Ketchum Urban Renewal Agency

P.O. Box 2315 | 191 5th Street West | Ketchum, ID 83340

August 25, 2025

Chair and Commissioners
Ketchum Urban Renewal Agency
Ketchum, Idaho

Recommendation to approve budget request for Warm Springs Preserve Restoration Project

Introduction/History

In April of 2022 the city acquired Warm Springs Preserve (65 acres) as a public preserve in perpetuity through generous private donations. Following the transfer of property, the city initiated a master planning process (Attachment #2) for the property to guide future restoration efforts. The city partnered with the Wood River Land Trust to assist with the creek restoration work. Additional private donations were acquired as well as a federal Bureau of Reclamation (BOR) grant to fund the majority (91%) of the planned improvements. In spring of 2025 the city completed solicitation of bids to complete improvements outlined in the master plan.

Staff is requesting the Board authorize up to $250,000 as a KURA contribution to complete the welcome building.

Analysis

Following opening of the construction bids, the project was initiated in the following packages and associated budget as outlined on the following page:

1. Restoration of creek: fully funded via BOR federal grant and donations. The work focuses on reestablishing the floodplain area and revegetation of the lower creek area.
2. Irrigation system: fully funded as the existing system is well beyond its useful life. New system goal is to reduce water consumption by 50% and create a pond amenity for dogs that would reduce creek vegetation damage.
3. Welcome building, parking and amenities: the package was authorized for partial scope based on existing funds. Specifically, base utility extension (water, sewer, power) to the new building area and paving of roadway based. The City Council directed staff to engage in further private fundraising to close the gap to fund the welcome building as well as work with the contractor to reduce the budget via value engineering.

Warm Springs Preserve

Sources

City Funds	Planned	
Water/Wastewater Infrastructure	$	152,319
Streets (General CIP)	$	163,131
Donations Received City	$	1,301,149
Donations Received/Committed WRLT	$	2,639,787
BOR Grant	$	1,700,000
Additional Post Council Donations	$	660,000
Total Sources	**$**	**6,616,386**

Uses

Package 1 (Restoration)	$	3,254,137
Package 2 (Irrigation)	$	1,320,447
Package 3 (Building Utilities/Paving)	$	427,696
Commited Amenities (Furishings/Trails)	**$**	**711,980**
Total Uses	**$**	**5,714,260**
Contingency	$	242,126
Net Surplus/(Need)	**$**	**660,000**
Adds		
Welcome Building/Maintenance Facility	$	888,985
Additional Amenities	$	414,495
Net Surplus/(Need) With Adds	**$**	**(643,479)**

Conrad Brothers was the sole original bidder for Package 3. Staff worked with the contractor to complete value engineering of the building scope. Fundraising efforts to raise all the funds needed to complete the major pieces of the Warm Springs Master Plan have continued but have come just $250,000 short of the goal to fund the Welcome Building. Delaying the construction of the Welcome Building until 2026 would very likely result in higher construction costs due to remobilization of contractors and equipment, increased material cost (e.g. tariffs), and increased labor rates. Additionally, it is advantageous to utilize the current park closures and traffic control to get the work done in one effort versus phased.

Financial Requirement/Impact

Adequate funds exist in the current fiscal year to support this budget request. Specifically, the agency budgeted for the First & Washington project which has since been canceled. This request would not affect the FY26 CIP as recently approved by the Board and would not significantly alter the long-term financial forecast.

Recommendation and Motion

“I move to authorize up to $250,000 for the Warm Springs Preserve Project and return with a formal reimbursement agreement.”

Attachments:

A. Change order for Conrad Brothers and associated building design
B. Warm Springs Preserve Master Plan

CHANGE ORDER NO. #2

Date of Issuance: August 21, 2025 Effective Date: _____

Project:	Owner:	Owner's Contract No.:
WARM SPRINGS PRESERVE RESTORATION PROJECT	City of Ketchum	
Contract: Work Package #3 - Add Welcome Build		Date of Contract: July 24, 2025
Contractor: Conrad Brothers of Idaho		Engineer's Project No.

105 Lewis St. Suite 101, Ketchum, ID 8334

The Contract Documents are modified as follows upon execution of this Change Order:

Description: Add Welcome Building, Covered Patio and Restrooms/Mech. Rm.
Please see attached Conrad Change Order #2 for Details

Attachments: (List documents supporting change):

Conrad Change Order #2 that defines the VE revisions included

CHANGE IN CONTRACT PRICE:

Original Contract Price:
$ 304,260.00

[Increase] [Decrease] from previously approved Change Orders No. #1 to No. _____:
$ 33,315.00

Contract Price prior to this Change Order:
$ 337,575.00

[Increase] [Decrease] of this Change Order:
$ 899,806.00

Contract Price incorporating this Change Order:
$ 1,237,381.00

CHANGE IN CONTRACT TIMES:

Original Contract Times: ☐ Working days ☐ Calendar days
Substantial completion (days or date): _____
Ready for final payment (days or date): _____

[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____:
Substantial completion (days): _____
Ready for final payment (days): collaboration w/Aqua Terra and City of Ketchum

Contract Times prior to this Change Order:
Substantial completion (days or date): _____
Ready for final payment (days or date): _____

[Increase] [Decrease] of this Change Order:
Substantial completion (days or date): _____
Ready for final payment (days or date): _____

Contract Times with all approved Change Orders:
Substantial completion (days or date): _____
Ready for final payment (days or date): _____

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: _____ Engineer (Authorized Signature)	By: _____ Owner (Authorized Signature)	By: [signature] Contractor (Authorized Signature)
Date: _____	Date: _____	Date: August 21, 2025

Approved by Funding Agency (if applicable): _____ Date:

Conrad Brothers
General Contractors and Builders
P.O. Box 3432 - Hailey, Idaho 83333
208-726-3830 Fax 208-726-5788
www.conradbrothersconstruction.com

CHANGE ORDER

Project:	Warm Springs Preserve - Utilites and Welcome Building	C/O No.:	002
		Date:	8/21/2025
Location:	Warm Springs Preserve - Work Package #3 Section 11 & 12 T4 N R17 E B.M. Ketchum, ID. 83340	Job #:	2516

To: Kecthum City Attn: Ben Whipple
PO Box 2315 191 5th Street West
Ketchum, Idaho 83340

Subject: **Welcome Building**

Add Welcome Building including the VE Items that were Adopted away from the Original Plans for the Building. VE Items include: Siding Revision to new Siding Budget, Remove Hunter Panels; install Batt Insulation, Remove Board Form Concrete; install regular finished Concrete, Remove Acid Edge Finish; install regular finish Concrete, Remove Light Bollards, Remove Snow Bars, Remove Landscape (stair location) Boulders. 8/13/25 Additional VE Revisions are revise the Specification for the Drinking Fountain/Dog Water Fixture under covered Patio, Revise Cabinetry, Revise Bath Tile to a Wainscot Height, Revised some Plumbing Fixtures, Revised Electrical Fixtures, Remove Panel 2 in the RR Mechanical Room, Add a simple Dog-Wash Station, and Reduce Total from Contractor Contributions.

Description of Change:	Cost Code	Deductions	Additions
1 REVISED VE Bid Package #3 8/1/25 (see previous submitted Work Package #3)	separate		$ 966,056.00
Per Meeting 8/13/25 Additional Revised VE items to get as low as we can.			
2 Revise specifications at the Drinking Fountain/Dog Water Fixture	22 40 00	$ 10,000.00	
3 Revise Cabinetry specification and unit price/l.f. for Cabinets in Shop/Mech.	12 32 00	$ 17,500.00	
4 Revise the Wall Tile from full height to a Wainscot in the M/W Restrooms	09 30 13	$ 7,500.00	
5 Remove the unecessary Electrical Panel 2 in the Mechaical Room of the RR	26 00 00	$ 8,250.00	
6 Contractor Contributions	donors	$ 23,000.00	
Subtotal:		$ 66,250.00	$966,056.00

Cost of Additions:	$966,056.00
Cost of Deductions:	$ (66,250.00)
Subtotal	$899,806.00
Liability Insurance, and Builders Fee (with Building)	included

Total Change Order: **ADD WELCOME BUILDING** **$899,806.00**

Contractor's Signature: Brad Echeverria cm/pm Conrad Brothers Date: August 21, 2025

Ketchum City PM Signature: _____ Date: _____

Issued By: Brad Echeverria (Name) PM/Contract Administrator (Title) 8/21/2025 (Date)

WSP PACKAGE #3 - UTILITIES, WELCOME BUILDING & PARKING
BID TAB

PREPARED BY: Brad Echeverria	**Conrad Brothers of Idaho**
DATE SUBMITTED: REVISED 8/21/25 Change Order #2	**REVISED BID PACKAGE #3 8/21/25**

Quantities should reflect the bidder's estimate of quantities. Quantities will be used as a basis of comparing bids and verifying the accuracy of bid. The contract will be awarded on a lump sum basis regardless of the quantities included on this form.

GRADING & EARTHWORKS

Item	Unit	Quantity	Unit Rate	Total
Rough Grading & General Earthworks at Lopey Lane, Parking Lot, Welcome Building and Parking Lot Drainage				
				Contract Awarded

SITE UTILITIES (Excluding Irrigation)

Item	Unit	Quantity	Unit Rate	Total
Potable Water				
Civil - Water Line for Welcome Building (2" Diam. PE, Bored)				Contract Awarded
Sanitary Sewer				
Storm Sewer				"
Electrical and Lighting				
Panel Board P1 and P2				"
Pad-Mounted Transformer by Idaho Power				
Electrical Service/Meter				
Main Distribution Panel				
Underground Electrical Feeder from MDP to PanelBoard				"
Underground Electrical Primary by Idaho Power				see change order 1
Light Bollards VE removed from project				removed
				Contract Awarded

ENTRY DRIVE & PARKING

Item	Unit	Quantity	Unit Rate	Total

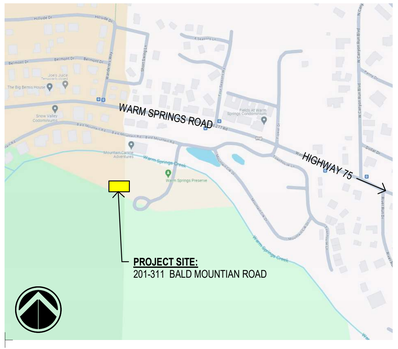
8/21/25

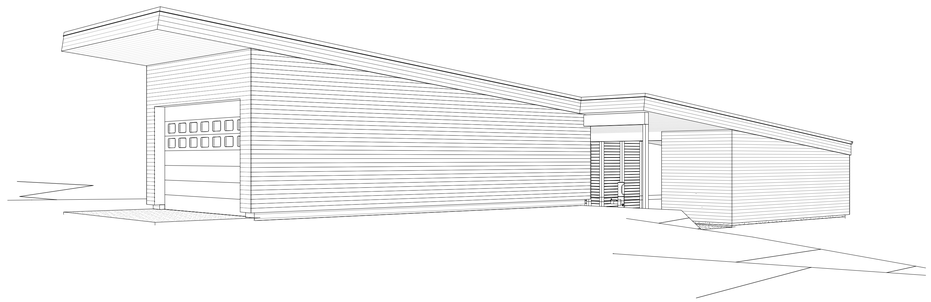
Vehicular Asphalt				Contract Awarded
Overflow Parking - Gravel				need Change Order
Striping				
Contract Awarded $304,260 plus CO #1 $33,315 = $337,575.00				$337,575.00
				Contract Awarded
WELCOME BUILDING AND ALL INTERNAL UTILITIES				
Item	**Unit**	**Quantity**	**Unit Rate**	**Total**
Welcome Building (Including All Internal Utilities, Not Including Items Below) VE collaborate notes				$899,806.00
Exterior Concrete Paving (Exterior Concrete Slab at Welcome Building Under Roof and At Garage Entry)				w/building
Board-Form Concrete Walls - VE remove from bid			removed	$0.00
Wood Siding Material and Installation - VE this line item				w/building
			Sub-Total	**$899,806.00**
STEPS, HANDRAILS, BOULDERS				
Item				
Stone Slab Steps - allowance				w/building
Steel Handrails - VE Desing Build - included with Building				w/building
Boulders at Retaining Walls - VE remove Boulders from project			removed	$0.00
			Sub-Total	**$0.00**

Overall Sub-Total				**$899,806.00**
Mobilization - removed				$ -
Contingency taken out Ben W. is carrying Contingency				$ -
GRAND TOTAL PACKAGE #3 Utilities and Welcome Building				**$1,237,381.00**

BE 8/21/25

VICINITY MAP





INDEX TO DRAWINGS

WARM SPRINGS PRESERVE - WELCOME BUILDING

KETCHUM , IDAHO

SITE PLAN SYMBOLS

EXISTING	FEATURE	PROPOSED
100	CONTOUR	100
P	PROPERTY LINE	
C	CENTER LINE	
	EASEMENT/SETBACK	
	RIGHT OF WAY	
X X	FENCE	
ST	STORM DRAIN	ST
SS	SANITARY SEWER	SS
W	WATER LINE	W
E	ELECTRIC LINE	E
G	GAS LINE	G
T	TELEPHONE LINE	T
	DRAINAGE LINE	
	LIMIT OF WORK	
	MATCH LINE	PLAN A / PLAN B
50 0 50 100 IN FEET 1 inch = 100 ft.	SCALE	

EXISTING	FEATURE	PROPOSED
	SPOT ELEVATION	
	FIRE HYDRANT	
	VALVE	
	UTILITY POLE	
	TRANSFORMER	
	LIGHT	
	SIGN	
	MONUMENT	
	METER PIT	
	MANHOLE	
	CATCH BASIN	
	CLEAN OUT	
	OUTFALL/HEADWALL	
	BENCHMARK	
	BORING LOCATION	
	EXISTING TREE	
	TREE TO BE REMOVED	
	TRIANGULATION POINT	

ARCHITECTURAL SYMBOLS

BUILDING SECTION (PLAN)	BUILDING SECTION NUMBER SHEET WHERE DRAWN
WALL SECTION	WALL SECTION NUMBER SHEET WHERE DRAWN
DETAIL BLOW-UP	DETAIL NUMBER SHEET WHERE DRAWN
DETAIL CUT AND SECTION	DETAIL NUMBER SHEET WHERE DRAWN
ELEVATIONS	ELEVATION NUMBER SHEET WHERE DRAWN
ROOM TAG	ROOM 101 ROOM NAME ROOM NUMBER
DOOR NUMBER	
WINDOW NUMBER	
REVISION INDICATION	
ELEVATION MARK	
GRAPHIC SCALE	12 4 8
NORTH ARROW	

MATERIAL SYMBOLS

PLAN AND SECTION			
EARTH / TOP SOIL		PLYWOOD	
WASHED ROCK		FINISH WOOD	
ASPHALT PAVING / ROADBED MATL.		SAND, PLASTER, GYPSUM BOARD	
CONCRETE		BATT INSULATION	
BRICK		BIBS INULATION	
CONCRETE MASONRY UNIT		RIGID INSULATION	
CUT STONE		SPRAY FOAM INSULATION	
STEEL		WALL - NEW CONSTRUCTION	
ALUMINUM		WALL - EXISTING TO REMAIN	
		WALL - TO BE DEMOLISHED	

ELEVATION
SIDING - WOOD
SIDING - FIBER CEMENT PANEL
BRICK
CONCRETE
STUCCO
GLASS
CONCRETE MASONRY UNIT

PROJECT DATA

PARCEL NUMBER:	RPK05780060000
STREET ADDRESS:	201-311 BALD MOUNTIAN ROAD KETCHUM, IDAHO 83340
LEGAL DESCRIPTION:	WARM SPRINGS RANCH RESORT PUD BLK 6
ZONING:	T-TOURIST
CONSTRUCTION TYPE:	TYPE V-B
OCCUPANCY TYPE:	S-1, U
BUILDING AREA (GROSS):	TOTAL: 1,260 SF
FIRE SPRINKLER SYSTEM:	N/A
SITE AREA:	195,622 (4.5) ACRES
CODES:	2018 INTERNATIONAL BUILDING CODE (2018 IBC) AS ADOPTED BY CITY OF KETCHUM BUILDING DEPT.
JURISDICTIONS:	CITY OF KETCHUM PLANNING & ZONING CITY OF KETCHUM BUILDING DEPARTMENT CITY OF KETCHUM FIRE DEPARTMENT

ABBREVIATIONS

ABV	above
AFF	above finish floor
ASC	above suspended ceiling
ACC	access
ACFL	access floor
AP	access panel
AC	acoustical
ACPL	acoustical plaster
ACT	acoustical tile
ACG	acrylic glazing
ADD	addendum
ADH	adhesive
ADH	adhesive
ADJ	adjacent
ADJT	adjustable
AGG	aggregate
AC	air conditioning
ALM	alarm
ALT	alternate
AL	aluminum
ACI	American Concrete Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute
ASTM	American Society for Testing and Materials
AWS	American Welding Society
ANC	anchor, anchorage
A.B.	anchor bolt
ANOD	anodized
APPD	approved
APPROX	approximate
ARCH	architect (ural)
AD	area drain
ASB	asbestos
ASPH	asphalt
AT	asphalt tile
AUTO	automatic
AVG	average
BP	back plaster (ed)
BSMT	basement
BM	beam
BRG	bearing
BPL	bearing plate
BLT	bed joint
B.M.	bench mark
BEL	below
BET	between
BVL	beveled
BIT	bituminous
BLK	block
BLKG	blocking
BD	board
B.S.	both sides
BW	both ways
BOT	bottom
B.O.B.	bottom of beam
B.O.C.	bottom of concrete
B.O.F.	bottom of footing
B.O.S.	bottom of steel or bottom of slab
B.O.W.	bottom of wall
BRK	brick
BTU	British Thermal Unit
BRZ	bronze
BLDG	building
BUR	built up roofing
BBD	bulletin board
CAB	cabinet
CAD	cadmium
CPT	carpet (ed)
CSMT	casement
C.I.	cast iron
C.I.P.	cast in place
CST	cast stone
C.B.	catch basin
(C)	caulk (ing)
CLG	ceiling
CLR	ceiling height
CMT	cement
CPL	cement plaster (portland)
CM	centimeter
CER	ceramic
C.T.	ceramic tile
AC	air conditioning
CHBD	chalk board
CHAN	chamfer
CR	chromium
CIR	circle
CIRC	circumference
CL	clear(ance)
CLR	clear (ance)
CLOS	closet
CLG	closure
C.W.	cold water
COL	column
COMB	combination
COMPT	compartment
COMPO	composition (composite)
COMP	compress (ed) (ion) (ible)
CONC	concrete
CMU	concrete masonry unit
CONN	connection
CONST	construction
CDS	Construction Specifications Institute
CONT	continuous or continue
CONTR	contract (or)
CLL	contract limit line
CJT	control joint
CPR	copper
CG	corner guard
CORR	corrugated
CTR	counter
CFL	counterflashing
CS	countersunk
CTSK	countersunk screw
CRS	course (s)
CRG	cross grain
CU	cubic foot
CY	cubic yard
DPR	damper
DP	damp proofing
DL	dead load
DEG or °	degree
DEM	demolition, demolition
DEP	depressed
DMT	demountable
DTL	detail
DIAG	diagonal
DIAM	diameter
DIM	dimension
DW	dishwasher
DSPR	dispenser
DIS	disposal
DIV	division
DR	door
DBL	double
DA	double acting
DH	double hung
D.S.B.	double strength B
DTA	dovetail anchor
DTS	dovetail anchor slot
DW	down
D.	downspout
DRN	drain
DRBD	drainboard
DT	drain tile
DWR	drawer
D.C.	drawing
D.F.	drinking fountain
D.W.	dumb waiter
EA	each
E.F.	each face
E.W.	each way
ELEC	electric (al)
EP	electrical panel board
EWC	electrical water cooler
EL	elevation
ELEV	elevator
EMER	emergency
ENCL	enclose (ure)
EQ	equal
EQUIP	equipment
ESC	escalator
EST	estimate
EXCA	excavate
EXH	exhaust
(E)	existing
EXMP	expanded metal plate
E.B.	expansion bolt
EXP	exposed
EXT	exterior
E.J.	expansion joint
FAB	fabricate
FB	face of brick
F.O.	face of
F.O.C.	face of concrete
F.O.F.	face of finish
F.O.M.	face of masonry
F.O.S.	face of stud
FAS	fasten, fastener
F.N.D.	femine napkin dispenser
F.N.R.	femine napkin receptacle
FN	fence
FBD	fiberboard
FGL	fiberglass
F.E.	fire extinguisher
F.F.	finished floor
F.A.	fire alarm
FBRK	fire brick
F.E.	fire extinguisher
F.E.C.	fire extinguisher cabinet
F.H.S.	fire hose station
FPL	fireplace
FP	fireproof
FRC	fire-resistant coating
FRT	fire-retardent
FIX	fixture
FLG	flashing
FHMS	flathead machine screw
FHWS	flathead wood screw
FLX	flexible
FLR	floor (ing)
FLCO	floor cleanout
FD	floor drain
FLUOR	fluorescent
FJT	flush joint
FTG	footing
FRG	forged
FDN	foundation
FR	frame (d), (ing)
FRZ	freeze, freezer
F.C.O.	furnished and installed by others
F.I.T.	furnished and installed by tenant
F.B.O.	furnished by others
F.B.T.	furnished by tenant
FUR	furred (ing)
FUT	fixture
GA	gage, gauge
GPM	gallons per minute
GALV	galvinized
G.I.	galvinized iron
GSP	galvinized pipe
GSS	galvinized steel sheet
GKT	gasket (ed)
GEN	general
GC	general contract
GL	glass, glazing
GLB	glass block
GLF	glass fiber
GCMU	glazed concrete masonry unit
GST	glazed structural tile
GB	grab bar
GR	grade, grading
GRN	granite
GND	ground
GRD	ground
GF	ground face
GT	grout
GYP	gypsum
GWB	gypsum wall board
GYPT	gypsum tile
HH	handhole
HBD	hardboard
HDW	hardware
HWD	hardwood
HJT	head joint
HDR	header
HTR	heater
HVAC	heating/ventilating/air conditioning
HD	heavy duty
HT	height
HX	hexagonal
HES	high early strength cement
H.C.	hollow core
H.M.	hollow metal
HK	hook (s)
HOR	horizontal
H.B.	hose bib
HWH	hot water heater
INCIN	incinerator
INCL	include (d), (ing)
INFO	information
I.D.	inside diameter
I.B.C.	installed by contractor
I.B.O.	installed by others
INSUL	insulate (d), (ion)
INSC	insulating concrete
INSF	insulating fill
INT	interior
INTX	intersect
INTMD	intermediate
INV	invert
IPS	iron pipe size
JC	janitor's closet
J.T.	joint
J.F.	joint filler
KCPL	keene's cement plaster
KPL	kickplate
KIT	kitchen
K.O.	knockout
LBL	lable
LAB	laboratory
LAD	ladder
LB	lag bolt
LAM	laminate (d)
LAV	lavatory
LH	left hand
L.H.R.	left hand reverse
L	length
LT	light
L.W.	light weight
L.W.C.	light weight concrete
LMS	limestone
LF	lineal feet
LTL	lintel
LVR	louver
LPT	low point
MB	machine bolt
MI	malleable iron
MH	manhole
MFR	manufacture (er)
MARB	marble
MAS	masonry
M.O.	masonry opening
MATL	material (s)
MAX	maximum
MECH	mechanic (al)
M.C.	medicine cabinet
MED	medium
MBR	member
MEMB	membrane
MTL	metal
M.E.	metal edge
MFG	metal floor decking
MTFR	metal furring
MRD	metal roof decking
MTHR	metal threshold
M	meter (s)
MEZ	mezzanine
MM	millimeter (s)
MWK	millwork
MIN.	minimum
MIR.	mirror
MISC	miscellaneous
MOD	modular
MLD	molding, moulding
MR	mop receptor
MTD	mounted (d), (ing)
MOV	movable
MUL	mullion
NFPA	National Fire Protection Association
NAT	natural
(N)	new
NI	nickle
NR	noise reduction
NRC	noise reduction coefficient
NOM	nominal
NC	non-corrosive
NMT	nonmetallic
(NP)	no paint
N.A.	not applicable, available
N.I.C.	not in contract
N.T.S.	not to scale
OBS	obscure
OC	on, or center (s)
OP	opaque
OPG	opening
CUST	open-web joist
OPP	opposite
OPH	opposite hand
OPS	opposite surface
O.D.	outside diameter
OHMS	overhead machine screw
OWS	overhead wood screw
OA	overall
OH	overhead
(P)	paint (ed)
PR	pair
PNL	panel
PB	panic bar
P.T.D.	paper towel dispenser
PTR	paper towel receptor
PAR	parallel
PK	parking
PART BD	particle board
PTN	partition
PV	pave (d), (ing)
PVMT	pavement
PED	pedistal
PERF	perforate (d)
PERI	perimeter
PH	phase
PLAS	plaster
PLAS	plastic
PL	plate
PG	plate glass
PWD	plywood
PT	point
PVC	polyvinyl chloride
PE	porcelain enamel
POS	positive, position
PTC	post-tensioned concrete
LB	pounds
PCF	pounds per cubic foot
PLF	pounds per square foot
PSF	pounds per square foot
PSI	pounds per square inch
P.J.	poured in place
PCC	precast concrete
PREFAB	prefabricate (d)
PRN	prefinish
PRF	preformed
PSC	prestressed concrete
PROP	property
P.L.	property line
QTY	quantity
QT	quarry tile
RBT	rabbet, rebate
RAD	radius
RL	rail (ing)
RWC	rain water conductor
RECEPT	receptcle
RE	reference
REFR	reflect (ed), (ive), (or)
REG	refrigerator
REINF	reinforce
REINF	reinforce (d), (ing)
RCP	reinforced concrete pipe
(R)	remove
REQ	required
RESIL	resilient
RET	return
RA	return air
REV	reverse (side)
REV	revision (s), revised
RH	right hand
ROW	right of way
R	riser
RVT	rivet
RD	roof drain
RFH	roof hatch
RFG	roofing
RM	room
R.O.	rough opening
R.S.	rough sawn
RB	rubber base
RBR	rubber tile
RBL	rubble stone
SFGL	safety glass
SCN	screen
(S)	sealant
STG	seating
SECT	section
SC	secure core
SHTG	sheathing
SHT	sheet
SVFC	sheet vinyl floor covering
SHO	shoe (d), (ing)
SIM	similar
S.H.	single hung
SKL	skylight
S.J.	slip joint
SL	sleeve
SC	solid core
SP	sound proof
SPKr	spkeer
SPK	speaker
SPCL	special
SPEC	specification (s)
SQ	square
SF	square feet
SST	stainless steel
STD	standard
STA	station
STL	steel
STOR	storage
SD	storm drain
STR	structural
SCT	structural clay tile
STDS	studs
SUSP	suspended
SYM	symmetry (ical)
SYN	synthetic
SYS	system
TKBD	tackboard
TKS	tackstrip
TEL	telephone
TV	television
TEMP	tempered, temperature
TC	terra cotta
TZ	terrazzo
THK	thick (ness)
THR	threshold
TPFH	toilet partion
TPH	toilet paper holder
TOL	tolerance
T&G	tounge and groove
T&B	top and bottom
T.O.	top of
T.O.B.	top of beam
T.O.C.	top of concrete
T.O.D.	top of drain
T.O.F.	top of footing
T.O.M.	top of masonry
T.O.S.	top of slab
T.O.St.	top of steel
T.O.W.	top of wall
TR	towel rack
TR	transom
T	tread
TYP	typical
UC	undercut
UGF	underground
UL	Underwriters Laboratories
UNF	unfinished
U.O.N.	unless otherwise noted
UR	urinal
VJ	v-joint
VB	vapor barrier
VAR	varnish
VNR	veneer
VTR	vent through roof
(V)	verify
VRM	vermiculite
VERT	vertical
VEST	vestibule
VG	vertical grain
V.S.J.	vertical slip joint
VIN	vinyl
VAT	vinyl asbestos tile
VB	vinyl base
VF	vinyl fabric
VT	vinyl tile
VWC	vinyl wall covering
WCST	wainscot
WTW	wall to wall
WHSE	wall hung
WC	water closet
WPF	water proofing / weatherproof
WR	water repellent / waste receptacle
WS	watersstop
WT	weight
WWF	welded wire fabric
WHB	wheel bumper
W	width, wide
WDO	window
WG	wired glass
WM	wire mesh
W/	with
WO	without
WD	wood
WB	wood base
WPT	work point
WI	wrought iron
∠	angle
CL	center line
[	channel
#	number
PL	property line
○	round
▱	square foot

GENERAL REQUIREMENTS

1. ALL WORK PERFORMED SHALL COMPLY WITH THE MOST STRINGENT REQUIREMENTS OF THE FOLLOWING AND HAVE SAME FORCE AND EFFECT AS IF COPIED DIRECTLY INTO CONTRACT DOCUMENTS.
   A. 2012 INTERNATIONAL BUILDING CODE
   B. ALL APPLICABLE LOCAL, CITY, COUNTY, STATE AND FEDERAL LAWS, CODES, ORDINANCES, COVENANTS, RULES AND REGULATIONS GOVERNING THE SITE OF WORK IN EFFECT AS OF THE DATE OF CONSTRUCTION DOCUMENTS.

   SHOULD THE GENERAL CONTRACTOR OR ANY SUBCONTRACTOR PERFORM WORK NOT IN ACCORDANCE OR IN CONFLICT WITH THE ABOVE-MENTIONED LAWS, CODES, ORDINANCES, RULES AND REGULATIONS, CONTRACTOR IN VIOLATION SHALL BEAR RESPONSIBILITY OF ALL COSTS INCURRED ARISING FROM REMOVAL AND REPAIR OF NON-CONFORMING WORK.
2. GENERAL CONTRACTOR SHALL REVIEW ALL PLANS AND SPECIFICATIONS AND VERIFY ALL DIMENSIONS AND SITE CONDITIONS PRIOR TO COMMENCEMENT OF CONSTRUCTION. ALL ERRORS AND OR DISCREPANCIES IN THESE PLANS SHALL IMMEDIATELY BE REPORTED IN WRITING TO THE ARCHITECT AND SHALL BE RESOLVED AT THE ARCHITECTS DISCRETION PRIOR TO THE COMMENCEMENT OF ANY WORK IN QUESTION.
3. ON SITE VERIFICATION OF ALL DIMENSIONS AND SITE CONDITIONS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND HIS SUB CONTRACTORS.
4. THE GENERAL CONTRACTOR SHALL PROVIDE ON-SITE CONSTRUCTION SUPERVISION TO THE EXTENT NECESSARY TO ASSURE THAT ALL IMPROVEMENTS ARE BEING CONSTRUCTED IN CONFORMANCE WITH THE CONSTRUCTION DOCUMENTS AND COMMON INDUSTRY TRADE PERFORMANCE STANDARDS. GENERAL CONTRACTOR SHALL INSPECT ALL STRUCTURAL FRAMING MEMBERS, CONCRETE ANCHORS, TIE DOWNS, FLASHING, ROOF MATERIALS, AND UNDERLAYMENT. INSPECTION IS TO ASSURE THAT ALL MATERIALS AND APPLICATIONS MEET MANUFACTURER'S SPECIFICATIONS AND INSTALLATION GUIDELINES OR ASTM REQUIREMENTS, WHICHEVER IS MORE STRINGENT, AND TO NOTIFY THE ARCHITECT AND OWNER IN SUFFICIENT TIME TO PREVENT DEFECTIVE AND OR SUBSTANDARD MATERIALS FROM BEING INCORPORATED INTO WORK.
5. THE PROJECT ARCHITECT FOR MICHAEL DOTY ASSOCIATES, ARCHITECTS, P.C., SHALL IMMEDIATELY BE NOTIFIED IN WRITING BY THE GENERAL CONTRACTOR / CONSTRUCTION SUPERINTENDENT SHOULD ANY DISCREPANCY INCONSISTENCY, OR OTHER QUESTION ARISE PERTAINING TO THE CONSTRUCTION DOCUMENTS. THE GENERAL CONTRACTOR SHALL BEAR SOLE LIABILITY FOR ALL DECISIONS MADE WITHOUT CONSULTING ARCHITECT FOR CLARIFICATION OF MATTER IN QUESTION.
6. THE DESIGN ADEQUACY, AND SAFETY OF THE ERECTION, BRACING, SHORING, TEMPORARY SUPPORTS, ETC., IS THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR, AND HAS NOT BEEN CONSIDERED BY THE ARCHITECT OR STRUCTURAL ENGINEER. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE PRIOR TO THE APPLICATION OF ALL SHEAR WALLS, ROOF, AND FLOOR DIAPHRAGMS AND FINISH MATERIALS, AND SHALL PROVIDE THE NECESSARY BRACING TO PROVIDE STABILITY PRIOR TO THE APPLICATION OF THE AFOREMENTIONED MATERIALS. OBSERVATION VISITS TO THE SITE BY THE ARCHITECT OR STRUCTURAL ENGINEER SHALL NOT INCLUDE INSPECTION OF THE ABOVE ITEMS.
7. REFER TO STRUCTURAL SPECIFICATIONS, PLANS, AND DETAILS FOR QUESTIONS REGARDING LUMBER GRADES, BEAM AND HEADER SIZES, FOOTINGS, AND SHEAR REQUIREMENTS.
8. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION COORDINATION AND SUPERVISION. THE ARCHITECT WILL PERIODICALLY OBSERVE THE PROGRESS OF CONSTRUCTION, BUT WITHOUT UNDERTAKING TO PROVIDE CONSTRUCTION SUPERVISION, SOLELY FOR THE PURPOSE OF DETERMINING DESIGN CONSISTENCY.
9. THE GENERAL CONTRACTOR IS TO COMPLY WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS TO THE EXTENT THAT MANUFACTURER'S PRINTED INFORMATION IS MORE DETAILED AND OR STRINGENT THAN REQUIREMENTS CONTAINED DIRECTLY IN THE CONSTRUCTION DOCUMENTS.
10. IT IS THE INTENT OF THE CONSTRUCTION DOCUMENTS THAT ALL WORK BE PERFORMED IN A SOUND MANNER PROVIDING A COMPLETED PROJECT WITH MATERIALS, ASSEMBLIES, AND SYSTEMS CORRECTLY INSTALLED AND PERFORMING IN A MANNER CONSISTENT WITH THE COMMON STANDARDS ON THE INDUSTRY FOR THIS TYPE OF PROJECT.
    A. CONSTRUCTION DOCUMENTS INCLUDE, BUT ARE NOT LIMITED TO, WORKING DRAWINGS, SPECIFICATIONS, STRUCTURAL CALCULATIONS, STATE MANDATED ENERGY CALCULATIONS AND NOTES, SOILS REPORT, GEOLOGY REPORT, ACOUSTICAL ENGINEERS REPORT, ADDENDUM AND CHANGE ORDERS, AND THESE GENERAL REQUIREMENTS UNLESS OTHERWISE NOTED ON PLANS OR SPECIFICATIONS.
11. GENERAL CONTRACTOR AND SUBCONTRACTORS RECOGNIZE THAT THE ARCHITECT CANNOT PREPARE PLANS AND DRAWINGS THAT COVER ALL CONCEIVABLE CONSTRUCTION DETAILS OR SITE CONDITIONS.
12. GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL IMMEDIATELY INFORM THE ARCHITECT IN WRITING OF ANY MISSING DETAILS AND OR CORRECTIONS WHICH ARE BELIEVED BY THEM TO BE NECESSARY AND OR APPROPRIATE FOR THE PROPER CONSTRUCTION OF THE PROJECT AND THAT WOULD NOT NORMALLY BE THEIR RESPONSIBILITY UNDER COMMON INDUSTRY PRACTICES AND TECHNIQUES.
13. TERMINOLOGY, ABBREVIATIONS, AND SYMBOLS USED IN THE CONSTRUCTION DOCUMENTS ARE THOSE RECOGNIZED IN THE CONSTRUCTION INDUSTRY FOR THE PURPOSED INDICATED BY THE CONTEXT IN WHICH USED. IN THE EVENT THAT INDUSTRY PUBLICATIONS DO NOT ADEQUATELY DEFINE ANY GIVEN TERM, THE DEFINITIONS FOUND IN MERRIAM-WEBSTER UNABRIDGED DICTIONARY OF THE AMERICAN LANGUAGE WILL GOVERN. REFER UNCERTAINTIES TO ARCHITECT BEFORE PROCEEDING.
14. GENERAL CONTRACTOR SHALL ARRANGE FOR ALL TESTING AND INSPECTING REQUIRED BY THE CONSTRUCTION DOCUMENTS, LOCAL BUILDING DEPARTMENT, GRADING AND HEALTH DEPARTMENTS, AND ALL OTHER AGENCIES HAVING JURISDICTION OVER THE PROJECT.
15. PRODUCTS SPECIFIED IN THE CONSTRUCTION DOCUMENTS BY MANUFACTURER, MAKE, BRAND, MODEL, AND OR OTHER DESIGNATION ARE A PROJECT REQUIREMENT, UNLESS SPECIFICALLY NOTED OTHERWISE SUBSTITUTIONS OF ACCEPTABLE EQUALS ARE PERMITTED ONLY WITH PRIOR WRITTEN APPROVAL OF THE ARCHITECT AND OWNER. SELECTION OF PRODUCTS WHICH COMPLY WITH REQUIREMENTS INCLUDING APPLICABLE STANDARDS IS THE GENERAL CONTRACTORS OPTION WHERE NO PRODUCTS ARE SPECIFIED BY THE CONSTRUCTION DOCUMENTS, ARCHITECT, OR OWNER. THE GENERAL CONTRACTOR AND OR SUBCONTRACTOR SHALL BEAR ALL RESPONSIBILITY FOR PRODUCTS WHICH HE SELECTS AND INSTALLS.
16. WHERE CONSTRUCTION DOCUMENTS CONFLICT WITH CODES, THE MORE STRINGENT SHALL APPLY.
17. NO CHANGES ARE TO BE MADE ON THESE CONSTRUCTION DOCUMENTS WITH OUT THE PRIOR KNOWLEDGE AND WRITTEN CONSENT OF THE ARCHITECT OR ENGINEER WHOSE SIGNATURE APPEARS HERE ON. APPROVAL BY CITY AND OR COUNTY BUILDING INSPECTOR DOES NOT CONSTITUTE AUTHORITY TO DEVIATE FROM PLANS AND SPECIFICATIONS.
18. ALL REVISIONS TO AND OR CHANGES IN THE SCOPE OF WORK DESCRIBED BY THESE CONSTRUCTION DOCUMENTS SHALL BE BY WRITTEN CHANGE ORDER ONLY. GENERAL CONTRACTOR SHALL PROCURE THE BUILDING OFFICIAL'S APPROVAL FOR ANY SUCH CHANGES IN THE WORK.
19. GENERAL CONTRACTOR SHALL PROCURE ALL REQUIRED BUILDING PERMITS AND APPROVALS THROUGHOUT CONSTRUCTION AND OCCUPANCY.
20. ALL CLEAR DIMENSIONS ARE REQUIRED TO BE EXACT WITHIN 1/8" TOLERANCE ALONG THE FULL HEIGHT AND WIDTH OF WALLS. GENERAL CONTRACTOR AND OR SUBCONTRACTOR SHALL NOT ADJUST ANY GIVEN DIMENSION WITHOUT WRITTEN INSTRUCTION FROM THE ARCHITECT.
21. ALL SHOP DRAWINGS REQUIRED BY THE CONSTRUCTION DOCUMENTS SHALL BE SUBMITTED TO THE ARCHITECT AND OR ENGINEER PRIOR TO FABRICATION FOR REVIEW OF COMPLIANCE WITH DESIGN INTENT.
22. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR REQUIRING AND VERIFICATION THAT ALL SUBCONTRACTORS ARE ALWAYS USING THE MOST CURRENT ISSUED SET OF BUILDING DEPARTMENT APPROVED CONSTRUCTION DOCUMENTS.
23. THE GENERAL CONTRACTOR AND OR SUBCONTRACTORS SHALL BE RESPONSIBLE FOR STORING BUILDING MATERIALS ON SITE. MATERIALS SHALL BE KEPT SECURE AND PROTECTED FROM MOISTURE, PESTS, AND VANDALS. ALL LOSSES ARISING FROM DAMAGED OR STOLEN MATERIALS STORED ON SITE SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR AND OR SUBCONTRACTOR STORING THOSE MATERIALS.

