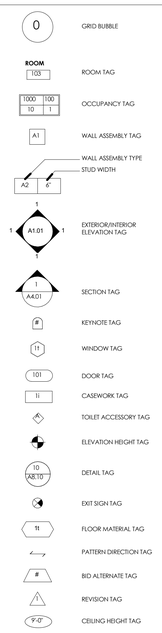
WARM SPRINGS K8 ACADEMY

CLASSROOM ADDITION

ABBREVIATIONS

ABV	ABOVE	JT	JOINT	VCT	VINYL COMPOSITION TILE
ACT	ACOUSTICAL CEILING TILE	LAM	LAMINATED	VERT	VERTICAL
ADA	AMERICANS WITH DISABILITIES ACT	LVT	LUXURY VINYL TILE	VIF	VERIFY IN FIELD
ADR	ART DISPLAY RAIL	MAX	MAXIMUM	W/	WITH
AFF	ABOVE FINISH FLOOR	MDF	MEDIUM-DENSITY FIBERBOARD	WD	WOOD
AFP	ACOUSTICAL FIBERBOARD PANEL	MECH	MECHANICAL	WAF	WOOD ATHLETIC FLOORING
AL /ALUM	ALUMINUM	MFG	MANUFACTURING	WOM	WALK OFF MAT
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	MFR	MANUFACTURER	WP	WALL PROTECTION
APPROX	APPROXIMATELY	MIN	MINIMUM	WRB	WEATHER RESISTIVE BARRIER
ASTM	AMERICAN SOCIETY FOR TESTING MATERIALS	MTL	METAL		
ATTM	ATTACHMENT	MP	METAL PANEL		
ARCH	ARCHITECTURAL	NA	NOT APPLICABLE		
@	AT	NIC	NOT IN CONTRACT		
AWC	ACOUSTIC WALL COVERING	NO	NUMBER		
AWI	ACOUSTIC WALL INSULATION	NTS	NOT TO SCALE		
AWP	ACOUSTIC WALL PANEL	OC	ON CENTER		
BD	BOARD	OD	OUTSIDE DIAMETER		
BLDG	BUILDING	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED		
BLW	BELOW	OFOI	OWNER FURNISHED OWNER INSTALLED		
CB	CATCH BASIN	OH	OVERHEAD		
CG	CORNER GUARD	OPH	OPPOSITE HAND		
CJ	CONTROL JOINT	OPP	OPPOSITE		
CMU	CONCRETE MASONRY UNIT	ORD	OVERFLOW ROOF DRAIN		
COL	COLUMN	OSSC	OREGON STRUCTURAL SPECIALTY CODE		
CON	CONCRETE	OTA	OPEN TO ABOVE		
CONT	CONTINUOUS	P	PAINT		
COORD	COORDINATE	PB	PUSH BUTTON		
CPT	CARPET TILE	PL	PLASTIC LAMINATE		
CT	CERAMIC TILE	PLAM	PLASTIC LAMINATE		
℄	CENTER LINE	PLYWD	PLYWOOD		
DBA	DEFORMED BAR ANCHOR	PS	PAINT SYSTEM		
DEG	DEGREE	PR	PAIR		
DIA OR Ø	DIAMETER	PT	PRESSURE TREATED		
DIM	DIMENSION	PVC	POLYVINYL CHLORIDE		
DN	DOWN	RAF	RUBBER ATHLETIC FLOORING		
DR	DOOR	RB	RUBBER BASE		
DS	DOWNSPOUT	RC	RESILIENT CHANNEL		
DTL	DETAIL	RD	ROOF DRAIN		
(E)	EXISTING	REF	REFERENCE		
EL / ELEV	ELEVATION	REQD	REQUIRED		
EMT	ELECTRICAL METAL TUBING	RF	RUBBER FLOORING		
EPP	EPOXY FLOOR PAINT	RM	ROOM		
EOS	EDGE OF SLAB	RO	ROUGH OPENING		
EQ	EQUAL	RR	RESTROOM		
ER	EPOXY RESIN	RST	RUBBER STAIR TREAD AND RISER		
EXP JT	EXPANSION JOINT	SAM	SELF-ADHERING MEMBRANE		
EXT	EXTERIOR	SAMF	SELF-ADHERING MEMBRANE FLASHING		
FC	FIBER CEMENT	SC	SEALED CONCRETE		
FD	FLOOR DRAIN	SDT	STATIC DISSIPATIVE TILE		
FE	FIRE EXTINGUISHER	SECT	SECTION		
FEC	FIRE EXTINGUISHER IN CABINET	SF	SQUARE FEET		
FF	FACTORY FINISH	SFRM	SPRAYED FIRE-RESISTIVE MATERIAL		
FFHB	FROST FREE HOSE BIB	SHT	SHEET		
FOM	FACE OF MASONRY	SIM	SIMILAR		
FOS	FACE OF STUD	SM	SHEET METAL		
FOW	FACE OF FINISH WALL	SS	STAINLESS STEEL		
FRL	FIBER REINFORCED LAMINATE	SSF	SPRUNG STAGE FLOORING		
FRP	FIBERGLASS-REINFORCED PLASTIC	SSM	SOLID SURFACE MATERIAL		
FT	FOOT, FEET	STD	STANDARD		
FSD	FIRE SMOKE DAMPER	STF	SEAMLESS TROWELED FLOORING		
GA	GAUGE	STL	STEEL		
GALV	GALVANIZED	STRUCT	STRUCTURAL		
GRC	GLASSFIBER REINFORCED CONCRETE	STV	SMART TV		
GWB	GYPSUM WALL BOARD	TB	TACK BOARD		
GWS	GLASS WRITING SURFACE	TBD	TO BE DETERMINED		
HB	HOSE BIBB	TEMP	TEMPERED		
HDWR	HARDWARE	TO	TOP OF		
HM	HOLLOW METAL	TP	TOILET PARTITION		
HS	HOLLOW STEEL	TS	TUBE STEEL		
HORIZ	HORIZONTAL	TWS	TACKABLE WALL SURFACE		
HT	HEIGHT	TYP	TYPICAL		
IN	INCH, INCHES	UL	UNDERWRITERS LABORATORY		
INSUL	INSULATION	UNO	UNLESS NOTED OTHERWISE		
INT	INTERIOR				

SYMBOLS



PROJECT DESCRIPTION

THE PROJECT CONSISTS OF AN APPROXIMATELY 8,050 SF ONE-STORY 6 CLASSROOM ADDITION TO THE EXISTING WARM SPRINGS K8 ACADEMY INCLUDING TOILET ROOMS AND SUPPORT SPACES. WORK INCLUDES THE DEMOLITION OF A PORTION OF THE EXISTING EXTERIOR FACADE AND ROOF TO FACILITATE THE ADDITION. SITE IMPROVEMENTS INCLUDE NEW PARKING AREA, DRAINAGE, AND HARDSCAPING.

DEFERRED SUBMITTALS

FIRE ALARM
FIRE SUPPRESION
PRE-ENGINEERED ROOF TRUSSES
WOOD I-JOISTS

DRAWING INDEX

GENERAL

G0.00	COVER SHEET
G0.01	CODE SHEET - LEVEL 1
G0.02	ASSEMBLIES

CIVIL

C1.00	CIVIL SITE PLAN
C2.00	GRADING PLAN
C2.10	GRADING DETAILS

LANDSCAPE

L100	LANDSCAPE PLAN
L101	PLANT SCHEDULE & NOTES
L200	IRRIGATION PLAN
L201	SUPPLEMENTAL IRRIGATION INFORMATION
L202	SUPPLEMENTAL IRRIGATION INFORMATION
L203	SUPPLEMENTAL IRRIGATION NOTES & LEGEND
L300	PLANTING DETAILS
L301	IRRIGATION DETAILS

ARCHITECTURAL DEMO

AD2.01	DEMO PLAN & RCP

ARCHITECTURAL

A1.01	SITE PLAN
A2.01	FLOOR PLANS - ADDITION
A2.02	ROOF PLAN - ADDITION
A3.01	ELEVATIONS
A4.01	SECTIONS
A4.10	WALL SECTIONS
A4.11	WALL SECTIONS
A5.01	ENLARGED PLANS & ELEVATIONS
A5.10	INTERIOR ELEVATIONS
A6.01	REFLECTED CEILING PLAN
A7.01	VERTICAL CIRCULATION
A8.01	SCHEDULES
A8.10	INTERIOR DETAILS
A8.11	INTERIOR DETAILS - CASEWORK
A8.20	DETAILS - OPENINGS
A8.21	DETAILS
A8.22	DETAILS
A8.23	DETAILS
A9.01	FINISH PLAN - LEVEL 1

STRUCTURAL

S0.1	GENERAL STRUCTURAL NOTES & DRAWING INDEX
S0.2	SPECIAL INSPECTION TABLES
S2.1	FOUNDATION, MEZZANINE & ROOF PLANS
S3.1	SHEAR WALL PLAN
S3.2	SHEAR WALL DETAILS
S5.1	STRUCTURAL DETAILS - FOUNDATION
S6.1	STRUCTURAL DETAILS - FRAMING
S6.2	STRUCTURAL DETAILS - FRAMING

MECHANICAL

M0.01	MECHANICAL COVER SHEET
M2.01	MECHANICAL VRF FLOOR PLANS
M2.02	MECHANICAL HRU PLANS
M2.03	MECHANICAL PIPING FLOOR PLANS
M5.01	MECHANICAL SECTIONS
M8.01	MECHANICAL SCHEDULES
M8.10	MECHANICAL DETAILS
M8.11	MECHANICAL CONTROLS

PLUMBING

P0.01	PLUMBING COVER SHEET
P2.01	FLOOR PLAN - UNDERFLOOR
P2.02	DOMESTIC WATER FLOOR PLAN
P2.03	DWV FLOOR PLAN
P2.04	ROOF PLAN
P5.01	ENLARGED PLANS
P8.01	PLUMBING SCHEDULES
P8.10	PLUMBING DETAILS
P8.11	PLUMBING DETAILS

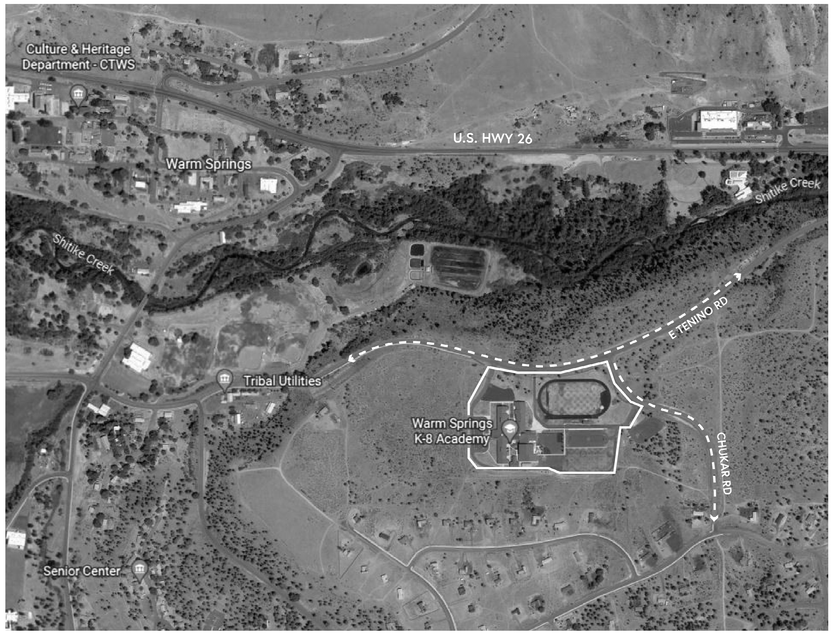
FIRE PROTECTION

F0.01	FIRE PROTECTION COVER SHEET
F2.01	FIRE PROTECTION FLOOR PLAN - LEVEL 1
F4.01	FIRE PROTECTION FLOOR PLAN - SECTIONS
F8.10	FIRE PROTECTION DETAILS

ELECTRICAL

E0.01	SYMBOL SCHEDULE
E0.02	COMMON DEVICE GROUPINGS AND MOUNTING HEIGHTS
E1.00	ELECTRICAL SITE PLAN
E1.10	ONE LINE DIAGRAM
E1.20	LIGHTING FIXTURE SCHEDULE AND DETAILS
E1.40	PANEL SCHEDULES
E1.41	PANEL SCHEDULES
E1.51	ACCESS CONTROL / INTRUSION SYSTEM / FIRE ALARM / SURVEILLANCE DETAILS
E1.61	COMMUNICATION DETAILS
E1.62	INTERCOM SYSTEM DETAILS
E1.63	INTERCOM SYSTEM DETAILS
E1.64	CLASSROOM A/V SYSTEM DETAILS
E2.01	LIGHTING PLANS
E3.01	POWER PLANS
E4.01	ENLARGED PLANS - IDF 9
E5.01	FIRE ALARM & SECURITY PLAN - LEVEL 1
E6.01	COMMUNICATIONS & A/V PLAN - LEVEL 1

VICINITY MAP





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REGISTERED ARCHITECT
5499
RENEE P. ALEXANDER
BEND, OREGON
STATE OF OREGON

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

COVER SHEET

G0.00

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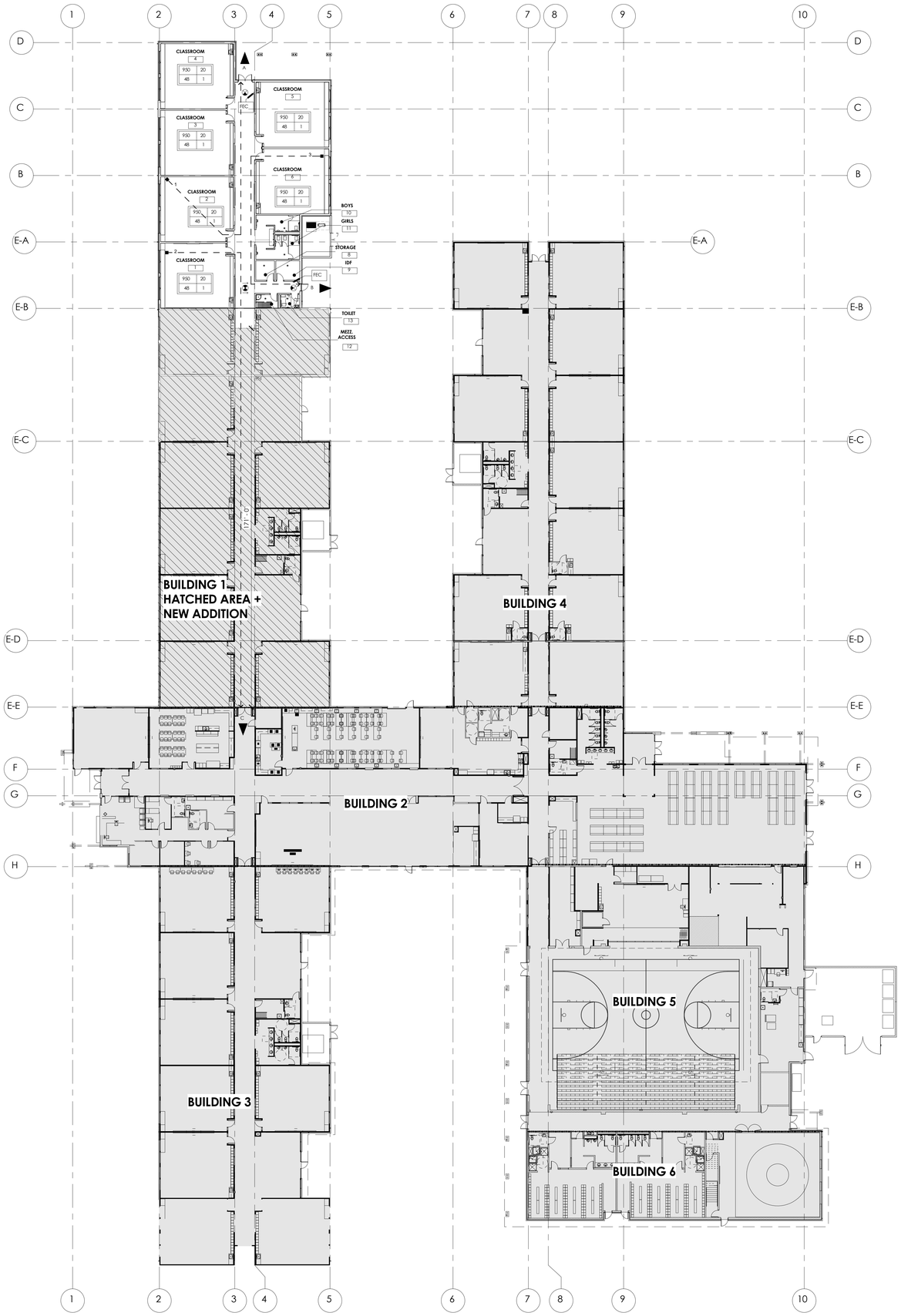
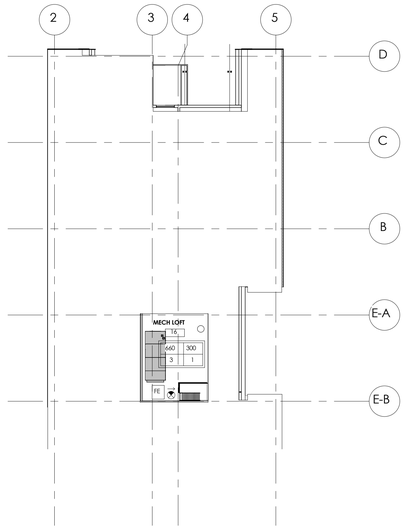


1 G0.01 **CODE SHEET - LEVEL 1**

SCALE: 3/64" = 1'-0"



2 G0.01 **CODE SHEET - MEZZANINE**

SCALE: 3/64" = 1'-0"

CODE ANALYSIS LEGEND

- * — DENOTES ROOM OR SPACE NOT NORMALLY OCCUPIED - OCCUPANTS ALREADY COUNTED ELSEWHERE FOR EXITING REQUIREMENTS
- OCCUPIABLE AREA OF ROOM (IN SQUARE FEET)
- 1000 / 100 — OCCUPANT LOAD FACTOR
- 10 / 1 — MIN. NUMBER OF EXITS REQUIRED
- RESULTANT OCCUPANT LOAD
- 10 — EXIT LOAD
- 28 / 6" — OCCUPANT LOAD @ EXIT DISCHARGE / EXIT DISCHARGE CALCULATED MIN. WIDTH - IN INCHES
- EXIT TRAVEL DISTANCE
- AREA NOT MODIFIED BY THIS PROJECT
- FIRE AREA INCLUDED WITH NEW SCOPE OF WORK. COMBINED AREA USED IN ALLOWABLE AREA CALCULATIONS. AREA NOT MODIFIED BY THIS PROJECT.
- FEC — FIRE EXTINGUISHER IN CABINET
- FE — FIRE EXTINGUISHER ON WALL BRACKET
- LIGHTED EXIT SIGN AT ALL EXITS W/ DIRECTIONAL ARROW WHERE OCCURS
- 2 HR — 2 HR RATED AREA SEPARATION

PATH OF TRAVEL

TRAVEL PATH	TRAVEL DISTANCE
1	112' - 4"
2	238' - 7"
3	111' - 10"

EXIT CLEARANCE

EXIT DESIGNATOR	OCCUPANT LOAD	CLEARANCE REQUIRED	CLEARANCE PROVIDED	CLEARANCE FACTOR
A	60	0' - 9"	66	0.15
B	33	0' - 5"	34	0.15
C	60	0' - 9"	66	0.15

GENERAL INFORMATION:

APPLICABLE CODES:	2019 OSSC/2019 OFC
BUILDING DEPT. JURISDICTION:	THE CONFEDERATED TRIBES OF WARM SPRINGS JEFFERSON COUNTY
PROJECT DESCRIPTION:	6 CLASSROOM ADDITION TO THE EXISTING 1-STORY FULLY SPRINKLERED TYPE VB BUILDINGS (6) SEPARATED BY A 2-HOUR BUILDING SEPARATION
OCCUPANCY:	E – EDUCATIONAL
CONSTRUCTION TYPE:	VB (NON-RATED)
FIRE PROTECTION:	AUTOMATIC FIRE SPRINKLER (NFPA13) & ALARM SYSTEMS ARE TO BE INSTALLED THROUGHOUT THE BUILDING PER OSSC 903 & 907 RESPECTIVELY. SIZE/DISTRIBUTION OF PORTABLE FIRE EXTINGUISHERS PER OFC 906 – MAXIMUM TRAVEL DISTANCE = 75 FEET.
SEISMIC DESIGN CATEGORY:	SEE STRUCTURAL
EARTHQUAKE SITE CLASSIFICATION:	SEE STRUCTURAL
BASIC WIND SPEED:	SEE STRUCTURAL

SINGLE OCCUPANCY BUILDING:

NO OCCUPANCY OR USE SEPARATION

PER OSSC 2019 SECTION 303.1.3, A ROOM OR SPACE USED FOR ASSEMBLY PURPOSES THAT IS ASSOCIATED WITH A GROUP E OCCUPANCY IS NOT CONSIDERED A SEPARATE OCCUPANCY AND SO SEPARATION IS NOT REQUIRED.

ALLOWABLE BUILDING AREA AND HEIGHT:

TYPE V-B CONSTRUCTION, GROUP E OCCUPANCY

BASE ALLOWABLE AREA PER STORY	38,000 SF MAXIMUM
BASE ALLOWABLE HEIGHT, NO. STORIES	60-FEET, 2-STORIES

PER OSSC CHAPTER 2, BUILDING AREA IS THE AREA INCLUDED WITHIN SURROUNDING EXTERIOR WALLS EXCLUDING OF VENT SHAFTS BUT INCLUSIVE OF AREAS WITHIN THE HORIZONTAL PROJECTION OF THE ROOF OR FLOOR AREA ABOVE. AREA WITHIN PROJECTIONS ABOVE THAT ARE LESS THAN 3'-0" DEEP ARE NOT INCLUDED. AREA WITHIN PROJECTIONS ABOVE, GREATER THAN 3'-0" DEEP, ARE COUNTED AT THE LEVEL WHERE OCCUPIABLE SPACE WOULD OCCUR UNDER THAT PROJECTION. THIS IS REFLECTED IN THE ACTUAL AREAS.

BUILDING AREA MODIFICATIONS 506: OSSC SECTION 506
- AREA INCREASE (506.2.3)
- $A_a = A_t + [NS \times I_f]$
- $A_a = 38,000+[9,500\times.75]$
- $A_a = 45,125$

ALLOWABLE AREA PER STORY (SPRINKLER & FRONTAGE MULTIPLIER)	45,125 SF
ACTUAL AREA MAIN LEVEL (BUILDING 1 INCLUDES NEW ADDITION)	20,758 SF
ALLOWABLE HEIGHT (NO MODIFICATIONS)	60-FEET
ACTUAL HEIGHT	30-FEET
ALLOWABLE NO. OF STORIES	2-STORIES
ACTUAL NO. STORIES	1-STORIES + MECHANICAL EQUIPMENT PLATFORM

FIRE-RESISTANCE RATING - BUILDING ELEMENTS:

BUILDING ELEMENT	TYPE VB	OSSC TABLE 601
PRIMARY STRUCTURAL FRAME	0 HOUR WHERE SUPPORTING A FLOOR	
BEARING WALLS		
EXTERIOR	0 HOUR	
INTERIOR	0 HOUR WHERE SUPPORTING A FLOOR 0 HOUR WHERE SUPPORTING A ROOF ONLY^	
NON-BEARING WALLS		
EXTERIOR		
FIRE SEPARATION 5'<X>10' PER TABLE 602	0 HOURS	
FIRE SEPARATION 10'>X> 30' PER TABLE 602	0 HOURS	
INTERIOR	0 HOURS	
FLOOR CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS	0 HOUR	
ROOF CONSTRUCTION AND ASSOCIATED SECONDARY MEMBERS	0 HOUR	

NON-BEARING EXTERIOR WALLS (TYPE VB, GROUP E)		OSSC TABLE 602
FIRE SEPARATION DISTANCE	RATING	
X < 5	1 HOUR	
5 < X < 10	1 HOUR	
10 < X < 30	0 HOUR	
X > 30	0 HOURS	

NOTE A:
PER OSSC TABLE 601 FOOTNOTE A, FIRE-RESISTANCE RATINGS OF PRIMARY STRUCTURAL FRAME AND BEARING WALLS ARE PERMITTED TO BE REDUCED BY 1 HOUR WHERE SUPPORTING A ROOF ONLY.

NOTE B:
PER OSSC TABLE 601 FOOTNOTE B, IN GROUP E OCCUPANCY, FIRE PROTECTION OF STRUCTURAL MEMBERS SHALL NOT BE REQUIRED, INCLUDING PROTECTION OF ROOF FRAMING AND DECKING WHERE EVERY PART OF THE ROOF CONSTRUCTION IS 20-FEET OR MORE ABOVE ANY FLOOR IMMEDIATELY BELOW. FIRE-RETARDANT-TREATED WOOD MEMBERS SHALL BE ALLOWED TO BE USED FOR SUCH UNPROTECTED MEMBERS.

FIRE ALARM AND DETECTION SYSTEM:

PER OSSC 2019 SECTION 907.2.3, MANUAL FIRE ALARM BOXES ARE NOT REQUIRED IN GROUP E OCCUPANCIES WHERE ALL OF THE FOLLOWING APPLY:
1. THE BUILDING IS EQUIPPED THROUGHOUT WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM INSTALLED IN ACCORDANCE WITH SECTION 903.2.1.1.
2. THE EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM WILL ACTIVATE ON SPRINKLER WATER FLOW.
3. MANUAL ACTIVATION IS PROVIDED FROM A NORMALLY OCCUPIED LOCATION.

ADDITION PLUMBING FIXTURE COUNT:

EDUCATIONAL GROUP E

NEW ADDITION OCCUPANT LOAD TOTAL - 288

GROUP E	WATER CLOSETS		LAVATORIES		DRINKING FOUNTAINS
	MALE	FEMALE	MALE	FEMALE	
FIXTURES REQUIRED	144 @ 1:50	144 @ 1:50	144 @ 1:50	144 @ 1:50	1 PER 100
	3	3	3	3	
TOTAL REQUIRED	3	3	3	3	3
FIXTURES PROVIDED	3	3	9	9	6 (1 IN EA. CLASSROOM)
WATER CLOSETS	1	3			
URINALS	2	-			
UNISEX	1 TOTAL		1		

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REGISTERED ARCHITECT 5499 RENEE P. ALEXANDER BEND, OREGON STATE OF OREGON

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

CODE SHEET - LEVEL 1

G0.01

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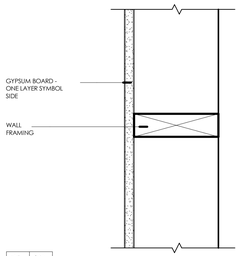
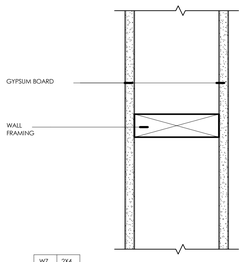


W1	2X4
W2	2X6

1 G0.02 **INT. WALL - WD STUD GYP ONE SIDE**

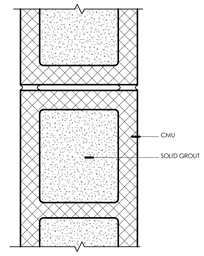
SCALE: 3" = 1'-0"



W7	2X4
W3	2X6

2 G0.02 **INT. WALL - WD STUD GYP BOTH SIDES - NO INSULATION**

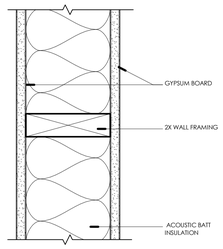
SCALE: 3" = 1'-0"



M1	8"

3 G0.02 **CMU WALL**

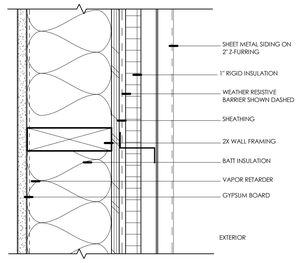
SCALE: 3" = 1'-0"



W4	2X6

4 G0.02 **INT. WOOD STUD**

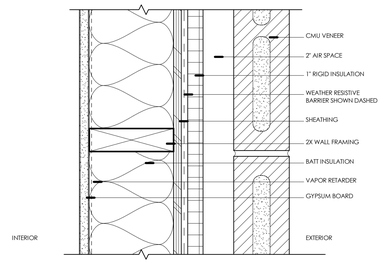
SCALE: 3" = 1'-0"



W10	2X6

5 G0.02 **WD STUD W/ METAL SIDING**

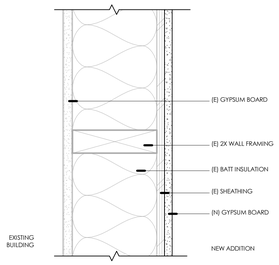
SCALE: 3" = 1'-0"



W11	2X6

6 G0.02 **WD STUD W/ CMU VENEER**

SCALE: 3" = 1'-0"

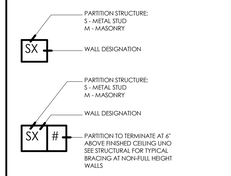


W12	(E)2X6

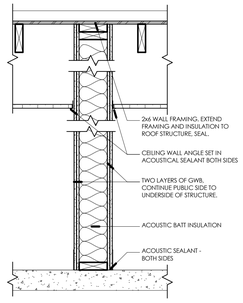
7 G0.02 **EXISTING WALL W/ NEW GWB**

SCALE: 3" = 1'-0"

WALL TAG LEGEND



NOTES:
1. ELECTRICAL OUTLETS, SWITCH OR MISC CONTROLS SHALL NOT BE PLACED BACK TO BACK IN ADJOINING ROOMS OR SPACES. SEAL AROUND ALL OPENINGS.
2. INSTALL ACOUSTICAL PUTTY PADS AT ALL ELECTRICAL, LOW VOLTAGE AND PENETRATIONS IN INTERIOR WALLS SCHEDULED TO RECEIVE INSULATION.

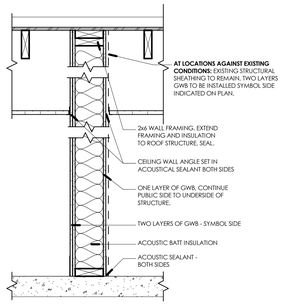


W5	2X6

8 G0.02 **SOUND WALL STC 50**

SCALE: 1" = 1'-0"

NOTES:
1. ELECTRICAL OUTLETS, SWITCH OR MISC CONTROLS SHALL NOT BE PLACED BACK TO BACK IN ADJOINING ROOMS OR SPACES. SEAL AROUND ALL OPENINGS.
2. INSTALL ACOUSTICAL PUTTY PADS AT ALL ELECTRICAL, LOW VOLTAGE AND PENETRATIONS IN INTERIOR WALLS SCHEDULED TO RECEIVE INSULATION.



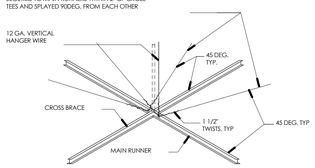
W6	2X6

9 G0.02 **SOUND WALL STC 45**

SCALE: 1" = 1'-0"

NOTE:
COMPRESSSION POSTS MAY BE REQUIRED AT SPLAY BRACE DEPENDING ON JOB LOCATION. 3/4" EMT CONDUIT MAY BE USED UP TO 6FT. IN LENGTH. VERIFY WITH BUILDING OFFICIAL.

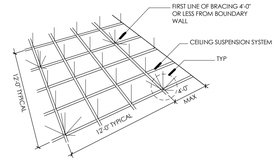
LATERAL FORCE BRACING - 4EA #12 GA. WIRE SECURED TO MAIN RUNNERS WITHIN 2" OF CROSS TEES AND SPLAYED 90DEG. FROM EACH OTHER



NOTE:
STANDARD ATTACHMENT TO THE FLOOR OR ROOF STRUCTURE WITH (1) #8 SCREW, OR EQUIVALENT HOOK OR EYE SCREW. AT EACH TIE CONNECTION IS ALSO ADEQUATE.

10 G0.02 **CEILING - SUSPENDED CEILING SEISMIC BRACING**

SCALE: NTS

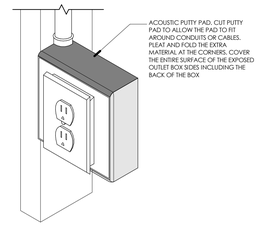


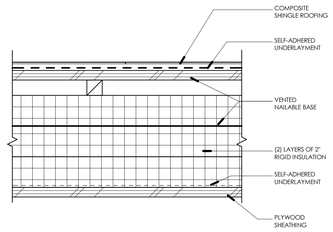
NOTE:
SUSPENDED CEILINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE 2014 OSSC. CEILING INSTALLER SHALL INSTALL INDEPENDENT WIRES FOR LIGHT FIXTURE SUPPORT PER OSSC. COORDINATE WITH ELECTRICAL.

AREAS SMALLER THAN 1000 S.F AND WITH WALLS ON FOUR SIDES EXTENDING TO STRUCTURE NEED NOT BE BRACED. NOTE: BOUNDARY WALLS MUST BE BRACED TOP AND BOTTOM INDEPENDENT OF CEILING TO QUALIFY.

11 G0.02 **ACOUSTIC PUTTY PAD - AXON**

SCALE: 3" = 1'-0"



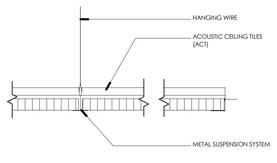


R1	--

12 G0.02 **ROOF ASSEMBLY - R1**

SCALE: 3" = 1'-0"

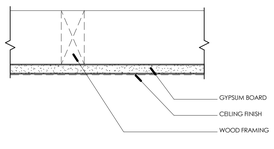
NOTES:
1. SEE DETAILS FOR SEISMIC BRACING
2. PROVIDE APPROPRIATE BRACING FOR SLOPED APPLICATIONS PER SECTIONS & CEILING PLANS



ACT-1	--

13 G0.02 **CEILING - ACT**

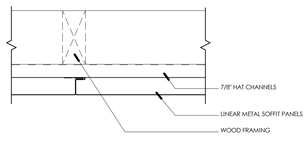
SCALE: 3" = 1'-0"



GWB	--

14 G0.02 **CEILING - GWB ON FRAMING**

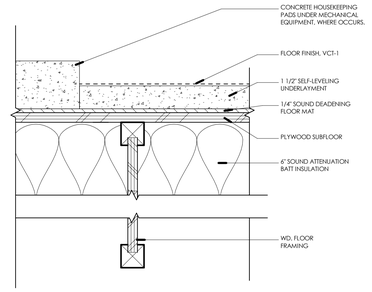
SCALE: 3" = 1'-0"



LM-1	--

15 G0.02 **CEILING - MTL SOFFIT**

SCALE: 3" = 1'-0"



16 G0.02 **FLOOR ASSEMBLY - MEZZANINE**

SCALE: 3" = 1'-0"

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REGISTERED ARCHITECT
5499
RENEE P. ALEXANDER
BEND, OREGON
STATE OF OREGON

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

ASSEMBLIES

G0.02

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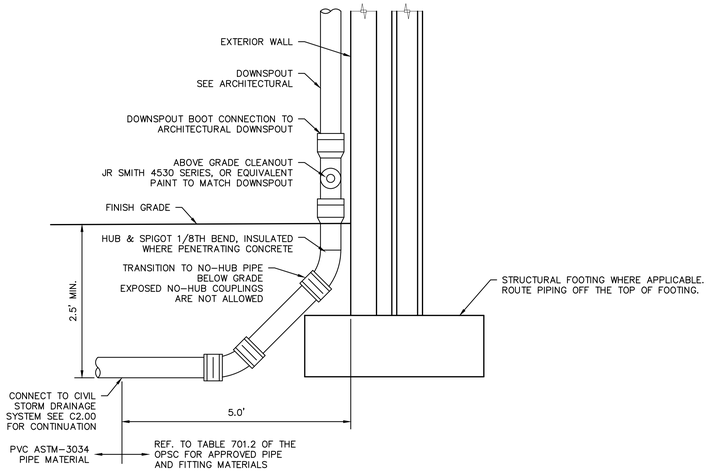
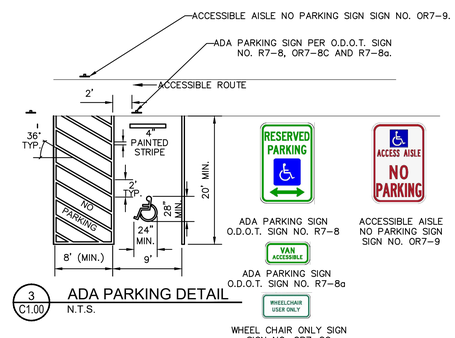
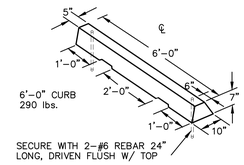


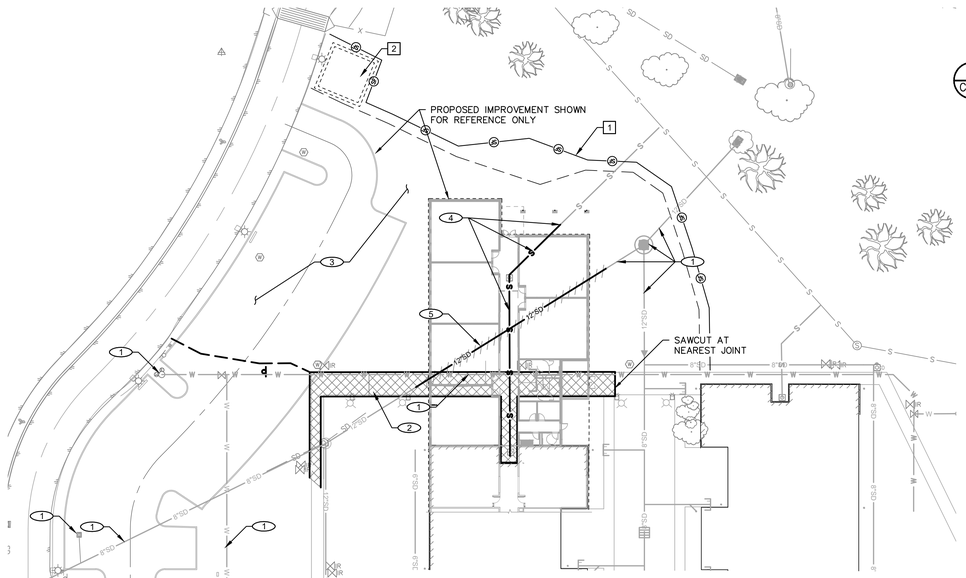
5 C1.00 DOWNSPOUT CONNECTION DETAIL
N.T.S.



3 C1.00 ADA PARKING DETAIL
N.T.S.



4 C1.00 WHEEL STOP DETAIL
N.T.S.



DEMOLITION NOTES:

1. PROTECT EXISTING UTILITY IN PLACE.
2. REMOVE & DISPOSE OF EXISTING SIDEWALK
3. REMOVE EXISTING CHIP SEAL (ASPHALT TREATED BASE ROCK). SEE SECTION 5.4.1.1 OF THE CARLSON GEOTECHNICAL AUGUST 31, 2022 GEOTECHNICAL INVESTIGATION REPORT FOR REQUIREMENTS TO USE MATERIAL AS STRUCTURAL FILL.
4. CUT EXISTING SANITARY SEWER PIPING 5.0' OUTSIDE OF NEW BUILDING. REMOVE & DISPOSE OF EXISTING SANITARY PIPING WITHIN NEW BUILDING FOOTPRINT.
5. REMOVE & DISPOSE OF EXISTING STORM PIPING
6. REMOVE & DISPOSE OF EXISTING SIDEWALK AND CURB

EROSION CONTROL NOTES:

1. INSTALL SEDIMENT FENCING PER OREGON STANDARD DRAWING RD1040.
2. PROVIDE A CONCRETE TRUCK WASH OUT FACILITY PER OREGON STANDARD DRAWING RD1070.

1 C1.00 EXISTING CONDITIONS PLAN
SCALE: 1"=40'

CONSTRUCTION NOTES:

1. PROTECT EXISTING UTILITY IN PLACE.
2. INSTALL 12" CURB WITH 6" REVEAL
3. INSTALL ACCESSIBLE PAVEMENT MARKINGS PER DETAIL 3/C1.00
4. INSTALL 4" WIDE WHITE STRIPE PER ODOT TM 500.
5. RE-INSTALL "DISPERSAL AREA" SIGN, COORDINATE WITH ARCHITECT AND OWNER FOR LOCATION.
6. INSTALL 3" AC OVER 5" AGGREGATE BASE PAVING.
7. INSTALL 4" PCC OVER 4" AGGREGATE BASE SIDEWALK.
8. NEW BUILDING SANITARY SEWER TO CONNECT TO EXISTING SANITARY SEWER 5.0' FROM BUILDING. SEE UNDERSLAB PLUMBING PLAN P2.01.
9. SEE GRADING PLAN, C2.00, FOR STORM SEWER CONSTRUCTION.
10. COORDINATE WITH LANDSCAPE CONTRACTOR FOR RESTORATION OF PLANTING AND IRRIGATION SYSTEMS.
11. CONCRETE STRIP SEE LANDSCAPE PLANS.
12. INSTALL WHEEL STOP SEE DETAIL 4/C1.00.
13. CONNECT BELOW GRADE STORM PIPING TO ROOF DRAINAGE DOWNSPOUT PER DOWNSPOUT CONNECTION DETAIL 5/C1.00.

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20 0 20 40
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2 C1.00 SITE PLAN
SCALE: 1"=20'

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REGISTERED PROFESSIONAL ENGINEER
OREGON
JULY 10, 1985
STEVEN R. HANNAS
EXPIRES 6-30-23

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JEFFERSON COUNTY SCHOOLS
WARM SPRINGS K-8 ACADEMY

50 CHUKAR ROAD
WARM SPRINGS,
OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

CIVIL SITE PLAN

C1.00

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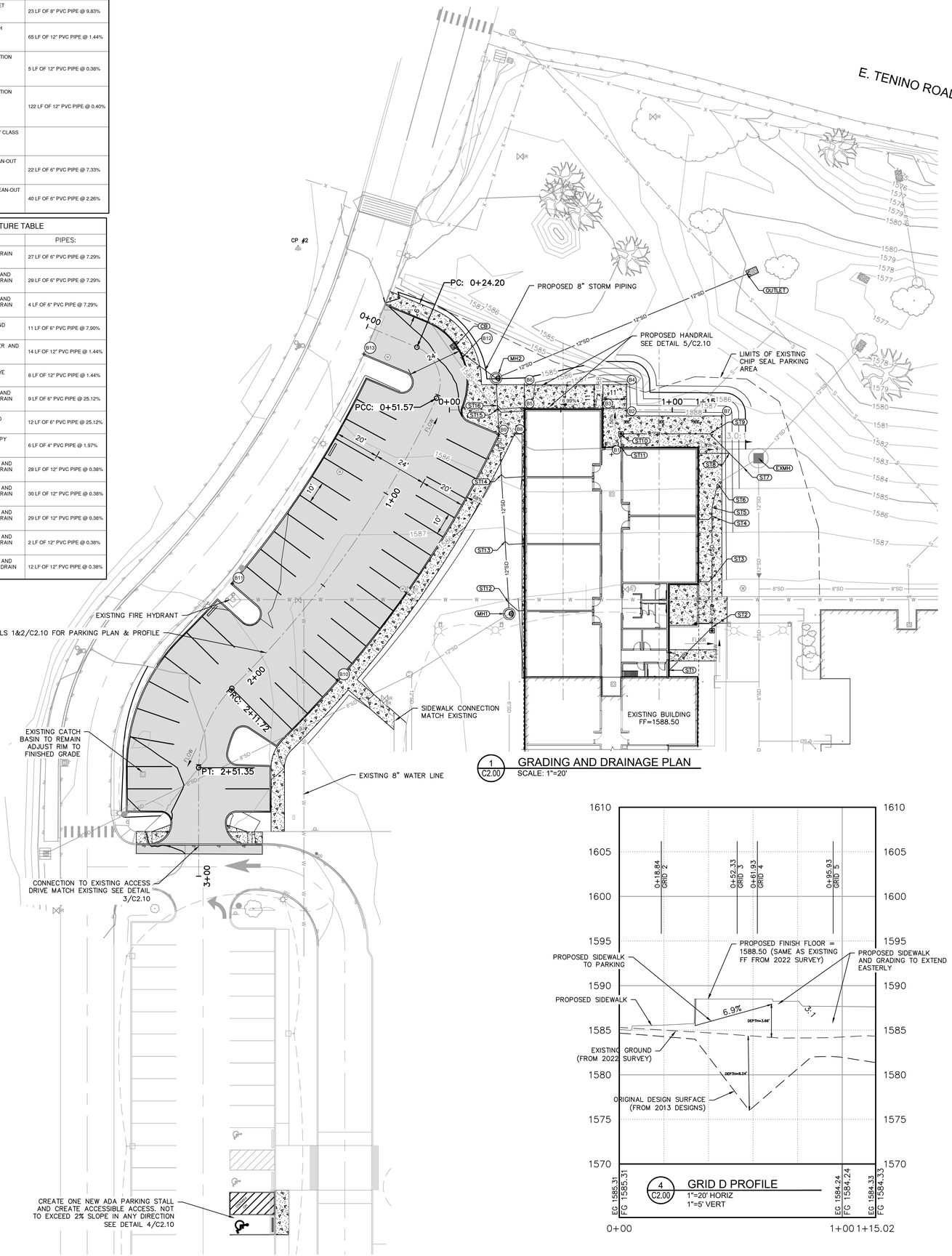
14883-STORM STRUCTURE TABLE		
STRUCTURE NAME:	DETAILS:	PIPES:
CB N: 399107.27 E: 8005265.25	INSTALL STD G-2 INLET RIM = 1584.74 INV OUT = 1582.50	23 LF OF 8" PVC PIPE @ 9.83%
EXMH N: 399056.77 E: 8005401.24	EXISTING STORM MH RIM = 1585.26 INV IN = 1578.63 INV OUT = 1578.63	65 LF OF 12" PVC PIPE @ 1.44%
MH1 N: 398986.97 E: 8005289.39	INSTALL 48" SEDIMENTATION MANHOLE RIM = 1588.10 INV IN = 1580.45 INV OUT = 1580.45	5 LF OF 12" PVC PIPE @ 0.38%
MH2 N: 399092.68 E: 8005283.46	INSTALL 48" SEDIMENTATION MANHOLE RIM = 1584.92 INV IN = 1580.21 INV IN = 1580.04 INV OUT = 1580.04	122 LF OF 12" PVC PIPE @ 0.40%
OUTLET N: 399139.37 E: 8005396.12	INSTALL OUTLET WITH 5'X5' CLASS 50 RIPRAP 1' THICK RIM = 1581.58 INV IN = 1579.56	
ST2 N: 398980.87 E: 8005380.42	INSTALL 6" WYE AND CLEAN-OUT RIM = 1585.50 INV IN = 1583.99 INV OUT = 1583.99	22 LF OF 6" PVC PIPE @ 7.33%
ST10 N: 399067.69 E: 8005339.55	INSTALL 4"X6" WYE AND CLEAN-OUT RIM = 1588.41 INV IN = 1585.01 INV OUT = 1585.01	40 LF OF 6" PVC PIPE @ 2.26%

14883-STORM STRUCTURE TABLE		
STRUCTURE NAME:	DETAILS:	PIPES:
ST1 N: 398961.63 E: 8005361.18	CONNECT TO ROOF DRAIN INV (NE) = 1585.97	27 LF OF 6" PVC PIPE @ 7.29%
ST3 N: 399002.86 E: 8005380.56	INSTALL 6"X4" WYE AND CONNECT TO ROOF DRAIN INV (N) = 1582.37	28 LF OF 6" PVC PIPE @ 7.29%
ST4 N: 399030.77 E: 8005380.43	INSTALL 6"X4" WYE AND CONNECT TO ROOF DRAIN INV (N) = 1580.34	4 LF OF 6" PVC PIPE @ 7.29%
ST5 N: 399034.69 E: 8005380.42	INSTALL 11.25° BEND INV (N) = 1580.05	11 LF OF 6" PVC PIPE @ 7.90%
ST6 N: 399045.30 E: 8005382.87	INSTALL 12"X6" REDUCER AND 11.25° BEND INV (NE) = 1578.94	14 LF OF 12" PVC PIPE @ 1.44%
ST7 N: 399052.58 E: 8005394.53	INSTALL 12"X6" WYE INV (NE) = 1578.74	8 LF OF 12" PVC PIPE @ 1.44%
ST8 N: 399058.94 E: 8005388.17	INSTALL 6"X4" WYE AND CONNECT TO ROOF DRAIN INV (SE) = 1581.00	9 LF OF 6" PVC PIPE @ 25.12%
ST9 N: 399067.69 E: 8005379.42	INSTALL 45° BEND INV (SE) = 1584.11	12 LF OF 6" PVC PIPE @ 25.12%
ST11 N: 399061.69 E: 8005339.55	CONNECT TO CANOPY DOWNSPOUT INV (N) = 1585.13	6 LF OF 4" PVC PIPE @ 1.97%
ST12 N: 398991.96 E: 8005289.11	INSTALL 12"X4" WYE AND CONNECT TO ROOF DRAIN INV (N) = 1580.43	28 LF OF 12" PVC PIPE @ 0.38%
ST13 N: 399019.47 E: 8005287.57	INSTALL 12"X4" WYE AND CONNECT TO ROOF DRAIN INV (N) = 1580.33	30 LF OF 12" PVC PIPE @ 0.38%
ST14 N: 399049.40 E: 8005285.89	INSTALL 12"X4" WYE AND CONNECT TO ROOF DRAIN INV (N) = 1580.21	29 LF OF 12" PVC PIPE @ 0.38%
ST15 N: 399078.78 E: 8005284.24	INSTALL 12"X4" WYE AND CONNECT TO ROOF DRAIN INV (N) = 1580.10	2 LF OF 12" PVC PIPE @ 0.38%
ST16 N: 399080.33 E: 8005284.15	INSTALL 12"X4" WYE AND CONNECT TO FOOTING DRAIN INV (N) = 1580.09	12 LF OF 12" PVC PIPE @ 0.38%



1 C2.00 GRADING AND DRAINAGE PLAN
SCALE: 1"=20'

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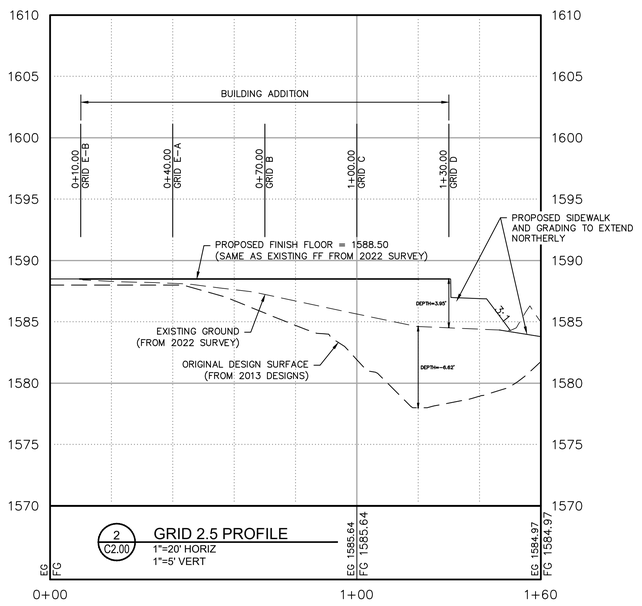
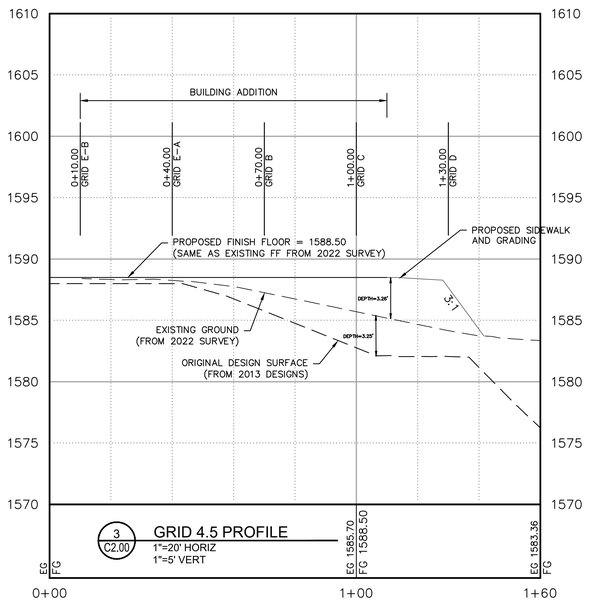
ELEVATION TABLE		
POINT #	ELEV	DESCRIPTION
1	1588.50	FF
2	1588.29	PI
3	1588.24	PI
4	1588.13	PI
5	1585.77	PI
6	1585.66	FG
7	1588.18	PI

ELEVATION TABLE		
POINT #	ELEV	DESCRIPTION
8	1585.70	PI
9	1585.11	FL
10	1586.00	FL
11	1586.21	FL
12	1584.88	FL
13	1585.45	FL

N
20 0 20 40
SCALE IN FEET





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GRADING PLAN

C2.00

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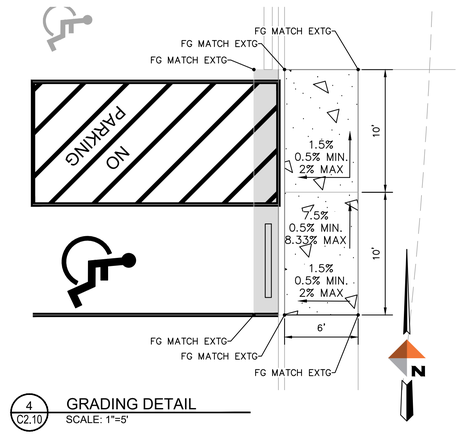
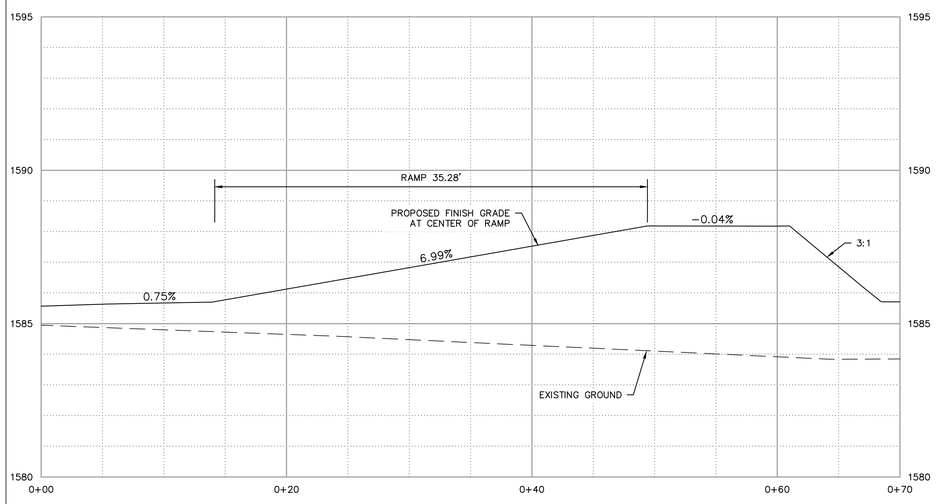
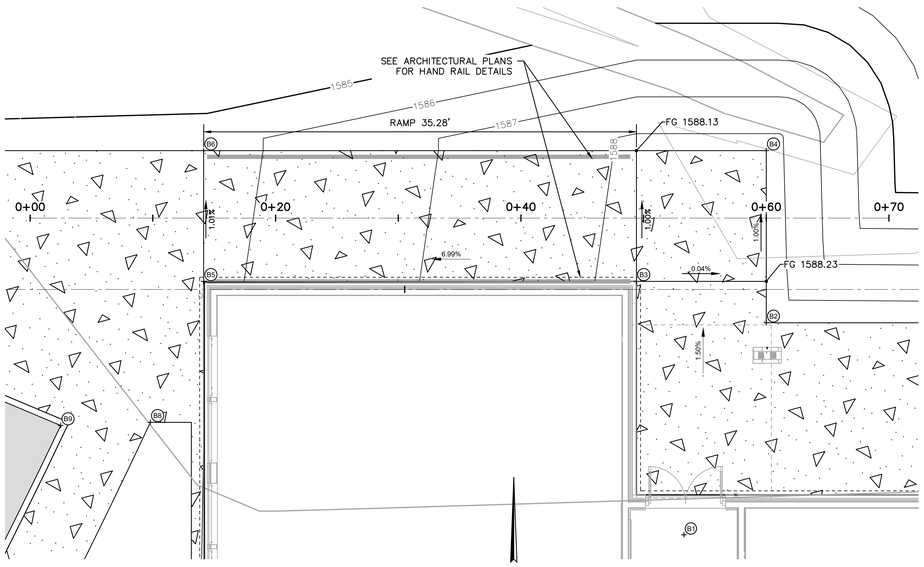


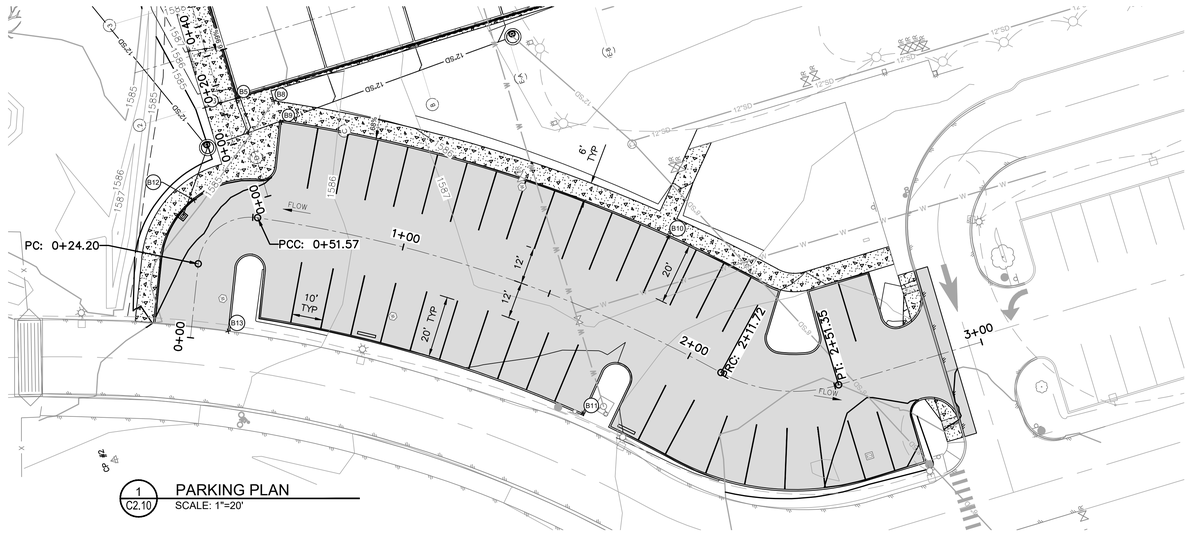
4 C2.10 GRADING DETAIL
SCALE: 1"=5'



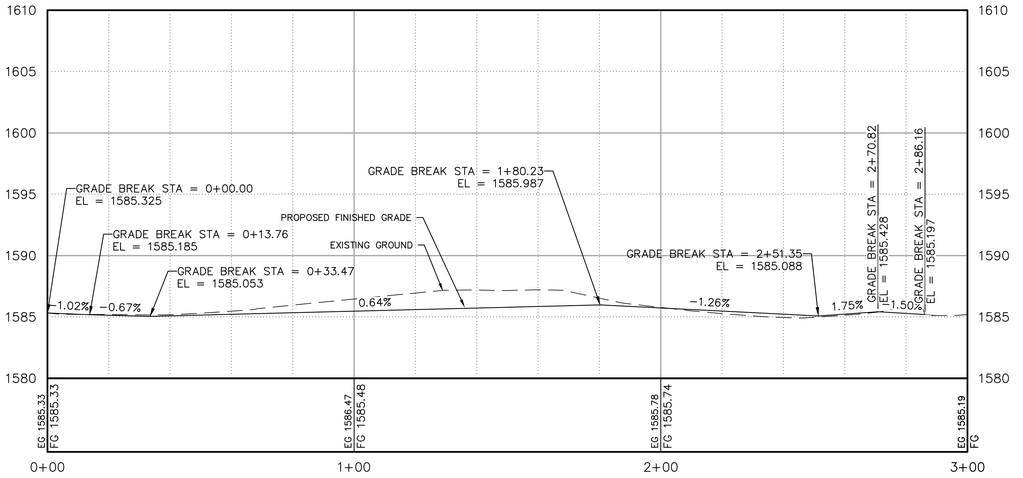
5 C2.10 RAMP GRADING PROFILE
SCALE: 1"=5'



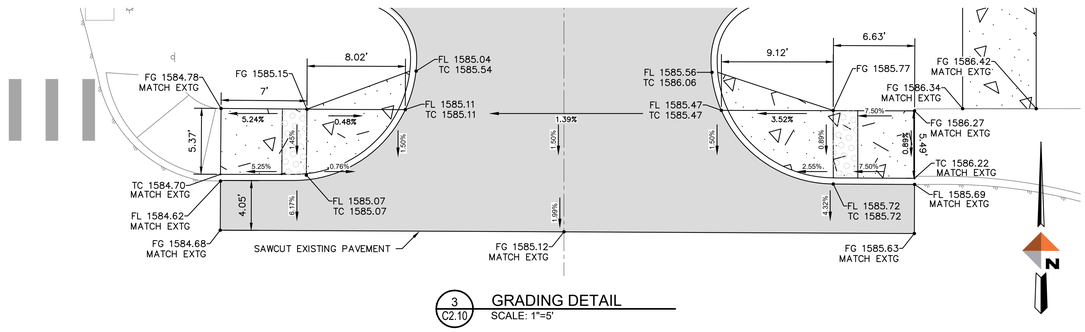
5 C2.10 RAMP GRADING DETAIL
SCALE: 1"=5'



1 C2.10 PARKING PLAN
SCALE: 1"=20'



2 C2.10 PARKING PROFILE
1"=20' HORIZ
1"=5' VERT



3 C2.10 GRADING DETAIL
SCALE: 1"=5'

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GRADING DETAILS

C2.10

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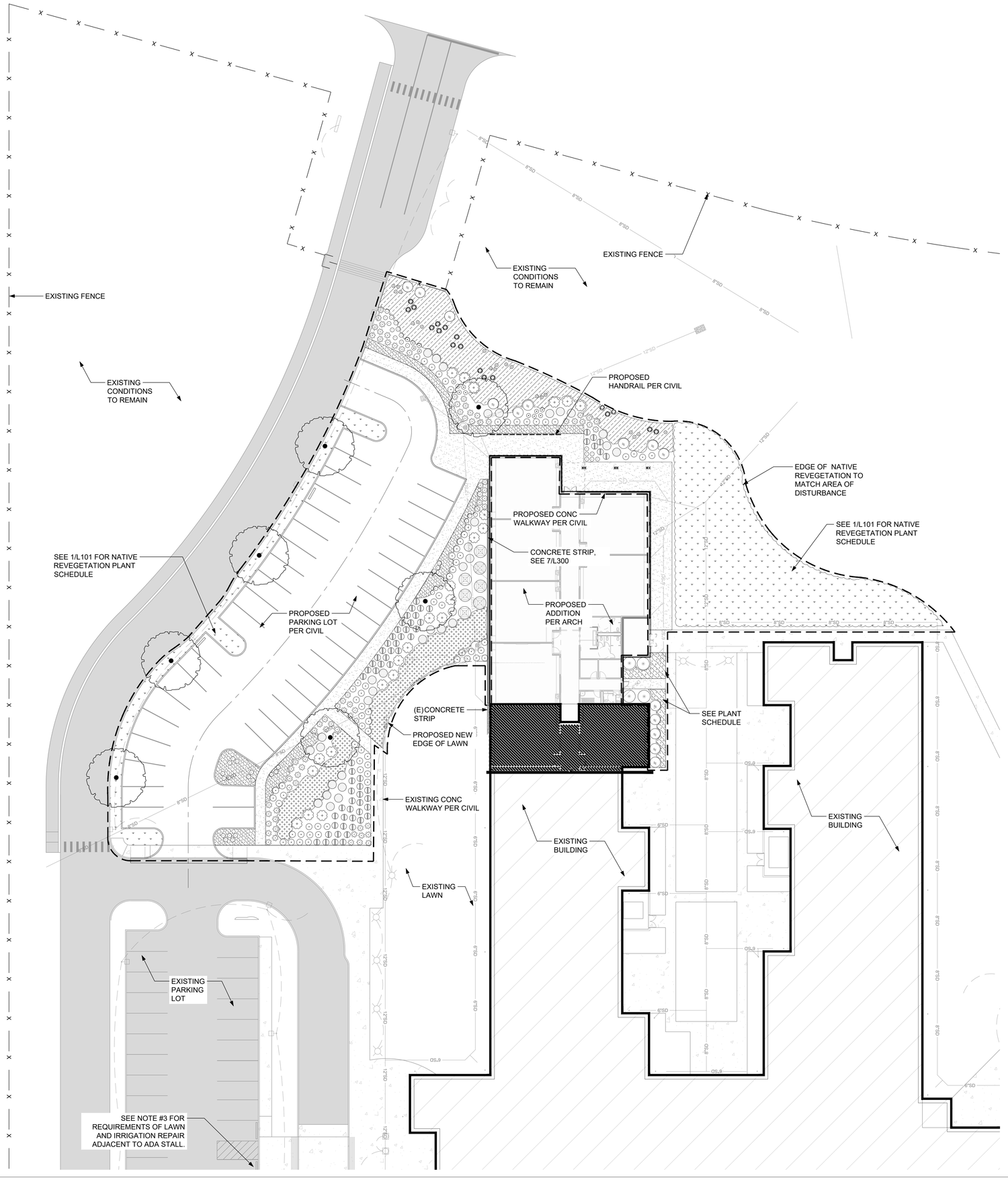
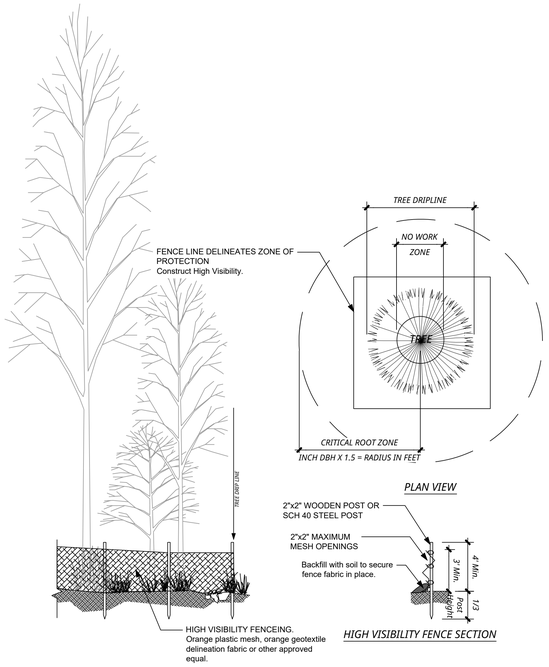


HATCH LEGEND

NATIVE RE-VEGETATION
See native revegetation planting plan diagram 1/L101

NOTES

1. SEE SHEET L101 FOR GENERAL NOTES.
2. ALL VEGETATION OUTSIDE THE LIMITS OF WORK SHALL BE PROTECTED. SNOW FENCING SHALL BE INSTALLED TO DELINEATE AREAS AND VEGETATION TO BE PROTECT. SEE 1/L100.
3. ONE ADA STALL WILL BE INSTALLED ADJACENT TO THE EXISTING ADA PARKING STALL. ALL DISTURBED LAWN AND IRRIGATION ASSOCIATED WITH THIS WORK SHALL BE REPAIRED IN KIND. SEE CIVIL SHEETS FOR LOCATION OF WORK.



NOTES

1. Fence shall be installed where necessary to protect existing vegetation. The contractor shall provide a fencing plan for approval by the landscape architect prior any demolition, equipment mobilization or construction.

VEGETATION PROTECTION FENCING

NTS 1

1" = 20'-0" 0' 10' 20' 40'

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REGISTERED LANDSCAPE ARCHITECT
792
JAY A. BATTLESON
05/31/2022
OREGON

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www.cameronmccarthy.com

Warm Springs K-8 Addition

Warm Springs, Jefferson County

No.	Description	Date

Project Number 2206
Date 01/18/2023

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LANDSCAPE PLAN

L100

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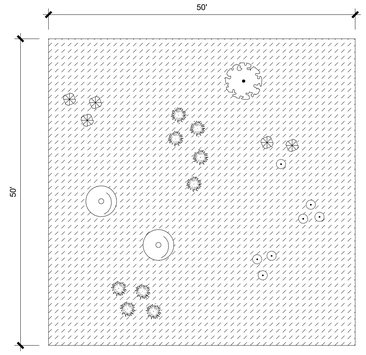

SHEET L100
PLAN SYMBOL

NATIVE REVEGETATION PLANT SCHEDULE

SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION
	1	Artemisia tridentata	Big Sagebrush	#5	Container
	2	Ericameria nauseosa	Rubber Rabbitbrush	#5	Container
	5	Eriogonum umbellatum	Sulfurflower Buckwheat	#1	Container
	7	Linum lewisii	Lewis Flax	#1	Container
	9	Pseudoroegneria spicata	Bluebunch Wheatgrass	#1	Container

GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	SPACING
	201	Festuca idahoensis	Idaho Fescue	#1	Container	42" o.c.

NATIVE REVEGETATION DIAGRAM NOTES:

1. *Festuca idahoensis to be planted in a triangular layout. all other plant species within the native revegetation areas may have random spacing.*
2. *Refer to re-vegetation diagram for approximate layout of plant species per area.*
3. *Overall layout and quantities of plant species (per 250 sq ft) to be similar to the diagram.*
4. *No substitutions of plant material until approved by licensed landscape architect.*

NATIVE REVEGETATION PLANTING PLAN DIAGRAM

NTS (1)

PLANT SCHEDULE WSK-8 FULL SITE

TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	SPACING		REMARKS
	7	Celtis occidentalis	Common Hackberry	1.25" cal.	B&B or Cont	As Shown		Matching, even branched, full.
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	SPACING		REMARKS
H	43	Achillea millefolium	Common Yarrow	#1	Container	As Shown		
	15	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	#3	Container	As Shown		
	23	Chamaebatiaria millefolium	Fernbush	#5	Container	As Shown		
	7	Fallugia paradoxa	Apache Plume	#5	Container	As Shown		
	65	Helictotrichon sempervirens	Blue Oat Grass	#3	Container	As Shown		
	20	Linum lewisii	Lewis Flax	#1	Container			
	73	Nepeta racemosa	Catmint	#1	Container	As Shown		
	34	Perovskia atriplicifolia	Russian Sage	#1	Container	As Shown		
	4	Philadelphus lewisii	Wild Mockorange	#5	Container	As Shown		
	18	Pseudoroegneria spicata	Bluebunch Wheatgrass	#1	Container			
	14	Ribes alpinum	Alpine Currant	#5	Container	As Shown		
	78	Salvia nemorosa 'May Night'	May Night Sage	#1	Container	As Shown		
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONDITION	SPACING	SPACING	REMARKS
	128	Deschampsia cespitosa	Tufted Hair Grass	#2	Container		42" o.c.	
	160	Festuca glauca 'Elijah Blue'	Elijah Blue Fescue	#1	Container		36" o.c.	
	398	Festuca idahoensis	Idaho Fescue	#1	Container		30" o.c.	

GENERAL NOTES

1. *Verify exact locations and routing of existing underground utilities prior to starting excavation. Repair any damage to existing pipes, utilities or related facilities at Contractor's expense in a manner approved by Owner's Representative.*
2. *Do not install any plant materials until Owner's Representative has reviewed and approved irrigation system installation, area coverage balancing, soil preparation and finish grading. Refine the shape an finish grade of plant beds as directed by Owner's Representative.*
3. *Provide matching forms and sizes for all plant material within each species and size designated on the drawings. Plant material sizes shall comply with American standards for nursery stock. All plant material shall be healthy, vigorous and free of pests and disease. All trees shall have a straight trunk and full head.*
4. *Trees shall bear same relation to finish grade as at place of growth.*
5. *Plant all trees a minimum of 5' from any roof drain lines. The landscape contractor must verify the location of all drain lines prior to commencing work.*
6. *All plants shall be grown for this region or shall be adequately climatized for a minimum of 3 months.*
7. *Protect all existing tree and plant materials to remain including limbs, trunks, roots and root zones.*
8. *Finish grade is top of topsoil. Apply 2" depth min. of shredded wood mulch (High Desert Brown or equal) in Ornamental Planting zones. Not required in seeded areas and native planting zones.*
9. *Where soils have been compacted or distressed (ex. construction staging areas) remove all rubble and place topsoil per specifications 32 91 00 & 32 91 19.*
10. *Prune all new plant materials as directed by Owner's Representative.*
11. *Make minor adjustments in tree spacing as necessary to accommodate the irrigation system as installed and other site features.*
12. *Where new lawn abuts existing, provide a smooth transition and make repairs as necessary to existing lawn.*
13. *Plant quantities shown are for Contractor's convenience only. Contractor is responsible verify plant counts graphically shown.*
14. *Triangle space all shrubs and groundcovers, unless otherwise noted.*
15. *All existing irrigation that is no longer required to achieve full coverage on site will be abandoned in place.*
16. *There shall be no fence, wall, vehicular parking, landscaping, building, structure, or any other obstruction to vision other than a street sign post, pole (e.g. power, signal, or luminaire pole) or tree trunk (clear of branches and foliage) within the clear vision area between the height of two (2) feet and eight (8) feet above the level of the curb. in cut sections, embankments shall be graded to comply with these requirements. (Local regulatory standards)*
17. *All planting to be completed when the ground is not frozen and soils are pliable between the months of march through June and September through October.*

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Warm Springs K-8 Addition

Warm Springs,
Jefferson County

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

PLANT SCHEDULE
AND NOTES

L101

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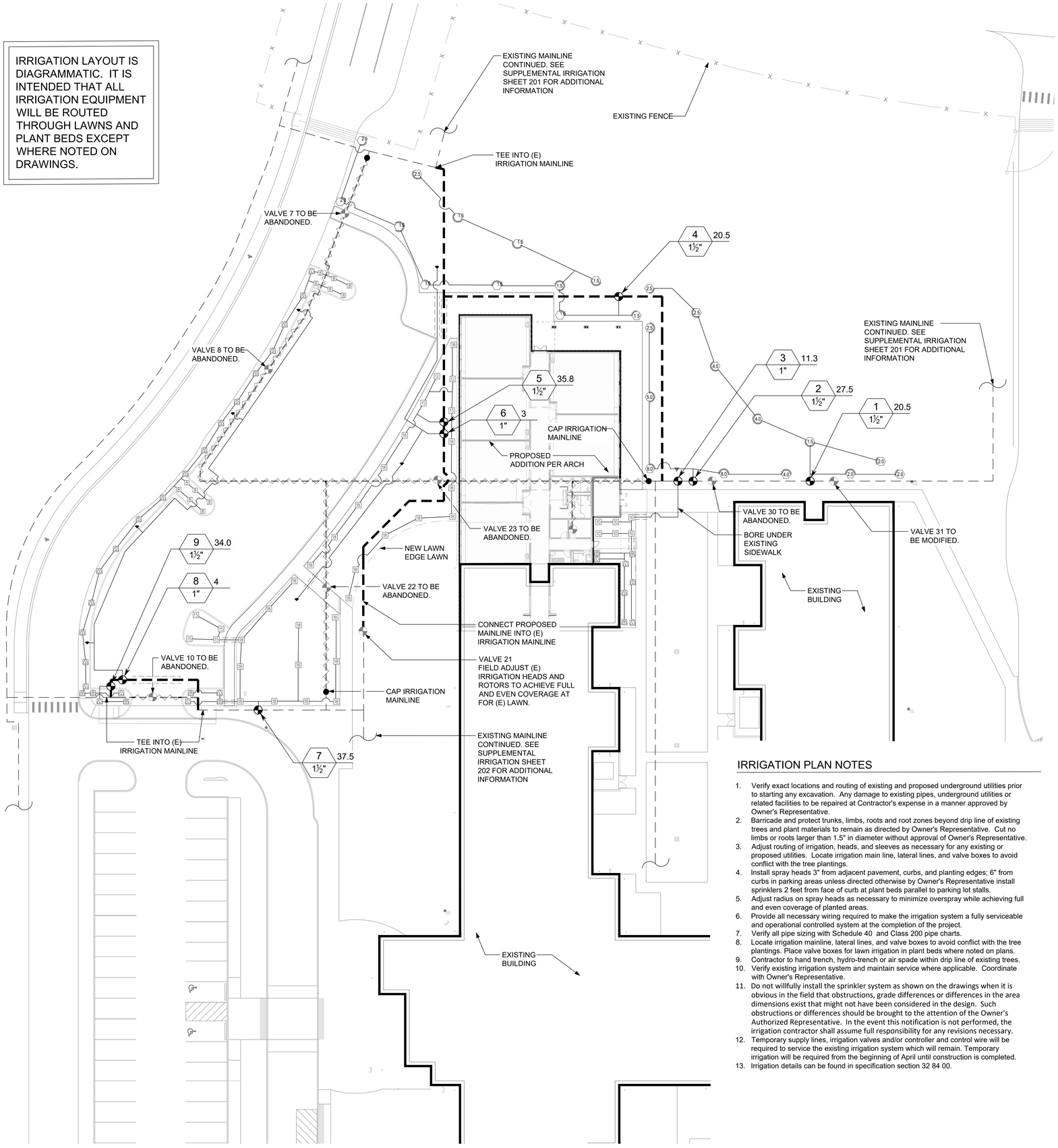
IRRIGATION LAYOUT IS DIAGRAMMATIC. IT IS INTENDED THAT ALL IRRIGATION EQUIPMENT WILL BE ROUTED THROUGH LAWNS AND PLANT BEDS EXCEPT WHERE NOTED ON DRAWINGS.



PIPE SCHEDULE

SCHEDULE 40 PIPE SIZING CHART	
GPM	**SIZE**
0-7	3/4"
7-11	1"
11-21	1 1/4"
21-29	1 1/2"
29-49	2"
49-69	2 1/2"
69-110	3"

CLASS 200 PIPE SIZING CHART	
GPM	**SIZE**
10-17	1"
17-27	1 1/4"
27-36	1 1/2"
36-56	2"
56-83	2 1/2"

LEGEND

- EXISTING MAINLINE TO REMAIN
- EXISTING MAINLINE TO REMOVE
- EXISTING VALVE
- END CAP

IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI
EST LCS RCS CST SST	Rain Bird 1812-SAM-PRS 15 Strip Series Shrub Spray 12in. Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2in. NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Pressure Regulating Device.	30
4 6 8 10 12 15 18	Rain Bird 1812-SAM-PRS ADJ Shrub Spray 12in. Pop-Up Sprinkler with Co-Molded Wiper Seal. 1/2in. NPT Female Threaded Inlet. With Seal-A-Matic Check Valve, and Pressure Regulating Device.	30
CST Q H F	Rain Bird 1804-SAM-PRS-5 Series Stream Stream Bubbler 4.0in. popup with check valve and pressure regulator, 2 per tree	30

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	PSI	GPM	RADIUS
1.5	Hunter I-20-12 1.5 Shrub Rotor, 12in. Pop-Up. Adjustable and Full Circle. Plastic Riser. Drain Check Valve. Standard Nozzle.	45	1.5	31'
2.0	Hunter I-20-12 2.0 Shrub Rotor, 12in. Pop-Up. Adjustable and Full Circle. Plastic Riser. Drain Check Valve. Standard Nozzle.	45	2	34'
2.5	Hunter I-20-12 2.5 Shrub Rotor, 12in. Pop-Up. Adjustable and Full Circle. Plastic Riser. Drain Check Valve. Standard Nozzle.	45	2.5	35'
4.0	Hunter I-20-12 4.0 Shrub Rotor, 12in. Pop-Up. Adjustable and Full Circle. Plastic Riser. Drain Check Valve. Standard Nozzle.	45	4	40'
5.0	Hunter I-20-12 5.0 Shrub Rotor, 12in. Pop-Up. Adjustable and Full Circle. Plastic Riser. Drain Check Valve. Standard Nozzle.	45	5	42'
8.0	Hunter I-20-12 8.0 Shrub Rotor, 12in. Pop-Up. Adjustable and Full Circle. Plastic Riser. Drain Check Valve. Standard Nozzle.	45	8	44'

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION
	Rain Bird PESB-PRS-D 1in., 1-1/2in., 2in. Plastic Industrial Valves. Low Flow Operating Capability, Globe Configuration. With Pressure Regulating Module, and Scrubber Technology for Reliable Performance in Dirty Water Irrigation Applications.

- Irrigation Lateral Line: PVC Class 200 SDR 21
- Irrigation Mainline: PVC Schedule 40
- Pipe Sleeve: PVC Schedule 40

Valve Callout
- # — Valve Number
- # — Valve Flow
- #" — Valve Size

IRRIGATION PLAN NOTES

1. Verify exact locations and routing of existing and proposed underground utilities prior to starting any excavation. Any damage to existing pipes, underground utilities or related facilities to be repaired at Contractor's expense in a manner approved by Owner's Representative.
2. Barricade and protect trunks, limbs, roots and root zones beyond drip line of existing trees and plant materials to remain as directed by Owner's Representative. Cut no limbs or roots larger than 1.5" in diameter without approval of Owner's Representative.
3. Adjust routing of irrigation, heads, and sleeves as necessary for any existing or proposed utilities. Locate irrigation main line, lateral lines, and valve boxes to avoid conflict with the tree plantings.
4. Install spray heads 3" from adjacent pavement, curbs, and planting edges; 6" from curbs in parking areas unless directed otherwise by Owner's Representative install sprinklers 2 feet from face of curb at plant beds parallel to parking lot stalls.
5. Adjust radius on spray heads as necessary to minimize overspray while achieving full and even coverage of planted areas.
6. Provide all necessary wiring required to make the irrigation system a fully serviceable and operational controlled system at the completion of the project.
7. Verify all pipe sizing with Schedule 40 and Class 200 pipe charts.
8. Locate irrigation mainline, lateral lines, and valve boxes to avoid conflict with the tree plantings. Place valve boxes for lawn irrigation in plant beds where noted on plans.
9. Contractor to hand trench, hydro-trench or air spade within drip line of existing trees.
10. Verify existing irrigation system and maintain service where applicable. Coordinate with Owner's Representative.
11. Do not willfully install the sprinkler system as shown on the drawings when it is obvious in the field that obstructions, grade differences or differences in the area dimensions exist that might not have been considered in the design. Such obstructions or differences should be brought to the attention of the Owner's Authorized Representative. In the event this notification is not performed, the irrigation contractor shall assume full responsibility for any revisions necessary.
12. Temporary supply lines, irrigation valves and/or controller and control wire will be required to service the existing irrigation system which will remain. Temporary irrigation will be required from the beginning of April until construction is completed.
13. Irrigation details can be found in specification section 32 84 00.

VALVE SCHEDULE

NUMBER	MODEL	SIZE	TYPE	GPM	PSI	PRECIP
1	Rain Bird PESB-PRS-D	1-1/2"	Shrub Rotor	20.5	53.2	1.57 in/h
2	Rain Bird PESB-PRS-D	1-1/2"	Shrub Rotor	27.5	51.2	1.19 in/h
3	Rain Bird PESB-PRS-D	1"	Shrub Spray	11.26	33.8	2.03 in/h
4	Rain Bird PESB-PRS-D	1-1/2"	Shrub Rotor	20.5	54.7	0.52 in/h
5	Rain Bird PESB-PRS-D	1-1/2"	Shrub Spray	35.81	37.3	1.04 in/h
6	Rain Bird PESB-PRS-D	1"	Bubbler	3	32.1	1.47 in/h
7	Rain Bird PESB-PRS-D	1-1/2"	Shrub Spray	37.46	35.6	1.25 in/h
8	Rain Bird PESB-PRS-D	1"	Bubbler	4	35.0	1.4 in/h
9	Rain Bird PESB-PRS-D	1-1/2"	Shrub Spray	34.04	39.1	2.03 in/h

1" = 20'-0" 0' 10' 20' 40'

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Warm Springs K-8 Addition

Warm Springs, Jefferson County

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

IRRIGATION PLAN

L200

PLOT DATE: 1/18/2023 8:47:19 AM
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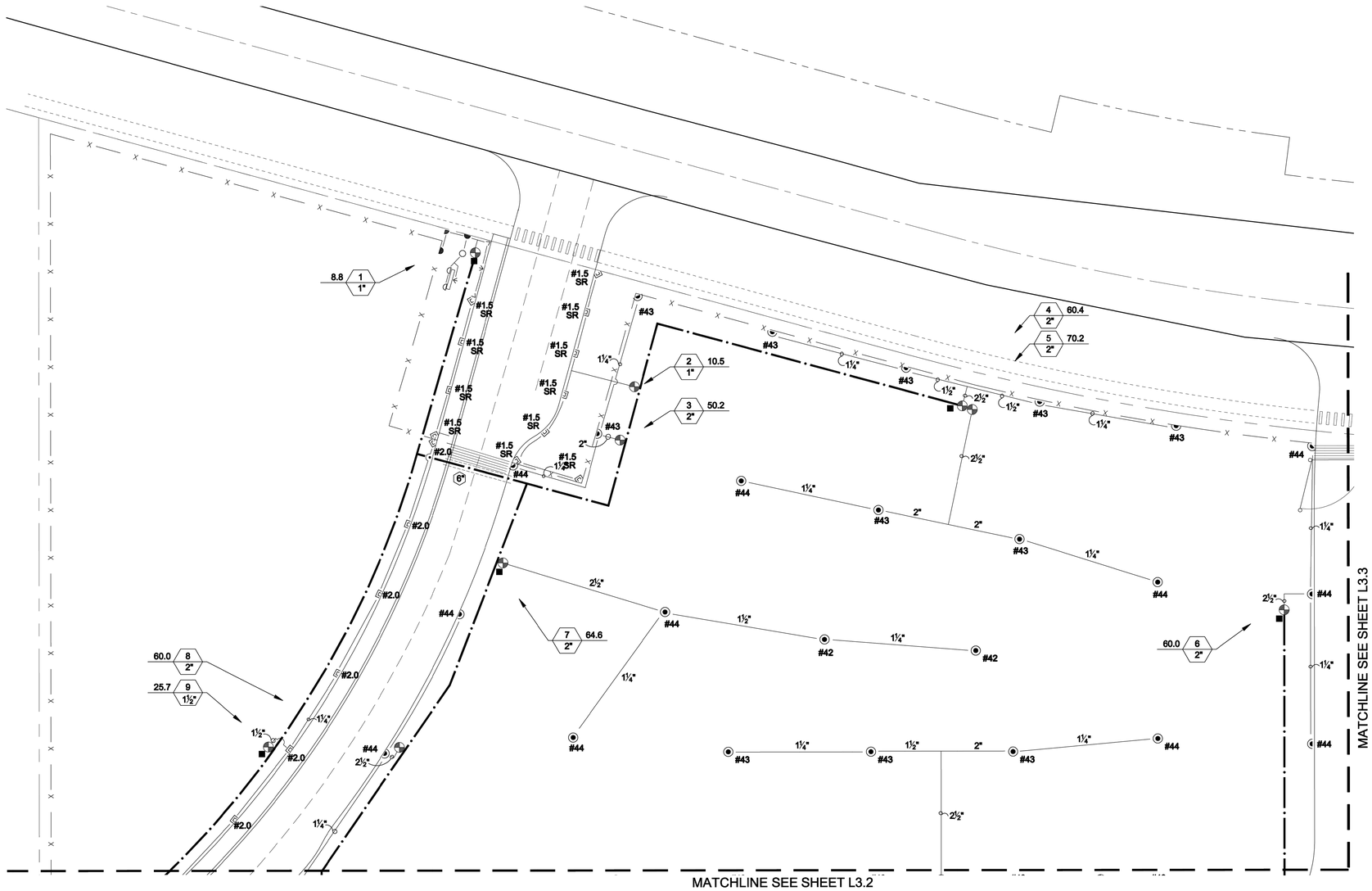

NOTE: IRRIGATION SHOWN ON THIS SHEET IS BASE BID UNLESS NOTED.

