8163 Rochester Avenue
Rancho Cucamonga, CA 91730
P. +1 909-987-0909
PBK.com

March 11, 2024

TO	:	All Bidders
FROM	:	Bob Lavey
PROJECT	:	Nogales High School New Building and Aquatic Center Project W2110000AR.41
DSA	:	03-122782 / File 19-92
SUBJECT	:	Addendum 3

The following changes, omissions, and/or additions to the Technical Specifications and/or Drawings shall apply to proposals made for and to the execution of the various parts of the work affected thereby, and all other conditions shall remain the same.

Careful note of the Addendum shall be taken by all parties of interest so that the proper allowances may be made in strict accordance with the Addendum, and that all trades shall be fully advised in the performance of the work which will be required of them.

Bidder shall acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject Bidder to disqualification.

In case of conflict between Drawings, Technical Specifications, and this Addendum, this Addendum shall govern.

3. PROJECT MANUAL

3 .1 Addendum 1 - SECTION 08 80 00 - GLAZING

A. Item 2.7: Remove this item in its entirety and replace with the following

"2.7 SPANDREL GLAZING

A. Provide Sealed Insulating Glass Units with the following exception per Item B.

B. Interior Pane: Laminated safety glass with grey translucent plastic interlayer."

3 .2 Addendum 2 - DRAWING TB2.1- TECHNOLOGY BLDG B - POOL FLR PLAN

A. A symbol of letters AP with a triangle represents : EXTERIOR WIRELESS ACCESS POINT CONNECTION. CONTRACTOR SHALL PROVIDE AND INSTALL (2)CAT 6/6A CABLES ROUTED TO NEAREST IDF. PROVIDE WEATHERPROOF BOX AND CONDUIT AS NOTED FOR SURFACE MOUNTED OUTLETS. PROVIDE 10' SERVICE LOOP UPSTREAM OF TERMINATION POINT. WALL/ COLUMN MOUNTED DEVICES SHALL BE INSTALLED AT 10' A.F.F.

3 .3 Addendum 2 - DRAWING A5.4 - OVERALL BUILDING SECTIONS

A. Item 2.15: Delete this item in its entirety. Drawing A5.4 - Delta 1 has not changed and to remain.

3 .4 SECTION 08 41 13 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

A. Item 1.3.H: Revise the U-value to 0.36 or better.

B. Item 1.3.I: Revise the SHGC value to 0.25 or better.

C. Item 1.3.J: Add the following:

"Water Resistance: No water leakage when measured in accordance with ASTM E331 with a static test pressure of 8 PSF(383 Pa)."

D. Item 2.3.A: Replace this item entirely with the following:

"Frames: 2 inch x 4-1/2 inch profile, flush glazing stop. Arcadia AFG-451T or equal.

3 .5 SECTION 08 51 13 - ALUMINUM WINDOWS

A. Delete this section in its entirety.

3 .6 SECTION 28 31 00 - FIRE ALARM SYSTEM

A. Item 2.3.B.1: Replace this item in its entirety with the following:

"The FACP shall include one (1) Signaling Line Circuit (SLC) that will power, supervise, monitor, and control a maximum of 159 analog addressable devices which may be made up of any combination of sensors and modules. Sub-points allow for more than 159 analog addressable software points. The SLC shall have the capability to be wired in an NFPA Style 4, 6, or 7 (Class A, B or X) configuration."

DRAWINGS

<u>Architectural</u>

3 .7 DRAWING A2.2 - FIRST FLOOR PLAN - AREA A

A. Floor Plan Notes: Add the following:

"11. When framed wall terminates or built alongside/behind a storefront window, finish with a painted drywall.

12. When casework terminates or built alongside/behind a storefront window, finish the abutting surface with plastic laminate to match.

B. Apply these changes to all Floor Plan Notes in applicable sheets.

3 .8 DRAWING A2.3 - FIRST FLOOR PLAN - AREA B

A. Remove casework from scope of work in northeast corner of Room A140 to make room for electrical panels per the attached Drawing A2.3.

3 .9 DRAWING A5.5 - ENLARGED WALL SECTIONS

A. Replace this drawing in its entirety with the attached Drawing A5.5.

B. Detail 18: Revise detail notes and add end condition.

C. Detail 20: Revise low wall top condition and wall to floor transition.

Structural

3 .10 DRAWING S0.11 - COREBRACE BRB DETAILS

A. Detail 13: Added note for protection zones per the attached Drawing S0.11.

3 .11 DRAWING S0.12 - COREBRACE BRB SCHEDULE

A. Revised Corebrace Schedules per the attached Drawing S0.12.

3 .12 DRAWING S2.2 - FOOR & SECOND FLOOR FRAMING PLAN - AREA B

A. Replace this drawing in its entirety with the attached Drawing S2.2.

B. Revise MDF-2 deck depressions at the northern balcony and the upper landing of the southern exterior stairway.

Mechanical

3 .13 DRAWING MA2.1 - MECHANICAL FIRST FLOOR PLAN - AREA A

A. Replace this drawing in its entirety with the attached Drawing MA2.1.

B. Revised airflows at various outlets.

C. Revised duct sizes in Athletic Trainer Room A127.

D. Note 11 added regarding adding lockable covers for some thermostats.

E. Note 12 added for dryer exhaust venting.

3 .14 DRAWING MB3.1 - MECHANICAL FIRST FLOOR PLAN - AREA B

A. Replace this drawing in its entirety with the attached Drawing MB3.1.

B. Revised airflows at various outlets.

C. Note 9 added regarding adding lockable covers for some thermostats.

D. Note 8 added for dryer exhaust venting.

3 .15 DRAWING MB3.3 - MECHANICAL SECOND FLOOR PLAN - AREA B

A. Replace this drawing in its entirety with the attached Drawing MB3.3.

B. Revised duct routing in Storage Room A202.

3 .16 DRAWING M5.1 - MECHANICAL SCHEDULES

A. Replace this drawing in its entirety with the attached Drawing M5.1.

B. Revised Note 7 of packaged rooftop heat pump unit schedule.

C. Added Note 16 to packaged rooftop heat pump unit schedule.

D. Revised Note 14 on split system heat pump schedule.

E. Revised remarks column on split system heat pump schedule for indoor fan coils and outdoor heat pumps.

3 .17 DRAWING M5.2 - MECHANICAL SCHEDULES

A. Replace this drawing in its entirety with the attached Drawing M5.2.

B. Revised Note 15 on split system AC and CU Schedule.

C. Revised Note 5 on fan schedule.

3 .18 DRAWING M6.1 - MECHANICAL DETAILS

A. Replace this drawing in its entirety with the attached Drawing M6.1.

B. Added note on power exhaust and economizer Detail 18 on M6.1.

C. Revised Detail 3 on M6.1.

<u>Plumbing</u>

3 .19 DRAWINGS P1.1 - PLUMBING SITE PLAN

A. Replace this drawing in its entirety with the attached Drawing P1.1.

B. Gas isolation valves added to each branch in the construction zone.

3 .20 DRAWING P2.2.2 - PLUMBING 1ST FLR PLN - AREA A - WATER AND GAS

A. Replace this drawing in its entirety with the attached Drawing P2.2.2.

B. SH-4 changed to SH-1A in Boys Restroom A124.

3 .21 DRAWING P2.3.1 - PLUMBING 1ST FLR PLN - AREA B - WASTE AND VENT

A. Added keynote 19 per the attached Drawing P2.3.1.

B. Add 1" vent from gas pressure regulator up through roof. Route to roof similar to water heater vent. Terminate vent through roof similar to Detial 6/P6.2. Locate minimum of 10' away from outside air intake or 3'-0" above.

3 .22 DRAWING P2.3.2 - PLUMBING 1ST FLR PLN - AREA B - WASTE AND VENT

A. Replace this drawing in its entirety with the attached Drawing P2.3.2.

B. Gas line increased in size from 1" to 1-1/2", followed by an increase from 1/2" to 3/4" for the line going to the dryers.

C. SH-4 changed to SH-1A in Girls Restroom A143.

3 .23 DRAWING P3.1 - ENLARGED PLUMBING PLANS

A. Replace this drawing in its entirety with the attached Drawing P3.1.

B. Add 3/4" condensate drain line from RT-14 to sink. Route 3/4" condensate drain down in wall, elbow out and extend to the tailpiece of the sink.

C. Add 1" vent from gas pressure regulator up through roof. Terminate vent through roof similar to water heater flue routing. Terminate similar to Detail 6/P6.2. Locate minimum of 10' away from outside air intake or 3'-0" above.

3 .24 DRAWING P5.1 - PLUMBING SCHEDULES

A. Replace this drawing in its entirety with the attached Drawing P5.1.

B. Revise Plumbing Fixture Schedule.

<u>Electrical</u>

3 .25 DRAWING E1.1 - ELECTRICAL SITE PLN

A. Replace this drawing in its entirety with the attached Drawing E1.1.

B. Revise to label relocated switchboard on demo plan per the attached Drawing E1.1.

C. Added pullbox sizing per the attached Drawing E1.1.

D. Revised demo Keynote 2 per the attached Drawing E1.1.

3 .26 DRAWING EA2.2 - ELECTRICAL -1ST FLR PLN -AREA B

A. Replace this drawing in its entirety with the attached Drawing EA2.2.

B. Revise to show future Musco equipment in Team Storage Room per the attached Drawing EA2.2.

C. Added receptacles to the Storage Rooms per the attached Drawing EA2.2.

D. Added conduit and wire sizing to Storage Room per the attached Drawing EA2.2.

E. Added note for wall mounted pullboxes per the attached Drawing EA2.2.

F. Added notes for spare conduits to future Musco poles per the attached Drawing EA2.2.

G. Added pullbox sizing per the attached Drawing EA2.2.

3 .27 DRAWING EA2.3 - ELECTRICAL -2ND FLR PLN

A. Replace this drawing in its entirety with the attached Drawing EA2.3.

B. Revise to show circuit for elevator disconnect per the attached Drawing EA2.3.

3 .28 DRAWING EA4.2 - ELECTRICAL -ROOF PLAN -AREA B

A. Replace this drawing in its entirety with the attached Drawing EA4.2.

B. Add roof receptacle and callout per the attached Drawing EA4.2.

3 .29 DRAWING EA4.3 - ELECTRICAL -2ND FLOOR ROOF PLAN

A. Replace this drawing in its entirety with the attached Drawing EA4.3.

B. Add roof receptacle and Keynote 2 per the attached Drawing EA4.3.

C. Add detail for roof receptacle mounting per the attached Drawing EA4.3.

3 .30 DRAWING EB2.1 - ELECTRICAL - POOL FLR PLN

A. Added notes for spare conduits to future Musco poles per the attached Drawing EB2.1.

B. Added pullbox sizing per the attached Drawing EB2.1.

3 .31 DRAWING E5.1 - ELECTRICAL SINGLE LINE DIAGRAM

A. Replace this drawing in its entirety with the attached Drawing E5.1.

B. Revise Keynote 6 per the attached Drawing E5.1.

3 .32 DRAWING E5.2 - ELECTRICAL PANEL SCHEDULES

A. Add circuits for convenience receptacles from panel L1B per the attached Drawing E5.2.

Fire Alarm

3 .33 DRAWING FA0.0 - FIRE ALARM LEGENDS AND GENERAL NOTES

A. Changed wire type from stranded to twisted per the attached Drawing FA0.0.

3 .34 DRAWING FA1.1 - FIRE ALARM SITE PLAN

A. Added conduit routing to pull boxes per the attached Drawing FA1.1.

3 .35 DRAWING FA5.1 - FIRE ALARM PANEL SCHEDULES & CALCS

A. Updated riser diagram and panel calculations per the attached Drawing FA5.1.

3 .36 DRAWING FA6.1 - FIRE ALARM DETAILS

A. Added seismic Detail 10 per the attached Drawing FA6.1.

3 .37 DRAWING FAA2.2 - FIRE ALARM - 1ST FLR PLN - AREA B

A. Added conduit path to Administration Building and existing PIV valves per the attached Drawing FAA2.2.

Technology

3 .38 DRAWING T1.1 – TECHNOLOGY SITE PLAN

A. Replace this drawing in its entirety with the attached Drawing T1.1.

B. Revise point of connections between new conduits and existing per the attached Drawing T1.1.

C. Add information for the existing MDF, existing conduits and junction boxes locations per the attached Drawing T1.1.

Swimming Pool

3 .39 DRAWING SP.3 - SWIMMING POOL UNDERWATER LIGHT / TIMING SYSTEM PLAN

A. Remove the non-illuminated facility identification panel with artwork from the scope of work.

B. Please provide (2) DC-1500 shot clocks for water polo.

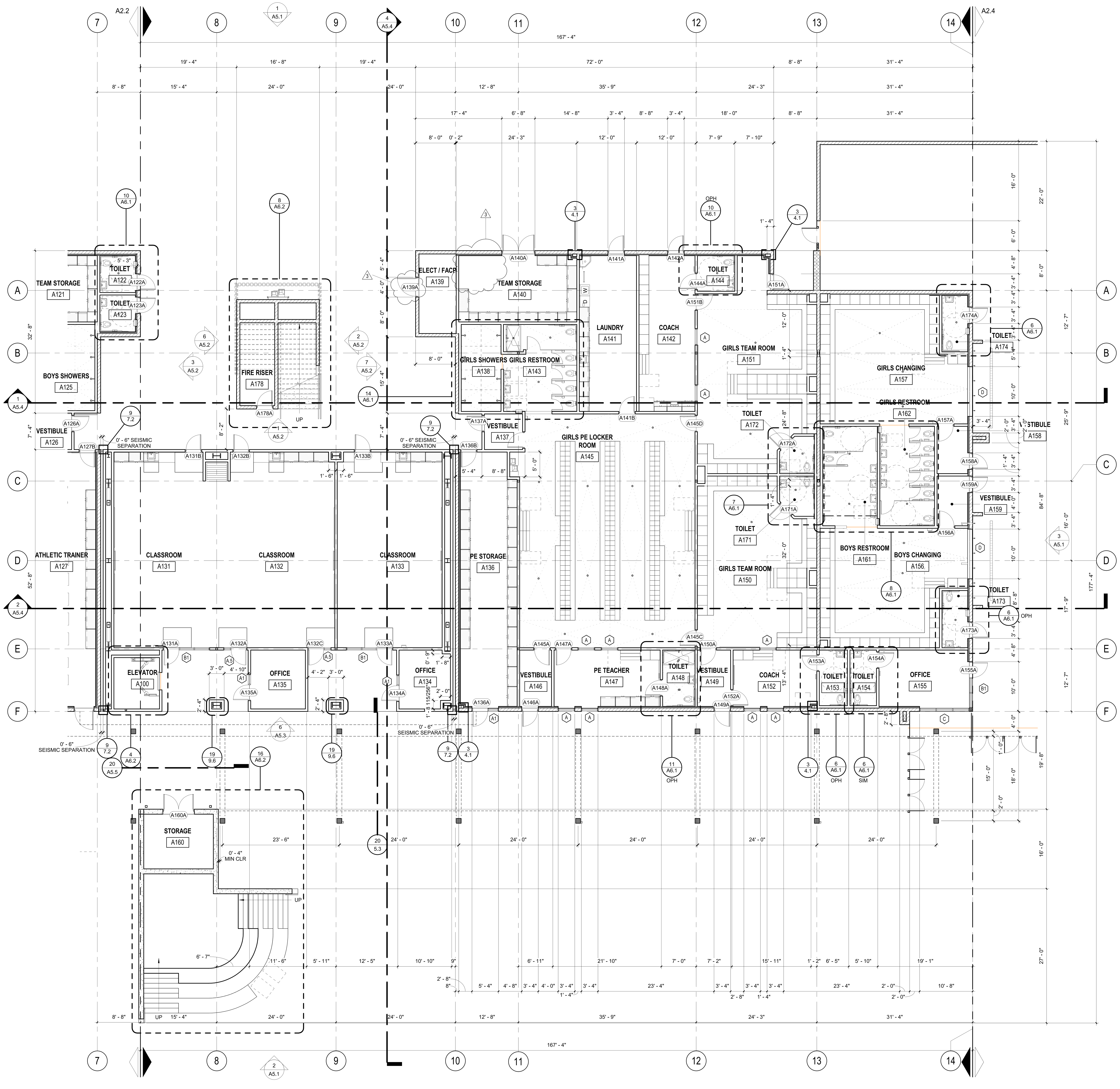
END OF ADDENDUM 3

Submitted by,

BOB LAVEY
AIA, LEED AP
Managing Partner, Architect

RL:PF:hb\P4W2110000ARx3-add

Attachments: A2.3, A5.5, S0.11, S0.12, S2.2, MA2.1, MB3.1, MB3.3, M5.1, M5.2, M6.1, P1.1, P2.2.2, P2.3.1, P2.3.2, P3.1, P5.1, E1.1, EA2.2, EA2.3, EA4.2, EA4.3, EB2.1, E5.1, E5.2, E5.3, FA0.0, FA1.1, FA5.1, FA6.1, FAA2.2, T1.1,



GENERAL NOTES:

1. REF TO ROOM FINISH SCHEDULE FOR INTERIOR WALL FINISHES.
2. DIMENSIONS FOR CMU ARE FROM FACE OF MASONRY.
3. DIMENSIONS FOR MTL STUDS ARE FROM FACE OF STUDS UNLESS HSS COLUMN IS INSIDE THE WALL. IN THAT CASE THE DIMENSION WILL BE FROM THE CENTER OF THE COLUMN.
4. ALL INTERIOR STUD WALLS SHALL HAVE BATT INSULATION FULL HEIGHT.
5. ALL EXTERIOR CMU WALLS WITH FURRING SHALL HAVE RIGID INSULATION FULL HEIGHT.
6. REFER TO EXTERIOR ELEVATIONS FOR EXTERIOR WALL FINSHES.
7. REFER TO A7. SERIES (INTERIOR PLANS AND ELEVATIONS) FOR MORE INFORMATION ON WALL FINISHES, CASEWORK, LOCKERS AND MISC. EQUIPMENT.
8. REFER TO DETAIL SHEETS 8.1 FOR WINDOW DETAILS.
9. REFER TO A6. SERIES (ENLARGED PLAN) FOR MORE INFORMATION ON RESTROOMS AND STAIRS, ALL RESTROOM DIMENSIONS ARE TO FACE OF FINISH.
10. DEPRESS CONCRETE SLAB AS FOLLOWS:
    A. FIRST FLOOR RESTROOM, TOILET, SHOWER = 2 1/2" DEEP
    B. SECOND FLOOR RESTROOM = 2" DEEP
    C. SECOND FLOOR DANCE ROOM = 1 1/2" DEEP
    D. SECOND FLOOR BALCONY = 3" DEEP

FLOOR PLAN NOTES 1/8" = 1'-0"

- 6" METAL STUD INTERIOR WALL REF WALL TYPE **A** DWG 9.1. AT EXTERIOR WALLS REF WALL TYPE **B** DWG 9.1. AT INTERIOR TOILET ROOM WALLS REF TYPE **C** AND AT DOUBLE SIDED INTERIOR TOILET ROOM WALLS TYPE **D** DWG 9.1 AT SECOND FLOOR EXTERIOR WALL REF DETAILS ON SHEET 9.5
- PAINTED 16" CMU EXTERIOR WALL, PAINT WHERE EXPOSED. REF WALL TYPE **E** DWG 9.1
- PAINTED 12" CMU EXTERIOR WALL, PAINT WHERE EXPOSED. REF WALL TYPE **E** DWG 9.1
- PAINTED 8" CMU INTERIOR WALL, PAINT WHERE EXPOSED. REF WALL TYPE **E** DWG 9.1
- PAINTED 8" CMU EXTERIOR & PLASTER / INTERIOR WALL WITH 2.5" METAL STUD WALL FURRING, REF WALL TYPE **F** DWG 9.1
- PAINTED 8" CMU EXTERIOR / INTERIOR WALL WITH 4" METAL STUD WALL FURRING AT TOILET ROOMS, REF WALL TYPE **G** DWG 9.1
- 12" C.I.P. CONCRETE WALL REF WALL TYPE **H** DWG 9.1

FIRST FLOOR PLAN - AREA B 1/8" = 1'-0" 1

WALL LEGEND 1/8" = 1'-0"

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8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL NEW BUILDING & AQUATIC CENTER

ROWLAND UNIFIED SCHOOL DISTRICT

401 NOGALES ST, LA PUENTE, CA 91744

LICENSED ARCHITECT STATE OF CALIFORNIA

CONSULTANT

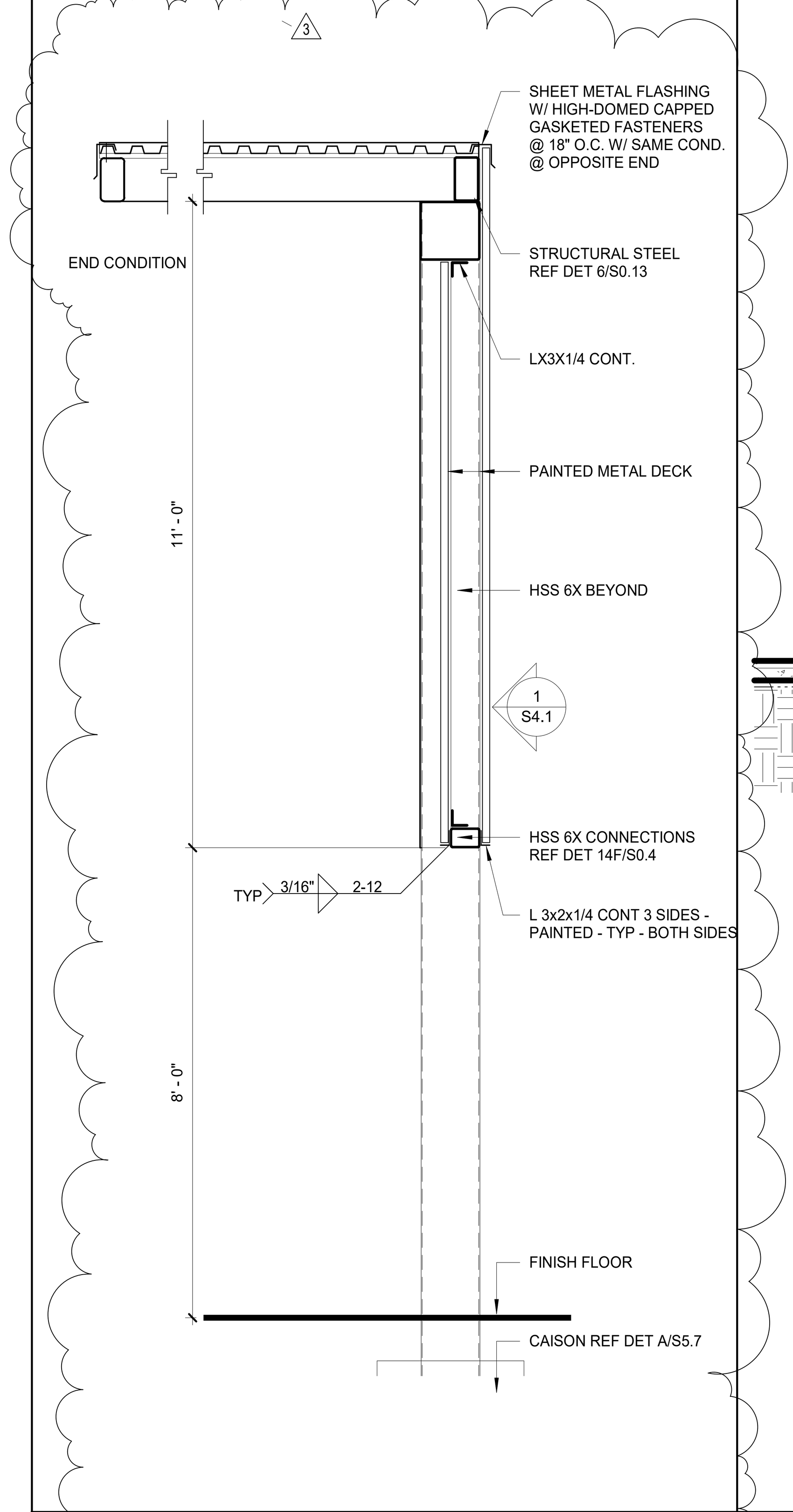
NO	DATE	BY	DESCRIPTION
1	01/25/24	PBK	ADDENDUM 1
3	03/05/24	PBK	ADDENDUM 3

REVISIONS

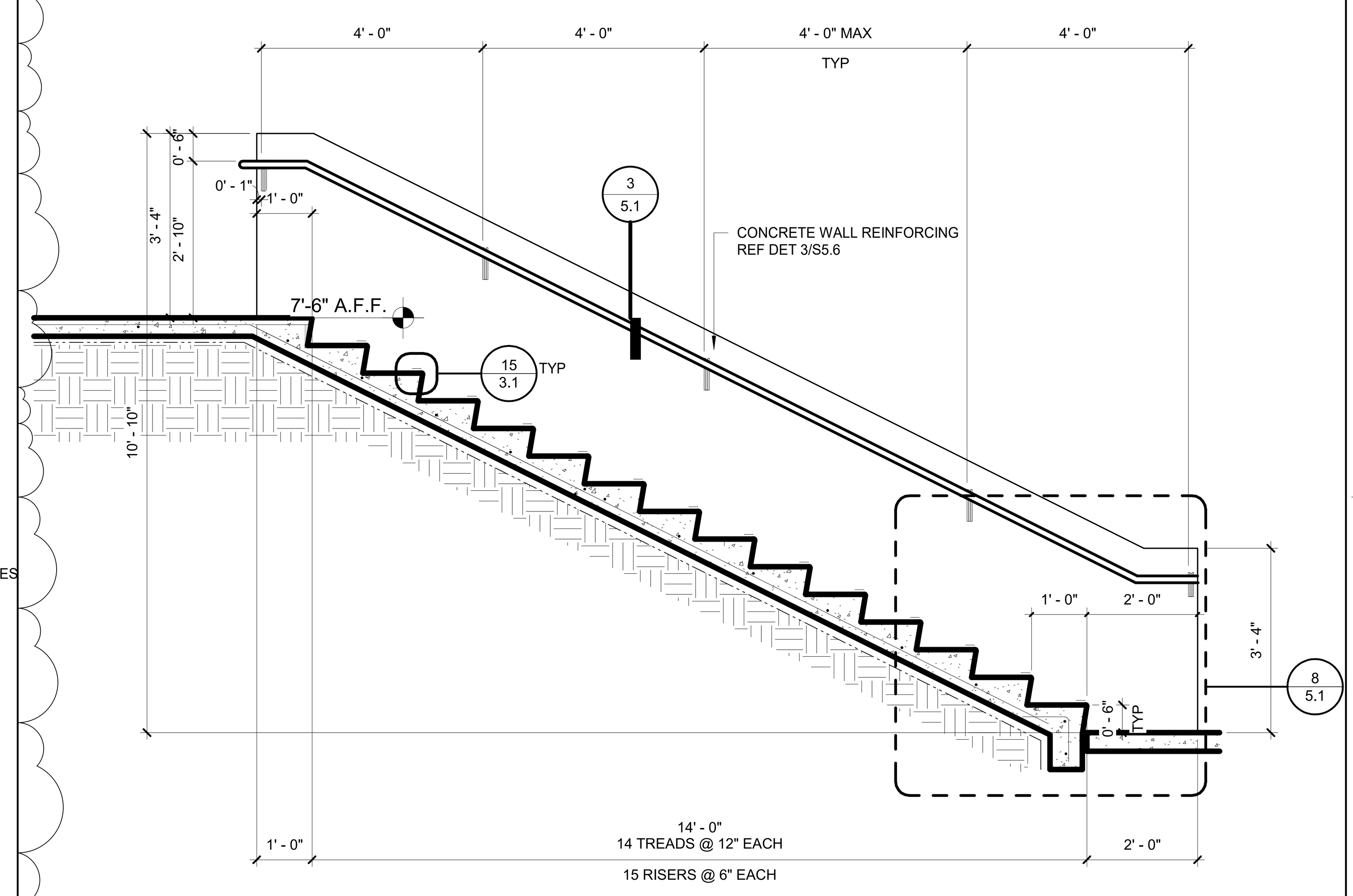
DRAWN: PDF CHECKED: SA
DATE: 11/22/2023 SCALE: 1/8" = 1'-0"
PROJECT NUMBER: 2110000

FIRST FLOOR PLAN - AREA B

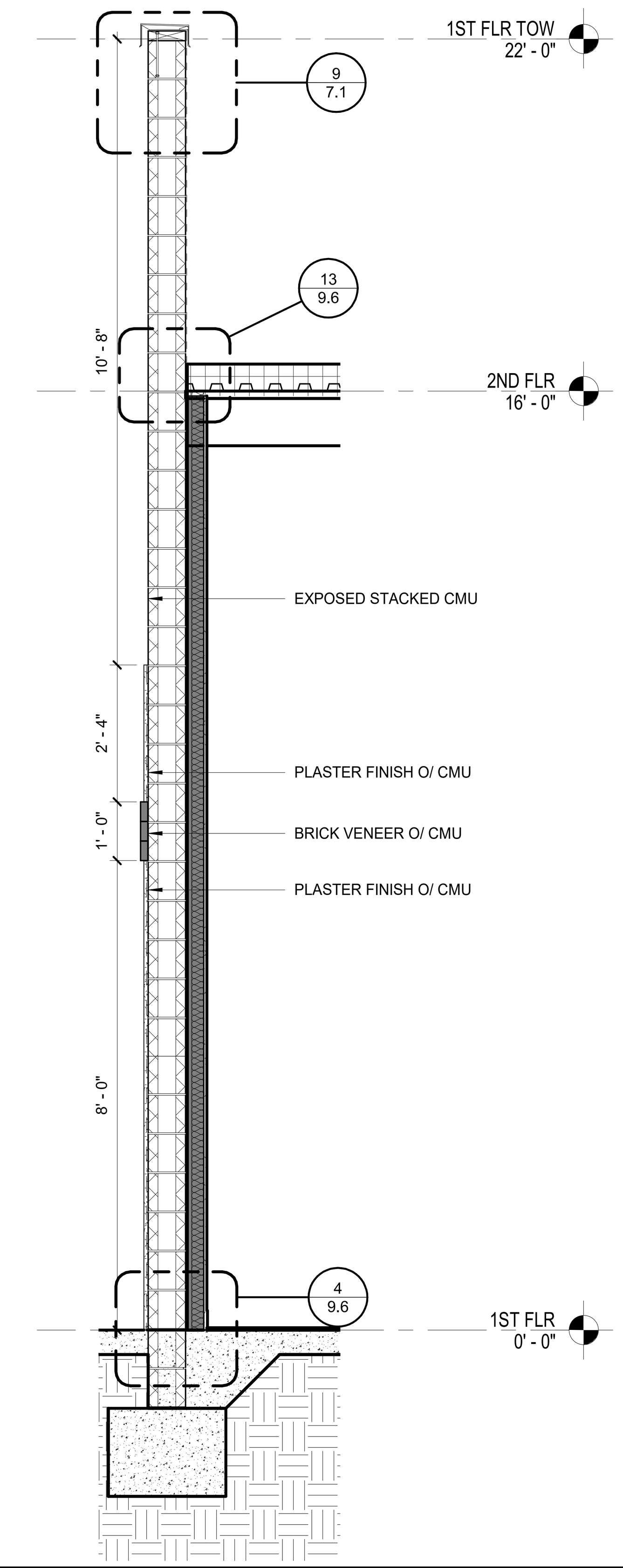
DRAWING NUMBER: A2.3



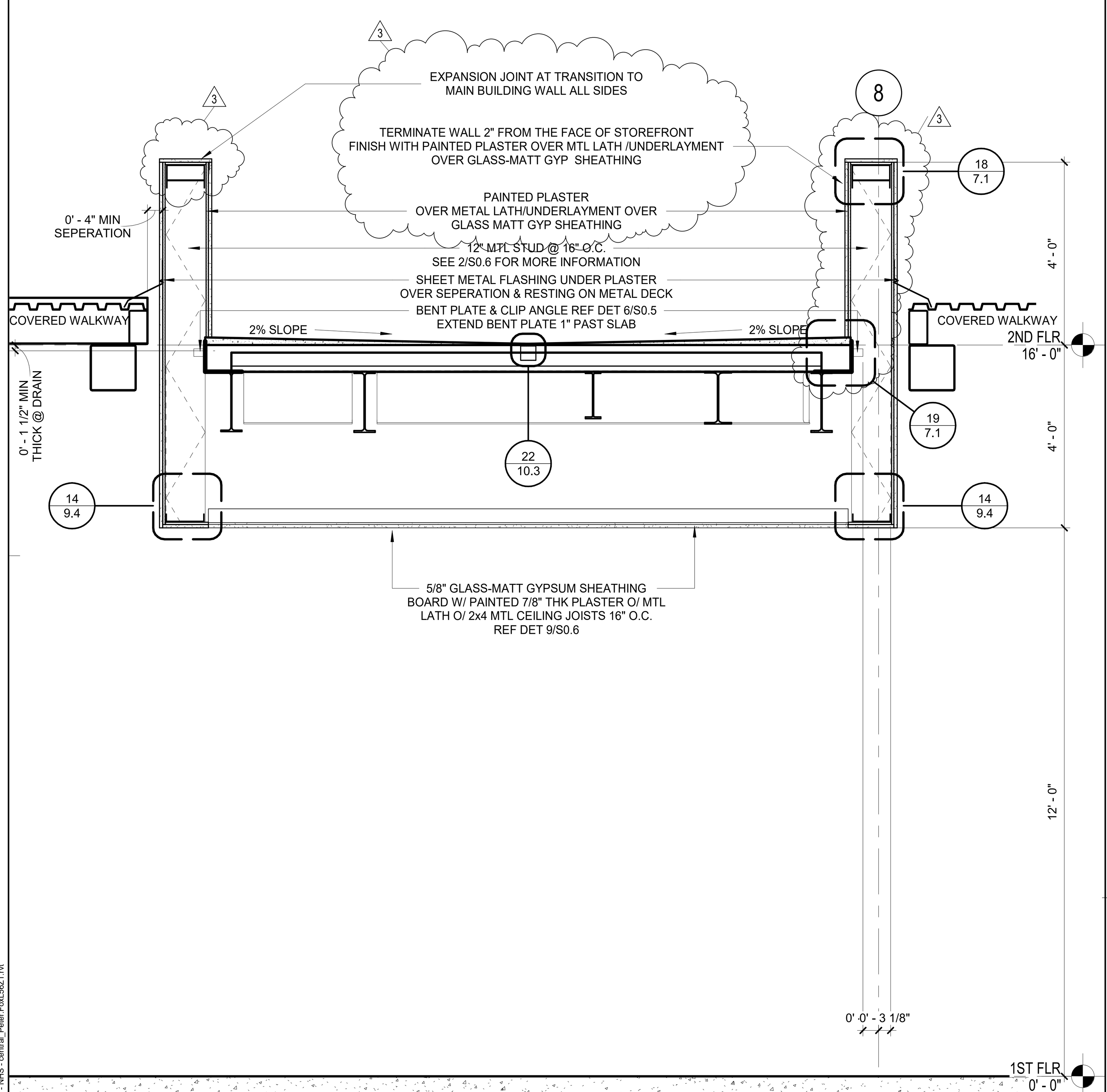
COVERED WALKWAY END 1/2" = 1'-0" 18



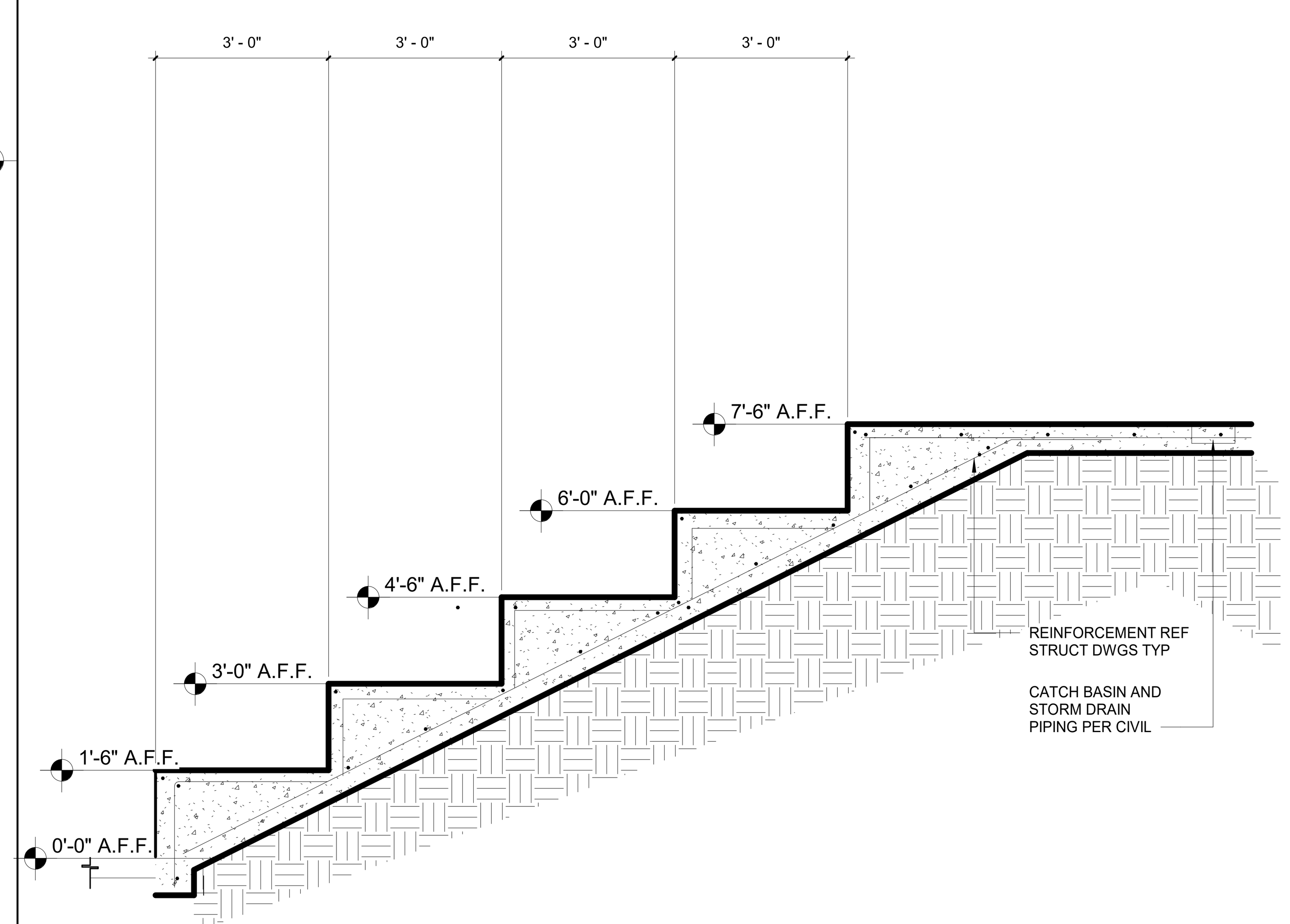
CONCRETE STAIR SECTION 1/2" = 1'-0" 10



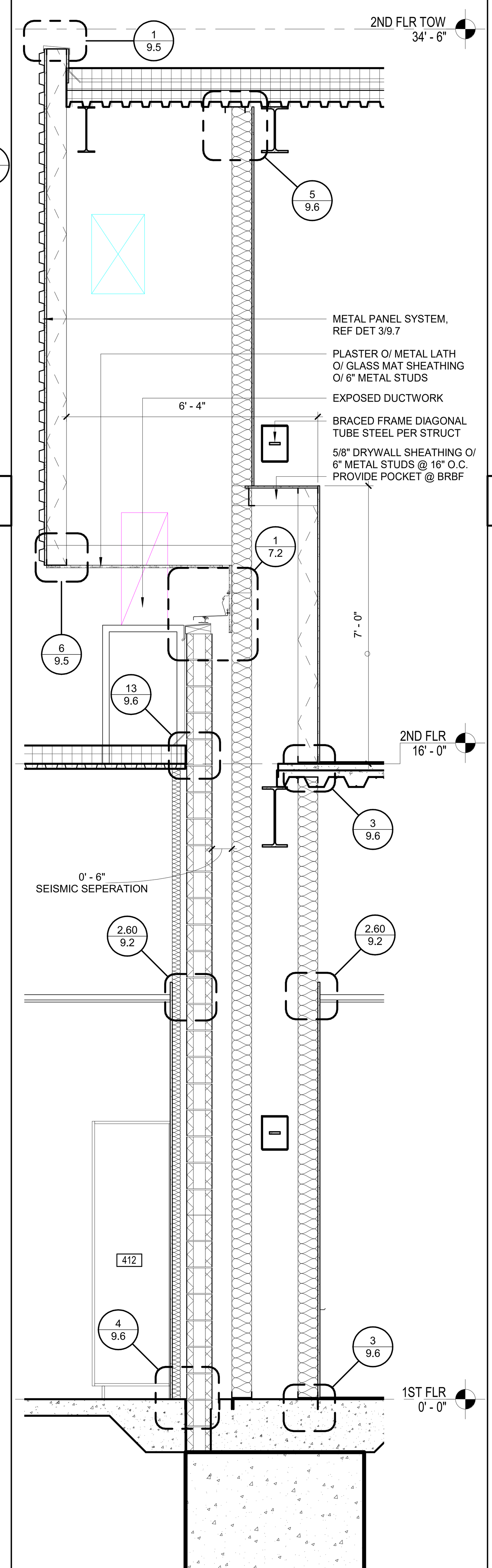
WALL SECTION 1 1/2" = 1'-0" 2



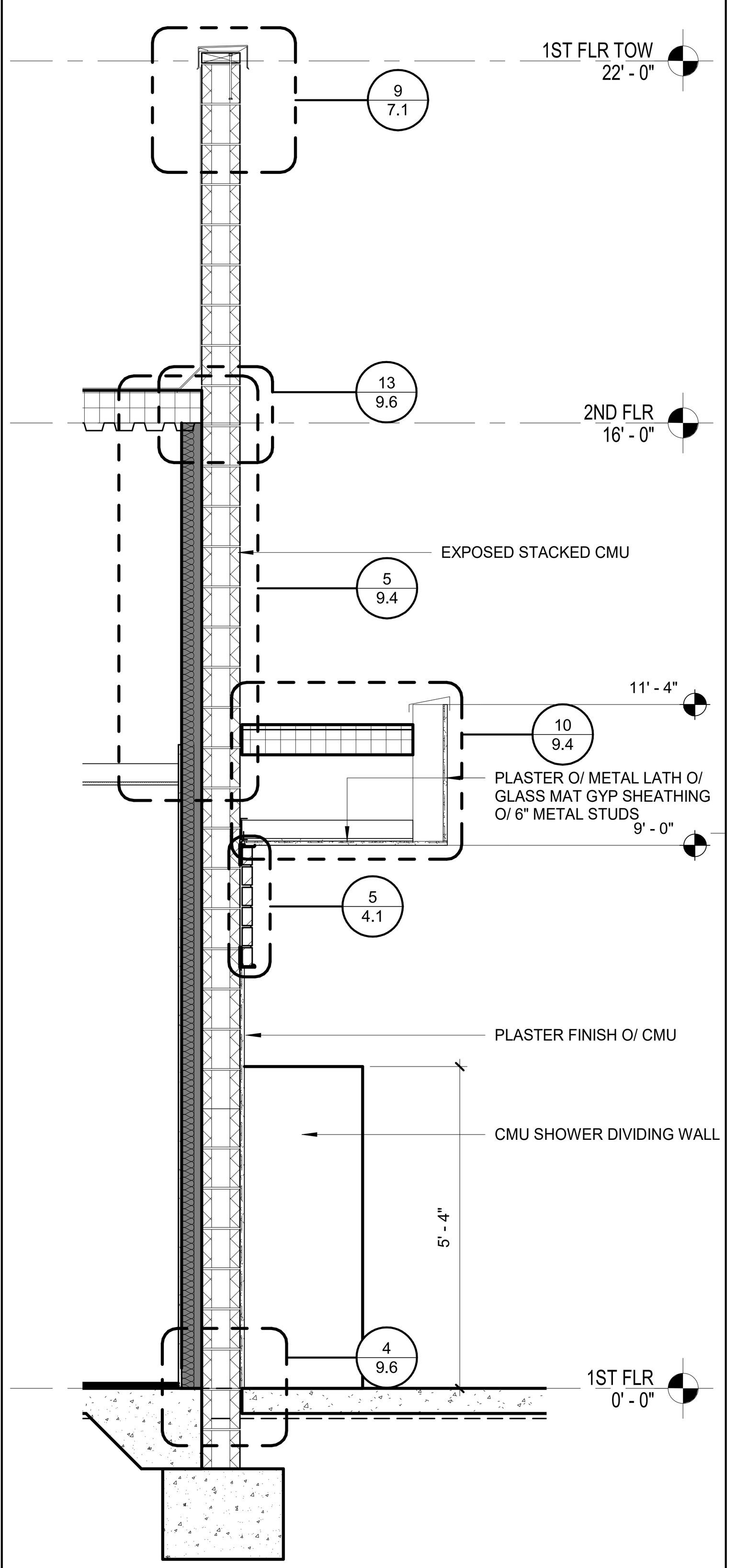
BRIDGE SECTION 1/2" = 1'-0" 20



AMPHISTAIR BI SECTION 1/2" = 1'-0" 12



WALL SECTION 3 1/2" = 1'-0" 8



WALL SECTION 2 1/2" = 1'-0" 4

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8163 Rochestser Avenue, Suite 100
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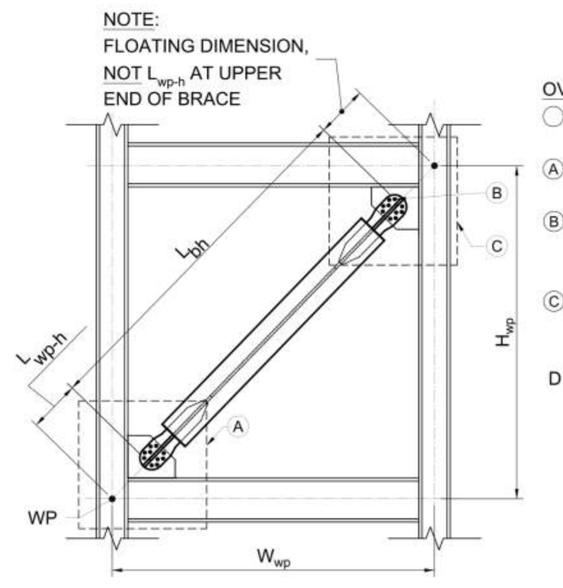
NO	DATE	BY	DESCRIPTION
1	01/25/24	PBK	ADDENDUM 1
3	03/05/24	PBK	ADDENDUM 3

REVISIONS

DRAWN: PDF CHECKED: SA
DATE: 11/22/2023 SCALE: 1/2" = 1'-0"
PROJECT NUMBER: 2110000

ENLARGED WALL SECTIONS

DRAWING NUMBER: A5.5

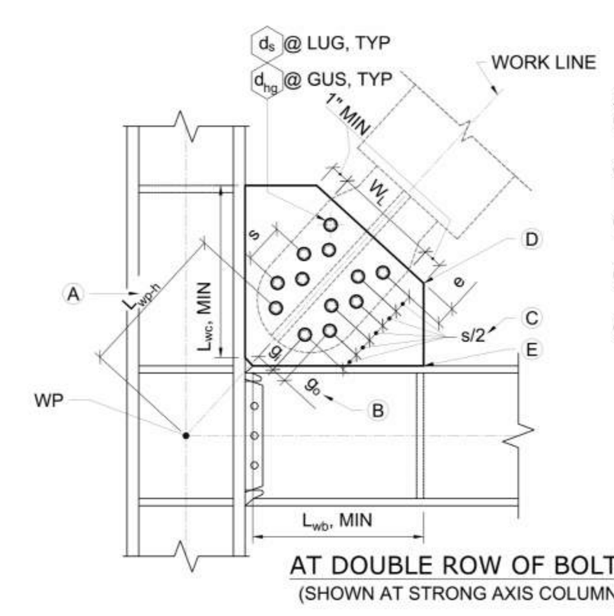


OVERALL PROCEDURE:
◯ CIRCLED NOTES ARE KEYED ON DETAIL.

Ⓐ LAYOUT BOTTOM BRACE CONNECTION ON GUSSET. (SEE DETAIL 2/-)
Ⓑ ESTABLISH UPPER-MOST BOLT-HOLE, LOCATED AT DISTANCE L_{bh} FROM LOWER-MOST BOLT-HOLE.
Ⓒ LAYOUT UPPER BOLT-HOLE PATTERN SIMILAR TO LOWER BOLT-HOLE PATTERN. (SEE DETAIL 2/-)
D SEE DETAIL 4/- WHERE CONCRETE BLOCKOUT WILL BE REQUIRED.

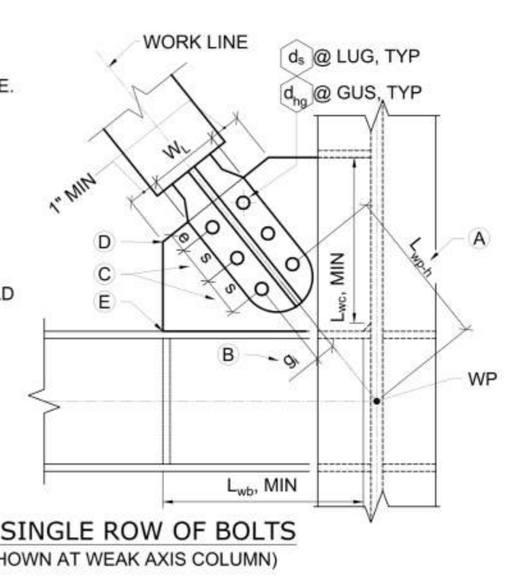
NOTE:
FOR MINIMUM BOLT TENSIONING PROCEDURE SEE DETAIL 3/-.

BOLTED GUSSET OVERALL LAYOUT PROCEDURE (1)
SCALE: NTS



AT DOUBLE ROW OF BOLTS
(SHOWN AT STRONG AXIS COLUMN)

GUSSET LAYOUT PROCEDURE:
Ⓐ ESTABLISH LOCATION OF 1st BOLT LINE ALONG WORK LINE. NOTE: Lwp-h ONLY APPLIES AT BOTTOM END OF BRACE.
Ⓑ ESTABLISH INNER AND OUTER (WHERE APPLICABLE) BOLT ROW OFFSETS WITH g_i AND g_o.
Ⓒ LAY OUT BOLT HOLE PATTERN USING HOLE SIZE (d_{hg}), SPACING (s), AND EDGE DISTANCE (e) AS SHOWN.
Ⓓ W_L + 2 x MIN RETURN, GUSSET EDGE WIDTH PERPENDICULAR TO WORK LINE.
Ⓔ RETURN TO BEAM AND/OR COLUMN AND VERIFY MIN WELD LENGTH (INCLUDING DEDUCTIONS FOR CLIP AND WELD START/STOP) IS MAINTAINED.



AT SINGLE ROW OF BOLTS
(SHOWN AT WEAK AXIS COLUMN)

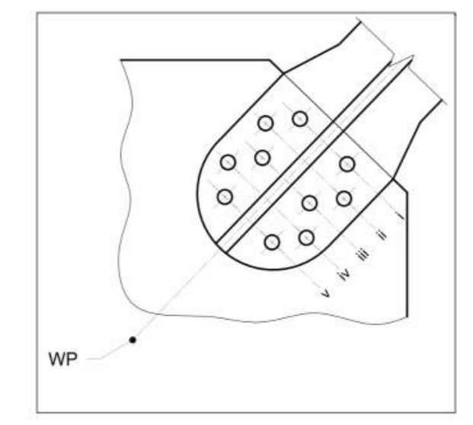
BOLTED GUSSET LAYOUT PROCEDURE (2)
SCALE: NTS

BOLT TENSIONING PROCEDURE
Bolts shall be torqued to achieve the appropriate bolt tension as set forth in the erector's approved procedures. As a minimum, the following items shall be adhered to:

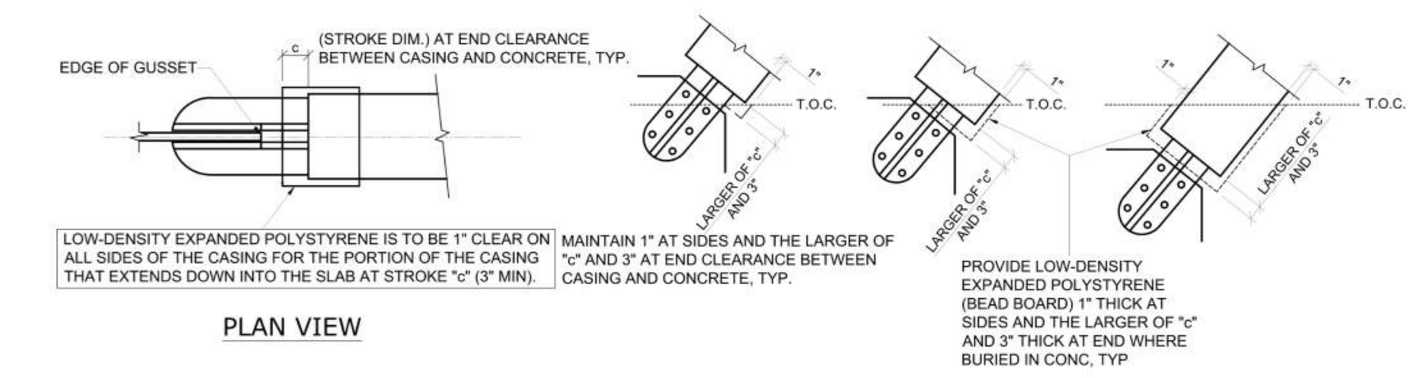
A. Starting with the most rigid part of the connection (Row 'i') and continuing to the least rigid part of the connection (Row 'v'), bring all bolts to snug-tight condition.
B. Recheck snug-tight condition of bolts in rows 'i' and 'ii', re-tighten as necessary.
C. Torque bolts in Row 'i' to appropriate level of tension using approved procedure.
D. Re-check snug tight condition of bolt in row 'iii'.
E. Torque bolts in Row 'ii' to appropriate level using approved procedure.
F. Continue alternating check of snug tight condition of next-to-nearest row and torquing nearest row of untorqed bolts as set forth in steps D & E until end of brace is reached and all bolts are at appropriate level of torque.
G. Repeat similar procedure at top end of brace.

GENERAL NOTES:
ALL BOLTED BRACE CONNECTIONS SHALL BE INSTALLED IN ACCORDANCE WITH THE ERECTOR'S APPROVED QUALITY ASSURANCE PLAN. AS A MINIMUM, THE FOLLOWING MUST BE MET:

- Tighten all slip-critical bolts and bolts installed in oversized holes by a method approved by the engineer of record. Provide hardened washers under all turned elements.
- Where ASTM F3125 Gr A490-SC/F2280-TC or stronger bolts are specified in the drawings, provide hardened washer between nut & gusset. Where required by AISC Specifications, provide washer between bolt head & gusset.
- Bolts must be long enough for the threads to be flush with the outside face of the nut after tightening. Thread stickout shall not exceed that allowed by structural drawings.
- Do not reuse bolts, nuts, or washers.



MINIMUM BOLT TENSIONING PROCEDURE (3)
SCALE: NTS



LOW-DENSITY EXPANDED POLYSTYRENE IS TO BE 1" CLEAR ON ALL SIDES OF THE CASING FOR THE PORTION OF THE CASING THAT EXTENDS DOWN INTO THE SLAB AT STROKE "c" (3" MIN).

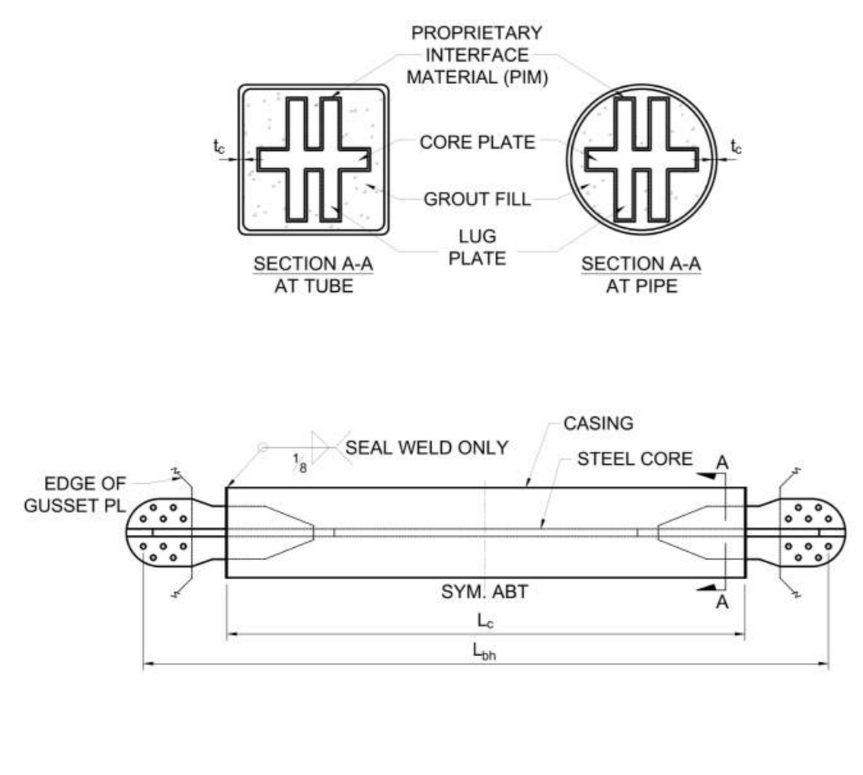
MAINTAIN 1" AT SIDES AND THE LARGER OF "c" AND 3" AT END CLEARANCE BETWEEN CASING AND CONCRETE, TYP.

PROVIDE LOW-DENSITY EXPANDED POLYSTYRENE (BEAD BOARD) 1" THICK AT SIDES AND THE LARGER OF "c" AND 3" THICK AT END WHERE BURIED IN CONC, TYP

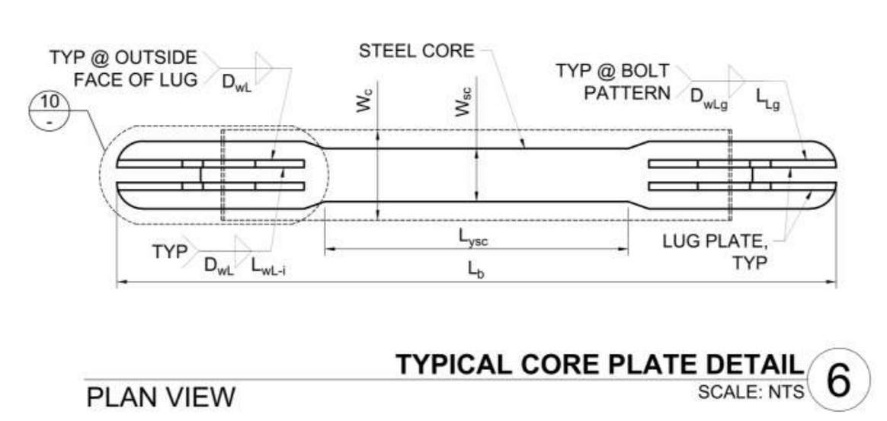
PLAN VIEW

INDICATED CLEARANCES REPRESENT BLOCKOUT CONDITIONS REQUIRED FOR FINAL INSTALLED STATE OF BRB. LARGER BLOCKOUTS MAY BE REQUIRED FOR INSTALLATION. LOW-DENSITY EXPANDED POLYSTYRENE PROVIDED BY OTHERS.