PROJECT TEAM

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PROJECT NO. 2318.0

SET NO. CD-

WARM SPRINGS PRESERVE WELCOME BUILDING
201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

PURPOSE	DATE
FOR PERMIT	11/8/2024

REVISION RECORD

NO.	CHANGE	DATE

DRAWN: AR

CHECKED: MFA

DATE: 11/8/2024

SHEET TITLE:
TITLE SHEET

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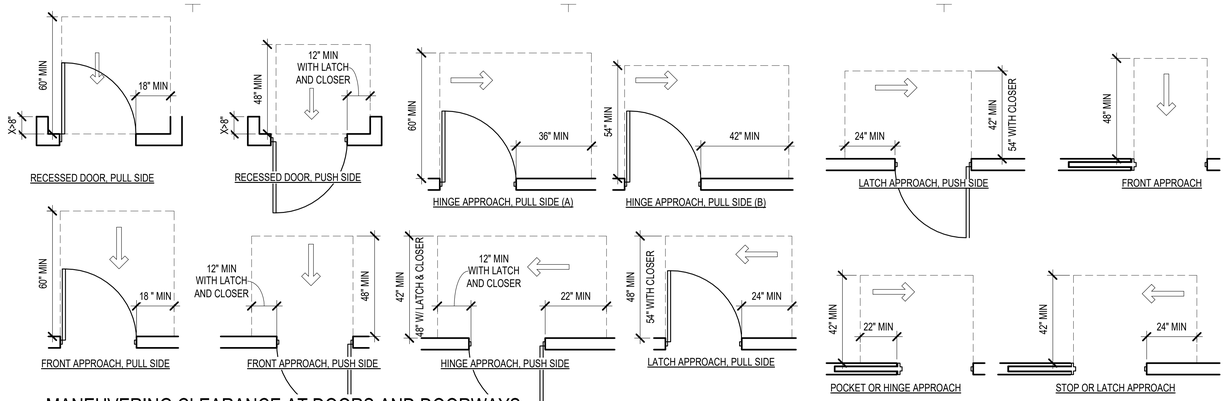
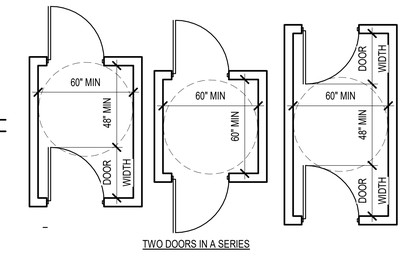
LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY
STATE OF IDAHO
11/8/2024

SHEET A0.01 OF TOTAL



14 MANEUVERING CLEARANCE AT DOORS AND DOORWAYS

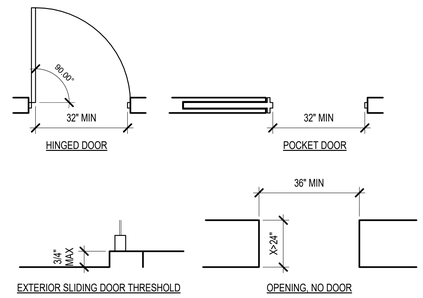
RE: ANSI A117.1-2009 SECTION 404.2.3; 2010 ADA STANDARDS SECTION 404.2.4 (MOST STRINGENT REQUIREMENTS ARE SHOWN)



TWO DOORS IN A SERIES

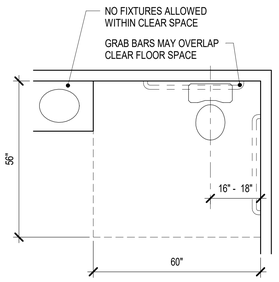
6 DOORS IN SERIES

RE: ANSI A117.1-2009 SEC. 404.2.5; 2010 ADA STANDARDS SEC. 404.2.6



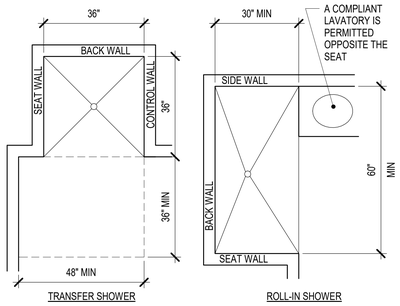
3 CLEAR DOOR WIDTH

RE: ANSI A117.1-2009 SEC. 404.2.2; 2010 ADA STANDARDS SEC. 404.2.3



13 WATER CLOSET CLEAR FLOOR SPACE

SEE ANSI A117.1-2009 SEC. 604.3; 2010 ADA STANDARDS SEC. 604.3



12 SHOWERS

SEE ANSI A117.1-2009 SEC. 608; 2010 ADA STANDARDS SEC. 608

PROVIDE PARALLEL OR FORWARD (UNLESS OTHERWISE STATED) CLEAR FLOOR SPACE AT:

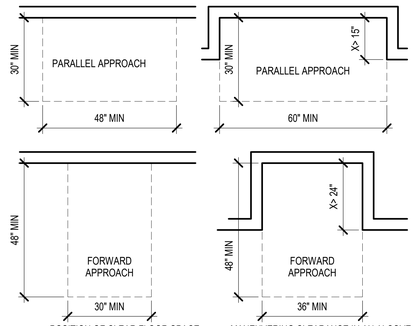
-WASHERS & DRYERS
-TOILETS
-SHOWERS/TUBS
-LAVATORIES (FORWARD APPROACH ONLY).
-RANGES OR COOKTOPS (PARALLEL APPROACH UNLESS KNEE AND TOE CLEARANCE ARE PROVIDED).
-OVEN
-REFRIGERATOR/FREEZER
-TRASH COMPACTOR
-DRINKING FOUNTAINS (FORWARD APPROACH ONLY).

CLEAR FLOOR SPACE AT FIXTURES CAN INCLUDE:
-KNEE AND TOE CLEARANCE SPACE
-OVERLAP BETWEEN TWO CLEAR GROUND SPACES.

CANNOT INCLUDE:
SPACE USED BY DOOR SWING; UNLESS THE ROOM IS FOR INDIVIDUAL USE AND ADDITIONAL FLOOR SPACE IS PROVIDED CLEAR OF DOOR SWING.

9 CLEAR FLOOR SPACE

RE: ANSI A117.1-2009 SEC. 305; 2010 ADA STANDARDS SEC. 305

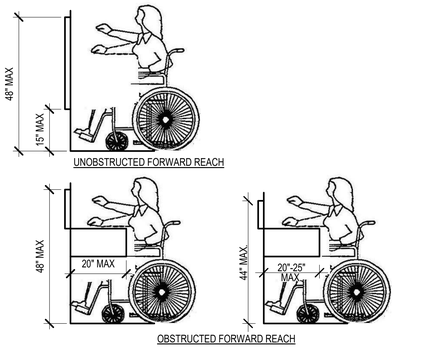


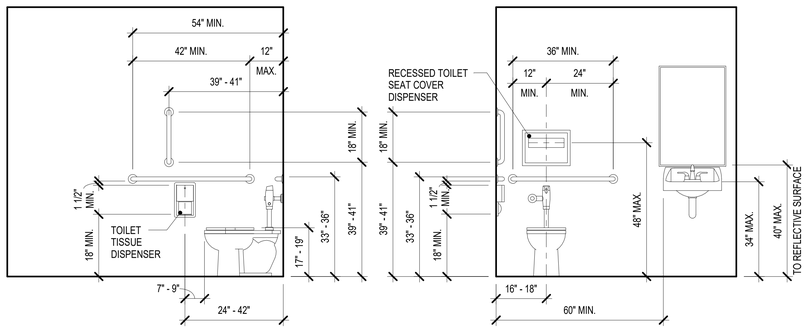
POSITION OF CLEAR FLOOR SPACE

MANEUVERING CLEARANCE IN AN ALCOVE

2 REACH RANGES

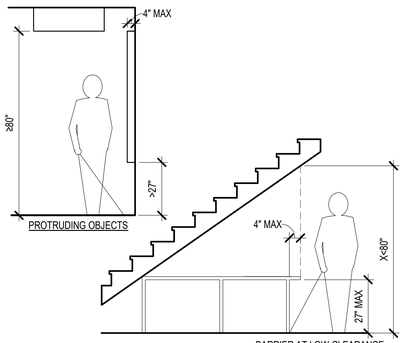
RE: ANSI A117.1-2009 SEC. 308, 2010 ADA STANDARDS SEC. 308





11 WATER CLOSET GRAB BAR AND ACCESSORY MOUNTING

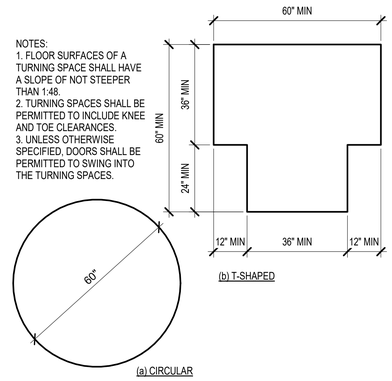
SEE ANSI A117.1-2009 SEC. 604; 2010 ADA STANDARDS SEC. 604



8 PROTRUDING OBJECTS

SEE ANSI A117.1-2009 SEC. 307; 2010 ADA STANDARDS SEC. 307

NOTES:
1. FLOOR SURFACES OF A TURNING SPACE SHALL HAVE A SLOPE OF NOT STEEPER THAN 1:48.
2. TURNING SPACES SHALL BE PERMITTED TO INCLUDE KNEE AND TOE CLEARANCES.
3. UNLESS OTHERWISE SPECIFIED, DOORS SHALL BE PERMITTED TO SWING INTO THE TURNING SPACES.



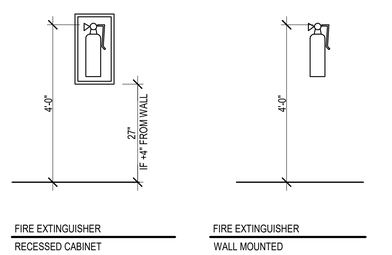
5 TURNING SPACE

RE: ANSI A117.1 2003. SECTION 304

ACCESSIBILITY NOTES

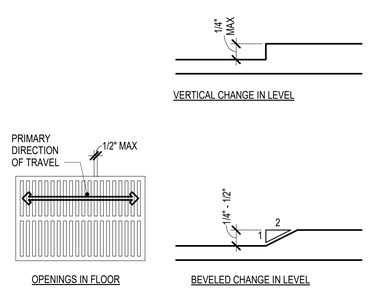
THE DETAILS SHOWN ON THIS SHEET ARE INTENDED AS A GENERAL GUIDE ONLY. REFER TO PLANS, ELEVATIONS, SECTIONS AND DETAILS FOR SPECIFIC DETAILED REQUIREMENTS. NOTIFY ARCHITECT OF ANY DISCREPANCY BETWEEN PLAN SET AND DETAILS ON THIS SHEET.
ALL CONTROLS SHALL BE MOUNTED BETWEEN 15" AND 48" AFF. WHERE CONTROLS ARE MOUNTED OVER OBSTRUCTIONS, REFER TO ICC ANSI 117.1-2009 SEC. 308, 2010 ADA STANDARDS SEC. 308, AND INTERIOR ELEVATIONS FOR MOUNTING HEIGHT. NOTIFY ARCHITECT PRIOR TO MOUNTING ANY CONTROLS NOT DEFINED ON INTERIOR ELEVATIONS OVER OBSTRUCTING ELEMENTS.
ALL ACCESSIBLE ELEMENTS SHALL MEET THE REQUIREMENTS OF ICC A117.1-2009 AND THE 2010 ADA GUIDELINES. WHERE DISCREPANCIES OCCUR, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
WHERE EXPOSED WATER SUPPLY AND DRAINPIPES ARE PRESENT UNDER ACCESSIBLE LAVATORIES, INSULATION OR OTHER MATERIALS SHALL BE PROVIDED TO PROTECT AGAINST CONTACT WITH PIPES. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORIES AND SINKS. PROTECTIVE MATERIALS SHALL NOT INTRUDE ON KNEE AND TOE CLEARANCES.

1 ACCESSIBILITY NOTES



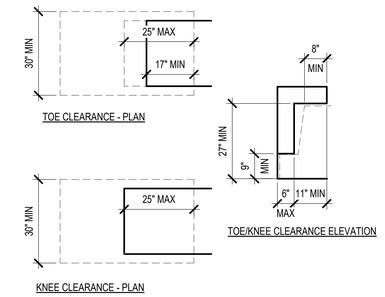
10 FIRE EXTINGUISHERS

RE: ANSI A117.1-2003 SECTION 405, 505



7 FLOOR SURFACES

RE: ANSI A117.1-2009 SEC. 303; 2010 ADA STANDARDS SEC.303



4 KNEE AND TOE CLEARANCES

RE: ANSI A117.1-2009 SEC. 306; 2010 ADA STANDSRDS SEC. 306

ACCESSIBILITY REQUIREMENTS

RE: ANSI A117.1-2009 AND 2010 ADA STANDARDS - MOST STRINGENT REQUIREMENTS SHOWN

PROJECT NO. 2318.0

SET NO. CD-

WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

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FOR PERMIT	11/8/2024

REVISION RECORD

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CHECKED: MFA

DATE: 11/8/2024

SHEET TITLE: ADA ACCESSIBILITY DETAILS

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LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY STATE OF IDAHO
11/8/2024

SHEET A0.15 OF TOTAL

MATERIAL IDENTIFICATION CODES

• ‹XX-1› INDICATES MATERIALS CALLED OUT ON PLANS, ELEVATIONS, SECTIONS, AND DETAILS.

<VR - 1>	VAPOR RETARDER AT EXTERIOR WALL AND CEILING: CERTAINTEED "MEMBRAIN" SMART VAPOR RETARDER FILM. ALL VAPOR RETARDER MEMBRANE LAPS (3" MINIMUM), PENETRATIONS, AND TERMINATIONS SHALL BE SEALED (AIR TIGHT).
<VR - 2>	UNDERSLAB VAPOR RETARDER: STEGO WRAP 15 MIL VAPOR BARRIER. TAPE ALL LAPS, PENETRATIONS, AND TERMINATIONS AIR TIGHT WITH STEGO TAPE IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
<WD BLKG - 1>	MISCELLANEOUS LUMBER: STANDARD OR BETTER, OR STUD GRADE OF ANY SPECIES FOR NAILERS, BLOCKING, AND SIMILAR MEMBERS.
<WD SID - 1>	WOOD SIDING: 5" WOOD SIDING APPLIED HORIZONTALLY OVER <RSV - 1>. THERMALLY MODIFIED RADIATA PINE SIDING BY reSAWN MILLWORKS; ADOBO WARBLER; WB10 PROFILE. ADOBO SIDING IS INCLUDED IN BUILDING MATERIALS LISTING PROGRAM (BML) WILDLAND-URBAN INTERFACE (WUI) PRODUCTS LISTING.
<WD SID - 2>	WOOD SIDING: 4-3/8" WOOD SIDING APPLIED HORIZONTALLY OVER <RSV - 1>. THERMALLY MODIFIED RADIATA PINE SIDING BY reSAWN MILLWORKS; ADOBO WARBLER; S4S PROFILE.
<WD STD - 1>	WOOD STUDS: SELECT STRUCTURAL NO. 2 OR BETTER, DOUGLAS FIR-LARCH NLGA, WCLIB, OR WWPA, OR AS INDICATED ON STRUCTURAL PLANS. SPACE STUDS @ 24" O.C. (UNLESS OTHERWISE NOTED ON STRUCTURAL PLANS). SIZE AS INDICATED ON ARCHITECTURAL PLANS AND DETAILS.
<WP - 1>	FOUNDATION WATERPROOFING MEMBRANE: GRACE BITUTHENE 3000 60 MIL SELF-ADHESIVE HDPE WATERPROOFING MEMBRANE SYSTEM (OR APPROVED EQUIVALENT). USE PRIMER RECOMMENDED BY MANUFACTURER FOR WEATHER CONDITIONS EXPERIENCED DURING PRODUCT INSTALLATION.
<WP - 2>	SELF ADHERED ROOF UNDERLAYMENT: GRACE ICE & WATER SHIELD HT UNDERLAYMENT MEMBRANE; PROVIDE A DOUBLE LAYER OF GRACE ICE & WATER SHIELD HT 60" WIDE (MINIMUM) AT ALL VALLEYS AND CRICKETS, AND 84" WIDE (MINIMUM) INSIDE THE EXTERIOR WALL LINE OF THE BUILDING AT ALL EAVES. SANDWICH DRIP METAL BETWEEN ICE & WATER SHIELD AT ALL EAVES. WHERE ICE & WATER SHIELD HT IS CALLED FOR UNDER ROOF COVERINGS OF COPPER, ZINC, OR CORTEN STEEL, OR WHEN IN CONTACT WITH EPDM PRODUCTS, GRACE ULTRA SHALL BE USED IN LIEU OF ICE & WATER SHIELD HT.
<WP - 4>	EPDM ROOFING MEMBRANE: 60 MIL UNREINFORCED, SINGLE PLY, LOOSE LAID, BALLASTED EPDM WATERPROOF MEMBRANE BY FIRESTONE BUILDING PRODUCTS COMPANY. INSTALL IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. RE: DETAILS ON SHEETS A8.21 & A8.22 PROVIDE <BLST - 1>.
<WP - 5>	SHOWER WATERPROOFING MEMBRANE: SCHLUTER KERDI BONDED WATERPROOFING AND VAPROR-RETARDANT MEMBRANE. INSTALL OVER <GWB - 2> WITH THINSET MORTAR IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. EXTEND OVER CONCRETE CURB TO FINISH FLOOR.
<WRB - 2>	WATER RESISTIVE BARRIER: VAPROSHIELD WRAPSHIELD SA UV-SABLE WATER-RESISTIVE VAPOR-PERMEABLE AIR BARRIER MEMBRANE FOR CLOSED JOINT RAINSCREEN CLADDING SYSTEMS. ALL OVERLAPS MUST BE A MINIMUM OF 3" ON HORIZONTAL AND VERTICAL SEAMS, AND 6" AT INSIDE AND OUTSIDE VERTICAL CORNERS. INSTALLER TO USE A 2-HANDED ROLLER TO ENSURE ADHESION TO SUBSTRATE. OVER OSB SUBSTRATES, ADHESION MAY BE COMPROMISED, TAKE STEPS TO ENSURE MEMBRANE IS SECURLY HELD IN PLACE. INSTALL IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS FOR AIR BARRIER INSTALLATION.
<WRB - 3>	WATER RESISTIVE BARRIER: VAPROSHIELD VAPROLIQUI-FLASH LIQUID-APPLIED WATERPROOF FLASHING MATERIAL. INSTALL IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
<WRB - 4>	WATER RESISTIVE BARRIER: VAPROSHIELD WRAPFLASHING SA UV-STABLE WATER-RESISTIVE PERMEABLE AIR BARRIER MEMBRANE. INSTALLER TO USE A 2-HANDED ROLLER TO ENSURE ADHESION TO SUBSTRATE. OVER OSB SUBSTRATES, ADHESION MAY BE COMPROMISED, TAKE STEPS TO ENSURE MEMBRANE IS SECURLY HELD IN PLACE. INSTALL IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
<WRT - 1>	WEATHER RESISTIVE TAPE: VAPROSHIELD VAPROTAPE UV BLACK FOR USE AS AN ACCESSORY TO <WRB - >. PRESS INTO PLACE BY HAND, AND UTILIZE HARD ROLLER TO FORCE ADHESIVE INTO SURFACE IRREGULARITIES. INSTALL IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
<WSHTG - 1>	EXTERIOR WALL SHEATHING: 4-1/8" HUNTER PANELS Xci PLY CLASS A. VERTICAL NAILABLE 3-1/2" POLYISO INSULATION WITH 5/8" PLYWOOD NAIL BASE (R VALUE-22.5). ALL UNFACED FOAM EXPOSED TO DIRECT DAYLIGHT AT PANEL EDGES SHALL BE TAPED WITH A COMPATIBLE WATERPROOF TAPE. INSTALL IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
<WSHTG - 2>	EXTERIOR 7/16" PLYWOOD SHEAR PANEL AS INDICATED ON STRUCTURAL PLANS. RIP STUDS TO MAINTAIN WALL CAVITY THICKNESS. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
<WSHTG - 3>	3/4" ACX PLYWOOD. INSTALL 'A' SIDE TOWARD INTERIOR TO ACCEPT POLYURETHANE FINISH. REFER TO INTERIOR FINISH SCHEDULE FOR ADDITIONAL INFORMATION.

NOTE: SUBSTITUTIONS WILL NOT BE CONSIDERED UNLESS SUBMITTED ON MDA SUBSTITUTION REQUEST FORM. CONTACT ARCHITECT FOR .PDF VERSION OF SUBSTITUTION REQUEST FORM.

NOTE: THIS LIST MAY CONTAIN PRODUCTS, SPECIFICATIONS AND/OR MATERIAL IDENTIFICATION CODES THAT ARE NOT A PART OF THIS PROJECT. THEIR PRESENCE HERE IN NO WAY SUGGESTS THAT THEY SHALL BE ACCEPTED AS ALTERNATES TO SPECIFIED MATERIALS NOTED IN PLANS, ELEVATIONS, SECTIONS AND DETAILS.

<APB - 1>	ASPHALT PROTECTION BOARD: 1/8" ASPHALT PROTECTION BOARD INSTALLED OVER EPDM MEMBRANE, AND BENEATH STONE BALLAST.
<BLST - 1>	STONE BALLAST: 3/4" - 1 1/2" DIAMETER RIVER BOTTOM STONE BALLAST LAID APPROXIMATELY 2" THICK (11 LBS. / SQ. FT. MIN.).
<CONC - 1>	CONCRETE RETAINING WALL / STEM WALL: BOARD FORMED CONCRETE AT ABOVE GRADE CONDITIONS. 3-1/2" HORIZONTAL JOINT SPACING. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
<CONC - 2>	CONCRETE SLAB ON GRADE: 4" NOMINAL THICKNESS NORMAL DUTY CONCRETE SLAB (RE: STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION), LIGHT BROOM FINISH. FLOOR FLATNESS (F_F) SHALL BE F_F=20 MIN. AND FLOOR LEVELNESS (F_L) SHALL BE F_L=15 MIN. AS MEASURED IN ACCORDANCE WITH ASTM E1155, UNLESS NOTED OTHERWISE. SLOPE SLAB TO DRAIN(S) 1/4" PER FOOT, MIN.
<CONC - 3>	CONCRETE SLAB AT PATIO: 4" NOMINAL THICKNESS NORMAL DUTY CONCRETE SLAB (RE: STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION), ACID ETCHED CONCRETE WITH LIGHTLY EXPOSED AGGEGATE FINISH. FLOOR FLATNESS (F_F) SHALL BE F_F=20 MIN. AND FLOOR LEVELNESS (F_L) SHALL BE F_L= 15 MIN. AS MEASURED IN ACCORDANCE WITH ASTM E1155, UNLESS NOTED OTHERWISE. SLOPE SLAB TO DRAIN(S) 1/4" PER FOOT, MIN.
<CT - 1>	THINSET CERAMIC TILE. REFER TO FINISH SCHEDULE ON SHEET A5.01 FOR MORE INFORMATION. INSTALL OVER <GWB - 2> AND <WP - 5> IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
<DCM - 1>	DRAINAGE COMPOSITE MAT: MIRA DRAIN 6200. INSTALL OVER <WP - 1> WITH FABRIC SIDE FACING OUT (TOWARD SOIL). INSTALL IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. <INSUL - 3> MAY BE SUBSTITUTED IF A FREE-DRAINING GRANULAR BACKFILL IS USED.
<FILL - 1>	FOUNDATION BACKFILL: FREE-DRAINING WASHED AGGREGATE BACKFILL AS SPECIFIED BY THE GEOTECHNICAL ENGINEER. REFER TO SOILS REPORT FOR ADDITIONAL INFORMATION.
<FILL - 2>	STRUCTURAL BACKFILL: FREE-DRAINING COMPACTED STRUCTURAL GRANULAR BACKFILL. REFER TO SOILS REPORT FOR ADDITIONAL INFORMATION.
<GWB - 1>	GYPSUM WALL BOARD: ALL GYPSUM WALL BOARD TO BE 5/8" THICKNESS, UNLESS OTHERWISE NOTED. INSTALL TYPE 'X' GYPSUM WALL BOARD AT FIRE RATED ASSEMBLIES AS INDICATED ON FIRE RATED ASSEMBLY DETAILS. INSTALL <GWB - 2> TILE BACKER BOARD BEHIND ALL TILE FINISHES, TYPICAL. LEVEL 4 FINISH UNLESS OTHERWISE NOTED
<GWB - 2>	TILE BACKER: ALL TILE BACKER BOARD SHALL BE 5/8" THICKNESS, UNLESS OTHERWISE NOTED. DENSHIELD TILE BACKER BY GEORGIA PACIFIC BUILDING PRODUCTS. INSTALL IN COMPLIANCE WITH MANUFACTURERS WRITTEN INSTRUCTIONS.
<HDP - 1>	HDP WALL PANELS: BPLITE WALL PANELS BY NUDO. SIZE: 48"x108", COLOR: GREY. INSTALL IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS FOR HIGH-MOISTURE AREAS.
<INSUL - 3>	INSULATION BOARD: 2" U.O.N. DOW STYROFOAM SM EXTRUDED POLYSTYRENE FOAM INSULATION / PROTECTION BOARD (R-5 PER INCH; MINIMUM COMPRESSIVE STRENGTH OF 30 PSI), OR APPROVED EQUIVALENT. NOTE: WHERE NATIVE SOILS ARE USED FOR BACKFILL, INSTALL <DCM - 1> OVER WATERPROOF MEMBRANE IN LIEU OF DOW 2" BOARD.
<INSUL - 7>	POLYISO RIGID INSULATION AT ROOF: 2" MINIMUM (UNLESS OTHERWISE NOTED) 20 PSI FLAT STOCK CLOSED CELL UL CLASSIFIED POLYISOCYANURATE RIGID INSULATION BOARD COMPLYING WITH ASTM C1289. (LONG TERM THERMAL RESISTANCE (LTTR) OF R-5.7 PER INCH MINIMUM, WITH FIBERGLASS FACERS, BOTH SIDES.
<PT - 1 >	EXTERIOR PAINT: BENJAMIN MOORE CC-544 OVERCOAT. REFER TO FINISH SCHEDULE FOR ADDITIONAL INFORMATION.
<PT - 2 >	INTERIOR PAINT: MANUFACTURER, COLOR, AND SHEEN TBD. REFER TO FINISH SCHEDULE FOR ADDITIONAL INFORMATION.
<RB - 2>	RESILIENT WALL BASE: JOHNSONITE RUBBER COVE BASE, 4" HIGH. COLOR: GATEWAY.
<RDP - 2>	ROOF DECK PROTECTION: DENSDECK PRIME ROOF BOARD BY GEORGIA PACIFIC BUILDING PRODUCTS. INSTALL IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. TO ACHIEVE CLASS-A RATING. BOARD THICKNESS AS INDICATED ON PLANS AND DETAILS.
<RSHTG - 1>	EXTERIOR ROOF SHEATHING: 5/8" CDX PLYWOOD SHEATHING (REFER TO STRUCTURAL DRAWINGS); MOISTURE TEST TO ENSURE A MAXIMUM MOISTURE CONTENT OF 13% PRIOR TO INSTALLATION OF <INSUL - 8> AND/OR WATERPROOFING SYSTEM.
<RSV - 1>	RAINSCREEN SIDING VENT: CORAVENT SV-3 3/8" RAINSCREEN SIDING VENT. INSTALL IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS. UTILIZE SV-3 AT WALL BASE AND AROUND WINDOWS AND DOORS, AND UTILIZE STURDI-STRIPS IN THE FIELD.
<RSV - 2>	RAINSCREEN SIDING VENT: VAPROSHIM SA SELF ADHERED EPDM SHIM. 1/8" THICK UNLESS NOTED OTHERWISE.
<SLNT - 1>	MASTERSEAL NP 150 (OR APPROVED EQUIVALENT) SILYL-TERMINATED POLYETHER HIGH PERFORMANCE SEALANT. COLOR TO MATCH OR COMPLIMENT ADJACENT MATERIALS. SUBMIT COLOR SAMPLE TO ARCHITECT FOR APPROVAL. INSTALL IN COMPLIANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
<SMF - 1>	SHEET METAL FLASHING: 24 GAUGE KYNAR 500 / HYLAR 5000 METAL FLASHING BY WESTERN STATES METAL ROOFING, COLOR: VINTAGE. APPLY A CONTINUOUS BEAD OF <SLNT - 1> AT ALL SHEET METAL FLASHING JOINTS, LAPS, AND TERMINATIONS.

PLAN NOTES

1 INDICATES PLAN NOTE.

01	PARK MAP LOCATION.
02	LANDSCAPE PATH REFER TO LANDSCAPE DRAWINGS
03	FLOOR SINK.
04	NOT USED.
05	FREEZE RESISTANT DRINKING FOUNTAINS WITH PET FOUNTAIN AND WATER BOTTLE FILLER. ELAKY ezH20 COLOR TBD PENDING OVERALL PARK THEME.
06	HOT/COLD HOSE BIB.
07	WOOD SIDING <WD SID - 2> SLAT WALL. SPACED 4-13/16" ON CENTER TO ALIGN WITH REAL ON ADJACENT <WD SID - 1> WOOD SIDING.
08	PREFABRICATED STORAGE CABINETS WITH SHELVING.
09	PET LEASH HOOKS.
10	DASHED LINE OF BEAM ABOVE.
11	CAST IN PLACE CONCRETE BENCH WITH WOOD SLAT TOP TO MATCH CITY OF KETCHUM STANDARDS (NOT SHOWN).
12	DASHED LINE OF ROOF ABOVE.
13	ABS PIPE SNOW/GRAVEL RETENTION @ 12' ON CENTER.
14	WOOD POSTS PER STRUCTURAL PLANS. PAINTED WITH <PT - 1>
15	EXTERIOR SCONCE LIGHT FIXTURE; RE: LIGHTING PLAN FOR ADDITIONAL INFORMATION.
16	DOWNSPOUT LOCATION; RE: NOTE 21 AND DETAIL 2/A8.01 FOR ADDITIONAL INFORMATION
17	UTILITY SINK. MANUFACTURER AND MODEL TBD BY OWNER. VERIFY DIMENSIONS, SPACE AND PLUMBING REQUIREMENTS PER MANUFACTURERS RECOMMENDATIONS. INSTALL PER MFR RECOMMENDATIONS. PROVIDE PLUMBING ROUGH-IN.
18	BOARD FORMED CONCRETE RETAINING WALL; RE: STRUCTURAL DRAWINGS FOR ADDITIONAL INFORMATION. REFER TO CONSTRUCTION ASSEMBLY W-2 ON SHEET A0.30
19	GARAGE FLOOR DRAIN. PROVIDE FOR SAND AND OIL SEPARATOR. RE* PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
20	BUILT-IN UTILITY WORK BENCH / SHELVING. PROVIDE IN-WALL SOLID BLOCKING AT BACK AND BOTH SIDES. REFER TO INTERIOR ELEVATIONS FOR ADDITIONAL INFORMATION.
21	GUTTER & DOWNSPOUT SYSTEM. GUTTERS SHALL RUN FLAT AND DIRECTLY CONNECT TO HARD PIPE SUBSURFACE DRAIN SYSTEM TO DRYWELL. PROVIDE HEAT TAPE IN ALL GUTTERS AND DOWNSPOUTS. HEAT TAPE SHALL EXTEND 36" MINIMUM BELOW GRADE. REFER TO ROOF PLANS FOR ADDITIONAL INFORMATION. PROVIDE ELECTRICAL CONNECT FOR HEAT TAPE. RE: DETAIL 2/A8.01 FOR ADDITIONAL INFORMATION.
22	FLOOR MOUNTED TOILET. VERIFY DIMENSIONS, SPACE AND PLUMBING REQUIREMENTS PER MANUFACTURERS RECOMMENDATIONS. INSTALL PER MFR RECOMMENDATIONS. PROVIDE PLUMBING ROUGH-IN.
23	LAVATORY AND FAUCET: BRADLEY VERGE LVQD1 LAVATORY, BRUSHED STAINLESS BASE, EVERO MATTE LIMESTONE BASIN. REFER TO PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
24	8-FOOT PICNIC TABLE. MANUFACTURER AND MODEL TBD BY OWNER.
25	RECESSED TOILET SEAT COVER DISPENSER. BOBRICK B-3013 OR APPROVED EQ.
26	RECESSED MULTI-ROLL TOILET TISSUE DISPENSER. BOBRICK B-35883 OR APPROVED EQ.
27	RECESSED PAPER TOWEL DISPENSER AND WASTE RECEPTACLE. BOBRICK B-38034 OR APPROVED EQ.
28	RECESSED HORIZONTAL BABY CHANGING STATION. KOALA KARE KB310-SSR.
29	RECESSED CEILING MOUNTED ELECTRIC HEATER. RE: MECHANICAL PLANS FOR ADDITIONAL INFORMATION.
30	FLOOR DRAIN. SLOPE CONCRETE FLOOR 1/4" PER FOOT TOWARDS DRAIN. RE: PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.
31	HOSE BIB. RE: PLUMBING DRAWINGS FOR ADDITIONAL INFORMATION.

CODE INFORMATION

CODE REFERENCED: 2018 INTERNATIONAL BUILDING CODE

JURISDICTIONS REFERENCED: KETCHUM CITY PLANNING & ZONING
KETCHUM CITY BUILDING DEPARTMENT
KETCHUM CITY FIRE DEPARTMENT

MAX. BUILDING HEIGHT: 35-FEET

MIN. SETBACKS: FRONT SETBACK: 15-FEET
SIDE/REAR SETBACKS: THE GREATER OF 1' FOR EVERY 3' IN BUILDING HEIGHT, OR 5'.

TYPE OF CONSTRUCTION: V-B WOOD FRAME

FIRE-RESISTANCE RATING REQUIREMENTS FOR BUILDING ELEMENTS (TABLE 601)
BASED ON TYPE V-B CONSTRUCTION

PRIMARY STRUCTURAL FRAME	0-HOUR
BEARING WALLS - EXTERIOR	0-HOUR
BEARING WALLS - INTERIOR	0-HOUR
NONBEARING WALLS AND PARTITIONS - INTERIOR	0-HOUR
FLOOR CONSTRUCTION	0-HOUR
ROOF CONSTRUCTION	0-HOUR

FIRE RESISTANCE RATINGS FOR EXTERIOR WALLS (SECTION 705.5)
THE REQUIRED FIRE-RESISTANCE RATING OF EXTERIOR WALLS WITH A FIRE SEPARATION DISTANCE GREATER THAN 10 FEET SHALL BE RATED FOR EXPOSURE TO FIRE FROM THE INSIDE. THE REQUIRED FIRE-RESISTANCE RATING OF EXTERIOR WALLS WITH A FIRE SEPARATION DISTANCE LESS THAN OR EQUAL TO 10 FEET SHALL BE RATED FOR EXPOSURE TO FIRE FROM BOTH SIDES.

EXTERIOR WALLS WITH A FIRE SEPARATION DISTANCE OF 15' TO LESS THAN 20', THAT ARE UNPROTECTED AND SPRINKLERED SHALL HAVE A MAXIMUM ALLOWABLE AREA OF EXTERIOR WALL OPENINGS OF 75%. A FIRE SEPARATION DISTANCE OF 20' TO LESS THAN 25' THAT ARE UNPROTECTED AND SPRINKLERED HAVE NO LIMITS TO EXTERIOR WALL OPENING AREA. TABLE 705.8

FIREBLOCKING (718.2)
IN COMBUSTIBLE CONSTRUCTION, FIREBLOCKING SHALL BE INSTALLED TO CUT OFF CONCEALED DRAFT OPENINGS (BOTH VERTICAL AND HORIZONTAL) AND SHALL FORM AN EFFECTIVE BARRIER BETWEEN FLOORS, AND BETWEEN A TOP STORY AND A ROOF OR ATTIC SPACE. FIREBLOCKING SHALL BE INSTALLED IN THE FOLLOWING LOCATIONS PER SECTIONS 718.2.2 - 718.2.7:

- 718.2.2 CONCEALED WALL SPACES
- 718.2.3 CONNECTIONS BETWEEN HORIZONTAL AND VERTICAL SPACES
- 718.2.4 STAIRWAYS
- 718.2.5 CEILING AND FLOOR OPENINGS
  - 718.2.5.1 FACTORY BUILT CHIMNEYS AND FIREPLACES
- 718.2.6 EXTERIOR WALL COVERINGS
- 718.2.7 CONCEALED SLEEPER SPACES

GENERAL NOTES

UNLESS OTHERWISE NOTED, INSTALL ALL PRODUCTS ASSEMBLIES, AND/OR SYSTEMS AS CALLED FOR IN THE SYSTEMS NOTES AND WALL TYPES IN ACCORDANCE WITH MANUFACTURERS WRITTEN RECOMMENDATIONS AND INSTRUCTIONS.

REFER TO STRUCTURAL FOUNDATION PLANS FOR LOCATION AND SIZE OF ALL FOOTINGS.

BUILDING SECTIONS DO NOT DEPICT EXACT STRUCTURAL CONDITIONS; REFER TO STRUCTURAL FRAMING PLANS, DETAILS, AND SPECIFICATIONS FOR ALL STRUCTURAL COMPONENTS OF BUILDING.

ALL EARTHWORK SHALL BE PERFORMED IN ACCORDANCE WITH RECOMMENDATIONS CONTAINED WITHIN THE GEOTECHNICAL REPORT, AND DETAIL NOTES CONTAINED IN THE STRUCTURAL SPECIFICATIONS AND DETAILS.

CONTRACTOR SHALL ENGAGE BUTLER ASSOCIATES INC. DURING EXCAVATION, CONCRETE WORK, AND BACKFILL FOR RECOMMENDATIONS.

REFER TO CIVIL DRAWINGS FOR DRAINAGE AND GRADING AND WATER COLLECTION SYSTEMS.

ARCHITECTURAL SITE PLAN IS INTENDED FOR REFERENCE OF KEYS AND NOTES ONLY.

PROVIDE SAFETY GLAZING WHERE REQUIRED BY CODE.

GRACE ICE AND WATER SHIELD WATERPROOF MEMBRANE, OR APPROVED EQUAL, SHALL BE INSTALLED SUCH THAT APPLICATION OF MATERIAL IS FLAT WITH CONTINUOUS ADHESION TO SUBSTRATE MATERIAL WITH NO AIR POCKETS AND/OR WRINKLES. INSTALLATION SHALL BE IN STRICT COMPLIANCE WITH MANUFACTURER'S RECOMMENDATIONS AND INSTRUCTIONS.

WHERE SLOPED ROOF SURFACES AND VERTICAL WALL PLANES MEET, RUN GRACE ICE AND WATER SHIELD WATERPROOF MEMBRANE CONTINUOUS FROM THE ROOF SHEATHING UP THE WALL SURFACE A MINIMUM OF 36" PRIOR TO INSTALLATION OF PRE-FLASHING, ROOFING, OR EXTERIOR WALL FINISH MATERIALS.

WHERE FLAT ROOF SURFACES AND VERTICAL WALL PLANES MEET, RUN SINGLE PLY EPDM WATERPROOF ROOFING MEMBRANE CONTINUOUS FROM ROOF PLANE UP WALL SURFACES A MINIMUM OF 8". INSTALL A SINGLE LAYER OF GRACE ULTRA ICE AND WATER SHIELD WATER PROOF MEMBRANE OVER EPDM MEMBRANE EXTENDING FROM APPROXIMATELY 3" ABOVE ROOF TO WALL TRANSITION UP WALL A MIMIMUM OF 36" PRIOR TO INSTALLATION OF PRE-FLASHING OR EXTERIOR WALL BATTEN SPACERS AND FINISH MATERIALS. NO FASTENERS SHALL BE INSTALLED THROUGH EPDM MEMBRANE BELOW THE LEVEL OF GRACE ULTRA ICE AND WATER SHIELD WATER PROOF MEMBRANE INSTALLATION.

ALL EPS TAPERED INSULATION AT DECK AND/OR TERRACE AREAS SHALL BE OF 1.5lb COMPRESSIVE STRENGTH MINIMUM.

PROVIDE BACKING / BLOCKING IN WALLS PER MANUFACTURER'S RECOMMENDATIONS FOR ALL WALL MOUNTED FIXTURES, EQUIPMENT, AND CASEWORK. FOLLOW ALL RECOMMENDED INSTALLATION PROCEDURES OF THE MANUFACTURER FOR THEIR SPECIFIC PRODUCTS.

PROVIDE HEAT TAPE AT ALL ROOF DRAIN, SCUPPER, AND DOWNSPOUT LOCATIONS, SEE ROOF PLAN AND ELECTRICAL PLANS FOR ADDITIONAL INFORMATION.

EXTERIOR ELEVATIONS EXIST THAT MAY NOT BE FULLY DEPICTED IN ELEVATION, BUT ARE CLEARLY SHOWN AND CAN BE REFERENCED IN PLAN VIEW. IT REMAINS THE RESPONSIBILITY OF THE CONTRACTOR AND/OR SUBCONTRACTOR(S) TO IDENTIFY AND INCLUDE ALL SUCH AREAS IN THEIR PROJECT PRICING AND/OR BID, AND SCOPE OF WORK.

ADVANCED FRAMING TECHNIQUES SHALL BE PERFORMED ON CONSTRUCTION OF WOOD FRAMED WALLS.

