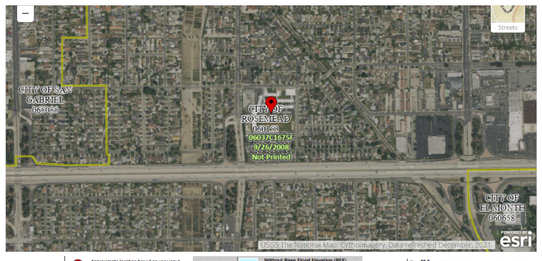

ROSEMEAD SCHOOL DISTRICT
HVAC REPLACEMENT AT BUILDINGS "D" AND "G"
AT
JANSON ELEMENTARY SCHOOL

8628 MARSHALL STREET ROSEMEAD CA 91770

FILE NO: 19-91 A#: 03-122717

GENERAL NOTES

1. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE 2019 CALIFORNIA BUILDING CODE, PART 1 AND 2, TITLE 24 C.C.R. AND ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER ANY PORTION OF THE WORK, INCLUDING THE STATE OF CALIFORNIA, DIVISION OF INDUSTRIAL SAFETY AND THOSE CODES AND STANDARDS LISTED IN THE NOTES AND SPECIFICATIONS.
2. DO NOT SCALE THE CONSTRUCTION DOCUMENTS. DIMENSIONS SHALL TAKE PRECEDENCE OVER GRAPHIC SCALES SHOWN ON THE DRAWINGS. TYPICAL DETAILS & GENERAL NOTES ARE MINIMUM REQUIREMENTS TO BE USED WHEN CONDITIONS ARE NOT SHOWN OTHERWISE. IF ADDITIONAL DIMENSIONS ARE REQUIRED, CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING. WORK WITHIN THE AREA OF DISCREPANCY OR CONFLICT SHALL NOT PROCEED UNTIL GIVEN SUCH NOTICE BY THE ARCHITECT TO RESUME CONSTRUCTION.
3. SPECIFIC NOTES & DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES & TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT.
4. WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST EDITION AND/OR ADDENDUM.
5. THIS SHEET IS ONE OF A SET OF DOCUMENTS WHICH INCLUDES, BUT IS NOT LIMITED TO, DRAWINGS, SPECIFICATIONS & ADDENDA ADDRESSING ALL TRADES. FULLY COORDINATE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, AND/OR MECHANICAL DRAWINGS, DETAILS & SPECIFICATIONS TO ASCERTAIN THE FULL SCOPE OF THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO FURNISH COMPLETE SET OF CONSTRUCTION DOCUMENTS TO ALL BIDDERS. ALL BIDDERS SHALL REVIEW THE FULL SET OF CONSTRUCTION DOCUMENTS PRIOR TO SUBMITTING BIDS FOR THE WORK. ANY INCONSISTENCIES OR CONFLICTING INFORMATION INCORPORATED INTO THE CONTRACT DOCUMENTS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR CLARIFICATIONS AND/OR ADJUSTMENTS BEFORE COMMENCING WORK.
6. WHERE APPLICABLE, REFER TO THE PROJECT SPECIFICATION MANUAL FOR INFORMATION NOT COVERED BY THESE GENERAL NOTES OR THE DRAWINGS. INFORMATION GIVEN IN ONE PORTION OF THE CONTRACT DOCUMENTS SHALL BE CONSIDERED TO BE GIVEN IN ALL CONTRACT DOCUMENTS.
7. THE DRAWINGS & SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE(S) OR MODIFICATION TO AN EXISTING STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION.

   GENERAL:
   CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR

   ADDENDA:
   CHANGES OR ALTERATIONS OF THE APPROVED PLANS OR SPECIFICATIONS PRIOR TO LETTING A CONSTRUCTION CONTRACT FOR THE WORK INVOLVED SHALL BE MADE BY MEANS OF ADDENDA WHICH SHALL BE SUBMITTED TO & APPROVED BY DSA PRIOR TO DISTRIBUTION TO CONTRACTORS. ORIGINAL COPIES OF ADDENDA SHALL BE STAMPED & SIGNED BY THE ARCHITECT OR ENGINEER IN GENERAL RESPONSIBLE CHARGE OF PREPARATION OF THE PLANS & SPECIFICATIONS & BY THE ARCHITECT OR REGISTERED ENGINEER DELEGATED RESPONSIBILITY FOR THE PORTION AFFECTED BY THE ADDENDA. [SEE SECTION 4-317(h).] ONE COPY OF EACH ADDENDUM IS REQUIRED FOR THE FILES OF DSA.

   CONTRACT CHANGE DOCUMENT (CCD):
   CHANGES OR ALTERATIONS OF THE APPROVED PLANS OR SPECIFICATIONS AFTER A CONTRACT FOR THE WORK HAS BEEN LET SHALL BE MADE ONLY BY MEANS OF CCD SUBMITTED TO & APPROVED BY DSA PRIOR TO COMMENCEMENT OF THE WORK SHOWN THEREON. CCDS SHALL STATE THE REASON OF THE CHANGE & THE SCOPE OF WORK TO BE ACCOMPLISHED, &, WHERE NECESSARY, SHALL BE ACCOMPANIED BY SUPPLEMENTARY DRAWINGS REFERENCED IN THE TEXT OF THE CCD. ALL CCDS & SUPPLEMENTARY DRAWINGS SHALL BE STAMPED & SIGNED BY THE ARCHITECT OR ENGINEER IN GENERAL RESPONSIBLE CHARGE OF OBSERVATION OF THE WORK OF CONSTRUCTION OF THE PROJECT & BY THE ARCHITECT OR REGISTERED ENGINEER DELEGATED RESPONSIBILITY FOR OBSERVATION OF THE PORTION OF THE WORK OF CONSTRUCTION AFFECTED BY THE CCD, SHALL BEAR THE APPROVAL OF THE DISTRICT & SHALL INDICATE THE ASSOCIATED CHANGE IN THE PROJECT COST, IF ANY. ONE COPY OF EACH CCD IS REQUIRED FOR THE FILES OF DSA.

   VOIDANCE OF APPLICATION:
   ANY CHANGE, ERASURE, ALTERATION, OR MODIFICATION OF ANY PLANS OR SPECIFICATIONS BEARING THE STAMP OF DSA MAY RESULT IN VOIDANCE OF THE APPROVAL OF THE APPLICATION. HOWEVER, THE WRITTEN APPROVAL OF PLANS MAY BE EXTENDED BY DSA TO INLCUDE REVISED PLANS & SPECIFICATIONS AFTER DOCUMENTS ARE SUBMITTED FOR REVIEW & APPROVED. (SEE SECTION 4-323 FOR REVISED PLANS & SECTION 4-338 FOR ADDENDA & CHANGE ORDERS.)

   PERFORMANCE OF THE WORK:
   THE CONTRACTOR SHALL CAREFULLY STUDY THE APPROVED PLANS & SPECIFICATIONS & SHALL PLAN A SCHEDULE OF OPERATIONS WELL AHEAD OF TIME. IF AT ANY TIME IT IS DISCOVERED THAT WORK IS BEING DONE WHICH IS NOT IN ACCORDANCE WITH THE APPROVED PLANS & SPECIFICATIONS, THE CONTRACTOR SHALL CORRECT THE WORK IMMEDIATELY. ALL INCONSISTENCIES OR ITEMS WHICH APPEAR IN ERROR IN THE PLANS & SPECIFICATIONS SHALL BE PROMPTLY CALLED TO THE ATTENTION OF THE ARCHITECT OR REGISTERED ENGINEER, THROUGH THE INSPECTOR, FOR INTERPRETATION OR CORRECTION. IN NO CASE, HOWEVER, SHALL THE INSTRUCTION OF THE ARCHITECT OR REGISTERED ENGINEER BE CONSTRUED TO CAUSE WORK TO BE DONE WHICH IS NOT IN CONFORMITY WITH THE APPROVED PLANS, SPECIFICATIONS, AND CHANGE ORDERS. THE CONTRACTOR MUST NOTIFY THE PROJECT INSPECTOR, IN ADVANCE, OF THE COMMENCEMENT OF CONSTRUCTION OF EACH AND EVERY ASPECT OF THE WORK. SUBSTITUTIONS SHALL BE CONSIDERED AS A CHANGE ORDER.
8. THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS & SITE CONDITIONS BEFORE STARTING WORK. DIMENSIONS ARE NOT ADJUSTABLE WITHOUT THE REVIEW & CLARIFICATION OF THE ARCHITECT UNLESS NOTED AS (+/-) PLUS/MINUS OR (FIELD) VERIFY. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCY BEFORE PROCEEDING WITH WORK.
9. ALL INFORMATION SHOWN ON THE DRAWINGS RELATIVE TO EXISTING CONDITIONS IS GIVEN AS REPRESENTING THE BEST INFORMATION CURRENTLY AVAILABLE, BUT WITHOUT GUARANTEE OF ACCURACY. THE CONTRACTOR & SUBCONTRACTOR SHALL CAREFULLY EXAMINE THE SITE, COMPARE THE CONSTRUCTION DOCUMENTS WITH THE EXISTING CONDITIONS, BE RESPONSIBLE FOR ACCURACY OF ALL DIMENSIONS & THOROUGHLY FAMILIARIZE HIMSELF/HERSELF WITH THE SCOPE OF WORK. BY THE ACT OF SUBMITTING A BID THE CONTRACTOR SHALL BE DEEMED TO HAVE MADE SUCH AN EXAMINATION, HAVE ACCEPTED THE CONDITIONS & HAVE INCLUDED ALL RELATED SITE/BUILDING(S) CONDITION COST IN HIS/HER BID.
10. NO PART OF THESE CONTRACT DOCUMENTS SHALL BE CONSIDERED AS REQUIRING OR PERMITTING ANY WORK CONTRARY TO THE REQUIREMENTS OF ANY CODE REGULATION OR ORDINANCE WHICH HAS JURISDICTION OVER THE WORK.
11. ALL SYMBOLS & ABBREVIATIONS USED ON THE DRAWINGS ARE CONSIDERED TO BE CONSTRUCTION STANDARDS ABBREVIATION OR SYMBOLS. IF THE CONTRACTOR HAS A QUESTION REGARDING THE SAME OR THEIR EXACT MEANING, THE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION.
12. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE(S) DURING CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE TEMPORARY BRACES, SHORES & GUYS REQUIRED TO SUPPORT ALL LOADS TO WHICH THE BUILDING STRUCTURE & COMPONENTS, ADJACENT SOILS OR STRUCTURES, UTILITIES & RIGHT-OF-WAYS MAY BE SUBJECTED DURING CONSTRUCTION.
13. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICE, THE CONTRACTOR SHALL ASSUME SOLE & COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS & PROPERTY ACCORDING TO THE REQUIREMENTS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) & CALIFORNIA OCCUPATIONAL REGULATIONS. THIS STIPULATION SHALL BE CONSIDERED TO BE CONTINUOUS & NOT LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL INDEMNIFY & HOLD DESIGN PROFESSIONALS, INSPECTORS, ET AL., HARMLESS FROM ANY & ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THE PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE DESIGN.
14. THE DESIGN TEAM SHALL NOT HAVE CONTROL OR CHARGE OF & SHALL NOT BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES, OR FOR SAFETY PRECAUTIONS & PROGRAMS IN CONNECTION WITH THE WORK, THE ACTS OR OMISSIONS OF THE WORK, OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, APPLICABLE CODES AND STANDARDS.
15. CONTRACTOR SHALL PROVIDE CONSTRUCTION BARRICADES OR PROTECTIVE DEVICES OF SUFFICIENT HEIGHT & MAGNITUDE AS TO PREVENT ANY PERSONS OF ANY AGE FROM ACCIDENTALLY ENTERING THE WORK AREA. PROVIDE TEMPORARY PASSAGEWAYS AS REQUIRED. YELLOW TAPE BARRICADES SHALL NOT BE ALLOWED AT THESE SITES.
16. DELIVERY OF MATERIALS TO THE CONSTRUCTION ZONE & REMOVAL OF WASTE FROM THE SITE SHALL BE COORDINATED WITH THE DISTRICT FOR AN ACCEPTABLE ACCESS ROUTE & SCHEDULE. USE OF THE AREA OUTSIDE THE CONSTRUCTION ZONE SHALL NOT BE ALLOWED UNDER ANY CIRCUMSTANCES WITHOUT CLEARANCE FROM THE SCHOOL DISTRICT OR THE OWNER'S AUTHORIZED REPRESENTATIVE.
17. CONTRACTOR SHALL INVESTIGATE THE SITE DURING CLEARING & EARTHWORK OPERATIONS, AS MAY BE REQUIRED BY THE SCOPE OF THE WORK, FOR FILLED EXCAVATIONS OR BURIED STRUCTURES, SYSTEMS, UTILITIES OR FOUNDATIONS, ETC. IF ANY SUCH STRUCTURES ARE FOUND, THE ARCHITECT SHALL BE NOTIFIED IMMEDIATELY.
18. IN DEMOLITION OF EXISTING BUILDINGS, WORK SHALL NOT BE PERFORMED IN AREA CONTAMINATED BY MATERIALS MADE OF ASBESTOS &/OR LEAD UNTIL THE ASBESTOS AND/OR LEAD MATERIALS HAVE BEEN REMOVED OR ENCAPSULATED BY THE CONTRACTOR. IF ASBESTOS OR LEAD IS ENCOUNTERED, NOTIFICATION SHALL BE GIVEN PER SPECIFICATIONS.
19. IT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO ENSURE SHOP DRAWINGS, PRODUCT LITERATURE, PRODUCT SAMPLES, ETC. ARE SUBMITTED TO THE ARCHITECT IN A TIMELY MANNER SO AS NOT TO IMPACT THE CONSTRUCTION SCHEDULE.
20. ALL DISSIMILAR METALS SHALL BE EFFECTIVELY ISOLATED FROM EACH OTHER TO PREVENT MOLECULAR BREAKDOWN.
21. CONTRACTOR SHALL REVIEW THE CONSTRUCTION DOCUMENTS BEFORE PERFORMING THE WORK SHOWN ON THE CONSULTING ENGINEER'S DRAWINGS. DISCREPANCIES BETWEEN THE ARCHITECTURAL & CONSULTING ENGINEER'S DRAWINGS SHALL BE BROUGHT TO THE ARCHITECT'S ATTENTION FOR CLARIFICATION & DIRECTION. CONSTRUCTION INSTALLED IN CONFLICT WITH THE CONSTRUCTION DOCUMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT NO EXPENSE TO THE DISTRICT.
22. INSTALL ALL EQUIPMENT COMPLETELY AS REQUIRED AND/OR AS RECOMMENDED BY THE MANUFACTURER, INCLUDING ALL NECESSARY UTILITY CONNECTIONS, TO MAKE THE EQUIPMENT FULLY OPERATIONAL.
23. TRADE NAMES & MANUFACTURERS REFERRED TO ARE FOR QUALITY STANDARDS ONLY. SUBSTITUTION WILL BE PERMITTED AS APPROVED BY THE SCHOOL DISTRICT OR ARCHITECT OF RECORD. CONTRACTOR SHALL STIPULATE THAT ALL PROPOSED SUBSTITUTIONS ARE EQUAL IN PERFORMANCE & COMPLY WITH THE APPLICABLE CODES & REGULATIONS. SUBSTITUTIONS OF ALTERNATE MATERIALS OR SYSTEMS SHALL BE AT NO ADDITIONAL COST TO THE DISTRICT.
24. ELECTRICAL GROUNDING SHALL BE PERFORMED IN THE PRESENCE OF THE DSA BUILDING INSPECTOR OF THE WORK.
25. ALL INSPECTION & TESTING SHALL CONFORM TO THE REQUIREMENTS OF PART 1 & 2, TITLE 24, C.C.R..
26. SHOP AND FIELD WELDING OPERATIONS SHALL BE PERFORMED BY A CERTIFIED WELDER. ALL WELDING SHALL SPECIALLY INSPECTED BY AN A WS-CWI QUALIFIED INSPECTOR APPROVED BT DSA/ORS.
27. GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE COORDINATION OF THE VARIOUS TRADES PERFORMING THE WORK. CONTRACTOR SHALL SUBMIT FOR REVIEW A COMPLETE COORDINATION SCHEDULE ILLUSTRATING THE EXTENT & THE POSITION OF EACH SCOPE OF WORK TO AVOID CONFLICT & TO MAINTAIN REQUIRED SERVICE ACCESS & CODE REQUIRED CLEARANCES.
28. THE DISTRICT MUST PROVIDE FOR & REQUIRE COMPETENT, ADEQUATE. & CONTINUOUS INSPECTION BY AN INSPECTOR SATISFACTORY TO THE ARCHITECT OR REGISTERED ENGINEER IN GENERAL RESPONSIBLE CHARGE OF OBSERVATION OF THE WORK OF CONSTRUCTION, TO ANY ARCHITECT OR REGISTERED ENGINEER DELEGATED RESPONSIBILITY FOR A PORTION OF THE WORK, & TO DSA. THE COST OF THE PROJECT INSPECTION SHALL BE PAID FOR BY THE DISTRICT. AN INSPECTOR SHALL NOT HAVE ANY CURRENT EMPLOYMENT WITH ANY ENTITY THAT IS A CONTRACTING PARTY FOR THE CONSTRUCTION. AN APPROVED PROJECT INSPECTOR MAY BE REMOVED & REPLACED IF THE WORK PERFORMED IS NOT IN CONFORMANCE WITH ACCEPTED INSPECTION STANDARDS AS DETERMINED BY THE DISTRICT THE PROJECT ARCHITECT & ENGINEER WITH CONCURRENCE OF DSA. THE INSPECTOR SHALL HAVE PERSONAL KNOWLEDGE AS DEFINED IN SECTIONS 17309 & 81141 OF THE EDUCATION CODE OF ALL WORK DONE ON THE PROJECT OR ITS PARTS AS DEFINED IN SECTION 4-316 OF TITLE 24. NO WORK SHALL BE CARRIED ON EXCEPT UNDER THE INSPECTION OF A PROJECT INSPECTOR APPROVED BY DSA.THE EMPLOYMENT OF SPECIAL OR ASSISTANT INSPECTORS SHALL NOT BE CONSTRUED AS RELIEVING THE PROJECT INSPECTOR OF HIS/HER DUTIES & RESPONSIBILITIES UNDER SECTION 17309 & 81141 OF THE EDUCATION CODE AND SECTIONS 4-336 & 4342 OF TITLE24. A PROJECT INSPECTOR SHALL, UNDER THE DIRECTION OF THE ARCHITECTAND/OR ENGINEER, BE RESPONSIBLE FOR MONITORING THE WORK OF THE SPECIAL INSPECTORS AND TESTING LABORATORIES TO ENSURE THAT THE TESTING PROGRAM IS SATISFACTORILY COMPLETED. THE PROJECT INSPECTOR AND ANY ASSISTANT INSPECTOR MUST BE APPROVED BY DSA.
29. THE INTENT OF THE DRAWINGS & SPECIFICATIONS IS TO MODIFY THE FACILITY FOR ACCESSIBILITY IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE CONSTRUCTION DOCUMENTS SUCH THAT THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CCD DETAILING & SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO & APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK-SECTION 4-417, PART 1, TITLE 24, CCR.
30. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CCD, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK.
31. CUTTING, BORING SAWCUTTING OR DRILLING THROUGH THE EXISTING OR NEW STRUCTURAL ELEMENTS IS NOT TO BE STARTED UNTIL THE DETAILS HAVE BEEN REVIEWED & APPROVED BY THE ARCHITECT, STRUCTURAL ENGINEER & THE DSA FIELD ENGINEER IF DETAILS DO NOT SHOW OR CONFORM TO THE APPROVED DRAWINGS.
32. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT SHALL CONDUCT ALL THE REQUIRED TESTS & INSPECTION FOR THE PROJECT.
33. A "DSA CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE DISTRICT(OWNER) AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE (PART 1, TITLE 424, CCR).
34. A "DSA CERTIFIED" INSPECTOR WITH CLASS 3 CERTIFICATION IS REQUIRED FOR THIS PROJECT.
35. THE CALIFORNIA ENERGY CODE SECTION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTALLED LIGHTING CONTROLS, MECHANICAL SYSTEMS, ENVELOPES, AND PROCESS EQUIPMENT AFTER INSTALLATION AND BEFORE PROJECT COMPLETION. AN ACCEPTANCE TEST IS A FUNCTIONAL PERFORMANCE TEST TO HELP ENSURE THAT NEWLY INSTALLED EQUIPMENT IS OPERATING AND IN COMPLIANCE WITH THE ENERGY CODE.

    LIGHTING CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN (ATT).MECHANICAL SYSTEM ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED MECHANICAL ATT FOR PROJECTS SUBMITTED ON OR AFTER OCTOBER 1, 2021.

    ENVELOPE AND PROCESS EQUIPMENT ACCEPTANCE TESTS SHALL BE PERFORMED BY THE INSTALLING CONTRACTOR, ENGINEER/ARCHITECT OF RECORD OR THE OWNER'S AGENT.

    A LISTING OF CERTIFIED ATT CAN BE FOUND AT: HTTPS://WWW.ENERGY.CA.GOV/PROGRAMS-AND-TOPICS/PROGRAMS/ACCEPTANCE-TEST-TECHNICIAN-CERTIFICATION-PROVIDER-PROGRAM/ACCEPTANCE.

    THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDER OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION/INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA.

    PROJECT INSPECTORS WILL COLLECT THE FORMS TO CONFIRM THAT THE REQUIRED ACCEPTANCE TESTS HAVE BEEN COMPLETED.
36. ALL WORK SHALL CONFORM TO 2019 TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
37. THE SCOPE OF WORK - CLEARLY INDICATE THE SCOPE OF WORK ON THE COVER SHEET OR GENERAL NOTE SHEET OF THE DRAWINGS.
38. FABRICATION AND INSTALLATION OF DEFERRED SUBMITTAL ITEMS SHALL NOT BE STARTED UNTIL CONTRACTOR'S DRAWINGS, SPECIFICATIONS, AND ENGINEERING CALCULATIONS FOR THE ACTUAL SYSTEMS TO BE INSTALLED HAVE BEEN ACCEPTED AND SIGNED BY THE ARCHITECT OR STRUCTURAL ENGINEER AND APPROVED BY THE DSA. LIST DEFERRED SUBMITTAL ITEMS FOR THIS PROJECT.
39. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGED DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR. •A "DSA CERTIFIED" PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR. - INSPECTOR CLASS = ?
40. A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.
41. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(C), PART 1, TITLE 24, CCR)
42. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

GENERAL SYMBOLS

SHEET INDEX

NO.	SHT. NO.	SHEET TITLE
01	G0.1	TITLE SHEET, INDEX TO DRAWINGS AND NOTES
02	A101	SITE PLAN
03	A5.01	ROOF DETAIL
04	S0.01	SHEET INDEX, SYMBOLS AND ABBREVIATIONS
05	S0.02	STRUCTURAL GENERAL NOTES
06	S0.03	STRUCTURAL GENERAL NOTES
07	S1.01	OVERALL SITE/ KEY PLAN
08	S2.01	BUILDING D ROOF FRAMING PLAN
09	S2.02	BUILDING G ROOF FRAMING PLAN
10	S4.01	EQUIPMENT SUPPORT DETAILS
11	S4.01	EQUIPMENT SUPPORT DETAILS
12	M001	GENERAL NOTES, LEGENDS, ABBREVIATIONS, AND SHEET INDEX
13	M002	SCHEDULES – JANSON
14	M101	MECHANICAL SITE PLAN JANSON
15	M601	DETAILS
16	M602	DETAILS
17	M701	TITLE 24 COMPLIANCE FORMS – JANSON
18	E001	GENERAL NOTES, LEGENDS, ABBREVIATIONS, AND SHEET INDEX
19	E002	SCHEDULES – JANSON
20	E101	ELECTRICAL SITE PLAN JANSON
21	E601	DETAILS

Total Sheets = 21

APPLICABLE CODES

PARTIAL LIST OF APPLICABLE CODES AS OF JANUARY 1, 2019

PART 1 2022 BUILDING STANDARDS ADMINISTRATIVE CODE, TITLE 24 C.C.R.

PART 2 2019 CALIFORNIA BUILDING CODE, TITLE 24 C.C.R.
(2009 INTERNATIONAL BUILDING CODE OF THE INTERNATIONAL CODE COUNCIL, WITH CALIFORNIA AMENDMENTS)

PART 3 2019 CALIFORNIA ELECTRICAL CODE, TITLE 24 C.C.R.
(2008 NATIONAL ELECTRICAL CODE OF THE NATIONAL FIRE PROTECTION ASSOCIATION, NFPA)

PART 4 2019 CALIFORNIA MECHANICAL CODE, TITLE 24 C.C.R.
(2009 UNIFORM MECHANICAL CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING & MECHANICAL OFFICIALS, IAPMO)

PART 5 2019 CALIFORNIA PLUMBING CODE, PART 5, TITLE 24 C.C.R.
(2009 UNIFORM PLUMBING CODE OF THE INTERNATIONAL ASSOCIATION OF PLUMBING & MECHANICAL OFFICIALS, IAPMO)

PART 6 2019 CALIFORNIA ENERGY CODE, TITLE 24 C.C.R.

PART 9 2019 CALIFORNIA FIRE CODE, TITLE 24 C.C.R.
(2009 INTERNATIONAL FIRE CODE OF THE INTERNATIONAL CODE COUNCIL)

PART 12 2019 CALIFORNIA REFERENCED STANDARDS, TITLE 24 C.C.R.

TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS

CODE ANALYSIS

TYPE OF CONSTRUCTION: TYPE V-B NON-SPRINKLERED
OCCUPANCY: E-1

ALLOWABLE SQUARE FOOTAGE: 9,500 S.F.
EXISTING SQUARE FOOTAGE FOR BLDGS D & G = 8,000 S.F. OK

FLOOD MAP

DIRECTORY

ARCHITECT:
NAC | ARCHITECTURE
837 NORTH SPRING ST. THIRD FLOOR
LOS ANGELES, CA. 90012-2323
TEL: 323.475.8075
FAX: 323.859.3110
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700 S FLOWER ST #1200
LOS ANGELES, CA. 90017
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CONTACT: BEN SEGURA
EMAIL: benjamin.segura@kpff.com

MECHANICAL:
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TEL: 562-497-2999
CONTACT: ANDREW SMITH
EMAIL: andrew.smith@p2sinc.com

ELECTRICAL:
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LONG BEACH, CA. 90815
TEL: 562-497-2999
CONTACT: ALLEN SLY
EMAIL: allen.sly@p2sinc.com

SCOPE OF WORK

REMOVAL AND REPLACEMENT OF EXISTING ROOF TOP HVAC UNITS OVER EXISTING CURBS AT BUILDINGS "D" AND "G"

VICINITY MAP JANSON E.S. SITE

N

PROJECT SITE:
JANSON ELEMENTARY SCHOOL

STATEMENT OF GENERAL CONFORMANCE

FOR ARCHITECTS/ENGINEERS WHO UTILIZE PLANS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS (APPLICATION NO. A# 03-122717 FILE NO. 19-91)

(APPLICATION NO. A# 122717 FILE NO. 19-91)

☒ THE DRAWINGS OR SHEETS LISTED ON THE COVER OR ASSOCIATED WITH 03-122717
☐ THIS DRAWING, PAGE OF SPECIFICATIONS/CALCULATIONS

HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE LICENSED AND/OR AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. IT HAS BEEN EXAMINED BY ME FOR:

1. DESIGN INTENT AND APPEARS TO MEET THE APPROPRIATE REQUIREMENTS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS AND THE PROJECT SPECIFICATIONS PREPARED BY ME, AND
2. COORDINATION WITH MY PLANS AND SPECIFICATIONS AND IS ACCEPTABLE FOR INCORPORATION INTO THE CONSTRUCTION OF THIS PROJECT.

THE STATEMENT OF GENERAL CONFORMANCE "SHALL NOT BE CONSTRUED AS RELIEVING ME OF MY RIGHTS, DUTIES, AND RESPONSIBILITIES UNDER SECTIONS 17302 AND 81138 OF THE EDUCATION CODE AND SECTIONS 4-336, 4-341, AND 4-344" OF TITLE 24, PART 1 (TITLE 24, PART 1, SECTION 4-317 [b])

I FIND THAT:
☒ ALL DRAWINGS OR SHEETS LISTED ON THE COVER OR INDEX SHEET
☐ THIS DRAWING OR PAGE

☒ IS/ARE IN GENERAL CONFORMANCE WITH THE PROJECT DESIGN INTENT, AND
☒ HAS/HAVE BEEN COORDINATED WITH THE PROJECT PLANS AND SPECIFICATIONS.

SIGNATURE — DATE: 11/17/2022
ARCHITECT OR ENGINEER DESIGNATED TO BE IN GENERAL RESPONSIBLE CHARGE
PRINT NAME: HELENA JUBANY
LICENSE NUMBER: C-22214
EXPIRATION DATE: 05/31/2023

☐ IS/ARE IN GENERAL CONFORMANCE WITH THE PROJECT DESIGN INTENT, AND
☐ HAS/HAVE BEEN COORDINATED WITH THE PROJECT PLANS AND SPECIFICATIONS.

SIGNATURE — DATE
ARCHITECT OR ENGINEER DELEGATED RESPONSIBILITY FOR THIS PORTION OF THE WORK
PRINT NAME
LICENSE NUMBER
EXPIRATION DATE

HELENA L. JUBANY
22214
REN. 5-31-23

DRAWINGS, SPECIFICATIONS AND OTHER VISUAL AIDS, AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE ARCHITECT WHETHER THE PROJECT FOR WHICH THEY ARE MADE BE EXECUTED OR NOT, AND THEY ARE NOT TO BE USED FOR ANY OTHER SITE THAN THE ONE FOR WHICH THEY ARE PREPARED, EXCEPT BY AGREEMENT IN WRITING.

ROSEMEAD SCHOOL DISTRICT
RSD - JANSON ELEMENTARY SCHOOL
HVAC REPLACEMENT AT BUILDINGS D AND G

ROSEMEAD
SCHOOL DISTRICT
PARK ROSEMEAD
8628 MARSHALL STREET
ROSEMEAD CA 91770

JUBANY NAC | ARCHITECTURE
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NAC NO: 161-21043
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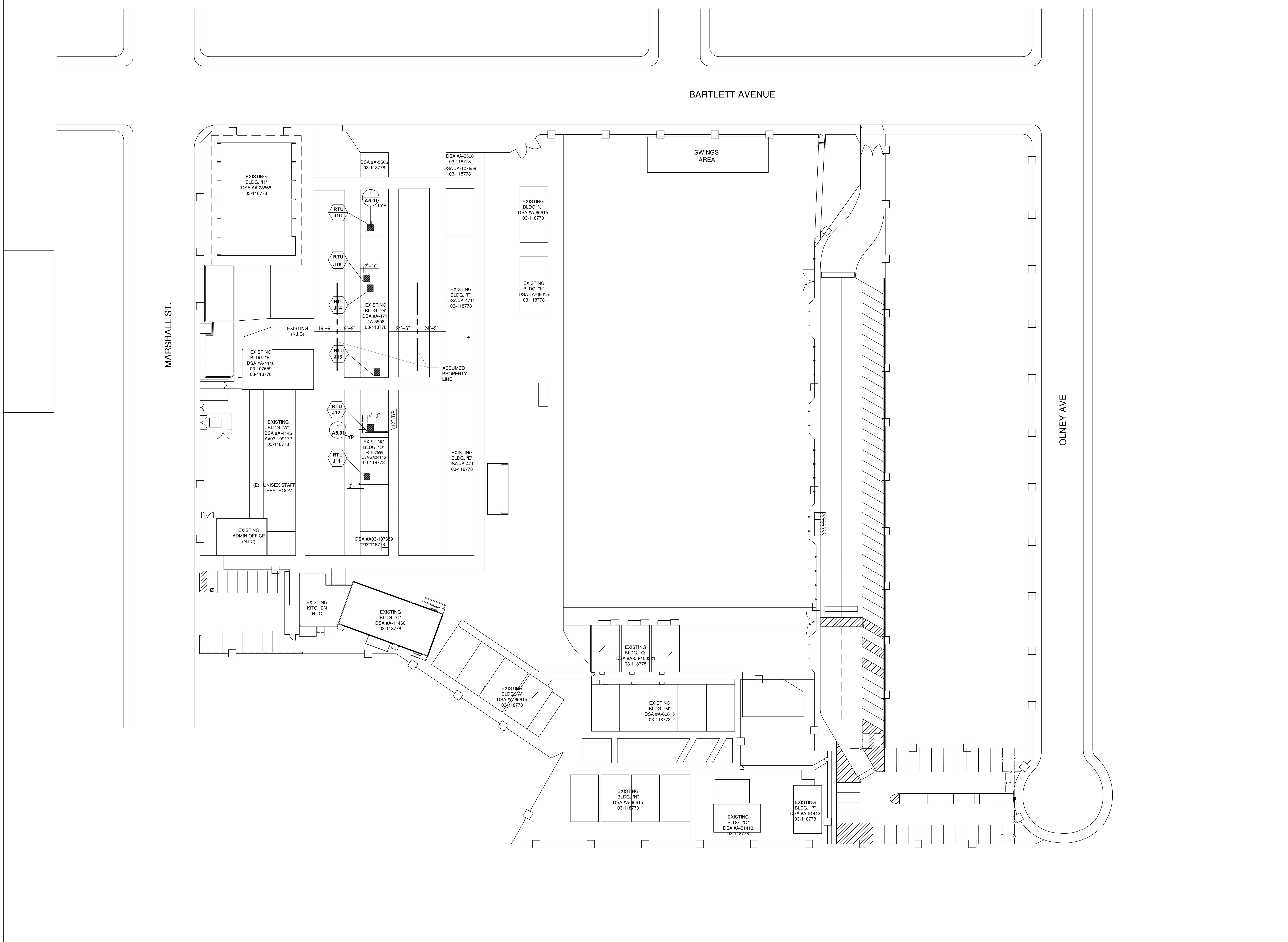
DATE: 02-14-2023

TITLE SHEET, INDEX TO DRAWINGS AND NOTES

JANSON HVAC		
BUILDINGS IN SCOPE	DSA-A#	CERTIFICATION STATUS
BLD6 - D	03-118778	NOT CERTIFIED
	03-107659	CERTIFIED
BLD6 - G	03-118778	NOT CERTIFIED

FILE NO: 19-91 A#: 03-122717



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LEGEND

REMOVE EXISTING ROOFTOP HVAC UNIT AND REPLACE AS PER MECHANICAL DWGS.

