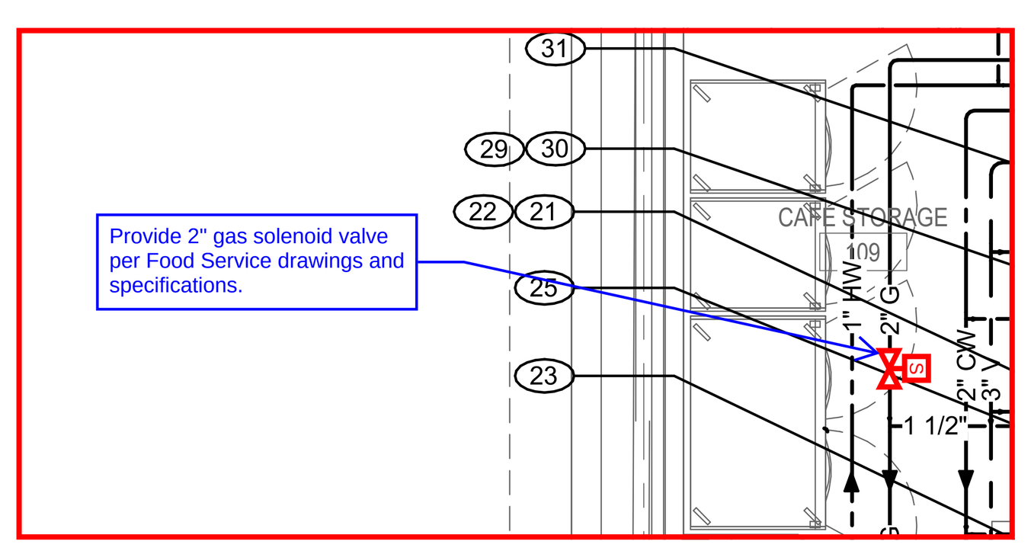


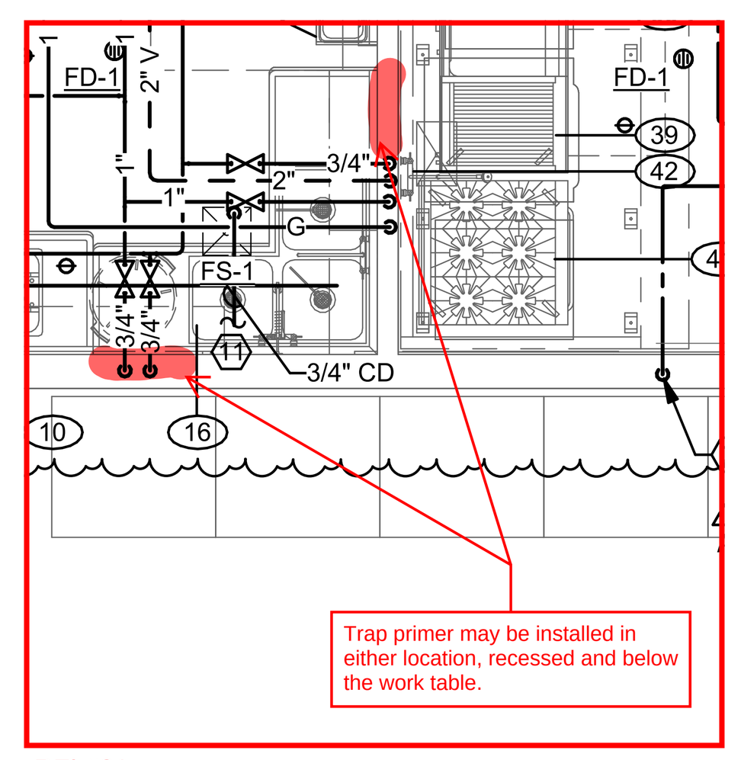
RFI#132 - LOCATE CW SHUTOFF VALVE ON EXTERIOR PER SUGGESTION, ADDITIONAL HW SHUT OFF VALVE ON EXTERIOR RISER ON 3/4" HW
RFI #161/162 - 1/2" HW IN LIEU OF 3/4" ROUTE 1/2" CW AND 1/2" HW THROUGH CASEWORK TO SUPPLY ITEM 50
RFI #30 - PROPOSED VENT PIPING FROM FIXTURE FS-1. PROVIDE VENT TO FS-1 AT WH. GC TO DETERMINE FINAL ROUTING.
CONNECT TO 3" VENT
2" VENT
RFI #90 /#97- WH - SEE MECH 2.36.2 FOR FLUE AND COMBUSTION AIR ROUTING. SCHED 40, SOLID CORE PVC PRESSURE PIPE AND FITTING, SOLVENT JOINTS
RFI #214 - GC PROPOSE ROUTING CONDENSATE FROM SPLIT COOLING UNIT AT ELECTRICAL CLOSET IN BOOKSTORE TO EXISTING JANITOR CLOSET MOP SINK ADJACENT RATHER THAN IN THE WATER HEATER IN CAFE.
RFI # 173 - NATURAL GAS SEISMIC SHUT OFF VALVE - PACIFIC SEISMIC PRODUCTS OR SIMILAR .
RFI #143 - PROVIDE (N) 3" VENT AND CONNECT TO (E) 3" VENT STACK IN WOMEN'S RESTROOM OR (N) 3" VENT AND CONNECT TO (E) 4" VTR IN ATTIC. GC TO DETERMINE FINAL ROUTING
1 1/4" G
1" HW
2" CW
1 1/2" HW
1 1/4" G
3/4" HWR
11 1/4" CW
1 1/2" HW
3/4" CD
CP-1
GWH-1
FS-1
FD-1
ETP-2
WOMEN RR 111
ELEV #1 113
JANITOR 104
ELECT 103A
CAFE OFFICE 103
SNACK
DRINK
COFFEE
FOOD
MICROWAVE STAND

1 PLUMBING PLAN - CAFE

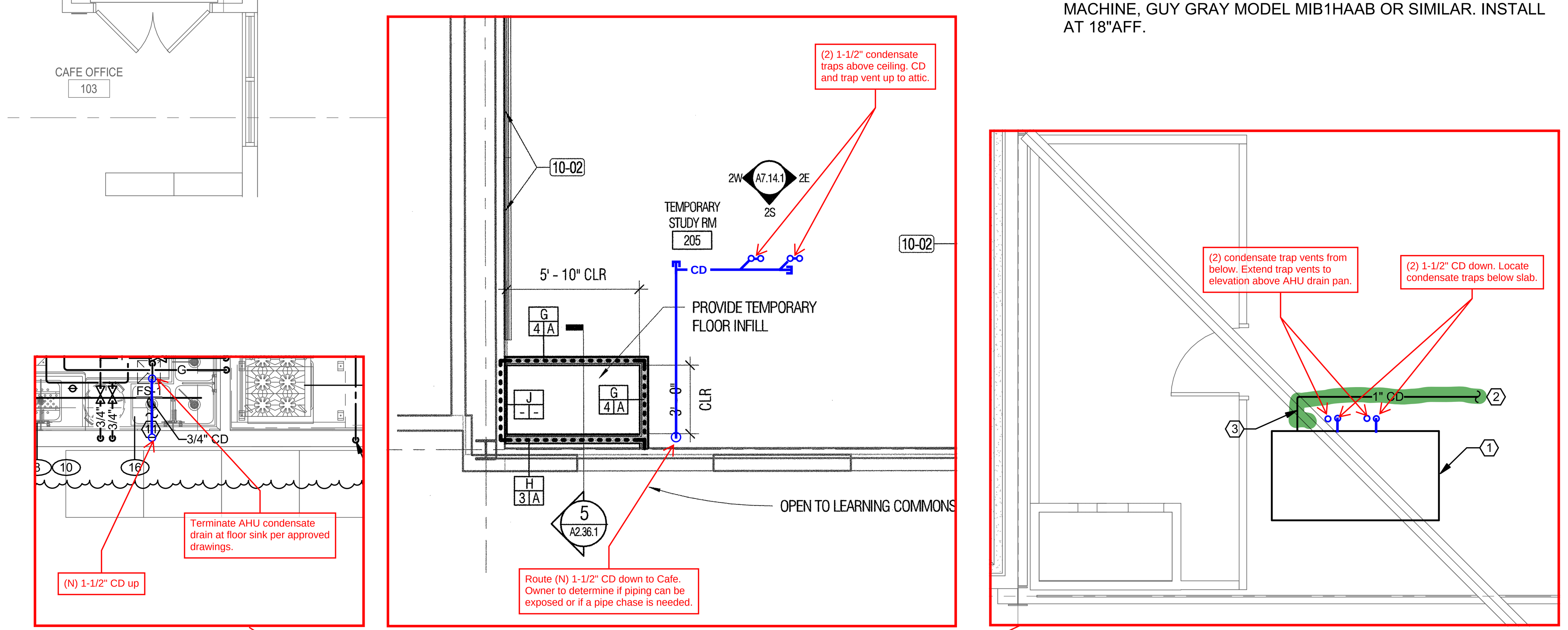
1/4" = 1'-0"



RFI #218 - PROPOSED GAS SOLENOID VALVE INSTALLATION LOCATION

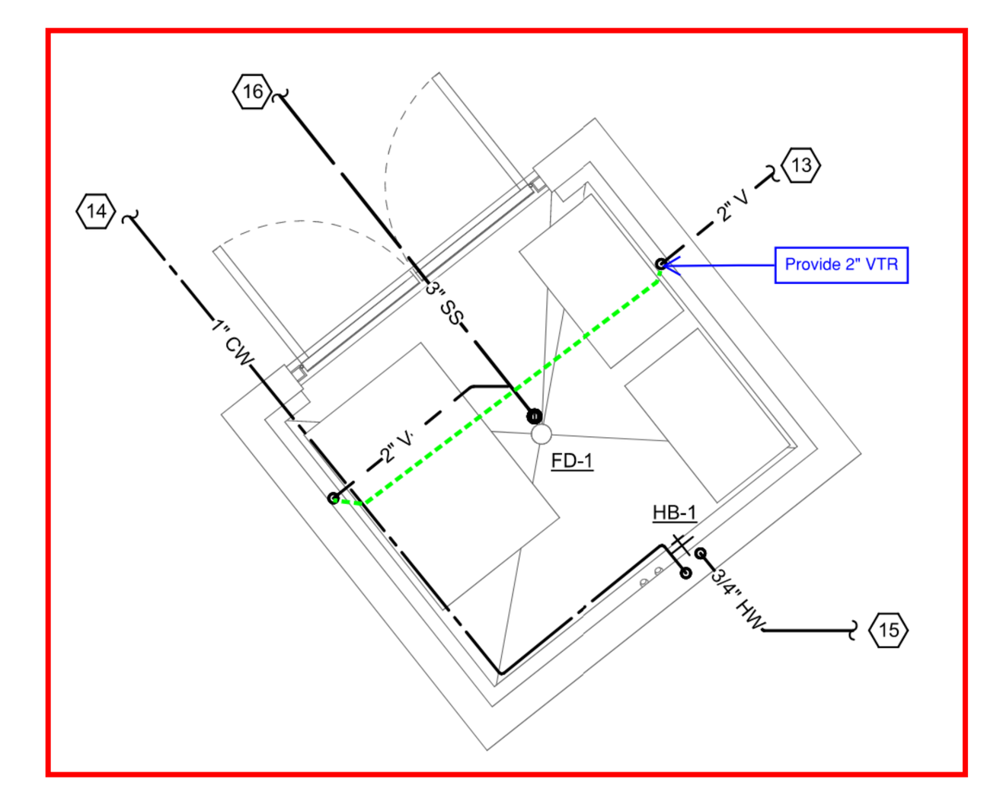


RFI #91

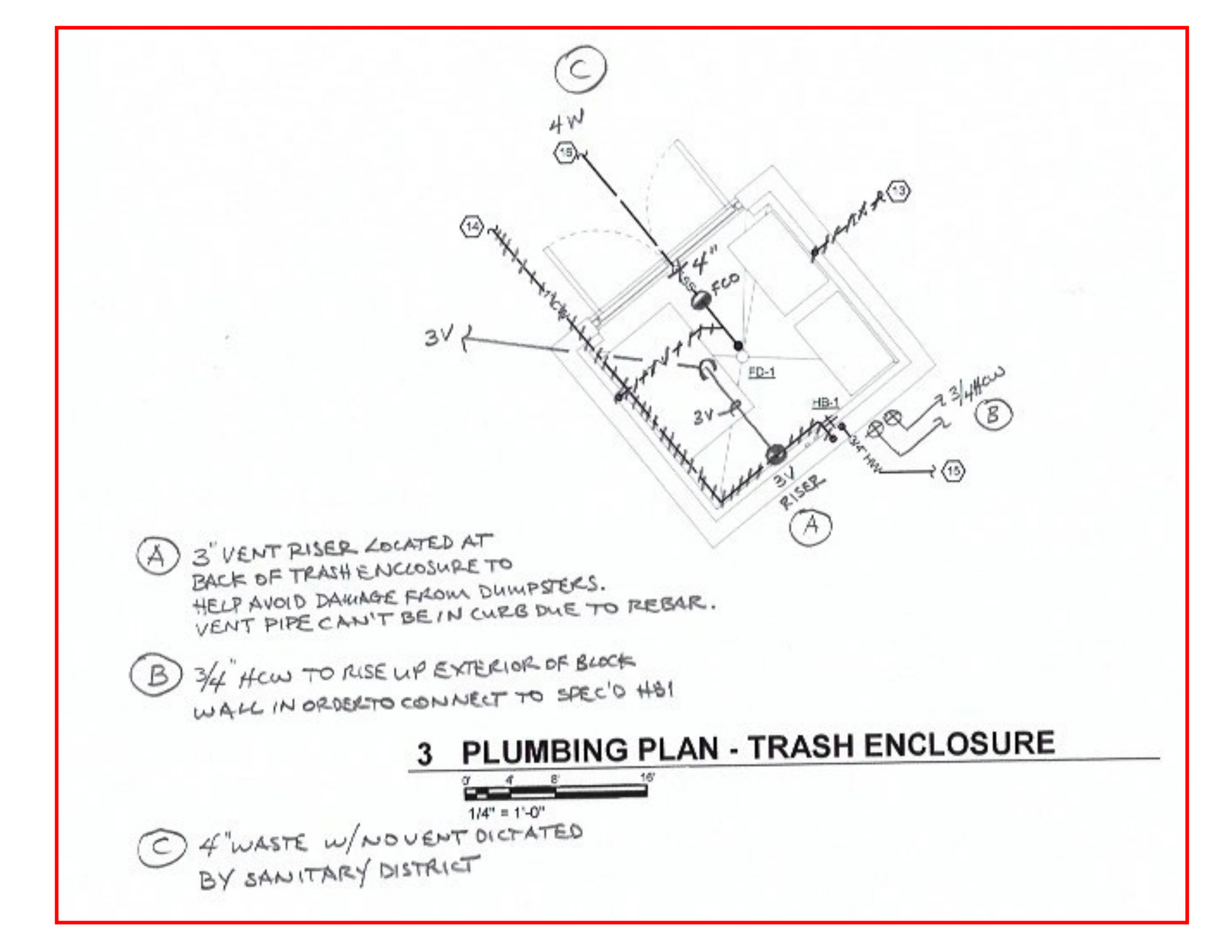


(N) 1-1/2" CD up
Terminate AHU condensate drain at floor sink per approved drawings.
(2) 1-1/2" condensate traps above ceiling. CD and trap vent up to attic.
TEMPORARY STUDY RM 205
5' - 10" CLR
PROVIDE TEMPORARY FLOOR INFILL
OPEN TO LEARNING COMMONS
Route (N) 1-1/2" CD down to Cafe. Owner to determine if piping can be exposed or if a pipe chase is needed.
(2) condensate trap vents from below. Extend trap vents to elevation above AHU drain pan.
(2) 1-1/2" CD down. Locate condensate traps below slab.

RFI #154- CD PIPING - ROUTE (N) 1-1/2" CONDENSATE TO FLOOR SINK IN CAFE. PROPOSED ROUTING, GC TO DETERMINE FINAL ROUTING

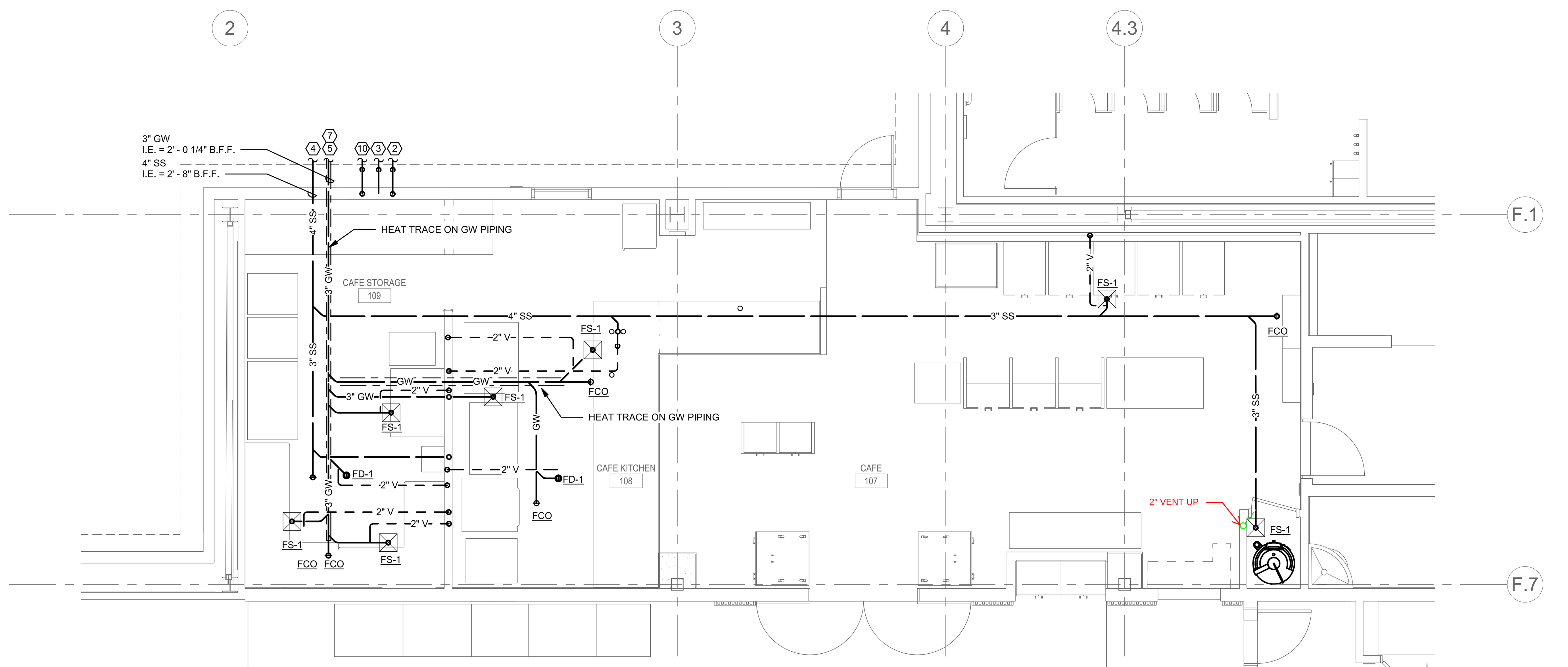


RFI #272 - PROPOSED ROUTE FLOOR DRAIN VENT AND INTERCEPTOR VENT UP AND COMBINE BELOW ROOF DECK. SINGLE VTR PENETRATION THROUGH ROOF SHEETING. CENTER VTR PENETRATION ON HIGH/WIDE FLUTE AND PROVIDE FLEXIBLE ROOF FLASHING BOOT, OATEY MASTER FLASH OR SIM.



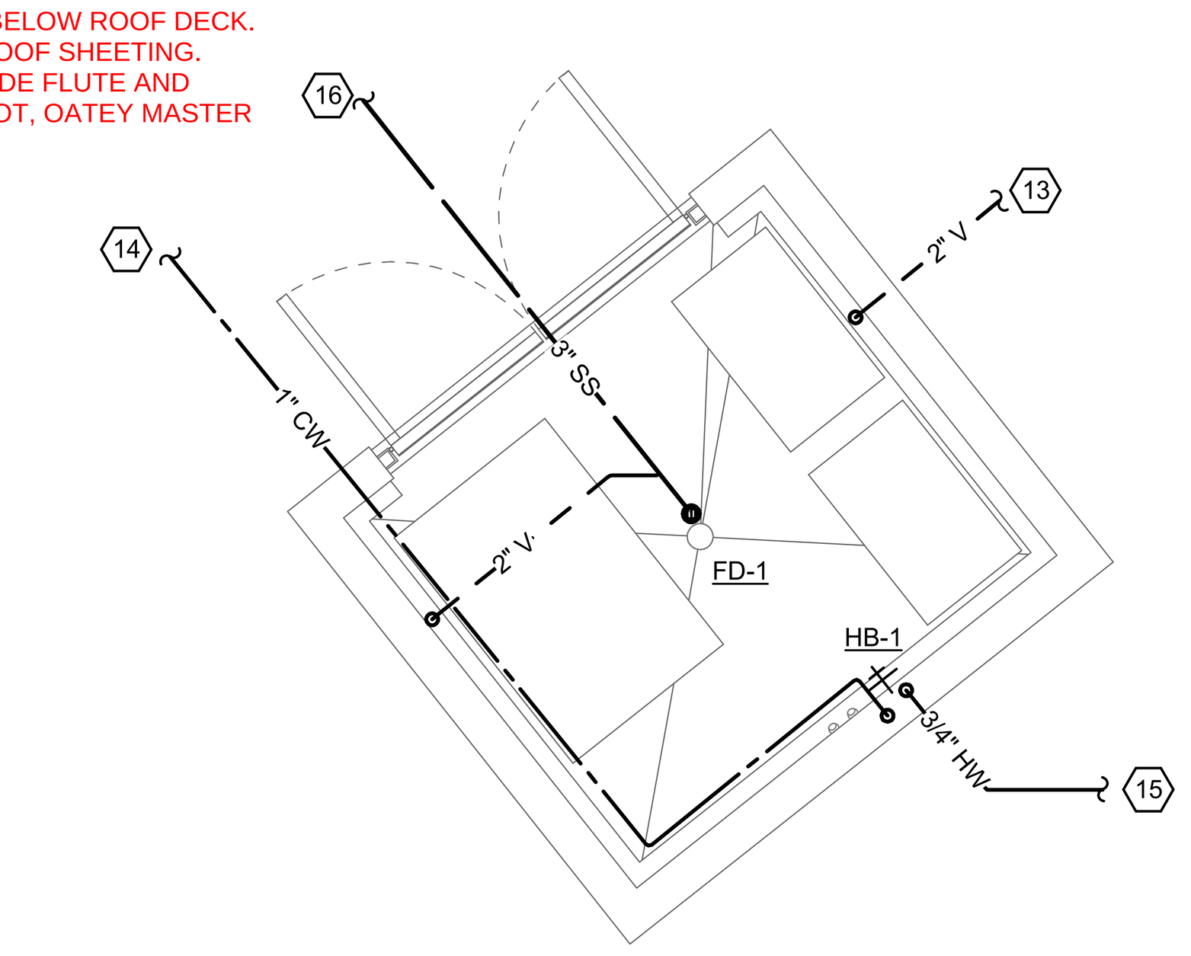
RFI #222 - GC PROPOSE REROUTE OF VENT RISER AND CW AND HW CONNECTION. NEW HOSE BIB. ADD STEEL PIPE GUARD TO PROTECT VENT PIPE

RFI #229 - FD-1 MIFAB M-500 OF SIM. FOR TRAP PRIMER DEVICE.



2 UNDERGROUND PLUMBING PLAN - CAFE

1/4" = 1'-0"



3 PLUMBING PLAN - TRASH ENCLOSURE

1/4" = 1'-0"

GENERAL SHEET NOTES

A. ANSUL SOLENIOD VALVES LOCATIONS SHALL COORIDINATED WITH FOOD SERVICE CONSULTANT.
B. ALL FLOOR SINKS AND FLOOR DRAINS SHALL BE PROVIDED A TRAP PRIMER CONNECTION.
C. ALL HANDWASHING AND SERVICE/PREP SINKS SHALL BE PROVIDED WITH THERMOSTATIC MIXING VALVES.

SHEET KEYNOTES

1. CONNECT (N) 3" VENT TO (E) 3" VR IN BATHROOM CHASE.
2. CONNECT (N) 2-1/2" # GAS SERVICE INTO BUILDING.
3. CONNECT (N) 2" CW TO (E) 3" WATER SERVICE SERVING EXISTING BATHROOM. REFER TO CIVIL DRAWINGS FOR CO-ORDINATION.
4. CONNECT (N) 4" SS TO (E) SEWER MAINS. REFER TO CIVIL DRAWINGS FOR CO-ORDINATION.
5. 3" GW TO (N) 750 GALLON PRECAST GREASE INTERCEPTOR (GI-1) WITH HT-1. REFER TO CIVIL DRAWING C4.0 FOR CONTINUATION.
6. (N) 2-1/2" GAS REGULATOR AND SEISMIC SHUT OFF VALVE.
7. CONTRACTOR TO CONTINUE HEAT TRACE ALL THE WAY TO GI-1.
8. PLUMBING CONTRACTOR TO COORDINATE WITH ELECTRICAL CONTRACTOR FOR LOCATION OF HEAT TRACE PANEL.
9. HEAT TRACE PANEL SHOWN FOR REFERENCE ONLY V.I.F.
10. 3/4" HW TO TRASH ENCLOSURE.
11. 1" CONDENSATE LINE FROM MECHANICAL UNIT IN ATTIC ABOVE. SEE 1/P2.40.2 FOR CONTINUATION.
12. 1/2" CW LINE CAPPED FOR FUTURE FOOD SERVICE EQUIPMENT. REFER TO FOOD SERVICE DRAWINGS FOR EXACT LOCATION.
13. 2" V FROM GREASE INTERCEPTOR (GI-1). REFER TO CIVIL DRAWING C4.0 FOR CONTINUATION.
14. 1" CW TO HOSE BIB. REFER TO CIVIL DRAWING C4.0 FOR CONTINUATION.
15. 1" HW TO HOSE BIB. REFER TO 1/P2.39.2 FOR CONTINUATION.
16. 3" SS . REFER TO CIVIL DRAWING C4.0 FOR CONTINUATION.
17. 1/2" CW LINE TO (N) RECESSED WALL BOX FOR COFFEE MACHINE, GUY GRAY MODEL MIB1HAAB OR SIMILAR. INSTALL AT 18"AFF.

APPROVALS

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

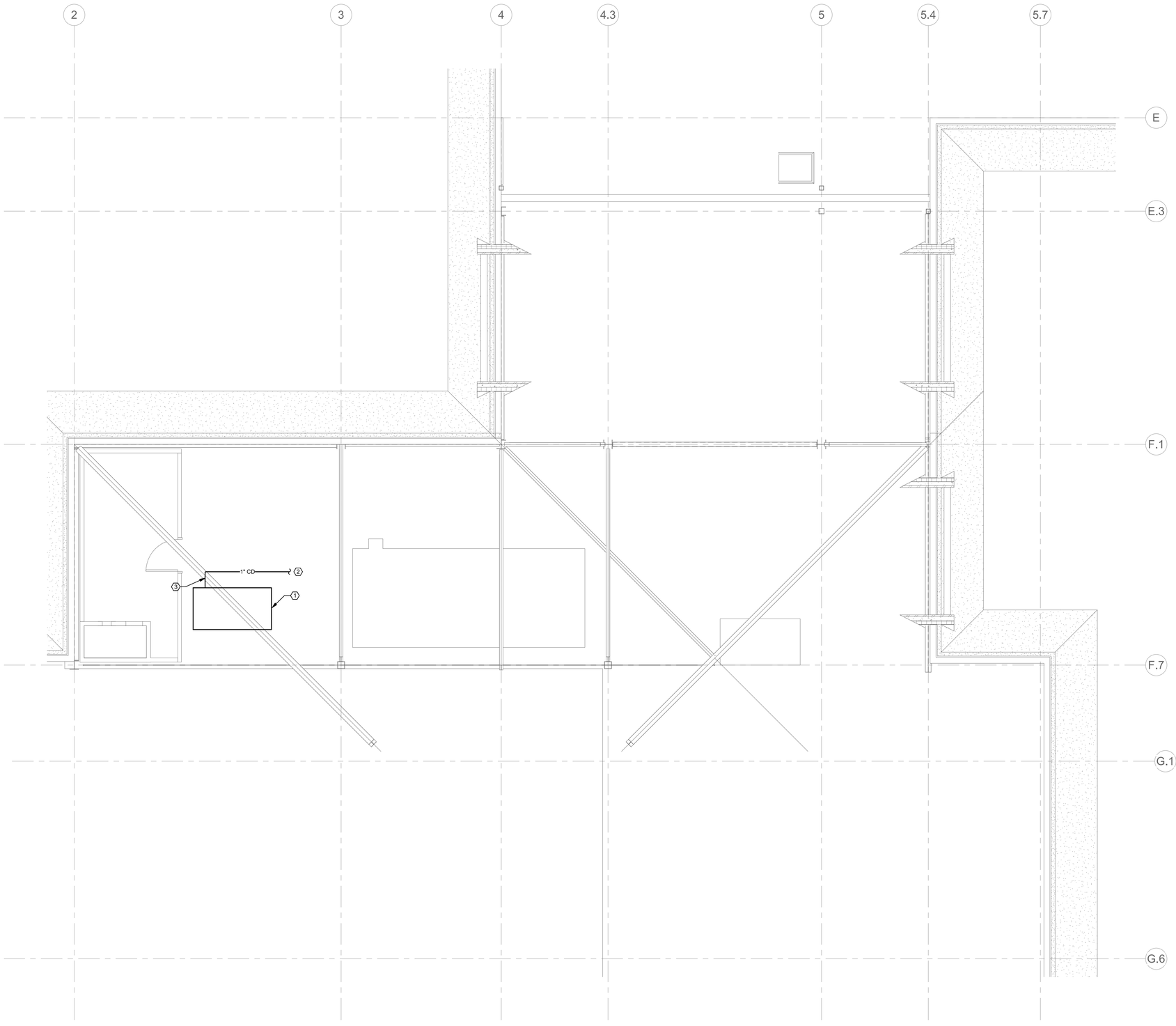
NO.	DATE	DESCRIPTION
	02/21/20	CCDA-100

SHEET TITLE

NEW - 1ST FLOOR - WEST - CAFÉ & LEARNING COMMONS - PLUMBING

SHEET NUMBER

P2.39.2



SHEET KEYNOTES

1. MECHANICAL EQUIPMENT. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION.
2. 1" CONDENSATE LINE TO MOP SINK IN JANITOR ROOM. REFER TO 1/P2.39.2 FOR CONTINUATION.
3. 1" CONDENSATE TRAP. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION AND 2/P5.01.2 FOR SPECIFICATION.

1 PARTIAL ATTIC PLAN PLAN - WEST- PLUMBING

0' 4' 8' 16'
1/4" = 1'-0"

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

ATTIC PLAN - WEST - PLUMBING

SHEET NUMBER

P2.40.2

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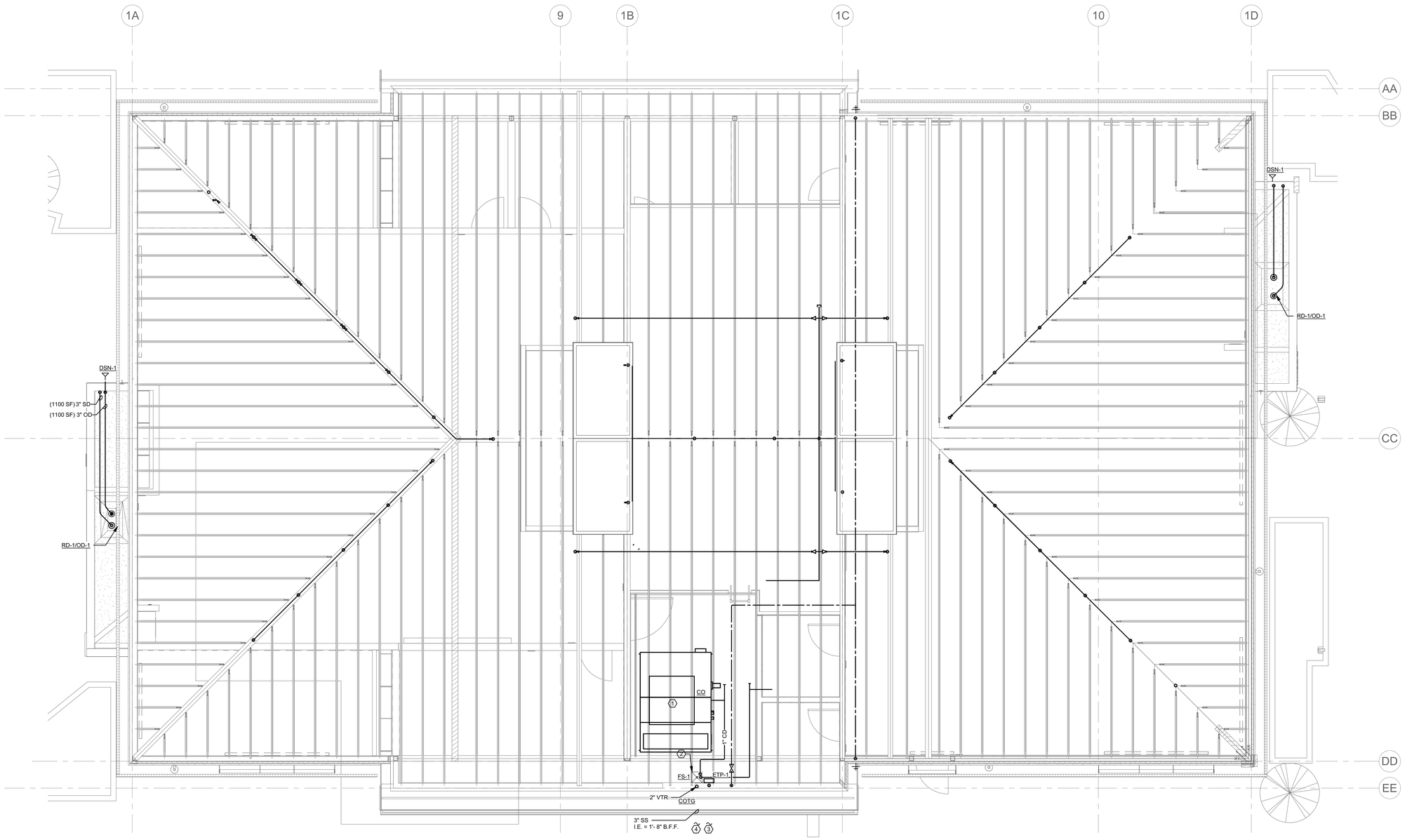

1 ROOF PLAN

0' 4' 8' 16'

1/4" = 1'-0"

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

LIBRARY LEARNING RESOURCE CENTER ROOF PLAN - PLUMBING PLAN

SHEET NUMBER

P2.51.2

WATER SERVICE CALCULATIONS

(BASED ON APPENDIX 'A')

[2016 UPC]
[2016 CPC]

FIXTURE QUANTITY							
PRIVATE INDIVIDUAL DWELLING	PUBLIC GENERAL USE	PUBLIC HEAVY USE ASSEMBLY	DESCRIPTION	PUBLIC GENERAL USE	PUBLIC HEAVY-USE ASSEMBLY	COLD WATER	(.75) HOT WATER
0	0	0	BAR SINK	2.00	0.00	0.00	0.00
0	0	0	BATHTUB OR COMB. BATH/SHOWER	4.00	0.00	0.00	0.00
0	0	0	BATHTUB OR COMB. BATH/SHOWER - 3/4" FILL	10.00	0.00	0.00	0.00
0	0	0	BIDET	0.00	0.00	0.00	0.00
0	0	0	CLINIC SINK	8.00	0.00	0.00	0.00
0	0	0	CLOTHESWASHER, DOMESTIC	4.00	0.00	0.00	0.00
0	0	0	DENTAL UNIT OR CUSPIDOR	1.00	0.00	0.00	0.00
0	0	0	DISHWASHER, DOMESTIC	1.50	0.00	0.00	0.00
0	0	0	DRINKING FOUNTAIN OR WATER COOLER	0.50	0.75	0.00	---
0	0	0	HOSE BIBB	2.50	0.00	0.00	---
0	0	0	HOSE BIBB, EACH ADDITIONAL	1.00	0.00	0.00	---
0	0	0	KITCHEN SINK, DOMESTIC	1.50	0.00	0.00	0.00
0	0	0	LAUNDRY SINK	1.50	0.00	0.00	0.00
0	0	0	LAVATORY	1.00	1.00	0.00	0.00
0	0	0	LAWN SPRINKLER, EACH HEAD	1.00	0.00	0.00	---
0	0	0	MOBIL HOME, EACH	0.00	0.00	0.00	0.00
0	0	0	SERVICE SINK OR MOP BASIN	3.00	0.00	0.00	0.00
0	0	0	SHOWER, EACH HEAD	2.00	0.00	0.00	0.00
0	0	0	SHOWER, CONTINUOUS USE	5.00	0.00	0.00	0.00
0	0	0	URINAL, 1.0 GPF	4.00	5.00	0.00	---
0	0	0	URINAL, GREATER THAN 1.0 GPF	5.00	6.00	0.00	---
0	0	0	URINAL, FLUSH TANK	2.00	3.00	0.00	---
0	0	0	WASHFOUNTAIN, CIRCULAR SPRAY	4.00	0.00	0.00	0.00
0	0	0	WASHUP SINK, EACH SET OF FAUCETS	2.00	0.00	0.00	0.00
0	0	0	WATER CLOSET, 1.6 GPF, GRAVITY TANK	2.50	3.50	0.00	---
0	0	0	WATER CLOSET, 1.6 GPF, FLUSHOMETER TANK	2.50	3.50	0.00	---
0	0	0	WATER CLOSET, 1.6 GPF, FLUSHOMETER VALVE	5.00	8.00	0.00	---
0	0	0	WATER CLOSET, 3.5 GPF, GRAVITY TANK	5.50	7.00	0.00	---
0	0	0	WATER CLOSET, 3.5 GPF, FLUSHOMETER VALVE	8.00	10.00	0.00	---
0	0	0	WHIRLPOOL BATH OR COMB. BATH/SHOWER	0.00	0.00	0.00	0.00
			PROPOSED KITCHEN LOAD			44	33
			TOTAL			44.00	33.00
			FLOW IN GPM			26	22
			TOTAL GPM REQUIRED				
			SERVICE SIZE FROM METER TO BUILDING			1 -1/2"	

GAS CALCULATIONS

FIXTURE	DESCRIPTION	NO. OF FIXT.	BTU/HR INPUT	TOTAL BTU/HR
KITCHEN EQUIPMENT				
	FRYER	2	80,000	160,000
	GRIDDLE	1	60,000	60,000
	BROILER	1	76,000	76,000
	RANGE	1	220,000	220,000
	OVEN STEAMER	1	176,000	176,000
PLUMBING EQUIPMENT				
GWH-1	DOMESTIC WATER HEATER	1	150,000	150,000
	TOTAL DEMAND (BTU)			842,000
	TOTAL DEMAND (CFH)			842

SIZING BASED ON 2016 CALIFORNIA PLUMBING CODE
STD SUPPLY PRESSURE WITH 0.5 IN. W.C. PRESSURE DROP
200 FEET DEVELOPED LENGTH

2-1/2"	1270	CFH
2"	794	CFH
1 1/2"	412	CFH
1 1/4"	275	CFH
1"	134	CFH
3/4"	71	CFH
1/2"	34	CFH

GREASE INTERCEPTOR SIZING

Item no.	Qty.	Fixture	DFU	Total
	1	3 Compartment Sink	9	9
	4	Floor Sinks	4	16
	3	Floor Drains	2	6
			Total	**31**
		Min. Grease Interceptor Volume (gal):		**1000**
		CCCSD Min. Interceptor Volume (gal):		**1000**

Table 1014.3.5	
DFU	**Vol.**
8	500
21	750
35	1000
90	1250
172	1500
216	2000
307	2500
342	3000
428	4000
576	5000
720	7500
2112	10000

From CPC 2016

EQUIPMENT SCHEDULE (FOR REFERENCE ONLY)

* SEE NOTE ABOVE REGARDING UTILITY LOAD CALCULATIONS.

ITEM NO	QTY	EQUIPMENT CATEGORY	MANUFACTURER	MODEL NUMBER	EQUIPMENT REMARKS	COLD WATER SIZE (IN)	HOT WATER SIZE (IN)	HOT WATER GPH	DIRECT DRAIN SIZE (IN)	INDIR DRAIN SIZE (IN)	GAS SIZE (IN)	MBTUH	PLUMBING REMARKS
7	1	WAREWASHER, DOOR TYPE, HIGH TEMP	JACKSON WWS	TEMPSTAR W/ BOOSTER		0.75	0.75	52.2		1.5			TO FLOOR SINK
8	1	SOILED DISH TABLE WITH SINK	STAINLESS STEEL FABRICATOR	CUSTOM		0.5	0.5	20		1.5			TO FLOOR SINK
9	1	PRE-RINSE FAUCET, BACKSPLASH MOUNT	FISHER	34436									SEE ITEM #8
10	1	DRAIN, LEVER HANDLE	FISHER	22209									SEE ITEM #8
13	1	CONDENSATE HOOD - TYPE 2	STREIVOR	REFER TO SHOP DRAWING						1.0			TO FLOOR SINK
16	1	3 COMPARTMENT POT WASH SINK	ADVANCE TABCO	94-K2-24D		(2)0.5	(2)0.5	20		(3)1.5			TO FLOOR SINK
21	1	REPRESSURIZATION STORAGE TANK/PUMP	OPTIPURE	OP350/16	16 GALLON CAPACITY	0.5							CW FROM #22
22	1	REVERSE OSMOSIS WATER FILTER SYSTEM	OPTIPURE	OP350/16	RO PROCESSOR	0.5				0.5			TO FLOOR SINK
23	1	HAND SINK, WALL MOUNT	ADVANCE TABCO	7-PS-66W		0.5	0.5	5	1.5				
25	1	PREP TABLE WITH SINK	STAINLESS STEEL FABRICATOR	CUSTOM	WITH MARINE EDGE	0.5	0.5	20		1.5			TO FLOOR SINK
29	1	ICE MAKER W/O BIN	MANITOWOC	IYT0620A	MOUNTED ON TOP OF #30	0.375				0.5			TO FLOOR SINK; CW FROM #31
30	1	BIN, ICE	MANITOWOC	D420						0.75			TO FLOOR SINK
31	1	FILTER SYSTEM, ICEMAKER	MANITOWOC ICE	AR-10000		0.375							
37	2	FRYER, DEEP FAT, GAS	PITCO	SSH55 - ENERGY STAR / L10-134	SELF-CLEANING; WITH FILTER						0.75	80	
38	1	GRIDDLE, HEAVY DUTY, GAS	MONTAGUE	DG2424-SAT	WITH AUTO PILOT RELIGHT						0.75	60	
39	1	BROILER, UNDER-FIRED, GAS, COUNTER	MONTAGUE	UFLCS-24R	LEGEND SERIES						0.75	76	
40	1	REFRIGERATOR, SHORTY	TRUE MANUFACTURING CO., INC.	TRCB-48									
41	1	RANGE, HEAVY DUTY, GAS W/ CONVECTION OVEN	MONTAGUE	V136-5							1.25	220	
42	1	FILLER, KETTLE & POT	FISHER	4230		0.5	0.5	20					
43	1	OVEN-STEAMER, COMBINATION, GAS, WITH STAND	ELECTROLUX PROF. NORTH AMERICA	267753 - AOS102GTP1	SELF-CLEANING; MOBILE	0.75				1.25	0.5	176	TO FLOOR SINK
47	2	FILL FAUCET	FISHER	58017		0.5							
48	1	DROP-IN, HEATED SHELF	HATCO	GRSB-48-I									
49	1	DROP-IN, HOT WELLS	RANDELL	95604-208Z	WITH DRAINS					1.0			TO FLOOR SINK
50	1	SINK, HAND WITH SOAP DISPENSER, DROP-IN	ADVANCE TABCO	7-PS-42		0.5	0.5	5	1.5				
51	2	DROP-IN, HOT/COLD WELLS	RANDELL	9580-3A-208Z						1.0			TO FLOOR SINK
71	1	DISPENSER, BEVERAGE/NON-CARBONATED	BUNN-O-MATIC (BY VENDOR)	JDF-2S (NOT IN FSE CONTRACT)		0.375							
73	1	DISPENSER, BREWER, TEA	CURTIS (BY VENDOR)	TB (NOT IN FSE CONTRACT)		0.25							
74	1	COFFEE MAKER, SATELLITE SYSTEM	CURTIS (BY VENDOR)	TP15T TWIN (NOT IN FSE CONTRACT)		0.375							
76	1	DISPENSER, BEVERAGE/CARBONATED & NON.	LANCER (BY VENDOR)	FS3016 (NOT IN FSE CONTRACT)	WITH 8 DISPENSING HEADS	0.375				0.5			TO FLOOR SINK; CW FROM #78
77	1	ICE MAKER W/O BIN	MANITOWOC	IYT0420A		0.375				0.5			TO FLOOR SINK; CW FROM #78
78	1	FILTER SYSTEM	EVERPURE	EV9272-24/EV9612-06/EV9607-04		0.75							

FS = FLOOR SINK F-ST = FROM STUB GFCI = GROUND FAULT CONVENIENCE OUTLET AFF = ABOVE FINISHED FLOOR FLR = FLOOR WP = WATER PROOF
SP = SEE PLAN PED = PEDESTAL SSM = SOLID SURFACE MATERIAL TBV = TO BE VERIFIED S/S = STAINLESS STEEL FA = FROM ABOVE
ALL DIMENSIONS FOR ROUGH-INS ARE FROM FINSHED FLOOR TO CENTERLINE OF R-I. ALL CONVENIENCE OUTLETS TO BE MINIMUM 20A DEDICATED CIRCUITS
* UTILITIES SHOWN ARE FOR A QUANTITY OF 1 PER EACH ITEM - MULTIPLY UTILITY NUMBERS BY QUANTITIES SHOWN IN ORDER TO DETERMINE OVERALL UTILITY LOADS REQUIRED.

WATER HEATER SCHEDULE

SYMBOL	EQUIPMENT TYPE	LOCATION / SERVING	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	TANK CAPACITY (GALLONS)	GAS DATA INPUT (MBH)	ELECTRICAL VOLTS	ELECTRICAL PH	ELECTRICAL AMPS	ELECTRICAL KW	COMMENTS
GWH-1	GAS WATER HEATER	KITCHETTE/ CAFÉ	A.O. SMITH	BTH-150(A)	100	150	120	1	5		GWH-1 TO BE DIRECT VENTED. REFER TO MECHANICAL DRAWINGS. OPERATING WEIGHT : 1357 LB

NOTES: WATER HEATERS SHALL BE LOW Nox AND CONFORM TO THE REQUREMENTS OF BAAQMD REGULATION 9, RULE 6

EQUIPMENT SCHEDULE

SYMBOL	EQUIPMENT TYPE	LOCATION / SERVING	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	CAPACITY	ELECTRICAL VOLTS	ELECTRICAL PH	ELECTRICAL AMPS	COMMENTS
GI-1	GREASE INTERCEPTOR	OUTSIDE CAFÉ	JENSEN PRECAST	JP1000EPE-G	1000 GAL	-	-	-	PROVIDE (H-20) TRAFFIC RATED COVER AND EXTENSION AS REQUIRED, AND JENSEN PRECAST MODEL 200 SAMPLE PORT AT OUTLET. INSTALL PER CCCSD STANDARDS.
ETP-1	ELECTRONIC TRAP PRIMER	RESOURCE CENTER	PPP	SMP-500-115V	-	115	1	-	
ETP-2	ELECTRONIC TRAP PRIMER	CAFÉ	PPP	PTS-8	-	120	1	0.28	

NOTES:

PUMP SCHEDULE

SYMBOL	EQUIPMENT TYPE	LOCATION / SERVING	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	FLOW RATE (GPM)	HEAD (FT H2O)	ELECTRICAL VOLTS	ELECTRICAL PH	ELECTRICAL AMPS	ELECTRICAL WATTS	COMMENTS
CP-1	CIRCULATING PUMP	KITCHETTE/ CAFÉ	GRUNDFOS	UP 15-18 B5	3.4	6'	115	1	0.74	86	

NOTES:

HEAT TRACE SCHEDULE

TAG	MANUFACTURER	MODEL NUMBER	CONTROLLER LOCATION	CONTROLLER TYPE	TEMPERATURE TO MAINTAIN (°F)	ELECTRICAL START (A)	ELECTRICAL OPERATING (A)	ELECTRICAL LOAD (kW)	ELECTRICAL V/PH	BREAKER SIZE (AMP)	NOTES
HT-1	PENTAIR/ RAYCHEM	XL TRACE	CAFÉ	C910-485	110		8.8	2.2	208/1	30	1,2

NOTES:
1. MANUFACTURER TO CONFIRM DESIGN AND LAYOUT OF THE GREASE WASTE HEAT TRACE SYSTEM PRIOR TO INSTALLATION.
2. COMPLETE INSTALLATION WITH SELF REGULATING HEATING CABLE, RAYCLIC CONNECTION KITS & COMPONENTS, RTD TEMPERATURE SENSOR, CONTROLLER, GLASS TAPE AND ELECTRIC TRACED LABELS
3. INSTALL PER MANUFACTURER'S GUIDELINES & RECOMMENDATION
4. COORDINATE WITH ELECTRICAL CONTRACTOR FOR POWER CONNECTION

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE TYPE	DESCRIPTION	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	ACCESSORIES	CONNECTION W	CONNECTION V	CONNECTION CW	CONNECTION HW	NOTES
DSN-1	DOWNSPOUT NOZZLE	ALL ALUMINUM BODY, DOWNSPOUT GASKET FOR CAST IRON OR PVC INLET WITH POWDER COATED FACE OF WALL FLANGE, OUTLET NOZZLE, AND PERFORATED HINGED FLAPPER.	ZURN	ZF199		-	-	-	-	
HB-1	HOSE BIB	3/4" VACUUM BREAKER, WHEEL HANDLE, BRONZE BOX TYPE TWIN TEMP WALL HYDRANT.	JAY R SMITH	5560QT		-	-	3/4"	3/4"	
HB-2	HOSE BIB	3/4" VACUUM BREAKER, WHEEL HANDLE, BRONZE BOX WALL HYDRANT.	JAY R SMITH	5518		-	-	3/4"	3/4"	
FD-1	FLOOR DRAIN	CAST IRON BODY WITH FLASHING COLLAR AND NICKEL BRONZE ADJUSTABLE STRAINER	JAY R SMITH	2050		3"	2"	-	-	PROVIDE TRAP PRIMER CONNECTION
FS-1	FLOOR SINK	12" SQUARE CAST IRON RECEPTOR WITH A WHITE ACID RESISTANT ENAMEL INTERIOR AND ANTI-SPLASH DOME STRAINER AND 1/2 GRATE.	JAY R SMITH	320-Y03		3"	2"	-	-	PROVIDE TRAP PRIMER CONNECTION
RD-1 /OD-1	ROOF AND OVERFLOW DRAIN	8-3/8 DIAMETER COMBINATION MAIN ROOF & OVERFLOW DRAIN, DURA-COATED CAST IRON BODIES WITH COMBINATION MEMBRANE FLASHING CLAMP/GRAVEL GUARDS, DOUBLE TOP-SET DECK PLATE AND LOW SILHOUETTE CAST IRON DOMES.	ZURN	Z165		-	-	-	-	

NOTES:
1 SEE ARCHITECTURAL DRAWINGS FOR ALL FIXTURE MOUNTING HEIGHTS AND LOCATIONS.
* UNLESS NOTED OTHERWISE ON DRAWINGS

APPROVALS

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PROJECT 2016-0538
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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION
	02/21/20	CCDA-100

SHEET TITLE
SCHEDULES - PLUMBING

SHEET NUMBER
P4.01.2

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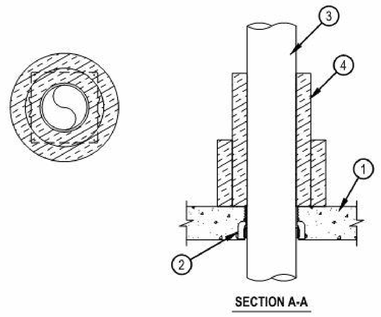
System No. F-A-1106

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating - 2 Hr	F Rating - 2 Hr
T Rating - 2 Hr	FT Rating - 2 Hr
L Rating At Ambient - Less Than 1 CFM/sq ft	FH Rating - 2 Hr
L Rating At 400 F — Less Than 1 CFM/sq ft	FTH Rating - 2 Hr
W Rating — Class 1 (See Item 2A)	L Rating At Ambient - Less Than 1 CFM/sq ft
	L Rating At 400 F — Less Than 1 CFM/sq ft



SECTION A-A

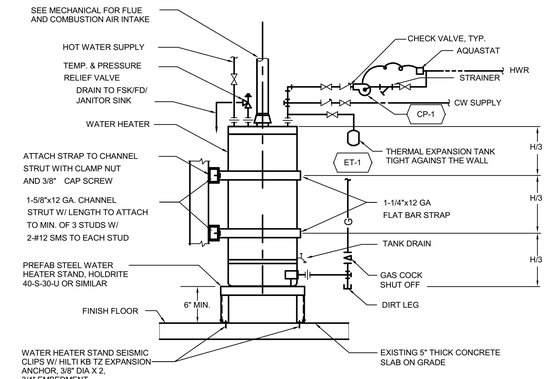
1. Floor Assembly — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete. As an alternate, any min 2 hr fire rated D700, D800 or D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory having a min 2-1/2 in. (64 mm) thickness of lightweight or normal weight (100-150 pcf or 1600-2400 kg/m3) concrete topping over the steel deck may be used.
2. Firestop Device* — Cast in place firestop device permanently embedded during concrete placement or grouted in concrete floor assembly in accordance with accompanying installation instructions. Device sized to nom diam of penetrant. Device is to be trimmed flush with the top surface of the floor.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 680-P 2", CP 680-P 3", CP 680-P 4", CP 680-P 6" Cast-In Firestop Device. CP 680-PX 2", CP 680-PX 3"

2A. Firestop Device* — Water Barrier Module — (Optional, Not Shown) - Used in combination with the CP 680-P(X) device to achieve a W Rating. Module is threaded onto top of device. W Rating applies only when water barrier module is used and pipe is installed from bottom of device.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — Water Barrier Module

System No. F-A-1106

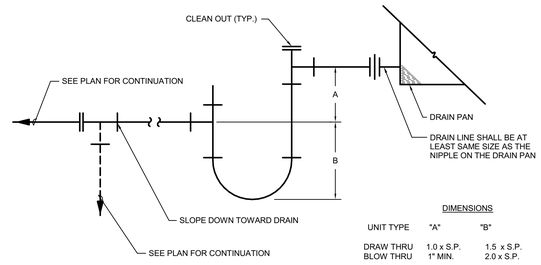
3. Through-Penetrant — One metallic pipe installed concentrically or eccentrically within opening. Penetrant to be rigidly supported on both sides of floor assembly. The following types and sizes of penetrants may be used:
   A. Steel Pipe — Nom 6 in. (152 mm) diam (or smaller) Schedule 40 (or heavier) steel pipe.
   B. Iron Pipe — Nom 6 in. (152 mm) diam (or smaller) cast or ductile iron pipe.
   C. Iron Pipe — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or nom 6 in. (152 mm) diam (or smaller) rigid steel conduit.
4. Duct Wrap Material* — Encapsulated duct wrap tightly wrapped around penetrant to extend 24 in. (610 mm) above the floor for penetrants of nom 4 in. (102 mm) diam or smaller, and 36 in. (914 mm) above floor for penetrants greater than a nom 4 in. (102 mm) diam. An additional layer of encapsulated duct wrap tightly wrapped around the first layer of duct wrap to extend 12 in. (305 mm) (914 mm) above floor. All longitudinal seams of both layers of duct wrap and joints between layers of duct wrap are sealed with foil tape. One of the following types and thicknesses of duct wrap material shall be used.
   A. Nom 2 in. (51 mm)) or 1-1/2 in. (38 mm) thick encapsulated duct wrap.
      UNIFRAX I L L C — FyreWrap 2.0 Duct Insulation or FyreWrap 1.5 Duct Insulation
   B. Nom 1-1/2 in. (38 mm) thick encapsulated duct wrap.
      THERMAL CERAMICS INC — FireMaster FastWrap XL Duct Insulation

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.



1GAS WATER HEATER DETAIL

NO SCALE



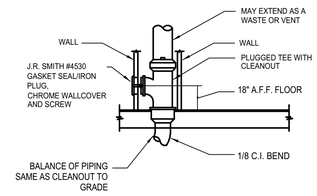
DIMENSIONS

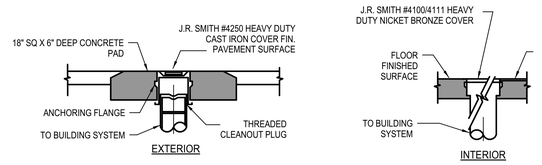
UNIT TYPE	"A"	"B"
DRAW THRU	1.0 x S.P.	1.5 x S.P.
BLOW THRU	1" MIN.	2.0 x S.P.

SP = STATIC PRESSURE IN PAN

2 CONDENSATE TRAP

NO SCALE





3 CLEANOUT DETAIL

NO SCALE

APPROVALS

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MECHANICAL SYMBOL LIST

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

Abbreviations

AFF	ABOVE FINISHED FLOOR
AD	ACCESS DOOR
AIC	AIR CONDITION(ED)
BDD	BACKDRAFT DAMPER
BFP	BACKFLOW PREVENTER
BFF	BELOW FINISHED FLOOR
BHP	BRAKE HORSEPOWER
CD	CEILING DIFFUSER
CV	CHECK VALVE
COP	COEFFICIENT OF PERFORMANCE
CW	COLD WATER
CD	CONDENSATE DRAIN
CU	CONDENSING UNIT
CONT.	CONTINUATION
DB	DECIBEL
DIA	DIAMETER
DX	DIRECT EXPANSION
D	DROP
DB	DRY BULB
EFF	EFFICIENT
ELECT	ELECTRICAL
EER	ENERGY EFFICIENCY RATING
EAT	ENTERING AIR TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EF	EXHAUST FAN
F	FAHRENHEIT
FT	FEET
FD	FIRE DAMPER
FLA	FULL LOAD AMPS
GAL	GALLONS
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HD	HEAD
HTR	HEATER
HTG	HEATING
HP	HORSEPOWER
HWC	HOT WATER COIL
IN	INCHES
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
KW	KILOWATT
LH	LATENT HEAT
LAT	LEAVING AIR TEMPERATURE
MAX	MAXIMUM
MIN	MINIMUM
MA	MIXED AIR
MD	MOTORIZED DAMPER
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO.	NUMBER
OC	ON CENTER
OBD	OPPOSED BLADE DAMPER
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER
PH	PHASE
LBS.	POUNDS
PSI	POUNDS PER SQUARE INCH
PD	PRESSURE DROP
PRV	PRESSURE REDUCING VALVE
QTY	QUANTITY
RET	RETURN
RA	RETURN AIR
RPM	REVOLUTIONS PER MINUTE
R	RISE
SEER	SEASONAL ENERGY EFFICIENCY RATING
SH	SENSIBLE HEAT
SOV	SHUT OFF VALVE
SF	SQUARE FEET
SP	STATIC PRESSURE
SA	SUPPLY AIR
T, TEMP	TEMPERATURE
TD	TEMPERATURE DIFFERENCE
MBH	THOUSAND BTU'S PER HOUR
TH	TOTAL HEAT
TP	TOTAL PRESSURE
V	VOLT
WC	WATER COLUMN
W	WATT
WB	WET BULB
W/	WITH

Dampers

- FIRE DAMPER
- FIRE/SMOKE DAMPER
- MOTORIZED DAMPER
- SMOKE DAMPER
- VOLUME DAMPER

Diffusers and Grilles

- DIFFUSER OR GRILLE IDENTIFICATION (12x12 / 100 — CD-1)
- EXHAUST AIR
- RETURN AIR
- SUPPLY AIR

Ductwork Fittings

- ACOUSTICALLY LINED DUCT (SIZES SHOWN ARE NET INSIDE)
- BELLMOUTH
- CONCENTRIC SQUARE TO ROUND
- CONCENTRIC TRANSITION, RECTANGULAR OR ROUND
- ECCENTRIC TRANSITION, RECTANGULAR OR ROUND
- FLEXIBLE CONNECTION
- MITERED ELBOW WITH TURNING VANES
- NON-SYMMETRICAL WYE
- RADIUSED ELBOW
- RECTANGULAR DUCT DROP
- RECTANGULAR DUCT RISER
- RECTANGULAR MAIN WITH RECTANGULAR BRANCH
- RECTANGULAR MAIN WITH ROUND BRANCH
- RECTANGULAR OFFSET LESS THAN 15%%d
- RECTANGULAR OFFSET MORE THAN 15%%d
- ROUND DUCT DROP
- ROUND DUCT RISER
- ROUND DUCT WITH ROUND BRANCH
- ROUND WYE
- SYMMETRICAL WYE

Equipment

- CHILLER, AIR COOLED
- CHILLER, WATER COOLED
- COOLING TOWER

Piping Fittings, Appurtenances and Equipment

- AIR SEPARATOR
- AUTOMATIC AIR VENT
- BACKFLOW PREVENTER
- CAP
- CONTINUATION
- EXPANSION JOINT
- EXPANSION LOOP
- EXPANSION TANK
- FLOW SWITCH
- HEAT EXCHANGER
- HOSE BIBB
- MANUAL AIR VENT
- PIPE DROP
- PIPE RISE
- PIPE TO DRAIN
- PRESSURE GAUGE WITH COCK
- PRESSURE RELIEF VALVE
- PRESSURE SENSOR
- SHOCK ABSORBER
- T&P RELIEF VALVE WITH PIPE TO DRAIN
- TEE DOWN ON PIPE
- TEE UP ON PIPE
- TEMPERATURE SENSOR
- TEST PORT (PETE'S PLUG OR EQUAL)
- THERMOMETER
- VENT TO ATMOSPHERE
- WATER METER

Piping Systems

- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION

Piping Valves

- CHECK VALVE
- GLOBE VALVE
- QUARTER TURN VALVE
- VALVE, GENERAL

GENERAL SEISMIC BRACING REQUIREMENTS

A. PROVIDE SEISMIC BRACING OF HVAC EQUIPMENT, DUCTWORK, AND PIPING IN ACCORDANCE WITH THE REQUIREMENTS OF THE LATEST BUILDING CODE WITH AN IMPORTANCE FACTOR IDENTIFIED ON ARCHITECTURAL AND STRUCTURAL DOCUMENTS.

B. REFER TO STRUCTURAL DRAWINGS FOR CONCRETE ANCHOR TYPE AND INSTALLATION REQUIREMENTS.

C. SUBMIT SEISMIC BRACING DETAILS FOR REVIEW.

D. SUPPORT AND BRACE DUCTWORK, PIPING, AND APPURTENANCES WITH OSHPD PRE-APPROVED SYSTEMS (WHETHER AN OSHPD PROJECT OR NOT):

1. OPM-0043-13 MASON SEISMIC RESTRAINT COMPONENTS FOR SUSPENDED UTILITIES.
2. OPM 0052-13 EATON/TOLCO SEISMIC BRACING & HANGERS.

E. WITHOUT ANY EXCEPTIONS, BRACE EVERY RUN OF DUCT DESIGNED TO CARRY TOXIC OR EXPLOSIVE GASES, OR USED FOR SMOKE CONTROL OR PRESSURIZATION AIR. FOR OTHER DUCTWORK BRACE EVERY RUN OF DUCT WITH A CROSS SECTIONAL AREA OF LARGER THAN 6 SQ.FT., EXCEPT THAT BRACING OF DUCTWORK WITH SUPPORT ROD LENGTH LESS THAN 12" IS NOT REQUIRED. ROD LENGTH SHALL BE AS MEASURED FROM TOP OF DUCT TO BOTTOM OF SUPPORT WHERE THE HANGER IS ATTACHED. SEISMIC BRACING, WHERE SHOWN ON DRAWINGS, IS THE MINIMUM REQUIRED; PROVIDE ADDITIONAL BRACING AS REQUIRED BY OPM-0043-13, OR EQUAL.

F. WHERE BRACING IS REQUIRED, BRACE DUCTWORK FOR EACH STRAIGHT RUN OF DUCT WITH THE FOLLOWING REQUIREMENTS (SEE OPM-0043-13 FOR ADDITIONAL REQUIREMENTS):

1. LONGITUDINAL BRACING: MINIMUM 1, WITH MAXIMUM SPACING OF 60'.
2. TRANSVERSE BRACING: MINIMUM TWO, WITH MAXIMUM SPACING OF 30', AT END OF DUCT RUNS HAVING MIN OF 2 SUPPORTS, AND AT EVERY DROP OR RISE EXCEPT FOR CONNECTION TO DIFFUSERS WHERE THE ELEVATION CHANGE OF CONNECTING DUCTWORK IS LESS THAN 24 INCHES.

GREEN BUILDING REQUIREMENTS

A. CONTRACTOR SHALL EXECUTE A CONSTRUCTION WASTE MANAGEMENT PLAN IN COMPLIANCE WITH THE GREEN BUILDING REQUIRED MEASURES OF 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE.

B. CONTRACTOR SHALL PROTECT DUCT OPENINGS AND MECHANICAL EQUIPMENT DURING CONSTRUCTION IN COMPLIANCE WITH THE GREEN BUILDING REQUIRED MEASURES OF 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE.

C. CONTRACTOR SHALL ONLY USE ADHESIVES, SEALANTS, & CAULKS IN COMPLIANCE WITH THE GREEN BUILDING REQUIRED MEASURES OF 2017 CALIFORNIA GREEN BUILDINGS STANDARDS CODE.

D. CONTRACTOR SHALL ONLY USE PAINTS AND COATINGS IN COMPLIANCE WITH THE GREEN BUILDING REQUIRED MEASURES OF 2016 CALIFORNIA GREEN BUILDING CODE.

E. CONTRACTOR SHALL NOT USE CFC'S NOR HALONS IN COMPLIANCE WITH THE GREEN BUILDING REQUIRED MEASURES OF 2016 CALIFORNIA GREEN BUILDING CODE.

DSA COMPONENT ANCHORAGE NOTES

A. ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26, AND ASCE 7-10 CHAPTER 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONETS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

B. THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED TO BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENTS AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

1. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
2. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

C. FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

A. PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.8, 13.6.7, 13.6.5.6, AND 2016 CBC, SECTIONS 1616A.1.23, 1616A.1.24, 1616A.1.25 AND 1616A.1.26.

B. THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS OR THEY SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS (OPM #).

C. COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AND BRACING OF THE PIPE, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS.

GENERAL MECHANICAL NOTES

A. PROVIDE MISCELLANEOUS METALS AND MATERIALS FOR A COMPLETE INSTALLATION (IE. SUPPORT, BRACING, ETC.)

B. PROVIDE EQUIPMENT SUBMITTAL, FOR REVIEW, IN ACCORDANCE WITH THE SPECIFICATIONS. DO NOT DELIVER TO THE JOB SITE ANY PRODUCTS WITHOUT PRIOR REVIEW BY THE ARCHITECT. SUBMIT ALL REQUIRED SUBMITTALS AT ONE TIME. AT CONTRACTOR'S OPTION, 3 SEPARATE SUBMITTALS MAY BE SUBMITTED, CONSISTING OF: UNDERGROUND WORK, BUILDING WORK, AND BUILDING AUTOMATION SYSTEM – DEVIATIONS WILL BE RETURNED WITHOUT REVIEW. INCOMPLETE SUBMITTALS WILL BE RETURNED WITHOUT REVIEW. ENGINEER WILL PROVIDE MAXIMUM OF TWO REVIEWS OF SUBMITTAL PACKAGE. ARRANGE FOR ADDITIONAL REVIEWS AND/OR EARLY REVIEW OF LONG-LEAD ITEMS AND BEAR COSTS OF THESE ADDITIONAL REVIEWS AT ENGINEER'S STANDARD HOURLY RATES. SUBSTITUTION REQUESTS WILL NOT BE REVIEWED AFTER AWARD OF CONTRACT.

C. PROVIDE SMOKE DETECTORS IN MAIN SUPPLY AIR DUCT OF ANY SUPPLY AIR SYSTEM WITH AIR QUANTITY OF MORE THAN 2000 CFM OR OF SUPPLY AIR SYSTEM(S) WHERE THE COMBINED SUPPLY AIR QUANTITY OF SUPPLY AIR SYSTEM(S) SUPPLYING AIR INTO ONE ZONE EXCEED 2000 CFM.

D. WHERE COMBINATION FIRE AND SMOKE DAMPER IS SHOWN IMMEDIATELY BEHIND A WALL MOUNTED GRILLE AND THERE IS INSUFFICIENT ACCESS AT DUCTWORK, ENLARGE THE WIDTH OF THE GRILLE AND FSD BY A MINIMUM OF 6 INCHES, OR AS OTHERWISE REQUIRED BY FSD MANUFACTURER, AND PROVIDE A "FRONT ACCESS" FSD FOR ACCESS TO FSD COMPONENTS FROM FACE OF GRILLE. INSTALL GRILLE FLUSH WITH WALL SURFACE AND LOCATE DAMPER ACTUATOR OUTSIDE OF THE AIRSTREAM. FSD'S SHALL BE RUSKIN FSD-60FA OR EQUAL

E. PRIOR TO SUBMISSION OF BID, REVIEW A COMPLETE SET OF CONSTRUCTION DOCUMENTS (INCLUDING ALL OTHER TRADES). INCLUDE ADDITIONAL PIPE OR DUCT OFF-SETS THAT MAY BE REQUIRED TO CLEAR STRUCTURE, FINISHES OR WORK OF OTHER TRADES. FIELD VERIFY EXACT LOCATION AND SIZES OF EXISTING UTILITIES. THE PROPOSED POINT OF CONNECTIONS TO EXISTING SYSTEMS, AND NEW ROUTINGS. EXTRA PAYMENT WILL NOT BE ALLOWED FOR WORK RESULTING FROM LACK OF APPRAISAL OF ENTIRE SCOPE OF WORK PRIOR TO BID. SYSTEM LAYOUTS AS INDICATED ON DRAWINGS ARE GENERALLY DIAGRAMMATIC BUT SHALL BE FOLLOWED AS CLOSELY AS ACTUAL CONSTRUCTION WILL PERMIT.

F. PROVIDE DUCT ACCESS DOORS FOR EQUIPMENT AND DEVICES REQUIRING ACCESS OR RESETTING (IE. FIRE AND SMOKE DAMPERS, SMOKE DAMPERS, SENSORS, ETC.) INDICATE SIZE AND LOCATION ON COORDINATED SHOP DRAWINGS.

G. FLASH AND COUNTER FLASH ALL ROOF PENETRATIONS TO SEAL WEATHER TIGHT (SEE ARCHITECTURAL ROOFING DETAILS AND SPECIFICATIONS).

H. PROVIDE DUCTWORK AND TRANSITIONS EQUAL TO DUCT FREE AREA SHOWN ON DRAWINGS, TO PREVENT A SPATIAL CONFLICT. AT CONTRACTOR'S OPTION AND IF SPATIAL CONSTRAINTS ALLOW IT, ROUND SPIRAL DUCTWORK, OF EQUAL CROSS-SECTIONAL AREA OR LARGER, MAY BE USED IN LIEU OF RECTANGULAR DUCTWORK WHERE SHOWN ON PLANS.

I. PROVIDE FIELD INSTALLED OR MANUFACTURER'S REFRIGERANT LINE SETS BETWEEN THE SPLIT SYSTEMS' INDOOR AND OUTDOOR COMPONENTS. SIZING, QUANTITY, AND INSTALLATION OF PIPES SHALL BE PER MANUFACTURER'S RECOMMENDATIONS BASED ON ACTUAL FIELD INSTALLED LENGTH. PROVIDE HARD WIRED THERMOSTATS AND CONTROL WIRING IN CONDUIT BETWEEN INDOOR AND OUTDOOR UNITS.

J. EQUIPMENT, HVAC DUCTS, PIPING AND OTHER DEVICES AND MATERIALS INSTALLED OUTDOORS OR EXPOSED TO WEATHER SHALL BE WEATHER PROOF.

K. USE FLEXIBLE DUCTS ONLY FOR THE LAST 5 FEET MAXIMUM AT AIR OUTLETS. PER 2016 CMC-603.4.1 EXCEPT FOR RESIDENTIAL OCCUPANCIES DO NOT USE FLEXIBLE DUCTWORK IN LIEU OF ELBOWS OR FITTINGS.

L. PROVIDE MANUAL VOLUME DAMPERS AT EACH GRILLE, REGISTER, AND DIFFUSER, AND LOCATE EQUIDISTANCE BETWEEN BRANCH TAKEOFF AND AIR INLET/OUTLET. DO NOT USE VOLUME DAMPERS INTEGRAL WITH GRILLES, DIFFUSERS AND REGISTERS FOR AIR BALANCING.

M. INSTALL EQUIPMENT WITH SUFFICIENT ACCESS TO PANELS, CONTROLS, FILTERS, MOTORS, ETC. COORDINATE ACCESS TO ALL DAMPERS, VALVES, AND OTHER SERVICEABLE EQUIPMENT. REVIEW CEILING HEIGHTS AND COORDINATE ACCESS PANEL LOCATIONS.

N. COORDINATE EQUIPMENT PLATFORMS, AND CUTTING AND PATCHING. OBTAIN WRITTEN PERMISSION FROM THE ARCHITECT PRIOR TO ANY STRUCTURAL MODIFICATIONS, CUTTING OR PATCHING WORK. KEEP SAW CUTTING TO A MINIMUM.

O. VERIFY DIFFUSERS, GRILLES, AND REGISTER MOUNTING FRAME TYPES WITH CONSTRUCTION TYPE AND CONFIGURATION.

P. PAINT FLAT BLACK ALL VISIBLE INTERIOR PORTIONS OF DUCTWORK.

Q. PROTECT AND ISOLATE DUCTS STORED ON CONSTRUCTION SITE FROM DUST CONTAMINATION.

R. COORDINATE LOCATION OF SENSORS AND THERMOSTATS WITH ARCHITECT. COMPLY WITH ADA REQUIREMENTS.

S. "DEMOLISH" OR "REMOVE" MEAN: REMOVE AND RETURN TO OWNER FOR ACCEPTANCE, AND DISPOSE OF ANY ITEMS NOT ACCEPTED BY THE OWNER.

T. COORDINATE WITH DIVISION 26 FOR LOCATION OF POWER AND LOCAL DISCONNECTS FOR MECHANICAL EQUIPMENT DEVICES. PROVIDE STARTERS FOR EQUIPMENT WITHOUT VFD'S, ECM MOTORS, OR EQUIPMENT WITHOUT INTEGRAL STARTERS.

U. MAINTAIN MINIMUM ELECTRICAL CODE AND UNIT MANUFACTURER'S CLEARANCES TO ADJACENT CONSTRUCTION OR EQUIPMENT, PER CEC OR THE FOLLOWING TABLE:

	0-150 VOLT	150-600
NO LIVE OR GROUNDED PARTS ON OPPOSITE SIDE	36 INCH	36 INCH
GROUNDED PARTS ON OPPOSITE SIDE	36 INCH	42 INCH
LIVE PARTS ON OPPOSITE SIDE	36 INCH	48 INCH

SHEET INDEX

These Record Documents have been prepared based on information provided by others. The design professional has not verified the accuracy and/or completeness of this information and shall not be responsible for any error or omissions which may be incorporated herein as a result.

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SYMBOLS LIST AND GENERAL NOTES - MECHANICAL

SHEET NUMBER

M0.01.2

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STATE OF CALIFORNIA
MECHANICAL SYSTEMS
CEC-NRCC-MCH-01-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-01-E
Mechanical Systems	Page of
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 10/31/2018

A. MECHANICAL COMPLIANCE DOCUMENTS & WORKSHEETS (check box if worksheet is included)

For detailed instructions on the use of this and all Energy Efficiency Standards compliance forms, refer to the 2016 Nonresidential Manual
Note: The Enforcement Agency may require all forms to be incorporated onto the building plans.

YES	NO	Comp. Doc./Worksheet #	Title
◉	○	NRCC-MCH-01-E (Part 1 of 3)	Certificate of Compliance, Declaration. Required on plans for all submittals.
◉	○	NRCC-MCH-01-E (Part 2 of 3)	Certificate of Compliance, Required Acceptance Tests (MCH-02-A to 11-A). Required on plans for all submittals.
◉	○	NRCC-MCH-01-E (Part 3 of 3)	Certificate of Compliance, Required Acceptance Tests (MCH-12-A to 18-A). Required on plans where applicable.
◉	○	NRCC-MCH-02-E (Part 1 of 2)	Mechanical Dry Equipment Summary is required for all submittals with Central Air Systems. It is optional on plans.
◉	○	NRCC-MCH-02-E (Part 2 of 2)	Mechanical Wet Equipment Summary is required for all submittals with chilled water, hot water or condenser water systems. It is optional on plans.
◉	○	NRCC-MCH-03-E	Mechanical Ventilation and Reheat is required for all submittals with multiple zone heating and cooling systems. It is optional on plans.
○	◉	NRCC-MCH-07-E (Part 1 of 2)	Power Consumption of Fans. Required on plans where applicable
○	◉	NRCC-MCH-07-E (Part 2 of 2)	Power Consumption of Fans, Declaration. Required on plans where applicable

STATE OF CALIFORNIA
MECHANICAL SYSTEMS
CEC-NRCC-MCH-01-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-01-E
Mechanical Systems	Page of
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 08/12/2019

B. MECHANICAL HVAC ACCEPTANCE FORMS (check box for required compliance documents)

Test Performed By:

Designer:
This compliance document is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for HVAC systems. The designer is required to check the applicable boxes for all acceptance tests that apply and list all equipment that requires an acceptance test. All equipment of the same type that requires a test, list the equipment description and the number of systems.

Installing Contractor:
The contractor who installed the equipment is responsible to either conduct the acceptance test themselves or have a qualified entity run the test for them. If more than one person has responsibility for the acceptance testing, each person shall sign and submit the Certificate of Acceptance applicable to the portion of the construction or installation for which they are responsible.

Enforcement Agency:
Plancheck - The NRCC-MCH-01-E compliance document is not considered a completed document and is not to be accepted by the building department unless the correct boxes are checked.
Inspector - Before occupancy permit is granted all newly installed process systems must be tested to ensure proper operations.

Test Description		MCH-02-A	MCH-03-A	MCH-04-A	MCH-05-A	MCH-06-A	MCH-07-A	MCH-08-A	MCH-09-A	MCH-10-A	MCH-11-A
Equipment Requiring Testing or Verification	# of Units	Outdoor Air	Single Zone Unitary	Air Distribution Ducts	Economizer Controls	Demand Controlled Ventilation (DCV)	Supply Fan VAV	Valve Leakage Test	Supply Water Temp. Reset	Hydronic System Variable Flow Control	Automatic Demand Shed Control
MAU-1	1	☑	☑	☐	☐	☐	☐	☐	☐	☐	☐
AHU-8	1	☑	☐	☐	☑	☑	☐	☐	☐	☐	☐
FC-1 and CU-1	1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
FC-2 and CU-2	1	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

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STATE OF CALIFORNIA
MECHANICAL SYSTEMS
CEC-NRCC-MCH-01-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-01-E
Mechanical Systems	Page of
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 08/12/2019

C. MECHANICAL HVAC ACCEPTANCE FORMS (check box for required compliance documents)

Test Performed By:

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This compliance document is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for HVAC systems. The designer is required to check the applicable boxes for all acceptance tests that apply and list all equipment that requires an acceptance test. All equipment of the same type that requires a test, list the equipment description and the number of systems.

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Enforcement Agency:
Plancheck - The NRCC-MCH-01-E compliance document is not considered a completed document and is not to be accepted by the building department unless the correct boxes are checked.
Inspector - Before occupancy permit is granted all newly installed process systems must be tested to ensure proper operations.

Test Description		MCH-12-A	MCH-13-A	MCH-14-A	MCH-15-A	MCH-16-A	MCH-17-A	MCH-18-A
Equipment Requiring Testing or Verification	# of Units	Fault Detection & Diagnostics for DX Units	Automatic Fault Detection & Diagnostics for Air & Zone	Distributed Energy Storage DX AC Systems	Thermal Energy Storage (TES) Systems	Supply Air Temperature Reset Controls	Condenser Water Reset Controls	ECMS
MAU-1	1	☐	☐	☐	☐	☐	☐	☐
AHU-8	1	☐	☐	☐	☐	☐	☐	☐
FC-1 AND CU-1	1	☐	☐	☐	☐	☐	☐	☐
FC-2 AND CU-2	1	☐	☐	☐	☐	☐	☐	☐

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STATE OF CALIFORNIA
HVAC DRY & WET SYSTEM REQUIREMENTS
CEC-NRCC-MCH-02-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-02-E
HVAC Dry System Requirements	(Page 1 of 3)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 08/12/2019

A. Equipment Tags and System Description[1]- Dry Systems		MAU-1		AHU-8		FC-1,2 & CU-1,2	
MANDATORY MEASURES	*T-24 Sections*	*Reference to the Requirements in the Contract Documents[2]*					
Heating Equipment Efficiency[3]	110.1 or 110.2(a)	SEE M0.06.2		SEE M0.06.2		SEE M0.06.2	
Cooling Equipment Efficiency[3]	110.1 or 110.2(a)						
HVAC or Heat Pump Thermostats	110.2(b), 110.2(c)						
Furnace Standby Loss Control	110.2(d)						
Low Leakage AHUs	110.2(f)						
Ventilation[4]	120.1(b)						
Demand Control Ventilation[5]	120.1(c)4						
Occupant Sensor Ventilation Control[6]	120.1(c)5, 120.2(e)3						
Shutoff and Reset Controls[7]	120.2(e)						
Outdoor Air and Exhaust Damper Control	120.2(f)						
Isolation Zones	120.2(g)						
Automatic Demand Shed Controls	120.2(h)						
Economizer FDD	120.2(i)						
Duct Insulation	120.4						
PRESCRIPTIVE MEASURES							
Equipment is sized in conformance with 140.4 (a & b)	140.4(a & b)	◉ Yes ○ No		◉ Yes ○ No		◉ Yes ○ No	
Supply Fan Pressure Control	140.4(c)	SEE M0.06.2		SEE M0.06.2		SEE M0.06.2	
Simultaneous Heat/Cool[8]	140.4(d)						
Economizer	140.4(e)						
Heat and Cool Air Supply Reset	140.4(f)						
Electric Resistance Heating[9]	140.4(g)						
Duct Leakage Sealing and Testing.[10]	140.4(l)						

Notes:
1. *Provide equipment tags (e.g. AHU 1 to 10) and system description (e.g. Single Duct VAV reheat) as appropriate. Multiple units with common requirements can be grouped together.*
2. *Provide references to plans (i.e. Drawing Sheet Numbers) and/or specifications (including Section name/number and relevant paragraphs) where each requirement is specified. Enter "N/A" if the requirement is not applicable to this system.*
3. *The referenced plans and specifications must include all of the following information: equipment tag, equipment nominal capacity, Title 24 minimum efficiency requirements, and actual rated equipment efficiencies. Where multiple efficiency requirements are applicable (e.g. full- and part-load) include all. Where appliance standards apply (110.1), identify where equipment is required to be listed per Title 20 1601 et seq.*
4. *Identify where the ventilation requirements are documented for each central HVAC system. Include references to both central unit schedules and sequences of operation. If one or more spaces is naturally ventilated identify where this is documented in the plans and specifications. Multiple zone central air systems must also provide a MCH-03-E compliance document.*
5. *If one or more spaces has demand controlled ventilation identify where it is specified including the sensor specifications and the sequence of operation.*
6. *If one or more space has occupant sensor ventilation control identify where it is specified including the sensor specifications and the sequence of operation*
7. *If the system is DDC identify the sequences for the system start/stop, optimal start, setback (if required) and setup (if required). For all systems identify the specification for the thermostats and time clocks (if applicable).*
8. *Identify where the heating, cooling and deadband airflows are scheduled for this system. Include a reference to the specification of the zone controls. Provide a MCH-03-E compliance document.*
9. *Enter N/A if there is no electric heating. If the system has electric heating indicate which exception to 140.4(g) applies.*
10. *If duct leakage sealing and testing is required, a MCH-04-A compliance document must be submitted.*

STATE OF CALIFORNIA
HVAC DRY & WET SYSTEM REQUIREMENTS
CEC-NRCC-MCH-02-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-02-E
HVAC Dry & Wet System Requirements	(Page 2 of 3)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 08/12/2019

B. Equipment Tags and System Description[1]- Wet Systems		MAU-1		AHU-8		FC-1,2 & CU-1,2	
MANDATORY MEASURES	*T-24 Sections*	*Reference to the Requirements in the Contract Documents[2]*					
Heating Hot Water Equipment Efficiency[3]	110.1	N/A		N/A		N/A	
Cooling Chilled and Condenser Water Equipment Efficiency[3]	110.1, 140.4(i)						
Open and Closed Circuit Cooling Towers conductivity or flow-based controls	110.2(e) 1						
Open and Closed Circuit Cooling Towers Maximum Achievable Cycles of Concentration (LSI)[5]	110.2(e) 2						
Open and Closed Circuit Cooling Towers Flow Meter with analog output	110.2(e) 3						
Open and Closed Circuit Cooling Towers Overflow Alarm	110.2(e) 4						
Open and Closed Circuit Cooling Towers Efficient Drift Eliminators	110.2(e) 5						
Pipe Insulation	120.3						
PRESCRIPTIVE MEASURES							
Cooling Tower Fan Controls	140.4(h)2, 140.4(h)5	○ Yes ○ No		○ Yes ○ No		○ Yes ○ No	
Cooling Tower Flow Controls	140.4(h)3	N/A		N/A		N/A	
Centrifugal Fan Cooling Towers[4]	140.4(h)4						
Air-Cooled Chiller Limitation[5]	140.4(j)						
Variable Flow System Design	140.4(k)						
Chiller and Boiler Isolation	140.4(k)						
CHW and HHW Reset Controls	140.4(k)						
WLHP Isolation Valves	140.4(k)						
VSD on CHW, CW & WLHP Pumps >5HP	140.4(k)						
DP Sensor Location	140.4(k)						

Notes:
1. *Provide equipment tags (e.g. CH 1 to 3) or system description (e.g. CHW loop) as appropriate. Multiple units with common requirements can be grouped together.*
2. *Provide references to plans (i.e. Drawing Sheet Numbers) and/or specifications (including Section name/number and relevant paragraphs) where each requirement is specified. Enter "N/A" if the requirement is not applicable to this system.*
3. *The referenced plans and specifications must include all of the following information: equipment tag, equipment nominal capacity, Title 24 minimum efficiency requirements, and actual rated equipment efficiencies. Where multiple efficiency requirements are applicable (e.g. full- and part-load) include all. For chillers operating at non-standard efficiencies provide the Kadj values. For chillers also note whether the efficiencies are Path A or Path B.*
4. *Identify if cooling towers have propeller fans. If towers use centrifugal fans document which exception is used.*
5. *If air-cooled chillers are used, document which exceptions have been used to comply with 140.4(j) and the total installed design capacity of the air-cooled chillers in the chilled water plant.*
6. *Identify the existence of a completed MCH-06-E when open or closed circuit cooling towers are specified to be installed, otherwise enter "N/A".*

STATE OF CALIFORNIA
COMMERCIAL KITCHEN REQUIREMENTS
CEC-NRCC-PRC-03-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-PRC-03-E
Commercial Kitchen Requirements	(Page 1 of 2)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 02/25/2019

KITCHEN ROOM NUMBER:	102 CAFE KITCHEN
TOTAL INSTALLED TYPE I and II KITCHEN HOOD EXHAUST (CFM):	4000
TOTAL BYPASS HOOD MUA (CFM):	0
TOTAL TRANSFER AIR AIRFLOW (CFM):	900
TOTAL MECHANICALLY HEATED OR COOLED MAKE UP AIR (CFM):	2900
TOTAL AIR NEEDED FOR HEATING OR COOLING (CFM):	
TOTAL EXHAUST AIR WITH DEMAND VENTILATION SYSTEMS:	0

Equipment Tags and System Description		EF-1,2	MAU-1	
PRESCRIPTIVE MEASURES	*T-24 Sections*	*Reference to the Requirements in the Contract Documents*		
Bypass Hood Exhaust and MUA	140.9(b)1A	N/A	N/A	
Type I/II Hood Exhaust	140.9(b)1B, Table 140.9-A	M0.06.2	N/A	
Mechanically Heated or Cooled Make Up Air	140.9(b)2Ai and ii	N/A	M0.06.2	
Replacement Air/Transfer Air Exhaust	140.9(b)2Bi	2/M2.36.2	2/M2.36.2	
Demand Ventilation Systems	140.9(b)2Bii	N/A	N/A	
Energy Recovery Systems	140.9(b)2Biii	N/A	N/A	
Tempered/Non Mechanical Cooling Air Systems	140.9(b)2Biv	N/A	N/A	

STATE OF CALIFORNIA
COMMERCIAL KITCHEN REQUIREMENTS
CEC-NRCC-PRC-03-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-PRC-03-E
Commercial Kitchen Requirements	(Page 2 of 2)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 02/25/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: PRIYANK VEKARIA	Documentation Author Signature:
Company: INTERFACE ENGINEERING	Signature Date: 02/25/2019
Address: 135, MAIN STREET, SUITE 400	CEA/HERS Certification Identification (if applicable):
City/State/Zip: SAN FRANCISCO, CA 94105	Phone: 415.489.3208

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: JESSE AGOSTA	Responsible Designer Signature:
Company: INTERFACE ENGINEERING	Date Signed: 02/25/2019
Address: 135 MAIN STREET, SUITE 400	License: M736795
City/State/Zip: SAN FRANCISCO, CA 94105	Phone: 503.382.2634

STATE OF CALIFORNIA
MECHANICAL SYSTEMS
CEC-NRCC-MCH-01-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-01-E
Mechanical Systems	Page of
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 10/31/2018

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Priyank Vekaria	Documentation Author Signature:
Company: Interface Engineering	Signature Date: 10/31/2018
Address: 135 Main Street, Suite 400	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: San Francisco, CA 94105	Phone: 415.489.3208

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Responsible Designer Name: Jesse Agosta	Responsible Designer Signature:
Company: Interface Engineering	Date Signed: 10/31/2018
Address: 135 Main Street, Suite 400	License: M736795
City/State/Zip: San Francisco, CA 94105	Phone: 503.382.2634

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

PROJECT 2016-0538
CONTACT

INTERFACE ENGINEERING
135 Main Street
Suite 400
San Francisco, CA 94105
TEL 415.489.7240
FAX 415.489.7289
www.interfaceengineering.com

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE
TITLE 24 - MECHANICAL

SHEET NUMBER
M0.02.2

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STATE OF CALIFORNIA
MECHANICAL VENTILATION AND REHEAT
CEC-NRCC-MCH-03-E (Revised 05/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-03-E
Mechanical Ventilation & Reheat	Page of
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 10/31/2018

A. Mechanical Ventilation and Reheat

In lieu of this compliance document, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet. Mechanical Ventilation and Reheat worksheet available on the Energy Commission's website at: http://www.energy.ca.gov/title24/2016standards/.
Note: In all of the calculations that compare a supply quantity to the REQ'D V.A. quantity, the actual percentage of outdoor air in the supply is ignored.
Areas in buildings for which natural ventilation is used should be clearly designated. Specifications must require that building operating instructions include explanations of the natural ventilation system.

ACTUAL DESIGN (FROM EQUIPMENT SCHEDULES, ETC)						AREA BASIS			OCCUPANCY BASIS			ROOM BASIS	MINIMUM		VAV REHEATED PRIMARY AIR CFM			VAV DEADBAND PRIMARY AIR CFM		
01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21
ZONE/SYSTEM/AHU ID OR TAG	DESIGN PRIMARY COOLING AIRFLOW (CFM)	DESIGN PRIMARY OUTDOOR AIRFLOW (DEADBAND) AIRFLOW (CFM)	DESIGN PRIMARY HEATING AIRFLOW (CFM)	CONTROL TYPE DDC (Y/N)	TRANSFER AIRFLOW (CFM)	CONDITIONED AREA (ft²)	MIN CFM PER AREA	MIN CFM BY AREA	NUMBER OF PEOPLE	CFM PER PERSON	MIN CFM BY OCCUPANT	MIN CFM BY ROOM	REQ'D VENT AIRFLOW (CFM)	COMPLIES?	BASED DESIGN PRIMARY COOLING AIR	MAXIMUM REHEAT (CFM)	COMPLIES?	PRIMARY COOLING AIR	AIRFLOW	COMPLIES?
VAV-1	530	40	265	Yes		260	0.5	130	12	15	180		180	PASS	265	265	PASS	110	180	PASS
VAV-2	595	120	300	Yes		380	0.15	60	8	15	115		115	PASS	300	300	PASS	120	120	PASS
VAV-3	975	145	490	Yes		480	0.15	75	10	15	145		145	PASS	490	490	PASS	200	200	PASS
VAV-4	115	30	50	Yes		115	0.15	20	2	15	30		30	PASS			PASS	25		PASS
VAV-5	350	350		Yes		108	0.15	20	1	15	15		20	PASS			PASS	130		PASS
VAV-6	1060	100	530	Yes		560	0.38	215	28	15	420		420	PASS	530	530	PASS	220	420	PASS
VAV-7	765	100	385	Yes		510	0.38	195	20	15	300		300	PASS	385	385	PASS	155	300	PASS
VAV-8	390	90	195	Yes		555	0.15	85	5	15	75		85	PASS	195	195	PASS	80	85	PASS
VAV-9	1175	315	550	Yes		1100	0.15	165	22	15	330		330	PASS	590	590	PASS	235	330	PASS
VAV-10	315	75	160	Yes		235	0.15	40	5	15	75		75	PASS	160	160	PASS	65	75	PASS
VAV-11	260	120	130	Yes		260	0.15	40	8	15	120		120	PASS			PASS	55	120	PASS
VAV-12	580	60	290	Yes		369	0.38	145	18	15	280		280	PASS	290	290	PASS	120	290	PASS
VAV-13	745	115	375	Yes		745	0.38	285	20	15	300		300	PASS	375	375	PASS	150	300	PASS

STATE OF CALIFORNIA
MECHANICAL VENTILATION AND REHEAT
CEC-NRCC-MCH-03-E (Revised 05/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-03-E
Mechanical Ventilation & Reheat	Page of
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 10/31/2018

VAV-14	250	120	125	Yes		205	0.15	35	8	15	120		120	PASS			PASS	50	120	PASS
(E)VAV6-6	800	120	400	Yes		613	0.15	92	8	15	120		120	PASS	400	400	PASS	160	160	PASS
(E)VAV6-3	2000	400	1000	Yes		620	0.15	93	16	15	240		240	PASS	1000	1000	PASS	400	400	PASS
(E)VAV6-4	3800	760	1900	Yes		1178	0.15	177	31	15	465		465	PASS	1900	1900	PASS	760	760	PASS
(E)VAV6-5	4200	840	2100	Yes		1302	0.15	196	33	15	495		495	PASS	2100	2100	PASS	840	840	PASS
(E)VAV6-8	400	80	200	Yes		144	0.15	22	2	15	30		30	PASS	200	200	PASS	80	80	PASS

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STATE OF CALIFORNIA
MECHANICAL VENTILATION AND REHEAT
CEC-NRCC-MCH-03-E (Revised 05/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-MCH-03-E
Mechanical Ventilation & Reheat	Page of
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 10/31/2018

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Priyank Vekaria	Documentation Author Signature:
Company: Interface Engineering	Signature Date: 04/23/2019
Address: 135 Main Street, Suite 400	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: San Francisco, CA 94105	Phone: 415.489.3208

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Jesse Agosta	Responsible Designer Signature:
Company: Interface Engineering	Date Signed: 04/23/2019
Address: 135 Main Street, Suite 400	License: M736795
City/State/Zip: San Francisco, CA 94105	Phone: 503.382.2634

STATE OF CALIFORNIA
ENVELOPE COMPONENT APPROACH
CEC-NRCC-ENV-01-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ENV-01-E
Envelope Component Approach	(Page 1 of 4)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 5/17/2019

A. GENERAL INFORMATION

01	Project Location:	1690 Watermill Rd	06	Compliance Method:	☑ Component ☐ Unconditioned (file Affidavit)
02	CA City and Zip Code:	San Ramon, 94582	07	Building Front Orientation (deg or cardinal):	0 deg
03	Climate Zone:	12	08	Phase of Construction:	☑ New Construction ☐ Addition ☐ Alteration
04	Total Conditioned Floor Area:	6,316	09	Building Occupancy:	☑ Nonresidential ☐ High-Rise Residential ☐ Hotel/Motel Guest Room
05	Building Type:	☐ Schools (Public School) ☐ Relocatable Public School Bldg. ☑ Conditioned Spaces ☐ Unconditioned Spaces ☐ Skylight Area for Large Enclosed Space > 5000 ft² (If checked include the NRCC-ENV-04-E with submittal)			

B. ENVELOPE DETAILS – FRAMED

01	02	03	04	05	06	07	08		09	10		11
							Appendix JA 4 Reference		Proposed	Required		
Tag/ID	Assembly Type	Frame Material	Frame Depth	Frame Spacing	Cavity R-value	Continuous Insulation R-value	Table	Cell	U-Factor	U-Factor from Tables 140.3-B, C or D		Field Inspection Comments
1	Wall	Wood	2x6 @ 16		19	5.0	4.3	I-D5	0.051	0.059		Wood Wall
2	Roof	Wood	2x4 @ 16		38	8.0	4.2	I-A9	0.024	0.034		Roof

C. ENVELOPE DETAILS – NON-FRAMED

01	02	03	04	05	06	07		08	09		10
						Appendix JA4 Reference		Proposed	Required		
Tag/ID	Assembly Type	Assembly Materials	Thickness (inches)	Interior or Core Insulation R-value	Continuous Insulation R-value	Table	Cell	U-Factor	U-Factor from Tables 140.3-B, C or D		Field Inspection Comments

STATE OF CALIFORNIA
ENVELOPE COMPONENT APPROACH
CEC-NRCC-ENV-01-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ENV-01-E
Envelope Component Approach	(Page 2 of 4)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 5/17/2019

D. ENVELOPE DETAILS – MASS

01	02	03	04	05	06	07	08		09	10		11
							Appendix JA4 Reference		Proposed	Required		
Tag/ID	Mass Type	Density (lb/ft³)	Mass Thickness (inches)	Furring Strip Thickness (inches)	Interior Insulation R-value	Exterior Insulation R-value	Table	Cell	U-Factor	U-Factor from Tables 140.3-B, C or D		Field Inspection Comments

E. ROOFING PRODUCTS (COOL ROOF)

01	02	03	04	05		06	07	08		09	10		11
						Proposed		Minimum Required					
Mass Roof 25 lb/ft² or Greater	Roof Pitch	CRRC Product ID Number	Product Type	Aged Solar Reflectance	Thermal Emittance	SRI[2] (Optional)	Aged Solar Reflectance		Thermal Emittance	SRI (Optional)		Comments
☐	4 / 12			☐[1]	0.20	0.75	0.20		0.75			Roof
☐				☐[1]								
☐				☐[1]								

☐ An aged solar reflectance less than 0.63 is allowed provided the maximum roof / ceiling U-factor in TABLE 140.3 is not exceeded
☐ High-rise residential buildings and Hotels and Motels with low-sloped roofs in Climate Zones 1 through 8, 12 and 16 are exempted from aged Solar Reflectance and thermal emittance requirements.
☐ High-rise residential buildings and Hotels/Motels with steep-sloped roofs in Climate Zones 1 and 16 are exempt from aged Solar Reflectance and thermal emittance requirements.
☐ The roof area covered by building integrated photovoltaic panels and building integrated solar thermal panels are exempt from aged Solar Reflectance and thermal emittance requirements
To apply Liquid Field Applied Coatings, the coating must be applied across the entire roof surface and meet the dry mil thickness or coverage recommended by the coatings manufacturer and meet minimum performance requirements listed in §110.8(i)4. Select the applicable coating:
☐ Aluminum-Pigmented Asphalt Roof Coating ☐ Cement-Based Roof Coating ☐ Other _____

NOTES:
1. *Check the box if the aged Solar reflectance was not available in the Cool Roof Rating Council's Rated Product Directory, Then use the equation in Section 110.8(i)2 where the Initial Reflectance value from the same directory and use the equation (0.2+BI_{Aged} – 0.2) to obtain a calculated aged solar reflectance value. Where* ***p*** *is the Initial Solar Reflectance and* ***B*** *is either set to 0.65 for Field-Applied Coatings or it is set to 0.70 for all other roofing products other than Field-Applied Coating.*
2. *Calculate the SRI Value by using the SRI Calculator Worksheet at (http://energy.ca.gov/title24/2016standards/documents/solar_reflectance/) and enter the resulting value in the SRI column above and attach a copy of the SRI-Worksheet (NRCC-ENV-03-E) to the to this compliance document.*

STATE OF CALIFORNIA
ENVELOPE COMPONENT APPROACH
CEC-NRCC-ENV-01-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ENV-01-E
Envelope Component Approach	(Page 3 of 4)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 5/17/2019

F. AIR BARRIER

01	02	03	04	05
Name	Air Barrier Material Type	Air Barrier Assembly Type	Whole Building Air Leakage Testing	Comments

G. FENESTRATION PROPOSED AREAS AND EFFICIENCIES

01	02	03	04	05	06	07	08	09	10	11	12
					Proposed						
Tag/ID	Fenestration Type	Surface Area	Orientation N, S, W, E or Roof	# of Panes	Max U-Factor	Max (R) SHGC	Min VT	Label	Overhang	Condition Status	Comments
9	Window	85	E	2	0.36	0.25	0.42	NFRC	No	New	
10	Window	99	E	2	0.36	0.25	0.42	NFRC	No	New	
11	Window	60	N	2	0.36	0.25	0.42	NFRC	No	New	
12	Window	91	N	2	0.36	0.25	0.42	NFRC	No	New	
13	Window	24	N	2	0.36	0.25	0.42	NFRC	No	New	
14	Window	23	N	2	0.36	0.25	0.42	NFRC	No	New	
15	Window	24	N	2	0.36	0.25	0.42	NFRC	No	New	
16	Window	24	N	2	0.36	0.25	0.42	NFRC	No	New	

H. ENVELOPE MANDATORY MEASURES

Indicate location on building plans of Mandatory Envelope Measures Note Block: ENV-MM

INSTRUCTIONS TO APPLICANT ENVELOPE COMPLIANCE & WORKSHEETS (check box if worksheet are included)

For detailed instructions on the use of this and all Energy Efficiency Standards compliance documents, please refer to theEnergy Commission website.

