ATTACHMENT A - DRAWINGS

SAC VL107
AP STUDENT CENTER

RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT

2323 N. BROADWAY, SANTA ANA, CA 92706

CONSTRUCTION DOCUMENTS

ARCHITECTURAL MATERIALS

- GRID LINE
- DOOR IDENTIFICATION
- RELITE IDENTIFICATION
- WINDOW TYPE
- LOUVER TYPE
- REVISION
- MATCH LINE — Shaded area is side considered
- WORK POINT, DATUM POINT, CONTROL POINT
- DETAIL — Upper mark denotes drawing number; Lower mark denotes sheet
- PARTIAL BUILDING SECTION
- BUILDING CROSS SECTION
- INTERIOR ELEVATION — Elevation number denoted in arrow; Sheet number denoted in box
- ROOM IDENTIFICATION
- CODED NOTE
- WALL TYPE
- EQUIPMENT IDENTIFICATION
- DASHED LINE — Used to denote items hidden, overhead, not in contract (NIC), or to be removed
- BREAK LINE — Material to continue
- CENTER LINE, GRID LINES
- PROPERTY LINE

ARCHITECTURAL MATERIALS

DETAIL INDICATIONS

- ACOUSTIC TILE OR BOARD
- ASPHALT CONCRETE PAVING
- ROOFING
- BRICK
- CONCRETE
- PRECAST CONCRETE
- CONCRETE MASONRY UNIT
- EARTH / FINISH GRADE
- GLASS
- GRAVEL
- GYPSUM BOARD
- INSULATION, BATT
- INSULATION, RIGID
- MORTAR, PLASTER, SAND
- MDF
- PLYWOOD
- WOOD, FINISH
- WOOD FRAMING — Continuous member
- WOOD FRAMING — Interrupted member

PLAN INDICATIONS

- STUD WALL
- BRICK
- CONCRETE MASONRY UNIT
- CONCRETE

STATEMENT OF GENERAL CONFORMANCE

Application No.: 04-124525

File No.: 30-C2

The drawings identified as follows:

- [X] All drawing sheets included in this set not bearing my stamp and signature.
- [ ] Drawing sheets denoted in the sheet index as follows: _____
- [ ] Drawing sheets included under the following PC approval(s): _____

have been prepared by other design professionals or consultants who are licensed and authorized to prepare such drawings (plans) in this state. They have been examined by me for:

1) Design intent and appear to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications prepared by me, and
2) Coordination with my drawings (plans) and specifications and are acceptable for incorporation into the construction of this project.

Per Title 24, Part 1, Section 4-316(b): This 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 Title 24, Part 1.

Signature		Date
		10/24/2025
DAVID MATHISON	C-27783	02/28/2027
Printed Name	License Number	Expiration Date

GENERAL ENERGY NOTES

1. THE CALIFORNIA ENERGY CODE SECTION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTALLED LIGHTING CONTROLS, MECHANICAL SYSTEMS, ENVELOPES, AND PROCESS EQUIPMENT AFTER INSTALLATION AND BEFORE PROJECT COMPLETION. AN ACCEPTANCE TEST IS A FUNCTIONAL PERFORMANCE TEST TO HELP ENSURE THAT NEWLY INSTALL EQUIPMENT IS OPERATING AND IN COMPLIANCE WITH THE ENERGY CODE.
2. LIGHTING CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN (ATT).
3. MECHANICAL SYSTEM ACCEPTANCE TESTS SHALL BE PERFORMED BY THE INSTALLING CONTRACTOR, ENGINEER/ARCHITECT OF RECORD OR THE OWNER'S AGENT.
4. ENVELOPE AND PROCESS EQUIPMENT ACCEPTANCE TESTS SHALL BE PERFORMED BY THE INSTALLING CONTRACTOR, ENGINEER/ARCHITECT OF RECORD OR THE OWNER'S AGENT.
5. A LISTING OF CERTIFIED ATT CAN BE FOUND AT: HTTP://WWW.ENERGY.CA.GOV/PROGRAMS-AND-TOPICS/PROGRAMS/ACCEPTANCE-TEST-TECHNICIAN-CERTIFICATION-PROVIDER-PROGRAM/ACCEPTANCE
6. THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDER OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION/INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA.
7. PROJECT INSPECTORS WILL COLLECT THE FORMS TO CONFIRM THAT THE REQUIRED ACCEPTANCE TESTS HAVE BEEN COMPLETED.

LIST OF APPLICABLE CODES

2025 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.

2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
(2021 INTERNATIONAL BUILDING CODE WITH CALIFORNIA AMENDMENTS)

2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
(2021 NATIONAL ELECTRICAL CODE WITH CALIFORNIA AMENDMENTS)

2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R.
(2021 UNIFORM MECHANICAL CODE WITH CALIFORNIA AMENDMENTS)

2022 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 C.C.R.
(2021 INTERNATIONAL FIRE CODE WITH CALIFORNIA AMENDMENTS

2022 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.

2022 CALIFORNIA ENERGY CODE (CEC)

2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

LIST OF APPLICABLE STANDARDS

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2022 CBC (SFM) CHAPTER 35 AND CFC CHAPTER 80

SEE CALIFORNIA BUILDING CODE CHAPTER 35 FOR STATE OF CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS

BUILDING CODE ANALYSIS

A. CONSTRUCTION TYPE:
TYPE V-B

B. USE AND OCCUPANCY:
GROUP B - OFFICES AND CLASSROOMS

C. NUMBER OF STORIES/HEIGHT:
SINGLE STORY / 14'-7"

D. FIRE SPRINKLERS:
NONE

E. FIRE ALARM:
MANUAL

F. ALLOWABLE AREA:
CBC TABLE 506.2.1: Aa=At + (NS x Is) : Aa=9,000 + (9,000 x 0) = **9,000SF ALLOWABLE AREA**
AREA OF WORK: 1,820 SF

G. FIRE RESISTANCE RATING REQUIREMENTS PER CBC TABLE 601:

PRIMARY STRUCTURAL FRAME:	0
BEARING WALLS	0
NONBEARING WALLS	0
ROOF CONSTRUCTION	0

H. OTHER FIRE PROTECTION SYSTEM:
NONE

I. SMOKE CONTROL SYSTEM:
NONE

J. HIGH HAZARD SEVERITY ZONE:
NONE

K. SEISMIC JOINTS:
NONE

L. EMERGENCY RESPONDER RADIO COVERAGE:
NO

M. OCCUPANT LOAD FOR ENTIRE BUILDING:
79 OCCUPANTS

INDEX OF DRAWINGS

TOTAL SHEETS: 18

SCOPE OF WORK

RENOVATION OF EXISTING PORTABLE VL107 BUILDING INTERIORS; DEMOLISH ONE OFFICE AND CONSTRUCT TWO NEW OFFICES. SCOPE OF WORK INCLUDES CONSTRUCTION OF WALLS, DOORS, WINDOWS, FLOORING FINISHES, AND MODIFICATION OF EXISTING SUSPENDED ACT CEILING UNDER THE PROVISIONS OF DSA IR 25-2. ELECTRICAL WORK INCLUDES POWER, DATA, AND LIGHTING MODIFICATIONS. MECHANICAL WORK INCLUDES HVAC MODIFICATIONS

PROJECT TEAM

OWNER

RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT
2323 N BROADWAY
SANTA ANA, CA 92706
(714) 480-7510

CARRI MATSUMOTO, ASSISTANT VICE CHANCELLOR

ELECTRICAL, MECHANICAL

HARITON ENGINEERING
456 E ORANGE GROVE BLVD #301
PASADENA, CA 91104
(626) 449-4223

CELESTIN HARITON, PE LEED AP

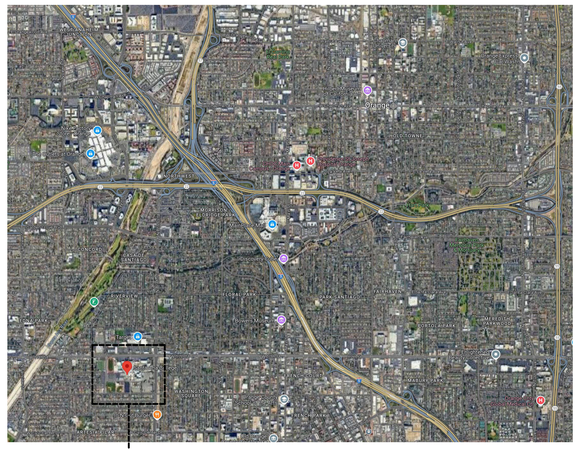
ARCHITECT

MORETO MATHISON & ASSOCIATES
449 W. FOOTHILL BLVD, #281
GLENDORA, CA 91741
(626) 594-0307

DAVID MATHISON, ARCHITECT

GENERAL NOTES

1. THE CONTRACTOR SHALL VISIT THE SITE, VERIFY ALL EXISTING CONDITIONS AS SHOWN ON DRAWINGS, AND REPORT ANY DISCREPANCIES BETWEEN THE FIELD CONDITIONS AND THE DRAWINGS TO THE ARCHITECT.
2. IN THE EVENT CERTAIN FEATURES OF THE CONSTRUCTION ARE NOT FULLY SHOWN ON THE CONSTRUCTION DOCUMENTS, THEN THEIR CONSTRUCTION SHALL BE THE SAME CHARACTER AS FOR SIMILAR CONDITIONS THAT ARE SHOWN.
3. ALL DIMENSIONS, ELEVATIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED ON THE PROJECT SITE BY THE CONTRACTOR AND EACH TRADE BEFORE WORK BEGINS. ERRORS, OMISSIONS, AND DISCREPANCIES SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION BEFORE CONSTRUCTION BEGINS.
4. ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH ALL LOCAL, COUNTY, STATE AND FEDERAL CODES, LAWS, ORDINANCES, AND REGULATIONS APPLICABLE. NOTHING IN THE CONTRACT DOCUMENTS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES, LAWS, ORDINANCES AND REGULATIONS.
5. PROTECT ALL EXISTING ITEMS TO REMAIN. PROTECT IN PLACE OR REMOVE AND STORE AS NEEDED.
6. CUT EXISTING CONSTRUCTION TO PROVIDE FOR INSTALLATION OF OTHER COMPONENTS OR PERFORMANCE OF OTHER CONSTRUCTION ACTIVITIES AND THE SUBSEQUENT FITTING AND PATCHING REQUIRED TO RESTORE SURFACES TO THEIR ORIGINAL CONDITION.
7. ALL WORK SHOWN IN DRAWINGS IS NEW UNLESS OTHERWISE NOTED.
8. PERFORM CUTTING AND PATCHING REQUIRED TO ACCESS FOR DEMOLITION OF EXISTING AND CONSTRUCTION OF NEW ARCHITECTURAL AND UTILITY SYSTEMS AND COMPONENTS. REFER TO STRUCTURAL & ELECTRICAL DRAWINGS IN ADDITION TO ARCHITECTURAL DRAWINGS FOR EXTENT OF SYSTEMS AND COMPONENTS REQUIRING ACCESS FOR DEMOLITION AND CONSTRUCTION. ANY QUESTIONS SHOULD BE DIRECTED TO THE DISTRICT PROJECT MANAGER.
9. THE VARIOUS PLANS ARE NOT INTENDED AS SURVEYS OF ALL EXISTING CONDITIONS AND ONLY INDICATE IN GENERAL CERTAIN CONDITIONS RELATED TO THE WORK TO BE DONE. INFORMATION REGARDING EXISTING CONDITIONS HAS BEEN DETERMINED AS REASONABLY AS POSSIBLE, BUT MAY NOT BE SHOWN EXACTLY. CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH EXISTING CONDITIONS AND REPORT ALL DISCREPANCIES TO THE ARCHITECT PRIOR TO THE START OF WORK.
10. THE ARCHITECT'S APPROVAL OF SHOP DRAWINGS SHALL NOT RELIEVE THE GENERAL CONTRACTOR OR SUBCONTRACTOR FOR DEVIATIONS FROM THE DRAWINGS OR SPECIFICATIONS UNLESS CONTRACTOR HAS, IN WRITING, CALLED THE ARCHITECT'S ATTENTION TO SUCH DEVIATIONS AT THE TIME OF SUBMISSION, NOR SHALL IT RELIEVE HIM FROM RESPONSIBILITY FOR ERRORS OF ANY SORT IN THE SHOP DRAWINGS.
11. UNLESS EXPRESSLY STIPULATED IN THE BID, NO ADDITIONAL ALLOWANCE SHALL BE MADE IN THE FAVOR OF THE CONTRACTOR BY VIRTUE OF ERRORS, OMISSIONS, AMBIGUITIES, DISCREPANCIES AND/OR CONFLICTS IN THE CONSTRUCTION DOCUMENTS WHICH SHOULD HAVE BEEN DISCOVERED DURING PREPARATION OF BID ESTIMATE/PROPOSAL.
12. CONTRACTOR AT HIS OWN EXPENSE, SHALL KEEP THE PROJECT AND SURROUNDING AREAS FREE FROM DUST AND DEBRIS. THE WORK SHALL BE IN CONFORMANCE WITH THE AIR AND WATER POLLUTION CONTROL STANDARDS AND REGULATIONS OF THE STATE DEPARTMENT OF HEALTH.
13. FURNISH ADEQUATE SHORING, BRACING, BARRICADES AND PROTECTIVE MEASURES, AS REQUIRED TO SAFELY EXECUTE THE WORK.
14. PROVIDE PROTECTION OF PEDESTRIANS AND PUBLIC DURING CONSTRUCTION OR DEMOLITION PER CBC, CHAPTER 33. USE MINIMUM SIX FEET HIGH FENCE MINIMUM SIX FEET AWAY FROM CONSTRUCTION OR ANY OTHER APPROVED PROTECTION DEVICES.
15. ALL WORK SHALL CONFORM TO 2022 TITLE 24, CALIFORNIA CODE OF REGULATIONS.
16. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGED DOCUMENT (CCD) APPROVED BY THE DIVISION OF STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
17. A CLASS 3 DSA CERTIFIED PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
18. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
19. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION 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).
20. A WRITTEN SITE SAFETY PLAN IN COMPLIANCE WITH CFC 3303.1.1 MUST BE PREPARED AND AVAILABLE ON SITE PRIOR TO COMMENCEMENT OF ANY MOBILIZATION, DEMOLITION AND/OR CONSTRUCTION.



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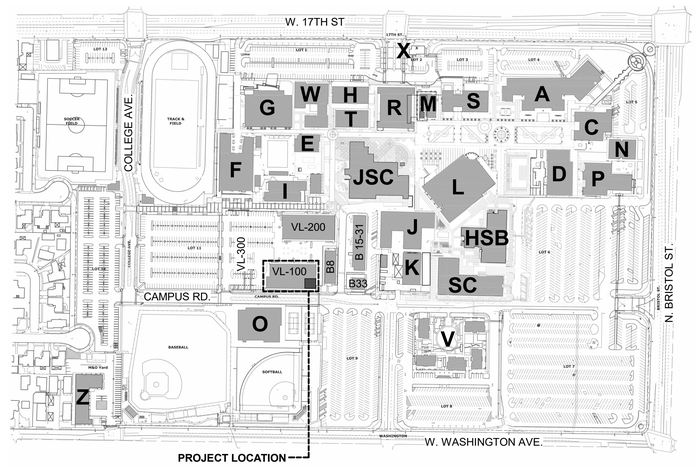
VICINITY MAP
Scale: NTS



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CAMPUS PLAN
Scale: NTS

IDENTIFICATION STAMP
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DATE: 12/03/2025

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COMMUNITY COLLEGE DISTRICT
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AP STUDENT CENTER RECONFIGURATION

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1530 W. 17TH ST
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REVISIONS

DSA Back Check 01	09/05/2025
DSA Back Check 02	10/24/2025

MMA NO	25801
DATE:	05/12/2025
DRAWN	WJ
CHECKED	DM

INDEX OF DRAWINGS, NOTES, CODE ANALYSIS, MATERIALS

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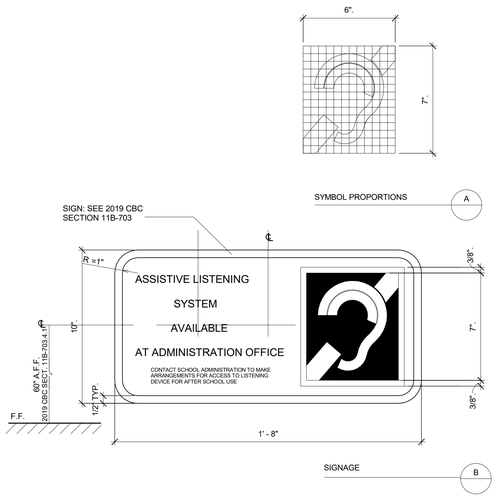
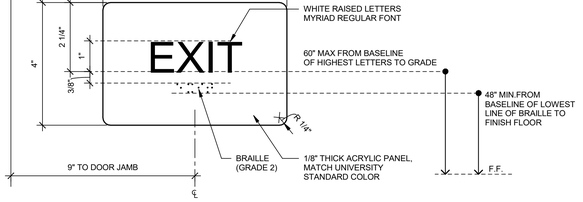


NOTE:

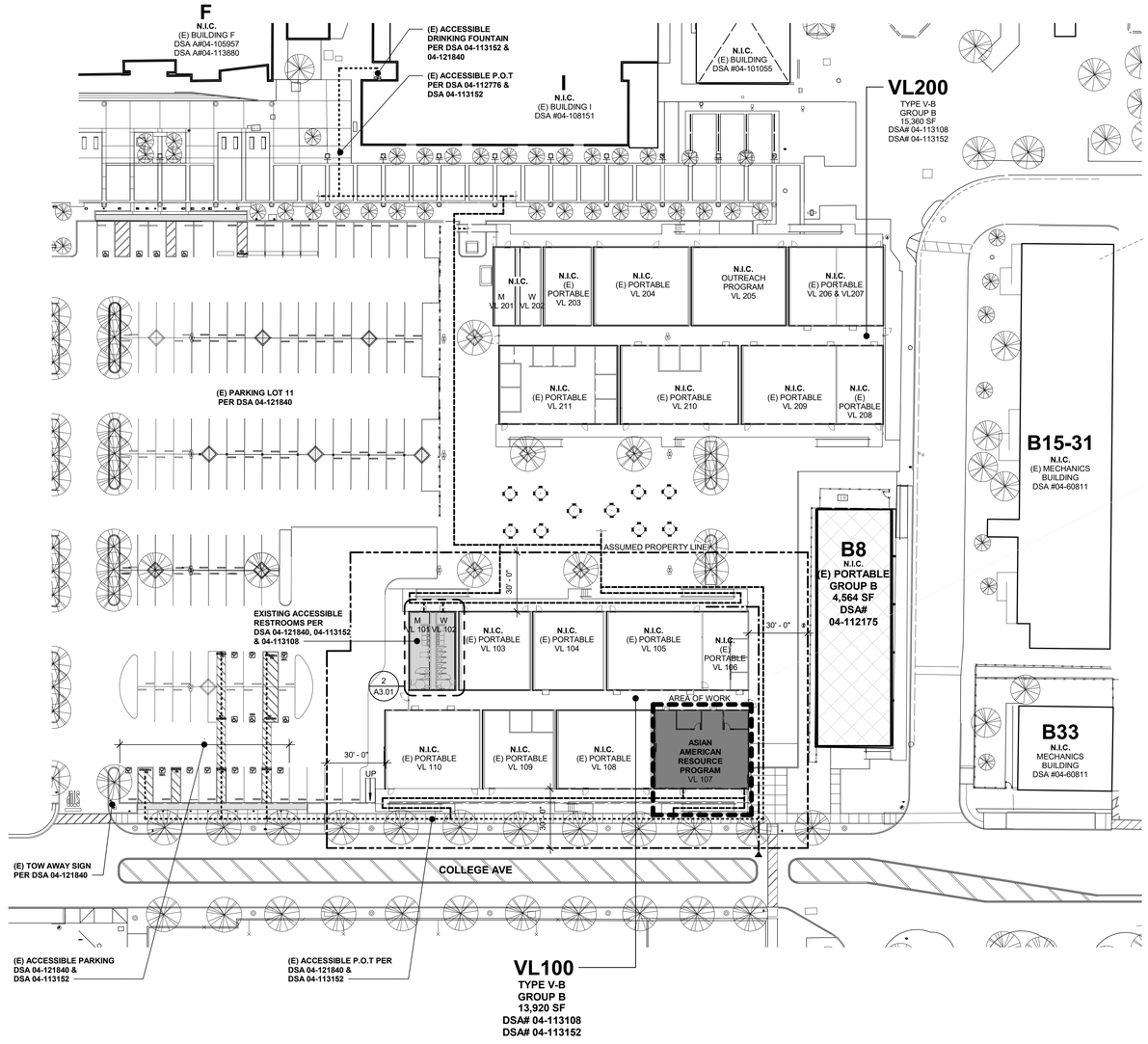
1. PROVIDE ASSISTIVE LISTENING SYSTEMS IN ASSEMBLY AREAS, AND CONFERENCE AND MEETING ROOMS NOTED ON THE PLANS. PER 2022 CBC SECTION 11B-706
2. THE ASSISTIVE LISTENING SYSTEM WILL BE OF PORTABLE UNITS IF IN AREA WITH NO FIXED SEATING OF WITH LESS THAN 50 SEATS.
3. PORTABLE ASSISTIVE LISTENING SYSTEM IS NOT IN CONTRACT AND TO BE PROVIDE BY THE OWNER.
4. MINIMUM REQUIRED NUMBER OF RECEIVERS IS 4 % OF TOTAL SEATING OR OCCUPANT LOAD, AND IN NO CASE BE LESS THAN TWO.

   FOR SPACE VL205-1C, CONFERENCE AREA:
   13 OCCUPANCY X 4% = 0.52; 2 REQ. MIN.
5. PROVIDE ASSISTIVE LISTENING SYSTEM SIGNAGE AT ROOMS LISTED ABOVE. LOCATION PER PLANS.
6. ASSISTIVE LISTENING DEVICES SHALL BE KEPT LOCKED UP, AND PRIOR ARRANGEMENTS SHALL BE MADE FOR EVENTS AFTER NORMAL BUSINESS HOURS W/ ADMINISTRATION OFFICE.

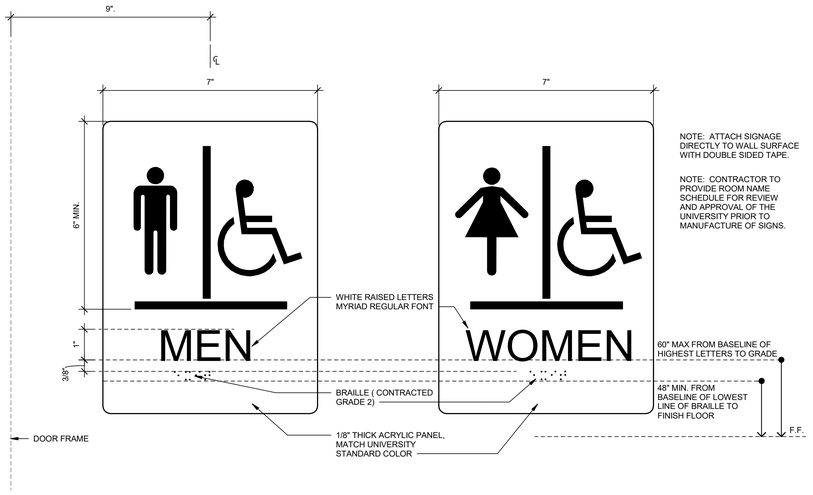
5 ASSISTIVE LISTENING SYSTEM SIGN
Scale: 3" = 1'-0"



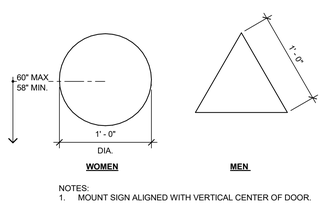
4 EXIT SIGN
Scale: 6" = 1'-0"



1 ENLARGED SITE PLAN - ACCESSIBILITY
Scale: 1" = 30'-0"



3 RESTROOM IDENTIFICATION SIGN
Scale: 6" = 1'-0"



NOTES:
1. MOUNT SIGN ALIGNED WITH VERTICAL CENTER OF DOOR.

2 RESTROOM DOOR MOUNTED SIGN
Scale: 1 1/2" = 1'-0"

ENLARGED ACCESSIBILITY SITE PLAN LEGEND

- ASSUMED PROPERTY LINE
- (E) P.O.T. — (E) PATH OF TRAVEL APPROVED UNDER DSA A# 04-112776
- (E) P.O.T. — (E) PATH OF TRAVEL APPROVED UNDER DSA A# 04-113152

TECHNICAL REQUIREMENTS FOR ACCESSIBLE ROUTE
ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLAN IS A BARRIER-FREE ACCESS ROUTE WITHOUT ABRUPT LEVEL CHANGES EXCEEDING ½" IF BEVELED AT 1:2 MAXIMUM SLOPE OR VERTICAL LEVEL CHANGES NOT EXCEEDING ¼" MAXIMUM AND AT LEAST 48" IN WIDTH. SURFACE IS STABLE, FIRM, AND SLIP-RESISTANT. CROSS-SLOPE SHALL NOT BE STEEPER THAN 1:48 AND SLOPE IN THE DIRECTION OF TRAVEL SHALL NOT BE STEEPER THAN 1:20. ACCESSIBLE PATH OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM AND FREE OF OBJECTS PROTRUDING MORE THAN 4" FROM THE WALL, ABOVE 27" AND LESS THAN 80" ABOVE THE FLOOR. ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL.

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:
THE POT IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS MEETS THE REQUIREMENTS OF THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE (CBC) 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 NON-COMPLIANT WITH THE CBC HAVE BEEN IDENTIFIED AND THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE INDICATED IN THESE CONSTRUCTION DOCUMENTS.

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

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DSA Back Check 02	10/24/2025

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DRAWN	WJ
CHECKED	JM

ACCESSIBILITY SITE PLAN

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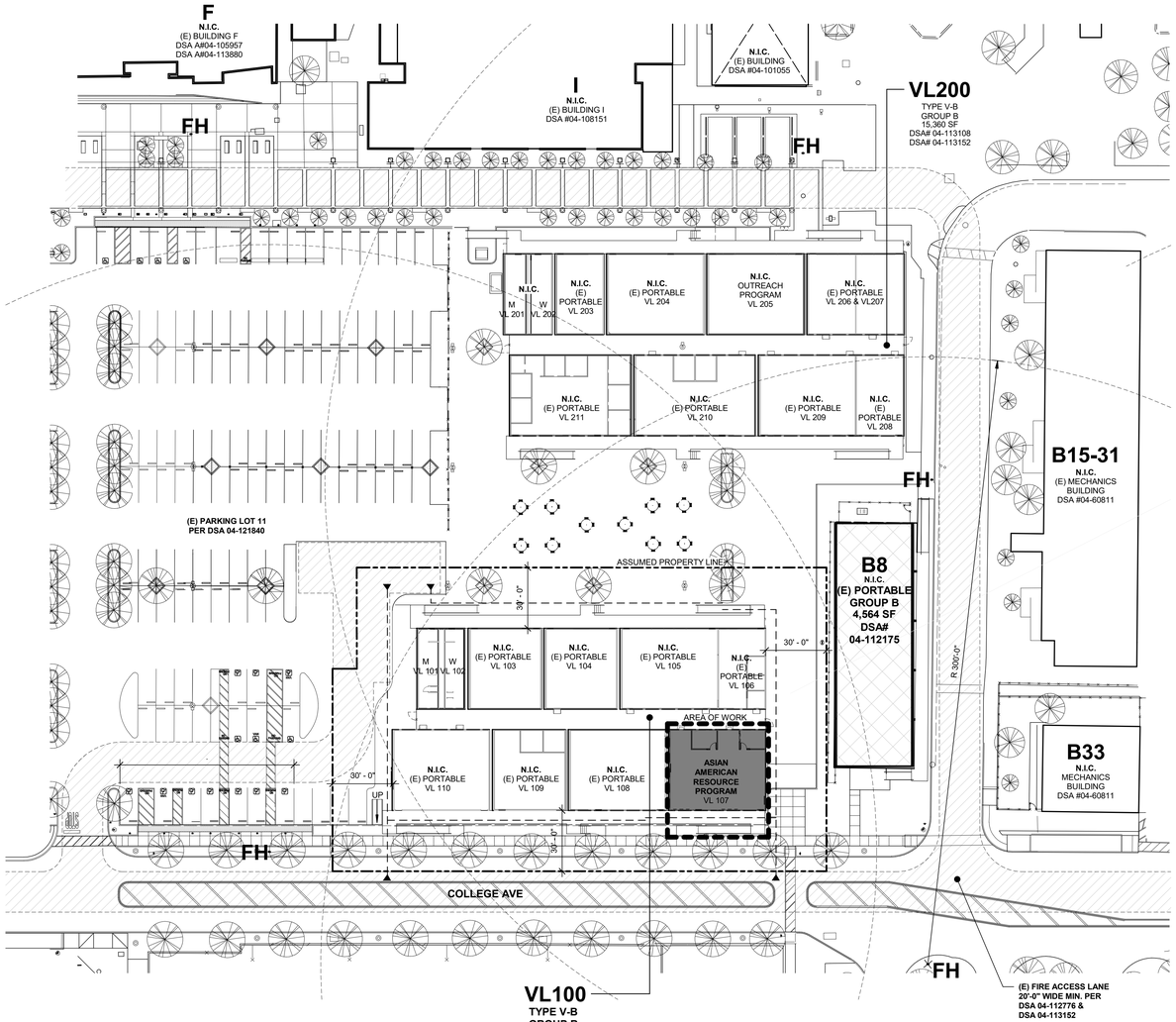

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1 ENLARGED SITE PLAN - FIRE ACCESS

1" = 30'-0"

ENLARGED FIRE ACCESS SITE PLAN LEGEND

- EXISTING CAMPUS FIRE ACCESS LANE PER DSA 04-113152, 04-112776 20'-0" MINIMUM WIDTH.
- FH — EXISTING FIRE HYDRANT
- ASSUMED PROPERTY LINE
- FIRE ACCESS ROUTE 150' MAX HOSE PULL PER DSA 04-121840

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DRAWN	WJ
CHECKED	JM

FIRE ACCESS SITE PLAN

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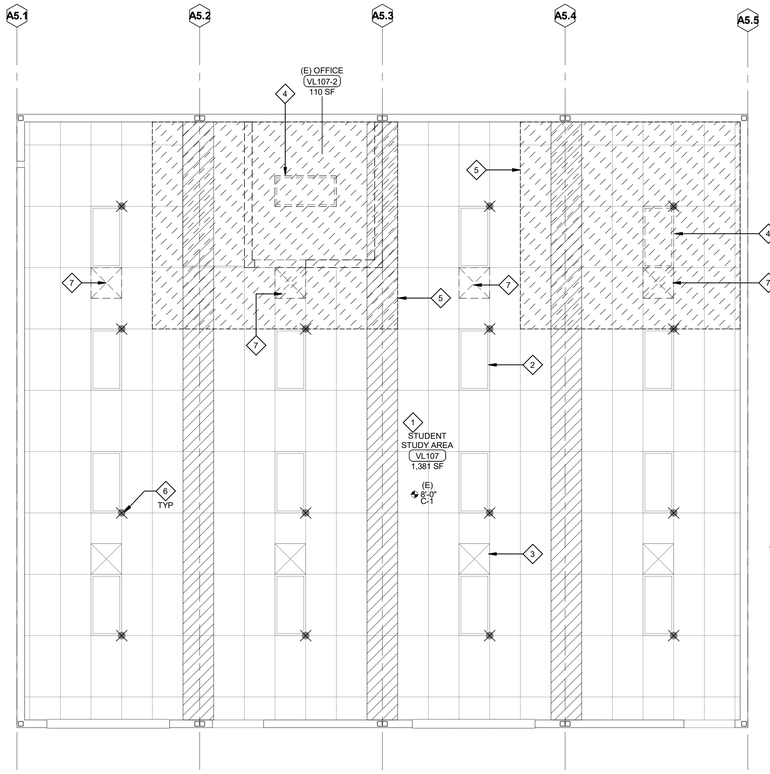


DEMOLITION REFLECTED CEILING PLAN CODED NOTES

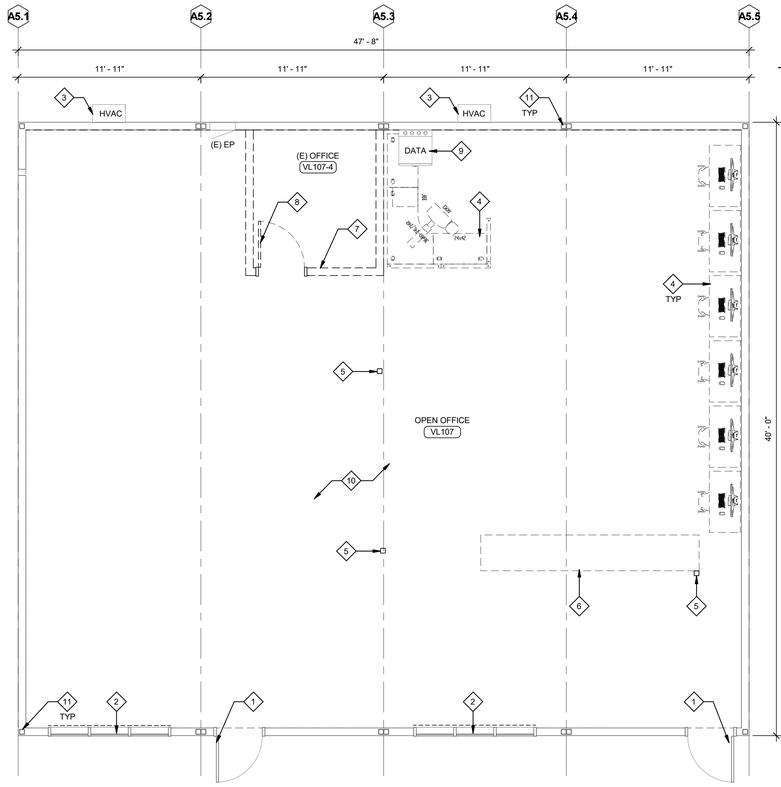
1. EXISTING SUSPENDED CEILING TO REMAIN
2. EXISTING LIGHT FIXTURE TO REMAIN; REMOVE LIGHT BULBS. REPLACE BULBS PER RENOVATION PLAN
3. EXISTING HVAC SUPPLY/RETURN AIR GRILLES TO REMAIN, U.N.O.
4. REMOVE LIGHTING FIXTURE, SALVAGE FOR RE-USE PER RENOVATION PLAN
5. REMOVE CEILING TILES PORTION OF SUSPENDED GRID AS REQ'D FOR CONSTRUCTION OF NEW WALLS. SEE RENOVATION REFLECTED CEILING PLAN FOR MODIFICATIONS TO EXISTING CEILING GRID.
6. LOCATION OF EXISTING COMPRESSION STRUT AND SPLAY WIRES @ 144 SF TO REMAIN (PER DSA #04-113108 & #04-113152)
7. REMOVE HVAC SUPPLY/RETURN AIR GRILLES, SALVAGE FOR RE-USE PER RENOVATION PLAN

DEMOLITION RCP LEGEND

- AREA OF REMOVAL
- ITEMS TO BE REMOVED
- # DEMOLITION PLAN CODED NOTE
- LOCATION OF EXISTING COMPRESSION STRUT AND SPLAY WIRES @ 144 SF TO REMAIN (PER DSA #04-113108 & #04-113152)
- (E) GRID AT MODLINE

3 REFLECTED CEILING PLAN - DEMOLITION

Scale: 1/4" = 1'-0"



DEMOLITION PLAN GENERAL NOTES

1. THE CONTRACTOR SHALL OBTAIN RECORD DRAWINGS FROM THE DISTRICT PRIOR TO THE START DEMOLITION FOR USE AS REFERENCE DURING DEMOLITION. COMPARE RECORD DRAWING TO AS-BUILT CONDITIONS AND IMMEDIATELY REPORT DISCREPANCIES THAT AFFECT THE SCOPE OF DEMOTION.
2. PERFORM REMOVAL TO THE EXTENT REQUIRED TO ACCOMMODATE NEW CONSTRUCTION EVEN THOUGH NOT SPECIFICALLY INDICATED OR SPECIFIED.
3. INFORM DISTRICT OF ANTICIPATED UTILITY DISRUPTIONS CAUSED BY THE WORK. SCHEDULE POWER OR LOW VOLTAGE DISRUPTIONS WITH THE DISTRICT TO MINIMIZE DISRUPTION TO OCCUPIED BUILDINGS OR SPACES.
4. PRIOR TO START OF DEMOLITION DISCUSS ITEMS TO BE SALVAGED WITH THE DISTRICT AND CAREFULLY REMOVE THESE ITEMS AND STORE IN A SAFE PLACE TO BE DESIGNATED BY THE DISTRICT.
5. NO DEMOLITION SHALL BEGIN UNTIL PLANS INCLUDING THE DEMOLITION WORK HAVE BEEN APPROVED BY DSA

DEMOLITION PLAN CODED NOTES

1. EXISTING DOOR TO REMAIN
2. EXISTING WINDOW TO REMAIN. REMOVE SHADES; COORDINATE WITH DISTRICT REPRESENTATIVE FOR SALVAGE.
3. EXISTING HVAC UNIT TO REMAIN
4. REMOVE FURNITURE IN ITS ENTIRETY. COORDINATE WITH DISTRICT REPRESENTATIVE FOR ITEMS TO BE SALVAGED. DISTRICT ITS SHALL DISCONNECT AND STORE PC ON-SITE; CONTRACTOR TO PROTECT IN PLACE
5. REMOVE POWER POLE IN ITS ENTIRETY. CAP POWER LINE AT NEAREST JUNCTION BOX. REMOVE DATA BACK TO IDF. SEE ELECTRICAL
6. REMOVE BUILT-IN MILLWORK
7. REMOVE WALL IN ITS ENTIRETY
8. REMOVE DOOR IN ITS ENTIRETY
9. EXISTING WALL MOUNTED DATA RACK TO REMAIN
10. REMOVE FLOORING FINISH IN ITS ENTIRETY
11. EXISTING COLUMN TO REMAIN

DEMOLITION PLAN LEGEND

- AREA OF REMOVAL
- ITEMS TO BE REMOVED
- # DEMOLITION PLAN CODED NOTE

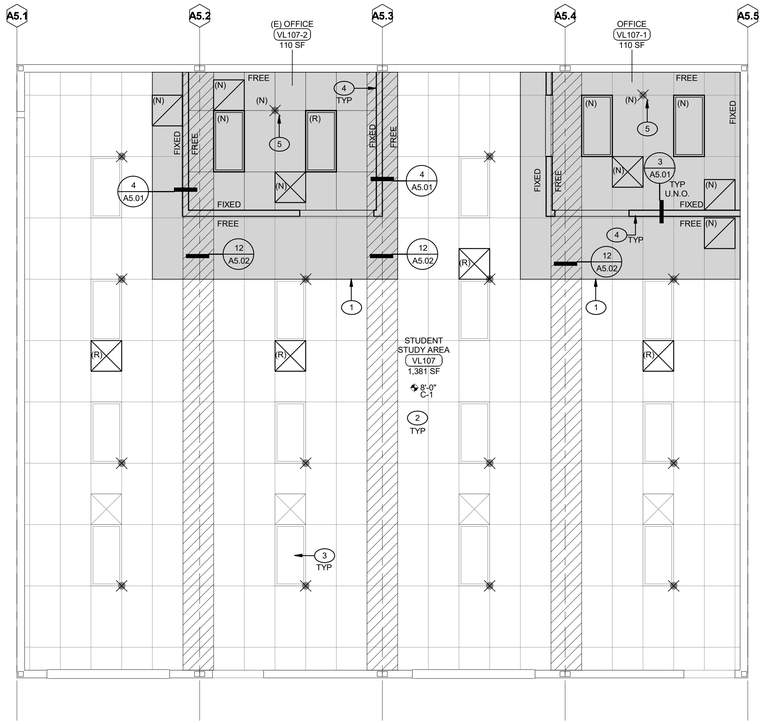
GENERAL SITE SAFETY NOTE

SECTION 3302.3 OF THE CALIFORNIA BUILDING CODE (CBC) DIRECTS COMPLIANCE WITH CHAPTER 33 OF THE CALIFORNIA FIRE CODE (CFC). CHAPTER 33 OF THE CFC OUTLINES REQUIREMENTS FOR SITE SAFETY DURING CONSTRUCTION AND DEMOLITION. THE CONTRACTOR, IN COORDINATION WITH THE DISTRICT, IS RESPONSIBLE FOR THE DEVELOPMENT AND IMPLEMENTATION OF A WRITTEN SITE SAFETY PLAN ESTABLISHING A FIRE PREVENTION PROGRAM AT THE PROJECT SITE.

ALL CONSTRUCTION AND DEMOLITION SHALL BE IN ACCORDANCE WITH CHAPTER 33 OF THE CBC AND CFC, AND THE WRITTEN SITE SAFETY PLAN. NO DEMOLITION SHALL COMMENCE WITHOUT A WRITTEN SITE SAFETY PLAN ON SITE AND AVAILABLE THROUGHOUT THE DURATION OF CONSTRUCTION.

1 FLOOR PLAN - DEMOLITION

Scale: 1/4" = 1'-0"



GENERAL RCP NOTES

1. CEILING HEIGHT TO BE MEASURED FROM FINISH FLOOR LEVEL OF THE ROOM OR THE AREA WHERE CEILING IS IN
2. EXISTING CEILING TO REMAIN. VERIFY COMPLIANCE WITH DETAILS ON A5.02 SHOWING COMPRESSION STRUT LOCATION, WALL TERMINATION, FIXTURE SUPPORT AND HANGER WIRES.