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1 L3.1 IRRGATION PLAN
SCALE: 1" = 20'-0"

PROJECT NORTH

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WARM SPRINGS: K-8 SCHOOL
THE CONFEDERATED TRIBES OF WARM SPRINGS & JEFFERSON COUNTY SCHOOL DISTRICT
50 CHUKAR ROAD
WARM SPRINGS, OREGON 97761

ISSUED:	DATE:
ADDENDUM #1	06/26/13
ADDENDUM #3	07/08/13
CONSTRUCTION SET	07/19/13

KEY PLAN

JOB NUMBER:	1234
DRAWN BY:	
CHECKED BY:	

SHEET TITLE
IRRIGATION PLAN

SHEET NUMBER
L3.1

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Warm Springs K-8 Addition

Warm Springs, Jefferson County

No.	Description	Date

Project Number 2206
Date 01/18/2023

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SUPPLEMENTAL IRRIGATION INFORMATION

L201

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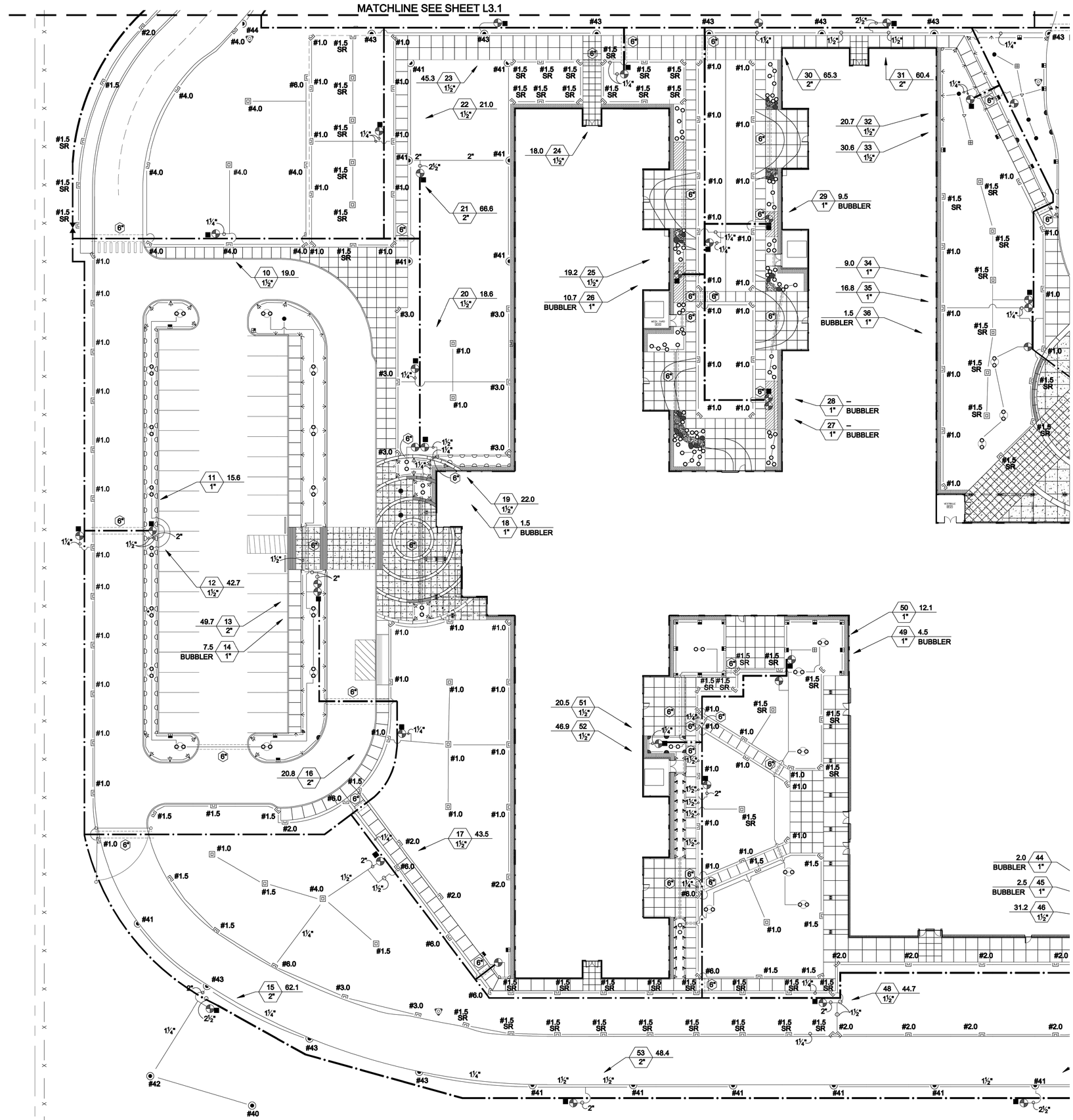

1 L3.2 **IRRIGATION PLAN**
SCALE: 1" = 20'-0"

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WARM SPRINGS: K-8 SCHOOL
THE CONFEDERATED TRIBES OF WARM SPRINGS &
JEFFERSON COUNTY SCHOOL DISTRICT
50 CHUKAR ROAD
WARM SPRINGS, OREGON 97761

ISSUED:	DATE:
ADDENDUM #1 / 1	06/26/13
ADDENDUM #3 / 3	07/08/13
CONSTRUCTION SET	07/19/13

KEY PLAN

JOB NUMBER:	1234
DRAWN BY:	
CHECKED BY:	

SHEET TITLE
IRRIGATION PLAN

SHEET NUMBER
L202

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SUPPLEMENTAL IRRIGATION INFORMATION

L202

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IRRIGATION NOTES:

1. CONTACT LANDSCAPE ARCHITECT AND COORDINATE ALL REVIEWS PRIOR TO COMMENCEMENT OF WORK.
2. DUE TO THE SCALE OF THE DRAWINGS IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS, SLEEVES, ETC. INVESTIGATE THE FINISHED CONDITIONS AFFECTING ALL OF IRRIGATION WORK AND PLAN THE WORK ACCORDINGLY, FURNISHING SUCH FITTINGS, ETC,. AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. DRAWINGS ARE GENERALLY DIAGRAMMATIC AND INDICATIVE OF THE WORK TO BE INSTALLED. INSTALL WORK IN SUCH A MANNER AS TO AVOID CONFLICTS BETWEEN IRRIGATION SYSTEM, PLANTING, AND ARCHITECTURAL FEATURES.
3. EXERCISE EXTREME CARE IN EXCAVATION AND WORKING NEAR EXISTING UTILITIES. VERIFY THE LOCATION AND CONDITION OF ALL UTILITIES. REPAIR ANY DAMAGE TO EXISTING UTILITIES OR ADJACENT PROPERTIES CAUSED BY OR DURING THE PERFORMANCE OF WORK AT NO ADDITIONAL COST TO THE OWNER. FIELD ADJUST SPRINKLER LOCATIONS SO AS TO AVOID CONFLICTS WITH UTILITIES.
4. THE FINAL LOCATION AND EXACT POSITIONING OF THE AUTOMATIC CONTROLLER AND VALVES SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.
5. DO NOT WILLFULLY INSTALL THE SPRINKLER SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT WIND CONDITIONS, OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA'S DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. BRING SUCH OBSTRUCTIONS OR DIFFERENCES TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. IN THE EVENT THAT THIS NOTIFICATION IS NOT PERFORMED, THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY AND COSTS FOR ALL NECESSARY REVISIONS.
6. THE SPRINKLER SYSTEM IS DESIGN IS BASED UPON 90 PSI THE MINIMUM WORKING WATER PRESSURE AT 80 GPM THE MAXIMUM GALLONS PER MINUTE. VERIFY THE MINIMUM WORKING WATER PRESSURE AT THE MAXIMUM GALLONS PER MINUTE PRIOR TO BEGINNING CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE MINIMUM WORKING WATER PRESSURE AND THE ACTUAL WORKING WATER PRESSURE AT THE MAXIMUM GALLONS PER MINUTE READING TAKEN AT THE IRRIGATION POINT OF CONNECTION, TO LANDSCAPE ARCHITECT, FOR APPROVAL TO PROCEED WITH THE IRRIGATION INSTALLATION.
7. FLUSH AND ADJUST ALL SPRINKLER HEADS FOR OPTIMUM PERFORMANCE AND TO PREVENT OVER SPRAY ONTO WALKS, WALLS, WINDOWS AND/OR BUILDINGS AS MUCH AS POSSIBLE. THIS SHALL INCLUDE SELECTING THE BEST DEGREE OF ARC AND RADIUS TO FIT THE EXISTING SITE CONDITIONS. HOLD IRRIGATION HEADS 24" AWAY FROM FACE OF BUILDING.
8. PLACE VALVE BOXES 12" FROM AND PARALLEL TO STRUCTURES. SPACE GROUPED VALVES EQUALLY. ONE VALVE PER BOX. INSTALL IN SHRUB AREAS EXCLUSIVELY.
9. INSTALL INTEGRAL OR IN-LINE CHECK VALVE TO ALL HEADS IN SLOPED AREAS TO PREVENT LOW HEAD DRAINAGE, VALCON, KINGS BROTHERS OR EQUAL INSTALLED IN RISER.
10. CONTRACTOR IS RESPONSIBLE FOR COMPLETE COVERAGE. MOVE OR ADD HEADS TO INSURE COVERAGE. WHEN ADDING HEADS, VERIFY HYDRAULIC REQUIREMENTS.
11. WHERE IT IS NECESSARY TO EXCAVATE ADJACENT TO EXISTING TREES, CONTACT THE DISTRICT FOR APPROVAL TO BEGIN WORK. DO NOT TRENCH WITHIN THE DRIP LINE OF TREES UNLESS APPROVED BY CITY ENGINEER. USE ALL POSSIBLE CARE TO AVOID INJURY TO TREES, AND TREE ROOTS. HAND DIG TRENCHES WHERE TWO INCH AND LARGER ROOTS OCCUR. CLOSE TRENCHES ADJACENT TO TREE WITHIN TWENTY-FOUR HOURS: AND WHEN THIS IS NOT POSSIBLE, KEEP THE SIDE OF THE TRENCH SHADED WITH BURLAP OR CANVASS.
12. CONTRACTOR TO VERIFY CONDITION OF EXISTING IRRIGATION MAIN LINE. REPORT CONDITION AND MATERIAL TO LANDSCAPE ARCHITECT. IF MAINLINE IS NOT IN GOOD CONDITION, REPLACE AS REQUIRED TO INSURE THE SYSTEM RUNS IN OPTIMUM MANNER.

IRRIGATION LEGEND:

- RAINBIRD MODEL ESP-LXD-125 IN FRONT ENTRY STAINLESS STEEL PEDESTAL ENCLOSURE WITH LIMR REMOTE TRANSMITTER AND RECEIVER WITH ETC LX CARTRIDGE, WITH FS300P FLOW SENSOR WITH SD210TURF DECODER. EACH REMOTE CONTROL VALVE IN SYSTEM TO BE FITTED WITH DECODER TO BE COMPATIBLE WITH 2-WIRE SYSTEM, PART NUMBER FD101TURF.
- RAINBIRD PESB/PRS-DIAL PRESSURE REGULATING REMOTE CONTROL VALVE (SIZE PER PLAN) FITTED WITH ONE DECODER PER VALVE TO BE COMPATIBLE WITH 2-WIRE CONTROLLER SYSTEM. CONNECT TO CONTROLLER WITH RAINBIRD MAXI WIRE AVAILABLE FROM RAINBIRD SERVICES CORPORATION. CONTACT BRET A. RAMSEY, 303-921-9909. INSTALL A GROUND ROD AND LINE SURGE PROTECTION, RAINBIRD PART NUMBER LSP-1 ALONG 2-WIRE PATH EVERY 500-FEET MAXIMUM SPACING. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A GROUND CONNECTION OF 10 ohms OR LESS RESISTANCE TO EARTH GROUND. CONNECT VALVES TO CONTROLLER USING 2-WIRE DIRECT BURY MAXI WIRE FROM RAINBIRD. ANY SPLICES TO BE MADE SHALL BE SPLICED USING WATERPROOF CONNECTOR 3MDBY OR 3MDBR ONLY.
- CHAMPION 300 RS MANUAL ANGLE VALVE WITH UNION-RISING SWIVEL-RED BRASS, SIZE PER PLAN

  2-WIRE CABLE TO BE 14 GUAGE RAINBIRD MAXI CABLE 2 CONDUCTOR, IN POLYETHYLENE JACKET, DIRECT BURY.
- GATE VALVE SIZE SAME AS LINE SIZE, SEE SPEC.S
- RAINBIRD 44-LRC QUICK COUPLING VALVE
- MAIN LINE: SCHEDULE 40 PVC WITH SCHEDULE 40 SOLVENT-WELD FITTINGS: ALL MAIN LINE 4" UNLESS NOTED ON PLAN.
- LATERAL LINE: SCHEDULE 40 PVC WITH SCHEDULE 40 SOLVENT-WELD FITTINGS: ALL LATERAL LINE 1" UNLESS NOTED ON PLAN.
- STATION NUMBER
  GPM
  VALVE SIZE
- IRRIGATION SLEEVE: SCHEDULE 40 PVC
  SLEEVE SIZE
- RAINBIRD 1800-SAM-PRS-5MPR H
- RAINBIRD 1800-SAM-PRS-8MPR H
- RAINBIRD 1800-SAM-PRS-10MPR H, F
- RAINBIRD 1800-SAM-PRS-12MPR Q, H, F
- RAINBIRD 1800-SAM-PRS-15MPR Q, H, F
- RAINBIRD 1800-SAM-PRS-15SST
- RAINBIRD 1800-SAM-PRS-VAN, RADIUS AND ARC AS REQUIRED

  TURF AREAS 6" POP UP SPRAY BODY
  SHRUB AREAS 12" POP UP SPRAY BODY
- RAINBIRD 1401 BUBBLER, ONE PER SHRUB
- RAINBIRD 1401 BUBBLER IN TUBE, TWO PER TREE
- HUNTER I-20-ADS ULTRA ROTOR, NOZZLE AS SHOWN ON PLAN, ARC AS REQURIED
- HUNTER I-20-ADS ULTRA ROTOR, NOZZLE AS SHOWN ON PLAN, ARC AS REQURIED
- HUNTER I-25-ADS ULTRA ROTOR, NOZZLE AS SHOWN ON PLAN, ARC AS REQURIED
- HUNTER I-25-36S ULTRA ROTOR, NOZZLE AS SHOWN ON PLAN
- HUNTER I-40-ADS ULTRA ROTOR, NOZZLE AS SHOWN ON PLAN, ARC AS REQURIED
- HUNTER I-40-36S ULTRA ROTOR, NOZZLE AS SHOWN ON PLAN



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REGISTERED 792 JAY A. BATTLESON 05/31/2022 OREGON LANDSCAPE ARCHITECT

CAMERON McCARTHY
LANDSCAPE ARCHITECTURE & PLANNING
160 E Broadway, Eugene, OR 97401
133 SW 2nd Ave, Ste. 410, Portland, OR 97204
541-485-7385
www.cameronmccarthy.com

Warm Springs K-8 Addition

Warm Springs,
Jefferson County

WARM SPRINGS: K-8 SCHOOL
THE CONFEDERATED TRIBES OF WARM SPRINGS &
JEFFERSON COUNTY SCHOOL DISTRICT

50 CHUKAR ROAD
WARM SPRINGS, OREGON 97761

ISSUED:	DATE:
ADDENDUM #1 /1	06/26/13
ADDENDUM #3 /3	07/08/13
CONSTRUCTION SET	07/19/13

KEY PLAN

JOB NUMBER:	1234
DRAWN BY:	
CHECKED BY:	

SHEET TITLE

IRRIGATION LEGEND AND NOTES

SHEET NUMBER

L2.0

REGISTERED 745 MARK SCHNEIDER OREGON 04/18/11 LANDSCAPE ARCHITECT

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

SUPPLEMENTAL IRRIGATION NOTES AND LEGEND

L203

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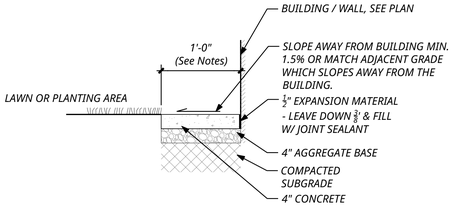
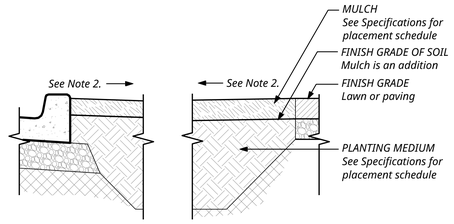


NOTES:
1. EXPANSION JOINTS TO BE A MIN. 30' O.C.
2. WIDTH OF INSTALLED CONCRETE STRIP TO MATCH (E)

CONCRETE STRIP AT BUILDING FACE

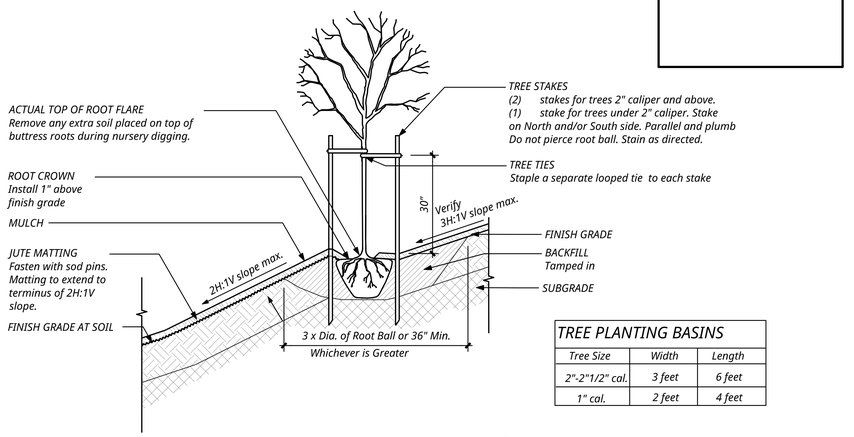
NTS 7



NOTES
1. Install soil/mulch to allow adjacent paved surface to drain into landscaped area.
2. Slope towards drainage structure or facility.

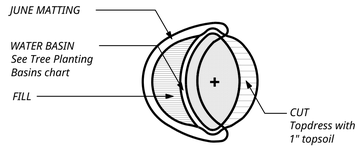
PLANTBED PROFILE - BELOW GRADE

NTS 4



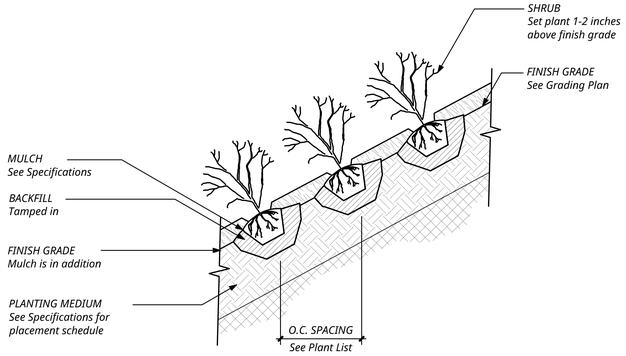
TREE PLANTING BASINS		
Tree Size	Width	Length
2"-2"1/2" cal.	3 feet	6 feet
1" cal.	2 feet	4 feet

NOTES
1. Trees planted too deeply will not be accepted.
2. Remove tree ties and stakes one year after planting unless directed otherwise.
3. Provide trees planted in lawn with minimum 5 foot diameter bark area. Hold bark away from trunk.
4. Remove burlap from top of root ball.



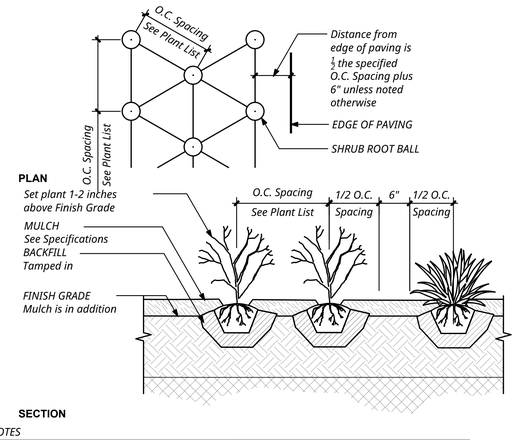
DECIDUOUS TREE PLANTING ON SLOPE

NTS 1



SHRUB PLANTING ON SLOPE

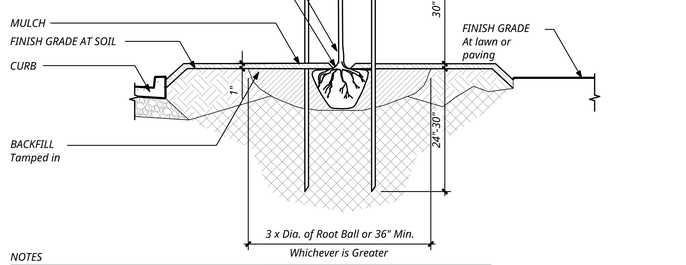
NTS 5



NOTES
1. Allow additional spacing, minimum 6" + O.C. spacing, between plants of a different species. Cluster plants of same species while allowing extra space between plants of a different species. Coordinate with Owner's Representative prior to installation. See Specifications for mock-up requirements.

TRIANGULAR SHRUB SPACING DETAIL

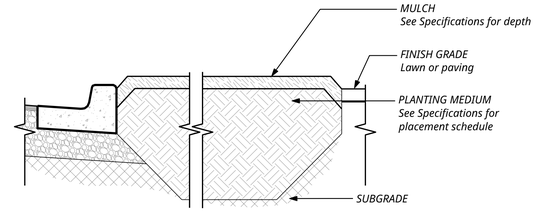
NTS 6



NOTES
1. Trees planted too deeply will not be accepted.
2. Remove tree ties and stakes one year after planting unless directed otherwise.
3. Provide trees planted in lawn with minimum 5 foot diameter bark area. Hold bark away from trunk.
4. Remove burlap from top of root ball.

DECIDUOUS TREE PLANTING

NTS 2



NOTES
1. Finish Grade of soil material to be flush with adjacent paving. Mulch is in addition.

PLANT BED PROFILE - AT GRADE

NTS 3

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REGISTERED LANDSCAPE ARCHITECT
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JAY A. BATTLESON
05/31/2022
OREGON

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Warm Springs K-8 Addition

Warm Springs, Jefferson County

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

PLANTING DETAILS

L300

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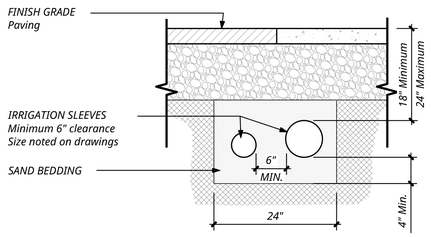
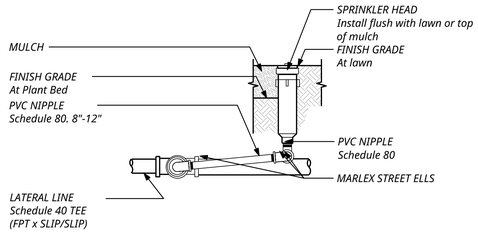


NOTES

1. Extend sleeves beyond pavement edge or back of curb as noted in specification. Cover open ends with duct tape
2. Install 2 x 4 red-top, wood location stakes @ both ends of sleeves and leave 2" above top of curb or pavement.

IRRIGATION SLEEVES

NTS 7

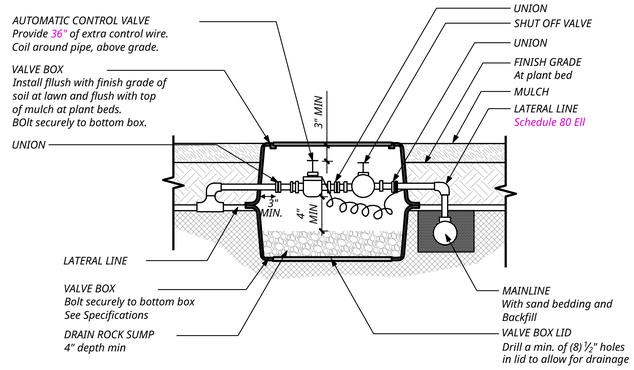


NOTES

1. Use teflon tape on all threaded joints.
2. Install sprinkler head flush with finish grade of lawn or top of mulch in plant beds
3. Install sprinkler head 3 inches from pavement or curbs

SWING RISER ASSEMBLY
Roter Type Heads

NTS 4

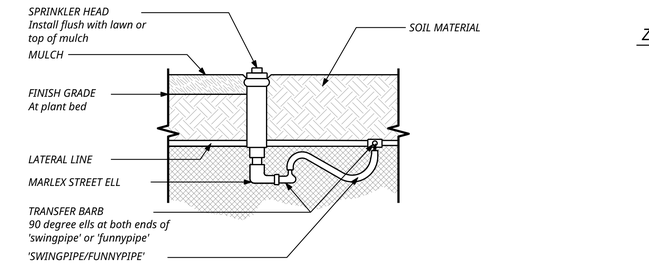


NOTES

1. Use teflon tape on all threaded joints.

ZONE VALVE ASSEMBLY

NTS 1



NOTES

1. Use teflon tape on all threaded pipe joints.
2. Install sprinkler head 3 inches from pavement or curbs.

FLEX RISER ASSEMBLY
Non-Roter Type Heads

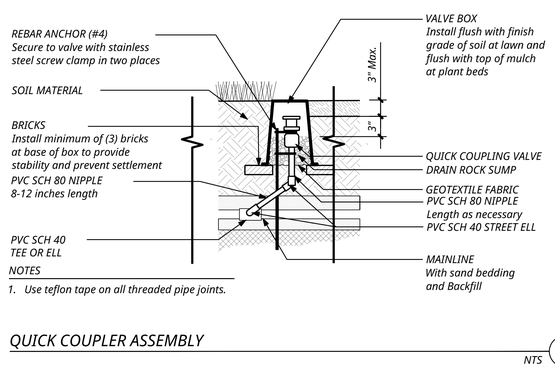
NTS 5

NOTES

1. Use teflon tape on all threaded joints.

ZONE VALVE ASSEMBLY ON SLOPE

NTS 2

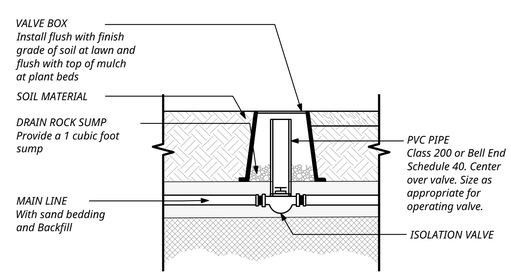


NOTES

1. Use teflon tape on all threaded pipe joints.

QUICK COUPLER ASSEMBLY

NTS 6



ISOLATION VALVE

NTS 3

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Warm Springs K-8 Addition

Warm Springs, Jefferson County

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

IRRIGATION DETAILS

L301

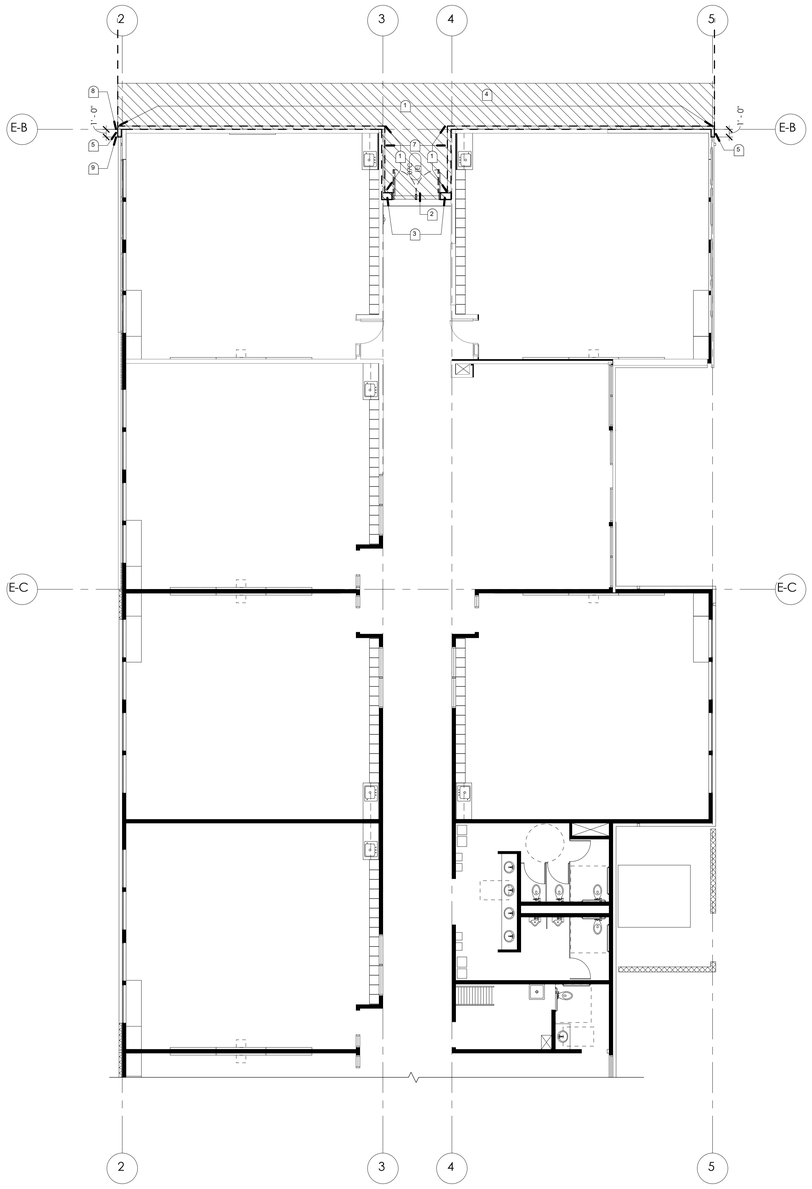
BBT ARCHITECTS

DEMO PLAN - GENERAL NOTES

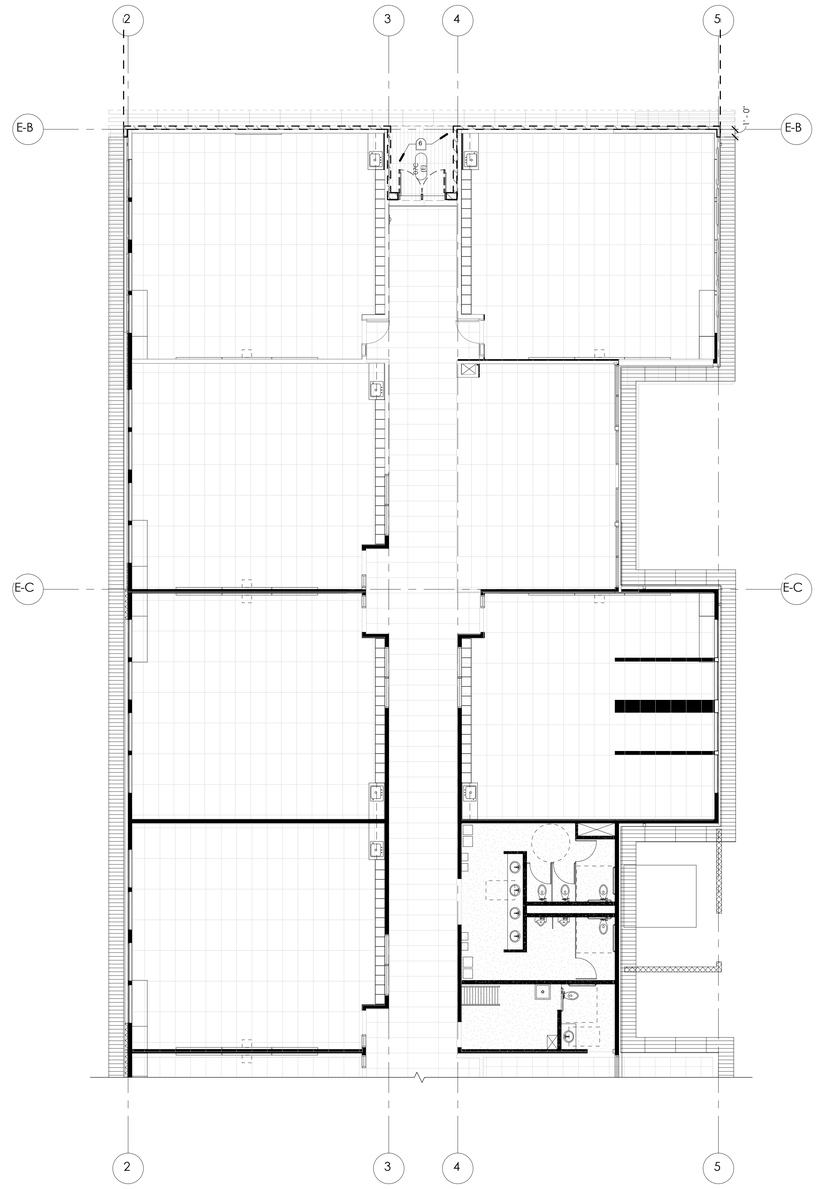
A. SEE SHEET G0.00 FOR ARCHITECTURAL ABBREVIATIONS AND SYMBOLS
B. SEE SHEET G0.02 FOR WALL TYPES
C. SEE SHEET A8.01 FOR DOOR SCHEDULE
D. PLAN DIMENSIONS ARE MEASURED FROM THE OUTSIDE FACE OF STUDS ON EXTERIOR WALLS TO THE CENTER LINES OF INTERIOR WALLS AND OPENINGS U.N.O.
E. DEMO PLANS ARE GENERAL IN NATURE TO PROVIDE AN OVERALL SCOPE OF WORK. CONTRACTOR SHALL VERIFY AND INCLUDE ALL DEMO WORK NECESSARY FOR A COMPLETE, FINISHED PROJECT
F. VERIFY ADDITIONAL DEMOLITION REQUIREMENTS WITH M/E/P CONTRACTORS

DEMO PLAN KEYNOTES

1 DEMO EXISTING METAL SIDING, CMU VENEER, AND WEATHER BARRIER; FULL HEIGHT OF WALL. EXISTING SHEATHING TO REMAIN.
2 SALVAGE EXISTING HM FRAME AND HM DOORS FOR OWNER STORAGE
3 DEMO WALLS INCLUDING EXTERIOR SIDING, WOOD FRAMING AND INTERIOR DRYWALL AT DOOR JAMBS.
4 DEMO EXTERIOR HARDSCAPING (SHOWN HATCHED). PREPARE FOR NEW SLAB POUR. SEE STRUCTURAL AND CIVIL
5 DEMO SIDING AND CMU BACK AS REQUIRED TO TIE NEW WEATHER-RESISTIVE BARRIER TO EXISTING WEATHER BARRIER
6 DEMO SOFFIT AND LIGHT FIXTURES
7 DEMO SHEATHING FOR TIE-IN TO NEW CORRIDOR WALLS
8 DEMO EXISTING CMU SILL & METAL SIDING @ THIS LOCATION TO EXTENT THAT NEW CMU CAN STACK ABV PER CMU PATTERN ON SHEET A3.01
9 EXISTING DOWNSPOUT TO REMAIN OR BE SALVAGED AND REINSTALLED AS NEEDED TO TIE INTO NEW CMU VENEER



1 AD2.01 **DEMO FLOOR PLAN - LEVEL 1**
SCALE: 1/8" = 1'-0"



2 AD2.01 **DEMO RCP - LEVEL 1**
SCALE: 1/8" = 1'-0"

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REGISTERED ARCHITECT
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RENEE P. ALEXANDER
BEND, OREGON
STATE OF OREGON

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

DEMO PLAN & RCP

AD2.01

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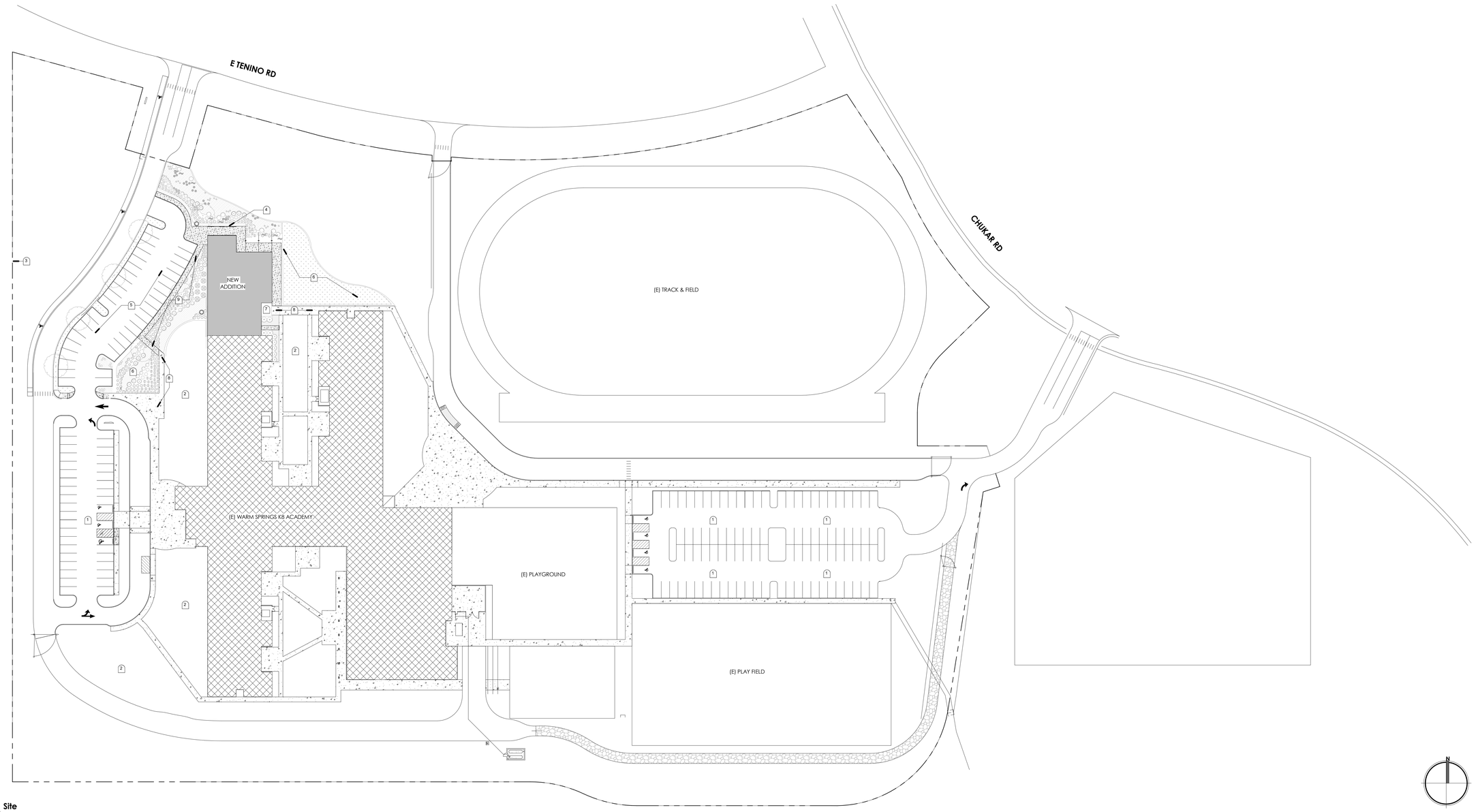
SITE LEGEND

- NEW BUILDING ADDITION
- EXISTING BUILDING (NOT IN SCOPE)
- PROPERTY LINE

SITE PLAN KEYNOTES

1. (E) PARKING LOT
2. (E) LAWN
3. (E) FENCE
4. NEW RAMP W/ CURB & HANDRAIL, SEE CIVIL DRAWINGS FOR RAMP SLOPE, LENGTH. SEE A8.22 FOR HANDRAIL PROFILE
5. NEW PROPOSED PAVING PER CIVIL
6. NEW NATIVE PLANTING PER LANDSCAPE
7. MECHANICAL YARD
8. (E) SIDEWALK TO REMAIN
9. NEW SIDEWALK



1 A1.01 **Site**
SCALE: 1" = 50'-0"

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Warm Springs K8 Academy Classroom Addition

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SITE PLAN

A1.01

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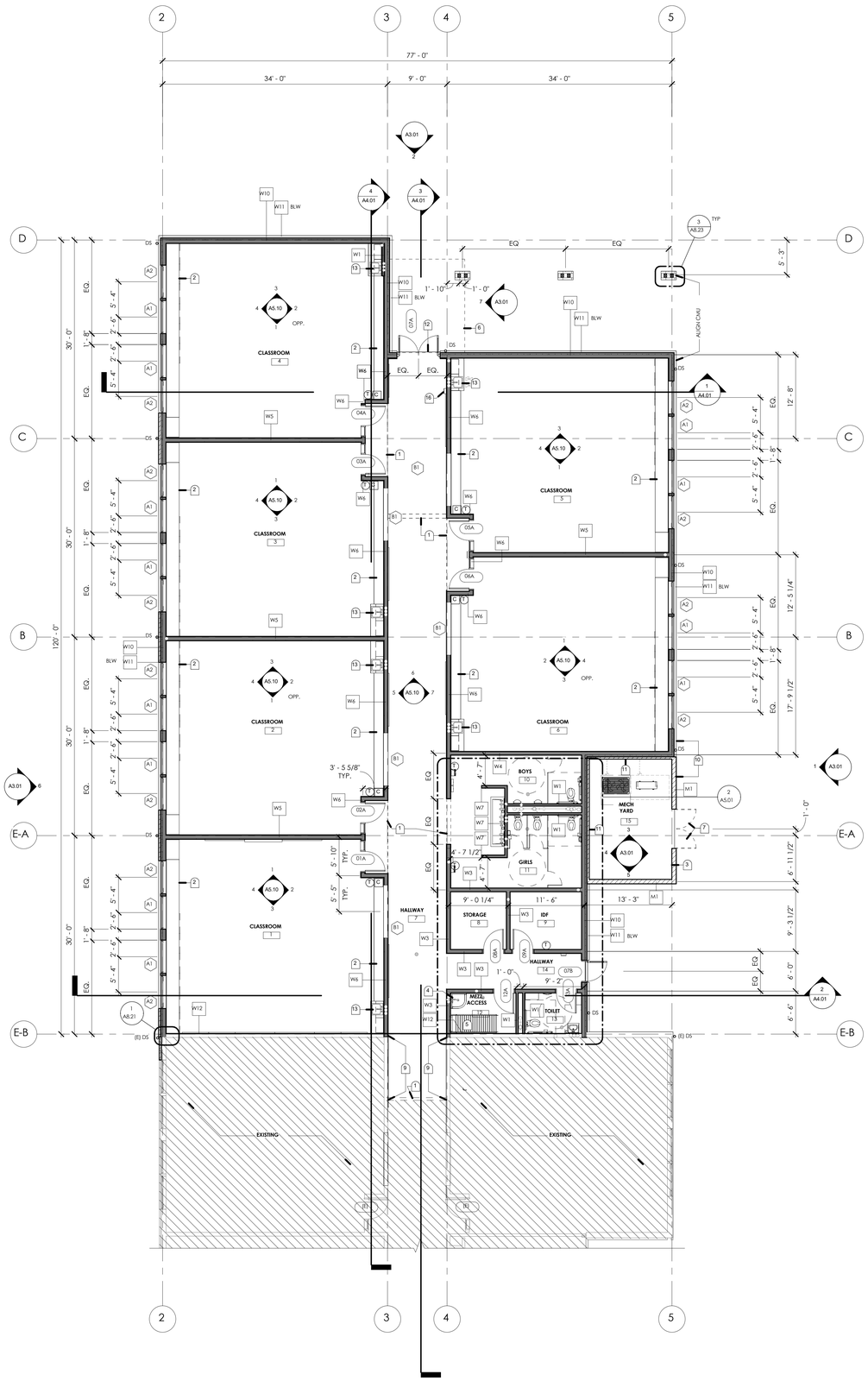
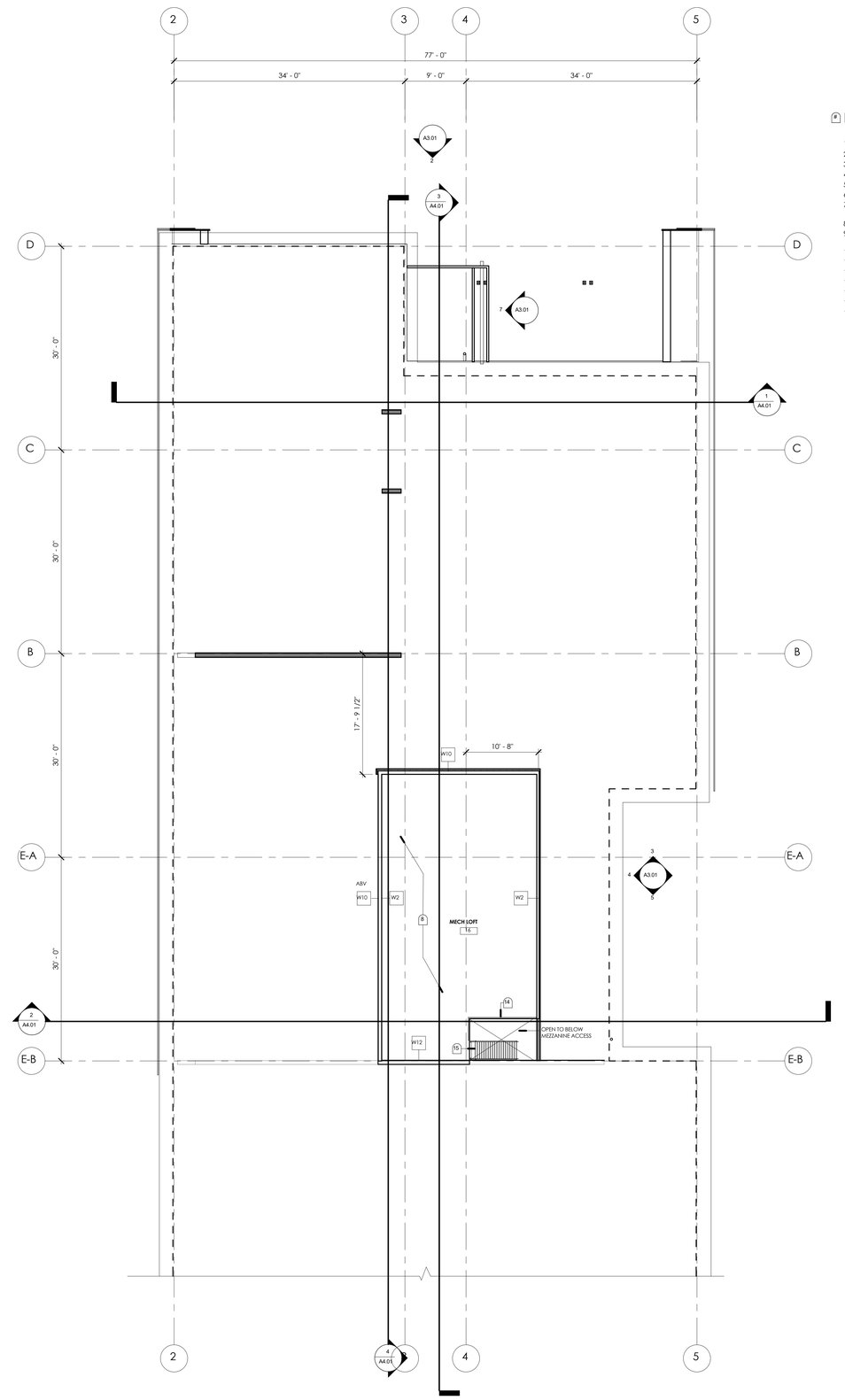


1 A2.01 **FLOOR PLAN - ADDITION - LEVEL 1**

SCALE: 1/8" = 1'-0"



2 A2.01 **FLOOR PLAN - ADDITION - MEZZANINE**

SCALE: 1/8" = 1'-0"

GENERAL NOTES

A. SEE SHEET G0.00 FOR ARCHITECTURAL ABBREVIATIONS AND SYMBOLS
B. SEE SHEET G0.02 FOR WALL TYPES
C. SEE SHEET A8.01 FOR DOOR SCHEDULE
D. PLAN DIMENSIONS ARE MEASURED FROM THE OUTSIDE FACE OF STUDS ON EXTERIOR WALLS TO THE CENTER LINES OF INTERIOR WALLS AND OPENINGS U.N.O.
E. GRID LINES ALIGN WITH FACE OF STUD U.N.O.
F. ALL EXTERIOR WALLS ARE TYPE W22/W23 U.N.O.
G. WALL TAGS NOT INDICATIVE OF FULL EXTENT OF FINISH MATERIAL. COORDINATE WITH ELEVATIONS FOR REPRESENTATION OF FINISH MATERIALS.

FLOOR PLAN KEYNOTES

1 LINE OF SOFFIT OVERHEAD
2 BUILT-IN CASEWORK
3 CMU WALL AROUND MECH. YARD / CONDENSING UNIT
4 MOP SINK
5 STEEL SHIPS LADDER TO MEZZANINE
6 EXTERIOR CANOPY SHOWN DASHED
7 CHAINLINK GATES W/ PRIVACY SLATS, W/ CANE BOLT ON LEFT SIDE. FLIP LATCH ON ALT. SIDE W/ PROVISION AND PADLOCK
8 4" CONCRETE CURBS @ MECHANICAL UNITS
9 PROVIDE GWB AND WALL PROTECTION ON EXISTING STUD WALLS ON CORRIDOR SIDE
10 ALIGN FACE OF CMU WALL TO VENEER
11 CMU VENEER TO 6'-0" HEIGHT
12 STOREFRONT WINDOW ABV., SEE SHEET A3.01 & A8.01
13 SINK WITH BUBBLER
14 REMOVEABLE GUARDRAIL
15 PRE-MANUFACTURED METAL SHIPS LADDER WITH GUARDRAIL
16 FIRE EXTINGUISHER CABINET

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BEND, OREGON
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Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

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FLOOR PLANS - ADDITION

PROJECT NORTH

A2.01

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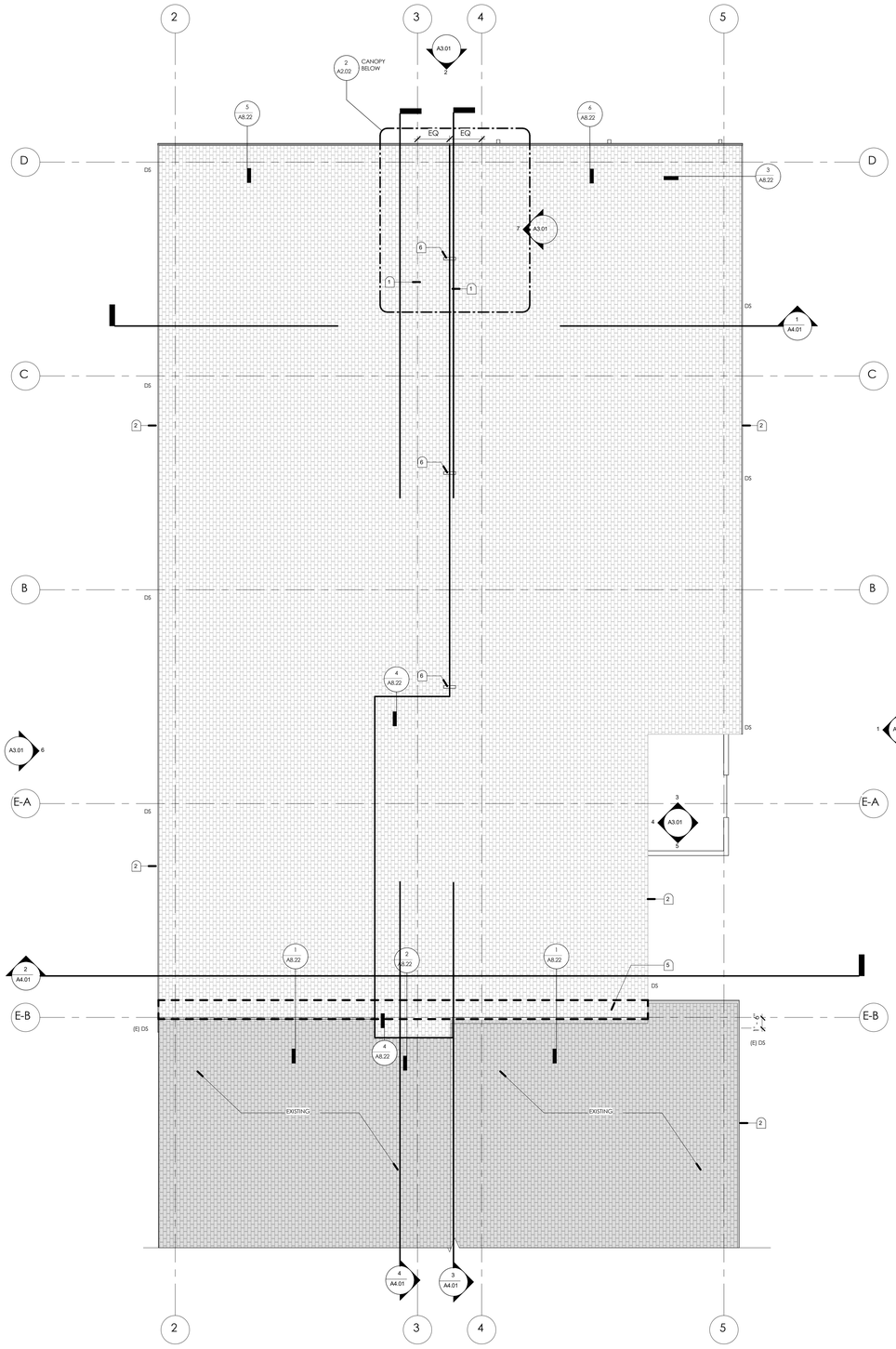
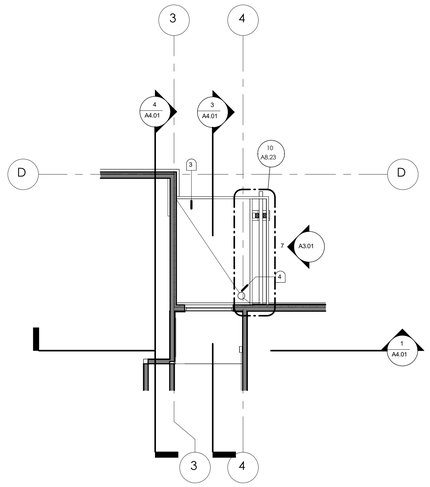


1 A2.02 **ROOF PLAN**

SCALE: 1/8" = 1'-0"



2 A2.02 **CANOPY PLAN**

SCALE: 1/8" = 1'-0"

ROOF KEYNOTES

1 SHEET METAL RIDGE VENT
2 SHEET METAL GUTTER TYP
3 EXTERIOR CANOPY: MEMBRANE ROOF. SLOPE RIGID INSULATION TO INTERNAL ROOF DRAIN @ 1/4" PER FOOT
4 INTERNAL ROOF DRAIN TO DOWNSPOUT
5 DEMO (E) ROOF DOWN TO WATER/ICE SHIELD TO EXTENT NEEDED TO TIE INTO NEW ROOF SYSTEM (SHOWN DASHED)
6 FALL PROTECTION RIDGE ANCHOR. SPACING AND FINAL LAYOUT PER FALL PROTECTION DESIGNER

ROOF MATERIALS LEGEND

COMPOSITION SHINGLE ROOFING

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ROOF PLAN - ADDITION

A2.02

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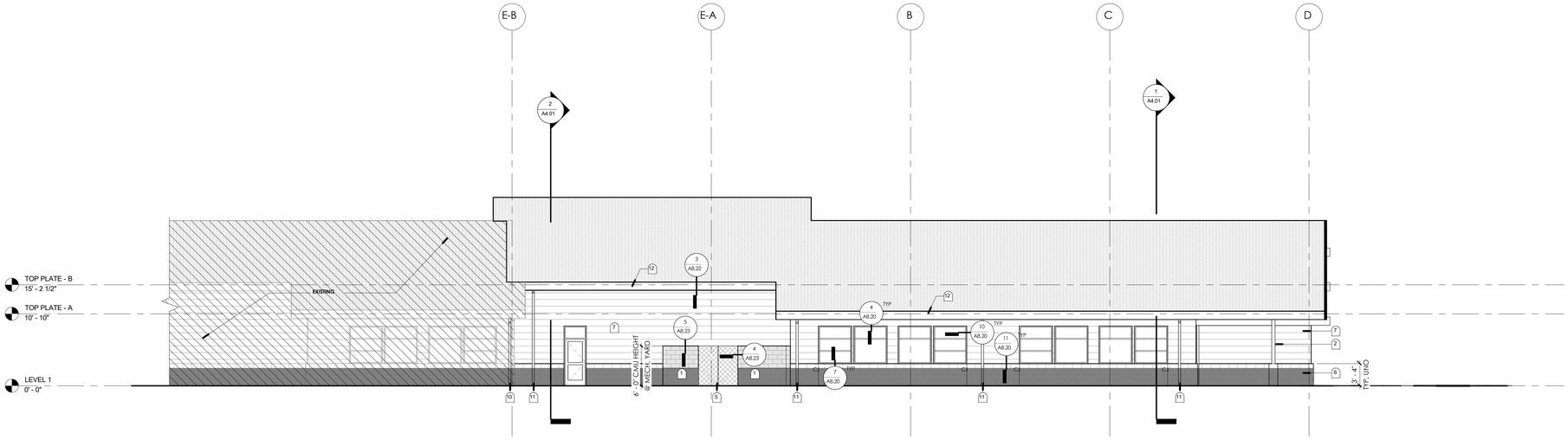
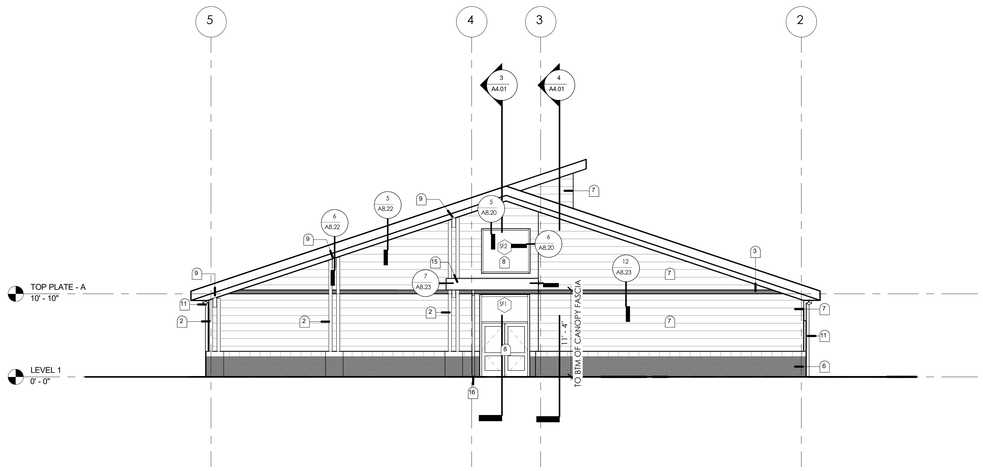


1 / A3.01 **OVERALL EAST**
SCALE: 1/8" = 1'-0"



2 / A3.01 **OVERALL NORTH**
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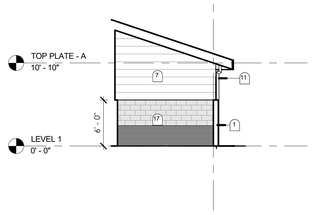
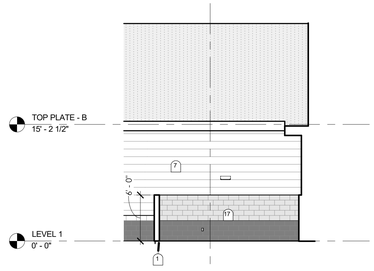
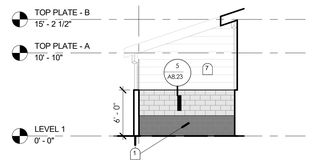


3 / A3.01 **NORTH @ SERVICE YARD**
SCALE: 1/8" = 1'-0"



4 / A3.01 **EAST @ SERVICE YARD**
SCALE: 1/8" = 1'-0"



5 / A3.01 **SOUTH @ SERVICE YARD**
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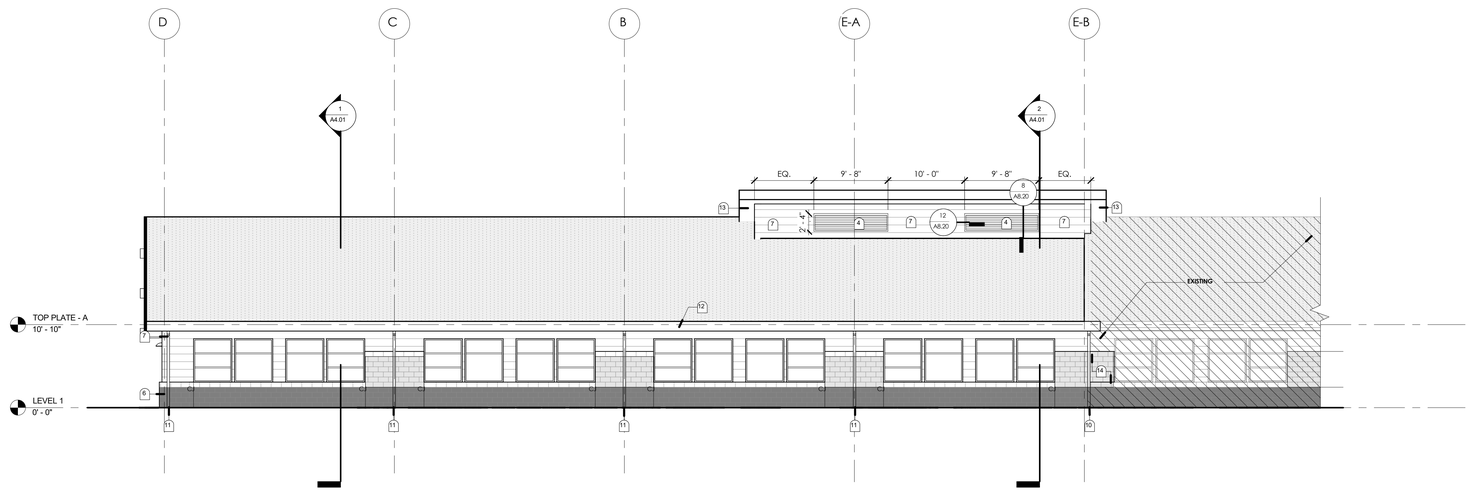

6 / A3.01 **OVERALL WEST**
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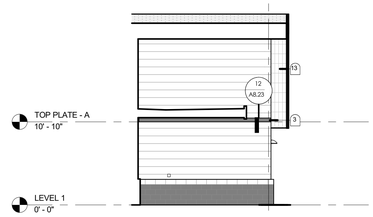

7 / A3.01 **BUILDING ELEVATION - EAST @ END OF WING**
SCALE: 1/8" = 1'-0"

EXTERIOR MATERIALS LEGEND

- MP-1 METAL PANEL
- SHEET METAL TRIM BAND
- CMU-1 VENEER, UNO
- CMU-2 VENEER, UNO
- CMU-3 VENEER - SMOOTH FACE SILL CAP
- COMPOSITION SHINGLE ROOFING

EXTERIOR KEYNOTES

1	SERVICE YARD ENCLOSURE - 6'-0" TO T.O. STRUCTURAL CMU WITH SHEET METAL CAP
2	GLULAM COLUMN, ARCHITECTURAL GRADE
3	METAL PANEL ACCENT BAND
4	MECHANICAL LOUVER
5	CHAINLINK FENCE GATE
6	CMU VENEER W/ CMU CAP
7	METAL SIDING W/ TRIM, MP-1 U.N.O
8	ALUMINUM STOREFRONT - SEE A8.01
9	GLULAM BEAM, ARCHITECTURAL GRADE
10	(E) DOWNSPOUT TO REMAIN
11	DOWNSPOUT
12	SHEET METAL GUTTER
13	METAL SOFFIT PANEL
14	NEW CMU VENEER ABV EXISTING TO 7'-4", DEMO EXISTING CMU SILL AS NEEDED TO STACK NEW CMU ABV.
15	GLULAM FASCIA, TYP THREE SIDES; ARCHITECTURAL GRADE
16	DOWNSPOUT FROM INTERNAL CANOPY DRAIN
17	SERVICE YARD ENCLOSURE - 6'-0" TO T.O. CMU VENEER

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BEND, OREGON
STATE OF OREGON

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

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ELEVATIONS

A3.01

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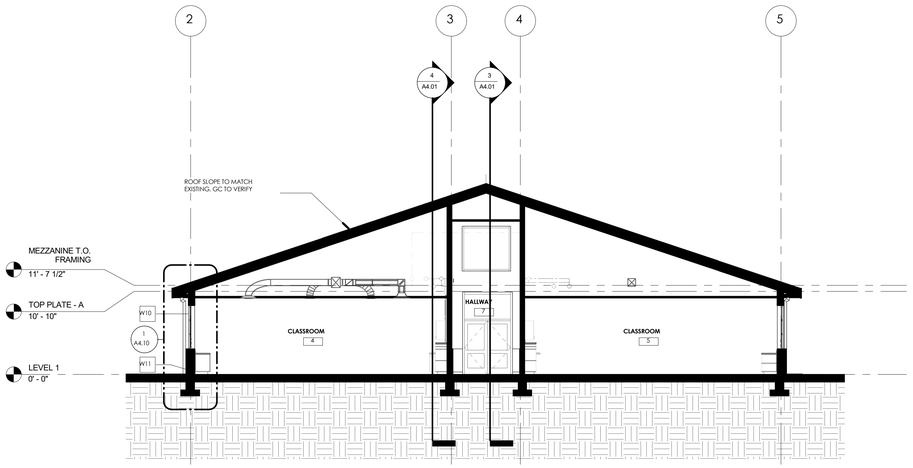
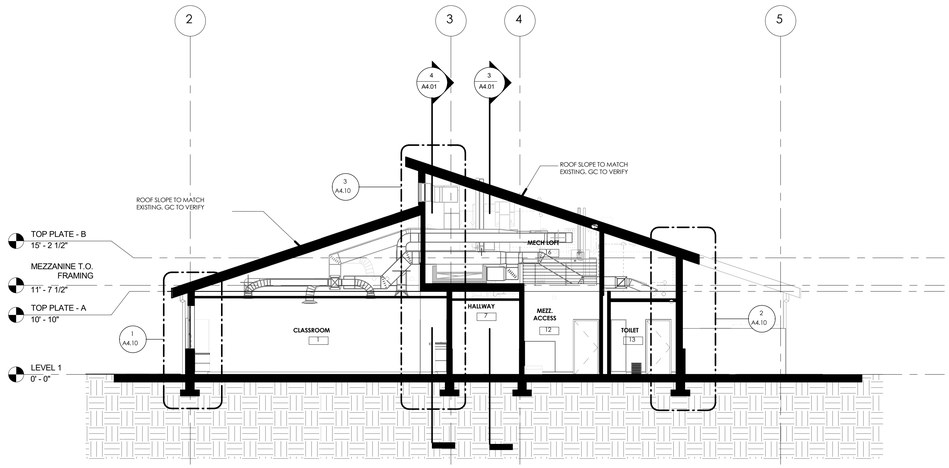


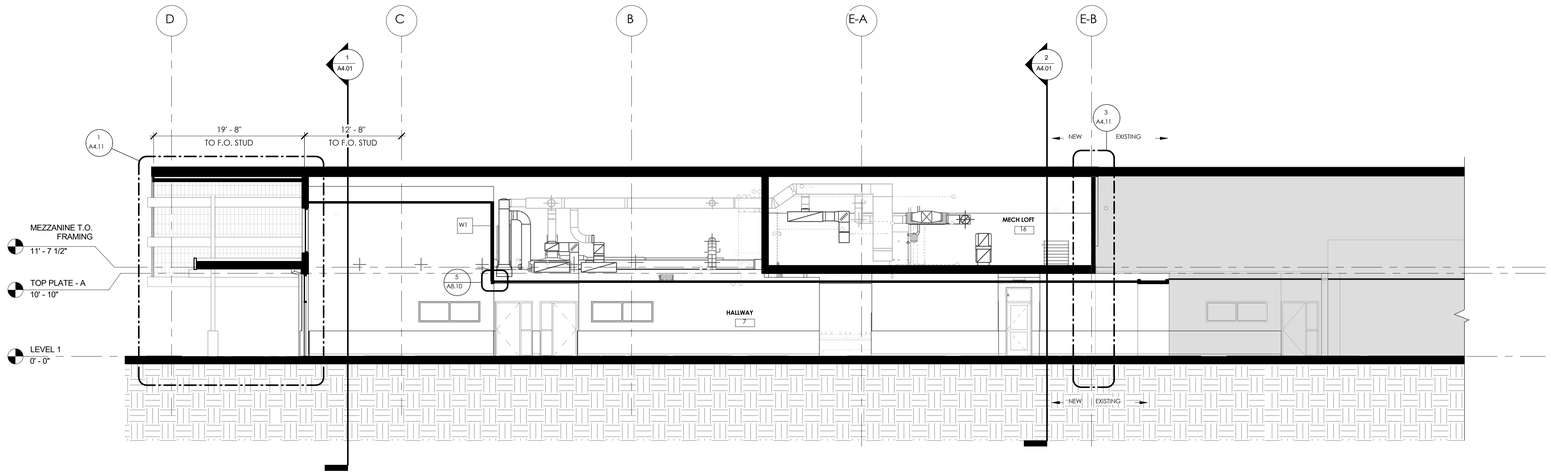
1 A4.01 **SECTION E-W - TYPICAL CLASSROOM**

SCALE: 1/8" = 1'-0"



2 A4.01 **SECTION E-W - MEZZANINE**

SCALE: 1/8" = 1'-0"



3 A4.01 **SECTION N-S - CORRIDOR**

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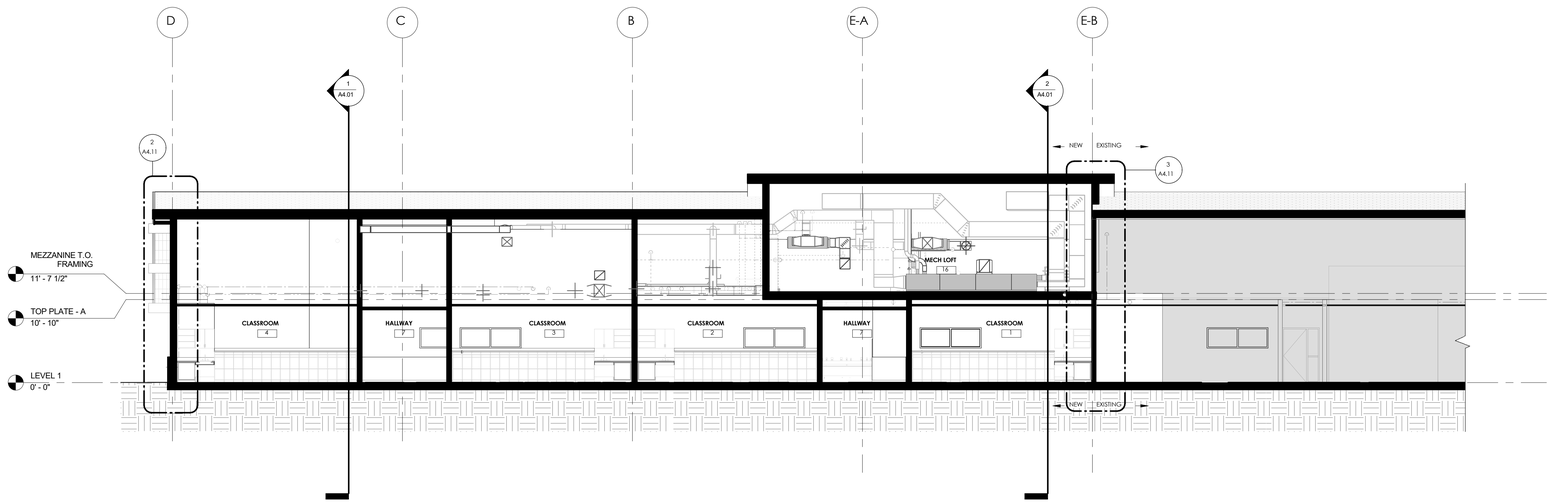

4 A4.01 **SECTION N-S CLASSROOMS**

SCALE: 1/8" = 1'-0"

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SECTIONS

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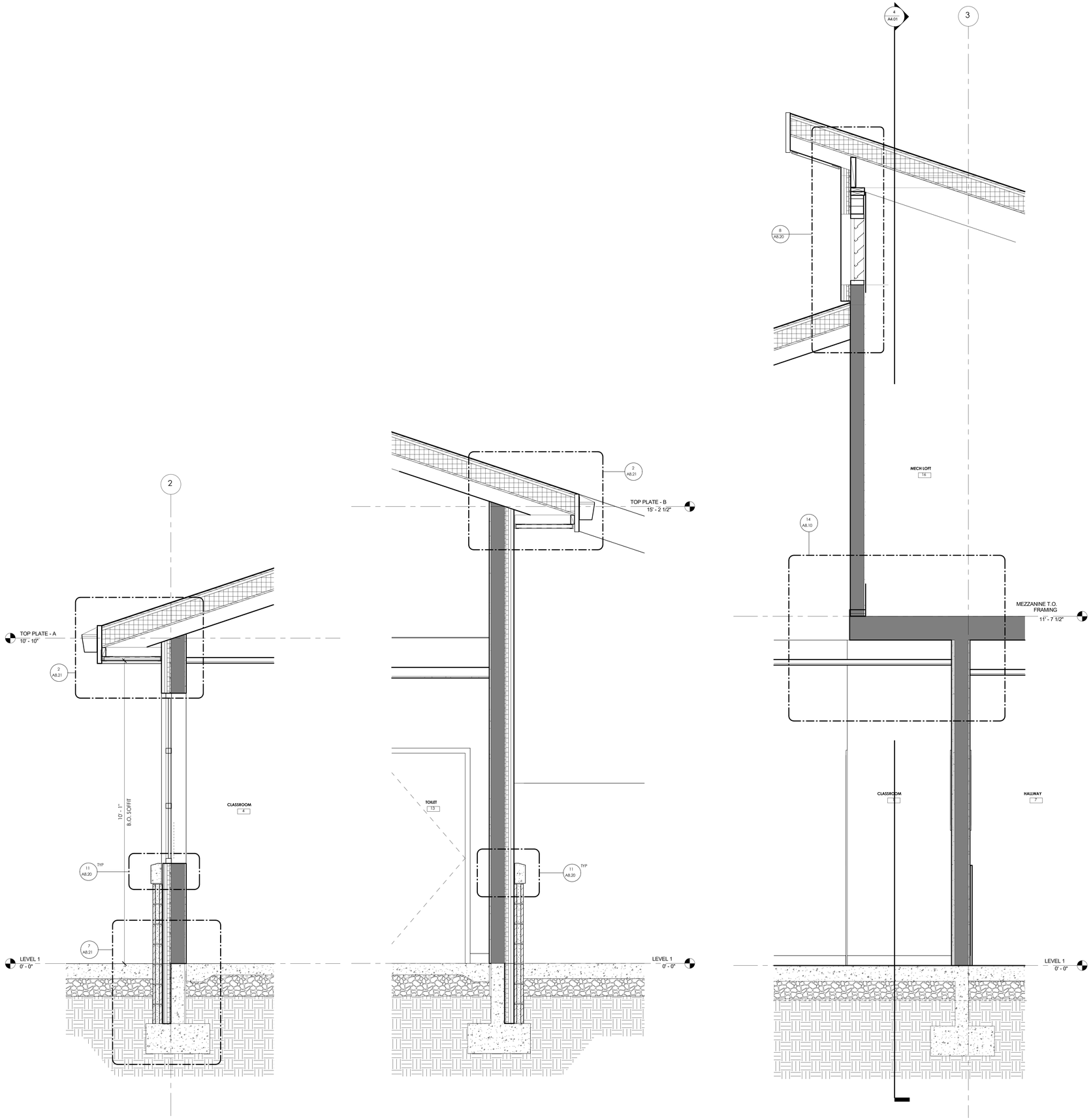

1 A4.10 **WALL SECTION - TYP CLASSROOM EXT. WALL**
SCALE: 3/4" = 1'-0"

2 A4.10 **WALL SECTION - GL-EA5**
SCALE: 3/4" = 1'-0"

3 A4.10 **WALL SECTION - MEZZANINE CLERESTORY - GL-EA3**
SCALE: 3/4" = 1'-0"

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A4.10

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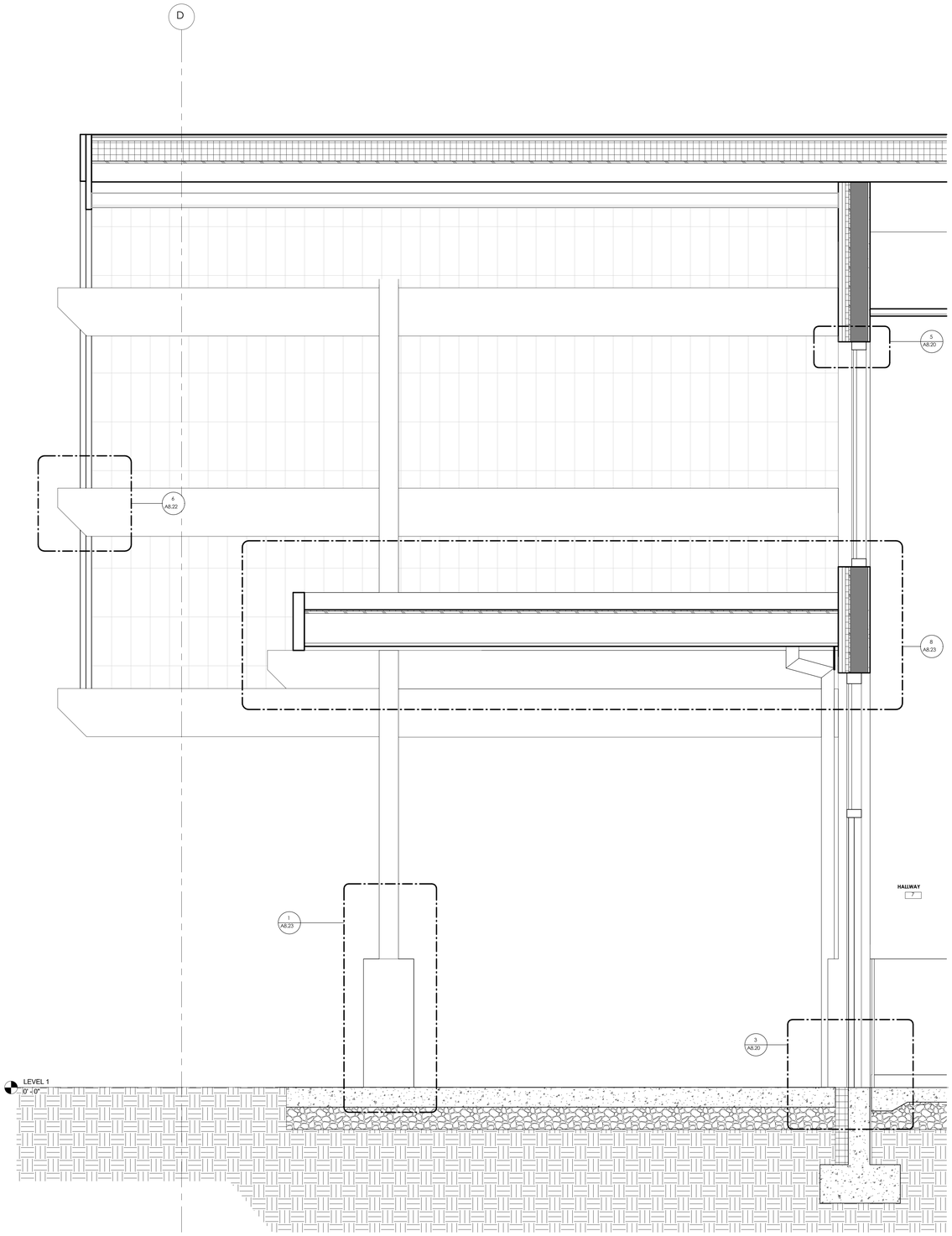

1 A4.11 **WALL SECTION - GL-C4**
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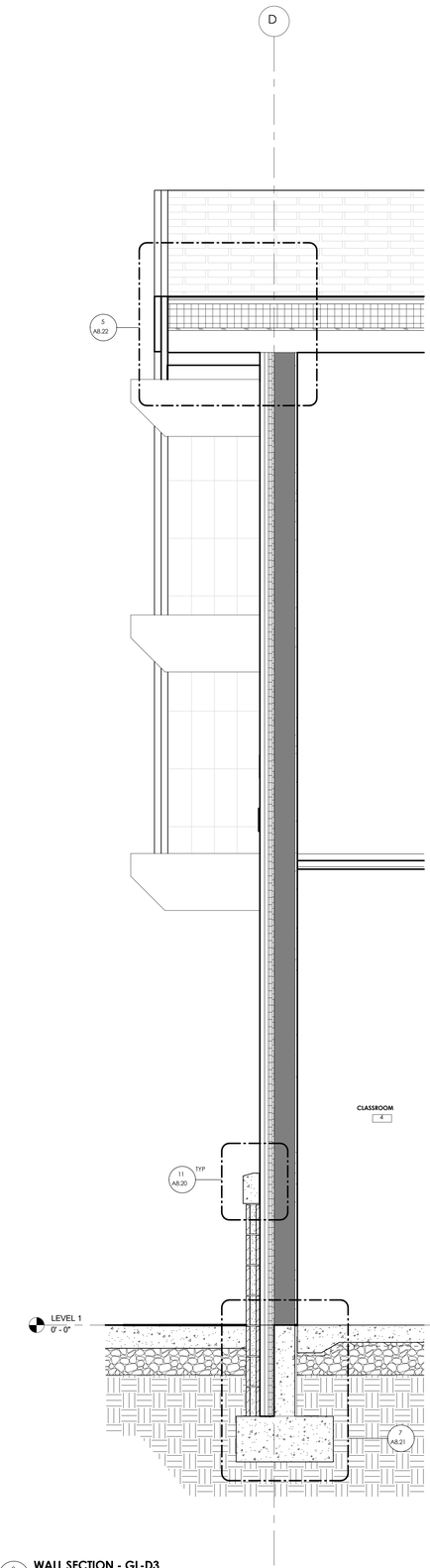
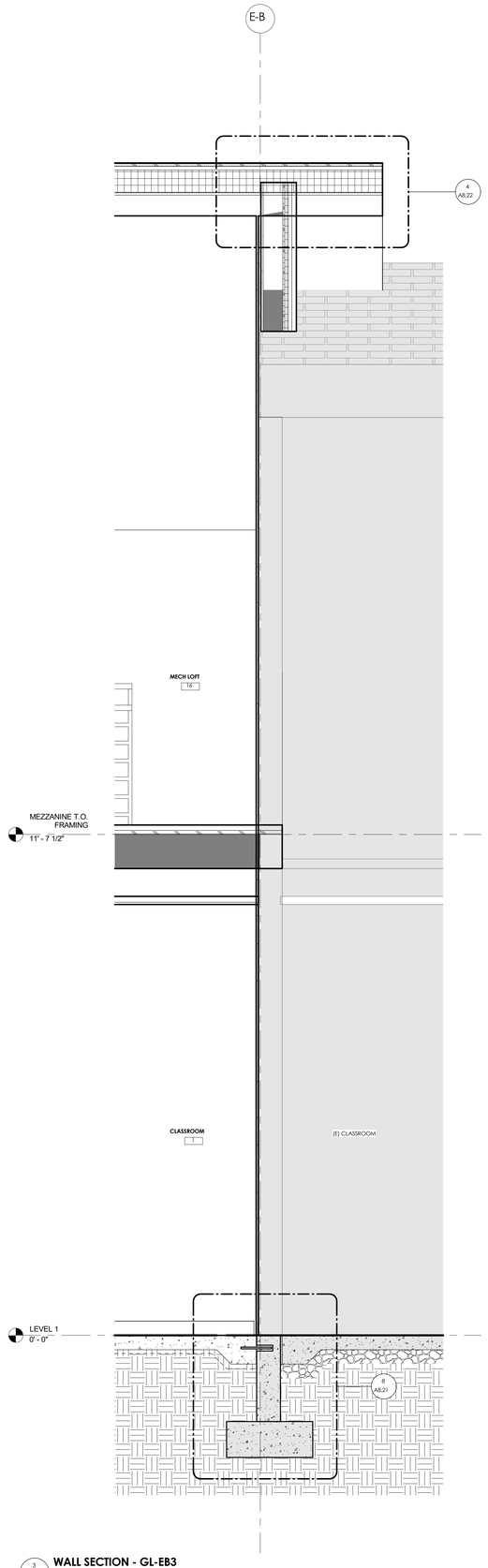


2 A4.11 **WALL SECTION - GL-D3**
SCALE: 3/4" = 1'-0"



3 A4.11 **WALL SECTION - GL-EB3**
SCALE: 3/4" = 1'-0"

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WALL SECTIONS

A4.11

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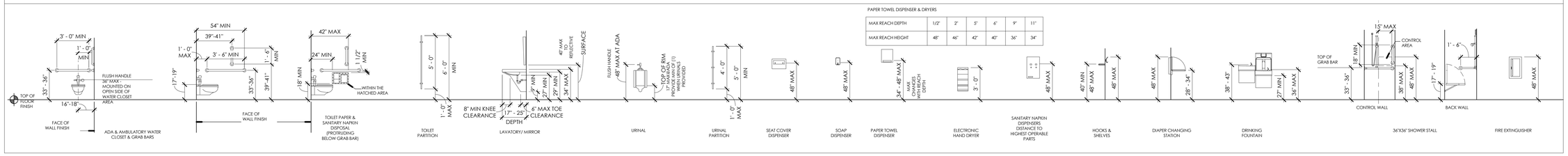
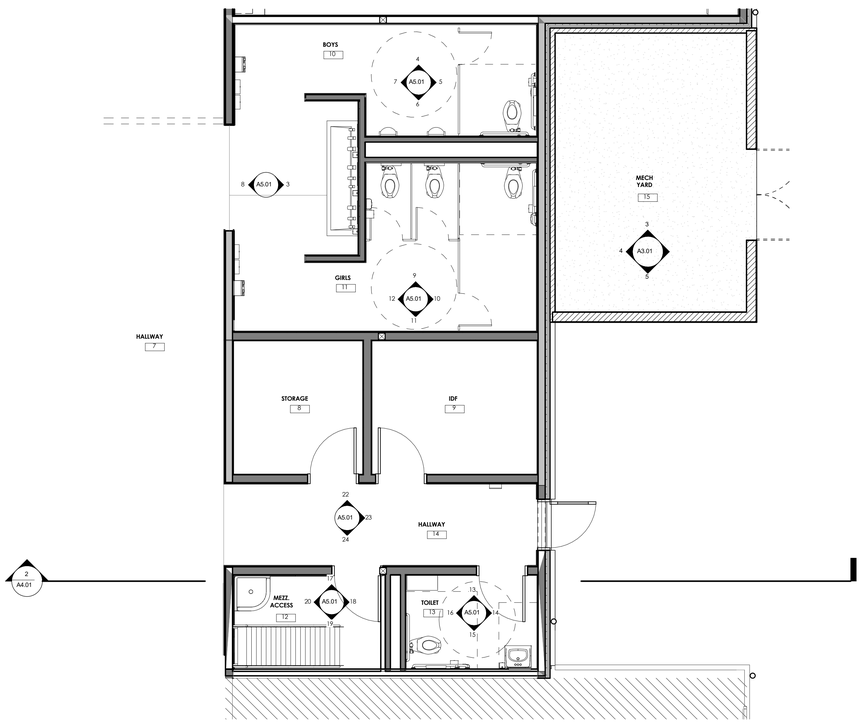
ADA STANDARDS: GENERAL REQUIREMENTS FOR RESTROOM FIXTURES AND ACCESSORIES



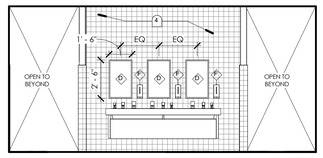
PAPER TOWEL DISPENSER & DRYERS

MAX REACH DEPTH	1/2"	2"	5"	6"	9"	11"
MAX REACH HEIGHT	48"	46"	42"	40"	36"	34"

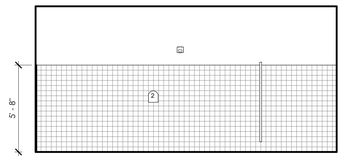
1 / A5.01 **ADA STANDARDS**
SCALE: 1/4" = 1'-0"



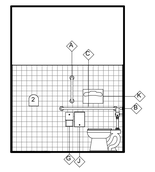
2 / A4.01 **OVERALL FLOOR PLAN - LEVEL 1**
SCALE: 1/4" = 1'-0"



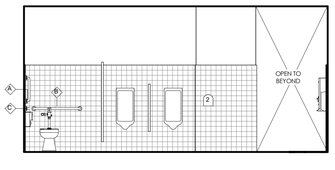
3 / A5.01 **RESTROOM SINK WALL 10,11**
SCALE: 1/4" = 1'-0"



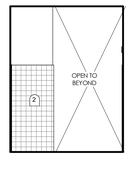
4 / A5.01 **BOYS 10**
SCALE: 1/4" = 1'-0"



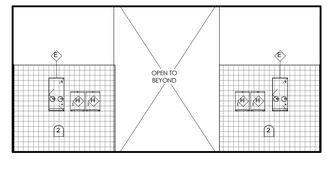
5 / A5.01 **BOYS 10**
SCALE: 1/4" = 1'-0"



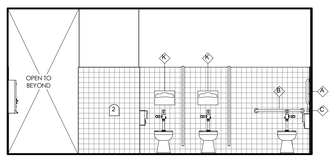
6 / A5.01 **BOYS 10**
SCALE: 1/4" = 1'-0"



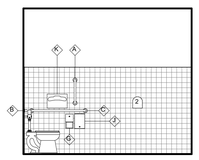
7 / A5.01 **BOYS 10**
SCALE: 1/4" = 1'-0"



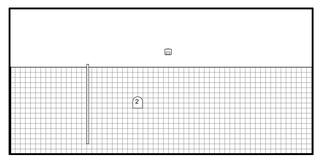
8 / A5.01 **RESTROOM ENTRY WALL 10,11**
SCALE: 1/4" = 1'-0"



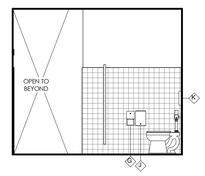
9 / A5.01 **GIRLS 11**
SCALE: 1/4" = 1'-0"



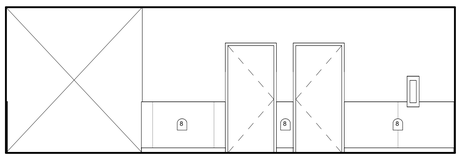
10 / A5.01 **GIRLS 11**
SCALE: 1/4" = 1'-0"



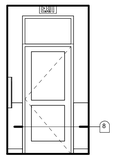
11 / A5.01 **GIRLS 11**
SCALE: 1/4" = 1'-0"



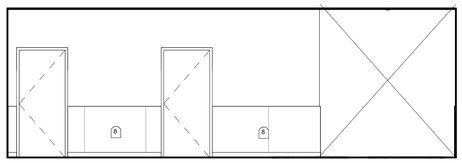
12 / A5.01 **TOILET 13**
SCALE: 1/4" = 1'-0"



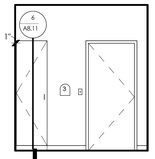
22 / A5.01 **HALLWAY 15**
SCALE: 1/4" = 1'-0"



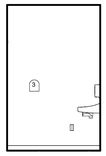
23 / A5.01 **HALLWAY 15**
SCALE: 1/4" = 1'-0"



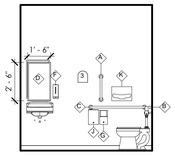
24 / A5.01 **HALLWAY 15**
SCALE: 1/4" = 1'-0"



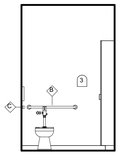
13 / A5.01 **TOILET 13**
SCALE: 1/4" = 1'-0"



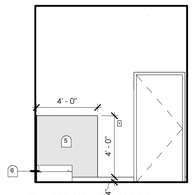
14 / A5.01 **TOILET 13**
SCALE: 1/4" = 1'-0"



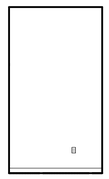
15 / A5.01 **TOILET 13**
SCALE: 1/4" = 1'-0"



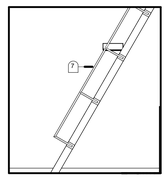
16 / A5.01 **TOILET 13**
SCALE: 1/4" = 1'-0"



17 / A5.01 **MECH ACCESS 12**
SCALE: 1/4" = 1'-0"



18 / A5.01 **MECH ACCESS 12**
SCALE: 1/4" = 1'-0"



19 / A5.01 **MECH ACCESS 12**
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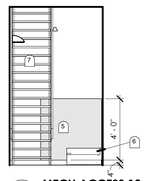
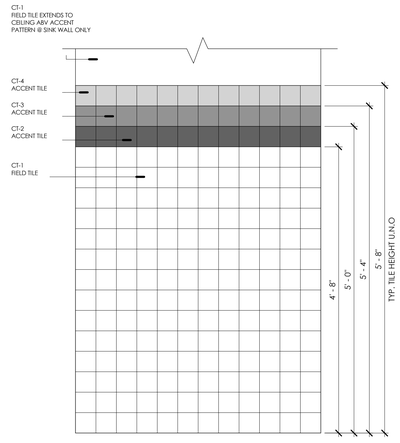


20 / A5.01 **MECH ACCESS 12**
SCALE: 1/4" = 1'-0"



21 / A5.01 **WALL TILE REPEAT, TYP. U.N.O**
SCALE: 1" = 1'-0"

GENERAL NOTES

A. SEE SHEET G0.00 FOR ARCHITECTURAL ABBREVIATIONS AND SYMBOLS
B. SEE SHEET G0.02 FOR WALL TYPES
C. SEE SHEET A8.01 FOR DOOR SCHEDULE
D. PLAN DIMENSIONS ARE MEASURED FROM THE OUTSIDE FACE OF STUDS ON EXTERIOR WALLS TO THE CENTER LINES OF INTERIOR WALLS AND OPENINGS U.N.O.
E. GRID LINES ALIGN WITH FACE OF STUD U.N.O.
F. ALL EXTERIOR WALLS ARE TYPE W22/23 U.N.O.