☑ NRCC-ENV-01-E Certificate of Compliance. Required on plans for all submittals.
☐ NRCC-ENV-04-E Use when minimum skylight requirements for large enclosed spaces are required in climate zones 2 through 15. Optional on plans.

STATE OF CALIFORNIA
ENVELOPE COMPONENT APPROACH
CEC-NRCC-ENV-01-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ENV-01-E
Envelope Component Approach	(Page 3 of 4)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 5/17/2019

F. AIR BARRIER

01	02	03	04	05
Name	Air Barrier Material Type	Air Barrier Assembly Type	Whole Building Air Leakage Testing	Comments

G. FENESTRATION PROPOSED AREAS AND EFFICIENCIES

01	02	03	04	05	06	07	08	09	10	11	12
					Proposed						
Tag/ID	Fenestration Type	Surface Area	Orientation N, S, W, E or Roof	# of Panes	Max U-Factor	Max (R) SHGC	Min VT	Label	Overhang	Condition Status	Comments
17	Window	90	N	2	0.36	0.25	0.42	NFRC	No	New	
18	Skylight	180	Roof	2	0.19	0.23	0.49	NFRC	No	New	

H. ENVELOPE MANDATORY MEASURES

Indicate location on building plans of Mandatory Envelope Measures Note Block: ENV-MM

INSTRUCTIONS TO APPLICANT ENVELOPE COMPLIANCE & WORKSHEETS (check box if worksheet are included)

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☐ NRCC-ENV-04-E Use when minimum skylight requirements for large enclosed spaces are required in climate zones 2 through 15. Optional on plans.

STATE OF CALIFORNIA
ENVELOPE COMPONENT APPROACH
CEC-NRCC-ENV-01-E (Revised 01/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ENV-01-E
Envelope Component Approach	(Page 2 of 4)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 5/17/2019

F. AIR BARRIER

01	02	03	04	05
Name	Air Barrier Material Type	Air Barrier Assembly Type	Whole Building Air Leakage Testing	Comments

G. FENESTRATION PROPOSED AREAS AND EFFICIENCIES

01	02	03	04	05	06	07	08	09	10	11	12
					Proposed						
Tag/ID	Fenestration Type	Surface Area	Orientation N, S, W, E or Roof	# of Panes	Max U-Factor	Max (R) SHGC	Min VT	Label	Overhang	Condition Status	Comments
1	Window	59	W	2	0.36	0.25	0.42	NFRC	No	New	
2	Window	97	W	2	0.36	0.25	0.42	NFRC	No	New	
3	Window	89	S	2	0.36	0.25	0.42	NFRC	No	New	
4	Window	96	S	2	0.36	0.25	0.42	NFRC	No	New	
5	Window	90	S	2	0.36	0.25	0.42	NFRC	No	New	
6	Window	31	S	2	0.36	0.25	0.42	NFRC	No	New	
7	Window	8	S	2	0.36	0.25	0.42	NFRC	No	New	
8	Window	90	E	2	0.36	0.25	0.42	NFRC	No	New	

H. ENVELOPE MANDATORY MEASURES

Indicate location on building plans of Mandatory Envelope Measures Note Block: ENV-MM

INSTRUCTIONS TO APPLICANT ENVELOPE COMPLIANCE & WORKSHEETS (check box if worksheet are included)

For detailed instructions on the use of this and all Energy Efficiency Standards compliance documents, please refer to theEnergy Commission website.

☑ NRCC-ENV-01-E Certificate of Compliance. Required on plans for all submittals.
☐ NRCC-ENV-04-E Use when minimum skylight requirements for large enclosed spaces are required in climate zones 2 through 15. Optional on plans.

STATE OF CALIFORNIA
ENVELOPE COMPONENT APPROACH
CEC-NRCC-ENV-01-E (Revised MM/YY) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ENV-01-E
Envelope Component Approach	(Page 4 of 4)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 5/17/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Shervеen Rasooly	Documentation Author Signature:
Company: Interface Engineering	Signature Date: 5/17/2019
Address: 135 Main Street Suite 400	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: San Francisco, CA 94105	Phone: 415-489-3202

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Phan Dung, Beckie Denio	Responsible Designer Signature:
Company: NOLL & TAM Architects	Date Signed:
Address: 729 Heinz Ave	License:
City/State/Zip: Berkeley, CA 94710	Phone: 510-542-2200

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

PROJECT 2016-0538
CONTACT

INTERFACE ENGINEERING
135 Main Street
Suite 400
San Francisco, CA 94105
TEL 415.489.7240
FAX 415.489.7289
www.interfaceengineering.com

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE 08/22/2023
NOLL & TAM JOB NUMBER 21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE
TITLE 24 - MECHANICAL

SHEET NUMBER
M0.03.2

8/22/2023 1:01:28 PM C:\Users\jeremyb\Documents\DVC San Ramon - MEP Central v19_jeremyb.v67DQ.rvt

STATE OF CALIFORNIA
FENESTRATION WORKSHEET
CEC-NRCC-ENV-02-E (Revised 09/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ENV-02-E
Fenestration Worksheet	(Page 1 of 3)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 5/17/2019

A. WINDOWS DETAILS Worksheet - *§140.3(a)6B, C and D*

NOTE: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Site-built fenestration less than 1,000 ft² see Reference Nonresidential Appendix NA6.
Prescriptively, skylights shall have a glazing material or diffuser that has a measured haze value greater than 90%, determined according to ASTM D1003, or other test method approved by the Energy Commission.

01	02	03	04	05	06	07	08	09	10	11	12	13	14
			Fenestration						Overhang				
			U-Factor		SHGC		VT		Dimensions			Calculated	
Tag/ID	Window Type (e.g., Window-1)	Surface Area	Proposed	Allowed	Proposed	Allowed	Proposed	Allowed	H	V	H/V	(R)SHGC Proposed	Max (R)SHGC Allowed
1	Window	155	0.360	0.360	0.250	0.250	0.420	0.42					
2	Window	314	0.360	0.360	0.250	0.250	0.420	0.42					
3	Window	274	0.360	0.360	0.250	0.250	0.420	0.42					
4	Window	337	0.360	0.360	0.250	0.250	0.420	0.42					

B. WEST WINDOW AREA CALCULATION - See §140.3(a)5A

01. **Gross West** Exterior Wall Area	1,035	**ft² x 0.40 =**	414 ft²	40% of **Gross West Facing** Exterior Wall Area; or	
02. **West** Display Linear Perimeter	0	**FT x 6 ft =**	0 ft²	**West** Display Perimeter Area	
03. Enter Larger of 1 or 2			414 ft²	Maximum Standard **West** Area	
04. Enter Proposed **West** Window Area			155 ft²	Proposed **West** Window Area	

*Note: If the PROPOSED **WEST** WINDOW AREA is greater than the MAXIMUM STANDARD **WEST** AREA then the envelope component approach may not be used.*

C. WINDOW AREA CALCULATION - See §140.3(a)5A

01. Gross Exterior Wall Area	5,390	**ft² x 0.40 =**	2,156 ft²	40% of Gross Exterior Wall Area or	
02. Linear Display Perimeter	0	**FT x 6 ft =**	0 ft²	Display Perimeter Area	
03. Enter The Larger of 1 or 2			2,156 ft²	Maximum Standard Area	
04. Enter Proposed Window Area			1,080 ft²	Proposed Window Area	

Note: If the PROPOSED WINDOW AREA is greater than the MAXIMUM STANDARD AREA then the envelope component approach may not be used.

STATE OF CALIFORNIA
FENESTRATION WORKSHEET
CEC-NRCC-ENV-02-E (Revised 09/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ENV-02-E
Fenestration Worksheet	(Page 1 of 3)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 5/17/2019

A. WINDOWS DETAILS Worksheet - *§140.3(a)6B, C and D*

NOTE: Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Site-built fenestration less than 1,000 ft² see Reference Nonresidential Appendix NA6.
Prescriptively, skylights shall have a glazing material or diffuser that has a measured haze value greater than 90%, determined according to ASTM D1003, or other test method approved by the Energy Commission.

01	02	03	04	05	06	07	08	09	10	11	12	13	14
			Fenestration						Overhang				
			U-Factor		SHGC		VT		Dimensions			Calculated	
Tag/ID	Window Type (e.g., Window-1)	Surface Area	Proposed	Allowed	Proposed	Allowed	Proposed	Allowed	H	V	H/V	(R)SHGC Proposed	Max (R)SHGC Allowed
5	Skylight	180	0.190	0.460	0.230	0.250	0.490	0.49					

B. WEST WINDOW AREA CALCULATION - See §140.3(a)5A

01. **Gross West** Exterior Wall Area	1,035	**ft² x 0.40 =**	414 ft²	40% of **Gross West Facing** Exterior Wall Area; or	
02. **West** Display Linear Perimeter	0	**FT x 6 ft =**	0 ft²	**West** Display Perimeter Area	
03. Enter Larger of 1 or 2			414 ft²	Maximum Standard **West** Area	
04. Enter Proposed **West** Window Area			155 ft²	Proposed **West** Window Area	

*Note: If the PROPOSED **WEST** WINDOW AREA is greater than the MAXIMUM STANDARD **WEST** AREA then the envelope component approach may not be used.*

C. WINDOW AREA CALCULATION - See §140.3(a)5A

01. Gross Exterior Wall Area	5,390	**ft² x 0.40 =**	2,156 ft²	40% of Gross Exterior Wall Area or	
02. Linear Display Perimeter	0	**FT x 6 ft =**	0 ft²	Display Perimeter Area	
03. Enter The Larger of 1 or 2			2,156 ft²	Maximum Standard Area	
04. Enter Proposed Window Area			1,080 ft²	Proposed Window Area	

Note: If the PROPOSED WINDOW AREA is greater than the MAXIMUM STANDARD AREA then the envelope component approach may not be used.

STATE OF CALIFORNIA
FENESTRATION WORKSHEET
CEC-NRCC-ENV-02-E (Revised 09/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ENV-02-E
Fenestration Worksheet	(Page 2 of 3)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 5/17/2019

D. SKYLIGHT AREA CALCULATION - See §143(a)6A

	ACTUAL GROSS ROOF AREA		STANDARD ALLOWED SKYLIGHT AREA
01. If Atrium/Skylight Height is ≤ 55 ft; **or**	6,400	ft² × 0.05 =	320 ft²
2. IF Atrium/Skylight Height is > 55 ft		ft² × 0.10 =	ft²
03. Proposed Skylight Area (from plans)		180 ft²	
04. Skylight SSR %[1,2] = Proposed Skylight Area Divided by Actual Gross Roof Area =		2.8 %	
05. Haze material value greater than 90% according to ASTM D1003, or other approved method by the Energy Commission		Yes ☐	No ☐

1. If the SKYLIGHT SSR % is less than or equal to 5% then choose the appropriate column in Table 140.3-B and C and row in Table 140.3-D.
2. If the SKYLIGHT SSR % is greater than 5% then the Envelope Component Approach may not be used.

E. RELOCATABLE PUBLIC SCHOOL BUILDINGS - See Section140.3(a)8

Option 1	
☐ For Specific Climate Zone, use Table 140.3-B - Prescriptive Envelope Criteria.	☐ Specific Climate Zone Metal Identification Label – Place two labels on each relocatable school building and indicate on the building plans. **Indicate location from the building plans:**
Option 2	
☐ For Any (All) Climate Zone, use Table 140.3-D - Prescriptive Envelope Criteria.	☐ Any (All) Climate Zone Metal Identification Label - Place two labels on each relocatable school building and indicate on the building plans. **Indicate location from the building plans:**

STATE OF CALIFORNIA
FENESTRATION WORKSHEET
CEC-NRCC-ENV-02-E (Revised 09/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ENV-02-E
Fenestration Worksheet	(Page 3 of 3)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 5/17/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Sherveen Rasooly	Documentation Author Signature:
Company: Interface Engineering	Signature Date: 5/17/2019
Address: 135 Main Street Suite 400	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: San Francisco, CA 94105	Phone: 415-489-3202

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	Responsible Designer Signature:
Company: NOLL & TAM Architects	Date Signed:
Address: 729 Heinz Ave	License:
City/State/Zip: Berkeley, CA 94710	Phone: 510-542-2200

STATE OF CALIFORNIA
ENVELOPE – DAYLIT ZONE WORKSHEET
CEC-NRCC-ENV-04-E (Revised 04/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ENV-04-E
Envelope - Daylit Zone Worksheet	(Page 1 of 3)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 11/1/2018

*NOTE: This worksheet applies only to buildings with three or fewer stories, climate zones 2 through 15, having an enclosed conditioned or unconditioned space > 5,000 ft² that is directly under a roof with a ceiling height > 15 ft and ≥ 0.5 W/ft², unless exempted by the **EXCEPTIONS** in §140.3(c).*

A. MINIMUM SKYLIGHT AREA FOR LARGE ENCLOSED SPACES (requirements in §140.3(c))

01	Enter building plan reference page(s) for large enclosed space _____; and
02	Enter building plan reference page(s) for daylit zone plans for enclosed space _____ or attach a separate daylit zone design plan with this form; then **Go to Step 1 below.**

B. SKYLIGHT INFORMATION

01	02	03	04	05	06	07	
Tag/ID	Skylight Type	Number of Skylights	U-factor	SHGC	VT_{mg}	Haze Material Value > 90% (Yes / No)	
1	Skylight	180	0.190	0.230	0.490	☒	☐
						☐	☐
						☐	☐

C. CALCULATE DAYLIT AREA (§140.3(c)1)
The minimum Skylit Zone requirements can be met by using either Skylit Daylit Zones or Primary Sidelit Daylit Zones or Combinations.

Step 1 Calculate the minimum prescriptively required Total Daylit Zone Area, per§140.3(c)1

01	Floor area of enclosed space	**A**	0	ft²	Floor area
02	Minimum Prescriptively Required Total Daylit Area is (0.75 x floor area (A) – the area of any permanent obstructions), see §140.3(c)1 &§130.1(d)1A for additional details.	**B**	0	ft²	Minimum prescriptively required Total Daylit Zone Area

Step 2 Calculate Total Daylit Zone Area

03.	Skylit Daylit Zone Area ignoring obstructions, determined in accordance with §130.1(d)1A and as shown on the building plans (0.7 x average ceiling height from edge of rough opening of skylight).	**C**	0	ft²	Skylit Daylit Zone Area
04	Primary Sidelit Daylit Zone Area determined in accordance with §130.1(d)1B and as shown on the building plans ((window head height x (window width + window head height)) – areas beyond obstructions).	**D**	0	ft²	Primary Sidelit Daylit Zone Area
05	Areas of Primary Sidelit Daylit Zone Area that overlap with the Skylit Daylit Zone Area	**E**	0	ft²	Overlapping Zone Area
06	Total Daylit Zone Area **(F = C+D-E)**	**F**	0	ft²	Total Daylit Zone Area

D. COMPARE TOTAL DAYLIT ZONE AREA TO PRESCRIPTIVE MINIMUM

Step 1 Compare

01	Check if Total Daylit Zone Area (F) is equal to or greater than Minimum Prescriptively Required Daylit Zone Area (B). **Space PASSES if** F ≥ B.

STATE OF CALIFORNIA
ENVELOPE – DAYLIT ZONE WORKSHEET
CEC-NRCC-ENV-04-E (Revised 04/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ENV-04-E
Envelope - Daylit Zone Worksheet	(Page 2 of 3)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 3/14/2019

E. CALCULATE TOTAL SKYLIGHT AREA (§140.3(c)4)
The Total Skylight Area can be met by using either Equation 1 or Equation 2 below.

☒ **Equation 1: Total Skylight Area = (Skylight Area)/(Daylit Zone under Skylights) ≥ 3%**

Step 1 Calculate the Daylit Zone under Skylights

01	Average Ceiling Height	**A**	8.0	ft	Average Ceiling Height
02	Total floor area in the space within a horizontal distance of 0.7 times the average ceiling height from the edge of the rough opening	**B**	946.08	ft²	Daylit Zone under Skylight

Step 2 Calculate the Total Skylight Area

03	Area of Skylight	**C**	180	ft²	Skylight Area
04	Total Skylight Area **(D = (C/B) * 100)**	**D**	19.02	%	Total Skylight Area

☒ **Equation 2: Total Skylight Area = (Skylight Area) * (VT_{mg}) ≥ 1.5%**

Step 1 Calculate the Daylit Zone under Skylights

05	Average Ceiling Height	**E**	8.0		Average Ceiling Height
06	Total floor area in the space within a horizontal distance of 0.7 times the average ceiling height from the edge of the rough opening	**F**	946.08		Daylit Zone under Skylight

Step 2 Calculate the Total Skylight Area

07	Area of Skylight	**G**	180	ft²	Skylight Area
08	Average Visible Transmittance (VT_{mg})	**H**	0.490		Visible Transmittance
09	Total Skylight Area **(I = (G / F) * H * 100)**	**I**	9.32	%	Total Skylight Area

F. COMPARE

Step 1 Compare

01	Check if Total Skylight Area (D or H) is equal to or greater than 3% of the total floor area (Equation 1); or 1.5% of the total floor area (Equation 2) **Space Passes if D ≥ 3% using Equation 1; or H ≥ 1.5% using Equation 2.**

STATE OF CALIFORNIA
ENVELOPE – DAYLIT ZONE WORKSHEET
CEC-NRCC-ENV-04-E (Revised 04/16) — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ENV-04-E
Envelope - Daylit Zone Worksheet	(Page 3 of 3)
Project Name: DVC San Ramon Campus Expansion	Date Prepared: 3/14/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Sherveen Rasooly	Documentation Author Signature:
Company: Interface Engineering	Signature Date: 3/14/2019
Address: 135 Main Street Suite 400	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: , San Francisco, CA 94105	Phone: 415-489-3202

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	Responsible Designer Signature:
Company: NOLL & TAM Architects	Date Signed:
Address: 729 Heinz Ave	License:
City/State/Zip: Berkeley, CA 94710	Phone: 510-542-2200

ENVELOPE MANDATORY MEASURES: NONRESIDENTIAL — ENV-MM

Project Name	Date
DVC San Ramon Campus Expansion	*11/1/2018*

DESCRIPTION

Building Envelope Measures:

§110.8(a):	Installed insulating material shall have been certified by the manufacturer to comply with the California Quality Standards for insulating material, Title 20 Chapter 4, Article 3.
§110.8(c):	All Insulating Materials shall be installed in compliance with the flame spread rating and smoke density requirements of Sections 2602 and 707 of Title 24, Part 2.
§110.8(g):	Heated slab floors shall be insulated according to the requirements in Table 110.8-A.
§110.7(a):	All Exterior Joints and openings in the building that are observable sources of air leakage shall be caulked, gasketed, weatherstripped or otherwise sealed.
§110.6(a):	Manufactured fenestration products and exterior doors shall have air infiltration rates not exceeding 0.3 cfm/ft.² of window area, 0.3 cfm/ft.² of door area for residential doors, 0.3 cfm/ft.² of door area for nonresidential single doors (swinging and sliding), and 1.0 cfm/ft.² for nonresidential double doors (swinging).
§110.6(a):	Fenestration U-factor shall be rated in accordance with NFRC 100, or the applicable default U-factor.
§110.6(a) :	Fenestration SHGC shall be rated in accordance with NFRC 200, or NFRC 100 for site-built fenestration, or the applicable default SHGC.
§110.6(b):	Site Constructed Doors, Windows and Skylights shall be caulked between the unit and the building, and shall be weatherstripped (except for unframed glass doors and fire doors).
§120.7(a):	The opaque portions of the roof/ceiling that separates conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-Factor requirements as follows: **Metal Building-** The weighted average U-factor of the roof assembly shall not exceed 0.098. **Wood Framed and Others-** The weighted average U-factor of the roof assembly shall not exceed 0.075.
§120.7(b):	The opaque portions of walls that separate conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-factor as follows: **Metal Building-** The weighted average U-factor of the wall assembly shall not exceed 0.113. **Metal Framed-** The weighted average U-factor of the wall assembly shall not exceed 0.151. **Light Mass Walls-** A 6 inch or greater Hollow Core Concrete Masonry Unit shall have a U-factor not to exceed 0.440. **Heavy Mass Walls-** An 8 inch or greater Hollow Core Concrete Masonry Unit shall have a U-factor not to exceed 0.690. **Wood Framed and Others-** The weighted average U-factor of the wall assembly shall not exceed 0.110. **Spandrel Panels and Opaque Curtain Wall-** The weighted average U-factor of the spandrel panels and opaque curtain wall assembly shall not exceed 0.280. **Demising Walls-** The opaque portions of framed demising walls shall meet the requirements of Item A or B below: A. Wood framed walls shall be insulated to meet a U-factor not greater than 0.099. B. Metal Framed walls shall be insulated to meet a U-factor not greater than 0.151.
§120.7(c):	The opaque portions of floors and soffits that separate conditioned spaces from unconditioned spaces or ambient air shall meet the applicable U-Factor requirements as follows: **Raised Mass Floors-** Shall have a minimum of 3 inches of lightweight concrete over a metal deck or the weighted average U-factor of the floor assembly shall not exceed 0.269. **Other Floors-**The weighted average U-factor of the floor assembly shall not exceed 0.071.

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

PROJECT 2016-0538
CONTACT

INTERFACE ENGINEERING
135 Main Street
Suite 400
San Francisco, CA 94105
TEL 415.489.7240
FAX 415.489.7289
www.interfaceengineering.com

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

TITLE 24 - MECHANICAL

SHEET NUMBER

M0.04.2

8/22/2023 1:01:30 PM C:\Users\jeremyb\Documents\DVC San Ramon - MEP Central v19_jeremybV67DQ.rvt

AHU-9 UNIT SCHEDULE (CAFE)

SYMBOL	LOCATION	AREA SERVED	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	TOTAL CFM	SUPPLY FAN MIN OSA CFM	SUPPLY FAN TSP (IN H20)	SUPPLY FAN ESP (IN H2O)	SUPPLY FAN FAN TYPE	SUPPLY FAN # OF FANS	SUPPLY FAN BHP	SUPPLY FAN HP	SUPPLY FAN FRPM	SUPPLY FAN VFD (Y/N)	CHILLED WATER COOLING COIL TOTAL CAP (MBH)	CHILLED WATER COOLING COIL SENS CAP (MBH)	CHILLED WATER COOLING COIL # ROWS	CHILLED WATER COOLING COIL FPI	CHILLED WATER COOLING COIL WATER FLOW GPM	CHILLED WATER COOLING COIL EWT (°F)	CHILLED WATER COOLING COIL LWT (°F)	CHILLED WATER COOLING COIL EDB (°F)	CHILLED WATER COOLING COIL EWB (°F)	CHILLED WATER COOLING COIL LDB (°F)	CHILLED WATER COOLING COIL LWB (°F)	CHILLED WATER COOLING COIL FACE VELOCITY (FPM)	CHILLED WATER COOLING COIL APD (IN H2O)	CHILLED WATER COOLING COIL WPD (FT H2O)	HOT WATER HEATING COIL MIN CAP (MBH)	HOT WATER HEATING COIL # ROWS	HOT WATER HEATING COIL FPI	HOT WATER HEATING COIL WATER FLOW (GPM)	HOT WATER HEATING COIL EWT (°F)	HOT WATER HEATING COIL LWT (°F)	HOT WATER HEATING COIL EDB (°F)	HOT WATER HEATING COIL LDB (°F)	HOT WATER HEATING COIL FACE VELOCITY (FPM)	HOT WATER HEATING COIL APD (IN H2O)	HOT WATER HEATING COIL WPD (FT H2O)	PRE-FILTER EFF MERV	PRE-FILTER FACE VEL (FPM)	PRE-FILTER FINAL PD (IN H2O)	FINAL FILTER EFF MERV	FINAL FILTER FACE VEL (FPM)	FINAL FILTER FINAL PD (IN H2O)	ELECTRICAL VOLTS	ELECTRICAL PH	ELECTRICAL FLA	ELECTRICAL MCA	ELECTRICAL MOCP	SMOKE DETECTOR (Y/N)	CONTROLS REF	APPROX DIMENSIONS (LxWxH)	MAX WT (LBS)	COMMENTS
AHU-9	ATTIC	CAFE	CARRIER	39MN SIZE 06W	2900	2900	3.82	1.5	FC BELT DRIVE	1	3.3	5	1879	Y	125.5	124.7	6	11	13.55	44	63	99	69	57	54	492	0.59	4.30	138.4	2	8	13.80	180	150	24	83	491.5	0.23	0.21	8	420	.57	13	420	.87	208	3	14.0	17.5	30	Y	1/M6.01.2	108" x 46" x 37"	1614	1 THRU 12

NOTES:
1. 2" PLEATED MERV 8 FILTER.
2. 4" PLEATED MERV 13 FILTER.
3. SPRING FAN ISOLATION.
4. 6" BASE RAIL.
5. BELT DRIVE VFD FAN.
6. SMOKE DETECTROR BY DIVISION 28. SHOT DOWN UNIT ON DETACTION OF SMOKE.
7. PROVIDE UNIT IN MODULES TO FACILITATE RIGGING TO PLACE OF INSTALLATION.
8. CONTROL PLENUM WITH UNIT CONTROLLER.
9. SUPPLY AIR TEMPERATURE SENSOR (AI).
10. LOW TEMPERATURE SENSOR (DI).
11. SUPPLY FAN STATUS (DI).
12. MIXING BOX DAMPER AND ACTUATOR.

AIR HANDLING UNIT SCHEDULE (LIBRARY)

SYMBOL	AREA SERVED	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	SUPPLY FAN TOTAL CFM	SUPPLY FAN MIN OSA CFM	SUPPLY FAN TSP (IN H20)	SUPPLY FAN ESP (IN H2O)	SUPPLY FAN FAN TYPE	SUPPLY FAN # OF FANS	SUPPLY FAN BHP	SUPPLY FAN HP	SUPPLY FAN FRPM	SUPPLY FAN VFD (Y/N)	CHILLED WATER COOLING COIL TOTAL CAP (MBH)	CHILLED WATER COOLING COIL SENS CAP (MBH)	CHILLED WATER COOLING COIL # ROWS	CHILLED WATER COOLING COIL FPI	CHILLED WATER COOLING COIL WATER FLOW GPM	CHILLED WATER COOLING COIL EWT (°F)	CHILLED WATER COOLING COIL LWT (°F)	CHILLED WATER COOLING COIL EDB (°F)	CHILLED WATER COOLING COIL EWB (°F)	CHILLED WATER COOLING COIL LDB (°F)	CHILLED WATER COOLING COIL LWB (°F)	CHILLED WATER COOLING COIL FACE VELOCITY (FPM)	CHILLED WATER COOLING COIL APD (IN H2O)	CHILLED WATER COOLING COIL WPD (FT H2O)	PRE-FILTER EFF MERV	PRE-FILTER FACE VEL (FPM)	PRE-FILTER FINAL PD (IN H2O)	FINAL FILTER EFF MERV	FINAL FILTER FACE VEL (FPM)	FINAL FILTER FINAL PD (IN H2O)	ELECTRICAL VOLTS	ELECTRICAL PH	ELECTRICAL FLA	ELECTRICAL MCA	ELECTRICAL MOCP	SMOKE DETECTOR (Y/N)	CONTROLS REF	APPROX DIMENSIONS (LxWxH)	MAX WT (LBS)	COMMENTS
AHU-8	LIBRARY	CARRIER	39MN SIZE 17W	8100	2700	5.97	3.6	DIRECT DRIVE	1	11.5	15	2184	Y	250.7	250.0	8	11	18.40	44	71.3	85	64	56	52.97	478.4	0.77	2.10	8	486	.59	13	486	.90	208	3	37.4	46.8	80	Y	1/M6.01.2	9'-4"x6'-7"x4'-2"	2532	1 THRU 15

NOTES:
1. DIRECT DRIVE VFD FAN.
2. SPRING FAN ISOLATION.
3. SUPPLY FAN START/STOP VFD (AO/DO).
4. SUPPLY FAN STATUS (DI).
5. SUPPLY AIR TEMPERATURE SENSOR.
6. SMOKE DETECTOR BY DIVISION 28. SHOT DWON UNIT ON DETECTION OF SMOKE.
7. 6" BASE RAIL.
8. MIXING BOX DAMPER'S ACTUATORS (AO).
9. MIXED AIR TEMPERATURE SENSOR (AI).
10. PROVIDE UNIT IN MODULES TO FACILITATE RIGGGING TO PLACE OF INSTALLATION.
11. LOW TEMPERATURE THERMOSTAT.
12. 2" PLEATED MERV 8 FILTER.
13. 4" PLEATED MERV 13 FILTER.
14. SPRING FAN ISOLATION.
15. UNIT CONTROLLER BY CONTROLS CONTRACTOR.

EXISTING AIR HANDLING UNIT SCHEDULE (LEARNING COMMONS) - FOR REFERENCE ONLY

SYMBOL	AREA SERVED	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	FAN DATA CFM	FAN DATA SA TOTAL S.P. IN. WC.	FAN DATA RA TOTAL S.P. IN. WC.	MOTOR DATA HP SUPPLY	MOTOR DATA HP RETURN	MOTOR DATA VOLT	MOTOR DATA PHASE	COOLING COIL DATA CFM	COOLING COIL DATA EDB (°F)	COOLING COIL DATA EWB (°F)	COOLING COIL DATA LDB (°F)	COOLING COIL DATA LWB (°F)	COOLING COIL DATA EWT (°F)	COOLING COIL DATA LWT (°F)	COOLING COIL DATA GPM AVAILABLE	COOLING COIL DATA MIN. FACE AREA SF	COOLING COIL DATA MIN. ROWS	COOLING COIL DATA MAX. AIR P.D IN. W.C.	COOLING COIL DATA MAX. WATER P.D FT. W.C.	HEATING COIL DATA CFM	HEATING COIL DATA EDB (°F)	HEATING COIL DATA LDB (°F)	HEATING COIL DATA EWT (°F)	HEATING COIL DATA LWT (°F)	HEATING COIL DATA GPM AVAILABLE	HEATING COIL DATA MIN. FACE AREA SF	HEATING COIL DATA MIN. ROWS	HEATING COIL DATA MAX. AIR P.D IN. W.C.	HEATING COIL DATA MAX. WATER P.D FT. W.C.	FILTERS AREA SF	FILTERS FILTER SECTION TYPE	MIN OSA	APPROX. DIMS (LxWxH)	MAX WT LBS	NOTES
(E)AHU-6	LEARNING COMMONS	ENERGY LABS	CUSTOM	12,150	4.25	1.5	15	5	460	3	12,150	80.7	64.15	52	51	43	56	68	27	6	0.7	8	12,150	50	60	180	140	XXX	27	1	0.15	8	27	PRE-FILTER	2,300	268"x78"x66"	9,200	

NOTES:

LOUVER SCHEDULE

SYMBOL	QTY	AREA SERVED	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	TYPE	AIR FLOW (CFM) EACH	MAX APD (IN H2O)	MIN FREE AREA (SQ FT)	FRAME SIZE WIDTH (IN)	FRAME SIZE HEIGHT (IN)	NOTES
PRL-1	4	LIGHT WELLS	GREENHECK	EACC-601	PRESSURE RELIEF COMBINATION LOVER	2,000	0.10	5.24	41	48	1,2,3,4,5
OAL-1	1	AHU-8 MECH. RM.	GREENHECK	EHH-601	OUTSIDE INTAKE WIND DRIVEN RAIN	8,000	0.10	11.55	62	56	2,3,5

NOTES:
1. COMBINATION LOUVER/DAMPER CONCEALED 24V ACTUATOR WITHIN THE LOUVER SILL
2. BIRD SCREEN
3. MILL FINISH, COORDINATE OPTIONAL FINISH WITH ARCHITECT
4. MODULATING ACTUATOR PER CONTROLS.
5. 6" FRAME

FAN COIL SCHEDULE (DX) - LIBRARY

SYMBOL	SERVING	MFR	BASIS OF DESIGN MODEL	NOM TONS	RELATED CU	AIR FLOW (CFM)	SEER	DX COOLING COIL TOTAL CAP (MBH)	DX COOLING COIL EDB (°F)	DX COOLING COIL EWB (°F)	DX COOLING COIL LDB (°F)	DX COOLING COIL LWB (°F)	ELECTRICAL VOLTS	ELECTRICAL PH	MAX WT (LBS)	COMMENTS
FC-1	TECH	MITSUBISHI	PKA-A30KA7	2.5	CU-1	775	19.80	30.0	80	67	55	54	208	1	50	1,2,3,4,5,6
FC-2	ELECTRICAL ROOM 103A	MITSUBISHI	PKA-A12HA7	1.0	CU-2	425	20.8	12.0	80	67	55	54	208	1	40	1,2,3,4,5,6

NOTES:
1. INDOOR UNIT POWERED BY SINGLE POINT ELECTRICAL CONNECTION FROM THE CONDENSING UNIT. PROVIDE CONTROL WIRING IN CONDUIT BETRWEEN THE INDOOR UNIT AND OUTDOOR UNIT. ELECTRICAL DATA SHOWN IS FOR REFERENCE ONLY.
2. COORDINATE REFRIGERENT PIPING AND CONDENSATE DRAIN WITH OTHER TRADES.
3. PROVIDE UNIT WITH REFREFERENT R-410A.
4. DRAIN PAN LEVEL SENSOR (SHUT OFF UNIT TO PREVENT OVERFLOW).
5. BACNET INTERFACE.
6. PROVIDE GOBI II CONDENSATE PUMP, 110V. 10 AMPS.

ELECTRICAL DATA SHOWN IS FOR REFERENCE ONLY.

SOUND ATTENUATOR SCHEDULE

SYMBOL	SERVING	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	CFM	LENGTH	FACE SIZE (W x H)	SILENCER PRESSURE DROP (IN WG)	VELOCITY	MIN DYNAMIC INSERTION LOSS (DB) OCTAVE BAND MID-FREQUENCY HZ 63	125	250	500	1K	2K	4K	8K	MAX WT (LBS)	COMMENTS
S-1	SUPPLY AIR	IAC	ULS1	8100	3'-0"	24"x36"	0.53	1350 FPM	5	13	20	23	22	18	14	13	0	
S-2	RETURN AIR	IAC	ULS1	5400	3'-0"	20"x60"	0.12	648 FPM	5	13	20	23	22	18	14	13	0	

TERMINAL UNIT SCHEDULE

SYMBOL	AREA SERVED	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	INLET SIZE (IN)	DESIGN AIRFLOW MAX CFM	DESIGN AIRFLOW MIN CFM	MIN OA CFM AREA	MIN OA CFM PEOPLE	MIN. INLET SP (IN H2O)	NC	HOT WATER HEATING COIL MAX HTG CFM	HOT WATER HEATING COIL MIN CAP (MBH)	HOT WATER HEATING COIL # ROWS	HOT WATER HEATING COIL WATER FLOW (GPM)	HOT WATER HEATING COIL EAT (°F)	HOT WATER HEATING COIL LAT (°F)	HOT WATER HEATING COIL EWT (°F)	HOT WATER HEATING COIL LWT (°F)	VALVE TYPE	Cv	VALVE SIZE	MIN BRANCH PIPE SIZE	NOTES
(E)CAV 6-6	CAFE	TITUS	DESV	9	900	0	0	0	0.17	22	900	13.9	2	2.40	55	90.0	180	168.1		1.2	1/2"	3/4"	1, 2, 3, 4, 5, 6
VAV-1	LIBRARY	TITUS	DESV	10	530	AUTO	40	180	0.06	22	265	10.2	2	0.90	55	90.6	180	157.1	2-WAY	.45	1/2"	3/4"	1, 2, 3, 4, 5, 6
VAV-2	LIBRARY	TITUS	DESV	10	740	AUTO	60	115	0.07	22	300	11.4	2	1.10	55	90.0	180	159.5	2-WAY	.55	1/2"	3/4"	1, 2, 3, 4, 5, 6
VAV-3	LIBRARY	TITUS	DESV	12	975	AUTO	75	145	0.09	20	490	18.6	2	2.50	55	90.0	180	164.6	2-WAY	1.25	1/2"	3/4"	1, 2, 3, 4, 5, 6
VAV-4	LIBRARY	TITUS	DESV	04	140	AUTO	20	30	0.04	16	70	3.0	2	0.60	55	95.0	180	170.0	2-WAY	.3	1/2"	3/4"	1, 2, 3, 4, 5, 6
VAV-5	LIBRARY	TITUS	DESV-8	08	350	AUTO	0	0	0.01	17	0	0.0	0	0.00	0	0.0	0	0.0		0	1/2"	3/4"	1, 2, 3, 4, 5, 6
VAV-6	LIBRARY	TITUS	DESV	12	1060	AUTO	84	420	0.11	22	530	20.1	2	3.70	55	90.0	180	168.9	2-WAY	1.85	1/2"	3/4"	1, 2, 3, 4, 5, 6
VAV-7	LIBRARY	TITUS	DESV	10	765	AUTO	77	300	0.01	23	385	14.6	2	3.20	55	90.0	180	170.6	2-WAY	1.6	1/2"	3/4"	1, 2, 3, 4, 5, 6
VAV-8	LIBRARY	TITUS	DESV	08	390	AUTO	84	75	0.07	18	195	7.5	2	0.60	55	90.4	180	154.8	2-WAY	.3	1/2"	3/4"	1, 2, 3, 4, 5, 6
VAV-9	LIBRARY	TITUS	DESV	12	1175	AUTO	165	330	0.01	23	330	13.3	2	1.00	55	90.0	180	152.1	2-WAY	2.35	1/2"	3/4"	1, 2, 3, 4, 5, 6
VAV-10	LIBRARY	TITUS	DESV	08	420	AUTO	36	75	0.05	15	160	6.9	2	0.60	55	94.5	180	157.0	2-WAY	.3	1/2"	3/4"	1, 2, 3, 4, 5, 6
VAV-11	LIBRARY	TITUS	DESV	06	260	AUTO	40	120	0.01	17	130	5.5	2	0.60	55	93.7	180	161.7	2-WAY	0.3	1/2"	3/4"	1, 2, 3, 4, 5, 6
VAV-12	LIBRARY	TITUS	DESV	10	580	AUTO	56	280	0.07	22	290	11.0	2	1.00	55	90.0	180	158.2	2-WAY	.5	1/2"	3/4"	1, 2, 3, 4, 5, 6
VAV-13	LIBRARY	TITUS	DESV	10	745	AUTO	112	300	0.01	23	375	14.2	2	2.70	55	90.0	180	169.3	2-WAY	1.35	1/2"	3/4"	1, 2, 3, 4, 5, 6
VAV-14	LIBRARY	TITUS	DESV	06	250	AUTO	31	120	0.01	17	125	5.4	2	0.60	55	94.5	180	162.0	3-WAY	0.3	1/2"	3/4"	1, 2, 3, 4, 5, 6

NOTES:
1. ALL BOXES SHALL BE PRESSURE INDEPENDENT AND COMPLETE WITH CENTER AVERAGING AIRFLOW SENSOR.
2. ALL TERMINAL BOXES SHALL HAVE A MINIMUM 1" INSULATION CONFORMING TO UL181 AND NFPA90A.
3. 24 DDV CONTROL WIRING BY CONTROLS CONTRACTOR.
4. SEE SHEETS M5.01.2 , M5.02.2 & M5.03.2 FOR INSTALLATION, HANGING AND SEISMIC BRACE DETAILS.
5. SEE SHEET M6.02.2 FOR CONTROLS DIAGRAM.
6. SEE SHEET M5.01.2 FOR PIPING DIAGRAM.

DIFFUSER, REGISTER AND GRILLE SCHEDULE

SYMBOL	TYPE	FACE	FRAME	DAMPER	FINISH	BASIS OF DESIGN	REMARKS
CD-1	CEILING DIFFUSER	PERFORATED	LAY-IN	NONE	SEE NOTE 5	TITUS PCS	1, 2, 5
CRG-1	CEILING RETURN GRILLE	PERFORATED	LAY-IN	NONE	SEE NOTE 5	TITUS PAR	1, 2, 5
CEG-1	CEILING EXHAUST GRILLE	PERFORATED	LAY-IN	NONE	SEE NOTE 5	TITUS PAR	1, 2, 5
RG-1	SIDEWALL RETURN GRILLE	LOUVERED	SURFACE	NONE	SEE NOTE 5	TITUS 350RL	1, 3, 5
SG-1	SIDEWALL SUPPLY GRILLE	LOUVERED	SURFACE	NONE	SEE NOTE 5	TITUS 300RL	1 ,3, 5
LS-1	FLOWBAR	1" SLOT WIDTH	TYPE 11	NONE	SEE NOTE 5	TITUS FT-20	1, 4, 5
LS-2	FLOWBAR	1-1/2" SLOT WIDTH	TYPE 11	NONE	SEE NOTE 5	TITUS FT-20	1, 4, 5

NOTES:
1. COORDINATE EXACT LOCATION WITH LIGHTS, SPRINKLER HEADS, AND ARCH. RCP.
2. USE BORDER TYPE 1 FOR SURFACE MOUNTED DIFFUSER/GRILLE USE BORDER TYPE 3 FOR LAY-1 TYPE DIFFUSER GRILLE.
3. COORDINATE WITH WALL ELEVATIONS.
4. INSULATED.
5. COORDINATE FINISH WITH ARCHITECT.

RFI #208 - HWP-1 OPERATION CONTROL IS THE SAME AS THE CHILLED WATER BUILDING PUMP CONTROL. THERE ARE NO PARALLEL PUMPS SO THESE PORTIONS OF THE SEQUENCE OF OPERATION CAN BE OMITTED FROM THE FINAL SEQUENCE OF OPERATION OF THE PUMPS. OF THE BUILDING PUMP SECTION, NUMBERS 1, 3.B., AND 4 RELATE TO PARALLEL PUMP OPERATION AND ARE NOT APPLICABLE.

CONDENSING UNIT SCHEDULE - LIBRARY

SYMBOL	AREA SERVED	BASIS OF DESIGN MFG	BASIS OF DESIGN MODEL	RELATED D FAN	AIR SOURCE HEAT PUMP CONDENSER NOM TONS	AIR SOURCE HEAT PUMP CONDENSER COMPRESSOR TYPE	COOLING CAP (MBH)	COOLING AMBIENT DB (°F)	COOLING SEER/EER	ELECTRICAL VOLTS	ELECTRICAL PH	ELECTRICAL MCA	ELECTRICAL MOCP	APPROX DIMS (LxWxH)	MAX WT (LBS)	COMMENTS
CU-1	TECH	MITSUBISHI	PUY-A30NHA7(-BS)	FC-1	2.5	INVERTOR	30.0	99	19.8/9.50	208	1	19.0	26	38"x14"x38"	160	1
CU-2	SECURITY	MITSUBISHI	PUY-A12NKA7(-BS)	FC-2	1.0	INVERTOR	12.0	99	20.8/12.0	208	1	11.0	28	32"x12"x25"	150	1

NOTES:
1. PROVIDE OUTDOOR UNIT STAND.

PUMP SCHEDULE

SYMBOL	LOCATION	SERVING	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	PUMP TYPE	RPM	EFFICIENCY %	FLOW RATE (GPM)	HEAD (FT. H2O)	ELECTRICAL VOLTS	ELECTRICAL PH	ELECTRICAL kW	ELECTRICAL MHP	ELECTRICAL MCA	MAX WT (LBS)	NOTES
CHWP-1	MECH ROOM	LIBRARY	GRUNDFOS	MAGNA3 D 40-80 F	CIRCULATOR	3166	50.2	26	14	208	1	0.274	0.367	1.36	40	1 - 5
HWP-1	MECH ROOM	LIBRARY	GRUNDFOS	MAGNA3 D 40-80 F	CIRCULATOR	3716	45.9	23	20	208	1	0.1859	0.25	1.36	40	1 - 5

NOTES:
1 X4D MOTOR ENCLOSURE CLASS
2 CONTROLLER INTEGRATEDE IN THE CONTROL BOX
3 BUILT-IN DIFFERENTIAL-PRESSURE AND TEMPERATURE SENSOR
4 INTEGRATED FREQUENCY CONVERTER SPEED CONTROLLER
5 BACnet MS/TP COMUNICATION

FAN SCHEDULE

SYMBOL	LOCATION	AREA SERVED	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	TYPE	DRIVE	AIR FLOW (CFM)	ESP (IN H20)	MAX RPM	SOUNDS SONES	ELECTRICAL VOLTS	ELECTRICAL PH	BHP	ELECTRICAL MHP	MAX WT (LBS)	COMMENTS
EF-1	CAFE	TYPE I HOOD	GREENHECK	CSW-20-BI-21	CENTRIFUGAL UTILITY	BELT	3300	2.0	1915	19	208	3	2.01	3	450	1, 2, 4, 5, 6
EF-2	CAFE	TYPE II HOOD	GREENHECK	CUE-099-VG	CENTRIFUGAL WALL MOUNTED	DIRECT	700	1.0	1682	10.2	115	1	0.22	0.33	80	1, 3, 7, 8

NOTES:
1. PROVIDE BACKDRAFT DAMPER.
2. UL-762 LISTED.
3. VARI-GREEN EC MOTOR WITH 0-10 VDC INPUT.
4. GREASE TRAP WITH DRAIN CONNECTION.
5. FREE STANDING SPRING ISOLATOR WITH SEISMIC RESTRAINT. ELECTRICAL DATA SHOWN IS FOR REFERENCE ONLY.
6. MOTOR VFD RATED WITH SHAFT GROUNDING.
7. UL-705 LISTED.
8. ROOF CURB FOR WALL-MOUNTED APPLICATION, SEE 10/M5.01.2

EXISTING TERMINAL UNIT SCHEDULE (BOOK STORE AND LEARNING COMMONS)

SYMBOL	AREA SERVED	BASIS OF DESIGN MFR	BASIS OF DESIGN MODEL	INLET SIZE (IN)	COOLING AIR FLOW MAX CFM	COOLING AIR FLOW MIN CFM	MIN. INLET SP (IN H2O)	HOT WATER HEATING COIL MAX HTG CFM	HOT WATER HEATING COIL MIN CAP (MBH)	HOT WATER HEATING COIL # ROWS	HOT WATER HEATING COIL WATER FLOW (GPM)	HOT WATER HEATING COIL EAT(°F)	HOT WATER HEATING COIL LAT(°F)	HOT WATER HEATING COIL EWT(°F)	HOT WATER HEATING COIL LWT(°F)	VALVE TYPE	Cv	VALVE SIZE	MIN BRANCH PIPE SIZE	NOTES
(E)VAV 6-3	LEARNING COMMONS	TITUS	DESV	14	2000	400	0.40	1000	69.7	1	2.40	55	98.0	180	140.0	2-WAY	1.9	1/2"	3/4"	
(E)VAV 6-4	LEARNING COMMONS	TITUS	DESV	24	3800	760	0.40	1900	139.3	2	5.00	55	98.0	180	140.0	2-WAY	4.7	1/2"	3/4"	
(E)VAV 6-5	LEARNING COMMONS	TITUS	DESV	24	4200	840	0.40	2100	139.3	2	5.00	55	98.0	180	140.0	2-WAY	4.7	1/2"	3/4"	
(E)VAV 6-10	OFFICE 103	TITUS	DESV	6	400	80	0.40	200	9.3	1	0.50	55	98.0	180	140.0	2-WAY	0.8	1/2"	3/4"	

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

INCREMENT 2

ISSUE DATE **08/22/2023**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

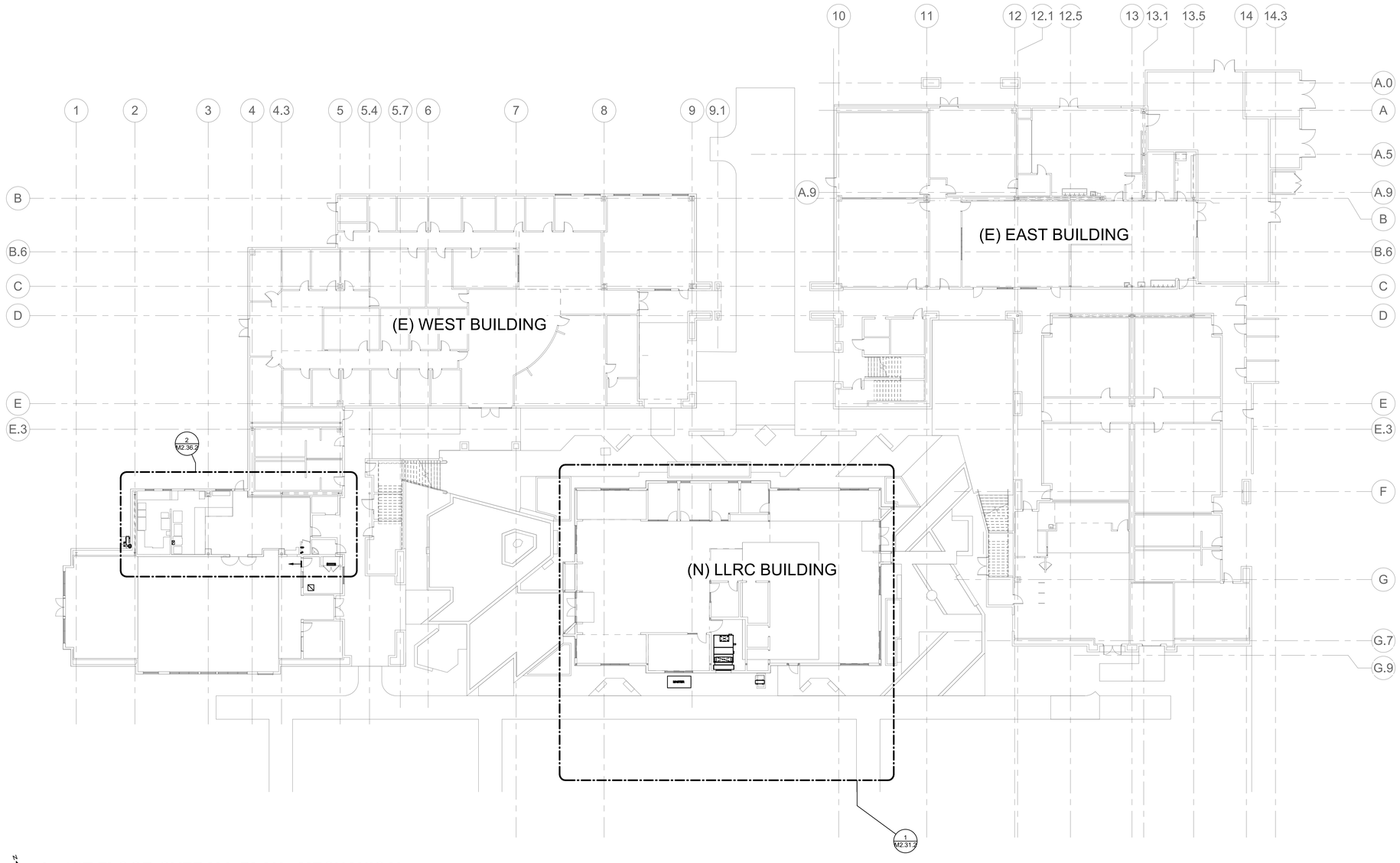
NO.	DATE	DESCRIPTION

SHEET TITLE

SCHEDULES - MECHANICAL

SHEET NUMBER

M0.06.2



1 1ST FLOOR OVERALL PLAN - MECHANICAL

0' 4' 8' 16'

1/16" = 1'-0"

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

1ST FLOOR OVERALL PLAN - MECHANICAL

SHEET NUMBER

M2.30A.2

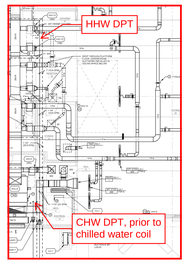
SHEET KEYNOTES

1. 6.04 SQ. FT. NET FREE AREA, OUTSIDE AIR INTAKE.
2. PROVIDE CONCEALED DAMPER HARDWARE PER SPECS, TYPICAL.
3. MOUNT THERMOSTATS AND SENSORS LOCATED ON EXTERIOR WALLS ON A INSULATED BASE.
4. OVAL CONNECTION TO SLOT DIFFUSER PLENUM.
5. INSTALL DUCTWORK AS HIGH AS PRACTICALLY NEAR THE ROOF. COORDINATE LOCATION OF VAV BOXES AND DOWNSTREAM DUCTWORK ROUTING WITH STRUCTURAL TRUSS MEMBERS.
6. RETURN GRILLES LOCATED BELOW CEILING LEVEL, TYP.
7. REFER TO PLUMBING DRAWINGS FOR AHU CONDENSATE DRAIN CONNECTION.
8. MOUNT AND ANCHOR 6" (H) UNIT BASE RAIL TO CONCRETE FLOOR USING MASON NEOPRENE WAFFLE PADS SUPER WM PER MASON INDUSTRIES APPROVED DETAIL.
9. PROVIDE CHW & HW BTU METERS WITH INTERFACE TO BUILDING AUTOMATION SYSTEM. INSTALL PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
10. CONTROLS PANEL LOCATION. COORDINATE WITH ELECTRICAL.
11. PROVIDE 1-1/2" CHWS/R PIPING TO SERVE AHU-8 COILS. COORDINATE CONNECTION SIZES TO UNIT.
12. PROVIDE CONICAL TAP TO VAV CONNECTION TO MAIN DUCT, TYPICAL ALL BOXES
13. PROVIDE ADEQUATE STAIGHT DUCT TO INSTALL OA MEASURING STATION PER CONTROLS WITH A SMOOTH TRANSITION TO MEET LOUVER SIZE.
14. PROVIDE POLY-YHERM GOLD FIBERGLASS JACKETED POYURETHENE INSULATED PIPING SYSTEM WITH MULTILAYER CORROSION PROTECTION.
15. COORDINATE LOCATION OF DIFFUSERS WITH ARCHITECTURAL RCP.

RFI # 69 - CONCEALED DAMPER
LOCATE YOUNGS REGULATOR DEVICE WITHIN LINEAR DIFFUSER - YOUNG REGULATOR 270-275 WITH 5020CC DAMPER CONTROL

RFI #206 - DIV 25 SPEC REQUIRES BTU METERS TO UTILIZED FM-2 TYPE FLOW METERS. PROVIDE MODEL F-3500 PER 250000-2.9-G AND 250000-2.9.N-2.

RFI #207- PROPOSED LOCATION OF CHW & HWW DPT'S



RFI #173- ISOLATION VALVE.
REMOVAL OF ISOLATION VALVE IN VAULT AND KEEP BLDG ISOLATION VALVE

RFI #105- FINISHES IN ACT AND GYP ARE WHILE THOSE AT WOOD GRILLE ARE BLACK. FINISHES FOR WALL REGISTERS ARE WHITE

CD-1: white
CRG-1: white
CEG-1: white
RG-1: white
SG-1: white
LS-1: black
LS-2: black

DIFFUSER/GRILLES		
SUPPLY DIFFUSER		
TAG	NECK SIZE	CFM RANGE
CD-1	6"Ø	0-120
CD-1	8"Ø	121-210
CD-1	10"Ø	211-330
CD-1	12"Ø	331-400
CD-1	14"Ø	401-550
RETURN GRILLES		
TAG	NECK SIZE	CFM RANGE
CRG-1	8"Ø	0-210
CRG-1	10"Ø	211-370
CRG-1	12"Ø	375-600
EXHAUST GRILLES		
TAG	NECK SIZE	CFM RANGE
CEG-1	8"Ø	0-210
CEG-1	10"Ø	211-370
CEG-1	12"Ø	375-600

NOTE:
1. SEE DIFFUSER, REGISTER AND GRILLE SCHEDULE
2. ALL DIFFUSERS , REGISTERS AND GRILLES TO BE TYPE CD-1, CRG-1 AND CEG-1 UNLESS NOTED OTHERWISE.
3. ALL BRANCH DUCTWORK TO DIFFUSERS , REGISTERS AND GRILLES TO BE SAME SIZE SIZE AS NECK SIZE UNLESS OTHERWISE NOTED.

RFI #127 - ACOUSTICAL FLEX BETWEEN TBAR LAY-IN RETURN GRILLE AND RETURN GRILLE IN WALL (7) LOCATIONS- FLEXIBLE DUCT TO BE 10" DIA. FULL RADIUS ELBOW

RFI #167 - MECH SUB SAYS EXISTING UNDERGROUND PIPING IDENTIFICATION IS REVERSED. NEED FACILITIES TO CONFIRM.

RFI # 142 - LOCATE HYDRONIC VAULT OUTSIDE OF FIRE LANE NEAR BUILIDNG

1 FLOOR PLAN - LIBRARY LEARNING RESOURCE CENTER - MECHANICAL

1/4" = 1'-0"

APPROVALS

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ISSUE TITLE

INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

LIBRARY LEARNING RESOURCE CENTER FLOOR PLAN - MECHANICAL

SHEET NUMBER

M2.31.2

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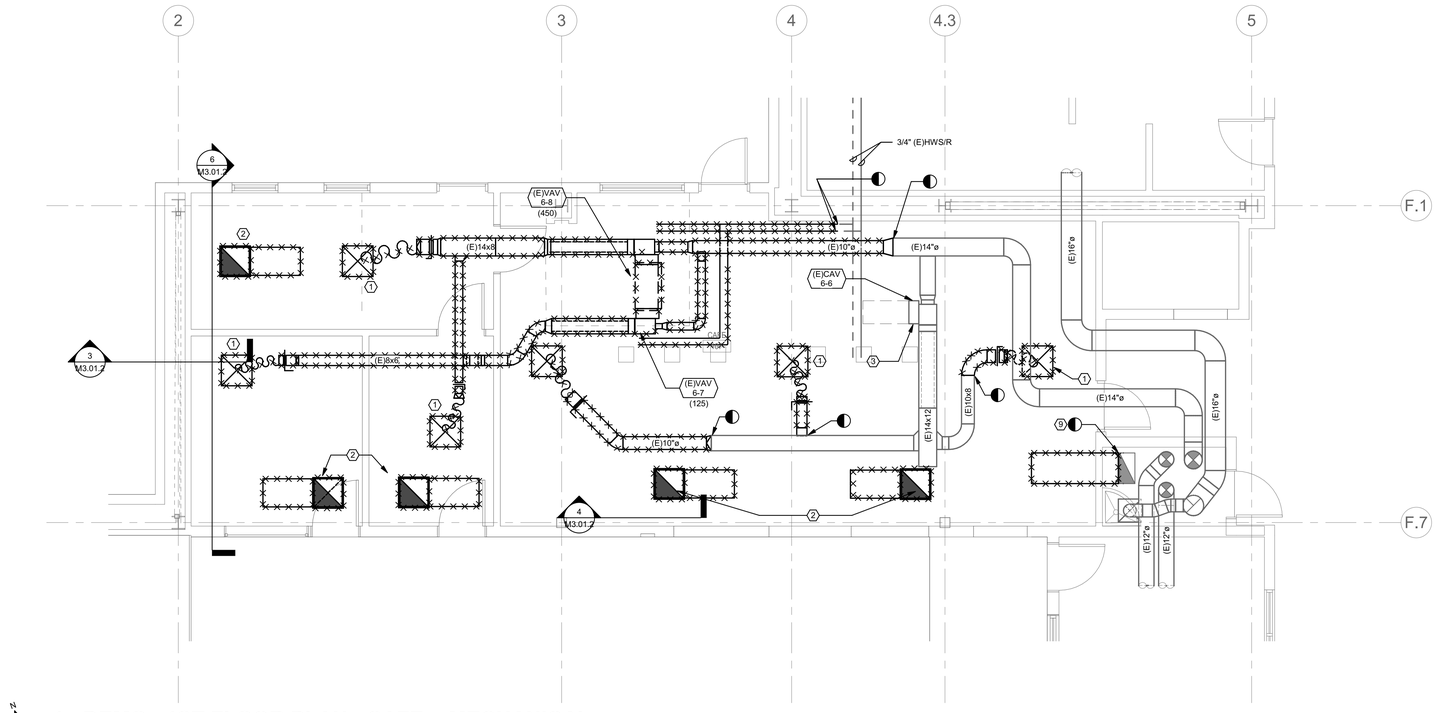
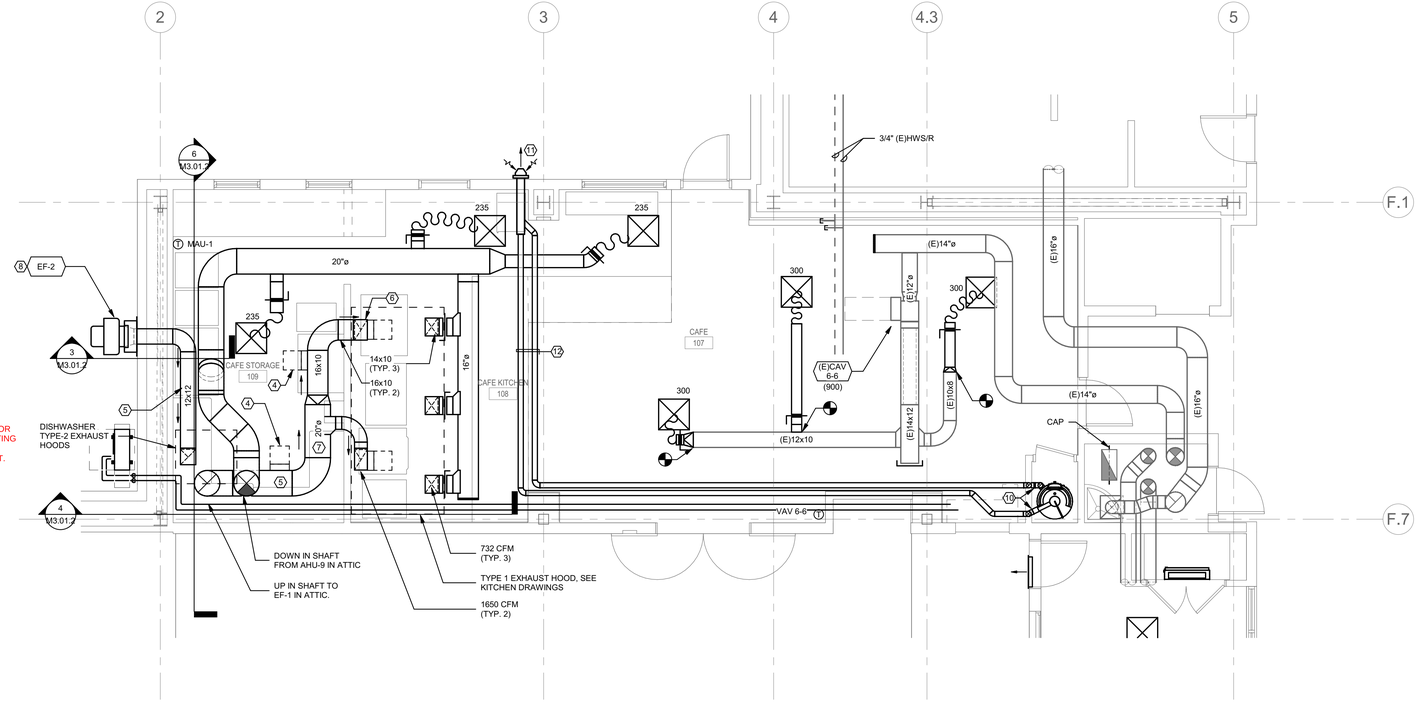


1 DEMO - 1ST FLOOR PLAN - CAFE - MECHANICAL

0' 4' 8' 16'

1/4" = 1'-0"



RFI #205 - PROVIDE ACCESS DOOR IN DUCT FOR ACCESS AND TESTING OF FIRE/SMOKE DAMPER ON SECOND FLOOR OF DUCT SHAFT. 24X24 RATED ACCESS DOOR IN RATED SHAFT.

2 NEW - 1ST FLOOR PLAN - CAFE - MECHANICAL

0' 2' 4' 8'

1/4" = 1'-0"

SHEET KEYNOTES

1. REMOVE SA REGISTER, ASSOCIATED DUCTWORK AND VAV BOX.
2. DEMO (E) RA GRILLE AND BOOT.
3. (E)VAV BOX TO REMAIN.
4. PROVIDE 18"x18" FOR ROUND DUCT OR 10"x10" FOR SQUARE DUCT ACCESS PANEL FOR GREASE DUCT MAINTENANCE. ACCESS PANELS SHALL BE OF THE SAME MATERIAL AND THICKNESS AS THE DUCT AND SHALL HAVE A GASKET RATED FOR 1500 F AND SHALL BE GREASETIGHT. FASTENERS HINGES AND LATCHES SHALL BE OF THE SAME MATERIAL. TYPICAL ALL LOCATIONS SHOWN AND WHERE REQUIRED BY CODE. PROVIDE ACCESS PANEL WITHIN 3 FEET OF EXHAUST FAN AND AT CHANGES OF DIRECTION.
5. ALL EXHAUST DUCTWORK TO BE WELDED STAINLESS STEEL AND SLOPE BACK TOWARDS THE GRILLE AT 1% SLOPE.
6. KITCHEN GREASE EXHAUST DUCT TO HOOD COLLAR CONNECTIONS, SLOPED AT 2% TOWARDS THE HOODS.
7. TYPE 1 KITCHEN EXHAUST HOOD DUCT WITH 3M FIRE BARRIER DUCT WRAP 615+.
8. COORDINATE FAN LOCATION WITH (E) STRUCTURAL BRACING. INSTALL FAN PER MANUFACTURE'S INSTRUCTIONS.
9. DEMO (E) RETURN DUCT IN CEILING PLENUM BACK TO RISER IN MECHANICAL SHAFT. CAP RA DUCT AT BOTTOM OF RISER.
10. 4" IN WALL VENT (FLUE) AND AIR INTAKE (COMBUSTION) UP TO CEILING SPACE AND ROUTED HORIZONTALLY TO THE OUTSIDE.
11. 4" CONCENTRIC VENT TERMINATION KIT INSTALLED PER MANUFACTURERS INSTRUCTIONS. VENT HOOD MUST BE MOUNTED 1 FT. AWAY HRIZONTALLY FROM DOORS AND WINDOWS AND 9" MIN. ABOVE DOORS AND WINDOWS.
12. COORDINATE VENT PIPING INSTALLED ELEVATION WITH OTHER TRADES ABOVE CEILING. MAX. NUMBER OF ELBOWS AND PIPING LENGTH SHALL BE PER MANUFACTURERS REQUIREMENTS. REFER TO PLUMBING DRAWINGS FOR WATER HEATER SPECIFICATIONS.

DIFFUSER/GRILLES		
SUPPLY DIFFUSER		
TAG	NECK SIZE	CFM RANGE
CD-1	8"Ø	0-200
CD-1	10"Ø	201-310
CD-1	12"Ø	311-400
RETURN GRILLES		
TAG	NECK SIZE	CFM RANGE
CRG-1	8"Ø	0-210
CRG-1	10"Ø	211-370
CRG-1	12"Ø	375-600
EXHAUST GRILLES		
TAG	NECK SIZE	CFM RANGE
CEG-1	8"Ø	0-210
CEG-1	10"Ø	211-370
CEG-1	12"Ø	375-600

NOTE:

1. SEE DIFFUSER, REGISTER AND GRILLE SCHEDULE
2. ALL DIFFUSERS , REGISTERS AND GRILLES TO BE TYPE CD-1, CRG-1 AND CEG-1 UNLESS NOTED OTHERWISE.
3. ALL BRANCH DUCTWORK TO DIFFUSERS, REGISTERS AND GRILLES TO BE SAME SIZE AS NECK SIZE, UNLESS NOTED OTHERWISE.

APPROVALS

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PROJECT TITLE

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D-4002
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1690 Watermill Rd.
San Ramon, CA 94582

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

DEMO & NEW - 1ST FLOOR - WEST - CAFE - MECHANICAL

SHEET NUMBER

M2.36.2

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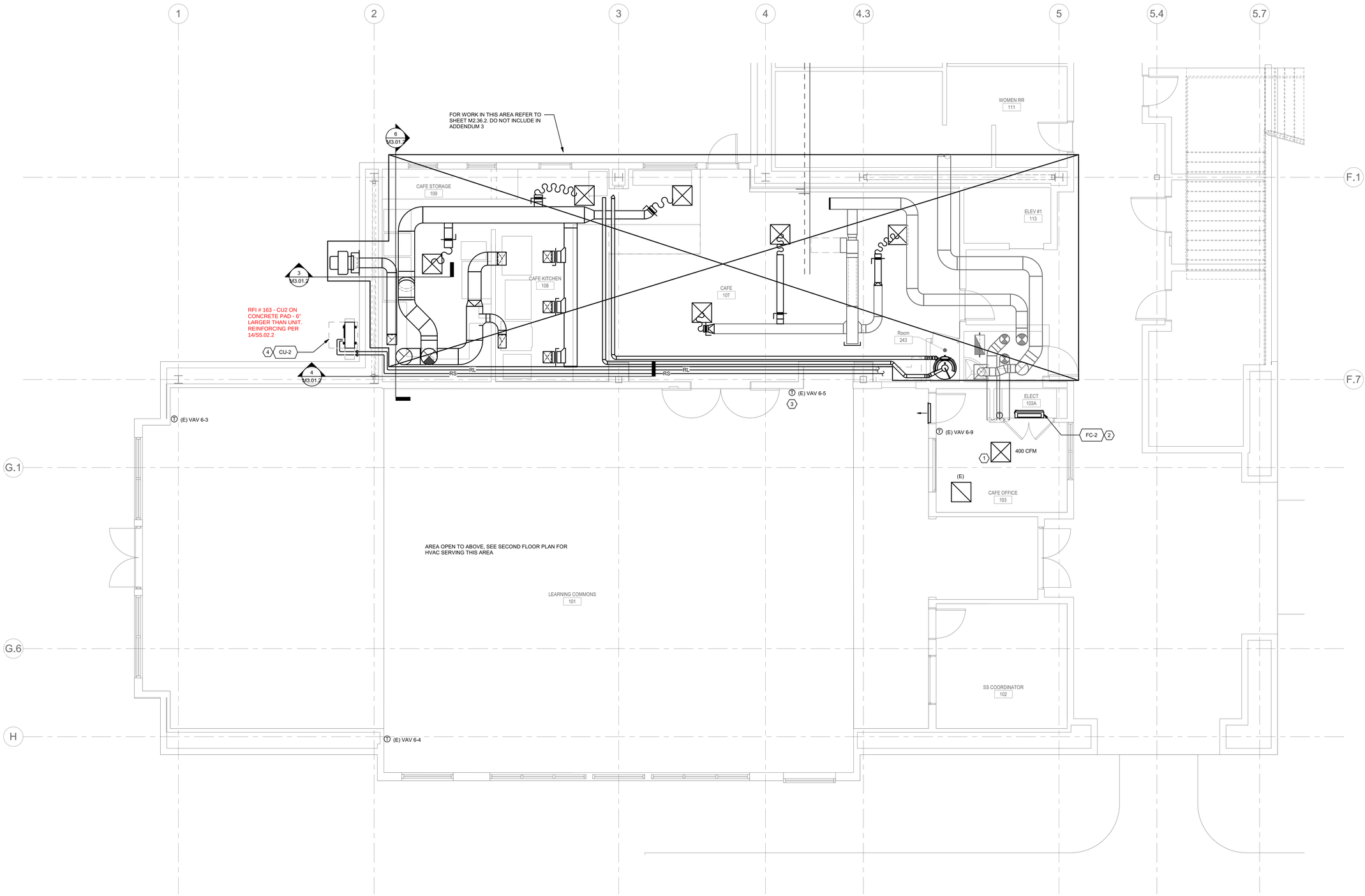
SHEET KEYNOTES

1. RELOCATE EXISTING DIFFUSER TO AVOID CONFLICT WITH NEW ELECTRICAL ROOM 103A. REBALANCE CFM AS REQUIRED.
2. ROUTE CONDENSATE DRAINAGE TO FLOOR SINK IN THE WATER HEATER ROOM 243.
3. RELOCATE THERMOSTAT.
4. PROVIDE REFRIGERANT PIPING, LIQUID/SUCTION. SIZE PIPES PER SPLIT SYSTEM MANUFACTURERS RECOMENDATIONS.



1 NEW - 1ST FLOOR PLAN - BOOKSTORE - MECHANICAL

0' 4' 8' 16'

1/4" = 1'-0"

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

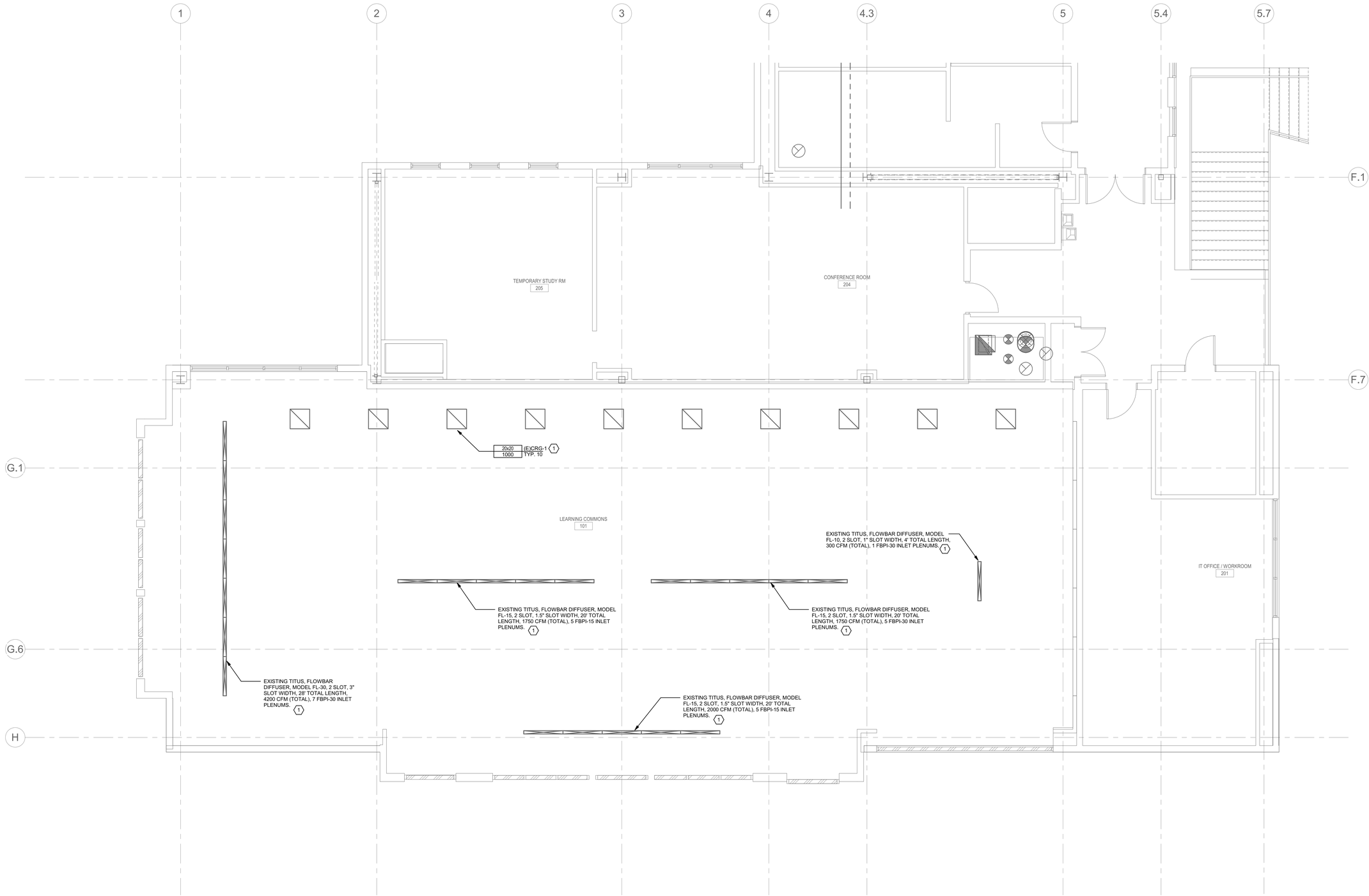
NEW - 1ST FLOOR - WEST - LEARNING COMMONS - MECHANICAL

SHEET NUMBER

M2.36A.2

SHEET KEYNOTES

1. EXISTING DIFFUSERS TO REMAIN.



1 NEW - 2ND FLOOR PLAN - A&P LAB - MECHANICAL

0' 4' 8' 16'

1/4" = 1'-0"

APPROVALS

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REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

NEW - 2ND FLOOR - WEST - LEARNING COMMONS - MECHANICAL

SHEET NUMBER

M2.37.2

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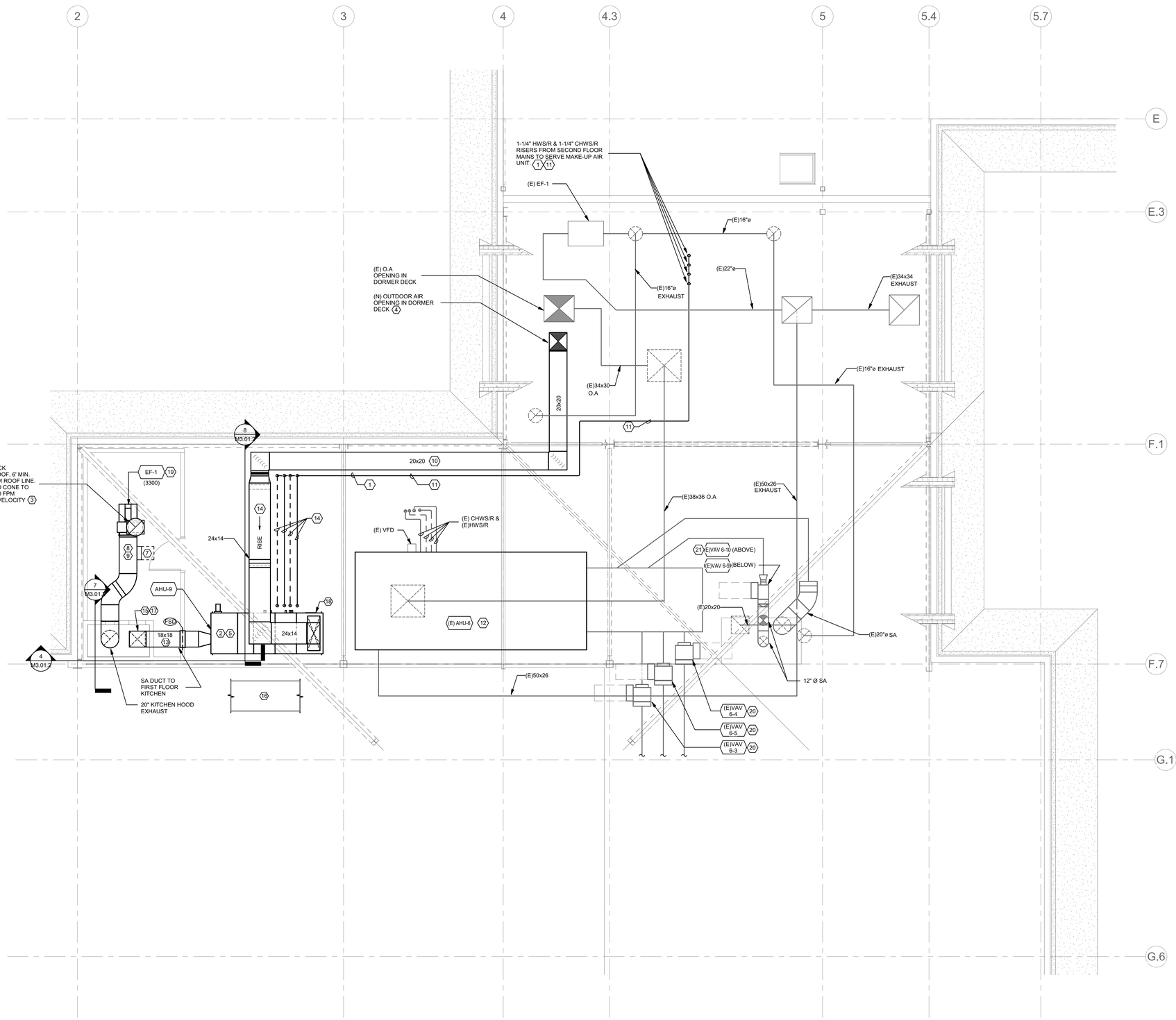

1 PARTIAL ATTIC PLAN PLAN - WEST- MECHANICAL

0' 2' 4' 8'

1/4" = 1'-0"

SHEET KEYNOTES

1. 1-1/4" CHWS/R AND 1-1/4" HWS/R FROM POINT OF CONNECTION IN 2ND FLOOR MEN'S RESTROOM CEILING SPACE. CORE THRU ATTIC FLOOR SLAB AND ROUTE TO (N) MAU STACKED AND SUPPORTED WITH STRUTS ANCHORED TO THE ATTIC FLOOR, REFER TO DETAIL ON M5.03.2.
2. REFER TO PLUMBING DRAWINGS FOR CONDENSATE DRAIN PIPING CONNECTION.
3. PROVIDE METAL FRAME AROUND STACK AT ROOF LEVEL FOR ROOF AND STACK SUPPORT. SEE 10/M5.01.2.
4. FRAME AROUND O.A. DUCT OPENING FOR SUPPORT OF METAL DECK AND DUCTWORK. REFER TO STRUCTURAL DRAWINGS.
5. 6" HEIGHT BASERAIL UNIT.
6. NOT USED.
7. PROVIDE 18"x18" FOR ROUND DUCT OR 10"x10" FOR SQUARE DUCT ACCESS PANEL FOR GREASE DUCT MAINTENANCE. ACCESS PANELS SHALL BE OF THE SAME MATERIAL AND THICKNESS AS THE DUCT AND SHALL HAVE A GASKET RATED FOR 1500 F AND SHALL BE GREASETIGHT. FASTENERS HINGES AND LATCHES SHALL BE OF THE SAME MATERIAL. TYPICAL ALL LOCATIONS SHOWN AND WHERE REQUIRED BY CODE. PROVIDE ACCESS PANEL WITHIN 3 FEET OF EXHAUST FAN AND AT CHANGES OF DIRECTION.
8. ALL EXHAUST DUCTWORK TO BE WELDED STAINLESS STEEL AND SLOPE BACK TOWARDS THE GRILLES AT 1% SLOPE.
9. TYPE 1 KITCHEN EXHAUST HOOD DUCT WITH 3M FIRE BARRIER DUCT WRAP 615+.
10. RELOCATE EXISTING FIRE PROTECTION PIPING TO ACCOMMODATE NEW OA DUCTWORK, REFER TO FP2.40.2.
11. STACKED HW AND CHW PIPING SUPPORTED ON UNISTRUT ANCHORED TO THE ATTIC FLOOR SLAB. REFER TO M5.03.2.
12. CONTRACTOR TO VERIFY LOCAITON OF ALL (E)EQUIPMENT AND COMPONENTS SHOWN.
13. PROVIDE FIRE SMOKE DAMPER THROUGH RATED WALL.
14. SLOPE UP O.A DUCTWORK, HW AND CHW PIPING FOLLOWING ROOF SLOPE AND SUPPORTED FROM ROOF STRUCTURE. REFER TO M5.03.2 FOR PIPING SUPPORT AND M5.01.2 FOR COIL PIPPING CONNECTION DETAILS.
15. PROVIDE TRANSITION TO 20" ROUND IN SHAFT.
16. IF REQUIRED, REMOVE AND RE-INSTALL SECTION OF (E) DUCTWORK ABOVE 1ST FLOOR CEILING TO CREATE TRAVEL PATH FOR INSTALLATION OF NEW AHU-9. RE-BALANCE CFM AIRFLOW IN DUCTWORK TO (E)CONDITION.
17. PROVIDE FSD AT BOTTOM OF RATED SHAFT, REFER TO 4/M3.01.2.
18. MOUNT AND ANCHOR 6" (H) UNIT BASE RAIL TO CONCRETE FLOOR USING MASON NEOPRENE WAFFLE PADS SUPER WM PER MASON INDUSTRIES' APPROVED DETAIL.
19. MOUNTED ON FREE STANDING ISOLATORS WIT SEISMIC RESTRAINT.
20. APPROXIMATE LOCATION OF VAV BOX SERVING LEARNING COMMONS ROOM 101.
21. APPROXIMATE LOCATION OF VAV BOX SERVING OFFICE ROOM 103.

APPROVALS

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PROJECT 2016-0538

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

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ISSUE TITLE

INCREMENT 2

ISSUE DATE **08/22/2023**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

ATTIC PLAN - WEST - MECHANICAL

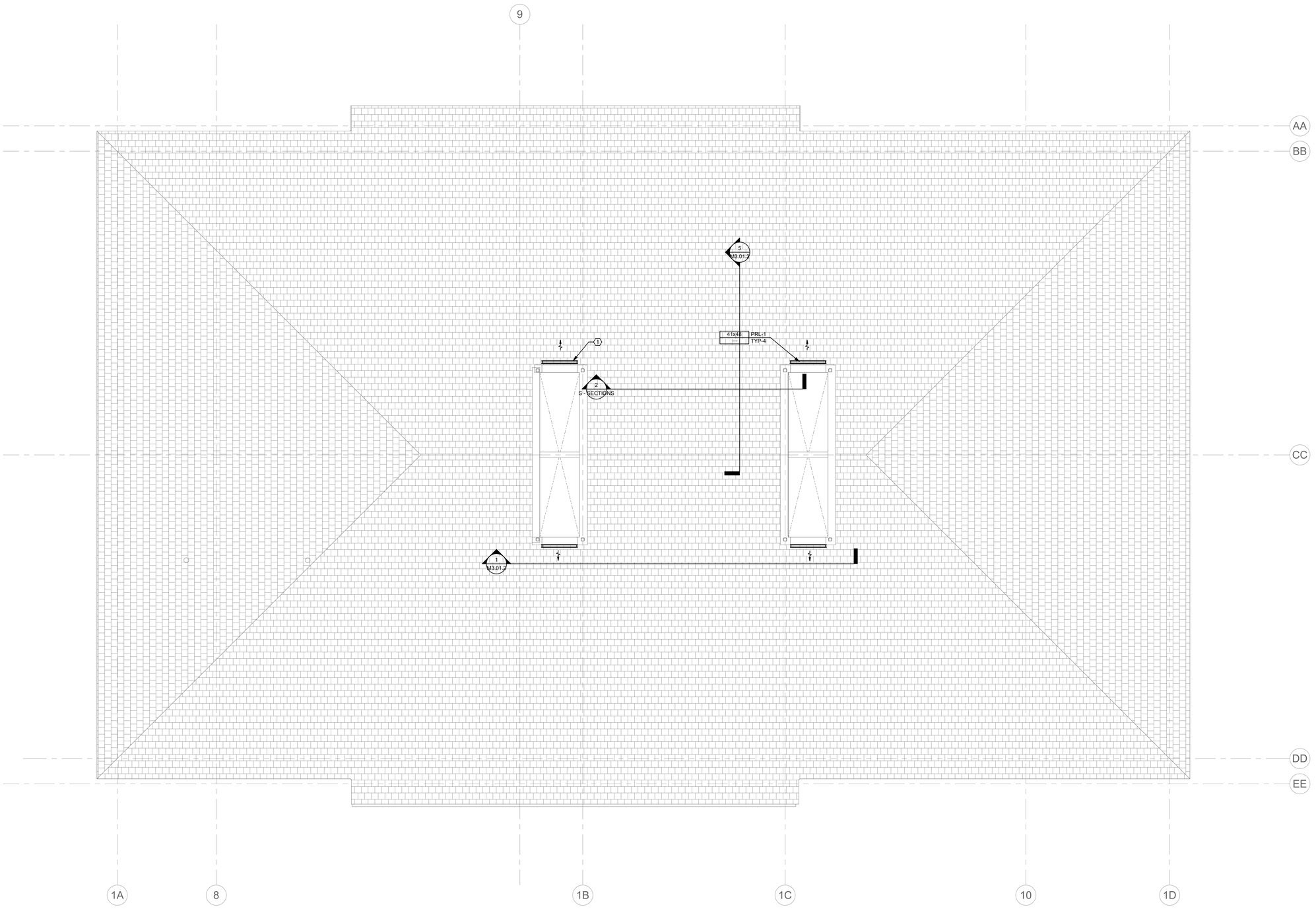
SHEET NUMBER

M2.40.2

8/22/2023 1:01:55 PM C:\Users\jeremyk\Documents\DVC San Ramon - MEP Central v19_jeremykVdTDQ.rvt

SHEET KEYNOTES

1 PROVIDE AIR PRESSURE RELIEF LOUVER IN LIGTHWELLS, TYP 4



1 MECHANICAL LIGHTWELL LEVEL

0' 2' 4' 8'
1/4" = 1'-0"

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INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

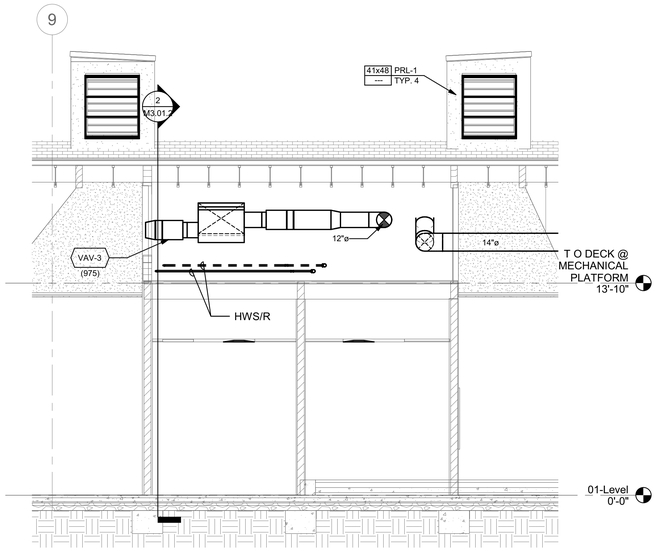
SHEET TITLE

ROOF PLAN - LIBRARY LEARNING RESOURCE CENTER - MECHANICAL

SHEET NUMBER

M2.41.2

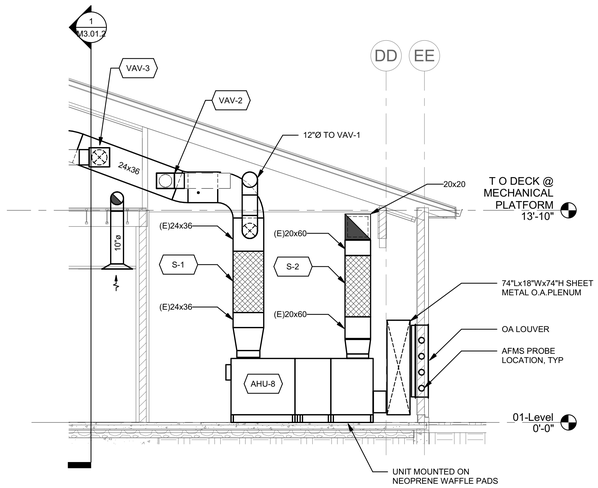
8/22/2023 1:01:59 PM C:\Users\jeremyk\Documents\DVC San Ramon - MEP Central v19_jeremykV67DQ.rvt



1 SECTION - LIBRARY - MECHANICAL

0' 2' 4' 8'

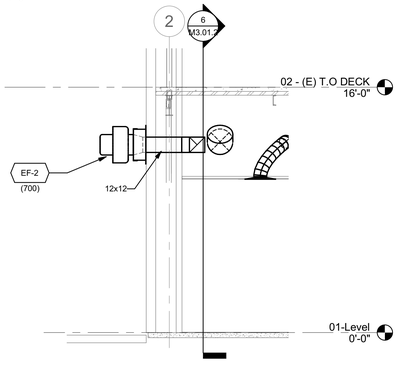
1/4" = 1'-0"



2 SECTION - LIBRARY - MECHANICAL ROOM

0' 2' 4' 8'

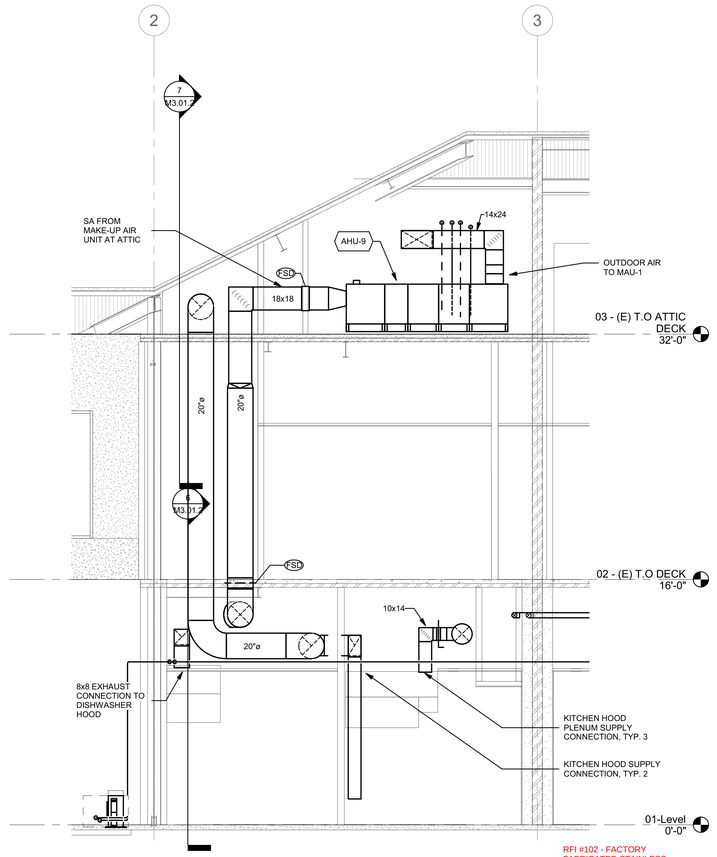
1/4" = 1'-0"



3 SECTION AT EF-2

0' 2' 4' 8'

1/4" = 1'-0"

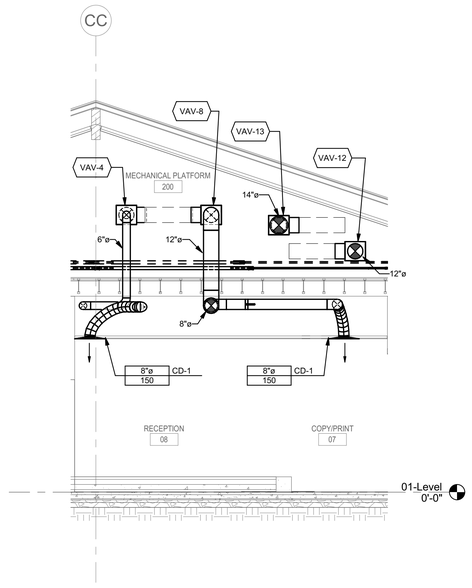


RFI #102 - FACTORY FABRICATED STAINLESS INNER ZERO CLEARANCE GREASE DUCT IN LIEU OF WELDED WRAPPED STAINLESS. SEE RFI FOR ADDITIONAL INFORMATION. VAN-PACKER CO. MODEL GRZ - RECTANGULAR, 2HR ZERO-CLEARANCE GREASE DUCT

4 SECTION - SHAFT AT CAFE

0' 2' 4' 8'

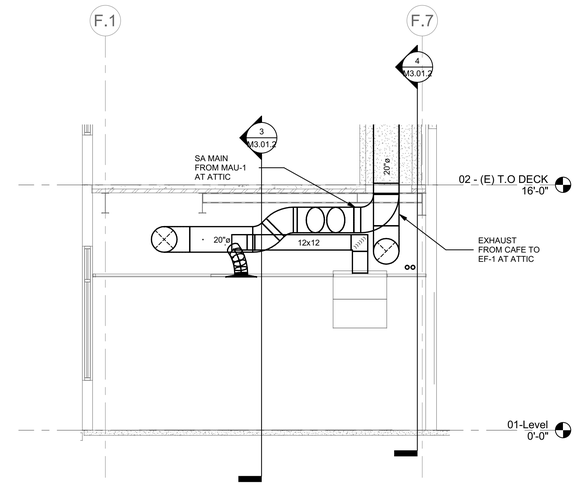
1/4" = 1'-0"



5 SECTION AT RECEPTION

0' 4' 8' 16'

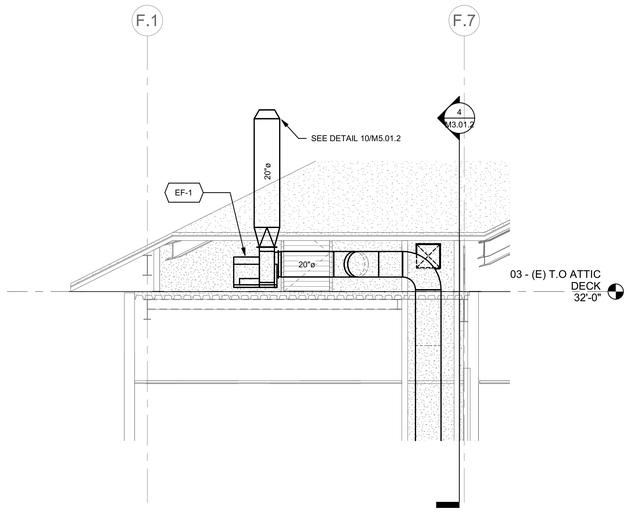
1/4" = 1'-0"



6 SECTION - SUPPLY AND EXHAUST DUCT AT CAFE

0' 4' 8' 16'

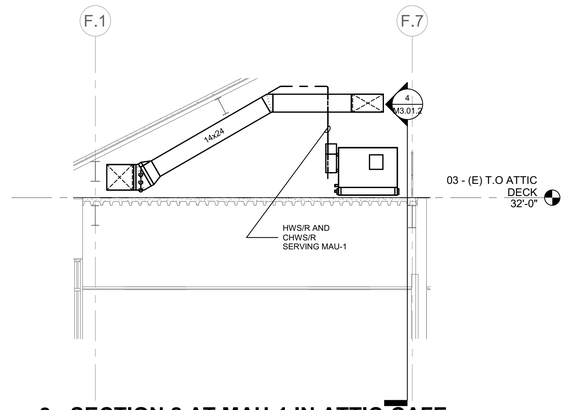
1/4" = 1'-0"



7 EHHAUST FAN @ ATTIC CAFE

0' 4' 8' 16'

1/4" = 1'-0"



8 SECTION 2 AT MAU-1 IN ATTIC-CAFE

0' 2' 4' 8'

1/4" = 1'-0"

APPROVALS

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NOLL & TAM JOB NUMBER **21630**

REVISIONS

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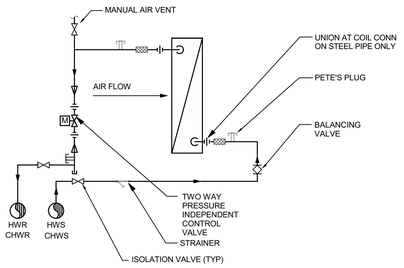
SHEET TITLE

SECTIONS - MECHANICAL

SHEET NUMBER

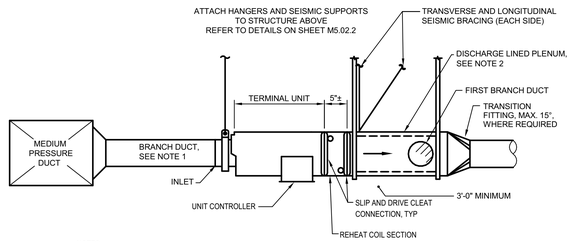
M3.01.2

8/22/2023 1:02:08 PM C:\Users\jeremyk\Documents\DVC San Ramon - MEP Central v19_jeremykV6TDQ.rvt



1 VAV COIL UNIT PIPING DIAGRAM

NO SCALE M-PIPING DIAGRAMS 31-05

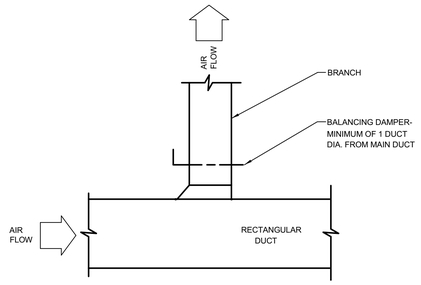


NOTES:

1. BRANCH DUCT SIZE TO MATCH UNIT INLET CONNECTION. FOR BRANCH DUCTS OVER FIVE FEET IN LENGTH, INCREASE BRANCH DUCT ONE SIZE AND PROVIDE TRANSITION IMMEDIATELY UPSTREAM OF MINIMUM STRAIGHT DUCT RUN.
2. MINIMUM 5'-0" LONG LINED PLENUM EQUAL TO TERMINAL BOX OUTLET SIZE. PROVIDE WITH MYLAR LINING FOR OSHPD PROJECTS.
3. FIRST BRANCH DUCT DOWNSTREAM OF TERMINAL MUST BE A MINIMUM OF 3 FEET DOWNSTEAM OF TERMINAL UNIT.