REFLECTED CEILING PLAN CODED NOTES

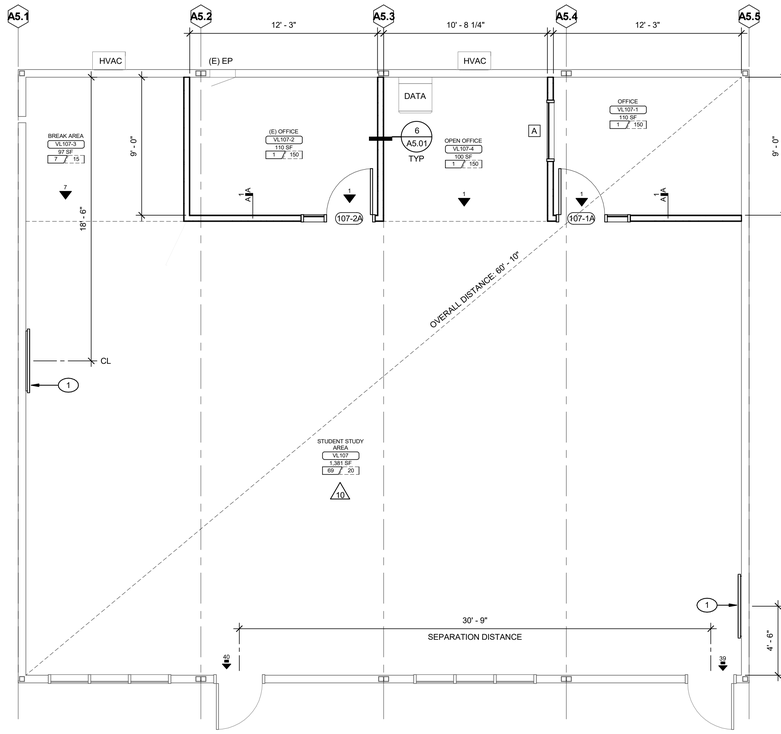
1. REPAIR EXISTING SUSPENDED CEILING AFTER RECONSTRUCTION OF WALL TO ACCOMMODATE REMODEL
2. REPLACE DAMAGED / BROKEN CEILING TILES AS OCCURS; PROVIDE ALLOWANCE TO REPLACE 30% OF TILES
3. REPLACE LIGHT BULBS IN EXISTING FIXTURES WITH LED (K-4100)
4. PROVIDE ANGLE AT WALL WHERE NEW WALL OCCURS AT EXISTING CEILING GRID PER DETAILS 2/A5.02 & 3/A5.02
5. PROVIDE COMPRESSION STRUT PER DETAIL 7/A5.02

REFLECTED CEILING PLAN LEGEND

- EXISTING PARTITION TO REMAIN
- NEW PARTITION PER WALL TYPE, SEE SHEET A5.01 FOR WALL TYPES
- 1'-0" C-1 — CEILING HEIGHT (HEIGHTS INDICATED ARE RELATIVE TO FINISH FLOOR LEVEL) C-1 = 2X4 SUSPENDED ACOUSTICAL CEILING
- (E) LIGHT FIXTURES
- (E) SUPPLY DIFFUSERS
- (E) RETURN AIR REGISTER OR EXHAUST FAN
- (R) — RELOCATION OF SALVAGED ITEM
- (N) — LOCATION OF NEW ITEM TO MATCH EXISTING
- FREE — UNATTACHED CEILING GRID PER DETAIL 3/A5.02
- FIXED — ATTACHED CEILING GRID PER DETAIL 2/A5.02

4 REFLECTED CEILING PLAN - RENOVATION

Scale: 1/4" = 1'-0"



GENERAL FLOOR PLAN NOTES

1. DIMENSIONS SHOWN SHALL BE MEASURED FROM FACE OF FINISH, TYPICAL
2. FURNITURE BY VENDOR. SEE LAYOUT ON 1/A3.01 FOR REFERENCE
3. REFER TO FURNITURE & FINISH PLAN 1/A3.01 FOR SIGNAGE AND ASSITIVE LISTENING SYSTEM (ALS)

FLOOR PLAN CODED NOTES

1. WALL MOUNT TV MONITOR WITH SOUND BAR, SEE ELECTRICAL FOR POWER / DATA. COORDINATE WITH DISTRICT REPRESENTATIVE FOR EXACT LOCATION. EQUIPMENT (TV MONITOR, SOUND BAR, WALL MOUNTING BRACKET) FURNISHED BY DISTRICT, CONTRACTOR SHALL PROVIDE BLOCKING AND INSTALL EQUIPMENT. REFER TO BACKING DETAIL 10/A5.01

FLOOR PLAN LEGEND

- Room name / 101 / 150 SF / TOC 7 OLF — OCCUPANT LOAD FACTOR - TABLE 1004.1.2; OCCUPANT LOAD
- ## — ACCUMULATED OCCUPANT LOAD FROM ROOMS DIRECTLY TO EXTERIOR
- ## — EXIT FROM ROOMS. NUMBER INDICATES THE CALCULATED ACCUMULATED LOAD AT THAT ROOM OR BUILDING EXIT. ARROW INDICATES EXIT DIRECTION
- ## — ACCUMULATED OCCUPANT LOAD FROM ADJACENT SPACES
- # — FLOOR PLAN CODED NOTE
- 123A — DOOR TAG, SEE DOOR SCHEDULE ON A3.01
- A — WINDOW TAG, SEE WINDOW SCHEDULE ON A3.01
- B / A — WALL TYPE DESIGNATION, SEE 2/A5.01 FOR WALL TYPE DESCRIPTIONS. ALL WALLS TYPE A/1/A UNLESS OTHWISE NOTED.
- EXISTING PARTITION TO REMAIN
- NEW PARTITION PER WALL TYPE

2 FLOOR PLAN - RENOVATION

Scale: 1/4" = 1'-0"

N

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-124525 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 12/03/2025

MORETO MATHISON & ASSOCIATES
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(626) 594-0307

CONSULTANT

STAMP

LICENSED ARCHITECT
DAVID MATHISON
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REN. 08-31-27
STATE OF CALIFORNIA

CLIENT

RANCHO SANTIAGO
Community College District

RANCHO SANTIAGO
COMMUNITY COLLEGE DISTRICT
VL107
AP STUDENT CENTER RECONFIGURATION

SANTA ANA COLLEGE
1530 W. 17TH ST
SANTA ANA, CA 92706

100% CD

REVISIONS

DSA Back Check 01	09/05/2025
DSA Back Check 02	10/24/2025

MMA NO	25801
DATE:	05/12/2025
DRAWN	WJ
CHECKED	DM

DEMOLITION & RENOVATION FLOOR PLAN & REFLECTED CEILING PLAN

A2.01

DOOR SCHEDULE

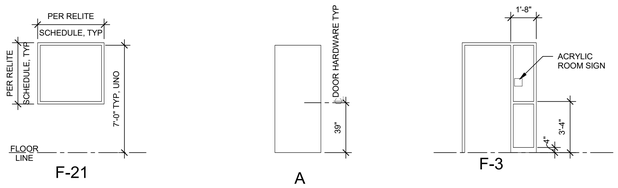
DOOR NO	PR	DOOR LEAF A	DOOR LEAF B	DOOR HT	DOOR TYPE	DOOR MATERIAL	DOOR FINISH	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	LABEL	HARDWARE GROUP	REMARKS / CODED NOTES	DOOR NO
107-1A		3'-0"	0"	7'-0"	A	WD	PL	F-3	STL	PT	6/A3.01	7/A3.01	-	-	01		107-1A
107-2A		3'-0"	0"	7'-0"	A	WD	PL	F-3	STL	PT	6/A3.01	7/A3.01	-	-	01		107-2A

WINDOW SCHEDULE

WINDOW NO	WIDTH	HEIGHT	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	LABEL	REMARKS / CODED NOTES
A	4'-0"	4'-0"	F-21	STL	PT	8/A3.01	8/A3.01	8/A3.01	N/A	AT OFFICE VL107-1

ROOM FINISH SCHEDULE

ROOM NUMBER	NAME	FLOOR MAT	FLOOR FIN	FLOOR CLR	BASE FIN	BASE CLR	NORTH WALL MATL	NORTH WALL FIN	NORTH WALL CLR	EAST WALL MATL	EAST WALL FIN	EAST WALL CLR	SOUTH WALL MATL	SOUTH WALL FIN	SOUTH WALL CLR	WEST WALL MATL	WEST WALL FIN	WEST WALL CLR	CODED NOTES	ROOM NUMBER
VL107	STUDENT STUDY AREA	(E) PLY	CPT	TBD	RB	TBD	(E) WPF	PT*	TBD	(E) WPF	PT*	TBD	(E) WPF	PT*	TBD	(E) WPF	PT*	TBD	9	VL107
VL107-1	OFFICE	(E) PLY	CPT	TBD	RB	TBD	(E) WPF	PT*	TBD	(E) WPF	PT*	TBD	GYP	PT	TBD	GYP	PT	TBD	9	VL107-1
VL107-2	(E) OFFICE	(E) PLY	CPT	TBD	RB	TBD	(E) WPF	PT*	TBD	GYP	PT	TBD	GYP	PT	TBD	GYP	PT	TBD	9	VL107-2
VL107-3	BREAK AREA	(E) PLY	VCT	TBD	RB	TBD	(E) WPF	PT*	TBD	G	PT	TBD	-	-	-	(E) WPF	PT*	TBD		VL107-3
VL107-4	OPEN OFFICE	(E) PLY	CPT	TBD	RB	TBD	GYP	PT	TBD	(E) WPF	PT*	TBD	(E) WPF	PT*	TBD	(E) WPF	PT*	TBD	9	VL107-4

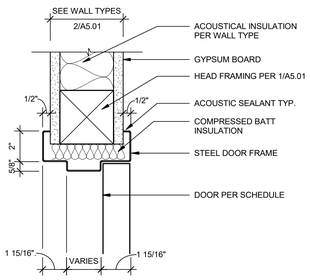


F-21 A F-3

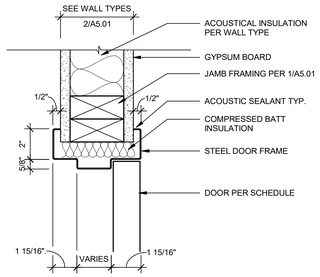
FRAME TYPES - WINDOW
Scale: 1/4" = 1'-0"

DOOR TYPES
Scale: 1/4" = 1'-0"

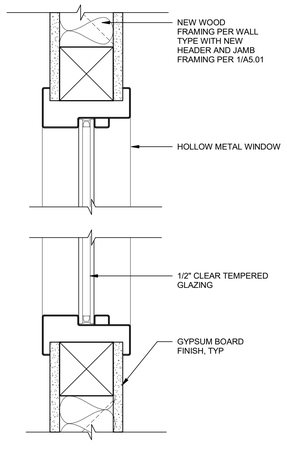
FRAME TYPES - DOOR
Scale: 1/4" = 1'-0"



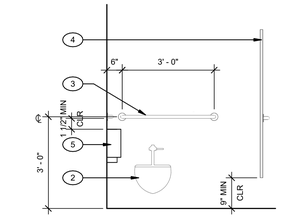
6 INTERIOR DOOR HEAD
Scale: 3" = 1'-0"



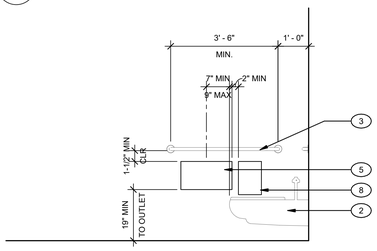
7 INTERIOR DOOR JAMB
Scale: 3" = 1'-0"



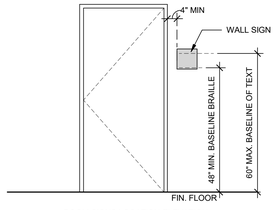
8 INTERIOR WINDOW HEAD / SILL (JAMB SIM.)
Scale: 3" = 1'-0"



9 ELEV AT (E) ADA TOILET
Scale: 1/2" = 1'-0"

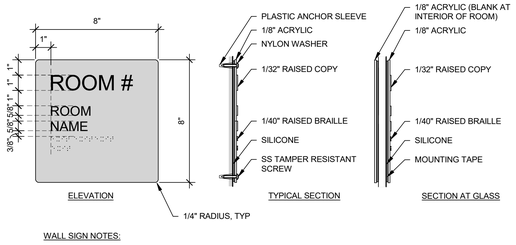


3 ELEVATION AT (E) ADA TOILET
Scale: 1/2" = 1'-0"
FOR CODED NOTES REFER TO EXISTING RESTROOM FLOOR PLAN 2/A3.01



ROOM SIGNS LOCATION ELEVATION

4 SIGN MOUNTING DETAIL
Scale: 3" = 1'-0"



WALL SIGN NOTES:

SIZE:	8"(W) X 8"(H)
MATERIAL:	1/8" THICK ACRYLIC
FONT:	1", 5/8" (H) NEUTRA TEXT DEMI ALT
TEXT COLOR:	WHITE
BACKGROUND:	MP25849 DURANGO GREY
CA GRADE II BRAILLE	

5 TYPICAL ROOM WALL SIGN
Scale: 3" = 1'-0"

ABBREVIATIONS

AL	ALUMINUM
BOF	BOTTOM OF FRAME
FF	FACTORY FINISH
GL	GLASS
H	HINGE (JAMB)
HR	HOUR
MFR	MANUFACTURER
PL	PLASTIC LAMINATE
PR	PAIR OF DOORS
PT	PAINT
S	STRIKE (JAMB)
SST	STAINLESS STEEL
STL	STEEL
STN	STAIN & VARNISH
TOF	TOP OF FRAME
WD	WOOD

GENERAL DOOR & WINDOW NOTES

1. SEE SHEET A3.01 FOR INTERIOR STEEL FRAME DOOR AND WINDOW DETAILS
2. LABEL COLUMN NUMBERS INDICATES THE RATING IN MINUTES, UNLESS NOTED OTHERWISE
3. ALL WINDOW GLAZING TO BE TEMPERED GLASS

DOOR & WINDOW CODED NOTES

1. RE-USE EXISTING SALVAGED DOOR AND HARDWARE; VERIFY EXACT DIMENSION PRIOR TO FRAMING R.O.
2. VERIFY EXACT WINDOW DIMENSION PRIOR TO FRAMING R.O.

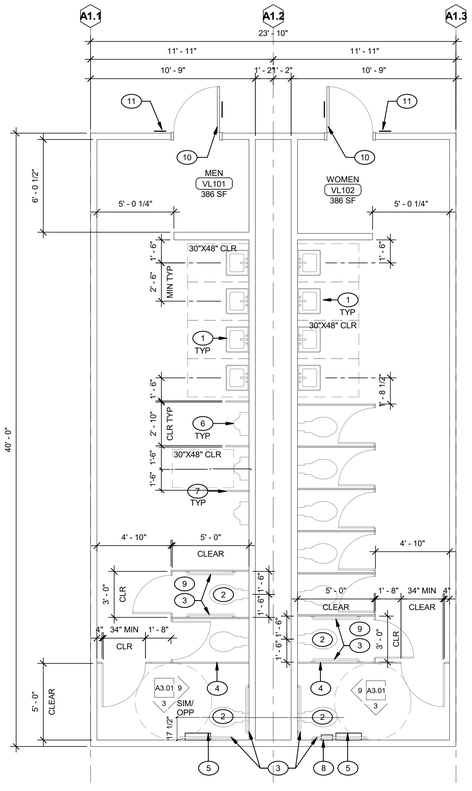
HARDWARE GROUPS

HEADING 01

EACH ASSEMBLY TO HAVE:

QTY		DESCRIPTION	CATALOGUE NUMBER	FINISH	MFR
3	EA	HINGE	5BB1 4.5 X 4.5	652	IVE
1	EA	OFFICE/ENTRY LOCK	L9050L 06L 09-544	626	SCH
1	EA	MORTISE CYLINDER	(MATCH CAMPUS STANDARD)	626	MED
1	EA	FLOOR STOP	FS436/FS438 AS REQ	626	IVE
1	EA	GASKETING	488FSBK PSA	BK	ZER

MEDECO CYLINDER TO BE PROVIDED BY RSCCD FACILITIES MANAGEMENT



2 FLOOR PLAN - EXISTING RESTROOMS
1/4" = 1'-0"
PER DSA #04-113108, #04-121840

RESTROOM FLOOR PLAN CODED NOTES

1. EXISTING ADA COMPLIANT LAVATORY TO REMAIN
2. EXISTING ADA COMPLIANT TOILET TO REMAIN
3. EXISTING ADA COMPLIANT GRAB BAR TO REMAIN
4. EXISTING ADA COMPLIANT PARTITION TO REMAIN
5. REPLACE TOILET PAPER DISPENSER (TPD); BOBRICK B-2892 TWIN JUMBO ROLL DISPENSER. MOUNTING LOCATION PER ELEVATION 3/A3.01
6. EXISTING URINAL TO REMAIN
7. EXISTING URINAL PARTITION TO REMAIN
8. EXISTING SANITARY WASTE DISPOSAL TO REMAIN WHERE OCCURS. RELOCATE AS REQ'D FOR NEW TPD INSTALLATION
9. EXISTING ABULATORY ACCESSIBLE TOILET COMPARTMENT TO REMAIN
10. EXISTING 36" WIDE DOOR TO REMAIN. REPLACE RESTROOM DOOR SIGN PER DETAIL 2/G1.01
11. REPLACE RESTROOM IDENTIFICATION SIGN PER DETAIL 3/G1.01

ABBREVIATIONS

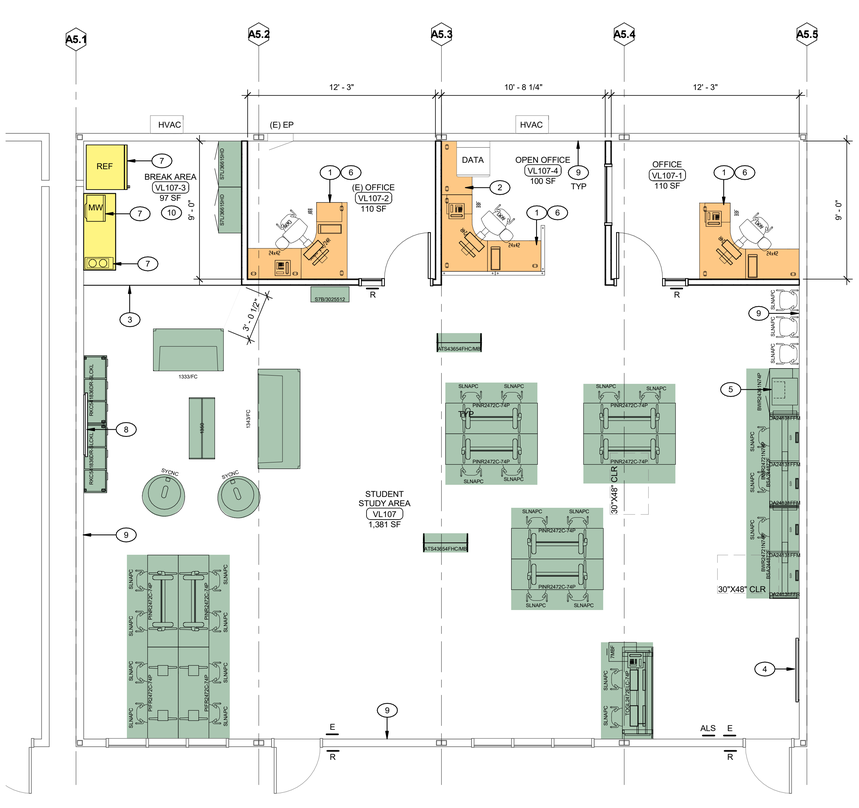
ALUM	ALUMINUM
APC	ACOUSTICAL PANEL CEILING
CLR	COLOR
CONC	CONCRETE
CPT	CARPET
(E)	EXISTING
EXP	EXPOSED
FF	FACTORY FINISHED
FIN	FINISH
GLZ	GLAZING
GYP	GYPSUM BOARD
MATL	MATERIAL
MTL	METAL
MW	MICROWAVE
PT	PAINT
PLY	PLYWOOD
REF	REFRIDGERATOR
RB	RUBBER BASE
RFT	RESILIENT FLOORING TILE
UNO	UNLESS NOTED OTHERWISE
VCT	VINYL COMPOSITION TILE
WP	WALLPAPER
WPF	WALL PANEL FORM

INTERIOR FINISH GENERAL NOTES

1. AN ASTERISK (*) IN THE FINISH SCHEDULE REFERENCES CODED NOTES IN THE REMARKS COLUMN
2. ALL FLOORING/COLOR TRANSITIONS WHERE REQUIRED SHALL BE CENTERED UNDER DOOR
3. PAINT ALL INTERIOR MECHANICAL LOUVERS, WHERE EXPOSED TO MATCH ADJACENT SURFACE, UNLESS NOTED OTHERWISE
4. PAINT ALL DOOR & RELITE FRAMES PAINT COLOR PT-1 UNLESS NOTED OTHERWISE
5. SEE SHEET A3.01 FOR FLOOR MATERIAL, FINISH, AND COLOR DESIGNATION
6. SEE SHEET A2.01 FOR CEILING MATERIAL, FINISH, AND COLOR DESIGNATION

INTERIORS FINISH LEGEND

VCT	VINYL FLOORING: TARKETT STYLE: iQ OPTIMA COLOR: 3242247 ALMOND CREAM
CPT	CARPET TILE FLOORING: TARKETT STYLE: AFTERMATH II COLOR: 23510 POTPOURRI
RB	RUBBER BASE: JOHNSONITE/TARKETT STYLE: 4" COVED COLOR: 49 BEIGE
PT	PAINT: DUNN EDWARDS LOCATION: WALL FIELD PAINT COLOR: DE6190 BALL OF STRING
PT-1	PAINT: DUNN EDWARDS LOCATION: DOOR AND WINDOW FRAMES (TOUCH-UP) COLOR: TBD - FIELD VERIFY AND MATCH EXISTING
PL	PLASTIC LAMINATE: TBD LOCATION: DOORS COLOR: TBD - FIELD VERIFY AND MATCH EXISTING



1 FURNITURE & FINISH PLAN
1/4" = 1'-0"

FINISH PLAN LEGEND

Room name 12345 150 SF	ROOM NAME & NUMBER
#	FINISH FLOOR PLAN CODED NOTE
|R	ROOM IDENTIFICATION SIGN, SEE DETAILS 4/A3.01 & 5/A3.01
|ALS	ASSISTIVE LISTENING SYSTEM SIGN, SEE DETAIL 5/G1.01
|E	EXIT SIGN, SEE DETAIL 4/G1.01
	EXISTING FURNITURE & EQUIPMENT; PROTECT/MOVE WITHIN THE SPACE DURING CONSTRUCTION. SEE ELECTRICAL FOR POWER/DATA
	FURNITURE BY DISTRICT; COORDINATE ELECTRICAL WITH VENDOR. SEE ELECTRICAL FOR POWER/DATA
	FURNITURE & APPLIANCES BY DISTRICT. SEE ELECTRICAL FOR POWER

FURNITURE & FINISH INTERIORS CODED NOTES

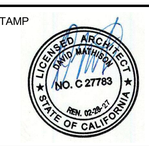
1. FURNITURE AND FURNITURE SYSTEMS BY DISTRICT. CONTRACTOR SHALL PROVIDE WALL PLATE FOR POWER & DATA (SEE ELECTRICAL); COORDINATE EXACT LOCATION WITH VENDOR PRIOR TO INSTALLATION. LAYOUT SHOWN HEREIN IS FOR REFERENCE ONLY
2. ASSISTIVE LISTENING DEVICE CHARGING AND STORAGE. SEE ELECTRICAL
3. PROVIDE RUBBER CARPET TO VCT TRANSITION STRIP
4. WALL MOUNT TV MONITOR, SEE ELECTRICAL FOR POWER / DATA. COORDINATE WITH DISTRICT REPRESENTATIVE FOR EXACT LOCATION & PROVIDE BLOCKING
5. PRINTER/COPIER BY DISTRICT; SEE ELECTRICAL FOR POWER & DATA
6. COMPUTERS, PHONE, AND OFFICE EQUIPMENT BY DISTRICT; SEE ELECTRICAL FOR POWER & DATA
7. EXISTING APPLIANCE INSTALLATION BY DISTRICT; SEE ELECTRICAL
8. WALL MOUNT TV MONITOR WITH SOUND BAR, SEE ELECTRICAL FOR POWER / DATA. COORDINATE WITH DISTRICT REPRESENTATIVE FOR EXACT LOCATION. EQUIPMENT (TV MONITOR, SOUND BAR, WALL MOUNTING BRACKET) FURNISHED BY DISTRICT; CONTRACTOR SHALL PROVIDE BLOCKING AND INSTALL EQUIPMENT INCLUDING AV SYSTEM INSTALLATION FOR FULL TURN-KEY OPERATION.
9. PAINT OVER (E) WALLPAPER

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-124525 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 12/03/2025

MORETO MATHISON & ASSOCIATES
A R C H I T E C T S
449 W FOOTHILL BLVD
SUITE 281, GLENDORA CA 91741
(626) 594-0307

CONSULTANT

STAMP



CLIENT

RANCHO SANTIAGO
Community College District

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COMMUNITY COLLEGE DISTRICT
VL107
AP STUDENT CENTER RECONFIGURATION

SANTA ANA COLLEGE
1530 W. 17TH ST
SANTA ANA, CA 92706

100% CD

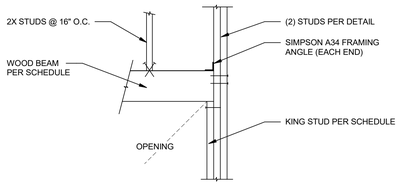
REVISIONS

DSA Back Check 01	09/05/2025
DSA Back Check 02	10/24/2025

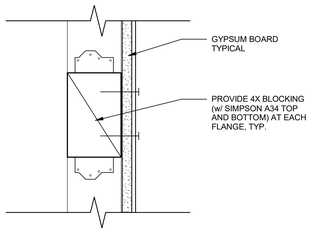
MMA NO	25801
DATE:	05/12/2025
DRAWN	WJ
CHECKED	DM

DOOR & WINDOW SCHEDULES, DETAILS, FURNITURE & FINISH PLAN

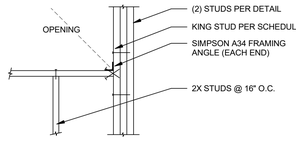
A3.01



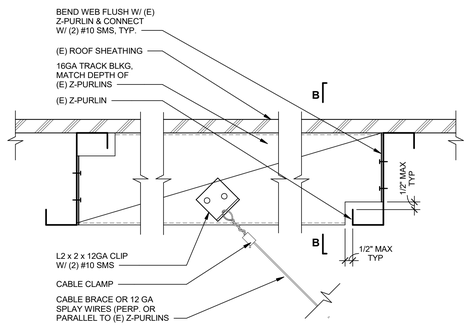
9 HEADER TO POST CONNECTION
Scale: 3/4" = 1'-0"



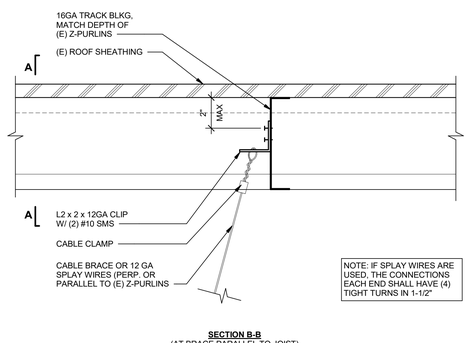
10 TYPICAL WOOD BLOCKING DETAIL
Scale: 3" = 1'-0"



11 SILL AT WINDOW
Scale: 3/4" = 1'-0"

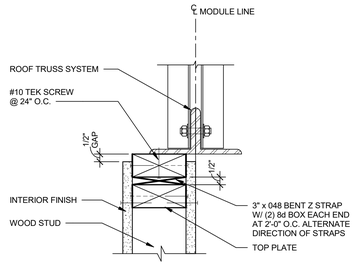


SECTION A-A
(AT BRACE PERPENDICULAR TO JOIST)

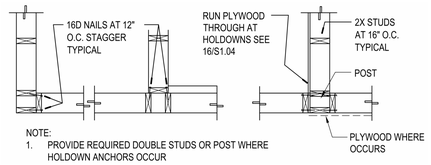


SECTION B-B
(AT BRACE PARALLEL TO JOIST)

12 TYPICAL METAL STUD BLOCKING AT EXISTING JOIST
Scale: 3" = 1'-0"

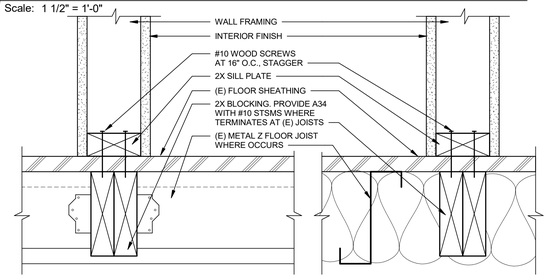


4 INTERIOR PARTITION WALL TO ROOF TRUSS
Scale: 3" = 1'-0"

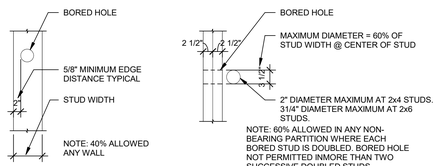


NOTE:
1. PROVIDE REQUIRED DOUBLE STUDS OR POST WHERE HOLDOWN ANCHORS OCCUR

5 TYP STUD WALL CONNECTIONS
Scale: 1 1/2" = 1'-0"

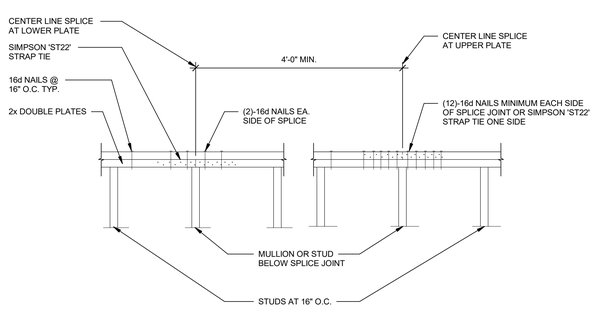


6 PARTITION CONNECTION AT WOOD FLOOR
Scale: 3" = 1'-0"

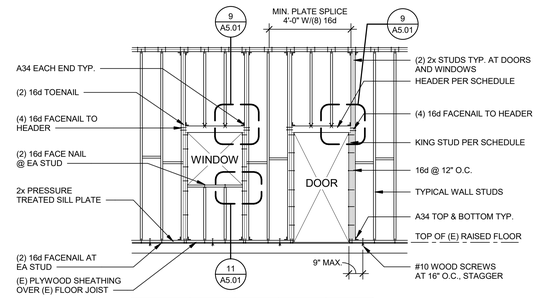


NOTES:
1. NOTCH AND BORED HOLE NOT TO OCCUR IN THE SAME STUD SECTION.
2. ALL BORED HOLES SHALL BE AT CENTER OF STUDS.
3. HORIZONTAL MEMBERS MAY NOT BE NOTCHED WITHOUT PRIOR APPROVAL OF ARCHITECT.

7 TYPICAL NOTCHING AND BORING OF STUDS
Scale: 3/4" = 1'-0"



8 TYPICAL TOP PLATE TRACK SPLICE DETAIL
Scale: 1" = 1'-0"



OPENING WIDTH	HEADER SIZE	SILL AT WINDOW	TRIMMER	KING STUDS
UP TO 4'-0"	4 x 4	(1) 2x4	(2) 2x4	(1) 2x4
4'-1" TO 6'-0"	4 x 6	(2) 2x4	(2) 2x4	(2) 2x4
6'-1" TO 8'-0"	4 x 8	(2) 2x4	(3) 2x4	(2) 2x4

NOTE: TYPICAL WALL STUDS SHALL BE 2x4 @ 16" O.C. - STUD GRADE OR BETTER

NOTE: EXISTING MODULAR FLOOR AND FOUNDATION ARE WOOD PER DSA 04-113152

1 TYPICAL NON-BEARING PARTITION WALL
Scale: 1/4" = 1'-0"

WALL ASSEMBLIES

WALL FLAG KEY

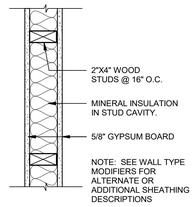
A1B
NUMBER INDICATES SUBSTRATE
LETTERS INDICATE SHEATHING TYPE SIDE OF WALL AFFECTED
ASTERISK INDICATES PARTIAL HEIGHT WALL *3'-6" AFF UNO ON INT ELEVATIONS

NOTES

1. TYPICAL INTERIOR WALL ASSEMBLY IS TYPE A/1/A AND TYPICAL EXTERIOR WALL ASSEMBLY IS 21/A UNLESS SHOWN OTHERWISE. THE TYPICAL INTERIOR AND EXTERIOR WALL ASSEMBLIES ARE NOT FLAGGED EXCEPT FOR CLARITY. ALL NON-TYPICAL ASSEMBLIES ARE CALLED OUT.
2. A WALL ASSEMBLY CONTINUES THE FULL ROOM LENGTH, INCLUDING ANY JOGS, ANGLES, RECESSES, OR STUB WALLS FOR THE SIDE OF THE WALL UPON WHICH THE FLAG OCCURS.
3. ALL INTERIOR STUD FRAMING AND FURRING IS 16" O.C. UNO.
4. EXTEND FRAMING, INSULATION, & SHEATHING COMPONENTS TO BOTTOM OF DECK ABOVE UNO.
5. PROVIDE THERMAFIBER SAFB R-11 ACOUSTIC INSULATION IN ALL INTERIOR FRAMED WALLS. ACOUSTIC INSULATION IS NOT REQUIRED AT PARTIAL HEIGHT AND PARTIAL LENGTH WALLS, WALLS BETWEEN STORAGE ROOMS AND HALLWAYS, OR ELECTRICAL ROOMS.
6. ALL GYPSUM BOARD TO BE TYPE "X" UNO. ALL GYPSUM BOARD IN "WET" ROOM WALLS (TOILET ROOMS, CUSTODIAL ROOMS) TO BE WATER RESISTANT TYPE EXCEPT AS NOTED. DO NOT USE WATER RESISTANT GYPSUM BOARD ON CEILINGS. WALLS BEHIND CERAMIC TILE FINISH TO RECEIVE CEMENT BACKER BOARD.
7. ALL GYPSUM BOARD SURFACES TO BE PREPARED FOR PAINT GRADE FINISH UNO.
8. FOR FINISHES, REFER TO FINISH SCHEDULE AND INTERIOR ELEVATIONS.
9. WALL ASSEMBLY TAGS DESCRIBE MAJOR EXTENT OF EXTERIOR WALL ASSEMBLY, SEE ELEVATIONS AND DETAILS FOR TRANSITIONS IN, AND LOCATIONS OF, CHANGES IN EXTERIOR WALL ASSEMBLIES.

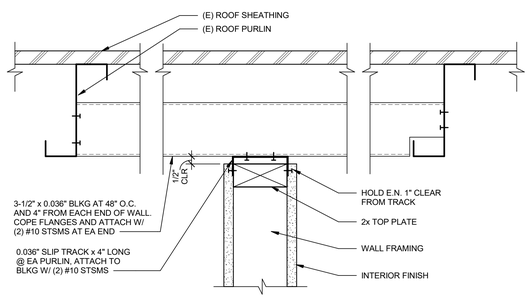
WALL TYPE MODIFIERS

A. 5/8" GYPSUM BOARD

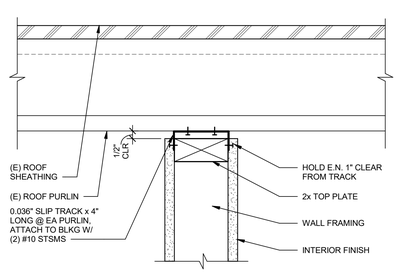


1 A L A TYPICAL INTERIOR WALL FRAMING
2"X4" WOOD STUD

2 WALL TYPES
Scale: 1 1/2" = 1'-0"



PARALLEL TO PURLINS



PERPENDICULAR TO PURLINS

3 TYPICAL NON-BEARING PARTITION WALL FRAMING AT TOP
Scale: 3" = 1'-0"

WOOD FRAME:

1. TOP PLATE OF ALL STUD WALLS SHALL BE 2 PIECES THE SAME SIZE AS STUD. SPLICES SHALL LAP 4'-0" MINIMUM AND BE NAILED WITH 12-16d MINIMUM EACH SIDE OF JOINT, UNLESS NOTED OTHERWISE ON PLANS.
2. BOLT HOLES IN WOOD SHALL BE 1/32" TO 1/16" LARGER THAN THE NOMINAL BOLT DIAMETER. ALL BOLTS SHALL HAVE STANDARD CUT WASHER UNDER HEAD AND NUT UNLESS NOTED OTHERWISE
3. PROVIDE 2x SOLID BLOCKING BETWEEN JOISTS AND RAFTERS AT ALL SUPPORTS. BLOCKING SHALL BE ONE PIECE AND THE FULL DEPTH OF THE JOIST OR RAFTER.
4. TEMPORARY DIAGONAL BRACING. MAY BE USED, NOT LET IN BRACING. PROVIDE FIRE STOPS AT ALL INTERSECTIONS OF STUD WALLS AT FLOOR, CEILING AND ROOF. FIRE STOPS SHALL BE 2X NOMINAL THICKNESS OF WOOD AND SHALL BE THE FULL WIDTH OF THE ENCLOSED SPACE. PLACE FIRE STOPS AT A MAXIMUM SPACING OF 8'-0" IN EACH DIRECTION AND AT THE SAME LINES AS FIRE STOPS IN ADJACENT STUD WALLS.
5. ALL BOLTS SHALL BE RE-TIGHTENED PRIOR TO THE APPLICATION OF SHEATHING, PLASTER, ETC.
6. EACH SHEET OF PLYWOOD SHALL BE IDENTIFIED BY A REGISTERED STAMP OR BRAND OF THE DOUGLAS FIR PLYWOOD ASSOCIATION.
7. PLYWOOD FOR WALL AND ROOF SHEATHING SHALL BE CDX STRUCTURAL I USE EXTERIOR TYPE, MIN. C-C GRADE, WHERE PLYWOOD IS EXPOSED TO WEATHER. ALL PLYWOOD SHALL BE GLUED WITH EXTERIOR TYPE GLUE. ALL PLYWOOD SHALL CONFORM TO U.S. PRODUCT STANDARDS PS-1-83.
8. ALL WOOD BEARING ON CONCRETE OR IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED DOUGLAS FIR GRADE NO. 1.
9. STRUCTURAL MEMBERS SHALL NOT BE CUT FOR PIPES, ETC. UNLESS SPECIFICALLY DETAILED. CROSS BRIDGING SHALL BE PROVIDED AT 8'-0" O.C. MAXIMUM FOR ALL
10. JOISTS AND RAFTERS (MORE THAN 8" DEEP). METAL BRIDGING SHALL BE NAILABLE TYPE. (EQUIVALENT TO SIMPSON 'TB' TYPE, NAILABLE FROM TOP AND BOTTOM)
11. ALL NAILS SHALL BE COMMON WIRE. NAILING SHALL BE PER CBC TABLE 2304.10.1
12. ALL STRUCTURAL LUMBER SHALL BE DOUGLAS FIR LARCH OF THE FOLLOWING GRADES, CONFORMING TO STANDARD GRADING RULES FOR WEST COAST LUMBER, NO. 17, UNLESS NOTED OTHERWISE:
    RAFTERS, PLATES, 4" BEAMS.....NO. 1 Fb=1000 PSI
    FLOOR JOISTS.....SELECT STRUCTURAL Fb=1450 PSI
    6" BEAMS.....NO. 1 Fb=1350 PSI
    4" POSTS.....NO. 1 Fb=1000 PS
    2" STUDS.....NO. 2 Fb=875 PSI
    6" POSTS.....NO. 1 Fb=1200 PSI
    BLOCKING, STRIPPING.....NO. 2 Fb=875 PSI
13. WOOD STUDS MAY BE NOTCHED IF JUSTIFIED WITH CALCULATIONS.
14. STUDS MAY BE BORED TO 33% OF WIDTH MAXIMUM BORED HOLE SHALL BE LOCATED AT CENTER OF STUD, NO EXCEPTION.
15. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF A STUD AS A CUT OR NOTCH.
16. PROVIDE DOUBLE JOISTS UNDER PARTITIONS WHICH ARE PARALLEL TO THE JOIST ALL HARDWARE FOR BEAM TO BEAM, COLUMN TO BEAM CONNECTION SHALL HAVE VERTICAL SLOTTED BOLT HOLES (SIMPSON PRODUCT MODIFIED OR EQ.). U.N.O.
17. ALL PRESSURE TREATED DOUGLAS FIR SHALL BEAR "WCLIB" GRADE STAMP AND "AWPB" QUALITY MARK, CUT AND HOLES SHALL BE RETREATED PER AWPA M-84. ALL PRESSURE TREATED WOOD SHALL BE TREATED PER PROCEDURE AND CHEMICALS SPECIFIED IN AWPA U1.
18. STANDARD CUT WASHERS SHALL BE USED UNDER BOLT HEADS AND NUTS AGAINST WOOD. USE HEAVY PLATE OF MALLEABLE IRON WASHERS FOR ALL BOLTS DESIGNED TO ACT IN TENSION. SEE DRAWINGS FOR LOCATION. HEAVY PLATE WASHER SIZES SHALL BE AS FOLLOWS:

½" BOLT 3x3x¼	⅞" BOLT 3½x3½x5/16
⅝" BOLT 3x3x¼	1" BOLT 4x4x¼
¾" BOLT 3x3x¼	1⅛ " BOLT 4x4x5/16

½"x3" SQUARE PLATE WASHERS SHALL BE USED UNDER ALL BOLT HEADS AND NUTS AGAINST WOOD.

