



Consultants:

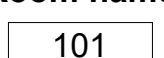

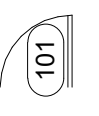



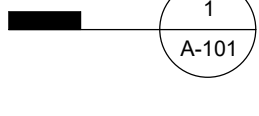

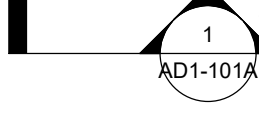

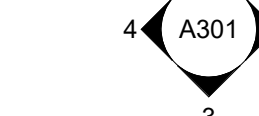



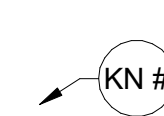
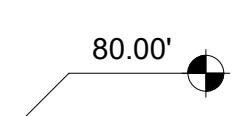

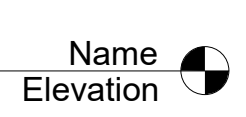
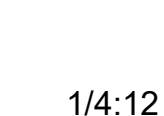
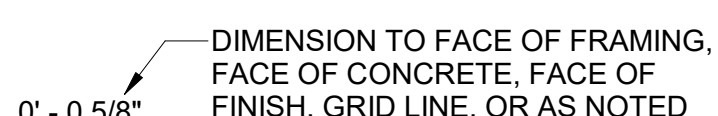
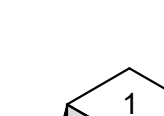
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PERMIT / BID SET


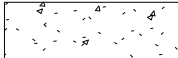

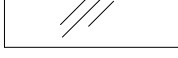

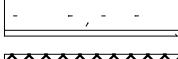



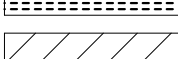

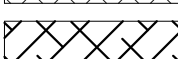

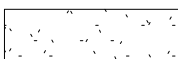
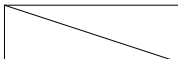
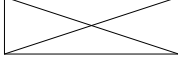

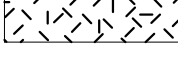
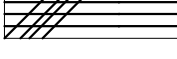

ABBREVIATIONS

A		EPFL	EPOXY FLOORING	K		PLYWD	PLYWOOD	SURF	SURFACE
AC	ACOUSTIC CEILING	EPP	EPOXY PAINT	KO	KNOCK OUT	PNEU	PNEUMATIC	SUSP	SUSPENDED
ACOUS	ACOUSTIC	EQ	EQUAL	KP	KICK PLATE	PNL	PANEL	SV	SHEET VINYL
ACT	ACOUSTICAL TILE	EQUIP	EQUIPMENT			PNT	PAINT(ED)	SWCG	SPECIAL WALL COATING
AD	AREA DRAIN	EST	ESTIMATE(D)	L		POL	POLISH(ED)	SYM	SYMMETRICAL
ADD	ADDENDUM	ETC	ET CETERA	L&P	LATH & PLASTER	PORT	PORTABLE	SYN	SYNTHETIC
ADDL	ADDITIONAL	EW	EACH WAY	LAB	LABORATORY	PP	PUSH PLATE	SYS	SYSTEM
ADJ	ADJUSTABLE/ADJACENT	EWC	ELECTRIC WATER COOLER	LAM	LAMIANTE	PR	PAIR/ PRINTER/ COMPUTER PRINTER		
AFF	ABOVE FINISH FLOOR	EXAM	EXAMINATION/ EXAMINING	LAV	LAVATORY				
AGGR	AGGREGATE	EXC	EXCAVATED/ EXCAVATION	LB (S)	LAG BOLT(S)/ POUND(S)	PREFAB	PREFABRICATE(D)	T	TOP. TREAD, TOILET
ALT	ALTERNATE/ALTERATION	EXH	EXHAUST	LBL	LABEL	PRELIM	PRELIMINARY	T&B	TOP & BOTTOM
ALUM	ALUMINUM	EXP	EXPOSED/ EXPANSION	LF	LINEAL FOOT/ LINEAR FOOT	PRESS	PRESSURE	T&G	TONGUE & GROOVE
ALX	AUXILIARY	EXT	EXTERIOR	LH	LEFT HAND	PROJ	PROJEC(TION)	T/C	TOP OF CURB/TOP OF CONCRETE
ANCH	ANCHOR			LHR	LEFT HAND REVERSE	PROP	PROPERTY	T/S	TOP OF SLAB
ANOD	ANODIZED (ANODIC COATING)	F	FIRE ALARM	LIN	LINEAR	PROT	PROTECT(IVE) (ION)	T/ST	TOP OF STEEL
AP	ACCESS PANEL	FA	FIRE ALARM	LL	LIVE LOAD	PSF	POUNDS PER SQUARE FOOT	T/W	TOP OF WALL
APPROX	APPROXIMATELY	FAB	FABRICATE/ FABRICATOR/ FABRIC	LT(G)	LIGHT (ING)	PSI	POUNDS PER SQUARE INCH	TB	TOWEL BAR
ARCH	ARCHITECTURAL	FD	FLOOR DRAIN	LW	LIGHTWEIGHT	PTD	PAPER TOWEL DISPENSER	TEL	TOWEL DISPENSER
ARF	ABOVE REFERENCE FLOOR	FDC	FIRE DEPARTMENT CONNECTION	M		PTD/R	COMBINATION PAPER TOWEL DISPENSER & RECEPTACLE	TEMP	TEMPERATURE/TEMPORARY
ASPH	ASPHALT (IC)			M&S	MIRROR & SHELF	PTN	PARTITION(S)	TERR	TERRAZZO
ASST	ASSISTANT	FDN	FOUNDATION	M.S.B.	MULTIPLE STUD BEARING	PTR	PAPER TOWEL RECEPTACLE	TG	TEMPERED GLASS
AST	ASTRAGAL	FDRP	FIRE DAMPER	MACH	MACHINE	PVC	POLYVINYL CHLORIDE	THB	TEMPERED HARDBOARD
AUTO	AUTOMATIC	FDV	FIRE DEPARTMENT VALVE	MAINT	MAINTENANCE	PVMT	PAVEMENT	THERMO	THERMOSTAT(IC)
AV	AUDIO VISUAL	FDVC	FIRE DEPARTMENT VALVE CABINET	MAS	MASONRY	Q		THK	THICK(NESS)
AVG	AVERAGE			MAT	MATERIAL	QT	QUARRY TILE	THRES	THRESHOLD
		FE	FIRE EXTINGUISHER	MAX	MAXIMUM	QTR	QUARTER	THRU	THROUGH
B		FEC	FIRE EXTINGUISHER CABINET	MBR	MEMBER	QUAN	QUANTITY	TJ	TELEPHONE JACK
B/C	BOTTOM OF CURB	FF	FACTORY FINISH	MC	MEDICINE CABINET			TKBD	TACK BOARD
BAL	BALANCE	FH	FIRE HYDRANT/ FUME HOOD	MCW	MINERAL CORE WOOD	R		TOIL	TOILET
BD	BOARD	FHC	FIRE HOSE CABINET	MECH	MECHANICAL	R	RADIUS/ RISER/ RESILIENT	TOP	TOPPING
BLDG	BUILDING	FHEC	FIRE HOSE & EXTINGUISHER CABINET	MED	MEDICAL/ MEDIUM	R&S	ROD & SHELF	TOS	TOP OF STEEL
BLK	BLOCK(ING)			MET	METAL	RAD	RADIATOR/ RADIUS	TPD	TOILET PAPER DISPENSER
BM	BENCH MARK/ BEAM	FIN	FINISH(ED)	MEZZ	MEZZANINE	RB	RUBBER BASE/ RESILIENT BASE	TR	TREAD
BSMT	BASEMENT	FL	FLOOR LINE/ FLOOR	MFB	MINERAL FIBER BOARD	RCWY	RACEWAY	TRK	TRACK
BULL	BULLETIN	FLASH	FLASHING	MFR	MANUFACTURE(ING)	RD	ROOF DRAIN/ ROAD	TV	TELEVISION
		FLEX	FLEXIBLE	MGR	MANAGER	RECEP	RECEPTACLE/ RECEPTION	TYP	TYPICAL
C		FLR	FLOOR(ING)	MH	MANHOLE	RECIRC	RECIRCULATION	U	
C/C	CENTER TO CENTER	FLUOR	FLUORESCENT	MIC	MICROPHONE	RECT	RECTANGULAR	UG	UNDERGROUND
CAB	CABINET	FOS	FACE OF STUD	MIN	MINIMUM	RECV	RECEIVED (ING)	UH	UNIT HEATER
CB	CATCH BASIN	FP	FIREPROOF(ING)/ FULL PENETRATION	MIR	MIRROR	REF	REFERENCE	UL	UNDERWRITERS LABORATORIES INC.
CCTV	CLOSED CIRCUIT TV			MISC	MISCELLANEOUS	REFR	REFRIGERATOR	UNFIN	UNFINISHED
CEMPL	CEMENT PLASTER	FRAM(G)	FRAMING	ML	METAL LATH	REG	REGULATOR/ REGLET/ REGISTER	UNO	UNLESS NOTED OTHERWISE
CER	CERAMIC	FRT	FIRE RETARDANT	MLP	METAL LATH AND PLASTER	REINF	REINFORCE(D) (ING) (MENT)	UR	URNAL
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	FS	FULL SIZE/ FLOOR SINK	MMB	MEMBRANE	REQ(D)	REQUIRE(D)	UTIL	UTILITY
CG	CORNER GUARD	FT	FOOT/ FEET	MO	MASONRY OPENING	RESIL	RESILIENT	UV	UNIT VENTILATOR
CH	COAT HOOK	FTG	FOOTING	MOD	MODULAR/ MODIFIED/ MODIFICATION	RET	RETURN	V	
CHAM	CHAMFER	FURR	FURRING			REV	REVERSE/ REVISED/ REVISION	VAP	VAPOR
CHAN	CHANNEL	FXD	FIXED	MP	MOVABLE PARTITION/METAL PANEL	RFG	ROOFING	VAR	VARIABLE/VARNISH/VARIES
CHKBD	CHALKBOARD			MR	MAT. RECESS/ MED RACK	RH	RIGHT HAND	VB	VAPOR BARRIER
CIP	CAST-IN-PLACE (CONCRETE)	G		MT	MOUNT(ED) (ING)	RHR	RIGHT HAND REVERSE	VCT	VINYL COMPOSITION TILE
CJ	CONTROL JOINT	GA	GAUGE/ GAGE	MTR	METER	RM	ROOM	VEH	VEHICLE
CL	CENTER LINE/CLEARANCE	GALV	GALVANIZED	MUL	MULLION	RND	ROUND	VENEER	VENT
CLG	CEILING	GB	GYPSON BOARD			RO	ROUGH OPENING	VENT	VENTILATION/VENTILATE/VENTILATOR
CLR	CLEAR	GC	GENERAL CONTRACTOR	N		RS	RESILIENT SHEET	VERT	VERTICAL
CMT	CERAMIC MOSAIC TILE	GEN	GENERAL/ GENERATOR	N		RT	RESILIENT TILE	VEST	VESTIBULE
CMU	CONCRETE MASONRY UNIT	GL	GLASS/GLAZING/GLAZED	N		RTN	RETURN	VG	VERTICAL GRAIN
CNTR	COUNTER	GLAM	GLUE LAMINATED	NEG	NEGATIVE	S		VIF	VERIFY IN FIELD
CO	CLEAN OUT	GND	GROUND	NIC	NOT IN CONTRACT	S&V	STAIN & VARNISH	VOL	VOLUME
COL	COLUMN	GYP	GYPSON	NL	NIGHT LIGHT	SAB	SOUND ABSORPTION BATT	VP	VENEER PLASTER
COMB	COMBINATION/COMBUSTIBLE			NO. #	NUMBER	SAN	SANITARY	W	
COMP	COMPRESS(ED)/COMPOSITE	H		NOM	NOMINAL	SC	SOLID CORE	W/	WITH
CONC	CONCRETE	HB	HOSE BIBB	NONCOM	NON COMBUSTABLE	SCHED	SCHEDULE	W/O	WITHOUT
COND	CONDUIT/ CONDITION	HC	HOSE CABINET/ HANDICAP/ HOLLOW CORE	NRC	NOISE REDUCTION COEFFICIENT	SCN	SCREEN	WAIN	WAINSCOT
CONF	CONFERENCE	HCW	HOLLOW CORE WOOD/ HOT AND COLD WATER	NS	NON SLIP	SD	SOAP DISPENSER / SOAP DISH	WB	WHITE BOARD/WOOD BASE
CONN	CONNECT(ION)	HDBD	HARDBOARD	NTS	NOT TO SCALE	SECT	SECTION	WC	WATER CLOSET
CONST	CONSTRUCTION	HDR	HEADER			SET	SETTING	WCG	WALL COVERING
CONT	CONTINUE/ CONTINUOUS	HDWR	HARDWOOD	O		SF	SQUARE FOOT	WD	WOOD
CONTR	CONTRACTOR	HGT	HEIGHT	OC	ON CENTER	SFC	SPECIAL FLOOR COATING	WDW	WINDOW
COORD	COORDINATOR	HGT (HT)	HOLLOW METAL	OD	OUTSIDE DIAMETER (DIM.)	SFP	SPRAYED ON FIREPROOFING	WF	WIDE FLANGE (STEEL)
CORR	CORRIDOR	HM	HOLLOW METAL	OFCD	OWNER FURNISHED CONTRACTOR INSTALLED	SHR	SHOWER	WG	WIRE GLASS/WALL GRILL
CPT	CARPET	HR	HOUR	OFD	OVERFLOW DRAIN	SHT	SHEET	WL	WATER LINE
CSWK	CASEWORK	HS	HOOK STRIP/ HIGH STRENGTH	OFF	OFFICE	SK	SINK/SKETCH	WP	WATERPROOFING/WEATHER PROOF
CT	CERAMIC TILE	HSKG	HOUSEKEEPING	OFVI	OWNER FURNISHED VENDOR INSTALLED	SLR	SEALER	WR	WATER RESISTANT/ WASTE RECEPTACLE
CTR	CENTER	HTR	HEATER	OH	OVERHEAD/ OVERHANG/ OPPOSITE HAND	SM	SHEET METAL	WT	WEIGHT
CU	CUBIC	HVAC	HEATING, VENTILATION, AIR CONDITIONING	OPER	OPERATING	SND	SANITARY NAPKIN DISPENSER	Y	
		HWY	HIGHWAY	OPH	OPPOSITE HAND	SNR	SANITARY NAPKIN RECEPTACLE	YD	YARD DRAIN
D		HYD	HYDRANT	OPN (G)	OPEN(ING)	SNT	SEALANT		
DBL	DOUBLE			OPP	OPPOSITE	SP	STANDPIPE/SHEER PLATE		
DEG	DEGREE(S)	I				SPEC	SPECIFICATION/SPECIFIED		
DEM	DEMOLISH/DEMOLITION	ID	INSIDE DIAMETER (DIM.) FOR EXAMPLE	P		SPK	SPEAKER		
DEPT	DEPARTMENT	IE	INSULATING GLASS	PA	PUBLIC ACCESS	SPL	SPECIAL		
DF	DRINKING FOUNTAIN	IG	INSULATING METAL PANEL	PAR	PARAGRAPH/ PARAPET	SPNT	SPECIAL PAINT		
DIA	DIAMETER	IMP	INSULATED	PBD	PARTICLEBOARD	SPR	SPRINKLER		
DIAQ	DIAGONAL	IN	INCH	PC	PRE-CAST	SS	STAINLESS STEEL		
DIM	DIMENSION	INCAND	INCANDESCENT	PED	PEDESTAL	SSK	SERVICE SINK		
DIV	DIVISION/ DIVIDER	INCL	INCLUDE(ING)	PERF	PERFORATED	ST	STREET / STREAM		
DN	DOWN	IND	INDUSTRIAL	PERM	PERIMETER	STA	STATION		
DWL	DOWEL	INFO	INFORMATION	PERP	PERPENDICULAR	STC	SOUND TRANSMISSION COEFFICIENT		
DWR	DRAWER	INSTL	INSTALLATION/ INSTALL	PFB	PREFABRICATE(D)	STD	STANDARD		
		INSUL	INSULATE(D) (ING)	PG	PLATE GLASS	STL	STEEL		
E		INT	INTERIOR	PGBD	PEGBORD	STOR	STORAGE		
(E)	EXISTING	INTER	INTERACTIVE/ INTERMEDIATE	PH	PHASE/ PAN HEAD	STRUC	STRUCTURAL		
EA	EACH	INV	INVERT	PL	PLATE/ PROPERTY LINE	SUBFL	SUBFLOOR(ING)		
EB	EXPANSION BOLT			PLAM	PLASTIC LAMINATE	SUP	SUPPLY		
EJ	EXPANSION JOINT	J		PLAS	PLASTER	SUPP	SUPPORT / SUPPLEMENT(AL)		
ELEC	ELECTRICAL	JAN	JANITOR	PLBG	PLUMBING				
ELEV	ELEVATOR/ ELEVATION	JST	JOIST						
EMER	EMERGENCY	JT	JOINT						
ENAM	ENAMEL(ED)								
ENCL	ENCLOSURE								
ENGR	ENGINEER								
ENTR	ENTRANCE								

SYMBOLS LEGEND

<b>Room name</b>					
	ROOM NAME & ROOM NUMBER		GRID LINE REFERENCE		
	DOOR SWING & DOOR NUMBER (SEE DOOR SCHEDULE)		REVISION NUMBER		
	DETAIL REFERENCE		CEILING TYPE & FINISHED CEILING HEIGHT		
	SECTION REFERENCE		CORNER GUARD		
	SECTION REFERENCE		WINDOW TAG		
	ELEVATION REFERENCE TAG		FINISH TAG		
	WALL TAG, SEE SHEET G-004/G-005 FOR PARTITION TYPES		EXISTING SPOT ELEVATION		
	PLAN SPECIFIC KEY NOTE		NEW SPOT ELEVATION		
	NORTH ARROW (SEE CIVIL FOR TRUE NORTH)		ELEVATION TAG		
	SLOPE ARROW		DIMENSION TO FACE OF FRAMING, FACE OF CONCRETE, FACE OF FINISH, GRID LINE, OR AS NOTED		
	3D VIEW REFERENCE TAG				

FILL PATTERN LEGEND

	ASPHALT
	CONCRETE
	EARTH
	GLASS
	GRAVEL
	GYPSON BOARD
	INSULATION - ACOUSTICAL
	INSULATION - BATT
	INSULATION - RIGID
	INSULATION - SEMI RIGID
	MASONRY - BRICK
	MASONRY - CONCRETE BLOCK
	METAL - ALUMINUM
	METAL - STEEL
	SAND
	WOOD - BLOCKING
	WOOD - CONTINUOUS
	WOOD - FINISH
	WOOD - PARTICLE BOARD
	WOOD - PLYWOOD



Date: 04/06/2021

Project Number: 90065

Drawn By: DET

Checked By: TA

Revision Schedule:

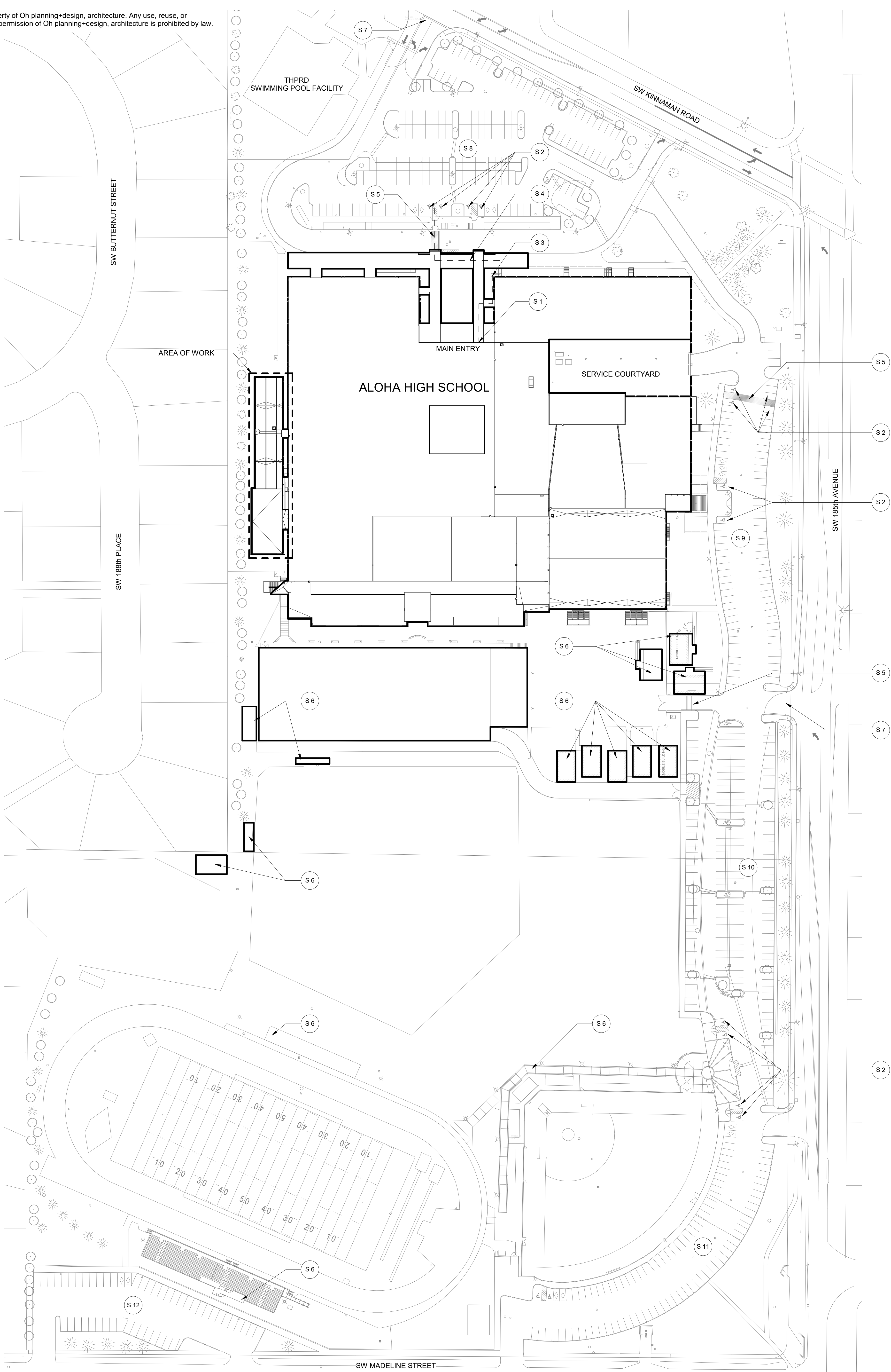
Sheet Title:

ABBREVIATIONS,  
LEGENDS  
AND NOTES

Sheet Number:


G-002






1 SITE PLAN - FOR REFERENCE ONLY  
1" = 60'-0"

SITE PLAN SHEET NOTES	
A. Site plan shown for reference only. No site work in project scope.	
KEYNOTES	
S 1	Existing accessible entrance.
S 2	Existing accessible parking.
S 3	Existing accessible ramp.
S 4	Existing accessible route.
S 5	Existing crosswalk.
S 6	Existing auxiliary building. No project scope.
S 7	Existing emergency vehicle access point.
S 8	Existing north parking lot - 186 spaces - 4 accessible parking stalls.
S 9	Existing northeast parking lot - 80 spaces - 6 accessible parking stalls.
S 10	Existing east parking lot - 166 spaces - 2 accessible parking stalls.
S 11	Existing southeast parking lot - 88 spaces - 2 accessible parking stalls.
S 12	Existing southwest parking lot - 51 spaces - 0 accessible parking stalls.



**BEAVERTON**  
SCHOOL DISTRICT

**ALOHA HIGH SCHOOL**  
18550 SW KINNAMAN ROAD,  
BEAVERTON, OR 97007




**Oh**  
OH PLANNING+DESIGN,  
ARCHITECTURE  
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1 503 280 8000  
1 503 224 5442

Consultants:

ALOHA HIGH SCHOOL  
MODULAR REROOFING

PERMIT / BID SET



REGISTERED ARCHITECT  
DEBORAH K. ROUSE  
PORTLAND, OR  
12/31/2022  
#5530  
STATE OF OREGON

Date: 04/06/2021

Project Number: 90085

Drawn By: DET

Checked By: TA

Revision Schedule:

Sheet Title:

**SITE PLAN**

Sheet Number:

**G-101**

PERMIT / BID SET

BUILDING CODE SUMMARY

APPLICABLE CODES

- 2019 Oregon Structural Specialty Code (OSSC)
- 2017 Oregon Electrical Specialty Code (OESC)
- 2019 Oregon Zero Energy Ready Commercial Code (OZERCC)
- 2019 Oregon Fire Code (OFC)
- 2019 Oregon Mechanical Specialty Code (OMSC)
- 2017 Oregon Plumbing Specialty Code (OPSC)
- ICC A117.1-2009 Accessible and Usable Buildings and Facilities
- 2010 ADA Standards for Accessible Design
- National Fire Protection Association (NFPA)

BUILDING CONSTRUCTION DATA

- Type of construction: VB & IIIB
- Building use and occupancy: Educational - Group E
- Maximum allowable height in stories and floor areas: Existing building, no modifications to overall height of building in stories or floor areas.
- Maximum proposed height of building: Existing building, no modifications to overall height of building.
- Number of stories: Existing building: 2 stories.
- Total floor area: Existing building: 243,890 SF.
- Floor area for each floor: Refer to FLS Key Plan:  
FIRST FLOOR
  - Area 1: 33,165 SF
  - Area 2: 23,660 SF
  - Area 3: 39,100 SF
  - Area 4U: 36,970 SF
  - Area 5U: 25,295 SF
  - Area 6U: 45,110 SF
  - Area 7: 4,030 SF
  - Area 8: 2,675 SF
  - TOTAL: 210,005 SFAREA OF WORK
- LOWER FLOOR
  - Area 4L: 2,195 SF
  - Area 5L: 13,450 SF
  - Area 7L: 18,240 SF
  - TOTAL: 33,885 SFAREA OF WORK
- Existing basement located under existing stage.
- Minimum required setbacks to property line: Existing building, no modifications to the building square footage.

BUILDING OCCUPANCY DATA

- No occupancy change from current use.
- Primary building occupancy: Educational - Group E
- Occupancy for occupied spaces and building separations: Refer to G-202 & G-203.
- Total occupant load per floor.
  - A. Main Floor: 8,206
  - B. Lower Level Floor: 792
  - C. Basement: 12
- Occupant load for each area or room on each floor: Refer to G-202 & G-203.

FIRE RESISTIVE BUILDING ELEMENTS

- No occupancy change and no change to arrangement of existing fire resistive building elements.

BUILDING EXITING

- Square footage, occupant load and maximum floor area per occupant: Refer to code floor plans G-202 & G-203.
- No changes to existing building exiting system are proposed.
- Minimum corridor exit width required: 44". Corridors are not rated as a full sprinkler system is provided. Refer to plans on G-202 & G-203.

BUILDING FIRE DETECTION AND SUPPRESSION

- Smoke detection and fire alarm system are required.
- Smoke detection and fire alarm system are provided.
- Type of system: Simplex 4020 Addressable Analog Control Panel
- Sprinkler system is required.
- Sprinkler system is provided.
- Type of sprinkler system: Wet system at interior, dry system at exterior
- Standpipe system is not required.
- Standpipe system is not provided.
- No functional changes to existing fire detection and suppression systems are proposed.

ENERGY CODE REQUIREMENTS

- Energy code analysis: Perscriptive envelope requirements for new elements only.
- List of building components and R/U values: Refer to Energy Code Summary on this sheet.
- Lighting layout: No changes to lighting layout are proposed.
- Energy form for all HVAC. Refer to Mechanical drawings for like-for-like replacement of selected rooftop HVAC units. No other functional changes to HVAC systems are proposed.

HAZARDOUS MATERIALS

- Hazardous materials (asbestos and lead paint) are present in the existing building. Any work impacting hazardous materials must be performed under DEQ and OSHA regulations.

ACCESSIBILITY

- Site's exterior route of travel: Refer to site plan on G-101.
- Building interior consists of two floors, with level corridor systems, connected by an elevator and a stair lift.
- No changes to accessible routes of travel are proposed.

PLUMBING FIXTURE COUNT REQUIREMENTS

- No change in occupancy or overall square footage of building. The scope of work of this project does not include the modification of any restrooms.

SPECIAL INSPECTION, STRUCTURAL OBSERVATION, AND DEFERRED SUBMITTALS

- Special inspections: Required, refer to sheets S-010 and S-012.
- Structural observations: Required, refer to sheet S-002.
- Deferred submittals: Refer to sheets G-001 and S-002.

OVERALL FIRE/LIFE/SAFETY PLAN REFERENCED FROM OWNER PROVIDED PERMITTED CODE REVIEW FROM THE ADDITIONS AND REMODELING OF ALOHA HIGH SCHOOL DATED JANUARY 2017

This sheet is for reference only. It has been prepared, in part, based on information furnished by others and on previous' as-built Contract Documents. The Architect does not ensure that all conditions have noted or accurately documented. Users of these documets should independently verify all pertinent information and conditions. Do not construe information contained within this sheet to allow work not conforming to applicable codes or requirements of authorities having jurisdiction.

ENERGY CODE SUMMARY

Changes to the existing building envelope will conform to the 2014 Oregon Energy Efficiency Specialty Code, Table 502.1.1, Climate Zone Marine 4.

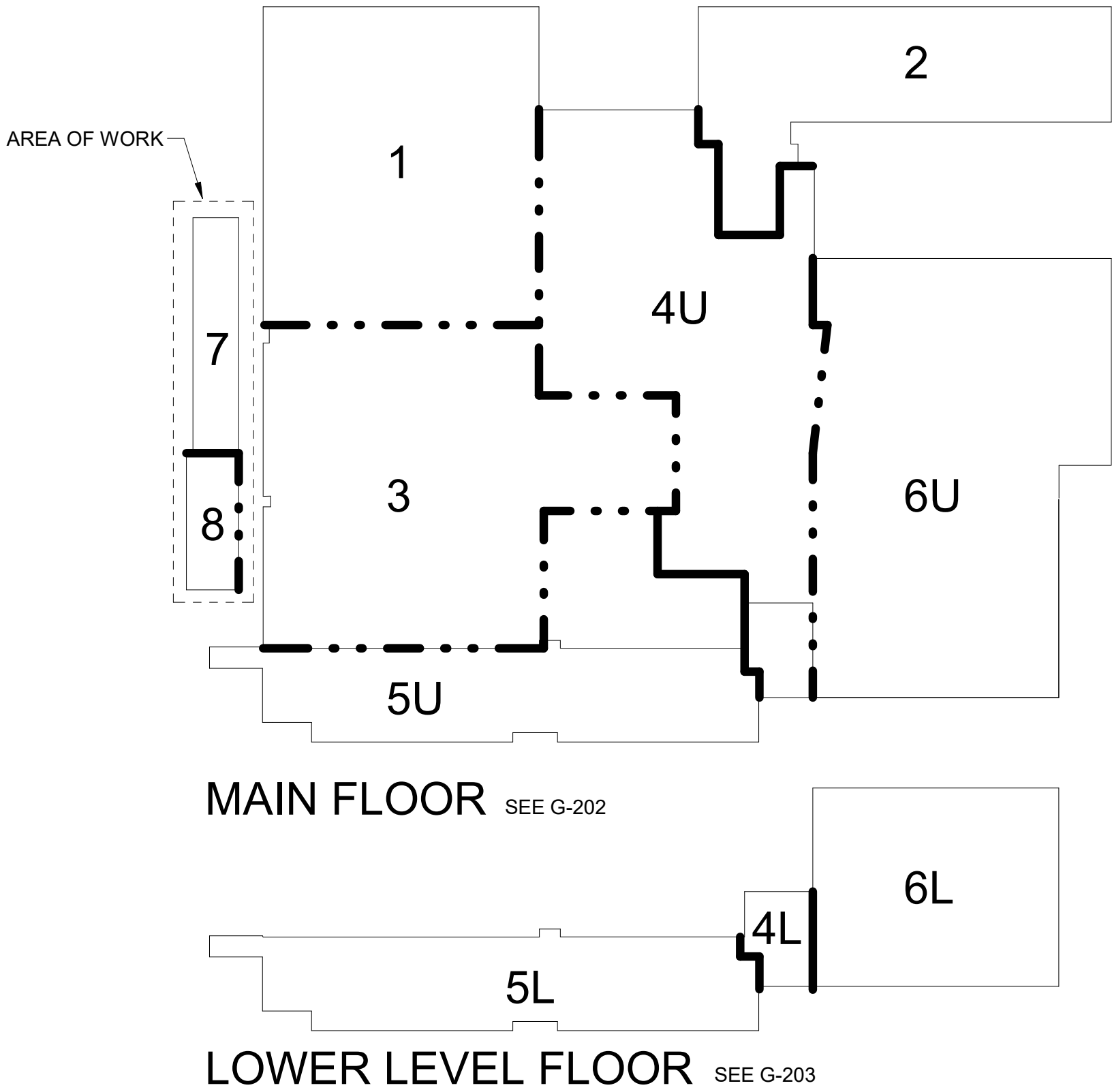
Envelope Element	Roof Areas	Required	Provided	Notes
Roof, full tear-off	A.4	R-30 ci or R-38 attic	R-10 ci + existing batt insulation below floor (R-22 effective total)	Existing R-30 batt insulation between joists is estimated to have an effective R value of R-12. Total effective R-value estimated at R-22.
Roof, canopies	A.5, A.6, A.7	No improvement required	No improvement provided	Unconditioned space.

BUILDING ANALYSIS											
BUILDING AREA							EXITS				
AREA	CONSTRUCTION	BASE AREA	FRONTAGE INCREASE	SRINKLER	ALLOWED AREA	ACTUAL AREA	NUMBER OF OCCUPANTS	EXITS		WIDTH	
								REQ.	ACTUAL	REQ.	ACTUAL
1	VB	9,500'	-	28,500'	38,000'	33,165'	906	3	6	182"	544"
2	V B	9,500'	-	28,500'	38,000'	23,660'	445	2	7	89"	238"
3	VB	9,500'	-	28,500'	38,000'	39,100'	827	4	4	165"	296"
4U	V B	9,500'	-	28,500'	38,000'	36,970'	1,451	4	5	290"	402"
4L	V B	9,500'	-	28,500'	38,000'	2,195'	N/A	N/A	1	N/A	136"
5U	V B	9,500'	-	19,000'	28,500'	25,295'	655	3	3	131"	136"
5L	V B	SEE NOTE 2	-	19,000'	28,500'	13,450'	371	2	2	75"	278"
6U	III B	14,500'	-	29,000'	43,500'	45,110'	3,627	4	7	625"	636"
6L	III B	SEE NOTE 2	-	29,000'	43,500'	18,240'	421	2	3	84"	184"
7	V B	9,500'	-	28,500'	38,000'	4,030'	179	4	8	36"	272"
8	V B	9,500'	-	28,500'	38,000'	2,675'	116	4	4	23"	136"

AREA OF WORK

NOTES:

- A FIRE SPRINKLER SYSTEM IS PROVIDED THROUGHOUT THE EXISTING BUILDING.
- A ONE STORY INCREASE PERMITTED IN HEIGHT FOR TYPE VB WITH AREA NOT TO EXCEED THE ALLOWABLE FOR ONE FLOOR . TWO STORIES PERMITTED FOR TYPE III B.
- A TWO HOUR FIRE WALL SEPARATES THE BUILDING AREAS
- THE MAXIMUM EXIT DISTANCE OF 250 FT IS NOT EXCEEDED.