[redacted]

PROJECT NO. 2318.0

SET NO. CD-

WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

PURPOSE	DATE
FOR PERMIT	11/8/2024

REVISION RECORD

NO.	CHANGE	DATE

DRAWN: AR

CHECKED: MFA

DATE: 11/8/2024

SHEET TITLE:
GENERAL NOTES, PLAN NOTES, MATERIAL IDS

Michael Doty Associates Architects
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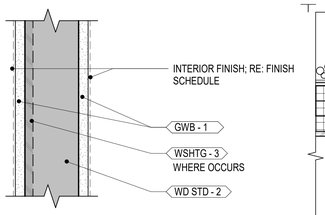
www.mda-arc.com

LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY STATE OF IDAHO
11/8/2024

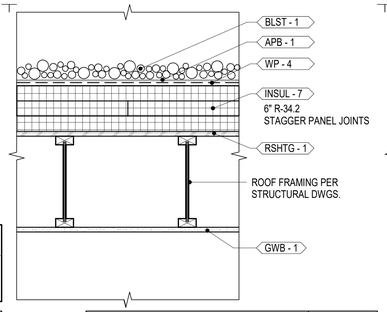
SHEET A0.20 OF TOTAL

[redacted]

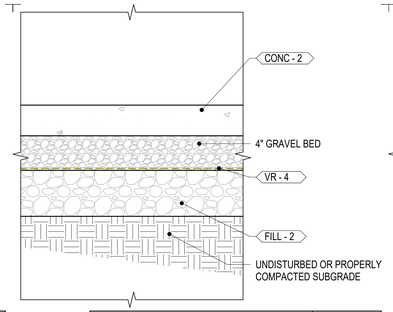


TYPE	STUD SIZE	OVERALL ASSEMBLY	AVAILABLE FIRE RESISTANCE	SOUND RATING
WA-4	3 1/2"	4 3/4"		
WA-6	5 1/2"	6 3/4"		
WA-8	7 1/4"	8 1/2"		

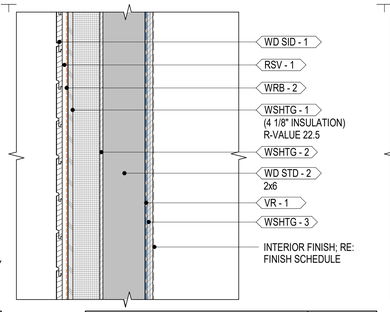
WA-#	A-SERIES INTERIOR WALL	



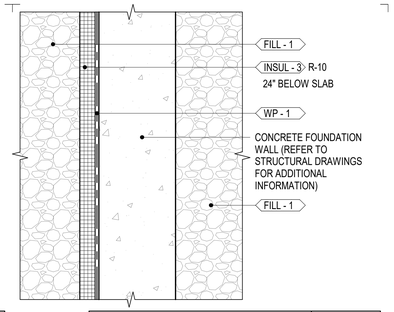
R-1	CLASS 'A' EPDM ROOF, BALLASTED	R-34.2



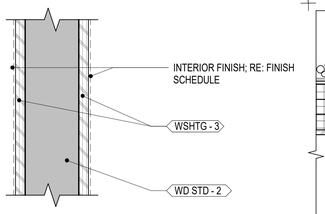
F-1	INSULATED CONCRETE SLAB ON GRADE	



W-4	2x6 EXTERIOR WALL; HORIZONTAL WOOD SIDING	R-22.5

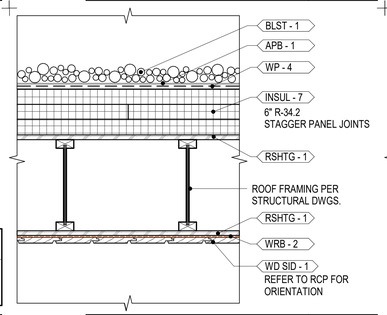


W-1	CONCRETE FOUNDATION WALL; GRANULAR BACKFILL	R-10

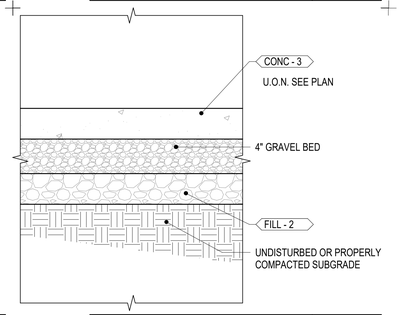


TYPE	STUD SIZE	OVERALL ASSEMBLY	AVAILABLE FIRE RESISTANCE	SOUND RATING
WA-4	3 1/2"	5"		
WA-6	5 1/2"	7"		
WA-8	7 1/4"	8 3/4""		

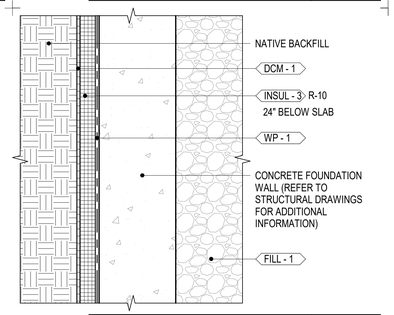
WB-#	B-SERIES INTERIOR WALL	



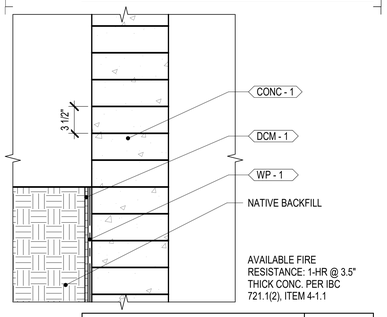
R-2	CLASS 'A' EPDM FLAT ROOF, BALLASTED	R-34.2



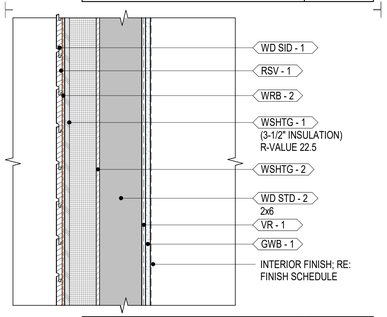
F-2	SLAB ON GRADE AT PATIO	



W-1a	CONCRETE FOUNDATION WALL; NATIVE BACKFILL	R-10



W-2	BOARDFORMED CONCRETE RETAINING WALL	



W-3	2x6 EXTERIOR WALL; HORIZONTAL WOOD SIDING	R-22.5

[redacted]

PROJECT NO. 2318.0

SET NO. CD-

WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

PURPOSE	DATE
FOR PERMIT	11/8/2024

REVISION RECORD

NO.	CHANGE	DATE

DRAWN: AR

CHECKED: MFA

DATE: 11/8/2024

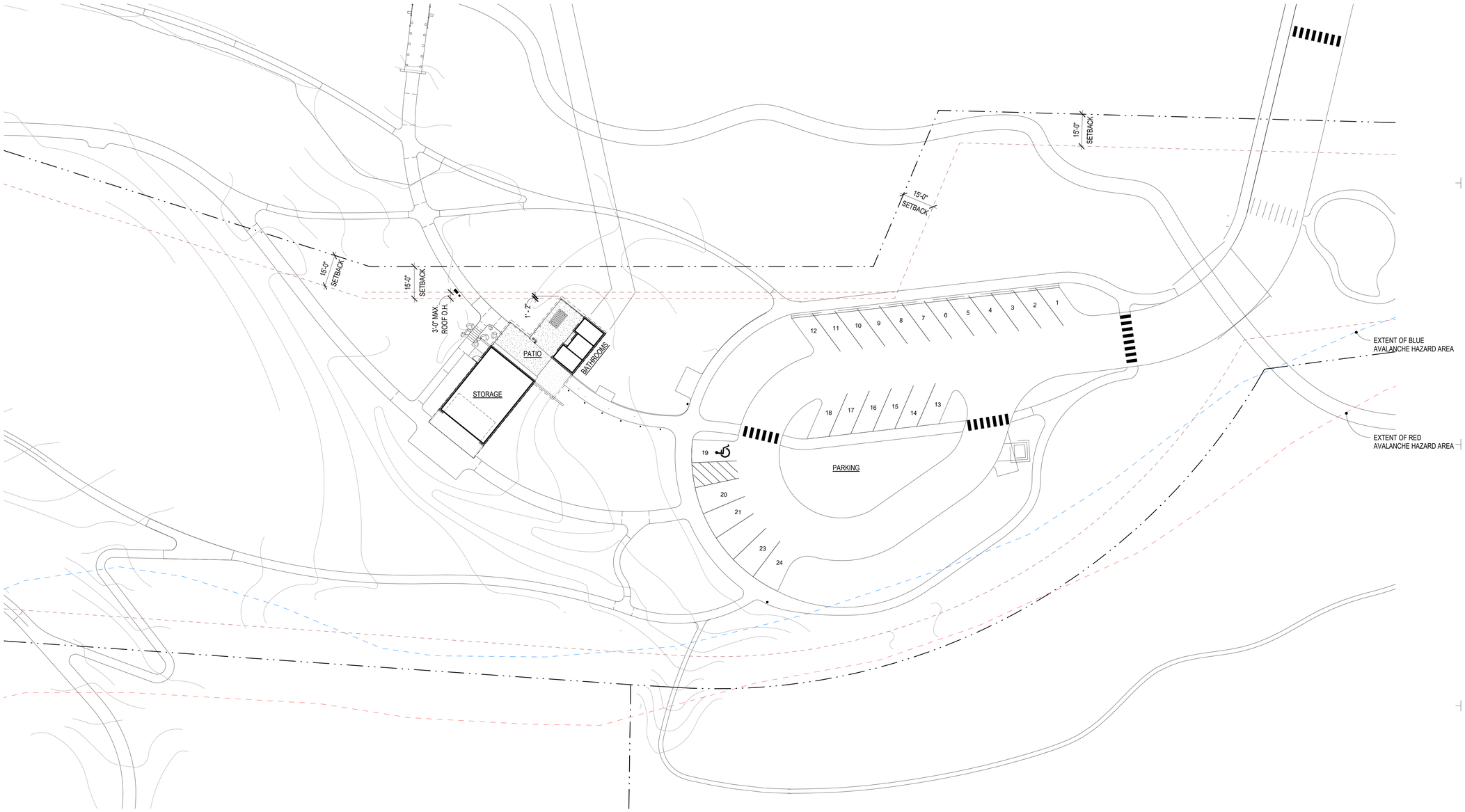
SHEET TITLE:
CONSTRUCTION ASSEMBLIES

Michael Doty Associates
Architects
Post Office Box 2792
371 Washington Avenue North
Ketchum, ID 83340
Tel. 208. 726. 4228
www.mda-arc.com

LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY STATE OF IDAHO
11/8/2024

SHEET A0.30 OF TOTAL

[redacted]



NOTE: REFER TO LANDSCAPE AND CIVIL DRAWINGS FOR ADDITIONAL INFORMATION

ARCHITECTURAL SITE PLAN

1" = 20'-0"

1

TRUE NORTH

GENERAL NOTES

REFER TO SHEET A0.20 FOR GENERAL NOTES

PLAN NOTES

- INDICATES PLAN NOTE. REFER TO SHEET A0.20 FOR PLAN NOTE LEGEND. REFER TO A5-SERIES ENLARGED PLANS FOR ADDITIONAL INFORMATION

MATERIAL IDENTIFICATION CODES

- XX-1 INDICATES MATERIALS CALLED OUT ON PLANS, ELEVATIONS, SECTIONS, DETAILS, AND SCHEDULES. REFER TO A0.20FOR MATERIAL ID LEGEND

ASSEMBLY TYPES

- W-# INDICATES WALL, FLOOR, OR ROOF TYPE. REFER TO SHEETS A0.30 FOR ASSEMBLY LEGENDS.

[redacted]

PROJECT NO. 2318.0

SET NO. CD-

WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

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FOR PERMIT	11/8/2024

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CHECKED:	MFA
DATE:	11/8/2024

SHEET TITLE: ARCHITECTURAL SITE PLAN

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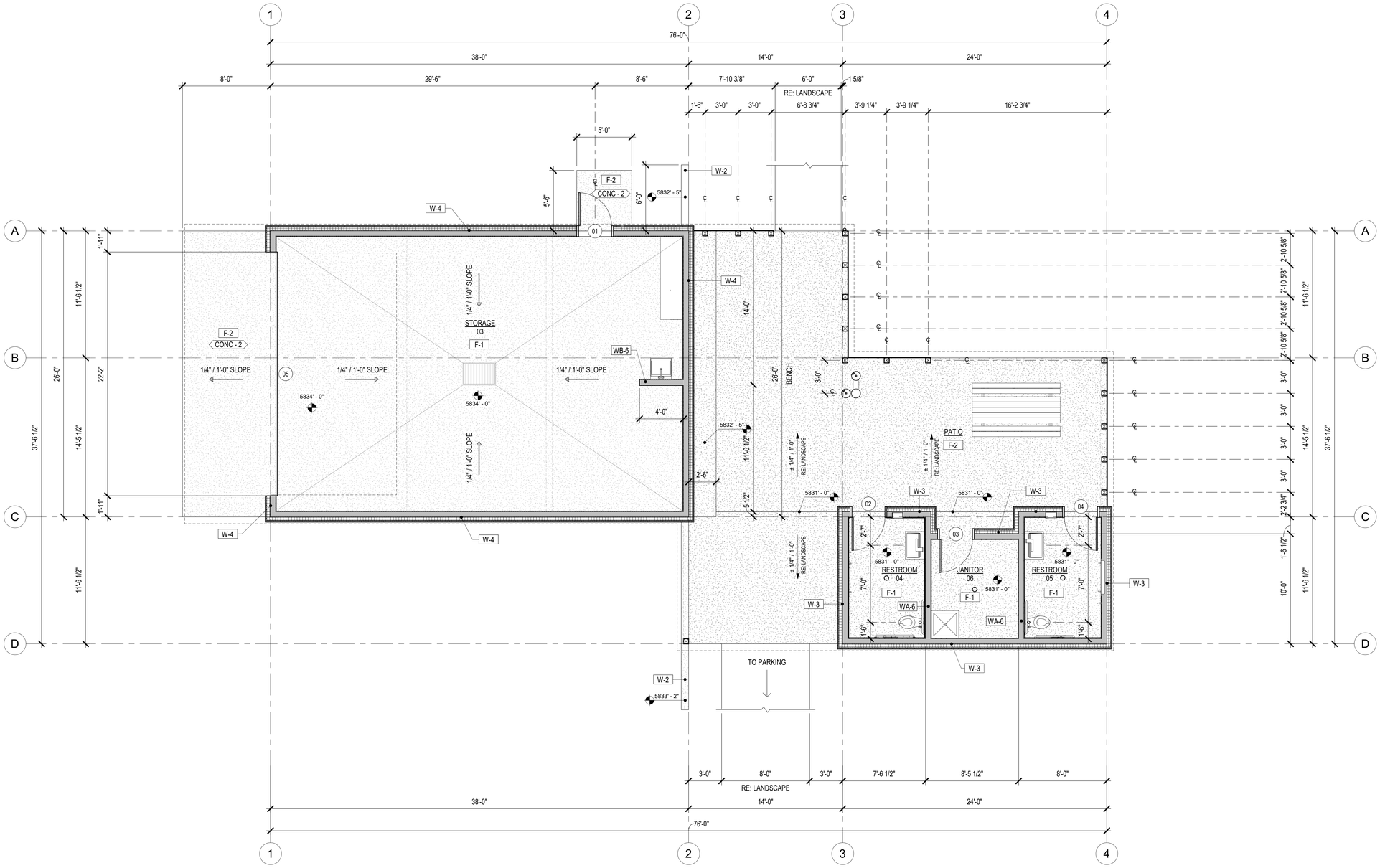
LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY STATE OF IDAHO
11/8/2024

SHEET	OF
A1.00	TOTAL

[redacted]



1ST FLOOR DIMENSION PLAN

1/4" = 1'-0"

1

PROJECT NORTH

TRUE NORTH

GENERAL NOTES

REFER TO SHEET A0.20 FOR GENERAL NOTES

PLAN NOTES

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MATERIAL IDENTIFICATION CODES

XX-1 INDICATES MATERIALS CALLED OUT ON PLANS, ELEVATIONS, SECTIONS, DETAILS, AND SCHEDULES. REFER TO A0.20FOR MATERIAL ID LEGEND

ASSEMBLY TYPES

W-# INDICATES WALL, FLOOR, OR ROOF TYPE. REFER TO SHEETS A0.30 FOR ASSEMBLY LEGENDS.

[redacted]

PROJECT NO. 2318.0

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WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

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REVISION RECORD

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DATE: 11/8/2024

SHEET TITLE: 1ST FLOOR DIMENSION PLAN

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LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY STATE OF IDAHO
11/8/2024

SHEET A2.02 OF TOTAL

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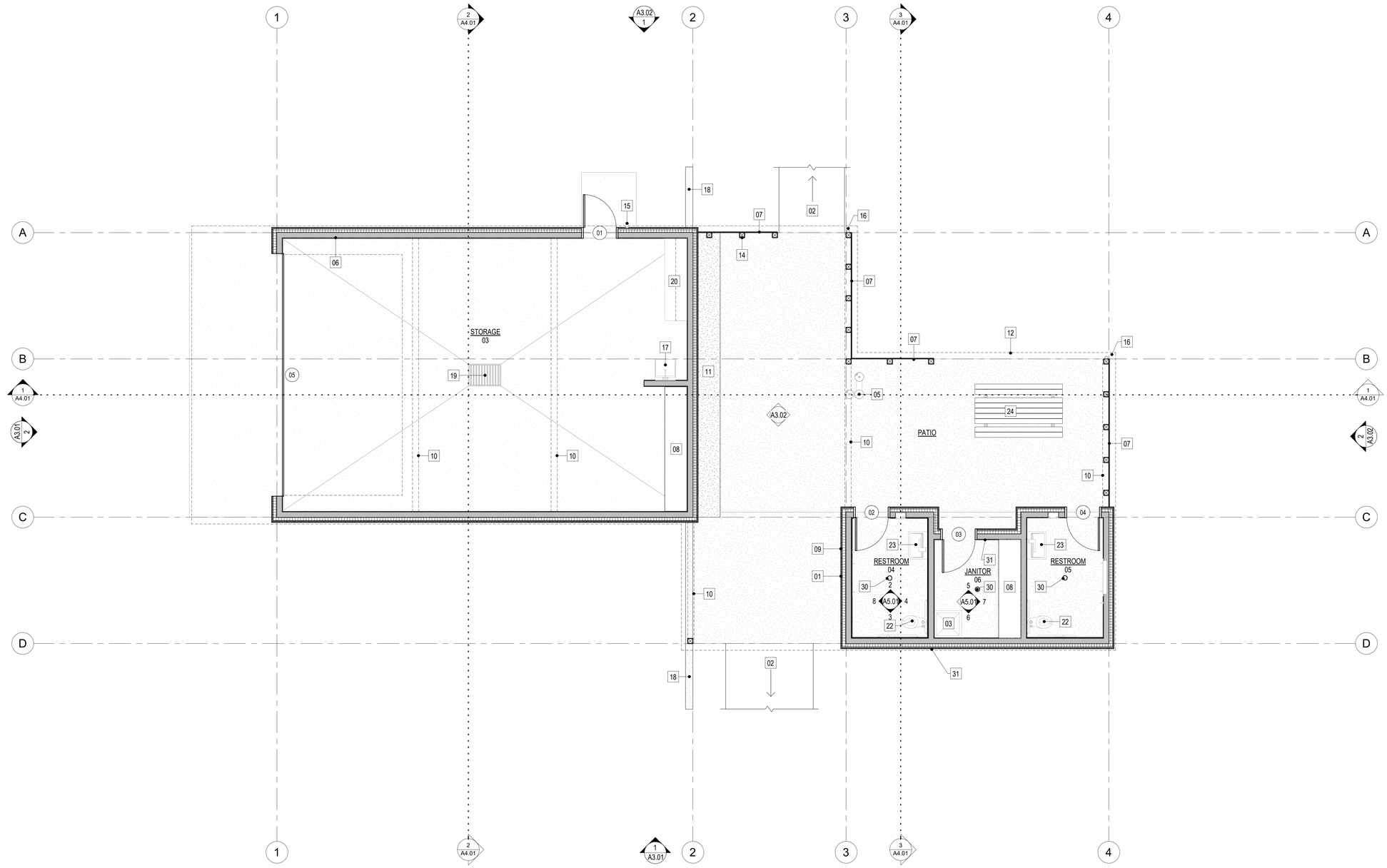

1ST FLOOR NOTATION PLAN

1/4" = 1'-0"

PROJECT NORTH

TRUE NORTH

GENERAL NOTES

REFER TO SHEET A0.20 FOR GENERAL NOTES

PLAN NOTES

- INDICATES PLAN NOTE. REFER TO SHEET A0.20 FOR PLAN NOTE LEGEND. REFER TO A5-SERIES ENLARGED PLANS FOR ADDITIONAL INFORMATION

MATERIAL IDENTIFICATION CODES

XX-1 INDICATES MATERIALS CALLED OUT ON PLANS, ELEVATIONS, SECTIONS, DETAILS, AND SCHEDULES. REFER TO A0.20FOR MATERIAL ID LEGEND

ASSEMBLY TYPES

W-# INDICATES WALL, FLOOR, OR ROOF TYPE. REFER TO SHEETS A0.30 FOR ASSEMBLY LEGENDS.

PROJECT NO. 2318.0

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WARM SPRINGS PRESERVE WELCOME BUILDING

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DATE: 11/8/2024

SHEET TITLE: 1ST FLOOR NOTATION PLAN

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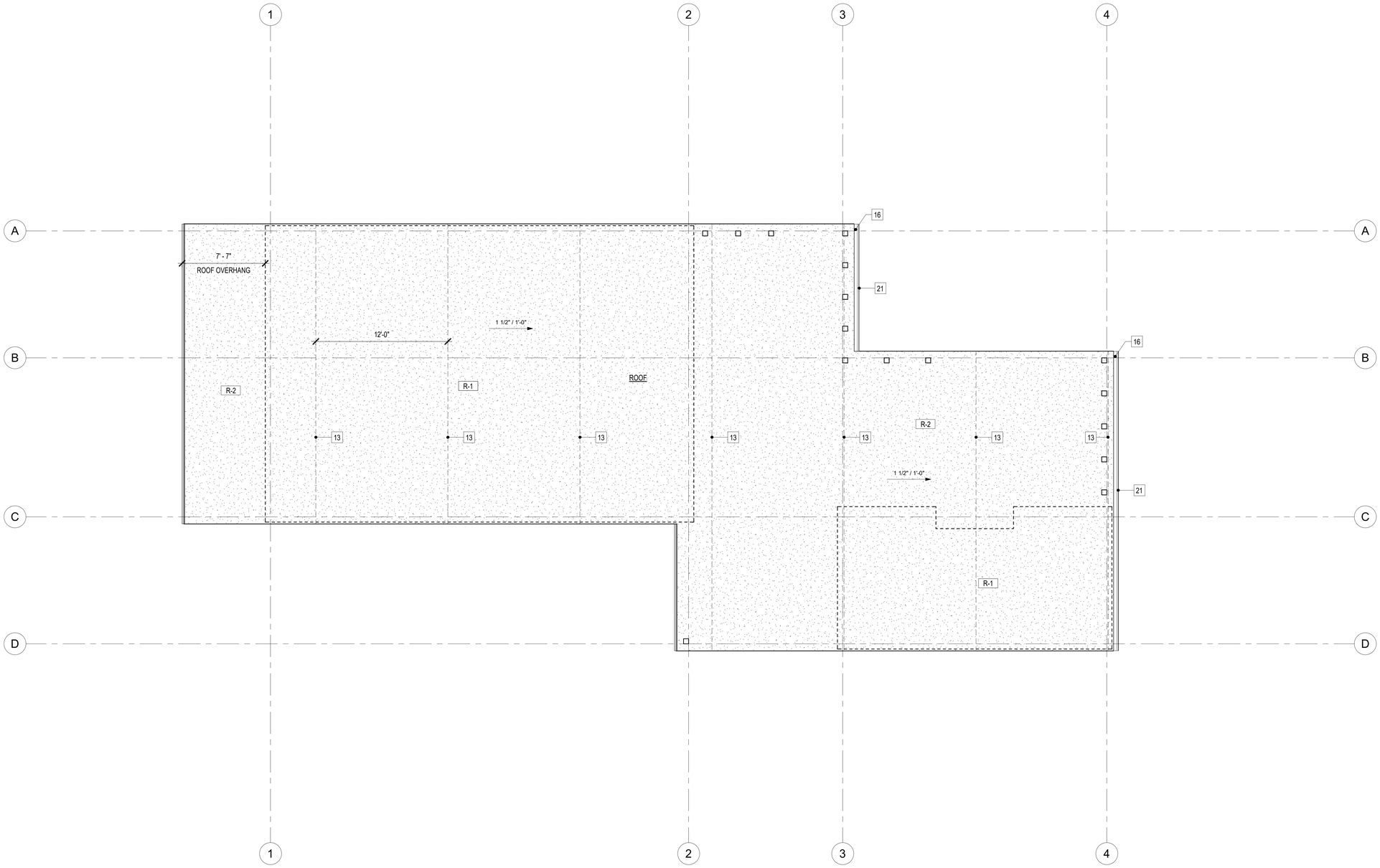
LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY
STATE OF IDAHO
11/8/2024

SHEET A2.03 OF TOTAL



ROOF PLAN

1/4" = 1'-0"

1

PROJECT NORTH

TRUE NORTH

GENERAL NOTES

REFER TO SHEET A0.20 FOR GENERAL NOTES

PLAN NOTES

- INDICATES PLAN NOTE. REFER TO SHEET A0.20 FOR PLAN NOTE LEGEND. REFER TO A5-SERIES ENLARGED PLANS FOR ADDITIONAL INFORMATION

MATERIAL IDENTIFICATION CODES

- XX-1 INDICATES MATERIALS CALLED OUT ON PLANS, ELEVATIONS, SECTIONS, DETAILS, AND SCHEDULES. REFER TO A0.20FOR MATERIAL ID LEGEND

ASSEMBLY TYPES

- W-# INDICATES WALL, FLOOR, OR ROOF TYPE. REFER TO SHEETS A0.30 FOR ASSEMBLY LEGENDS.

[redacted]

PROJECT NO. 2318.0

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WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTIAN ROAD
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SHEET TITLE: ROOF PLAN

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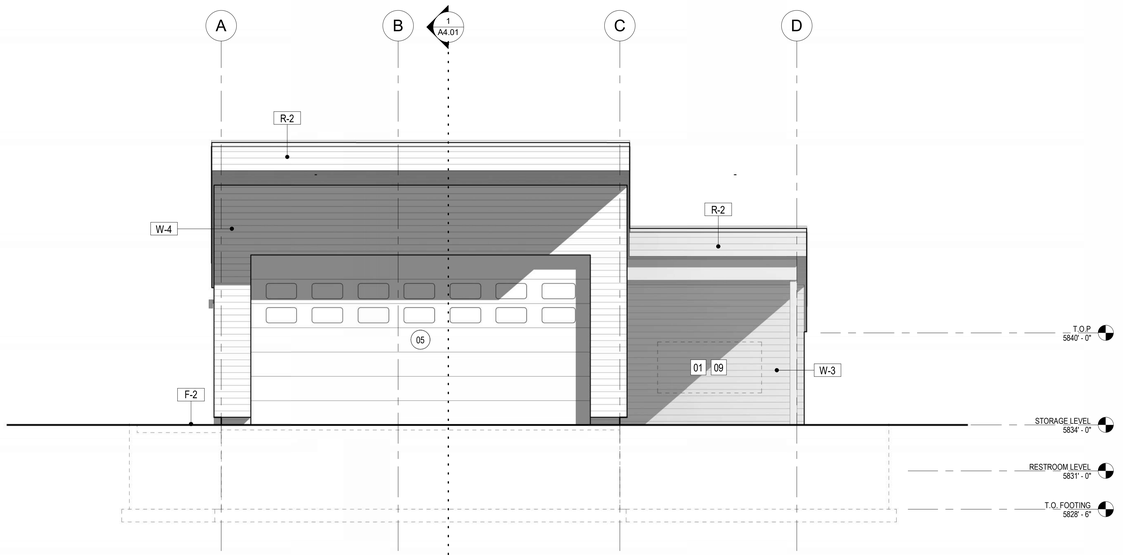
LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY
STATE OF IDAHO
11/8/2024

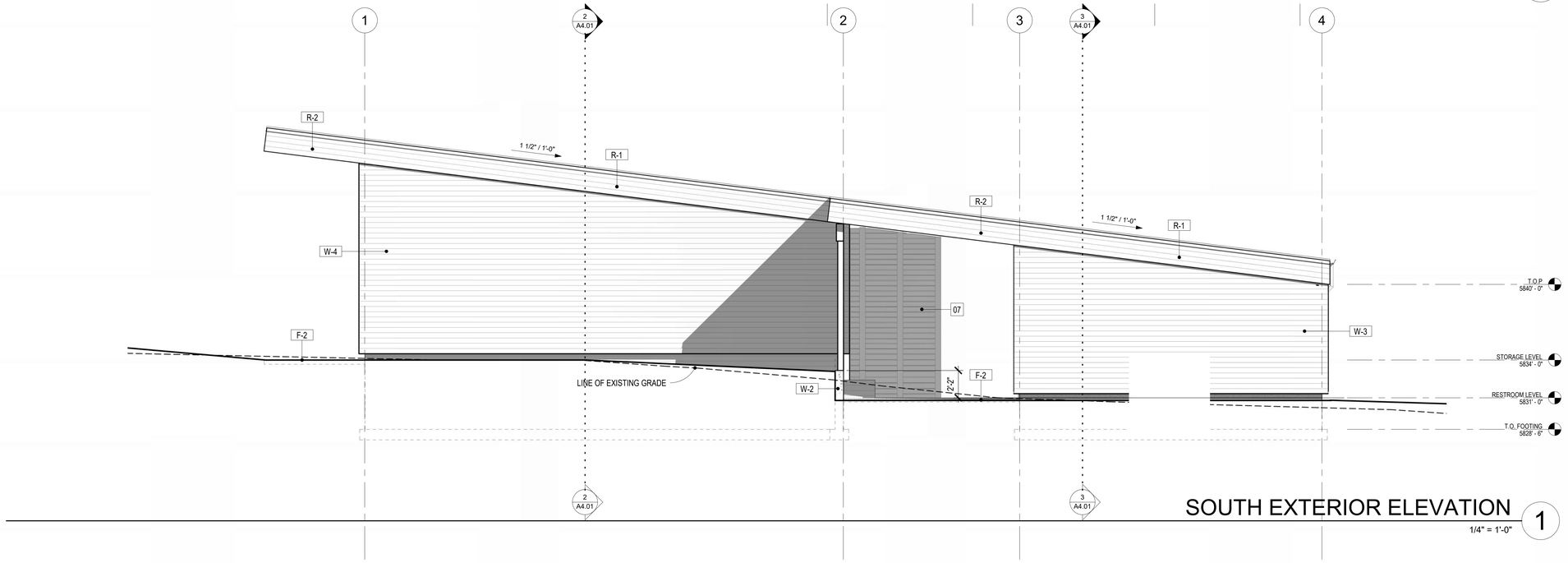
SHEET A2.04 OF TOTAL

[redacted]



WEST EXTERIOR ELEVATION 2

1/4" = 1'-0"



SOUTH EXTERIOR ELEVATION 1

1/4" = 1'-0"

GENERAL NOTES

REFER TO SHEET A0.20 FOR GENERAL NOTES

PLAN NOTES

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- XX-1 INDICATES MATERIALS CALLED OUT ON PLANS, ELEVATIONS, SECTIONS, DETAILS, AND SCHEDULES. REFER TO A0.20FOR MATERIAL ID LEGEND

ASSEMBLY TYPES

- W-# INDICATES WALL, FLOOR, OR ROOF TYPE. REFER TO SHEETS A0.30 FOR ASSEMBLY LEGENDS.

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SET NO. CD-

WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

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DATE: 11/8/2024

SHEET TITLE:
EXTERIOR ELEVATIONS

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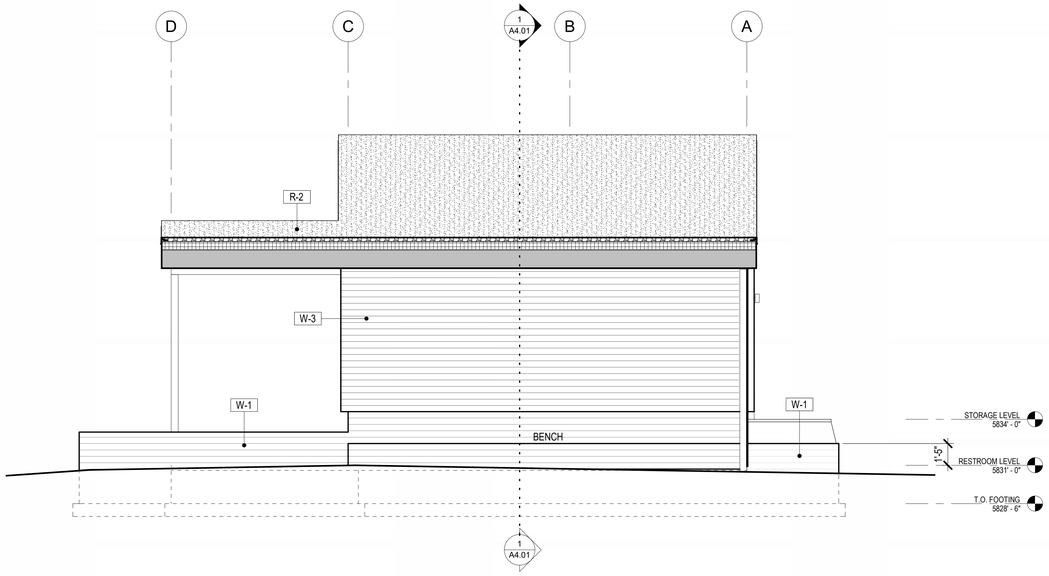
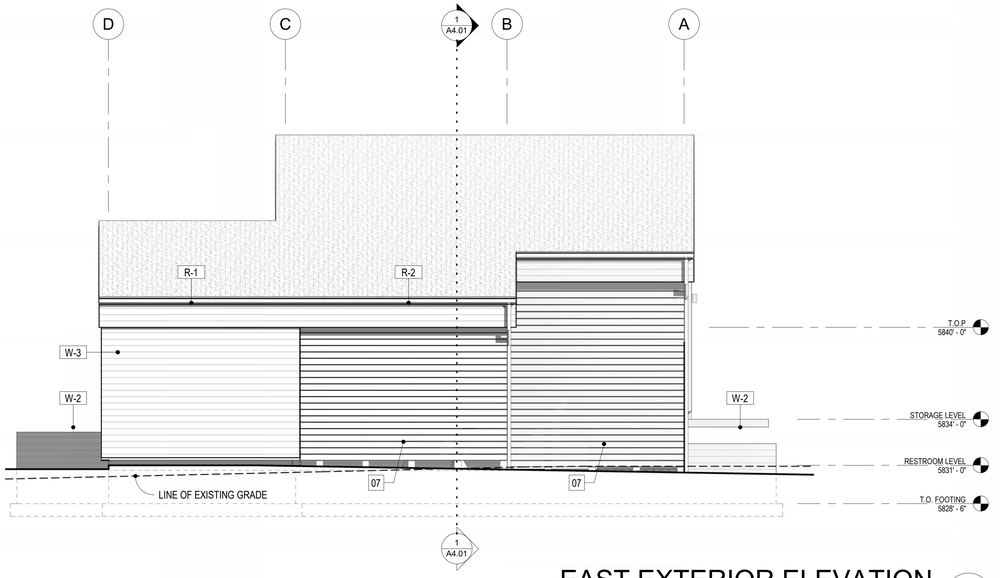
LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY STATE OF IDAHO
11/8/2024

SHEET A3.01 OF TOTAL



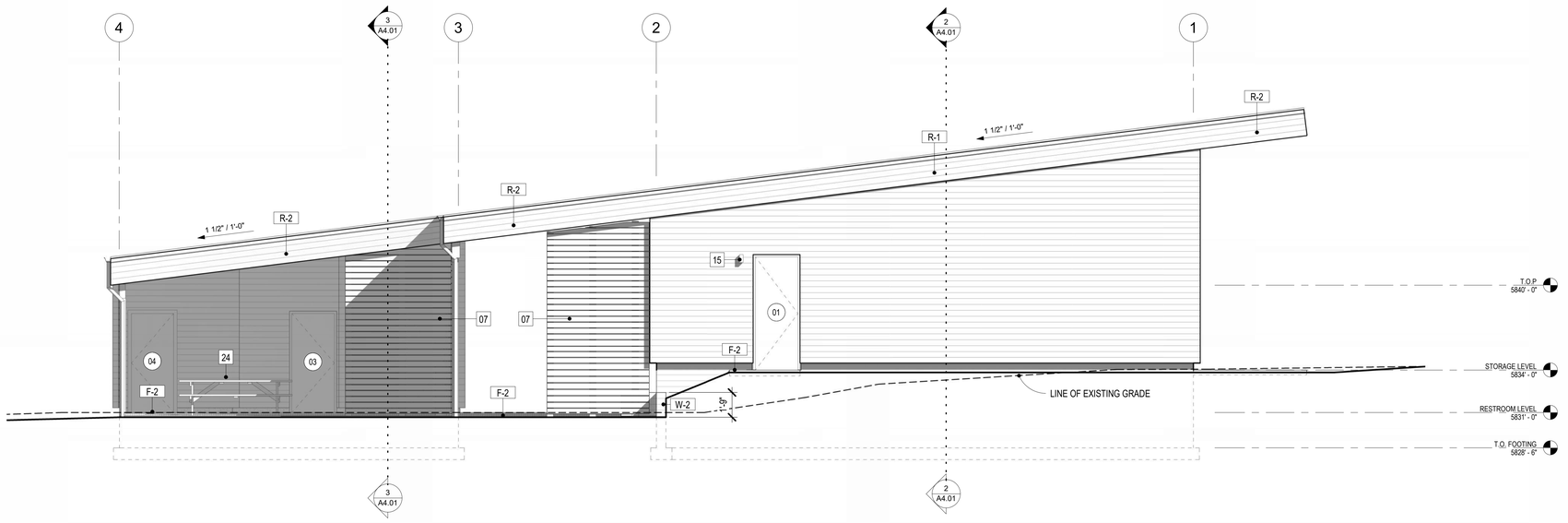
PATIO ELEVATION

1/4" = 1'-0" — 3



EAST EXTERIOR ELEVATION

1/4" = 1'-0" — 2



NORTH EXTERIOR ELEVATION

1/4" = 1'-0" — 1

GENERAL NOTES

REFER TO SHEET A0.20 FOR GENERAL NOTES

PLAN NOTES

- INDICATES PLAN NOTE. REFER TO SHEET A0.20 FOR PLAN NOTE LEGEND. REFER TO A5-SERIES ENLARGED PLANS FOR ADDITIONAL INFORMATION

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ASSEMBLY TYPES

- W-# INDICATES WALL, FLOOR, OR ROOF TYPE. REFER TO SHEETS A0.30 FOR ASSEMBLY LEGENDS.