19. ALL WOOD FRAMING CONNECTORS SHALL BE ICC APPROVED PRODUCT, SIMPSON OR APPROVED EQUIVALENT.
20. MOISTURE CONTENT OF LUMBER SHALL NOT EXCEEDS 19% AT TIME OF INSTALLATION.
21. FASTENERS FOR PRESSURE-PRESERVATIVE TREATED AND FIRE-RETARDANT TREATED WOOD SHALL BE OF HOT-DIPPED ZINC COATED GALVANIZED, STAINLESS STEEL, SILICON BRONZE OR COPPER. FASTENERS FOR WOOD FOUNDATIONS SHALL BE AS AS REQUIRED IN CHAPTER 23. FASTENERS REQUIRED TO BE CORROSION RESISTANT SHALL BE EITHER ZINC-COATED FASTENERS, ALUMINUM ALLOY WIRE FASTENERS OR STAINLESS STEEL FASTENERS.

NAILING SCHEDULE:

CONNECTIONS	:NAILINGS:
JOISTS OR RAFTERS TO SIDES OF STUDS EIGHT (8) INCH JOISTS OR LESS	3-16d
FOR EACH ADDITIONAL FOUR (4) INCHES IN DEPTH OF JOIST	1-16d
JOISTS OR RAFTER OF ALL BEARINGS TOE NAILS, EACH SIDE	2-10d
BLOCKING BETWEEN JOISTS OR RAFTERS - TO JOISTS OR RAFTERS - TOE NAILS, EACH SIDE, EACH END	2-10d
TO JOIST OR RAFTER BEARINGS-TOE NAILS EACH SIDE, EACH END	2-10d
TO JOISTS OR RAFTER BEARINGS - TOE NAILS, EACH SIDE	3-10d
BLOCKING BETWEEN STUDS, EACH END	2-10d TOE NAILS OR 2-16d
BRIDGING TO JOIST, TOE NAIL EACH END	2-8d
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d @ 16" O.C.
TOP PLATE TO STUD, END NAIL (FOR 2X6 STUD)	2-16d (SEE NOTE 4)
STUD TO SOLE PLATE, TOE NAIL (FOR 2X6 STUD)	4-8d (SEE NOTE 4)
TOP PLATE TO STUD FOR WALL (FOR WALL 12 FEET AND HIGHER) SIMPSON A35	SIMPSON A35
STUD TO SOLE PLATE (FOR WALL 12 FEET AND HIGHER) SIMPSON A35	SIMPSON A35
DOUBLED STUDS FACE NAIL	16d @ 12" O.C.
TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-16d
DOUBLE TOP PLATES, FACE NAIL (4'-0" MINIMUM LAP)	16d @ 12" O.C.
BUILT-UP CORNER STUDS	16d @ 12" O.C.
RIBBONS TO STUDS - ONE (1) INCH RIBBONS	2-8d
TWO (2) INCH RIBBONS	2-16d
CONTINUOUS HEADER, TWO PIECES	16d @ 12" O.C. ALONG EACH SIDE
CONTINUOUS HEADER TO STUD, TOE NAIL	4-8d
1" BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8d

NOTES:
1. WHERE POSSIBLE, NAILS DRIVEN PERPENDICULAR TO GRAIN SHALL BE USED INSTEAD OF TOE NAILS.
2. USE 2-16d MINIMUM FOR ALL 2 X WHERE NAILING IS NOT SPECIFICALLY NOTED. IF SINKER NAILS ARE USED, THE NAIL SPACING SHALL BE DECREASED BY 25%
3. COMMON WIRE NAILS SHALL BE USED EXCEPT WHERE NOTED OTHERWISE.
4. ADD 1-16d FOR ADDITIONAL 2" OF STUD SIZE.

MACHINE APPLIED NAILING:
USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOB-SITE DEMONSTRATION FOR EACH PROJECT AND THE APPROVAL BY THE PROJECT ARCHITECT OR STRUCTURAL ENGINEER AND THE DIVISION OF THE STATE ARCHITECT. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING WILL NOT BE APPROVED IN 5/8" PLYWOOD. IF NAIL HEAD PENETRATES THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-124525 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 12/03/2025

MORETO MATHISON & ASSOCIATES
A R C H I T E C T S
449 W FOOTHILL BLVD
SUITE 281, GLENDORA CA 91741
(626) 594-0307

CONSULTANT

STAMP
LICENSED ARCHITECT DAVID MATHISON NO. C 27783 REN. 08-31-27 STATE OF CALIFORNIA

CLIENT
RANCHO SANTIAGO Community College District

RANCHO SANTIAGO
COMMUNITY COLLEGE DISTRICT
VL107
AP STUDENT CENTER RECONFIGURATION

SANTA ANA COLLEGE
1530 W. 17TH ST
SANTA ANA, CA 92706

100% CD

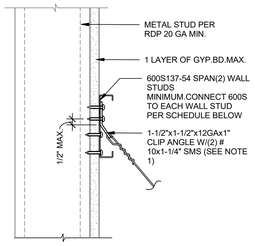
REVISIONS

DSA Back Check 01	09/05/2025
DSA Back Check 02	10/24/2025

MMA NO	25801
DATE:	05/12/2025
DRAWN	WJ
CHECKED	DAM

WALL DETAILS

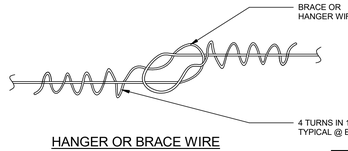
A5.01



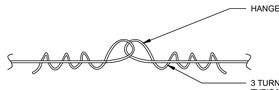
WALL STUD GAUGE	CONNECTION TO WALL STUD (WITH GYP.BD.)	CONNECTION TO WALL STUD (WITHOUT GYP.BD.)
20 GAUGE	(5) #10x1-1/4" SMS	(3) #10x1-1/4" SMS
18 GAUGE	(4) #10x1-1/4" SMS	(2) #10x1-1/4" SMS

NOTES:
1. THE CLIP ANGLE CAN BE ATTACHED DIRECTLY TO THE WALL STUD FLANGE PROVIDED BOTH OF THE FOLLOWING CONDITIONS ARE MET:
- THE WALL STUD IS 18 GA MIN. AND CAPABLE OF SUPPORTING THE BRACE FORCE.
- THE BRACE WIRE ALIGNS WITH THE WALL STUD WEB.

10 BRACING WIRE CONNECTION TO METAL STUD WALL
Scale: 3" = 1'-0"



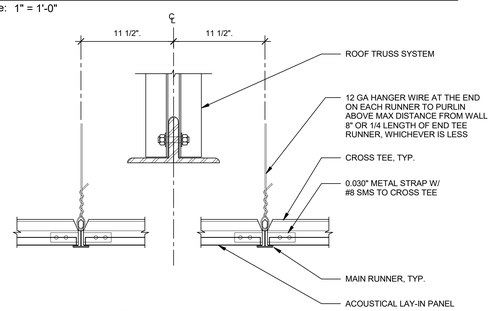
HANGER OR BRACE WIRE



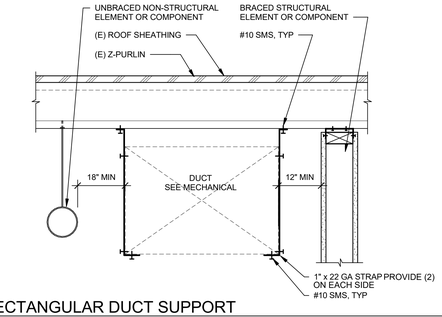
HANGER WIRE ONLY

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

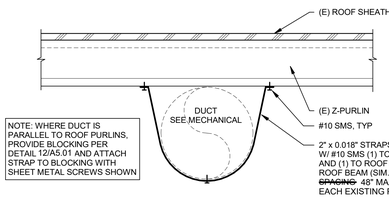
11 CEILING WIRE SPLICES
Scale: 1" = 1'-0"



12 GRID AT MODLINE
Scale: 3" = 1'-0"

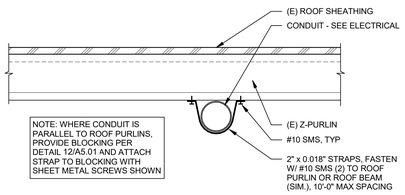


13 RECTANGULAR DUCT SUPPORT
Scale: 1 1/2" = 1'-0"



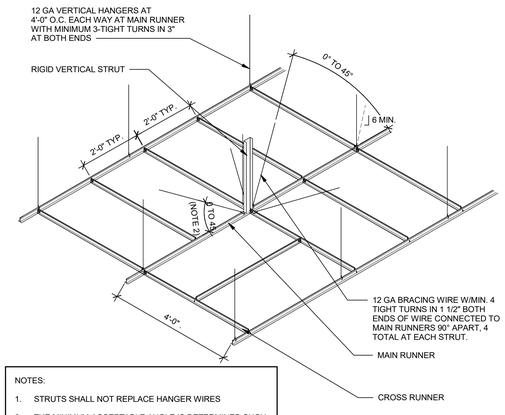
NOTE: WHERE DUCT IS PARALLEL TO ROOF PURLINS, PROVIDE BLOCKING PER DETAIL 12/A5.01 AND ATTACH STRAP TO BLOCKING WITH SHEET METAL SCREWS SHOWN

14 ROUND DUCT SUPPORT
Scale: 1 1/2" = 1'-0"



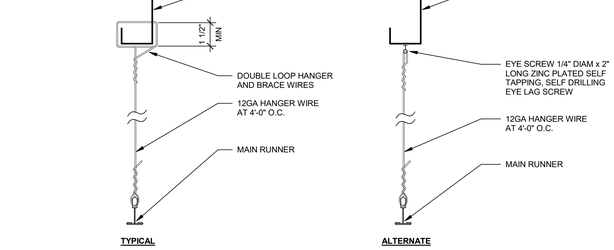
NOTE: WHERE CONDUIT IS PARALLEL TO ROOF PURLINS, PROVIDE BLOCKING PER DETAIL 12/A5.01 AND ATTACH STRAP TO BLOCKING WITH SHEET METAL SCREWS SHOWN

15 CONDUIT SUPPORT
Scale: 1 1/2" = 1'-0"



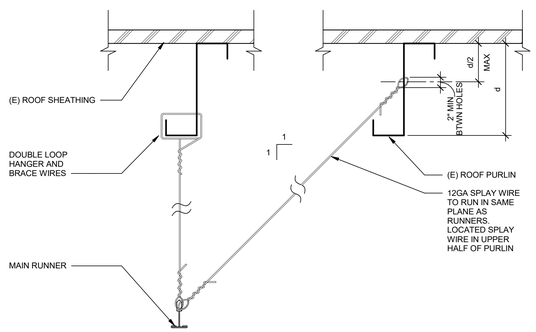
NOTES:
1. STRUTS SHALL NOT REPLACE HANGER WIRES
2. THE MINIMUM ACCEPTABLE ANGLE IS DETERMINED SUCH THAT THE WIRES DO NOT INTERFERE WITH THE RUNNERS, LIGHT FIXTURES, ETC.AND REMAIN STRAIGHT AND UNOBSTRUCTED.

6 SUSPENDED CEILING BRACING LAYOUT
Scale: NTS "-0"



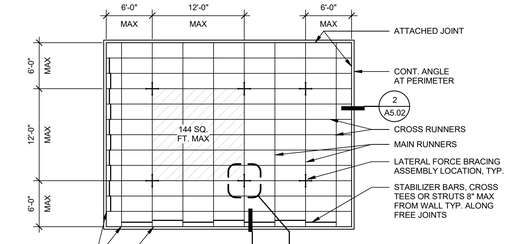
SECTION A-A

7 COMPRESSION STRUT
Scale: 3" = 1'-0"



8 SPLAY BRACING WIRE DETAIL
Scale: 3" = 1'-0"

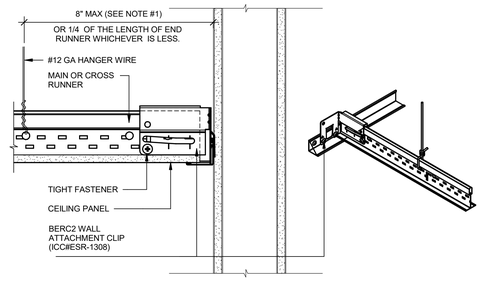
9 HANGER WIRE DETAIL
Scale: 3" = 1'-0"



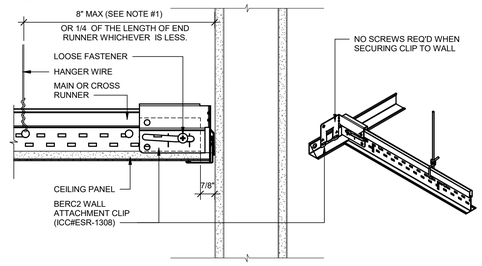
NOTES: BRACING WIRES AND COMP.STRUT SHALL OCCUR AT EVERY 144 SQ.FT.MAX.IN ROOMS OVER 144 SQ.FT.

NOTE: BRACE ASSEMBLY SPACING 12'X12' REQUIRED: Sds ≤ 1.15 PROVIDED: Sds = 1.05

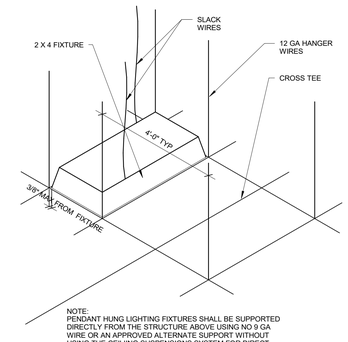
1 TYPICAL CEILING PLAN FOR 12'-0" x 12'-0" BRACE ASSEMBLY SPACING
Scale: 1/8" = 1'-0"



2 TYP ACT TO SIDE WALL (FIXED)
Scale: 3" = 1'-0"

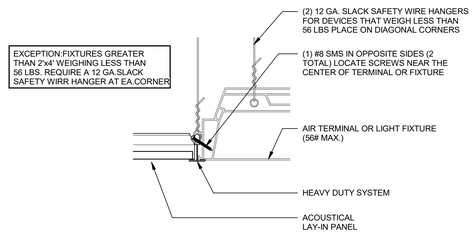


3 TYP ACT TO SIDE WALL (FREE)
Scale: 3" = 1'-0"



NOTE:
PENDANT HUNG LIGHTING FIXTURES SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE USING NO 9 GA WIRE OR AN APPROVED ALTERNATE SUPPORT WITHOUT USING THE CEILING SUSPENSIONS SYSTEM FOR DIRECT SUPPORT.

4 LIGHT FIXTURE SUPPORT
Scale: NTS "



EXCEPTION:FIXTURES GREATER THAN 2'x4' WEIGHING LESS THAN 56 LBS. REQUIRE A 12 GA.SLACK SAFETY WIRR HANGER AT EA.CORNER

5 TYP ACT TO LIGHT FIXTURE
Scale: 3" = 1'-0"

METAL SUSPENSION SYSTEMS FOR LAY-IN PANEL CEILINGS

1. CEILING SYSTEM GENERAL NOTES

1.01 CEILING SYSTEM COMPONENTS SHALL COMPLY WITH ASTM C635 AND SECTION 5.1 OF ASTM 580.

1.02 THE CEILING GRID SYSTEM MUST BE RATED HEAVY DUTY AS DEFINED BY ASTM C635.

1.03 CEILING SYSTEMS. THE FOLLOWING CEILING SYSTEM(S) IS/ARE PART OF THE SCOPE OF THIS PROJECT:

MANUFACTURER:	**ARMSTRONG**
PRODUCT NAME:	**PRELUDE X 15/16"**
EVALUATION REPORT TYPE AND NUMBER:	**ESR-1308**
MAIN RUNNER PART, MODEL, OR CATALOG NUMBER:	**7301**
CROSS RUNNER PART, MODEL, CATALOG NUMBER:	**XL7341, XL7328**

1.04 SEISMIC WALL CLIP:
MANUFACTURER'S MODEL: **7810 BERC-2**

1.05 CEILING PANELS SHALL NOT SUPPORT ANY LUMINAIRES, AIR TERMINALS OR DEVICES.

1.06 FOR CEILING INSTALLATIONS UTILIZING ACOUSTICAL TILE PANELS OF MINERAL OR GLASS FIBER, IT IS NOT MANDATORY TO PROVIDE ½" CLEARANCE BETWEEN THE ACOUSTICAL TILE PANELS AND THE WALL ON THE SIDES OF THE CEILING WHICH ARE FREE TO SLIP. FOR ALL OTHER CEILING PANEL TYPES, PROVIDE ½" CLEARANCE BETWEEN THE CEILING PANEL AND THE WALL ON THE SIDES OF THE CEILING FREE TO SLIP. CLEARANCE BETWEEN CEILING GRID RUNNERS/MEMBERS AND WALLS SHALL COMPLY WITH THE DETAILS ON THESE DRAWINGS REGARDLESS OF CEILING TILE MATERIAL.

2. MATERIALS

2.01 CEILING WIRE SHALL BE CLASS 1 ZINC COATED (GALVANIZED) CARBON STEEL CONFORMING TOASTM A641. WIRE SHALL BE #12 GAUGE (0.106" DIAMETER) WITH SOFT TEMPER AND MINIMUM ULTIMATE TENSILE STRENGTH = 70 KSI.

2.02 GALVANIZED SHEET STEEL (INCLUDING THAT USED FOR METAL STUD AND TRACK COMPRESSION STRUTS/POST) SHALL CONFORM TO ASTM A653, OR OTHER EQUIVALENT SHEET STEEL LISTED IN SECTION A3.1 OF THE NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, (AISI S100). MATERIAL 43 MIL (18 GAUGE) ASTM A653, SHALL HAVE MINIMUM YIELD STRENGTH OF 33 KSI. MATERIAL 54 MIL (16 GAUGE) AND HEAVIER SHALL HAVE A MINIMUM YIELD STRENGTH OF 50KSI.

2.03 ELECTRICAL METALLIC TUBE (EMT) SHALL BE ANSI C80.3/UL 797 CARBON STEEL WITH G90 GALVANIZING. EMT SHALL HAVE MINIMUM YIELD STRENGTH (FY) OF 30 KSI AND MINIMUM ULTIMATE STRENGTH (FU) OF 48 KSI.

3. ATTACHMENT OF HANGER AND BRACING WIRES

3.01 SEPARATE ALL CEILING HANGER AND BRACING WIRES AT LEAST 6 INCHES FROM ALL UNBRACED DUCTS, PIPES, CONDUIT, ETC.

3.02 HANGER AND BRACING WIRES SHALL NOT ATTACH TO OR BEND AROUND OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO PIPING, DUCTWORK, CONDUIT AND EQUIPMENT.

3.03 HANGER WIRES THAT ARE MORE THAN ONE (HORIZONTAL) IN SIX (VERTICAL) OUT OF PLUMB SHALL HAVE COUNTER-SLOPING WIRES.

3.04 SLACK SAFETY WIRES SHALL BE CONSIDERED HANGER WIRES FOR INSTALLATION AND TESTING REQUIREMENTS.

3.05 HANGER AND BRACING WIRE ANCHORAGE TO THE STRUCTURE SHALL BE INSTALLED IN SUCH A MANNER THAT THE DIRECTION OF THE ANCHORAGE ALIGNS CLOSELY WITH THE DIRECTION OF THE WIRE (E.G., BRACING WIRE CEILING CLIPS MUST BE BENT AS SHOWN IN THE DETAILS AND ROTATED AS REQUIRED TO ALIGN CLOSELY WITH THE DIRECTION OF THE WIRE. SCREW EYES IN WOOD MUST BE INSTALLED SO THEY ALIGN CLOSELY WITH THE DIRECTION OF THE WIRE, ETC.).

4. FASTENERS AND WELDING

4.01 SHEET METAL SCREWS SHALL COMPLY WITH ASTM C1513 AND ASME B18.6.3. PENETRATION OF SCREWS THROUGH JOINED MATERIAL SHALL NOT BE LESS THAN THREE EXPOSED THREADS.

4.02 EXPANSION ANCHORS SHALL BE: [RDP TO INDICATE MANUFACTURER, PRODUCT, EVALUATION REPORT NUMBER AND TEST LOAD FOR EACH SIZE SPECIFIED PER CBC 1910A.5.4.]

4.03 POWER-ACTUATED FASTENERS SHALL BE:

4.04 IF NOT OTHERWISE SPECIFIED IN THE EVALUATION REPORT, POWER-ACTUATED FASTENERS INSTALLED IN STEEL SHALL BE INSTALLED SO THE ENTIRE POINTED END OF THE FASTENER IS DRIVEN THROUGH THE STEEL MEMBER

4.05 POWER-ACTUATED FASTENERS IN CONCRETE OR MASONRY ARE NOT PERMITTED FOR BRACING WIRES.

4.06 CONCRETE REINFORCEMENT AND PRESTRESSING TENDONS SHALL BE LOCATED BY NON-DESTRUCTIVE MEANS PRIOR TO INSTALLING POST-INSTALLED ANCHORS.

4.07 WELDING SHALL BE IN ACCORDANCE WITH AWS D1.3 USING E60XX SERIES ELECTRODES.

5. TESTING

5.01 ALL FIELD TESTING MUST BE PERFORMED IN THE PRESENCE OF THE PROJECT INSPECTOR.

5.02 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 POUNDS IN TENSION. ALL OTHER POST-INSTALLED ANCHORS IN CONCRETE SHALL BE TESTED IN ACCORDANCE WITH CBC SECTION 1910A.5.

5.03 POST-INSTALLED ANCHORS IN CONCRETE USED TO ATTACH BRACING WIRES SHALL BE TESTED AT A FREQUENCY OF 50 PERCENT IN ACCORDANCE WITH CBC SECTION 1910A.5.

6. LUMINAIRES

6.01 ALL LUMINAIRES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS TO RESIST A HORIZONTAL FORCE EQUAL TO THE WEIGHT OF THE LUMINAIRE. A MINIMUM OF TWO SCREWS OR APPROVED FASTENERS ARE REQUIRED AT EACH LUMINAIRE, PER ASTM E580 SECTION 5.3.1.

6.02 SURFACE-MOUNTED LUMINAIRES SHALL BE ATTACHED TO THE MAIN RUNNER WITH AT LEAST TWO POSITIVE CLAMPING DEVICES. THE CLAMPING DEVICE SHALL COMPLETELY SURROUND THE SUPPORTING CEILING RUNNER AND BE MADE OF STEEL WITH A MINIMUM THICKNESS OF #14 GAUGE. ROTATIONAL SPRING CATCHES DO NOT COMPLY. A #12 GAUGE SLACK SAFETY WIRE SHALL BE CONNECTED FROM EACH CLAMPING DEVICE TO THE STRUCTURE ABOVE. PROVIDE ADDITIONAL SUPPORTS WHEN A LUMINAIRE IS 8 FEET OR LONGER OR EXCEEDS 56 POUNDS. MAXIMUM SPACING BETWEEN SUPPORTS SHALL NOT EXCEED 8 FEET.

6.03 LUMINAIRES WEIGHING LESS THAN OR EQUAL TO 10 POUNDS MAY BE SUPPORTED DIRECTLY ON THE CEILING RUNNERS, SHALL HAVE A MINIMUM OF ONE #12 GAUGE SLACK SAFETY WIRE CONNECTED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE.

6.04 LUMINAIRES WEIGHING GREATER THAN 10 POUNDS BUT LESS THAN OR EQUAL TO 56 POUNDS MAY BE SUPPORTED DIRECTLY ON THE CEILING RUNNERS, BUT THEY SHALL HAVE A MINIMUM OF TWO #12 GAUGE SLACK SAFETY WIRES CONNECTED FROM THE FIXTURE HOUSING AT DIAGONAL CORNERS TO THE STRUCTUREABOVE.
EXCEPTION: ALL LUMINAIRES GREATER THAN TWO BY FOUR FEET WEIGHING LESS THAN 56 POUNDS SHALL HAVE A #12 GAUGE SLACK SAFETY WIRE AT EACH CORNER.

6.05 ALL LUMINAIRES WEIGHING GREATER THAN 56 POUNDS SHALL BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN FOUR TAUT #12 GAUGE HANGER WIRES (ONE AT EACH CORNER) ATTACHED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE OR OTHER APPROVED HANGERS. THE FOUR TAUT #12 GAUGE WIRES OR OTHER APPROVED HANGERS, INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE, SHALL BE CAPABLE OF SUPPORTING FOUR TIMES THE WEIGHT OF THE FIXTURE.

7. SERVICES WITHIN THE CEILING

7.01 ALL FLEXIBLE SPRINKLER HOSE FITTING MOUNTING BRACKETS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS. SCREWS OR APPROVED FASTENERS ARE REQUIRED. A MINIMUM OF TWO ATTACHMENTS ARE REQUIRED AT EACH COMPONENT.

7.02 CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING LESS THAN OR EQUAL TO 20 POUNDS SHALL HAVE ONE #12 GAUGE SLACK SAFETY WIRE ATTACHED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE.

7.03 FLEXIBLE SPRINKLER HOSE FITTINGS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING MORE THAN 20 POUNDS BUT LESS THAN OR EQUAL TO 56 POUNDS SHALL HAVE TWO #12 GAUGE SLACK SAFETY WIRES (AT DIAGONAL CORNERS) CONNECTED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE.

7.04 FLEXIBLE SPRINKLER HOSE FITTINGS, CEILING-MOUNTED AIR TERMINALS OR OTHER SERVICES WEIGHING MORE THAN 56 POUNDS SHALL BE SUPPORTED DIRECTLY FROM THE STRUCTURE ABOVE BY NOT LESS THAN FOUR TAUT #12 GAUGE HANGER WIRES ATTACHED FROM THE TERMINAL OR SERVICE TO THE STRUCTURE ABOVE OR OTHER APPROVED HANGERS.

8. OTHER DEVICES WITHIN THE CEILING

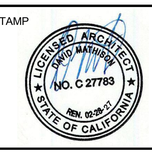
8.01 ALL LIGHTWEIGHT MISCELLANEOUS DEVICES, SUCH AS STROBE LIGHTS, OCCUPANCY SENSORS, SPEAKERS, EXIT SIGNS, ETC., SHALL BE ATTACHED TO THE CEILING GRID. IN ADDITION, DEVICES WEIGHING MORE THAN 10 POUNDS SHALL HAVE A #12 GAUGE SLACK SAFETY WIRE ANCHORED TO THE STRUCTURE ABOVE. DEVICES WEIGHING MORE THAN 20 POUNDS SHALL BE SUPPORTED INDEPENDENTLY FROM THE STRUCTURE ABOVE.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-124525 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 12/03/2025

MORETO MATHISON & ASSOCIATES
A R C H I T E C T S
449 W FOOTHILL BLVD
SUITE 281, GLENDORA CA 91741
(626) 594-0307

CONSULTANT

STAMP



CLIENT

RANCHO SANTIAGO Community College District

RANCHO SANTIAGO
COMMUNITY COLLEGE DISTRICT
VL107
AP STUDENT CENTER RECONFIGURATION

SANTA ANA COLLEGE
1530 W. 17TH ST
SANTA ANA, CA 92706

100% CD

REVISIONS

DSA Back Check 01	09/05/2025
DSA Back Check 02	10/24/2025

MMA NO	25801
DATE:	05/12/2025
DRAWN	WJ
CHECKED	DM

CEILING DETAILS

A5.02

CONTROLS NOTES

1. CONTROLS SCOPE OF WORK IS DESIGN-BUILD AND HVAC OR GENERAL CONTRACTOR SHALL ENGAGE A QUALIFIED CONTROLS SUBCONTRACTOR TO PROVIDE A COMPLETE AND FUNCTIONAL DESIGN-BUILD CONTROLS SYSTEM.
2. PROPOSED CONTROLS SYSTEM SHALL BE PREPARED BASED ON BUILDING OWNER OR OPERATORS STANDARDS.
3. THE INFORMATION SHOWN ON THIS SET OF PLANS IS TO CONVEY CODE REQUIREMENTS AND MINIMUM CONTROLS SPECIFICATIONS INCLUDING LOW VOLTAGE WORK NECESSARY FOR FIRE ALARM REQUIREMENTS RELATED TO SMOKE DETECTORS. THE DESIGN-BUILD CONTROLS CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF CONTROLS SYSTEM TO ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO COMMENCEMENT OF WORK.
4. PROVIDE ONE TEMPERATURE CONTROLLER PER EACH AC SYSTEM. FOR EACH T-STAT WITH A SENSOR, COORDINATE EXACT LOCATION OF T-STAT WITH OWNER.

FUTURE ACCESS NOTES

CONTRACTOR SHALL PROVIDE THE FOLLOWING:

1. MEANS FOR ACCESS ALL SERVICE AREAS OF ALL HVAC EQUIPMENT/DEVICES. THIS INCLUDES BUT NOT LIMITED TO EACH FANCOIL OR AIR HANDLER, WATER SOURCE HEAT PUMPS, FANS, MANUAL OR MOTORIZED DAMPERS, FIRE OR COMBINATION/SMOKE FIRE DAMPERS, SMOKE DETECTORS, SENSORS AND SIMILAR COMPONENTS REQUIRING FUTURE ACCESS AND SERVICE.
2. ACCESS MIGHT BE THROUGH T-BAR PANELS, CEILING OR WALL ACCESS PANELS, DUCT ACCESS DOORS.
3. WHERE SAFE ACCESS THROUGH LADDERS IS NOT POSSIBLE, CONTRACTOR SHALL PROVIDE SERVICE PLATFORMS IN FRONT OF SERVICE/ACCESS AREAS.
4. EACH DUCTED SPLIT SYSTEM FAN COILS CONCEALED ABOVE A CEILING SHALL HAVE A DRAIN PAN TO ALLOW THE INSTALLATION OF THE SECONDARY CONDENSATE DRAIN LINE.
5. FD3
6. PROVIDE SHOP DRAWINGS OF THE ACCESS DOORS AND FLOOR PLAN LAYOUT TO ARCHITECT FOR RAPPROVAL.

SUBMITTED BIDS SHALL INCLUDE ALL SUCH MEANS OF ACCESS FOR EVERY SINGLE
PIECE OF EQUIPMENT OR DEVICE.

EXISTING BUILDING NOTES

CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO BID TO SEE THE EXISTING CONDITIONS & TO VERIFY THE FEASIBILITY OF WHAT SHOWN ON PLANS AND EXTENT OF DEMOLITION WORK REQUIRED. SUBMITTED BID SHALL INCLUDE ALL MATERIAL AND LABOR NECESSARY FOR A COMPLETE INSTALLATION AND START UP INCLUDING ONE YEAR LABOR AND MATERIAL WARRANTY. VERIFY EXACT LOCATION, SIZE AND ROUTING OF EXISTING EQUIPMENT AND OTHER COMPONENTS SHOWN ON THIS SET OF DRAWINGS BEFORE COMMENCEMENT OF ANY WORK & REPORT ANY DISCREPANCY TO ARCHITECT OR ENGINEER FOR DIRECTION.

UPON AWARD OF CONTRACT, EXAMINE AND REPORT ANY NEEDS FOR REPAIRS RELATED TO EXISTING HVAC EQUIPMENT SHOWN ON THIS SET OF PLANS TO BE REUSED TO AVOID IMPACT ON PROJECT SCHEDULE

CAL GREEN & OTHER TEST NOTES

MECHANICAL & PLUMBING SYSTEM DESCRIPTION:

MECHANICAL SYSTEMS

SYSTEM DESCRIPTION:

HEATING, VENTILATING AND AIR CONDITIONING SYSTEM DESIGN CRITERIA:

1. GENERAL: THE DESIGN OF THE HVAC SYSTEM WILL COMPLY WITH THE 2022 CALIFORNIA BUILDING CODE CALIFORNIA GREEN CODE, AND 2022 CALIFORNIA MECHANICAL CODE, COUNTY OF LOS ANGELES FIRE CODE, AND THE CALIFORNIA TITLE 24 ENERGY CONSERVATION CODE FOR NONRESIDENTIAL BUILDINGS.
2. DESIGN CONDITIONS:
   a. SUMMER:
      OUTSIDE DRY BULB (0.5%) AND COINCIDENT WET BULB: 90°F/70°F
      INSIDE DRY BULB: 75°F
      INSIDE RELATIVE HUMIDITY: 40%-60%
   b. WINTER: OUTSIDE DRY BULB (0.2%): 38°F
      INSIDE DRY BULB: 70°F
   c. MINIMUM VENTILATION: PER THE REQUIREMENTS OF 2022
   d. CA ENERGY CODE
   e. MINIMUM AIR SUPPLY: MINIMUM AIR SUPPLY RATE IN CONDITIONED AREA UNDER FULL LOAD CONDITIONS.
3. INTERIOR LOADS:
   a. LIGHTS: PER CALIFORNIA ENERGY COMMISSION DEFAULT LOADS OR ACTUAL PROVIDED.
   b. MISCELLANEOUS EQUIPMENT: PER ENERGY CODE DEFAULT POWER DENSITY, OR PER ACTUAL DATA PROVIDED
   c. PEOPLE: PER CALIFORNIA BUILDING CODE

PART 2: MATERIALS AND EQUIPMENT

MECHANICAL AIR SYSTEM:

1. A NEW AIR CONDITIONING UNIT LOCATED WITHIN THE FOOTPRINT OF THE BUILDING .
   a. UNITS SHALL BE SPLIT PACKAGED UNIT WITH GAS HEATING AND MERV-13 FILTERS
   c. SEISMIC ROOF CURB.
   d. UNIT SHALL BE WEATHER PROOF CONSTRUCTION.
   g. UNIT WILL BE FACTORY FABRICATED AND EQUAL TO SPECIFIED UNITS.

AIR DISTRIBUTION SYSTEM:

1. CONSTANT VOLUME SUPPLY AND RETURN DUCTWORK FROM THE AC UNIT.
2. AIR CONDITIONING UNIT WILL HAVE ONE THERMOSTAT CONTROLLING THE ZONE'S TEMPERATURE.

BUILDING HEATING SYSTEM:

1. EACH AC UNIT WILL BE EQUIPPED WITH HEATING CYCLE.
2. THE SAME CONSTANT VOLUME DUCTWORK WILL BE USED TO DELIVER THE HEATING CAPACITY.

AUTOMATIC CONTROLS:

1. AUTOMATIC CONTROLS WILL BE THROUGH INDIVIDUAL 7-DAY PROGRAMMABLE THERMOSTATS FOR EACH FCU.

ADDITIONAL CAL GREEN & TEST NOTES

AT THE MINIMUM, THE FOLLOWING TESTS SHALL BE PERFORMED BY THE GENERAL CONTRACTOR UNTIL PASSING ALL TESTS, THE RESULTS SHOULD BE REPORTED TO INSPECTORS:

1- OUTDOOR AIR
2- DUCT LEAKAGE TEST AND AIR DISTRIBUTION DUCT LEAKAGE.
3- TEST REQUIRED BY COMMISSIONING AGENT.
4- HVAC SYSTEMS AND CONTROLS SHALL COMPLY WITH ONE OF THE FOLLOWING STANDARDS:

TABB'S CONSTRUCTION SPECIFICATIONS INSTITUTE MASTER FORMAT (SECTIONS 23 05 93 AND 15990)
OR
NEBB'S STANDARDS FOR TESTING, ADJUSTMENT, AND BALANCING OF ENVIRONMENTAL SYSTEMS (7TH ADDITION)
OR
AABC 'S NATIONAL STANDARDS FOR TOTAL SYSTEMS BALANCE (6TH EDITION)
OR
ASHRAE STANDARD 111-2022

1- PRESSURE TESTS FOR ALL PIPING PER 2022 CPC:
DOMESTIC WATER SYSTEM: PER SECTION 609.4 OF 2022 CPC.
SANITARY WASTE & VENT SYSTEM: PER SECTION 712.0 OF 2022 CPC.
GAS PIPING SYSTEM: PER SECTION 1214.3 ODF 2022 CPC.
2- START, FULL LOAD CONSUMPTION AND TEMPERATURE CONTROL TEST FOR THE WATER HEATERS, AND PUMPS.
3- SEISMIC RESTRAINT INSTALLATION.

GENERAL NOTES

1. ALL WORK AND MATERIALS SHALL BE IN FULL ACCORDANCE WITH THE REQUIREMENTS OF THESE CODES AND APPLICABLE LOCAL ORDINANCE WHERE CONTRACT DOCUMENTS EXCEED WITHOUT VOILATING CODE AND REGULATION REQUIREMENTS, CONTRACT DOCTUMENTS TAKE PRECEDENCE. WHERE CODE CONFLICT, THE MORE STRINGENT SHALL APPLY. IT SHALL BE THE CONTRACTOR'S AND HIS EMPLOYEE'S RESPONSIBILITY TO BE FAMILIAR WITH ALL CODES AND ORDINANCES, CITY OR STATE, AS REQUIRED FOR THE CONSTRUCTION OF THIS PROJECT. WHERE ANY CONFLICTS OCCUR BETWEEN FEDERAL, STATE AND LOCAL LAWS, CODES, ORDINANCES, AND REGULATIONS, THE MOST STRINGENT SHALL GOVERN.
2. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING BUT NOT LIMITED TO STRUCTURE, MECHANICAL, PLUMBING, ELECTRICAL, EQUIPMENT, AND ALL OTHER EXISTING SYSTEMS; AND MAKE NECESSARY PROVISIONS TO MAINTAIN THE INTEGRITY OF SAID SYSTEMS PRIOR TO THE COMMENCEMENT OF DEMOLITION, IF ANY. SEE STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND EQUIPMENT DRAWINGS FOR ANY SYSTEMS OR PORTIONS THEREOF TO BE REMOVED, RELOCATED, REVISED OR ABANDONED. ALL POSSIBLE CARE SHALL BE EXERCISED BY THE CONTRACTOR TO INSURE THAT ANY SAID UTILITY WILL NOT BE THE CAUSE OF ENDANGERMENT TO THE LIFE OR HEALTH OF ANY PERSON.
3. ALL DRAWINGS AND SPECIFICATIONS ARE TO BE CONSIDERED PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS PRIOR TO ANY CONSTRUCTION, INCLUDING ARCHITECTURAL, STRUCTURAL, MECHANICAL, PLUMBING, AND ELECTRICAL. ANY APPARENT DISCREPANCY SHALL BE BROUGHT TO THE CONTRACTING OFFICER PRIOR TO START OF CONSTRUCTION. SO A CLARIFICATION MAY BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENT SHALL BE CORRECTED BY THE CONTRACTOR AT HIS OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR ARCHITECT.
4. THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR A COMPLETE LIST OF GENERAL CONDITIONS, SPECIAL CONDITIONS, MATERIALS, INSTALLATION METHODOLOGY AND NOTES.
5. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS, SERVICES, AND POINTS OF CONNECTION PRIOR TO START OF WORK.
6. DUCTWORK, PIPING AND CONDUIT, AS SHOWN ON DRAWINGS, IS SCHEMATIC AND SHALL BE FABRICATED AND INSTALLED BASED ON ACTUAL FIELD MEASUREMENT. COORDINATE WITH OTHER TRADES AS REQUIRED.
7. THE SUPPORT AND SEISMIC BRACING IF REQUIRED FOR ALL PIPES, DUCTS AND CONDUITS SHALL BE CONSTRUCTED AND INSTALLED IN STRICT ACCORDANCE WITH PRE-APPROVED ANCHORAGE SYSTEMS. A COPY OF THESE MANUFACTURER'S PRE-APPROVED GUIDELINES FOR SEISMIC RESTRAINT SHALL BE MADE AVAILABLE AT THE JOB SITE AT ALL TIMES FOR USE BY THE SITE INSPECTOR WITH INFORMATION ON THE SYSTEM WHICH WILL BE USED PRIOR TO INSTALLATION. THE PRE-APPROVED SYSTEMS ARE: THE MASON INDUSTRIES 'SEISMIC RESTRAINT GUIDELINES FOR MECHANICAL AND PLUMBING SYSTEMS'. THE SUPERSTRUIT 'SEISMIC RESTRAINT SYSTEM', UNISTRUT 'SEISMIC BRACING SYSTEM'. REFER TO DETAILS ON SHEET M2.2 AND M2.4 FOR SPECIFIC PRE-APPROVED SEISMIC BRACING SYSTEM FROM MASON INDUSTRIES.
8. PROVIDE VOLUME DAMPERS IN ALL BRANCH DUCTS FOR SYSTEM BALANCING.
9. ALL SIZES INDICATED ON THE PLANS ARE THE MINIMUM ALLOWABLE AND ARE BASED ON THE PERFORMANCE REQUIRED. NONE OF THE DUCT OR PIPE VELOCITIES SHALL EXCEED THE VELOCITIES ESTABLISHED BY THIS CRITERIA.
10. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATION OF DIFFUSERS, REGISTERS, GRILLES AND ACCESS PANELS.
11. ALL DUCT DIMENSIONS, AS SHOWN ON MECHANICAL DRAWINGS, ARE CLEAR INSIDE DIMENSIONS.
12. FIRE DAMPER ASSEMBLIES, INCLUDING SLEEVES AND INSTALLATION PROCEDURES SHALL BE APPROVED BY THE BUILDING INSPECTOR PRIOR TO INSTALLATION. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF FIRE RATED WALLS AND SMOKE SEPARATIONS.
13. ALL PIPING AND DUCTWORK SHALL BE INSULATED CONSISTENT WITH THE LATEST REQUIREMENTS OF THE CALIFORNIA TITLE 24.
14. ALL HVAC EQUIPMENT AND APPLIANCES SHALL MEET THE REQUIREMENTS OF SECTION 111-113, 115, 120-129 OF THE ENERGY EFFICIENCY STANDARDS.
15. ALL HVAC SYSTEMS SHALL MEET THE LATEST CONTROL REQUIREMENTS OF SECTIONS 112 AND 122 ENERGY EFFICIENCY STANDARDS.
16. ALL EQUIPMENT AND APPLIANCES SHALL BE ACCESSIBLE FOR INSPECTION, SERVICE REPAIR AND REPLACEMENT WITHOUT REMOVING PERMANENT CONSTRUCTION CMC 304.1.
17. MECHANICAL MATERIAL STANDARD SHALL BE LISTED AND LABELING TO COMPLY WITH TABLE 1701.1.1. CMC 307.1
18. SPECIFY THAT AN APPROVED INDEPENDENT ELECTRICAL DISCONNECT WILL BE PROVIDED FOR EACH PIECE OF EQUIPMENT WITHIN SIGHT OF THE EQUIPMENT A 120 VOLT RECEPTACLE SHALL BE LOCATED WITHIN 25 FEET OF THE EQUIPMENT FOR SERVICE AND MAINTENANCE PURPOSES CMC 303.8.5.
19. FACTORY MADE AIR DUCTS SHALL COMPLY WITH REFERENCE STANDARD CHAPTER 17. SUPPORT OF DUCTS, INSTALLER SHALL PROVIDE THE MANUFACTURES FIELD FABRICATION AND INSTALLATION INSTRUCTIONS. CMC 602.3.
20. ALL MOVING SYSTEMS SUPPLYING AIR IN EXCESS OF 2000 CFM SHALL BE EQUIPPED WITH AN AUTOMATIC SHUTOFF ACTIVATED BY A SMOKE DETECTOR LOCATED IN THE MAIN SUPPLY AIR DUCT. A SYSTEM MAY INCLUDE MORE THAN ONE PIECE OF AC UNIT WHICH SERVES A COMMON SPACE WITH AGGREGATE SUPPLY AIR OF MORE THAN 2000 CFM. PLEASE SHOW SMOKE DETECTORS ON THE PLANS CMC 608.1.
21. AIR CONDITIONING REFRIGERANT CIRCUIT ACCESS PORTS LOCATED OUTDOORS SHALL BE PROTECTED FROM UNAUTHORIZED ACCESS CMC 1105.11.
22. ALL APPLIANCE AND PLUMBING VENTS AND THE DISCHARGE OUTLET OF EXHAUST FANS SHALL BE AT LEAST TEN FEET IN A HORIZONTAL DIRECTION, OR THREE FEET ABOVE THE OUTSIDE AIR INTAKES FOR HVAC UNITS.
23. OUTDOOR AIR INTAKE OPENINGS SHALL BE COVERED WITH A SCREEN HAVING NOT LESS THAN 1/4 INCH OPENINGS AND NOT MORE THAN 1/2 INCH OPENINGS.
24. HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS SHALL BE BALANCED IN ACCORDANCE WITH AN APPROVED METHOD PER SECTION 314.1 OF THE CALIFORNIA MECHANICAL CODE.
25. AT THE TIME OF ROUGH INSTALLATION, OR DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL FINAL STARTUP OF THE HEATING, COOLING AND VENTILATING EQUIPMENT, ALL DUCT AND OTHER RELATED AIR DISTRIBUTION COMPONENT OPENINGS SHALL BE COVERED WITH TAPE, PLASTIC, SHEET METAL, OR OTHER ACCEPTABLE METHODS TO REDUCE THE AMOUNT OF DUST, WATER AND DEBRIS WHICH MAY ENTER THE SYSTEM CAL GREEN 5.504.3.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	SINGLE LINE DUCTWORK, NEW
	SINGLE LINE DUCTWORK, EXISTING
	DUCTWORK TO BE REMOVED
	DUCT TRANSITION
	VANED ELBOW (SEE DETAIL)
	RADIUS ELBOW
	TEE-WYE FITTING
	SEE DUCT DETAILS FOR TYPE OF BRANCH CONNECTION
	FLEXIBLE DUCT
	DUCT FLEXIBLE CONNECTION
	ROUND VERTICAL DUCT DROP
	ROUND VERTICAL DUCT RISE
T	THERMOSTAT
	NEW PIPE WITH DIRECTION OF FLOW
	EXISTING PIPING
	REMOVE EXISTING PIPING
	PIPE DROP
	PIPE RISE
	GATE VALVE
EF / 1	EQUIPMENT TAG, DESCRIPTION EF, MARK NUMBER 1
A 100 / 8X8	CEILING DIFFUSER/REGISTER TYPE "A", 100 CFM AND 8" x 8" NECK SIZE
1	DETAIL OR SECTION NUMBER
M3.1	REFERENCE NUMBER OF SHEET ON WHERE DETAIL OR SECTION IS DRAWN.
∅	DIAMETER
⏚	SQUARE FEET
1.0 ⏚ FA	LOUVER IN DOOR, MIN. 1.0 SQUARE FOOT FREE AREA
	POINT OF CONNECTION
	POINT OF DISCONNECTION
	CEILING TILE TO BE DEMO
	CEILING DIFFUSER
	TRANSFER GRILLE