Consultants:

ALOHA HIGH SCHOOL  
MODULAR REROOFING

PERMIT / BID SET



Date: 04/06/2021  
Project Number: 90065  
Drawn By: DET  
Checked By: TA

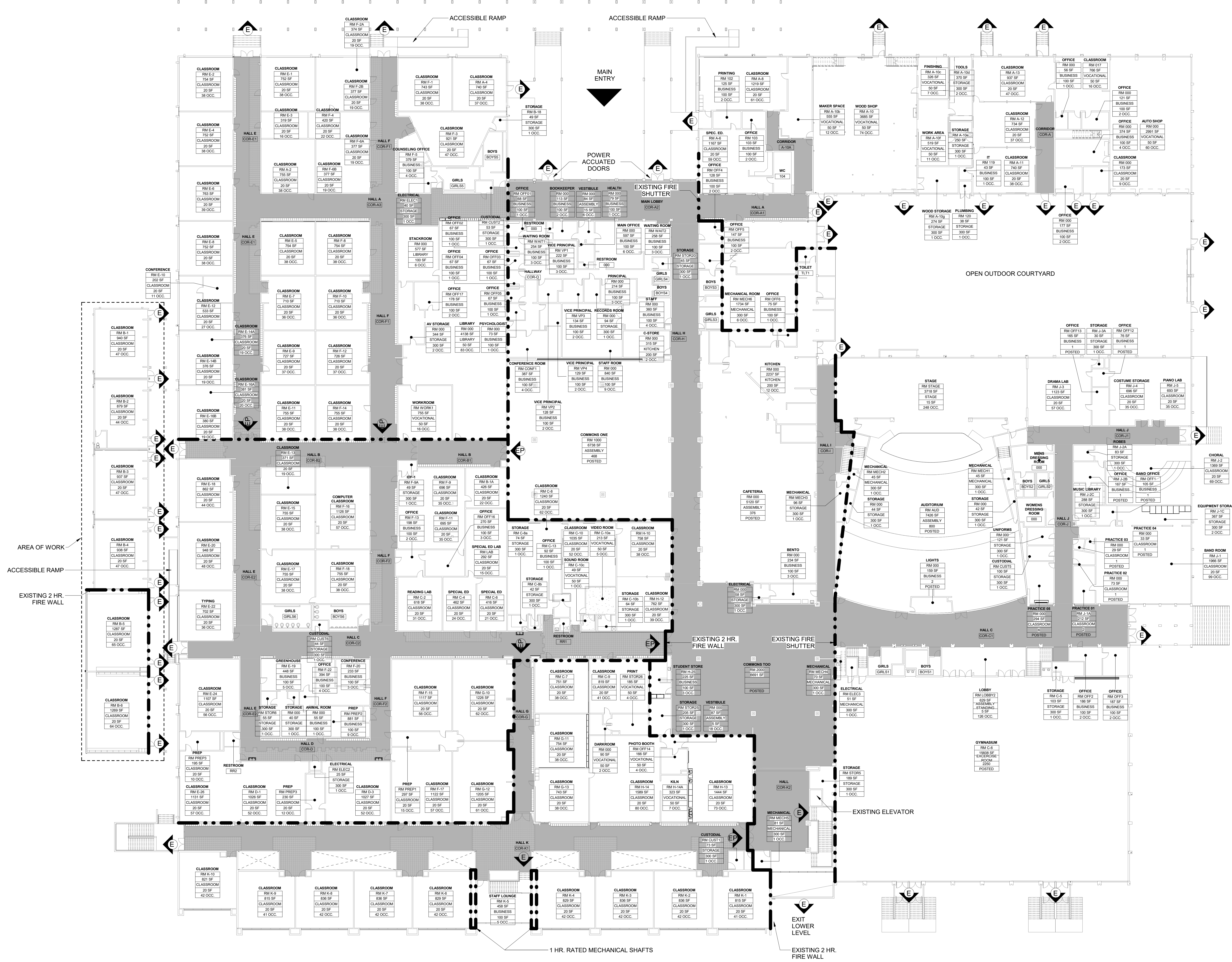
Revision Schedule:

Sheet Title:  
**CODE SUMMARY**

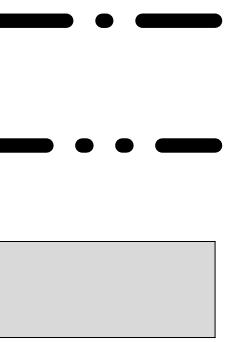
Sheet Number:

**G-201**  
PERMIT / BID SET





FIRE AND LIFE SAFETY LEGEND



EXISTING 1 HR FIRE SEPARATION - 45 MIN DOORS

EXISTING 2 HR OCCUPANCY SEPARATION - 90 MIN DOORS

NON - RATED EGRESS CORRIDOR

ROOM NAME
RM 101
200 SF
100 OCC
XX OCC

ROOM NAME

ROOM NUMBER

AREA OF ROOM

OCCUPANCY GROUP

NUMBER OF OCCUPANTS

EXIT

EXIT PASSAGEWAY

NOTE:

OVERALL FIRE/LIFE/SAFETY PLAN REFERENCED FROM OWNER PROVIDED PERMITTED CODE REVIEW FROM THE ADDITIONS AND REMODELING OF ALOHA HIGH SCHOOL DATED JANUARY 2017.

NOTE:

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**BEAVERTON**  
SCHOOL DISTRICT

**ALOHA HIGH SCHOOL**  
18550 SW KINNAMAN ROAD,  
BEAVERTON, OR 97007

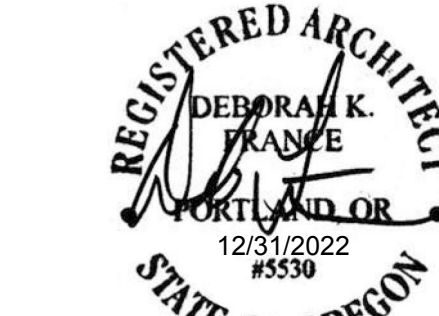


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1 503 224 5442

Consultants:

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MODULAR REROOFING

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Date: 04/06/2021

Project Number: 90065

Drawn By: DET

Checked By: TA

Revision Schedule:

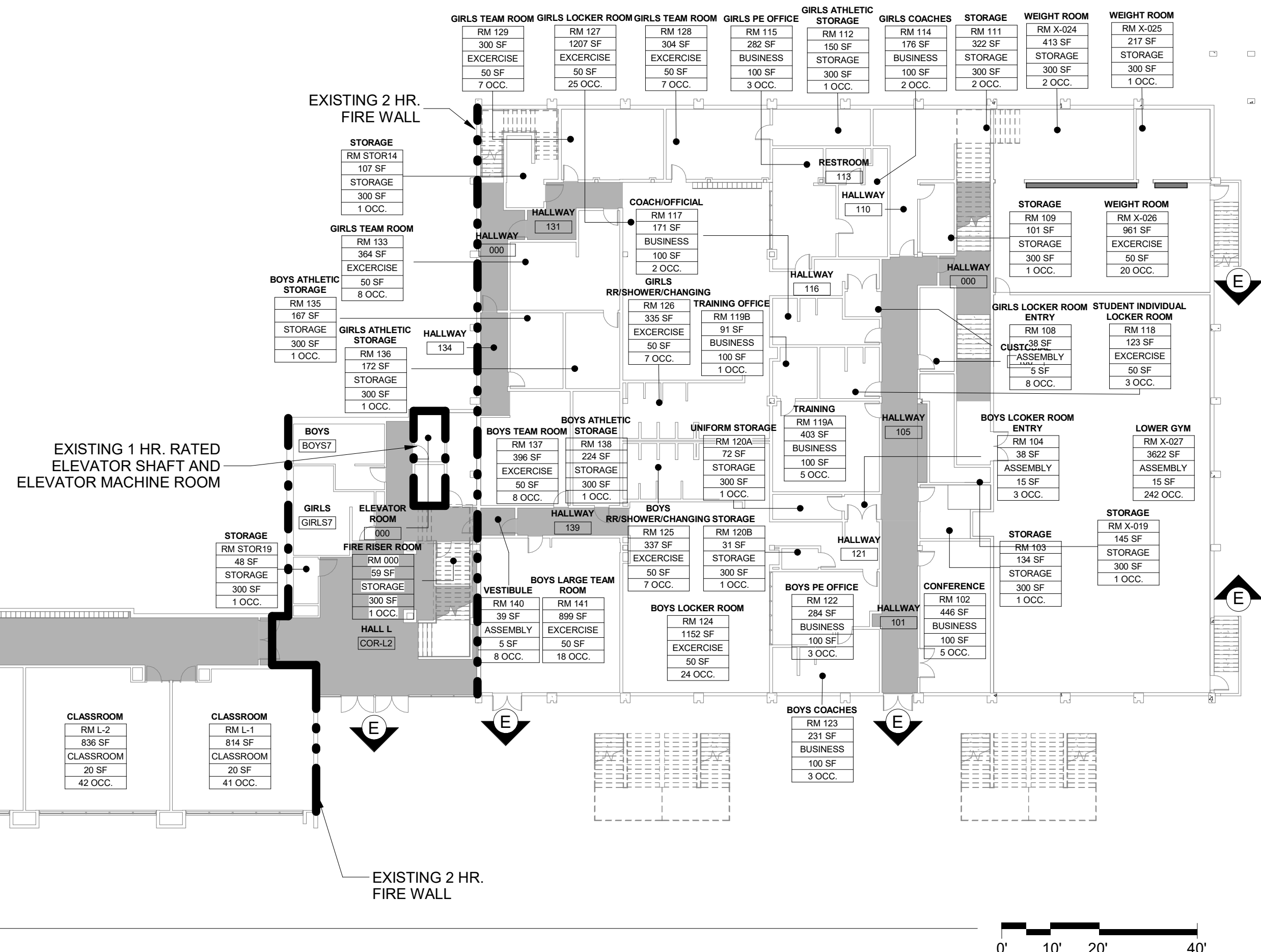
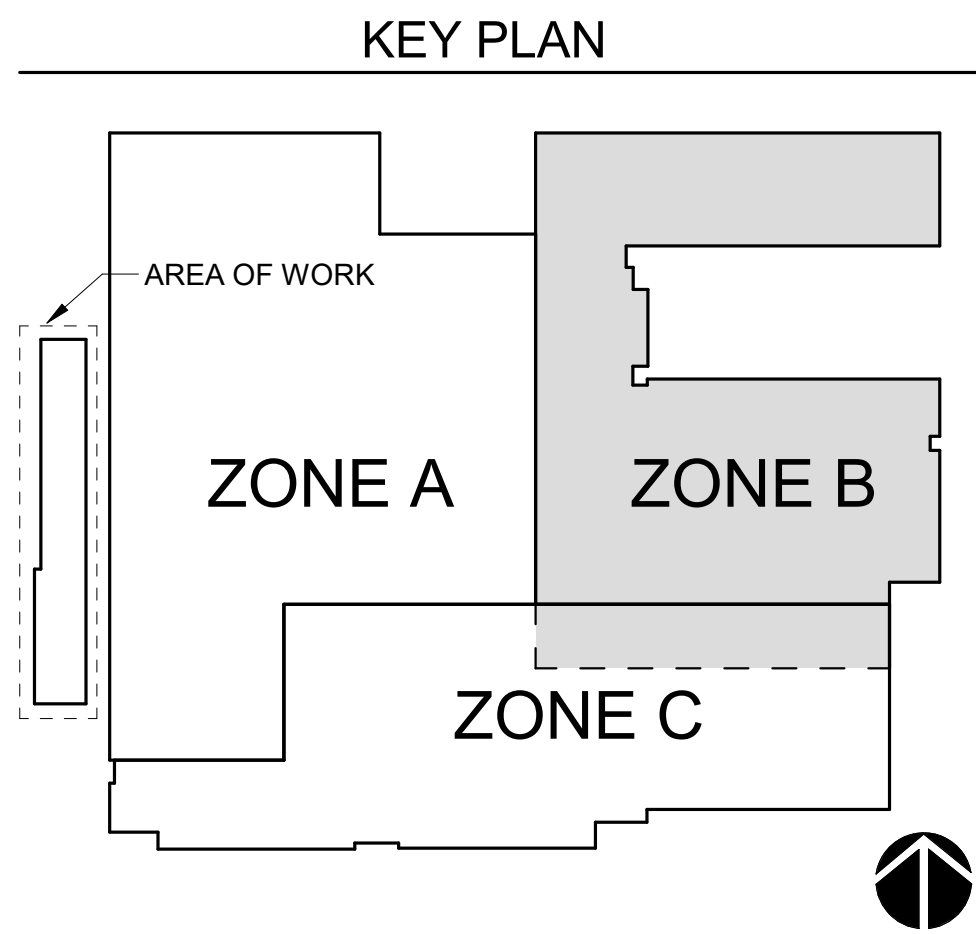
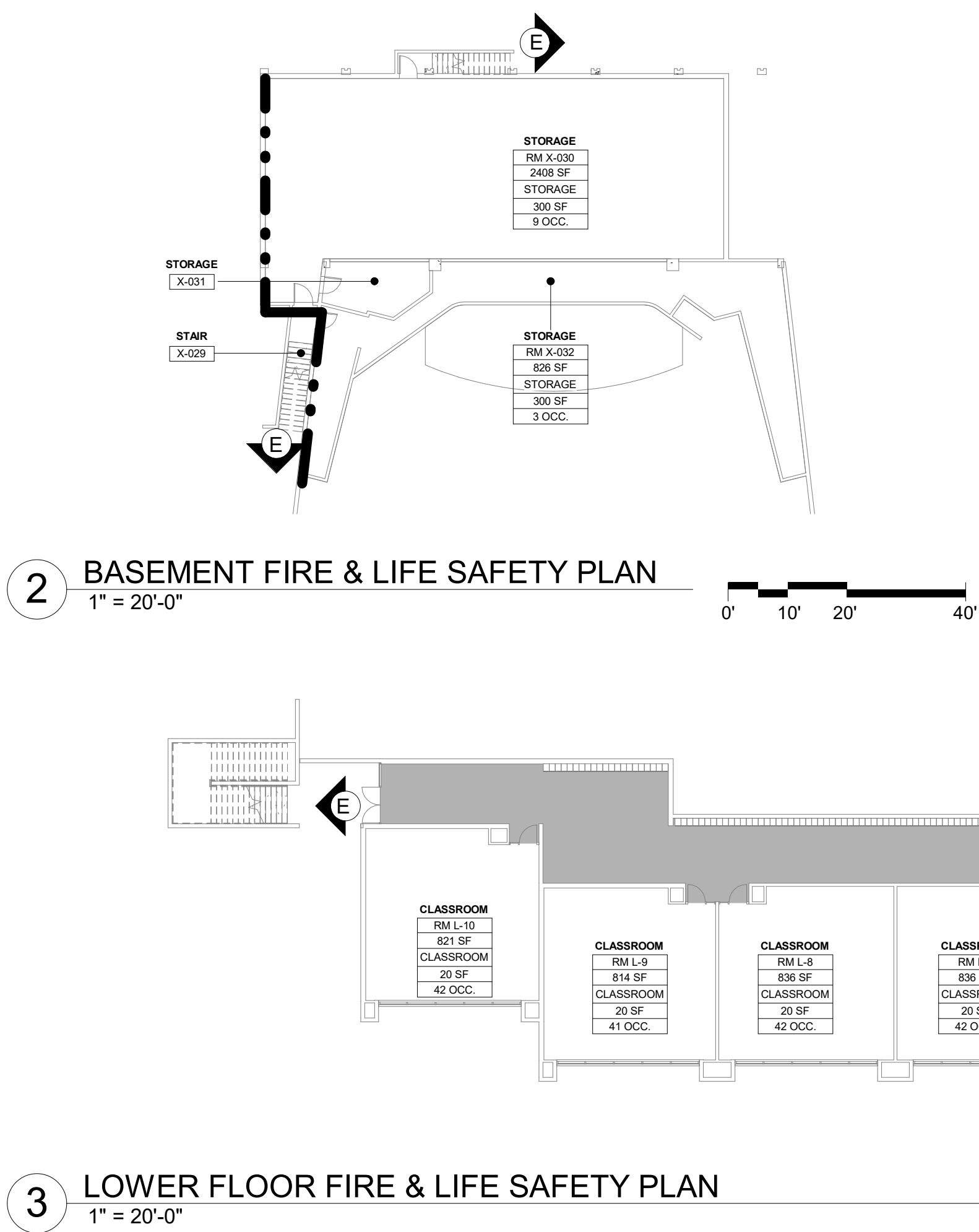
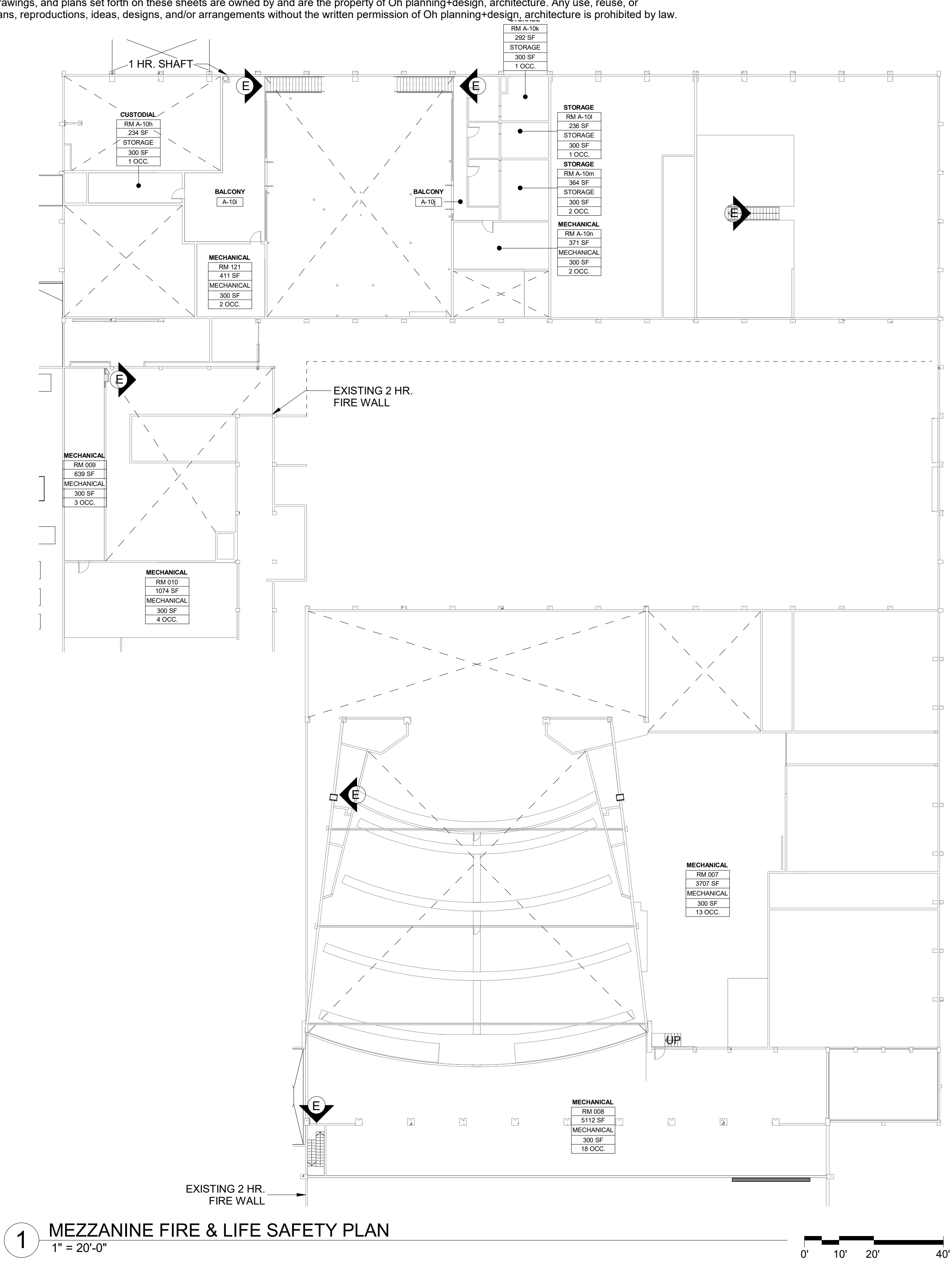
Sheet Title:

**FIRE LIFE SAFETY PLAN FIRST FLOOR**

Sheet Number:

**G-202**

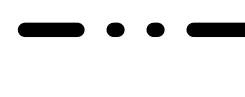
PERMIT / BID SET



FIRE AND LIFE SAFETY LEGEND



EXISTING 1 HR FIRE SEPARATION - 45 MIN DOORS



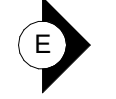
EXISTING 2 HR OCCUPANCY SEPARATION - 90 MIN DOORS



NON - RATED EGRESS CORRIDOR

ROOM NAME
RM 101
900 SF
SPACE
XX
XX OCC

ROOM NAME  
ROOM NUMBER  
AREA OF ROOM  
OCCUPANCY GROUP  
NUMBER OF OCCUPANTS



EXIT



EXIT PASSAGEWAY

NOTE:  
OVERALL FIRE/LIFE/SAFETY PLAN REFERENCED FROM OWNER PROVIDED PERMITTED CODE REVIEW FROM THE ADDITIONS AND REMODELING OF ALOHA HIGH SCHOOL DATED JANUARY 2017.

NOTE:  
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**ALOHA HIGH SCHOOL**  
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Consultants:

ALOHA HIGH SCHOOL  
MODULAR REROOFING

PERMIT / BID SET



Date: 04/06/2021  
Project Number: 90085  
Drawn By: DET  
Checked By: TA

Revision Schedule:

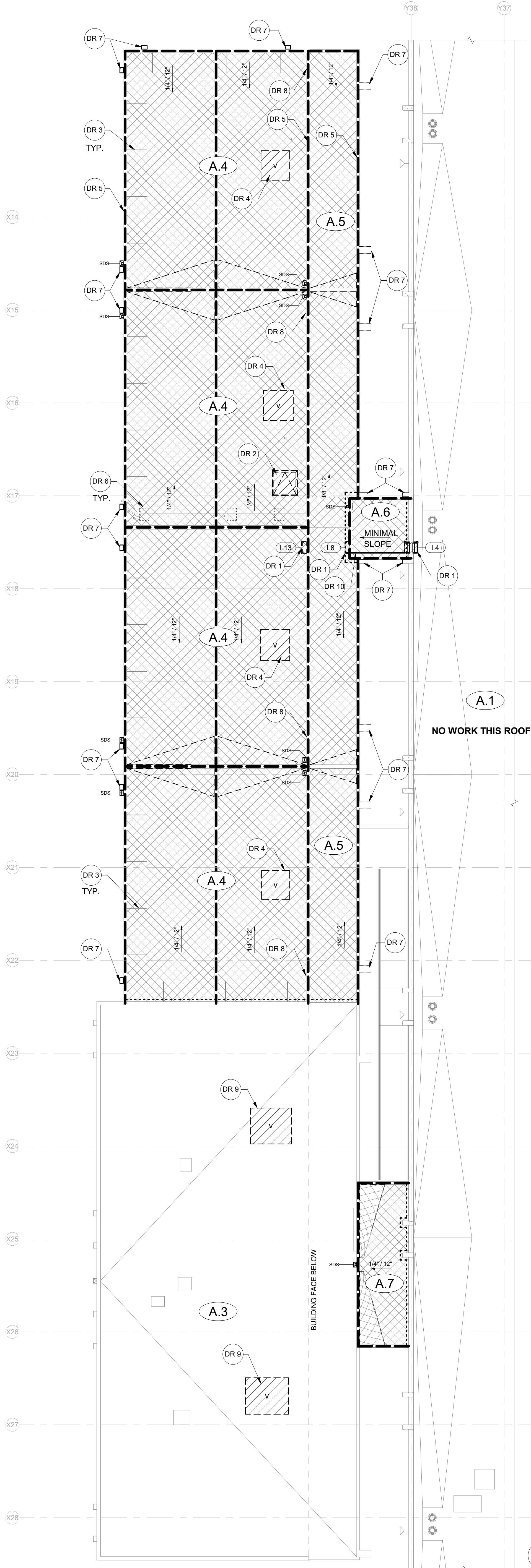
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**FIRE LIFE SAFETY PLAN MEZZ/LOWER FLOOR**

Sheet Number:

**G-203**

PERMIT / BID SET





DEMOLITION ROOF PLAN SHEET NOTES

- A. Keynotes are not sheet specific.  
B. General Contractor is responsible for verifying all existing conditions and notifying Architect of any discrepancies.  
C. Coordinate all work with manufacturer requirements.  
D. Coordinate all work with other disciplines; see Mechanical, Plumbing and Electrical drawings for additional scope.  
E. See Plumbing drawings for plumbing vent and roof drain demolition.  
F. See Electrical drawings for additional details regarding conduit, cables and other electrical connections or equipment.  
G. Hazardous materials are present in this building. Coordinate demolition activities with District's Hazardous Material Abatement drawings, Management Plan, and Hazardous Materials Survey. See General Hazard Communication Note on cover sheet.  
H. Localized demolition as it pertains to new roof curbs to be coordinated with manufacturers requirements, new curb details.  
I. Protect roof from water intrusion during demolition.

DEMOLITION ROOF PLAN LEGEND

- FULL DEMOLITION: DEMOLISH BUILT-UP ROOFING SYSTEM DOWN TO (E) WOOD DECK SUBSTRATE.  
 DEMOLISH EXISTING WOOD-FRAMED CRICKET  
 ROOF AREA REFERENCE

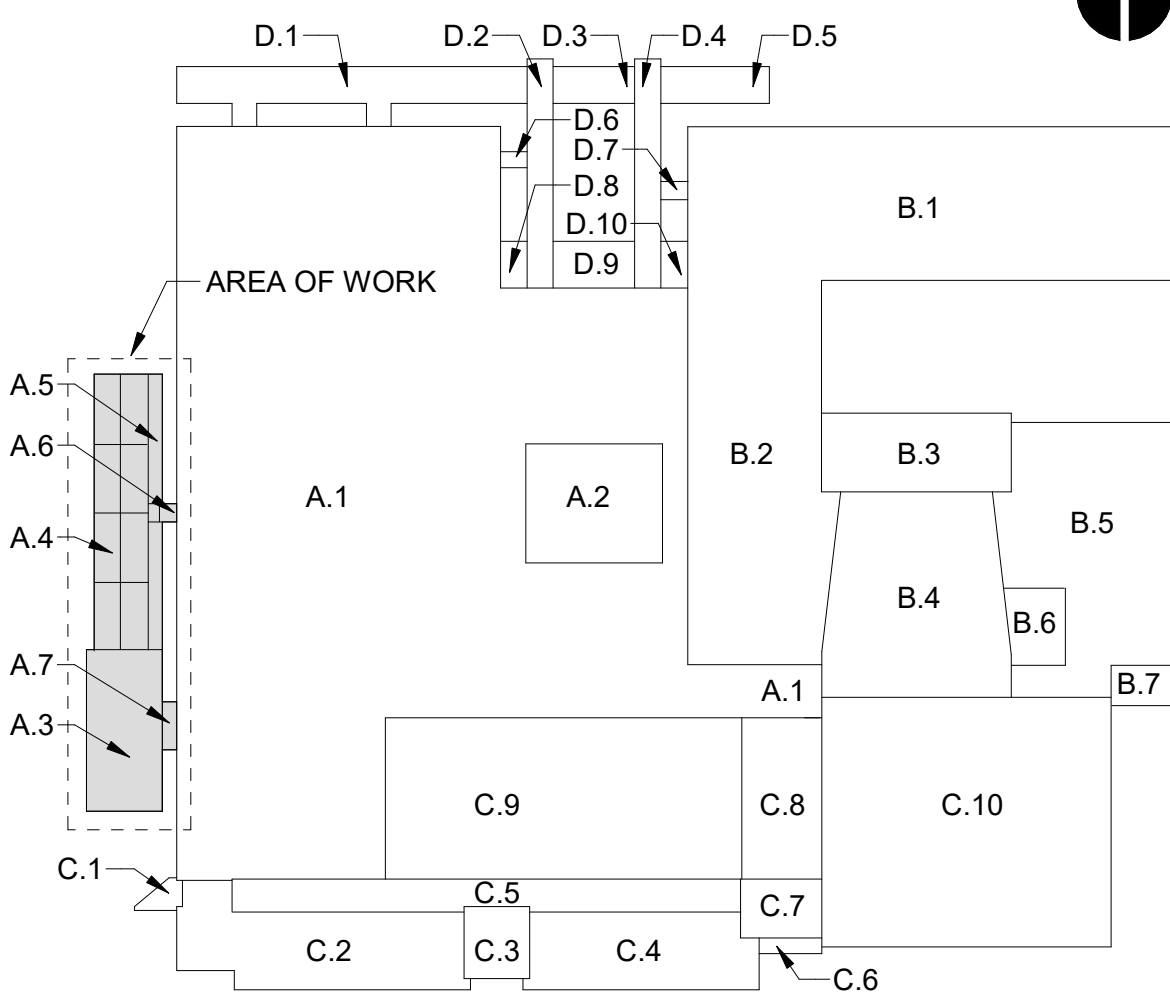
KEYNOTES

- DR 1 Remove & salvage existing ladder, modify height, see Ladder schedule and details sheet A-721.  
DR 2 Remove and salvage existing hatch, existing curb to remain.  
DR 3 Existing parapet brace to remain in place during construction - protect.  
DR 4 Demolition of roofing, flashing and curb as indicated on plans to accommodate new mechanical curb.  
DR 5 Demolish plywood cant, Typ. at all curbs & parapet walls.  
DR 6 Demolish existing support for conduit and/or electrical cables where occurs, typical - see Electrical.  
DR 7 Demolish column cap flashing.  
DR 8 Remove and salvage sidewall vent grill, typical.  
DR 9 Existing curb to be reused for new mechanical unit. Localized demolition of flashing to accommodate new adapter curb.  
DR 10 Remove and salvage metal bar fastened between ladders.

ROOF DEMOLITION SCHEDULE - ZONE A								
ROOF AREA	AREA SQ. FT.	DECK		INSULATION		ROOFING		COMMENTS
		MATERIAL	(E) SLOPE	EXISTING	DEMO	(E) MATERIAL	DEMO	
A.3	3246 SF	(E) TO REMAIN	(E) TO REMAIN	(E) TO REMAIN	(E) TO REMAIN	(E) TO REMAIN	NO	1998 addition
A.4	3858 SF	PLYWOOD DECK	1/4" / 1', NOTE 1	YES, 1/2" ISO	YES, NOTE 4	BUR W/ BALLAST	YES, NOTE 4	1996 addition
A.5	996 SF	PLYWOOD DECK	1/4" / 1', NOTE 1	YES, 1/2" ISO	YES, NOTE 4	BUR W/ BALLAST	YES, NOTE 4	1996 addition - canopy
A.6	74 SF	PLYWOOD DECK	<1/8" / 1', NOTE 1	YES, 1/2" ISO	YES, NOTE 4	BUR W/ BALLAST	YES, NOTE 4	1967 original - canopy
A.7	179 SF	PLYWOOD DECK	1/4" / 1', NOTE 1	NO	N/A	BUR W/ BALLAST	YES, NOTE 4	1998 addition - canopy

- ROOF DEMOLITION SCHEDULE NOTES:
- General Contractor to confirm existing slopes after demolition and notify Architect of any discrepancies.
  - Existing slopes vary, see AD-222 for existing slopes.
  - Refer to legend, keynotes and plans for extents of full tear off demolition.
  - Full demolition of entire existing roofing system to expose plywood deck substrate.
  - Demolish all loose granules and membrane flashing around sheet metal, parapet and vertical surfaces. Additional demolition of damaged existing membrane per manufacturers requirements. See plan for areas of full demolition of existing built-up membrane to expose deck.

KEY PLAN



1 ROOF DEMOLITION PLAN - MODULAR  
1/8" = 1'-0"



BEAVERTON  
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Consultants:

ALOHA HIGH SCHOOL  
MODULAR REROOFING

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Date: 04/06/2021  
Project Number: 90065  
Drawn By: DET  
Checked By: TA

Revision Schedule:

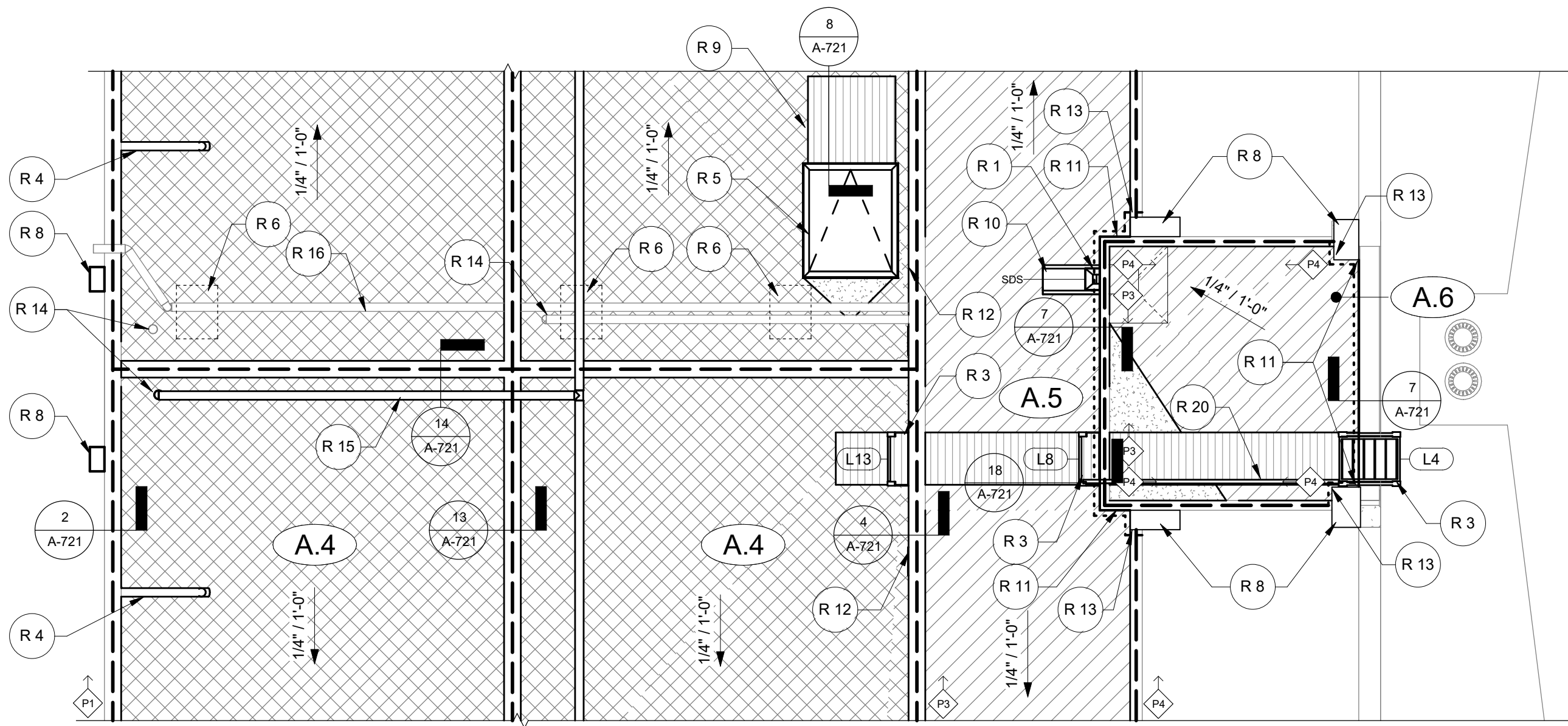
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ROOF  
DEMOLITION  
PLAN

Sheet Number:

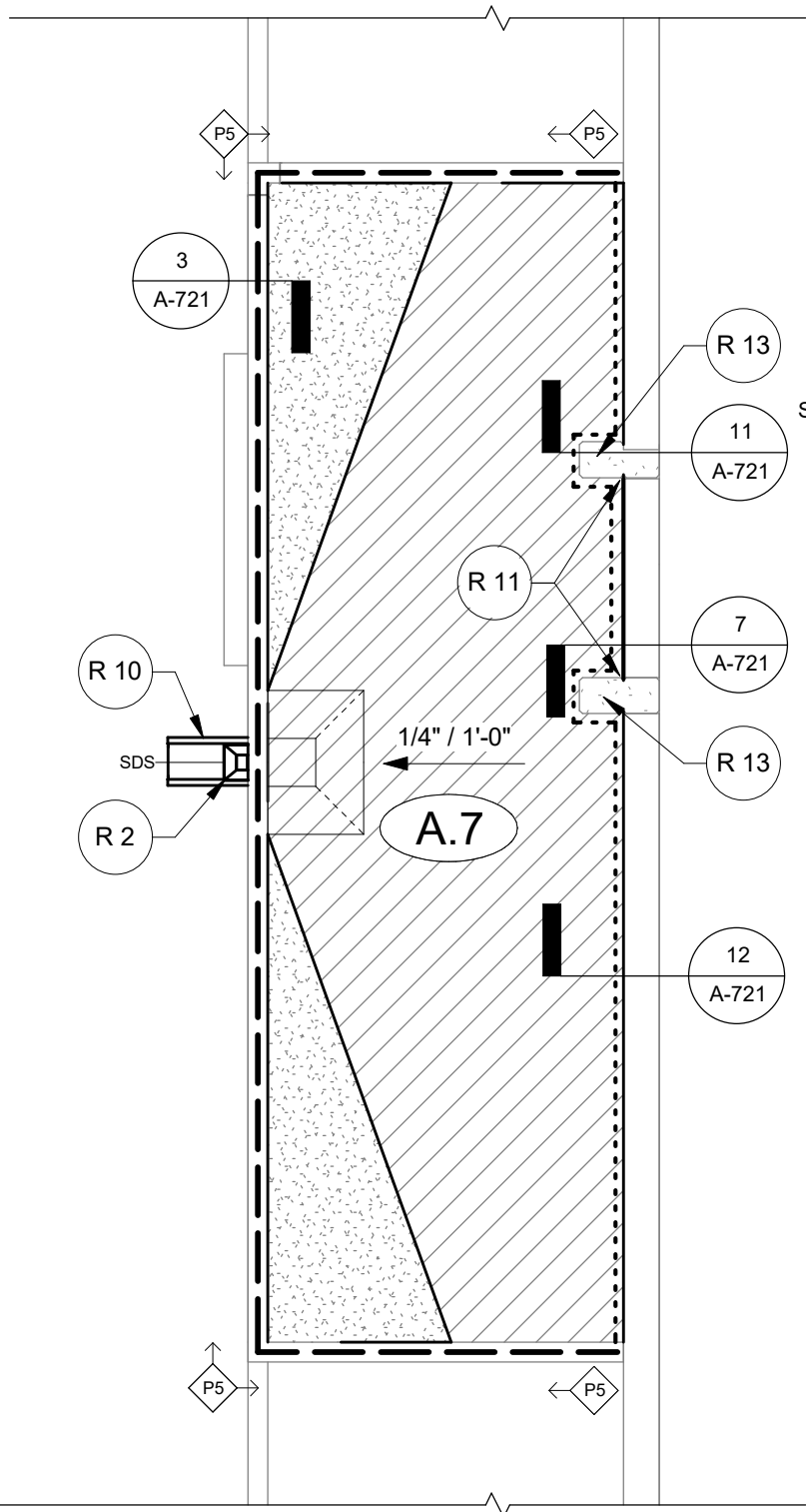
AD-221

PERMIT / BID SET

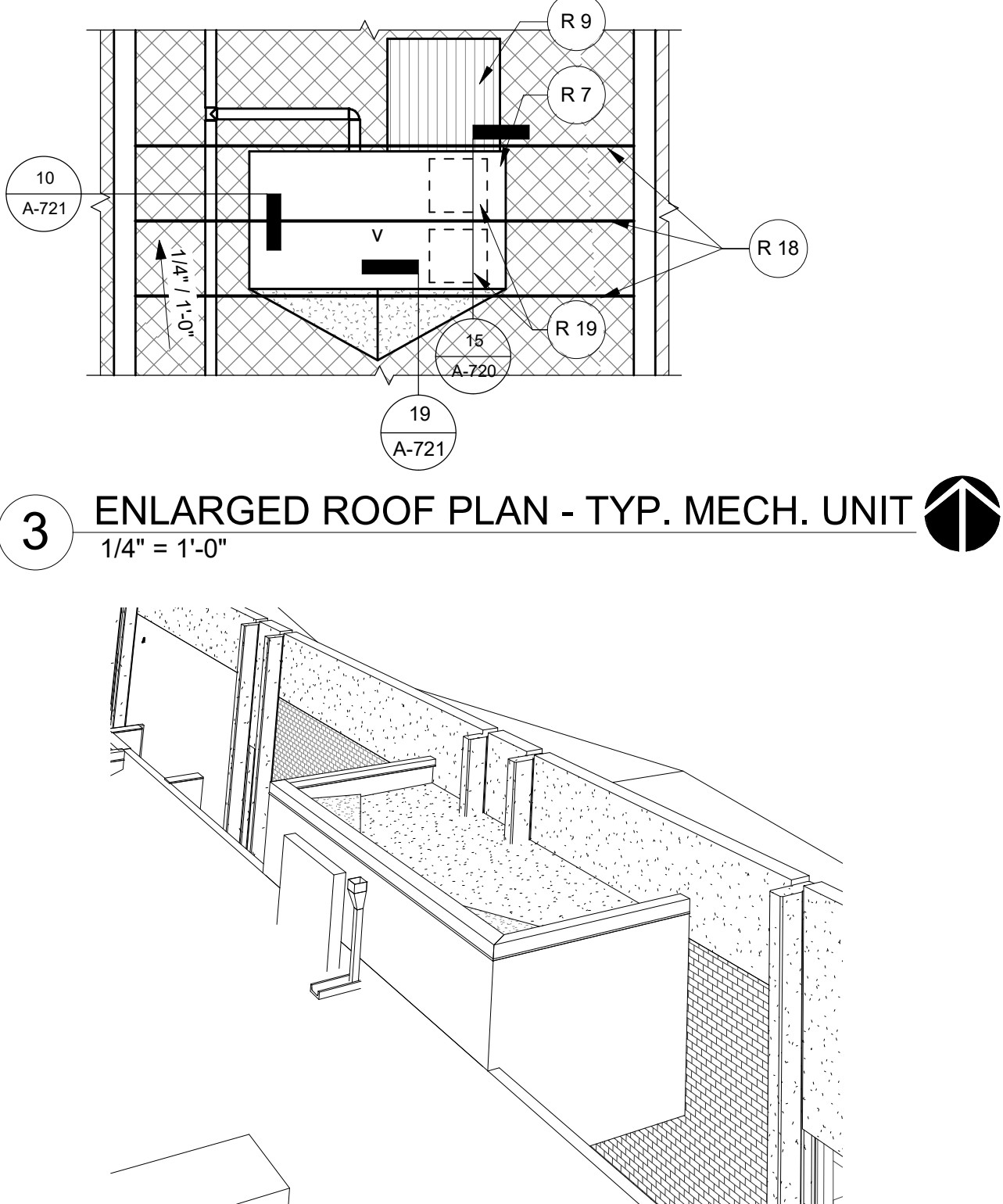




2 ENLARGED ROOF PLAN - ROOF AREA A.6  
1/4" = 1'-0"

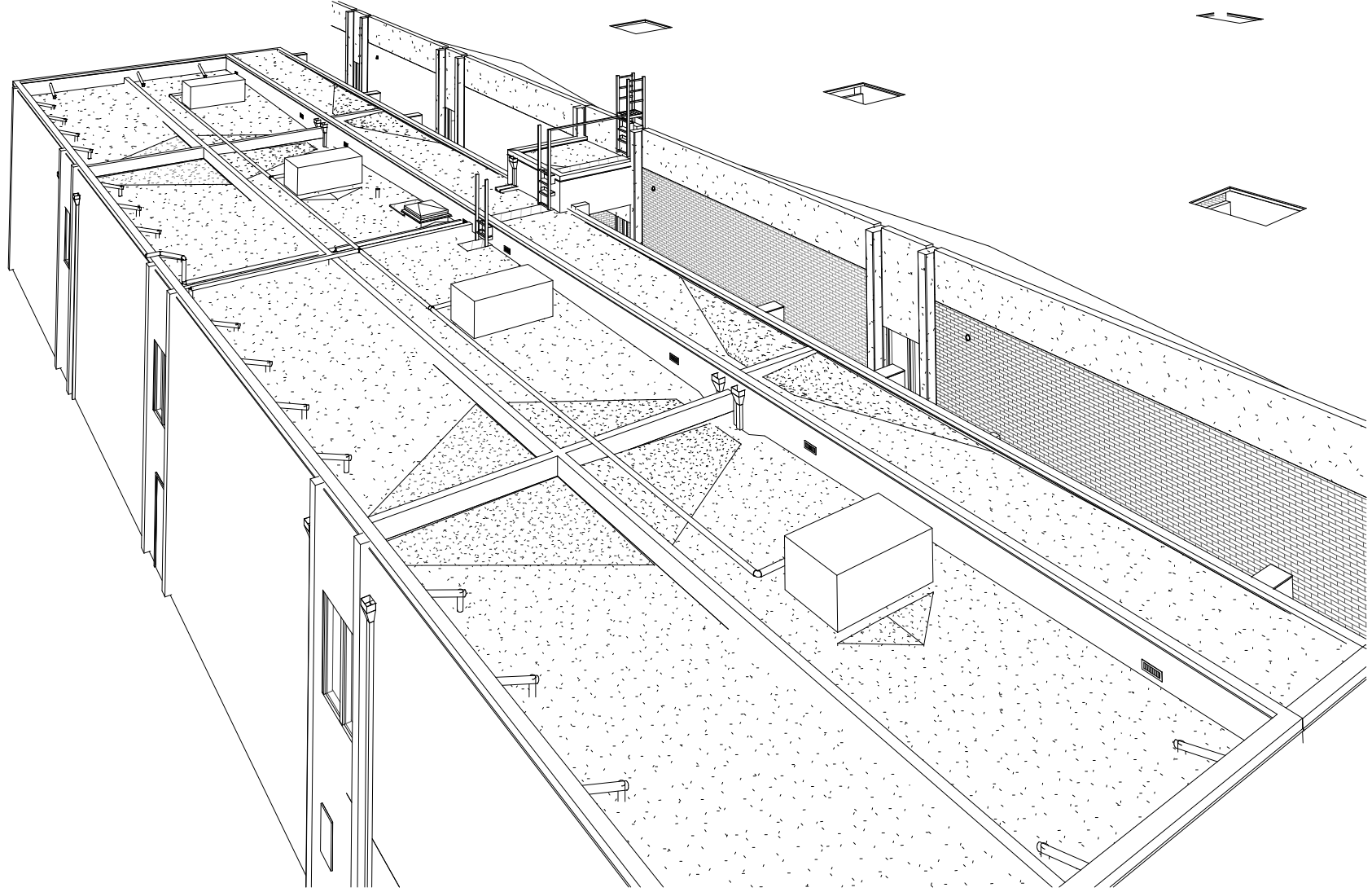


4 ENLARGED ROOF PLAN - ROOF AREA A.7  
1/4" = 1'-0"

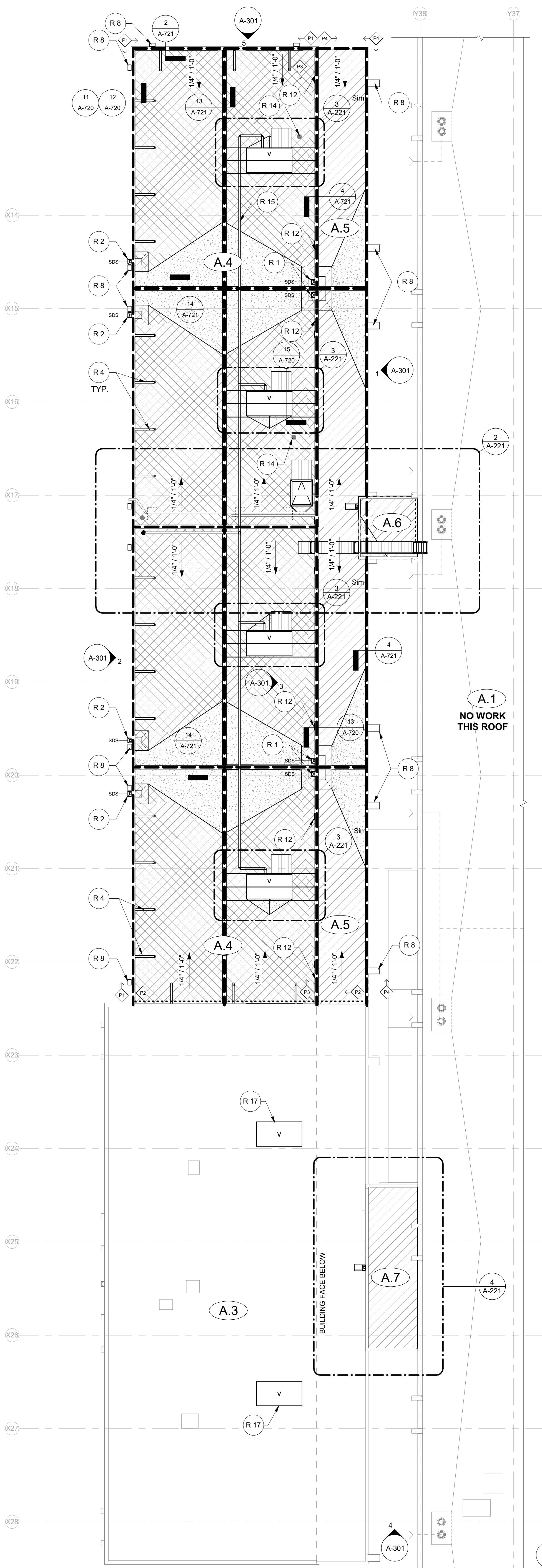


3 ENLARGED ROOF PLAN - TYP. MECH. UNIT  
1/4" = 1'-0"

5 3D PERSPECTIVE - ROOF AREA A.7



6 3D PERSPECTIVE - ROOF AREA A.4, A.5, A.6



1 ROOF PLAN - MODULAR  
1/8" = 1'-0"

## KEYNOTES

- R 1 Reinstall modified leaderhead and downspout at A.5, A.6, A.7 through-wall scupper flashing, see detail 2 / A-720
- R 2 Reinstall modified leaderhead and downspout at roof A.4 through-wall scupper flashing, see detail 3 / A-720
- R 3 Reinstall salvaged ladder after modifying to fit above new roof level, see Ladder Schedule.
- R 4 Existing parapet brace to remain in place, clean all surfaces and repaint Typ. at all braces. See detail 12 / A-720 for attachment to roof deck, and detail 11 / A-720 for flashing at parapet attachment.
- R 5 Reinstall salvaged hatch on modified existing curb per detail 8 / A-721
- R 6 New loose laid pipe support frame for reinstalled conduit cable - see Electrical.
- R 7 New mechanical unit on new curb, 650 lbs max - see Mechanical. See detail 10 / A-721 for curb requirements.
- R 8 New cap flashing at existing column. S-lock to adjacent roof edge cap flashing at standing seam.
- R 9 New PVC walkpad. Locate on operating side of mechanical units and hatches, Typ.
- R 10 New precast concrete splashblock at existing downspouts, see detail 8 / A-720
- R 11 New vertical sheet metal panel flashing, see detail 7 / A-721
- R 12 Reinstall salvaged sidewall vent grill and apply new flashing per manufacturer's requirements, typical. See detail 13 / A-720
- R 13 Continue reglet flashing around all column and wall protrusions per detail 11 / A-721. Height from finish roof surface to align across face of wall and set at 8" min. above highest point of finish roof surface, typical.
- R 14 Pipe boot at pipe penetrations, see detail 10 / A-720
- R 15 New gas piping, Typ. see Mechanical.
- R 16 Raise (E) conduit as needed to sit on sleepers. Coordinate location with new gas pipe. See Electrical.
- R 17 New mechanical unit on (E) curb, 800lbs max - see Mechanical. Refer to detail 9 / A-721 for curb requirements.
- R 18 Continuous 2x4 along entire length of (E) 2x8 joist. Patch in roof insulation flush against 2x4, no voids, Typ. at all joists under mechanical unit. See detail 19 / A-721.
- R 19 Provide square pipe boot at metal duct roof penetrations per detail 15 / A-720, Typ.
- R 20 Provide new metal bar +/- 8' - 11" in length, weld each end to ladder per detail 18 / A-721 Plug all holes in bar, Typ.

## ROOF PLAN SHEET NOTES

- A. Keynotes are not sheet specific.
- B. General Contractor is responsible for verifying all existing conditions and notifying Architect of any discrepancies.
- C. Coordinate all work with other disciplines; see Mechanical, Plumbing and Electrical drawings for additional scope.
- D. See Plumbing drawings for plumbing vent locations; provide new pipe flashing per detail 10 / A-720
- E. Repair ceiling where new roof drains and overflow drains and piping are installed. See RCP for extents of ceiling scope.
- F. Roof drain and overflow drain tags are for identification purposes only, verify drain quantities; see Plumbing.
- G. Parapet tags are for identification purposes only, verify quantities; see Parapet Schedule' on this sheet.
- H. Ladder tags are for identification purposes only, verify quantities; see 'Ladder Schedule' sheet A-721.
- I. Remove corrosion from all (E) stormwater and roof drainage piping to remain, and apply high-performance coating.
- J. Hydro jet all roof drains within area of work at completion of project.
- K. Existing roof structure slope is shown on roof demolition plan.
- L. Where sheet metal coping terminates at walls, provide saddle flashing and counterflash per detail 15 / A-721. Verify all locations and conditions.
- M. Tapered insulation to be installed as crickets at all mechanical equipment and rooftop penetrations that exceed 1'-0" in width.
- N. All crickets sloped to 1/4" / 12"
- O. Walkpads to be installed at top and bottom of all ladders and on the service side of all serviceable rooftop mechanical units.
- P. Use pressure-treated lumber for wood construction on roofs, parapets, and walls.
- Q. All (E) mechanical unit wood curbs to remain unless otherwise noted. Modify and raise (E) wood curbs as required to meet 8" minimum height above finished roof surface, see detail 10 / A-721
- R. Column cap flashing to remain in place if possible U.N.O.
- S. Refer to Roof Layout Plans and Roof Schedule on those sheets for type and extent of each roofing system.
- T. Contractor to field verify (E) vents provide a total of 6.5 SF of ventilation opening.

## ROOF PLAN LEGEND

### TYPE 1A - NOT USED

TYPE 1B - (N) PVC ROOF ASSEMBLY:  
(AT FULL DEMOLITION ROOFS) SINGLE PLY PVC  
MEMBRANE OVER 1/2" COVERBOARD WITH RIGID  
INSULATION ON (E) WOOD DECK. APPLY R-30 AT  
ALL LOCATIONS.

TYPE 1C - (N) PVC ROOF ASSEMBLY:  
(AT FULL DEMOLITION CANOPIES) SINGLE PLY  
PVC MEMBRANE OVER 1/2" COVERBOARD.  
TAPERED INSULATION AS REQUIRED FOR SLOPE.

NEW CRICKET - TAPERED INSULATION. SLOPE  
OF 1/4 PER FOOT

ROOF AREA REFERENCE  
ROOF PARAPET / EDGE REFERENCE TAG  
SEE PARAPET SCHEDULE THIS SHEET

ROOF SLOPE / CRICKET SLOPE  
NEW SHEET METAL COPING. SEE PARAPET  
TYPES AND TYPICAL DETAIL. 9 / A-720

NEW REGLET FLASHING

REINSTALL SALVAGED DOWNSPOUT AND  
LEADERHEAD. PROVIDE NEW MEMBRANE CLAD  
METAL SCUPPER

EXISTING DOWNSPOUT TO REMAIN

REINSTALL SALVAGED HVAC FAN OR VENT ON  
MODIFIED (E) WOOD CURB UNLESS OTHERWISE  
NOTED. SEE DETAIL 9 / A-721 AND 10 / A-721  
FOR CURB REQUIREMENTS.

REINSTALL ROOF HATCH. SEE DETAIL 8 / A-721  
LADDER TAG FOR REFERENCE ONLY. SEE  
SHEET A-721 FOR SCHEDULE AND DETAILS

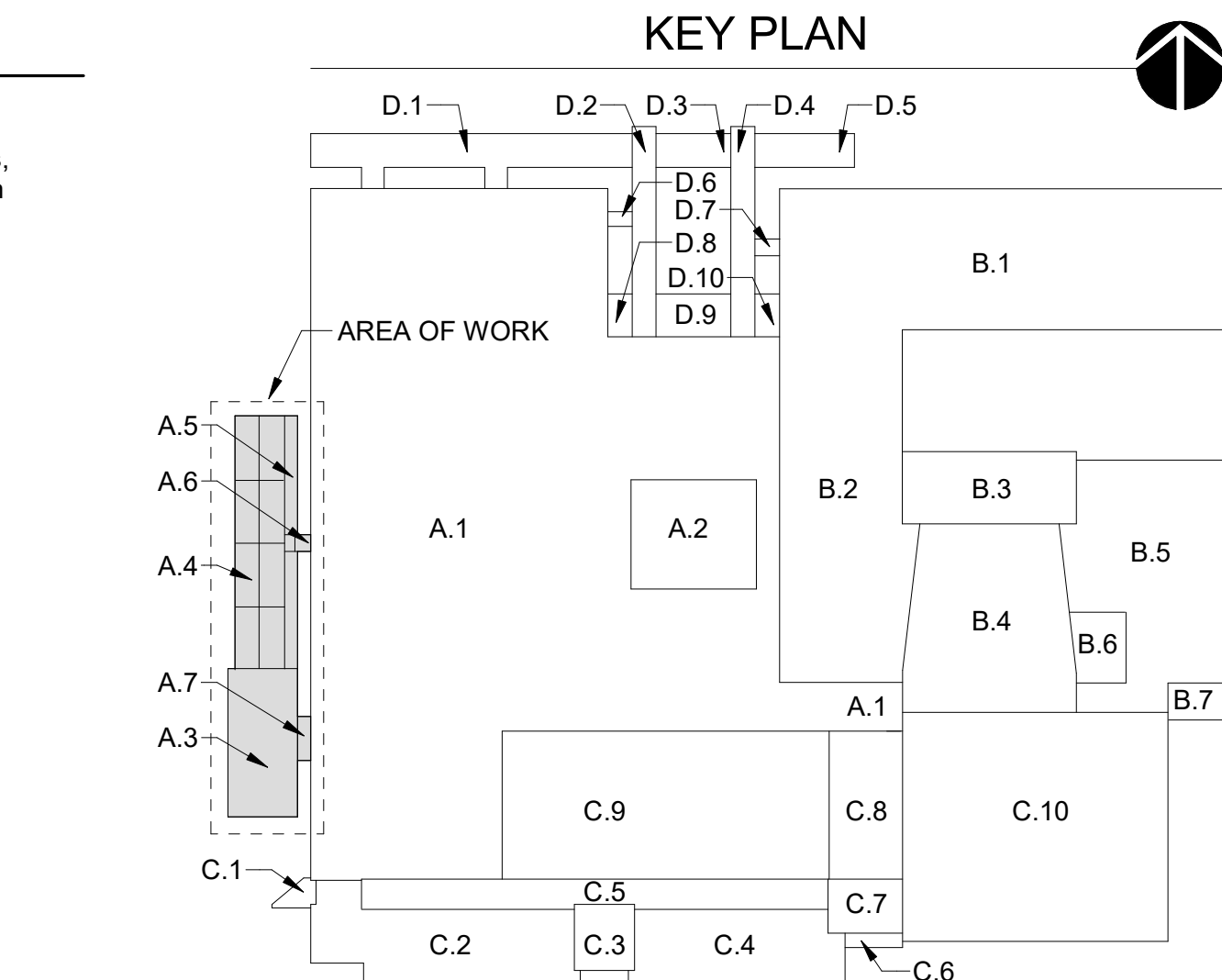
NEW PVC WALKPAD

### PARAPET SCHEDULE

TYPE	DETAIL	TYPE	DETAIL
P1	2 / A-721	P2	3 / A-721
P3	4 / A-721	P4	5 / A-721
P5	6 / A-721		

### PARAPET SCHEDULE NOTES:

- Coordinate membrane securement methods at bottom of walls with structural work and manufacturer's requirements to avoid conflict.
- Rigid insulation crickets not shown on roof edge details for clarity. Refer to plans for locations. All crickets to be a minimum of 1/4" / 12" slope.



## KEY PLAN

ROOF SCHEDULE - ZONE A									
ROOF AREA	AREA SQ.FT.	DECK		INSULATION		ROOFING			
		DECK MATERIAL	NEW SHEATHING	(N) INSULATION VALUE *	TAPERED INSULATION	(N) MATERIAL	TYPE	UL CLASS	COMMENTS
A.3	3246 SF	(E) TO REMAIN	(E) TO REMAIN	(E) TO REMAIN	(E) TO REMAIN	(E) TO REMAIN	(E) TO REMAIN	A	1998 addition
A.4	3862 SF	PLYWOOD DECK	NO	R-30 (6" ISO)	YES, NOTE 2	PVC SINGLE-PLY	TYPE 1B	A	1986 addition
A.5	996 SF	PLYWOOD DECK	NO	NONE	YES, NOTE 2	PVC SINGLE-PLY	TYPE 1C	A	1986 addition - canopy
A.6	74 SF	PLYWOOD DECK	NO	NONE	YES, NOTE 2	PVC SINGLE-PLY	TYPE 1C	A	1987 original - canopy
A.7	179 SF	PLYWOOD DECK	NO	NONE	YES, NOTE 2	PVC SINGLE-PLY	TYPE 1C	A	1998 addition - canopy

New Roof 5,111 SF  
Area.

(GC to verify square footages of all roof areas)

\*Insulation R value includes rigid insulation plus coverboard

### SCHEDULE NOTES:

- New sheathing to be installed under demolished wood framed crickets and at other locations.
- Install tapered insulation crickets for drainage at all rooftop curbs, skylights, equipment greater than 1' wide and where indicated on plans and details. Tapered slopes to be a minimum of 1/4" / 12".
- New insulation levels vary, refer to plans for approximate areas.



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Consultants:

ALOHA HIGH SCHOOL  
MODULAR REROOFING

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Date: 04/06/2021  
Project Number: 90065  
Drawn By: DET  
Checked By: TA

Revision Schedule:

Sheet Title:

ROOF PLAN

Sheet Number:

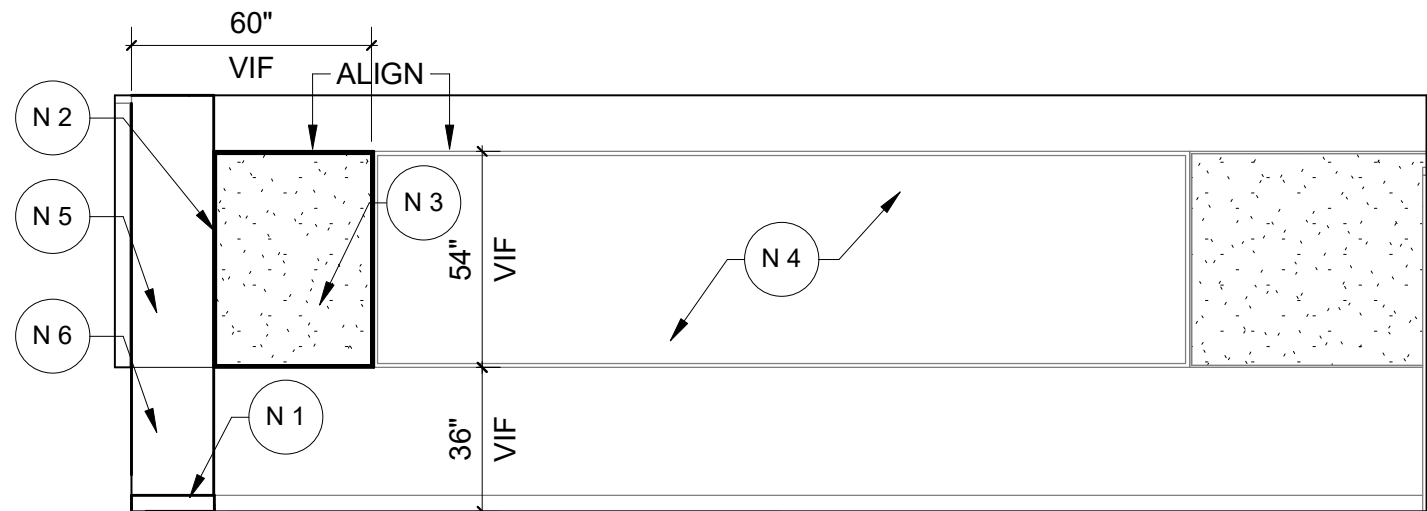
A-221

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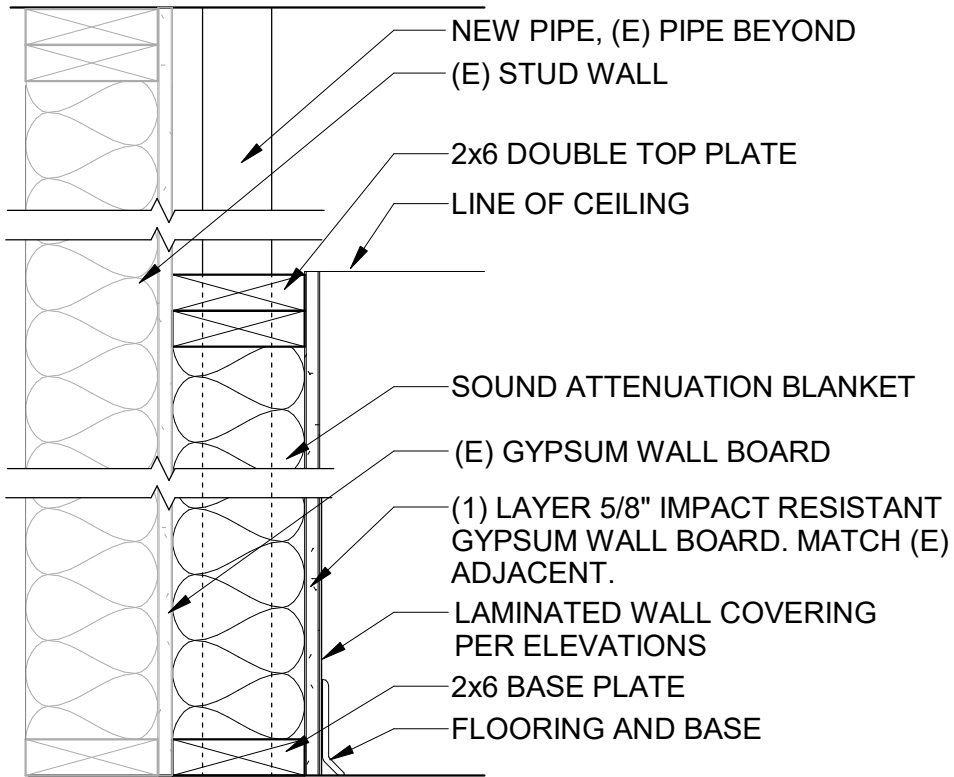




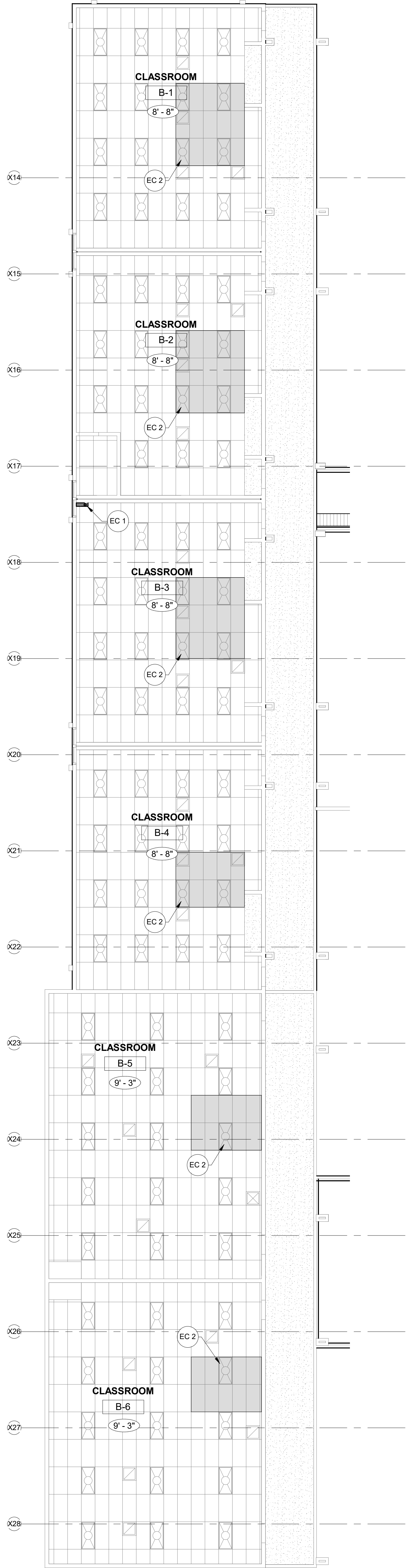
3 CLASSROOM B-3 - WEST ELEVATION  
1/4" = 1'-0"



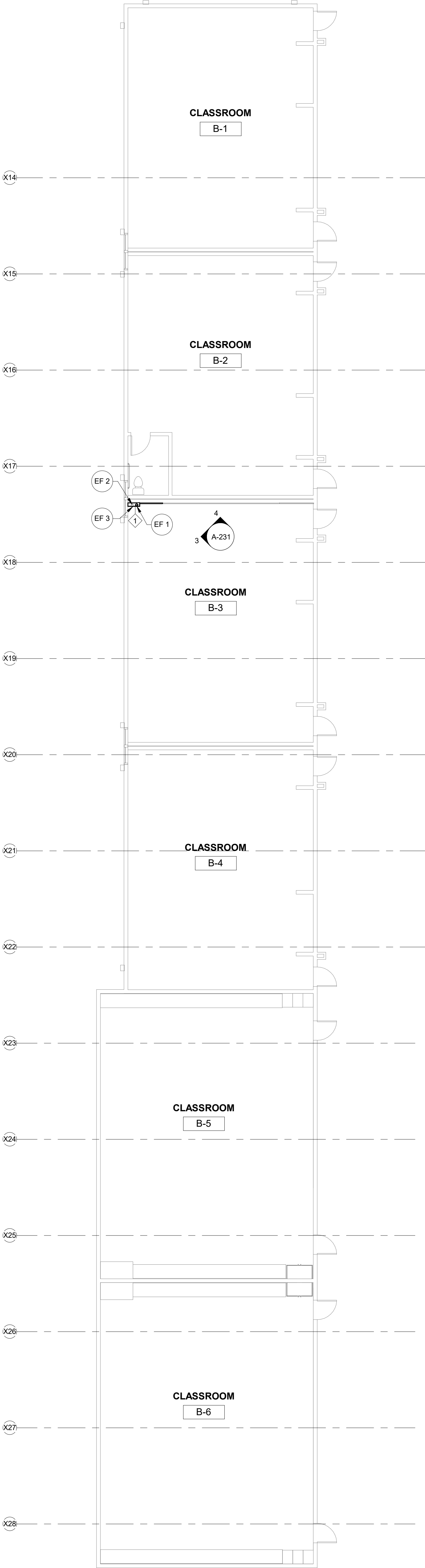
4 CLASSROOM B-3 - NORTH ELEVATION  
1/4" = 1'-0"



5 Partition Type 1  
1 1/2" = 1'-0"



2 FIRST FLOOR RCP - MODULAR  
1/8" = 1'-0"



1 FIRST FLOOR PLAN - MODULAR  
1/8" = 1'-0"

FLOOR PLAN SHEET NOTES

- A. All dimensions are to face of finish, U.N.O. Do not measure drawings to determine dimensions.  
B. All dimensions to be field verified.  
C. Keynotes are not sheet specific.  
D. Coordinate all work with other disciplines; see Mechanical, Plumbing and Electrical drawings for additional scope.

RCP SHEET NOTES

- A. Keynotes are not sheet specific.  
B. All heights shown are to bottom of grid system or gypsum board AFF, relative to the floor that the ceiling plan is shown on, UNO.  
C. Coordinate all work with other disciplines; see Mechanical, Plumbing and Electrical drawings for additional scope.  
D. Refer to electrical documents for electrical scope.  
E. Damaged acoustic ceiling tiles within areas of ceiling work to be replaced with new per specifications.

INTERIOR ELEVATION SHEET NOTES

- A. Interior Elevation Keynotes (N#) are consistent across all Interior Elevation Sheets. Not all keynotes are used on each sheet.  
B. For additional information, see Structural, Mechanical, Plumbing and Electrical drawings.  
C. All new elements to be painted or pre-finished to match (E); U.N.O.  
D. Penetrations and other above-ceiling items are based on existing drawings and have not been field verified. Locations are approximate. Additional penetrations may exist and are not shown on the drawings. Contractor to verify in field all shear wall penetrations and notify Architect of any discrepancies.

FLOOR PLAN LEGEND

- NEW ARCHITECTURAL PARTITION OR SOFFIT WALL  
EXISTING TO REMAIN - NO PROJECT SCOPE

RCP LEGEND

- CEILING HEIGHT TAG (APPROXIMATE - VIF)  
EXISTING GYPSUM BOARD OR PLASTER CEILING  
EXISTING 2' X 4' LAY IN ACOUSTICAL CEILING TILE  
REMOVE AND REINSTALL ACOUSTIC CEILING AS REQUIRED TO ACCESS AREA OF WORK. DAMAGED CEILING TILE AND GRID TO BE REPLACED AT CONTRACTORS EXPENSE.  
EXISTING LAY-IN FLUORESCENT LIGHTING  
NEW ARCHITECTURAL PARTITION OR SOFFIT WALL

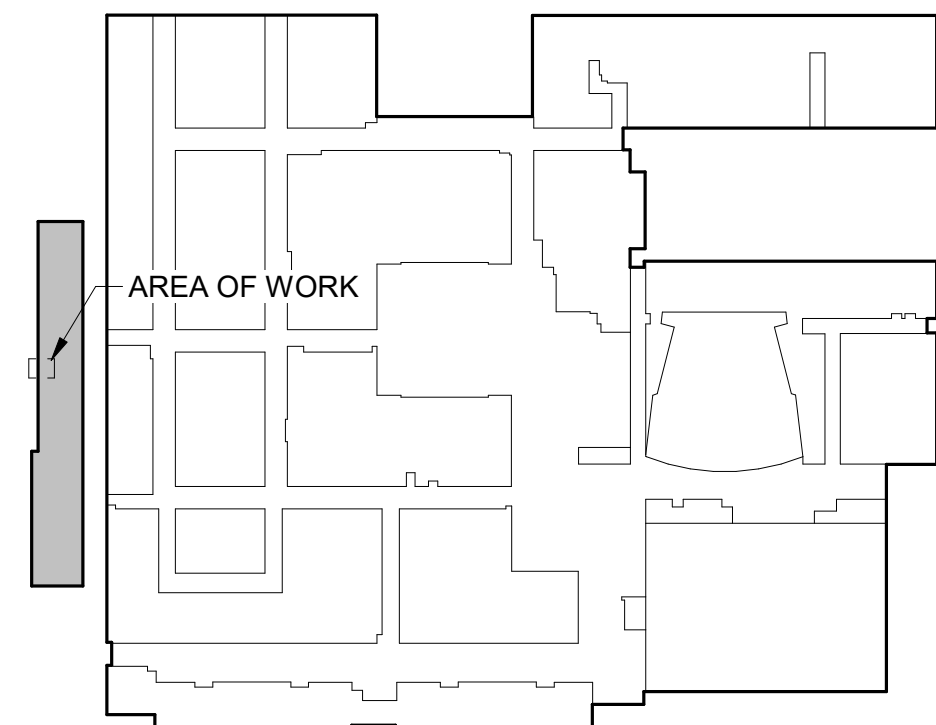
INTERIOR ELEVATION LEGEND

- NEW SELF HEALING TACK BOARD SURFACE

KEYNOTES

- EF 1 New vertical gas pipe, see Mechanical.  
EF 2 Existing vertical pipe to remain, protect during construction.  
EF 3 New wall, see Partition Type detail this sheet.  
EC 1 Cut acoustic tile as required for new pipe penetration. Patch and repair disturbed ACT ceiling.  
EC 2 Remove and reinstall light as required to access area of work, Typ. Damaged light to be replaced at Contractors expense.  
N 1 Install new 4" rubber wall base to match (E) adjacent.  
N 2 Cut back (E) tackboard to edge of new wall.  
N 3 Provide new metal trim around tackboard.  
N 4 (E) whiteboard, protect during construction.  
N 5 Paint all exposed new gypsum board to match (E) adjacent wall.  
N 6 Provide new laminate wall covering, color to match (E) adjacent.