4 TYPICAL TERMINAL UNIT DUCTING (VAV OR CAV)

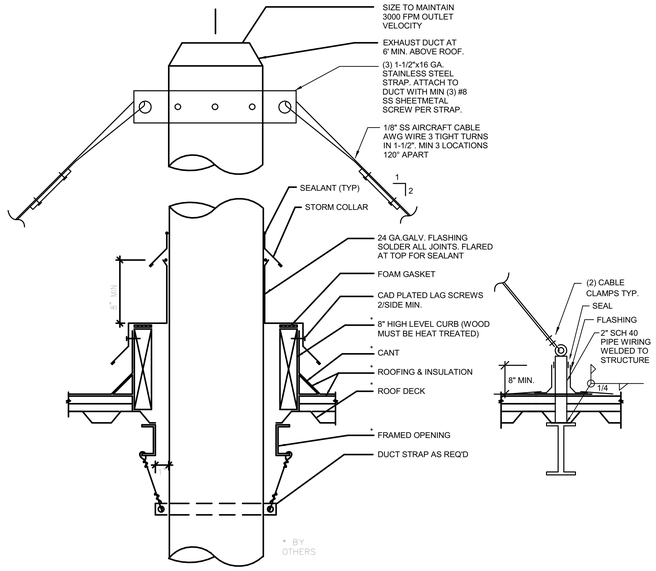
NO SCALE M-Duct 1-06



NOTE: 1. BALANCING DAMPER WHERE SHOWN ON PLANS.

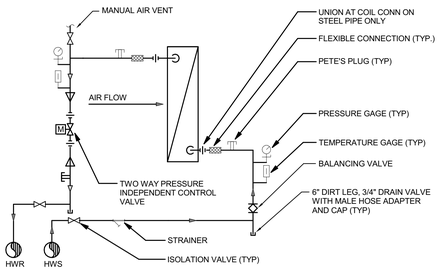
RECTANGULAR 7 SUPPLY BRANCH/LOW PRESSURE

NO SCALE M-DUCT 3-07



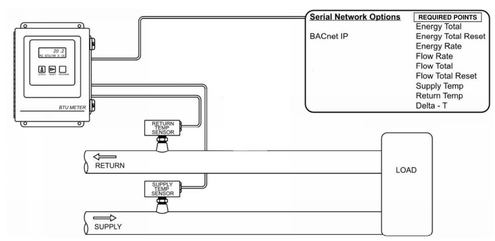
10 EXHAUST DUCT THRU ROOF

NO SCALE



2 SINGLE COIL PIPING DIAGRAM

NO SCALE M-PIPING DIAGRAMS 31-03

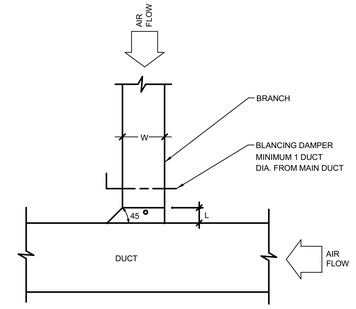


NOTE:

1. INSTALL IN LLRC MECHANICAL ROOM PER MANUFACTURER INSTALLATION INSTRUCTIONS.
2. PROVIDE METER FOR CHW AND HW.
3. PROVIDE METERING DEVICES WITH INTERFACE TO BUILDING AUTOMATION SYSTEM.

5 CHW & HW BTU METER SCHEMATIC

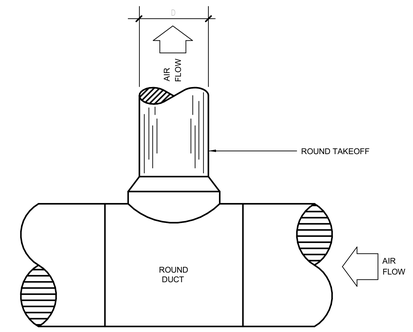
NO SCALE



L=W/4 (4" MIN.)

8 EXHAUST RECTANGULAR BRANCH

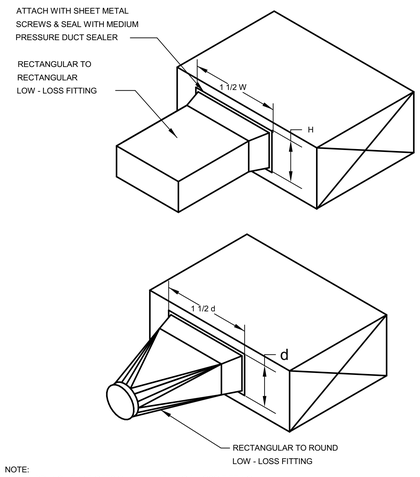
NO SCALE M-DUCT 3-08



NOTE: 1. SHALL BE USED ON ALL DUCTS UPSTREAM OF TERMINAL UNITS

11 MEDIUM PRESSURE DUCT TAP - CONICAL TEE

NO SCALE M-DUCT 3-11

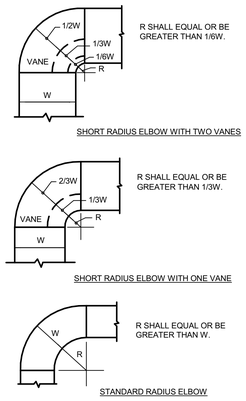


NOTE:

1. ALL BRANCH TAKE-OFFS SHALL HAVE A LOW LOSS FITTING WHETHER SHOW ON THE FLOOR PLAN OR NOT.

3 LOW-LOSS BRANCH DUCT CONNECTION

NO SCALE M-Duct 1-11



NOTES:

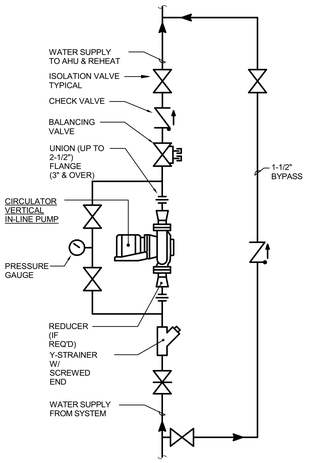
1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
2. ALL STANDARD RADIUS ELBOWS SHOWN ON FLOOR PLANS MAY BE MADE SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

DESIGNER'S NOTE:

1. DO NOT SHOW MITERED ELBOWS AND MITERED OFFSETS (TRANSITIONS) GREATER THAN 15 DEGREES ON DRAWINGS.

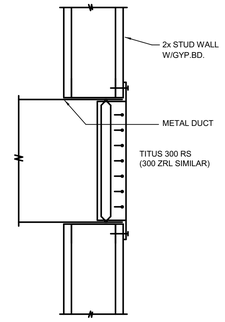
6 DUCTWORK RADIUS ELBOWS

NO SCALE M-DUCT 6-12



CIRCULATOR 9 VERTICAL IN-LINE PUMP PIPING DIAGRAM

NO SCALE



12 GRILLE ON STUD WALL

NO SCALE M-DIFFUSER 3-10

APPROVALS

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INCREMENT 2

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REVISIONS

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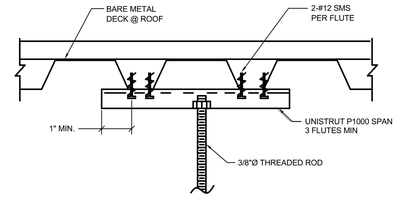
SHEET TITLE

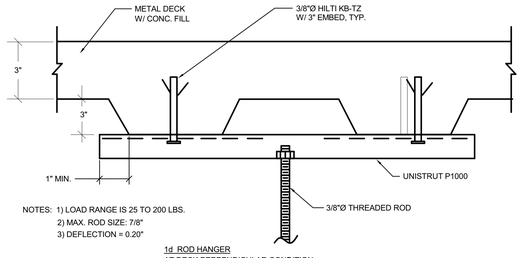
DETAILS - MECHANICAL

SHEET NUMBER

M5.01.2

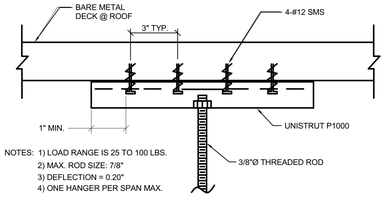


1a ROD HANGER
AT DECK PERPENDICULAR CONDITION AND PARALLEL



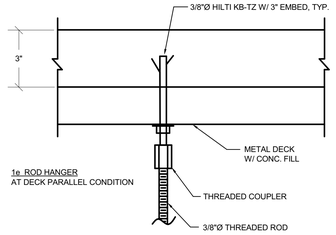
NOTES: 1) LOAD RANGE IS 25 TO 200 LBS.
2) MAX. ROD SIZE: 7/8"
3) DEFLECTION = 0.20"

1d ROD HANGER
AT DECK PERPENDICULAR CONDITION



NOTES: 1) LOAD RANGE IS 25 TO 100 LBS.
2) MAX. ROD SIZE: 7/8"
3) DEFLECTION = 0.20"
4) ONE HANGER PER SPAN MAX.

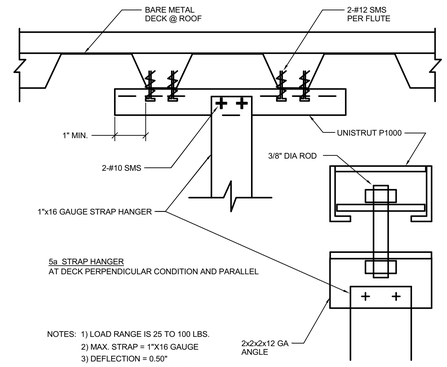
1b ROD HANGER
AT DECK PARALLEL CONDITION



1e ROD HANGER
AT DECK PARALLEL CONDITION

1 ROD HANGER DETAIL

NO SCALE M-MOUNTING 13-02

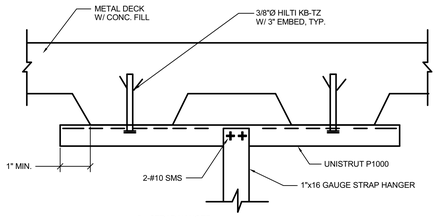


5a STRAP HANGER
AT DECK PERPENDICULAR CONDITION AND PARALLEL

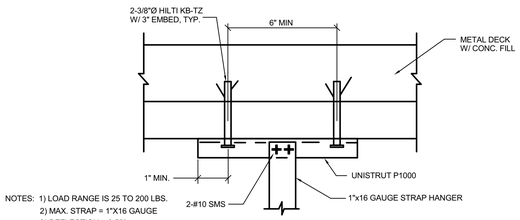
NOTES: 1) LOAD RANGE IS 25 TO 100 LBS.
2) MAX. STRAP = 1"X16 GAUGE
3) DEFLECTION = 0.50"
4) ONE HANGER PER SPAN MAX.

2x2x2x12 GA
ANGLE

PARALLEL



5c STRAP HANGER
AT DECK PERPENDICULAR CONDITION

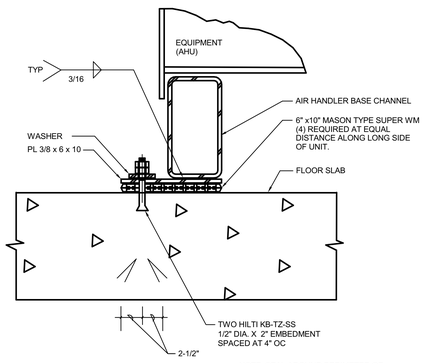


NOTES: 1) LOAD RANGE IS 25 TO 200 LBS.
2) MAX. STRAP = 1"X16 GAUGE
3) DEFLECTION = 0.50"

5d STRAP HANGER
AT DECK PARALLEL CONDITION

5 STRAP HANGER DETAIL

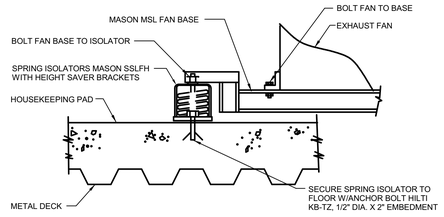
NO SCALE M-MOUNTING 13-03



NOTE: SEAL AROUND PERIMETER OF
AHU WITH WEATHERPROOF SEALANT.

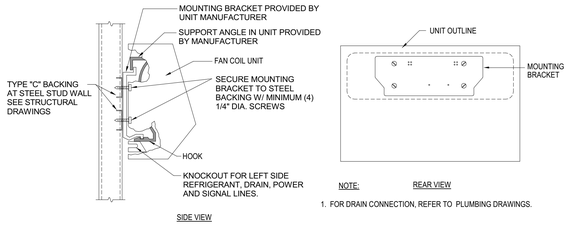
2 AHU MOUNTING DETAIL

NO SCALE M-MOUNTINGS 10-05



4 EXHAUST FAN MOUNTING DETAIL (EF-1)

NO SCALE M-MOUNTING 3-11



SIDE VIEW

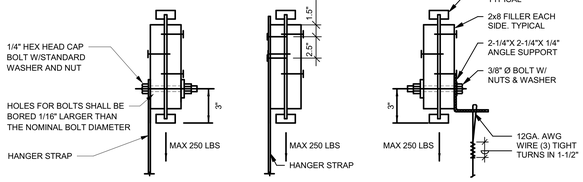
NOTE: REAR VIEW

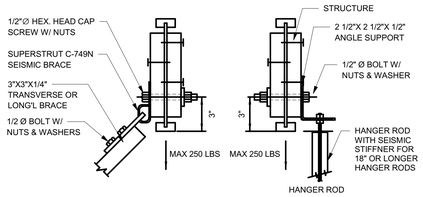
1. FOR DRAIN CONNECTION, REFER TO PLUMBING DRAWINGS.

3 SPLIT SYSTEM FAN COIL MOUNTING DETAIL

NO SCALE

RFI # 77- MIN. 16 GA
STRAPS W/ 2-1/4" X 2"
LONG (SDS25200)
SCREWS



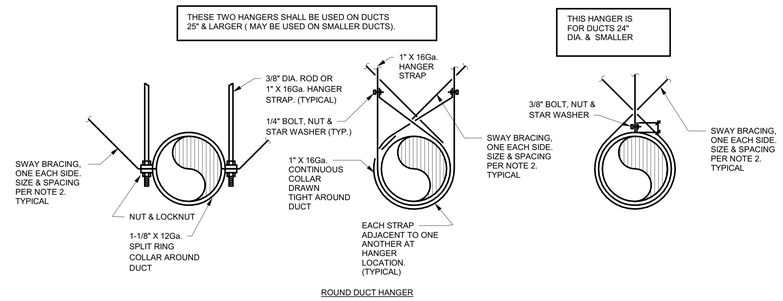


NOTE:

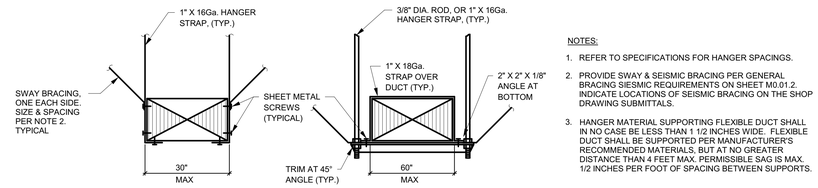
1. ATTACHMENTS TO OVERHEAD STRUCTURE SHALL BE MADE IN ACCORDANCE WITH STRUCTURAL ENGINEERS REQUIREMENTS AND WEIGHT LIMITATIONS. ALL ATTACHMENT METHODS TO STRUCTURE SHALL BE SUBMITTED TO ARCHITECT AND STRUCTURAL ENGINEER FOR REVIEW.
2. REFER TP DETAILS 8, 9 & 18 SHEET S8.04.2.

7 MTG_ATTACHMENT TO WOOD STRUCTURE

NO SCALE



ROUND DUCT HANGER



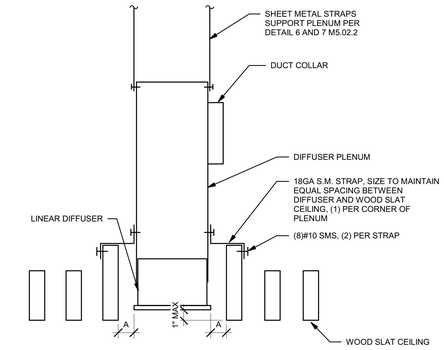
RECTANGULAR DUCT HANGER

NOTES:

1. REFER TO SPECIFICATIONS FOR HANGER SPACINGS.
2. PROVIDE SWAY & SEISMIC BRACING PER GENERAL BRACING SIESMIC REQUIREMENTS ON SHEET M0.01.2. INDICATE LOCATIONS OF SEISMIC BRACING ON THE SHOP DRAWING SUBMITTALS.
3. HANGER MATERIAL SUPPORTING FLEXIBLE DUCT SHALL IN NO CASE BE LESS THAN 1 1/2 INCHES WIDE. FLEXIBLE DUCT SHALL BE SUPPORTED PER MANUFACTURER'S RECOMMENDED MATERIALS, BUT AT NO GREATER DISTANCE THAN 4 FEET MAX. PERMISSIBLE SAG IS MAX. 1/2 INCHES PER FOOT OF SPACING BETWEEN SUPPORTS.

6 DUCT SUPPORT DETAIL

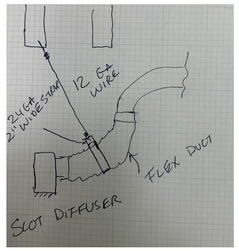
NO SCALE



8 SLOT DIFFUSER SUPPORT

NO SCALE

RFI #106- FLEXIBLE DUCT SUPPORT DETAIL - 12 GAUGE WIRE ATTACHED TO 24 GAUGE 2" WIDE STRAP TO SUPPORT FLEX DUCT.



RFI #109 - USE BEAM CLAMPS TO HANG HHW PIPING USING DETAIL 2/FP5.03.2. HHW PIPING IS LESS THAN 250LBS. TOLCO FIG. 130- TRUS JOIST BEAM CLAMP

APPROVALS

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PROJECT TITLE

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DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
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ISSUE TITLE
INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE
DETAILS - MECHANICAL

SHEET NUMBER
M5.02.2

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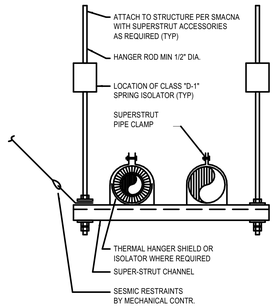
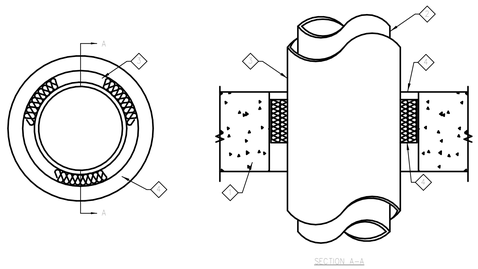


1 TRAPEZE SPRING HANGER

NO SCALE



NOTES:

1 FLOOR OR WALL ASSEMBLY.

2 PIPE.

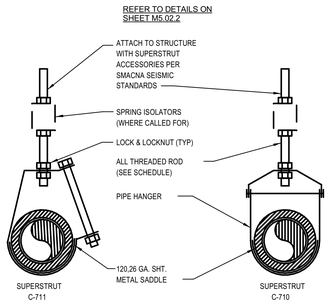
3 FIRESTOP SYSTEM PER ASTME814/UL1479.

4 PENETRATION OPENING PER ANNULAR SPACE REQUIREMENTS FOR SELECTED SYSTEM.

PIPE MATERIAL	MIN. THICKNESS	MAX. SIZE	U.L. SYSTEM No.
STEEL	SCH10	30"	CAJ5002
COPPER	TYPE L	4"	CAJ5002

2 INSULATED PIPE THRU WALL/FLOOR

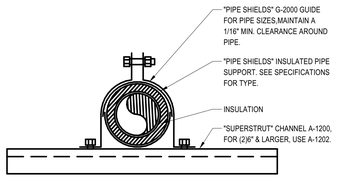
NO SCALE



PIPE SIZE (IN)	MAX SUPPORT SPAN (FT)	MIN. ROD SIZE (IN)
UP TO 1"	7	3/8"
1-1/2"	9	3/8"
2 TO 2-1/2"	10	3/8"
3"	12	1/2"
3-1/2"	13	1/2"
4	14	5/8"
5	16	5/8"
6	17	3/4"
8	19	7/8"
10	22	7/8"
12	23	7/8"

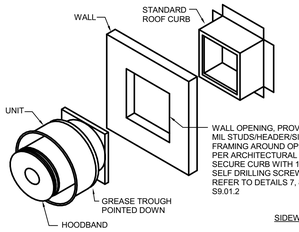
3 SINGLE PIPE SUPPORT

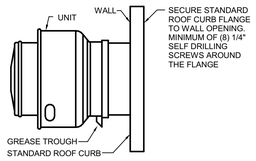
NO SCALE



4 PIPE SUPPORT - 3/4" THRU 12" DIA.

NO SCALE





SIDEWALL MOUNTING INSTALLATION

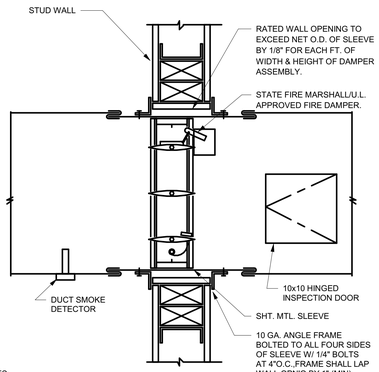
1 CUT AN APPROPRIATE SIZED HOLE IN THE WALL AND FOLLOW MANUFACTURER'S INSTRUCTIONS ON CURB. INSTALLATION. MOUNT THE CURB TO THE INTERIOR OF THE WALL WITH A MINIMUM (8) 1/4" SELF DRILLING FASTENERS AROUND THE FLANGE. CAULK AND FLASH THE CURB TO ENSURE A WATERTIGHT SEAL.

2 IF THE UNIT IS EQUIPPED WITH A BACKDRAFT DAMPER, IT SHOULD BE INSTALLED NOW.

3 LIFT THE FAN INTO PLACE. DO NOT SUPPORT THE UNIT BY THE HOODBAND DURING INSTALLATION.

6 WALL MOUNTED EXHAUST FAN

NO SCALE



NOTES:

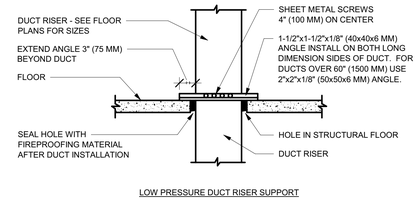
1. USE "UNITED DUCT SEALER" OR EQUAL WHERE DUCTS CONNECT TO SLEEVE.
2. IF ROUND DUCT, PROVIDE WELDED ROUND DUCT COLLAR ON BOTH SIDES. SIMILAR TO HIGH VELOCITY FIRE DAMPER. OPENING SIZE = DUCT SIZE + 1".

SEQUENCE

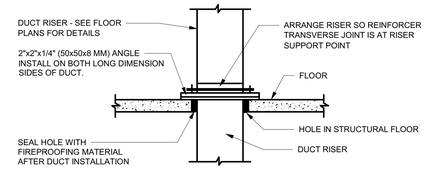
a. FSD SHALL CLOSE AT ANY OF THE FOLLOWING CONDITIONS:
b. DETECTION OF SMOKE BY LOCAL DUCT SMOKE DETECTOR.
c. LOSS OF POWER.
d. SIGNED FROM FACP.

7 FIRE & SMOKE DAMPER

NO SCALE



LOW PRESSURE DUCT RISER SUPPORT



MEDIUM AND HIGH PRESSURE

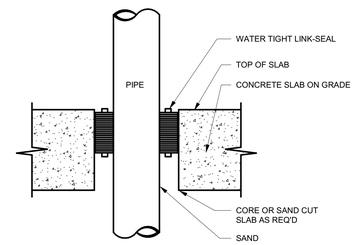
DUCT RISER SUPPORT

NOTE:

1. ALL DUCT WORK RISERS WHICH ARE RUN EXPOSED, SUCH AS THRU ATTIC FLOORS AND FAN ROOM FLOORS SHALL BE PROVIDED WITH A 3" (75 MM) HIGH CONCRETE CURB AROUND OPENING FOR DUCT.

9 DUCT RISER SUPPORT

NO SCALE

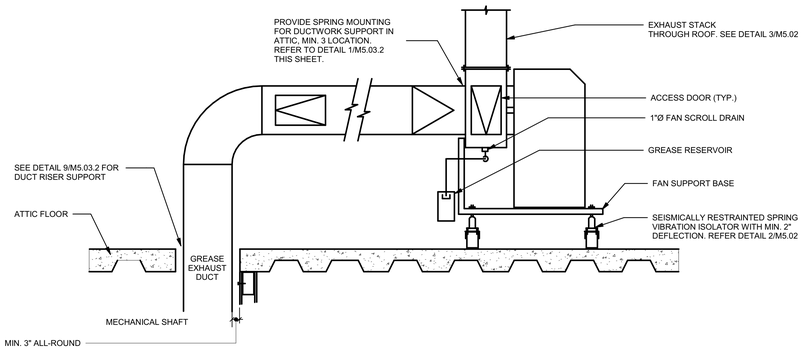


10 PIPE THROUGH SLAB ON GRADE

NO SCALE

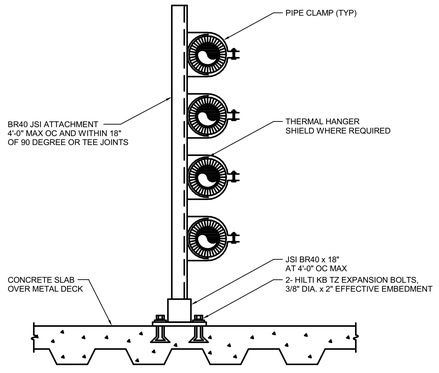
NOTES:

1 SEIMICALLY SUPPORT GREASE EXHAUST DUCT.



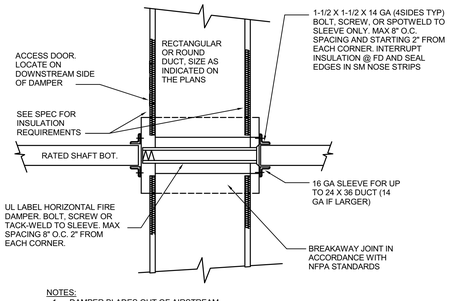
5 GREASE HOOD EXHAUST FAN DETAIL (EF-1)

NO SCALE



8 STACKED PIPE SUPPORT DETAIL

NO SCALE



NOTES:

1. DAMPER BLADES OUT OF AIRSTREAM.
2. SLEEVE LENGTH TO EXTEND 3" ABOVE & BELOW FLOOR.

11 HORIZONTAL FIRE AND SMOKE DAMPER

NO SCALE

APPROVALS

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NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

DETAILS - MECHANICAL

SHEET NUMBER

M5.03.2

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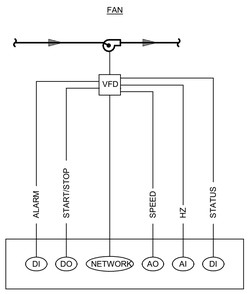
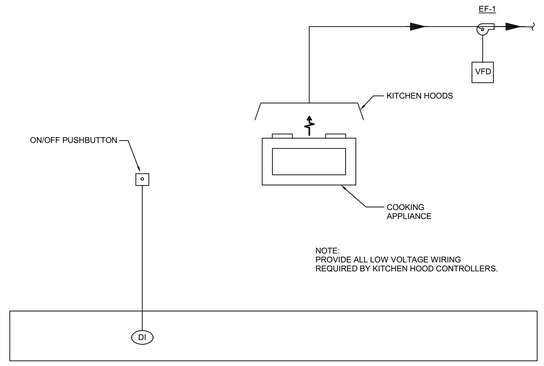


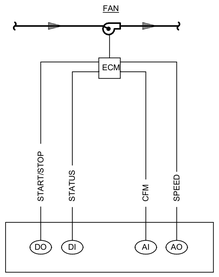
1 MOTOR WITH VFD (TYPICAL)

NO SCALE M-CONTROLS 17D-02



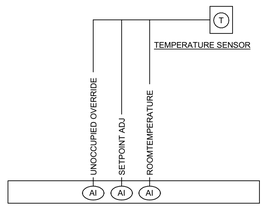
4 FOOD SERVICE SYSTEM CONTROL DIAGRAM (EF-1)

NO SCALE



2 EC MOTOR (EF-2)

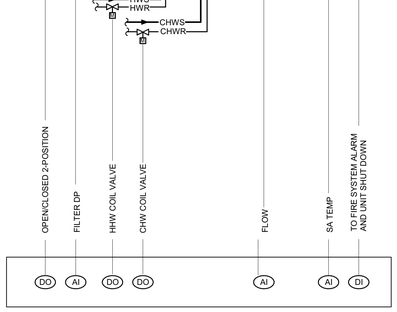
NO SCALE



NOTE:
1. PROVIDE DIGITAL DISPLAY EXCEPT WHERE LOCATED IN LOBBIES AND CORRIDORS.

3 ROOM THERMOSTAT (TYPICAL)

NO SCALE M-CONTROLS 17D-11



MAKE-UP AIR UNIT
5 SYSTEM CONTROL DIAGRAM (AHU-9)

NO SCALE

CONTROL DIAGRAM SYMBOLS LIST

ABBREVIATIONS		SYMBOLS	
AFMS	AIR FLOW MEASURING STATION	AI	ANALOG INPUT
AI	ANALOG INPUT	AO	ANALOG OUTPUT
AO	ANALOG OUTPUT	CT	ELECTRIC CURRENT TRANSMITTER
BMS/BAS	BUILDING MANAGEMENT SYSTEM	DDC #-S	DIRECT DIGITAL CONTROL
CO	CARBON MONOXIDE SENSOR	DI	DIGITAL INPUT
CO2	CARBON DIOXIDE SENSOR	DO	DIGITAL OUTPUT
CT	ELECTRIC CURRENT TRANSMITTER	DP DP	DIFFERENTIAL PRESSURE SENSOR
DDC	DIRECT DIGITAL CONTROL		FLOW METER
DI	DIGITAL INPUT	FS	FLOW SWITCH
DO	DIGITAL OUTPUT	H	ROOM / DUCT RELATIVE HUMIDITY SENSOR / TRANSMITTER
DP	PRESSURE SENSOR	HS	HIGH STATIC PRESSURE SENSOR
EA	EXHAUST AIR	M/S	MOTOR STARTER
ECM	ELECTRONICALLY COMMUTATED MOTOR	MD	MOTORIZED DAMPER
EF	EXHAUST FAN	NETWORK	BACNET COMMUNICATION LINE WITH DEVICE / CONTROLLER
HS	HIGH STATIC	P	PRESSURE SENSOR
HWR	HEATING HOT WATER RETURN	SD	SMOKE DETECTOR
HWS	HEATING HOT WATER SUPPLY	SP	SPACE PRESSURE SENSOR
M	MOTORIZED	T	TEMPERATURE SENSOR/ROOM THERMOSTAT
MAU	MAKE UP AIR UNIT	TPI	THIRD PARTY INTERFACE (BACNET)
M/S	MOTOR STARTER	VFD	VARIABLE FREQUENCY DRIVE
MD	MOTORIZED DAMPER	ECM	ELECTRONICALLY COMMUTATED MOTOR
OA	OUTSIDE AIR		
P	PRESSURE SENSOR		
PPM	PARTS PER MILLION		
RA	RETURN AIR / RELIEF AIR		
RF	RETURN FAN / RELIEF FAN		
SA	SUPPLY AIR		
SF	SUPPLY FAN OR SQUARE FOOT		
SD	SMOKE DETECTOR		
T	TEMPERATURE SENSOR / ROOM THERMOSTAT		
TPI	THIRD PARTY INTERFACE		
VFD	VARIABLE FREQUENCY DRIVE		

GENERAL SHEET NOTES

A. PROVIDE ALL THIRD PARTY BACNET INTERFACES WHERE NOT PROVIDED BY EQUIPMENT MANUFACTURER.
B. SEE ELECTRICAL DRAWINGS FOR 120 VOLT JUNCTION BOXES FOR POWER SUPPLY . PROVIDE ADDITIONAL 120V POWER SUPPLY AS REQUIRED, AND PROVIDE 120V TO 24V TRANSFORMERS FOR LOW VOLTAGE CONTROL POWER. PROVIDE 24V POWER TO ALL CONTROL DEVICES. PROVIDE CONTROL WIRING PER DIV. 23 & 26 SPECIFICATIONS. PROVIDE PLENUM RATED CABLE ABOVE REMOVABLE TILE CEILING, AND RACEWAY ABOVE HARD LID CEILINGS.
C. PROVIDE 120V POWER FOR AIRFLOW MEASURING STATIONS, LARGE VALVES, AND BMS CONTROL SYSTEMS INCLUDING ALL PANELS. FOLLOW DIV. 26 SPECIFICATIONS FOR PRODUCTS AND INSTALLATION RELATED TO 120V POWER DISTRIBUTION.
D. PROVIDE COMMUNICATION WIRING AND CONNECT TO THE BUILDING AND/OR CAMPUS' IP NETWORK.
E. CONTROL DIAGRAMS, SEQUENCES, AND SPECIFICATIONS ARE PERFORMANCE BASED. PROVIDE FINAL SEQUENCES, POINT LIST, TRENDING LIST, CONTROL DIAGRAMS, AND ARCHITECTURAL RISER DIAGRAMS (SEE SPECIFICATIONS).
F. PROVIDE FLOOR LEVEL AND BUILDING LEVEL CONTROLLERS, AS NEEDED.
G. MODIFY ADJUSTABLE SETPOINTS DURING FUNCTIONAL TESTING AND COMMISSIONING STAGE FOR PROPER SYSTEMS' OPERATION.

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ISSUE TITLE
INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

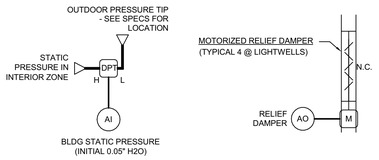
REVISIONS

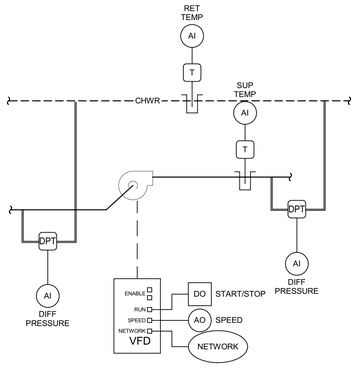
NO.	DATE	DESCRIPTION

SHEET TITLE
CAFE ANDOVER SYSTEM CONTROL DIAGRAMS - MECHANICAL

SHEET NUMBER
M6.01.2

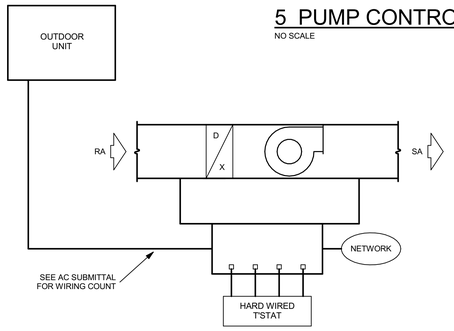
8/22/2023 1:02:12 PM C:\Users\jeremyb\Documents\DVC San Ramon - MEP Central v19_jeremybV6TDQ.rvt





MOTORIZED AND 1 PRESSURE RELIEF DAMPER

NO SCALE

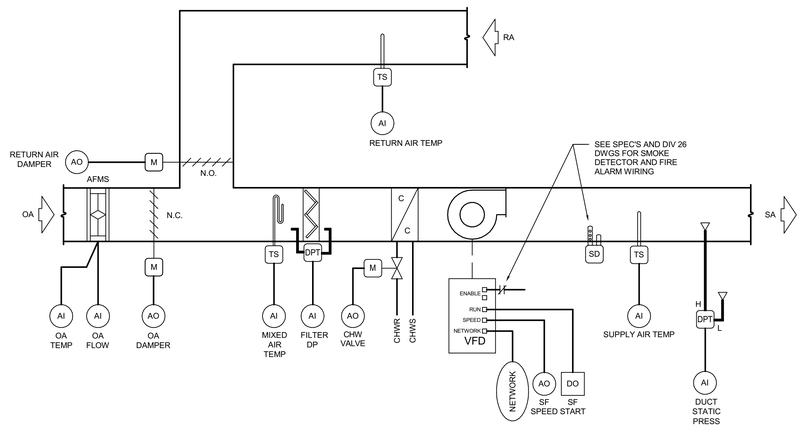


5 PUMP CONTROL DIAGRAM (VFD)

NO SCALE

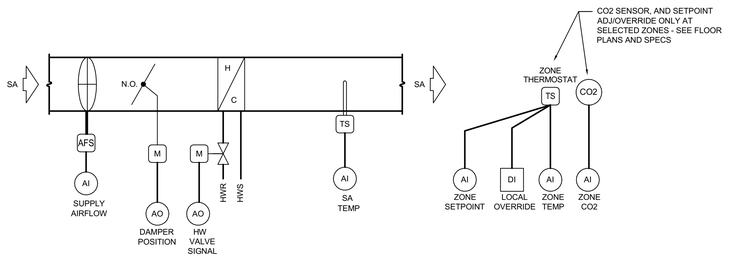
2 SPLIT AC UNIT OR HEAT PUMP W/BACNET CONNECTION

NO SCALE



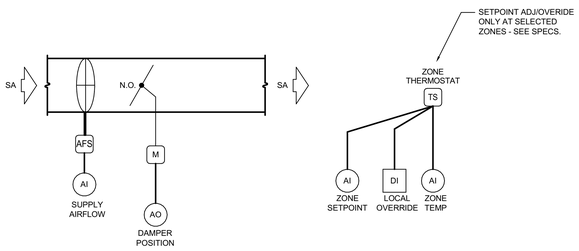
3 VAV AIR HANDLER (AHU-8) WITH MULTIPLE ZONES

NO SCALE



4 VAV RH ZONE CONTROL DIAGRAM

NO SCALE



6 VAV COOLING ONLY ZONE CONTROL DIAGRAM

NO SCALE

5/11/2019

D4002 San Ramon Campus Expansion - Library / Learning Resource Center - M&V Points List

Point #	Meter Name/ Type	Circuit	Load*	electrical (kWh, kW)**	btu	End Use
1	BTU-CHW		Central Plant Chilled Water		ü	CHILLED WATER
2	BTU-HHW		Central Plant Heating Hot Water		ü	HEATING HOT WATER
3		Panel LLRC-1	Receptacles Rm 01A	ü		PLUG LOADS
4		Panel LLRC-2	Receptacles Rm 01B	ü		PLUG LOADS
5		Panel LLRC-3	Receptacles Rm 01A, 01	ü		PLUG LOADS
6		Panel LLRC-4	Receptacles Rm 01B, 01	ü		PLUG LOADS
7		Panel LLRC-5	Receptacles Rm 02	ü		PLUG LOADS
8		Panel LLRC-6	Receptacles Rm 01B	ü		PLUG LOADS
9		Panel LLRC-7	Receptacles Rm 02	ü		PLUG LOADS
10		Panel LLRC-8	Receptacles Rm 01	ü		PLUG LOADS
11		Panel LLRC-9	Receptacles Rm 03, 04	ü		PLUG LOADS
12		Panel LLRC-10	Receptacles Rm 01	ü		PLUG LOADS
13		Panel LLRC-11	Receptacles Rm 05, 06	ü		PLUG LOADS
14		Panel LLRC-12	Receptacles Rm 01	ü		PLUG LOADS
15		Panel LLRC-13	Copier Rm 07	ü		PLUG LOADS
16		Panel LLRC-14	Receptacles Rm 20	ü		PLUG LOADS
17		Panel LLRC-15	Printer Rm 07	ü		PLUG LOADS
18		Panel LLRC-16	Receptacles Rm 20	ü		PLUG LOADS
19		Panel LLRC-17	Receptacles Rm 07	ü		PLUG LOADS
20		Panel LLRC-18	Receptacles Rm 20	ü		PLUG LOADS
21		Panel LLRC-19	Receptacles Rm 20	ü		PLUG LOADS
22		Panel LLRC-20	Receptacles Rm 20	ü		PLUG LOADS
23		Panel LLRC-21	Receptacles Rm 20	ü		PLUG LOADS
24		Panel LLRC-22	Receptacles Rm 20	ü		PLUG LOADS
25		Panel LLRC-23	Receptacles Rm 20	ü		PLUG LOADS
26		Panel LLRC-24	Receptacles Rm 20	ü		PLUG LOADS
27		Panel LLRC-25	Receptacles Rm 08	ü		PLUG LOADS
28		Panel LLRC-26	Receptacles Rm 20	ü		PLUG LOADS
29		Panel LLRC-27	Receptacles Rm 08	ü		PLUG LOADS
30		Panel LLRC-28	Receptacles Rm 20	ü		PLUG LOADS
31		Panel LLRC-29	Printer Rm 08	ü		PLUG LOADS
32		Panel LLRC-30	Receptacles Rm 20	ü		PLUG LOADS
33		Panel LLRC-31	Receptacles Rm 09	ü		PLUG LOADS
34		Panel LLRC-32	Receptacles Rm 20	ü		PLUG LOADS
35		Panel LLRC-33	Laptop Charging Cart Rm 10	ü		PLUG LOADS
36		Panel LLRC-34	Receptacles Rm 20	ü		PLUG LOADS
37		Panel LLRC-35	IT Rack	ü		PLUG LOADS
38		Panel LLRC-36	Receptacles Rm 20	ü		PLUG LOADS
39		Panel LLRC-37	Receptacles Rm 11, 14	ü		PLUG LOADS
40		Panel LLRC-38	Receptacles Rm 200	ü		PLUG LOADS
41		Panel LLRC-39	Receptacles Exterior	ü		PLUG LOADS
42		Panel LLRC-40	Spare	ü		N/A
43		Panel LLRC-41	Spare	ü		N/A
44		Panel LLRC-42	Spare	ü		N/A
45		Panel LLRC-43	Auto Doors	ü		PLUG LOADS
46		Panel LLRC-44	Fire Bell	ü		PLUG LOADS
47		Panel LLRC-45	Auto Doors	ü		PLUG LOADS
48		Panel LLRC-46	Spare	ü		N/A
49		Panel LLRC-47	Pressure Relief Louvers	ü		PLUG LOADS
50		Panel LLRC-48	Spare	ü		N/A
51		Panel LLRC-49	Pressure Relief Louvers	ü		PLUG LOADS
52		Panel LLRC-50	Spare	ü		N/A
53		Panel LLRC-51	Motorized Projection Screen	ü		PLUG LOADS
54		Panel LLRC-52	Spare	ü		N/A
55		Panel LLRC-53	Spare	ü		N/A
56		Panel LLRC-54	Spare	ü		N/A
57		Panel LLRC-55	Spare	ü		N/A
58		Panel LLRC-56	Spare	ü		N/A
59		Panel LLRC-57	Spare	ü		N/A
60		Panel LLRC-58	Spare	ü		N/A
61		Panel LLRC-59	Spare	ü		N/A
62		Panel LLRC-60	LLRC - Inverter	ü		INT. LTG.
63		Panel LLRC-61	Bollards	ü		EXT. LTG.
64		Panel LLRC-62	LLRC - Lighting East	ü		INT. LTG.
65		Panel LLRC-63	LLRC Lighting Exterior	ü		EXT. LTG
66		Panel LLRC-64	LLRC - Lighting Center	ü		INT. LTG.
67		Panel LLRC-65	Spare	ü		N/A
68		Panel LLRC-66	LLRC - Lighting West	ü		INT. LTG.
69		Panel LLRC-67	Spare	ü		N/A
70		Panel LLRC-68	LLRC - Lighting Alcoves	ü		INT. LTG.
71		Panel LLRC-69	Spare	ü		N/A
72		Panel LLRC-70	Spare	ü		N/A
73		Panel LLRC-71	FC-1 (phase c)	ü		HVAC
74		Panel LLRC-72	Spare	ü		N/A
75		Panel LLRC-73	FC-1 (phase a)	ü		HVAC
76		Panel LLRC-74	CHWP-1 (phase a)	ü		HVAC
77		Panel LLRC-75	CU-1 (phase b)	ü		HVAC
78		Panel LLRC-76	CHWP-1 (phase b)	ü		HVAC
79		Panel LLRC-77	CU-1 (phase c)	ü		HVAC
80		Panel LLRC-78	CHWP-1 (phase c)	ü		HVAC
81		Panel LLRC-79	AHU-8 (phase a)	ü		HVAC
82		Panel LLRC-80	HWP-1 (phase a)	ü		HVAC
83		Panel LLRC-81	AHU-8 (phase b)	ü		HVAC
84		Panel LLRC-82	HWP-1 (phase b)	ü		HVAC
85		Panel LLRC-83	AHU-8 (phase c)	ü		HVAC
86		Panel LLRC-84	HWP-1 (phase c)	ü		HVAC

Branch Circuit Monitoring Panel

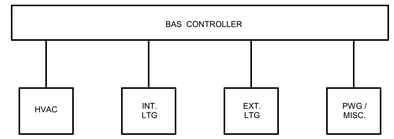
CONTROL DIAGRAM SYMBOLS LIST

ABBREVIATIONS

AFMS	AIR FLOW MEASURING STATION
AI	ANALOG INPUT
AO	ANALOG OUTPUT
BMS/BAS	BUILDING MANAGEMENT SYSTEM
CO	CARBON MONOXIDE SENSOR
CO2	CARBON DIOXIDE SENSOR
CT	ELECTRIC CURRENT TRANSMITTER
DDC	DIRECT DIGITAL CONTROL
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
DP	PRESSURE SENSOR
EA	EXHAUST AIR
ECM	ELECTRONICALLY COMMUTATED MOTOR
EF	EXHAUST FAN
HS	HIGH STATIC
HWR	HEATING HOT WATER RETURN
HWS	HEATING HOT WATER SUPPLY
M	MOTORIZED
MAU	MAKE UP AIR UNIT
M/S	MOTOR STARTER
MD	MOTORIZED DAMPER
OA	OUTSIDE AIR
P	PRESSURE SENSOR
PPM	PARTS PER MILLION
RA	RETURN AIR / RELIEF AIR
RF	RETURN FAN / RELIEF FAN
SA	SUPPLY AIR
SF	SUPPLY FAN OR SQUARE FOOT
SD	SMOKE DETECTOR
T	TEMPERATURE SENSOR / ROOM THERMOSTAT
TPI	THIRD PARTY INTERFACE
VFD	VARIABLE FREQUENCY DRIVE

SYMBOLS

AI	ANALOG INPUT
AO	ANALOG OUTPUT
CT	ELECTRIC CURRENT TRANSMITTER
DDC #-#	DIRECT DIGITAL CONTROL
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
DPT	DIFFERENTIAL PRESSURE SENSOR
	FLOW METER
FS	FLOW SWITCH
H	ROOM / DUCT RELATIVE HUMIDITY SENSOR / TRANSMITTER
HS	HIGH STATIC PRESSURE SENSOR
M/S	MOTOR STARTER
MD	MOTORIZED DAMPER
NETWORK	BACNET COMMUNICATION LINE WITH DEVICE / CONTROLLER
P	PRESSURE SENSOR
SD	SMOKE DETECTOR
SP	SPACE PRESSURE SENSOR
TS	TEMPERATURE SENSOR/ROOM THERMOSTAT
TPI	THIRD PARTY INTERFACE (BACNET)
VFD	VARIABLE FREQUENCY DRIVE
ECM	ELECTRONICALLY COMMUTATED MOTOR



Library / Learning Resource Center - End-Use Formulas for BAS			
Electrical End Use		Data Points to Add*	Data Points to Subtract
HVAC	=	LLRC - 71, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84	n/a
INT LTG	=	LLRC - 60, 62, 63, 64, 66, 68	n/a
EXT LTG		LLRC - 61, 63	n/a
PLUG/MISC	=	LLRC - 1 through 39 LLRC - 43, 44, 45, 47, 49, 51	n/a
Total	=	All 84 data points	n/a

* All electrical loads must be confirmed by Div. 25 in coordination with Div. 26 per as-built panel schedules prior to naming points and programming in BAS. The loads listed above were taken from design phase drawings dated 4/26/2019 and may be revised or loads may have been added to spare breakers during construction phase.

For each of the electrical points listed above the BAS is to trend the following:
Demand (kW) in 15-minute intervals
AND
Consumption (kWh) in 15-minute intervals (consumption to be the total consumption for each interval, not a cumulative value.)

6 M & V POINTS INTEGRATION DIAGRAM

NO SCALE

APPROVALS

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ARCHITECTS SEAL

PROJECT 2016-0538
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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE
NEW LIBRARY ALC SYSTEM CONTROL DIAGRAMS - MECHANICAL

SHEET NUMBER
M6.02.2

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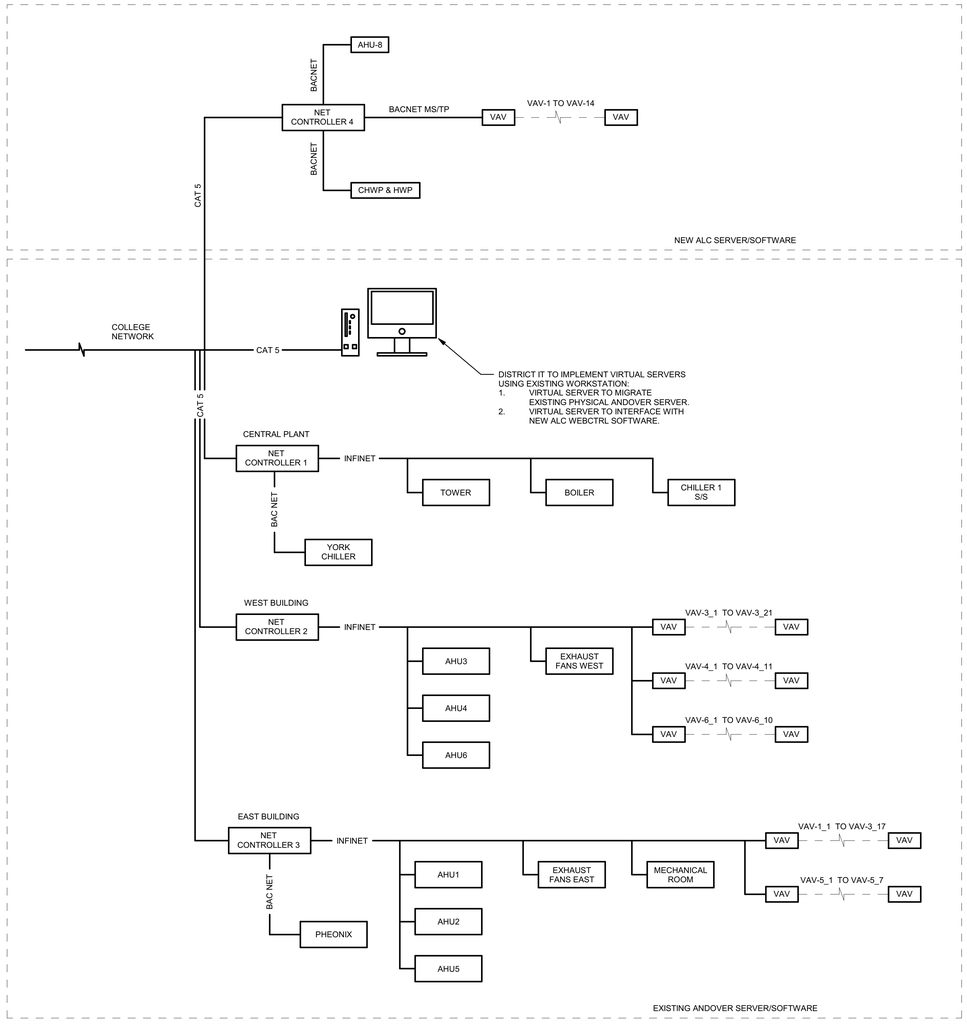
ANDOVER/ALC SCOPE

EXISTING BAS SYSTEM SERVING BUILDINGS IN CAMPUS IS AN ANDOVER SYSTEM AND IT WILL MIGRATE TO ANDOVER VIRTUAL SERVER PROVIDED BY CAMPUS AND DISTRICT IT. ALC CONTROLS SYSTEM WILL BE IMPLEMENTED IN THE NEW LIBRARY BUILDING AND WILL USE A VIRTUAL SERVER (WITH HARDWARE PROVIDED BY CAMPUS IT) FOR FRONT END FUNCTIONS. THE EXTEND INTEGRATION/INTERCONNECTION OF THE TWO SYSTEMS CONSISTS OF: THE NEW ALC CONTROLS SYSTEM WILL PROVIDE HEATING AND COOLING "REQUESTS" TO THE ANDOVER SYSTEM FOR CONTROL OF CAMPUS CHW AND HHW SYSTEMS.

FOR ANDOVER CONTROLS SCOPE REFER TO SPECIFICATIONS SECTION 23 09 00 AND CONTROL DAIGRAMS SHEET M6.01.2.

FOR ALC CONTROLS SCOPE REFER TO SPECIFICATIONS SECTION 25 00 00 AND CONTROL DAIGRAMS SHEET M6.02.2.



1 ANDOVER/ALC CONTROLS INTERCONNECTION DIAGRAM

NO SCALE

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INCREMENT 2

ISSUE DATE **08/22/2023**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

NEW LIBRARY CONTROL DIAGRAMS - MECHANICAL

SHEET NUMBER

M6.03.2

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ELECTRICAL SYMBOL LIST

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

Abbreviations

(E)	EXISTING
(R)	RELOCATE
(RL)	LOCATION OF RELOCATED DEVICE
(X)	DEMOLISH
A	AMPERES, AMBER
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AVAILABLE INTERRUPTING CAPACITY
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
C	CONDUIT, CLOSE, CONTROL
CA	CABLE
CAT	CATEGORY
CLG	CEILING
COORD	COORDINATE
CU	COPPER
dB	DECIBEL
DIA	DIAMETER
DIM	DIMENSION
DIV	DIVISION
DN	DOWN
DTL	DETAIL
DWG	DRAWING
E	EMERGENCY
EA	EACH
EF	EXHAUST FAN
EL	ELEVATION
EM	EMERGENCY LIGHT
EMT	ELECTRICAL METALLIC TUBING
FA	FIRE ALARM
FBO	FURNISHED BY OTHERS
FMC	FLEXIBLE METAL CONDUIT
FT	FOOT, FEET
G, GND	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GFP	GROUND FAULT PROTECTION
HT	HEIGHT
ID	IDENTIFICATION
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IG	ISOLATED GROUND
IN	INCH, INCHES
KV	KILOVOLT
KVA	KILOVOLT AMPERES
KW	KILOWATT
LED	LIGHT EMITTING DIODE
LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
LV	LOW VOLTAGE
MCA	MINIMUM CIRCUIT AMPS
MCC	MOTOR CONTROL CENTER
MIN	MINIMUM
MISC	MISCELLANEOUS
MOCP	MAXIMUM OVERCURRENT PROTECTION
MT, MTD	MOUNT, MOUNTED
N	NEUTRAL
N.I.C.	NOT IN CONTRACT
N/A	NOT APPLICABLE
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NESC	NATIONAL ELECTRIC SAFETY CODE
NTS	NOT TO SCALE
OC	ON CENTER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
PH	PHASE
PNL	PANEL
PVC	POLY-VINYL-CHLORIDE
PWR	POWER
QTY	QUANTITY
REQD	REQUIRED
RFI	REQUEST FOR INFORMATION
RM	ROOM
RMC	RIGID METAL CONDUIT
SHT	SHEET
SPD	SURGE PROTECTION DEVICE
STD	STANDARD
SWBD	SWITCHBOARD
TBD	TO BE DETERMINED
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
V	VOLTS, VOLTAGE
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF
XFMR	TRANSFORMER

Connections / Equipment

- AUTOMATIC DOOR OPERATOR
- CEILING MOUNTED JUNCTION BOX / FLOOR MOUNTED JUNCTION BOX
- COMBINATION ADJUSTABLE FREQUENCY DRIVE WITH SAFETY DISCONNECT SWITCH
- COMBINATION MOTOR STARTER/FUSED DISCONNECT SWITCH
- HEAVY DUTY FUSED DISCONNECT SWITCH
- MOTOR CONNECTION
- NON-FUSED DISCONNECT SWITCH
- TRANSFORMER
- FIRE SMOKE DAMPER
- SMOKE DAMPER
- WALL-MOUNTED JUNCTION BOX

General

- DETAIL NUMBER AND SHEET LOCATION
- EQUIPMENT IDENTIFICATION
- FOOD SERVICE EQUIPMENT / CALCULATION TAG
- KEYED NOTE
- DEMOLISH
- EXISTING WORK
- NEW WORK

Lighting

- EXIT SIGN CEILING MOUNTED, ARROW(S) INDICATES DIRECTION IF SHOWN
- EXIT SIGN WALL MOUNTED, ARROW(S) INDICATES DIRECTION IF SHOWN
- RECESSED 2' X 2' LUMINAIRE
- RECESSED 2' X 2' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT
- RECESSED 2' X 4' LUMINAIRE
- RECESSED 2' X 4' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT
- RECESSED LUMINAIRE
- RECESSED LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY
- SURFACE MOUNTED 2' X 2' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT
- SURFACE MOUNTED 2' X 4' LUMINAIRE
- SURFACE MOUNTED 2' X 4' LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT
- SURFACE OR PENDANT MOUNTED 6" X 8' LUMINAIRE
- SURFACE OR PENDANT MOUNTED LUMINAIRE
- SURFACE OR PENDANT MOUNTED LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT
- SURFACE OR PENDANT MOUNTED STRIPLIGHT
- TRACKLIGHT WITH LUMINAIRE(S)
- WALL MOUNTED 6" WIDE LUMINAIRE
- WALL MOUNTED LUMINAIRE
- WALL MOUNTED LUMINAIRE CONNECTED TO EMERGENCY/LIFE SAFETY CIRCUIT OR WITH INTEGRAL EMERGENCY BATTERY CONNECTED TO UNSWITCHED CIRCUIT
- AREA LUMINAIRE POLE TOP MOUNTED WITH POLE AND CONCRETE BASE.

Miscellaneous

- #10 THWC 9-27,29,31. — BRANCH CIRCUIT WIRING. ARROW INDICATES HOME RUN TO PANEL WITH CIRCUITS AS NOTED. WIRE SIZE IS #12 AWG MINIMUM UNLESS NOTED OTHERWISE. SHORT TICK MARKS INDICATE PHASE CONDUCTORS. LONG TICK MARKS INDICATE NEUTRAL CONDUCTORS. A SINGLE CURVED TICK MARK INDICATES INSULATED GREEN GROUND CONDUCTOR. SECOND CURVED TICK MARK INDICATES "ISOLATED GROUND" (GREEN INSULATION WITH YELLOW STRIPE) CONDUCTOR.
- BRANCH PANEL
- CIRCUIT BREAKER
- FLUSH WALL MOUNTED BRANCH PANEL
- MAIN DISTRIBUTION PANEL / SUB DISTRIBUTION PANEL

Raceways

- PB — PULL BOX
- CONDUIT CONCEALED IN WALL OR CEILING SPACE
- CONDUIT ROUTED BELOW FLOOR / GRADE
- CONDUIT ELLED DOWN
- CONDUIT ELLED UP
- CONDUIT/WIRING CONTINUATION
- CONDUIT/WIRING STUBBED OUT WITH END CAP OR INSULATED PLASTIC BUSHING
- FLEXIBLE CONDUIT

Switches and Receptacles

- COMBINATION DOUBLE DUPLEX RECEPTACLE AND COMMUNICATIONS OUTLET, FLUSH FLOOR. REFER TO TELECOM DRAWINGS FOR CONDUIT SIZE REQUIREMENTS. COORDINATE WITH DIVISION 27.
- DUPLEX RECEPTACLE (MULTIPLE LETTERS INDICATE MULTIPLE OPTIONS)
  A = ABOVE COUNTER
  B = CLOCK HANGER
  C = FLUSH CEILING MOUNTED
  E = EMERGENCY
  F = ARC FAULT PROTECTED BY BREAKER IN PANEL
  G = GROUND FAULT CIRCUIT INTERRUPTER
  H = HOSPITAL GRADE
  K = CHILD RESISTANT COVER
  L = ISOLATED GROUND
  P = PENDANT MOUNTED WITH CORD GRIPS. VERIFY PENDANT LENGTH
  R1 = HALF SWITCHED BY OCCUPANCY SENSOR RELAY
  R2 = FULLY SWITCHED BY OCCUPANCY SENSOR RELAY
  S = SPLIT WIRED
  T = TAMPER RESISTANT SHUTTERED RECEPTACLE
  U = USB PORT(S)
  W = WEATHERPROOF CONTINUOUS USE COVER, GFCI PROTECTED, WITH WEATHER-RESISTANT RECEPTACLE
- DUPLEX RECEPTACLE, FLUSH FLOOR
- DOUBLE DUPLEX RECEPTACLE, FLUSH FLOOR
- DOUBLE DUPLEX RECEPTACLE. SEE LETTER CODE LIST AT DUPLEX RECEPTACLE FOR OPTIONS
- SPECIAL PURPOSE RECEPTACLE. LETTER CODE DENOTES RECEPTACLE CONFIGURATION
  LX-XXR = NEMA CONFIGURATION TWIST-LOCK RECEPTACLE
  X-XXR = NEMA CONFIGURATION STRAIGHT BLADE RECEPTACLE
  P = PENDANT MOUNT WITH CORD GRIPS. VERIFY PENDANT LENGTH
  X = COORDINATE RECEPTACLE CONFIGURATION WITH EQUIPMENT BEING SUPPLIED
- CEILING MOUNTED OCCUPANCY SENSOR
  P = PASSIVE INFRARED
  D = DUAL TECHNOLOGY
  U = ULTRASONIC, 360 DEG RANGE
  H = ULTRASONIC, HALLWAY PATTERN
  v (LOWERCASE) = VACANCY CONTROL DESIGNATION
- WALL MOUNTED OCCUPANCY SENSOR
  P = PASSIVE INFRARED
  D = DUAL TECHNOLOGY
  v (LOWERCASE) = VACANCY CONTROL DESIGNATION
- WALL MOUNTED OCCUPANCY SENSOR/SWITCH
  S = PASSIVE INFRARED WITH INTEGRAL "OFF" SWITCH
  T = DUAL RELAY PASSIVE INFRARED WITH TWO INTEGRAL "OFF" SWITCHES
  D = PASSIVE INFRARED WITH INTEGRAL DIMMER TO OFF.
  v (LOWERCASE) = VACANCY CONTROL DESIGNATION
- PHOTO ELECTRIC SWITCH
  O = CONTINUOUS DIMMING PHOTOCELL
  S = SWITCHED PHOTOCELL
- SINGLE POLE SWITCH
  2 = DOUBLE POLE SWITCH
  3 = THREE-WAY SWITCH
  4 = FOUR-WAY SWITCH
  a THRU z (LOWERCASE) = LUMINAIRE CONTROL DESIGNATION
  D = DIMMER
  F = FAN SPEED CONTROL
  K = KEY OPERATED SWITCH
  L = LIGHTED HANDLE
  M = MANUAL MOTOR STARTER WITH THERMAL OVERLOAD
  P = SWITCH WITH PILOT LIGHT
  S = SENTRY SWITCH
  T = INTERVAL TIMER
  W = WEATHERPROOF SWITCH
  V = LOW VOLTAGE SWITCH

GENERAL ELECTRICAL NOTES

A. DO NOT COMMENCE INSTALLATION OF ELECTRICAL SYSTEMS AND EQUIPMENT WITHOUT RELATED SHOP DRAWING APPROVALS.

B. ELECTRICAL CIRCUITS SHALL BE INTERRUPTED ONLY WITH PRIOR WRITTEN CONSENT. SUCH INTERRUPTIONS SHALL BE PRECEDED BY ALL POSSIBLE PREPARATIONS BY THE CONTRACTOR WHICH ARE NECESSARY TO KEEP THE ELECTRICAL CIRCUITS OFF FOR A MINIMUM PERIOD IN AN EXPEDITIOUS MANNER PURSUANT WITH GOOD WORKMANSHIP. THIS INCLUDES CIRCUIT TRACING TO IDENTIFY THE ELECTRICAL LOAD BEING SERVED AND THE ORIGIN OF THE CIRCUIT.

C. COORDINATE WITH OWNER SO THAT WORK CAN BE SCHEDULED NOT TO INTERRUPT OPERATIONS, NORMAL ACTIVITIES, BUILDING ACCESS, ACCESS TO DIFFERENT AREAS. THE OWNER WILL COOPERATE TO THE BEST OF THEIR ABILITY TO ASSIST IN A COORDINATED SCHEDULE, BUT WILL REMAIN THE FINAL AUTHORITY AS TO TIME OF WORK PERMITTED.

D. ALL WORK ON SERVICE CONDUCTORS, FEEDERS, AND OTHER SUCH EQUIPMENT SHALL BE DONE ONLY WHEN SUCH CONDUCTORS, FEEDERS, AND EQUIPMENT ARE DE-ENERGIZED. THE CONTRACTOR SHALL HAVE AN "ELECTRICAL SAFETY AND LOCK-OUT/TAG-OUT PROCEDURE" IN PLACE PRIOR TO COMMENCEMENT OF WORK.

E. REMOVE AND RESTORE WIRING WHICH SERVES USABLE EXISTING OUTLETS CLEAR OF THE CONSTRUCTION OR DEMOLITION.

F. IF EXISTING JUNCTION BOXES WILL BE MADE INACCESSIBLE, OR IF ABANDONED OUTLETS SERVE AS FEED THROUGH BOXES FOR OTHER EXISTING ELECTRICAL EQUIPMENT WHICH IS BEING RETAINED, PROVIDE NEW CONDUIT AND WIRE TO BYPASS THE ABANDONED OUTLETS.

G. IF EXISTING CONDUITS PASS THROUGH PARTITIONS OR CEILING WHICH ARE BEING REMOVED OR REMODELED, PROVIDE NEW CONDUIT AND WIRE TO REROUTE CLEAR OF THE CONSTRUCTION OR DEMOLITION AND MAINTAIN SERVICE TO THE EXISTING LOAD.

H. CONCEALED CONDUIT LOCATED IN CONCRETE WALLS OR HARDBOARD CEILING SPACES MAY BE ABANDONED IN PLACE. REMOVE CONDUCTORS AND TAG ABANDONED CONDUITS WITH CORRESPONDING SYSTEM AND TERMINATION POINT. CUT AND CAP ABANDONED CONDUIT. DO NOT EXTEND STUBS ABOVE FINISHED FLOOR.

I. EXTEND CIRCUITING AND DEVICES IN EXISTING WALLS TO BE FURRED OUT.

J. PROVIDE TEMPORARY SUPPORT FOR ELECTRICAL SYSTEMS THAT REMAIN IN PLACE.

K. REMOVE ABANDONED WIRING TO LEAVE SITE CLEAN.

L. PROVIDE BLANK COVER PLATE FOR ABANDONED FLUSH OUTLETS.

M. MAINTAIN ACCESS TO EXISTING ELECTRICAL INSTALLATIONS WHICH REMAIN ACTIVE. MODIFY INSTALLATION OR PROVIDE ACCESS PANEL AS APPROPRIATE.

N. WHERE DRAWINGS INDICATE EXISTING ELECTRICAL EQUIPMENT OR DEVICES TO BE RELOCATED AND/OR REUSED, REFURBISH THEM. THOROUGHLY CLEAN SUCH ITEMS. NOTIFY ARCHITECT OF ANY DEFECTS IN SUCH INSTALLATIONS. REPAIR ANY DAMAGE CAUSED BY DEMOLITION OR CONSTRUCTION PERFORMED UNDER THIS CONTRACT.

O. PROVIDE UPDATED PANEL SCHEDULES AND DIRECTORIES THAT IDENTIFY EXISTING CIRCUITS AND NUMBER OF SPARE CIRCUITS AVAILABLE UPON COMPLETION OF DEMOLITION WORK.

P. PROVIDE SUITABLE ANCHORAGE AND SUPPORT FOR ELECTRICAL EQUIPMENT IN RATED WALLS, SLABS AND CEILINGS. MOUNT DEVICES AND RACEWAYS IN ACCORDANCE WITH ESTABLISHED CODES AND SPECIFICATIONS.

Q. CONNECT EQUIPMENT AND DEVICES FURNISHED UNDER OTHER DIVISIONS OF THIS CONTRACT, BY OWNER OR BY OTHER CONTRACTS.

R. UNLESS OTHERWISE NOTED, PROVIDE CONCEALED AND FLUSH MOUNTED INSTALLATION OF DEVICES AND EQUIPMENT IN AREAS.

S. PROVIDE SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN 120 VOLT, MULTI-WIRE CIRCUITS.

T. FOR 120 VOLT, 20 AMP CIRCUITS, WHERE CIRCUIT DISTANCE FROM PANELBOARD TO FARTHEST DEVICE/FIXTURE EXCEEDS 75 FEET, PROVIDE #10 SIZE CONDUCTOR.

U. RUN ELECTRICAL CONDUIT CONCEALED AND PARALLEL TO BUILDING LINES. VERIFY WITH ARCHITECT.

V. RECEPTACLE OUTLETS SHALL COMPLY WITH CEC SECTION 210.7.

W. LIGHTS, SWITCHES AND CONTROL MECHANISMS SHALL COMPLY WITH CEC SECTION 404.

X. BRACE ELECTRICAL EQUIPMENT TO RESIST A HORIZONTAL FORCE THAT ACT IN ANY DIRECTION. COMPLY WITH TITLE 24 REQUIREMENTS.

Y. INSTALL COMPLETE SYSTEM OF CONDUCTORS IN RACEWAY SYSTEM THROUGHOUT BUILDING FOR FEEDERS, BRANCH CIRCUITS, ETC.

Z. DESIGN OF TEMPORARY POWER FOR CONSTRUCTION SHALL BE THE CONTRACTOR'S RESPONSIBILITY. REMOVE TEMPORARY POWER PRIOR TO COMPLETION OF PROJECT. COORDINATE WITH DIVISION 01 SPECIFICATIONS.

AA. ELECTRICAL CONTRACTOR SHALL COORDINATE ALL CONDUIT TRENCHING WITH OTHER DISCIPLINES TO AVOID CONFLICT.

BB. MINIMUM SIZE FOR EXTERIOR BELOW GRADE CONDUIT SHALL BE 1".

CC. PROVIDE A TRANSPARENT, INSULATED, INNER DOOR AS A SAFETY BARRIER IN FRONT OF THE TERMINATION SECTION FOR ALL MEDIUM VOLTAGE SWITCHBOARDS AS REQUIRED BY PG&E. DOOR CONSTRUCTION SHALL COMPRISE OF A SOLID PIECE OF CLEAR ACRYLIC THAT IS 1/4" THICK AND RESISTANT TO DAMAGE BY IMPACT OR PUNCTURE. ENSURE THE ACRYLIC IS RATED FOR THE VOLTAGE SERVED. SAFETY DOOR SHALL EXTEND A MINIMUM OF 10" BELOW THE TERMINATING BUS AND MUST COVER ALL ENERGIZED PARTS ON THE SWITCHBOARD. THE ACRYLIC DOOR MUST BE OPERABLE WITH HINGES ON ONE SIDE, AND A HANDLE AND PROVISIONS TO SECURE THE DOOR IN THE OPEN AND CLOSED POSITIONS ON THE OPPOSITE SIDE.

DD. REMOVE EXISTING LUMINAIRES, SWITCHES, RECEPTACLES, AND OTHER ELECTRICAL EQUIPMENT AND DEVICES AND ASSOCIATED WIRING FROM WALLS, CEILINGS, FLOORS, AND OTHER SURFACES SCHEDULED FOR REMODELING, RELOCATION, OR DEMOLITION UNLESS SHOWN AS RETAINED OR RELOCATED ON DRAWINGS.

EE. MAINTAIN ELECTRICAL CONTINUITY OF EXISTING SYSTEMS. REMOVE OR RELOCATE ELECTRICAL BOXES, CONDUIT, WIRING, EQUIPMENT, LUMINAIRES, AND THE LIKE, AS REQUIRED IN REMOVED OR REMODELED AREAS IN THE EXISTING CONSTRUCTION AFFECTED BY THIS WORK.

FF. VERIFY EXACT LOCATION AND NUMBER OF EXISTING ELECTRICAL OUTLETS AND LUMINAIRES IN THE FIELD. LOCATIONS OF ITEMS SHOWN ON DRAWINGS AS EXISTING ARE PARTIALLY BASED ON RECORD AND OTHER DRAWINGS WHICH MAY CONTAIN ERRORS. VERIFY THE ACCURACY OF HE INFORMATION SHOWN PRIOR TO BIDDING AND PROVIDE SUCH LABOR AND MATERIAL AS IS NECESSARY TO ACCOMPLISH THE INTENT OF THE CONTRACT DOCUMENTS.

GG. OFFER REMOVED LUMINAIRES, WIRING DEVICES, PANELBOARDS AND EQUIPMENT TO THE OWNER. IF OWNER CHOOSES TO RETAIN THESE ITEMS, RETURN SUCH ITEMS TO OWNER. CAREFULLY REMOVE AND DISPOSE OF ITEMS REJECTED BY OWNER FROM PROJECT SITE AND IN A LEGAL MANNER.

HH. EXISTING LIGHTING WHICH IS TO REMAIN OR BE RELOCATED IS TO BE CLEANED. LEAVE ALL LUMINAIRES IN PROPER WORKING ORDER. REPLACE DAMAGED OR BROKEN LENS AND/OR COMPONENTS.

II. RECONNECT EXISTING LUMINAIRES NOT SHOWN ON DRAWINGS AND AFFECTED DUE TO DEMOLITION TO NEAREST AVAILABLE EXISTING LIGHTING CIRCUIT ABLE TO TAKE THE ADDITIONAL LOAD.

JJ. PROVIDE UNSWITCHED HOT CONDUCTOR TO EMERGENCY /DRIVER OF SWITCHED LUMINAIRES TO PREVENT SWITCHOVER TO BATTERY OPERATION WHEN LUMINAIRES ARE SWITCHED TO THE OFF POSITION.

KK. OCCUPANCY SENSOR NOTES:
- a. WALL SENSORS
  - SENSOR MUST HAVE CLEAR "VIEW" OF OCCUPANTS. WHERE SENSOR WILL BE BLOCKED, SUBSTITUTE WITH SMALL-ROOM CEILING SENSOR.
- b. SEE MANUFACTURER'S SPECIFICATION REGARDING PLACING SENSORS AWAY FROM STRONG AIR-FLOW. INDICATE PRECISE LOCATION OF EACH CEILING SENSOR WHERE DRAWINGS INDICATE AIR SUPPLIES.
- c. IN INDIVIDUAL ROOMS WITH CEILING SENSORS AND DUAL-LEVEL LIGHTING, ASSUME TWO TOGGLE SWITCH OVERRIDES PER ROOM.
- d. PRIOR TO INSTALLATION, RECEIVE FACTORY-TRAINING AND LAYOUT-ASSISTANCE. IF LOCAL AGENT CHANGES LIGHTING DRAWINGS, CONTACT FACTORY REPRESENTATIVE.

LL. PROVIDE ALL BACKBOXES, FLOOR BOXES, FLOOR TRENCH DUCT, GROUNDING SYSTEM, PULL BOXES, CONDUITS, CABLING, AND CABLE TRAYS FOR TELECOM/SECURITY DRAWINGS AND SPECIFICATIONS. REFER TO TELECOM/AV/SECURITY DRAWINGS FOR QUANTITY AND LOCATIONS. PROVIDE ALL APPURTENANCES FOR A COMPLETE INSTALLATION.

MM. ALL AIC RATINGS SHOWN ARE MINIMUM REQUIREMENTS. COORDINATE AND UPGRADE RATINGS FOR ALL DISTRIBUTION EQUIPMENT AS PER SHORT CIRCUIT ANALYSIS RECOMMENDATIONS.

NN. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

OO. DRAWINGS AND SPECIFICATIONS COMPLIMENT EACH OTHER. REQUIREMENT BY EITHER INFERS REQUIREMENT BY BOTH.

PP. REFER TO ARCHITECTURAL DETAIL 6/G3.21.0 FOR ELECTRICAL DEVICE MOUNTING HEIGHTS.

DSA COMPONENT ANCHORAGE NOTES

A. ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26, AND ASCE 7-10 CHAPTER 13, 26, AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVEABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. MOVEABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

B. THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENTS AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

1. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
2. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

C. FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

A. PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.8, 13.6.7, 13.6.5.6, AND 2016 CBC, SECTIONS 1616A.1.23, 1616A.1.25 AND 1616A.1.26.

B. THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS OR THEY SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS (OPM-0043-13).

C. COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AND BRACING OF THE PIPE, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS.

SHEET INDEX

These Record Documents have been prepared based on information provided by others. The design professional has not verified the accuracy and/or completeness of this information and shall not be responsible for any error or omissions which may be incorporated herein as a result.

APPROVALS

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PROJECT 2016-0538

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PROJECT TITLE

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D-4002
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RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

INCREMENT 2

ISSUE DATE **08/22/2023**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

SYMBOLS LIST AND GENERAL NOTES - ELECTRICAL

SHEET NUMBER

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LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	HOUSING	SHIELDING	MOUNTING	FINISH	DRIVER	LAMP(S)	INPUT WATTS	VOLTAGE	MFG/CATALOG #	NOTES
L1	2x4 RECESSED LED TROFFER	DIE-FORMED 20-GAUGE COLD-ROLLED STEEL	UV-STABILIZED AND IMPACT-RESISTANT FROSTED VIRGIN ACRYLIC LENS	RECESSED	MATTE WHITE	INTEGRAL 0-10V DIMMING DRIVER	LED - 5486 LUMENS, 3500K, 80 CRI	40.6 W	UNV	FINELITE "HPR LED" SERIES #HPR LED-A-2x4-DCO-H-835-277V-SC-(CEILING) OR APPROVED EQUIVALENT	CONTRACTOR TO COORDINATE CEILING TYPE WITH ARCHITECT PRIOR TO ORDERING
L2	4 FT LINEAR LED LUMINAIRE	CODE-GAUGE COLD-ROLLED STEEL	ACRYLIC LENS	PENDANT	WHITE	INTEGRAL 0-10V DIMMING DRIVER	LED - 3966 LUMENS, 3500K, 80 CRI	30 W	UNV	LITHONIA LIGHTING #ZL1D-L48-SMR-3000LM-FST-MVOLT-35K-80CRI-WH-ZACVH OR APPROVED EQUIVALENT	BOTTOM OF LUMINAIRE TO BE @ 8'-6" AFF
L3A	8 INCHES DIAMETER PENDANT LED LUMINAIRE WITH REGRESSED DOWNLIGHT AND VERTICAL AMBIENT ILLUMINATION	MATTE ACRYLIC AMBIENT CYLINDER	ACRYLIC DIFFUSER LENS	PENDANT STEM	MATTE WHITE	REMOTE 0-10V DIMMING DRIVER	LED - 1570 LUMENS VERTICAL AND 2910 LUMENS DOWN, 3500K, 80 CRI	44 W	UNV	SPI LIGHTING "VALLEJO LC" SERIES #SIP12065-L16W-(FINISH)-120-277V-28W-55 WIDE 3500K-CAS OR APPROVED EQUIVALENT	BOTTOM OF LUMINAIRE TO BE @ 10'-6" AFF PROVIDE WITH SWIVEL "BALL AND JOINT SOCKET" MOUNTING OPTION, MAX SWING AT 12 DEGREES FROM VERTICAL
L3B	10 INCHES DIAMETER PENDANT LED LUMINAIRE WITH REGRESSED DOWNLIGHT AND VERTICAL AMBIENT ILLUMINATION	MATTE ACRYLIC AMBIENT CYLINDER	ACRYLIC DIFFUSER LENS	PENDANT STEM	MATTE WHITE	REMOTE 0-10V DIMMING DRIVER	LED - 1570 LUMENS VERTICAL AND 2910 LUMENS DOWN, 3500K, 80 CRI	44 W	UNV	SPI LIGHTING "VALLEJO LC" SERIES #SIP12066-L16W-(FINISH)-120-277V-28W-55 WIDE 3500K-CAS OR APPROVED EQUIVALENT	BOTTOM OF LUMINAIRE TO BE @ 10'-0" AFF PROVIDE WITH SWIVEL "BALL AND JOINT SOCKET" MOUNTING OPTION, MAX SWING AT 12 DEGREES FROM VERTICAL
L3C	12 INCHES DIAMETER PENDANT LED LUMINAIRE WITH REGRESSED DOWNLIGHT AND VERTICAL AMBIENT ILLUMINATION	MATTE ACRYLIC AMBIENT CYLINDER	ACRYLIC DIFFUSER LENS	PENDANT STEM	MATTE WHITE	REMOTE 0-10V DIMMING DRIVER	LED - 1570 LUMENS VERTICAL AND 2910 LUMENS DOWN, 3500K, 80 CRI	44 W	UNV	SPI LIGHTING "VALLEJO LC" SERIES #SIP12067-L16W-(FINISH)-120-277V-28W-55 WIDE 3500K-CAS OR APPROVED EQUIVALENT	BOTTOM OF LUMINAIRE TO BE @ 9'-6" AFF PROVIDE WITH SWIVEL "BALL AND JOINT SOCKET" MOUNTING OPTION, MAX SWING AT 12 DEGREES FROM VERTICAL
L4	6" DIAMETER RECESSED LED DOWNLIGHT WITH MEDIUM DISTRIBUTION	16-GAUGE GALVANIZED STEEL	INTEGRATED POLYCARBONATE LENS	RECESSED	WHITE	INTEGRAL 0-10V DIMMING DRIVER	LED - 2660 LUMENS, 3500K, 80 CRI	29.5 W	UNV	GOTHAM ARCHITECTURAL DOWNLIGHTING "EVO" SERIES #EVO-35/25-6AR-MD-LSS-MVOLT-GZ10 OR APPROVED EQUIVALENT	
L5	SLEEK CYLINDER LED PENDANT LUMINAIRE	ALUMINUM		PENDANT	AGED BRASS	ELV DIMMING DRIVER	LED - 435 LUMENS, 3000K	8 W	120V	TECH LIGHTING "PIPER PENDANT" #700FJPPR-ZZ-LEDS930 CANOPY #700J4RF-Z-LED OR APPROVED EQUIVALENT	BOTTOM OF LUMINAIRE TO BE @ 6'-6" AFF
L6	RECESSED LINEAR SLOT WALL WASH LED LUMINAIRE WITH REGRESSED LENS	COLD-ROLLED STEEL WITH EXTRUDED ALUMINUM TRIM	LAY-IN 90% TRANSMISSIVE SATIN ACRYLIC REGRESSED LENS	RECESSED	MATTE WHITE	INTEGRAL 0-10V DIMMING DRIVER	LED - 4272 LUMENS, 3500K, 80 CRI	64 W	120V	MARK ARCHITECTURAL LIGHTING #SL2L-LOP-8FT-RLP-(CEILING)-80CRI-3500K-800LMF-WW-MIN1-120-NLIGHT OR APPROVED EQUIVALENT	
L7	4" SQUARE RECESSED LED DOWNLIGHT	16-GAUGE GALVANIZED STEEL	INTEGRATED POLYCARBONATE LENS	RECESSED	WHITE	INTEGRAL 0-10V DIMMING DRIVER	LED - 3112 LUMENS, 3500K, 80 CRI	36.9 W	UNV	GOTHAM ARCHITECTURAL DOWNLIGHTING "EVO" SERIES #EVO-SQ-35/30-4AR-LSS-MVOLT-EZ1 OR APPROVED EQUIVALENT	
L8	10 FT LINEAR SUSPENDED DIRECT/INDIRECT LED LUMINAIRE	EXTRUDED ALUMINUM		PENDANT	WHITE	REMOTE 0-10V DIMMING DRIVER	LED - 875 LUMENS / FT UP AND 550 LUMENS / FT DOWN, 3500K, 80 CRI	135 W	120V	PEERLESS "OPM4" SERIES #OPM4-LLP-10FT-MSL6-80CRI-35K-I900LMF-500LMF-DARK-NLIGHT-120-DCT-F1/24F-(COLOR) OR APPROVED EQUIVALENT	PROVIDE WITH DUAL CIRCUIT FOR INDIVIDUAL DIMMING OF INDIRECT AND DIRECT LIGHT OUTPUT. BOTTOM OF LUMINAIRE TO BE @ 7'-6" AFF
L9A	NOT USED.										
L9B	NOT USED.										
L10	2" WIDE BY 12 FT LONG WALL MOUNTED DIRECT/INDIRECT LED LUMINAIRE	2" EXTRUDED ALUMINUM	EXTRUDED ACRYLIC LENS	WALL	MATTE WHITE	INTEGRAL 0-10V DIMMING DRIVER	LED - 795 LUMENS/FT, 3500K, 80 CRI	84 W	120V	3G LIGHTING "LINIA" SERIES #3G-2WLI-DI-L1-L1-35K-120-DIM-FL-WH-1C-S-12' OR APPROVED EQUIVALENT	BOTTOM OF LUMINAIRE TO BE @ 7'-6" AFF
L10B	2" WIDE BY 16 FT LONG WALL MOUNTED DIRECT/INDIRECT LED LUMINAIRE WITH 1" DROP LENS	2" EXTRUDED ALUMINUM	EXTRUDED ACRYLIC LENS	WALL	MATTE WHITE	INTEGRAL 0-10V DIMMING DRIVER	LED - 1136 LUMENS/FT, 3500K, 80 CRI	176 W	120V	3G LIGHTING "LINIA" SERIES #3G-2WLI-DI-L2-L1-35K-120-DIM-DD1-WH-1C-S-16' OR APPROVED EQUIVALENT	BOTTOM OF LUMINAIRE TO BE @ 13'-6" AFF
L11	4" SQUARE RECESSED LED DOWNLIGHT	16-GAUGE GALVANIZED STEEL	INTEGRATED POLYCARBONATE LENS	RECESSED	WHITE	INTEGRAL 0-10V DIMMING DRIVER	LED - 2576 LUMENS, 3000K, 80 CRI	28.9 W	UNV	GOTHAM ARCHITECTURAL DOWNLIGHTING "EVO" SERIES #EVO-SQ-30/25-4AR-LSS-MVOLT-EZ1 OR APPROVED EQUIVALENT	
L12	EXTERIOR LINEAR LED TAPE LIGHT			SURFACE		REMOTE POWER SUPPLY - 0-10V DIMMING	LED - 330 LUMENS / FT, 3000K, 80 CRI	3.2 W / FT	UNV	KELVIX "PH" SERIES LED TAPE #PH3K-WR-24V EXTRUSION #CH-409 POWER SUPPLY #HLV96 OR APPROVED EQUIVALENT	REFER TO PLANS FOR LENGTH
L13	EXTERIOR RECESSED UPLIGHTING LED LUMINAIRE WITH ASYMMETRIC DISTRIBUTION.	EXTRUDED ALUMINUM	CLEAR LENS	RECESSED	ALUMINUM	REMOTE POWER SUPPLY	LED - 2856 LUMENS, 3500K, 80 CRI	60 W	UNV	JUNO FLEXCONNECT SERIES LUMINAIRE: #IO414-ASY-7FT-35K-80CRI CHANNEL: #IOLPR-7FT-CL-SA DRIVER: #DLDPS-60W-IP67 OR APPROVED EQUIVALENT	CONTRACTOR TO ENSURE ASYMMETRIC LIGHT DISTRIBUTION ILLUMINATE BACK WALL. PROVIDE ALL NECESSARY APPURTENANCES FOR A COMPLETE AND OPERATIONAL SYSTEM.
L14	4" SQUARE RECESSED LED WALLWASH DOWNLIGHT	16-GAUGE GALVANIZED STEEL	INTEGRATED POLYCARBONATE LENS	RECESSED	WHITE	INTEGRAL 0-10V DIMMING DRIVER	LED - 1500 LUMENS, 3500K, 85 CRI	18 W	UNV	GOTHAM ARCHITECTURAL DOWNLIGHTING "EVO" SERIES #EVO SQLW-35/15-4AR-LSS-MVOLT-EZ10-NPS80EZ OR APPROVED EQUIVALENT	
L15	6" DIAMETER RECESSED LED DOWNLIGHT WITH WIDE DISTRIBUTION	16-GAUGE GALVANIZED STEEL	INTEGRATED POLYCARBONATE LENS	RECESSED	WHITE	INTEGRAL 0-10V DIMMING DRIVER	LED - 2660 LUMENS, 3500K, 80 CRI	29.5 W	UNV	GOTHAM ARCHITECTURAL DOWNLIGHTING "EVO" SERIES #EVO-35/25-6AR-WD-LSS-MVOLT-GZ10 OR APPROVED EQUIVALENT	
L16	SLEEK CYLINDER LED PENDANT LUMINAIRE	ALUMINUM		PENDANT	AGED BRASS	ELV DIMMING DRIVER	LED - 435 LUMENS, 3000K	8 W	277V	TECH LIGHTING "PIPER PENDANT" #700FJPPR-RR-LEDS930 CANOPY #700J4RF-R-LED277 OR APPROVED EQUIVALENT	BOTTOM OF LUMINAIRE TO BE @ 7'-0" AFF
L17A	24" DIAMETER DECORATIVE LED LUMINAIRE	ALUMINUM	WHITE MATTE ACRYLIC	SURFACE	WHITE	REMOTE POWER SUPPLY - 0-10V DIMMING	LED - 4280 LUMENS, 3500K, 80 CRI	35 W	UNV	OCL "LOOP" SERIES #L01-C1NA-24-MW-AWP-LED2/35K-UNV-DM1 OR APPROVED EQUIVALENT	
L17B	14" DIAMETER DECORATIVE LED LUMINAIRE	ALUMINUM	WHITE MATTE ACRYLIC	SURFACE	WHITE	REMOTE POWER SUPPLY - 0-10V DIMMING	LED - 1430 LUMENS, 3500K, 80 CRI	15 W	UNV	OCL "LOOP" SERIES #L01-C1NA-14-MW-AWP-LED1/35K-UNV-DM1 OR APPROVED EQUIVALENT	
L18A	24" DIAMETER DECORATIVE LED LUMINAIRE	ALUMINUM	WHITE MATTE ACRYLIC	PENDANT	WHITE	REMOTE POWER SUPPLY - 0-10V DIMMING	LED - 4280 LUMENS, 3500K, 80 CRI	35 W	UNV	OCL "LOOP" SERIES #L01-P1EC-24-MW-AWP-LED2/35K-UNV-(OAH)-DM1 OR APPROVED EQUIVALENT	BOTTOM OF LUMINAIRE TO BE @ 8'-0" AFF
L18B	48" DIAMETER DECORATIVE LED PENDANT	ALUMINUM	WHITE MATTE ACRYLIC	PENDANT	WHITE	REMOTE POWER SUPPLY - 0-10V DIMMING	LED - 12890 LUMENS, 3500K, 80 CRI	110 W	UNV	OCL "LOOP" SERIES #L01-P1EC-48-MW-AWP-LED2/35K-UNV-(OAH)-DM1 OR APPROVED EQUIVALENT	BOTTOM OF LUMINAIRE TO BE @ 14'-0" AFF
L19	6" DIAMETER RECESSED LED DOWNLIGHT, NSF RATED	16-GAUGE GALVANIZED STEEL		RECESSED	WHITE	INTEGRAL 0-10V DIMMING DRIVER	LED - 3369 LUMENS, 3500K, 80 CRI	43.9 W	UNV	GOTHAM ARCHITECTURAL DOWNLIGHTING "EVO" SERIES #EVO6FS-35/35-6DFF-SMO-MVOLT-EZ10 OR APPROVED EQUIVALENT	
L20	2'x4' RECESSED LED TROFFER, NSF RATED	18 GAUGE COLD ROLLED STEEL	OPTIC PLUS ACRYLIC LENS	RECESSED		INTEGRAL 0-10V DIMMING DRIVER	LED - 8984 LUMENS, 3500K, 80 CRI	71.5 W	UNV	L.C. DOANE LIGHTING #RXB24-2W90-35/80-CR-VAR-DM-122/00-NS OR APPROVED EQUIVALENT	
L21	EXTERIOR WALL LED LUMINAIRE	HIGH PRESSURE DIE CAST MARINE GRADE ALUMINUM	OPAL BOROSILICATE IMPACT RESISTANT GLASS	WALL	TO BE SELECTED BY ARCHITECT	INTEGRAL 0-10V DIMMING DRIVER	LED - 1376 LUMENS, 3000K, 80 CRI	20 W	UNV	LIGMAN LIGHTING "DUOMO" SERIES #UDU-30123-20W-2-W30-(COLOR)-120/277V-DIM OR APPROVED EQUIVALENT	BOTTOM OF LUMINAIRE TO BE @ 11'-0" AFF
L22	EXTERIOR WALL LED LUMINAIRE WITH INTEGRAL PHOTOSENSOR	DIE-CAST ALUMINUM	UV-STABILIZED POLYCARBONATE	WALL		INTEGRAL LED DRIVER	LED - 3087 LUMENS, 4000K, 70 CRI	28 W	UNV	LITHONIA LIGHTING "TWP" SERIES #TWP LED-ALO-40K-T3M-MVOLT-PE-SF-DDBXD OR APPROVED EQUIVALENT	CONTRACTOR TO SET FAO SETTING TO STEP 4 TO KEEP WATTAGE UNDER 30W
L23	NOT USED.										
L24	EXTERIOR LED BOLLARD WITH BUG RATING B1-U0-G1.			BOLLARD		INTEGRAL 0-10V DIMMING DRIVER	LED - 1713 LUMENS, 3000K	33 W	120V	BEGA #84062	PROVIDED FOR ELECTRICAL REFERENCES ONLY. SEE LANDSCAPE DRAWINGS FOR EXACT SELECTION AND REQUIREMENTS
L25	LOW PROFILE 2" WIDE LED STRIP LIGHT	CODE GAUGE COLD-ROLLED STEEL		SURFACE	WHITE	INTEGRAL 0-10V DIMMING DRIVER	LED - 3000 LUMENS, 3500K, 80 CRI	30 W	UNV	LITHONIA "ZL1D" SERIES #ZL1D-L48-SMR-3000LM-FST-MVOLT-35K-80CRI OR APPROVED EQUIVALENT	BOTTOM OF LUMINAIRE TO BE @ 7'-6" AFF
X1	LED EXIT SIGN WITH GREEN LETTERS, EMERGENCY BATTERY BACKUP, AND SELF-DIAGNOSTICS	ENGINEERING-GRADE THERMOPLASTIC, IMPACT RESISTANT, SCRATCH-RESISTANT, AND CORROSION-PROOF		UNV	WHITE	INTEGRAL LED DRIVER	LED - GREEN LETTERS	1 W	UNV	LITHONIA "LQM" SERIES #LQM-S-W-3-G-120/277-ELN-SD OR APPROVED EQUIVALENT	

NOTES:

1. THIS LUMINAIRE SCHEDULE IS NOT COMPLETE WITHOUT A COPY OF THE PROJECT MANUAL CONTAINING THE ELECTRICAL SPECIFICATIONS.
2. DIMMING CONTROL PROTOCOL (0-10VDC, LINE VOLTAGE, DALI, ETC.) COMPATIBLE WITH LIGHTING CONTROL SYSTEM AS SPECIFIED AND SHOWN ON DRAWINGS.
3. PROVIDE +/- 12 INCH ADJUSTABILITY IN AIRCRAFT CABLE LENGTH WHERE USED.
4. COORDINATE ALL CEILING TYPES WITH LUMINAIRE LOCATIONS PRIOR TO ORDERING LUMINAIRES. COORDINATE INSTALLATION WITH REFLECTED CEILING PLAN.
5. SPECIFIED MANUFACTURERS ARE APPROVED TO SUBMIT BID. INCLUSION DOES NOT RELIEVE MANUFACTURER FROM SUPPLYING PRODUCT AS DESCRIBED.
6. PROVIDE SUBMITTALS THAT INCLUDE THE LUMINAIRE AND LAMP INFORMATION OF EACH LUMINAIRE, WITH APPLICABLE OPTIONS CLEARLY CHECKED OR HIGHLIGHTED. SUBMITTALS NOT INCLUDING THIS INFORMATION WILL BE RETURNED AS REJECTED BY THE ENGINEER OF RECORD.
7. REMOTE DRIVERS: UL LISTED FOR THEIR APPLICATION. DRIVERS MARKED AS UL RECOGNIZED COMPONENT BUT NOT UL LISTED ARE SUBJECT TO REMOVAL AND REPLACEMENT AT NO COST TO OWNER.
8. PROVIDE COMMISSIONING OF THE LIGHTING AND LIGHTING CONTROLS IN ACCORDANCE WITH CALIFORNIA TITLE 24 LIGHTING COMMISSIONING REQUIREMENTS.

RFI # 137- DISCONTINUED L13 AND L20

L13 REPLACEMENT FIXTURE - KELVIX W/ MOUNTING FX-CM-CH

Item	Output	CCT	Beam Angle	Feed Point	Rating	Voltage
RX	450		11070		IP67	24V
FXA—Poptix	450—450 lm/ft	24K—2400K 27K—2700K 30K—3000K 35K—3500K 40K—4000K 50K—5000K	11070—110° × 70°	SL—Side Feed Left SR—Side Feed Right E—End Feed B—Bottom Feed T—Top Feed	IP67	24V

L20 REPLACEMENT FIXTURE - LCDOANE - RXR MODEL

RXR	24	-	2W90	-	35	/	80	-	C	W	-	VAR	DM	-	122	00	-	NS
	one		two		three		four		five	six		seven	eight		nine	ten		eleven

RFI #100 - LIGHTING FINISHES

L20- recessed LED in ACT - White

L21- with shade - Black

L22- LED wall luminaire - Black

L24 - LED bollard - Black

8/21/2023 8:34:21 PM C:\Users\victorv\Documents\Revit Locals\DVC San Ramon - MEP Central v19_victorvMKSKL.rvt

APPROVALS

NOLL & TAM ARCHITECTS

729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

PROJECT 2016-0538

CONTACT

INTERFACE ENGINEERING

135 Main Street
Suite 400
San Francisco, CA 94105
TEL 415.489.7249
FAX 415.489.7289
www.interfaceengineering.com

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

INCREMENT 2

ISSUE DATE **08/22/2023**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

LUMINAIRE SCHEDULE - ELECTRICAL

SHEET NUMBER

E0.02.2

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
This document is used to demonstrate compliance with requirements in §110.9, §130.0, §130.1, §140.6, and §141.0(b)2 for indoor lighting scopes using the prescriptive path.		
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page:	Page 1 of 7
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared:	5/17/2019

A. GENERAL INFORMATION

01	Project Location (city)		04	Total Conditioned Floor Area (ft²)	5,823
02	Climate Zone	12	05	Total Unconditioned Floor Area (ft²)	0
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	1

☐ Office ☐ Retail ☐ Warehouse ☐ Hotel/Motel ☐ School ☑ Support Areas
☐ Parking Garage ☐ High-Rise Residential ☐ Relocatable ☑ Other (write in):

B. PROJECT SCOPE
Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☑ New Lighting System	Area Category	5,823	Area Category	0
☐ Altered Lighting System				
Total Area of Work (ft²)	**5,823**		**0**	

C. COMPLIANCE RESULTS
Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.6(b) (Watts)						Actual Lighting Power per §140.6(a) (Watts)					Compliance Results
	01	02	03	04	05		06	07	08		09	10
	Complete Building §140.6(c)1	Area Category §140.6(c)2	Area Category Footnotes §140.6(c)2G (+)	Tailored §140.6(c)3 (+)	Total Allowed (Watts)		Total Designed (Watts)	Adjustments: Portable Lighting §140.6(a) (-)	Adjustments: PAF Control Credits §140.6(a)2 (-)		Total Actual (Watts) *Includes Adjustments	05 Must be ≥ 09 §140.6
	(See Table I)	(See Table I)	(See Table K)	(See Table L)			(See Table F)	(See Table J)	(See Table R)			
Conditioned:		6,051.15			**6,051.15**	≥	4,408.5			=	**4,408.5**	**COMPLIES**
Unconditioned:						≥				=		
Controls Compliance (See Table H for Details)												**COMPLIES**
Rated Power Reduction Compliance (See Table S for Details)												**Not Applicable**

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page:	Page 2 of 7
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared:	5/17/2019

D. EXCEPTIONAL CONDITIONS
This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

No exceptional conditions apply to this project.