BRB CASING BURIED IN CONCRETE - TYPICAL DETAIL (4)
SCALE: NTS

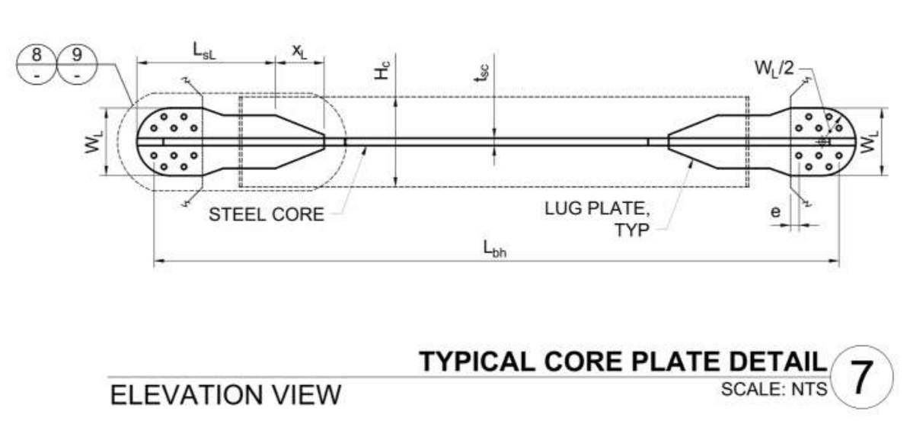


TYPICAL CORE AND CASING CONFIGURATION (5)
SCALE: NTS



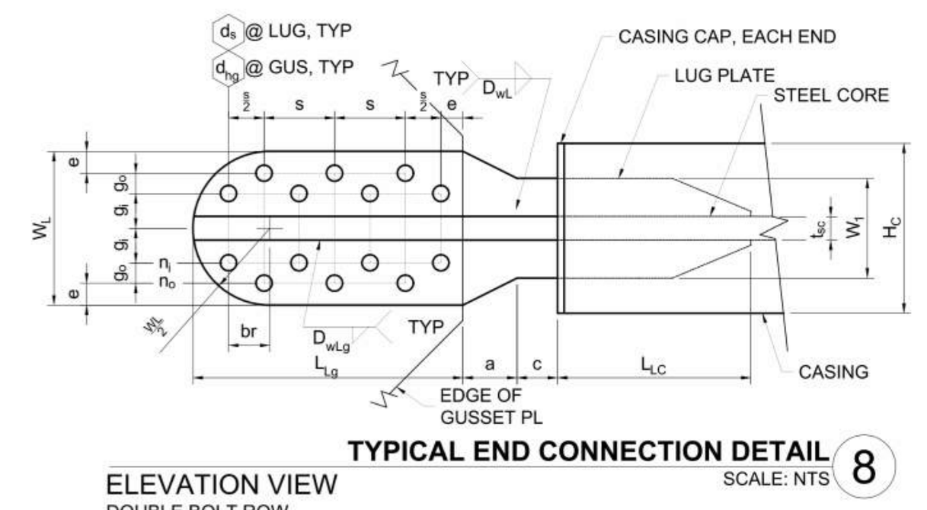
PLAN VIEW

TYPICAL CORE PLATE DETAIL (6)
SCALE: NTS



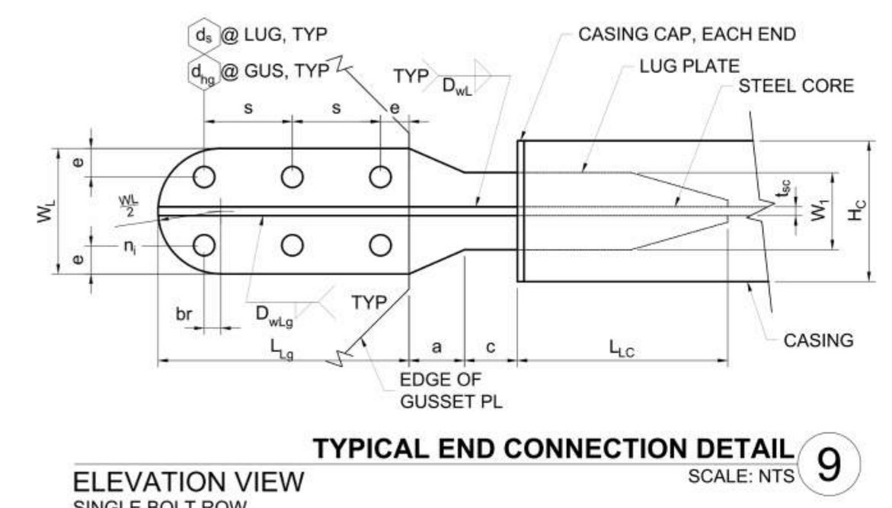
ELEVATION VIEW

TYPICAL CORE PLATE DETAIL (7)
SCALE: NTS



ELEVATION VIEW
DOUBLE BOLT ROW

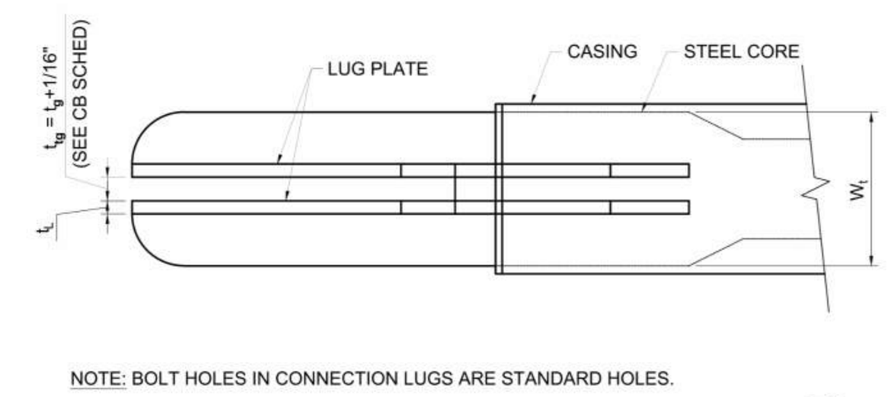
TYPICAL END CONNECTION DETAIL (8)
SCALE: NTS



ELEVATION VIEW
SINGLE BOLT ROW

TYPICAL END CONNECTION DETAIL (9)
SCALE: NTS

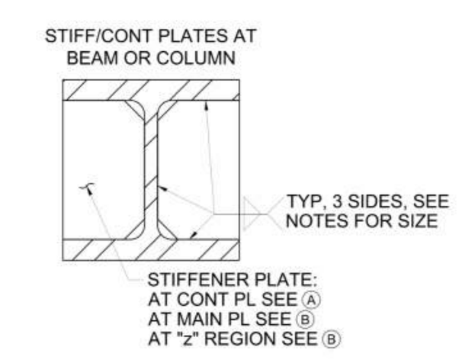
NOTE: BOLT HOLES IN CONNECTION LUGS ARE STANDARD HOLES.



NOTE: BOLT HOLES IN CONNECTION LUGS ARE STANDARD HOLES.

PLAN VIEW

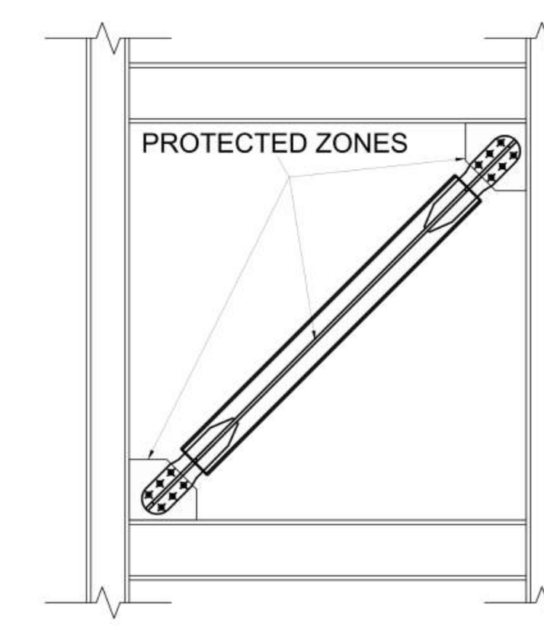
TYPICAL END CONNECTION DETAIL (10)
SCALE: NTS



NOTES:
Ⓐ FOR CONTINUITY PLATE THICKNESS (t_{cont}) PROVIDE t_{fb} + 1/8" MINIMUM THICKNESS USE 5/8 t_{cont} FILLET WELD SIZE
Ⓑ FOR STIFFENER THICKNESS REQUIREMENTS, SEE CONNECTION SCHEDULE (MAIN AND AT "z") USE 5/16" FILLET WELD FOR THICKNESSES < 1.25", 7/16" FILLET WELD FOR THICKNESSES < 2.0", UNO FOR STIFF PLATES > 2" CONTACT COREBRACE FOR FILLET WELD SIZE.

STIFF/CONT PL TO MEMBER (11)
SCALE: NTS

NOT USED (12)
SCALE: NTS



SHADED REGIONS INDICATE PROTECTED ZONES

BRB PROTECTED ZONES SHALL INCLUDE THE STEEL CORE AND CONNECTION ELEMENTS AND SHALL SATISFY THE REQUIREMENTS OF SECTION F4.5c OF AISC 341. ADDITIONALLY, ATTACHMENTS WHICH PENETRATE THE CASING (SCREWS, PAF, ETC) OR ANY ATTACHMENT SUPPORTING OVER 50 LBS SHALL BE APPROVED BY THE ENGINEER OF RECORD AND COREBRACE.

(Revision 3) PROTECTION ZONES SHALL BE PERMANENTLY MARKED WITH PAINT AND STICKER. CONTRACTOR SHALL PROVIDE SUBMITTAL FOR PROTECTED ZONES WITH MARKING AND STICKER

PROTECTED ZONES - AISC 341 (13)
SCALE: NTS

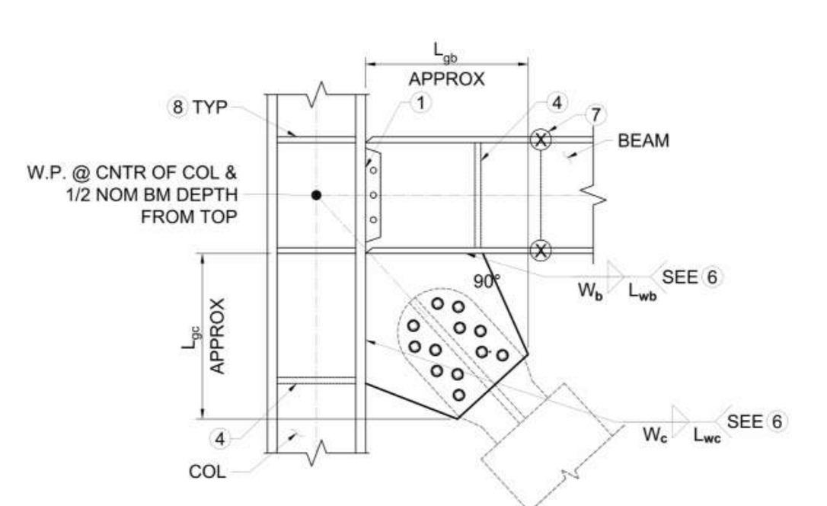
GENERAL NOTES:

G1. SEE PROJECT DRAWINGS FOR ADDITIONAL INFORMATION
G2. DIMENSIONS AND WP LOCATIONS FROM PROJECT DRAWINGS GOVERN. CONTACT COREBRACE PRIOR TO DETAILING IF ANY DISCREPANCIES ARE NOTED.
G3. CORE PL A36 SPECIAL (FY RANGE PROVIDED ON COREBRACE SCHEDULE)
G4. CASING A500 GR B FOR HSS AND A53 GR B FOR PIPE
G5. BRB LUG PLATE (TRANSVERSE STIFFENER) A572 GR 50
G6. GUSSET PL, GUSSET STIFFENER AND REPAD PL A572 GR 50 U.N.0.
G7. ALL STIFFENERS AND DOUBLER PL TO MATCH BEAM AND COLUMN GRADE.
G8. USE ASTM F3125 GR A490-SC/F2280-TC OR ASTM F3148 TNA BOLTS. BOLT HOLES IN GUSSET ARE OVERSIZED. BOLT HOLES IN BRB ARE STANDARD.
G9. CLASS A (TOOL CLEAN) ALL FAYING SURFACES.
G10. GALVANIZED FAYING SURFACES TO BE HAND WIRE BRUSHED PRIOR TO ERECTION OF BRB.
G11. THE GAP BETWEEN THE BOLTED CONNECTION PLATES AT THE END OF THE BRB SHALL NOT BE INCREASED EXCEPT IN INSTANCES WHERE SPECIFIC APPROVAL AND METHODOLOGY HAVE BEEN PROVIDED BY COREBRACE.

CONNECTION NOTES:

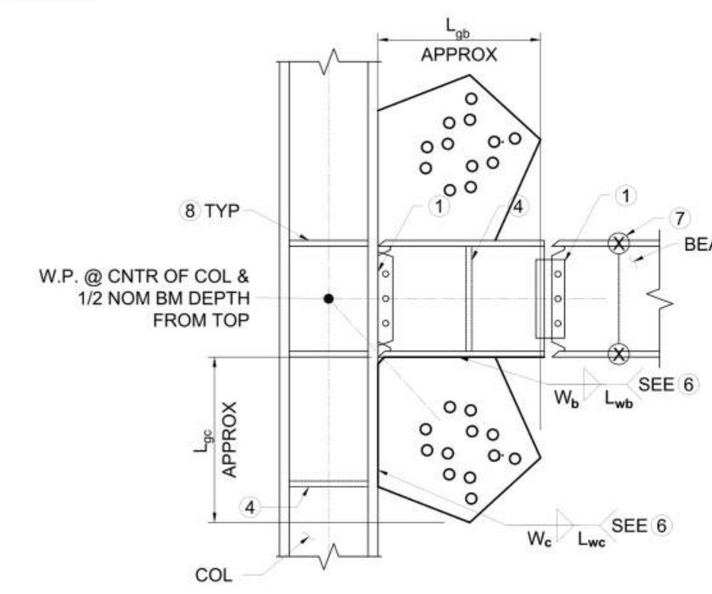
◯ CIRCLED NOTES ARE KEYED ON CONNECTION DETAILS.

① SEE STRUCTURAL DRAWINGS FOR BEAM/BASE PLATE CONNECTION, TYP.
2 SEE CONNECTION SCHEDULE FOR CONNECTION DIMENSIONS.
3 SEE COREBRACE SCHEDULE FOR BRB GEOMETRY DIMENSIONS.
④ MAIN STIFF PL EA SIDE AS REQ'D BY STRUCTURAL DRAWINGS OR AS INDICATED ON CONNECTION SCHEDULE. SEE DETAIL 11.
⑤ FIELD INSTALL STIFF PL AS NECESSARY FOR INSTALLATION OF BRACE.
⑥ WELD BOTH SIDES. WHERE GUSSET PL IS LONGER THAN REQ'D WELD LENGTH, PROVIDE WELD ALONG ENTIRE LENGTH TO WITHIN 3/4" OF EDGE OF PL.
⑦ TOP AND BOTTOM FLANGE LATERAL BRACING AS REQUIRED BY STRUCTURAL DRAWINGS.
⑧ CONTINUITY PLATE WHERE REQ'D BY STRUCTURAL DRAWINGS. AT WEAK-AXIS COLUMN, ALWAYS PROVIDE CONTINUITY PLATE T&B AND N&FS. SEE DETAIL 11.



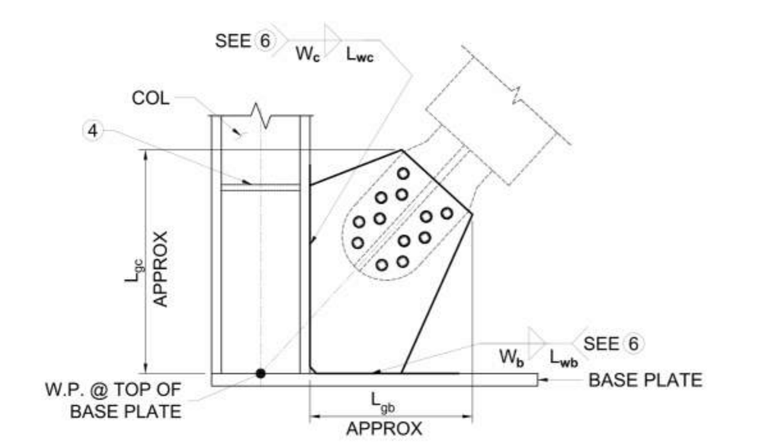
A SEE DETAILS 1, 2, AND 3 FOR BRB & GUSSET LAYOUT PROCEDURE.
B AT LOCATIONS WITH EXTENDED GUSSET CONFIGURATION, ERECATABILITY SHOULD BE CAREFULLY CONSIDERED. COREBRACE IS NOT RESPONSIBLE FOR ERECTABILITY CHECKS.

GUSSET CONNECTION AT ROOF (14)
SCALE: NTS
SHOWN AT STRONG AXIS COLUMN
SHOWN WITH DOUBLE BOLT ROW (SIM AT SINGLE BOLT ROW)



A SEE DETAILS 1, 2, AND 3 FOR BRB & GUSSET LAYOUT PROCEDURE.
B AT LOCATIONS WITH EXTENDED GUSSET CONFIGURATION, ERECATABILITY SHOULD BE CAREFULLY CONSIDERED. COREBRACE IS NOT RESPONSIBLE FOR ERECTABILITY CHECKS.

EXTENDED GUSSET CONNECTION AT LEVEL 2 (15)
SCALE: NTS
SHOWN AT STRONG AXIS COLUMN
SHOWN WITH DOUBLE BOLT ROW (SIM AT SINGLE BOLT ROW)



A SEE DETAILS 1, 2, AND 3 FOR BRB & GUSSET LAYOUT PROCEDURE.
B AT LOCATIONS WITH EXTENDED GUSSET CONFIGURATION, ERECATABILITY SHOULD BE CAREFULLY CONSIDERED. COREBRACE IS NOT RESPONSIBLE FOR ERECTABILITY CHECKS.

GUSSET CONNECTION AT BASEPLATE (16)
SCALE: NTS
SHOWN AT STRONG AXIS COLUMN
WP AT TOP OF BASE PLATE
SHOWN WITH DOUBLE BOLT ROW (SIM AT SINGLE BOLT ROW)

BRB ENGINEERING DESIGN RESPONSIBILITY IS LIMITED TO THE FOLLOWING:
- COMPLETE BRB DESIGN BASED ON Asc PROVIDED IN STRUCTURAL DRAWINGS.
- DESIGN GUSSET PLATE AND CONNECTION OF BRB TO GUSSET PLATE.
- DESIGN CONNECTION OF GUSSET TO FRAME COLUMNS & BEAMS/BASE PLATES.

COREBRACE™
SUPERIOR SEISMIC PERFORMANCE

5789 W. Wells Park Rd.
West Jordan, Utah 84081
(801) 280-0701

EXP 12/2024

COREBRACE
BRACE AND GUSSET
CONNECTION DETAILS

PBK
RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL
NEW BUILDING & AQUATIC CENTER
ROWLAND UNIFIED SCHOOL DISTRICT
401 NOGALES ST, LA PUENTE, CA 91744

LICENSED ARCHITECT ROBERT LAVEY C-28020 01-31-25 STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER Frank J. Rice No. S5377 Exp. 09/30/23 STRUCTURAL STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA 91762
MI2228039.00
T: (415) 767-4261
miyamotointernational.com

NO	DATE	BY	DESCRIPTION
3	03/05/24		ADDENDUM 3
#	REVISIONS		

DRAWN: DG	CHECKED: MS/FR
DATE: 11/23/22	SCALE:
PROJECT NUMBER: 2110000	

COREBRACE BRB DETAILS

DRAWING NUMBER: **S0.11**

CB-ID	Section	Line	Grids	Lvls	Mark	Qty	L_b	Casing L_c	$Shape$	Profile	H_c	W_c	t_c	W_L	W_1	L_{SL}	x_L	L_{Lg}	a	c	L_{Lc}	t_L	D_{wLg}	D_{wL}	$L_{WL\text{-}i}$	n_i	n_o	g	s	e	b_r	L_{ysc}	L''_{ysc}	W_{sc}	t_{sc}	A_{sc}	K_{eff}	K_f	P_{ysc}	β	ω	F_{ysc} Min	F_{ysc} Max	CB Wt
#	#		#	#	#	#	in	in	t or p		in	in	in	in	in	in	in	in	in	in	in	in	#	#	in	#	#	in	in	in	in	in	in	in	in	in^2	K/in	(K_{eff}/K_{Lwp})	kip			ksi	ksi	lb
CB-2.00	D	9.9	C-D	2	1901	1	255 14/16	222.81	t	□	8	8	0.2500	7.13	3.61	22.27	2.63	9.27	4.00	3.00	8.63	0.50	3.00	3.00	2.63	2	0	0.00	5.00	1.63	0.91	206.05	206.05	4.000	0.50	2.00	259	1.26	76	1.11	1.33	38	46	1735
CB-2.00	D	9.9	D-E	2	1902	1	268 12/16	235.75	t	□	8	8	0.2500	7.13	3.61	22.27	2.63	9.27	4.00	3.00	8.63	0.50	3.00	3.00	2.63	2	0	0.00	5.00	1.63	0.91	218.95	218.95	4.000	0.50	2.00	244	1.25	76	1.11	1.33	38	46	1828
CB-2.00	D	9.9	C-D	1	1903	1	232 6/16	199.31	t	□	8	8	0.2500	7.13	3.61	22.27	2.63	9.27	4.00	3.00	8.63	0.50	3.00	3.00	2.63	2	0	0.00	5.00	1.63	0.91	182.56	182.56	4.000	0.50	2.00	287	1.33	76	1.12	1.35	38	46	1565
CB-2.00	D	9.9	D-E	1	1904	1	247 2/16	214.06	t	□	8	8	0.2500	7.13	3.61	22.27	2.63	9.27	4.00	3.00	8.63	0.50	3.00	3.00	2.63	2	0	0.00	5.00	1.63	0.91	197.29	197.29	4.000	0.50	2.00	268	1.31	76	1.12	1.34	38	46	1672
CB-2.00	C	7.1	D-E	2	1905	1	268 12/16	235.75	t	□	8	8	0.2500	7.13	3.61	22.27	2.63	9.27	4.00	3.00	8.63	0.50	3.00	3.00	2.63	2	0	0.00	5.00	1.63	0.91	218.95	218.95	4.000	0.50	2.00	244	1.25	76	1.11	1.33	38	46	1828
CB-2.00	C	7.1	C-D	2	1901	1	255 14/16	222.81	t	□	8	8	0.2500	7.13	3.61	22.27	2.63	9.27	4.00	3.00	8.63	0.50	3.00	3.00	2.63	2	0	0.00	5.00	1.63	0.91	206.05	206.05	4.000	0.50	2.00	259	1.26	76	1.11	1.33	38	46	1735
CB-2.00	C	7.1	D-E	1	1906	1	246 8/16	213.44	t	□	8	8	0.2500	7.13	3.61	22.27	2.63	9.27	4.00	3.00	8.63	0.50	3.00	3.00	2.63	2	0	0.00	5.00	1.63	0.91	196.69	196.69	4.000	0.50	2.00	268	1.32	76	1.12	1.34	38	46	1667
CB-2.00	C	7.1	C-D	1	1907	1	231 13/16	198.75	t	□	8	8	0.2500	7.13	3.61	22.27	2.63	9.27	4.00	3.00	8.63	0.50	3.00	3.00	2.63	2	0	0.00	5.00	1.63	0.91	181.99	181.99	4.000	0.50	2.00	288	1.34	76	1.12	1.35	38	46	1561
						8																																						

Sum: 13,591 lbs
Max: 1,828 lbs

Table of Symbols

L_b = Length of CB tip to tip
L_c = Length of casing
Casing = Size & type of casing
Type = t = tube (square/rect) and p = pipe (round)
W_L = Width of Lug
W_1 = Width at Reduced Section of Lug
L_{SL} = Total Length of Lug minus Transition (xL) 3

x_L = Length from start of lug transition to end of lug transition
L_{Lg} = Length of Lap on Gusset
a = Gap between core and gusset
c = Core extension length out of casing
L_{Lc} = Length of Lug within Casing (incl. xL)
t_L = Thickness of lug
D_{wLg} = Size of weld at lug to core at bolt pattern # 1/16ths
D_{wL} = Size of weld at lug to core beyond bolt pattern # 1/16ths
$L_{WL\text{-}i}$ = Weld length required at inside face of lug

n_i = Number of bolts in inner row
n_o = Number of bolts in outer row
g = Gauge between outer & inner bolt rows
s = Bolt Spacing
e = Typical bolt edge distance
b_r = Distance to start of radius from first outermost bolt. (If negative it is towards end of CB from bolt.)
L_{ysc} = Length of yielding core w/out allowance for Cntr Stiffener

L''_{ysc} = Yield length of core - Yielding Portion Only
W_{sc} = Width of core at yield section
t_{sc} = Thickness of core
A_{sc} = Cross sectional area of core at yield section
K_{eff} = Effective Stiffness of BRB from WP to WP
K_f = Axial Stiffness Adjustment Factor
P_{ysc} = Yield force of CB (A_{sc} x F_{ysc}_min)
F_{ysc} = Specified yield stress range of core plate

β = Compression stregth adjustment factor
ω = Strain hardening adjustment factor

B2022-11-16 - Nogales HS Addition
Shaded Cells Have Changed Since 6/26/2023

COREBRACE SCHEDULE (1)

CB-ID	Section	Line	Grids	Lvls	Mark	Qty	W_{WP}	H_{WP}	L_{bh}	$L_{wp\text{-}h}$	Hole Pattern Information n_i	n_o	e	s	g_i	g_o	d_{hg}	Gusset t_g	$F_{y,g\&r}$	Lug W_L	t_L	t_s	L_{Lg}	$W_{L\text{-}Alt}$
#	#		#	#	#	#	in	in	in	in	#	#	in	in	in	in	in	in	ksi	in	in	in	in	in
CB-2.00	D	9.9	C-D	2	1901	1	192	207 8/16	250 9/16	17 9/16	2	0	1 10/16	5.00	1 15/16	0	1 7/16	5/8	50	7 1/8	1/2	1/2	9 4/16	7/16
CB-2.00	D	9.9	D-E	2	1902	1	213	207 8/16	263 8/16	18 8/16	2	0	1 10/16	5.00	1 15/16	0	1 7/16	5/8	50	7 1/8	1/2	1/2	9 4/16	7/16
CB-2.00	D	9.9	C-D	1	1903	1	192	188 4/16	227 1/16	17 2/16	2	0	1 10/16	5.00	1 15/16	0	1 7/16	5/8	50	7 1/8	1/2	1/2	9 4/16	7/16
CB-2.00	D	9.9	D-E	1	1904	1	213	188 4/16	241 13/16	16 4/16	2	0	1 10/16	5.00	1 15/16	0	1 7/16	5/8	50	7 1/8	1/2	1/2	9 4/16	7/16
CB-2.00	C	7.1	D-E	2	1905	1	213	208	263 8/16	18 8/16	2	0	1 10/16	5.00	1 15/16	0	1 7/16	5/8	50	7 1/8	1/2	1/2	9 4/16	7/16
CB-2.00	C	7.1	C-D	2	1901	1	192	208	250 9/16	17 9/16	2	0	1 10/16	5.00	1 15/16	0	1 7/16	5/8	50	7 1/8	1/2	1/2	9 4/16	7/16
CB-2.00	C	7.1	D-E	1	1906	1	213	188 12/16	241 3/16	17 3/16	2	0	1 10/16	5.00	1 15/16	0	1 7/16	5/8	50	7 1/8	1/2	1/2	9 4/16	7/16
CB-2.00	C	7.1	C-D	1	1907	1	192	188 12/16	226 8/16	18 2/16	2	0	1 10/16	5.00	1 15/16	0	1 7/16	5/8	50	7 1/8	1/2	1/2	9 4/16	7/16

Mark	Bolt Size, Length & Quantities d_b	G	L'	La	2.75"	3.00"	3.25"	3.50"	3.75"	4.00"	4.25"
#	in	in	in	in	Qty	Qty	Qty	Qty	Qty	Qty	Qty
1901	1 1/8	1.69	3.365	**3 1/2**	-	-	-	8	-	-	-
1902	1 1/8	1.69	3.365	**3 1/2**	-	-	-	8	-	-	-
1903	1 1/8	1.69	3.365	**3 1/2**	-	-	-	8	-	-	-
1904	1 1/8	1.69	3.365	**3 1/2**	-	-	-	8	-	-	-
1905	1 1/8	1.69	3.365	**3 1/2**	-	-	-	8	-	-	-
1901	1 1/8	1.69	3.365	**3 1/2**	-	-	-	8	-	-	-
1906	1 1/8	1.69	3.365	**3 1/2**	-	-	-	8	-	-	-
1907	1 1/8	1.69	3.365	**3 1/2**	-	-	-	8	-	-	-
					0	0	0	64	0	0	0

Mark	BOTTOM OF BRACE CONNECTION Bm/Col Flange Bot W_b	L_{wb}	W_c	L_{wc}	L_{gb}	L_{gc}	TOP OF BRACE CONNECTION Bm/Col Flange Top W_b	L_{wb}	W_c	L_{wc}	Ext	L_{gb}	L_{gc}
#	in	in	in	in	in	in	in	in	in	in	?	in	in
1901	1/4	9	5/16	5	15	12	5/16	7	5/16	5	no	13	12
1902	1/4	10	5/16	5	17	12	1/4	8	1/4	5	no	14	12
1903	1/4	7	1/4	14	16	21	1/4	15	1/4	10	yes	21	16
1904	1/4	7	1/4	13	16	20	1/4	16	1/4	10	yes	23	16
1905	1/4	10	5/16	5	17	12	1/4	8	1/4	5	no	15	13
1901	1/4	9	5/16	5	15	12	1/4	7	5/16	5	no	13	13
1906	1/4	7	1/4	13	16	20	1/4	16	1/4	10	yes	23	16
1907	1/4	7	1/4	14	16	21	1/4	15	1/4	10	yes	20	16

Mark	Required Stiff or Continuity Plate — Bottom End of Brace: Beam Main	Beam at z (x2)	Col Main	Gusset Edges Thick	Gusset Edges Width	Top End of Brace: Beam Main	Beam at z (x2)	Col Main	Gusset Edges Thick	Gusset Edges Width	CB Wt	Total CB Wt
#											lb	lb
1901	-	-	-	-	-	-	-	-	-	-	1735	1735
1902	-	-	-	-	-	-	-	-	-	-	1828	1828
1903	-	-	-	-	-	-	-	-	-	-	1565	1565
1904	-	-	-	-	-	-	-	-	-	-	1672	1672
1905	-	-	-	-	-	-	-	-	-	-	1828	1828
1901	-	-	-	-	-	-	-	-	-	-	1735	1735
1906	-	-	-	-	-	-	-	-	-	-	1667	1667
1907	-	-	-	-	-	-	-	-	-	-	1561	1561
												13,591 lbs
												6.80 Ton

Table of Symbols

W_{WP} = Width of frame bay workpoint (WP) to WP
H_{WP} = Height of frame bay WP to WP
L_{bh} = Length of CoreBrace between outermost holes
$L_{wp\text{-}h}$ = Length from bottom WP to center of bottom bolt hole
n_i = Number of bolts in inner row
n_o = Number of bolts in outer row 3

e = Typical bolt edge distance
s = Bolt spacing in a row
g_i = Gauge inner bolt row from CL of CB
g_o = Gauge between inner and outer bolt rows
d_{hg} = Diameter of bolt hole in gusset plate
t_g = Thickness of gusset

t_{rg} = Thickness of repad on gusst
W_{rg} = Weld size at repad to gusset
$F_{y,g\&r}$ = Gusset & repad A572 grade
t_L = Thickness of Lug
t_s = Thickness of Stiffener on Lug

L_{Lg} = Expected Lap of Lug on Gusset (as Check Only)
$W_{L\text{-}Alt}$ = Alternate continuous weld at lug to gusset
d_b = Bolt diameter (ASTM F3125 GrA490/F2280 SC OR ASTM F3148 TNA WITH CLASS A FAYING SURFACE)
G = Grip of bolt
L' = Length of bolt needed with F436 washer only
La = Suggested length of bolt to order, detailer to verify

W_b = Minimum size of gusset weld to beam
L_{wb} = Minimum length of beam weld
W_c = Minimum size of gusset weld to column
L_{wc} = Minimum length of column weld

L_{gb} = Approximate overall width of gusset rounded up to nearest inch (At V or Chev, equal to 1/2 gusset width) **NOT USED FOR DETAILING**
L_{gc} = Approximate overall height of gusset rounded up to nearest inch **NOT USED FOR DETAILING**
Ext = If yes, see "extended" gusset detail

Note: May Dbl Count Stiffeners.
Indicated Thickness Each Side of Column. Weld Stiffeners to Flange
Web & Gusset with 5/16" fillet welds for t ≤ 1.25", 7/16" for t ≤ 2.0", UNO
CP = Cont Plate & Guss Support Plate
"Main" Stiffener is located at gusset Free Edge in Bm or Col for Std Conn
"Main" Stiffener is located cntrd above gusset in Bm for V/Chev
Stiffener "at z" is centered in "z" region in Bm each end of V/Chev (on both sides of beam - 4x total).
All Stiffeners both sides of Bm or Col
Gusset Edges - See details for configuration.

B2022-11-16 - Nogales HS Addition
Shaded Cells Have Changed Since 6/26/2023

CONNECTION SCHEDULE (2)

COREBRACE
5789 W. Wells Park Rd.
West Jordan, Utah 84081
(801) 280-0701

PBK
RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL NEW BUILDING & AQUATIC CENTER
ROWLAND UNIFIED SCHOOL DISTRICT
401 NOGALES ST, LA PUENTE, CA 91744

LICENSED PROFESSIONAL ENGINEER JOSEPH D. CRILEY S 5974 STRUCTURAL 3/4/24 STATE OF CALIFORNIA
EXP 12/2024

LICENSED ARCHITECT ROBERT LAVEY C-28020 01-31-25 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER Frank J. Rice No. S5377 Exp. 09/30/23 STRUCTURAL STATE OF CALIFORNIA

CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA 91762
MI2228039.00
T: (415) 767-4261
miyamotointernational.com

COREBRACE
BRACE AND GUSSET
CONNECTION SCHEDULES

NO	DATE	BY	DESCRIPTION
3	03/05/24		ADDENDUM 3
#	REVISIONS		

DRAWN: DG	CHECKED: MS/FR
DATE: 11/23/22	SCALE:
PROJECT NUMBER: 2110000	

COREBRACE BRB SCHEDULE

DRAWING NUMBER: **S0.12**

3/5/2024 8:31:56 AM
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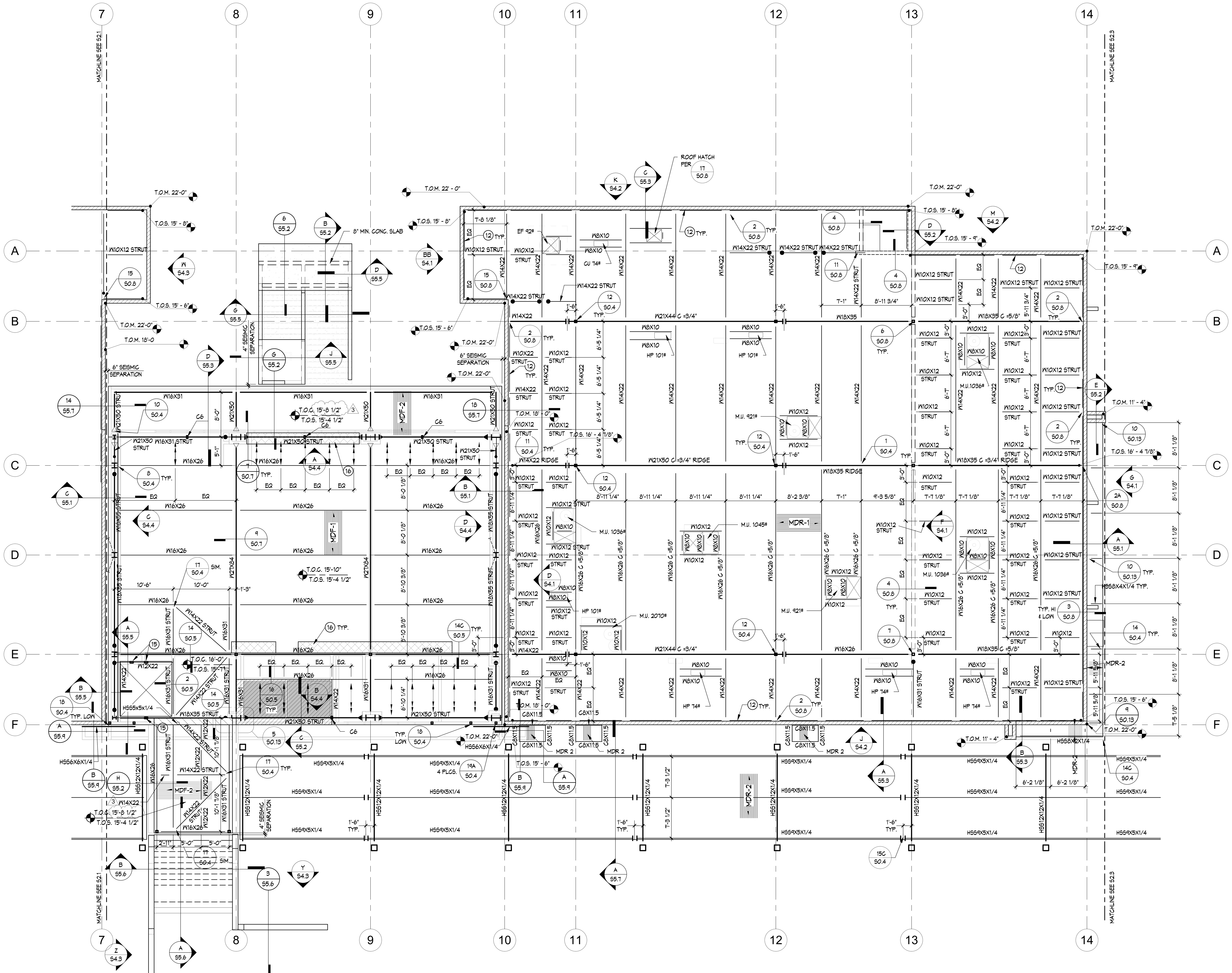

ROOF AND SECOND FLOOR FRAMING PLAN - AREA B

1/8" = 1'-0"

ROOF FRAMING NOTES

1. MDR-1:
   1 1/2" x 18 GA. GALVANIZED VERCO TYPE PLB-36 DECK (IAPMO ER #2018) w/ 3/4" Φ (VISIBLE, 1/2"Φ EFFECTIVE) @ 12" O.C. AT ALL SUPPORTS PARALLEL TO CORRUGATIONS AND 3/4" Φ (VISIBLE, 1/2"Φ EFFECTIVE) AT EACH LOW CORRUGATION PERPENDICULAR TO SUPPORTS. ATTACH SEAMS w/ PUNCHLOCK (V.S.C. II) @ 18" o.c. THRU OUT U.N.O., DECK SHALL BE CONTINUOUS OVER 2 OR MORE SPANS. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INSULATING REQUIREMENTS. FOR PROFILE SEE 3/S0.5

   MDR-2:
   1 1/2" x 18 GA. GALVANIZED HSB-SS-36 ROOF DECK BY VERCO MANUFACTURING CO. (IAPMO ER #2018) W/ No. 12-24 x 7/8" LG. TEKS 4 HEKS WASHER HEAD WITH NEOPRENE WASHERS @ 6" O.C. EA. BEARING, STAGGER BOTH SIDES OF BEAM. ATTACH SIDE LAPS WITH No. 12-24 x E/4" LG. TEKS 1 HEX WASHER HEAD WITH NEOPRENE WASHERS @ 24" O.C. (ICC-ES-ESR-3056)

2. CONTRACTOR AND MECHANICAL CONTRACTOR SHALL PROVIDE ALL DIMENSIONS FOR THE MECHANICAL EQUIPMENT SUPPORT MEMBERS AND PENETRATIONS TO THE STRUCTURAL STEEL FABRICATOR PRIOR TO THE SHOP DRAWING PHASE. VERIFY ANY DIMENSIONS SHOWN IN THE DRAWINGS.
3. FOR MECHANICAL UNIT FRAMING (# DENOTES MECH'L UNIT WEIGHT) SEE DETAILS 1/S0.7, 2/S0.7, 11/S0.7
4. ALL PENETRATIONS THRU ROOF DECK 24" AND SMALLER SHALL BE FRAMED PER 13/S0.8 U.N.O. ON PLANS.
5. DESIGNATION ON PLANS INDICATES NON-SEISMIC DRAG/MOMENT CONNECTION TO COLUMN FLANGE PER 10/S0.4
6. DESIGNATION ON PLANS INDICATES NON-SEISMIC DRAG/MOMENT CONNECTION TO COLUMN WEB PER 11/S0.4
7. DENOTES NON SEISMIC MOMENT BEAM TO BEAM CONNECTION PER 9/S0.4
8. COORDINATE ALL TOP OF STEEL ELEVATIONS (T.O.S.) WITH ARCHITECTURAL ELEVATIONS.
9. DENOTES DRAG CONNECTION PER 1/S0.4, 6A/S0.4, 7/S0.4, 8/S0.4
10. DENOTES SEISMIC MOMENT CONNECTION PER 4/S0.9
11. DENOTES BOTTOM FLANGE BEAM BRACING PER DETAIL 8/S0.9
12. LEDGER PER 3/S0.8, TYP.
13. PROVIDE 3/4"Φ (VISIBLE, 1/2"Φ EFFECTIVE) PUDDLE WELD @ 8" O.C. MAX. TO ALL MEMBERS NOTED AS STRUT.

SECOND FLOOR FRAMING NOTES

1. TYPICAL AT FLOORS UNLESS NOTED OTHERWISE:

   MDF-1
   2 1/2" LT. WT. CONCRETE SLAB w/ #4 @ 18" o.c. U.N.O. EACH WAY CENTERED IN SLAB OVER 3" x 18 GA. W3 FORMLOK (GALVANIZED) DECK BY VERCO MANUFACTURING CO., 5 1/2" TOTAL THICKNESS (IAPMO ER #2018) SEE 4/S0.5 DECK SHALL BE CONTINUOUS OVER 2 OR MORE SUPPORTS.

   MDF-2
   2 1/2" LT. WT. CONCRETE SLAB w/ #4 @ 18" o.c. U.N.O. EACH WAY CENTERED IN SLAB OVER 1 1/2" x 18 GA. B FORMLOK (GALVANIZED) DECK (VENTED) BY VERCO MANUFACTURING CO., 4" TOTAL THICKNESS (IAPMO ER #2018) SEE 4/S0.5 DECK SHALL BE CONTINUOUS OVER 2 OR MORE SUPPORTS.

2. FLOOR DECK SHALL BE ATTACHED WITH HEADED STUD ANCHORS AND 3/4" Φ (VISIBLE, 1/2"Φ EFFECTIVE) PUDDLE WELDS. SPACE H.S.A. AS SPECIFIED ON PLANS AND DETAIL 10/S0.5 MAXIMUM SPACING OF H.S.A. SHALL BE 12" o.c. (TYP. ALL BEAMS AND GIRDERS U.N.O.) H.S.A. MAY BE USED AS DIRECT REPLACEMENT FOR PUDDLE WELDS, BUTTON PUNCH SEAMS @ 36" o.c. MAX.
3. ALL FLOOR BEAMS SHALL RECEIVE HEADED STUD ANCHORS PER DET. 10/S0.5
4. TYPICAL PIPE OR DUCT THROUGH FLOOR PER 15/S0.5
5. DESIGNATION ON PLANS INDICATES NON-SEISMIC DRAG/MOMENT CONNECTION TO COLUMN FLANGE PER 10/S0.4
6. DESIGNATION ON PLANS INDICATES NON-SEISMIC DRAG/MOMENT CONNECTION TO COLUMN WEB PER 11/S0.4
7. DENOTES NON SEISMIC MOMENT BEAM TO BEAM CONNECTION PER 9/S0.4
8. COORDINATE ALL TOP OF STEEL ELEVATIONS (T.O.S.) WITH ARCHITECTURAL ELEVATIONS.
9. DENOTES DRAG CONNECTION PER 1/S0.4, 6/S0.4, 7/S0.4, 8/S0.4
10. DENOTES SEISMIC MOMENT CONNECTION PER 4/S0.9
11. DENOTES BOTTOM FLANGE BEAM BRACING PER DETAIL 8/S0.9
12. SHADED AREA INDICATES EXTENTS OF SLAB DEPRESSION PER PLAN. VERIFY WITH ARCH'L. DRAWINGS.
13. HATCHED AREA INDICATES EXTENT OF B FORMLOK: 2 1/2" LT.WT. CONCRET SLAB W/ #4 @18" O.C. U.N.O. EA. WAY CENTERED IN SLAB OVER 1 1/2" x 18 GA. B FORMLOK (GALVANIZED DECK (VENTED) BY VERCO MANUFACTURING CO. 3 1/2" TOTAL THICKNESS (IAPMO ER-2018) SEE DETAIL 4/S0.5
15. ELEVATOR GUIDERAIL SUPPORT PER 14/S0.3
16. CROSS HATCHED AREA INDICATES EXTENT OF CONCRTE PAD PER 3/S0.7
17. HATCHED AREA INDICATES EXTENTS OF ADDITIONAL 3" LT. WT. CONC. FILL OVER FLOOR DECK TYPE MDF-2 PER NOTE No.1 FOR A TOTAL FLOOR SLAB THICKNESS OF 8". ADDITIONAL REINFORCEMENT CONSIST OF #4 @ 18" O.C. EA. WAY CENTERED IN ADDED SLAB THICKNESS.

PBK
RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

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CONSULTANT
miyamoto.
1047 West Sixth Street, Suite A
Ontario, CA 91762
MI2228039.00
T: (415) 767-4261
miyamotointernational.com

NO	DATE	BY	DESCRIPTION
1	01/25/24		ADDENDUM 1
2	02/19/24		ADDENDUM 2
3	03/05/24		ADDENDUM 3

REVISIONS

DRAWN: DG	CHECKED: MS/FR
DATE: 06/08/22	SCALE: As indicated
PROJECT NUMBER: 2110000	

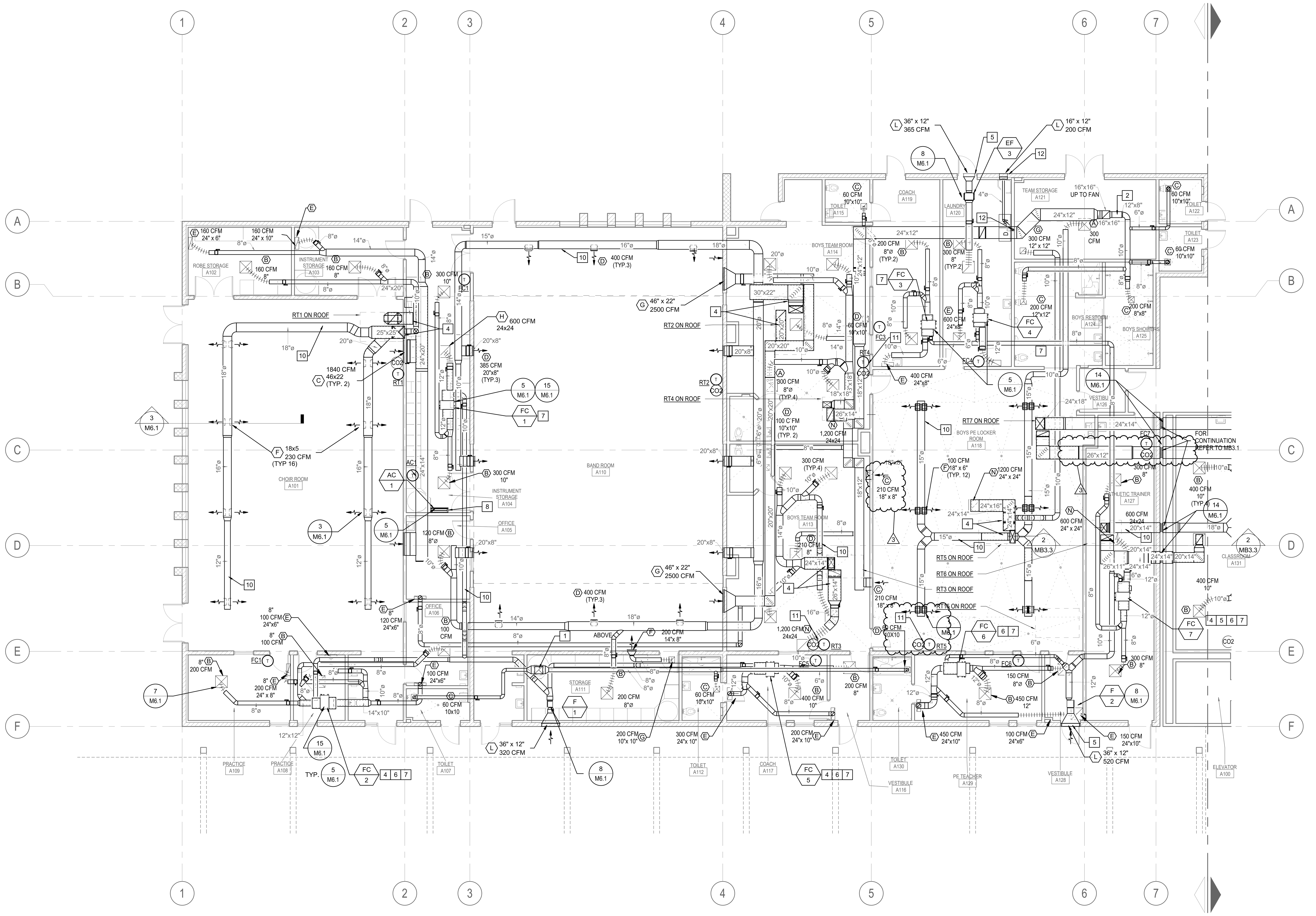
ROOF & SECOND FLOOR FRAMING PLAN - AREA B

DRAWING NUMBER: S2.2

KEY NOTES

1. 10x10 UP TO EF-1 ON ROOF.
2. 12x12 UP TO EF-2 ON ROOF.
3. TYPICAL DUCT WITH 2" INTERNAL INSULATION. SHALL INCLUDE VERTICAL DUCT PLENUMS, & FITTINGS FROM RT UNITS TO LOCATIONS SHOWN ON PLANS.
4. REFER TO FAN COIL SCHEDULES FOR OA WHEN BALANCING (TYP ALL FAN COILS).
5. LOUVER CENTERED ABOVE DOORS AT 14'-0" TO THE TOPSIDE OF THE LOUVER FROM FLOOR LEVEL..
6. PROVIDE REFRIGERANT PIPING TO HP's ABOVE MANUFACTURERS RECOMMENDATIONS. (TYP)
7. INSTALL FAN COIL WITH CLEARANCE AS PER MANUFACTURER. (TYP)
8. AC-1 FOR IT ROOM.
9. AC-2 FOR IT ROOM
10. ALL DUCTS SHALL BE SUPPORTED AS SHOWN ON DETAILS 2.38 AND 2.50 ON SHEET M6.4. (TYPICAL)
11. PROVIDE COVERS FOR THERMOSTATS IN LOCKER ROOMS.
12. PROVIDE DRYER VENTING BOX MODEL DEFLECGO DVBOX 17.38 x 11.5 x 4.5 IN WALL AT 54" AFF TO TOP OF BOX. RUN 4" DRYER DUCT FROM VENTING BOX TO LOUVER AT 14'-0" FROM FLOOR TO TOP OF LOUVER. DRYER DUCT SHALL BE 4" DIAMETER ALUMINUM DUCT LAPPED IN THE DIRECTION OF AIRFLOW AND SECURED WITHOUT SCREWS PENETRATING INSIDE THE DUCT.

3



FIRST FLOOR PLAN - AREA A 1/8" = 1'-0" 1

GENERAL NOTES

1. ALL DUCTS SHALL BE SUPPORTED AND BRACED AS SHOWN ON DETAILS 2.38 AND 2.50 ON SHEET M6.4 AND STRUCTURAL DETAILS 8, 12 & 14 ON S0.7. (TYPICAL)
2. PROVIDE 2" INTERNAL DUCT INSULATION ON ALL DUCTS WHERE SHOWN INSIDE THE BUILDING. PROVIDE 2" INTERNAL DUCT INSULATION ON ALL DUCTS LOCATED OUTSIDE OF THE BUILDING ENVELOPE. EXTERNAL INSULATION IS NOT REQUIRED ON ANY SECTION OF DUCT WITH INTERNAL INSULATION.
3. ALL DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS.
4. WHERE NOT SPECIFICALLY INDICATED REFER TO SPECIFICATIONS FOR INSULATION REQUIREMENTS.

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8163 Rochestser Avenue, Suite 100
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LICENSED ARCHITECT ROBERT LAVEY C-28020 01-31-25 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M36155 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

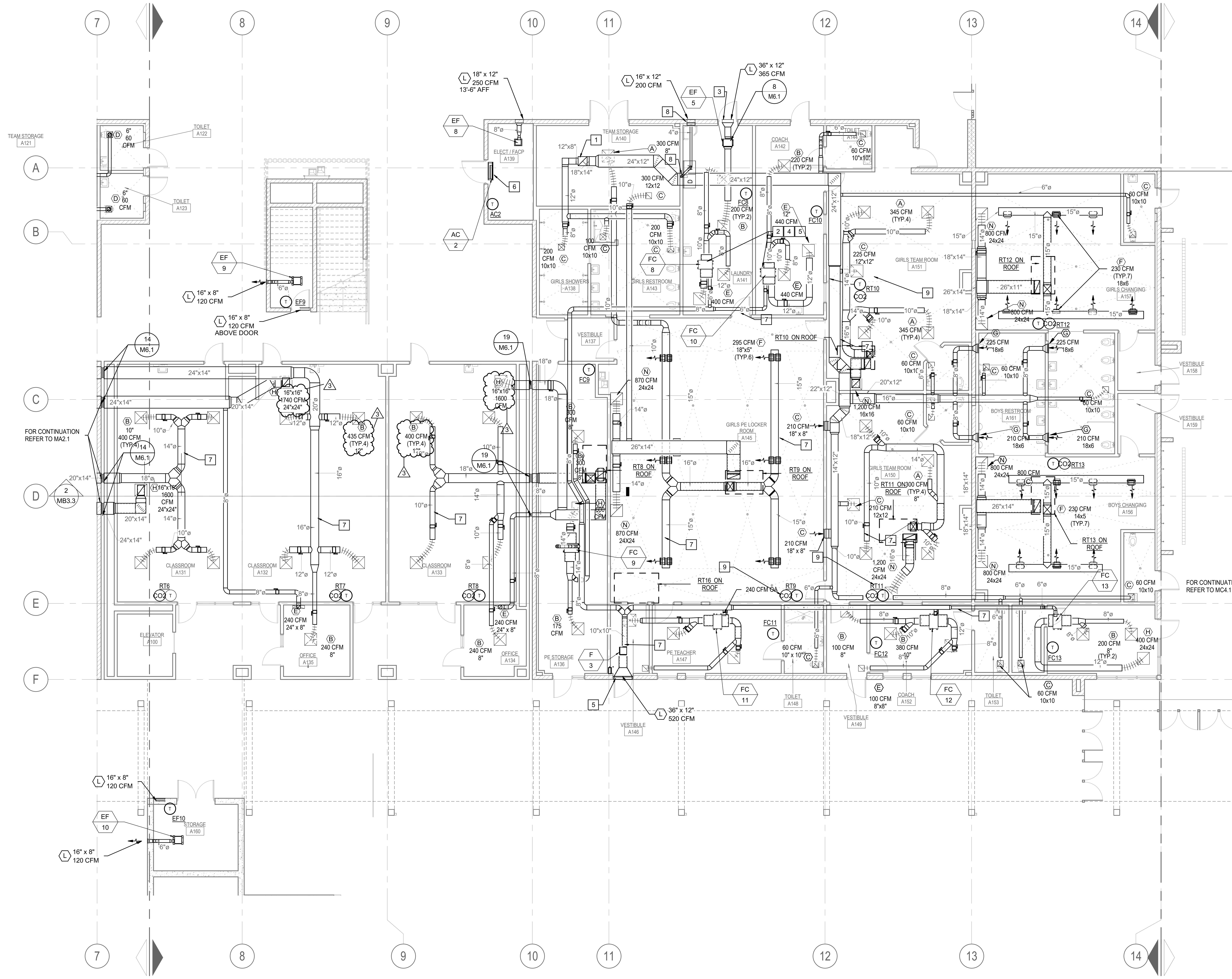
CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

NO	DATE	BY	DESCRIPTION
1	01/25/24	PBK	ADDENDUM 1
2	03/05/24	PBK	ADDENDUM 2
3	02/27/24	PBK	ADDENDUM 3
#	REVISIONS		

DRAWN: JM	CHECKED: RW
DATE: 12-02-2022	SCALE: 1/8" = 1'-0"
PROJECT NUMBER: 2110000	

MECHANICAL FIRST FLOOR PLAN - AREA A

DRAWING NUMBER: MA2.1



FIRST FLOOR PLAN - AREA B 1/8" = 1'-0" 1

KEY NOTES

1. 12x12 UP TO EF-4 ON ROOF.
2. REFER TO FAN COIL & SCHEDULES FOR OA WHEN BALANCING (TYP ALL FAN COILS).
3. LOUVER CENTERED OVER DOOR OPENINGS.
4. PROVIDE REFRIGERANT PIPING TO HP's PER MANUFACTURERS RECOMMENDATIONS. (TYP)
5. INSTALL FAN COIL WITH CLEARANCE AS PER MANUFACTURER. (TYP)
6. AC-2 FOR FUTURE IT ROOM
7. ALL DUCTS SHALL BE SUPPORTED AS SHOWN ON DETAILS ON SHEET M6.4 AND STRUCTURAL DETAILS 8 AND 12 ON S0.7. (TYPICAL)
8. PROVIDE DRYER VENTING BOX MODEL DEFLECGO DVBOX 17.38 x 11.5 x 4.5 IN WALL AT 54" AFF TO TOP OF BOX. RUN 4" DRYER DUCT FROM VENTING BOX TO LOUVER AT 14'-0" FROM FLOOR TO TOP OF LOUVER. DRYER DUCT SHALL BE 4" DIAMETER ALUMINUM DUCT LAPPED IN THE DIRECTION OF AIRFLOW AND SECURED WITHOUT SCREWS PENETRATING INSIDE THE DUCT.
9. PROVIDE COVERS FOR THERMOSTATS IN LOCKER ROOMS.