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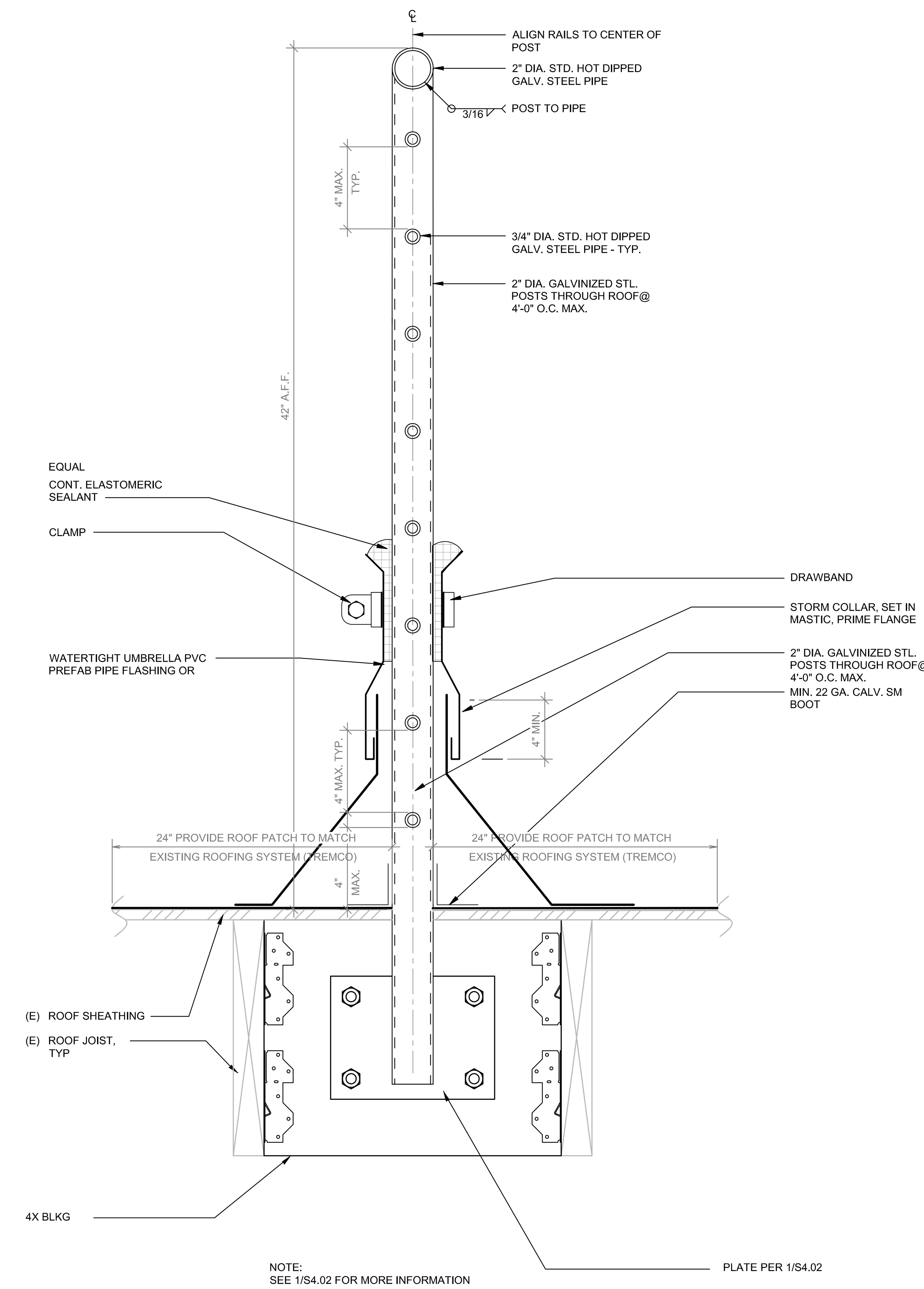
DATE	02-14-2023

SITE PLAN
SCALE: 1/32"=1'-0"

A101



1 ROOF GUARDRAIL/FALL PROTECTION DETAIL
Scale: 3" = 1'-0"

FILE NO: 19-91 A#: 03-122717

LICENSED ARCHITECT HELENA L. JUBANY 22214 REN. 5-31-23 STATE OF CALIFORNIA

ROSEMEAD SCHOOL DISTRICT
RSD - JANSON ELEMENTARY SCHOOL
HVAC REPLACEMENT AT BUILDINGS D AND G

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ROOF DETAIL

ABBREVIATIONS

REF	REFERENCE
REINF	REINFORCE; REINFORCING
REQD	REQUIRED
RF	ROOF
SCHED	SCHEDULE
SECT	SECTION
SEOR	STRUCTURAL ENGINEER OF RECORD
SEP	SEPERATION
SHT	SHEET
SHTG	SHEATHING
SDIA	SAN DIEGO INTERNATIONAL AIRPORT
SIM	SIMILAR
SLBB	SHORT LEGS BACK-TO-BACK
SOG	SLAB ON GRADE
SN	SHEAR NAIL
SPCG	SPACING
SPECS	SPECIFICATIONS
SPCL	SPECIAL
SQ	SQUARE
SS	SELECT STRUCTURAL; STAINLESS STEEL
SSL	SHORT SLOTTED HOLES
STAGG	STAGGER
STD	STANDARD
STIFF	STIFFENERS
STL	STEEL
STRUCT	STRUCTURAL
STRUCT I	STRUCTURAL I
SW	SHEAR WALL
SYM	SYMMETRICAL
T	TOP
TB	TIE BEAM
T & B	TOP AND BOTTOM
T & G	TONGUE AND GROOVE
TEMP	TEMPERATURE; TEMPORARY
THK	THICKNESS/THICK
THRU	THROUGH
THR	THREADED
T.O.	TOP OF
TOC	TOP OF CONCRETE; TOP OF CURB
TOF	TOP OF FOOTING
TOS	TOP OF STEEL
TOW	TOP OF WALL
T&B	TOP AND BOTTOM
T&G	TONGUE & GROOVE
TSG	TAPPERED STEEL GIRDER
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UNO	UNLESS NOTED OTHERWISE
UT	ULTRA-SONIC TEST
VERT	VERTICAL
VIF	VERIFY IN FIELD
VSH	VERTICAL SLOTTED HOLES
W/	WITH
W/O	WITHOUT
WD	WOOD
WP	WORK POINT; WATERPROOF
WT	WEIGHT; STRUCTURAL TEE SHAPE
WWF	WELDED WIRE FABRIC

STRUCTURAL STEEL SHAPES

W	W SHAPE
C	AMERICAN STD CHANNEL SHAPE
MC	MISC CHANNEL SHAPE
L	ANGLE SHAPE
WT, ST, MT	STRUCT TEE SHAPE
PIPE	STANDARD PIPE SHAPE
PIPE-X	EXTRA STRONG PIPE SHAPE
PIPE-XX	DBL. EXTRA STRONG PIPE SHAPE
HSS, TS	STRUCT TUBING SHAPE

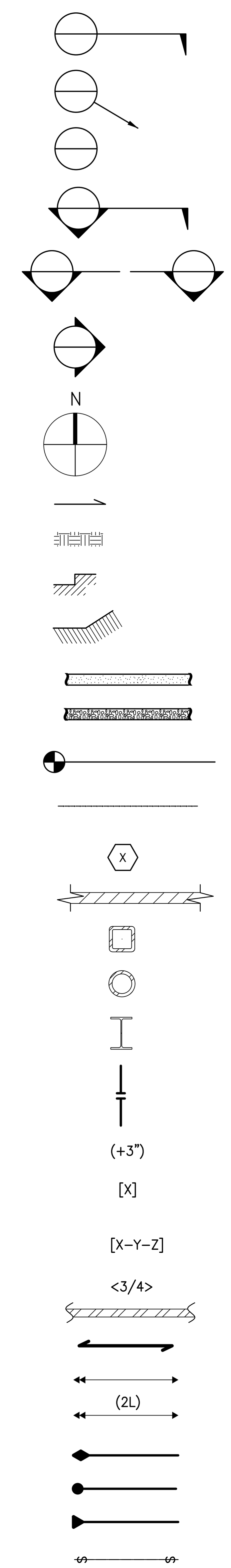
STRUCTURAL ALUMINUM SHAPES

RT	RECTANGULAR TUBE

FDN	FOUNDATION
FF	FINISHED FLOOR; FAR FACE
FIN	FINISH
FJ	FLOOR JOIST
FL	FLOOR LINE
FLG	FLANGE
FLR	FLOOR
FN	FIELD NAIL
FOC	FACE OF CONCRETE
FOM	FACE OF MASONARY
FOS	FACE OF STUD
FOW	FACE OF WALL
FP	FULL PENETRATION; FIRE PROOFING
FRMG	FRAMING
FS	FULL SIZE; FAR SIDE
FT	FOOT; FEET
FTG	FOOTING
GA	GAUGE
GALV	GALVANIZED
GB	GRADE BEAM
GLB	GLUED LAMINATED BEAM
GR	GRADE
GRND	GROUND
HDR	HEADER
HGR	HANGER
H OR HORIZ	HORIZONTAL
HOSP	HOSPITAL
HP	HIGH POINT
HR	HARD ROCK
HS	HIGH STRENGTH
HSH	HORIZONTALLY SLOTTED HOLES
HT	HEIGHT
ID	INSIDE DIAMETER
IF	INSIDE FACE
I-JST	I-JOIST
IN	INCH
INCL	INDLUDE
INFO	INFORMATION
INSP	INSPECTION
INT	INTERIOR
IT	INFORMATION TECHNOLOGY
JST	JOIST
JT	JOINT
K	KIPS
KSI	KIPS PER SQUARE INCH
LAB	LABORATORY
LABC	LOS ANGELES BUILDING CODE
LADBS	LOS ANGELES DEPARTMENT OF BUILDING AND SAFETY
LAWA	LOS ANGELES WORLD AIRPORTS
LB(S) or #	POUND(S)
LF	LINEAL FOOT
LIN	LINEAL; LINEAR
LLBB	LONG LEGS BACK-TO-BACK
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LOW POINT
LSL	LONG SLOTTED HOLES
LT WT or LW	LIGHTWEIGHT
LVL	LEVEL
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MECH	MECHANICAL
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MFR	MANUFACTURER
MIN	MINIMUM; MINUTE
MISC	MISCELLANEOUS
(N)	NEW
N	NORTH
NF	NEAR FACE
NIC	NOT IN CONTRACT
NORM	NORMAL
NO or #	NUMBER
NS	NEAR SIDE
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OD	OUTSIDE DIAMETER
OF	OUTSIDE FACE
OPNG	OPENING
OPP	OPPOSITE
ORIG	ORIGINAL
OSB	ORIENTED STRAND BOARD
OSHPD	OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
PARA or //	PARALLEL
PC	PRECAST; PIECE
PCF	POUNDS PER CUBIC FOOT
PERP	PERPENDICULAR
PI	PLYWOOD INDEX
PJP	PARTIAL JOINT PENETRATION WELD
PL	PLATE
PL	PROPERTY LINE
PLF	PONDS PER LINEAL FOOT
PLCS	PLACES
PLUMB	PLUMBING
PLY	PLYWOOD
PROP	PROPERTY
PREFAB	PREFABRICATED
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	POST TENSIONED
PW	PLATE WASHER
PVC	POLYVINYL CHLORIDE
PVMT	PAVEMENT
#	POUND; NUMBER

AB	ANCHOR BOLT
ACI	AMERICAN CONCRETE INSTITUTE
ADDL	ADDITIONAL
ADJ	ADJACENT
AESS	ARCHITECTURAL EXPOSED STRUCTURAL STEEL
AGGR	AGGREGATE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
ALUM	ALUMINUM
ANCH	ANCHOR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AOR	ARCHITECT OF RECORD
APA	AMERICAN PLYWOOD ASSOCIATION
APPVD	APPROVED
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL; ARCHITECT
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AVDGS	ADVANCED VISUAL DOCKING GUIDANCE SYSTEM
AWPA	AMERICAN WOOD PRESERVERS ASSOCIATION
AWS	AMERICAN WELDING SOCIETY
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION
&	AND
@	AT
BHS	BAGGAGE HANDLING SYSTEM
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BN	BOUNDARY NAIL
BNDRY	BOUNDARY
B.O.	BOTTOM OF
BOT or B	BOTTOM
BRC	BRACE
BRG	BEARING
BT	BENT
BTWN	BETWEEN
CANT	CANTILEVER
CAM OR C	CAMBER
CBC	CALIFORNIA BUILDING CODE
CC	CENTER TO CENTER
CG	CENTER OF GRAVITY
CIP	CAST-IN-PLACE
CJ	CONSTRUCTION JOINT; CONTROL JOINT
CL	CENTER LINE
CLR	CLEARANCE; CLEAR
CLSM	CONTROLLED LOW-STRENGTH MATERIAL
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMP	COMPRESSION
CONC	CONCRETE
CONN	CONNECTION; CONNECT
CONSTR	CONSTRUCTION
CONT	CONTINUE; CONTINUOUS
CONTR	CONTRACTOR
CJP	COMPLETE JOINT PENETRATION WELD
CTR	CENTER
CTSK	COUNTERSINK; COUNTERSUNK
CU FT	CUBIC FOOT
d	PENNY (NAIL OR BAR DIA)
DBL	DOUBLE
DEPT	DEPARTMENT
DET	DETAIL
DF	DOUGLAS FIR/LARCH
DIA or Ø	DIAMETER
DIAG	DIAGONAL
DIAPH	DIAPHRAGM
DIM	DIMENSION
DN	DOWN
DO	DITTO (REPEAT)
DSA	DIVISION OF THE STATE ARCHITECT
DSD	DEVELOPMENT SERVICES DEPARTMENT
DWG	DRAWING
DWL	DOWEL
EA	EACH
EF	EACH FACE
EJ	EXPANSION JOINT
EL or ELEV	ELEVATION i.e. EL 100'-0" i.e. PER ELEV
ELEC	ELECTRICAL
EMBED	EMBEDMENT
EN	EDGE NAIL
ENGR	ENGINEER
EQ	EQUAL; EQUIVALENT; EARTHQUAKE
EQUIP	EQUIPMENT
ES	EACH SIDE; EVALUATION SERVICE
ESR	EVALUATION SERVICE REPORT
ETC	ET CETERA
EW	EACH WAY
EXIST or (E)	EXISTING
EXT	EXTERIOR

SYMBOLS



- SECTION REFERENCE BUBBLE
- DETAIL REFERENCE BUBBLE WITH ARROW
- DETAIL REFERENCE BUBBLE
- FULL HEIGHT SECTION INDICATOR
- BUILDING SECTION INDICATOR
- ELEVATION OF WALL OR FRAME
- NORTH ARROW
- SLOPE
- EARTH LAYER
- STEPPED SURFACE; FLOOR DEPRESSION
- SLOPPED SURFACE
- INDICATES SAND OR GROUT
- INDICATES GRAVEL
- TOP OF SLAB ELEVATION
- WELDED WIRE FABRIC (WWF LAYER)
- FOOTING TYPE
- INDICATES MASONRY WALLS
- STEEL TUBE COLUMN
- STEEL PIPE COLUMN
- WIDE FLANGE STEEL COLUMN
- MEMBER SPLICE
- TOP OF STEEL ± ELEVATION
- NUMBER OF EVENLY SPACED SHEAR STUDS
- SPECIAL STUD SPACING SEE TYPICAL STEEL DETAILS
- BEAM CAMBER AT MID-SPAN
- STEEL IN CROSS SECTION
- DIRECTION OF SPAN
- ANGLE BRACE
- DOUBLE ANGLE BRACE
- FULL HEIGHT STIFFENER CONNECTION
- DRAG STRUT CONNECTION
- MOMENT CONNECTION
- STEPPED FOOTING

SHEET INDEX

FILE NO: 19-91 A#: 03-122717

11-17-2022
01-31-2023

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ROSEMEAD SCHOOL DISTRICT
RSD - JANSON ELEMENTARY SCHOOL
HVAC REPLACEMENT AT BUILDINGS D AND G

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SHEET INDEX, SYMBOLS AND ABBREVIATIONS

S0.01

File: K:\2020\2200234 - Rosemead SD - HVAC REPL\5 Sheets\Janson Elementary School\2200234_S0.01.dwg
Plotted: 1/27/23 at 11:14am By: SDEJESUS
XREFs: X_Tblock_RSD_JANSON.dwg

WOOD

1. ALL STRUCTURAL LUMBER SHALL BE DOUGLAS FIR, VISUALLY GRADED OR MACHINE GRADED UNDER THE LUMBER GRADING RULES OF WEST COAST LUMBER INSPECTION BUREAU (LATEST EDITION). ALL FRAMING MEMBERS SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE ON PLANS:

THICKNESS	GRADE
2" NOM. AND SMALLER	GRADE NO. 1
LARGER THAN 2" NOM.	GRADE NO. 1

2. ALL STRUCTURAL PLYWOOD SHEATHING SHALL BE DOUGLAS FIR STANDARD GRADE RATED SHEATHING - EXPOSURE 1 CONFORMING TO THE LATEST EDITION OF DOC PS1 ALL PANELS SHALL BEAR LEGIBLE DFPA STAMPS.

3. ORIENTED STRAND BOARD (OSB) MAY BE SUBSTITUTED FOR PLYWOODS NOTED ABOVE, AND COMPLY WITH DOC PS2. PROVIDED IT IS RATED BY APA'S PERFORMANCE STANDARD RATING & ICC-ESR # NOTED.

4. ALL FLOOR & ROOF SHEATHING SHALL BE LAID FACE GRAIN PERPENDICULAR TO FRAMING AND SHALL BE APPROVED BY THE BUILDING INSPECTOR BEFORE COVERING.

5. ALL NAILING SHALL CONFORM TO THE APPLICABLE BUILDING CODE AND REGULATIONS. ALL NAILS SHALL BE COMMON NAILS ASTM F1667. MINIMUM NAILING REQUIREMENTS OUTLINED IN TABLE 2304.9.1 OF THE CODE SHALL BE FOLLOWED UNLESS OTHERWISE NOTED.

6. LAG BOLTS (LAG SCREWS): PROVIDE LEAD HOLE 60%-70% OF THREADED SHANK DIAMETER AND FULL DIAMETER FOR SMOOTH SHANK PORTION. MINIMUM PENETRATION INTO MAIN MEMBER SHALL BE 8d.

7. UNLESS OTHERWISE NOTED, ALL WOOD SILL PLATE UNDER BEARING, EXTERIOR OR SHEAR WALLS IN CONTACT WITH CONCRETE OR MASONRY SHALL BE BOLTED TO CONCRETE OR MASONRY WITH 5/8"Ø BOLTS AT 4'-0" OC BEGINNING AT 9" OC MAX. FROM EACH END OF THE PLATES. BOLTS SHALL EXTEND A MINIMUM OF 8" INTO CONCRETE OR MASONRY. "HILTI 0.145"Ø DN PINS (ICC-ESR #1390) AT 16" MIN SPACING MAY BE SUBSTITUTED FOR ANCHOR BOLTS AT INTERIOR NON-SHEAR/NON-BEARING WALLS ONLY.

8. ALL BOLT HEADS AND NUTS WHICH BEAR AGAINST THE FACE OF WOOD MEMBERS SHALL BE PROVIDED WITH METAL WASHERS AS INDICATED ON PLANS OR PER WASHER PLATE SCHEDULE ON NOTE #11 AND HOLES SHALL BE DRILLED A MAXIMUM OF 1/16" OVERSIZED. INSPECTOR SHALL VERIFY THESE CONDITIONS IN THE FIELD.

9. ALL NUTS ON BOLTS SHALL BE TIGHTENED WHEN INSTALLED AND RE-TIGHTENED AT THE COMPLETION OF WORK OR BEFORE CLOSING IN. THREAD PROJECTION SHALL BE 1/16 INCH MINIMUM BEYOND THE NUT.

10. USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOBSITE DEMONSTRATION AND THE APPROVAL BY THE INSPECTOR AND STRUCTURAL ENGINEER. THE APPROVAL IS SUBJECT TO CONTINUED SATISFACTORY PERFORMANCE. MACHINE NAILING WILL NOT BE APPROVED IN 5/16" PLYWOOD. IF NAILHEADS PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OR IF MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED, THE PERFORMANCE WILL BE DEEMED UNSATISFACTORY.

11. ALL 5/8" DIAMETER AND LARGER BOLTS CALLED OUT ON DRAWINGS, INCLUDING ANCHOR BOLTS (AB) SHALL HAVE STEEL SQUARE PLATE WASHERS AS LISTED BELOW UNDER THE HEAD AND/OR NUT BEARING ON WOOD.

BOLT DIAMETER	1/2"	5/8"	3/4"	7/8"	1"
WASHER - THICKNESS	1/4"	5/16"	3/8"	7/16"	1/2"
WASHER - WIDTH	2 1/2"	2 3/4"	3"	3 1/2"	4"
MINIMUM EMBEDMENT	7"	8"	8"	8"	12"

12. FRAMING CONNECTORS: PER MANUFACTURER'S APPROVED PRODUCT EVALUATION REPORT (ICC-ESR) AND INSTALLED ACCORDINGLY. SIZE AND NUMBER OF NAILS TO BE MAXIMUM SPECIFIED BY THE MANUFACTURER UNO. THE FOLLOWING IS A LIST OF ICC-ESR NUMBERS CORRESPONDING TO SOME OF THE FRAMING CONNECTORS USED IN THE PROJECT:

DESCRIPTION	ICC-ESR #
SIMPSON 'CMST'	2105
SIMPSON 'LPT4'	5313
SIMPSON 'HD'	5708
SIMPSON 'EPC, 'PC"	443
SIMPSON 'CC'	2011
SIMPSON 'PBS'	5709
SIMPSON 'LUS'	5708
SIMPSON 'A34', 'A35'	5672
SIMPSON 'HU'	5117
SIMPSON 'ITT'	2329

13. BOLTED HOLD DOWN ANCHORS: INSTALL PER MANUFACTURE'S APPROVED ICC PRODUCT EVALUATION REPORT. INSTALL HOLD DOWN 1/2 INCH MINIMUM ABOVE THE PLATE TO ALLOW FOR TIGHTENING POST BOLTS. USE EXTRA CARE IN BORING THE POST HOLES (1/32 TO 1/16 LARGER THAN THE BOLT DIAMETER). THE HOLD DOWN SHALL BE INSTALLED TIGHT TO THE HOLD DOWN POST WITHOUT FILLERS OR DAPPING. THE POST BOLTS SHALL NOT BE COUNTERSUNK INTO THE HOLD DOWN POST UNO. DO NOT BEND HOLD DOWN ANCHORS. (SIMPSON HD ICC-ESR# 5708).

14. SUBSTITUTIONS: PROVIDE MANUFACTURER'S APPROVED PRODUCT EVALUATION REPORT AND A LIST OF ALL PROPOSED SUBSTITUTIONS TO THE ENGINEER FOR REVIEW BEFORE FABRICATION. PROPOSED SUBSTITUTIONS SHALL BE APPROVED BY DSA.

15. PRESERVATIVE TREATED WOOD: WOOD EXPOSED TO THE WEATHER; FOUNDATION PLATES ON CONCRETE SLABS, FOUNDATIONS WHICH ARE IN DIRECT CONTACT WITH EARTH SHALL BE TREATED WOOD WITH PRESERVATIVE RETENTION CONFORMING TO AWPA AS REQUIRED FOR USE. NEWLY EXPOSED SURFACES RESULTING FROM FIELD CUTTING, BORING OR HANDLING SHALL BE FIELD TREATED IN ACCORDANCE WITH AWPA M-4.

16. TOP PLATES: TWO PIECES, SAME SIZE AS STUDS, STAGGER SPLICES 4'-0" MINIMUM. CENTER SPLICES OVER STUDS.

17. FULL-DEPTH SOLID BLOCKING OR CROSS BRACING: INSTALLED AT INTERVALS NOT EXCEEDING 8 FEET FOR ALL JOISTS AND RAFTERS.

18. CUTTING AND NOTCHING: DO NOT CUT, BORE, COUNTERSINK OR NOTCH WOOD MEMBERS EXCEPT WHERE SHOWN IN THE DETAILS. HOLES THROUGH PLATES, STUDS AND DOUBLE PLATES IN WALLS SHALL NOT EXCEED 40% THE MEMBER WIDTH AND SHALL BE LOCATED IN THE CENTER OF THE MEMBER.

19. END SUPPORT: ROOF AND FLOOR JOISTS OVER 4 INCHES DEEP SHALL HAVE THEIR ENDS HELD IN POSITION WITH EITHER:
    - FULL DEPTH SOLID BLOCKING;
    - NAILED BRIDGING;
    - NAILING OR BOLTING TO OTHER FRAMING MEMBERS; OR
    - APPROVED JOIST HANGERS.

20. GALVANIZING: ALL EXPOSED STEEL TIMBER HARDWARE, FASTENERS AND CONNECTORS SHALL BE GALVANIZED.

DESIGN LOADS

1. FLOOR AND ROOF LIVE LOADS:
   ROOF 20 PSF (REDUCIBLE)

2. SNOW LOADS:
   SNOW LOADS ARE IN ACCORDANCE WITH SECTION 1608A OF THE CODE.
   GROUND SNOW LOAD, Pg = ZERO

3. WIND LOADS:
   WIND LOADS ARE IN ACCORDANCE WITH SECTION 1609A OF THE CODE.
   SEE TABLE ON THIS SHEET FOR PRESSURE AT EXTERIOR COMPONENTS AND CLADDING.
   BASIC WIND SPEED, V = 101 MPH (3-SECOND GUST)
   RISK CATEGORY III
   WIND EXPOSURE C
   WIND IMPORTANCE FACTOR, I = 1.0
   DESIGN WIND PRESSURE = 39.66 PSF

4. EARTHQUAKE LOADS ON NONSTRUCTURAL COMPONENTS:
   EARTHQUAKE LOADS ARE IN ACCORDANCE WITH SECTION 1613A OF THE CODE.
   RISK CATEGORY III
   Ip = 1.0 FOR ALL NONSTRUCTURAL COMPONENTS
   SEISMIC DESIGN CATEGORY (SDC) = D
   SITE CLASS = D
   S_S = 1.962g
   S_1 = 0.708g
   S_{D1} = 0.803g
   S_{DS} = 1.569g

   EARTHQUAKE LOADS ON NONSTRUCTURAL COMPONENTS, SHALL BE DETERMINED IN ACCORDANCE WITH THE FOLLOWING PROCEDURE:
   CALCULATE Fp BASED ON ASCE 7-16 EQUATION 13.3-1 USING THE VALUE OF S_{DS} = 1.569g
   THE MAXIMUM AND MINIMUM VALUES FOR Fp SHALL BE DETERMINED FROM ASCE 7-16 EQUATIONS 13.3-2 AND 13.3-3, RESPECTIVELY.
   ALL EARTHQUAKE LOADS ON NONSTRUCTURAL COMPONENTS SHALL BE BASED ON VALUES OF ap AND Rp FROM ASCE 7-16 TABLES 13.5-1 AND 13.6-1.

5. EARTHQUAKE LOADS ON PRIMARY STRUCTURE:
   EARTHQUAKE LOADS ARE IN ACCORDANCE WITH SECTION 1613A OF THE CODE.
   R = 6 1/2 (WOOD SHEARWALL)

6. FLOOD DESIGN DATA:
   THE PROJECT IS NOT LOCATED WITHIN A FLOOD HAZARD AREA.

STRUCTURAL OBSERVATION:

1. STRUCTURAL OBSERVATION SHALL BE PERFORMED BY THE STRUCTURAL ENGINEER OF RECORD OR DESIGNEE IN ACCORDANCE WITH SECTION 1710A OF THE CODE.

2. STRUCTURAL OBSERVATION IS THE VISUAL OBSERVATION OF THE ELEMENTS AND CONNECTIONS OF THE STRUCTURAL SYSTEM AT SIGNIFICANT CONSTRUCTION STAGES AND THE COMPLETED STRUCTURE FOR GENERAL CONFORMANCE TO THE APPROVED PLANS AND SPECIFICATION. STRUCTURAL OBSERVATION DOES NOT WAIVE THE RESPONSIBILITY FOR THE INSPECTIONS REQUIRED OF THE BUILDING INSPECTOR OR THE DEPUTY INSPECTOR.

3. A CIVIL OR STRUCTURAL ENGINEER OR ARCHITECT SHALL PERFORM THE STRUCTURAL OBSERVATION THE ENGINEER OR ARCHITECT SHALL BE REGISTERED OR LICENSED IN THE STATE OF CALIFORNIA. THE DEPARTMENT OF BUILDING AND SAFETY REQUIRES THE USE OF THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN WHEN THEY ARE INDEPENDENT OF THE CONTRACTOR.

4. THE STRUCTURAL OBSERVER SHALL PROVIDE EVIDENCE OF EMPLOYMENT BY THE OWNER, A LETTER FROM THE OWNER OR A COPY OF THE AGREEMENT FOR SERVICES SHALL BE SENT TO THE BUILDING INSPECTOR BEFORE THE FIRST SITE VISIT, THE STRUCTURAL OBSERVER SHALL ALSO INFORM THE OWNER OF THE REQUIREMENTS FOR A PRECONSTRUCTION MEETING AND SHALL PRESIDE OVER THIS MEETING.

5. THE CONTRACTOR SHALL COORDINATE AND CALL FOR A PRE-CONSTRUCTION MEETING BETWEEN THE ENGINEER OR ARCHITECT RESPONSIBLE FOR THE STRUCTURAL DESIGN, STRUCTURAL OBSERVER, CONTRACTOR, AFFECTED SUBCONTRACTORS AND DEPUTY INSPECTORS. THE PURPOSE OF THE MEETING SHALL BE TO IDENTIFY THE MAJOR STRUCTURAL ELEMENTS AND CONNECTIONS THAT AFFECT THE VERTICAL AND LATERAL LOAD SYSTEMS OF THE STRUCTURE AND TO REVIEW SCHEDULING OF THE REQUIRED OBSERVATIONS. A RECORD OF THE MEETING SHALL BE INCLUDED IN THE FIRST OBSERVATION REPORT SUBMITTED TO THE BUILDING INSPECTOR.

6. THE STRUCTURAL OBSERVER SHALL PERFORM SITE VISITS AT THOSE STEPS IN THE PROGRESS OF THE WORK THAT ALLOW FOR CORRECTION OF DEFICIENCIES WITHOUT SUBSTANTIAL EFFORT OR UNCOVERING OF THE WORK INVOLVED. AT A MINIMUM, THE FOLLOWING SIGNIFICANT CONSTRUCTION STAGES REQUIRE A SITE VISIT AND AN OBSERVATION REPORT FROM THE STRUCTURAL OBSERVER.

CONSTRUCTION STAGES	ELEMENTS/CONNECTIONS TO BE OBSERVED
a. ROOF FRAMING	CONNECTORS / STRAPS

7. THE STRUCTURAL OBSERVER SHALL PREPARE A REPORT FOR EACH SIGNIFICANT STATE OF CONSTRUCTION OBSERVED. A COPY OF THE OBSERVATION REPORT SHALL BE SENT TO DSA, OWNER, CONTRACTOR, AND PROJECT INSPECTOR.

GENERAL

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO STARTING CONSTRUCTION. THE ARCHITECT SHALL BE NOTIFIED OF ANY DISCREPANCIES OR INCONSISTENCIES.

2. ALL DRAWINGS ARE CONSIDERED TO BE A PART OF THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REVIEW AND COORDINATION OF ALL DRAWINGS AND SPECIFICATIONS PRIOR TO THE START OF CONSTRUCTION. ANY DISCREPANCIES THAT OCCUR SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT PRIOR TO START OF CONSTRUCTION SO THAT A CLARIFICATION CAN BE ISSUED. ANY WORK PERFORMED IN CONFLICT WITH THE CONTRACT DOCUMENTS OR ANY CODE REQUIREMENTS SHALL BE CORRECTED BY THE CONTRACTOR AT THEIR OWN EXPENSE AND AT NO EXPENSE TO THE OWNER OR ARCHITECT.

3. EXISTING CONDITIONS SHOWN ARE BASED ON LIMITED AVAILABLE AS-BUILT DOCUMENTATION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL ACTUAL CONDITIONS. DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THOSE SHOWN ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO START OF WORK. ARCHITECT AND ENGINEER SHALL REVIEW THE ACTUAL FIELD CONDITIONS AND DETERMINE THE EXTENT OF MODIFICATIONS WHICH WILL BE REQUIRED TO THE AFFECTED DETAILS. MODIFICATIONS TO THE CONTRACT DOCUMENTS MAY BE SUBJECT TO REVIEW & APPROVAL BY DSA.