E. ADDITIONAL REMARKS
This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. INDOOR LIGHTING FIXTURE SCHEDULE
Table Instructions: Include all permanent designed lighting and all portable lighting in offices.

01	02	03		04	05	06	07	08	09	
Name or Item Tag	Complete Luminaire Description	Specialized Luminaire Types: Track	Portable	Watts per luminaire[1]	How Wattage is determined	Total number luminaires	Exempt per §140.6(a)3	Design Watts	Field Inspector: Pass	Fail
L1	L1 - Recessed 2x4 LED Troffer	☐	☐	34	NA8 Default	10	☐	340	☐	☐
L10	L10 - Wall Mounted Linear D/I LED	☐	☐	84	NA8 Default	1	☐	84	☐	☐
L10B	L10B - Wall mounted Linear D/I LED	☐	☐	112	NA8 Default	2	☐	224	☐	☐
L17A	L17A - Surface Round LED	☐	☐	30	NA8 Default	4	☐	120	☐	☐
L17B	L17B - Surface Round LED	☐	☐	15	NA8 Default	6	☐	90	☐	☐
L2	L2 -4' Linear LED Luminaire	☐	☐	30	NA8 Default	7	☐	210	☐	☐
L3A	L3A - Pendant LED	☐	☐	44	NA8 Default	20	☐	880	☐	☐
L3B	L3B - Pendant LED	☐	☐	44	NA8 Default	22	☐	968	☐	☐
L3C	L3C - Pendant LED	☐	☐	44	NA8 Default	24	☐	1,056	☐	☐
L4	L4 - Recessed Downlight LED	☐	☐	29.5	NA8 Default	3	☐	88.5	☐	☐
L5	L5 - Pendant LED	☐	☐	8	NA8 Default	6	☐	48	☐	☐
L6	L6 - Recessed Linear Wall Wash LED	☐	☐	64	NA8 Default	2	☐	128	☐	☐
L7	L7 - Recessed Downlight LED	☐	☐	37	NA8 Default	1	☐	37	☐	☐
L8	L8 - 10' Linear Suspended D/I LED	☐	☐	135	NA8 Default	1	☐	135	☐	☐
						Total Designed Watts CONDITIONED SPACES:		**4,408.5**		

[1]*NOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c) Wattage used must be the maximum rated for the luminaire, not the lamp.*

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page:	Page 3 of 7
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared:	5/17/2019

G. TRACK LIGHTING
This Section Does Not Apply

H. INDOOR LIGHTING CONTROLS (Not Including PAFs)
Table Instructions:
*Please include lighting controls for conditioned and unconditioned spaces in this table. When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.*

Building Level Controls

01	02	03	
Mandatory Demand Response §130.1(e)	Shut-off Controls §130.1(c)	Field Inspector: Pass	Fail
Not Required < 10,000 SF	Whole Building: Automatic Time Switch	☐	☐

Area Level Controls

04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Area Controls §130.1(a)	Multi-Level Controls §130.1(b)	Shut-Off Controls §130.1(c)	Primary/Skylit Daylighting §130.1(d)	Secondary Daylighting §140.6(d)	Interlocked Systems §140.6(a)1	Field Inspector: Pass	Fail
Library	Library Building	Manual ON/OFF	Dimmer	Occ Sensor	Included	Included	☐	☐	☐
Study Room	Convention/Conference/Meeting	Manual ON/OFF	Dimmer	Occ Sensor	N/A	Included	☐	☐	☐
Meeting Room	Convention/Conference/Meeting	Manual ON/OFF	Dimmer	Occ Sensor	Included	Included	☐	☐	☐
Storage/Mech/Elec/ Tech	Corridor/Restroom/Support	Manual ON/OFF	Dimmer	Occ Sensor	Included	Included	☐	☐	☐

*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
EX: Conference 1: Primary/Skylight Daylighting: Exempt because less than 120 watts of general lighting; EXCEPTION 1 to §130.1(d)2

13
Plan Sheet Showing Daylit Zones:

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS
Table Instructions: Complete the table for each area complying using the Complete Building or Area Category Methods per §140.6(b). Indicate if additional lighting power allowances per §140.6(c) or adjustments per §140.6(a) are being used.

Conditioned Spaces

01	02	03	04	05	06		
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowances / Adjustments: Footnotes	PAF	Portable Ltg
Library/Study Areas	Library - Reading Area	1.1	4,834	5,317.4	☐	☐	☐
Utility Rooms	Elec, Mech, Telephone	0.55	313	172.15	☐	☐	☐

Table Continued

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page:	Page 4 of 7
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared:	5/17/2019

01	02	03	04	05	06		
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowances / Adjustments: Footnotes	PAF	Portable Ltg
Storage	Corridor, Restrm, Stair, Support	0.6	416	249.6	☐	☐	☐
Meeting Room	Convention, Conf., Meeting	1.2	260	312	☐	☐	☐
		TOTAL:	**5,823**	**6,051.15**	See Tables J, K, R for detail		

J. POWER ADJUSTMENT: PORTABLE LIGHTING IN OFFICES
This Section Does Not Apply

K. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD FOOTNOTES
This Section Does Not Apply

L. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE
This Section Does Not Apply

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED SPECIAL FUNCTION AREAS
This Section Does Not Apply

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY
This Section Does Not Apply

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING
This Section Does Not Apply

P. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS
This Section Does Not Apply

Q. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE
This Section Does Not Apply

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page:	Page 5 of 7
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared:	5/17/2019

R. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (PAF)
This Section Does Not Apply

S. RATED POWER REDUCTION COMPLIANCE BY SPACE
This Section Does Not Apply

T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at http://www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCI

YES	NO	Form/Title	Field Inspector: Pass	Fail
◉	○	NRCI-LTI-01-E - Must be submitted for all buildings	☐	☐
◉	○	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-03-E - Must be submitted for a line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting, to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	☐	☐

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page:	Page 6 of 7
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared:	5/17/2019

U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

YES	NO	Form/Title	Field Inspector: Pass	Fail
◉	○	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	☐	☐
◉	○	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	☐	☐
○	◉	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	☐	☐
○	◉	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	☐	☐

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page:	Page 7 of 7
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared:	5/17/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

Documentation Author Name:	Jason Lau	Documentation Author Signature:	5/17/2019
Company:	Interface Engineering	Signature Date:	
Address:	135 Main Street	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	San Francisco, CA 94105	Phone:	4154897240

RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	Jason Lau	Responsible Designer Signature:	
Company :	Interface Engineering	Date Signed:	5/17/2019
Address:	135 Main Street	License:	E16806
City/State/Zip:	San Francisco, CA 94105	Phone:	4154897240

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 9/17) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
This document is used to demonstrate compliance with requirements in §110.9, §130.0, §130.2, §140.7, and §141.0(b)2L for outdoor lighting scopes using the prescriptive path.		
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page:	Page 1 of 7
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared:	5/17/2019

A. GENERAL INFORMATION

01	Project Location (city)		04	Total Illuminated Hardscape Area (ft²)	10,261
02	Climate Zone	12			
03	Outdoor Lighting Zone per Title 24, Part 1 §10-114 or as designated by Authority Having Jurisdiction (AHJ):				

☐ LZ-0: Very Low - Undeveloped Parkland ☐ LZ-2: Moderate - Rural Areas ☐ LZ-4: High - Must be reviewed by CA Energy Commission for Approval
☐ LZ-1: Low - Developed Parkland ☑ LZ-3: Moderately High - Urban Areas

B. PROJECT SCOPE
Table Instructions: Include any outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.7 or §141.0(b)2L for alterations.

My project consists of:		
01	02	
☑ New Lighting System	Must Comply with Allowances from §140.7.	
☐ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)?	○ Yes ○ No

[1] *FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100*

C. COMPLIANCE RESULTS
Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Calculation of Total Allowed Lighting Power (Watts) §140.7 or §141.0(b)2L												Compliance Results		
01		02		03		04		05		06		07		08	09
General Hardscape Allowance §140.7(d)1	+	Per Application §140.7(d)2	+	Sales Frontage §140.7(d)2	+	Ornamental §140.7(d)2	+	Per Specific Area §140.7(d)2	OR	Existing Power §141.0(b)2L	=	Total Allowed (Watts)	≥	Total Actual (Watts)	07 Must be ≥ 08
(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)		(See Table N)				(See Table F)	
1,149.54	+	70	+		+		+	28	OR		=	1,247.54	≥	786	**COMPLIES**
Cutoff Compliance (See Table G for Details)												**Not Applicable**			
Controls Compliance (See Table H for Details)												**COMPLIES**			

STATE OF CALIFORNIA
Outdoor Lighting
NRCC-LTO-E (Created 9/17) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTO-E
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page:	Page 2 of 7
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared:	5/17/2019

D. EXCEPTIONAL CONDITIONS
This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

No exceptional conditions apply to this project.

E. ADDITIONAL REMARKS
This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. OUTDOOR LIGHTING FIXTURE SCHEDULE
This Section Does Not Apply

F. OUTDOOR LIGHTING FIXTURE SCHEDULE
Table Instructions: For new or altered lighting systems demonstrating compliance with §140.7 (ie Table I has expanded for input), include all luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application in the Table below. For altered lighting systems using the Existing Power method per §141.0(b)2L (ie Table N has expanded for input), include only new luminaires being installed and replacement luminaires being installed as part of the project scope (ie, do not include existing luminaires remaining or existing luminaires being moved).

Designed Wattage:

01	02	03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description	Watts per luminaire[1]	How Wattage is determined	Total number luminaires	Luminaire Status[2]	Excluded per §140.7(a)	Design Watts	Cutoff Req. > 150W §130.2(b)[3]	Field Inspector: Pass	Fail
L11	L11 - Recessed Downlight LED	29	NAB Default	4	New	☐	116		☐	☐
L12	L12 - Exterior LED Tape Light (W/ft)	3.2	NAB Default	15	New	☐	48		☐	☐
L22	L22 - Exterior Wall Mounted LED	28	NAB Default	1	New	☐	28		☐	☐
L24	L24 - Exterior LED Bollard	33	NAB Default	18	New	☐	594		☐	☐
					Total Designed Watts:		**786**			

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.
EX: Luminaire is lighting a statue; EXCEPTION 2 to §130.2(b).

G. CUTOFF REQUIREMENTS (BUG)
This Section Does Not Apply

APPROVALS

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729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

PROJECT 2016-0538
CONTACT
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www.interfaceengineering.com

PROJECT TITLE
CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO	DATE	DESCRIPTION

SHEET TITLE
TITLE 24 - LLRC INCREMENT 2

SHEET NUMBER
E0.03.2

8/21/2023 6:34:24 PM C:\Users\victorv\Documents\Revit Locals\DVC San Ramon - MEP Central v19_victorvMKSKL.rvt

H. OUTDOOR LIGHTING CONTROLS

This Section Does Not Apply

H. OUTDOOR LIGHTING CONTROLS

Table Instructions: Complete this table demonstrating compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
*When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank. For each requirement in columns 02 through 07, do not leave the field blank, instead select NA or Exempt* from the dropdown list to indicate not applicable or an exemption.*

Mandatory Controls

01	02	03	04	05	06	07	08	
Area Description	Motion Sensor: Incandescent>100W §130.2(a)	Shut-Off §130.2(c)1	Auto-Schedule §130.2(c)2	Motion Sensor §130.2(c)3	Sales Frontage §130.2(c)4	Façade, Ornament, Outdoor Dining §130.2(c)5	Field Inspector	
							Pass	Fail
LLRC Hardscape	NA: No Incand>100W	Astronomical Time	Yes	NA: Poles75W	NA: No Sales Front Ltg	No Applicable Lt	☐	☐

*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
EX: Not permitted by health & safety to be turned off; EXCEPTION 1 to §130.2(c).

I. LIGHTING POWER ALLOWANCE (per §140.7)

Table Instructions: Please complete this table for areas using the allowance calculations per §140.7. General Hardscape Allowance is per Table 140.7-A while "Use it or lost it" Allowances are per Table 140.7-B. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.

	01				
	General Hardscape Allowance	"Use it or lose it" Allowance (Watts)			
	☑	☑ Per Application	☐ Sales Frontage	☐ Ornamental	☑ Per Specific Area
	Table I (below)	Table J	Table K	Table L	Table M

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A

02	03	04	05	06	07	08	09
Area Description	Area Wattage Allowance (AWA)			Linear Wattage Allowance (LWA)			Total General AWA + LWA (Watts)
	Illuminated Area (ft²)	Allowed Density (W/ft²)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	
LLRC Exterior Hardscape	10,261	0.04	410.44	626	0.35	219.1	629.54

Table Continued

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A

Initial Wattage Allowance for Entire Site (Watts):	**520**
Total General Hardscape Allowance (Watts):	**1,149.54**

J. LIGHTING ALLOWANCE: PER APPLICATION

Table Instructions: Please complete this table for areas using the wattage allowance per application from Table-140.7-B.

01	02	03	04	05	06	07	08	09	10
Area Description	Application per Table 140.7-B[1]	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS				Additional Allowance (Watts)
		# of Locations	Allowance per Location[2] (Watts)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire	# of Luminaires	Design Watts	
LLRC Entrance	Bldg Entrance/ Exit	2	35	70	L12	3.2	15	48	
LLRC Entrance	Bldg Entrance/ Exit	2	35	70	L11	29	4	116	
							Total Design Watts for this Area:	164	70
								Total Allowance (Watts) All Areas:	**70**

[1] *FOOTNOTES: Primary entrance applications are only available for senior care facilities, police stations, hospitals, fire stations, and emergency vehicle facilities.*
[2] *The Allowance per Location for ATMs is 250W for the first ATM and 70W for each additional per Table 140.7-B.*

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This Section Does Not Apply

L. LIGHTING ALLOWANCE: ORNAMENTAL

This Section Does Not Apply

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This Section Does Not Apply

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

Table Instructions: Please complete this table for areas using the wattage allowance per specific area type from Table 140.7-B. More than one specific area allowance may be taken in a single project, if applicable. However, multiple specific area allowances may not be taken for the exact same area on the site.

Table Continued

01	02	03	04	05	06	07	08	09	10
Area Description	Specific Area Type per Table 140.7-B	CALCULATED ALLOWANCE (Watts)			DESIGN WATTS				Additional Allowance (Watts)
		Specific Area (ft²)[1]	Allowed Density (W/ft²)	Extra Allowance (Watts)	Luminaire Name or Item Tag	Watts per Luminaire	# of Luminaires	Design Watts	
Trash Enclosure	Non-sales Canopies/Tunnels	110	0.408	44.88	L22	28	1	28	
							Total Design Watts for this Area:	28	28
								Total Allowance (Watts) All Areas:	**28**

[1] *FOOTNOTES: See Table 140.7-B for the rules for calculating the specific areas (ft²) for these additional lighting allowances.*

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

This Section Does Not Apply

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at http://www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCI

YES	NO	Form/Title	Field Inspector Pass	Field Inspector Fail
◉	○	NRCI-LTO-01-E - Must be submitted for all buildings.	☐	☐
◉	○	NRCI-LTO-02-E - Must be submitted for a lighting control system; or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

YES	NO	Form/Title	Field Inspector Pass	Field Inspector Fail
◉	○	NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls area added to ≤ 20 luminaires.	☐	☐

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

Documentation Author Name:	Jason Lau	Documentation Author Signature:	
Company:	Interface Engineering	Signature Date:	5/17/2019
Address:	135 Main Street	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	San Francisco, CA 94105	Phone:	4154897240

RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	Jason Lau	Responsible Designer Signature:	
Company :	Interface Engineering	Date Signed:	5/17/2019
Address:	135 Main Street	License:	E16806
City/State/Zip:	San Francisco, CA 94105	Phone:	4154897240

A. GENERAL INFORMATION

01	Project Location (city)	
02	Climate Zone	12

B. PROJECT SCOPE

Table Instructions: Include any illuminated signs that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.8 or §141.0(b)2M for alterations. Exit signs and traffic signs are not required to comply with prescriptive requirements per exceptions to §140.8 and do not need to complete this compliance document. WARNING: Changing the Compliance Method in this table will result in the deletion of data previously input. If you need to change the compliance method, please open a new form or use "Save As".

01	02	03	04	05
Name or Item Tag	Complete Sign Description	Sign Status[1]	Location	Compliance Method[2]
	LLRC Library	New	Outdoor	Max Allowed Lighting Power

[1] *FOOTNOTE: Sign alterations that increase the connected lighting load, replace and rewire more than 50% of the ballasts, or relocate the sign to a different location must comply with §140.8. See §141.0(b)2M for more details.*
[2] *The ENERGY VERIFIED Label compliance method is only applicable if the sign has a permanent, factory-installed, ENERGY VERIFIED label certified by UL or comparable, confirming the sign complies with §140.8. Note that using an ENERGY VERIFIED label is an optional compliance path, not a mandatory requirement. See the tool tips for this table for more details.*

C. COMPLIANCE RESULTS

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

01	02	03		04		05		06	07
Name or Item Tag	Complete Sign Description	Total Allowed (Watts)	≥	Total Designed (Watts)	OR	Compliant Light Sources	OR	ENERGY VERIFIED Label	**Compliance Results**
(See Table B)	(See Table B)	(See Table F)		(See Table F)		(See Table G)		(See Table B)	
	LLRC Library	64.4	≥	60	OR		OR		**COMPLIES**
								Controls Compliance (See Table F/G/H for Details)	**COMPLIES**

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

No exceptional conditions apply to this project.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. MAXIMUM ALLOWED LIGHTING POWER AND CONTROLS

Table Instructions: Complete this table for illuminated signs using the Maximum Allowed Lighting Power compliance method per §140.8(a) as indicated on Table B of this compliance document. Also demonstrate compliance with mandatory controls requirements from §130.3 by indicating control types for each sign.

01	02	03	04	05	06	07	08		09	
Name or Item Tag	Complete Sign Description	Illumination Method	Sign Area (ft²)	Allowed Density (W/ft²)	Allowance (Watts)	Design Watts	Mandatory Controls			Field Inspector
							Shut-Off	Dimming	Demand Response[1]	Pass / Fail
	LLRC Library	Externally	28	2.3	64.4	60	Auto Timer	NA	NA	☐ ☐
		10		11		12	13	14		
		Luminaire Name or Item Tag	Complete Luminaire Description			Watts per Luminaire	How Wattage is Determined	Total number luminaires		
		L13	L13			60	NA8 Default	1		

*NOTE: Controls with a * require a note in the space below explaining how compliance is achieved.*
EX: Sign within tunnel illuminated day & night; EXCEPTION to §130.3(a)2A.
[1] *FOOTNOTE: Demand response controls are only required for an Electronic Message Center having a new connected lighting power load greater than 15 kW per §130.3(a)3.*

G. LIGHT SOURCES AND CONTROLS

This Section Does Not Apply

H. ENERGY VERIFIED LABELED SIGNS AND CONTROLS

This Section Does Not Apply

I. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

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YES	NO	Form/Title	Field Inspector Pass	Field Inspector Fail
◉	○	NRCI-LTS-01-E - Must be submitted for all buildings.	☐	☐

J. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no Certificates of Acceptance applicable to sign lighting requirements.

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

Documentation Author Name:	Jason Lau	Documentation Author Signature:	
Company:	Interface Engineering	Signature Date:	5/17/2019
Address:	135 Main Street	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	San Francisco, CA 94105	Phone:	4154897240

RESPONSIBLE PERSON'S DECLARATION STATEMENT
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Responsible Designer Name:	Jason Lau	Responsible Designer Signature:	
Company :	Interface Engineering	Date Signed:	5/17/2019
Address:	135 Main Street	License:	E16806
City/State/Zip:	San Francisco, CA 94105	Phone:	4154897240

APPROVALS

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ARCHITECTS SEAL

PROJECT 2016-0538
CONTACT

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135 Main Street
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San Francisco, CA 94105
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www.interfaceengineering.com

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

TITLE 24 - LLRC INCREMENT 2

SHEET NUMBER

E0.04.2

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STATE OF CALIFORNIA
Electrical Power Distribution
CEC-NRCC-ELC-01-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ELC-01-E
Electrical Power Distribution	Page 1 of 4
Project Name: DVC San Ramon Campus Expansion & Renovation	Date Prepared: 5/17/2019

General Information

Project Address:	Climate Zone:	Conditioned Floor Area : 5,823
1690 Watermill Rd. San Ramon, CA 94582	12	Unconditioned Floor Area :

Building Type: ☑ Nonresidential ☐ High-Rise Residential ☐ Hotel/Motel
☐ Schools ☐ Relocatable Public Schools ☐ Conditioned Spaces ☐ Unconditioned Spaces
Phase of Construction: ☑ New Construction ☐ Addition ☐ Alteration

In the table below identify all applicable construction documents that specify the requirements for the scope of responsibility reported by this certificate. Use additional pages as needed to list all construction documents related to compliance of Section 130.5.

Document Number	Document Title/Descriptions (include description information for Table or Schedule if it contains compliance information)	Document Sheet # or Page #	Indicate which subsection of Section 130.5 is related to the document (e.g. 130.5(a) for service electrical metering)
E0.05.2	TITLE 24 - CAFE INCREMENT 2	E0.05.2	130.5(c)
E2.31.2	1ST FLOOR - LIBRARY LEARNING RESOURCE CENTER - POWER	E2.31.2	130.5(d)
E4.01.2	PARTIAL SINGLE LINE DIAGRAMS, PANEL SCHEDULES, AND KITCHEN EQUIPMENT	E4.01.2	130.5(b)

Add Row | Remove Last

A. Service Electrical Metering

Check one of the three boxes below if the electrical power distribution system is in compliance with Section 130.5(a).

☐ For newly installed electrical service in newly constructed buildings, Service Electrical Metering is required according to Section 130.5(a). *Fill out Column 1 through 6 of table below.*

☐ For new or replacement electrical service equipment in existing buildings, Service Electrical Metering is required according to Section 141.0(b)2PI. *Fill out Column 1 through 6 of table below.*

☐ EXCEPTION to Electrical Service Metering: Service or feeder for which the utility company provides a metering system that indicates instantaneous kW demand and kWh for a utility-defined period. *Fill out Column 1, 2 and 6 of table below with the compliance information.*

Fill out a separate line for each electrical service that is connected to the building.

Electrical Service Schedule	Electrical Service Rating	Metering Capabilities (check all that are present)				Exception to 130.5 (a)	Field Inspector
01	02	03	04	05	06	07	08
Electrical Service Designation/ Location/Description	kVA	Instantaneous (at the time) kW	Historical peak (kW)	Tracking kWh for a user-definable period	kWh per rate period	Utility metering system	Check that the metering complies
		☐	☐	☐	☐	☐	☐

Add Row | Remove Last

STATE OF CALIFORNIA
Electrical Power Distribution
CEC-NRCC-ELC-01-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ELC-01-E
Electrical Power Distribution	Page 2 of 4
Project Name: DVC San Ramon Campus Expansion & Renovation	Date Prepared: 5/17/2019

B. Separation of Electrical Circuits for Electrical Energy Monitoring

Check all boxes below if the electrical power distribution system is in compliance with Section 130.5(b).

☐ The electrical power distribution system meets the separation of electrical circuits for electrical energy monitoring requirement of Section 130.5(b). The electrical power distribution systems is designed so that measurement devices can monitor the electrical energy usage of load types according to TABLE 130.5-B.

☐ Describe the electrical power distribution system installed and the compliance method chosen in meeting the requirement of Section 130.5(b). Use the space below to include the information. Examples of compliance methods are detailed in Nonresidential Compliance Manual Chapter 8.

Fill out Column 1 thru 3 with the compliance information.

General Information	Electrical Power Distribution System information and Method of compliance	Electrical Service Rating	Enforcement Agency
01	02	03	04
Electrical Service Designation/Location/Description	Describe the electrical power distribution system installed and the compliance method used	kVA	Check that the system complies
Panel 'LLRC'	Branch Circuit Monitoring Panelboard Provided	80	☐

Field Inspector Notes:

STATE OF CALIFORNIA
Electrical Power Distribution
CEC-NRCC-ELC-01-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ELC-01-E
Electrical Power Distribution	Page 3 of 4
Project Name: DVC San Ramon Campus Expansion & Renovation	Date Prepared: 5/17/2019

C. Voltage Drop

Check all boxes below if he electrical power distribution system is in compliance with Section 130.5(c).

	Enforcement Agency Check that the system complies
☑ The electrical power distribution system meets the voltage drop requirement of Section 130.5(c). The maximum combined voltage drop on feeder conductors and branch circuit conductors to the farthest connected load or outlet, do not exceed 5%.	☐
☑ Voltage drop calculation documents showing compliance to Section 130.5(c) are submitted as part of the compliance document submittal.	☐

D. Circuit Controls for 120-Volt Receptacles and Controlled Receptacles

Check one or more boxes below for applicable requirements of Section 130.5(d) for the electrical power distribution system.

	Field Inspector Check that the system complies
☑ The control is capable of automatically shutting OFF the controlled receptacles when the space is typically unoccupied, either at the receptacle or circuit level. For the automatic time switch control, it incorporates an override control that allows the controlled receptacle to remain ON for no more than 2 hours when an override is initiated and an automatic holiday "shut-OFF" feature that turns OFF all loads for at least 24 hours and then resumes the normally scheduled operation. Countdown timer switches are not be used to comply with the automatic time switch control requirements. The controls meet the requirement of Section 130.5(d)1.	☐
☑ There is at least one controlled receptacle within 6 ft from each uncontrolled receptacle. Where receptacles are installed in modular furniture in open office area, at least one controlled receptacle is installed at each workstation. The receptacles meet the requirement of Section 130.5(d)2.	☐
☑ There are installed split wired receptacles with at least one controlled and one uncontrolled receptacle. Where receptacles are installed in modular furniture in open office area, at least one controlled receptacle is installed at each workstation. The receptacles meet the requirement of Section 130.5(d)2.	☐
☑ Permanent and durable marking for controlled receptacles or circuits to differentiate them from uncontrolled receptacles or circuits is provided. The markings meet the requirement of Section 130.5(d)3.	☐
☐ For hotel and motel guest rooms, there are controlled receptacles for at least one-half of the 120-volt receptacles in each guest room. Electric circuits serving controlled receptacles in guestrooms are installed to have captive key controls, occupancy sensing controls, or automatic controls so the power is switched off no longer than 30 minutes after the guest room has been vacated. The receptacles meet the requirement of Section 130.5(d)4.	☐
☑ Receptacles that are only for the following purposes are excepted from Section 130.5(d): - Receptacles specifically for refrigerators and water dispensers in kitchen areas. - Receptacles located a minimum of six ft above the floor that are specifically for clocks. - Receptacles for network copiers, fax machines, A/V and data equipment other than personal computers in copy rooms. - Receptacles on circuits rated more than 20 amperes. - Receptacles connected to an uninterruptible power supply (UPS) that are intended to be in continuous use, 24 hours per day/365 days per year, and are marked to differentiate them from other uncontrolled receptacles or circuits.	☐

STATE OF CALIFORNIA
Electrical Power Distribution
CEC-NRCC-ELC-01-E (Revised 01/16) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-ELC-01-E
Electrical Power Distribution	Page 4 of 4
Project Name: DVC San Ramon Campus Expansion & Renovation	Date Prepared: 5/17/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Jason Lau	Documentation Author Signature:
Company: Interface Engineering	Signature Date: 5/17/2019
Address: 135 Main St. Suite 400	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: San Francisco, CA 94105	Phone: 415-489-7240

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
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Responsible Designer Name: Jason Lau	Responsible Designer Signature:
Company: Interface Engineering	Date Signed: 5/17/2019
Address: 135 Main St. Suite 400	License: E16806
City/State/Zip: San Francisco, CA 94105	Phone: 415-489-7240

Voltage drop calculator

SINGLE PHASE	VOLTAGE	# OF SETS WIRES	WIRE SIZE	AMPACITY		LENGTH		VOLTAGE DROP	% VOLTAGE DROP	3% TOLERANCE MET?
	120	1	4	5	A	150	Feet 150	2.96	2.46	YES

Formulas

1 phase calc.
VD=(2*K*L*I)/CM

3 phase line to line calc.
VD=((SQRT 3)*K*L*I)/CM

3 phase line to neutral calc.
VD=(1*K*L*I)/CM

VD=VOLTAGE DROP
K=RESISTIVITY=12.87
L=LENGTH
I=CURRENT
CM=CIRCULAR MIL

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
This document is used to demonstrate compliance with requirements in §110.9, §130.0, §130.1, §140.6, and §141.0(b)2 for indoor lighting scopes using the prescriptive path.	
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page: Page 1 of 6
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared: 5/17/2019

A. GENERAL INFORMATION

01	Project Location (city)		04	Total Conditioned Floor Area (ft²)	3,897
02	Climate Zone	12	05	Total Unconditioned Floor Area (ft²)	0
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	1

☐ Office ☐ Retail ☐ Warehouse ☐ Hotel/Motel ☐ School ☐ Support Areas
☐ Parking Garage ☐ High-Rise Residential ☐ Relocatable ☑ Other (write in):

B. PROJECT SCOPE

Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
01	02	03	04	05
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☑ New Lighting System	Area Category	3,897	Area Category	0
☐ Altered Lighting System				
Total Area of Work (ft²)	**3,897**		**0**	

C. COMPLIANCE RESULTS

Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.6(b) (Watts)						Actual Lighting Power per §140.6(a) (Watts)					Compliance Results
	01	02	03	04	05		06	07	08		09	10
	Complete Building §140.6(c)1	Area Category §140.6(c)2	Area Category Footnotes §140.6(c)2G (+)	Tailored §140.6(c)3 (+)	**Total Allowed** (Watts)		Total Designed (Watts)	Adjustments: Portable Lighting §140.6(a) (-)	Adjustments: PAF Control Credits §140.6(a)2 (-)		**Total Actual** (Watts) *Includes Adjustments	**05 Must be ≥ 09** §140.6
	(See Table I)	(See Table I)	(See Table K)	(See Table L)			(See Table F)	(See Table J)	(See Table R)			
Conditioned:		4,059.6			= **4,059.6**	≥	2,280			=	**2,280**	**COMPLIES**
Unconditioned:					=	≥				=		
Controls Compliance (See Table H for Details)												**COMPLIES**
Rated Power Reduction Compliance (See Table S for Details)												**Not Applicable**

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page: Page 2 of 6
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared: 5/17/2019

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

No exceptional conditions apply to this project.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. INDOOR LIGHTING FIXTURE SCHEDULE

Table Instructions: Include all permanent designed lighting and all portable lighting in offices.

01	02	03		04	05	06	07	08	09	
Name or Item Tag	Complete Luminaire Description	Specialized Luminaire Types: Track	Portable	Watts per luminaire[1]	How Wattage is determined	Total number luminaires	Exempt per §140.6(a)3	Design Watts	Field Inspector: Pass	Fail
L15	L15 - Recessed Downlight LED	☐	☐	30	NAB Default	18	☐	540	☐	☐
L16	L16 - Pendant LED	☐	☐	8	NAB Default	6	☐	48	☐	☐
L17A	L17B - Surface Round LED	☐	☐	15	NAB Default	1	☐	15	☐	☐
L17B	L17B - Surface Round LED	☐	☐	15	NAB Default	2	☐	30	☐	☐
L18B	L18B - Large Pendant LED	☐	☐	110	NAB Default	11	☐	1,210	☐	☐
L19	L19 - Recessed Downlight LED	☐	☐	44	NAB Default	5	☐	220	☐	☐
L20	L20 - 2x4 Recessed LED Troffer	☐	☐	71.5	NAB Default	2	☐	143	☐	☐
L7	L7 - Recessed Downlight LED	☐	☐	37	NAB Default	2	☐	74	☐	☐
					Total Designed Watts CONDITIONED SPACES:			**2,280**		

[1]*NOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c) Wattage used must be the maximum rated for the luminaire, not the lamp.*

G. TRACK LIGHTING

This Section Does Not Apply

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page: Page 3 of 6
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared: 5/17/2019

H. INDOOR LIGHTING CONTROLS (Not Including PAFs)

Table Instructions:
*Please include lighting controls for conditioned and unconditioned spaces in this table. When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank.*

Building Level Controls

01	02	03	
Mandatory Demand Response §130.1(e)	Shut-off Controls §130.1(c)	Field Inspector: Pass	Fail
Not Required < 10,000 SF	Whole Building: Automatic Time Switch	☐	☐

Area Level Controls

04	05	06	07	08	09	10	11	12	
Area Description	Complete Building or Area Category Primary Function Area	Area Controls §130.1(a)	Multi-Level Controls §130.1(b)	Shut-Off Controls §130.1(c)	Primary/Skylit Daylighting §130.1(d)	Secondary Daylighting §140.6(d)	Interlocked Systems §140.6(a)1	Field Inspector: Pass	Fail
Cafe	Kitchen, Food Preparation	Manual ON/OFF	Dimmer	Occ Sensor	N/A	N/A	☐	☐	☐
Learning Commons	Dining	Manual ON/OFF	Dimmer	Occ Sensor	Included	N/A	☐	☐	☐

*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
EX: Conference 1: Primary/Skylight Daylighting: Exempt because less than 120 watts of general lighting; EXCEPTION 1 to §130.1(d)2

13
Plan Sheet Showing Daylit Zones:

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Table Instructions: Complete the table for each area complying using the Complete Building or Area Category Methods per §140.6(b). Indicate if additional lighting power allowances per §140.6(c) or adjustments per §140.6(a) are being used.

Conditioned Spaces

01	02	03	04	05	06		
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Additional Allowances / Adjustments: Footnotes	PAF	Portable Ltg
Kitchen	Kitchen, Food Preparation	1.2	813	975.6	☐	☐	☐
Dining Area	Dining	1	3,084	3,084	☐	☐	☐
		TOTAL:	**3,897**	**4,059.6**	See Tables J, K, R for detail		

J. POWER ADJUSTMENT: PORTABLE LIGHTING IN OFFICES

This Section Does Not Apply

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page: Page 4 of 6
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared: 5/17/2019

K. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD FOOTNOTES

This Section Does Not Apply

L. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE

This Section Does Not Apply

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED SPECIAL FUNCTION AREAS

This Section Does Not Apply

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

This Section Does Not Apply

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING

This Section Does Not Apply

P. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS

This Section Does Not Apply

Q. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE

This Section Does Not Apply

R. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (PAF)

This Section Does Not Apply

S. RATED POWER REDUCTION COMPLIANCE BY SPACE

This Section Does Not Apply

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page: Page 5 of 6
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared: 5/17/2019

T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at http://www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCI

YES	NO	Form/Title	Field Inspector: Pass	Fail
◉	○	NRCI-LTI-01-E - Must be submitted for all buildings	☐	☐
◉	○	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-03-E - Must be submitted for a line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting, to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	☐	☐

U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

YES	NO	Form/Title	Field Inspector: Pass	Fail
◉	○	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	☐	☐
◉	○	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	☐	☐
○	◉	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	☐	☐
○	◉	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	☐	☐

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 3/18) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTI-E
Project Name: DVC San Ramon Campus Expansion & Renovation	Report Page: Page 6 of 6
Project Address: 1690 Watermill Rd. San Ramon, CA 94582	Date Prepared: 5/17/2019

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

Documentation Author Name: Jason Lau	Documentation Author Signature:
Company: Interface Engineering	Signature Date: 5/17/2019
Address: 135 Main Street	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: San Francisco, CA 94105	Phone: 4154897240

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:
1. **The information provided on this Certificate of Compliance is true and correct.**
2. **I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)**
3. **The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.**
4. **The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.**
5. **I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.**

Responsible Designer Name: Jason Lau	Responsible Designer Signature:
Company : Interface Engineering	Date Signed: 5/17/2019
Address: 135 Main Street	License: E16806
City/State/Zip: San Francisco, CA 94105	Phone: 4154897240

APPROVALS

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ARCHITECTS SEAL

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www.interfaceengineering.com

PROJECT TITLE
CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION
1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE
TITLE 24 - CAFE INCREMENT 2

SHEET NUMBER
E0.05.2

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RFI #246 - TIMECLOCKS FOR (3) FOUNTAINS. USE SINGLE TIMECLOCK FOR 3 FOUNTAIN PUMPS. CIRCUIT THE 2 SMALLER PUMPS (PAF-40SV) TO LLRC-59 WITH 20A GFCI CIRCUIT BREAKERS AS SHOWN ON E4.01.2. PROVIDE ADDITIONAL CIRCUIT FOR LARGE FOUNTAIN PUMP (PAF-75SV), LLRC-57, 20A GFCI CIRCUIT BREAKER.

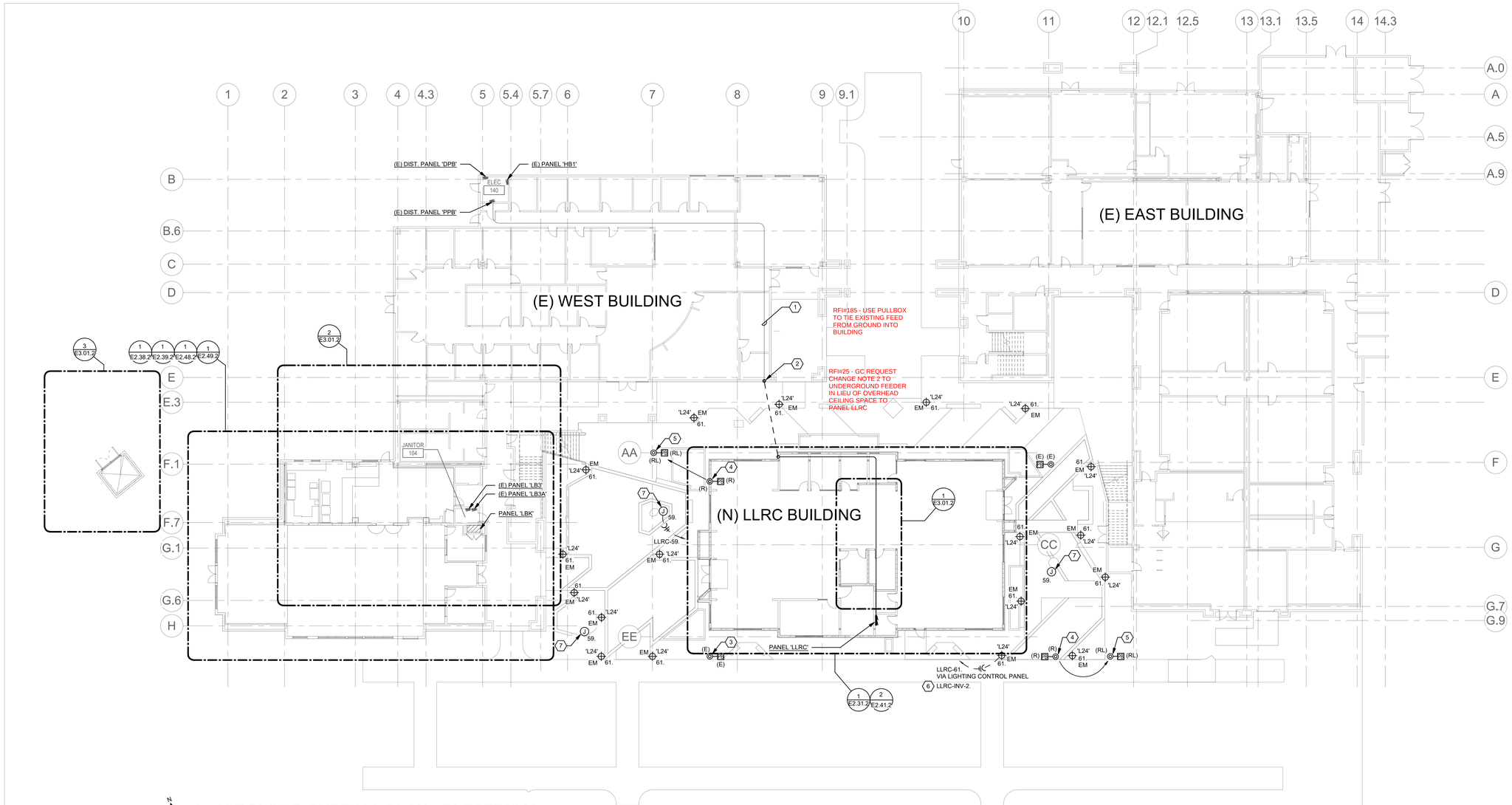
GENERAL SHEET NOTES

A. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF RECEPTACLES AND ELECTRICAL DEVICES WITH ARCHITECT PRIOR TO INSTALLATION. REFER TO DETAIL 6/G3.21.0.

B. COORDINATE EXACT LOCATION AND POWER REQUIREMENTS OF SITE LIGHTING WITH LANDSCAPE ARCHITECTS PRIOR TO INSTALLATION.

SHEET KEYNOTES

1. EXISTING 2-1/2" CONDUIT WITH PULLSTRING FROM INCREMENT 1.
2. CONTINUE 2-1/2" CONDUIT TO NEW PANEL 'LLRC' AS SHOWN WITH 4 #4/0 CU, 1 #4CU GND. ROUTE CONDUIT FROM UNDERGROUD UP ALONG WALL TO CEILING SPACE AND TO PANEL 'LLRC' LOCATION.
3. EXISTING LIGHT POST TO REMAIN.
4. EXISTING LIGHT POST TO BE DISCONNECTED AND REMOVED. TERMINATE EXISTING LIGHTING CIRCUIT UP TO NEAREST PULL BOX. BRIDGE/MODIFY/EXTEND WIRING AS REQUIRED TO KEEP OTHER EXISTING POLE LUMINAIRES OPERATIONAL.
5. NEW LOCATION OF RELOCATED LIGHT POST. CONNECT TO EXISTING EXTERIOR LIGHTING CIRCUIT COMPLETE AS REQUIRED TO PLACE INTO SERVICE.
6. PROVIDE RELAY UL924 FOR ALL SWITCHED EMERGENCY LUMINAIRES AS REQUIRED. PROVIDE ALL NECESSARY DEVICES, CONDUITS AND WIRES REQUIRED FOR A COMPLETE INSTALLATION. CONNECT EMERGENCY POWER TO INVERTER CIRCUIT AS INDICATED.
7. POWER CONNECTION TO FOUNTAIN PUMP. COORDINATE WITH LANDSCAPE DRAWINGS.



1 1ST FLOOR OVERALL PLAN - ELECTRICAL

0' 8' 16' 32'

1/16" = 1'-0"

APPROVALS

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ISSUE TITLE

INCREMENT 2

ISSUE DATE **08/22/2023**

NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

1ST FLOOR OVERALL PLAN - ELECTRICAL

SHEET NUMBER

E2.30A.2

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RFI #184 - SUPPLY POWER TO ALL LIGHTS IN ROOM VIA INVERTER IN MECH RM 11, TECH RM 13, ELECTRIAL RM 14.

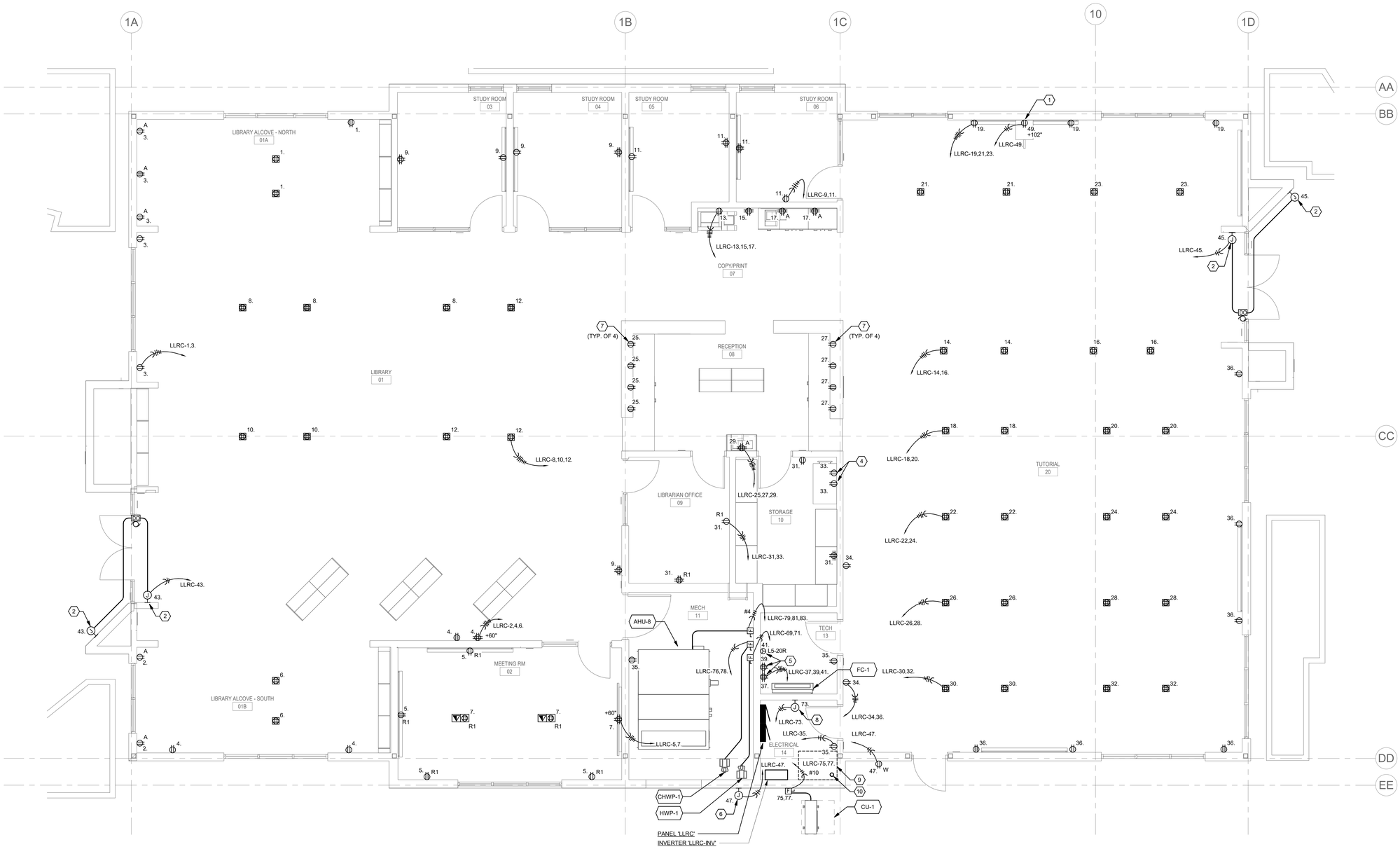
GENERAL SHEET NOTES

A. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF RECEPTACLES AND ELECTRICAL DEVICES WITH ARCHITECT PRIOR TO INSTALLATION. REFER TO DETAIL 6/G3.21.0.

B. COORDINATE EXACT LOCATION AND POWER REQUIREMENTS OF HVAC UNITS WITH DIVISION 23 PRIOR TO INSTALLATION.

SHEET KEYNOTES

1. PROVIDE RECEPTACLE FOR SHORT THROW PROJECTOR.
2. PROVIDE JUNCTION BOXES FOR POWER CONNECTION TO AUTOMATIC DOOR OPERATOR AND CONNECTION TO DOOR ACTIVATORS. COORDINATE EXACT POWER REQUIREMENTS WITH MANUFACTURER PRIOR TO INSTALLATION. PROVIDE ALL NECESSARY APPURTENANCES REQUIRED FOR A COMPLETE INSTALLATION.
3. POWER CONNECTION TO PRESSURE RELIEF LOUVERS IN SKYLIGHT WELLS.
4. POWER CONNECTIONS TO LAPTOP CHARGING CARTS.
5. POWER CONNECTIONS TO IT SERVER RACK. MOUNT TO LADDER RACKING ABOVE EQUIPMENT RACK. COORDINATE WITH DIVISION 27.
6. PROVIDE POWER CONNECTION FOR ELECTRIC FIRE BELL.
7. MOUNT RECEPTACLES WITHIN CASEWORK.
8. PROVIDE POWER CONNECTION TO MECHANICAL EQUIPMENT CONTROL PANEL.
9. SPACE PROVISION FOR FUTURE SOLAR INVERTER.
10. 2" CONDUIT STUB UP TO SOLAR READY AREA ON ROOF FOR FUTURE PHOTOVOLTAIC EQUIPMENT.



1 FLOOR PLAN - LIBRARY LEARNING RESOURCE CENTER

0' 4' 8' 16'

1/4" = 1'-0"

APPROVALS

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

1ST FLOOR - LIBRARY LEARNING RESOURCE CENTER - POWER

SHEET NUMBER

E2.31.2

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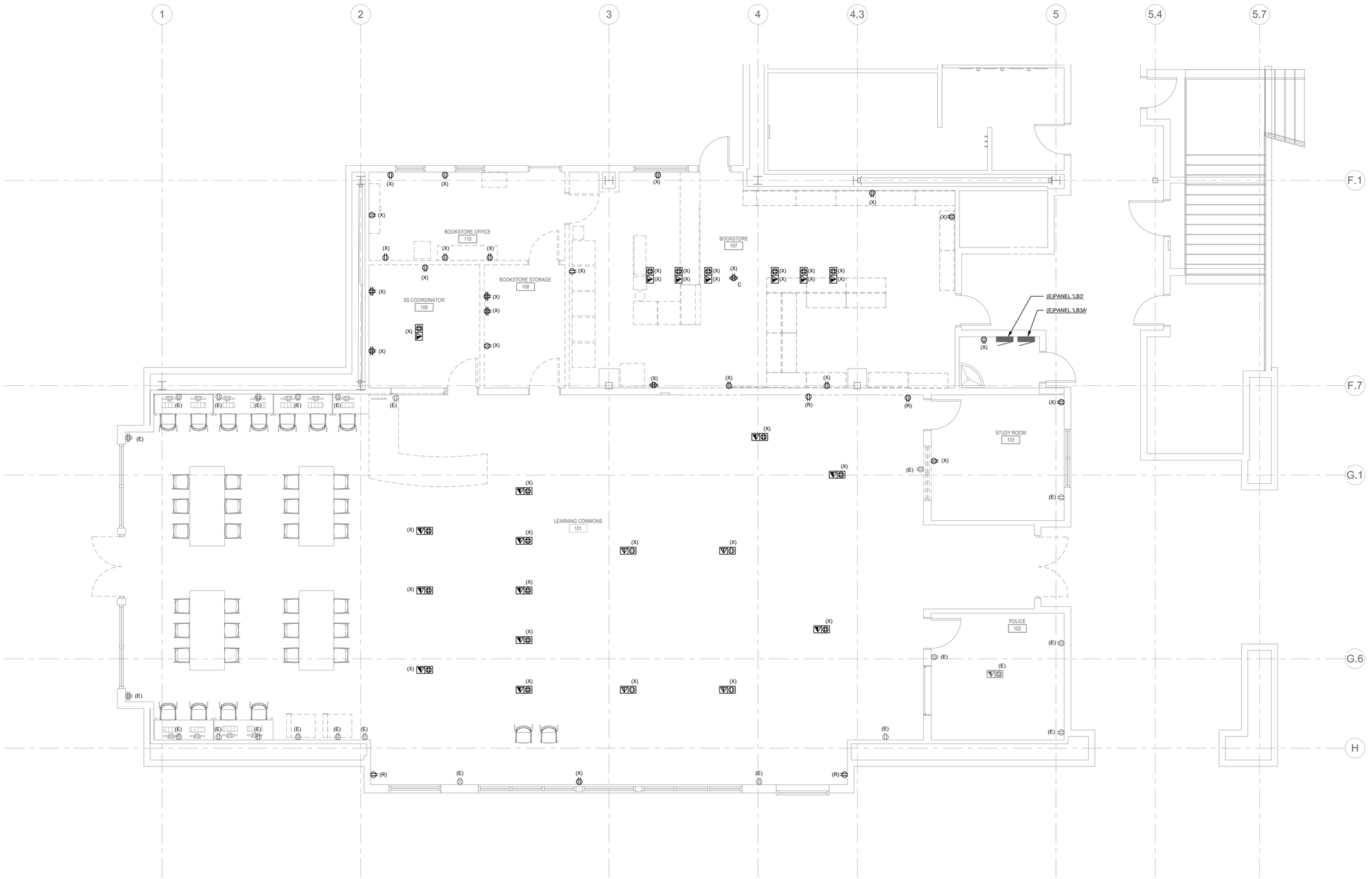
GENERAL SHEET NOTES

A. ALL RECEPTACLES, TEL/DATA OUTLETS, AND ELECTRICAL DEVICES DENOTED WITH AN (X) TO BE DISCONNECTED AND REMOVED. TERMINATE EXISTING CIRCUIT AND ASSOCIATED WIRING UP TO CEILING JUNCTION BOX FOR REUSE.



1 DEMO - 1ST FLOOR - WEST - LEARNING COMMONS - POWER

0' 4' 8' 16'

1/4" = 1'-0"

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

DEMO - 1ST FLOOR - WEST - BOOKSTORE & LEARNING COMMONS - POWER

SHEET NUMBER

E2.38.2

RFI # XXX - MEYERS #119
ITEM 61 - REFRIGERATED MERCHANDISER MODEL B42 DISCONTINUED. NEW MODEL B4524. APPEARS NEW POWER REQUIREMENT IS 208V, 1 PHASE, 20A, WITH TWO UNITS. REPLACE RECEPTACLES TO NEMA 6-20R. REPULL CONDUCTORS- REUSE CONDUIT. BREAKER ON CIRCUIT LBK-43 AND 45 REPLACED WITH 20A/2P BREAKERS AND ANOTHER 20A/2P BREAKER ADDED ON CIRCUIT LBK-75-77. ONE FRIDGE ON CIRCUIT LBK-43,45 AND OTHER ON CIRCUIT LBK-75,77.

GENERAL SHEET NOTES

A. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF RECEPTACLES AND ELECTRICAL DEVICES WITH ARCHITECT PRIOR TO INSTALLATION. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF FOOD SERVICE EQUIPMENT CONNECTIONS WITH FOOD SERVICE CONSULTANT PRIOR TO INSTALLATION.

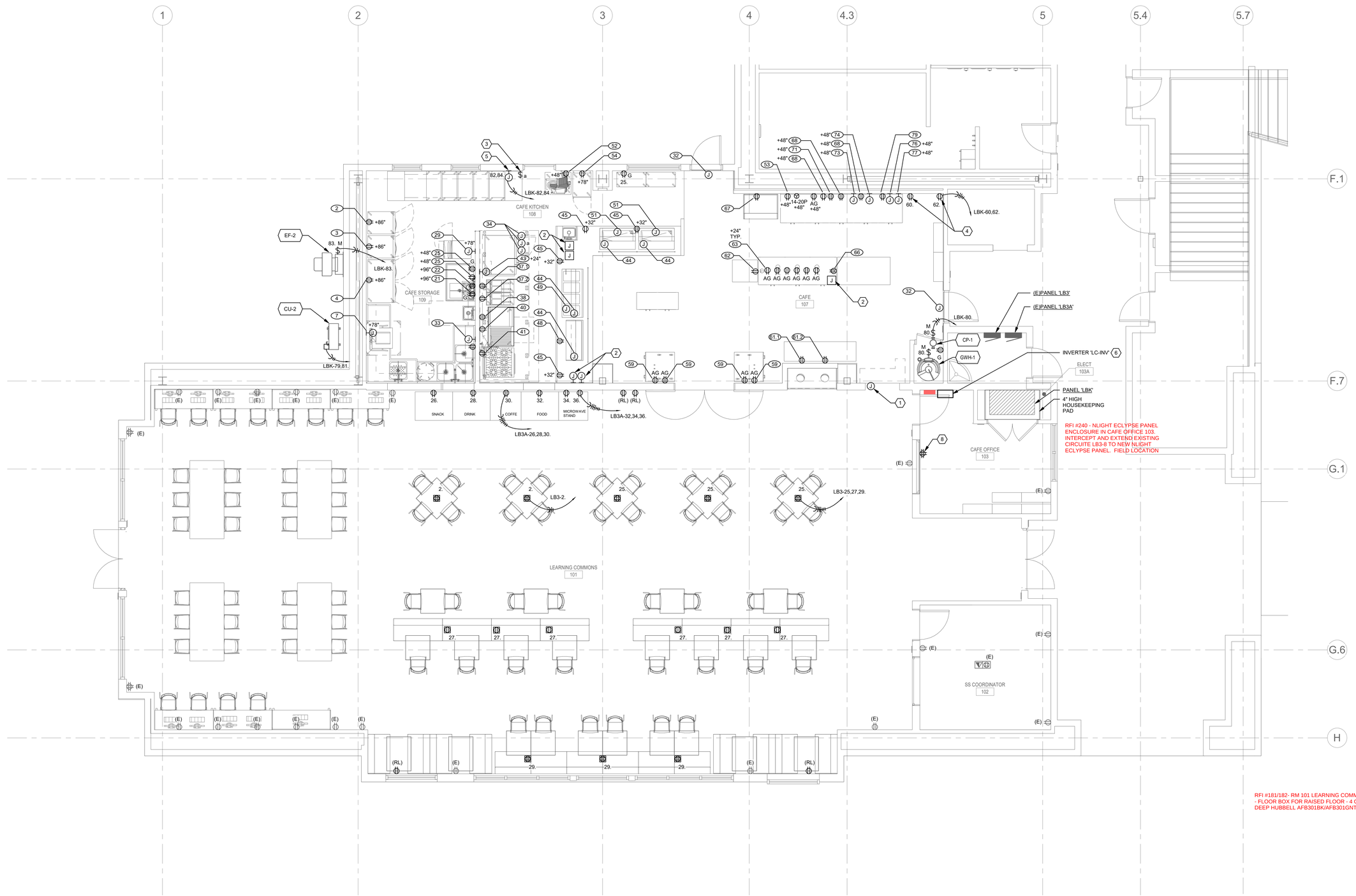
B. FOOD SERVICE EQUIPMENT TAGS, "(XX)" REFER TO KITCHEN EQUIPMENT CONNECTION SCHEDULE ON SHEET E4.01.2. SEE SCHEDULE FOR EQUIPMENT CONNECTIONS AND CIRCUITING. REFER TO FOOD SERVICE DRAWINGS FOR ADDITIONAL INFORMATION.

C. COORDINATE EXACT LOCATION AND POWER REQUIREMENTS OF FOOD SERVICE EQUIPMENT WITH FOOD SERVICE DRAWINGS PRIOR TO INSTALLATION.

D. COORDINATE EXACT LOCATION AND POWER REQUIREMENTS OF PLUMBING EQUIPMENT WITH DIVISION 22 PRIOR TO INSTALLATION.

SHEET KEYNOTES

1. POWER CONNECTION TO MOTORIZED ROLL UP DOOR.
2. MINIMUM 1"C TO JUNCTION BOX LOCATION FOR CABLE ROUTING TO EQUIPMENT MOUNTED IN CASEWORK. REFER TO FOOD SERVICE DRAWINGS FOR DETAILS.
3. HOOD LIGHT SWITCHES. REFER TO FOOD SERVICE DRAWINGS FOR DETAILS.
4. DEDICATED RECEPTACLES FOR FUTURE VENDING EQUIPMENT.
5. POWER CONNECTION TO HEAT TRACE PANEL.
6. INVERTER MOUNTED ABOVE CAFE OFFICE CEILING.
7. NOT USED.
8. CONNECT NEW RECEPTACLE TO EXISTING RECEPTACLE CIRCUIT IN ROOM COMPLETE AS REQUIRED TO PLACE INTO SERVICE.



1 NEW - 1ST FLOOR - WEST - LEARNING COMMONS - POWER

0' 2' 4' 8'
1/4" = 1'-0"

8/21/2023 6:34:43 PM C:\Users\victorv\Documents\Revit Locals\DVC San Ramon - MEP Central v19_victorvMKSKL.rvt

APPROVALS

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PROJECT 2016-0538
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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE
NEW - 1ST FLOOR - WEST - CAFE & LEARNING COMMONS - POWER

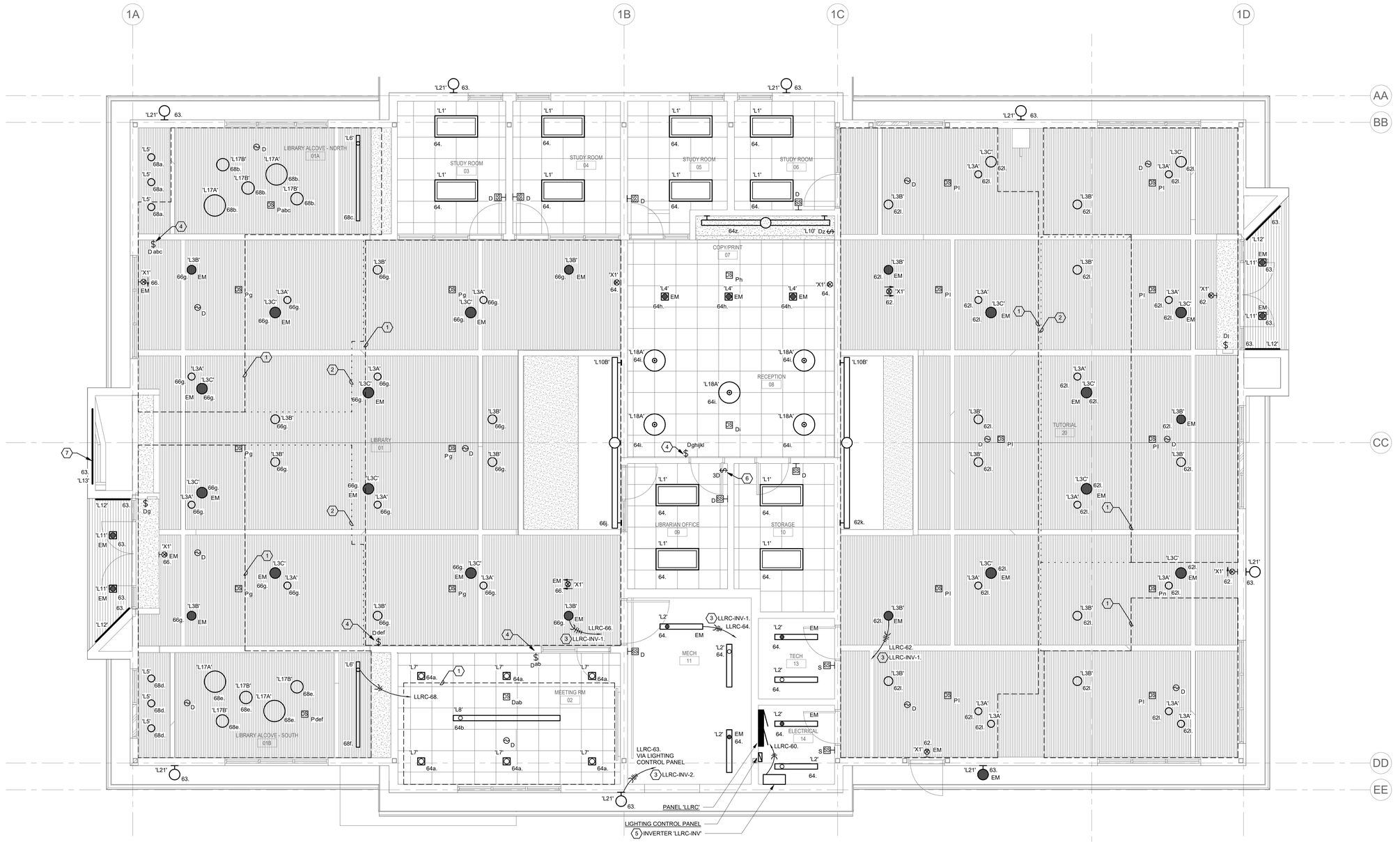
SHEET NUMBER
E2.39.2

GENERAL SHEET NOTES

A. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF LUMINAIRES AND LIGHTING CONTROLS WITH ARCHITECT PRIOR TO INSTALLATION. REFER TO DETAIL 6/G3.21.0.

SHEET KEYNOTES

1. PRIMARY DAYLIT ZONE OR SKYLIT DAYLIT ZONE.
2. SECONDARY DAYLIT ZONE.
3. PROVIDE RELAY UL924 FOR ALL SWITCHED EMERGENCY LUMINAIRES, DENOTED BY EM, AS REQUIRED. PROVIDE ALL NECESSARY DEVICES, CONDUITS AND WIRES REQUIRED FOR A COMPLETE INSTALLATION. CONNECT EMERGENCY POWER TO INVERTER CIRCUIT AS INDICATED.
4. PROVIDE MULTI-ZONE SWITCH IN A SINGLE GANG BOX.
5. PROVIDE 3KW INVERTER. MANUFACTURER: MEYERS POWER PRODUCTS, ILLUMINATOR SERIES OR APPROVED EQUIVALENT.
6. LIGHTING CONTROL FOR MECHANICAL ATTIC. SEE DETAIL 1/E3.01.2.
7. EXTERIOR COVE LIGHTING TO BE RECESSED IN THE SIGN NICHE. COORDINATE WITH ARCHITECT FOR EXACT LOCATION AND MOUNTING REQUIREMENTS.



1 LIBRARY LEARNING RESOURCE CENTER - LIGHTING

0' 2' 4' 8'

1/4" = 1'-0"

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

LIBRARY LEARNING RESOURCE CENTER FLOOR PLAN - LIGHTING

SHEET NUMBER

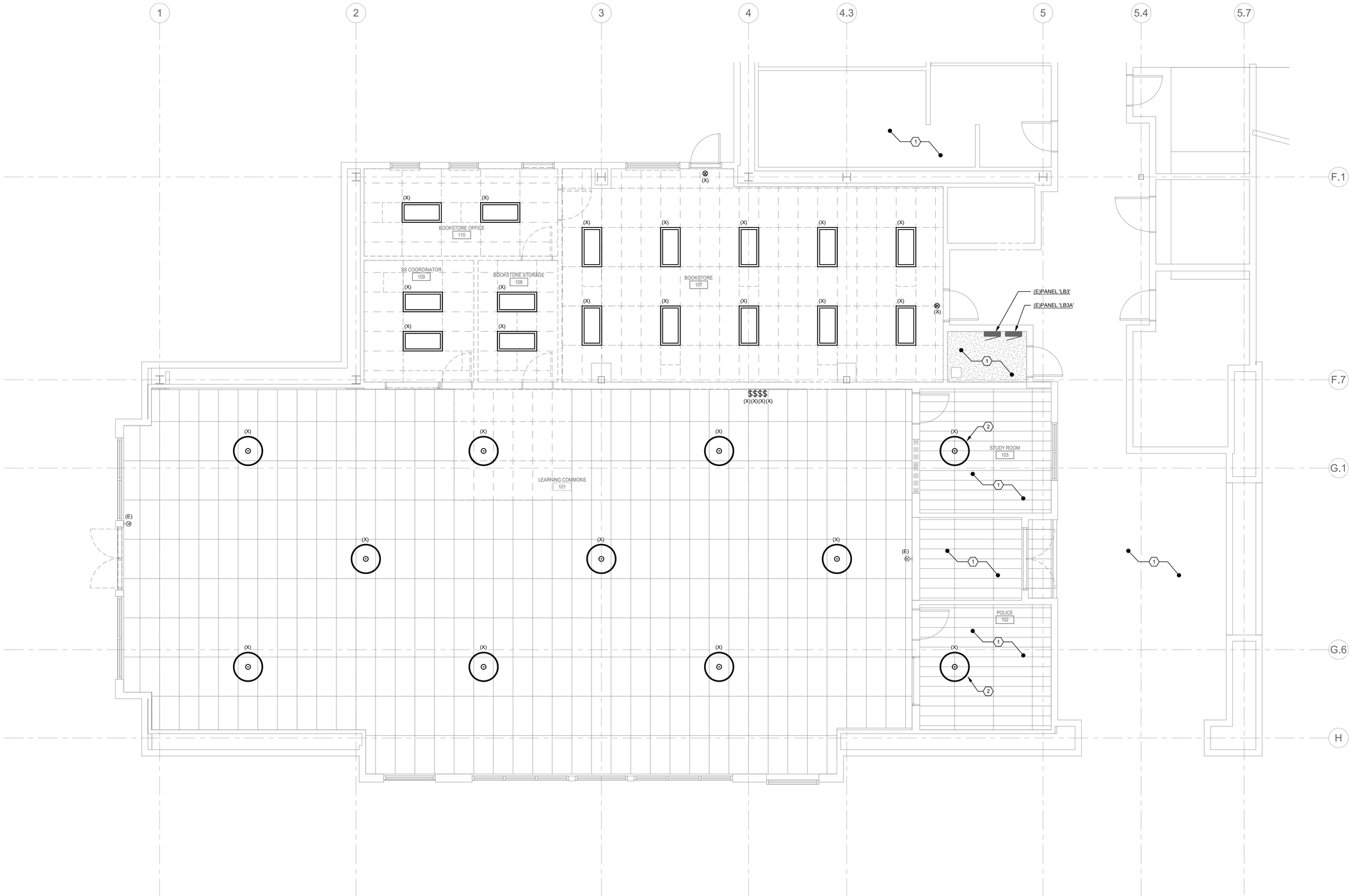
E2.41.2

GENERAL SHEET NOTES

A. ALL LUMINAIRES AND LIGHTING CONTROLS DENOTED WITH AN (X) TO BE DISCONNECTED AND REMOVED. TERMINATE EXISTING CIRCUIT AND ASSOCIATED WIRING UP TO CEILING JUNCTION BOX FOR REUSE.

SHEET KEYNOTES

1. LUMINAIRES AND LIGHTING CONTROLS IN ROOM EXISTING TO REMAIN.
2. EXISTING LUMINAIRE MOUNTED TO HIGH CEILING ABOVE ROOMS TO BE DEMOLISHED.



1 DEMO - 1ST FLOOR - WEST - LEARNING COMMONS - LIGHTING

0' 2' 4' 8'
1/4" = 1'-0"

APPROVALS

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

DEMO - 1ST FLOOR - WEST - LEARNING COMMONS - LIGHTING

SHEET NUMBER

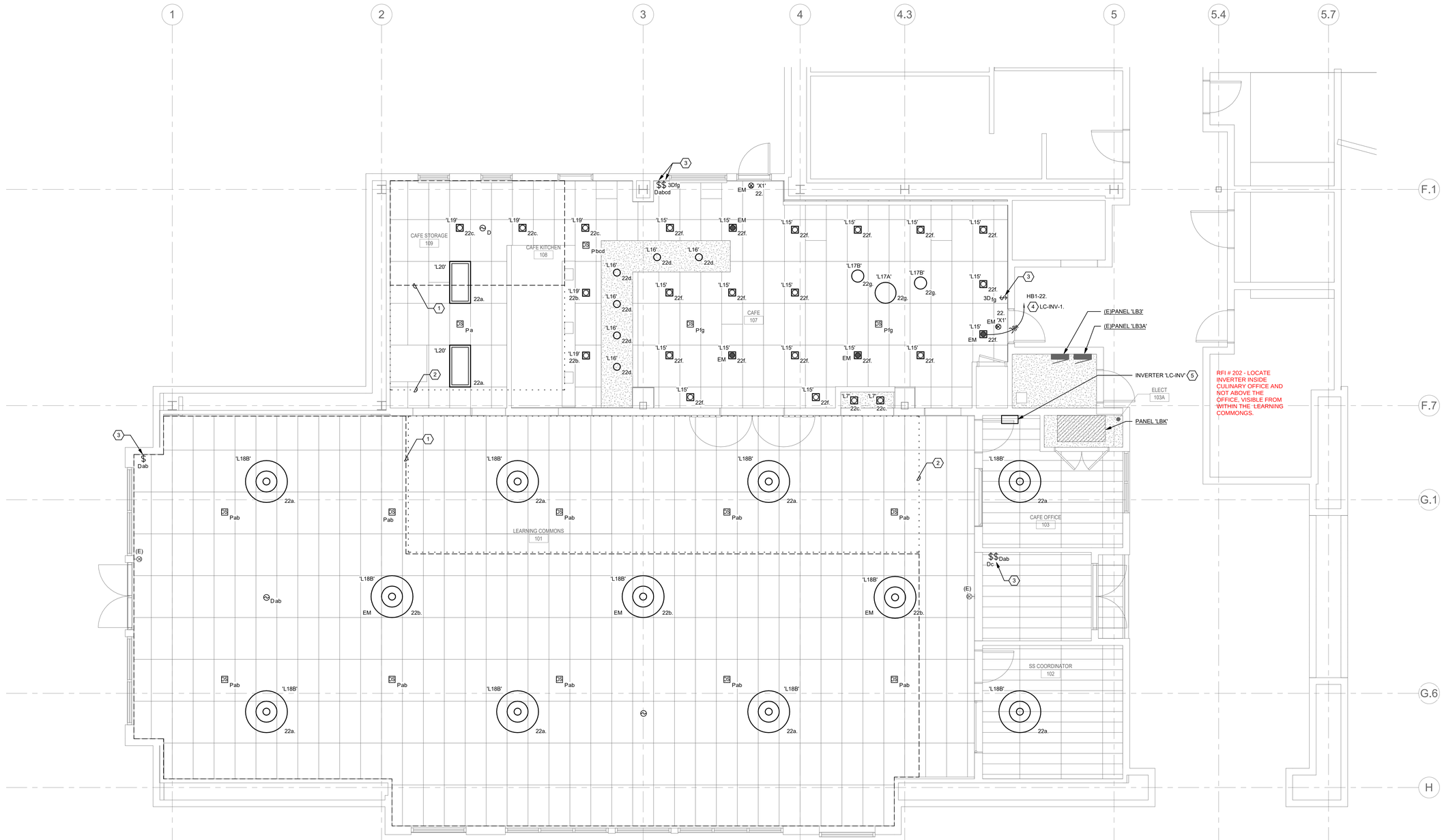
E2.48.2

GENERAL SHEET NOTES

A. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF LUMINAIRES AND LIGHTING CONTROLS WITH ARCHITECT PRIOR TO INSTALLATION. REFER TO DETAIL 6/G3.21.0.

SHEET KEYNOTES

1. PRIMARY DAYLIT ZONE.
2. SECONDARY DAYLIT ZONE.
3. PROVIDE MULTI ZONE LIGHTING CONTROL IN SINGLE GANG BOX.
4. PROVIDE RELAY UL924 FOR ALL SWITCHED EMERGENCY LUMINAIRES AS REQUIRED. PROVIDE ALL NECESSARY DEVICES, CONDUITS AND WIRES REQUIRED FOR A COMPLETE INSTALLATION. CONNECT EMERGENCY POWER TO INVERTER CIRCUIT AS INDICATED.
5. PROVIDE 1.5KW INVERTER WALL MOUNTED ABOVE CULINARY OFFICE CEILNG. MANUFACTURER: MEYERS POWER PRODUCTS, ILLUMINATOR SERIES CM OR APPROVED EQUIVALENT.



1 NEW - 1ST FLOOR - WEST - LEARNING COMMONS - LIGHTING

0' 2' 4' 8'
1/4" = 1'-0"

APPROVALS

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ISSUE DATE **08/22/2023**
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SHEET TITLE
NEW - 1ST FLOOR - WEST - LEARNING COMMONS - LIGHTING

SHEET NUMBER
E2.49.2

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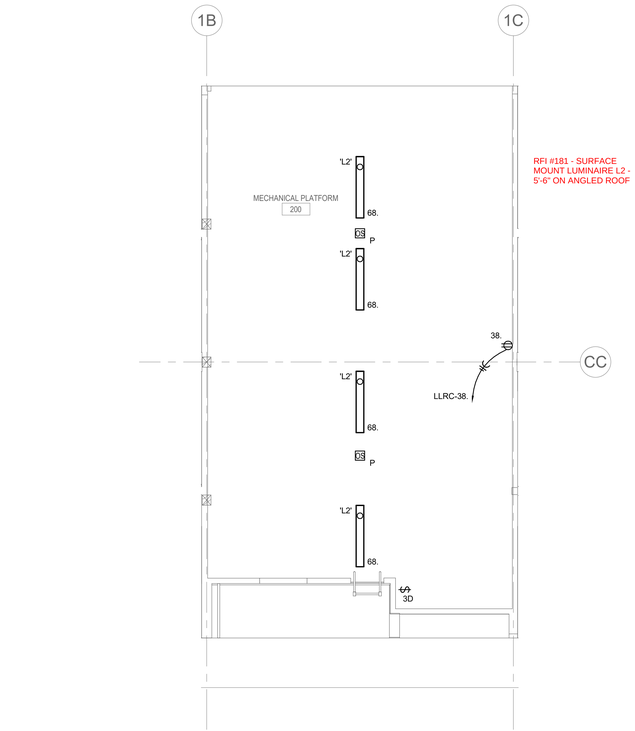
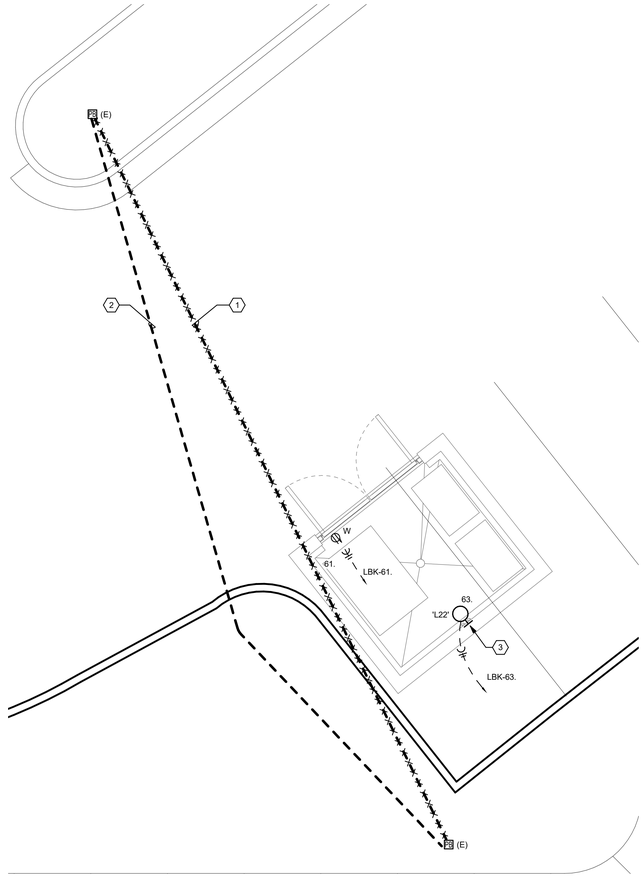


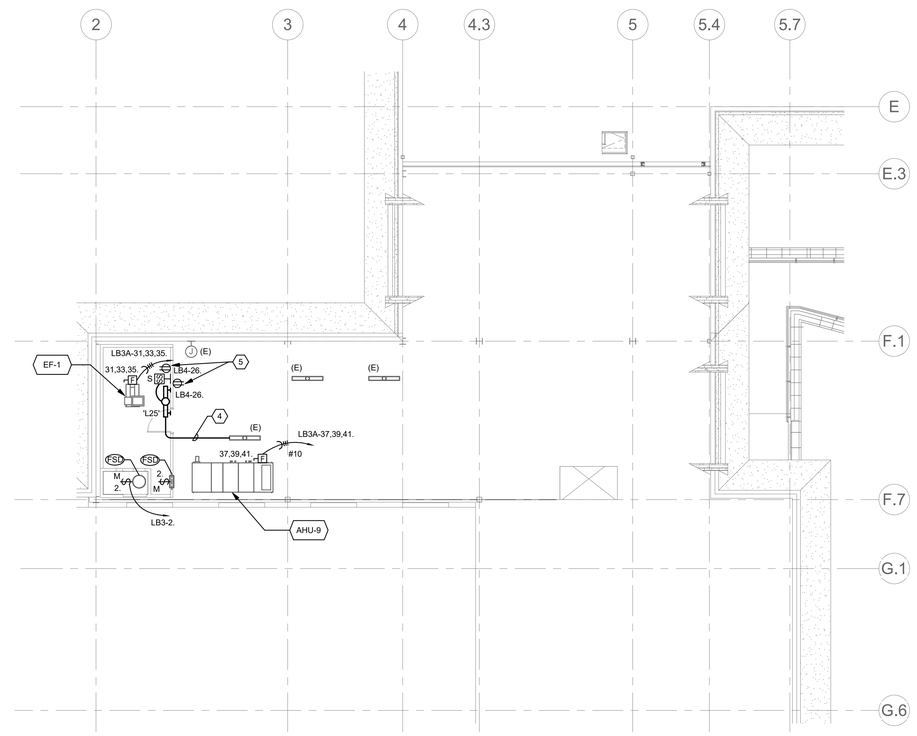
1 LLRC MECHANICAL PLATFORM FLOOR PLAN - ELECTRICAL

1/4" = 1'-0"



3 TRASH ENCLOSURE PLAN - ELECTRICAL

1/4" = 1'-0"

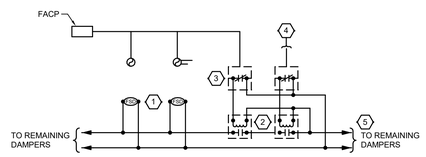


2 PARTIAL ATTIC PLAN - WEST- ELECTRICAL

1/8" = 1'-0"

DETAIL KEYNOTES

1. FIRE/SMOKE DAMPER OR SMOKE DAMPER ASSEMBLY.
2. PROVIDE RELAY TO INTERRUPT FIRE/SMOKE DAMPER CIRCUIT UPON SIGNAL FROM FIRE ALARM SYSTEM OR BUILDING AUTOMATION SYSTEM. COORDINATE WITH HVAC CONTROLS FOR ANY REQUIRED DELAY TO PREVENT DAMAGE TO DUCTWORK.
3. FIRE ALARM ADDRESSABLE RELAY. PROGRAM TO OPEN CIRCUIT AND CLOSE DAMPERS UPON ACTIVATION OF SMOKE DETECTION SYSTEM.
4. OUTPUT FROM BUILDING AUTOMATION SYSTEM TO CONTROL RELAY.
5. PROVIDE SEPARATE CIRCUIT FOR EACH AIR HANDLING UNIT.



4 FIRE SMOKE DAMPER CONTROL DIAGRAM

NO SCALE

GENERAL SHEET NOTES

A. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT OF LUMINAIRES, LIGHTING CONTROLS, RECEPTACLES, AND ELECTRICAL DEVICES WITH ARCHITECT PRIOR TO INSTALLATION.

B. COORDINATE EXACT LOCATION AND POWER REQUIREMENTS OF SITE LIGHTING WITH LANDSCAPE ARCHITECTS PRIOR TO INSTALLATION.

C. COORDINATE EXACT LOCATION AND POWER REQUIREMENTS OF HVAC UNITS WITH DIVISION 23 PRIOR TO INSTALLATION.

SHEET KEYNOTES

1. EXISTING UNDERGROUND SITE LIGHTING FEEDERS TO BE DISCONNECTED AND REMOVED. FIELD VERIFY CONDUIT AND WIRE SIZES FOR INSTALLATION OF NEW FEEDERS PER SHEET KEYNOTE 2.
2. PROVIDE NEW FEEDERS WITH SIZES AND QUANTITIES EQUAL TO THE DEMOLISHED FEEDERS PER KEYNOTE 1. CONNECT COMPLETE AS REQUIRED TO PLACE SITE LIGHTING BACK INTO SERVICE.
3. PROVIDE EXTERIOR ASTRONOMICAL TIMECLOCK FOR CONTROL OF LUMINAIRE.
4. CONNECT NEW LUMINAIRE AND LIGHTING CONTROL TO NEARBY EXISTING LIGHTING CIRCUIT. CONNECT COMPLETE AS REQUIRED TO PLACE INTO SERVICE.
5. INTERCEPT AND EXTEND NEARBY EXISTING RECEPTACLE CIRCUIT LB4-26 COMPLETE AS REQUIRED TO PLACE INTO SERVICE.

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE
ENLARGED PLANS - ELECTRICAL

SHEET NUMBER
E3.01.2

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2016-0538

(E) Panel 'HB1'

277/480V, 3 Ph., 4 W.; 225A Bus with Main Lug Only Surface Mounted Panelboard

Ckt. No.	Description / Location	Load (VA)	Type	C.B. A/Pole	Note	Ph.	Note	C.B. A/Pole	Load (VA)	Type	Description / Location	Ckt. No.
1	(E) LOAD			20/1		A		20/1			(E) LOAD	2
3	(E) LOAD			20/1		B		20/1			(E) LOAD	4
5	(E) LOAD - INCREMENT 1	487	L	20/1		C		20/1			(E) LOAD	6
7	(E) LOAD - INCREMENT 1	902	L	20/1		A					(E) SPACE	8
9	(E) LOAD - INCREMENT 1	897	L	20/1		B					(E) SPACE	10
11	(E) LOAD			20/1		C					(E) SPACE	12
13	(E) LOAD			20/1		A					(E) SPACE	14
15	(E) LOAD			20/1		B					(E) SPACE	16
17	(E) SPACE					C					(E) SPACE	18
19	(E) SPACE					A					(E) SPACE	20
21	(E) SPACE					B		20/1	2,653	L	LIGHTING	22
23	(E) SPACE					C		20/1			(E) SPARE	24
25	(E) SPACE					A		20/1			(E) SPARE	26
27	(E) SPACE					B		20/1			(E) SPARE	28
29	(E) SPACE					C		20/1			(E) SPARE	30
31	(E) SPACE					A		20/1			(E) SPARE	32
33	(E) SPACE					B		20/1			(E) SPARE	34
35	(E) SPACE					C					(E) SPACE	36
37	(E) SPACE					A					(E) SPACE	38
39	(E) SPACE					B					(E) SPACE	40
41	(E) SPACE					C					(E) SPACE	42

Total Connected Load:	Ph. A	902 VA	3 Amps	Panel Connected Load:	4.9 KVA	5.9 Amps	1
Total Connected Load:	Ph. B	3,550 VA	13 Amps	Sub-Fed Connected Load:	0.0 KVA	0.0 Amps	
Total Connected Load:	Ph. C	487 VA	2 Amps	**Total Demand Load:**	6.2 **KVA**	7.4 **Amps**	

Notes:
1. PROVIDE NEW BREAKER TO MATCH EXISTING IN MANUFACTURER AND AIC RATINGS.
2.
3.
4.
5.

Accessories:

2016-0538

(E) Panel 'LB3'

120/208V, 3 Ph., 4 W.; 225A Bus with Main Lug Only Surface Mounted Panelboard

Ckt. No.	Description / Location	Load (VA)	Type	C.B. A/Pole	Note	Ph.	Note	C.B. A/Pole	Load (VA)	Type	Description / Location	Ckt. No.
1	(E) LOAD			20/1		A		20/1	1,080	R	RECEPTACLES RM 101	2
3	(E) LOAD			20/1		B		20/1	500	G	FIRE SMOKE DAMPERS	4
5	(E) LOAD			20/1		C		20/1			(E) LOAD	6
7	(E) LOAD			20/1		A		20/1			(E) LOAD	8
9	(E) LOAD			20/1		B		20/1			(E) LOAD	10
11	(E) LOAD			20/1		C		20/1			(E) LOAD	12
13	(E) LOAD			20/1		A		20/1			(E) LOAD	14
15	(E) LOAD			20/1		B		20/1			(E) LOAD	16
17	(E) LOAD			20/1		C		20/1			(E) LOAD	18
19	(E) LOAD			20/1		A		60/3			(E) LOAD	20
21	(E) LOAD			20/1		B		-			(E) LOAD	22
23	(E) LOAD			20/1		C		-			(E) LOAD	24
25	RECEPTACLES RM 101	1,080	R	20/1		A		20/1			(E) LOAD	26
27	RECEPTACLES RM 101	1,080	R	20/1		B		20/1			(E) LOAD	28
29	RECEPTACLES RM 101	1,080	R	20/1		C		20/1			(E) LOAD	30
31	(E) LOAD			20/1		A		20/1			(E) LOAD	32
33	(E) LOAD			20/1		B		20/1			(E) LOAD	34
35	(E) LOAD			20/1		C		20/1			(E) LOAD	36
37	(E) PANEL 'LB3A'			60/3		A					(E) SPACE	38
39	-			-		B					(E) SPACE	40
41	-			-		C					(E) SPACE	42

Total Connected Load:	Ph. A	2,160 VA	18 Amps	Panel Connected Load:	4.8 KVA	13.4 Amps	1
Total Connected Load:	Ph. B	1,580 VA	13 Amps	Sub-Fed Connected Load:	0.0 KVA	0.0 Amps	
Total Connected Load:	Ph. C	1,080 VA	9 Amps	**Total Demand Load:**	4.8 **KVA**	13.4 **Amps**	

Notes:
1.
2.
3.
4.
5.

Accessories:

2016-0538

(E) Panel 'LB3A'

120/208V, 3 Ph., 4 W.; 125A Bus with Main Lug Only Surface Mounted Panelboard

Ckt. No.	Description / Location	Load (VA)	Type	C.B. A/Pole	Note	Ph.	Note	C.B. A/Pole	Load (VA)	Type	Description / Location	Ckt. No.
1	(E) LOAD			20/1		A		20/2			(E) LOAD	2
3	SPARE			20/1		B		-			(E) LOAD	4
5	SPARE			20/1		C		20/2			(E) LOAD	6
7	(E) LOAD			20/1		A		-			(E) LOAD	8
9	(E) LOAD			20/2		B		20/2			(E) LOAD	10
11	(E) LOAD			-		C		-			(E) LOAD	12
13	(E) LOAD			20/2		A		20/1			(E) LOAD	14
15	(E) LOAD			-		B		20/2			(E) LOAD	16
17	(E) LOAD			20/1		C		-			(E) LOAD	18
19	(E) LOAD			20/2		A		20/1			(E) LOAD	20
21	(E) LOAD			-		B		20/1			(E) LOAD	22
23	(E) LOAD			20/1		C		20/1			(E) LOAD	24
25	(E) SPACE					A	1	20/1	1,600	R	VENDING MACHINE	26
27	(E) SPACE					B	1	20/1	1,600	R	VENDING MACHINE	28
29	(E) SPACE					C	1	20/1	1,600	R	VENDING MACHINE	30
31	EF-1	1,273	M	20/3	1	A	1	20/1	1,600	R	VENDING MACHINE	32
33	-	1,273	M	-		B	1	20/1	1,600	R	MICROWAVE	34
35	-	1,273	M	-		C	1	20/1	1,600	R	MICROWAVE	36
37	MAU-1	2,356	M	30/3	1	A					(E) SPACE	38
39	-	2,356	M	-		B					(E) SPACE	40
41	-	2,356	M	-		C					(E) SPACE	42

Total Connected Load:	Ph. A	6,829 VA	57 Amps	Panel Connected Load:	20.5 KVA	56.9 Amps	1
Total Connected Load:	Ph. B	6,829 VA	57 Amps	Sub-Fed Connected Load:	0.0 KVA	0.0 Amps	
Total Connected Load:	Ph. C	6,829 VA	57 Amps	**Total Demand Load:**	22.3 **KVA**	61.8 **Amps**	

Notes:
1. PROVIDE NEW BREAKER TO MATCH EXISTING IN MANUFACTURER AND AIC RATINGS.
2.
3.
4.
5.

Accessories:

2016-0538

LC-INV

277V, 1Ph., 2 W.; 1.5KVA

Ckt. No.	Description / Location	Load (VA)	Type	C.B. A/Pole	Note	Ph.	
1	EM LIGHTING CAFÉ & LC	675	L	20/1		A	Notes:
2						B	1.
3						C	2.
4						A	3.

Total Connected Load:	Ph. A	675 VA	6 Amps	Panel Connected Load:	0.7 KVA	1.9 Amps	
Total Connected Load:	Ph. B	0 VA	0 Amps	Sub-Fed Connected Load:	0.0 KVA	0.0 Amps	
Total Connected Load:	Ph. C	0 VA	0 Amps	**Total Demand Load:**	0.8 **KVA**	2.3 **Amps**	

2016-0538

Panel 'LBK'

120/208V, 3 Ph., 4 W.; 400A Bus with Main Lug Only Surface Mounted Panelboard with 14kAIC minimum

Ckt. No.	Description / Location	Load (VA)	Type	C.B. A/Pole	Note	Ph.	Note	C.B. A/Pole	Load (VA)	Type	Description / Location	Ckt. No.
1	FREEZER	816	K	20/1		A		20/1	300	K	STORAGE TANK PUMP/WATER FILTER	2
3	REFRIGERATOR	576	K	20/1		B		20/1	1,800	K	PREP TABLE	4
5	REFRIGERATOR	1,092	K	20/1		C		20/1	1,800	K	PREP TABLE	6
7	ICE MAKER	1,464	K	20/1		A		50/1	4,500	K	EXHAUST HOOD	8
9	FIRE SUPPRESSION SYSTEM	1,800	G	20/1		B		50/1	4,500	K	EXHAUST HOOD	10
11	SLICER WITH STAND	672	K	20/1		C		50/1	4,500	K	EXHAUST HOOD	12
13	GRIDDLE, REFRIGERATOR, RANGE	1,080	K	20/1		A		20/1	1,440	K	HEAT LAMPS	14
15	OVEN STEAMER	996	K	20/1		B		20/1	1,440	K	HEAT LAMPS	16
17	HEATED SHELF	996	K	20/1		C		20/1	1,800	K	SERVING COUNTER	18
19	HOT/COLD WELLS	1,102	K	20/2		A		20/1	1,800	K	SERVING COUNTER	20
21	-	1,102	K	-		B		20/1	1,800	K	SERVING COUNTER	22
23	MOBILE WARMING CABINET	1,920	K	20/1		C		20/1	1,800	K	SERVING COUNTER	24
25	STORAGE SHELVES	500	K	20/1		A		30/2	2,205	K	HOT WELLS	26
27	GFCI CONVENIENCE OUTLET	1,500	K	20/2	1	B		-	2,205	K	-	28
29	-	1,500	K	-		C		20/1	1,800	K	BEVERAGE SERVING COUNTER	30
31	SELF-SERVICE BAKERY CASE	300	K	20/1		A		20/1	1,800	K	BEVERAGE SERVING COUNTER	32
33	TOASTER	1,800	K	20/1		B		20/1	1,800	K	BEVERAGE SERVING COUNTER	34
35	BEVERAGE COUNTER RECEPTACLE	1,000	K	20/1		C		20/1	540	K	BEVERAGE DISPENSER	36
37	COFFEE MAKER	3,588	K	50/2		A		20/1	1,680	K	TEA BREWER/DISPENSER	38
39	-	3,588	K	-		B		20/1			SPARE	40
41	AIR CURTAINS	864	M	20/1		C		20/1	840	K	BEVERAGE DISPENSER	42
43	REFRIGERATED SELF-SERVICE CASE	1,370	K	20/1		A		20/1	1,320	K	ICE MAKER	44
45	REFRIGERATED SELF-SERVICE CASE	1,370	K	20/1		B		20/1	1,680	K	SODA SYSTEM	46
47	POS STATION	1,800	R	20/1		C		20/1	1,600	K	SERVING COUNTER	48
49	POS STATION	1,800	R	20/1		A		20/1	1,600	K	SERVING COUNTER	50
51	POS STATION	1,800	R	20/1		B		20/1	1,600	K	SERVING COUNTER	52
53	POS STATION	1,800	R	20/1		C		20/1	1,600	K	SERVING COUNTER	54
55	ICE CREAM CABINET & FREEZER	300	K	20/1		A		20/1	1,600	K	SERVING COUNTER	56
57	REFRIGERATED SELF-SERVICE CASE	1,800	K	20/1		B		20/1	1,600	K	SERVING COUNTER	58
59	CLOSET RECEPTACLE	180	R	20/1		C		20/1			FUTURE VENDING EQUIPMENT	60
61	TRASH ENCLOSURE RECEPTACLE	180	R	20/1		A		20/1			FUTURE VENDING EQUIPMENT	62
63	TRASH ENCLOSURE LUMINAIRE	28	L	20/1		B		20/1	1,200	K	FRYER	64
65	SPARE			20/1		C		20/1	1,200	K	FRYER	66
67	SPARE			20/1		A		20/1			SPARE	68
69	SPARE			20/1		B		20/1			SPARE	70
71	SPARE			20/1		C		20/1			SPARE	72
73	SPACE					A					SPACE	74
75	SPACE					B					SPACE	76
77	SPACE					C					SPACE	78
79	CU-2	1,430	M	30/2		A		20/1	600	WH	GWH-1	80
81	-	1,430	M	-		B		30/2	1,100	K	HEAT TRACE	82
83	EF-2	864	M	20/1		C		-	1,100	K	-	84

Total Connected Load:	Ph. A	32,775 VA	273 Amps	Panel Connected Load:	102.6 KVA	284.7 Amps	
Total Connected Load:	Ph. B	38,515 VA	321 Amps	Sub-Fed Connected Load:	0.0 KVA	0.0 Amps	
Total Connected Load:	Ph. C	31,268 VA	260 Amps	**Total Demand Load:**	72.6 **KVA**	201.6 **Amps**	

Notes:
1. PROVIDE GFCI BREAKER.
2.
3.
4.
5.

Accessories:

2016-0538

Panel 'LLRC' Sec. 1

120/208V, 3 Ph., 4 W.; 225A Bus with 225A Main Circuit Breaker Surface Mounted Panelboard with 14kAIC minimum

Ckt. No.	Description / Location	Load (VA)	Type	C.B. A/Pole	Note	Ph.	Note	C.B. A/Pole	Load (VA)	Type	Description / Location	Ckt. No.
1	RECEPTACLES RM 01A	900	R	20/1		A		20/1	360	R	RECEPTACLES RM 01B	2
3	RECEPTACLES RM 01A, 01	720	R	20/1		B		20/1	540	R	RECEPTACLES RM 01B, 01	4
5	RECEPTACLES RM 02	720	R	20/1		C		20/1	720	R	RECEPTACLES RM 01B	6
7	RECEPTACLES RM 02	900	R	20/1		A		20/1	1,080	R	RECEPTACLES RM 01	8
9	RECEPTACLES RM 03, 04	720	R	20/1		B		20/1	1,080	R	RECEPTACLES RM 01	10
11	RECEPTACLES RM 05, 06	720	R	20/1		C		20/1	1,080	R	RECEPTACLES RM 01	12
13	COPIER RM 07	1,000	G	20/1		A		20/1	720	R	RECEPTACLES RM 20	14
15	PRINTER RM 07	1,000	G	20/1		B		20/1	720	R	RECEPTACLES RM 20	16
17	RECEPTACLES RM 07	1,000	R	20/1		C		20/1	720	R	RECEPTACLES RM 20	18
19	RECEPTACLES RM 20	720	R	20/1		A		20/1	720	R	RECEPTACLES RM 20	20
21	RECEPTACLES RM 20	720	R	20/1		B		20/1	720	R	RECEPTACLES RM 20	22
23	RECEPTACLES RM 20	720	R	20/1		C		20/1	720	R	RECEPTACLES RM 20	24
25	RECEPTACLES RM 08	720	R	20/1		A		20/1	720	R	RECEPTACLES RM 20	26
27	RECEPTACLES RM 08	720	R	20/1		B		20/1	720	R	RECEPTACLES RM 20	28
29	PRINTER RM 08	1,000	G	20/1		C		20/1	720	R	RECEPTACLES RM 20	30
31	RECEPTACLES RM 09	540	R	20/1		A		20/1	720	R	RECEPTACLES RM 20	32
33	LAPTOP CHARGING CART RM 10	1,500	R	20/1		B		20/1	360	R	RECEPTACLES RM 20	34
35	RECEPTACLES RM 11, 13, 14	1,500	G	20/1		C		20/1	1,080	R	RECEPTACLES RM 20	36
37	IT RACK RECEPTACLE	1,000	R	20/1		A		20/1	360	R	RECEPTACLES RM 200	38
39	IT RACK RECEPTACLE	1,000	R	20/1		B		20/1			SPARE	40
41	IT RACK RECEPTACLE	1,000		20/1		C		20/1			SPARE	42

Total Connected Load:	Ph. A	10,460 VA	87 Amps	Panel Connected Load:	31.7 KVA	87.9 Amps	
Total Connected Load:	Ph. B	10,520 VA	88 Amps	Sub-Fed Connected Load:	31.9 KVA	88.5 Amps	
Total Connected Load:	Ph. C	11,700 VA	97 Amps	**Total Demand Load:**	59.5 **KVA**	165.0 **Amps**	

Notes:
1.
2.
3.
4.
5.