TOILET ACCESSORY SCHEDULE

NOTE: CRITICAL DIMENSIONS AND MOUNTING REQUIREMENTS ARE TO COMPLY WITH UNIFORM FEDERAL ACCESSIBILITY STANDARDS AND/OR ANSI A117.1

A **CFCI -** 18" VERTICAL GRAB BAR - PROVIDE BLOCKING AS REQUIRED
B **CFCI -** 36" GRAB BAR - PROVIDE BLOCKING AS REQUIRED
C **CFCI -** 42" GRAB BAR - PROVIDE BLOCKING AS REQUIRED
D **CFCI -** MIRROR - SEE ELEVATION FOR SIZE
E **OFCI -** SANITARY NAPKIN DISPENSER - IN ALL NEW RESTROOMS
F **OFCI -** SOAP DISPENSER
G **OFCI -** TOILET PAPER DISPENSER - TYP. IN ALL STALLS
H **OFCI -** PAPER TOWEL DISPENSER
J **OFCI -** SANITARY NAPKIN DISPOSAL - TYP. IN ALL STALLS
K **OFCI -** TOILET SEAT COVER DISPENSER - TYP. IN ALL STALLS

INTERIOR KEYNOTES

1 SMART SCREEN - SEE ELECTRICAL
2 CERAMIC TILE WALL FINISH - SEE 15/A5.01
3 FULL HEIGHT FRL
4 CERAMIC TILE WALL FINISH - THIS WALL FULL HEIGHT CT-1 ABV. PATTERN
5 FRP PANEL
6 MOP SINK
7 METAL SHIPS LADDER. SEE SHEET A7.01.
8 WAINSCOT PANEL - SEE A8.10 FOR HEIGHT, SPACING
9 WAINSCOT PANEL TO WRAP CORNER
10 VERTICAL CJ WHERE NEW GYP. ABUTTS EXISTING
11 TEACHER CABINET DOORS TO HAVE LOCKS, TYP.
12 FIRE EXTINGUISHER IN CABINET
13 THIS AREA BETWEEN CONTROL JOINTS TO BE PAINTED P-1

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ENLARGED PLANS & ELEVATIONS

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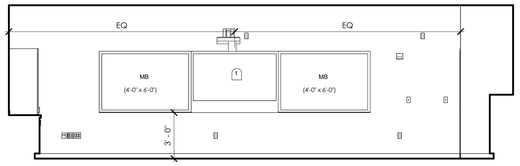
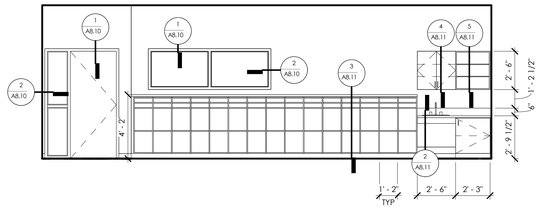


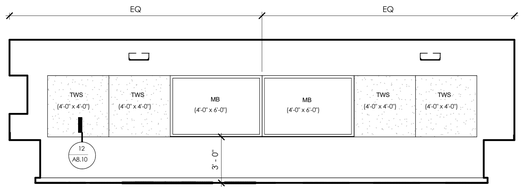
1 A5.10 **CLASSROOM, TYP.**

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



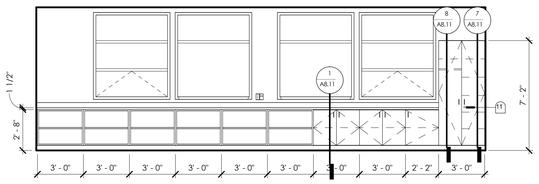
2 A5.10 **CLASSROOM, TYP.**

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



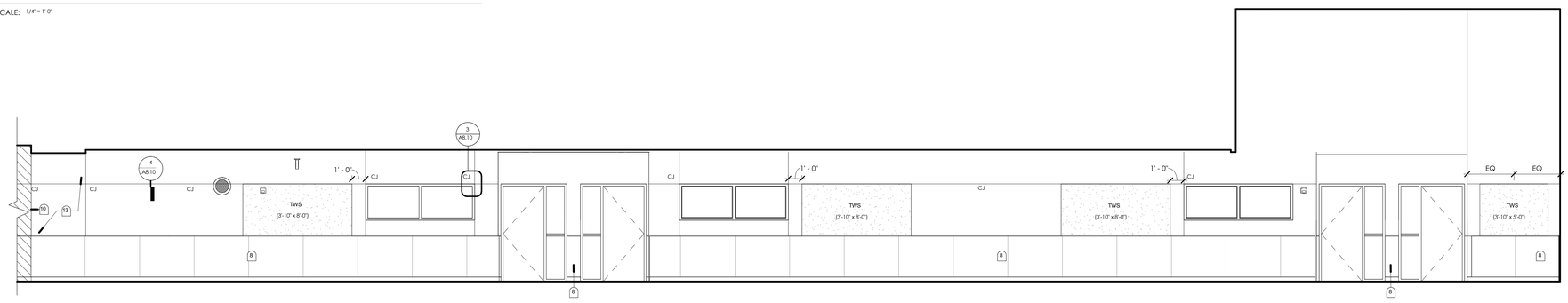
3 A5.10 **CLASSROOM, TYP.**

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



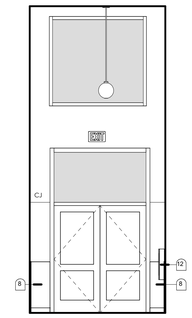
4 A5.10 **CLASSROOM, TYP.**

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



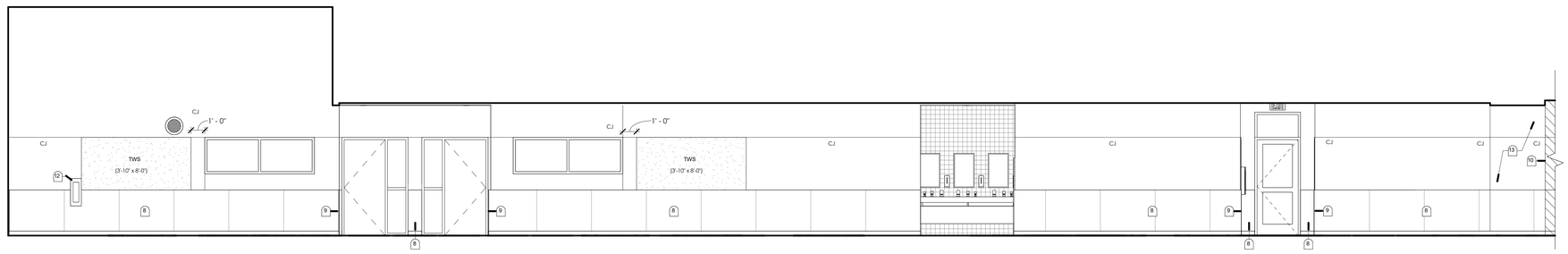
5 A5.10 **HALLWAY**

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



6 A5.10 **HALLWAY**

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



7 A5.10 **HALLWAY**

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

GENERAL NOTES

A. SEE SHEET G0.00 FOR ARCHITECTURAL ABBREVIATIONS AND SYMBOLS
B. SEE SHEET G0.02 FOR WALL TYPES
C. SEE SHEET A8.01 FOR DOOR SCHEDULE
D. PLAN DIMENSIONS ARE MEASURED FROM THE OUTSIDE FACE OF STUDS ON EXTERIOR WALLS TO THE CENTER LINES OF INTERIOR WALLS AND OPENINGS U.N.O.
E. GRID LINES ALIGN WITH FACE OF STUD U.N.O.
F. ALL EXTERIOR WALLS ARE TYPE W22/23 U.N.O.

INTERIOR KEYNOTES

1	SMART SCREEN - SEE ELECTRICAL
2	CERAMIC TILE WALL FINISH - SEE 15/A5.01
3	FULL HEIGHT FRL
4	CERAMIC TILE WALL FINISH - THIS WALL FULL HEIGHT CT-1 ABV. PATTERN
5	FRP PANEL
6	MOP SINK
7	METAL SHIPS LADDER. SEE SHEET A7.01.
8	WAINSCOT PANEL - SEE A8.10 FOR HEIGHT, SPACING
9	WAINSCOT PANEL TO WRAP CORNER
10	VERTICAL CJ WHERE NEW GYP. ABUTTS EXISTING
11	TEACHER CABINET DOORS TO HAVE LOCKS, TYP.
12	FIRE EXTINGUISHER IN CABINET
13	THIS AREA BETWEEN CONTROL JOINTS TO BE PAINTED P-1

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REGISTERED ARCHITECT
5499
RENEE P. ALEXANDER
BEND, OREGON
STATE OF OREGON

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

INTERIOR ELEVATIONS

A5.10

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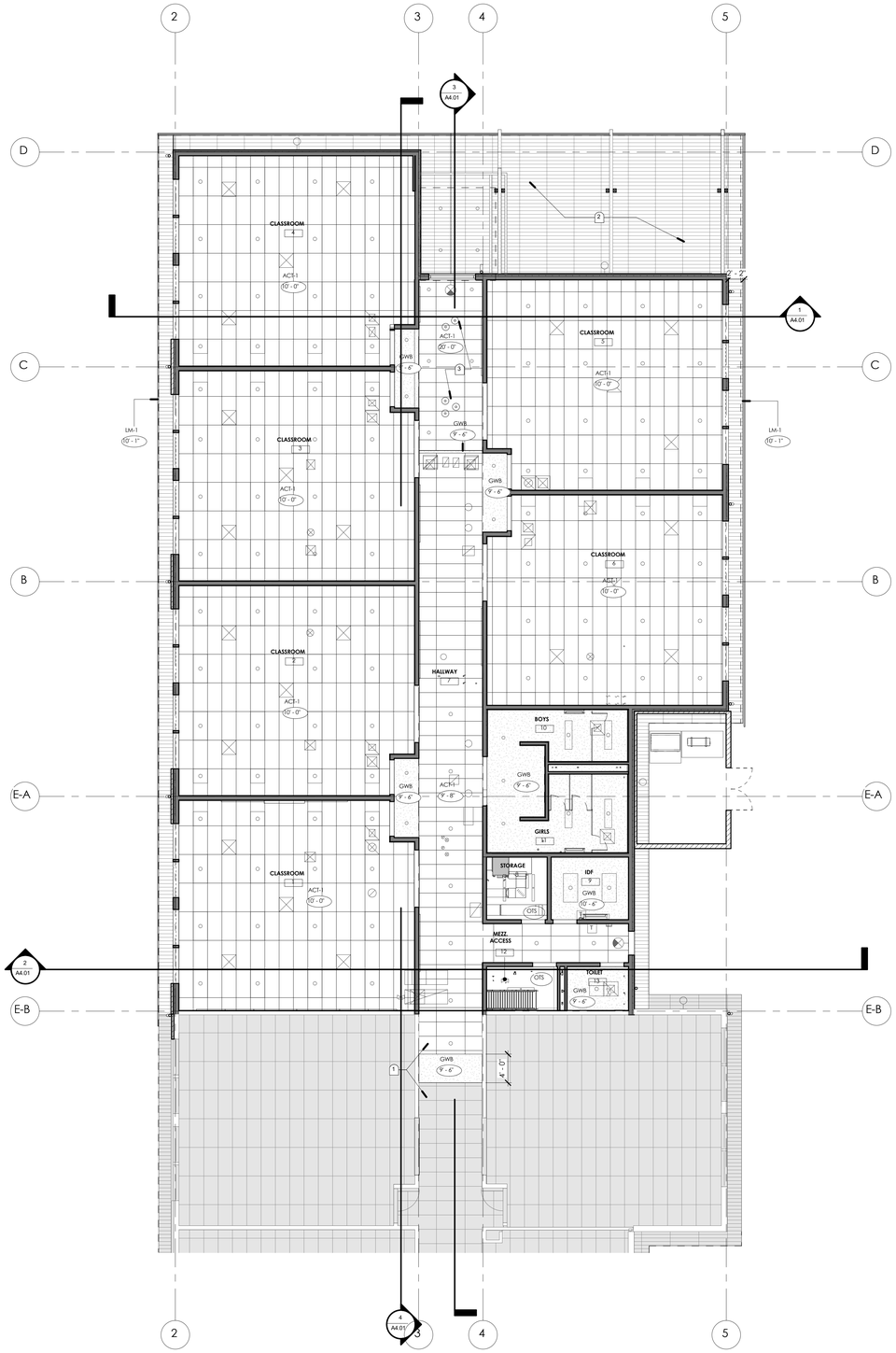
GENERAL NOTES

A. SEE SHEET G0.00 FOR ARCHITECTURAL ABBREVIATIONS AND SYMBOLS
B. SEE SHEET G0.02 FOR WALL TYPES
C. SEE SHEET A8.01 FOR DOOR SCHEDULE
D. PLAN DIMENSIONS ARE MEASURED FROM THE OUTSIDE FACE OF STUDS / FACE OF CONCRETE ON EXTERIOR WALLS TO THE CENTER LINES OF INTERIOR WALLS AND OPENINGS U.N.O.
E. GRID LINES ALIGN WITH FACE OF STUD U.N.O.
F. ALL EXTERIOR WALLS ARE TYPE xx U.N.O.
G. ALL INTERIOR WALLS ARE TYPE xx U.N.O.

(R) REFLECTED CEILING KEYNOTES

1 (N) ACT CEILING PATTERN TO ALIGN WITH (E) ACT CEILING
2 LM-1 @ CANOPY TO SLOPE WITH ROOF @ LARGE CANOPY
3 ACCENT PENDANT LIGHTING - SEE ELECTRICAL DRAWINGS



LEVEL 1
SCALE: 1/8" = 1'-0"

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REFLECTED CEILING PLAN

A6.01

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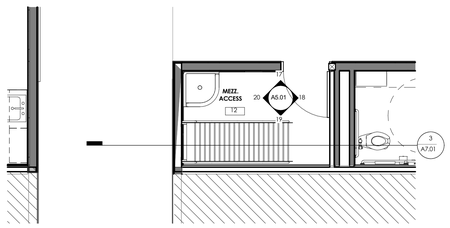
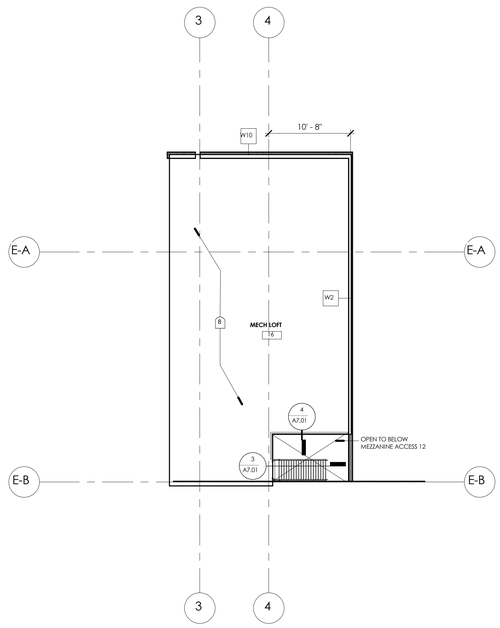


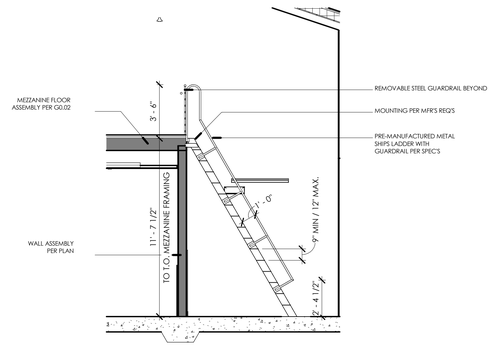
1 A7.01 **FLOOR PLAN - MEZZANINE ACCESS - FLOOR 1**

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



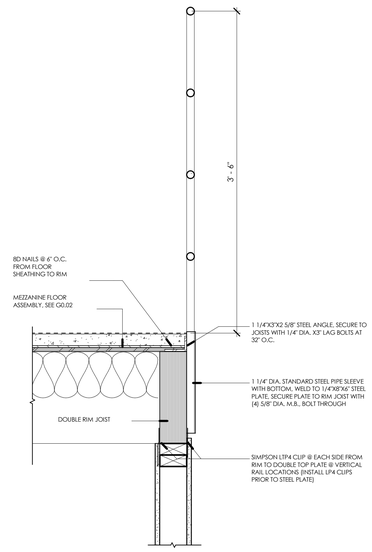
2 A7.01 **FLOOR PLAN - MEZZANINE**

SCALE: 1/8" = 1'-0"



3 A7.01 **MEZZANINE ACCESS**

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



4 A7.01 **INTERIOR - REMOVABLE GUARDRAIL**

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

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STATE OF OREGON

Warm Springs K8 Academy Classroom Addition

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VERTICAL CIRCULATION

A7.01

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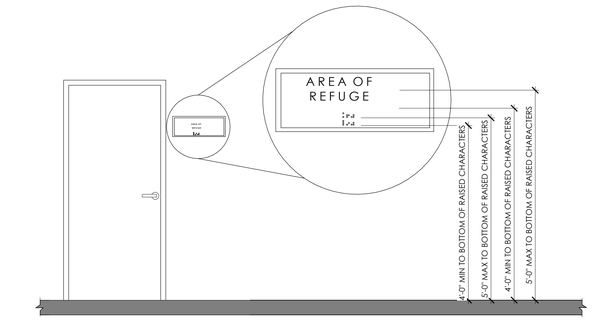
INTERIOR FINISH LEGEND

SPEC SECTION	MATERIAL	ABBREVIATION	MANUFACTURER	MODEL NAME/ #	FINISH/COLOR	COMMENTS
03 3511	**CONCRETE FLOOR FINISHES**					
	SEALED CONCRETE	CON-1				SEE FINISH FLOOR PLAN
	POLISHED CONCRETE	POL-1				SEE FINISH FLOOR PLAN
06 2000	**FINISH CARPENTRY**					
	WOOD SILLS	WD-1			STAINED	
	WOOD TRIM	WD-2			STAINED	
06 4100	**ARCHITECTURAL WOOD CASEWORK**					
	PLASTIC LAMINATE	PL-1	NEVAMAR		PAPIER ST. TROPEZ TEXTURED	COUNTERTOPS, UNO
		PL-2	NEVAMAR		VIDRIO AGED	CASEWORK - CABINETS
		PL-3	NEVAMAR		SIENNA ESSENCE TEXTURED	CASEWORK- CUBBIES
		PL-4	NEVAMAR		DECADENT ALLUSION TEXTURED	WAINSCOT - CORRIDORS
06 8316	**FIBERGLASS REINFORCED PANELING**					
	WALL PROTECTION	FRP-1	MARLITE		BEIGE, (MOLDED, STANDARD)	CUSTODIAL, STAFF RESTROOM WALLS
07 6200	**SHEET METAL FLASHING & TRIM**					COLOR TO BE SELECTED FROM MANUFACTURERS STANDARD RANGE
08 1416	**FLUSH WOOD DOORS**					
	WOOD DOOR	DR-1			POPLAR, PLAIN SLICED (FLAT SLICED); TRANSPARENT FINISH	
09 2116	**GYPSUM BOARD ASSEMBLIES**					
	GYPSUM WALLBOARD	GWB-1			PAINTED	
09 3000	**TILING**					
	CERAMIC TILE	CT-1	DALTILE	FIELD WALL: 4X4	ALMOND D335	SEE A5.01
		CT-2	DALTILE	ACCENT WALL: 4X4	CITYLINE KOHL D171	SEE A5.01
		CT-3	DALTILE	ACCENT WALL: 4X4	GARDEN SPOT D141	SEE A5.01
		CT-4	DALTILE	ACCENT WALL: 4X4	MUSTARD D181	SEE A5.01
09 5100	**ACOUSTICAL CEILINGS**					
	ACOUSTICAL CEILING TILE	ACT-1	ARMSTRONG	SCHOOL ZONE FINE FISSURED 2'X4'	WHITE	
09 6519	**RESILIENT FLOORING**					
	VINYL COMPOSITION TILE	VCT-1	ARMSTRONG FLOORING	51805 CAMEL BEIGE		SEE FINISH FLOOR PLAN
		VCT-2	ARMSTRONG FLOORING	51868 SMOKEY BROWN		SEE FINISH FLOOR PLAN
	RUBBER BASE	RB-1	TARKETTT	4" RUBBER BASE	29 MOON ROCK	
09 9000	**PAINTING**					
	PAINT	P-1	ICI PAINTS		CIELO BLANCO #43YY 81/051	FIELD- GYP CEILINGS, SUPPORT ROOMS, UNO
		P-2	ICI PAINTS		INDIAN CORN #20YY 65/285	CLASSROOM WALLS, CORRIDOR WALLS, & BATHROOM WALLS WHERE GYP OCCURS, UNO
		P-3	ICI PAINTS		MANOR HOUSE #50YR 08/038	HOLLOW METAL DOORS, FRAMES, METAL LADDERS,...
10 1101	**VISUAL DISPLAY BOARDS**					
	MARKER BOARD	MB	CLARIDGE			
	FABRIC WRAPPED TACKABLE WALL SURFACE	TWS-1			FABRIC: CARNEGIE XOREL: STRIE 6423-815	
10 2113	**TOILET COMPARTMENTS**					
	TOILET PARTITIONS	TP	BRADLEY		NATURAL CANVAS 7022	
10 2601	**WALL AND CORNER GUARDS**					
	CORNER GUARDS	CG-1		KOROGUARD G100 SERIES	2" BRUSHED ALUMINUM; HEIGHT 3'-0" (INSTALL ABV 4" RUBBER BASE)	SEE SHEET A9.01 - FINISH PLAN FOR LOCATIONS
12 2400	**WINDOW SHADES**					
					ALUMINUM LOUVER SHADES	COLOR TO BE SELECTED FROM MANUFACTURERS STANDARD RANGE

EXTERIOR FINISH LEGEND

SPEC SECTION	MATERIAL	ABBREVIATION	MANUFACTURER	MODEL NAME/ #	FINISH/COLOR	COMMENTS
04 2000	**UNIT MASONRY**					
	CONCRETE MASONRY UNIT VENEER	CMU-1			SPLIT FACE, MATCH EXISTING	CMU VENEER
		CMU-2			SPLIT FACE, MATCH EXISTING	CMU VENEER- ACCENT
		CMU-3			SMOOTH FACE, MATCH EXISTING (MATCH CMU-2)	CUSTOM CMU CAP, LOCATE ABV. VENEER, COLUMN BASES, & @ WINDOW SILLS
05 5213	**PIPE AND TUBE RAILINGS**					
	RAILINGS	--			PAINTED P-3	
06 1800	**GLUED-LAMINATED CONSTRUCTION**					
	GLU-LAM BEAMS	--				ARCHITECTURAL GRADE - SEE SPEC FOR FINISH
07 3113	**ASPHALT SHINGLES**				MATCH EXISTING	
07 4213	**METAL WALL AND SOFFIT PANELS**					
	METAL WALL PANELS	MP-1			MATCH EXISTING	
	LINEAR METAL SOFFIT PANELS	LM-1			MATCH EXISTING	
07 6200	**SHEET METAL FLASHING & TRIM**					
	SHEET METAL FASCIA	--			MATCH EXISTING	
	SHEET METAL OPENING TRIM				TO MATCH WINDOW FINISH	
	GUTTER & DOWNSPOUTS				MATCH EXISTING	
08 1113	**HOLLOW METAL DOORS AND FRAMES**					
	HOLLOW METAL DOOR	--			PAINTED P-3, UNLESS NOTED OTHERWISE	
	HOLLOW METAL FRAME	--			PAINTED P-3, UNLESS NOTED OTHERWISE	



1 A8.01 **ADA SIGNAGE HEIGHT**

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

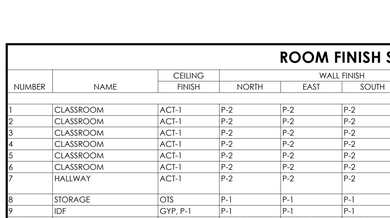
ROOM FINISH SCHEDULE

NUMBER	NAME	CEILING FINISH	WALL FINISH NORTH	WALL FINISH EAST	WALL FINISH SOUTH	WALL FINISH WEST	FLOOR FINISH	COMMENTS
1	CLASSROOM	ACT-1	P-2	P-2	P-2	P-2	VCT-1	
2	CLASSROOM	ACT-1	P-2	P-2	P-2	P-2	VCT-1	
3	CLASSROOM	ACT-1	P-2	P-2	P-2	P-2	VCT-1	
4	CLASSROOM	ACT-1	P-2	P-2	P-2	P-2	VCT-1	
5	CLASSROOM	ACT-1	P-2	P-2	P-2	P-2	VCT-1	
6	CLASSROOM	ACT-1	P-2	P-2	P-2	P-2	VCT-1	
7	HALLWAY	ACT-1	P-2	P-2	P-2	P-2	VCT-1, VCT-2	SEE SHEET A9.01 FOR FLOOR PATTERN & WALL PAINT ACCENT
8	STORAGE	OTS	P-1	P-1	P-1	P-1	CON-1	
9	IDF	GYP, P-1	P-1	P-1	P-1	P-1	CON-1	
10	BOYS	GYP, P-1	CT, P-2	CT, P-2	CT, P-2	CT, P-2	POL-1	
11	GIRLS	GYP, P-1	CT, P-2	CT, P-2	CT, P-2	CT, P-2	POL-1	
12	MEZZ. ACCESS	OTS					CON-1	
13	TOILET	GYP, P-1	P-1	P-1	P-1	P-1	POL-1	
14	HALLWAY	ACT-1	P-2	P-2	P-2	P-2	VCT-1, VCT-2	
15	MECH YARD	-					-	
16	MECH LOFT	OTS	P-1	P-1	P-1	P-1	VCT-1	

DOOR SCHEDULE

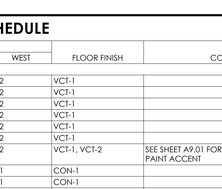
MARK	WIDTH	HEIGHT	PANEL TYPE	PANEL MATERIAL	PANEL FINISH	DOOR GLAZING	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	HARDWARE GROUP	COMMENTS
(E)	3' - 0"	7' - 0"	1	WD	FF		HM3	HM	PT		3
(E)	3' - 0"	7' - 0"	1	WD	FF		HM3	HM	PT		3
01A	3' - 0"	7' - 0"	1	WD	FF		HM3	HM	PT		
02A	3' - 0"	7' - 0"	1	WD	FF		HM3	HM	PT		
03A	3' - 0"	7' - 0"	1	WD	FF		HM3	HM	PT		
04A	3' - 0"	7' - 0"	1	WD	FF		HM3	HM	PT		
05A	3' - 0"	7' - 0"	1	WD	FF		HM3	HM	PT		
06A	3' - 0"	7' - 0"	1	WD	FF		HM3	HM	PT		
07A	6' - 0"	7' - 0"	3	AL	FF		SF1	AL	FF		1, 2
07B	3' - 0"	7' - 0"	2	HM	FF		HM2	HM	PT		1, 2
07C (E)	6' - 0"	7' - 0"	-	AL	FF		-	AL			4
08A	3' - 0"	7' - 0"	1	WD	FF		HM1	HM	PT		
09A	3' - 0"	7' - 0"	1	WD	FF		HM1	HM	PT		
12A	3' - 0"	7' - 0"	1	WD	FF		HM1	HM	PT		
13A	3' - 0"	7' - 0"	1	WD	FF		HM1	HM	PT		
15A	3' - 0"	6' - 0"	-	CL	FF						5
15B	3' - 0"	6' - 0"	-	CL	FF						5

GENERAL NOTES	ABBREVIATIONS	COMMENTS
1. SEE A8.01 FOR DOOR FRAME AND TYPES 2. ALL EXTERIOR & INTERIOR HOLLOW METAL DOORS AND FRAMES TO BE PAINTED P-3, UNO.	AL - ALUMINUM FF - FACTORY FINISH PT - PAINT WD - WOOD HM - HOLLOW METAL CL - CHAIN LINK LIT - LAMINATED GLAZING - INSULATED GLAZING - TEMPERED GLAZING	1. CARD READER 2. PANIC HARDWARE 3. EXISTING TO REMAIN 4. EXISTING TO BE DEMOLISHED & SALVAGED FOR STORAGE 5. CHAINLINK GATE, OFOI PADLOCK



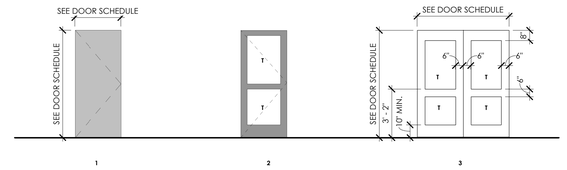
WINDOW TYPES - ALUMINUM FRAME

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



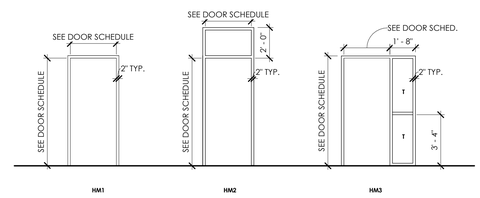
WINDOW TYPES - HOLLOW METAL

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



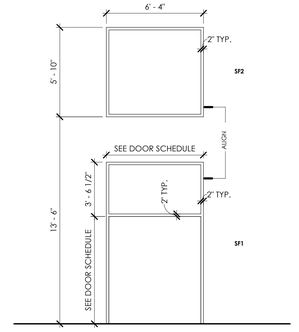
DOOR PANEL TYPES

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



FRAME TYPES - HOLLOW METAL

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



FRAME TYPES - STOREFRONT

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

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SCHEDULES

A8.01

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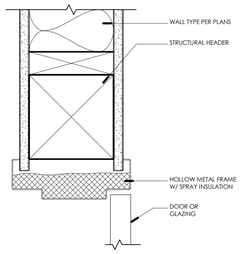
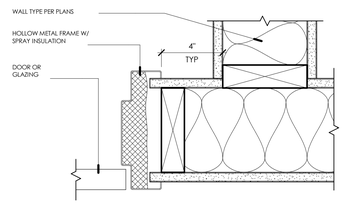
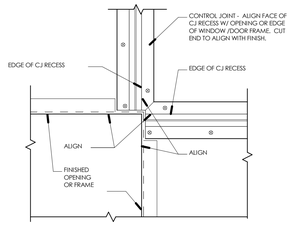


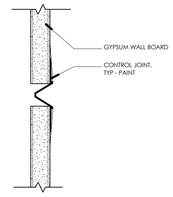
1 A8.10 **INTERIOR - HM FRAME HEAD**
SCALE: 3" = 1'-0"



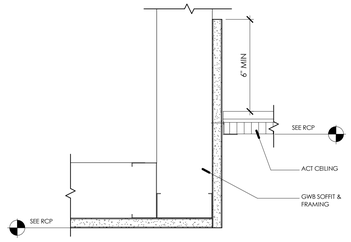
2 A8.10 **INTERIOR - HM FRAME JAMB**
SCALE: 3" = 1'-0"



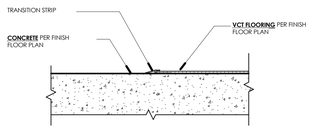
3 A8.10 **INTERIOR - CONTROL JOINT OPENING**
SCALE: 3" = 1'-0"



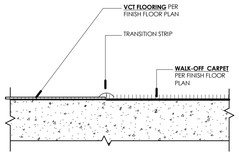
4 A8.10 **INTERIOR - CONTROL JOINT, TYP**
SCALE: 6" = 1'-0"



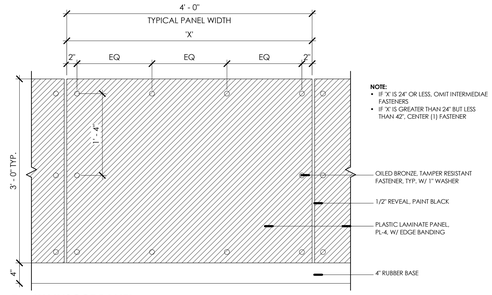
5 A8.10 **CEILING - GYP SOFFIT TO ACT**
SCALE: 3" = 1'-0"



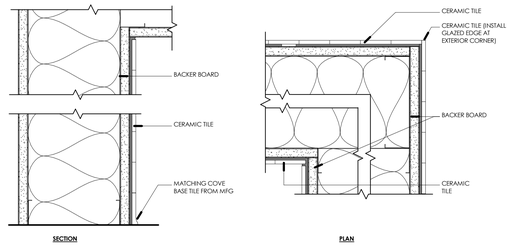
6 A8.10 **FLOORING - CONC TO VCT**
SCALE: 3" = 1'-0"



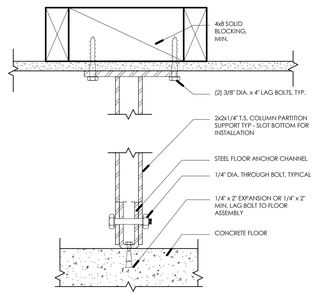
7 A8.10 **FLOORING - VCT TO WOM**
SCALE: 3" = 1'-0"



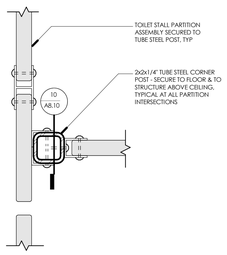
8 A8.10 **WAINSCOT PANEL**
SCALE: 1" = 1'-0"



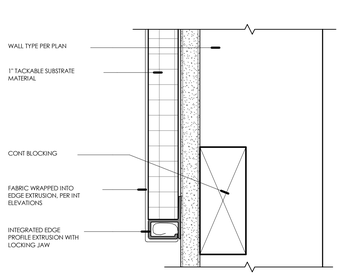
9 A8.10 **CERAMIC TILE, TYPICAL**
SCALE: 3" = 1'-0"



10 A8.10 **INT - TOILET PARTITION @ FLOOR**
SCALE: 3" = 1'-0"

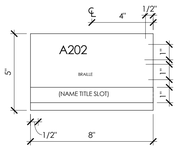


11 A8.10 **INT - TOILET PARTITION COLUMN**
SCALE: 3" = 1'-0"



12 A8.10 **FABRIC WRAPPED TACK PANEL - MOUNTED**
SCALE: 6" = 1'-0"

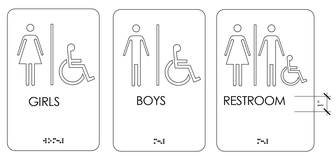
PLATE TYPE A
8" W x 5" H
ROOM NUMBER
BRAILLE
NAME/TITLE SLOT



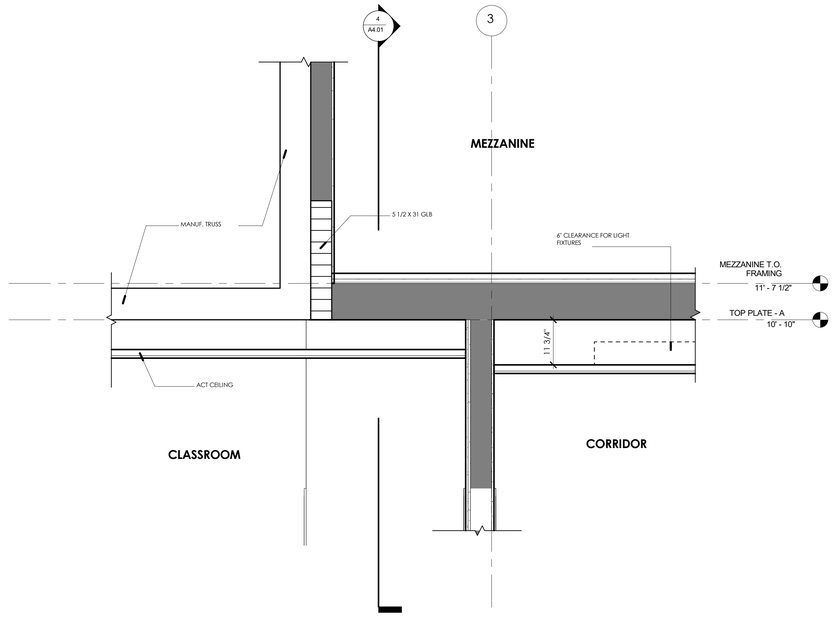
INTERIOR ROOM SIGNAGE
- ROOM NAMES SHOWN FOR EXAMPLE ONLY
- SEE SPECIFICATIONS FOR FURTHER DETAILS

PLATE TYPE B
REGULATORY SIZE
BRAILLE IN ENGLISH
(INCLUDES WOMEN'S, MEN'S, UNISEX, FAMILY)

FIRST LINE ENGLISH



13 A8.10 **SIGNAGE - INTERIOR TYPES**
SCALE: 3" = 1'-0"



14 A8.10 **DETAIL @ MEZZANINE - CORRIDOR GL-3**
SCALE: 3/4" = 1'-0"

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BEND, OREGON
STATE OF OREGON

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

INTERIOR DETAILS

A8.10

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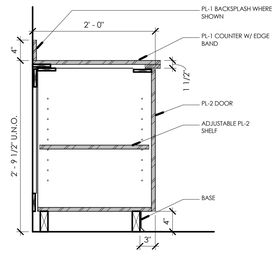
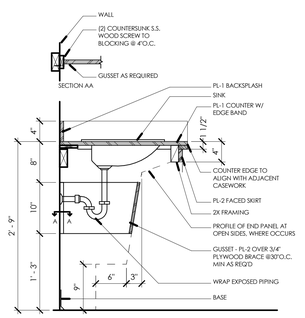


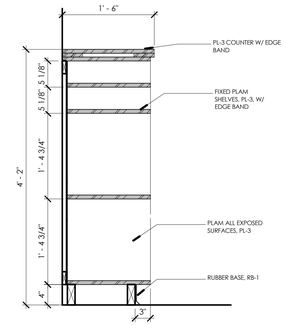
1 A8.11 **CASEWORK - BASE, DOOR**

SCALE: 1" = 1'-0"



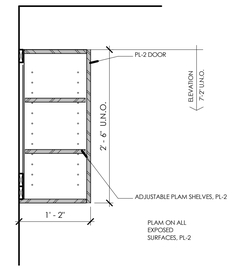
2 A8.11 **CASEWORK - BASE, SINK**

SCALE: 1" = 1'-0"



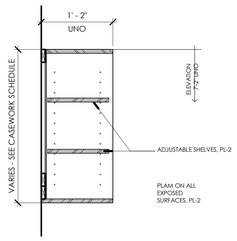
3 A8.11 **CASEWORK - STUDENT CUBBIES**

SCALE: 1" = 1'-0"



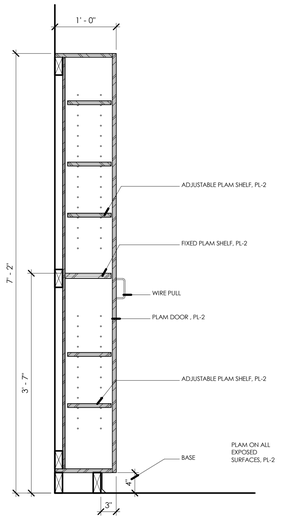
4 A8.11 **CASEWORK - UPPER, TYP**

SCALE: 1" = 1'-0"



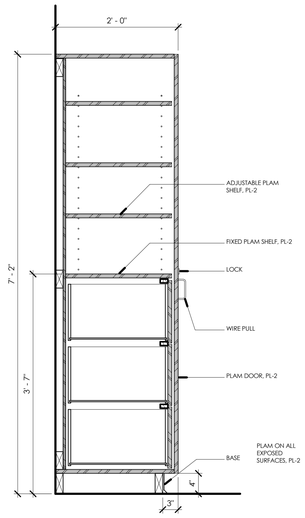
5 A8.11 **UPPER CABINET - OPEN SHELVING**

SCALE: 1" = 1'-0"



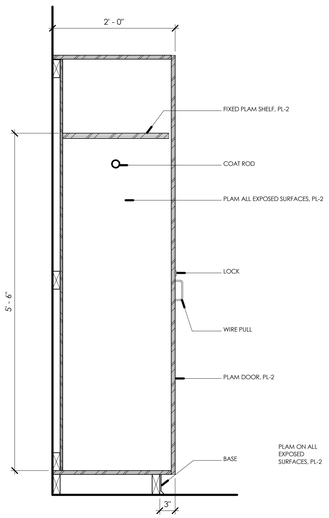
6 A8.11 **CASEWORK - TALL CABINET, DOORS**

SCALE: 1" = 1'-0"



7 A8.11 **CASEWORK - TEACHER'S CAB A**

SCALE: 1" = 1'-0"



8 A8.11 **CASEWORK - TEACHER'S CAB B**

SCALE: 1" = 1'-0"

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Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

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INTERIOR DETAILS - CASEWORK

A8.11

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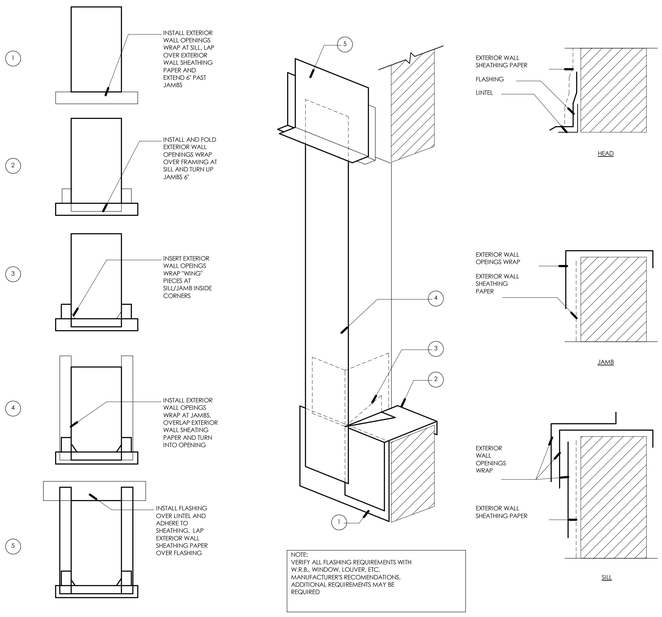
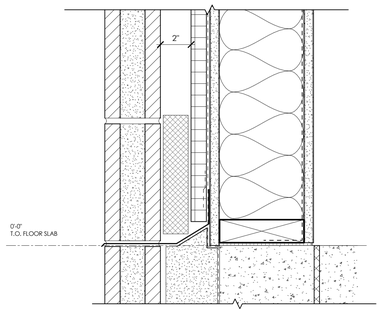
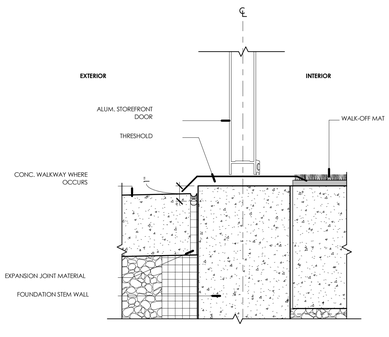


NOTE:
VERIFY ALL FLASHING REQUIREMENTS WITH W.R.B., WINDOW, LOUVER, ETC. MANUFACTURER'S RECOMENDATIONS. ADDITIONAL REQUIREMENTS MAY BE REQUIRED

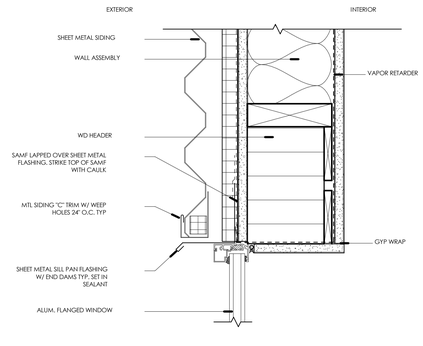
1 EXTERIOR WALL OPENINGS WRAP (TYPICAL AT ALL OPENINGS)
A8.20 SCALE: 3" = 1'-0"



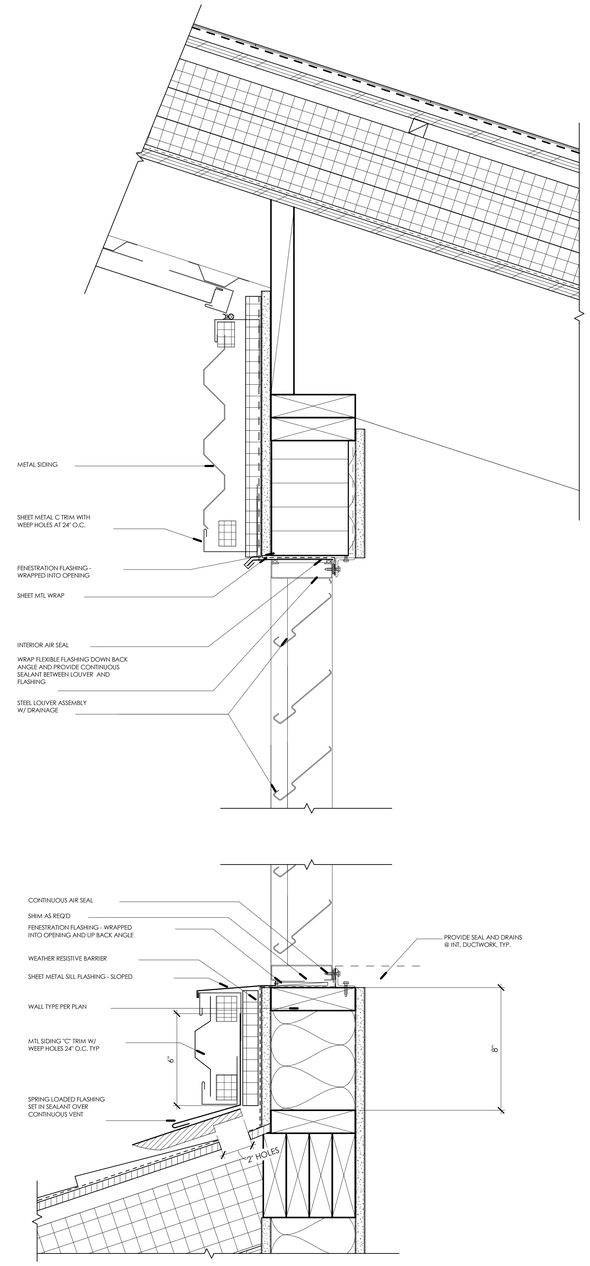
2 TYPICAL FLASHING @ CMU VENEER BASE
A8.20 SCALE: 3" = 1'-0"

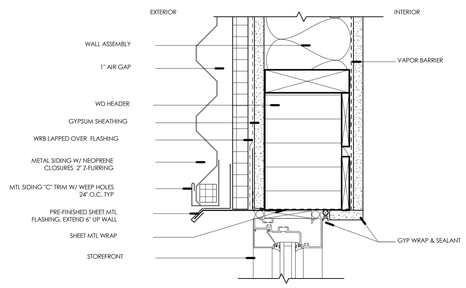


3 STOREFRONT DOOR @ CONC. SLAB, TYP.
A8.20 SCALE: 3" = 1'-0"

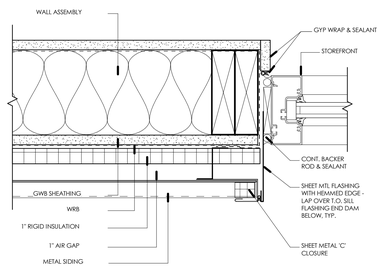


4 ALUM. WINDOW - HEAD @ METAL SIDING
A8.20 SCALE: 3" = 1'-0"

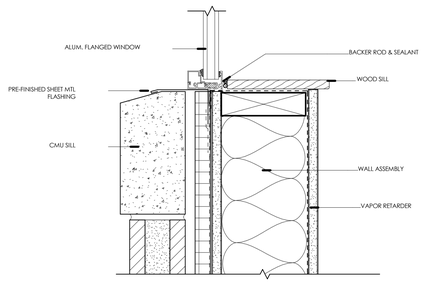




5 SF WINDOW - HEAD @ METAL SIDING
A8.20 SCALE: 3" = 1'-0"

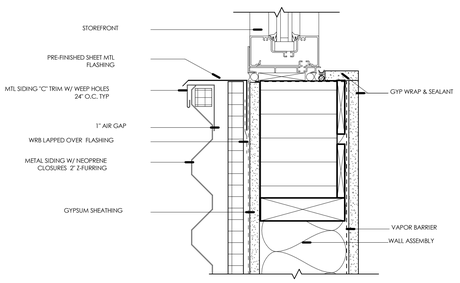


6 SF WINDOW - JAMB @ METAL SIDING
A8.20 SCALE: 3" = 1'-0"

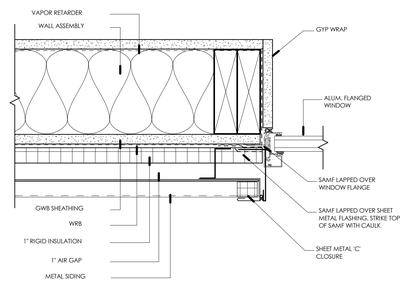


7 ALUM. WINDOW - HEAD @ METAL SIDING
A8.20 SCALE: 3" = 1'-0"

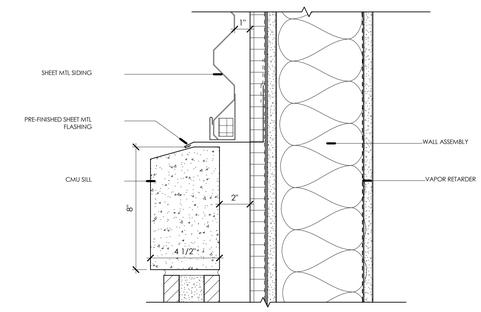
8 MECH LOUVER HEAD/SILL
A8.20 SCALE: 3" = 1'-0"



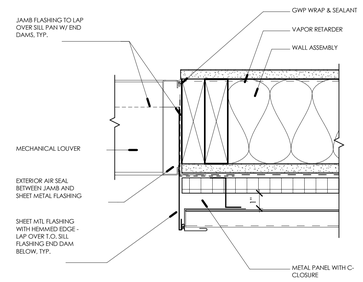
9 SF WINDOW - SILL @ METAL SIDING
A8.20 SCALE: 3" = 1'-0"



10 ALUM. WINDOW - JAMB @ METAL SIDING
A8.20 SCALE: 3" = 1'-0"



11 TYP. FLASHING @ MP TO CMU SILL
A8.20 SCALE: 3" = 1'-0"



12 LOUVER JAMB @ METAL PANEL
A8.20 SCALE: 3" = 1'-0"

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Warm Springs K8 Academy Classroom Addition

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No.	Description	Date

Project Number 2206
Date 01/18/2023

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DETAILS - OPENINGS

A8.20

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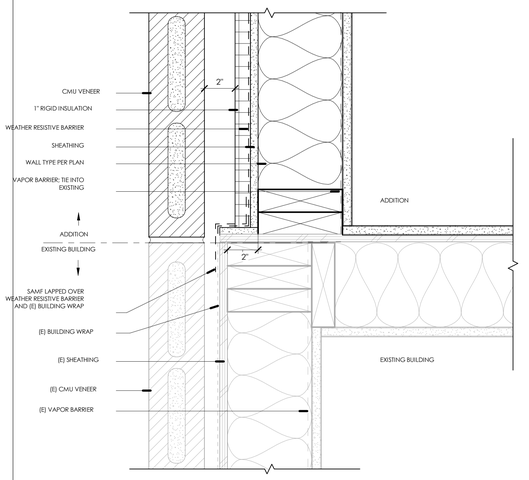
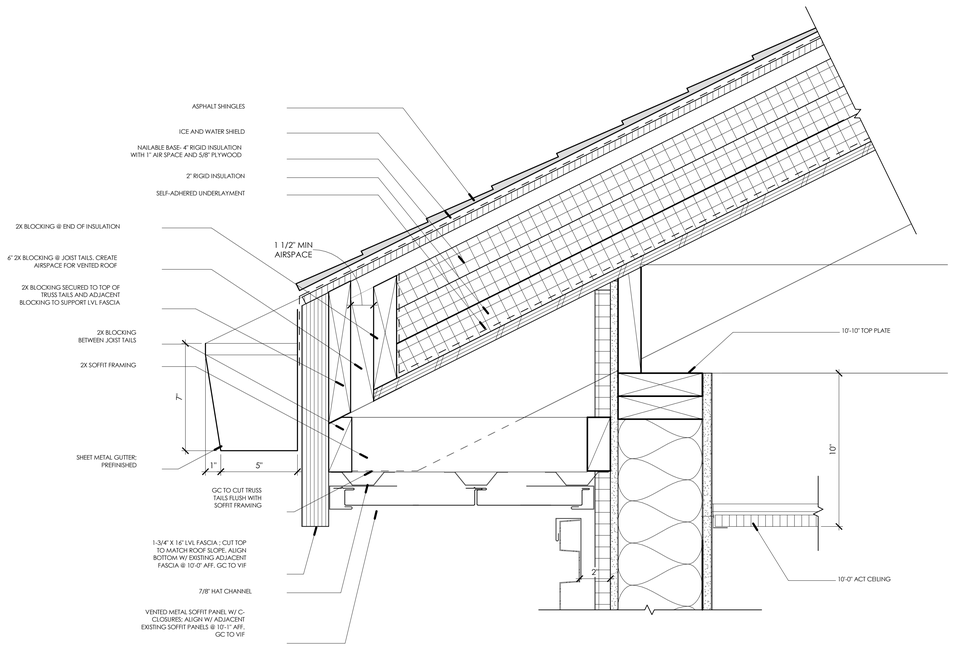


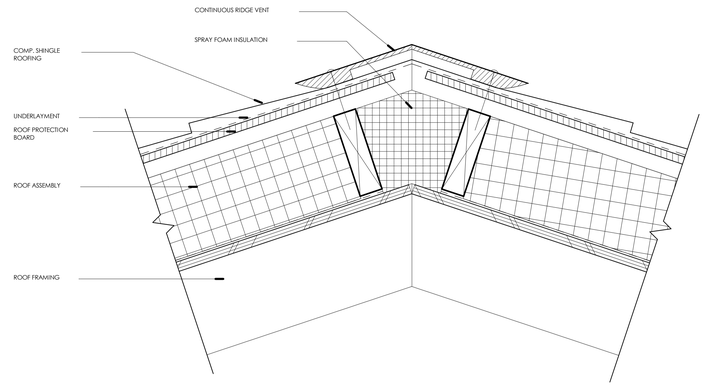
1 A8.21 **PLAN DETAIL - ADDITION TO EXISTING TRANSITION- CMU**

SCALE: 3" = 1'-0"



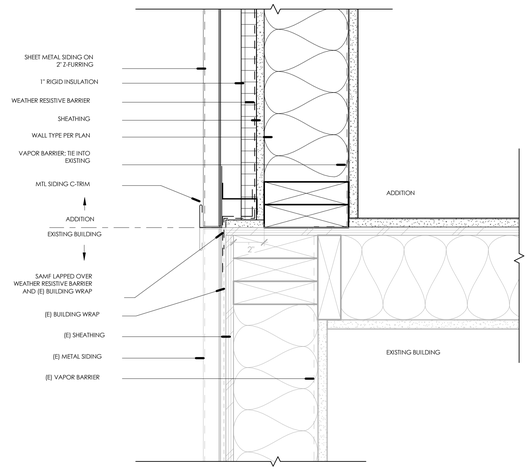
2 A8.21 **EAVE DETAIL - TYPICAL**

SCALE: 3" = 1'-0"



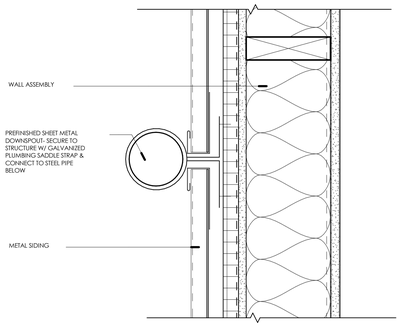
3 A8.21 **ROOF RIDGE VENT, TYP.**

SCALE: 3" = 1'-0"



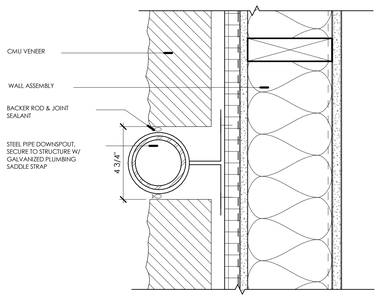
4 A8.21 **PLAN DETAIL - ADDITION TO EXISTING TRANSITION - METAL PANEL**

SCALE: 3" = 1'-0"



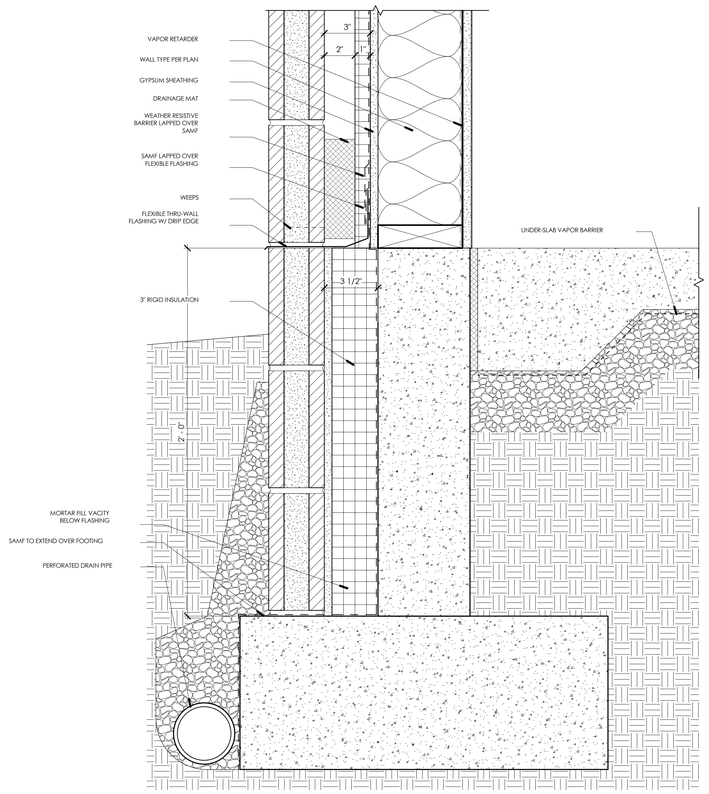
5 A8.21 **DOWNSPOUT @ METAL SIDING**

SCALE: 3" = 1'-0"



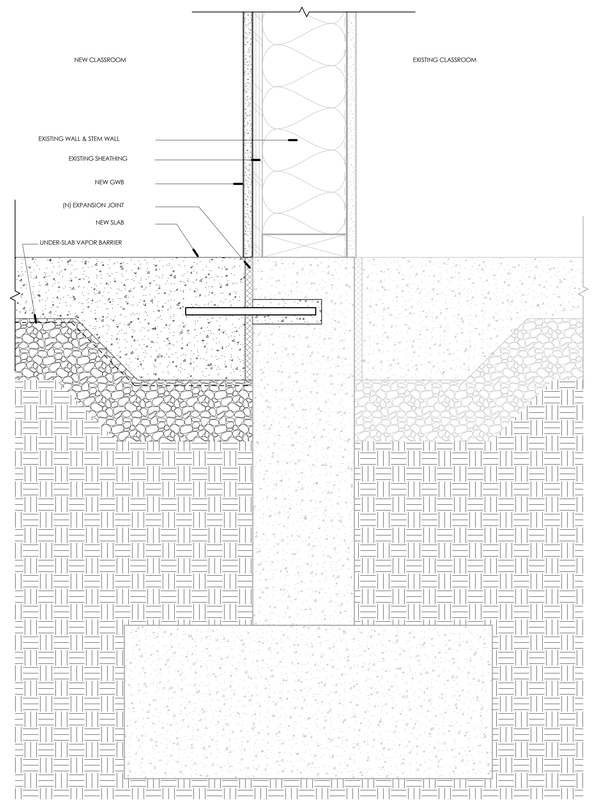
6 A8.21 **DOWNSPOUT @ CMU VENEER**

SCALE: 3" = 1'-0"



7 A8.21 **FOOTING DETAIL - TYPICAL**

SCALE: 3" = 1'-0"



8 A8.21 **FOOTING DETAIL - ADDITION CONNECTION TO EXISTING SLAB**

SCALE: 3" = 1'-0"

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Date 01/18/2023

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DETAILS

A8.21

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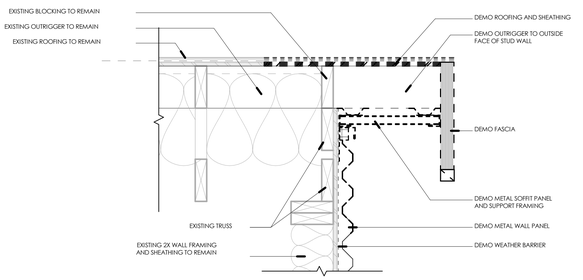
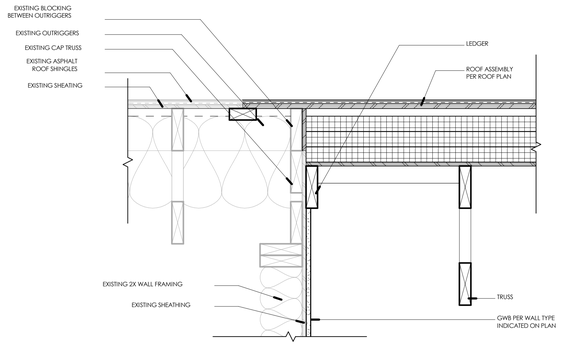
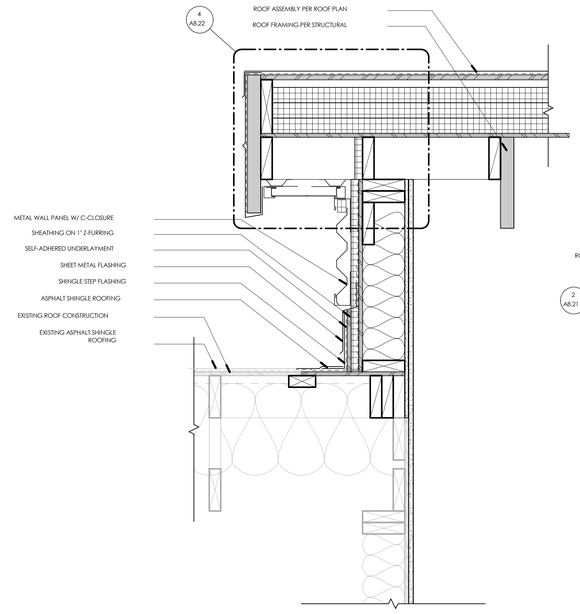
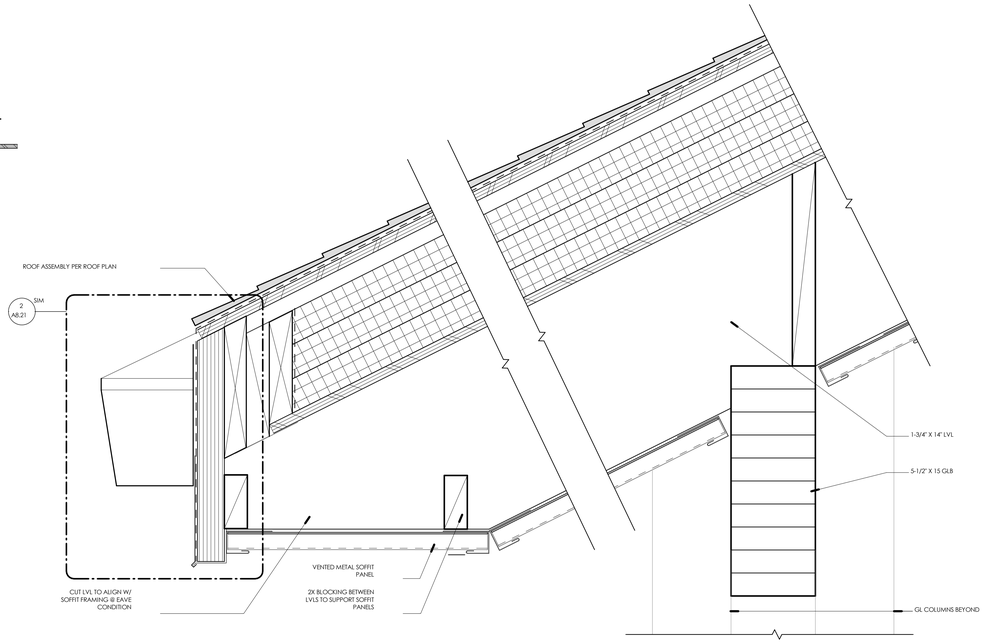


EXISTING/ DEMOLITION



NEW CONSTRUCTION

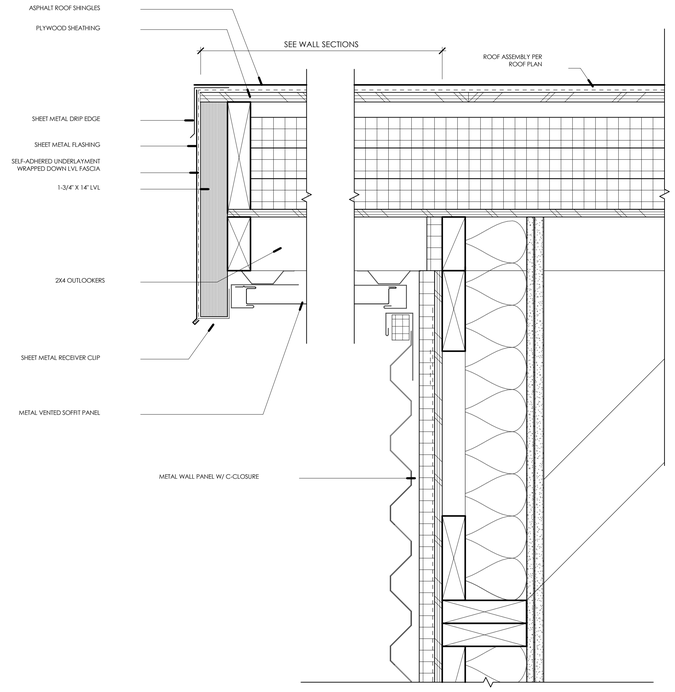


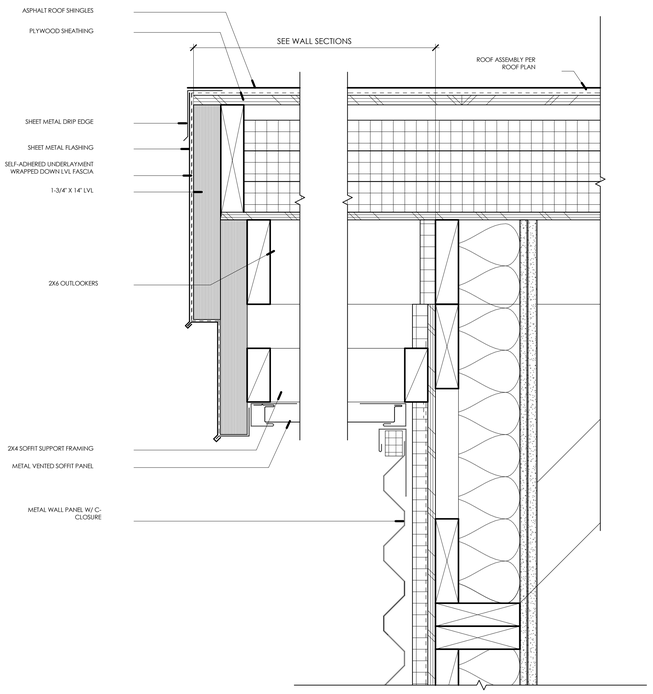


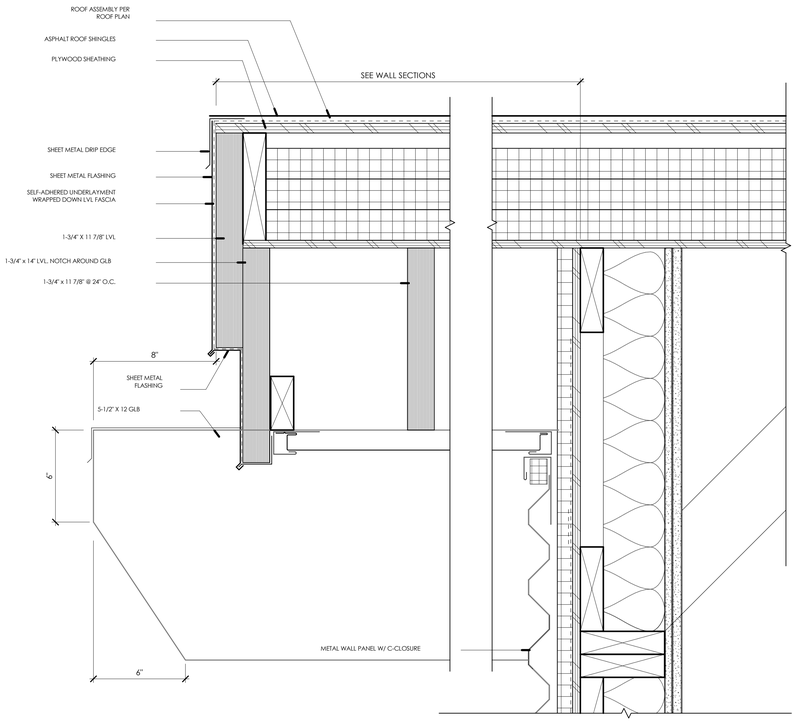
1 A8.22 **EXISTING RAKE @ NEW ROOF**
SCALE: 1 1/2" = 1'-0"

2 A8.22 **EXISTING ROOF @ MECHANICAL CLERESTORY**
SCALE: 1 1/2" = 1'-0"

3 A8.22 **EXTERIOR - EAVE @ OVERHANG**
SCALE: 3" = 1'-0"







4 A8.22 **EXTERIOR - RAKE @ CLERESTORY**
SCALE: 3" = 1'-0"

5 A8.22 **EXTERIOR - NORTH RAKE**
SCALE: 3" = 1'-0"

6 A8.22 **EXTERIOR - RAKE @ OVERHANG**
SCALE: 3" = 1'-0"

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STATE OF OREGON

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

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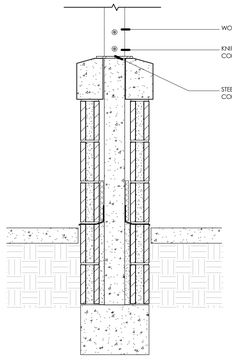
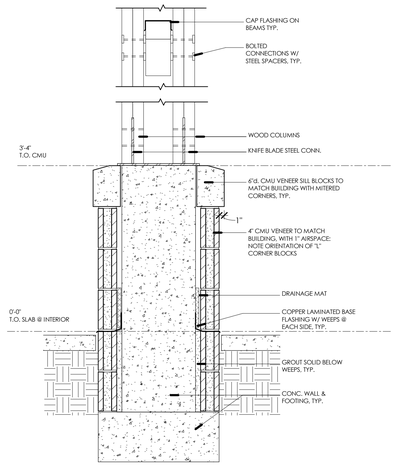


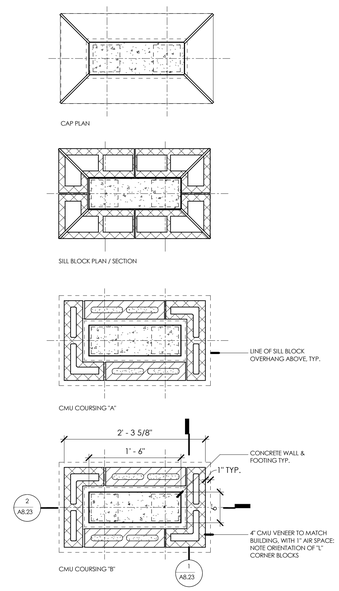
1 A8.23 **EXTERIOR - COLUMN BASE & TOP @ BEAM - SECTION**

SCALE: 1" = 1'-0"



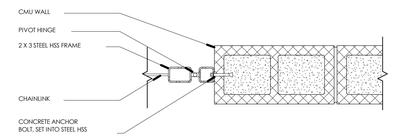
2 A8.23 **EXTERIOR - COLUMN BASE & TOP @ BEAM - SECTION**

SCALE: 1" = 1'-0"



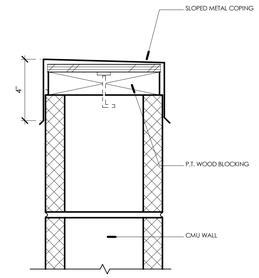
3 A8.23 **EXTERIOR - COLUMN BASE - PLANS**

SCALE: 1" = 1'-0"



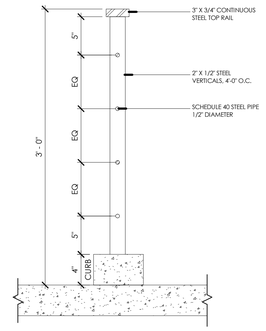
4 A8.23 **GATE JAMB**

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



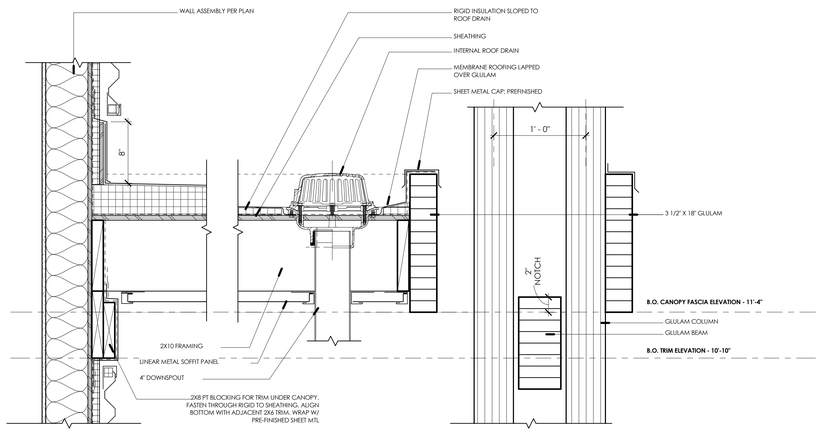
5 A8.23 **SHEET METAL CAP @ SERVICE YARD CMU WALL**

SCALE: 3" = 1'-0"



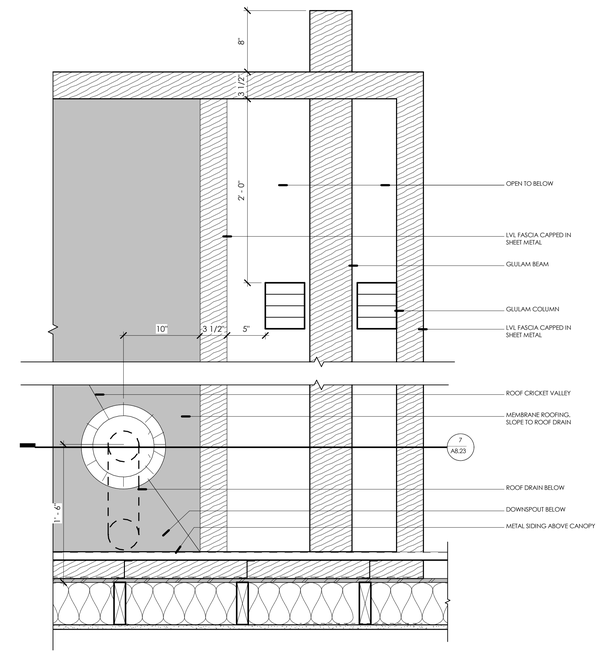
6 A8.23 **SITE - RAMP HANDRAIL**

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



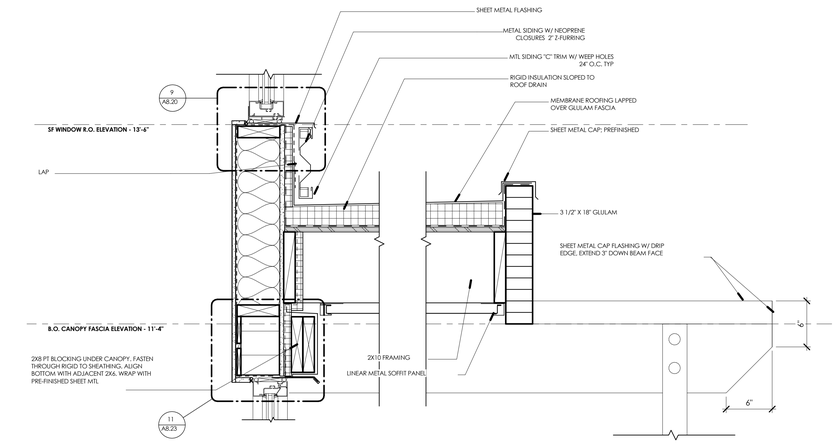
7 A8.23 **CANOPY RAKE**

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



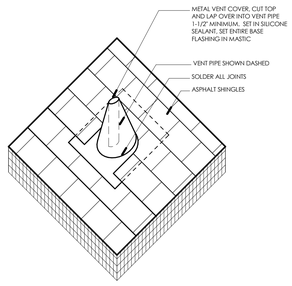
10 A8.23 **CANOPY ROOF PLAN DETAIL**

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



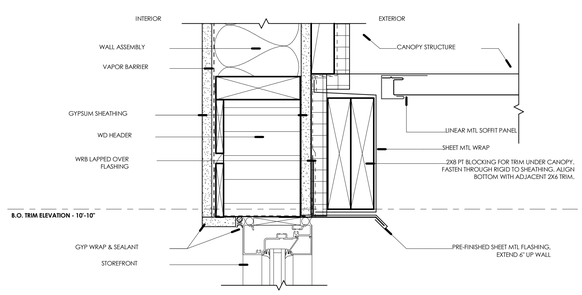
8 A8.23 **CANOPY - @ WALL**

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



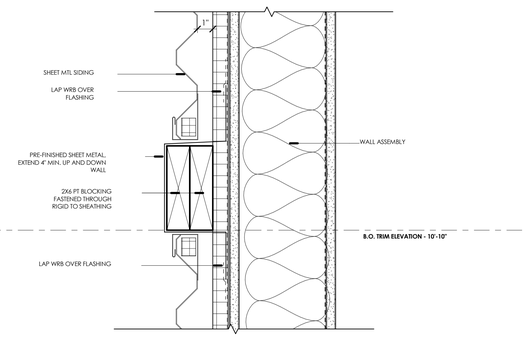
9 A8.23 **ROOF - VENT PENETRATION**

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



11 A8.23 **SF WINDOW - HEAD @ TRIM AND CANOPY**

SCALE: 3" = 1'-0"



12 A8.23 **EXTERIOR ACCENT TRIM BOARD, TYP.**

SCALE: 3" = 1'-0"

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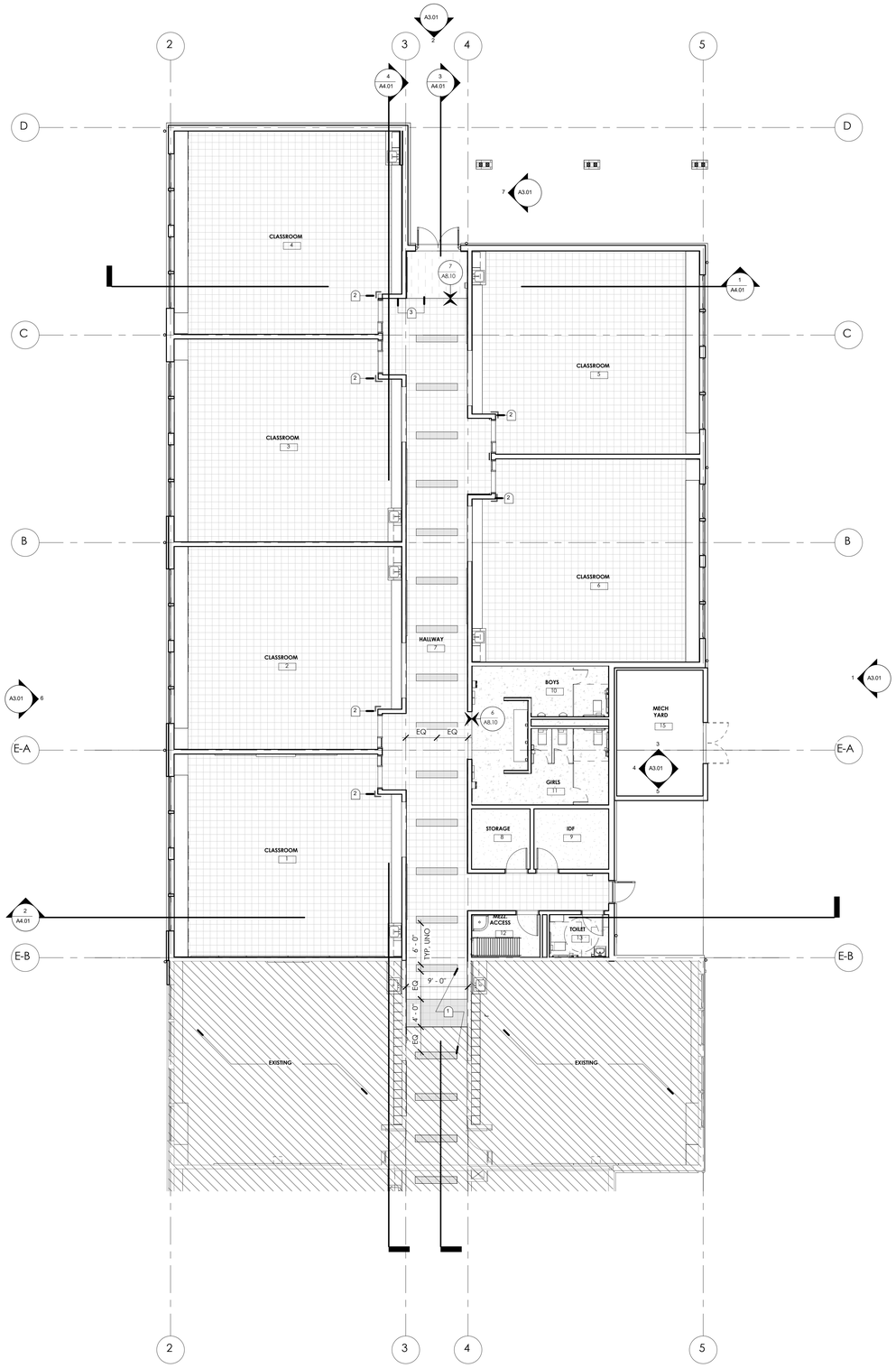
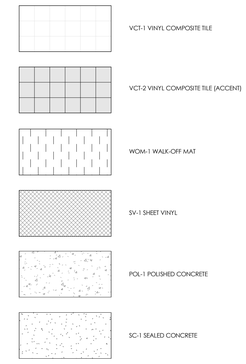
GENERAL NOTES

A. SEE SHEET G0.00 FOR ARCHITECTURAL ABBREVIATIONS AND SYMBOLS
B. SEE SHEET G0.02 FOR WALL TYPES
C. SEE SHEET A8.01 FOR DOOR SCHEDULE
D. PLAN DIMENSIONS ARE MEASURED FROM THE OUTSIDE FACE OF STUDS ON EXTERIOR WALLS TO THE CENTER LINES OF INTERIOR WALLS AND OPENINGS U.N.O.
E. GRID LINES ALIGN WITH FACE OF STUD U.N.O.
F. MECHANICAL MEZZANINE TO HAVE VCT-1 FLOOR FINISH WHERE CONCRETE PADS DO NOT OCCUR, SEE ASSEMBLIES SHEET G0.02

FINISH PLAN KEYNOTES

1 ALIGN NEW VCT TILE PATTERN W/ EXISTING
2 CORNER GUARD
3 ALIGN WOM TERMINATION WITH FINISH FACE OF ADJACENT WALL





1 A9.01 **FINISH PLAN - LEVEL 1**
SCALE: 1/8" = 1'-0"

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FINISH PLAN - LEVEL 1

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GENERAL STRUCTURAL NOTES

GENERAL NOTES:

1. ALL CONSTRUCTION AND DESIGN SHALL CONFORM TO THE 2018 INTERNATIONAL BUILDING CODE AS AMENDED BY THE STATE OF OREGON (2019 OSSC).
2. THE STRUCTURAL DRAWINGS SHALL BE UTILIZED IN CONJUNCTION WITH OTHER DESIGN CONSULTANT'S DRAWINGS (ARCHITECTURAL, MECHANICAL, ETC.). IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE THE REQUIREMENTS OF THE DRAWINGS INTO THEIR SHOP DRAWINGS AND CONSTRUCTION.
3. THE GENERAL STRUCTURAL NOTES ARE INTENDED FOR USE IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS. IN THE EVENT OF A CONFLICT BETWEEN THE TWO, THE GENERAL STRUCTURAL NOTES SHALL SUPERSEDE THE PROJECT SPECIFICATIONS. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT AND ENGINEER.
4. CONSTRUCTION SEQUENCE AND METHODS:
   A. THE STRUCTURAL DRAWINGS ARE INTENDED FOR THE STRUCTURE TO ACT AS A WHOLE ONCE CONSTRUCTION IS COMPLETE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE SAFETY AND STABILITY (I.E. TEMPORARY BRACING IF REQUIRED) DURING CONSTRUCTION AS A RESULT OF CONSTRUCTION METHODS AND SEQUENCES.
   B. THE CONTRACTOR SHALL TAKE INTO ACCOUNT COLD WEATHER CONSTRUCTION AND THE EFFECTS OF THERMAL MOVEMENT DURING THE CONSTRUCTION SCHEDULE.
   C. NON-CANTILEVERED OR RESTRAINED RETAINING WALLS SHALL NOT BE BACKFILLED UNTIL THE WALL HAS BEEN TIED INTO THE LOWER AND UPPER SLAB SUPPORTS UNLESS ADEQUATE ENGINEERED BRACING HAS BEEN APPROVED.
5. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS. THE ARCHITECT AND/OR ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCY BETWEEN THE EXISTING CONDITIONS AND CONSTRUCTION DOCUMENTS.
6. SUBMITTALS:
   A. SUBMITTALS OF SHOP DRAWINGS, MILL TEST REPORTS, PRODUCT DATA FOR ITEMS AND BIDDER DESIGN ITEMS SHALL BE MADE TO THE ARCHITECT/ ENGINEER PRIOR TO FABRICATION AND CONSTRUCTION. BEFORE SUBMISSION TO THE ARCHITECT/ ENGINEER, THE CONTRACTOR SHALL REVIEW THE SUBMITTALS FOR COMPLETENESS. VERIFICATION OF DIMENSIONS AND QUANTITIES IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL MARK THE SHOP DRAWING WITH ALL NECESSARY COMMENTS AND DETAILER REQUESTED INFO BEFORE FORWARDING TO THE ARCHITECT/ ENGINEER. SUBMITTALS SHALL BE MADE IN TIME TO PROVIDE A MINIMUM OF TWO WEEKS FOR REVIEW BY THE ARCHITECT/ ENGINEER.