4. UNLESS NOTED OTHERWISE OR SPECIFICALLY APPROVED BY THE SEOR, PRIOR TO DRILLING INTO (E) CONCRETE ELEMENTS FOR INSTALLATION OF EPOXY/EXPANSION ANCHORS/DOWELS, THE CONTRACTOR SHALL SCAN (USING NON-DESTRUCTIVE METHODS) THE (E) CONCRETE IN THE AREA OF ANCHORAGE TO LOCATE (E) REINFORCING BARS OR OTHER (E) EMBEDDED OBJECTS IN THE CONCRETE. (E) REINFORCING BARS SHALL NOT BE CUT OR DAMAGED DURING INSTALLATION OF EPOXY/EXPANSION ANCHORS/DOWELS. IF CONFLICTS OCCUR BETWEEN THE (E) REINFORCING BARS AND EPOXY/EXPANSION ANCHORS/DOWELS, A COMPOSITE LAYOUT
   OF THE (E) REINFORCING BARS AND EPOXY/EXPANSION ANCHORS/DOWELS SHALL BE PROVIDED TO THE STRUCTURAL ENGINEER AND ARCHITECT FOR REVIEW AND TO DETERMINE IF CONNECTION/ANCHORAGE DETAILS REQUIRE MODIFICATION, MODIFICATIONS TO THE APPROVED CONTRACT DOCUMENTS MAY BE SUBJECT TO REVIEW AND APPROVAL BY DSA.

5. NOTES AND DETAILS ON DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE GIVEN, CONSTRUCTION SHALL BE AS SHOWN FOR SIMILAR WORK.

6. ALL WORK SHALL CONFORM TO THE MINIMUM STANDARDS OF THE FOLLOWING:
   2019 CALIFORNIA BUILDING CODE, PART 2A, REFERRED TO HERE AS "THE CODE", AND ANY OTHER REGULATING AGENCIES WHICH HAVE AUTHORITY OVER WHICH ANY PORTION OF THE WORK, INCLUDING THE STATE OF CALIFORNIA DIVISION OF INDUSTRIAL SAFETY, AND THOSE CODES & STANDARDS LISTED IN THESE NOTES AND SPECIFICATIONS.

7. SEE ARCHITECTURAL DRAWINGS FOR THE FOLLOWING:
   a. SIZE AND LOCATION OF ALL DOOR AND WINDOW OPENINGS, EXCEPT AS NOTED
   b. SIZE AND LOCATION OF ALL INTERIOR AND EXTERIOR NON-BEARING PARTITIONS.
   c. SIZE AND LOCATION OF ALL CONCRETE CURBS, EQUIPMENT PADS, PITS, FLOOR DRAINS, SLOPES, DEPRESSED AREAS, CHANGE IN LEVEL, CHAMFERS, GROOVES, INSERTS, ETC.
   d. SIZE AND LOCATION OF ALL FLOOR AND ROOF OPENINGS EXCEPT AS SHOWN.
   e. FLOOR AND ROOF FINISHES.
   f. DIMENSIONS NOT SHOWN ON STRUCTURAL DRAWINGS.

8. SEE MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR THE FOLLOWING:
   a. PIPE RUNS, SLEEVES, HANGERS, TRENCHES, WALL AND SLAB OPENINGS, ETC., EXCEPT AS SHOWN OR NOTED.
   b. ELECTRICAL CONDUIT RUNS, BOXES, OUTLETS IN WALLS AND SLABS.
   c. CONCRETE INSERTS FOR ELECTRICAL, MECHANICAL OR PLUMBING FIXTURES.
   d. SIZE AND LOCATION OF MACHINE OR EQUIPMENT BASES, ANCHOR BOLTS FOR MOTOR MOUNTS.

9. THE CONTRACT STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. OBSERVATION VISITS TO THE SITE BY THE STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.

10. OPENINGS, POCKETS, ETC., SHALL NOT BE PLACED IN CONCRETE SLABS, DECKS, WALLS, UNLESS SPECIALLY DETAILED ON THE STRUCTURAL DRAWINGS. NOTIFY THE STRUCTURAL ENGINEER WHEN DRAWINGS BY OTHERS SHOW OPENINGS, POCKETS, ETC., LARGER THAN 6" NOT SHOWN ON THE STRUCTURAL DRAWINGS, BUT WHICH ARE LOCATED IN STRUCTURAL MEMBERS. FOR ANY FURTHER RESTRICTIONS ON OPENINGS IN STRUCTURAL ELEMENTS, SEE APPLICABLE SECTIONS BELOW.

11. PIPES SHALL NOT BE EMBEDDED IN STRUCTURAL CONCRETE EXCEPT WHERE SPECIFICALLY APPROVED.

12. ASTM SPECIFICATIONS ON THE DRAWINGS SHALL BE OF THE LATEST REVISION.

13. CONTRACTOR SHALL INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAVATIONS OR BURIED STRUCTURES, SUCH AS CESSPOOLS, CISTERNS, FOUNDATIONS, ETC. IF ANY SUCH STRUCTURES ARE FOUND, STRUCTURAL ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

14. CONSTRUCTION MATERIAL SHALL BE SPREAD OUT IF PLACED ON FRAMED ROOF OR FLOOR. LOAD SHALL NOT EXCEED THE DESIGN LIVE LOAD PER SQUARE FOOT. PROVIDE ADEQUATE SHORING AND/OR BRACING WHERE STRUCTURE HAS NOT ATTAINED DESIGN STRENGTH.

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STRUCTURAL GENERAL NOTES

S0.02

File: K:\2022\2200234 - Rosemead SD - HVAC REPL\5 SDraft\Janson Elementary School\2200234_S0.02.dwg
Plotted: 1/27/23 at 11:14am By: SDEJESUS
XREFs: X_Tblock_RSD_JANSON.dwg

UNISTRUT METAL FRAMING

1. UNISTRUT METAL FRAMING SHALL BE BY UNISTRUT CORPORATION, WAYNE, MI OR ENGINEER APPROVED EQUAL. INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND AS NOTED ON THE DRAWINGS.

2. ALL CHANNEL MEMBERS SHALL BE FABRICATED FROM STRUCTURAL GRADE STEEL CONFORMING TO ONE OF THE FOLLOWING ASTM SPECIFICATIONS: A 1011 SS GR 33, A 635 GR 33.

3. ALL FITTINGS SHALL BE FABRICATED FROM STEEL CONFORMING TO ONE OF THE FOLLOWING ASTM SPECIFICATIONS: A 575, A 576, A 36 OR A 635.

4. ALL UNISTRUT MEMBERS AND FITTINGS SHALL BE HOT DIP GALVANIZED, UNO.

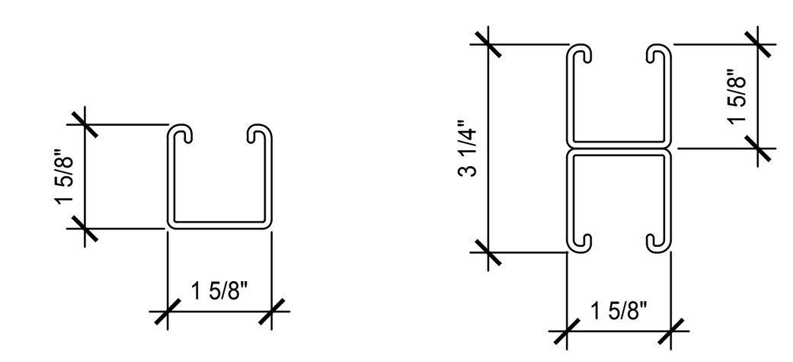
5. AREAS OF UNISTRUT MEMBERS WHERE GALVANIZATION HAS BEEN REMOVED TO ALLOW FOR WELDING SHALL BE COATED WITH ZINC-RICH, GALVANIZING PAINT AFTER WELDING.

6. MINIMUM UNISTRUT PROPERTIES SHALL BE AS FOLLOWS:

PARAMETER	P1000	P1001
AREA OF SECTION	0.555 IN^2	1.111 IN^2
AXIS 1-1		
MOMENT OF INERTIA (I)	0.185 IN^4	0.928 IN^4
SECTION MODULUS (S)	0.202 IN^3	0.571 IN^3
RADIUS OF GYRATION (r)	0.577 IN	0.914 IN
AXIS 2-2		
MOMENT OF INERTIA (I)	0.236 IN^4	0.471 IN^4
SECTION MODULUS (S)	0.290 IN^3	0.580 IN^3
RADIUS OF GYRATION (r)	0.651 IN	0.651 IN

7. BOLT TORQUE REQUIREMENTS:

BOLT SIZE	1/4"	5/16"	3/8"	1/2"	5/8"	3/4"
REC. TORQUE FT/LB	6	11	19	50	100	125
MAX TORQUE FT/LB	7	15	25	70	125	135



P1000 P1001

STRUCTURAL TESTS AND SPECIAL INSPECTIONS

1. STRUCTURAL TESTS AND SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH CHAPTER 17A OF THE CODE.
2. THE SPECIAL INSPECTOR MUST BE CERTIFIED BY DIVISION OF THE STATE ARCHITECT (DSA), IN THE CATEGORY OF WORK REQUIRED TO HAVE SPECIAL INSPECTION.
3. THE SPECIAL INSPECTORS AND TESTING FIRM MUST BE HIRED BY THE OWNER OR OWNER'S REPRESENTATIVE.
4. SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS AND FURNISH COPIES TO THE BUILDING OFFICIAL, OWNER, AND STRUCTURAL ENGINEER OF RECORD. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS, OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS AND FURNISH COPIES TO THE BUILDING OFFICIAL, COMPLETED IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION.
5. SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 1707A OF THE CODE FOR THE FOLLOWING ITEMS:
   a) STRUCTURAL STEEL. SPECIAL INSPECTION FOR SPECIAL STEEL CONCENTRIC BRACED FRAMES AND OTHER STRUCTURAL STEEL ELEMENT THAT IS PART OF THE SEISMIC-FORCE-RESISTING SYSTEM SHALL BE IN ACCORDANCE WITH SECTION 1707A.2 OF THE CODE AND THE QUALITY ASSURANCE PLAN REQUIREMENTS OF AISC 341.
   b) ARCHITECTURAL COMPONENTS. PERIODIC SPECIAL INSPECTION DURING THE ERECTION AND FASTENING OF EXTERIOR CLADDING, EXTERIOR NONBEARING WALLS, SUSPENDED THE STRUCTURE SHALL BE IN ACCORDANCE WITH SECTION 1707A.6 OF THE CODE. CEILING SYSTEMS AND THEIR ANCHORAGE, AND INTERIOR AND EXTERIOR VENEER IN
   c) MECHANICAL AND ELECTRICAL COMPONENTS (SECTION 1707A.7 OF THE CODE)
      i. PERIOD SPECIAL INSPECTION IS REQUIRED DURING THE ANCHORAGE OF ELECTRICAL EQUIPMENT FOR EMERGENCY OR STANDBY POWER SYSTEMS.
      ii. PERIOD SPECIAL INSPECTION IS REQUIRED DURING THE INSTALLATION OF ANCHORAGE OF OTHER ELECTRICAL EQUIPMENT IN THE STRUCTURE.
      iii. PERIOD SPECIAL INSPECTION IS REQUIRED DURING THE INSTALLATION OF VIBRATION ISOLATION SYSTEMS IN THE STRUCTURE.
6. STRUCTURAL TESTING FOR SEISMIC RESISTANCE SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 1708A OF THE CODE FOR THE FOLLOWING ITEMS:
   a) CONCRETE REINFORCEMENT BELOW MOMENT FRAMES SHALL COMPLY WITH SECTION 21.1.5.2 OF ACI 318-11. SPECIAL INSPECTOR SHALL VERIFY CERTIFIED MILL TEST REPORTS FOR EACH TESTING DEMONSTRATES REQUIREMENTS OF ACI 318-14 SECTION 21.1.5.2:
      i. THE ACTUAL YIELD STRENGTH BASED ON MILL TESTS DOES NOT EXCEED fy BY MORE THAN 18,000 PSI.
      ii. THE RATIO OF THE ACTUAL TENSILE STRENGTH TO THE ACTUAL YIELD STRENGTH IS NOT LESS THAN 1.25.
   b) STRUCTURAL STEEL. TESTING SHALL BE IN ACCORDANCE WITH THE QUALITY ASSURANCE PLAN REQUIREMENTS OF AISC 341.

INSPECTIONS

THE FOLLOWING ELEMENTS OF CONSTRUCTION SHALL HAVE CONTINUOUS INSPECTION BY A BUILDING INSPECTOR APPROVED BY DSA.

1. EXPANSION ANCHORS.*
2. ADHESIVE ANCHORS.*
3. POWDER ACTIVATED FASTENERS / SHOT PINS.*

* THESE ITEMS REQUIRE SPECIAL INSPECTION.

ALL SPECIAL INSPECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1704A OF THE CODE AND ANY ADDITIONAL REQUIREMENTS STATED IN THESE DRAWINGS AND/OR THE PROJECT SPECIFICATIONS.

REFER TO THE STRUCTURAL TESTS AND INSPECTIONS FORM FOR ADDITIONAL INFORMATION AND ADDITIONAL TESTING AND INSPECTION REQUIREMENTS.

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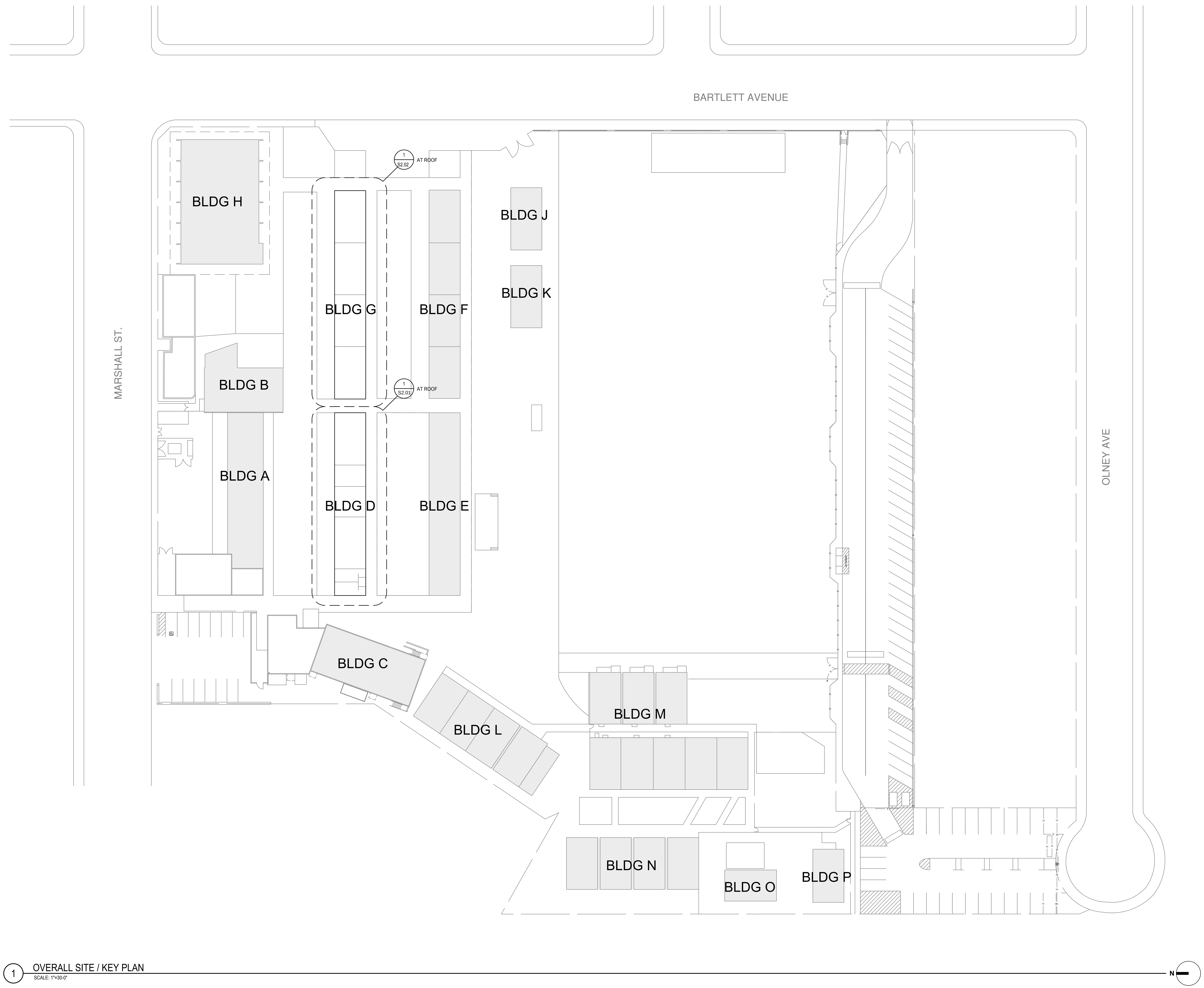
STRUCTURAL GENERAL NOTES

S0.03

SITE / KEY PLAN NOTES:

1. THE PURPOSE OF THIS KEY PLAN IS TO INDICATE AREAS FOR ENLARGED STRUCTURAL PLANS ONLY.
2. NOT USED.
3. VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD AND WITH ARCH DRAWINGS PRIOR TO LOCATING AND FABRICATING NEW FRAMING.
4. SEE SHEET S0.01 FOR SYMBOLS AND ABBREVIATIONS.
5. SEE S0.XX SERIES OF SHEETS FOR STRUCTURAL GENERAL NOTES.
6. VERIFY EXACT QUANTITIES, LOCATIONS AND DIMENSIONS OF MEP EQUIPMENT WITH MEP & ARCHITECTURAL DRAWINGS AND EQUIPMENT MFR PRIOR TO FABRICATION OF NEW SUPPORT FRAMING AND INSTALLATION OF EQUIPMENT.



1 OVERALL SITE / KEY PLAN
SCALE: 1"=30'-0"

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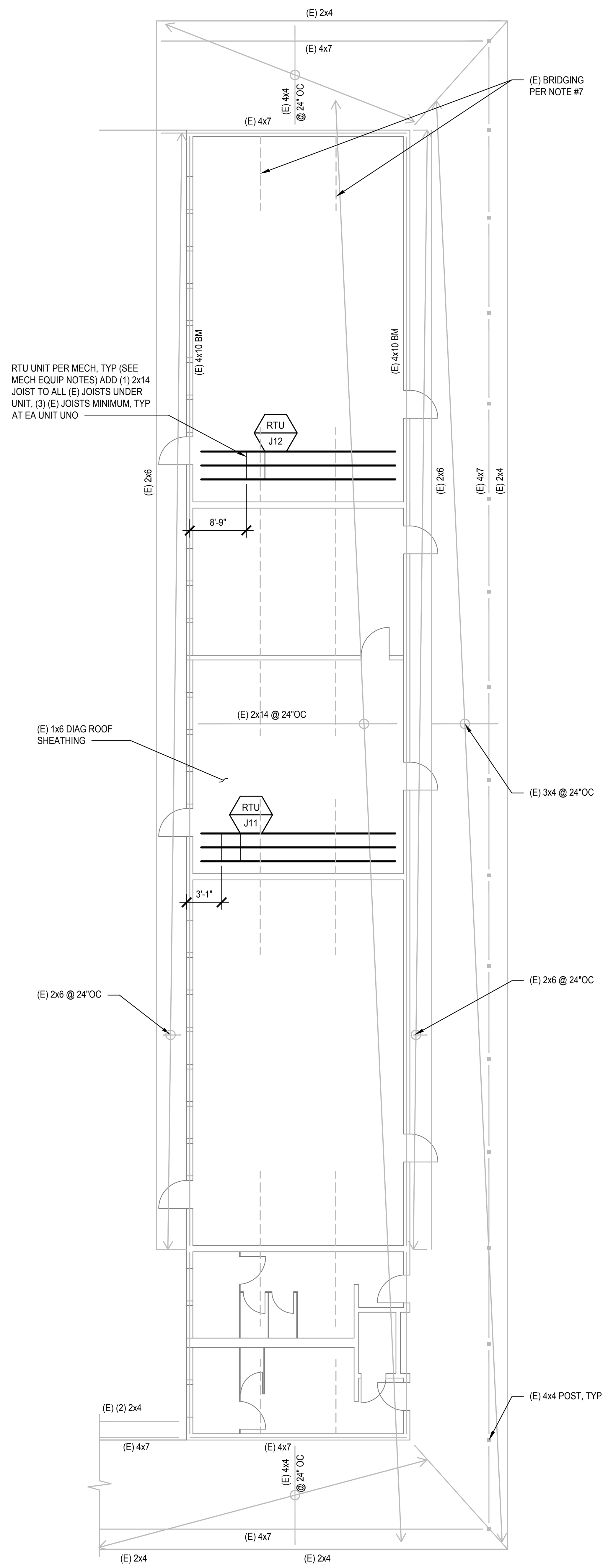
OVERALL SITE / KEY PLAN

S1.01



1 BLDG D - ROOF FRAMING PLAN
SCALE = 1/8"=1'-0"

PLAN NOTES:

1. EXISTING CONDITIONS SHOWN ON PLANS, SECTIONS AND DETAILS ARE BASED ON LIMITED AVAILABLE AS-BUILT DOCUMENTATION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL ACTUAL CONDITIONS. DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THOSE SHOWN ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO START OF WORK. ARCHITECT AND ENGINEER SHALL REVIEW THE ACTUAL FIELD CONDITIONS AND DETERMINE THE EXTENT OF MODIFICATIONS WHICH WILL BE REQUIRED TO THE AFFECTED DETAILS. MODIFICATIONS TO THE CONTRACT DOCUMENTS MAY BE SUBJECT TO REVIEW & APPROVAL BY DSA.
2. VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD AND WITH ARCH DRAWINGS PRIOR TO LOCATING AND FABRICATING NEW FRAMING.
3. ELEMENTS SHOWN SCREENED ARE EXISTING ELEMENTS WHICH ARE TO REMAIN, UNO. ELEMENTS SHOWN DARK ARE NEW ELEMENTS, UNO.
4. VERIFY ALL DIMENSIONS, ELEVATIONS, FINISH SURFACES, SLOPES, DRAINS, DEPRESSIONS, CURBS, ETC, WITH ARCHITECTURAL DRAWINGS PRIOR TO START OF CONSTRUCTION.
5. SEE ARCH FOR FINISHES, PARTITION WALLS, WATERPROOFING, ROOFING, AND OTHER NON-STRUCTURAL ELEMENTS.
6. SEE ARCHITECTURAL DRAWINGS FOR GRID DIMENSIONS & HORIZONTAL CONTROL.
7. MOVE AND REPLACE (E) CROSS BRIDGING IN KIND AS REQUIRED FOR INSTALLATION OF SISTERING JOISTS.
8. SEE SHEET S0.01 FOR SYMBOLS AND ABBREVIATIONS.
9. SEE S0.XX SERIES OF SHEETS FOR STRUCTURAL GENERAL NOTES.
10. SEE S4.XX SERIES OF SHEETS FOR EQUIPMENT SUPPORT DETAILS.

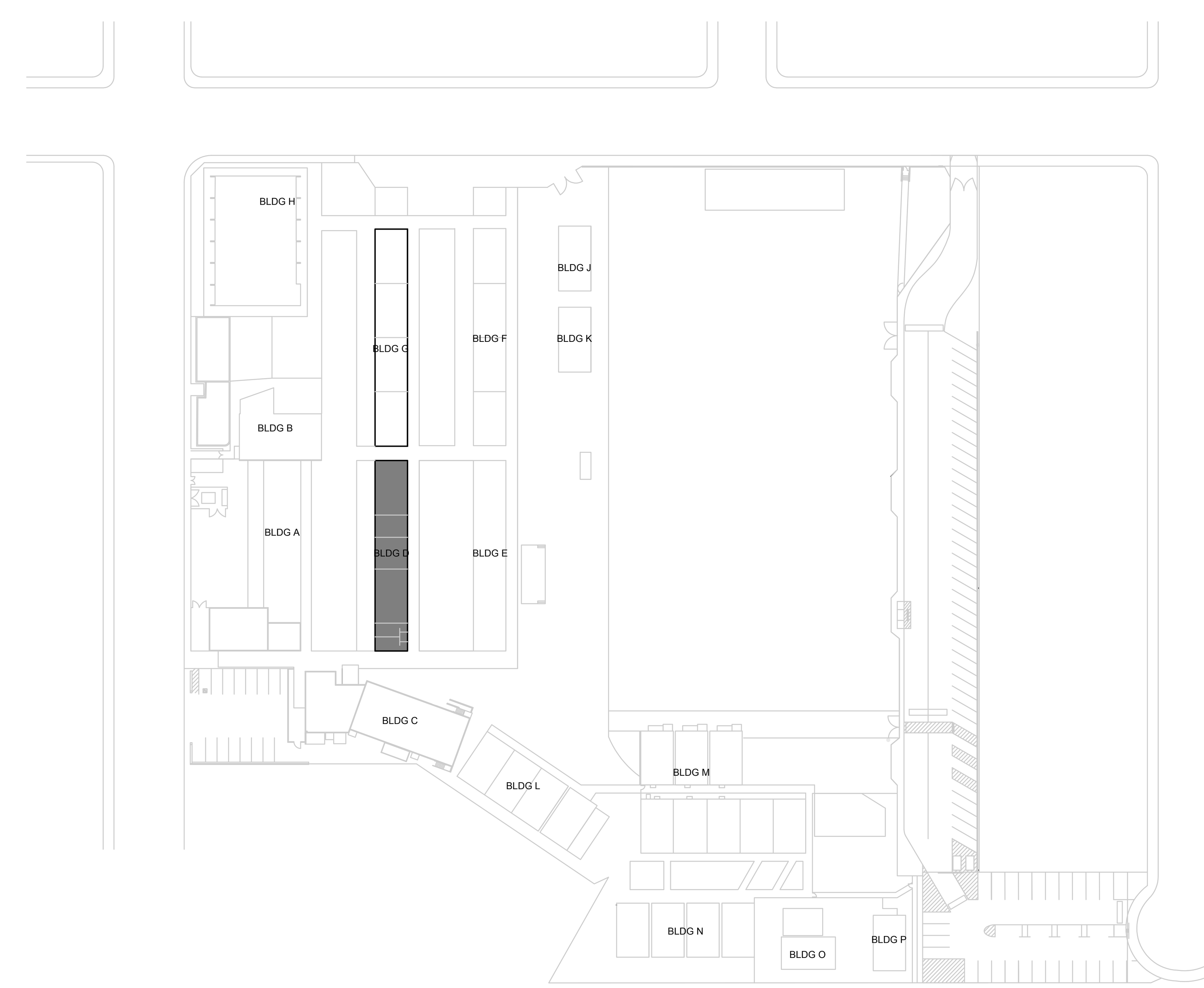
MECHANICAL EQUIPMENT NOTES:

1. XXX / XX INDICATES (N) HVAC EQUIPMENT PER MECHANICAL DRAWINGS. SEE EQUIPMENT SCHEDULE FOR SUPPORT AND/OR ANCHORAGE DETAIL.
2. VERIFY EXACT QUANTITIES, LOCATIONS AND/OR DIMENSIONS OF MEP EQUIPMENT WITH MEP & ARCHITECTURAL DRAWINGS AND EQUIPMENT MFR PRIOR TO FABRICATION OF NEW SUPPORT FRAMING AND INSTALLATION OF EQUIPMENT.
3. ALL (N) DUCTS SHALL RUN THROUGH (E) ROOF AND WALL OPENINGS IN (E) WOOD STUD WALLS, TYP, UNO. NO (N) OPENINGS SHALL BE CUT IN (E) ROOF OR WALLS. SEE DETAIL 2/S4.01 FOR (N) FRAMING AT (E) WOOD ROOF OPENINGS AS REQ'D.
4. IF PIPING FROM MECH UNIT REQUIRE CORE THRU (E) ROOF OR WALL SHEATHING (2 INCH MAX DIAMETER), CORE SHALL BE LOCATED BETWEEN ADJACENT (E) JOISTS OR STUDS AND SHALL NOT CUT JOISTS OR STUDS.

EQUIPMENT SCHEDULE

RTU UNITS

MARK	OPERATING WEIGHT LBS.	DETAIL REFERENCE	REMARKS
RTU-J11	860	4/S4.01	SEE MECH FOR ADDL INFORMATION
RTU-J12	860	4/S4.01	SEE MECH FOR ADDL INFORMATION



KEY PLAN

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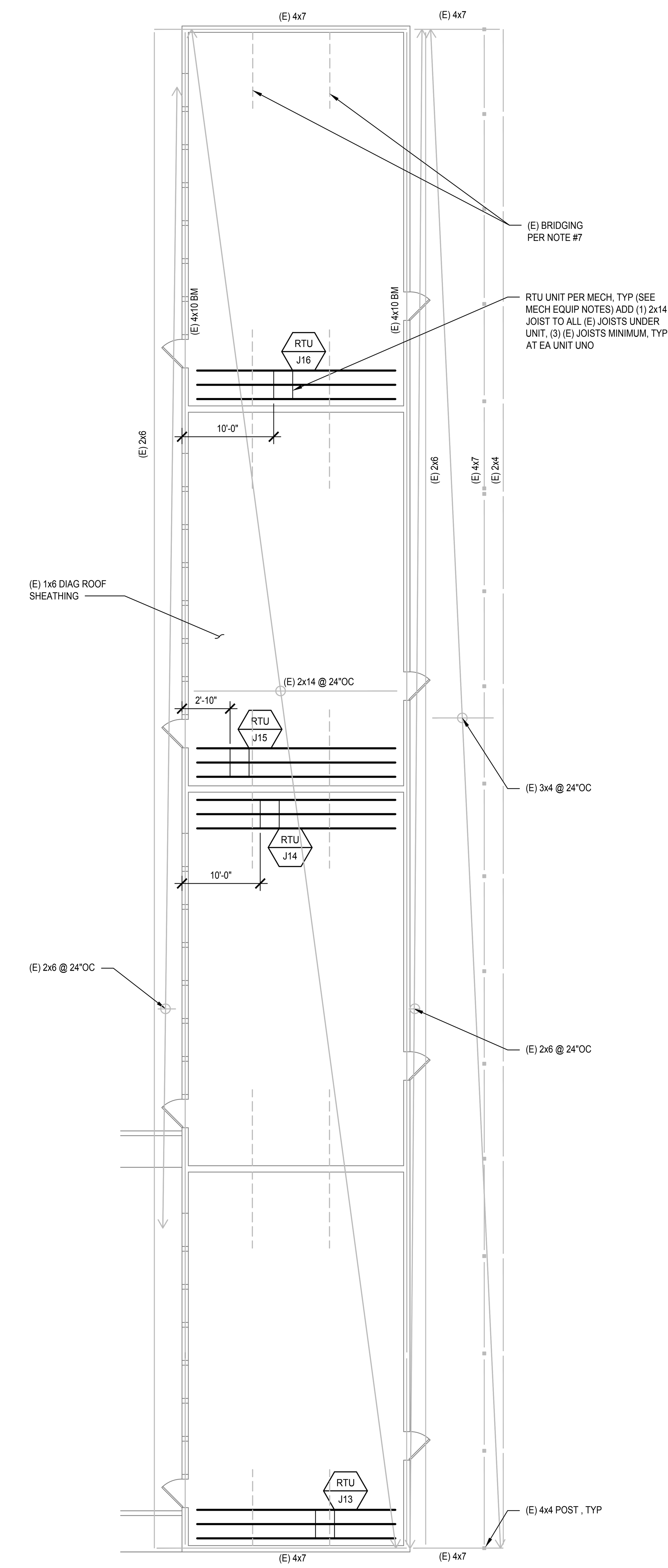
BUILDING D
ROOF FRAMING PLAN

S2.01



1 BLDG G - ROOF FRAMING PLAN
SCALE = 1/8"=1'-0"

PLAN NOTES:

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6. SEE ARCHITECTURAL DRAWINGS FOR GRID DIMENSIONS & HORIZONTAL CONTROL.
7. MOVE AND REPLACE (E) CROSS BRIDGING IN KIND AS REQUIRED FOR INSTALLATION OF SISTERING JOISTS.
8. SEE SHEET S0.01 FOR SYMBOLS AND ABBREVIATIONS.
9. SEE S0.XX SERIES OF SHEETS FOR STRUCTURAL GENERAL NOTES.
10. SEE S4.XX SERIES OF SHEETS FOR EQUIPMENT SUPPORT DETAILS.