Accessories:

2016-0538

Panel LLRC Sec. 2

120/208V, 3 Ph., 4 W.; 225A Bus with Main Lug Only Surface Mounted Panelboard with 14kAIC minimum

Ckt. No.	Description / Location	Load (VA)	Type	C.B. A/Pole	Note	Ph.	Note	C.B. A/Pole	Load (VA)	Type	Description / Location	Ckt. No.
43	AUTO DOORS	500	G	20/1		A		20/1			SPARE	44
45	AUTO DOORS	500	G	20/1		B		20/1			SPARE	46
47	FIRE BELL	500	G	20/1		C		20/1			SPARE	48
49	SHORT THROW PROJECTOR	500	R	20/1		A		20/1			SPARE	50
51	SPARE			20/1		B		20/1			SPARE	52
53	SPARE			20/1		C		20/1			SPARE	54
55	SPARE			20/1		A		20/1			SPARE	56
57	SPARE			20/1		B		20/1			SPARE	58
59	LANDSCAPE FOUNTAIN PUMPS	1,000	G	20/1	2	C		35/1	3,000	G	LLRC-INV	60
61	BOLLARDS	594	L	20/1		A		20/1	1,536	L	LLRC LIGHTING EAST	62
63	LLRC LIGHTING EXTERIOR		L	20/1		B		20/1	1,482	L	LLRC LIGHTING CENTER	64
65	SPARE			20/1		C		20/1	1,267	L	LLRC LIGHTING WEST	66
67	SPARE			20/1		A		20/1	595	L	LLRC LIGHTING ALCOVES	68
69	HWP-1	332	M	20/2		B		20/1			SPARE	70
71	-	332	M	-		C		20/1			SPARE	72
73	MECHANICAL CONTROL PANEL	500	G	20/1		A		20/1			SPARE	74
75	CU-1	2,470	M	30/2		B		20/2	416	M	CHWP-1	76
77	-	2,470	M	-		C		-	416	M	-	78
79	AHU-8	4,491	M	80/3		A	1	-			SPACE	80
81	-	4,491	M	-		B	1	-			SPACE	82
83	-	4,491	M	-		C	1	-			SPACE	84

Total Connected Load:	Ph. A	8,716 VA	73 Amps	Panel Connected Load:	31.9 KVA	88.5 Amps	
Total Connected Load:	Ph. B	9,691 VA	81 Amps	Sub-Fed Connected Load:	0.0 KVA	0.0 Amps	
Total Connected Load:	Ph. C	13,476 VA	112 Amps	**Total Demand Load:**	Refer to Section 1		

Notes:
1. LABEL PANEL SPACES "FOR FUTURE SOLAR ELECTRIC"
2. PROVIDE GFCI CIRCUIT BREAKER
3.
4.
5.

Accessories:

2016-0538

LLRC-INV

120V, 1Ph., 2 W.; 3KVA

Ckt. No.	Description / Location	Load (VA)	Type	C.B. A/Pole	Note	Ph.	
1	INDOOR EM LIGHTING	1,133	L	20/1		A	Notes:
2	OUTDOOR EM LIGHTING	532	L	20/1		B	1.
3	SPARE					C	2.
4	SPARE					A	3.
						B	4.
						C	5.

Total Connected Load:	Ph. A	1,133 VA	9 Amps	Panel Connected Load:	1.7 KVA	4.6 Amps	
Total Connected Load:	Ph. B	532 VA	4 Amps	Sub-Fed Connected Load:	0.0 KVA	0.0 Amps	
Total Connected Load:	Ph. C	0 VA	0 Amps	**Total Demand Load:**	2.1 **KVA**	5.8 **Amps**	

KITCHEN EQUIPMENT CONNECTION SCHEDULE

ITEM	DESCRIPTION	VOLTS / PHASE	LOAD		WIRE / CONDUIT	CIRCUIT	NOTES
2	REACH IN FREEZER	115/1	7.0	A	202	LBK-1.	
3	REACH IN REFRIGERATOR	115/1	3.8	A	202	LBK-3.	
4	REACH IN REFRIGERATOR	115/1	5.9	A	202	LBK-5.	
7	WAREWASHER	208/3	42.1	A	603	LBK-60,62,64.	
21	STORAGE TANK/PUMP	120/1	2.0	A	202	LBK-2.	
22	WATER FILTER	120/1	0.006	W	202	LBK-2.	
25	PREP TABLE W SINK	120/1	16.0	A	202	LBK-4,6.	
29	ICE MAKER	115/1	12.2	A	202	LBK-7.	
32	AIR CURTAIN	115/1	2.4	A	202	LBK-41.	
33	FIRE SUPPRESSION SYSTEM	120/1	15.0	A	202	LBK-9.	
34	EXHAUST HOOD	120/1	4.5	KW	502	LBK-8,10,12.	
37.1	FRYER	120/1	10.0	A	302	LBK-64.	
37.2	FRYER	120/1	10.0	A	302	LBK-66.	
38	GRIDDLE	120/1	0.2	A	202	LBK-13.	
40	REFRIGERATOR	115/1	5.4	A	202	LBK-13.	
41	RANGE	120/1	3.4	A	202	LBK-13.	
43	OVEN-STEAMER	120/1	8.3	A	202	LBK-15.	
44	HEAT LAMP	120/1	12.0	A	202	LBK-14,16.	
45	SERVING COUNTER	120/1	16.0	A	202	LBK-18,20,22,24.	
48	DROP-IN HEATED SHELF	120/1	8.3	A	202	LBK-17.	
49	DROP-IN HOT WELLS	208/1	21.2	A	302	LBK-26,28.	
51	DROP-IN HOT/COLD WELLS	208/1	10.6	A	202	LBK-19,21.	
52	SLICER WITH STAND	120/1	5.6	A	202	LBK-64.	
53	TOASTER	120/1	15.0	A	202	LBK-33.	
54	MOBILE WARMING CABINET	120/1	16.0	A	202	LBK-23.	
59	POS STATION	120/1	16.0	A	202	LBK-47,49,51,53.	
61.1	REFRIGERATED SELF-SERVICE CASE	120/1	16.0	A	202	LBK-43.	
61.2	REFRIGERATED SELF-SERVICE CASE	120/1	16.0	A	202	LBK-45.	
62	ICE CREAM CABINET & FREEZER	115/1	1.1	A	202	LBK-55.	
63	FRONT SERVING COUNTER	120/1	16.0	A	202	LBK-48,50,52, 54,56,58.	
66	REFRIGERATED SELF-SERVICE CASE	120/1	15.0	A	202	LBK-57.	
67	SELF-SERVICE BAKERY CASE	120/1	2.0	A	202	LBK-31.	
68	BEVERAGE SERVING COUNTER	120/1	16.0	A	202	LBK-30,32,34.	
71	BEVERAGE DISPENSER	120/1	4.5	A	202	LBK-36.	
73	TEA BREWER/DISPENSER	120/1	14.0	A	202	LBK-38.	
74	COFFEE MAKER	208/1	34.5	A	502	LBK-37,39.	
75	NOT USED						
76	BEVERAGE DISPENSER	115/1	7.0	A	202	LBK-42.	
77	ICE MAKER	115/1	11.3	A	202	LBK-44.	
79	SODA SYSTEM	115/1	15.0	A	202	LBK-46.	

GENERAL KITCHEN EQUIPMENT CONNECTION SCHEDULE NOTES

A. REFER TO FOOD SERVICE DRAWINGS FOR EXACT LOCATIONS AND CONNECTION TYPES. COORDINATE CONNECTION WITH SUPPLIED EQUIPMENT AND VENDOR DRAWINGS. REFER TO ELECTRICAL NOTES ON VENDOR DRAWINGS AND COORDINATE AS REQUIRED. ADJUST WIRE/CONDUIT AND BREAKER SIZE AS REQUIRED.

KITCHEN EQUIPMENT CONNECTION SCHEDULE NOTES

WIRE / CONDUIT SCHEDULE

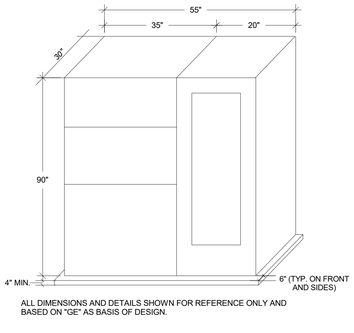
202 2 #12 CU, 1 #12 CU GND., IN 3/4" C.
302 2 #10 CU, 1 #10 CU GND., IN 3/4" C.
502 2 #6 CU, 1 #10 CU GND., IN 3/4" C.
603 3 #4 CU, 1 #10 CU GND., IN 1" C.

SHEET KEYNOTES

1. LOADS SHOWN ARE FOR NEW LOADS ONLY.
2. INSTALL NEW BREAKER IN AVAILABLE SPACE. MATCH EXISTING IN MANUFACTURER AND AIC RATING.
3. PROVIDE BRANCH CIRCUIT MONITORING COMPATIBLE PANELS. PROVIDE BRANCH CIRCUIT POWER METER FOR BRANCH CIRCUITS IN PANEL 'LLRC' TO SEPARATELY MONITOR LIGHTING LOADS, PLUG LOADS, AND HVAC LOADS. BRANCH CIRCUIT POWER METER TO BE BACNET OR MODBUS COMPATIBLE.

RFI #201 - CONNECT THE LEARNING COMMONS/CAFE AREA LIGHTING INVERTER 'LC-INV' TO PANEL HB1-24. ALL EM LUMINIARES IN CAFE AREA TO BE FED FROM LC-INV-1.

RFI #217 - AHU-8 - INSTALLED 80A 3 POLE CIRCUIT BREAKER



ALL DIMENSIONS AND DETAILS SHOWN FOR REFERENCE ONLY AND BASED ON "GE" AS BASIS OF DESIGN.

1 INTEGRATED SWITCHBOARD ELEVATION DETAIL

NO SCALE

FEEDER SCHEDULE

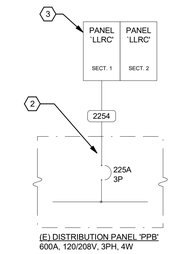
Key

A, C, S, X
A = Aluminum
C = Conduit only
S = Service secondary
X = Separately derived system

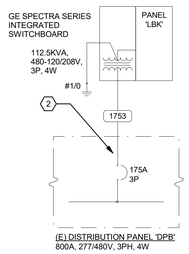
204 4 #12 CU, 1 #12 CU GND., IN 3/4" C.

1753 3 #2/0 CU, 1 #6 CU GND., IN 2" C.

2254 4 #4/0 CU, 1 #4 CU GND., IN 2-1/2" C.



(E) DISTRIBUTION PANEL 'PPB'
600A, 120/208V, 3PH, 4W



(E) DISTRIBUTION PANEL 'DPB'
800A, 277/480V, 3PH, 4W

2 PARTIAL SINGLE LINE DIAGRAM

NO SCALE

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
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ARCHITECTS SEAL

PROJECT 2016-0538
CONTACT
INTERFACE ENGINEERING
135 Main Street
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www.interfaceengineering.com

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

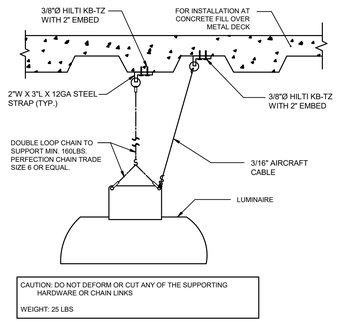
REVISIONS

NO.	DATE	DESCRIPTION

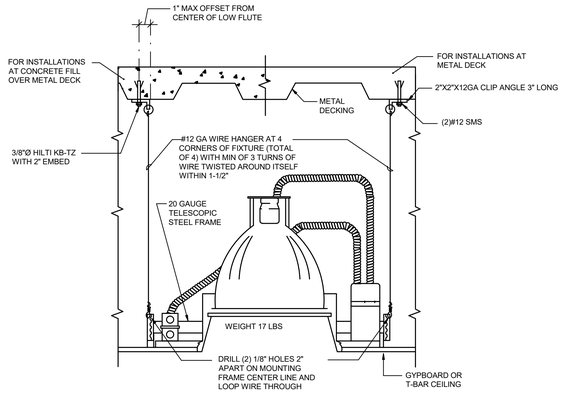
SHEET TITLE
PARTIAL SINGLE LINE DIAGRAMS, PANEL SCHEDULES, AND KITCHEN EQUIPMENT CONNECTION

SHEET NUMBER
E4.01.2

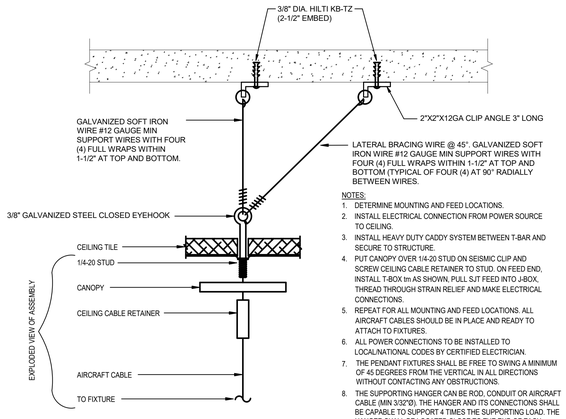
8/21/2023 6:34:57 PM C:\Users\victorv\Documents\Revit Locals\DVC San Ramon - MEP Central v19_victorvMKSKL.rvt



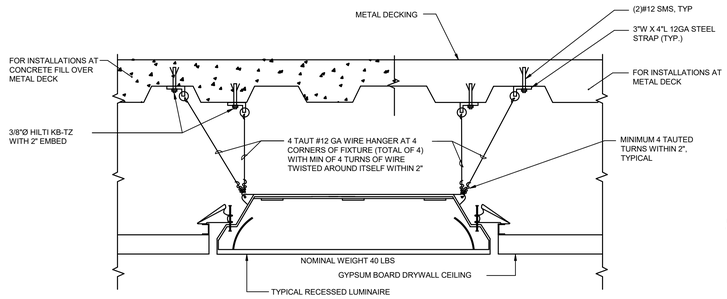
1 LUMINAIRE CHAIN SUPPORT



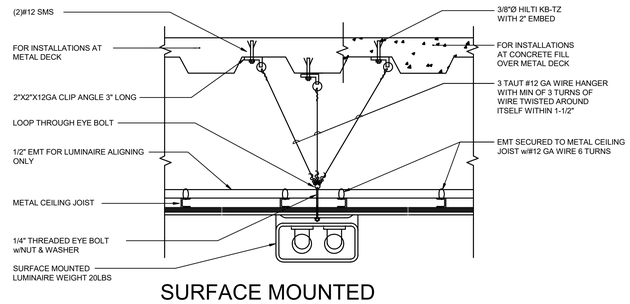
2 RECESSED DOWNLIGHT LUMINAIRE



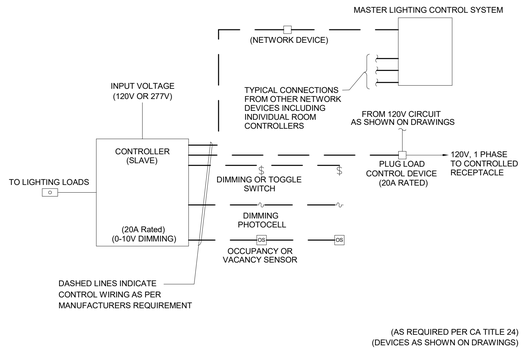
3 CABLE HUNG LUMINAIRE IN T-BAR CEILING



4 RECESSED LUMINAIRE HANGING METHOD

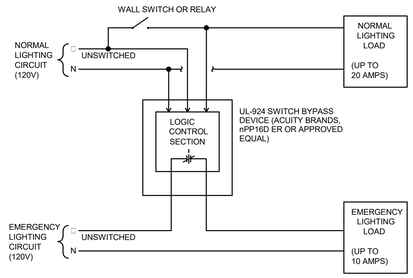


SURFACE MOUNTED 5 LUMINAIRE MOUNTING METHOD

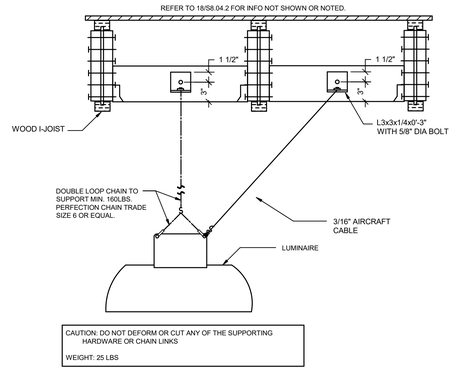


6 TITLE 24 LIGHTING CONTROL DETAIL

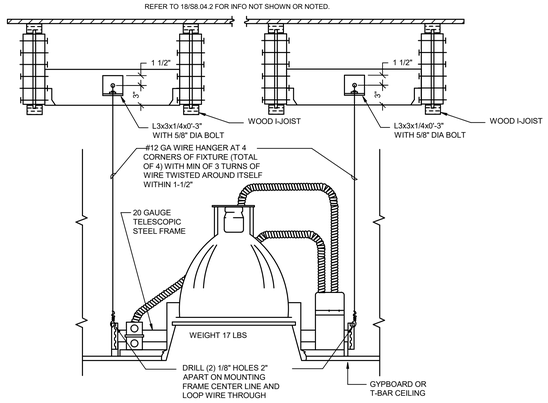
NO SCALE



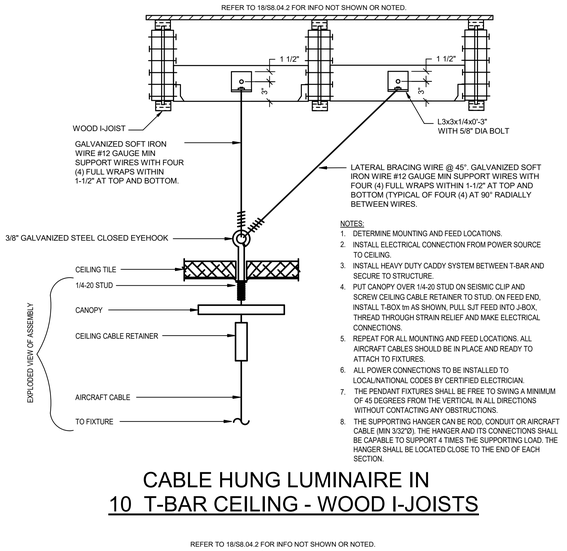
SWITCH BYPASS DEVICE EMERGENCY 7 LIGHTING RELAY SCHEMATIC



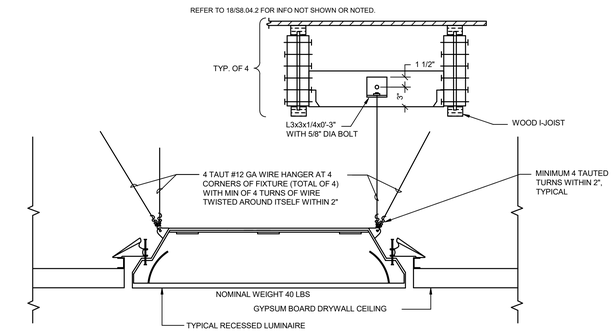
SURFACE MOUNTED LUMINAIRE 8 MOUNTING METHOD - WOOD I- JOISTS



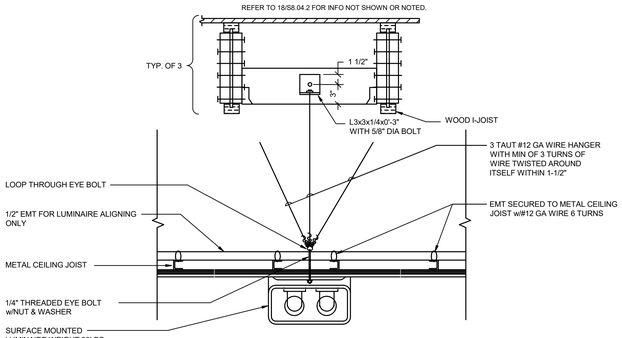
RECESSED DOWNLIGHT 9 LUMINAIRE - WOOD I- JOISTS



CABLE HUNG LUMINAIRE IN 10 T-BAR CEILING - WOOD I-JOISTS



RECESSED LUMINAIRE HANGING 11 METHOD - WOOD I-JOISTS



SURFACE MOUNTED LUMINAIRE 12 MOUNTING METHOD - WOOD I-JOISTS

APPROVALS

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ARCHITECTS SEAL

PROJECT 2016-0538
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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

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ISSUE TITLE
INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE
DETAILS - ELECTRICAL

SHEET NUMBER
E5.01.2

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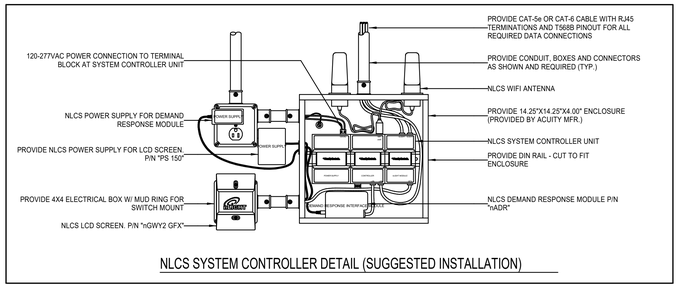


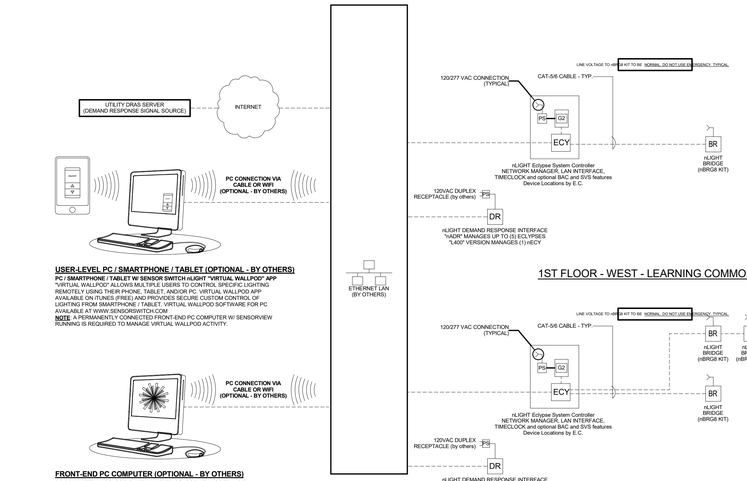
NLCS SYSTEM CONTROLLER DETAIL (SUGGESTED INSTALLATION)

nLIGHT PROJECT SPECIFIC NOTES

LINE NOTE	BOM is based on sheets from 'INCREMENT 1 - 10/25/18.'
LINE NOTE	(2) nECY and (2) nADR L400 total have been provided for timeclock and Automatic Demand Reponse control of respective locations.
LINE NOTE	'BAC' option has been selected for each nECY for BACnet protocol as indicated by engineer. Please see device specification sheet for further detail.
LINE NOTE	E.C. to hold responsibility of all connections wired connections, including BACnet, Cat-5, LAN, etc..
LINE NOTE	See dimming protocol note for respective relay packs provided.
LINE NOTE	Daylight zones have been assumed, devices provided accordingly. See notes on layout for further detail.
LINE NOTE	Controls groups have been assumed based on best-practice. Please review and verify.
LINE NOTE	Combination occupancy and daylight sensors provided in select areas. See notes on layout for further detail.
LINE NOTE	EM protocol indicated to vary among buildings. Library Learning Resource Center to use inverter, 1st Floor West Learning Commons to use battery-backup. See notes on layout for further detail.
LINE NOTE	Plug load control for shutoff via occupancy sensor currently not provided. If otherwise is true, please indicate which rooms indicate this control.

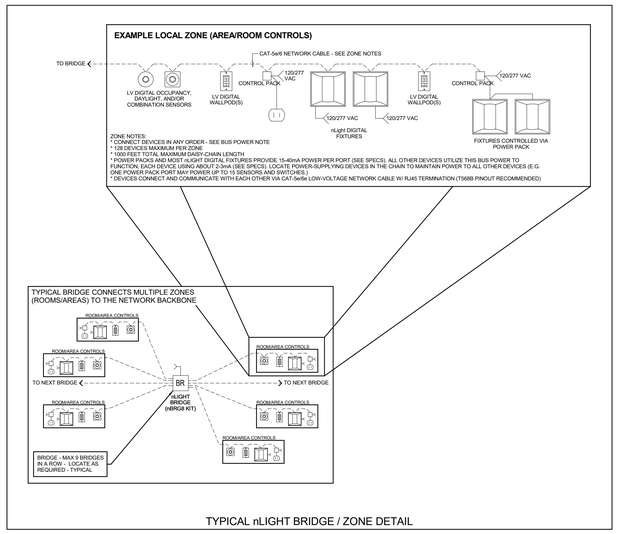
nLIGHT GENERAL NOTES

NOTE	The provided layout is superimposed over a specifier's drawing. Symbols are representational and do not necessarily indicate final locations of devices. All final device locations by electrical contractor or others.
NOTE	Quote based on limited information provided - quote/proposal subject to review and approval and requote as required.
NOTE	Does NOT include cables.
NOTE	Does NOT include Code-related "commissioning" services or related services.
NOTE	Does NOT include integration services.
NOTE	Refer to attached drawings, details, specification sheets and/or other documentation for further information.
NOTE	Typical Topolgy: Room=Zone, Each Zone up to 128 Devices. Up to SIX (6) rooms/zones connect to an 8-port bridge. Bridges to be located by contractor. Bridges connect to each other in linear chain and/or "spider" style network (linear chains limited to 9 bridges).
NOTE	Under this quote, some multi-gang switches specified are consolidated into an nLight multi-channel SINGLE-GANG device (wallpod). This may affect planned rough-in. The quoted device meets or exceeds the apparent specified functionality. Customer to verify this meets requirements.
NOTE	Does NOT include programming/startup services.
NOTE	Subject to manufacturer terms and conditions - see website(s) for details www.acuitybrands.com.



ETHERNET LAN AND ACCESSORIES
(NOT INCLUDED IN PRICE / BY OTHERS)

TYPICAL nLIGHT LIGHTING CONTROL NETWORK BACKBONE - DEVICE LOCATIONS BY E.C.



TYPICAL nLIGHT BRIDGE / ZONE DETAIL

BASIS OF DESIGN: ACUITY NLIGHT LIGHTING CONTROL SYSTEM. COORDINATE FINAL DEVICE QUANTITY AND LOCATIONS WITH ARCHITECT AND ELECTRICAL ENGINEER. LIGHTING LAYOUT SHOWN DOES NOT REFLECT FINAL LIGHTING DESIGN. FINAL LIGHTING CONTROL DRAWINGS TO BE COORDINATED WITH CONTROLS MANUFACTURER.

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INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE
DETAILS - LIGHTING CONTROLS

SHEET NUMBER
E5.02.2

BR
RD L24 ext61

LINE NOTE Relay pack has been provided for ON/OFF control via astronomical timeclock of local nECY. Please review and verify controls intent.

RD L21

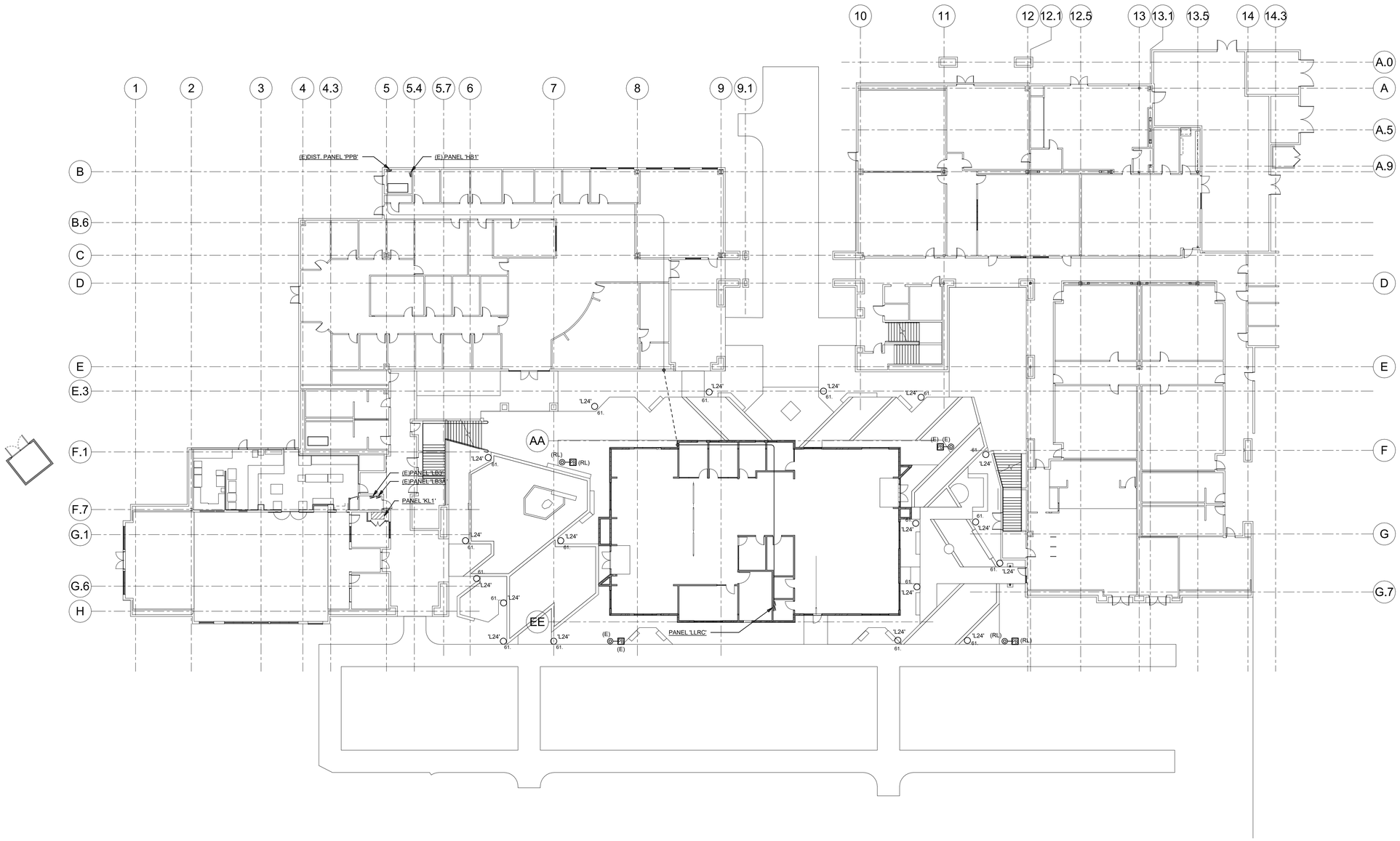
LINE NOTE Fixture L21 indicated to be on exterior of building, relay pack has been provided.

RD

LINE NOTE Additional relay pack provided for ON/OFF only of existing fixture. Use as needed.

RFI #185 - MEI LINK BRIDGE AND LIGHTING CONTROL IN LLRC

Bridge 4 will be connected to the Eclypse System Controller located in the same building (learning commons / cafe). Bridge 1, 2, & 3 will be connected to a 2nd Eclypse System Controller located in the LLRC building. Both system will work independently from each other, but will need to be configured separately. Verify with campus if the two system are to be connected together, if yes, there are two options to do this. See markups in attached lighting control diagram from submittal 260000-1.2 dated 02/20/2020. Provide shop drawings back to vendor for corrections on diagram to reflect two buildings instead of Floor 1 and Floor 2, and update on either options upon coordination with campus.



1 1ST FLOOR OVERALL PLAN - ELECTRICAL

NO SCALE

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REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

DETAILS - LIGHTING CONTROLS

SHEET NUMBER

E5.03.2

sixteen 5 hundred

(510) 208-5005 ltgcontrols@16500.com
by TesarJack 11/5/2018

LEGEND and B.O.M.

nLight

01. BACKBONE AND HEAD END

- ADR L4 — nADR L400
  OpenADR Inteface Module. Receives Power Demand Information from Utility DRAS. Supports up to 400 nLight Network Devices on 1 nLight Gateway. Includes Power Supply (120VAC)
- BRG — nBRG 8 KIT
  8-Port Network Bridge w/ Power Supply (120/277VAC)
- ECY BAC — nECY MVOLT BAC ENC GFKX
  Digital Time Clock + Network Controller; Max 1500 nLight Network Devices; Power Supply (120VAC) and Touch Screen Interface Included; BACnet Interfacing

02. USER WALL STATIONS

- 1d — nPODM DX XX
  3-Button, 1-Channel, Low Voltage Digital Wallpod w/ ON/OFF + Raise/Lower. In-Wall Mount
- 1d — nWSX PDT LV DX WH
  3-Button, 1-Channel, Low Voltage Digital Wallpod w/ Dual-Tech Occupancy Sensor, ON/OFF + Raise/Lower. In-Wall Mount

03. SENSORS

- nPC — nIO PC KIT
  Exterior Photocell Kit, Includes Exterior PhotoControl, nIO Input Module, Power Supply
- 9 DT — nRM PDT 9
  Recessed Mount Standard Dual-Tech Occupancy Sensor
- DS 9 DT — nRM PDT 9 ADCX
  Recessed Mount Standard Dual-Tech Occupancy Sensor w/ Integral Daylight Sensor

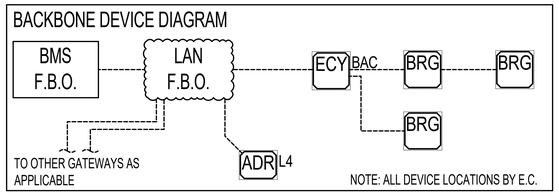
04. LIGHTING CONTROL PACKS

- RD — nPP16 D
  Power/Relay Pack w/ 0-10V Dimming Output; 16A Relay; 100mA DC Sink; 120/277VAC; Chase Nipple Mount
- ER RD — nPP16 D ER
  UL924 Listed Relay Pack w/ 0-10V Dimming Output; 16A Relay; 100mA DC Sink; 120/277VAC; Chase Nipple Mount

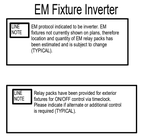
11. NOT INCLUDED IN QUOTE - FOR INFORMATION ONLY

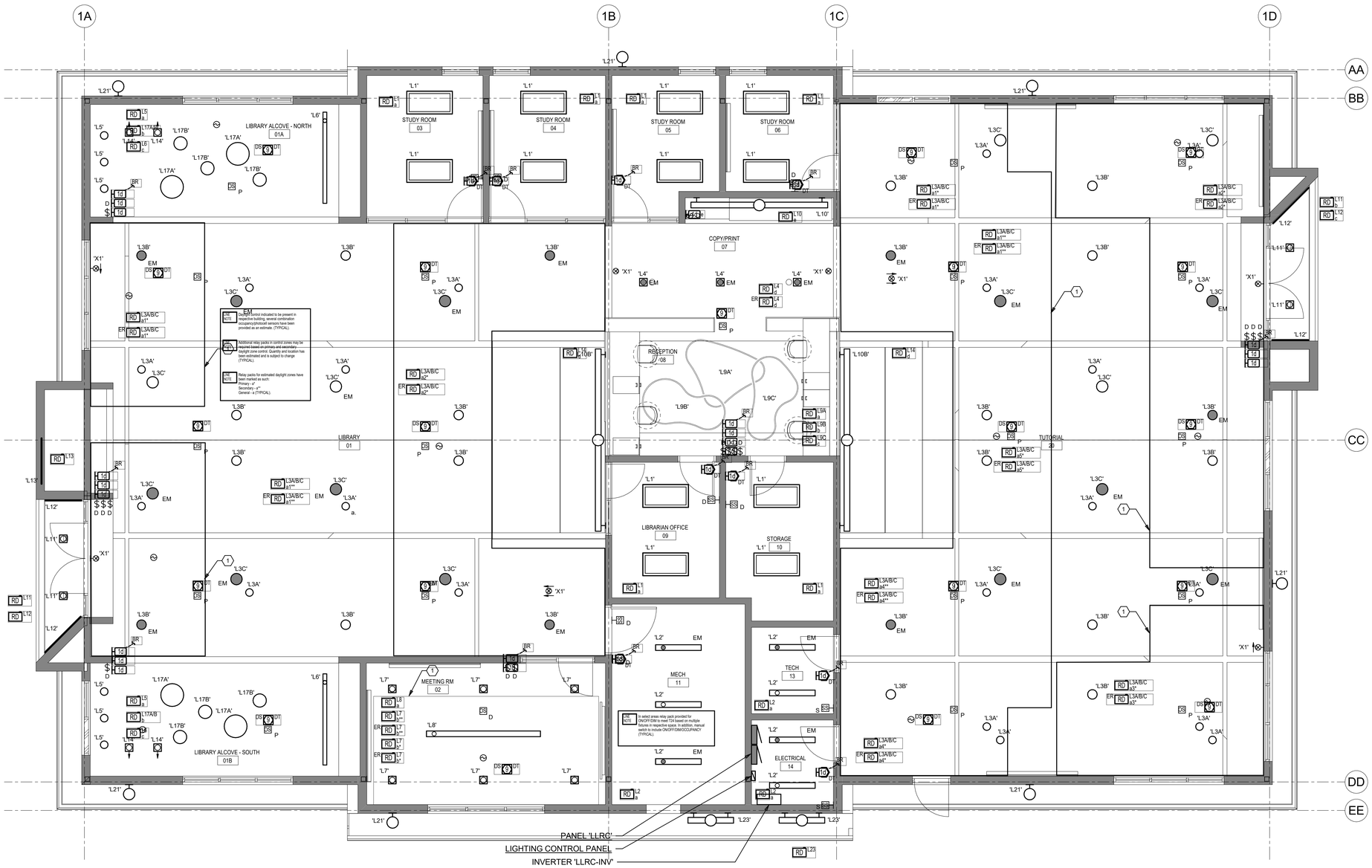
- WHIP
  Connection to nLight Bridge

BACKBONE DEVICE DIAGRAM



EM Fixture Inverter





1 LIBRARY LEARNING RESOURCE CENTER - LIGHTING

0' 2' 4' 8'
NO SCALE

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NOLL & TAM JOB NUMBER **21630**

REVISIONS

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SHEET TITLE

DETAILS - LIGHTING CONTROLS

SHEET NUMBER

E5.04.2

sixteen 5 hundred

(510) 208-5005 ltgcontrols@16500.com
by TesarJack 11/1/2018: 10:23 AM

LEGEND and B.O.M.

EcoSense

04. LIGHTING CONTROL PACKS

ECO — LDCM-PL-120-277-010V-GR
0-10V to ELV Module w/ Reverse Phase Dimming for Electronic Loads; 3.9A Rating; 120/277VAC

nLight

01. BACKBONE AND HEAD END

ADR L4 — nADR L400
OpenADR Inteface Module. Receives Power Demand Information from Utility DRAS. Supports up to 400 nLight Network Devices on 1 nLight Gateway. Includes Power Supply (120VAC)

BRG — nBRG 8 KIT
8-Port Network Bridge w/ Power Supply (120/277VAC)

ECY BAC — nECY MVOLT BAC ENC GFKX
Digital Time Clock + Network Controller; Max 1500 nLight Network Devices; Power Supply (120VAC) and Touch Screen Interface Included; BACnet Interfacing

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3-Button, 1-Channel, Low Voltage Digital Wallpod w/ ON/OFF + Raise/Lower. In-Wall Mount

1d — nWSX PDT LV DX WH
3-Button, 1-Channel, Low Voltage Digital Wallpod w/ Dual-Tech Occupancy Sensor, ON/OFF + Raise/Lower. In-Wall Mount

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9 DT — nRM PDT 9
Recessed Mount Standard Dual-Tech Occupancy Sensor

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Recessed Mount Standard Dual-Tech Occupancy Sensor w/ Integral Daylight Sensor

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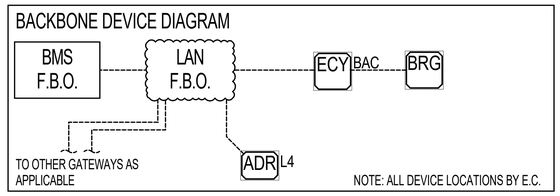
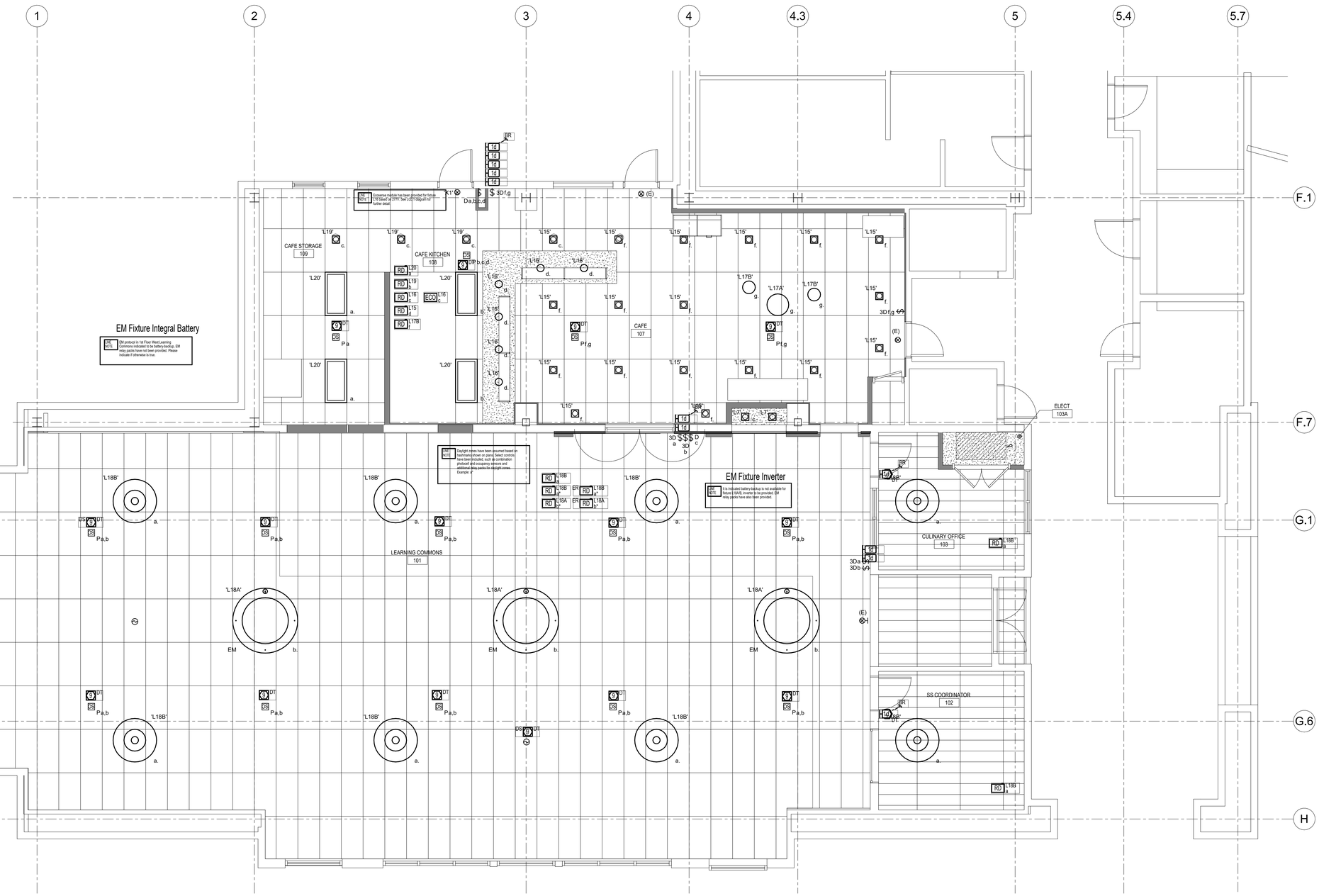
UL924 Listed Relay Pack w/ 0-10V Dimming Output; 16A Relay; 100mA DC Sink; 120/277VAC; Chase Nipple Mount

11. NOT INCLUDED IN QUOTE - FOR INFORMATION ONLY

WHIP
Connection to nLight Bridge

BACKBONE DEVICE DIAGRAM





1 NEW - 1ST FLOOR - WEST - LEARNING COMMONS - LIGHTING

0' 2' 4' 8'
NO SCALE

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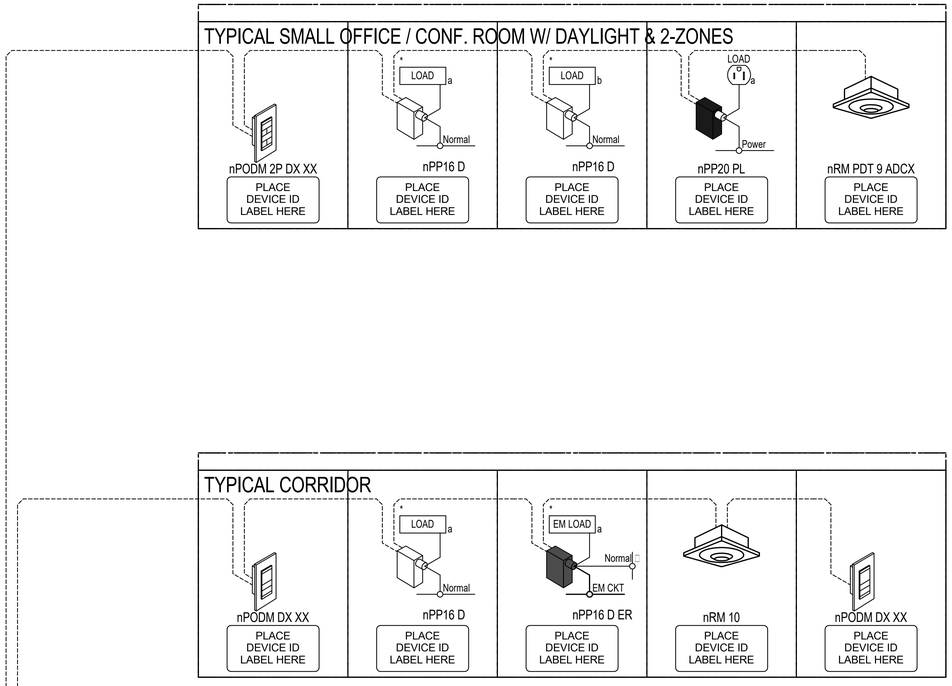

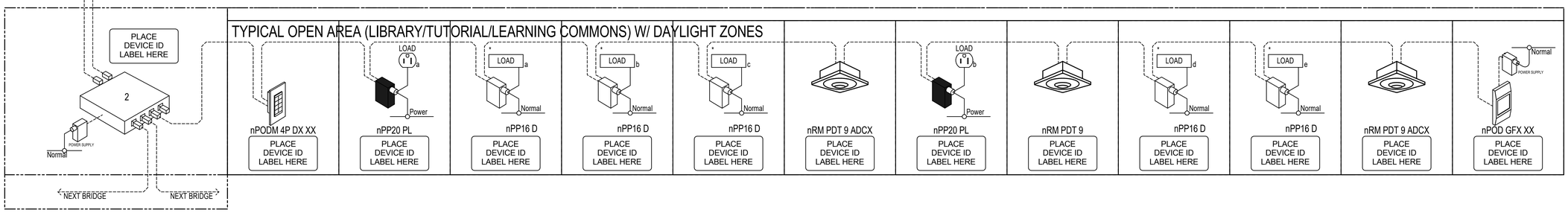

TYPICAL SEQUENCE OF OPERATIONS (INDOOR):

THIS QUOTE PROVIDES FOR THE FOLLOWING SEQUENCE OF OPERATIONS AS APPLICABLE BY SPACE USE:

OFFICES/STUDY ROOMS : MANUAL-ON, AUTO-OFF VIA OCC. SENSOR. SINGLE-CHANNEL MANUAL OVERRIDE ON/OFF/DIM. TIMECLOCK PROFILE. PLUG LOADS AUTO-OFF VIA OCC SENSOR.

CONFERENCE ROOMS: AUTO-ON/OFF VIA OCC. SENSOR. SINGLE-CHANNEL MANUAL OVERRIDE ON/OFF/DIM. FOUR (4) PUSHBUTTON LIGHTING PRESETS (ONLY AT SELECT LOCATIONS - SEE LAYOUTS). TIMECLOCK PROFILE. PLUG LOADS AUTO-OFF VIA OCC SENSOR. NOTE: AT SOME CONFERENCE LOCATIONS, COLOR TOUCH SCREEN CONTROLLER PROVIDED.

CORRIDORS/CIRCULATION : AUTO-ON VIA OCC. SENSOR. DIM TO 50% DURING VACANCY. SINGLE-CHANNEL MANUAL OVERRIDE ON/OFF/DIM. TIMECLOCK PROFILE FOR AUTO-OFF AFTER HOURS.

RECEPTION: AUTO-ON VIA OCC. SENSOR. DIM TO 50% DURING VACANCY. SINGLE-CHANNEL MANUAL OVERRIDE ON/OFF/DIM. TIMECLOCK PROFILE. PLUG LOADS AUTO-OFF VIA OCC SENSOR.

LIBRARY/TUTORIAL/LEARNING COMMONS : AUTO-ON VIA OCC. SENSOR. DIM TO 50% DURING VACANCY. SINGLE-CHANNEL MANUAL OVERRIDE ON/OFF/DIM. TIMECLOCK PROFILE FOR AUTO-OFF AFTER HOURS.

ALL OTHER INDOOR SPACES (WITH OCCUPANCY SENSOR) : AUTO-ON/OFF VIA OCC. SENSOR. SINGLE-CHANNEL MANUAL OVERRIDE ON/OFF WITH DIMMING PER PLANS. TIMECLOCK PROFILE.

ALL OTHER INDOOR SPACES (WITHOUT OCCUPANCY SENSOR) : SINGLE-CHANNEL MANUAL OVERRIDE ON/OFF WITH DIMMING PER PLANS. TIMECLOCK PROFILE ENABLES LIGHTING DURING TYPICALLY OCCUPIED TIMES. AUTO OFF VIA TIMECLOCK.

DAYLIT ZONES : IN ALL AREAS WHERE LIGHTING POWER WITHIN PRIMARY SIDELIT ZONES EXCEEDS 120W, SUCH LIGHTING SHALL AUTOMATICALLY DIM BASED ON DAYLIGHT CONTRIBUTION TO MAINTAIN DESIGN ILLUMINANCE AND DISTRIBUTION. HOWEVER, LIGHTING IN THESE ZONES SHALL NOT BE INDEPENDENTLY MANUALLY CONTROLLED.

DEMAND RESPONSE : SYSTEM QUOTED IS CAPABLE OF RECEIVING RECEIVING OpenADR 2.0a COMMAND SIGNAL FROM UTILITY DEMAND-RESPONSE-AUTOMATION-SERVER (DRAS) AND REDUCING LIGHTING POWER IN ACCORDANCE WITH CEC T24 PART 6, 130.1(e).

TIMECLOCK & USER SCHEDULES VIA DRY CONTACT(S) : SYSTEM QUOTED PROVIDES DIGITAL ASTRONOMICAL TIMECLOCK. USER PROFILES AND SCHEDULES ARE PROGRAMMED VIA PC COMPUTER CONNECTION AND STORED AT THE GATEWAY(S). OWNER TO PROVIDE DESIRED SCHEDULE PRIOR TO SYSTEM STARTUP.

NOTES:

1. ALL CONTROLLED LIGHTING SHALL BE AUTOMATICALLY SHUT OFF DURING TYPICALLY UNOCCUPIED HOURS. AUTO-OFF VIA OCC. SENSOR AT LOCATIONS WHERE SUCH SENSOR IS PROVIDED.
2. NON-GENERAL CONTROLLED LIGHTING (E.G. TASK) SHALL BE INDEPENDENTLY CONTROLLED AND SHALL NOT AUTOMATICALLY TURN ON VIA OCC. SENSOR.
3. OCCUPANCY SENSOR TIME DELAY SHALL BE 10 MINUTES UNLESS NOTED OTHERWISE.
4. ALL CONTROLLED LIGHTING FIXTURES DESIGNATED FOR PATH OF EGRESS ILLUMINATION AND CONNECTED TO A INVERTER CIRCUIT SHALL BE CONTROLLED BY CONTROLS THAT, UPON SENSING LOSS OF UTILITY POWER, AUTOMATICALLY BYPASS SUCH CONTROL SO AS TO ENSURE INVERTER POWER TO REACH THE FIXTURE FOR A MINIMUM 90 CONTINUOUS MINUTES DURING SUCH LOSS OF UTILITY POWER.

SEQUENCE OF OPERATIONS (OUTDOOR):

ALL OTHER LIGHTING: DURING DAYLIT HOURS - LIGHTING OFF. DURING DARK HOURS - ON.

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THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

INCREMENT 2

ISSUE DATE	**08/22/2023**
NOLL & TAM JOB NUMBER	**21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

DETAILS - LIGHTING CONTROLS

SHEET NUMBER

E5.06.2

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GENERAL ABBREVIATIONS:

A	AMPERES
ACP	ACCESS CONTROL PANEL
ACS	ACCESS CONTROL SYSTEM
AFF	ABOVE FINISHED FLOOR
AHJ	AUTHORITY HAVING JURISDICTION
ALS	ASSISTIVE LISTENING SYSTEM
AMP	AMPLIFIER
AOR	ARCHITECT OF RECORD
AUD	AUDIO
AUTO	AUTOMATIC
AUX	AUXILARY
AV	AUDIOVISUAL
AVC	AUDIOVISUAL CONTRACTOR
AVTC	AUDIOVISUAL TERMINAL CABINET
AWG	AMERICAN WIRE GAUGE
BCT	BONDING CONDUCTOR FOR TELECOMMUNICATIONS
BP	BROADCAST PANEL
C	CONDUIT
CAM	CAMERA
CATV	COMMUNITY ANTENNA TELEVISION SYSTEM
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CFOI	CONTRACTOR FURNISHED, OWNER INSTALLED
CL	CENTERLINE
CP	CONTROL PANEL
CPU	COMPUTER
CS	CONDUIT STUB
CSA	CHARLES SALTER ASSOCIATES
DA	DISTRIBUTION AMPLIFIER
DGP	DATA GATHERING PANEL
DIV	DIVISION
DMA	DOOR MANAGEMENT ALARM
DOC	DOCUMENT CAMERA
DP	PANEL DISPLAY
DS	DIGITAL SIGNAGE
DSP	DIGITAL SIGNAL PROCESSOR
DVI	DIGITAL VISUAL INTERFACE
E	EXISTING (E)
EC	ELECTRICAL CONTRACTOR
ECS	EMERGENCY COMMUNICATION SYSTEM
EF	ENTRANCE FACILITY FOR TELECOMMUNICATIONS (MPOE)
EMT	ELECTRICAL METALLIC TUBING
ER	EQUIPMENT ROOM
EXT	EXTERIOR
F	FUTURE (F)
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FB	FLOOR BOX
FO	FIBER OPTIC
FOV	FIELD OF VIEW
GC	GENERAL CONTRACTOR
GE	GROUNDING EQUALIZER
HDBT	HD BASE-T
HDMI	HIGH DEFINITION MULTIMEDIA INTERFACE
IC	INTERCOM
IDF	INTERMEDIATE DISTRIBUTION FRAME
IDS	INTRUSION DETECTION SYSTEM
INT	INTERIOR
IP	INTERNET PROTOCOL
IR	INFRARED
IT	INFORMATION TECHNOLOGY
JB	JUNCTION BOX
L	LEFT AUDIO
LS	LOUDSPEAKER
LVC	LOW VOLTAGE CONTROLLER
MATV	MASTER ANTENNA TELEVISION
MDF	MAIN DISTRIBUTION FRAME
MIC	MICROPHONE
MM	MULTIMODE
MPOE	MINIMUM POINT OF ENTRY
N	NEW (N)
NC	NORMALLY CLOSED
NET	NETWORK
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
OC	ON CENTER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFE	OWNER FURNISHED EQUIPMENT
OFOI	OWNER FURNISHED, OWNER INSTALLED
OSP	OUTSIDE PLANT
P	PAGING LOUDSPEAKER
PB	PULL BOX
PIR	PASSIVE INFRARED
PNL	PANEL
POE	POWER OVER ETHERNET
PPP	PORT PATCH PANEL
PR	PAIR OF CONDUCTORS
PROJ	PROJECTOR
PT	POKE THROUGH DEVICE
PTZ	PAN TILT ZOOM
PVC	POLYVINYL CHLORIDE
PWR	POWER
R	RIGHT AUDIO
RCP	REFLECTIVE CEILING PLAN
REX	REQUEST TO EXIT
RMC	RIGID METALLIC CONDUIT
RX	RECEIVER
S	LOUDSPEAKER
SAD	SEE ARCHITECTURAL DRAWINGS
SC	PROJECTOR SCREEN CONTROL
SCRN	PROJECTION SCREEN
SDI	SERIAL DIGITAL INTERFACE
SED	SEE ELECTRICAL DRAWINGS
SEH	SECURITY EQUIPMENT HUB
SM	SINGLE MODE
SMS	SECURITY MANAGEMENT SYSTEM
SPD	SURGE PROTECTION DEVICE
SR	SURROUND REAR LOUDSPEAKER
SS	SURROUND SIDE LOUDSPEAKER
STP	SHIELDED TWISTED PAIR
STR	STRANDS (OF FIBER)
SUB	SUBWOOFER LOUDSPEAKER
SY	SECURITY
SYS	SYSTEM
TB	TABLE BOX
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TELCO	TELEPHONE COMPANY
TGB	TELECOMMUNICATIONS GROUNDING BUS BAR
TMGB	TELECOMMUNICATIONS MAIN GROUNDING BUS BAR
TP	TOUCH PANEL
TR	TELECOM ROOM (IDF)
TY	SECURITY
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
V	VOLTS
VAC	VOLTS, ALTERNATING CURRENT
VC	VOLUME CONTROL
VDA	VIDEO DISTRIBUTION AMPLIFIER
VDC	VOLTS, DIRECT CURRENT
VMS	VIDEO MATRIX SWITCH
VP	VIDEO PROJECTOR
VSS	VIDEO SURVEILLANCE SYSTEM
WB	WALL BOX
WM	WIRELESS MICROPHONE RECEIVER ANTENNA
WP	WEATHERPROOF

TECHNOLOGY GENERAL NOTES:

GENERAL

1. ANY SHEET NOTES OR OTHER CALLOUTS IN THESE DRAWINGS THAT ASSIGN RESPONSIBILITY OF WORK TO SPECIFIC DIVISIONS ARE TO BE CONSIDERED AS A RECOMMENDATION ONLY.
2. REFER TO PROJECT MANUAL DIVISIONS 27 AND 28 FOR PROJECT SCOPE, PRODUCT SPECIFICATIONS, AND INSTALLATION REQUIREMENTS.
3. UNLESS OTHERWISE SPECIFICALLY DIMENSIONED, THESE DRAWINGS REPRESENT APPROXIMATE LOCATIONS OF DEVICES ONLY. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
4. COMPLY WITH ADA REQUIREMENTS FOR MOUNTING HEIGHTS OF DEVICES.
5. REFER TO DIVISION 26 FOR POWER AND LIGHTING REQUIREMENTS.
6. REFER TO DIVISION 23 FOR COOLING REQUIREMENTS.

CONDUIT & BOXES

1. REFER TO DIVISION 26 FOR SCOPE REQUIREMENTS RELATED TO CONDUIT, JUNCTION BOXES, AND OTHER CONDUIT TERMINAL BOXES WHERE NOT ADDRESSED SPECIFICALLY IN THESE DRAWINGS.
2. CONDUIT ROUTING ON PLANS IS DIAGRAMMATIC. COORDINATE WITH OTHER TRADES PRIOR TO INSTALLATION TO AVOID CONFLICT.
3. PROVIDE PULL STRINGS IN CONDUITS. LABEL CONDUITS THAT ARE STUBBED-OUT, OR AT TERMINATION BOXES, INDICATING DESTINATION ROOM AT OPPOSITE END. LABELING CONDUIT BOXES IS NOT REQUIRED FOR CONDUIT STUBBED UP ABOVE CEILING.
4. PAINT BOXES AND LAST 12 INCHES OF ACCESSIBLE CONDUIT INSTALLED FOR LOW-VOLTAGE CIRCUITS A DISTINCTIVE AND DIFFERENT COLOR FROM OTHER TRADES' CONDUIT AND BOXES.
5. MAXIMUM TOTAL DEGREE OF SWEEP TYPE BENDS IN CONDUIT BETWEEN PULL POINTS IS 180 DEGREES. ADD PULL BOXES AS REQUIRED TO MEET THIS REQUIREMENT. MAKE BENDS BEFORE OR AFTER PULL BOXES. DO NOT CHANGE DIRECTION OF CONDUITS WITHIN PULL BOXES.
6. DO NOT USE JUNCTION BOXES OR PULL BOXES AS PATH TURNS FOR ANY STRUCTURED CABLING.
7. MARK AND COLOR-CODE JUNCTION BOXES AND TERMINAL CABINETS WITH THEIR BOX SCHEDULE NUMBER ON THE INSIDE OF THE BOX FACING THE ROOM, SUCH THAT THEY REMAIN IDENTIFIABLE AFTER CLOSURE OF WALLS.
8. PROVIDE 1-INCH CONDUIT TO TELECOMMUNICATIONS 4-11/16-INCH BACK BOXES; BOXES TO BE 3-INCH DEEP WITH SINGLE-GANG MUD RING UNLESS OTHERWISE NOTED.
9. REFER TO ARCHITECTURAL AND/OR ELECTRICAL DRAWINGS FOR ANY REQUIRED TECHNOLOGY-RELATED ACOUSTICAL MEASURES REGARDING CONDUIT PENETRATIONS, ELECTRICAL BOX SEALANT PADS, AND GYPSUM BOARD BOX-OUTS FOR LOUDSPEAKERS AND LARGE BOXES, ETC.
10. UNLESS OTHERWISE SHOWN OR NOTED, FLEXIBLE CONDUIT SHALL NOT BE USED WITHOUT TECHNOLOGY CONSULTANT'S WRITTEN APPROVAL.
11. FOR CONDUITS WITH INTERNAL DIAMETERS OF 2 INCHES OR LESS, THE INSIDE BEND RADIUS OF A BEND IN CONDUIT SHALL BE AT LEAST 6 TIMES THE CONDUIT INTERNAL DIAMETER. FOR CONDUITS WITH AN INTERNAL DIAMETER OF MORE THAN 2 INCHES, THE INSIDE RADIUS OF A BEND IN CONDUIT SHALL BE AT LEAST 10 TIMES THE CONDUIT INTERNAL DIAMETER.
12. PROVIDE A MINIMUM OF ONE 1-1/4-INCH CONDUIT TO EACH FLOOR BOX FOR TELECOM THAT IS SEPARATE FROM CONDUITS REQUIRED FOR AV AND POWER, UON.
13. INSTALL SEPARATE CONDUITS TO EACH FLOOR BOX. DO NOT PASS THROUGH ONE FLOOR BOX TO ACCESS ANOTHER BOX, UON.

PROCESS

1. REPORT ANY OBSERVATIONS OR CONDITIONS AT TIME OF DISCOVERY THAT PREVENT THE CORRECT INSTALLATION OF THE DESIGNED SYSTEM ACCORDING TO THE DRAWINGS AND SPECIFICATIONS.
2. SUBMIT REQUESTS-FOR-INFORMATION (RFI) THROUGH THE DIVISION 01 PRESCRIBED COMMUNICATIONS PROTOCOL.
3. WHEN AN APPARENT CONFLICT EXIST BETWEEN LOW-VOLTAGE DISCIPLINES AND OTHER DISCIPLINES, RESOLVE THROUGH RFI PROCESS.
4. CREATE AND SUBMIT SHOP DRAWINGS SHOWING BACK BOX AND CONDUIT COORDINATION FOR DIVISIONS 27 AND 28.
5. INSTALLATION OF FLOOR BOXES IS DIVISION 26 SCOPE. COORDINATE FLOOR BOX REQUIREMENTS AS DETAILED IN THESE DOCUMENTS WITH OTHER DISCIPLINES AND NOTIFY THROUGH RFI PROCESS WHERE CONFLICTS OR REDUNDANCY MAY OCCUR.
6. VERIFY LOCATION OF FLOOR BOXES WITH ARCHITECT/OWNER REPRESENTATIVE PRIOR TO INSTALLATION.
7. NOTIFY ARCHITECT OF THE INTENT TO CLOSE WALLS AND CEILINGS, A MINIMUM OF FIVE WORKING DAYS PRIOR TO CLOSURE, AND REQUEST SITE OBSERVATIONS FOR EACH DISCIPLINE AFFECTED.
8. UNLESS OTHERWISE PROVIDED IN ARCHITECTURAL, STRUCTURAL, OR TECHNOLOGY DRAWINGS, PROVIDE TECHNOLOGY DEVICE STRUCTURAL ATTACHMENT DETAIL SHOP DRAWINGS PREPARED, STAMPED, AND SIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE PROJECT JURISDICTION.

AC POWER & GROUNDING

1. AC POWER CIRCUITS AND RECEPTACLES ARE SHOWN FOR REFERENCE ONLY. SEE ELECTRICAL DRAWINGS FOR SCOPE-OF-WORK AND SPECIFIC CIRCUIT ASSIGNMENTS. WHERE A CONFLICT EXISTS BETWEEN THE ELECTRICAL DRAWINGS AND THE TECHNOLOGY DRAWINGS, RECONCILE THROUGH RFI PROCESS.
2. MAINTAIN A MINIMUM 12-INCH SEPARATION BETWEEN TECHNOLOGY SIGNAL CONDUITS AND PARALLEL AC POWER CONDUITS. AC POWER CONDUITS CROSSING TECHNOLOGY SIGNAL CONDUITS SHOULD DO SO AT PERPENDICULAR ANGLES WITH A MINIMUM OF 1-INCH CLEARANCE.
3. LOCATE TECHNOLOGY INSTALLATIONS A MINIMUM OF 6 FEET AWAY FROM TRANSFORMERS, INVERTERS, AND MOTORS.
4. NO LOADS SUCH AS MOTORS, TRANSFORMERS, BALLASTED LIGHTING, OR UTILITY CIRCUITS SHALL BE SERVED BY AC POWER PANELS INTENDED FOR LOW-VOLTAGE TECHNOLOGY EQUIPMENT USE. NOTIFY THE ARCHITECT OR OWNER REPRESENTATIVE IN THE EVENT OF A CONFLICT WITH THE PANELBOARD SCHEDULE.
5. BUS BAR SHALL BE BONDED TO BUILDING STRUCTURAL STEEL. REFER TO BONDING RISER DRAWING FOR ADDITIONAL GROUNDING AND BONDING INFORMATION.
6. INSTALL BONDING CONDUCTORS WITH AS FEW BENDS AS POSSIBLE. WHEN A BEND IS NECESSARY, THE BEND SHALL BE INSTALLED AS A GRADUAL BEND WITH NO SHARP ANGLES KINKING THE CONDUCTOR.

AUDIOVISUAL INFRASTRUCTURE NOTES:

1. AUDIOVISUAL EQUIPMENT AND ELECTRICAL OUTLETS ADJACENT TO AV JUNCTION BOXES SHALL BE SERVED BY 120-VOLT AC CIRCUITS, WHICH ARE DEDICATED SOLELY TO AV USE. ALL CIRCUITS SHALL HAVE DEDICATED GROUNDED CONDUCTORS (I.E. NO COMMON "ROUND-HOUSE NEUTRAL") AND INSULATED EQUIPMENT GROUNDING CONDUCTORS.
2. BOND AC POWER DISTRIBUTION PANELS SERVING AUDIOVISUAL SYSTEM SUB-PANELS TO BUILDING SERVICE GROUND WITH CONTINUOUS INSULATED LOW-IMPEDANCE WIRE.
3. ALL AV CONDUITS ARE TO BE 3/4-INCH UNLESS OTHERWISE NOTED.
4. VERIFY THAT AUDIOVISUAL EQUIPMENT RACKS IN CLOSETS AND MILLWORK ARE PROPERLY VENTILATED.
5. UNLESS OTHERWISE PROVIDED IN ARCHITECTURAL, STRUCTURAL, OR AUDIOVISUAL DRAWINGS, PROVIDED TECHNOLOGY DEVICE STRUCTURAL ATTACHMENT DETAIL SHOP DRAWINGS PREPARED, STAMPED, AND SIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE PROJECT JURISDICTION.
6. SEE PROJECT SPECIFICATIONS FOR REQUIREMENTS FOR PROJECTION SCREENS, PROJECTOR LIFTS, AND PROJECTOR MOUNTS.
7. AV CONDUITS SHALL BE TERMINATED WITH JUNCTION BOXES, PULL-BOXES, OR TERMINAL CABINETS AT BOTH ENDS, UNLESS OTHERWISE NOTED. CONDUITS TERMINATED AS "STUBS" SHOULD BE DE-BURRED AND FITTED WITH BUSHINGS.

TELECOMMUNICATIONS GENERAL NOTES:

1. ALL WORK SHALL BE PROVIDED BY DIVISION 27 UNLESS OTHERWISE NOTED.
2. GRAPHICAL REPRESENTATION OF HARDWARE AND EQUIPMENT IS FOR INFORMATION AND NOT INTENDED TO SHOW EXACT QUANTITIES. CONTRACTOR SHALL SUPPLY SUFFICIENT QUANTITY TO TERMINATE ALL CABLING. PROVIDE ONE SPARE TERMINATION UNIT (BLOCK, PATCH PANEL, ETC.) IN EACH TELECOM ROOM.
3. NETWORK DROPS FOR AUDIOVISUAL AND SECURITY SYSTEMS THAT ROUTE BACK TO A TELECOM ROOM SHALL BE INSTALLED BY STRUCTURED CABLING CONTRACTOR. REFER TO THOSE DISCIPLINE DRAWINGS FOR OTHER INFORMATION.
4. TELECOMMUNICATIONS SYSTEM INSTALLATION CONTRACTOR IS RESPONSIBLE FOR ALL DATA CABLING TO BE INSTALLED TO TELECOM ROOMS.
5. FOR VOICE CIRCUITS IN ELEVATORS, ROUTE A 1-INCH CONDUIT FROM ELEVATOR EQUIPMENT ROOM TERMINATION LOCATION TO THE NEAREST TELECOM ROOM. COORDINATE WITH ELEVATOR INSTALLER FOR LOCATION OF CONDUIT TERMINATION POINT.
6. INSTALL BONDING CONDUCTORS WITH AS FEW BENDS AS POSSIBLE. WHEN A BEND IS NECESSARY, INSTALL AS A GRADUAL BEND WITH NO SHARP ANGLES KINKING THE CONDUCTOR.
7. ALL PULL BOXES SHALL BE HINGED AND LATCHABLE.
8. REFER TO APPROPRIATE ELECTRICAL OR FIRE ALARM DRAWINGS FOR FIRE PANEL LOCATION. PROVIDE CABLING FOR CONNECTIVITY NECESSARY TO CONNECT COMMUNICATION CIRCUITS.
9. FRAME AND FINISH CABLE TRAY PENETRATIONS THROUGH PARTITIONS. INSTALL UL LISTED FIRE STOP SYSTEMS FOR PARTITION PENETRATIONS THAT MAINTAIN FIRE RATING OF PARTITIONS. REFER TO DIVISION 07.
10. FRAME AND FINISH PARTITION OPENINGS WITH A MINIMUM 2-INCH CLEARANCE AROUND CABLE TRAY OPENINGS. REFER TO DIVISION 09 FOR PARTITION FINISH REQUIREMENTS.
11. INSTALL FLAT SMOOTH BOTTOM CABLE TRAY OVER INACCESSIBLE PORTIONS OF CEILINGS AND ABOVE LIGHT FIXTURES. PROVIDE ACCESS HATCHES AT A MAXIMUM OF EVERY 20 FEET OF INACCESSIBLE TRAY STRAIGHT RUNS, AND IN HARD CEILINGS AT ALL 90 DEGREE BENDS IN TRAYS.
12. TELECOM ROOM FLOORS SHALL BE ANTI-STATIC TREATED AND SEALED. REFER TO DIVISION 09.
13. INSTALL SIX-CELL FABRIC INNERDUCT IN 3-INCH AND 4-INCH CONDUITS. INSTALL THREE-CELL FABRIC INNERDUCT IN 2-INCH CONDUITS. TIE OFF INNERDUCT AT BOTH CONDUIT ENDS. ALL WORK SHALL BE PROVIDED BY DIVISION 27 UNLESS OTHERWISE NOTED.
14. MAXIMUM PERMANENT LINK CABLE LENGTH IS 90 METERS. SHOULD CONTRACTOR BELIEVE ANY RUN WILL EXCEED 90 METERS, SUBMIT AN RFI FOR COORDINATION WITH TELECOMMUNICATIONS DESIGN CONSULTANT TO DETERMINE OPTIMUM ROUTING PRIOR TO INSTALLATION OF CABLE.
15. CABLE WIRELESS ACCESS POINTS WITH TWO CATEGORY-6A RATED CABLES, UNLESS OTHERWISE NOTED.
16. COORDINATE WITH FURNITURE MANUFACTURER TO CLARIFY CABLE TERMINATION LOCATIONS. IF CABLES TERMINATE IN FURNITURE, PROVIDE POKE-THROUGHS OR FLOOR BOXES AS PASS-THROUGHS, AS APPROPRIATE, TO CABLE MANAGEMENT IN FURNITURE. PROTECT CABLING WITH LIQUID TIGHT FLEXIBLE CONDUIT WHIPS INTO FURNITURE WHERE CABLING WOULD OTHERWISE BE EXPOSED.
17. UNLESS OTHERWISE PROVIDED IN ARCHITECTURAL, STRUCTURAL, OR TELECOM DRAWINGS, PROVIDE TECHNOLOGY DEVICE STRUCTURAL ATTACHMENT DETAIL SHOP DRAWINGS PREPARED STAMPED, AND SIGNED BY A STRUCTURAL ENGINEER LICENSED IN THE PROJECT JURISDICTION.

SHEET INDEX

SECURITY GENERAL NOTES:

1. ALL WORK SHALL BE PROVIDED BY DIVISION 28 UNLESS OTHERWISE NOTED.
2. REFER TO PROJECT MANUAL DIVISION 28 FOR PROJECT SCOPE, PRODUCT SPECIFICATIONS, AND INSTALLATION REQUIREMENTS.
3. POWER SYMBOLS SHOWN ON SECURITY PLANS ARE FOR REFERENCE ONLY. SEE ELECTRICAL DRAWINGS AND REFER TO PROJECT MANUAL DIVISION 26 FOR SPECIFIC REQUIREMENTS.
4. COORDINATE WITH DIVISION 08 LOCKING HARDWARE CONTRACTOR ON CONNECTING CABLES TO ELECTRIC POWER TRANSFER HINGES AND ELECTRIC LOCKING HARDWARE CONTROLLED BY SECURITY SYSTEM.
5. CONNECT SECURITY SYSTEMS TO EMERGENCY POWER SOURCE ONLY. DEVIATIONS FROM THIS REQUIRES WRITTEN APPROVAL FROM OWNER AND ARCHITECT-OF-RECORD.
6. REPORT FIRE RATED ASSEMBLIES, NOT FACTORY PREPPED FOR SECURITY DEVICES, TO GENERAL CONTRACTOR FOR COORDINATION AND ACCEPTABLE SOLUTION.
7. ALL EXISTING DOORS WITH NEW ACCESS CONTROL HARDWARE SHALL BE WIRELESS AND BATTERY-OPERATED. ALL NEW DOORS SHALL BE HARD-WIRED ACCESS CONTROL DEVICES.

APPROVALS

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ARCHITECTS SEAL

REGISTERED PROFESSIONAL ENGINEER
KENNETH W. GRAVEN
E15135
ELECTRICAL
STATE OF CALIFORNIA

STAMPED & SIGNED ON:
11/30/2018

Charles M. Salter ASSOCIATES INC

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

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ISSUE TITLE

INCREMENT 2
RECORD DRAWINGS

ISSUE DATE	04/06/2022
NOLL & TAM JOB NUMBER	21630

REVISIONS

#	DATE	DESCRIPTION

SHEET TITLE

TECHNOLOGY NOTES AND ABBREVIATIONS

SHEET NUMBER

T0.00.2

SHEET REFERENCE CONVENTIONS:

NUMBERED SHEET NOTE. ONLY APPLIES TO SHEET ON WHICH NOTE IS FOUND.

ELEVATION NUMBER / SHEET NUMBER — ELEVATION REFERENCE

SECTION NUMBER / SHEET NUMBER — SECTION REFERENCE

DETAIL NUMBER / SHEET NUMBER — DETAIL REFERENCE OR CALL-OUT

ELECTRICAL POWER AND CONDUIT SYMBOLS:

DOUBLE DUPLEX PLACEHOLDER FOR POWER. REFER TO ELECTRICAL DOCUMENTS FOR SPECIFICS.

DUPLEX PLACEHOLDER FOR POWER. REFER TO ELECTRICAL DOCUMENTS FOR SPECIFICS.

SPECIAL PURPOSE PLACEHOLDER FOR POWER. REFER TO ELECTRICAL DOCUMENTS FOR SPECIFICS.

CONDUIT, UNDERGROUND OR UNDERSLAB

CONDUIT, TURNED UP

CONDUIT, TURNED DOWN

AUDIOVISUAL SYMBOLS:

TAG — JUNCTION BOX TAG - REFER AV JUNCTION BOX SCHEDULE FOR REQUIREMENTS, AV HARDWARE AN ELECTRONICS ARE NOT IN CONTRACT

SECURITY SYMBOLS:

- C — CONTACT
- CR — CARD READER (W/ DOOR CONTACT AND REX SWITCH)
- DB — DURESS BUTTON
- ED — EXIT DEVICE
- EL — ELECTRIC LOCKSET
- ES — ELECTRIC STRIKE
- EX — ELECTRIC EXIT DEVICE
- GS — GLASS BREAK SENSOR
- KP — KEYPAD
- IL — INTEGRATED ELECTRONIC LOCK
- MD — MOTION DETECTOR
- OP — DOOR OPERATOR
- PB — PUSH BUTTON
- R — REMOTE DOOR UNLOCK PUSHBUTTON
- DH — DOOR HOLDER
- PS — POWER SUPPLY
- SP — SECURITY PANEL
- REX — REQUEST TO EXIT SENSOR
- ENS — EMERGENCY NOTIFICATION SPEAKER
- X — SECURITY COMMUNICATIONS STATION
  I=INTERCOM
  E=EMERGENCY CALL STATION
  M=MASTER STATION
- DM — DOOR MANAGEMENT ALARM
- EE — EMERGENCY EXIT ALARM
- SECURITY WORKSTATION

CAMERA SYMBOLS:

- FXD — FIXED CAMERA (REFER TO SPECIFICATIONS FOR LENS TYPE)
- PINHOLE COVERT CAMERA
- PTZ — PAN TILT ZOOM CAMERA
- DOME CAMERA
- MULTI-IMAGER CAMERA

CAMERA SYMBOLS LEGEND:

CX.XX — CAMERA TAG, REFER TO SCHEDULE BELOW FOR CAMERA INFORMATION

SECURITY CAMERA SCHEDULE

TAG	FOV	Family	Resolution	Mounting
C2.1	90.00°	Camera - Dome	5MP	WALL
C2.2	90.00°	Camera - Dome	5MP	WALL
C2.3	270.00°	Camera - Dome	5MP	CEILING
C2.4	270.00°	Camera - Dome	5MP	CEILING
C2.5	180.00°	Camera - Dome	5MP	WALL
C2.6	90.00°	Camera - Dome	5MP	WALL
C2.7	90.00°	Camera - Dome	5MP	WALL
C2.8	90.00°	Camera - Dome	5MP	WALL
C2.9	90.00°	Camera - Dome	5MP	WALL
C2.9	45.00°	Camera - Dome	5MP	WALL
C2.10	90.00°	Camera - Dome	5MP	WALL
C2.11	270.00°	Camera - Dome	5MP	CEILING
C2.12	90.00°	Camera - Dome	5MP	WALL
C2.13	270.00°	Camera - Dome	5MP	CEILING
C2.14	270.00°	Camera - Dome	5MP	WALL
C2.15	270.00°	Camera - Dome	5MP	WALL
C2.16	90.00°	Camera - Dome	5MP	WALL
C2.17	90.00°	Camera - Dome	5MP	WALL
C2.18	45.00°	Camera - Dome	5MP	WALL
C2.19	45.00°	Camera - Dome	5MP	WALL
C2.20	45.00°	Camera - Dome	5MP	CEILING
C2.21	45.00°	Camera - Dome	5MP	WALL
C2.22	90.00°	Camera - Dome	5MP	WALL
C2.23	180.00°	Camera - Dome	5MP	WALL
C2.23	180.00°	Camera - Dome	5MP	WALL
C2.24	60.00°	Camera - Dome	5MP	WALL
C2.25	180.00°	Camera - Dome	5MP	WALL

TELECOMMUNICATION SYMBOLS:

- W — FLUSH WALL PHONE RECEPTACLE AT 48" AFF OR AS REQUIRED BY ADA
- FLUSH DATA-ONLY WALL RECEPTACLE
- FLUSH WIRELESS ACCESS POINT WALL RECEPTACLE
- FLUSH DATA-ONLY FLOOR RECEPTACLE
- FLUSH DATA OUTLET CEILING MOUNTED RECEPTACLE
- FLUSH WIRELESS ACCESS POINT CEILING RECEPTACLE
- WALL MOUNTED ENCLOSURE SIZE AND PURPOSE AS NOTED ON DRAWING
- SURFACE MOUNTED RACEWAY BY OTHERS
- ---//---// — SURFACE MOUNTED RACEWAY TO BE DEMOLISHED
- CABLE TRAY, SIZE AS NOTED ON PLAN
- CABLE RUNWAY, SIZE AS NOTED ON PLAN

KEYNOTE LEGEND:

1 — KEYNOTE NUMBER, REFER TO KEYNOTE LIST ON SHEET

X" — INDICATES SIZE OF CABLE TRAY/CABLE LADDER

SYMBOL LEGEND:

- #D — #D INDICATES QUANTITY OF DATA CABLES
- #V — #V INDICATES QUANTITY OF VOICE CABLES
- +48"AFF — INDICATES HEIGHT ABOVE FINISHED FLOOR
- SY — INDICATES ASSOCIATED DISCIPLINE (REFER TO THAT DISCIPLINE FOR BOX LOCATION, MOUNTING HEIGHT, SURFACE/RECESSED, ETC.)

TELECOMMUNICATION RESPONSIBILITY MATRIX:

SCOPE ITEM	CFCI	CFOI	OFOI	OFCI
TELECOM ROOM FIT-OUT				
RACKS/CABINETS	X			
VERTICAL CABLE MANAGERS	X			
HORIZONTAL CABLE MANAGERS	X			
PATCH PANELS	X			
NETWORK SWITCHES			X	
UPS			X	
LADDER RACKING	X			
PLYWOOD	X			
GROUNDING BUSBAR	X			
POWER	X			
LIGHTING	X			
PATHWAYS				
CORRIDOR CABLE TRAY	X			
CONDUIT & BACKBOXES	X			
UNDERGROUND CONDUIT	X			
HORIZONTAL CABLING, JACKS, WALL PLATES	X			
WIRELESS ACCESS POINT CABLING	X			
WIRELESS ACCESS POINT DEVICES			X	
INTER-BUILDING COPPER AND/OR FIBER CABLING	X			
INTRA-BUIDLING BACKBONE (RISER) CABLING	X			
BUILDING ENTRANCE TERMINALS	X			

APPROVALS

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ARCHITECTS SEAL

REGISTERED PROFESSIONAL ENGINEER KENNETH W. GRAVEN E15125 ELECTRICAL STATE OF CALIFORNIA

STAMPED & SIGNED ON: 11/30/2018

Charles M. Salter ASSOCIATES INC

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET:

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ISSUE TITLE

INCREMENT 2 RECORD DRAWINGS

ISSUE DATE 04/06/2022

NOLL & TAM JOB NUMBER 21630

REVISIONS

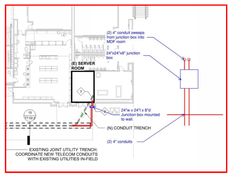
#	DATE	DESCRIPTION

SHEET TITLE

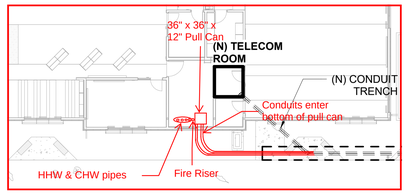
TECHNOLOGY SYMBOLS AND LEGENDS

SHEET NUMBER

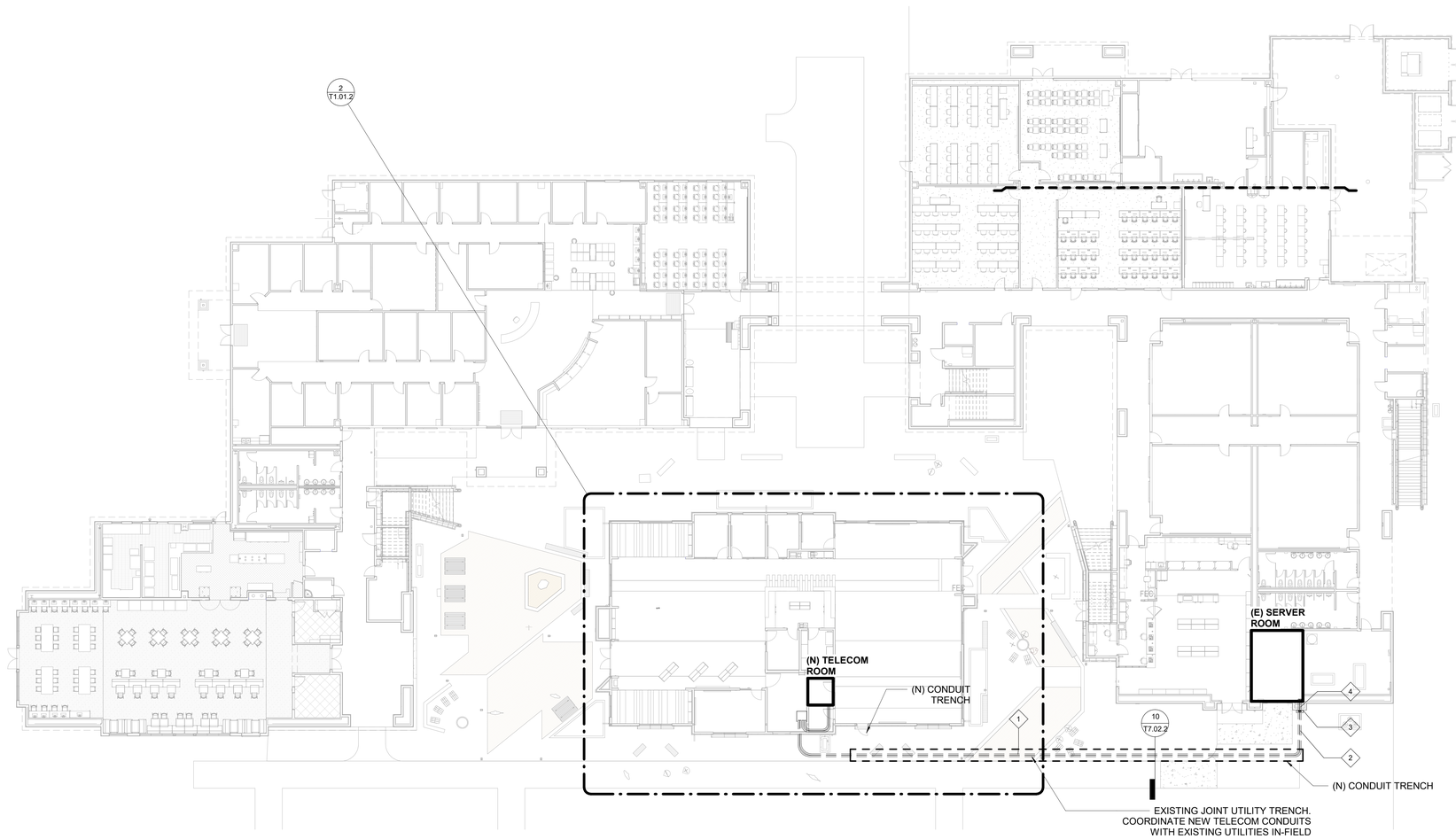
T0.01.2



RFI #24 - REVISED PROPOSED MOUNTING AND ROUTING



RFI #200 - REROUTING OF DATA CONDUITS COMING INTO LLRC



1 01 - FLOOR
1/16" = 1'-0"

	SHEET NOTES
A.	PROTECT EXISTING UTILITY CONDUITS IN-PLACE. COORDINATE NEW UTILITY SERVICE CONDUITS WITH EXISTING CONDUIT TRENCHES FOR EXACT PLACEMENT IN-FIELD

KEYNOTE LEGEND	
#	Keynote
1	(2) 4" UNDERGROUND CONDUITS w/ FABRIC INNERDUCT FROM EXISTING MDF TO NEW TUTORIAL LIBRARY TELECOMMUNICATIONS CLOSET ROUTED ADJACENT TO EXISTING JOINT UTILITY TRENCH
2	(2) 4" CONDUITS FROM WALL-MOUNTED JUNCTION BOX TO NEW TELECOM ROOM
3	24"W x 24"L x 8"D WALL-MOUNTED JUNCTION BOX
4	(2) 4" CONDUIT SWEEPS FROM WALL-MOUNTED JUNCTION BOX TO MDF ROOM

APPROVALS

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ARCHITECTS SEAL

REGISTERED PROFESSIONAL ENGINEER KENNETH W. GRUBER E-15125 ELECTRICAL STATE OF CALIFORNIA

STAMPED & SIGNED ON:
11/30/2018

Charles M. Salter ASSOCIATES INC

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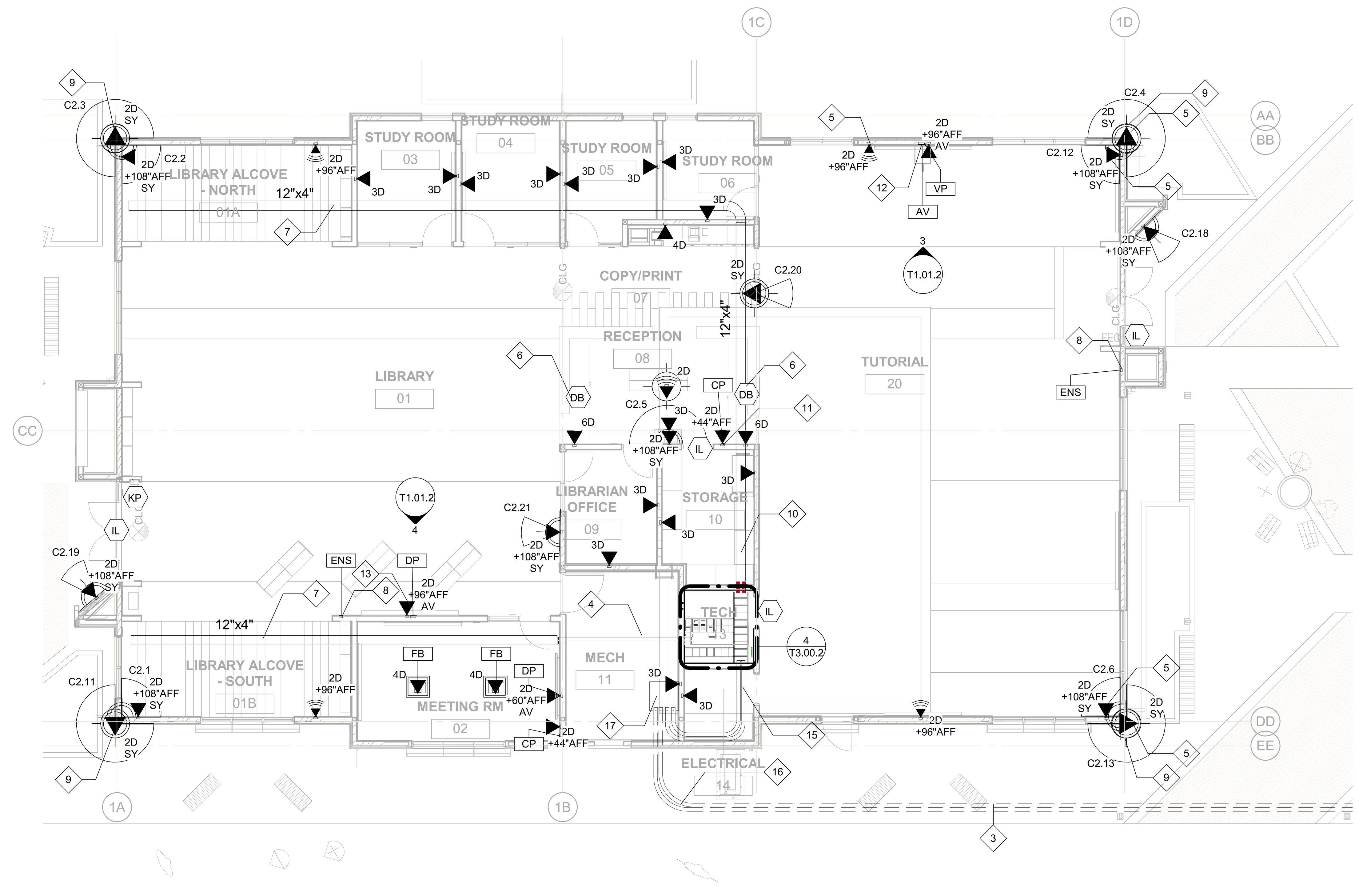
ISSUE DATE	04/06/2022
NOLL & TAM JOB NUMBER	21630

REVISIONS

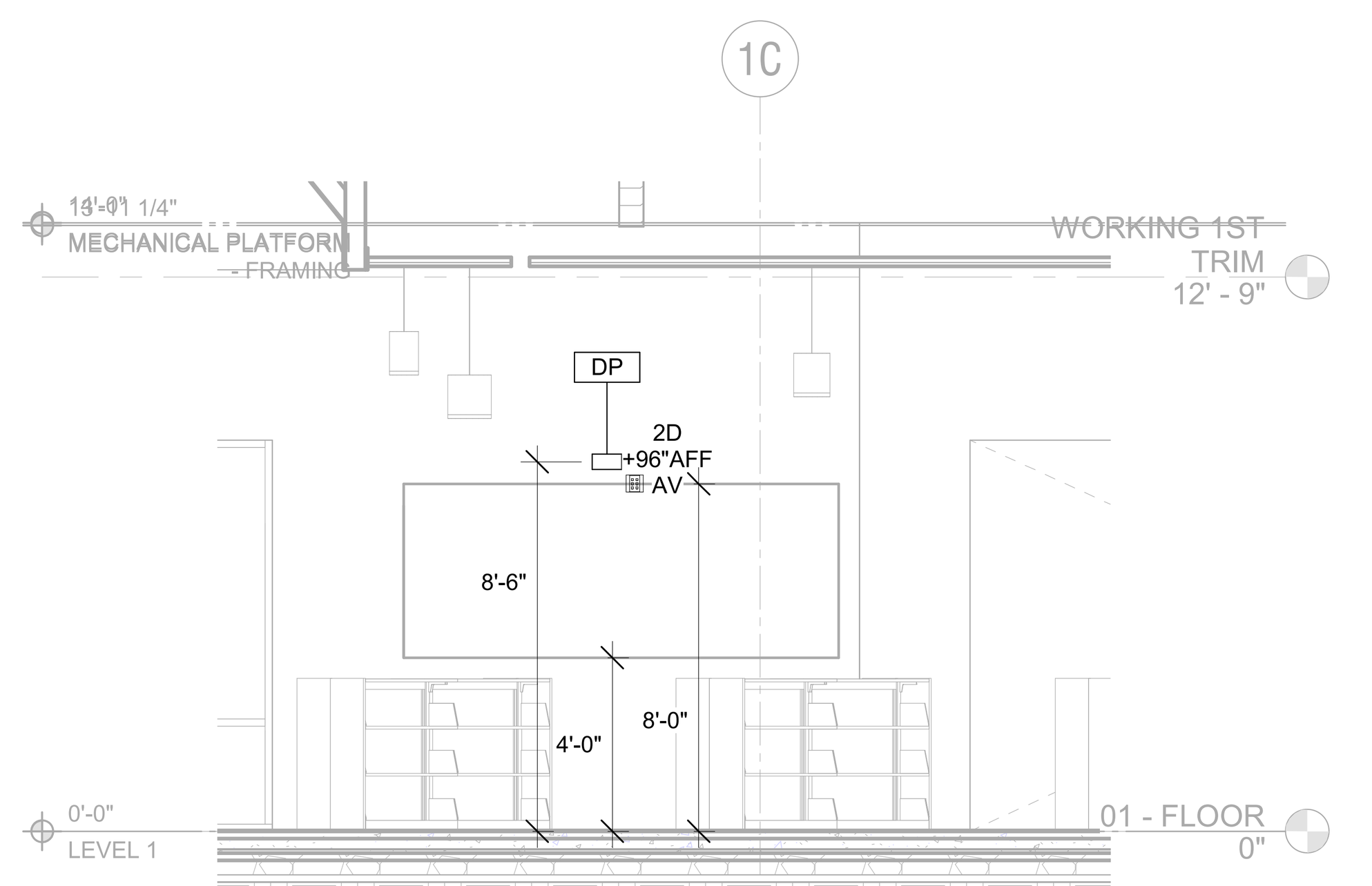
#	DATE	DESCRIPTION

SHEET TITLE
SITE PLAN

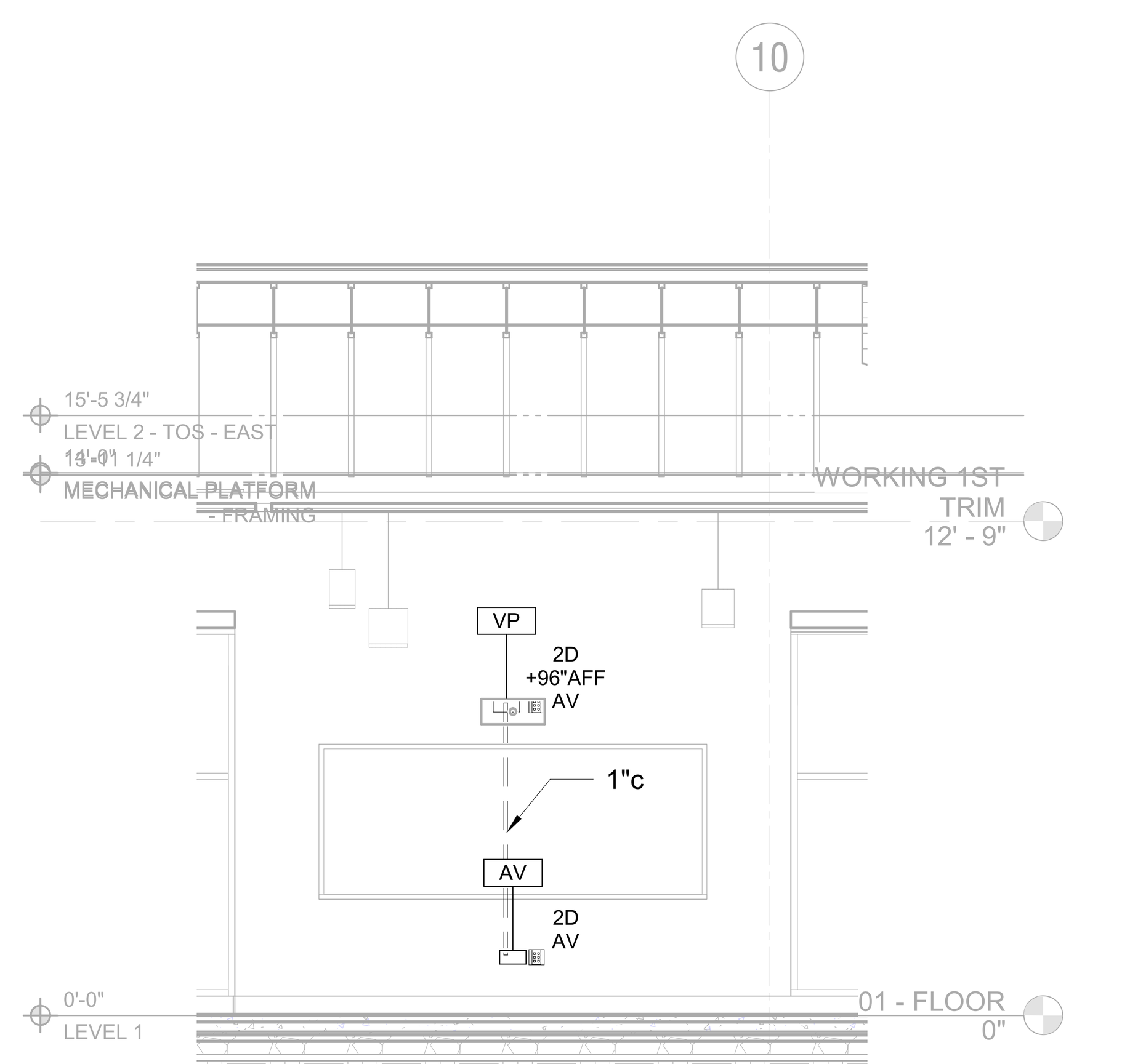
SHEET NUMBER
T0.10.2



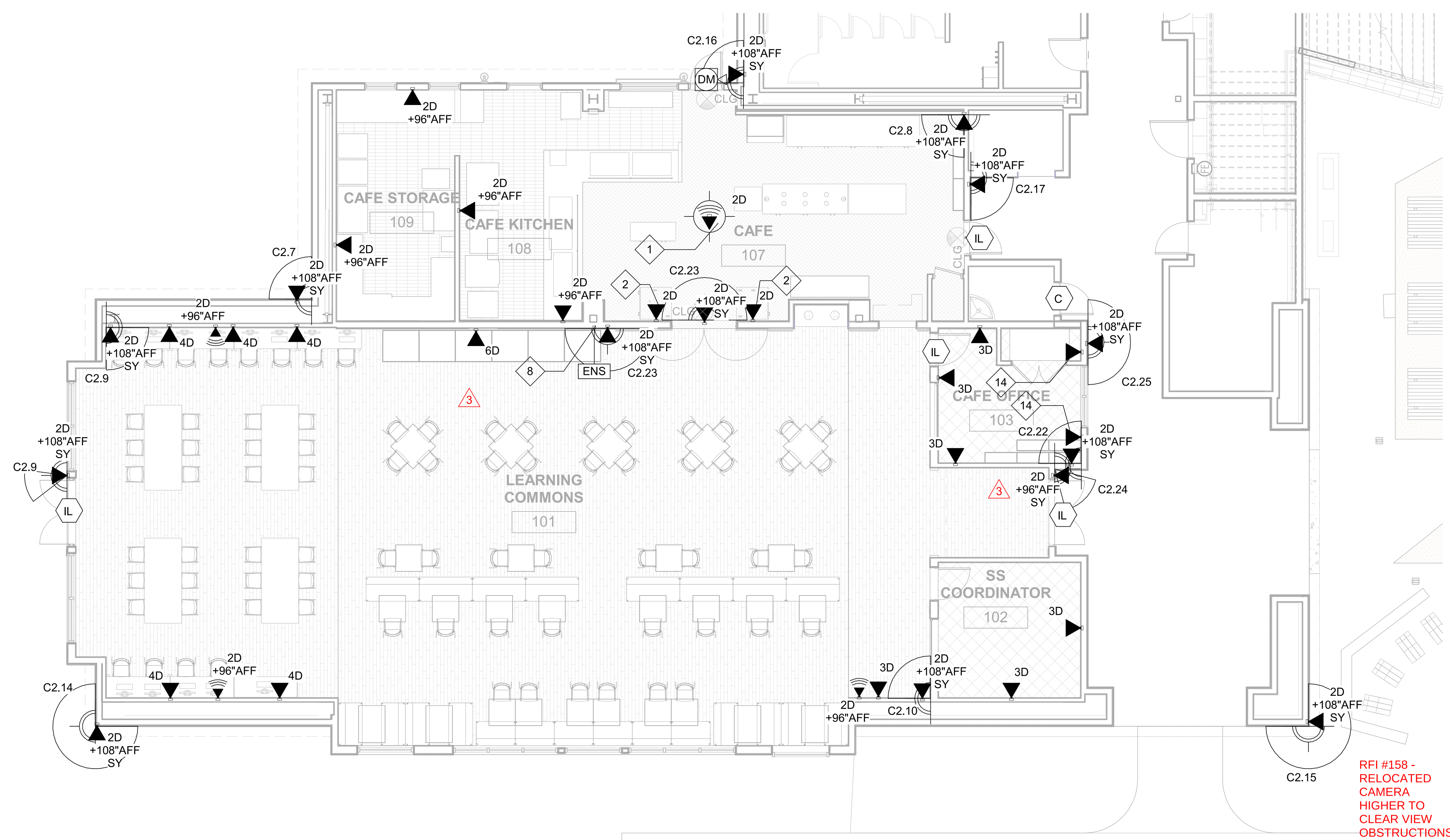
2 LIBRARY ENLARGED PLAN
1/8" = 1'-0"



4 LIBRARY FUTURE VIDEO DISPLAY INFRASTRUCTURE
1/4" = 1'-0"



3 TUTORIAL VIDEO PROJECTION ELEVATION
1/4" = 1'-0"



1 LEARNING COMMONGS ENLARGED PLAN
1/8" = 1'-0"

APPROVALS

SHEET NOTES

A.	USE EXISTING CABLING CONVEYANCE SYSTEMS FOR ALL NEW TELECOMMUNICATIONS STRUCTURED CABLING
B.	ALL ACTIVE AV EQUIPMENT INCLUDING LOUDSPEAKERS, DISPLAYS, AND PROJECTORS ARE NOT IN CONTRACT, OFOI
C.	PROTECT ALL EXISTING CABLING IN-PLACE. ALL DEVICE LOCATIONS ON PLANS ARE NEW AND WILL USE NEW CABLING
D.	STUB CONDUITS TO EXISTING TELECOM CONVEYANCE SYSTEMS FROM ALL NEW TELECOMMUNICATIONS OUTLET DEVICE JUNCTION BOXES
E.	TEST ALL EXISTING CABLING IN ROOMS WHERE EXISTING CABLING HAS BEEN PROTECTED IN-PLACE. PROVIDE TEST RESULTS AS OUTLINED IN THE SPECIFICATIONS
F.	EXISTING EQUIPMENT AND HARDWARE WILL BE REMOVED BY CAMPUS. REMAINING EQUIPMENT, LOUDSPEAKERS, OR OTHER HARDWARE NOT REMOVED BY THE CAMPUS SHALL BE PROTECTED IN-PLACE
G.	REFER TO DOOR HARDWARE SCHEDULE FOR ELECTRONIC LOCK HARDWARE. ALL EXISTING RETROFIT DOORS WITH ELECTRONIC LOCKS SHALL BE BATTERY OPERATED. NEW DOORS WILL BE HARD-WIRED
H.	INTEGRATE ALL NEW SECURITY PRODUCTS WITH EXISTING SECURITY INFRASTRUCTURE IN EXISTING TELECOM ROOMS. ROUTE SECURITY CABLING TO NEAREST TELECOM ROOM. COORDINATE WITH DISTRICT IT FOR MORE INFORMATION
I.	PROTECT ALL EXISTING EMERGENCY NOTIFICATION SYSTEMS IN-PLACE

KEYNOTE LEGEND

#	Keynote
1	ROUTE ALL NEW CABLING FOR LEARNING COMMONS AND CAFÉ TO IDF 105
2	DATA FOR POINT-OF-SALES LOCATION, COORDINATE WITH PLACEMENT OF POINT-OF-SALES HARDWARE
3	(2) 4" UNDERGROUND CONDUITS w/ FABRIC INNERDUCT FROM EXISTING MDF TO NEW TUTORIAL LIBRARY TELECOMMUNICATIONS CLOSET ROUTED ADJACENT TO EXISTING JOINT UTILITY TRENCH
4	(2) 3" CONDUITS FROM TELECOM ROOM TO CABLE TRAY. COORDINATE CONDUIT PLACEMENT WITH MECHANICAL EQUIPMENT IN MECHANICAL ROOM, MOUNT CONDUITS TO EXPOSED DECK ABOVE THEN BACK DOWN TO ACCESSIBLE CEILING HEIGHT
5	PROVIDE CONDUIT PATHWAY FROM DATA LOCATION HOME-RUN TO TELECOMMUNICATIONS ROOM
6	OPERATION OF DURESS BUTTON SHALL LOCK DOWN ALL EXTERIOR DOORS TO LIBRARY. PROVIDE PROGRAMMING AT ACCESS CONTROL PANEL FOR FUNCTIONALITY
7	CABLE TRAY MOUNTED ABOVE ACCESSIBLE CEILING. MAINTAIN 4" CLEAR ABOVE ACCESS CEILING TILE GRID
8	NEW CNS EMERGENCY NOTIFICATION SPEAKER (OWNER-FURNISHED, CONTRACTOR-INSTALLED), MOUNT PUSH-BUTTON AT STANDARD SWITCH HEIGHT AND CNS NOTIFICATION SPEAKER AT 8'-0"AFF
9	MOUNT SECURITY CAMERA & ASSOCIATED DATA JUNCTION BOX AT ARCHITECTURAL SOFFIT
10	ROUTE CABLE TRAY ABOVE / UNDER HVAC DUCTING WHERE CONFLICTS EXIST. COORDINATE REQUIRED ELEVATIONS OF EQUIPMENT IN-FIELD
11	TUTORIAL VIDEO PROJECTOR CONTROLLER. PROVIDE 1" CONDUIT STUB TO VIDEO PROJECTOR JUNCTION BOX FOR VIDEO PROJECTOR CONTROL
12	SHORT-THROW VIDEO PROJECTOR MOUNTED TO WALL WITH AV-INPUT LOCATION BELOW AT 18"AFF
13	DATA JUNCTION BOX AND CABLING FOR FUTURE DIGITAL SIGNAGE DISPLAY, MOUNTED ABOVE WHITE BOARD
14	PROTECT EXISTING DATA RECEPTACLES AND CABLING IN-PLACE
3 15	(2) 4" CONDUITS FROM NEW PULL CAN TO NEW LLRC TELECOM ROOM
16	(2) 4" CONDUITS FROM EXISTING MDF TO NEW PULL CAN
17	36"W x 36"L x 12"D PULL CAN

RFI #232 - ENS DEVICE - LEARNING COMMON 101, LIBRARY 01, TUTORIAL 20. DISTRICT IT TO CONFIRM ADVANCED NETWORK DEVICES IPSWD-RWB AND BUTTON.