KEY PLAN



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Consultants:

ALOHA HIGH SCHOOL  
MODULAR REROOFING

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Project Number: 90065  
Drawn By: DET  
Checked By: TA

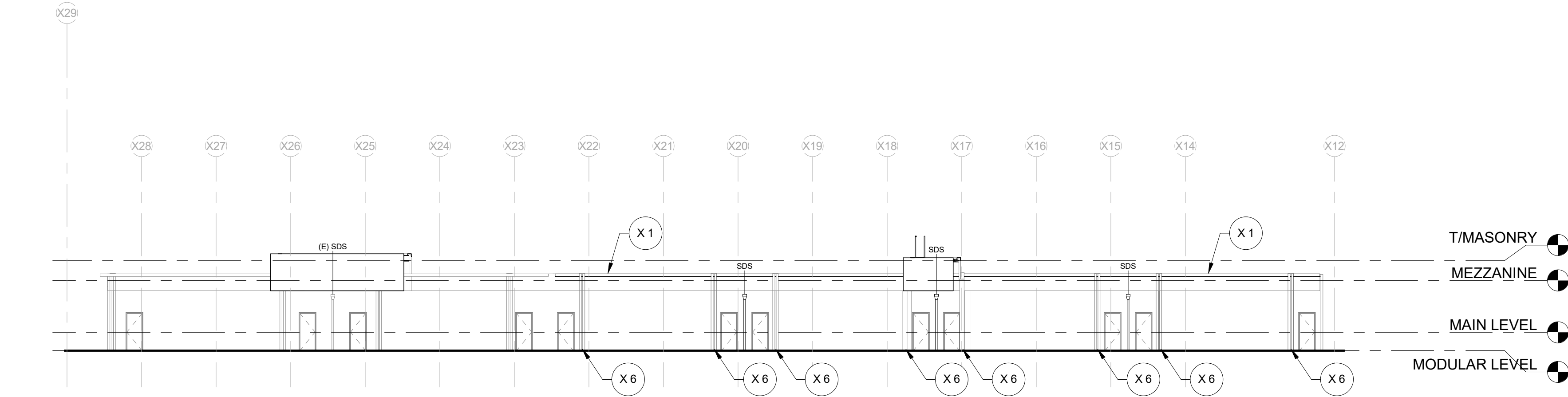
Revision Schedule:

Sheet Title:  
ENLARGED  
PLANS &  
ELEVATIONS

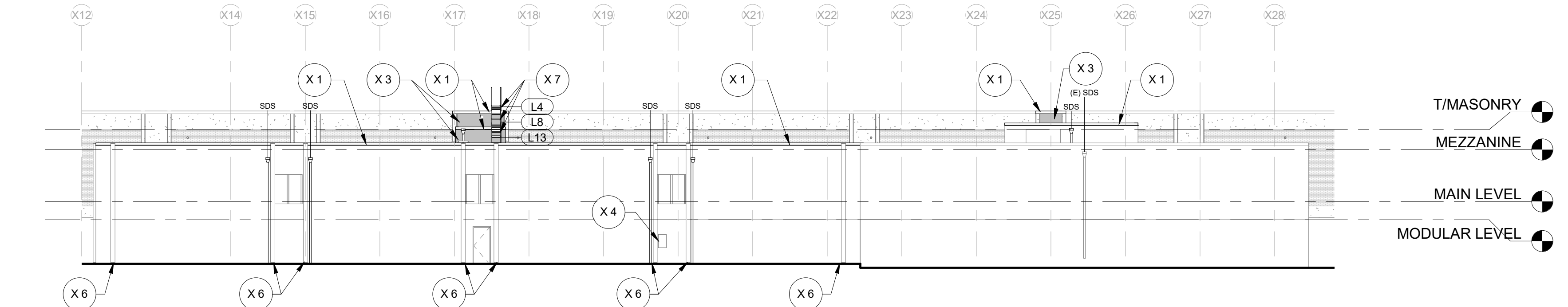
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A-231

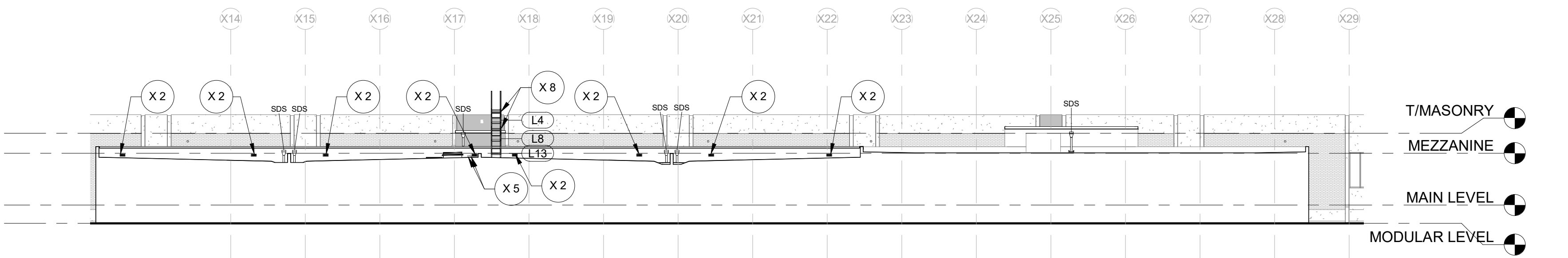
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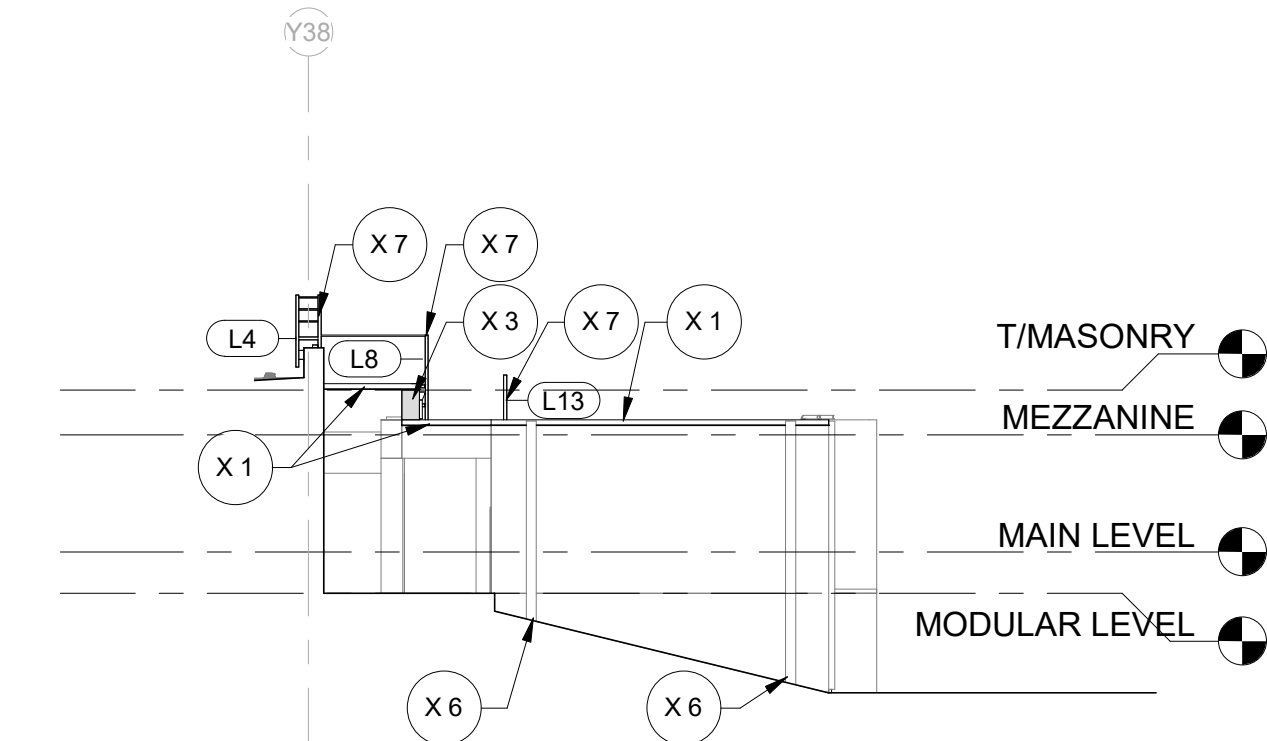
1 A3-A4 EAST ELEVATION  
1/16" = 1'-0"



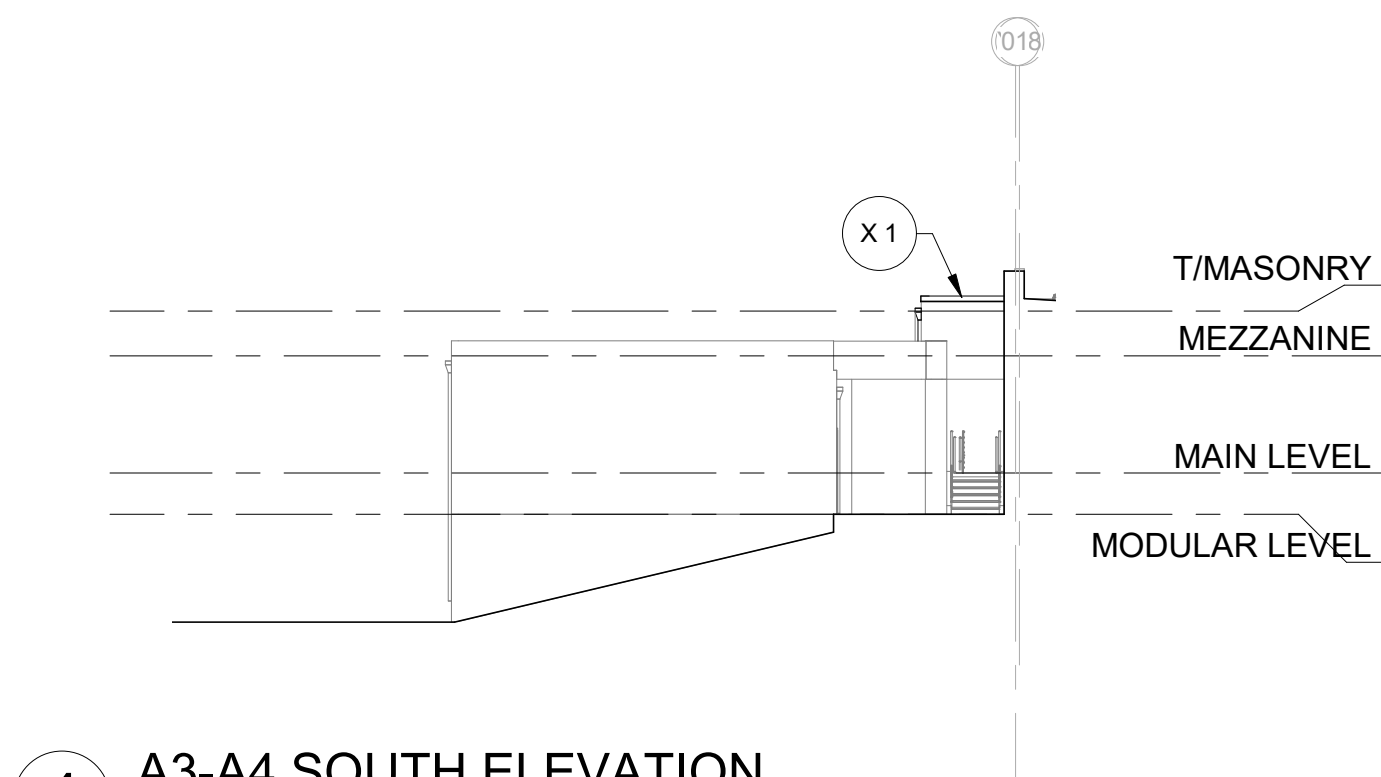
2 A3-A4 WEST ELEVATION  
1/16" = 1'-0"



3 A3-A4 SECTION  
1/16" = 1'-0"



5 A3-A4 NORTH ELEVATION  
1/16" = 1'-0"



4 A3-A4 SOUTH ELEVATION  
1/16" = 1'-0"

#### EXTERIOR ELEVATION SHEET NOTES

- A. Exterior Elevations Keynotes (X#) are consistent across all Exterior Elevation Sheets. Not all keynotes are used on each sheet.  
B. For additional information, see Mechanical, Plumbing and Electrical drawings.  
C. All new elements to be painted or pre-finished to match (E); U.N.O.  
D. Mechanical Equipment not depicted for clarity. For more information on roof related mechanical scope see Mechanical.  
E. All elevations are existing and should be verified in field.

#### EXTERIOR ELEVATION LEGEND

(L#) LADDER TAG FOR REFERENCE ONLY, SEE SHEET A-722 FOR SCHEDULE AND DETAILS

DS - REINSTALL SALVAGED DOWNSPOUT

SDS - REINSTALL MODIFIED SALVAGED DOWNSPOUT AND LEADERHEAD, PROVIDE MEMBRANE CLAD METAL THROUGH-WALL SCUPPER. SEE ROOF PLANS FOR MORE INFORMATION

(E) SDS - EXISTING LEADERHEAD AND DOWNSPOUT TO REMAIN - PROTECT.

NEW VERTICAL METAL PANELS

#### KEYNOTES

- X 1 New sheet metal coping, paint to match (E).  
X 2 Raise attic vent 8" Min. above roof surface. Infill wall.  
X 3 New vertical sheet metal panels.  
X 4 (E) gas meter, see Mechanical.  
X 5 Liquid flash around pipe penetration through parapet wall, Typ. Similar to detail 12 / A-720.  
X 6 New metal cap on columns, Typ.  
X 7 Reinstall modified (E) ladder, see Ladder Schedule.  
X 8 Provide vertical steel tube bolted to ladder. Plug all holes. Connect to new metal bar per detail 18 / A-721



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Date: 04/06/2021  
Project Number: 90085  
Drawn By: DET  
Checked By: TA

Revision Schedule:

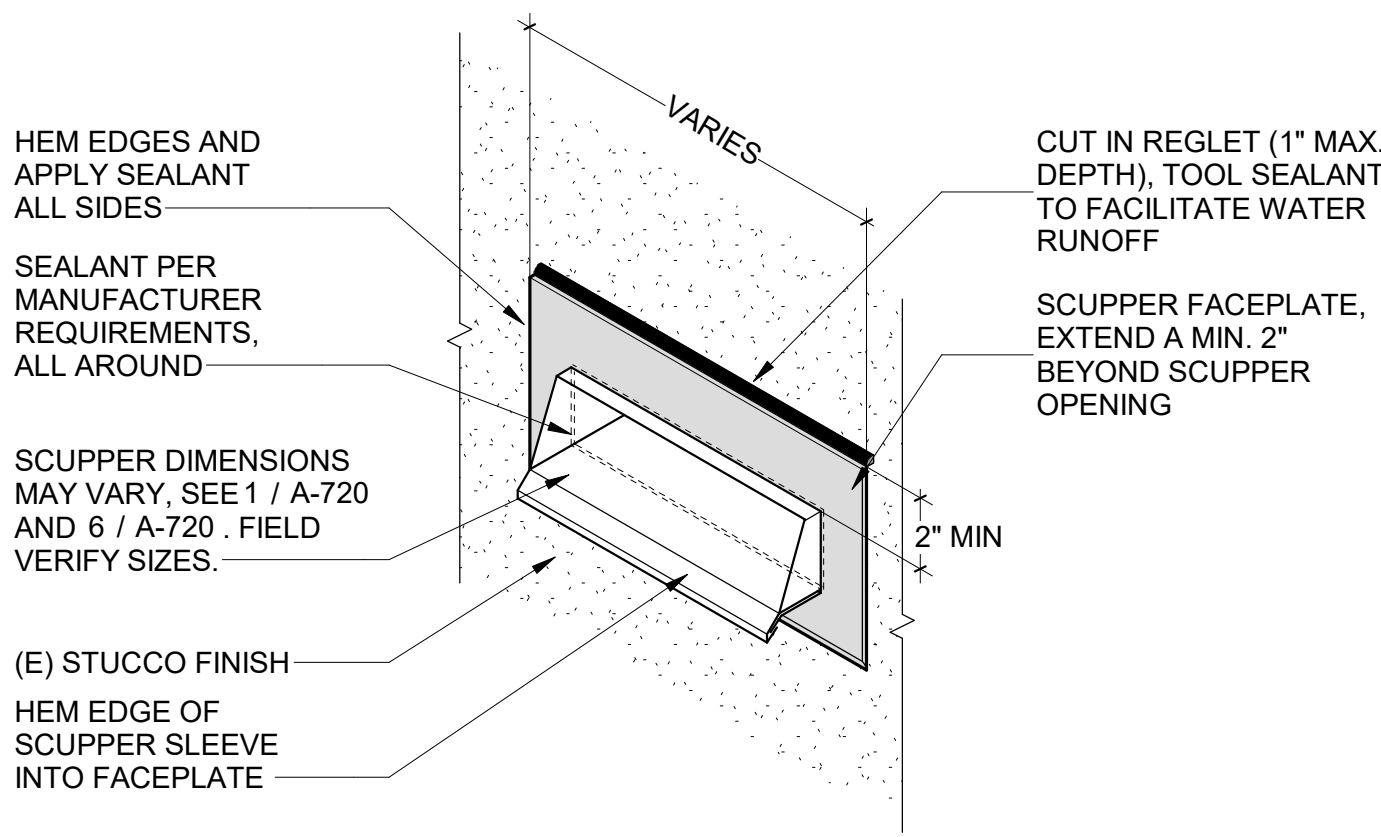
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EXTERIOR  
ELEVATIONS

Sheet Number:

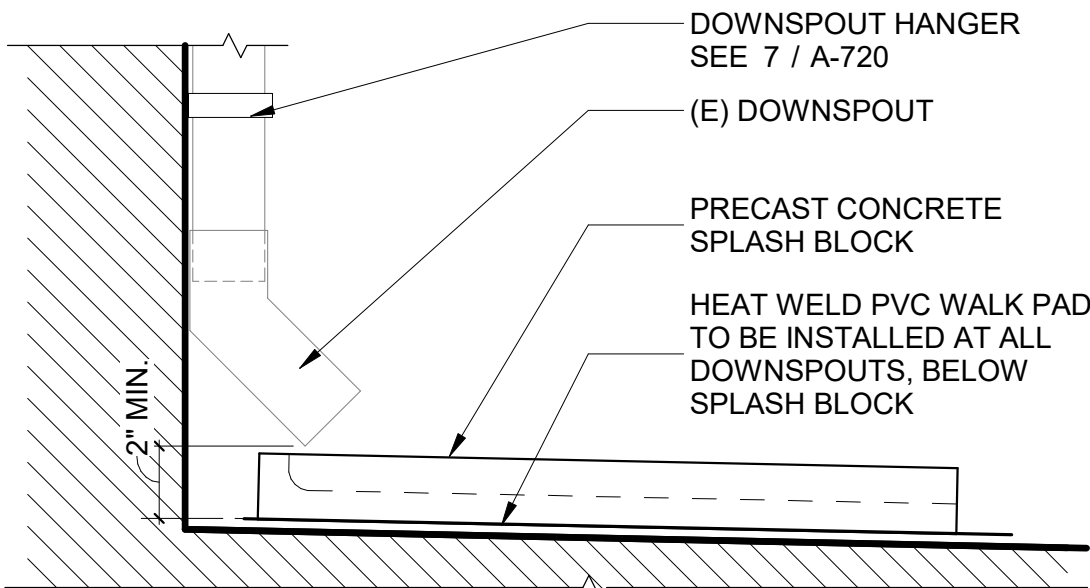
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PERMIT / BID SET

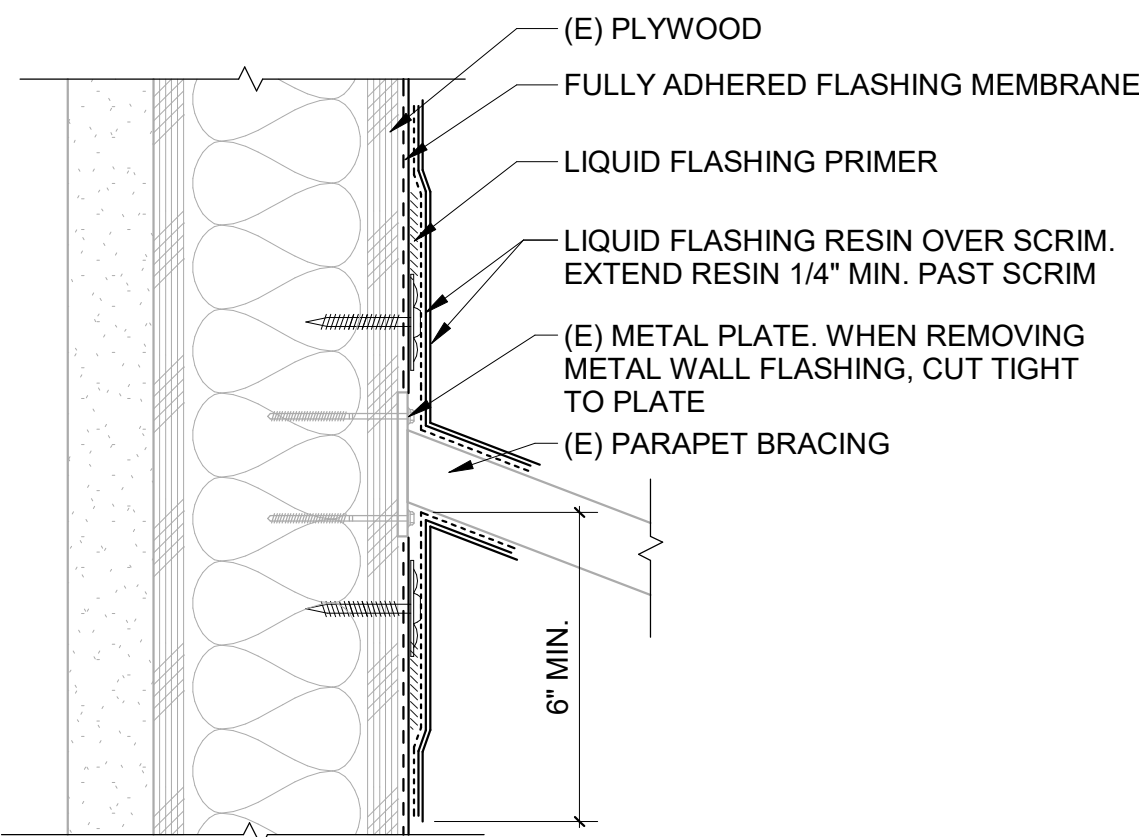




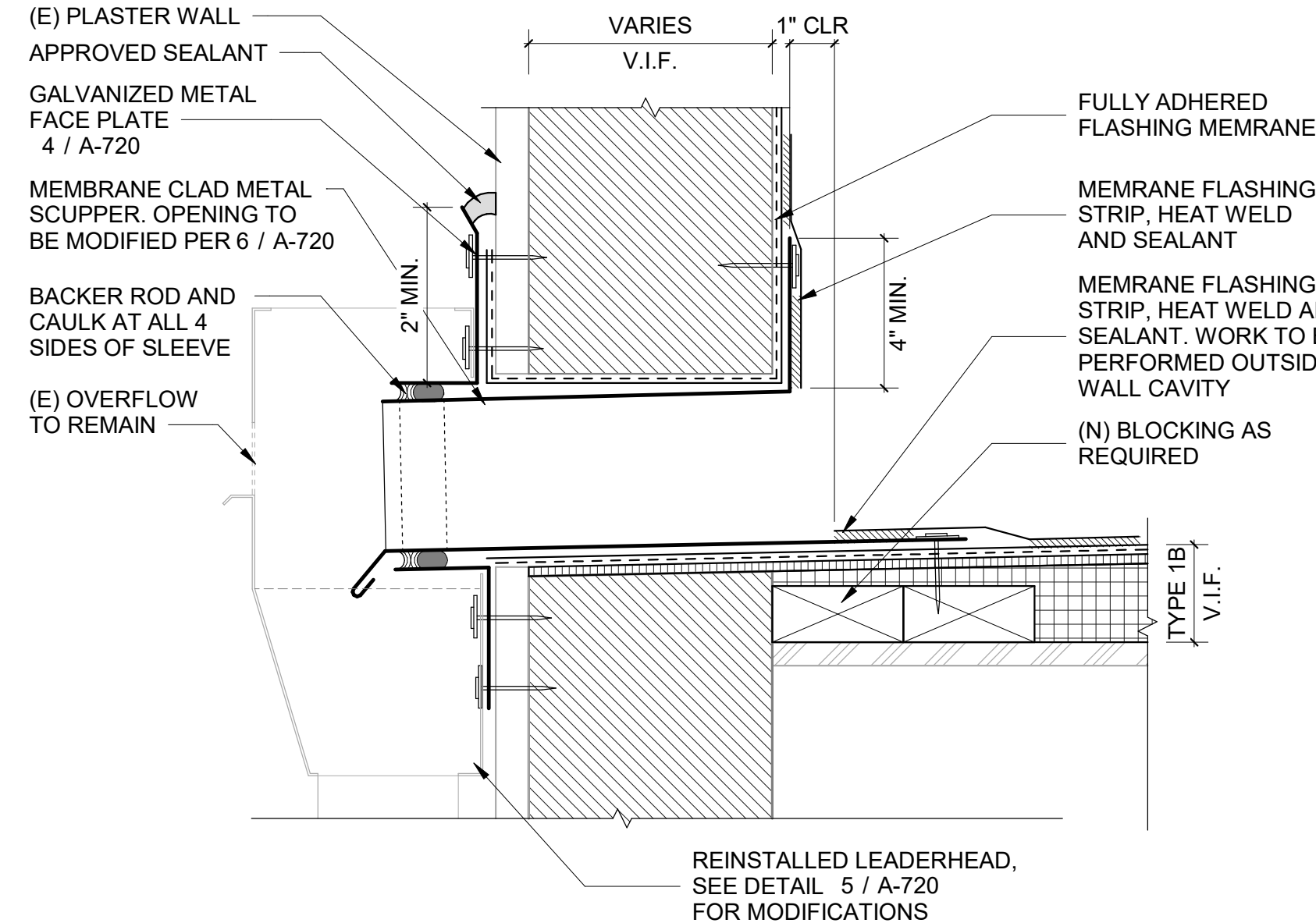
4 SCUPPER FACEPLATE FLASHING  
1 1/2" = 1'-0"



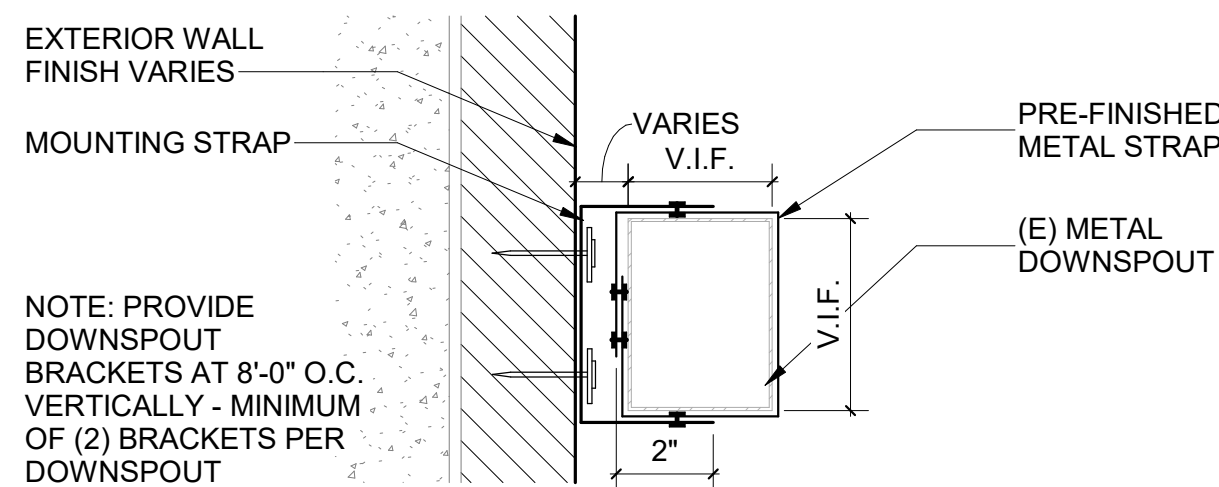
8 (N) SPLASHBLOCK AT (E) DOWNSPOUTS  
1 1/2" = 1'-0"



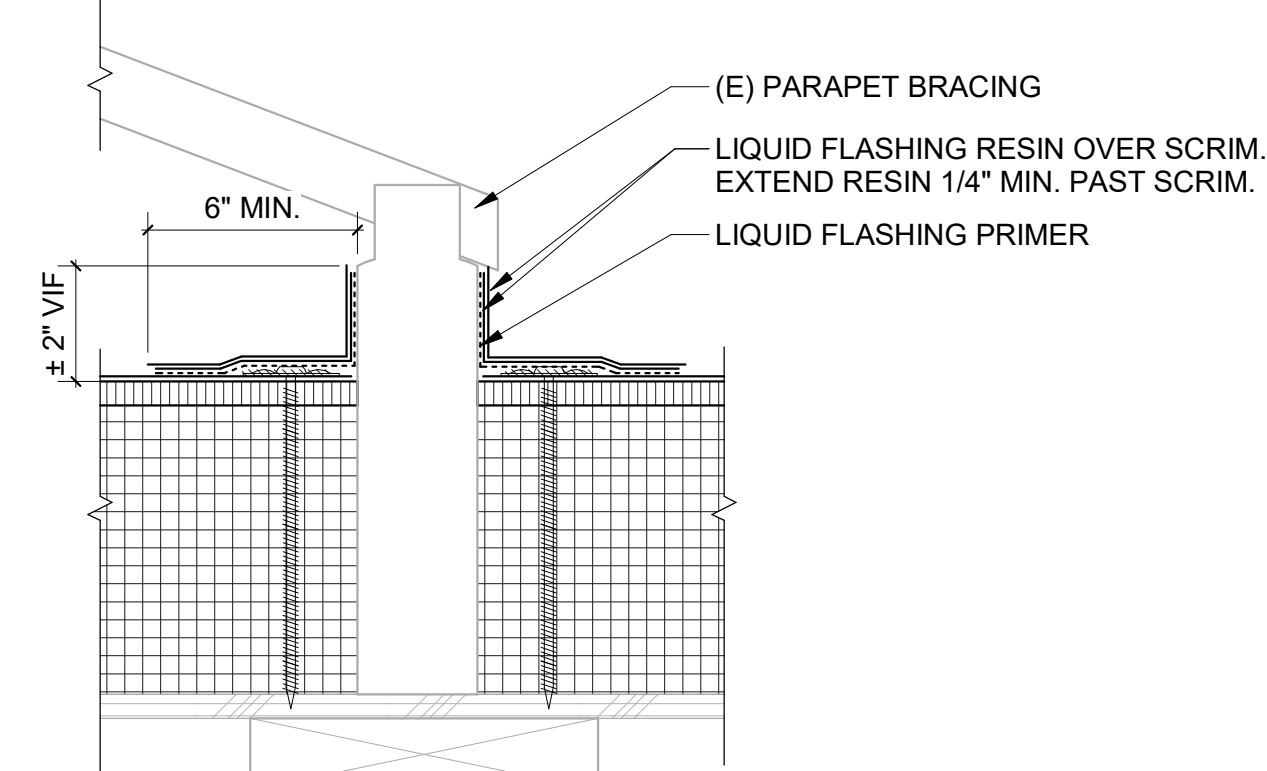
12 STRUCTURAL BRACE AT PARAPET WALL  
3" = 1'-0"



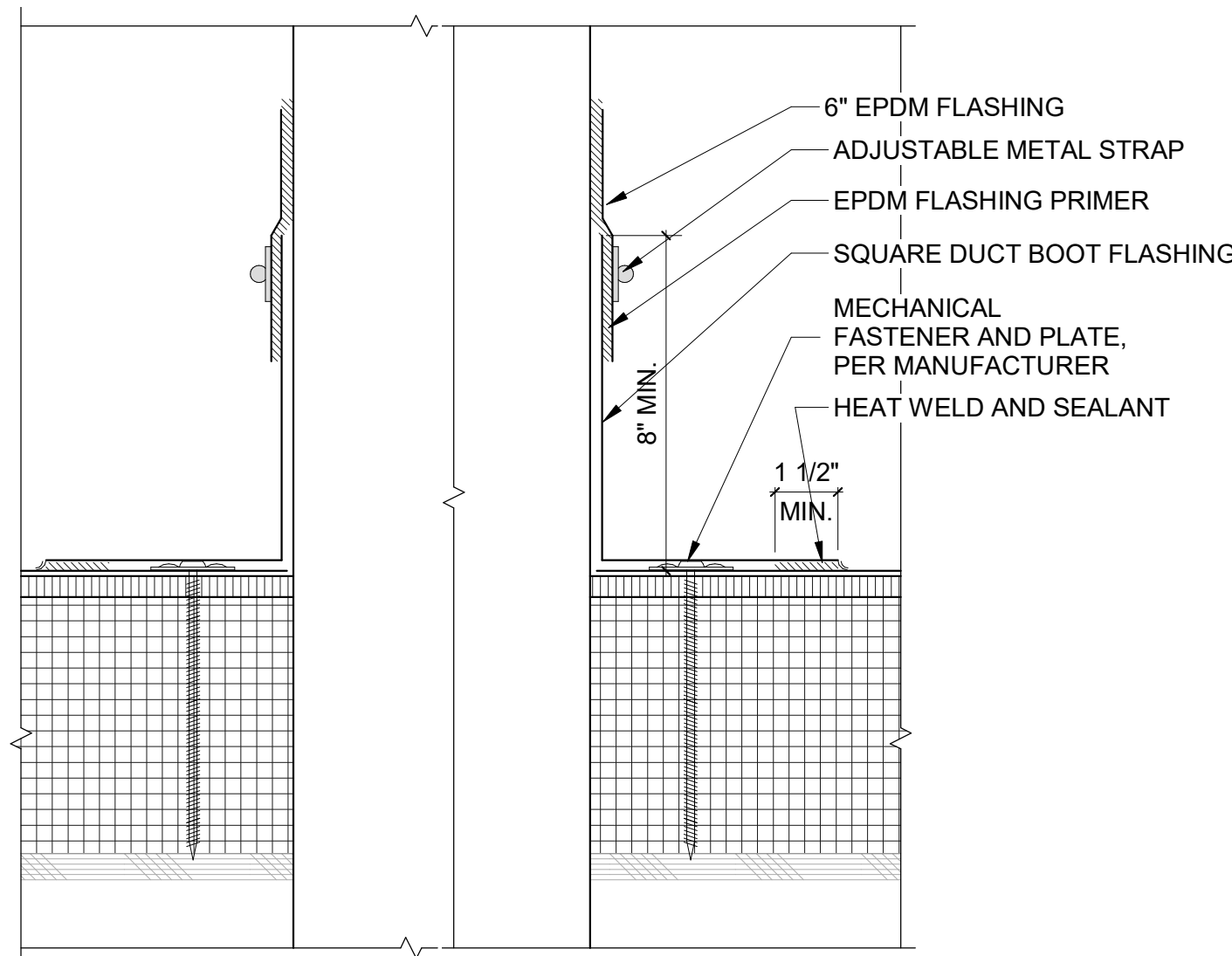
3 SCUPPER AT A.4 ROOF DRAINS  
3" = 1'-0"