3

GENERAL NOTES

1. REFER TO DETAILS 2.37 ON M6.4 AND 8, 12 & 14 ON S0.7 FOR DUCT SUPPORTS.
2. PROVIDE 2" INTERNAL DUCT INSULATION ON ALL SUPPLY AIR DUCTS WHERE SHOWN INSIDE THE BUILDING. PROVIDE 2" INTERNAL DUCT INSULATION ON ALL SUPPLY, AND RETURN DUCTS WHERE DUCTS ARE LOCATED OUTSIDE OF THE BUILDING ENVELOPE.
3. PROVIDE 2" INTERNAL DUCT INSULATION ON ALL RETURN AND EXHAUST DUCTS WHERE SHOWN INSIDE THE BUILDING ENVELOPE.
4. ALL DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS.
5. WHERE NOT SPECIFICALLY INDICATED REFER TO SPECIFICATIONS FOR INSULATION REQUIREMENTS.

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LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

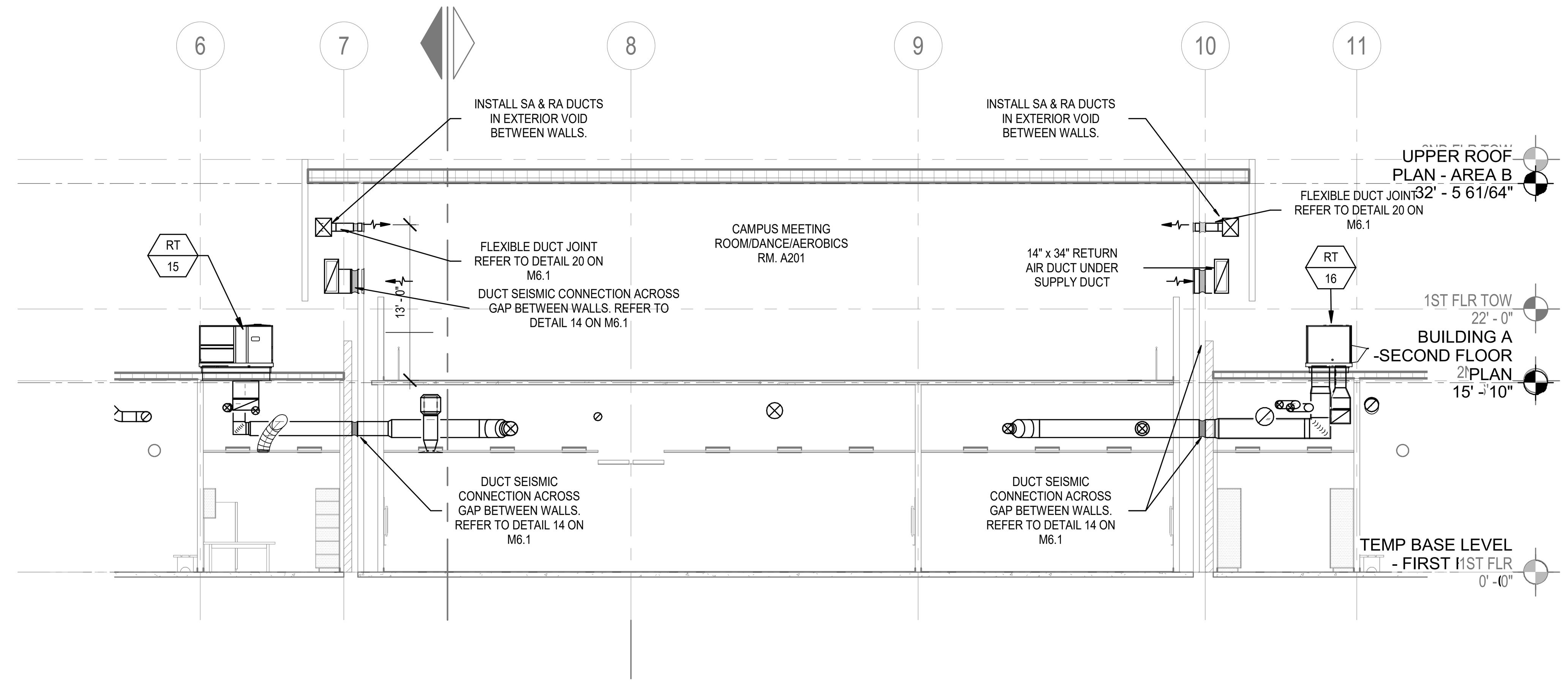
NO	DATE	BY	DESCRIPTION
1	01/25/24	PBK	ADDENDUM 1
2	03/05/24	PBK	ADDENDUM 2
3	02/27/24	PBK	ADDENDUM 3

REVISIONS

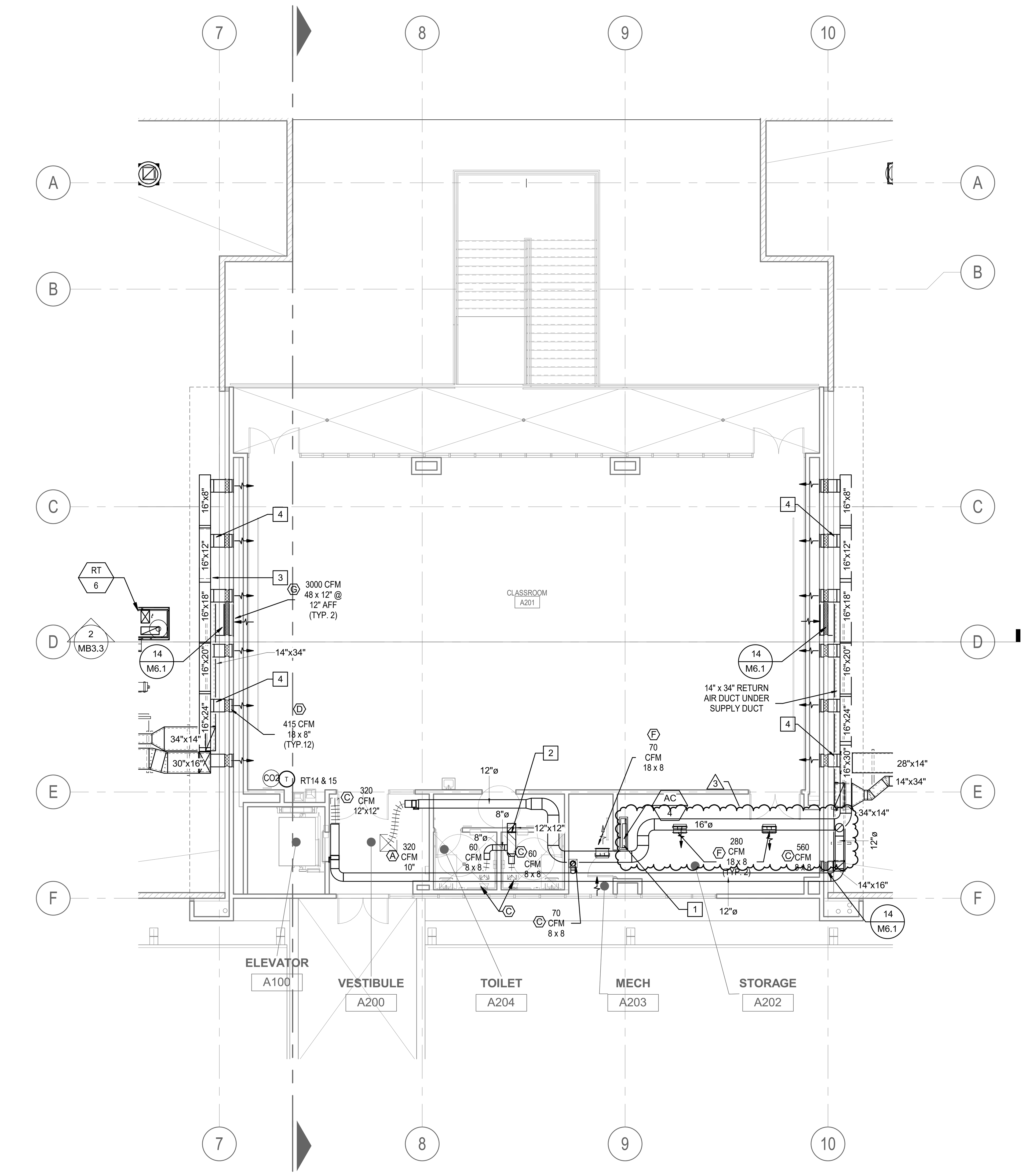
DRAWN: JM CHECKED: RW
DATE: 12-02-2022 SCALE: 1/8" = 1'-0"
PROJECT NUMBER: 2110000

MECHANICAL FIRST FLOOR PLAN - AREA B

DRAWING NUMBER: MB3.1



2 SECTION THROUGH DANCE, AEROBICS ROOM A201
1/8" = 1'-0"



SECOND FLOOR PLAN - AREA B 1/8" = 1'-0" 1

KEY NOTES

1. AC-4 FOR IT ROOM. MOUNT ON WALL AT 10 FT. TO MIDPOINT ABOVE FLOOR LEVEL. REFER TO DETAIL 5 ON M6.2.
2. 12x12 UP TO EF-7 ON ROOF.
3. ALL DUCTS SHALL BE SUPPORTED AS SHOWN IN DETAILS ON SHEET M6.4 AND STRUCTURAL DETAILS 8 AND 12 ON S0.7. (TYPICAL)
4. FLEXI BLE DUCT CONNECTION. REFER TO DETAIL 20 ON M6.1.

GENERAL NOTES

1. REFER TO DETAILS 2.37 ON M6.4 AND 8, 12 & 14 ON S0.7 FOR DUCT SUPPORTS.
2. PROVIDE 2" INTERNAL DUCT INSULATION ON ALL SUPPLY AIR DUCTS WHERE SHOWN INSIDE THE BUILDING. PROVIDE 2" INTERNAL DUCT INSULATION ON ALL SUPPLY, AND RETURN DUCTS WHERE DUCTS ARE LOCATED OUTSIDE OF THE BUILDING ENVELOPE.
3. PROVIDE 2" INTERNAL DUCT INSULATION ON ALL RETURN AND EXHAUST DUCTS WHERE SHOWN INSIDE THE BUILDING ENVELOPE.
4. ALL DUCT SIZES SHOWN ARE CLEAR INSIDE DIMENSIONS.
5. WHERE NOT SPECIFICALLY INDICATED REFER TO SPECIFICATIONS FOR INSULATION REQUIREMENTS.

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NO	DATE	BY	DESCRIPTION
1	01/25/24	PBK	ADDENDUM 1
3	03/05/24	PBK	ADDENDUM 3

REVISIONS

DRAWN: JM CHECKED: RW
DATE: 12-02-2022 SCALE: 1/8" = 1'-0"
PROJECT NUMBER: 2110000

MECHANICAL SECOND FLOOR PLAN - AREA B

DRAWING NUMBER: **MB3.3**

PACKAGED ROOFTOP HEAT PUMP UNIT SCHEDULE

UNIT	MANUFACTURER & MODEL NO.	CFM	ESP (IN. WG)	AREA SERVED	NOMINAL COOLING TONS	EDB TEMP °F	EWB TEMP °F	LDB TEMP °F	LWB TEMP °F	ENT. COND. TEMP. (°F) SUMMER DB	SUMMER WB	WINTER DB/WB	EER/ SEER	IEER	HEATING CAPACITIES (MBH) TOTAL @ 47 F	TOTAL @ 17 F	COP HIGH TEMP.	COP LOW TEMP.	HSPF
RT 1	CARRIER 50FCQ12	4000	1.0	CHOIR ROOM A101	10.0	83.5	66.6	58.3	56.8	96.3	68.8	39.2/32.6	11.0/ NA	15.0	115.0	66.0	3.4	2.25	NA
RT 2	CARRIER 50FCQ14	5000	1.0	BAND ROOM A110	12.5	80.0	67.0	60.4	57.9	98.0	69.0	39.2/32.6	10.6/ NA	15.0	132.0	82.0	3.3	2.3	NA
RT 3	CARRIER 50GCQ04	1200	0.75	TEAM ROOM A113	3.0	83.0	67.1	59.4	57.8	96.3	69.0	39.2/32.6	16.2/ NA	NA	34.0	17.0	3.8	2.4	8.3
RT 4	CARRIER 50GCQ04	1200	0.75	TEAM ROOM A114	3.0	83.0	67.1	59.4	57.8	96.3	69.0	39.2/32.6	16.2/ NA	NA	34.0	17.0	3.8	2.4	8.3
RT 5	CARRIER 50GCQ07	2400	0.75	BOYS LOCKERS A118	6.0	84.2	67.0	57.3	57.2	97.3	68.8	39.2/32.6	11.2/ 15.0	NA	64.5	35.0	3.6	2.4	N/A
RT 6	CARRIER 50GCQ05	1600	0.75	CLASSROOM A131	4.0	84.8	67.1	59.3	57.8	98.0	69.0	39.2/32.6	16.2/ NA	NA	46.0	23.6	3.7	2.3	8.2
RT 7	CARRIER 50GCQ06	1980	0.75	CLASSROOM A132	5.0	84.0	66.8	57.5	57.1	98.0	69.0	39.2/32.6	16.2/ NA	NA	56.5	30.0	3.9	2.4	8.3
RT 8	CARRIER 50GCQ05	1600	0.75	CLASSROOM A133	4.0	84.8	67.1	59.3	57.8	98.0	69.0	39.2/32.6	16.2/ NA	NA	46.0	23.6	3.7	2.3	8.2
RT 9	CARRIER 50GCQ07	2400	0.75	GIRLS LOCKERS A145	6.0	81.3	66.9	57.2	57.2	98.0	69.0	39.2/32.6	11.2/ 15.0	NA	64.5	35.0	3.6	2.4	N/A
RT 10	CARRIER 50GCQ04	1200	0.75	TEAM ROOM A151	3.0	83.0	67.1	59.4	57.8	96.3	69.0	39.2/32.6	16.2/ NA	NA	34.0	17.0	3.8	2.4	8.3
RT 11	CARRIER 50GCQ04	1200	0.75	TEAM ROOM A150	3.0	83.0	67.1	59.4	57.8	96.3	69.0	39.2/32.6	16.2/ NA	NA	34.0	17.0	3.8	2.4	8.3
RT 12	CARRIER 50GCQ05	1600	0.75	CHANGING RM A157	4.0	84.8	67.1	59.3	57.8	98.0	69.0	39.2/32.6	16.2/ NA	NA	46.0	23.6	3.7	2.3	NA
RT 13	CARRIER 50GCQ05	1600	0.75	CHANGING RM A156	4.0	84.8	67.1	59.3	57.8	98.0	69.0	39.2/32.6	16.2/ NA	NA	46.0	23.6	3.7	2.3	8.2
RT 14	CARRIER 50GCQ04	1200	0.75	PUMP RM. A166	3.0	83.0	67.1	59.4	57.8	96.3	69.0	39.2/32.6	16.2/ NA	NA	34.0	17.0	3.8	2.4	8.3
RT 15	CARRIER 50FCQM08	3000	1.0	CAMPUS MTG, DANCE, EXERCISE A201	7.5	82.7	66.6	59.6	57.5	98.0	69.0	39.2/32.6	11.2/ ---	15.0	75.15	---	3.4	2.3	-
RT 16	CARRIER 50FCQM08	3000	1.0	CAMPUS MTG, DANCE, EXERCISE A201	7.5	82.7	66.6	59.6	57.5	98.0	69.0	39.2/32.6	11.2/ ---	15.0	75.15	---	3.4	2.3	-

UNIT	ELECTRIC HEAT NOM (KW)	ELECTRICAL DATA W/O POWERED EXHAUST MCA	MCA	FUSE OR HACR BRKR	FLA	LRA	O.S.A CFM	FILTER (INCHES) MERV 13	OPER. WT. (LBS.)	V/PHASE/HZ	REMARKS (3)	STRUCTURAL ANCHORAGE DETAILS
RT 1	15.0	18.0	55	60	56	139	1260	4 IN.	1205	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	1/M6.2, 1/M6.1, 1/S0.7
RT 2	15.0	18.0	48	50	48	152	700	4 IN.	1400	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	2/M6.2, 1/M6.1, 1/S0.7
RT 3	6.0	7.2	20	20	19	56	300	2 IN.	625	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	3/M6.2, 1/M6.1, 1/S0.7
RT 4	6.0	7.2	20	20	19	56	320	2 IN.	625	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	3/M6.2, 1/M6.1, 1/S0.7
RT 5	6.0	7.2	26	30	25	81	810	2 IN.	749	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	3/M6.2, 1/M6.1, 1/S0.7
RT 6	6.0	7.2	24	25	23	75	440	2 IN.	740	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	3/M6.2, 1/M6.1, 1/S0.7
RT 7	6.0	7.2	25	30	24	69	560	2 IN.	846	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	3/M6.2, 1/M6.1, 1/S0.7
RT 8	6.0	7.2	24	25	23	75	450	2 IN.	740	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	3/M6.2, 1/M6.1, 1/S0.7
RT 9	6.0	7.2	26	30	25	81	420	2 IN.	749	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	3/M6.2, 1/M6.1, 1/S0.7
RT 10	6.0	7.2	20	20	19	56	320	2 IN.	625	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	3/M6.2, 1/M6.1, 1/S0.7
RT 11	6.0	7.2	20	20	19	56	300	2 IN.	625	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	3/M6.2, 1/M6.1, 1/S0.7
RT 12	6.0	7.2	24	25	23	75	700	2 IN.	740	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	3/M6.2, 1/M6.1, 1/S0.7
RT 13	6.0	7.2	24	25	23	75	380	2 IN.	740	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	3/M6.2, 1/M6.1, 1/S0.7
RT 14	6.0	7.2	20	20	19	56	140	2 IN.	625	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	3/M6.2, 1/M6.1, 1/S0.7
RT 15	15.0	18.0	44	45	43	113	900	2 IN.	1028	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	4/M6.2, 1/M6.1, 1/S0.7
RT 16	15.0	18.0	44	45	43	113	900	2 IN.	1028	460/3/60	1, 2, 3, 4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15, 16	4/M6.2, 1/M6.1, 1/S0.7

UNIT	MAKE & MODEL	POWER EXHAUST CFM	HP	FLA	MCA	MOCP	V/PHASE/HZ	PWR. EXH. OPER. WT. (LBS)	ROOF CURB WEIGHT (LBS)	ROOF CURB MAKE & MODEL	TOTAL WEIGHT RT, CURB,POWER RELIEF FAN (LBS)	STRUCTURAL ANCHORAGE DETAILS
PE 1	MICROMETL 50FCQD12	4400	2	4.5	5.6	10.1	460/3/60	259	469	MICROMETL CRBV-SRT34GA-1412-P40	1933	1/M6.3, 1/S0.7
PE 2	MICROMETL 50FCQD14	5200	3	6.5	8.1	14.6	460/3/60	332	572	MICROMETL CRBV-SRT05GA-1412-P10	2304	2/M6.3, 1/S0.7
PE 3	MICROMETL 50GCQM04	1850	0.5	1.5	1.9	3.4	460/3/60	191	105	MICROMETL CRBV-SRT12GA-1412-P10	921	3/M6.3, 1/S0.7
PE 4	MICROMETL 50GCQM04	1850	0.5	1.5	1.9	3.4	460/3/60	191	105	MICROMETL CRBV-SRT12GA-1412-P10	921	3/M6.3, 1/S0.7
PE 5	MICROMETL 50FCQA07	2675	1.0	2.8	3.5	6.3	460/3/60	191	105	MICROMETL CRBV-SRT12GA-1412-P10	1045	3/M6.3, 1/S0.7
PE 6	MICROMETL 50GCQM05	1850	0.5	1.5	1.9	3.4	460/3/60	191	105	MICROMETL CRBV-SRT12GA-1412-P10	1036	3/M6.3, 1/S0.7
PE 7	MICROMETL 50FCQA06	2675	1.0	2.8	3.5	6.3	460/3/60	191	105	MICROMETL CRBV-SRT12GA-1412-P10	1142	3/M6.3, 1/S0.7
PE 8	MICROMETL 50GCQM05	1850	0.5	1.5	1.9	3.4	460/3/60	191	105	MICROMETL CRBV-SRT12GA-1412-P10	1036	3/M6.3, 1/S0.7
PE 9	MICROMETL 50FCQA07	2675	1.0	2.8	3.5	6.3	460/3/60	191	105	MICROMETL CRBV-SRT12GA-1412-P10	1045	3/M6.3, 1/S0.7
PE 10	MICROMETL 50GCQM04	1850	0.5	1.5	1.9	3.4	460/3/60	191	105	MICROMETL CRBV-SRT12GA-1412-P10	921	3/M6.3, 1/S0.7
PE 11	MICROMETL 50GCQM04	1850	0.5	1.5	1.9	3.4	460/3/60	191	105	MICROMETL CRBV-SRT12GA-1412-P10	921	3/M6.3, 1/S0.7
PE 12	MICROMETL 50GCQM05	1850	0.5	1.5	1.9	3.4	460/3/60	191	105	MICROMETL CRBV-SRT12GA-1412-P10	1036	3/M6.3, 1/S0.7
PE 13	MICROMETL 50GCQM05	1850	0.5	1.5	1.9	3.4	460/3/60	191	105	MICROMETL CRBV-SRT12GA-1412-P10	1036	3/M6.3, 1/S0.7
PE 14	MICROMETL 50GCQM04	1850	0.5	1.5	1.9	3.4	460/3/60	191	105	MICROMETL CRBV-SRT12GA-1412-P10	921	3/M6.3, 1/S0.7
PE 15	MICROMETL 50FCQD08	3000	1.0	2.8	3.5	6.3	460/3/60	323	719	MICROMETL CRBK-SRT34GA-1411	2070	18/M6.1, 1/S0.7
PE 16	MICROMETL 50FCQD08	3000	1.0	2.8	3.5	6.3	460/3/60	323	719	MICROMETL CRBK-SRT34GA-1411	2070	18/M6.1, 1/S0.7

NOTES:

1. SCHEDULED LOADS INCLUDE FAN AND MOTOR HEAT.
2. PROVIDE ANTI-RECYCLE TIMER, CRANKCASE HEATER, LOW AMBIENT KIT AND HIGH CAPACITY FILTER RACK.
3. PROVIDE FACTORY "MICROMETL" MODULATING ECONOMIZER WITH POWER EXHAUST. AC UNIT SHALL HAVE C02 CONTROL. PROVIDE WITH LOCKING MESH COVER. POWER EXHAUST SHALL BE PROVIDED WITH A SEPARATE DISCONNECT SWITCH, FIELD WIRED BY ELECTRICAL.
4. PROVIDE AND INSTALL PER DETAILS 1, 2, OR 3 ON M6.3 OR DETAIL 18 ON M6.1
5. BYPASS UNIT ANTI-RECYCLE TIMER WHEN ANTI-RECYCLE FUNCTION IS INCLUDED IN THE THERMOSTAT.
6. OVERALL SMOKE DETECTION SYSTEM PROVIDED BY ELECTRICAL FOR ALL UNITS 2000 CFM AND ABOVE TO SHUT-OFF UPON DETECTION OF SMOKE AND SIGNAL FROM THE FIRE ALARM SYSTEM,
   INSTALL IN STRICT ACCORDANCE WITH THE 2022 CALIFORNIA MECHANICAL CODE, SECTION 608. REFER TO ELECTRICAL PLANS AND MECHANICAL TO CONNECT TO ELECTRICAL RELAY. PRIOR TO MECHANICAL PERMIT FINAL, A SMOKE DETECTOR SYSTEM SHUT-OFF TEST WILL BE REQUIRED.
7. PROVIDE WITH FACTORY MOUNTED NON-FUSED DISCONNECT SWITCH. MOUNT SWITCH ON EXTERIOR CASING OF UNIT. (3)

NOTES: (CONT'D)

8. PROVIDE FACTORY CONDENSER COIL GUARDS.
9. PROVIDE DEMAND CONTROL VENTILATION (DCV) FOR SYSTEMS, C02 SENSORS TO BE INTEGRAL WITH ALERTON CONTROLS. REFER TO M6.3 CONTROLS SCHEMATICS.
10. UNITS SHALL HAVE DUCT FLEX CONNECTIONS INSTALLED WITHIN ROOF CURB.
11. ALL AC UNITS SHALL HAVE R-410A REFRIGERANT.
12. PROVIDE WITH FACTORY MOUNTED NON-POWERED CONVENIENCE OUTLET.
13. WEIGHT INCLUDES RTU AND POWER EXHAUST.
14. RTU'S SHALL COME WITH INTEGRAL ELECTRIC HEATER..
15. REFER TO DRAWING M6.3 FOR CONTROLS
16. MERV 13 FILTERS.

SPLIT SYSTEM HEAT PUMP SCHEDULE

INDOOR FAN COILS

UNIT	MANUFACTURER & MODEL NO.	AREA SERVED	CFM	EXT. STATIC PRESS. (IN. W.G.)	O.S.A. INTAKE (CFM)	COOLING CAPACITY (TONS)	HEATING CAPACITY (MBH)	SEER/ EER	IEER	ENTERING CONDENSER TEMP. (°F) SUMMER DB °F	SUMMER WB °F	WINTER DB °F	HEATING CAPACITIES (MBH) TOTAL @ 47 °F	TOTAL @ 17 °F	HSPF
FC 1	CARRIER 48MBDQ12---3	A104 INST, STG.	400	0.6	110	1.0	12.0	21.5/13.0	NA	98.0	69.0	39.2	12.9	8.35	11.5
FC 2	CARRIER 48MBDQ12---3	A106/108/109 PRACTICE AREA	400	0.6	65	1.0	12.0	21.5/13.0	NA	98.0	69.0	39.2	12.9	8.35	11.5
FC 3	CARRIER 48MBDQ12---3	A119/115 COACHS	400	0.6	115	1.0	12.0	21.5/13.0	NA	98.0	69.0	39.2	12.9	8.35	11.5
FC 4	CARRIER 40MBDQ18---3	A120 LAUNDRY	600	0.6	55	1.5	19.0	19.6/12.5	NA	98.0	69.0	39.2	19.0	12.7	11.0
FC 5	CARRIER 40MBDQ18---3	A117/112/116 COACH	600	0.6	140	1.5	19.0	19.6/12.5	NA	98.0	69.0	39.2	19.0	12.7	11.0
FC 6	CARRIER 40MBDQ18---3	A129/128/130 PE TEACHER	600	0.6	110	1.5	19.0	19.6/12.5	NA	98.0	69.0	39.2	19.0	12.7	11.0
FC 7	CARRIER 40MBDQ18---3	A127 ATHLETIC TRAINER	600	0.6	90	1.5	19.0	19.6/12.5	NA	98.0	69.0	39.2	19.0	12.7	11.0
FC 8	CARRIER 40MBDQ18---3	A141 LAUNDRY	600	0.6	55	1.5	19.0	19.6/12.5	NA	98.0	69.0	39.2	19.0	12.7	11.0
FC 9	CARRIER 40MBDQ18---3	A136 PE STORAGE	600	0.6	90	1.5	19.0	19.6/12.5	NA	98.0	69.0	39.2	19.0	12.7	11.0
FC 10	CARRIER 48MBDQ12---3	A142/144 COACH	400	0.6	115	1.0	12.0	21.5/13.0	NA	98.0	69.0	39.2	12.9	8.35	11.5
FC 11	CARRIER 48MBDQ12---3	A147/148 PE COACH	400	0.6	100	1.0	12.0	21.5/13.0	NA	98.0	69.0	39.2	12.9	8.35	11.5
FC 12	CARRIER 48MBDQ12---3	A152/149/153 WALK ON COACH	400	0.6	100	1.0	12.0	21.5/13.0	NA	98.0	69.0	39.2	12.9	8.35	11.5
FC 13	CARRIER 48MBDQ12---3	A155/154 OFFICE	400	0.6	60	1.0	12.0	21.5/13.0	NA	98.0	69.0	39.2	12.9	8.35	11.5
FC 14	CARRIER 40MBDQ24---3	A163 & A164 SNACK TICKET/STG	800	0.6	115	2.0	24.6	20.6/12.5	NA	98.0	69.0	39.2	20.6	16.5	12.6
FC 15	CARRIER 40MBDQ18---3	A165 STORAGE	600	0.6	100	1.5	19.0	19.6/12.5	NA	98.0	69.0	39.2	19.0	12.7	11.0

UNIT	COIL TEMPERATURES EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)	COP @ 47 °F	COP @ 17 °F	FILTERS (MERV 13)	ELECTRICAL FAN MOTOR HP	VOLT	OPER. WT. (LBS.)	REMARKS (3)	STRUCTURAL ANCHORAGE DETAIL
FC 1	75.9	65.6	61.2	60.2	3.52	2.0	2 IN.	1.11 MCA	208/1PH	44	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7
FC 2	81.7	65.6	60.2	58.1	3.52	2.0	2 IN.	1.11 MCA	208/1PH	44	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7
FC 3	82.3	64.6	56.8	55.1	3.52	2.0	2 IN.	1.11 MCA	208/1PH	44	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7
FC 4	77.5	64.8	64.7	60.4	2.93	1.9	2 IN.	1.2 MCA	208/1PH	54	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7
FC 5	81.0	64.5	61.6	57.6	2.93	1.9	2 IN.	1.11 MCA	208/1PH	44	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7
FC 6	79.8	64.6	60.6	57.9	2.93	1.9	2 IN.	1.11 MCA	208/1PH	44	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7
FC 7	78.9	65.8	58.2	56.9	2.93	1.9	2 IN.	1.2 MCA	208/1PH	54	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7
FC 8	87.4	66.0	64.7	58.2	2.93	1.9	2 IN.	1.2 MCA	208/1PH	54	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7
FC 9	78.0	67.9	64.4	63.4	2.93	1.9	2 IN.	1.11 MCA	208/1PH	44	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7
FC 10	82.3	64.6	56.8	55.1	3.52	2.0	2 IN.	1.11 MCA	208/1PH	44	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7
FC 11	81.2	64.1	56.0	54.4	3.52	2.0	2 IN.	1.11 MCA	208/1PH	44	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7
FC 12	79.3	64.2	64.1	58.9	3.52	2.0	2 IN.	1.11 MCA	208/1PH	44	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7
FC 13	80.2	63.2	55.0	53.4	3.52	2.0	2 IN.	1.11 MCA	208/1PH	44	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7
FC 14	79.6	63.0	55.0	53.5	3.66	2.8	2 IN.	1.2 MCA	208/1PH	87	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7
FC 15	79.6	63.0	55.0	53.5	2.93	1.9	2 IN.	1.2 MCA	208/1PH	54	1, 4, 5, 6, 9, 10, 11, 12, 13, 14	4.2 to 4.5/M6.4, 15/M6.1, 14/S0.7

OUTDOOR HEAT PUMPS

UNIT MCA	MOCP MANUFACTURER & MODEL NO.	AMBIENT TEMP. (°F) DB/WB			ELECTRICAL POWER SUPPLY MCA	MFS	COMPRESSOR RLA	FAN MAX. INPUT (W)	POWER (VOLT)	OPER. WT. (LBS.)	REMARKS (3)	STRUCTURAL ANCHORAGE DETAIL
HP 1	CARRIER 38MARBQ12AA3	98.0/69.0			15	25	8.5	100.3	208V/1PH/60HZ	74	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7
HP 2	CARRIER 38MARBQ12AA3	98.0/69.0			15	25	8.5	100.3	208V/1PH/60HZ	74	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7
HP 3	CARRIER 38MARBQ12AA3	98.0/69.0			15	25	8.5	100.3	208V/1PH/60HZ	74	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7
HP 4	CARRIER 38MARBQ18AA3	98.0/69.0			18	25	14.25	120	208V/1PH/60HZ	101	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7
HP 5	CARRIER 38MARBQ18AA3	98.0/69.0			18	25	14.25	120	208V/1PH/60HZ	101	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7
HP 6	CARRIER 38MARBQ18AA3	98.0/69.0			18	25	14.25	120	208V/1PH/60HZ	101	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7
HP 7	CARRIER 38MARBQ18AA3	98.0/69.0			18	25	14.25	120	208V/1PH/60HZ	101	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7
HP 8	CARRIER 38MARBQ18AA3	98.0/69.0			18	25	14.25	120	208V/1PH/60HZ	101	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7
HP 9	CARRIER 38MARBQ18AA3	98.0/69.0			18	25	14.25	120	208V/1PH/60HZ	101	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7
HP 10	CARRIER 38MARBQ12AA3	98.0/69.0			18	25	8.5	100.3	208V/1PH/60HZ	101	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7
HP 11	CARRIER 38MARBQ12AA3	98.0/69.0			15	25	8.5	100.3	208V/1PH/60HZ	74	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7
HP 12	CARRIER 38MARBQ12AA3	98.0/69.0			15	25	8.5	100.3	208V/1PH/60HZ	74	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7
HP 13	CARRIER 38MARBQ12AA3	98.0/69.0			15	25	8.5	100.3	208V/1PH/60HZ	74	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7
HP 14	CARRIER 38MARBQ24AA3	98.0/69.0			25	35	14.8	173	208V/1PH/60HZ	134	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7
HP 15	CARRIER 38MARBQ18AA3	98.0/69.0			18	25	14.25	120	208V/1PH/60HZ	101	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14	4/M6.1, 11/S0.7

NOTES:
1. PROVIDE CRANKCASE HEATER, HIGH & LOW PRESSURE SWITCHES.
2. PROVIDE LOW AMBIENT KIT.
3. PROVIDE 3/4" EXPAND METAL CONDENSING COIL GUARD.
4. PROVIDE MINIMUM CLEARANCE AROUND EACH UNIT PER THE MANUFACTURER'S RECOMMENDATIONS.
5. SIZE REFRIGERANT (R410A) LINES PER MANUFACTURERS RECOMMENDATIONS. PROVIDE LONG LINE KIT IF REQUIRED.
6. MERV 13 FILTERS.
7. MOUNT ON TOP OF 1/2" NEOPRENE ON PAD PROVIDED BY STRUCTURAL.
8. ALL HEAT PUMP UNITS ARE ROOF MOUNTED.
9. SEE STRUCTURAL DRAWINGS FOR ANCHORAGE DETAILS.
10. PROVIDE WITH FACTORY FILTER BOX.
11. POWERED FROM OUTDOOR UNIT.
12. FAN COILS SHALL HAVE AN OUTDOOR AIR CONNECTION COLLAR.
13. REFER TO M6.3 CONTROLS SCHEMATICS FOR THERMOSTAT AND CONTROLS INFO.
14. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH ON OUTSIDE CASING OF EACH UNIT. (3)

PBK
RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL & AQUATIC CENTER
ROWLAND UNIFIED SCHOOL DISTRICT
401 NOGALES ST, LA PUENTE, CA 91744

LICENSED ARCHITECT ROBERT LAVEY C-28020 01-31-25 STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M36155 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

NO	DATE	BY	DESCRIPTION
1	01/25/24	PBK	ADDENDUM 1
2	03/05/24	PBK	ADDENDUM 2
3	02/27/24	PBK	ADDENDUM 3

REVISIONS

DRAWN: JM | CHECKED: RW
DATE: 12-02-2022 | SCALE: 12" = 1'-0"
PROJECT NUMBER: 2110000

MECHANICAL SCHEDULES

DRAWING NUMBER: M5.1

AIR DISTRIBUTION SCHEDULE

SYMBOL	TYPE	MOUNTING TYPE	MAKE & MODEL	DESCRIPTION
A	CEILING SUPPLY	SURFACE MOUNT	PRICE MODEL SPD	SQUARE PLAQUE DIFFUSER WITH FRAME FOR SURFACE MOUNTING IN HARD CEILING. FLUSH FACE MOUNTING. 24" x 24" WITH CIRCULAR CONNECTIONS
B	CEILING SUPPLY	T-BAR MOUNT	PRICE MODEL SPD	SQUARE PLAQUE DIFFUSER. T-BAR MOUNTING. FLUSH FACE MOUNTING. 24" x 24" WITH CIRCULAR CONNECTION.
C	EXHAUST OR RETURN	SURFACE MOUNT	PRICE MODEL 635L	LOUVERED INLET GRILL WITH FIXED BLADES AT 45 DEGREES, 1/2" BLADE SPACING, RAPID MOUNT FRAME MODEL TRIM FOR SURFACE MOUNTING, FRONT BLADES PARALLEL TO FLOOR IN VERTICAL APPLICATIONS.
D	SIDEWALL SUPPLY	SURFACE MOUNT	PRICE MODEL 620	LOUVERED SUPPLY GRILL WITH FIXED BLADES AT 45 DEGREES, 1/2" BLADE SPACING, RAPID MOUNT FRAME MODEL TRIM FOR SURFACE MOUNTING, DOUBLE DEFLECTION, FRONT BLADES PARALLEL TO FLOOR IN VERTICAL APPLICATIONS.
E	CEILING RETURN OR EXHAUST	T-BAR MOUNT	PRICE MODEL 635L	LOUVERED RETURN GRILL WITH FIXED BLADES AT 45 DEGREES, 1/2" BLADE SPACING, RAPID MOUNT FRAME MODEL TRIM FOR T-BAR MOUNTING.
F	DUCT MOUNTED SUPPLY	SPIRAL DUCT MOUNT	PRICE MODEL SDG	SPIRAL DUCT SUPPLY GRILLE, MOUNTED DIRECTLY ON ROUND OR SPIRAL DUCTS, AT 30 DEGREES FROM HORIZONTAL. DOUBLE DEFLECTION WITH FRONT BLADES HORIZONTAL TO THE FLOOR, C/W AIR SCOOP FOR BALANCING.
G	WALL RETURN OR EXHAUST	SURFACE MOUNT	PRICE MODEL 93	STEEL HEAVY DUTY GYM RETURN GRILL, 45 DEGREE BLADES., FRONT BLADES PARALLEL TO FLOOR IN VERTICAL APPLICATIONS.
H	CEILING RETURN OR EXHAUST	T-BAR MOUNT	PRICE MODEL 635L	LOUVERED INLET GRILL WITH FIXED BLADES AT 45 DEGREES, 1/2" BLADE SPACING, RAPID MOUNT FRAME MODEL TRIM FOR T-BAR MOUNTING. FACE SIZES ARE 24"x24".
L	INTAKE LOUVER	WALL SURFACE MOUNTED	GREENHECK MODEL ESD-435	EXTRUDED ALUMINUM LOUVER, C/W BIRDSCREEN, MERV 13 FILTERS IN FILTER RACK, MOUNTING FLANGES, PRIME COATED.
M	SIDEWALL SUPPLY	EXPOSED DUCT MOUNT	PRICE MODEL 620	LOUVERED SUPPLY GRILL WITH FIXED BLADES AT 45 DEGREES, 1/2" BLADE SPACING, RAPID MOUNT FRAME MODEL TRIM FOR SURFACE MOUNTING, DOUBLE DEFLECTION, FRONT BLADES PARALLEL TO FLOOR IN VERTICAL APPLICATIONS.
N	EXHAUST OR RETURN	EXPOSED DUCT MOUNT	PRICE MODEL 635L	LOUVERED INLET GRILL WITH FIXED BLADES AT 45 DEGREES, 1/2" BLADE SPACING, FRONT BLADES PARALLEL TO FLOOR IN VERTICAL APPLICATIONS.

NOTES:
1. REFER TO THE FLOOR PLANS FOR NECK SIZE, CFM, AIR DIFFUSION PATTERN AND FIRE/DAMPER, IF REQUIRED.
2. ARCHITECT TO SELECT COLOR ON SUBMITTALS.

FAN SCHEDULE

UNIT	MANUFACTURER & MODEL NO.	SERVICE	TYPE	CFM	SP IN W.G.	FAN RPM	MOTOR HP/BHP	MOTOR FLA	MOTOR VOLT	MOTOR PH	MOTOR HZ	SONES	OPER WT. (LBS)	REMARKS	STRUCTURAL ANCHORAGE DETAIL
F 1	GREENHECK CSP-A390-VG	OUTSIDE AIR SUPPLY FAN	INLINE FAN	320	0.6	1477	0.12	1.5	120	1	60	3.2	24	2, 3, 4, 5, 6, 7, 8, 9	8/M6.1, 12/S0.7, 14/S0.7
F 2	GREENHECK CSP-A510-VG	OUTSIDE AIR SUPPLY FAN	INLINE FAN	385	0.6	1311	0.14	2.5	120	1	60	1.1	36	2, 3, 4, 5, 6, 7, 8, 9	8/M6.1, 12/S0.7, 14/S0.7
F 3	GREENHECK CSP-A700-VG	OUTSIDE AIR SUPPLY FAN	INLINE FAN	520	0.6	1241	0.16	4.1	120	1	60	2.0	39	2, 3, 4, 5, 6, 7, 8, 9	8/M6.1, 12/S0.7, 14/S0.7
EF 1	GREENHECK G-080-VG	GENERAL EXHAUST	ROOF FAN	180	0.75	1608	0.06	1.5	120	1	60	8.0	28 + CURB	1, 2, 3, 4, 5, 6, 7, 9	17/M6.1, 2/S0.7
EF 2	GREENHECK G-130-VG	GENERAL EXHAUST	ROOF FAN	1260	0.75	1308	0.25/0.50	6.6	120	1	60	10.7	49	1, 2, 3, 4, 5, 6, 7, 9	17/M6.1, 2/S0.7
EF 3	GREENHECK CSP-A710	LAUNDRY ROOM A120	INLINE FAN	365	0.6	1080	0.14	4.9	120	1	60	2.0	36	2, 3, 4, 5, 6, 7, 9	8/M6.1, 12/S0.7, 14/S0.7
EF 4	GREENHECK GB-180	GENERAL EXHAUST	ROOF FAN	2065	0.75	874	0.47/0.50	9.8	120	1	60	8.5	92	1, 2, 3, 4, 5, 6, 7,	17/M6.1, 2/S0.7
EF 5	GREENHECK CSP-A700-VG	LAUNDRY ROOM A141	INLINE FAN	365	0.6	1210	0.11	4.1	120	1	60	2.0	39	2, 3, 4, 5, 6, 7, 9	8/M6.1, 12/S0.7, 14/S0.7
EF 6	GREENHECK CSP-A510-VG	POOL PUMP ROOM A166	ROOF FAN	500	0.40	1313	0.19	2.45	120	1	60	2.0	36	1, 2, 3, 5, 6, 7, 9	17/M6.1, 2/S0.7
EF 7	GREENHECK G-097-VG	REST ROOMS A204 & A205	ROOF FAN	120	0.3	1029	0.03/0.25	3.8	120	1	60	3.9	38	1, 2, 3, 4, 5, 6, 7, 9	17/M6.1, 2/S0.7
EF 8	GREENHECK CSP-A290	ELECTRIC ROOM A139	INLINE FAN	250	0.25	1050	0.04	0.83	120	1	60	3.0	24	2, 3, 5, 6, 7, 9	8/M6.1, 12/S0.7, 14/S0.7
EF 9	GREENHECK SP-A90-130-VG	FIRE RISER A178	CABINET FAN	120	0.25	1041	12 WATTS	0.29	120	1	60	2.0	12	2, 3, 5, 6, 7, 10	8/M6.1, 12/S0.7, 14/S0.7
EF 10	GREENHECK SP-A90-130-VG	STORAGE A160	CABINET FAN	120	0.25	1041	12 WATTS	0.29	120	1	60	2.0	12	2, 3, 5, 6, 7, 10	8/M6.1, 12/S0.7, 14/S0.7

NOTES:
1. PROVIDE FACTORY ROOF CURB. SLOPE TO MATCH EXISTING ROOF SLOPE, AS REQUIRED.
2. REFER TO CONTROLS ON DRAWING M6.3.
3. PROVIDE BACKDRAFT DAMPER FOR ALL FANS.
4. INTERLOCK FAN WITH A/C UNIT PER CONTROL SEQUENCES.
5. PROVIDE FACTORY DISCONNECT SWITCH MOUNTED ON THE EXTERIOR OF THE FANS CASING. (3)
6. PROVIDED FACTORY SOLID STATE SPEED CONTROLLER MOUNTED WITHIN THE FAN'S CASING.
7. PROVIDE CONTROL TRANSFORMER.
8. PROVIDE WITH MERV 13 FILTERS.
9. FAN TO START/STOP ON SIGNAL FROM EMS.
10. FAN TO OPERATE BY COOLING TSTAT ON WALL.

SPLIT SYSTEM AC AND CU SCHEDULE

INDOOR WALL MOUNTED AC UNITS

UNIT	MANUFACTURER & MODEL NO.	AREA SERVED	CFM	EXT. STATIC PRESS. (IN. W.G.)	O.S.A. INTAKE (CFM)	COOLING CAPACITY (TONS) RATED	HEATING CAPACITY (MBH) RATED	SEER/ EER	IEER	ENTERING CONDENSER TEMP. (°F) SUMMER		ENTERING CONDENSER TEMP. (°F) WINTER	HEATING CAPACITIES (MBH) TOTAL @ 47 °F	HEATING CAPACITIES (MBH) TOTAL @ 17 °F	HSPF	COIL TEMPERATURES EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)	COP @ 47 °F	COP @ 17 °F	FILTERS	ELECTRICAL MCA	ELECTRICAL FAN MOTOR	OPER. WT. (LBS.)		ANCHORAGE DETAIL
AC 1	CARRIER 40MAHBQ24XA3	INSTRUMENT STORAGE A104	414	NA	0	2.0	29.0	21.5/13.0	NA	98	69	39.2	29.0	19.8	23.0	NA	NA	NA	NA	3.4	3.05	Y	25	208/1PH	44		5/M6.2
AC 2	CARRIER 40MAHBQ24XA3	ELECTRICAL ROOM A139	414	NA	0	2.0	29.0	21.5/13.0	NA	98	69	39.2	29.0	19.8	23.0	NA	NA	NA	NA	3.4	3.05	Y	25	208/1PH	44		5/M6.2
AC 3	CARRIER 40MAHBQ24XA3	STORAGE A165	414	NA	0	2.0	29.0	21.5/13.0	NA	98	69	39.2	29.0	19.8	23.0	NA	NA	NA	NA	3.4	3.05	Y	25	208/1PH	44		5/M6.2
AC 4	CARRIER 40MAHBQ24XA3	STORAGE A202	414	NA	0	2.0	29.0	21.5/13.0	NA	98	69	39.2	29.0	19.8	23.0	NA	NA	NA	NA	3.4	3.05	Y	25	208/1PH	44		5/M6.2

OUTDOOR HEAT PUMPS

UNIT MCA	MOCP MANUFACTURER & MODEL NO.	AMBIENT TEMP. (°F) DB/WB	FAN MOTOR INPUT (W) OUTPUT	FLA	HP	ELECTRICAL POWER SUPPLY MCA	POWER SUPPLY MFS	COMPRESSOR	FAN MAX. INPUT (W)	POWER (VOLT)	OPER. WT. (LBS.)	REMARKS (3)	STRUCTURAL ANCHORAGE DETAIL
CU 1	CARRIER 38MARBQ24AA3	98.0	NA	NA	NA	25.0	30	208/1/60	NA	208V/1PH/60HZ	134.3	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15	4/M6.1, 11/S0.7
CU 2	CARRIER 38MARBQ24AA3	98.0	NA	NA	NA	25.0	30	208/1/60	NA	208V/1PH/60HZ	134.3	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15	4/M6.1, 11/S0.7
CU 3	CARRIER 38MARBQ24AA3	98.0	NA	NA	NA	25.0	30	208/1/60	NA	208V/1PH/60HZ	134.3	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15	4/M6.1, 11/S0.7
CU 4	CARRIER 38MARBQ24AA3	98.0	NA	NA	NA	25.0	30	208/1/60	NA	208V/1PH/60HZ	134.3	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15	4/M6.1, 11/S0.7

NOTES:
1. PROVIDE CRANKCASE HEATER, HIGH & LOW PRESSURE SWITCHES.
2. PROVIDE LOW AMBIENT KIT.
3. PROVIDE 3/4" EXPAND METAL CONDENSING COIL GUARD.
4. PROVIDE MINIMUM CLEARANCE AROUND EACH UNIT PER THE MANUFACTURER'S RECOMMENDATIONS.
5. SIZE REFRIGERANT (R410A) LINES PER MANUFACTURERS RECOMMENDATIONS. PROVIDE LONG LINE KIT IF REQUIRED.
6. FACTORY FILTER INCLUDED.
7. MOUNT ON TOP OF 1/2" NEOPRENE ON PAD PROVIDED BY STRUCTURAL.
8. ALL HEAT PUMP UNITS ARE ROOF MOUNTED.
9. SEE STRUCTURAL DRAWINGS FOR ANCHORAGE DETAILS.
10. PROVIDE WITH FACTORY FILTER.
11. INDOOR UNIT IS POWERED FROM OUTDOOR UNIT.
12. UNIT SHALL BE SET TO COOLING ONLY.
13. PROVIDE INDOOR UNITS WITH CONDENSATE PUMPS.
14. ~~REFER TO SHEET M6.3 FOR CONTROLS.~~
15. PROVIDE FACTORY MOUNTED DISCONNECT SWITCH ON THE EXTERIOR CASING OF EQUIPMENT. (3)

PBK
RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL & AQUATIC CENTER

ROWLAND UNIFIED SCHOOL DISTRICT

401 NOGALES ST, LA PUENTE, CA 91744

LICENSED ARCHITECT – ROBERT LAVEY – C-28020 – 01-31-25 – STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER – REX DAVID WANG – No.M36155 – Exp.09-30-2024 – MECHANICAL – STATE OF CALIFORNIA

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

NO	DATE	BY	DESCRIPTION
1	01/25/24	PBK	ADDENDUM 1
3	03/05/24	PBK	ADDENDUM 3

REVISIONS

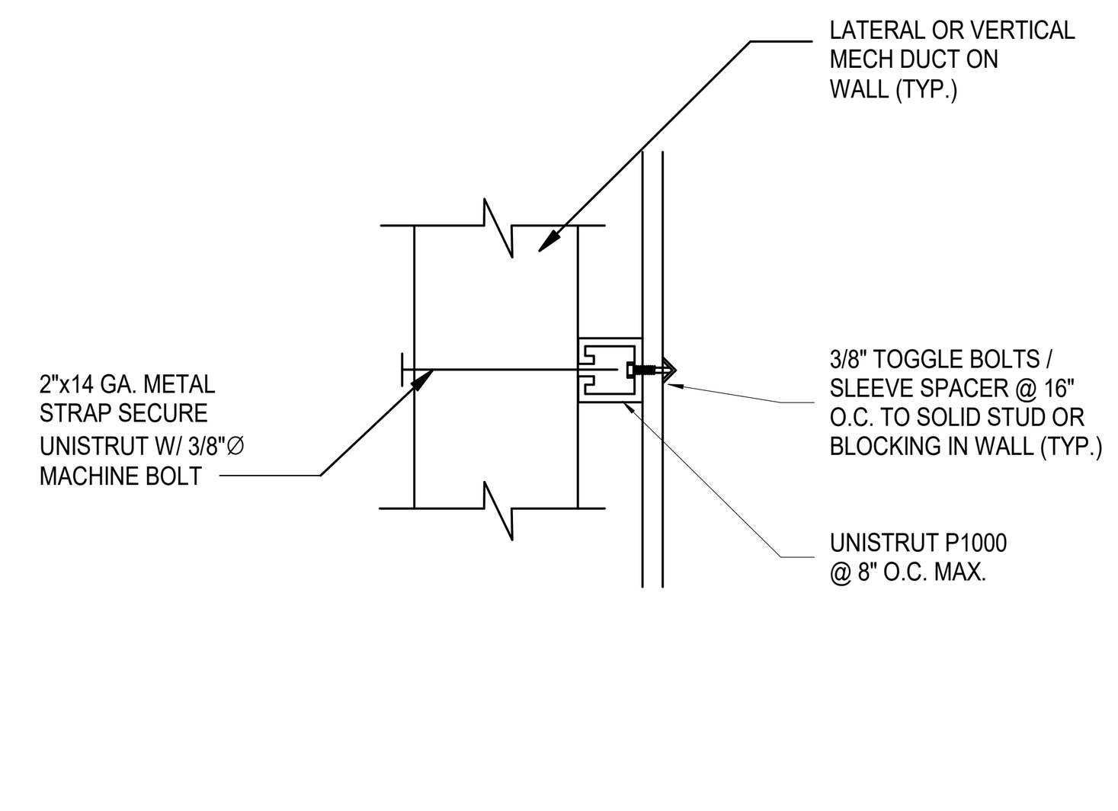
DRAWN: JM | CHECKED: RW

DATE: 12-02-2022 | SCALE: 12" = 1'-0"

PROJECT NUMBER: 2110000

MECHANICAL SCHEDULES

DRAWING NUMBER: **M5.2**

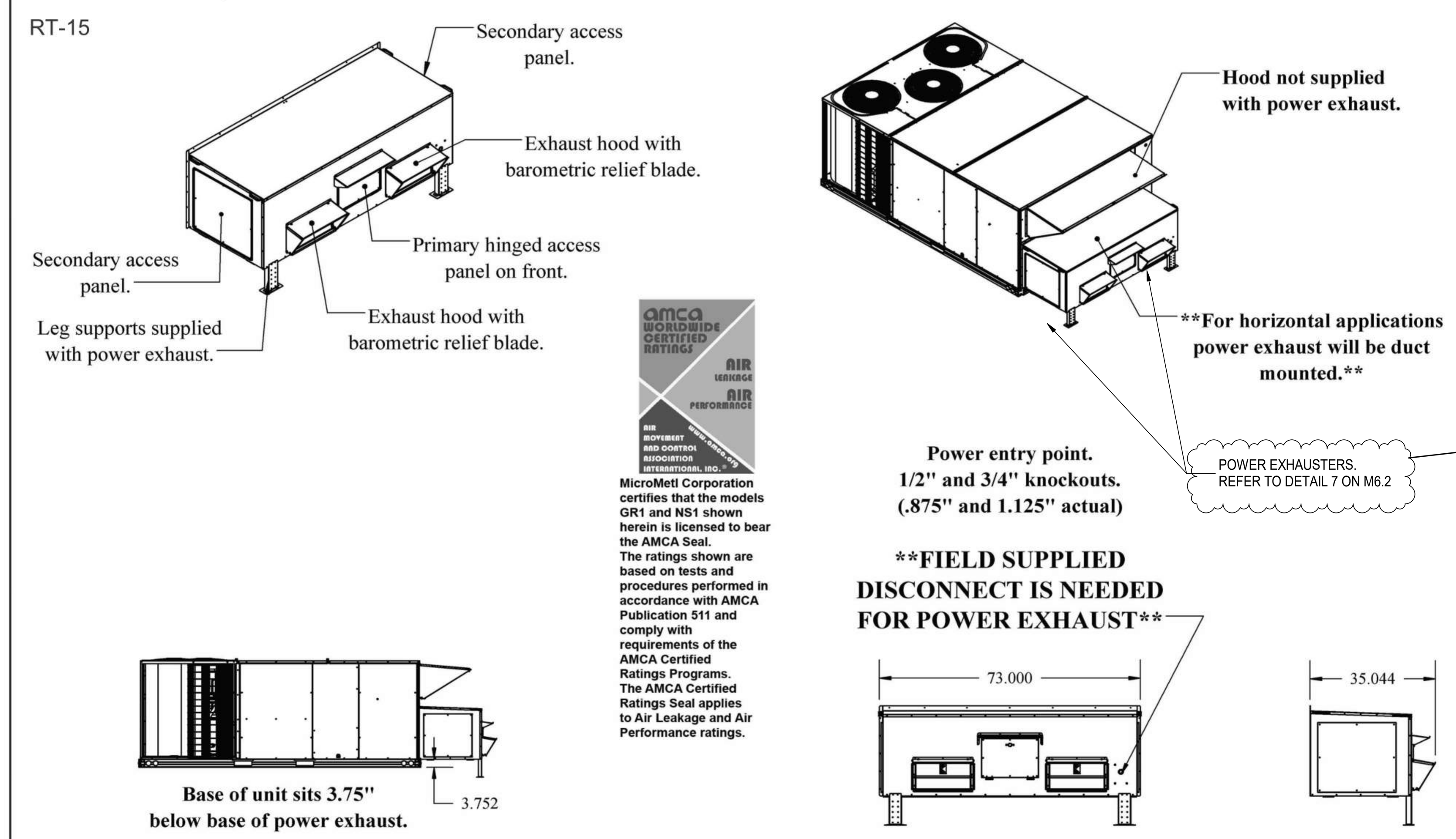


19 DUCT ON WALL SUPPORT DETAIL
12" = 1'-0"

MicroMetl | Date: | Weight: 323lbs (US) 146.51kg (Metric) | Part Number: PCC-MRT69CA-D-4L2
RTU:
Submitted to: | Approved by: | Notes:

Power Exhaust - Power Exhaust - Modulating Speed, Centrifugal Exhaust Type, Convertible Orientation, 460 Volt Three Phase Voltage. Designed To Operate At 6652 CFM @ 1/4" - 2 HP. Painted To Match RTU. DOES NOT INCLUDE ECONOMIZER. Compatible With MicroMetl & Carrier Factory Economizers. Mounted On Return Air Ductwork In The Horizontal Application. Electrical junction box provided. High voltage cable to be field supplied and installed. BacNet Compatible.

RT-15

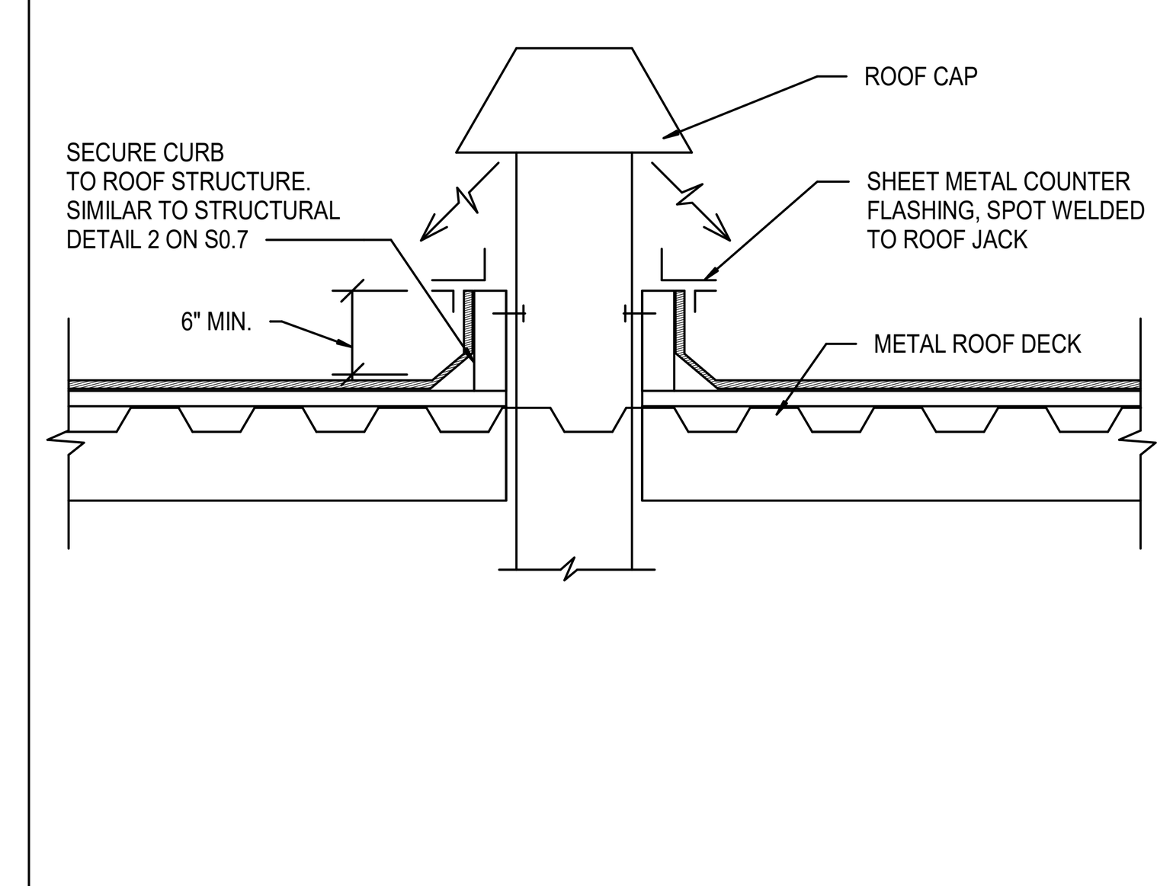


MicroMetl Corporation certifies that the models GR1 and NS1 shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with AMCA Publication 511 and comply with requirements of the AMCA Certified Ratings Programs. The AMCA Certified Ratings Seal applies to Air Leakage and Air Performance ratings.