MECHANICAL EQUIPMENT NOTES:

1. XXX / XX — INDICATES (N) HVAC EQUIPMENT PER MECHANICAL DRAWINGS. SEE EQUIPMENT SCHEDULE FOR SUPPORT AND/OR ANCHORAGE DETAIL.
2. VERIFY EXACT QUANTITIES, LOCATIONS AND/OR DIMENSIONS OF MEP EQUIPMENT WITH MEP & ARCHITECTURAL DRAWINGS AND EQUIPMENT MFR PRIOR TO FABRICATION OF NEW SUPPORT FRAMING AND INSTALLATION OF EQUIPMENT.
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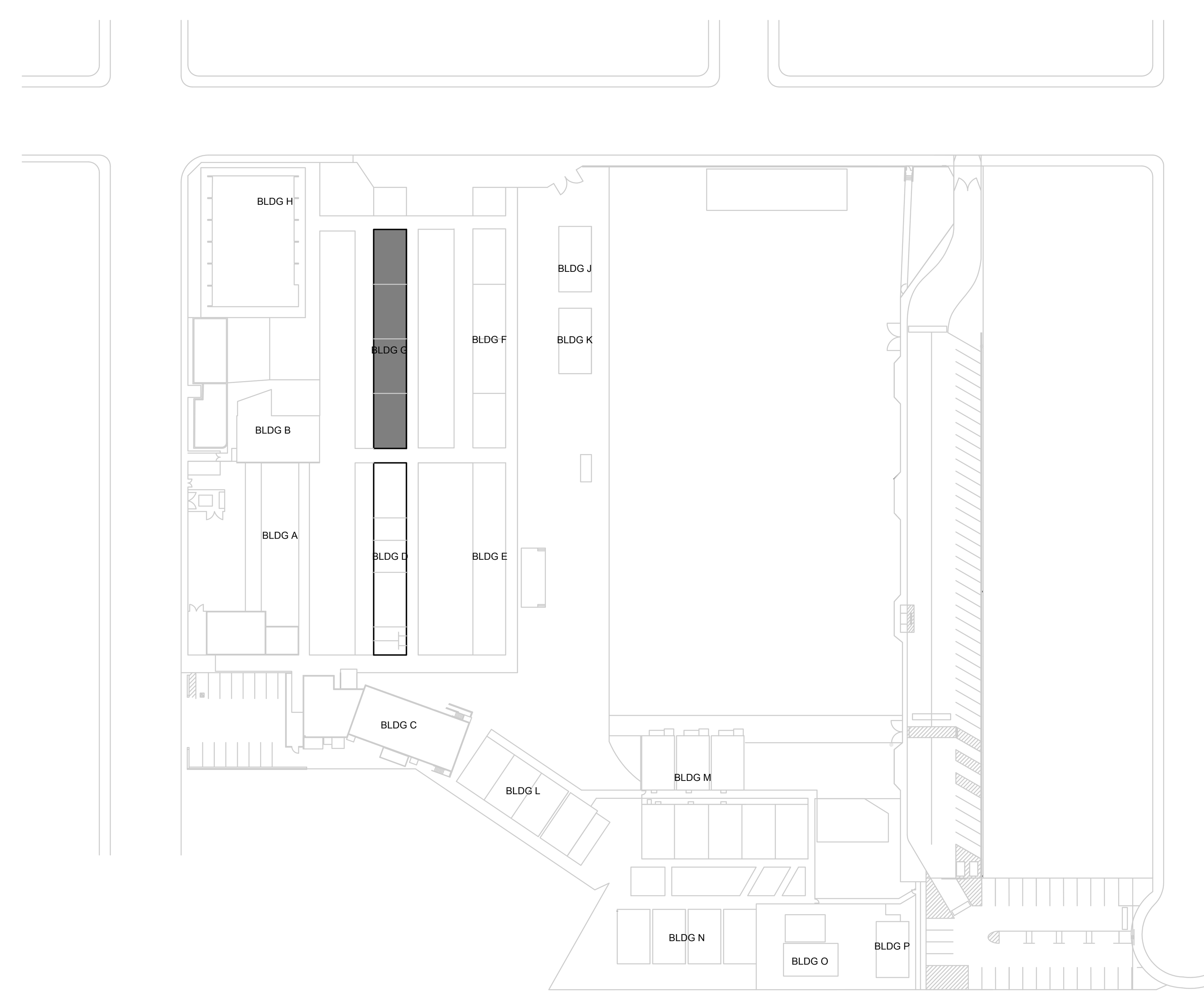
EQUIPMENT SCHEDULE

RTU UNITS

MARK	OPERATING WEIGHT LBS.	DETAIL REFERENCE	REMARKS
RTU-J13	860	4/S4.01	SEE MECH FOR ADDL INFORMATION
RTU-J14	860	4/S4.01	SEE MECH FOR ADDL INFORMATION
RTU-J15	860	4/S4.01	SEE MECH FOR ADDL INFORMATION
RTU-J16	860	4/S4.01	SEE MECH FOR ADDL INFORMATION



KEY PLAN

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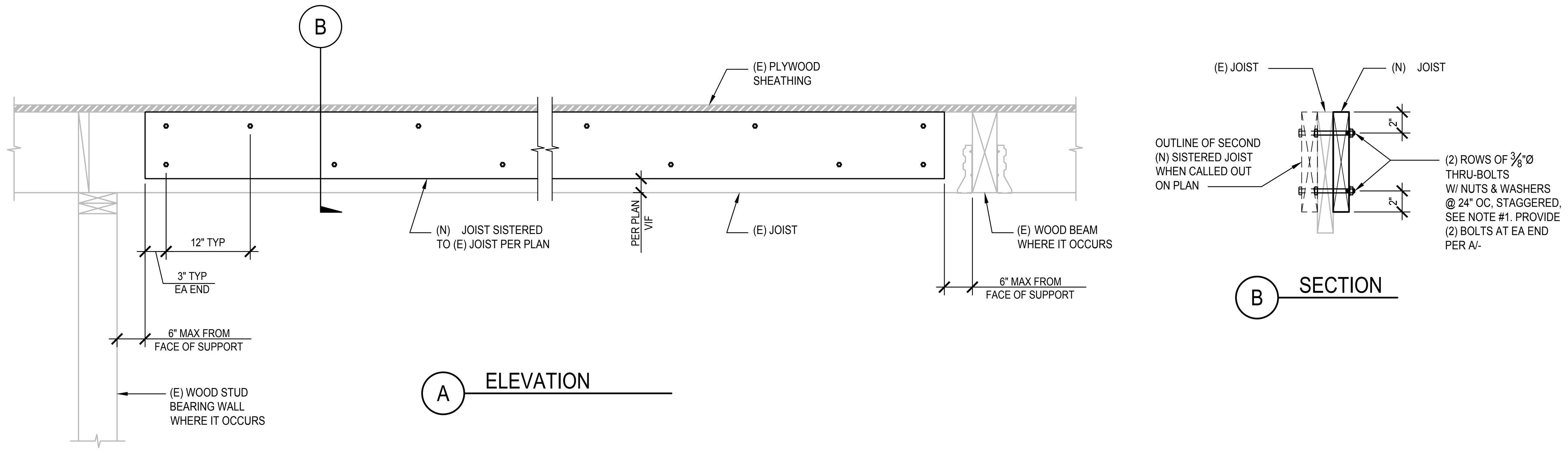
BUILDING G
ROOF FRAMING PLAN

S2.02



A ELEVATION

B SECTION

NOTES:

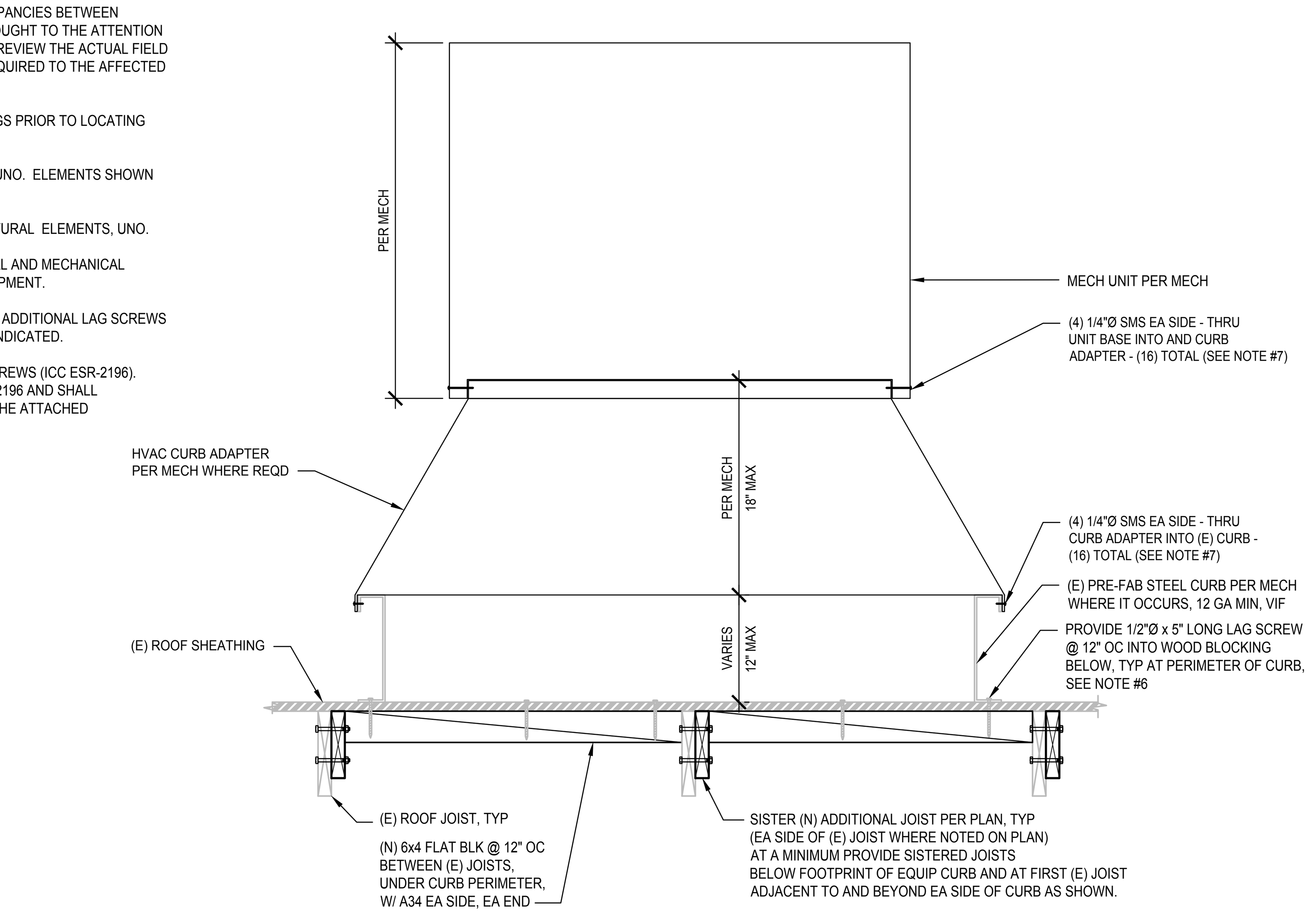
1. ALL BOLTS SHALL BE ASTM A307 GR A CONFORMING TO ANSI/ASME B18.2.1

SISTER (N) JOIST TO (E) JOIST

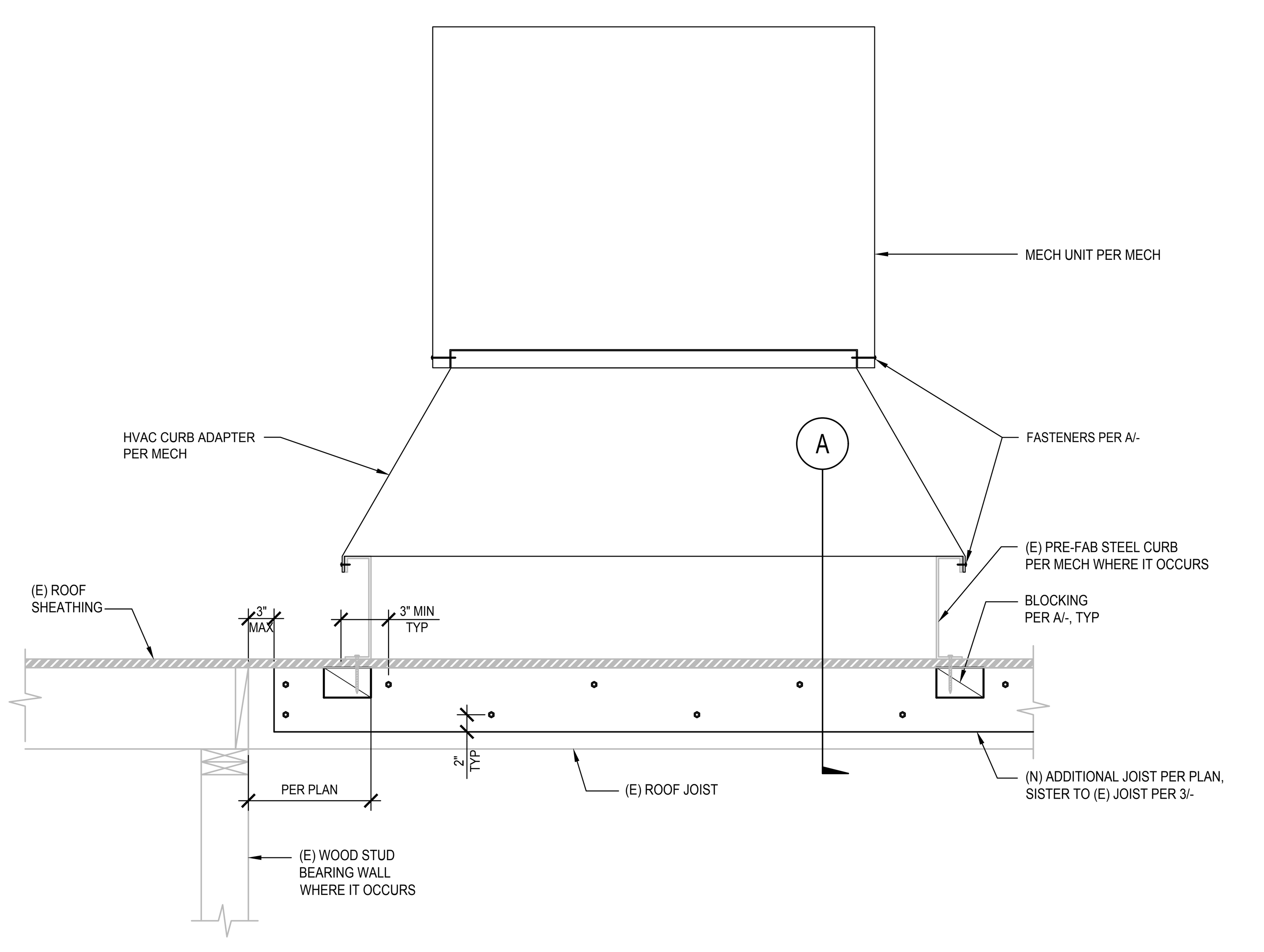
1"=1'-0" 3

NOTES:

1. EXISTING CONDITIONS SHOWN ARE BASED ON LIMITED AVAILABLE AS-BUILT DOCUMENTATION. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL ACTUAL CONDITIONS. DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THOSE SHOWN ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO START OF WORK. ARCHITECT AND ENGINEER SHALL REVIEW THE ACTUAL FIELD CONDITIONS AND DETERMINE THE EXTENT OF MODIFICATIONS WHICH WILL BE REQUIRED TO THE AFFECTED DETAILS.
2. VERIFY ALL DIMENSIONS AND ELEVATIONS IN THE FIELD AND WITH ARCH DRAWINGS PRIOR TO LOCATING AND FABRICATING NEW FRAMING.
3. ELEMENTS SHOWN SCREENED ARE EXISTING ELEMENTS WHICH ARE TO REMAIN, UNO. ELEMENTS SHOWN DARK ARE NEW ELEMENTS, UNO.
4. SEE ARCHITECTURAL FOR FLASHING, WATERPROOFING, AND OTHER NON-STRUCTURAL ELEMENTS, UNO.
5. VERIFY EXACT LOCATIONS AND DIMENSIONS OF EQUIPMENT WITH ARCHITECTURAL AND MECHANICAL DRAWINGS PRIOR TO FABRICATION OF NEW FRAMING AND INSTALLATION OF EQUIPMENT.
6. VERIFY (E) LAG SCREWS IN FIELD (DIAM AND PENETRATION). PROVIDE (N) AND/OR ADDITIONAL LAG SCREWS AS REQUIRED TO MATCH SIZE, PENETRATION AND/OR SPACING OF LAG SCREWS INDICATED.
7. ALL SHEET METAL SCREWS SHALL CONSIST OF HILTI KWIK-PRO SELF-DRILLING SCREWS (ICC ESR-2196). INSTALLATION OF SCREWS SHALL BE IN CONFORMANCE WITH ICC REPORT # ESR-2196 AND SHALL PROTRUDE THROUGH THE ATTACHED MEMBERS THREE FULL THREADS BEYOND THE ATTACHED MEMBERS. MIN DRILL POINT FOR SMS THROUGH STEEL SHALL BE PER ESR-2196.



A ELEVATION
SCALE = 1"=1'-0"



B ELEVATION
SCALE = 1"=1'-0"

AC, CU & DOAS UNIT ANCHORAGE

1"=1'-0" 4

NOTES:

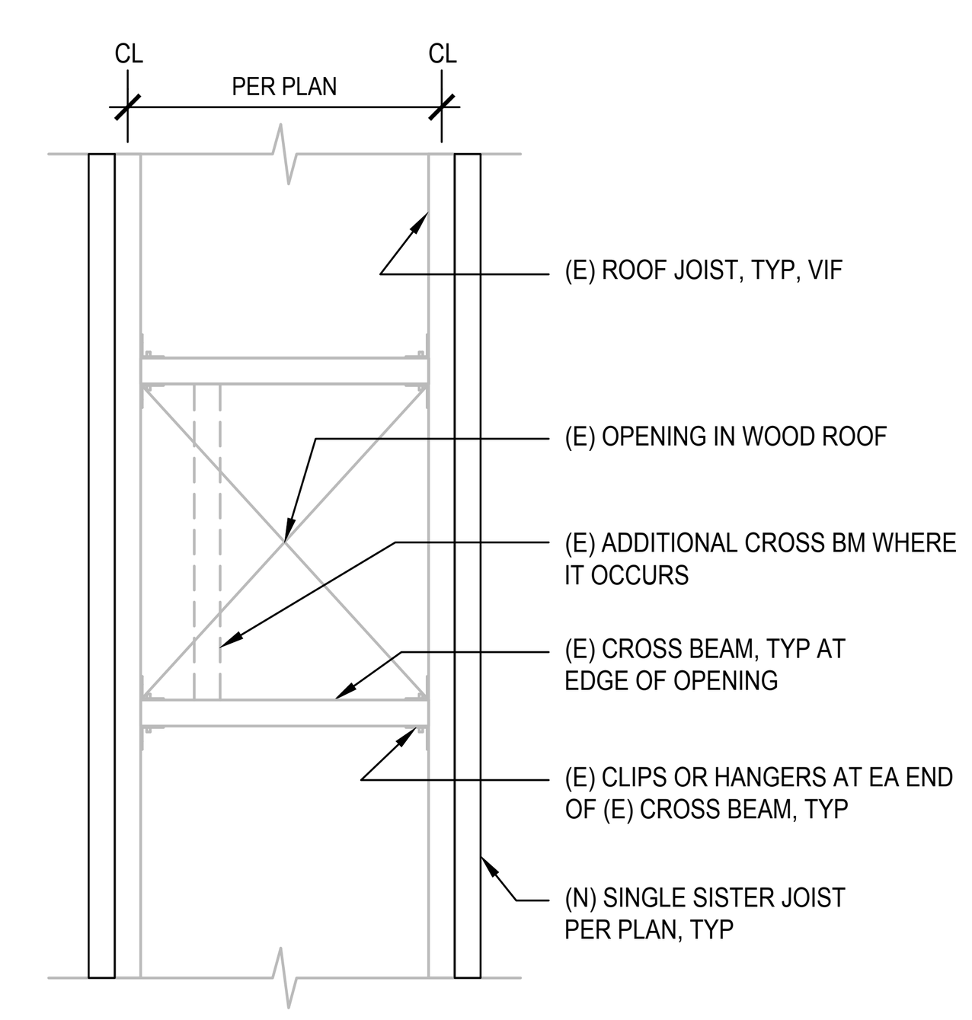
1. THIS NAILING SCHEDULE SHALL ONLY BE USED IF CONDITION IS NOT OTHERWISE DETAILED OR SPECIFIED ON THE CONSTRUCTION DOCUMENTS. COMMON NAILS SHALL BE USED EXCEPT WHERE OTHERWISE STATED.
2. NAILS SPACED AT 6 INCHES (152mm) ON CENTER AT EDGES, 12 INCHES (305mm) AT INTERMEDIATE SUPPORTS EXCEPT 6 INCHES (152mm) AT ALL SUPPORTS WHERE SPANS ARE 48 INCHES (1219mm) OR MORE. FOR NAILING OF WOOD STRUCTURAL PANEL AND PARTICLEBOARD DIAPHRAGMS AND SHEAR WALLS, REFER TO SECTIONS OF THE CODE.
3. COMMON OR DEFORMED SHANK.
4. COMMON
5. DEFORM SHANK
6. CORROSION-RESISTANT SIDING OR CASING NAILS CONFORMING TO THE REQUIREMENTS OF THE CODE.
7. FASTENERS SPACED 3 INCHES (76mm) ON CENTER AT EXTERIOR EDGES AND 6 INCHES (152mm) ON CENTER AT INTERMEDIATE SUPPORTS.
8. CORRISION-RESISTANT ROOFING NAILS WITH 7/16-INCH-DIAMETER (11mm) HEAD AND 1 1/2-INCH (38mm) LENGTH FOR 1/2" INCH (12.7mm) SHEATHING AND 1 3/4-INCH (44mm) LENGTH FOR 25/32 -INCH (20mm) SHEATHING CONFORMING TO THE REQUIREMENTS OF THE CODE.
9. CORROSION-RESISTANT STAPLES WITH NOMINAL 7/16-INCH (11mm) CROWN AND 1 1/8-INCH (29mm) LENGTH FOR 1/2-INCH (12.7mm) SHEATHING AND 1 1/2-INCH (38mm) LENGTH FOR 25/32 -INCH (20mm) SHEATHING CONFORMING TO THE REQUIREMENTS OF THE CODE.
10. PANEL SUPPORTS AT 16 INCHES (406mm) [20INCHES (508 mm) IF STRENGTH AXIS DIRECTION OF THE PANEL, UNLESS OTHERWISE MARKED]. CASING OR FINISH NAILS SPACED 6 INCHES (152mm) ON PANEL EDGES, 12 INCHES (305mm) AT INTERMEDIATE SUPPORTS.
11. PANEL SUPPORTY AT 24 INCHES (610mm). CASING OR FINISH NAILS SPACED 6 INCHES (152mm) ON PANEL EDGES, 12 INCHES (305mm) AT INTERMEDIATE SUPPORTS.

NAILING SCHEDULE

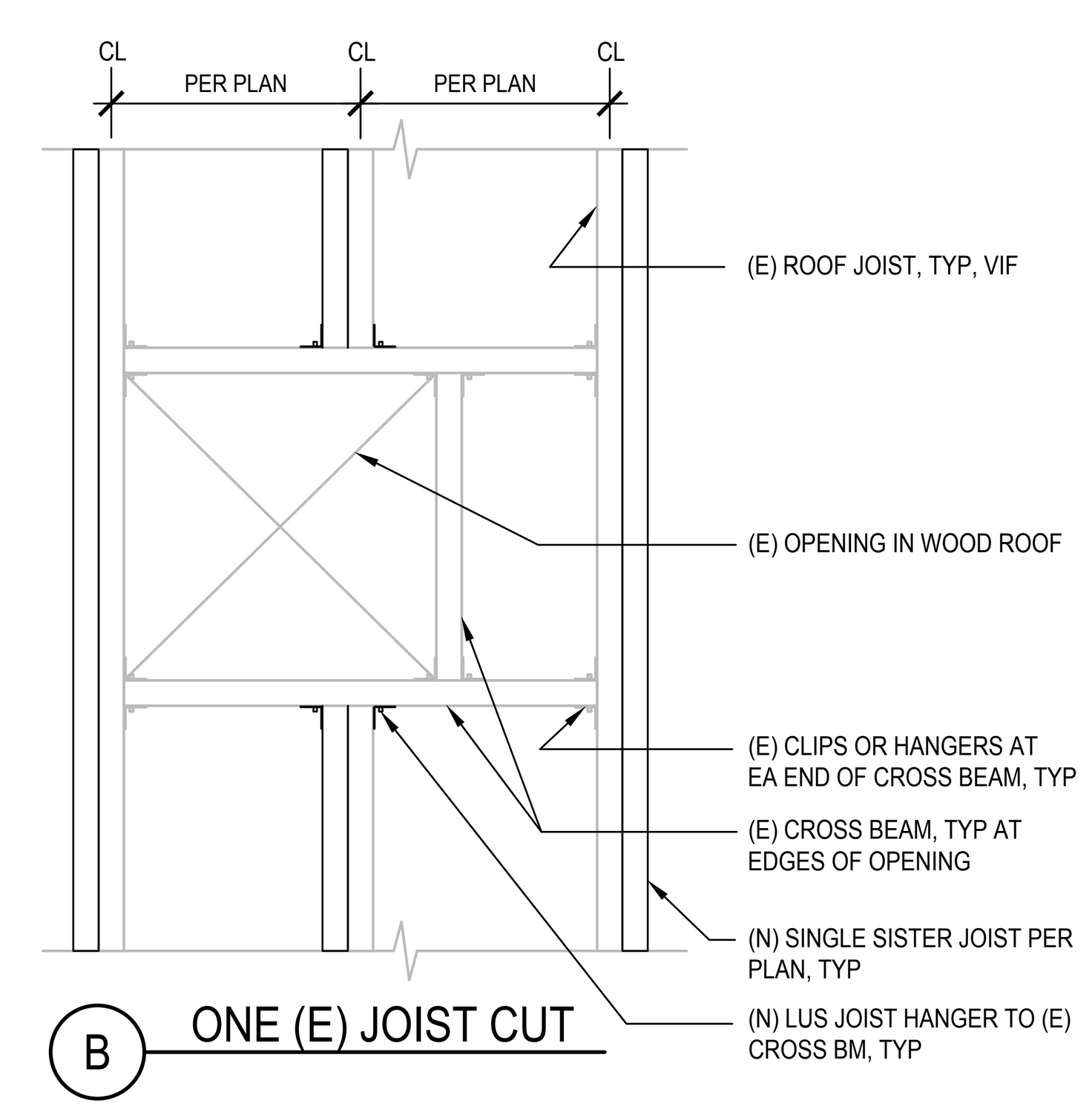
CONNECTION	NAILING[1]
1. JOIST TO SILL OR GIRDER, TOENAIL	3-8d
2. BRIDGING TO JOIST, TOENAIL EACH END	2-8d
3. 1" X 6" (25mm X 152mm) SUBFLOOR OR LESS TO EACH JOIST, FACE NAIL	2-8d
4. WIDER THAN 1" X 6" (25mm X 152mm) SUBFLOOR TO EACH JOIST, FACE NAIL	3-8d
5. 2" (51mm) SUBFLOOR TO JOIST OR GIRDER, BLIND AND FACE NAIL	2-16d
6. SOLE PLATE TO JOIST OR BLOCKING, TYPICAL FACE NAIL SOLE PLATE TO JOIST OR BLOCKING, AT BRACED WALL PANELS	16d AT 16" (406mm) OC 3-16d PER 16"(406 mm)
7. TOP PLATE TO STUD, END NAIL	2-16d
8. STUD TO SOLE PLATE	4-8d, TOENAIL OR 2-16d, END NAIL
9. DOUBLE STUDS, FACE NAIL	16d AT 24" (610mm) OC
10. DOUBLE TOP PLATES, TYPICAL FACE NAIL DOUBLE TOP PLATES, LAP SPLICE	16d AT 16" (406mm) OC 8-16d
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE, TOENAIL	3-8d
12. RIM JOIST TO TOP PLATE, TOENAIL	8d AT 6" (152mm) 0C
13. TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-16d
14. CONTINUOUS HEADER, TWO PIECES	16d AT 16" (406mm) OC ALONG EACH EDGE
15. CEILING JOISTS TO PLATE, TOENAIL	3-8d
16. CONTINUOUS HEADER TO STUD, TOENAIL	4-8d
17. CEILING JOIST, LAPS OVER PARTITIONS, FACE NAIL	3-16d
18. CEILING JOISTS TO PARELLEL RAFTERS, FACE NAIL	3-16d
19. RAFTER TO PLATE, TOENAIL	3-8d
20. 1" (25mm) BRACE TO EACH STUD AND PLATE, FACE NAIL	2-8d
21. 1" X 8" (25mm X 203mm) SHEATHING OR LESS TO EACH BEARING, FACE NAIL	2-8d
22. WIDER THAN 1" X 8" (25mm X 203mm) SHEATHING TO EACH BEARING, FACE NAIL	3-8d
23. BUILT-UP CORNER STUDS	16d AT 24" (610mm) OC
24. BUILT-UP GIRDER AND BEAMS	20d AT 32" (813mm) OC AT TOP AND BOTTOM AND STAGGERED 2-20d AT ENDS AND AT EACH SPLICE
25. 2" (51mm) PLANKS	2-16d AT EACH BEARING
26. WOOD STRUCTURAL PANELS AND PARTICLEBOARD: [2] SUBFLOOR AND WALL SHEATHING (TO FRAMING): 1/2" (12.7mm) AND LESS 19/32"-3/4" (15mm-19mm) 7/8"-1" (22mm-25mm) 11/8"-11/4" (29mm-32mm) COMBINATION SUBFLOOR-UNDERLAYMENT (TO FRAMING): 3/4" (19mm) AND LESS 7/8"-1" (22mm-25mm) 1 1/8"-1 1/4" (29mm-32mm)	 6d[3] 8d[4] AND 6d[5] 8d[3] 10d[4] OR 8d[5] 6d[5] 8d[5] 10d[4] OR 8d[5]
27. PANEL SIDING (TO FRAMING) : [2] 1/2" (12.7mm) OR LESS 5/8" (16mm)	 6d[6] 8d[6]
28. FIBERBOARD SHEATHING: [7] 1/2" (12.7mm) 25/32" (20mm)	 NO.11 ga[8] 6d[4] NO.16 ga[9] NO.11 ga[8] 8d[4] NO.16 ga[9]
29. INTERIOR PANELING 1/4" (6.4mm) 3/8" (9.5mm)	 4d[10] 6d[11]