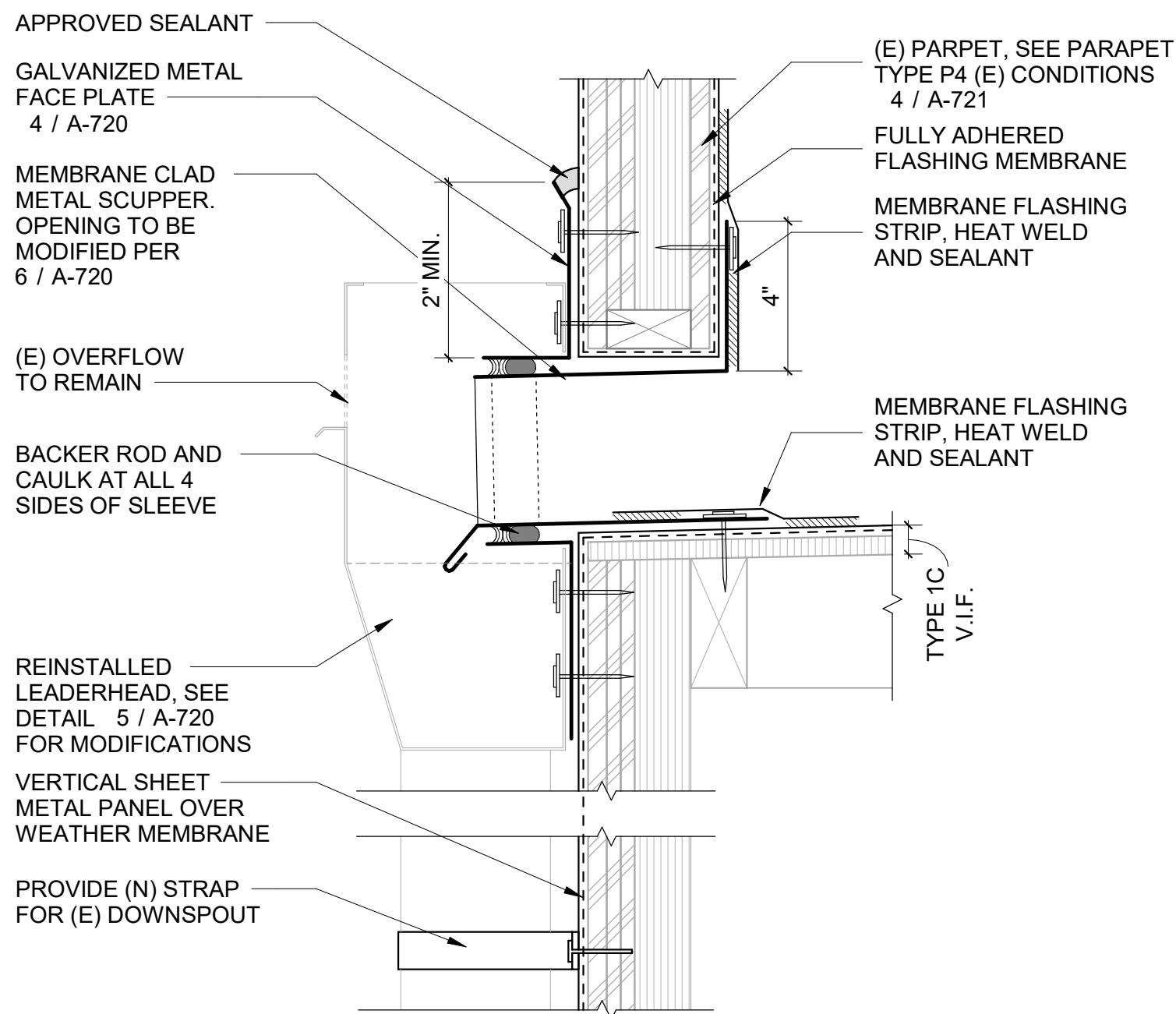
7 DOWNSPOUT & HANGER  
3" = 1'-0"



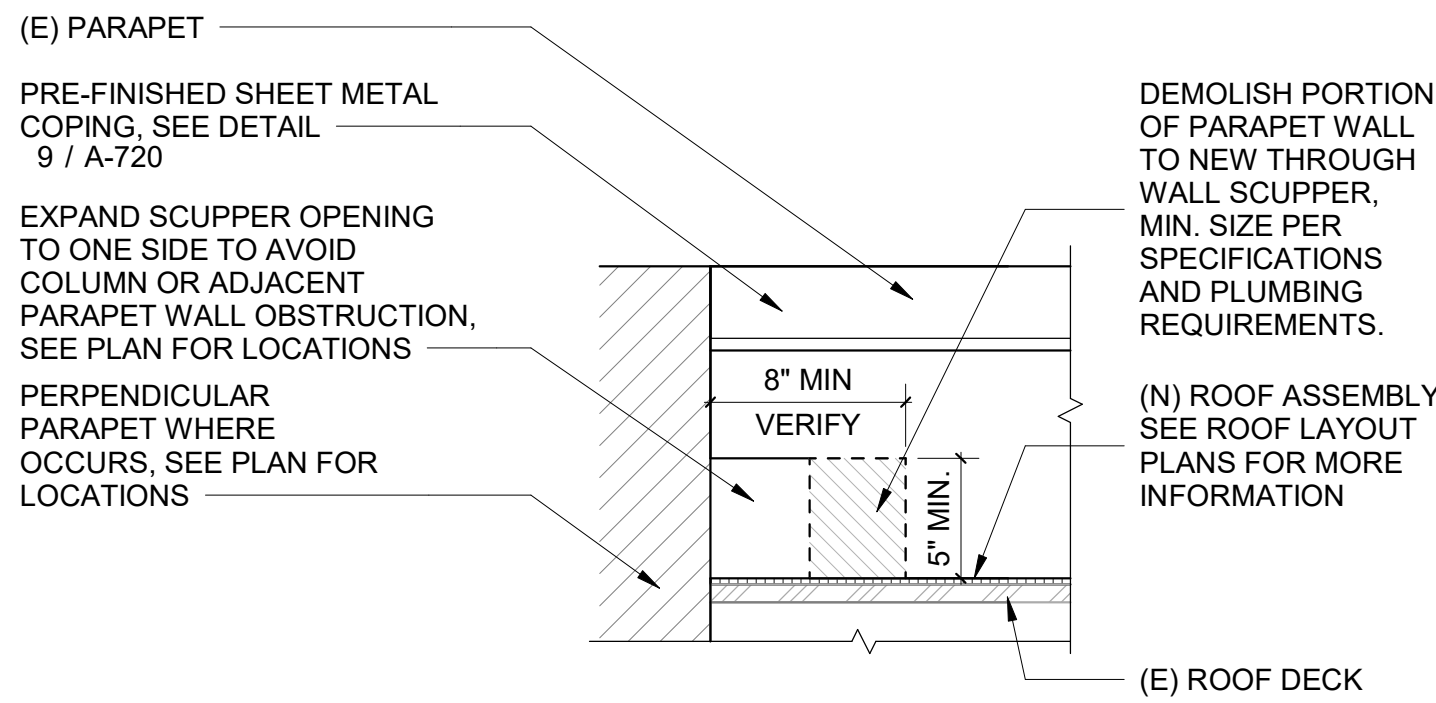
11 STRUCTURAL BRACE AT ROOF PENETRATION  
3" = 1'-0"



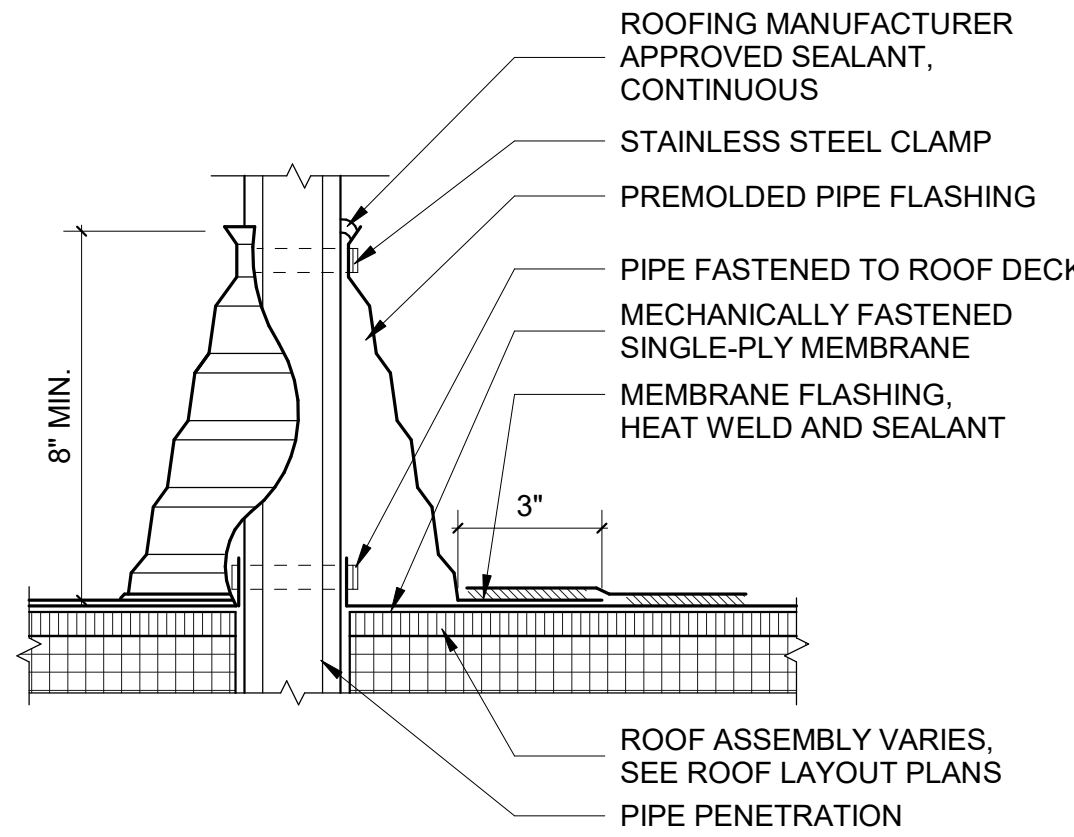
15 BOOT AT SQUARE DUCT PENETRATIONS  
3" = 1'-0"



2 SCUPPER AT A.5, A.6, A.7 ROOF DRAINS  
3" = 1'-0"

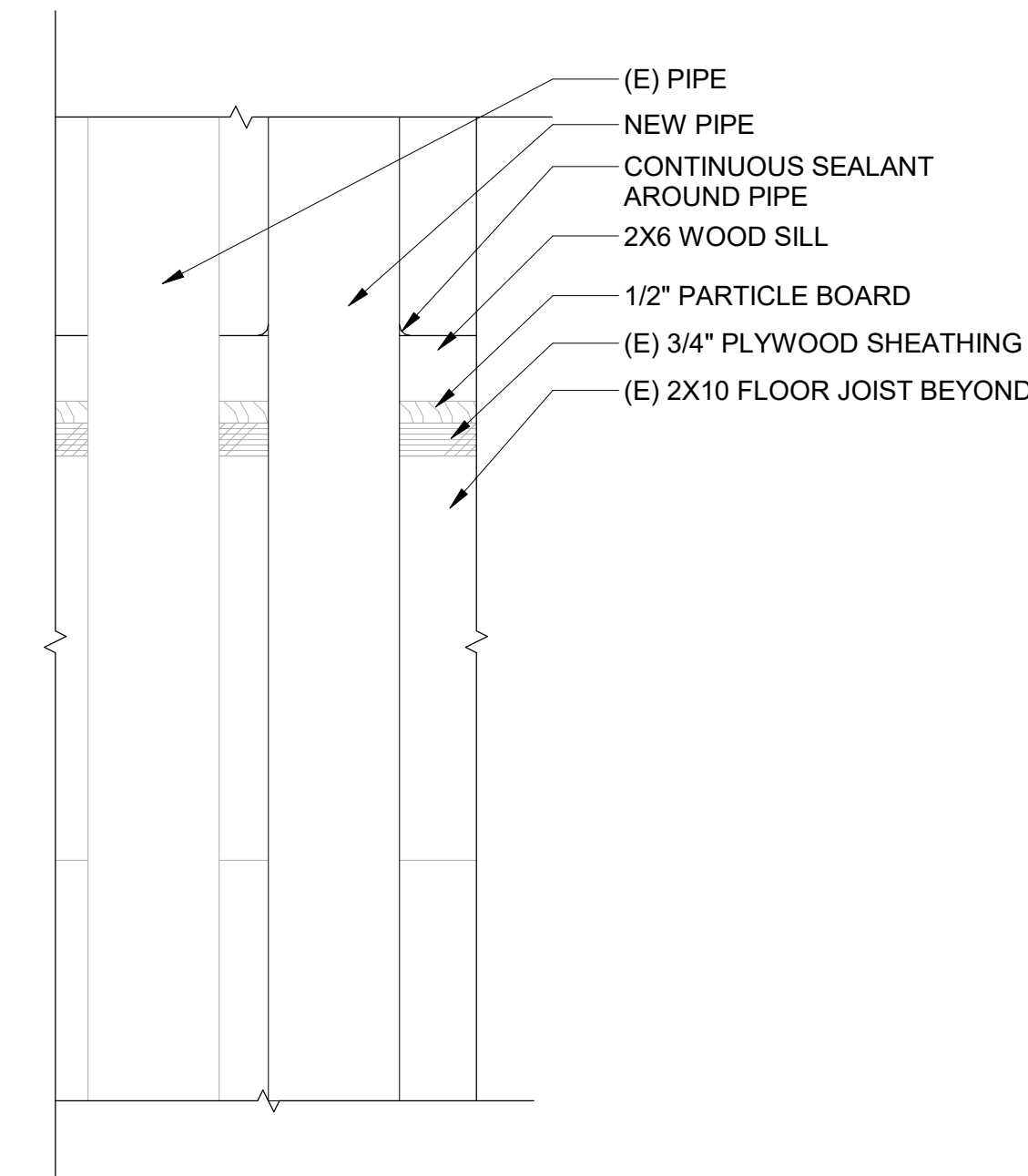


6 MODIFY SCUPPER OPENING ELEVATION  
1 1/2" = 1'-0"

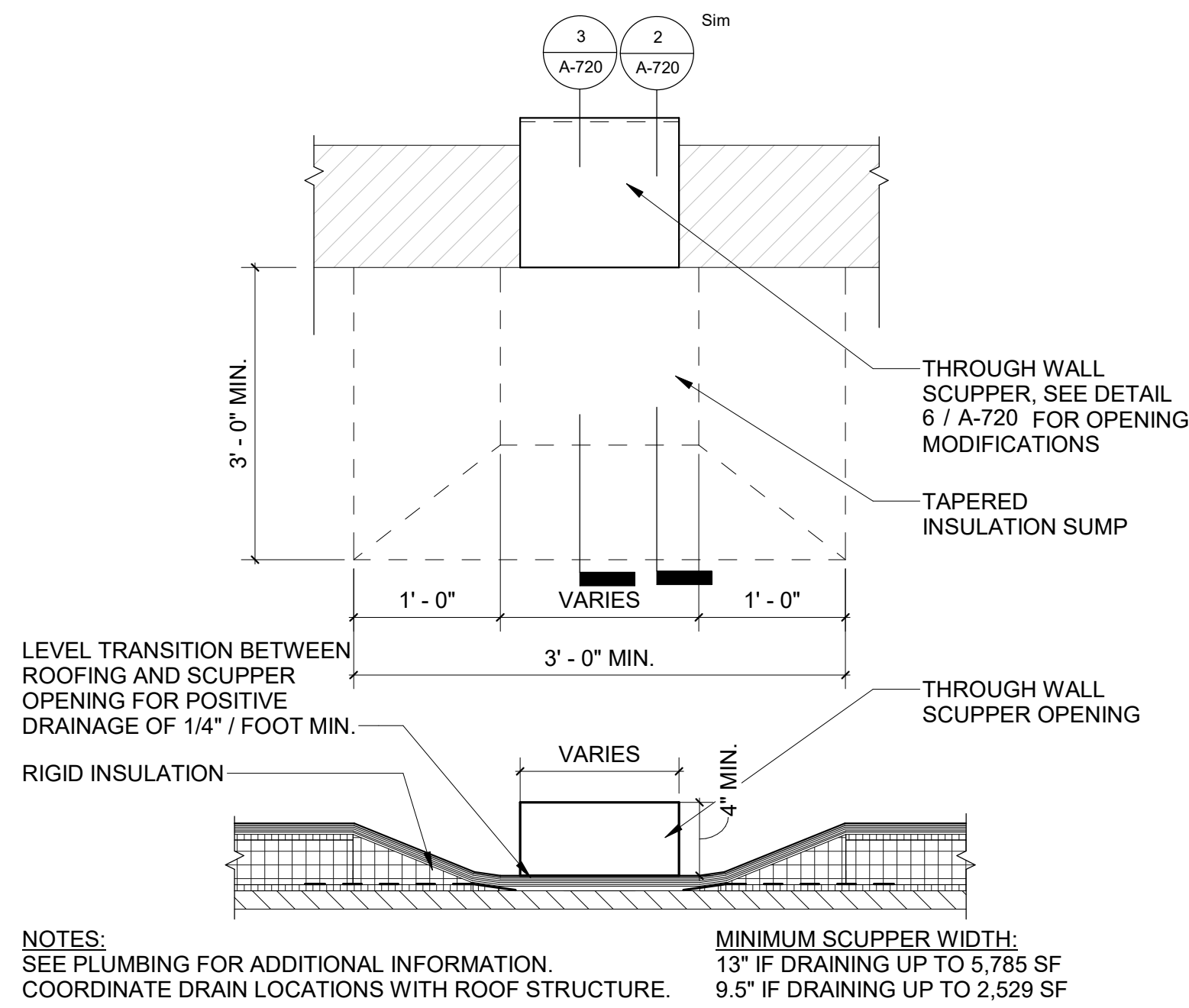


NOTE: PREFORMED PIPE BOOT TO BE APPLIED AT ALL PIPE PENETRATIONS PER MANUFACTURER'S REQUIREMENTS. SEE PLUMBING FOR ADDITIONAL INFORMATION

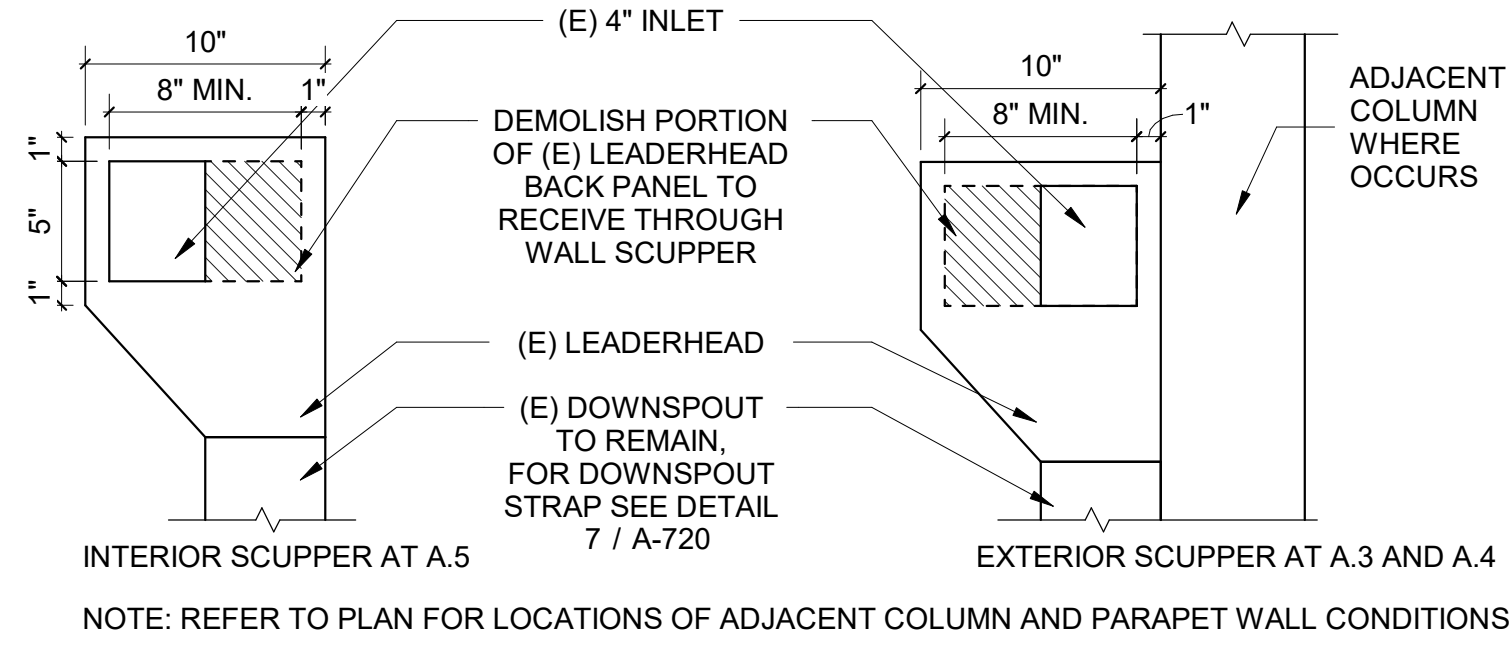
10 TYPICAL PIPE FLASHING  
3" = 1'-0"



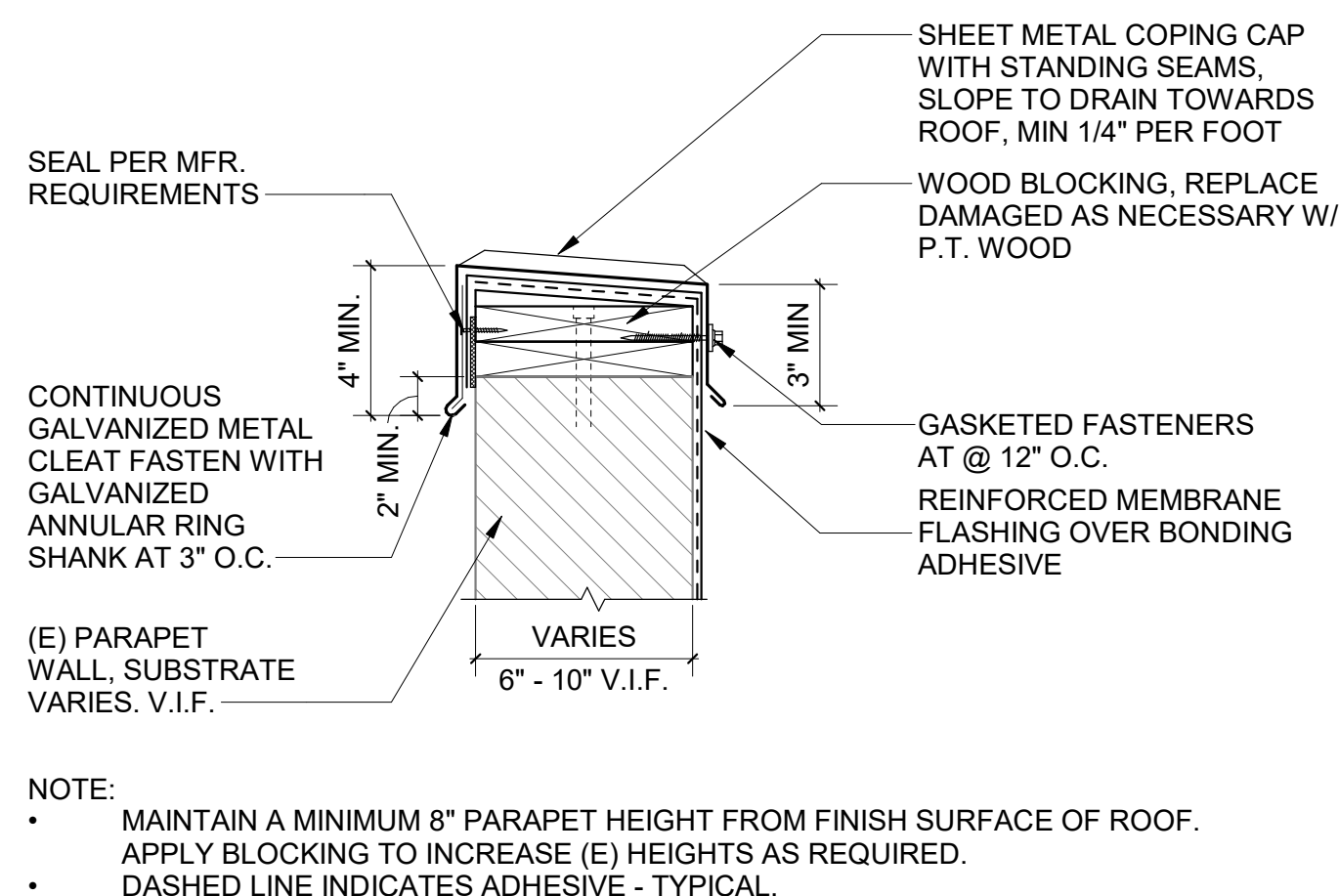
14 PIPE PENETRATION AT FLOOR  
3" = 1'-0"



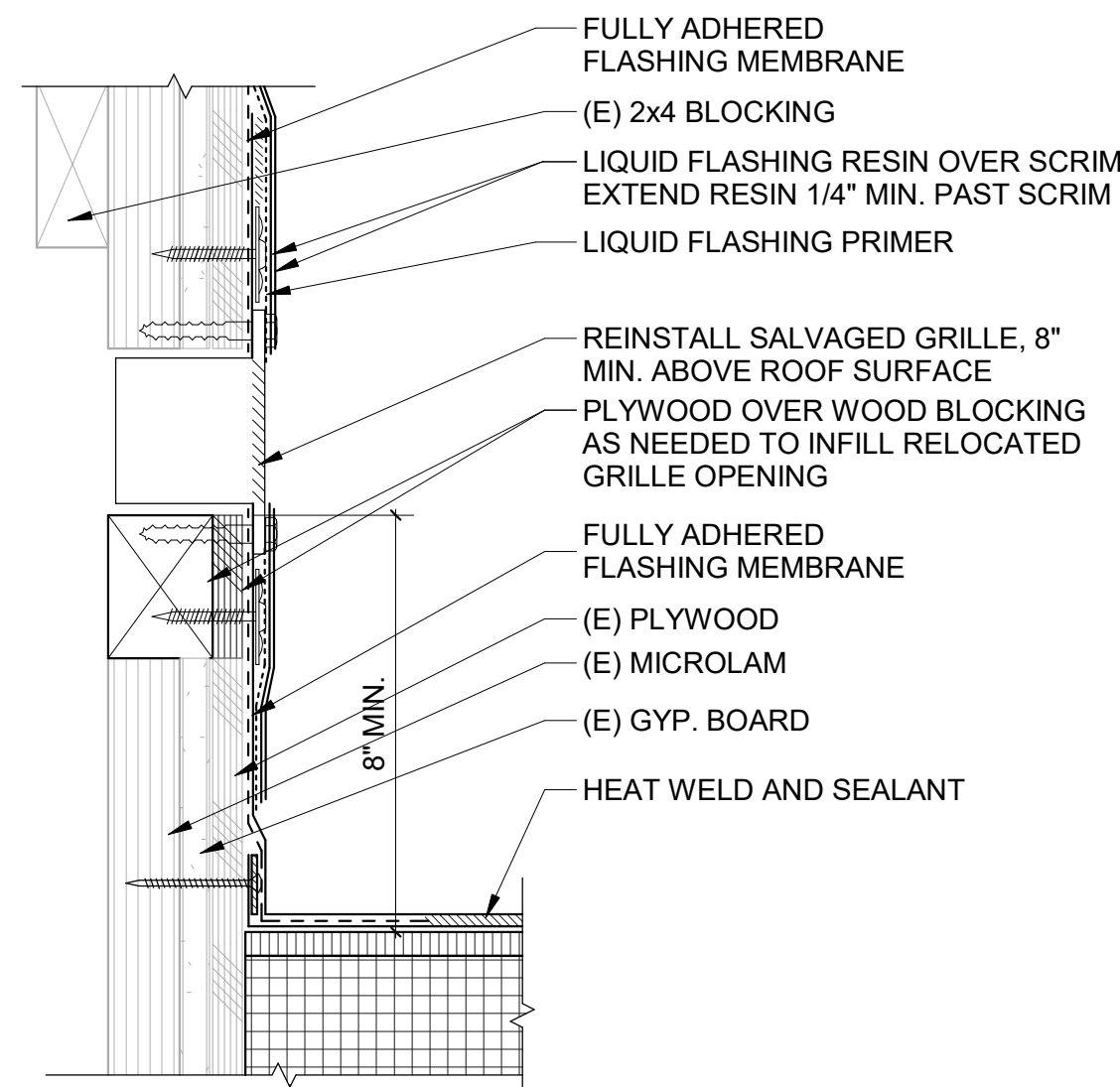
1 SCUPPER SUMP AT ROOF DRAINS  
1" = 1'-0"



5 MODIFY LEADERHEAD  
1 1/2" = 1'-0"



9 TYPICAL COPING DETAIL  
1 1/2" = 1'-0"



13 FLASHING AT SIDEWALL VENT  
3" = 1'-0"



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Consultants:

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MODULAR REROOFING

PERMIT / BID SET



Date: 04/06/2021  
Project Number: 90065  
Drawn By: DET  
Checked By: TA

Revision Schedule:

Sheet Title:

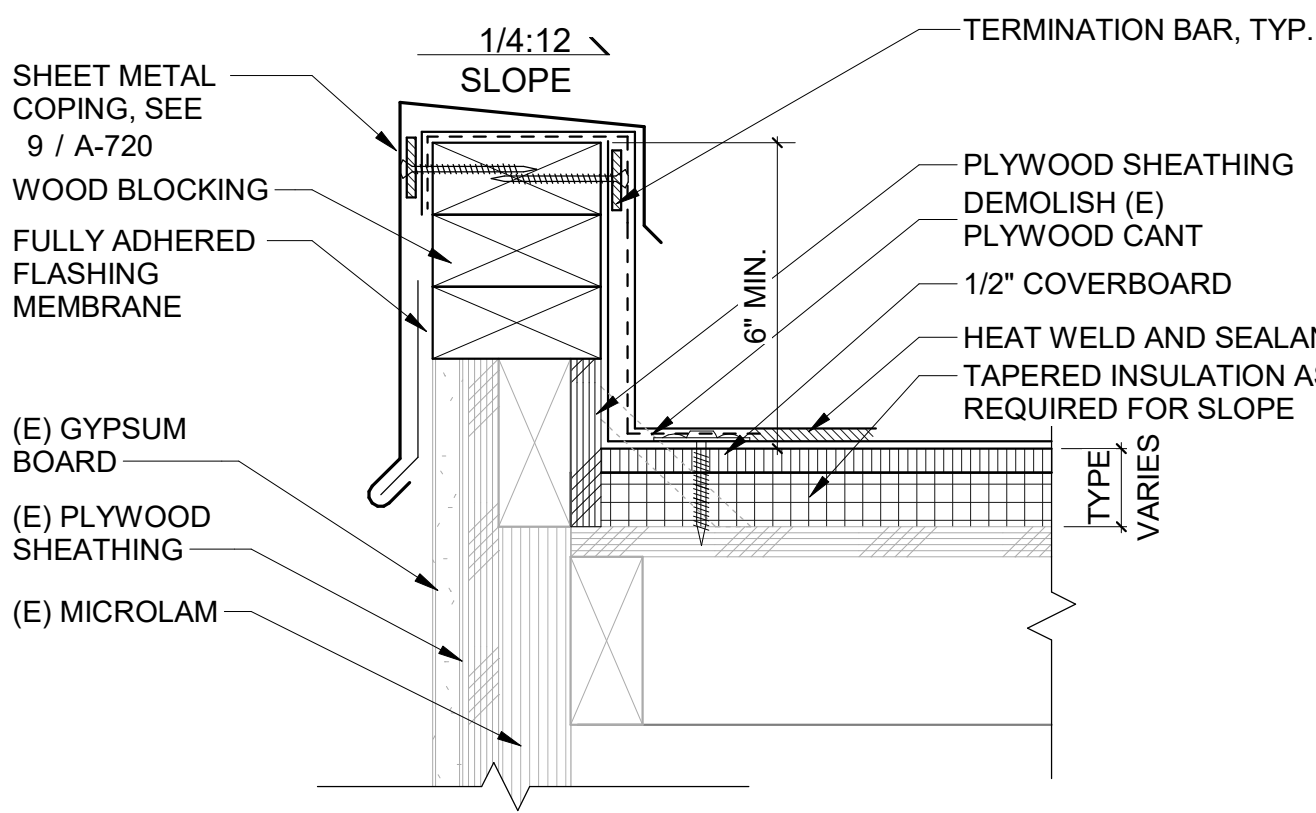
ROOF  
DETAILS

Sheet Number:

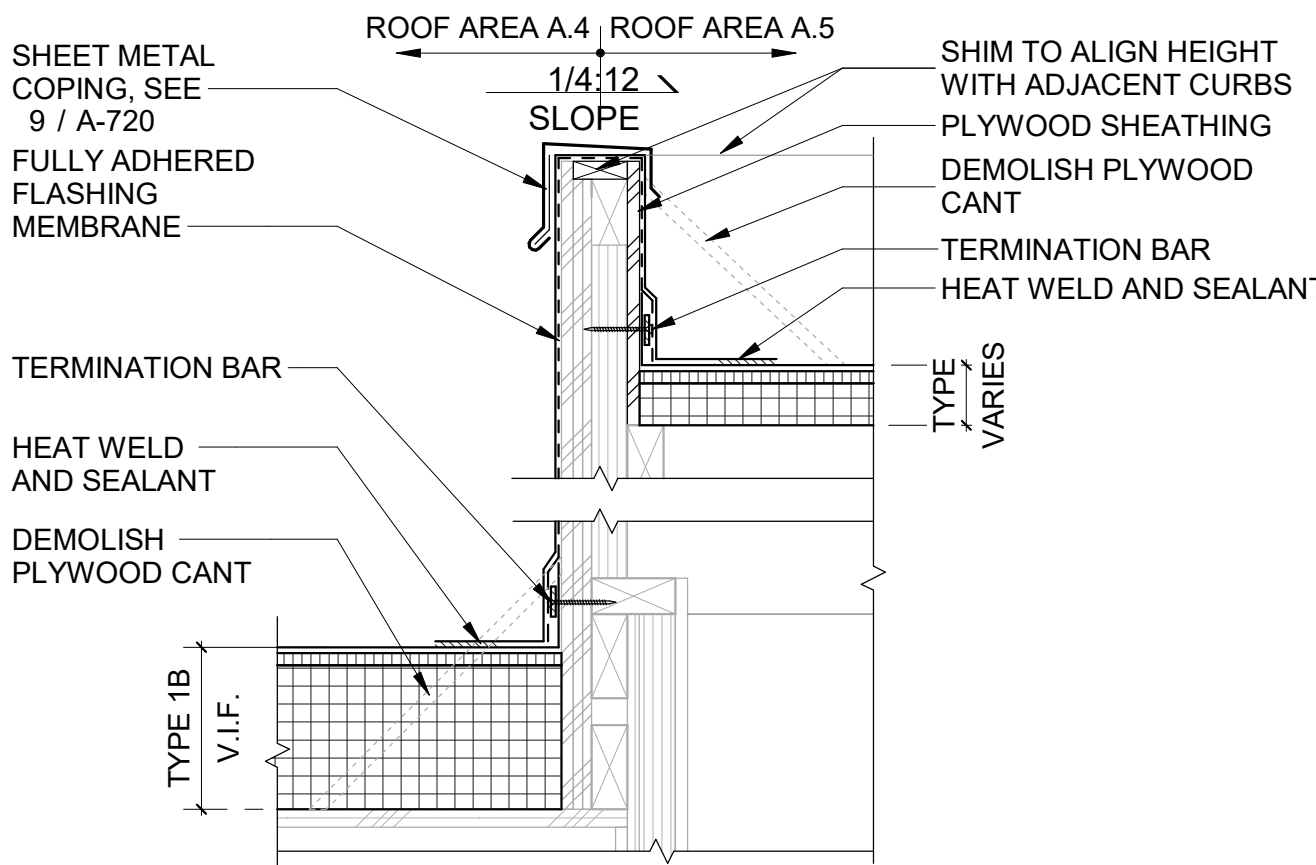
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PERMIT / BID SET