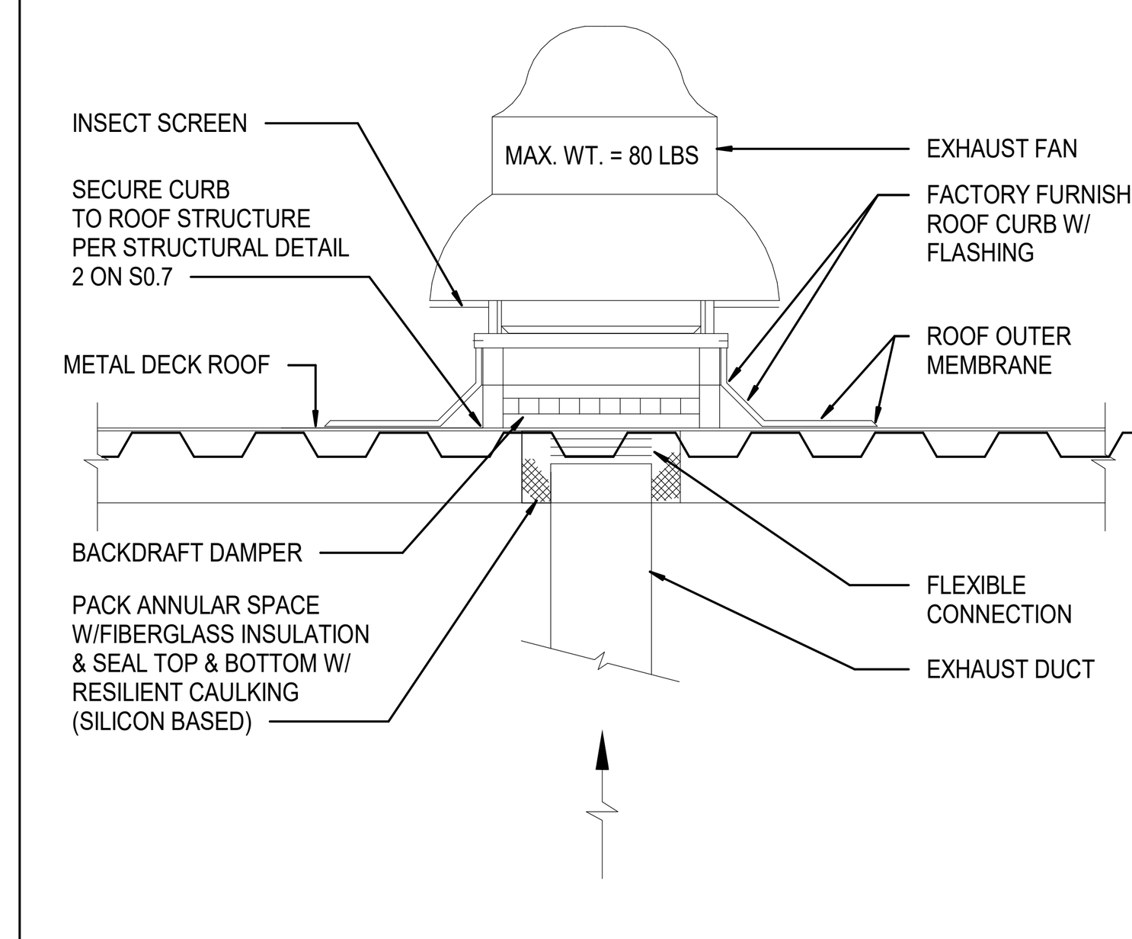
Master Revision 0001A
Page Revision 0001A

Indianapolis_3035 N. Shadeland Ave., Indianapolis, IN 46226_800.MMC.HVAC •• Sparks_905 Southern Way, Sparks, NV 89431_800.884.4MMC •• Longview_201 Kodak Blvd., Longview, TX 75602_903.248.4800

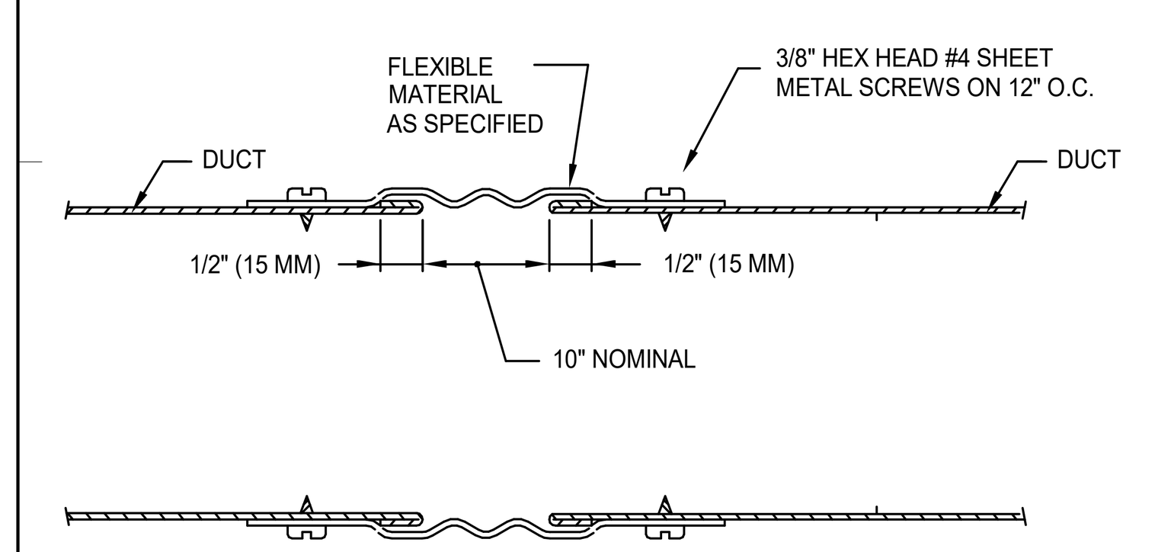
18 POWER EXHAUSTER & ECONOMIZER DETAIL - RT-15 & 16
1 1/2" = 1'-0"



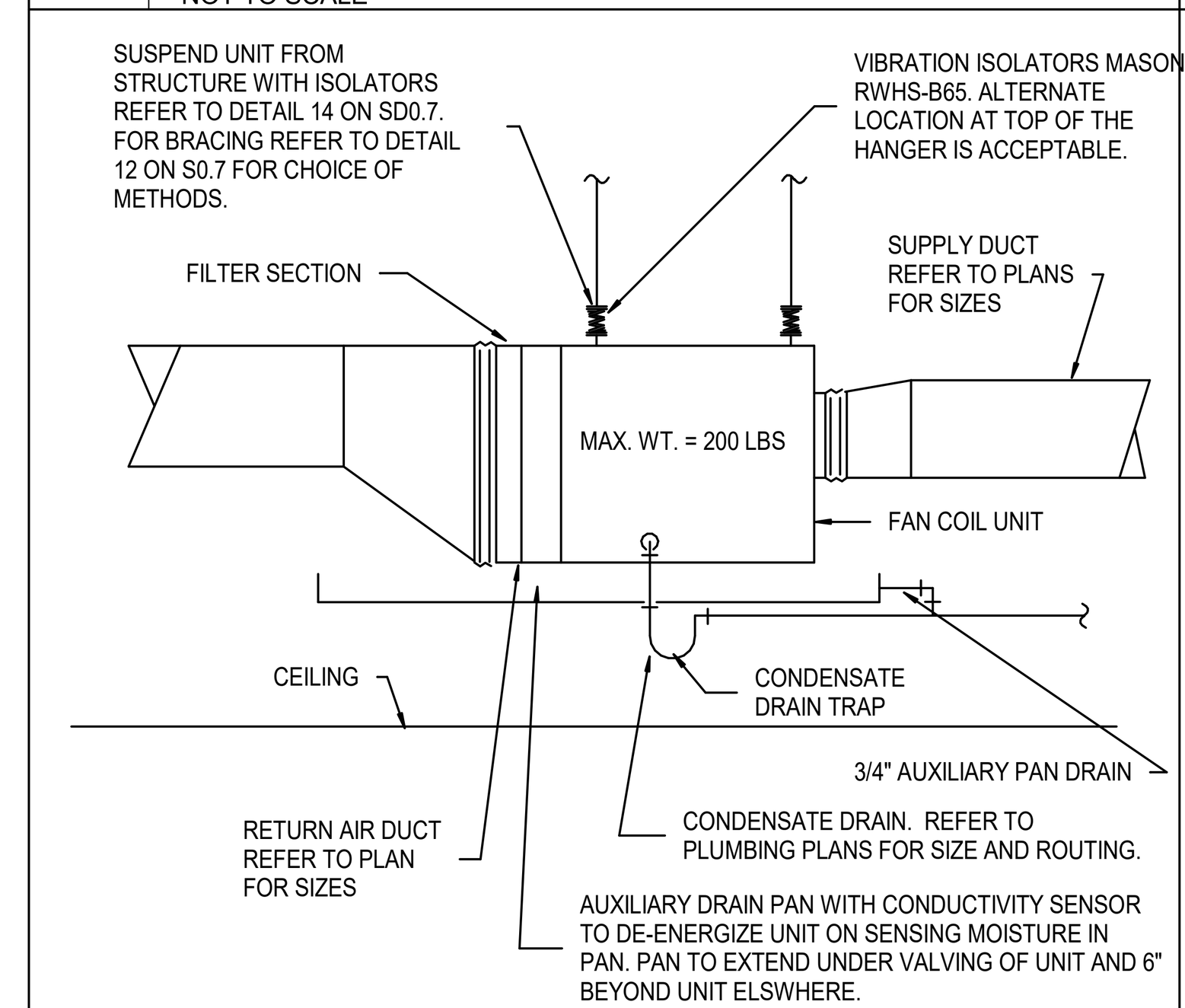
16 ROOF JACK DETAIL.
NOT TO SCALE



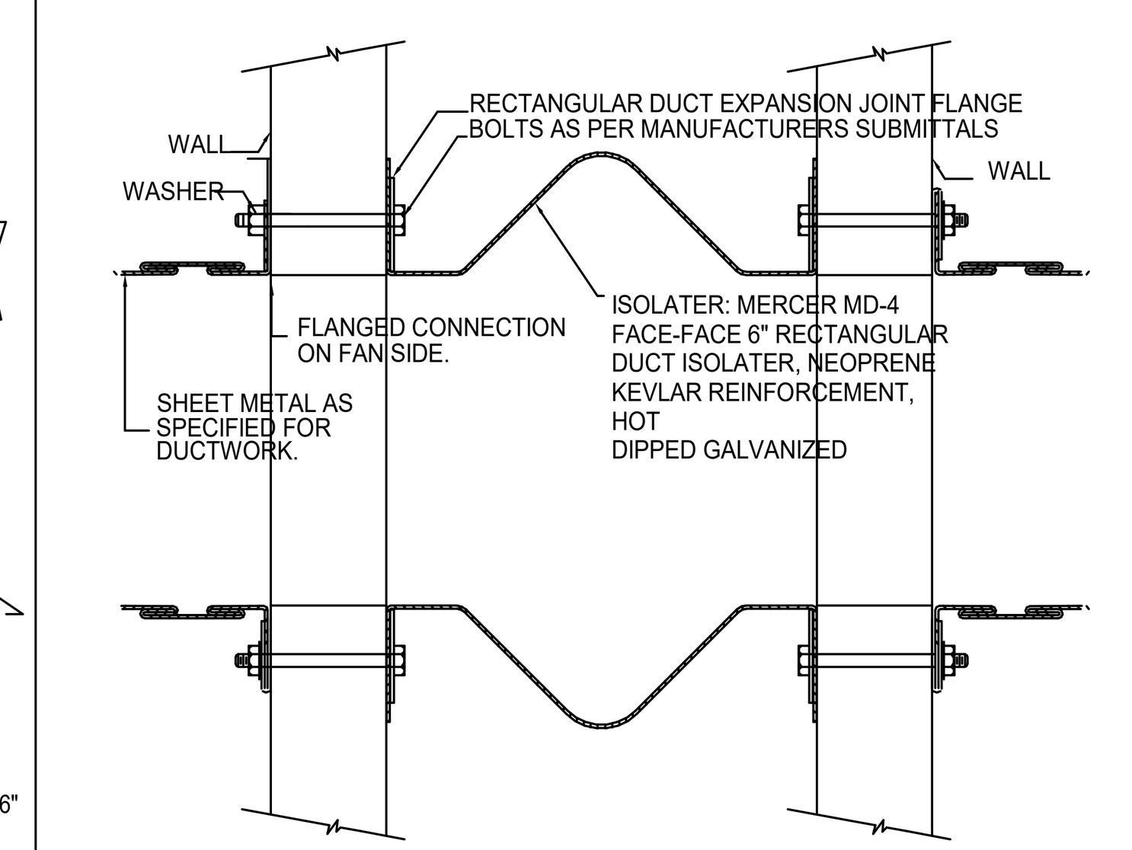
17 ROOF MOUNTED EXHAUST FAN DETAIL.
NOT TO SCALE



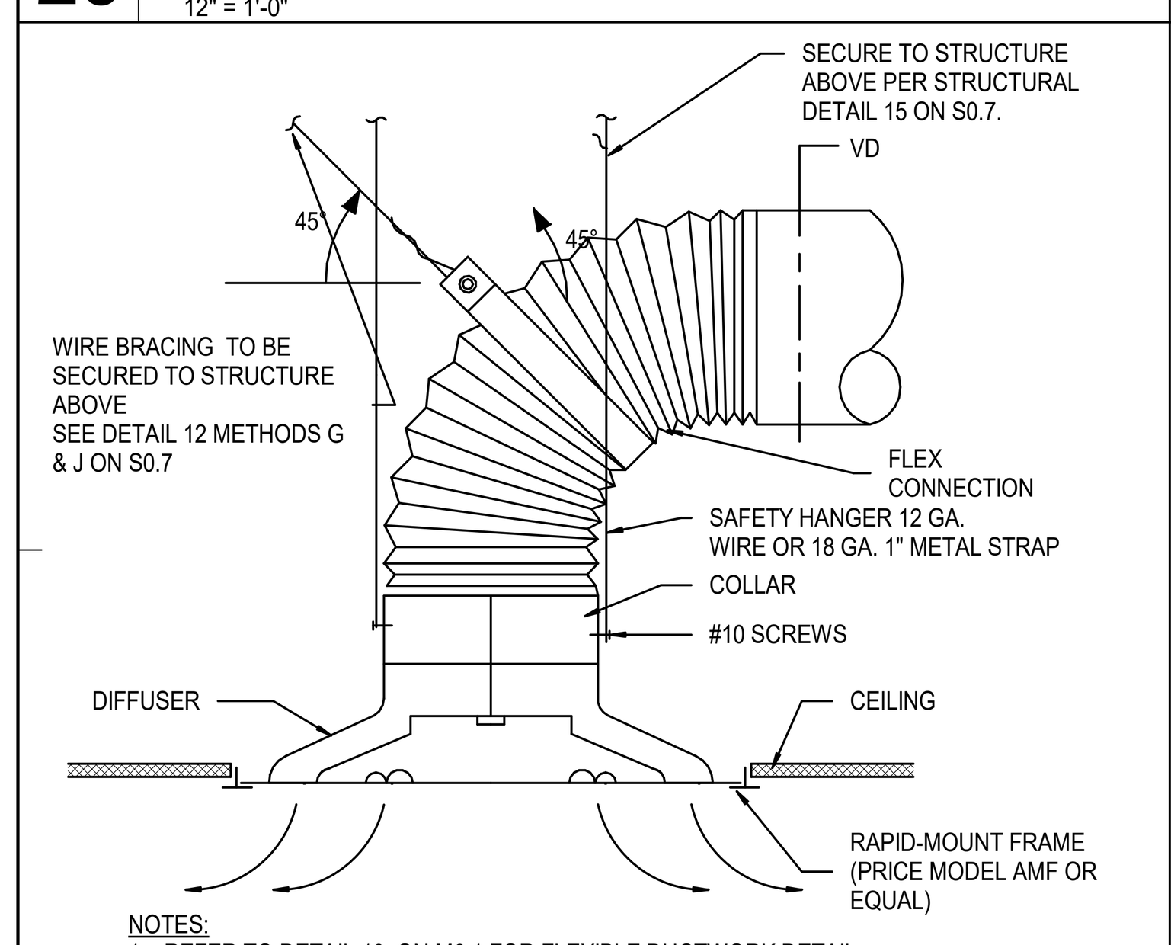
20 FLEXIBLE DUCTWORK CONNECTION
12" = 1'-0"



15 DUCTED FAN COIL UNIT DETAIL ..
NOT TO SCALE



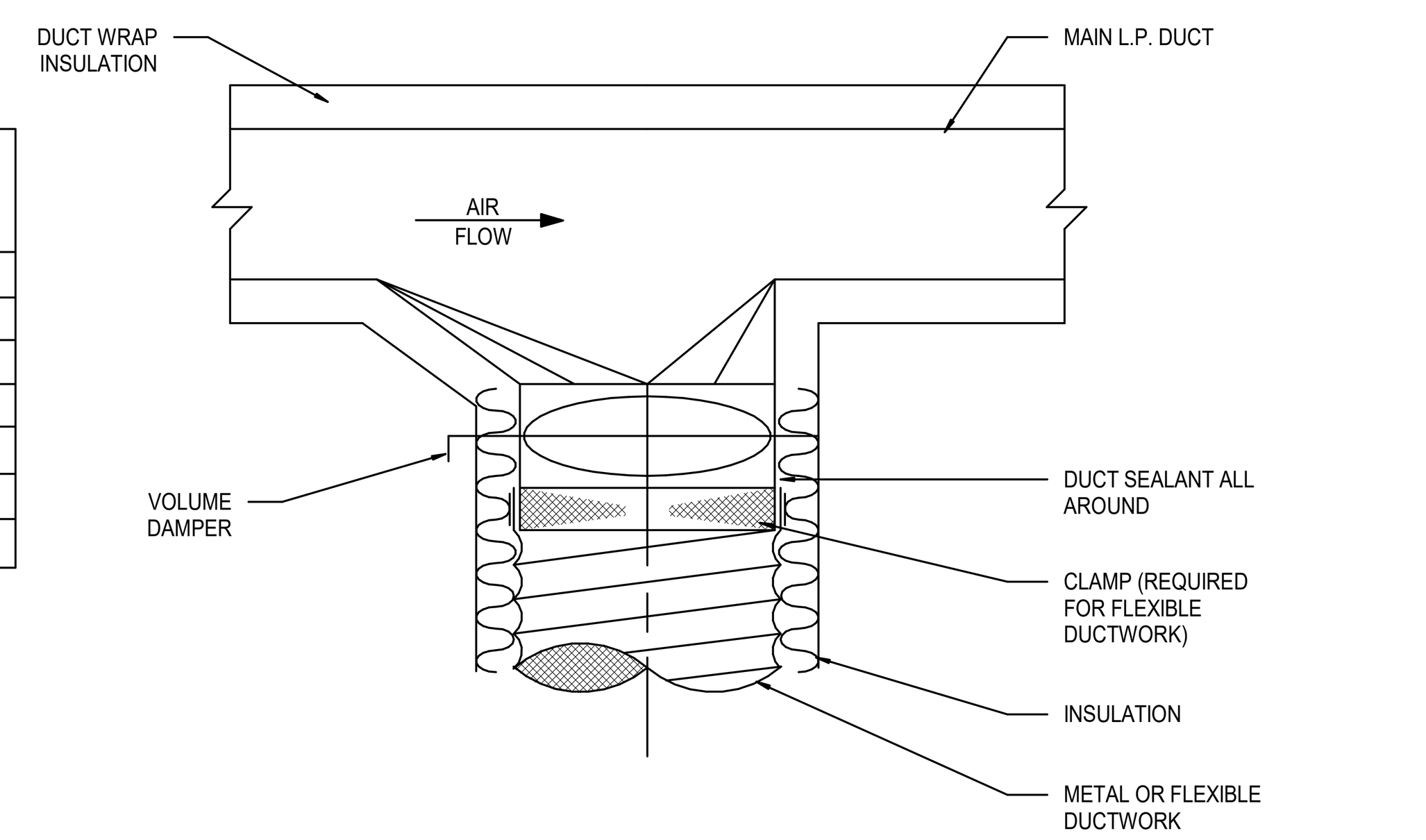
14 RECTANGULAR SEISMIC DUCT ISOLATION
6" = 1'-0"



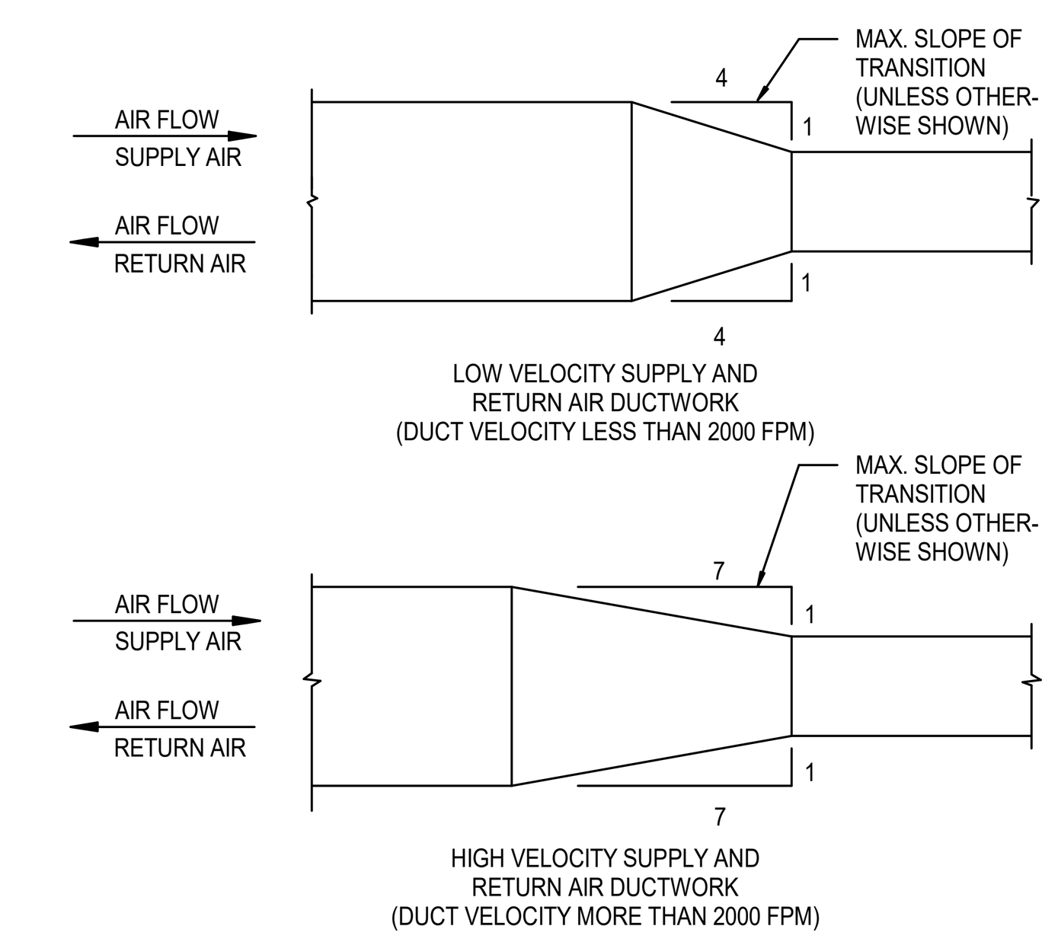
NOTES:
1. REFER TO DETAIL 10 ON M6.1 FOR FLEXIBLE DUCTWORK DETAIL.
2. LOCATE VOLUME DAMPER AS FAR AWAY FROM DIFFUSER OR GRILLE AS POSSIBLE.

13 HARD LID DIFFUSER CONNECTION DETAIL.
NOT TO SCALE

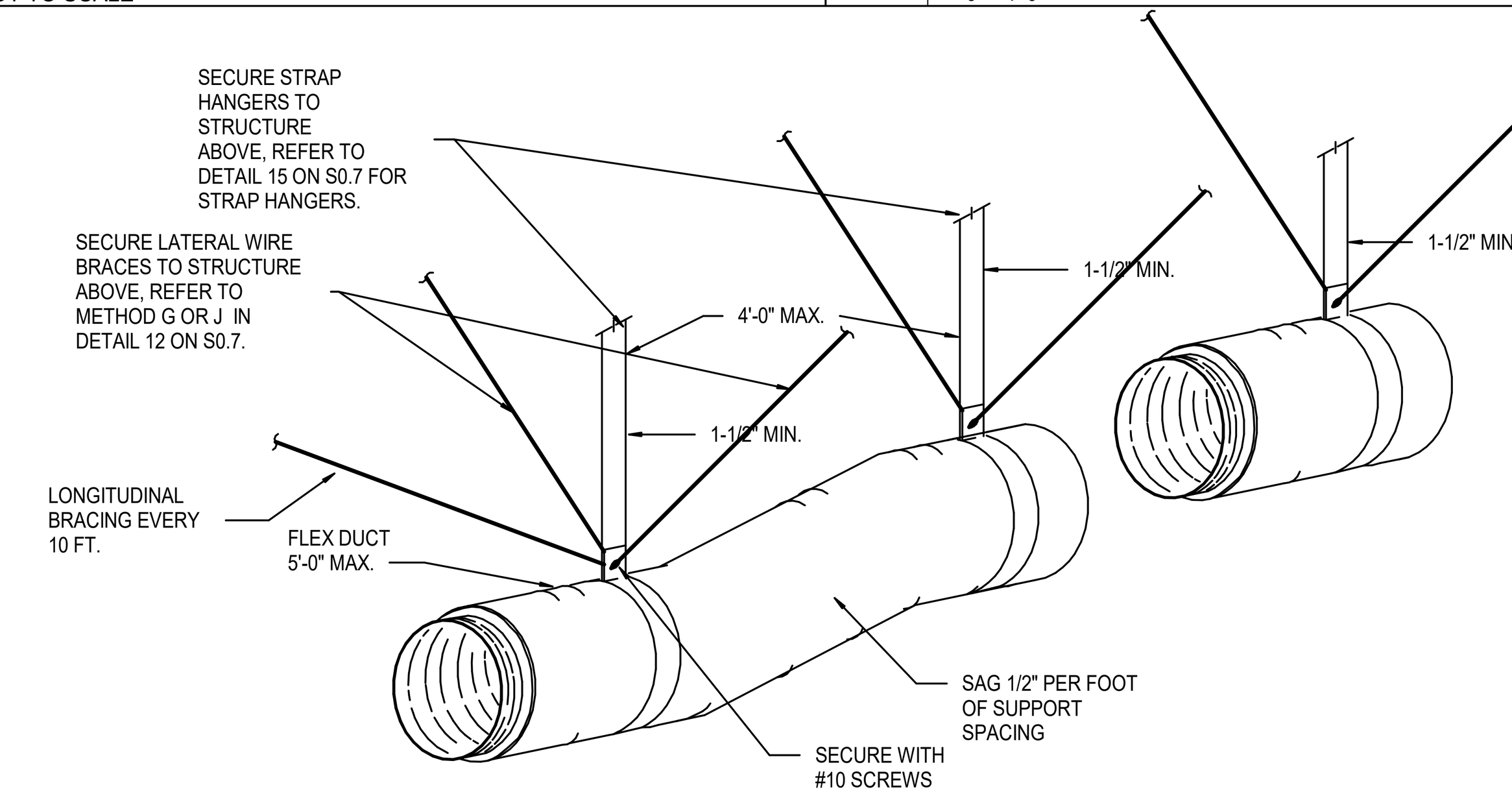
ROUND DUCT SIZE	BUCKLEY TAKE-OFF SIZE	MINIMUM MAIN DUCT DEPTH
6"	6"X12"	8"
8"	6"X12"	8"
9"	6"X14"	8"
10"	6 1/2" X16"	8 1/2"
12"	7 3/4"X18"	9 3/4"
14"	9"X20"	11"
16"	10"X20"	12"



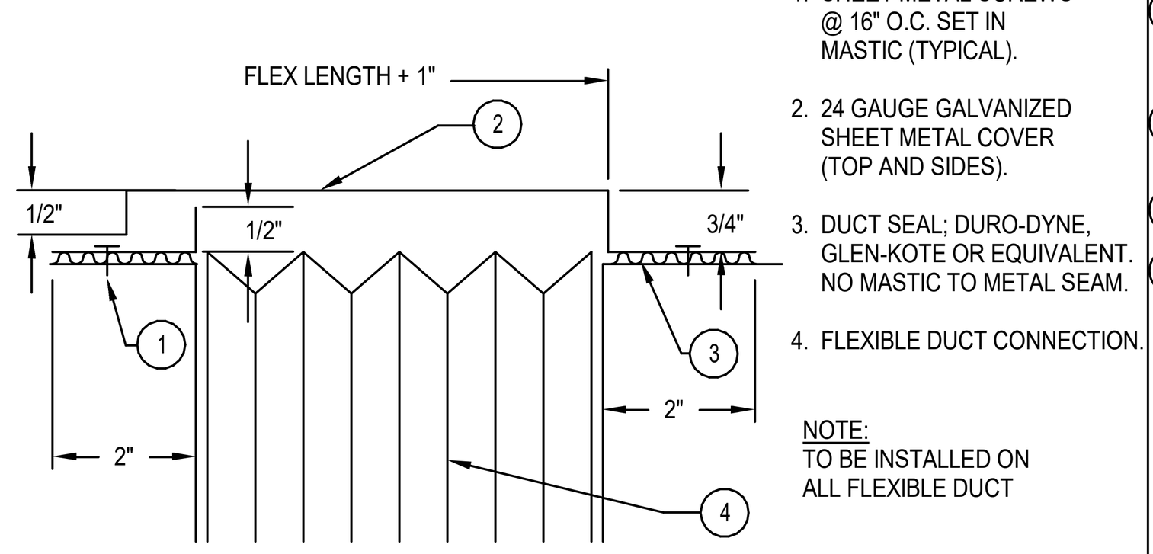
12 RECTANGULAR TO ROUND TRANSITION TAKE-OFF DETAIL.
NOT TO SCALE



11 RECTANGULAR DUCT TRANSITION DETAIL.
NOT TO SCALE



10 FLEXIBLE DUCTWORK HANGER DETAIL.
NOT TO SCALE

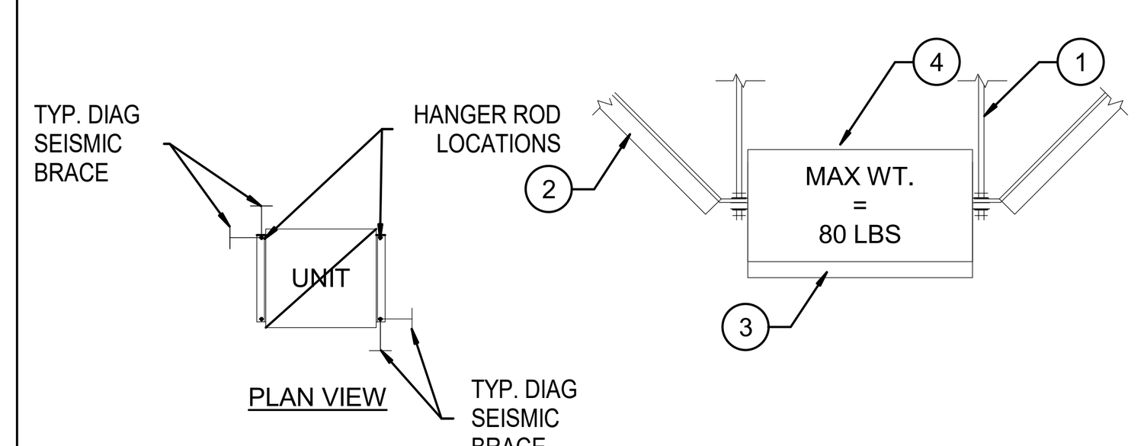


1. SHEET METAL SCREWS @ 16" O.C. SET IN MASTIC (TYPICAL).
2. 24 GAUGE GALVANIZED SHEET METAL COVER (TOP AND SIDES).
3. DUCT SEAL; DURO-DYNE, GLEN-KOTE OR EQUIVALENT. NO MASTIC TO METAL SEAM.
4. FLEXIBLE DUCT CONNECTION.

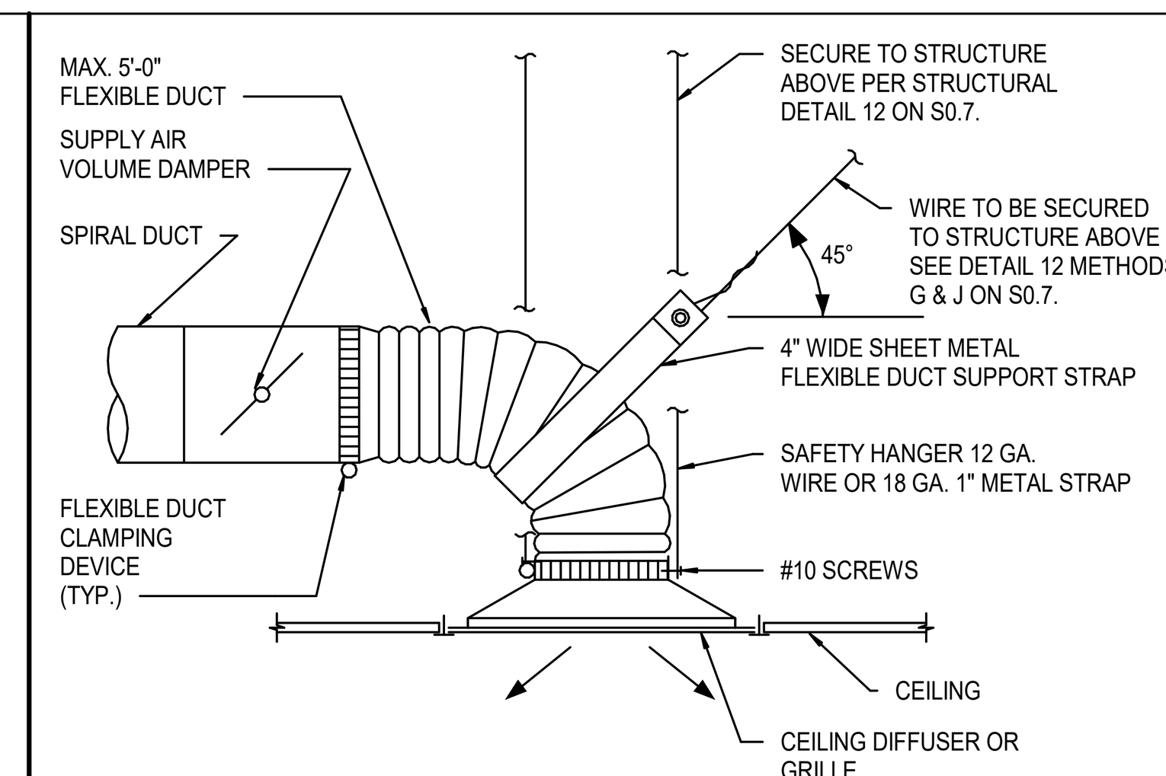
NOTE: TO BE INSTALLED ON ALL FLEXIBLE DUCT

9 FLEX CONNECTOR DETAIL.
NOT TO SCALE

NOTES
1. 3/8"Ø THREADED ROD, (1) EACH CORNER. REFER TO STRUCTURAL DRAWINGS FOR ATTACHMENT TO STRUCTURE. DETAIL 14 ON S0.7 METHOD 'D'.
2. 2x2x1/8 DIAG. BRACE. (MAX. 4'-0" LENGTH) (TYPICAL OF 4) ONE IN EA. DIRECTION. REFER TO DETAIL 12 ON S0.7. METHODS 'A' OR 'F'.
3. REFER TO FAN SCHEDULES FOR MAKE & MODEL.
4. SUSPENDED FAN. SEE FAN SCHEDULE FOR MAKE AND MODEL.

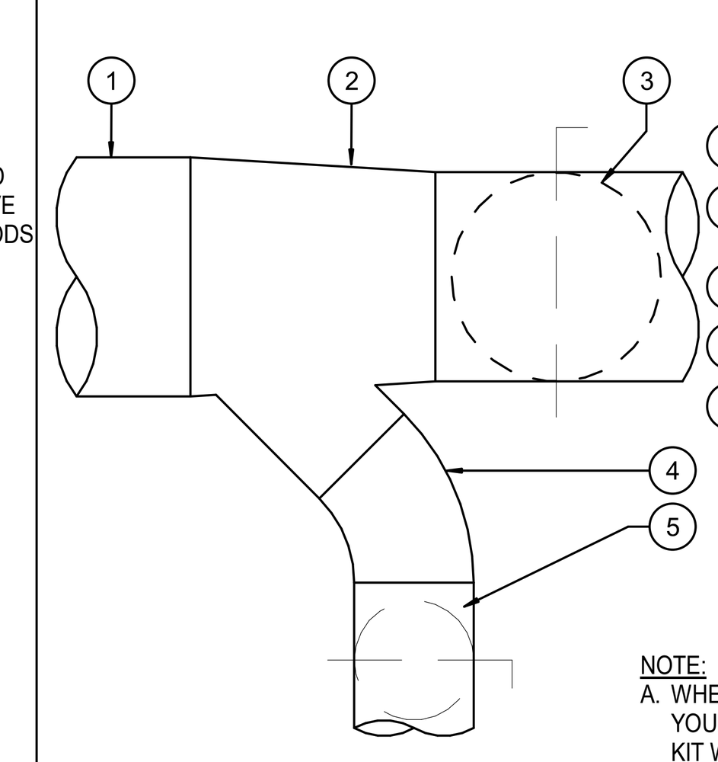


8 SUSPENDED FAN DETAIL.
NOT TO SCALE



NOTES:
1. REFER TO DETAIL 10 ON M6.1 FOR FLEXIBLE DUCTWORK DETAIL.
2. LOCATE VOLUME DAMPER AS FAR AWAY FROM DIFFUSER OR GRILLE AS POSSIBLE.

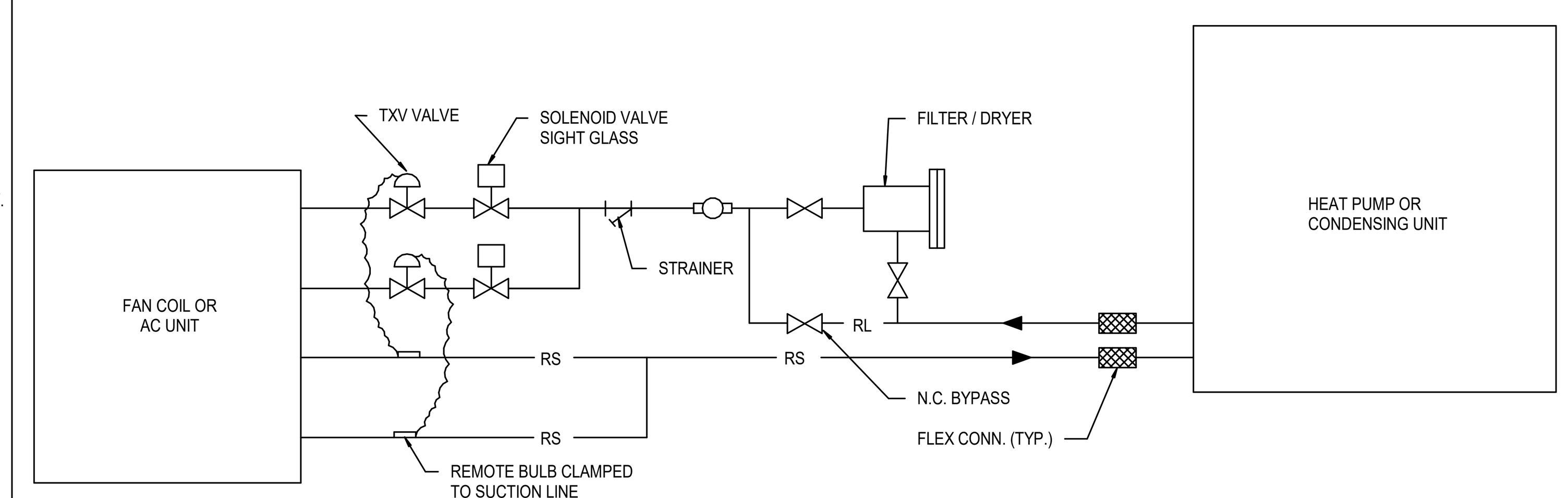
7 LAY IN DIFFUSER CONNECTION DETAIL.
NOT TO SCALE



1. SHEET METAL DUCT.
2. SHEET METAL TAPER WITH BRANCH STUB.
3. DAMPER AT END OF DUCT RUN ONLY.
4. BRANCH TAKE-OFF.
5. BUTTERFLY DAMPER W/ LOCKING QUAD. (TYP)

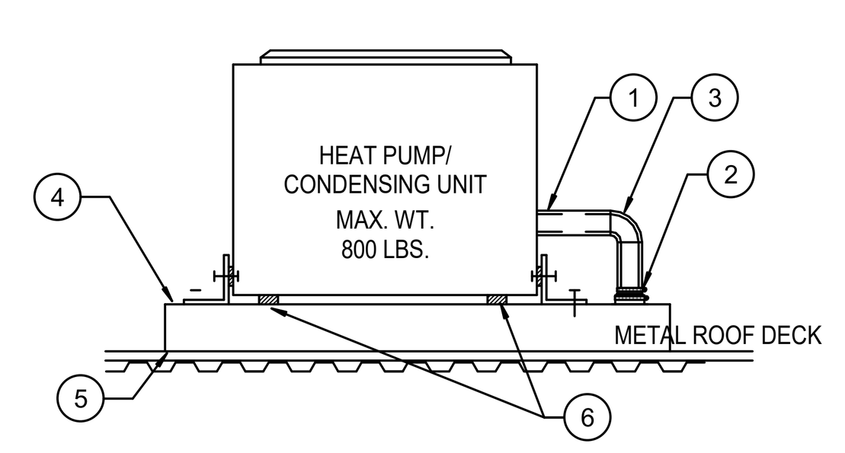
NOTE:
A. WHERE DAMPER IS INACCESSIBLE PROVIDE YOUNG REGULATOR MODEL 270-301 CABLE KIT WITH EITHER 820A-CC (RECTANGULAR OR 5020-CC (ROUND) DAMPER.
B. PROVIDE DAMPER WITH LOCKING QUADRANT AT ALL SINGLE RUNOUTS.
C. PROVIDE MARKER ON CEILING BELOW FOR LOCATING DAMPERS ABOVE CEILING.

6 BRANCH DUCT DAMPER DETAIL.
NOT TO SCALE



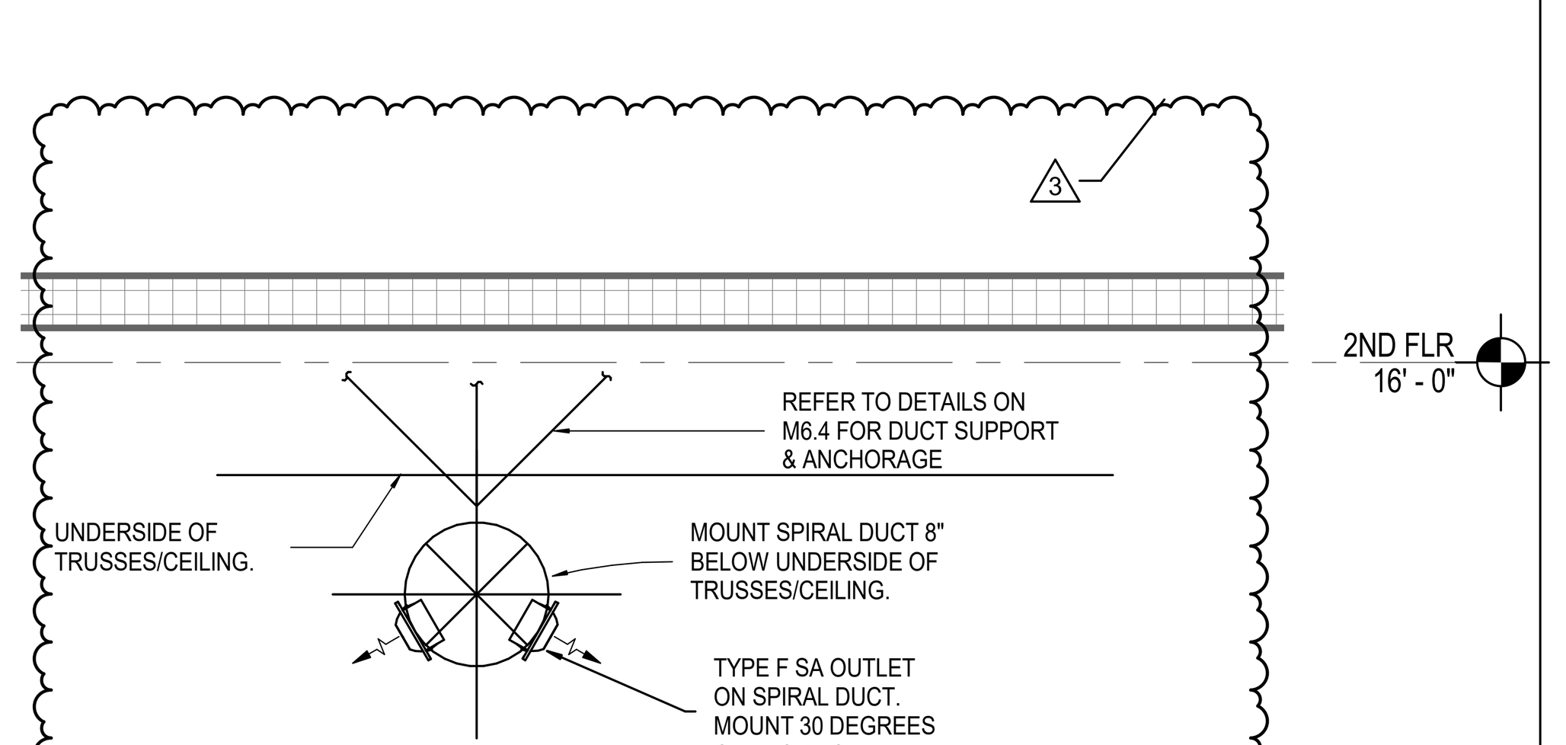
NOTE:
1. TYPICAL OF 2 INDEPENDENT CIRCUITS.
2. ALL REFRIGERANT PIPING TO BE SIZED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.

5 REFRIGERANT PIPING SCHEMATIC DETAIL.
NOT TO SCALE

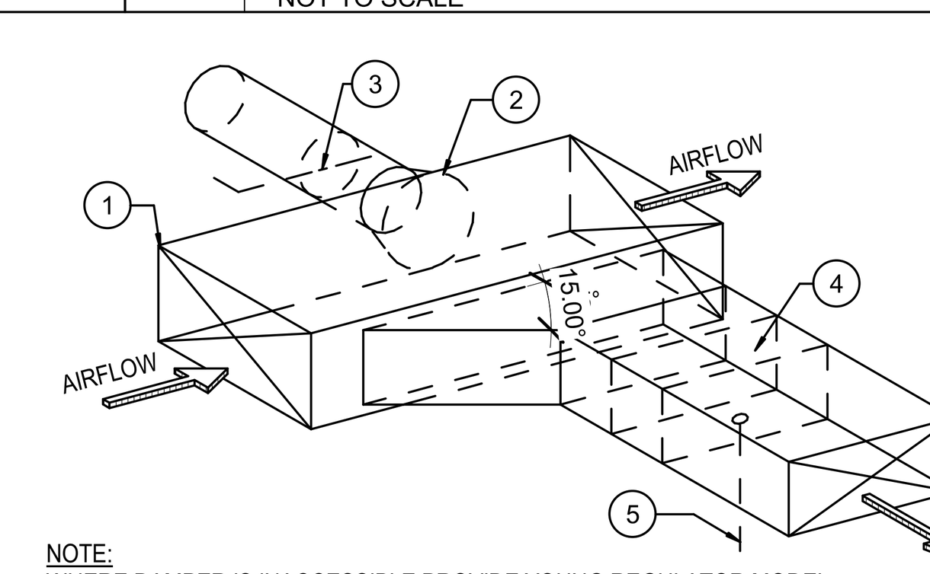


NOTES:
1. INSULATED REFRIGERANT PIPES THRU CURB. PIPES, THRU CURB.
2. PROVIDE GRADUATED STEP BOOT WITH STAINLESS STEEL CLAMPS BY THE PATE COMPANY. BOOT JOINT AT CURB, SHALL BE MADE WATER TIGHT.
3. INSULATED, ALUMINUM WRAP REFRIGERANT PIPES, THRU CURB.
4. HEAT PUMP/CONDENSING UNIT'S ON PLATFORM. PLATFORM SHALL EXTEND 8" BEYOND EACH SIDE OF THE HP/CU. REFER TO STRUCTURAL DETAIL 11 ON S0.7
5. SEE STRUCTURAL DETAIL 11 ON S0.7 FOR ATTACHMENT TO STRUCTURE.
6. PROVIDE 1/4" NEOPRENE PAD BELOW HEAT PUMP.

4 HP/CU ROOF MOUNTING DETAIL.
NOT TO SCALE

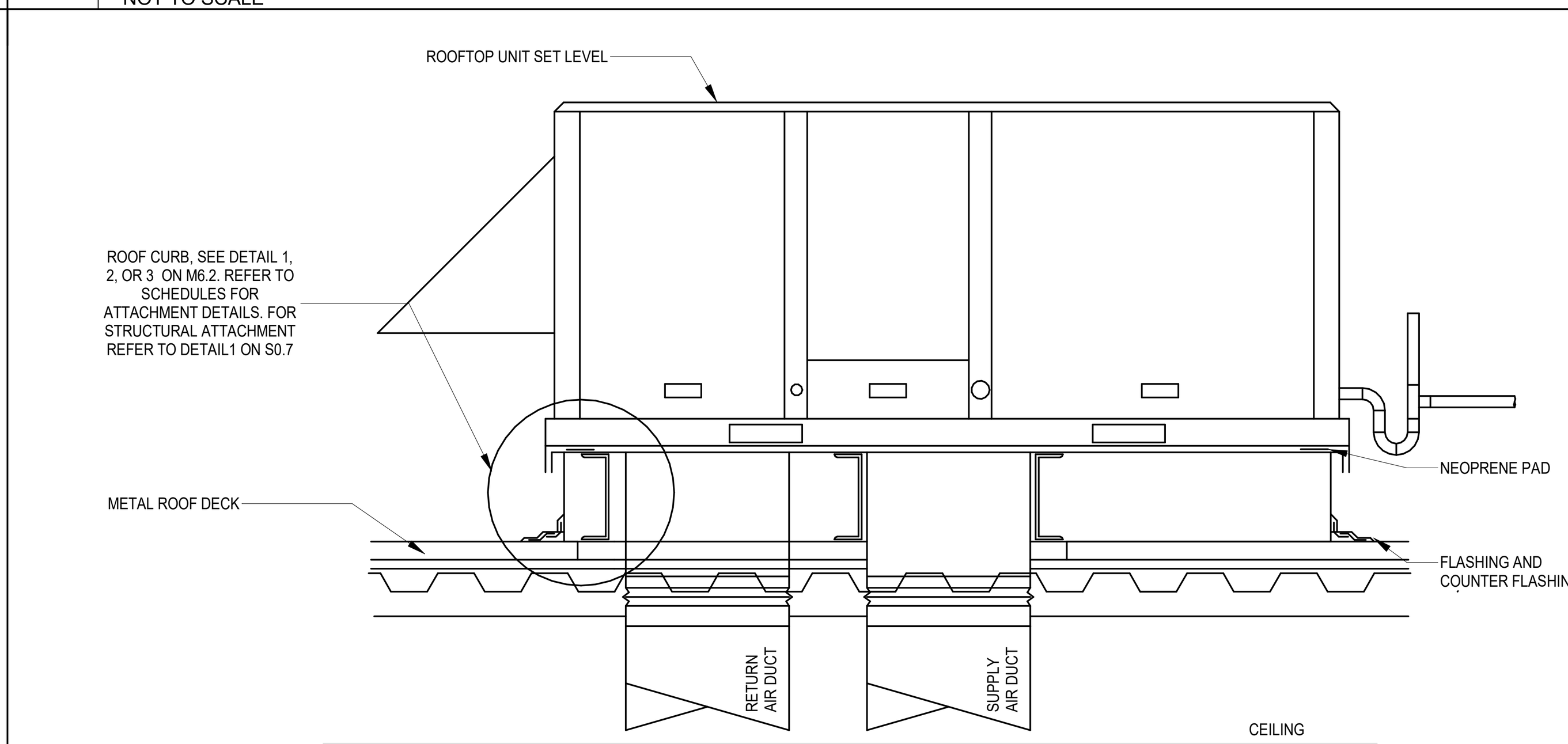


3 SA GRILLES ON SPIRAL DUCT DETAIL
1/2" = 1'-0"



NOTE:
WHERE DAMPER IS INACCESSIBLE PROVIDE YOUNG REGULATOR MODEL 270-301 CABLE KIT WITH EITHER 830A-CC (RECTANGULAR) OR 5020-CC (ROUND) DAMPER.
1. RECTANGULAR GALVANIZED SHEET METAL SUPPLY AIR DUCT - SEE MECHANICAL PLAN FOR SIZE.
2. CUT OPENING ACCURATELY FOR SPIN IN (FLARED) FITTING - WHERE POSSIBLE.
3. BUTTERFLY DAMPER W/ LOCKING QUAD. (TYP.) PROVIDE MARKER ON CEILING BELOW FOR LOCATION OF DAMPERS.
4. VOLUME CONTROL DAMPER WITH LOCKING QUADRANT.
5. DAMPER REGULATOR

2 BRANCH DUCT TAKE-OFF & DMP. DETAIL.
NOT TO SCALE



1 ROOF TOP UNIT DETAIL.
NOT TO SCALE

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RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

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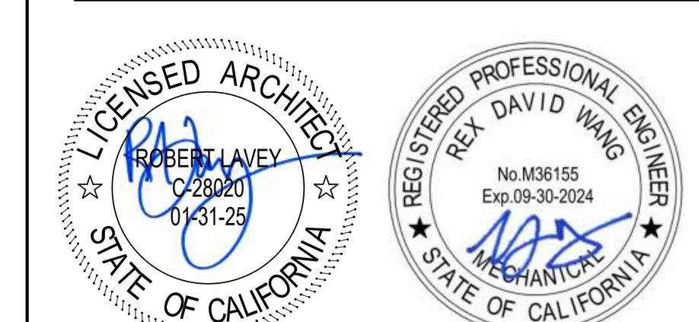

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
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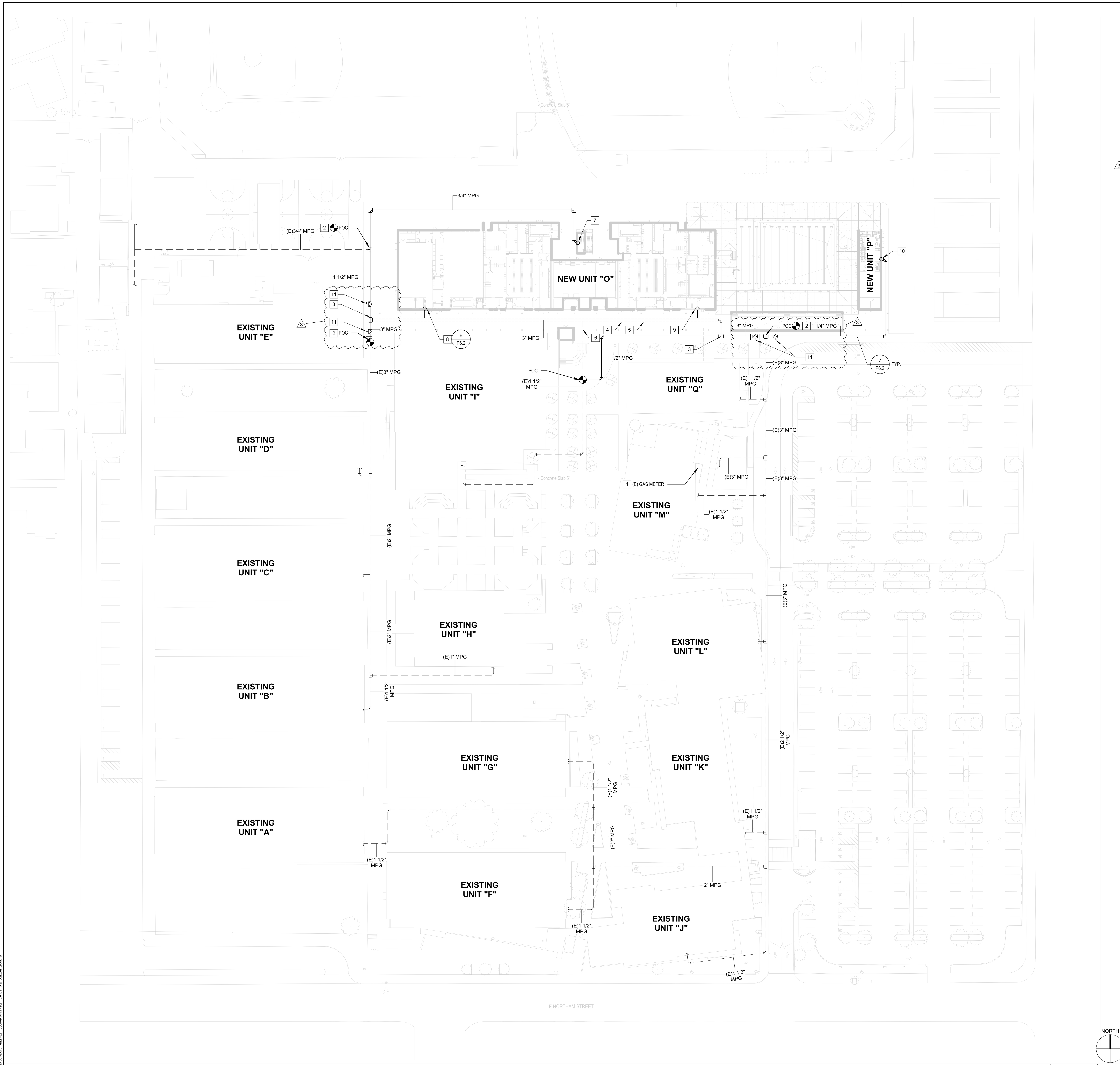
3	03/05/24	PBK	ADDENDUM 3