NAILING SCHEDULE

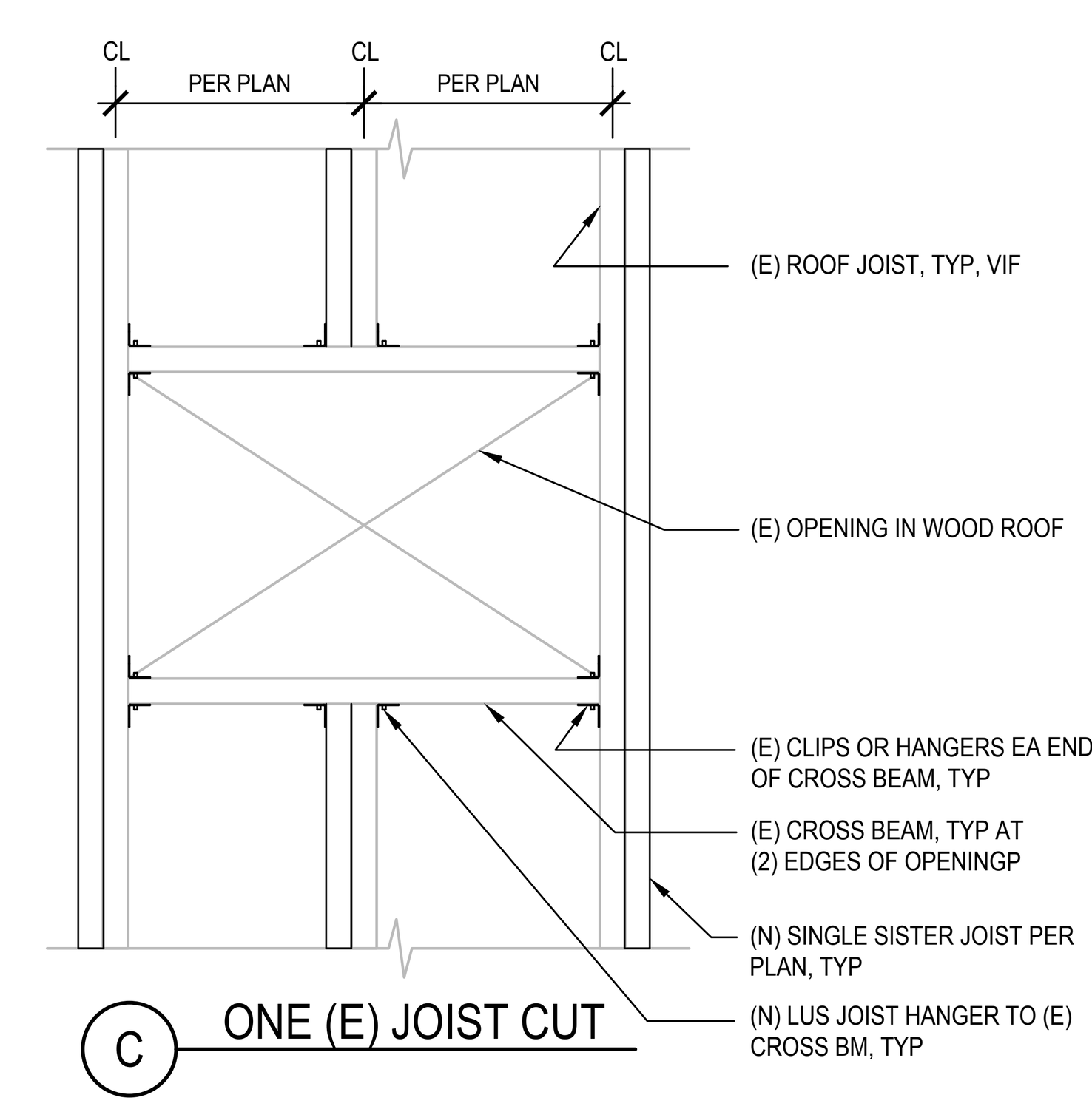
NONE 1



A BETWEEN (E) JOISTS



B ONE (E) JOIST CUT



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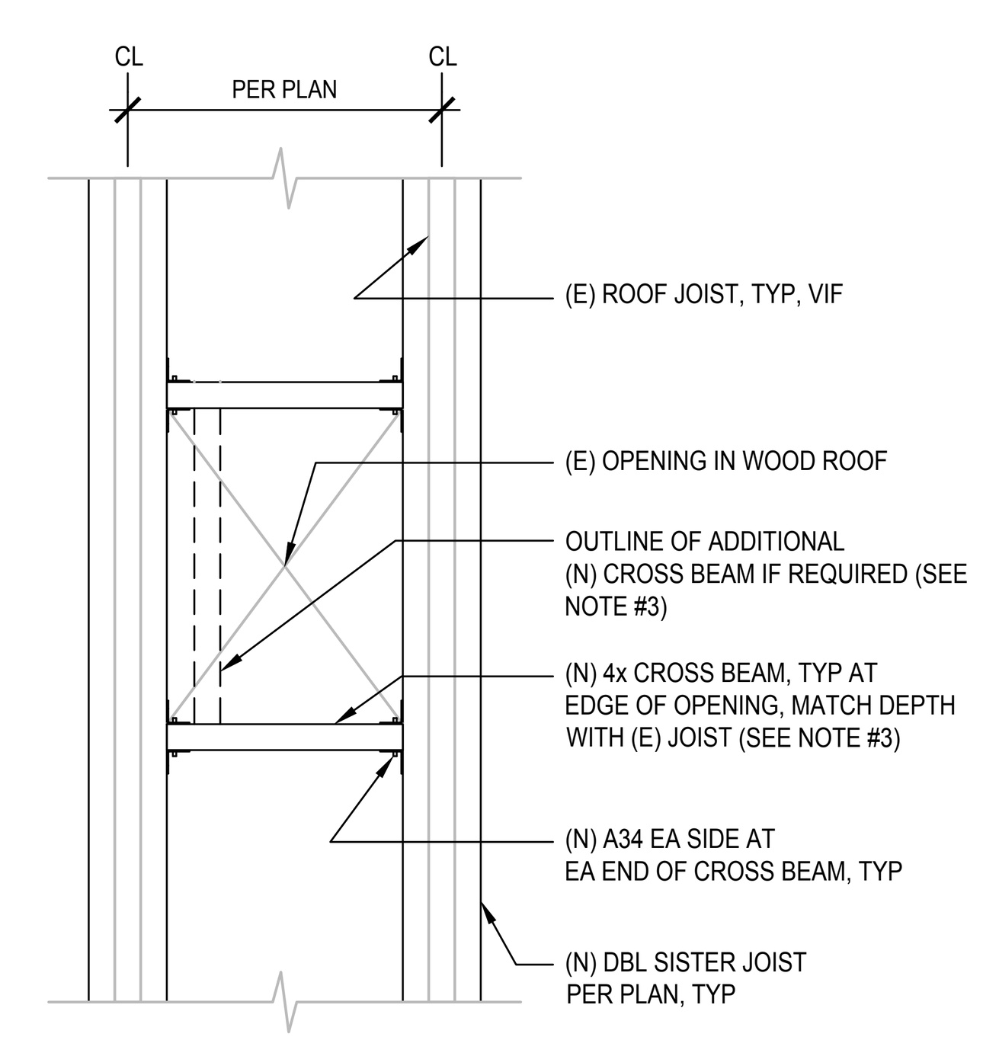
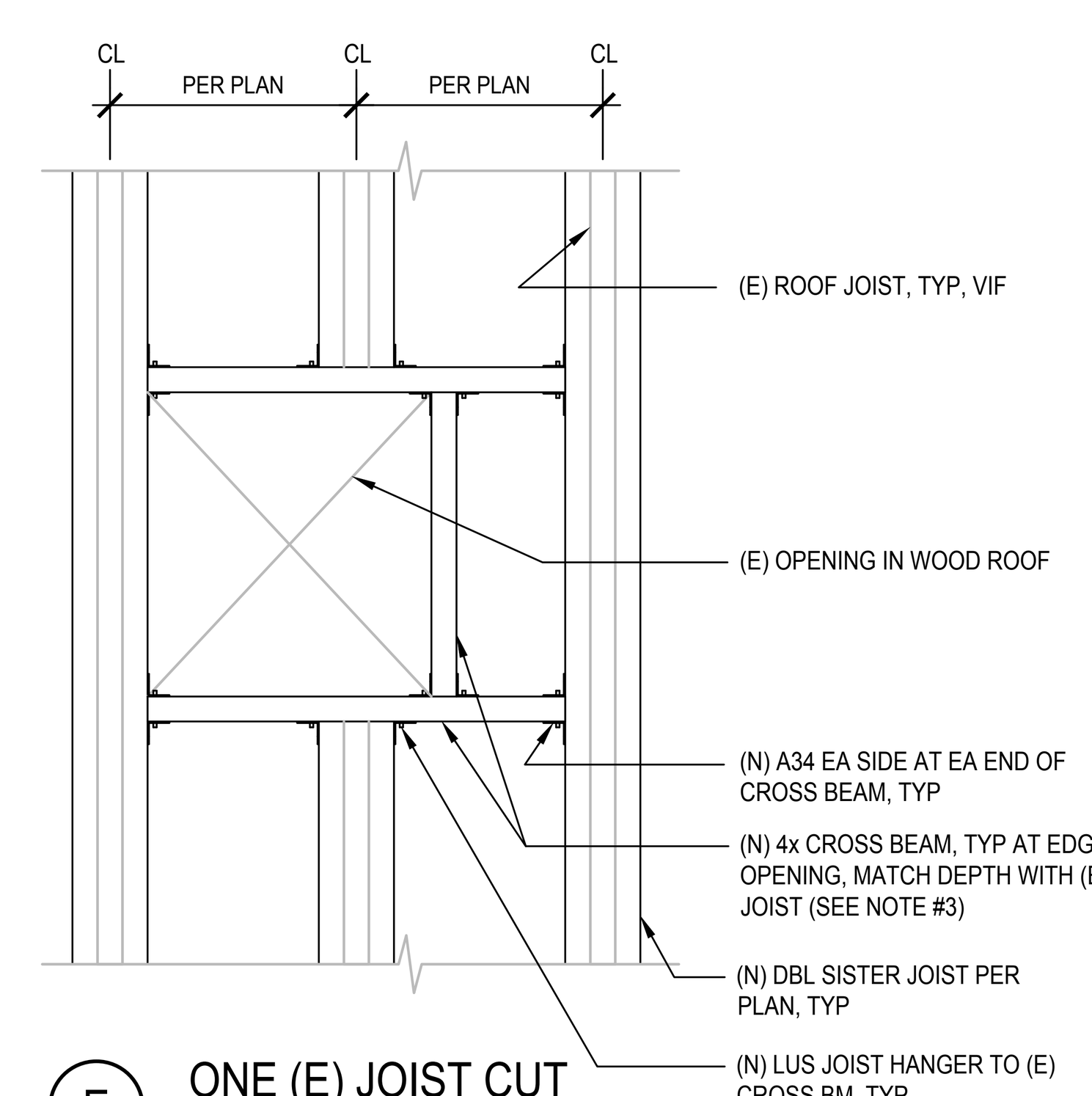
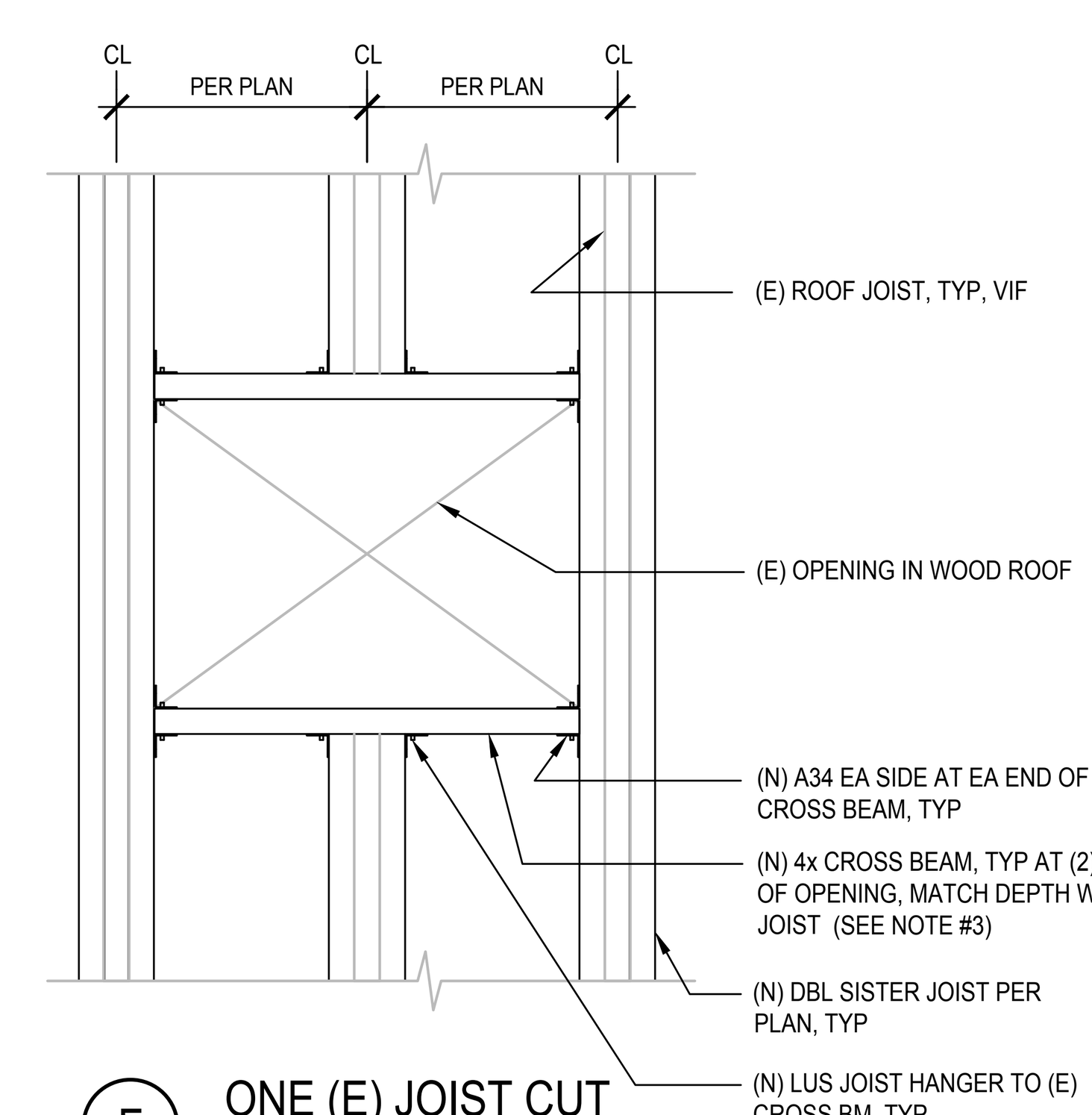


D BETWEEN (E) JOISTS



E ONE (E) JOIST CUT



F ONE (E) JOIST CUT

NOTES:

1. SEE 4/- FOR ADDITIONAL NOTES.
2. DETAILS A/- THRU C/- APPLY TO LOCATIONS W/ SINGLE (N) SISTERED JOIST ON ONE SIDE OF (E) JOIST. DETAILS D/- THRU F/- APPLY TO LOCATIONS W/ DBL (N) SISTERED JOISTS. (ONE NEW JOIST ON EACH SIDE OF EXISTING JOIST.)
3. IN LIEU OF PROVIDING (N) CROSS BMS AS SHOWN, CONTRACTOR HAS THE OPTION OF CUTTING (E) CROSS BMS AS REQD AND REINSTALLING THEM W/ CONNECTOR HARDWARE AS SHOWN.

(E) WOOD ROOF OPENING AT NEW FRAMING

1"=1'-0" 2

FILE NO: 19-91
A#: 03-122717
11-17-2022
01-31-2023

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NAC NO	161-21043
FILE	
DRAWN	CC
CHECKED	EMB/AL
DATE	11-17-2022

EQUIPMENT SUPPORT DETAILS

S4.01

File: K:\2022\2200234 - Rosemead SD - HVAC REPL\5 Draft\Janson Elementary School\2200234_S4.01.dwg
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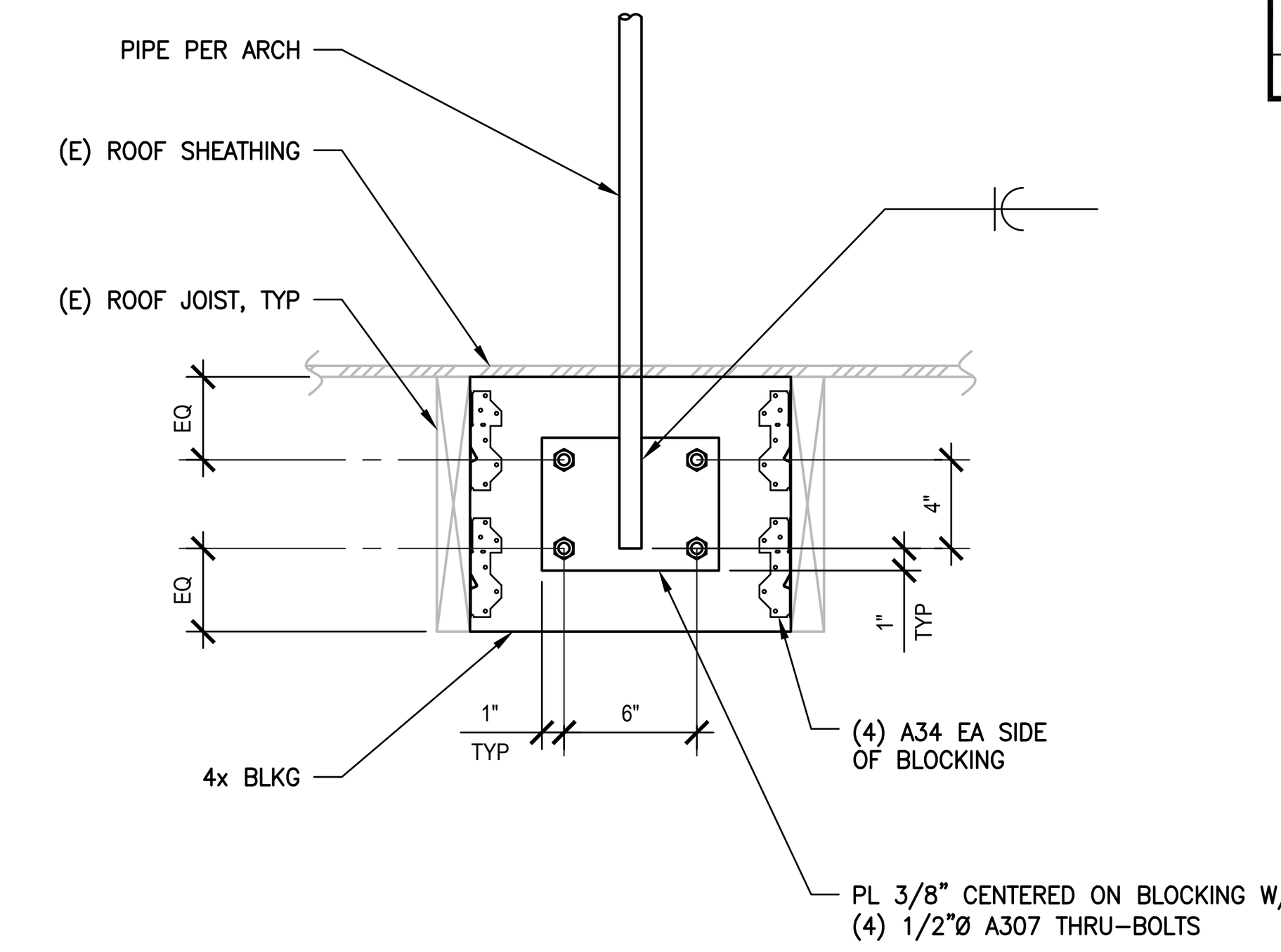

HANDRAIL POST ATTACHMENT TO JOISTS AT ROOF 1 1/2"=1'-0" 1

FILE NO: 19-91 A#: 03-122717

11-17-2022
01-31-2023

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NAC NO	161-21043
FILE	
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CHECKED	EMB/AL
DATE	11-17-2022

EQUIPMENT SUPPORT DETAILS

S4.02

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XREFs: X_Tblock_RSD_JANSON.dwg

GENERAL LEGEND

SYMBOL	DESCRIPTION
	NOTE CALLOUT
	DETAIL CALLOUT - NUMBER ON TOP DENOTES DETAIL NUMBER - NUMBER ON BOTTOM DENOTES SHEET DETAIL IS SHOWN
	MECHANICAL EQUIPMENT CALLOUT, SEE MECHANICAL PLANS FOR EXACT LOCATION AND REQUIREMENTS
	SECTION CALLOUT
	POINT OF CONNECTION
	POINT OF DISCONNECTION
	NEW LINEWORK
	EXISTING LINEWORK
	DEMOLITION LINEWORK
	DIRECTION OF FLOW

DUCTWORK LEGEND

SYMBOL	DESCRIPTION
16"x12"	SHEET METAL DUCT
16"x12"	HIDDEN SHEET METAL DUCT
16"x12" (1"L)	INTERNALLY INSULATED SHEET METAL DUCT CLEAR INSIDE DIMENSION SHOWN, LINER THICKNESS IN PARENTHESIS
	FILTER
	LOUVER
AD	ACCESS DOOR OR ACCESS PANEL (AP) IN DUCTWORK

PIPING LEGEND

SYMBOL	DESCRIPTION
4" CHWR	NEW PIPING (SIZE-SERVICE)
(E) 4" CHWR	EXISTING PIPING (SIZE-SERVICE)
	ELBOW FACING AWAY FROM VIEWER
	ELBOW FACING TOWARD VIEWER
	TEE FACING AWAY FROM VIEWER
	TEE FACING TOWARD VIEWER
	PIPE CAP
	TRANSITION, ASYMMETRIC
	TRANSITION, SYMMETRIC
	EXPANSION JOINT (COMPENSATOR)
	PIPE GUIDE
	PIPE ANCHOR
	UNION, SCREWED
	DRAIN, FUNNEL
	PUMP
	BALL VALVE
CD	CONDENSATE DRAIN
	ELBOW DOWN
	PIPE TEE UP & DOWN OR ELBOW UP
	PIPE TEE DOWN
	PIPE TEE UP

ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
AAV	AUTOMATIC AIR VENT	HP	HORSEPOWER
AFF	ABOVE FINISHED FLOOR	HT	HEIGHT
AHU	AIR HANDLING UNIT	HZ	HERTZ
AL	ALUMINUM	ID	INSIDE DIAMETER
AP	ACCESS PANEL	IN	INCHES
APD	AIRSIDE PRESSURE DROP	KW	KILOWATTS
BD	BLOWDOWN	LAT	LEAVING AIR TEMPERATURE
BDD	BACK DRAFT DAMPER	LBS	POUNDS
BFC	BELOW FINISHED CEILING	LF	LINEAR FEET
BFP	BACK FLOW PREVENTER	LWT	LEAVING WATER TEMPERATURE
BHP	BRAKE HORSEPOWER	MAX	MAXIMUM
BLDG	BUILDING	MBH	THOUSAND BTU PER HOUR
BOB	BOTTOM OF BEAM	MC	MECHANICAL CONTRACTOR
BOP	BOTTOM OF PIPE	MCA	MINIMUM CIRCUIT AMPS
BTU	BRITISH THERMAL UNIT	MH	MANHOLE
CFM	CUBIC FEET PER MINUTE	MIN	MINIMUM
CHWR	CHILLED WATER RETURN	MOCP	MAXIMUM OVERLOAD CIRCUIT PROTECTION
CHWS	CHILLED WATER SUPPLY	NFA	NET FREE AREA
CI	CAST IRON	NIC	NOT IN CONTRACT
CL	CENTER LINE	NPSHR	NET POSITIVE SUCTION HEAD REQUIRED
CP	CONDENSATE PUMP	OAT	OUTSIDE AIR TEMPERATURE
CT	COOLING TOWER	OBD	OPPOSED BLADE DAMPER
CU	CONDENSING UNIT	OC	ON CENTER
CV	CONSTANT VOLUME BOX	OD	OUTSIDE DIAMETER
CWR	CONDENSER WATER RETURN	OA	OUTSIDE AIR
CWS	CONDENSER WATER SUPPLY	PD	PRESSURE DROP
CWFR	CONDENSER WATER FILTER RETURN	PERF	PERFORATED
CWFS	CONDENSER WATER FILTER SUPPLY	PH	PHASE
DB	DRY BULB	POD	POINT OF DISCONNECT
DEG	DEGREES	PR	PRESSURE RELIEF
DIA	DIAMETER	PRV	PRESSURE REDUCING VALVE
DL	DOOR LOUVER	PSID	POUNDS PER SQUARE INCH DIFFERENTIAL
DN	DOWN	PSIG	POUNDS PER SQUARE INCH GAUGE
DX	DIRECT EXPANSION	PVC	POLYVINYL CHLORIDE
(E)	EXISTING	RA	RETURN AIR
EA	EACH	RF	RETURN FAN
EAT	ENTERING AIR TEMPERATURE	RLA	RATED LOAD AMPS
EC	ELECTRICAL CONTRACTOR	RPM	REVOLUTIONS PER MINUTE
EFF	EFFICIENCY	SA	SUPPLY AIR
EL	ELEVATION	SF	SUPPLY FAN
ESP	EXTERNAL STATIC PRESSURE	SPEC	SPECIFICATION
EWT	ENTERING WATER TEMPERATURE	SS	STAINLESS STEEL
°F	DEGREES FAHRENHEIT	STD	STANDARD
FD	FIRE DAMPER	TAD	TRANSFER AIR DUCT
FG	FILTER GRILLE	TDH	TOTAL DYNAMIC HEAD
FLA	FULL LOAD AMPS	TEFC	TOTALLY ENCLOSED FAN COOLED
FLR	FLOOR	TSP	TOTAL STATIC PRESSURE
FOB	FLAT ON BOTTOM	TYP	TYPICAL
FOT	FLAT ON TOP	UC	UNDERCUT
FPI	FINS PER INCH	TYP	TYPICAL
FPM	FEET PER MINUTE	V	VOLTS
FSD	FIRE SMOKE DAMPER	VAV	VARIABLE AIR VOLUME
FT	FEET OR FOOT	VD	VOLUME DAMPER
GA	GAUGE	VFD	VARIABLE FREQUENCY DRIVE
GALV	GALVANIZED	VTR	VENT THRU ROOF
GC	GENERAL CONTRACTOR	W/	WITH
GPH	GALLONS PER HOUR	W/O	WITHOUT
GPM	GALLONS PER MINUTE	WB	WET BULB
HB	HOSE BIBB	WC	WATER COLUMN
HD	HEAD	WG	WATER GAUGE
HHWR	HEATING HOT WATER RETURN	WPD	WATER PRESSURE DROP
HHWS	HEATING HOT WATER SUPPLY	WT	WEIGHT
HP	HEAT PUMP		

IN THE EVENT ABBREVIATIONS NOT MENTIONED HEREIN ARE USED, REFERENCE WILL BE MADE TO ANSI Y1.1, MILITARY STANDARD ABBREVIATIONS, AND OTHER STANDARD INDUSTRY CONVENTIONS.

CONTROL ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
A	ALARM	PS	PRESSURE SWITCH
AFMS	AIRFLOW MONITORING STATION	PT	PRESSURE TRANSMITTER
AI	ANALOG INPUT	RH	RELATIVE HUMIDITY
AO	ANALOG OUTPUT	S	STATUS
CS	CURRENT SWITCH	SC	SPEED CONTROL
DI	DIGITAL INPUT	SI	SPEED INDICATOR
DO	DIGITAL OUTPUT	SP	SETPOINT
DP	DIFFERENTIAL PRESSURE	SS	START/STOP
FS	FLOW SWITCH	T	TEMPERATURE
FM	FLOW METER	TI	TEMPERATURE INDICATOR
HOA	HANDS-OFF-AUTO	VA	DAMPER/VALVE ACTUATOR
KW	KILOWATTS	VP	VELOCITY PRESSURE
LA	LEVEL ALARM	VSH	VIBRATION SWITCH
MOD	MOTOR OPERATED DAMPER	ZC	CLOSED END SWITCH
NC	NORMALLY CLOSED	ZI	POSITION INDICATOR
NO	NORMALLY OPEN	ZO	OPEN END SWITCH

IN THE EVENT ABBREVIATIONS NOT MENTIONED HEREIN ARE USED, REFERENCE WILL BE MADE TO ANSI Y1.1, MILITARY STANDARD ABBREVIATIONS, AND OTHER STANDARD INDUSTRY CONVENTIONS.

SHEET INDEX

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE 2019 EDITIONS OF THE CALIFORNIA BUILDING, MECHANICAL, PLUMBING, AND OTHER APPLICABLE FEDERAL, STATE, OR LOCAL CODES AS ADOPTED AND ENFORCED BY THE LOCAL JURISDICTION. IN CASE THE PLANS SHOW MORE STRINGENT REQUIREMENTS, THE PLANS SHALL GOVERN THE DESIGN, YET NOTHING ON THE DESIGN DOCUMENTS SHALL BE INTERPRETED AS AUTHORITY TO VIOLATE CODE(S) OR REGULATION(S).
2. SUBMISSION OF BID IN CONNECTION WITH THIS WORK SHALL IMPLY THAT THE BIDDER HAS EXAMINED THE JOB SITE UNDER WHICH THE CONTRACTOR WILL BE OBLIGATED TO OPERATE UNDER THIS CONTRACT. NO EXTRA CHARGE WILL BE ALLOWED FOR FAILURE OF ANY BIDDER TO EXAMINE THE SITE PRIOR TO BID.
3. WHERE USED, THE TERM "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
4. IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN ITEMS INDICATED ON DRAWINGS AND SPECIFICATIONS WITH CODE REQUIREMENTS, THE MORE STRINGENT STANDARD SHALL PREVAIL.
5. CARE SHALL BE EXERCISED TO MINIMIZE ANY INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION. ISOLATE WORK AREAS TO KEEP DUST AND DIRT WITHIN THE CONSTRUCTION AREA.
6. NO PIPING, EQUIPMENT, ETC. SHALL BE REMOVED, DISCONNECTED OR SHUT DOWN WITHOUT PRIOR REVIEW WITH THE OWNER TO CONFIRM THAT AREAS TO REMAIN IN OPERATION WILL NOT BE AFFECTED. IF ANY AREAS NOT WITHIN THE SCOPE OF WORK ARE AFFECTED BY ANY SHUTDOWN, REMOVAL OR DISCONNECTION, SUFFICIENT ADVANCE NOTICE MUST BE GIVEN TO THE OWNER INDICATING WHICH AREAS WILL BE AFFECTED, WHEN THE PROPOSED SHUTDOWN WILL OCCUR, AND FOR HOW LONG A PERIOD OF TIME.
7. THE ARRANGEMENT OF EQUIPMENT AND PIPING SHOWN ON THE DRAWINGS IS BASED UPON INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF DESIGN AND IS NOT INTENDED TO SHOW EXACT DIMENSIONS. THIS CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT THE SITE MAKING FIELD MEASUREMENTS AND SHOP DRAWINGS NECESSARY FOR FABRICATION OR ERECTION OF HVAC SYSTEMS. MAKE ALLOWANCE FOR BEAMS, PIPES AND OTHER OBSTRUCTIONS IN BUILDING CONSTRUCTION. CHECK DRAWINGS SHOWING WORK OF OTHER TRADES AND CONSULT WITH THE OWNER'S REPRESENTATIVE IN THE EVENT OF POTENTIAL INTERFERENCE. SHOP DRAWINGS SHALL BE MINIMUM 1/4"=1'-0" SCALE, INDICATING FITTINGS, SIZES, WELDS AND CONFIGURATIONS AND SUBMITTED TO ENGINEER FOR REVIEW.
8. THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES PRIOR TO FABRICATION, PURCHASE AND/OR INSTALLATION OF ALL WORK.
9. EXISTING MATERIALS THAT ARE REMOVED SHALL NOT BE REUSED IN NEW SYSTEMS, EXCEPT WHERE INDICATED AS BEING RELOCATED.
10. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
11. THIS CONTRACTOR SHALL NOT BORE, NOTCH, CUT, OR PENETRATE INTO A STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM A DESIGNATED STRUCTURAL ENGINEER AND THE OWNER.
12. ALL PIPE ELBOWS SHALL BE LONG RADIUS UNLESS OTHERWISE SPECIFICALLY NOTED ON THE DRAWINGS.
13. INSTALL MANUAL VOLUME DAMPERS WITHIN DUCT BRANCHES TO BALANCE AIRFLOW CFM. ON INSULATED DUCTS, MOUNT DAMPER REGULATOR ON 2" STAND-OFF BRACKET TO CLEAR INSULATION.
14. ALL MATERIAL EXPOSED WITHIN RA PLENUMS SHALL BE NON-COMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX NOT GREATER THAN 25 AND SMOKE DEVELOPED INDEX NOT GREATER THAN 50. COMPLY WITH CMC-602.2.
15. COORDINATE ACCESS TO EQUIPMENT WITH WORK OF OTHER TRADES. PROVIDE DUCT ACCESS DOORS AND CEILING ACCESS DOORS TO ALLOW ACCESS FOR FILTER CHANGEOUT, CONTROLS ACCESS AND ACCESS TO SERVICE/REMOVE COMPONENTS INCLUDING, BUT NOT LIMITED TO, FANS, PULLEYS, SHEAVES, BELTS, ETC.
16. MEP COMPONENT ANCHORAGE NOTE:

    ALL MECHANICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA-APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26, AND 30:

    1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
    2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING A FLEXIBLE CABLE.
    3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

    THE FOLLOWING MECHANICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS:

    A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVING A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.

    B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

    THE ANCHORAGE OF ALL MECHANICAL COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.
17. PIPING AND DUCTWORK DISTRIBUTION SYSTEM BRACING NOTE:

    PIPING AND DUCTWORK DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2019 CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.

    THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (E.G., OSHPD OPM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

    MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

    MP ☒ MD ☒ PP☒ E ☒ - OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

    MP ☐ MD ☐ PP☐ E ☐ - OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) #_______

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GENERAL NOTES, LEGENDS, ABBREVIATIONS, AND SHEET INDEX

M001

PACKAGED AIR CONDITIONING UNITS

MARK	MANUFACTURER & MODEL	LOCATION	TYPE	SERVICE	SUPPLY FAN				COOLING CAPACITY			SEER	TOTAL HEATING CAPACITY					ELECTRICAL					OUTSIDE AIR CFM SETPOINT	OPERATING WEIGHT LBS.	CURB WEIGHT LBS.	MAX OPERATING WEIGHT LBS.	REMARKS
					AIRFLOW CFM	HP/(BHP)	ESP	RPM	TOTAL MBH	SENSIBLE MBH	TONS		INPUT MBH	OUTPUT MBH	ENTERING AIR °F DB	LEAVING AIR °F DB	THERMAL EFFICIENCY	VOLTAGE	PHASE	FLA	MCA	MOCP					
RTU-J11	CARRIER 48GCGM05A2A6-0A0A0	JANSON BLDG D ROOF	GAS HEAT/ELEC COOL	CLASSROOM 11	1,600	1.0/(0.62)	0.5	1,792	49.96	37.06	4	16.1	60.0	49.0	70.0	98.4	81%	460	3	10.0	11.0	15.0	450	675	185	675	1 3 4 5 8 9
RTU-J12	CARRIER 48GCGM05A2A6-0A0A0	JANSON BLDG D ROOF	GAS HEAT/ELEC COOL	CLASSROOM 12	1,600	1.0/(0.62)	0.5	1,792	49.96	37.06	4	16.1	60.0	49.0	70.0	98.4	81%	460	3	10.0	11.0	15.0	450	675	185	675	1 3 4 5 8 9
RTU-J13	CARRIER 48GCGM05A2A6-0A0A0	JANSON BLDG G ROOF	GAS HEAT/ELEC COOL	CLASSROOM 13	1,600	1.0/(0.62)	0.5	1,792	49.96	37.06	4	16.1	60.0	49.0	70.0	98.4	81%	460	3	10.0	11.0	15.0	450	675	185	675	1 3 4 5 8 9
RTU-J14	CARRIER 48GCGM05A2A6-0A0A0	JANSON BLDG G ROOF	GAS HEAT/ELEC COOL	CLASSROOM 14	1,600	1.0/(0.62)	0.5	1,792	49.96	37.06	4	16.1	60.0	49.0	70.0	98.4	81%	460	3	10.0	11.0	15.0	450	675	185	675	1 3 4 5 8 9
RTU-J15	CARRIER 48GCGM05A2A6-0A0A0	JANSON BLDG G ROOF	GAS HEAT/ELEC COOL	CLASSROOM 15	1,600	1.0/(0.62)	0.5	1,792	49.96	37.06	4	16.1	60.0	49.0	70.0	98.4	81%	460	3	10.0	11.0	15.0	450	675	185	675	1 3 4 5 8 9
RTU-J16	CARRIER 48GCGM05A2A6-0A0A0	JANSON BLDG G ROOF	GAS HEAT/ELEC COOL	CLASSROOM 16	1,600	1.0/(0.62)	0.5	1,792	49.96	37.06	4	16.1	60.0	49.0	70.0	98.4	81%	460	3	10.0	11.0	15.0	450	675	185	675	1 3 4 5 8 9

1. UNIT SHALL BE VERTICAL DISCHARGE.
2. UNIT SHALL BE HORIZONTAL DISCHARGE.
3. PROVIDE TITLE 24 COMPLIANT VENSTAR 2800 THERMOSTAT WITH ADJUSTABLE SETPOINT AND OVERRIDE CAPABILITY. REPLACE IN PLACE OF EXISTING THERMOSTAT.
4. PROVIDE WITH 2" MERV-13 FILTERS.
5. PROVIDE WITH 100% OSA ECONOMIZER WITH BAROMETRIC RELIEF.
6. UNIT DISCHARGE CONFIGURATION SHALL MATCH EXISTING. NO ADAPTER CURB REQUIRED FOR MOUNTING.
7. PROVIDE WITH CA-CAR-537-YRK-560-RTAP-20 MICROMETL CURB ADAPTER.
8. PROVIDE WITH CA-CAR-537-CAR-005 MICROMETL CURB ADAPTER.
9. EXISTING UNIT MODEL : CARRIER 48NLT048. CONTRACTOR TO VERIFY MODEL AND DIMENSIONS FOR ADAPTER CURB ATTACHMENT.
10. EXISTING UNIT MODEL : CARRIER 48NLT042. CONTRACTOR TO FIELD VERIFY MODEL AND DIMENSIONS FOR ADAPTER CURB ATTACHMENT.
11. EXISTING UNIT MODEL : CARRIER 48HJD005, 48HDJ006 OR 48HJD007. CONTRACTOR TO FIELD VERIFY MODEL AND DIMENSIONS FOR CURB ATTACHMENT.
12. EXISTING UNIT MODEL : CARRIER 48HJD006. CONTRACTOR TO FIELD VERIFY MODEL AND DIMENSIONS FOR CURB ATTACHMENT.
13. EXISTING UNIT MODEL : YORK D1EG048. CONTRACTOR TO FIELD VERIFY MODEL AND DIMENSIONS FOR ADAPTER CURB ATTACHMENT.
14. EXISTING UNIT MODEL : BARD RPM36B. CONTRACTOR TO FIELD VERIFY MODEL AND DIMENSIONS FOR ADAPTER CURBS. PROVIDE CDI 1959854-1-9999-4000 OR EQUAL ADAPTER.
15. PROVIDE UNIT ON EXISTING 81"X79" ROOF PLATFORM. PROVIDE HORIZONTAL DISCHARGE. ATTACH PER STRUCTURAL.