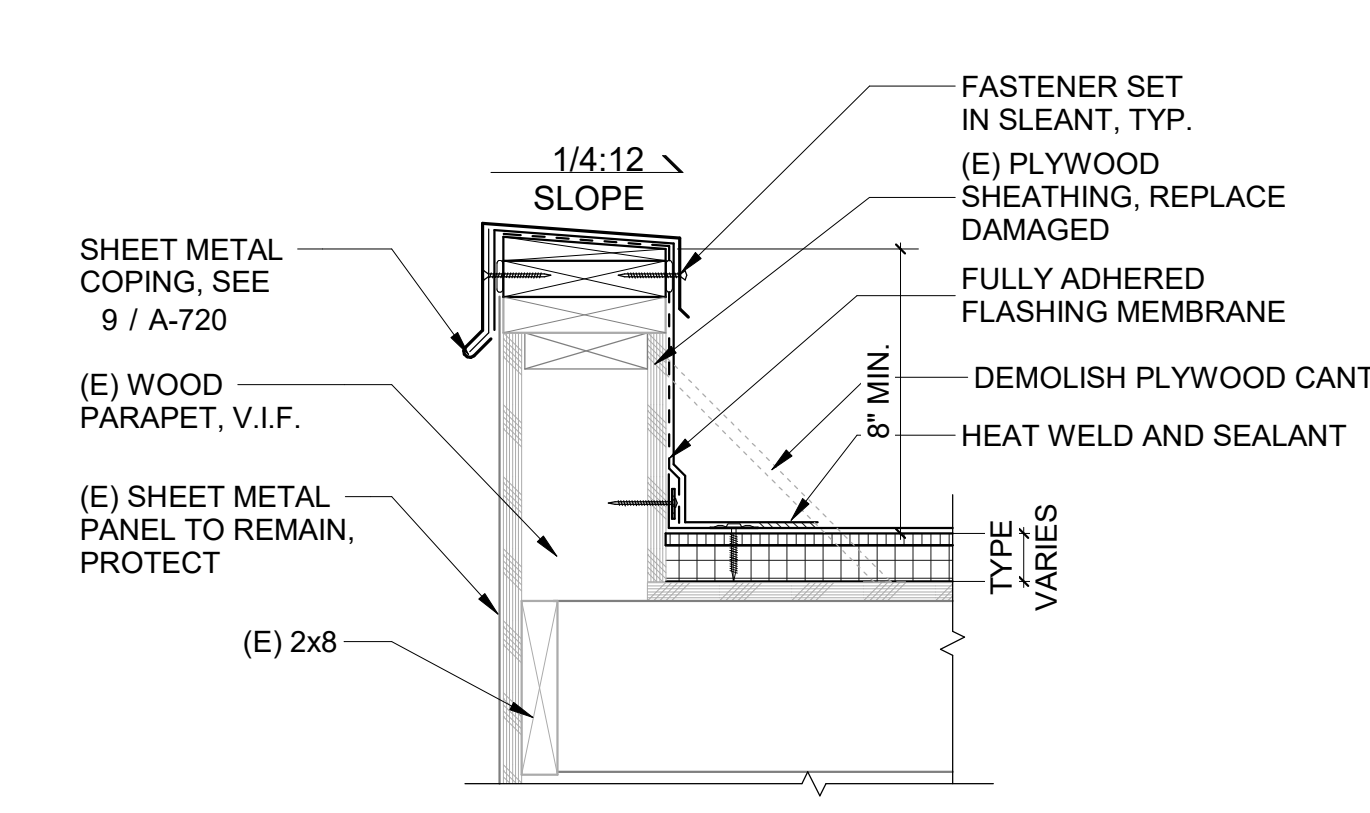




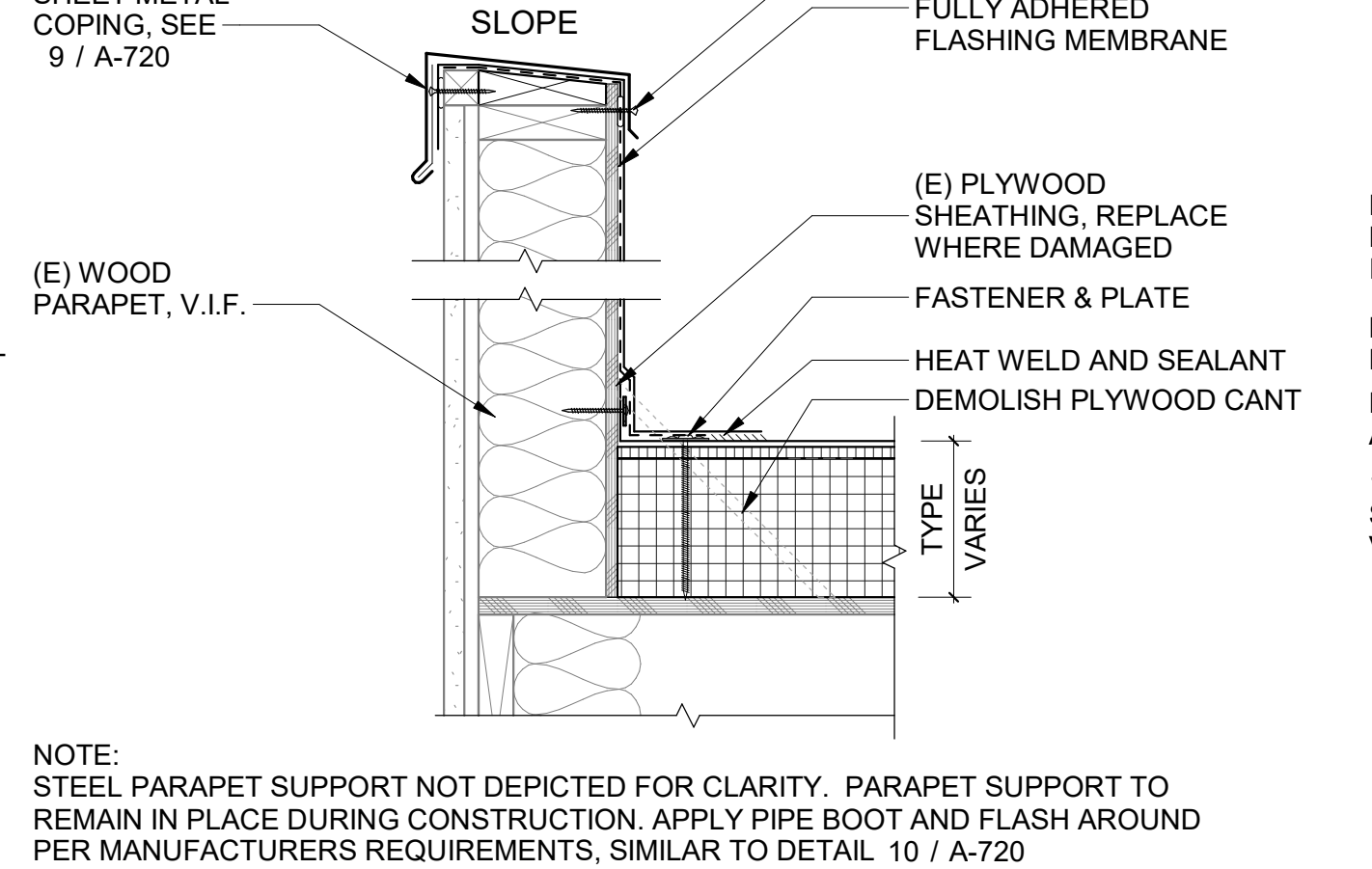
5 ROOF EDGE - TYPE P4  
3" = 1'-0"



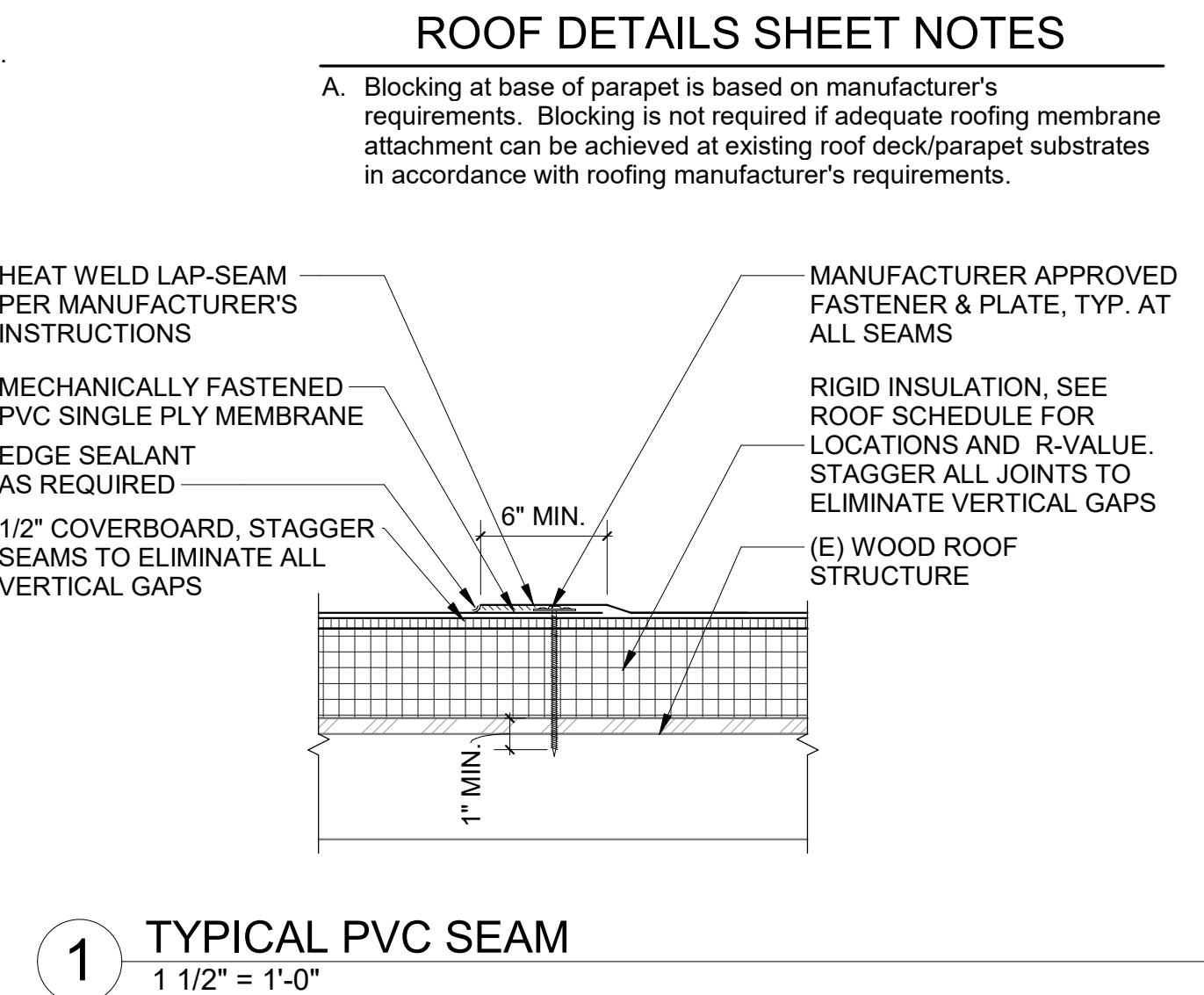
4 ROOF EDGE - TYPE P3  
1 1/2" = 1'-0"



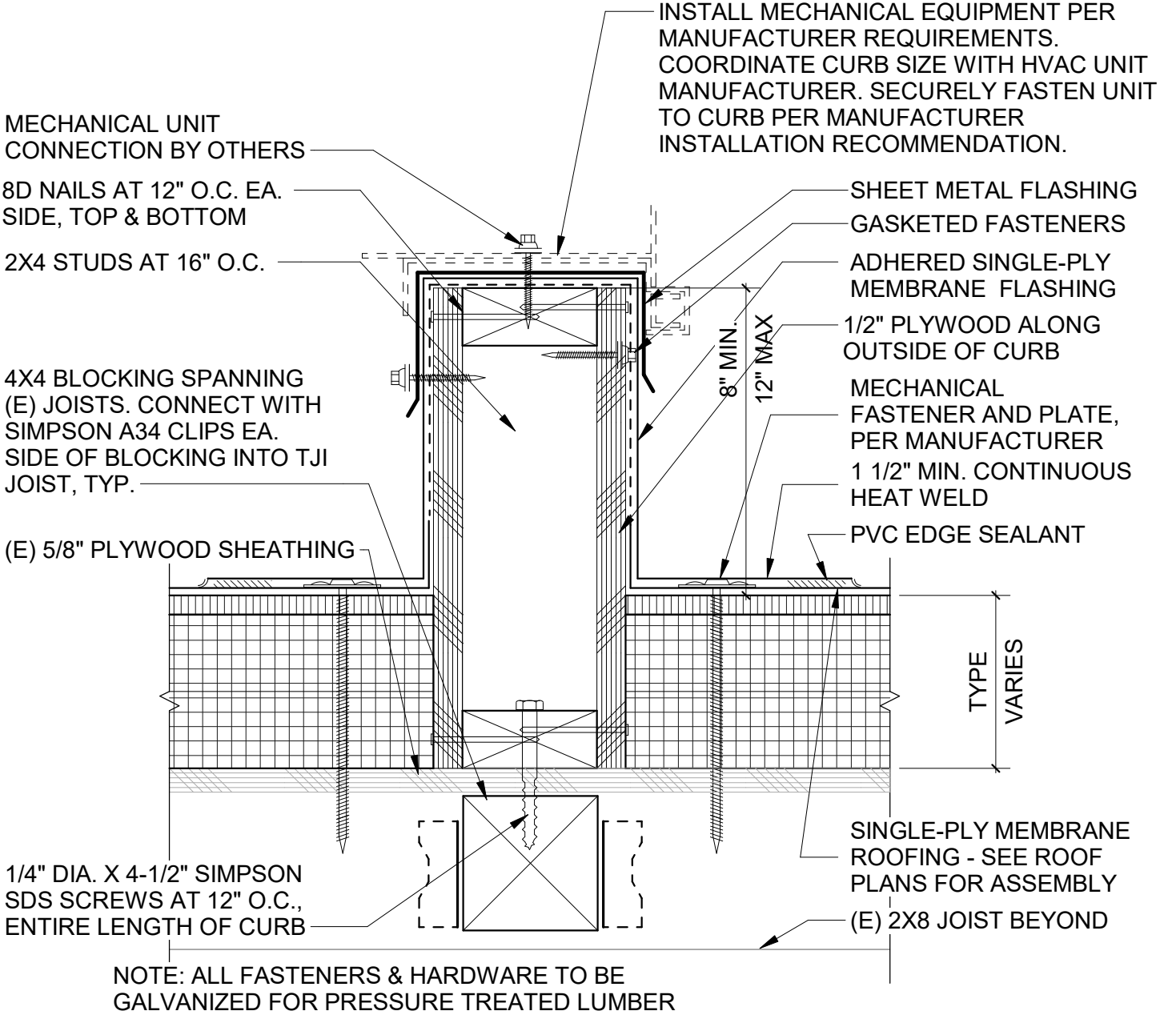
3 ROOF EDGE - TYPE P2  
1 1/2" = 1'-0"



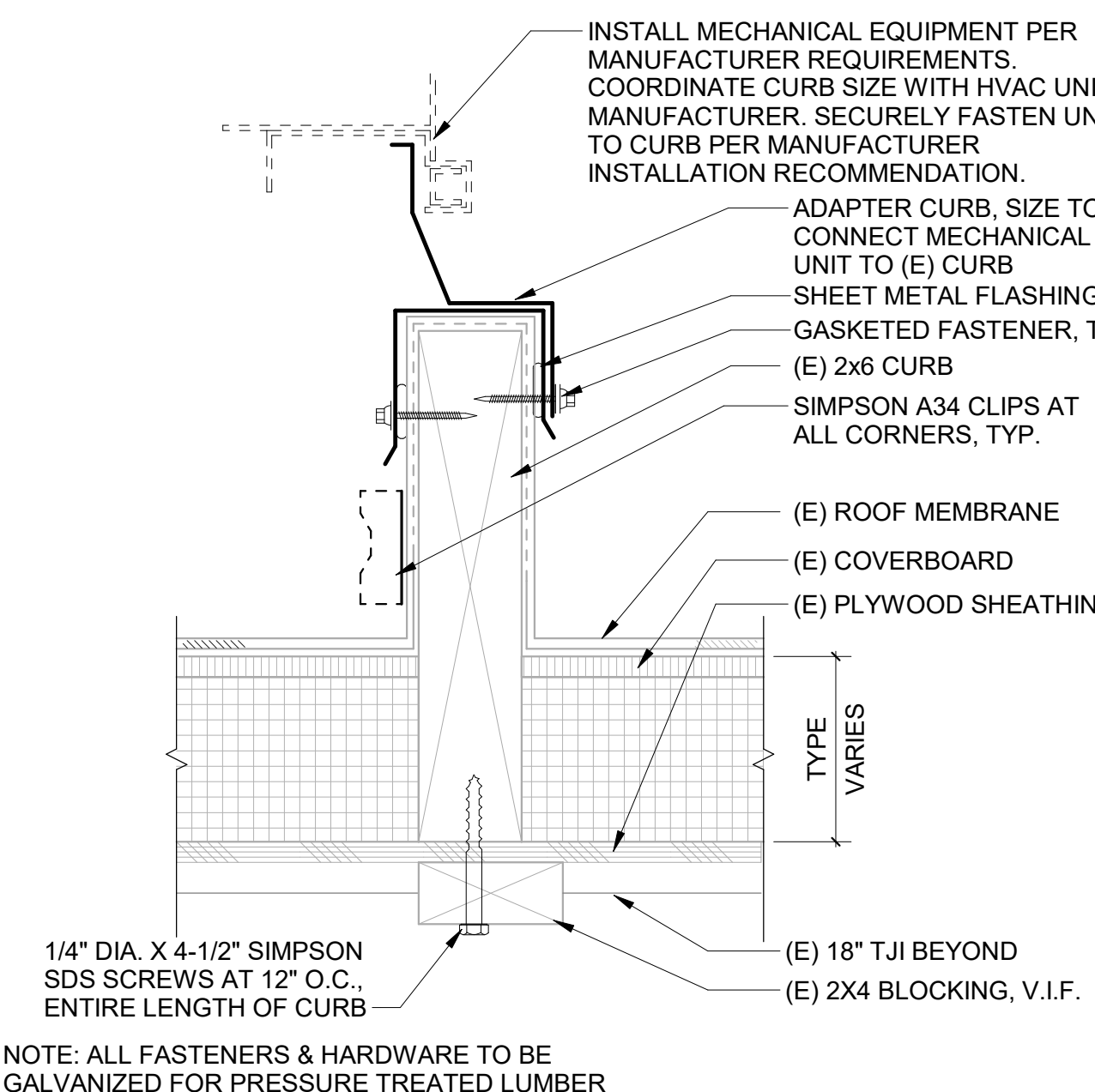
2 ROOF EDGE - TYPE P1  
1 1/2" = 1'-0"



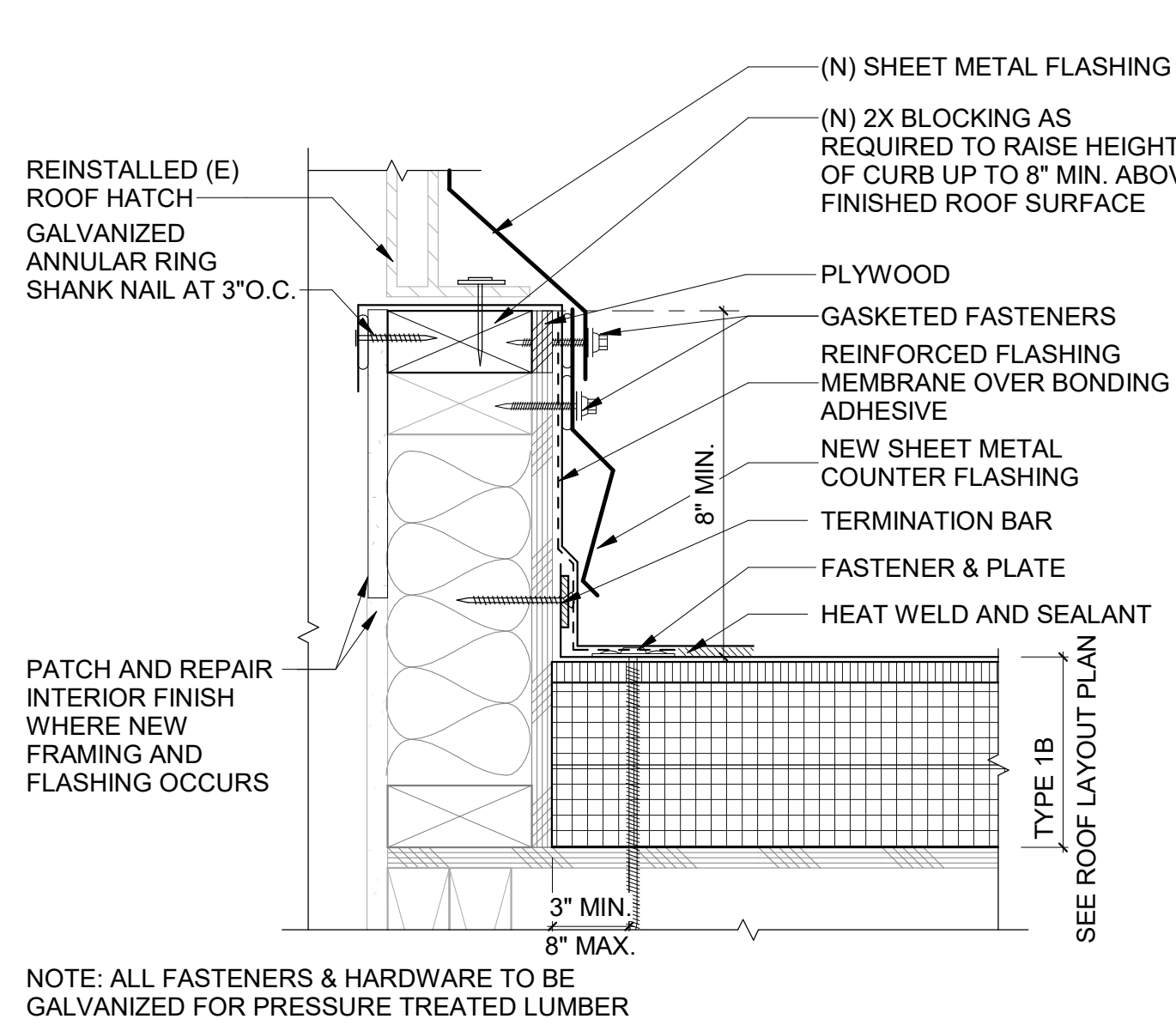
1 TYPICAL PVC SEAM  
1 1/2" = 1'-0"



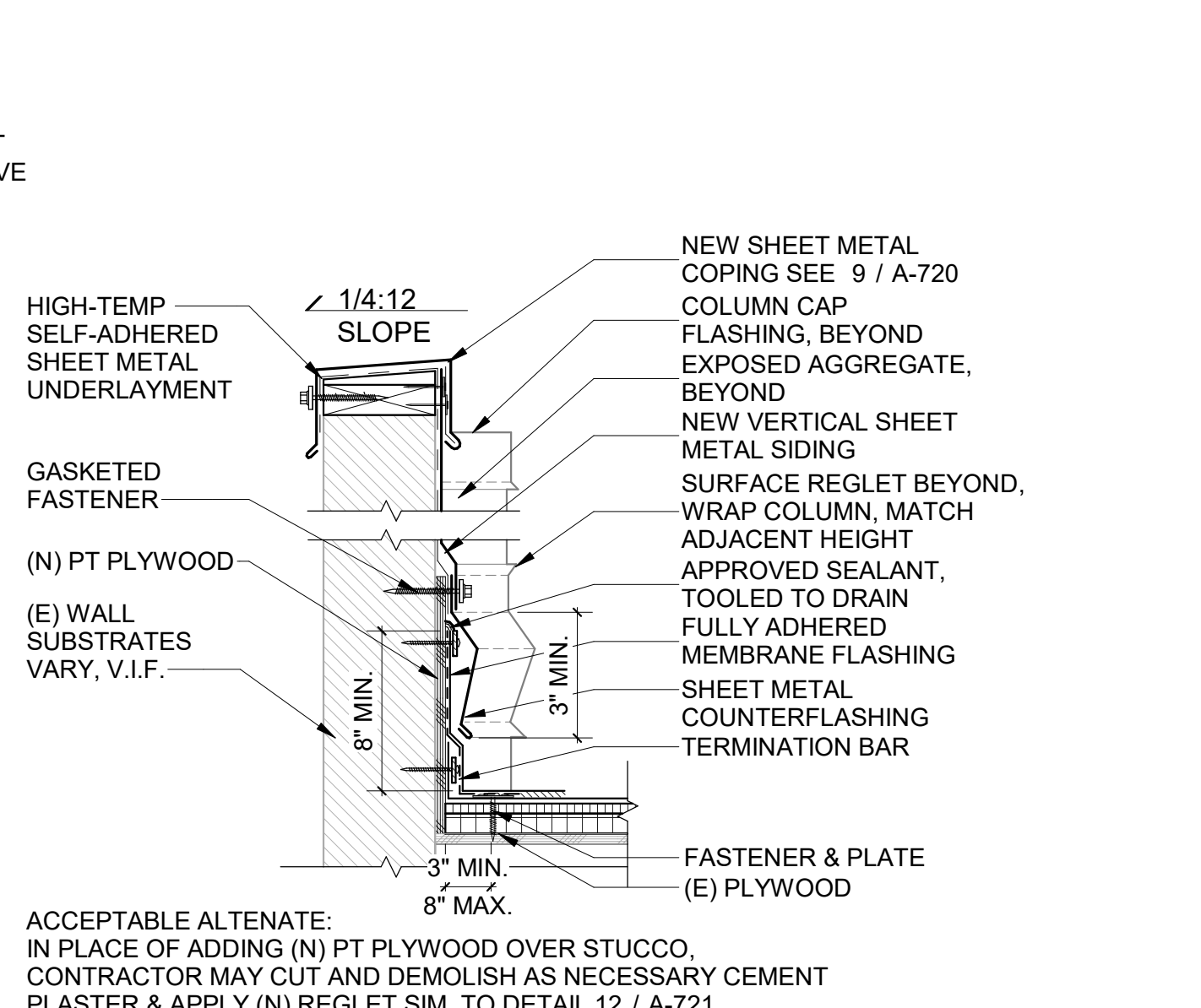
10 MECHANICAL CURB AT NEW BLOCKING  
3" = 1'-0"



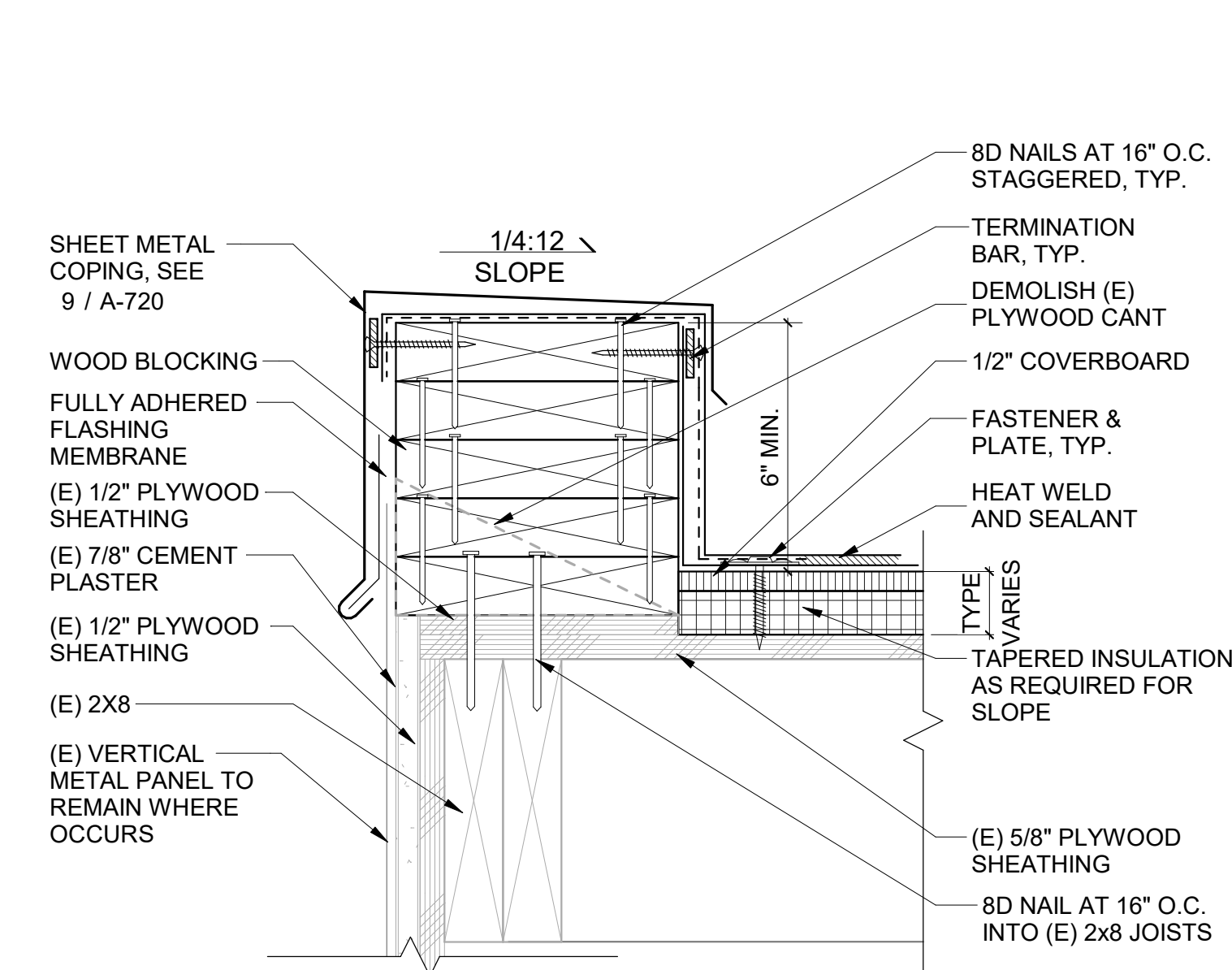
9 FLASHING AT EXISTING CURB  
3" = 1'-0"



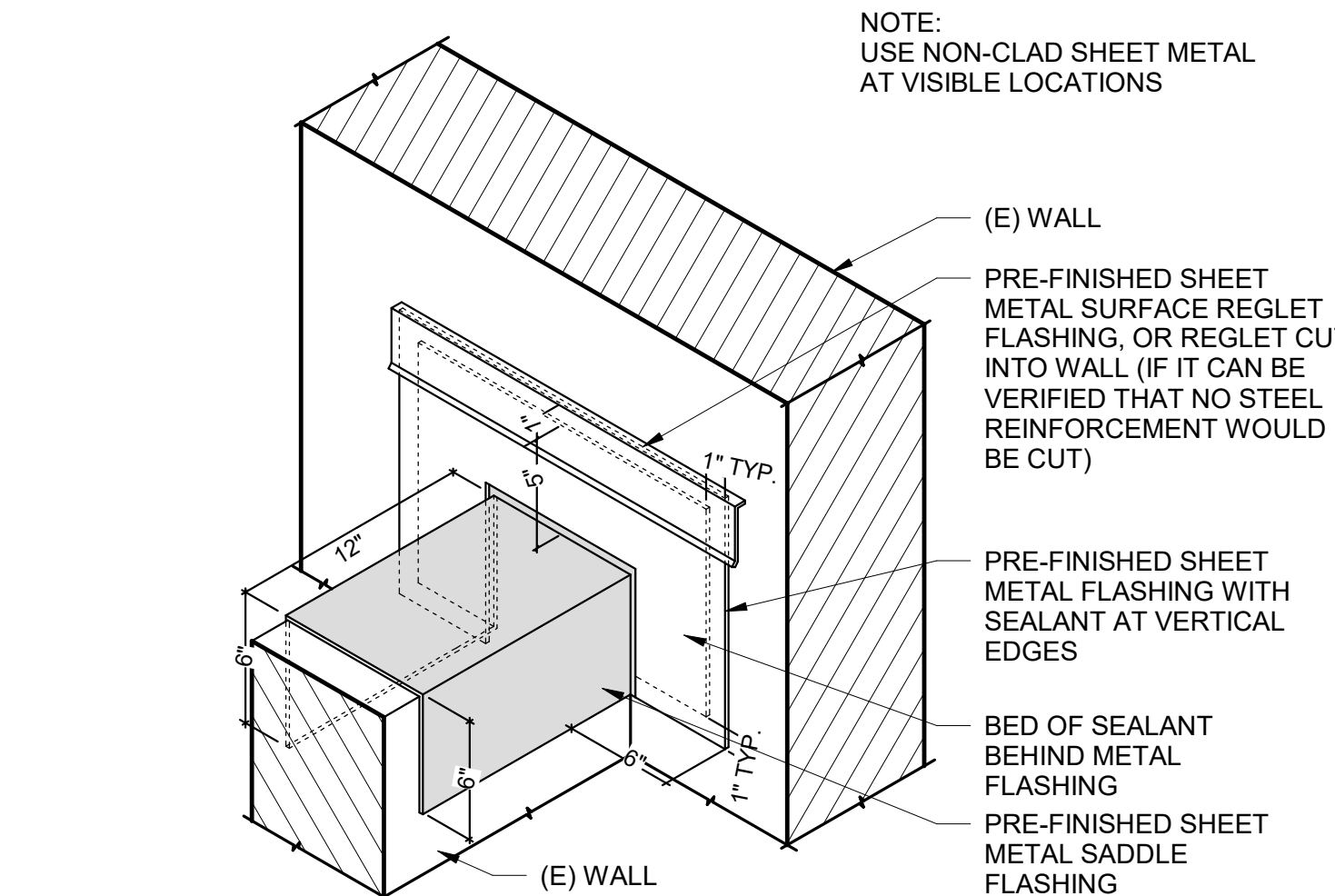
8 MODIFY (E) CURB AT ROOF HATCH  
3" = 1'-0"



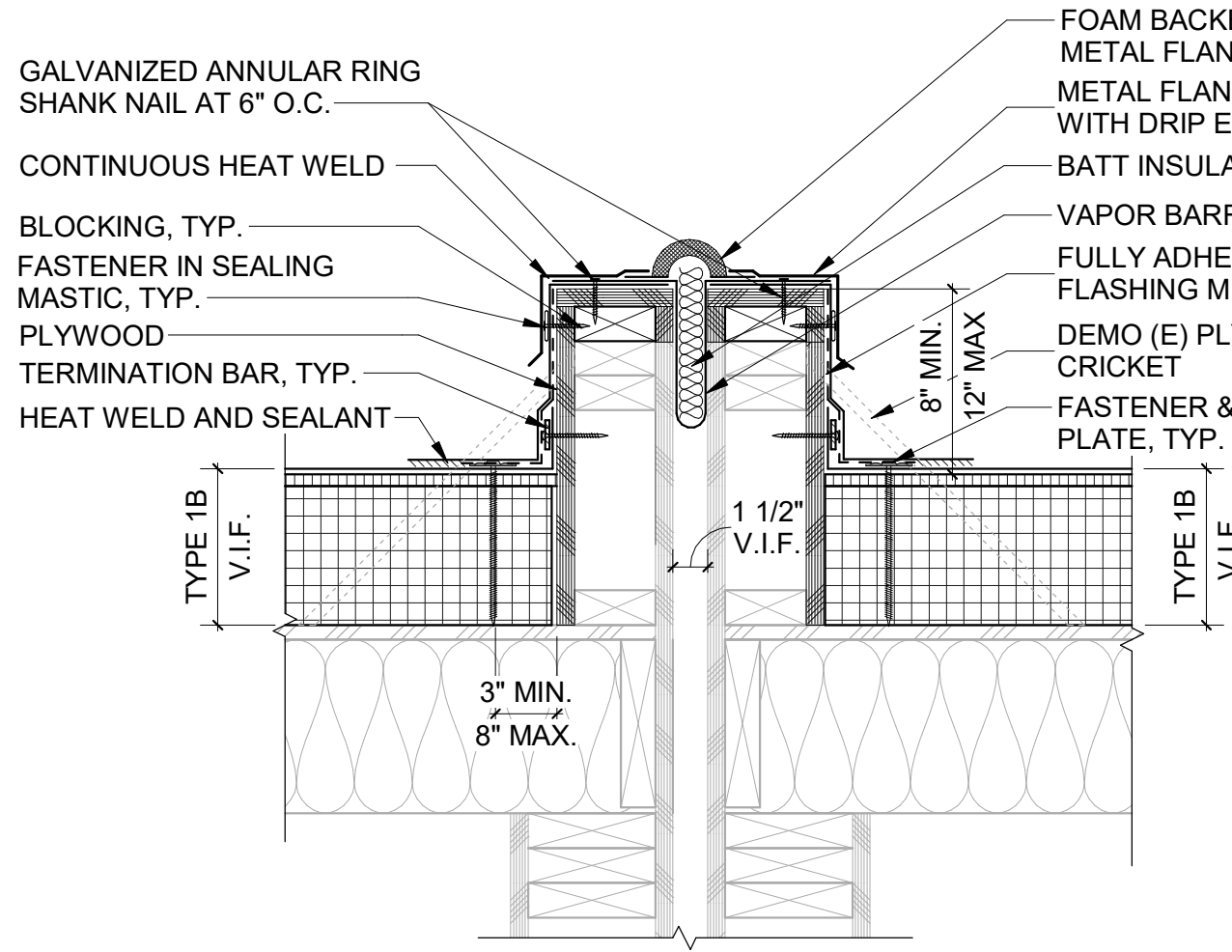
7 PVC ROOF EDGE AT (E) CEMENT PLASTER  
1 1/2" = 1'-0"