RFI #256 - BLUE FOR COPPER PATCH CABLES.

NOLL & TAM ARCHITECTS
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STAMPED & SIGNED ON:
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Charles M. Salter ASSOCIATES INC

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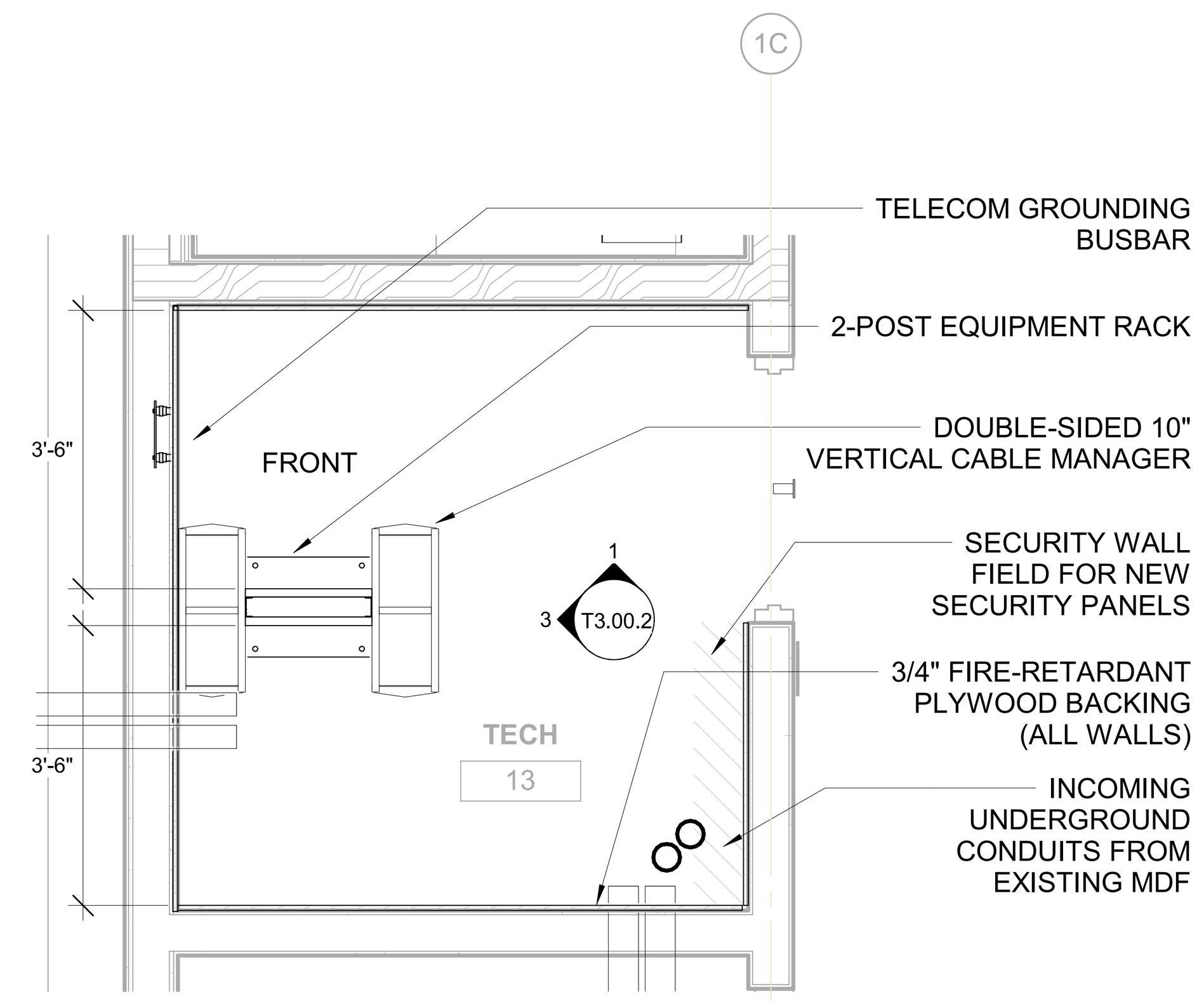
NOLL & TAM JOB NUMBER	21630

REVISIONS

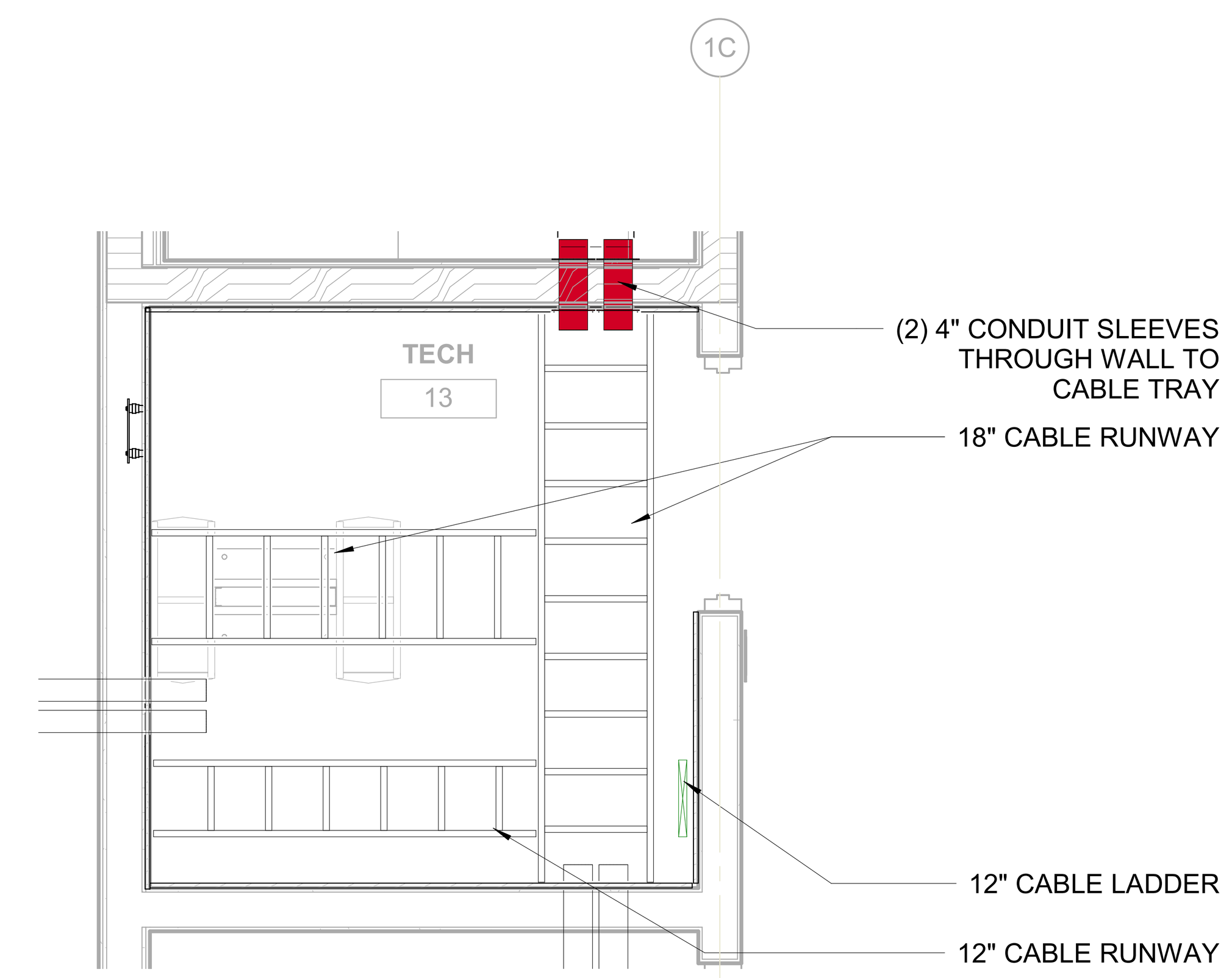
#	DATE	DESCRIPTION

SHEET TITLE
EXPANSION ENLARGED PLANS

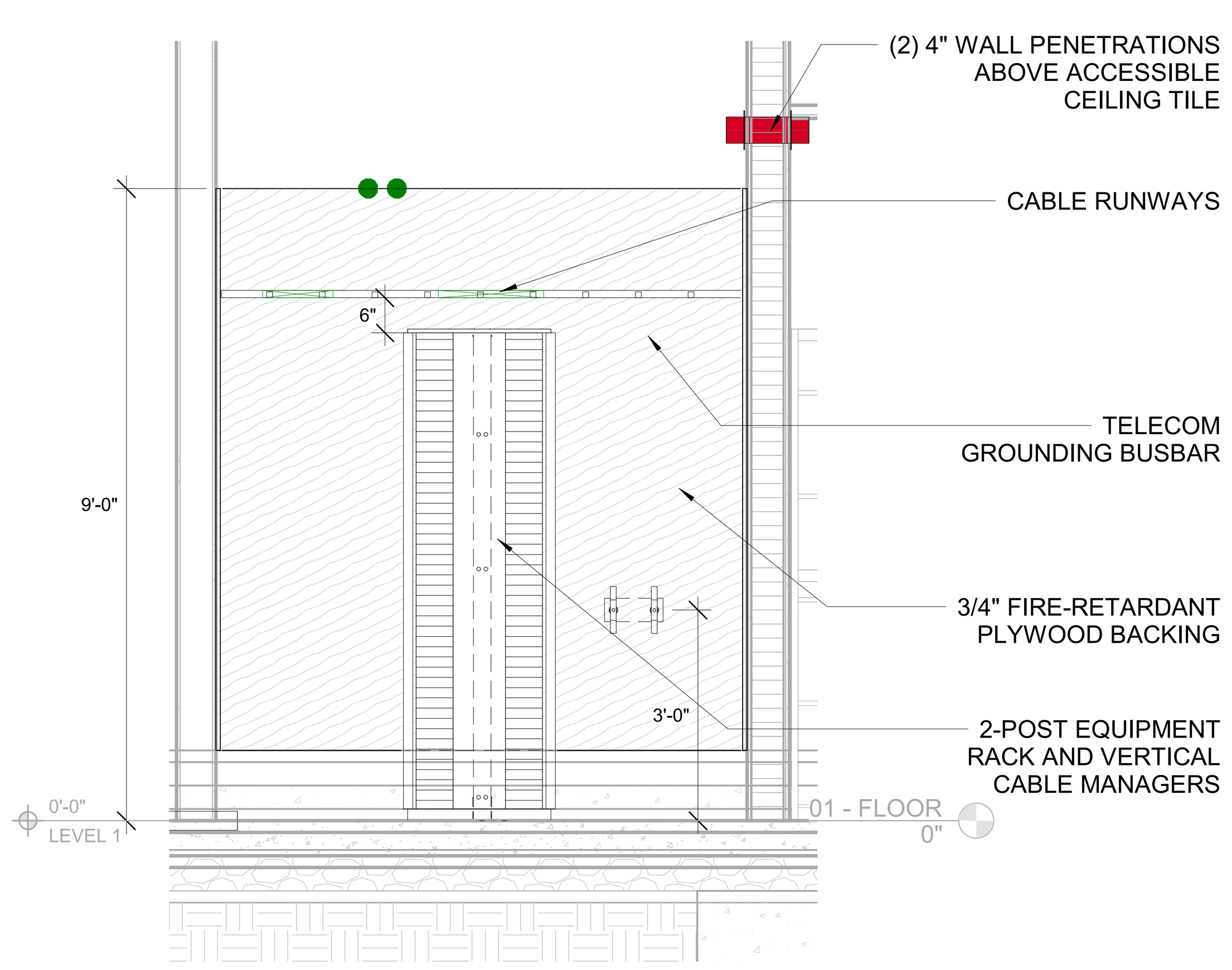
SHEET NUMBER
T1.01.2



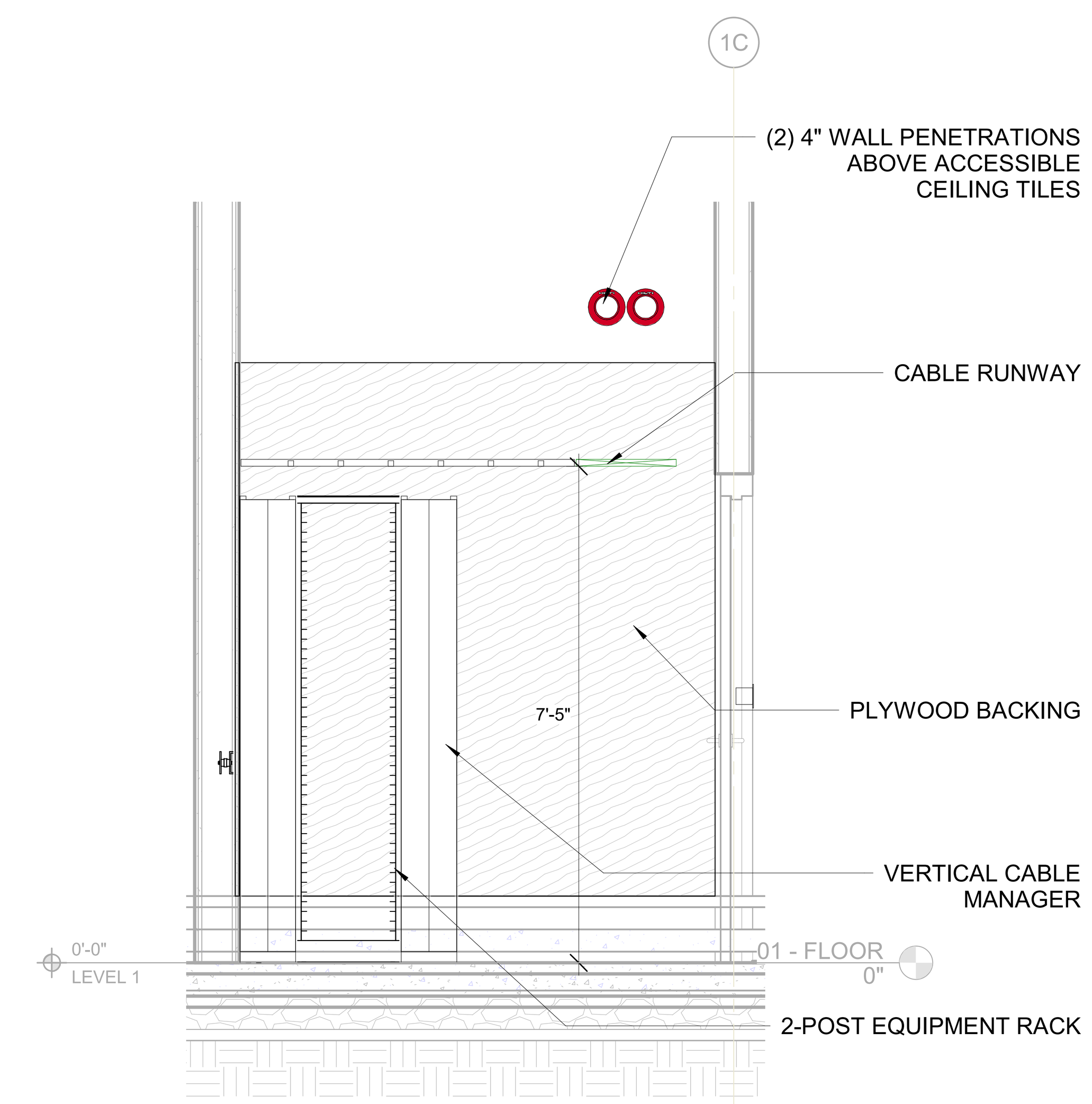
4 TUTORIAL TELECOM EQUIPMENT ROOM ENLARGED PLAN
1/2" = 1'-0"



2 TUTORIAL TELECOM EQUIPMENT ROOM ENLARGED OVERHEAD PLAN
1/2" = 1'-0"



3 TELECOM ROOM WEST ELEVATION
1/2" = 1'-0"



1 TELECOM ROOM NORTH ELEVATION
1/2" = 1'-0"

APPROVALS

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E15135
ELECTRICAL
STATE OF CALIFORNIA

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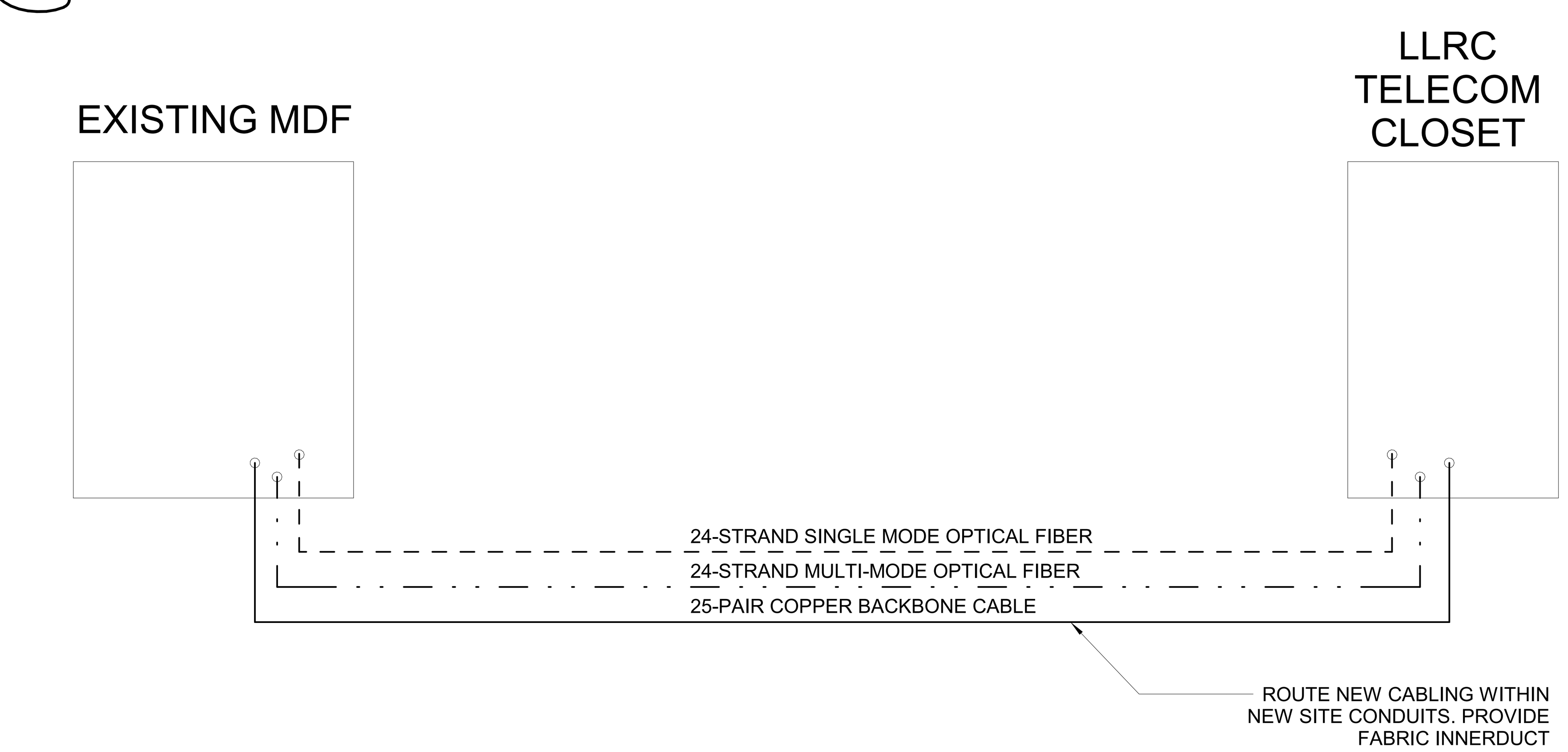
SHEET TITLE
TELECOM EQUIPMENT ROOMS

SHEET NUMBER
T3.00.2

11/29/2018 6:03:13 PM

2 CONDUIT RISER DIAGRAM
NTS



1 CABLING RISER DIAGRAM
NTS

APPROVALS

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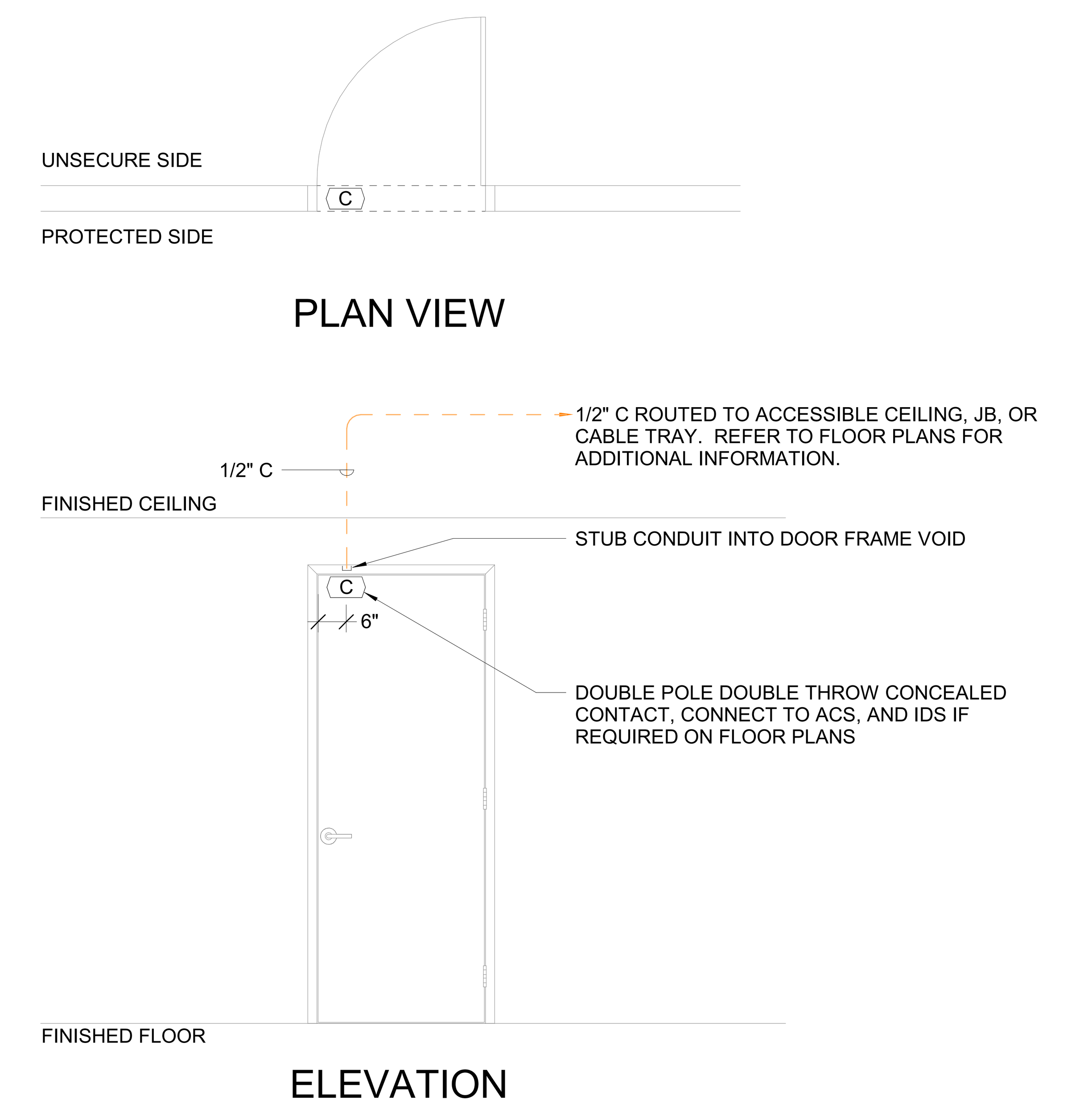
REVISIONS

#	DATE	DESCRIPTION

SHEET TITLE
TELECOM RISER DIAGRAMS & SCHEDULE

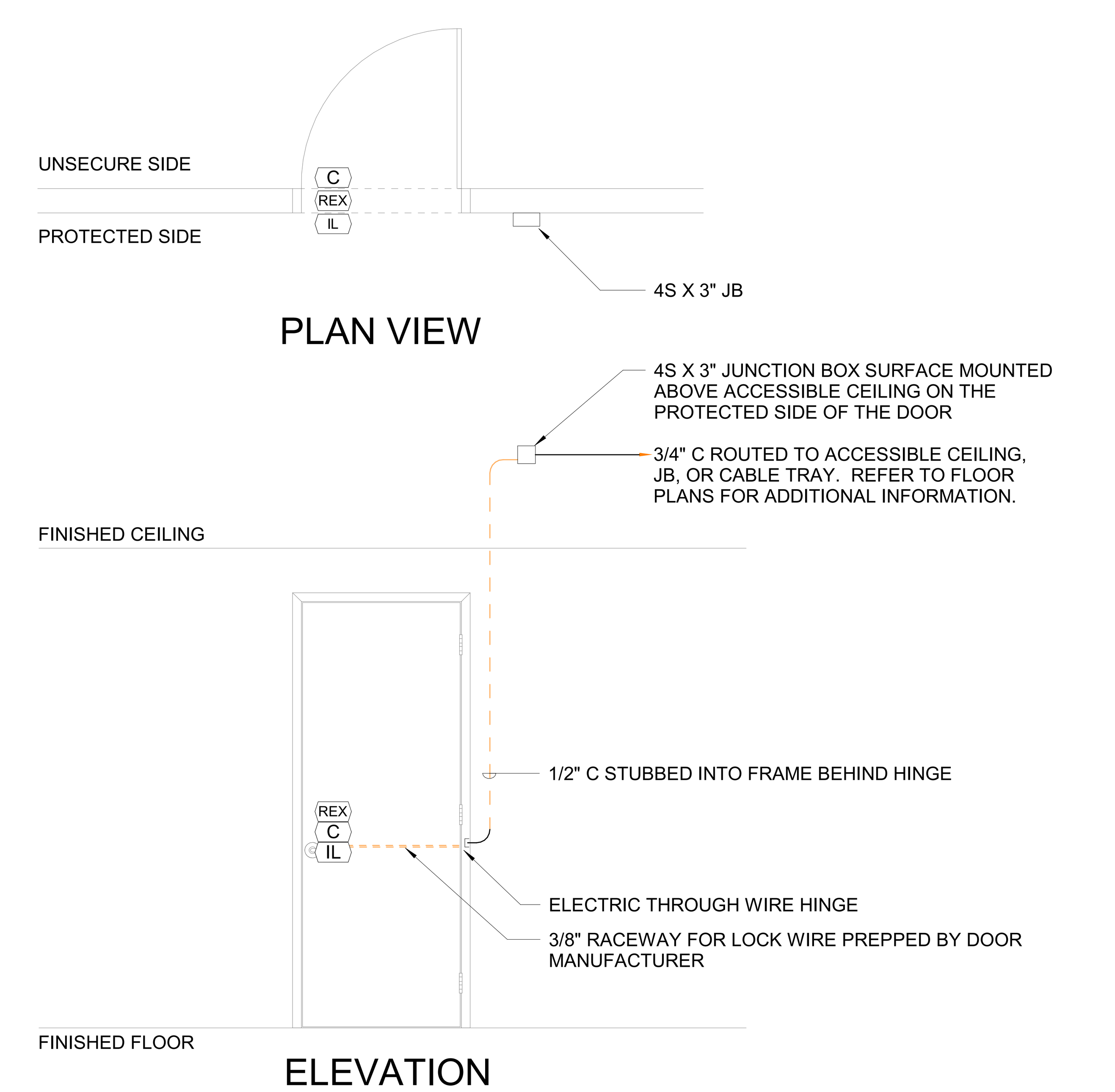
SHEET NUMBER
T6.01.2



SEQUENCE OF OPERATION:

- DOOR IS CLOSED AND LOCKED FROM EXTERIOR
- OPENING DOOR FROM INTERIOR OR EXTERIOR SENDS ALARM TO MONITORING STATION

8 SINGLE DOOR WITH DOOR CONTACT ONLY
NTS



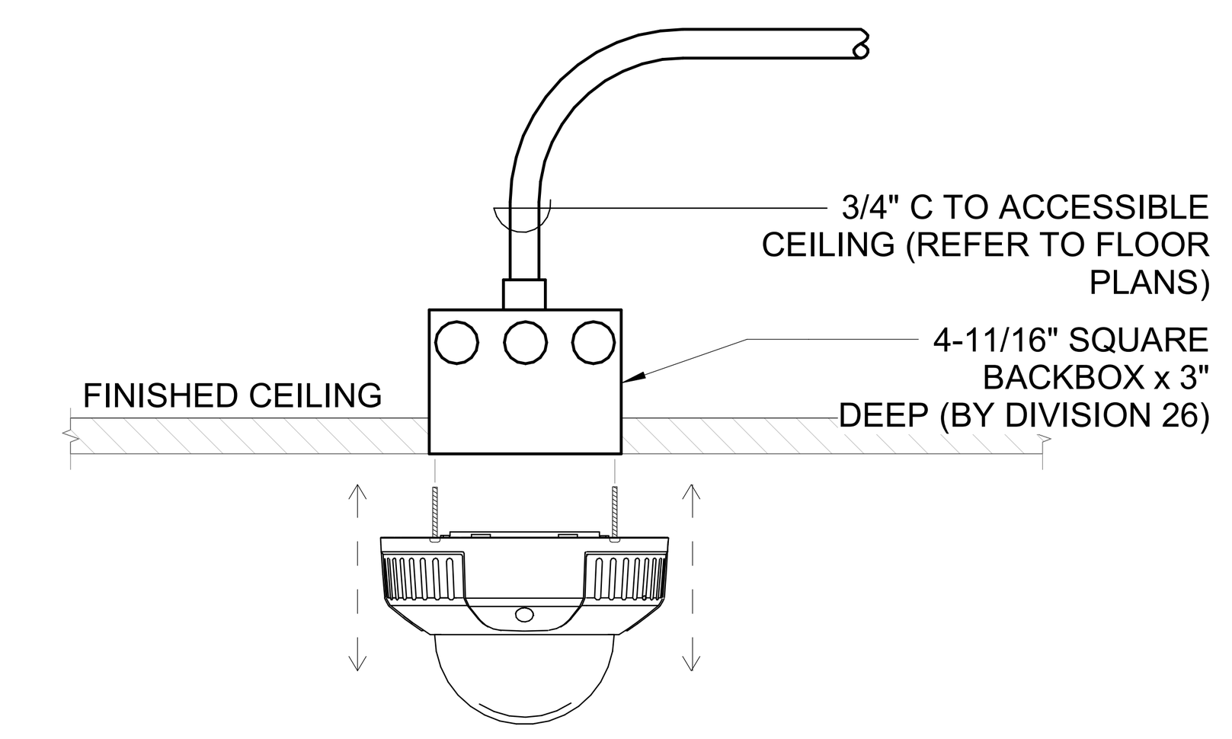
*INTEGRATED LOCKSET WITH BUILT IN DOOR CONTACT AND REX. LOCKSET FURNISHED AND INSTALLED BY DIVISION 8. CABLING TERMINATION TO ACAMS BY DIVISION 28. DIVISION 28 CONTRACTOR SHALL COORDINATE WITH DIVISION 8 CONTRACTOR TO ENSURE THAT THE PROPER HARDWARE AND DOOR PREP HAS BEEN SUPPLIED AND INSTALLED.

SEQUENCE OF OPERATION:

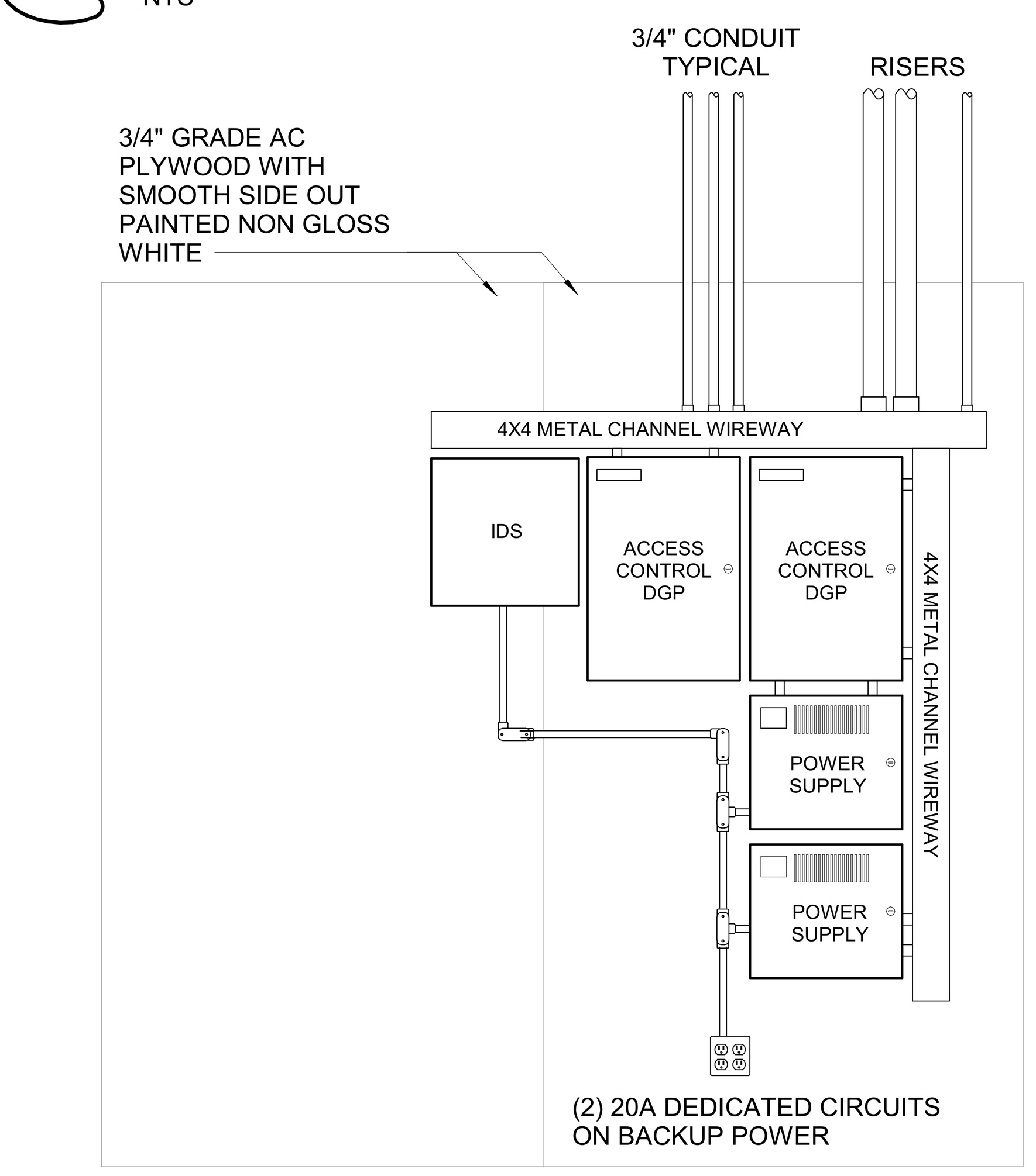
- DOOR IS CLOSED AND LOCKED FROM EXTERIOR
- PROPPING DOOR SENDS EVENT MESSAGE TO ACS MONITORING STATION
- OPENING OR FORCING DOOR FROM EXTERIOR SENDS ALARM TO MONITORING STATION WHEN ALARM IS ARMED
- PRESENTING VALID CARDS FOR ENTRY OR PASSIVE EXITING UNLOCKS DOOR AND BYPASSES ALARM

NOTE: ALL EXISTING DOORS TO BE BATTERY-OPERATED. NOT CONDUIT OR WIRE PREP REQUIRED. FOLLOW THIS DIAGRAM FOR ALL NEW DOOR INSTALLATIONS WHERE CARD READERS ARE REQUIRED BY PLANS AND DOOR HARDWARE SCHEDULE

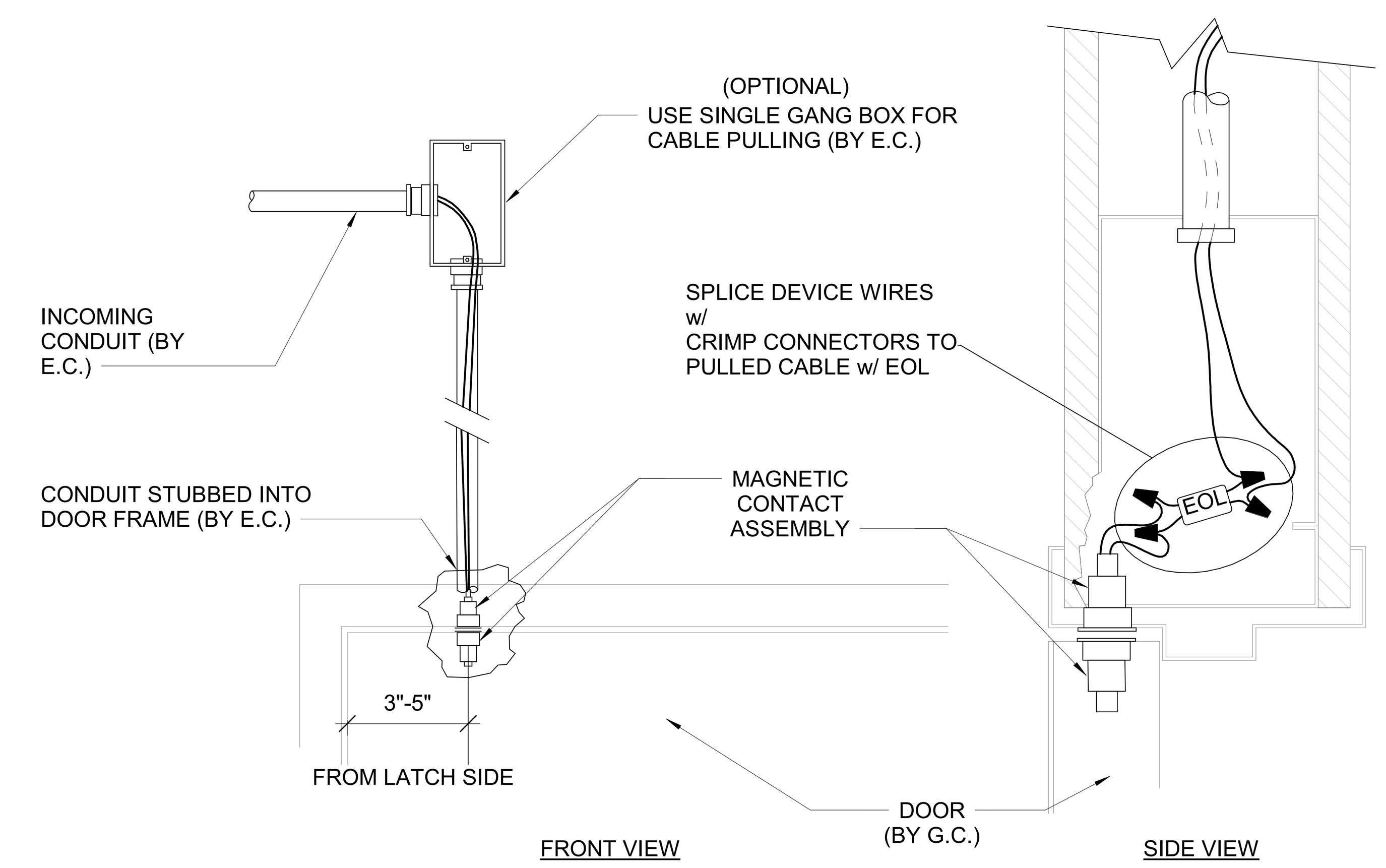
7 CARD READER DOOR WITH INTEGRATED LOCKSET HARDWARE
NTS



6 DOME CAMERA CEILING MOUNTING
NTS

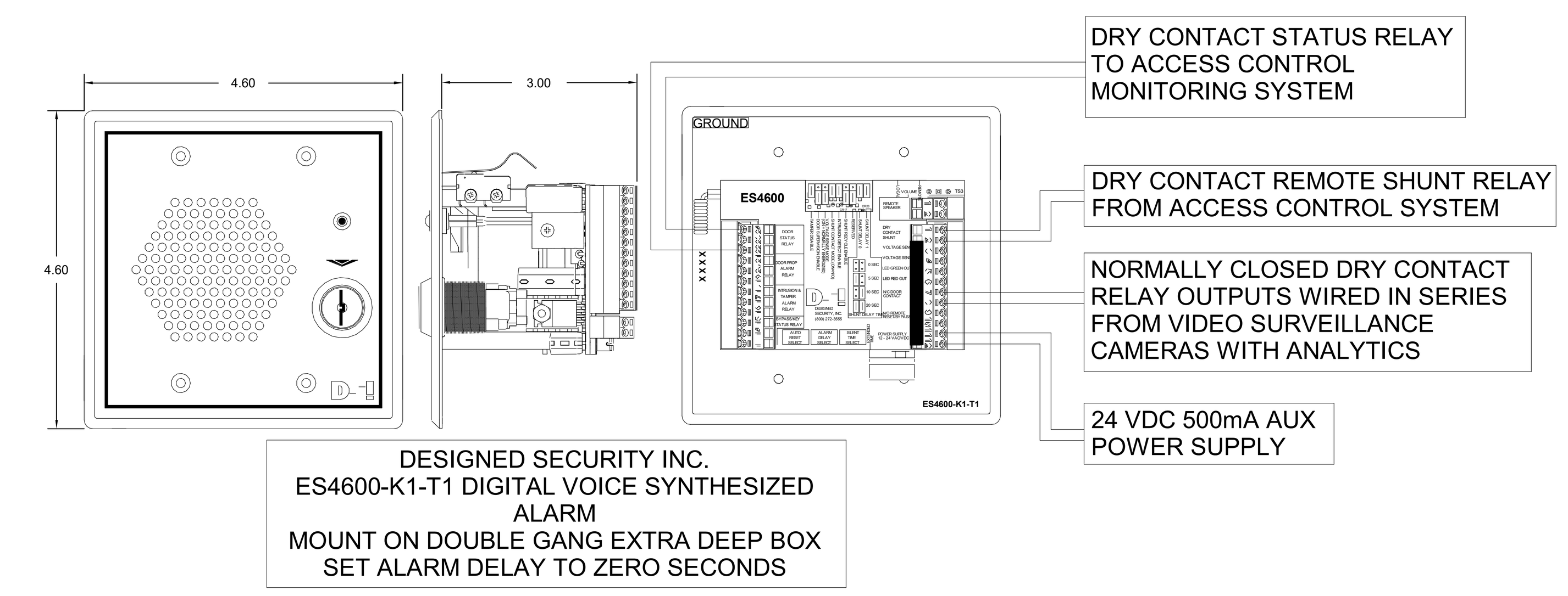


5 SECURITY WALL FIELD IN TELECOM ROOM
NTS

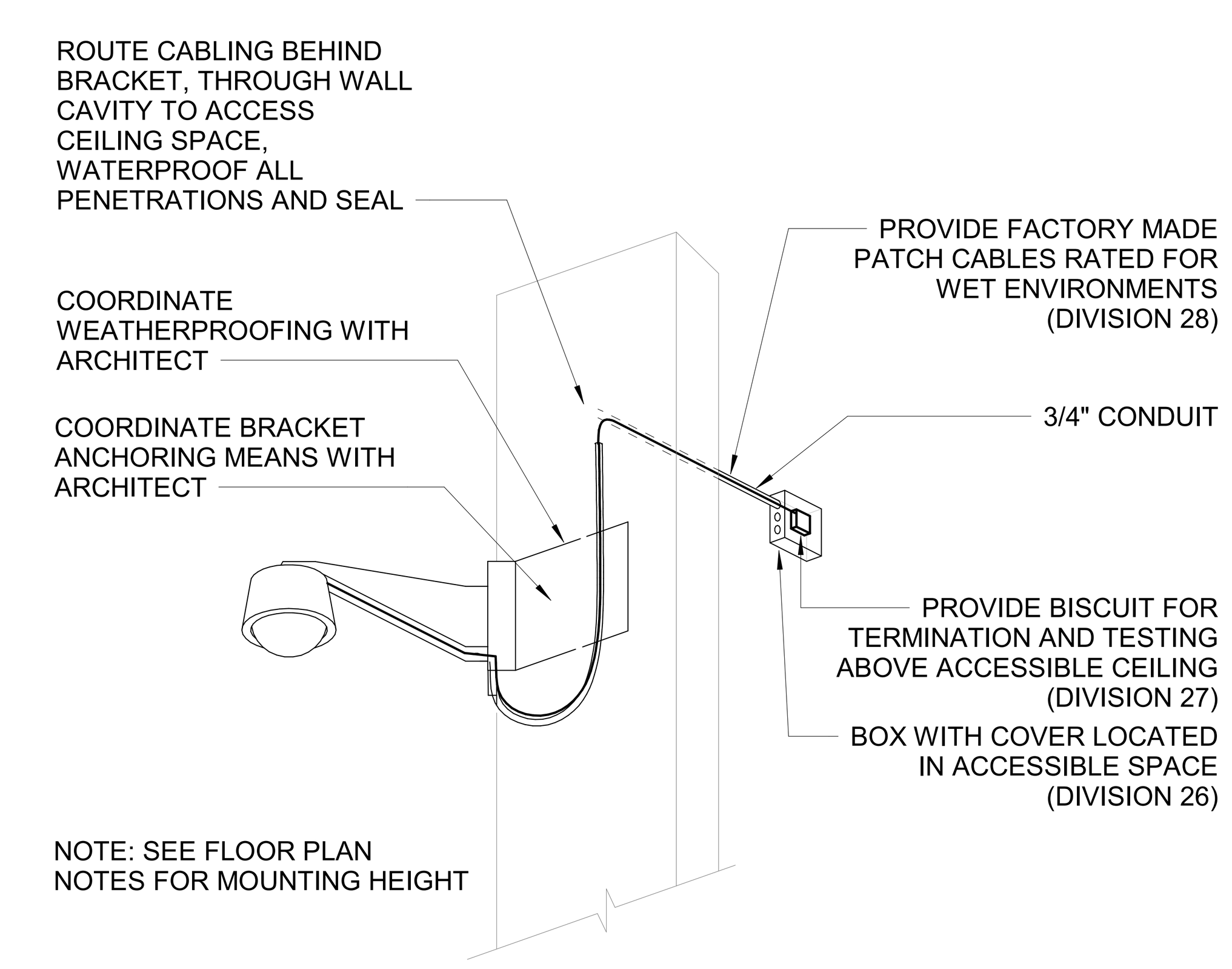


NOTES:
1. LEAVE 48" CABLE SLACK AT EACH DEVICE
2. BACKBOX NOT REQUIRED

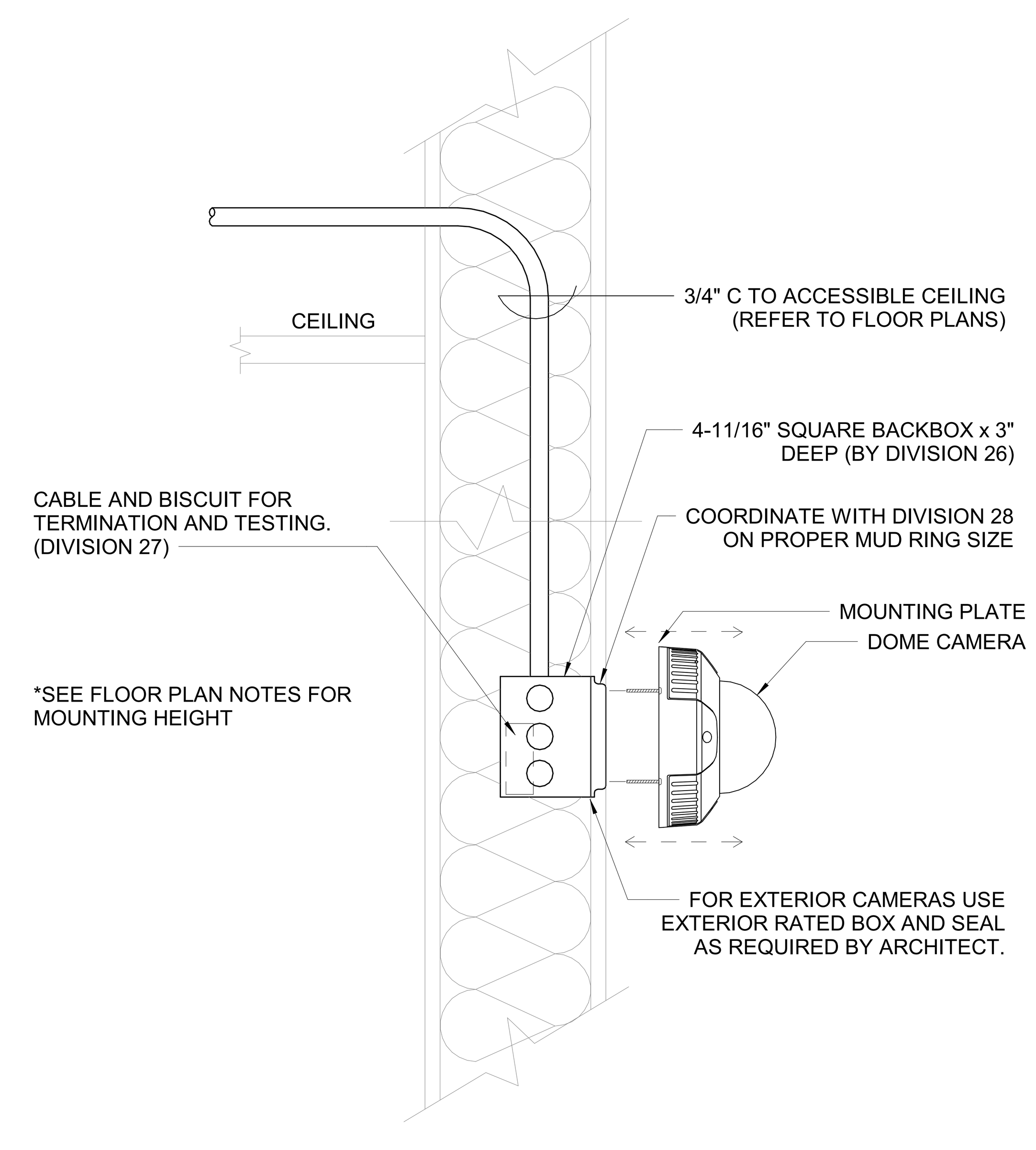
3 DOOR POSITION SWITCH WIRING (C)
NTS



2 DOOR MANAGEMENT ALARM (DM)
NTS



4 CORNER MOUNTED DOME CAMERA
NTS



1 DOME CAMERA WALL MOUNTING
NTS

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DETAILS - SECURITY

SHEET NUMBER

T7.01.2

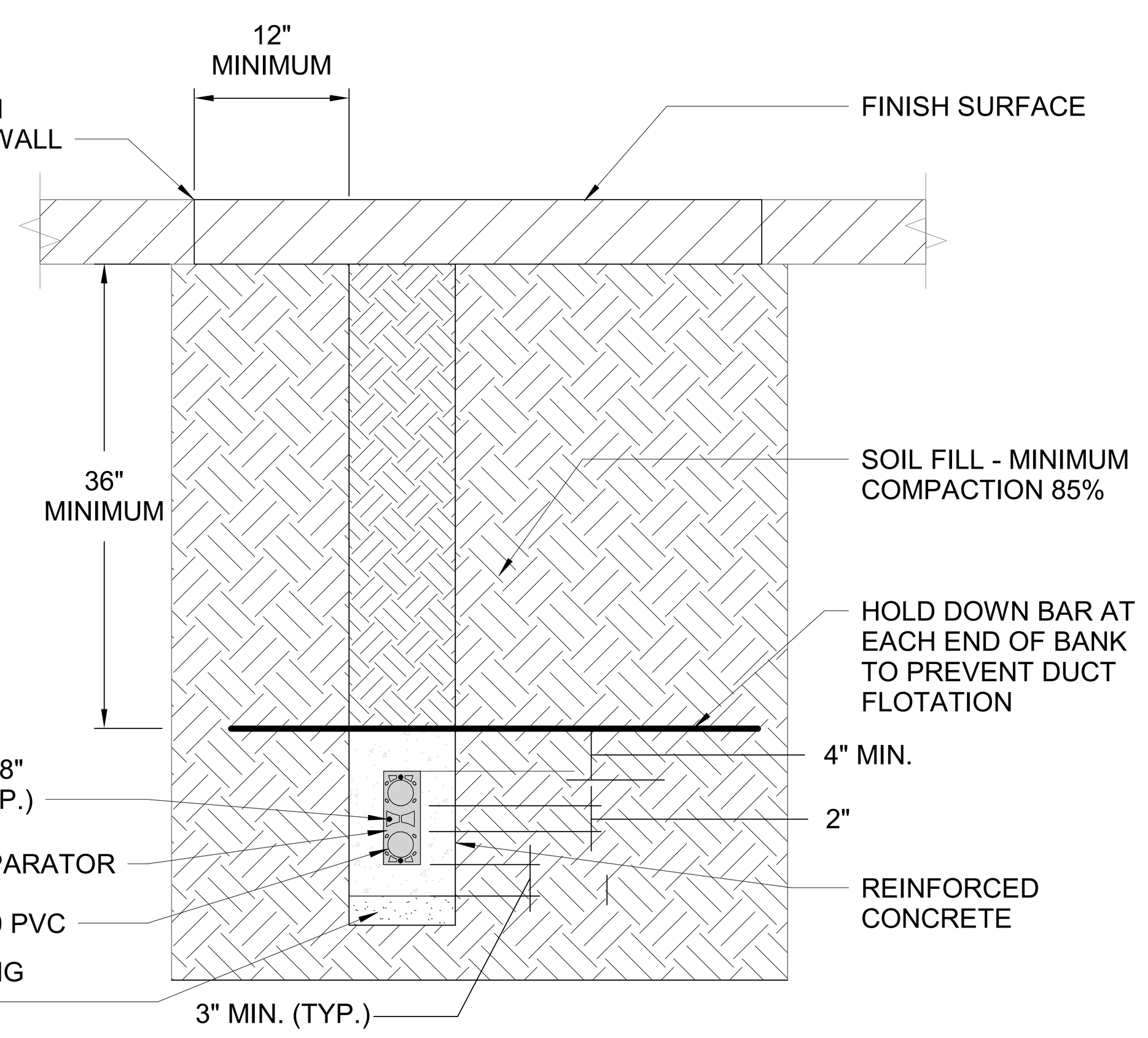
11/29/2018 6:03:13 PM

GENERAL NOTES:

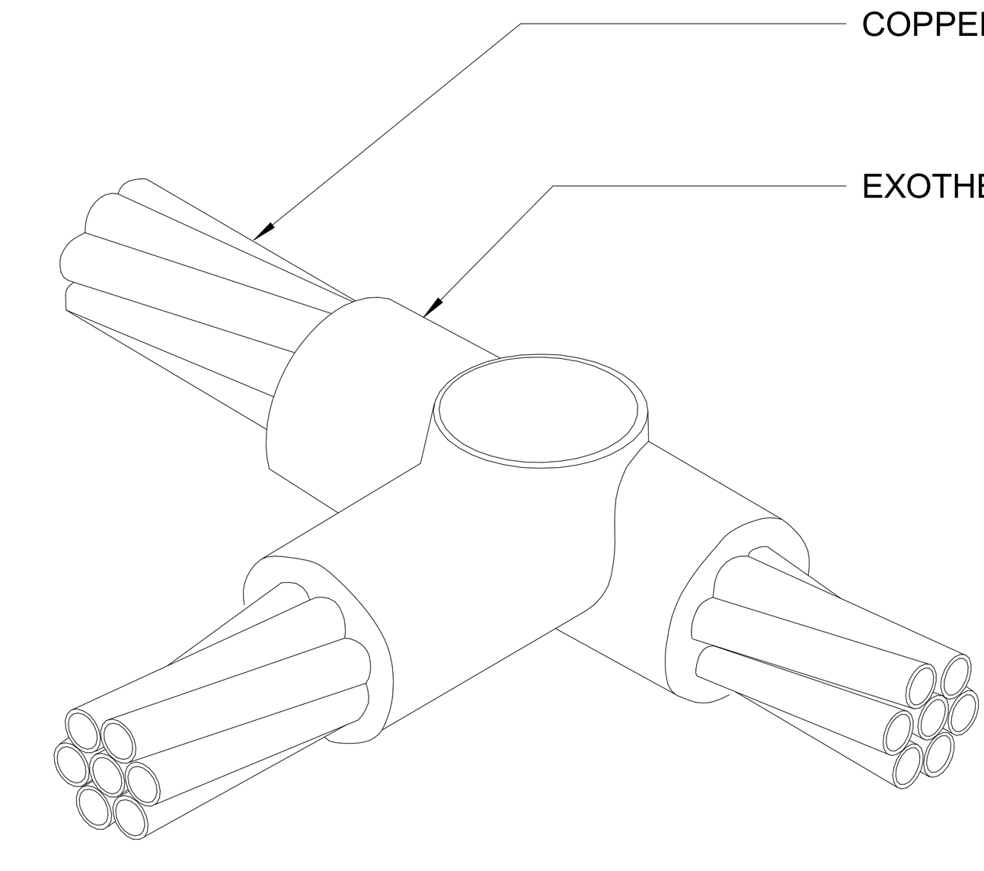
1. REINFORCED CONCRETE DUCT BANK WILL NOT BE REQUIRED IF CONDUITS CAN BE LOWERED SO TOP OF CONDUITS ARE A MINIMUM OF 6' BELOW BOTTOM OF FINISHED GRADE WITH A 90% FILL COMPACTION.

2. REBAR STIRRUPS OVER CONDUITS AND LINEAR RUNS OF REBAR TO BE TIED WITH WIRE AT JUNCTIONS.

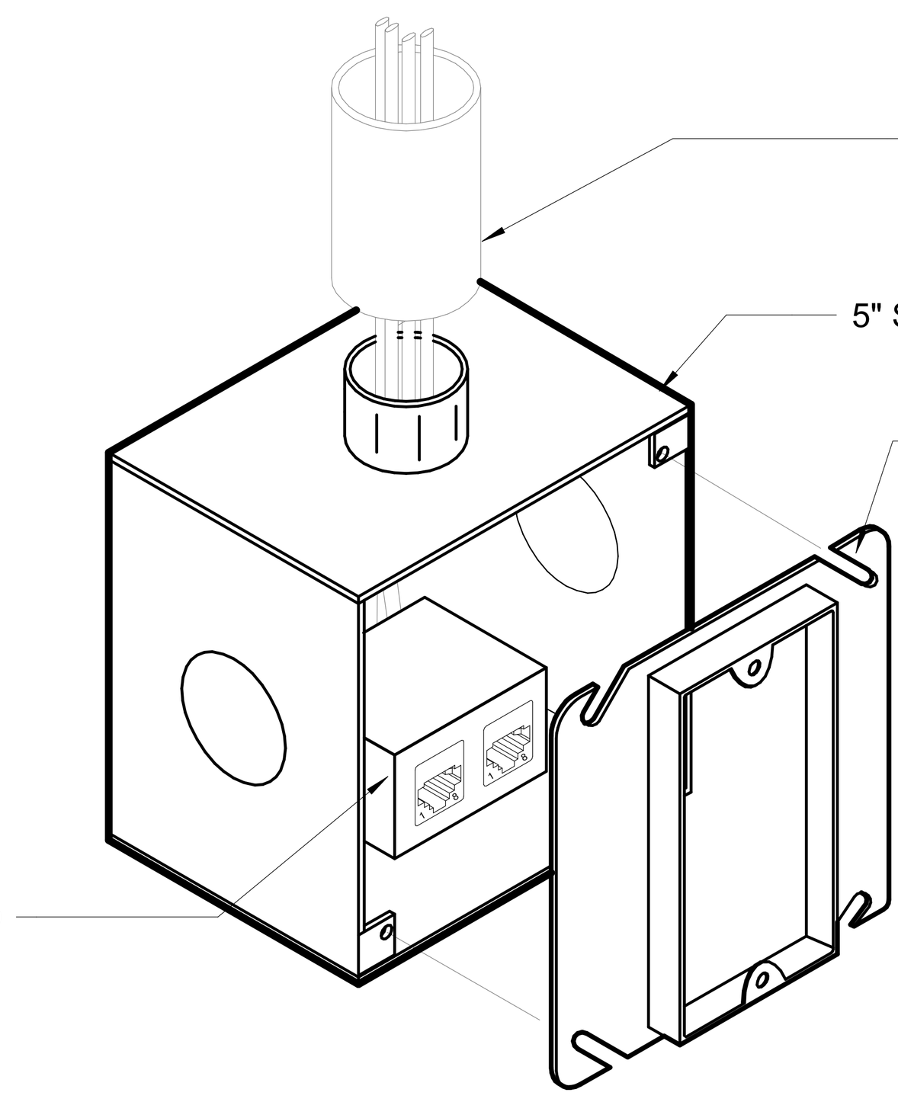
3. LOCATE EXISTING CONDUIT TRENCH AND ADD CONDUITS AS INDICATED ON PLANS ADJACENT TO EXISTING CONDUITS. DRAWING SHOWN FOR REFERENCE ONLY AND NOT MEANT TO SHOW FIELD CONDITIONS OF THE EXISTING TRENCH



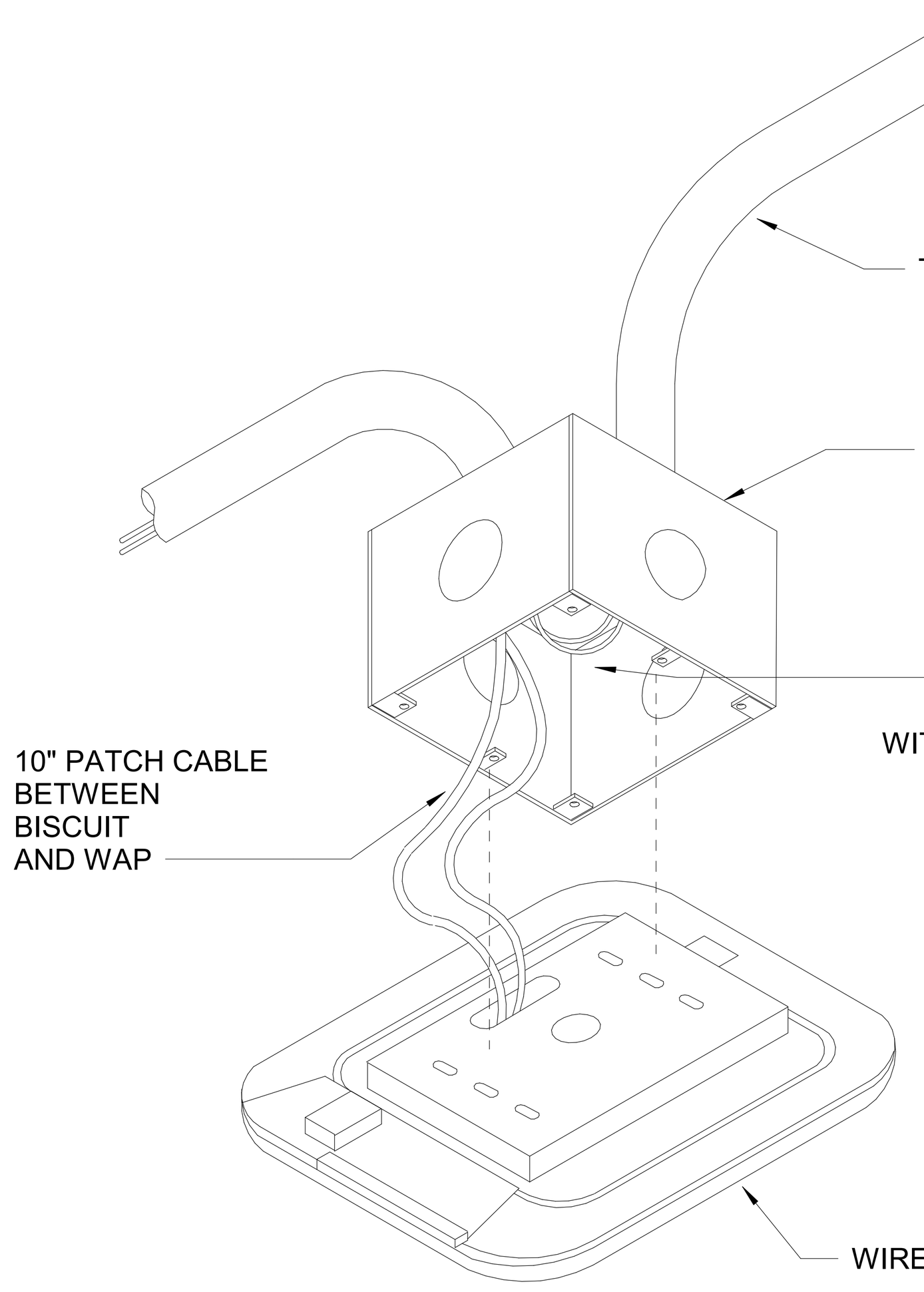
10 LOW VOLTAGE CONDUIT TRENCH
NTS



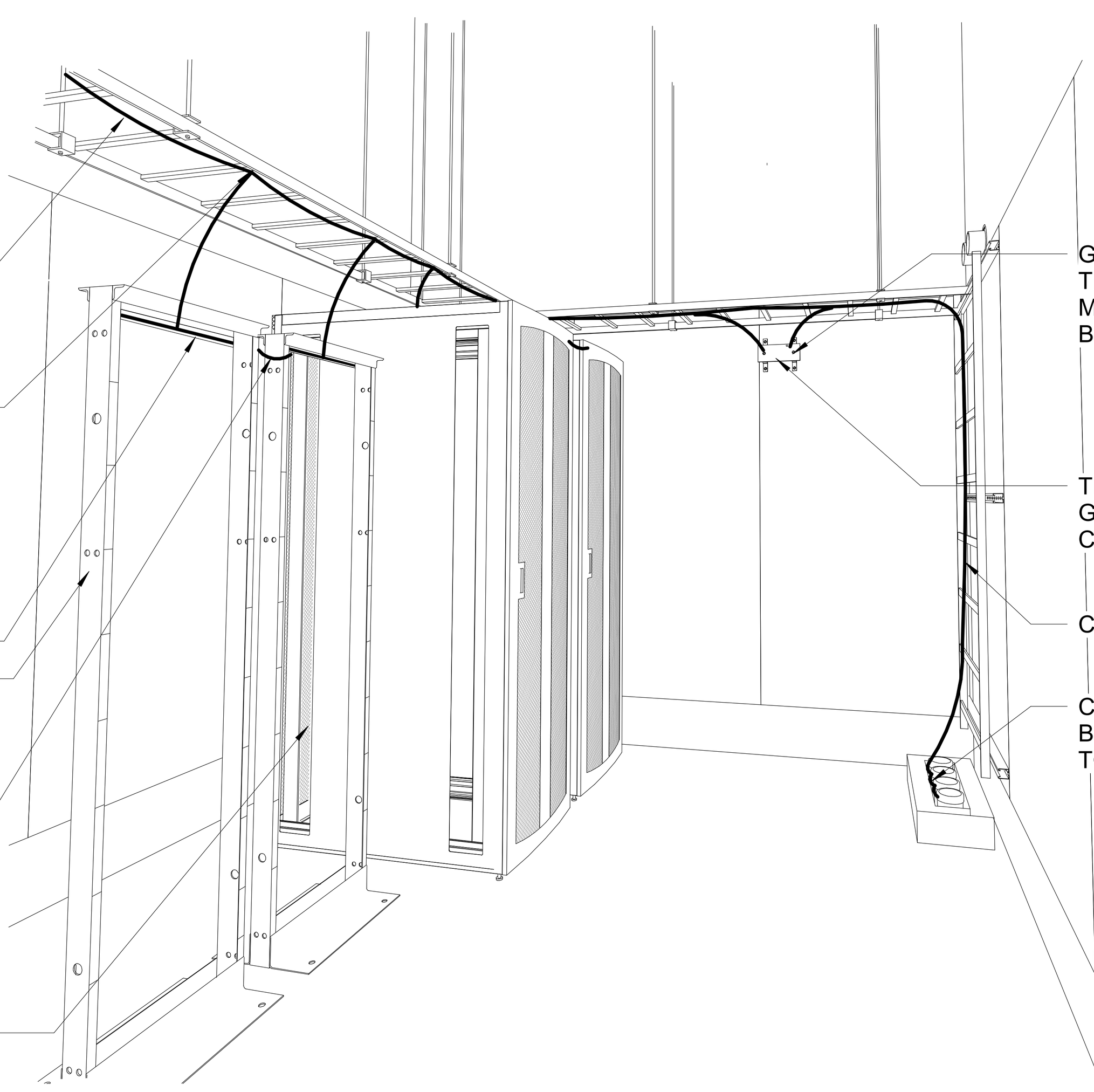
7 TE-609 TYPICAL CADWELD TEE GROUND CONNECTION
NTS



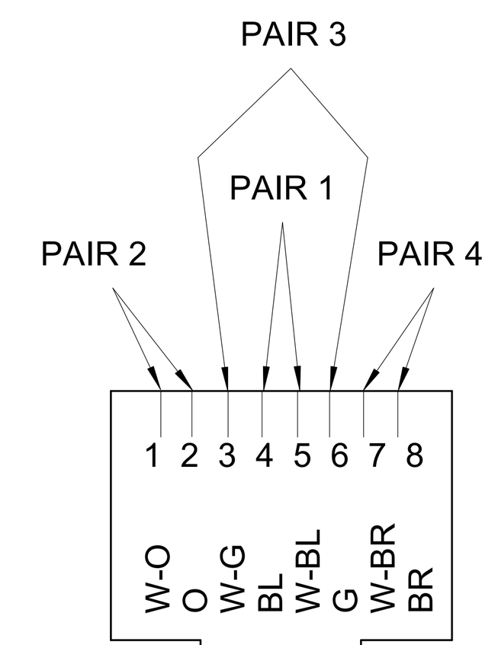
6 BACK BOX w/ SINGLE BISCUIT DETAIL
NTS



3 WIRELESS ACCESS POINT
NTS

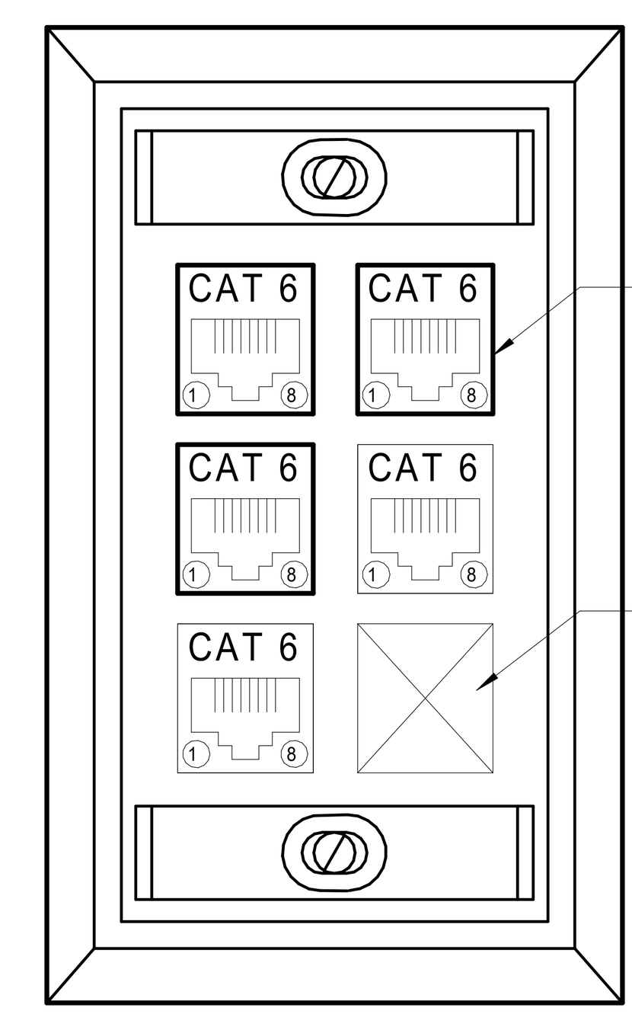


9 TE-603 BONDING RISER DIAGRAM (3DVIEW)
NTS

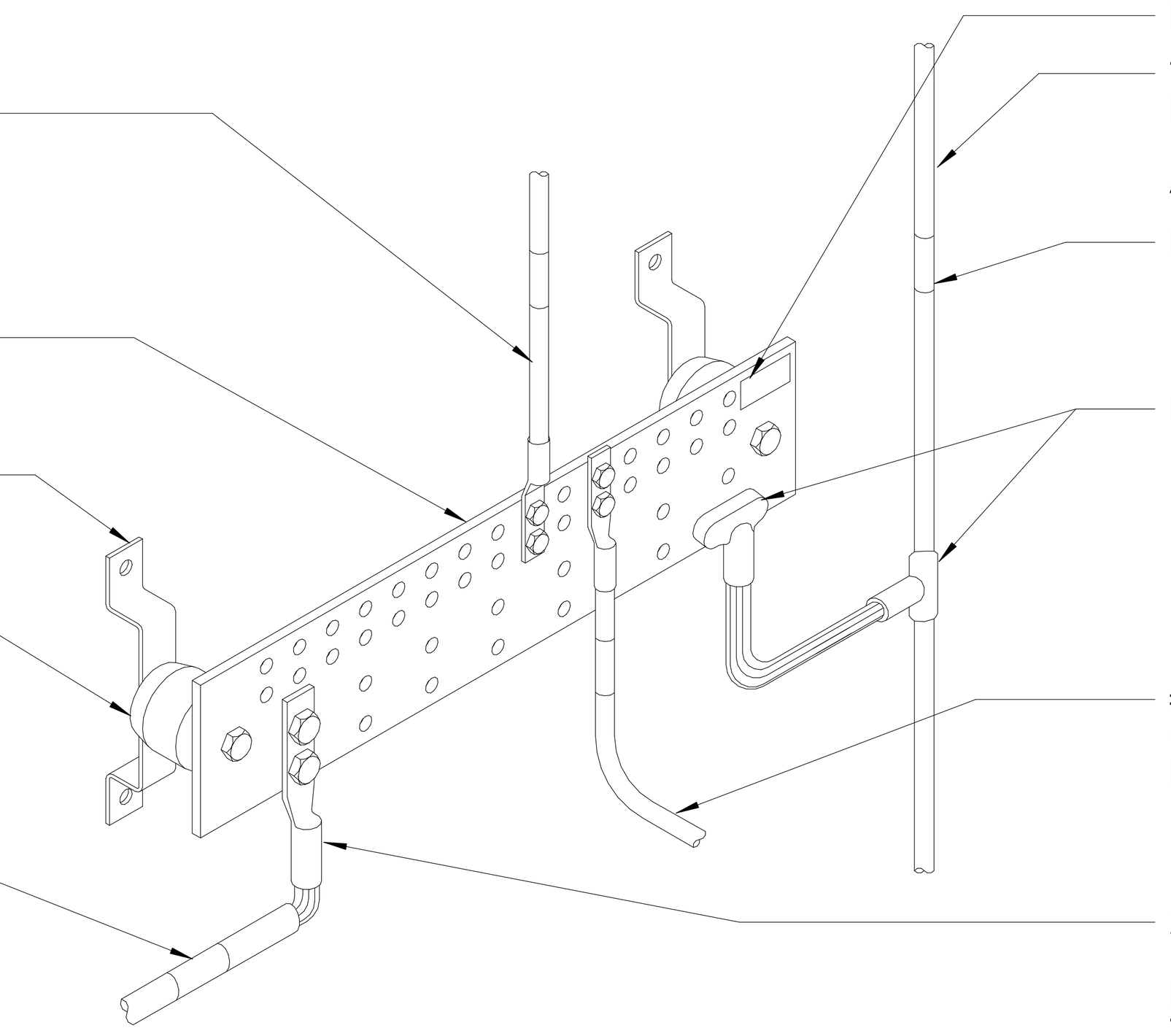


PIN #	WIRE COLOR	PAIR
1	W-O	2
2	O	
3	W-G	3
6	G	
4	BL	1
5	W-BL	
7	W-BR	4
8	BR	

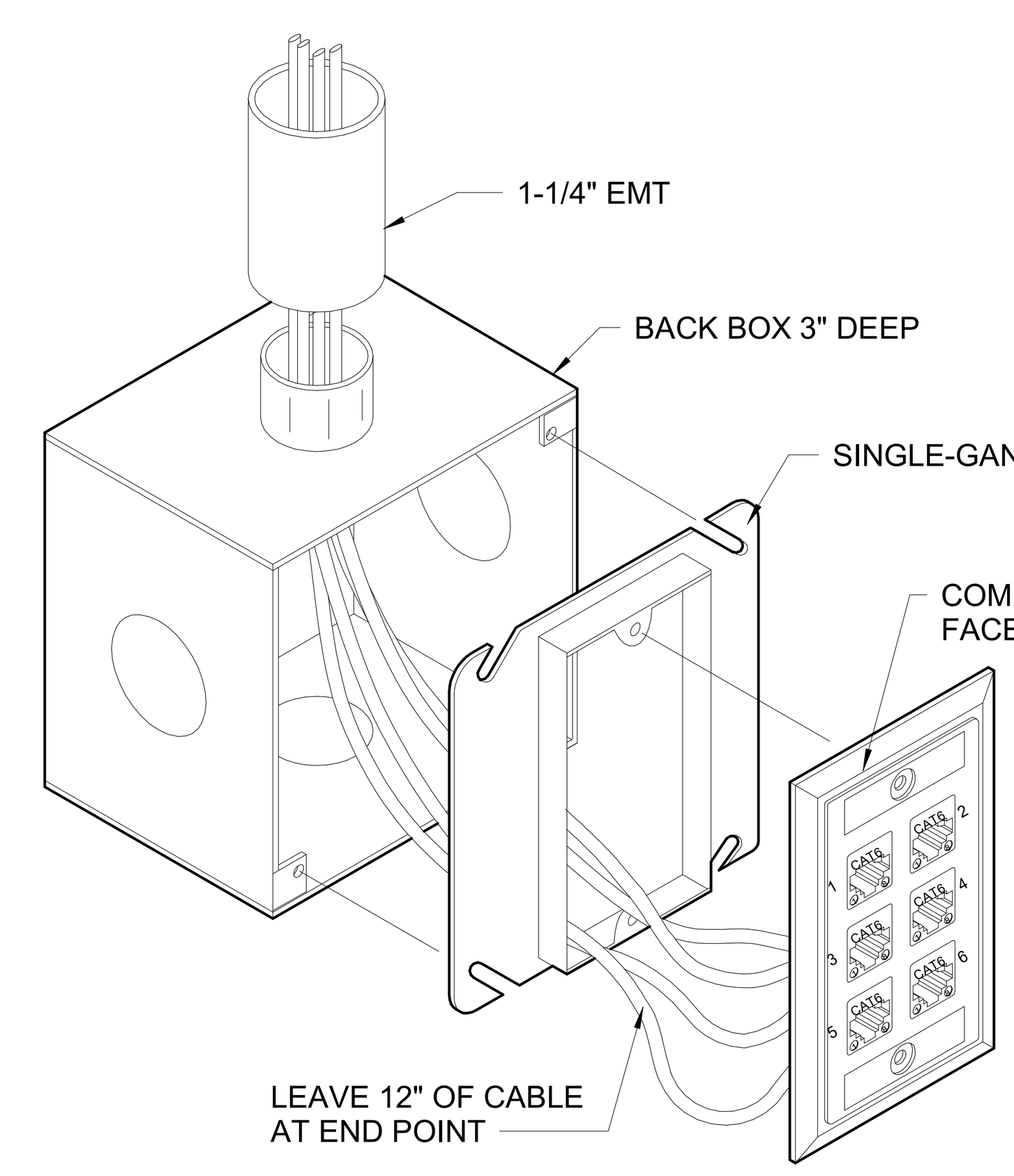
5 TERMINATION SCHEME T568B
NTS



2 WALL PLATE REPTACLES
NTS

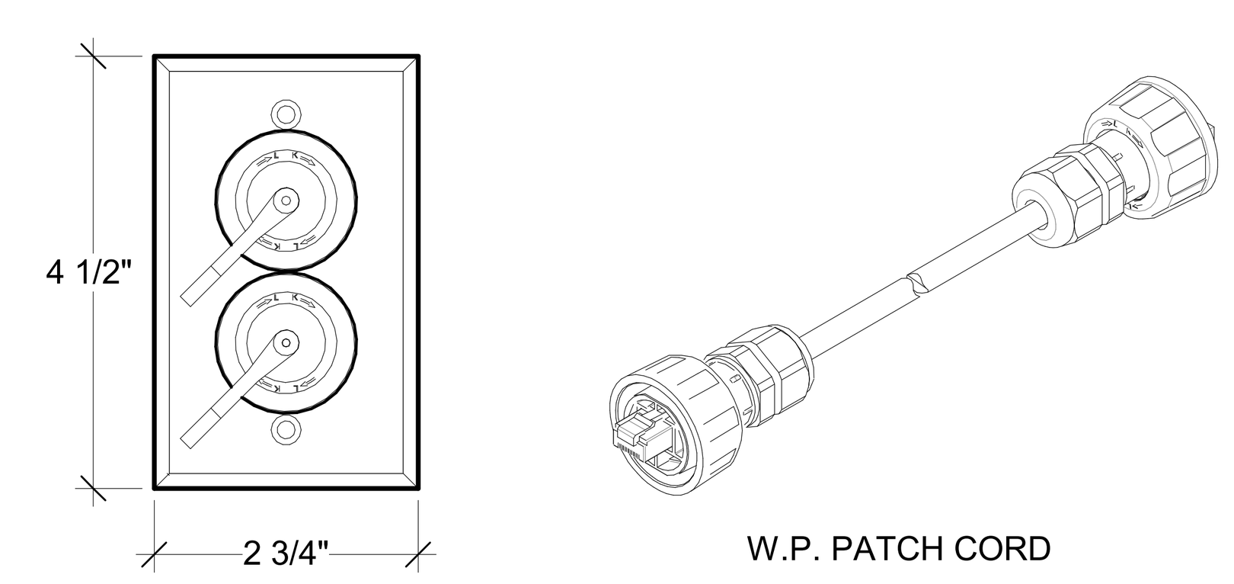


8 TE-610 TYPICAL TELECOM GROUND BUS BAR CONNECTIONS
NTS



4 BACK BOX
NTS

GENERAL NOTE:
UTILIZE WET ENVIRONMENT PLATES, JACKS, AND PATCH CORDS FOR EXTERIOR LOCATIONS, I.E. OUTDOOR WIRELESS ACCESS POINTS AND DATA JUNCTION BOXES FOR CAMERAS



1 WATER PROOF JACK AND PLUG (FOR OUTDOOR LOCATIONS ONLY)
NTS

APPROVALS

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

ARCHITECTS SEAL

STAMPED & SIGNED ON:
11/30/2018

Charles M. Salter ASSOCIATES INC

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2 RECORD DRAWINGS

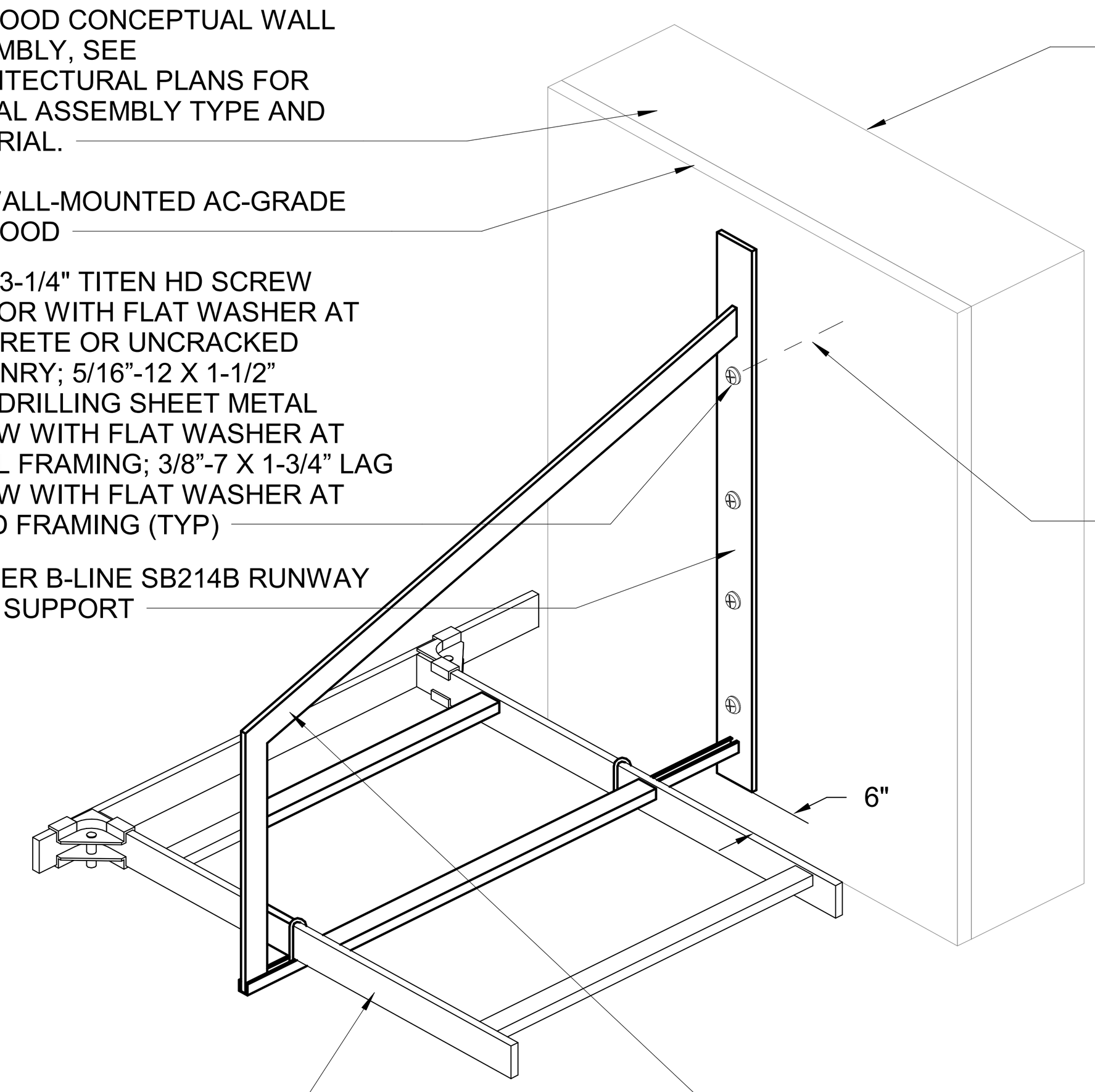
ISSUE DATE	04/06/2022
NOLL & TAM JOB NUMBER	21630