PROJECT NO. 2318.0

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WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
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EXTERIOR ELEVATIONS

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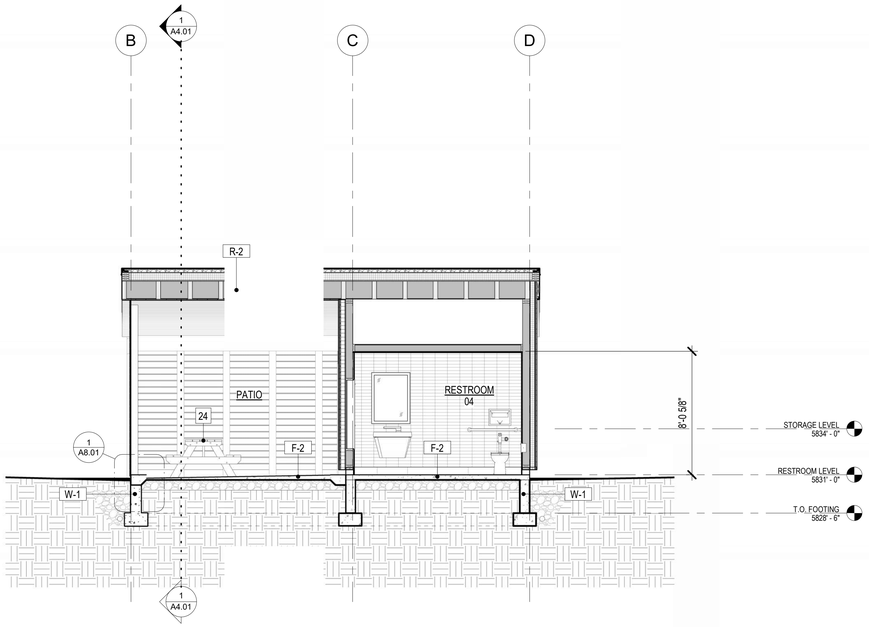
LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY STATE OF IDAHO
11/8/2024

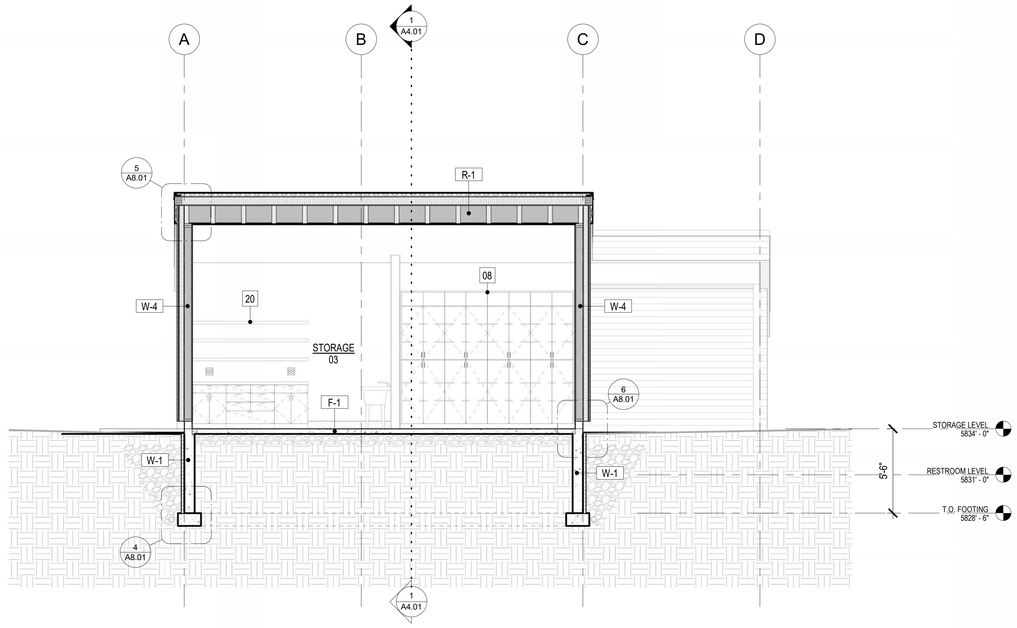
SHEET A3.02 OF TOTAL



BUILDING SECTION 03

1/4" = 1'-0"

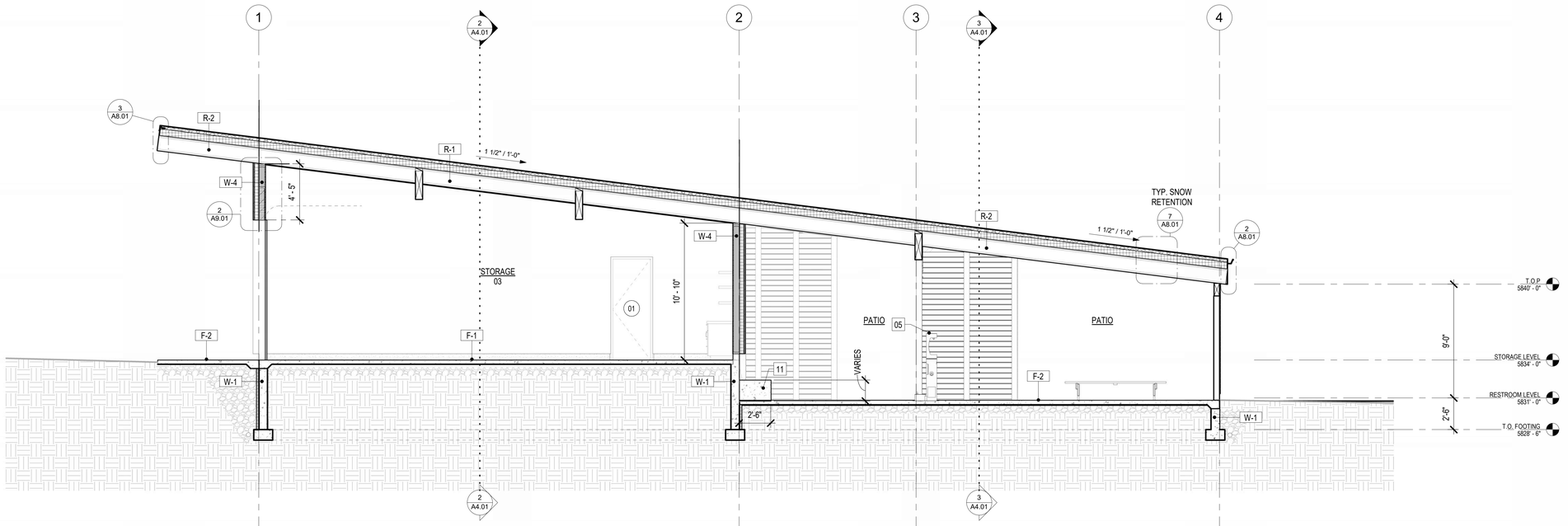
3



BUILDING SECTION 02

1/4" = 1'-0"

2



BUILDING SECTION 01

1/4" = 1'-0"

1

GENERAL NOTES

REFER TO SHEET A0.20 FOR GENERAL NOTES

PLAN NOTES

- INDICATES PLAN NOTE. REFER TO SHEET A0.20 FOR PLAN NOTE LEGEND. REFER TO A5-SERIES ENLARGED PLANS FOR ADDITIONAL INFORMATION

MATERIAL IDENTIFICATION CODES

XX-1 INDICATES MATERIALS CALLED OUT ON PLANS, ELEVATIONS, SECTIONS, DETAILS, AND SCHEDULES. REFER TO A0.20FOR MATERIAL ID LEGEND

ASSEMBLY TYPES

W-# INDICATES WALL, FLOOR, OR ROOF TYPE. REFER TO SHEETS A0.30 FOR ASSEMBLY LEGENDS.

[redacted]

PROJECT NO. 2318.0

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WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

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SHEET TITLE:
BUILDING SECTIONS

Michael Doty Associates
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LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY STATE OF IDAHO
11/8/2024

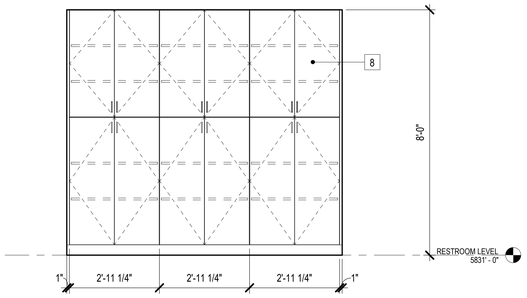
SHEET A4.01 OF TOTAL

[redacted]

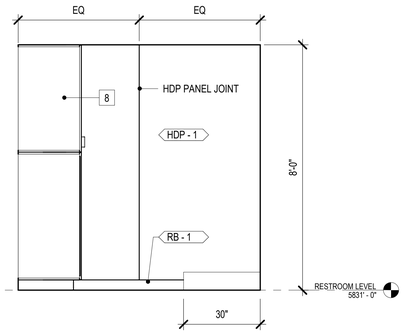
ROOM FINISH SCHEDULE									
ROOM NUMBER	ROOM NAME	FLOOR FINISH	WALL FINISH				CEILING FINISH	BASE FINISH	NOTES
			NORTH	SOUTH	EAST	WEST			
03	STORAGE	<CONC - 2>	<PUV -1>	<PUV -1>	<PUV -1>	<PUV -1>	<PT - 2>	<CONC -1>	
04	RESTROOM	<CONC - 3>	<CT - 1>	<CT - 1>	<CT - 2>	<CT - 1>	<PT - 2>	<CT -1>	
05	RESTROOM	<CONC - 3>	<CT - 1>	<CT - 1>	<CT - 1>	<CT - 2>	<PT - 2>	<CT -1>	
06	JANITOR	<CONC - 3>	<HDP - 1>	<HDP - 1>	<HDP - 1>	<HDP - 1>	<PT - 2>	<RB - 1>	

INTERIOR FINISH KEY

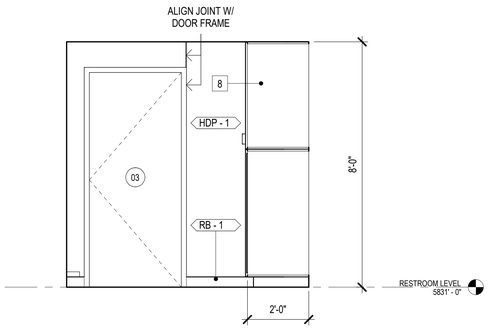
CT-1: CERAMIC TILE - DAL TILE, IRONCRAFT IC12 CASPER GREY, 12x24 COLORBODY PORCELAIN, 3/8" THICK, 1/8" THICK GROUT LINE, CUSTOM BUILDING PRODUCTS, #09 NATURAL GRAY
CT-2: CERAMIC TILE - DAL TILE, REMEDY RD24 ANTIDOET, 2 3/8" x 9 1/2" GLAZED PORCELAIN, 3/8" THICK, ± 1/8" THICK GROUT LINE TO ALIGN WITH <CT - 1>, CUSTOM BUILDING PRODUCTS, #09 NATURAL GRAY
CONC- : REFER TO MATERIAL ID CODES ON SHEET A0.20.
HDP-1: BPLITE WALL PANELS BY NUDO. SIZE: 48"x108", COLOR: GREY. REFER TO MATERIAL ID CODES ON SHEET A0.20 FOR ADDITIONAL INFORMATION.
PT-2: PAINT - COLOR: BENJAMINE MOORE OC-125 MOONLIGHT WHITE. SHEEN: FLAT UNLESS OTHERWISE NOTED IN SCHEDULE; e=EGGSHELL, s=SATIN
RB-1: RESILIENT WALL BASE: JOHNSONITE RUBBER COVE BASE, 4" HIGH. COLOR: GATEWAY.
PUV-1: CLEAR POLYURETHANE VARNISH.



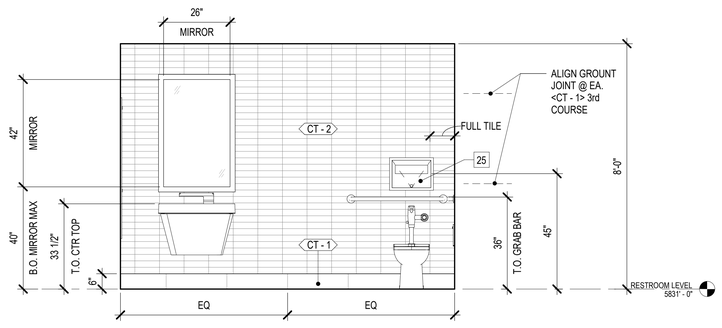
JANITOR - EAST WALL 7
1/2" = 1'-0"



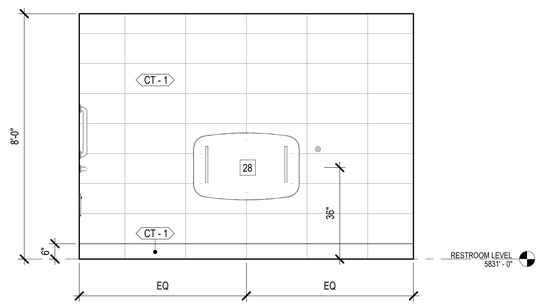
JANITOR - SOUTH WALL 6
1/2" = 1'-0"



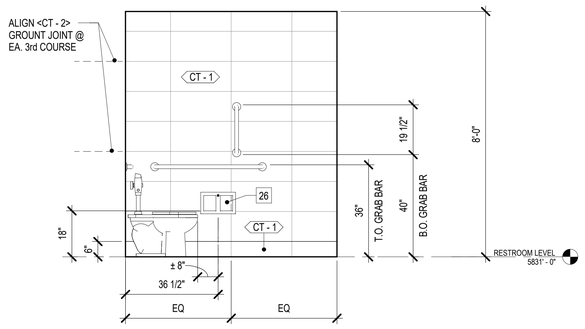
JANITOR - NORTH WALL 5
1/2" = 1'-0"



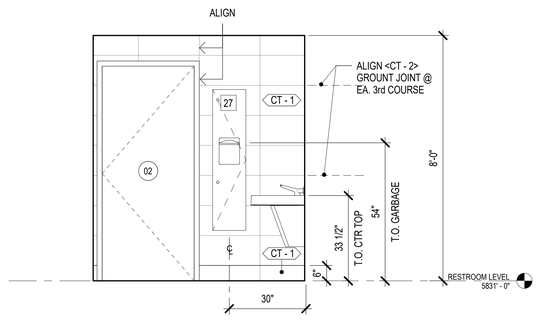
RESTROOM - EAST WALL 4
1/2" = 1'-0"



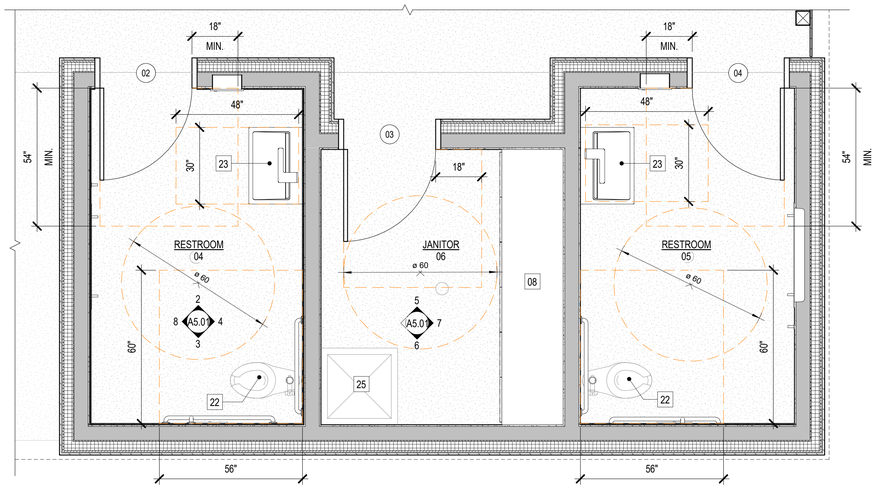
RESTROOM - WEST WALL 8
1/2" = 1'-0"



RESTROOM - SOUTH WALL 3
1/2" = 1'-0"



RESTROOM - NORTH WALL 2
1/2" = 1'-0"



ENLARGED BATHROOM FLOOR PLAN 1
1/2" = 1'-0"

GENERAL NOTES

REFER TO SHEET A0.21 FOR GENERAL NOTES

PLAN NOTES

- INDICATES PLAN NOTE. REFER TO SHEET A0.21 FOR PLAN NOTE LEGEND. REFER TO A5-SERIES ENLARGED PLANS FOR ADDITIONAL INFORMATION

MATERIAL IDENTIFICATION CODES

INDICATES MATERIALS CALLED OUT ON PLANS, ELEVATIONS, SECTIONS, DETAILS, AND SCHEDULES. REFER TO A0.22 FOR MATERIAL ID LEGEND

ASSEMBLY TYPES

W-# INDICATES WALL, FLOOR, OR ROOF TYPE. REFER TO SHEETS A0.31 & A0.41 FOR ASSEMBLY LEGENDS.

POWER SYMBOLS & NOTES

- RECEPTACLE, DUPLEX
- RECEPTACLE, HALF-SWITCHED
- RECEPTACLE, DOUBLE DUPLEX
- RECEPTACLE, SINGLE - BOCCI 22
- RECEPTACLE, FLUSH FLOOR
- TELEVISION/CABLE JACK
- DATA JACK
- JUNCTION BOX

NOTE:
1. POWER RECEPTACLES INDICATED ON PLANS AND ELEVATIONS ARE SHOWN ONLY AT SPECIFIC LOCATIONS FOR DESIGN INTENT. ADDITIONAL CODE REQUIRED RECEPTACLES ARE NOT SHOWN.

NOTE:
ALL DIMENSIONS SHOWN ON THIS SHEET ARE TAKEN FROM FACE OF FINISH UNLESS NOTED OTHERWISE.

[redacted]

PROJECT NO. 2318.0
SET NO. CD-

WARM SPRINGS PRESERVE WELCOME BUILDING
201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

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SHEET TITLE:
ENLARGED PLANS & INTERIOR ELEVATIONS - RESTROOMS

Architects
Michael Doty Associates
Post Office Box 2702
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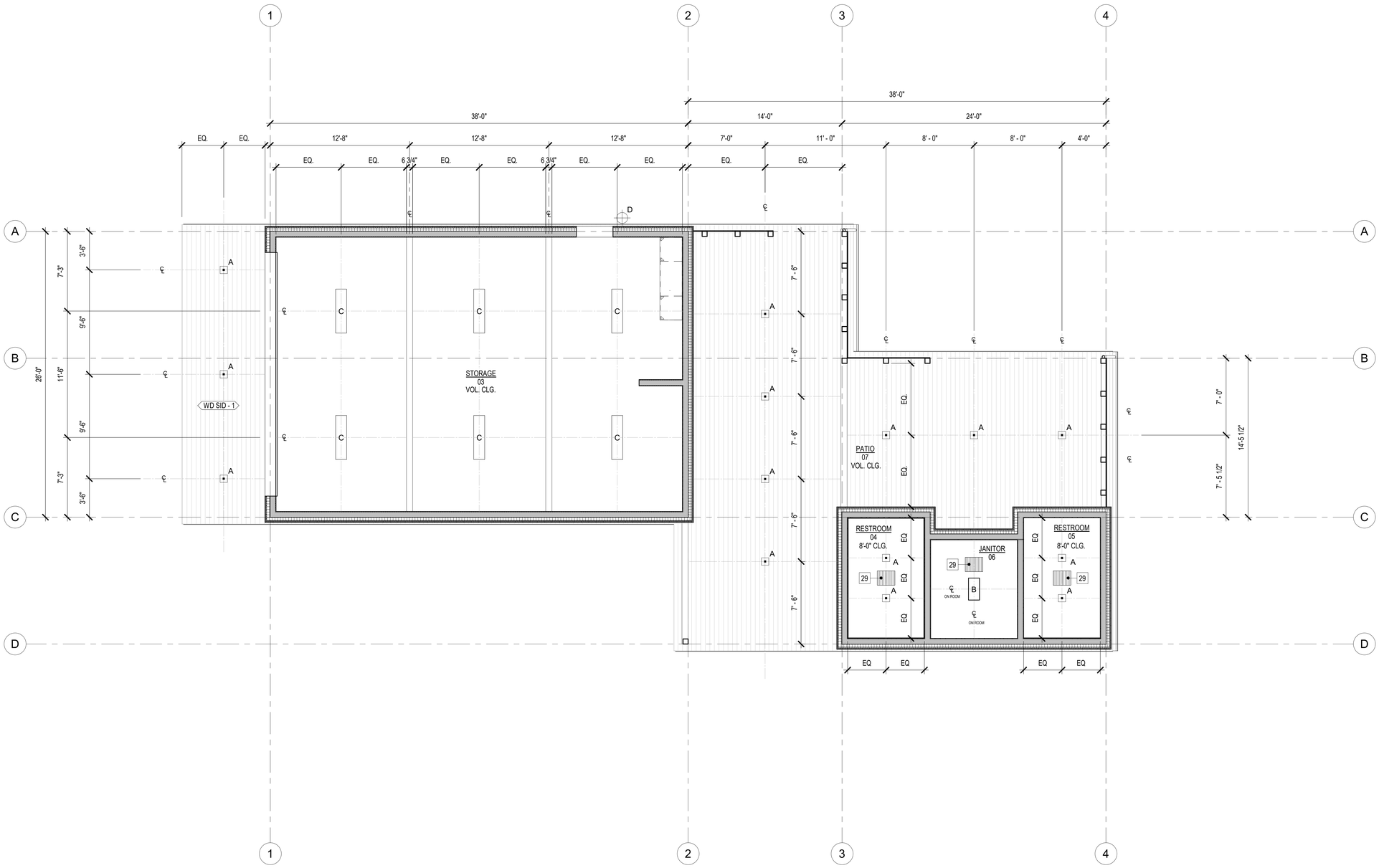
LICENSED ARCHITECT
AR-1612
MICHAEL R. DOTY
STATE OF IDAHO
11/8/2024

SHEET A5.01
OF TOTAL

[redacted]



REFLECTED CEILING PLAN

1/4" = 1'-0"

1

PROJECT NORTH

TRUE NORTH

EXTERIOR & INTERIOR LIGHTING KEY

LIGHTS TO BE ON TIMER TO TURN OFF 1 HOUR AFTER SUNSET

A — RECESSED DOWNLIGHT: LUCIFER ATOMOS, 2" SQUARE PROFILE, FLUSH MILLWORK, BURNT BRONZE BAFFLE, 2700K

B — LINEAR STORAGE LIGHT: SATCO / NUVO, 2' LINEAR PROFILE, CEILING WRAP, WHITE FINISH, 3200K

C — LINEAR STORAGE LIGHT: SATCO / NUVO, 4' LINEAR PROFILE, CEILING WRAP, WHITE FINISH, 3200K

D — WALL SCONCE: LUCIFER LUCIFER SQUILINDER, BURNT BRONZE, 2700K

GENERAL NOTES

REFER TO SHEET A0.20 FOR GENERAL NOTES

PLAN NOTES

- INDICATES PLAN NOTE. REFER TO SHEET A0.20 FOR PLAN NOTE LEGEND. REFER TO A5-SERIES ENLARGED PLANS FOR ADDITIONAL INFORMATION

MATERIAL IDENTIFICATION CODES

- XX-1 INDICATES MATERIALS CALLED OUT ON PLANS, ELEVATIONS, SECTIONS, DETAILS, AND SCHEDULES. REFER TO A0.20FOR MATERIAL ID LEGEND

ASSEMBLY TYPES

- W-# INDICATES WALL, FLOOR, OR ROOF TYPE. REFER TO SHEETS A0.30 FOR ASSEMBLY LEGENDS.

PROJECT NO. 2318.0

SET NO. CD-

WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

PURPOSE	DATE
FOR PERMIT	11/8/2024

REVISION RECORD

NO.	CHANGE	DATE

DRAWN: AR

CHECKED: MFA

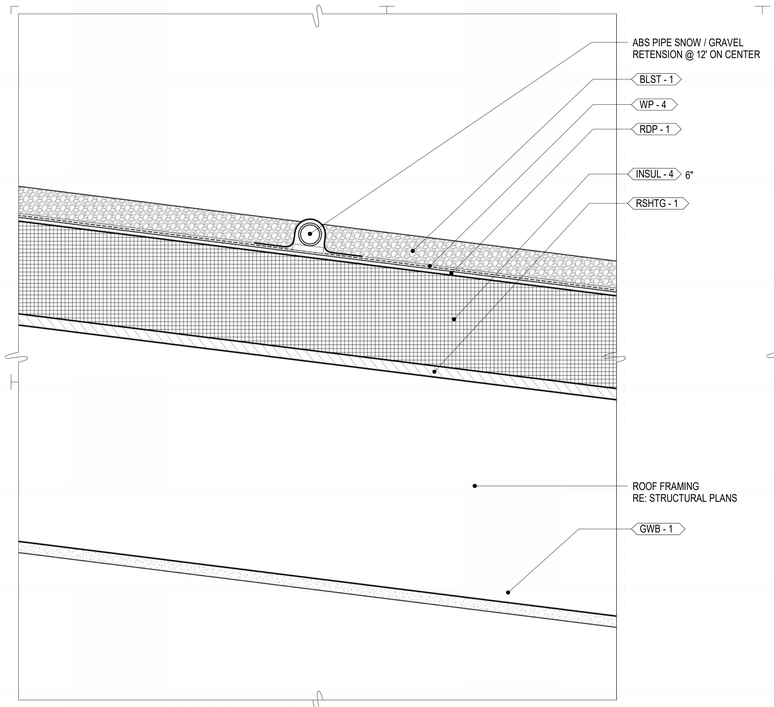
DATE: 11/8/2024

SHEET TITLE: PROPOSED REFLECTED CEILING PLAN / EXTERIOR LIGHTING

Michael Doty Associates Architects
Post Office Box 2792
371 Washington Avenue North
Ketchum, ID 83340
Tel. 208. 726. 4228
www.mda-arc.com

LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY
STATE OF IDAHO
11/8/2024

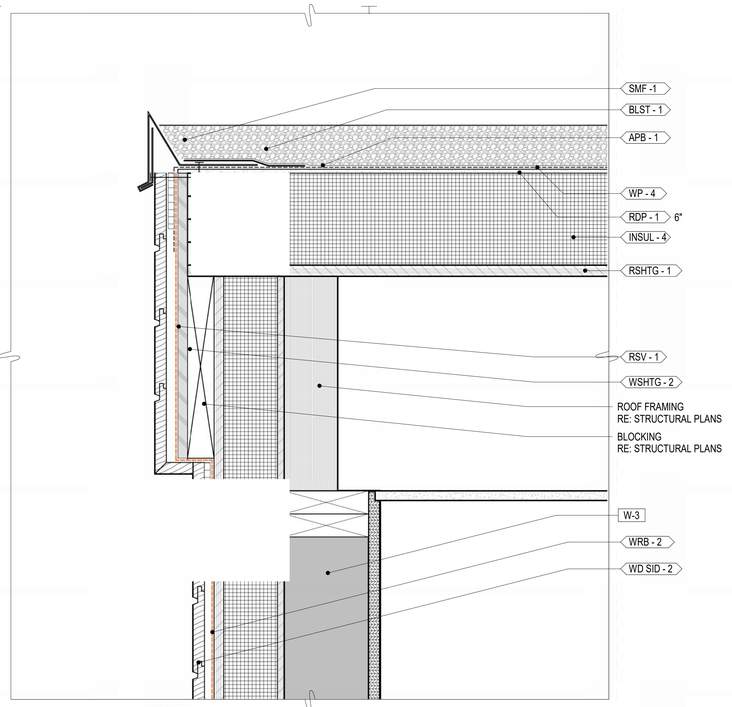
SHEET A6.01 OF TOTAL



7 SNOW RETENSION

1/A4.01

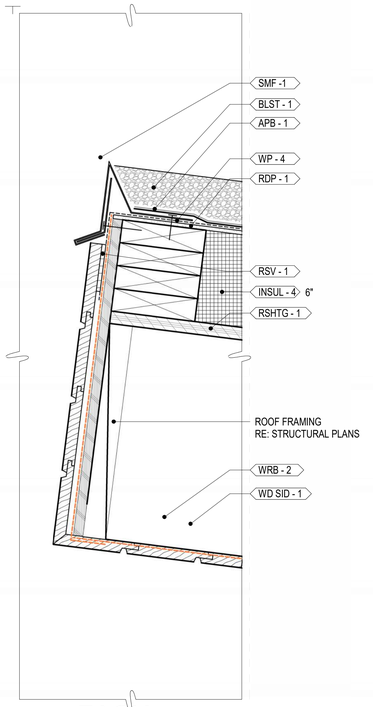
SCALE: 3" = 1'-0"



5 ROOF DETAIL

2/A4.01

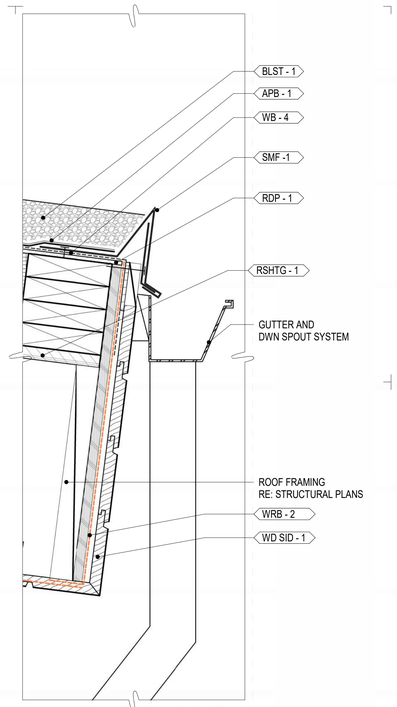
SCALE: 3" = 1'-0"



3 FACIA

1/A4.01

SCALE: 3" = 1'-0"



2 FACIA W/ GUTTER

1/A4.01

SCALE: 3" = 1'-0"

6 BUILDING @ GRADE

2/A4.01

SCALE: 3" = 1'-0"

4 FOUNDATION DETAIL 02

2/A4.01

SCALE: 3" = 1'-0"

1 FOUNDATION DETAIL 01

3/A4.01

SCALE: 3" = 1'-0"

NOTE: DETAILS EXPLODED FOR CLARITY OF WATERPROOFING LAYERS. SOME CAVITIES MAY APPEAR LARGER OR SMALLER THAN IN BUILT ENVIRONMENT

GENERAL NOTES

REFER TO SHEET A0.20 FOR GENERAL NOTES

PLAN NOTES

- [-] INDICATES PLAN NOTE. REFER TO SHEET A0.20 FOR PLAN NOTE LEGEND. REFER TO A5-SERIES ENLARGED PLANS FOR ADDITIONAL INFORMATION

MATERIAL IDENTIFICATION CODES

- [XX-1] INDICATES MATERIALS CALLED OUT ON PLANS, ELEVATIONS, SECTIONS, DETAILS, AND SCHEDULES. REFER TO A0.20FOR MATERIAL ID LEGEND

ASSEMBLY TYPES

- [W-#] INDICATES WALL, FLOOR, OR ROOF TYPE. REFER TO SHEETS A0.30 FOR ASSEMBLY LEGENDS.

PROJECT NO. 2318.0

SET NO. CD-

WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

PURPOSE	DATE
FOR PERMIT	11/8/2024

REVISION RECORD

NO.	CHANGE	DATE

DRAWN: AR

CHECKED: MFA

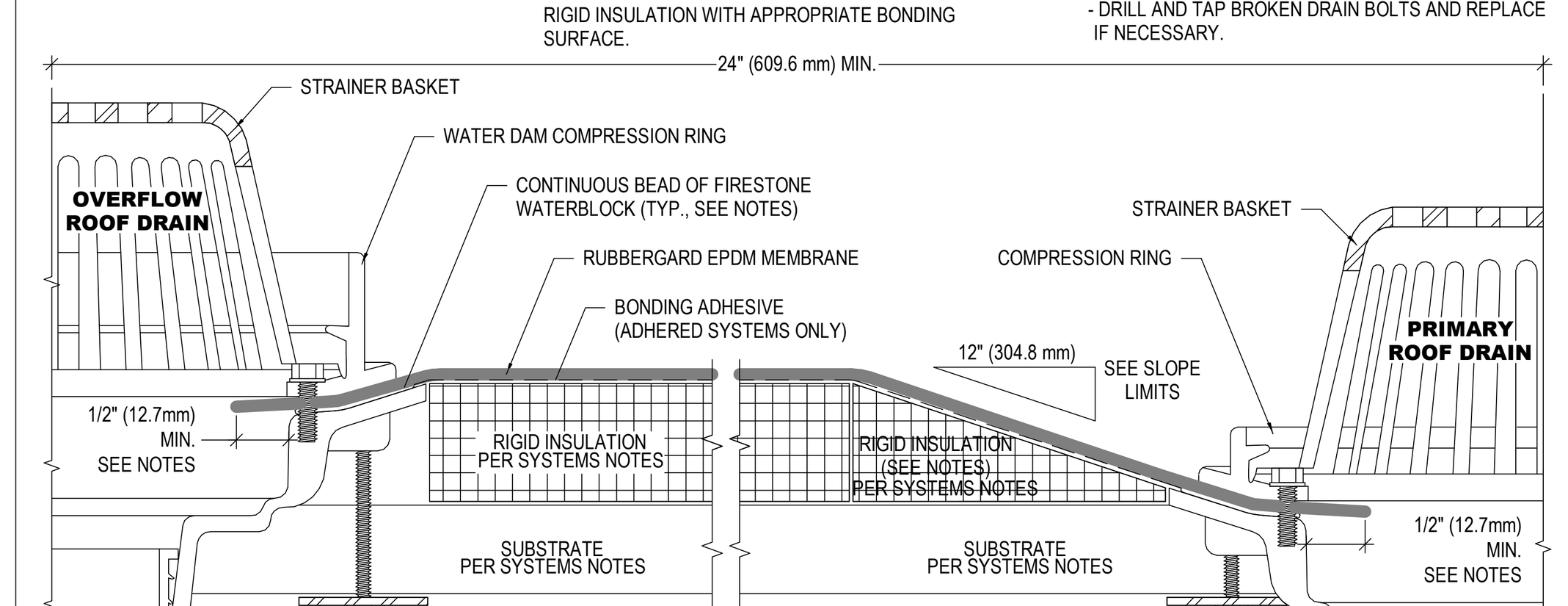
DATE: 11/8/2024

SHEET TITLE:
ARCHITECTURAL DETAILS

Michael Doty Associates Architects
Post Office Box 2792
371 Washington Avenue North
Ketchum, ID 83340
Tel. 208. 726. 4228
www.mda-arc.com

LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY
STATE OF IDAHO
11/8/2024

SHEET A8.01 OF TOTAL



NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. HOLE IN MEMBRANE SHOULD EXTEND A MINIMUM OF 1/2" (12.7 mm) BEYOND CLAMPING RING AND SHOULD NOT BE SMALLER THAN THE DIAMETER OF THE LEADER PIPE.
3. INSULATION ADJACENT TO DRAIN TO BE APPROPRIATE RIGID INSULATION WITH APPROPRIATE BONDING SURFACE.
4. FIRESTONE WATERBLOCK MIN. OF 1/2 OF 10 OZ (295 ml) TUBE PER 4" DRAIN. USE ADDITIONAL WATERBLOCK FOR LARGER DRAINS.
5. IN REROOF APPLICATIONS:
- REMOVE EXISTING FLASHINGS DOWN TO METAL BOWL
- REPAIR OR REPLACE BROKEN DRAIN COMPONENTS
- DRILL AND TAP BROKEN DRAIN BOLTS AND REPLACE IF NECESSARY.

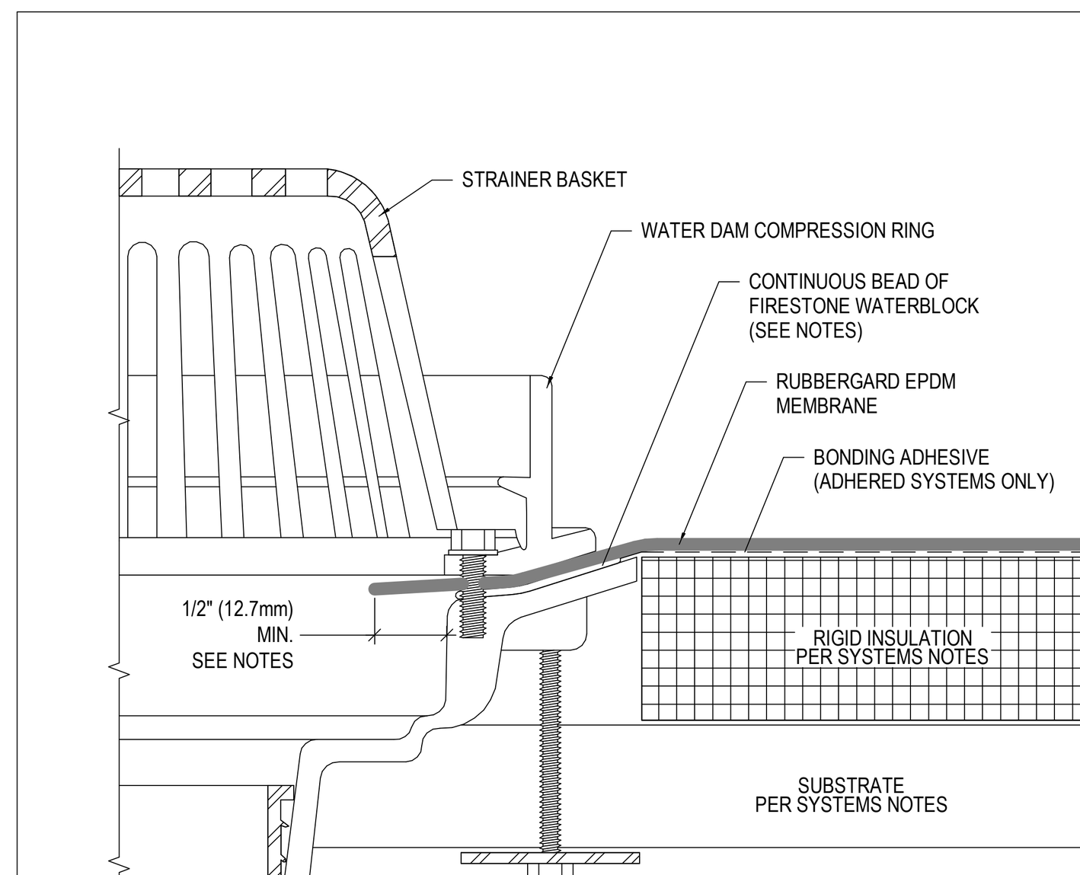
SUMP AREA FIELD SEAM REQUIREMENTS:
A. IF FIELD SEAM EDGE IS WITHIN 9" (228.6 mm) OF DRAIN COMPRESSION RING, EPDM TARGET PATCH REQUIRED.
B. IF FIELD SEAM EDGE IS WITHIN 9" (228.6 mm) TO 18" (457.2 mm) OF DRAIN COMPRESSION RING, INSTALL A LAYER OF 5" QUICKSEAM FLASHING CENTERED OVER SEAM EDGE. 5" QUICKSEAM FLASHING MUST EXTEND 3" (76.2 mm) MIN. BEYOND EDGE OF SUMP.

MEMBRANE SLOPE LIMITS:
A. MAXIMUM SLOPE FOR MAX MEMBRANE SHALL BE 2" (50.8 mm) / 12" (304.8 mm). REFER TO DETAIL D-4 WHEN SLOPE EXCEEDS LIMITATIONS.
B. MAXIMUM SLOPE FOR STANDARD MEMBRANE SHALL BE 6" (152.4 mm) / 12" (304.8 mm).

D-5 (DRAWN AT 3/4 SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **ROOF DRAIN WITH OVERFLOW ROOF DRAIN** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 1/1/2006 | NOT TO SCALE | DETAIL NO. D-5

16 ROOF DRAIN W/ OVERFLOW DRAIN
FIRESTONE D-5 — SCALE: NTS



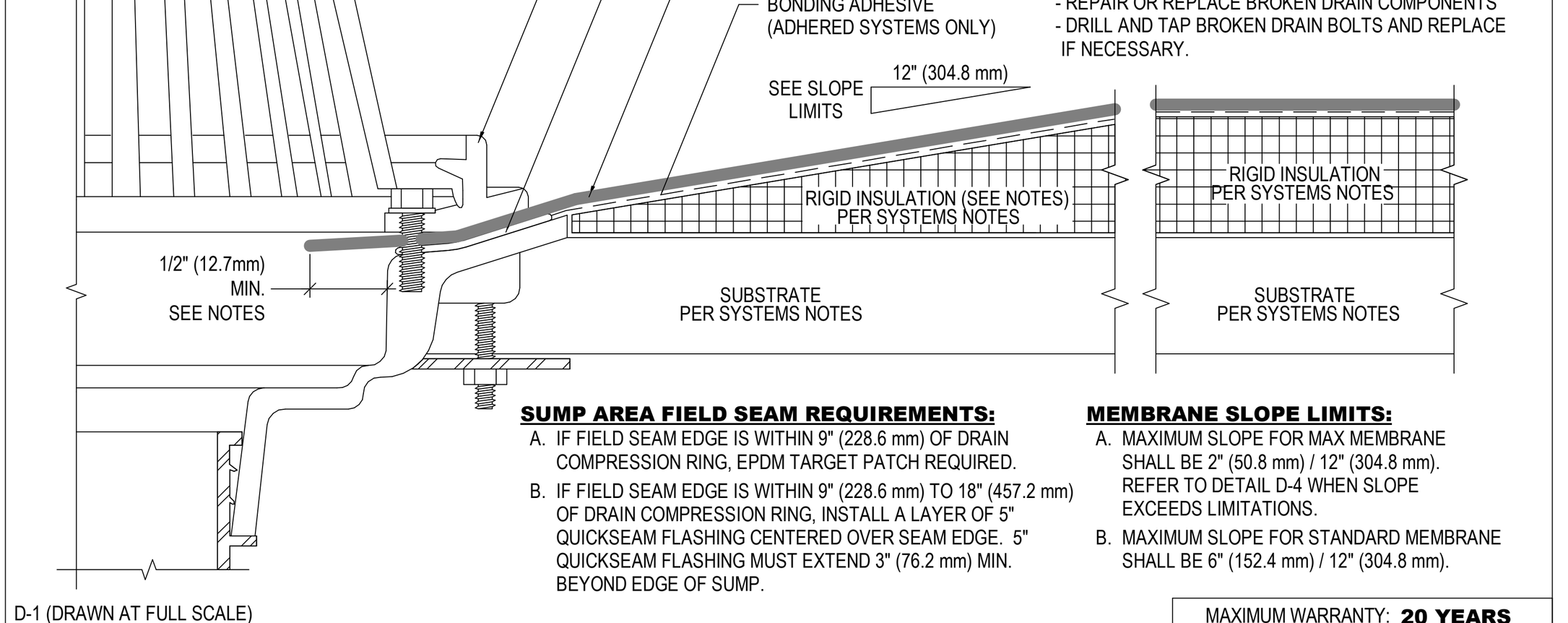
NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. HOLE IN MEMBRANE SHOULD EXTEND A MINIMUM OF 1/2" (12.7 mm) BEYOND CLAMPING RING AND SHOULD NOT BE SMALLER THAN THE DIAMETER OF THE LEADER PIPE.
3. FIRESTONE WATERBLOCK MIN. OF 1/2 OF 10 OZ (295 ml) TUBE PER 4" DRAIN. USE ADDITIONAL WATERBLOCK FOR LARGER DRAINS.
4. IN REROOF APPLICATIONS:
- REMOVE EXISTING FLASHINGS DOWN TO METAL BOWL
- REPAIR OR REPLACE BROKEN DRAIN COMPONENTS
- DRILL AND TAP BROKEN DRAIN BOLTS AND REPLACE IF NECESSARY.

FIELD SEAM REQUIREMENTS:
A. IF FIELD SEAM EDGE IS WITHIN 9" (228.6 mm) OF DRAIN COMPRESSION RING, EPDM TARGET PATCH REQUIRED.
B. IF FIELD SEAM EDGE IS WITHIN 9" (228.6 mm) TO 18" (457.2 mm) OF DRAIN COMPRESSION RING, INSTALL A LAYER OF 5" QUICKSEAM FLASHING CENTERED OVER SEAM EDGE. 5" QUICKSEAM FLASHING MUST EXTEND 3" (76.2 mm) MIN. BEYOND EDGE OF SUMP.

D-2 (DRAWN AT FULL SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **OVERFLOW ROOF DRAIN WITH WATER DAM** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 1/1/2006 | NOT TO SCALE | DETAIL NO. D-2

15 OVERFLOW ROOF DRAIN FLASHING
FIRESTONE D-2 — SCALE: NTS



NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. HOLE IN MEMBRANE SHOULD EXTEND A MINIMUM OF 1/2" (12.7 mm) BEYOND CLAMPING RING AND SHOULD NOT BE SMALLER THAN THE DIAMETER OF THE LEADER PIPE.
3. INSULATION ADJACENT TO DRAIN TO BE APPROPRIATE FIRESTONE INSULATION WITH APPROPRIATE BONDING SURFACE.
4. FIRESTONE WATERBLOCK MIN. OF 1/2 OF 10 OZ (295 ml) TUBE PER 4" DRAIN. USE ADDITIONAL WATERBLOCK FOR LARGER DRAINS.
5. IN REROOF APPLICATIONS:
- REMOVE EXISTING FLASHINGS DOWN TO METAL BOWL
- REPAIR OR REPLACE BROKEN DRAIN COMPONENTS
- DRILL AND TAP BROKEN DRAIN BOLTS AND REPLACE IF NECESSARY.