   B. SHOP DRAWINGS FOR ALL STRUCTURAL ITEMS SHALL BE SUBMITTED TO THE ARCHITECT/ ENGINEER PRIOR TO FABRICATION AND CONSTRUCTION. SUCH ITEMS INCLUDE:

      CONCRETE MIX DESIGNS, CONCRETE AND MASONRY REINFORCEMENT (INCLUDING MILL TEST REPORTS), EMBEDDED STEEL ITEMS, STRUCTURAL STEEL (INCLUDING MILL TEST REPORTS), GLUED-LAMINATED MEMBERS, PRE-MANUFACTURED ROOF TRUSSES, AND WOOD I-JOISTS.

      SHOP DRAWINGS OR CONTRACTOR ENGINEERED DETAILS SHALL BEAR THE SEAL AND SIGNATURE OF A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF OREGON IF IT DIFFERS FROM THE DESIGN OF THE STRUCTURAL DRAWINGS. ANY REVISION FROM THE STRUCTURAL DRAWINGS SHALL BE SUBMITTED ALONG WITH SUPPORTING CALCULATIONS BEARING THE SEAL AND SIGNATURE OF A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF OREGON TO THE ARCHITECT/ ENGINEER FOR REVIEW AND ACCEPTANCE.

   C. CALCULATIONS, DESIGN DRAWINGS, AND SHOP DRAWINGS FOR THE DESIGN, FABRICATION AND CONSTRUCTION OF THE BIDDER DESIGN ITEMS SHALL BEAR THE SEAL AND SIGNATURE OF A REGISTERED STRUCTURAL ENGINEER IN THE STATE OF OREGON AND SHALL BE SUBMITTED TO THE ARCHITECT/ ENGINEER PRIOR TO FABRICATION. BIDDER DESIGN ITEMS FOR THIS PROJECT INCLUDE:

      PRECAST CONCRETE, STAIRS, SUNSHADES/ PREMANUFACTURED AWNINGS, SKYLIGHTS, WINDOW WALLS, AND ALL OTHER GLAZING SYSTEMS.

   CALCULATIONS AND BIDDER DESIGN DRAWINGS SHALL INCLUDE THE DESIGN, CONNECTION TO THE STRUCTURE, AND ACCOUNTING OF ANY LOCALIZED EFFECTS THE CONNECTIONS OR SYSTEMS MAY INDUCE ON THE STRUCTURE. ALL SUCH BIDDER DESIGNED ITEMS SHALL BE BASED ON THE DESIGN REQUIREMENTS AS SPECIFIED IN THE GENERAL STRUCTURAL NOTES.
7. DESIGN CRITERIA:

   A. CODE: 2018 INTERNATIONAL BUILDING CODE AS AMENDED BY THE STATE OF OREGON (2019 OSSC) .
   B. LOADS AND DESIGN CRITERIA: THE FOLLOWING LIVE LOADS AND CRITERIA WERE USED IN ADDITION TO THE DEAD LOAD OF THE STRUCTURE.

LIVE LOADS:	
ROOF	
GROUND SNOW LOAD	15 PSF
SNOW EXPOSURE FACTOR	C_e= 1.0
SNOW IMPORTANCE FACTOR	I_s= 1.1
THERMAL FACTOR	C_t = 1.1
ROOF SNOW LOAD	27.5 PSF (PLUS ADDED SNOW DRIFT IF SHOWN ON PLANS)
SOIL CRITERIA: (BASED ON REPORT REPORT BY WALLACE GROUP, PROJECT NO. 21099 (1), AUGUST 10, 2021)	
FOOTING (FROST) DEPTH	1'-6" MIN. BELOW GRADE
ALLOWABLE SOIL BEARING VALUES	
ON ENGINEERED FILL OR NATIVE SOILS	2500 PSF (W/ 1/3 INCREASE FOR SHORT TERM LATERAL LOADS)
RETAINING WALLS	
ACTIVE - UNRESTRAINED	35 PCF (LEVEL BACKFILL)
ACTIVE - RESTRAINED	50 PCF (LEVEL BACKFILL)
PASSIVE	200 PSF/FT. BELOW NATURAL GRADE (ENGINEERED FILL OR NATIVE SOILS)
FRICTION COEFFICIENT	0.50 (SLIDING FS = 1.5 (NO PASSIVE), FS = 2 (USING PASSIVE))
LATERAL CRITERIA:	
RISK CATEGORY	III
WIND (DIRECTIONAL DESIGN PROCEDURE PER 2019 OSSC)	
ULT. DESIGN WIND SPEED, V_{ult} (3-SEC GUST)	115 MPH
WIND EXPOSURE	C
INTERNAL PRESSURE COEFFICIENT	± 0.18
COMPONENTS AND CLADDING DESIGN PRESSURE NOTES:	
1. PLUS & MINUS SIGNIFY PRESSURES ACTING TOWARD & AWAY FROM THE SURFACES, RESPECTIVELY.	
2. REFER TO FIGURE 30.4-1 ASCE 7-16 FOR ZONES	
3. HIP/GABLE, HT.=30', ADJ. FACTOR=1.0	
SEISMIC (EQUIVALENT LATERAL FORCE PROCEDURE)	
IMPORTANCE FACTOR (SEISMIC)	I_E= 1.25
SITE CLASS	D
SPECTRAL RESPONSE ACCELERATIONS	S_{XS}= 0.405 S_{1}= 0.198
SPECTRAL RESPONSE COEFFICIENTS	S_{DS}= 0.399 S_{D1}= 0.291
SEISMIC DESIGN CATEGORY	D
BOTH DIRECTIONS:	
RESPONSE MODIFICATION COEFFICIENT	R= 6.5 (LIGHT FRAMED PLYWOOD S.W.'S)
SEISMIC RESPONSE COEFFICIENT	C_{S}= 0.077
DESIGN BASE SHEAR (ULT)	V= 15.8 KIPS (rho=1.0)

ULT. NET DESIGN WIND PRESSURE (PSF) FOR 10 ft²		
ROOF (PSF)	ZONE 1	+16.0/ -44.0
	ZONE 2e	+16.0/ -44.0
	ZONE 2n	+16.0/ -64.1
	ZONE 2r	+16.0/ -64.1
	ZONE 3e	+16.0/ -64.1
	ZONE 3r	+16.0/ -76.2
WALL (PSF)	ZONE 4	+23.8/ -25.8
	ZONE 5	+23.8/ -31.9

CONCRETE AND REINFORCING STEEL:

1. CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 318-14 AND THE 2018 INTERNATIONAL BUILDING CODE AS AMENDED BY THE STATE OF OREGON (2019 OSSC).
2. THE MINIMUM 28 DAY CONCRETE STRENGTHS SHALL BE AS FOLLOWS:
   F'c = 3000 PSI.....FOR ALL USES UNLESS NOTED OTHERWISE.
   (NOTE: FOOTINGS / STEM WALLS DESIGNED FOR F'c=2500 PSI. CONCRETE SPECIAL INSPECTION NOT REQUIRED FOR FOOTINGS / STEM WALLS).
3. CONCRETE MIX DESIGNS, ALONG WITH TEST DATA AS REQUIRED, BY ACI 318-14, SECTION 26.4, SHALL BE SUBMITTED TO THE ARCHITECT/ ENGINEER FOR REVIEW A MINIMUM OF TWO WEEKS PRIOR TO CONCRETE POURS.
4. SPECIFIED CONCRETE STRENGTHS SHALL BE VERIFIED BY STANDARD 28-DAY CYLINDER TESTS PER ASTM C39, WHEN AND WHERE SPECIAL INSPECTION IS REQUIRED.
5. A 20% MAXIMUM OF THE CEMENT CONTENT MAY BY SUBSTITUTED WITH FLYASH CONFORMING TO ASTM C618, TYPE F OR C. HIGHER PERCENTAGES OF FLYASH MAY BE UTILIZED WITH ACCEPTANCE AND APPROVAL BY THE STRUCTURAL ENGINEER. ANY CONCRETE MIX UTILIZING FLYASH SHALL BE VERIFIED WITH TEST DATA.
6. ADDITIONAL WATER SHALL NOT BE ADDED TO THE CONCRETE MIX AT THE JOBSITE. WATER REDUCING ADMIXTURES CONFORMING TO ASTM C494 MAY BE UTILIZED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. IF CONCRETE IS TO BE POURED AGAINST AN EXISTING CONCRETE SURFACE, THE EXISTING SURFACE SHALL BE CLEANED AND ROUGHENED TO A MIN. 1/4" AMPLITUDE.
8. SLEEVES, OPENINGS, CONDUITS, AND OTHER EMBEDDED ITEMS NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE APPROVED BY THE STRUCTURAL ENGINEER BEFORE POURING. CONDUITS EMBEDDED IN SLABS SHALL NOT BE LARGER IN OUTSIDE DIAMETER THAN ONE THIRD THE THICKNESS OF THE SLAB AND SHALL NOT BE SPACED CLOSER THAN THREE DIAMETERS ON CENTER. PROVIDE 3/4" CHAMFERS ON ALL EXPOSED CONCRETE EDGES UNLESS NOTED OTHERWISE.
9. SHORING AND RESHORING:
   SHORING AND RESHORING SHALL CONFORM TO ACI347.2 R-17. SHORING AND SUPPORTING FORMWORK SHALL NOT BE REMOVED FROM HORIZONTAL MEMBERS BEFORE CONCRETE STRENGTH IS AT LEAST 70 PERCENT OF DESIGN STRENGTH, AS DETERMINED BY FIELD CURED CYLINDERS. IN ADDITION, SHORING SHALL NOT BE REMOVED SOONER THAN RECOMMENDED BY ACI 347.2R-17. FORMWORK SHALL NOT BE REMOVED IN LESS THAN (10) DAYS.
10. REINFORCING STEEL:
    A. REINFORCING STEEL SHALL BE DETAILED, FABRICATED, AND INSTALLED ACCORDING TO THE "MANUAL OF STANDARD PRACTICE OF REINFORCED CONCRETE CONSTRUCTION" BY THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
    B. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
    C. SMOOTH BARS OR WELDED WIRE FABRIC SHALL CONFORM TO ASTM A1064.
    D. REINFORCING STEEL REQUIRING WELDING OR PLACED WITHIN A SPECIFIED BOUNDARY ELEMENT OR MOMENT FRAME ELEMENT SHALL CONFORM TO WELDABLE ASTM A706.
    E. ALL LAP SPLICES OF REINFORCEMENT SHALL CONFORM TO CLASS B LAPS AS SHOWN ON THE LAP SPLICE SCHEDULE, UNLESS NOTED OTHERWISE.
    F. ANY MECHANICAL BAR SPLICES SHOWN SHALL BE MADE WITH DAYTON BAR-GRIP COUPLERS OR APPROVED EQUAL PRODUCT SUBMITTED TO THE ENGINEER OF RECORD WITH AN ICBO REPORT.
    G. UNLESS NOTED OTHERWISE, REINFORCING STEEL SHALL HAVE THE MINIMUM COVER OR PROTECTION FOR THE FOLLOWING USES AS NOTED BELOW:

BEAMS, JOISTS, AND COLUMNS	1-1/2" (TO TIES OR STIRRUPS)
SLABS	1"
WALLS	
INTERIOR FACES	3/4"
EXPOSED TO EARTH OR WEATHER	1-1/2" (#5 BARS AND SMALLER) 2" (#6 BARS AND LARGER)
FOOTINGS	3"

11. CONCRETE WALLS:
    A. PROVIDE THE MINIMUM WALL REINFORCING AS SHOWN BELOW UNLESS NOTED OTHERWISE ON PLANS OR DETAILS:

WALL THICKNESS	REINFORCING
6"	#4 VERT. @ 24" O.C. & #4 HORIZ. @ 16" O.C. @ ↓ OF WALL

    B. HOOKED DOWELS FROM FOUNDATIONS SHALL BE PROVIDED TO MATCH VERTICAL WALL REINFORCING.
    C. PROVIDE HOOKED DOWELS MATCHING SLAB REINFORCING FROM WALLS TO SLABS OR HOOK SLAB REINFORCEMENT INTO WALLS.
    D. UNLESS NOTED OTHERWISE, PLACE (2) #5 BARS IN WALLS W/ (2) LAYERS OF REINF. IN BOTH DIRECTIONS & (1) #5 BAR IN WALLS HAVING SINGLE LAYER OF REINF. IN BOTH DIRECTIONS, ON ALL SIDES OF SLAB AND WALL OPENINGS EXTENDED 36" BEYOND OPENING. PROVIDE (1) OR (2) 4'-8" LONG DIAGONAL #5 BARS AT EACH CORNER OF THE OPENING MATCHING THE LAYERS OF REINFORCING.
12. ADDITIONAL CONCRETE ITEMS:
    A. HEADED SHEAR STUDS AND DEFORMED BAR ANCHORS SHALL BE AN APPROVED NELSON PRODUCT OR APPROVED EQUAL.
    B. WEDGE ANCHORS OR EXPANSION BOLTS SHALL BE HILTI KWIK BOLT-TZ OR AN APPROVED EQUAL SUBMITTED WITH ICBO REPORTS TO THE ENGINEER FOR REVIEW.
    C. EPOXY ANCHORS OR DOWELS SHALL BE INSTALLED WITH HILTI HIT-RE 500-V3 EPOXY ADHESIVE, U.N.O. AN APPROVED EQUAL IN CRACKED OR UNCRACKED CONCRETE WITH ICC REPORTS MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
    D. UNLESS NOTED OTHERWISE, PERMANENTLY EXPOSED EMBEDDED PLATE AND ANGLE ASSEMBLIES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION. WELDS OR LOADS SHALL NOT BE PLACED ON THE EMBEDDED ASSEMBLIES FOR A MINIMUM OF (7) DAYS AFTER CASTING IN CONCRETE.
13. REINFORCEMENT SHALL BE SECURED IN FORMS WITH SUITABLE TIES AND ANCHORAGE TO PREVENT DISPLACEMENT. BARS ADJACENT TO EARTH SHALL BE SUPPORTED BY CEMENT MORTAR CUBES.
14. REINFORCING STEEL SHALL NOT BE DISPLACED FOR THE CONVENIENCE OF OTHER TRADES UNLESS APPROVED BY THE STRUCTURAL ENGINEER OF RECORD.
15. "WET SETTING" OF REINFORCEMENT, ANCHOR BOLTS AND INSERTS IS NOT PERMITTED.

CONCRETE REINFORCING LAP SPLICE SCHEDULE

BAR SIZE	F'c = 3,000 psi			
	TOP BARS		OTHER BARS	
	CASE 1	CASE 2	CASE 1	CASE 2
#3	28	42	22	32
#4	37	56	29	43
#5	47	70	36	54
#6	56	84	43	64
#7	81	122	63	94
#8	93	139	72	107
#9	105	157	81	121
#10	118	177	91	136
#11	131	196	101	151

LAP SPLICE SCHEDULE NOTES:

1. LAP LENGTHS ARE IN INCHES AND ARE BASED ON GRADE 60 REINFORCING STEEL AND NORMAL WEIGHT CONCRETE.
2. WHERE CLASS A LAP SPLICES ARE NOTED IN THE PLANS OR DETAILS, DIVIDE THE TABULATED VALUES BY 1.3
3. FOR LIGHTWEIGHT AGGREGATE CONCRETE, MULTIPLY THE TABULATED VALUES BY 1.3.
4. TOP BARS ARE HORIZONTAL BARS WITH MORE THAN 12 INCHES OF CONCRETE CAST BELOW THE BARS.
5. CASES 1 AND 2 ARE DEFINED AS FOLLOWS:
   BEAMS OR COLUMNS:
   CASE 1: COVER AT LEAST 1.0 DB AND C.C. SPACING AT LEAST 2.0 DB (WHERE DB = BAR DIAMETER).
   CASE 2: COVER LESS THAN 1.0 DB OR C.C. SPACING LESS THAN 2.0 DB.
   ALL OTHERS:
   CASE 1: COVER AT LEAST 1.0 DB AND C.C. SPACING AT LEAST 3.0 DB.
   CASE 2: COVER LESS THAN 1.0 DB OR C.C. SPACING LESS THAN 3.0 DB.

MASONRY:

1. MASONRY CONSTRUCTION SHALL CONFORM TO TMS 402-16 AND THE 2018 INTERNATIONAL BUILDING CODE AS AMENDED BY THE STATE OF OREGON (2019 OSSC)
2. CONCRETE MASONRY UNITS SHALL COMPLY WITH ASTM C90 WITH A MINIMUM COMPRESSIVE STRENGTH OF 1,900 PSI ON AVERAGE NET AREA. ASSEMBLIES SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF F'M=1,500 PSI AS VERIFIED BY PRISM TESTS BEFORE AND DURING CONSTRUCTION
3. MORTAR
   A. MORTAR SHALL BE TYPE S PER ASTM C270, AND SHALL CONFORM TO 2018 IBC SECTION 2103.
4. GROUT
   A. GROUT SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 2,000 PSI AND SHALL CONFORM TO 2018 IBC SECTION 2103. ALL WALLS SHALL BE FULLY GROUTED UNLESS NOTED OTHERWISE.
5. REINFORCING STEEL
   A. REINFORCING STEEL SHALL CONFORM TO 2018 IBC SECTION 2103.4. DEFORMED BARS SHALL BE ASTM A615, GRADE 60. BARS SHALL BE PLACED IN ACCORDANCE WITH 2018 IBC SECTION 2104.
   B. LAP ALL REINFORCING STEEL IN ACCORDANCE WITH THE MASONRY LAP SPLICE SCHEDULE, UNLESS NOTED OTHERWISE.
   C. PROVIDE TWO #5 HORIZONTAL BARS IN BOND BEAM AT ALL FLOOR AND ROOF LINES AND AT THE TOP OF WALLS. BOND BEAMS SHALL BE STEPPED AS REQUIRED TO MATCH ROOF SLOPES.
   D. PROVIDE TWO #5 HORIZONTAL BARS IN BOND BEAM ABOVE AND BELOW ALL OPENINGS, AND EXTEND THESE BARS 2'-0" PAST THE OPENING AT EACH SIDE. PROVIDE ONE BAR, MATCHING VERTICAL BAR SIZE, FOR THE FULL HEIGHT OF THE WALL AT EACH SIDE OF OPENINGS, WALL ENDS, AND INTERSECTIONS.
   E. PLACE ALL HORIZONTAL BARS IN BOND BEAM UNITS. WHEN TWO BARS EXIST IN BOND BEAM, STAGGER LAPS 6'-0" MIN.
   F. PROVIDE DOWELS INTO FOUNDATION TO MATCH SPACING & DIAMETER OF VERTICAL REINFORCING. LAP BARS IN ACCORDANCE WITH THE MASONRY LAP SPLICE SCHEDULE. DOWELS TO BE STRAIGHT AND PLUMB.
   G. INSTALL VERTICAL REINFORCING WITH BAR POSITIONERS @ 8'-0" O.C. MAXIMUM.
   H. PROVIDE CORNER REINF. BARS EQUAL TO SIZE & SPACING OF HORIZ. REINF. @ ALL CORNERS AND INTERSECTIONS. LAP BARS IN ACCORDANCE WITH THE MASONRY LAP SPLICE SCHEDULE.
   I. ALL CELLS CONTAINING REINFORCING SHALL BE GROUTED SOLID.

MASONRY REINFORCING LAP SPLICE SCHEDULE

BAR SIZE	MIN. LAP FOR BAR SPACING > 3"	MIN. LAP FOR BAR SPACING < 3"
#4	24"	31"
#5	30"	39"
#6	36"	47"
#7	42"	55"
#8	48"	63"

6. MASONRY WALLS
   A. PROVIDE THE MINIMUM WALL REINFORCING AS SHOWN BELOW UNLESS NOTED OTHERWISE:

WALL THICKNESS	VERTICAL BARS		HORIZONTAL BARS	
	RUNNING BOND	STACK BOND	RUNNING BOND	STACK BOND
8"	#5 @ 24" O.C.	#5 @ 24" O.C.	(2) #4 @ 48" O.C.	#5 @ 24" O.C.

7. CONTROL JOINTS SHALL BE PLACED IN ALL MASONRY WALLS @ A MAXIMUM SPACING OF 25 FT. O.C. OR AS NOTED ON DRAWINGS (REF. ARCH. DOCUMENTS FOR SPECIFIC LOCATIONS). HORIZONTAL WIRE AND BOND BEAM REINFORCEMENT SHALL BE DISCONTINUOUS @ ALL CONTROL JOINTS. HORIZONTAL BOND BEAM REINFORCEMENT @ LINTEL BEAMS, FLOOR AND ROOF LEVELS SHALL BE CONTINUOUS THROUGH CONTROL JOINTS. TWO #5 VERTICAL BARS SHALL BE PLACED ON EACH SIDE OF WALL CONTROL JOINTS. ADDITIONAL VERTICAL BARS SHALL BE DOWELED TO FOUNDATION.
8. ALL BLOCK CELLS CONTAINING METAL INSERTS, ANCHOR BOLTS, STUD BOLTS, ETC. SHALL BE FILLED WITH GROUT.
9. ALL CELLS FILLED WITH GROUT TO BE MECHANICALLY CONSOLIDATED @ EVERY LIFT.
10. ALL BOLTS IN MASONRY SHALL CONFORM TO ASTM SPECIFICATION A307 U.N.O. AND SHALL BE OF THE SIZE INDICATED ON THE DRAWINGS.
11. LEVEL 2 QUALITY ASSURANCE PROGRAM REQUIRED PER 2018 IBC & TMS 602, TABLE 4 & 5 UNLESS NOTED OTHERWISE ON DRAWINGS.
12. ADDITIONAL MASONRY ITEMS:
    A. HEADED SHEARS STUDS AND DEFORMED BAR ANCHORS SHALL BE AN APPROVED NELSON PRODUCT OR APPROVED EQUAL.
    B. WEDGE ANCHORS OR EXPANSION BOLTS SHALL BE HILTI KWIK BOLT 3, OR AN APPROVED EQUAL WEDGE ANCHOR OR EXPANSION BOLT. THE APPROVED EQUAL SUBMITTED WITH ICBO REPORTS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
    C. EPOXY ANCHORS OR DOWELS SHALL BE INSTALLED WITH HILTI HY200-R, OR AN APPROVED EQUAL EPOXY ADHESIVE. THE APPROVED EQUAL WITH ICBO REPORTS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
    D. UNLESS NOTED OTHERWISE, PERMANENTLY EXPOSED EMBEDDED PLATE AND ANGLE ASSEMBLIES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION . WELDS OR LOADS SHALL NOT BE PLACED ON THE EMBEDDED ASSEMBLIES FOR A MINIMUM OF (7) DAYS AFTER CASTING IN MASONRY.

STRUCTURAL STEEL:

1. STEEL DESIGN, FABRICATION, AND ERECTION SHALL CONFORM WITH "AISC SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" AND THE "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES".
2. THE GRADE AND SPECIFICATION OF THE STEEL MEMBERS SHALL BE AS FOLLOWS:

WIDE FLANGE SHAPES, BRACED FRAME GUSSET PLATES	ASTM A572 GRADE 50 OR ASTM A992 GRADE 50
WIDE FLANGE SHAPES SPECIFIED AS PART OF THE LATERAL FORCE RESISTING SYSTEM	ASTM A992 GRADE 50
CHANNELS, PLATES, BARS AND ANGLES (U.N.O.)	ASTM A36
HOLLOW STRUCTURAL SECTIONS (TUBES)	ASTM A500 GRADE B (FY=46 KSI)
HOLLOW STRUCTURAL SECTIONS (PIPES)	ASTM A53 GRADE B (FY=35 KSI)
HIGH STRENGTH BOLTS	ASTM A325/ F1852, TYPE 1, PLAIN
NUTS	ASTM A563
WASHERS (REQ'D @ SLOTTED & OVERSIZE HOLES)	ASTM F436
ANCHOR BOLTS	ASTM F1554, GRADE 36
THREADED RODS	ASTM A36

3. BOLTS SHALL CONFORM TO ASTM SPECIFICATIONS FOR HIGH STRENGTH A325 BOLTS, UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE INSTALLED SNUG TIGHT UNLESS NOTED OTHERWISE ON PLANS. WHERE SLIP CRITICAL IS SPECIFIED ON PLANS, ALL FAYING SURFACES SHALL BE PREPARED AS REQUIRED FOR CLASS A OR BETTER SLIP-CRITICAL JOINTS. ALL BOLTS SPECIFIED AS SLIP CRITICAL AND UTILIZED IN SEISMIC RESISTING ELEMENTS SHALL BE FULLY TENSIONED.
4. WELDING SHALL CONFORM TO THE LATEST EDITION FOR BUILDING CONSTRUCTION. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH A WELDING PROCEDURE SPECIFICATION (WPS) AS REQUIRED IN AWS D1.1 AND APPROVED BY THE ENGINEER OF RECORD. THE WPS VARIABLES SHALL BE WITHIN THE PARAMETERS ESTABLISHED BY THE FILLER-METAL MANUFACTURER.
5. ALL COMPLETE JOINT PENETRATION WELDS USED IN THE SEISMIC RESISTING SYSTEM SHALL BE MADE WITH A FILLER METAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT MINUS 20° F, AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION. ALL COMPLETE JOINT PENETRATION WELDS FOR NON-SEISMIC RESISTING SYSTEMS SHALL BE MADE WITH A FILLER METAL THAT HAS A MINIMUM CVN TOUGHNESS OF 20 FT-LBS AT 60° F.
6. FOR MEMBERS AND CONNECTIONS THAT ARE PART OF THE SEISMIC RESISTING SYSTEM, DISCONTINUITIES CREATED BY ERRORS OR BY FABRICATION OR ERECTION OPERATIONS, SUCH AS TACK WELDS, ERECTION AIDS, AIR-ARC GOUGING, AND FLAME CUTTING, SHALL BE REPAIRED AS REQUIRED BY THE ENGINEER OF RECORD.
7. WELDS SHALL UTILIZE E70XX ELECTRODES AND SHALL BE A MINIMUM OF 3/16" IN SIZE UNLESS NOTED OTHERWISE.
8. ALL STEEL EXPOSED TO SOIL, MOISTURE OR WEATHER SHALL BE HOT DIPPED GALVANIZED PER ASTM A123 OR HAVE ANOTHER APPROVED PROTECTIVE COATING.
9. HEADED SHEAR STUDS, DEFORMED BAR ANCHORS AND THREADED STUDS SHALL BE NELSON PRODUCT OR APPROVED EQUAL. STUDS' D.B.A.'S SHALL BE WELDED WITH AUTOMATICALLY TIMED STUD WELDING MACHINE PER AWS D1.1 SECTIONS 7 & 7.8.1.

SAWN LUMBER:

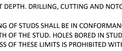
1. ALL SAWN LUMBER SHALL CONFORM TO THE WESTERN WOOD PRODUCTS ASSOCIATION OR THE WEST COAST LUMBER INSPECTION BUREAU GRADING RULES. LUMBER SHALL BE OF THE SPECIES AND GRADE SHOWN BELOW:

MEMBER	GRADE
2x & 4x FRAMING	DOUGLAS FIR-LARCH NO. 2
5x & GREATER BEAMS	DOUGLAS FIR-LARCH NO. 1
POSTS/ COLUMNS	DOUGLAS FIR-LARCH NO. 1
T&G DECKING	DOUGLAS FIR-COMMERCIAL DEX

2. ALL LUMBER IN CONTACT WITH THE GROUND, CONCRETE OR CMU SHALL BE PRESSURE TREATED. CONTRACTOR MAY SUBMIT FOR APPROVAL, A MOISTURE BARRIER IN-LIEU OF THE PRESSURE TREATED WOOD.
3. ALL METAL HARDWARE AND FRAMING ACCESSORIES SHALL BE MANUFACTURED BY SIMPSON STRONG-TIE COMPANY OR AN APPROVED EQUAL. SUBSTITUTION OF AN APPROVED EQUAL SHALL NOT BE MADE WITHOUT THE APPROVAL OF THE ENGINEER. THE SUBMITTAL SHALL INCLUDE DOCUMENTATION SHOWING THE ALLOWABLE LOADS OF THE SPECIFIED SIMPSON ITEM ALONG WITH TABULATED ALLOWABLE LOADS FOR THE SUBSTITUTED ITEMS. ALL ITEMS SHALL BE INSTALLED PER THE MANUFACTURERS INSTALLATION REQUIREMENTS. ALL NAIL HOLES SHALL BE FILLED WITH THE RECOMMENDED FASTENER UNLESS NOTED OTHERWISE ON THE DRAWINGS.
4. WHERE FRAMING HANGERS ARE REQUIRED BUT ARE NOT SPECIFICALLY SIZED, THE FOLLOWING SIZES SHALL BE USED. SLOPE, SKEW, TURN IN FLANGES AND PROVIDE TOP FLANGE HANGERS AS REQUIRED FOR THE SPECIFIC CONDITIONS AT THE END OF THE MEMBER.

MEMBER	HANGER
2x & 3x MEMBERS	U TYPE HANGERS
4x MEMBERS	HU TYPE HANGERS
6x MEMBERS	HUTF TYPE HANGERS
I-JOIST MEMBERS	MIT HANGERS
GLU-LAM MEMBERS	LEG HANGERS

5. ALL WALLS SHALL HAVE DOUBLE TOP PLATES AND SHALL BE SPLICED PER THE TYPICAL TOP PLATE SPLICE DETAIL, UNLESS NOTED OTHERWISE. TOP PLATES AT WALL INTERSECTIONS SHALL BE LAPPED AND NAILED WITH (3) 16D NAILS.
6. HOLES FOR BOLTS SHALL BE DRILLED WITH A BIT OF THE SAME NOMINAL DIAMETER AS THE BOLT + 1/16".
7. ALL BOLTS, CARRIAGE BOLTS, LAG SCREWS, EXPANSION BOLTS AND EPOXY BOLTS SHALL BE INSTALLED WITH STANDARD CUT WASHERS UNDER THE BOLT HEADS AND NUTS THAT BEAR DIRECTLY ON THE WOOD. ALL NUTS SHALL BE TIGHTENED AT THE TIME OF INSTALLATION AND RE-TIGHTENED IF NECESSARY, DUE TO WOOD SHRINKAGE, PRIOR TO CLOSE-IN OR AT THE COMPLETION OF THE PROJECT. BOLTS AND LAG SCREWS SHALL CONFORM TO ANSI/ASME STANDARD B18.2.1-2012.
8. DRILLING, CUTTING AND NOTCHING OF JOISTS SHALL BE IN CONFORMANCE WITH 2018 IBC 2308.4.2.4 CUTS/ NOTCHES IN THE TOP AND BOTTOM SHALL NOT BE DEEPER THAN ONE-SIXTH THE JOIST DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE ONE-THIRD OF THE SPAN. HOLES BORED IN JOISTS SHALL NOT BE WITHIN 2 INCHES OF THE TOP OR BOTTOM OF JOISTS, AND THE DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED ONE-THIRD THE JOIST DEPTH. DRILLING, CUTTING AND NOTCHING IN EXCESS OF THESE LIMITS IS PROHIBITED WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
9. DRILLING/ CUTTING AND NOTCHING OF STUDS SHALL BE IN CONFORMANCE WITH 2018 IBC AND 2308.5.9 AND 2308.5.10 CUTS/ NOTCHES SHALL NOT EXCEED 25% THE WIDTH OF THE STUD. HOLES BORED IN STUDS SHALL NOT EXCEED 40% THE WIDTH OF THE STUD. DRILLING, CUTTING AND NOTCHING IN EXCESS OF THESE LIMITS IS PROHIBITED WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
10. WOOD SYMBOLS:



CONTINUOUS BLOCKING

11. ALL NAILS FOR STRUCTURAL WORK SHALL BE COMMON WIRE NAILS. HOLES SHALL BE PRE-DRILLED WHERE NECESSARY TO PREVENT SPLITTING. NAILING NOT SHOWN ON THE STRUCTURAL DRAWINGS SHALL BE PER THE NAILING SCHEDULE BELOW:

NAIL TYPE	SHANK DIAMETER	MINIMUM PENETRATION - INCHES
6d	0.113	1.13

SPECIAL INSPECTION TABLES

SPECIAL INSPECTIONS:

1. THE ITEMS NOTED SHALL BE INSPECTED IN ACCORDANCE WITH 2019 OSSC CHAPTER 17 BY A CERTIFIED SPECIAL INSPECTION FROM AN ESTABLISHED TESTING AGENCY. FOR MATERIAL SAMPLING AND TESTING REQUIREMENTS, REFER TO THE MATERIAL SAMPLING AND TESTING SECTION, THE PROJECT SPECIFICATIONS, AND THE SPECIFIC GENERAL NOTES SECTIONS. THE TESTING AGENCY SHALL SEND COPIES OF ALL STRUCTURAL TESTING AND INSPECTION REPORTS DIRECTLY TO THE ARCHITECT, ENGINEER, CONTRACTOR, AND BUILDING OFFICIAL. ANY MATERIALS WHICH FAIL TO MEET THE PROJECT SPECIFICATIONS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
2. SPECIAL INSPECTION TESTING REQUIREMENTS APPLY EQUALLY TO ALL BIDDER DESIGNED COMPONENTS. SPECIAL INSPECTION IS NOT REQUIRED FOR WORK PERFORMED BY AN APPROVED FABRICATOR PER 2019 OSSC SECTION 1704.2.5.1.
3. CONTINUOUS SPECIAL INSPECTION MEANS THAT THE SPECIAL INSPECTOR IS ON SITE AT ALL TIMES OBSERVING THE WORK REQUIRING SPECIAL INSPECTION PER 2019 OSSC 1702, PERIODIC SPECIAL INSPECTION MEANS THAT THE SPECIAL INSPECTOR IS ON SITE AT TIME INTERVALS NECESSARY TO CONFIRM THAT ALL WORK REQUIRING SPECIAL INSPECTION IS IN COMPLIANCE.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION, SCHEDULING AND TIMELY NOTIFICATION OF THE DESIGNATED SPECIAL INSPECTOR PRIOR TO ALL WORK REQUIRING SPECIAL INSPECTION.

STATEMENT OF SPECIAL INSPECTION NOTES:

1. SPECIAL INSPECTIONS SHALL CONFORM TO SECTION 1705 OF THE 2019 OSSC, CONTRACT DOCUMENTS AND APPROVED SUBMITTALS. REFER TO SPECIAL INSPECTION AND TESTING TABLES FOR PROJECT REQUIREMENTS.
2. SPECIAL INSPECTIONS AND ASSOCIATED TESTING SHALL BE PERFORMED BY AN APPROVED ACCREDITED INDEPENDENT AGENCY MEETING THE REQUIREMENTS OF ASTM E329 (MATERIALS). THE INSPECTION AND TESTING AGENCY SHALL FURNISH TO THE STRUCTURAL ENGINEER ARCHITECT A COPY OF THEIR SCOPE OF ACCREDITATION. SPECIAL INSPECTORS SHALL BE APPROVED BY THE BUILDING OFFICIAL. WELDING INSPECTORS SHALL BE QUALIFIED PER SECTION 6.1.4.1(1) OF AWS D1.1.
3. THE SPECIAL INSPECTOR SHALL OBSERVE THE INDICATED WORK FOR COMPLIANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR FOR CORRECTION AND NOTED IN THE INSPECTION REPORTS.
4. THE SPECIAL INSPECTOR AND GEOTECHNICAL ENGINEER SHALL FURNISH INSPECTION REPORTS FOR EACH INSPECTION TO THE BUILDING OFFICIAL, STRUCTURAL ENGINEER, ARCHITECT, CONTRACTOR, AND OWNER. THE SPECIAL INSPECTION AGENCY SHALL SUBMIT A FINAL REPORT STATING THAT THE WORK REQUIRING SPECIAL INSPECTION WAS INSPECTED AND IS IN CONFORMANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS AND THAT ALL DISCREPANCIES NOTED IN THE INSPECTION REPORTS HAVE BEEN CORRECTED.
5. QUALITY ASSURANCE (QA) IS REQUIRED FOR STRUCTURAL STEEL ITEMS PER AISC 360 AND 341 UNLESS SPECIFICALLY NOTED OTHERWISE. QUALITY CONTROL (QC) TO BE PROVIDED BY THE FABRICATOR, ERECTOR OR OTHER RESPONSIBLE CONTRACTOR AS APPLICABLE. CONTRACTOR AND SPECIAL INSPECTOR TO DOCUMENT QUALITY CONTROL AS REQUIRED IN AISC 360 SECTION N3 AND AISC 341 SECTION J2.
6. **INSPECTION TYPES:** CONTINUOUS - THE FULL-TIME OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK IS BEING PERFORMED.PERIODIC - THE PART-TIME OR INTERMITTENT OBSERVATION OF WORK REQUIRING SPECIAL INSPECTION BY AN APPROVED SPECIAL INSPECTOR WHO IS PRESENT IN THE AREA WHERE THE WORK HAS BEEN OR IS BEING PERFORMED AND AT THE COMPLETION OF THE WORK.OBSERVE : OBSERVE THESE FUNCTIONS ON A RANDOM, DAILY BASIS. OPERATIONS NEED NOT BE DELAYED PENDING OBSERVATIONS. PERFORM : INSPECTIONS SHALL BE PERFORMED PRIOR TO THE FINAL ACCEPTANCE OF THE ITEM.
7. PERFORM INSPECTION PRIOR TO FINAL ACCEPTANCE OF THE ITEM FOR TEN WELDS TO BE MADE BY A GIVEN WELDER, WITH THE WELDER DEMONSTRATING UNDERSTANDING OF REQUIREMENTS AND POSSESSION OF SKILLS AND TOOLS TO VERIFY THESE ITEMS, THE PERFORM DESIGNATION OF THIS TASK SHALL BE REDUCED TO OBSERVE, AND THE WELDER SHALL PERFORM THIS TASK. SHOULD THE INSPECTOR DETERMINE THAT THE WELDER HAS DISCONTINUED PERFORMANCE OF THIS TASK, THE TASK SHALL BE RETURNED TO PERFORM UNTIL SUCH TIME AS THE INSPECTOR HAS RE-ESTABLISHED ADEQUATE ASSURANCE THAT THE WELDER WILL PERFORM THE INSPECTION TASKS LISTED.
8. SPECIAL INSPECTION OF MECHANICAL POST INSTALLED ANCHORS SHALL BE IN STRICT CONFORMANCE WITH THE ICC REPORT AND MANUFACTURER'S INSTALLATION REQUIREMENTS. ANCHOR INSTALLERS SHALL BE QUALIFIED AS REQUIRED BY JURISDICTION REQUIREMENTS.●INSPECTION REPORTS SHALL IDENTIFY NAMES OF INSTALLERS.●SPECIAL INSPECTOR SHALL PROVIDE DOCUMENTATION AT THE END OF ANCHOR INSTALLATIONS STATING THAT THE ANCHORS WERE INSPECTED PER APPROVED ANCHOR EVALUATION REPORT.
9. **TESTING ABBREVIATIONS:**
   - NDT - NON-DESTRUCTIVE TESTING
   - C.J.P. - COMPLETE JOINT PENETRATION
   - MT - MAGNETIC PARTICLE TESTING
   - RBS - REDUCED BEAM SECTION
10. DOCUMENT (D): INDICATES CONTRACTOR AND SPECIAL INSPECTOR TO PROVIDE DOCUMENTATION IN ACCORDANCE WITH AISC 341.

CONTRACTOR RESPONSIBILITY: EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF THE MAIN WIND-OR SEISMIC-FORCE-RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM OR A WIND-OR SEISMIC-RESISTING COMPONENT LISTED THE TABLES SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND THE OWNER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY SHALL CONTAIN THE FOLLOWING:
ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTIONS.

1. ACKNOWLEDGEMENT THAT CONTROL WILL BE EXERCISED TO OBTAIN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS APPROVED BY THE BUILDING OFFICIAL.
2. PROCEDURES FOR EXERCISING CONTROL WITHIN THE CONTRACTOR'S ORGANIZATION, THE METHOD AND FREQUENCY OF REPORTING AND DISTRIBUTION OF THE REPORTS.
3. IDENTIFICATION AND QUALIFICATIONS OF THE PERSON(S) EXERCISING SUCH CONTROL AND THEIR POSITION(S) IN THE ORGANIZATION.

GENERAL - SPECIAL INSPECTIONS

SYSTEM OR MATERIAL	OSSC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 6)		REMARKS
			CONTINUOUS	PERIODIC	
FABRICATORS	1705.10 1704.2.5				SPECIAL INSPECTION IS REQUIRED FOR STRUCTURAL LOAD-BEARING MEMBERS AND ASSEMBLIES FABRICATED ON THE PREMISES OF A FABRICATOR'S SHOP. SPECIAL INSPECTIONS SHALL BE PERFORMED DURING FABRICATION. PERFORMING SPECIAL INSPECTIONS IS NOT REQUIRED, WHERE FABRICATOR HAS BEEN APPROVED AS AN APPROVED FABRICATOR, PER SECTION 1704.2.5.1.
DEFERRED SUBMITTALS				X	SPECIAL INSPECTION REQUIREMENTS FOR DEFERRED SUBMITTAL ITEMS, INCLUDING REQUIREMENTS FOR DESIGNATED SEISMIC SYSTEMS IN ACCORDANCE WITH OSSC SECTION 1705.12.4 IF APPLICABLE, TO BE SPECIFIED BY THE SYSTEM ENGINEER AND INCLUDED WITH DEFERRED SUBMITTAL DOCUMENTS.
SUBMITTALS TO THE BUILDING OFFICIAL	1704.5			X	CERTIFICATES OF COMPLIANCE, REPORTS OF PRE-CONSTRUCTION TESTS, OR REPORTS OF MATERIAL PROPERTIES SHALL BE SUBMITTED TO THE BUILDING OFFICIAL.
PRE-ENGINEERED STRUCTURES	1705.1.1	MBMA	X	X	REFER TO DEFERRED SUBMITTALS AND FABRICATORS REQUIREMENTS
FIBER-REINFORCED COMPOSITE SYSTEMS	1705.1.1	AC178		X	MATERIALS AND INSTALLATION SPECIAL INSPECTIONS PER ICC REPORT
POST INSTALLED MECHANICAL ANCHORS AND ADHESIVE ANCHORS (EXCLUDING CONDITIONS NOTED ABOVE) IN HARDENED CONCRETE AND COMPLETED MASONRY				X	
WIND RESISTING COMPONENTS - SPECIAL INSPECTIONS					
ROOF COVERING, ROOF DECK AND ROOF FRAMING CONNECTIONS	1705.11.3			X	
EXTERIOR WALL COVERING AND WALL CONNECTIONS TO ROOF AND FLOOR DIAPHRAGMS AND FRAMING	1705.11.3			X	

SOILS/GEOTECHNICAL - SPECIAL INSPECTIONS

SYSTEM OR MATERIAL	OSSC CODE REFERENCE	CODE OR STANDARDS REFERENCE	FREQUENCY (NOTE 6)		REMARKS
			CONTINUOUS	PERIODIC	
SOILS					
VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	1705.6	GEOTECHNICAL REPORT		X	BY THE GEOTECHNICAL ENGINEER OR QUALIFIED SPECIAL INSPECTOR
VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL				X	
PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS				X	
VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL			X		
PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY				X	

SOILS/GEOTECHNICAL - TESTING

SYSTEM OR MATERIAL	OSSC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 6)		REMARKS
			CONTINUOUS	PERIODIC	
FILL IN-PLACE DENSITY OR PREPARED SUBGRADE DENSITY	1705.6	VARIES; GEOTECHNICAL REPORT OR MINIMUM PER OSSC APPENDIX J107.5, WHICHEVER IS GREATER		X	BY THE GEOTECHNICAL ENGINEER OR QUALIFIED SPECIAL INSPECTOR
MATERIAL VERIFICATION		VARIES; CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS		X	BY THE GEOTECHNICAL ENGINEER OR QUALIFIED SPECIAL INSPECTOR
TEST ELEMENTS	"1705.6 1705.7"	REFERENCE SPECIFICATIONS FOR PERFORMANCE VARIFICATION AND PROOF LOAD TESTING REQUIREMENTS			BY THE GEOTECHNICAL ENGINEER

CONCRETE - SPECIAL INSPECTIONS

SYSTEM OR MATERIAL	OSSC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 6)		REMARKS
			CONTINUOUS	PERIODIC	
GENERAL	"1705.3 1901.6"	ACI 318: 26.13			SPECIAL INSPECTIONS OF CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF SECTION 1705.3 OF THE IBC AND SECTION 26.13 OF ACI 318.
REINFORCING STEEL AND (POST TENSIONED/PRETENSIONED) TENDON PLACEMENT	"1901.5.2 1908.4"	"ACI 318: CH. 20, 25.2, 25.3, 26.6.1-26.6.3, 26.13.3.3"		X	REINFORCING TO COMPLY WITH ALL CODE PROTECTION, SPACING AND TOLERANCE LIMITS.
WELDING REINFORCING STEEL	"1705.3.1 1705.3.2 1903.1 1903.2"	"AWS D1.4 ACI 318: 26.6.4"			
1. VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A706				X	
2. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16" FILLET				X	
3. ALL OTHER REINFORCING STEEL WELDING,			X		
INSPECT ANCHORS/BOLTS CAST IN CONCRETE	-	ACI 318: 17.8.2	X	X	ALL CAST-IN-PLACE ANCHORS/BOLTS SHALL BE VISUALLY INSPECTED. REFERENCE STEEL INSPECTIONS FOR ADDITIONAL INSTALLATION, MATERIAL AND WELDING INSPECTIONS OF STEEL ITEMS EMBEDDED IN CONCRETE (HEADED STUDS, DBA's, ETC.)
VERIFYING USE OF REQUIRED MIX DESIGN(S)	"1904.1 1904.2 1908.2 1908.3"	ACI 318: CH. 19, 26.4.3, 26.4.4		X	
CONCRETE SPECIMENS FOR TESTING	1908.10	"ASTM C172 ASTM C31 ACI 318: 26.5, 26.12"	X		PRIOR TO CONCRETE PLACEMENT, FABRICATE CONCRETE SPECIMENS FOR TESTING. SEE THE CONCRETE TESTING TABLE FOR ADDITIONAL INFORMATION.
CONCRETE/SHOTCRETE PLACEMENT, NON-SHRINK GROUT	1908.6, 1908.7, 1908.8	ACI 318: 26.5, 26.13.3.2(a)	X		
CONCRETE/SHOTCRETE CURING	1908.9	ACI 318: 26.5.3 - 26.5.5, 26.13.3.3		X	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURES AND TECHNIQUES
VERIFICATION OF FORMWORK	"	ACI 318: 26.11.1.2(b), 26.13.3.3		X	SPECIAL INSPECTIONS APPLY TO SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED
EMBEDDED ITEMS IN CONCRETE				X	ALL NON-STRUCTURAL EMBEDDED ITEMS, SUCH AS CONDUITS, PIPES AND SLEEVES, SHALL BE REVIEWED FOR CONFORMANCE WITH STRUCTURAL DOCUMENTS FOR SIZE, SPACING, LOCATION, EDGE DISTANCE AND TRIM REINFORCING.

CONCRETE - TESTING

SYSTEM OR MATERIAL	OSSC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 6)	REMARKS
CONCRETE STRENGTH	"1705.3 ASTM C172 ASTM C 31 ACI 318 26.12, ACI 318 26.5"	ASTM C39	EACH 150 CY NOR LESS THAN EACH 5000 SF OF SLAB OR WALL PLACED EACH SHIFT	FABRICATE SPECIMENS AT TIME FRESH CONCRETE IS PLACED
CONCRETE SLUMP		ASTM C143		
CONCRETE AIR CONTENT		ASTM C231		
CONCRETE TEMPERATURE		ASTM C1064		

STEEL - SPECIAL INSPECTIONS

SYSTEM OR MATERIAL	OSSC CODE REFERENCE	CODE OR STANDARD REFERENCE	INSPECTION (NOTES 5 AND 6)		REMARKS
			"CONTINUOUS/ PERFORM"	"PERIODIC/ OBSERVE"	
CONTRACTOR QUALITY CONTROL REQUIREMENTS		AISC 360 CHAPTER N	X	X	CONTRACTOR TO PROVIDE QUALITY CONTROL FOR ALL ITEMS INDICATED TO BE OBSERVED AND/OR PERFORMED IN TABLE BELOW
STEEL FABRICATION					
FABRICATION OF STRUCTURAL ELEMENTS	1704.2.5.1	AISC 360		X	REFER TO INSPECTION OF FABRICATOR REQUIREMENTS
MATERIAL VERIFICATION OF STRUCTURAL STEEL COMPONENTS	"1505.2.1 2203.1 TABLE 1705.2 "	"ASTM A6 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS AISC 360 A3.1 AISC 360 N3.2"		X	CERTIFIED MILL TEST REPORTS
MATERIAL VERIFICATION OF HIGH STRENGTH BOLTS, NUTS, AND WASHERS	"1705.2.1 .2 AISC 360 NS TABLE 1705.2-2"	"AISC 360 A3.3 AISC 360 N3.2 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS RCSC 2.1"		X	MANUFACTURER'S CERTIFIED TEST REPORTS
MATERIAL VERIFICATION OF ANCHOR BOLTS AND THREADED RODS		"AISC 360 A3.4 AISC 360 N3.2 ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS "		X	MANUFACTURER'S CERTIFIED TEST REPORTS
MATERIAL VERIFICATION OF WELD FILLER METALS	"1705.2.1 .1 TABLE 1705.2-5"	"AISC 360 A3.5 AISC 360 N3.2 APPLICABLE AWS AS DOCUMENTS"		X	MANUFACTURER'S CERTIFIED TEST REPORTS
STRUCTURAL STEEL WELDING					
VERIFYING USE OF PROPER WPS'S	"1705.2.1 AWS D1.1"	AISC 360 N3.2			RETAIN A RECORD OF WELDING PROCEDURE SPECIFICATIONS
VERIFYING WELDER QUALIFICATIONS		AWS D1.1		X	RETAIN A RECORD OF QUALIFICATION CARDS
COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS	TABLE 1705.2-6	AWS D1.1 CLAUSE 6	X		
MULTIPASS FILLET WELDS			X		
SINGLE PASS FILLET WELDS GREATER THAN 5/16"			X	X	ALL WELDS VISUALLY INSPECTED PER AWS D1.16.9
PLUG AND SLOT WELDS			X		
SINGLE PASS FILLET WELDS LESS THAN OR EQUAL TO 5/16"				X	
WELDING STAIR AND RAILING SYSTEMS	1705.2(2.5)	AWS D1.1 CLAUSE 6		X	"ALL WELDS VISUALLY INSPECTED PER AWS D1.1 6.9"
INSTALLATION OF ROOF DECKING	1705.1.1	ICC EVALUATION REPORT		X	SPECIAL INSPECTIONS APPLY TO DECKING TYPE, DEPTH AND GAUGE, POWER ACTUATED FASTENERS, SCREWS, PROPRIETARY SIDE SEAM ATTACHMENTS, AND BUTTON PUNCHES AND SHEAR CONNECTORS
FLOOR AND ROOF DECK WELDS	"1705.2.1 TABLE 1705.2-6"	AWS D1.3		X	ALL WELDS INSPECTED PER AWS D1.3 CLAUSE 8
FIELD INSTALLED DBA'S IN DIAPHRAGMS		AWS D1.1 CLAUSE 7		X	SEE STEEL-LATERAL TABLE FOR DBA'S PART OF THE LFRS. NO REQUIREMENTS FOR SHOP INSTALLED DBA'S
WELDED REBAR ANCHORS IN DIAPHRAGMS		AWS D1.4		X	SEE STEEL-LATERAL TABLE FOR WELDED ANCHORS PART OF THE LFRS. PER GSN #6 AND LARGER BARS ARE TO BE WELDED.
REINFORCING STEEL WELDING/SPLICING		AWS D1.5		X	
HIGH-STRENGTH BOLTING					
SNUG-TIGHT BOLT INSTALLATION	"1705.2.1 TABLE 1705.2-2 AISC 360 M2-5 AISC 360 N5-6"	"RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS SECTION 9 AISC 360 SECTION M2.5 "		X	ALL CONNECTIONS VISUALLY INSPECTED AND VERIFIED SNUG
INSPECTION TASKS PRIOR TO BOLTING					
MANUFACTURER'S CERTIFICATIONS AVAILABLE FOR FASTENER MATERIALS	"1705.2.1 .2 TABLE 1705.2-2"	"AISC 360 TABLE N5.6-1 AISC 360 M2.5"	X		
FASTENERS MARKED IN ACCORDANCE WITH ASTM REQUIREMENTS				X	
PROPER FASTENERS SELECTED FOR THE JOINT DETAIL (GRADE, TYPE, BOLT LENGTH, IF THREADS ARE TO BE EXCLUDED FROM THE SHEAR PLANE)				X	
PROPER BOLTING PROCEDURE SELECTED FOR JOINT DETAIL				X	
CONNECTING ELEMENTS< INCLUDING THE APPROPRIATE FAYING SURFACE CONDITION AND HOLE PREPARATION, IF SPECIFIED, MEET APPLICABLE REQUIREMENTS				X	
PRE-INSTALLATION VERIFICATION TESTING BY INSTALLATION PERSONNEL OBSERVED AND DOCUMENTED FOR FASTENER ASSEMBLIES AND METHODS USED				X	
PROPER STORAGE PROVIDED FOR BOLTS, NUTS, WASHERS AND OTHER FASTENER COMPONENTS				X	
INSPECTION TASKS DURING BOLTING					
FASTENER ASSEMBLIES, OF SUITABLE CONDITION, PLACED IN ALL HOLES AND WASHERS (IF REQUIRED) ARE POSITIONED AS REQUIRED	"1705.2.1 .2 TABLE 1705.2-2"	"AISC 360 TABLE N5.6-2 AISC M2.5 RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS SECTION 9 "		X	
JOINT BROUGHT TO THE SNUG-TIGHT CONDITION PRIOR TO THE PRETENSIONING OPERATION				X	
FASTENER COMPONENT NOT TURNED BY THE WRENCH PREVENTED FROM ROTATING				X	
FASTENERS ARE PRETENSIONED IN ACCORDANCE WITH THE RCSC SPECIFICATION, PROGRESSING SYSTEMATICALLY FROM THE MOST RIGID POINT TOWARD THE FREE EDGES				X	
INSPECTION TASKS AFTER BOLTING					
DOCUMENT ACCEPTANCE OR REJECTION OF BOLTED CONNECTIONS	"1705.2.1 .2 TABLE 1705.2-2"	"AISC 360 TABLE N5.6-3"	X		

STEEL - TESTING

SYSTEM OR MATERIAL	OSSC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 6)	REMARKS
STEEL				
ULTRASONIC (UT) TESTING OF WELDS	**1705.2.1**	AWS D1.1 6.13 & 6.14.3		ALL C.J.P. WELDS 5/16" AND THICKER REQUIRE UT TESTING.
MAGNETIC PARTICLE (MT) TESTING OF WELDS	**1705.2.1**	AWS D1.1 6.14.4 AISC360 N5.5c		REQUIRED AT THERMALLY CUT ACCESS HOLES WHERE FLANGE THICKNESS EXCEEDS 2" FOR ROLLED SHAPES OR WHEN THE WEB THICKNESS EXCEEDS 2" FOR BUILT-UP SHAPES. REQUIRED WHERE SPECIFICALLY NOTED ON DRAWINGS.
PRE-CONSTRUCTION TESTING OF WELDING STUDS, WELDED REINFORCING BARS AND DBA'S	**1705.2.1**	AWS D1.1 7.7.1	EACH SIZE AND TYPE OF STUD/BAR EACH SHIFT	THIS TESTING PERFORMED BY CONTRACTOR AND CONFIRMED BY SPECIAL INSPECTOR
STUD/DBA APPLICATION QUALIFICATION	**1705.2.1**	AWS D1.1 7.6	NON-PREQUALIFIED APPLICATIONS	THIS TESTING PERFORMED BY CONTRACTOR AND CONFIRMED BY SPECIAL INSPECTOR
PRE-INSTALLATION VERIFICATION OF PRETENSIONED HIGH STRENGTH BOLTS	**1705.2.1**	RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS SECTION 7	EACH COMBINATION OF DIAMETER, LENGTH, GRADE, AND LOT TO BE USED IN THE WORK	
CASTELLATED AND CELLULAR BEAMS				SEE TESTING NOTE 1

WOOD - SPECIAL INSPECTIONS

SYSTEM OR MATERIAL	OSSC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 6)		REMARKS
			CONTINUOUS	PERIODIC	
WOOD - REQUIRED STRUCTURAL SPECIAL INSPECTIONS					
FABRICATION OF PREFABRICATED STRUCTURAL ELEMENTS	1705.5			X	REFER TO INSPECTION OF FABRICATOR REQUIREMENTS
1. FABRICATION OF HIGH-LOAD DIAPHRAGMS:					
A. VERIFY STRUCTURAL PANEL GRADE AND THICKNESS	1705.5.1 TABLE 2305.2 (2)			X	
B. VERIFY NOMINAL SIZE OF FRAMING MEMBERS AT ADJOINING PANEL EDGES	1705.5.1			X	
C. VERIFY NAIL OR STAPLE DIAMETER AND LENGTH, NUMBER OF FASTENER LINES AND SPACING BETWEEN FASTENERS IN EACH LINE AND AT EDGE MARGINS	1705.5.1			X	
PREFABRICATED WOOD SHEAR PANELS	1705.5 1704.2.5	ICC EVALUATION REPORT		X	SPECIAL INSPECTIONS APPLY TO HOLDOWN ANCHOR SIZE AND PLACEMENT, INCLUDING EMBEDMENT LENGTH, SPACING, AND EDGE DISTANCE
METAL PLATE CONNECTED WOOD TRUSSES SPANNING 60 FT OR GREATER	1705.5.2			X	VERIFY TEMPORARY INSTALLATION OF RESTRAINT/BRACES AND PERMANENT INDIVIDUAL TRUSS MEMBERS RESTRAINT/BRACES ARE INSTALLED IN ACCORDANCE WITH APPROVED TRUSS SUBMITTAL.
WOOD - REQUIRED SEISMIC RESISTANCE INSPECTIONS					
FIELD GLUING OF DIAPHRAGM AND SHEAR WALL ELEMENTS	1705.12.2		X		
CONNECTIONS FOR DIAPHRAGM CHORDS, COLLECTORS, BRACING, AND SHEAR WALL ANCHORAGE AND HOLDOWNS	1705.12.2			X	ALL FASTENERS/CONNECTIONS VISUALLY INSPECTED
FASTENING OF DIAPHRAGM AND SHEAR WALL SHEATHING WITH EDGE NAILING < 4"	1705.12.2			X	FOR WOOD SHEAR WALLS, SHEAR PANELS, AND DIAPHRAGMS. THIS INCLUDES NAILING, BOLTING, ANCHORING AND OTHER FASTENING TO OTHER COMPONENTS IN THE SEISMIC FORCE RESISTING SYSTEM
WOOD - REQUIRED WIND RESISTANCE INSPECTIONS					
NAILING, BOLTING, ANCHORING, AND OTHER FASTENING OF COMPONENTS WITHIN THE MAIN WIND-FORCE RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, COLLECTORS, BRACES, AND HOLDOWNS	1705.11.1			X	SPECIAL INSPECTIONS ARE NOT REQUIRED FOR WOOD SHEAR WALLS AND DIAPHRAGMS WHERE FASTENER SPACING IS MORE THAN 4 INCHES ON CENTER. REFER TO TABLE 2 FOR MATERIAL SPECIFIC REQUIREMENTS
FIELD GLUING OPERATIONS OF ELEMENTS OF MAIN WIND-FORCE-RESISTING SYSTEM.	1705.11.1		X		

STRUCTURAL OBSERVATION

SYSTEM OR MATERIAL	INSPECTION				REMARKS
	IBC CODE REFERENCE	CODE OR STANDARD REFERENCE	FREQUENCY (NOTE 6)		
			Continuous	Periodic	
AS REQUIRED BY THE DESIGN PROFESSIONAL	1704.6.1				
AS REQUIRED BY BUILDING OFFICIAL	1704.6.1				
STRUCTURE IS CLASSIFIED AS RISK CATEGORY IV	1704.6.1				
THE STRUCTURE IS HIGH-RISE BUILDING	1704.6.1				
SEISMIC RESISTANCE FOR RISK CATEGORY III AND IV	1704.6.2			**X**	SEE COMMENTARY
SEISMIC RESISTANCE FOR RISK CATEGORY I AND II	1704.6.2			**X**	SEE COMMENTARY
WIND REQUIREMENTS WHERE V IS 130 MPH OR GREATER FOR RISK CATEGORY III AND IV	1704.6.3			**X**	SEE COMMENTARY

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STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 53003PE OREGON January 13, 2006 JON L. WALKER
EXPIRES: 6/30/2024

WALKER STRUCTURAL ENGINEERING P.C.
2863 N.W. CROSSING DRIVE - SUITE 201- BEND, Oregon 97703
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Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 22083
Date 01/18/2023

BID/PERMIT

SPECIAL INSPECTION TABLES

S0.2

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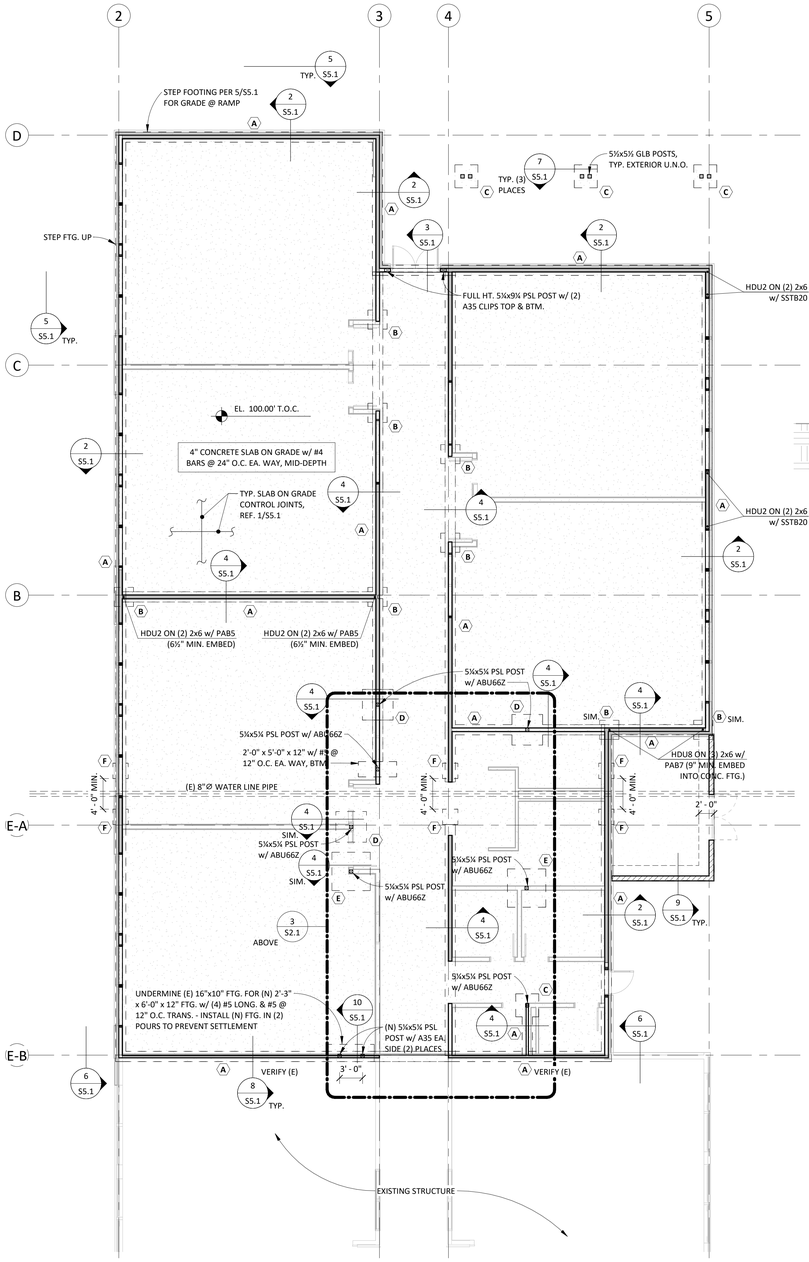
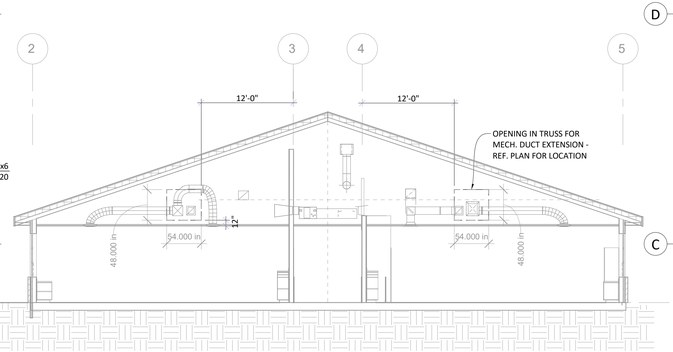
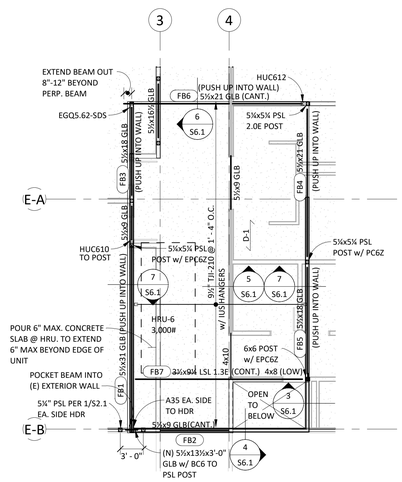


1 S2.1 FOUNDATION PLAN
1/8" = 1'-0"

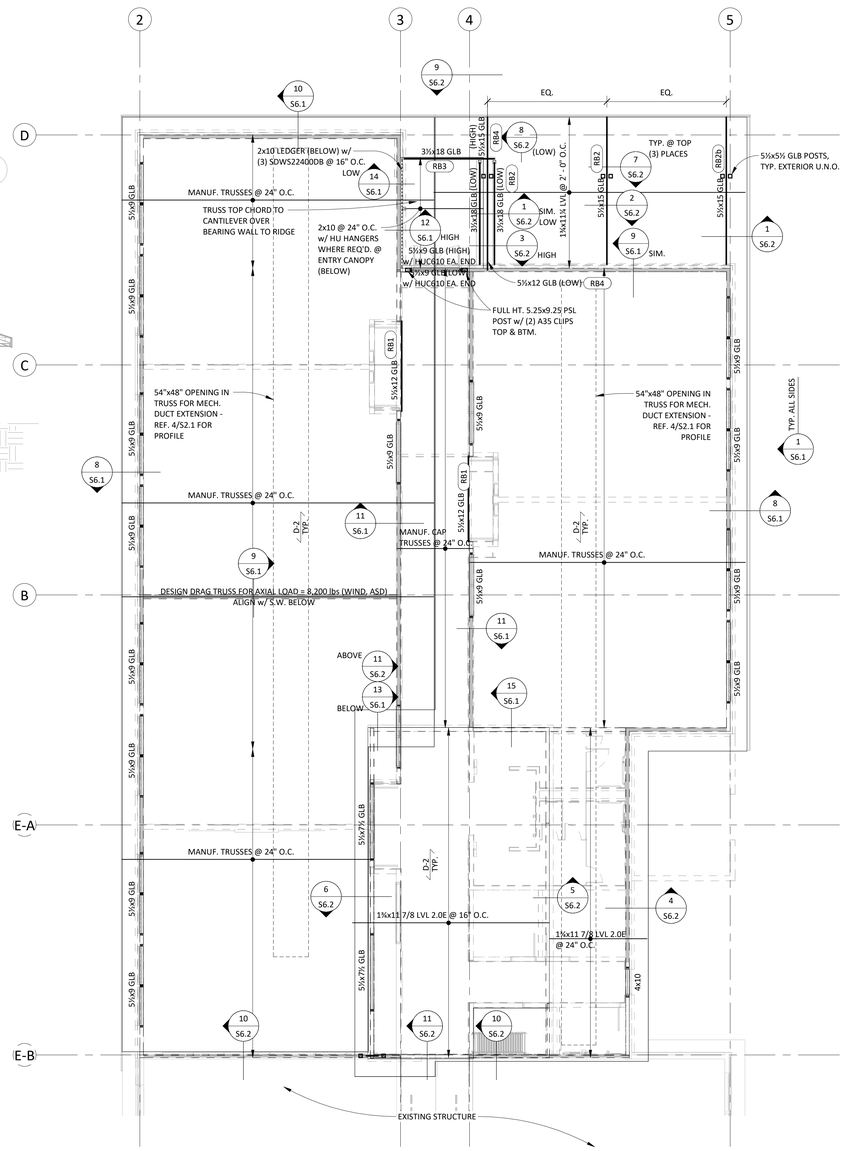
ALL HOLDOWN ANCHOR BOLTS SHOWN ON THE FOUNDATION PLAN REPRESENT A GENERAL LOCATION AND MUST BE VERIFIED BASED ON SPECIFIED POST SIZE WITH RELATION TO ROUGH OPENING/ EDGE OF WALL LOCATIONS. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL VERIFICATION. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THESE ARE PLACED PRIOR TO THE FOUNDATION POUR - EPOXIED ANCHOR BOLTS ARE NOT AN EQUAL SUBSTITUTE. FAILURE TO PLACE HOLDOWN BOLTS IN THE CORRECT LOCATION WILL LIKELY RESULT IN CUTTING/ REMOVAL OF FOUNDATION ELEMENTS, DOWELING & REPOUR OF AREAS REMOVED. ADDITIONAL FEES MAY INCUR FOR REDESIGNING OF FOUNDATIONS & REPLACEMENT HOLDOWNS.



4 S2.1 TRUSS PROFILE
1/8" = 1'-0"



3 S2.1 MEZZANINE FRAMING PLAN
1/8" = 1'-0"



2 S2.1 ROOF FRAMING PLAN
1/8" = 1'-0"

FOUNDATION/ FRAMING PLAN NOTES

1. DO NOT USE STRUCTURAL DRAWINGS ALONE FOR BUILDING LAYOUT. DO NOT SCALE THESE DRAWINGS MANUALLY OR ELECTRONICALLY. COORDINATE LOCATIONS OF ALL STRUCTURAL ELEMENTS, INCLUDING BUT NOT LIMITED TO, COLUMNS, WALLS, SLAB EDGES, DEPRESSIONS AND OPENINGS WITH ARCHITECTURAL DRAWINGS AND RESOLVE ANY CONFLICTS BETWEEN DRAWINGS OR ELEMENTS PRIOR TO CONSTRUCTION. A REGISTERED SURVEYOR SHALL PERFORM BUILDING LAYOUT AND LOCATION OF ALL STRUCTURAL ELEMENTS AT ALL LEVELS. REF. ARCH. DRAWINGS FOR ALL DIMENSIONS/ ELEVATIONS NOT SHOWN. CONTRACTOR IS RESPONSIBLE FOR CROSS REFERENCING ALL DIMENSIONS/ ELEVATIONS SHOWN WITH ARCHITECTURAL DRAWINGS NOTIFY ARCHITECT / ENGINEER OF RECORD IF THERE ARE ANY DISCREPANCIES.
2. INDICATES CONCRETE STEMWALL PER PLAN WITH BEARING WALL, 2x6 STUDS @ 16" O.C., U.N.O.
3. INDICATES INTERIOR BEARING WALL, 2x6 STUDS @ 16" O.C., U.N.O.
4. INDICATES INTERIOR NON-BEARING WALL PER ARCHITECT.
5. INDICATES SHEAR WALL LOCATION. REFERENCE SHEAR WALL PLAN 3/ S2.01 FOR ADDITIONAL INFORMATION (INCLUDING ANCHOR BOLT SPACING REQUIREMENTS).
6. (X / SX.X) INDICATES STRUCTURAL FRAMING DETAIL. REFERENCE STRUCTURAL DETAIL SHEET.
7. WHERE PIPES, CONDUITS, ETC. EXTEND BELOW/ THROUGH CONCRETE FOOTINGS/ STEMWALLS, REFERENCE DETAIL 6/SS.01 FOR ACCEPTABLE LOCATIONS & STRUCTURAL REQUIREMENTS. PIPES, CONDUITS, ETC. SHALL BE ROUTED TO AVOID AREAS BELOW COLUMNS & PAD FOOTINGS.
8. (X) INDICATES FOOTING TYPE, REFERENCE FOOTING SCHEDULE.
9. ⊠ TYPICAL HEADER SUPPORT TO BE: (1) 2x TRIMMER & (1) 2x KING @ OPENING LESS THAN 6'-0" AND (2) 2x TRIMMERS & (2) 2x KINGS @ OPENINGS GREATER THAN 6'-0", U.N.O.
10. PROVIDE SOLID 2x STUDS @ ALL BEAM & GIRDER TRUSS BEARING POINTS UNLESS DETAILED OR NOTED OTHERWISE. FOR BEAMS FRAMING INTO WALLS, FORM BEAM POCKET WITH ADDITIONAL STUDS ALONG SIDE OF BEAM AND FACE NAIL WITH (5) 16d NAILS ON EACH SIDE (MINIMUM).
11. INDICATES STEP IN ELEVATION.
12. REFERENCE GEOTECH REPORT FOR SUBGRADE REQUIREMENTS.
13. D-1 INDICATES SPAN DIRECTION OF 1 1/8" PLYWOOD SHEATHING MINIMUM (APA INDEX 48/24) WITH 1½" GYPCRETE TOPPING. ATTACH TO FLOOR FRAMING WITH 10d NAILS @ 6" O.C. @ ALL PANEL EDGES AND 12" O.C. @ INTERMEDIATE SUPPORTS. EDGE NAIL @ ALL BLOCKING AND DRAG STRUTS. (@ SIM. CONDITION, USE 4" NORMAL WEIGHT CONCRETE AND #3 BARS @ 12" O.C. EA. WAY @ MID-HEIGHT ABOVE DECKING, U.N.O. (CONCRETE STRENGTH f'c=3000 PSI MINIMUM)).
14. D-2 INDICATES SPAN DIRECTION OF 5/8" APA SHEATHING (APA INDEX 48/24). ATTACH TO ROOF FRAMING WITH 8d NAILS @ 6" O.C. @ ALL PANEL EDGES AND 12" O.C. @ INTERMEDIATE FRAMING MEMBERS. EDGE NAIL @ ALL BLOCKING AND DRAG STRUTS.

FOOTING SCHEDULE

MARK (X)	SIZE (WIDTH x LENGTH)	T	REINFORCING
A	1'-4" x CONT.	12"	(2) #5 CONT., TOP & BTM. #3 TIES @ 12" O.C.
B	2'-6" x 2'-6"	10" (12" @ SIM.)	(3) #4 EA. WAY @ BTM. ((3) # 5 EA. WAY @ BTM. @ SIM.)
C	3'-0" x 3'-0"	12"	(3) #5 EA. WAY @ BTM.
D	4'-0" x 4'-0"	12"	(4) #5 EA. WAY @ BTM.
E	5'-0" x 5'-0"	12"	(5) #5 EA. WAY @ BTM.
F	2'-0" x 2'-0"	10"	(3) #4 EA. WAY @ BTM.

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STRUCTURAL ENGINEER — REGISTERED PROFESSIONAL ENGINEER — 53036PE — OREGON — January 13, 2006 — JON L. WALKER — EXPIRES: 6/30/2024

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Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 22083
Date 01/18/23

BID/PERMIT

FOUNDATION, MEZZANINE & ROOF PLANS

S2.1

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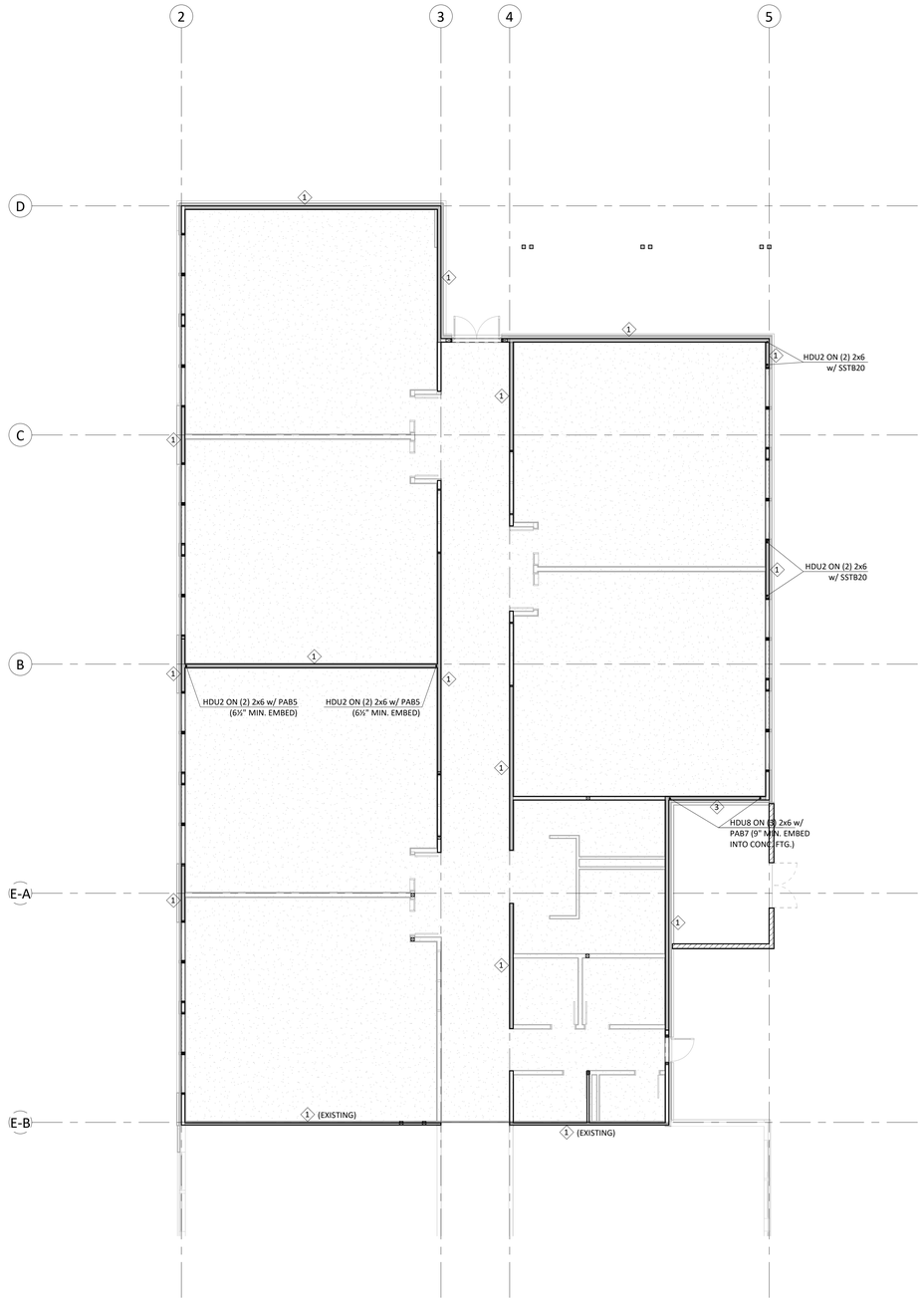

1 / S3.1 SHEAR WALL PLAN
1/8" = 1'-0"

ALL HOLDOWN ANCHOR BOLTS SHOWN ON THE FOUNDATION PLAN REPRESENT A GENERAL LOCATION AND MUST BE VERIFIED BASED ON SPECIFIED POST SIZE WITH RELATION TO ROUGH OPENING/ EDGE OF WALL LOCATIONS. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL VERIFICATION. IT IS THE GENERAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THESE ARE PLACED PRIOR TO THE FOUNDATION POUR - EPOXIED ANCHOR BOLTS ARE NOT AN EQUAL SUBSTITUTE. FAILURE TO PLACE HOLDOWN BOLTS IN THE CORRECT LOCATION WILL LIKELY RESULT IN CUTTING/ REMOVAL OF FOUNDATION ELEMENTS, DOWELING & REPOUR OF AREAS REMOVED. ADDITIONAL FEES MAY INCUR FOR REDESIGNING OF FOUNDATIONS & REPLACEMENT HOLDOWNS.