REVISIONS
\# | DATE | DESCRIPTION

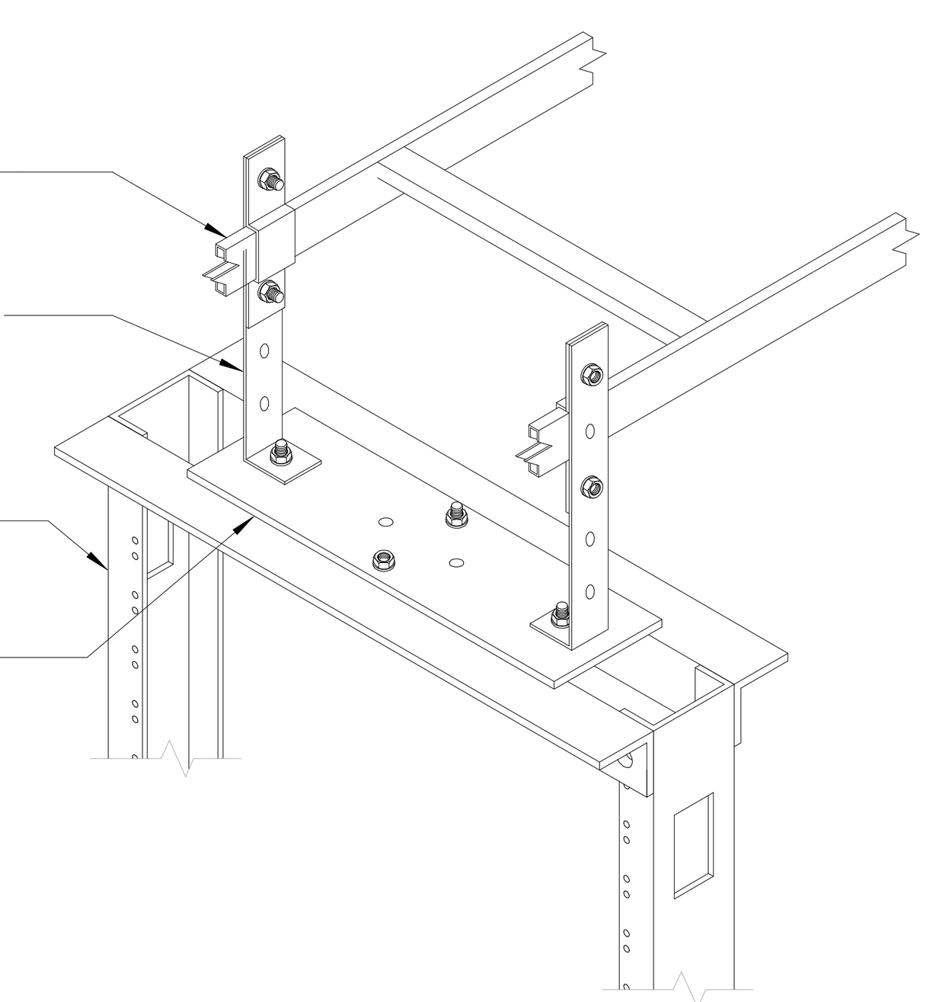
SHEET TITLE
DETAILS - TELECOM

SHEET NUMBER
T7.02.2

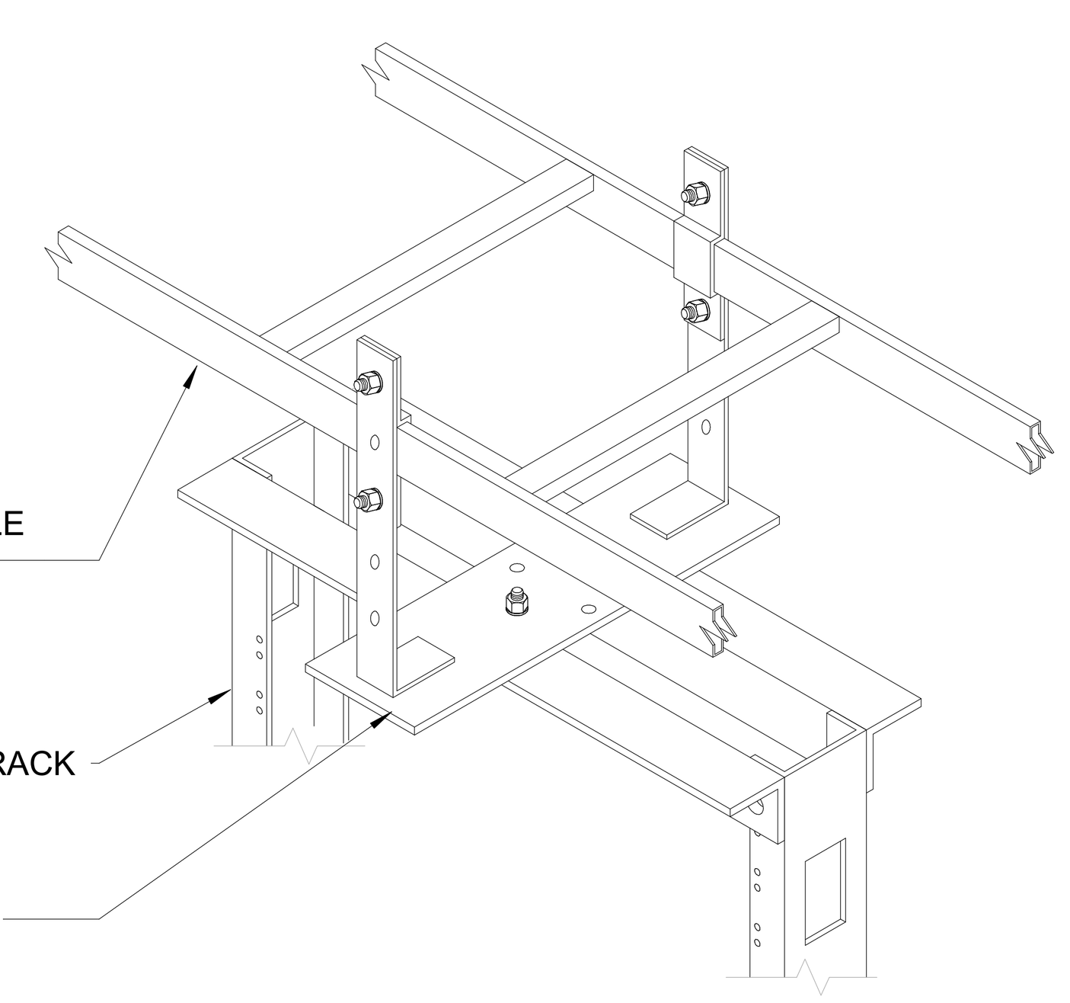
11/29/2018 6:03:13 PM



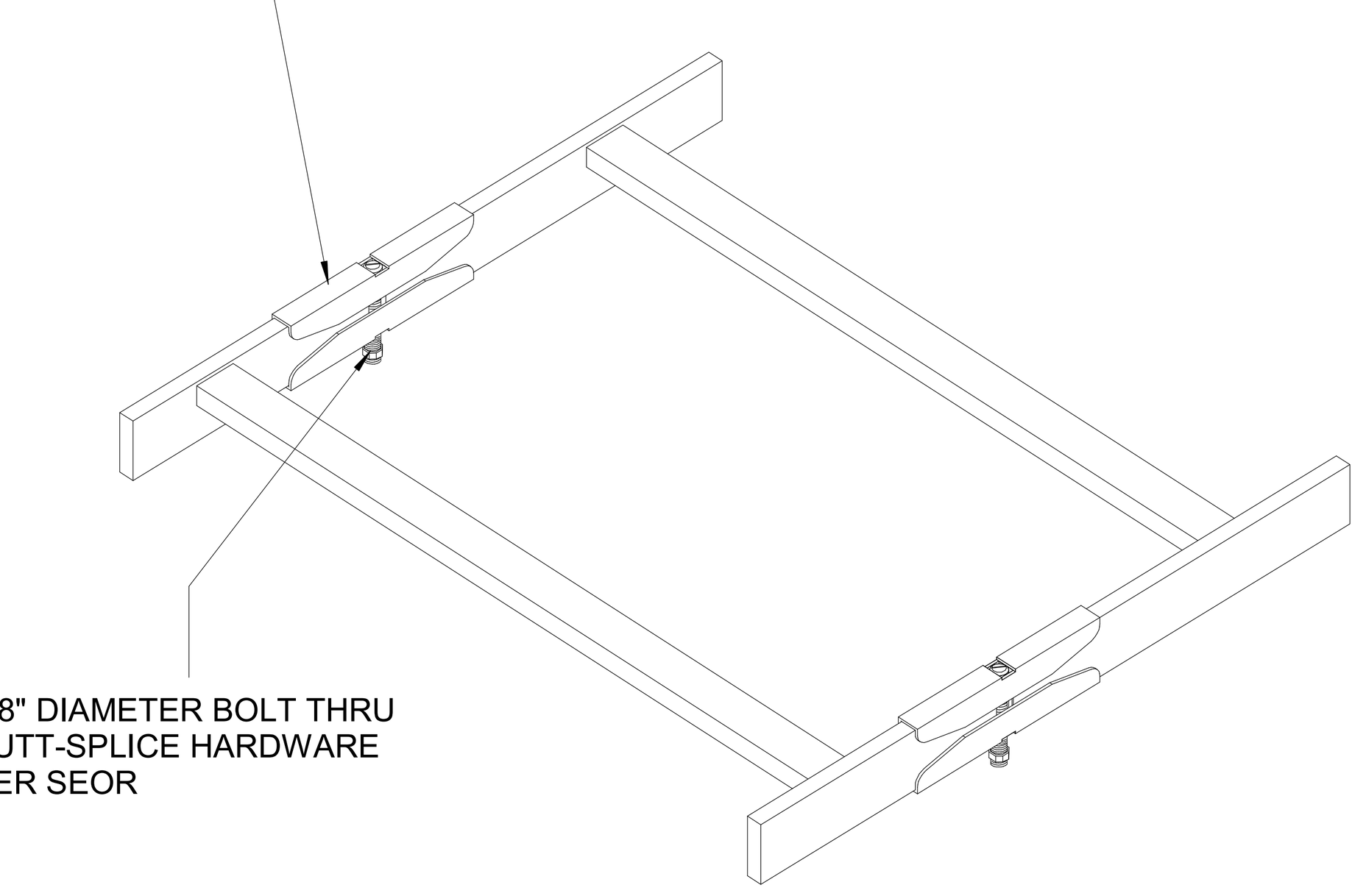
14 TE-207 LADDER RACK L-BRACKET
NTS



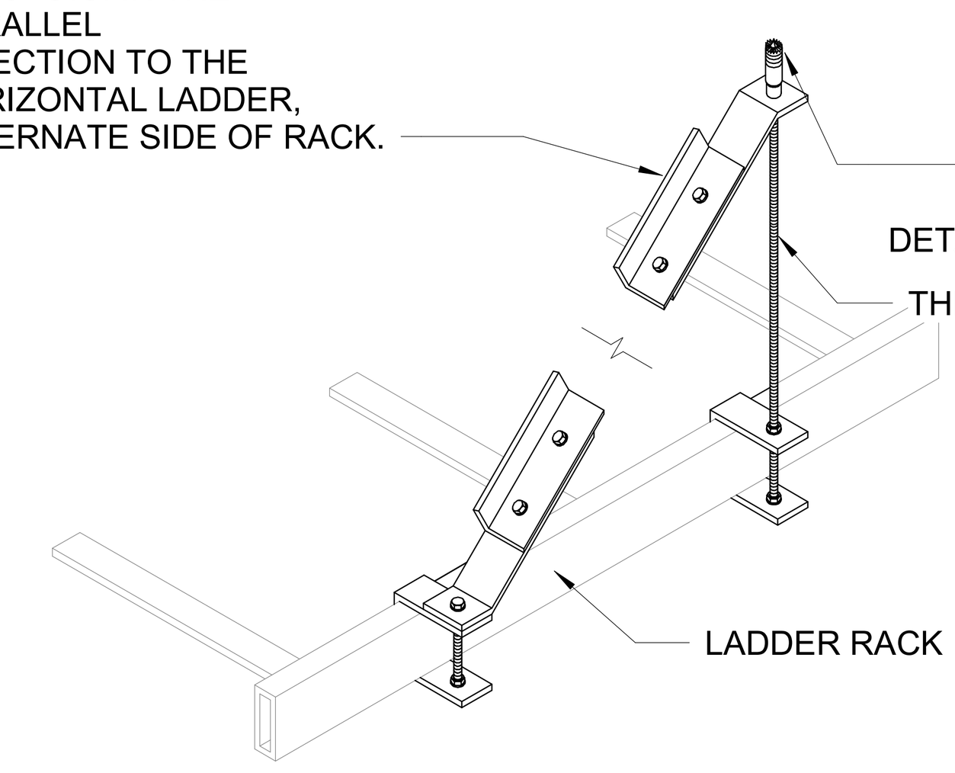
13 TE-206 LADDER ELEVATION MOUNTED PERPENDICULAR
NTS



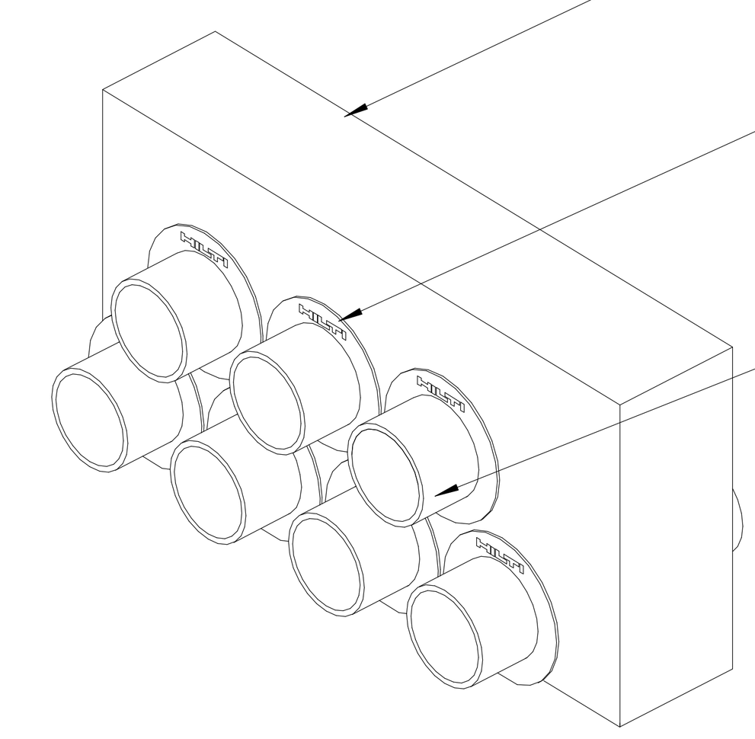
12 TE-205 LADDER ELEVATION MOUNTED PARALLEL
NTS



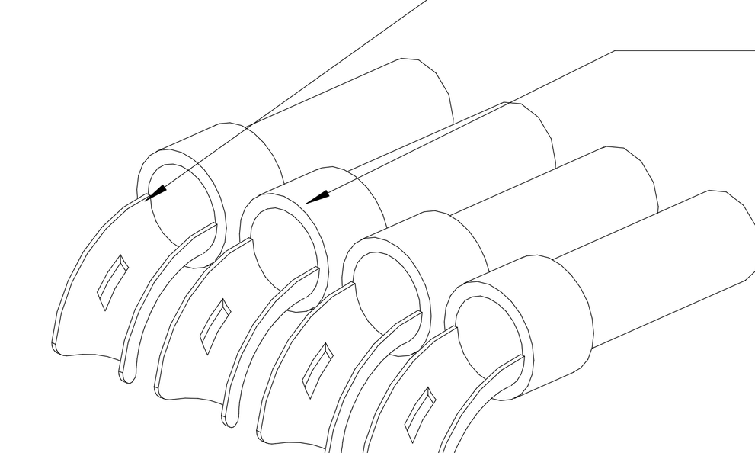
11 TE-201 CABLE RUNWAY BUTT SPLICE
NTS



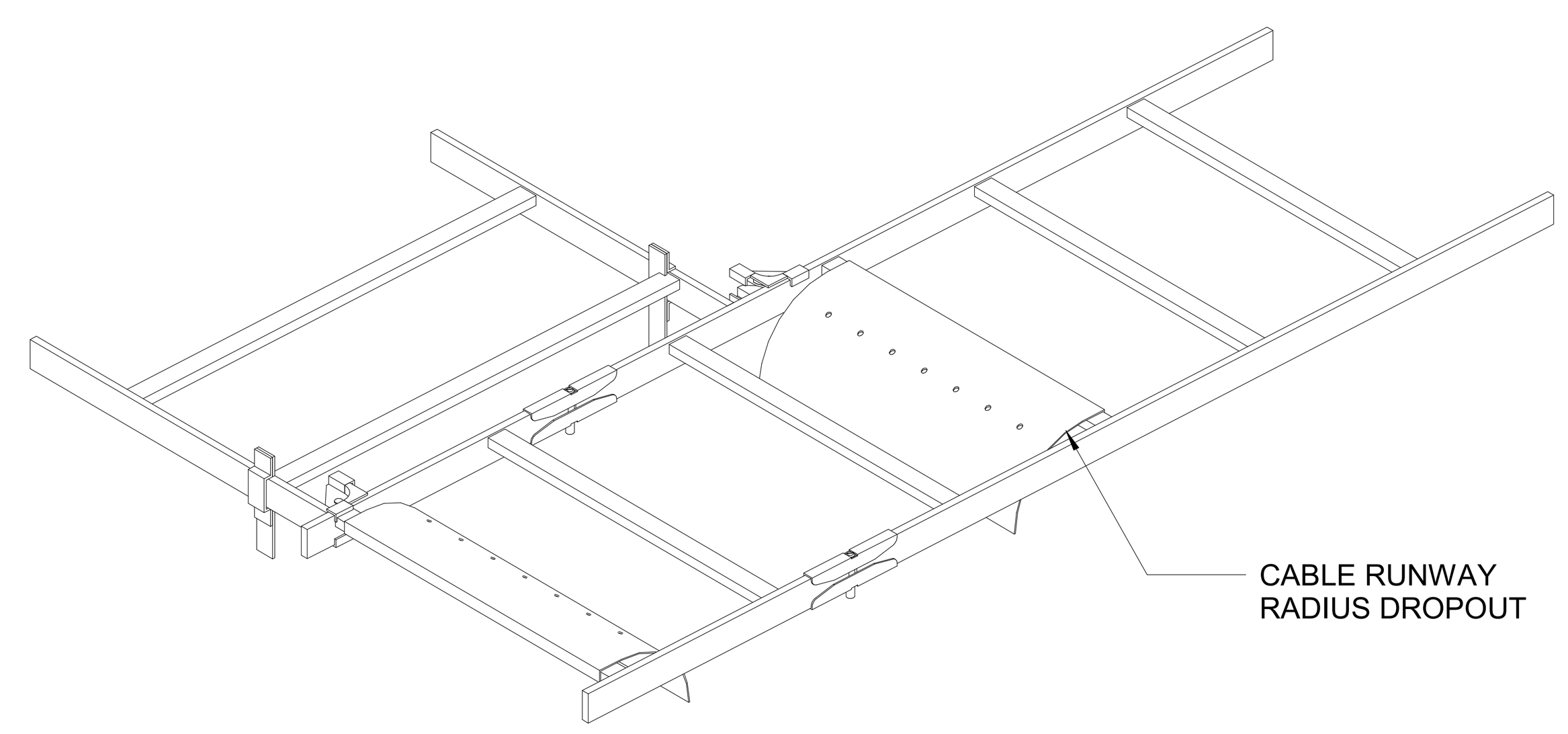
10 TE-210 LADDER EARTHQUAKE BRACING KIT
NTS



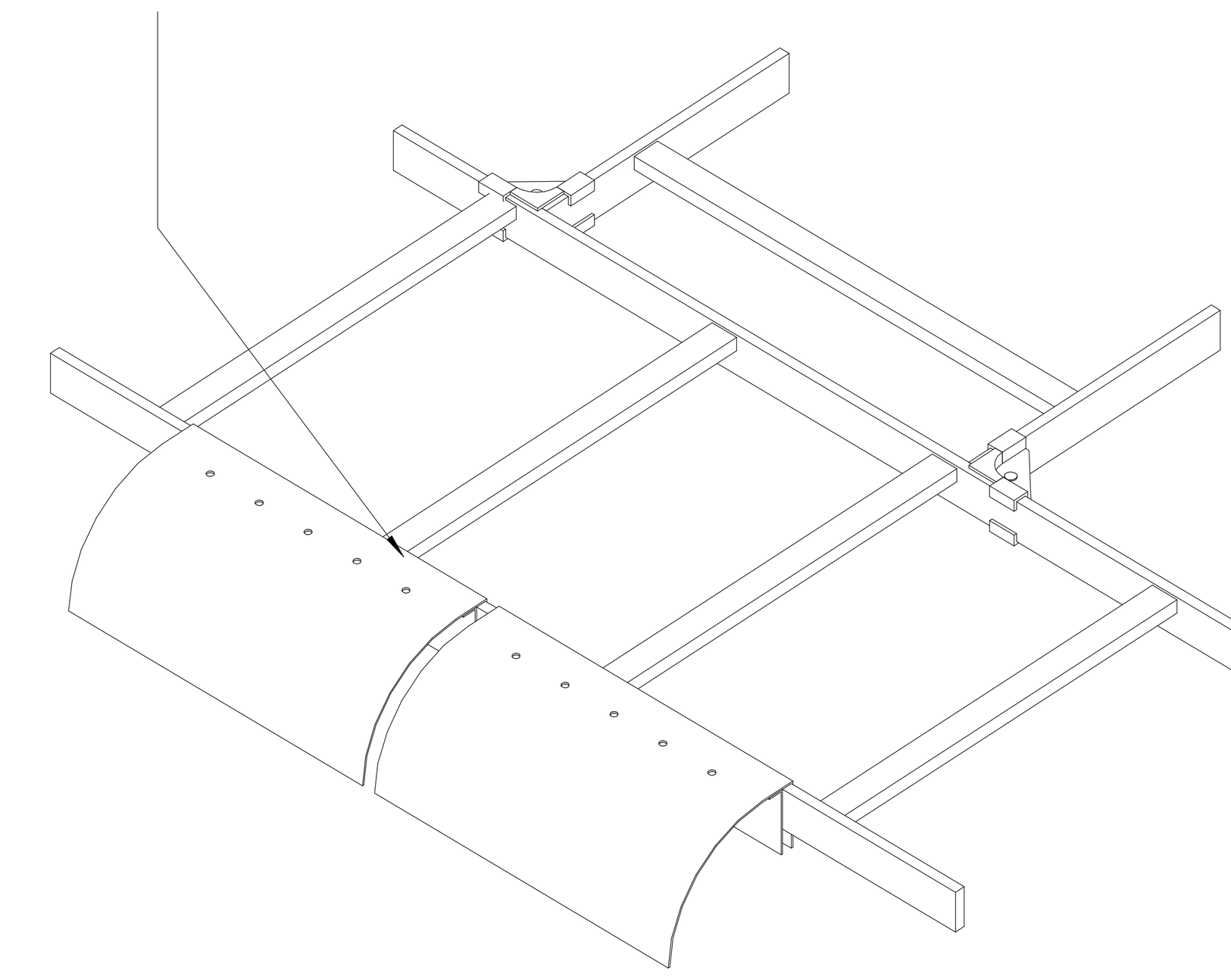
9 TE-105 FIRE RATED WALL CABLE PENETRATION
NTS



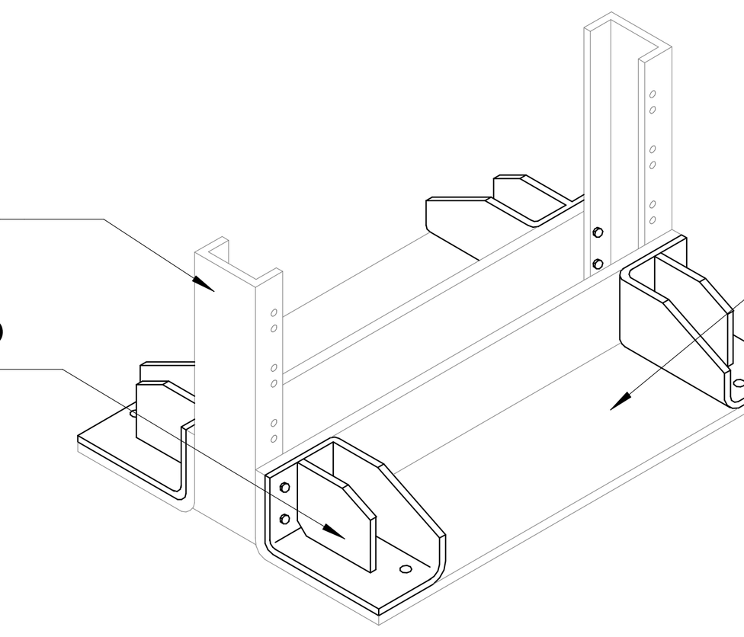
8 TE-104 CONDUIT WATERFALL
NTS



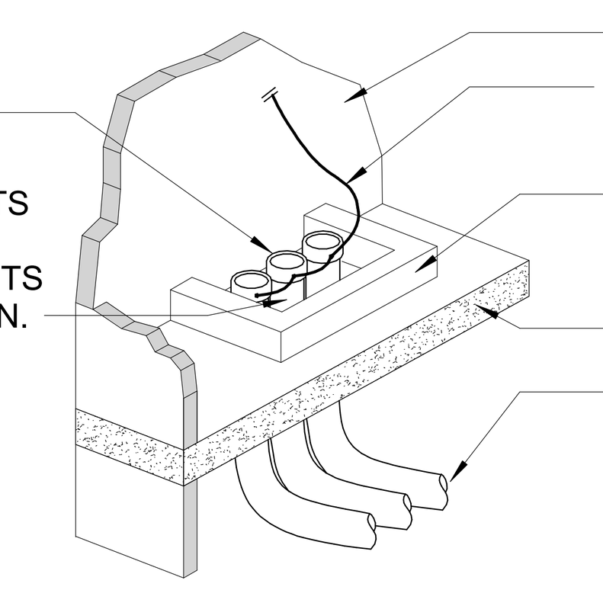
7 TE-102 CABLE RADIUS DROPOUT INTERIOR
NTS



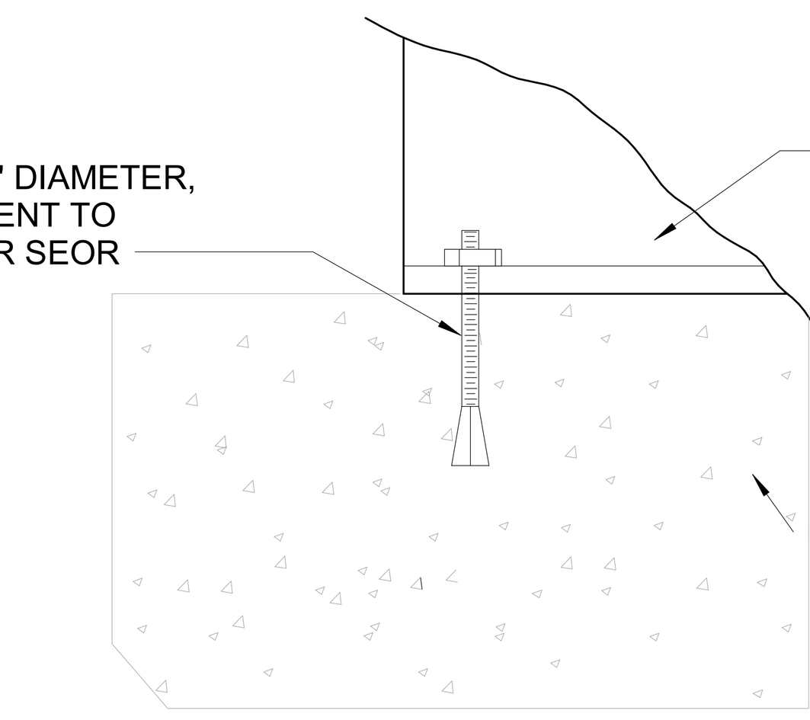
6 TE-101 CABLE RADIUS DROPOUT EXTERIOR
NTS



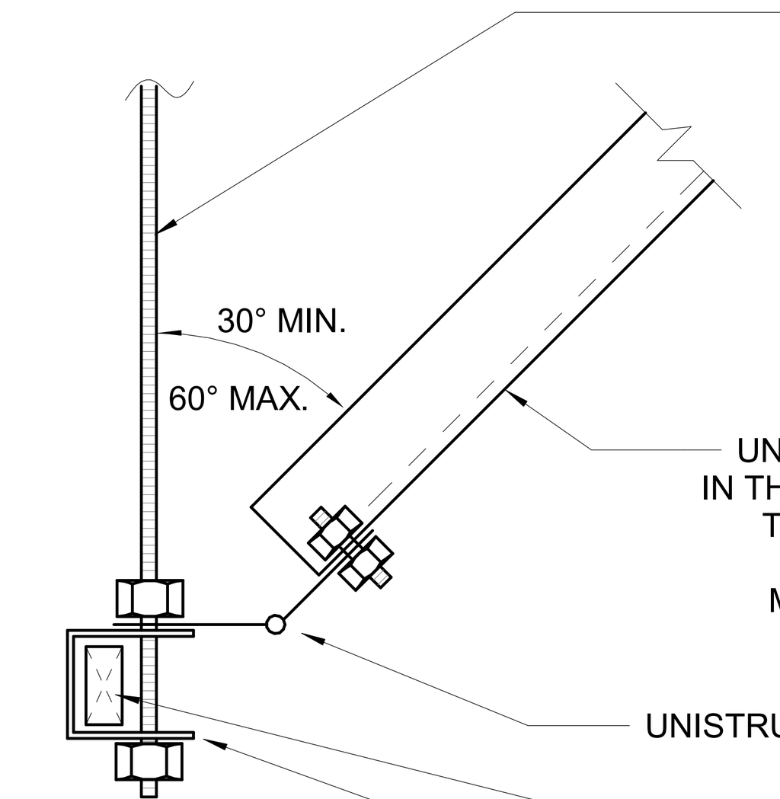
5 TE-209 SEISMIC BRACING FOR 2-POST RACKS (TYPICAL)
NTS



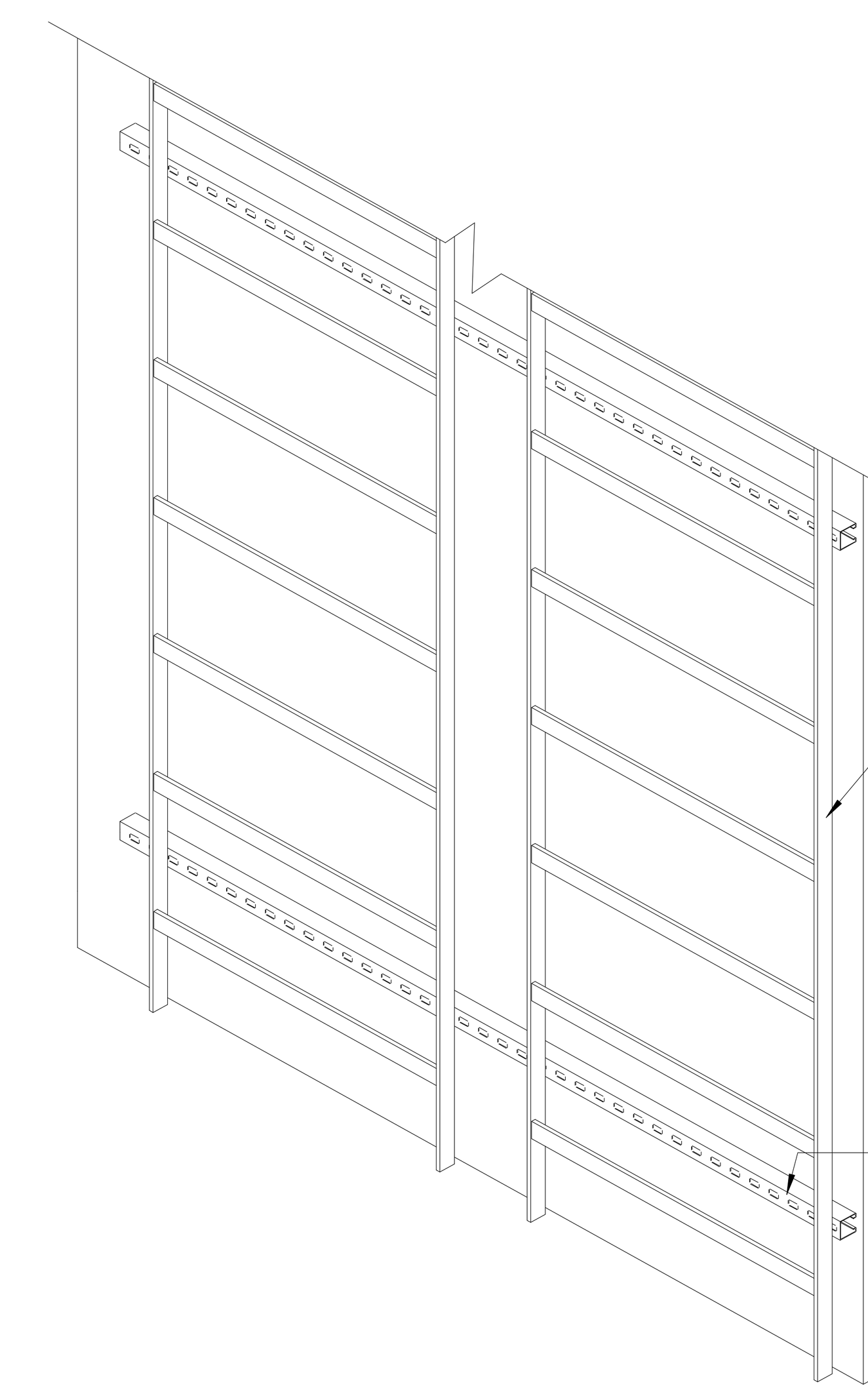
4 RISER SLOT SMALL ARRAY IN NEW TELECOM ROOM
NTS



3 DSA RACK HARDWARE MOUNTING
NTS



2 LADDER EARTHQUAKE LATERAL BRACING
NTS



1 TE-513 VERTICAL LADDER RACK MOUNTING
NTS

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ARCHITECTS SEAL

REGISTERED PROFESSIONAL ENGINEER KENNETH W. GRAVEN E15135 ELECTRICAL STATE OF CALIFORNIA

STAMPED & SIGNED ON:
11/30/2018

Charles M. Salter ASSOCIATES INC

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REVISIONS

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DETAILS - TELECOM

SHEET NUMBER

T7.03.2

11/29/2018 6:03:13 PM

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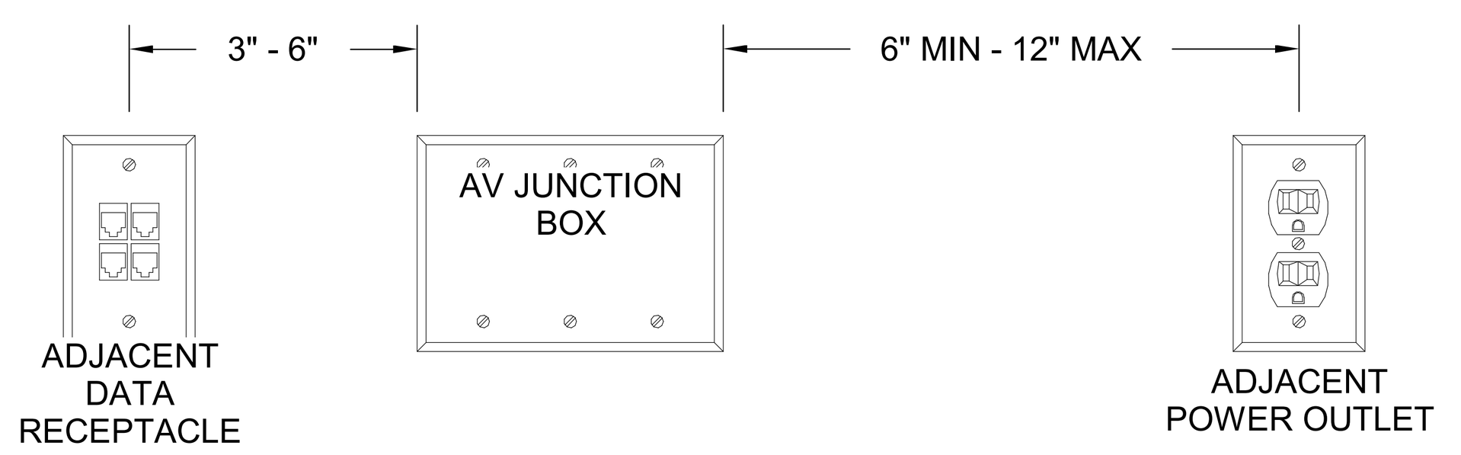
#	DATE	DESCRIPTION

SHEET TITLE

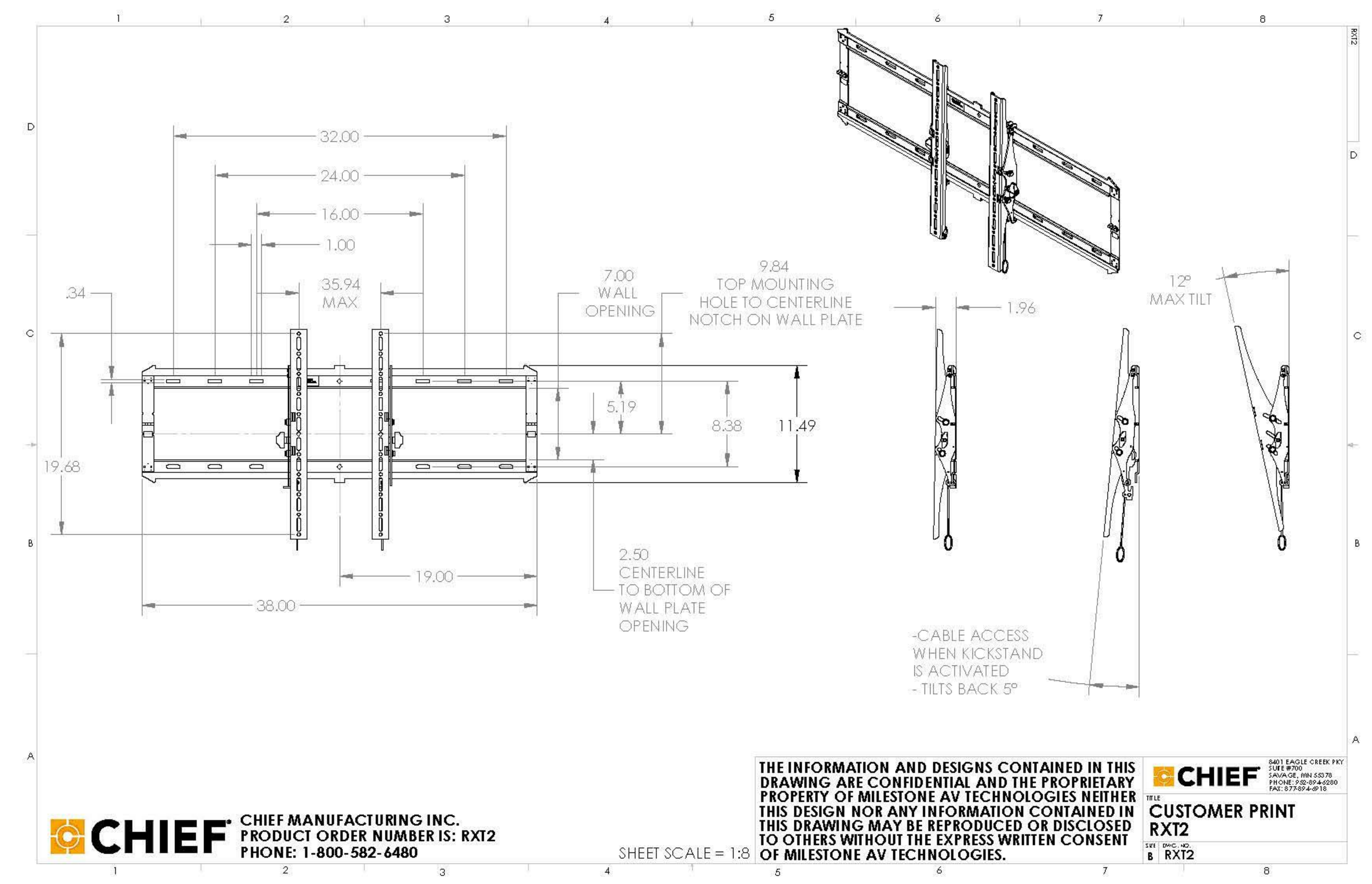
DETAILS - AUDIOVISUAL

SHEET NUMBER

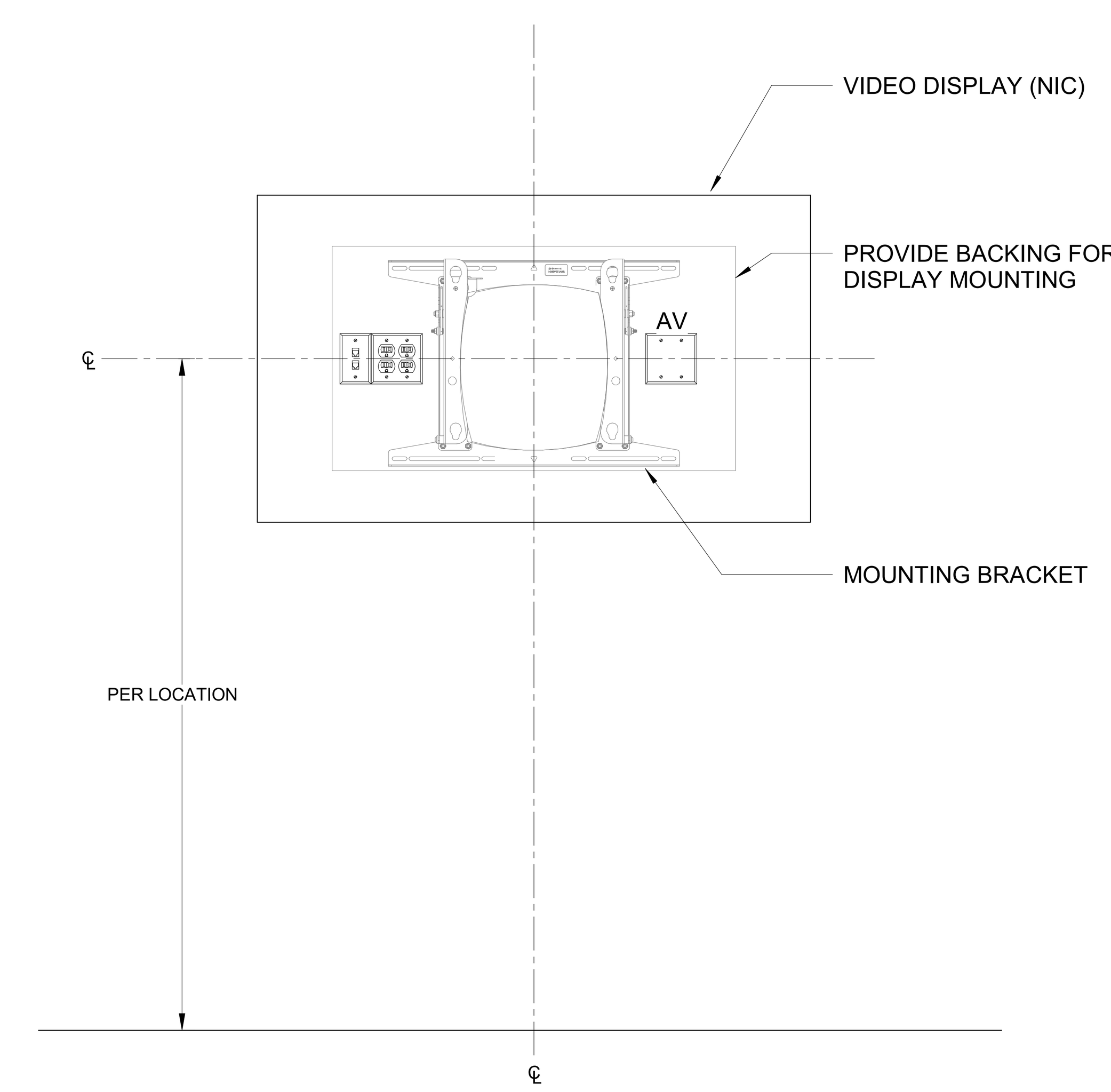
T7.04.2



3 AV BOX ADJACENCIES
NTS



2 RXT2 - FLAT SCREEN MOUNT
NTS



1 TYPICAL FLAT PANEL ELEVATION
NTS

EPSON
EXCEED YOUR VISION

SPECIFICATION SHEET

BrightLink® 710Ui WUXGA 3LCD Interactive Laser Display

Laser Displays | Education

Wall mount included.

The world's first 3LCD ultra short-throw interactive laser display.

More accurate, vivid color, even in well-lit rooms — 4,000 lumens of equal color and white brightness[1]

Breakthrough laser technology — provides up to 20,000 hours of virtually maintenance-free operation[2]; plus, get higher image contrast and Instant ON/OFF

Full HD WUXGA display up to 100" diagonal — optimal readability from anywhere in the room; 2x the interactive space of a 70" flat panel

Pen- and touch-based interactivity — allows up to eight users to draw, share and collaborate at once, with six points of touch plus two pens

Enhanced wireless display technology — connect up to 50 Chromebook™, Mac®, PC, iOS® and Android™ devices, and simultaneously display up to four screens, with Epson iProjection™[3] (wireless module sold separately)

Two-way content sharing — teachers can push content from the projector to wirelessly connected devices and control which device screens to display; students can make notes and send their work back to the projector[3]

Includes 1-year subscription and support for SMART Learning Suite — SMART Notebook®, SMART amp™, SMART lab™, SMART Learning Suite Online and more

DuoLink — install two BrightLink displays side-by-side to create one seamless interactive surface up to 177" diagonal[4]

Remarkable color accuracy — up to 3x Higher Color Brightness[5] and up to 3x Wider Color Gamut[6] with Epson® over 1-chip DLP projectors

UP TO 3x Higher Color Brightness Epson® Projectors[5]

3LCD

The best-selling projectors in the world #1 Epson Projectors

4 SHORT-THROW VIDEO PROJECTOR (OFCI)
NTS

EPSON
EXCEED YOUR VISION

BrightLink® 710Ui WUXGA 3LCD Interactive Laser Display

Laser Displays | Education

Specifications

Display System Epson 3LCD, 3-chip technology
Display Method Ceiling/wall mount/table mount
Driving Method Epson Poly-silicon TFT Active Matrix
Pixel Number 2,304,000 dots (1920 x 1200) x 3
Color Brightness[1] Color Light Output: 4,000 lumens
White Brightness[1] White Light Output: 4,000 lumens
Interactive Color Brightness[1] Color Light Output: 4,000 lumens
Interactive White Brightness[1] White Light Output: 4,000 lumens
Aspect Ratio 16:10
Native Resolution 1920 x 1200 (WUXGA)
Size (Projected) Area (16:10) 70.4" – 100"
Keystone Correction (Manual)
Horizontal: ±3 degrees
Vertical: ±3 degrees
USB Plug 'n Play Mac OS X® 10.7/10.8/10.9/10.10/10.11/macOS® 10.12.x
USB Plug 'n Play for Windows® Windows Vista®/Windows 7/Windows 8/Windows 10
Contrast Ratio Up to 2,500,000:1
Color Reproduction Up to 1 billion colors
Illumination Technology Laser Phosphor
Light Source Life[2]
20,000 hours (Normal)
30,000 hours (Extended)

Projection Lens

Type Manual focus
F-number 1.6
Focal Length 4.2 mm
Throw Ratio Range (16:10) 0.22 – 0.37, (4:3) 0.33 – 0.44, (16:9) 0.27 – 0.37
Zoom Ratio Digital zoom: 1.0 – 1.35x

Other

Display Performance NTSC: 480 lines PAL: 576 lines (Depends on observation of the multi-burst pattern)
Input Signal NTSC/NTSC4.43/PAL/M-PAL/N-PAL/PAL60/SECAM
Speaker 16 W monaural
Operating Temperature 32 ˚ to 113 ˚F (0 ˚ to 45 ˚C)
Power Supply Voltage 100 – 240 V ±10%, 50/60 Hz
Power Consumption
ECO Mode: 348 W
Normal Mode: 448 W
Standby (Communication On): 2.0 W
Standby (Communication Off): 0.3 W
Fan Noise
Quiet Mode: 27 dB
Normal Mode: 38 dB
Security Kensington lock provision, security anchor bar, password-protect function

Interactivity

Interactive Technology Infrared, 850 nm
Interactive Area (Image Size) 70" – 100" diagonal (16:10, WUXGA)

Interfaces

2x HDMI®
1x HDMI/MHL®
Computer/Component video: 1x D-sub 15 pin
Composite video: 1x RCA (Yellow)
Audio in: 2x Mini stereo
USB connector: 1x Type B (USB display, audio and mouse control interactivity)
USB connector: 2x Type A (USB memory/document camera)
1x RJ-45
Serial: 1x RS-232c
Monitor Out: 1x D-sub 15 pin
Audio Out: 1x Mini stereo
Wireless LAN port: 802.11 b/g/n (not included)
Interactive Synchronization Mini stereo In
Interactive Synchronization Mini stereo Out
Touch Unit Connection Port
Mic in

Interactivity (continued)

Interactive Modes Computer Interactivity/Input, PC-free and Whiteboard Annotation Mode, Pen: Dual User, Finger Touch: Up to 6 points of touch PC-free Annotation Two pens and two fingers
Annotation Tools Epson Easy Interactive Tools, dual user
PC Annotation Sources USB, HDMI, Computer 1, Computer 2, LAN
PC-free Annotation Devices Document cameras, DVD/Blu-ray Disc® player, iPod®/iPad® devices, Chromebooks
Calibration Method Automatic or Manual
Interactive Connectivity USB cable for non-networked
Interactive Software Requirements Epson Easy Interactive Driver (Mac and PC — required for DuoLink); Windows and Linux: driver not required Mac: Mac OS X 10.7/10.8/10.9/10.10/10.11/macOS 10.12.x Epson Easy Interactive Tools for Windows and Mac
System Compatibility Microsoft® Windows Vista SP2 (All editions except for Starter), Windows 8/8.1, Windows 10, Windows 7 SP1 (All editions except for Starter)
mac OS™ 10.7/10.8/10.9/10.10/10.11/macOS 10.12.x, UBUNTU 15.10, 16.04 LTX, 16.10, 17.04
Gestures Requires Windows 7 or later, or or Mac OS 10.7 or later

SMART Notebook Requirements

Supported Operating Systems Windows 7 SP1, Windows 8/8.1, Windows 10, Mac OS X 10.9, 10.10, 10.11
Minimum Processor Intel® Core 2 Duo
Minimum RAM 2GB (4GB for UHD displays)
Minimum Hard Disk Space 3GB (Windows); 3GB (Mac)

Interactive Input Device

Type of Interactive Input Device Digital pen
Interactive Pen Functions Mouse Functions (left and right click), Electronic pen, LED battery status indicator
Interactive Pen Power AA battery, rechargeable
Compatible Pen Battery Types Eneloop® batteries (included), Manganese dry cell, alkaline dry cell
Interactive Pen Dimensions 6.3" x 0.94" (diameter)
Interactive Pen Weight 1.1 oz (without battery)

Dimensions (W x D x H)

19.5" x 17.3" x 6.8"
Weight 24.7 lb

Remote Control

Features Computer, Video/HDMI, USB, LAN, Source Search, Power, Aspect, Color Mode, Volume, E-Zoom, A/V Mute, Freeze, Menu, Auto, Enter, ESC, Pointer, User, Home, Split, Pen Mode, Link Menu, ID, Page up, Page down
Operating Angle
Rear: Right/left: -55 to +55 degrees, Upper/lower: +75 to +15 degrees
Front: Right/left: -30 to +30 degrees, Upper/lower: 0 to +60 degrees
Operating Distance 19.7 ft (6 m)

Eco Features

Energy-efficient 3LCD light engine
Recyclable product[7]
Epson America, Inc. is a SmartWay® Transport Partner[8]

Support

Service Programs 3-year projector limited warranty, Epson Road Service program, PrivateLine® dedicated toll-free support

What's in the Box

BrightLink 710Ui ultra short-throw interactive laser display, wall mount, mount template sheet, installation manual, finger-touch module, touch module mounting bracket, touch module cable, Quick Start Guide, power cable, USB A/B cable, electronic user manual, projector remote control, two (2) interactive pens, two (2) AA batteries (for interactive pens) plus battery charger, two (2) AA batteries (for remote), SMART Learning Suite redemption code

Ordering Information

BrightLink 710Ui	V11H877022
Air Filter	V13H134A43
PowerLite® Pilot™ 2 (ELPCB02)	V12H614020
Active Speakers (ELPSP02)	V12H467020
Wireless 802.11b/g/n LAN Unit (ELPAP10)	V12H731P02
100" Whiteboard	V12H831000
Interactive Pen A (orange)	V12H773010
Interactive Pen B (blue)	V12H774010
Replacement Pen Tips (hard/Teflon®)	V12H775010
Replacement Pen Tips (soft/felt)	V12H776010
Ultra Short-throw Wall Mount (ELPMB53)	V12H902020

1 Color brightness (color light output) and white brightness (white light output) will vary depending on usage conditions. Color light output measured in accordance with IDMS 15.4; white light output measured in accordance with ISO 21118. | 2 20,000 hours is the estimated projector life when used in Normal Mode. Actual hours may vary depending on mode and usage environment. The projector comes with a 3-year limited warranty. | 3 For wireless functionality, including via the Epson iProjection App, the projector must be configured on a network, either through the Ethernet port on the projector (check model specifications for availability) or via a wireless connection. Check your owner's manual to determine if a wireless LAN module must be purchased separately to enable a wireless connection. Not all Epson projectors are able to be networked. The Epson iProjection App does not support all files and formats. See www.epson.com for details. | 4 Requires Easy Interactive Driver. Certain functionality is only available through Epson Interactive Tools (EIT) software. For a list of supported operating systems, visit www.epson.com | 5 Color brightness (color light output) in brightest mode, measured by a third-party lab in accordance with IDMS 15.4. Color brightness will vary depending on usage conditions. Top-selling Epson 3LCD projectors versus top-selling 1-chip DLP projectors based on PMA Research sales data for Dec. 2015 through Nov. 2016. | 6 Gamut volume in brightest mode, measured by a third-party lab in 3D in the CIE L*a*b* coordinate space. Top-selling Epson 3LCD projectors versus top-selling 1-chip DLP projectors based on PMA Research sales data for Dec. 2015 through Nov. 2016. | 7 For convenient and reasonable recycling options, visit www.epson.com/recycle | 8 SmartWay is an innovative partnership of the U.S. Environmental Protection Agency that reduces greenhouse gases and other air pollutants and improves fuel efficiency.

Learn more about how our products can empower your institution. Visit us at **www.epson.com/foreducation**

Better Products for a Better Future™
eco.epson.com

SmartWay® Transport Partner

Contact:

Epson America, Inc.
3840 Kilroy Airport Way, Long Beach, CA 90806

Epson Canada Limited
185 Renfrew Drive, Markham, Ontario L3R 6G3

www.epson.com
www.epson.ca

AV JUNCTION BOX SCHEDULE

TAG	PURPOSE	TYPE	SIZE	HEIGHT	LOCATION	MOUNTING	RING	COVER	DATA REQUIREMENTS	POWER REQUIREMENTS	COMMENTS
: 5											
AV	AV INPUT LOCATION		2-GANG	18" AFF	WALL	FLUSH			(2) ADJACENT NETWORK DROP	ADJACENT AC DUPLEX	
AV: 1											
CP	AV CONTROLLER		2-GANG		WALL						
CP: 2											
DP	DISPLAY PANEL		4-GANG	84" AFF	WALL	FLUSH			(2) ADJACENT NETWORK DROP	ADJACENT AC DUPLEX	
DP: 2											
ENS	EMERGENCY NOTIFICATION SYSTEM		2-GANG								
ENS: 3											
FB	FLOOR BOX AV INPUT LOCATION		FSR FL-540P-4		FLOOR				(4) INTERNAL NETWORK DROPS	INTERNAL AC DOUBLE DUPLEX	
FB: 2											
VP	VIDEO PROJECTOR		2-GANG			FLUSH			(2) ADJACENT NETWORK DROP	ADJACENT AC DUPLEX	
VP: 2											
Grand total: 17											

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AV JUNCTION BOX SCHEDULE

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FIRE ALARM SYMBOL LIST

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

Abbreviations

AFF	ABOVE FINISHED FLOOR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AWG	AMERICAN WIRE GAUGE
A	AMPERES, AMBER
AHJ	AUTHORITY HAVING JURISDICTION
BAS	BUILDING AUTOMATION SYSTEM
CLG	CEILING
C	CONDUIT, CLOSE, CONTROL
dB	DECIBEL
(X)	DEMOLISH
DTL	DETAIL
DIA	DIAMETER
DIM	DIMENSION
DIV	DIVISION
DWG	DRAWING
EA	EACH
EMT	ELECTRICAL METALLIC TUBING
(E)	EXISTING
FM	FACTORY MUTUAL
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FMC	FLEXIBLE METAL CONDUIT
FT	FOOT, FEET
HT	HEIGHT
IN	INCH, INCHES
IMC	INTERMEDIATE METAL CONDUIT
LV	LOW VOLTAGE
mA	MILLIAMPERES
MIN	MINIMUM
MISC	MISCELLANEOUS
MT, MTD	MOUNT, MOUNTED
NEC	NATIONAL ELECTRIC CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
(N)	NEW
N/A	NOT APPLICABLE
N.I.C.	NOT IN CONTRACT
NTS	NOT TO SCALE
PNL	PANEL
PWR	POWER
QTY	QUANTITY
REF	REFERENCE
RFI	REQUEST FOR INFORMATION
RM	ROOM
SHT	SHEET
SIM	SIMILAR
STD	STANDARD
SPD	SURGE PROTECTION DEVICE
TBD	TO BE DETERMINED
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES
VFD	VARIABLE FREQUENCY DRIVE
V	VOLTS, VOLTAGE
WP	WEATHERPROOF
WG	WIRE GUARD

Connections / Equipment

J OR J — JUNCTION BOX

Fire Alarm

FACP — FIRE ALARM CONTROL PANEL
EXISTING SIEMENS MXL

NAC — NOTIFICATION APPLIANCE CIRCUIT PANEL
WHEELOCK PS-8-LP
CSFM: 7315-0785:0167

PULL STATION
SIEMENS MSI-20B
CSFM: 7150-0067:0036

SMOKE DETECTOR
SIEMENS FP-11
CSFM: 7272-0067:0203

SMOKE DETECTOR, DUCT MOUNTED
SIEMENS AD-11XPR
CSFM: 3420-0067:0116

HORN/STROBE COMBINATION (# INDICATES MINIMUM CANDELA RATING)
WHEELOCK HSR
CSFM: 7125-0785:0168

STROBE, WALL MOUNTED (# INDICATES MINIMUM CANDELA RATING)
WHEELOCK STR
CSFM: 7125-0785:0168

AIM — ADDRESSABLE INPUT MODULE
SIEMENS TRI-S
CSFM: 7300-0067:0152

AOM — ADDRESSABLE OUTPUT MODULE
SIEMENS TRI-R
CSFM: 7300-0067:0152

DCVA — SPRINKLER DOUBLE CHECK VALVE ASSEMBLY WITH INPUT MODULES

FS — SPRINKLER FLOW SWITCH WITH INPUT MODULE

PIV — SPRINKLER POST INDICATOR VALVE CONNECTION WITH INPUT MODULE

TS — SPRINKLER TAMPER SWITCH WITH INPUT MODULE

General

X / X — DETAIL NUMBER AND SHEET LOCATION

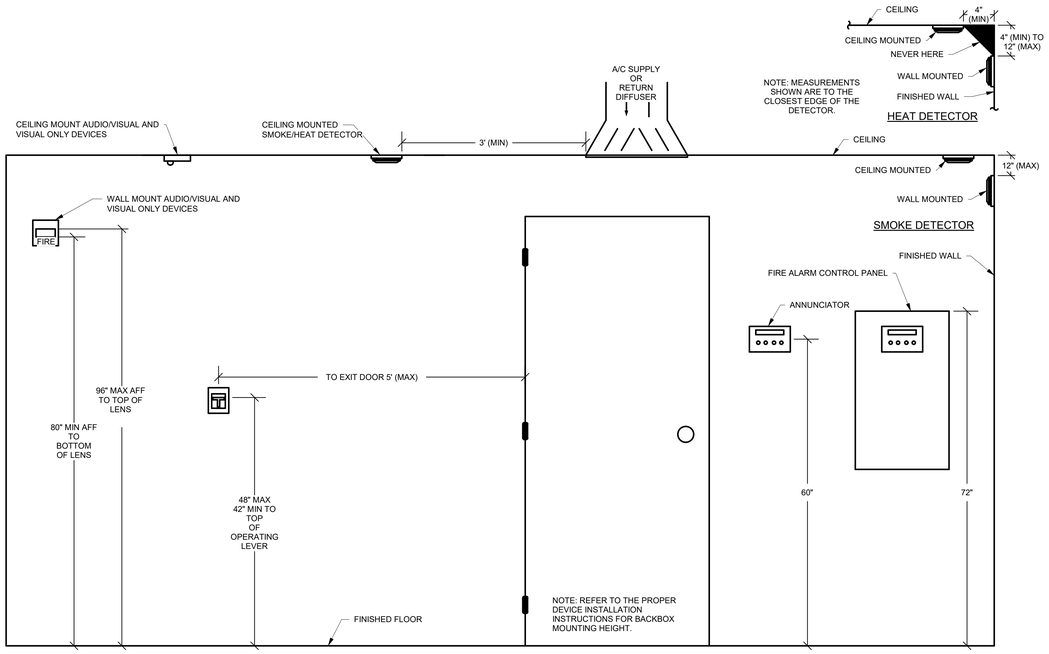
XX-X / LOCATION — EQUIPMENT IDENTIFICATION

1 — KEYED NOTE

DEMOLISH

EXISTING WORK

NEW WORK



1 DEVICE MOUNTING HEIGHTS

NO SCALE

GENERAL FIRE ALARM NOTES

A. THE SCOPE OF THIS PROJECT IS TO MODIFY AND EXTEND AN EXISTING, MANUAL AND AUTOMATIC, CLASS B, FIRE ALARM SYSTEM.
B. MANUAL PULL STATIONS ARE PROVIDED AT EACH BUILDING EXIT.
C. AUTOMATIC SMOKE DETECTORS ARE PROVIDED FOR LIFE SAFETY FUNCTION ACTIVATION AT AIR HANDLING UNITS OVER 2000 CFM CAPACITY, AT MAGNETICALLY HELD FIRE DOORS, AND TO PROTECT THE FIRE ALARM EQUIPMENT.
D. MONITOR MODULES ARE PROVIDED AT THE FIRE SPRINKLER RISER.
E. AUDIBLE AND VISIBLE NOTIFICATION APPLIANCES ARE LOCATED THROUGHOUT THE BUILDING.

FIRE ALARM ADDRESS LEGEND

XX## — DEVICE ADDRESS

WHERE: XX = LOOP NUMBER
- DEVICE ADDRESS

NOTIFICATION CIRCUIT

NXX #-#
CIRCUIT #
DEVICE #
NOTIFICATION PANEL

FIRE ALARM MONITORING NOTE

AUTOMATIC FIRE ALARM SYSTEM SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO A REMOTE SUPERVISING STATION AS REQUIRED BY NFPA 72. THE SUPERVISING STATION SHALL BE LISTED AS UUJS BY UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES ARE EXISTING.

FIRE ALARM WIRE SCHEDULE

SYMBOL	DESCRIPTION
A	1 PAIR 16 AWG TWISTED SHIELDED
B	1 PAIR 12 AWG
C	1 PAIR 16 AWG TW/SHLD SUITABLE FOR WET LOCATION
D	1 PAIR 12 AWG SUITABLE FOR WET LOCATION

NOTE: LETTER DESIGNATION INDICATES CABLE TYPE. NUMBER OF HASH MARKS INDICATES QUANTITY OF CABLES. E.G., ⫲ , INDICATES TWO, #16 CABLES.
A

DSA NOTES

1. APPLICABLE STANDARD AND CODES:
   2016 NFPA 72
   2016 CALIFORNIA FIRE CODE
   2016 CALIFORNIA BUILDING CODE
   2016 CALIFORNIA MECHANICAL CODE
   2016 CALIFORNIA ELECTRICAL CODE
2. INSTALLATION OF THE SYSTEM SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATIONS, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM, HAVE BEEN APPROVED BY DSA.
3. UPON COMPLETION OF THE INSTALLATION OF THE SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR.
4. A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE MAINTAINED ON THE JOB SITE AND USED FOR INSTALLATION.
5. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.
6. DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND /OR TESTING.
7. ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL OR OTHER LAB TESTING CRITERIA. APPROVED TYPE OF MATERIALS SHALL BE IDENTIFIED WITHIN THE SPECIFICATION WITHIN THE FIRE ALARM SECTION.
8. WALL MOUNTED VISUAL NOTIFICATION APPLIANCES SHALL HAVE THEIR BOTTOMS MOUNTED AT 80" MINIMUM AND 96" MAXIMUM ABOVE FINISHED FLOOR.
9. WALL MOUNTED AUDIBLE NOTIFICATION APPLIANCES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM AND 100" MAXIMUM ABOVE FINISHED FLOOR AND NO CLOSER THAN 6" TO A HORIZONTAL STRUCTURE.
10. AUDIBLE DEVICES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 DECIBELS (dBA) ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR 5 dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY OCCUPIABLE SPACE WITHIN THE BUILDING.
11. AUDIBLE APPLIANCES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN.
12. THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
13. VISUAL APPLIANCES SHOULD NOT EXCEED 2 FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN 1 FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELA. VISUAL APPLIANCES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.
14. UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATERTIGHT FITTINGS AND WIRE TO BE APPROVED FOR WET LOCATIONS.
15. ALL FIRE ALARM WIRING SHALL BE FLP OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE THHN OR THWN.
16. PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. THERE MUST BE AT LEAST 6" OF LEAD WIRE FROM THE BOX TO THE DEVICE. ALL BOXES TO BE SIZED PER CEC.
17. SMOKE DETECTORS SHALL NOT BE INSTALLED CLOSER THAN 1' FROM FIRE SPRINKLERS OR 3' FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION, NEWLY INSTALLED FIRE ALARM DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.
18. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANNER AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.
19. FIRE ALARM PANEL, REMOTE PANELS, POWER SUPPLIES AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED THE WEIGHT OF 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
20. A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL". CIRCUIT ID TO BE LABELED AT FIRE PANEL/EXTENDERS.
21. THE INSTALLING CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION PER NFPA 72, FIGURE 10.18.2.1.1.
22. CONTROL PANELS AND REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48" ABOVE FINISHED FLOOR.
23. THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.2.
24. SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.
25. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.

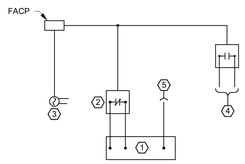
EXISTING SEQUENCE OF OPERATIONS MATRIX

DEVICE ACTION	INITIATING DEVICES					
	MANUAL PULL STATION	SMOKE DETECTOR HEAT DETECTOR	SMOKE DUCT DETECTOR	SPRINKLER WATER FLOW	SPRINKLER WATER TAMPER	KITCHEN HOOD SUPPRESSION
SOUND CONTROL PANEL TROUBLE BUZZER	ON WIRING FAULT	ON WIRING FAULT	ON WIRING FAULT	ON WIRING FAULT	ON WIRING FAULT	ON WIRING FAULT
ACTIVATE RELAY FOR MONITORING (ALARM OR TROUBLE)	YES	YES	YES	YES	YES	YES
ANNUNCIATE AT FIRE ALARM CONTROL PANEL (ALARM OR TROUBLE)	YES	YES	YES	YES	TROUBLE ONLY	YES
ANNUNCIATE AT REMOTE FIRE ALARM ANNUNCIATOR (ALARM OR TROUBLE)	YES	YES	YES	YES	TROUBLE ONLY	YES
SEND SIGNAL TO CENTRAL STATION SERVICE COMPANY	YES	YES	YES	YES	YES	YES
ACTIVATE AUDIBLE/VISUAL ALARM SIGNAL THROUGHOUT BUILDING	YES	YES	YES	YES	NO	YES
SHUTDOWN AIR HANDLING UNITS (HVAC)	NO	YES	YES	NO	NO	NO
SHUTDOWN FIRE/SMOKE DAMPERS	YES	YES	YES	YES	NO	NO

NEW WORK

DETAIL KEYNOTES

1 AIR HANDLING UNIT (AHU) STARTER/VFD.
2 FIRE ALARM ADDRESSABLE RELAY. CONNECT TO EMERGENCY STOP INPUT ON FAN CONTROLLER. PROGRAM TO STOP FAN ON ACTIVATION OF ASSOCIATED SMOKE DETECTION. PROVIDE RELAY FOR EACH FAN CONTROLLER.
3 FIRE ALARM ADDRESSABLE DUCT SMOKE DETECTOR.
4 FIRE ALARM ADDRESSABLE RELAY. DIGITAL INPUT TO BAS TO INITIATE ADDITIONAL AHU SHUT DOWN SEQUENCE.
5 BAS CONNECTION TO FAN UNIT CONTROLLER.

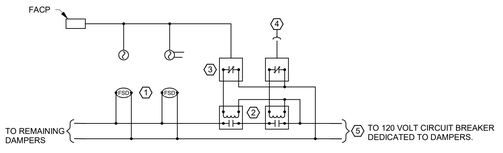


2 HVAC FAN SHUT DOWN DIAGRAM

NO SCALE

DETAIL KEYNOTES

1 FIRE/SMOKE DAMPER OR SMOKE DAMPER ASSEMBLY.
2 RELAY TO INTERRUPT FIRE/SMOKE DAMPER CIRCUIT UPON SIGNAL FROM FIRE ALARM SYSTEM OR BUILDING AUTOMATION SYSTEM. COORDINATE WITH HVAC CONTROLS FOR ANY REQUIRED DELAY TO PREVENT DAMAGE TO DUCTWORK.
3 FIRE ALARM ADDRESSABLE RELAY. PROGRAM TO OPEN CIRCUIT AND CLOSE DAMPERS UPON ACTIVATION OF SMOKE DETECTION SYSTEM.
4 DIGITAL OUTPUT FROM BUILDING AUTOMATION SYSTEM TO CONTROL RELAY.
5 PROVIDE SEPARATE CIRCUIT FOR EACH AIR HANDLING UNIT.



3 FIRE/SMOKE DAMPER CONTROL DIAGRAM

NO SCALE

SHEET INDEX

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PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE

INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

SYMBOLS LIST AND GENERAL NOTES - FIRE ALARM

SHEET NUMBER

FA0.01.2

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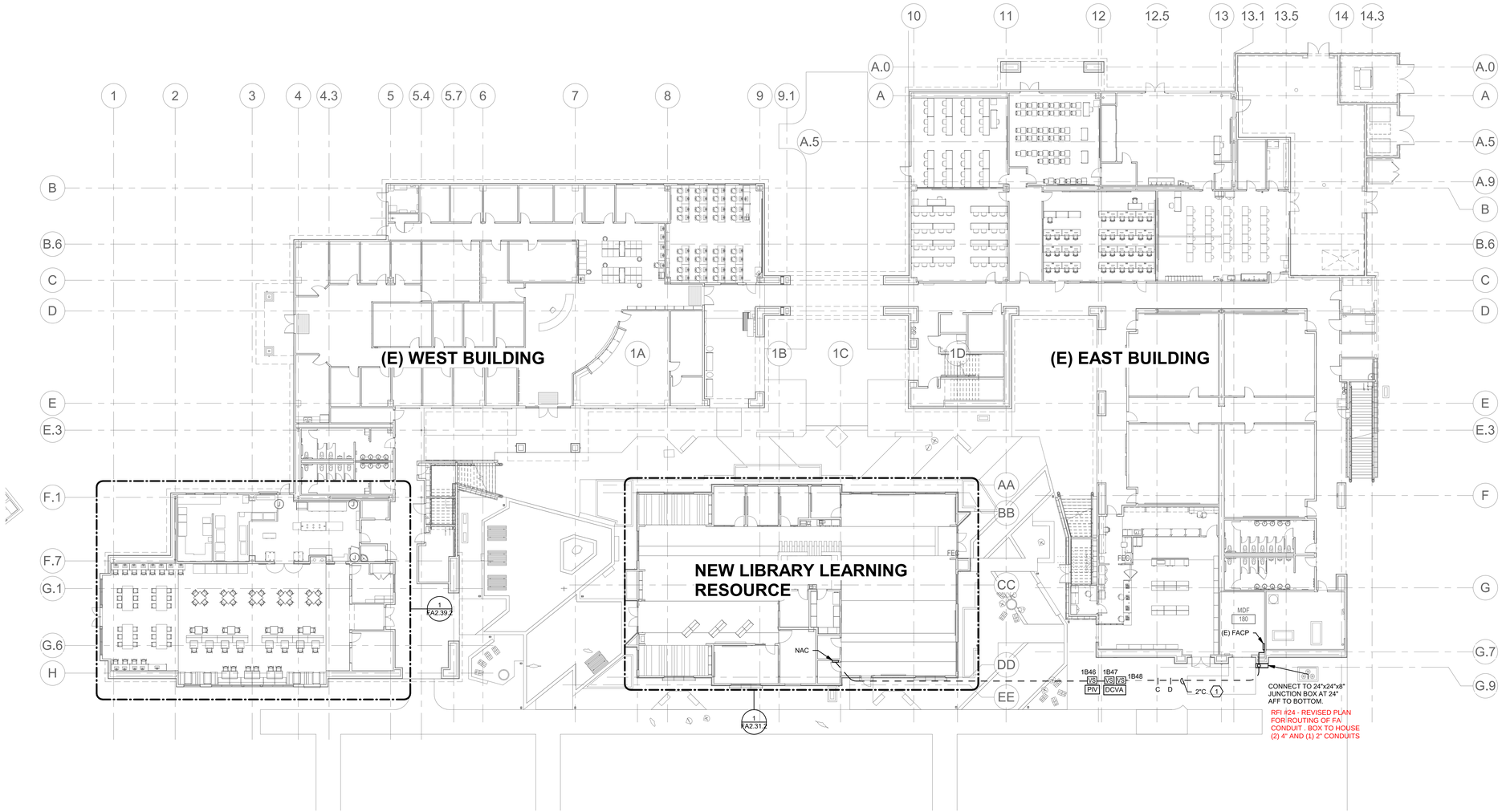
SHEET KEYNOTES

1 PROVIDE 2 INCH UNDERGROUND CONDUIT AND CONNECTION TO FACP IN MAIN MDF. INSTALL CONDUIT IN COMMON TRENCH WITH TELECOMMUNICATION CONDUITS. VERIFY EXACT CONDUIT ROUTING WITH TELECOMMUNICATIONS DESIGN.



1 1ST FLOOR OVERALL PLAN - FIRE ALARM

0' 8' 16' 32'

1/16" = 1'-0"

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ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

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NO.	DATE	DESCRIPTION

SHEET TITLE

1ST FLOOR OVERALL PLAN - FIRE ALARM

SHEET NUMBER

FA2.30A.2

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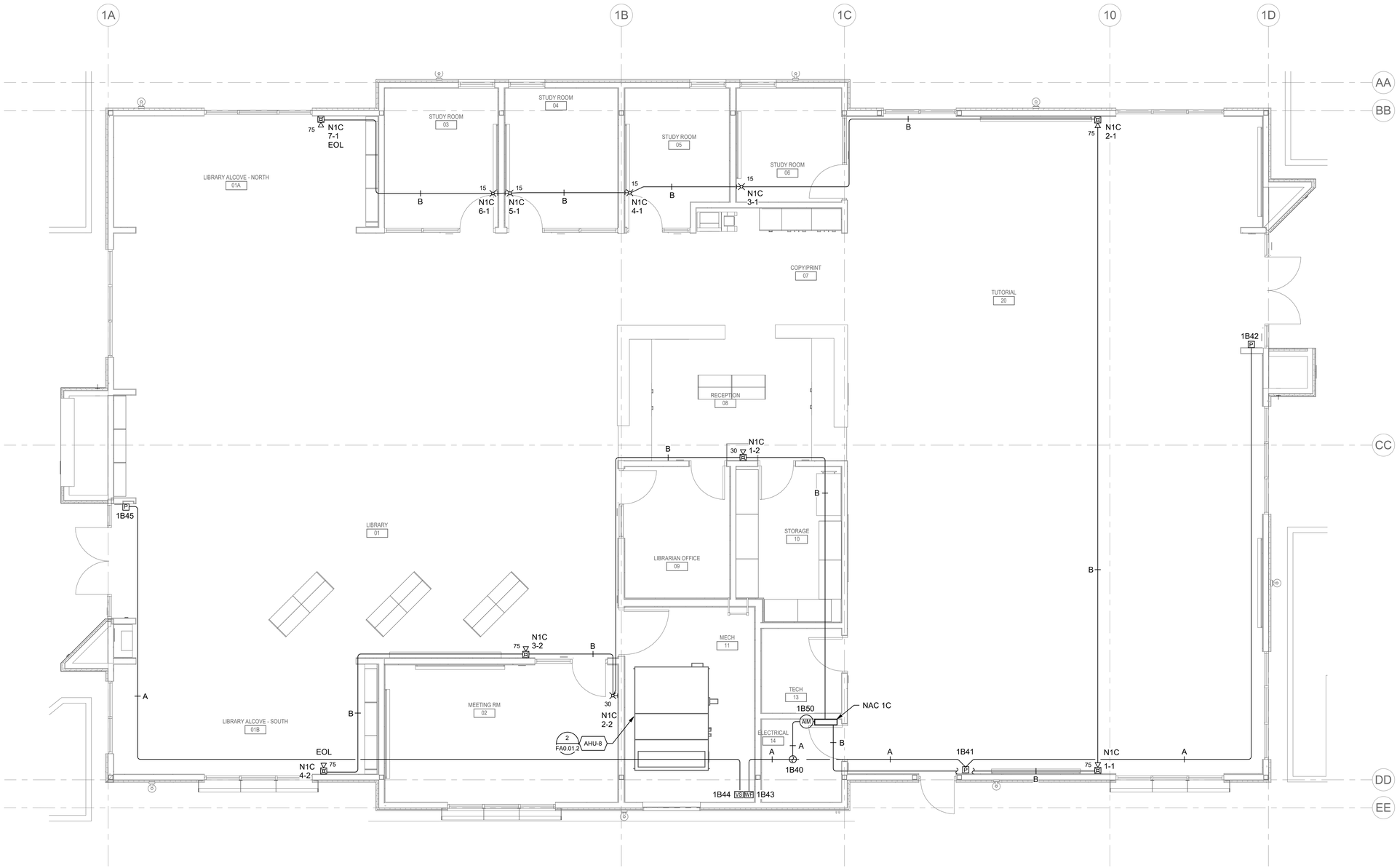

1 FLOOR PLAN - LIBRARY LEARNING RESOURCE CENTER - FIRE ALARM

0' 2' 4' 8'

1/4" = 1'-0"

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ISSUE TITLE

INCREMENT 2

ISSUE DATE	08/22/2023
NOLL & TAM JOB NUMBER	21630

REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE

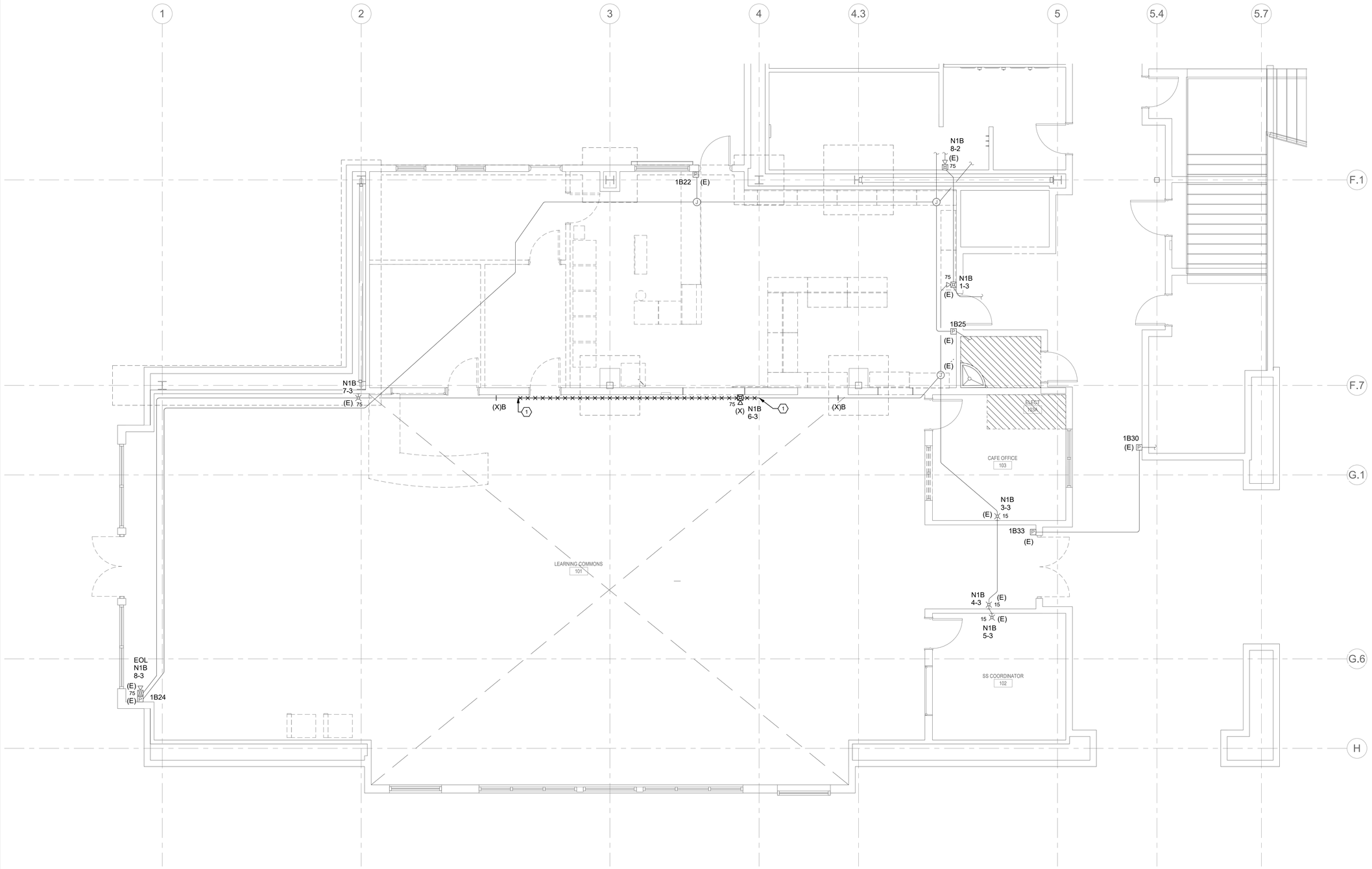
FLOOR PLAN - LIBRARY LEARNING RESOURCE CENTER - FIRE ALARM

SHEET NUMBER

FA2.31.2

SHEET KEYNOTES

1 PULL EXISTING CABLE BACK TO NEAREST APPLIANCE OR JUNCTION BOX AND CUT EXISTING CONDUIT. CONDUIT TO BE EXTENDED AND NEW WIRING PULLED TO NEW APPLIANCES INSTALLED IN NEW WORK PHASE.



1 DEMO - 1ST FLOOR - WEST - (E) BOOKSTORE & LEARNING COMMONS - FIRE ALARM

0' 2' 4' 8'
1/4" = 1'-0"

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SHEET TITLE

DEMO - 1ST FLOOR - WEST - (E) BOOKSTORE & LEARNING COMMONS - FIRE ALARM

SHEET NUMBER

FA2.38.2

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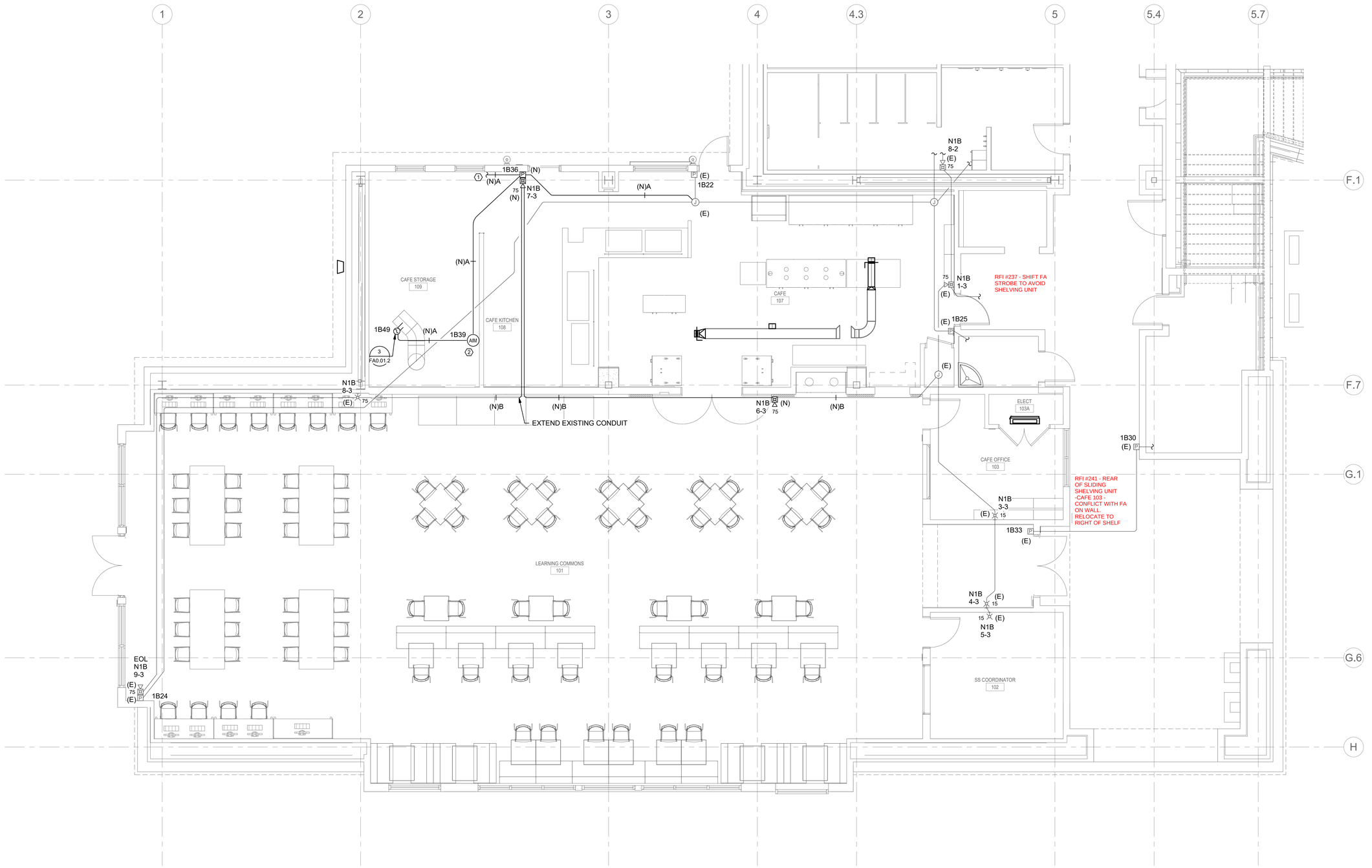
SHEET KEYNOTES

1 UP TO MAU-1 DUCT MOUNTED SMOKE DETECTOR.

2 ADDRESSABLE MONITOR MODULE FOR KITCHEN HOOD SUPPRESSION SYSTEM.



1 NEW - 1ST FLOOR - WEST - CAFÉ & LEARNING COMMONS - FIRE ALARM

0' 2' 4' 8'

1/4" = 1'-0"

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SHEET TITLE

NEW - 1ST FLOOR - WEST - CAFÉ & LEARNING COMMONS - FIRE ALARM

SHEET NUMBER

FA2.39.2

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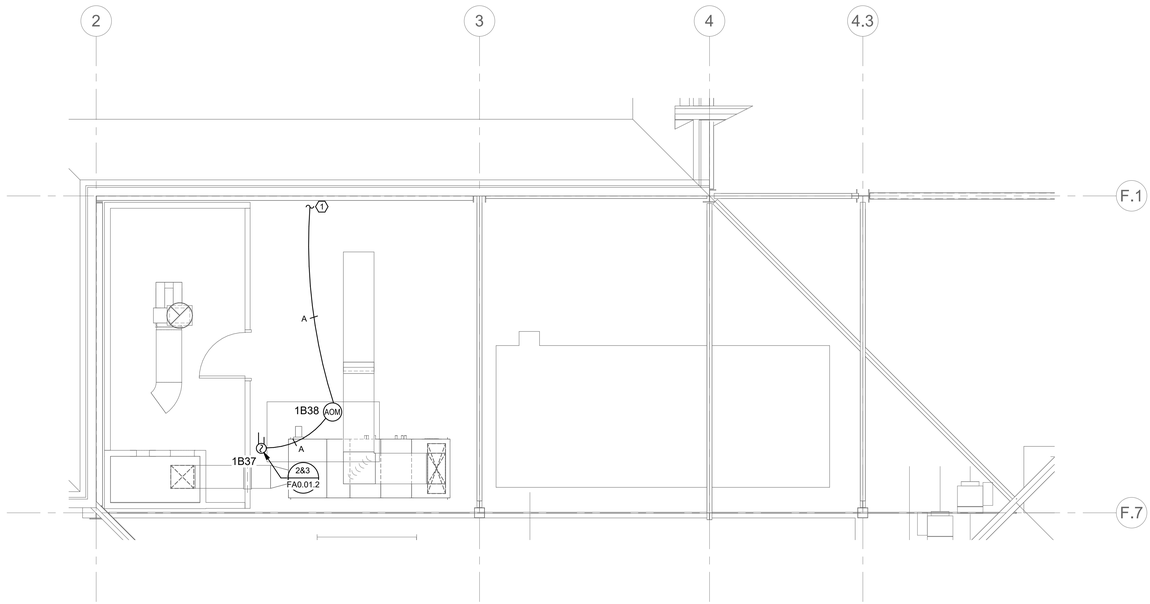
SHEET KEYNOTES

1 DOWN TO PULL STATION.



1 MECHANICAL PLATFORM PLAN - WEST- FIRE ALARM

0' 2' 4' 8'

1/4" = 1'-0"

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MECHANICAL PLATFORM PLAN - WEST - FIRE ALARM

SHEET NUMBER

FA2.40.2

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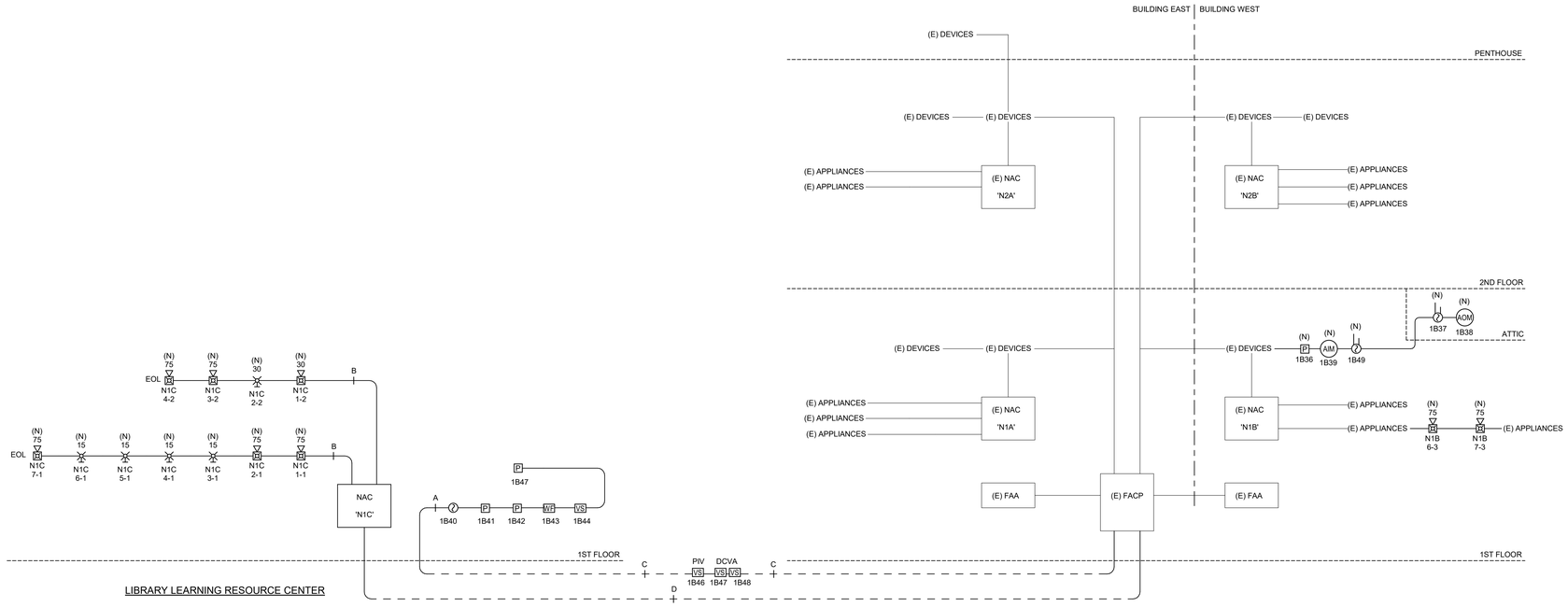


1 ONE-LINE DIAGRAM - FIRE ALARM Inc 2

NO SCALE

EXISTING MAIN MXL PANEL

Summary

Requirement for standby current:	24 Hours	Design Supervison Current =	23.76 Amp-Hr
Requirement for alarm current:	5 Minutes	Design Alarm Current =	0.28 Amp-Hr
Spare Battery Capacity:	20 %	Additional Capacity Current =	4.81 Amp-Hr
Initiating Devices Assumed In Alarm:	10 %	**Battery AH requirement =**	28.85 Amp-Hr
		Battery Size	36.00 Amp-Hr

Supervisory Current

	Module Part Number & Description	Quantity	Module Current	EOL Current	Device Current	Total Standby 24 VDC Module Current
	Main Control Panel	1	175mA			0.175 Amps
MMB-1/2/3	NAC Circuits			12mA per NAC		0.000 Amps
	IAC Devices				1.1mA per device	0.000 Amps
PSR-1	Remote Power Supply	4	70mA	0	0	0.280 Amps
MKB-2	Main Keyboard	1	5mA	0	0	0.005 Amps
RCC-1/1F	Remote Command Center	2	75mA	0	0	0.150 Amps
CSM-4	Controllable Signal Module	1	10mA	0	0	0.010 Amps
		2		12mA		0.024 Amps
ALD-2I	Analog Loop Driver		105mA	0		0.000 Amps
	IAC Devices	251			1.1 mA per Device	0.276 Amps
NIM-1W	Network Interface Module	1	70mA	0	NA	0.070 Amps
					Total Supervisory Current	**0.990 Amps**

Alarm Current

	Module Part Number & Description	Quantity	24 VDC Current		5 VDC Current	
			Active / Module	Total	Active / Module	Total
MMB-1/2/3	Main Control Panel	1	0.175		500mA Provided	
PSR-1	Remote Power Supply	4	70mA		800mA Provided	
MKB-2	Main Keyboard	1	0	0.000 Amps	15mA	0.015 Amps
RCC-1/1F	Remote Command Center	2	75mA	0.150 Amps	0	0.000 Amps
CSM-4	Controllable Signal Module	1	34mA + 1.5A / circuit	3.034 Amps	30mA	0.030 Amps
NIM-1W	Network Interface Module	1	0	0.000 Amps	160mA	0.160 Amps
	24 VDC Power Supply Needed	**MPS-6**	**24VDC Total**	**3.184 Amps**	**5VDC Total**	**0.205 Amps**
					24 VDC & 5 VDC Total Panel Alarm Current	**3.389 Amps**

EXISTING POWER SUPPLY - N1B

DEVICE	QUANTITY	STANDBY CURRENT (A)	ALARM CURRENT (A)
CONTROL BOARD	1	0.092	0.240
NOTIFICATION APPLIANCES			
NA1	10		1.155
NA2	8		0.860
NA3	9		**0.972**
TOTAL AMPERAGE		0.092	3.227
STANDBY HOURS (h)		24	
STANDBY AMP HOURS (Ah)		2.208	
ALARM OPERATION (h)			0.0833
ALARM AMP HOURS (Ah)			0.269
TOTAL AMP HOURS (Ah)			2.477
BATTERY DERATING FACTOR			1.100
BATTERY AMP HOUR RATING (min. Ah)			2.724
EXISTING BATTERY PROVIDED (Ah)			7.000

(E) NOTIFICATION CIRCUIT - N1B - CKT# 3
VOLTAGE DROP CALCULATIONS

BASED ON POINT-TO-POINT OHM'S CALCULATIONS. ACCEPTABLE LIMIT: 10% x 20.4V = 2.04 (MAX)

OHMS = (#14 FEET* 3.07/1000 +#12 FEET* 1.93/1000 + #10 FEET* 1.21/1000) * 2

1) V/O 15cd		0.060	2) A/V 30cd		0.102	3) A/V 75cd		0.148	
4) (E) A/V 15cd		0.065	5) (E) A/V 75cd		0.134	6) (E) A/V WP 75cd		0.145	
7) (E) V/O 15cd		0.041	8) (E) V/O 75cd		0.116	9) (E) DSM1		0.038	

	DEVICE TYPE #	DEVICE #	TO DEVICE #	LINEAR FEET BETWEEN DEVICES #14	#12	#10	RESISTANCE OF WIRES (OHMS)	LOAD ON RUN (AMPS)	VOLTAGE DROP (VOLTS)	ACCUM. VOLTAGE DROP (V)
	5	9	8		62		0.239	0.134	0.032	0.032
	8	8	7		50		0.193	0.250	0.048	0.080
NEW	**3**	**7**	**6**		**35**		0.135	0.398	0.054	0.134
NEW	**3**	**6**	**5**		**55**		0.212	0.546	0.116	0.250
	7	5	4		10		0.039	0.587	0.023	0.273
	7	4	3		15		0.058	0.628	0.036	0.309
	7	3	2		78		0.301	0.669	0.201	0.510
	6	2	1		50		0.193	0.814	0.157	0.668
	5	1	0		112		0.432	0.948	0.410	1.077
	9	0	NAC		2		0.008	0.986	0.008	1.085

Percent Loss 5.32%

POWER SUPPLY - N1C

DEVICE	QUANTITY	STANDBY CURRENT (A)	ALARM CURRENT (A)
CONTROL BOARD	1	0.092	0.240
NOTIFICATION APPLIANCES			
NA1	7		0.684
NA2	4		0.500
SPARE			
SPARE			
TOTAL AMPERAGE		0.092	1.424
STANDBY HOURS (h)		24	
STANDBY AMP HOURS (Ah)		2.208	
ALARM OPERATION (h)			0.0833
ALARM AMP HOURS (Ah)			0.119
TOTAL AMP HOURS (Ah)			2.327
BATTERY DERATING FACTOR			1.100
BATTERY AMP HOUR RATING (min. Ah)			2.559
EXISTING BATTERY PROVIDED (Ah)			7.000

NOTIFICATION CIRCUIT - N1C - CKT# 1
VOLTAGE DROP CALCULATIONS

BASED ON POINT-TO-POINT OHM'S CALCULATIONS. ACCEPTABLE LIMIT: 10% x 20.4V = 2.04 (MAX)

OHMS = (#14 FEET* 3.07/1000 +#12 FEET* 1.93/1000 + #10 FEET* 1.21/1000) * 2

1) V/O 15cd		0.060	2) A/V 30cd		0.102	3) A/V 75cd		0.148	

DEVICE TYPE #	DEVICE #	TO DEVICE #	LINEAR FEET BETWEEN DEVICES #14	#12	#10	RESISTANCE OF WIRES (OHMS)	LOAD ON RUN (AMPS)	VOLTAGE DROP (VOLTS)	ACCUM. VOLTAGE DROP (V)
3	**7**	6		**40**		0.154	0.148	0.023	0.023
1	**6**	5		**20**		0.077	0.208	0.016	0.039
1	**5**	4		**20**		0.077	0.268	0.021	0.060
1	**4**	3		**20**		0.077	0.328	0.025	0.085
1	**3**	2		**40**		0.154	0.388	0.060	0.145
3	**2**	1		**75**		0.290	0.536	0.155	0.300
3	**1**	NAC		**45**		0.174	0.684	0.119	0.419

Percent Loss 2.05%

NOTIFICATION CIRCUIT - N1C - CKT# 2
VOLTAGE DROP CALCULATIONS

BASED ON POINT-TO-POINT OHM'S CALCULATIONS. ACCEPTABLE LIMIT: 10% x 20.4V = 2.04 (MAX)

OHMS = (#14 FEET* 3.07/1000 +#12 FEET* 1.93/1000 + #10 FEET* 1.21/1000) * 2

1) V/O 30cd		0.102	2) A/V 30cd		0.102	3) A/V 75cd		0.148	

DEVICE TYPE #	DEVICE #	TO DEVICE #	LINEAR FEET BETWEEN DEVICES #14	#12	#10	RESISTANCE OF WIRES (OHMS)	LOAD ON RUN (AMPS)	VOLTAGE DROP (VOLTS)	ACCUM. VOLTAGE DROP (V)
3	**4**	3		**40**		0.154	0.148	0.023	0.023
3	**3**	2		**25**		0.097	0.296	0.029	0.051
1	**2**	1		**45**		0.174	0.398	0.069	0.121
2	**1**	NAC		**45**		0.174	0.500	0.087	0.207

Percent Loss 1.02%

NOLL & TAM ARCHITECTS
729 Heinz Avenue
Berkeley, CA 94710
tel 510.542.2200
fax 510.542.2201

APPROVALS

ARCHITECTS SEAL

REGISTERED PROFESSIONAL ENGINEER JASON LAU No. E16806 ELECTRICAL STATE OF CALIFORNIA

PROJECT 2016-0538
CONTACT Joe Ripp
INTERFACE ENGINEERING
135 Main Street
Suite 400
San Francisco, CA 94105
TEL 415.489.7240
FAX 415.489.7289
www.interfaceengineering.com

PROJECT TITLE

CONTRA COSTA CCD
D-4002
DVC SAN RAMON CAMPUS EXPANSION & RENOVATION

1690 Watermill Rd.
San Ramon, CA 94582

RECORD SET

THESE DRAWINGS HAVE BEEN PREPARED FROM ADDENDUMS, CCD'S, ASI'S AND SELECT RFI'S OF SIGNIFICANCE THAT ARE BASED ON DESIGN TEAM'S INFORMATION. THE GENERAL CONTRACTOR'S AS-BUILT DRAWINGS WITH REDLINES OF FIELD CONDITIONS WERE NOT MADE AVAILABLE TO DESIGN TEAM. ONLY A SELECT FEW AS-BUILTS WERE SUBMITTED.