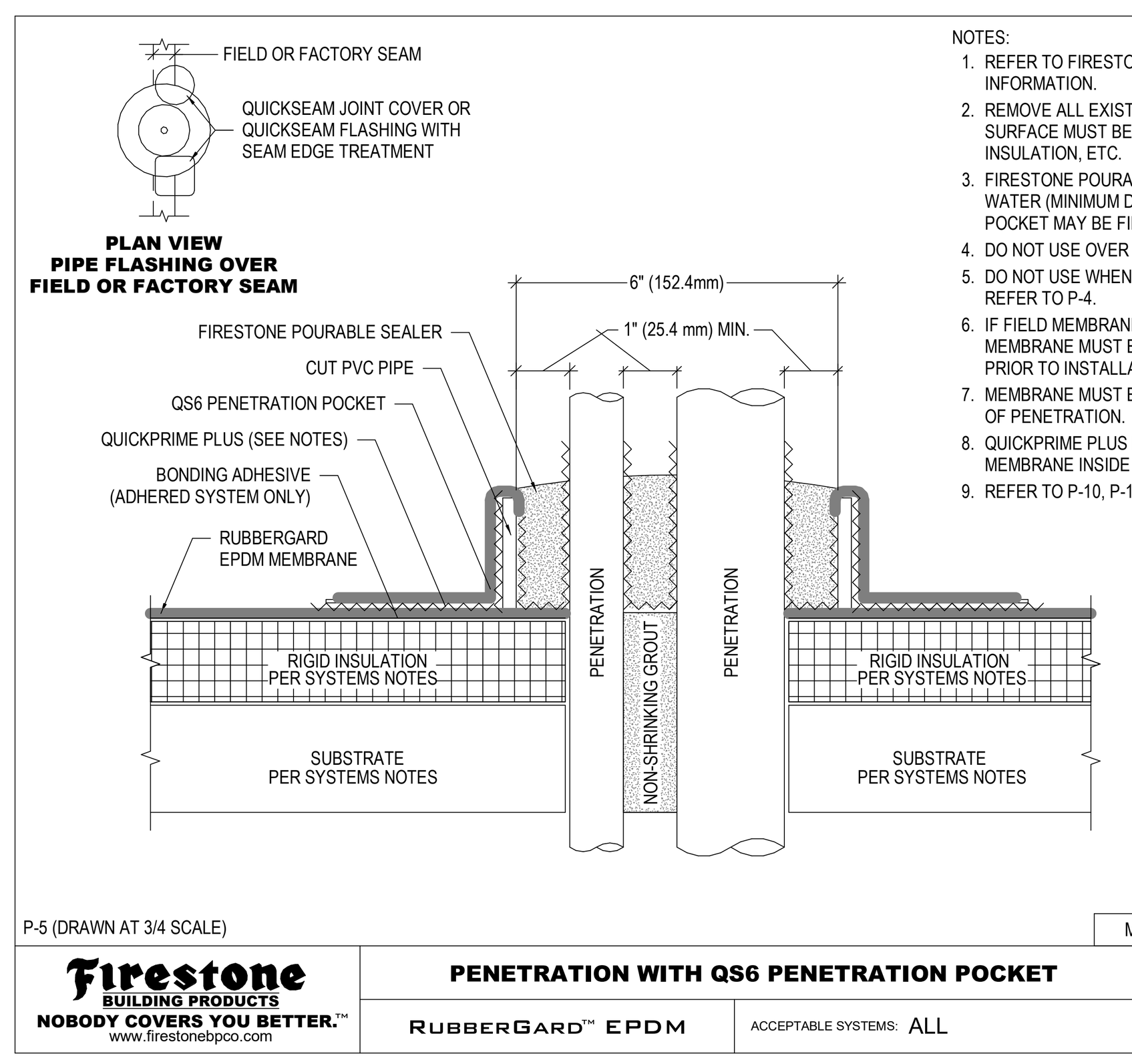
SUMP AREA FIELD SEAM REQUIREMENTS:
A. IF FIELD SEAM EDGE IS WITHIN 9" (228.6 mm) OF DRAIN COMPRESSION RING, EPDM TARGET PATCH REQUIRED.
B. IF FIELD SEAM EDGE IS WITHIN 9" (228.6 mm) TO 18" (457.2 mm) OF DRAIN COMPRESSION RING, INSTALL A LAYER OF 5" QUICKSEAM FLASHING CENTERED OVER SEAM EDGE. 5" QUICKSEAM FLASHING MUST EXTEND 3" (76.2 mm) MIN. BEYOND EDGE OF SUMP.

MEMBRANE SLOPE LIMITS:
A. MAXIMUM SLOPE FOR MAX MEMBRANE SHALL BE 2" (50.8 mm) / 12" (304.8 mm). REFER TO DETAIL D-4 WHEN SLOPE EXCEEDS LIMITATIONS.
B. MAXIMUM SLOPE FOR STANDARD MEMBRANE SHALL BE 6" (152.4 mm) / 12" (304.8 mm).

D-1 (DRAWN AT FULL SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **ROOF DRAIN** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 1/1/2006 | NOT TO SCALE | DETAIL NO. D-1

14 ROOF DRAIN FLASHING
FIRESTONE D-1 — SCALE: NTS

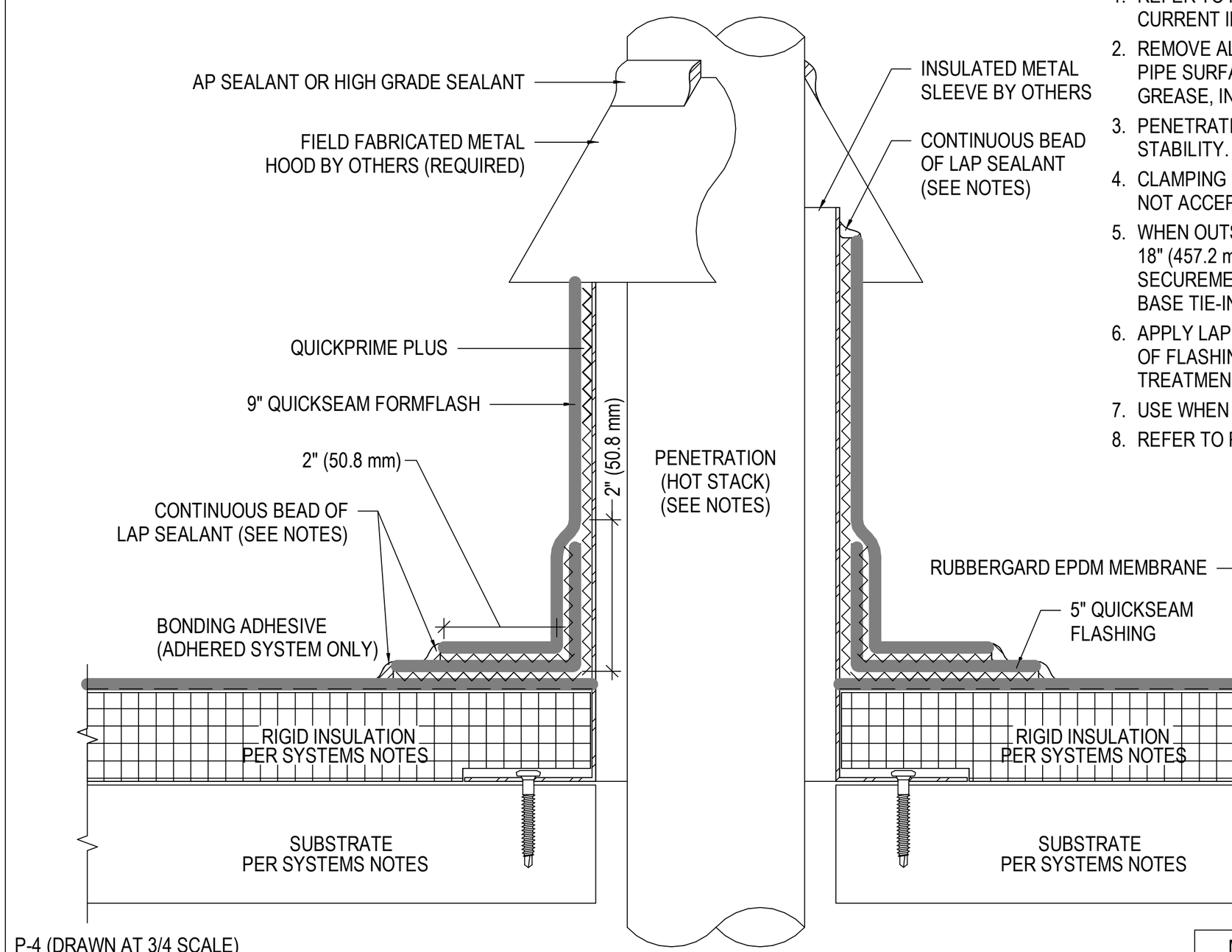


NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. REMOVE ALL EXISTING FLASHINGS, LEADS, ETC. PIPE SURFACE MUST BE FREE OF ALL RUST, GREASE, INSULATION, ETC.
3. FIRESTONE POURABLE SEALER MOUNDED TO SHED WATER (MINIMUM DEPTH OF 2" (50.8 mm), REMAINDER OF POCKET MAY BE FILLED WITH A NON - SHRINKING GROUT.
4. DO NOT USE OVER EXISTING PENETRATION POCKETS.
5. DO NOT USE WHEN SERVICE LINE TEMP. EXCEEDS 180°F. REFER TO P-4.
6. IF FIELD MEMBRANE IS CUT FOR INSTALLATION, THE MEMBRANE MUST BE REPAIRED WITH EPDM MEMBRANE PRIOR TO INSTALLATION OF THE PENETRATION POCKET.
7. MEMBRANE MUST BE INSTALLED WITHIN 1/2" (12.7 mm) OF PENETRATION.
8. QUICKPRIME PLUS REQUIRED ON PENETRATIONS AND MEMBRANE INSIDE OF PENETRATION POCKET.
9. REFER TO P-10, P-11, P-12 FOR MAS.

P-5 (DRAWN AT 3/4 SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **PENETRATION WITH QS6 PENETRATION POCKET** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 1/1/2006 | NOT TO SCALE | DETAIL NO. P-5

13 CLOSE PENETRATION FLASHING
FIRESTONE P-5 — SCALE: NTS

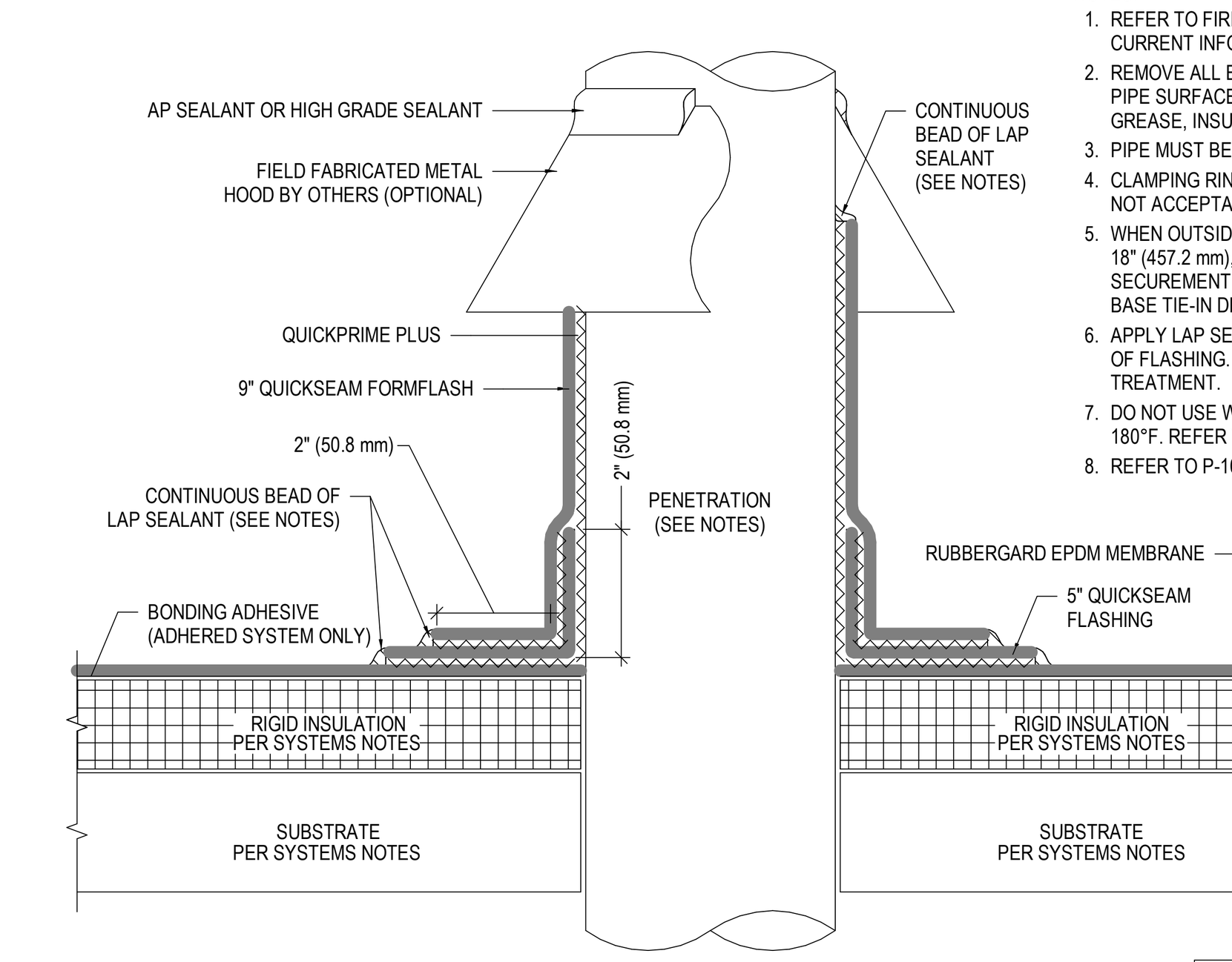


NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. REMOVE ALL EXISTING FLASHINGS, LEAD, ETC. PIPE SURFACE MUST BE FREE OF ALL RUST, GREASE, INSULATION, ETC.
3. PENETRATION MUST BE ANCHORED TO ENSURE STABILITY.
4. CLAMPING RING AROUND TOP OF FORMFLASH NOT ACCEPTABLE.
5. WHEN OUTSIDE DIAMETER OF THE PIPE EXCEEDS 18" (457.2 mm), ADDITIONAL FIELD MEMBRANE SECUREMENT REQUIRED. REFER TO APPROPRIATE BASE TIE-IN DETAILS.
6. APPLY LAP SEALANT AROUND ENTIRE PERIMETER OF FLASHING. REFER TO LS-9 FOR SEAM EDGE TREATMENT.
7. USE WHEN SERVICE LINE TEMP. EXCEEDS 180°F.
8. REFER TO P-10, P-11, P-12 FOR MAS.

P-4 (DRAWN AT 3/4 SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **PENETRATION (HOT STACK) WITH FIELD FABRICATED FLASHING** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 1/1/2006 | NOT TO SCALE | DETAIL NO. P-4

12 HOT STACK FLASHING
FIRESTONE P-2 — SCALE: NTS

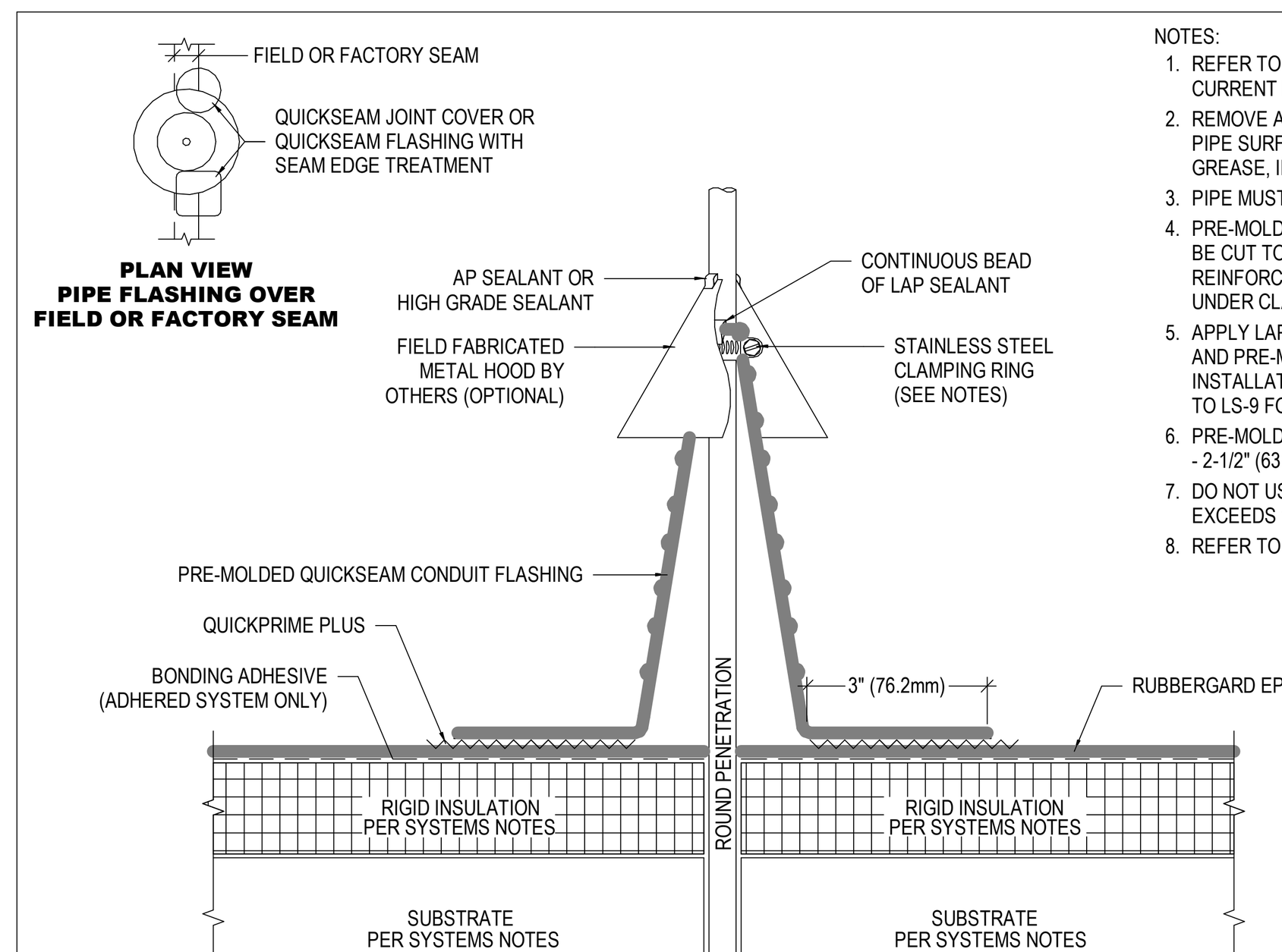


NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. REMOVE ALL EXISTING FLASHINGS, LEAD, ETC. PIPE SURFACE MUST BE FREE OF ALL RUST, GREASE, INSULATION, ETC.
3. PIPE MUST BE ANCHORED TO ENSURE STABILITY.
4. CLAMPING RING AROUND TOP OF FORMFLASH NOT ACCEPTABLE.
5. WHEN OUTSIDE DIAMETER OF THE PIPE EXCEEDS 18" (457.2 mm), ADDITIONAL FIELD MEMBRANE SECUREMENT REQUIRED. REFER TO APPROPRIATE BASE TIE-IN DETAILS.
6. APPLY LAP SEALANT AROUND ENTIRE PERIMETER OF FLASHING. REFER TO LS-9 FOR SEAM EDGE TREATMENT.
7. DO NOT USE WHEN SERVICE LINE TEMP. EXCEEDS 180°F. REFER TO P-4.
8. REFER TO P-10, P-11, P-12 FOR MAS.

P-3 (DRAWN AT 3/4 SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **PENETRATION WITH FIELD FABRICATED FLASHING** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 1/1/2006 | NOT TO SCALE | DETAIL NO. P-3

11 COLD STACK FLASHING
FIRESTONE P-3 — SCALE: NTS

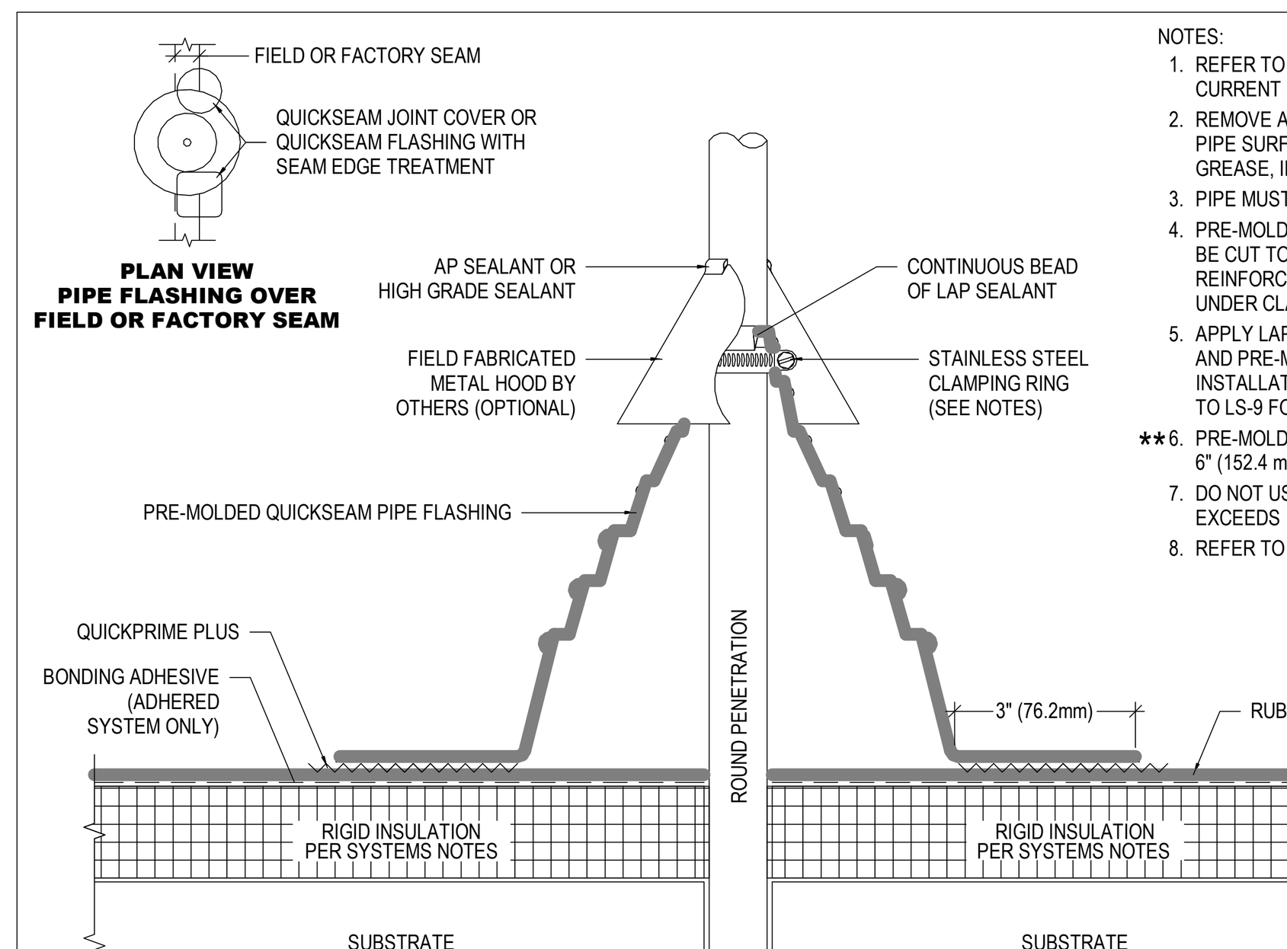


NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. REMOVE ALL EXISTING FLASHINGS, LEADS, ETC. PIPE SURFACE MUST BE FREE OF ALL RUST, GREASE, INSULATION, ETC.
3. PIPE MUST BE ANCHORED TO ENSURE STABILITY.
4. PRE-MOLDED QUICKSEAM PIPE FLASHING MAY BE CUT TO HEIGHT, BUT NO LOWER THAN REINFORCING RING (NO WRINKLES OR FOLDS UNDER CLAMPING RING).
5. APPLY LAP SEALANT BETWEEN PENETRATION AND PRE-MOLDED CONDUIT FLASHING PRIOR TO INSTALLATION OF CLAMPING RING. REFER TO LS-9 FOR SEAM EDGE TREATMENT.
6. PRE-MOLDED PIPE FLASHING FITS 1/2" (12.7 mm) - 2-1/2" (63.5 mm) PENETRATION SIZES.
7. DO NOT USE WHEN SERVICE LINE TEMP. EXCEEDS 180°F. REFER TO P-4.
8. REFER TO P-10, P-11, P-12 FOR MAS.

P-2 (DRAWN AT 3/4 SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **PENETRATION WITH QUICKSEAM CONDUIT FLASHING** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 1/1/2006 | NOT TO SCALE | DETAIL NO. P-2

10 SMALL PIPE FLASHING
FIRESTONE P-2 — SCALE: NTS

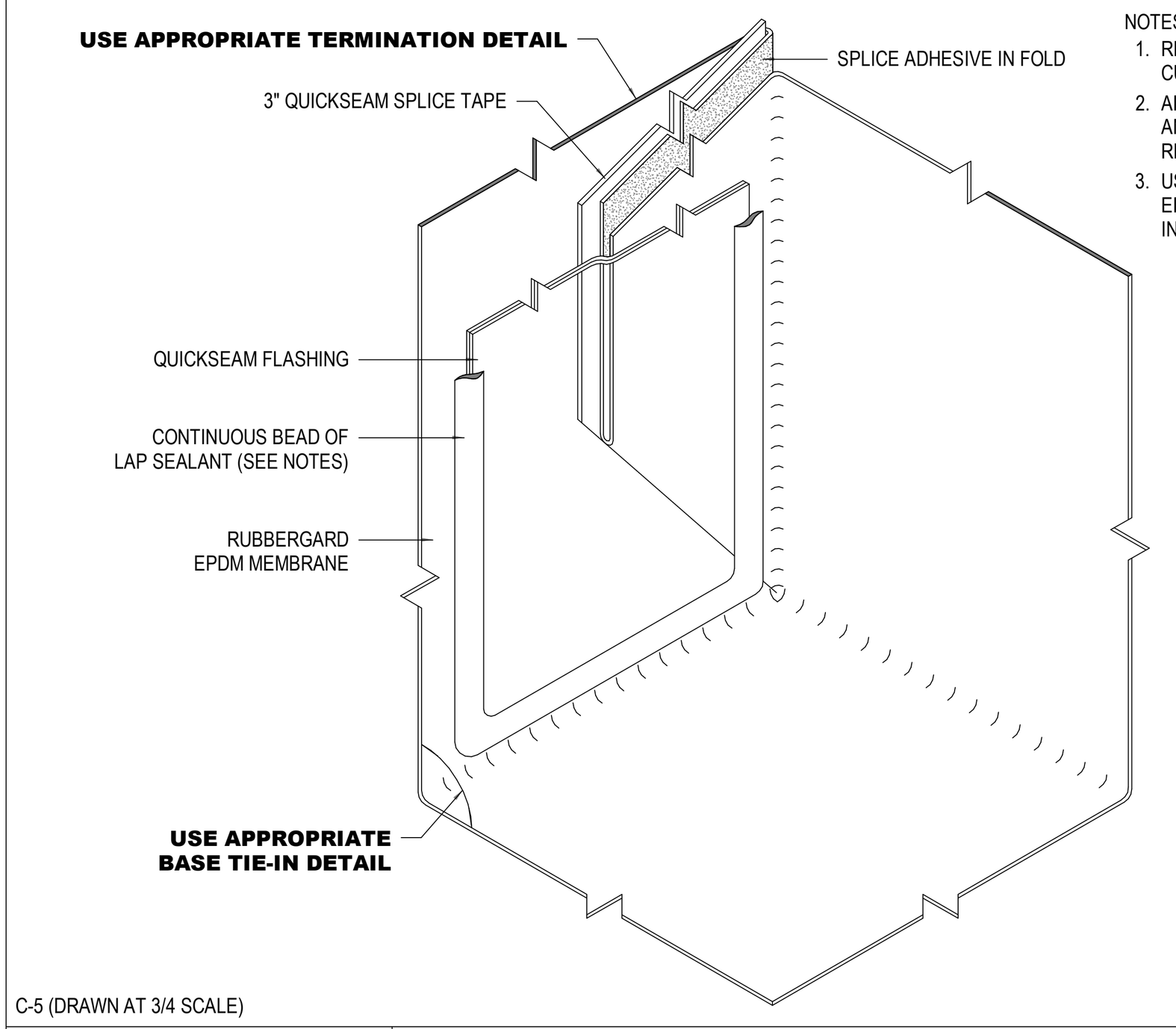


NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. REMOVE ALL EXISTING FLASHINGS, LEADS, ETC. PIPE SURFACE MUST BE FREE OF ALL RUST, GREASE, INSULATION, ETC.
3. PIPE MUST BE ANCHORED TO ENSURE STABILITY.
4. PRE-MOLDED QUICKSEAM PIPE FLASHING MAY BE CUT TO HEIGHT, BUT NO LOWER THAN REINFORCING RING (NO WRINKLES OR FOLDS UNDER CLAMPING RING).
5. APPLY LAP SEALANT BETWEEN PENETRATION AND PRE-MOLDED PIPE FLASHING PRIOR TO INSTALLATION OF CLAMPING RING. REFER TO LS-9 FOR SEAM EDGE TREATMENT.
**6. PRE-MOLDED PIPE FLASHING FITS 1" (25.4 mm) - 6" (152.4 mm) PENETRATION SIZES.
7. DO NOT USE WHEN SERVICE LINE TEMP. EXCEEDS 180°F. REFER TO P-4.
8. REFER TO P-10, P-11, P-12 FOR MAS.

P-1 (DRAWN AT 3/4 SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **PENETRATION WITH QUICKSEAM PIPE FLASHING** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 1/1/2006 | NOT TO SCALE | DETAIL NO. P-1

9 LARGE PIPE FLASHING
FIRESTONE P-1 — SCALE: NTS

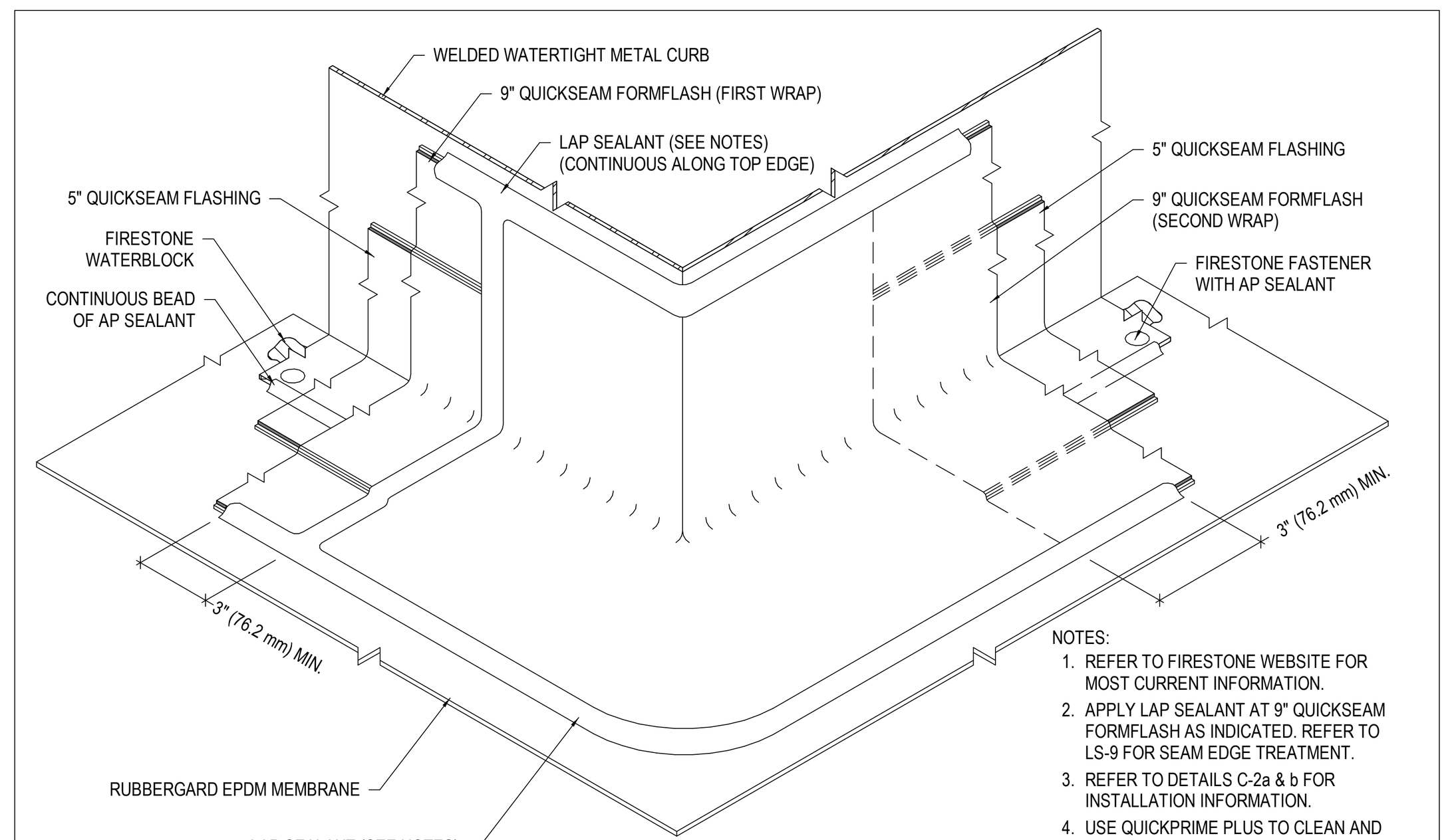


NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. APPLY SEAM EDGE TREATMENT ON CUT EDGES AND T - JOINTS OF QUICKSEAM FLASHING. REFER TO LS-9 FOR SEAM EDGE TREATMENT.
3. USE QUICKPRIME PLUS TO CLEAN AND PRIME EPDM MATING SURFACES PRIOR TO INSTALLATION OF QUICKSEAM PRODUCTS.

C-5 (DRAWN AT 3/4 SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **INSIDE CORNER - FOLDED MEMBRANE WITH SPLICE ADHESIVE AND QUICKSEAM SPLICE TAPE** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 1/1/2006 | NOT TO SCALE | DETAIL NO. C-5

8 INSIDE CORNER
FIRESTONE C-5 — SCALE: NTS

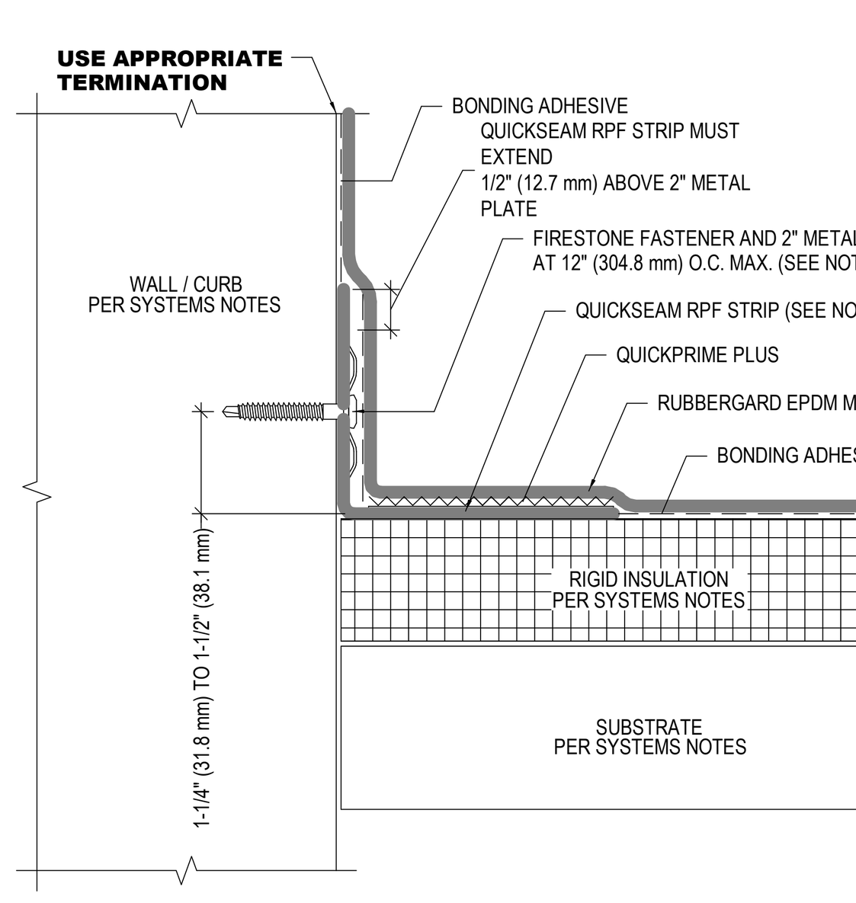


NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. APPLY LAP SEALANT AT 9" QUICKSEAM FORMFLASH AS INDICATED. REFER TO LS-9 FOR SEAM EDGE TREATMENT.
3. REFER TO DETAILS C-2a & b FOR INSTALLATION INFORMATION.
4. USE QUICKPRIME PLUS TO CLEAN AND PRIME EPDM MATING SURFACES PRIOR TO INSTALLATION OF QUICKSEAM PRODUCTS.

C-2 (DRAWN AT 3/4 SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **OUTSIDE CORNER AT WELDED WATERTIGHT CURB (FLANGES UNDER 2")** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 1/1/2006 | NOT TO SCALE | DETAIL NO. C-2

7 OUTSIDE CORNER @ CURB
FIRESTONE C-2 — SCALE: NTS

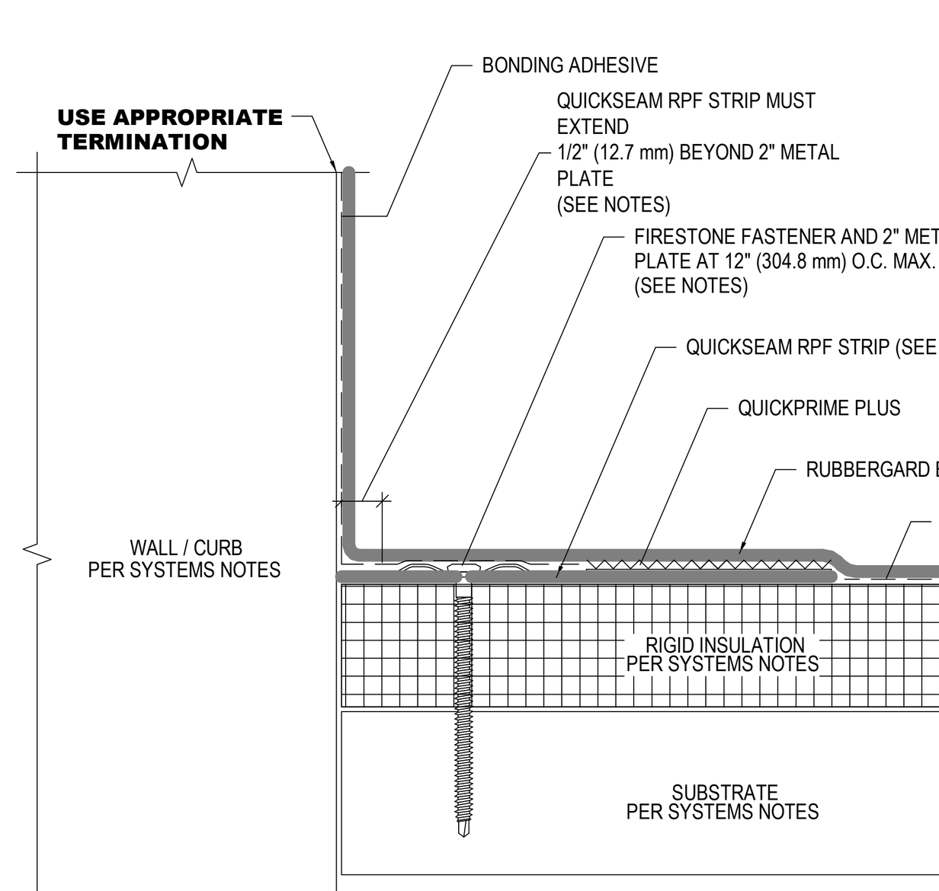


NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. REFER TO BT-14 & 15 FOR QUICKSEAM RPF STRIP LAYOUT AT CORNERS.
3. BONDING ADHESIVE REQUIRED BETWEEN MEMBRANE AND INSULATION FOR FULLY ADHERED SYSTEMS.