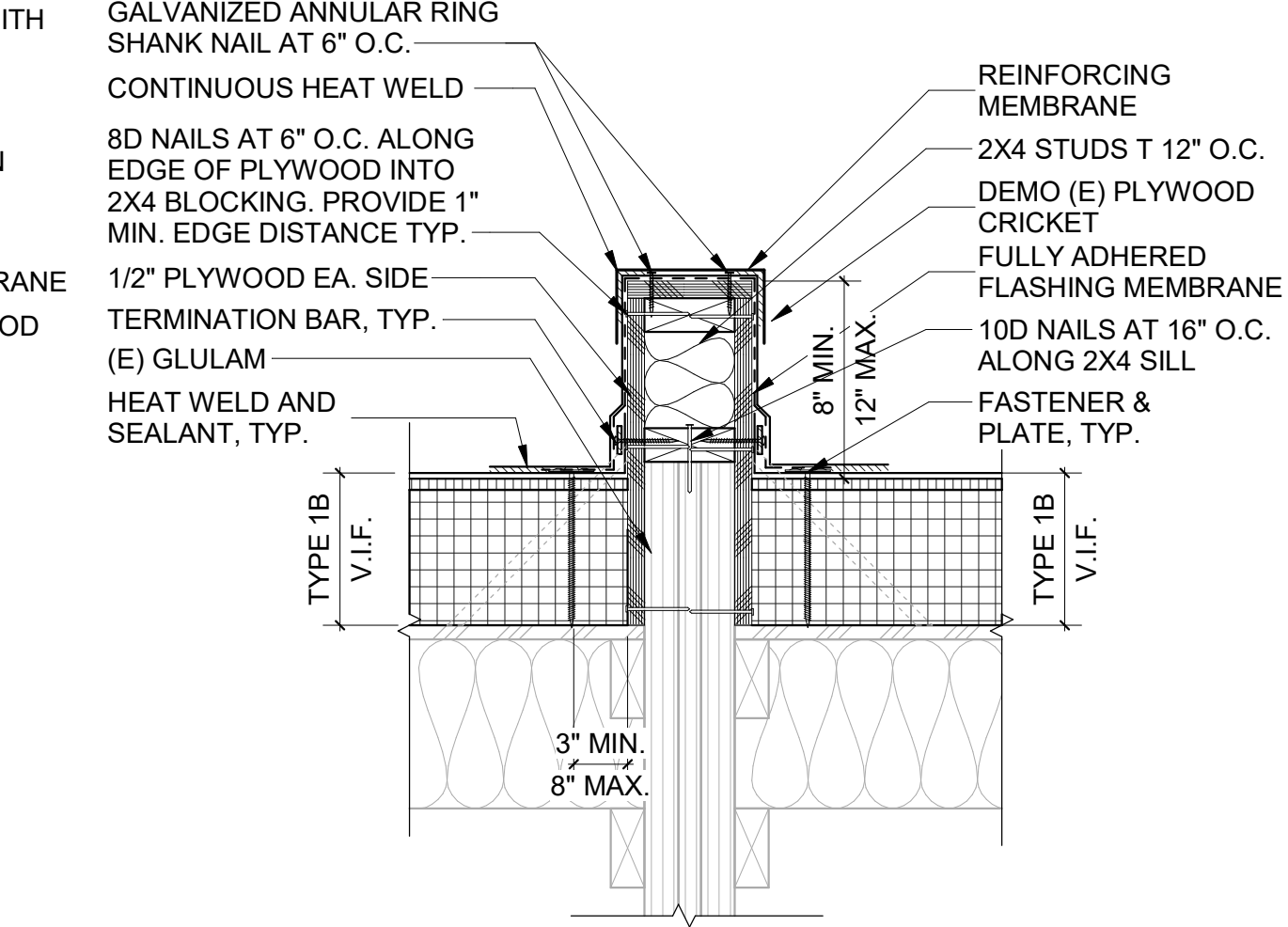
6 ROOF EDGE - TYPE P5  
3" = 1'-0"



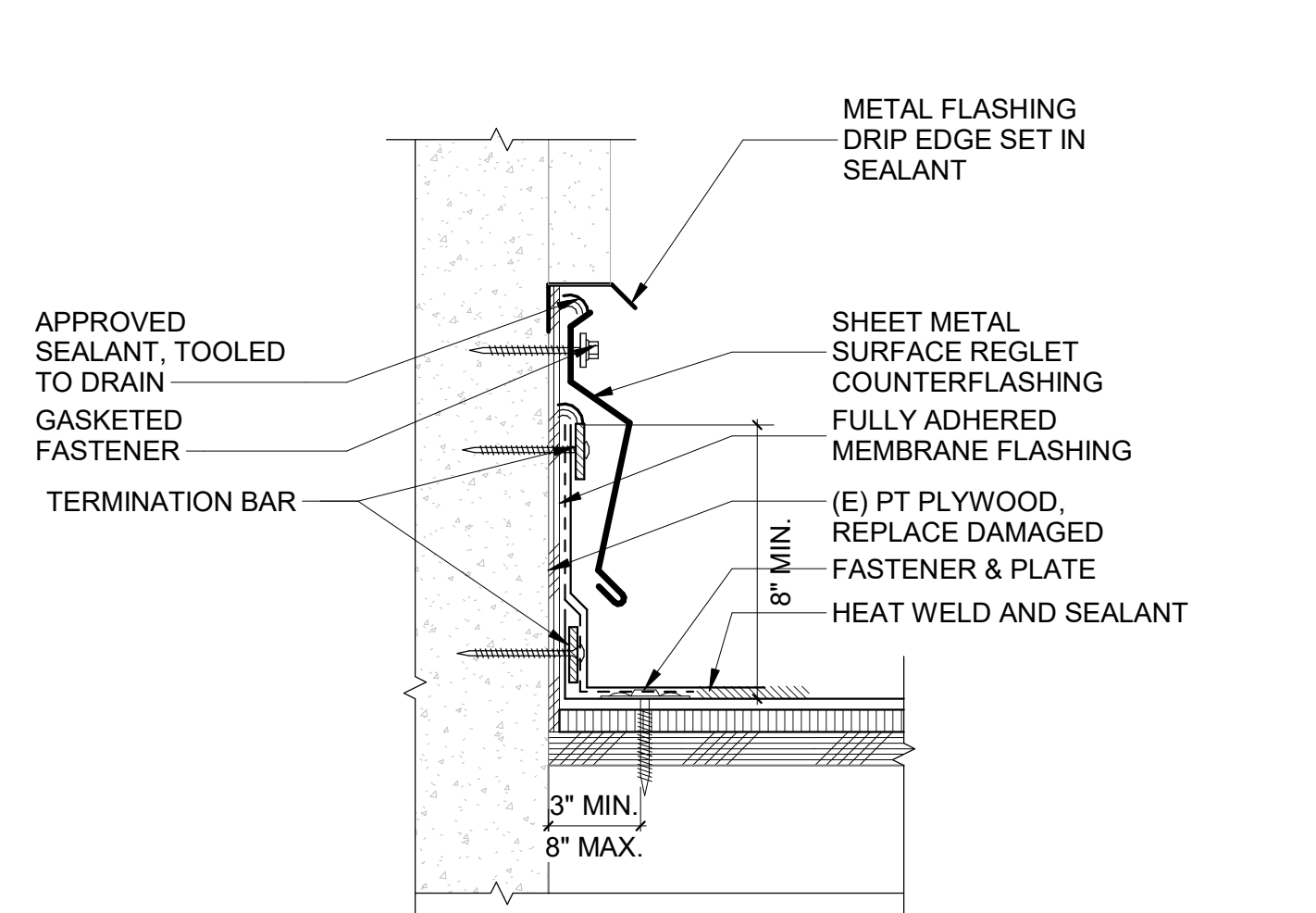
15 SADDLE FLASHING DETAIL  
1 1/2" = 1'-0"



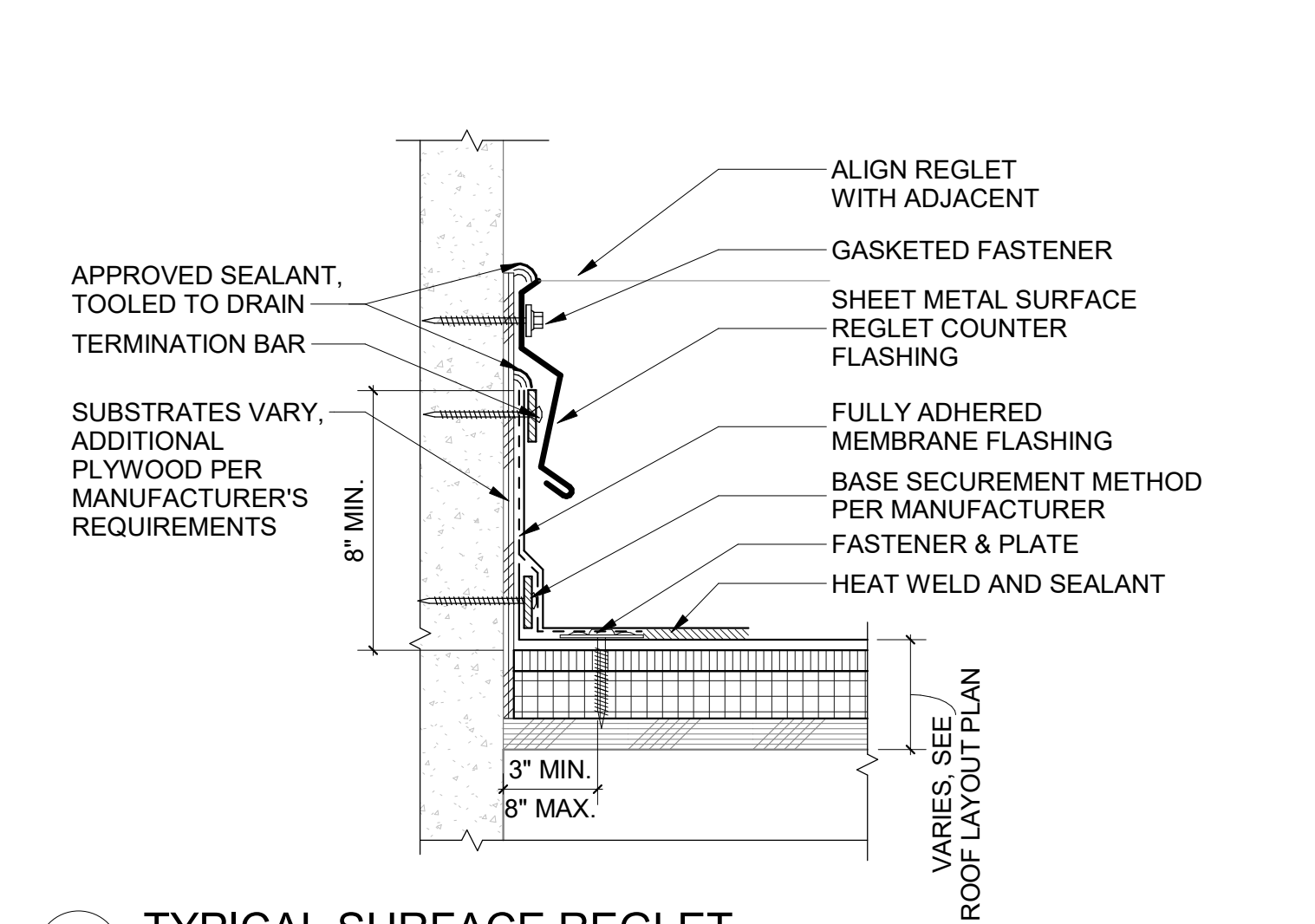
14 CURB AT MODULAR TIE  
1 1/2" = 1'-0"



13 CURB AT A.4  
1 1/2" = 1'-0"



12 REGLET AT STUCCO EAVE  
3" = 1'-0"



11 TYPICAL SURFACE REGLET  
3" = 1'-0"

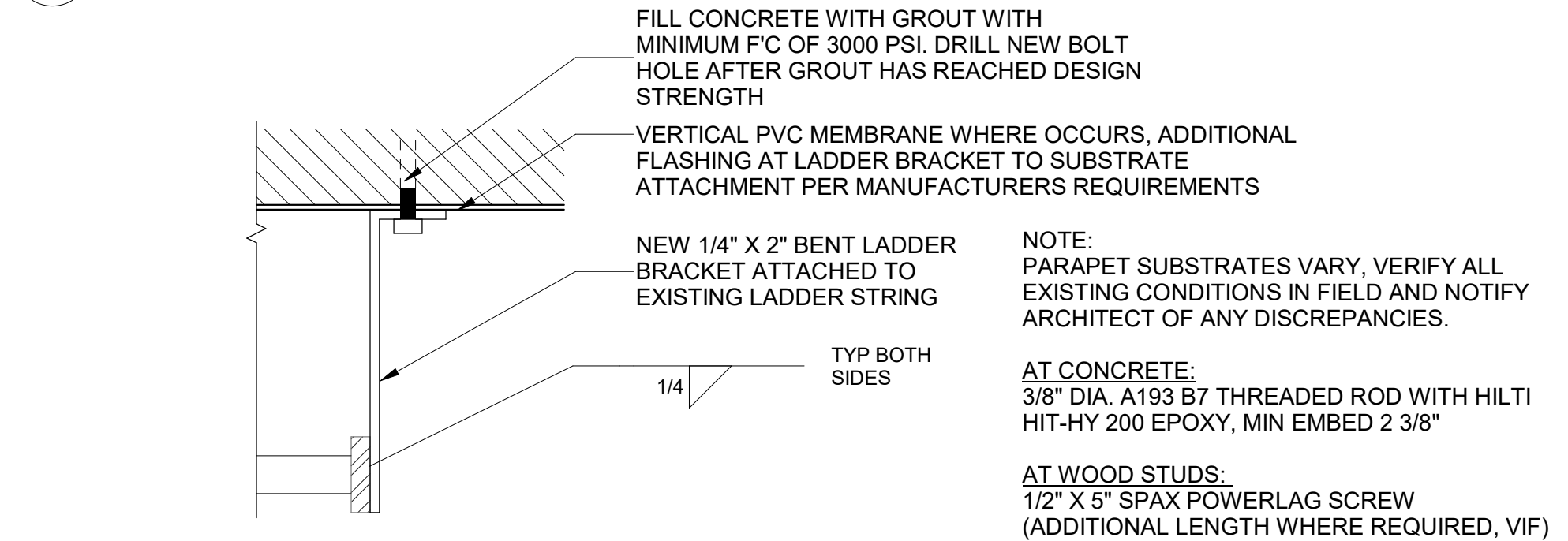
ROOF LADDER SCHEDULE									
LADDER TAG	NOTES	TYPE	ROOF AREAS	SUBSTRATE	LADDER DETAIL	X	A	B	C
L4	NOTE 6, 10 (E) MODIFY		A.6 - A.1	CONCRETE	6/A-724, 7/A-724	7' - 3"	3' - 3"	2' - 0"	0' - 8"
L8	NOTE 6, 10 (E) MODIFY		A.5 - A.6	WOOD	6/A-724, 7/A-724	7' - 2"	3' - 2"	0' - 0"	0' - 8"
L13	NOTE 6, 10 (E) MODIFY		A.4 - A.5	WOOD	6/A-724, 7/A-724	5' - 9"	1' - 9"	0' - 0"	0' - 4"

**LADDER SCHEDULE AND DETAIL NOTES:**

- ALL DIMENSIONS APPROXIMATE - V.I.F. AND REFERENCE REQUIRED CLEARANCES.
- SCHEDULE LEGEND:
  - X: OVERALL LADDER HEIGHT
  - A: BOTTOM OF LADDER TO TOP OF PARAPET - HIGH SIDE
  - B: BOTTOM OF LADDER TO TOP OF PARAPET - LOW SIDE (APPLIES TO PARAPET LADDER ONLY)
  - C: PARAPET WIDTH - INCLUDES WALL PROJECTIONS WHERE OCCURS, VERIFY IN FIELD.
- FOR LADDER INFORMATION REFER TO SPECIFICATION SECTION 05 50 00 - METAL FABRICATIONS.
- LADDER SUPPORT ANCHOR GUIDELINES:
  - CONFIRM SUBSTRATE CAPACITY PRIOR TO ATTACHING LADDER.
  - CONNECT SUPPORTS WITH 1/2" Ø EPOXY ANCHOR WITH A 4" MINIMUM EFFECTIVE EMBEDMENT INTO CONCRETE WALL.
  - CONNECT SUPPORTS WITH 3/4" Ø EPOXY ANCHOR INSTALLED AT 22.5 DEGREE ANGLE FROM VERTICAL. MAINTAIN 1" CLEARANCE TO BACKSIDE OF WALL PER ICC ESR 1772.
  - EXISTING PRECAST PANELS HAVE PRE-STRESSING TENDONS. CONTRACTOR TO LOCATE EXISTING TENDONS AND ADJUST LADDER ANCHOR BRACKET PLACEMENT ACCORDINGLY. DO NOT CUT OR DAMAGE EXISTING REINFORCING.
- LOCATE LADDER 7" FROM OUTERMOST PROJECTION. IF DIMENSION FROM ANCHOR POINT TO CENTERLINE OF LADDER EXCEEDS 12" NOTIFY ARCHITECT OF RECORD.
- ALL MODIFIED EXISTING LADDERS ARE TO BE REMOVED AND STORED DURING CONSTRUCTION UNLESS OTHERWISE NOTED. COORDINATE BRACKET ATTACHMENT WITH ROOF MANUFACTURER FOR FLASHING MEMBRANE REQUIREMENTS.
- MODIFY LADDER IN PLACE. CUT OFF LADDER RAIL BELOW BOTTOM RUNG TO ACCOMMODATE 4" SPACE BETWEEN NEW FINISH ROOF SURFACE AND BOTTOM OF LADDER.
- ALL EXPOSED STEEL SHALL BE PAINTED.
- NO REBAR SHALL BE CUT. SCAN CONCRETE PRIOR TO DRILLING USING GROUND PENETRATING RADAR TO LOCATE REBAR.
- 4" CLEAR ABOVE ROOF MAY NOT BE POSSIBLE WITH CURRENT CONFIGURATION OF LOWER RUNG. CONTRACTOR TO MODIFY LADDER PER DETAIL 17 / A-721 TO BE AS CLOSE TO 4" CLEAR ABOVE ROOF AS POSSIBLE WITHOUT COMPROMISING EXISTING BOTTOM RUNG.

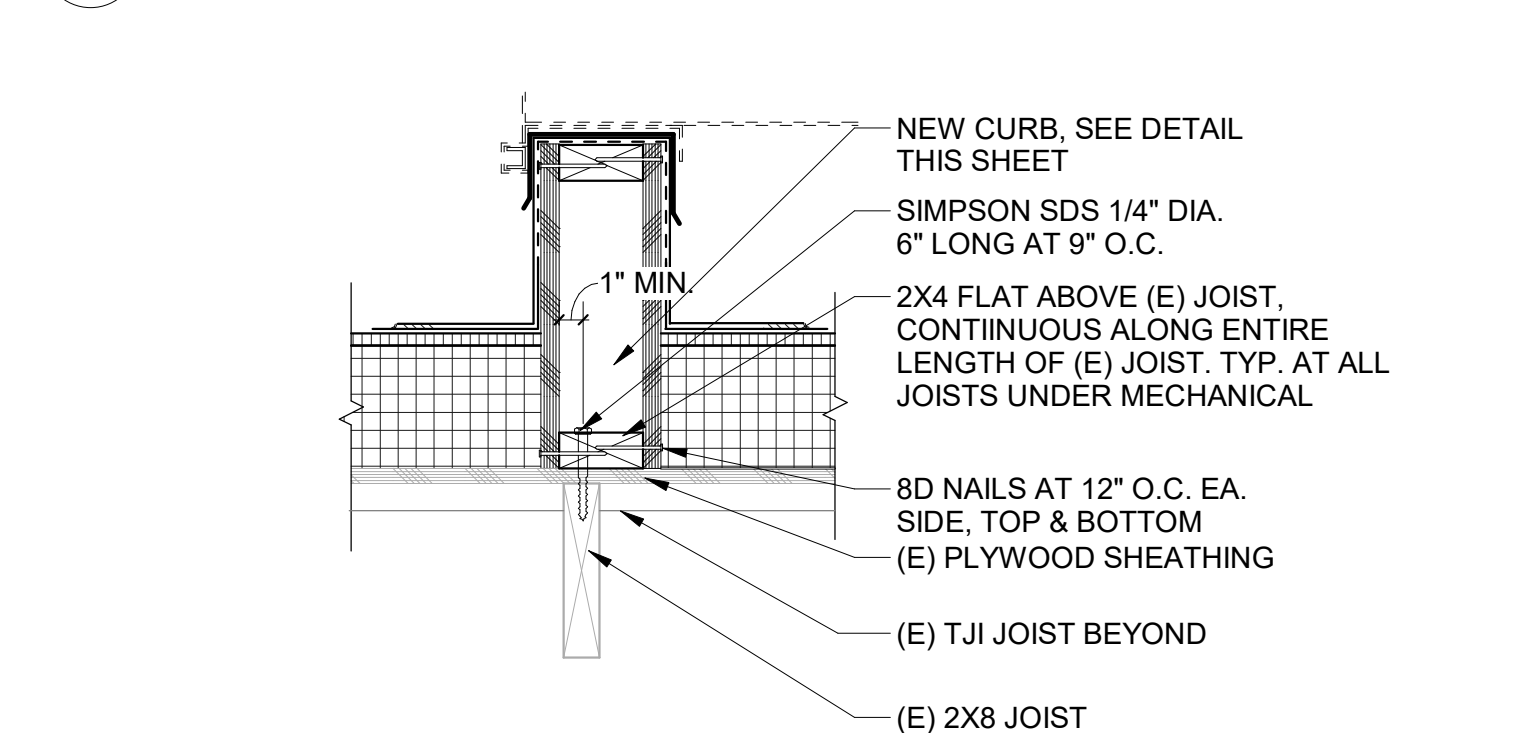
18 NEW BAR ATTACHMENT  
3" = 1'-0"

17 ACCESS LADDER - MODIFIED EXISTING  
1/2" = 1'-0"



20 ACCESS LADDER BRACKET - WALL MOUNTING  
3" = 1'-0"

16 ACCESS LADDER BRACKET - WALL MOUNTING  
1 1/2" = 1'-0"



19 JOIST STRENGTHENING  
1 1/2" = 1'-0"

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Consultants:

**ALOHA HIGH SCHOOL**  
MODULAR REROOFING

PERMIT / BID SET

REGISTERED ARCHITECT  
DEBORAH K. PLATHE  
PORTLAND, OR  
12/31/2022  
202509

Date: 04/06/2021  
Project Number: 90065  
Drawn By: DET  
Checked By: TA

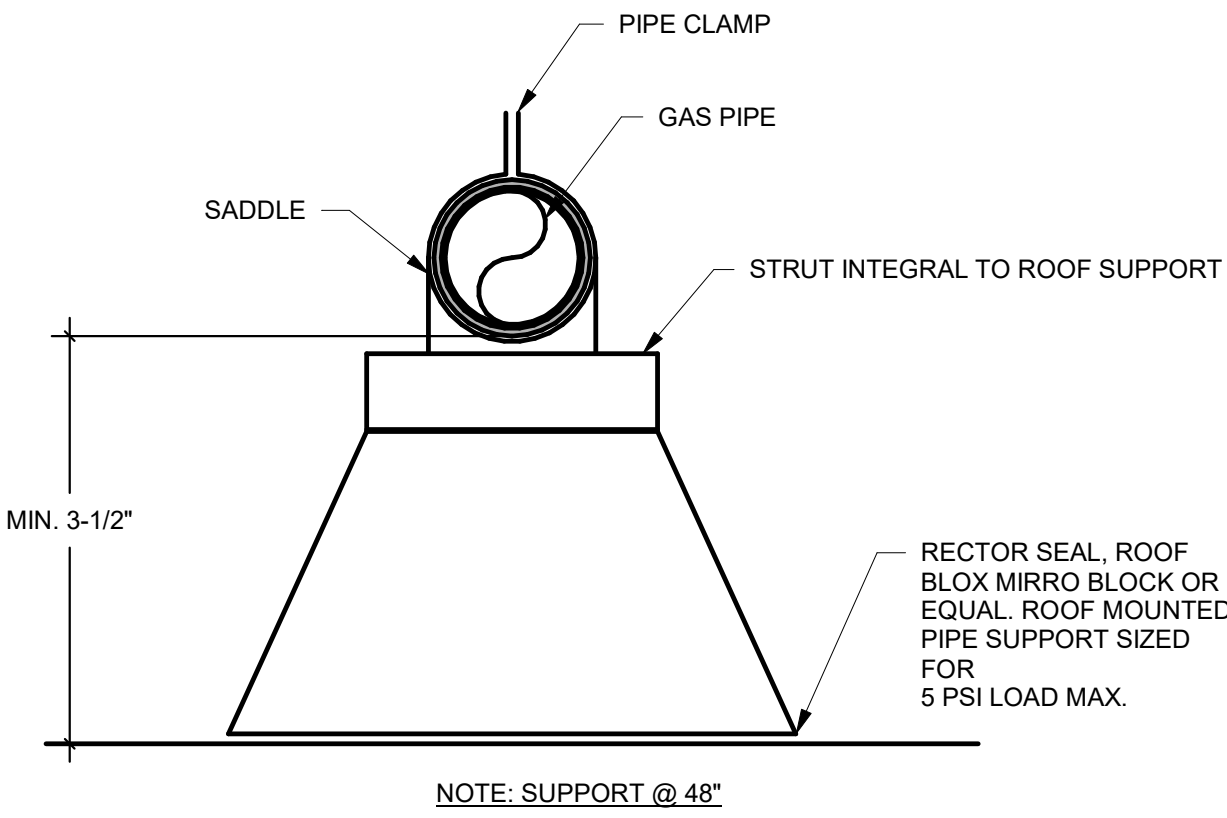
Revision Schedule:

Sheet Title:  
**ROOF & LADDER DETAILS**

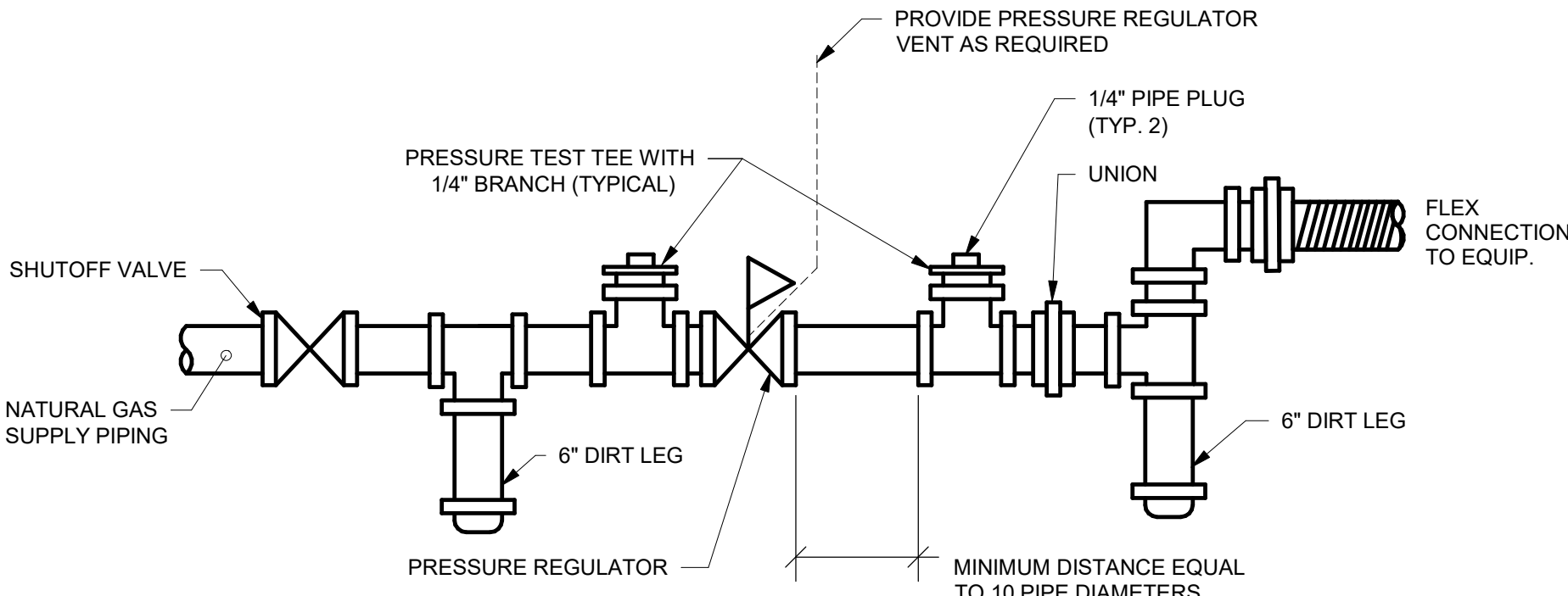
Sheet Number:

**A-721**  
PERMIT / BID SET

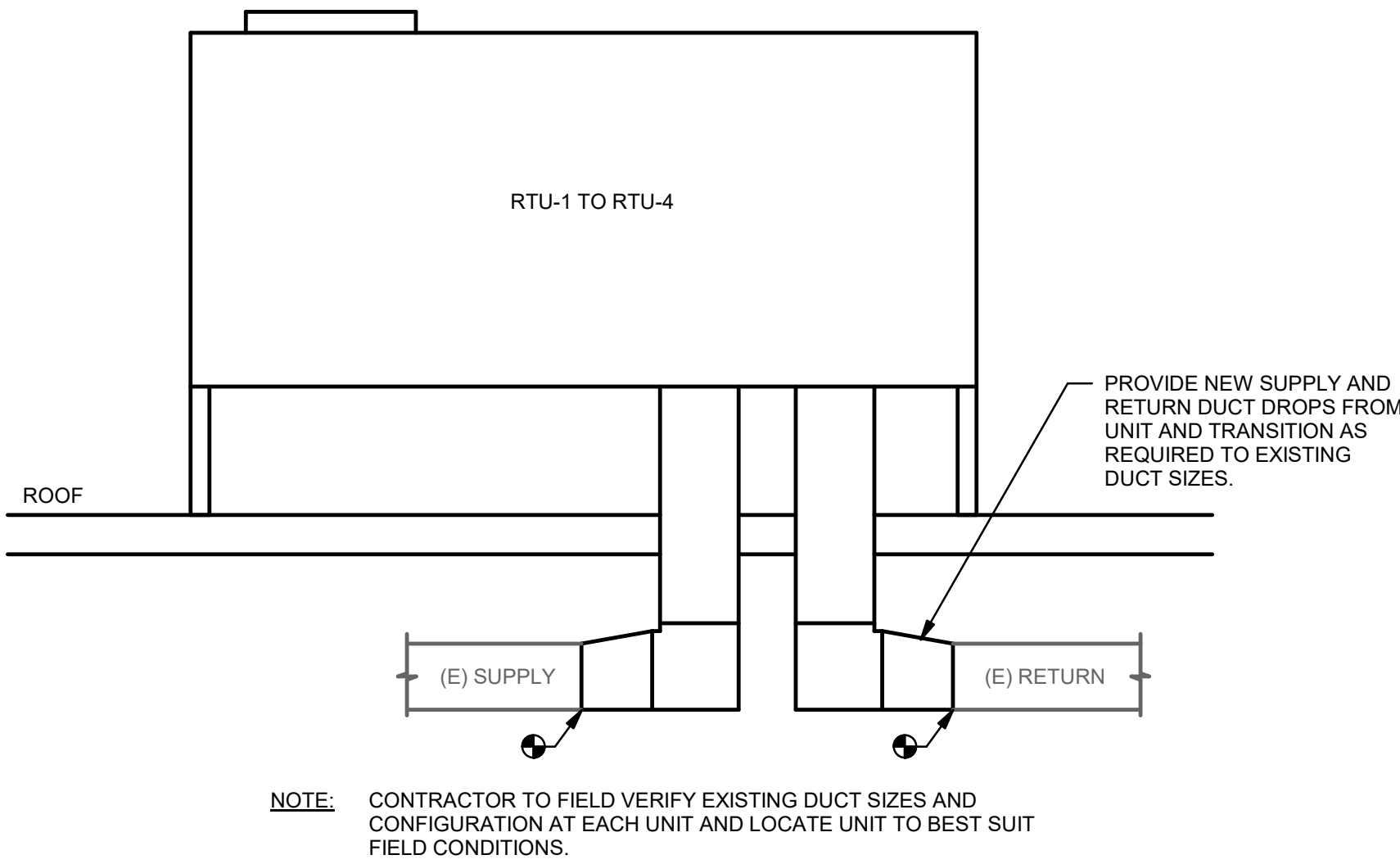




1 ROOF MOUNTED GAS PIPING  
NO SCALE



2 GAS PIPING CONNECTION TO EQUIPMENT  
NO SCALE



3 DUCT CONNECTION  
NO SCALE

## MECHANICAL SYMBOL LIST

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

### Abbreviations

(A)	ABANDON IN PLACE
AFF	ABOVE FINISHED FLOOR
AD	ACCESS DOOR
AC	AIR CONDITIONED
AHU	AIR HANDLING UNIT
BDD	BACKDRAFT DAMPER
CW	COLD WATER
CU	CONDENSING UNIT
(X)	DEMOLISH
DA	DIAMETER
DX	DIRECT EXPANSION
DB	DRY BULB
ELECT	ELECTRICAL
EER	ENERGY EFFICIENCY RATING
EAT	ENTERING AIR TEMPERATURE
EWT	ENTERING WATER TEMPERATURE
EXH	EXHAUST
EF	EXHAUST FAN
(E)	EXISTING
F	FAHRENHEIT
FT	FEET
FLA	FULL LOAD AMPS
(F)	FUTURE
GAL	GALLONS
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HD	HEAD
HTR	HEATER
HTG	HEATING
HP	HORSEPOWER
HWC	HOT WATER COIL
IN	INCHES
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
KW	KILOWATT
LH	LATENT HEAT
LAT	LEAVING AIR TEMPERATURE
MAX	MAXIMUM
MIN	MINIMUM
MA	MIXED AIR
MD	MOTORIZED DAMPER
(N)	NEW
NC	NOISE CRITERIA
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
NO.	NUMBER
OC	ON CENTER
OBD	OPPOSED BLADE DAMPER
OA	OUTSIDE AIR
OD	OUTSIDE DIAMETER
PH	PHASE
LBS.	POUNDS
PSI	POUNDS PER SQUARE INCH
PD	PRESSURE DROP
QTY	QUANTITY
REF	REFRIGERANT
RS	REFRIGERANT SUCTION
RLD	RELIEF DAMPER
(R)	RELOCATE/RELOCATED LOCATION
RET	RETURN
RA	RETURN AIR
RPM	REVOLUTIONS PER MINUTE
SH	SENSIBLE HEAT
SOV	SHUT OFF VALVE
SF	SQUARE FEET
SP	STATIC PRESSURE
SA	SUPPLY AIR
T, TEMP	TEMPERATURE
TD	TEMPERATURE DIFFERENCE
MBH	THOUSAND BTUS PER HOUR
TH	TOTAL HEAT
TP	TOTAL PRESSURE
V	VOLT
WC	WATER COLUMN
W	WATT
WB	WET BULB
W/	WITH

### Dampers

MOTORIZED DAMPER

VOLUME DAMPER

### General

CONTINUATION

DETAIL NUMBER AND SHEET LOCATION

EQUIPMENT IDENTIFICATION

KEYED NOTE

LIMIT OF DEMOLITION

POINT OF CONNECTION

### Piping Fittings, Appurtenances and Equipment

PIPE DROP

PIPE REMOVED IN DEMOLITION

PIPE RISE

TEE DOWN ON PIPE

TEE UP ON PIPE

UNION

### Piping Systems

CHILLED WATER RETURN

CHILLED WATER SUPPLY

CHILLED WATER SUPPLY AND RETURN

REFRIGERANT LIQUID

REFRIGERANT SUCTION

### Piping Valves

CHECK VALVE

GLOBE VALVE

QUARTER TURN VALVE

VALVE, GENERAL

## GENERAL MECHANICAL NOTES

- EQUIPMENT, HVAC DUCTS, PIPING AND OTHER DEVICES AND MATERIALS INSTALLED OUTDOORS OR EXPOSED TO WEATHER SHALL BE WEATHER PROOF.
- INSTALL EQUIPMENT WITH SUFFICIENT ACCESS TO PANELS, CONTROLS, FILTERS, MOTORS, ETC. COORDINATE ACCESS TO ALL DAMPERS, VALVES, AND OTHER SERVICEABLE EQUIPMENT. REVIEW CEILING HEIGHTS AND COORDINATE ACCESS PANEL LOCATIONS.
- COORDINATE LOCATION OF SENSORS AND THERMOSTATS WITH ARCHITECT. COMPLY WITH ADA REQUIREMENTS.
- 'DEMOLISH' OR 'REMOVE' MEAN: REMOVE AND RETURN TO OWNER FOR ACCEPTANCE, AND DISPOSE OF ANY ITEMS NOT ACCEPTED BY THE OWNER.
- COORDINATE WITH DIVISION 26 FOR LOCATION OF POWER AND LOCAL DISCONNECTS FOR MECHANICAL EQUIPMENT DEVICES. PROVIDE STARTERS FOR EQUIPMENT WITHOUT VFD'S, ECM MOTORS, OR EQUIPMENT WITHOUT INTEGRAL STARTERS.
- MAINTAIN MINIMUM ELECTRICAL CODE AND UNIT MANUFACTURER'S CLEARANCES TO ADJACENT CONSTRUCTION OR EQUIPMENT, PER NEC OR THE FOLLOWING TABLE:

	NOMINAL	ONE-SIDE ACCESS	ACCESS-WAY FOR EXPOSED/LIVE PARTS ON BOTH SIDES
A. VOLTAGE	0-150	36 INCH	36 INCH
B. VOLTAGE	150-600	42 INCH	48 INCH
- CONDITIONS SHOWN ON THE PLANS RELATIVE TO THE WORK TO BE PERFORMED ARE BASED ON THE BEST INFORMATION AVAILABLE BUT ARE SUBJECT TO FIELD VERIFICATION. VERIFY LOCATIONS AND ELEVATIONS OF DUCTWORK AND UTILITIES PRIOR TO INSTALLATION.