ABBREV.	DESCRIPTION
A/D	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AMB	AMBIENT
AP	ACCESS PANEL
ARCH	ARCHITECTURAL
BHP	BRAKE HORSEPOWER
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CD	CEILING DIFFUSER
CFM	CUBIC FEET PER MINUTE
CLG	CEILING
CONN	CONNECTION
CONT	CONTINUATION
dB	DECIBEL
DB	DRY BULB
DIAM	DIAMETER
DN	DOWN
DWG	DRAWING
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EDB	ENTERING DRY BULB TEMPERATURE
EF	EXHAUST FAN
ELEC	ELECTRICAL
ENT	ENTERING
ESP	EXTERNAL STATIC PRESSURE
EXH	EXHAUST
(E)	EXISTNG
°F	DEGREES FAHRENHEIT
FLA	FULL LOAD AMPERES
FLR	FLOOR
FPM	FEET PER MINUTE
FT	FEET
FV	FACE VELOCITY
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HZ	HERTZ
INCH	INCH OR INCHES
KW	KILOWATT
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LDB	LEAVING DRY BULB TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BTU PER HOUR
MIN	MINIMUM
NO.	NUMBER
OA	OUTSIDE AIR
PD	PRESSURE DROP
POC	POINT OF CONNECTION
RA	RETURN AIR
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SQ.FT.	SQUARE FOOT
TEMP	TEMPERATURE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLTS
W/	WITH
-	SEE ARCHITECTURAL DRAWINGS FOR DEMO PLAN
	SEE DIFFUSER SCHEDULE
TG	

APPLICABLE CODES

ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH:

2022 CALIFORNIA BUILDING CODE - PART 2, TITLE 24 CCR
2022 NATIONAL ELECTRICAL CODE, NEC
2022 CALIFORNIA ELECTRICAL CODE - PART 3, TITLE 24, CCR
2022 CALIFORNIA FIRE CODE- PART 9, TITLE 24, CCR
2022 STATE REFERENCED STANDARDS CODE - PART 12, TITLE 24, CCR
2025 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE PART-1, TITLE 24 C.C.R.
TITLE 19, CCR: PUBLIC SAFETY, DIV. 1,
STATE FIRE MARSHAL REGULATIONS.
NFPA 99, 2022 EDITION.

SCOPE OF WORK

ADDING A NEW DIFFUSER NEW DUCT WORK FOR UN-1 AND UN-2

MECHANICAL DRAWING LIST

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-124525 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 12/03/2025

MORETO MATHISON & ASSOCIATES
A R C H I T E C T S
449 W FOOTHILL BLVD
SUITE 281, GLENDORA CA 91741
(626) 594-0307

CONSULTANT

HARITON ENGINEERING

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RANCHO SANTIAGO Community College District

IR 16-13

MECHANICAL, ELECTRICAL, AND PLUMBING DISTRIBUTION SYSTEM SUPPORT AND BRACING

APPENDIX A: TYPICAL MEP DISTRIBUTION SYSTEM NOTE

MEP Distribution System Bracing Note for Piping, Ductwork, and Electrical Conduit:

Piping, ductwork, and electrical distribution systems shall be braced to comply with the forces and displacements prescribed in ASCE 7 Section 13.3 as defined in ASCE 7 Sections 13.6.5, 13.6.6, 13.6.7, and 13.6.8; and 2022 CBC, Sections 1617A.1.24, 1617A.1.25 and 1617A.1.26.

The method of showing bracing and attachments to the structure for the identified distribution systems are as noted below. The MEP design professional engineer responsible for content on these sheets has verified that the design methods identified below are in accordance with DSA IR 16-13.

Mechanical Piping (MP), Mechanical Ducts (MD), Plumbing Piping (PP), Electrical Distribution Systems (E):

MP ☐ MD ☒ PP ☐ E ☐ Option 1: Project-Specific Design.
MP ☐ MD ☐ PP ☐ E ☐ Option 2: Design Based on OSHPD OPM, Within Project Submittal
MP ☐ MD ☐ PP ☐ E ☐ Option 3: Design Based on OSHPD OPM, Deferred Submittal

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DESIGN PROFESSIONAL USER NOTE (do not copy this 'user note' to the plans):

MEP Design Professionals: Identify which options apply for your project. If Option 1 is chosen, provide project-specific details coordinated with a structural engineer and presented on the drawings in accordance with IR 16-13 Section 2.1. For Option 2, verify that an OPM package has been prepared in accordance with IR 16-13 Section 2.2 and is included within the original project submittal. For Option 3, verify that all of the requirements for the Deferred Submittal have been satisfied prior to the plan submittal in accordance with IR 16-13 Section 2.2.6.

For all options, verify that the SEOR has verified the adequacy of the structure to support all hanger and brace loads.

DIFFUSER SCHEDULE

ITEM NO.	MANUFACTURER AND MODEL NO.	TYPE	MAX. CFM (@ NC 20)	OVERALL DIMENSION IN. x IN.	NECK SIZE IN. x IN.	MOUNTING	MAX S.P. IN.WC	MAX N.C.	NOTES
CD-1	TITUS PMC	MODULAR CORE PERFORATED	0-150	12x12	-	HARD LID LAY IN, T-BAR	0.08	(1)	(2)(3)(4)(5)(6)

(1) NC-20 MAX.
(2) TRANSITION DUCT SIZE TO NECK SIZE AS REQUIRED TO COMPLETE INSTALLATION.
(3) REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
(4) FINAL DIFFUSER LOOK, LOCATION, AND COLOR SCHEME SHALL BE COORDINATED AND APPROVED WITH/BY ARCHITECT.
(5) PROVIDE YOUNG REGULATOR DAMPER CONTROLS MODEL NO. 5020CC FOR ACCESS TO VOLUME DAMPERS ABOVE A HARD LID CEILING. VERIFY PULLEY SWIVEL MOUNT LOCATION IN THE CEILING WITH ARCHITECT BEFORE INSTALLATION.
(6) COORDINATE DIFFUSER BORDER TYPE WITH REFLECTED CEILING PLAN.

RANCHO SANTIAGO
COMMUNITY COLLEGE DISTRICT

VL107

AP STUDENT CENTER RECONFIGURATION

SANTA ANA COLLEGE
1530 W. 17TH ST
SANTA ANA, CA 92706

100% CD

REVISIONS

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2	DSA Back Check	10/24/25

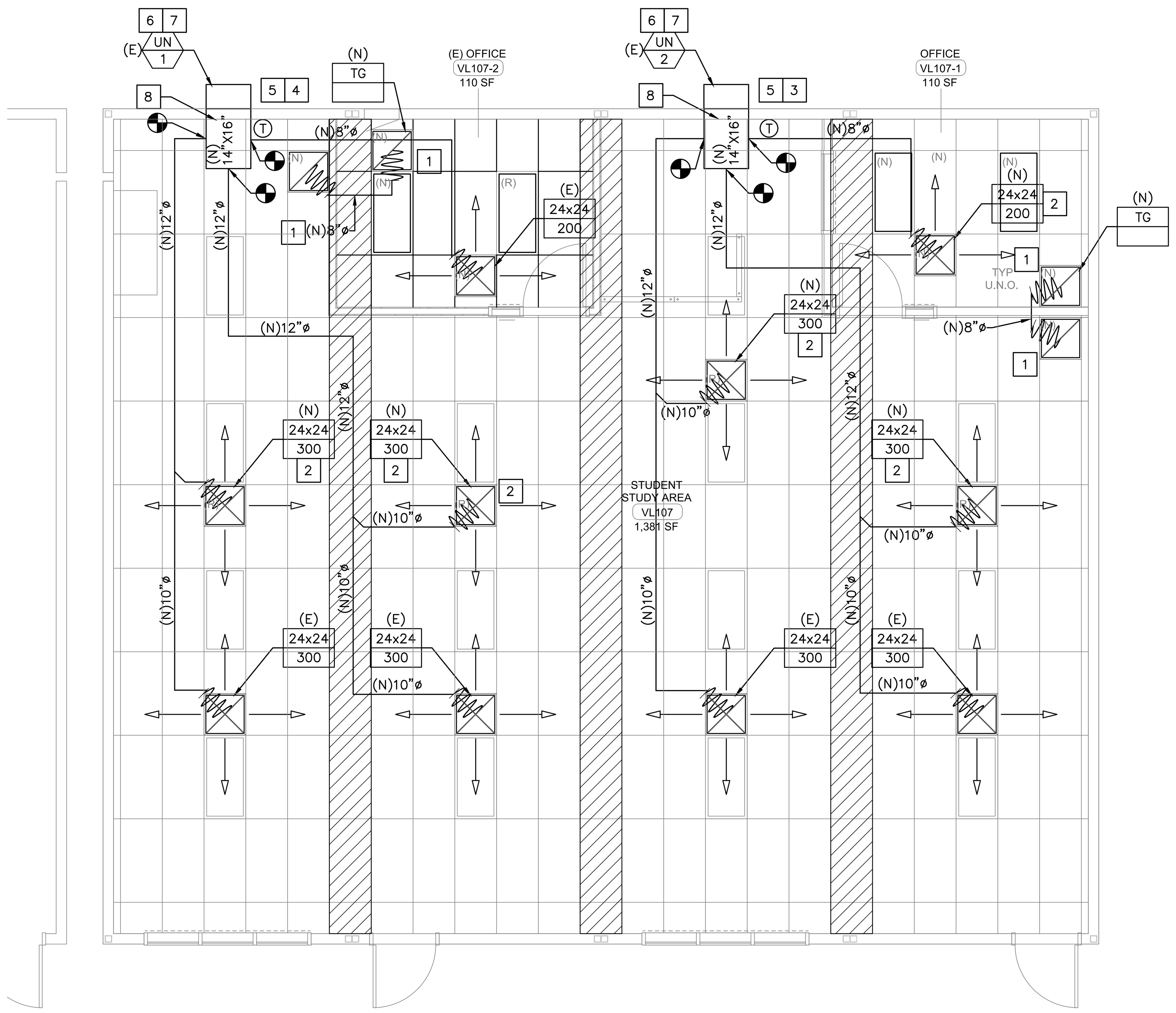
(EXISTING) PACKAGED WALL UNIT SCHEDULE

UNIT NO.	MANUFACTURER AND MODEL NO.	AREA SERVED	LOCATION	AIR BALANCE SA (CFM)	AIR BALANCE MIN OA (CFM)	AIR BALANCE ESP (IN)	COOLING CAPACITY SENSIBLE (MBH)	COOLING CAPACITY TOTAL (MBH)	NOMINAL CAP. (TONS)	EER / IEER	HEATING CAPACITY INPUT (MBH)	HEATING CAPACITY OUTPUT (MBH)	SEER / SEER 2	HSPF / COP	ELECTRICAL DATA V	P	HZ	MCA	MOCP	FILTER	WEIGHT (LBS)	REMARKS
(E) UN-1	BARD W48H1-A04	SEE THE FLOOR PLAN	WALL	1400	-	0.2	-	46,00	4	9.0 / -	-	44,00	- / -	- / -	230	1	60	-	-	-	550	
(E) UN-2	BARD W48H1-A04	SEE THE FLOOR PLAN	WALL	1400	-	0.2	-	46,00	4	9.0 / -	-	44,00	- / -	- / -	230	1	60	-	-	-	550	

MMA NO	25801
DATE:	05/12/2025
DRAWN	AM/AY
CHECKED	CH/TH

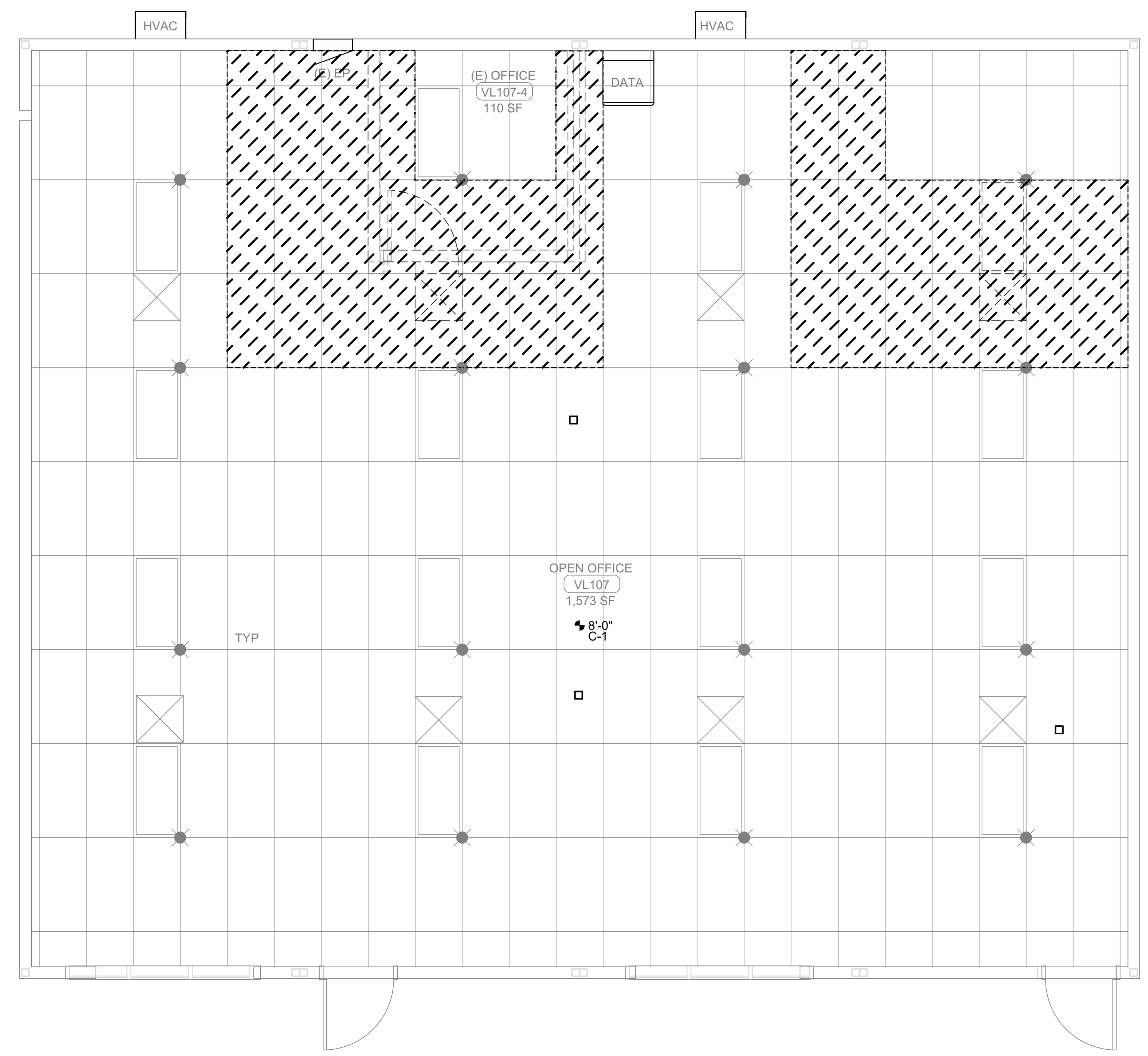
MECHANICAL NOTES AND LEGENDS

M0.01



01 MECHANICAL FLOOR PLAN NEW

SCALE: 1/4"=1'-0"



01 MECHANICAL FLOOR PLAN DEMO

SCALE: 1/4"=1'-0"

HVAC KEYNOTES

1. CONTRACTOR SHALL INSTALL NEW TRANSFER GRILLE FOR RETURN AIR.
2. ADD A NEW DIFFUSER. SEE THE FLOOR PLAN.
3. ALL NEW DUCT WORK FOR UN-2.
4. ALL NEW DUCT WORK FOR UN-1.
5. EXISTING UNITS TO REMAIN AS IS.
6. HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS SHALL BE BALANCED IN ACCORDANCE WITH AN APPROVED METHOD PER SECTION 314.1 OF THE CALIFORNIA MECHANICAL CODE.
7. CONTRACTOR SHALL CONTRACT THE ENGINEER ON RECORD IF THERE ARE ANY ISSUES WITH THE DUCT SIZE OR DUCT CROSSING.
8. RETURN AIR IS ON THE WALL 32"X17.5". NO CHANGES.

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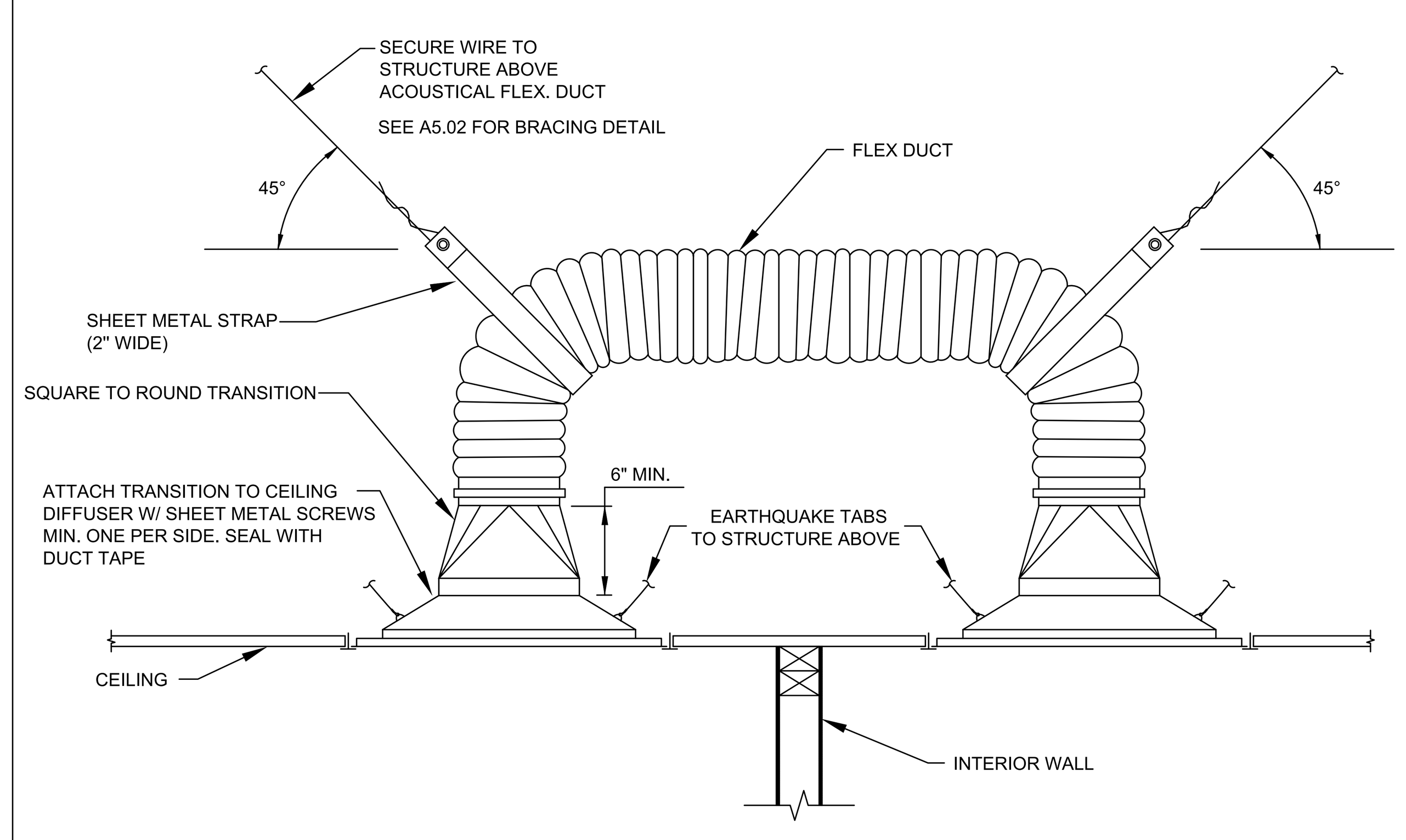
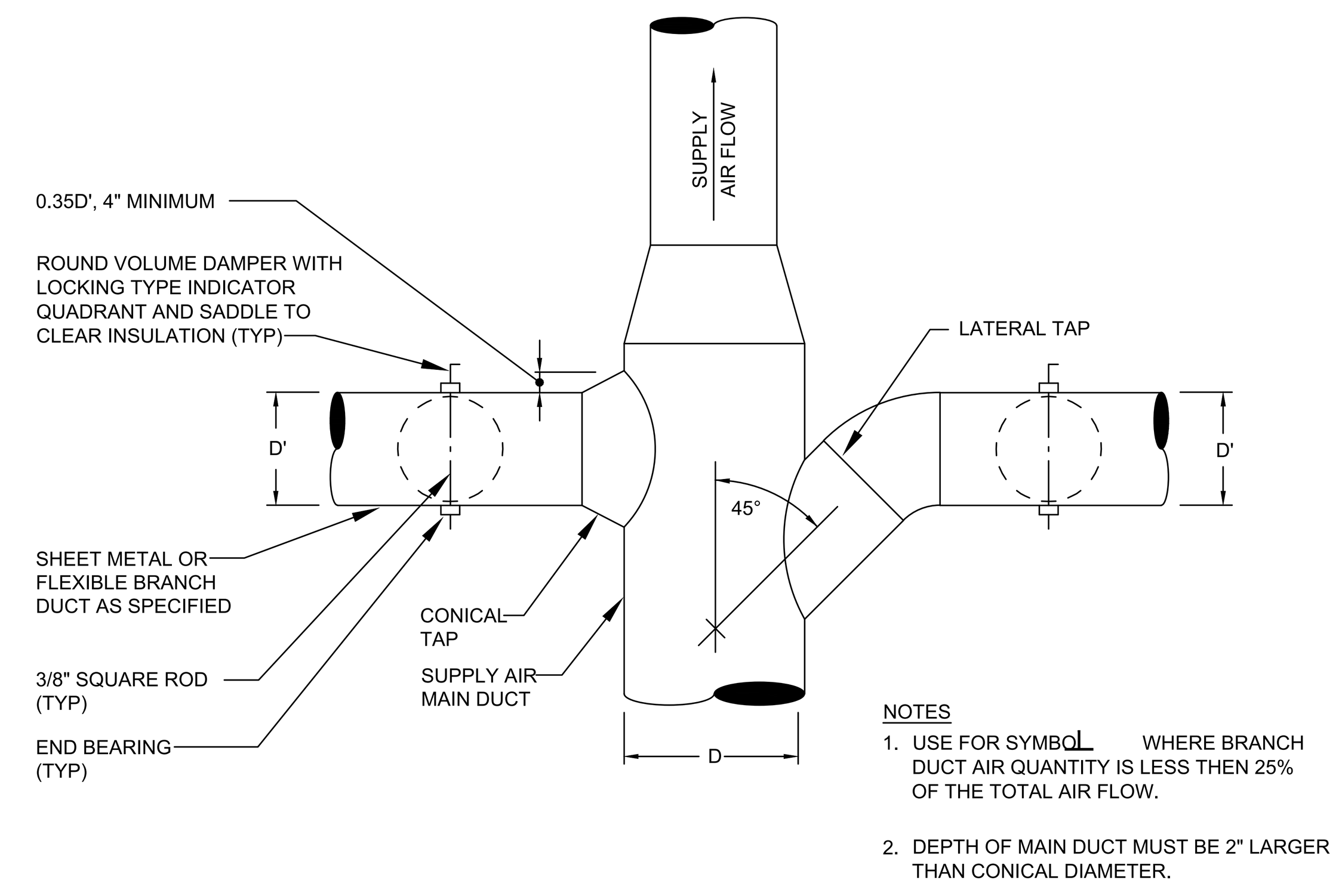
MECHANICAL FLOOR PLAN

M1.00



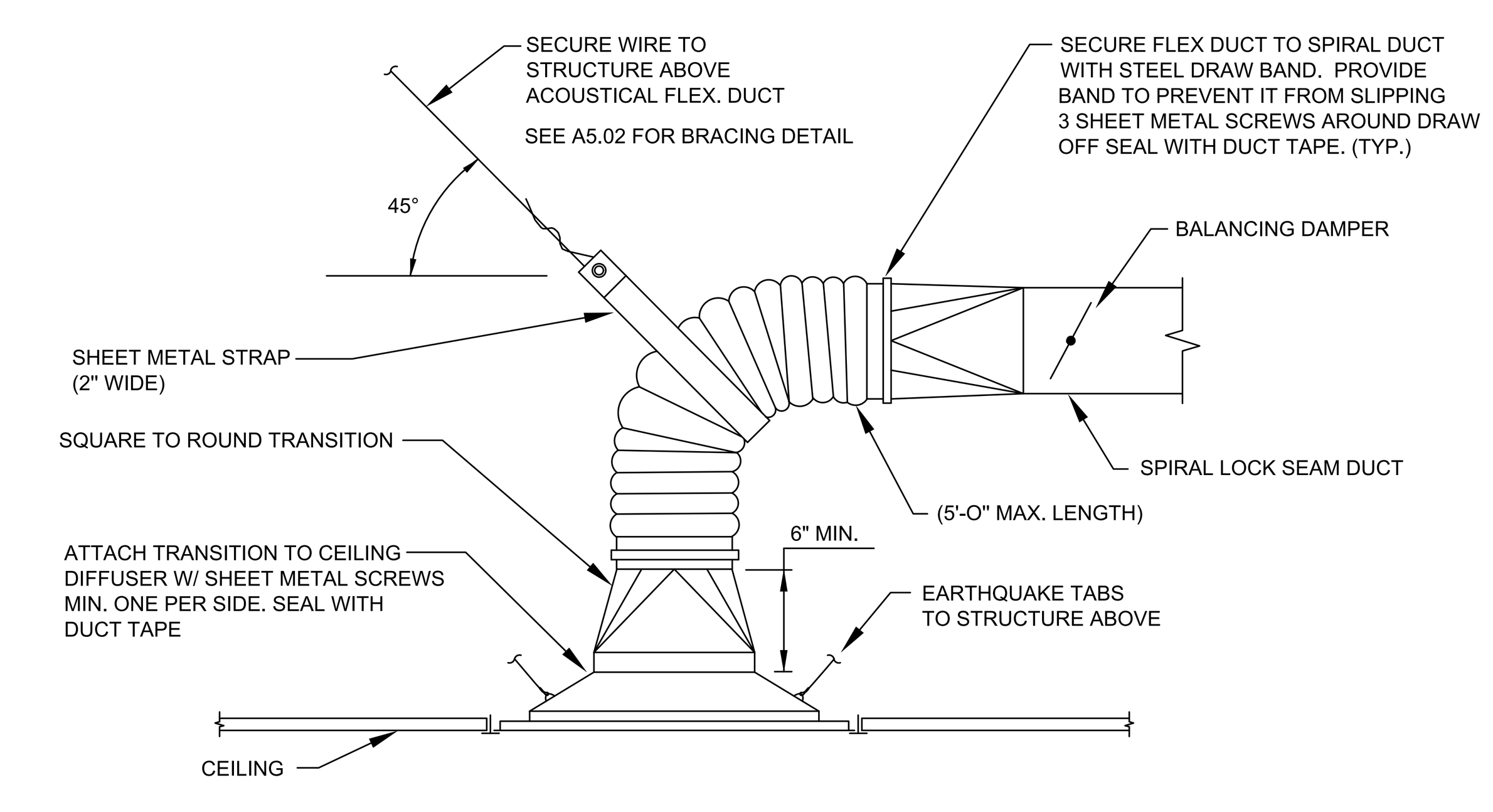
TRANSFER GRILLE DETAIL 3



NOTES

1. USE FOR SYMBOL WHERE BRANCH DUCT AIR QUANTITY IS LESS THEN 25% OF THE TOTAL AIR FLOW.
2. DEPTH OF MAIN DUCT MUST BE 2" LARGER THAN CONICAL DIAMETER.

ROUND DUCT CONICAL/LATERAL TAP WITH VOLUME DAMPER 2



NOTE: RETURN AND EXHAUST GRILLES SIMILAR.

CEILING DIFFUSER CONNECTION 1

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MMA NO	25801
DATE:	05/12/2025
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CHECKED	CH/TH

MECHANICAL DETAILS

M2.00

MEP Distribution System Bracing Note for Piping Ductwork and Electrical Conduit:

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- MP ☐ MD ☐ PP ☐ E ☐ Option 2: Design Based on OSHPD OPM, Within Project Submittal
- MP ☐ MD ☐ PP ☐ E ☐ Option 3: Design Based on OSHPD OPM, Deferred Submittal

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE APPLICABLE CODE DEFINED ON THIS ELECTRICAL DOCUMENT. THE CONTRACTOR SHALL PROVIDE AND INSTALL THE EQUIPMENT AS DESCRIBED OR SHOWN AND SHALL PROVIDE ALL LABOR AND TOOLS NECESSARY. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR SUBMITTALS, ACCEPTABLE MATERIALS, COORDINATION REQUIREMENTS, TESTING, STARTUP, TRAINING AND PROJECT CLOSEOUT.
2. ALL MATERIAL AND DEVICES SHALL BE NEW AND BEAR THE UL OR EQUIVALENT TESTING AGENCY. ADDITIONALLY, THE ELECTRICAL EQUIPMENT SHALL BE LISTED BY ON THEDSA RECOGNIZED ELECTRICAL LABORATORY OR APPROVED BY THE DEPARTMENT.
3. ALL PERMITS SHALL BE PROCURED FROM ALL LEGALLY CONSTITUTED AUTHORITIES, ARRANGE FOR ALL INSPECTION AND PAY ALL COSTS FOR FEES AND TESTS IN CONNECTION THEREWITH, COMPLY WITH CODES. PRESENT THE SIGNED CERTIFICATE OF FINAL INSPECTION TO THE OWNER'S REPRESENTATIVE PRIOR TO PRESENTING THE WORK FOR FINAL ACCEPTANCE.
4. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INDICATE THE LOCATION OF OUTLETS AND EQUIPMENT THOUGH NOT NECESSARILY INDICATING THE ACTUAL ROUTES OF CONDUITS, THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS PROPER COORDINATION WITH THE WORK OF OTHER TRADES AND SPACE WILL PERMIT. SIMPLIFY INSTALLATION WHEREVER POSSIBLE BUT SUBJECT TO APPROVAL OF OWNER'S REPRESENTATIVE FOR VISUAL AND STRUCTURAL REASONS. IT IS NOT WITHIN THE SCOPE OF THE DRAWINGS TO SHOW ALL NECESSARY OFFSETS, BENDS, PULL BOXES AND OBSTRUCTIONS. THE DRAWINGS ARE NOT INTENDED TO BE SCALED AND THE CONTRACTOR SHALL REFER TO THE GENERAL CONSTRUCTION DRAWINGS FOR DIMENSIONS. THE CONTRACTOR SHALL BE RESPONSIBLE TO ASCERTAIN THE EXACT LOCATIONS OF ALL EQUIPMENT AND VERIFYING REQUIRED CLEARANCES.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE PROJECT SITE CONDITIONS AND FIELD MEASUREMENTS PRIOR TO ROUGH-IN OF ANY WORK WITHIN HIS SCOPE. ANY CHANGES IN WORK NECESSITATED BY FAILURE OF THIS CONTRACTOR TO COMPLY WITH THIS CONDITION SHALL BE UNDERTAKEN BY THIS CONTRACTOR AT HIS OWN EXPENSE.
6. CONTRACTOR SHALL PROVIDE TEMPORARY ELECTRICAL SERVICE FOR CONSTRUCTION POWER AND ILLUMINATION FOR ALL TRADES. ALL COSTS OF LABOR AND COST MATERIAL REQUIRED FOR THE TEMPORARY ELECTRICAL SERVICE SHALL BE INCLUDED IN THE ELECTRICAL CONTRACT.
7. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THE FULL SET OF BID DOCUMENTS TO BE AWARE OF THE TOTAL SCOPE PRIOR TO SUBMITTING BID. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE A WRITTEN REQUEST FOR INFORMATION IN A TIMELY MATTER IF FURTHER INFORMATION OR CLARIFICATION IS NEEDED REGARDING WORK IDENTIFIED IN THESE PLANS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WORK WITH HVAC, PLUMBING AND OTHER TRADES IN WHICH ELECTRICAL CONNECTIONS OR CLEARANCE WITH ELECTRICAL DEVICES ARE TO TAKE PLACE. FINAL CONNECTIONS TO MOTOR TERMINALS SHALL BE DONE WITH A MINIMUM 18" OF LIQUID TIGHT FLEXIBLE CONDUIT USING THE APPROPRIATE FITTINGS UNLESS SPECIFIED OTHERWISE BY THE MANUFACTURE. ALTERATIONS OR MODIFICATIONS SHALL BE REVIEWED BY ELECTRICAL ENGINEER.
9. COORDINATE ROUTING OF RACEWAYS FEEDERS AND HOMERUNS IN COOPERATION WITH THE WORK OF OTHER TRADES.
10. DO NOT PENETRATE STRUCTURAL WALLS, FLOORS OR MEMBERS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER. THE CONTRACTOR SHALL DO NECESSARY CUTTING, CORING AND PATCHING FOR WORK UNDER THIS CONTRACT. ALL CORING, ETC. SHALL BE PERFORMED AFTER HOURS AND COORDINATED WITH BUILDING MANAGEMENT.
11. INSTALL EXPOSED CONDUITS PARALLEL AND AT RIGHT ANGLES TO THE NEARBY SURFACES AND STRUCTURAL MEMBERS. IN PUBLIC AREAS, GROUP RACEWAYS IN MINIMUM GROUPS OF THREE RACEWAYS ON A COMMON SUPPORT SYSTEM.
12. PROVIDE UNFUSED DISCONNECT SWITCHES FOR ALL MECHANICAL EQUIPMENT UNLESS OTHERWISE NOTED ON CONSTRUCTION DOCUMENTS OF HVAC SCHEDULES.THE MINIMUM RATING OF DISCONNECT SWITCHES SHALL BE EQUAL TO OR GREATER THAN THE RATING OF THE PROTECTIVE DEVICE ON THE SUPPLY SIDE OF THE DISCONNECT SWITCH. MINIMUM DISCONNECT SWITCH SIZE IS 30 AMPERES.
13. HOMERUN WITH MORE THAN THREE CIRCUITS SHALL BE SUBJECTED TO DERATING FACTOR.
14. 120V BRANCH CIRCUIT CONDUCTORS, WITH LENGTHS GREATER THAN 100 FT, SHALL BE INCREASED ONE SIZE TO COMPENSATE FOR VOLTAGE DROP.
15. NO INTERMEDIATE SPLICING OF FEEDERS OR BRANCH CIRCUITS SHALL BE DONE WITHOUT PRIOR APPROVAL.
16. ALL AREAS ABOVE PANELBOARDS SHALL BE FREE FROM WORK OF OTHER TRADES.
17. PROVIDE CONCRETE PADS (MINIMUM 3" HIGH OR AS INDICATED) FOR ALL FLOOR MOUNTED ELECTRICAL EQUIPMENT INSTALLED IN EQUIPMENT ROOMS AND IN AREAS SUSCEPTIBLE TO BEING WET OR HOSED DOWN EXCEPT EQUIPMENT LOCATED IN THE MAIN ELECTRICAL ROOM IN BASEMENT LEVEL B1. SUBMIT PAD DETAIL PLANS INCLUDING DIMENSIONS FOR APPROVAL.
18. PROVIDE A MINIMUM OF 12" SEPARATION BETWEEN POWER AND COMMUNICATION CONDUITS, WHERE THEY ARE INSTALLED IN PARALLEL OR IN THE SAME TRENCH.
19. LABEL ALL RECEPTACLES, J-BOXES, DISCONNECT SWITCHES AND CONTROL DEVICES WITH THEIR SERVING CIRCUIT NUMBERS. LABELS SHALL BE PER THE SPECIFICATION.
20. THE EQUIPMENT GROUNDING CONDUCTOR SHALL RUN CONTINUOUS FROM PANEL TO LAST OUTLET. THIS WIRE SHALL BE PIGTAILED TO BOX AND DEVICE. ALL EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSULATED GREEN CONDUCTORS. GROUNDING OF CABLE TRAY SHALL BE PER CEC 392.60.
21. PROVIDE TIE BARS ON ALL SINGLE POLE CIRCUIT BREAKERS SERVING MULTI-WIRE BRANCH CIRCUITS IN COMPLIANCE WITH NEC/CEC ARTICLE 210.4 (B). EXISTING CIRCUIT BREAKERS REQUIRING TIE HANDLES SHALL BE REPLACED WITH NEW TRIP FREE HANDLE BREAKERS. NEW BREAKERS SHALL MATCH BASE BUILDING STANDARDS, SHALL BE FROM SAME MANUFACTURER OF EXISTING BREAKERS THAT ARE TO REMAIN IN PANEL, AND SHALL BE COMPATIBLE WITH PANELBOARD. CONTRACTOR SHALL COORDINATE REQUIREMENTS IN FIELD WITH EXISTING EQUIPMENT.
22. CONTRACTOR SHALL FOLLOW CODE REQUIREMENT TO FIRE STOP ANY RATED PENETRATIONS. PROVIDE FIRESTOPPING ON ALL NEW AND EXISTING PENETRATIONS THROUGH THE WALL AND FLOOR DUE TO DEMOLITION OR NEW CONSTRUCTION. THE FIRE RATING OF THE PENETRATION SEALING METHOD SHALL MATCH THE RATING OF THE WALL OR FLOOR. USE A UL LISTED SEALING METHOD WHICH IS ACCEPTABLE TO BUILDING MANAGEMENT.
23. ALL EMPTY CONDUIT SHALL BE INSTALLED WITH A NYLON PULL ROPE AND LABELED FOR FUTURE USE.
24. UPON COMPLETION OF ALL ELECTRICAL WORK, THE ELECTRICAL CONTRACTOR SHALL ADJUST AND TEST ALL CIRCUITS, RECEPTACLES, SWITCHES, LIGHTS, MOTORS AND ANY OTHER ELECTRICAL ITEMS INSTALLED. ANY DEFECTIVE ITEMS SHALL BE IMMEDIATELY REPAIRED OR REPLACED WITH NEW AND THAT PORTION OF THE SYSTEM RETESTED. ALL SUCH REMEDIAL WORK SHALL BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
25. CONTRACTOR SHALL ERECT AND MAINTAIN SUITABLE BARRIERS, PROTECTIVE DEVICES, LIGHTS AND WARNING SIGNS WHERE REQUIRED FOR THE PROTECTION OF THE PUBLIC AND EMPLOYEES ABOUT THE BUILDING.