SHEAR WALL SCHEDULE

SYMBOL	SHEATHING/ ATTACHMENT (SEE NOTE 9)	SILL PL & SILL ATTACHMENT TO FOUNDATION	NOTES
1	7/16" SHEATHING w/ 8d @ 6" O.C. EDGES, 12" O.C. FIELD. ALL EDGES BLOCKED	2x P.T. SILL PL. w/ 5/8" DIA. x 10" A.B.'S @ 48" O.C. w/ PLATE WASHERS PER NOTE 11	-SILL PLATE- SILL TO RIM - 16d @ 6" O.C. RIM TO PLATE - SIMPSON A35 CLIPS @ 32" O.C.
2	7/16" SHEATHING w/ 8d @ 4" O.C. EDGES, 12" O.C. FIELD. ALL EDGES BLOCKED	2x P.T. SILL PL. w/ 5/8" DIA. x 10" A.B.'S @ 24" O.C. w/ PLATE WASHERS PER NOTE 11	-SILL PLATE- SILL TO RIM - 16d @ 6" O.C. RIM TO PLATE - SIMPSON A35 CLIPS @ 20" O.C.
3	7/16" SHEATHING w/ 8d @ 3" O.C. EDGES, 12" O.C. FIELD. ALL EDGES BLOCKED	2x P.T. SILL PL. w/ 5/8" DIA. x 10" A.B.'S @ 16" O.C. w/ PLATE WASHERS PER NOTE 11	-SILL PLATE- SILL TO RIM - 16d @ 3" O.C. RIM TO PLATE - SIMPSON A35 CLIPS @ 9" O.C.

SHEAR WALL NOTES

1. X — INDICATES EXTENT OF SHEAR WALL. PROVIDE HOLDOWNS AS CALLED OUT ON PLANS @ EACH END OF SHEAR WALL. HOLDOWNS INDICATE ON PLANS ARE BY "SIMPSON STRONG-TIE CO." INSTALL AS PER MANUF. RECOMMENDATIONS.
2. IF A.B. SPACING IS GREATER THAN SHEAR WALL, PLACE (1) A.B. WITHIN 12" OF EACH END, UNLESS NOTED OTHERWISE.
3. THE CAPACITY VALUES ARE APPLICABLE TO STUDS OF SPECIES GROUP II (DOUGLAS FIR-SOUTHERN PINE).
4. PANEL EDGES FOR TYPE "1" & "2" WALLS SHALL BE BACKED WITH 2x NOMINAL (MIN.). PANEL EDGES FOR TYPE "3" & "4" WALLS SHALL BE BACKED WITH 3x NOMINAL OR (2) 2x STITCHED TOGETHER W/ 10d NAILS @ 3" O.C. (STAGGERED).
5. ALL SHEATHING NAILS REFERENCED ARE COMMON WIRE NAILS (i.e. 8d 0.131") SOLE PLATE NAILS REFERENCED ARE TO BE SINKER NAILS (i.e. 16d=0.148"). VALUES OF THEIR STANDARD CONSTRUCTION FASTENERS WILL REQUIRE SPACING ADJUSTMENTS AND MUST BE APPROVED BY WSE PRIOR TO USE. MINIMUM NAIL PENETRATIONS INTO SUPPORT FRAMING. 8d=1.5", 10d=1.625", 16d=1.625".
6. DO NOT PENETRATE SURFACE PLY OF SHEATHING WITH NAIL HEAD.
7. APA RATED WALL SHEATHING C-D, C-C SHEATHING, PLYWOOD PANEL SIDING, OSB, AND OTHER GRADES COVERED IN 2014 OSSC CH. 35 STANDARDS.
8. SHEATHING FACE GRAIN CAN BE APPLIED PERPENDICULAR OR PARALLEL TO STUDS PROVIDED THE STUDS ARE SPACED @ 16" O.C. OR LESS. WHERE STUDS ARE SPACED GREATER THAN 16" O.C. APPLY SHEATHING PERPENDICULAR TO STUDS.
9. SHEATHING MAY BE APPLIED AT EITHER SIDE OF WALL UNLESS REQ'D AT BOTH SIDES.
10. WALL SHEATHING MUST BE EDGE NAILED @ STUDS ATTACHED TO HOLDOWNS, FULL HT.
11. PER ANSI/AF&PA SDPWS-08, SECTION 4.3.6.4.3. PROVIDE SIMPSON BPS-6 SLOTTED PLATE WASHERS (OR FABRICATED EQUIVALENT) WITH STANDARD CUT WASHERS BETWEEN PLATE WASHER & NUT. EDGE OF PLATE WASHER SHALL BE WITHIN 1/2" OF EDGE OF SILL PLATE ON THE SIDE WITH SHEATHING (WHERE SHEATHING IS REQUIRED @ BOTH SIDES, ALTERNATE SIDES.)
12. FOUNDATION VENTS ARE ACCEPTABLE UNDER SHEAR WALL TYPES "1" AND "2". ANCHOR BOLTS SHALL BE PLACED 3" CLEAR OF FOUNDATION VENTS. ANY TWO ADJACENT VENTS MUST HAVE AT LEAST 12" OF CONCRETE BETWEEN. ANCHOR BOLT SPACING MAY VARY, BUT SCHEDULED AVERAGE SPACING MUST BE MAINTAINED. FOUNDATION VENTS ARE NOT PERMITTED UNDER SHEAR WALL TYPES "3", "4", & "5".
13. ALL HOLDOWN ANCHOR BOLTS SHOWN ON THE FOUNDATION PLAN REPRESENT A GENERAL LOCATION AND MUST BE VERIFIED BASED ON SPECIFIED POST SIZE WITH RELATION TO THE ROUGH OPENING/EDGE OF WALL LOCATIONS. REFERENCE ARCHITECTURAL DRAWINGS FOR DIMENSIONAL VERIFICATION.

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OREGON
January 13, 2023
JON L. WALKER
EXPIRES: 6/30/2024

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Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 22083
Date 01/18/23

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SHEAR WALL PLAN

S3.1

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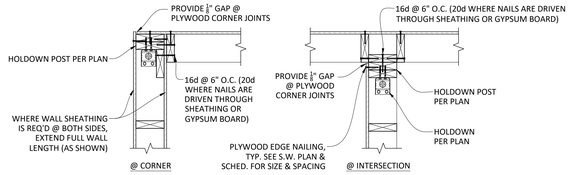

4 S3.2 HOLDOWN @ CORNER
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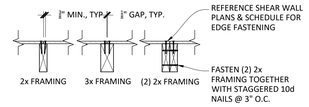

3 S3.2 FRAMING @ ADJOINING PANEL EDGES
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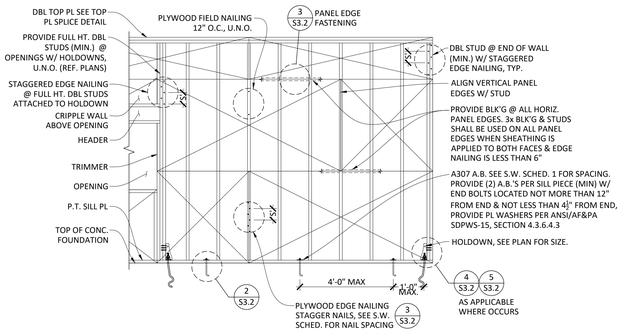

1 S3.2 PLYWOOD SHEAR WALL ELEVATION
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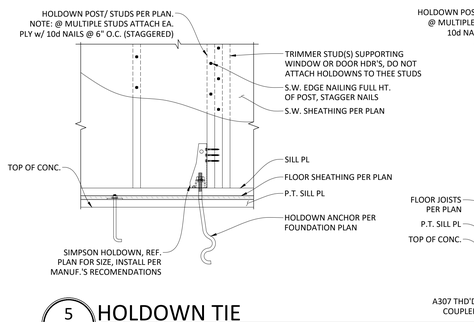
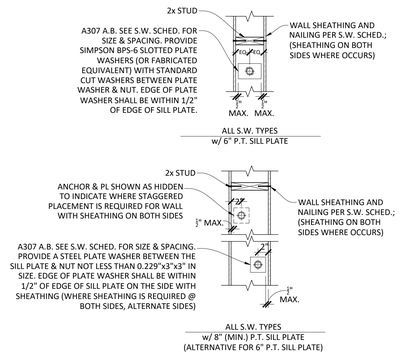


5 S3.2 HOLDOWN TIE
SCALE: 1"=1'-0"



2 S3.2 S.W. SILL PLATE ANCHORAGE
SCALE: 1"=1'-0"

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Warm Springs K8 Academy Classroom Addition

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SHEAR WALL DETAILS

S3.2

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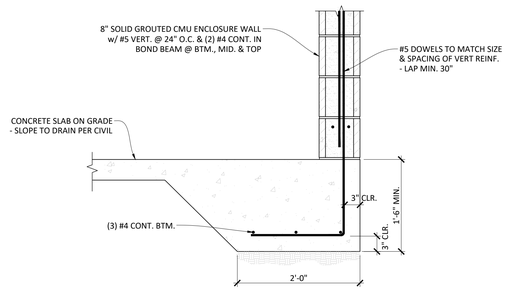

9 / S5.1 MECH. WALL DETAIL
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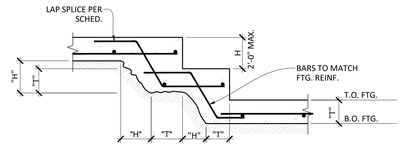

5 / S5.1 STEPPED FOOTING
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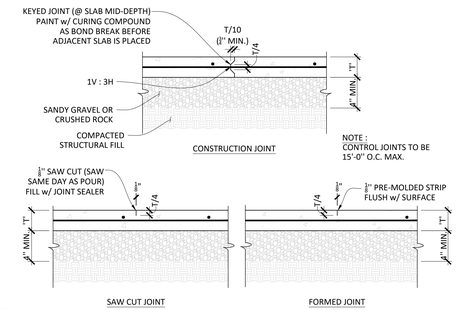

1 / S5.1 TYPICAL SLAB ON GRADE
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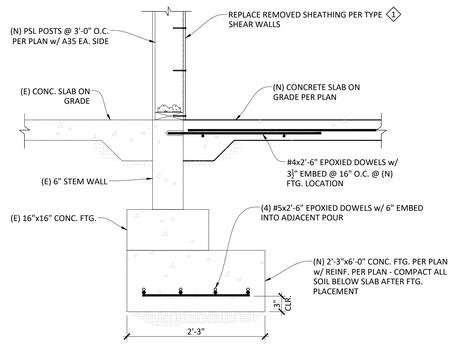
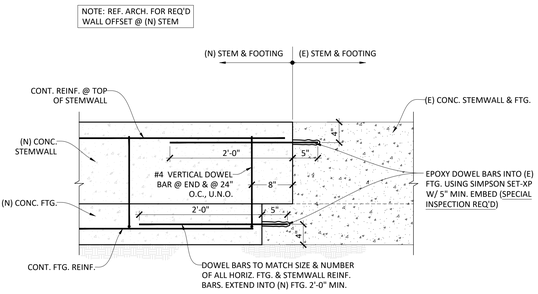


10 / S5.1 FOOTING @ (N) PSL POSTS
SCALE: 1"=1'-0"



6 / S5.1 STEMWALL/ FOOTING ATTACHMENT @ EXISTING
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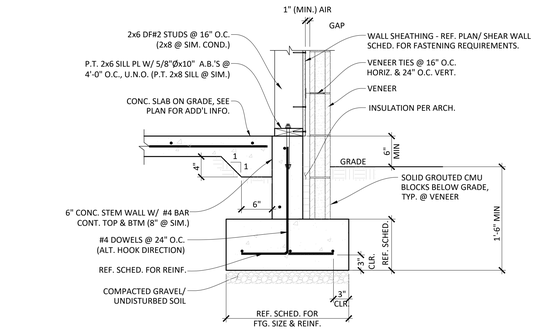

2 / S5.1 TYPICAL PERIMETER FOOTING W/ VENEER
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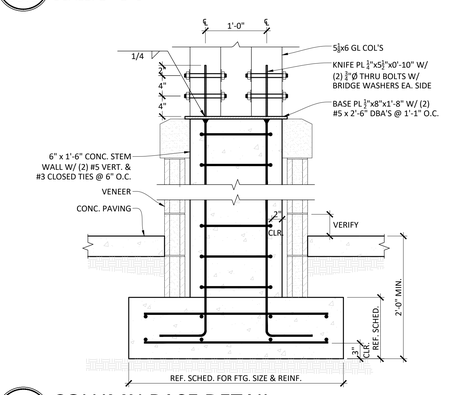
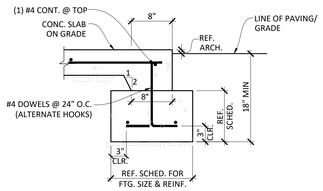


7 / S5.1 COLUMN BASE DETAIL
SCALE: 1"=1'-0"



3 / S5.1 THICKENED SLAB EDGE @ DOOR OPENING
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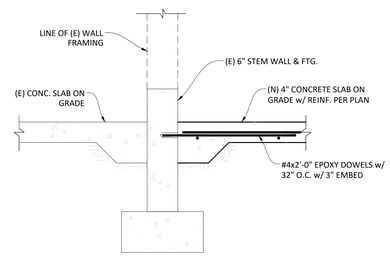
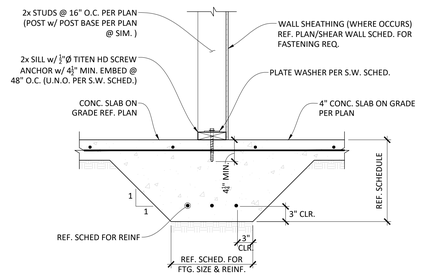


8 / S5.1 SLAB CONNECTION
SCALE: 1"=1'-0"



4 / S5.1 INTERIOR BEARING/ SHEAR WALL @ SLAB
SCALE: 1" = 1'-0"

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Warm Springs K8 Academy Classroom Addition

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STRUCTURAL DETAILS: FOUNDATION

S5.1

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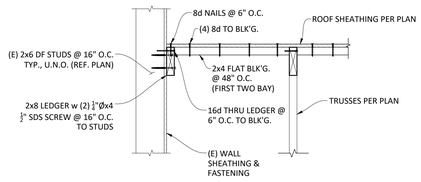
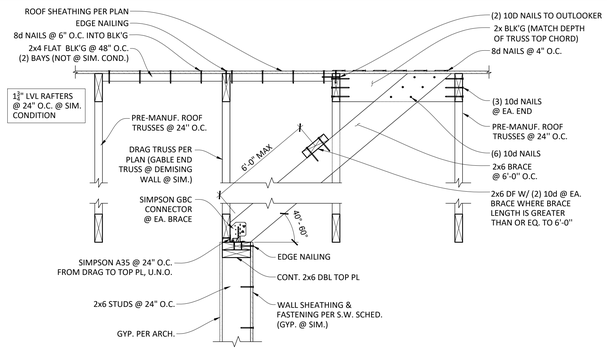


TRUSSES PARALLEL TO WALL

13 S6.1 LOWER ROOF TRUSSES @ UPPER WALL
SCALE: 1"=1'-0"



9 S6.1 DRAG TRUSS @ INTERIOR S.W. (@ DEMISING WALL @ SIM.)
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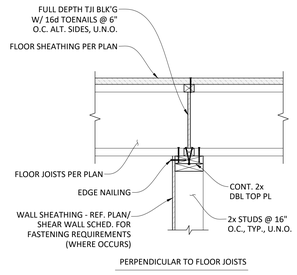
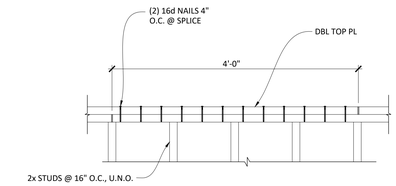
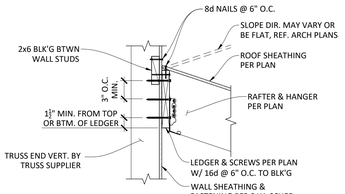


PERPENDICULAR TO FLOOR JOISTS

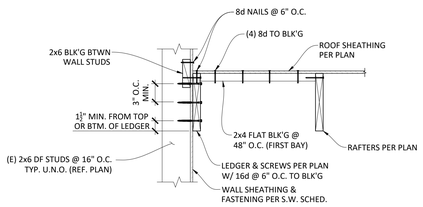
5 S6.1 FLOOR FRAMING @ INTERIOR BEARING WALL
SCALE: 1"=1'-0"



1 S6.1 TYPICAL TOP PLATE SPLICE
SCALE: 1"=1'-0"

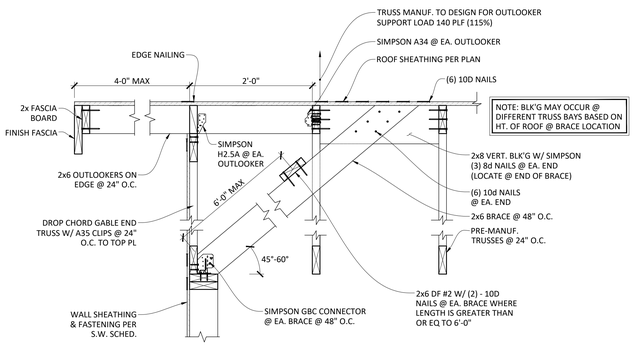


RAFTERS PERPENDICULAR TO WALL

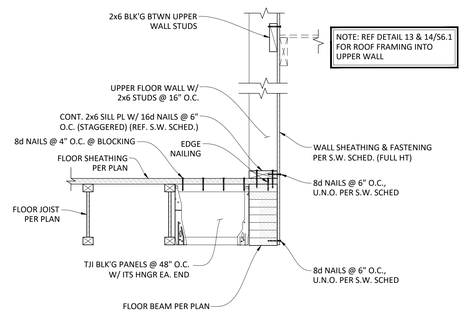


RAFTERS PARALLEL TO WALL

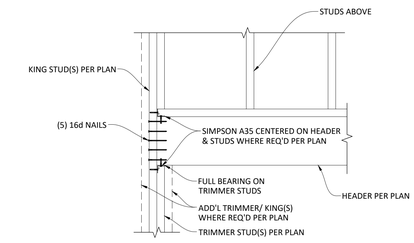
14 S6.1 ROOF RAFTERS @ UPPER WALL
SCALE: 1"=1'-0"



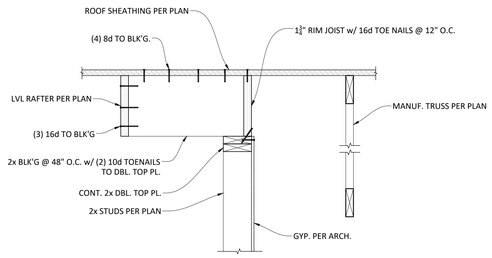
10 S6.1 MANUF. TRUSSES @ GABLE END
SCALE: 1"=1'-0"



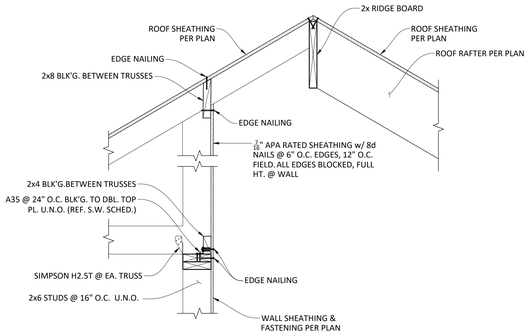
6 S6.1 FLOOR FRAMING @ FLUSH BEAM w/ JOISTS PARALLEL
SCALE: 1"=1'-0"



2 S6.1 TYPICAL JAMB CONNECTION DETAIL
SCALE: 1"=1'-0"



15 S6.1 ROOF TRANSITION @ MEZZANINE
SCALE: 1"=1'-0"



12 S6.1 TRUSS @ BEARING WALL w/ HIGH END EAVE
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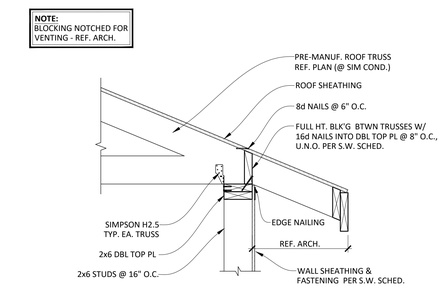
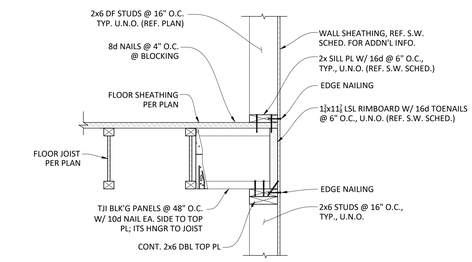


8 S6.1 TYPICAL TRUSS @ EXTERIOR WALL
SCALE: 1"=1'-0"



4 S6.1 FLOOR FRAMING (PARALLEL)
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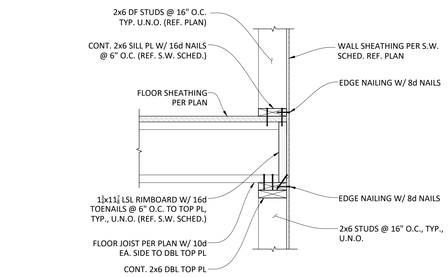
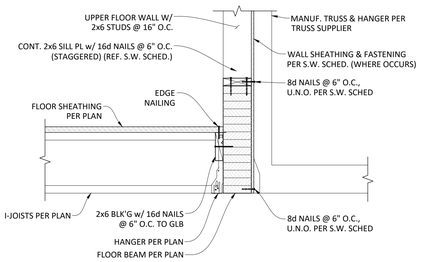


3 S6.1 FLOOR FRAMING (PERPENDICULAR)
SCALE: 1"=1'-0"



7 S6.1 FLOOR FRAMING @ FLUSH BEAM w/ JOISTS PERPENDICULAR
SCALE: 1"=1'-0"

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STRUCTURAL DETAILS: FRAMING

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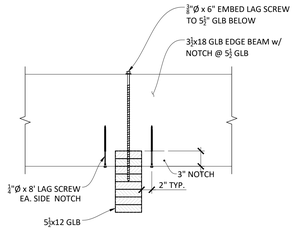

9 / S6.2 CANOPY DETAIL
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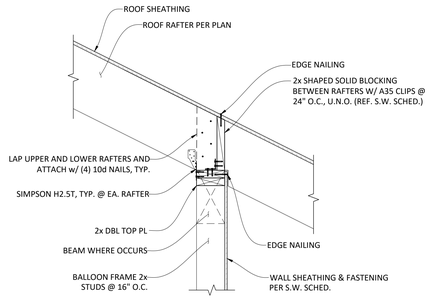
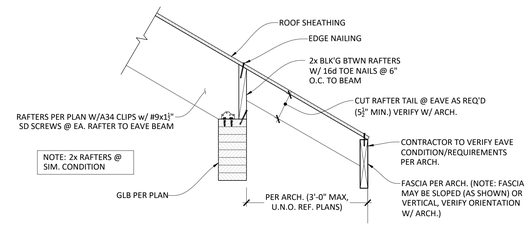


5 / S6.2 2x RAFTER @ WALL FRAMING
SCALE: 1"=1'-0"



1 / S6.2 RAFTERS @ EAVE BEAM (EXTERIOR)
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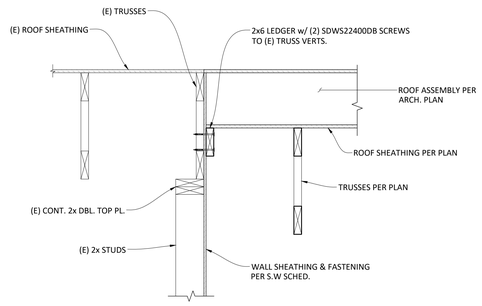
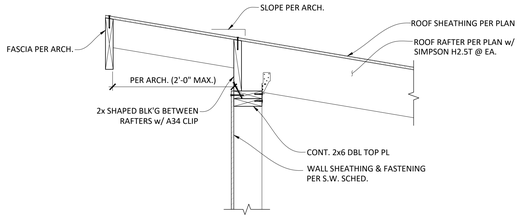


10 / S6.2 NEW ROOF @ (E) ROOF
SCALE: 1"=1'-0"



6 / S6.2 RAFTERS @ HIGH EAVE
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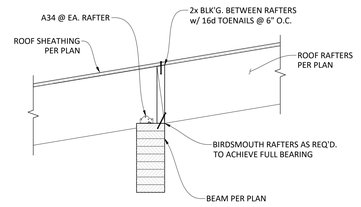

2 / S6.2 RAFTERS PERPENDICULAR TO DROPPED BEAM
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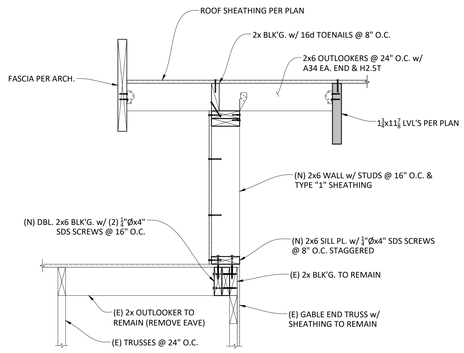
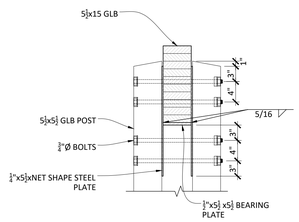


11 / S6.2 ROOF @ CLERESTORY
SCALE: 1"=1'-0"



7 / S6.2 GLB TO POST CONNECTION
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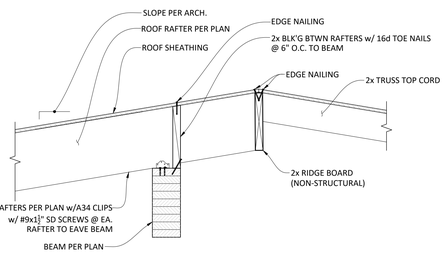
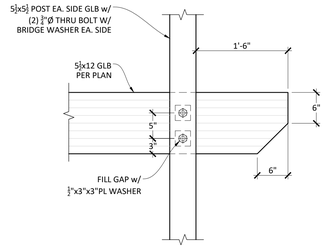
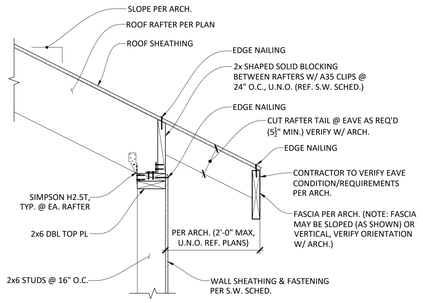


3 / S6.2 2x RAFTER @ HIGH EAVE
SCALE: 1"=1'-0"



8 / S6.2 GLB TO POST CONNECTION
SCALE: 1"=1'-0"



4 / S6.2 ROOF RAFTERS @ EAVE
SCALE: 1"=1'-0"

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STRUCTURAL REGISTERED PROFESSIONAL ENGINEER 53003PE OREGON January 13, 2006 JON L. WALKER
EXPIRES: 6/30/2024

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Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 22083
Date 01/18/2023

BID/PERMIT

STRUCTURAL DETAILS: FRAMING

S6.2

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ABBREVIATIONS

ACC	AIR COOLED CONDENSER
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
ADJ	ADJUSTABLE
AF	AIR FOIL
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFR	ABOVE FINISHED ROOF
AFS	AIR FLOW STATION
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
ATC	AUTOMATIC TEMPERATURE CONTROL
ATM	ATMOSPHERE
AWG	AMERICAN WIRE GAUGE
B	BOILER
BB	BASEBOARD
BC	BACKWARD CURVED
BD	BACKDRAFT DAMPER
BF	BOILER FEED
BHP	BRAKE HORSEPOWER
BI	BACKWARD INCLINED
BMS	BUILDING MANAGEMENT SYSTEM
BOD	BOTTOM OF DUCT
BOJ	BOTTOM OF JOIST
BOS	BOTTOM OF STEEL
BTU	BRITISH THERMAL UNIT
C	COMMON
CAV	CONSTANT AIR VOLUME
CC	COOLING COIL
CCW	COUNTER CLOCKWISE
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
C&I	CONTROLS & INSTRUMENTATION
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CND	CONDENSATE
CONT	CONTINUATION
CORR	CORRIDOR
CT	COOLING TOWER
CU	CONDENSING UNIT
CH	CABINET HEATER
CV	CONTROL VALVE
CVS	CONTROL VALVE STATION
CW	CLOCKWISE
dB	DECIBEL
DB	DRY BULB TEMPERATURE (°F)
DDC	DIRECT DIGITAL CONTROL
DH	DUCT HEATER
DP	DEW POINT TEMPERATURE (°F)
DX	DIRECT EXPANSION
E	EXHAUST
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE (°F)
EC	ELECTRICAL CONTRACTOR
EDR	EQUIVALENT DIRECT RADIATION
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EFF	EFFICIENCY
ELEV	ELEVATION
ERV	ENERGY RECOVERY VENTILATOR
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EWT	ENTERING WATER TEMPERATURE (°F)
F&T	FLOAT & THERMOSTATIC
FA	FACE AREA
FC	FORWARD CURVED
FC	FAN COIL
FP	FIRE PROTECTION
FPM	FEET PER MINUTE
FT	FEET
GA	GAUGE OR GAGE
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GH	GRAVITY HOOD
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H	HUMIDIFIER
HC	HEATING COIL
HG	MERCURY
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HR	HOUR
HX	HEAT EXCHANGER
ID	INSIDE DIAMETER
IFB	INTEGRAL FACE & BYPASS
IGV	INLET GUIDE VANES
IPS	IRON PIPE SIZE
IU	INDUCTION UNIT
KW	KILOWATTS
KWH	KILOWATT HOUR
LAT	LEAVING AIR TEMPERATURE (°F)
LF	LINEAR FEET
LWT	LEAVING WATER TEMPERATURE (°F)
M	MOTOR OPERATED
MAU	MAKEUP AIR UNIT
MB	MIXING BOX
MBH	1000 BTU/HR
MC	MECHANICAL CONTRACTOR
MFR	MANUFACTURER
MS	MINI-SPLIT
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NPS	NOMINAL PIPE SIZE
OA	OUTSIDE AIR
OAD	OUTSIDE AIR DAMPER
OBD	OPPOSED BLADE DAMPER
P	PUMP
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PH	PHASE
PHC	PREHEAT COIL
PPM	PART PER MILLION
PROP	PROPELLER
PRV	PRESSURE REDUCING VALVE
PSIA	PSI, ABSOLUTE
PSIG	PSI, GAUGE
QTY	QUANTITY
R	REGISTER
RA	RETURN AIR
RD	RADIAL DAMPER
RF	RETURN/RELIEF AIR FAN
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
SA	SUPPLY AIR
SAF	SUPPLY AIR FAN
SC	SENSIBLE COOLER
SCFM	CFM, STANDARD CONDITIONS
SD	SMOKE DETECTOR
SEER	SEASONAL ENERGY EFFICIENCY RATIO
SENS	SENSIBLE
SP	STATIC PRESSURE
SPS	STATIC PRESSURE SENSOR
SS	STAINLESS STEEL
T	THERMOSTAT
TA	TRANSFER AIR
TCC	TEMPERATURE CONTROL CONTRACTOR
TCP	TEMPERATURE CONTROL PANEL
TG	TRANSFER GRILL
TOD	TOP OF DUCT
TOP	TOP OF PIPE
TOS	TOP OF STEEL
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UH	UNIT HEATER
UNC	UNDERCUT
UV	UNIT VENTILATOR
VA	VOLT-AMPERE
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VRF	VARIABLE REFRIGERANT FLOW
WB	WET BULB TEMPERATURE (°F)
WC	WATER COLUMN
WG	WATER GAUGE
WSHP	WATER SOURCE HEAT PUMP
ΔT	TEMPERATURE DIFFERENCE (°F)

MECHANICAL LEGEND

ANNOTATION SYMBOLS

- 3D VIEW NUMBER / SHEET NUMBER
- DETAIL NUMBER / SHEET NUMBER
- SECTION NUMBER / SHEET NUMBER
- AIR DEVICE MARK AND CFM
- AIR DEVICE MARK AND CFM - PROVIDE OPPOSED BLADE DAMPER
- AIR DEVICE MARK AND CFM - PROVIDE RADIAL DAMPER
- ME-# — MECHANICAL EQUIPMENT MARK
- (E) ME-# — EXISTING MECHANICAL EQUIPMENT
- (D) ME-# — DEMOLISHED MECHANICAL EQUIPMENT
- POINT OF NEW CONNECTION
- POINT OF DISCONNECTION

HVAC CONTROL SYMBOLS

- THERMOSTAT
- ZONED THERMOSTAT
- ZONED THERMOSTAT - MASTER
- THERMOSTAT W/ LOCKABLE COVER
- WALL SWITCH
- HUMIDISTAT
- ROOM TEMPERATURE SENSOR
- ADJUSTABLE ROOM TEMPERATURE SENSOR
- COMBO ROOM TEMPERATURE & CO2 SENSOR
- ADJUSTABLE COMBO ROOM TEMP & CO2 SENSOR
- ROOM HUMIDITY SENSOR
- ROOM CO2 SENSOR
- BUILDING PRESSURE SENSOR
- STATIC PRESSURE SENSOR
- DIFFERENTIAL PRESSURE SENSOR
- CARBON MONOXIDE / NITRIC OXIDE SENSOR

NOTE: THIS IS A STANDARD LEGEND. NOT ALL PIPE TYPES AND SYMBOLS ARE NECESSARILY UTILIZED IN THE DRAWINGS.

HVAC DUCTWORK

- RECTANGULAR DUCT WIDTH x DEPTH
- ROUND DUCT DIAMETER
- OVAL DUCT WIDTH/DEPTH
- FLEXIBLE DUCT DIAMETER
- FLOOR/CEILING SUPPLY DIFFUSER
- FLOOR/CEILING RETURN GRILLE
- FLOOR/CEILING EXHAUST GRILLE
- SIDEWALL SUPPLY DIFFUSER
- SIDEWALL RETURN/EXHAUST GRILLE
- SUPPLY DUCT (SECTION VIEW)
- RETURN DUCT (SECTION VIEW)
- EXHAUST DUCT (SECTION VIEW)
- OUTDOOR AIR DUCT (SECTION VIEW)
- DUCT UP (PLAN VIEW)
- DUCT DOWN (PLAN VIEW)
- INCLINED RISE - IN DIRECTION OF AIRFLOW
- INCLINED DROP - IN DIRECTION OF AIRFLOW
- INTERNAL DUCT LINING
- ELBOW WITH TURNING VANES
- RADIUS ELBOW
- MANUAL VOLUME DAMPER
- REMOTE VOLUME DAMPER
- BACKDRAFT DAMPER
- ZONE DAMPER
- BYPASS DAMPER
- MOTORIZED DAMPER
- FIRE DAMPER
- FIRE/SMOKE DAMPER
- SMOKE DAMPER

GENERAL

- (E) NAME — EXISTING PIPE TO REMAIN
- (D) NAME — EXISTING PIPE TO BE DEMOLISHED
- NAME — NEW PIPING
- DIRECTION OF FLOW

HVAC PIPING

- HWS — HEATING WATER SUPPLY
- HWR — HEATING WATER RETURN
- CWS — CHILLED WATER SUPPLY
- CWR — CHILLED WATER RETURN
- CTS — COOLING TOWER SUPPLY
- CTR — COOLING TOWER RETURN
- HPWS — HEAT PUMP WATER SUPPLY
- HPWR — HEAT PUMP WATER RETURN
- HPS — HIGH PRESSURE STEAM
- MPS — MEDIUM PRESSURE STEAM
- LPS — LOW PRESSURE STEAM
- CND — STEAM CONDENSATE RETURN
- ATV — ATMOSPHERIC VENT
- REF — REFRIGERANT (LIQUID AND SUCTION)

PIPE FITTINGS

- ELBOW
- PIPE BREAK
- PIPE UP
- PIPE DOWN
- CHANGE IN ELEVATION OF PIPE
- SIDE CONNECTION OR TEE FITTING
- TOP CONNECTION
- BOTTOM CONNECTION
- UNION
- FLANGE
- CAPPED OUTLET
- BLIND FLANGE

VALVES

- COMBINATION Y-STRAINER & SHUTOFF VALVE
- COMBINATION AUTOFLOW & SHUTOFF VALVE
- MANUAL BALANCING VALVE
- AUTOFLOW VALVE
- ISOLATION VALVE - SEE SPECIFICATIONS FOR TYPE
- 3-WAY VALVE
- BUTTERFLY VALVE
- HOSE END DRAIN
- STRAINER
- MANUAL BALANCING VALVE
- AUTOFLOW VALVE
- CHECK VALVE
- BACKFLOW PREVENTER
- PRESSURE REDUCING VALVE
- TEMPERATURE AND PRESSURE RELIEF VALVE
- SOLENOID VALVE
- 2-WAY TEMPERATURE CONTROL VALVE
- 3-WAY TEMPERATURE CONTROL VALVE

PIPING SPECIALTIES

- AUTOMATIC AIR VENT
- MANUAL AIR VENT - 1/4" BALL VALVE WITH 12" SOFT COPPER TUBE
- PRESSURE / TEMPERATURE PORT
- DDC TEMPERATURE SENSOR
- DDC PRESSURE SENSOR
- PIPE WELL - EMPTY
- FLOW SWITCH
- PRESSURE SWITCH
- PRESSURE GAUGE
- PRESSURE GAUGE & COCK
- TEMPERATURE GAUGE
- SCHEMATIC PUMP
- FLEXIBLE CONNECTOR
- PIPE GUIDES
- ANCHOR
- THERMAL EXPANSION LOOP

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Warm Springs Academy K8 Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 10200.001
Date 01/18/2023

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MECHANICAL COVER SHEET

M0.01

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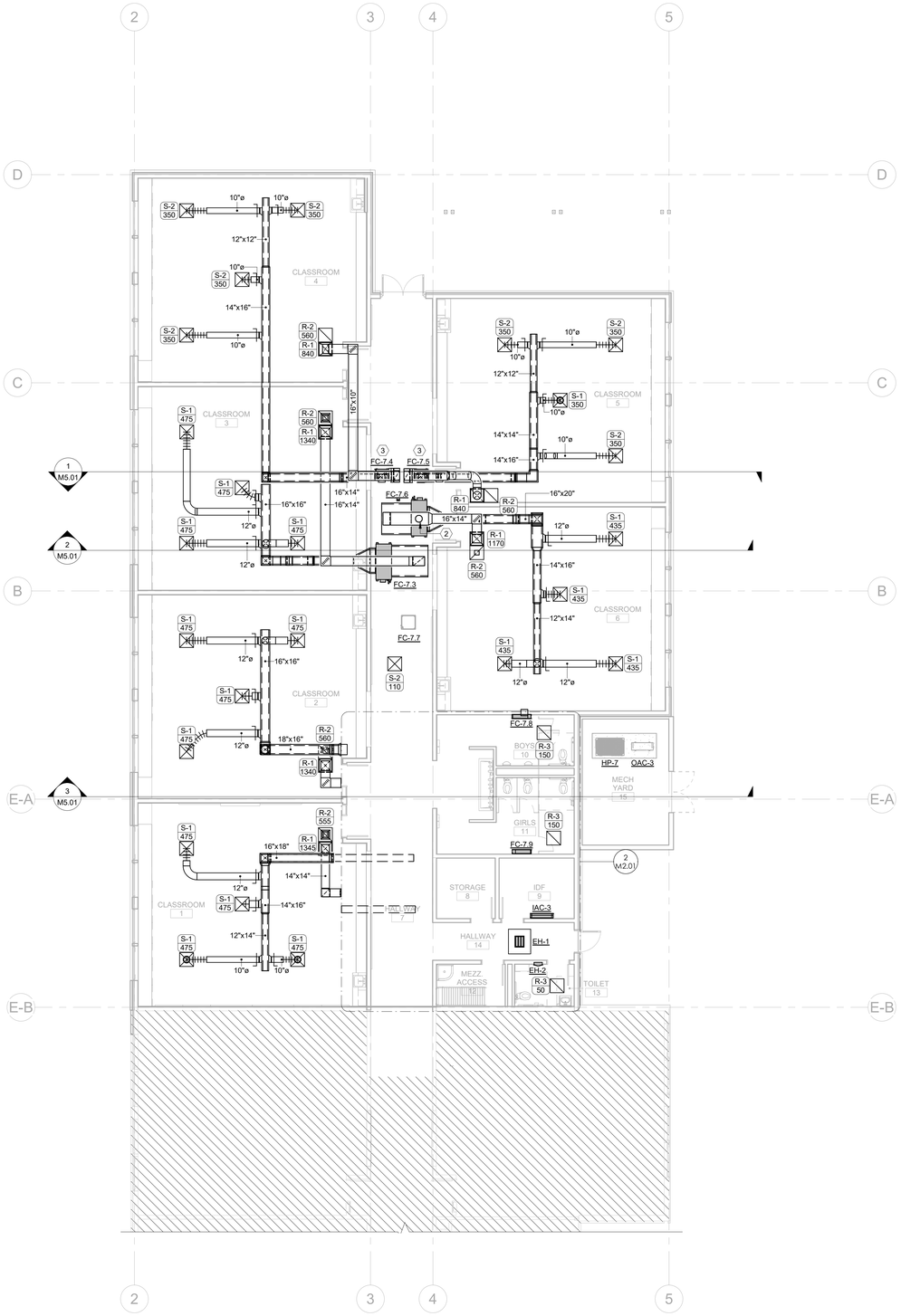

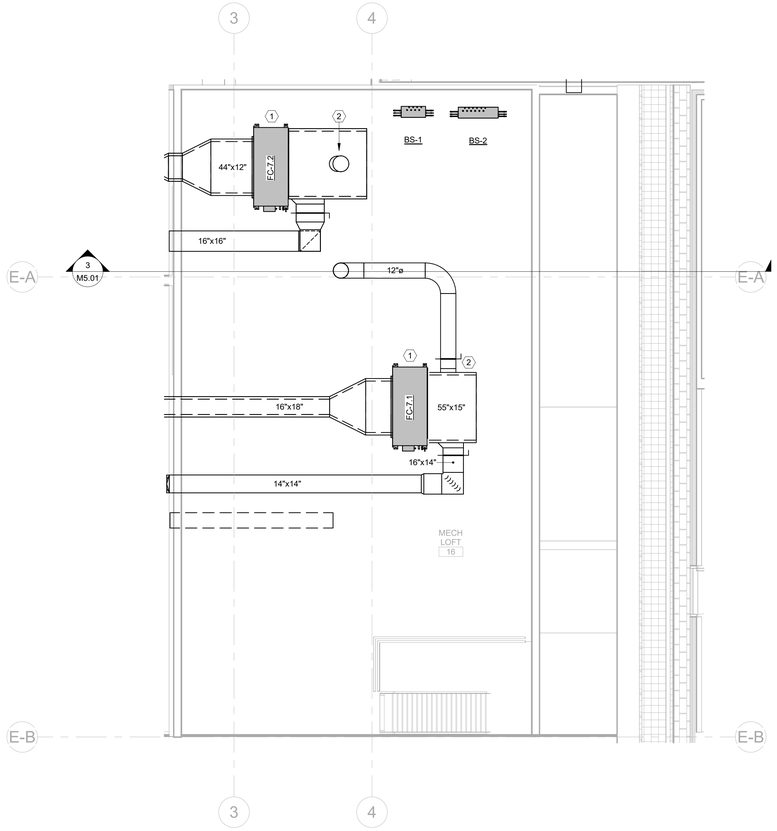

MECHANICAL PLAN NOTES

A. VERIFY THE LOCATION OF THERMOSTATS AND SENSORS WITH THE ARCHITECT AND ENGINEER PRIOR TO INSTALLATION. INSTALL THERMOSTATS 48" ABOVE FINISHED FLOOR PER ADA REQUIREMENTS.
B. PROVIDE AND INSTALL SEISMIC BRACING FOR EQUIPMENT, DUCTWORK AND PIPING PER THE REQUIREMENTS OF THE CURRENTLY ADOPTED INTERNATIONAL BUILDING CODE.
C. FLEXIBLE DUCTWORK BETWEEN BRANCH DUCTS AND GRILLES, REGISTERS, OR DIFFUSERS SHALL BE LIMITED TO 5 FT. FLEXIBLE DUCT SHALL NOT BE USED IN PLACE OF ELBOWS.
D. PROVIDE AND INSTALL FIRE, SMOKE, OR COMBINATION FIRE/SMOKE DAMPERS WHERE DUCTWORK PASSES THROUGH RATED ASSEMBLIES. ASSOCIATED DUCT DETECTORS SHALL BE ADDRESSABLE. SMOKE DAMPERS AND COMBINATION SMOKE/FIRE DAMPERS SHALL INCLUDE A KEYED REMOTE TEST SWITCH LOCATED IN AN ACCESSIBLE LOCATION. FIELD COORDINATE THE LOCATION OF TEST SWITCHES WITH THE ARCHITECT AND ENGINEER PRIOR INSTALLATION.
E. SEAL DUCT AND PIPE PENETRATIONS THROUGH FIRE RATED ASSEMBLIES WITH A UL-APPROVED FIRE STOP SYSTEM.
F. PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION OF EQUIPMENT, VALVES, DAMPERS AND DEVICES INSTALLED ABOVE NON-REMOVABLE CEILINGS. COORDINATE SUCH INSTALLATIONS WITH THE ARCHITECT AND ENGINEER.
G. PIPING SHALL BE IDENTIFIED WITH PIPE LABELS MARKED AT A MAXIMUM OF EVERY 25 FT. VALVES SHALL BE IDENTIFIED WITH BRASS OR ALUMINUM VALVE TAGS.
H. PROVIDE AND INSTALL PIPE GUIDES, EXPANSION JOINTS, AND HANGERS PER MANUFACTURER'S RECOMMENDATIONS.
I. PIPING WALL PENETRATIONS SHALL SHALL BE FINISHED WITH A CHROME ESCUTCHEON PLATE.
J. MINIMUM TERMINAL DEVICE BRANCH PIPE SIZE IS 3/4"ø UNLESS OTHERWISE NOTED.
K. PROVIDE HIGH POINT AIR VENTS, LOW POINT DRAINS (WITH CAPPED HOSE CONNECTIONS), AND SLOPE PIPING AS NECESSARY TO ALLOW FOR COMPLETE DRAINAGE OF THE HYDRONIC SYSTEMS.
L. EXPOSED DUCTWORK TO BE HOT DIPPED GALVANIZED STEEL AND PAINTED PER ARCHITECTURAL. CONTRACTOR TO CLEAN AND DRY DUCTWORK PRIOR TO PAINTING.

(#) KEY NOTES:

1. FAN COIL UNITS LOCATED IN THE MECHANICAL LOFT.
2. OUTSIDE AIR CONNECTION TO RETURN OF FAN COIL UNIT. PROVIDE BALANCING DAMPERS ON BOTH OA CONNECTION AND RA CONNECTION.
3. PROVIDE ACCESS PANEL FOR MAINTAINENCE. SEE ARCHITECTURAL DRAWINGS FOR DETAILS

1 M2.01 **LEVEL 1 PLAN - MECHANICAL - VRF**
SCALE: 1/8" = 1'-0"

2 M2.01 **MEZZANINE PLAN - MECHANICAL - VRF**
SCALE: 1/4" = 1'-0"

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MECHANICAL VRF FLOOR PLANS - ADDITION

M2.01

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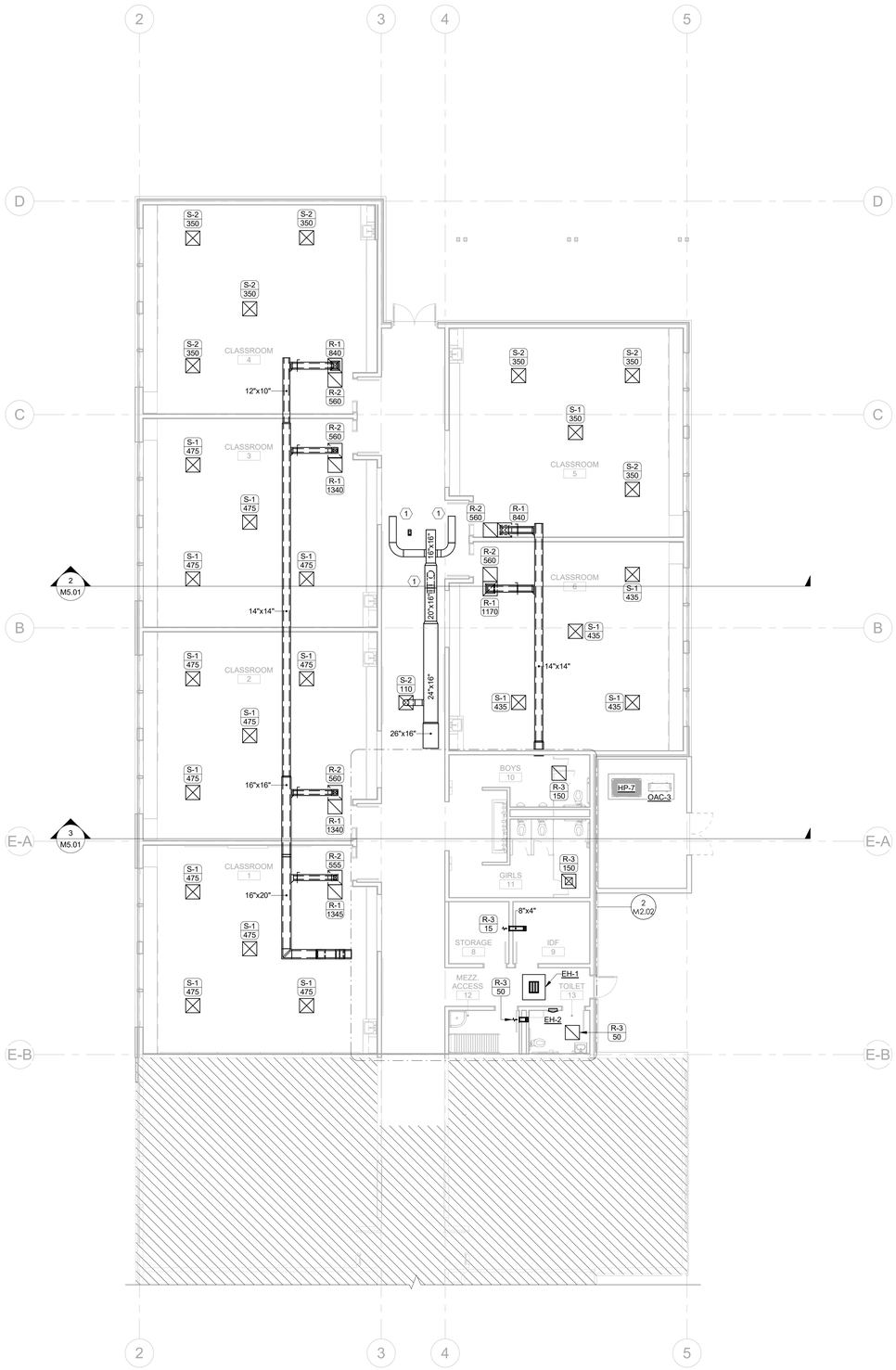
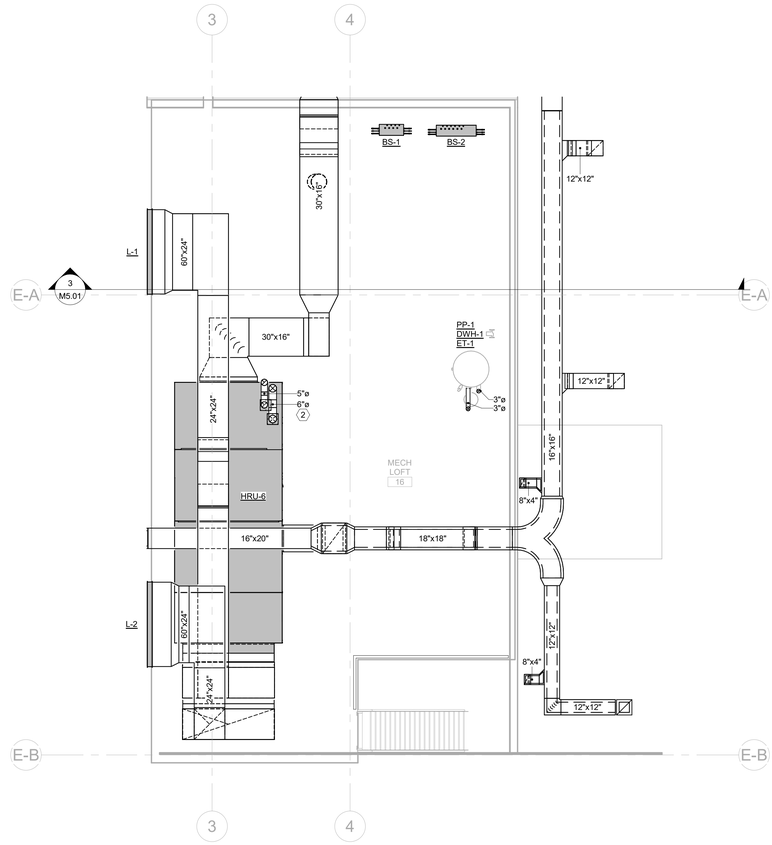


1 M2.02 **MEZZANINE PLAN - HRU**
SCALE: 1/8" = 1'-0"



2 M2.02 **ENLARGED MEZZANINE PLAN - HRU**
SCALE: 1/4" = 1'-0"

MECHANICAL PLAN NOTES

A. VERIFY THE LOCATION OF THERMOSTATS AND SENSORS WITH THE ARCHITECT AND ENGINEER PRIOR TO INSTALLATION. INSTALL THERMOSTATS 48" ABOVE FINISHED FLOOR PER ADA REQUIREMENTS.
B. PROVIDE AND INSTALL SEISMIC BRACING FOR EQUIPMENT, DUCTWORK AND PIPING PER THE REQUIREMENTS OF THE CURRENTLY ADOPTED INTERNATIONAL BUILDING CODE.
C. FLEXIBLE DUCTWORK BETWEEN BRANCH DUCTS AND GRILLES, REGISTERS, OR DIFFUSERS SHALL BE LIMITED TO 5 FT. FLEXIBLE DUCT SHALL NOT BE USED IN PLACE OF ELBOWS.
D. PROVIDE AND INSTALL FIRE, SMOKE, OR COMBINATION FIRE/SMOKE DAMPERS WHERE DUCTWORK PASSES THROUGH RATED ASSEMBLIES. ASSOCIATED DUCT DETECTORS SHALL BE ADDRESSABLE. SMOKE DAMPERS AND COMBINATION SMOKE/FIRE DAMPERS SHALL INCLUDE A KEYED REMOTE TEST SWITCH LOCATED IN AN ACCESSIBLE LOCATION. FIELD COORDINATE THE LOCATION OF TEST SWITCHES WITH THE ARCHITECT AND ENGINEER PRIOR INSTALLATION.
E. SEAL DUCT AND PIPE PENETRATIONS THROUGH FIRE RATED ASSEMBLIES WITH A UL-APPROVED FIRE STOP SYSTEM.
F. PROVIDE ACCESS DOORS TO ALOW SERVICE AND INSPECTION OF EQUIPMENT, VALVES, DAMPERS AND DEVICES INSTALLED ABOVE NON-REMOVABLE CEILINGS. COORDINATE SUCH INSTALLATIONS WITH THE ARCHITECT AND ENGINEER.
G. PIPING SHALL BE IDENTIFIED WITH PIPE LABELS MARKED AT A MAXIMUM OF EVERY 25 FT. VALVES SHALL BE IDENTIFIED WITH BRASS OR ALUMINUM VALVE TAGS.
H. PROVIDE AND INSTALL PIPE GUIDES, EXPANSION JOINTS, AND HANGERS PER MANUFACTURER'S RECOMMENDATIONS.
I. PIPING WALL PENETRATIONS SHALL SHALL BE FINISHED WITH A CHROME ESCUTCHEON PLATE.
J. MINIMUM TERMINAL DEVICE BRANCH PIPE SIZE IS 3/4"ø UNLESS OTHERWISE NOTED.
K. PROVIDE HIGH POINT AIR VENTS, LOW POINT DRAINS (WITH CAPPED HOSE CONNECTIONS), AND SLOPE PIPING AS NECESSARY TO ALLOW FOR COMPLETE DRAINAGE OF THE HYDRONIC SYSTEMS.
L. EXPOSED DUCTWORK TO BE HOT DIPPED GALVANIZED STEEL AND PAINTED PER ARCHITECTURAL. CONTRACTOR TO CLEAN AND DRY DUCTWORK PRIOR TO PAINTING.

KEY NOTES:

1. OUTSIDE AIR CONNECTION TO FAN COIL RETURN AIR DUCT. VOLUME DAMPERS SHALL BE INSTALLED ON BOTH OA CONNECTION AND RA CONNECTION.
2. ROUTE SEPARATED COMBUSTION DUCTWORK THROUGH ROOF. REFER TO DETAIL 3 ON M8.10.

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MECHANICAL HRU FLOOR PLANS - ADDITION

M2.02

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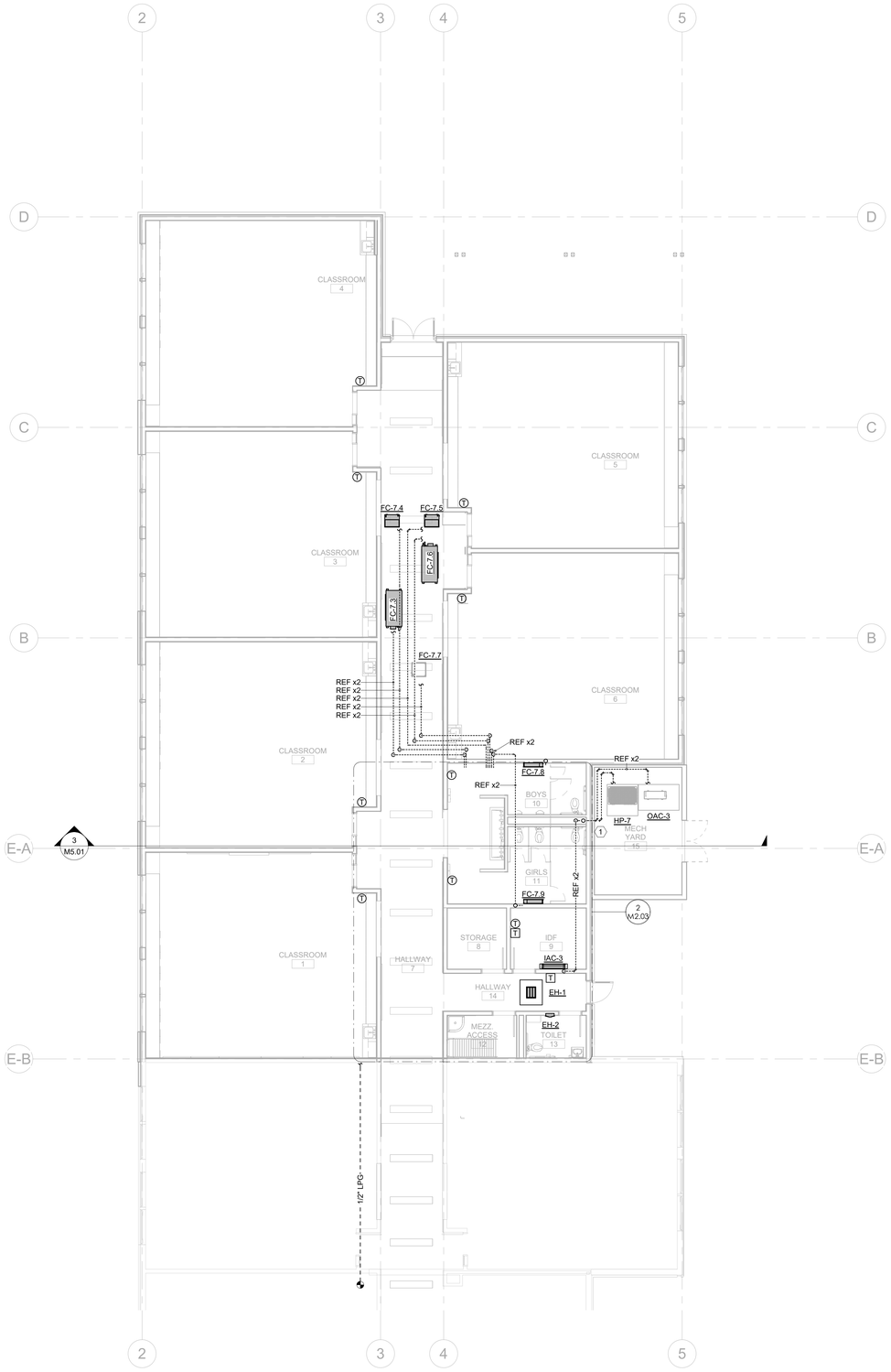
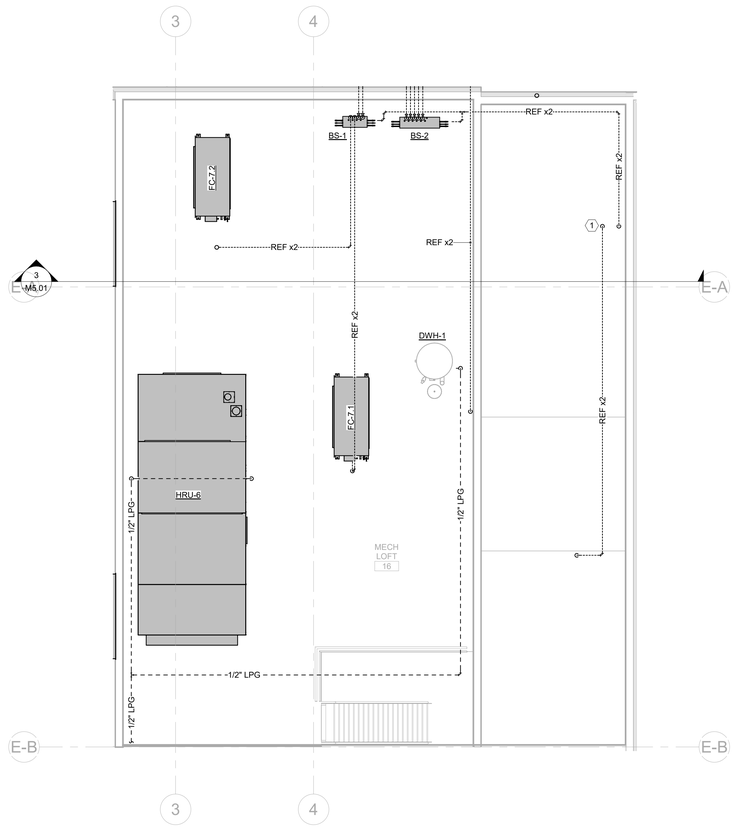


1 M2.03 **LEVEL 1 PLAN - MECHANICAL PIPING PLAN**

SCALE: 1/8" = 1'-0"



2 M2.03 **MEZZANINE PLAN - MECHANICAL PIPING PLAN**

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

MECHANICAL PLAN NOTES

A. VERIFY THE LOCATION OF THERMOSTATS AND SENSORS WITH THE ARCHITECT AND ENGINEER PRIOR TO INSTALLATION. INSTALL THERMOSTATS 48" ABOVE FINISHED FLOOR PER ADA REQUIREMENTS.
B. PROVIDE AND INSTALL SEISMIC BRACING FOR EQUIPMENT, DUCTWORK AND PIPING PER THE REQUIREMENTS OF THE CURRENTLY ADOPTED INTERNATIONAL BUILDING CODE.
C. FLEXIBLE DUCTWORK BETWEEN BRANCH DUCTS AND GRILLES, REGISTERS, OR DIFFUSERS SHALL BE LIMITED TO 5 FT. FLEXIBLE DUCT SHALL NOT BE USED IN PLACE OF ELBOWS.
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G. PIPING SHALL BE IDENTIFIED WITH PIPE LABELS MARKED AT A MAXIMUM OF EVERY 25 FT. VALVES SHALL BE IDENTIFIED WITH BRASS OR ALUMINUM VALVE TAGS.
H. PROVIDE AND INSTALL PIPE GUIDES, EXPANSION JOINTS, AND HANGERS PER MANUFACTURER'S RECOMMENDATIONS.
I. PIPING WALL PENETRATIONS SHALL SHALL BE FINISHED WITH A CHROME ESCUTCHEON PLATE.
J. MINIMUM TERMINAL DEVICE BRANCH PIPE SIZE IS 3/4"ø UNLESS OTHERWISE NOTED.
K. PROVIDE HIGH POINT AIR VENTS, LOW POINT DRAINS (WITH CAPPED HOSE CONNECTIONS), AND SLOPE PIPING AS NECESSARY TO ALLOW FOR COMPLETE DRAINAGE OF THE HYDRONIC SYSTEMS.
L. EXPOSED DUCTWORK TO BE HOT DIPPED GALVANIZED STEEL AND PAINTED PER ARCHITECTURAL. CONTRACTOR TO CLEAN AND DRY DUCTWORK PRIOR TO PAINTING.

(#) KEY NOTES:

1. ROUTE REFRIGERANT PIPING INTO MEZZANINE AREA THROUGH PLUMBING CHAISE IN THE RESTROOM GROUP.

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MECHANICAL PIPING FLOOR PLANS - ADDITION

M2.03

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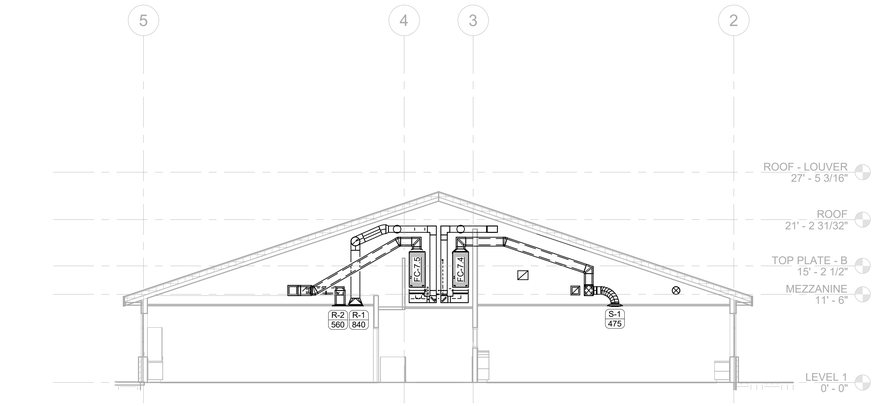
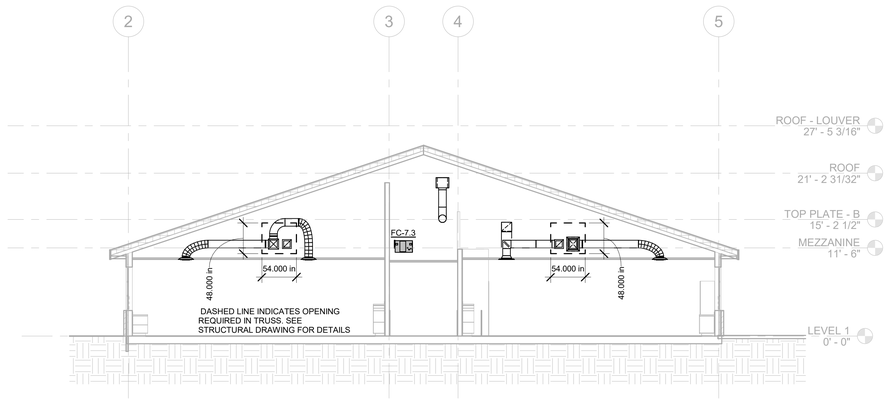


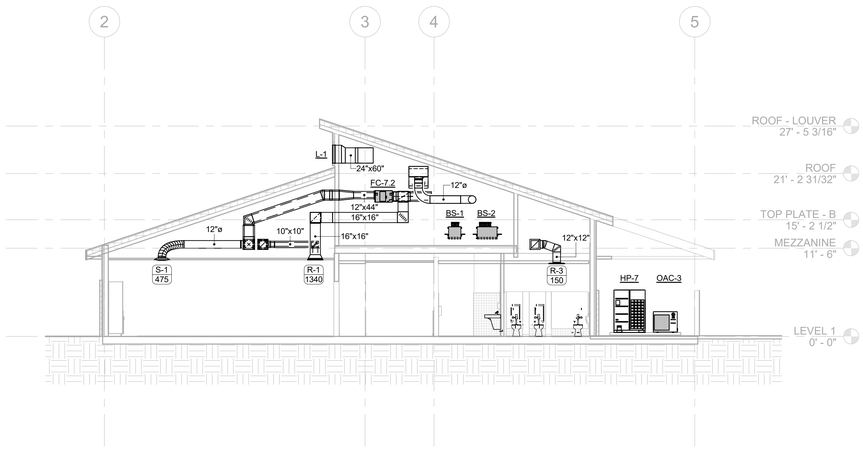
1 M5.01 **VERTICAL AHU SECTION - FC-7.4 & FC-7.5**

SCALE: 1/8" = 1'-0"



2 M5.01 **STRUCTUAL COORDINATION SECTION**

SCALE: 1/8" = 1'-0"



3 M5.01 **MEZZANINE MECHANICAL SECTION**

SCALE: 1/8" = 1'-0"

MECHANICAL PLAN NOTES

A. VERIFY THE LOCATION OF THERMOSTATS AND SENSORS WITH THE ARCHITECT AND ENGINEER PRIOR TO INSTALLATION. INSTALL THERMOSTATS 48" ABOVE FINISHED FLOOR PER ADA REQUIREMENTS.
B. PROVIDE AND INSTALL SEISMIC BRACING FOR EQUIPMENT, DUCTWORK AND PIPING PER THE REQUIREMENTS OF THE CURRENTLY ADOPTED INTERNATIONAL BUILDING CODE.
C. FLEXIBLE DUCTWORK BETWEEN BRANCH DUCTS AND GRILLES, REGISTERS, OR DIFFUSERS SHALL BE LIMITED TO 5 FT. FLEXIBLE DUCT SHALL NOT BE USED IN PLACE OF ELBOWS.
D. PROVIDE AND INSTALL FIRE, SMOKE, OR COMBINATION FIRE/SMOKE DAMPERS WHERE DUCTWORK PASSES THROUGH RATED ASSEMBLIES. ASSOCIATED DUCT DETECTORS SHALL BE ADDRESSABLE. SMOKE DAMPERS AND COMBINATION SMOKE/FIRE DAMPERS SHALL INCLUDE A KEYED REMOTE TEST SWITCH LOCATED IN AN ACCESSIBLE LOCATION. FIELD COORDINATE THE LOCATION OF TEST SWITCHES WITH THE ARCHITECT AND ENGINEER PRIOR INSTALLATION.
E. SEAL DUCT AND PIPE PENETRATIONS THROUGH FIRE RATED ASSEMBLIES WITH A UL-APPROVED FIRE STOP SYSTEM.
F. PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION OF EQUIPMENT, VALVES, DAMPERS AND DEVICES INSTALLED ABOVE NON-REMOVABLE CEILINGS. COORDINATE SUCH INSTALLATIONS WITH THE ARCHITECT AND ENGINEER.
G. PIPING SHALL BE IDENTIFIED WITH PIPE LABELS MARKED AT A MAXIMUM OF EVERY 25 FT. VALVES SHALL BE IDENTIFIED WITH BRASS OR ALUMINUM VALVE TAGS.
H. PROVIDE AND INSTALL PIPE GUIDES, EXPANSION JOINTS, AND HANGERS PER MANUFACTURER'S RECOMMENDATIONS.
I. PIPING WALL PENETRATIONS SHALL SHALL BE FINISHED WITH A CHROME ESCUTCHEON PLATE.
J. MINIMUM TERMINAL DEVICE BRANCH PIPE SIZE IS 3/4"ø UNLESS OTHERWISE NOTED.
K. PROVIDE HIGH POINT AIR VENTS, LOW POINT DRAINS (WITH CAPPED HOSE CONNECTIONS), AND SLOPE PIPING AS NECESSARY TO ALLOW FOR COMPLETE DRAINAGE OF THE HYDRONIC SYSTEMS.
L. EXPOSED DUCTWORK TO BE HOT DIPPED GALVANIZED STEEL AND PAINTED PER ARCHITECTURAL. CONTRACTOR TO CLEAN AND DRY DUCTWORK PRIOR TO PAINTING.

(#) KEY NOTES:

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Warm Springs Academy K8 Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 10200.001
Date 01/18/2023

BID/PERMIT

MECHANICAL SECTIONS

M5.01

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FAN COIL SCHEDULE

ACCESSORIES:
1. CONDENSATE DRAIN KIT.
2. STANDARD FILTER RACK WITH 1" FILTER.
3. CLAMP-ON DIVERSITECH CONDENSATE COP, MODEL CC-1 TO CUT LOW VOLTAGE POWER TO FAN SIGNAL AT HIGH CONDENSATE LEVELS. INSTALL ON FAN COIL DRAIN PAN.
4. RUSKIN CFD7T FIRE DAMPER ON SUPPLY DUCTWORK. SEE ASSOCIATED DETAIL.
5. RUSKIN CFD7RT FIRE DAMPER ON FRESH AIR DUCTWORK. SEE ASSOCIATED DETAIL.
6. DUCT ACCESS HATCH TO MAINTAIN FIRE DAMPER.
7. PROVIDE WITH INTEGRAL CONDENSATE PUMP IF APPLICABLE.

REMARKS:
1. MULTI-TAP ECM MOTOR
2. FACTORY INSTALLED BACKUP ELECTRIC HEAT
3. DRAIN CONDENSATE PAN TO ASSOCIATED FLOOR DRAIN (REFER TO PLUMBING DRAWINGS)
4. FAN COIL AND HEAT PUMP COMBINATION TO BE ENERGY STAR CERTIFIED

AHRI RATING TEMPERATURE DATA:
1. COOLING: 80°F DB / 67°F WB INDOOR RETURN AIR, 95°F DB OUTDOOR AIR
2. HIGH-TEMP HEATING: 70°F DB INDOOR RETURN AIR, 47°F DB / 43°F DB OUTDOOR AIR
3. LOW-TEMP HEATING: 70°F DB INDOOR RETURN AIR, 17°F DB / 15°F DB OUTDOOR AIR

CONTROLS:
1. 7-DAY PROGRAMMABLE THERMOSTAT WITH OUTDOOR TEMPERATURE SENSOR INTEGRATION

ELECTRICAL DATA:
SEE MEP COORDINATION SCHEDULE FOR STARTER/DISCONNECT AND ALL OTHER ELEC. DATA.

MARK	MANUF.	MODEL	CONFIG.	AIRFLOW DATA			COOLING INFORMATION			HEATING INFORMATION		FILTER EFFICIENCY	FILTER LOCATION (FAN COIL/FILTER GRILLE/RA DUCT)	PHYSICAL DATA			
				SUPPLY (CFM)	OUTSIDE AIR (CFM)	ESP (IN WC)	EQUIPMENT TOTAL CAPACITY (BTU/HR)	CALCULATED SENSIBLE CAPACITY (BTU/HR)	CALCULATED TOTAL COOLING CAPACITY (BTU/HR)	HEATING CAPACITY (BTU/HR)	CALCULATED CAPACITY (BTU/HR)			HEIGHT (IN)	WIDTH (IN)	DEPTH (IN)	WEIGHT (LBS)
FC-7.1	LG	ARNU423BBA4	HIGH-STATIC DUCTED FAN COIL	1900	555	0.98	42,000	37,346	39,242	8,700	43,800	MERV 8	FILTER GRILLE	18-1/8	61-1/2	28-5/8	192
FC-7.2	LG	ARNU423BBA4	HIGH-STATIC DUCTED FAN COIL	1900	560	0.98	42,000	37,346	39,242	8,700	43,800	MERV 8	FILTER GRILLE	18-1/8	61-1/2	28-5/8	192
FC-7.3	LG	ARNU423BBA4	HIGH-STATIC DUCTED FAN COIL	1900	560	0.98	42,000	37,292	39,189	8,700	43,800	MERV 8	FILTER GRILLE	18-1/8	61-1/2	28-5/8	192
FC-7.4	LG	ARNU423NKA4	VERTICAL AHU	1400	560	1.0	42,000	38,095	39,901	11,155	46,000	MERV 8	FILTER GRILLE	55-13/16	25	21-1/4	165
FC-7.5	LG	ARNU423NKA4	VERTICAL AHU	1400	560	1.0	42,000	29,012	31,288	10,438	46,000	MERV 8	FILTER GRILLE	55-13/16	25	21-1/4	165
FC-7.6	LG	ARNU363BBA4	HIGH-STATIC DUCTED FAN COIL	1730	560	0.98	36,200	29,193	31,493	9,547	40,600	MERV 8	FILTER GRILLE	18-1/8	61-1/2	28-5/8	192
FC-7.7	LG	ARNU073TRD4	CEILING CASSETTE	265	- -	- -	7,500	7028	6,320	4,354	8,500	WASHABLE	FAN COIL	9-5/16	24-7-16	24-7/16	29
FC-7.8	LG	ARNU053SJA4	WALL MOUNT FAN COIL	240	- -	- -	5,500	787	787	361	6,100	WASHABLE	FAN COIL	12-7/16	30-3/16	7-7/16	18.5
FC-7.9	LG	ARNU53SJA4	WALL MOUNT FAN COIL	240	- -	- -	5,500	796	773	482	6,100	WASHABLE	FAN COIL	12-7/16	30-3/16	7-7/16	18.5

HEAT RECOVERY VENTILATOR UNIT SCHEDULE

ACCESSORIES/REMARKS:
1. FLEXIBLE DUCTWORK CONNECTION ON ALL FOUR CONNECTIONS.
2. DRAIN CONDENSATE TO NEAREST FLOOR DRAIN. SEE PLUMBING PLAN.
3. MOTORIZED POSITIVE CLOSURE DAMPERS ON BOTH AIR STREAMS.
4. SINGLE POINT ELECTRICAL CONNECTION.
5. INTEGRAL DEFROST CONTROL.
6. HANG FROM STRUCTURE WITH ALL-THREAD. PROVIDE SPRING VIBRATION ISOLATORS.
7. PROVIDE 2" MERV-8 FILTERS IN EACH AIR STREAM.
8. PROVIDE INTEGRAL SCR CONTROLLED ELECTRIC PRE-HEATER TO PROVIDE DEFROST CONTROL. PRE-HEATER SHALL ONLY BE SIZED LARGE ENOGUH TO ALLOW UNIT TO OPERATE AT 100% OF THE TIME. ELECTRIC HEATER SHALL NOT INCREASE DISCHARGE BEYOND THAT.
9. PROVIDE OUTSIDE AIR AND EXHAUST HOODS.
10. PROVIDE HYDRONIC PREHEATING COIL TO MAINTAIN MINIMUM HEAT RECOVERY CORE ENTERING AIR TEMPERATURE TO PREVENT FROST BUILDUP.
11. PROVIDE FACE AND BYPASS DAMPER FOR ECONOMIZER COOLING.
12. PROVIDE BACNET CONTROLLER TO CONTROL UNIT THROUGH BUILDING AUTOMATION SYSTEM.

CONTROLS:
1. PROVIDE 7-DAY PROGRAMMABLE DIGITAL TIME CLOCK - INSTALL IN MECHANICAL ROOM.
2. INTERLOCK HRV TO "G" FAN SIGNAL ON ALL ASSOCIATED FAN COILS. WHEN HRV RUNS, ALL ASSOCIATED FAN COIL FANS SHALL RUN.
3. SEE DDC CONTROL POINTS AND SEQUENCES FOR ALL CONTROL INFORMATION.

ELECTRICAL DATA:
SEE MEP COORDINATION SCHEDULE FOR STARTER/DISCONNECT AND ALL OTHER ELEC. DATA.

ELECTRICAL DATA:
SEE MEP COORDINATION SCHEDULE FOR STARTER/DISCONNECT AND ALL OTHER ELEC. DATA.

MARK	MANUF.	MODEL	SUPPLY AIR			EXHAUST AIR			DESIGN CONDITIONS									CONFIG.	PHYSICAL DATA			
									WINTER DESIGN CONDITIONS						SUMMER DESIGN CONDITIONS							
									OUTDOOR AIR		INDOOR AIR				OUTDOOR AIR		INDOOR AIR					
			MAX AIRFLOW (CFM)	ESP (IN WC)	DRIVE	MAX AIRFLOW (CFM)	ESP (IN WC)	DRIVE	DB (°F)	WB (°F)	DB (°F)	RH	DAT (°F)	TOTAL WINTER EFFECTIVENESS	DB (°F)	WB (°F)	DB (°F)	RH	DAT (°F)	TOTAL SUMMER EFFECTIVENESS		LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	WEIGHT (LBS)
HRU-6	AAON	H3-DRB-3-0	3525	1.5		3926	1.75		0	0	70		103		92	68	75				HEAT WHEEL	214-1/2	85-7/8	34-5/8	2535

ELECTRIC HEATER SCHEDULE

ACCESSORIES:
1. WALL MOUNTED UNITS TO HAVE INTEGRAL THERMOSTAT.
2. CEILING MOUNTED UNITS TO HAVE REMOTE MOUNTED THERMOSTAT.
3. INTEGRAL DISCONNECTING MEANS AND THERMAL OVERLOADS.
4. INTEGRAL FAN

ELECTRICAL DATA:
SEE MEP COORDINATION SCHEDULE FOR STARTER/DISCONNECT AND ALL OTHER ELECTRICAL DATA.

MARK	MANUF.	MODEL	WATTAGE	FINISH	MOUNTING	PHYSICAL DATA		
						DEPTH (IN)	WIDTH (IN)	HEIGHT (IN)
EH-1	MARLEY ENGINEERED PRODUCTS	EFF	3000	BY ARCH	T-BAR CEILING	18-1/4	14-3/8	3-3/4
EH-2	QMARK	SSAR1802	1500	BY ARCH	WALL	3-3/4	15-13/16	19-1/4

VRF HEAT PUMP (W/ HEAT RECOVERY) SCHEDULE

ACCESSORIES:
1. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY ACCESSORIES FOR A FULLY FUNCTIONING SYSTEM.
2. PROVIDE SHUT-OFF AND SCHRADER VALVE BETWEEN SHUT-OFF AND UNIT FOR ALL PIPES CONNECTING TO UNIT.
3. PROVIDE ALL REFNET FITTINGS AS REQUIRED IN PIPING NETWORK.
4. FILTER/DRYER
5. HIGH/LOW PRESSURE SWITCH.
6. CRANKCASE HEATER.
7. LOW AMBIENT UNIT (DOWN TO -13°F).
8. LOW AMBIENT CONTROLLER.
9. EVAP. FREEZE T-STAT.
10. WINTER START CONTROL.

REMARKS:
1. REFER TO VRV PIPING SCHEMATIC FOR REFRIGERANT LINE SIZES AND ROUTING DETAILS.
2. FOLLOW MANUFACTURER'S INSTALLATION MANUAL PRECISELY TO ENSURE PROPER OPERATION.
3. FINAL UNIT SELECTIONS AND PIPE SIZES SHALL BE VERIFIED BY MANUFACTUER USING THEIR PROPRIETARY SOFTWARE PRIOR TO ORDERING EQUIPMENT.

CONTROLS:
1. PROVIDE I-TOUCH CONTROLLER.
2. PROVIDE BACNET INTERFACE.

ELECTRICAL DATA:
SEE MEP COORDINATION SCHEDULE FOR STARTER/DISCONNECT AND ALL OTHER ELEC. DATA.

MARK	MANUF.	MODEL	REFRIGERANT TYPE	COMPRESSOR STYLE	COOLING CAPACITY (MBH)	HEATING CAPACITY (MBH)	EER	COP (HIGH/LOW)	OUTDOOR DESIGN CONDITIONS		UNIT SIZE			
									WINTER	SUMMER				
									DRY-BULB (°F)	DRY-BULB (°F)	LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	NET WEIGHT (LBS)
HP-7	LG	ARUM241DTE5	410A	HSS DC SCROLL	233,100	243,000	10.40	3.20/2.26	-5	95	48-13/16	29-29/32	66-17/32	666

VRF BRANCH SELECTOR BOX SCHEDULE

REMARKS:

MARK	MANUF.	MODEL	ASSOCIATED HEAT PUMP	NUMBER OF PORTS	MAX PORT CAPACITY (BTU/HR)	TOTAL CAPACITY (BTU/HR)	OPERATING WEIGHT (LBS)
BS-1	LG	PRHR043A	HP-7	4	60,000	180,000	37
BS-2	LG	PRHR063A	HP-7	6	60,000	230,000	40

GRILLE, REGISTER AND DIFFUSER SCHEDULE

GRD REMARKS:
1. SUBMITTAL DATA SHALL INCLUDE N.C., THROW, VELOCITY, AND PRESSURE DROP AS WELL AS ALL PHYSICAL AND INSTALLATION DATA.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL FITTINGS AND ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION.
3. N.C. VALUES IN SCHEDULE ARE VALID FOR SCHEDULE AIRFLOW ONLY AND REPRESENT A MAXIMUM ACCEPTABLE VALUE. SUBSTITUTE EQUIPMENT SHALL HAVE N.C. VALUE EQUAL TO OR BELOW THE VALUE SCHEDULE.
4. REMOTE DAMPERS SHALL BE GREENHECK MODEL RBDR-50 WITH REMOTE WALL PLATE(S) IN LOCATION(S) SHOWN ON DRAWINGS.
5. REMOTE DAMPERS SHALL BE MECHANICAL CABLE DRIVEN WITH CEILING ADJUSTMENT PLATES. COLOR SELECTED BY ARCHITECT.

ACCESSORY REMARKS:
1. PROVIDE FRAME FOR INSTALLATION IN RELEVANT CEILING TYPE. REFER TO ARCHITECTURAL RCP FOR CEILING TYPE.
2. PAINT INTERIOR OF VISIBLE RETURN DUCTS & PLENUMS BLACK.
3. COORDINATE LINEAR SLOT WIDTHS WITH THE WIDTH OF THE WOOD SLAT CEILINGS THEY WILL BE INSTALLED IN PRIOR TO ORDERING.
4. PROVIDE MANUAL BALANCING DAMPER AT LOCATIONS WHERE A SPECIFIED AIR VOLUME IS SHOWN.
5. PROVIDE RUSKIN MODEL CFD7T CEILING RADIATION DAMPER FOR SQUARE NECK DIFFUSERS AND MODEL CFD7RT FOR ALL ROUND NECK DIFFUSERS INSTALLED IN A FIRE RATED CEILING ASSEMBLY. CEILING RADIATION DAMPER TO MEET UL 55C LISTING R8039.
6. PROVIDE PRICE MODEL VCS3 OPPOSED BLADE DAMPER (OBD) WHERE INDICATED ON THE FLOOR PLANS. BALANCE TO AIRFLOW SPECIFIED.
7. PROVIDE PRICE MODEL VCR9 RADIAL DAMPER (RD) WHERE INDICATED ON THE FLOOR PLANS. BALANCE TO THE AIRFLOW SPECIFIED.