REVISIONS

DRAWN: JM | CHECKED: RW
DATE: 12-02-2022 | SCALE: As indicated
PROJECT NUMBER: 2110000

MECHANICAL DETAILS

DRAWING NUMBER: M6.1



SITE PLAN 1" = 40'-0" 1

KEY NOTES

1. (E) GAS METERS AND SERVICE PIPING BY PG&E. CONTRACTOR SHALL ARRANGE FOR UPGRADE OF METER AND SERVICE AND OWNER SHALL PAY ALL COSTS ADDED. TOTAL DEMAND ADDED 2500 MBH
2. POC (N) MPG PIPE TO (E) 3" MPG PIPE.
3. LOCATE GAS TEE OUTSIDE OF NEW BUILDING OVERHANG.
4. REMOVE AND REPLACE (E) SLEEVED 3" MPG PIPE BELOW OVERHANG. EXTEND NEW SLEEVE 24" PAST NEW OVERHANG. FIELD VERIFY LOCATION OF EXISTING PIPE.
5. SLEEVE AND VENT 1-1/2" MPG PIPING BELOW OVERHANG.
6. REMOVE (E) 1-1/2" MPG PIPING BELOW GRADE.
7. GAS PIPING TO RISE UP AND ELBOW INTO WALL ABOVE FOOTING. SEE SHEET P2.3.2 FOR CONTINUATION.
8. ROUTE 2" VENT PIPE TO BUILDING "O." SEE SHEET P2.2.2 FOR CONTINUATION.
9. ROUTE 2" VENT PIPE TO BUILDING "O." SEE SHEET P2.2.2 FOR CONTINUATION.
10. GAS PIPING TO RISE UP AND ELBOW INTO WALL ABOVE FOOTING. SEE SHEET P3.1 FOR CONTINUATION.
11. FULL SIZE GAS SHUT-OFF VALVE IN CHRISTY BOX. (3)

DEMOLITION NOTES

1. DEMOLISH ALL EXISTING MEDIUM PRESSURE GAS IN CONSTRUCTION AREA.

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RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

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ROWLAND UNIFIED SCHOOL DISTRICT

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CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
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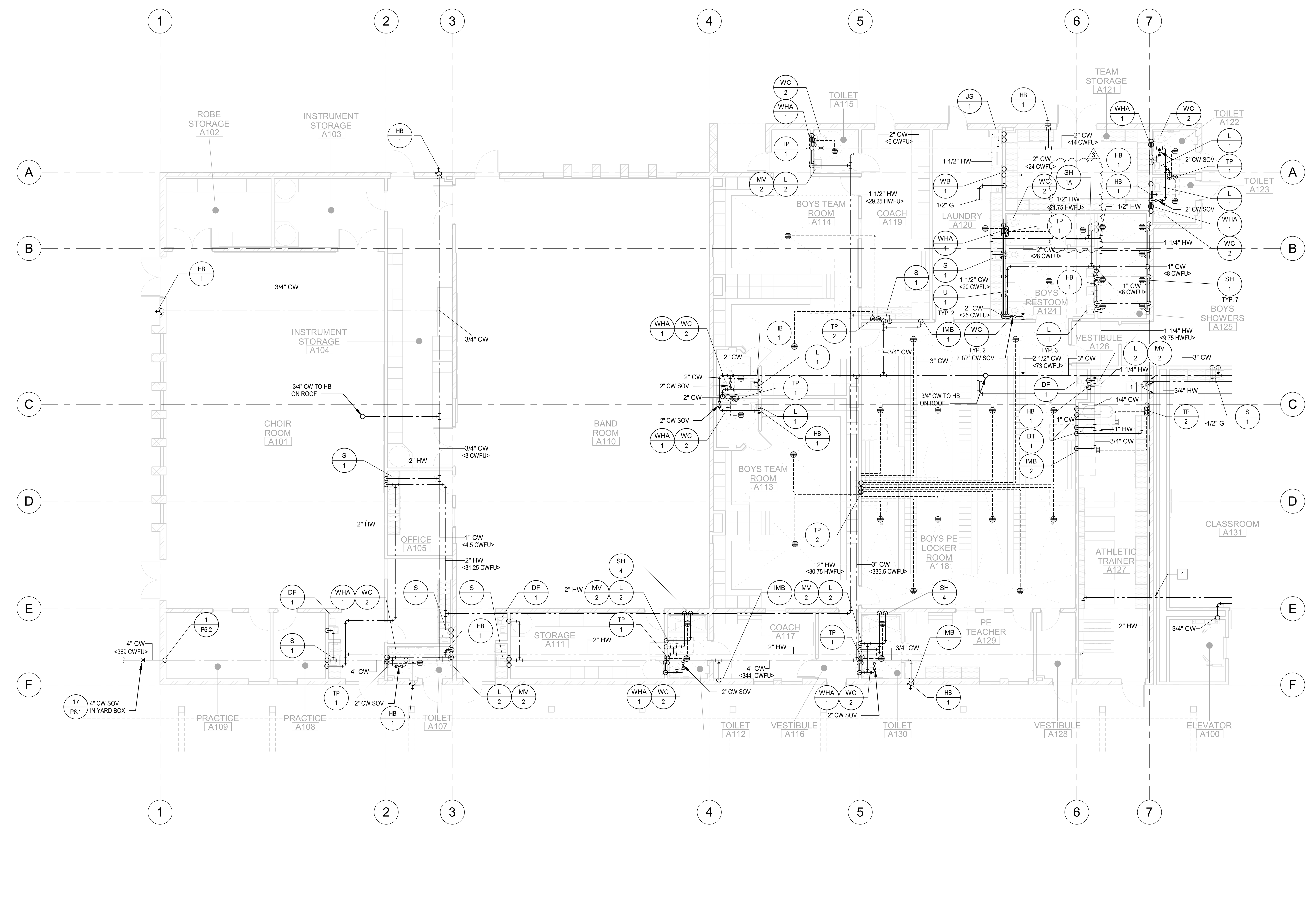
REVISIONS

DRAWN: Author	CHECKED: Checker
DATE: 06/24/22	SCALE: 1" = 40'-0"
PROJECT NUMBER: 2110000	

PLUMBING SITE PLAN

DRAWING NUMBER: P1.1



PLUMBING FIRST FLOOR PLAN - AREA A - WATER AND GAS | 1/8" = 1'-0" | 1

KEYNOTES:

1. PROVIDE METRAFLEX EXPANSION JOINTS FOR ALL PIPING CROSSING SEISMIC JOINTS. SEE DETAIL 9 ON SHEET P6.1

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RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL & AQUATIC CENTER

ROWLAND UNIFIED SCHOOL DISTRICT

401 NOGALES ST, LA PUENTE, CA 91744

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LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
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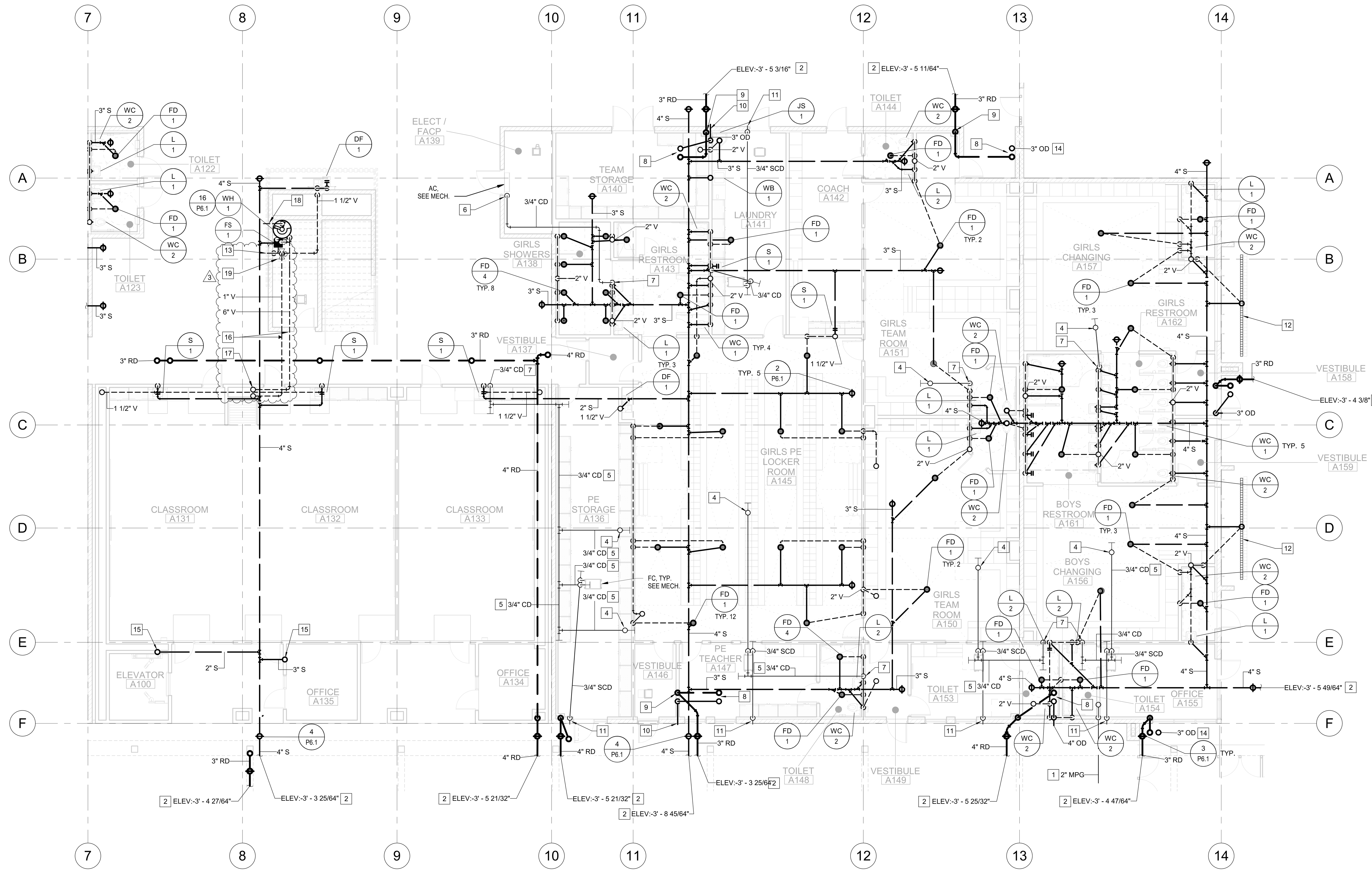
PROJECT NUMBER: 2110000	

PLUMBING 1ST FLR PLN - AREA A - WATER AND GAS

DRAWING NUMBER: P2.2.2



NORTH

PLUMBING FIRST FLOOR PLAN - AREA B - WASTE AND VENT

1/8" = 1'-0" | 1

KEYNOTES (CONT.):

3

19 ROUTE 1" VENT FROM GAS PRESSURE REGULATOR UP THRU ROOF. ROUTE ALONG SIDE THE WATER HEATER FLUE. TERMINATE VENT THRU ROOF PER DETAIL 6/P6.2. LOCATE MINIMUM OF 10' AWAY FROM OUTSIDE AIR INTAKE OR 3'-0" ABOVE.

KEYNOTES:

1 MPG VENT FROM SLEEVED GAS LINE. SEE P1.1

2 CIVIL POINT OF CONNECTION 5' OUTSIDE OF BUILDING. SEE PLUMBING SITE PLAN P1.1 FOR CONTINUATION.

3 CLEARANCE NOT LESS THAN 18" IN FRONT OF CLEAN OUT.

4 3/4" CONDENSATE DROP THRU ROOF.

5 SLOPE PIPING 1/8" PER FOOT IN DIRECTION INDICATED.

6 ROUTE 3/4" CONDENSATE DRAIN FROM CONDENSATE PUMP UP TO ABOVE CEILING.

7 ROUTE 3/4" CONDENSATE DRAIN DOWN IN WALL, ELBOW OUT AND EXTEND TO TAILPIECE OF SINK/LAVATORY. SEE DETAIL 1/P6.1

8 ROOF DRAIN AND OVERFLOW DRAIN RISERS THRU ROOF.

9 ROOF DRAIN DROP IN WALL TO BELOW SLAB, EXTEND BELOW GRADE WITH COTG. SEE CIVIL DRAWINGS FOR CONTINUATION.

10 DAYLIGHT OVERFLOW DRAIN LINE UP THRU EXTERIOR WALL AT 12" A.F.F. PROVIDE S.S. COVER ON OUTLET PER ARCH DRAWINGS.

11 DAYLIGHT 3/4" SECONDARY CONDENSATE DRAIN THRU EXTERIOR WALL.

12 TRENCH DRAIN. SEE POOL CONSULTANT DRAWINGS.

13 2" VENT THRU WALL MIN. 10' A.F.G.

14 DAYLIGHT OVERFLOW DRAIN THRU ROOF OVERHANG. TERMINATE 1-1/2" BEYOND FINISHED SURFACE. PROVIDE S.S. COVER ON OUTLET PER ARCH. DRAWINGS.

15 SEWER DROP FROM ABOVE. SEE P2.5.1

16 METRAFLEX SEISMIC LOOP FOR GAS WATER HEATER FLUE PIPE.

17 6" WATER HEATER FLUE ROUTED UP IN CHASE THROUGH ROOF.

18 6" WATER HEATER INTAKE ROUTED UP THROUGH SIDEWALL.

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RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

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ROWLAND UNIFIED SCHOOL DISTRICT

401 NOGALES ST, LA PUENTE, CA 91744

LICENSED ARCHITECT — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — STATE OF CALIFORNIA

CONSULTANT

LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, Ca 91730
909.987-0909
leafengineers.com

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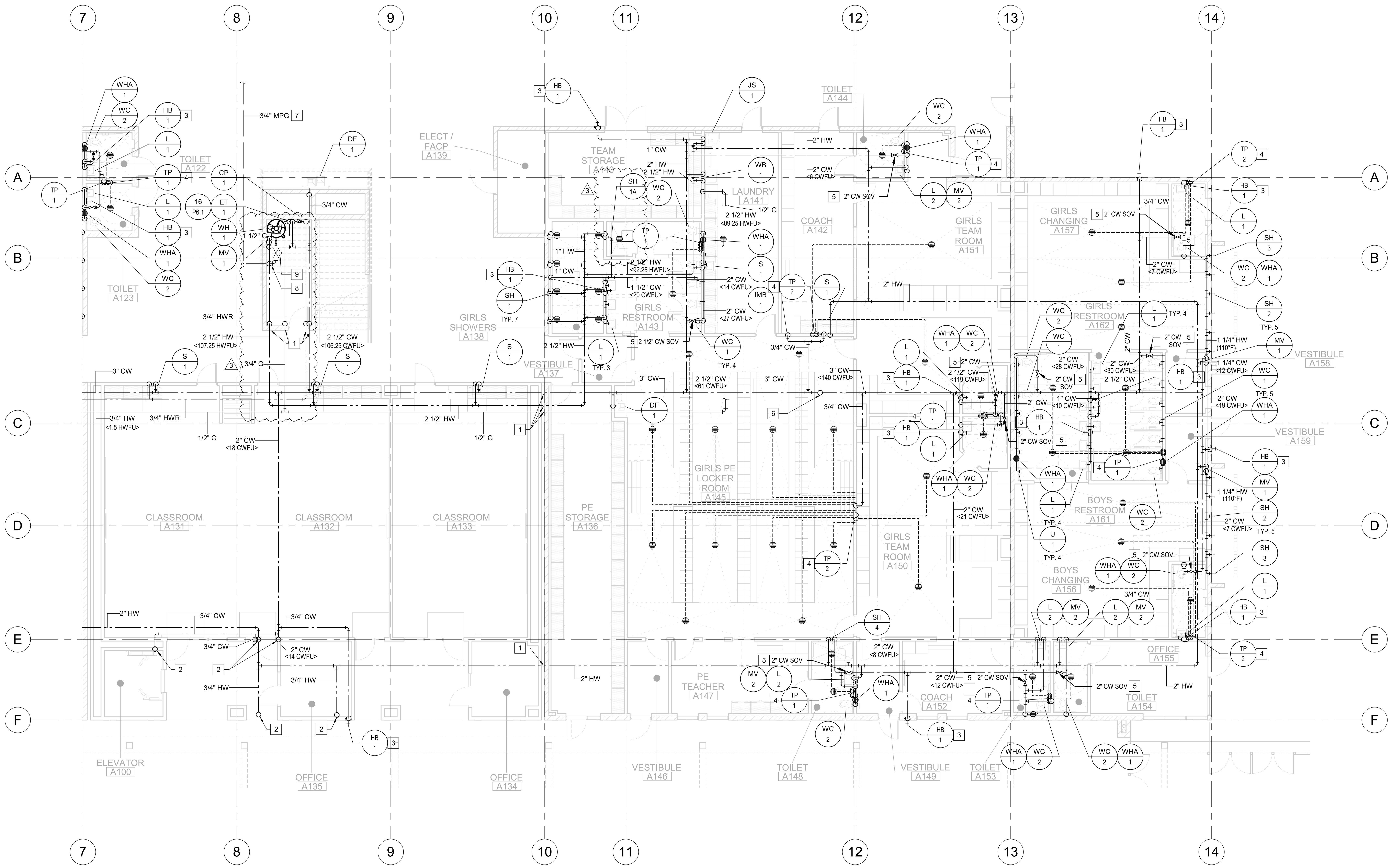
PROJECT NUMBER: 2110000	

PLUMBING 1ST FLR PLN - AREA B - WASTE AND VENT

DRAWING NUMBER: **P2.3.1**



PLUMBING FIRST FLOOR PLAN - AREA B - WATER AND GAS | 1/8" = 1'-0" | 1

NORTH

KEYNOTES:

1. PROVIDE METRAFLEX EXPANSION JOINTS FOR ALL PIPING CROSSING SEISMIC JOINTS. SEE DETAIL 9 ON SHEET P6.1
2. HOT/COLD WATER RISER, TYPICAL. SEE P2.5.2 FOR CONTINUATION.
3. MOUNT HOSE BIBB A MINIMUM OF 18" ABOVE FINISHED FLOOR/GRADE.
4. ROUTE 1/2" LINE BELOW GRADE FROM TP TO FLOOR DRAIN.
5. COLD WATER SHUT OFF VALVE ABOVE CEILING ACCESS PANEL.
6. ROUTE 3/4" COLD WATER UP THROUGH ROOF TO HOSE BIBB.
7. SEE SITE PLAN SHEET P1.1 FOR CONTINUATION OF GAS PIPE.
8. GAS PIPE RISER UP INSIDE STAIRWELL. CONNECT TO GAS PRESSURE REGULATOR AND SHUT OFF VALVE.
9. AMERICAN METER 1800C, 3/4" INLET AND 1-1/2" OUTLET WITH 3/16" ORIFICE GAS PRESSURE REGULATOR. REGULATE 5 PSI TO 7" WC PIPING IN BUILDING. 7" WC PIPE SIZED PER 2022 CPC TABLE 1215.2(1) . TDL = 175'. TOTAL DEMAND = 345 MBH.

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RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

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ROWLAND UNIFIED SCHOOL DISTRICT

401 NOGALES ST, LA PUENTE, CA 91744

LICENSED ARCHITECT ROBERT LAVEY C-28020 01-31-25 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M36155 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

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2	02/19/24	PBK	ADDENDUM 2
3	03/05/24	PBK	ADDENDUM 3

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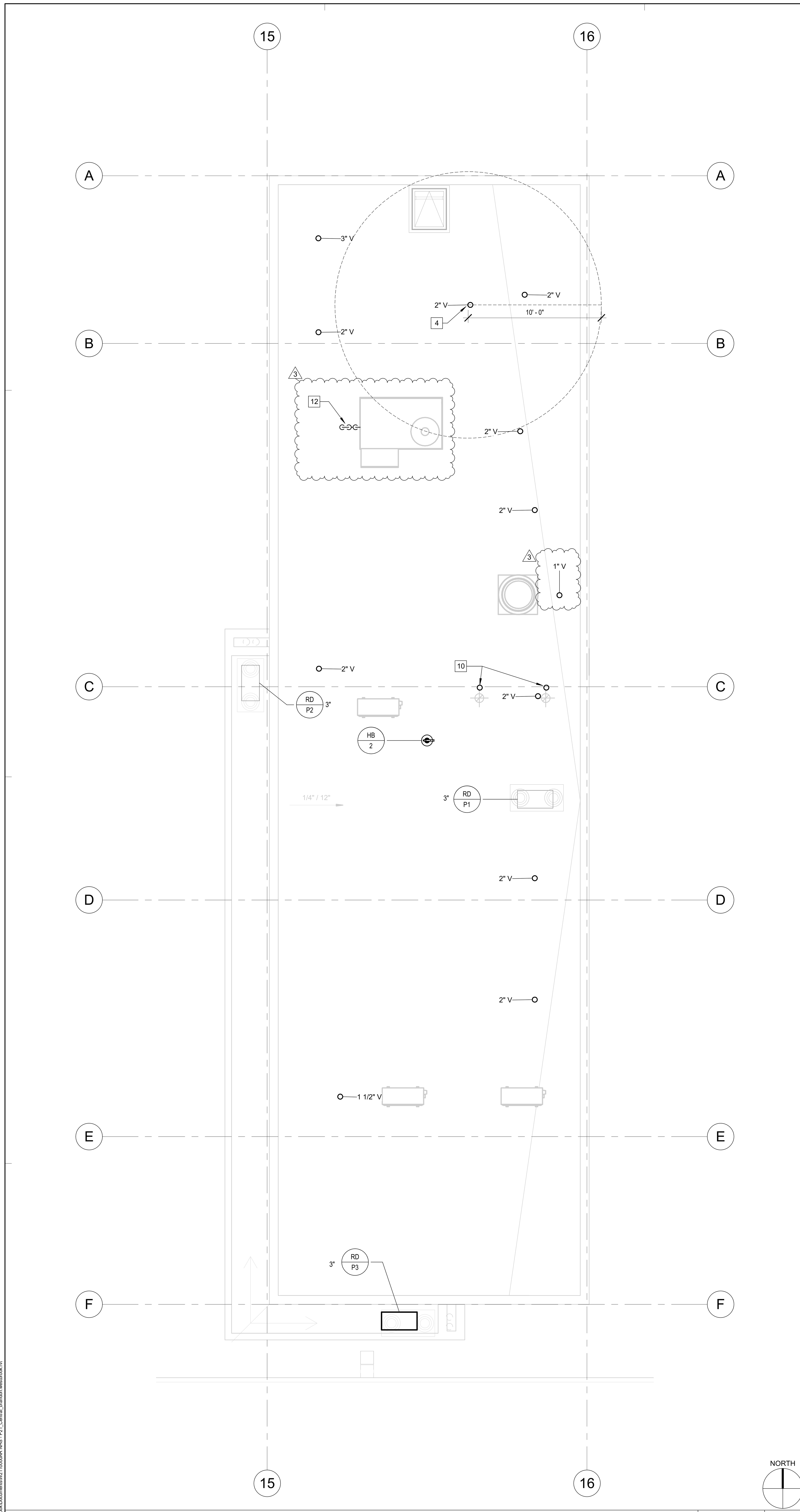
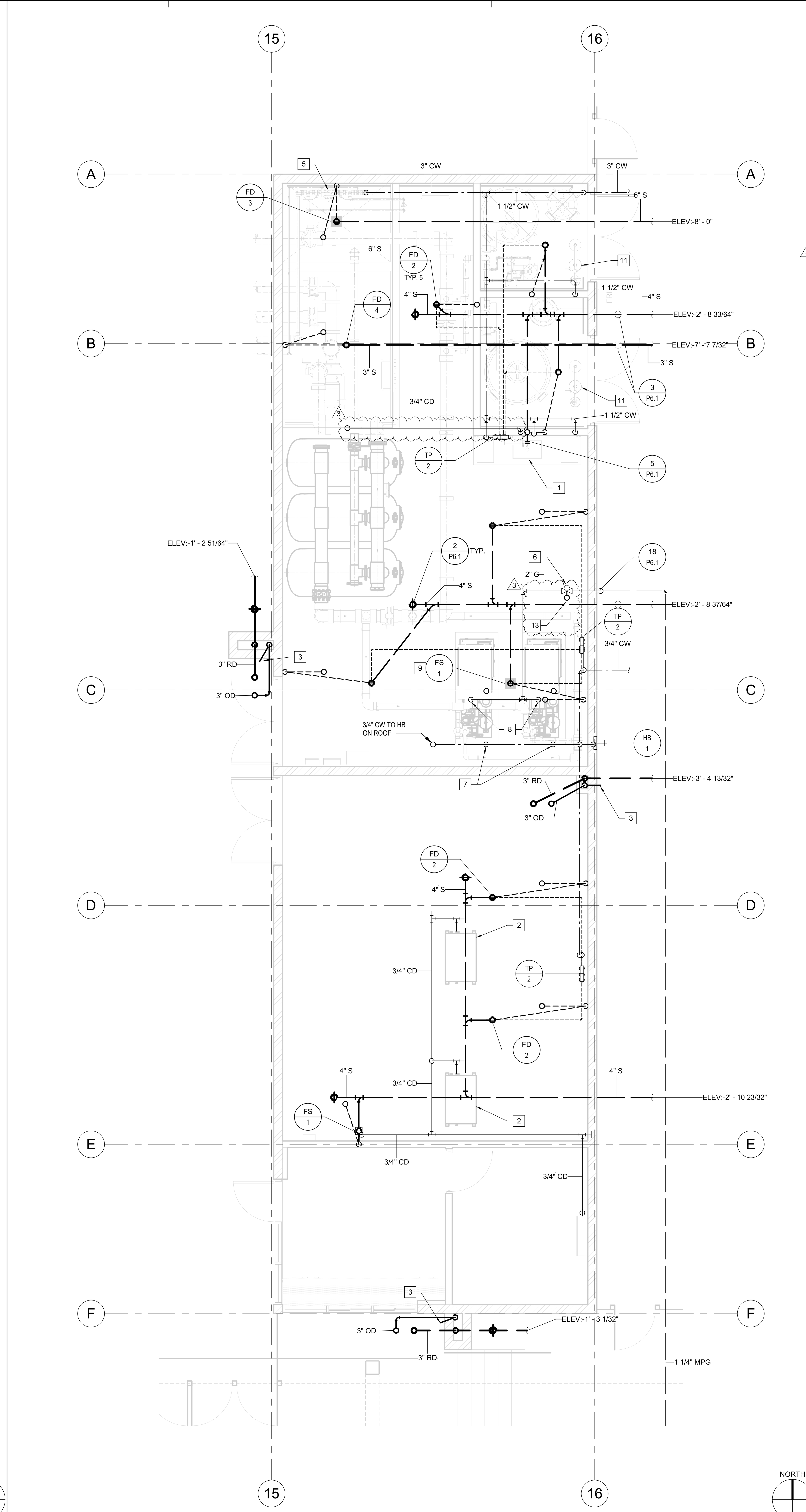
DATE: 10/19/22	SCALE: 1/8" = 1'-0"
PROJECT NUMBER: 2110000	

PLUMBING 1ST FLR PLN - AREA B - WATER AND GAS

DRAWING NUMBER: P2.3.2



ENLARGED PLAN - POOL EQUIPMENT BUILDING ROOF PLAN | 1/4" = 1'-0" | 2



ENLARGED PLAN - POOL EQUIPMENT BUILDING FLOOR PLAN | 1/4" = 1'-0" | 1

KEY NOTES

1. POOL WORK STATION, SEE MR.1 FOR SPECIFICATION.
2. MECH UNIT. SEE MECH DWGS. ROUTE CONDENSATE TO FLOOR SINK.
3. TERMINATE OVERFLOW DRAIN 12" ABOVE GRADE.
4. ROUTE VENT THROUGH ROOF MIN. 10'-0" AWAY FROM OUTSIDE AIR INTAKE OR 3'-0" ABOVE. TYPICAL.
5. BACKFLOW PROVIDED BY POOL CONSULTANT. SEE SHEET MR.1.
6. AMERICAN METER 1800C, 1-1/4" INLET AND 2" OUTLET WITH 1/2" ORIFICE GAS PRESSURE REGULATOR. REGULATE 5 PSI TO 7" WC PIPING IN BUILDING. 7" WC PIPE SIZED PER 2022 CPC TABLE 1215.2(1). TDL = 20'. TOTAL DEMAND = 2,500 MBH.
7. 3/4" COLD WATER TO EACH SWIMMING POOL HEATER.
8. 1-1/2" NATURAL GAS TO EACH SWIMMING POOL HEATER.
9. DISCHARGE FULL-SIZED CONDENSATE DRAIN FROM SWIMMING POOL HEATER TO FLOOR SINK. ELBOW DOWN TERMINATE WITH 1" MINIMUM AIR GAP ABOVE FLOOD RIM OF FLOOR SINK.
10. POOL WATER HEATER FLUE.
11. EYEWASH/SHOWER PROVIDED BY POOL CONSULTANT. SEE SHEET MR.1.
12. (3) CONDENSATE ROUTED BELOW ROOF TO SINK TAILPIECE. SEE 1/P3.1 FOR CONTINUATION. SEE 15/P6.1 FOR TRAP INSTALLATION.
13. 1" VENT FROM GAS PRESSURE REGULATOR UP THRU ROOF. TERMINATE VENT THRU ROOF PER 6/P6.2. LOCATE MINIMUM OF 10' AWAY FROM OUTSIDE AIR INTAKE OR 3'-0" ABOVE.

ROOF DRAIN SIZING CALCULATION

ROOF DRAIN	ROOF AREA COVERED	MAX AREA ALLOWED	SIZE
RD-P1	1889	2320	3"
RD-P2	133	2320	3"
RD-P3	38	2320	3"

PBK
RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

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ROWLAND UNIFIED SCHOOL DISTRICT

401 NOGALES ST, LA PUENTE, CA 91744

LICENSED ARCHITECT
ROBERT LAVEY
C-28020
01-31-25
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
REX DAVID WANG
No.M36155
Exp.09-30-2024
MECHANICAL
STATE OF CALIFORNIA

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

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3	03/05/24	PBK	ADDENDUM 3
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DRAWN: Author	CHECKED: Checker
DATE: 05/12/23	SCALE: 1/4" = 1'-0"
PROJECT NUMBER: 2110000	

ENLARGED PLUMBING PLANS

DRAWING NUMBER: **P3.1**

WATER HEATER SCHEDULE

UNIT	MANUFACTURER & MODEL NO.	LOCATION	SERVICE	TYPE	TANK SIZE (GAL)	FUEL	INPUT CAPACITY (MBH)	RECOVERY RATE @80°F (GPH)	INLET TEMP. °F	OUTLET TEMP. °F	ELECTRICAL VOLTS	ELECTRICAL PHASE	ELECTRICAL HERTZ	ELECTRICAL FLA	OPER. WT.(LBS)	REMARKS
WH 1	A.O. SMITH CYCLONE Mxi MODEL BTH-300(A)	FIRE RISER A178	DOM. HOT WATER	TANK	120	GAS	300	436	60	140	460	3	60	43.3	1850	PROVIDE CONCENTRIC VENT KIT. SEE DETAIL 16 ON SHEET P6.1 FOR ANCHORAGE.

CIRCULATOR PUMP SCHEDULE

NO.	MANUFACTURER & MODEL NO.	LOCATION	SERVICE	TYPE	EFFICIENCY	FLOW RATE (GPM)	TDH	WATTS	RPM	VOLT/PH/HZ	OPERATING WT.(LBS.)	REMARKS
CP 1	BELL & GOSSETT MODEL NBF-45	FIRE RISER A178	DOM. HOT WATER	VERTICAL, IN-LINE	-	10	20	270	3300	115/1/60	14.5	PROVIDE AQUA STAT TO START AT 120 DEGREES AND STOP AT 140 DEGREES. SEE DETAIL 16 ON SHEET P6.1 FOR ANCHORAGE.

EXPANSION TANK SCHEDULE

NO.	MANUFACTURER & MODEL NO.	LOCATION	SERVICE	QUANTITY	TOTAL VOL.(GAL)	HEIGHT	DIAMETER	OPERATING WT.(LBS.)	REMARKS
ET 1	AMTROL INC THERM-X-TROL MODEL ST-12C-DD	FIRE RISER A178	DOM. HOT WATER	1	6.4	18"	12"	26	SEE DETAIL 16 ON SHEET P6.1 FOR ANCHORAGE.

THERMOSTATIC MIXING VALVE SCHEDULE

NO.	MANUFACTURER & MODEL NO.	LOCATION	SERVICE	SIZE (INCH)	PRESSURE DROP (PSI)	REMARKS
MV 1	LEONARD MODEL LV-985-SW-LF	FIRE RISER A178	DOM. HOT WATER	2" INLETS, 2" OUTLET	5	SERVICE: PLUMBING FIXTURES. SINGLE VALVE, MIN. FLOW RATE 10 GPM. MAX. 216 GPM. LEAD FREE MIXING VALVE, PRESSURE GAUGE, SET TO DELIVER 120°F HW. PROVIDE REDUCER & INCREASE FITTING AS REQUIRED. SEE DETAIL 16 ON SHEET P6.1 FOR ANCHORAGE.

WASTE AND VENT SIZING TABLE

WASTE SIZING (HORIZONTAL PIPING)		VENT SIZING (HORIZONTAL & VERTICAL PIPING)		
PIPE SIZE	FU	PIPE SIZE	FU	MAX. LENGTH (FT.)
1 1/2"	1	1 1/2"	8	60
2"	8	2"	24	120
2 1/2"	14	2 1/2"	48	180
3"	35	3"	81	212
4"	216	4"	256	300
5"	428	5"	600	390
6"	720	6"	1380	510

WASTE & WATER FIXTURE UNITS

FIXTURE	WASTE QUANITY	WASTE FIXTURE UNITS	WASTE TOTAL	WATER FIXTURE UNITS	WATER TOTAL
WASTE CLOSET - FLUSH TANK	-	3.0	-	3.0	-
WATER CLOSET - FLUSH VALVE	34	4.0	136	5.0	170
URINAL - FLUSH VALVE	6	2.0	12	4	24
LAVATORY	33	1.0	33	1.0	33
FLOOR DRAIN	81	2.0	162	-	-
FLOOR SINK	2	3.0	6	-	-
SHOWER	31	2.0	62	2.0	62
SINK	12	3.0	36	2.0	24
(DOM. UNIT) CLOTHES WASHER	2	3.0	6	4.0	8
HOSE BIBB	31	-	-	1.0	31
BATHTUB	2	2.0	4	4.0	8
DRINKING FOUNTAIN	6	0.5	3	0.5	3
SERVICE SINK	2	3.0	6	3.0	6
TOTAL			466		369
				GPM	112

WATER CALCULATIONS

BUILDING FIXTURE UNITS 369 = 121 GPM

BUILDING EXTERNAL PRESSURE LOSS

MAX. 75 PSI

- WATER METER 4 PSI
- BACK FLOW PREVENTER 11 PSI
- PRESSURE REDUCING VALVE - PSI

PRESSURE AVAILABLE AT BUILDING ENTRANCE 60 PSI

BUILDING INTERNAL PRESSURE LOSS

BUILDING STATIC PRESSURE HEIGHT

34 HEIGHT X 0.434 = 14.80 PSI

PRESSURE REQUIRED AT FIXTURE:

FLUSH VALVE: 25 PSI

FLUSH TANK: 8 PSI

BUILDING TOTAL LOSS: 40 PSI

AVAILABLE PRESSURE FOR FRICTION LOSS

TOTAL LENGTH 1250 FT X F 1.2 = TOTAL EQUILVALENT LENGTH (T.E.L.) 1500 FT

MAX ALLOWABLE FRCITION LOSS PER 100 FT : 1.93

USE 1.80 PSI LOSS PER 100 FT

WATER HAMMER ARRESTER SIZING/SELECTION TABLE

WHA SIZE	FIXTURE UNITS	CROSS REF PDI STANDARD
1/2"	1 - 11	A
3/4"	12 - 32	B
1"	33 - 60	C
1 1/4"	61 - 113	D
1 1/2"	114 - 154	E
2"	155 - 330	F

NATURAL GAS PIPE SIZING SCHEDULE (8" W.C.)

GAS LOADS: 300 CFH, TDL = 350'

PIPE SIZE	1/2"	3/4"	1"	1¼"	1½"	2"	2½"	3"	4"
CFH @ 350'	25	52	99	204	307	591	943	1668	3404

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	S or W	V	CW	HW	DESCRIPTION
SH 1A	SHOWER HEAD (ACCESS. INTERIOR)	FD	---	3/4"	3/4"	SHOWER STALL, FOLD DOWN SEAT AND GRAB BARS DESIGNED BY ARCHITECT. PLUMBING CONTRACTOR TO PROVIDE ACORN 536ADA-PBH-HL-QD-PSO ZENITH BUILT-IN SHOWERS, FLANGED SHOWERHEAD, HAND-SHOWER ASSEMBLY WITH FLEX HOSE HAND-HELD SHOWER HEAD, WITH 24" STAINLESS STEEL ADA GRAB BAR, DIVERTER VALVE, AIR-CONTROL SINGLE TEMPERATURE METERING VALVE, BRADLEY S59-4016 MIXING VALVE FOR HOT & COLD INLET, SET OUTLET TEMPERED WATER TO 108 DEG F. CBC ACCESS COMPLIANT. 1.6 GPM.

3

PLUMBING FIXTURE SCHEDULE

MARK	FIXTURE	S or W	V	CW	HW	DESCRIPTION
WC 1	WATER CLOSET	3"	2"	1-1/2"	---	KOHLER "HIGHCLIFF" NO. K-96057 ELONGATED FLOOR MOUNTED WATER CLOSET, 1.28 GPF, VITREOUS CHINA (ADA), ELONGATED BOWL, SIPHON JET WITH KOHLER "WAVE" K-10673-SV 1.28 GPF EXPOSED BATTERY-POWERED SENSOR FLUSH VALVE. PROVIDE KOHLER K-4731-SC ELONGATED TOILET SEAT
WC 2	WATER CLOSET (ACCESS.)	3"	2"	1-1/2"	---	KOHLER "HIGHCLIFF" NO. K-96057 ELONGATED FLOOR MOUNTED WATER CLOSET, 1.28 GPF, VITREOUS CHINA (ADA), ELONGATED BOWL, SIPHON JET WITH KOHLER "WAVE" K-10673-SV 1.28 GPF EXPOSED BATTERY-POWERED SENSOR FLUSH VALVE. PROVIDE KOHLER K-4731-SC ELONGATED TOILET SEAT. CBC COMPLIANT FOR ACCESS.
L 1	LAVATORY (ACCESS.)	2"	1-1/2"	1/2"	---	AMERICAN STANDARD NO. 0355.012, WALL-HUNG, 20"x18" VITREOUS CHINA WITH BACKSPLASH & WALL BRACKET, 3 MOUNTING HOLES FOR CHICAGO FAUCETS NO. EVR-A12A-11ABCP SENSOR FAUCET. ADJUSTED TO STAY OPEN 10 SECONDS WITH (0.5 GPM) FLOW RESTRICTOR, PERFORATED GRID DRAIN, P-TRAP, SPEEDWAY COMPRESSION WALL STOP & SUPPLY TUBING. JAY R SMITH SERIES 0700 CARRIER, SEE ARCH. SHEETS FOR MOUNTING HEIGHT. CBC COMPLIANT FOR ACCESS. SEE DETAIL 14/P6.1 FOR MOUNTING DETAIL.
L 2	LAVATORY (STAFF, ACCESS.)	2"	1-1/2"	1/2"	1/2"	AMERICAN STANDARD NO. 0355.012, WALL-HUNG, 20"x18" VITREOUS CHINA WITH BACKSPLASH & WALL BRACKET, 3 MOUNTING HOLES FOR CHICAGO FAUCETS NO. 2200-4E39VPABCP LEVER HANDLE FAUCET WITH (0.35 GPM) FLOW RESTRICTOR, PERFORATED GRID DRAIN, P-TRAP, SPEEDWAY COMPRESSION WALL STOP AND SUPPLY TUBING. SEE ARCH. SHEETS FOR MOUNTING HEIGHT. CBC COMPLIANT FOR ACCESS. SEE DETAIL 14/P6.1 FOR MOUNTING DETAIL.
U 1	URINAL (ACCESS.)	2"	2"	3/4"	---	KOHLER "BARDON" NO. K-4991-ERSS WALL-HUNG URINAL, 0.125 GPF, VITREOUS CHINA (ADA) WITH KOHLER "WAVE" K-10668-SV 0.125 GPF EXPOSED BATTERY-POWERED SENSOR FLUSH VALVE. PROVIDE JR. SMITH #0600 SERIES URINAL SUPPORTS. PROVIDE WALL CLEANOUTS ABOVE EACH URINAL. SEE DETAIL 13/P6.1 FOR MOUNTING DETAIL.
S 1	SINK (ACCESS.)	2"	1-1/2"	1/2"	1/2"	ELKAY NO. LRAD131655 SINGLE BOWL DROP-IN ADA SINK. 13"X16"X5-1/2" 18 GAUGE 304 STAINLESS STEEL BOWL WITH CENTER DRAIN. 3 MOUNTING HOLES FOR CHICAGO FAUCETS NO. 526-317ABCP DECK-MOUNTED MANUAL SINK FAUCET WITH 4" FIXED CENTERS.
SH 1	SHOWER HEAD	FD	---	3/4"	3/4"	SHOWER STALL DESIGN BY ARCHITECT. PLUMBING CONTRACTOR TO PROVIDE ACORN 536-MV, ZENITH BUILT-IN SHOWERS, FLANGED SHOWERHEAD, AIR-CONTROL SINGLE TEMPERATURE METERING VALVE, BRADLEY S59-4016 MIXING VALVE FOR HOT & COLD INLET, SET OUTLET TEMPERED WATER TO 108 DEG F. 1.6 GPM.
SH 2	SHOWER HEAD (EXTERIOR)	FD	---	1/2"	1/2"	ACORN 410B-W SHOWER-WARE WALL MOUNTED 18 GAGE TYPE 304 STAINLESS STEEL SHOWER PANEL, SINGLE TEMP 1.6 GPM SHOWER WITH ON/OFF PUSHBUTTON.
SH 3	SHOWER HEAD (ACCESS. EXTERIOR)	FD	---	1/2"	1/2"	ACORN 410BADA-W SHOWER-WARE WALL MOUNTED 18 GAGE TYPE 304 STAINLESS STEEL SHOWER PANEL WITH ADA COMPLIANT CONTROL VALVE, HANDHELD SHOWER WITH ON/OFF PUSHBUTTON, 60" HOSE, QUICK-DISCONNECT AND SINGLE TEMP 1.6 GPM FLOW CONTROL. PROVIDE PADDED SEAT WHERE SHOWN ON PLANS.
SH 4	SHOWER HEAD (ACCESS. INTERIOR)	FD	---	3/4"	3/4"	SHOWER STALL, FOLD DOWN SEAT AND GRAB BARS, DESIGNED BY ARCHITECT. PLUMBING CONTRACTOR TO PROVIDE ACORN 538ADA-PBH-HL-QD-PSO ZENITH BUILT-IN SHOWERS, FLANGED SHOWERHEAD, HAND-SHOWER ASSEMBLY WITH FLEX HOSE HAND-HELD SHOWER HEAD, WITH 24" STAINLESS STEEL ADA GRAB BAR, DIVERTER VALVE, TEMPERATURE-PRESSURE BALANCING MIXING VALVE. SET OUTLET TEMPERED WATER TO 108 DEG F. CBC ACCESS COMPLIANT. 1.6 GPM.
MV 1	MIXING VALVE	---	---	2"	2"	BRADLEY LW-985-SW-LF THERMOSTATIC WATER MIXING VALVE, INTEGRAL COMBINATION CHECKSTOPS WITH STRAINERS AND WALL SUPPORT. ADJUSTABLE SET POINT TEMPERATURE CONTROL, SET OUTLET TEMPERATURE AT 120°F. 10.0 GPM MINIMUM FLOW.
MV 2	MIXING VALVE	---	---	1/2"	1/2"	BRADLEY S59-4000 POINT OF USE MIXING VALVE, INLINE CHECK VALVES. ADJUSTABLE SET POINT TEMPERATURE CONTROL, SET OUTLET TEMPERATURE AT 110°F. 0.35 GPM MINIMUM FLOW.
WHA 1	WATER HAMMER ARRESTOR	---	---	VARIES	---	ZURN NO. Z1700 SHOKTROL WATER HAMMER ARRESTOR. STAINLESS STEEL CONSTRUCTION. WATER CONNECTION DEPENDS ON FIXTURE CAPACITY
RD XY	ROOF/ OVERFLOW DRAIN	SEE PLANS	---	---	---	WATTS DRAINAGE RD-260 COMBINATION ROOF DRAIN/OVERFLOW WITH EPOXY COATED CAST IRON DRAIN BODIES, FLASHING CLAMPS WITH INTEGRAL GRAVEL GUARDS, 4" HIGH INTERNAL STANDPIPE, SELF-LOCKING POLYETHYLENE DOMES AND NO HUB OUTLET. X = BLDG NO., Y = RD NO.
JS 1	JANITOR SINK	3"	2"	3/4"	3/4"	FLORESTONE NO. MSR-2424 24"X24" MOLDED ONE-PIECE MOP RECEPTOR WITH CHICAGO FAUCETS NO. 445-VBRRCF WALL-MOUNTED MANUAL SINK FAUCET. VANDAL-PROOF RIGID SPOUT WITH VACUUM BREAKER.
HB 1	HOSE BIBB	---	---	3/4"	---	WOODFORD B24P-3/4, BRASS FAUCET, SHIELDED LOOSE KEY HANDLE, NON REMOVABLE VACUUM BREAKER, ROUGH CHROME FINISH FOR OUTDOORS; POLISHED CHROME INDOORS. PROVIDE B24BX ACCESS PANEL.
HB 2	HOSE BIBB	---	---	3/4"	---	WOODFORD Y24 AT STAND PIPES. BRASS FAUCET, SHIELDED LOOSE KEY HANDLE, NON REMOVABLE VACUUM BREAKER & ROUGH CHROME FINISH FOR OUTDOORS.
FD 1	FLOOR DRAIN	2"	1-1/2"	TP	---	ZURN NO. ZN415-2NH-5B-P CAST IRON BODY, COMPLETE WITH 5" ROUND NICKEL-BRONZE TOP, CLAMPING COLLAR, 1/2" TRAP PRIMER CONNECTION AND P-TRAP. SEE DETAIL 8/P6.1 FOR MOUNTING DETAIL.
FD 2	FLOOR DRAIN	3"	2"	TP	---	ZURN NO. ZN415-3NH-6B-AR-P CAST IRON BODY, COMPLETE WITH 6" ROUND NICKEL-BRONZE TOP, CLAMPING COLLAR, 1/2" TRAP PRIMER CONNECTION AND P-TRAP. SEE DETAIL 8/P6.1 FOR MOUNTING DETAIL.
FD 3	FLOOR DRAIN	6"	3"	---	---	ZURN NO. ZN415-6IP-10B CAST IRON BODY, COMPLETE WITH 8" ROUND NICKEL-BRONZE TOP, CLAMPING COLLAR, P-TRAP. SEE DETAIL 8/P6.1 FOR MOUNTING DETAIL
FD 4	FLOOR DRAIN	2"	1-1/2"	---	---	ZURN NO. ZN415-3NH-6B-AR-P CAST IRON BODY, COMPLETE WITH 6" ROUND NICKEL-BRONZE TOP, CLAMPING COLLAR, P-TRAP. SEE DETAIL 8/P6.1 FOR MOUNTING DETAIL.
AD 1	AREA DRAIN	3"	---	---	---	ZURN NO. ZN511 CAST IRON BODY, COMPLETE WITH HEAVY DUTY 9" ROUND NICKEL-BRONZE TOP, CLAMPING COLLAR, P-TRAP. SEE DETAIL 8/P6.1 FOR MOUNTING DETAIL. CONNECT TO STORM DRAIN.
DF 1	DRINKING FOUNTAIN (ACCESS.)	2"	1-1/2"	1/2"	---	HAWS 1119.14/BP32/1920/6469 WALL-HUNG 14 GA. STAINLESS STEEL, VANDAL RESISTANT, HIGH-LOW DRINKING FOUNTAIN WITH PUSH BUTTON BOTTLE FILLER, BACK PANEL, AND DROP TRAY. SEE ARCH. SHEETS FOR MOUNTING HEIGHT. CBC COMPLIANT.
BT 1	BATHTUB	FS	---	3/4"	3/4"	FERNO IIIE MODEL 306 WHIRLPOOLTUB, 18 GA STAINLESS STEEL, 36 GALLON TUB, 5 FOOT FILL HOSE, INTEGRAL PUMP AND MOTOR. DRAIN TO FLOOR SINK.
WB 1	WASHING MACHINE BOX	2"	1-1/2"	3/4"	3/4"	SPECIALTY PRODUCTS #OB501 RECESSED METAL WASHING MACHINE OUTLET BOX WITH COPPER SWEAT VALVES AND LEFT OR RIGHT OUTLET.
IMB 1	ICE MAKER BOX	---	---	1/2"	---	SPECIALTY PRODUCTS #OB504-LL RECESSED METAL WATER SUPPLY BOX WITH COPPER SWEAT VALVES.
IMB 2	ICE MAKER BOX	---	---	3/4"	---	SPECIALTY PRODUCTS #OB504-LL RECESSED METAL WATER SUPPLY BOX WITH COPPER SWEAT VALVES.
TP 1	TRAP PRIMER	---	---	1/2"	---	MIFAB #MR-500-NPB PRESSURE ACTIVATED TRAP PRIMER VALVE, BRASS BODY, ADJUSTABLE, COMPLETE WITH 1/2" COPPER TYPE "L" PIPE TO RECEPTOR, INSTALL PER MANUFACTURER'S RECOMMENDATIONS. COMPLETE BEHIND ACCESS PANEL. SEE DETAIL 12/P6.1 FOR MOUNTING DETAIL. UP TO 6 DRAINS, SEE PLANS FOR NUMBER OF DRAINS. SEE DETAIL 12/P6.1 FOR MOUNTING DETAIL.
TP 2	TRAP PRIMER	---	---	3/4"	---	MIFAB #MI-100 ELECTRONIC TRAP PRIMER VALVE, COMPLETE WITH 1/2" COPPER TYPE "L" PIPE TO RECEPTOR, INSTALL PER MANUFACTURER'S RECOMMENDATIONS. COMPLETE BEHIND ACCESS PANEL. SEE DETAIL 12/P6.1 FOR MOUNTING DETAIL. UP TO 30 DRAINS, SEE PLANS FOR NUMBER OF DRAINS. COORDINATE WITH ELECTRICAL FOR VOLTAGE.
FS 1	FLOOR SINK	2"	1-1/2"	TP	---	ZURN NO. ZN-1900-KC-32 COATED CAST IRON WITH ACID RESISTANT PAINTED INTERIOR, 12" SQUARE TOP, 6" DEEP. DOUBLE DRAINAGE. NO HUB OUTLET AND DOME STRAINER, 1/2" GRATE.

NOTES:
1. ALL PLUMBING FIXTURES, FLUSH VALVES, FAUCETS, FLOOR DRAINS, FLOOR SINKS, DRINKING FOUNTAINS, ETC. SHALL BE VANDAL RESISTANT.
2. ALL PLUMBING FIXTURES SHALL COMPLY WITH CAL GREEN FLOW RATES FOR 20 PERCENT FLOW RATE REDUCTION PER TABLE 5.303.2.3.

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RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL & AQUATIC CENTER

ROWLAND UNIFIED SCHOOL DISTRICT

401 NOGALES ST, LA PUENTE, CA 91744

LICENSED ARCHITECT ROBERT LAVEY C-28020 01-31-25 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER REX DAVID WANG No.M36155 Exp.09-30-2024 MECHANICAL STATE OF CALIFORNIA

CONSULTANT

LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

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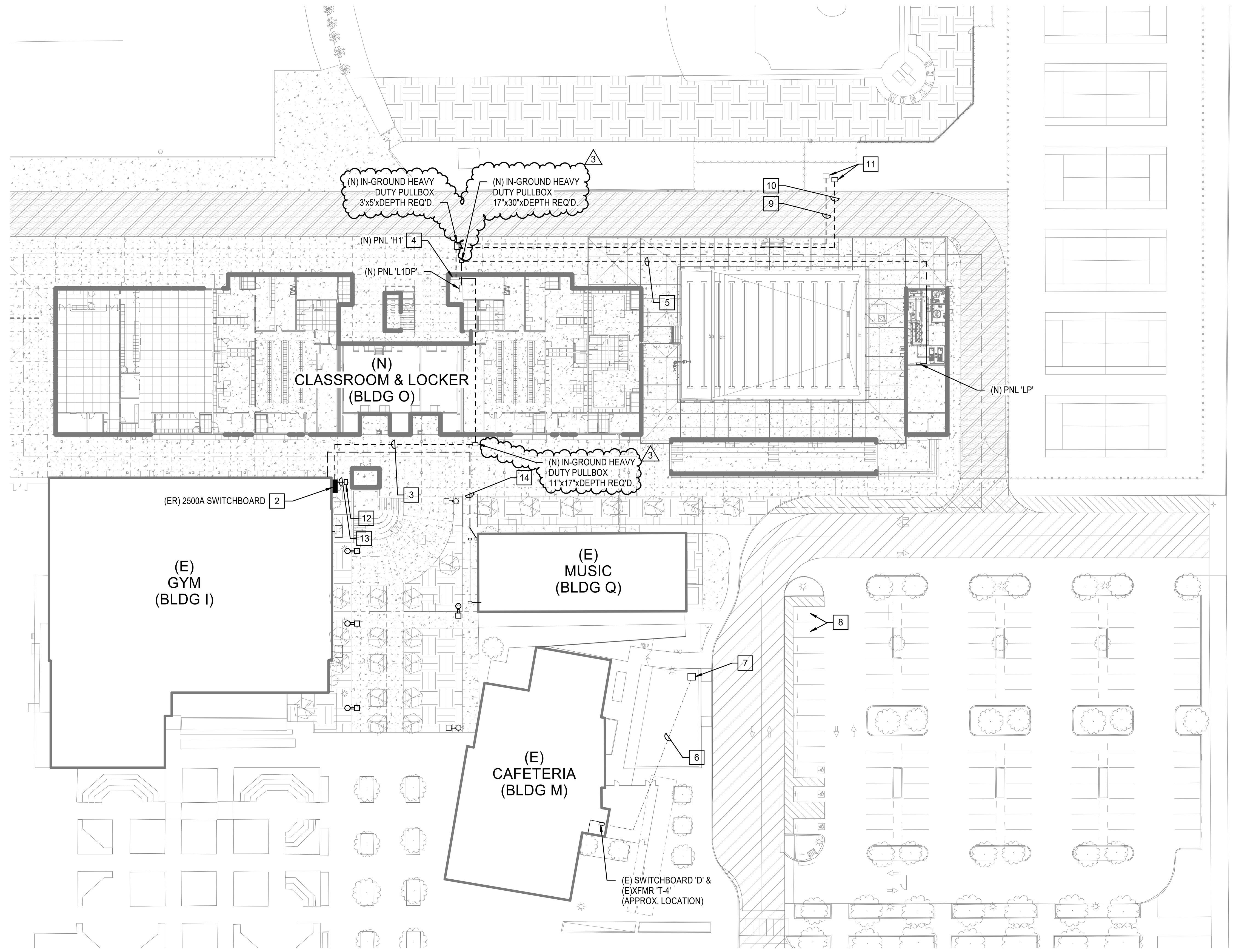
1	01/25/24	PBK	ADDENDUM 1
3	03/05/24	PBK	ADDENDUM 3

REVISIONS

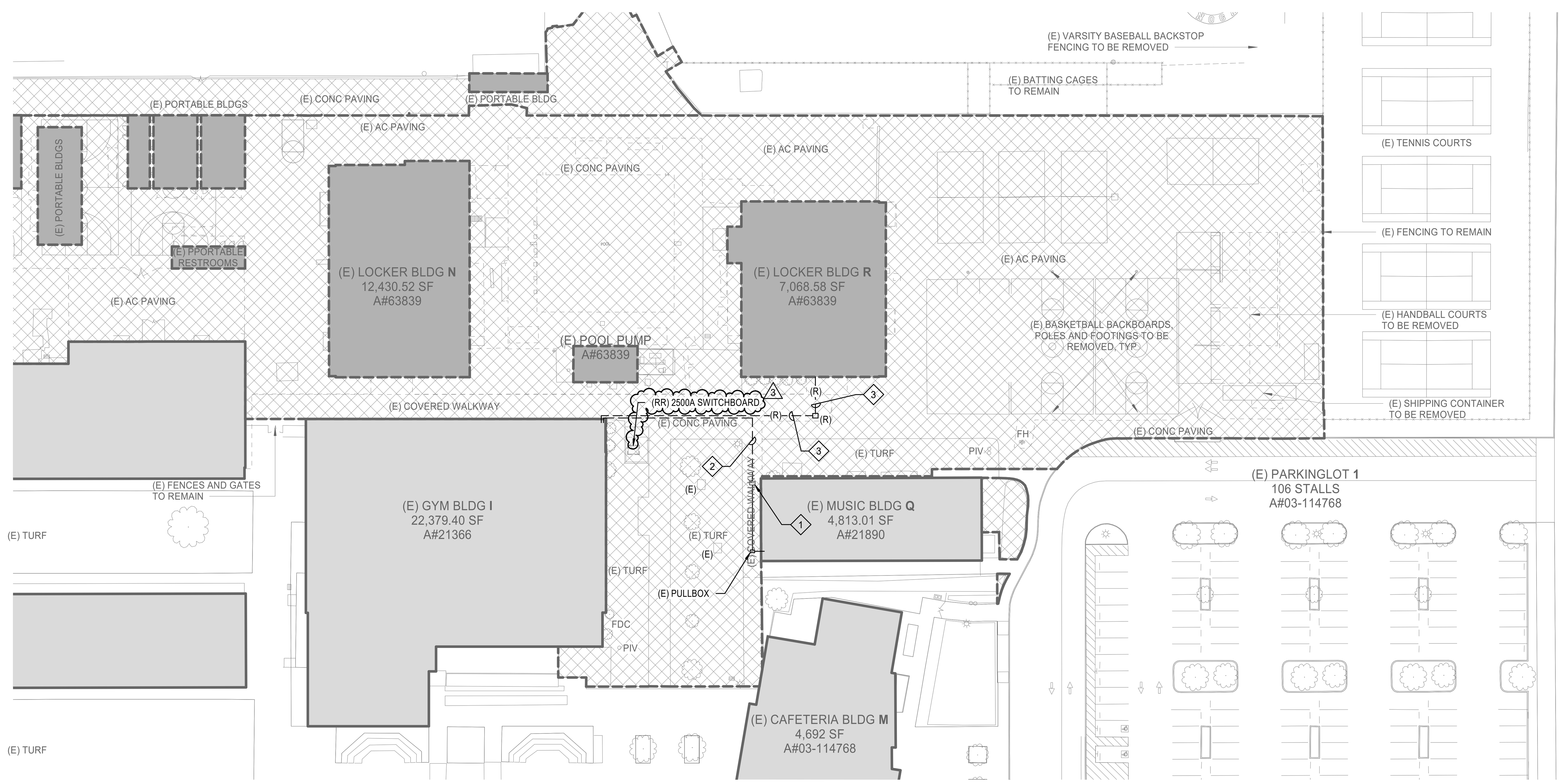
DRAWN: Author	CHECKED: Checker
DATE: 06/28/22	SCALE: As indicated
PROJECT NUMBER: 2110000	

PLUMBING SCHEDULES

DRAWING NUMBER: **P5.1**



PARTIAL SITE PLAN - NEW | 1" = 40'-0" | 1



PARTIAL SITE PLAN - DEMO | 1" = 40'-0" | 2

GENERAL NOTES

1. THE EXISTING BUILDING INCLUDING PORTIONS OF THE RENOVATED AREA SHALL REMAIN IN SERVICE DURING THE CONSTRUCTION PHASE OF THIS PROJECT. ANY MODIFICATIONS TO THE EXISTING ELECTRICAL SYSTEMS THAT MAY REQUIRE THE TEMPORARY INTERRUPTION OF THE EXISTING SERVICES SHALL BE COORDINATED AND PRESCHEDULED WITH THE OWNER'S REPRESENTATIVE PRIOR TO STARTING ANY WORK.
2. ELECTRICAL ENGINEERING FOR THIS PROJECT IS BASED ON EXISTING DRAWINGS, AND A FIELD VISIT OF THE ELECTRICAL SYSTEM. IN CASE OF ANY DISCREPANCIES WITH EXISTING FIELD CONDITIONS, ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT DIFFERENCES AND NOTIFY THE ELECTRICAL ENGINEER FOR POSSIBLE REVISION TO THESE DOCUMENTS.
3. COORDINATE ROUTING FOR ALL UNDERGROUND ELECTRICAL BRANCH CIRCUITS AND FEEDERS WITH OTHER DISCIPLINES PRIOR TO TRENCHING.
4. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO EXISTING UTILITIES CAUSED BY INSTALLATION OF NEW WORK.
5. PER DISTRICT STANDARD CONTRACTOR SHALL PROVIDE CONCRETE ENCASEMENT TO ALL UNDERGROUND ELECTRICAL AND LOW VOLTAGE LINES.
6. SEE DETAIL 9/E6.1 FOR UNDERGROUND CONDUIT INSTALLATION, 8/E6.1 FOR PULL BOX INSTALLATION, AND 2/E6.1 FOR CONDUIT STUB UPS.