PLUMBING PIPING MATERIALS SCHEDULE

1. CONDENSATE DRAIN PIPING:	TYPE 'L' COPPER TUBING, HARD DRAWN CONFORMING TO ASTM B 88, WITH WROUGHT COPPER SOLDER SWEAT FITTINGS AND LEAD-FREE SOLDER JOINTS. ALL CONDENSATE DRAIN PIPING WITHIN THE BUILDING SHALL BE INSULATED.
2. INSULATION OF CONDENSATE DRAIN PIPING:	GLASS FIBER PIPE INSULATION WITH FACTORY-APPLIED JACKET CONFORMING TO ASTM C547. 1-INCH THICK FOR PIPE SIZES 1" & SMALLER. 1½-INCH THICK FOR PIPE SIZES 1¼" INCHES & LARGER. SEAL ALL JOINTS WITH THE FACTORY-APPLIED, SELF-SEAL LAP AND BUTT STRIPS. JOHNS MANVILLE MICRO-LOK HP OR EQUAL.
3. GAS PIPING:	SCHEDULE 40 BLACK STEEL PIPE CONFORMING TO ASTM A 53 WITH 150 PSIG MALLEABLE IRON THREADED FITTINGS. WELDED JOINTS FOR PIPE SIZES 2½" AND LARGER OR WELDED THROUGHOUT WHEN USED FOR MEDIUM PRESSURE. OUTDOOR PIPING EXPOSED TO ATMOSPHERE SHALL BE PAINTED WITH RUST INHIBITING PAINT.
4. PIPE PROTECTION: PROVIDE NON-CONDUCTING DIELECTRIC CONNECTIONS JOINING DISSIMILAR METALS.	

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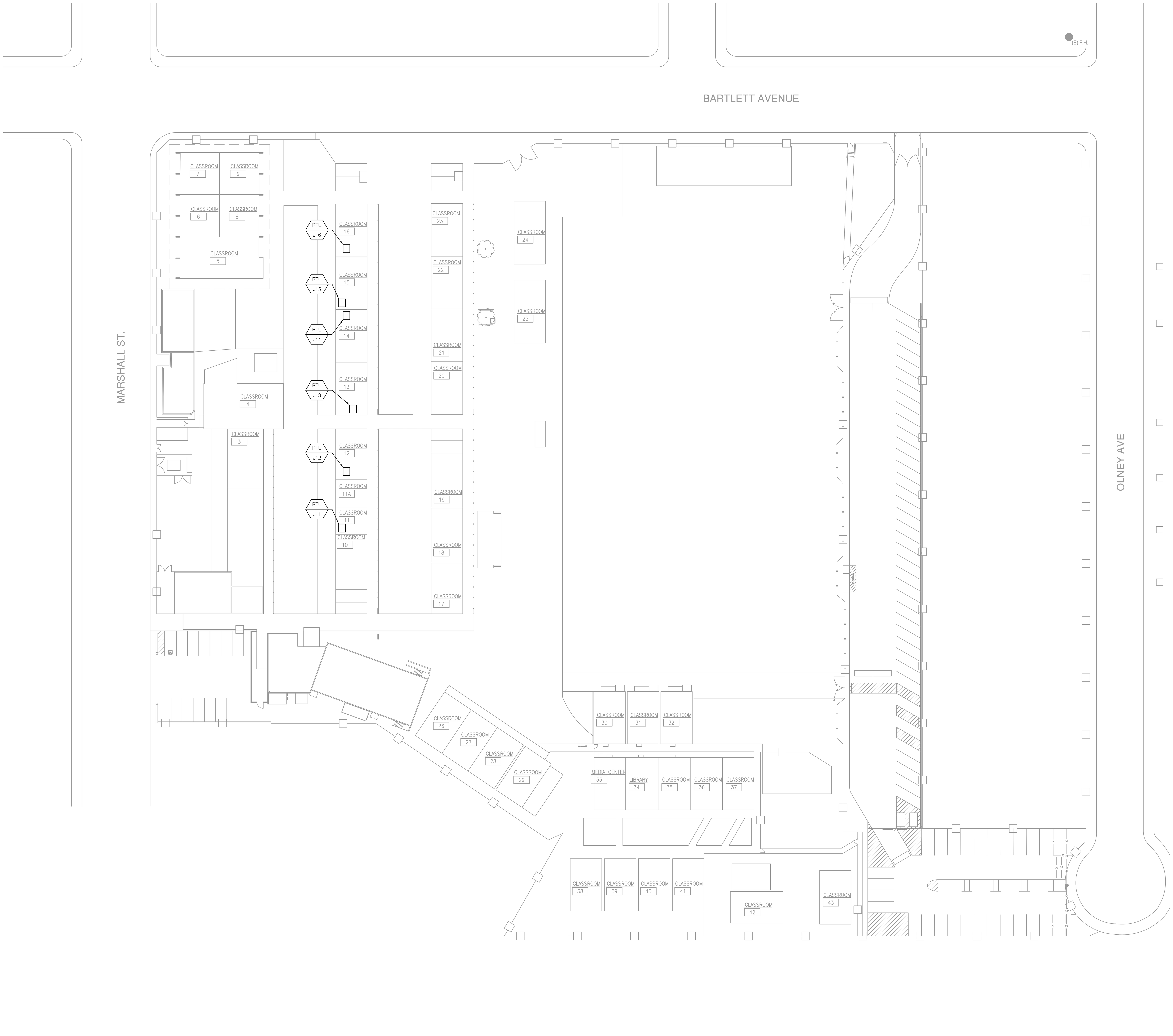
SCHEDULES - JANSON

M002



GENERAL NOTES

1. WHERE EXISTING EQUIPMENT IS NOTED TO BE REPLACED, CONTRACTOR SHALL DEMOLISH EXISTING UNIT AND UTILITIES AS REQUIRED FOR NEW INSTALLATION. DISCONNECT GAS PIPING, UNIT DISCONNECT AND CONTROL WIRING AT UNIT LOCATION AND RECONNECT TO NEW UNIT. WALL AND ROOF OPENING SHALL BE COVERED UNTIL NEW WATERPROOFING IS COMPLETE.
2. CONDENSATE AND GAS PIPING TO BE PAINTED TO MATCH THE EXTERIOR COLOR OF ROOF.

KEY NOTES

1. REPLACE EXISTING ROOFTOP UNIT WITH NEW EQUIPMENT IN SAME LOCATION ON ROOF PER DETAIL 1/M601. NEW UNIT TO MOUNT TO EXISTING CURB WITH CURB ADAPTER.
2. PROVIDE 3/4" CD FROM A/C UNIT AND INTERCEPT (E) 3/4" AT ROOF. FIELD VERIFY LOCATION OF (E) CD PIPE AND EXTEND AS REQUIRED. REFER TO DETAIL 4/M601.
3. PROVIDE 3/4" GAS TO A/C UNIT AND INTERCEPT (E) 3/4" GAS AT ROOF. FIELD VERIFY LOCATION OF (E) GAS PIPE AND EXTEND AS REQUIRED. REFER TO DETAIL 6/M601.

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MECHANICAL SITE PLAN - JANSON

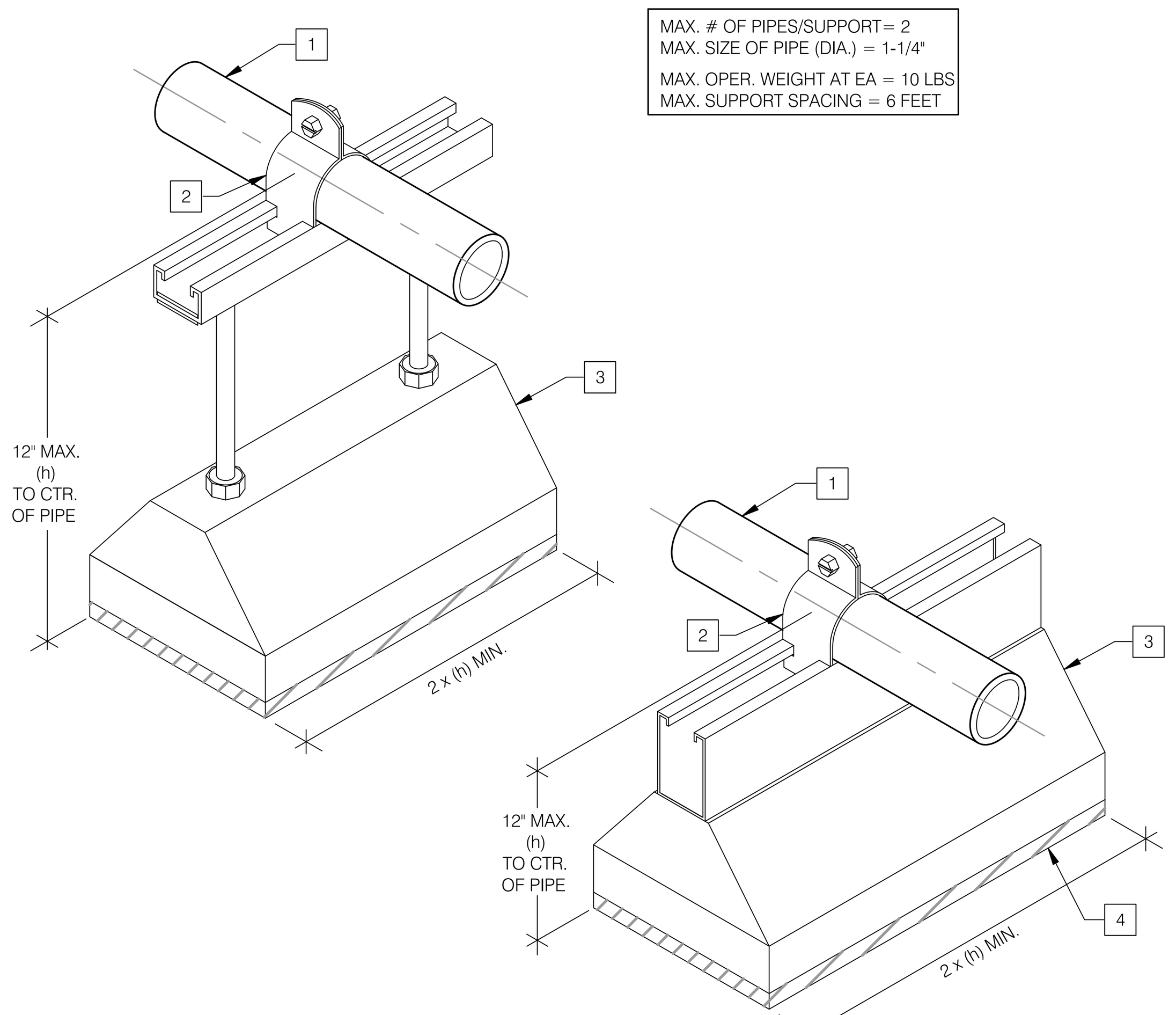
M101

GENERAL NOTE

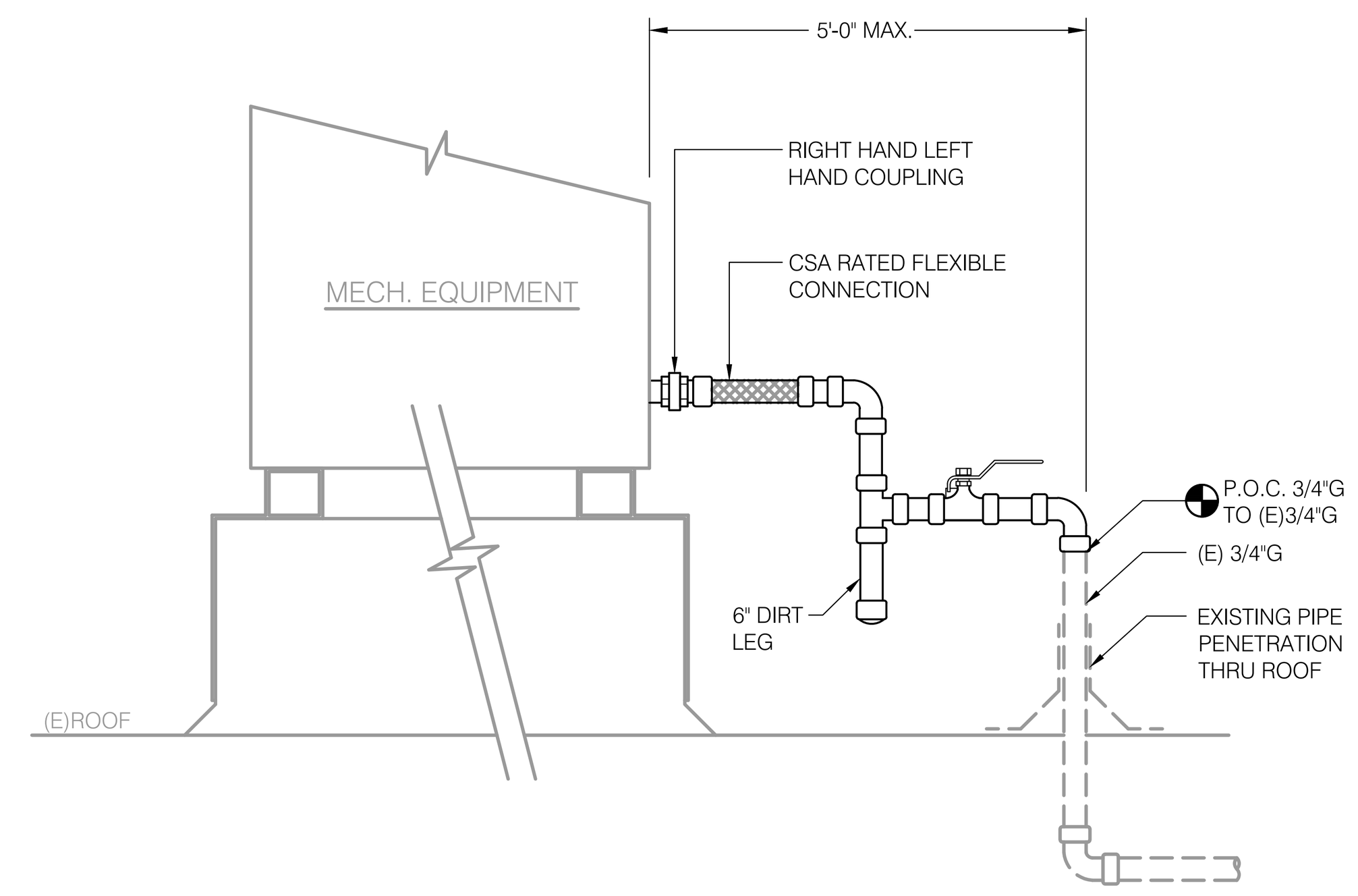
A. REFER TO SPECIFICATION FOR PIPE SUPPORT SPACING.
B. CONDENSATE DRAIN PIPING SHALL SLOPE AT MINIMUM 1%.
B. REFER TO STRUCTURAL DRAWINGS AND ARCHITECTURAL DRAWINGS FOR MAX ROOF SLOPE.

DETAIL NOTES

1. PIPE AT ROOF - REFER TO SPECIFICATIONS FOR PIPE MATERIAL.
2. PIPE CLAMP - UNISTRUT P1113 OR EQUAL.
3. B-LINE C-PORT SERIES PIPE SUPPORT SYSTEM OR EQUAL.
4. SET ON MASTIC OR RUBBER PADDING AT PVC ROOF CONSTRUCTION AREAS - TYPICAL.



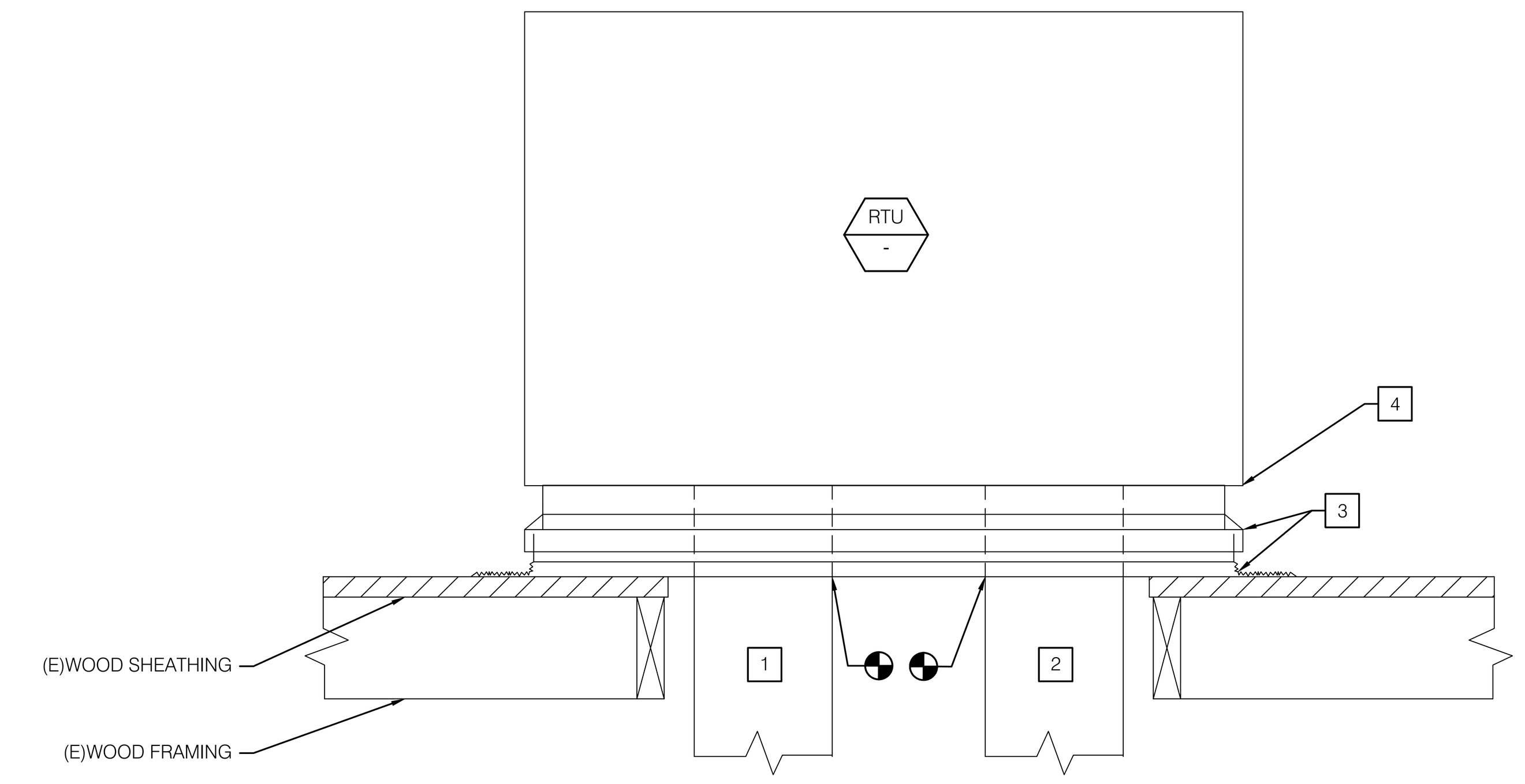
6 CONDENSATE DRAIN PIPE SUPPORT ON ROOF
NO SCALE



DETAIL GENERAL NOTES

A. FIELD VERIFY EXACT POINT OF CONNECTION TO EXISTING UTILITIES.

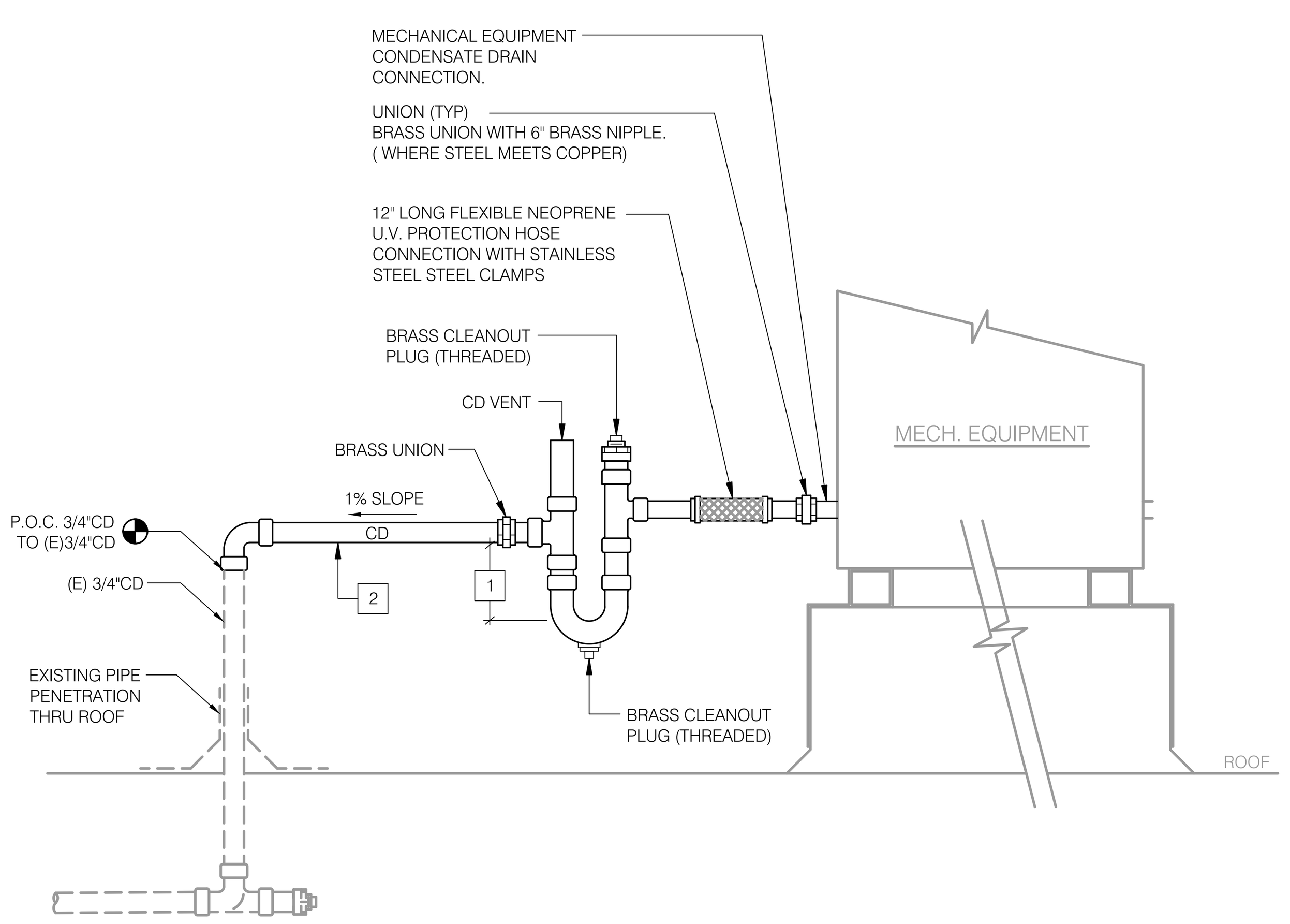
4 GAS CONNECTOR DETAIL
NO SCALE



NOTES

1. EXISTING SUPPLY DUCT. CONNECT TO UNIT SUPPLY IN CURB AT POC SHOWN.
2. EXISTING RETURN DUCT. CONNECT TO UNIT RETURN CURB AT POC SHOWN.
3. EXISTING ROOF CURB AND FLASHING.
4. MATCH EXISTING ANCHORAGE FROM UNIT TO CURB.

2 ROOFTOP UNIT INSTALLATION ON (E) CURB
NO SCALE



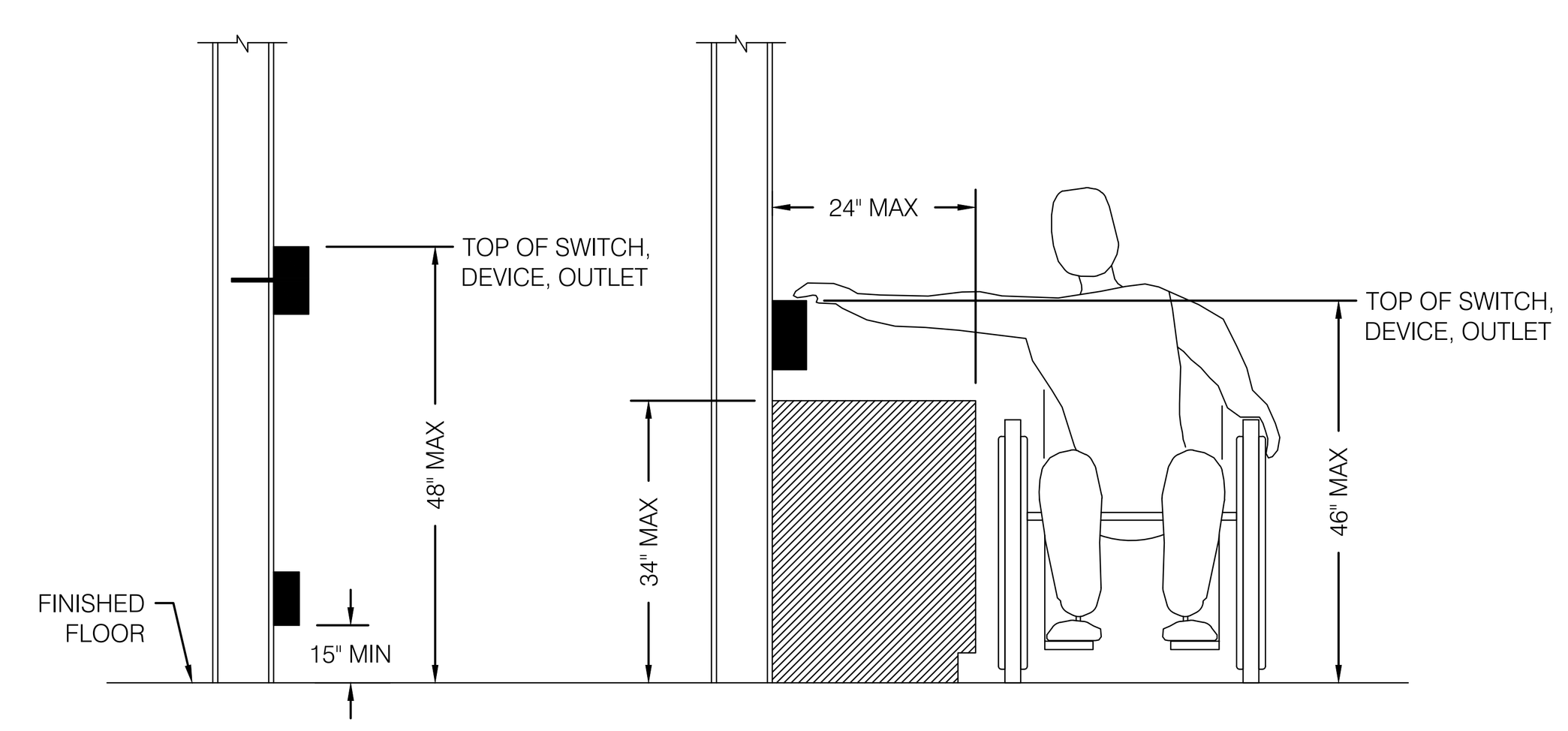
DETAIL KEY NOTES

1. DEPTH OF SEAL TO OVERCOME OPERATING STATIC PRESSURE +1" (VERIFY IN FIELD) BUT LESS NOT LESS THAN 3" MIN.
2. 3/4"CD, LENGTH VARIES, SEE ROOF PLANS FOR ROUTING. FOR CONDENSATE PIPE SUPPORT ON ROOF SEE DETAIL 5/M601.

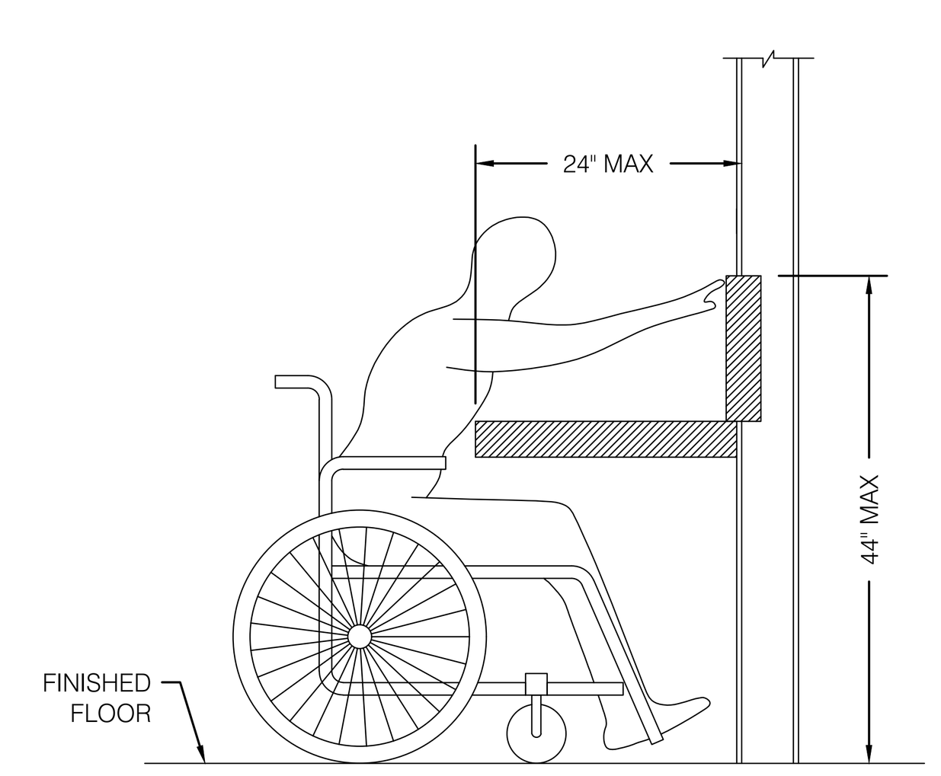
DETAIL GENERAL NOTES

A. MANUALLY PRIME TRAP BEFORE START-UP.
B. SUPPORT DRAIN LINE TO PREVENT SAGS AND TERMINATE TO AN APPROVED RECEPTOR. (LAVATORY TAILPIECE, SERVICE SINK, FLOOR SINK OR ROOF RECEPTOR.)

5 TYPICAL CONDENSATE DRAIN DETAIL
NO SCALE



2016 CBC
FIG. 11B-308.3.2



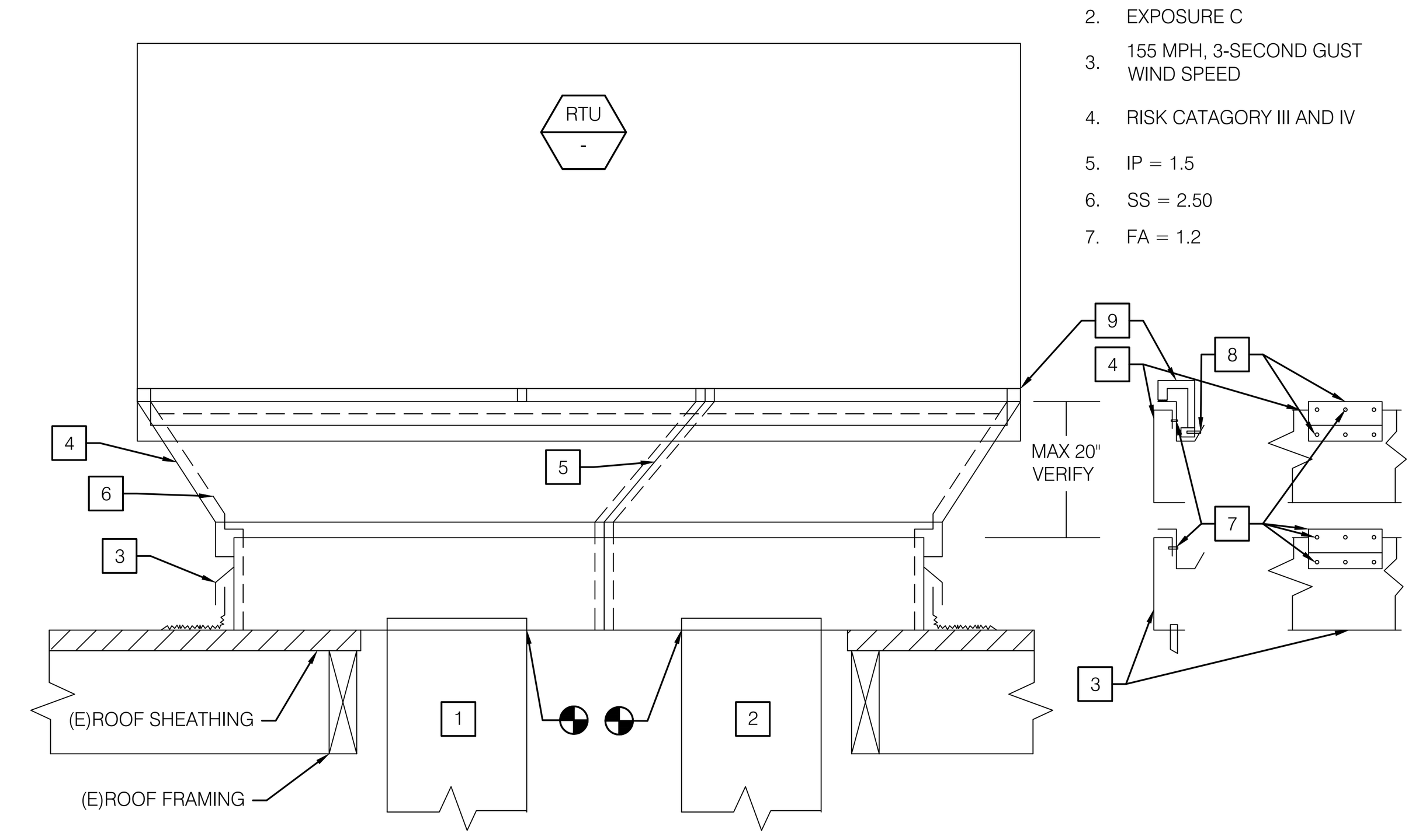
2016 CBC
FIG. 11B-308.2.1

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).