MARK	MANUF.	MODEL	DESCRIPTION	NECK SIZE	FUNCTION	MAX AIRFLOW (CFM)	PERFORMANCE DATA AT MAX CFM				MOUNTING & FINISH		
							N.C.	PRESSURE DROP (IN WC)	THROW AT 50 FPM (FT)	VELOCITY (FPM)	MOUNTING	MATERIAL	FINISH
R-1	PRICE	80	24" X 24" EGG CRATE GRILL	22" X 22"	RETURN	2166	- -	0.03	N/A	359	LAY-IN	STEELE	BY ARCH
R-2	PRICE	80FF	24" X 24" EGG CRATE GRILL WITH FILTER FRAME	22" X 22"	RETURN	2166	- -	0.04	N/A	432	LAY-IN	STEELE	BY ARCH
R-3	PRICE	<varies>	<varies>	<varies>	<varies>	<varies>	<varies>	<varies>	<varies>	<varies>	<varies>		
S-1	PRICE	SCDA	24" X 24" MODULAR CORE DIFFUSER	12" X 12"	SUPPLY	500	- -	0.03	18	380	LAY-IN	STEELE	BY ARCH
S-2	PRICE	SCDA	24"X24" MODULAR CORE DIFFUSER	16"X 16"	SUPPLY								

DUCTLESS MINI-SPLIT SYSTEM SCHEDULE

ACCESSORIES:
1. ALL STANDARD ACCESSORIES
2. FILTER KIT
3. ULTRA LOW AMBIENT KIT, COOLING OPERATING LIMIT -40°F TO 115°F
4. PROVIDE BIG FOOT FIX-IT FOOT SUPPORT FOR OUTDOOR UNIT.
5. PROVIDE INTERNAL CONDENSATE PUMP FOR WALL-MOUNTED INDOOR UNIT.

CONTROLS:
1. FACTORY PROVIDED CONTROLS - NO INTERCONNECTION TO THE DDC SYSTEM.
2. T.C.C. SHALL INDEPENDENTLY MONITOR THE SPACE TEMPERATURE. SEE POINTS/SEQUENCES FOR MORE INFORMATION.

ELECTRICAL DATA:
SEE MEP COORDINATION SCHEDULE FOR STARTER/DISCONNECT AND ALL OTHER ELEC. DATA.

INDOOR COOLING UNIT				OUTDOOR CONDENSING UNIT				MANUF.	SERIES	NOMINAL COOLING CAPACITY (MBH)
MARK	MODEL	TYPE	WEIGHT (LBS)	MARK	MODEL	TYPE	WEIGHT (LBS)			
IAC-3	LSN181HSV5	WALL MOUNTED	25.6	OAC-3	LSU181HSV5	HEAT PUMP	127.9	LG	MULTI F	18

LOUVER SCHEDULE

REMARKS:
1. VERIFY ROUGH OPENING DIMENSIONS WITH CONSTRUCTION MANAGER PRIOR TO ORDERING.
2. 6" DEEP DRAINABLE LOUVER WITH BIRDSCREEN.
3. ARCHITECTURAL FIELD REPRESENTATIVE TO SELECT FINAL COLOR.
4. PROVIDED MOTORIZED DAMPER OR GRAVITY BACKDRAFT DAMPER AS INDICATED ON THE FLOOR PLANS.

MARK	MANUF.	MODEL	WIDTH (IN)	HEIGHT (IN)	TYPE	MATERIAL	FUNCTION	AIRFLOW (CFM)	FREE AREA (SQ FT)	PRESSURE DROP (IN WC)	AIR VELOCITY (FPM)
L-1	RUSKIN	EME620DD	66	28	WIND-DRIVEN	ALUMINUM	INTAKE	3525	5.58	0.08	632
L-2	RUSKIN	EME620DD	66	28	WIND-DRIVEN	ALUMINUM	EXHAUST	3525	5.58	0.08	632

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MECHANICAL SCHEDULES

M8.01

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VENTILATION AND EXHAUST SCHEDULE

SYSTEM NAME	NUMBER	NAME	AREA	Zone	LOAD PER 1000	OSA/PERSON	OSA/SQ FT	ZONE EFFECT	UNCORRECTED OSA	OUTDOOR AIR REQUIRED	OUTDOOR AIR PROVIDED	EXHAUST PROVIDED
	8	STORAGE	74 SF	Default	0	0	0.12	0.8	10	11	15	0
	9	IDF	94 SF	Default	0	0	0.06	0.8	5	1	15	0
	13	TOILET	52 SF	Default	0	0	0	0.8	0	0	0	0
									15	12	30	0
HRU-6	1	CLASSROOM	944 SF	Default	35	10	0.12	0.8	445	555	555	0
HRU-6	2	CLASSROOM	946 SF	Default	35	10	0.12	0.8	445	556	560	0
HRU-6	3	CLASSROOM	946 SF	Default	35	10	0.12	0.8	445	556	560	0
HRU-6	4	CLASSROOM	947 SF	Default	35	10	0.12	0.8	455	558	560	0
HRU-6	5	CLASSROOM	948 SF	Default	35	10	0.12	0.8	440	558	560	0
HRU-6	6	CLASSROOM	948 SF	Default	35	10	0.12	0.8	440	556	560	0
HRU-6	7	HALLWAY	1022 SF	Default	0	0	0.06	0.8	65	81	110	0
HRU-6	10	BOYS	172 SF	Default	0	0	0	0.8	0	4	5	0
HRU-6	11	GIRLS	194 SF	Default	0	0	0	0.8	0	0	0	0
HRU-6	12	MEZZ. ACCESS	60 SF	Default	0	0	0.06	0.8	0	0	0	0
HRU-6	14	HALLWAY	111 SF	Default	0	0	0.06	0.8	5	8	10	0
HRU-6									2740	3432	3480	0
Grand total									2755	3444	3510	0

MEP COORDINATION SCHEDULE

CONTROL TYPE:

BAS	BUILDING AUTOMATION SYSTEM
CO	CARBON MONOXIDE DETECTOR
CONT	CONTINUOUS OPERATION
EF	INTERLOCK WITH EXHAUST FAN
HCP	HOOD CONTROL PANEL
INT	INTEGRAL
L	LIGHT SWITCH
MS	MANUAL SWITCH
OS	OCCUPANCY SENSOR
PS	PRESSURE SWITCH
T	THERMOSTAT
TC	TIME CLOCK
UC	UNIT CONTROLLER
VE	VEHICLE EXHAUST DETECTION SYSTEM
N/A	NOT APPLICABLE

DIVISION OF RESPONSIBILITIES:

22/22	FURNISHED AND INSTALLED BY DIV. 22, WIRED BY DIV. 22
22/26	FURNISHED AND INSTALLED BY DIV. 22, WIRED BY DIV. 26
23/23	FURNISHED AND INSTALLED BY DIV. 23, WIRED BY DIV. 23
23/26	FURNISHED AND INSTALLED BY DIV. 23, WIRED BY DIV. 26
26/26	FURNISHED AND INSTALLED BY DIV. 26, WIRED BY DIV. 26

NOTES:

1.	INTEGRAL DISCONNECTS AND OVERLOADS
2.	INTEGRAL OVERLOADS
3.	SINGLE POINT CONNECTION
4.	PROVIDE RECEPTACLE AND DATA CONNECTION FOR PANEL
5.	MOUNT ON UNI-STRUT IN FRONT OF UNIT
6.	SIZE FUSES IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES FOR INSTALLED EQUIPMENT
7.	INTEGRAL VARIABLE FREQUENCY DRIVE
8.	DUCT SMOKE DETECTOR(S) REQUIRED
9.	PROVIDE ALARM CONNECTED TO BAS

GENERAL NOTES:

A. CONTROL WIRING SHALL BE CONCEALED WITHIN WALL CONSTRUCTION, ABOVE CEILING, OR RUN IN CONDUIT. EXPOSED CONTROL WIRING IS UNACCEPTABLE.
B. UNLESS SPECIFICALLY NOTED, ALL FEEDERS SHALL INCLUDE A FULL SIZE NEUTRAL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY WITH THE MANUFACTURER OF THE ACTUAL EQUIPMENT BEING SUPPLIED WHETHER A NEUTRAL IS REQUIRED PRIOR TO ROUGH-IN.
C. ALL DUCT SMOKE DETECTORS FURNISHED BY DIV. 26, INSTALLED BY DIV. 23, AND WIRED BY DIV. 26. DIV. 26 SHALL WIRE ALL FANS TO SHUT DOWN WHEN ALARM IS INITIATED BY ANY DUCT SMOKE DETECTOR.

MARK	DESCRIPTION	ELECTRICAL DATA		CONTROL		NOTES
		LOAD	VOLT-PHASE	TYPE	DIV	
BS-1	HEAT RECOVERY BRANCH BOX	0.06 A	230-1	VRF	23/23	
BS-2	HEAT RECOVERY BRANCH BOX	0.09 A	230-1	VRF	23/23	
CP-1	CONDENSATE PUMP	1.5 A	120-1	INT	22/22	9
DWH-1	GAS FIRED WATER HEATER	- -	120-1	INT	- -	4
EH-1	ELECTRIC CEILING HEATER	3000 W	208-1	BAS	23/23	
EH-2	ELECTRIC WALL HEATER	1500 W	120-1	INT	23/23	
FC-7.1	HIGH STATIC DUCTED FAN COIL	5.2 A	230-1	VRF	23/23	
FC-7.2	HIGH STATIC DUCTED FAN COIL	5.2 A	230-1	VRF	23/23	
FC-7.3	HIGH STATIC DUCTED FAN COIL	5.2 A	230-1	VRF	23/23	
FC-7.4	VERTICAL DUCTED FAN COIL	1.08 A	230-1	VRF	23/23	
FC-7.5	VERTICAL DUCTED FAN COIL	1.08 A	230-1	VRF	23/23	
FC-7.6	HIGH STATIC DUCTED FAN COIL	5.2 A	230-1	VRF	23/23	
FC-7.7	CEILING CASSETTE	0.2 A	230-1	VRF	23/23	
FC-7.8	STANDARD WALL MOUNT UNIT	0.25 A	230-1	VRF	23/23	
FC-7.9	STANDARD WALL MOUNT UNIT	0.25 A	230-1	VRF	23/23	
HP-7	HEAT PUMP	50 MOP 41.4 MCA	460-3	VRF	23/23	
HRU-6	HEAT RECOVERY UNIT	12 FLA	460-3	BAS	23/23	
IAC-3	WALL MOUNTED FAN COIL UNIT	POWERED BY OAC-3	- -	T	23/23	
OAC-3	SPLIT SYSTEM HEAT PUMP	30 MOP 19 MCA	230-1	T	23/23	
PP-1	HOT WATER RECIRCULATION PUMP	0.52 A	120-1	INT	22/22	4

AIR BALANCE SCHEDULE

NUMBER	NAME	ASSOCIATED EQUIPMENT	SUPPLY AIR	OUTDOOR AIR	RETURN AIR	EXHAUST AIR
1	CLASSROOM	FC-7.1	1900 CFM	555	1345 CFM	555 CFM
2	CLASSROOM	FC-7.2	1900 CFM	560	1340 CFM	560 CFM
3	CLASSROOM	FC-7.3	1900 CFM	560	1340 CFM	560 CFM
4	CLASSROOM	FC-7.4	1400 CFM	560	840 CFM	560 CFM
5	CLASSROOM	FC-7.5	1400 CFM	560	840 CFM	560 CFM
6	CLASSROOM	FC-7.6	1730 CFM	560	1170 CFM	560 CFM
7	HALLWAY	HRU-6	110 CFM	110	0 CFM	85 CFM
8	STORAGE	HRU-6	0 CFM	15	0 CFM	15 CFM
9	IDF	HRU-6	0 CFM	15	0 CFM	0 CFM
10	BOYS	HRU-6	0 CFM	5	0 CFM	150 CFM
11	GIRLS	HRU-6	0 CFM	0	0 CFM	150 CFM
12	MEZZ. ACCESS	HRU-6	0 CFM	0	0 CFM	50 CFM
13	TOILET	HRU-6	0 CFM	0	0 CFM	50 CFM
14	HALLWAY	HRU-6	0 CFM	10	0 CFM	10 CFM
Grand total			10340 CFM		6875 CFM	3865 CFM

PROPANE CALCULATIONS

NOTES:
1. INLET REGULATOR SET AT _____ IN. W.C.
2. ANTICIPATED LINE LOSS OF _____ IN. W.C.

MARK	EQUIPMENT	CONNECTION	MBH	QTY	TOTAL MBH
AHU-1	EXISTING		200	1	200
HRU-1	EXISTING		225	1	225
HRU-2	EXISTING		225	1	225
HRU-3	EXISTING		225	1	225
HRU-4	EXISTING		400	1	400
HRU-5	EXISTING		150	1	150
HRU-6	NEW		200	1	200
GUH-1	EXISTING		30	1	30
DWH-1	NEW		125	1	125
RTU-1	EXISTING		120	1	120
MAU-1	EXISTING		250	1	250
RTU-2	EXISTING		1080	1	1080
				TOTAL BUILDING LOAD	3091
			PIPING MATERIAL:		
			TOTAL DEVELOPED LENGTH:		
			DESIRED PRESSURE AT REGULATOR:		
			BRANCH SIZE:		
			CAPACITY OF MAINS AT PRESSURE AND LENGTH INDICATED:		

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Warm Springs Academy K8 Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

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MECHANICAL SCHEDULES

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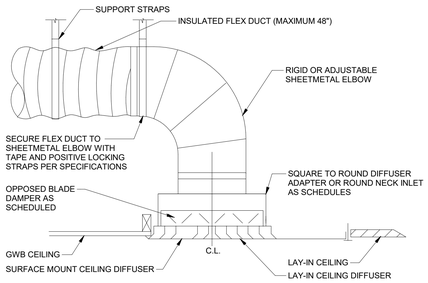
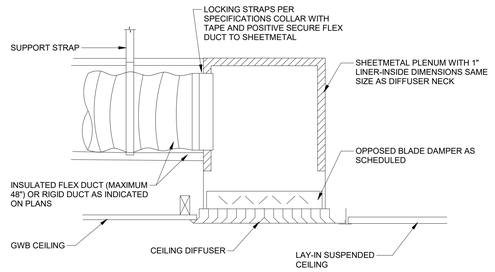


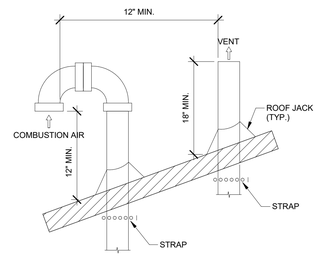
1 M8.10 CEILING DIFFUSER DETAIL

SCALE: N.T.S.



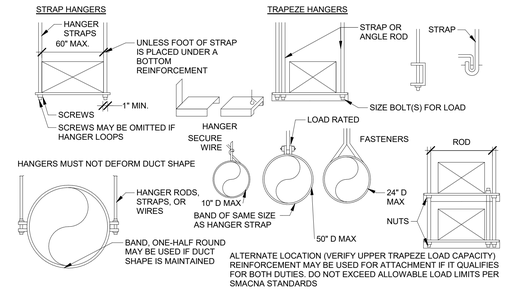
2 M8.10 CEILING DIFFUSER - PLENUM DETAIL

SCALE: N.T.S.



3 M8.10 SEPARATED COMBUSTION THRU ROOF DETAIL

SCALE: N.T.S.



4 M8.10 DUCT SUPPORT DETAIL

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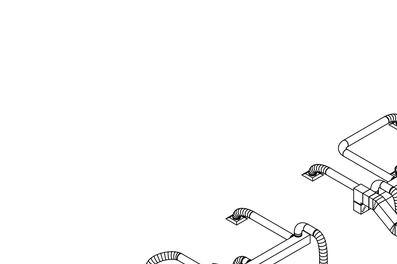
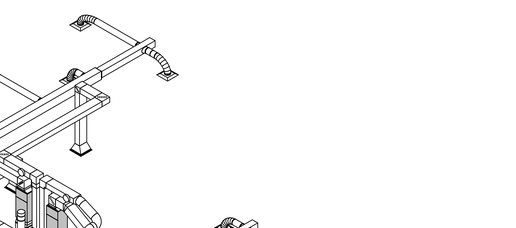


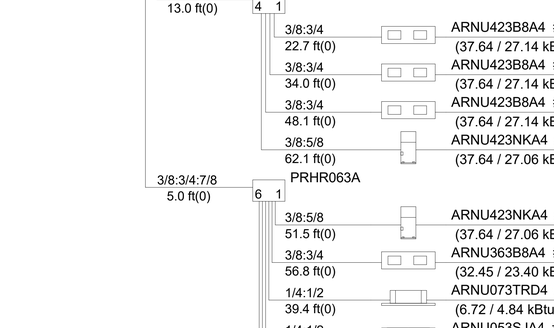
5 M8.10 LOUVER DETAIL

SCALE: N.T.S.



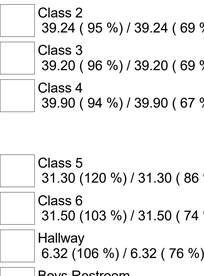
8 M8.10 TYPICAL FAN COIL UNIT DETAIL

SCALE: N.T.S.



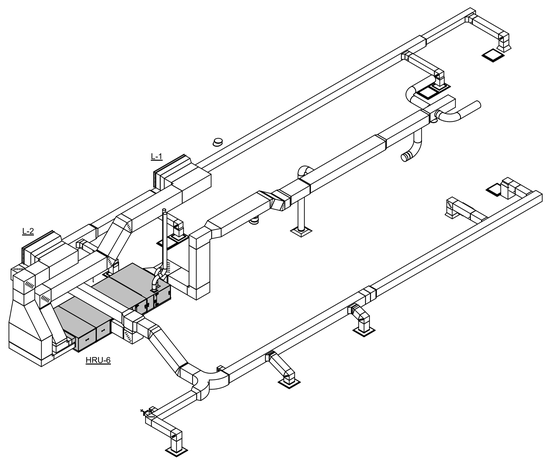
9 M8.10 TYPICAL FAN COIL UNIT DETAIL

SCALE: N.T.S.



10 M8.10 ELECTRIC UNIT HEATER DETAIL

SCALE: N.T.S.



6 M8.10 HRV DUCTING

SCALE: N.T.S.

7 M8.10 VRF DUCTING

SCALE: N.T.S.

NOTE: THIS SCHEMATIC HAS BEEN PROVIDED FOR REFERENCE ONLY. ALL WIRING AND EQUIPMENT SHOWN IN GRAY/DASHED LINES ARE TO BE SUPPLIED AND INSTALLED IN FUTURE PHASE 2. IT IS THE RESPONSIBILITY OF THE MECHANICAL CONTRACTO TO FIELD VERIFY REFRIGERANT WIRE ROUTING AND WIRE LENGTH WITH THE VRF SYSTEM MANUFACTURER PRIOR TO STARTING THE INSTALLATION. PROVIDE AND INSTALL ALL REQUIRED COMPONENTS AND ACCESSORIES FOR A COMPLETE AND FUNCTIONAL SYSTEM. SUBMIT VRF MANUFACTURER'S WIRING DIAGRAMS TO ENGINEER PRIOR TO STARTING INSTALLATION OF REFRIGERANT WIRING. ALL REFRIGERANT WIRING WILL BE REQUIRED TO BE INSPECTED AND APPROVED BY A FACTORY AUTHORIZED REPRESENTITIVE PRIOR TO ENERGIZING THE SYSTEM

11 M8.10 VRF PIPING DIAGRAM

SCALE: N.T.S.

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MECHANICAL DETAILS

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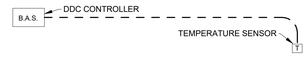
TEMPERATURE CONTROL NOTES

THE SCHOOL DISTRICT HAS HIRE ALLIANT MECHANICAL TO PERFORM A CONTROLS UPGRADE FOR ALL SCHOOLS WITHIN THE DISTRICT. THE EQUIPMENT AND SYSTEMS DESIGN FOR THIS ADDITION SHALL CONFORM WITH ALL CONTROLS SPECIFICATIONS AND REQUIREMENTS PROVIDED BY ALLIANT CONTROLS THROUGH THE SCHOOL DISTRICT.

SPACE MONITORING

SEQUENCE OF OPERATION:
TEMPERATURE SENSOR TO MONITOR THE SPACE TEMPERATURE AND PROVIDE SIGNAL BACK TO BAS TO CONTROL ASSOCIATE ROOM EQUIPMENT.

ALARMS
- GENERATE ALARM WHEN TEMPERATRE SETPOINT RISES ABOVE ALARM SETPOINT (ADJ.)

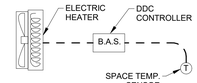


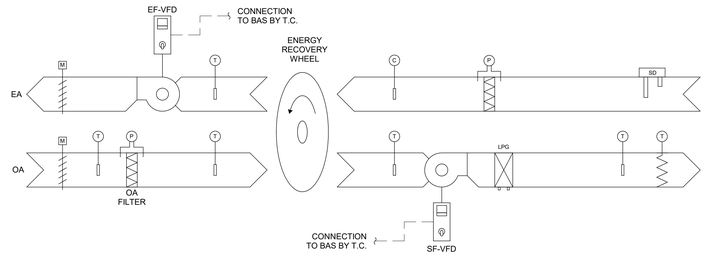
ELECTRIC HEATER

SEQUENCE OF OPERATION:

CONTROL
- COMMAND ON WHEN SPACE TEMPERATURE DROPS BELOW SPACE TEMPERATURE SETPOINT (ADJ.)
- COMMAND OFF WHEN SPACE TEMPERATURE IS AT OR ABOVE SPACE TEMPERATURE SETPOINT (ADJ.)

ALARMS
- GENERATE ALARM WHEN SPACE TEMPERATURE DROPS BELOW SPACE ALARM SETPOINT (ADJ.)





HEAT RECOVERY UNIT SEQUENCE OF OPERATIONS

GENERAL:

HRU-6 IS A VARIABLE VOLUME DEDICATED OUTSIDE AIR UNIT WITH ENERGY RECOVERY CAPABILITY. THE UNIT SUPPLIES TEMPERED FRESH AIR TO THE BUILDING WHILE EXHAUSTING AN EQUAL AMOUNT OF AIR TO MAINTAIN NEUTRAL BUILDING PRESSURE. THE UNIT USES AN ENERGY RECOVERY WHEEL TO TRANSFER ENERGY FROM THE EXHAUST AIR TO THE OUTSIDE AIR. LIQUID-PETROLEUM GAS HEAT EXCHANGER TO PROVIDE FINAL HEATING.

OCCUPIED MODE:

FAN OPERATION:
IN THE OCCUPIED MODE THE OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL OPEN, THE SUPPLY AND EXHAUST FANS SHALL RUN AT MINIMUM AIRFLOW AS SET BY THE TEST AND BALANCE REPORT. THE FANS SHALL RAMP UP IN AIRFLOW SIMULTANEOUSLY AND PROPORTIONALLY BASED ON THE VALUE OF THE CO2 IN THE RETURN AIR STREAM. ON A LOSS OF EITHER SUPPLY OR EXHAUST FAN STATUS, BOTH FANS SHALL BE DISABELED, THE OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL CLOSE AND THE HEAT EXCHANGER SHALL NOT OPERATE.

ENERGY RECOVERY:
THE ENERGY RECOVERY WHEEL SHALL RUN IN THE OCCUPIED MODE. WHEN THE OUTSIDE AIR TEMPERAURE IS BELOW ***60°F*** (ADJUSTABLE)THE HEAT EXCHANGER SHALL MODULATE TO MAINTAIN A LEAVING AIR TEMPERATURE OF ***70°F*** (ADJUSTABLE).

CO2 SENSOR
A C02 SENSOR IN THE RETURN AIR DUCT SHALL SENSE THE LEVEL OF CARBON DIOXIDE BUILD UP IN THE SPACES (AVERAGE). IF THE CO2 LEVEL IS ABOVE **800 PPM** (ADJUSTABLE) SUPPLY AND RETURN FANS SHALL MODULATE TO INCREASE THE OUTSIDE AIR VOLUME TO THE SPACE.

UNOCCUPIED MODE:

IN THE UNOCCUPIED MODE THE SUPPLY AND EXHAUST FANS SHALL BE OFF, THE ENERGY RECOVERY WHEEL SHALL BE OFF, AND OUTSIDE AIR AND EXHAUST AIR DAMPERS SHALL CLOSE. THE HEAT EXCHANGE SHALL BE DISABLED.

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MECHANICAL CONTROLS

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ABBREVIATIONS

ACC	AIR COOLED CONDENSER
ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
ADJ	ADJUSTABLE
AF	AIR FOIL
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFR	ABOVE FINISHED ROOF
AFS	AIR FLOW STATION
AHU	AIR HANDLING UNIT
AP	ACCESS PANEL
ATC	AUTOMATIC TEMPERATURE CONTROL
ATM	ATMOSPHERE
AWG	AMERICAN WIRE GAUGE
B	BOILER
BB	BASEBOARD
BC	BACKWARD CURVED
BD	BACKDRAFT DAMPER
BF	BOILER FEED
BHP	BRAKE HORSEPOWER
BI	BACKWARD INCLINED
BMS	BUILDING MANAGEMENT SYSTEM
BOD	BOTTOM OF DUCT
BOJ	BOTTOM OF JOIST
BOS	BOTTOM OF STEEL
BTU	BRITISH THERMAL UNIT
C	COMMON
CAV	CONSTANT AIR VOLUME
CC	COOLING COIL
CCW	COUNTER CLOCKWISE
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
C&I	CONTROLS & INSTRUMENTATION
CLG	CEILING
CMU	CONCRETE MASONRY UNIT
CND	CONDENSATE
CONT	CONTINUATION
CORR	CORRIDOR
CT	COOLING TOWER
CU	CONDENSING UNIT
CH	CABINET HEATER
CV	CONTROL VALVE
CVS	CONTROL VALVE STATION
CW	CLOCKWISE
dB	DECIBEL
DB	DRY BULB TEMPERATURE (°F)
DDC	DIRECT DIGITAL CONTROL
DH	DUCT HEATER
DP	DEW POINT TEMPERATURE (°F)
DX	DIRECT EXPANSION
E	EXHAUST
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE (°F)
EC	ELECTRICAL CONTRACTOR
EDR	EQUIVALENT DIRECT RADIATION
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EFF	EFFICIENCY
ELEV	ELEVATION
ERV	ENERGY RECOVERY VENTILATOR
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
EWT	ENTERING WATER TEMPERATURE (°F)
F&T	FLOAT & THERMOSTATIC
FA	FACE AREA
FC	FORWARD CURVED
FC	FAN COIL
FP	FIRE PROTECTION
FPM	FEET PER MINUTE
FT	FEET
GA	GAUGE OR GAGE
GC	GENERAL CONTRACTOR
GEN	GENERATOR
GH	GRAVITY HOOD
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
H	HUMIDIFIER
HC	HEATING COIL
HG	MERCURY
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HR	HOUR
HX	HEAT EXCHANGER
ID	INSIDE DIAMETER
IFB	INTEGRAL FACE & BYPASS
IGV	INLET GUIDE VANES
IPS	IRON PIPE SIZE
IU	INDUCTION UNIT
KW	KILOWATTS
KWH	KILOWATT HOUR
LAT	LEAVING AIR TEMPERATURE (°F)
LF	LINEAR FEET
LWT	LEAVING WATER TEMPERATURE (°F)
M	MOTOR OPERATED
MAU	MAKEUP AIR UNIT
MB	MIXING BOX
MBH	1000 BTU/HR
MC	MECHANICAL CONTRACTOR
MFR	MANUFACTURER
MS	MINI-SPLIT
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NPS	NOMINAL PIPE SIZE
OA	OUTSIDE AIR
OAD	OUTSIDE AIR DAMPER
OBD	OPPOSED BLADE DAMPER
P	PUMP
PC	PLUMBING CONTRACTOR
PD	PRESSURE DROP
PH	PHASE
PHC	PREHEAT COIL
PPM	PART PER MILLION
PROP	PROPELLER
PRV	PRESSURE REDUCING VALVE
PSIA	PSI, ABSOLUTE
PSIG	PSI, GAUGE
QTY	QUANTITY
R	REGISTER
RA	RETURN AIR
RD	RADIAL DAMPER
RF	RETURN/RELIEF AIR FAN
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
SA	SUPPLY AIR
SAF	SUPPLY AIR FAN
SC	SENSIBLE COOLER
SCFM	CFM, STANDARD CONDITIONS
SD	SMOKE DETECTOR
SEER	SEASONAL ENERGY EFFICIENCY RATIO
SENS	SENSIBLE
SP	STATIC PRESSURE
SPS	STATIC PRESSURE SENSOR
SS	STAINLESS STEEL
T	THERMOSTAT
TA	TRANSFER AIR
TCC	TEMPERATURE CONTROL CONTRACTOR
TCP	TEMPERATURE CONTROL PANEL
TG	TRANSFER GRILL
TOD	TOP OF DUCT
TOP	TOP OF PIPE
TOS	TOP OF STEEL
TSP	TOTAL STATIC PRESSURE
TYP	TYPICAL
UH	UNIT HEATER
UNC	UNDERCUT
UV	UNIT VENTILATOR
VA	VOLT-AMPERE
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VRF	VARIABLE REFRIGERANT FLOW
WB	WET BULB TEMPERATURE (°F)
WC	WATER COLUMN
WG	WATER GAUGE
WSHP	WATER SOURCE HEAT PUMP
ΔT	TEMPERATURE DIFFERENCE (°F)

PLUMBING LEGEND

ANNOTATION SYMBOLS

- X / X — 3D VIEW NUMBER / SHEET NUMBER
- X / X — DETAIL NUMBER / SHEET NUMBER
- X / X — SECTION NUMBER / SHEET NUMBER
- PF-# — PLUMBING FIXTURE / EQUIPMENT MARK
- PF-# — PLUMBING FIXTURE (LOCATED ON FLOOR ABOVE)
- (E) PF-# — EXISTING PLUMBING FIXTURE / EQUIPMENT
- (D) PF-# — DEMOLISHED PLUMBING FIXTURE / EQUIPMENT
- POINT OF NEW CONNECTION
- POINT OF DISCONNECTION
- 1/4" SLOPE — DIRECTION OF FLOW AND SLOPE PER FOOT

GENERAL

- NAME (E) — EXISTING PIPE TO REMAIN
- NAME (D) — EXISTING PIPE TO BE DEMOLISHED
- NAME — NEW PIPING
- DIRECTION OF FLOW

PLUMBING

- DCW — DOMESTIC COLD WATER
- DHW — DOMESTIC HOT WATER (120°F)
- DHWR — DOMESTIC HOT WATER RECIRC.
- HTHW — HIGH TEMPERATURE HOT WATER (140°F)
- IRR — IRRIGATION
- RO — REVERSE OSMOSIS TREATED
- SAN — SANITARY WASTE
- V — SANITARY VENT
- GW — GREASE WASTE
- AW — ACID WASTE
- AV — ACID VENT
- NG — NATURAL GAS
- LPG — LIQUIFIED PETROLEUM GAS
- RWL — RAIN WATER LEADER
- ORL — RAIN WATER OVERFLOW
- CND — CONDENSATE DRAIN
- CA — COMPRESSED AIR

PIPE FITTINGS

- ELBOW
- PIPE BREAK
- PIPE UP
- PIPE DOWN
- CHANGE IN ELEVATION OF PIPE
- SIDE CONNECTION OR TEE FITTING
- TOP CONNECTION
- BOTTOM CONNECTION
- UNION
- FLANGE
- CAPPED OUTLET
- BLIND FLANGE

VALVES

- COMBINATION Y-STRAINER & SHUTOFF VALVE
- COMBINATION AUTOFLOW & SHUTOFF VALVE
- MANUAL BALANCING VALVE
- AUTOFLOW VALVE
- ISOLATION VALVE - SEE SPECIFICATIONS FOR TYPE
- 3-WAY VALVE
- BUTTERFLY VALVE
- HOSE END DRAIN
- STRAINER
- MANUAL BALANCING VALVE
- AUTOFLOW VALVE
- CHECK VALVE
- BACKFLOW PREVENTER
- PRESSURE REDUCING VALVE
- TEMPERATURE AND PRESSURE RELIEF VALVE
- SOLENOID VALVE
- 2-WAY TEMPERATURE CONTROL VALVE
- 3-WAY TEMPERATURE CONTROL VALVE

PIPING SPECIALTIES

- AUTOMATIC AIR VENT
- MANUAL AIR VENT - 1/4" BALL VALVE WITH 1/2" SOFT COPPER TUBE
- PRESSURE / TEMPERATURE PORT
- T — DDC TEMP SENSOR
- P — DDC PRESSURE SENSOR
- PIPE WELL - EMPTY
- FS — FLOW SWITCH
- PS — PRESSURE SWITCH
- P — PRESSURE GAUGE
- P — PRESSURE GAUGE & COCK
- T — TEMPERATURE GAUGE
- SCHEMATIC PUMP
- FLEXIBLE CONNECTOR
- PIPE GUIDES
- ANCHOR
- THERMAL EXPANSION LOOP
- W — WATER METER
- FLOOR CLEAN OUT
- WALL CLEAN OUT
- WATER HAMMER ARRESTER
- HOSE BIBB
- WALL HYDRANT
- IRRIGATION BLOWOUT PORT

NOTE: THIS IS A STANDARD LEGEND. NOT ALL PIPE TYPES AND SYMBOLS ARE NECESSARILY UTILIZED IN THE DRAWINGS.

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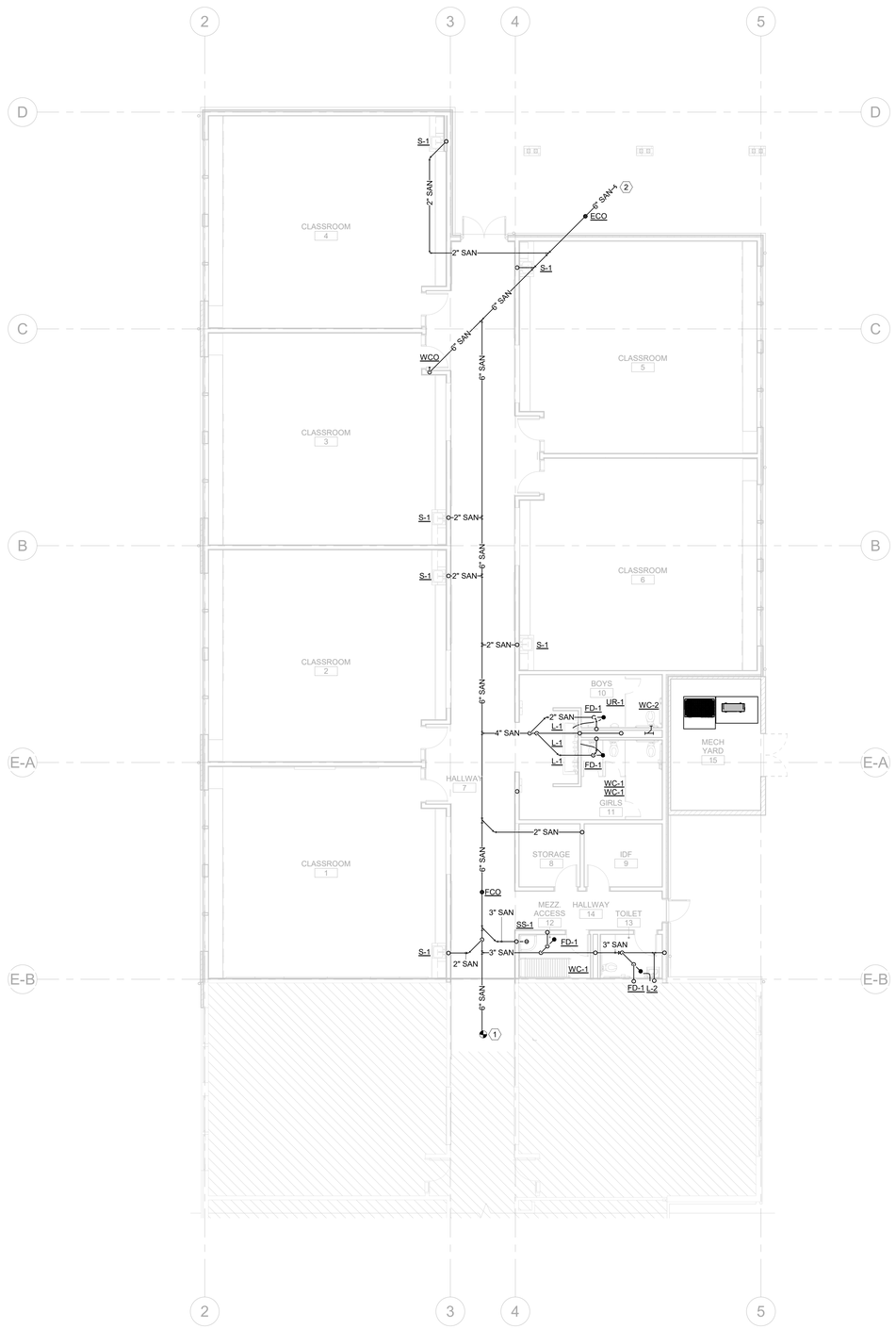

1 P2.01 **LEVEL 1 PLAN - UNDERSLAB PLUMBING**

SCALE: 1/8" = 1'-0"

PLUMBING PLAN NOTES

A. PROVIDE ACCESS DOORS TO ALLOW SERVICE AND INSPECTION OF EQUIPMENT, VALVES, AND OTHER DEVICES INSTALLED ABOVE NON-REMOVABLE CEILINGS. COORDINATE SUCH INSTALLATIONS WITH ARCHITECT AND ENGINEER.
B. PROVIDE TRAP SEALS FOR FLOOR DRAINS AND FLOOR SINKS.
C. PROVIDE TRAP PRIMERS FOR FLOOR DRAINS AND FLOOR SINKS. LOCATE TRAP PRIMERS IN A VALVE BOX AS INDICATED ON PLAN.
D. INSTALL ACCESSIBLE PLUMBING FIXTURES IN COMPLIANCE WITH ADA REQUIREMENTS. INSULATE EXPOSED PIPING BELOW ADA ACCESSIBLE FIXTURES.
E. INSTALL FLOOR DRAIN STRAINERS AND CLEANOUT COVERS FLUSH AND LEVEL WITH FINISHED FLOOR.
F. PIPING SHALL BE IDENTIFIED WITH PIPE LABELS MARKED AT A MAXIMUM OF EVERY 25 FT. VALVES SHALL BE IDENTIFIED WITH BRASS OR ALUMINUM VALVE TAGS.
G. PROVIDE AND INSTALL PIPE GUIDES, EXPANSION JOINTS, AND HANGERS PER MANUFACTURER'S RECOMMENDATIONS.
H. PIPING WALL PENETRATIONS SHALL SHALL BE FINISHED WITH A CHROME ESCUTCHEON PLATE.
I. NO FITTINGS OR PIPING CONNECTIONS SHALL BE INSTALLED UNDERSLAB.
J. GAS PIPING IS TO BE WELDED IN CONCEALED SPACES.
K. REFER TO THE PLUMBING FIXTURE SCHEDULE FOR PIPE SIZES TO INDIVIDUAL FIXTURES.
L. COORDINATE CONCRETE PENETRATIONS WITH STRUCTURAL DRAWINGS TO VERIFY HOW AND WHERE CONCRETE CAN BE CUT.
M. EXPOSED PIPING SHALL BE PAINTED PER ARCHITECTURAL OR PROVIDED WITH A PVC COATED JACKET IN THE COLOR OF THE ARCHITECT'S CHOOSING. CONTRACTOR TO CLEAN AND DRY PIPING PRIOR TO PAINTING.
N. SANITARY SEWER, RAINWATER, AND OTHER DRAIN PIPING SHALL BE INSTALLED AT A MINIMUM 1/4" PER FOOT (2%) SLOPE IN DIRECTION OF FLOW. UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

(#) KEY NOTES:

1. APPROXIMATE LOCATION OF SANITARY CONNECTION TO EXISTING SANITARY PIPING. PLUMBING CONTRACTOR TO FIELD VERIFY DEPTH AND LOCATION OF PIPING.

2. SEE CIVIL PLANS FOR CONTINUATION OF SANITARY PIPING.

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Warm Springs Academy K8 Addition

50 Chukar Rd, Warm Springs, OR 97761

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FLOOR PLAN - UNDERFLOOR

P2.01

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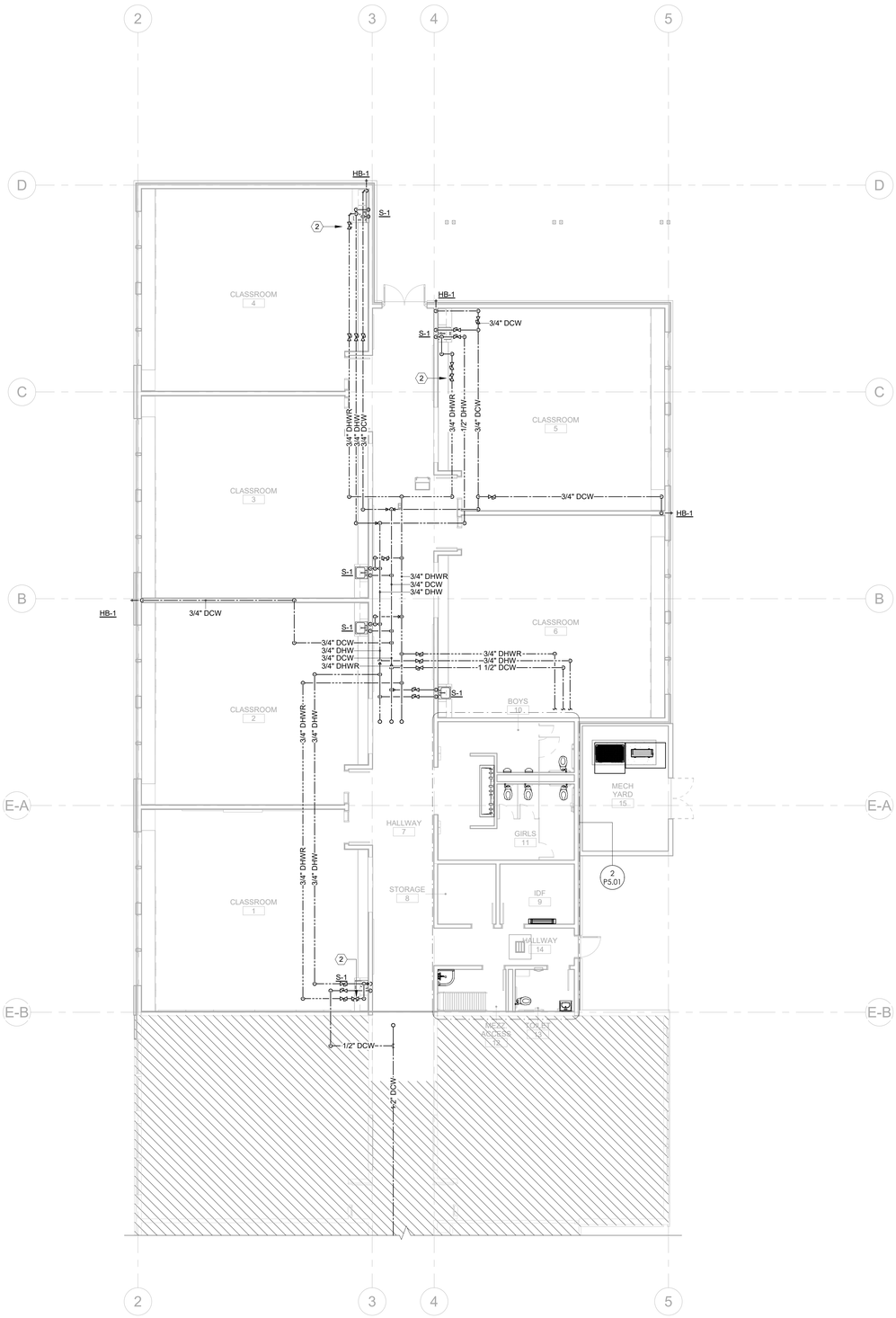

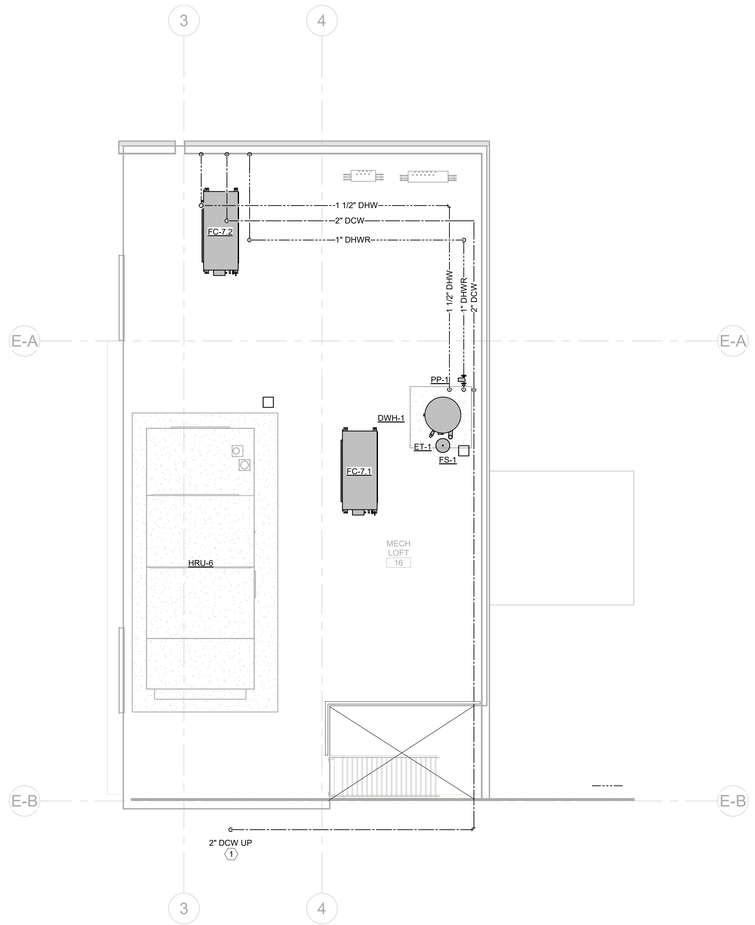

PLUMBING PLAN NOTES

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N. SANITARY SEWER, RAINWATER, AND OTHER DRAIN PIPING SHALL BE INSTALLED AT A MINIMUM 1/4" PER FOOT (2%) SLOPE IN DIRECTION OF FLOW. UNLESS OTHERWISE INDICATED ON THE DRAWINGS.

KEY NOTES:

1. ROUTE PIPING IN ATTIC SPACE.
2. BALANCE CIRCUIT SETTER TO 0.5 GPM

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DOMESTIC WATER FLOOR PLAN

P2.02

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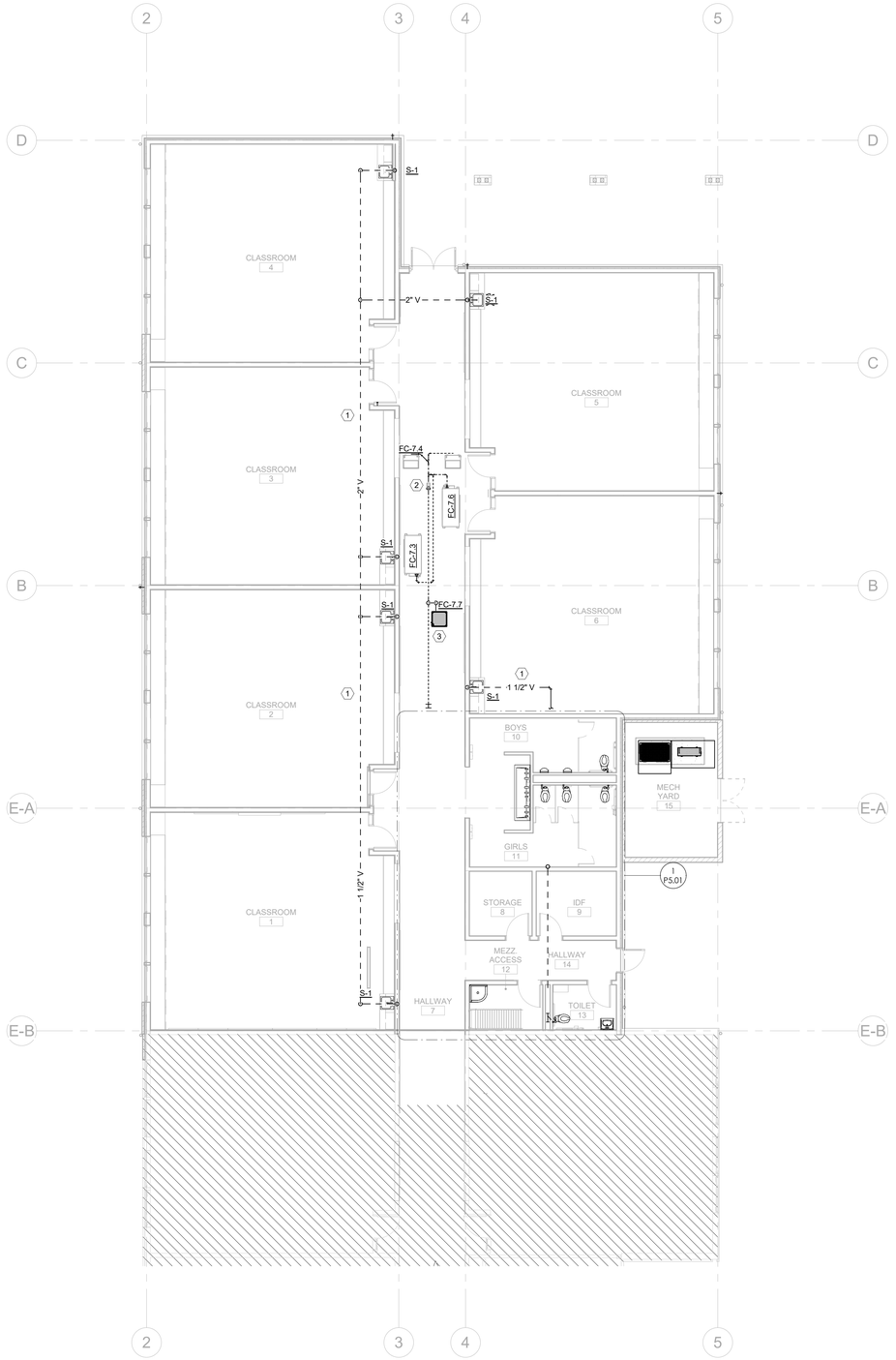
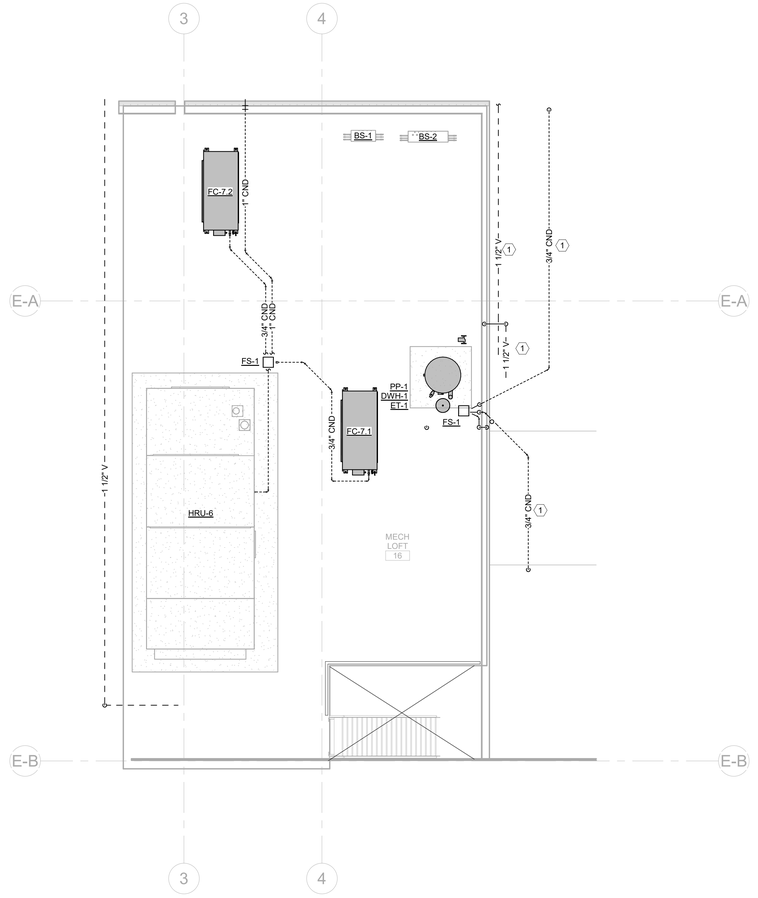
1 P2.02 **LEVEL 1 PLAN - PLUMBING**
SCALE: 1/8" = 1'-0"

2 P2.02 **MEZZANINE PLAN - DOMESTIC PLUMBING**
SCALE: 1/4" = 1'-0"



1 LEVEL 1 PLAN - DWV PLUMBING
P2.03 SCALE: 1/8" = 1'-0"



2 MEZZANINE DWV PLAN - ADDITION
P2.03 SCALE: 1/4" = 1'-0"

PLUMBING PLAN NOTES

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KEY NOTES:

1. ROUTE PIPING IN ATTIC SPACE
2. ROUTE CONDENSATE PIPING FROM ADJACENT FACOILS TO CONDENSATE PUMP. ROUTE DISCHARGE PIPING UP AND GRAVITY DRAIN TO MEZZANINE FLOOR SINK.
3. ROUTE CONDENSATE UP TO MAIN GRAVITY CONDENSATE PIPING FROM INTEGRAL CONDENSATE PUMP INSIDE FANCOIL.

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DWV FLOOR PLAN

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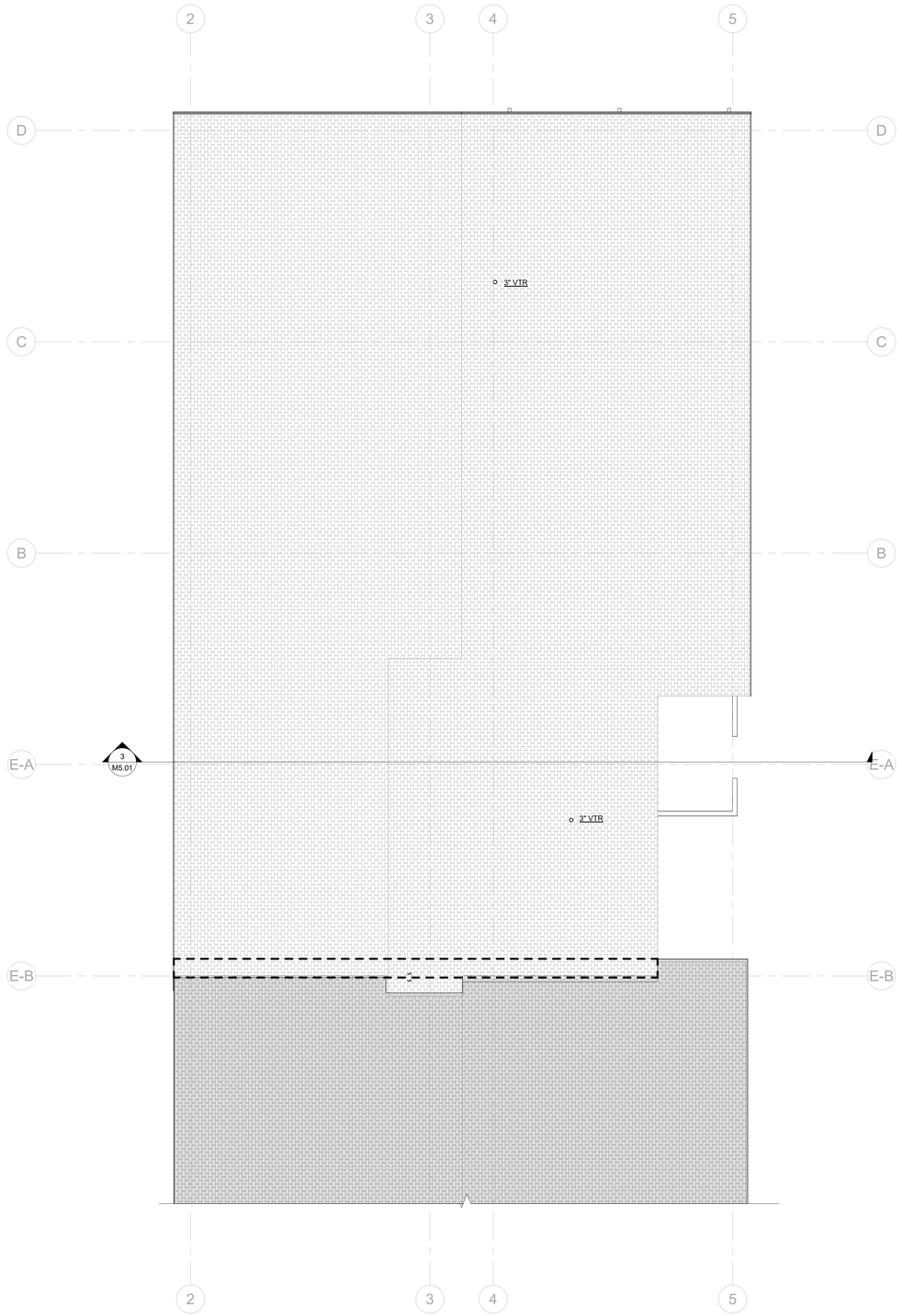

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(#) KEY NOTES:

1 P2.04 **ROOF PLAN - PLUMBING**
SCALE: 1/8" = 1'-0"

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ROOF PLAN

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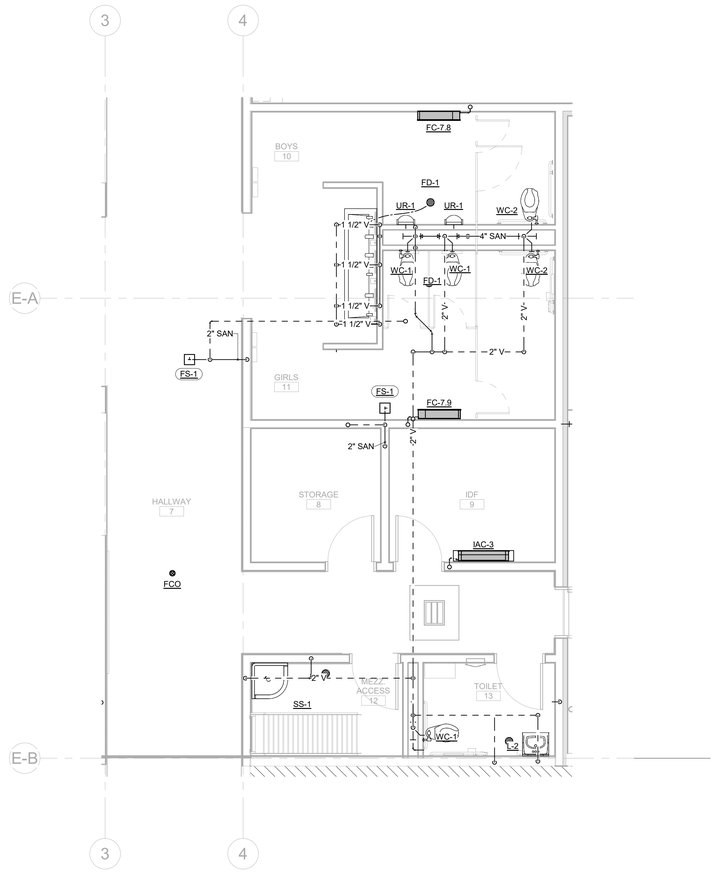
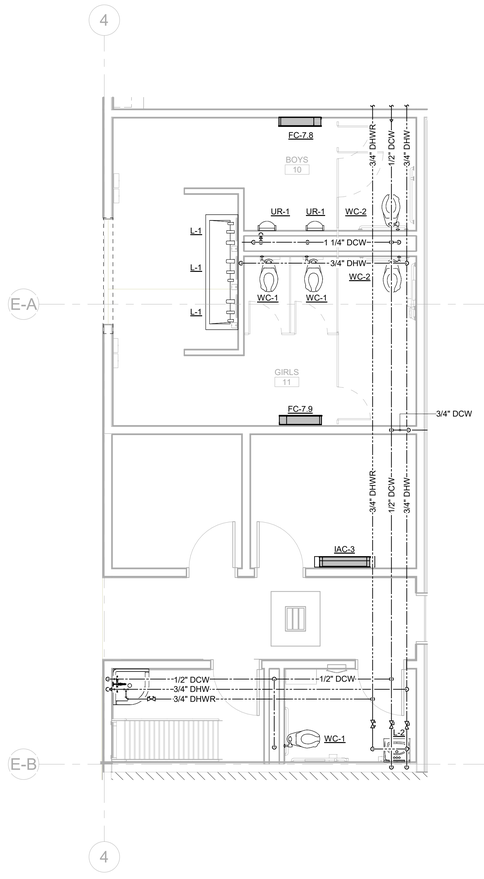


1 P5.01 **ENLARGED DWV FOOR PLAN - BATHROOM GROUP**

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



2 P5.01 **ENLARGED DOMESTIC WATER FLOOR PLAN - BATHROOM GROUP**

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

PLUMBING PLAN NOTES

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ENLARGED PLANS

P5.01

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DOMESTIC WATER HEATER SCHEDULE - GAS-FIRED

REMARKS:
1. ALL PIPING WITHIN 18" OF WATER HEATER SHALL BE COPPER.
2. PROVIDE ASME TEMPERATURE AND PRESSURE RELIEF VALVES. PIPE TO NEAREST FLOOR RECEPTOR.
3. PROVIDE TEMPERATURE AND PRESSURE GAUGE.
4. PROVIDE SEISMIC BRACING PER SPECIFICATIONS.
5. HAND HOLE CLEAN-OUT.
6. PROVIDE SHEET METAL PAN WITH 3/4" SCHEDULE 40 PVC DRAIN TO NEAREST FLOOR RECEPTOR.
7. FIVE YEAR LIMITED TANK WARRANTY
8. ZERO INCH CLEARANCE
9. DIRECT SPARK IGNITION
10. PROVIDE EXHAUST PRESSURE SWITCH AND CONTROLS
11. ELECTRONIC IGNITION

ELECTRICAL DATA:
SEE MEP COORDINATION SCHEDULE FOR STARTER/DISCONNECT AND ALL OTHER ELEC. DATA.

MARK	MANUF.	MODEL	TYPE	STORAGE (GAL)	STORAGE TEMP. (°F)	INPUT (BTU/HR)	EFFICIENCY (%)	FIRST HOUR RATING (GAL)	RECOVERY AT 90°F (GAL/HR)	FLUE SIZE (IN)	COMBUSTION AIR SIZE (IN)	UNIT PHYSICAL DATA		
												HEIGHT (IN)	DIAMETER (IN)	SHIPPING WEIGHT (LBS)
DWH-1	BRADFORD WHITE	EF-60T-125-3N(A)	LIQUID PROPANE GAS	60	120	125,000	96	199	162	4	4	57	28-1/4	570

PLUMBING ACCESSORY SCHEDULE

REMARKS:
1. PROVIDE ALL FIXTURES WITH APPROPRIATE COMMERCIAL GRADE SUPPORTS/CARRIERS, P-TRAPS, STOP VALVES, COMMERCIAL GRADE BRAIDED STAINLESS STEEL FLEXIBLE SUPPLIES, UNDER FIXTURE PIPING INSULATION AND WATER HAMMER ARRESTORS.
2. PROVIDE AND INSTALL TRAP PRIMERS FOR ALL FLOOR DRAINS AND FLOOR SINKS UNLESS OTHERWISE INDICATED.
3. INSTALL ALL TRAP PRIMERS IN RECESSED WALL MOUNTED BOXES IN AN ACCESSIBLE LOCATION. FIELD COORDINATE INSTALLATION LOCATION WITH ARCHITECT/ENGINEER. FIELD COORDINATE LOCATION AND NUMBER OF FAUCET MOUNTING HOLES WITH GENERAL CONTRACTOR.
4. INSTALL ALL FIXTURES AS PER THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.

MARK	DESCRIPTION	MANUF.	MODEL	MOUNTING / MOUNTING HEIGHT	MATERIAL & FINISH	TRIM	DRAIN	VENT	COLD	HOT	REMARKS
CBV-1	CIRCUIT BALANCING VALVE - LEAD FREE	CALEFFI	130-00A	PIPE	STAINLESS STEEL VALVE - LEAD FREE	FIXED ORIFICE BALANCING VALVE	- -	- -	- -	SEE REMARKS	SELECT SIZE PER MANUFACTURER'S INSTRUCTIONS - PROVICE PRESSURE PORTS - CALIBRATE TO 2.5 GPM - INCLUDE CALIBRATED FLOW ON NAMEPLATE
FCO	FLOOR CLEAN OUT	JR SMITH	4021S	FLOOR	CAST IRON BODY / BRONZE PLUG / NICKEL BRONZE TOP	TWIST ADJUSTMENT	LINE SIZE	- -	- -	- -	PROVIDE CARPET CLAMP AT CARPETED AREAS
TP-1	TRAP PRIMER - PRESSURE ACTIVATE	SIOUX CHIEF	695-01	PIPE	BRASS - LEAD FREE - EPDM SEALS	N/A	- -	- -	1/2	- -	MOUNT ON DCW PIPE SERVING FLUSH VALVE. PROVIDE ACCESS BOX IN WALL.
WCO	WALL CLEAN OUT	JR SMITH	4432	WALL / 18" AFF	STEEL	WITH CHROME COVER	LINE SIZE	- -	- -	- -	CAST IRON CAULK FERRULE WITH CAST IRON LEAD SEAL PLUG

PLUMBING FIXTURE SCHEDULE

REMARKS:
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3. INSTALL ALL TRAP PRIMERS IN RECESSED WALL MOUNTED BOXES IN AN ACCESSIBLE LOCATION.
4. FIELD COORDINATE INSTALLATION LOCATION OF TRAP PRIMER WALL BOXES, WATER CLOSETS, LAVATORIES, AND URINALS FOR ADA COMPLIANCY WITH ARCHITECT/ENGINEER.

MARK	FIXTURE						TRIM				ROUGH-IN SIZE (IN)				REMARKS
	DESCRIPTION	ADA	MANUF.	MODEL	MATERIAL / FINISH	MOUNTING / HEIGHT	DESCRIPTION	MANUF.	MODEL	MATERIAL / FINISH	WASTE	VENT	COLD	HOT	
FD-1	FLOOR DRAIN	N/A	JR SMITH	2005	CAST IRON BODY / NICKEL BRONZE STRAINER	FLOOR	N/A	N/A	N/A	N/A	SEE PLANS	SEE PLANS	1/2"	- -	PROVIDE COMPLETE WITH ROUND NICKEL BRONZE STRAINER HEAD, TRAP PRIMER CONNECTION, AND JR SMITH QUAD CLOSE TRAP SEAL.
FS-1	FLOOR SINK	N/A	JR SMITH	3101	ACID RESITANT COATED CAST IRON BODY WITH ALUMINUM STRAINER	FLOOR	N/A	N/A	N/A	N/A	SEE PLANS	SEE PLANS	1/2"	- -	PROVIDE WITH NO-HUB OUTLET, ALUMINUM DOME STRAINER. 3/4" GRATE, TRAP PRIMER CONNECTION, AND JR SMITH QUAD CLOSE TRAP SEAL.
HB-1	ANTI-SIPHON PROTECTED FREEZELESS WALL HYDRANT WITH LOCK BOX	N/A	WOODFORD	B65	BRASS	WALL / 18"	N/A	N/A	N/A	N/A	- -	- -	3/4"	- -	SEE ARCHITECTURAL PLANS FOR WALL THICKNESS. FIELD COORDINATE EXACT LOCATION AND MOUNTING HEIGHT WITH ARCHITECT AND OWNER.
L-1	TRIPLE BASIN HAND WASHING STATION	Y	ZURN	Z5004.03	SUNDARA / FINISH BY ARCH	WALL / 31"	SENSOR FAUCET (QTY. 3)	ZURN	Z6953-XL-F-LL	CHROME	2"	1-1/2"	1/2"	1/2"	PROVIDE COMPLETE WITH KOHLER # K-7131-A OFFSET DRAIN, TRUEBRO LAV GUARD COVERS, QUARTER TURN STOP VALVE, CHROME PLATED TUBULAR BRASS P-TRAP AND WATTS 1170 MIXING VALVE.
L-2	WALL MOUNT LAVATORY	Y	KOHLER	KINGSTON K-2005	VITEROUS CHINA	WALL / RIM 34"	SENSOR FAUCET	MOEN	8554AC	CHROME	2"	1-1/2"	1/2"	1/2"	PROVIDE COMPLETE WITH KOHLER # K-7131-A OFFSET DRAIN, TRUEBRO LAV GUARD COVERS, QUARTER TURN STOP VALVE, CHROME PLATED TUBULAR BRASS P-TRAP AND WATTS 1170 MIXING VALVE.
S-1	SINGLE BOWL TOP MOUNT CLASSROOM SINK + FAUCET/BUBBLER	N/A	ELKAY	DRKR2822RC	STAINLESS STEEL	COUNTERTOP	FAUCET / BUBBLER / STRAINER	ELKAY	LKF413945RS / LK1141A / LK35	CHROME	2"	1-1/2"	1/2"	1/2"	PROVIDE COMPLETE WITH CHROME P-TRAP, QUARTER TURN STOP VALVES, AND BASKET STRAINER.
SS-1	SERVICE SINK	N/A	MUSTEE	63M	FIBERGLASS	FLOOR	TWO HANDLE SERVICE SINK FAUCET	MOEN	8124	CHROME	3"	2"	1/2"	1/2"	PROVIDE COMPLETE WITH GRID DRAIN, CAST IRON P-TRAP, STAINLESS STEEL WALL GUARDS, MOEN MODEL #8199 RUBBER HOSE AND BRACKET, MOEN #8198 MOP/BROOM HOLDER.
UR-1	HIGH EFFICIENCY WALL MOUNT URINAL	Y	AMERICAN STANDARD	WASHBROOK 6590.001	VITEROUS CHINA	WALL / 17"	BATTERY POWERED FLUSH VALVE	SLOAN	G2 8186	CHROME	3"	2"	1-1/4"	- -	PROVIDE COMPLETE WITH COMMERCIAL CARRIER, CHROME P-TRAP, QUARTER TURN STOP VALVES, AND HAMMER ARRESTOR.
WC-1	WALL MOUNT FLUSH VALVE WATER CLOSET - STD HT	N	AMERICAN STANDARD	3353101.020	VITEROUS CHINA	WALL / RIM 15"	BATTERY POWERED FLUSH VALVE	SLOAN	8113	CHROME	3"	2"	1-1/4"	- -	PROVIDE COMPLETE WITH COMMERCIAL CARRIER, KOHLER MODEL # K-466-SA SEAT, AND HAMMER ARRESTOR.
WC-2	WALL MOUNT FLUSH VALVE WATER CLOSET - ADA HT	Y	AMERICAN STANDARD	3353101.020	VITEROUS CHINA	WALL / RIM 17"	BATTERY POWERED FLUSH VALVE	SLOAN	8113	CHROME	3"	2"	1-1/4"	- -	PROVIDE COMPLETE WITH COMMERCIAL CARRIER, KOHLER MODEL # K-466-SA SEAT, AND HAMMER ARRESTOR.

PLUMBING PUMP SCHEDULE

ACCESSORIES:
1. PROVIDE GRUNDFOS DIGITAL TIMER AND AQUASTAT.

REMARKS:
1. PROVIDE ALL NECESSARY VALVING AND ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION.

CONTROLS:
1. PUMP TO ONLY OPERATE DURING OCCUPIED HOURS (ADJUSTABLE WITH TIMER).
2. PUMP TO ACTIVATE AT A RECIRCULATION TEMPERATURE LESS THAN 105°F AND DEACTIVATE AT A RECIRCULATION TEMPERATURE OF 120°F (ADJUSTABLE WITH AQUASTAT).

ELECTRICAL DATA:
SEE MEP COORDINATION SCHEDULE FOR STARTER/DISCONNECT AND ALL OTHER ELEC. DATA.

MARK	MANUF.	MODEL	MATERIAL	DESCRIPTION	FLOW RATE (GPM)	HEAD (FT)	TEMPERATURE (°F)
PP-1	TACO	006-B4	BRONZE	HOT WATER RECIRCULATION PUMP	10	2.3	120

PLUMBING EXPANSION TANK SCHEDULE

REMARKS:
1. PROVIDE ANTIMICROBIAL LINER.
2. PROVIDE SEISMIC BRACING PER SPECIFICATIONS.

MARK	MANUF.	MODEL	ASSOCIATED EQUIPMENT	STYLE	TANK VOLUME (GAL)	MAX. ACCEPTANCE FACTOR	MAXIMUM WORKING PRESSURE (PSI)	SYSTEM CONNECTION (IN)	PHYSICAL DATA		
									DIAMETER (IN)	HEIGHT (IN)	SHIPPING WEIGHT (LBS)
ET-1	AMTROL	ST-12	DWH-1	DIAPHRAGM	6.4	0.5	150	3/4	12	18	26

CONDENSATE PUMP SCHEDULE

ACCESSORIES:
1. PROVIDE WITH AUTO START, STOP AND HIGH LEVEL WATER DETECTION, CHECK VALVE, TUBING, AND ALL ASSOCIATED ACCESSORIES.

CONTROLS:
1. PUMP TO ONLY OPERATE DURING OCCUPIED HOURS (ADJUSTABLE WITH TIMER).

ELECTRICAL DATA:
SEE MEP COORDINATION SCHEDULE FOR STARTER/DISCONNECT AND ALL OTHER ELEC. DATA.

MARK	MANUF.	MODEL	DESCRIPTION	FLOW RATE (GPH)	HEAD (FT)	ELECTRICAL
CP-1	LITTLE GIANT	VCMA-20	LOW PROFILE CENTRIFUGAL CONDENSATE PUMP	45	10	SEE MEP COORDINATION

MEP COORDINATION SCHEDULE

CONTROL TYPE:

BAS	BUILDING AUTOMATION SYSTEM
CO	CARBON MONOXIDE DETECTOR
CONT	CONTINUOUS OPERATION
EF	INTERLOCK WITH EXHAUST FAN
HCP	HOOD CONTROL PANEL
INT	INTEGRAL
L	LIGHT SWITCH
MS	MANUAL SWITCH
OS	OCCUPANCY SENSOR
PS	PRESSURE SWITCH
T	THERMOSTAT
TC	TIME CLOCK
UC	UNIT CONTROLLER
VE	VEHICLE EXHAUST DETECTION SYSTEM
N/A	NOT APPLICABLE

DIVISION OF RESPONSIBILITIES:

22/22	FURNISHED AND INSTALLED BY DIV. 22, WIRED BY DIV. 22
22/26	FURNISHED AND INSTALLED BY DIV. 22, WIRED BY DIV. 26
23/23	FURNISHED AND INSTALLED BY DIV. 23, WIRED BY DIV. 23
23/26	FURNISHED AND INSTALLED BY DIV. 23, WIRED BY DIV. 26
26/26	FURNISHED AND INSTALLED BY DIV. 26, WIRED BY DIV. 26

NOTES:

1.	INTEGRAL DISCONNECTS AND OVERLOADS
2.	INTEGRAL OVERLOADS
3.	SINGLE POINT CONNECTION
4.	PROVIDE RECEPTACLE AND DATA CONNECTION FOR PANEL
5.	MOUNT ON UNI-STRUT IN FRONT OF UNIT
6.	SIZE FUSES IN ACCORDANCE WITH MANUFACTURER'S GUIDELINES FOR INSTALLED EQUIPMENT
7.	INTEGRAL VARIABLE FREQUENCY DRIVE
8.	DUCT SMOKE DETECTOR(S) REQUIRED
9.	PROVIDE ALARM CONNECTED TO BAS

GENERAL NOTES:
A. CONTROL WIRING SHALL BE CONCEALED WITHIN WALL CONSTRUCTION, ABOVE CEILING, OR RUN IN CONDUIT. EXPOSED CONTROL WIRING IS UNACCEPTABLE.
B. UNLESS SPECIFICALLY NOTED, ALL FEEDERS SHALL INCLUDE A FULL SIZE NEUTRAL. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY WITH THE MANUFACTURER OF THE ACTUAL EQUIPMENT BEING SUPPLIED WHETHER A NEUTRAL IS REQUIRED PRIOR TO ROUGH-IN.
C. ALL DUCT SMOKE DETECTORS FURNISHED BY DIV. 26, INSTALLED BY DIV. 23, AND WIRED BY DIV. 26. DIV. 26 SHALL WIRE ALL FANS TO SHUT DOWN WHEN ALARM IS INITIATED BY ANY DUCT SMOKE DETECTOR.

MARK	DESCRIPTION	ELECTRICAL DATA		CONTROL		NOTES
		LOAD	VOLT-PHASE	TYPE	DIV	
BS-1	HEAT RECOVERY BRANCH BOX	0.06 A	230-1	VRF	23/23	
BS-2	HEAT RECOVERY BRANCH BOX	0.09 A	230-1	VRF	23/23	
CP-1	CONDENSATE PUMP	1.5 A	120-1	INT	22/22	9
DWH-1	GAS FIRED WATER HEATER	- -	120-1	INT	- -	4
EH-1	ELECTRIC CEILING HEATER	3000 W	208-1	BAS	23/23	
EH-2	ELECTRIC WALL HEATER	1500 W	120-1	INT	23/23	
FC-7.1	HIGH STATIC DUCTED FAN COIL	5.2 A	230-1	VRF	23/23	
FC-7.2	HIGH STATIC DUCTED FAN COIL	5.2 A	230-1	VRF	23/23	
FC-7.3	HIGH STATIC DUCTED FAN COIL	5.2 A	230-1	VRF	23/23	
FC-7.4	VERTICAL DUCTED FAN COIL	1.08 A	230-1	VRF	23/23	
FC-7.5	VERTICAL DUCTED FAN COIL	1.08 A	230-1	VRF	23/23	
FC-7.6	HIGH STATIC DUCTED FAN COIL	5.2 A	230-1	VRF	23/23	
FC-7.7	CEILING CASSETTE	0.2 A	230-1	VRF	23/23	
FC-7.8	STANDARD WALL MOUNT UNIT	0.25 A	230-1	VRF	23/23	
FC-7.9	STANDARD WALL MOUNT UNIT	0.25 A	230-1	VRF	23/23	
HP-7	HEAT PUMP	50 MOP 41.4 MCA	460-3	VRF	23/23	
HRU-6	HEAT RECOVERY UNIT	12 FLA	460-3	BAS	23/23	
IAC-3	WALL MOUNTED FAN COIL UNIT	POWERED BY OAC-3	- -	T	23/23	
OAC-3	SPLIT SYSTEM HEAT PUMP	30 MOP 19 MCA	230-1	T	23/23	
PP-1	HOT WATER RECIRCULATION PUMP	0.52 A	120-1	INT	22/22	4

WASTE FIXTURE UNIT CALCULATION

FIXTURE	QTY	(PRIVATE, PUBLIC, OR ASSEMBLY) WFU	TOTAL WFU
FLOOR DRAIN, EMERGENCY	4	0.0	0.0
LAVATORY, SINGLE	1	1.0	
LAVATORY, IN SETS OF TWO OR THREE	2	2.0	4
SINKS	- -	- -	- -
SERVICE OR MOP BASIN	1	3.0	
URINAL INTEGRAL TRAP 1.0 GPF*	2	2.0	4.0
WATER CLOSET, 1.6 GPF FLUSHOMETER VALVE	5	4.0	20.0
	TOTAL WFU =		

* = PROVIDE 2" MIN DRAIN
** = SIZED REGARDING OPSC TABLE 702.2(b)

TOTAL	48
TOTAL FIX UNITS	WASTE PIPE SIZE
48	4

WATER SUPPLY FIXTURE UNIT CALCULATIONS

FIXTURE	QTY	(PRIVATE, PUBLIC, OR ASSEMBLY) WSFU	TOTAL WSFU
HOSE BIBB	1	2.5	2.5
EACH ADDITIONAL HOSE BIBB	3	1.0	3.0
LAVATORY	5	1.0	5.0
SINKS	- -	- -	- -
CLASSROOM FAUCET	6	2.0	12.0
SERVICE OR MOP BASIN	1	3.0	3.0
WATER CLOSET (1.6 GPF FLUSHOMETER VALVE)	5	5.0	25.0
	TOTAL WSFU =		56.5

MAX LENGTH:	300 FT
TOTAL PEAK FLOW:	53 GPM
MINIMUM CONNECTION SIZE:	2"

BASED ON 2021 OPSC TABLE A 2.1

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Warm Springs Academy K8 Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 10200.001
Date 01/18/2023

BID/PERMIT

PLUMBING SCHEDULES

P8.01

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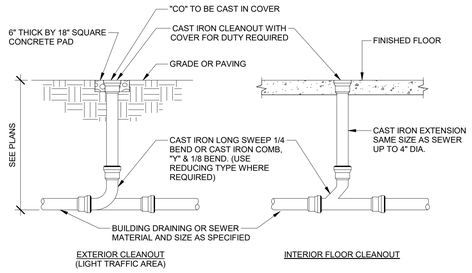
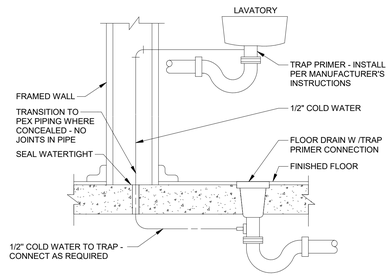


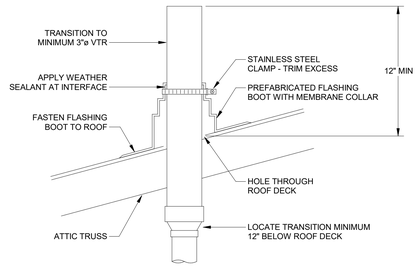
1 P8.10 **SEWER LINE CLEANOUT DETAIL**

SCALE: N.T.S.



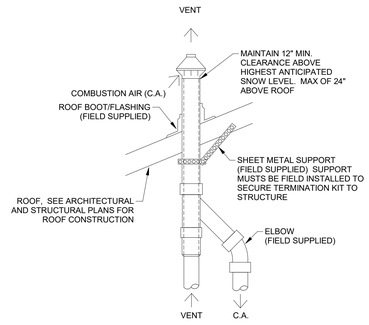
2 P8.10 **TRAP PRIMER TO FLOOR DRAIN DETAIL**

SCALE: N.T.S.

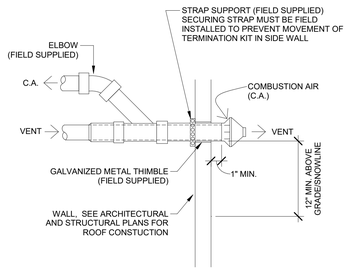


3 P8.10 **VENT THRU ROOF DETAIL**

SCALE: N.T.S.



ROOF CONCENTRIC VENT



SIDEWALL CONCENTRIC VENT

4 P8.10 **CONCENTRIC VENT DETAIL**

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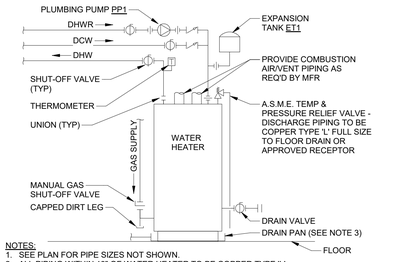

NOTES:
1. SEE PLAN FOR PIPE SIZES NOT SHOWN.
2. ALL PIPING WITHIN 18" OF WATER HEATER TO BE COPPER TYPE 'L'.
3. PROVIDE WATER HEATER DRAIN PAN AND SCH. 40 PVC DRAIN PIPE TO NEAREST FLOOR DRAIN.
4. PROVIDE SEISMIC BRACING PER 2021 OPSC 507.2.

5 P8.10 **WATER HEATER DETAIL**

SCALE: N.T.S.

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Warm Springs Academy K8 Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

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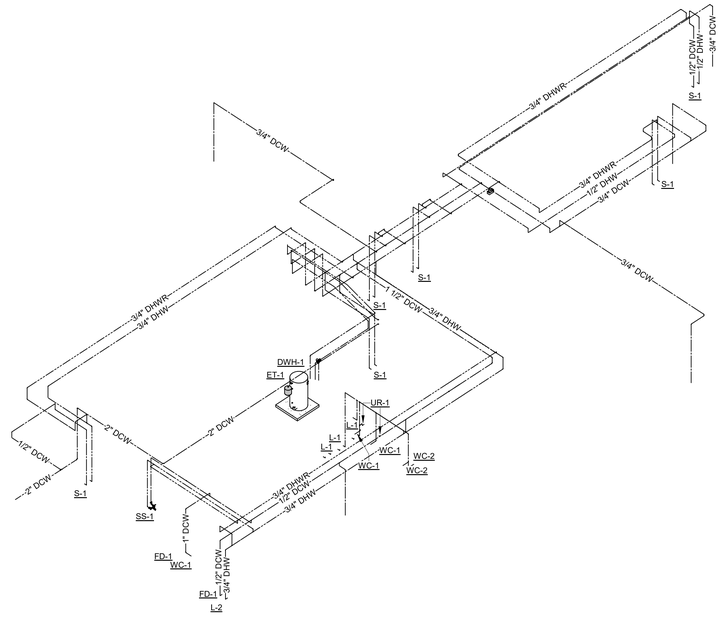
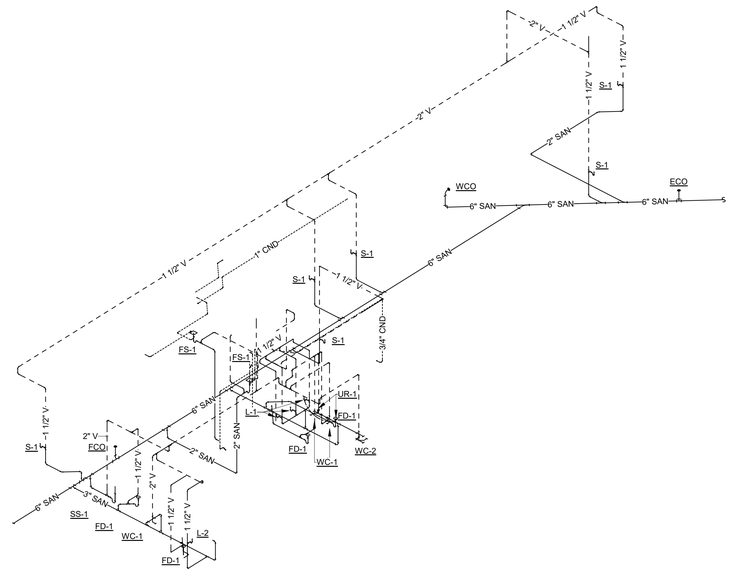


1 P8.11 **DOMESTIC ISOMETRIC**

SCALE: N.T.S.



2 P8.11 **DWV ISOMETRIC**

SCALE: N.T.S.

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SCOPE OF WORK

1. EXTEND EXISTING FIRE SPRINKLER SYSTEM INTO NEW CLASS ROOMS.
2. PROVIDE WET FIRE SPRINKLER SYSTEM IN HEATED CLASS ROOMS
3. PROVIDE DRY FIRE SPRINKLER SYSTEM UNCONDITIONED ATTIC.