KEY NOTES - NEW WORK

1 NOT USED.

2 (E) 2500AMP EXTERIOR SWITCHBOARD AT 480Y/277V SHALL BE DISCONNECTED AND RELOCATED TO LOCATION AS SHOWN.

3 PROVIDE NEW UNDERGROUND FEEDER FROM (E) EXTERIOR SWITCHBOARD TO NEW PANEL BOARD "H1DP". SEE SINGLE LINE DIAGRAM ON SHEET E5.1 FOR FEEDER AND CONDUIT SIZES.

4 NEW PANEL BOARD "H1DP". SEE SINGLE LINE DIAGRAM ON SHEET E5.1 FOR FEEDER AND CONDUIT SIZE.

5 PROVIDE NEW UNDERGROUND FEEDER FROM NEW PANEL BOARD "H1DP" TO NEW SPCS POOL CABINET AND FROM L1DP TO PANEL LP.. SEE SINGLE LINE DIAGRAM ON SHEET E5.1 FOR FEEDER AND CONDUIT SIZES.

6 PROVIDE (2) NEW UNDERGROUND 2"C. FROM EXISTING SWITCH BOARD "D" TO PULL BOX AS SHOWN ON THE SITE PLAN. SEE SINGLE LINE DIAGRAM ON SHEET E5.1 FOR FEEDER AND CONDUIT SIZES. CONTRACTOR SHALL REPAIR/PATCH AND WEATHER PROOF ANY OPENING CAUSED BY EQUIPMENT/CONDUIT INSTALLATION, AND SHALL PAINT WHERE NECESSARY, MATCH TO EXISTING.

7 CONTRACTOR TO PROVIDE NEW 16" x 16" UNDERGROUND PULLBOX PER NEC WHEN ALL NECESSARY INFORMATION FOR FUTURE EV CHARGER IS DETERMINED.

8 PARKING STALL WILL BE DEDICATED FOR FUTURE ELECTRICAL VEHICLE CHARGING STATION. REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION.

9 PROVIDE (2) 2" SPARE CONDUITS WITH PULLCORDS FOR FUTURE DATA TO STADIUM.

10 PROVIDE (2) 4" SPARE CONDUITS WITH PULLSTRINGS FOR FUTURE POWER TO STADIUM.

11 PROVIDE NEW IN-GROUND HEAVY DUTY TRAFFIC RATED PULLBOX.
(1) 17"X30XDEPTH REQ'D - FOR COMMUNICATION
(1) 17"X30"XDEPTH REQ'D - FOR POWER

12 PROVIDE NEW IN-GROUND HEAVY DUTY TRAFFIC RATED PULLBOX, 36"X60"xDEPTH REQUIRED.

13 CONTRACTOR SHALL INTERCEPT AND EXTEND EXISTING FEEDERS AND CONDUITS FROM EXISTING 2500A SWITCHBOARD LOCATION TO THE NEW LOCATION. REFER TO SINGLE LINE DIAGRAM ON SHEET E5.1 FOR ALL CONDUIT AND WIRE SIZING.

14 CONTRACTOR SHALL INTERCEPT AND EXTEND EXISTING FEEDERS AND CONDUITS FROM PULLBOX LOCATION TO THE SOURCE. CONTRACTOR TO FIELD VERIFY EXISTING CONDUIT AND FEEDER SIZING, MATCH TO EXITING.

KEY NOTES - DEMOLITION

1 INTERCEPT EXISTING CONDUIT AND FEEDERS TO REMAIN, ROUTE EXISTING CONDUIT AND FEEDERS TO NEW SURFACE MOUNTED PULLBOX ON BREEZEWAY. PROVIDE NEW SURFACE MOUNTED PULLBOX, 12"x12"xDEPTH REQUIRED.

2 DEMOLISH EXISTING SURFACE MOUNTED CONDUIT AND WIRING ON BREEZEWAY BACK TO SOURCE. NEW UNDERGROUND CONDUIT AND WIRING SHALL BE PROVIDED IN RECONSTRUCTION. SEE NEW WORK KEYNOTE #14 FOR ADDITIONAL INFORMATION.

3 ALL EXISTING CONDUIT AND FEEDERS SHALL BE DEMOLISHED BACK TO SOURCE. MARK CIRCUIT BREAKER/S AS 'SPARE'.

PBK
RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL
NEW BUILDING & AQUATIC CENTER
ROWLAND UNIFIED SCHOOL DISTRICT
401 NOGALES ST, LA PUENTE, CA 91744

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

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3	03/04/24		ADDENDUM 3

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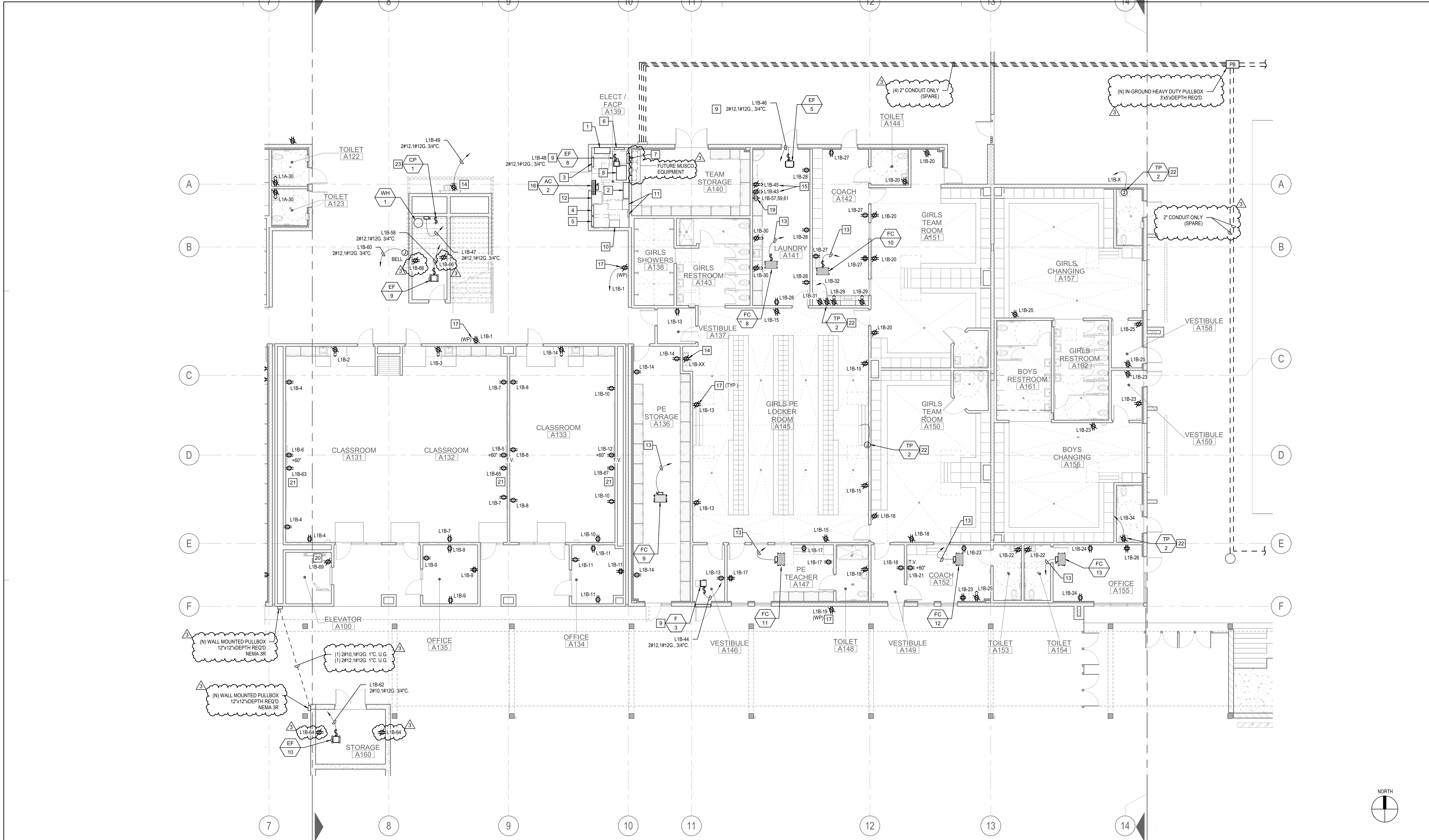
DATE: 06/24/22 | SCALE: 1" = 40'-0"
PROJECT NUMBER: 2110000

ELECTRICAL SITE PLN

DRAWING NUMBER: E1.1



FIRST FLOOR PLAN - AREA B

1/8" = 1'-0" | 1

KEY NOTES:

1. PROVIDE NEW DISTRIBUTION PANEL "H1DP" 480Y/277V,3PH,4W. SEE SINGLE LINE DIAGRAM ON SHEET E5.1 FOR FURTHER DETAILS. REFER TO PANEL MOUNTING DETAIL ON SHEET 7/E6.1.
2. PROVIDE NEW DISTRIBUTION PANEL "L1DP" 120/208V,3PH,4W. SEE SINGLE LINE DIAGRAM ON SHEET E5.1 FOR FURTHER DETAILS. REFER TO PANEL MOUNTING DETAIL ON SHEET 7/E6.1.
3. PROVIDE NEW PANEL "L1A" 120/208V,3PH,4W. SEE SINGLE LINE DIAGRAM ON SHEET E5.1 FOR FURTHER DETAILS. REFER TO PANEL MOUNTING DETAIL ON SHEET 7/E6.1.
4. PROVIDE NEW PANEL "L1B" 120/208V,3PH,4W. SEE SINGLE LINE DIAGRAM ON SHEET E5.1 FOR FURTHER DETAILS. REFER TO PANEL MOUNTING DETAIL ON SHEET 7/E6.1.
5. PROVIDE NEW PANEL "L1M" 120/208,3PH,4W. SEE SINGLE LINE DIAGRAM ON SHEET E5.1 FOR FURTHER DETAILS. REFER TO PANEL MOUNTING DETAIL ON SHEET 7/E6.1.
6. PROVIDE NEW PANEL "H1MA" 480Y/277V,3PH,4W. SEE SINGLE LINE DIAGRAM ON SHEET E5.1 FOR FURTHER DETAILS. REFER TO PANEL MOUNTING DETAIL ON SHEET 7/E6.1.
7. PROVIDE NEW PANEL "H1MB" 480Y/277V,3PH,4W. SEE SINGLE LINE DIAGRAM ON SHEET E5.1 FOR FURTHER DETAILS. REFER TO PANEL MOUNTING DETAIL ON SHEET 7/E6.1.
8. PROVIDE NEW TRANSFORMER "TH1" 112.5 kVA 480-120/208V, SEE DETAIL 4/E6.1. FOR WIRE SIZE AND EQUIPMENT INFORMATION SEE SINGLE LINE DIAGRAM ON SHEET E5.1.
9. PROVIDE 120V POWER TO NEW FAN/S, LOCAL DISCONNECT SWITCH PROVIDED BY MECHANICAL. SEE MECHANICAL SCHEDULE M5.1 FOR ADITIONAL INFORMATION.
10. APPROXIMATE LOCATION OF NEW WALL MOUNTED IDF CABINET, CONTRACTOR TO VERIFY WITH TECHNOLOGY PLANS FOR EXACT LOCATION IN THE FIELD. IDF CABINET CIRCUITED TO PANEL "L1B" CIRCUIT # 21,22. 2#12,1#12G. 3/4"C.
11. APPROXIMATE LOCATION OF NEW WALL MOUNTED FIRE ALARM CABINET, CONTRACTOR TO VERIFY WITH FIRE ALARM PLANS FOR EXACT LOCATION IN THE FIELD. FIRE ALARM CABINET CIRCUITED TO PANEL "1LB" CIRCUIT #23,24,25- 2#12,1#12G.3/4"C.
12. PROVIDE NEW ACUITY BRANDS LIGHTING; LITHONIA IISCN3P SERIES 8kVA INVERTER WITH SINGLE CABINET INCLUDING BATTERIES AND CONTROL PANEL. INVERTER TO BE PROVIDED WITH FACTORY INSTALLED OUTPUT BREAKERS TO SERVE LIGHTING LOADS. INPUT/OUTPUT VOLTAGE TO BE 277/480IN AND 277/480 OUT.
13. INDOOR FAN COIL POWER CONNECTION IS PROVIDED FROM OUTDOOR UNIT. PROVIDE LOCAL DISCONNECT SWITCH WITH 3#12,1#12G.,3'4"C, STUB UP TO ASSOCIATED OUTDOOR HEAT PUMP UNIT. EXTEND CONDUIT AND WIRING TO ROOFTOP UNIT CIRCUITS.
14. DRINKING FOUNTAIN, PROVIDE 120V CONNECTION WITH GFCI RECEPTACLE .
15. PROVIDE GFCI RECEPTACLE FOR WASHER. CONTRACTOR TO VERIFY EXACT MOUNTING HEIGHT AND LOCATION PRIOR TO ROUGH-IN.
16. INDOOR AC UNIT POWER CONNECTION IS PROVIDED FROM OUTDOOR UNIT. PROVIDE LOCAL DISCONNECT SWITCH WITH 3#10,1#12G.,1"C, STUB OUT TO ASSOCIATED OUTDOOR CONDENSING UNIT AND ASSOCIATED CIRCUIT.
17. INSTALL GFCI TYPE DUPLEX RECEPTACLE IN WEATHERPROOF ENCLOSURE.
18. PROVIDE NEW PANEL "L1MA" 120/208,3PH,4W-225A-3P. SEE SINGLE LINE DIAGRAM ON SHEET E5.1 FOR FURTHER DETAILS. REFER TO PANEL MOUNTING DETAIL ON SHEET 7/E6.1.
19. PROVIDE DEDICATED 208V/3PH CIRCUIT TO DRYER. INSTALL GFCI TYPE RECEPTACLE. CONTRACTOR TO VERIFY EXACT MOUNTING HEIGHT AND LOCATION PRIOR TO ROUGH-IN. CONTRACTOR TO VERIFY RECEPTACLE NEMA CONFIGURATION PRIOR TO PROCUREMENT.
20. PROVIDE GFCI RECEPTACLE FOR ELEVATOR PIT.
21. PROVIDE CONNECTION TO ROLLING CART.
22. PROVIDE 120V DUPLEX TO TRAP PRIMER VALVE/S 'TP-2'. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT LOCATION.
23. PROVIDE 120V POWER CONNECTION TO NEW CIRC PUMP 'CP-1'. REFER TO PLUMBING PLANS FOR ADDITIONAL INFORMATION.

GENERAL NOTES:

1. ALL FAN COIL UNITS ARE POWERED FROM OUTDOOR UNITS, SEE MECHANICAL SCHEDULE ON M5.1 FOR FURTHER DETAILS
2. REFER TO MECHANICAL DRAWINGS FOR EXACT EQUIPMENT PLACEMENT.
3. FOR ALL CMU LOCATIONS, POWER AND DATA OUTLETS SHALL BE SURFACE MOUNTED WITH SURFACE MOUNTED CONDUIT/S SUPPORTED EVERY 10' AS REQUIRED PER NEC.
4. FOR EQUIPMENT OR DEVICES SHOWN ON ARCHITECTURAL DRAWINGS THAT REQUIRE POWER AND NOT IDENTIFIED ON ELECTRICAL PLANS, ASSUME AT A MINIMUM A DUPLEX OUTLET, A DEDICATED CIRCUIT WITH 2#12,1#12G,3/4"C. WITH HOMERUN TO NEAREST 120/208V PANEL. ITEMS SUCH AS BUT NOT LIMITED TO ROLL DOWN DOORS, COUNTER DOORS, OVERHEAD GRILLES, DISPLAY CASES, HAND DRYERS, WATER COOLERS, ICE MAKERS, GARBAGE DISPOSALS, OSCILLATING FANS, LCD's, PROJECTORS, DISHWASHERS, MOTORIZED PROJECTION SCREENS, ETC.
5. FOR ALL DEVICES WITH 'WP', PROVIDE WEATHERPROOF LOCKABLE ENCLOSURE.

PBK
RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL
NEW BUILDING & AQUATIC CENTER
ROWLAND UNIFIED SCHOOL DISTRICT
401 NOGALES ST, LA PUENTE, CA 91744

LICENSED ARCHITECT ROBERT LAVEY C-28020 01-31-25 STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER STEVEN C. MUSSER E-19817 Exp.03/31/26 ELECTRICAL STATE OF CALIFORNIA

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

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3	03/04/24		ADDENDUM 3

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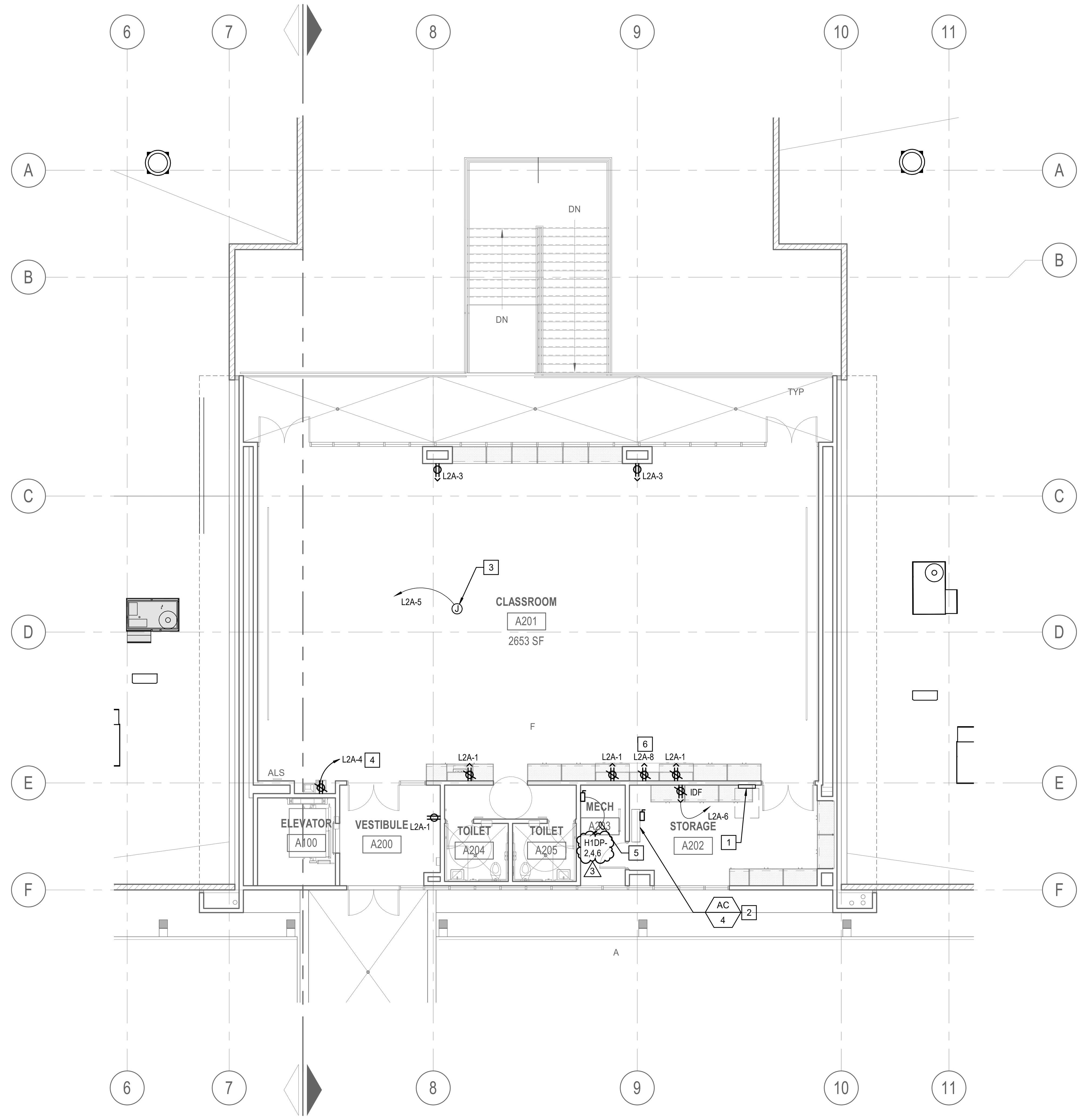
DATE: 06/28/22 | SCALE: 1/8" = 1'-0"
PROJECT NUMBER: 2110000

ELECTRICAL - 1ST FLR PLN - AREA B

DRAWING NUMBER: **EA2.2**



SECOND FLOOR PLAN 1/8" = 1'-0" 1

KEY NOTES:

1. PROVIDE NEW PANEL "L2A" 120/208,3PH,4W 50A/3P. SEE SINGLE LINE DIAGRAM ON SHEET E5.1 FOR FURTHER DETAILS.
2. INDOOR AC UNIT POWER CONNECTION IS PROVIDED FROM OUTDOOR UNIT. PROVIDE LOCAL DISCONNECT SWITCH WITH 2#12,1#12G.,3'4"C, STUB OUT TO ASSOCIATED OUTDOOR CONDENSING UNIT AND ASSOCIATED CIRCUIT.
3. PROVIDED 120V CONNECTION TO NEW PROJECTOR.
4. NEW DRINKING FOUNTAIN, PROVIDE 120V CONNECTION WITH RECEPTACLE AND GFCI 20A/1P CIRCUIT BREAKER.
5. PROVIDE 480V POWER CONNECTION WITH LOCAL DISCONNECT SWITCH FOR NEW ELEVATOR. SEE SHEET E5.1 FOR SIZING. REFER TO ARCHITECTURAL AND MANUFACTURER PLANS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
6. PROVIDE CONNECTION TO ROLLING CART.

GENRAL NOTES:

1. ALL FAN COIL UNITS ARE POWERED FROM OUTDOOR UNITS, SEE MECHANICAL SCHEDULE ON M5.1 FOR FUTHER DETAILS
2. REFER TO MECHANICAL DRAWINGS FOR EXACT EQUIPMENT PLACEMENT.

PBK
RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL
NEW BUILDING & AQUATIC CENTER
ROWLAND UNIFIED SCHOOL DISTRICT

401 NOGALES ST, LA PUENTE, CA 91744

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987.0909
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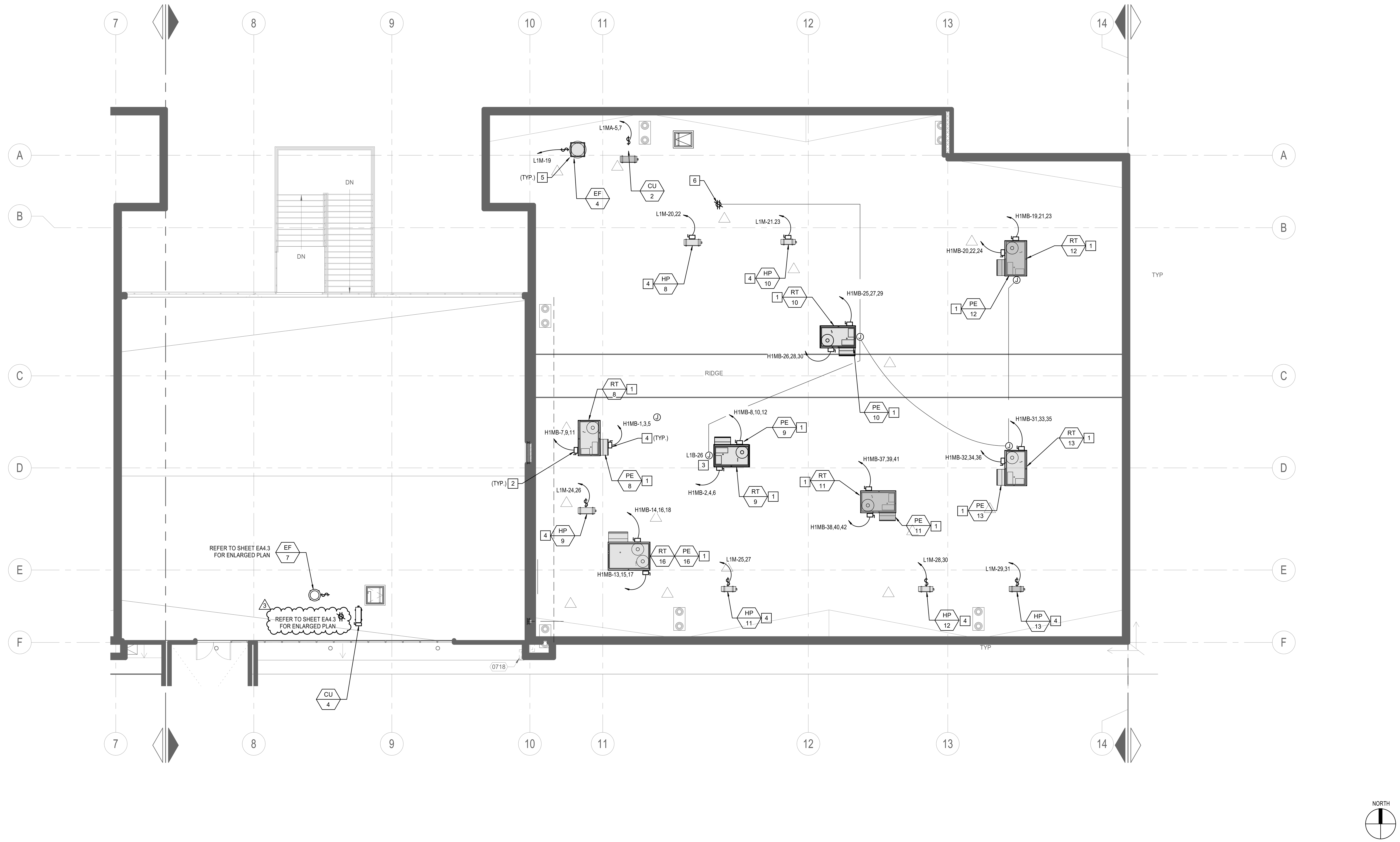
ELECTRICAL - 2ND FLR PLN

DRAWING NUMBER: EA2.3



BUILDING A - ROOF PLAN - AREA B 1/8" = 1'-0" 1

KEY NOTES:

1. PROVIDE 480V 3PH POWER CONNECTION TO NEW MECHANICAL UNIT.
2. NON-FUSIBLE DISCONNECT SWITCH SHALL BE PRE-INSTALLED FROM MANUFACTURER ON THE UNITS IN A NEMA-3R ENCLOSURE. CONNECT TO CIRCUIT AS SHOWN.
3. PROVIDE 2#12,1#12G. 3/4"C. POWER CONNECTION TO CONVENIENCE OUTLET PROVIDED IN MECHANICAL UNIT.
4. PROVIDE NON-FUSIBLE DISCONNECT NEMA 3R FOR ALL POWER EXHAUST FANS AND HEAT PUMPS.
5. PROVIDE NEMA 3R MOTOR RATED SWITCH FOR EXHAUST FANS AND CONNECT TO CIRCUIT AS SHOWN.
6. PROVIDE ROOFTOP CONVENIENCE RECEPTACLE, GFCI WEATHERPROOF.

GENERAL NOTES:

1. REFER TO MECHANICAL DRAWINGS FOR EXACT EQUIPMENT PLACEMENT.

PBK
RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL NEW BUILDING & AQUATIC CENTER

ROWLAND UNIFIED SCHOOL DISTRICT

401 NOGALES ST, LA PUENTE, CA 91744

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987.0909
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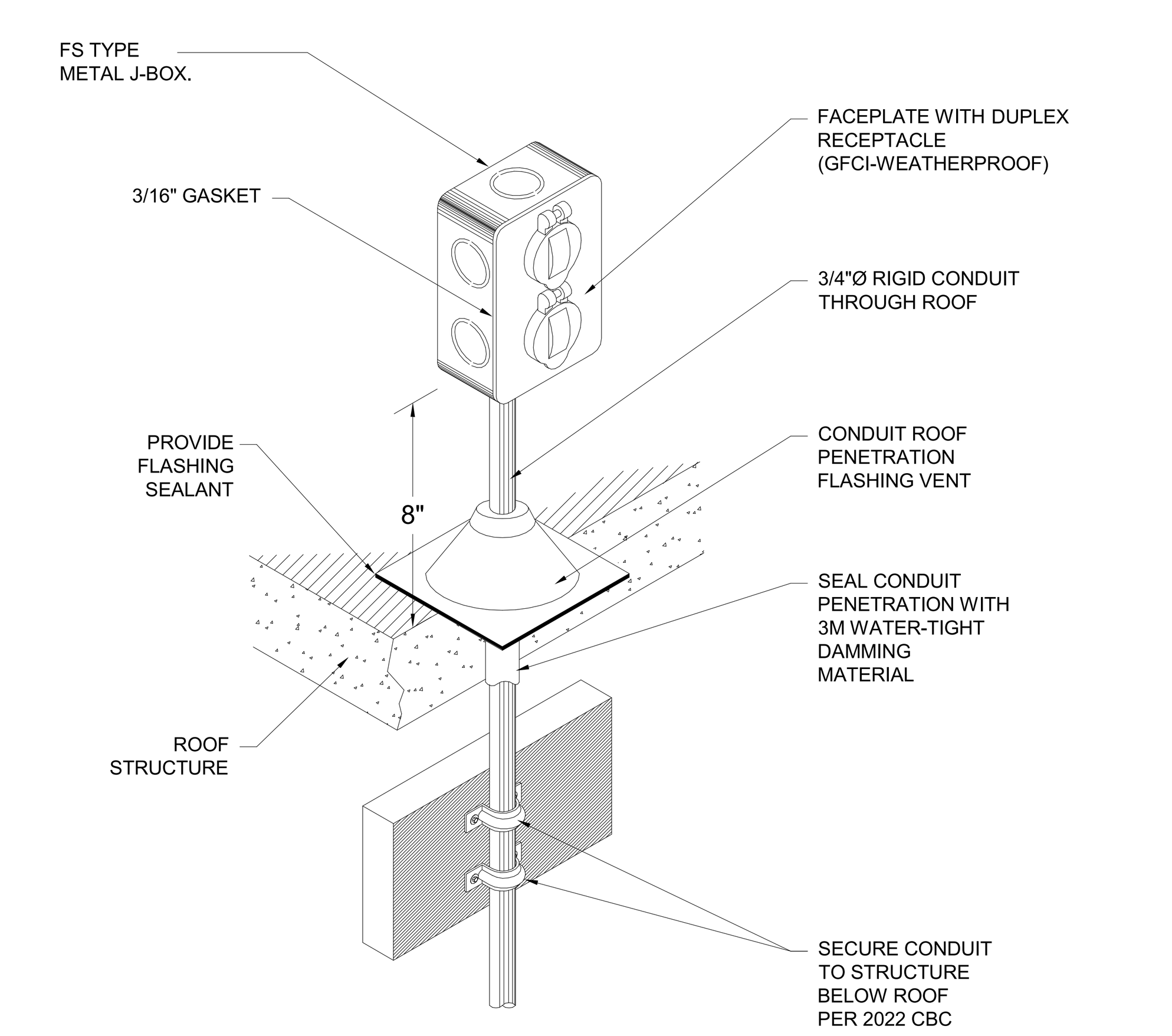
1	01/25/24	PBK	ADDENDUM 1
3	03/04/24		ADDENDUM 3

REVISIONS

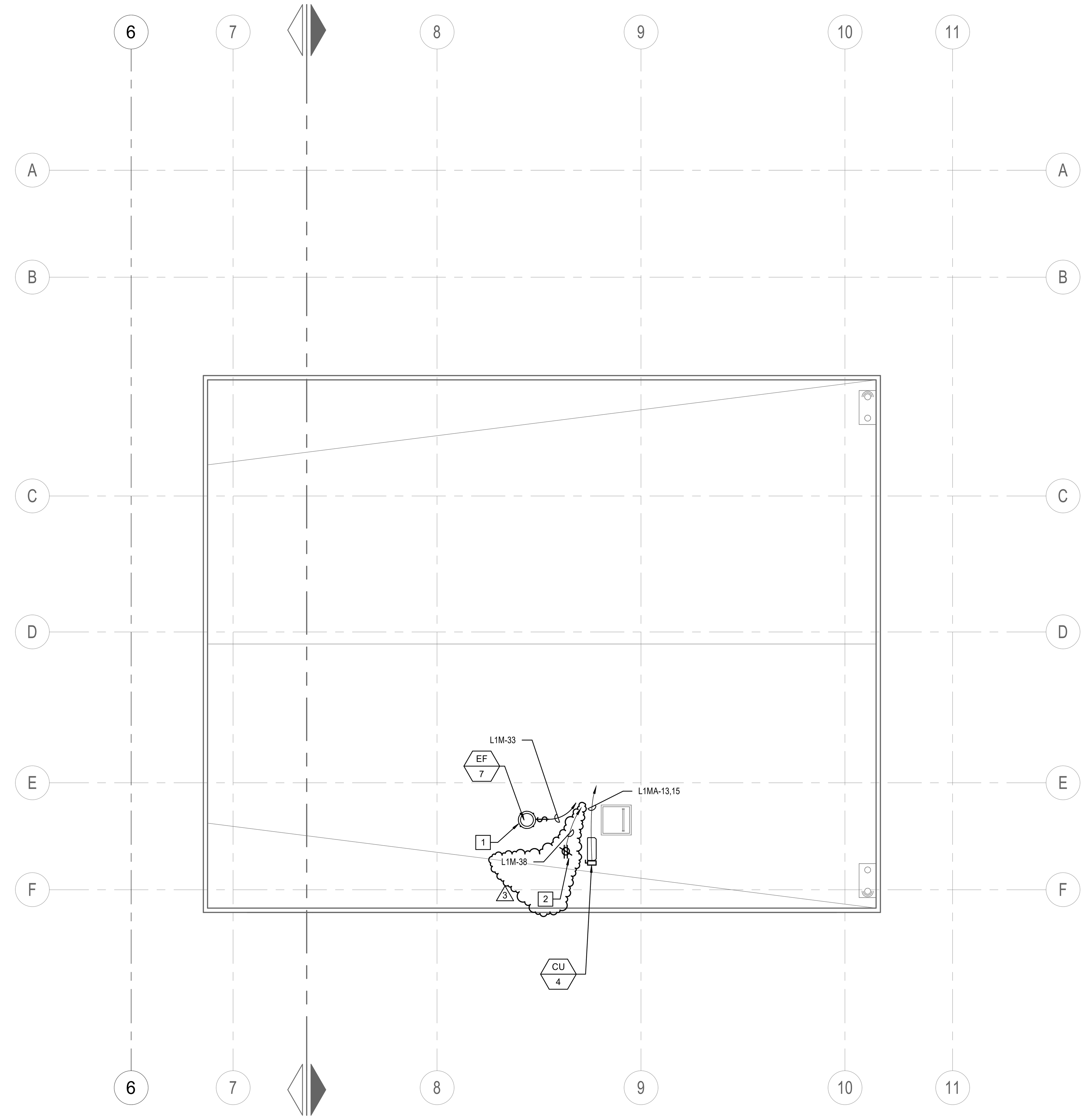
DRAWN: Author CHECKED: Checker
DATE: 06/28/22 SCALE: 1/8" = 1'-0"
PROJECT NUMBER: 2110000

ELECTRICAL - ROOF PLAN - AREA B

DRAWING NUMBER: EA4.2



2 ROOF MOUNT RECEPTACLE DETAIL
NOT TO SCALE



BUILDING A -SECOND FLOOR ROOF PLAN | 1/8" = 1'-0" | 1

KEY NOTES:

1. PROVIDE NEMA 3R MOTOR RATED SWITCH FOR EXHAUST FANS AND CONNECT TO CIRCUIT AS SHOWN.
2. PROVIDE AND INSTALL ROOF MOUNTED WEATHERPROOF GFCI DUPLEX RECEPTACLE. REFER TO DETAIL 2/EA4.3 FOR MOUNTIND DETAIL.

GENRAL NOTES:

1. REFER TO MECHANICAL DRAWINGS FOR EXACT EQUIPMENT PLACEMENT.

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RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

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NEW BUILDING & AQUATIC CENTER
ROWLAND UNIFIED SCHOOL DISTRICT
401 NOGALES ST, LA PUENTE, CA 91744

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
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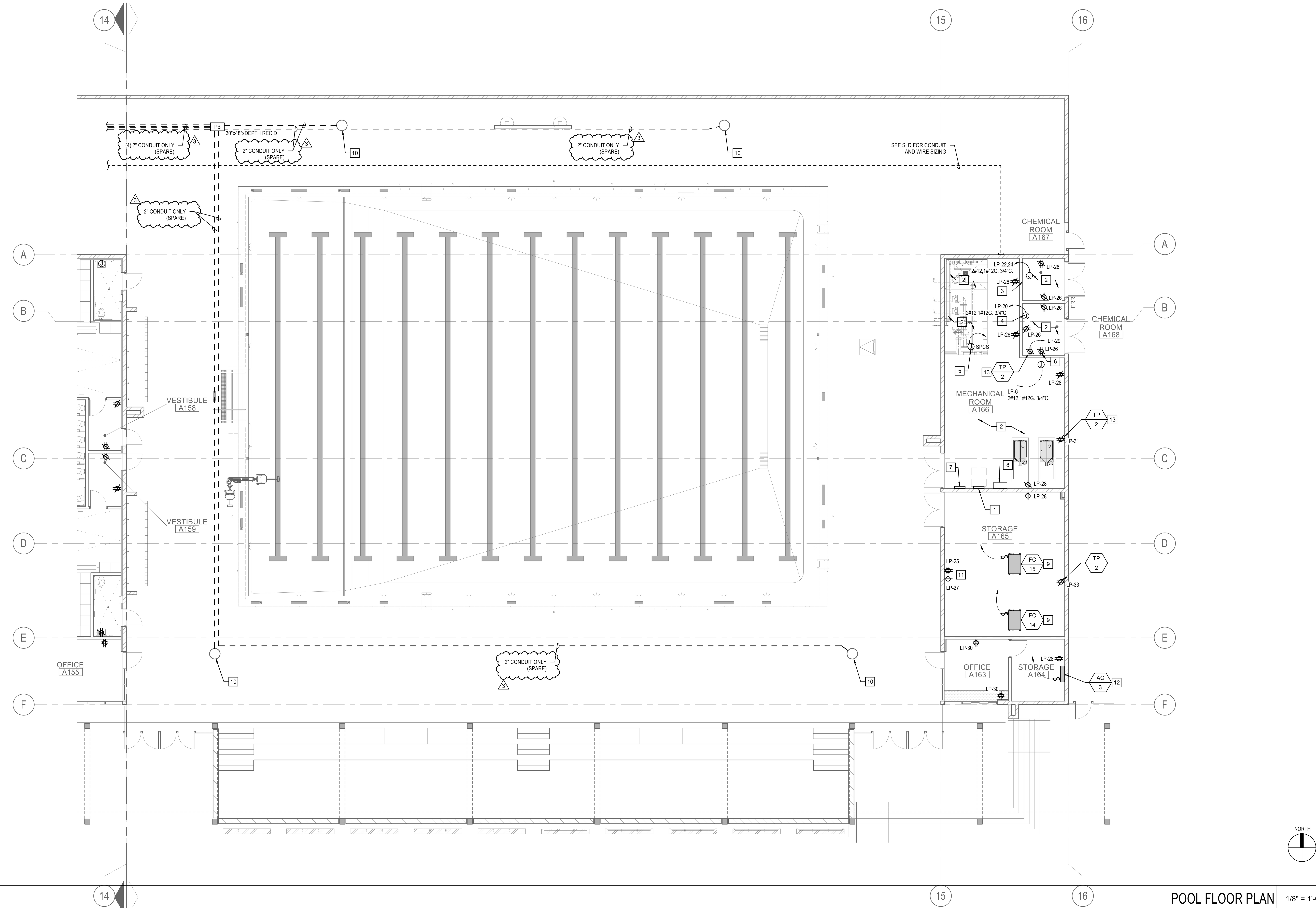
NO	DATE	BY	DESCRIPTION
1	01/25/24	PBK	ADDENDUM 1
3	03/04/24		ADDENDUM 3

REVISIONS

DRAWN: Author	CHECKED: Checker
DATE: 06/28/22	SCALE: As indicated
PROJECT NUMBER: 2110000	

ELECTRICAL - 2ND FLOOR ROOF PLAN

DRAWING NUMBER: EA4.3



POOL FLOOR PLAN 1/8" = 1'-0" 1

KEY NOTES:

1. PROVIDE NEW PANEL "LP" 120/208V,3PH,4W-100A-3P. SEE SINGLE LINE DIAGRAM ON SHEET E5.1 FOR FURTHER DETAILS.
2. FOR EXACT LOCATION OF POOL EQUIPMENT LAYOUT SEE POOL CONSULTANT DRAWINGS ON SHEET MR.1 FOR FURTHER DETAILS.
3. PROVIDE JUNCTION BOX FOR ACID FEED PUMP. CONNECT CIRCUIT AS SHOWN. POOL CONSULTANT RECOMMENDED INSTRUCTIONS SHALL SUPERSEDE DESIGN VALUE. SEE POOL CONSULTANT DRAWINGS ON SHEET MR.1 FOR FURTHER DETAILS.
4. PROVIDE JUNCTION BOX FOR CHLORINE FEED PUMP. CONNECT CIRCUIT AS SHOWN. POOL CONSULTANT RECOMMENDED INSTRUCTIONS SHALL SUPERSEDE DESIGN VALUE. SEE POOL CONSULTANT DRAWINGS ON SHEET MR.1 FOR FURTHER DETAILS.
5. PROVIDE JUNCTION BOX FOR CIRC. PUMP. CONNECT CIRCUIT AS SHOWN. SEE NOTE 8. POOL CONSULTANT RECOMMENDED INSTRUCTIONS SHALL SUPERSEDE DESIGN VALUE. SEE POOL CONSULTANT DRAWINGS ON SHEET MR.1 FOR FURTHER DETAILS.
6. PROVIDE JUNCTION BOX FOR WATER CHEMISTRY CONTROLLER. CONNECT CIRCUIT AS SHOWN. POOL CONSULTANT RECOMMENDED INSTRUCTIONS SHALL SUPERSEDE DESIGN VALUE. SEE POOL CONSULTANT DRAWINGS ON SHEET MR.1 FOR FURTHER DETAILS
7. PROVIDE POWER FOR LIGHTING CONTACTOR PANEL VIA ELECTRICAL "LP" SEE POOL CONSULTANT DRAWINGS ON SHEET MR.7 FOR FURTHER DETAILS.
8. PROVIDE 480V, 3PH, FOR SMART PUMP CONTROL SYSTEM WHICH WILL FEED SWIMMING POOL CIRC. PUMP 25 HP, SEE POOL CONSULTANT DETAILS FOR FURTHER INFORMATION.
9. INDOOR FAN COIL POWER CONNECTION IS PROVIDED FROM OUTDOOR UNIT. PROVIDE 3#12,1#12G.,3'4"C, STUB UP TO ASSOCIATED OUTDOOR HEAT PUMP UNIT. EXTEND CONDUIT AND WIRING TO ROOFTOP UNIT CIRCUITS.
10. APPROXIMATE FUTURE MUSCO POLE LOCATION/S. CONTRACTOR TO PROVIDE SPARE 2" CONDUIT, STUB UP AND CAP AT THE APPROXIMATE LOCATIONS SHOWN. SEE ARCHITECTURAL PLAN SHEET A2.4 FOR EXACT LOCATION.
11. PROVIDE QUAD AND NEMA L630R RECEPTACLES FOR WALL MOUNT IDF CABINET. COORDINATE MOUNTING HEIGHT WITH TECHNOLOGY INSTALLATION PRIOR TO ROUGH IN.
12. INDOOR AC UNIT POWER CONNECTION IS PROVIDED FROM OUTDOOR UNIT. PROVIDE LOCAL DISCONNECT SWITCH WITH 3#10,1 #12G.,1"C, STUB OUT TO ASSOCIATED OUTDOOR CONDENSING UNIT AND ASSOCIATED CIRCUIT.
13. PROVIDE 120V CONNECTION TO TRAP PRIMER VALVE/S 'TP-2'. COORDINATE WITH PLUMBING CONTRACTOR FOR EXACT LOCATION.

GENERAL NOTES:

1. CIRCUITS AND CONNECTIONS FOR POOL EQUIPMENT ARE TO BE INSTALLED PER POOL CONSULTANT INSTRUCTIONS. SEE POOL CONSULTANT DETAILS ON SHEETS MR.1-MR.7

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RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL NEW BUILDING & AQUATIC CENTER

ROWLAND UNIFIED SCHOOL DISTRICT

401 NOGALES ST, LA PUENTE, CA 91744

LICENSED ARCHITECT ROBERT LAVEY C-28020 01-31-25 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER STEVEN C. MUSSER E-19817 Exp.03/31/26 ELECTRICAL STATE OF CALIFORNIA

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
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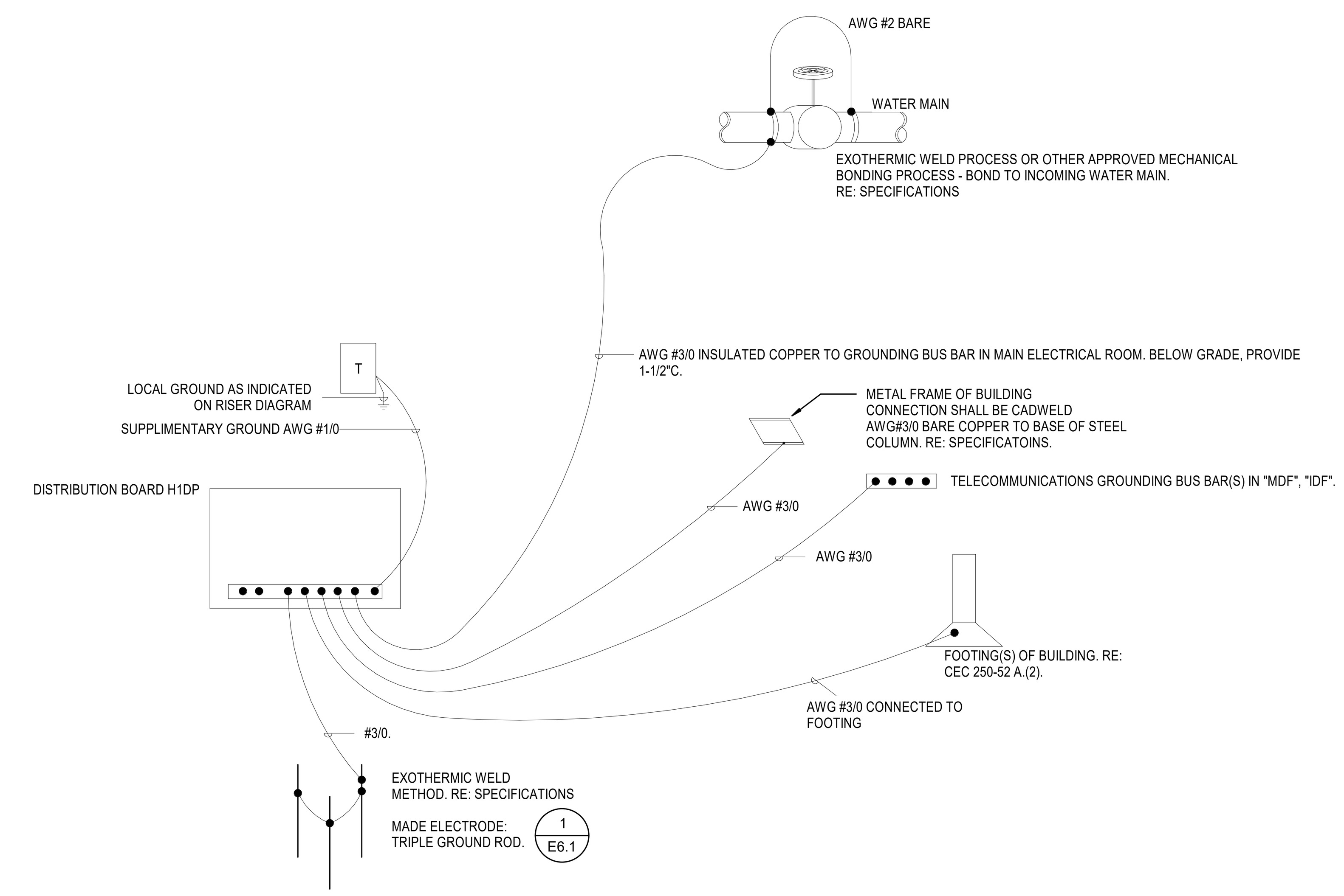
NO	DATE	BY	DESCRIPTION
1	01/25/24	PBK	ADDENDUM 1
2	02/19/24		ADDENDUM 2
3	03/04/24		ADDENDUM 3

REVISIONS

DRAWN: Author | CHECKED: Checker
DATE: 06/28/22 | SCALE: 1/8" = 1'-0"
PROJECT NUMBER: 2110000

ELECTRICAL - POOL FLR PLN

DRAWING NUMBER: EB2.1



2 ELECTRICAL GROUNDING REQUIREMENTS1

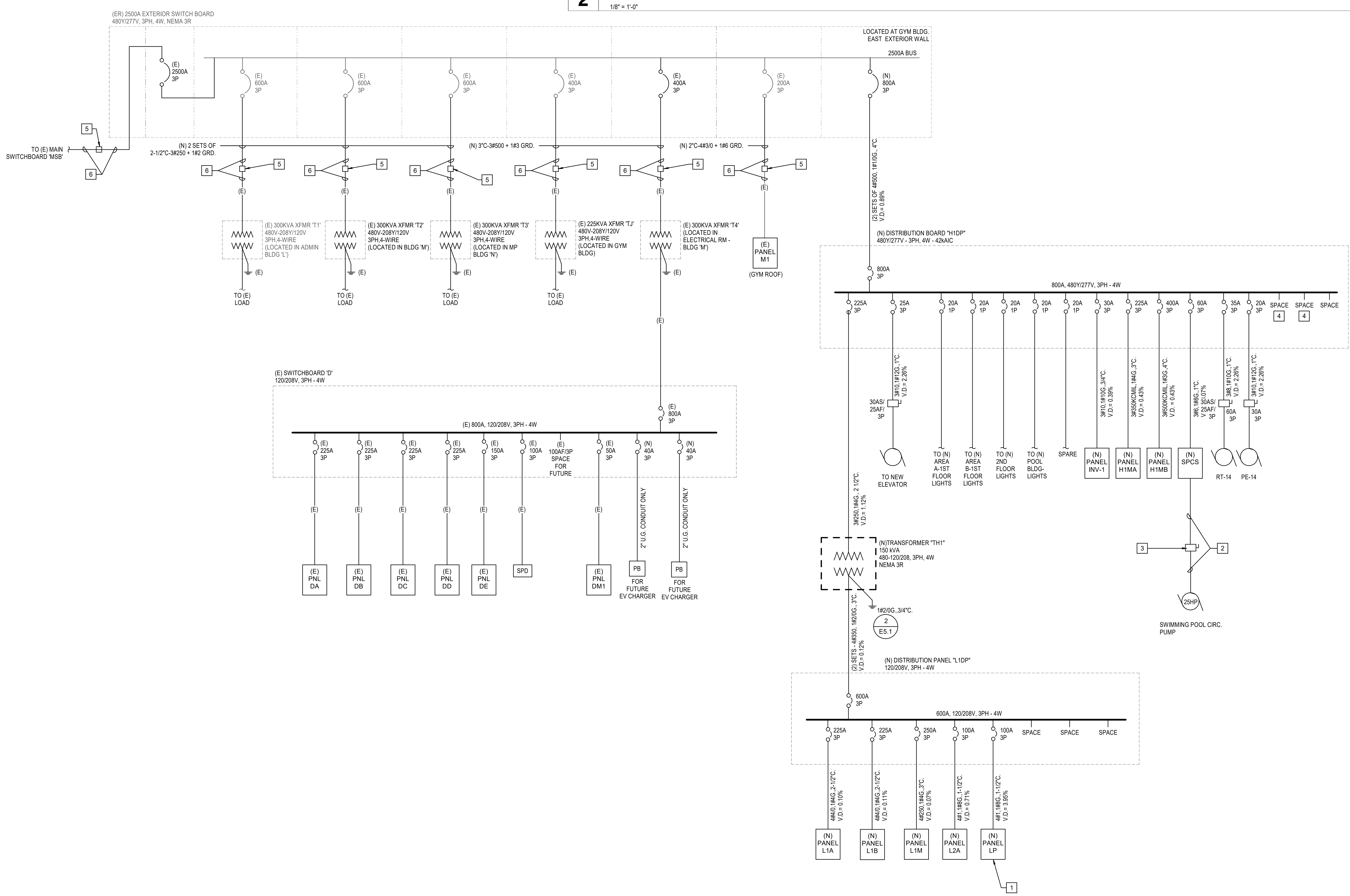
1/8" = 1'-0"

GENERAL NOTES

1. ALL NEW PANELBOARDS SHOWN ARE LESS THAN 200 LBS.

KEY NOTES

1. PANEL PROVIDED BY POOL CONSULTANT.
2. MOTOR FEEDERS INFORMATION PROVIDED BY POOL CONSULTANT, SEE DETAIL 5 ON SHEET MR.6 FOR FURTHER DETAILS.
3. MOTOR DISCONNECT SIZE PROVIDED BY POOL CONSULTANT, SEE DETIL 5 ON SHEET MR.6 FOR FURTHER DETAILS.
4. PROVIDE 'SPACE' FOR FUTURE STADIUM POWER.
5. INTERCEPT AND EXTEND FEEDERS AND CONDUIT TO NEW SWITCHBOARD LOCATION. REFER TO SITE PLAN ON SHEET E1.1 FOR APPROXIMATE LOCATION. FINAL LOCATION TO BE APPROVED BY OWNER AND ARCHITECT. CONTRACTOR SHALL VERIFY EXACT LOCATION WITH ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
6. (N) (7) SETS OF 3-1/2"C- 4#500 + 1#350 GRD. CONTRACTOR TO FIELD VERIFY EXISTING CONDUIT AND FEEDERS SIZING FROM EXISTING SWITCHBOARD, EXISTING CONDUIT AND FEEDER SIZE SHALL SUPERSEDE NEW CONDUIT AND WIRE SIZING, IF COMPLIANT. (3)



1 ELECTRICAL SINGLE LINE DIAGRAM

NOT TO SCALE

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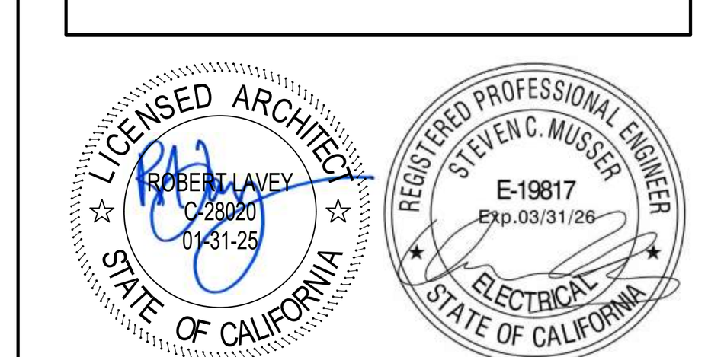

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LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
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NO	DATE	BY	DESCRIPTION
1	01/25/24	PBK	ADDENDUM 1
2	02/19/24		ADDENDUM 2
3	03/04/24		ADDENDUM 3
#	REVISIONS		

DRAWN: Author	CHECKED: Checker
DATE: 06/28/22	SCALE: 1/8" = 1'-0"
PROJECT NUMBER: 2110000	

ELECTRICAL SINGLE LINE DIAGRAM

DRAWING NUMBER: **E5.1**

Job: NOGALES HS ADDITION — Job No. W2110000AR

Mounting SURFACE — Main Type MCB (800A) — Neutral 100%

Voltage: 480Y/277V-3PH 4W — Main Size: 800 AMPS

AIC Rating 42000 — Ground Equipment Ground — Lugs SINGLE

PANEL: H1DP — ALL LOADS IN VA

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
					27280			TRANSFORMER TH1	PER SLD	PER SLD	1	A	2	PER SLD	PER SLD	ELEV. MOTOR			3520					0.00
					27280			-	-	-	3	B	4	-	-	-			3520					0.00
					27280			-	-	-	5	C	6	-	-	-			3520					0.00
					51600			PANEL H1MA	PER SLD	PER SLD	7	A	8	PER SLD	PER SLD	PANEL H1MB						36000		0.00
					51600			-	-	-	9	B	10	-	-	-						36000		0.00
					51600			-	-	-	11	C	12	-	-	-						36000		0.00
1466								INV-1	PER SLD	PER SLD	13	A	14	PER SLD	PER SLD	AREA B LGHTS	2700							0.00
1466								-	-	-	15	B	16	PER SLD	PER SLD	2ND FLOOR LIGHTS	1000							0.00
1466								-	-	-	17	C	18	PER SLD	PER SLD	POOL BLDG LGHTS	600							0.00
								AREA A LGHTS	PER SLD	PER SLD	19	A	20	PER SLD	PER SLD	SPARE								1.00
		5263						RT-14	PER SLD	PER SLD	21	B	22			OPEN								0.00
		5263						-	-	-	23	C	24	PER SLD	PER SLD	POOL PUMP			9418					0.00
		5263						-	-	-	25	A	26	-	-	OPEN			9418					0.00
		970						PE-14	PER SLD	PER SLD	27	B	28	-	-	OPEN			9418					0.00
		970						-	-	-	29	C	30			OPEN								0.00
		970						-	-	-	31	A	32			OPEN								0.00
								OPEN			33	B	34			OPEN								0.00
								OPEN			35	C	36			OPEN								0.00
								OPEN			37	A	38			OPEN								0.00
								OPEN			39	B	40			OPEN								0.00
								OPEN			41	C	42			OPEN								0.00
4398	0	18699	0	0	236640	0	0.00	TOTALS								TOTALS	4300	0	38814	0	0	108000	0	1.00

LOAD SUMMARY

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description
8.7	0.0	57.5	0.0	0.0	344.6	0.0	1.0	Connected KVA
1.25	**	1.00	1.00	1.00	1.00	0.65	0.50	*Design Factors
10.9	0.0	57.5	0.0	0.0	344.6	0.0	0.5	Design KVA

Phase Load

Ph	KVA
A	138.2
B	136.5
C	136.1

Panel Remarks:

*Input div. factor per descriptions as required for calculations.
**100% of 1st 10 KVA, 50% of remaining.