ABBREVIATIONS

A	AMPERE
AMP	AMPERE
AC	ALTERNATING CURRENT
AF	AMPERE FRAME
AF	AMPERE FUSE
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
ANN	ANNUNCIATOR
AS	AMPERE SWITCH
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BATT	BATTERY
BC	BARE COPPER
BCW	BARE COPPER WIRE
BKBD	BACKBOARD
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CEC	CALIFORNIA ELECTRICAL CODE
CKT	CIRCUIT
CLG	CEILING
CO	CONDUIT ONLY
COM	COMMON
COMM	COMMUNICATIONS
CONN	CONNECT
CONT	CONTINUE
CT	CURRENT TRANSFORMER
CU	COPPER
D	DEMOLISH/DEMO
DB	DIRECT BURIED
DEF	DUAL ELEMENT FUSE
DISC	DISCONNECT
DIST	DISTRIBUTION
DN	DOWN
DP	DISTRIBUTION PANEL
DPDT	DOUBLE-POLE DOUBLE-THROW
DPST	DOUBLE-POLE SINGLE-THROW
DWG	DRAWING
E, (E)	EXISTING
ELEC	ELECTRICAL
EM	EMERGENCY
EMER	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EPO	EMERGENCY POWER OFF
EQUIP	EQUIPMENT
EX	EXISTING
EXIST	EXISTING
F	FUSE(D)
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FLA	FULL LOAD AMPERES
FLEX	FLEXIBLE
FLR	FLOOR
G	GROUND
GALV	GALVANIZE(D)
GEN	GENERATOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER, HEAT PUMP
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HZ	HERTZ
IC	INTERRUPTING CAPACITY IN AMPS RMS
IG	ISOLATED GROUND
JB,J	JUNCTION BOX
KA	THOUSAND AMPERES
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT-AMPERE
KW	KILOWATT
KWH	KILOWATT-HOUR
KVAR	KILOVAR
LCL	LONG CONTINUOUS LOAD
LRA	LOCKED ROTOR AMP
LTG	LIGHTING
M	MAGNETIC STARTER COIL
MAX	MAXIMUM
MC	METAL CLAD CABLE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILS
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	METAL HALIDE
MI	MINERAL INSULATED
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTR	MOTOR
MTS	MANUAL TRANSFER SWITCH
N, (N)	NEW
NB	NEUTRAL BUS
NEC	NATIONAL ELECTRIC CODE
NF	NON-FUSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
NTS	NOT TO SCALE
P	POLE(S)
PF	POWER FACTOR
PNL	PANEL
PRI	PRIMARY
PT	POTENTIAL TRANSFORMER
PWR	POWER
Ø/PH	PHASE
R	RELOCATE OR REMOVE
RECP	RECEPTACLE
RGS	RIGID GALVANIZED STEEL CONDUIT
R	RELOCATE OR REMOVE
RM	ROOM
RMS	ROOMS
RT	RADIOTOUCH SYSTEM
SCA	SHORT CIRCUIT AMPS
SEC	SECONDARY
SFD	SMOKE FIRE DAMPER
SPKR	SPEAKER
SQ FT	SQUARE FEET
SUSP	SUSPEND(ED)
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME CLOCK
TEL	TELEPHONE
TEMP	TEMPORARY
TTB	TELECOMMUNICATIONS BACKBOARD
TMH	TELECOMMUNICATIONS MANHOLE
TYP	TYPICAL
TVSS	TRANSIENT VOLTAGE SUPPRESSION SYSTEM
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UNO	UNLESS NOTED OTHERWISE
V	VOLT, VOLTS
VA	VOLT-AMPERES
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
VLIF	VERIFY LOCATION IN FIELD
WT	WATERTIGHT
W	WATT OR WIRE
W/	WITH
WP	WEATHER PROOF
XFMR	TRANSFORMER, TRANSF.

APPLICABLE CODES

APPLICABLE CODES AND STANDARDS:

APPLICABLE CODES AS OF JANUARY 1, 2023:

2025	CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR
2022	CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR
2022	CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR
2022	CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR
2022	CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR
2022	CALIFORNIA ENERGY CODE, PART 6, TITLE 24 CCR
2022	CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR
2022	CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR
2022	CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR
2022	CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

APPLICABLE STANDARDS:

FOR A LIST OF APPLICABLE STANDARDS, INCLUDING CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS, REFER TO CBC CHAPTER 35 AND CFC CHAPTER 80.

OF CONDUCTORS, MATERIAL & CONDUIT SIZE

- 2#12+1#12G CU 3/4"C UON
- 3#12+1#12G CU 3/4"C UON
- 4#12+1#12G CU 3/4"C UON
- 2#10+1#10G CU 3/4"C UON
- 3#10+1#10G CU 3/4"C UON
- 4#10+1#10G CU 3/4"C UON
- 2#8+1#10G CU 3/4"C UON
- 3#8+1#10G CU 3/4"C UON
- 4#8+1#10G CU 3/4"C UON

- CONDUIT CONCEALED IN CEILING OR WALL SPACE.
- EXISTING CONDUIT CONCEALED IN CEILING OR WALL SPACE.
- CONDUIT RUN UNDERGROUND OR CONCEALED IN FLOOR SPACE
- EXISTING CONDUIT TO REMAIN.
- CONDUIT RISING UP FROM RUN
- CONDUIT DROPPING DOWN FROM RUN
- A-1,3,5 THREE CIRCUITS & A COMMON NEUTRAL.
- A-1&3&5 THREE CIRCUITS & A SEPARATE NEUTRALS

CONDUCTOR COUNT INCLUDES GROUNDING CONDUCTORS THAT ARE NOT INDICATED IN THE HATCH COUNT. CONDUIT SIZES ARE BASED ON THHN/THWN CONDUCTORS MINIMUM AND MAY BE INCREASED AT CONTRACTORS OPTION FOR LONG OR DIFFICULT RUNS.

SCOPE OF WORK

REMODEL OF EXISTING SPACE WITH NEW POWER REQUIREMENTS. FIRE ALARM MODIFIED TO ADD A NEW DEVICE TO ADDRESS NEW ROOMS ADDED.

ELECTRICAL DRAWING LIST

SINGLE LINE DIAGRAM

- TRANSFORMER, AS NOTED ON SINGLE LINE DIAGRAM.
- CIRCUIT BREAKER, 3 POLE UNLESS NOTED OTHERWISE.
- CIRCUIT BREAKER WITH GROUND FAULT RELAY AND SHUNT TRIP RELAY
- TRANSFER SWITCH STATUS CONTACTS.
- (E) PANEL XX / (N) PANEL XX — ELECTRICAL PANELBOARD
- GROUND
- UTILITY OR CUSTOMER OWNED DIGITAL METER. REFER TO SINGLE LINE DIAGRAM FOR NOTE REGARDING RESPONSIBLE PARTY
- XXXA XP — CIRCUIT BREAKER, 3 POLE BREAKER, UON CB MANUFACTURER SHALL BE THE SAME AS SWITCHGEAR AND AIC RATING SHALL MATCH AS WELL.
- XXXA XP — EXISTING CIRCUIT BREAKER, 3 POLE BREAKER, UON
- GENERATOR

RECEPTACLE/DATA LEGEND

FLOOR	WALL	CEILING	RECEPTACLES / POWER
			SIMPLEX RECEPTACLES
			DUPLEX RECEPTACLES
	GFI		GFCI/GFI DUPLEX RECEPTACLES
			QUADRUPLEX RECEPTACLE
X	X	X	SPECIAL RECEPTACLE, REFER TO SPECIAL RECEPTACLE SCHEDULE, THIS SHEET
X	X	X	QUADRUPLEX SPECIAL RECEPTACLE, REFER TO SPECIAL SCHEDULE, THIS SHEET
			TAMPER RESISTANT RECEPTACLE
J	J	J	JUNCTION BOX 5" SQUARE MINIMUM OR AS REQUIRED FOR NUMBER OF WIRES OR RACEWAYS
P	P	P	SYSTEM FURNITURE POWER FEED, REFER TO DETAIL FOR RACEWAY AND BOX REQUIREMENTS.
			AFI
			GFI+TR
			GFI+AFI
			AFI+TR
			AFI+GFI+TR
	W		COMBINATION TELEPHONE DATA OUTLET. "W" INDICATES WALL MOUNTED @ +48".
	W		DATA OUTLET, "W" INDICATES WALL MOUNTED @ +48".
	W		TELEPHONE OUTLET, "W" INDICATES WALL MOUNTED @ +48". "P" INDICATES PAY PHONE.
T	T	T	FOR RACEWAY AND BOX REQUIREMENTS.

NOTES:
ALL RECEPTACLE OUTLETS ON WALL ARE MOUNTED AT 18"AFF, UON. ALL TELECOM SYMBOLS SHOWN IN THE DRAWINGS ARE FOR REFERENCE ONLY, REFER TO TELECOM DRAWINGS " T " SERIES FOR CONDUIT SIZES, JUNCTION BOXES REQUIREMENTS AND ALL INFORMATION FOR A COMPLETE AND OPERABLE SYSTEM INSTALLATION.

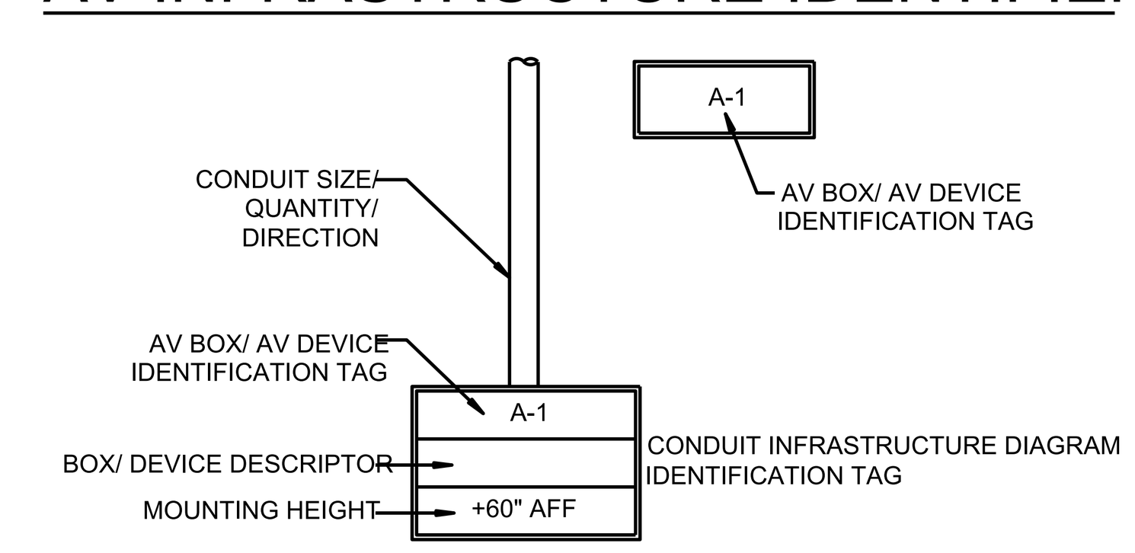
SYMBOL LIST

- # — REFERENCE TO NOTE "A" OR NOTE "1" ON SAME SHEET.
- +4'-6" — MOUNTING HEIGHT FROM FINISHED FLOOR TO CENTERLINE OF OUTLET OR EQUIPMENT.
- MH=4'-6" — MOUNTING HEIGHT FROM FINISHED FLOOR TO BOTTOM OF OUTLET OR EQUIPMENT.
- 1 / E-6 — DETAIL REFERENCE DETAIL "#1" ON DRAWING "E6".
- 1 / E-6 — SECTION OR ELEVATION REFERENCE DETAIL "1" ON DRAWING "E-6".
- FREE STANDING SWITCHBOARD, MOTOR CONTROL CENTER OR DISTRIBUTION BOARD.
- FIRE TREATED PLYWOOD BACKBOARD 3/4"X96" HIGH X LENGTH AS INDICATED.
- NEW RECESSED MOUNTED ELECTRICAL PANELBOARD
- NEW SURFACE MOUNTED ELECTRICAL PANELBOARD
- UNFUSED DISCONNECT SWITCH U.O.N.
- FUSED DISCONNECT SWITCH U.O.N.
- T — TRANSFORMER
- SD — SMOKE DETECTOR
- CO — CARBON MONOXIDE SENSOR
- SM — MANUAL MOTOR STARTER WITH THERMAL OVERLOAD NUMBER OF POLES AS REQUIRED.
- SD — DIMMER SWITCH

AUDIO VISUAL LEGEND

SYMBOL	DESCRIPTION
V1	PROVIDE A SINGLE GANG BACKBOX WITH (1) 1-1/4" CONDUIT STUBBED TO ACCESSIBLE CEILING SPACE. MOUNT AT 18" AFF U.O.N. ON DRAWINGS.
V2	PROVIDE A DOUBLE GANG BACKBOX WITH (2) 1-1/4" CONDUITS STUBBED TO ACCESSIBLE CEILING SPACE. MOUNT AT 18" AFF U.O.N. ON DRAWINGS.
V3	PROVIDE A THREE GANG BACKBOX WITH (3) 1-1/4" CONDUITS STUBBED TO ACCESSIBLE CEILING SPACE. MOUNT AT 18" AFF U.O.N. ON DRAWINGS.
V	PROVIDE A CEILING MOUNTED TWO GANG BACKBOX.
V	PROVIDE A FLOOR MOUNTED JUNCTION BOX. PROVIDE 1-1/4" CONDUIT TO NEAREST WALL AND STUB TO ACCESSIBLE CEILING SPACE.
C L1	PROVIDE A CONDUIT COLLECTOR BOX SIZED AT 6" X 6" X 3". REFER TO CONDUIT QUANTITY AND SIZE ON DRAWINGS. CONDUIT STUBBED TO ACCESSIBLE CEILING SPACE.
$	SCREEN RAISE LOWER SWITCH. PROVIDE A SINGLE GANG BACKBOX WITH (1) 1" CONDUIT TO LOW VOLTAGE CONTROL. MOUNT AT 48" AFF U.O.N. ON DRAWINGS.
V1	CONSOLIDATED POWER, DATA, AND AV WALL BOX. CHIEF PAC 525. PROVIDE (2) 1-1/4" CONDUITS STUBBED UP TO ACCESSIBLE CEILING SPACE FOR AV U.O.N.
V	CONSOLIDATED POWER, DATA, AND AV FLOORBOX OR POKE THRU OR FLOORBOX. PROVIDE EVOLUTION EFB8S WITH (2) 1-1/4" CONDUITS STUBBED UP TO ACCESSIBLE CEILING SPACE FOR AV U.O.N. FOR POKE THRU, PROVIDE EVOLUTION 8AT WITH (2) 1-1/4" CONDUITS STUBBED TO ACCESSIBLE CEILING FOR AV.
CP	TABLE MOUNTED AV CONTROL PANEL
SB	AV SPEAKER, SOUND BAR
	FLAT PANEL DISPLAY (SIZE AS NOTED ON DRAWINGS)

AV INFRASTRUCTURE IDENTIFIER KEY



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2	DSA Back Check	10/24/25

MMA NO	25801
DATE:	05/12/2025
DRAWN	AM/AY
CHECKED	CH/TH

ELECTRICAL COVER SHEET

E0.01

PANELBOARD: A5A (EXISTING)

BUS AMPS: 225A
MAIN SIZE/TYPE: MLO
VOLTS/PHASE: 208Y/120V, 3PH, 4W
SECTION: 1

FAULT CURRENT: REFER TO ONE-LINE DIAGRAM
AIC RATING: FCA +10% MINIMUM, FULLY RATED
SERVES:
MOUNTING: SURFACE
LOCATION:

CKT NO.	DESCRIPTION	VOLTAMPS/PHASE A	B	C	WIRE NO.	BKR AMP	P	P	BKR AMP	WIRE NO.	VOLTAMPS/PHASE A	B	C	DESCRIPTION	CKT NO.
1	(E) MAIN DISCONNECT	1,500				125	2	1	20					N) OFFICE RECEPT'S	2
3			1,500					1						SPACE	4
5	(E) RECEP/DATA			1,000		20	1	2	60				1,500	4TON A/C	6
7	(E) RECEP/DATA/CLOCK	1,000				20	1				1,500			4TON A/C	8
9	(E) RECEP (DED)		1,000			20	1	1	20			1,200		(E) INT LIGHTS	10
11	(E) RECEP			1,000		20	1	1	20				1,200	(E) INT/EXT & EXIT LIGHTS	12
13	(E) RECEP DATA	1,000				20	1	1	20		1,000			(E) RECEP DED	14
15	(E) RECEP (GFI)		1,000			20	1	1	20			1,000		(E) RECEP DED	16
17	(E) RECEP DED			1,000		20	1	1	20				1,000	(E) RECEP 208V	18
19	(E) RECEP DED	1,000				20	1	1	20		1,000			(E) COPIER	20
21	(E) RECEP 208V		1,000			20	1	1	20			1,000		(E) IDF	22
23	(E) COPIER					20	1	1	20				1,000	(E) RECEP DED	24
25	N) REFRIGERATOR					20	1	1						SPACE	26
27	N) MICROWAVE					20	1	1						SPACE	28
29	N) Coffeemaker					20	1	1						SPACE	30
	SUBTOTAL	4,500	4,500	3,000							3,500	3,200	4,700	SUBTOTAL	

		LOAD	CONN. VA	DF	LOAD	CONN. VA	DF	
TOTAL PHASE A - VA	8,000	COOLING		1.00	REFRIGERATION		1.00	
AMPS	67	HEATING		0	SIGN/DISPLAY		1.25	
TOTAL PHASE B - VA	7,700	LIGHTING	2,400	1.25	KITCHEN	6,000	1.00	
AMPS	64	RECEPTACLES	15,000	1.0/.5	EXISTING		1.00	
TOTAL PHASE C - VA	7,700	MOTORS		1.00	LARGE MOTOR		1.25	TOTAL DEMAND
AMPS	64	SUPP HEAT		1.00	SHOW WINDOW		1.25	21,500 VA
TOTAL PNLBD - VA	23,400	MISC EQUIP		1.00	LTG TRACK		1.00	60 A
AMPS	65							

PANELBOARD NOTES

PANELBOARD: A5B (EXISTING)

BUS AMPS: 225A
MAIN SIZE/TYPE: MLO
VOLTS/PHASE: 208Y/120V, 3PH, 4W
SECTION: 1

FAULT CURRENT REFER TO ONE-LINE DIAGRAM
AIC RATING: FCA +10% MINIMUM, FULLY RATED
SERVES:
MOUNTING: SURFACE
LOCATION:

CKT NO.	DESCRIPTION	VOLTAMPS/PHASE A	B	C	WIRE NO.	BKR AMP	P	P	BKR AMP	WIRE NO.	VOLTAMPS/PHASE A	B	C	DESCRIPTION	CKT NO.
1	(E) MAIN DISCONNECT	1,500				125	2	1						N) OFFICE RECEPT'S	2
3			1,500					1						N) WORKSTATIONS	4
5	(E) RECEP/DATA			1,000		20	1	2	60				1,500	(E) 4TON A/C	6
7	(E) RECEP/DATA	1,000				20	1				1,500				8
9	(E) RECEP/DATA		1,000			20	1	1							10
11	(E) RECEP/DATA			1,000		20	1	1							12
13	(E) RECEP/DATA	1,000				20	1	1							14
15	(E) RECEP/DATA		1,000			20	1	1							16
17							1	1							18
19							1	1							20
21							1	1							22
23							1	1							24
25							1	1							26
27							1	1							28
29							1	1							30
	SUBTOTAL	3,500	3,500	2,000							1,500		1,500	SUBTOTAL	

		LOAD	CONN. VA	DF	LOAD	CONN. VA	DF	
TOTAL PHASE A - VA	5,000	COOLING		1.00	REFRIGERATION		1.00	
AMPS	42	HEATING		0	SIGN/DISPLAY		1.25	
TOTAL PHASE B - VA	3,500	LIGHTING		1.25	KITCHEN	6,000	1.00	
AMPS	29	RECEPTACLES	6,000	1.0/.5	EXISTING		1.00	
TOTAL PHASE C - VA	3,500	MOTORS		1.00	LARGE MOTOR		1.25	TOTAL DEMAND
AMPS	29	SUPP HEAT		1.00	SHOW WINDOW		1.25	12,000 VA
TOTAL PNLBD - VA	12,000	MISC EQUIP		1.00	LTG TRACK		1.00	33 A
AMPS	33							

PANELBOARD NOTES

LUTRON LIGHTING CONTROL LEGEND

SYMBOL	DESCRIPTION
WSD	LUTRON MAESTRO MS-Z101-XX: WALL MOUNTED OCCUPANCY SENSOR AND DIMMER
WSX	LUTRON MAESTRO MS-OPS2: WALL MOUNTED OCCUPANCY SENSOR
WCS	LUTRON LRF2-OHLB-P-WH: HIGH WALL MOUNTED OCCUPANCY SENSOR
COC5	LUTRON LOS-CDT-500-WH: 500SF LOW VOLTAGE CEILING MOUNTED OCCUPANCY SENSOR
WOS	LUTRON LRF2-OCR2B-P-WH: WIRELESS CEILING MOUNTED OCCUPANCY SENSOR
COC10	LUTRON LOS-CDT-1000-WH: 1000SF LOW VOLTAGE CEILING MOUNTED OCCUPANCY SENSOR
WCDS	LUTRON LRF2-DCRB: WIRELESS CEILING MOUNTED DAYLIGHT SENSOR
6ELV	LUTRON MAESTRO MRF2-6ELV-120-WH: WIRELESS MAESTRO CEILING MOUNTED DIMMER
MOSD	LUTRON MSCL-OP153M-WH : MAESTRO OCCUPANCY SENSOR WITH DIMMER
PP	LUTRON PP-120H: RECEPTACLE LOW VOLTAGE PP SERIES POWER PACK
PPD	LUTRON RMJ-5T-DV-B: WIRELESS PP SERIES DIMMING POWER PACK
6MLV	LUTRON MRF2-6MLV-WH : WIRELESS MAESTRO CEILING MOUNTED DIMMER
PICO	LUTRON PJ2-3BRL-GWH-L01: WIRELESS PICO SWITCH WALL MOUNTED/REMOTE DIMMER/SWITCH

*ALL CONTROL AND SWITCHING CAN BE PROGRAMMED BY THE FACTORY. LIGHTING AND SWITCHING PLAN IS TO BE GIVEN TO MANUFACTURER AT TIME OF ORDER. ANY CHANGES TO PROGRAMS CAN BE MADE AT ANY SWITCH LOCATION MANUALLY OR BY CONNECTING A LAPTOP WITH ETHERNET PORT TO THE LOCAL SWITCH. EACH ROOM OPERATES WITH IT'S OWN 'MINI' NETWORK. ALL ROOMS CAN BE CONNECTED AT A LATER DATE TO A CENTRAL NETWORK FOR MONITORING OR OUTSIDE CONTROL.

ALL CONTROL DEVICES SHOWN IN EACH ROOM SHALL BE CONNECTED TOGETHER BY ELECTRICAL CONTRACTOR WITH PLENUM RATED CAT 5 CABLE.

LIGHTING CONTROL SHEET NOTES

1. QUANTITY AND LOCATION OF ALL SENSORS ARE SHOWN FOR DESIGN INTENT. LIGHTING CONTROL MANUFACTURER SHALL SUBMIT COMPLETE SHOP DRAWINGS SHOWING PREFERRED LOCATION AND QUANTITY OF SENSORS REQUIRED FOR OPTIMUM SYSTEM PERFORMANCE.
2. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS PREPARED BY THE LIGHTING CONTROLS
3. MANUFACTURER. SHOP DRAWINGS PREPARED BY THIRD PARTY OTHER THAN MANUFACTURER ARE NOT ACCEPTABLE.
4. ALL LIGHT FIXTURES SHALL BE CONNECTED TO THE LIGHTING CONTROL SYSTEM VIA LOW VOLTAGE CONTROL WIRING UNLESS OTHERWISE NOTED.
5. EACH COMPONENT OF THE LIGHTING CONTROL SYSTEM SHALL BE ADDRESSABLE AND CAPABLE OF BEING INDEPENDENTLY CONTROLLED AND CONFIGURED THROUGH THE SYSTEM. PROVIDE THE REQUIRED RELAY PACKS AND DIMMING MODULES TO CONTROL ALL LIGHTING LOAD TYPES.
6. ON NORMAL POWER FAILURE ALL LIGHTS CONNECTED TO EMERGENCY CIRCUITS SHALL AUTOMATICALLY COME UP TO FULL BRIGHTNESS AND REMAIN ON.

LTG CONTROLS SEQUENCE OF OPERATIONS

RECEPTION LOUNGE BACK OF HOUSE OPEN OFFICE	• THESE AREAS SHALL BE CONTROLLED VIA TIME-CLOCK. IF AFTER HOURS, OCCUPANCY SENSOR WILL TURN LIGHTS ON ON OCCUPANCY FOR 2 HOUR OVERRIDE. • OCCUPANCY: LIGHTS AUTOMATICALLY TURN ON TO 70% WHEN THE USER ENTERS THE ROOM AND AFTER THE ROOM HAS BEEN VACATED, THE LIGHTS WILL AUTOMATICALLY GO TO 50% FOR 15 MINS. AND THEN TURN OFF. • MANUAL DIMMER WILL ALLOW OCCUPANT TO CONTROL EACH ZONE. WALL STATION SHALL HAVE ONE BUTTON PER ZONE AS CALLED OUT ON PLAN. • WHERE APPLICABLE, PHOTOCELL WILL DIM LIGHTING IN THE INDICATED DAYLIT ZONE.
RESTROOMS	• AUTOMATIC OFF: CEILING MOUNTED OCCUPANCY SENSOR • OCCUPANCY: LIGHTS AUTOMATICALLY TURN ON TO 70% WHEN THE USER ENTERS THE ROOM AND AFTER THE ROOM HAS BEEN VACATED, THE LIGHTS WILL AUTOMATICALLY GO TO 50% FOR 15 MINS. AND THEN TURN OFF. • MANUAL SWITCH WILL TURN ALL LIGHTS OFF AND ON.
CIRCULATION AREA CORRIDOR STAIRS	• AUTOMATIC OFF: CEILING MOUNTED OCCUPANCY SENSOR • OCCUPANCY: LIGHTS AUTOMATICALLY TURN ON TO 100% WHEN THE USER ENTERS THE ROOM AND AFTER THE ROOM HAS BEEN VACATED, THE LIGHTS WILL AUTOMATICALLY GO TO 50%. • MANUAL DIMMER LOCATED IN BACK OF HOUSE AREA WITH VISUAL ANNUCIATOR.
OFFICES CONFERENCE ROOMS	• AUTOMATIC OFF: CEILING MOUNTED OCCUPANCY SENSOR • OCCUPANCY: LIGHTS AUTOMATICALLY TURN ON TO 70% WHEN THE USER ENTERS THE ROOM AND AFTER THE ROOM HAS BEEN VACATED, THE LIGHTS WILL AUTOMATICALLY GO TO 50%. FOR 15 MINS. AND THEN TURN OFF. • MANUAL DIMMER WILL ALLOW OCCUPANT TO CONTROL EACH ZONE. WALL STATION SHALL HAVE ONE BUTTON PER ZONE AS CALLED OUT ON PLAN. • WHERE APPLICABLE, PHOTOCELL WILL DIM LIGHTING IN THE INDICATED DAYLIT ZONE.

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MMA NO	25801
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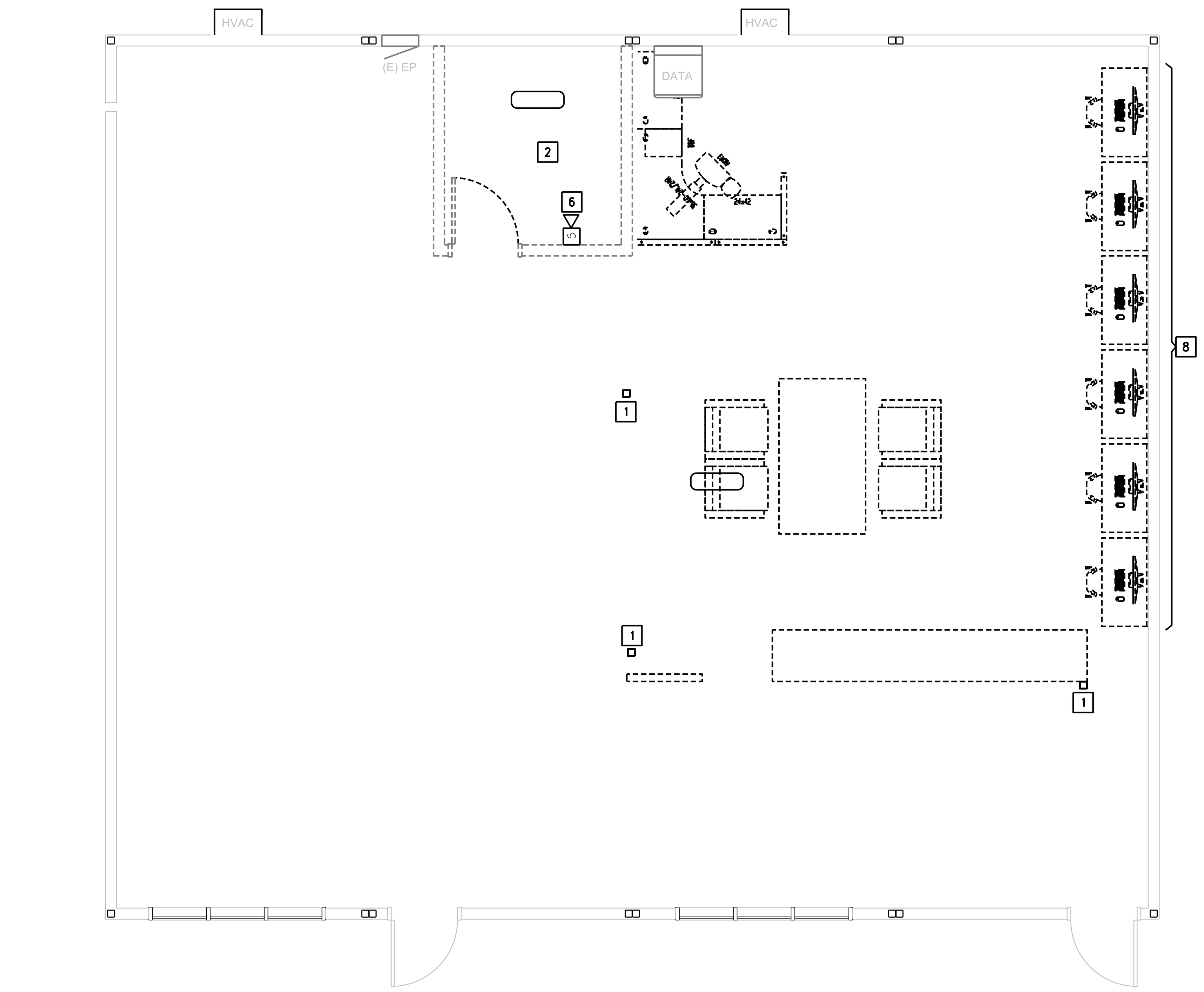
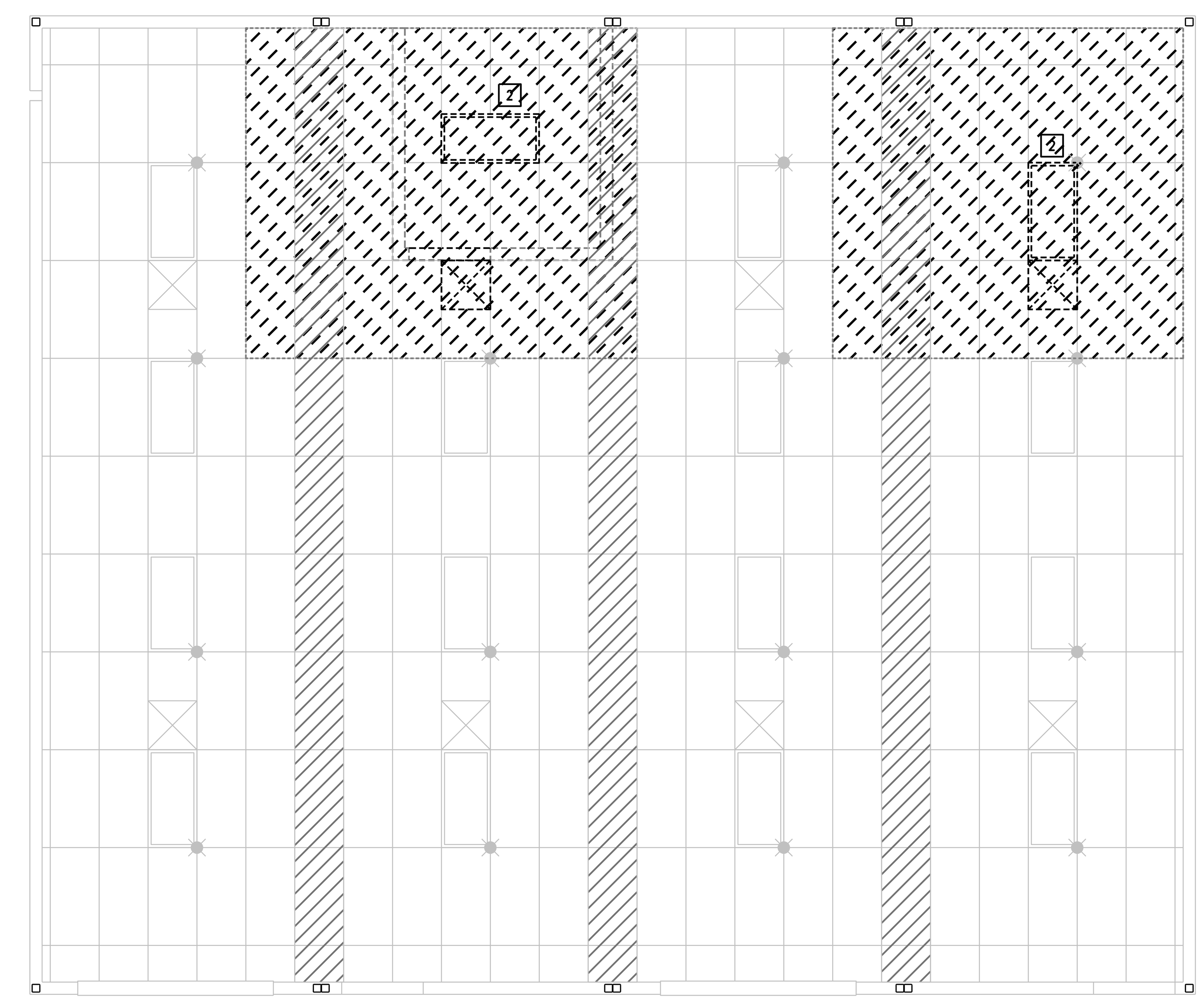
DRAWN	AM/AY
CHECKED	CH/TH

ELECTRICAL LIGHTING SCHEDULES AND CONTROLS

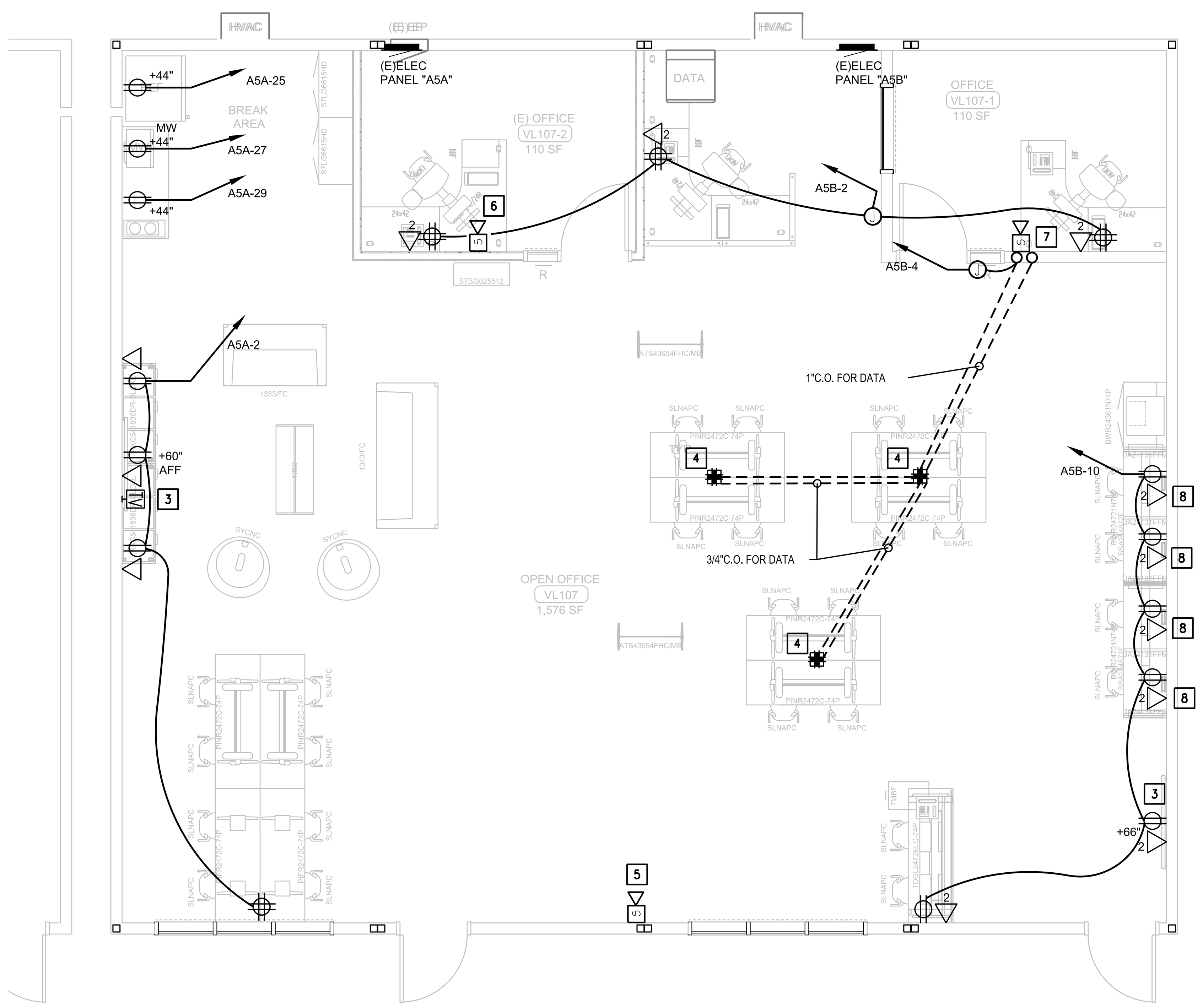
E0.02



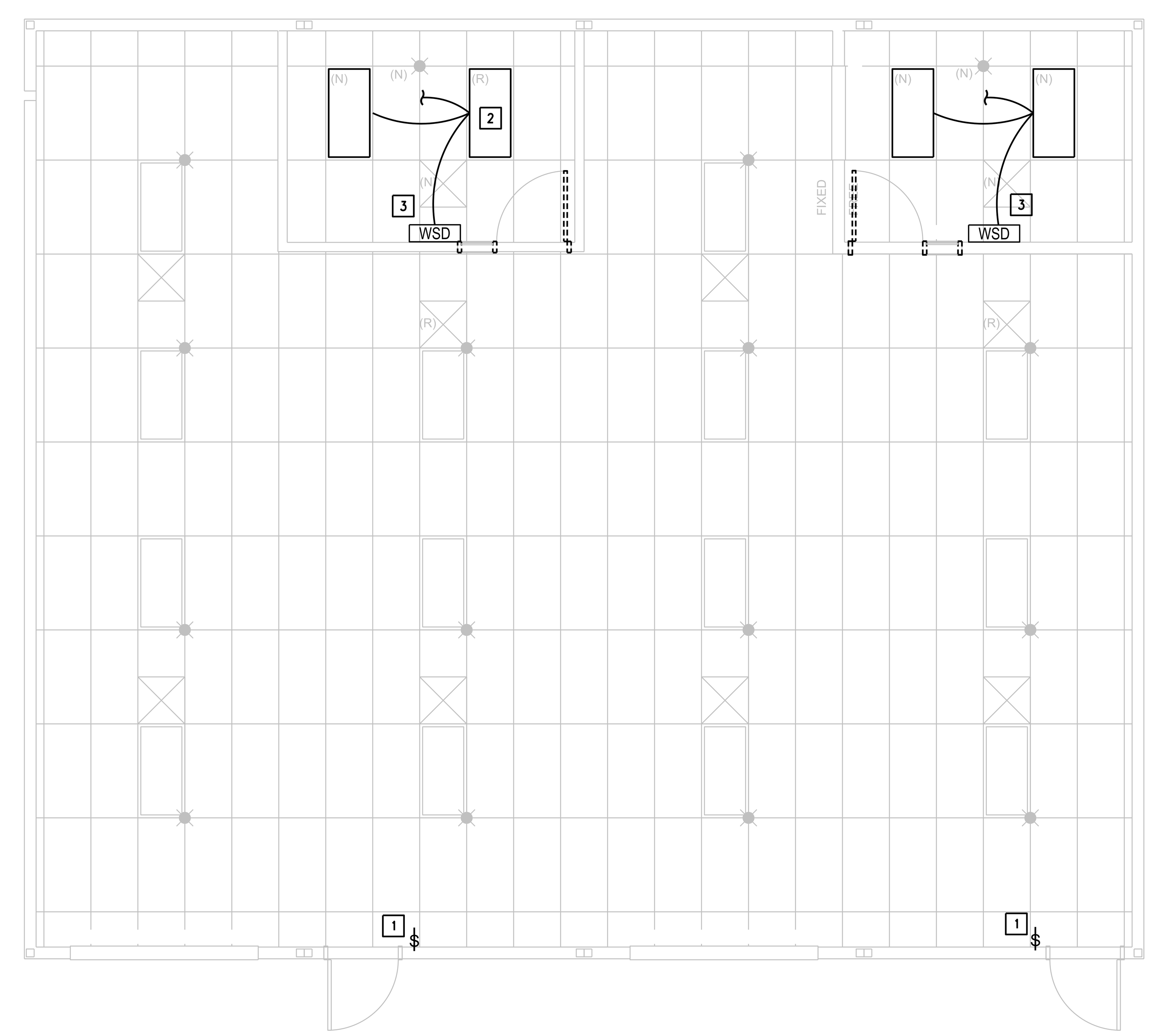
03 FLOOR POWER PLAN - DEMO
SCALE: 1/4"=1'-0"



01 FLOOR LIGHTING PLAN - DEMO
SCALE: 1/4"=1'-0"



04 FLOOR POWER PLAN - NEW
SCALE: 1/4"=1'-0"



02 FLOOR LIGHTING PLAN - NEW
SCALE: 1/4"=1'-0"

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH 2022 CALIFORNIA ELECTRIC CODE.
2. RECEPTACLES GANGED TOGETHER SHALL BE MOUNTED UNDER SINGLE COVER PLATE.
3. COORDINATE EXACT LOCATION OF RECEPTACLES WITH ARCHITECT. SCALING OF ENGINEERING DOCUMENTS FOR LOCATIONS OF DEVICES SHALL NOT BE PERMITTED.
4. COORDINATE DATA CABLING WITH DISTRICTAPPROVED IT VENDOR
5. REMOVE ANY EXISTING POWER AND DATA FEEDS FROM AREA BEING DEMOLISHED. POWER WIRING SHALL BE REMOVED BACK TO SOURCE.
6. SEE FIRE ALARM DRAWINGS FOR DETAIL OF NEW DEVICES

LIGHTING PLAN SPECIFIC NOTES

1. EXISTING SWITCHING TO REMAIN AS IS. REWIRE TO NEW LAYOUT.
2. RELOCATE LIGHT AS SHOWN ON NEW PLAN.
3. NEW OCCUPANCY SENSOR. CONNECT TO EXISTING LIGHTING CIRCUIT IN THE AREA.