ISSUE TITLE
INCREMENT 2

ISSUE DATE **08/22/2023**
NOLL & TAM JOB NUMBER **21630**

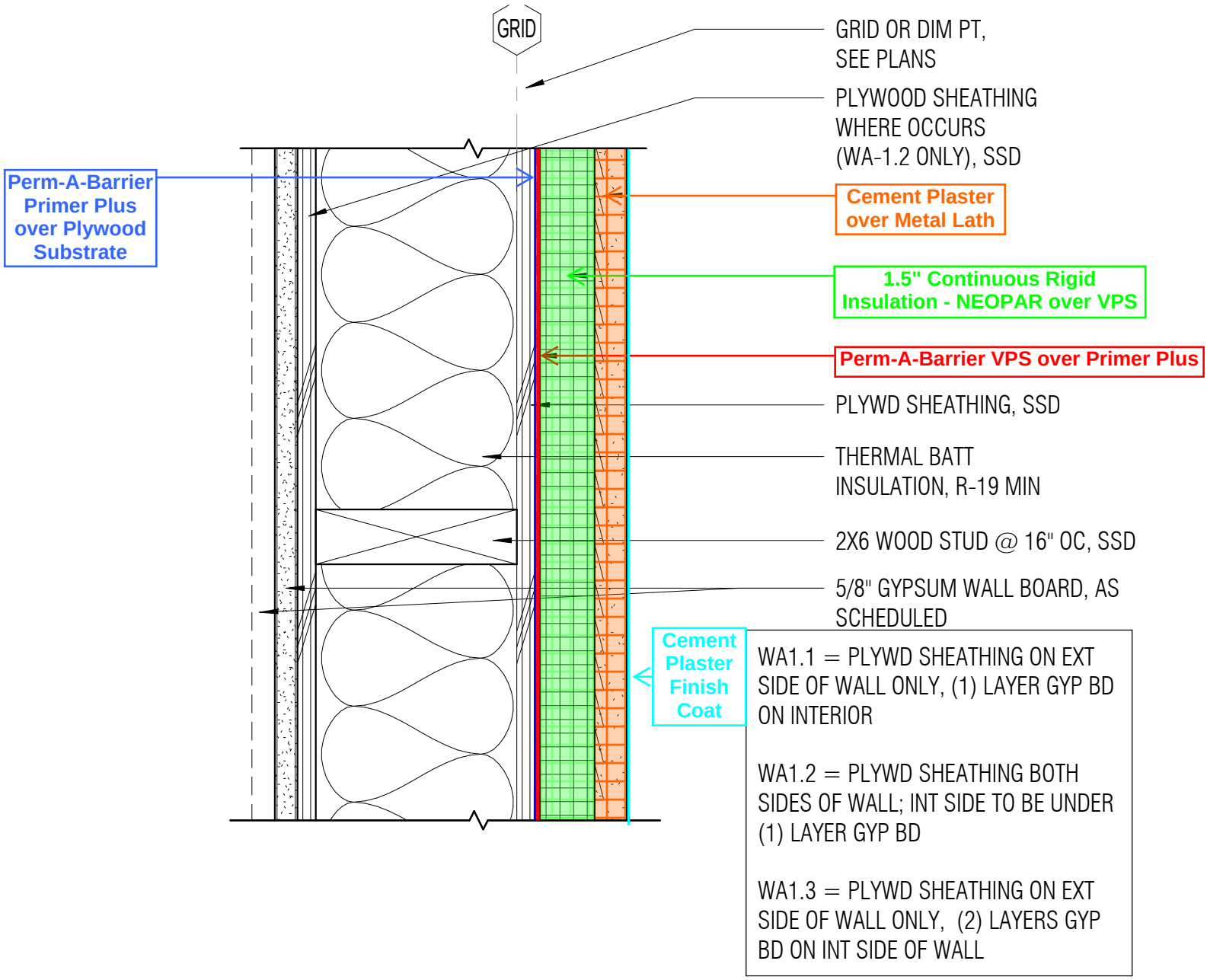
REVISIONS

NO.	DATE	DESCRIPTION

SHEET TITLE
DETAILS - FIRE ALARM

SHEET NUMBER
FA5.01.2

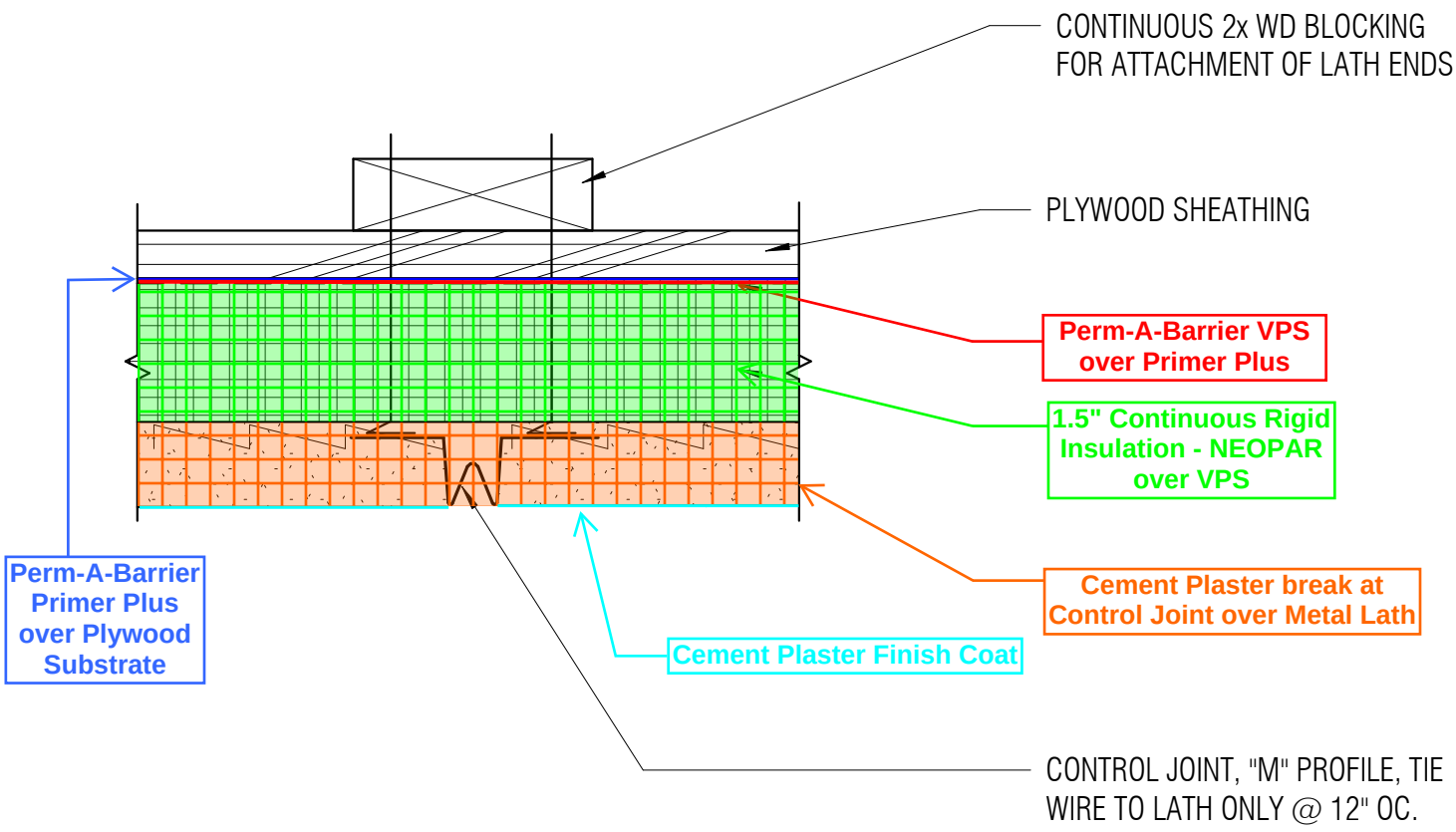
8/22/2023 3:06:19 PM C:\Users\victorv\Documents\Revit Locals\DVC San Ramon - MEP Central v19_victorvMKSKL.rvt



1 / A6.21.2

CEMENT PLASTER O/ CONT INSUL - ASSEMBLY WA1.1/WA1.2

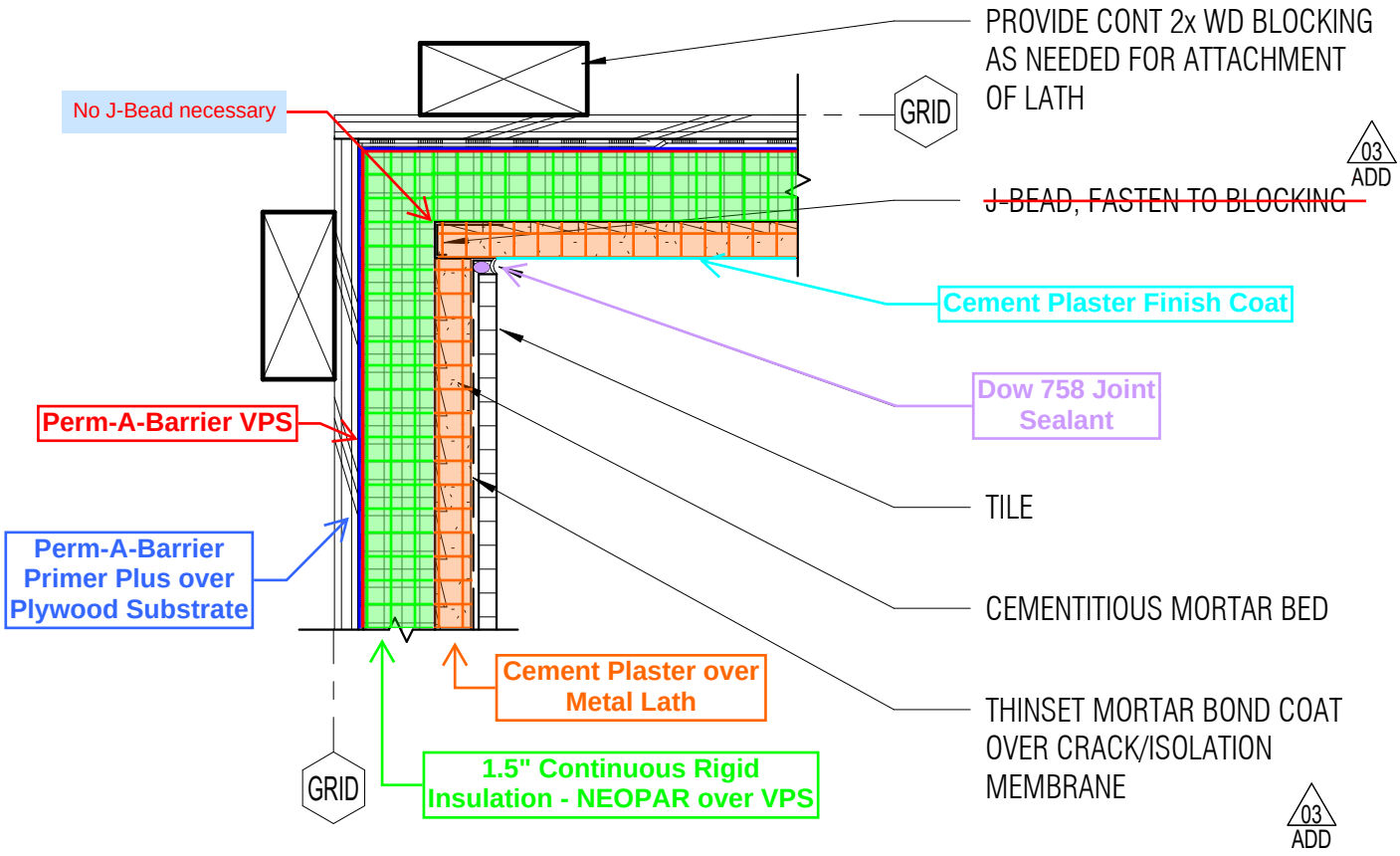
3" = 1'-0"



5 CONTROL JT @ CEMENT PLASTER

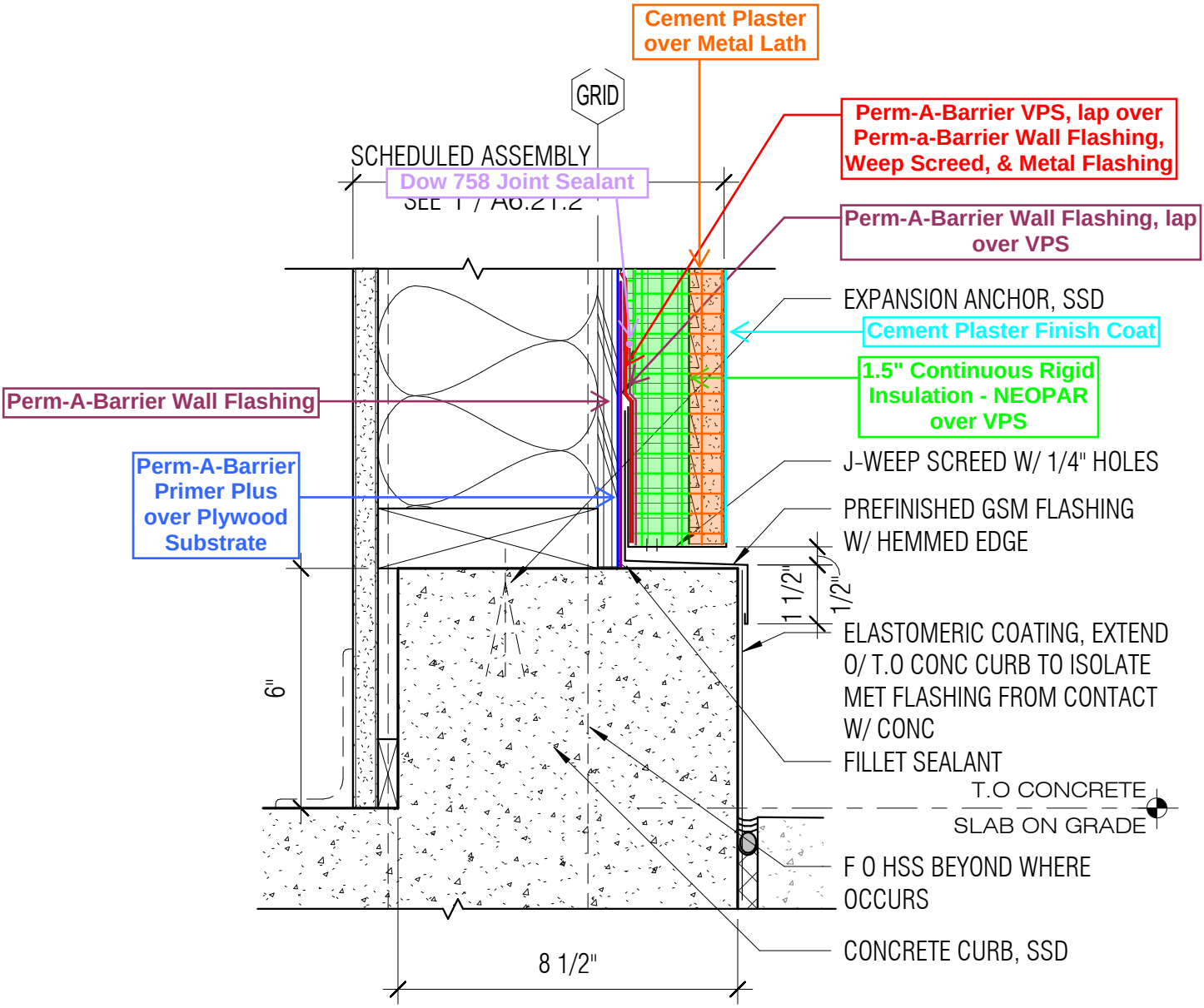
A6.21.2

6" = 1'-0"



7 A6.21.2 INSIDE CORNER TRANSITION @ TILE & CEM PLASTER

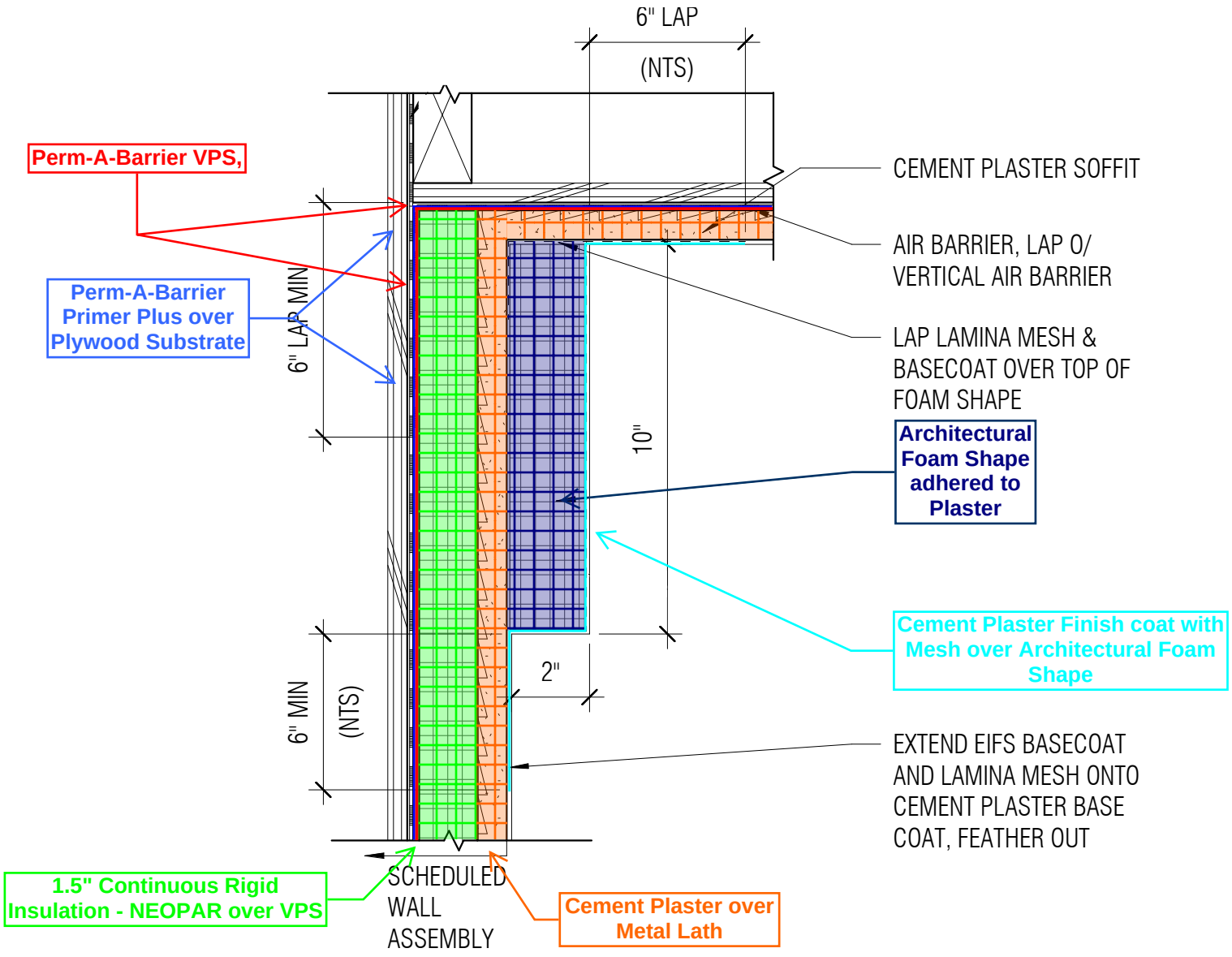
3" = 1'-0"



8 CONCRETE CURB @ CEMENT PLASTER EXTERIOR WALL

A6.21.2

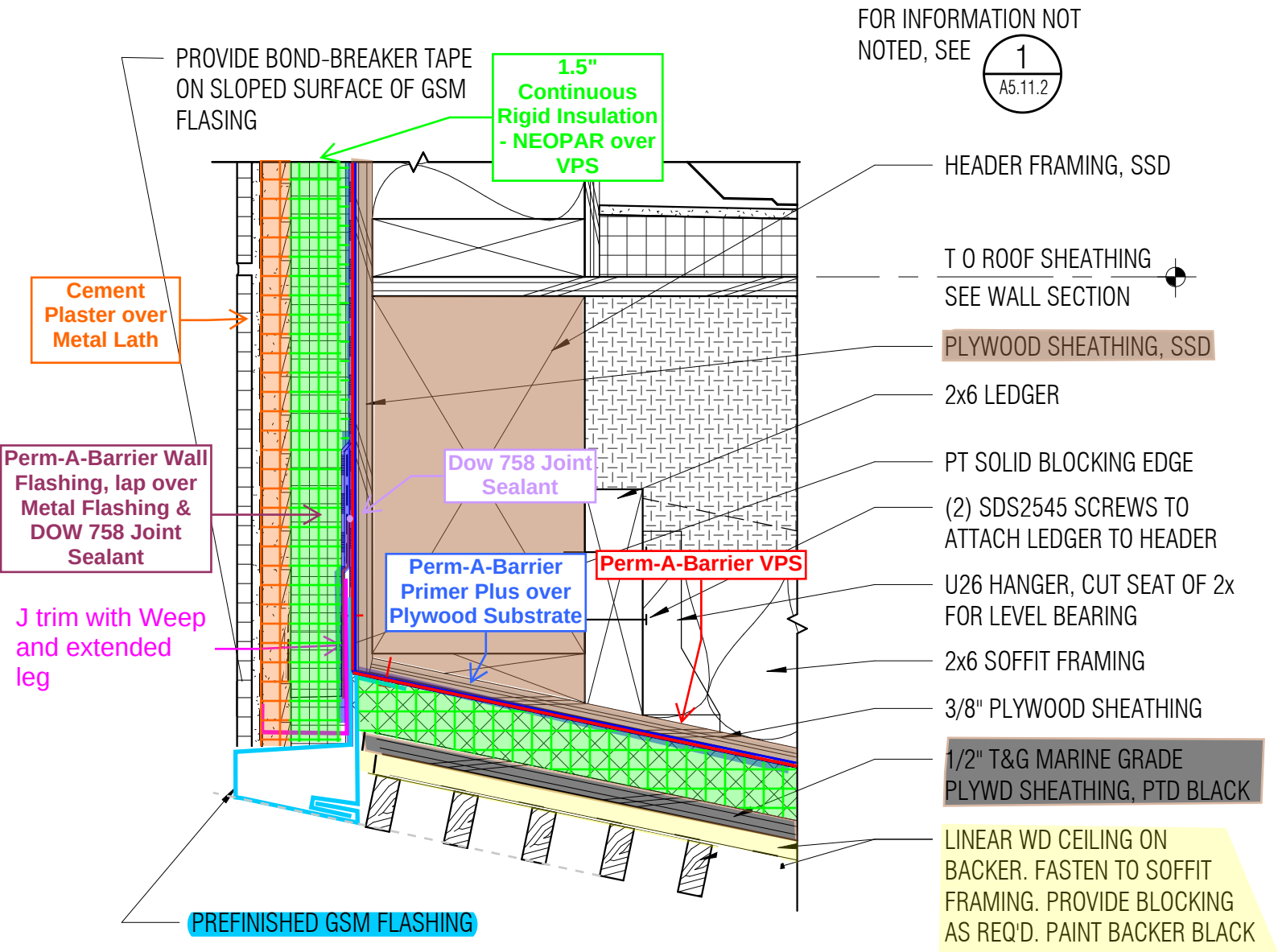
3" = 1'-0"



9
A6.21.2

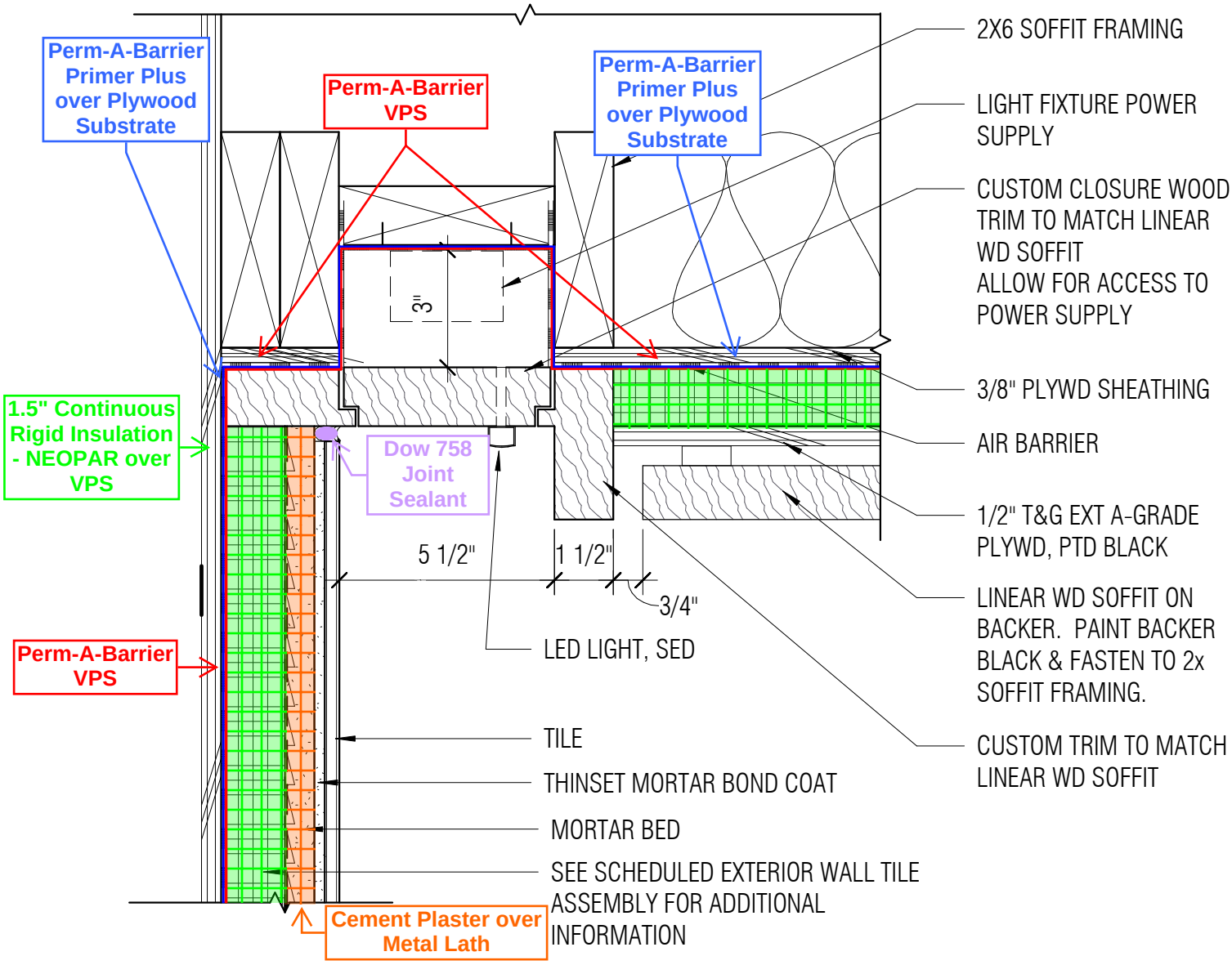
FOAM SHAPE @ SOFFIT

3" = 1'-0"



10 A6.21.2 **HEAD @ LLRC ENTRANCE**

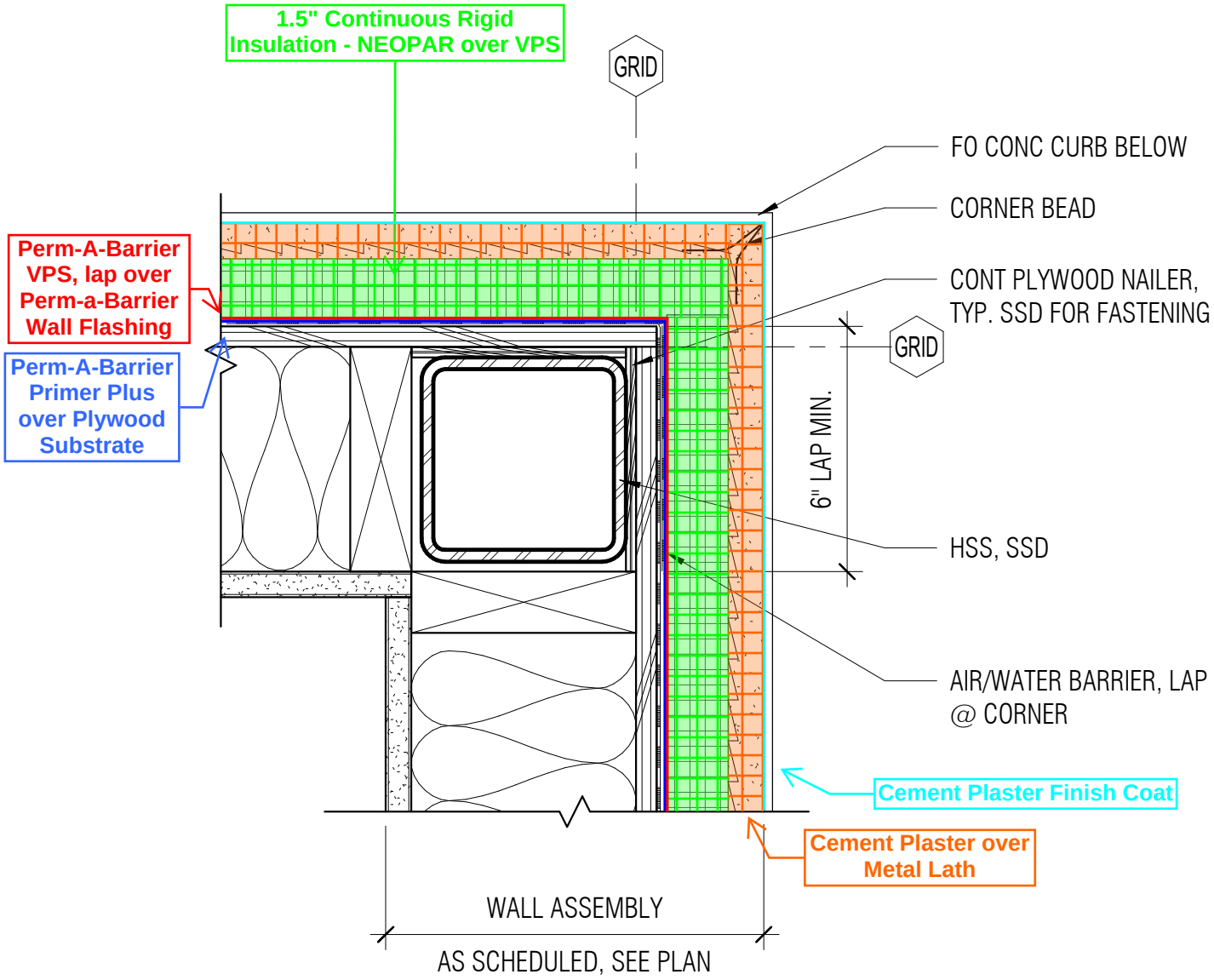
3" = 1'-0"



11
A6.21.2

RECESSED LIGHT FIXTURE @ LLRC ENTRANCE

3" = 1'-0"



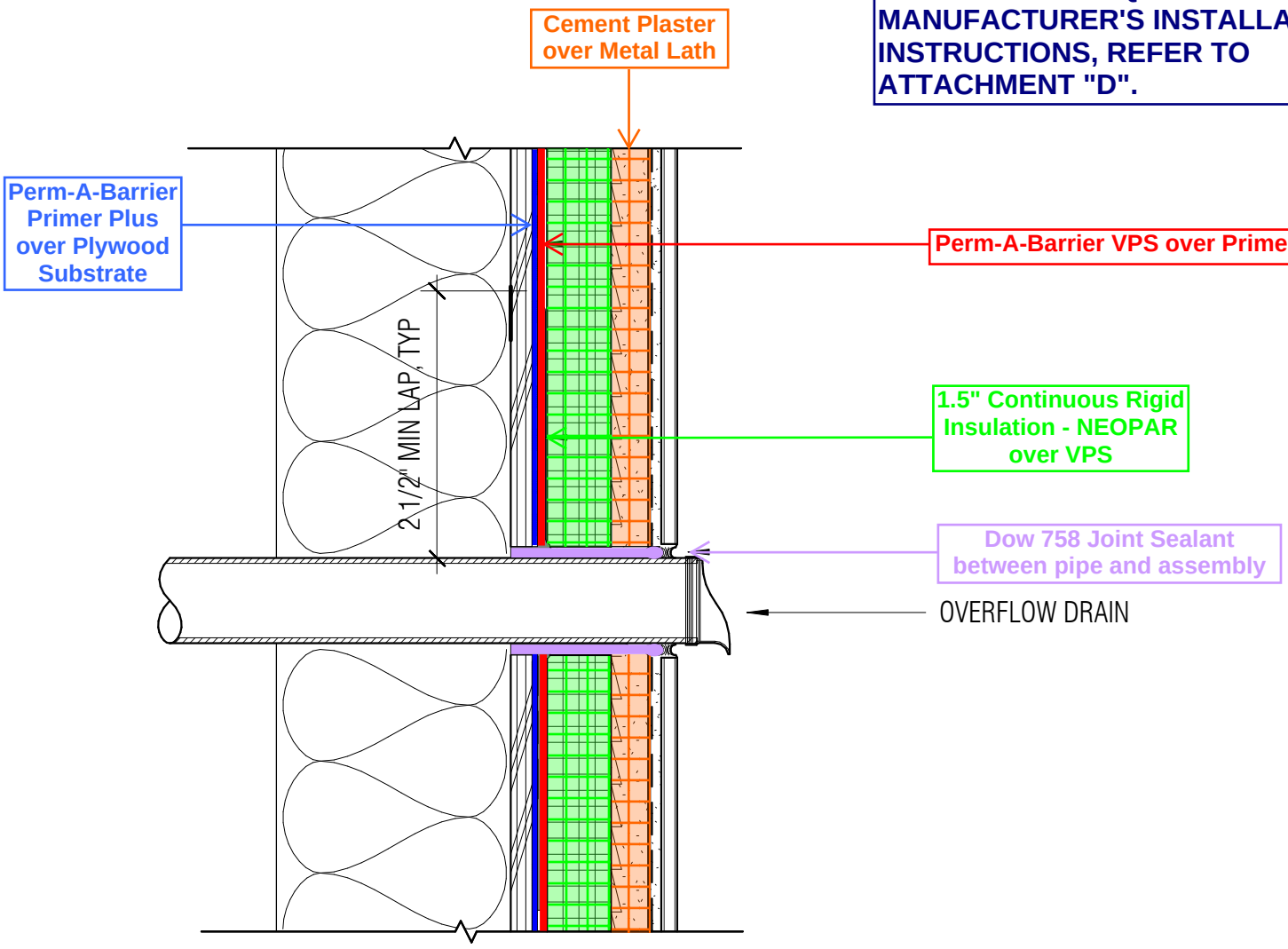
12 OUTSIDE CORNER @ CEMENT PLASTER - PLAN VIEW

A6.21.2

3" = 1'-0"

WHERE IS THE LIQUID MEMBRANE? RATHER THAN DOW 759 JOINT SEALANT. IS THERE A BACKERROD? (NT 9/29/20)

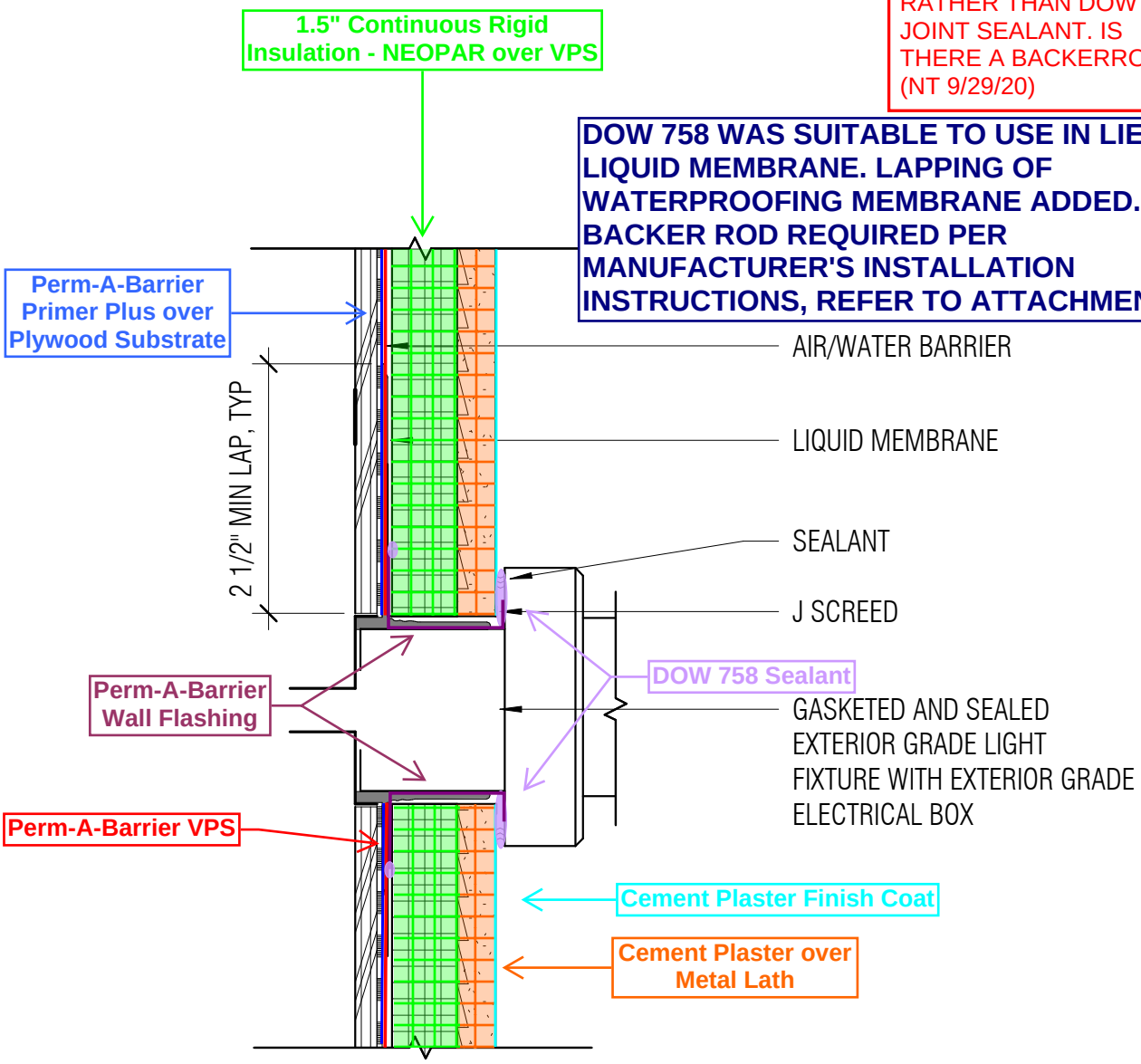
DOW 758 WAS SUITABLE TO USE IN LIEU OF LIQUID MEMBRANE. NO BACKER ROD REQUIRED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS, REFER TO ATTACHMENT "D".



16 / A6.21.2 **FLASHING @ OVERFLOW DRAIN**

3" = 1'-0"

WHERE IS THE LIQUID MEMBRANE? NOT LAPPING SHOWN. RATHER THAN DOW 759 JOINT SEALANT. IS THERE A BACKERROD? (NT 9/29/20)



20 / A6.21.2 **ELECTRIC OUTLET / LIGHT FIXTURE AT EXTERIOR**

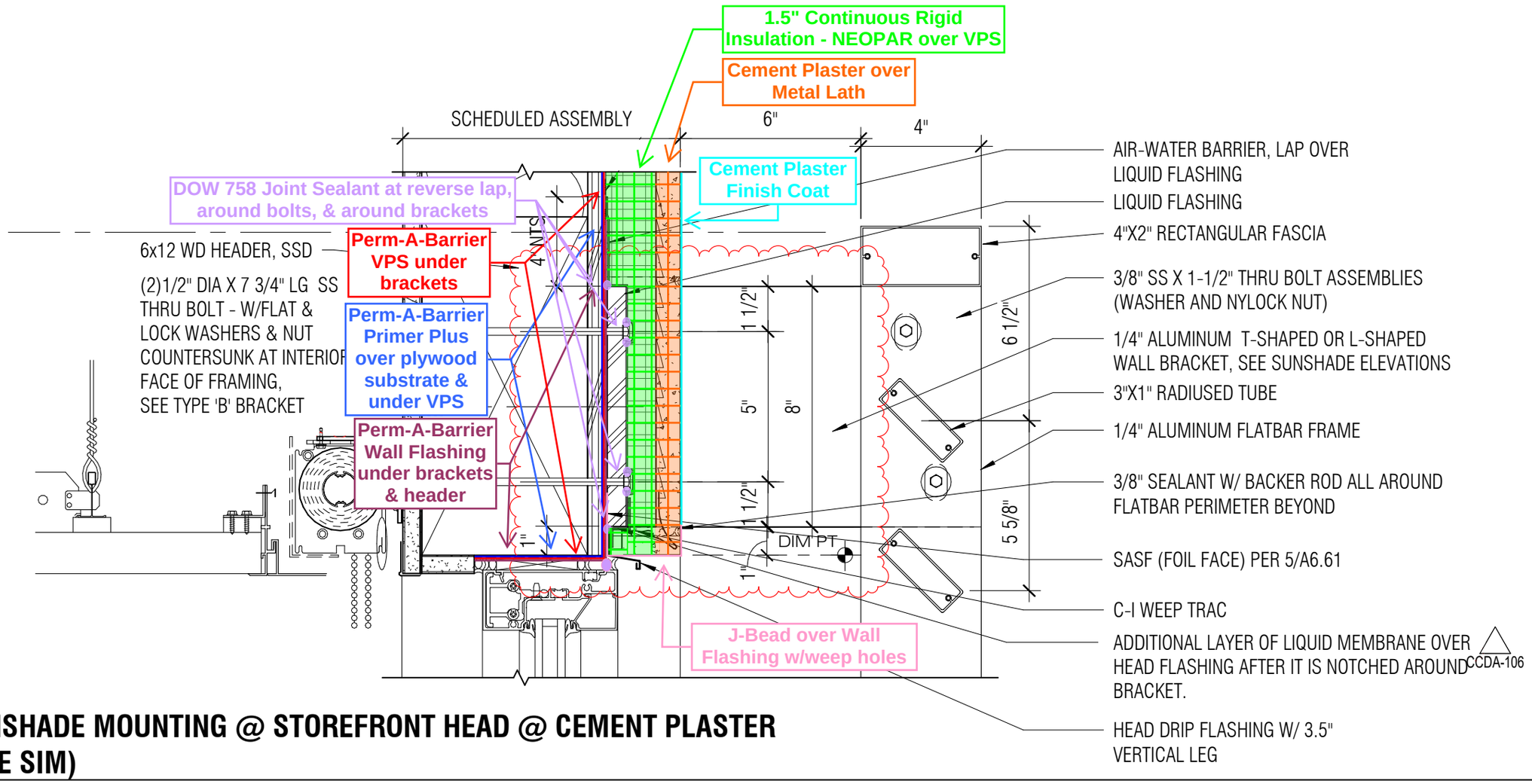
3" = 1'-0"

DETAIL REVISED TO USE REVISED CCD ISSUED 7/28/20. LIQUID MEMBRANE NOT REQUIRED AS WATERPROOFING WENT UNDER THE BRACKETS. BRACKETS AND BOLTS WERE WATERPROOFED BY CAULKING AROUND THEM; MANUFACTURER APPROVED THIS METHOD OF WATERPROOFING.

THE MARKUP DID NOT USE THE REVISED CCD ISSUED 7/28/20. WHERE IS THE LIQUID MEMBRANE THAT GOES OVER OVER THE BOLTS? HAVE REP CONFIRM THAT INSTALLATION SHOWN IS OK SINCE REP HAD SEEN REVISED VERSION OF THIS DETAIL IN CCD AND INDICATED IT WAS ACCEPTABLE. THIS IS DIFFERENT FROM CCD.
NT 9/29/20

J-BEAD IS NOT SHOWN, RATHER JUST A CORNER BEAD.

NT 9/29/20



SUNSHADE MOUNTING @ STOREFRONT HEAD @ CEMENT PLASTER (TILE SIM)

1 / A6.22.2

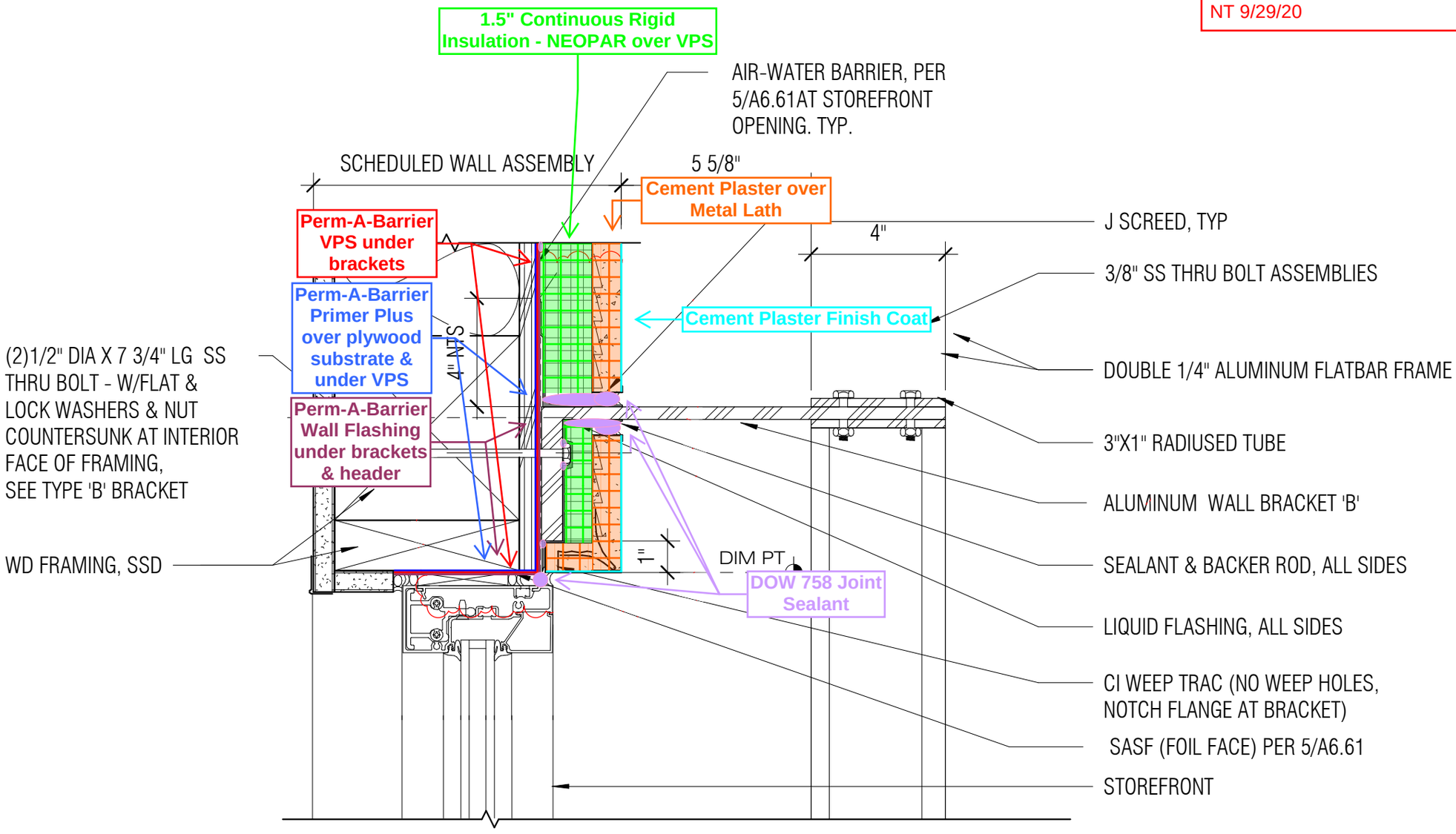
3" = 1'-0"

DETAIL REVISED TO USE REVISED CCD ISSUED 7/28/20. DOW 758 WAS SUITABLE TO USE IN LIEU OF LIQUID MEMBRANE. NO BACKER ROD REQUIRED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS, REFER TO ATTACHMENT "D". MANUFACTURER CONFIRMED THIS METHOD OF WATERPROOFING ACCEPTABLE.

WHERE IS THE BACKER ROD ALL AROUND PERIMTER IN ADDITION TO THE JOINT SEALANT?
NT 9/29/20

WHERE IS LIQUID MEMBRANE?

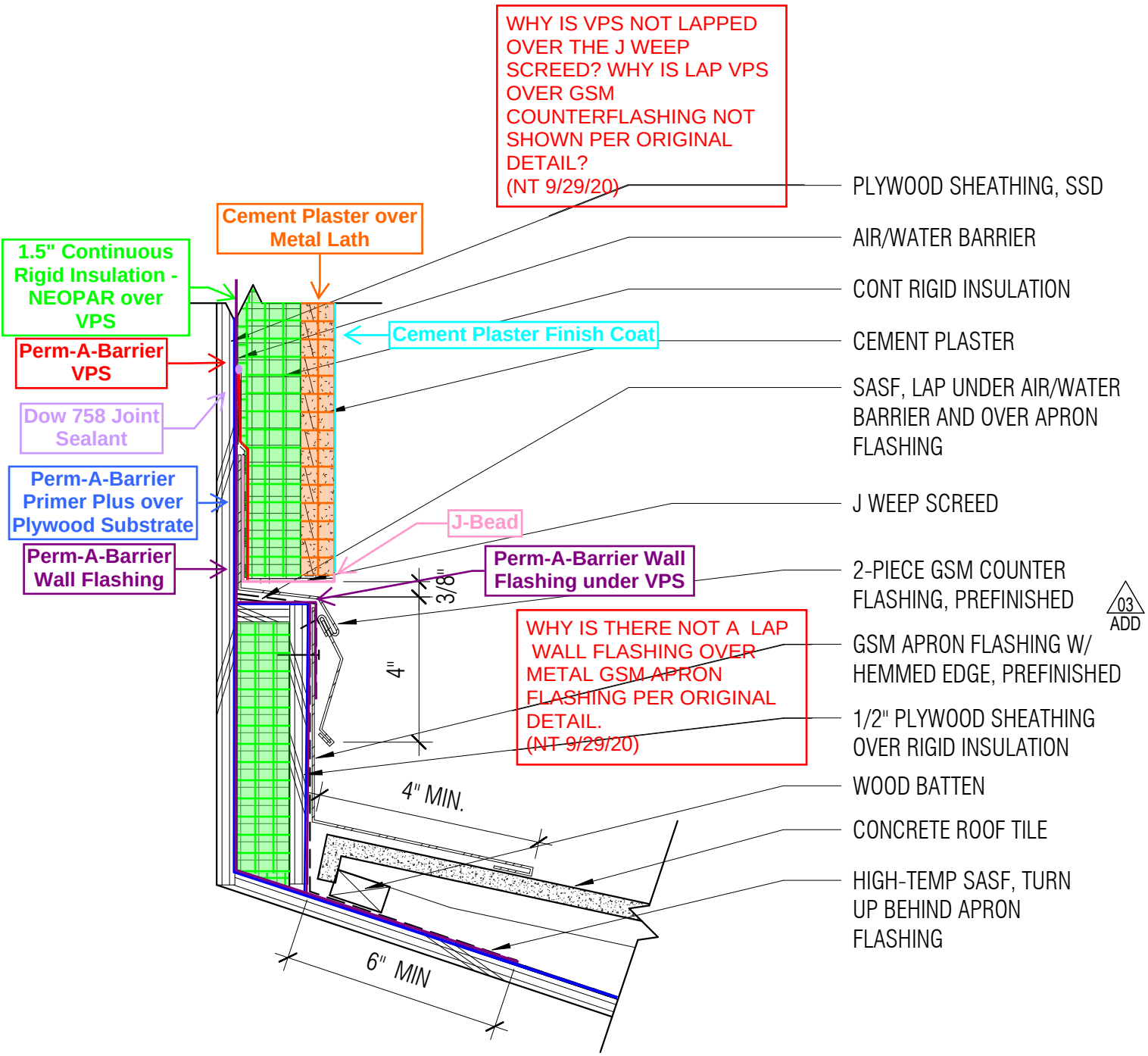
SAME QUESTION AS PREVIOUS PAGE
NT 9/29/20



SUNSHADE MOUNTING @ STOREFRONT JAMB @ CEMENT PLASTER (TILE SIM)

2 / A6.22.2

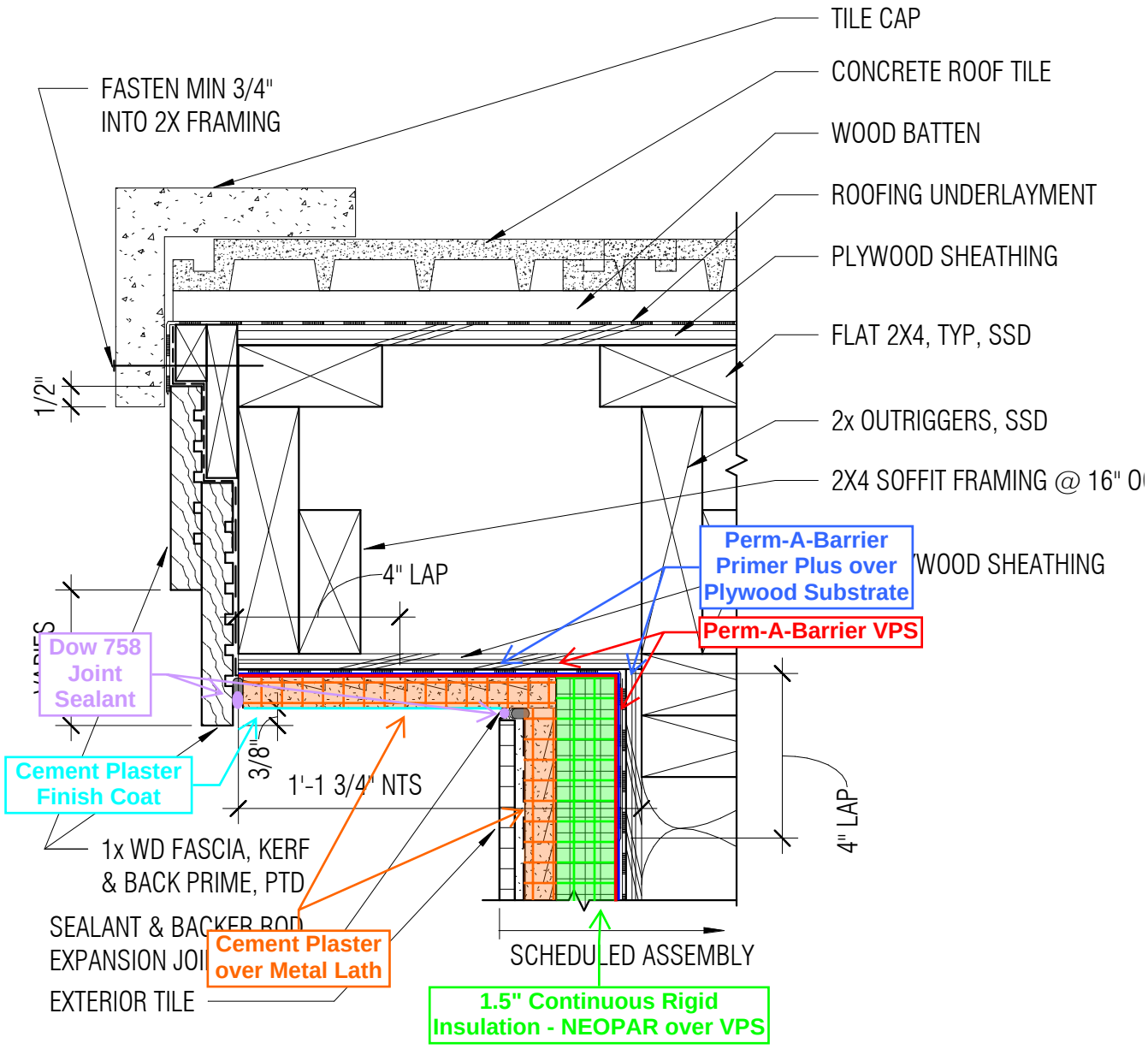
3" = 1'-0"



3 / A6.41.2 HEADWALL FLASHING @ TILE ROOF

3" = 1'-0"

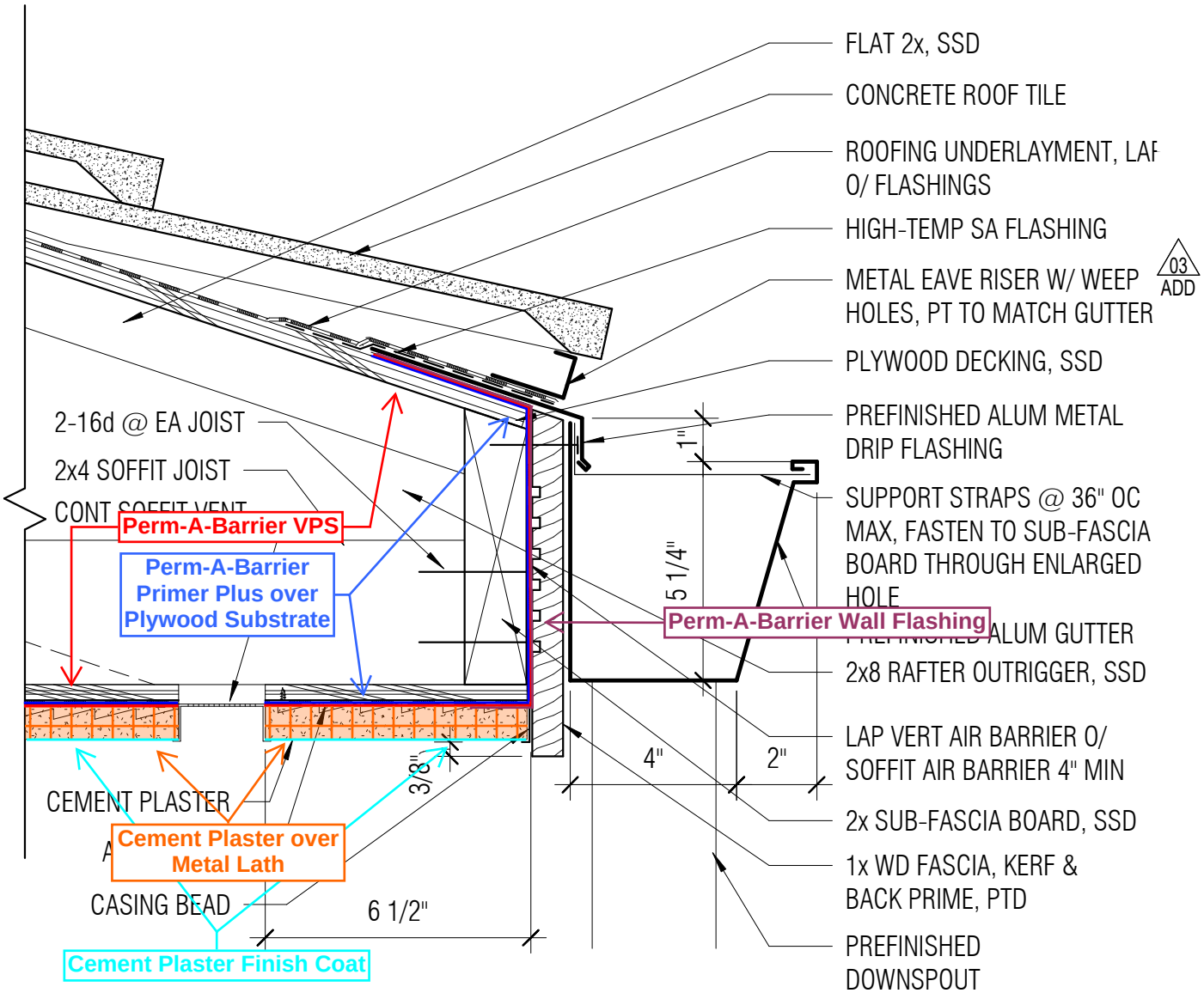
REVISED TO HAVE VPS LAP OF THE J-WEEP & GSM COUNTERFLASHING. REVISED TO HAVE WALL FLASHING LAP OVER METAL GSM APRON FLASHING.



6 EAVE @ TILE ROOF RAKE AT LOWER SOFFIT

A6.41.2

3" = 1'-0"



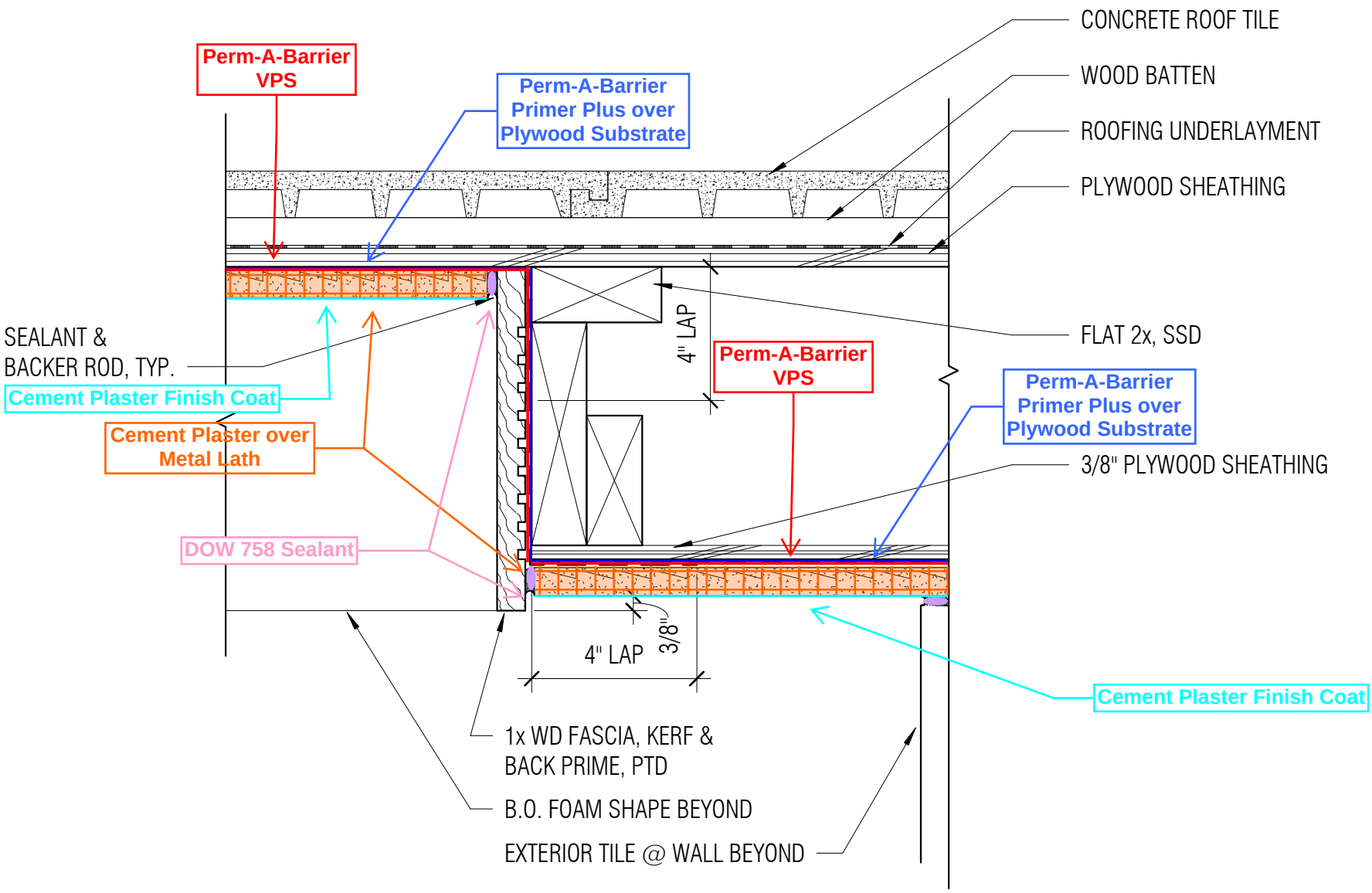
7 GUTTER FLASHING @ TILE ROOF

A6.41.2

3" = 1'-0"

NO BACKER ROD REQUIRED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS, REFER TO ATTACHMENT "D".

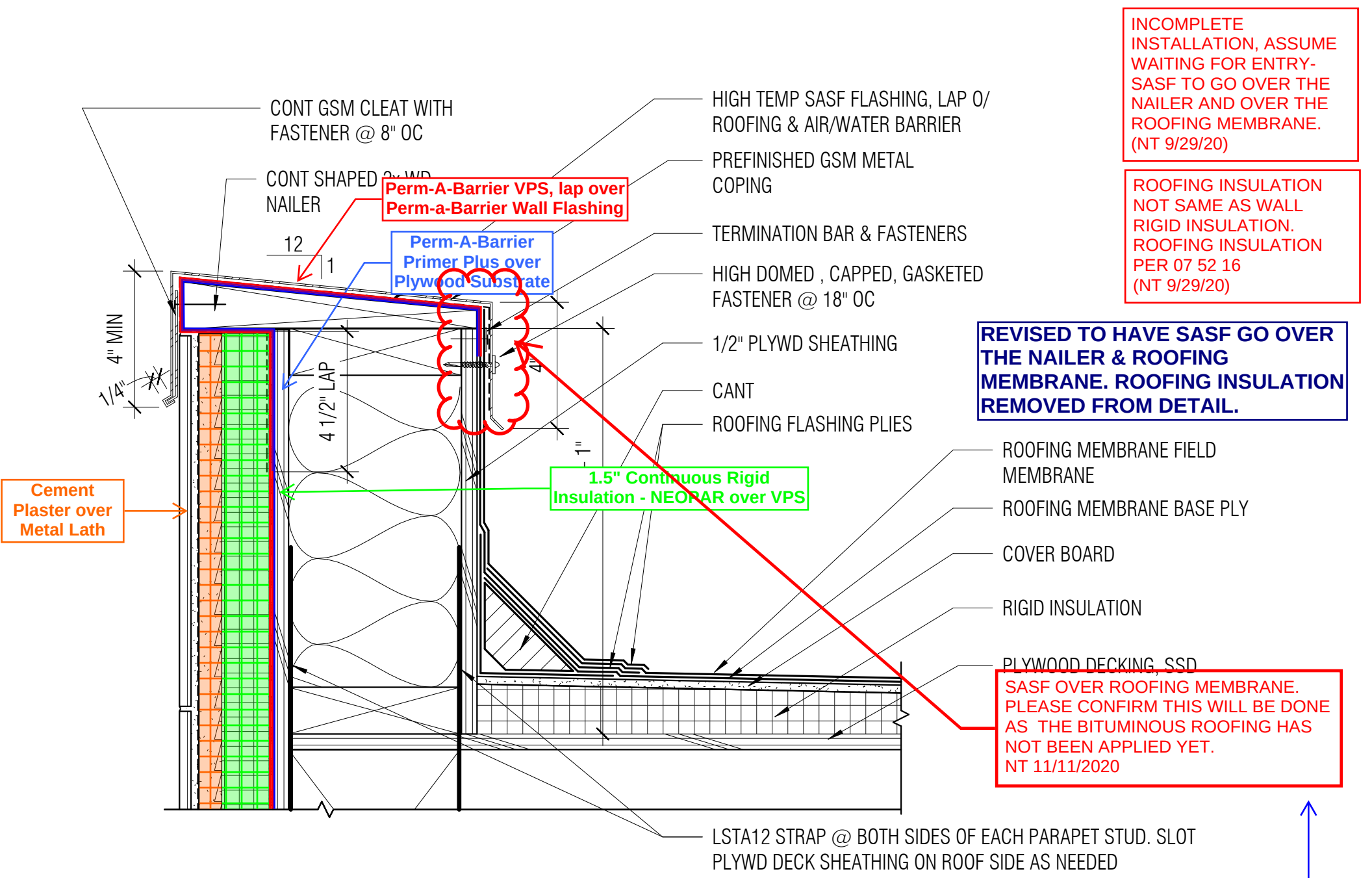
NO BACKERROD BEHIND SEALANT? (NT 9/29/20)



10 / A6.41.2

EAVE @ TILE ROOF RAKE AT SOFFITS

3" = 1'-0"



INCOMPLETE INSTALLATION, ASSUME WAITING FOR ENTRY- SASF TO GO OVER THE NAILER AND OVER THE ROOFING MEMBRANE. (NT 9/29/20)

ROOFING INSULATION NOT SAME AS WALL RIGID INSULATION. ROOFING INSULATION PER 07 52 16 (NT 9/29/20)

REVISED TO HAVE SASF GO OVER THE NAILER & ROOFING MEMBRANE. ROOFING INSULATION REMOVED FROM DETAIL.

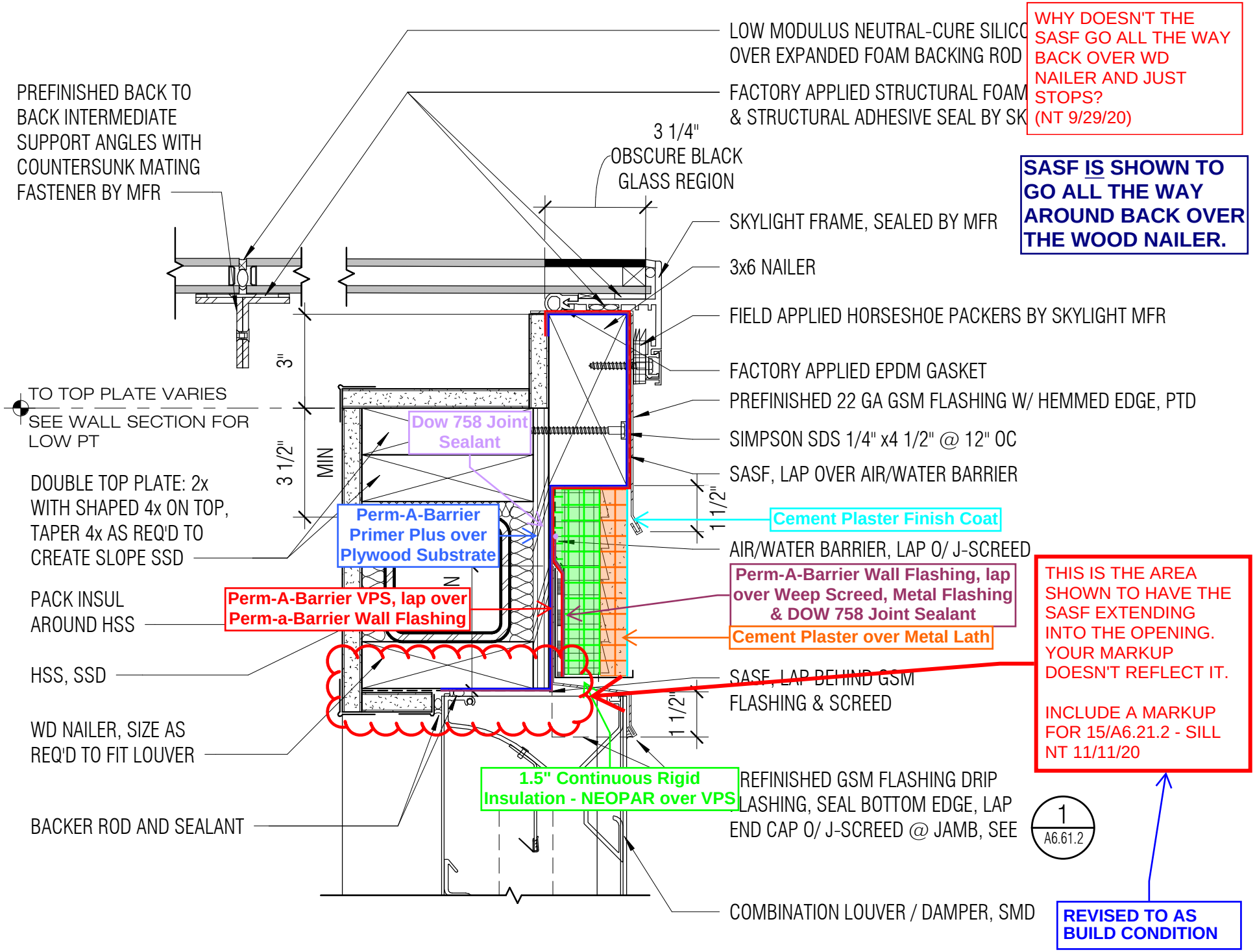
SASF OVER ROOFING MEMBRANE. PLEASE CONFIRM THIS WILL BE DONE AS THE BITUMINOUS ROOFING HAS NOT BEEN APPLIED YET. NT 11/11/2020

HIGH TEMP SASF IS NOT DMS SCOPE OF WORK. CONFIRM SEQUENCING & COMPLETION WITH GC

11 / A6.41.2

ROOF EDGE @ LLRC ENTRANCE

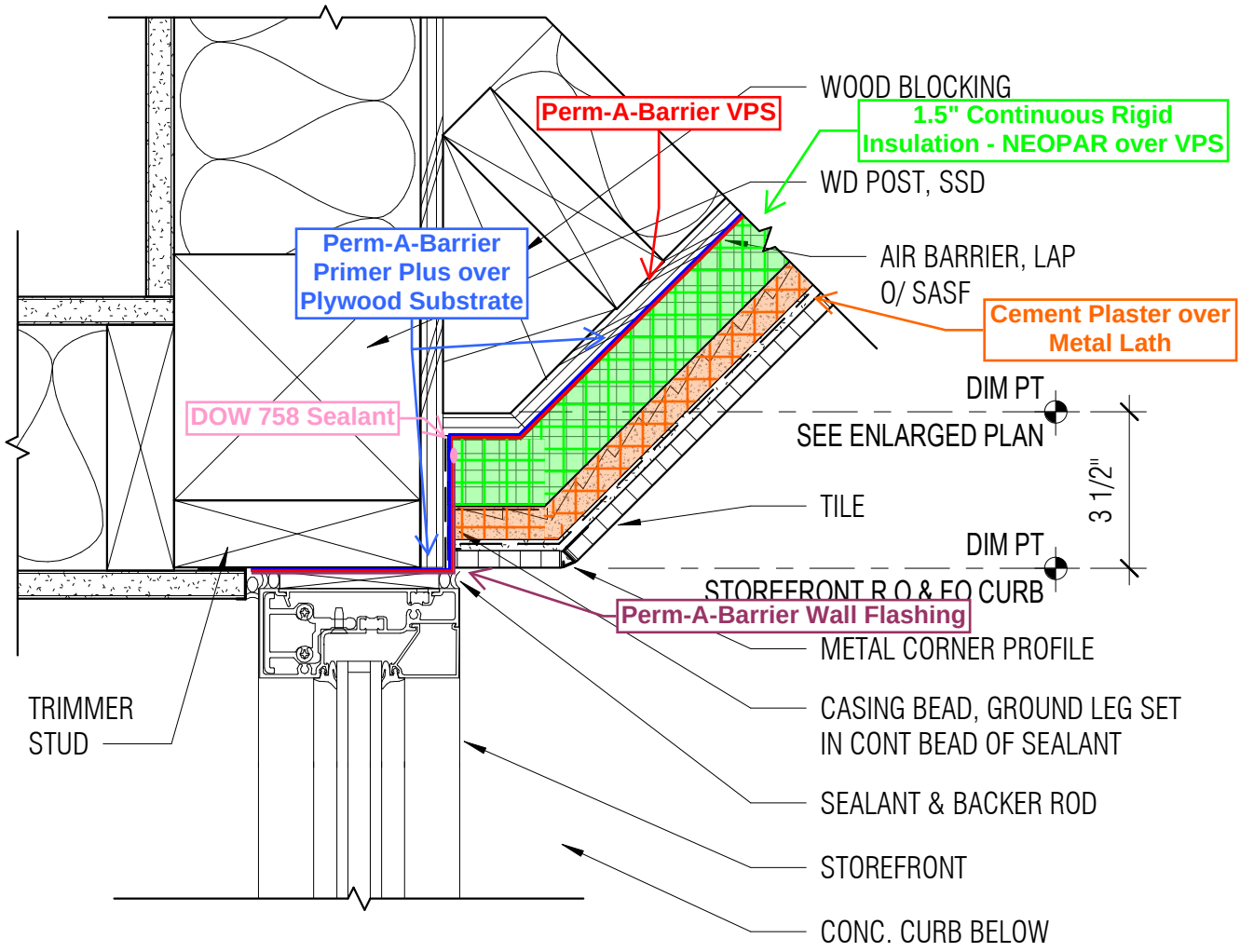
3" = 1'-0"



2 SKYLIGHT CURB & LOUVER HEAD

A6.42.2

3" = 1'-0"



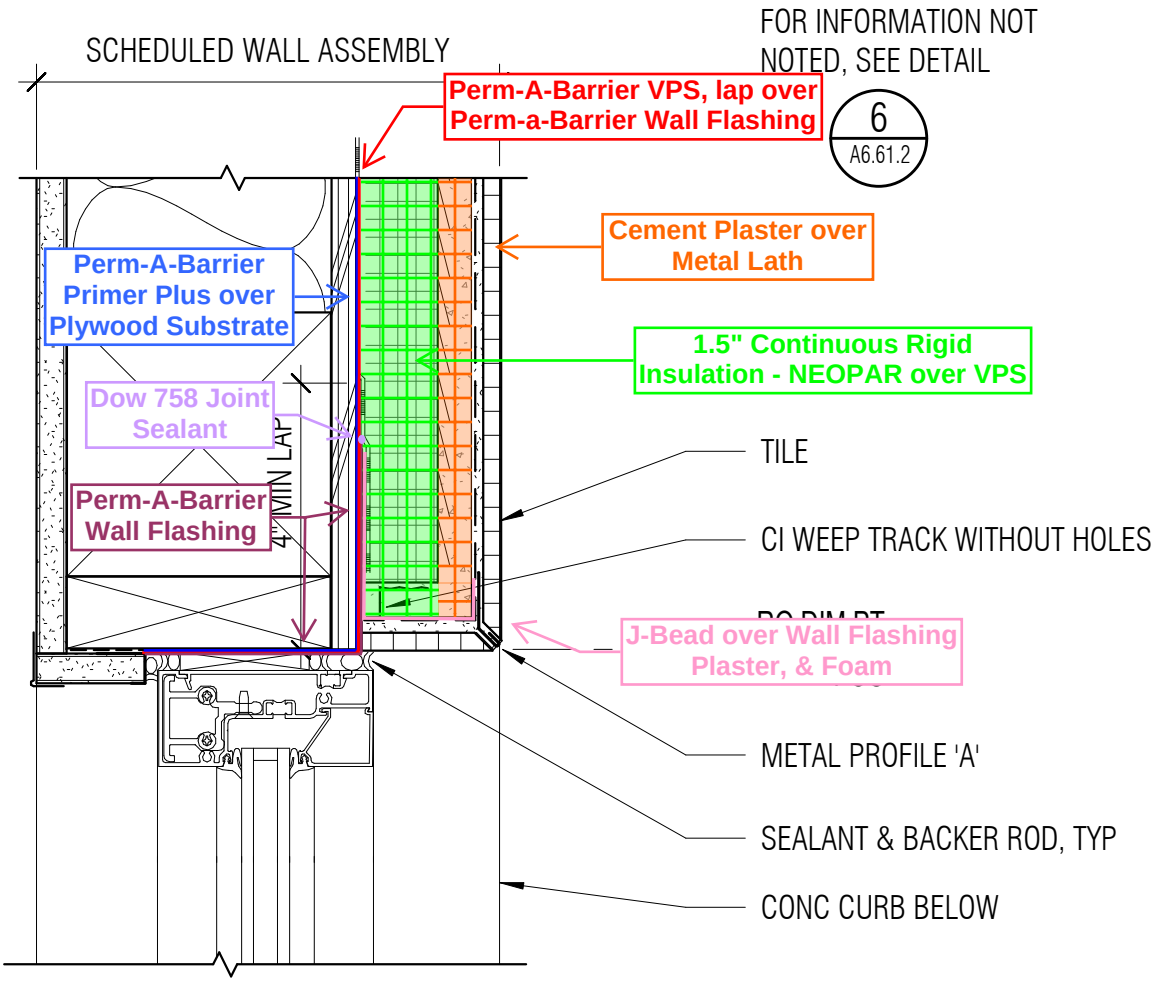
11
A6.61.2

STOREFRONT JAMB @ LLRC ENTRANCE

3" = 1'-0"

CI TRACK NOT USED; OVERSIZED PLASTER STOP WAS INSTALLED. J-BEAD INSTALLED BECAUSE TILE COVERED THE CORNER.

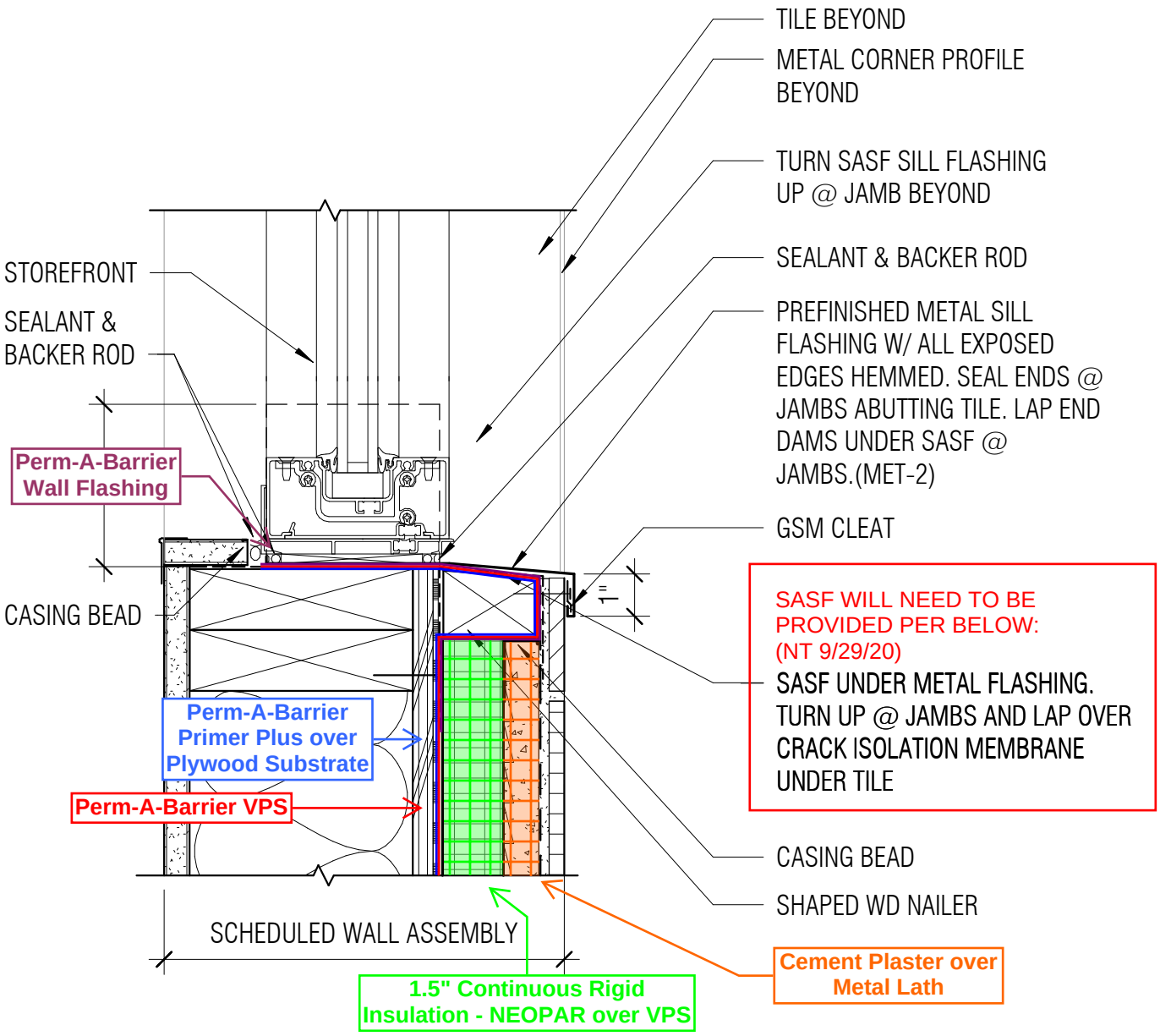
WHY THERE IS NOT LAP OF THE VPS OVER CI WEEP TRAC?
(NT 9/29/20)



14
A6.61.2

STOREFRONT JAMB @ TILE

3" = 1'-0"



15
A6.61.2

STOREFRONT SILL @ TILE

3" = 1'-0"

REVISED TO SHOW PRIMER, SASF, & VPS WRAP AROUND WOOD NAILER UNDER METAL FLASHING.

ATTACHMENT "A"

gcp applied technologies
GRACE CONSTRUCTION & PACKAGING

PERIODIC FIELD OBSERVATION REPORT

Project:	Diablo Valley College Library	**Report Number:**	07232020A
Location:	San Ramon, CA	**Date:**	07/23/2020
Re:	Perm-A-Barrier VPS Installation	**Times:**	AM

Weather Conditions: Sunny **Site Conditions:** Dry

Persons Contacted:

Dikkie Anderson and Jonathan with DMS

Work Observed & Location:

Installation of VPS at various locations of the building and installation of the Perm-A-Barrier Wall Flashing at the roof level pop outs via Facetime and photos provided by DMS.

Items Discussed:

In general, the Perm-A-Barrier VPS system appeared to be installed per GCP recommendations and will qualify for the material only warranty.

We did discuss some of the wrinkling in the Perm-A-Barrier Wall Flashing installation and it was agreed the wrinkles would be rolled flat prior to covering and any wrinkle that exits a seam will be sealed with sealant.

Remarks:

Follow all application instructions in GCP Waterproofing Systems Contractor's Handbook and/or the most current details and literature on-line at www.gcpat.com. Periodic site visits by GCP are not a substitute for full time independent inspection. Periodic presence of GCP representatives on site do not result in GCP taking on any legal responsibility beyond the terms of GCP's standard legal documentation as it has been issued in relation to this project. This observation report is limited to the GCP waterproofing or air barrier systems.

☐ Attachments (Describe)



ATTACHMENT "A"

Signed by: Matt Miller Date: 07/27/2020

Copies: ☐ Owner ☐ A/E ☐ Contractor ☐ Consultant ☐ _____ ☐ File

ATTACHMENT "B"

gcp applied technologies
GRACE CONSTRUCTION & PACKAGING

PERIODIC FIELD OBSERVATION REPORT

Project:	San Ramon Campus	**Report Number:**	08112020A
Location:	1690 Watermill Rd, San Ramon	**Date:**	08/11/2020
Re:	Perm-A-Barrier VPS Installation	**Times:**	Unknown

Weather Conditions: Unknown **Site Conditions:** Unknown

Persons Contacted:

Jonathan Tobias with DMS

Work Observed & Location:

Installation of Perm-A-Barrier VPS and Perm-A-Barrier Detail Membrane at various wall locations via photos provided by DMS

Items Discussed:

In general, based on the photos provided by DMS, the Perm-A-Barrier VPS and Perm-A-Barrier Detail Membrane appear to be installed per GCP recommendations.

Remarks:

Follow all application instructions in GCP Waterproofing Systems Contractor's Handbook and/or the most current details and literature on-line at www.gcpat.com. Periodic site visits by GCP are not a substitute for full time independent inspection. Periodic presence of GCP representatives on site do not result in GCP taking on any legal responsibility beyond the terms of GCP's standard legal documentation as it has been issued in relation to this project. This observation report is limited to the GCP waterproofing or air barrier systems.

☐ Attachments (Describe) _____

Signed by: Matt Miller Date: 8-11-2020

Copies: ☐ Owner ☐ A/E ☐ Contractor ☐ Consultant ☐ _____ ☐ File

ATTACHMENT "B"

ATTACHMENT "B"

ATTACHMENT "B"

ATTACHMENT "B"

ATTACHMENT "C"

gcp applied technologies

PERM-A-BARRIER® VPS Membrane

Ten Year Material Warranty

WARRANTY NO. 30538

NAME OF BUILDING Library Learning & Resource Center

LOCATION OF BUILDING 1690 Watermill Road, San Ramon , CA 94582

NAME OF OWNER Contra Costa Community College District

CONTRACTOR D.L. Falk Construction, Inc.

PRODUCT(S) USED PERM-A-BARRIER VPS

TOTAL AREA (SF) 7650

DATE OF COMPLETED INSTALLATION 08/12/2020

GCP Applied Technologies Inc. ("GCP") hereby warrants that for a period of Ten (10) years from the date of completion of installation identified above, the air permeance of a continuous coating of Membrane when installed and used in strict conformance with the written instructions of GCP will not exceed 0.02 l/s/m² when tested according to ASTM E 2178 at a pressure differential of 75 Pa, and the vapor permeance of Membrane when installed and used in strict conformance with the written instructions of GCP will be no less than 10 perms when tested according to ASTM E96 Method B.

If at any time during such Ten (10) year period the Membrane is found by GCP not to comply with this warranty, then GCP wil supply to the owner replacement Membrane in a quantity equal to the material found to be nonconforming, with a value not to exceed the purchase price for the material paid to GCP for the original installation.

This warranty does not apply to any failure caused by or due to workmanship or improper installation of the Membrane, abuse of the Membrane, or chemical incompatibility with other materials, acts of God, movement or cracks in excess of 1/16 inch of the immediate substrate, inadequate or faulty design of the subject structure or to repairs or installations made by other persons not authorized by GCP. In addition, this warranty does not cover any costs or expenses associated with 1) the removal or replacement of any material including the exterior sheathing or facade in connection with the testing, repair, removal or replacement of the Membrane and, 2) damages or repairs of any kind or nature to the subject building or its' contents from air, vapor, water or otherwise.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY AND ALL OTHER GUARANTEES OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE REMEDIES OF THE OWNER FOR ANY BREACH OF THIS WARRANTY SHALL BE LIMITED TO THOSE HEREIN PROVIDED TO THE EXCLUSION OF ANY AND ALL OTHER REMEDIES. GCP SHALL NOT BE LIABLE IN ANY CASE FOR ANY DAMAGE TO THE BUILDING OR THE CONTENTS THEREOF, NOR WILL IT BE RESPONSIBLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR PENAL DAMAGES. NO AGREEMENT VARYING OR EXTENDING THE FOREGOING WARRANTY REMEDIES WILL BE BINDING UPON GCP UNLESS IN WRITING, SIGNED BY A DULY AUTHORIZED OFFICER OF GCP.

GCP Applied Technologies Inc.

By Title Mark Francini
Warranty Administrator

Date 11/03/2020

gcp applied technologies

ATTACHMENT "C"

gcp applied technologies

PERM-A-BARRIER® Detail Membrane

Ten Year Material Warranty

WARRANTY NO. 30537

NAME OF BUILDING Library Learning & Resource Center

LOCATION OF BUILDING 1690 Watermill Road, San Ramon , CA 94582

NAME OF OWNER Contra Costa Community College District

CONTRACTOR D.L. Falk Construction, Inc.

PRODUCT(S) USED PERM-A-BARRIER Detail Membrane

LINEAR FT. & WIDTH (INCHES) 2100

DATE OF COMPLETED INSTALLATION 08/12/2020

GCP Applied Technologies Inc. ("GCP") hereby warrants that for a period of Ten (10) years from the date of completion of installation identified above, the air permeance of an individual Membrane when installed and used in strict conformance with the written instructions of GCP will not exceed 0.02 l/s/m2 when tested according to ASTM E 2178 at a pressure differential of 75 Pa.

If at any time during such Ten (10) year period the Membrane is found by GCP not to comply with this warranty, then GCP will supply to the owner replacement Membrane in a quantity equal to the material found to be nonconforming, with a value not to exceed the purchase price for the material paid to GCP for the original installation.

This warranty does not apply to any failure caused by or due to workmanship or improper installation of the Membrane, abuse of the Membrane, or chemical incompatibility with other materials, acts of God, movement or cracks in excess of 1/16 inch of the immediate substrate, inadequate or faulty design of the subject structure or to repairs or installations made by other persons not authorized by GCP. In addition, this warranty does not cover any costs or expenses associated with 1) the removal or replacement of any material including the exterior sheathing or facade in connection with the testing, repair, removal or replacement of the Membrane and, 2) damages or repairs of any kind or nature to the subject building or its' contents from air, vapor, water or otherwise.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY AND ALL OTHER GUARANTEES OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE REMEDIES OF THE OWNER FOR ANY BREACH OF THIS WARRANTY SHALL BE LIMITED TO THOSE HEREIN PROVIDED TO THE EXCLUSION OF ANY AND ALL OTHER REMEDIES. GCP SHALL NOT BE LIABLE IN ANY CASE FOR ANY DAMAGE TO THE BUILDING OR THE CONTENTS THEREOF, NOR WILL IT BE RESPONSIBLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR PENAL DAMAGES. NO AGREEMENT VARYING OR EXTENDING THE FOREGOING WARRANTY REMEDIES WILL BE BINDING UPON GCP UNLESS IN WRITING, SIGNED BY A DULY AUTHORIZED OFFICER OF GCP.

GCP Applied Technologies Inc.

By Title Mark Francisci
Warranty Administrator

Date 11/03/2020

gcp applied technologies

ATTACHMENT "C"

gcp applied technologies

PERM-A-BARRIER® Wall Flashing Membrane

Ten Year Material Warranty

WARRANTY NO. 30539

NAME OF BUILDING Library Learning & Resource Center

LOCATION OF BUILDING 1690 Watermill Road, San Ramon , CA 94582

NAME OF OWNER Contra Costa Community College District

CONTRACTOR D.L. Falk Construction, Inc.

PRODUCT(S) USED PERM-A-BARRIER Wall Flashing

LINEAR FT. & WIDTH (INCHES) 675

DATE OF COMPLETED INSTALLATION 08/12/2020

GCP Applied Technologies Inc., ("GCP") hereby warrants that for a period of Ten (10) years from the date of completion of installation identified above, the air permeance of an individual Membrane when installed and used in strict conformance with the written instructions of GCP will not exceed 0.02 l/s/m² when tested according to ASTM E 283 at a pressure differential of 75 Pa.

If at any time during such Ten (10) year period the Membrane is found by GCP not to comply with this warranty, then GCP wil supply to the owner replacement Membrane in a quantity equal to the material found to be nonconforming, with a value not to exceed the purchase price for the material paid to GCP for the original installation.

This warranty does not apply to any failure caused by or due to workmanship or improper installation of the Membrane, abuse of the Membrane, or chemical incompatibility with other materials, acts of God, movement or cracks in excess of 1/16 inch of the immediate substrate, inadequate or faulty design of the subject structure or to repairs or installations made by other persons not authorized by GCP. In addition, this warranty does not cover any costs or expenses associated with 1) the removal or replacement of any material including the exterior sheathing or facade in connection with the testing, repair, removal or replacement of the Membrane and, 2) damages or repairs of any kind or nature to the subject building or its' contents from air, vapor, water or otherwise.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY AND ALL OTHER GUARANTEES OR WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE REMEDIES OF THE OWNER FOR ANY BREACH OF THIS WARRANTY SHALL BE LIMITED TO THOSE HEREIN PROVIDED TO THE EXCLUSION OF ANY AND ALL OTHER REMEDIES. GCP SHALL NOT BE LIABLE IN ANY CASE FOR ANY DAMAGE TO THE BUILDING OR THE CONTENTS THEREOF, NOR WILL IT BE RESPONSIBLE FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR PENAL DAMAGES. NO AGREEMENT VARYING OR EXTENDING THE FOREGOING WARRANTY REMEDIES WILL BE BINDING UPON GCP UNLESS IN WRITING, SIGNED BY A DULY AUTHORIZED OFFICER OF GCP.

GCP Applied Technologies Inc.

By Title Mark Fiancisi
Warranty Administrator

Date 11/03/2020

gcp applied technologies

ATTACHMENT "C1"

DAVID M. SCHMITT DRYWALL & INTERIOR SYSTEMS

390 Selby Street
San Francisco, 94124
Ca Lic. 970358

Phone 415-508-4968
Fax 415-508-4585
dschmitt@sfinteriorsinc.com

Completion Date: 8/11/20
Project Name: San Ramon Campus Expansion Increment #2
Project No.: 19545
Project Location: 1690 Watermill Rd, San Ramon, CA 94582

GUARANTEE FOR: Contra Costa Community College District, between D.L. FALK & DMS Drywall & Interior Systems INC.

David M. Schmitt hereby guarantees to the Contra Costa Community College District that the portion of the work described as follows Air Barriers which it has provided for the above referenced Project, is good of quality; free from defects; free from any liens, claims, and security interests; and has been completed in accordance with specifications : 07 27 15 Self-Adhering Sheet Air Barriers and other requirements of the Contract.

The undersigned further agrees that, if at any time within 5 years after the date of the guarantee the undersigned receives notice from the owner that the aforesaid portion of the Work is unsatisfactory, faulty, deficient, incomplete, or not in conformance with the requirements of the Contract, the undersigned will within ten (10) calendar thereof; and that it shall diligently and continuously prosecute such correction, repair, or days after receipt of such notice, correct, repair, or replace such portion of the Work, together with any other parts of the Work and any other property which is damaged or destroyed as a result of such defective portion of the Work or the correction, repair, or replacement to completion.

In the event the undersigned fails to commence such correction, repair, or replacement within ten (10) calendar days after such notice, or to diligently and continuously prosecute the same to completion, the undersigned, collectively and separately, do hereby authorize the owner to undertake such correction, repair, or replacement at the expense of the undersigned; and Contractor will pay to Contra Costa Community College District promptly upon demand all costs and expenses incurred by Contra Costa Community College District in connection therewith.

1. SUBCONTRACTOR

Signed: _____ Title: 11/12/2020

David M. Schmitt:

DMS Drywall & Interior Systems INC.
License No.: 1035342
390 Selby St.
San Francisco, CA 94124

ATTACHMENT "D"

High Performance Building

Consumer Solutions

DOWSIL™ 758 Silicone Weather Barrier Sealant

Application Guidelines

Introduction

There are five basic steps for proper joint preparation and sealant application:

1. **Clean –** Joint surfaces must be clean, dry, dust-free and frost-free.
2. **Prime –** If required, primer is applied to the clean surfaces.
3. **Pack –** Backer rod or bond breaker is applied as required.
4. **Seal –** Sealant is applied to the substrate or into the sealant joint.
5. **Tool –** Dry tooling techniques are used to create a flush joint and to make certain the sealant has the proper configuration and fully contacts the joint walls.

The following sections are intended to provide detailed information in each of these areas.

1. Clean – Substrate Cleaning Procedure

This section provides information on cleaning solvents and general cleaning procedures for peel-and-stick and spunbond polyolefin flashing substrates. Please follow all Dow standard published guidelines (available in the Dow Americas Technical Manual, Form No. 62-1112) for cleaning of metal or cementitious substrates.

The key to good sealant adhesion is a clean surface. You should always check with the substrate supplier to ensure that the cleaning procedures and solvents are compatible with the substrate.

Flashing or membrane substrates

Peel-and-stick and spunbond polyolefin substrates are unique surfaces to which to bond, but must be clean to achieve sealant adhesion. However, adhesion to these substrates may be negatively affected if they are “overcleaned,” burnished or polished. Dow recommends cleaning substrates using a light “two-cloth” wipe method, using an isopropanol alcohol (IPA) solvent wipe followed by a dry cloth. Use clean, soft, absorbent, lint-free cloths for the cleaning.

A. If there is significant dirt or debris visible on the membrane surface, lightly brush off using a soft brush.

B. Pour or dispense an acceptable cleaning-grade solvent onto the cloth. A plastic (solvent-resistant) squeeze bottle works best for organic cleaning solvents. Do not dip the cloth into the container of solvent, as this will contaminate the cleaning agent.

C. Lightly wipe the membrane surface to remove contaminants. Check the cloth to see if it has picked up contaminants. Rotate the cloth to a clean area and re-wipe until no additional dirt is picked up.

D. Immediately wipe the cleaned area with a separate clean, dry cloth.

The IPA must be removed with the dry cloth before the solvent evaporates or the cleaning will be less effective. Allow the IPA to “flash” or dry prior to applying primer or sealant. Drying time depends on environmental conditions, but allowing 5-10 minutes for the IPA to flash off a membrane substrate typically is sufficient.

2. Prime – Primer Application Procedure

Generally, DOWSIL™ 758 Weather Barrier Sealant does not require use of a primer. Should a primer be found to be necessary to enhance adhesion, please follow these procedures to apply DOWSIL™ brand primers:

A. Joint surfaces should be clean and dry.

B. Pour some primer into a small, clean container; be sure to replace and tighten the cap on the primer can. To prevent deterioration of the primer, do not pour more than a 10-minute supply into the container.

DOWSIL™

silicones by DOW

C. Depending on the substrate and job conditions, two different methods can be used to apply the primer. Dip a clean, dry, lint-free cloth into the primer and gently wipe a thin film onto the surface. **Caution:** Overpriming can cause adhesion loss between the sealant and the primer. If too much primer has been applied, a powdery, chalky, dusty film will form on the surface. Excess primer should be removed by dusting the joint with a clean, dry, lint-free cloth or a non-metallic bristle brush. D. Allow the primer to dry until all the solvent evaporates. This typically takes 5 to 30 minutes, depending upon the temperature and humidity.

E. Inspect the surface for dryness. If too much primer has been applied, a powdery, chalky, dusty film will form on the surface. In this case, remove excess primer with a clean, dry, lint-free cloth or a non-metallic bristle brush before applying sealant.

F. The surface is now ready for application of the backer rod (if applicable) and sealant. Sealant must be applied the same day the surfaces are primed. Any surfaces primed but not sealed on the same day must be re-cleaned and re-primed before applying sealant.

Store primer with cap tightly closed, as DOWSIL™ primers will react quickly when exposed to moisture, reducing their adhesion-promoting capabilities.

3. Pack – Backer Rod Installation

Lap joints between flashings do not require backer rod.

Standard butt joints for internal seals may utilize backer rod. Install backer rod after any cleaning solvents and primers are completely dry. Backer rod is generally sized 25% greater than the joint width. Acceptable backer rod types for use with DOWSIL™ 758 Weather Barrier Sealant are open cell or non-gassing polyolefin, commonly referred to as SOF® ROD[1].

4. Seal – Sealant Application

It is critical that the sealant fills the entire joint or cavity and firmly contacts all surfaces intended to receive sealant. If the joint is improperly filled, good adhesion will not be achieved, and sealant performance will be weakened.

To obtain full adhesion, sealants require a clean, dry, frost-free surface. Although silicone sealants have excellent wide-temperature gunnability, the practical application temperature can be dictated by frost formation on the joint edges, which can begin to occur below 4°C (40°F). To assist in the drying of a frost-containing joint, a water-soluble solvent, such as IPA, should be used.

Sealant should be applied as follows:

Apply the sealant in a continuous operation using a caulking gun or pump. Use a positive pressure adequate to fill the entire joint width or across the entire lap joint. Push the sealant ahead of the application nozzle, taking care to ensure complete filling of the sealant cavity.

5. Tool – Tooling Procedure

Tool the sealant with a dry tool with light pressure before a skin begins to form (typically 10 to 20 minutes). Tooling forces the sealant against the back-up material and the joint surfaces. Do not use liquid tooling aids, such as water, soap or alcohols. These materials may interfere with sealant cure and adhesion and create aesthetic issues.

Joint Design

To achieve a sufficient durability of the seal, the sealant joint should be designed so that the maximum expected sealant movement, including thermal, settlement and live load, does not exceed 25%. Dow recommends consulting with the flashing manufacturer for details on the movement capability of flashing materials as used in your joint configuration.

When detailing the sealant joints using DOWSIL™ 758 Weather Barrier Sealant, the following should be considered:

- DOWSIL™ 758 Weather Barrier Sealant may be used to seal lap joints between two pieces of flashing or other materials. Please ensure a ¼" (6 mm) sealant-to-substrate contact ("bite") on each side of the lap joint and minimum 1/16" (1.5 mm) sealant depth.
- The minimum width of a perimeter or "hourglass" joint should be ¼" (6 mm). For joints between ¼" to ½" (6-12 mm) wide, a minimum seal depth of ¼" (6 mm) is required.
- For joints above ½" (12 mm wide), a width-to-depth ratio of 2:1 should be used up to a maximum depth of ½" (12 mm).
- Joints in excess of 1" (25 mm) wide are possible, but sealant depth should not exceed ½" (12 mm). Specific recommendations should be obtained from Dow for any joints in excess of 3" (75 mm).
- In applications where fillet-type joints are used, a minimum ¼" (6 mm) sealant bite is recommended for each substrate.

Contact Us

Dow has sales offices, manufacturing sites and science and technology laboratories around the globe. Learn more about DOWSIL™ 758 Silicone Weather Barrier Sealant and our full range of construction solutions, including service and support, at **consumer.dow.com/construction.**

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