CODES AND STANDARDS

- 2018 INTERNATIONAL BUILDING CODE-AS AMENDED
- 2018 INTERNATIONAL FIRE CODE-AS AMENDED
- 2016 NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS.
- ALL LOCAL CODES AS REQUIRED BY THE AUTHORITY HAVING JURISDICTION.

HAZARD CLASSIFICATIONS

LIGHT HAZARD
0.10 GPM/SQ. FT. OVER REMOTE AREA WITH 100 GPM HOSE ALLOWANCE

1. CLASS ROOMS
2. HALLWAYS
3. BATHROOMS

ORDINARY HAZARD GROUP 1
0.15 GPM/SQ. FT. OVER REMOTE AREA WITH 250 GPM HOSE ALLOWANCE

1. MECHANICAL ROOMS
2. IT ROOMS
3. JANITORS CLOSETS

ORDINARY HAZARD GROUP 2
0.20 GPM/SQ. FT. OVER REMOTE AREA WITH 250 GPM HOSE ALLOWANCE

1. STORAGE ROOMS

SEISMIC DESIGN CRITERIA

SITE CLASSIFICATION	D
BUILDING SEISMIC OCCUPANCY CATEGORY	III
MAX. SPECTRAL RESPONSE ACCELERATION (SHORT PERIOD)	S_{DS} = 0.399
MAX. SPECTRAL RESPONSE ACCELERATION (1-SEC. PERIOD)	S_{D1} = 0.291
MAPPED SPECTRAL ACCELERATION (SHORT PERIOD)	S_S = 0.405
MAPPED SPECTRAL ACCELERATION (1-SEC. PERIOD)	S_1 = 0.198
SEISMIC DESIGN CATEGORY	D

SEISMIC BRACING NOTES

1. ALL EARTHQUAKE BRACING TO BE IN ACCORDANCE WITH NFPA 13 OR CURRENT EDITION APPROVED BY LOCAL AHJ.
2. LISTED FLEXIBLE COUPLINGS SHALL ONLY BE INSTALLED WHERE REQUIRED BY NFPA 13.
3. FLEXIBLE COUPLINGS SHALL BE LOCATED IN ACCORDANCE WITH NFPA 13 AS FOLLOWS:
   - WITHIN 24" FROM THE TOP AND BOTTOM OF ALL RISERS.
   - WITHIN 12" ABOVE AND 24" BELOW FLOORS IN MULTISTORY BUILDINGS.
   - WITHIN 1' OF ALL CONCRETE AND MASONARY WALL PENETRATIONS UNLESS CLEARANCE IS PROVIDED BY SECTION 9.3.4.
   - WITHIN 24" OF BUILDING EXPANSION JOINTS.
   - WITHIN 24" OF THE TOP OF DROPS EXCEEDING 15' IN LENGTH TO PORTIONS OF SYSTEMS SUPPLYING MORE THAN ONE SPRINKLER, REGARDLESS OF SIZE
   - ABOVE AND BELOW ANY INTERMEDIATE POINTS OF SUPPORT FOR A RISER OR OTHER VERTICAL PIPE.
   - AT THE FINAL CONNECTION POINT OF ALL HEADS IN A LAY-IN OR HARD CEILING.
4. CLEARANCE SHALL BE PROVIDED AROUND ALL PIPING EXTENDING THROUGH WALLS, FLOORS, PLATFORMS, AND FOUNDATIONS, INCLUDING DRAINS, FDCS, AND OTHER AUXILIARY PIPING PER SECTION 9.3.4 OR FLEXIBLE COUPLINGS SHALL BE PROVIDED.
5. LONGITUDINAL SWAY BRACING SPACED AT A MAXIMUM OF 80 FEET SHALL BE PROVIDED FOR FEED AND CROSS MAINS AND NOT MORE THAN 40 FEET FROM THE END.
6. LATERAL SWAY BRACING SPACED AT A MAXIMUM OF 40 FEET SHALL BE PROVIDED FOR FEED AND CROSS MAINS AND NOT MORE THAN 6 FEET FROM THE END.
7. TOPS OF RISERS OVER 3 FEET SHALL BE SECURED AGAINST DRIFTING IN ANY DIRECTION USING A 4-WAY BRACE.
8. BRACING SHALL BE ATTACHED DIRECTLY TO FEED AND CROSS MAINS.
9. LATERAL BRACES SHALL BE ALLOWED TO ACT AS A LONGITUDINAL BRACE IF THEY ARE WITHIN 24" OF THE CENTERLINE OF THE PIPING BRACED.
10. SWAY BRACING IS NOT REQUIRED FOR BRANCH LINES 2" AND SMALLER.
11. THE END SPRINKLER ON EACH BRANCH LINE SHALL BE RESTRAINED AGAINST EXCESSIVE MOVEMENT BY APPROVED MEANS.
12. C-TYPE CLAMPS (INCLUDING BEAM AND LARGE FLANGE CLAMPS) WITH OR WITHOUT RETAINING STRAPS, SHALL NOT BE USED TO ATTACH BRACES TO THE BUILDING STRUCTURE.
13. ALL BEAM HANGERS SHALL BE EQUIPPED WITH RETAINING STRAPS.

MAXIMUM SEISMIC RESTRAINT SPACING (STEEL PIPE)

PIPE SIZE	$C_P \leq 0.50$	$0.50 < C_P \leq 0.71$	$0.71 < C_P \leq 1.40$	$C_P > 1.40$
1"	43'	36'	26'	22'
1¼"	46'	39'	27'	24'
1½"	49'	41'	29'	25'
2"	53'	45'	31'	27'

ALL BRANCH LINES SUPPORTED BY RODS LESS THAN 6" LONG MEASURED BETWEEN THE TOP OF THE PIPE AND THE POINT OF ATTACHMENT TO THE BUILDING STRUCTURE SHALL NOT REQUIRE RESTRAINT.

SEISMIC CLEARANCE

NOMINAL PIPE SIZE (IN.)	CORE DRILL HOLE OR PIPE SLEEVE SIZE (IN.)	
1	3	PROVIDE CLEARANCE AT ALL LOCATIONS WHERE PIPING PENETRATES WALLS, FLOORS, AND FOUNDATIONS. NO CLEARANCE IS REQUIRED WHEN PENETRATING GYPSUM BOARD OR EQUALLY FRANGIBLE CONSTRUCTION THAT IS NOT REQUIRED TO HAVE A FIRE RESISTANCE RATING.
1¼	4	
1½	4	
2	4	FLEXIBLE COUPLINGS MAY BE INSTALLED WITHIN 12" OF THE WALL SURFACE ON EACH SIDE, OR WITHIN 12" ABOVE FLOOR AND 24" BELOW FLOOR INSTEAD OF PROVIDING CLEARANCE.
2½	6	
3	6	
4	8	FIRE CAULK HOLE AND PROVIDE SPLIT CHROME WALL PLATES AT ALL EXPOSED WALL LOCATIONS.
6	10	
8	12	

INSTALLATION REQUIREMENTS

PIPE HANGERS AND SUPPORTS:
1. PROVIDE HANGERS, BRACKETS, SUPPORTS, ANCHORS, AND RELATED APPURTENANCES, AS REQUIRED, TO SUPPORT ALL PIPING AND EQUIPMENT PROVIDED UNDER THIS SECTION.
2. INSTALL IN ACCORDANCE WITH NFPA 13 AND UL LISTING.
3. INSTALL HANGERS TO PROVIDE MINIMUM ½ INCH (15MM) SPACE BETWEEN FINISHED COVERING AND ADJACENT WORK.
4. USE HANGERS WITH 1-1/2 INCH (40MM) MINIMUM VERTICAL ADJUSTMENT. DESIGN HANGERS FOR PIPE MOVEMENT WITHOUT DISENGAGEMENT OF SUPPORTED PIPE.
5. SUPPORT VERTICAL PIPING AT EVERY FLOOR. SUPPORT RISER PIPING INDEPENDENTLY OF CONNECTED HORIZONTAL PIPING.
6. WHERE SEVERAL PIPES CAN BE INSTALLED IN PARALLEL AND AT SAME ELEVATION, PROVIDE MULTIPLE OR TRAPEZE HANGERS.
7. SEE DETAILS FOR HANGER SPACING REQUIREMENTS.

JOINTS:
1. JOINTS SHALL CONFORM TO NFPA 13. SHOP WELDED JOINTS WILL BE PERMITTED. FLANGED JOINTS OR MECHANICAL GROOVED COUPLINGS SHALL BE PROVIDED WHERE INDICATED OR REQUIRED BY NFPA 13. GROOVED PIPE AND FITTINGS SHALL BE PREPARED IN ACCORDANCE WITH THE MANUFACTURER'S LATEST PUBLISHED SPECIFICATION ACCORDING TO PIPE MATERIAL, WALL THICKNESS AND SIZE. MECHANICAL COUPLINGS AND FITTINGS SHALL BE FROM THE SAME MANUFACTURER.
2. THREADED JOINTS SHALL BE CUT WITH AN APPROVED THREAD-CUTTING OIL. JOINTS SHALL BE MADE TIGHT WITH A STIFF MIXTURE OF LITHARGE AND GLYCERIN OR OTHER APPROVED THREAD JOINT COMPOUND OR TAPE. NOT MORE THAN THREE THREADS SHALL SHOW AFTER THE JOINT IS MADE UP.
3. FLANGED JOINTS SHALL BE FACED TRUE, PROVIDED WITH GASKETS AND BOLT SQUARE AND TIGHT.
4. MECHANICAL GROOVED PIPE JOINTS SHALL CONFORM TO AWWA C606. JOINTS SHALL BE MADE USING A UL-04 LISTED OR FM-P7825 APPROVED COMBINATION OF FITTINGS, GASKETS, AND GROOVES. CUT OR ROLLED PIPE GROOVES SHALL BE DIMENSIONALLY COMPATIBLE WITH THE FITTINGS.
5. MECHANICAL PIPE COUPLINGS SHALL BE OF THE BOLTED TYPE AND SHALL CONSIST OF A HOUSING FABRICATED IN ONE OR MORE PARTS, A SYNTHETIC RUBBER GASKET, AND NUTS AND BOLTS TO SECURE THE UNIT TOGETHER.
6. GASKETS SHALL BE OF MOLDED SYNTHETIC RUBBER WITH CENTRAL CAVITY, PRESSURE RESPONSIVE CONFIGURATION AND SHALL CONFORM TO ASTM D2000.

REDUCERS:
1. REDUCTIONS IN PIPE SIZES SHALL BE MADE WITH ONE PIECE REDUCING FITTINGS OR REDUCING COUPLINGS. REDUCING COUPLINGS SHALL NOT BE USED IN DRY SYSTEMS AND PREACTION SYSTEMS.

PIPE SLEEVES:
1. PIPES PASSING THROUGH CONCRETE OR MASONRY WALLS OR CONCRETE FLOORS SHALL BE PROVIDED WITH PIPE SLEEVES FITTED INTO PLACE AT THE TIME OF CONSTRUCTION. EACH SLEEVE SHALL EXTEND THROUGH ITS RESPECTIVE WALL OR FLOOR, AND BE CUT FLUSH WITH EACH SURFACE. UNLESS OTHERWISE INDICATED, SLEEVES SHALL BE OF SUCH SIZE AS TO PROVIDE A MINIMUM OF ¼ INCH ALL AROUND CLEARANCE BETWEEN THE PIPE AND SLEEVE. SLEEVES IN BEARING WALLS AND WET AREAS SHALL BE STEEL PIPE OR CAST IRON PIPE. SLEEVES IN NONBEARING WALLS, FLOORS, OR CEILINGS MAY BE STEEL PIPE, CAST IRON PIPE, OR GALVANIZED SHEET METAL WITH LOCK-TYPE LONGITUDINAL SEAM.
2. WHERE PIPES PASS THROUGH FIRE WALLS, FIRE PARTITIONS, OR FLOORS, A FIRE SEAL OF FIRE RESISTANT CAULK SHALL BE PLACED BETWEEN THE PIPE AND SLEEVE.

WALL/FLOOR/CEILING ESCUTCHEONS:
1. ESCUTCHEONS SHALL BE PROVIDED AT ALL FINISHED SURFACES WHERE EXPOSED PIPING PASSES THROUGH FLOORS, WALLS, OR CEILINGS EXCEPT IN BOILER, UTILITY, OR EQUIPMENT ROOMS. WHERE THE RISER INTO UPPER LEVEL MECHANICAL ROOMS PENETRATES THE CONCRETE FLOOR, PROVIDE AND INSTALL A MECHANICAL SEAL.

DRAINS AND DRIPS:
1. MAIN DRAIN: PROVIDE MAIN DRAIN ON SPRINKLER SYSTEM APPROXIMATELY 4'-0" ABOVE FLOOR. DISCHARGE TO EXTERIOR OR APPROVED DRAIN LOCATION.
2. ALL PIPING SHALL DRAIN BACK TO THE MAIN RISER. WHERE NOT POSSIBLE, PROVIDE AUXILIARY DRAINS DISCHARGING TO ARCHITECTURALLY APPROVED LOCATIONS.
3. INSTALL AUXILIARY DRAINS AT ALL LOW POINTS IN SYSTEM. FIVE OR FEWER TRAPPED GALLONS WILL NOT REQUIRE A DRAIN VALVE IF IT CAN BE DRAINED THROUGH A SINGLE PENDENT SPRINKLER OR AN EASILY SEPARATED CONNECTION. DRAIN VALVES TO BE PIPED TO A SAFE PLACE OF DISCHARGE. VERIFY LOCATION OF DRAINS WITH OWNER'S REPRESENTATIVE. ANY DRAIN NOT DIRECTLY DISCHARGING TO A RECEPTACLE SHALL HAVE A ¾ INCH HOSE LINE CONNECTION.
4. IF MAIN DRAINS, AUXILIARY DRAINS, OR INSPECTOR'S TEST CONNECTIONS CANNOT BE SAFELY DISCHARGED WITHOUT CAUSING PROPERTY DAMAGE, PROVIDE 18"X18" CONCRETE SPLASH BLOCKS TO DEFLECT FLOW AND MINIMIZE DAMAGE.

PIPING MAINTENANCE AND PROTECTION REQUIREMENTS:
1. FLUSHING: FLUSHING ARRANGEMENTS SHALL BE PROVIDED BY NFPA 13 IN ACCESSIBLE LOCATIONS.
2. FLUSHING CONNECTIONS: 1-1/4" NIPPLES WITH CAPS AT EXTREME ENDS OF ALL CROSS MAINS.

PIPING SPECIFICATIONS

SPRINKLER PIPING, ABOVE GROUND (STEEL PIPE):
1. ALL PIPING 2-INCH AND SMALLER: ASTM A135 OR 795, GRADE A, SCHEDULE 40, WRW, BLACK STEEL PIPE, THREADED OR ROLL GROOVED ENDS. ALL 1-INCH PIPING SHALL HAVE THREADED ENDS.
2. ALL PIPING 2-1/2" AND LARGER: ASTM A135 OR 795, GRADE A SCHEDULE 10, WRW, BLACK STEEL PIPE ROLL GROOVED ENDS.
3. ALL PIPING USED IN DRY PIPE SPRINKLER SYSTEMS SHALL BE ASTM A135 OR 795, GRADE A, SCHEDULE 40, WRW, BLACK STEEL PIPE, THREADED OR ROLL GROOVED ENDS.
4. ALL PIPING ON THE EXTERIOR OF THE BUILDING SHALL BE CORROSION RESISTANT.

FITTINGS:
1. CAST-IRON THREADED FITTINGS: ANSI B16.4, CLASS 125, STANDARD PATTERN. THREADS SHALL CONFORM TO ANSI B1.20.1.
2. MALLEABLE-IRON THREADED FITTINGS: ANSI B16.3, CLASS 150, STANDARD PATTERN. THREADS SHALL CONFORM TO ANSI B1.2.1.
3. STEEL FITTINGS: ASTM A234, SEAMLESS OR WELDED, FOR WELDED JOINTS.
4. GROOVED MECHANICAL FITTINGS: ASTM A536, GRADE 65-45-12 DUCTILE IRON; ASTM A47 GRADE 32510 MALLEABLE IRON; OR ASTM A53, TYPE F OR TYPES E OR S, GRADE B FABRICATED STEEL FITTINGS WITH GROOVES OR SHOULDERS DESIGNED TO ACCEPT GROOVED END COUPLINGS.
5. GROOVED MECHANICAL COUPLINGS: CONSIST OF DUCTILE OR MALLEABLE IRON HOUSING, A SYNTHETIC RUBBER GASKET OF A CENTRAL CAVITY PRESSURE-RESPONSIVE DEIGN; WITH NUTS, BOLTS, LOCKING IN, LOCKING TOGGLE, OR LUGS TO SECURE ROLL-GROOVED PIPE AND FITTINGS. GROOVED MECHANICAL COUPLINGS INCLUDING GASKETS USED ON DRY-PIPE SYSTEMS SHALL BE LISTED FOR DRY-PIPE SERVICE.
6. CAST-IRON FLANGES: ANSI B16.1, CLASS 125, RAISED GROUND FACE, BOLT HOLES SPOT FACED.
7. CAST BRONZE FLANGES: ANSI B16.24, CLASS 150, RAISED GROUND FACE, BOLT HOLES SPOT FACED.
8. UNIONS: ASME B16.39, MALLEABLE IRON, CLASS 150 HEXAGONAL STOCK, WITH BALL-AND-SOCKET JOINTS, METAL-TO-METAL BRONZE SEATING SURFACES, FEMALE THREADED ENDS. THREADS SHALL CONFORM TO ASME B1.20.1.
9. DIELECTRIC UNIONS: THREADED, SOLDER, OR GROOVED-END CONNECTIONS AS REQUIRED TO SUIT APPLICATION' CONSTRUCTED TO ISOLATE DISSIMILAR METALS, PREVENT GALVANIC ACTION, AND PREVENT CORROSION.
10. FLANGE GASKETS: GASKETS SHALL BE NON-ASBESTOS COMPRESSED MATERIAL IN ACCORDANCE WITH ASME B16.21, 1/16 INCH THICKNESS, FULL FACE OR SELF-CENTERING FLAT RING TYPE. THE GASKETS SHALL CONTAIN ARAMID FIBERS BONDED WITH STYRENE BUTADIENE RUBBER (SBR) OR NITRILE BUTADIENE RUBBER (NBR).
11. SQUAREHEAD BOLTS AND HEAVY HEXAGON NUTS: ASME B18.2.1 AND ASME B18.2.2, AND ASTM A 307, ASTM A575, OR ASTM A 576.
12. SADDLE TYPE MECHANICAL TEES SHALL NOT BE ACCEPTABLE FOR NEW PIPING.
13. PLAIN-END FITTINGS/JOINTS SHALL NOT BE ACCEPTABLE.

VALVES/HANGERS/SUPPORTS

GATE VALVES:
1. UP TO AND INCLUDING 2 INCHES (50MM): BRONZE BODY, BRONZE TRIM, RISING STEM, HANDWHEEL, INSIDE SCREW, SINGLE WEDGE OR DISC, TREADED ENDS.
2. OVER 2 INCHES (50MM): IRON BODY, BRONZE TRIM, RISING STEM, HANDWHEEL, OS&Y, SOLID WEDGE, FLANGED ENDS.

GLOBE (OR ANGLE) VALVES:
1. UP TO 2 INCHES (50MM): BRONZE BODY, BRONZE TRIM, RISING STEM AND HANDWHEEL, INSIDE SCREW, RENEWABLE COMPOSITION DISC, SCREWED ENDS, WITH BACKSEATING CAPACITY RE-PACKABLE UNDER PRESSURE.
2. OVER 2 INCHES (50MM): IRON BODY, BRONZE TRIM, RISING STEM, HANDWHEEL, OS&Y, PLUG-TYPE DISC, FLANGED ENDS, RENEWABLE SEAT AND DISC.

BALL VALVES:
1. UP TO AND INCLUDE 2 INCHES (50MM): BRONZE TWO-PIECE BODY, STAINLESS STEEL BALL, TEFLON SEATS AND STUFFING BOX RING, LEVER HANDLE, TREADED ENDS WITH UNION.

BUTTERFLY VALVES:
1. CAST OR DUCTILE IRON BODY, CHROME OR NICKEL PLATED DUCTILE IRON DISC, RESILIENT REPLACEABLE EPDM SEAT, WAFER OR LUG ENDS, EXTENDED NECK, HANDWHEEL AND GEAR DRIVE AND INTEGRAL INDICATING DEVICE.

CHECK VALVES:
1. UP TO AND INCLUDING 2 INCHES: BRONZE SWING DISC, SCREWED ENDS.
2. OVER 2 INCHES (50MM): IRON BODY, BRONZE TRIM, SWING DISC, RENEWABLE DISC AND SEAT, FLANGED ENDS.
3. IRON BODY, BRONZE TRIM, STAINLESS STEEL SPRING, RENEWABLE COMPOSITION DISC. SCREWED, WAFER OR FLANGED ENDS.

DRAIN VALVES:
1. BRONZE GLOBE VALVE WITH HOSE THREAD NIPPLE AND CAP.
2. BRASS BALL VALVE WITH CAP, ¾ INCH (19MM) HOSE THREAD.

PIPE HANGERS AND SUPPORTS:
1. CONFORM TO NFPA 13. HANGERS SHALL BE UL LISTED FOR USE IN SPRINKLER SYSTEMS.
2. HANGERS FOR PIPE SIZES 1 INCH AND LARGER: STEEL, ADJUSTABLE SWIVEL, SPLIT RING.
3. MULTIPLE OR TRAPEZE HANGERS: STEEL CHANNELS WITH WELDED SPACERS AND HANGER RODS.
4. WALL SUPPORT FOR PIPE SIZES TO 3 INCHES: CAST IRON HOOK.
5. WALL SUPPORT FOR PIPE SIZES 4 INCHES AND OVER: WELDED STEEL BRACKET AND WROUGHT STEEL CLAMP.
6. VERTICAL SUPPORT: STEEL RISER CLAMP.
7. FLOOR SUPPORT: CAST IRON ADJUSTABLE PIPE SADDLE, LOCK NUT, NIPPLE, FLOOR FLANGE, AND CONCRETE PIER OR STEEL SUPPORT.

GENERAL NOTES

1. DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO SHOW GENERAL ARRANGEMENT OF SYSTEM(S). FINAL SIZE AND LOCATION MUST MEET APPLICABLE CODES AND DESIGN REQUIREMENTS.
2. ALL DIMENSIONS AND EXACT UNIT LOCATIONS ARE TO BE FIELD VERIFIED. THESE DRAWINGS REPRESENT SCHEMATIC SYSTEMS.
3. DESIGN SHALL BE COMPLETED BY AN INDIVIDUAL WHO IS CERTIFIED AS A PROFESSIONAL ENGINEER OR A LEVEL III OR IV TECHNICIAN BY NATIONAL INSTITUTE FOR CERTIFICATION IN ENGINEERING TECHNOLOGIES (NICET) IN THE AUTOMATIC SPRINKLER SYSTEM LAYOUT SUBFIELD OF FIRE PROTECTION ENGINEERING TECHNOLOGY.
4. AUTOMATIC FIRE SPRINKLER SYSTEM(S) SHALL BE HYDRAULICALLY CALCULATED.
5. THE FIRE SPRINKLER CONTRACTOR SHALL CONDUCT A HYDRANT FLOW TEST IN ACCORDANCE WITH NFPA 291 PRIOR TO DESIGNING THE SPRINKLER SYSTEM.
6. PROVIDE A COMPLETE AUTOMATIC FIRE SPRINKLER SYSTEM THROUGHOUT ALL AREAS AND SUBMIT DRAWINGS AND ASSOCIATED CALCULATIONS TO THE ENGINEER FOR APPROVAL.
7. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING SHOP DRAWINGS AND CALCULATIONS TO THE AHJ AND RECEIVING APPROVAL PRIOR TO STARTING CONSTRUCTION.
8. CONTRACTOR IS RESPONSIBLE FOR ALL NECESSARY AND ASSOCIATED PERMITTING FEES.
9. CONTRACTOR TO PROVIDE A LISTED FIRESTOPPING SYSTEMS ASSEMBLY AT ALL PIPE AND THROUGH PENETRATIONS PASSING THROUGH RATED CONSTRUCTION (FIRE RATED WALLS, FLOORS, CEILINGS, ETC.)
10. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO STATE ADOPTED CODES AND REGULATIONS AS AMENDED.
11. COORDINATE AUTOMATIC FIRE SUPPRESSION SYSTEM DESIGN WITH ALL OTHER TRADES PRIOR TO ANY FABRICATION OR INSTALLATION. DESIGN SHALL INCLUDE ALL ROUTING, OFFSETS AND TRANSITIONS REQUIRED FOR A COMPLETE AND COORDINATED INSTALLATION.
12. CONTRACTOR TO PROVIDE ALL REQUIRED PIPE, FITTINGS, VALVES, AND OTHER INCIDENTAL DEVICES REQUIRED FOR A COMPLETE, FULL FUNCTIONING SYSTEM. ALL EQUIPMENT TO BE INSTALLED IN ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATIONS.
13. CONTRACTOR SHALL PROVIDE ALL NECESSARY TEST CONNECTIONS/DRAINS AND PIPE DISCHARGE TO AN APPROVED SAFE POINT OUTSIDE OF THE BUILDING.
14. ALL SYSTEM PIPING SHALL BE HYDROSTATICALLY TESTED AT 200 PSI OR AT 50 PSI ABOVE THE SYSTEM OPERATING PRESSURE, WHICHEVER IS GREATER AND WITNESSED BY OWNERS REPRESENTATIVE AND AHJ.
15. PROVIDE SYSTEM TESTING AND CERTIFICATION DOCUMENTATION TO BE INCLUDED IN THE PROJECT O&M MANUAL.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND PROVIDING ALL PIPE SLEEVES, CORE DRILLING, FLOOR/WALL/CEILING CUTTING AND PATCHING.
17. CONTRACTOR SHALL PROVIDE ALL REQUIRED SPARE SPRINKLER HEADS, HEAD CABINET(S), SIGNS, HYDRAULIC PLACARDS AND SYSTEM INFORMATION DISPLAYS AS SPECIFIED IN NFPA 13.
18. CONTRACTOR SHALL PROVIDE SPRINKLER GUARDS AT ALL HEADS SUBJECT TO DAMAGE.
19. HEAT COLLECTORS SHALL NOT BE USED AS A MEANS TO ASSIST THE ACTIVATION OF SPRINKLER HEADS PER NFPA 13.
20. SPRINKLER HEAD AND ESCUTCHEON FINISHES TO BE COORDINATED WITH ARCHITECT UNLESS OTHERWISE INDICATED.
21. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION AND CONTRACTOR RESPONSIBILITIES.

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Warm Springs Academy K8 Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

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FIRE PROTECTION COVER SHEET

F0.01

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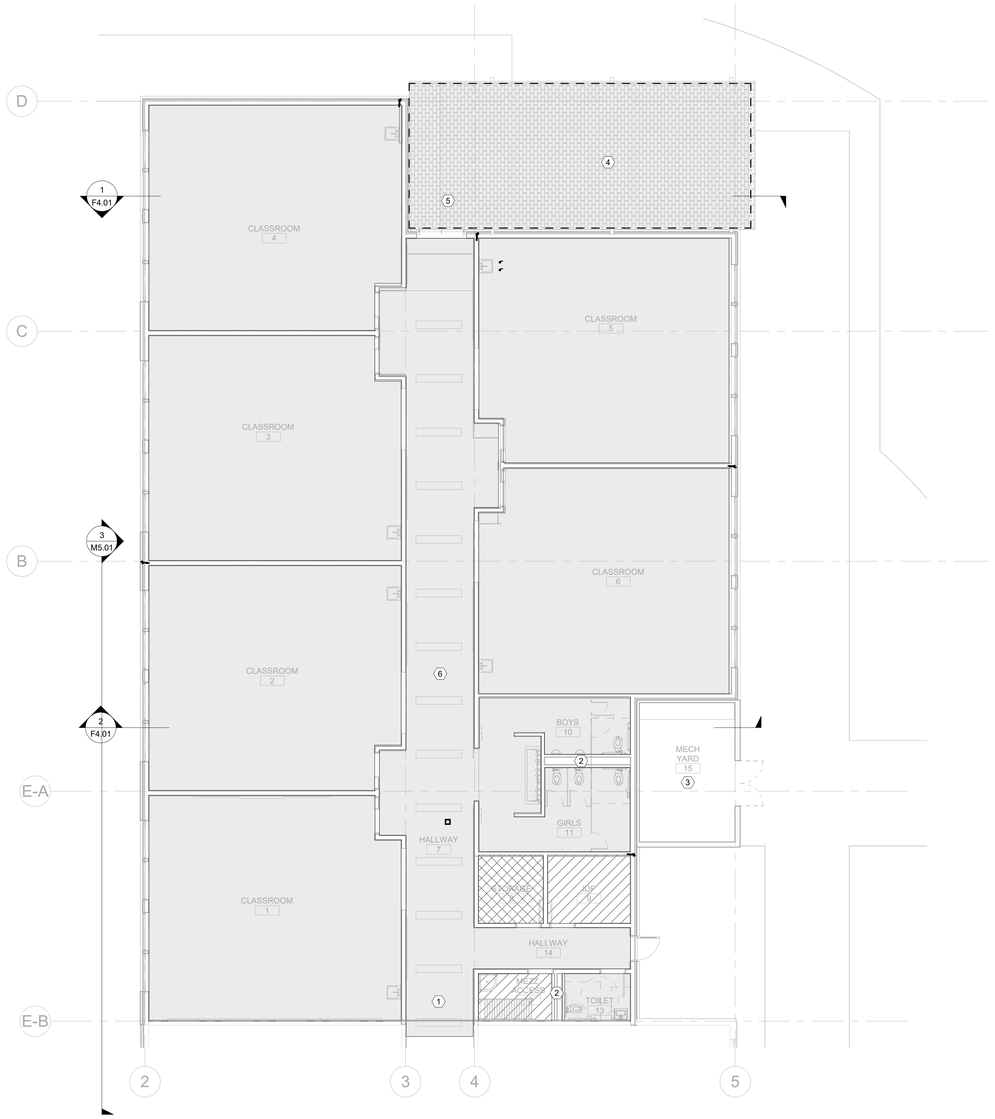

1 F2.01 **LEVEL 1 PLAN - FIRE PROTECTION**
SCALE: 1/8" = 1'-0"

KEY NOTES:

1. EXTEND EXISTING FIRE SPRINKLER TO NEW ADDITION.
2. NON-COMBUSTIBLE MECHANICAL/PLUMBING CHASE NO FIRE PROTECTION REQUIRED PER NFPA 13
3. MECH YARD IS EXPOSED WITH NO EXTERIOR PROJECTIONS FIRE PROTECTION NOT REQUIRED.
4. SLOPED COMBUSTIBLE EXTERIOR PROJECTION OVER 4' IN WIDTH PROVIDE DRY BARREL FIRE PROTECTION.
5. LOWER SECONDARY COMBUSTIBLE EXTERIOR PROJECTION OVER 4' IN WIDTH PROVIDE FLEXIABLE DRY BARREL FIRE PROTECTION.
6. ROUTE FIRE SPRINKLER BANCH LINES IN BETWEEN 9'-8" CEILING AND 10'-0" UNDERSIDE OF MEZZANINE DECK.

HAZARD CLASSIFICATION

AREA	HAZARD CLASS	MINIMUM DENSITY (GPM/FT²)	MIN. HYDRAULIC DESIGN AREA (FT²)	HOSE DEMAND (GPM)	DURATION (MINS)
	LIGHT HAZARD	0.10	1500	100	60
	ORDINARY HAZARD (GROUP 1)	0.15	1500	250	90
	ORDINARY HAZARD (GROUP 2)	0.20	1500	250	90

*DRY SYSTEM - HAZARD CLASSIFICATION AND FIRE SPRINKLER REQUIREMENTS TO MATCH SHADED AREA ON PLAN

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FIRE PROTECTION FLOOR PLAN - LEVEL 1

F2.01

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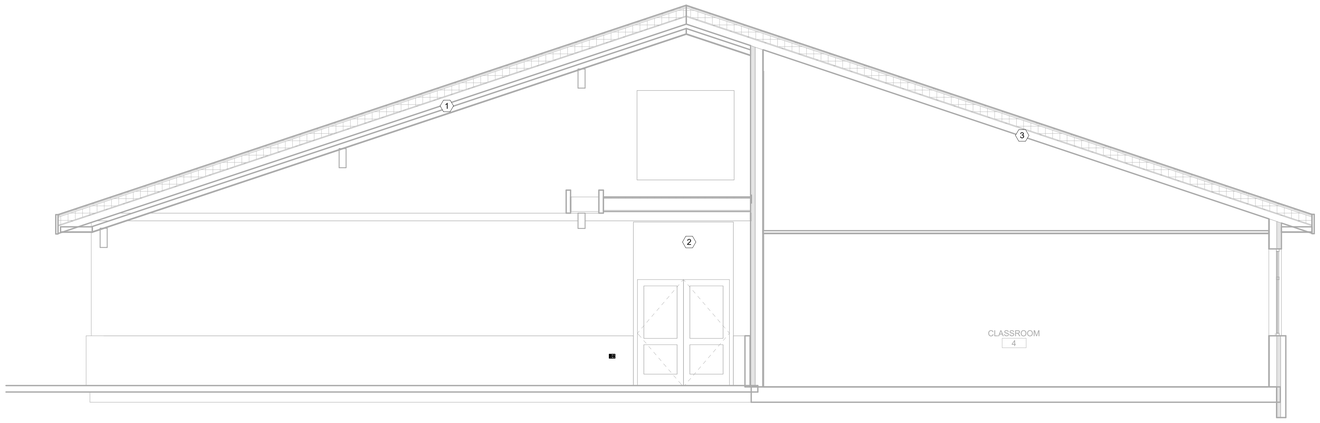
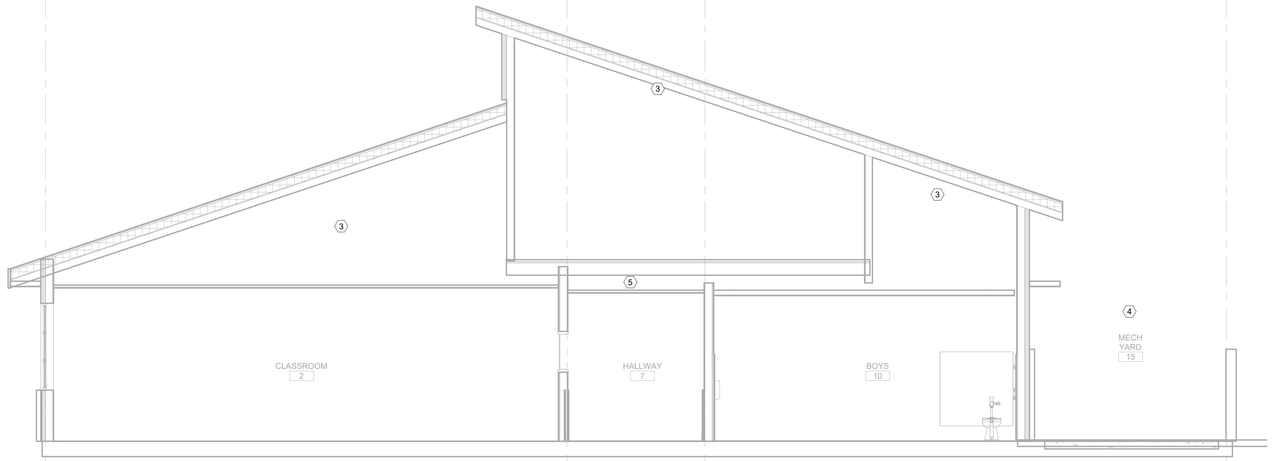


1 / F4.01 **FIRE PROTECTION SECTION - GRID LINE C-D**

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



2 / F4.01 **FIRE PROTECTION SECTION - GRID LINE EA**

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

KEY NOTES:

1. SLOPED COMBUSTIBLE EXTERIOR PROJECTION OVER 4' IN WIDTH PROVIDE DRY BARREL FIRE PROTECTION.
2. LOWER SECONDARY COMBUSTIBLE EXTERIOR PROJECTION OVER 4' IN WIDTH PROVIDE FLEXIABLE DRY BARREL FIRE PROTECTION.
3. COMBUSTIBILE CONCEALED SPACE PROVIDE FIRE PROTECTION IN ATTIC.
4. MECH YARD IS EXPOSED WITH NO EXTERIOR PROJECTIONS FIRE PROTECTION NOT REQUIRED.
5. ROUTE FIRE SPRINKLER BANCH LINES IN BETWEEN 9'-8" CEILING AND 10'-0" UNDERSIDE OF MEZZANINE DECK.

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FIRE PROTECTION FLOOR PLAN - SECTIONS

F4.01

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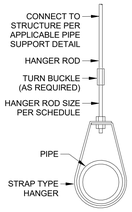
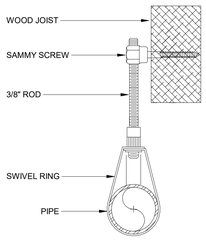


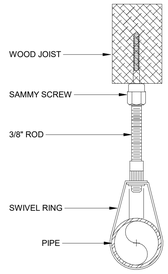
HANGER ROD SCHEDULE	
PIPE SIZE	ROD SIZE
4"ø & LESS	3/8"ø
5, 6, 8"ø	1/2"ø
10 & 12"ø	5/8"ø

HANGER SPACING CHART			
PIPE SIZE	DISTANCE BETWEEN HANGERS		
	STEEL PIPE	CPVC PIPE	THINWALL
3/4"	N/A	5'-6"	N/A
1"	12'-0"	6'-0"	12'-0"
1 1/4"	12'-0"	6'-6"	12'-0"
1 1/2"	15'-0"	7'-0"	12'-0"
2"	15'-0"	8'-0"	12'-0"
2 1/2"	15'-0"	9'-0"	12'-0"
3"	15'-0"	10'-0"	12'-0"
4"	15'-0"	N/A	N/A
6"	15'-0"	N/A	N/A

1 PIPE HANGER REQUIREMENTS
N.T.S.



2 SIDE SAMMY SCREW DETAIL - WOOD
N.T.S.



3 VERTICAL SAMMY SCREW DETAIL - WOOD
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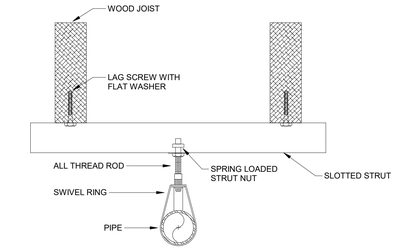
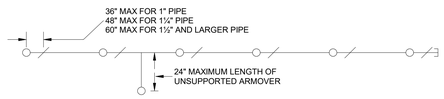


4 TRAPEZE HANGER DETAIL
N.T.S.

DISTANCE BETWEEN THE END SPRINKLER AND THE LAST HANGER ON THE LINE - MAXIMUM PRESSURE ≤ 100 PSI (STEEL PIPE, ALL SPRINKLER TYPES)



5 PIPE HANGER REQUIREMENTS
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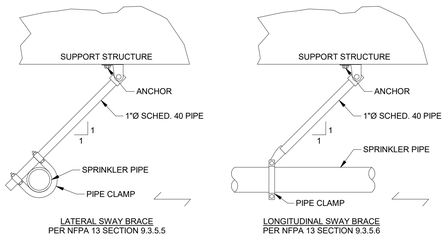
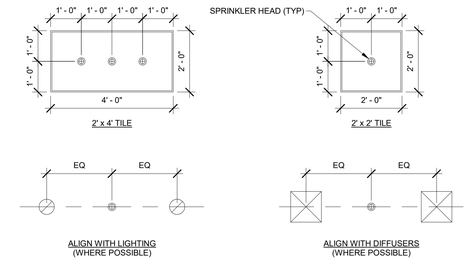
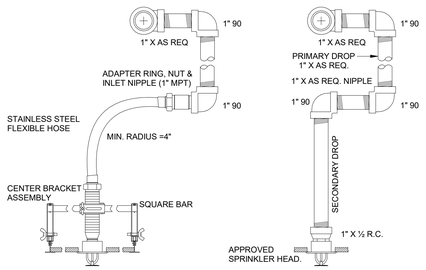


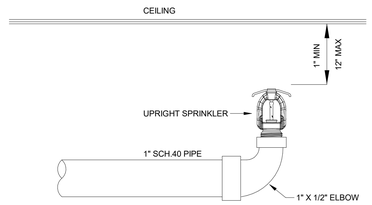
6 SWAY BRACING DETAIL
N.T.S.



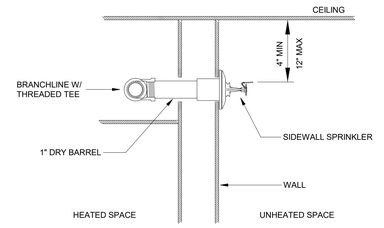
7 ACCEPTABLE SPRINKLER HEAD LOCATIONS
N.T.S.



8 SPRINKLER HEAD PIPING DETAIL
N.T.S.



9 UPRIGHT SPRINKLER DETAIL
N.T.S.



10 DRY SIDEWALL SPRINKLER DETAIL
N.T.S.

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FIRE PROTECTION DETAILS

F8.10

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SYMBOL SCHEDULE FOR ELECTRICAL PLAN DRAWINGS

SYMBOL	DESCRIPTION
	PANEL OR DEVICE WIRING
	FIELD WIRING-BY ELECTRICAL CONTRACTOR
	EQUIPMENT/DEVICE ENCLOSURE
	WIRING CONNECTED
	WIRING NOT CONNECTED
	DEVICE OR EQUIPMENT TERMINAL
	CONTROL PANEL TERMINAL
	MCC TERMINAL
	TRANSFORMER WINDING
	FUSE
	GROUND
	ARC SUPPRESSOR (METAL OXIDE VARISTOR)
	DIODE

CONTACT BLOCK OPERATORS

N.O. N.C.	PUSHBUTTON (1PB,2PB,ETC.)
	MUSHROOM HEAD PUSHBUTTON (1PB,2PB,ETC.)
"HAND OFF AUTO" A1-1SS	SELECTOR SWITCH (1SS,2SS,ETC.) "X" = CLOSED IN THIS POSITION

CONTACTS

N.O. N.C.	SINGLE BREAK CONTACTS
	DOUBLE BREAK CONTACTS (CONTACT BLOCKS)

RELAY CONTACTS

N.O. N.C. XXCR XXCR	INSTANTANEOUS CONTACT OF RELAY (1CR,2CR,ETC.)
XXTR XXTR	TIMED DELAY CONTACT OF RELAY (DELAY ON ENERGIZATION-ON DELAY) (1TR,2TR,ETC.)
XXTR XXTR	TIMED DELAY CONTACT OF RELAY (DELAY ON DE-ENERGIZATION-OFF DELAY) (1TR,2TR,ETC.)
X-OL X-OL	OVERLOAD RELAY (1OL,2OL,ETC.)

MAGNETIC COILS

XX XCR	CONTROL RELAY (1CR,2CR,ETC.)
XX XTR	TIMED DELAY RELAY (1CR,2CR,ETC.)
XX M	MAGNETIC MOTOR STARTER (1M,2M,ETC.)
XX XCON	MAGNETIC CONTRACTOR (1CON,2CON,ETC.)
XX XMTR	DEVICE MOTOR DRIVE
	SOLENOID (1SV,2SV,ETC.) (FOR VALVE UNLESS OTHERWISE NOTED)

WIRE TYPES

EXAMPLES:

1PR#18	ONE TWISTED PAIR OF UNSHIELDED #18 CONDUCTORS
2/C#18	TWO 18 AWG CONDUCTORS UNDER A COMMON SHEATH
2#18	TWO SEPARATE 18 AWG CONDUCTORS
UC5	UNSHIELDED CATEGORY 5 CONDUCTORS
UC5E	UNSHIELDED CATEGORY 5E CONDUCTORS
UC6	UNSHIELDED CATEGORY 6 CONDUCTORS

SYMBOL SCHEDULE FOR ELECTRICAL PLAN DRAWINGS

SYMBOL	DESCRIPTION
	DEVICE OR EQUIPMENT TERMINAL
	WIRING CONNECTED
	BUS
	WIRING
	EQUIPMENT/DEVICE ENCLOSURE
	PLUG-IN CONNECTION
	NON-AUTOMATIC BREAKER
	THERMAL MAGNETIC BREAKER
	MAGNETIC ONLY BREAKER
	SWITCH
	FUSE
	POWER TRANSFORMER
	CONTROL POWER TRANSFORMER
	THERMAL OVERLOAD
	CURRENT TRANSFORMER
	CONTACTOR
	CAPACITOR
	GROUND CONNECTION
	TRANSFER SWITCH
M	WATTHOUR METER (REVENUE METERING)
S N	SOLID NEUTRAL
10	MOTOR-NO. = HORSEPOWER
LS	LIMIT SWITCH
FS	FLOAT SWITCH
PS	PRESSURE SWITCH
	CONTROL STATION/PUSHBUTTON
	LOAD BREAK FUSE HOLDER AND FUSE

ABBREVIATIONS

A	AMPERES
ACP	ACCESS CONTROL PANEL
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BKR	BREAKER
C	CONDUIT
ENCL	ENCLOSURE
EOL	END OF LINE RESISTOR
EXIST OR (E)	EXISTING
FATC	FIRE ALARM TERMINAL CABINET
FACP	FIRE ALARM CONTROL PANEL
FVNR	FULL VOLTAGE NON REVERSING
G	GROUNDING CONDUCTOR
HC	HORIZONTAL CROSSCONNECT
IC	INTERRUPTING CAPACITY
IP	INTERNET PROTOCOL
KA	KILOAMPERES
KVAR	KILO VOLT-AMPERES REACTIVE
KW	KILOWATTS
LSI	LONG-SHORT-INSTANTANEOUS TRIP
M	MAGNETIC CONTACTOR
MC	MAIN CROSSCONNECT
MHO	MAGNETIC HOLD OPEN
N	NEUTRAL CONDUCTOR
NAC	NOTIFICATION APPLIANCE CIRCUIT
NEMA	NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION
OL	OVERLOAD
P	POLES
PV	PHOTOVOLTAIC
SP	SECURITY (INTRUSION) PANEL
SPD	SURGE PROTECTIVE DEVICE
SHLD	SHIELDED
SUSE	SUITABLE FOR USE AS SERVICE ENTRANCE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
WG	WIRE GUARD
XFMR	POWER TRANSFORMER

SYMBOL SCHEDULE FOR ELECTRICAL PLAN DRAWINGS

SYMBOL	DESCRIPTION

POWER DISTRIBUTION AND CONTROL

	DISTRIBUTION/CONTROL EQUIPMENT - FLOOR MOUNTED
	DISTRIBUTION/CONTROL EQUIPMENT - WALL MOUNTED
	PANELBOARD - WALL MOUNTED
	SWITCH (SAFETY OR DISCONNECT)
	SWITCH (FUSIBLE)
	MOTOR STARTER WITH SWITCH OR BREAKER (COMBINATION MAGNETIC STARTER)

LIGHTING FIXTURES

A B	ROUND FIXTURE CEILING MOUNTED (RECESSED, SURFACE, OR PENDANT)
A A	FIXTURE POLE MOUNTED
C D	FIXTURE WALL MOUNTED (SURFACE OR ARM)
E	LINEAR FIXTURE CEILING MOUNTED (RECESSED, SURFACE OR PENDANT)
B	RECESSED FIXTURE (ARROW INDICATES FIXTURE AIMING)
	MULLION MOUNT EXTERIOR LIGHTING OR EXIT FIXTURE POWER SUPPLY
EX	(INDICATES FACES)
	EXIT LIGHT FIXTURE (INDICATES ARROW DIRECTION)
	(INDICATES WALL MOUNTED FIXTURE)

DESIGNATIONS

A,B,C,ETC. ARE FIXTURE TYPE, REFER TO LIGHTING FIXTURE SCHEDULE

a,b,c,ETC., ARE ZONE SWITCHING CONTROL REFERENCE (b1,o2, ETC., ARE DAYLIGHT ZONE REFERENCES WITHIN THAT ZONE)

SWITCHING/CONTROL

$ #abc	LIGHTING SWITCH - WALL MOUNTED

LOWER CASE LETTERS = SWITCH LEG DESIGNATIONS
BLANK = 2-BUTTON (U,O,N, TYPICAL NON-OCCUPIED SPACE)
D = 4-BUTTON (U,O,N, TYPICAL OFFICE)
3 OR 6 = 4-BUTTON ZONE CONTROLLER (CUSTOM)
4D = 4-BUTTON SCENE (U,O,N, TYPICAL CLASSROOM)
5D = 5-BUTTON SCENE (CUSTOM)
T = LINE VOLTAGE TOGGLE SWITCH
P = LINE VOLTAGE PILOT LIGHT TOGGLE SWITCH
OS = LINE VOLTAGE OCCUPANCY SENSOR SWITCH

DESIGNATIONS

(XX-##) ARE CIRCUIT NUMBERS OF PANELBOARD TO WHICH FIXTURE IS TO BE CONNECTED. REFER TO CIRCUIT SCHEDULE

SWITCH ZONE DESIGNATION ENCOMPASSES ALL DAYLIGHT ZONES WITHIN THE SWITCH ZONE (I.E. 'a' INCLUDES 'a1', 'a2', ETC.)

J X	STANDARD CONDUIT FEED (INDICATES SWITCH ZONES)
RF X	ROOM FEED MWS STARTER CABLE (INDICATES SWITCH ZONES)
EM X	EMERGENCY UL924 LIGHTING CONTROL UNIT (SWITCH OVERRIDE) (INDICATES SWITCH ZONES)
OS X	OCCUPANCY & DAYLIGHT SENSOR, CEILING MOUNTED (INDICATES SWITCH ZONES)
RX X	RECEPTACLE CONTROLS - SINGLE RELAY RECEPTACLE CONTROLLER (INDICATES CIRCUIT NUMBER)

RECEPTACLE OUTLETS

2 WP	DUPLEX RECEPTACLE OUTLET - WALL MOUNTED (NEMA 5-20R UNLESS OTHERWISE SPECIFIED)
6	QUADRUPLEX RECEPTACLE OUTLET - WALL MOUNTED
6	OCCUPANCY CONTROLLED DUPLEX RECEPTACLE OUTLET - WALL MOUNTED (SEE DETAILS ON SHEET E1.20)
2	FLOORBOX - PLANS INDICATE COMBINATION OF SYSTEMS TO BE USED WITH FLOORBOX (i.e. POWER, COMMUNICATIONS, A/V)
	DUPLEX RECEPTACLE OUTLET- CEILING MOUNTED
4	SPECIAL PURPOSE RECEPTACLE OUTLET
6	SPECIAL PURPOSE RECEPTACLE OUTLET - WALL MOUNTED
2	DUPLEX RECEPTACLE OUTLET - MOUNTED 4" O.C. ABOVE BACKSPLASH OR COUNTER TOP IF NO BACKSPLASH (VERIFY HEIGHT WITH ARCHITECTURAL ELEVATIONS)
2	QUADRUPLEX RECEPTACLE OUTLET - MOUNTED 4" O.C. ABOVE BACKSPLASH OR COUNTER TOP IF NO BACKSPLASH (VERIFY HEIGHT WITH ARCHITECTURAL ELEVATIONS)

DESIGNATIONS

1,2,3,ETC., ARE CIRCUIT NUMBERS OF PANELBOARD TO WHICH OUTLET IS TO BE CONNECTED. REFER TO CIRCUIT SCHEDULE

H = HORIZONTAL
WP = WEATHERPROOF

SPECIAL PURPOSE CONNECTIONS

4	SPECIAL PURPOSE EQUIPMENT CONNECTION
6	SPECIAL PURPOSE EQUIPMENT CONNECTION - WALL MOUNTED
XX #-##	MECHANICAL EQUIPMENT TAG. (SEE EQUIPMENT SCHEDULE ON SAME SHEET)

ELECTRICAL DEVICES

5	MOTOR (NUMBER = HORSEPOWER)
M	MOTOR RATED SNAP SWITCH
T	SWITCH WITH TIMER

GENERAL WIRING SYMBOLS

J	JUNCTION BOX
J	JUNCTION BOX - WALL MOUNTED
	WIRING RUN CONCEALED IN BUILDING STRUCTURE UNLESS OTHERWISE NOTED ON DRAWINGS
	WIRING RUN CONCEALED UNDER SLAB OR BELOW GRADE UNLESS OTHERWISE NOTED ON DRAWINGS
G #10	INDICATES WIRE SIZE IF OTHER THAN #12AWG LINE OR PHASE CONDUCTOR NEUTRAL CONDUCTOR GROUNDING CONDUCTOR CROSSMARKS INDICATE QUANTITY AND USE OF CONDUCTORS
2 PPA	ARROWHEAD INDICATES HOMERUN TO EQUIPMENT/DEVICE NOTED AT END OF ARROWHEAD. NUMBER (WHERE NOTED) INDICATES CIRCUIT WITHIN EQUIPMENT/DEVICE NOTED.
	CONDUIT TURN UP FROM BELOW SLAB OR BELOW FLOOR LEVEL
	CONDUIT TURN DOWN FROM CEILING OR THROUGH ROOF

SYMBOL SCHEDULE FOR ELECTRICAL PLAN DRAWINGS

SYMBOL	DESCRIPTION

INTERCOM/CLOCK SYSTEM (SEE DETAIL 3/E1.63)

T1	70V INTERCOM SPEAKER - CEILING MOUNTED (INDICATES ZONE, TYPICAL)
T1 WP	70V INTERCOM SPEAKER - WALL MOUNTED (INDICATES EXTERIOR WEATHERPROOF)
IC	IP DIGITAL CLOCK/INTERCOM SPEAKER COMBINATION (INDICATES LARGE VERSION)
CLK	DIGITAL CLOCK - CEILING MOUNTED DOUBLE FACE
CW	DIGITAL CLOCK - WALL MOUNTED
E	EMERGENCY 3-LED LIGHT INDICATOR - CEILING MOUNTED
E	EMERGENCY 3-LED LIGHT INDICATOR - WALL MOUNTED

TELECOMMUNICATIONS SYSTEM

	COMMUNICATIONS DEVICE BOX. W = WALL PHONE HANDSET ONE CATEGORY 6 8P8C (RJ-45) AND ONE CATEGORY 6 CABLE. # = NUMBER OF CATEGORY 6 8P8C (RJ-45) PORTS AND CATEGORY 6 CABLES
	COMMUNICATIONS DEVICE BOX - MOUNTED 4" O.C. ABOVE BACKSPLASH. (VERIFY HEIGHT WITH ARCHITECTURAL ELEVATIONS).
DS	DIGITAL SIGNAGE LOCATION, MOUNT WITH MONITOR
TV	TV LOCATION, MOUNT WITH MONITOR
AL	(SEE BELOW IN CLASSROOM A/V)
WAP	WIRELESS ACCESS POINT. #=NUMBER OF CATEGORY 6A 8P8C (RJ-45) PORTS AND CATEGORY 6A CABLES
CAM	COMMUNICATIONS BISCUIT JACK PROVIDE ONE CATEGORY 6 RJ-45 AND ONE CATEGORY 6 CABLE (UNLESS OTHERWISE NOTED) (CAM = COMMUNICATIONS BISCUIT JACK FOR SECURITY CAMERA)
BAS	(BAS = BUILDING AUTOMATION SYSTEM LOCATION)
AUX	(AUX = AUXILIARY, MISCELLANEOUS)
EXT CAM	(EXT CAM = COMMUNICATIONS BISCUIT JACK FOR EXTERIOR SECURITY CAMERA)
ACS	(ACS = ACCESS CONTROL SYSTEM WIRELESS GATEWAY)
WM	(WM = WIRELESS MANAGER)

CLASSROOM A/V SYSTEM (SEE DETAIL 8/E1.62)

H1	HDMI/VGA INPUT MODULE #1 - WALL MOUNTED
H2	HDMI/VGA INPUT MODULE #2 - WALL MOUNTED
AV	A/V CONTROLLER - WALL MOUNTED
P	PROMETHEAN DISPLAY AND MOUNT - WALL MOUNTED
S	SPEAKER - RECESSED CEILING MOUNTED
CB	CEILING BOX FOR CLASSROOM A/V - CEILING MOUNTED
AL	ASSISTED LISTENING PORT INDICATED ON COMMUNICATIONS DEVICE IN ROOM

SOUND REINFORCEMENT SYSTEM

IR	REMOTE IR RECEIVER - WALL MOUNTED
RC	REMOTE SELECTOR SWITCH, TOUCH SCREEN AND/OR REMOTE INPUTS - WALL MOUNTED
WM	WIRELESS MICROPHONE REMOTE ANTENNA PORT
WA	WIRELESS ASSISTED LISTENING ANTENNA
S C,P	SPEAKER - CEILING OR PENDANT MOUNTED
S W	SPEAKER - WALL MOUNTED
SUB	SUBWOOFER SPEAKER - CEILING OR PENDANT MOUNTED
SUB	SUBWOOFER SPEAKER - WALL MOUNTED
AI	AUXILIARY INPUT JACK - WALL MOUNTED
MI	MICROPHONE INPUT JACK (XLR) - WALL MOUNTED
MI LR	MICROPHONE INPUT JACK LEFT AND RIGHT (XLR) - WALL MOUNTED
MI 3.5	MICROPHONE INPUT JACK STEREO (3.5 mm) - WALL MOUNTED

VIDEO DISTRIBUTION SYSTEM

VI# VO#	VIDEO I/O LOCATION. PROVIDE RJ-45 OR HDMI AS INDICATED ON A/V DETAILS - WALL MOUNTED VIDEO INPUT, # CORRESPONDS TO INPUT ON MATRIX SWITCHER. IF NO NUMBER IS SHOWN, THEN IT REPRESENTS A DIRECT INPUT. VIDEO OUTPUT, # CORRESPONDS TO OUTPUT ON MATRIX SWITCHER. IF NO NUMBER IS SHOWN, THEN IT REPRESENTS A DIRECT OUTPUT.
DS	LOCATION OF DIGITAL SIGNAGE SYSTEM MONITOR(S), RECESSED DEVICE BOXES, WALL BRACKET(S), AND MEDIA PLAYER.
TV	LOCATION OF TV, RECESSED DEVICE BOX, AND WALL BRACKET

SYMBOL SCHEDULE FOR ELECTRICAL PLAN DRAWINGS

SYMBOL	DESCRIPTION

INTRUSION DETECTION/ACCESS CONTROL SYSTEM

D	DOOR CONTACT
S MD	MOTION DETECTOR
S CR	PROXIMITY CARD READER - WALL MOUNTED
S CRK	PROXIMITY CARD READER W/KEYPAD - WALL MOUNTED
S KP	INTRUSION SYSTEM KEYPAD ENTRY DEVICE - WALL MOUNTED
S M	MOTION SENSOR - CEILING MOUNTED
S MH	DOOR MAGNETIC HOLD OPEN (SECURITY RELEASED)
S EL	ELECTRIC RETRACTABLE LATCH CONNECTION (LATCH INCLUDED WITH DOOR HARDWARE)
S ES	ELECTRIC STRIKE CONNECTION (STRIKE INCLUDED WITH DOOR HARDWARE)
S HOC	HOLD OPEN CLOSER CONNECTION (CLOSER INCLUDED WITH DOOR HARDWARE)
S VD	VAPING DETECTOR - CEILING MOUNTED
S R	SECURITY RELAY
S RX	REQUEST TO EXIT (INCLUDED WITH DOOR HARDWARE, UNLESS OTHERWISE NOTED)
S EM	SECURITY PANIC BUTTON "LOCK DOWN"
S DR	SECURITY DOOR RELEASE BUTTON
S MAG	SECURITY MAGNETIC LOCK
S HT	HIGH TEMP ALARM
I	DOOR 2-WAY INTERCOM AND CAMERA - WALL MOUNTED
BE	BLUE VISUAL ONLY ALARM - WALL MOUNTED
XXX	ACCESS CONTROL DOOR TAG - REFER TO ACCESS CONTROL SCHEDULE

VIDEO SURVEILLANCE SYSTEM

	FIXED DOME CAMERA - RECESSED MOUNTED (ARROW INDICATES DIRECTION OF FIELD-OF-VIEW)
	FIXED DOME CAMERA - POLE OR WALL MOUNTED W/BRACKET (ARROW INDICATES DIRECTION OF FIELD-OF-VIEW)
	FISHEYE - WALL MOUNTED W/BRACKET
	ADJUSTABLE MULTI-LENS DOME CAMERA - SURFACE MOUNT (ARROWS INDICATES DIRECTION OF FIELD-OF-VIEW OF EACH LENS, A DOT IN THE CENTER INDICATES LENS POINTED STRAIGHT DOWN, ARM INDICATES, INCLUSION OF A POLE OR WALL MOUNT BRACKET)
PTZ	PAN TILT ZOOM LENS CAMERA (ARM INDICATES, INCLUSION OF A POLE OR WALL MOUNT)
XXXX	CAMERA EQUIPMENT TAG - REFER TO CAMERA SCHEDULE

FIRE DETECTION AND ALARM SYSTEM

	AUDIBLE/VISUAL ALARM - WALL MOUNTED
	VISUAL ONLY ALARM - WALL MOUNTED
	AUDIBLE/VISUAL ALARM - CEILING MOUNTED
SO	STROBE ONLY ALARM - CEILING MOUNTED
	MANUAL PULL STATION - WALL MOUNTED
FC	MANUAL PULL STATION W/ANNUNCIATING COVER WALL MOUNTED
FD	DUCT SMOKE DETECTOR WITH SAMPLING TUBES
FVS	FIRE SMOKE DAMPER - SEE DETAIL 8/M6.02
RTS	REMOTE TEST SWITCH - WALL MOUNTED
R	SHUTDOWN RELAY
MH	DOOR MAGNETIC HOLD OPEN (FIRE AND SECURITY RELEASED)
S	SMOKE DETECTOR
H	FIXED TEMPERATURE AND RATE OF RISE HEAT DETECTOR
T	TAMPER SWITCH
F	FLOW SWITCH
LP	LOW PRESSURE SWITCH

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REGISTERED PROFESSIONAL ENGINEER
89738
OREGON
JANUARY 2, 2015
BRADLEY ROBERT BALLEY
EXPIRES: December 31st, 2023

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

SYMBOL SCHEDULE

E0.01

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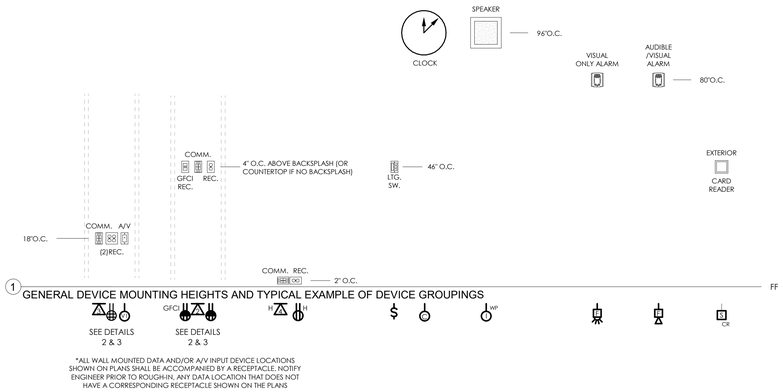
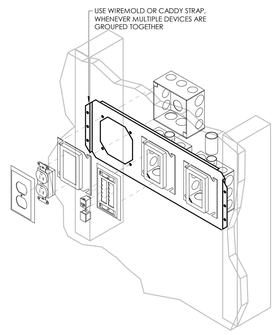
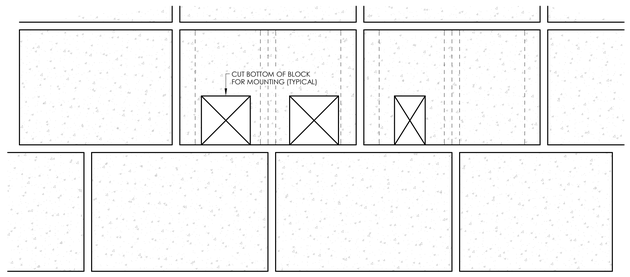


1 GENERAL DEVICE MOUNTING HEIGHTS AND TYPICAL EXAMPLE OF DEVICE GROUPINGS

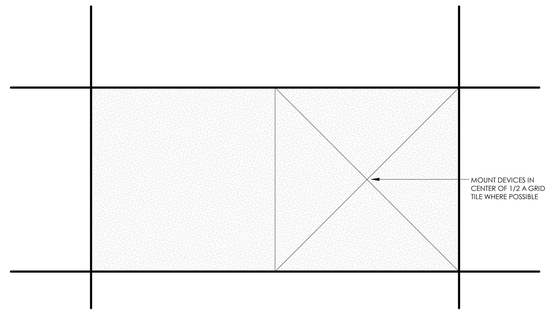
*ALL WALL MOUNTED DATA AND/OR A/V INPUT DEVICE LOCATIONS SHOWN ON PLANS SHALL BE ACCOMPANIED BY A RECEPTACLE. NOTIFY ENGINEER PRIOR TO ROUGH-IN, ANY DATA LOCATION THAT DOES NOT HAVE A CORRESPONDING RECEPTACLE SHOWN ON THE PLANS



2 COBINATION WALL BRACKET ASSEMBLY DETAIL



3 CONCRETE BLOCK MOUNTING COORDINATION



4 CEILING DEVICE LOCATION - COORDINATION DETAIL

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COMMON DEVICE GROUPINGS AND MOUNTING HEIGHTS

E0.02

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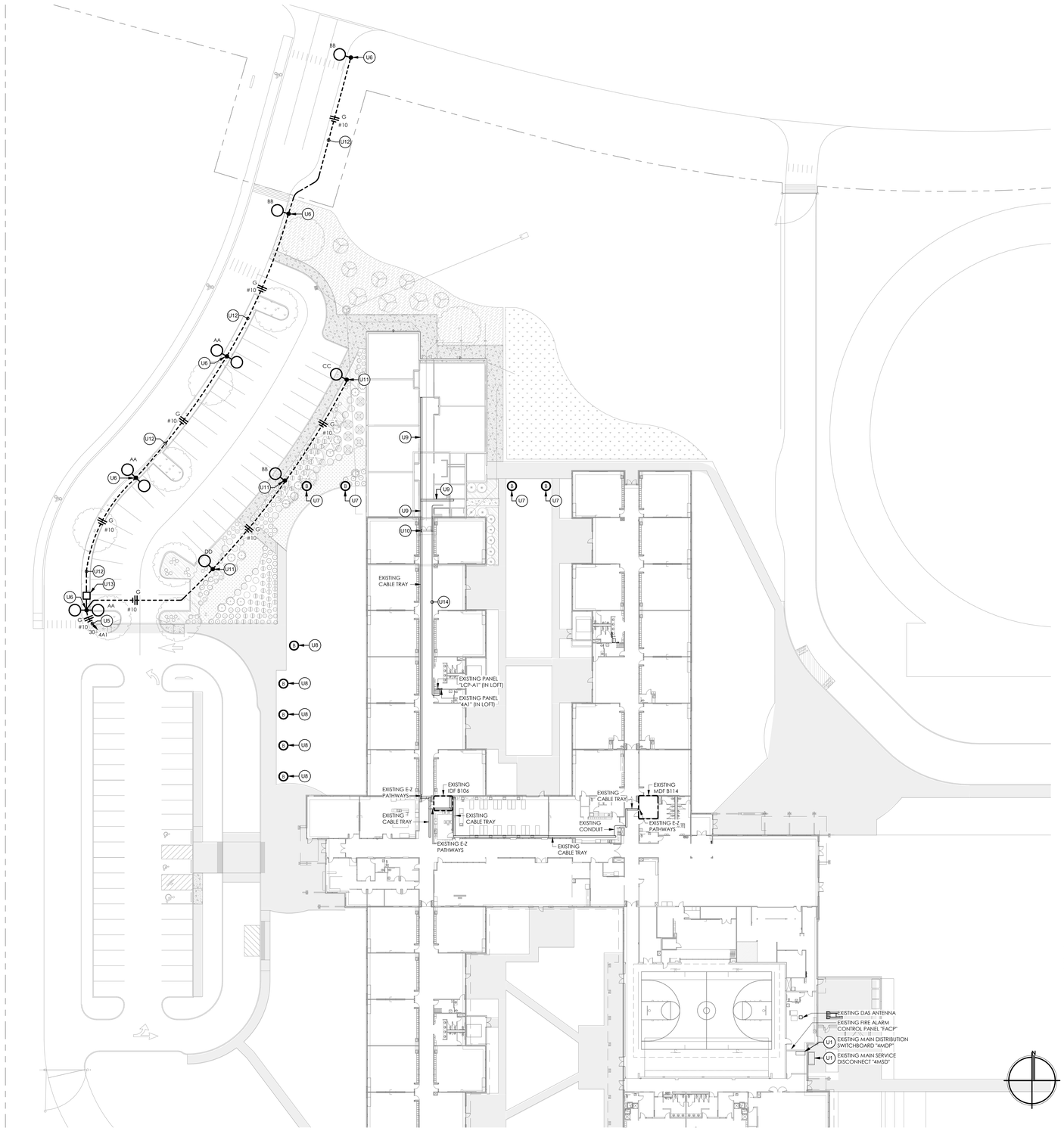
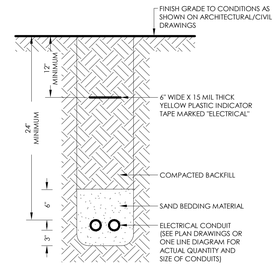


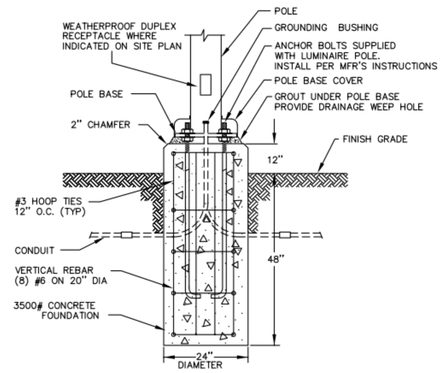
4 E1.00 **SITE PLAN**

SCALE: 1" = 30'-0"



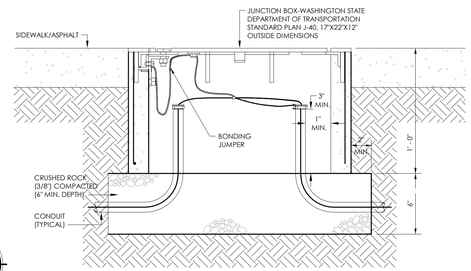
DETAIL 1/E1.00
TRENCH FOR ELECTRICAL CIRCUITS SECONDARY POWER OR SIGNAL CIRCUITS

SCALE: 1" = 1'-0"



DETAIL 2/E1.00
POLE BASE

SCALE: 3/8" = 1'-0"



NOTE: CONDUITS ARE SHOWN DIAGRAMMATICALLY. SEE PLAN DRAWING FOR ACTUAL CONDUIT QUANTITIES AND SIZES. PROVIDE CUSTOMER WITH KEY FOR LID.

DETAIL 3/E1.00
TYPE IL JUNCTION BOX

SCALE: 1 : 6

GENERAL NOTES

A. COORDINATE AREA LIGHTING POLES, DEVICES, EQUIPMENT, AND CONDUIT WITH CIVIL, ARCHITECTURAL, AND LANDSCAPING PLANS, UTILITY COMPANIES, AND GENERAL CONTRACTOR PRIOR TO TRENCHING AND ROUGH-IN. ALL NEW LIGHT POLES/BASES TO BE LOCATED PER SITE DESIGN AND COORDINATED WITH OTHER DISCIPLINES PRIOR TO FINAL LAYOUT OF NEW POLE BASES.

B. BEFORE DIGGING/TRENCHING, COORDINATE WITH A LOCATION SERVICE (#811).

C. PROVIDE PULL TAPE/ROPE IN ALL CONDUITS INCLUDING SPARES. PULL ADDITIONAL TAPE/ROPE IN CONDUITS ALONG WITH CABLES AFTER CABLES HAVE BEEN PULLED IN.

D. SEE TRENCHING DETAIL 1, THIS SHEET, FOR ALL TENCHING INFORMATION.

SHEET NOTES

U1 SEE ONE LINE DIAGRAM ON SHEET E1.10 FOR CIRCUIT/FEEDER, OR EQUIPMENT INFORMATION.

U5 DEMOLISH EXISTING CONDUCTORS IN EXISTING HOMERUN CONDUIT & PROVIDE NEW CONDUCTORS SHOWN IN EXISTING CONDUIT BACK TO EXISTING PANEL VIA EXISTING LIGHTING CONTROL PANEL "LCP-A1".

U6 EXISTING POLE BASE TO REMAIN. DEMOLISH EXISTING LIGHTING POLE & PROVIDE NEW LIGHTING POLE ON EXISTING BASE. CONNECT NEW FIXTURE TO EXISTING CIRCUIT. EXTEND EXISTING CONDUCTORS AS NECESSARY.

U7 DEMOLISH EXISTING BOLLARD & ASSOCIATED CONDUCTORS BACK TO NEXT DEVICE ON CIRCUIT.

U8 EXISTING BOLLARD TO REMAIN.

U9 PROVIDE 12"x2" WIRE BASKET CABLE TRAY ABOVE CEILING ALONG APPROXIMATE ROUTE SHOWN.

U10 PROVIDE (3) 4" EZ-PATHWAYS ABOVE CEILING TO ROUTE NEW CABLING BETWEEN EXISTING CABLE TRAY AND NEW CABLE TRAY.

U11 NEW POLE BASE. SEE POLE BASE DETAIL 2, THIS SHEET, FOR FURTHER INFORMATION.

U12 DEMOLISH EXISTING CONDUCTORS IN EXISTING CONDUIT AND PROVIDE NEW CONDUCTORS SHOWN IN EXISTING CONDUIT.

U13 LOCATE EXISTING CIRCUIT/CONDUITS & EXTEND INTO JUNCTION BOX. SEE JUNCTION BOX DETAIL 3, THIS SHEET, FOR FURTHER INFORMATION.

U14 ROUTE NEW FEEDER FROM PANEL "4A1" DOWN THROUGH FLOOR, THEN IN EXISTING ACCESSIBLE CEILING SPACE ALONG ROUTE SHOWN TO NEW PANEL "4A3" IN NEW LOFT. REMOVE AND REPLACE CEILING TILES/T-BAR AS NECESSARY FOR INSTALLATION OF CONDUIT.

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ELECTRICAL SITE PLAN

E1.00

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PEAK DEMAND CALCULATION WORKSHEET
NEC 220.87
Warm Springs K-8 School
1600A Main Distribution Switchboard

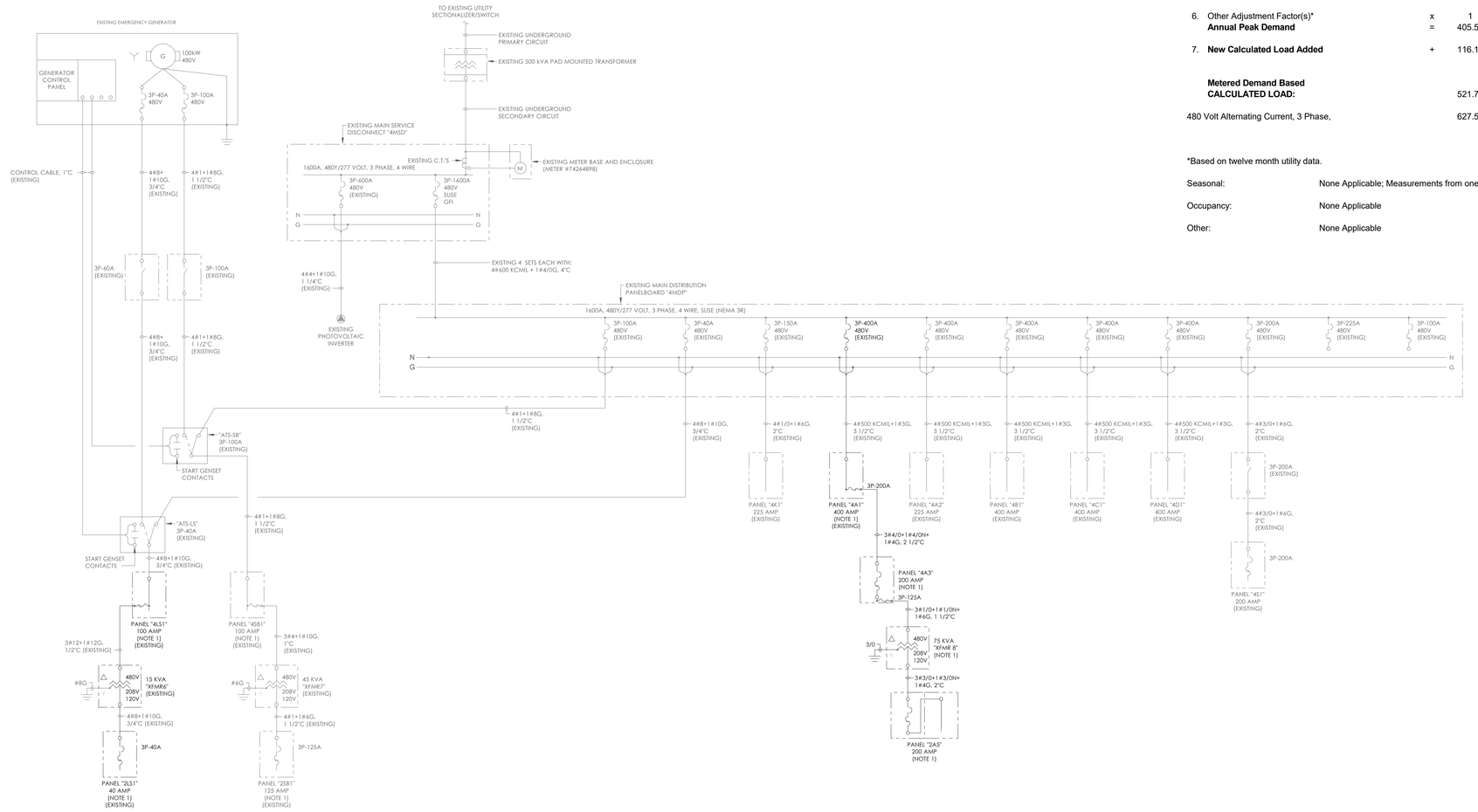
1.	**Recorded Peak Demand on Date:** 6/29/2021	=	292	KW
2.	Power Factor **Apparent Peak Demand**	÷ =	0.9 324.44	(P.F.) KVA
3.	NEC 220.87 Adjustment Factor **Adjusted Peak Demand**	x	1.25 405.56	KVA
4.	Seasonal Adjustment Factor* **Seasonally Adjusted Peak Demand**	x =	1 405.56	KVA
5.	Occupancy Adjustment Factor* **Occupancy Adjusted Peak Demand**	x =	1 405.56	KVA
6.	Other Adjustment Factor(s)* **Annual Peak Demand**	x =	1 405.56	KVA
7.	**New Calculated Load Added**	+	116.18	KVA
	Metered Demand Based CALCULATED LOAD:		521.74	KVA
480 Volt Alternating Current, 3 Phase,			627.57	AMPS

*Based on twelve month utility data.

Seasonal: None Applicable; Measurements from one Year peak Information

Occupancy: None Applicable

Other: None Applicable



1 / E1.10 **ONE-LINE DIAGRAM**
12" = 1'-0"

VOLTAGE DROP SCHEDULE						
	FEEDER		BRANCH CIRCUIT			TOTAL VOLTAGE DROP
DEVICE	VOLTAGE DROP	WIRE SIZE	MAX VOLTAGE DROP	CIRCUIT NUMBER	WIRE SIZE	
UTILITY TRANSFORMER	0.00%					0.00%
EXISTING PANEL '4MSD'	0.07%	(4)600kcmil				0.07%
EXISTING PANEL '4MDP'	0.13%	(4)600kcmil				0.13%
4A1 (REVISED)	1.64%	500kcmil	1.86%	33	#12	3.50%
4A3 (NEW)	1.94%	4/0	0.39%	2,4,6	#6	2.33%
'XFMR 8' (NEW)	2.77%	1/0				2.77%
2A5 (SECTION 1) (NEW)	2.88%	3/0	2.52%	27	#10	!!! 5.40% !!!
2A5 (SECTION 2) (NEW)	2.91%	3/0	1.45%	44,46	#10	4.37%
4LS1 (REVISED)	0.40%	#1	0.46%	4	#12	0.86%

FAULT CURRENT SCHEDULE								
				FEEDER		TRANSFORMER		
DEVICE	FAULT AT DEVICE	AIC RATING	VOLTAGE	SIZE	LENGTH	KVA	Z%	FAULT AT PRIMARY
UTILITY TRANSFORMER	31,037		12,000V			500	2.5	
EXISTING PANEL '4MSD'	31,037	42,000	480V	(4)600kcmil	27'			
EXISTING PANEL '4MDP'	30,315	42,000	480V	(4)600kcmil	20'			
4A1 (REVISED)	8,651	10,000	480V	500kcmil	493'			
4A3 (NEW)	6,658	10,000	480V	4/0	142'			
'XFMR 8' (NEW)	6,727	10,000	480V	1/0	21'	75	1.75	6,326
2A5 (SECTION 1) (NEW)	6,246	10,000	208V	3/0	20'			
2A5 (SECTION 2) (NEW)	5,976	10,000	208V	3/0	12'			
4LS1 (REVISED)	4,881	10,000	480V	#1	213'			

SHEET NOTES

1. SEE PANELBOARD CIRCUIT SHCEDULES SHEETS E1.40 THROUGH E1.42 FOR BRANCH CIRCUIT INFORMATION.

BBT ARCHITECTS
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Bend, Oregon 97702
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REGISTERED PROFESSIONAL ENGINEER
89738
OREGON
JANUARY 2, 2015
BRADLEY ROBERT BAILEY
EXPIRES: December 31st, 2023

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

ONE LINE DIAGRAM

E1.10

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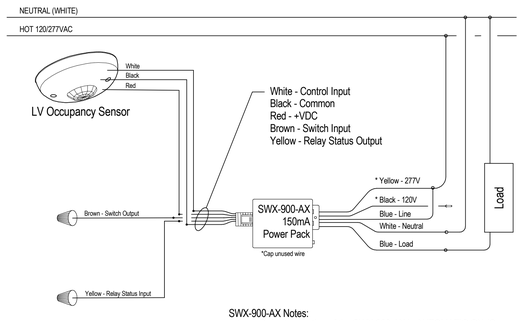
INTERIOR LUMINAIRES

Type Mark	Description	Manufacturer	Catalog Number	Lumens	Lamp Type	Ballast Type	Input Watts	Remarks
A1	LED, COMMERICAL, 1' X 4' RECTANGULAR RECESSED, NEMA G, 20GA ROLLED STEEL HOUSING, SINGLE PIECE EXTRUDED SATINE LENS, 277 VOLT, 5 YEAR WARRANTY	COOPER METALUX	14RDI-18-UNV-L840-CD1-U	1831	LED 3500K	0-10V DIMMING LED	17.4	FIXTURES WITH 'EM' DESIGNATION ARE BATTERY BACKED
A1F	LED, COMMERICAL, 1' X 4' RECTANGULAR RECESSED, NEMA G, 20GA ROLLED STEEL HOUSING, SINGLE PIECE EXTRUDED SATINE LENS, 277 VOLT, 5 YEAR WARRANTY, FIELD INSTALLED FLANGE KIT	COOPER METALUX	14RDI-18-UNV-L840-CD1-U (DF-14W-U)	1831	LED 3500K	0-10V DIMMING LED	17.4	FIXTURES WITH 'EM' DESIGNATION ARE BATTERY BACKED
A2	LED, COMMERICAL, 2' X 4' RECTANGULAR RECESSED, NEMA G, 20GA ROLLED STEEL HOUSING, SINGLE PIECE EXTRUDED SATINE LENS, 277 VOLT, 5 YEAR WARRANTY	COOPER METALUX	24RDI-30-UNV-L840-CD1-U	3132	LED 3500K	0-10V DIMMING LED	28.7	FIXTURES WITH 'EM' DESIGNATION ARE BATTERY BACKED
A3	LED, COMMERICAL, 2' X 2' RECTANGULAR RECESSED, NEMA G, 20GA ROLLED STEEL HOUSING, SINGLE PIECE EXTRUDED SATINE LENS, 277 VOLT, 5 YEAR WARRANTY	COOPER METALUX	22RDI-20-UNV-L840-CD1-U	2026	LED 3500K	0-10V DIMMING LED	19.9	FIXTURES WITH 'EM' DESIGNATION ARE BATTERY BACKED
B1*	LED, COMMERCIAL, 3" X 4' SURFACE MOUNT / PENDANT CABLE SUSPENDED, FROSTED LINEAR LENS, 10% UPLIGHT, STEEL HOUSING, BAKED WHITE ACRYLIC MATTE, 277 VOLT, 5 YEAR WARRANTY, WITHOUT INTEGRAL SENSORS	METALUX	4SRL-LD5-34SL-LW-UNV-L835-CD1-U CCA-48-PFS-U CCA-48-NPF	3459	LED 3500K	LED DRIVER	26.9	FIXTURES WITH 'EM' DESIGNATION ARE BATTERY BACKED
E1	LED, COMMERCIAL, RECESSED, 6" ROUND DOWNLIGHT, CLEAR SEMI-SPECULAR REFLECTOR, MEDIUM SPREAD, SELF FLANGED POLISHED, 277 VOLTS, 5 YEAR WARRANTY	COOPER HALO	HC615D010-HM60525835 61MDH	1500	LED 3500K	0-10V DIMMING LED DRIVER	14.5	FIXTURES WITH 'EM' DESIGNATION ARE BATTERY BACKED
L12	LED, COMMERCIAL, PENDANT, 12" GLOBE, 277 VOLTS, 5 YEAR WARRANTY, CUSTOM STEM LENGTH	LURALINE	712STEMX-TL10-WH-DIM010	1790	3000	0-10V DIMMING LED DRIVER	9.62	PROVIDE CUSTOM STEM LENGTH PER MOUNTING HEIGHT AS SHOWN ON DRAWINGS
L14	LED, COMMERCIAL, PENDANT, 14" GLOBE, 277 VOLTS, 5 YEAR WARRANTY, CUSTOM STEM LENGTH	LURALINE	714STEMX-TL10-WH-DIM010	1790	3000	0-10V DIMMING LED DRIVER	9.62	PROVIDE CUSTOM STEM LENGTH PER MOUNTING HEIGHT AS SHOWN ON DRAWINGS
L16	LED, COMMERCIAL, PENDANT, 16" GLOBE, 277 VOLTS, 5 YEAR WARRANTY, CUSTOM STEM LENGTH	LURALINE	716STEMX-TL10-WH-DIM010	1790	3000	0-10V DIMMING LED DRIVER	9.62	PROVIDE CUSTOM STEM LENGTH PER MOUNTING HEIGHT AS SHOWN ON DRAWINGS
EXIT (X1)	LED EXIT SIGN, DIE-CAST ALUMINUM HOUSING, BACK LIT FACE, GREEN LETTERS, BRUSHED ALUMINUM FINISH, CONTRACTOR TO DETERMINE MOUNTING OPTIONS, SINGLE OR DUAL FACE BASED ON PLANS UNIVERSAL ARROW OPTION , 277 VOLT, 5 YEAR WARRANTY	COOPER SURE-LITES	CX6(X)G	-	LED GREEN	LED DRIVER	1.12	SEE ARCHITECTURAL/ELECTRICAL PLANS FOR CORRECT MOUNTING AND TYPE. (RECESSED CEILING, WALL END, 1 OR 2 FACE, AND CHEVRONS) INDICATE EACH TYPE IN SUBMITTAL DRAWINGS. FIXTURES ARE CONNECTED TO AN INVERTER/GENERATOR

EXTERIOR LUMINAIRES

Type Mark	Description	Manufacturer	Catalog Number	Lumens	Lamp Type	Ballast Type	Input Watts	Remarks
AA	LED, OUTDOOR AREA LIGHT, TYPE III DISTRIBUTION, DIECAST ALUMINUN HOUSING WITH INTEGRAL THERMAL MANAGEMENT AND DIMMING, DOUBLE ARM MOUNT (2 @ 180), 277 VOLT, PROVIDE 20' SQUARE STRAIGHT 4" ALUMINUM POLE .188" WITH BOLT COVER., DARK BRONZE PAINT, WET LISTED, 5 YEAR WARRANTY	LUMINAIRE - McGRAW EDISON POLE - COOPER	LUMINAIRE - GALN-SA1B-730-U-SL3-BZ-SPB2 POLE - SSS4M20SF(X)2X	10,394	LED 3000K	LED INTEGRAL DRIVER	88	SEE PLANS FOR FIXTURE LOCATION AND ORIENTATION. (X = COORDINATE BOLT PATTERN WITH EXISTING POLE BASE)
BB	LED, OUTDOOR AREA LIGHT, TYPE III DISTRIBUTION, DIECAST ALUMINUN HOUSING WITH INTEGRAL THERMAL MANAGEMENT AND DIMMING, ARM MOUNT, 277 VOLT. PROVIDE 20' SQUARE STRAIGHT 4" ALUMINUM POLE .188" WITH BOLT COVER., DARK BRONZE PAINT, WET LISTED, 5 YEAR WARRANTY	LUMINAIRE - McGRAW EDISON POLE - COOPER	LUMINAIRE - GALN-SA1B-730-U-SL3-BZ-SPB2 POLE - SSS4M20SF(X)1X	5,197	LED 3000K	LED INTEGRAL DRIVER	44	SEE PLANS FOR FIXTURE LOCATION AND ORIENTATION. (X = COORDINATE BOLT PATTERN WITH EXISTING POLE BASE)
CC	LED, OUTDOOR AREA LIGHT, TYPE IV DISTRIBUTION, DIECAST ALUMINUN HOUSING WITH INTEGRAL THERMAL MANAGEMENT AND DIMMING, ARM MOUNT, 277 VOLT. PROVIDE 20' SQUARE STRAIGHT 4" ALUMINUM POLE .188" WITH BOLT COVER., DARK BRONZE PAINT, WET LISTED, 5 YEAR WARRANTY	LUMINAIRE - McGRAW EDISON POLE - COOPER	LUMINAIRE - GALN-SA1B-730-U-SL4-BZ-SPB2 POLE - SSS4M20SF(X)1X	5,133	LED 3000K	LED INTEGRAL DRIVER	44	SEE PLANS FOR FIXTURE LOCATION AND ORIENTATION. (X = COORDINATE BOLT PATTERN WITH POLE BASE)
DD	LED, OUTDOOR AREA LIGHT, TYPE V DISTRIBUTION, DIECAST ALUMINUN HOUSING WITH INTEGRAL THERMAL MANAGEMENT AND DIMMING, ARM MOUNT, 277 VOLT. PROVIDE 20' SQUARE STRAIGHT 4" ALUMINUM POLE .188" WITH BOLT COVER., DARK BRONZE PAINT, WET LISTED, 5 YEAR WARRANTY	LUMINAIRE - McGRAW EDISON POLE - COOPER	LUMINAIRE - GALN-SA1B-730-U-5MQ-BZ-SPB2 POLE - SSS4M20SF(X)1X	5,500	LED 3000K	LED INTEGRAL DRIVER	44	SEE PLANS FOR FIXTURE LOCATION AND ORIENTATION. (X = COORDINATE BOLT PATTERN WITH POLE BASE)
EE	LED, COMMERCIAL, RECESSED, 6" ROUND DOWNLIGHT, CLEAR SEMI-SPECULAR REFLECTOR, MEDIUM SPREAD, SELF FLANGED POLISHED, 277 VOLTS, WET LISTED, 5 YEAR WARRANTY	COOPER HALO	HC615D010-HM60525835 61MDH	1500	LED 3500K	0-10V DIMMING LED DRIVER	14.5	FIXTURES WITH 'EM' DESIGNATION ARE BATTERY BACKED

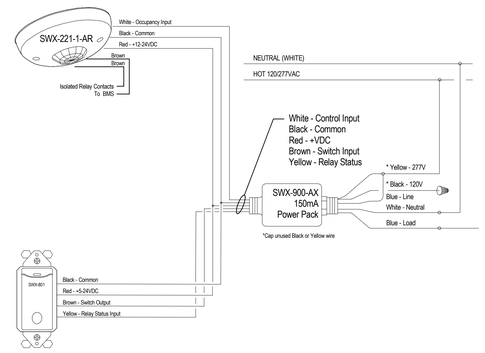
*FOR EACH PENDANT TYPE FIXTURE, SEE PLANS FOR MOUNTING HEIGHTS. CONTRACTOR RESPONSIBLE FOR DETERMINING CABLE LENGTHS.