BT-2 (DRAWN AT FULL SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **BASE TIE-IN WITH QUICKSEAM RPF AND 2" METAL PLATES FASTENED TO WALL / CURB** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 1/1/2006 | NOT TO SCALE | DETAIL NO. BT-2

6 VERTICAL BASE TIE-IN @ WALL/CURB
FIRESTONE BT-11 — SCALE: NTS

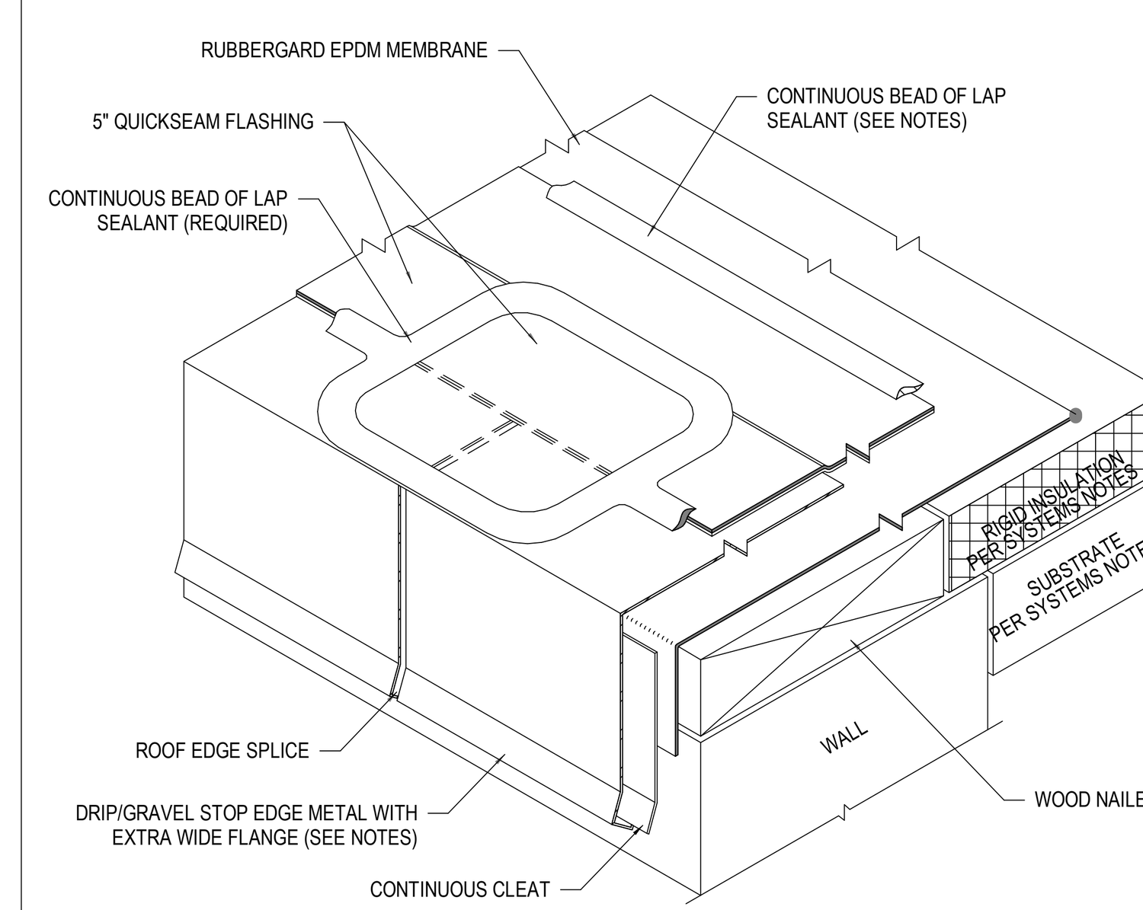


NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. MAXIMUM 6" (152.4 mm) LONG FASTENERS. (NOTE: WOOD BLOCKING MAY BE SUBSTITUTED FOR INSULATION TO REDUCE FASTENER LENGTH REQUIREMENT).
3. IN CASE OF OBSTRUCTION REFER TO DETAIL BT-5.
4. REFER TO BT-14 & 15 FOR QUICKSEAM RPF STRIP LAYOUT AT CORNERS.
5. BONDING ADHESIVE REQUIRED BETWEEN MEMBRANE AND INSULATION FOR FULLY ADHERED SYSTEMS.

BT-1 (DRAWN AT FULL SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **BASE TIE-IN WITH QUICKSEAM RPF AND 2" METAL PLATES FASTENED TO DECK** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 1/1/2006 | NOT TO SCALE | DETAIL NO. BT-1

5 VERTICAL BASE TIE-IN @ WALL/CURB
FIRESTONE BT-1 — SCALE: NTS

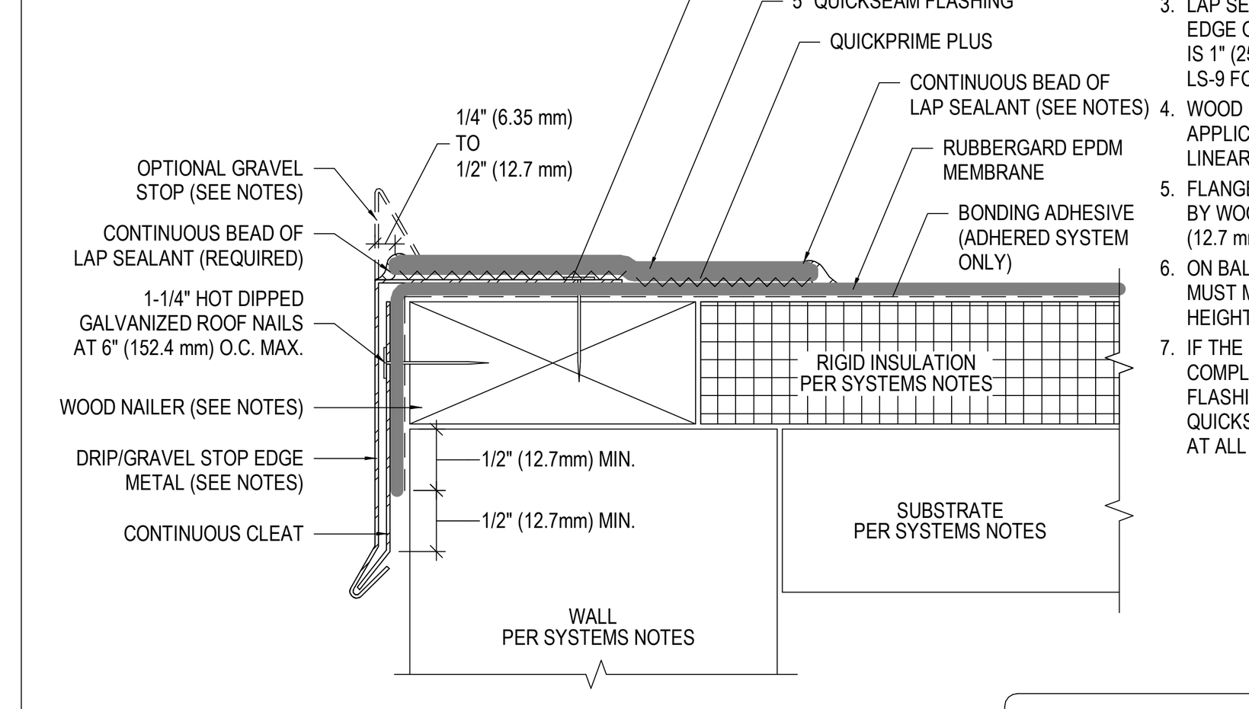


NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. LAP SEALANT IS REQUIRED ALONG ENTIRE UPSLOPE EDGE OF QUICKSEAM FLASHING WHEN ROOF SLOPE IS 1" (25.4 mm) PER FOOT OR GREATER. REFER TO LS-9 FOR SEAM EDGE TREATMENT.
3. WOOD NAILER MUST BE INSTALLED TO MEET APPLICABLE BUILDING CODES OR 200 LBS PER LINEAR FOOT MINIMUM IN ANY GIVEN DIRECTION.
4. FLANGE OF METAL MUST BE FULLY SUPPORTED BY WOOD AND TERMINATED AT LEAST 1/2" (12.7 mm) FROM EDGE OF WOOD.
5. USE QUICKPRIME PLUS TO CLEAN AND PRIME EPDM MATING SURFACES PRIOR TO INSTALLATION OF QUICKSEAM PRODUCTS.

RE-28 (DRAWN AT 5/8 SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **ROOF EDGE SPLICE WITH QUICKSEAM FLASHING COVER** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 5/1/2010 | NOT TO SCALE | DETAIL NO. RE-28

4 ROOF EDGE SPLICE
FIRESTONE RE-28 — SCALE: NTS



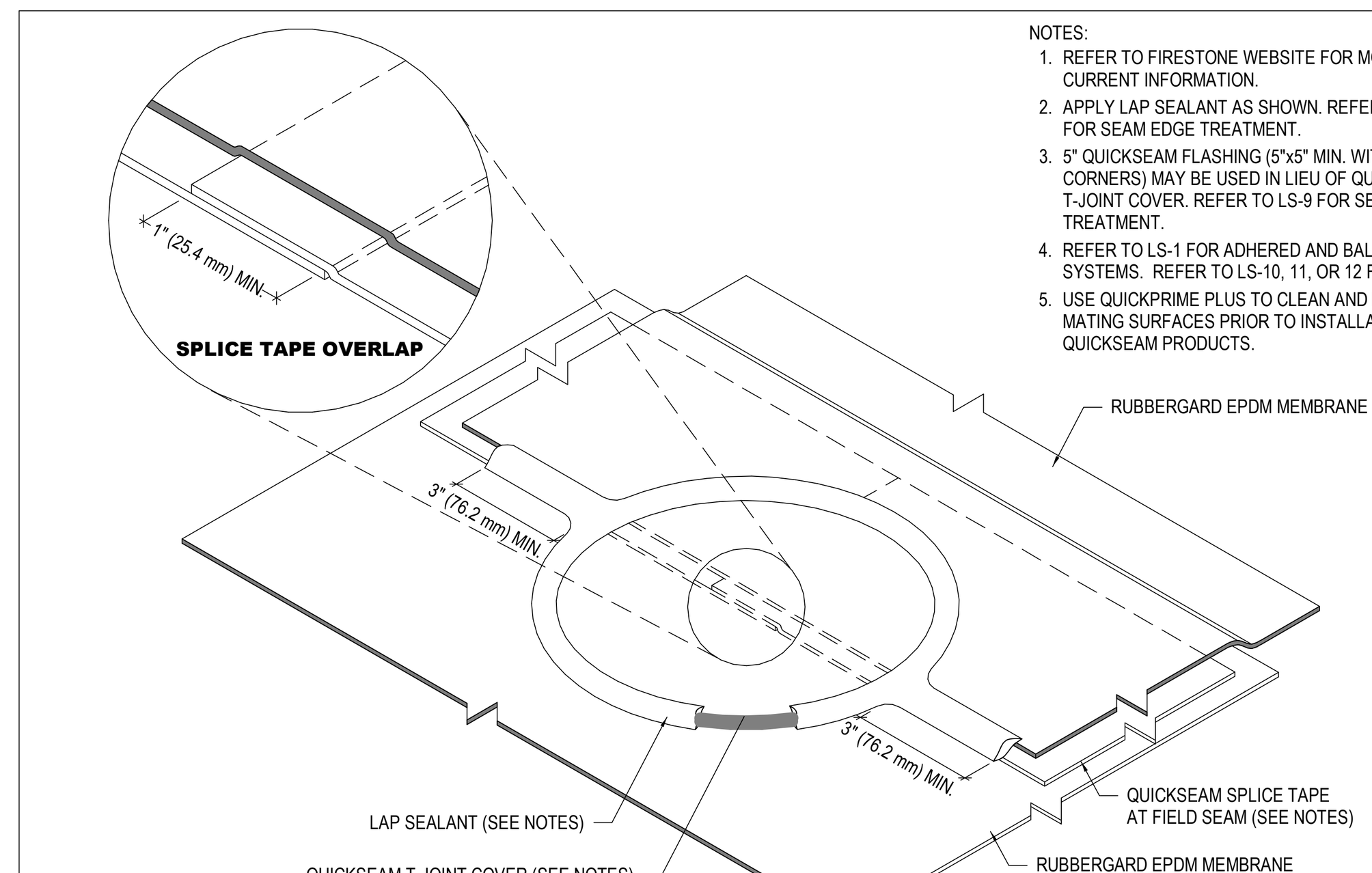
NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. INSTALL METAL WORK TO MANUFACTURER'S REQUIREMENTS OR SMACNA RECOMMENDATIONS. IF SHOP FABRICATED METAL EDGE IS USED IT MUST MEET ANSI/SPRI ES-1 OR A FM STANDARD.
3. LAP SEALANT IS REQUIRED ALONG ENTIRE UPSLOPE EDGE OF QUICKSEAM FLASHING WHEN ROOF SLOPE IS 1" (25.4 mm) PER FOOT OR GREATER. REFER TO LS-9 FOR SEAM EDGE TREATMENT.
4. WOOD NAILER MUST BE INSTALLED TO MEET APPLICABLE BUILDING CODES OR 200 LBS PER LINEAR FOOT MINIMUM IN ANY GIVEN DIRECTION.
5. FLANGE OF METAL MUST BE FULLY SUPPORTED BY WOOD AND TERMINATED AT LEAST 1/2" (12.7 mm) FROM EDGE OF WOOD.
6. ON BALLASTED ROOFS, GRAVEL STOP HEIGHT MUST MEET OR EXCEED BALLAST OR PAVER HEIGHT (2" (50.8 mm) MIN. ABOVE ROOF SURFACE).
7. IF THE FLANGE OF THE METAL EDGE IS NOT COMPLETELY COVERED WITH QUICKSEAM FLASHING, THEN AN ADDITIONAL PIECE OF QUICKSEAM FLASHING SHALL BE INSTALLED AT ALL METAL SPLICES. REFER TO RE-28.

THIS DETAIL IS APPROVED FOR A MAXIMUM OF 20 YEARS. REFER TO DETAIL RE-24 FOR 25 YEAR REQUIREMENTS.

RE-23 (DRAWN AT FULL SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **ROOF EDGE WITH FASCIA METAL BY OTHERS** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 5/1/2010 | NOT TO SCALE | DETAIL NO. RE-23

3 STANDARD ROOF EDGE
FIRESTONE RE-23 — SCALE: NTS

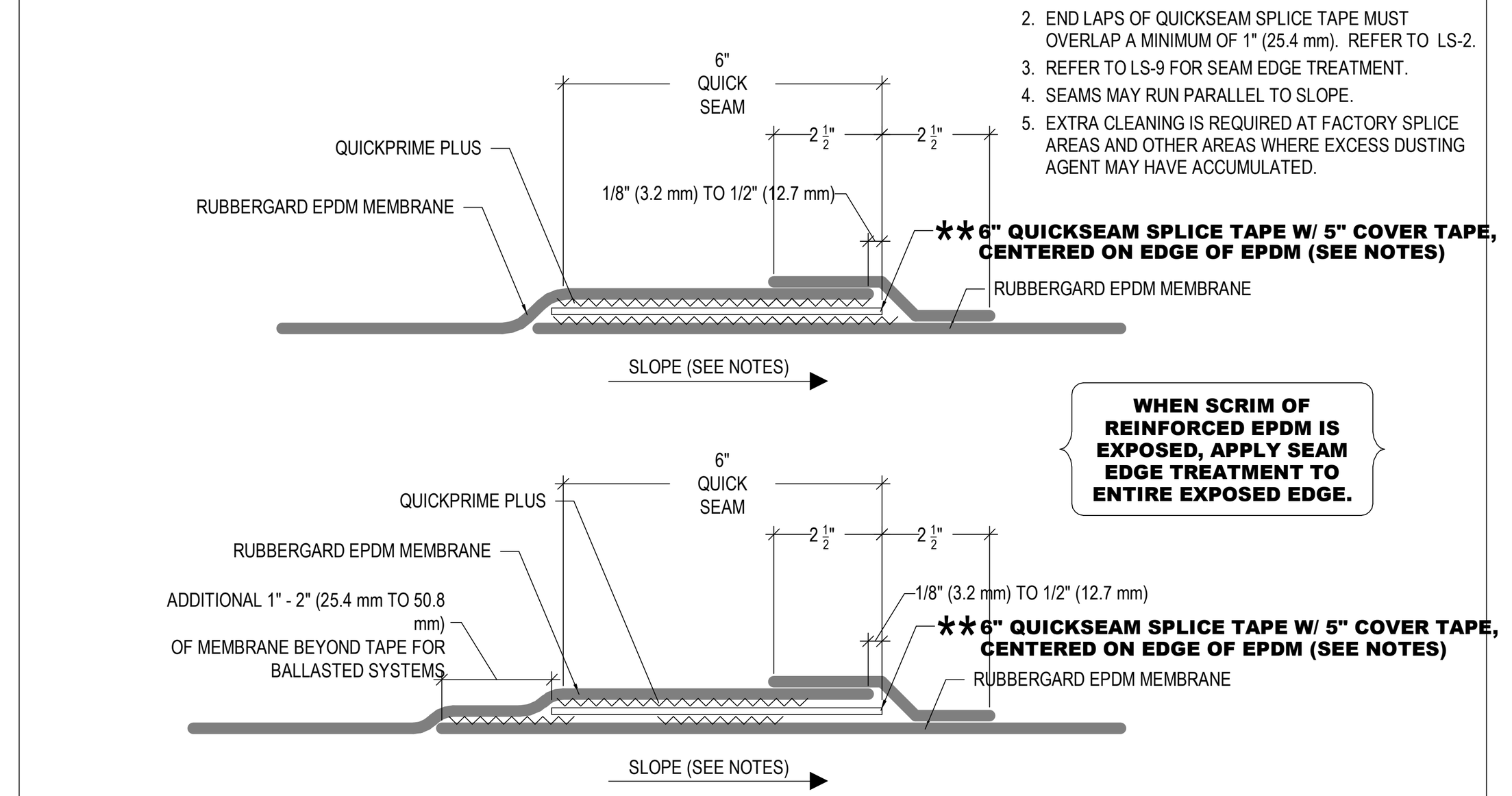


NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. APPLY LAP SEALANT AS SHOWN. REFER TO LS-9 FOR SEAM EDGE TREATMENT.
3. 5" QUICKSEAM FLASHING (5"x5" MIN. WITH ROUNDED CORNERS) MAY BE USED IN LIEU OF QUICKSEAM T-JOINT COVER. REFER TO LS-9 FOR SEAM EDGE TREATMENT.
4. REFER TO LS-1 FOR ADHERED AND BALLASTED SYSTEMS. REFER TO LS-10, 11, OR 12 FOR MAS.
5. USE QUICKPRIME PLUS TO CLEAN AND PRIME EPDM MATING SURFACES PRIOR TO INSTALLATION OF QUICKSEAM PRODUCTS.

LS-2 (DRAWN AT FULL SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **LAP SPLICE WITH QUICKSEAM SPLICE TAPE OVERLAP AND QUICKSEAM T-JOINT COVER** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 1/1/2006 | NOT TO SCALE | DETAIL NO. LS-2

2 LAP SPLICE W/ T-JOINT COVER
FIRESTONE LS-2 — SCALE: NTS



NOTES:
1. REFER TO FIRESTONE WEBSITE FOR MOST CURRENT INFORMATION.
2. END LAPS OF QUICKSEAM SPLICE TAPE MUST OVERLAP A MINIMUM OF 1" (25.4 mm). REFER TO LS-2.
3. REFER TO LS-9 FOR SEAM EDGE TREATMENT.
4. SEAMS MAY RUN PARALLEL TO SLOPE.
5. EXTRA CLEANING IS REQUIRED AT FACTORY SPLICE AREAS AND OTHER AREAS WHERE EXCESS DUSTING AGENT MAY HAVE ACCUMULATED.

** ALTERED FROM FIRESTONE TYPICAL DETAIL.

LS-1 (DRAWN AT 1-1/2 SCALE) | MAXIMUM WARRANTY: **20 YEARS**

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonebpco.com | **LAP SPLICE** | RUBBERGARD™ EPDM | ACCEPTABLE SYSTEMS: ALL | ISSUE / REVISION DATE: 1/1/2006 | NOT TO SCALE | DETAIL NO. LS-1

1 LAP SPLICE
FIRESTONE LS-1 — SCALE: NTS

PROJECT NO. 2318.0
SET NO. CD-

WARM SPRINGS PRESERVE WELCOME BUILDING
201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

PURPOSE	DATE
FOR PERMIT	11/8/2024

REVISION RECORD

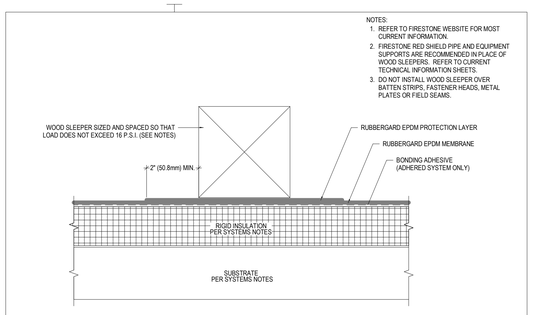
NO.	CHANGE	DATE

DRAWN: AR
CHECKED: MFA
DATE: 11/8/2024
SHEET TITLE: FIRESTONE EPDM DETAILS

Architects
Michael Doty Associates
Post Office Box 2792
371 Washington Avenue North
Ketchum, ID 83340
Tel. 208. 726. 4228
www.mda-arc.com

LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY
STATE OF IDAHO
11/8/2024

SHEET A8.20 OF TOTAL



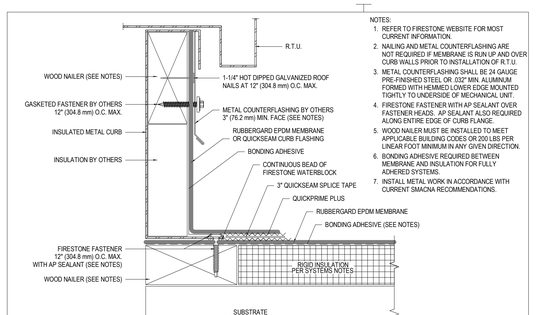
M-4 (DRAWN AT FULL SCALE) — MAXIMUM WARRANTY: 20 YEARS

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonepco.com

WOOD SLEEPER	ISSUE / REVISION DATE: 1/1/2006	DETAIL NO. M-4
RUBBERGARD™ EPDM — ACCEPTABLE SYSTEMS: ALL	NOT TO SCALE	

28 WOOD SLEEPERS

FIRESTONE M-4 — SCALE: NTS



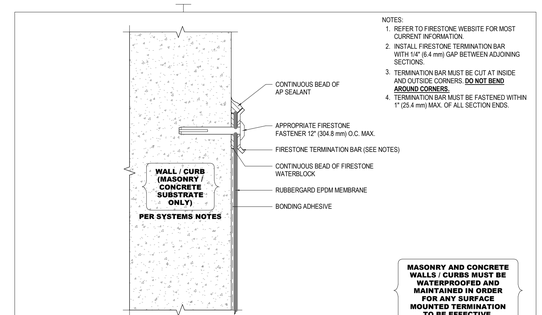
T-15 (DRAWN AT FULL SCALE) — MAXIMUM WARRANTY: 20 YEARS

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonepco.com

TERMINATION AT R.T.U. WITH COUNTERFLASHING (UNIT FLANGE ABOVE MEMBRANE)	ISSUE / REVISION DATE: 1/1/2006	DETAIL NO. T-15
RUBBERGARD™ EPDM — ACCEPTABLE SYSTEMS: ALL	NOT TO SCALE	

24 TERMINATION (NON-SELF FLASHING)

FIRESTONE T-15 — SCALE: NTS



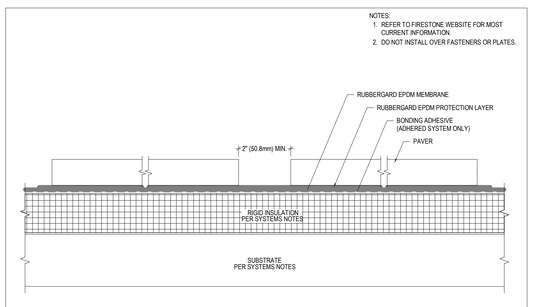
T-1 (DRAWN AT 1-1/4 SCALE) — MAXIMUM WARRANTY: 20 YEARS

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonepco.com

TERMINATION WITH TERMINATION BAR	ISSUE / REVISION DATE: 1/1/2006	DETAIL NO. T-1
RUBBERGARD™ EPDM — ACCEPTABLE SYSTEMS: ALL	NOT TO SCALE	

20 TERMINATION BAR

FIRESTONE T-1 — SCALE: NTS



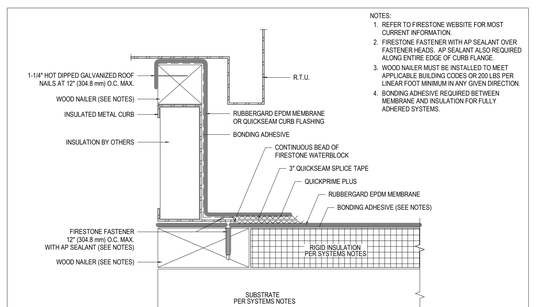
M-2 (DRAWN AT FULL SCALE) — MAXIMUM WARRANTY: 20 YEARS

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonepco.com

CONCRETE WALKWAY PAVER	ISSUE / REVISION DATE: 1/1/2006	DETAIL NO. M-2
RUBBERGARD™ EPDM — ACCEPTABLE SYSTEMS: ALL	NOT TO SCALE	

27 CONCRETE WALKWAY PAVER

FIRESTONE M-2 — SCALE: NTS



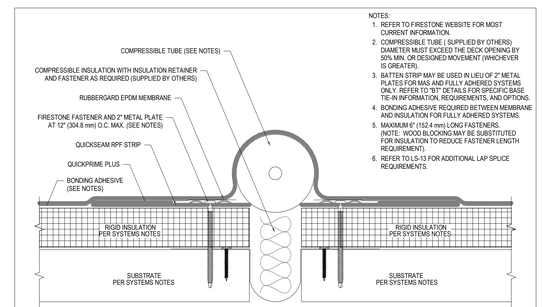
T-14 (DRAWN AT FULL SCALE) — MAXIMUM WARRANTY: 20 YEARS

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonepco.com

TERMINATION AT R.T.U. (UNIT FLANGE ABOVE MEMBRANE)	ISSUE / REVISION DATE: 1/1/2006	DETAIL NO. T-14
RUBBERGARD™ EPDM — ACCEPTABLE SYSTEMS: ALL	NOT TO SCALE	

23 TERMINATION (SELF FLASHING)

FIRESTONE T-14 — SCALE: NTS



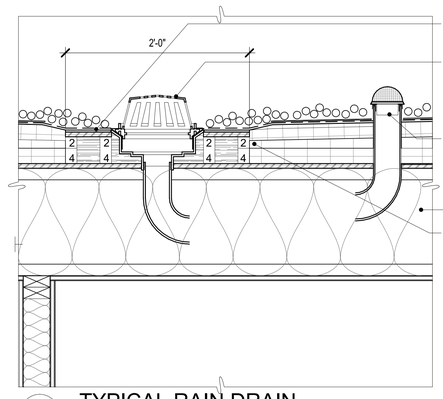
E-5 (DRAWN AT FULL SCALE) — MAXIMUM WARRANTY: 20 YEARS

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonepco.com

EXPANSION JOINT (FIELD FABRICATED) WITH QUICKSEAM RPF ROOF TO ROOF	ISSUE / REVISION DATE: 1/1/2006	DETAIL NO. E-5
RUBBERGARD™ EPDM — ACCEPTABLE SYSTEMS: ALL	NOT TO SCALE	

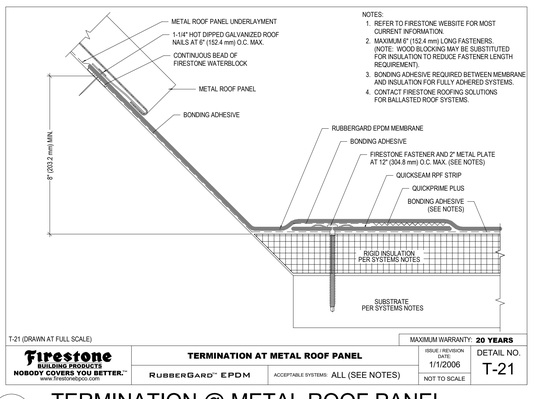
19 EXPANSION JOINT @ ROOF TO ROOF

FIRESTONE E-5 — SCALE: NTS



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

30 TYPICAL RAIN DRAIN



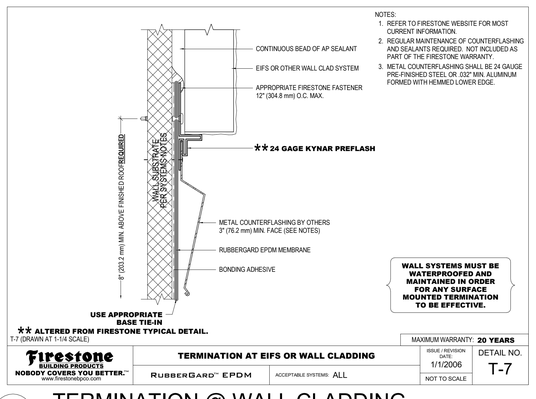
T-21 (DRAWN AT FULL SCALE) — MAXIMUM WARRANTY: 20 YEARS

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonepco.com

TERMINATION AT METAL ROOF PANEL	ISSUE / REVISION DATE: 1/1/2006	DETAIL NO. T-21
RUBBERGARD™ EPDM — ACCEPTABLE SYSTEMS: ALL (SEE NOTES)	NOT TO SCALE	

26 TERMINATION @ METAL ROOF PANEL

FIRESTONE T-21 — SCALE: NTS



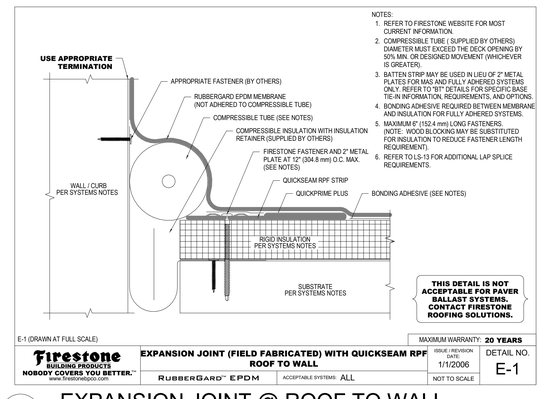
T-7 (DRAWN AT 1-1/4 SCALE) — MAXIMUM WARRANTY: 20 YEARS

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonepco.com

TERMINATION AT EIFS OR WALL CLADDING	ISSUE / REVISION DATE: 1/1/2006	DETAIL NO. T-7
RUBBERGARD™ EPDM — ACCEPTABLE SYSTEMS: ALL	NOT TO SCALE	

22 TERMINATION @ WALL CLADDING

FIRESTONE T-7 — SCALE: NTS



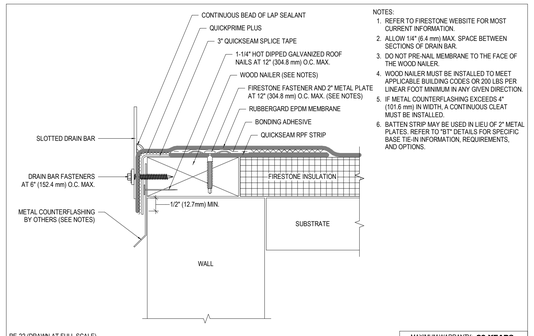
E-1 (DRAWN AT FULL SCALE) — MAXIMUM WARRANTY: 20 YEARS

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonepco.com

EXPANSION JOINT (FIELD FABRICATED) WITH QUICKSEAM RPF ROOF TO WALL	ISSUE / REVISION DATE: 1/1/2006	DETAIL NO. E-1
RUBBERGARD™ EPDM — ACCEPTABLE SYSTEMS: ALL	NOT TO SCALE	

18 EXPANSION JOINT @ ROOF TO WALL

FIRESTONE E-1 — SCALE: NTS



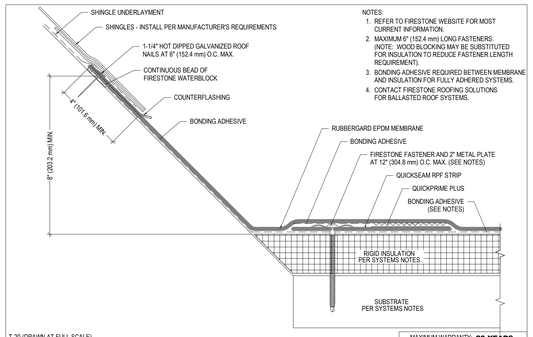
RE-22 (DRAWN AT FULL SCALE) — MAXIMUM WARRANTY: 20 YEARS

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonepco.com

ROOF EDGE WITH SLOTTED DRAIN BAR AND QUICKSEAM RPF STRIP	ISSUE / REVISION DATE: 1/1/2006	DETAIL NO. RE-22
RUBBERGARD™ EPDM — ACCEPTABLE SYSTEMS: MAS	NOT TO SCALE	

29 ROOF EDGE SLOTTED DRAIN BAR

FIRESTONE RE-23 — SCALE: NTS



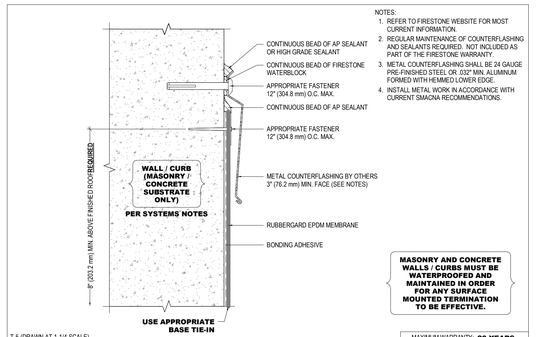
T-20 (DRAWN AT FULL SCALE) — MAXIMUM WARRANTY: 20 YEARS

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonepco.com

TERMINATION AT SHINGLES	ISSUE / REVISION DATE: 1/1/2006	DETAIL NO. T-20
RUBBERGARD™ EPDM — ACCEPTABLE SYSTEMS: ALL (SEE NOTES)	NOT TO SCALE	

25 TERMINATION @ SHINGLES

FIRESTONE T-20 — SCALE: NTS



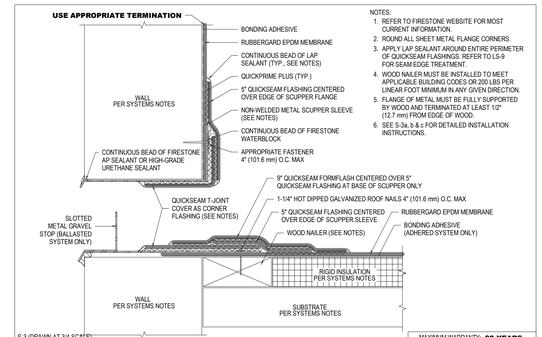
T-5 (DRAWN AT 1-1/4 SCALE) — MAXIMUM WARRANTY: 20 YEARS

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonepco.com

TERMINATION WITH SURFACE MOUNTED COUNTERFLASHING	ISSUE / REVISION DATE: 1/1/2006	DETAIL NO. T-5
RUBBERGARD™ EPDM — ACCEPTABLE SYSTEMS: ALL	NOT TO SCALE	

21 TERMINATION W/ COUNTERFLASHING

FIRESTONE T-5 — SCALE: NTS



S-3 (DRAWN AT 3/4 SCALE) — MAXIMUM WARRANTY: 20 YEARS

Firestone BUILDING PRODUCTS NOBODY COVERS YOU BETTER.™ www.firestonepco.com

THRU-WALL SCUPPER (NON-WELDED SLEEVE)	ISSUE / REVISION DATE: 1/1/2006	DETAIL NO. S-3
RUBBERGARD™ EPDM — ACCEPTABLE SYSTEMS: ALL	NOT TO SCALE	

17 THRU-WALL SCUPPER

FIRESTONE S-3 — SCALE: NTS

PROJECT NO. 2318.0

SET NO. CD-

WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

PURPOSE	DATE
FOR PERMIT	11/8/2024

REVISION RECORD

NO.	CHANGE	DATE

DRAWN: AR

CHECKED: MFA

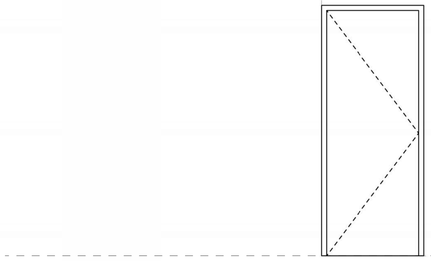
DATE: 11/8/2024

SHEET TITLE: FIRESTONE EPDM DETAILS

Michael Doty Associates Architects
Post Office Box 2792
371 Washington Avenue North
Ketchum, ID 83340
Tel: 208. 726. 4228
www.mda-arc.com

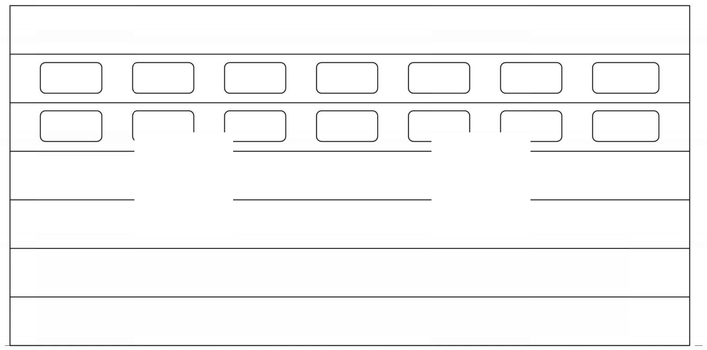
LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY STATE OF IDAHO
11/8/2024

SHEET A8.21 OF TOTAL



1/2" = 1'-0"

TYPE A
INSULATED HOLLOW METAL DOOR



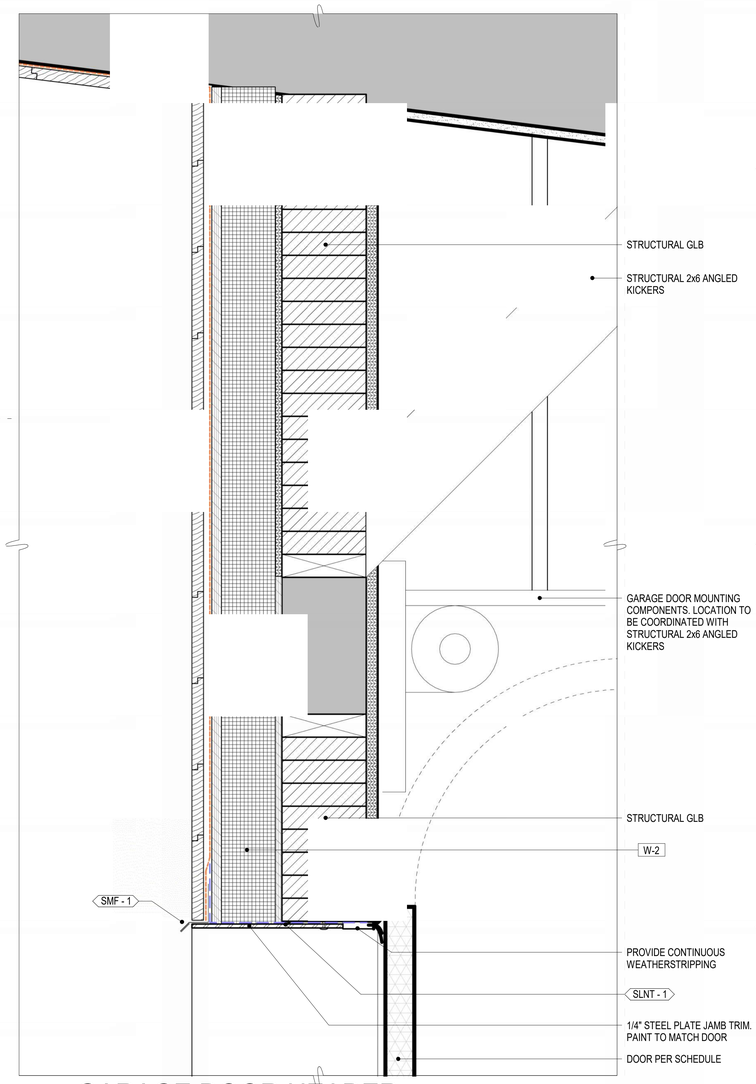
1/2" = 1'-0"

TYPE B
EXTERIOR DOOR

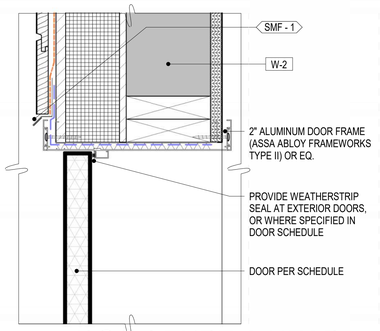
THERMACORE DOOR SYSTEM MODEL 592
DOUBLE THERMAL ACRYLIC WINDOWS (25" x 12")
CHAIN HOIST
W/ HEADER AND JAMB SEAL
RIBBED TEXTURED EXTERIOR PANELS W/ INDUSTRIAL BROWN FINISH
R-VALUE 17.5
STANDARD LIFT PACKAGE WITH 13' CLEARANCE NEEDED

DOOR SCHEDULE

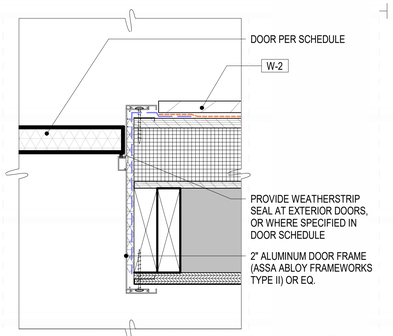
MARK	ROOM NAME	WIDTH (W)	HEIGHT (H)	TYPE (DOOR)	HEAD DETAIL	JAMB DETAIL	HARDWARE FUNCTION	NOTES
01	STORAGE	3' - 0"	8' - 0"	A	4/A9.01	5/A9.01	CLASSROOM	CLOSER
02	RESTROOM 01	3' - 0"	7' - 0"	A		3/A9.01	PRIVACY W/ OCCUPANCY INDICATOR	CLOSER
03	JANITOR	3' - 0"	7' - 0"	A		3/A9.01	STOREROOM	CLOSER
04	RESTROOM 02	3' - 0"	7' - 0"	A		3/A9.01	PRIVACY W/ OCCUPANCY INDICATOR	CLOSER
05	STORAGE	22' - 2"	11' - 1"	B	2/A9.01	1/A9.01		



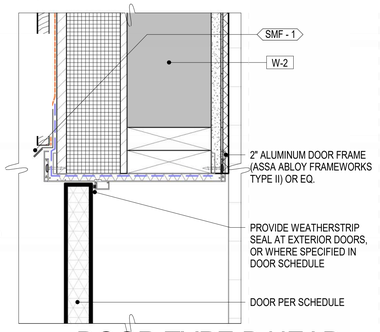
2 GARAGE DOOR HEADER
1/A4.01
SCALE: 3" = 1'-0"



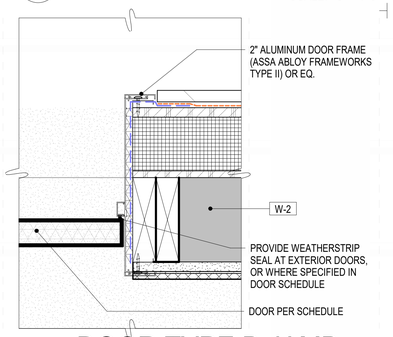
6 DOOR TYPE A HEAD
SCALE: 3" = 1'-0"



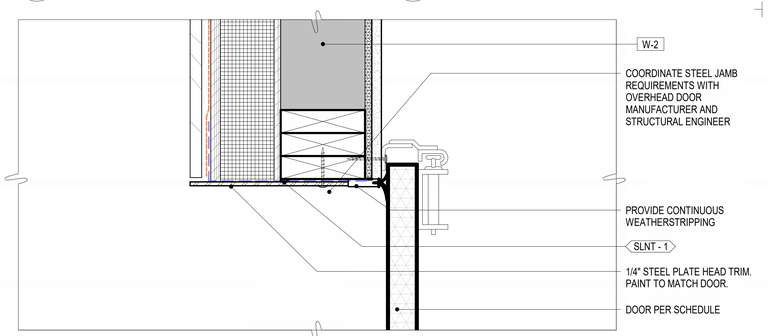
5 DOOR TYPE A JAMB
SCALE: 3" = 1'-0"



4 DOOR TYPE B HEAD
SCALE: 3" = 1'-0"



3 DOOR TYPE B JAMB
SCALE: 3" = 1'-0"



1 GARAGE DOOR JAMB
SCALE: 3" = 1'-0"

GENERAL NOTES

REFER TO SHEET A0.20 FOR GENERAL NOTES

PLAN NOTES

- INDICATES PLAN NOTE. REFER TO SHEET A0.20 FOR PLAN NOTE LEGEND. REFER TO A5-SERIES ENLARGED PLANS FOR ADDITIONAL INFORMATION

MATERIAL IDENTIFICATION CODES

XX-1 INDICATES MATERIALS CALLED OUT ON PLANS, ELEVATIONS, SECTIONS, DETAILS, AND SCHEDULES. REFER TO A0.20FOR MATERIAL ID LEGEND

ASSEMBLY TYPES

W-# INDICATES WALL, FLOOR, OR ROOF TYPE. REFER TO SHEETS A0.30 FOR ASSEMBLY LEGENDS.