POWER PLAN SPECIFIC NOTES

1. REMOVE POWER POLE IN ITS ENTIRETY. REMOVE FEED TO NEAREST JUNCTION BOX. REMOVE DATA LINE TO IDF.
2. REMOVE ALL POWER AND DATA BACK TO SOURCE AS PART OF OFFICE DEMOLITION.
3. SEE SHEET E1.01 FOR AV DETAILS AND LINE DIAGRAMS.
4. RECESSED ROUND FLOOR BOX, HUBBELL AFBS1R6BASE WITH S1CFCBL COVER
5. EXISTING F/A DEVICE TO REMAIN AS IS
6. EXISTING F/A DEVICE TO BE REINSTALLED ON NEW OFFICE WALL ONCE REBUILT. PRESERVE WIRING DURING DEMOLITION.
7. NEW F/A DEVICE SHALL BE INSTALLED AND EXISTING CIRCUIT SHALL BE EXTENDED AND MODIFIED AS NEEDED. NEW DEVICE SHALL BE INSTALLED AND COMMISSIONED BY DISTRICT APPROVED FIRE ALARM VENDOR. SEE FIRE ALARM DRAWINGS.
8. REUSE (8) EXISTING DATA PORTS IN THIS AREA AS SHOWN IN NEW LAYOUT. EXTEND EXISTING NETWORK CABLES TO NEW LOCATIONS.

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ELECTRICAL FLOOR PLANS

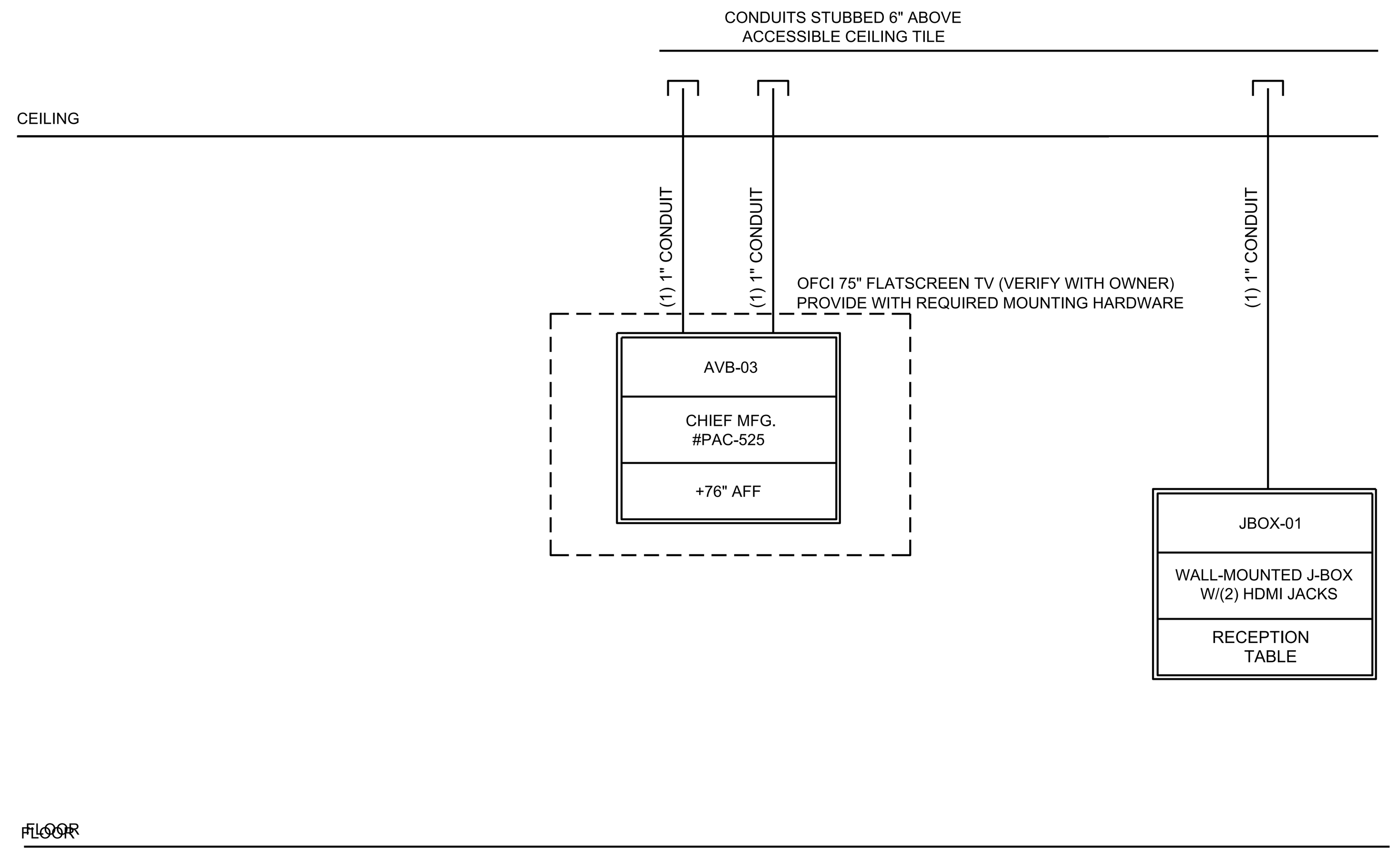
E1.00

GENERAL NOTES

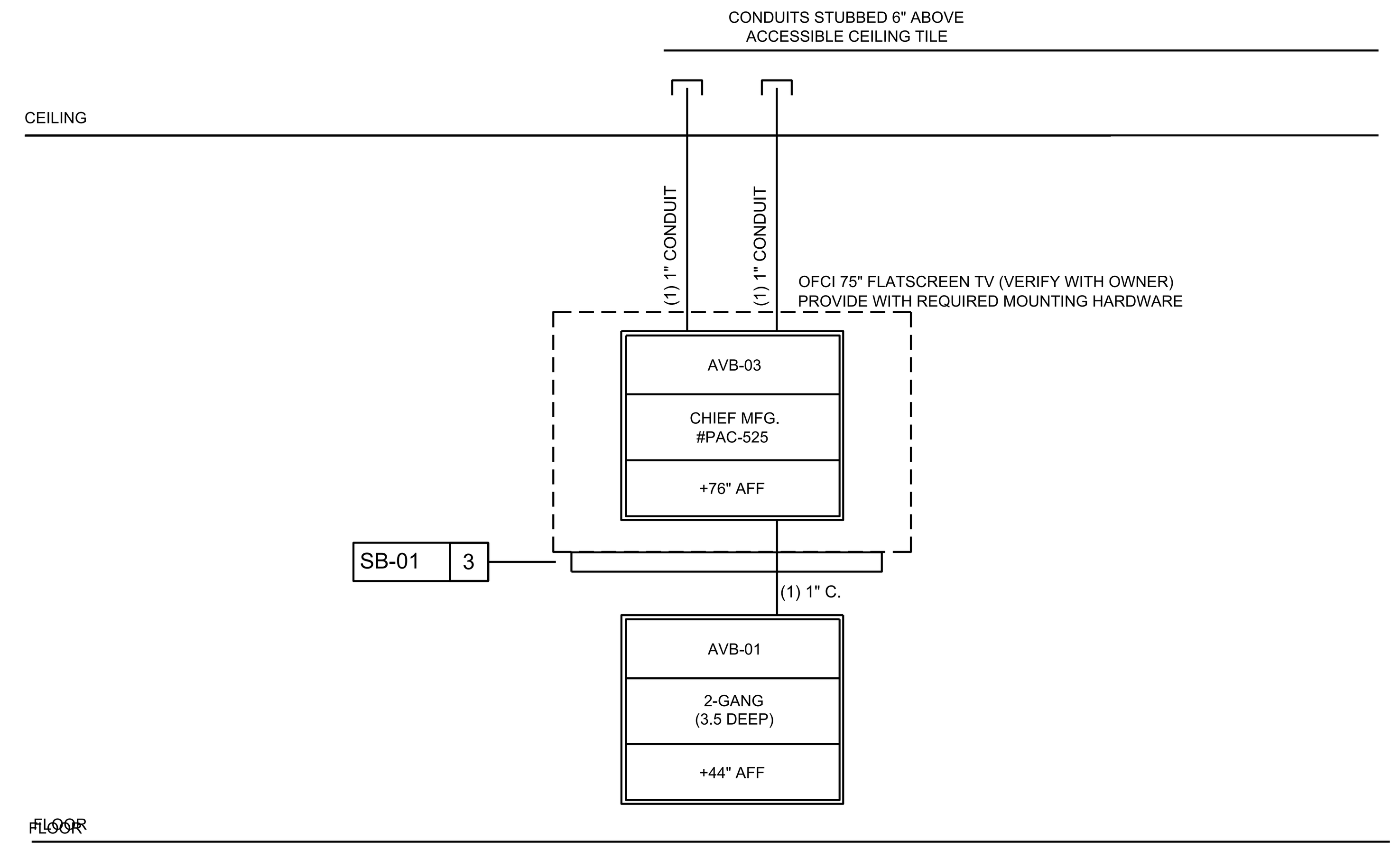
1. NOTE THAT ALL NEW DATA CABLING INDIATED ON PLANS ARE TO BE PROVIDED BY THE CONSTRUCTIONCONTRACTOR AND TERMINATED WITHIN THE TELECOM IDF.

AV PLAN SPECIFIC NOTES

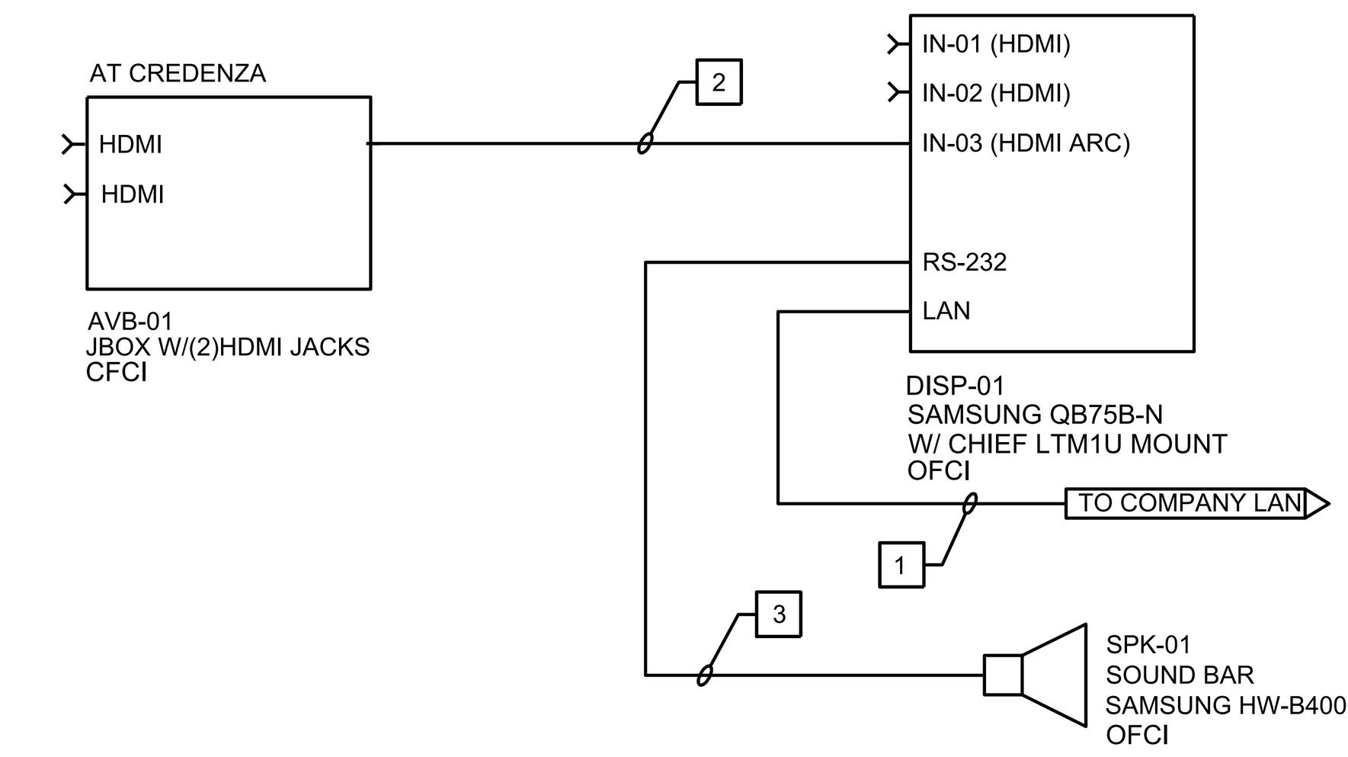
1. CABLE, SHIELDED CAT-6A, PLENUM RATED
2. CABLE, HDMI TO HDMI, PRE-TERMINATED IN 1" CONDUIT
3. SPEAKER CABLE



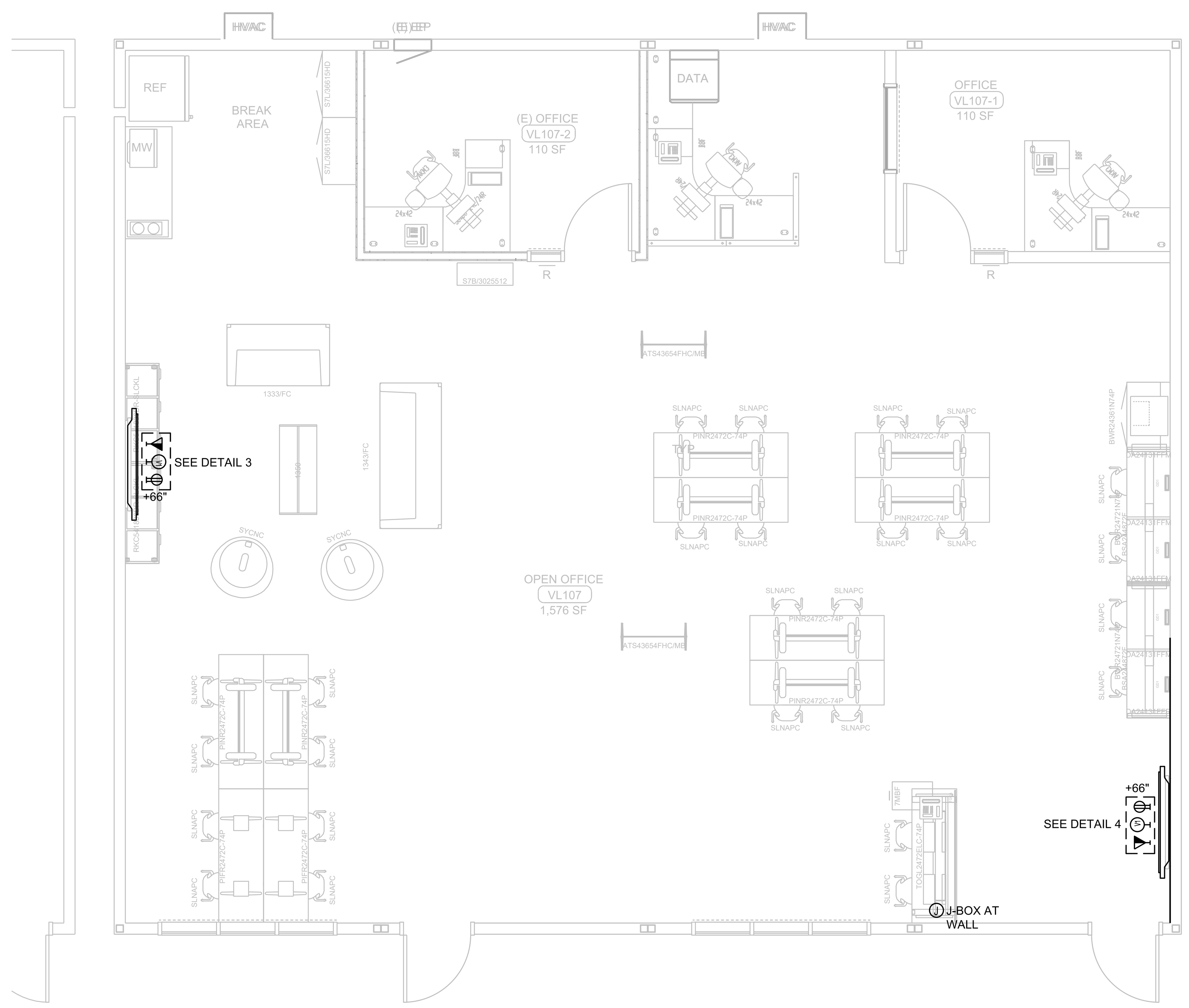
03 CONDUIT DIAGRAM ST RECEPTION DESK
SCALE: N.A.



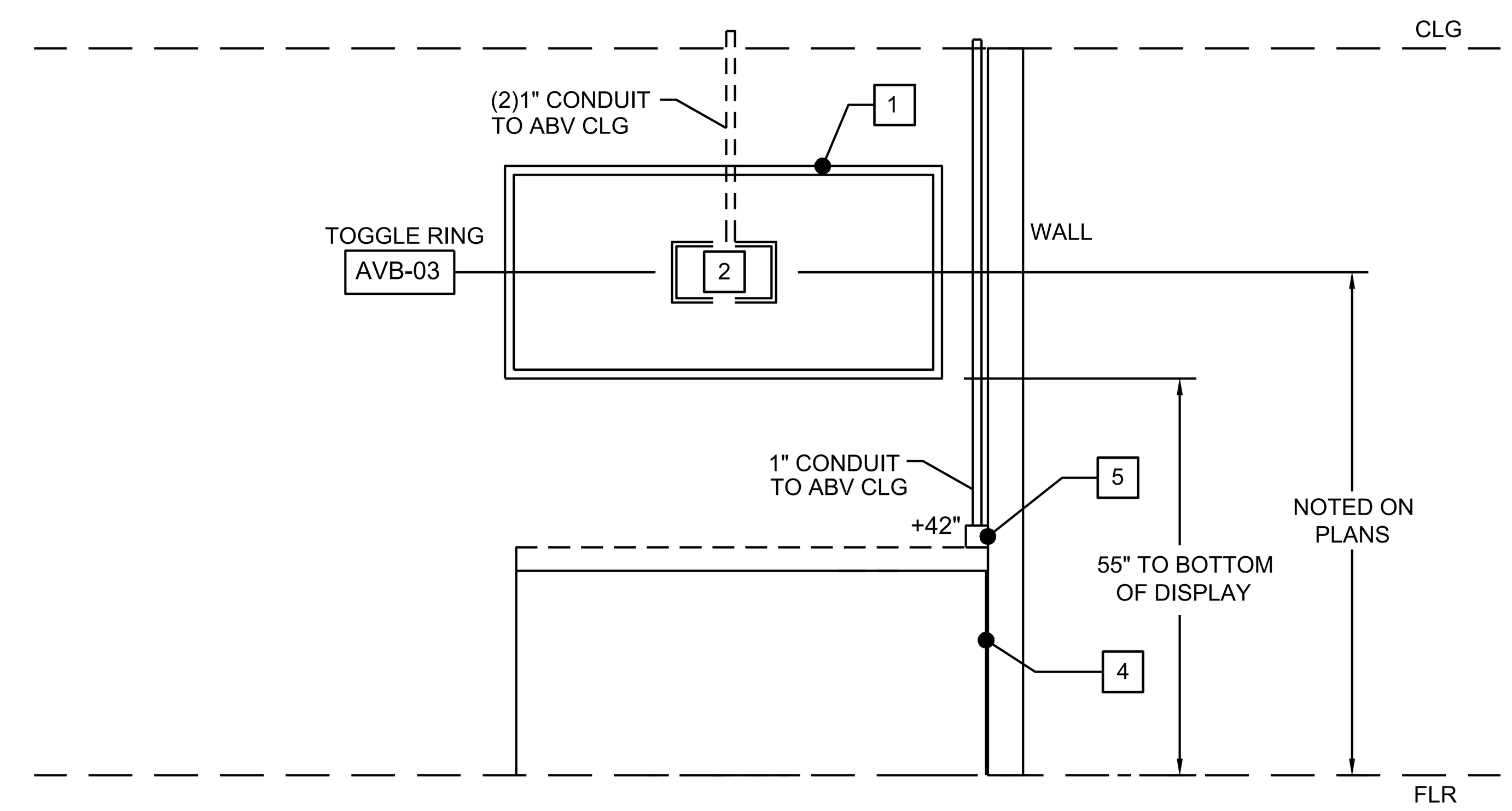
02 CONDUIT DIAGRAM AT CREDENZA WALL
SCALE: N.A.



01 AV SYSTEMS DIAGRAM, CONFERENCE ROOM
SCALE: N.A.



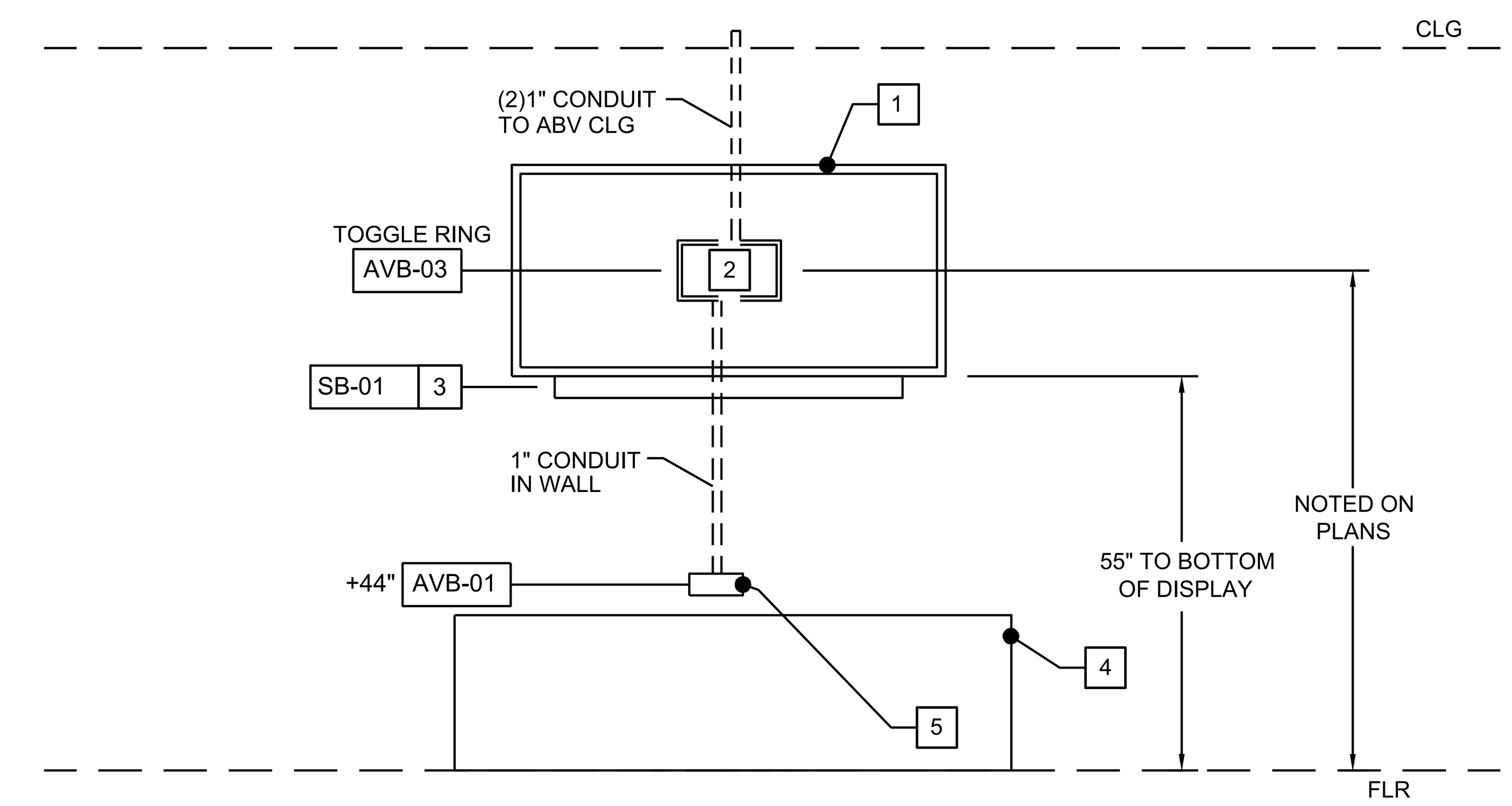
06 PARTIAL AV PLAN
SCALE: 1/4"=1'-0"



NOTES

1. WALL MOUNTED 75" FLAT PANEL MONITOR.
2. CONSOLIDATED POWER/AV/DATA WALLBOX (CHIEF PAC 525). PROVIDE (2) 1" CONDUITS STUBBED UP TO ACCESSIBLE CEILING.
3. SOUND BAR
4. RECEPTION TABLE
5. J-BOX AT WALL WITH (2) HDMI INPUTS

05 AV WALL ELEVATION AT RECEPTION DESK
SCALE: N.A.



NOTES

1. WALL MOUNTED 75" FLAT PANEL MONITOR.
2. CONSOLIDATED POWER/AV/DATA WALLBOX (CHIEF PAC 525). PROVIDE (2) 1-1/4" CONDUITS STUBBED UP TO ACCESSIBLE CEILING.
3. SOUND BAR
4. CREDENZA TABLE (BY OTHERS)
5. AV INPUT (WITH POWER AND DATA)
6. 1.5" CONDUIT BELOW FLOOR FROM RECEPTION DESK TO TO WALL MOUNTED TV

04 AV WALL ELEVATION AT RECEPTION
SCALE: N.A.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-124525 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 12/03/2025

MORETO MATHISON & ASSOCIATES
ARCHITECTS
449 W FOOTHILL BLVD
SUITE 281, GLENDORA CA 91741
(626) 594-0307

CONSULTANT

HARITON ENGINEERING

STAMP

CLIENT

RANCHO SANTIAGO Community College District

RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT
VL107
AP STUDENT CENTER RECONFIGURATION

SANTA ANA COLLEGE
1530 W. 17TH ST
SANTA ANA, CA 92706

100% CD

REVISIONS

1	DSA Back Check	09/05/25
2	DSA Back Check	10/24/25

MMA NO	25801
DATE:	05/12/2025
DRAWN	AM/AY
CHECKED	CH/TH

AV FLOOR PLAN AND DETAILS

E1.01

FIRE ALARM NOTES

1. ALL WALL—MOUNTED AUDIBLE SIGNALING APPLIANCES SHALL HAVE THEIR HEIGHTS ABOVE THE FINISHED FLOOR AT NOT LESS THAN 90" TO FINISHED FLOOR AND AT NOT LESS THAN 6" TO FINISHED CEILING, AS CEILING HEIGHT PERMITS (NFPA 72, 2010, CH. 18.4.8.1). ALL WALL MOUNTED VISUAL APPLIANCES AND COMBINATION AUDIBLE/VISUAL APPLIANCES SHALL BE MOUNTED NOT LESS THAN 80" AND NOT GREATER THAN 96" ABOVE FINISHED FLOOR. (NFPA 72, 2010, CH. 18.5.4.1)
2. ALL EQUIPMENT SHALL BE U.L. AND C.S.F.M. LISTED.
3. ALL WIRING SHALL BE IN ACCORDANCE WITH THE N.E.C. AND AUTHORITIES HAVING JURISDICTION.
4. ALL JUNCTION BOXES SHALL BE SIZED IN ACCORDANCE WITH THE N.E.C. AND SHALL HAVE THEIR COVERS PAINTED RED WHERE APPLICABLE.
5. ELECTRICAL CONTRACTOR SHALL FURNISH ACCESS PANELS TO AREAS THAT REQUIRE SERVICING, TROUBLE SHOOTING, ETC.
6. DO NOT DEVIATE FROM CONDUIT RUNS AS SHOWN ON FLOOR PLANS WITHOUT PRIOR APPROVAL FROM ELECTRICAL ENGINEER. FACTORS SUCH AS EXCESSIVE VOLTAGE DROP, ADDITIONAL PARTS, ENGINEERING, ETC., THAT ARE A RESULT OF CONDUIT RUN DEVIATIONS SHALL BE THE SOLE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
7. DETECTORS SHALL NOT BE LOCATED IN A DIRECT AIR-FLOW, NOR CLOSER THAN THREE (3) FEET (914mm) FROM AN AIR SUPPLY DIFFUSER.
8. ALL FAN SHUTDOWN FUNCTIONS, DAMPER CLOSURES AND ASSOCIATED MECHANICAL SYSTEM FIRE ALARM INTERFACE SHALL BE BY MECHANICAL CONTRACTOR, AND SHALL BE COORDINATED WITH FIRE ALARM SYSTEM.
9. ALL DUCT SMOKE DETECTORS SHALL BE MOUNTED BY THE MECHANICAL CONTRACTOR. DUCT SMOKE DETECTORS EXPOSED TO THE WEATHER SHALL BE C.S.F.M. LISTED FOR OUTDOOR INSTALLATION, AND WEATHER PROTECTED BY THE MECHANICAL CONTRACTOR. ALL AIR VELOCITY TESTING SHALL BE PERFORMED BY THE MECHANICAL CONTRACTOR.
10. ALL 120VAC POWER REQUIREMENTS FOR THE FIRE ALARM SYSTEM SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR AND SHALL MEET ALL REQUIREMENTS OF THE AUTHORITIES HAVING JURISDICTION.
11. ALL FIRE ALARM DEVICE BACKBOXES, FIRE ALARM TERMINAL CABINETS, GUTTERS, JUNCTION BOXES AND ASSOCIATED CONDUITS SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED. REFER TO FIRE ALARM SYMBOL LIST AND/OR MOUNTING DETAILS FOR ADDITIONAL INFORMATION. SYSTEM SUPPLIER PROVIDED BACKBOXES SHALL BE INSTALLED BY ELECTRICAL CONTRACTOR UNLESS OTHERWISE NOTED.
12. SMOKE DETECTOR TESTING SHALL BE PERFORMED TO ENSURE THAT EACH DETECTOR IS WITHIN ITS LISTED AND MARKED SENSITIVITY RANGE USING THE METHODS RECOMMENDED PER CFC 907.9.4 AND NFPA 72, 2010 14.4.5.3.4.
13. ALL WIRING, INITIATING DEVICES AND ANNUNCIATOR PANEL SHALL BE SUPERVISED TO THE PRINCIPAL POINT OF ANNUNCIATION. THE FIRE ALARM CONTROL PANEL TO SUPERVISE THE ANNUNCIATOR PANEL, ALL INITIATING AND INDICATING DEVICE CIRCUITS.
    A. INITIATING DEVICE CIRCUITS (IDC): CLASS B
    B. SIGNALING LINE CIRCUITS (SLC): CLASS B
    C. NOTIFICATION APPLIANCE CIRCUITS (NAC): CLASS B
14. ALL WIRING SHALL BE CUT FOR IN AND OUT. WIRING SHALL NOT BE LOOPED THROUGH DEVICES.
15. POINT AND COMMON ANNUNCIATION AND T-TAPPING ARE PROHIBITED. (T-TAPPING IS ALLOWABLE ON SLC LOOPS).
16. PROVIDE 3/4" CONDUIT FROM FIRE ALARM CONTROL PANEL TO TELEPHONE BACKBOARD FOR OWNER PROVIDED CENTRAL STATION MONITORING.
17. CONTRACTOR TO FIELD VERIFY AND PROVIDE DECIBEL METER FOR TESTING OF AMBIENT NOISE LEVELS (THE AUDIBLE ALARM NOTIFICATION APPLIANCES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 dBA ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR 5 dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY OCCUPIED SPACE WITHIN THE BUILDING. THE MINIMUM SOUND PRESSURE LEVEL SHALL BE 60 dBA PER CFC 907.6.2.1.1.) INSTALL ADDITIONAL AUDIBLE DEVICES AS NEEDED TO ATTAIN REQUIRED NOISE LEVELS IN ALL REQUIRED AREAS. PROVIDE UPDATED PLANS AND CALCULATIONS THROUGH THE "CHANGE ORDER" PROCESS WHEN INSTALLING ADDITIONAL DEVICES. INSPECTOR OF RECORD (IOR) TO WITNESS FINAL TEST OF SYSTEM. CONTRACTOR(S) TO PROVIDE FINAL TEST RESULTS AND "RECORD OF COMPLETION" TO ARCHITECT OF RECORD, OWNER, DIVISION OF THE STATE ARCHITECT, IOR AND LOCAL FIRE AUTHORITY.
18. ALL CONDUITS ARE 3/4" UNLESS OTHERWISE NOTED.
19. ALL FLOW SWITCHES SHALL BE 2 WIRE WITH NON-ELECTRONIC RETARD TYPE SIMILAR TO THE SYSTEM SENSOR MODEL "WFD SERIES" ONLY.
20. ALL DEVICES IN THE ALARM SYSTEM SHALL BE COMPATIBLE AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
21. FIRE ALARM SYSTEM SHALL BE FURNISHED AND INSTALLED BY AN AUTHORIZED DISTRIBUTOR.
22. FIRE ALARM SYSTEM INSTALLATION COMPANY SHALL BE UL LISTED (UUJS).
23. DETECTORS SHALL NOT BE INSTALLED UNTIL AFTER THE CONSTRUCTION CLEAN-UP OF ALL TRADES IS COMPLETE AND FINAL. DETECTORS THAT HAVE BEEN INSTALLED PRIOR TO FINAL CLEAN-UP BY ALL TRADES SHALL BE CLEANED OR REPLACED IN ACCORDANCE WITH CHAPTER 7." CLEANING OR REPLACEMENT OF DEVICES THAT WERE MOUNTED AT THE REQUEST OF THE CONTRACTOR WILL NOT BE PERFORMED WITHOUT WRITTEN AUTHORIZATION THAT ASSUMES FINANCIAL RESPONSIBILITY FOR COSTS INCURRED. TESTING OF DETECTORS SHALL BE PERFORMED PER NFPA 72 14.4.5.3.4 AND CFC 907.9.4.
24. PER CBC 1117B.6(4), 1114B.2.2 ACTIVATION OF INITIATING DEVICE SHALL NOT REQUIRE MORE THAN 5 LBS. (22.2N) OF FORCE OR REQUIRE TIGHT GRASPING PINCHING, OR TWISTING OF WRIST.
25. THE SYSTEM SHALL CONFORM TO CALIFORNIA CODE OF REGULATIONS (CCR) TITLES 19 AND 24 AS APPLICABLE TO THIS PROJECT.
26. AUDIBLE ALARM SIGNALS SHALL BE THE STANDARD FIRE ALARM EVACUATION SIGNAL, ANSI S3.41 AUDIBLE EMERGENCY EVACUATION SIGNAL, "THREE PULSE TEMPORAL PATTERN, " AS DESCRIBED IN NFPA 72. (EXCEPTION: THE USE OF THE EXISTING EVACUATION SIGNALING SHALL BE PERMITTED WHERE APPROVED BY THE ENFORCING AGENT.) (CFC 907.5.2.1.3)
27. PROVIDE A LABEL WITHIN THE FACP AND EACH POWER SUPPPLY WITH THE PANEL NUMBER AND CIRCUIT NUMBER OF THE 120 VOLT POWER SOURCE.
28. WHERE A DETECTOR IS INSTALLED ABOVE THE CEILING, THE DETECTOR SHALL BE EASILY ACCESSIBLE AND THE LOCATION OF THE DETECTOR SHALL BE CLEARLY MARKED. FOR DUCT SMOKE DETECTORS A REMOTE TEST STATION SHALL BE PROVIDED.
29. THE "END OF LINE RESISTANCE" OF EACH CIRCUIT SHALL BE TESTED IN THE PRESENCE OF THE I.O.R. AND SHALL NOT EXCEED A MAXIMUM OF 10% VOLTAGE DROP, OR LISTED MANUFACTURER'S MINIMUM OPERATING VOLTAGE.
30. ALL WIRING USED IN UNDERGROUND CONDUIT SHALL BE LISTED FOR WET AREA APPLICATION, IN ACCORDANCE WITH CEC 2010, SEC. 110.11, 300.6 & 310.9, 760.3(D).
31. PROVIDE (VIA CHANGE ORDER PROCESS) APPROPRIATE MANUFACTURER PRODUCT DATA SHEETS AND APPLICABLE CSM LISTINGS FOR ALL SUBSTITUTE MANUFACTURER'S MATERIAL, EQUIPMENT OR APPLIANCES, TO DSA PRIOR TO START OF INSTALLATION.
32. CONTRACTOR SHALL PROVIDE FIRE WATCH FOR ALL OCCUPIED AREAS OF WORK WHERE THE REQUIRED FIRE ALARM SYSTEM IS OUT OF SERVICE FOR THE DURATION OF THE SYSTEM OUTAGE. FIRE WATCH AND SYSTEM/EQUIPMENT SHALL BE PER 2010 CFC 901.7.

FIRE ALARM SYSTEM TESTING NOTES:

1. CONTRACTOR SHALL PROVIDE A CERTIFIED IMPARTIAL FIRE ALARM INSPECTOR.
2. 100% OF THE SYSTEM IN CONTRACT WILL BE TESTED AND INSPECTED WITH THE CONTRACTOR OR CONTRACTOR'S SUB AND DISTRICT'S ETS STAFF MEMBER PRESENT. INSPECTION WILL INCLUDE, BUT NOT BE LIMITED TO, REMOVING STROBES/HORNS TO CHECK FOR "T-TAPS", REMOVING J-BOX COVERS TO CHECK WIRE GAGE AND SPLICES.
3. FOLLOW ALL REQUIREMENTS AND INSTRUCTIONS PROVIDED BY MANUFACTURER UPON INSTALLATION OF MANUFACTURER'S PRODUCTS AND DEVICES.
4. PRIOR TO REQUESTING FINAL APPROVAL OF THE INSTALLATION, THE INSTALLING CONTRACTOR SHALL FURNISH A WRITTEN STATEMENT TO THE FIRE CODE OFFICIAL THAT THE SUBJECT FIRE PROTECTION SYSTEM HAS BEEN INSTALLED IN ACCORDANCE WITH APPROVED PLANS AND HAS BEEN TESTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND THE APPROPRIATE INSTALLATION STANDARD. ANY DEVIATIONS FROM THE DESIGN STANDARDS SHALL BE NOTED AND COPIES OF THE APPROVALS FOR SUCH DEVIATIONS SHALL BE ATTACHED TO THE WRITTEN STATEMENT. (CFC 901.2.1)
5. UPON COMPLETION OF SYSTEM INSTALLATION, THE SYSTEM SHALL BE TESTED IN THE PRESENCE OF AND IN A MANNER ACCEPTABLE TO DSA/I.0.R. CONTRACTOR SHALL SUPPLY NECESSARY TESTING EQUIPMENT, INCLUDING A "SOUND LEVEL METER TO CHECK ACCEPTABLE NOISE LEVELS OF AUDIBLE DEVICES. PROVIDE TEST RESULTS PER NFPA 72 TO ARCHITECT, D.S.A., I.O.R. AND TO LOCAL FIRE AUTHORITY, PER CFC 907.8.2.
6. INSPECTION, TESTING AND MAINTENANCE SHALL BE IN ACCORDANCE WITH NFPA 72 14.4.1.2 THROUGH 14.4.1.2.2 AND TABLE 14.4.2.2 REACCEPTANCE TESTING.
7. LOCAL FIRE AUTHORITY NOTIFICATION TO BE DOCUMENTED AND RECORDED AS "UNAVAILABLE" OR "CONFIRM WHEN PRESENT".NCE TESTING.