3 MOUNTING HEIGHT OVER OBSTRUCTION
NO SCALE

1. 60 FT TALL BUILDING MAX
2. EXPOSURE C
3. 155 MPH, 3-SECOND GUST WIND SPEED
4. RISK CATEGORY III AND IV
5. IP = 1.5
6. SS = 2.50
7. FA = 1.2



NOTES

1. EXISTING SUPPLY DUCT. CONNECT TO ADAPTER CURB AT POC SHOWN.
2. EXISTING RETURN DUCT. CONNECT TO ADAPTER CURB AT POC SHOWN.
3. EXISTING ROOF CURB AND FLASHING.
4. 14 GA FULLY ASSEMBLED, ADAPTOR CURB. MOUNT TO EXISTING CURB PER STRUCTURAL DRAWINGS. REFER TO MECHANICAL SCHEDULE AND DETAIL FOR ACCESSORY.
5. INTERNAL DUCT TRANSITIONS
6. INTERNAL INSULATION WITH GASKETING.
7. 14 GA MICROHOLD CLIPS. ATTACH TO CURB W/ #10 X 1" TEKS SCREW. MIN. (5) EQUALLY SPACED PER LONG SIDE. (3) EQUALLY SPACED PER SHORT SIDE
8. 14 GA MICROHOLD CLIPS. ATTACH TO UNIT W/ #12 X 1-1/2" TEKS SCREW.
9. EQUIPMENT BASE RAIL.
10. REFER TO STRUCTURAL PLANS FOR CALCULATIONS AND ADDITIONAL DETAILING.

1 ROOFTOP UNIT INSTALLATION W/ CURB ADAPTER
NO SCALE

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DRAWINGS, SPECIFICATIONS AND OTHER VISUAL AIDS, AS INSTRUMENTS OF SERVICE ARE THE PROPERTY OF THE ARCHITECT WHETHER THE PROJECT FOR WHICH THEY ARE MADE BE EXECUTED OR NOT, AND THEY ARE NOT TO BE USED FOR ANY OTHER SITE THAN THE ONE FOR WHICH THEY ARE PREPARED, EXCEPT BY AGREEMENT IN WRITING.

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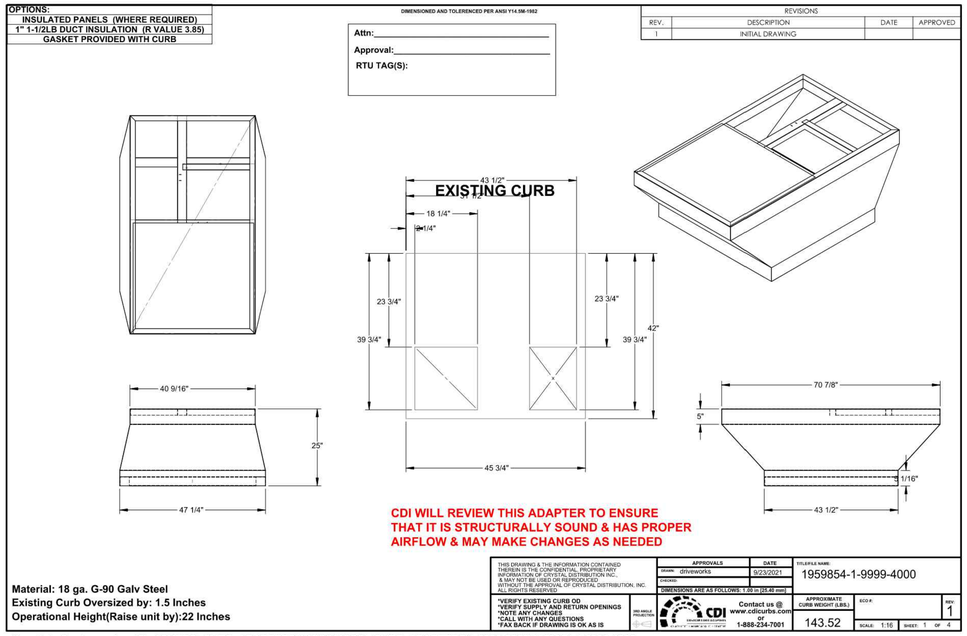
DETAILS

M601



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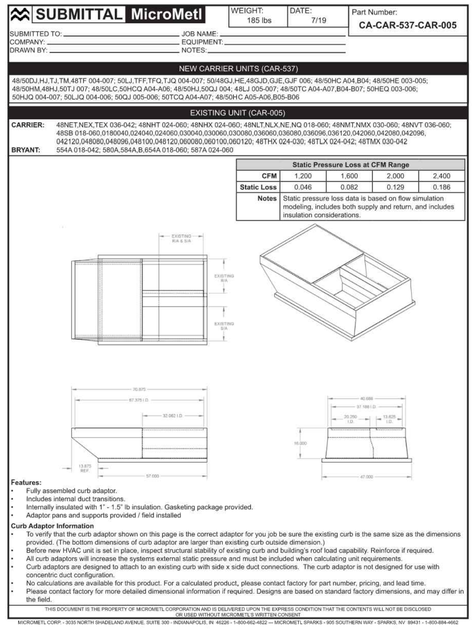
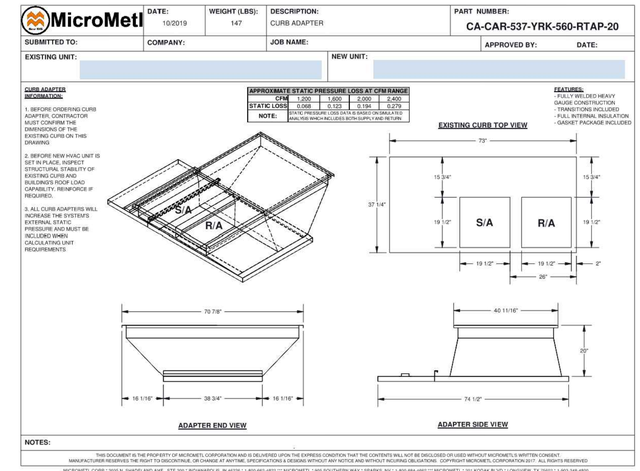
4 CURB ADAPTER: CDI 1959854-1-999-4000
NO SCALE



2 CURB ADAPTER: CA-CAR-537-CAR-005
NO SCALE



3 CURB ADAPTER: CA-CAR-537-YRK-560-RTAP-20
NO SCALE

5 NOT USED
NO SCALE

1 NOT USED
NO SCALE

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DETAILS

M602

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STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.		
Project Name:	RSD HVAC Replacement	**Report Page:** (Page 1 of 8)
Project Address:		**Date Prepared:** 2022-11-16T18:16:49-05:00

A. GENERAL INFORMATION

01	Project Location (city)	Rosemead	04	Total Conditioned Floor Area	7600
02	Climate Zone	9	05	Total Unconditioned Floor Area	0
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1
☐ Office (B)	☐ Retail (M)	☐ Non-refrigerated Warehouse (S)			
☐ Hotel/ Motel Guest Rooms (R-1)	☐ School (E)	☐ Healthcare Facility (I)			
☐ High-Rise Residential (R-2/R-3)	☐ Relocatable Class Bldg (E)	☐ Other (Write In)			

B. PROJECT SCOPE
This table includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.

01 Air System(s)	02 Wet System Components	03 Dry System Components
☒ Heating Air System	☐ Water Economizer	☒ Air Economizer
☒ Cooling Air System	☐ Pumps	☐ Electric Resistance Heat
Mechanical Controls	☐ System Piping	☒ Fan Systems
☒ Mechanical Controls (existing to remain, altered or new)	☐ Cooling Towers	☒ Ductwork (existing to remain, altered or new)
	☐ Chillers	☒ Ventilation
	☐ Boilers	☐ Zonal Systems/ Terminal Boxes

STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
Project Name:	RSD HVAC Replacement	**Report Page:** (Page 2 of 8)
Project Address:		**Date Prepared:** 2022-11-16T18:16:49-05:00

C. COMPLIANCE RESULTS
Table C will indicate if the project data input into the compliance document is compliant with mechanical requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D., or the table indicated as not compliant for guidance.

01		02		03		04		05		06		07		08	09
System Summary §110.1, §110.2, §140.4	AND	Pumps §140.4(k)	AND	Fans/ Econmizers §140.4(c), §140.4(e)	AND	System Controls §110.2, §120.2, §140.4(f)	AND	Ventilation §120.1	AND	Terminal Box Controls §140.4(d)	AND	Distribution §120.3, §140.4(l)	AND	Cooling Towers §110.2(e)2	Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)	
Yes	AND		AND	Yes	AND	Yes	AND	Yes	AND		AND	Yes	AND		COMPLIES with Exceptional Conditions
Mandatory Measures Compliance (See Table Q for Details)												COMPLIES			

D. EXCEPTIONAL CONDITIONS
This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.
The permit applicant has indicated on Table J that ventilation calculations have been attached or included elsewhere on the plans.

E. ADDITIONAL REMARKS
This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

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NRCC-MCH-E — CALIFORNIA ENERGY COMMISSION

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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)
This table is used to demonstrate compliance for mechanical equipment with mandatory requirements found in §110.1 and §110.2(a) and prescriptive requirements found in §140.4(a), §140.4(b) and §140.4(k) or §141.0(b)2 for alterations.

Dry System Equipment Sizing (includes air conditioners, condensers, heat pumps, VRF, furnaces and unit heaters)

01	02	03	04	05	06	07	08	09	10	11
				Equipment Sizing per Mechanical Schedule (kBtu/h) §140.4 (a&b)						
				Heating Output[2,3]			Cooling Output[2,3]		Load Calculations[3,4]	
Name or Item Tag	Equipment Category per Tables 110.2	Equipment Type per Tables 110.2 / Title 20	Smallest Size Available[1] §140.4(a)	Per Design (kBtu/h)	Rated (kBtu/h)	Supp. Heating Output (kBtu/h)	Sensible Per Design (kBtu/h)	Rated (kBtu/h)	Total Heating Load (kBtu/h)	Total Sensible Cooling Load (kBtu/h)
RTU-E10-E18	Sm. Commercial AC	Air-cooled unitary AC/HP Pkg (3Ph)	Yes	49000	49000	0	37060	49960	49000	49960

[1]FOOTNOTES: Equipment shall be the smallest size, within the available options of the desired equipment line, necessary to meet the design heating and cooling loads of the building per §140.4(a). Healthcare facilities are excepted.
[2]It is common practice to show rated output capacity on the equipment schedule. Sensible cooling output comes from specification sheet tables.
[3] If equipment is heating only, leave cooling output and load blank. If equipment is cooling only, leave heating output and load blank.
[4] Authority Having Jurisdiction may ask for load calculations used for compliance per §140.4(b).

Dry System Equipment Efficiency (other than Package Terminal Air Conditioners (PTAC) and Package Terminal Heat Pumps (PTHP))

01	02	03	04	05	06	07	08	09
		Heating Mode				Cooling Mode		
Name or Item Tag	Size Category (Btu/h)	Rating Condition (°F)	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency	Efficiency Unit	Minimum Efficiency Required per Tables 110.2 / Title 20	Design Efficiency
RTU-E10-E18	<65,000		HSPF	8	81	SEER	14	16.1

G. PUMPS
This section does not apply to this project.

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H. FAN SYSTEMS & AIR ECONOMIZERS
This table is used to demonstrate compliance with prescriptive requirements found in §140.4(c), §140.4(e) and §140.4(m) for fan systems. Fan systems serving only process loads are exempt from these requirements and do not need to be included in Table H.

System Name:	RTU-E10-E18	Economizer:[1]	Fixed Temperature	Economizer Controls:	Designed per §140.4(e) and (m)	System Fan Type:	Constant Volume
01	02	03	04	05	06	07	08
Fan Name or Item Tag	Fan Function	Qty	Maximum Design Supply Airflow (CFM)	HP Unit[2]	Design HP	Fan Power Pressure Drop Adjustment - Table 140.4-B Device	Design Airflow through Device (CFM)
RTU-E10-E18	Supply	1	1600	BHP	0.62	Fully ducted return/ exhaust	1600
						Calculated Adjustment (in H_2O)	
Total System Design Supply Airflow (CFM):			1600	Total System Design (B)HP:	0.62	**Maximum System Fan Power (B)HP:**	

[1] FOOTNOTES: Computer room economizers must meet requirements of §140.9(a) and will be documented on the NRCC-PRC-E document.
[2] The unit used for HP must be consistent for all fans within a system.

I. SYSTEM CONTROLS
This table is used to demonstrate compliance with mandatory controls in §110.2 and §120.2 and prescriptive controls in §140.4(f) and (n) or requirements in §141.0(b)2E for altered space conditioning systems.

01	02	03	04	05	06	07	08	09
System Name	System Zoning	Conditioned Floor Area Being Served (ft^2)	Thermostats §110.2(b) & (c)[1], §120.2(a)or §141.0(b)2E	Shut-Off Controls §120.2(e)	Isolation Zone Controls §120.2(e)	Demand Response §110.12 and §120.2(b)	Supply Air Temp. Reset §140.4(f)	Window Interlocks per §140.4(n)
RTU-E10-E18	Single zone	<= 25,000 ft^2	Setback + DR Tstat per §110.12	EMCS	NA: Single Zone	EMCS	NA: Single Zone	NA: Alteration Project

[1]FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.

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I. SYSTEM CONTROLS
*Notes: Controls with a * require a note in the space below explaining how compliance is achieved. EX: system 1: SA Temp Reset: Exempt because zones compliant with §140.4(d) ; EXCEPTION 1 to §140.4(f)

J. VENTILATION AND INDOOR AIR QUALITY
This table is used to demonstrate compliance with mandatory ventilation requirements in §120.1 and §120.2(e)3& for all nonresidential, high-rise residential and hotel/motel occupancies. For alterations, only ventialition systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☒	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☐	Check this box if the project included Nonresidential or Hotel/Motel spaces
	☐	Check this box if the project included new or altered high-rise residential dwelling units.
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per §120.1(c)2.

K. TERMINAL BOX CONTROLS
This section does not apply to this project.

L. DISTRIBUTION (DUCTWORK and PIPING)
This table is used to show compliance with mandatory pipe insulation requirements found in §120.3 and prescriptive requirements found in §140.4(l) for duct leakage testing.

Duct Leakage Sealing

The answers to the questions below apply to the following duct systems:		Existing Supply and Return Ducting	Duct leakage testing triggered for these systems?	No
11	No	The scope of the project includes only duct systems serving healthcare facilities		
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.		
13	Yes	The space conditioning system serves less than 5,000 ft^2 of conditioned floor area.		
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system:		
	☐	Outdoors		
	☐	In a space directly under a roof that has a U-factor greater than the u-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)1B or if the roof has fixed vents or openings to the outside/ unconditioned spaces		
	☐	In an unconditioned crawl space		

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L. DISTRIBUTION (DUCTWORK and PIPING)

	☐	In other unconditioned spaces
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.
17		Duct system shall be sealed in acordance with the California Mechanical Code

M. COOLING TOWERS
This section does not apply to this project.

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	RTU-E10-E18
NRCA-MCH-05-A - Air Economizer Controls	RTU-E10-E18
NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance	RTU-E10-E18
NRCA-MCH-18-A Energy Management Control Systems	RTU-E10-E18

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P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION
There are no NRCV forms required for this project.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION
This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	Yes	M001

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name:	Documentation Author Signature:
Andrew Smith	
Company:	Signature Date:
Address:	CEA/ HERS Certification Identification (if applicable):
City/State/Zip:	Phone:

RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	Responsible Designer Signature:
Company:	Date Signed:
Address:	License:
City/State/Zip:	Phone:

Space Conditioning Mandatory Measures:

110.2 CERTIFICATION BY MANUFACTURERS
ANY SPACE CONDITIONING EQUIPMENT LISTED IN §110.2 SHALL ONLY BE INSTALLED IF CERTIFIED TO THE ENERGY COMMISSION TO MEET ALL APPLICABLE §110.2 REQUIREMENTS.

110.5 PILOT LIGHTS PROHIBITED FOR NATURAL GAS EQUIPMENT
PILOT LIGHTS ARE PROHIBITED ON NATURAL GAS FAN-TYPE CENTRAL FURNACES, POOL HEATERS, SPA HEATERS, AND FIREPLACES.

110.8(a) INSULATION CERTIFICATION
INSTALLED INSULATION SHALL BE CERTIFIED BY THE DEPARTMENT OF CONSUMER AFFAIRS PER TITLE 24, PART 12, CHAPTERS 12-13, ARTICLE 3 "STANDARDS FOR INSULATING MATERIAL."

110.8(b) UREA FORMALDEHYDE INSULATION
UREA FORMALDEHYDE INSULATION SHALL NOT BE INSTALLED UNLESS IN EXTERIOR SIDE WALLS WITH A FOUR-MIL-THICK PLASTIC POLYETHYLENE VAPOR RETARDER OR EQUIVALENT PLASTIC SHEATHING VAPOR RETARDER INSTALLED BETWEEN THE UREA FORMALDEHYDE FOAM INSULATION AND THE INTERIOR SPACE.

110.8(c) INSULATING MATERIAL
ALL INSULATING MATERIALS SHALL BE INSTALLED IN COMPLIANCE WITH THE FLAME SPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF THE CALIFORNIA BUILDING CODE.

110.8(d) DUCTS
IF INSULATION IS INSTALLED ON AN EXISTING SPACE-CONDITIONING DUCT, IT SHALL COMPLY WITH SECTION 604.0 OF THE CMC.

120.1(a) GENERAL VENTILATION AND INDOOR AIR QUALITY REQUIREMENTS
ALL OCCUPIABLE SPACES IN HIGH-RISE RESIDENTIAL, HOTEL/MOTEL, AND NONRESIDENTIAL BUILDINGS OTHER THAN HEALTHCARE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF §120.1(a) THROUGH (g). THE REQUIRED OUTDOOR AIR VENTILATION RATE AND AIR-DISTRIBUTION SYSTEM DESIGN SHALL BE CLEARLY IDENTIFIED ON THE PLANS.

120.1(c)2 NATURAL VENTILATION
NATURALLY VENTILATED SPACES SHALL BE DESIGNED IN ACCORDANCE WITH 120.1(c)2A THROUGH 120.1(c)2C AND INCLUDE A MECHANICAL VENTILATION SYSTEMS DESIGNED IN ACCORDANCE WITH 120.1(c)3.

120.1(c)3 MECHANICAL VENTILATION
OCCUPIABLE SPACES SHALL BE VENTILATED WITH A MECHANICAL VENTILATION SYSTEM CAPABLE OF PROVIDING AN OUTDOOR AIRFLOW RATE (V_{ot}) TO THE ZONE NO LESS THAN THE LARGER OF (V_{ot}) DESCRIBED IN 120.1(c)3A OR 120.1(c)3B.

120.1(d) TIMES OF OCCUPANCY
MINIMUM OUTDOOR AIR RATE SHALL BE MET AT TIMES WHEN THE SPACE IS USUALLY OCCUPIED IN ACCORDANCE WITH 120.1(c).

120.1(d)2 PRE-OCCUPANCY
THE LESSER OF THE MINIMUM RATE OF OUTDOOR AIR REQUIRED BY SECTION 120.1(c) OR THREE COMPLETE AIR CHANGES SHALL BE SUPPLIED TO THE ENTIRE BUILDING DURING THE 1-HOUR PERIOD IMMEDIATELY BEFORE THE BUILDING IS NORMALLY OCCUPIED.

FILE NO: 19-91 A#: 03-122717

P2S ENG
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San Diego | San Jose
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PROFESSIONAL ENGINEER — No. M35109 — MECHANICAL — STATE OF CALIFORNIA
SIGNED: 11/16/2022

DRAWINGS, SPECIFICATIONS AND OTHER MATERIAL PREPARED BY THE ARCHITECT AND HIS CONSULTANTS ARE AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT WHETHER THE PROJECT FOR WHICH THEY ARE MADE BE EXECUTED OR NOT, AND THEY ARE NOT TO BE USED IN WHOLE OR IN PART ON ANY SITE OTHAN THE ONE FOR WHICH THEY ARE PREPARED, EXCEPT BY AGREEMENT IN WRITING.

ROSEMEAD SCHOOL DISTRICT
RSD - JANSON ELEMENTARY SCHOOL
HVAC REPLACEMENT AT BUILDINGS D AND G

ROSEMEAD SCHOOL DISTRICT
PARK ROSEMEAD
3907 ROSEMEAD BOULEVARD
ROSEMEAD, CA 91770

JUBANY NAC ARCHITECTURE
837 N. SPRING ST. | LOS ANGELES CA 90012-2323 | P: 323.478.8070 | F: 323.898.3110

NAC NO	161-21043
FILE	
DRAWN	JL
CHECKED	SN
DATE	10-06-2022

TITLE 24 COMPLIANCE FORMS - JANSON

M701

WWW.NACARCHITECTURE.COM

LEGEND

SYMBOL	DESCRIPTION
	NOTE CALLOUT
	DETAIL CALLOUT - NUMBER ON TOP DENOTES DETAIL NUMBER - NUMBER ON BOTTOM DENOTES SHEET DETAIL IS SHOWN
	MECHANICAL EQUIPMENT CALLOUT, SEE MECHANICAL PLANS FOR EXACT LOCATION AND REQUIREMENTS
	SECTION CALLOUT
	FEEDER CALLOUT
	EXISTING FEEDER CALLOUT
	NEW LINEWORK
	EXISTING LINEWORK
	DEMOLISHED LINEWORK
	CONDUIT CONCEALED IN WALL OR ABOVE CEILING
	CONDUIT EXPOSED
	CONDUIT CONCEALED UNDERGROUND OR BELOW FLOOR
	CONDUIT EMERGENCY
	MULTI-CHANNEL RACEWAY
	CONDUIT TURNED UP
	CONDUIT CAPPED
A-1	BRANCH CIRCUIT HOMERUN TO PANELBOARD AND CIRCUITS AS INDICATED
	3/4" CONDUIT, TICK MARKS INDICATE QUANTITY OF #12 AWG WIRES (UNLESS NOTED OTHERWISE, NO MARKS INDICATES 2#12 & 1#12 GND WIRES) - SMALL MARK DENOTES HOT WIRE - LARGE MARK DENOTES NEUTRAL WIRE - DIAGONAL DENOTES GROUND WIRE
	GENERATOR
	SWITCH
	CIRCUIT BREAKER
	2-WAY SWITCH, TRANSFER SWITCH
	FUSE
	TRANSFORMER
	GROUND CONNECTION
	MOTOR - SINGLE PHASE FRACTIONAL OR INTEGRAL HORSEPOWER
	METER
	ELECTRONIC CIRCUIT MONITOR
	480V DRAWOUT BREAKER
	VARIABLE FREQUENCY DRIVE
	PANEL
	FUSED DISCONNECT SWITCH
	NON-FUSED DISCONNECT SWITCH
	COMBINATION STARTER/DISCONNECT SWITCH
	SWITCH MOTOR RATED
	SPLICE
	TERMINATION
	EXISTING TERMINATION
	MEDIUM VOLTAGE - AIR CIRCUIT BREAKER DRAWOUT BREAKER
	MEDIUM VOLTAGE FUSED DISCONNECT SWITCH
	MEDIUM VOLTAGE MODULAR SPLICE
	MEDIUM VOLTAGE EXISTING MODULAR SPLICE
	2X4 LIGHT FIXTURE - UPPER CASE LETTER INDICATES LIGHT FIXTURE CALLOUT. LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.
	2X4 EMERGENCY LIGHT FIXTURE FED FROM GENERATOR/ INVERTER/ BATTERY BACKUP
	2X2 LIGHT FIXTURE - UPPER CASE LETTER INDICATES LIGHT FIXTURE CALLOUT. LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.
	2X2 EMERGENCY LIGHT FIXTURE FED FROM GENERATOR/ INVERTER/ BATTERY BACKUP
	LINEAR LIGHT FIXTURE, DIMENSIONS PER PLANS - UPPER CASE LETTER INDICATES LIGHT FIXTURE CALLOUT. LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.
	EMERGENCY LINEAR LIGHT FIXTURE, DIMENSIONS PER PLANS - LIGHT FIXTURE FED FROM GENERATOR/ INVERTER/ BATTERY BACKUP
	LINEAR PENDANT LIGHT FIXTURE, DIMENSIONS PER PLANS - UPPER CASE LETTER INDICATES LIGHT FIXTURE CALLOUT. LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.
	TRACK LIGHTING - UPPER CASE LETTER INDICATES LIGHT FIXTURE CALLOUT. LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.
	UNDERCABINET / COVE FIXTURE - UPPER CASE LETTER INDICATES LIGHT FIXTURE CALLOUT. LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.
	LED STRIP LIGHT FIXTURE - UPPER CASE LETTER INDICATES LIGHT FIXTURE CALLOUT. LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.

SYMBOL	DESCRIPTION
	DOWNLIGHT FIXTURE - UPPER CASE LETTER INDICATES LIGHT FIXTURE CALLOUT. LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.
	EMERGENCY DOWNLIGHT FIXTURE FED FROM GENERATOR/ INVERTER/ BATTERY BACKUP
	PENDANT LUMINAIRE - UPPER CASE LETTER INDICATES LIGHT FIXTURE CALLOUT. LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.
	WALLWASH LIGHT FIXTURE - UPPER CASE LETTER INDICATES LIGHT FIXTURE CALLOUT. LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.
	WALL MOUNTED LIGHT FIXTURE - UPPER CASE LETTER INDICATES LIGHT FIXTURE CALLOUT. LOWER CASE LETTER INDICATES LIGHTING CONTROL ZONE.
	EMERGENCY WALL MOUNTED LIGHT FIXTURE FED FROM GENERATOR/ INVERTER/ BATTERY BACKUP
	BOLLARD LUMINAIRE
	POST TOP LUMINAIRE
	POLE MOUNTED LUMINAIRE, SINGLE HEAD
	POLE MOUNTED LUMINAIRE, DOUBLE HEAD
	POLE MOUNTED LUMINAIRE, TRIPLE HEAD
	POLE MOUNTED LUMINAIRE, QUAD HEAD
	IN GRADE LUMINAIRE
	PATHWAY LUMINAIRE
	LANDSCAPE FIXTURE
	EXIT LIGHT FIXTURE WITH DIRECTIONAL ARROWS AS INDICATED. SHADED SIDE DENOTES NUMBER OF FACES
	JUNCTION BOX
	PHOTOCELL FOR EXTERIOR APPLICATIONS
	DAYLIGHT SENSOR - CEILING MOUNTED
	RELAY
	EMERGENCY RELAY UL 924 COMPLIANT
	MOTION SENSOR - CEILING MOUNTED
	MOTION SENSOR - CORNER OR WALL MOUNTED
	MOTION SENSOR WITH AISLE/CORRIDOR LENS - CEILING MOUNTED
	COMBINATION MOTION AND DAYLIGHT SENSOR
	LIGHTING CONTROL NETWORK DEVICE
	DIGITAL TIMER SWITCH
	MOTION SENSOR SWITCH
	LOW VOLTAGE SWITCH
	DIMMER MASTER SWITCH
	DIGITAL DIMMING SWITCH
	GRAPHICAL TOUCH SCREEN - LIGHTING CONTROL STATION
	THERMOSTAT WITH A 3/4" CONDUIT TO ACCESSIBLE CEILING SPACE
	MODULAR FURNITURE - BASE POWER WHIP FEED CONNECTION
	MODULAR FURNITURE - FLOOR BOX FEED CONNECTION
	MODULAR FURNITURE - POWER POLE FEED CONNECTION
	LIGHTING CONTROL PANEL - SURFACE MOUNTED
	PANELBOARD - RECESSED MOUNTED
	PANELBOARD - SURFACE MOUNTED
	DISTRIBUTION PANEL/ BOARD
	SINGLE POLE SWITCH, DEVICE SHALL BE MOUNTED +48" MAX AND +36" MIN FROM THE CENTER OF DEVICE:
	SWITCH 3-WAY (48" AFF MAXIMUM)
	TIMER SWITCH (48" AFF MAXIMUM)
	DUAL SWITCH (48" AFF MAXIMUM)
	PUSHBUTTON SWITCH

RECESSED ON WALL — G=GFCI, WP=WEATHER PROOF
SURFACE — G=GFCI, WP=WEATHER PROOF
FLOOR OR CEILING — C=CEILING

SYMBOL	DESCRIPTION
	20A, 125V DUPLEX RECEPTACLE MOUNTED +15" AFF, UNLESS OTHERWISE NOTED
	20A, 125V QUAD RECEPTACLE MOUNTED +15" AFF, UNLESS OTHERWISE NOTED
	20A, 125V DUPLEX RECEPTACLE RECEPTACLE ON DEDICATED CIRCUIT
	20A, 125V CONTROLLED DUPLEX RECEPTACLE
	20A, 125V QUAD RECEPTACLE (HALF) CONTROLLED RECEPTACLE
	SPECIAL RECEPTACLE REFER TO DRAWINGS FOR NEMA CONFIGURATION
	JUNCTION BOX

RECESSED POKE-THROUGH
RECESSED POKE-THROUGH - POWER/TEL/DATA
RECESSED FLOOR BOX - POWER/TEL/DATA

SYMBOL	DESCRIPTION
	20A, 125V DUPLEX RECEPTACLE FIRE RATED TYPE
	20A, 125V QUAD RECEPTACLE FIRE RATED TYPE

ABBREVIATIONS

ABBREVIATION	DESCRIPTION	ABBREVIATION	DESCRIPTION
1/C	SINGLE CONDUCTOR	KVA	KILOVOLT-AMPERES
&	AND	KW	KILOWATT
@	AT	LF	LINEAR FEET
A OR AMP	AMPERES	LFMC	LIQUIDTIGHT FLEXIBLE METAL CONDUIT
ABV	ABOVE	LGST	LARGEST
A.C.	ASPHALT CONCRETE	LIS	LOAD INTERRUPTER SWITCH
AF	AMPERE FUSE RATING	LOC.	LOCATION
AFC	AVAILABLE FAULT CURRENT	LOTO	LOCK-OUT & TAG-OUT
AFF	ABOVE FINISHED FLOOR	LSI	LONG TERM, SHORT TERM, INSTANTANEOUS
AFG	ABOVE FINISH GRADE	LTG	LIGHTING
AIC	AMPERE INTERRUPTING CAPACITY	LV	LOW VOLTAGE
AL	ALUMINUM	M	METER
APPROX.	APPROXIMATE	MAX	MAXIMUM
ARCH.	ARCHITECT; ARCHITECTURAL	MCA	MAXIMUM CIRCUIT AMPACITY
AS	AMPERE SWITCH RATING	MCC	MOTOR CONTROL CENTER
ASCC	AVAILABLE SHORT CIRCUIT CURRENT	MCP	MOTOR CIRCUIT PROTECTOR
ATC	AIR TERMINAL CHAMBER	MFGR, MFR	MANUFACTURER
ATO	AUTOMATIC THROW-OVER (SWITCH)	MH	MANHOLE
ATS	AUTOMATIC TRANSFER SWITCH	MI.	MECHANICAL INTERLOCK
AUTO	AUTOMATIC	MRCT	MULTI-RATIO CURRENT TRANSFORMER
AUX	AUXILIARY	MIN	MINIMUM
AWG	AMERICAN WIRE GAUGE	MOCP	MAXIMUM OVERCURRENT PROTECTION
BAT	BATTERY	MTD	MOUNTED
BEL	BELOW	MTG	MOUNTING
BKBD	BACKBOARD	MTR	MOTOR
BKR	BREAKER	MTTB	MAIN TELEPHONE TERMINAL BOARD
BLDG	BUILDING	MV	MEDIUM VOLTAGE
B.S.	BARE STRANDED	N	NORTH
C	CONDUIT	NAC	NOTIFICATION APPLIANCE CIRCUIT
CB	CIRCUIT BREAKER	NC	NORMALLY CLOSED
CC	CONSTANT CURRENT	NEC	NATIONAL ELECTRICAL CODE
CEC	CALIFORNIA ELECTRICAL CODE	NF	NON-FUSED
CF	CUBIC FEET	NIC	NOT IN CONTRACT
CKT	CIRCUIT	NL	NIGHT LIGHT- 24HRS ON
CL	CENTER LINE	NO.	NUMBER
CLG	CEILING	OC	ON CENTER
CMU	CONCRETE MASONRY UNIT	OCPD	OVERCURRENT PROTECTIVE DEVICE
C.O.	CONDUIT ONLY WITH PULL WIRE	OD	OUTSIDE DIAMETER
COL	COLUMN	OE	OVERHEAD ELECTRICAL
CP	COMMUNICATION PROCESSOR	OFC	OIL FUSED CUTOUT
CPT	CONTROL POWER TRANSFORMER	OH	OVERHEAD
CR	CONTROL RELAY	OL	OIL LEVER SWITCH
CSFD	COMBINATION SMOKE FIRE DAMPER	P	POLE
CT	CURRENT TRANSFORMER	PAC	PROGRAMMABLE AUTOMATION CONTROLLER
CW	COLD WATER	PB	PULL BOX
CU	COPPER	PC	PHOTOCELL
DIAG	DIAGRAM	PCB	POLYCHLORINATED BIPHENYL
DIST.	DISTANCE	PDS	PRESSURE DIFFERENTIAL SWITCH
DL	DAMP LOCATION LISTING	PF	POWER FACTOR
DM	DIGITAL METER	PH OR Ø	PHASE
DMM	DIGITAL METER MODULE	PILC	PAPER INSULATED, LEAD COVER
DP	DISTRIBUTION PANEL	PIV	POST INDICATING VALVE
DIST.	DISTANCE	PL	PLATE
DWG	DRAWING	PLC	PROGRAMMABLE LOGIC CONTROLLER
DWP	DEPARTMENT OF WATER & POWER	PNL	PANEL
EA	EACH	POC	POINT OF CONNECTION
ECM	ELECTRONIC CIRCUIT MONITOR	PREF.	PREFERRED
ELEC.	ELECTRICAL	PRI.	PRIMARY
EM	EMERGENCY	PVC	POLY-VINYL CHLORIDE
EMH	ELECTRICAL MANHOLE	PWR	POWER
EMT	ELECTRICAL METALLIC TUBING	REC/RECEPT	RECEPTACLE
EPO	EMERGENCY POWER OFF	REQ'D	REQUIRED
EPR	ETHYLENE PROPYLENE RUBBER	RGS	RIGID GALVANIZED STEEL
EQUIP	EQUIPMENT	RMC	RIGID METAL CONDUIT
ER	EXISTING TO BE REMOVED	RPBP	REDUCED PRESSURE BACK FLOW PREVENTER
ERR	EXISTING TO BE RELOCATED AND - RECONNECTED	RM	ROOM
		RTAC	REAL TIME AUTOMATION CONTROLLER
EXIST/(E)	EXISTING	SCCR	SHORT CIRCUIT CURRENT RATING
EXP	EXPLOSION PROOF	SCE	SOUTHERN CALIFORNIA EDISON
FA	FIRE ALARM	SF	SQUARE FEET
FFE	FINISHED FLOOR ELEVATION	SHT	SHEET
FIN.	FINISH	SIG.	SIGNAL
FIP.	FIELD INTERFACE PANEL	SP	SPARE
FIXT	FIXTURE	SPECS	SPECIFICATIONS
FLA	FULL LOAD AMPS	ST	STREET
FLR	FLOOR	STD	STANDARD
FLUOR	FLUORESCENT	STP	SHIELDED TWISTED PAIR
FT	FEET	SW	SWITCH
FACP	FIRE ALARM CONTROL PANEL	SWBD	SWITCHBOARD
FATC	FIRE ALARM TERMINAL CABINET	SWGR	SWITCHGEAR
FMC	FLEXIBLE METAL CONDUIT	SWST	SWITCHING STATION
FO	FIBER OBTIC	TB	TERMINAL BLOCK
FTG	FOOTING	TEL./TELE	TELEPHONE
GEN	GENERATOR	TMH	TELEPHONE MANHOLE
GFI	GROUND FAULT INTERRUPTER	T.O.D.	TOP OF DUCTBANK
GFR	GROUND FAULT RELAY	T.O.M.	TOP OF MANHOLE
GG	GREEN GROUND	TPS	TWISTED SHIELDED PAIR
GND	GROUND	TRANSF,XFMR	TRANSFORMER
HOA	HAND-OFF-AUTOMATIC	TS	TAMPER SWITCH
HP	HORSEPOWER	TYP	TYPICAL
HT	HEIGHT	UG	UNDERGROUND
HTR	HEATER	UON	UNLESS OTHERWISE NOTED
HZ	HERTZ	V	VOLTS
ICON	INTEGRATED COMMUNICATIONS OPTICAL - NETWORK	VA	VOLT-AMPERES
		VB	VIBRATION SWITCH
IE	INVERT ELEVATION	VFD	VARIABLE FREQUENCY DRIVE
IED	INTELLIGENT ELECTRONIC DEVICES	W	WATTS
IMC	INTERMEDIATE METAL CONDUIT	W/	WITH
ISC	SHORT CIRCUIT CURRENT	W/O	WITHOUT
INCAND	INCADESCENT	WCR	WITHSTAND CLOSE-ON RATING
J, JB, J-BOX	JUNCTION BOX	WP	WEATHERPROOF
KCMIL	THOUSAND CIRCULAR MILS	Z	IMPEDANCE
KV	KILOVOLT		

IN THE EVENT ABBREVIATIONS NOT MENTIONED HEREIN ARE USED, REFERENCE WILL BE MADE TO ANSI Y1.1, MILITARY STANDARD ABBREVIATIONS, AND OTHER STANDARD INDUSTRY CONVENTIONS.