	Con. KVA	Con. Amps		Des. KVA	Des. Amps
TOTAL	411.9	495.4		413.5	497.4

PANEL: H1DP

Date: 3/8/2024 By: Designer

10/22/03

Job: NOGALES HS ADDITION — Job No. W2110000AR

Mounting SURFACE — Main Type MCB (400A) — Neutral 100%

Voltage: 480Y/277V-3PH 4W — Main Size: 400 AMPS

AIC Rating 42000 — Ground Equipment Ground — Lugs SINGLE

PANEL: H1MA — ALL LOADS IN VA

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
		15493						RT-1 ROOF	100/3	1	1	A	2	8	35/3	RT-3 ROOF			5263					0.00
		15493						-	-	1	3	B	4	8	-	-			5263					0.00
		15493						-	-	1	5	C	6	8	-	-			5263					0.00
		5263						RT-4 ROOF	35/3	8	7	A	8	2	90/3	RT-2 ROOF			13296					0.00
		5263						-	-	8	9	B	10	2	-	-			13296					0.00
		5263						-	-	8	11	C	12	2	-	-			13296					0.00
		6648						RT-7 ROOF	45/3	6	13	A	14	6	45/3	RT-5 ROOF			6925					0.00
		6648						-	-	6	15	B	16	6	-	-			6925					0.00
		6648						-	-	6	17	C	18	6	-	-			6925					0.00
		6648						RT-6 ROOF	45/3	6	19	A	20	12	20/3	PE-3 ROOF			684					0.00
		6648						-	-	6	21	B	22	12	-	-			684					0.00
		6648						-	-	6	23	C	24	12	-	-			684					0.00
		1600						PE-1 ROOF	20/3	12	25	A	26	12	20/3	PE-4 ROOF			684					0.00
		1600						-	-	12	27	B	28	12	-	-			684					0.00
		1600						-	-	12	29	C	30	12	-	-			684					0.00
		2880						PE-2 ROOF	25/3	10	31	A	32	12	20/3	PE-5 ROOF			1260					0.00
		2880						-	-	10	33	B	34	12	-	-			1260					0.00
		2880						-	-	10	35	C	36	12	-	-			1260					0.00
		1260						PE-15 ROOF	20/3	12	37	A	38	3	80/3	RT-15 ROOF			11911					0.00
		1260						-	-	12	39	B	40	3	-	-			11911					0.00
		1260						-	-	12	41	C	42	3	-	-			11911					0.00
0	0	119376	0	0	0	0	0.00	TOTALS								TOTALS	0	0	120069	0	0	0	0	0.00

LOAD SUMMARY

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description
0.0	0.0	239.4	0.0	0.0	0.0	0.0	0.0	Connected KVA
1.25	**	1.00	1.00	1.00	1.00	0.65	0.50	*Design Factors
0.0	0.0	239.4	0.0	0.0	0.0	0.0	0.0	Design KVA

Phase Load

Ph	KVA
A	79.8
B	79.8
C	79.8

Panel Remarks:

*Input div. factor per descriptions as required for calculations.
**100% of 1st 10 KVA, 50% of remaining.

	Con. KVA	Con. Amps		Des. KVA	Des. Amps
TOTAL	239.4	288.0		239.4	288.0

PANEL: H1MA

Date: 3/8/2024 By: Designer

10/22/03

Job: NOGALES HS ADDITION — Job No. W2110000AR

Mounting SURFACE — Main Type MCB (225A) — Neutral 100%

Voltage: 480Y/277V-3PH 4W — Main Size: 225 AMPS

AIC Rating 42000 — Ground Equipment Ground — Lugs SINGLE

PANEL: H1MB — ALL LOADS IN VA

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
		6371						RT-8 ROOF TOP	40/3	8	1	A	2	6	45/3	RT-9 ROOF TOP			6925					0.00
		6371						-	-	8	3	B	4	6	-	-			6925					0.00
		6371						-	-	8	5	C	6	6	-	-			6925					0.00
		540						PE-8 ROOFTOP	20/3	12	7	A	8	12	20/3	PE-9 ROOFTOP			1008					0.00
		540						-	-	12	9	B	10	12	-	-			1008					0.00
		540						-	-	12	11	C	12	12	-	-			1008					0.00
		11911						RT-16 ROOF TOP	80/3	3	13	A	14	12	20/3	PE-16 ROOFTOP			1008					0.00
		11911						-	-	3	15	B	16	12	-	-			1008					0.00
		11911						-	-	3	17	C	18	12	-	-			1008					0.00
		6371						RT-12 ROOF TOP	40/3	8	19	A	20	12	20/3	PE-12 ROOFTOP			540					0.00
		6371						-	-	8	21	B	22	12	-	-			540					0.00
		6371						-	-	8	23	C	24	12	-	-			540					0.00
		5263						RT-10 ROOF TOP	35/3	8	25	A	26	12	20/3	PE-10 ROOFTOP			540					0.00
		5263						-	-	8	27	B	28	12	-	-			540					0.00
		5263						-	-	8	29	C	30	12	-	-			540					0.00
		6371						RT-13 ROOF TOP	40/3	8	31	A	32	12	20/3	PE-13 ROOFTOP			540					0.00
		6371						-	-	8	33	B	34	12	-	-			540					0.00
		6371						-	-	8	35	C	36	12	-	-			540					0.00
		5263						RT-11 ROOF TOP	35/3	8	37	A	38	12	20/3	PE-11 ROOFTOP			540					0.00
		5263						-	-	8	39	B	40	12	-	-			540					0.00
		5263						-	-	8	41	C	42	12	-	-			540					0.00
0	0	126270	0	0	0	0	0.00	TOTALS								TOTALS	0	0	33303	0	0	0	0	0.00

LOAD SUMMARY

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description
0.0	0.0	159.6	0.0	0.0	0.0	0.0	0.0	Connected KVA
1.25	**	1.00	1.00	1.00	1.00	0.65	0.50	*Design Factors
0.0	0.0	159.6	0.0	0.0	0.0	0.0	0.0	Design KVA

Phase Load

Ph	KVA
A	53.2
B	53.2
C	53.2

Panel Remarks:

*Input div. factor per descriptions as required for calculations.
**100% of 1st 10 KVA, 50% of remaining.

	Con. KVA	Con. Amps		Des. KVA	Des. Amps
TOTAL	159.6	191.9		159.6	191.9

PANEL: H1MB

Date: 3/8/2024 By: Designer

10/22/03

Job: NOGALES HS ADDITION — Job No. W2110000AR

Mounting SURFACE — Main Type MCB (600A) — Neutral 100%

Voltage: 208Y/120V-3PH 4W — Main Size: 600 AMPS

AIC Rating 42000 — Ground Equipment Ground — Lugs SINGLE

PANEL: L1DP — ALL LOADS IN VA

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
					11400			PANEL L1A	PER SLD	PER SLD	1	A	2	PER SLD	PER SLD	PANEL L1B						14600		0.00
					9100			-	-	-	3	B	4	-	-	-						9800		0.00
					11700			-		-	5	C	6	-	-	-						8400		0.00
					28500			PANEL L1M	PER SLD	PER SLD	7	A	8	PER SLD	PER SLD	PANEL L2A						3200		0.00
					29200			-	-	-	9	B	10	-	-	-						900		0.00
					19700			-	-	-	11	C	12	-	-	-						500		0.00
					7900			PANEL LP	PER SLD	PER SLD	13	A	14			OPEN								0.00
					8700			-	-	-	15	B	16			OPEN								0.00
					6800			-	-	-	17	C	18			OPEN								0.00
								OPEN			19	A	20			OPEN								0.00
								OPEN			21	B	22			OPEN								0.00
								OPEN			23	C	24			OPEN								0.00
								OPEN			25	A	26			OPEN								0.00
								OPEN			27	B	28			OPEN								0.00
								OPEN			29	C	30			OPEN								0.00
								OPEN			31	A	32			OPEN								0.00
								OPEN			33	B	34			OPEN								0.00
								OPEN			35	C	36			OPEN								0.00
								OPEN			37	A	38			OPEN								0.00
								OPEN			39	B	40			OPEN								0.00
								OPEN			41	C	42			OPEN								0.00
0	0	0	0	0	133000	0	0.00	TOTALS								TOTALS	0	0	0	0	0	37400	0	0.00

LOAD SUMMARY

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description
0.0	0.0	0.0	0.0	0.0	170.4	0.0	0.0	Connected KVA
1.25	**	1.00	1.00	1.00	1.00	0.65	0.50	*Design Factors
0.0	0.0	0.0	0.0	0.0	170.4	0.0	0.0	Design KVA

Phase Load

Ph	KVA
A	65.6
B	57.7
C	47.1

Panel Remarks:

*Input div. factor per descriptions as required for calculations.
**100% of 1st 10 KVA, 50% of remaining.

	Con. KVA	Con. Amps		Des. KVA	Des. Amps
TOTAL	170.4	473.0		170.4	473.0

PANEL: L1DP

Date: 3/8/2024 By: Designer

Job: Nogales High School - New Bldg. & Aquatic Center — Job No. 2110000

Mounting SURFACE — Main Type MCB (200A) — Neutral 100%

Voltage: 208Y/120V-3PH 4W — Main Size: 225 AMPS

AIC Rating 14000 — Ground Equipment Ground — Lugs FEED THRU

PANEL: L1A — ALL LOADS IN VA

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
	900							A102-103 REC.	20/1	12	1	A	2	12	20/1	A101 REC.		540						0.00
	720							A109 REC.	20/1	12	3	B	4	12	20/1	A108 REC.		360						0.00
	360							A101 DRINKING FTN	20/1	12	5	C	6	12	20/1	A106 REC.		540						0.00
	360							A106 REC.	20/1	12	7	A	8	12	20/1	A105 REC.		540						0.00
	360							A105 REC.	20/1	12	9	B	10	12	20/1	A104 REC.		360						0.00
	360							A110 VEST REC.	20/1	12	11	C	12	12	20/1	A110 DRINKING FTN.		360						0.00
	720							A110 REC.	20/1	12	13	A	14	12	20/1	A110 T.V. REC.		180						0.00
	540							A110 REC.	20/1	12	15	B	16	12	20/1	A112/EXT. REC.		360						0.00
	540							A117 REC.	20/1	12	17	C	18	12	20/1	A117 T.V.		180						0.00
	360							A113-115 REC.	20/1	12	19	A	20	12	20/1	A119 REC.		540						0.00
	360							A119 REC.	20/1	12	21	B	22	12	20/1	A119 REFRIG.		800						0.00
	720							A118 REC.	20/1	12	23	C	24	12	20/1	A126 REC.		720						0.00
	720							A127 REC.	20/1	12	25	A	26	12	20/1	A127 HOT TUB		800						0.00
	800							A127 HOT TUB	20/1	12	27	B	28	12	20/1	A127 ICE MAKER		500						0.00
	800							A127 REFRIG.	20/1	12	29	C	30	12	20/1	A122/123 REC.		360						0.00
	360							A111 REC.	20/1	12	31	A	32	12	20/1	A101 REC./T.V.		540						0.00
								SPARE	20/1		33	B	34	12	20/1	A104 - IDF		300						0.00
								SPARE	20/1		35	C	36		20/1	SPARE								1.00
								SPARE	20/1		37	A	38		20/1	SPARE								1.00
								SPACE			39	B	40			SPACE								0.00
								SPACE			41	C	42			SPACE								0.00
0	8980	0	0	0	0	0	0.00	TOTALS								TOTALS	0	7980	0	0	0	0	0	2.00

PANEL: L1A 2 (Section 2) — ALL LOADS IN VA

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
	180						0.00	RT-1 RECEPT.	20/1	12	43	A	44	12	20/1	RT-3 RECEPT.		180						0.00
	180						0.00	RT-4 RECEPT.	20/1	12	45	B	46	12	20/1	RT-2 RECEPT.		180						0.00
	180						0.00	RT-7 RECEPT.	20/1	12	47	C	48	12	20/1	RT-5 RECEPT.		180						0.00
	180						0.00	RT-6 RECEPT.	20/1	12	49	A	50	12	20/1	HP-15 RECEPT.		180						0.00
		500					0.00	EF-3	20/1	12	51	B	52	12	20/1	A118 - DRINKING FTN		200						0.00
	540						0.00	EXT. RECEPT. (SOUTH)	20/1	12	53	C	54	12	20/1	A119 - TP-2		600						0.00
	540						0.00	EXT. RECEPT.(NORTH)	20/1	12	55	A	56	12	20/1	A131 - TP-2		600						0.00
	500						0.00	A120 - WASHER	20/1	12	57	B	58		20/1	SPARE								1.00
	3300						0.00	A120 - DRYER - 1PH	30/1	10	59	C	60		20/1	SPARE								1.00
	1100						0.00	A120 - DRYER - 3PH	30/3	10	61	A	62		20/1	SPARE								1.00
	1100						0.00	----	--/3	10	63	B	64		20/1	SPARE								1.00
	1100						0.00	----	--3/	10	65	C	66		20/1	SPARE								1.00
	1000						0.00	ROLLING CART	20/1	12	67	A	68		20/1	SPARE								1.00
	1000						0.00	ROLLING CART	20/1	12	69	B	70		20/1	SPARE								1.00
	1000						0.00	REFRIGERATOR	20/1	12	71	C	72		20/1	SPARE								1.00
	1000						0.00	DISHWASHER	20/1	12	73	A	74			SPACE								0.00
							0.00	SPACE			75	B	76			SPACE								0.00
							0.00	SPACE			77	C	78			SPACE								0.00
							0.00	SPACE			79	A	80			SPACE								0.00
							0.00	SPACE			81	B	82			SPACE								0.00
							0.00	SPACE			83	C	84			SPACE								0.00
0	12900	500	0	0	0	0	0.00	TOTALS								TOTALS	0	2120	0	0	0	0	0	8.00

LOAD SUMMARY

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description
0.0	32.0	0.5	0.0	0.0	0.0	0.0	10.0	Connected KVA
1.25	**	1.00	1.00	1.00	1.00	0.65	0.50	*Design Factors
0.0	21.0	0.5	0.0	0.0	0.0	0.0	5.0	Design KVA

Phase Load

Ph	KVA
A	11.5
B	9.1
C	11.8

Panel Remarks:
NEW PANEL
SINGLE SECTION - 84 CKT PANEL

*Input div. factor per descriptions as required for calculations.
**100% of 1st 10 KVA, 50% of remaining.

	Con. KVA	Con. Amps		Des. KVA	Des. Amps
TOTAL	42.5	117.9		26.5	73.5

PANEL: L1A

Date: 3/8/2024 By: N.OROPEZA

10/22/03

Job: Nogales High School - New Bldg. & Aquatic Center — Job No. 2110000

Mounting SURFACE — Main Type MCB (200A) — Neutral 100%

Voltage: 208Y/120V-3PH 4W — Main Size: 225 AMPS

AIC Rating 14000 — Ground Equipment Ground — Lugs FEED THRU

PANEL: L1B — ALL LOADS IN VA

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
	180							A132 EXT. REC.	20/1	12	1	A	2	12	20/1	A131 REC.		180						0.00
	180							A132 REC.	20/1	12	3	B	4	12	20/1	A131 REC.		540						0.00
	180							A132 REC./T.V.	20/1	12	5	C	6	12	20/1	A131 REC./T.V.		180						0.00
	540							A132 REC.	20/1	12	7	A	8	12	20/1	A133 REC.		540						0.00
	900							A135 REC.	20/1	12	9	B	10	12	20/1	A133 REC.		540						0.00
	900							A134 REC.	20/1	12	11	C	12	12	20/1	A133 REC./T.V.		180						0.00
	720							A145 REC.	20/1	12	13	A	14	12	20/1	A136		540						0.00
	720							A145 REC.	20/1	12	15	B	16	12	20/1	A145 DRINKING FTN.		360						0.00
	720							A147 REC.	20/1	12	17	C	18	12	20/1	A150 REC.		540						0.00
	180							A148 REC.	20/1	12	19	A	20	12	20/1	A151 REC.		900						0.00
	180							A152 REC./T.V.	20/1	12	21	B	22	12	20/1	A153/A154 REC.		540						0.00
	540							A156/A159 REC.	20/1	12	23	C	24	12	20/1	A155 REC.		540						0.00
	720							A157/A158 REC.	20/1	12	25	A	26	12	20/1	A155 REC.		540						0.00
	720							A142 REC.	20/1	12	27	B	28	12	20/1	A141 REC.		540						0.00
	360							A142 REC.	20/1	12	29	C	30	12	20/1	A141 REC.		540						0.00
	800							A142 REFRIG.	20/1	12	31	A	32	12	20/1	TP-2		600						0.00
								SPARE	20/1		33	B	34	12	20/1	TP-2		600						0.00
								SPACE			35	C	36			SPACE								0.00
								SPACE			37	A	38			SPACE								0.00
								SPACE			39	B	40			SPACE								0.00
								SPACE			41	C	42			SPACE								0.00
0	8540	0	0	0	0	0	0.00	TOTALS								TOTALS	0	8400	0	0	0	0	0	0.00

PANEL: L1B 2 (Section 2) — ALL LOADS IN VA

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description	Amp/P	Wire	Cir. No.	Ph	Cir. No.	Wire	Amp/P	Description	Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S
	3300						0.00	A141 - DRYER	30/1	10	43	A	44	12	20/1	F-3			492					0.00
	500						0.00	A141 - WASHER	15/1	12	45	B	46	12	20/1	EF-5			492					0.00
					300		0.00	STAIRS - WH-1	20/1	12	47	C	48	12	20/1	EF-8			100					0.00
	180						0.00	STAIRS - DF	20/1	12	49	A	50	12	20/1	IDF		300						0.00
	300						0.00	IDF	20/1	12	51	B	52	12	20/1	FACP **		500						0.00
	500						0.00	FACP **	20/1	12	53	C	54	12	20/1	FACP **		500						0.00
	180						0.00	ROOF CONV. REC.	20/1	12	55	A	56	12	20/1	A117- COACH FRIG		800						0.00
	1100						0.00	A141 - DRYER 208/3PH	30/3	10	57	B	58	12	20/1	EF-5			492					0.00
	1100						0.00	---	-/3	10	59	C	60	12	20/1	RISER BELL **						200		0.00
	1100						0.00	---	-/3	10	61	A	62	10	20/1	EF-10			1440					0.00
	1000						0.00	ROLLING CART	20/1	12	63	B	64	12	20/1	A160- STOR. RECEPTS.		360						0.00
	1000						0.00	ROLLING CART	20/1	12	65	C	66	12	20/1	CONV. RECEPTS.		360						0.00
	1000						0.00	ROLLING CART	20/1	12	67	A	68		20/1	SPARE								1.00
	180						0.00	ELEVATOR PIT	20/1	12	69	B	70		20/1	SPARE								1.00
							1.00	SPARE	20/1		71	C	72		20/1	SPARE								1.00
							1.00	SPARE	20/1		73	A	74		20/1	SPARE								1.00
							1.00	SPARE	20/1		75	B	76			SPACE								0.00
							0.00	SPACE			77	C	78			SPACE								0.00
							0.00	SPACE			79	A	80			SPACE								0.00
							0.00	SPACE			81	B	82			SPACE								0.00
							0.00	SPACE			83	C	84			SPACE								0.00
0	11440	0	0	0	300	0	3.00	TOTALS								TOTALS	0	2820	3016	0	0	200	0	4.00

LOAD SUMMARY

Ltg.	Recept	Motor	Heat	Cool	Other	Kitchen	S/S	Description
0.0	31.2	3.0	0.0	0.0	0.5	0.0	7.0	Connected KVA
1.25	**	1.00	1.00	1.00	1.00	0.65	0.50	*Design Factors
0.0	20.6	3.0	0.0	0.0	0.5	0.0	3.5	Design KVA

Phase Load

Ph	KVA
A	15.2
B	10.7
C	8.7

Panel Remarks:
NEW PANEL
** - INDICATES RED, LOCKABLE CIRCUIT BREAKER

SINGLE SECTION - 84 CKT PANEL

*Input div. factor per descriptions as required for calculations.
**100% of 1st 10 KVA, 50% of remaining.

	Con. KVA	Con. Amps		Des. KVA	Des. Amps
TOTAL	41.7	115.8		27.6	76.7

PANEL: L1B

Date: 3/8/2024 By: N.OROPEZA

10/22/03

3/8/2024 11:27:35 AM
C:\Users\noropeza\Documents\W2110000AR NHS - E21_Central_nicole.oropezaCM2LR.rvt

PBK
RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL NEW BUILDING & AQUATIC CENTER

ROWLAND UNIFIED SCHOOL DISTRICT

401 NOGALES ST, LA PUENTE, CA 91744

LICENSED ARCHITECT — ROBERT LAVEY — C-28020 — 01-31-25 — STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER — STEVEN C. MUSSER — E-19817 — Exp.03/31/26 — ELECTRICAL — STATE OF CALIFORNIA

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

NO	DATE	BY	DESCRIPTION
1	01/25/24	PBK	ADDENDUM 1
2	02/19/24		ADDENDUM 2
3	03/04/24		ADDENDUM 3

REVISIONS

DRAWN: Author — CHECKED: Checker
DATE: 11/17/22 — SCALE: 12" = 1'-0"
PROJECT NUMBER: 2110000

ELECTRICAL PANEL SCHEDULES

DRAWING NUMBER: E5.2

DEVICE SCHEDULE

SYMBOL	DESCRIPTION	MODEL	MANUFACTURER	BACKBOX	MOUNTING HEIGHT	C.S.F.M. NUMBER
FACP	EXISTING FIRE ALARM CONTROL PANEL WITH VOICE	NFS2-640	NOTIFIER	PROVIDED		7165-0028:0243
FATC	FIRE ALARM TERMINAL CABINET	N/A	N/A	N/A		N/A
FAPS	FIRE ALARM POWER SUPPLY	FCPS-24	NOTIFIER	N/A		7315-0075:0206
S P	ADDRESSABLE AREA SMOKE DETECTOR (PHOTOELECTRIC)	FSP-851	NOTIFIER	3-0 RING	CEILING	7272-0028:0206
PIV	POST INDICATOR VAVLE	N/A	N/A	N/A		N/A
! A / ! C	ADDRESSABLE AREA HEAT DETECTOR (FIXED 200°F)	FST-851	NOTIFIER	4S DEEP BOX W/ 3-0 RING	ATTIC/ CEILING	7270-0228:0196
WP	FIRE ALARM EXTERIOR WEATHERPROOF SPEAKER	SPRK	SYSTEM SENSOR	4S DEEP BOX W/ 4S EXTENSION		7320-1653:0201
	FIRE ALARM CEILING MOUNTED SPEAKER/STROBE	SPSCRL	SYSTEM SENSOR	4S DEEP BOX W/ 4S EXTENSION		7320-1653:0505
	FIRE ALARM CEILING MOUNTED STROBE	SCW	SYSTEM SENSOR	4S DEEP BOX W/ 4S EXTENSION		7125-1653:0186
R 2	ADDRESSABLE CONTROL RELAY	FDRM-1	NOTIFIER	4S DEEP BOX W/ 3-0 RING		7300-0028:0219
	FIRE ALARM JUNCTION BOX	N/A	BY ELECTRICAL CONTRACTOR	N/A		N/A
EOL	END OF LINE RESISTOR	N/A	N/A	N/A		N/A
SS	SURGE SUPPRESSOR	DTK-120HWLOK	DITEK	N/A		7300-2105:0102
D.C.	DOCUMENT BOX	SPACE AGE				
S D	ADDRESSABLE DUCT SMOKE DETECTOR HOUSING	ND-100R	NOTIFIER		N/A	3240-0028:0232

NOTE:
1. UNLESS NOTED AS EXISTING, ALL THE DEVICES SHOWING ON THE DRAWINGS ARE NEW.
2. ALL DEVICES IN THE LEGEND MAY NOT BE USED.

LEGENDS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
A OR AMP	AMPERES	NIC	NOT IN CONTRACT
AFF	ABOVE FINISHED FLOOR	NO.	NUMBER
AIC	AMPERES INTERRUPTING CAPACITY	PH. OR Ø	PHASE
ARCH.	ARCHITECT; ARCHITECTURAL	PNL	PANEL
AWG	AMERICAN WIRE GAUGE	PWR	POWER
C	CONDUIT	REC/RECEPT	RECEPTACLE
CKT	CIRCUIT	REQ'D	REQUIRED
CL.	CEILING MOUNTED DEVICE	RM	ROOM
C.O.	CONDUIT ONLY WITH PULL WIRE	SF	SQUARE FEET
CU	COPPER	SHT	SHEET
DWG	DRAWING	SP	SINGLE POLE
ER	EXISTING DEVICE TO BE REMOVED	SPECS	SPECIFICATIONS
EMT	ELECTRICAL METALLIC TUBING	SW	SWITCH
EQUIP	EQUIPMENT	TYP	TYPICAL
EXIST / (E)	EXISTING	UG	UNDERGROUND
FIN.	FINISH	U.O.N.	UNLESS OTHERWISE NOTED
FLR	FLOOR	V	VOLTS
FT	FEET	V-A	VOLT-AMPERES
GFI	GROUND FAULT INTERRUPTER	W	WATTS
GND	GROUND	W/	WITH
LTG.	LIGHTING	W/O	WITHOUT
MTG	MOUNTING	WP	WEATHERPROOF
N	NEW	CEC	CALIFORNIA ELECTRICAL CODE
FS	FLOW SWITCH		
JB	JUNCTION BOX		
PIV	POST INDICATOR VALVE		
TS	TAMPER SWITCH		
	PULL BOX (WEATHERPROOF)		
##	RISER UP AND DOWN		

APPLICABLE CODES

PARTIAL LIST OF APPLICABLE CODES :
2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR
2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR
(2022 INTERNATIONAL BUILDING CODE, VOL. 1 & 2, AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR
(2022 NATIONAL ELECTRICAL CODE AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR
(2022 IAPMO UNIFORM MECHANICAL CODE AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR
(2022 IAPMO UNIFORM PLUMBING CODE AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 CCR
2022 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR
(2022 INTERNATIONAL FIRE CODE AND 2022 CALIFORNIA AMENDMENTS)
2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR
(2022 INTERNATIONAL EXISTING BUILDING CODE AND 2022 CALIFORNIA AMENDMENTS)
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

FOR A COMPLETE LIST OF APPLICABLE STANDARDS CALIFORNIA FIRE CODE CHAPTER 80.

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

DRAWING INDEX

SUMMARY OF SCOPE OF WORK

PROVIDE COMPLETE FULL AUTOMATIC ADDRESSABLE FIRE ALARM SYSTEM WITHIN THE AREA OF WORK. PROVIDE FIRE ALARM SYSTEM DEVICES AS SHOWN IN EQUIPMENT LEGEND, FLOOR PLANS, AND SPECIFICATIONS IN THIS CONSTRUCTION DOCUMENT SET. CONNECT NEW FIRE ALARM SYSTEM DEVICES SHOWN PER DRAWING AND SPECIFICATION DOCUMENT. NEW NAC POWER SUPPLYS SHALL BE ADDED AS NEEDED TO POWER UP THE NEW NOTIFICATION DEVICES.

UPON COMPLETION, A COMPLETE PRE TEST SHALL BE PERFORMED TO VERIFY FUNCTIONALITY, IF FUNCTIONALITY IS COMPLETE THEN THE PROPER DOCUMENTATION SHALL BE SUBMITTED TO THE AUTHORITY HAVING JURISDICTION PRIOR TO SCHEDULING A FINAL INSPECTION.

FIRE WATCH NOTE

A FIRE WATCH SHALL BE ESTABLISHED AND THE FIRE DEPARTMENT & FIRE CODE OFFICIAL SHALL BE NOTIFIED IMMEDIATELY WHENEVER THE FIRE PROTECTION / ALARM SYSTEM IS RENDERED OUT OF SERVICE. A FIRE WATCH SHALL BE STAGED WHENEVER THE BUILDING IS OCCUPIED (PARTIAL OR WHOLE) PER DSA IR F-2 AND CFC 901.7.

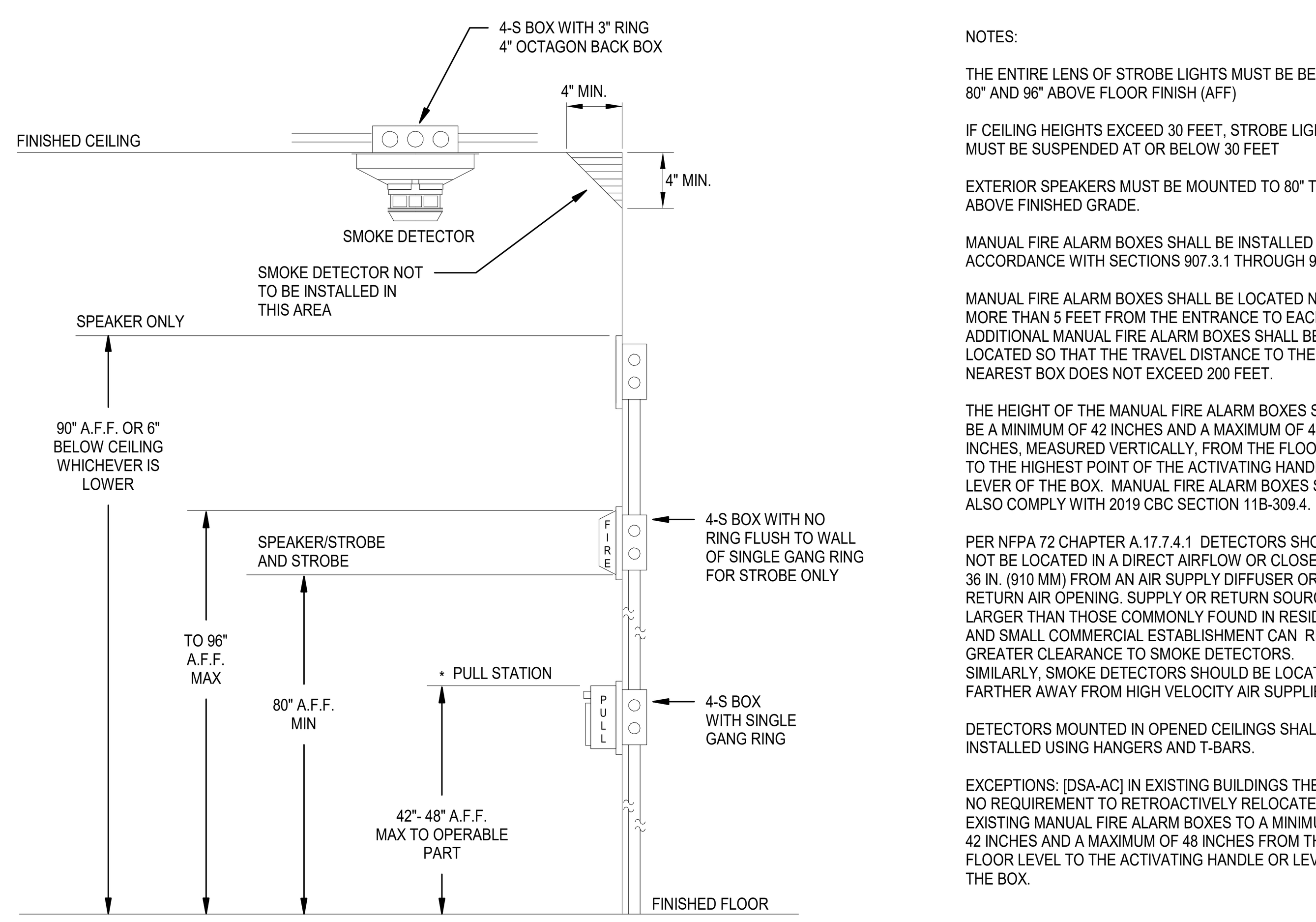
SCOPE OF WORK

PROVIDE COMPLETE FULL AUTOMATIC ADDRESSABLE FIRE ALARM SYSTEM WITHIN THE AREA OF WORK. PROVIDE FIRE ALARM SYSTEM DEVICES AS SHOWN IN EQUIPMENT LEGEND, FLOOR PLANS, AND SPECIFICATIONS IN THIS CONSTRUCTION DOCUMENT SET. USE EXISTING FIRE ALARM CONTROL PANEL TO CONNECT NEW FIRE ALARM SYSTEM DEVICES SHOWN PER DRAWING AND SPECIFICATION DOCUMENT. UPON COMPLETION, A COMPLETE PRE TEST SHALL BE PERFORMED TO VERIFY FUNCTIONALITY, IF FUNCTIONALITY IS COMPLETE THEN THE PROPER DOCUMENTATION SHALL BE SUBMITTED TO THE AUTHORITY HAVING JURISDICTION PRIOR TO SCHEDULING A FINAL INSPECTION.

GENERAL NOTES

1. APPLICABLE STANDARD , NFPA 72, AS ADOPTED AND AMENDED IN CBC CHAPTER 35
2. INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM, HAS BEEN APPROVED BY DSA.
3. UPON COMPLETION OF SYSTEM INSTALLATION, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR.
4. A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.
5. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.
6. DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND /OR TESTING.
7. ALL PENETRATIONS THROUGH RATED ASSEMBLIES REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL OR OTHER APPROVED LAB TESTING CRITERIA. APPROVED TYPES OF MATERIALS SHALL BE IDENTIFIED WITHIN THE PROJECT SPECIFICATIONS WITHIN THE FIRE ALARM SECTION.
8. WALL MOUNTED VISIBLE NOTIFICATION DEVICES SHALL HAVE THEIR BOTTOMS MOUNTED AT 80" MINIMUM AND 96" MAXIMUM FROM FINISHED FLOOR.
9. WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM AND 100" MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THEN 6" TO A HORIZONTAL STRUCTURE.
10. AUDIBLE DEVICES SHALL PROVIDE A SOUND PRESSURE LEVEL OF 15 DECIBELS (DBA) ABOVE THE AVERAGE AMBIENT SOUND LEVEL OR FIVE DBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, IN EVERY OCCUPIABLE SPACE WITHIN THE BUILDING.
11. AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN.
12. THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
13. VISIBLE DEVICES SHOULD NOT EXCEED TWO FLASHES PER SECOND AND SHOULD NOT BE SLOWER THAN ONE FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELLA. VISIBLE DEVICES WITHIN 55' FROM EACH OTHER SHALL BE SYNCHRONIZED.
14. UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATER TIGHT FITTINGS AND WIRE TO BE APPROVED FOR WET LOCATIONS.
15. ALL FIRE ALARM WIRING SHALL BE FPLOR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE TYPE THHN OR THWN.
16. PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. ALL BOXES TO BE SIZED PER CEC.
17. SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1' FROM FIRE SPRINKLERS OR 3' FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION ON NEWLY INSTALLED FIRE ALARM, DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.
18. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS, UNDER FLOORS AND IN WALLS IN A NEAT AND PROTECTED MANOR AS INDICATED ON DESIGN DOCUMENTS.
19. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.
20. FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS.
21. A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL." CIRCUIT ID TO BE LABELED AT FIRE PANEL/EXTENDERS.
22. THE INSTALLING CONTRACTOR SHALL PROVIDE A COMPLETED "SYSTEM RECORD OF COMPLETION" PER NFPA 72, FIGURE 7.8.2.
23. FIRE ALARM CONTROL PANELS AND REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48" ABOVE THE FINISHED FLOOR.
24. MICROPHONES ASSOCIATED WITH EMERGENCY VOICE ALARM COMMUNICATION SYSTEMS (EVAC) SHALL BE ACCESSIBLE FOR USE, INSTALLED IN COMPLIANCE WITH CBC SECTIONS 11B-305 AND 11B-308.
25. THE INSTALLING CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.2.
26. SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.
27. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.
28. ALL CARBON MONOXIDE SIGNALS SHALL SOUND A FOUR-PULSE TEMPORAL PATTERN PER NFPA 720, 5.8.6.5.1.
29. ALL EQUIPMENT SHALL BE U.L. AND C.S.F.M. LISTED.
30. ELECTRICAL CONTRACTOR SHALL FURNISH ACCESS PANELS TO AREAS THAT REQUIRE ACCESS FOR ATTIC HEAT DETECTOR, SERVICING, TROUBLESHOOTING, ETC.
31. DO NOT DEVIATE FROM CONDUIT RUNS AS SHOWN ON FLOOR PLANS WITHOUT PRIOR APPROVAL FROM SYSTEM SUPPLIER. 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.
32. ALL FAN SHUTDOWN FUNCTIONS, DAMPER CLOSURES, AND ASSOCIATED MECHANICAL SYSTEM FIRE ALARM INTERFACE SHALL BE BY MECHANICAL CONTRACTOR.
33. ALL DUCT SMOKE DETECTORS SHALL BE MOUNTED BY THE MECHANICAL CONTRACTOR. DUCT SMOKE DETECTORS EXPOSED TO THE WEATHER SHALL BE WEATHER PROTECTED BY THE MECHANICAL CONTRACTOR. ALL AIR VELOCITY TESTING SHALL BE PERFORMED BY THE MECHANICAL CONTRACTOR.
34. 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.
35. 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.
36. SMOKE DETECTOR TESTING SHALL BE ACCOMPLISHED PER THE MANUFACTURER'S INSTRUCTIONS.
37. 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.
38. ALL WIRING SHALL BE CUT FOR IN AND OUT. WIRING SHALL NOT BE LOOPED THROUGH DEVICES.
39. POINT, COMMON ANNUNCIATION, AND T-TAPPING ARE PROHIBITED.
40. N/A
41. ALL CONDUIT SHALL BE 3/4" UNLESS OTHERWISE NOTED.
42. ALL FLOW SWITCHES SHALL BE 2 WIRE WITH NON-ELECTRONIC RETARD TYPE SIMILAR TO THE SYSTEM SENSOR MODEL "WFD SERIES" ONLY.
43. ALL DEVICES IN THE ALARM SYSTEM SHALL BE COMPATIBLE AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
44. FIRE ALARM SYSTEM SHALL BE UL LISTED (UUJS).
45. CBC 907.6.5.3 (SFM AMENDMENT) REQUIRES FIRE ALARM TO... "TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISORY STATION IN ACCORDANCE WITH NFPA 72. THE SUPERVISORY STATION SHALL BE LISTED AS EITHER UUFX (CENTRAL STATION) OR UUJS (REMOTE AND PROPRIETARY) BY THE UNDERWRITERS LABORATORY INC. (UL) OR OTHER APPROVED LISTING AND TESTING LABORATORY OR SHALL COMPLY WITH THE REQUIREMENTS OF STANDARD, FM 3011)."
46. SUBSTITUTION OF SYSTEM COMPONENTS OR MANUFACTURER WILL REQUIRE THE CONTRACTOR TO SEPARATELY OBTAIN APPROVAL WITH THE DSA AT CONTRACTOR'S EXPENSE AND SHALL MEET ALL REQUIREMENTS OF THE SYSTEM AS DESIGNED AND PRE-APPROVED. ALL PROPOSED SUBSTITUTIONS SHALL BE LISTED WITH THE CALIFORNIA STATE FIRE MARSHAL.
47. FINAL ACCEPTANCE TEST TO INCLUDE TESTING THE CONNECTION BETWEEN THE FIRE ALARM PANEL AND THE SUPERVISING STATION.
48. COORDINATE WITH THE ENGINEER FOR USE OF EXISTING CONDUIT ON A CASE BY CASE BASIS.
49. PRIOR TO DEMOLITION, CONTRACTOR SHALL TEST THE INTERCOM SYSTEM TO ENSURE FULL FUNCTIONALITY. GENERATE A LIST OF FAULTY EQUIPMENT AND PROVIDE TO THE OWNER AND THE ARCHITECT. PROVIDE PRICING FOR ANY REQUIRED EQUIPMENT REPAIRS OR REPLACEMENT.
50. N/A
51. N/A
52. PROVIDE A FIRE ALARM DOCUMENTATION CABINET PER NFPA72,7.7.
53. FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION SHALL COMPLY WITH CBC CHAPTER 33 AND CFC CHAPTER 33.
54. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE DSA APRROVED DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATION CHANGE DOCUMENT, OR A SEPERATE SET OF PLANS AND SPECIFICATIONS,DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK (CAC 4-317(C)).
55. CHANGES TO THE DIVISION OF THE STATE ARCHITECT APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENTS FOR CHANGES TO THE STRUCTURAL, ACCESSIBILITY OR FIRE -SAFETY PORTIONS OF THE PROJECT. CHANGES SHALL BE SUBMITTED TO AND APPROVED BY DSA PRIOR TO COMMENCEMENT OF THE WORK SHOWN THEREON CAC 4-338(C)).
56. PROJECT INSPECTOR TO APPROVE SYSTEM VOICE-EVACUATION INTELLIGIBILITY DURING TESTING PHASE.
57. CONTRACTOR SHALL PROVIDE ALL CABLING, RELAYS, MOUNTING HARDWARE AND ANY OTHER DEVICES (FIRE ALARM SYSTEM DEVICES) TO PROVIDE A FULLY FUNCTIONING FIRE ALARM OVERRIDE SYSTEM. WHEN FIRE ALARM CEASES, EACH LOCAL SOUND SYSTEM SHALL AUTOMATICALLY REVERT TO NORMAL OPERATION. FIRE ALARM MODULES AND CABLING BY FIRE ALARM CONTRACTOR.
58. FOR ALL HEAT DETECTORS THAT ARE LOCATED ABOVE CEILING/ATTIC SPACES, CONTRACTOR SHALL PROVIDE STICKER AND LABEL "HD" AT THE REFLECTED CEILING DIRECTLY BELOW THE DEVICE TO INDICATE LOCATION.
59. NOTIFICATION APPLIANCES USED FOR SIGNALING OTHER THAN FIRE SHALL NOT HAVE THE WORD "FIRE" OR ANY FIRE SYMBOL, IN ANY FORM (I.E., STAMPED, IMPRINTED, ETC.) ON THE APPLIANCE VISIBLE TO THE PUBLIC. NOTIFICATION APPLIANCES WITH MULTIPLE VISIBLE ELEMENTS SHALL BE PERMITTED TO HAVE FIRE MARKING ONLY ON THOSE VISIBLE ELEMENTS USED FOR FIRE SIGNALING. PER NFPA 72, 18.3.3.2/ NFPA 720, 6.3.3.2/ IR 9-2, 5.4.4 & 5.4.5.
60. AUTOMATIC FIRE ALARM SYSTEMS SHALL BE MONITORED AND SHALL TRANSMIT THE ALARM, SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFX (CENTRAL STATION) OR UUJS (REMOTE & PROPRIETARY) BY THE UNDERWRITERS LABORATORY INC. (UL) OR OTHER APPROVED LISTING AND TESTING LABORATORY OR SHALL COMPLY WITH THE REQUIREMENTS OF FM 3011. TERMINATION OF MONITORING SERVICES SHALL BE IN ACCORDANCE WITH SECTION 907.6.6.2.
61. THE NEW PROJECT SUBMITTAL TO INCLUDE DIRECTION THAT FIRE ALARM SYSTEM RECORD OF COMPLETION AND FIRE ALARM SYSTEM RECORD OF INSPECTION AND TESTING FORM THESE TWO DOCUMENTS FROM NFPA 72 ARE TO BE COMPLETED AND SUBMITTED PRIOR TO CLOSE OUT OF THE PROJECT. A COPY OF COMPLETED AND SIGNED FORM SHALL BE GIVEN TO THE ARCHITECT OR ENGINEER OF RECORD, THE PROJECT INSPECTOR, THE OWNER (SCHOOL DISTRICT) AND LOCAL FIRE AUTHORITY.

ELEVATION MOUNTING DETAIL



NOTES:

THE ENTIRE LENS OF STROBE LIGHTS MUST BE BETWEEN 80" AND 96" ABOVE FLOOR FINISH (AFF)

IF CEILING HEIGHTS EXCEED 30 FEET, STROBE LIGHTS MUST BE SUSPENDED AT OR BELOW 30 FEET

EXTERIOR SPEAKERS MUST BE MOUNTED TO 80" TO 96" ABOVE FINISHED GRADE.

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

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 THE TRAVEL DISTANCE TO THE NEAREST BOX DOES NOT EXCEED 200 FEET.

THE HEIGHT OF THE MANUAL FIRE ALARM BOXES SHALL BE A MINIMUM OF 42 INCHES AND A MAXIMUM OF 48 INCHES, MEASURED VERTICALLY, FROM THE FLOOR LEVEL TO THE HIGHEST POINT OF THE ACTIVATING HANDLE OR LEVER OF THE BOX. MANUAL FIRE ALARM BOXES SHALL ALSO COMPLY WITH 2019 CBC SECTION 11B-309.4.

PER NFPA 72 CHAPTER A.17.7.4.1 DETECTORS SHOULD NOT BE LOCATED IN A DIRECT AIRFLOW OR CLOSER THAN 36 IN. (910 MM) FROM AN AIR SUPPLY DIFFUSER OR RETURN AIR OPENING. SUPPLY OR RETURN SOURCES LARGER THAN THOSE COMMONLY FOUND IN RESIDENTIAL AND SMALL COMMERCIAL ESTABLISHMENT CAN REQUIRE GREATER CLEARANCE TO SMOKE DETECTORS. SIMILARLY, SMOKE DETECTORS SHOULD BE LOCATED FARTHER AWAY FROM HIGH VELOCITY AIR SUPPLIES.

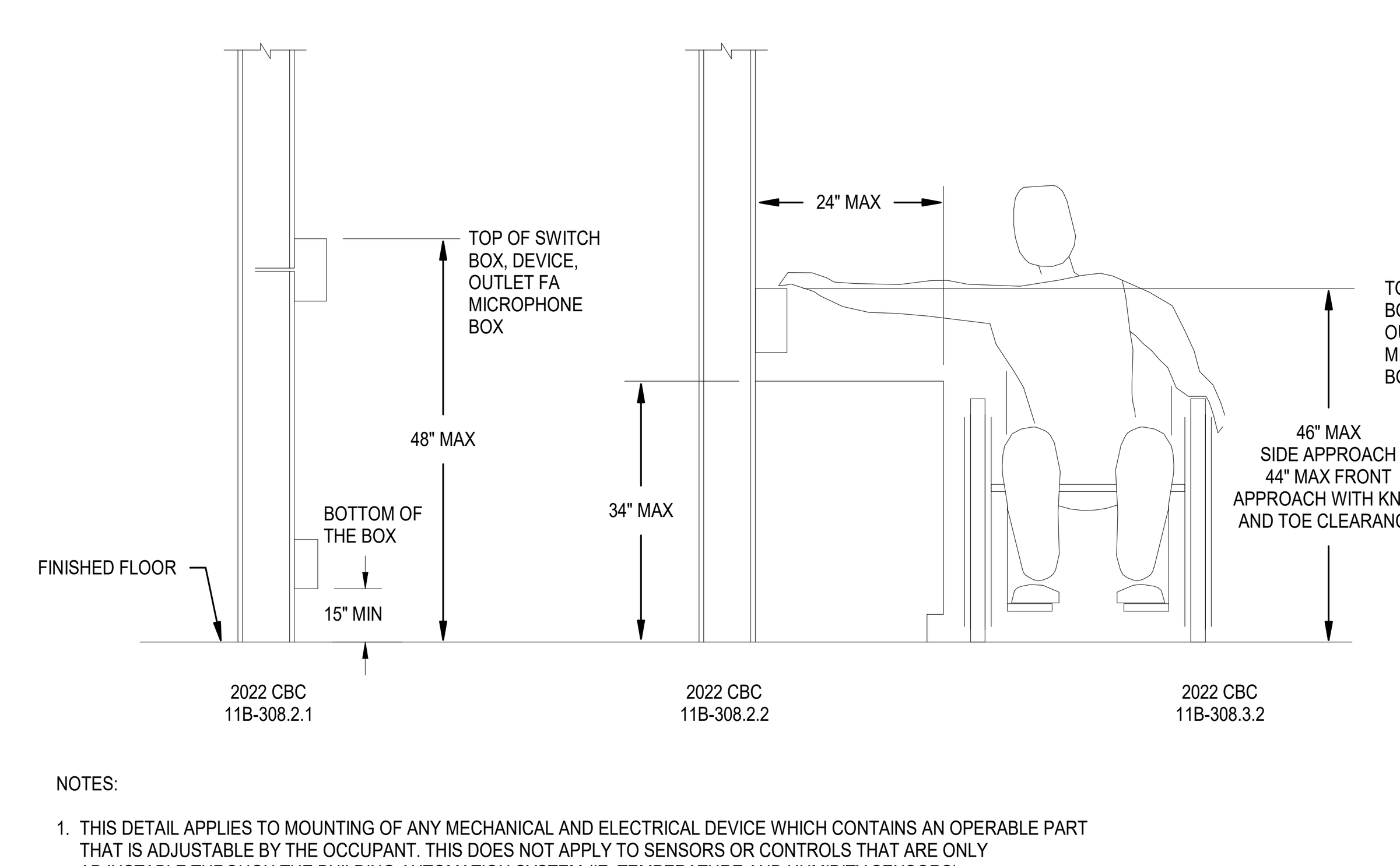
DETECTORS MOUNTED IN OPENED CEILINGS SHALL BE INSTALLED USING HANGERS AND T-BARS.

EXCEPTIONS: [DSA-AC] IN EXISTING BUILDINGS THERE IS NO REQUIREMENT TO RETROACTIVELY RELOCATE EXISTING MANUAL FIRE ALARM BOXES TO A MINIMUM OF 42 INCHES AND A MAXIMUM OF 48 INCHES FROM THE FLOOR LEVEL TO THE ACTIVATING HANDLE OR LEVER OF THE BOX.

SEQUENCE OF OPERATIONS

ACTION \ DEVICE	MANUAL PULL STATION	AREA SMOKE DETECTOR	HEAT DETECTOR	120VAC POWER FAILURE	SHORT CIRCUIT	GROUND FAULT	BATTERY FAILURE
SOUND ALARM AT "FACP"	YES	YES	YES	NO	NO	NO	NO
SOUND TROUBLE BUZZER AT "FACP"	NO	NO	NO	YES	YES	YES	YES
ANNUNCIATE AT "FACP" AND THE REMOTE ANNUNCIATOR (ALARM OR TROUBLE)	YES	YES	YES	YES	YES	YES	YES
ACTIVATE AUDIBLE / VISUAL ALARM SIGNAL THROUGHOUT BUILDING	YES	YES	YES	NO	NO	NO	NO
ACTIVATE SIGNAL FOR OFF-SITE MONITORING	YES	YES	YES	YES	YES	YES	YES
MUTE AUTONOMOUS LOCAL SOUND SYSTEM	YES	YES	YES	NO	NO	NO	NO

MOUNTING OVER OBSTRUCTION DETAIL



NOTES:

1. THIS DETAIL APPLIES TO MOUNTING OF ANY MECHANICAL AND ELECTRICAL DEVICE WHICH CONTAINS AN OPERABLE PART THAT IS ADJUSTABLE BY THE OCCUPANT. THIS DOES NOT APPLY TO SENSORS OR CONTROLS THAT ARE ONLY ADJUSTABLE THROUGH THE BUILDING AUTOMATION SYSTEM (IE: TEMPERATURE AND HUMIDITY SENSORS).
2. FORWARD OR FRONT APPROACH FOR DEVICES MOUNTED ABOVE COUNTERS ASSUMES THAT DIRECTLY BELOW THE DEVICE, THE COUNTER HAS A 30"MIN. WIDTH x27" HIGH x19" MIN. DEEP CLEAR OPENING. CBC SECTIONS 11B-306 & 11B-308.

WIRE SCHEDULE

WIRE DESIGNATION	WIRE IN CONDUIT	WIRE IN CONDUIT UNDERGROUND/WET LOC.	UNDERGROUND/WET WIRE DESIGNATION
INIT. LOOP Z	2 CONDUCTOR #16 FPL TWISTED/ SHIELDED WEST PENN #D991	2 CONDUCTOR #16 FPLP SHIELDED WEST PENN #AQ-294	INIT. LOOP Z
SBUS B	4 CONDUCTOR #18 TWISTED SHIELDED PAIR CABLE	4 CONDUCTOR #18 TWISTED SHIELDED PAIR CABLE	SBUS B
VBUS C	2 CONDUCTOR #18 TWISTED SHIELDED PAIR CABLE	2 CONDUCTOR #18 TWISTED SHIELDED PAIR CABLE	VBUS C
SPEAKER CKT. S	2 CONDUCTOR #14 THHN/THWN TWISTED	2 CONDUCTOR #14 THHN/THWN TWISTED	SPEAKER CKT. S
VISUAL CKT. V	2 CONDUCTOR #12 THHN/THWN STRANDED	2 CONDUCTOR #12 THHN/THWN STRANDED	VISUAL CKT. V
POWER CKT. P	2 CONDUCTOR #12 THHN/THWN STRANDED	2 CONDUCTOR #12 THHN/THWN STRANDED	POWER CKT. P

3

NOTE:

ALL WIRE MODEL NUMBERS ARE WEST PENN.
EQUIVALENT BY OTHER MANUFACTURER IS ACCEPTABLE.

FIRE ALARM REQUIREMENTS

THE CONTRACTOR SHALL PROVIDE AND SUBMIT THE FIRE ALARM SHOP DRAWINGS TO THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION OF THE FIRE ALARM SYSTEM. THE SUBMITTAL SHALL CONTAIN THE FOLLOWING:

A. SHOP DRAWINGS: COMPLETE 1/8" SCALE FLOOR PLANS SHOWING ALL DEVICES, COMPONENTS, CONDUIT AND WIRING INDICATING A COMPLETE AND OPERABLE SYSTEM AS DESIGNED AND SPECIFIED. REPRODUCED COPIES OF BID SET FIRE ALARM PLANS ARE NOT ACCEPTABLE AS SHOP DRAWINGS. SHOP DRAWINGS MUST ALSO INDICATE DEVICE MOUNTING HEIGHTS, ROOM NAMES AND NUMBERS AND THE LOCATION OF ALL FIRE RATED WALLS.
B. ELECTRICAL CONTRACTOR'S AND FIRE ALARM SYSTEM INSTALLER'S NAME, ADDRESS, PHONE NUMBER AND C-10 LICENSE NUMBER.
C. LIST OF SYSTEM COMPONENTS, EQUIPMENT AND DEVICES, INCLUDING MANUFACTURERS' MODEL NUMBER(S) AND CALIFORNIA STATE FIRE MARSHALL LISTING NUMBERS.
D. ORIGINAL COPIERS OF MANUFACTURERS' SPECIFICATION SHEETS FOR ALL EQUIPMENT AND DEVICES INDICATED.
E. VOLTAGE DROP CALCULATIONS -- INCLUDE THE FOLLOWING INFORMATION FOR THE WORST CASE:
   1. POINT-TO-POINT OR OHMS LAW CALCULATIONS.
   2. IDENTIFICATION OF ZONE USED IN CALCULATIONS.
   3. VOLTAGE DROP PERCENT (NOT TO EXCEED MANUFACTURERS' REQUIREMENTS).
      a. NOTE: IF VOLTAGE DROP EXCEEDS 10%, INDICATE MANUFACTURERS' LISTED OPERATING RANGE(S) OR EQUIPMENT AND DEVICES.
   4. NOTE CIRCUIT NUMBER FOR WORST CASE CALCULATION.
F. BATTERY TYPE(S), AMPS HOURS AND LOAD CALCULATIONS -- INCLUDE THE FOLLOWING INFORMATION:
   1. NORMAL OPERATION: 100% OF APPLICABLE DEVICES FOR 24 HOURS = CONTROL PANEL AMPS PLUS LIST OF AMPS PER DEVICE WHICH DRAW POWER FROM THE PANEL DURING STANDBY POWER -- I.E.:
      a. ZONE MODULES
      b. DETECTORS
      c. OTHER DEVICES (IDENTIFY)
   2. ALARM CONDITION: 100% OF APPLICABLE DEVICES FOR 15 MINUTES = CONTROL PANEL AMPS PLUS LIST OF AMPS PER DEVICE WHICH DRAW POWER FROM THE PANEL DURING STANDBY POWER -- I.E.:
      a. ZONE MODULES
      b. SIGNAL MODULES
      c. DETECTORS
      d. SIGNAL DEVICES
      e. ANNUNCIATOR
      f. OTHER DEVICES (IDENTIFY)
   3. NORMAL OPERATION + ALARM OPERATION
      a. TOTAL AMP HOURS REQUIRED.
      b. TOTAL AMP HOURS PROVIDED.

RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL
NEW BUILDING & AQUATIC CENTER
ROWLAND UNIFIED SCHOOL DISTRICT
401 NOGALES ST, LA PUENTE, CA 91744

LICENSED ARCHITECT ROBERT LAVEY C-28020 01-31-25 STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER STEVEN C. MUSSER E-19817 Exp.03/31/26 ELECTRICAL STATE OF CALIFORNIA

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

NO	DATE	BY	DESCRIPTION
1	1.25.24	PBK	ADDENDUM 1
2	2.16.24	PBK	ADDENDUM 2
3	2.23.24	PBK	ADDENDUM 3
#	REVISIONS		

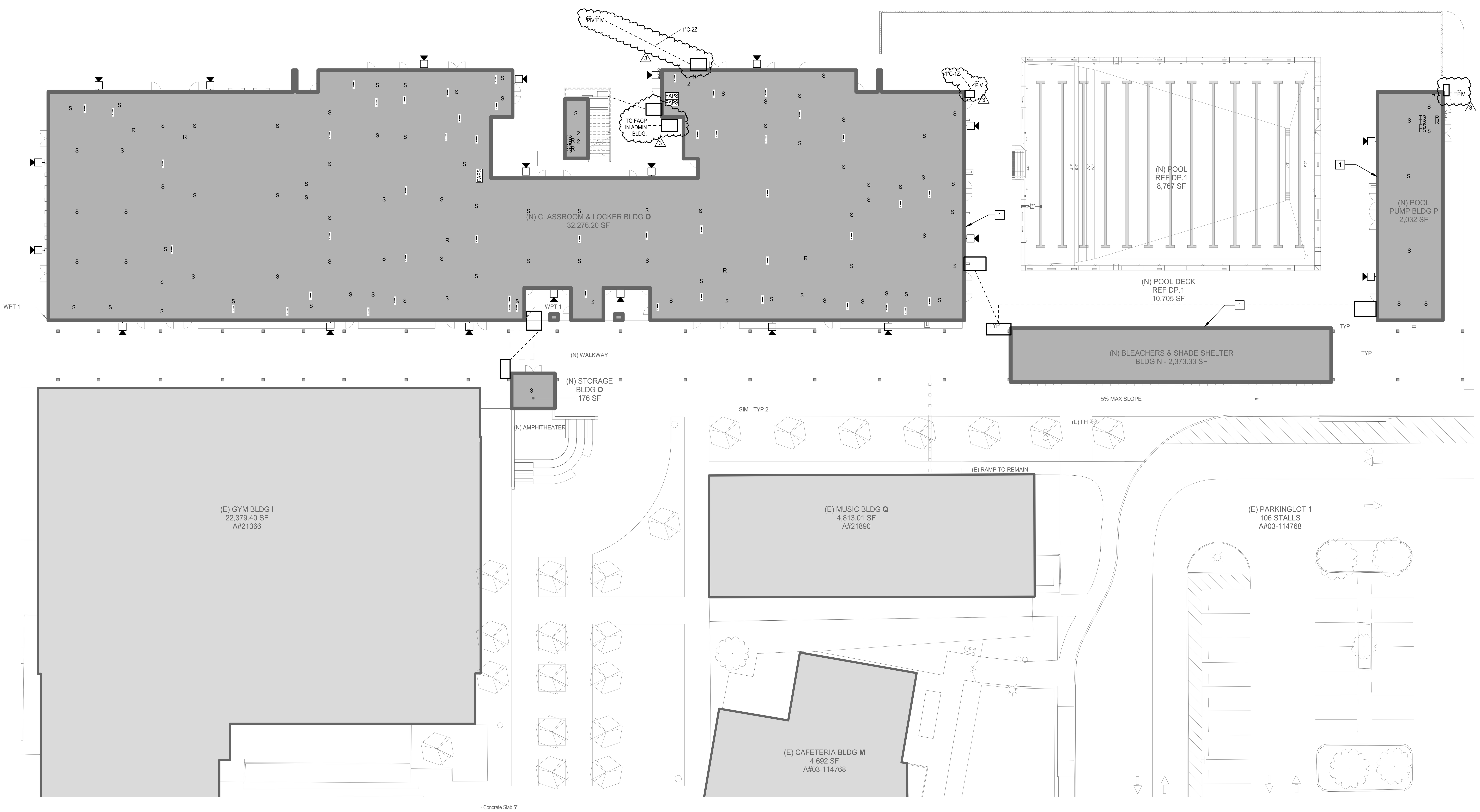
DRAWN: Art | CHECKED: Checker
DATE: 06/24/22 | SCALE: 12" = 1'-0"
PROJECT NUMBER: 2110000

FIRE ALARM LEGENDS AND GENERAL NOTES

DRAWING NUMBER: **FA0.0**

KEY NOTES

1 AREA OF WORK



SITE PLAN 1/16" = 1'-0" 1

PBK

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8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

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NEW BUILDING & AQUATIC CENTER
ROWLAND UNIFIED SCHOOL DISTRICT
401 NOGALES ST, LA PUENTE, CA 91744

LICENSED ARCHITECT — STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER — STEVEN C. MOSSER — E-19817 — ELECTRICAL — STATE OF CALIFORNIA

CONSULTANT

LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

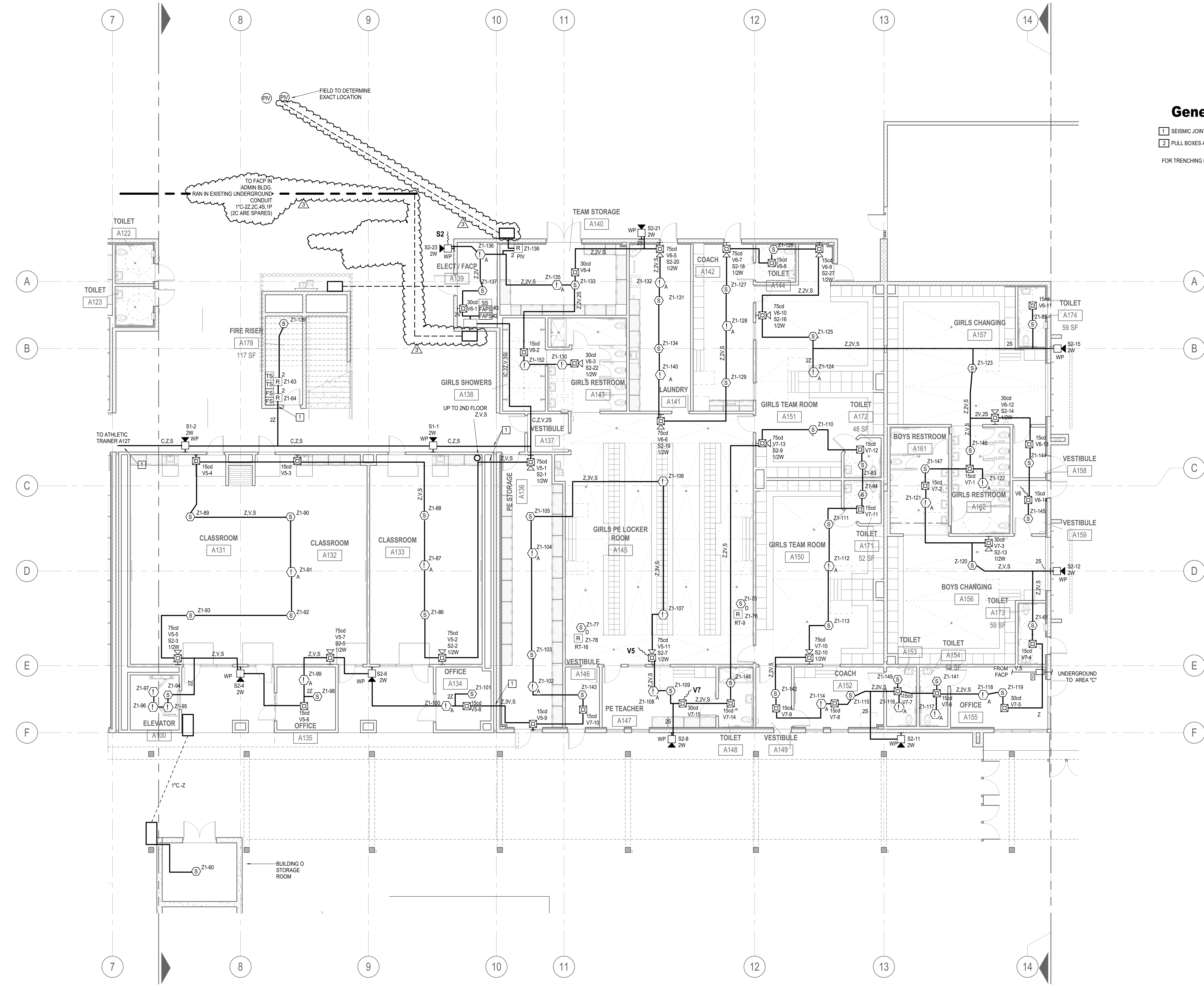
NO	DATE	BY	DESCRIPTION
1	1.25.24	PBK	ADDENDUM 1
2	2.16.24	PBK	ADDENDUM 2
3	2.23.24	PBK	ADDENDUM 3

REVISIONS

DRAWN: Art CHECKED: Checker
DATE: 06/24/22 SCALE: 1/16" = 1'-0"
PROJECT NUMBER: 2110000

FIRE ALARM SITE PLN

DRAWING NUMBER: FA1.1



General Notes:

1. SEISMIC JOINT CONNECTION. SEE FIRE ALARM SHT. FA6.1
2. PULL BOXES AT GRADE ARE 12"X12"X12".

FOR TRENCHING DETAIL SEE DETAIL 9 E6.1

FIRST FLOOR PLAN - AREA B 1/8" = 1'-0" 1

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RANCHO CUCAMONGA
8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

NOGALES HIGH SCHOOL NEW BUILDING & AQUATIC CENTER

ROWLAND UNIFIED SCHOOL DISTRICT

401 NOGALES ST, LA PUENTE, CA 91744

CONSULTANT

LEAF ENGINEERS

8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

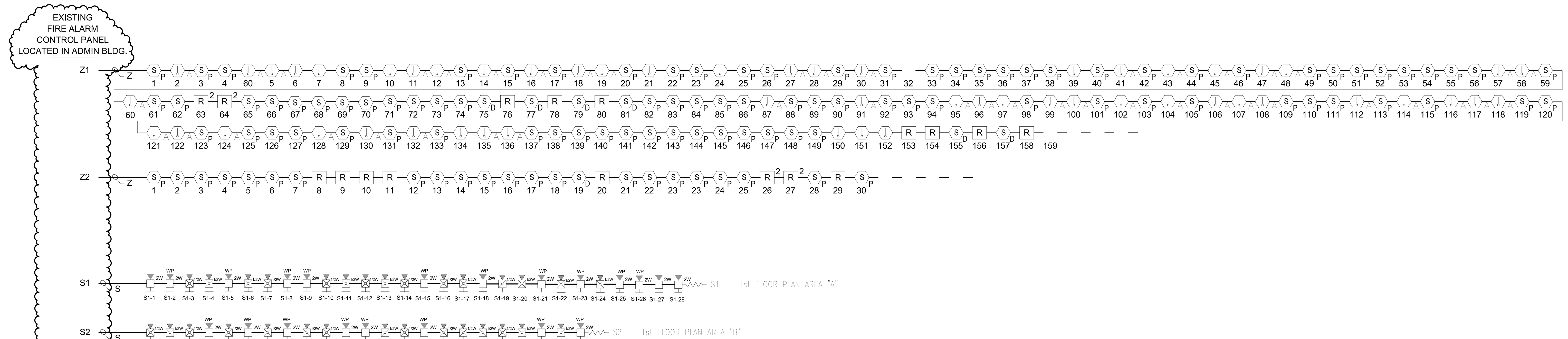
NO	DATE	BY	DESCRIPTION
1	1.25.24	PBK	ADDENDUM 1
2	2.16.24	PBK	ADDENDUM 2
3	2.23.24	PBK	ADDENDUM 3

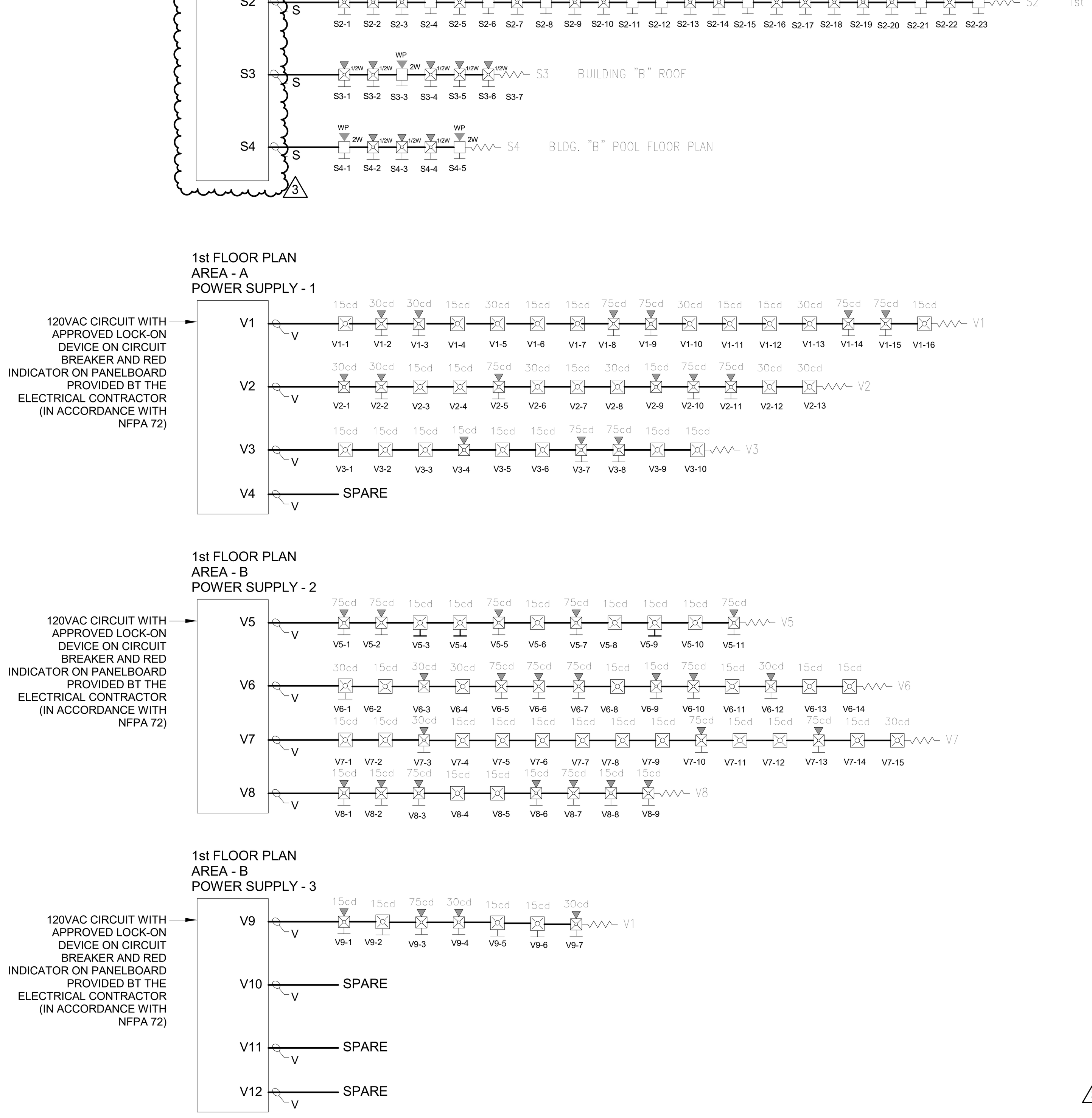
REVISIONS

DRAWN: Art	CHECKED: Checker
DATE: 06/28/22	SCALE: 1/8" = 1'-0"
PROJECT NUMBER: 2110000	

FIRE ALARM - 1ST FLR PLN - AREA B

DRAWING NUMBER: FAA2.2





FACP	BATTERY CALCULATION SHEET -	Nogales HS & Aquatic Center			
	FACP - NSF2-3030				
	LOCATION: Bldg. A (EXISTING)				
	Total load on panel with new devices added	UNIT	TOTAL	UNIT	TOTAL
		STANDBY	STANDBY	ALARM	ALARM
QUANTITY		CURRENT(A)	CURRENT(A)	CURRENT(A)	CURRENT(A)
1	CPU2-3030D	0.340000	0.340000	0.340000	0.340000
1	AMP-24	0.130000	0.130000	0.130000	0.130000
5	LCM-320	0.130000	0.650000	0.091000	0.455000
4	LEM-320	0.100000	0.400000	0.091000	0.364000
1	DIALER	0.040000	0.040000	0.100000	0.100000
0	2 SLC W/ DACT	0.016000	0.000000	0.105000	0.000000
1	ACPS-610	0.091300	0.091300	0.092200	0.092200
72	CONTROL RELAY	0.000260	0.018720	0.006500	0.468000
9	DUCT DETECTOR	0.000300	0.002700	0.006800	0.061200
408	SMOKE DETECTOR	0.000300	0.122400	0.006800	2.774400
360	HEAT DETECTOR	0.000300	0.108000	0.006500	2.340000
3	PULL STATION	0.000380	0.001140	0.006400	0.019200
4	DOOR HOLDER	0.020000	0.080000	0.000000	0.000000
0	CO DETECTOR SOUNDER BASE	0.050000	0.000000	0.035000	0.000000
5	MONITOR MODULE	0.000350	0.001750	0.000350	0.001750
50	RELAY MODULE	0.000000	0.000000	0.015000	0.750000
3	REMOTE LED	0.000000	0.000000	0.010000	0.030000
	SUB TOTAL		1.986		7.926
	STANDBY CURRENT x 24 Hrs. (AH)		47.664	AH	
	ALARM CURRENT x 15 MINUTES (AH)		1.981	AH	
	TOTAL (AH)		49.646	AH	
	25% DERATING		12.411	AH	
	TOTAL DEMAND (AH)		62.057	AH	
	BATTERY PROVIDED	**Exising Batteries**	100	AH	

SPEAKER CIRCUIT LOAD CALCULATION

SPEAKER CIRCUIT DESCRIPTION		PANEL CIRCUIT NUMBER	WIRE GAUGE (18, 16,14 12)	CIRCUIT VOLTAGE (25 OR 70 VRMS)	APPLIANCES QUANTITIES / TAP VALUES: SPEAKER TAPPED AT 0.25 WATTS	SPEAKER TAPPED AT 0.5 WATTS	SPEAKER TAPPED AT 1 WATTS	SPEAKER TAPPED AT 2 WATTS	TOTAL CIRCUIT LOAD (WATT)	ESTIMATED CIRCUIT LENGTH (FEET)	ACTUAL WIRE/LOSS (dB)	MAXIMUM ALLOWABLE CKT, LENGTH (FEET)	TOTAL CIRCUIT RESISTANCE (OHMS)
AMPLIFIER#	CIRCUIT LOCATION												
AMP 1	Area "A"	S1	14 AWG	70		17		11	30.50	1500	-0.44	2,050	7.73
	Area "B"	S2	14 AWG	70		15		8	23.50	1000	-0.22	5,200	5.15
	Builing "B" Pool	S3	14 AWG	70		5		0	2.50	1000	-0.02	1,600	5.15
	spare	S4	14 AWG	70		0		0	0.00	0	0.00	1,600	0.00
								TOTAL	56.50				

STROBES WORST CASE VOLTAGE DROP

PANEL NAME	CIRCUIT NUMBER	WALL STROBE 15cd 0.060	WALL STROBE 30cd 0.086	WALL STROBE 75cd 0.142	WALL STROBE 95 0.164	CEILING STROBE 15cd 0.071	CEILING STROBE 30cd 0.096	CEILING STROBE 75cd 0.153	CEILING STROBE 95cd 0.176	WALL SPEAKER/STROBE 15cd 0.060	WALL SPEAKER/STROBE 30cd 0.083	WALL SPEAKER/STROBE 75cd 0.136	WALL SPEAKER/STROBE 95 0.155	WALL SPEAKER/STROBE 110 0.179	CEILING SPEAKER/STROBE 15cd 0.071	CEILING SPEAKER/STROBE 30cd 0.096	CEILING SPEAKER/STROBE 75cd 0.153	CEILING SPEAKER/STROBE 95cd 0.176	TOTAL CURRENT (AMPS)	TOTAL DISTANCE (FEET)	TOTAL VOLTAGE DROP (%)	TOTAL DEVICES	VOLTAGE DROP	WIRE RESISTACE	OPERATING VOLTAGE
FAPS-1	V1					6	3				2	4							1.424	500	9.81%	15	2.9192	2.05	17.48
	V2					3	4				1	3			1	1			1.255	850	14.70%	13	4.373675	2.05	16.03
	V3					7						2			1				0.840	1025	11.87%	10	3.5301	2.05	16.87
	V4																		0.000		0.00%	0	0	2.05	20.40
TOTAL		0	0	0	0	16	7	0	0	0	3	9	0	0	2	1	0	0							
FAPS-2	V5					3				3		5							1.073	575	8.50%	11	2.5295975	2.05	17.87
	V6		1			5	1			1	1	4				1			1.320	675	12.28%	14	3.6531	2.05	16.75
	V7					11	1				1	2							1.232	800	13.58%	15	4.04096	2.05	16.36
	V8					2				5		2							0.714	750	7.38%	9	2.19555	2.05	18.20
TOTAL		0	1	0	0	21	2	0	0	9	2	13	0	0	0	1	0	0							
FAPS-3	V9	3								1	2	1							0.542	350	2.61%	7	0.77777	2.05	19.62
	V10																		0.000		0.00%	0	0	2.05	20.40
	V11																		0.000		0.00%	0	0	2.05	20.40
	V12																		0.000		0.00%	0	0	2.05	20.40
TOTAL		3	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	0						3.26	

	BATTERY CAPACITY CALCULATION SHEET				
	FAPS-1				
	LOCATION: Area "A"				
		Unit	Total	Unit	Total
		Standby	Standby	Alarm	Alarm
QUANTITY	Description	Current(A)	Current(A)	Current(A)	Current(A)
1	NAC TRIP	0.075	0.075	0.175	0.175
1	Amps Calculated from Strobe calc sheet	0.000	0.000	3.520	3.520
	Sub Total		0.075		3.695
	A - Battery Backup - Standby (Hour)	24			
	B - Battery Backup (minutes)	15			
	C - Allowable Error (%)	25			
	D - Total Standby Backup (Amp-Hour)	1.800			
	E - Total Alarm Backup (Amp-Hour)	0.924			
	F - Allowable Error (C x (D + E))	0.681			
	Total Amp-Hour Required (D + E + F)	3.405			
	Battery Submitted	7 Amp-Hour			

	BATTERY CAPACITY CALCULATION SHEET				
	FAPS-2				
	LOCATION: Area "B"				
		Unit	Total	Unit	Total
		Standby	Standby	Alarm	Alarm
QUANTITY	Description	Current(A)	Current(A)	Current(A)	Current(A)
1	NAC TRIP	0.075	0.075	0.175	0.175
1	Amps Calculated from Strobe calc sheet	0.000	0.000	4.340	4.340
	Sub Total		0.075		4.515
	A - Battery Backup - Standby (Hour)	24			
	B - Battery Backup (minutes)	15			
	C - Allowable Error (%)	25			
	D - Total Standby Backup (Amp-Hour)	1.800			
	E - Total Alarm Backup (Amp-Hour)	1.129			
	F - Allowable Error (C x (D + E))	0.732			
	Total Amp-Hour Required (D + E + F)	3.661			
	Battery Submitted	7 Amp-Hour			

	BATTERY CAPACITY CALCULATION SHEET				
	FAPS-3				
	LOCATION: AREA "B"				
		Unit	Total	Unit	Total
		Standby	Standby	Alarm	Alarm
QUANTITY	Description	Current(A)	Current(A)	Current(A)	Current(A)
1	NAC TRIP	0.075	0.075	0.175	0.175
1	Amps Calculated from Strobe calc sheet	0.000	0.000	0.542	0.542
	Sub Total		0.075		0.717
	A - Battery Backup - Standby (Hour)	24			
	B - Battery Backup (minutes)	15			
	C - Allowable Error (%)	25			
	D - Total Standby Backup (Amp-Hour)	1.800			
	E - Total Alarm Backup (Amp-Hour)	0.179			
	F - Allowable Error (C x (D + E))	0.495			
	Total Amp-Hour Required (D + E + F)	2.474			
	Battery Provided	7 Amp-Hour			

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8163 Rochestser Avenue, Suite 100
Rancho Cucamonga, CA 91730
909-987-0909 P

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401 NOGALES ST, LA PUENTE, CA 91744

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

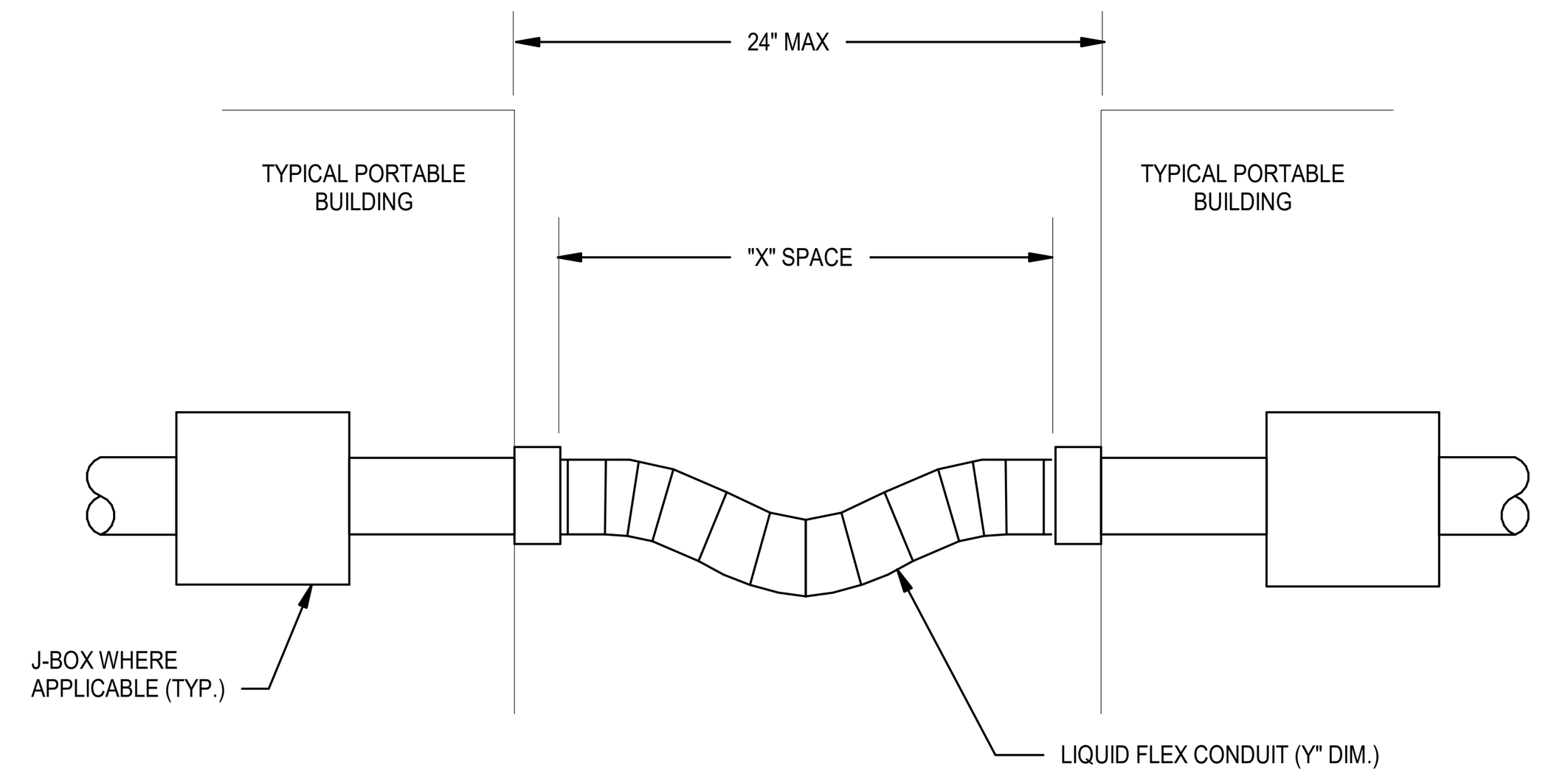
NO	DATE	BY	DESCRIPTION
1	1.25.24	PBK	ADDENDUM 1
2	2.16.24	PBK	ADDENDUM 2
3	2.23.24	PBK	ADDENDUM 3

REVISIONS

DRAWN: Art | CHECKED: Checker
DATE: 06/28/22 | SCALE: 1/8" = 1'-0"
PROJECT NUMBER: 2110000

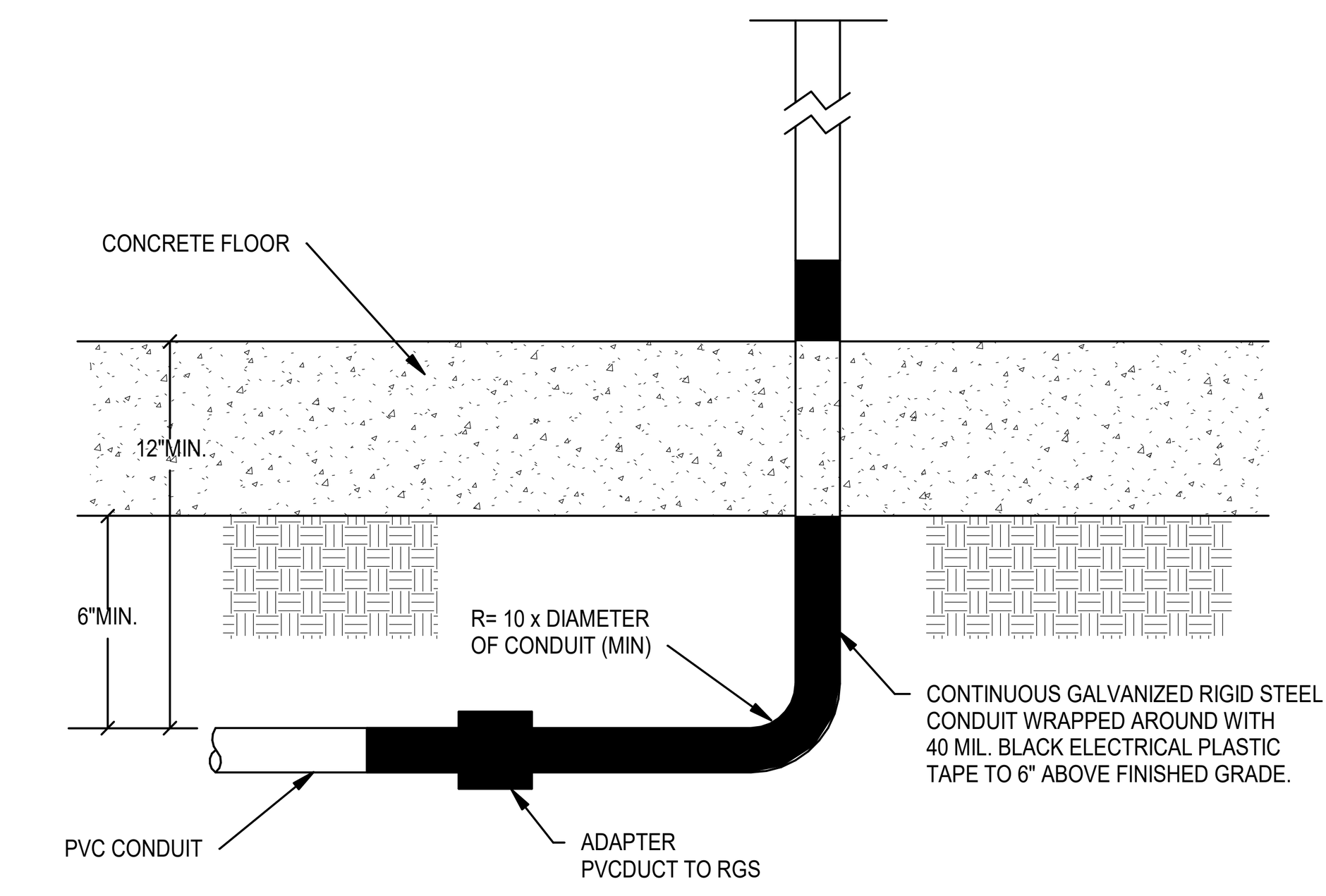
FIRE ALARM PANEL SCHEDULES & CALCS

DRAWING NUMBER: FA5.1

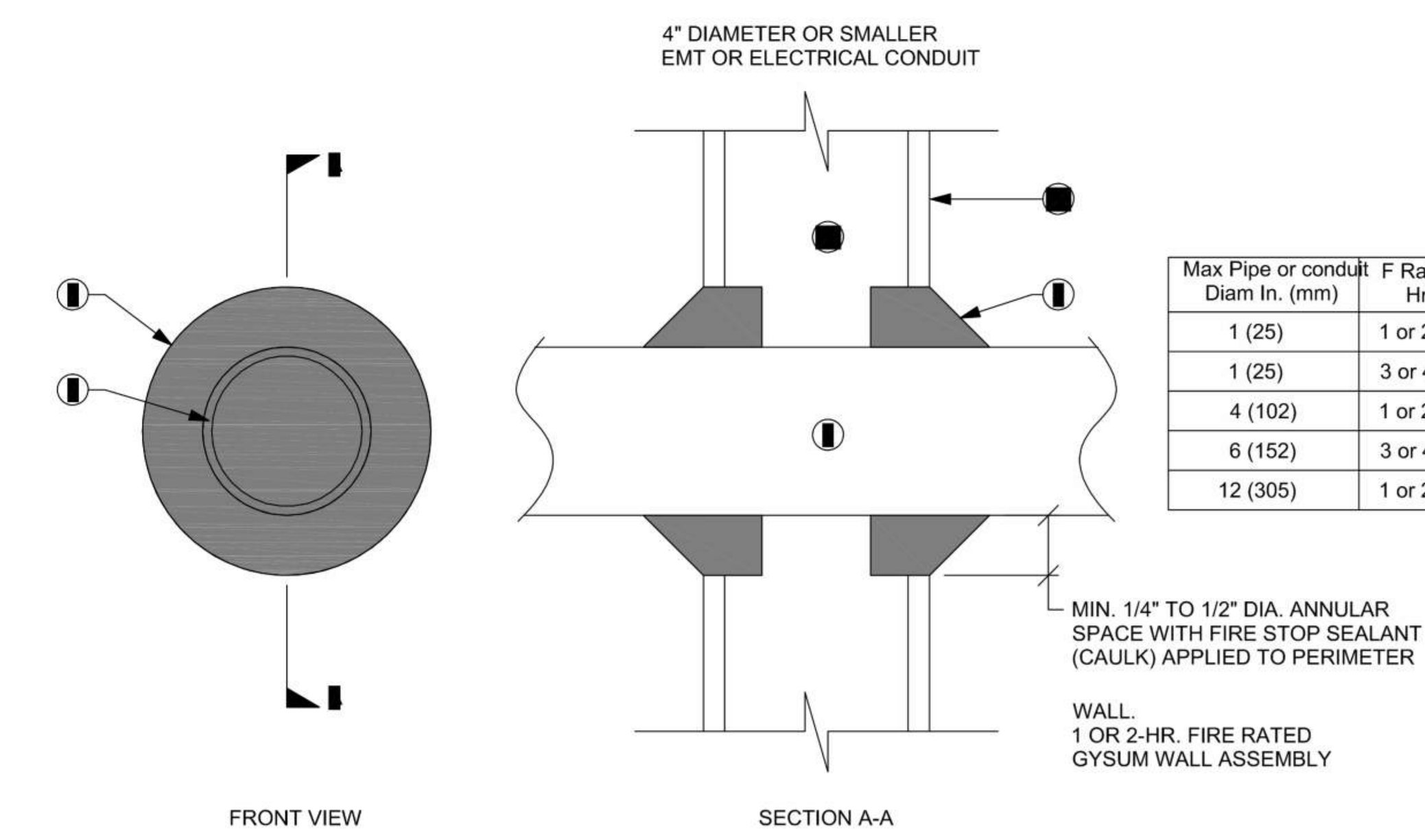


CONDUIT SIZE	"X" SPACE	"Y" FLEX LENGTH
3/4" - 2"	18"	+30"

10 seismic
12" = 1'-0"



1 CONDUIT RISER DETAIL
12" = 1'-0"



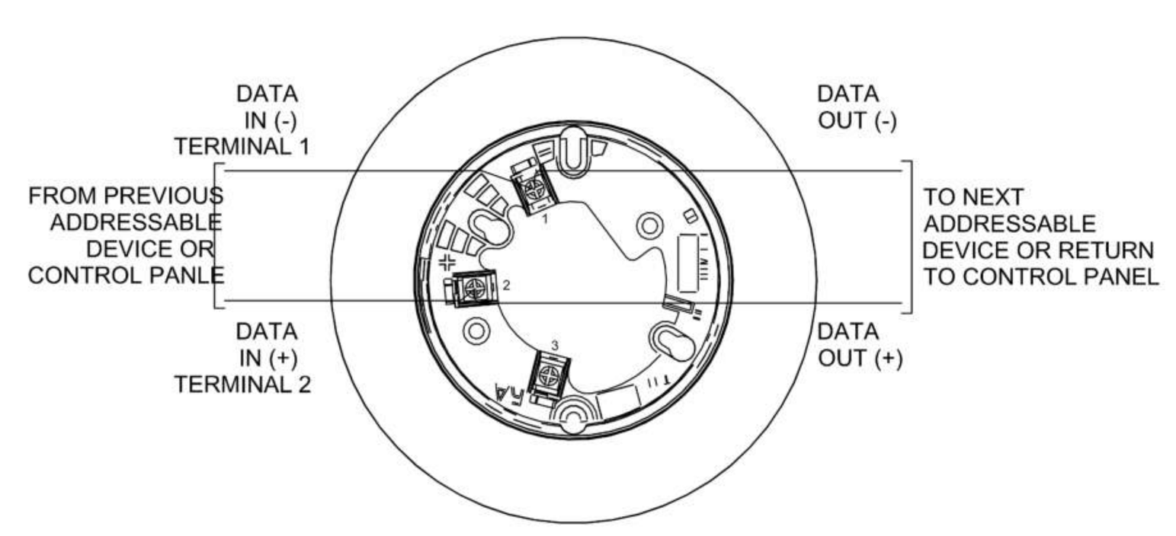
Max Pipe or conduit Diam In. (mm)	F Rating Hr	T Rating Hr
1 (25)	1 or 2	0+, 1 or 2
1 (25)	3 or 4	3 or 4
4 (102)	1 or 2	0
6 (152)	3 or 4	0
12 (305)	1 or 2	0

DETAIL NOTES:

1. WALL CONSTRUCTION:
   A. STEEL STUDS PER ARCHITECTURAL/STRUCTURAL.
   B. 5/8" TYPE x GYPSUM BOARD PER ARCHITECTURAL.
2. CONDUIT SIZE PER DRAWINGS.
3. FIRE STOP SYSTEM - ONE HOUR CAULK. APPLY TO INTERFACE WITH WALL SURFACE.

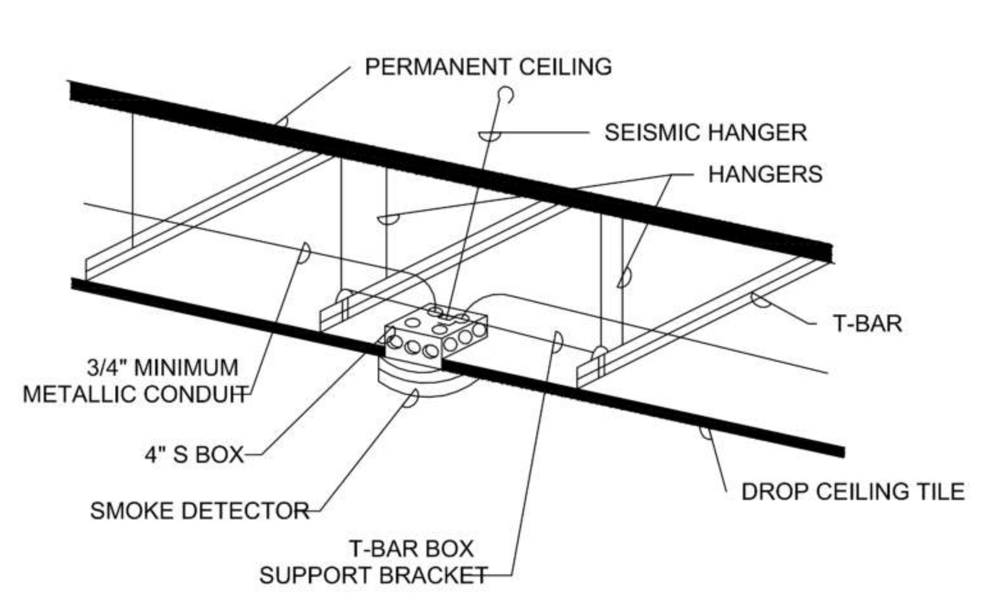
U.L. SYSTEM NO. W-L-1001

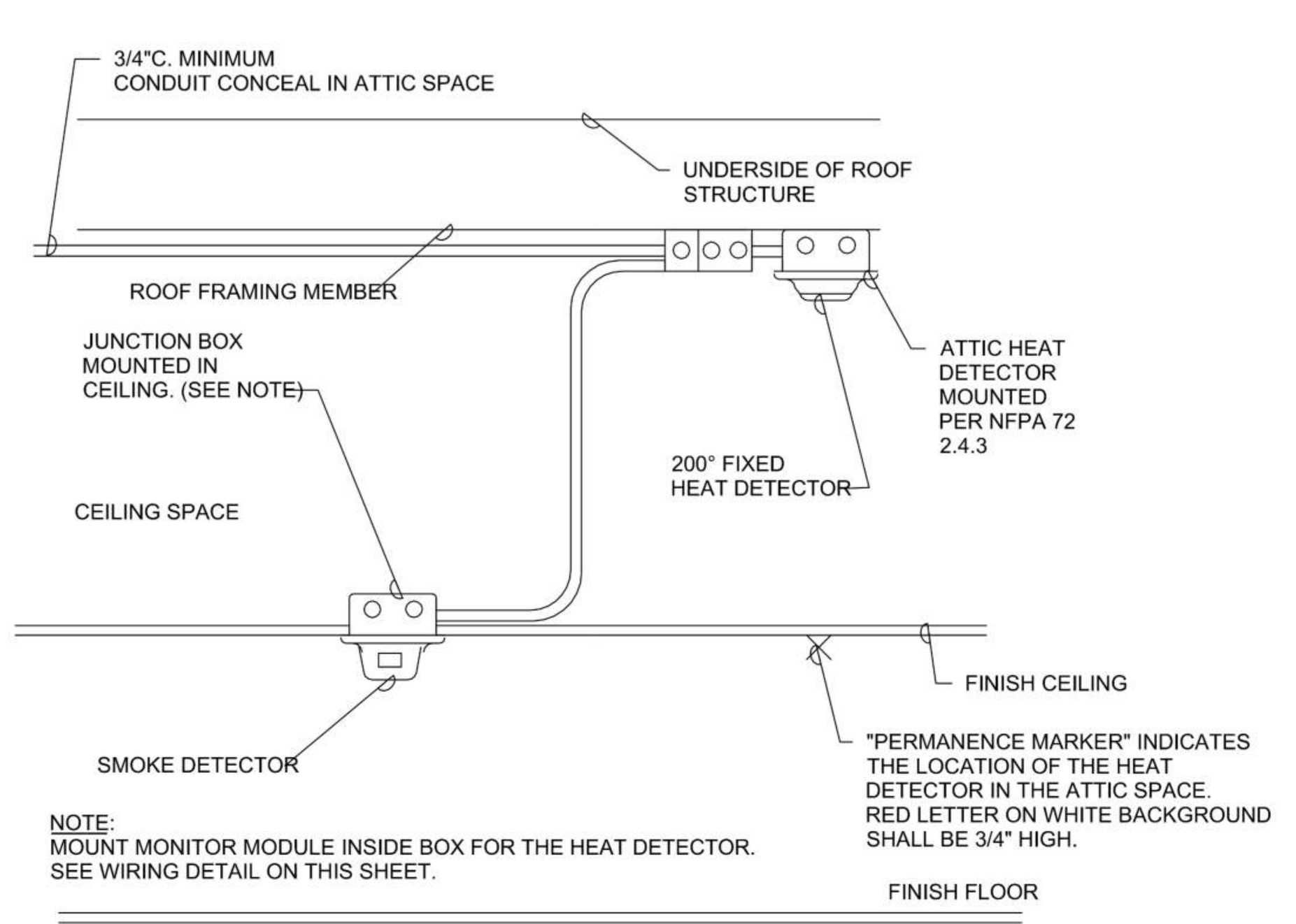
NOTE:
MAX. DIA. OF OPENING IS 13 1/2" ANNULAR SPACE OF MIN. 1/4" DIA. BEAD IS REQUIRED.



9 SMOKE/HEAT DETECTOR DETAIL (TYP.)
NOT TO SCALE

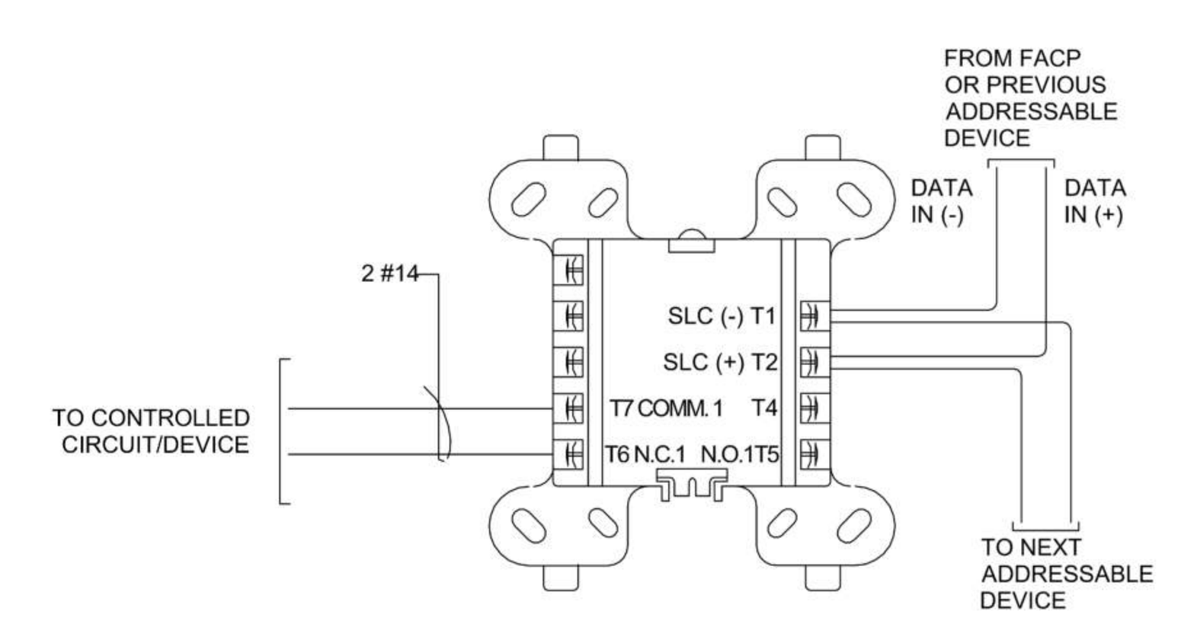
7 CONDUIT PENETRATION AT 1-HR FIRE RATED WALL DETAIL (TYP.)
NOT TO SCALE



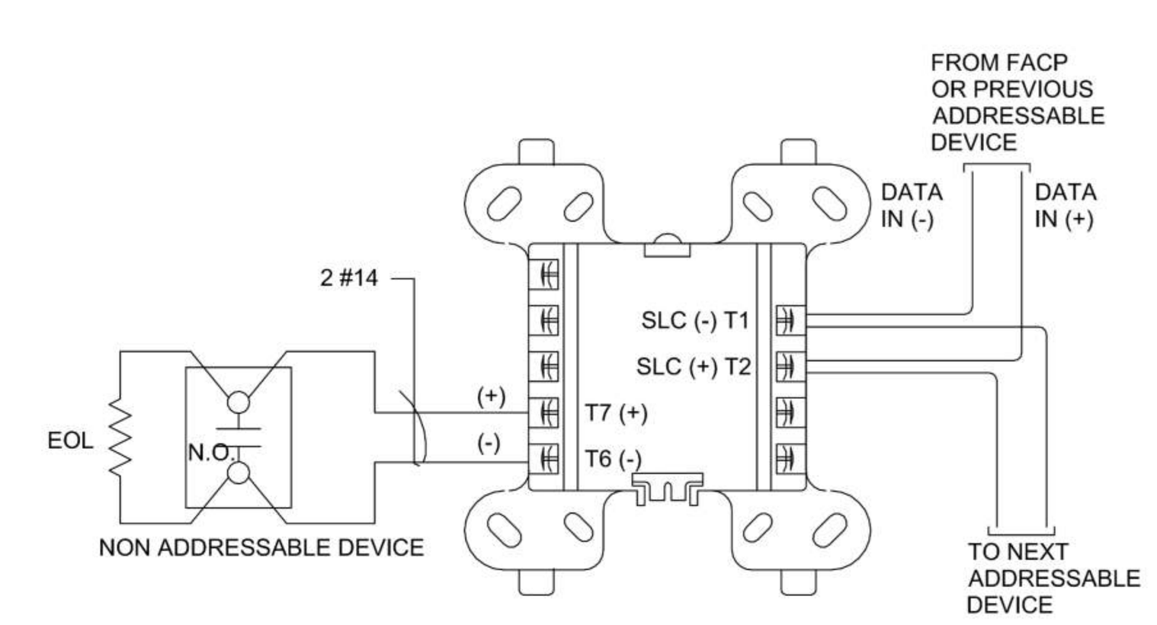


NOTE:
MOUNT MONITOR MODULE INSIDE BOX FOR THE HEAT DETECTOR. SEE WIRING DETAIL ON THIS SHEET.

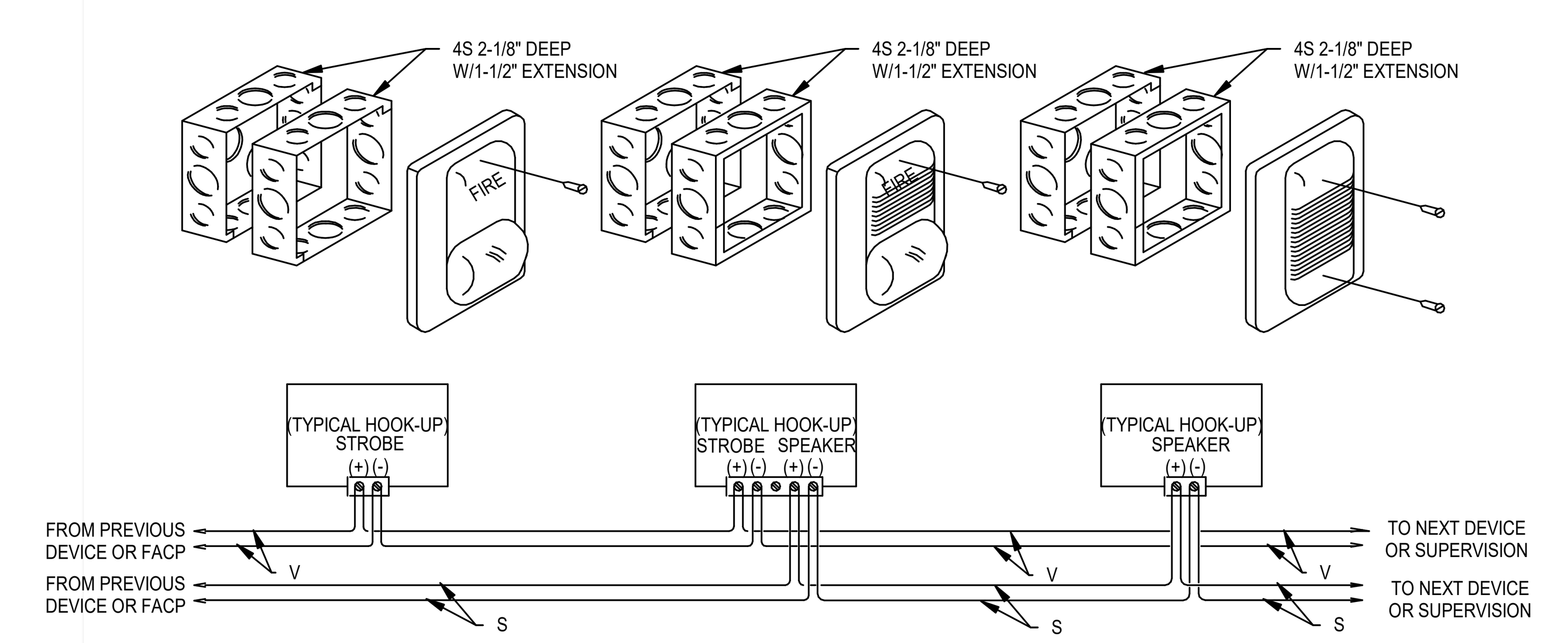
8 DROP CEILING DEVICE INSTALLATION DETAIL (TYP.)
NOT TO SCALE



6 RELAY MODULE DETAIL (TYP.)
NOT TO SCALE



5 MONITOR MODULE DETAIL (TYP.)
NOT TO SCALE



4 SPEAKER/STROBE DETAIL
12" = 1'-0"

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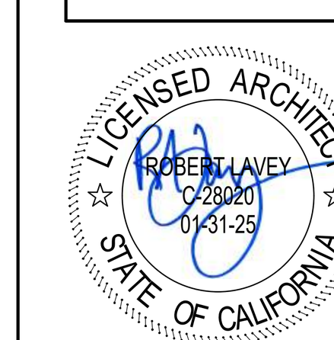

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8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
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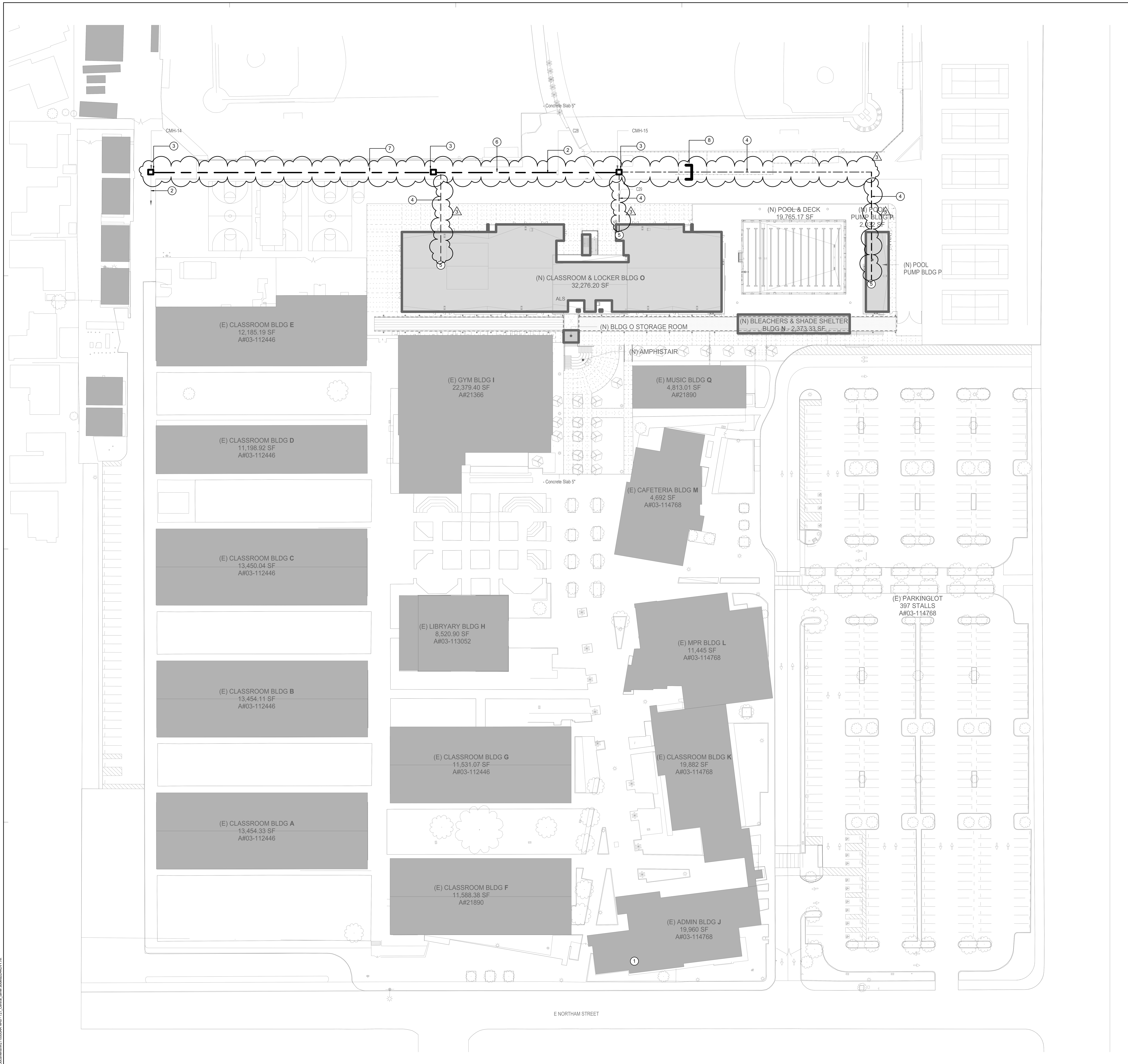
NO	DATE	BY	DESCRIPTION
1	1.25.24	PBK	ADDENDUM 1
2	2.16.24	PBK	ADDENDUM 2
3	2.23.24	PBK	ADDENDUM 3

REVISIONS

DRAWN: Author | CHECKED: Checker
DATE: 06/28/22 | SCALE: 12" = 1'-0"
PROJECT NUMBER: 2110000

FIRE ALARM DETAILS

DRAWING NUMBER: **FA6.1**



SITE PLAN | 1" = 40'-0" | 1

TECHNOLOGY KEYED NOTES

1. INDICATES THE APPROXIMATE LOCATION OF THE EXISTING MDF.
2. INDICATES THE APPROXIMATE PATHWAY OF EXISTING UNDERGROUND CONDUIT, REFER TO RECORD DRAWING FOR CONTINUATION OF (E) UNDERGROUND CONDUITS TO THE (E) MDF LOCATION.
3. INDICATES THE APPROXIMATE LOCATION OF A 3'X5'X3' EXISITNG UNDERGROUND PULLBOX.
4. INDICATES THE APPROXIMATE PATHWAY OF NEW UNDERGROUNG 2" CONDUIT WITH 3-CELL MAXCELL INNERDUCT. CONDUIT IS TO BE RESERVED FOR NEW FIBER THAT WILL SERVE NEW IDF.
5. INDICATES THE APPROXIMATE LOCATION OF A NEW IDF. CONTRACTOR TO STUB UP AT THIS LOCATION TO SERVE NEW IDF.
6. PROVIDE12 STRAND SINGLE MODE FIBER, 6 STRAND MULTI MODE FIBER FROM MDF TO NEW IDF'S FIBER MUST BE DIRECT BURIAL UL RATED 3M SERVICE LOOP AT BOTH ENDS OF TERMINATION, 25 PAIR DIRECT BURIAL COPPER FEEDER.
7. CONTRACTOR TO REMOVE UNUSED WIRING TO THE PANEL.
8. (E) STUB OUT - FIELD VERIFY LOCATION.

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ROWLAND UNIFIED SCHOOL DISTRICT

401 NOGALES ST, LA PUENTE, CA 91744

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STATE OF CALIFORNIA

CONSULTANT
LEAF ENGINEERS
8163 Rochester Avenue, Suite 100
Rancho Cucamonga, CA 91730
909.987-0909
leafengineers.com

NO	DATE	BY	DESCRIPTION
1	Date 1		Revision 1
2	2/16/24		ADD2
3	2/11/24		ADD03

REVISIONS

DRAWN: Author	CHECKED: Checker
DATE: 06/24/22	SCALE: As indicated
PROJECT NUMBER: 2110000	

TECHNOLOGY SITE PLN

DRAWING NUMBER: T1.1