ABBREVIATIONS

A	AMPERE
AMP	AMPERE
AC	ALTERNATING CURRENT
AF	AMPERE FRAME
AF	AMPERE FUSE
AFC	ABOVE FINISHED CEILING
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CAPACITY
ANN	ANNUNCIATOR
AS	AMPERE SWITCH
AT	AMPERE TRIP
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BATT	BATTERY
BC	BARE COPPER
BCW	BARE COPPER WIRE
BKBD	BACKBOARD
BKR	BREAKER
BLDG	BUILDING
C	CONDUIT
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CEC	CALIFORNIA ELECTRICAL CODE
CKT	CIRCUIT
CLG	CEILING
CO	CONDUIT ONLY
COM	COMMON
COMM	COMMUNICATIONS
CONN	CONNECT
CONT	CONTINUE
CT	CURRENT TRANSFORMER
CU	COPPER
D	DEMOLISH/DEMO
DB	DIRECT BURIED
DEF	DUAL ELEMENT FUSE
DISC	DISCONNECT
DIST	DISTRIBUTION
DN	DOWN
DP	DISTRIBUTION PANEL
DPDT	DOUBLE-POLE DOUBLE-THROW
DPST	DOUBLE-POLE SINGLE-THROW
DWG	DRAWING
E, (E)	EXISTING
ELEC	ELECTRICAL
EM	EMERGENCY
EMER	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EPO	EMERGENCY POWER OFF
EQUIP	EQUIPMENT
EX	EXISTING
EXIST	EXISTING
F	FUSE(D)
FA	FIRE ALARM
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FLA	FULL LOAD AMPERES
FLEX	FLEXIBLE
FLR	FLOOR
G	GROUND
GALV	GALVANIZE(D)
GEN	GENERATOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER, HEAT PUMP
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HV	HIGH VOLTAGE
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HZ	HERTZ
IC	INTERRUPTING CAPACITY IN AMPS RMS
IG	ISOLATED GROUND
JB,J	JUNCTION BOX
KA	THOUSAND AMPERES
KCMIL	THOUSAND CIRCULAR MILS
KVA	KILOVOLT-AMPERE
KW	KILOWATT
KWH	KILOWATT-HOUR
KVAR	KILOVAR
LCL	LONG CONTINUOUS LOAD
LRA	LOCKED ROTOR AMP
LTG	LIGHTING
M	MAGNETIC STARTER COIL
MAX	MAXIMUM
MC	METAL CLAD CABLE
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCM	THOUSAND CIRCULAR MILS
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	METAL HALIDE
MI	MINERAL INSULATED
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTR	MOTOR
MTS	MANUAL TRANSFER SWITCH
N, (N)	NEW
NB	NEUTRAL BUS
NEC	NATIONAL ELECTRIC CODE
NF	NON-FUSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
NTS	NOT TO SCALE
P	POLE(S)
PF	POWER FACTOR
PNL	PANEL
PRI	PRIMARY
PT	POTENTIAL TRANSFORMER
PWR	POWER
Ø/PH	PHASE
R	RELOCATE OR REMOVE
RECP	RECEPTACLE
RGS	RIGID GALVANIZED STEEL CONDUIT
R	RELOCATE OR REMOVE
RM	ROOM
RMS	ROOMS
RT	RADIOTOUCH SYSTEM
SCA	SHORT CIRCUIT AMPS
SEC	SECONDARY
SFD	SMOKE FIRE DAMPER
SPKR	SPEAKER
SQ FT	SQUARE FEET
SUSP	SUSPEND(ED)
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TC	TIME CLOCK
TEL	TELEPHONE
TEMP	TEMPORARY
TTB	TELECOMMUNICATIONS BACKBOARD
TMH	TELECOMMUNICATIONS MANHOLE
TYP	TYPICAL
TVSS	TRANSIENT VOLTAGE SUPPRESSION SYSTEM
UG	UNDERGROUND
UON	UNLESS OTHERWISE NOTED
UNO	UNLESS NOTED OTHERWISE
V	VOLT, VOLTS
VA	VOLT-AMPERES
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
VLIF	VERIFY LOCATION IN FIELD
WT	WATERTIGHT
W	WATT OR WIRE
W/	WITH
WP	WEATHER PROOF
XFMR	TRANSFORMER, TRANSF.

APPLICABLE CODES

APPLICABLE CODES AND STANDARDS:

APPLICABLE CODES AS OF JANUARY 1, 2023:

2025	CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR
2022	CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR
2022	CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR
2022	CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR
2022	CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR
2022	CALIFORNIA ENERGY CODE, PART 6, TITLE 24 CCR
2022	CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR
2022	CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR
2022	CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR
2022	CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

APPLICABLE STANDARDS:

FOR A LIST OF APPLICABLE STANDARDS, INCLUDING CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS, REFER TO CBC CHAPTER 35 AND CFC CHAPTER 80.

OF CONDUCTORS, MATERIAL & CONDUIT SIZE

WIRE DESIGNATION	WIRE IN CONDUIT	WIRE IN CONDUIT UNDERGROUND/WET LOC.	UNDERGROUND/WET WIRE DESIGNATION
INIT. LOOP Z	TWO PAIR 2 CONDUCTOR #16 UNSHIELDED WEST PENN #D990	TWO PAIR 2 CONDUCTOR #16 FPL UNSHIELDED WEST PENN #AQ-225	INIT. LOOP FU,ZU
POWER CKT. B,P	2 CONDUCTOR #14 THHN STRANDED	2 CONDUCTOR #14 STRANDED TYPE THWN	POWER CKT. PU
NETWORK CONTROL C	2 CONDUCTOR #12 THHN STRANDED	2 CONDUCTOR #12 STRANDED TYPE THWN	NETWORK CONTROL CU
ANN./TELE. D,T	2 CONDUCTOR #18 FPL TWISTED/ SHIELDED WEST PENN #D975	2 CONDUCTOR #18 FPL TWISTED/ SHIELDED WEST PENN #AQ-293	ANN./TELE. DU,TU
LOW LEV. AUD. X,Y	2 CONDUCTOR #18 FPL TWISTED/ SHIELDED WEST PENN #D975	2 CONDUCTOR #18 FPL TWISTED/ SHIELDED WEST PENN #AQ-293	LOW LEV. AUD. XU,YU
VISUAL V	2 CONDUCTOR #12 THHN STRANDED	2 CONDUCTOR #12 STRANDED TYPE THWN	VISUAL VU
AUDIBLE A	2 CONDUCTOR #12 THHN STRANDED	2 CONDUCTOR #12 STRANDED TYPE THWN 6 STRAND	AUDIBLE AU
INIT. LOOP F	6 STRAND 62.5/125 MICRON MULTI-MODE FIBER OPTIC CABLE	62.5/125 MICRON MULTI-MODE FIBER OPTIC CABLE	INIT. LOOP F

NOTE:
1. ALL WIRE MODEL NUMBERS ARE WEST PENN OR EQUIVALENT BY OTHER MANUFACTURER UNLESS OTHERWISE NOTED.
2. COLOR CODE ALL FIRE ALARM CONDUCTORS PER DISTRICT STANDARDS. VERIFY COLOR SCHEMES PRIOR TO ORDERING FIRE ALARM CONDUCTORS.

FIRE ALARM SYMBOL LIST

SYMBOL	DESCRIPTION	MODEL	MANUFACTURER	BACKBOX	MOUNTING HEIGHT	C.S.F.M NUMBER
FACP	FIRE ALARM CONTROL PANEL WITH VOICE COMMAND, AUDIO AMPLIFIER AND NETWORK COMM. MODULE	NFS2-640 DVC-EM DAA2-5025 HS-NCM-MF	NOTIFIER	PROVIDED	5'-6" A.F.F. TO TOP	7165-0028:0243
FAPS	FIRE ALARM POWER SUPPLY	FCPS-24S6	NOTIFIER	PROVIDED	5'-6" A.F.F. TO TOP	7315-0028:0225
FATC	FIRE ALARM TERMINAL CABINET	N/A	BY ELECTRICIAN	18"SQ. x 6"D U.N.O. (RED)	VERIFY IN FIELD	N/A
MS	MANUAL PULL STATION (ADDRESSABLE)	NBG-12LX	NOTIFIER	4S DEEP BOX W/ SINGLE GANG RING	48" A.F.F. TO TOP OF ACTIVATING HANDLE	7150-0028:0199
SD	AREA SMOKE DETECTOR (ADDRESSABLE/PHOTO.)	FSP-851 B710LP (BASE)	NOTIFIER	4S DEEP BOX W/ 3-0 RING	CEILING	E7272-0028:0206 7300-0028:0173
S WP	WEATHERPROOF FIRE ALARM SPEAKER	ET-1010	WHEELOCK	WP BACKBOX PROVIDED	90" A.F.F. TO TOP	7320-0785:0105
SF cd	FIRE ALARM SPEAKER/STROBE (WALL)	E70-24MCW	WHEELOCK	4S DEEP BOX W/ 4S EXTENSION	80" A.F.F. TO BOTTOM	7125-0785:0152
F cd	FIRE ALARM STROBE (WALL)	STW (WHITE)	WHEELOCK	4S DEEP BOX W/ 4S EXTENSION	80" A.F.F. TO BOTTOM	7125-0785:0168
J	FIRE ALARM JUNCTION BOX	N/A	BY ELECTRICIAN	4S BOX, U.N.O.	VERIFY IN FIELD	N/A

A.F.F	ABOVE FINISHED FLOOR
E.O.L	END OF LINE RESISTOR
(E)	EXISTING DEVICE
F.B.O.	FURNISHED BY OTHERS
TSP	TWISTED SHIELDED PAIR
N/A	NOT APPLICABLE
U.N.O.	UNLESS NOTED OTHERWISE
VL	VERIFY LOCATION IN FIELD
WP	WEATHERPROOF DEVICE
cd	INDICATED CANDELA RATING OF STROBE DEVICE

SEQUENCE OF OPERATIONS

ACTION \ DEVICE	120 VOLT POWER FAILURE	SYSTEM TROUBLE/ WIRING FAULT or OPEN	MANUAL PULL STATION	AREA SMOKE DETECTOR
SOUND CONTROL PANEL TROUBLE BUZZER	**YES**	**YES**	NO	NO
SOUND CONTROL PANEL SUPERVISORY BUZZER	NO	NO	NO	NO
SOUND CONTROL PANEL ALARM BUZZER	NO	NO	**YES**	**YES**
ACTIVATE RELAY FOR CENTRAL STATION MONITORING	**YES**	**YES**	**YES**	**YES**
ANNUNCIATE AT FIRE ALARM CONTROL PANEL (ALARM or TROUBLE)	**YES**	**YES**	**YES**	**YES**
ANNUNCIATE AT REMOTE ANNUNCIATOR PANEL (ALARM or TROUBLE)	**YES**	**YES**	**YES**	**YES**
ACTIVATE NOTIFICATION (AUDIBLE/VISUAL) ALARM SIGNAL THROUGHOUT BLDG	NO	NO	**YES**	**YES**
NOTIFY FIRE DEPARTMENT VIA MONITORING STATION	NO	NO	**YES**	**YES**

SCOPE OF WORK

MODIFICATION OF EXISTING FIRE ALARM SYSTEMS DUE TO NEW DEVICES ADDED

ELECTRICAL DRAWING LIST

PLAN REVIEW NOTES

1.0 FIRE ALARM PLAN REVIEW

A. FIRE ALARM PLAN REVIEW

1. AS PART OF THE FIRE ALARM PLAN REVIEW, PLANS AND SPECIFICATIONS FOR THE FIRE ALARM SYSTEM HAVE BEEN INCLUDED FOR REVIEW AND COMMENT BY THE DIVISION OF THE STATE ARCHITECT, FIRE & LIFE SAFETY.
2. THE FLOOR PLANS AND SPECIFICATIONS INCLUDE THE FOLLOWING: LOCATIONS OF ALL ALARM-INITIATING AND SIGNALING DEVICES, CONTROL AND TROUBLE SIGNALING EQUIPMENT (FIRE ALARM CONTROL PANEL, BUILDING ANNUNCIATION (FIRE ALARM ANNUNCIATOR).

B. FIRE ALARM COMPONENTS

1. PROVIDE CALIFORNIA STATE FIRE MARSHAL LISTING SHEETS AND U.L. LISTING NUMBERS FOR EACH COMPONENT.
2. EQUIPMENT POWER CONNECTIONS.
3. RISER DIAGRAM SHOWING EACH COMPONENT.
4. VOLTAGE DROP CALCULATIONS.
5. POWER CONNECTIONS TO APPLICABLE COMPONENTS.
6. WIRE AND/OR CABLING TYPES AND SIZES.
7. PROVIDE CATALOG DATA SHEETS FOR ALL FIRE ALARM SYSTEM COMPONENTS.
8. CONTRACTOR TO FURNISH STATEMENT OF COMPLIANCE BEFORE REQUESTING FINAL APPROVAL OF INSTALLATION IN ACCORDANCE WITH CFC 901.2.1.
8. A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE PROJECT INSPECTOR AND, IF APPLICABLE, LOCAL FIRE AUTHORITY.
9. THE INSTALLER SHALL SUPPLY THE OWNER WITH A WRITTEN OPERATING, TESTING AND MAINTENANCE INSTRUCTIONS, POINT-TO-POINT AS BUILT DRAWINGS AND EQUIPMENT SPECIFICATIONS. AS BUILT RECORDS SHALL BE MAINTAINED ON PREMISES FOR A MINIMUM OF THREE YEARS PER CFC 901.6.2.

C. SCOPE OF WORK

1. INSTALL A MANUAL, ADDRESSABLE, FIRE ALARM SYSTEM WITHIN ALL BUILDINGS IN SCOPE OF PROJECT AS DEFINED PER CFC 907.2.3 AND NFPA 72.
2. FIRE ALARM SYSTEM SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. THE SUPERVISING STATION SHALL BE U.L. LISTED AS UUFX (CENTRAL STATION) PER CFC 907.2.3.5 & 907.7.5.2.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-124525 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 12/03/2025

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STAMP
REGISTERED PROFESSIONAL ENGINEER
CELESTIN HARITON
No. E-17082
EXP. 09-30-25
ELECTRICAL
STATE OF CALIFORNIA
09/30/2025

CLIENT
RANCHO SANTIAGO Community College District

RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT
VL107
AP STUDENT CENTER RECONFIGURATION

SANTA ANA COLLEGE
1530 W. 17TH ST
SANTA ANA, CA 92706

100% CD

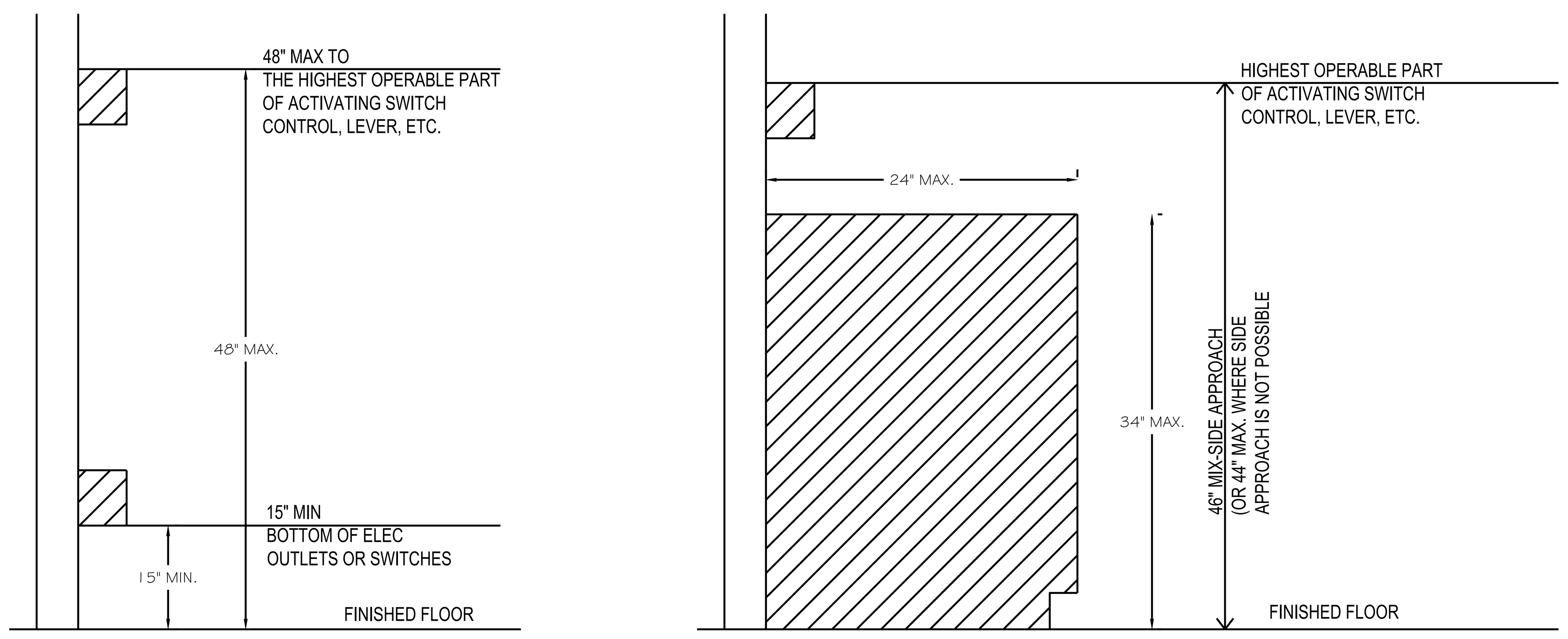
REVISIONS

1	DSA Back Check	09/05/25
2	DSA Back Check	10/24/25

MMA NO	25801
DATE:	05/12/2025
DRAWN	AM/AY
CHECKED	CH/TH

FIRE ALARM COVER SHEET

FA0.01

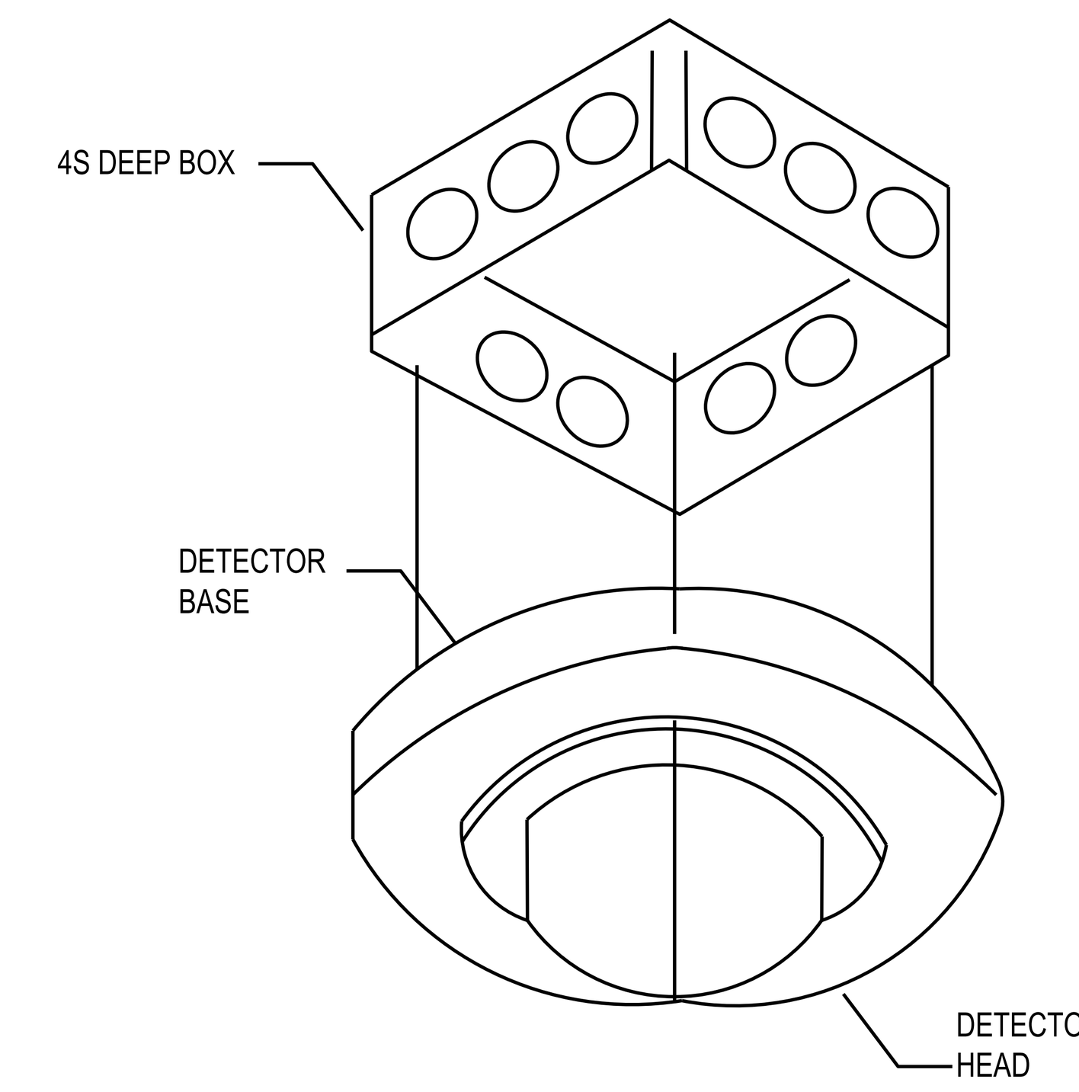


MOUNTING HEIGHT
CBC 1117B.6.3

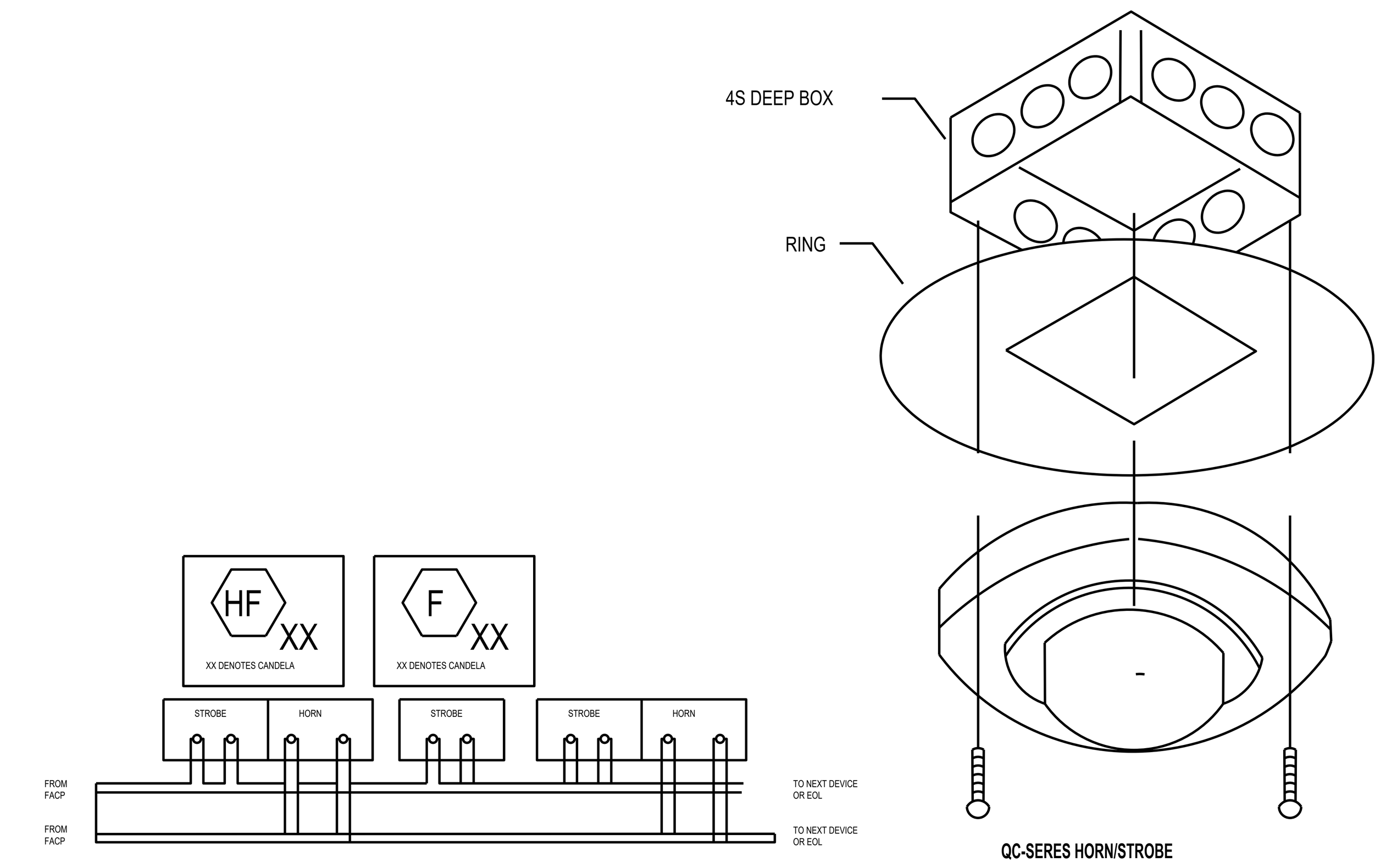
OVER CONSTRUCTION
CBC 1118B.5, 1118B.6

MOUNTING HEIGHT OVER OBSTRUCTION DETAIL (9)

SCALE: NTS

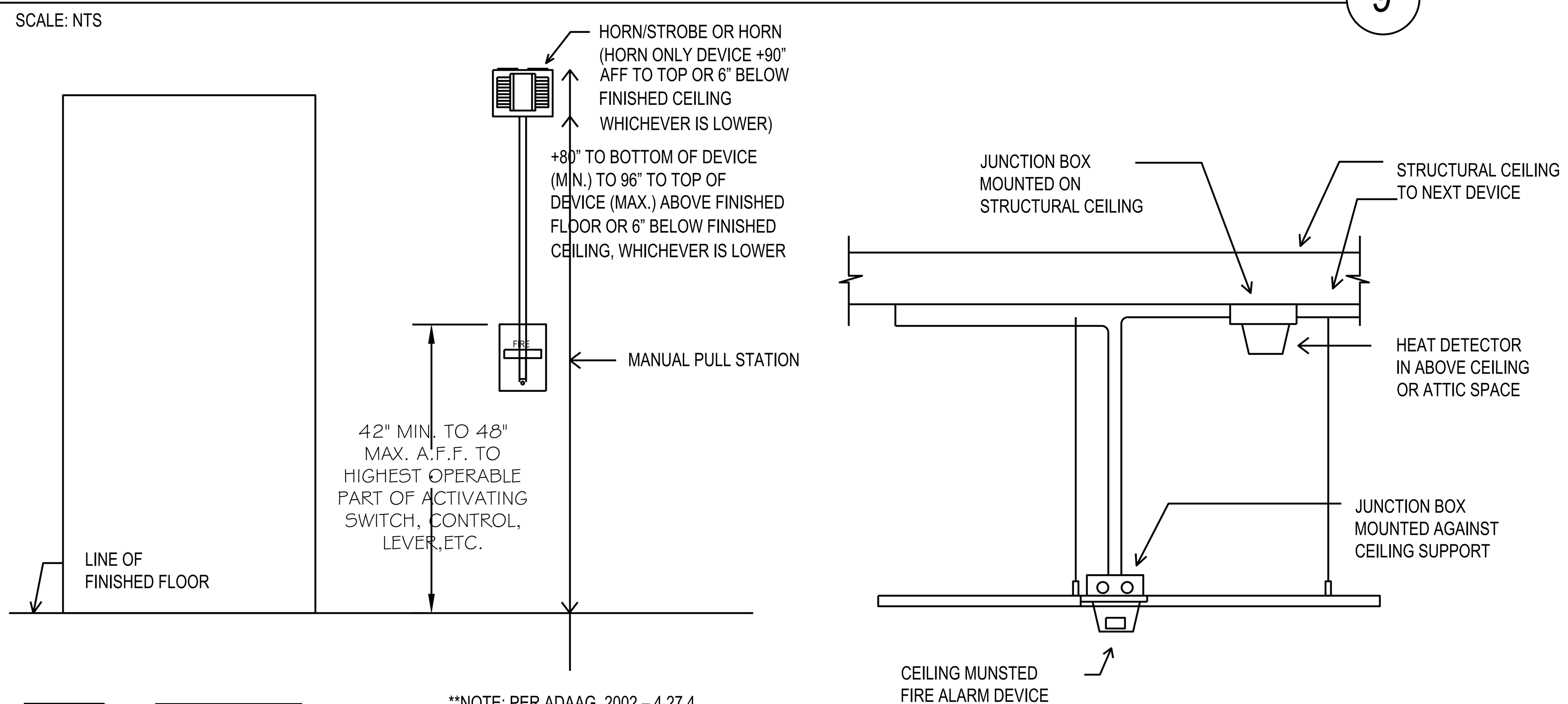


DETECTOR MOUNTING DETAIL (6)



CEILING MTD. AUDIBLE/VISUAL (3)

SCALE: N.T.S



MIN CLEAR
30" x 48"
FRONT
APPROACH

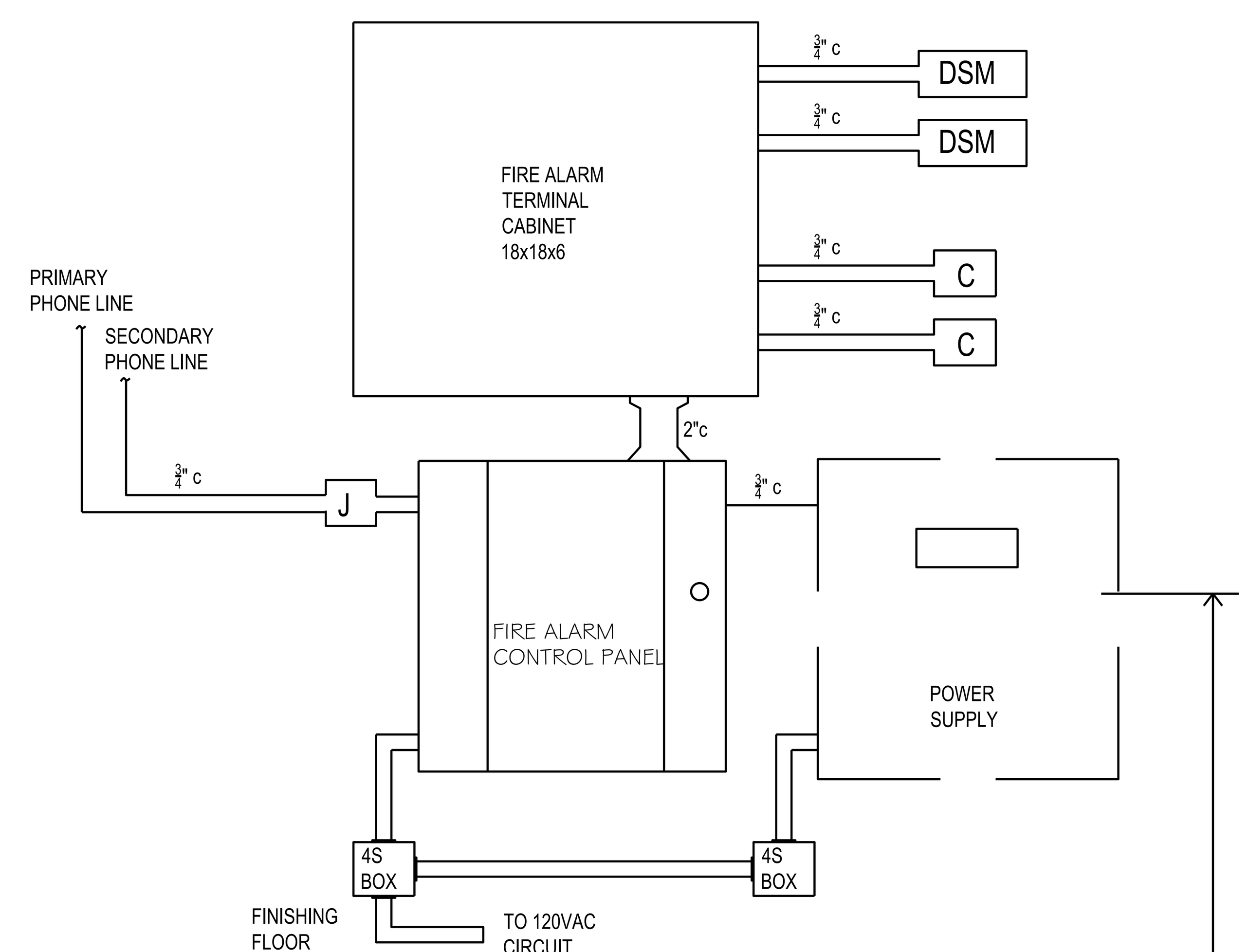
MIN CLEAR
30" x 48"
SIDE APPROACH

**NOTE: PER ADAAG, 2002 – 4.27.4
CONTROLS AND OPERATING MECHANISMS AT INITIATING DEVICE ., SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5lbf (22.2N).

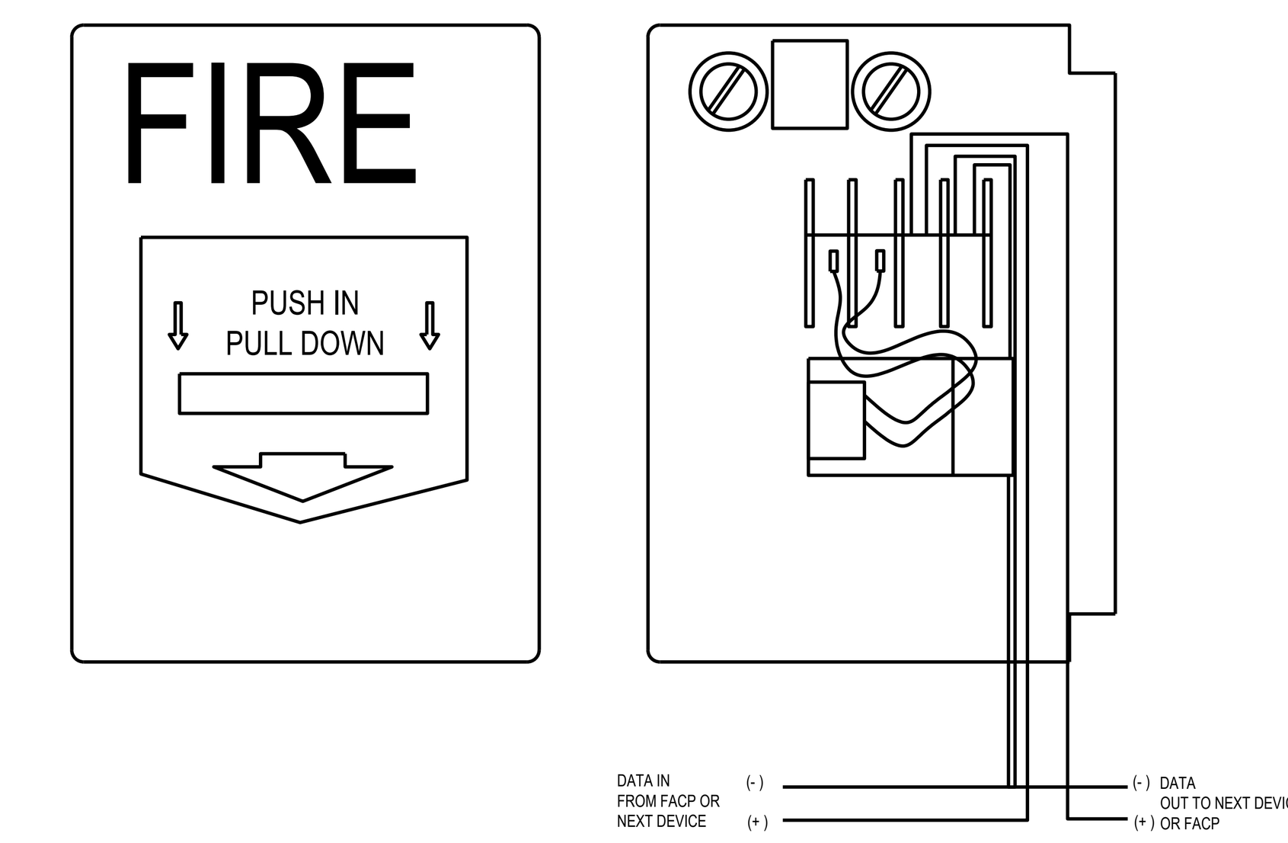
* - TEMPERATURE SETTING OF HEAT DETECTOR DEVICE TO BE SET AT MINIMUM OF 20°F ABOVE THE MAXIMUM EXPECTED TEMPERATURE OF THE SPACE INSTALLED PER NFPA 72, 2010 17.6.2.3.

DEVICE MOUNTING DETAIL (8)

SCALE: N.T.S



FIRE ALARM PANEL/POWER SUPPLY MOUNTING ELEVATION (5)



MIN CLEAR
30" x 48"
SIDE APPROACH

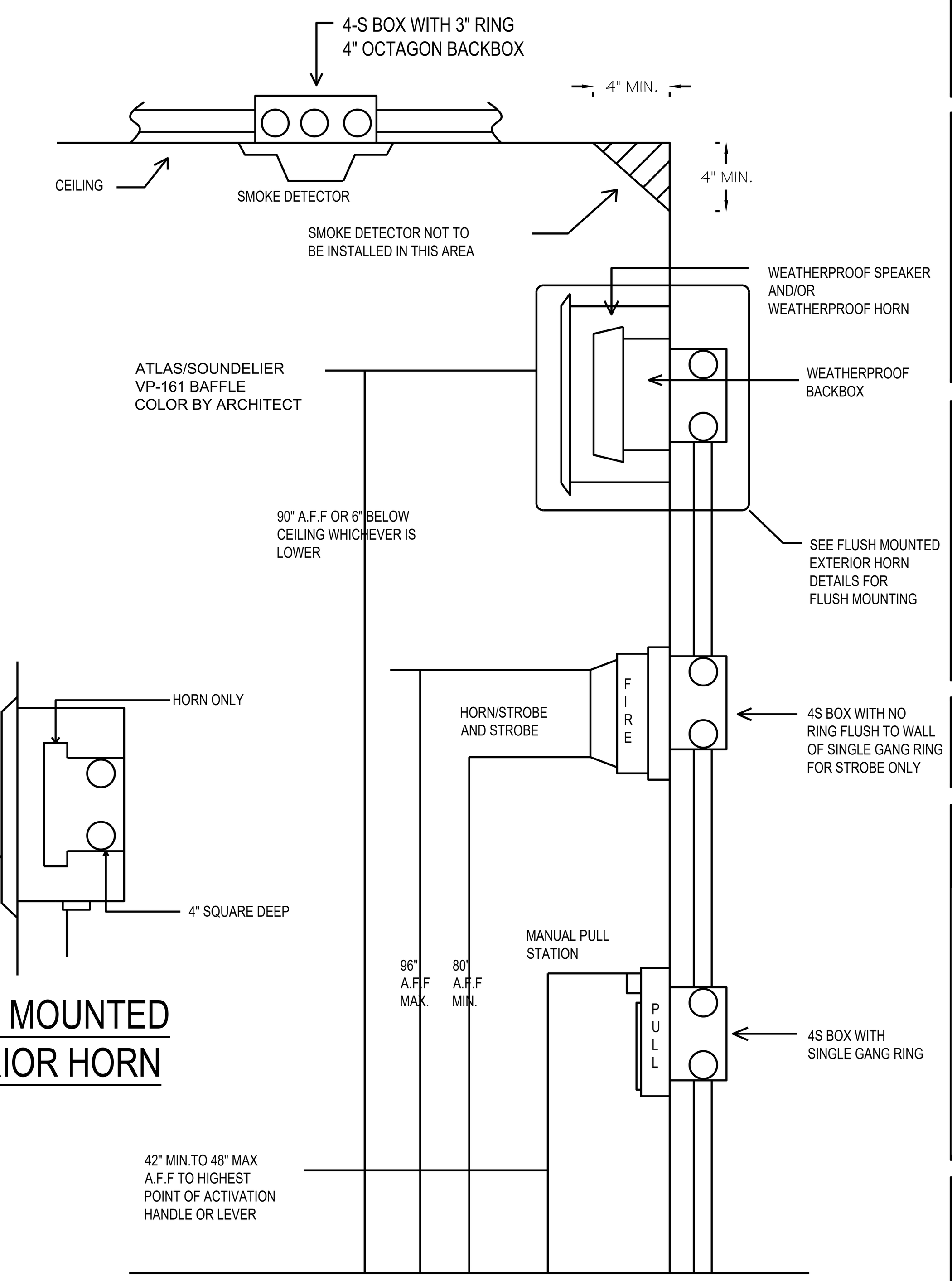
OR

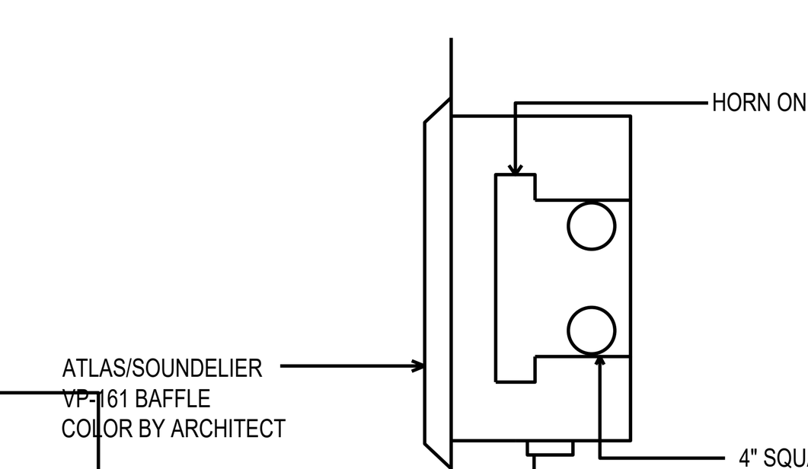
MIN CLEAR
30" x 48"
FRONT
APPROACH

NOTE: PER ADAAG, 2002 – 4.27.4 & CBC 117B.6(4), 114B.2.4, 907.3.2
CONTROLS AND OPERATING MECHANISMS AT INITIATING DEVICE "SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5lbs (22.2N).