GENERAL NOTES

1. ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE CALIFORNIA ELECTRICAL CODE AND ALL OTHER APPLICABLE FEDERAL AND STATE. WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS, THE CONSTRUCTION DOCUMENTS SHALL GOVERN BUT THE CONSTRUCTION DOCUMENTS SHALL NOT BE INTERPRETED AS AUTHORITY TO VIOLATE ANY CODE OR REGULATION.

2. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND SHALL BEAR THE UNDERWRITERS' LABEL (UL) AND SHALL BE INSTALLED IN THE MANNER FOR WHICH THEY ARE DESIGNED AND APPROVED.

3. THE CONTRACTOR SHALL NOT BORE, NOTCH OR IN ANY WAY CUT INTO ANY STRUCTURAL MEMBER WITHOUT WRITTEN APPROVAL FROM THE ARCHITECT OR STRUCTURAL ENGINEER.

4. MECHANICAL, ELECTRICAL AND PLUMBING EQUIPMENT ANCHORAGE NOTES:

   ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2019 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26, AND 30.

   A. ALL PERMANENT EQUIPMENT AND COMPONENTS.

   B. TEMPORARY, MOVABLE, OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDE ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220V RECEPTACLES HAVING A FLEXIBLE CABLE.

   C. TEMPORARY, MOVABLE, OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

   THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS.

   A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORTS THE COMPONENT.

   B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

   THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL, AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

5. PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTES:

   PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2019 CBC, SECTIONS 1617A.1.25 AND 1617A.1.26.

   THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PREAPPROVED INSTALLATION GUIDE (e.g. HCAI OPM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

   MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

   MP[ ] MD[ ] PP[ ] E[X] OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

   MP[ ] MD[ ] PP[ ] E[ ] OPTION 2: SHALL COMPLY WITH HCAI PREAPPROVAL (OPM#) #:

SHEET INDEX

FILE NO: 19-91 A#: 03-122717

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GENERAL NOTES, LEGENDS, ABBREVIATIONS, AND SHEET INDEX

GENERAL NOTES

1. WHERE EXISTING CIRCUIT BREAKERS AND FEEDERS ARE BEING RE-USED, CONTRACTOR SHALL VERIFY THE EXISTING CIRCUIT FOR THAT HVAC UNIT IS SERVING THE RESPECTIVE BUILDING PER THE SCHEDULE. MODIFY UNIT NAMES IN THE PANEL DIRECTORY AS REQUIRED TO MATCH THE RESPECTIVE UNIT THAT IS SERVED.
2. REFER TO MECHANICAL SCHEDULES FOR ADDITIONAL EQUIPMENT INFORMATION.
3. HVAC EQUIPMENT WHOSE EXISTING CIRCUIT BREAKER MATCHES THE MOCP OF THE NEW UNIT SHALL BE PROVIDED WITH A NON-FUSED DISCONNECT. IF THE EXISTING CIRCUIT BREAKER EXCEEDS THE MOCP, A FUSED DISCONNECT SHALL BE PROVIDED.

FILE NO: 19-91 A#: 03-122717

MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULE

MARK	DESCRIPTION	LOCATION	VOLTAGE	PHASE	MCA	DISCONNECT	MOCP	FEEDER	PANEL	CIRCUIT	REMARKS
RTU-J11	PACKAGED A/C UNIT	BLDG D ROOF	480	3	11.0	30A/480VAC/3P	15	3/4"C - 3#10 & 1#10 G	"HD"	2, 4, 6	1 2
RTU-J12	PACKAGED A/C UNIT	BLDG D ROOF	480	3	11.0	30A/480VAC/3P	15	3/4"C - 3#10 & 1#10 G	"HD"	7, 9, 11	1 2
RTU-J13	PACKAGED A/C UNIT	BLDG G ROOF	480	3	11.0	30A/480VAC/3P	15	3/4"C - 3#10 & 1#10 G	EXISTING	EXISTING	1 2 3
RTU-J14	PACKAGED A/C UNIT	BLDG G ROOF	480	3	11.0	30A/480VAC/3P	15	3/4"C - 3#10 & 1#10 G	EXISTING	EXISTING	1 2 3
RTU-J15	PACKAGED A/C UNIT	BLDG G ROOF	480	3	11.0	30A/480VAC/3P	15	3/4"C - 3#10 & 1#10 G	EXISTING	EXISTING	1 2 3
RTU-J16	PACKAGED A/C UNIT	BLDG G ROOF	480	3	11.0	30A/480VAC/3P	15	3/4"C - 3#10 & 1#10 G	EXISTING	EXISTING	1 2 3

1. PROVIDE FUSED DISCONNECT FOR UNIT IN NEMA-3R ENCLOSURE. FUSED SIZED PER MOCP.
2. UNIT SHALL BE SERVED FROM EXISTING CIRCUIT. EXTEND EXISTING FEEDER AS REQUIRED FOR NEW CONNECTION TO DISCONNECT AND UNIT.
3. CONTRACTOR SHALL VERIFY EXISTING SOURCE OF POWER AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES BEFORE PERFORMING ANY WORK.

(E) PANEL: "P-NG"

LOCATION : BUILDING D VOLTAGE/PHASE : 208Y/120V, 3Ø, 4W FED FROM :
FLOOR : FIRST BUS AMPS : 100A RATING: 10,000 AIC
MOUNTING : SURFACE MAIN BREAKER : 100A

LOADS	SEE NOTE	*	OUTLETS LTG	REC	MISC	VOLT-AMPS A	B	C	CKT	BKR/POLE	A B C	BKR/POLE	CKT	VOLT-AMPS A	B	C	OUTLETS LTG	REC	MISC	*	SEE NOTE	LOADS
(E) LOAD						360			1	20/1	* - -	20/3	2	500								(E) TVSS
(E) LOAD							360		3	20/1	- * -	--	4		500							--
(E) LOAD								360	5	20/1	- - *	--	6			500						--
ROOFTOP RECEPTACLE	1					720			7	20/1	* - -	20/1	8	360								(E) LOAD
(E) LOAD							360		9	20/1	- * -	20/1	10		360							(E) LOAD
SPACE									11		- - *	20/1	12			360						(E) LOAD
(E) LOAD						360			13	20/1	* - -	20/1	14	360								(E) LOAD
(E) LOAD							360		15	20/1	- * -	20/1	16		360							(E) LOAD
(E) LOAD								360	17	20/1	- - *	20/1	18			360						(E) LOAD
(E) LOAD						360			19	20/1	* - -	20/1	20	360								(E) LOAD
(E) LOAD							360		21	20/1	- * -	20/1	22		360							(E) LOAD
(E) LOAD								360	23	20/1	- - *	20/1	24			360						(E) LOAD
SPACE									25		* - -		26									SPACE
SPACE									27		- * -		28									SPACE
SPACE									29		- - *		30									SPACE
SPACE									31		* - -		32									SPACE
SPACE									33		- * -		34									SPACE
SPACE									35		- - *		36									SPACE
SPACE									37		* - -		38									SPACE
SPACE									39		- * -		40									SPACE
SPACE									41		- - *		42									SPACE

TOTAL ØA = 3,380 VOLT-AMPS 28.17 AMPS
TOTAL ØB = 3,020 VOLT-AMPS 25.17 AMPS
TOTAL ØC = 2,660 VOLT-AMPS 22.17 AMPS

TOTAL PANEL = 9,060 VA @ 208V, 3Ø 25 AMPS

NOTES:
* *"L" DENOTES LONG CONTINUOUS LOAD*
1 PROVIDE CIRCUIT BREAKER TO MATCH EXISTING MANUFACTURER AND RATINGS TO SERVE LOAD.

(E) PANEL: "HD"

LOCATION : BUILDING D VOLTAGE/PHASE : 480Y/277V, 3Ø, 4W FED FROM :
FLOOR : FIRST BUS AMPS : 100A RATING: 14,000 AIC
MOUNTING : SURFACE MAIN BREAKER : 100A

LOADS	SEE NOTE	*	OUTLETS LTG	REC	MISC	VOLT-AMPS A	B	C	CKT	BKR/POLE	A B C	BKR/POLE	CKT	VOLT-AMPS A	B	C	OUTLETS LTG	REC	MISC	*	SEE NOTE	LOADS
(E) RTU-J10						3,048			1	30/3	* - -	30/3	2	3,048							1	RTU-J11
--							3,048		3	--	- * -	--	4		3,048							--
--								3,048	5	--	- - *	--	6			3,048						--
RTU-J12	1					3,048			7	30/3	* - -	20/1	8	720								(E) LOAD
--							3,048		9	--	- * -	20/1	10		720							(E) LOAD
--								3,048	11	--	- - *	20/1	12			720						(E) LOAD
(E) LOAD						720			13	20/1	* - -	20/1	14	720								(E) LOAD
(E) LOAD							720		15	20/1	- * -	20/1	16		720							(E) LOAD
(E) LOAD								720	17	20/1	- - *	20/1	18			720						(E) LOAD
SPACE									19		* - -		20									SPACE
SPACE									21		- * -		22									SPACE
SPACE									23		- - *		24									SPACE
SPACE									25		* - -		26									SPACE
SPACE									27		- * -		28									SPACE
SPACE									29		- - *		30									SPACE

TOTAL ØA = 11,304 VOLT-AMPS 40.81 AMPS
TOTAL ØB = 11,304 VOLT-AMPS 40.81 AMPS
TOTAL ØC = 11,304 VOLT-AMPS 40.81 AMPS

TOTAL PANEL = 33,912 VA @ 480V, 3Ø 41 AMPS

NOTES:
* *"L" DENOTES LONG CONTINUOUS LOAD*
1. REUSE EXISTING CIRCUIT BREAKER TO SERVE UNIT.

(E) PANEL: "P-ND"

LOCATION : BUILDING D VOLTAGE/PHASE : 208Y/120V, 3Ø, 4W FED FROM :
FLOOR : FIRST BUS AMPS : 100A RATING: 10,000 AIC
MOUNTING : SURFACE MAIN BREAKER : 100A

LOADS	SEE NOTE	*	OUTLETS LTG	REC	MISC	VOLT-AMPS A	B	C	CKT	BKR/POLE	A B C	BKR/POLE	CKT	VOLT-AMPS A	B	C	OUTLETS LTG	REC	MISC	*	SEE NOTE	LOADS
(E) LOAD						360			1	20/1	* - -	20/3	2	500								(E) TVSS
(E) LOAD							360		3	20/1	- * -	--	4		500							--
(E) LOAD								360	5	20/1	- - *	--	6			500						--
ROOFTOP RECEPTACLE	1					360			7	20/1	* - -	20/1	8	360								(E) LOAD
(E) LOAD							360		9	20/1	- * -	20/1	10		360							(E) LOAD
SPACE									11		- - *	20/1	12			360						(E) LOAD
(E) LOAD						360			13	20/1	* - -	20/1	14	360								(E) LOAD
(E) LOAD							360		15	20/1	- * -		16									SPACE
(E) LOAD								360	17	20/1	- - *		18									SPACE
(E) LOAD						360			19	20/1	* - -	20/1	20	360								(E) LOAD
(E) LOAD							360		21	20/1	- * -	20/1	22		360							(E) LOAD
(E) LOAD								360	23	20/1	- - *	20/1	24			360						(E) LOAD
SPACE									25		* - -	20/1	26	360								(E) LOAD
SPACE									27		- * -		28									SPACE
SPACE									29		- - *		30									SPACE
SPACE									31		* - -		32									SPACE
SPACE									33		- * -		34									SPACE
SPACE									35		- - *		36									SPACE
SPACE									37		* - -		38									SPACE
SPACE									39		- * -		40									SPACE
SPACE									41		- - *		42									SPACE

TOTAL ØA = 3,380 VOLT-AMPS 28.17 AMPS
TOTAL ØB = 2,660 VOLT-AMPS 22.17 AMPS
TOTAL ØC = 2,300 VOLT-AMPS 19.17 AMPS

TOTAL PANEL = 8,340 VA @ 208V, 3Ø 23 AMPS

NOTES:
* *"L" DENOTES LONG CONTINUOUS LOAD*
1 PROVIDE CIRCUIT BREAKER TO MATCH EXISTING MANUFACTURER AND RATINGS TO SERVE LOAD.

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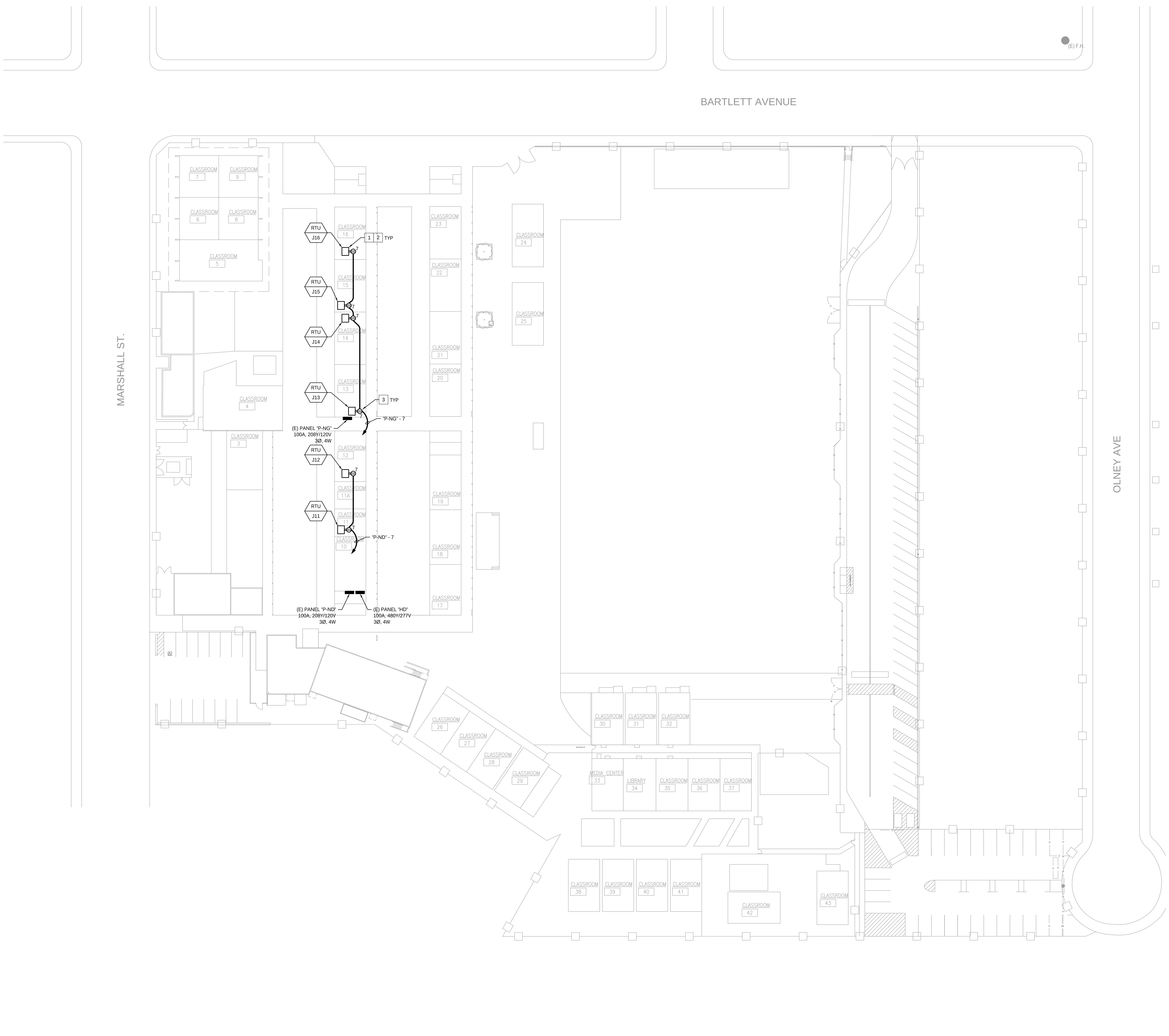
SCHEDULES - JANSON

E002



GENERAL NOTES

1. REFER TO MECHANICAL EQUIPMENT ELECTRICAL CONNECTION SCHEDULES AND PANEL SCHEDULES FOR ADDITIONAL CIRCUIT INFORMATION.
2. REFER TO MECHANICAL SCHEDULES FOR ADDITIONAL EQUIPMENT INFORMATION.
3. REFER TO SHEET E601 FOR INSTALLATION DETAILS. CONDUIT SHALL BE ROUTED ON CANOPIES AND ROOFS TO SERVE UNITS AS REQUIRED.
4. CARBON MONOXIDE DETECTION SYSTEM IS NOT REQUIRED UNDER CEBC 503.15.1 EXCEPTIONS 1 AND 2. SCOPE INCLUDES REPLACEMENT OF EXISTING FUEL-BURNING UNITS ALREADY PRESENT AND THE GROUP E BUILDING WAS CONSTRUCTED BEFORE THE ADOPTION OF THE 2016 CALIFORNIA BUILDING STANDARDS CODE.

NOTES

1 DISCONNECT EXISTING HVAC UNIT AND DISCONNECT SWITCH.

2 PROVIDE CONNECTION TO NEW HVAC UNIT. PROVIDE NEW DISCONNECT SWITCH. REFER TO PANEL SCHEDULES AND EQUIPMENT CONNECTION SCHEDULES FOR MORE INFORMATION.

3 PROVIDE 120V/20A WEATHERPROOF GFCI DUPLEX RECEPTACLE AT UNIT.

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ELECTRICAL SITE PLAN - JANSON

E101

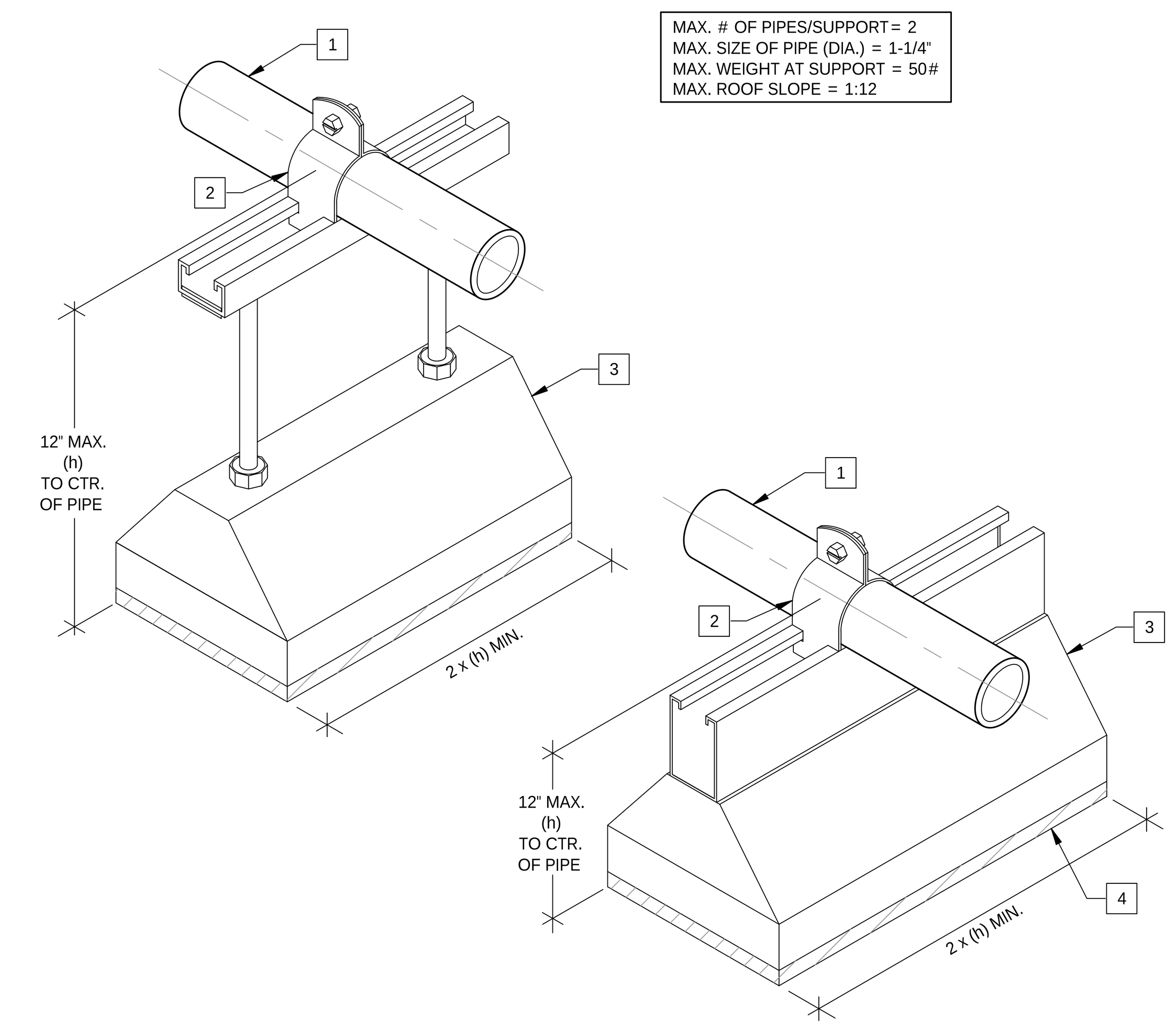
GENERAL NOTE

A. REFER TO SPECIFICATION FOR PIPE SUPPORT SPACING.

B. CONDENSATE DRAIN PIPING SHALL SLOPE AT MINIMUM 1%.

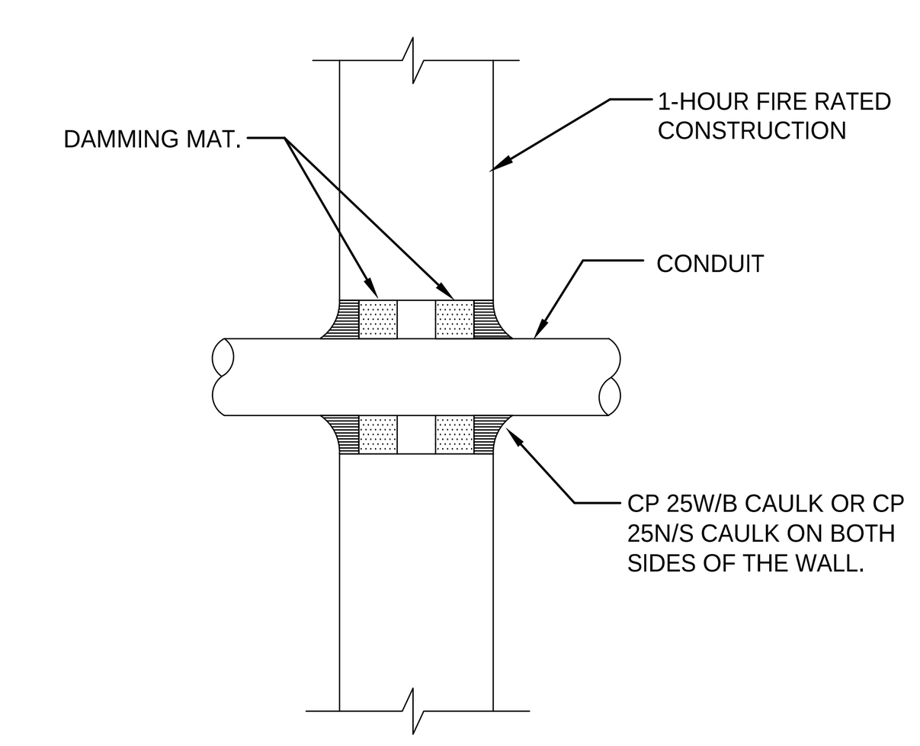
DETAIL NOTES

1. PIPE AT ROOF - REFER TO SPECIFICATIONS FOR PIPE MATERIAL.
2. PIPE CLAMP - UNISTRUT P1113
3. B-LINE C-PORT SERIES PIPE SUPPORT SYSTEM OR EQUAL.
4. SET ON MASTIC OR RUBBER PADDING AT PVC ROOF CONSTRUCTION AREAS - TYPICAL.



2 CONDUIT ROOF SUPPORT

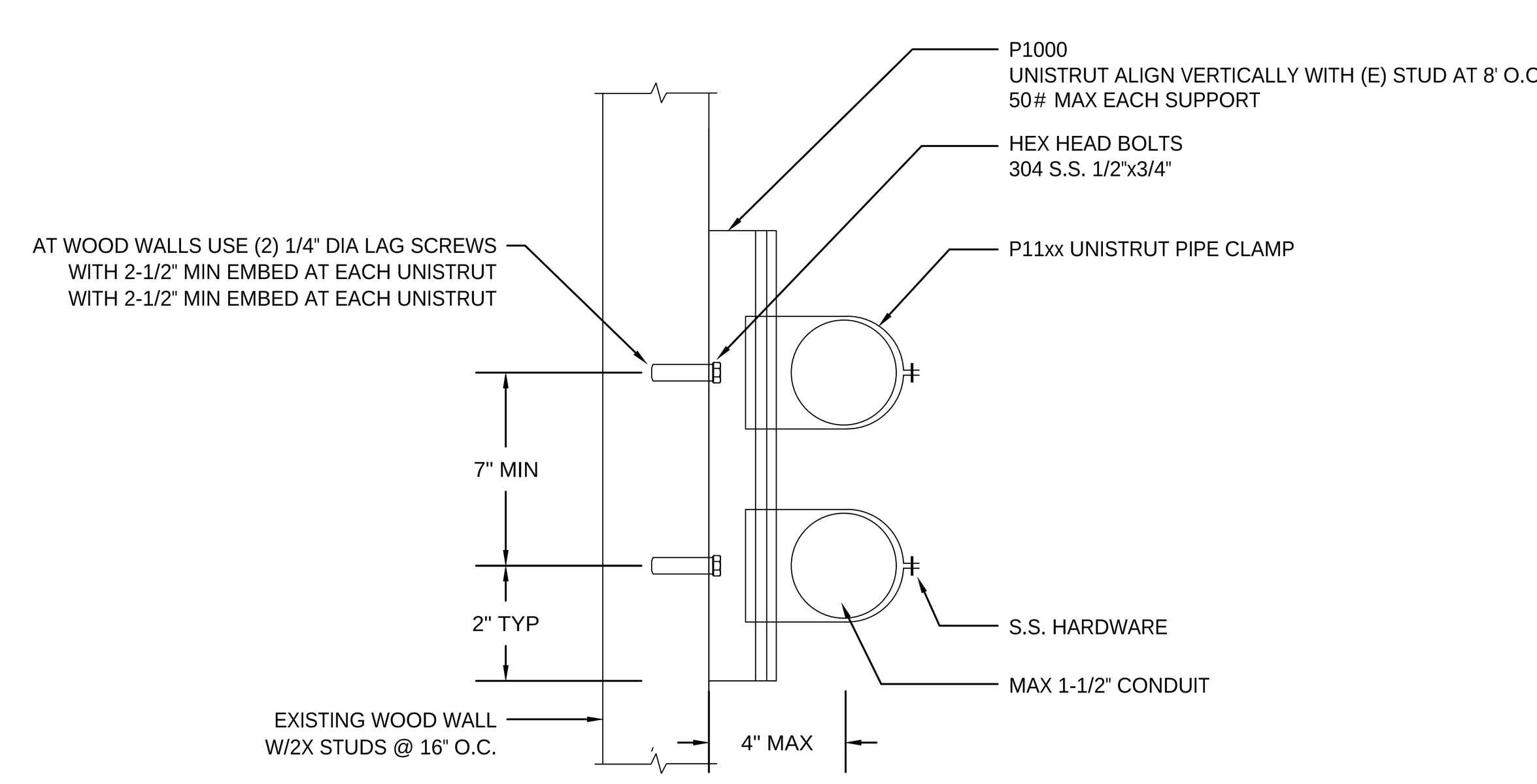
NO SCALE



NOTES

1. THIS IS UL STD #49 FOR CONCRETE WALLS OR UL SYSTEM #147 FOR 1HR. GYPSUM BOARD WALL.
2. THE MAXIMUM ANNULAR SPACE TO BE FILLED IS 2". THE MINIMUM ANNULAR SPACE IS 3/4"
3. FOR SOLID CONCRETE WALLS, THE CP 25 CAULK MAY BE CENTERED IN THE WALL WITH DAMMING MATERIAL ON BOTH SIDES OF THE GAULK.
4. USE CP 25S(SELF SEVELING) CAULK ON HORIZONTAL SURFACES WHEN SEALING OPENING FROM ABOVE THE PENETRATION. USE CP25N (NO SAG) CAULK ON VERTICAL SURFACES AND ON HORIZONTAL SURFACES WHEN SEALING OPENINGS FROM BELOW. USE CP 25WB CAULK ON EITHER APPLICATION.
5. SHRINKAGE OF CP 25 CAULKS IS ACCEPTABLE AFTER INITIAL WET DEPTH INSTALLATION.
6. THE DEPTH OF THE CP 25 CAULKS DEPENDS ON THE INSULATION THICKNESS.

CAULK DEPTH (MIN.)	INSULATION
1"	1" THICK
2"	2-3" THICK



3 CONDUIT WALL SUPPORT

NO SCALE

1 CONDUIT PENETRATION

NO SCALE

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HVAC REPLACEMENT AT BUILDINGS D AND G

ROSEMEAD SCHOOL DISTRICT
PARK ROSEMEAD
3907 ROSEMEAD BOULEVARD
ROSEMEAD, CA 91770

JUBANY NAC | ARCHITECTURE
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