SWX-900-AX Notes:

1. Default operation of the SWX-900-AX is AUTOMATIC ON (Occupancy) operation. For proper vacancy or partial-on operation, the SWX-900-AX's operational mode needs to be configured for MANUAL ON (VACANCY).
2. Additional SWX-801 switches can be wired in parallel to achieve 3-way (or more) operation.
3. For momentary switches, the power pack will reat on the leading edge of a pulse on the brown input wire.
4. For maintained switches, andy change of state on the brown wire that lasts longer than 0.5 seconds will be sread by the power pack as one action.

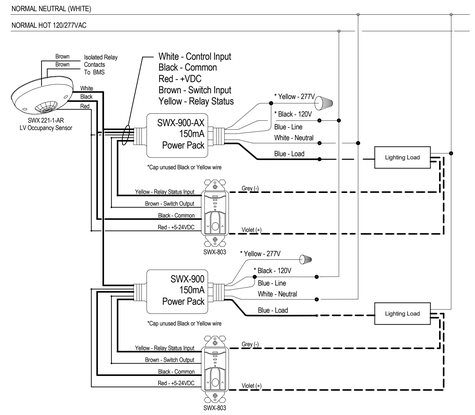
DETAIL 1/E1.20
POWER PACK W/ AUX RELAY - SWX-900-AX
SCALE: NONE



MANUAL ON Notes:

1. Default operation of the SWX-900-AX is AUTOMATIC ON (Occupancy) operation. For proper vacancy or partial-on operation, the SWX-900-AX's operational mode needs to be configured for MANUAL ON (VACANCY).
2. Additional SWX-801 switches can be wired in parallel to achieve 3-way (or more) operation.

DETAIL 2/E1.20
AREA WITH (1)SWX-900-AX, (1)SWX-801, (1)SWX-221-1-AR
SCALE: NONE



DETAIL 3/E1.20
AREA WITH (2)SWX-900-AX, (2)SWX-803, (1)SWX-222-1-AR
SCALE: NONE

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REGISTERED PROFESSIONAL ENGINEER
89738
OREGON
MAR. 2, 2010
BRADLEY ROBERT BALLET
EXPIRES: December 31st, 2023

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

LIGHTING FIXTURE SCHEDULE AND DETAILS

E1.20

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Switchboard: EXISTING PANEL '4MSD'

Location:
Supply From: UTILITY TRANSFORMER
Mounting:
Enclosure:

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 42,000
Mains Type: MCB
Mains Rating: 1,600
MCB Rating: 1600

Notes:

CKT	Load Name	# Poles	Trip	Load	Comments
1	EXISTING PANEL '4MDP'	3	1600 A	1086766 VA	
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
				1086766 VA	
				1307.18 A	

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	104059 VA	100.00%	104059 VA		
Lighting	28771 VA	125.00%	35963 VA	**Total Conn. Load:**	1086766 VA
Motor	491950 VA	108.44%	533478 VA	**Total Est. Demand:**	1069176 VA
Receptacle	60362 VA	58.28%	35181 VA	**Total Conn.:**	1307.18 A
Misc Non- Continuous	284112 VA	100.00%	284112 VA	**Total Est. Demand:**	1286.02 A
Kitchen	117512 VA	65.00%	76383 VA		

Notes:

Switchboard: EXISTING PANEL '4MDP'

Location: ELECT (E)D109
Supply From: EXISTING PANEL '4MSD'
Mounting:
Enclosure:

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 42,000
Mains Type: MCB
Mains Rating: 1,600
MCB Rating: 1600

Notes:

CKT	Load Name	# Poles	Trip	Load	Comments
1	EXISTING 'ATS-SB'	3	100 A	54921 VA	
2	EXISTING 'ATS-LS'	3	40 A	9754 VA	
3	EXISTING PANEL '4K1'	3	150 A	123387 VA	
4	PANEL '4A1' (REVISED)	3	400 A	265488 VA	
5	EXISTING PANEL '4A2'	3	400 A	178930 VA	
6	EXISTING PANEL '4B1'	3	400 A	113342 VA	
7	EXISTING PANEL '4C1'	3	400 A	123962 VA	
8	EXISTING PANEL '4D1'	3	400 A	172352 VA	
9	EXISTING PANEL '4S1'	3	200 A	44631 VA	
10	Spare	3	225 A	0 VA	
11	Spare	3	100 A	0 VA	
12					
13					
14					
15					
16					
17					
18					
19					
20					
				1086766 VA	
				1307.18 A	

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	104059 VA	100.00%	104059 VA		
Lighting	28771 VA	125.00%	35963 VA	**Total Conn. Load:**	1086766 VA
Motor	491950 VA	108.44%	533478 VA	**Total Est. Demand:**	1069176 VA
Receptacle	60362 VA	58.28%	35181 VA	**Total Conn.:**	1307.18 A
Misc Non- Continuous	284112 VA	100.00%	284112 VA	**Total Est. Demand:**	1286.02 A
Kitchen	117512 VA	65.00%	76383 VA		

Notes:

Branch Panel: 4A1 (EXISITING)

Location:
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000
Mains Type: MLO
Mains Rating: 400
MCB Rating: MLO

CKT	Demand Type	Circuit Description	Trip	P	A	B	C	P	Trip	Circuit Description	Demand Type	CKT
1					5623 VA / 5623 VA							2
3	Motor	HP-3A	25 A	3		5623 VA / 5623 VA		3	25 A	HP-4A	Motor	4
5							5623 VA / 5623 VA					6
7					5678 VA / 5678 VA							8
9	Motor	HP-3B	30 A	3		5678 VA / 5678 VA		3	30 A	HP-4B	Motor	10
11							5678 VA / 5678 VA					12
13					5678 VA / 5678 VA							14
15	Motor	HP-3C	30 A	3		5678 VA / 5678 VA		3	30 A	HP-4C	Motor	16
17							5678 VA / 5678 VA					18
19					3656 VA / 2688 VA			1	20 A	CLASSROOM	Lighting	20
21	Motor	HRU-2	30 A	3		3656 VA / 2688 VA		1	20 A	CLASSROOM	Lighting	22
23							3656 VA / 2688 VA	1	20 A	CLASSROOM	Lighting	24
25	Lighting	BOLLARDS	20 A	1	216 VA / 1253 VA			1	20 A	CORRIDOR/ACTIVITY	Lighting	26
27	Lighting	FLAG	20 A	1		220 VA / 120 VA		1	20 A	SIGN	Lighting	28
29	Lighting	COURTYARD	20 A	1			470 VA / 273 VA	2	20 A	ENTRY DRIVE (NOTE 1)	Lighting	30
31	--	Space	--	1	0 VA / 273 VA							32
33	--	Space	--	1		0 VA / 382 VA		2	20 A	PARKING	Lighting	34
35	--	Space	--	1			0 VA / 382 VA					36
37	--	Space	--	1	0 VA / 4244 VA							38
39	--	Space	--	1		0 VA / 3943 VA		3	90 A	XFMR 1 (EXISTING)	HVAC; Receptacle	40
41	--	Space	--	1			0 VA / 3673 VA					42
				Total Load :	46288 VA	44967 VA	45100 VA					
				Total Amps Per Phase :	167.18 A	162.34 A	162.89 A					
				Total Amps :	164.01 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	11320 VA	100.00%	11320 VA		
Lighting	11653 VA	125.00%	14566 VA	**Total Conn. Load:**	136355 VA
Motor	112842 VA	103.77%	117101 VA	**Total Est. Demand:**	143527 VA
Receptacle	540 VA	100.00%	540 VA	**Total Conn.:**	164.01 A
				Total Est. Demand:	172.64 A

Notes:
1. DEMOLISH EXISTING BREAKER & REPLACE WITH NEW BREAKERS.

Branch Panel: 4A1 (REVISED)

Location:
Supply From: EXISTING PANEL '4MDP'
Mounting: Surface
Enclosure: Type 1

Volts: 480/277 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000
Mains Type: MLO
Mains Rating: 400
MCB Rating: MLO

CKT	Demand Type	Circuit Description	Trip	P	A	B	C	P	Trip	Circuit Description	Demand Type	CKT
1					5623 VA / 5623 VA							2
3	Motor	HP-3A	25 A	3		5623 VA / 5623 VA		3	25 A	HP-4A	Motor	4
5							5623 VA / 5623 VA					6
7					5678 VA / 5678 VA							8
9	Motor	HP-3B	30 A	3		5678 VA / 5678 VA		3	30 A	HP-4B	Motor	10
11							5678 VA / 5678 VA					12
13					5678 VA / 5678 VA							14
15	Motor	HP-3C	30 A	3		5678 VA / 5678 VA		3	30 A	HP-4C	Motor	16
17							5678 VA / 5678 VA					18
19					3656 VA / 2688 VA			1	20 A	CLASSROOM	Lighting	20
21	Motor	HRU-2	30 A	3		3656 VA / 2688 VA		1	20 A	CLASSROOM	Lighting	22
23							3656 VA / 2688 VA	1	20 A	CLASSROOM	Lighting	24
25	Lighting	BOLLARDS, Lighting	20 A	1	125 VA / 1682 VA			1	20 A	CORRIDOR/ACTIVITY, Lighting, Room 7, 11, 14	Lighting	26
27	Lighting	FLAG	20 A	1		220 VA / 120 VA		1	20 A	SIGN	Lighting	28
29	Lighting	Lighting, MECH YARD 15	20 A	1			172 VA / 484 VA	1	20 A	Site Lighting (NOTE 1)	Lighting	30
31	--	Space	--	1	0 VA / 0 VA			1	20 A	Spare (NOTE 1)	--	32
33	Lighting	Lighting (NOTE 1), Room 1, 2, 3, 4	20 A	1		1696 VA / 382 VA		2	20 A	PARKING	Lighting	34
35	Lighting	Lighting (NOTE 1), Room 5, 6, 8, 9, 12, 13, 16	20 A	1			1167 VA / 382 VA					36
37	HVAC; Receptacle; Misc Non-Continuous	PANEL '4A3' (NEW) (NOTE 1)	200 A	3	30020 VA / 18344 VA							38
39						27104 VA / 18043 VA		3	90 A	EXISTING 'XFMR1'	HVAC; Receptacle; Spare; Misc Non-Continuous	40
41							26868 VA / 17773 VA					42
				Total Load :	90472 VA	87867 VA	87149 VA					
				Total Amps Per Phase :	327.01 A	317.61 A	314.62 A					
				Total Amps :	319.33 A							

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	69559 VA	100.00%	69559 VA		
Lighting	14494 VA	125.00%	18118 VA	**Total Conn. Load:**	265488 VA
Misc Non- Continuous	35022 VA	100.00%	35022 VA	**Total Est. Demand:**	261585 VA
Motor	112842 VA	103.77%	117101 VA	**Total Conn.:**	319.33 A
Receptacle	33570 VA	64.89%	21785 VA	**Total Est. Demand:**	314.64 A

Notes:
1. PROVIDE NEW BREAKER

4MSD
4MDP
4A1

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t 541.382.5535 | f 541.389.8033

REGISTERED PROFESSIONAL ENGINEER
89738
OREGON
JANUARY 2, 2015
BRADLEY ROBERT BALLEY
EXPIRES: December 31st, 2023

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

PANEL SCHEDULES

E1.40

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Branch Panel: 4A3 (NEW)

Location:	MECH LOFT 16			**Volts:**	480/277 Wye			**A.I.C. Rating:**	10,000			
Supply From:	4A1 (REVISED)			**Phases:**	3			**Mains Type:**	MCB			
Mounting:	Surface			**Wires:**	4			**Mains Rating:**	200			
Enclosure:	Type 1							**MCB Rating:**	200			

CKT	Demand Type	Circuit Description	Trip	P	A	B	C	P	Trip	Circuit Description	Demand Type	CKT
1					0 VA / 11473 VA							2
3						0 VA / 11473 VA		3	50 A	HP-7, MECH YARD 15	HVAC	4
5							0 VA / 11473 VA					6
7					0 VA / 3326 VA							8
9						0 VA / 3326 VA		3	20 A	HRU-6, MECH LOFT 16	HVAC	10
11							0 VA / 3326 VA					12
13					0 VA / 0 VA			1	--	Space	--	14
15						0 VA / 0 VA		1	--	Space	--	16
17							0 VA / 0 VA	1	--	Space	--	18
19					0 VA / 0 VA			1	--	Space	--	20
21						0 VA / 0 VA		1	--	Space	--	22
23							0 VA / 0 VA	1	--	Space	--	24
25					0 VA / 0 VA			1	--	Space	--	26
27						0 VA / 0 VA		1	--	Space	--	28
29							0 VA / 0 VA	1	--	Space	--	30
31					0 VA / 0 VA			1	--	Space	--	32
33						0 VA / 0 VA		1	--	Space	--	34
35							0 VA / 0 VA	1	--	Space	--	36
37					0 VA / 15221 VA							38
39						0 VA / 12305 VA		3	125 A	'XFMR 8' (NEW)	HVAC; Receptacle; Misc Non-Continuous	40
41							0 VA / 12070 VA					42
		Total Load :			30020 VA	27104 VA	26868 VA					
		Total Amps Per Phase :			108.5 A	97.98 A	97 A					
		Total Amps :				101.03 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	58239 VA	100.00%	58239 VA		
Misc Non- Continuous	4422 VA	100.00%	4422 VA	**Total Conn. Load:**	83992 VA
Receptacle	21330 VA	73.44%	15665 VA	**Total Est. Demand:**	78327 VA
				Total Conn.:	101.03 A
				Total Est. Demand:	94.21 A

Notes:

Branch Panel: 2A5 (SECTION 1) (NEW)

Location:	MECH LOFT 16			**Volts:**	120/208 Wye			**A.I.C. Rating:**	10,000			
Supply From:	'XFMR 8' (NEW)			**Phases:**	3			**Mains Type:**	MCB			
Mounting:	Surface			**Wires:**	4			**Mains Rating:**	200			
Enclosure:	Type 1							**MCB Rating:**	200			

CKT	Demand Type	Circuit Description	Trip	P	A	B	C	P	Trip	Circuit Description	Demand Type	CKT
1	Receptacle	Receptacle, CLASSROOM 1	20 A	1	900 VA / 900 VA			1	20 A	Receptacle, CLASSROOM 6	Receptacle	2
3	Receptacle	Receptacle, CLASSROOM 1	20 A	1		900 VA / 900 VA		1	20 A	Receptacle, CLASSROOM 6	Receptacle	4
5	Receptacle	Receptacle, CLASSROOM 1	20 A	1			735 VA / 735 VA	1	20 A	Receptacle, CLASSROOM 6	Receptacle	6
7	Receptacle	Receptacle, CLASSROOM 1	20 A	1	360 VA / 360 VA			1	20 A	Receptacle, CLASSROOM 6	Receptacle	8
9	Receptacle	Receptacle, CLASSROOM 2	20 A	1		900 VA / 900 VA		1	20 A	Receptacle, CLASSROOM 5	Receptacle	10
11	Receptacle	Receptacle, CLASSROOM 2	20 A	1			900 VA / 900 VA	1	20 A	Receptacle, CLASSROOM 5	Receptacle	12
13	Receptacle	Receptacle, CLASSROOM 2	20 A	1	735 VA / 735 VA			1	20 A	Receptacle, CLASSROOM 5	Receptacle	14
15	Receptacle	Receptacle, CLASSROOM 2	20 A	1		360 VA / 360 VA		1	20 A	Receptacle, CLASSROOM 5	Receptacle	16
17	Receptacle	Receptacle, CLASSROOM 3	20 A	1			900 VA / 900 VA	1	20 A	Receptacle, Room 7, 10, 11	Receptacle	18
19	Receptacle	Receptacle, CLASSROOM 3	20 A	1	900 VA / 540 VA			1	20 A	Receptacle, Room 8, 12, 13	Receptacle	20
21	Receptacle	Receptacle, CLASSROOM 3	20 A	1		735 VA / 540 VA		1	20 A	Receptacle, MECH LOFT 16	Receptacle	22
23	Receptacle	Receptacle, CLASSROOM 3	20 A	1			360 VA / 540 VA	1	20 A	Receptacle, MECH YARD 15	Receptacle	24
25	Receptacle	Receptacle, CLASSROOM 4	20 A	1	900 VA / 720 VA			1	20 A	Receptacle, IDF 9	Receptacle	26
27	Receptacle	Receptacle, CLASSROOM 4	20 A	1		900 VA / 720 VA		1	20 A	Receptacle, IDF 9	Receptacle	28
29	Receptacle	Receptacle, CLASSROOM 4	20 A	1			735 VA / 2000 VA	2	30 A	PDU-1, PDU-2, IDF 9	Misc Non-Continuous	30
31	Receptacle	Receptacle, CLASSROOM 4	20 A	1	360 VA / 2000 VA							32
33	--	Space	--	1		0 VA / 0 VA		1	--	Space	--	34
35	--	Space	--	1			0 VA / 0 VA	1	--	Space	--	36
37	--	Space	--	1	0 VA / 0 VA			1	--	Space	--	38
39	--	Space	--	1		0 VA / 0 VA		1	--	Space	--	40
41	--	Space	--	1			0 VA / 0 VA	1	--	Space	--	42
		Total Load of Section 1 :			9410 VA	7215 VA	8705 VA					
		Total Load :			15221 VA	12305 VA	12070 VA					
		Total Amps Per Phase :			127.14 A	102.84 A	100.58 A					
		Total Amps :				109.91 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	13843 VA	100.00%	13843 VA		
Misc Non- Continuous	4422 VA	100.00%	4422 VA	**Total Conn. Load:**	39596 VA
Receptacle	21330 VA	73.44%	15665 VA	**Total Est. Demand:**	33931 VA
				Total Conn.:	109.91 A
				Total Est. Demand:	94.18 A

Notes:

Branch Panel: 4LS1 (EXISITING)

Location:				**Volts:**	480/277 Wye			**A.I.C. Rating:**				
Supply From:				**Phases:**	3			**Mains Type:**	MLO			
Mounting:	Surface			**Wires:**	4			**Mains Rating:**	100			
Enclosure:	Type 1							**MCB Rating:**	MLO			

CKT	Demand Type	Circuit Description	Trip	P	A	B	C	P	Trip	Circuit Description	Demand Type	CKT
1	Lighting	SECTOR A	20 A	1	1232 VA / 1249 VA			1	20 A	MULTILOCKER	Lighting	2
3	Lighting	SECTOR A	20 A	1		1294 VA / 1772 VA		1	20 A	GYM/KITCHEN	Lighting	4
5	Lighting	SECTOR C	20 A	1			1232 VA / 728 VA	1	20 A	HALL/RECEPTION	Lighting	6
7	--	Space	--	1	0 VA / 674 VA			1	20 A	HALL/MEDIA	Lighting	8
9	--	Space	--	1		0 VA / 574 VA		1	20 A	HALL/COMMONS	Lighting	10
11	--	Space	--	1			0 VA / 76 VA	1	20 A	COURTYARD	Lighting	12
13	--	Space	--	1	0 VA / 76 VA			1	20 A	COURTYARD	Lighting	14
15	--	Space	--	1		0 VA / 202 VA		1	20 A	GYM ENTRY	Lighting	16
17	--	Space	--	1			0 VA / 104 VA	1	20 A	COURTYARD	Lighting	18
19	--	Space	--	1	0 VA / 250 VA			1	20 A	ENTRY	Lighting	20
21	--	Space	--	1		0 VA / 0 VA		1	--	Space	--	22
23	--	Space	--	1			0 VA / 0 VA	1	--	Space	--	24
25	--	Space	--	1	0 VA / 0 VA			1	--	Space	--	26
27	--	Space	--	1		0 VA / 0 VA		1	--	Space	--	28
29	--	Space	--	1			0 VA / 0 VA	1	--	Space	--	30
31	--	Space	--	1	0 VA / 0 VA			1	--	Space	--	32
33	--	Space	--	1		0 VA / 0 VA		1	--	Space	--	34
35	--	Space	--	1			0 VA / 0 VA	1	--	Space	--	36
37	--	Space	--	1	0 VA / 2000 VA							38
39	--	Space	--	1		0 VA / 2000 VA		3	20 A	TRANSFROMER "XFMR8"	Misc Non-Continuous	40
41	--	Space	--	1			0 VA / 2000 VA					42
		Total Load :			5481 VA	5842 VA	4140 VA					
		Total Amps Per Phase :			20.53 A	21.84 A	14.95 A					
		Total Amps :				18.6 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	9463 VA	125.00%	11829 VA		
Misc Non- Continuous	6000 VA	100.00%	6000 VA	**Total Conn. Load:**	15463 VA
				Total Est. Demand:	17829 VA
				Total Conn.:	18.6 A
				Total Est. Demand:	21.44 A

Notes:

Branch Panel: 2A5 (SECTION 2) (NEW)

Location:	MECH LOFT 16			**Volts:**	120/208 Wye			**A.I.C. Rating:**	10,000			
Supply From:	2A5 (SECTION 1) (NEW)			**Phases:**	3			**Mains Type:**	MLO			
Mounting:	Surface			**Wires:**	4			**Mains Rating:**	200			
Enclosure:	Type 1							**MCB Rating:**	MLO			

CKT	Demand Type	Circuit Description	Trip	P	A	B	C	P	Trip	Circuit Description	Demand Type	CKT
43	HVAC	BS-1, BS-2, FC-7.4, FC-7.5, FC-7.7, FC-7.8, FC-7.9, Room 10, 11, 16	15 A	2	532 VA / 1976 VA			2	30 A	OAC-3, MECH YARD 15	HVAC	44
45						532 VA / 1976 VA						46
47	HVAC	FC-7.1, MECH LOFT 16	15 A	2			541 VA / 1500 VA	2	20 A	EH-1, HALLWAY 14	HVAC	48
49					541 VA / 1500 VA							50
51	HVAC	FC-7.2, MECH LOFT 16	15 A	2		541 VA / 1500 VA		1	20 A	EH-2, TOILET 13	HVAC	52
53							541 VA / 242 VA	1	20 A	DWH-1, PP-1, MECH LOFT 16	Misc Non-Continuous	54
55	HVAC	FC-7.3, MECH LOFT 16	15 A	2	541 VA / 180 VA			1	20 A	CP-1, MECH LOFT 16	Misc Non-Continuous	56
57						541 VA / 0 VA						58
59	HVAC	FC-7.6, MECH LOFT 16	15 A	2			541 VA / 0 VA					60
61					541 VA / 0 VA							62
63												64
65												66
67												68
69												70
71												72
73												74
75												76
77												78
79												80
81												82
83												84
		Total Load :			5811 VA	5090 VA	3365 VA					
		Total Amps Per Phase :			50.64 A	44.63 A	28.04 A					
		Total Amps :				39.6 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
HVAC	13843 VA	100.00%	13843 VA		
Misc Non- Continuous	422 VA	100.00%	422 VA	**Total Conn. Load:**	14266 VA
				Total Est. Demand:	14266 VA
				Total Conn.:	39.6 A
				Total Est. Demand:	39.6 A

Notes:

Branch Panel: 4LS1 (REVISED)

Location:				**Volts:**	480/277 Wye			**A.I.C. Rating:**	10,000			
Supply From:	EXISTING 'ATS-LS'			**Phases:**	3			**Mains Type:**	MLO			
Mounting:	Surface			**Wires:**	4			**Mains Rating:**	100			
Enclosure:	Type 1							**MCB Rating:**	MLO			

CKT	Demand Type	Circuit Description	Trip	P	A	B	C	P	Trip	Circuit Description	Demand Type	CKT
1	Lighting	Lighting, SECTOR A, Room 7, 11, 14	20 A	1	1515 VA / 1249 VA			1	20 A	MULTILOCKER	Lighting	2
3	Lighting	SECTOR A	20 A	1		1294 VA / 1772 VA		1	20 A	GYM/KITCHEN	Lighting	4
5	Lighting	SECTOR C	20 A	1			1232 VA / 728 VA	1	20 A	HALL/RECEPTION	Lighting	6
7	--	Space	--	1	0 VA / 674 VA			1	20 A	HALL/MEDIA	Lighting	8
9	--	Space	--	1		0 VA / 574 VA		1	20 A	HALL/COMMONS	Lighting	10
11	--	Space	--	1			0 VA / 84 VA	1	20 A	Lighting	Lighting	12
13	--	Space	--	1	0 VA / 76 VA			1	20 A	COURTYARD	Lighting	14
15	--	Space	--	1		0 VA / 202 VA		1	20 A	GYM ENTRY	Lighting	16
17	--	Space	--	1			0 VA / 104 VA	1	20 A	COURTYARD	Lighting	18
19	--	Space	--	1	0 VA / 250 VA			1	20 A	ENTRY	Lighting	20
21	--	Space	--	1		0 VA / 0 VA		1	--	Space	--	22
23	--	Space	--	1			0 VA / 0 VA	1	--	Space	--	24
25	--	Space	--	1	0 VA / 0 VA			1	--	Space	--	26
27	--	Space	--	1		0 VA / 0 VA		1	--	Space	--	28
29	--	Space	--	1			0 VA / 0 VA	1	--	Space	--	30
31	--	Space	--	1	0 VA / 0 VA			1	--	Space	--	32
33	--	Space	--	1		0 VA / 0 VA		1	--	Space	--	34
35	--	Space	--	1			0 VA / 0 VA	1	--	Space	--	36
37	--	Space	--	1	0 VA / 0 VA							38
39	--	Space	--	1		0 VA / 0 VA		3	25 A	EXISTING 'XFMR8'	Other	40
41	--	Space	--	1			0 VA / 0 VA					42
		Total Load :			3764 VA	3842 VA	2148 VA					
		Total Amps Per Phase :			14.49 A	14.77 A	7.75 A					
		Total Amps :				11.73 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Lighting	9754 VA	125.00%	12192 VA		
				Total Conn. Load:	9754 VA
				Total Est. Demand:	12192 VA
				Total Conn.:	11.73 A
				Total Est. Demand:	14.66 A

Notes:

4A3
2A1
4LS1

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REGISTERED PROFESSIONAL ENGINEER
89738
OREGON
JANUARY 2, 2015
BRADLEY ROBERT BAILEY
EXPIRES: December 31st, 2023

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

PANEL SCHEDULES

E1.41

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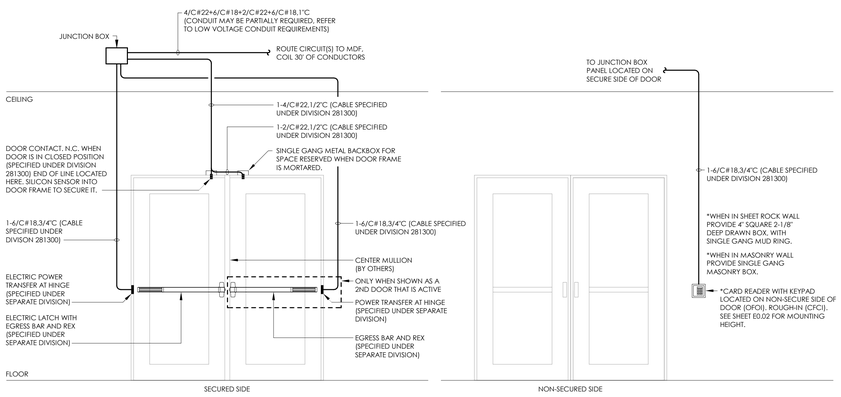
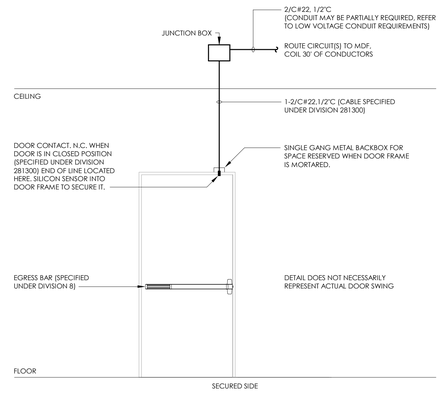


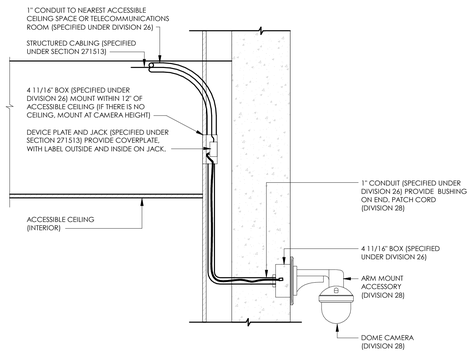
DETAIL 1/E1.51
DOUBLE DOOR, CARD ACCESS, WITH ELECTRONIC PANIC HARDWARE, AND INTERNAL REX

SCALE: NONE



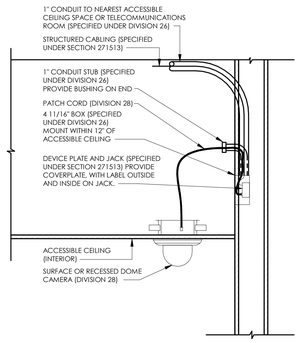
DETAIL 2/E1.51
SINGLE DOOR WITH DOOR CONTACTS ONLY

SCALE: NONE



DETAIL 3/E1.51
EXTERIOR SURFACE WALL MOUNTED CAMERA WITH ARM

SCALE: NONE



DETAIL 4/E1.51
INTERIOR RECESSED CEILING MOUNTED CAMERA

SCALE: NONE

GENERAL NOTES

A. SEE 5 SERIES SHEETS FOR DEVICE LOCATIONS.

B. SEE SHEET E0.02 FOR DEVICE GROUPING WITH ELECTRICAL AND MOUNTING HEIGHTS. VERIFY EACH DEVICE LOCATION WITH THE REFLECTED CEILING PLAN, AND ARCHITECTURAL ELEVATIONS, PRIOR TO ROUGH-IN. PLEASE NOTE ANY CONFLICTS IN LOCATIONS, INCLUDING CONFLICTS WITH SEAMS/BREAKS, IN ARCHITECTURAL MATERIALS, AND NOTIFY THE ENGINEER PRIOR TO ROUGH-IN.

C. NOT ALL PARTS MAY BE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR ROUGH-IN AND CABLING. OWNER IS RESPONSIBLE FOR REMAINDER OF INSTALLATION, INCLUDING ANY MISCELLANEOUS APPURTENANCES NECESSARY FOR A COMPLETE AND WORKING SYSTEM.

D. CONTRACTOR SHALL BE RESPONSIBLE FOR VOLTAGE DROP CALCULATIONS, AND SIZING OF CONDUCTORS PROPERLY.

E. OWNER SHALL COMPLETE WIRE TERMINATIONS ON PANIC BARS, STRIKES, READERS, CONTROL INTERRUPTION OF ADA DOOR CONTROLS, HOLD-OPEN CLOSERS FOR SECURITY DOORS, AND ADJUST TIMING OF THE LATCH "BACK-TO-LOCK-POSITION" WITH THE POWER ASSIST DOOR.

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ACCESS CONTROL/INTRUSION SYSTEM/FIRE ALARM/SURVEILLANCE DETAILS

E1.51

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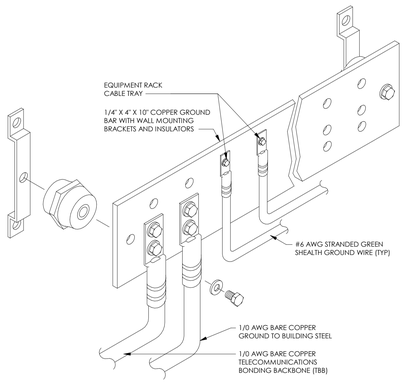
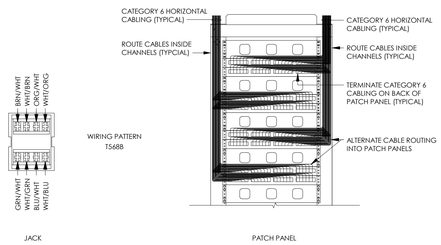


NOT ALL PARTS AND PART NUMBERS ARE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR A COMPLETE WORKING INSTALLATION INCLUDING, MISCELLANEOUS APPURTENANCES. PART NUMBERS ARE SHOWN AS AN (OR EQUIVALENT). THE CONTRACTOR SHALL ISSUE A SUBSTITUTION REQUEST FOR CHANGES TO THIS DETAIL OR PART NUMBER. CONTRACTOR SHALL PROVIDE PLENUM RATED SHEATH WHERE REQUIRED.

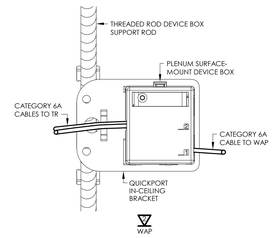
DETAIL 1/E1.61
TELECOMMUNICATIONS MAIN GROUND BUS BAR ASSEMBLY - 10"

SCALE: NONE



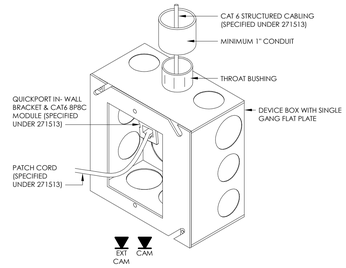
DETAIL 2/E1.61
UNIVERSAL PUNCHDOWN DETAIL

SCALE: NONE



DETAIL 3/E1.61
WIRELESS (WAP) DEVICE JACK

SCALE: NONE



DETAIL 4/E1.61
CAMERA DEVICE JACK

SCALE: NONE

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Warm Springs K8 Academy Classroom Addition

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No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

COMMUNICATIONS DETAILS

E1.61

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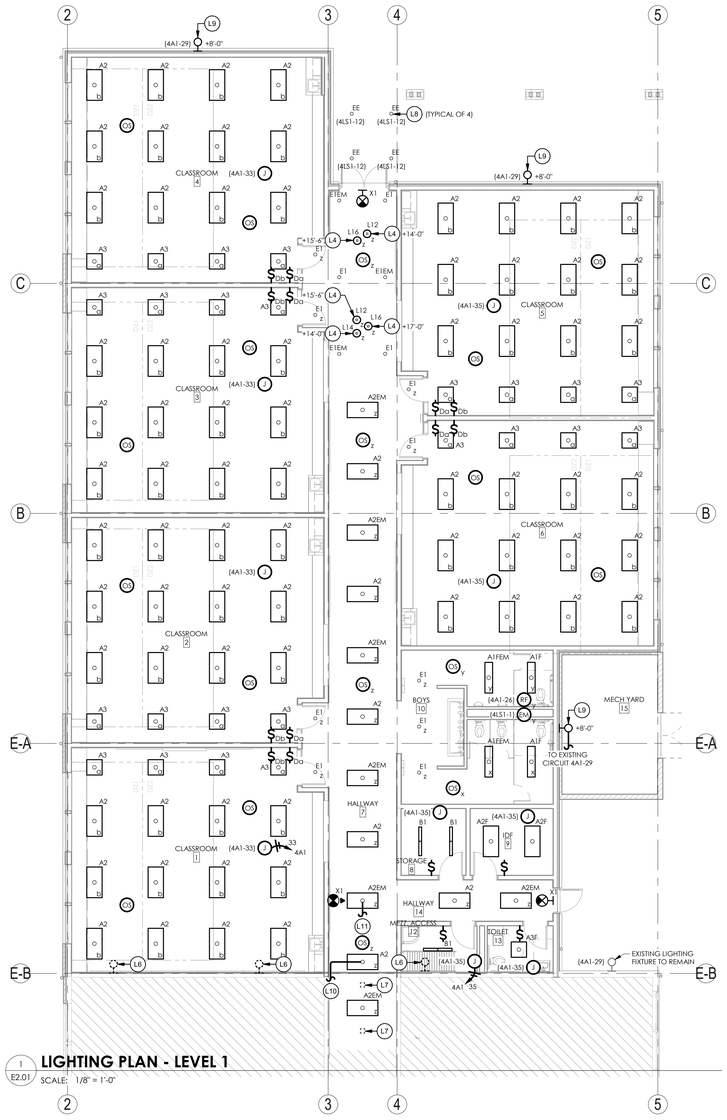
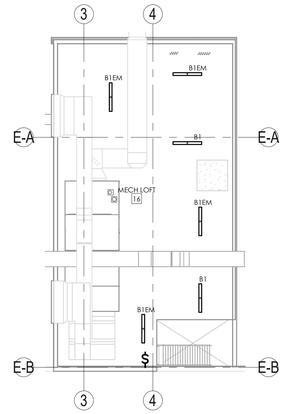


1 E2.01 **LIGHTING PLAN - LEVEL 1**

SCALE: 1/8" = 1'-0"



2 E2.01 **LIGHTING PLAN - MEZZANINE**

SCALE: 1/8" = 1'-0"

GENERAL NOTES

A. SEE E0.02 FOR MOUNTING HEIGHTS AND DEVICE GROUPING DETAILS. PRIOR TO ROUGH-IN: VERIFY EACH DEVICE LOCATION WITH THE REFLECTED CEILING PLAN, AND ARCHITECTURAL INTERIOR/EXTERIOR ELEVATIONS, AND CASEWORK SHOP DRAWINGS AND/OR CASEWORK INSTALLER. NOTE ANY CONFLICTS IN LOCATIONS INCLUDING CONFLICTS WITH SEAMS/BREAKS, IN ARCHITECTURAL MATERIALS, AND NOTIFY THE ENGINEER FOR ISSUES THAT CANNOT BE RESOLVED ON SITE.

B. CONTRACTOR SHALL MARK THE EXTERIOR OF EACH JUNCTION BOX WITH PANEL AND CIRCUIT IDENTIFICATION NUMBERS FOR ALL CIRCUITS WITHIN, USING PERMANENT INK OR LABEL SYSTEM.

C. CONDUIT WITH INDIVIDUAL INSULATED CONDUCTORS SHALL BE USED IN LIEU OF MC CABLE FOR ANY HOME RUN AND ANY AREA THAT THE CONDUIT IS EXPOSED OR THAT IS SUSCEPTIBLE TO DAMAGE.

D. NOT ALL PARTS MAY BE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR A COMPLETE WORKING INSTALLATION, INCLUDING ANY MISCELLANEOUS APPURTENANCES NECESSARY.

E. SEE SHEET E1.20 FOR OCCUPANCY, DAYLIGHTING, AND LOW VOLTAGE DIMMING WIRING DIAGRAM DETAILS.

F. ROUTE EXTERIOR CIRCUITS VIA WCM OR WALC DEPENDING ON LOAD. PROVIDE ONE PER CIRCUIT AND/OR SWITCH LEG. PROVIDE TIME SCHEDULE ON SHOP DRAWINGS. PROVIDE OVERRIDE SWITCH IN CUSTODIAL OFFICE.

G. SEE NOTE F. PROVIDE UL924 DEVICE PER EXTERIOR EMERGENCY CIRCUIT IN ADDITION TO DEVICE IN NOTE F.

H. MOUNT LIGHTING CONTROLLERS IN ANY ACCESSIBLE CEILING SPACE, NO HIGHER THAN +12" ABOVE GRID. PROVIDE REFLECTIVE STICKER ON CEILING GRID RIB TO INDICATE CONTROLLERS' LOCATION. COORDINATE WITH MAINTENANCE SUPERVISOR FOR COLORS AND TYPE OF STICKER.

I. CIRCUIT EXIT FIXTURES TO THE SAME EMERGENCY CIRCUIT FROM EMERGENCY PANEL AS INDICATED IN THAT SPACE.

J. ROUTE INTERIOR EMERGENCY FIXTURES THROUGH UL924 TRANSFER DEVICE THEN TO EMERGENCY PANEL AS INDICATED ON THE EM DEVICE IN THAT SPACE.

K. LIGHTING VENDOR SHALL SUPPLY LIGHTING CONTROL DIAGRAMS AND SHOP DRAWINGS. THE SHOP DRAWINGS SHALL INDICATE THE BEST METHOD FOR OCCUPANCY AND DAYLIGHTING (I.E. EMBEDDED BY DEFAULT, CEILING SENSOR OR SWITCH SENSOR). SHOP DRAWINGS SHALL ALSO DETERMINE WHETHER A ROOM BY CODE DEFINITION REQUIRES OCCUPANCY AND/OR DAYLIGHTING, OR CAN BE LINE VOLTAGE SWITCHING. CONTRACTOR SHALL PROVIDE EVERYTHING PER SHOP DRAWINGS AND SHOP DRAWINGS WILL TAKE PRECEDENCE ONCE APPROVED.

SHEET NOTES

L4 MOUNTING HEIGHT DESIGNATED IS AT TOP OF FIXTURE. COORDINATE FINAL LOCATIONS WITH MECHANICAL AND OTHER EQUIPMENT, PIPING, ETC. ADJUST LOCATION AND HEIGHT AS NECESSARY. SUPPORT BY AIRCRAFT TYPE CABLE FROM STRUCTURE.

L6 EXISTING LIGHTING FIXTURE TO BE RELOCATED. DEMOLISH EXISTING CONDUCTORS BACK TO LAST DEVICE ON CIRCUIT TO REMAIN.

L7 EXISTING LIGHTING FIXTURE TO BE DEMOLISHED. EXTEND CIRCUIT TO NEW EXTERIOR LIGHTING FIXTURES.

L8 EXTEND EXISTING EXTERIOR LIGHTING CONTROL CIRCUIT TO NEW FIXTURES.

L9 RELOCATE EXISTING WALL SCONCE LIGHTING FIXTURE TO THIS LOCATION. EXTEND EXISTING CIRCUIT AS SHOWN.

L10 EXTEND EXISTING HALLWAY LIGHTING CIRCUIT 4A1-26 TO NEW HALLWAY & RESTROOM LIGHTING FIXTURES.

L11 EXTEND EXISTING EMERGENCY HALLWAY LIGHTING CIRCUIT 4LS1-1 TO NEW EMERGENCY HALLWAY, RESTROOM, & EXIT LIGHTING FIXTURES.

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JANUARY 2, 2015
BRADLEY ROBERT BAILEY

EXPIRES: December 31st, 2023

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

LIGHTING PLANS

E2.01

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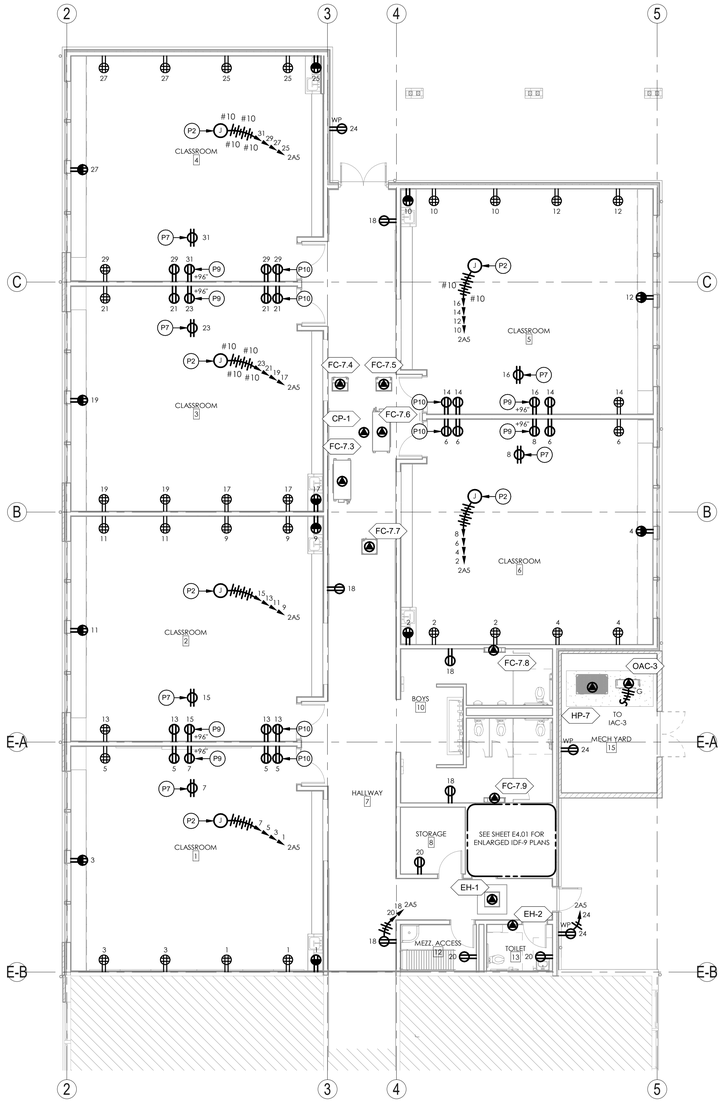
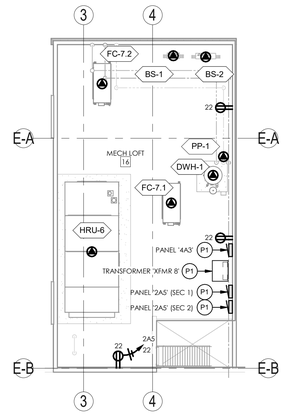
PWR-MECHANICAL EQUIPMENT SCHEDULE

DESCRIPTION	PANEL	CIRCUIT NO.	ELECTRICAL DATA	BREAKER TRIP/POLE	CIRCUIT SIZE	MCA	MOCP	DISC. (F/I)	FUSED DISC. (F/I)	STARTER (F/I)	VFD (F/I)	Comments
BS-1, MECH LOFT 16	2A5 (SECTION 2) (NEW)	43,45	208 V/2-12 VA	15/2	2#12,#12G,3/4"C	0.06 A	15 A	26/26				PROVIDE 2P MOTOR RATED SNAP SWITCH
BS-2, MECH LOFT 16	2A5 (SECTION 2) (NEW)	43,45	208 V/2-12 VA	15/2	2#12,#12G,3/4"C	0.09 A	15 A	26/26				PROVIDE 2P MOTOR RATED SNAP SWITCH
CP-1, MECH LOFT 16	2A5 (SECTION 2) (NEW)	56	120 V/1-180 VA	20/1	1#12,#12N,#12G,3/4"C			26/26				
DWH-1, MECH LOFT 16	2A5 (SECTION 2) (NEW)	54	120 V/1-180 VA	20/1	1#12,#12N,#12G,3/4"C			26/26				NEMA 5-20R
EH-1, HALLWAY 14	2A5 (SECTION 2) (NEW)	48,50	208 V/2-3000 VA	20/2	2#12,#12G,3/4"C			26/26				PROVIDE 2P MOTOR RATED SNAP SWITCH
EH-2, TOILET 13	2A5 (SECTION 2) (NEW)	52	120 V/1-1500 VA	20/1	1#12,#12N,#12G,3/4"C			26/26				PROVIDE MOTOR RATED SNAP SWITCH
FC-7.1, MECH LOFT 16	2A5 (SECTION 2) (NEW)	47,49	208 V/2-1082 VA	15/2	2#12,#12G,3/4"C	5.2 A	15 A	26/26				PROVIDE 2P MOTOR RATED SNAP SWITCH
FC-7.2, MECH LOFT 16	2A5 (SECTION 2) (NEW)	51,53	208 V/2-1082 VA	15/2	2#12,#12G,3/4"C	5.2 A	15 A	26/26				PROVIDE 2P MOTOR RATED SNAP SWITCH
FC-7.3, MECH LOFT 16	2A5 (SECTION 2) (NEW)	55,57	208 V/2-1082 VA	15/2	2#12,#12G,3/4"C	5.2 A	15 A	26/26				PROVIDE 2P MOTOR RATED SNAP SWITCH
FC-7.4, MECH LOFT 16	2A5 (SECTION 2) (NEW)	43,45	208 V/2-225 VA	15/2	2#12,#12G,3/4"C	1.08 A	15 A	26/26				PROVIDE 2P MOTOR RATED SNAP SWITCH
FC-7.5, MECH LOFT 16	2A5 (SECTION 2) (NEW)	43,45	208 V/2-233 VA	15/2	2#12,#12G,3/4"C	1.08 A	15 A	26/26				PROVIDE 2P MOTOR RATED SNAP SWITCH
FC-7.6, MECH LOFT 16	2A5 (SECTION 2) (NEW)	59,61	208 V/2-1082 VA	15/2	2#12,#12G,3/4"C	5.2 A	15 A	26/26				PROVIDE 2P MOTOR RATED SNAP SWITCH
FC-7.7, MECH LOFT 16	2A5 (SECTION 2) (NEW)	43,45	208 V/2-478 VA	15/2	2#12,#12G,3/4"C	0.2 A	15 A	26/26				PROVIDE 2P MOTOR RATED SNAP SWITCH
FC-7.8, BOYS 10	2A5 (SECTION 2) (NEW)	43,45	208 V/2-52 VA	15/2	2#12,#12G,3/4"C	0.25 A	15 A	26/26				PROVIDE 2P MOTOR RATED SNAP SWITCH
FC-7.9, GIRLS 11	2A5 (SECTION 2) (NEW)	43,45	208 V/2-52 VA	15/2	2#12,#12G,3/4"C	0.25 A	15 A	26/26				PROVIDE 2P MOTOR RATED SNAP SWITCH
HP-7, MECH YARD 15	4A3 (NEW)	2,4,6	480 V/3-34419 VA	50/3	3#6,#10G,3/4"C	41.4 A	50 A	26/26				PROVIDE 3P-60A NEMA 3R DISCONNECT
HRU-6, MECH LOFT 16	4A3 (NEW)	8,10,12	480 V/3-9977 VA	20/3	3#12,#12G,3/4"C	12 A		26/26				PROVIDE 3P-30A DISCONNECT
OAC-3, MECH YARD 15	2A5 (SECTION 2) (NEW)	44,46	208 V/2-3952 VA	30/2	2#10,#10G,3/4"C	19 A	30 A	26/26				PROVIDE 2P-30A NEMA 3R DISCONNECT
PP-1, MECH LOFT 16	2A5 (SECTION 2) (NEW)	54	120 V/1-62 VA	20/1	1#12,#12N,#12G,3/4"C			26/26				



1 E3.01 POWER PLAN - LEVEL 1
1/8" = 1'-0"



2 E3.01 **POWER PLAN - MEZZANINE**
SCALE: 1/8" = 1'-0"

GENERAL NOTES

A. SEE SHEET E0.02 FOR MOUNTING HEIGHT AND DEVICE GROUPING DETAILS. PRIOR TO ROUGH-IN: VERIFY EACH DEVICE LOCATION WITH THE REFLECTED CEILING PLAN, AND ARCHITECTURAL INTERIOR/EXTERIOR ELEVATIONS, AND CASEWORK SHOP DRAWINGS AND/OR CASEWORK INSTALLER. NOTE ANY CONFLICTS IN LOCATIONS, INCLUDING CONFLICTS WITH SEAMS/BREAKS, IN ARCHITECTURAL MATERIALS, AND NOTIFY THE ENGINEER (FOR ISSUES THAT CANNOT BE RESOLVED ON SITE).

B. CONTRACTOR TO PROVIDE A FLAT SURFACE FOR ALL EXTERIOR DEVICES. FLAT SURFACE SHALL BE SIZED APPROXIMATELY FOR WALL MOUNTED EQUIPMENT. THIS MAY INCLUDE FLAT OR GROUND DOWN BLOCK SURFACES. METAL SIDING PLATE (PAINTED TO MATCH), OR A FRAMED SIDE WOOD/MASONITE TYPE BLOCK. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR SURFACE TYPE.

C. CONTRACTOR SHALL MARK THE EXTERIOR OF EACH JUNCTION BOX WITH PANEL AND CIRCUIT IDENTIFICATION NUMBERS FOR ALL CIRCUITS WITHIN, USING PERMANENT INK OR LABEL SYSTEM.

D. PROVIDE LABELING ON DEVICE PLATES AS REQUIRED IN SPECIFICATIONS. CONTROLLERS MOUNTED ABOVE CEILING SHALL BE MOUNTED IN AN ACCESSIBLE SPACE ONLY. PROVIDE REFLECTIVE STICKER ON CEILING GRID STRINGER TO INDICATE CONTROL DEVICE LOCATIONS. COORDINATE WITH MAINTENANCE DIRECTOR FOR COLOR PREFERENCE OF STICKERS.

E. CONDUIT WITH INDIVIDUAL INSULATED CONDUCTORS SHALL BE USED IN LIEU OF MC CABLE FOR ANY HOME RUN AND ANY AREA THAT THE CONDUIT IS EXPOSED OR THAT IS SUSCEPTIBLE TO DAMAGE.

F. GFCI AND TAMPER PROOF RECEPTACLES ARE NOT SPECIFICALLY NOTED ON THESE PLANS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE GFCI AND TAMPER PROOF RECEPTACLES WHERE REQUIRED BY THE NATIONAL ELECTRICAL CODE (NEC).

G. ALL CIRCUITS SHALL BE RUN OVERHEAD, UNLESS SPECIFICALLY NOTED. UNDERGROUND CIRCUITS THAT ARE SHOWN SHALL BE ROUTED MINIMUM OF 6" BELOW SLAB.

H. ALL EXTERIOR RECEPTACLES SHALL BE WEATHERPROOF AND GFCI WITH "IN-USE" COVERS.

I. DUCTS/PIPING IN FRONT OF PANELS SHALL MAINTAIN A MINIMUM OF 6'-1" HEIGHT CLEARANCE. NO DUCTS/PIPING OVER THE FOOTPRINT OF THE ELECTRICAL EQUIPMENT.

J. COORDINATE EXACT LOCATIONS OF MECHANICAL EQUIPMENT AND ELECTRICAL CONNECTIONS TO AND WITHIN MECHANICAL EQUIPMENT WITH THE MECHANICAL/CONTROLS INSTALLER AND THE MECHANICAL/CONTROLS SUBMITTAL DRAWINGS PRIOR TO DEVICE ROUGH-IN.

K. FOR EACH PIECE OF MECHANICAL EQUIPMENT SHOWN, CONTROL RELAY SPECIFIED UNDER DIVISION 23/25 SHALL BE INSTALLED UNDER DIVISION 26. COORDINATE EXACT LOCATION RELAY WITH MECHANICAL CONTROLS INSTALLER PRIOR TO ROUGH-IN.

L. VERIFY DISCONNECT SIZE AND, IF APPLICABLE, FUSE SIZE WITH ACTUAL EQUIPMENT NAMEPLATE INFORMATION PRIOR TO INSTALL.

SHEET NOTES

P1 SEE ONE LINE DIAGRAM SHEET E1.10 FOR CIRCUIT / FEEDER, OR EQUIPMENT INFORMATION.

P2 ROUTE CONDUIT FROM PANEL WITH INDIVIDUAL INSULATED CONDUCTORS TO ACCESSIBLE JUNCTION BOX ABOVE ACCESSIBLE CEILING OR IN INTERSTITIAL SPACE. FROM THERE TO OUTLET DEVICES. THE CONTRACTOR MAY USE A MULTI-NEUTRAL MC CABLE.

P7 PROVIDE RECEPTACLE IN CEILING BOX. FOR CLASSROOM A/V SYSTEM. COORDINATE EXACT LOCATION WITH OWNER VOICE LIFT INSTALLER.

P9 PROVIDE WIREMOLD RECESSED WALLBOX #EFSB2. COORDINATE LOCATION WITH OFCI PROMETHEAN DISPLAY.

P10 PROVIDE RECEPTACLE FOR CLOCK. VERIFY EXACT MOUNTING HEIGHT WITH OWNER PRIOR TO ROUGH-IN.

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OREGON
JANUARY 2, 2015
BRADLEY ROBERT BALLEY
EXPIRES: December 31st, 2023

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

POWER PLANS

E3.01

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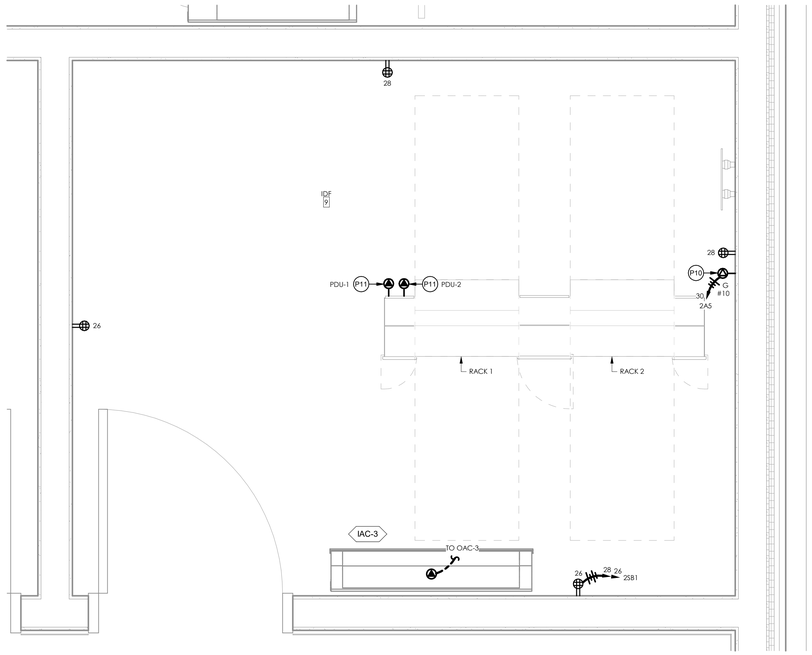
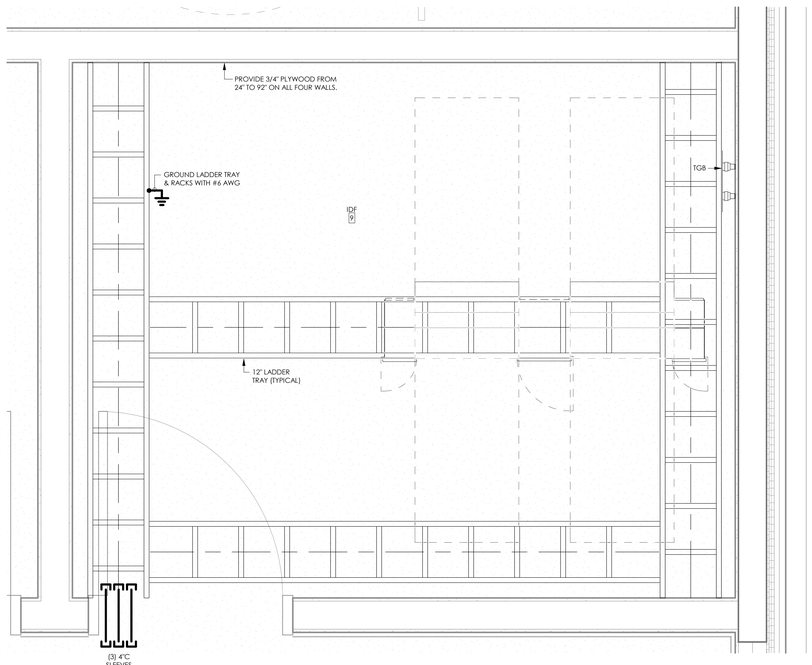
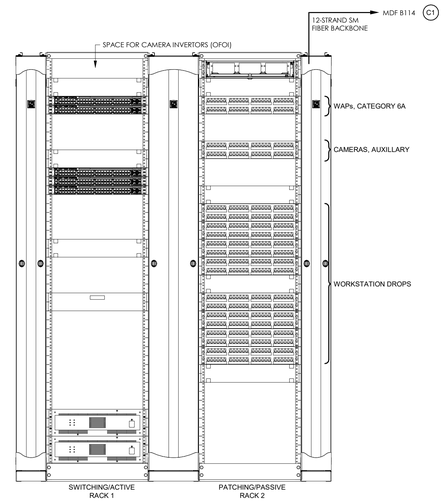


1 E4.01 ENLARGED POWER PLAN - IDF 9
1" = 1'-0"



2 E4.01 ENLARGED COMMUNICATIONS & A/V PLAN - IDF 9
1" = 1'-0"



ROOM		PRODUCT DESCRIPTION	QUANTITY
MDF			
	RACK 1	3" UNIVERSAL RACK	1
		1-30A PDU WITH MOUNTING BRACKETS	1
		1-20A PDU WITH MOUNTING BRACKETS	1
		6" VERTICAL WIRE MANAGEMENT (SINGLE SIDED)	1
		10" VERTICAL WIRE MANAGEMENT (DOUBLE SIDED)	1
		-	-
		HORIZONTAL MANAGEMENT PANEL (SINGLE SIDED)	3
		48P PoE SWITCHES (BY OWNER N.I.C)	5
		2RU DRAWER	1
		UPS (OFOI)	2
	RACK 2	3" UNIVERSAL RACK	1
		6" VERTICAL WIRE MANAGEMENT (DOUBLE SIDED)	1
		-	-
		FIBER PATCH PANEL (INTRABUILDING SM)	1
		HORIZONTAL MANAGEMENT PANEL (DOUBLE SIDED)	4
		48-PORT CAT 6A PATCH PANELS	1
		48-PORT CAT 6 PATCH PANELS	9

DETAIL 3/E4.01
IDF 9 RACK ELEVATION
SCALE: NONE

GENERAL NOTES

A. SEE SHEET E0.02 FOR MOUNTING HEIGHT AND DEVICE GROUPING DETAILS. PRIOR TO ROUGH-IN: VERIFY EACH DEVICE LOCATION WITH THE REFLECTED CEILING PLAN, AND ARCHITECTUAL INTERIOR/EXTERIOR ELEVATIONS, AND CASEWORK SHOP DRAWINGS AND/OR CASEWORK INSTALLER. NOTE ANY CONFLICTS IN LOCATIONS, INCLUDING CONFLICTS WITH SEAMS/BREAKS, IN ARCHITECTUAL MATERIALS, AND NOTIFY THE ENGINEER (FOR ISSUES THAT CANNOT BE RESOLVED ON SITE).

B. CONTRACTOR SHALL MARK THE EXTERIOR OF EACH JUNCTION BOX WITH PANEL AND CIRCUIT IDENTIFICATION NUMBERS FOR ALL CIRCUITS WITHIN, USING PERMANENT INK OR LABEL SYSTEM.

C. PROVIDE LABELING ON DEVICE PLATES AS REQUIRED IN SPECIFICATIONS. CONTROLLERS MOUNTED ABOVE CEILING SHALL BE MOUNTED IN AN ACCESIBLE SPACE ONLY. PROVIDE REFLECTIVE STICKER ON CEILING GRID STRINGER TO INDICATE CONTROL DEVICE LOCATIONS. COORDINATE WITH MAINTENANCE DIRECTOR FOR COLOR PREFERENCE OF STICKERS.

D. CONDUIT WITH INDIVIDUAL INSULATED CONDUCTORS SHALL BE USED IN LIEU OF MC CABLE FOR ANY HOME RUN AND ANY AREA THAT THE CONDUIT IS EXPOSED OR THAT IS SUSCEPTIBLE TO DAMAGE.

E. GFCI AND TAMPER PROOF RECEPTACLES ARE NOT SPECIFICALLY NOTED ON THESE PLANS, IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE GFCI AND TAMPER PROOF RECEPTACLES WHERE REQUIRED BY THE NATIONAL ELECTRICAL CODE (NEC).

F. ALL CIRCUITS SHALL BE RUN OVERHEAD, UNLESS SPECIFICALLY NOTED. UNDERGROUND CIRCUITS THAT ARE SHOWN SHALL BE ROUTED MINIMUM OF 6" BELOW SLAB.

G. ALL EXTERIOR RECEPTACLES SHALL BE WEATHERPROOF AND GFCI WITH "IN-USE" COVERS.

H. ALL CONTROLLED RECEPTACLES SHALL BE HALF CONTROLLED WITH A SWITCHED HOT AND A UN-SWITCHED HOT.

I. DUCTS/PIPING IN FRONT OF PANELS SHALL MAINTAIN A MINIMUM OF 6'-1" HEIGHT CLEARANCE. NO DUCTS/PIPING OVER THE FOOTPRINT OF THE ELECTRICAL EQUIPMENT.

SHEET NOTES

C1 ROUTE FIBER BACKBONE VIA NEW CABLE TRAY, THEN IN EXISTING CABLE TRAY/CONDUIT TO MDF B114 (THROUGH IDF B106) ALONG PATH SHOWN ON SHEET E1.00.

P10 PROVIDE RECEPTACLE FOR CLOCK. VERIFY EXACT MOUNTING HEIGHT WITH OWNER PRIOR TO ROUGH-IN.

P11 PROVIDE SINGLE PHASE, 208V PDU VERTICALLY MOUNTED TO BACK OF VERTICAL WIRE MANAGEMENT.

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No.	Description	Date

Project Number 2206
Date 01/18/2023

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ENLARGED PLANS - IDF 9

E4.01

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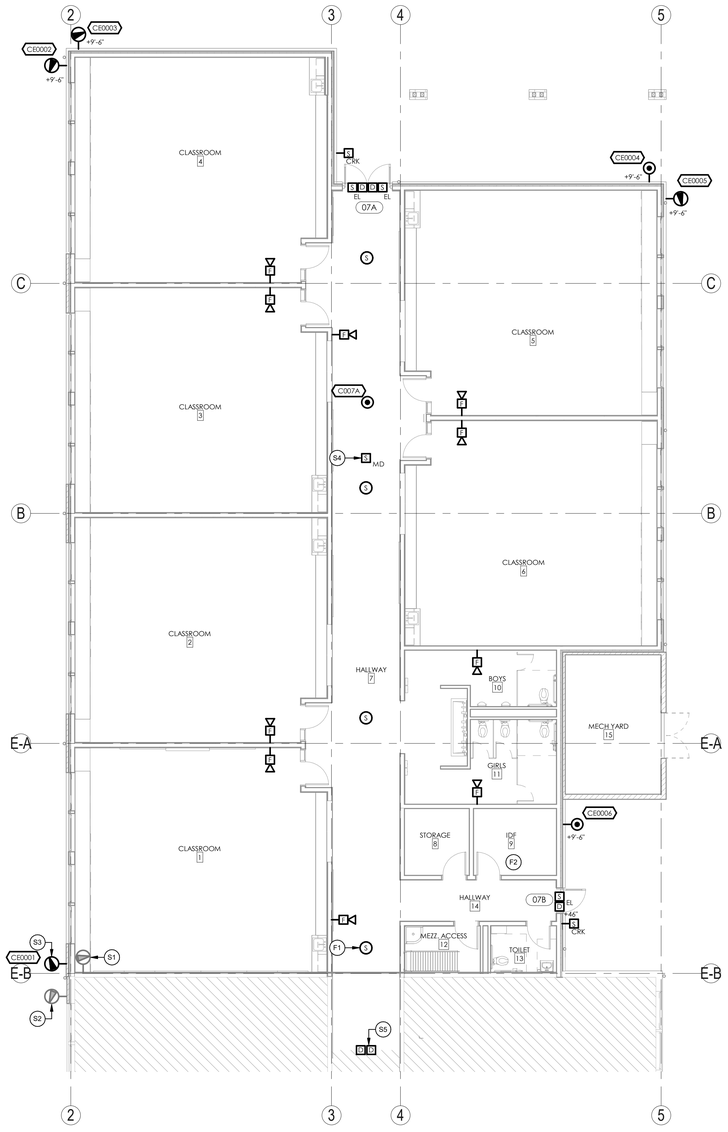

1 E5.01 **FIRE ALARM & SECURITY PLAN - LEVEL 1**
SCALE: 1/8" = 1'-0"

2 E5.01 **FIRE ALARM & SECURITY PLAN - MEZZANINE**
SCALE: 1/8" = 1'-0"

GENERAL NOTES

A. SEE SHEET E0.02 FOR MOUNTING HEIGHT AND DEVICE GROUPING DETAILS. PRIOR TO ROUGH-IN VERIFY EACH DEVICE LOCATION WITH THE REFLECTED CEILING PLAN, AND ARCHITECTURAL INTERIOR/EXTERIOR ELEVATIONS, AND CASEWORK SHOP DRAWINGS AND/OR CASEWORK INSTALLER. NOTE ANY CONFLICTS IN LOCATIONS, INCLUDING SEAMS/BREAKS, IN ARCHITECTURAL MATERIALS, AND NOTIFY ENGINEER PRIOR TO ROUGH-IN: (FOR ISSUES THAT CANNOT BE RESOLVED ON SITE.)

B. CONTRACTOR TO PROVIDE A FLAT SURFACE FOR ALL EXTERIOR DEVICES. FLAT SURFACE SHALL BE SIZED APPROXIMATELY FOR WALL MOUNTED EQUIPMENT. THIS MAY INCLUDE FLAT OR GROUND DOWN BLOCK SURFACES, METAL SIDING PLATE (PAINTED TO MATCH), OR A FRAMED SIDE WOOD/MASONITE TYPE BLOCK. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR SURFACE TYPE.

C. FIRE ALARM SYSTEM IS AN EXISTING SILENT KNIGHT 5820XL-BUS. PROVIDE NECESSARY NRC EXPANSION KITS REQUIRED TO ADD NEW DEVICES TO EXISTING SYSTEM. CONTRACTOR SHALL PROVIDE A COMPLETE AND WORKING VOICE EVACUATION SYSTEM. SYSTEM IS BIDDER DESIGNED AND SUBMITTED TO AUTHORITY HAVING JURISDICTION FOR REVIEW. CONTRACTOR IS RESPONSIBLE FOR ANY CORRECTIONS OR MODIFICATION TO PLANS AS REQUIRED BY AHJ.

D. FIRE ALARM DEVICES ARE SHOWN ONLY AS INTENDED LOCATIONS AND ARE COORDINATED WITH OTHER DISCIPLINES. USE LOCATIONS SHOWN WHENEVER POSSIBLE.

E. VOLUME OF SPEAKERS SHOULD BE ADJUSTED FOR MAXIMUM AUDIBILITY, AND NOT JUST TAPPED AT MAXIMUM LEVELS. SMALLER ROOMS SHOULD BE TAPPED AT A LOWER LEVEL.

F. SEE DETAILS ON SHEET E1.51 FOR INSTALLATION INFORMATION.

G. CAMERA CABLING IS SHOWN ON E6 SERIES SHEETS.

H. ROUTE ALL DOOR CONTACTS TO THE INTRUSION PANEL THEN HAND OFF ACCESS CONTROL DOORS THROUGH I/O BOARDS TO ACCESS CONTROL SYSTEM FOR MONITORING.

I. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ANY CARBON MONOXIDE SENSORS WHERE REQUIRED BY CODE AND AHJ.

SHEET NOTES

F1 EXTEND EXISTING INITIATING SMOKE CIRCUIT AND RELOCATE EOL RESISTOR (TYPICAL).

F2 LOCATE ANY NECESSARY FIRE ALARM EXPANSION EQUIPMENT HERE. SEE SHEET E4.01.

F3 DUCT SMOKE DETECTOR SHALL BE POWERED BY FIRE ALARM SYSTEM @24V. SHUT DOWN LOCAL CONNECTED HVAC UNIT UPON DETECTION AND SEND A SUPERVISORY SIGNAL TO FACP. COORDINATE HVAC UNIT SHUTDOWN WITH DIVISION 23/25.

S1 EXISTING WALL MOUNTED CAMERA TO BE REMOVED AND RELOCATED.

S2 EXISTING WALL MOUNTED CAMERA TO REMAIN.

S3 RELOCATE EXISTING CAMERA TO THIS APPROXIMATE LOCATION (MOUNT AT SAME HEIGHT AS ADJACENT CAMERA) AND AIM IN DIRECTION SHOWN. DEMOLISH EXISTING CATEGORY CABLING BACK TO EXISTING IDF AND PROVIDE NEW CATEGORY CABLING TO NEW IDF.

S4 MATCH EXISTING MOTION DETECTOR BRAND (IF POSSIBLE). EXTEND EXISTING HALLWAY ZONE INITIATING CIRCUIT.

S5 DISCONNECT EXISTING DOOR CONTACTS AND EXTEND CIRCUIT TO NEW DOOR.

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OREGON
JANUARY 2, 2015
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FIRE ALARM & SECURITY PLAN - LEVEL 1

E5.01

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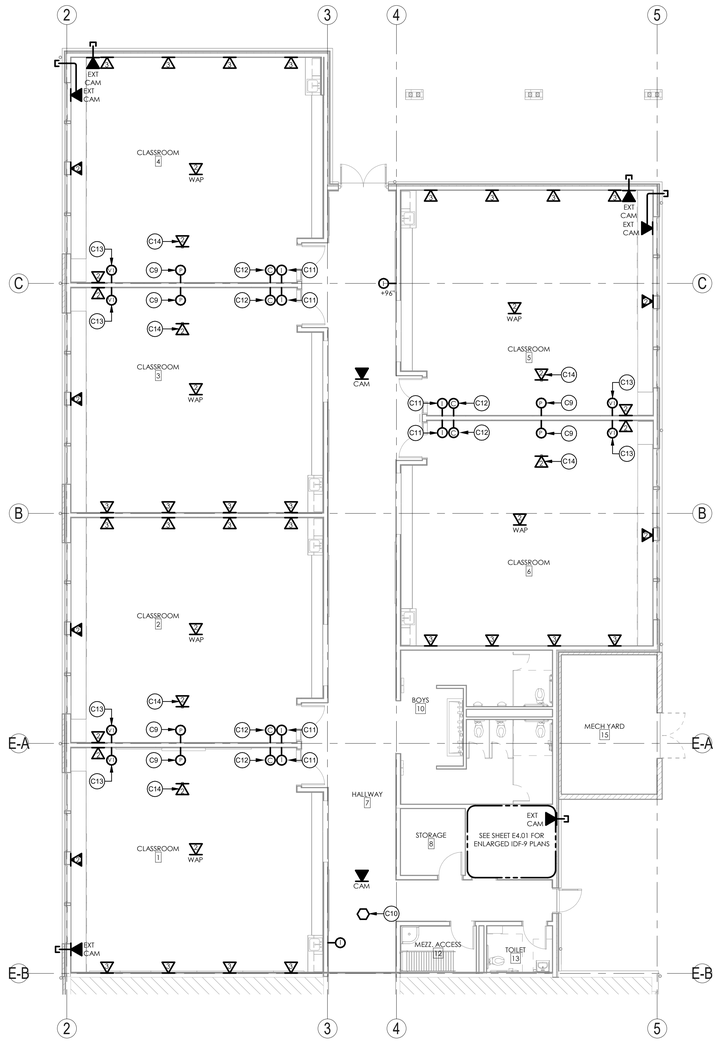
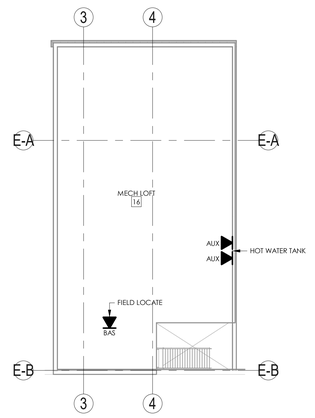


1 E6.01 **COMMUNICATIONS & A/V PLAN - LEVEL 1**
1/8" = 1'-0"



2 E6.01 **COMMUNICATIONS & A/V PLAN - MEZZANINE**
SCALE: 1/8" = 1'-0"

GENERAL NOTES

A. SEE SHEET E0.02 FOR COMBINATION GROUPING WITH ELECTRICAL COMMUNICATIONS, A/V DEVICES, AND TYPICAL MOUNTING HEIGHTS UNLESS OTHERWISE NOTED. VERIFY EACH DEVICE'S LOCATION WITH THE REFLECTED CEILING PLANS, ARCHITECTURAL INTERIOR AND EXTERIOR ELEVATIONS, STRUCTURAL X-BRACING, WALL TYPES, WALL SECTION, CASEWORK DRAWINGS AND/OR CASEWORK INSTALLER PRIOR TO ROUGH-IN. NOTE ANY CONFLICTS WITH LOCATIONS, INCLUDING CONFLICTS WITH SEAMS/BREAKS IN ARCHITECTURAL MATERIALS, AND NOTIFY ENGINEER PRIOR TO ROUGH-IN FOR ISSUES THAT CANNOT BE RESOLVED ON SITE.

B. EACH DATA DEVICE (JACK AND FACEPLATE TYPE), UNLESS OTHERWISE NOTED, SHALL BE 4-11/16" SQUARE 2-1/8" DEEP BOX, WITH SINGLE GANG MUD RING AND COVER PLATE. PROVIDE 1" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE. PROVIDE BUSHINGS AT BOTH CONDUIT ENDS. PROVIDE ONE CATEGORY 6 CABLE FOR EACH PORT, AS INDICATED ON DRAWINGS, TO DESIGNATED TELECOMMUNICATIONS ROOM AND HORIZONTAL CROSS-CONNECT PATCH PANEL. LABEL BOTH ENDS OF EACH CABLE ACCORDING TO SPECIFICATIONS. FOR EACH LOCATION WITH "AL" PROVIDE 1-RCA STYLE JACK AND 2 CONDUCTOR #18 SHIELDED THAT ROUTES INDEPENDENTLY TO CEILING BOX. PROVIDE ADDITIONAL CONDUIT AS NECESSARY.

C. EACH DATA DEVICE "CAM"(IN-WALL JACK TYPE), UNLESS OTHERWISE NOTED, SHALL BE 4-11/16" SQUARE 2-1/8" DEEP BOX, WITH SINGLE GANG MUD RING, QUICKPORT IN-WALL BRACKET AND STAINLESS-STEEL BLANK COVER PLATE. PROVIDE 1" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE. PROVIDE BUSHING AT BOTH CONDUIT ENDS. PROVIDED ONE CATEGORY 6 CABLE FOR EACH PORT, AS INDICATED ON DRAWINGS, TO DESIGNATE TELECOMMUNICATIONS ROOM AND HORIZONTAL CROSS-CONNECT PATCH PANEL. LABEL BOTH ENDS OF EACH CABLE ACCORDING TO SPECIFICATIONS. SEE DETAIL 4/E1.61 AND CAMERA DETAILS ON E1.51 FOR ADDITIONAL CONDUIT INFORMATION.

D. EACH DATA DEVICE "WAP"(PLENUM SURFACE MOUNT JACK TYPE), UNLESS OTHERWISE NOTED, SHALL BE QUICKPORT IN-CEILING BRACKET WITH SUPPORT WIRE AND PLENUM SURFACE-MOUNT BOX. PROVIDE 1 CATEGORY 6A CABLE FOR EACH PORT, AS INDICATED ON DRAWINGS, TO DESIGNATED TELECOMMUNICATIONS ROOM AND HORIZONTAL CROSS-CONNECT PATCH PANEL. LABEL BOTH ENDS OF EACH CABLE ACCORDING TO SPECIFICATIONS. SEE DETAIL 3/E1.61 FOR FURTHER INFORMATION.

E. PROVIDE (1) 1"C SPARE SLEEVE FROM EACH CLASSROOM TYPE SPACE FROM CEILING SPACE TO HALLWAY. PROVIDE BUSHINGS ON BOTH ENDS OF THE CONDUIT.

F. PROVIDE PULL STRINGS IN EACH SPARE/FUTURE CONDUIT AND PROVIDE PULL STRING IN EACH CONDUIT WITH INSTALLED CABLE.

G. PROVIDE OSP CABLE WHEN ROUTING UNDER SLAB WITH CONDUITS THAT RUN DIRECT TO MDF/IDF OR PROVIDE U.L. APPROVED INDOOR/OUTDOOR CABLE THAT MEETS CAT6 SPECS.

H. PROVIDE WHITE OR BLACK CABLE SOCKS FOR CABLING THAT IS EXPOSED IN ROOM THAT IS OPEN TO STRUCTURE. CONFIRM COLOR WITH ACTUAL SPACE.

I PROVIDE STI 3" SQUARE FIRE SEAL SLEEVES FOR ANY CABLE TRAY PASSING THROUGH A FIRE WALL. PROVIDE FIRE SEAL SHEETS OR OTHER MEANS OF SEALING CABLES THROUGH A SINGLE SLEEVE/CONDUIT (DO NOT USE PUTTY INSIDE CONDUIT AROUND THE CABLES) FOR ANY DEVICE BOX WITHIN A FIRE WALL. PROVIDE FIRE SEAL SHEETS AROUND THE DEVICE BOXES.

J. PROVIDE SOUND INSULATION SEALING FOR ANY OPENING THROUGH AN INSULATED SOUND BARRIER THAT IS LARGER THAN 2".

SHEET NOTES

C9 PROVIDE PROMETHEAN DISPLAY AND MOUNT (OFCI). PROVIDE 2-PORT TELECOM OUTLET (WITH 2 CAT 6 CABLES), INSTALLED IN WIREMOLD RECESSED WALLBOX.

C10 EXTEND EXISTING DAS SYSTEM AS NECESSARY TO MAINTAIN COVERAGE REQUIRED BY LOCAL JURISDICTION. PROVIDE ALL CABLING, DEVICES, BOXES, ETC., FOR A COMPLETE & FUNCTIONAL SYSTEM. EXISTING DAS SYSTEM WAS INSTALLED BY DAY WIRELESS.

C11 RAULAND INTERCOM (OFOI). INTERCOM BACKBOX (OFOI) WITH 1" CONDUIT STUBBED UP TO ACCESSIBLE CEILING, CABLING (CFCI) PROVIDED UNDER DIVISION 27.

C12 RAULAND ANALOG CLOCK (OFOI), CLOCK BACKBOX (OFCI) WITH 1" CONDUIT STUBBED UP TO ACCESSIBLE CEILING, CABLING (CFCI) PROVIDED UNDER DIVISION 27.

C13 PROVIDE PASS THROUGH PLATE WITH HDMI CABLE (IN 1" CONDUIT) TO RECESSED DISPLAY BACKBOX.

C14 CEILING MOUNTED TELECOM OUTLET. COORDINATE EXACT LOCATION WITH OWNER VOICE LIFT INSTALLER.

DO NOT PAINT CABLE!

COORDINATE INSTALLATION OF TELECOMMUNICATIONS CABLING WITH GENERAL CONTRACTOR AND PAINTING CONTRACTOR TO PREVENT COMMUNICATIONS CABLING FROM BEING PAINTED. PROVIDE ALL NESSECARY MEANS AND METHODS TO PREVENT CABLING FROM BEING PAINTED.

BBT ARCHITECTS
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REGISTERED PROFESSIONAL ENGINEER
89738
OREGON
JANUARY 2, 2015
BRADLEY ROBERT BAILEY
EXPIRES: December 31st, 2023

Warm Springs K8 Academy Classroom Addition

50 Chukar Rd, Warm Springs, OR 97761

No.	Description	Date

Project Number 2206
Date 01/18/2023

BID/PERMIT

COMMUNICATIONS & A/V PLAN - LEVEL 1

E6.01

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