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MODULAR REROOFING

PERMIT / BID SET



EXPIRES: 12/31/21

Date: 04/06/2021  
Project Number: 90045  
Drawn By: JDC  
Checked By: RJS

Revision Schedule:

## PACKAGED AIR CONDITIONING UNIT SCHEDULE

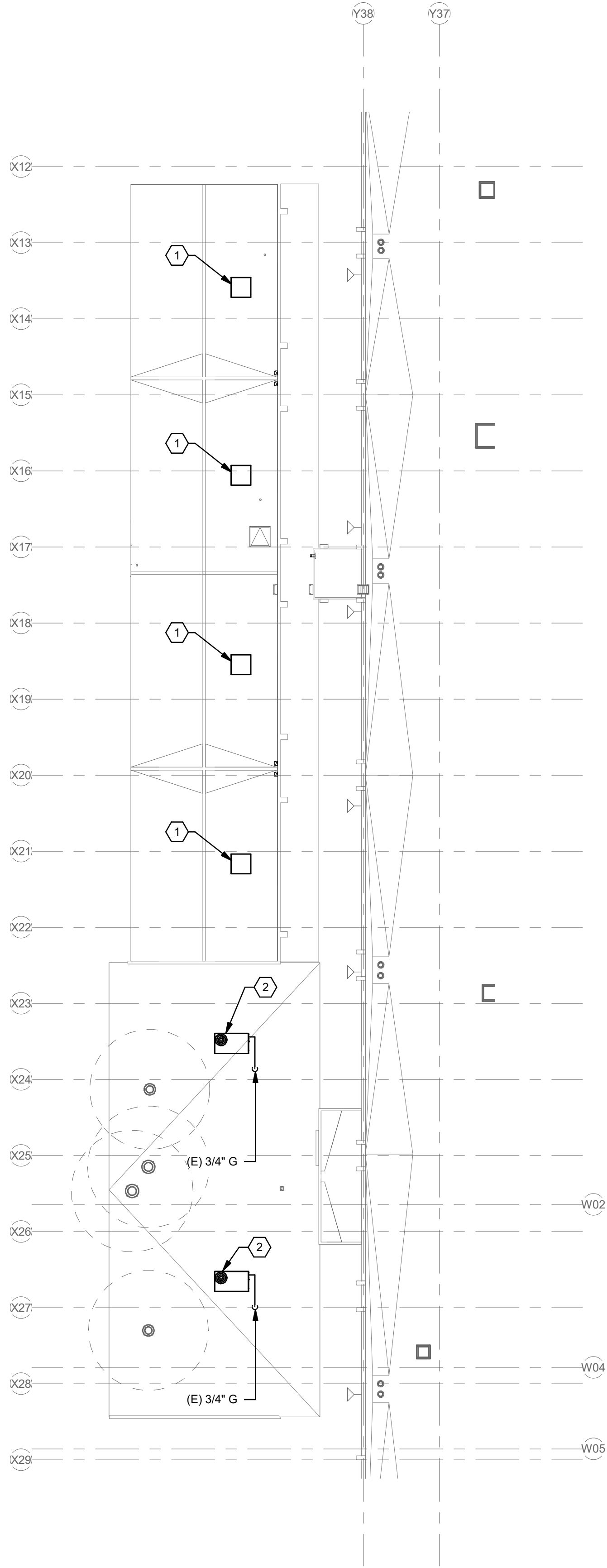
BASIS OF DESIGN				SUPPLY FAN				DX COOLING COIL				GAS FURNACE			AIR SOURCE CONDENSER			FILTER		ELECTRICAL				APPROX. DIMS (LxWxH)	MAX WT (LBS)	NOTES
SYMBOL	AREA SERVED	MFR	MODEL	TOTAL CFM	MIN OSA CFM	ESP (IN H2O)	MHP PER FAN	TOTAL CAP (MBH)	SENS CAP (MBH)	EDB EWB (°F)	LDB LWB (°F)	INPUT (MBH)	OUTPUT (MBH)	MIN EFF.	NOM TONS	NO OF STAGES	AMBIENT DB (°F)	SEER	EFF MERV	VOLTS	PH	MCA	MOCP			
RTU-1	MODULAR CLASSROOM	JOHNSON CONTROLS	ZE036H10	1200	300	0.45	1.5	36.9	27.1	80/67	59.1/57.3	100	80	81	3	1	95	14	13	208	1	39.5	50	82x44x32	590	1, 2
RTU-2	MODULAR CLASSROOM	JOHNSON CONTROLS	ZE036H10	1200	300	0.45	1.5	36.9	27.1	80/67	59.1/57.3	100	80	81	3	1	95	14	13	208	1	39.5	50	82x44x32	590	1, 2
RTU-3	MODULAR CLASSROOM	JOHNSON CONTROLS	ZE036H10	1200	300	0.45	1.5	36.9	27.1	80/67	59.1/57.3	100	80	81	3	1	95	14	13	208	1	39.5	50	82x44x32	590	1, 2
RTU-4	MODULAR CLASSROOM	JOHNSON CONTROLS	ZE036H10	1200	300	0.45	1.5	36.9	27.1	80/67	59.1/57.3	100	80	81	3	1	95	14	13	208	1	39.5	50	82x44x32	590	1, 2
AC-1	MODULAR CLASSROOM	JOHNSON CONTROLS	ZE048H12	1600	600	0.45	1.5	50.8	36.7	80/67	58.8/56.9	120	100	81	4	1	95	14	13	208	1	44.2	60	82x44x32	728	1, 3
AC-2	MODULAR CLASSROOM	JOHNSON CONTROLS	ZE048H12	1600	600	0.45	1.5	50.8	36.7	80/67	58.8/56.9	120	100	81	4	1	95	14	13	208	1	44.2	60	82x44x32	728	1, 3
NOTES:																										
1 PROVIDE UNIT WITH DRY BULB ECONOMIZER, BAROMETRIC RELIEF, POWERED CONVENIENCE OUTLET, SINGLE POINT POWER CONNECTION, UNIT CONTROLLER.																										
2 UNIT TO SIT ON FIELD FABRICATED WOOD CURB. SEE ARCHITECTURAL PLANS FOR DETAIL.																										
3 PROVIDE NEW ADAPTER CURB TO TRANSITION TO EXISTING ROOF CURB. FIELD VERIFY EXISTING CURB SIZE.																										

## SHEET INDEX

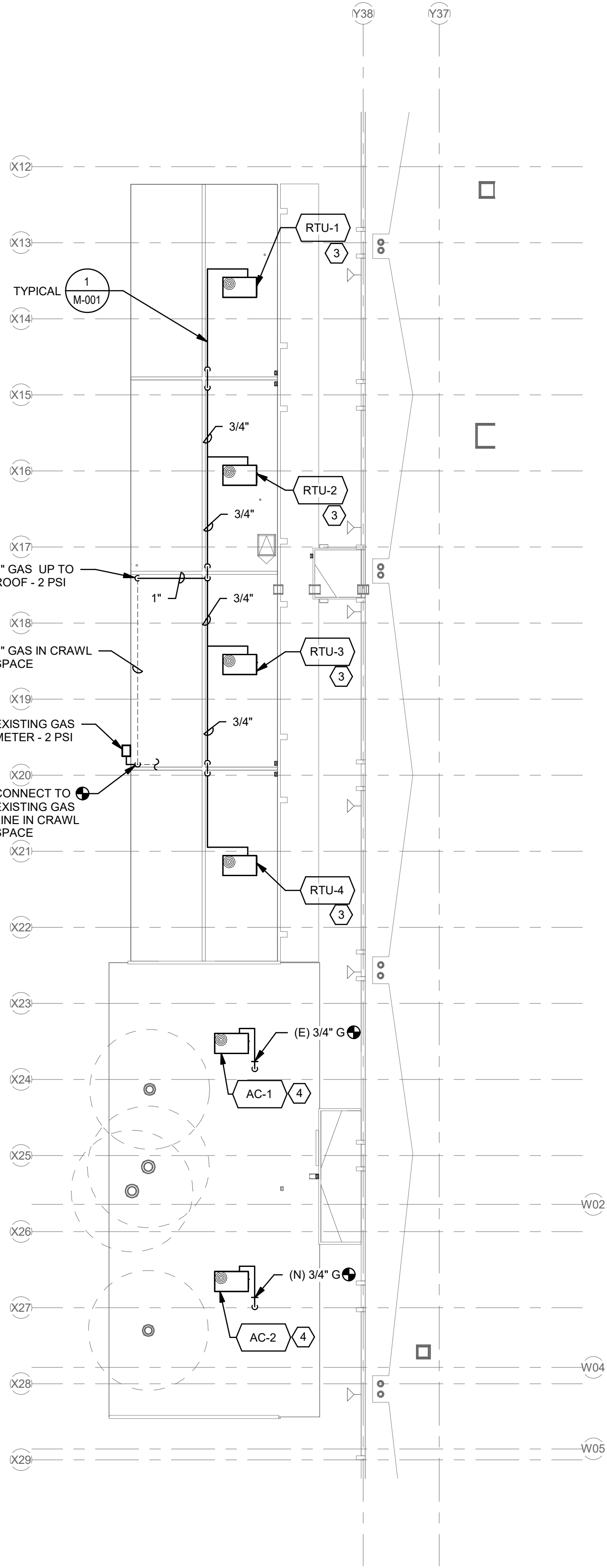
M-001	SYMBOL LIST & GENERAL NOTES - MECHANICAL
M-221	ROOF PLANS - MODULAR - MECHANICAL

Sheet Number:

**M-001**  
PERMIT / BID SET



1 ROOF PLAN - MODULAR - MECHANICAL - DEMOLITION  
1/16" = 1'-0"  
0' 8' 16' 32'



2 ROOF PLAN - MODULAR - MECHANICAL  
1/16" = 1'-0"  
0' 8' 16' 32'

GENERAL MECHANICAL NOTES

A. EXISTING ROOFTOP UNITS TO BE PRE-BALANCED PRIOR TO REMOVAL. EXISTING AIRFLOWS TO BE RECORDED FOR SUPPLY AIR, RETURN AIR, AND OUTSIDE AIR. QUANTITIES AT UNIT AND ALL GRILLES. PROVIDE REPORT FOR REVIEW PRIOR TO DEMOLITION.

SHEET KEYNOTES

1. ROOFTOP UNIT AND CURB TO BE REMOVED. CONTRACTOR TO EVACUATE REFRIGERANT PRIOR TO UNIT REMOVAL. DUCTWORK TO BE DISCONNECTED AT ROOF LEVEL AND LEFT FOR RECONNECTION TO NEW UNIT. COVER AND PROTECT DUCTWORK DURING CONSTRUCTION.
2. ROOFTOP UNIT TO BE REMOVED. ROOF CURB TO REMAIN. GAS PIPING TO BE DISCONNECTED AND CAPPED FOR RECONNECTION TO NEW UNIT. DUCTWORK TO REMAIN AT ROOF LEVEL AND LEFT FOR RECONNECTION TO NEW UNIT. COVER AND PROTECT DUCTWORK DURING CONSTRUCTION.
3. NEW ROOFTOP UNIT - INSTALLATION TO INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
  - A. NEW ROOF CURB INSTALLED PER DETAIL 3/M-001.
  - B. CONNECTION TO NEW GAS PIPING PER DETAIL 2/M-001.
  - C. NEW DUCT FITTINGS AND TRANSITIONS FROM NEW UNIT TO EXISTING DUCTWORK BELOW THE ROOF. CONTRACTOR TO EXAMINE EXISTING DUCT CONFIGURATION AND PROVIDE THE NECESSARY DUCTWORK FOR THE NEW UNIT INSTALLATION. SEE DETAIL 3/M-001.
  - D. ELECTRICAL CONNECTION PER DIV. 26.
4. NEW ROOFTOP UNIT - INSTALLATION TO INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
  - A. NEW ADAPTER CURB INSTALLED ON THE EXISTING CURB TO TRANSITION DUCTWORK TO THE NEW UNIT.
  - B. NEW GAS TRAIL AND CONNECTION TO THE EXISTING GAS PIPING PER DETAIL 2/M-001.
  - C. ELECTRICAL CONNECTION PER DIV. 26.

CONTROL SYSTEM NOTES

1. OWNER TO PROVIDE NEW NETWORK CONTROLLER FOR CONTROL. CONTRACTOR TO INSTALL IN EXISTING ELECTRICAL CLOSET ROOM B-6. COORDINATE LOCATION WITH OWNER PRIOR TO INSTALLATION.
2. PROVIDE NEW JCI TEC 7-DAY PROGRAMMABLE ROOM SENSOR FOR EACH UNIT AND CONNECT TO EXISTING ROOFTOP UNIT AND NEW BMS NETWORK CONTROLLER.
3. UPDATE SEQUENCES OF OPERATION AND SYSTEM GRAPHICS PER OWNER DIRECTION TO DISPLAY NEW UNITS AND THERMOSTATS.



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ROOF PLANS -  
MODULAR -  
MECHANICAL

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M-221

PERMIT / BID SET



PLUMBING SYMBOL LIST

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

Abbreviations

(A)	ABANDON IN PLACE
AFF	ABOVE FINISHED FLOOR
AP	ACCESS PANEL
&	AND
A	AQUASTAT, ARCHITECT, ANCHOR, AMPHERE
@	AT
BFP	BACKFLOW PREVENTER
BFF	BELOW FINISHED FLOOR
BTUH	BRITISH THERMAL UNITS PER HOUR
BLDG	BUILDING
CV	CHECK VALVE
CO	CLEANOUT
CW	COLD WATER
CD	CONDENSATE DRAIN
CONT.	CONTINUATION
CPH	CUBIC FEET PER HOUR
CFS	CUBIC FEET PER SECOND
(X)	DEMOLISH
DW	DISHWASHER, DOMESTIC WATER
DET	DOMESTIC EXPANSION TANK
DCVA	DOUBLE CHECK VALVE ASSEMBLY
DN	DOWN
DS	DOWNSPOUT
DSN	DOWNSPOUT NOZZLE
D	DRAIN
DFU	DRAINAGE FIXTURE UNIT
DWV	DRAINAGE, WASTE AND VENT
DF	DRINKING FOUNTAIN
EWC	ELECTRIC WATER COOLER
EWV	ELECTRIC WATER HEATER
(E)	EXISTING
FT	FEET
FFE	FINISHED FLOOR ELEVATION
F	FIRE, FAHRENHEIT
FL	FLOOR
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FV	FLUSH VALVE
-	FOOT, FEET
(F)	FUTURE
GPM	GALLONS PER MINUTE
GWV	GAS WATER HEATER
HVAC	HEATING, VENTILATING AND AIR CONDITIONING
HZ	HERTZ
HB	HOSE BIBB
HW	HOT WATER
HWFU	HOT WATER FIXTURE UNIT
HWR	HOT WATER RETURN
IN, "	INCHES
IV	INDIRECT WASTE
INV	INVERT ELEVATION
L	LAVATORY
MIN	MINIMUM
MX	MIXING VALVE
MS	MOP SINK
(N)	NEW
N	NORTH
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
#	NUMBER
NO.	NUMBER
OD	OVERFLOW DRAIN, OUTSIDE DIAMETER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED, OWNER INSTALLED
PLBG	PLUMBING
P	PLUMBING, PUMP
POC	POINT OF CONNECTION
PSI	POUNDS PER SQUARE INCH
PD	PRESSURE DROP, PLUMBING DEMOLITION, PUMPED DISCHARGE
PRV	PRESSURE REDUCING VALVE
QTY	QUANTITY
RWL	RAINWATER LEADER
RPP	REDUCED PRESSURE BACKFLOW PREVENTER
(R)	RELOCATE / RELOCATED LOCATION
RD	ROOF DRAIN
SAN	SANITARY
SB	SERVICE BOX
SHT	SHEET
SA	SHOCK ARRESTOR
SOV	SHUT OFF VALVE
S, SK	SINK
SF	SQUARE FEET
SD	STORM DRAIN
SP	SUMP PUMP, STATIC PRESSURE
TEMP	TEMPERATURE
TP	TRAP PRIMER, TOTAL PRESSURE
TYP	TYPICAL
U, UR	URINAL
V	VACUUM, VENT, VOLT
VTR	VENT THRU ROOF
WCO	WALL CLEANOUT
W	WASTE
WC	WATER COLUMN, WATER CLOSET
WHA	WATER HAMMER ARRESTOR
WH	WATER HEATER, WALL HYDRANT
WSFU	WATER SUPPLY FIXTURE UNIT
WI	WITH

General

	CONTINUATION
	EQUIPMENT IDENTIFICATION
	EXTENT OF DEMOLITION
	FIXTURE TAG (LEVEL BELOW FIXTURE)
	KEYED NOTE
	POINT OF CONNECTION
	DEMOLISH
	EXISTING WORK
	NEW WORK
	PIPE OR CONDUIT BELOW GRADE

Piping Fittings

	ACCESS PANEL
	AQUASTAT
	BLIND FLANGE
	CAP
	CLEANOUT TO GRADE
	CONCENTRIC REDUCER
	DOWNSPOUT NOZZLE
	ECCENTRIC REDUCER
	FLOOR CLEANOUT
	FLOOR DRAIN
	FLOOR SINK
	FLOW DIRECTION
	HOSE BIBB / WALL HYDRANT
	OVERFLOW ROOF DRAIN
	PIPE DROP

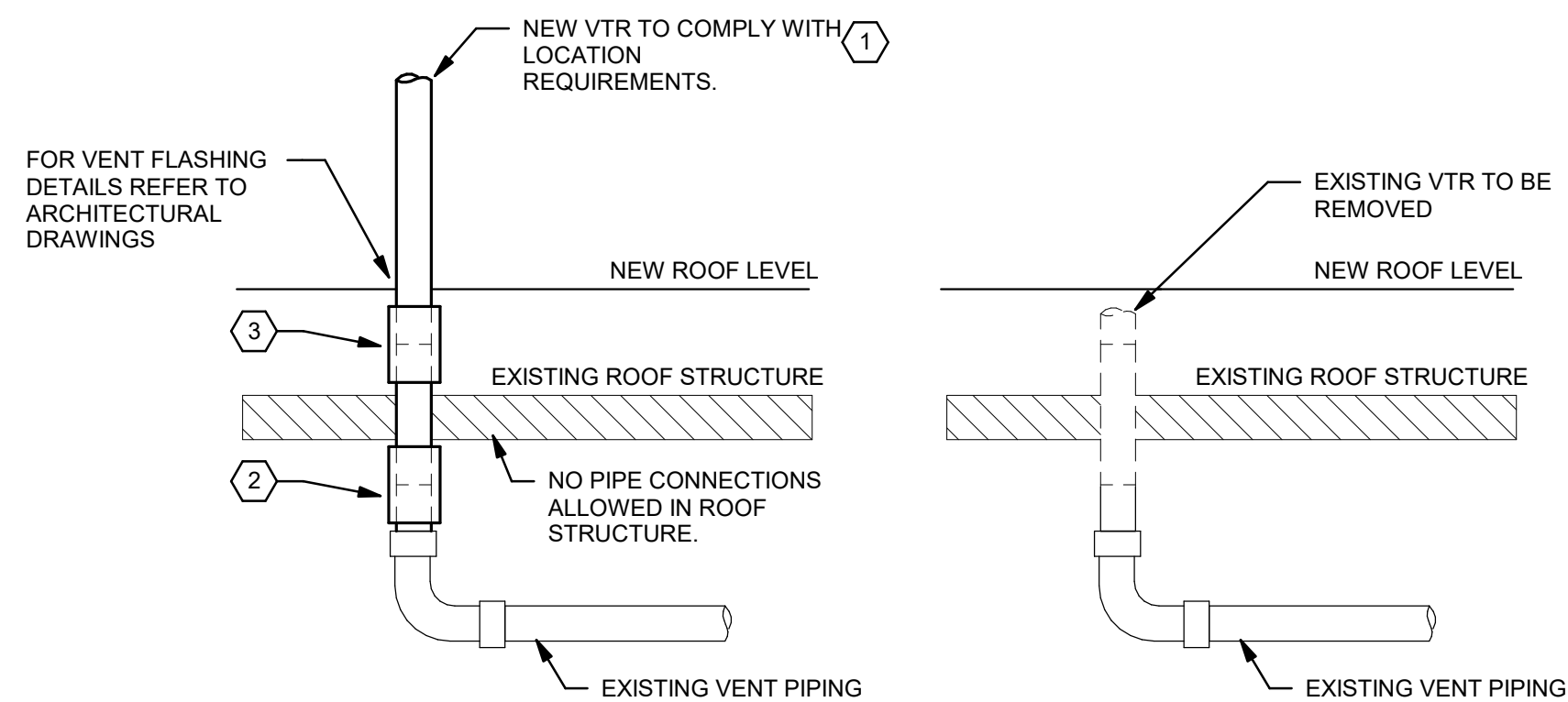
	PIPE RISE
	PUMP
	ROOF DRAIN
	SHOCK ABSORBER / WATER HAMMER ARRESTOR
	STRAINER
	T&P RELIEF VALVE WITH PIPE TO DRAIN
	TEE DOWN ON PIPE
	TEE UP ON PIPE
	VENT THROUGH ROOF
	WALL CLEANOUT

Piping Systems

	COLD WATER PIPING
	CONDENSATE / INDIRECT DRAIN PIPING
	HOT WATER PIPING
	HOT WATER RETURN PIPING
	NATURAL GAS PIPING, 2 LB
	NATURAL GAS PIPING, 7" WC PRESSURE
	OVERFLOW DRAIN PIPING ABOVE GRADE OR FINISHED FLOOR
	SANITARY VENT PIPING
	SANITARY WASTE OR SOIL PIPING ABOVE GRADE OR FINISHED FLOOR
	SANITARY WASTE OR SOIL PIPING BELOW GRADE OR FINISHED FLOOR
	STORM DRAIN PIPING ABOVE GRADE OR FINISHED FLOOR
	STORM DRAIN PIPING BELOW GRADE OR FINISHED FLOOR
	TRAP PRIMER PIPING

Valves

	BACKFLOW PREVENTER
	CHECK VALVE
	SHUTOFF VALVE, GENERAL



KEY NOTES:

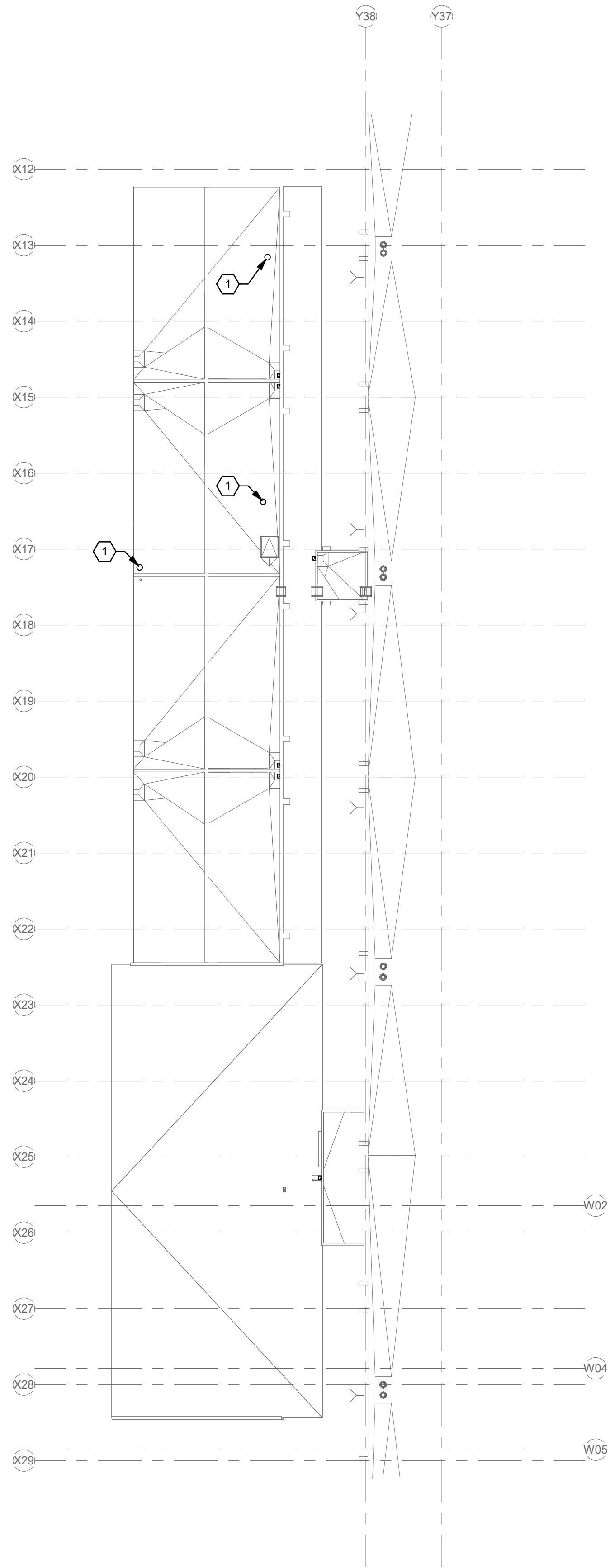
- VENT MAY REMAIN IN SAME LOCATION IF ALL LOCATION REQUIREMENTS ARE MET.
- PIPE EXTENSION SPLICE IS TO BE MADE BELOW THE ROOF DECK. ELBOW IS TO BE SUPPORTED VERTICALLY, AND THE PIPE EXTENSION IS TO BE BRACED AT THE ROOF DECK.
- ALTERNATIVE SPLICE LOCATION. THIS LOCATION IS TO BE USED ONLY IF NO ACCESS FROM BELOW THE ROOF IS AVAILABLE.

CONNECTION NOTE:

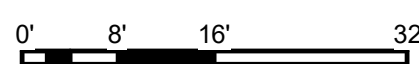
A RIGID COUPLER IS TO BE USED TO CONNECT EXISTING PIPING TO THE NEW EXTENSION OF THE VENT PIPE. USE ONE OF THE FOLLOWING BASED ON PIPING MATERIAL:

- FOR CONNECTING CAST IRON VENT PIPING, UTILIZE DUTY NO-HUB COUPLINGS.
- FOR CONNECTING PVC VENT PIPING, UTILIZE GLUED-ON ABS OR PVC COUPLINGS.
- RUBBER PIPE ADAPTERS ARE NOT ACCEPTABLE.

1 VENT THROUGH ROOF  
NO SCALE



2 ROOF PLAN - MODULAR - PLUMBING  
1/16" = 1'-0"



GENERAL PLUMBING NOTES

- CONDITIONS SHOW ON THE PLANS RELATIVE TO THE WORK TO BE PERFORMED ARE BASED ON THE BEST INFORMATION AVAILABLE BUT ARE SUBJECT TO VERIFICATION. VERIFY LOCATIONS AND ELEVATIONS OF UTILITIES TO BE CROSSED OR CONNECTED. CORRECT DEFICIENCIES CAUSED BY FAILURE TO PERFORM SUCH VERIFICATIONS AT NO EXPENSE TO OWNER. IMMEDIATELY NOTIFY ARCHITECT AND ENGINEER OF CONDITION IN CONFLICT WITH THE DETAILS/PLANS.
- VERIFY LOCATIONS OF CONNECTIONS TO PIPING INSTALLED ON SITE.
- SEE ARCHITECTURAL PLANS FOR OVERFLOW SCUPPER LOCATIONS.

SHEET KEYNOTES

- CONNECT TO EXISTING VENT PIPING BELOW THE ROOF LEVEL AND EXTEND NEW VTR 8" MINIMUM ABOVE NEW ROOF LEVEL AT LOCATIONS WHERE EXISTING VENTS ARE NOT AT 8" MINIMUM ABOVE NEW ROOF LEVEL. VTR'S SHALL BE FLASHED WHEN NEW ROOF IS INSTALLED. SEE DETAIL 1/P-001 AND ARCHITECTURAL FLASHING DETAIL.



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SYMBOL LIST  
& SCHEDULES  
- PLUMBING

Sheet Number:

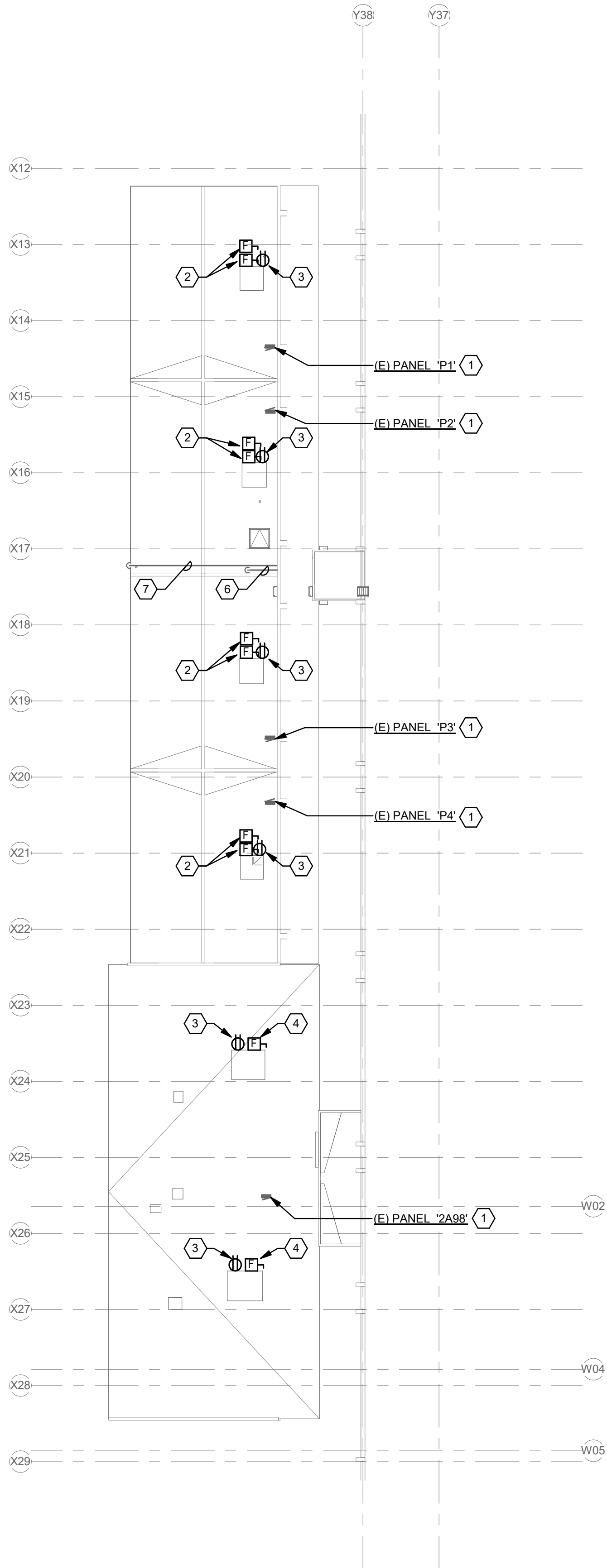
P-001

PERMIT / BID SET

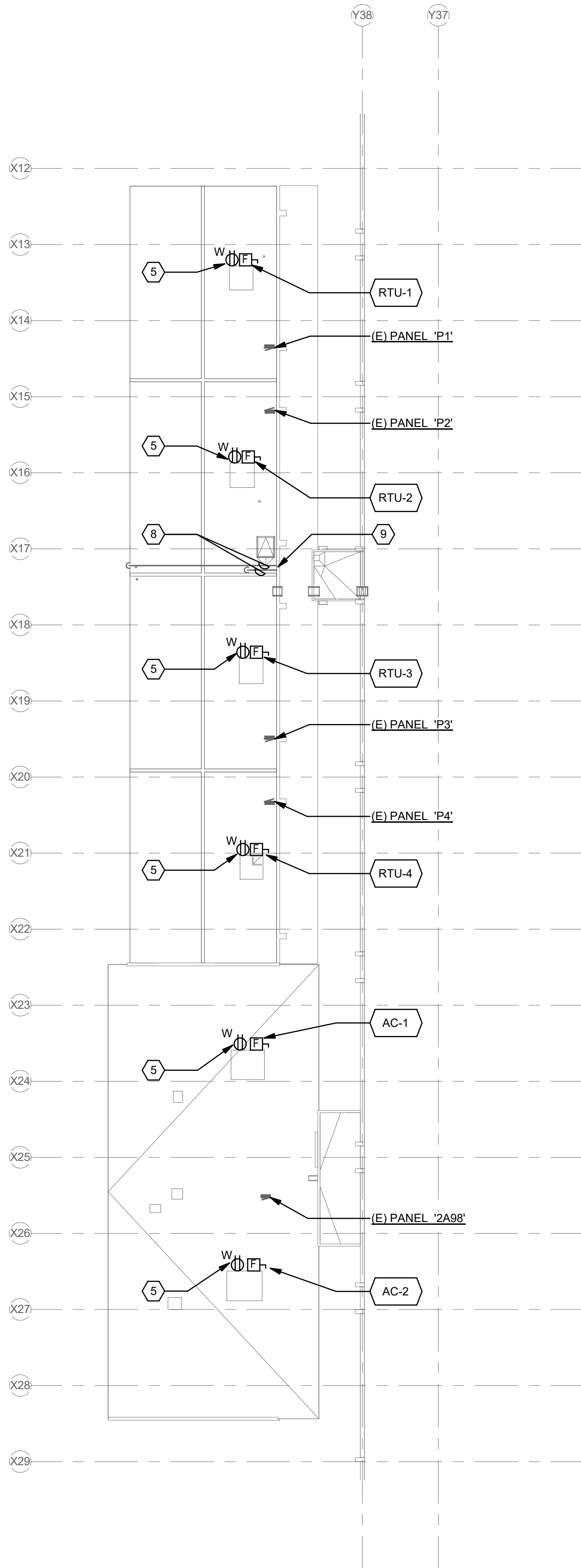
E-001

PERMIT / BID SET





1 ROOF PLAN - MODULAR - ELECTRICAL - DEMOLITION  
1/16" = 1'-0"  
0' 8' 16' 32'



2 ROOF PLAN - MODULAR - ELECTRICAL  
1/16" = 1'-0"  
0' 8' 16' 32'

## GENERAL SHEET NOTES

- NEW MECHANICAL EQUIPMENT TO BE PROVIDED WITH INTEGRAL DISCONNECTS BY DIVISION 23. COORDINATE REQUIREMENTS WITH DIVISION 23 PRIOR TO ROUGH-IN.
- REMOVE ABANDONED WIRING AND CONDUIT BACK TO SOURCE OF SUPPLY.
- WHERE CHANGES ARE MADE IN EXISTING PANELS, PROVIDE NEW LABELING AND TYPEWRITTEN SCHEDULES TO ACCURATELY REFLECT THE CHANGES.
- DEMOLITION DRAWINGS ARE BASED ON CASUAL FIELD OBSERVATION. VERIFY THE ACCURACY OF THE INFORMATION SHOWN PRIOR TO BIDDING AND PROVIDE SUCH LABOR AND MATERIALS AS NECESSARY TO ACCOMPLISH THE WORK.

## SHEET KEYNOTES

- EXISTING PANEL LOCATED IN CLASSROOM BELOW.
- EXISTING DUAL-POINT CONNECTION ROOFTOP UNIT TO BE REPLACED WITH SINGLE POINT CONNECTION. REMOVE EXISTING FUSED DISCONNECTS AND ASSOCIATED WIRING COMPLETE. (1) EXISTING 3/4" CONDUIT TO REMAIN FOR RE-USE.
- EXISTING WEATHERPROOF RECEPTACLE MOUNTED TO UNIT TO BE REPLACED. MAINTAIN CONTINUITY OF EXISTING WIRING FOR CONNECTION TO REPLACEMENT.
- EXISTING SINGLE-POINT CONNECTION AC-UNIT TO BE REPLACED. REMOVED EXISTING FUSED DISCONNECT AND ASSOCIATED WIRING COMPLETE. EXISTING RACEWAY FROM PANEL '2A98' TO BE REUSED.
- INTEGRAL GENERAL PURPOSE RECEPTACE TO BE PROVIDED WITH PACKAGED AC UNIT. CONNECT TO EXISTING GENERAL PURPOSE RECEPTACLE CIRCUIT.
- EXISTING 1-1/2" C. WITH UNISTRUT SUPPORT TO BE PROTECTED DURING RE-ROOFING. EXISTING SUPPORTS TO BE REMOVED. PROVIDE TEMPORARY SUPPORT PRIOR TO INSTALLATION OF NEW SUPPORT BASES. EXISTING ROOF PENETRATION TO BE PROTECTED. REFER TO DETAIL 10/A720 FOR ADDITIONAL INFORMATION.
- EXISTING 2" C. WITH UNISTRUT SUPPORT TO BE PROTECTED DURING RE-ROOFING. EXISTING SUPPORTS TO BE REMOVED. PROVIDE TEMPORARY SUPPORT PRIOR TO INSTALLATION OF NEW SUPPORT BASES.
- PROVIDE NEW RUBBER AND POLYURETHANE PREPOLYMER CURB BASES FOR SUPPORT OF EXISTING CONDUITS.
- EXISTING CONDUIT PENETRATIONS THROUGH PARAPET WALL TO BE PROTECTED AND PROVIDED WITH LIQUID FLASHING. REFER TO DETAIL 12/A720 FOR ADDITIONAL INFORMATION.



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**ROOF PLANS -  
MODULAR -  
ELECTRICAL**

Sheet Number:

**E-221**

PERMIT / BID SET