PULL STATION DETAILS (2)

SCALE: N.T.S





FLUSH MOUNTED
EXTERIOR HORN

GENERAL NOTES:

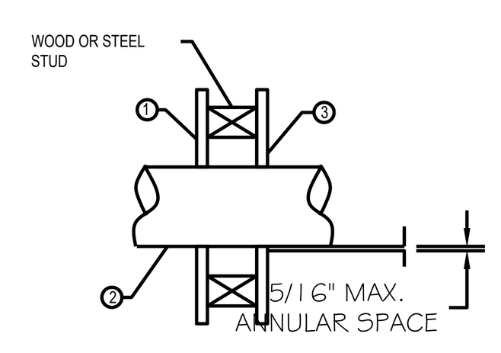
1. THE ENTIRE LENS OF STROBE LIGHTS MUST BE BETWEEN 80" AND 96" ABOVE FLOOR FINISH. (2010 NFPA 72 18.5.4)

2. MANUAL FIRE ALARM BOXES SHALL BE INSTALLED IN ACCORDANCE WITH CFC SECTIONS 907.3.1 THROUGH 907.3.5.

3. WHEN APPLICABLE, MANUAL FIRE ALARM BOXES SHALL BE LOCATED NOT MORE THAN 5 FEET FROM THE ENTRANCE TO EACH EXIT. ADDITIONAL MANUAL FIRE ALARM BOXES SHALL BE LOCATED SO THAT TRAVEL DISTANCE TO THE NEAREST BOX DOES NOT EXCEED 200 FEET. (CFC 907.3.1)

MOUNTING HEIGHT DETAIL (1)

SCALE: N.T.S



UL FIRST EDITION #W-L-1001

PENETRATION THRU GYPSUM BOARD WALL

NO SCALE

SYSTEM NO. W-L-1001
(Formally System No. 147)
F-Rating — 1, 2, 3, and 4 Hr (See Items 2 and 3)
T-Ratings — 1/2, 1, 1-1/2, and 4 Hr (See Item 3)
L Rating at Ambient — Less than 1 CFM/sq ft (See Item 3)
L Rating at 400°F — Less than 1 CFM/sq ft (See Item 3)

1. WALL ASSEMBLY
The 1, 2, 3, or 4 Hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 series wall or partition design in the UL Fire Resistance Directory and shall include the following construction features:

A. Studs — Wall framing may consist of either wood studs (max 2 Hr fire-rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross bracer. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC.

B. Wallboard, Gypsum — Nom 1/2 or 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 series design in the UL Fire Resistance Directory.

2. THROUGH-PENETRATION
One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be 0 in. (point contact) to max 2 in. Pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types of metallic pipes, conduits or tubing may be used:

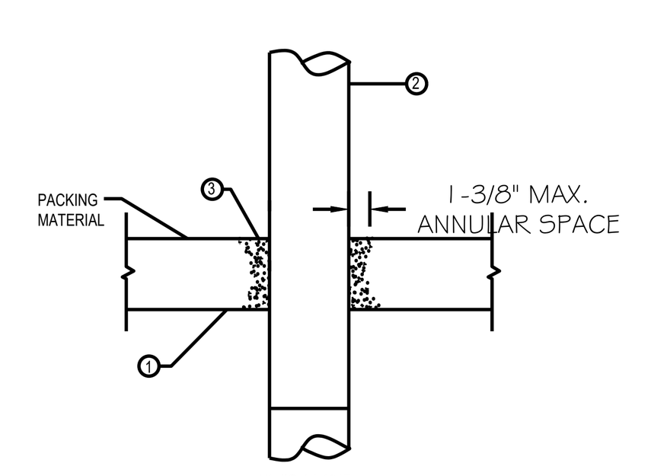
A. Steel Pipe — Nom 24 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. Iron Pipe — Nom 24 in. diam (or smaller) service weight (or heavier) cast iron soil pipe or nom 12 in. diam (or smaller) or class 50 (or heavier) ductile iron soil pipe.
C. Conduit — Nom 6 in. diam (or smaller) steel conduit or nom 4 in. diam (or smaller) steel electrical metallic tubing.
D. Copper Tubing — Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
E. Copper Pipe — Nom 6 in. diam (or smaller) regular (or heavier) copper pipe.

Through-penetrating piping or tubing to be rigidly supported on both sides of floor or wall assembly.

3. FILL, VOID OR CAVITY MATERIAL
Caulk or sealant — Min 5/8 in., 1 in., and 1-1/4 in. thickness of caulk or sealant for 1, 2, 3, and 4 Hr rated assemblies, respectively, applied within the annulus on both surfaces of wall assembly. The caulk or sealant is applied to fill the annular space to a point flush with both surfaces of wall. A min 1/4 in. crown of caulk applied around perimeter of penetrant on both sides of wall is dependent upon the hourly rating. The hourly F rating of the firestop system is dependent upon the hour rating of the wall assembly in which it is installed. L rating is less than 1 CFM/sq ft at ambient and 400°F and is dependent on max pipe size/type.

MAX PIPE OR CONDUIT DIA. IN	ANNULAR SPACE IN	F RATING HR	T RATING HR	
1	0 TO 3/16		1 OR 2	0+, 1 OR 2
1	1/4 TO 1/2		3 OR 4	3 OR 4
4	0 TO 1/4		1 OR 2	0
9	1/4 TO 1/2		3 OR 4	0
12	3/16 TO 3/8		1 OR 2	0

+ WHEN COPPER PIPE IS USED, T RATING IS 0 NOM.
MINNESOTA MINING & MFG. CO. – TYPES CP-25 S/L, CP-25 N/B, CP-25 WS, CP-25 WS+ (NOTE: L RATINGS APPLY WHEN TYPE CP-25 WS+ CAULK IS USED.)



UL #C-AJ-1017

PENETRATION THRU CONCRETE FLOOR

NO SCALE

F RATINGS — 3 HR
T RATINGS — 0 HR

1. FLOOR OR WALL ASSEMBLY
Min 4-1/2 in. thick lightweight or normal weight (100–150 pcf) concrete. Wall assembly may also be constructed of any UL Classified concrete blocks. Max diam of opening is 12 in.

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. THROUGH PENETRANTS
One metallic pipe, conduit or tubing installed either concentrically or eccentrically within the firestop system. annular space between pipe, conduit or tubing and edge of through opening to be min 1/4 in. and max 1 in. pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:

A. Steel pipe — nom 10 in. diam (or smaller) Schedule 40 (or heavier) steel pipe.
B. Steel pipe — nom 6 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
C. Conduit — nom 6 in. diam (or smaller) rigid steel conduit.
D. Conduit — nom 4 in. diam (or smaller) steel electrical metallic tubing.
E. Copper tubing — nom 4 in. diam (or smaller) Type L (or heavier) copper tubing.
F. Copper pipe — nom 4 in. diam (or smaller) regular (or heavier) copper pipe.

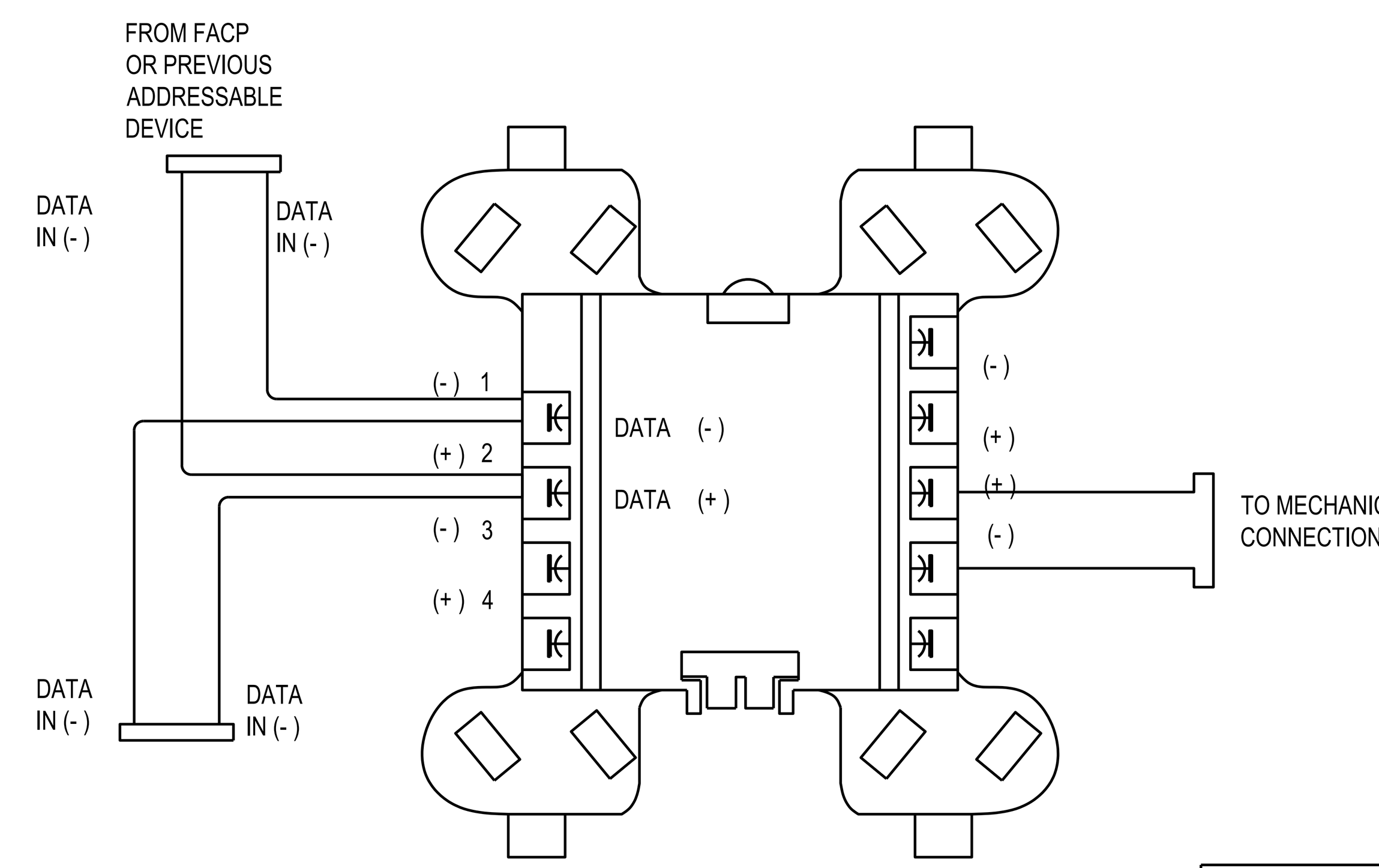
3. FIRESTOP SYSTEM - The details of the firestop system shall be as follows:

A. PACKING MATERIAL — Nom 3 in. thickness of mineral wool batt insulation or ceramic (alumina silica) fiber blanket firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of caulk fill material.

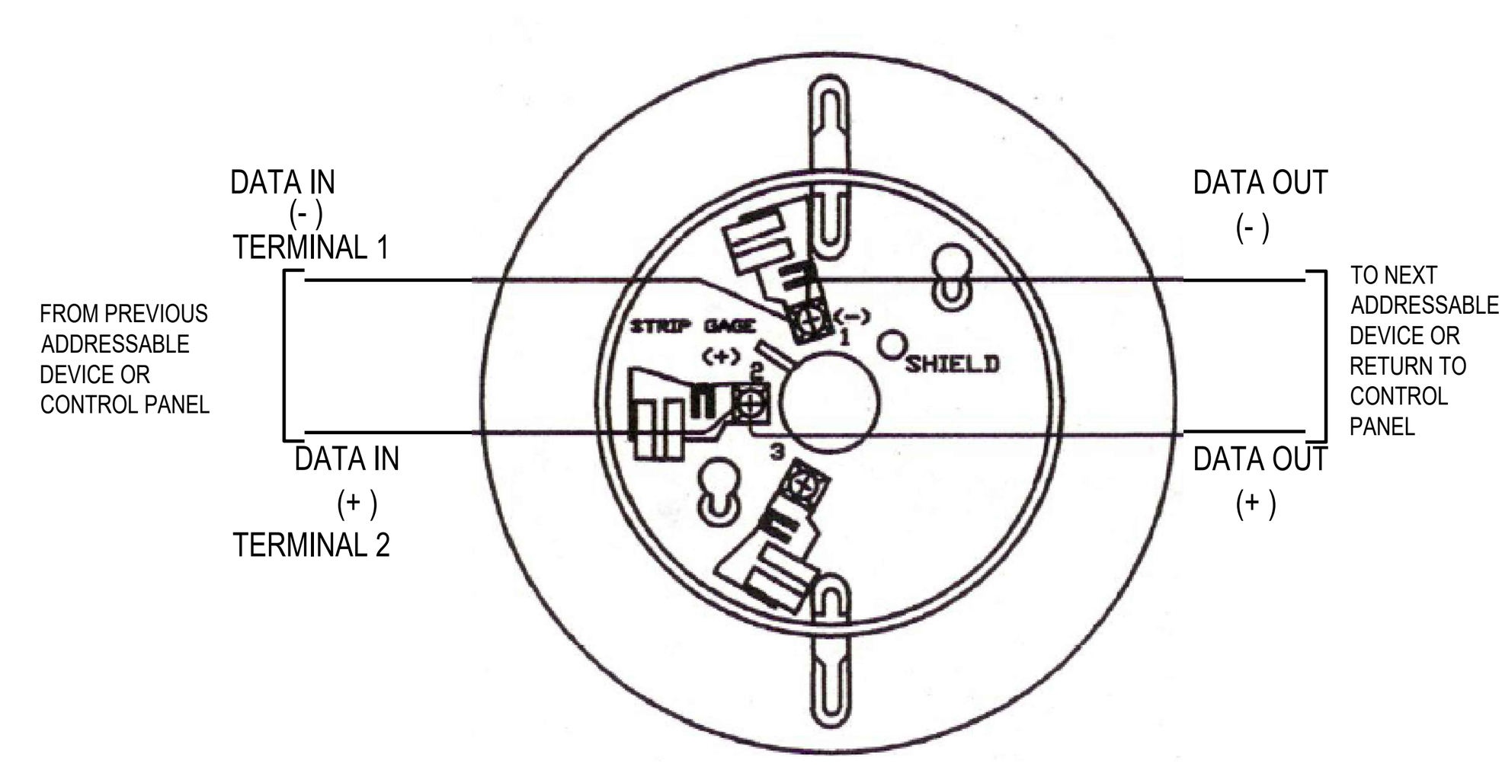
B. FILL VOID OR CAVITY MATERIAL — CAULK — Min 1/2 in. thickness of fill material applied within the annulus, flush with top surface of floor or with both surfaces of wall.

3M COMPANY – FD-150

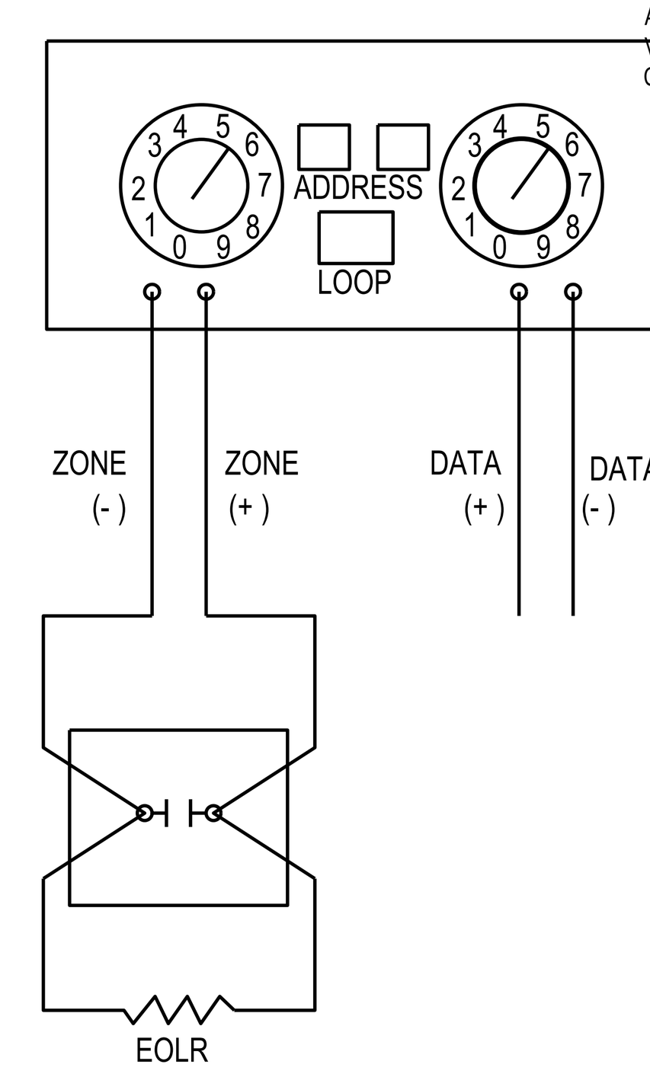
THROUGH RATED WALL OR FLOOR PENETRATIONS (U.L. LIATINGS) (7)



CONTROL MOBILE WIRING



ADDRESSABLE SMOKE/HEAT DETECTOR



MANUAL PULL STATION

DEVICE WIRING DETAILS (4)

SCALE: N.T.S

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-124525 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 12/03/2025

MORETO MATHISON & ASSOCIATES
ARCHITECTS
449 W FOOTHILL BLVD
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(626) 594-0307

CONSULTANT

HARITON ENGINEERING
WWW.HARITONENG.COM

STAMP

REGISTERED PROFESSIONAL ENGINEER
CELESTIN HARITON
No. E-17082
EXP. 09-30-25
ELECTRICAL
STATE OF CALIFORNIA

09/30/2025

CLIENT

RANCHO SANTIAGO
Community College District

RANCHO SANTIAGO
COMMUNITY COLLEGE DISTRICT
VL107
AP STUDENT CENTER RECONFIGURATION

SANTA ANA COLLEGE
1530 W. 17TH ST
SANTA ANA, CA 92706

100% CD

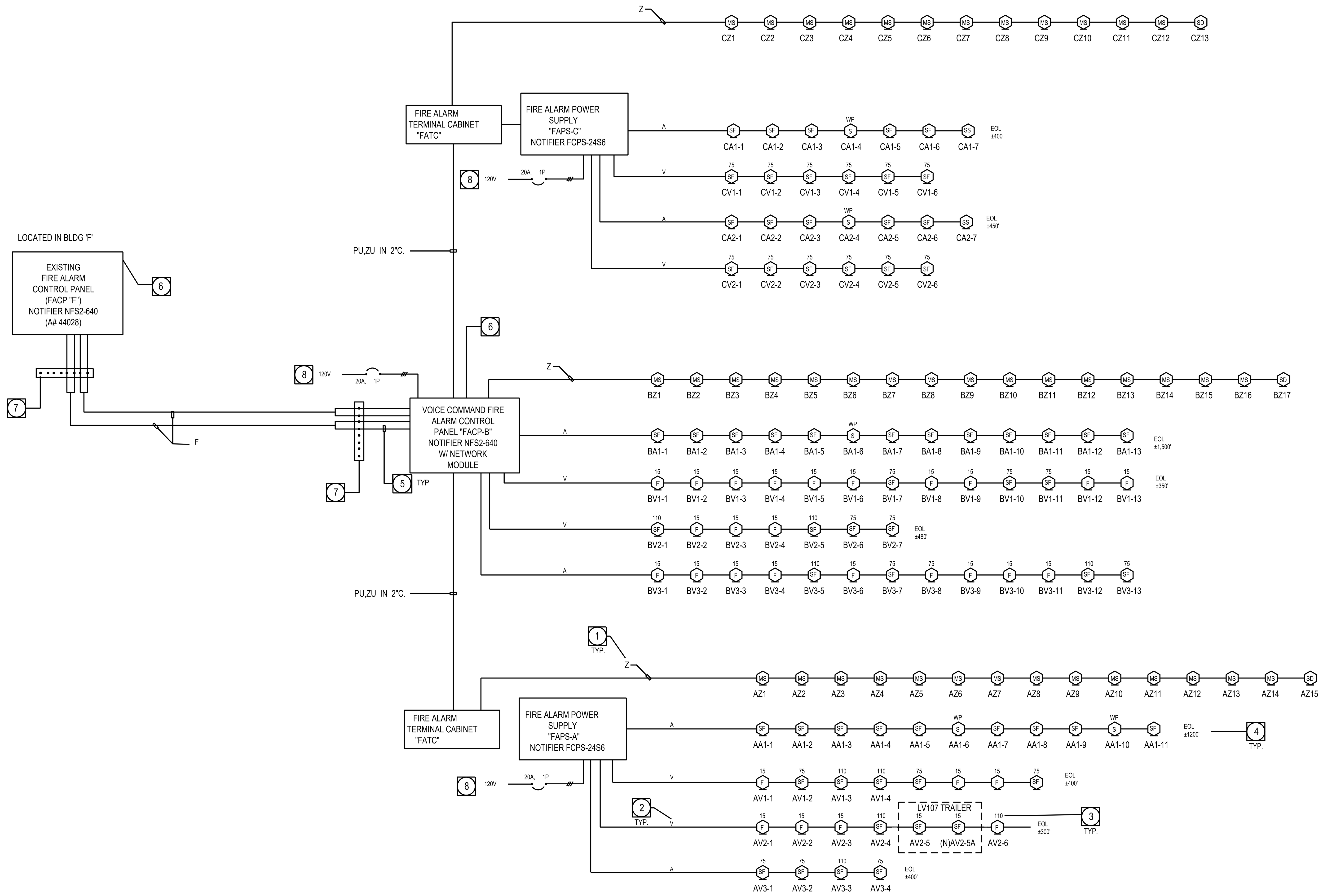
REVISIONS

1	DSA Back Check	09/05/25
2	DSA Back Check	10/24/25

MMA NO	25801
DATE:	05/12/2025
DRAWN	AM/AY
CHECKED	CH/TH

FIRE ALARM DETAILS

FA0.02



03 EXISTING FIRE ALARM RISER (MODIFIED)
SCALE: N.A.

PLAN NOTES

1. Z - ZONABLE/ADDRESSABLE CIRCUIT NUMBER, PROVIDE 2#16 TWISTED PAIR PER CIRCUIT NUMBER, TYPICAL
2. A OR V - AUDIBLE/VISUAL CIRCUIT NUMBER, PROVIDE 2#12 PER CIRCUIT, TYPICAL
3. NUMBER INDICATES CANDELLA RATING OF STROBE DEVICE, TYPICAL.
4. DISTANCE INDICATES DISTANCE TO END OF LINE (EOL) DEVICE.
5. PROVIDE FIBER JUMPERS 7'-0" MINIMUM. CONNECTORS AS REQUIRED.
6. PROVIDE NETWORK MODULE WITHIN FIRE ALARM CONTROL PANEL (NOTIFIER HS-NCM-MF) FOR FIBER OPTIC NETWORK COMMUNICATION.
7. PROVIDE FIBER PATCH PANEL 8-PORT. PATCH PANEL SHALL BE WALL MOUNTED COMPLETE WITH CONNECTORS COMPATIBLE WITH FIRE ALARM SYSTEM FIBER PORTS.
8. PROVIDE DEDICATED FIRE ALARM 120 VOLT CIRCUIT CONNECTED TO LOCKED-ON BREAKER. THE CIRCUIT BREAKER SHALL BE LOCKED ON WITH APPROVED LOCKING DEVICE, MARKED RED AND IDENTIFIED AS "FIRE ALARM CONTROL CIRCUIT". (NFPA 72 10.5.5.2)

FIRE ALARM GENERAL NOTES.

1. NOTIFICATION DEVICES IN ROOMS CONTAINING (2) OR MORE AUDIBLE AND/OR (2) OR MORE VISUAL DEVICES SHALL BE SYNCHRONIZED PER N.F.P.A. 72, 2010 EDITION (WITH CALIFORNIA AMENDMENTS) THIS SHALL INCLUDE AUDIBLE AND VISUAL DEVICES LOCATED IN ADJACENT/ADJOINING SPACES.
2. DO NOT DEVIATE FROM CONDUIT RUNS AS SHOWN ON FLOOR PLANS WITHOUT PRIOR APPROVAL FROM SYSTEM SUPPLIER / ENGINEER. FACTORS SUCH AS EXCESSIVE VOLTAGE DROP, ADDITIONAL PARTS, ENGINEERING, ETC. THAT ARE A RESULT OF CONDUIT RUN DEVIATIONS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
3. DETECTORS SHALL NOT BE LOCATED IN A DIRECT AIR-FLOW, NOR CLOSER THAN 3 FEET (915 mm) FROM ANY AIR SUPPLY DIFFUSER.
4. THE AUDIBLE ALARM NOTIFICATION APPLIANCES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 dBA ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR 5 dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING DURATION OF AT LEAST 60 SECONDS, WHICH IS GREATER, IN EVERY OCCUPIED SPACE WITHIN THE BUILDING. THE MINIMUM SOUND PRESSURE LEVEL SHALL BE 60 dBA PER CFC 907.10.2.
5. THE FIRE ALARM EVACUATION SIGNAL SHALL BE THE STANDARD THREE-PULSE TEMPORAL PATTERN PER THE "EXCEPTION" OF THE 2010 CALIFORNIA BUILDING CODE 907.5.2.1.3 ANSI S3.41.
6. THE EXISTING CAMPUS FIRE ALARM SYSTEM SHALL BE MAINTAINED AND OPERATIONAL AT ALL TIMES DURING ALTERATIONS AND CONSTRUCTION. WHEN PORTIONS OF THE SYSTEM REQUIRE ALTERATIONS, THE REMAINDER OF THE SYSTEM SHALL BE KEPT IN SERVICE. IF NECESSARY TO SHUT DOWN ENTIRE FIRE ALARM SYSTEM, CONTRACTOR SHALL PROVIDE A FIRE WATCH FOR ALL OCCUPIED AREAS OF WORK WHERE THE REQUIRED FIRE ALARM SYSTEM IS OUT OF SERVICE FOR THE DURATION OF THE SYSTEM OUTAGE. FIRE WATCH AND SYSTEM/EQUIPMENT IDENTIFICATIONS SHALL BE PER 2010 CFC 901.7. LOCAL FIRE AUTHORITY SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF ANY SHUT DOWN.

BATTERY SIZING CALCULATION

PROJECT NAME: SANTA ANA COLLEGE
PANEL LOCATION: RELOCATABLE BLDGS
DATE PERFORMED: November 20, 2013

FAPS-C

QTY.	DEVICE NAME	STD BY (AMPS)		ALARM (AMPS)	
1	POWER SUPPLY	0.0900	0.0900	0.0900	0.0900
1	SPEAKER (EXTERIOR)	0.0000	0.0000	0.0420	0.0420
12	SPEAKER(INTERIOR)	0.0000	0.0000	0.0210	0.2520
0	5cd STROBE (WALL)	0.0000	0.0000	0.0600	0.0000
0	30cd STROBE (WALL)	0.0000	0.0000	0.0920	0.0000
12	75cd STROBE (WALL)	0.0000	0.0000	0.1650	1.9800
0	110cd STROBE (WALL)	0.0000	0.0000	0.2200	0.0000
		0.0000	0.0000	0.0000	0.0000
		0.0000	0.0000	0.0000	0.0000
		0.0000	0.0000	0.0000	0.0000
	TOTALS =		0.0900		2.3640

STAND-BY LOAD= 0.0900 ALARM LOAD= 2.3640 AMPS
STAND-BY TIME = 24 ALARM TIME = 15/60 HRS

STAND-BY LOAD = 2.1600 ALARM = 0.5910 AMPS HRS

TOTAL = STAND-BY + ALARM
= 2.16 + 0.59
= 2.75 Ah (AMPS HRS)

MULTIPLY BY DERATING FACTOR OF 1.25 = 3.44 Ah (AMP HRS)

MINIMUM BATTERY SIZE = 3.44 AMPERE HOURS

PROVIDE (2) 7.0 Ah 12VDC BATTERIES AS REQUIRED FOR 24VDC OPERATION

BATTERY SIZING CALCULATION

PROJECT NAME: SANTA ANA COLLEGE
PANEL LOCATION: RELOCATABLE BLDGS
DATE PERFORMED: November 20, 2013

FAPS-A

QTY.	DEVICE NAME	STD BY (AMPS)		ALARM (AMPS)	
1	POWER SUPPLY	0.0900	0.0900	0.0900	0.0900
1	SPEAKER (EXTERIOR)	0.0000	0.0000	0.0420	0.0420
9	SPEAKER(INTERIOR)	0.0000	0.0000	0.0210	0.1890
10	15cd STROBE (WALL)	0.0000	0.0000	0.0600	0.6000
8	30cd STROBE (WALL)	0.0000	0.0000	0.0920	0.0000
3	75cd STROBE (WALL)	0.0000	0.0000	0.1650	1.3200
	110cd STROBE (WALL)	0.0000	0.0000	0.2200	0.0000
		0.0000	0.0000	0.0000	0.6600
		0.0000	0.0000	0.0000	0.0000
		0.0000	0.0000	0.0000	0.0000
	TOTALS =		0.0900		2.9010

STAND-BY LOAD= 0.0900 ALARM LOAD= 2.9010 AMPS
STAND-BY TIME = 24 ALARM TIME = 15/60 HRS

STAND-BY LOAD = 2.1600 ALARM = 0.7103 AMPS HRS

TOTAL = STAND-BY + ALARM
= 2.16 + 0.71
= 2.87 Ah (AMPS HRS)

MULTIPLY BY DERATING FACTOR OF 1.25 = 3.59 Ah (AMP HRS)

MINIMUM BATTERY SIZE = 3.59 AMPERE HOURS

PROVIDE (2) 7.0 Ah 12VDC BATTERIES AS REQUIRED FOR 24VDC OPERATION

BATTERY SIZING CALCULATION

PROJECT NAME: SANTA ANA COLLEGE
PANEL LOCATION: RELOCATABLE
DATE PERFORMED: November 20, 2013

FACP-B

QTY.	DEVICE NAME	STD BY (AMPS)		ALARM (AMPS)	
1	CONTROL PANEL	0.2500	0.0900	0.2900	0.0900
1	VOICE COMMAND	0.4400	0.0000	0.4400	0.0420
1	AUDIO AMPLIFIER	0.4000	0.0000	0.5000	0.1890
1	NETWORK MODULE	0.1100	0.0000	0.1100	0.5400
42	PULL STATION	0.0004	0.0000	0.0004	0.0000
3	SMOKE DETECTOR	0.0004	0.0000	0.1004	1.3200
2	SPEAKER (EXTERIOR)	0.0000	0.0000	0.0420	0.0000
12	SPEAKER (INTERIOR)	0.0000	0.0000	0.0210	0.6600
19	15cd STROBE (WALL)	0.0000	0.0000	0.0600	1.1400
0	30cd STROBE (WALL)	0.0000	0.0000	0.0920	0.0000
8	75cd STROBE (WALL)	0.0000	0.0000	0.1650	1.3200
5	110cd STROBE (WALL)	0.0000	0.0000	0.2200	1.1000
		0.0000	0.0000	0.0000	0.0000
		0.0000	0.0000	0.0000	0.0000
		0.0000	0.0000	0.0000	0.0000
	TOTALS =		1.2568		5.5318

STAND-BY LOAD= 1.2568 ALARM LOAD = 5.5318 AMPS
STAND-BY TIME = 24 ALARM TIME = 15/60 HRS

STAND-BY = 30.16 + ALARM = 1.26 AMPS HRS

TOTAL = STAND-BY + ALARM
= 30.16 + 1.26
= 31.43 Ah (AMPS HRS)

MULTIPLY BY DERATING FACTOR OF 1.25 = 39.28 Ah (AMP HRS)

MINIMUM BATTERY SIZE = 39.28 AMPERE HOURS

PROVIDE (2) 50.0 Ah 12VDC BATTERIES AS REQUIRED FOR 24VDC OPERATION

VOLTAGE DROP CALCULATIONS
SANTA AND COLLEGE

DEVICE	ULTRA MAX CURRENT AMPS.	NO	NOTIF CIRCUIT AA1	NO	NOTIF CIRCUIT AV1	NO	NOTIF CIRCUIT AV2	NO	NOTIF CIRCUIT AV3	NO	NOTIF CIRCUIT BA1	NO	NOTIF CIRCUIT BV1	NO	NOTIF CIRCUIT BV2	NO	NOTIF CIRCUIT BV3	NO	NOTIF CIRCUIT CA1	NO	NOTIF CIRCUIT CV1	NO	NOTIF CIRCUIT CA2	NO	NOTIF CIRCUIT CV2
SPEAKER (EXTERIOR)	0.042	1	0.042		0.000		0.000		0.000	2	0.000		0.000		0.000		0.000	1	0.000		0.000		0.000		0.000
SPEAKER (INTERIOR)	0.021	9	0.189		0.000		0.000		0.000	11	0.000		0.000		0.000		0.000	6	0.126		0.000	6	0.126		0.000
STROBE (WALL) 15 CD	0.060		0.000	3	0.180	7	0.420		0.000		0.000	10	0.600	3	0.180	5	0.300		0.000		0.000		0.000		0.000
STROBE (WALL) 30 CD	0.092		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000
STROBE (WALL) 75 CD	0.165		0.000	3	0.495	2	0.000	3	0.495	2	0.330	3	0.495	2	0.330	3	0.495		0.000	6	0.990		0.000	6	0.990
STROBE (WALL) 110 CD	0.220		0.000	1	0.220	1	0.220	1	0.220	1	0.220	1	0.220	2	0.440	2	0.440		0.000		0.000		0.000		0.000
STROBE(CEILING) 15 CD	0.065		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000
STROBE(CEILING) 30 CD	0.105		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000
STROBE(CEILING) 75 CD	0.189		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000
STROBE(CEILING) 95 CD	0.249		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000
			0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000
			0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000		0.000
TOTAL CURRENT ON CIRCUIT			0.231 AMPS		0.895 AMPS		0.980 AMPS		0.715 AMPS		0.315 AMPS		0.295 AMPS		0.950 AMPS		0.235 AMPS		0.168 AMPS		0.990 AMPS		0.126 AMPS		0.990 AMPS
TOTAL WIRE LENGTH IN FEET			1200		400		300		400		1500		375		450		450		400		400		450		450
% VOLTAGE DROP			4.49		5.80		4.92		4.64		7.66		6.66		6.93		9.01		1.09		6.42		0.92		7.22
WIRE SIZE			#12		#12		#12		#12		#12		#12		#12		#12		#12		#12		#12		#12
CIRCUIT LOCATION			FAPS-A		FAPS-A		FAPS-A		FAPS-A		FACP		FACP		FACP		FAPS-C		FAPS-C		FAPS-C		FAPS-C		FAPS-C
VOLTS DROPPED			0.92		1.18		0.97		0.95		1.56		1.36		1.41		1.84		0.22		1.31		0.19		1.47

MODIFIED CIRCUIT

VOLTAGE DROP CALCULATIONS GENERAL NOTES:

1. THE LISTED MANUFACTURE OPERATING VOLTAGE RANGE FOR EQUIPMENT AND DEVICES ARE AS FOLLOWS:

   DEVICES = 16 - 33 VDC
   EQUIPMENT = +24VDC FILTERED, REGULATED
   BATTERY = 20.4 VDC END OF USEFUL LIFE PER NFPA 72 HANDBOOK AND UL 864.

2. VOLTAGE DROP PERCENT FORMULA:

$$\frac{\text{WIRE LENGTH X TOTAL CURRENT AMPS x 21.6}}{\text{CIRCULAR MILS}} \times \frac{100}{20.4}$$

21.6 = CONSTANT (RESISTANCE OF CONDUCTOR)

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 04-124525 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 12/03/2025

MORETO MATHISON & ASSOCIATES
A R C H I T E C T S
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SUITE 281, GLENDORA CA 91741
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CONSULTANT
HARITON ENGINEERING
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PASADENA, CA 91104
T: (626) 449-4223; F: (626) 227-0626
E: INFO@HARITONENG.COM
WWW.HARITONENG.COM

STAMP
REGISTERED PROFESSIONAL ENGINEER
CELESTIN HARITON
No. E-17082
EXP. 09-30-25
ELECTRICAL
STATE OF CALIFORNIA
09/30/2025

CLIENT
RANCHO SANTIAGO Community College District

RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT
VL107
AP STUDENT CENTER RECONFIGURATION

SANTA ANA COLLEGE
1530 W. 17TH ST
SANTA ANA, CA 92706

100% CD

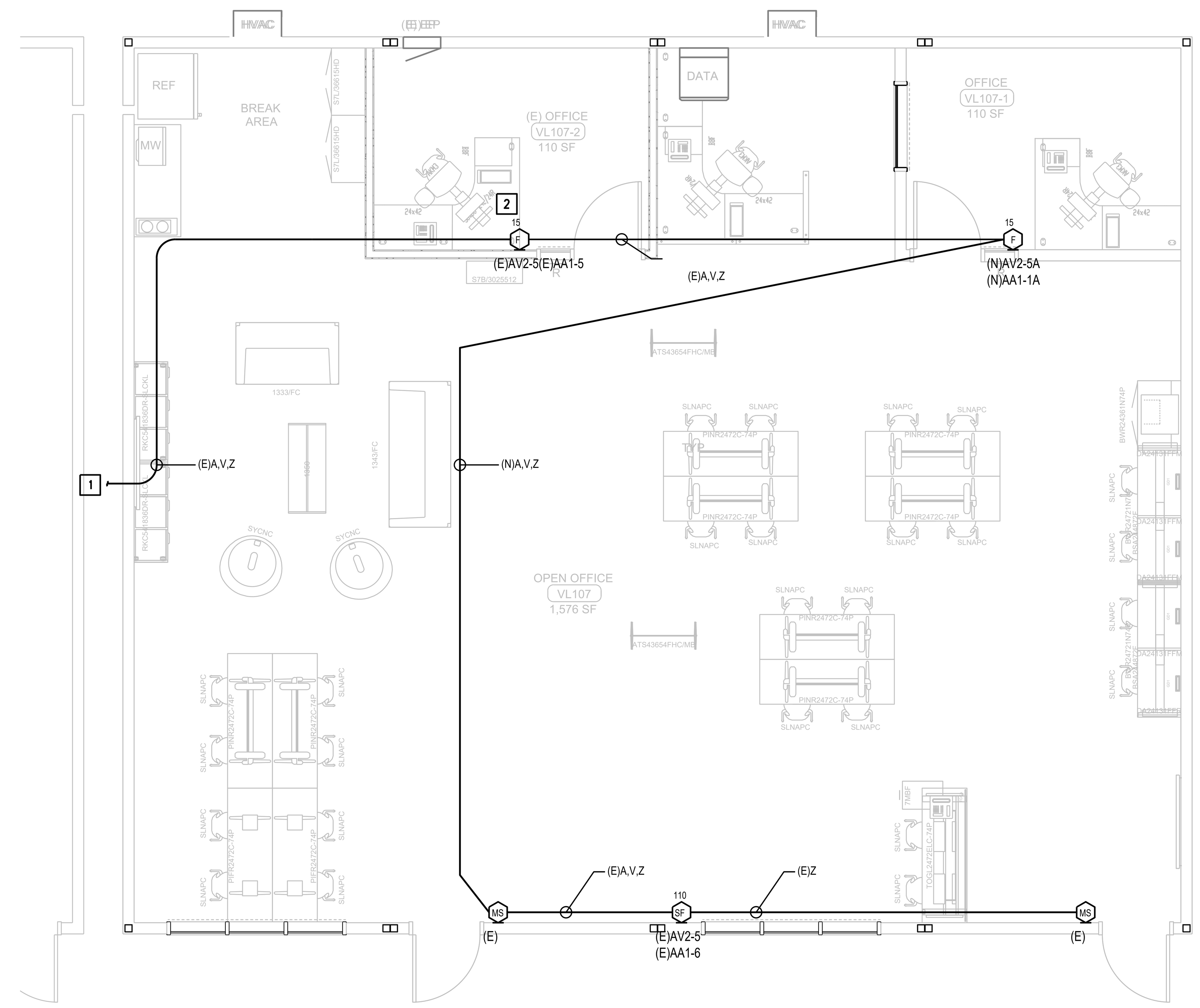
REVISIONS

1	DSA Back Check	09/05/25
2	DSA Back Check	10/24/25

MMA NO	25801
DATE:	05/12/2025
DRAWN	AM/AY
CHECKED	CH/TH

FIRE ALARM RISERS

FA0.03



01 FIRE ALARM PLAN - NEW

SCALE: 1/4"=1'-0"

N

N

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH 2022 CFC AND 2022 NFPA 72
2. All EQUIPMENT IS AS NOTED. FIRE ALARM SYSTEM IS MODIFIED DUE TO NEW SPACE CONFIGURATION.
3. PLAN CIRCUIT EXTENSIONS EFFICIENTLY TO MINIMIZE VOLTAGE DROP.
4. WORK IS BASED ON INFORMATION FROM AS-BUILTS. FIELD VERIFY DEVICE PLACEMENT IN THE FIELD FOR ACCURACY.
5. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION

F/A PLAN SPECIFIC NOTES

1. FROM TRAILER A6
2. REMOVE DEVICE DURING DEMOLITION OF OLD OFFICE AND SAVE FOR INSTALLATION IN NEW OFFICE.
3. 110CD STROBE REACHES OUT TO 50' RADIUS

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CONSULTANT

HARITON ENGINEERING

STAMP

09/30/2025

CLIENT

RANCHO SANTIAGO Community College District

RANCHO SANTIAGO COMMUNITY COLLEGE DISTRICT

VL107

AP STUDENT CENTER RECONFIGURATION

SANTA ANA COLLEGE
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MMA NO	25801
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FIRE ALARM FLOOR PLANS

FA1.00