[redacted]

PROJECT NO. 2318.0

SET NO.
CD-

WARM SPRINGS PRESERVE WELCOME BUILDING
201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

PURPOSE	DATE
FOR PERMIT	11/8/2024

REVISION RECORD

NO.	CHANGE	DATE

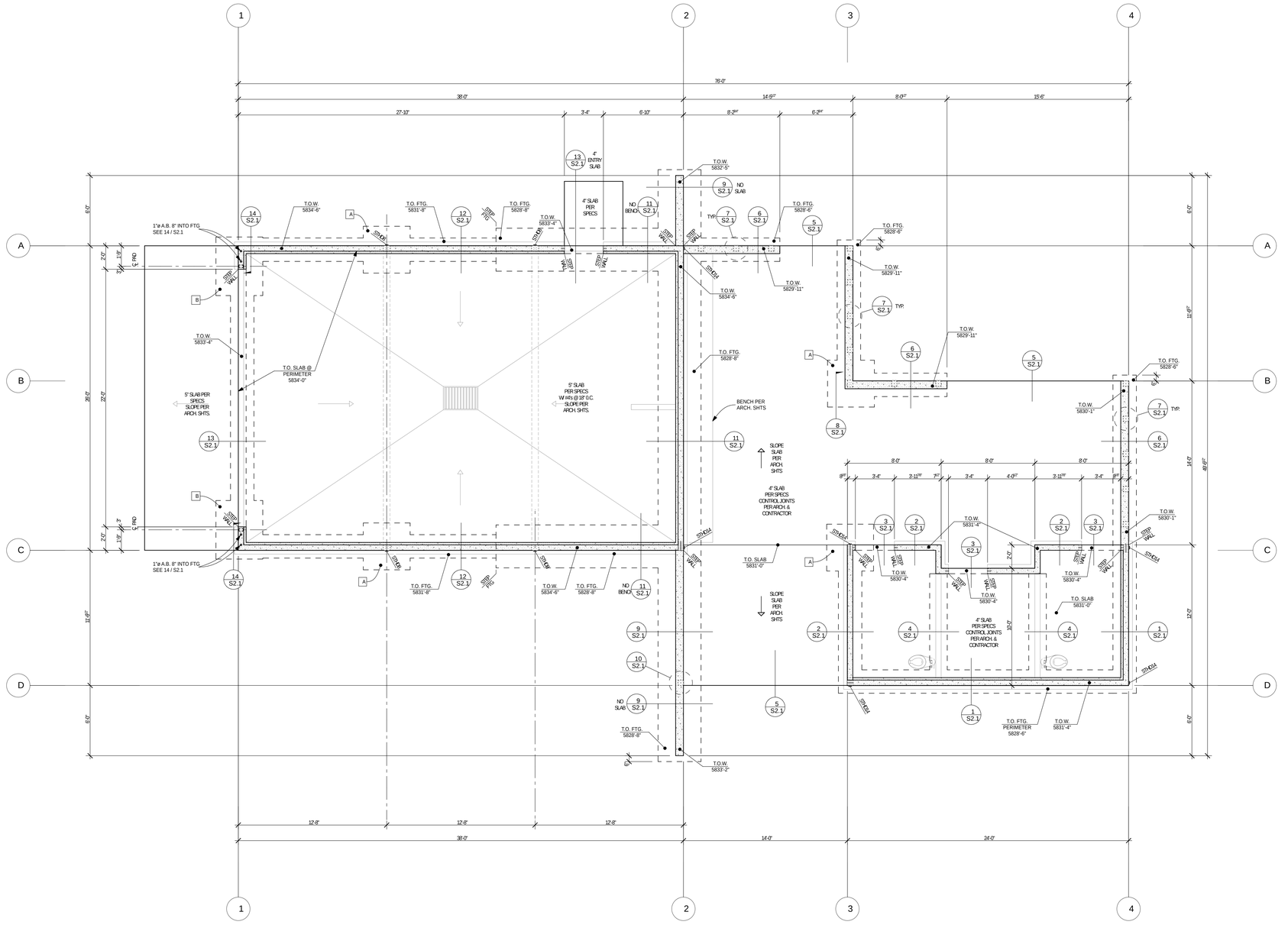
DRAWN: AR
CHECKED: MFA
DATE: 11/8/2024

SHEET TITLE:
DOOR AND FRAME SCHEDULE

Michael Doty Associates Architects
Post Office Box 2792
371 Washington Avenue North
Ketchum, ID 83340
Tel. 208. 726. 4228
www.mda-arc.com

LICENSED ARCHITECT AR-1612
MICHAEL R. DOTY STATE OF IDAHO
11/8/2024

SHEET A9.01 OF TOTAL



1 FOUNDATION PLAN

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

FOUNDATION NOTES:

- SLAB IS TO BE POURED AND CURED
- SEE GEOTECHNICAL REPORT FOR SITE PREPARATION AND DRAINAGE RECOMMENDATIONS.
- CONTRACTOR TO NOTIFY ARCHITECT IF ANY FILLS, CLAYS, SILTS, ORGANICS OR WATER ARE ENCOUNTERED WHICH MAY EFFECT FOUNDATION BEARING CAPACITY
- FOUNDATION WALLS TO BACKFILLED WITH IMPORTED FREE-DRAINING GRAVEL.
- EMBED HOLDOWNS IN STEMWALL AT THE ENDS OF SHEAR-WALLS WHERE INDICATED ON PLAN, SEE FLOOR PLAN FOR EXACT WALL LOCATION.
- CONTRACTOR TO VERIFY ALL DIMENSIONS, ELEVATIONS, FOUNDATION AND FRAMING CONDITIONS PRIOR TO STARTING CONSTRUCTION AND NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY, BRACING, AND SHORING DURING CONSTRUCTION.
- FOUNDATION INSULATION, WATERPROOFING, RADON VENTING BY OTHERS.
- REFER TO STRUCTURAL SPECIFICATIONS AND TYPICAL DETAILS FOR ADDITIONAL INFORMATION AND SPECIAL INSPECTION REQUIREMENTS.

FOOTING SCHEDULE

ID	Dimension	Reinforcing
A	2'-6" x 4'-0" x 12"	4 - #5 BTTM. EA. WAY
B	4'-0" x 5'-0" x 12"	5 - #5 BTTM. SHORT DIRECTION 4 - #5 BTTM. LONG DIRECTION

MORELL ENGINEERING P.C.
STRUCTURAL ENGINEERING
P.O. BOX 2401, KETCHUM, IDAHO, 83340
morellengineering@cox.net
(208) - 726-2844

WARM SPRINGS PRESERVE WELCOME BUILDING
201-311 BALD MOUNTAIN ROAD, KETCHUM, IDAHO
FOUNDATION PLAN

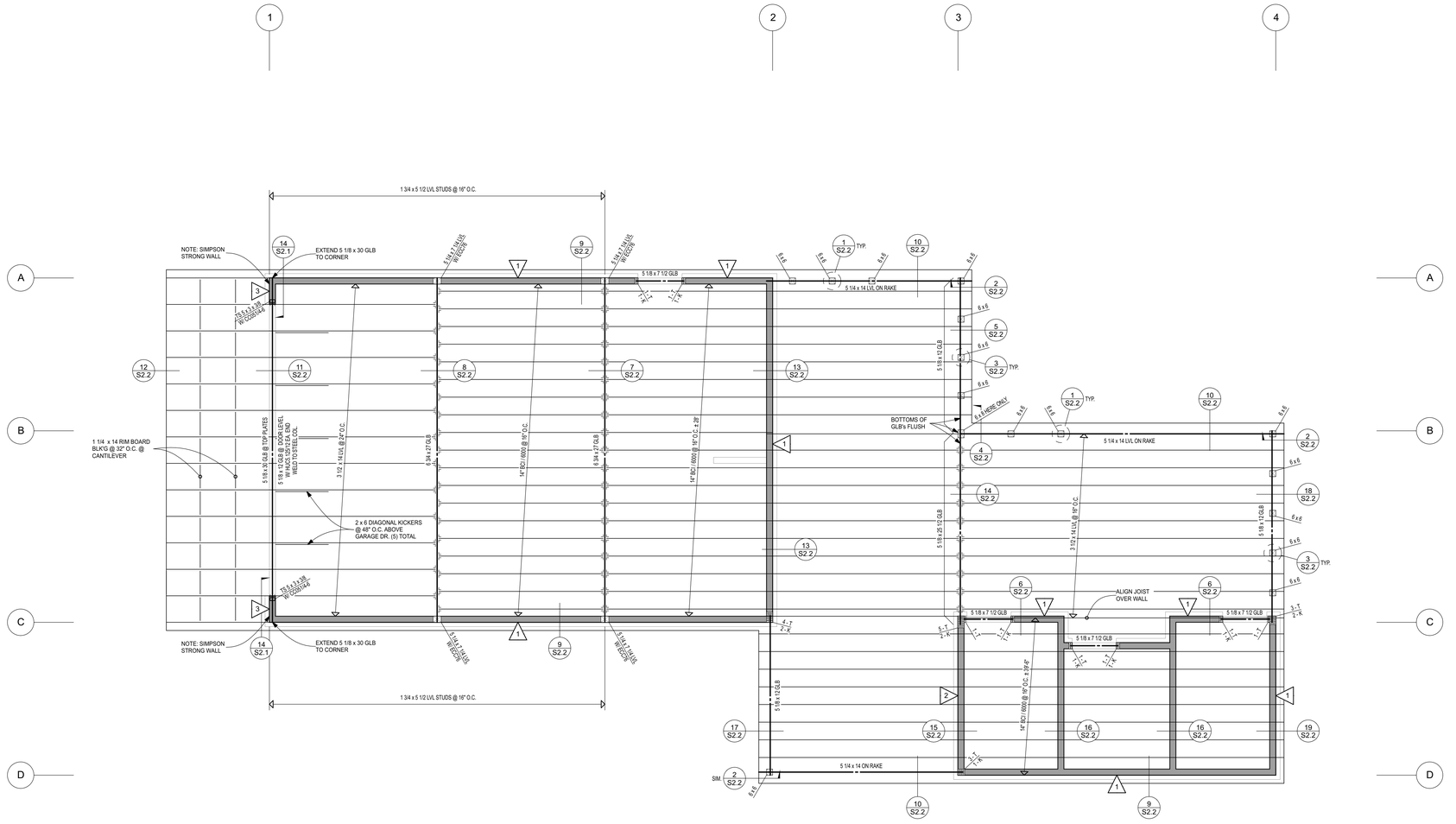
DATES
11-8-24
PERMIT: 11-8-24
REVISIONS

11-8-24
WARM SPRINGS PRESERVE

ENGINEERS STAMP

1/4" = 1'-0"
SCALE

S1.1



FRAMING NOTES:

- PROVIDE (1) 2X6 TRIMMER STUD & (1) 2X6 KING STUD AT EACH END OF HEADERS, U.N.O. .
- T INDICATES TRIMMER STUD (BEARING STUD)
- K INDICATES KING STUD.
- GLUE AND NAIL BUILT-UP HEADERS AND BEAMS WITH 3-16d AT 12" o/c EACH PIECE.
- CONTRACTOR TO VERIFY ALL DIMENSIONS, ELEVATIONS, FOUNDATION AND FRAMING CONDITIONS PRIOR TO STARTING CONSTRUCTION AND NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN DRAWINGS AND ACTUAL SITE CONDITIONS.
- CONTRACTOR IS RESPONSIBLE FOR ALL SAFETY, BRACING AND SHORING DURING CONSTRUCTION.
- REFER TO STRUCTURAL SPECIFICATIONS AND TYPICAL DETAILS FOR ADDITIONAL INFORMATION AND SPECIAL INSPECTION REQUIREMENTS.

△	SHEAR WALL SCHEDULE
Shear Wall	**Description**
△1	15/32 CDX SHT'G W/ 8d @ 6"O.C. NAILING, 12" O.C.FIELD NAILING
△2	15/32 CDX SHT'G W/ 8d @ 3"O.C. NAILING, 12" O.C.FIELD NAILING
△3	SIMPSON WSWH 18 x 14, INSTALL PER MANFR'S RECOMMENDATIONS & DETAILS

1 ROOF FRAMING PLAN
SCALE: 1/4" = 1'-0"

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WARM SPRINGS PRESERVE WELCOME BUILDING
201-311 BALD MOUNTAIN ROAD, KETCHUM, IDAHO
ROOF FRAMING PLAN

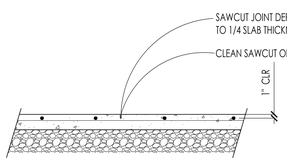
DATES
11-8-24
PERMIT: 11-8-24
REVISIONS

11-8-24

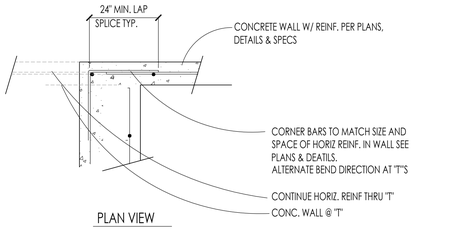
ENGINEERS STAMP

1/4" = 1'-0"
SCALE

S1.2

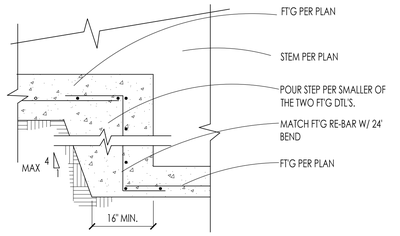


4 S2.0 CRACK CONTROL JOINT IN CONCRETE SLAB ON GRADE



PLAN VIEW

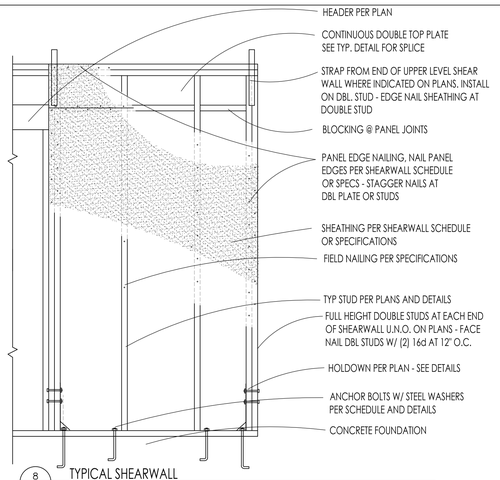
5 S2.0 TYPICAL CONCRETE WALL CORNER



6 S2.0 TYPICAL FOOTING STEP

CONNECTION	NAILING
JOIST OR TRUSS BEARING ON PL OR GIRDER, TOENAIL	3-10d
BRIDGING TO JOIST, TOENAIL EACH END	2-10d
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL	16d AT 16" O.C.
TOP PLATE TO STUD, END NAIL TO EACH STUD	2-16d
STUD TO SOLE PLATE	4-10d TOENAIL OR 2-16d END NAIL
DOUBLE STUDS, FACE NAIL, UNO.	16d @ 24" O.C.
DOUBLE TOP PLATES, FACE NAIL UNO.	16d AT 16" O.C.
TOP PLATES, LAPS AND INTERSECTIONS, FACE NAIL	2-16d
CEILING JOISTS TO PLATE, TOENAIL	3-8d
CONTINUOUS HEADER TO STUD, TOENAIL	4-8d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL	3-16d
CEILING JOISTS TO PARALELL RAFTERS, FACE NAIL	3-16d
RAFTER OF TRUSS TO PLATE, TOE NAIL	3-10d
BUILD-UP CORNER STUDS, UNO.	16d AT 24" O.C.

7 S2.0 MINIMUM NAILING SCHEDULE



8 S2.0 TYPICAL SHEARWALL

STRUCTURAL SPECIFICATIONS:
ANY DISCREPANCIES FOUND AMONG THE DRAWINGS, SPECIFICATIONS, AND NOTES SHALL BE REPORTED TO THE ARCHITECT/ENGINEER FOR CLARIFICATION. THE CONTRACTOR SHALL VERIFY AND COORDINATE DIMENSIONS AMONG ALL DRAWINGS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION.

CONTRACTOR SHALL COORDINATE ALL DUCT PLACEMENT WITH ARCHITECT / ENGINEER.

CONTRACTOR IS RESPONSIBLE FOR ALL BRACING AND SHORING DURING CONSTRUCTION.

CONTRACTOR TO SUBMIT A REQUEST TO ARCHITECT/ENGINEER FOR ANY SUB-
STITUTION OF MATERIALS OR PRODUCTS SPECIFIED ON STRUCTURAL SHEETS.

THE FOLLOWING APPLIES UNLESS OTHERWISE NOTED ON DRAWINGS.

BUILDING CODE:
STRUCTURAL DESIGN AND CONSTRUCTION TO CONFORM TO THE INTERNATIONAL BUILDING CODE (IBC), 2018 EDITION.

DESIGN ROOF LOADS:
LIVE LOAD (SNOW) 110 PSF OR PER IBC
DEAD LOAD 35 PSF

DESIGN FLOOR LOADS:
LIVE LOAD 100 PSF
DEAD LOAD 60 PSF

LATERAL LOADS:
WIND DESIGN CRITERIA:
OCCUPANCY CATEGORY II
ANALYSIS PROCEDURE DIRECTIONAL PROCEDURE
WIND SPEED 103 MPH
EXPOSURE B
IMPORTANCE FACTOR Iw 1.0

SEISMIC DESIGN CRITERIA:
OCCUPANCY CATEGORY II
IMPORTANCE FACTOR 1.0
SEISMIC DESIGN CATEGORY D
SITE CLASS D
S.F.R.S. SHEAR PANELS
Ss .631
S1 .194
SDS .545
SD1 .287
R 6.5
ANALYSIS PROCEDURE EQUIVALENT LATERAL FORCE PROCEDURE
WEIGHT APPLICABLE LOADS+35% SNOW
RESPONSE COEFFICENT .0838
DESIGN BASE SHEAR (ASD) 5 psf

FOUNDATIONS:
DESIGN SOIL BEARING PRESSURE PER GEOTECHNICAL REPORT - 2000 PSF
SEE GEOTECHNICAL REPORT BY BUTLER ASSOCIATES FOR SITE PREPARATION, BACKFILLING, FOUNDATION WATERPROOFING DETAIL SAND RECOMMENDATIONS AND DRAINAGE RECOMMENDATION.

ALL FOUNDATIONS SHALL BEAR ON FIRM UNDISTURBED, DRAINED SOIL. IF SOIL IS DISTURBED, COMPACT SOIL IN 6" LIFTS TO 95% MAXIMUM DRY DENSITY PER ASTM D960. CONTRACTOR TO NOTIFY ARCHITECT/ENGINEER IF SOIL CONDITIONS ARE ENCOUNTERED WHICH MAY REQUIRE A LOWER ASSUMED SOIL BEARING PRESSURE SUCH AS CLAYS, SILTS, OR ORGANICS. 2'-8" MINIMUM FOOTING DEPTH BELOW GRADE OR SEE DETAILS.

CONCRETE:
STRUCTURAL CONCRETE, INCLUDING FOOTINGS, WALLS, AND SLABS, SHALL HAVE THE FOLLOWING MIX REQUIREMENTS, AND MAX. AGGREGATE SIZE OF 3/4".

28-DAY COMPRESSIVE STRENGTH: 3000 PSI
MINIMUM CONCRETE CONTENT: 5 SACKS PER CUBIC YARD
PERCENT-ENTRAINED AIR: 5% TO 6%
MAXIMUM SLUMP: 4 INCHES

CONCRETE PLACEMENT:
ALL CONCRETE PLACEMENT AND REINFORCEMENT COVER SHALL CONFORM TO ACI 318. CONCRETE FORMWORK TO BE OF ADEQUATE STRENGTH AND PROPERLY BRACED TO PREVENT SAGGING OR BULGING. PROTECT ALL CONCRETE FROM FREEZING TEMPERATURES. NO FOOTING SHALL BE PLACED ON DISTURBED SOIL. REINFORCING STEEL SHALL BE CONTINUOUS THROUGH ALL COLD JOINTS. FOOTING STEPS SHALL BE STEPPED (2) VERTICALLY TO (1) HORIZONTALLY. REFER TO DRAWINGS FOR STEP REINFORCEMENT.

CONCRETE REINFORCEMENT:
REINFORCEMENT SHALL BE ASTM A615, GRADE 40 FOR #4 BARS AND SMALLER, AND GRADE 60 FOR #5 BARS AND LARGER. WIRE MESH TO CONFORM TO ASTM A185-64. ALL REBAR SPLICES TO BE LAPPED 40 BAR DIAMETER'S UNLESS OTHERWISE NOTED. WELDING OF REBAR TO BE APPROVED BY ENGINEER. PAD AND STEM FOOTING REINFORCEMENT TO HAVE 3" CLEAR COVER OF CONCRETE TYPICAL UNLESS OTHERWISE NOTED ON THE DRAWINGS. RE-BAR INDICATED TO BE WELDED TO BE CERTIFIED WELDABLE RE-BAR

CONCRETE FOOTINGS, PADS, STEM, BASEMENT, AND RETAINING WALLS:
REFER TO DRAWINGS FOR WALL SIZE AND REINFORCEMENT. BASEMENT WALLS SHALL NOT BE BACK FILLED UNTIL ATTACHED FLOORS ARE FRAMED AND SHEATHED, AND CONCRETE HAS CURED A MINIMUM OF 7 DAYS. PROVIDE CORNER BARS WITH 24" LEGS AT CORNERS AND INTERSECTING WALLS AND FOOTINGS, SIZE AND PLACEMENT TO MATCH HORIZONTAL REINFORCEMENT. ANCHOR BOLTS SHALL BE ASTM A307 AND OF THE SIZE AND SPACING AS INDICATED ON THE DRAWINGS AND HAVE A 7" MINIMUM EMBEDDMENT DEPTH. ANCHOR BOLTS TO BE WITHIN 1'-0" OF SILL PLATE ENDS. WITH A MINIMUM OF TWO PER WALL, AND NO CLOSER THAN 6" FROM CONCRETE WALL CORNERS. PROVIDE AN ADEQUATE DRAINAGE SYSTEM BEHIND ALL WALLS AS REQUIRED TO NOT ALLOW STANDING WATER BEHIND WALLS. BACK FILL RETAINING WALLS IN SEQUENCE PRESCRIBED ON DRAWINGS AND AFTER CONCRETE HAS CURED A MINIMUM OF 14 DAYS.

CONCRETE SLABS:
CONCRETE SLABS, UNLESS OTHERWISE NOTED ON DRAWINGS, SHALL BE AS NOTED ON PLAN. AT 4" THICK SLABS REINFORCE WITH #3 BARS AT 18" O.C. BOTH WAYS 1-1/2" CLEAR FROM TOP FACE. AT 5" THICK SLABS REINFORCE WITH #4 BARS AT 18" O.C. BOTH WAYS 1-1/2" CLEAR FROM TOP FACE. SEE GEOTECHNICAL REPORT FOR BASE AND SUB BASE PREPARATION. ALL SURFACES OF CONSTRUCTION JOINTS SHALL BE CLEANED TO REMOVE DUST, CHIPS, AND FOREIGN MATTER PRIOR TO POURING ADJACENT SLAB. CRACK CONTROL JOINTS SHALL HAVE A MAXIMUM SPACING OF 18'-0" IN BOTH DIRECTIONS. CONTRACTOR SHALL SUBMIT, PRIOR TO CONSTRUCTION, LOCATION OF ALL CONSTRUCTION AND CRACK CONTROL JOINTS.

WOOD FRAMING:
ALL FRAMING DETAILS SHALL BE IN ACCORDANCE WITH IBC SECTION 2308 UNLESS OTHERWISE NOTED ON THE DRAWINGS. PROVIDE 1/2" CLEARANCE BETWEEN FRAMING AND TOP OF WINDOW AND DOOR FRAMES. PROVIDE 1/2" CLEARANCE BETWEEN ROOF FRAMING AND TOP OF NON- BEARING INTERIOR WALLS WITH SIMPSON STCT CLIPS. FRAMING NAILING SHALL CONFORM TO IBC TABLE 2304.9.1 UNLESS OTHERWISE NOTED ON DRAWINGS. PROVIDE SOLID BLOCKING BELOW ALL BEARING WALLS AND POSTS. MINIMUM HEADER TO BE 6X8 WITH (1) 2X6 BEARING STUDS PLUS KING STUDS EACH END UNLESS NOTED OTHERWISE. PROVIDE STEEL STRAPS AT PIPES IN STUD WALLS AS REQUIRED BY THE IBC SECTION 2308.9.8.

SAWN STRUCTURAL LUMBER:
UNLESS NOTED OTHERWISE ON PLANS, STRUCTURAL LUMBER SHALL BE DOUGLAS FIR-LARCH (DF-L) No. 2 OR BETTER FOR ALL 2X'S, 3X'S, AND 4X'S. ALL BEAMS AND POSTS 6X6 AND LARGER SHALL BE DF-L No.1 OR BETTER. WOOD BEARING ON, OR INSTALLED WITHIN 1" OF CONCRETE OR MASONRY SHALL BE PRESSURE TREATED WITH AN APPROVED PRESERVATIVE.

STRUCTURAL GLUED-LAMINATED TIMBER:
ALL GLUED-LAMINATED TIMBER SHALL BE COMBINATION 24F-V4 WITH ZERO CAMBER UNLESS OTHERWISE NOTED ON DRAWINGS. 5-1/2"X6" GLB HEADERS TO BE INDUSTRIAL APPEARANCE GRADE. SEE DRAWINGS FOR GLUED- LAMINATED TIMBER GRADE FOR BEAM'S CONTINUOUS OVER A SUPPORT OR CANTILEVERED. FABRICATION SHALL BE IN ACCORDANCE WITH AITC 117. PROVIDE WET USE ADHESIVES. MAXIMUM MOISTURE CONTENT SHALL BE 15%.

LVL (LAMINATED VENEER LUMBER):
ALL LAMINATED VENEER LUMBER SHALL HAVE THE FOLLOWING MINIMUM DESIGN VALUES:
MIN. FLEXURAL STRESS (BENDING) = 2600 psi
MIN. HORIZONTAL SHEAR = 285 psi
MIN. MODULUS OF ELASTICITY = 1.8 X 106 psi

NAILS, BOLTS, LAGS, AND PRE-FABRICATED CONNECTIONS FOR WOOD:
ALL NAILS SHALL BE BOX OR GALVANIZED BOX. THE USE OF STAPLES TO BE VERIFIED BY ENGINEER. BOTH BOLTS AND LAGS SHALL CONFORM TO ASTM A307 GRADE UNLESS OTHERWISE NOTED. PROVIDE MILD STEEL PLATE WASHERS AT ALL BOLT HEADS AND NUTS BEARING AGAINST WOOD. METAL HANGERS AND CONNECTIONS SHOWN ON DRAWINGS TO BE MANUFACTURED BY THE SIMPSON COMPANY AND INSTALLED PER THEIR SPECIFICATIONS WITH NAILING PER THEIR SPECIFICATION. OTHER MANUFACTURER'S MAY BE CONSIDERED WHERE LOAD CAPACITY AND DIMENSIONS ARE EQUAL OR BETTER. ALL SUBSTITUTIONS MUST BE SUBMITTED TO THE ARCHITECT/ ENGINEER FOR REVIEW.

PRE-MANUFACTURED WOOD TRUSSES:
TRUSS LAYOUT ON PLANS FOR SCHEMATIC PURPOSES ONLY. FINAL LAYOUT TO BE COMPLETED BY TRUSS MANUFACTURER AND VERIFIED WITH ARCHITECT/ENGINEER. SEE ARCHITECTURAL SHEETS FOR TRUSS HEEL HEIGHTS AND VERIFY WITH ARCHITECT PRIOR TO FABRICATION. WOOD TRUSSES SHALL BE MANUFACTURED WITH STRESS RATED MATERIALS DESIGNED TO SUPPORT LOADINGS SHOWN ON DRAWINGS. BRACE BOTTOM CHORD AND WEB MEMBERS AS REQUIRED BY MANUFACTURER. VERTICAL ROOF TRUSS DEFLECTION TO BE LIMITED TO L/360 LIVE DEFLECTION OR 3/4" MAXIMUM FOR ALL LOADING CONDITIONS. VERTICAL FLOOR TRUSS DEFLECTION TO BE LIMITED TO L/600 LIVE DEFLECTION AND 5/8" MAXIMUM FOR ALL LOADING CONDITIONS.HOLD NON-BEARING WALLS 5/8" BELOW TRUSS BOTTOM CHORD. HORIZONTAL TRUSS DEFLECTION TO BE LIMITED TO 5/8" TOTAL LOAD DEFLECTION. TRUSS MANUFACTURER IS RESPONSIBLE FOR ALL FRAMING AND CONNECTIONS OF TRUSSED ROOF AREAS, INCLUDING EAVE OVERHANGS AND OVERFRAMING. SHOP DRAWINGS, DETAILS, AND STRUCTURAL CALCULATIONS OF TRUSSED ROOF SYSTEM MUST BE STAMPED BY A PROFESSIONAL CIVIL ENGINEER LICENCED IN THE STATE IN WHICH THE PROJECT IS TO BE CONSTRUCTED AND SUBMITTED TO THE ARCHITECT/ENGINEER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.

MANUFACTURED WOOD 'I' JOIST
WOOD I JOIST, ARE TO BE DESIGNED AND CERTIFIED BY MANUFACTURER TO SUPPORT LOADINGS SHOWN ON DRAWINGS. FOR COMMERCIAL GRADE JOISTS DETAILED SHOP DRAWINGS SHALL BE SUBMITTED TO ARCHITECT/ ENGINEER FOR REVIEW PRIOR TO FABRICATION. JOIST SHALL BE ERECTED, INSTALLED AND BRACED PER MANUFACTURER'S SPECIFICATIONS. OTHER MANUFACTURED WOOD I JOIST MAY BE SUBSTITUTED UPON ARCHITECT/ ENGINEER APPROVAL.

PLYWOOD SHEATHING:
ALL PLYWOOD SHEATHING SHALL BE APA RATED EXPOSURE 1 PLYWOOD WITH THICKNESS, VENEER GRADES AND SPAN RATINGS AS NOTED HEREIN OR ON DRAWINGS / DETAILS. PLYWOOD AT ROOF AND FLOORS SHALL BE LAID WITH FACE GRAIN PERPENDICULAR TO SUPPORTS AND END JOINTS STAGGERED 4'-0" O.C., PROVIDE 1/8" SPACE AT ALL PANEL EDGES. NAIL ROOF AND FLOOR WITH 8d AT 6" O.C. EDGE AND 12" O.C. INTERMEDIATE UNLESS OTHERWISE NOTED ON DRAWINGS. GLUE-FLOOR SHEATHING. NAIL APA RATED WALL PANEL EDGES AND BOUNDARIES WITH 8d AT 6" O.C., AND 12" O.C. INTERMEDIATE UNLESS OTHERWISE SPECIFIED IN DRAWINGS OR SHEARWALL SCHEDULE. BLOCK AND NAIL ALL HORIZONTAL PANEL EDGES AT DESIGNATED SHEARWALLS.

ROOF SHEATHING: 5/8" CDX MINIMUM (40/20) SPAN RATING.
FLOOR SHEATHING: 3/4" CDX T&G MINIMUM (48/24) SPAN RATING.
EXTERIOR WALL SHEATHING: 15/32" CDX PLYWOOD OR 7/16" OSB MINIMUM (24/0) SPAN RATING UNLESS OTHERWISE NOTED.

STRUCTURAL STEEL AND MISCELLANEOUS METALS:
ALL STEEL TO CONFORM TO ASTM A36 UNLESS OTHERWISE NOTED. STEEL PIPE SHALL CONFORM TO ASTM A501 (Fy=36ksi). STRUCTURAL STEEL TUBES SHALL CONFORM TO ASTM A500, GRADE B (Fy=46ksi). ALL WORK SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF AISC "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS". SHOP DRAWINGS SHALL BE SUBMITTED TO ARCHITECT/ENGINEER FOR REVIEW BEFORE FABRICATION. SHOP DRAWINGS SHALL SHOW ALL WELDING WITH AWS A2.4 SYMBOLS. ALL WELDING SHALL BE PERFORMED PER AWS D1.1 WITH A MINIMUM WELD SIZE OF 3/16" AND WITH E70 ELECTRODE. MACHINE BOLTS SHALL BE ASTM A325 UNLESS NOTED OTHERWISE ON DRAWINGS. PROVIDE LOAD INDICATOR WASHERS BETWEEN NUT AND CONNECTED STEEL OR EQUIVALENT TENSIONING INDICATOR . ALL STEEL ANCHORS, TIES AND OTHER MEMBERS EMBEDDED IN CONCRETE OR MASONRY SHALL BE LEFT UNPAINTED. ALL STEEL, INCLUDING NUTS, BOLTS, AND WASHERS EXPOSED TO WEATHER SHALL BE GALVANIZED.

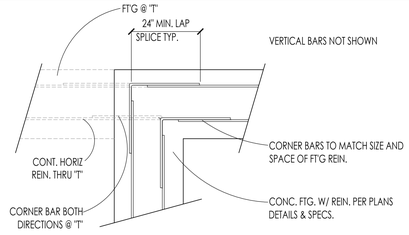
INSPECTIONS
BUILDING OFFICIAL MAY WAIVE SPECIAL INSPECTION REQUIREMENTS FOR WORK DEEMED OF A MINOR NATURE. SPECIAL INSPECTION INDEPENDENT OF THE CONTRACTOR, ARCHITECT, AND ENGINEER OF RECORD SHALL BE PROVIDED BY OWNER ACCORDING TO IBC CHAPTER 17. THE SPECIAL INSPECTOR SHALL DEMONSTRATE COMPETENCE TO THE SATISFACTION OF THE BUILDING OFFICIAL. THE SPECIAL INSPECTOR SHALL OBSERVE THE WORK FOR CONFORMANCE W/ THE CONTRACT DOCUMENTS, NOT THE SHOP DRAWINGS. THE SPECIAL INSPECTOR SHALL SEND REPORTS TO THE BUILDING OFFICIAL, THE ARCHITECT, THE ENGINEER, AND CONTRACTOR FOR CORRECTION. THE SPECIAL INSPECTOR SUBMIT A BI-WEEKLY AND A FINAL SIGNER REPORT STATING THAT THE SPECIAL INSPECTION WORK WAS TO THE BEST OF HIS KNOWLEDGE. IN CONFORMANCE W/ THE PLANS, SPECIFICATIONS AND APPLICABLE WORKMANSHIP PROVISIONS OF THE IBC. CONT OR PERIODIC SPECIAL INSPECTION IS REQUIRED FOR THE FOLLOWING WORK:

VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION	CONT	PERIODIC
MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS:		
IDENTIFICATION OF MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN CONSTRUCTION DOCUMENTS		X
MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED		X
INSPECTION OF HIGH-STRENGTH BOLTING	CONT	PERIODIC
SNUG TIGHT JOINTS		X
PRE-TENSIONED SLIP CRITICAL JOINTS USING MATCH-MARKING, TWIST OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION		X
MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD FORMED STEEL DECK	CONT	PERIODIC
STRUCTURAL STEEL VERIFY MARKINGS TO CONFORM TO AISC 360		X
OTHER STEEL VERIFY MARKINGS TO CONFORM TO ASTM PER DRAWINGS		X
MATERIAL VERIFICATION OF WELD FILLER MATERIAL	CONT	PERIODIC
VERIFY MARKINGS TO CONFORM TO ASTM STANDARDS PER DRAWINGS		X
INSPECTION OF WELDING:		
STRUCTURAL STEEL AND COLD FORMED STEEL DECK	CONT	PERIODIC
COMPLETE (FULL) AND PARTIAL PENETRATION GROOVE WELDS	X	
MULTI-PASS FILLET WELDS	X	
SINGLE-PASS FILLET WELDS LARGER THAN 5/16"	X	
PLUG AND SLOT WELDS	X	
SINGLE-PASS FILLET WELDS 5/16" AND SMALLER		X
FLOOR & ROOF DECK WELDS		X
WELDING OF REINFORCING STEEL (re-bar)	CONT	PERIODIC
VERIFICATION OF WELDABILITY OF RE-BAR (except ASTM A706)		X
RE-BAR IN MOMENT FRAMES AND SHEAR WALLS	X	
ALL SHEAR REINFORCMENT	X	
OTHER REINFORCING STEEL		X
SINGLE-PASS FILLET WELDS 5/16" AND SMALLER		X
FLOOR & ROOF DECK WELDS		X
INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE	CONT	PERIODIC
DETAILS SUCH AS BRACING AND STIFFENING		X
MEMBER LOCATION		X
APPLICATION OF JOINT DETAILS AT EACH CONNECTION		X

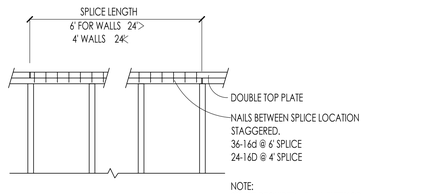
INSPECTION OF LATERAL FORCE RESISTING SYSTEM	CONT	PERIODIC
NAILING, BOLTING, ANCHORING AND OTHER FASTENING OF COMPONENTS WITHIN THE WOOD SEISMIC-FORCE-RESISTING SYSTEM, INCLUDING SHEARWALLS, DRAG STRUTS, BRACES AND HOLDOWNS		X

EPOXY ANCHORS	CONT	PERIODIC
RE-BAR, THREADED ROD, BOLTS EPOXIED INTO HARDENED CONCRETE INSPECTED FOR HOLE DIMENSIONS, ANCHOR MATERIAL AND DIMENSIONS, HOLE CLEAN OUT, EPOXY MATERIAL AND MIX AS SPECIFIED.		X

SOILS	CONT	PERIODIC
AS REQUIRED BY THE BUILDING DEPARTMENT: FILL MATERIALS, EXCAVATION DEPTH, BEARING CAPACITY, MATERIAL TYPE AT BEARING		X
AS REQUIRED BY THE BUILDING DEPARTMENT: COMPACTED FILL MATERIAL, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION	X	X

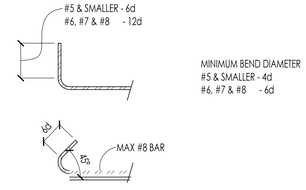


3 S2.0 TYPICAL FOOTING CORNER

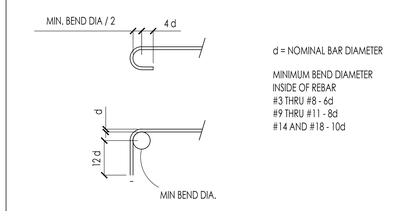


LENGTH OF WALL BETWEEN CORNERS	SPLICE LENGTH MINIMUM	NAILS ALONG SPLICE LEINGTH
OVER 24'	6'-0"	36-16d
LESS THAN 24'	4'-0"	24-16d

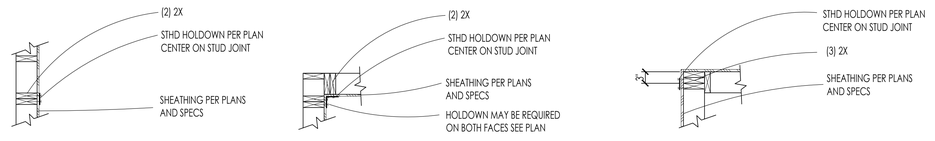
9 S2.0 TYPICAL TOP PLATE SPLICE



2 S2.0 STANDARD SRIRRUP & TIE HOOKS



1 S2.0 STANDARD REINFORCING BAR HOOKS



MID WALL PLAN VIEW | INSIDE CORNER PLAN VIEW | OUTSIDE CORNER PLAN VIEW

10 S2.0 TYPICAL STHD HOLDOWN

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WARM SPRINGS PRESERVE WELCOME BUILDING
KETCHUM, IDAHO
STRUCTURAL SPECIFICATIONS

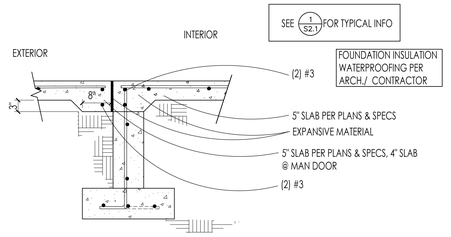
DATES
11-8-24
PERMIT: 11-8-24
REVISIONS:

PROFESSIONAL ENGINEER REGISTERED 6589 11-8-24 IDAHO STATE OF IDAHO BRETT F. MORELL

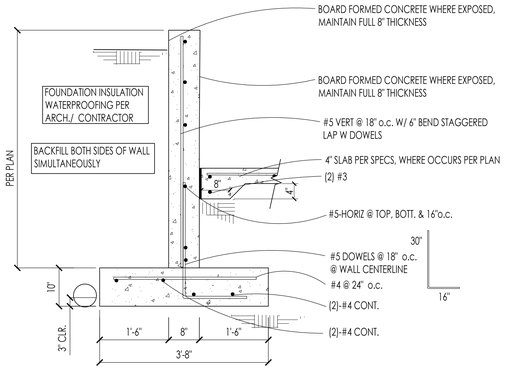
ENGINEERS STAMP

3/4" = 1'-0"
SCALE

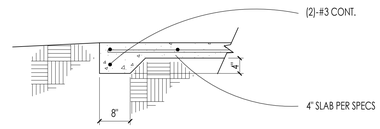
S2.0



13 / S2.1



9 / S2.1



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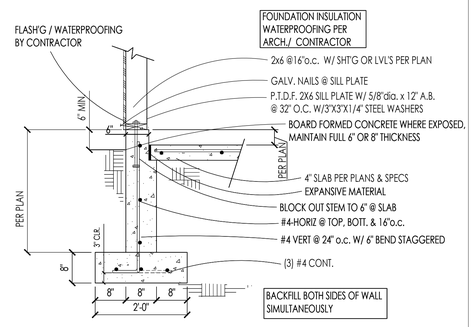

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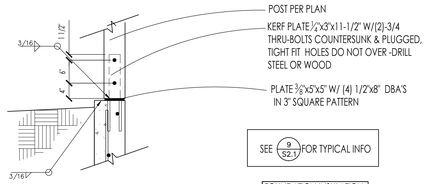

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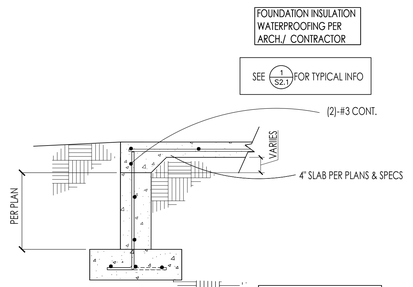
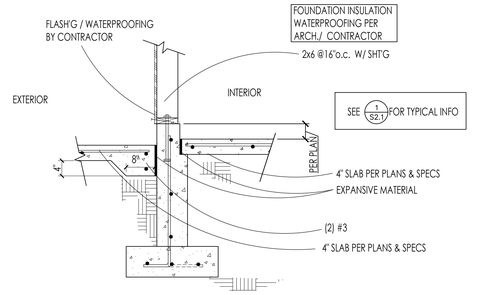


6 / S2.1



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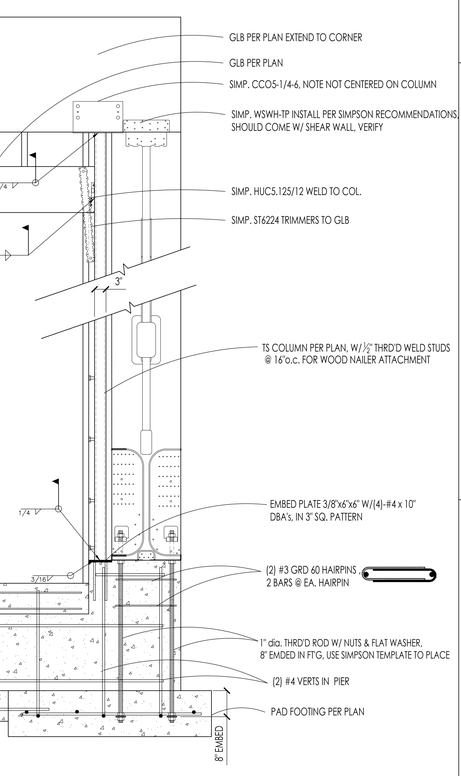
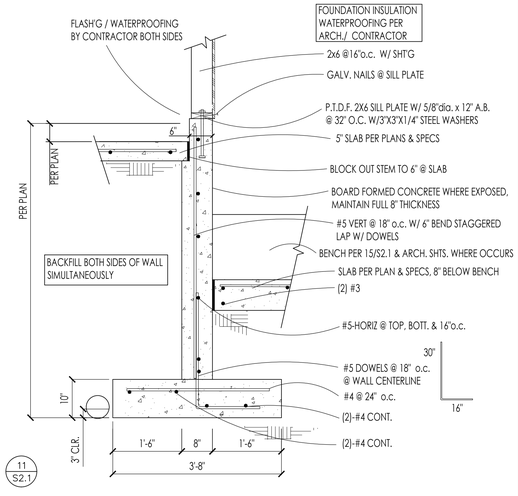


14 / S2.1



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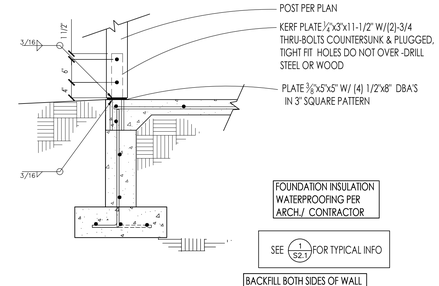
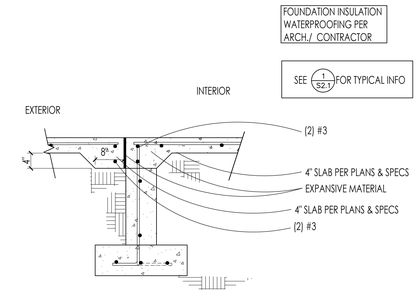
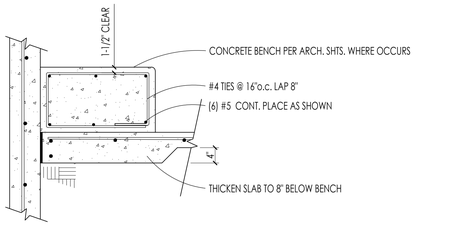


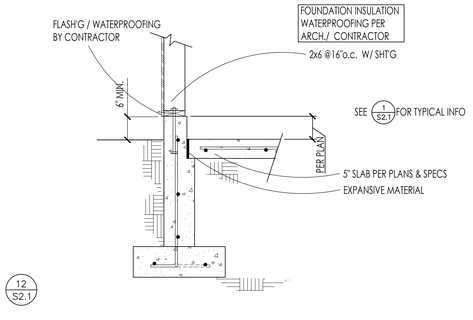
7 / S2.1



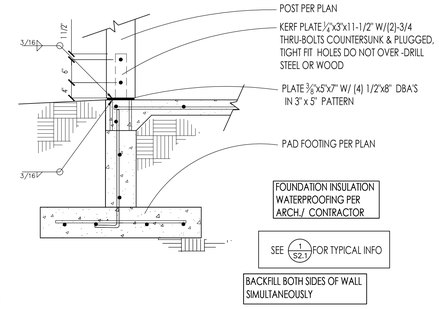
3 / S2.1



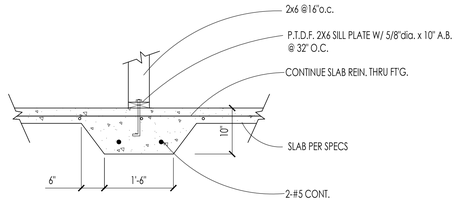
15 / S2.1



12 / S2.1



8 / S2.1



4 / S2.1

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WARM SPRINGS PRESERVE WELCOME BUILDING
KETCHUM, IDAHO
STRUCTURAL DETAILS

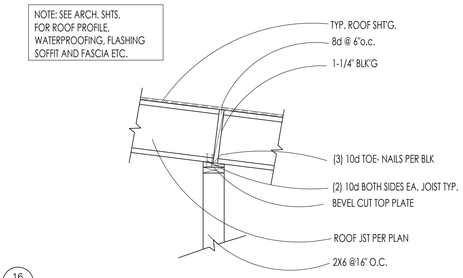
DATES
11-8-24
PERMIT: 11-8-24
REVISIONS:

PROFESSIONAL ENGINEER REGISTERED 6589 11-8-24 STATE OF IDAHO MATT F. MORELL

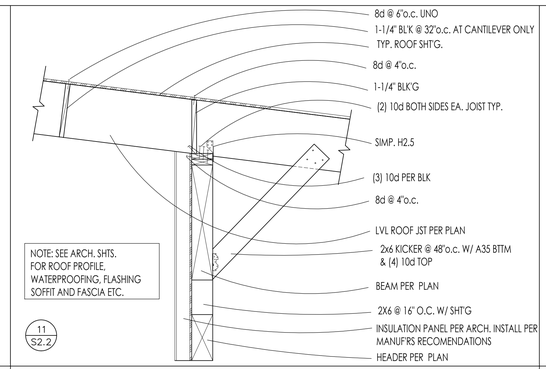
ENGINEERS STAMP

3/4" = 1'-0"
SCALE

S2.1



16 S2.2



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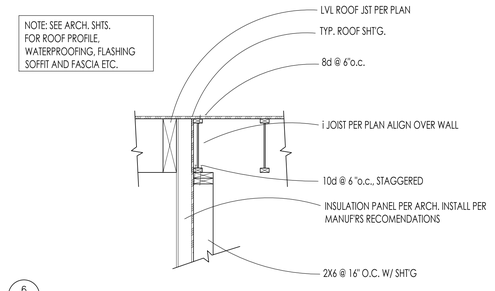
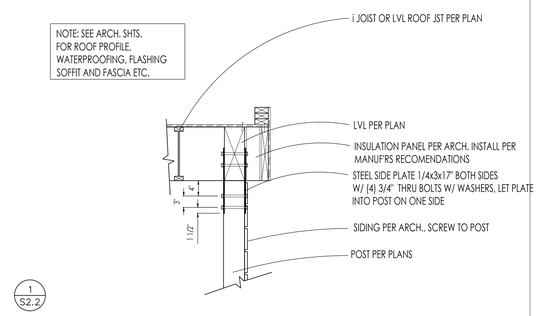


6 S2.2



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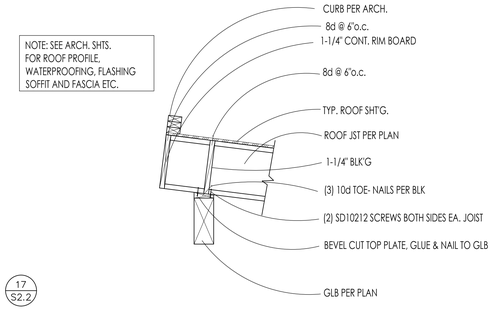

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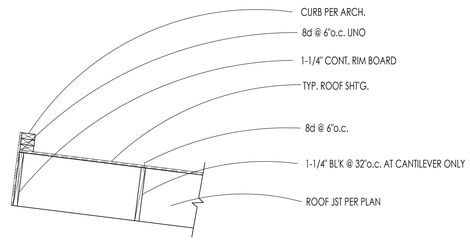

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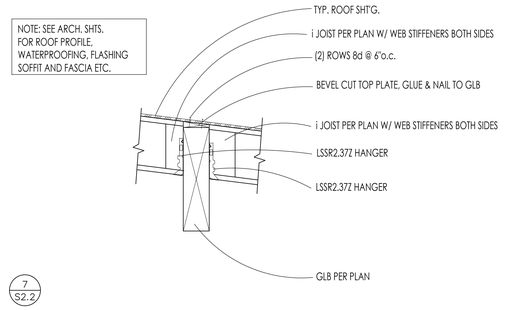

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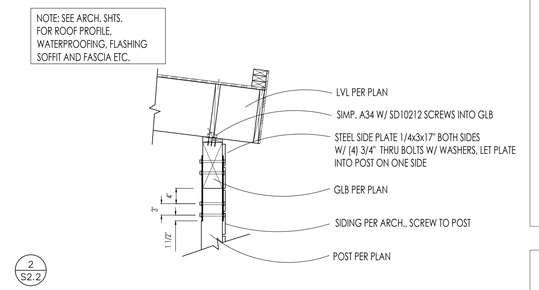

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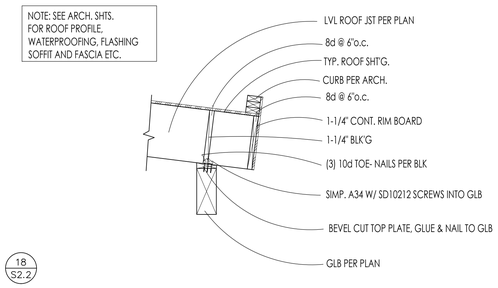
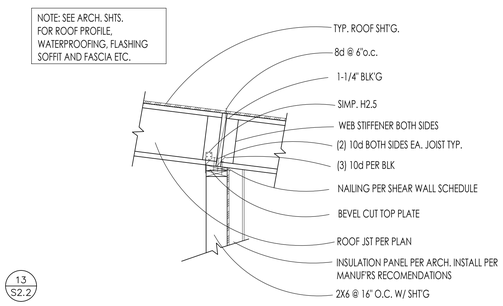


18 S2.2



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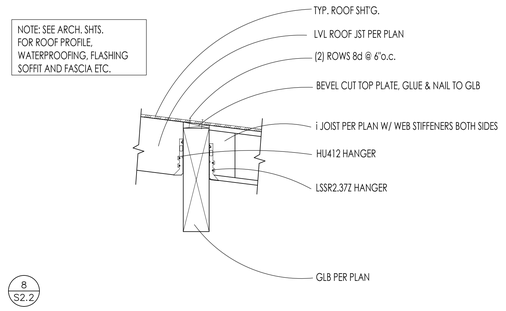

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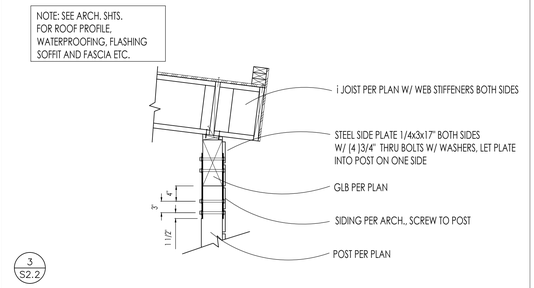

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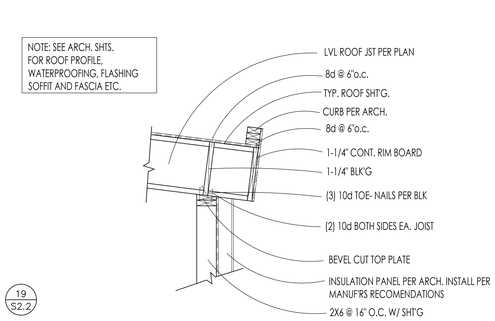

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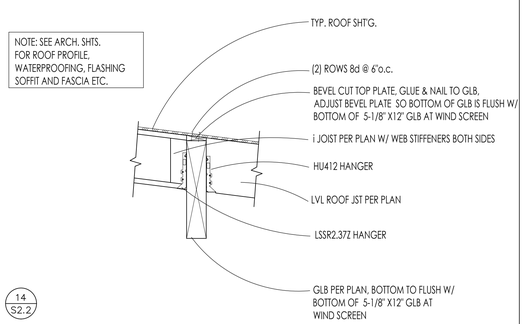

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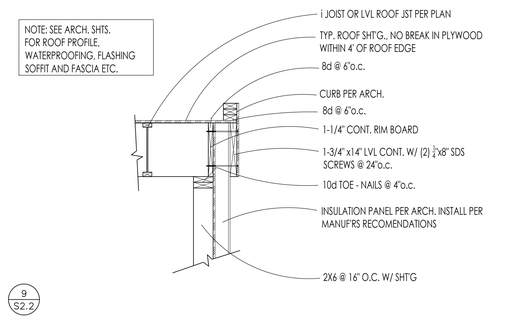

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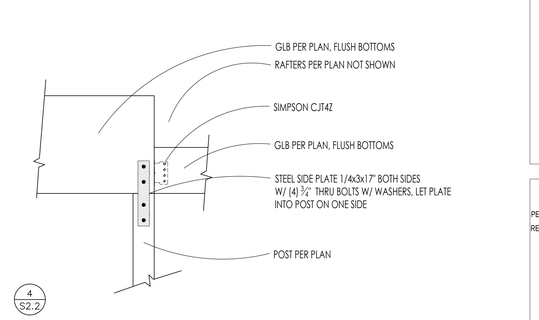
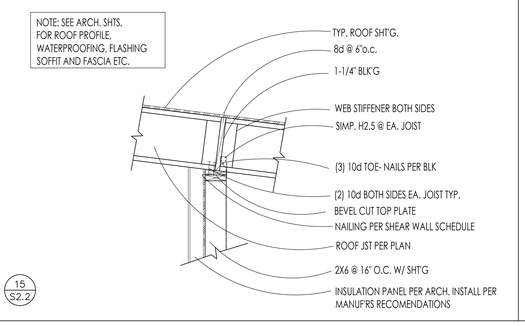


4 S2.2



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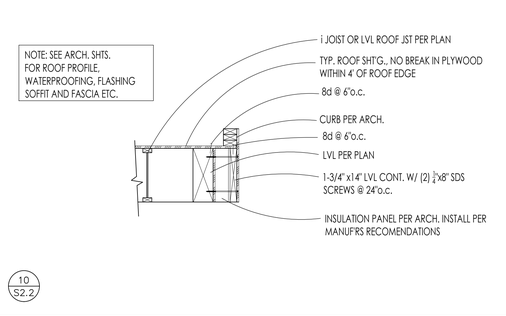

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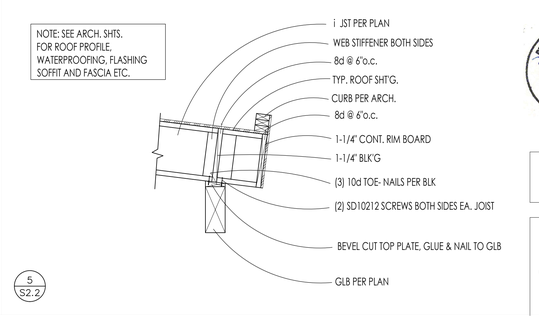

5 S2.2

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WARM SPRINGS PRESERVE WELCOME
KETCHUM, IDAHO
STRUCTURAL DETAILS

DATES
11-8-24
PERMIT: 11-8-24
REVISIONS:

PROFESSIONAL ENGINEER
REGISTERED
6589
11-8-24
STATE OF IDAHO
MATT P. MOREL

ENGINEERS STAMP

3/4" = 1'-0"
SCALE

S2.2

GENERAL REQUIREMENTS

CONTRACTOR

INSTALL ALL MECHANICAL SYSTEMS IN ACCORDANCE WITH THE ADOPTED VERSIONS OF THE INTERNATIONAL BUILDING CODE, INTERNATIONAL MECHANICAL CODE, INTERNATIONAL FUEL GAS CODE, INTERNATIONAL ENERGY CONSERVATION CODE, AND UNIFORM PLUMBING CODE AND ALL OTHER LOCAL CODES AND ADOPTED ORDINANCES.

CLOSELY COORDINATE ALL MECHANICAL WITH ELECTRICAL, ARCHITECTURAL, AND STRUCTURAL. DUCTWORK AND PIPING IS APPROXIMATE AND DIAGRAMMATIC AND IS NOT TO BE SCALED. PROVIDE ALTERNATE ROUTING, OFFSETS, AND TRANSITIONS AS REQUIRED FOR COORDINATION OF ALL WORK WITHOUT ADDITIONAL COST TO THE OWNER.

FIELD VERIFY ALL MECHANICAL PRIOR TO COMMENCING NEW WORK. DO NOT FABRICATE OR INSTALL ANY MECHANICAL BEFORE VERIFYING DIMENSIONS AND ROUTING WITH BUILDING CONDITIONS AND ALL OTHER TRADES.

CONTRACTOR IS RESPONSIBLE FOR ALL APPLICABLE PERMITS AND FEES.

IF DISCREPANCIES EXIST BETWEEN BUILDING CODES, DRAWINGS, NOTES, AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENT WILL BE REQUIRED UNLESS CLARIFIED BY PROJECT ENGINEER IN AN OFFICIAL ADDENDUM OR SUPPLEMENTAL INSTRUCTION.

REQUESTS FOR INFORMATION: THE CONTRACTOR ACKNOWLEDGES ITS RESPONSIBILITY TO BE FAMILIAR WITH THE CONTRACT DOCUMENTS. REQUESTS FOR INFORMATION (RFI'S) WILL BE RESPONDED TO WITHIN FIVE WORKING DAYS OF RECEIPT. TIME SPENT REVIEWING RFI'S IN WHICH THE INFORMATION REQUESTED IS CLEARLY INCLUDED IN THE DRAWINGS OR SPECIFICATIONS WILL BE CHARGED TO THE CONTRACTOR AT ENGINEERING SYSTEM SOLUTIONS' STANDARD BILLING RATES.

INSTALLATION

PROVIDE SEISMIC RESTRAINTS FOR HVAC EQUIPMENT, DUCTWORK, AND PIPING. RESTRAINTS ARE TO COMPLY WITH SEISMIC DESIGN CRITERIA LISTED IN THE STRUCTURAL GENERAL NOTES AND IN ACCORDANCE WITH ASCE/SEI 7-10 AND BUILDING CODE. CONTRACTOR IS RESPONSIBLE TO PROVIDE INSTALLATION DETAILS THAT ARE STAMPED BY A PROFESSIONAL ENGINEER, LICENSED IN THE LOCAL JURISDICTION. DETAILS ARE TO ACCOUNT FOR SEISMIC, WIND, AND GRAVITY LOADING REQUIREMENTS. REFER TO STRUCTURAL GENERAL NOTES FOR SEISMIC DESIGN CATEGORY, SITE CLASS, RISK CATEGORY, SHORT PERIOD DESIGN SPECTRAL RESPONSE ACCELERATION COEFFICIENT (SDS), ONE SECOND PERIOD DESIGN SPECTRAL RESPONSE ACCELERATION COEFFICIENT (SD1), AND IMPORTANCE FACTOR.

CAULK AND SEAL ALL PENETRATIONS THROUGH CEILINGS, WALLS, AND FLOORS. PROVIDE ESCUTCHEON COVERS OR SHEET METAL FLANGES ON ALL VISIBLE PENETRATIONS.

ALL DETAILS INCLUDED IN DESIGN DRAWINGS MUST BE APPLIED TO ALL RELEVANT INSTALLATIONS REFERRED TO IN THE DETAIL. EACH DETAIL WILL NOT BE SPECIFICALLY REFERENCED ON THE DRAWINGS.

DUCTWORK AND PIPING MAY DIFFER IN DIMENSIONS THAN WHAT IS INDICATED ON DRAWINGS BASED ON EASIER PROCUREMENT, CONSISTENT SIZES, OR FIELD INSTALLATION CONDITIONS. PIPING MUST BE LARGER THAN WHAT IS INDICATED ON THE DRAWINGS AND THE CONTRACTOR MUST COORDINATE ROUTING OF LARGER PIPING WITH FIELD CONDITIONS. THE INSIDE FREE AREA FOR ALL DUCTWORK MUST MATCH OR EXCEED THE INSIDE FREE AREA OF THE DUCTWORK ON THE DRAWINGS AND EXHIBIT THE SAME OR BETTER PRESSURE LOSS CHARACTERISTICS. THE ASPECT RATIO OF MODIFIED DUCT MUST NOT EXCEED 3 TO 1 WITHOUT PRIOR ENGINEER APPROVAL. ROUTING FOR ALL MODIFIED DUCTWORK MUST BE COORDINATED WITH ALL FIELD CONDITIONS.

EQUIPMENT

GENERAL REQUIREMENTS

PROVIDE ONE YEAR PARTS AND LABOR WARRANTY ON INSTALLATION.

PROVIDE SUBMITTALS ON ITEMS LISTED IN SCHEDULES TO ENGINEER FOR REVIEW PRIOR TO ORDER, PURCHASE, OR INSTALLATION. PROVIDE ALL HVAC CONSTRUCTION COSTS FOR ENGINEER DATA BASE AS PART OF SUBMITTALS.

ALL MANUFACTURER SUBSTITUTIONS MUST BE SUBMITTED THROUGH ARCHITECT AND APPROVED THROUGH AN ADDENDUM. PRIOR APPROVALS MUST BE SUBMITTED 10 DAYS PRIOR TO BID DATE.

PROVIDE OPERATIONS AND MAINTENANCE MANUAL INCLUDING ALL HVAC EQUIPMENT.

COORDINATE EXACT LOCATION OF THERMOSTATS/SENSORS WITH ARCHITECT PRIOR TO INSTALLATION. PROVIDE VENTILATED LOCKABLE COVERS FOR ALL THERMOSTATS AND SENSORS LOCATED IN PUBLIC ACCESSIBLE LOCATIONS. PROVIDE AND INSTALL CONTROL WIRING BETWEEN THERMOSTAT/SENSOR AND AIR HANDLING EQUIPMENT. PROVIDE INSULATED BASE FOR ALL THERMOSTATS/SENSORS LOCATED ON AN EXTERIOR WALL.

CONTRACTOR IS RESPONSIBLE FOR FULLY FUNCTIONING AND COMPLETE MECHANICAL SYSTEMS INCLUDING ALL INSTALLATION REQUIREMENTS, SERVICE AND MAINTENANCE REQUIREMENTS, CONTROL AND OPERATION REQUIREMENTS, ETC.

CONTRACTOR TO MAKE AVAILBLE ALL MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR INSPECTOR REVIEW DURING CONSTRUCTION.

ELECTRICAL REQUIREMENTS

COORDINATE ALL ELECTRICAL AND CONTROL REQUIREMENTS WITH ELECTRICIAN.

PROVIDE STARTERS AND CONTACTORS NECESSARY TO OPERATE ALL MECHANICAL EQUIPMENT. COORDINATE ALL REQUIREMENTS WITH ELECTRICAL.

CONTRACTOR MUST COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL EQUIPMENT WITH ELECTRICAL CONTRACTOR ONCE REVIEWED SUBMITTALS ARE RECEIVED.

CONTRACTOR IS RESPONSIBLE FOR ALL LOW VOLTAGE WIRING CONDUIT. CONDUIT IS REQUIRED FOR ALL INACCESSIBLE LOCATIONS INCLUDING INSIDE WALLS, ABOVE HARD CEILINGS, AND IN FLOORS. REFER TO ELECTRICAL PLANS AND SPECIFICATIONS FOR ALL CONDUIT REQUIREMENTS. SOME LOW VOLTAGE CONDUIT MAY BE SPECIFIED IN ELECTRICAL DRAWINGS.

INSTALLATION

INSTALL ALL EQUIPMENT AND DEVICES PER MANUFACTURER'S RECOMMENDATIONS.

SUPPORT

PROVIDE VIBRATION ISOLATION FOR ALL FAN OR COMPRESSOR DRIVEN EQUIPMENT. PROVIDE FLEXIBLE CONNECTIONS TO EQUIPMENT.

DUCTWORK

INSTALLATION

INSTALL AND SUPPORT ALL DUCTWORK PER SMACNA AND INTERNATIONAL MECHANICAL CODE REQUIREMENTS.

COORDINATE ALL DIFFUSER AND GRILLE LOCATIONS WITH ARCHITECTURAL REFLECTED CEILING PLANS AND ELECTRICAL DRAWINGS.

COORDINATE ALL STRUCTURAL PENETRATIONS FOR DUCT WORK WITH GENERAL CONTRACTOR AND STRUCTURAL ENGINEER. DUCT PENETRATIONS THROUGH ROOF ARE TO BE COORDINATED WITH JOIST LAYOUT.

CLOSE ENDS OF DUCTWORK AND PIPING AND COVER FLOOR DRAINS DURING CONSTRUCTION. CLEAN ALL EQUIPMENT, PIPING, AND DUCTWORK AT COMPLETION OF PROJECT.

CONSTRUCT ALL DUCT TEES, BENDS, AND ELBOWS WITH RADIUS NOT LESS THAN 1.5 TIMES THE WIDTH OF THE DUCT. WHERE PHYSICAL CONSTRAINTS PROHIBIT RADIUSED ELBOWS, PROVIDE RECTANGULAR ELBOW WITH TURNING VANES. ALL BRANCH TAKEOFFS TO BE CONSTRUCTED OF 90° WYE WITH 45° ENTRY.

DUCT DIMENSIONS SHOWN ARE CLEAR INSIDE DIMENSIONS.

PAINT DUCT INTERIORS VISIBLE THROUGH REGISTERS, GRILLES, DIFFUSERS, AND LOUVERS FLAT BLACK.

CONCEALED VENTS, DUCTS, AND ALL PIPING INSTALLED THROUGH FRAMING MEMBERS MUST BE PROTECTED FROM FASTENER PENETRATION BY A STEEL SHIELD PLATE (MINIMUM THICKNESS OF 1/16") UNLESS THE DISTANCE FROM THE FACE EDGE OF THE FRAMING IS NOT LESS THAN 1.5".

PROVIDE MINIMUM 2.5 WHEEL DIAMETERS OF STRAIGHT DUCT BEFORE OFFSETS OR BENDS FOR ALL INLET AND OUTLET DUCTWORK FOR FANS.

COMPLY WITH SMACNA REQUIREMENTS FOR ALL DUCT SUPPORT SIZING, SPACING, AND MATERIAL. ALL HANGERS IN CORROSIVE ENVIRONMENTS TO BE ELECTROGALVANIZED ALL-THREAD RODS.

PROVIDE EXPANSION JOINTS FOR ALL DUCT WORK PER SMACNA AND MECHANICAL CODE REQUIREMENTS BASED ON FINAL FIELD ROUTING.

INSTALL EXPANSION JOINTS IN ALL DUCTWORK CROSSING A BUILDING EXPANSION JOINT. EXPANSION JOINTS MUST MEET THE REQUIREMENTS FOR EXPANSION AS DESCRIBED IN THE STRUCTURAL DRAWINGS.

MATERIALS

ALL DUCT TO BE CONSTRUCTED OF GALVANIZED METAL UNLESS NOTED OTHERWISE. ALL ROUND EXPOSED DUCT TO BE SPIRAL DUCT. CONSTRUCT ALL DUCT TO THE FOLLOWING SMACNA STANDARDS:
1. EXHAUST DUCT - 1" W.G. PRESSURE CLASS AND SEAL CLASS B.
2. LOW PRESSURE SUPPLY DUCT AND RETURN DUCT - 2" W.G. PRESSURE CLASS AND SEAL CLASS B.

RATED ASSEMBLIES

ALL RATED PENETRATIONS TO BE FIRE RATED PER 3M FIRE PROTECTION GUIDELINES OR APPROVED EQUAL. VISIT 3M'S WEBSITE AT 3M.COM/FIRESTOP FOR APPLICABLE INFORMATION ON FIRESTOPPING. REFER TO THE 3M FIRE PROTECTION PRODUCTS SPECIFIERS AND APPLICATORS GUIDE FOR FIRE RATED PENETRATION PROTECTION REQUIREMENTS AND DETAILS AT https://multimedia.3m.com/mws/media/1302803O/3m-fire-protection-products-specifiers-guide.pdf.

STANDARD ABBREVIATIONS

(E)	EXISTING
(N)	NEW
AFF	ABOVE FINISHED FLOOR
AI	ANALOG INPUT
ALT	ALTERNATE
AO	ANALOG INPUT
APD	AIR PRESSURE DROP
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BTUH	BRITISH THERMAL UNITS PER HOUR
CAP	CAPACITY
CFM	CUBIC FEET PER MINUTE
CV	CONSTANT VOLUME
DB	DRY BULB
DI	DIGITAL INPUT
DIA OR Ø	DIAMETER
DO	DIGITAL OUTPUT
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EFF	EFFICIENCY
ELEV	ELEVATION
ESP	EXTERNAL STATIC PRESSURE
EWT	ENTERING WATER TEMPERATURE
FA	FREE AREA
FPM	FEET PER MINUTE
FT	FEET
FV	FACE VELOCITY
FW	FRESH WATER
GA	GAUGE
GAL	GALLON
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HR	HOUR
HT	HEIGHT
IAQ	INDOOR AIR QUALITY
IN	INCH
INWC	INCHES OF WATER COLUMN
INWG	INCHES OF WATER GAUGE
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BRITISH THERMAL UNITS/HOUR
MECH	MECHANICAL
MIN	MINIMUM
MVD	MANUAL VOLUME DAMPER
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NO.	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OBD	OPPOSED BLADE DAMPER
OSA	OUTSIDE AIR
PD	PRESSURE DROP
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
RA	RETURN AIR
SA	SUPPLY AIR
SEN	SENSIBLE
SL	SEA LEVEL
SP	STATIC PRESSURE
SQ.FT	SQUARE FEET
SS	SERVICE SINK OR STAINLESS STEEL
TOD	TOP OF DUCT
TSP	TOTAL STATIC PRESSURE
UNO	UNLESS NOTED OTHERWISE
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
W/	WITH
W/O	WITHOUT
WB	WET BULB
WPD	WATER PRESSURE DROP
WT	WEIGHT

MECHANICAL LEGEND

	BALL VALVE
	BUTTERFLY VALVE
	GATE VALVE
	GLOBE VALVE
M	MOTORIZED VALVE OPERATOR
	CHECK VALVE (SWING OR LIFT AS REQ'D)
	SOLENOID VALVE
	AUTOMATIC CONTROL VALVE (2-WAY)
	AUTOMATIC CONTROL VALVE (3-WAY)
	PRESSURE REDUCING VALVE
	P & T RELIEF VALVE
	PET COCK OR GAUGE COCK
	AUTOMATIC FLOW CONTROL VALVE
	WATER HAMMER ARRESTOR
	AIR VENT (AUTOMATIC)
	STRAINER
	VENTURI FLOW METER
	TEMPERATURE & PRESSURE TEST PLUG
F	FLOW SWITCH
T	TEMPERATURE SENSOR
	PRESSURE GAUGE W/GAUGE COCK
	THERMOMETER
	PUMP
	ELBOW DOWN
	ELBOW UP
	TEE DOWN
	HOSE BIB OR SILLCOCK
	PIPE CAP
	REDUCER VALVE
	UNION
	YARD HYDRANT/ROOF HYDRANT
	FLOOR DRAIN
	FLOOR SINK
	CLEANOUT TO GRADE (CTG)
	FLOOR CLEANOUT (FCO)
C#	WALL CLEANOUT (WCO)
	EXPANSION JOINT
	FLEXIBLE PIPE CONNECTION
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
	DOUBLE CHECK BACKFLOW PREVENTER
	DOMESTIC COLD WATER (DCW)
	DOMESTIC HOT WATER (DHW)
	DOMESTIC HOT WATER RECIRC. (DHWR)
(TEMP)°F	DOMESTIC HOT WATER (SPECIFIED TEMP.)
	SANITARY VENT (VT)
	SANITARY SEWER ABOVE GRADE (SS)
	SANITARY SEWER BELOW GRADE (SS)
	HEAT TRACING
**	PIPING BELOW GRADE (**SYS. ABR.)

NOTE: NOT ALL SYMBOLS MAY BE USED

	SUPPLY DIFFUSER
	RETURN GRILLE
	EXHAUST GRILLE
	RETURN AIR DUCT SECTION
	RETURN AIR DUCT TURNED UP
	RETURN AIR DUCT DOWN
	SUPPLY AIR DUCT SECTION
	SUPPLY AIR DUCT TURNED UP
	SUPPLY AIR DUCT DOWN
	EXHAUST AIR DUCT SECTION
	EXHAUST AIR DUCT TURNED UP
	EXHAUST AIR DUCT DOWN
	ACCESS PANEL
	MANUAL VOLUME DAMPER
G	GRAVITY BACKDRAFT DAMPER
M	MOTORIZED DAMPER
FD	FIRE DAMPER
FSD	COMBINATION FIRE/SMOKE DAMPER
18/12	DUCT SIZE (FIRST FIGURE IS SIZE SHOWN)
	BURIED OR UNDERFLOOR DUCT
	DUCT W/ ACOUSTICAL LINING
	FLEXIBLE DUCT (HELICAL)
	FLEXIBLE DUCT CONNECTION
	DUCT TRANSITION
	ELBOW W/ TURNING VANES
	TEE W/45 DEGREE ENTRY
	WYE W/ 45 DEGREE ENTRY
T	THERMOSTAT OR TEMP SENSOR
H	HUMIDISTAT OR HUMIDITY SENSOR
	POINT OF REMOVAL FROM EXISTING
	POINT OF CONNECTION TO EXISTING
MF#	KEYED NOTE
S/RR#	AIR DEVICE TAG *MARK/CFM*
SEC# SHEET#	SECTION CUT LINE
DET# SHT#	DETAIL TAG
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
CD	CONDENSATE DRAIN
CWS	CONDENSER WATER SUPPLY
CWR	CONDENSER WATER RETURN
FS	FIRE SPRINKLER SERVICE
HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
LP	LIQUID PROPANE
NG	NATURAL GAS
OD	OVERFLOW ROOF DRAIN
RD	ROOF DRAIN
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
S	STEAM
SD	STORM DRAIN

SHEET INDEX

SHEET NO.	SHEET TITLE	REVISION
M0.00	GENERAL NOTES, SHEET INDEX, LEGEND	
M0.10	ENERGY CODE COMPLIANCE	
M1.11	MECHANICAL FLOOR PLAN	
TOTAL NO. OF SHEETS: 3		

now IMEG
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PROJECT #24.0055 10.00

PROJECT NO. 2318.0

SET NO. DD-

WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

PURPOSE	DATE

REVISION RECORD

NO.	CHANGE	DATE

DRAWN: Author

CHECKED: Checker

DATE: 10/11/2024

SHEET TITLE: GENERAL NOTES, SHEET INDEX, LEGEND

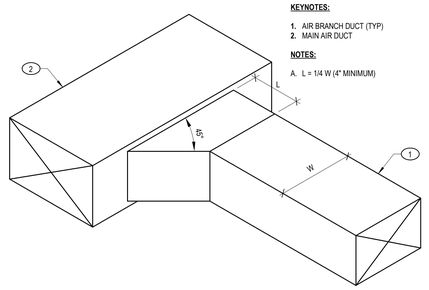
10/31/2024

SHEET M0.00 OF TOTAL

DIMENSION OF LONGEST SIDE (IN)	SHEET METAL GAGE (ALL FOUR SIDES)	TRANSVERSE REINFORCING (1)					
			AT JOINTS				
		MIN. REINFORCING ANGLE SIZE AND MAX. LONGITUDINAL SPACING BETWEEN TRANSVERSE JOINTS AND OR INTERMEDIATE REINFORCING	MIN. H. IN.	DRIVE SLIP / PLAIN S SLIP	HEMMED S SLIP	ALTERNT BAR SLIP	REIN-FORCED BAR SLIP
				RECOMMENDED GAGE	RECOMMENDED GAGE	RECOMMENDED GAGE	RECOMMENDED GAGE
UP THRU 12	26	NONE REQUIRED	1	26	26	24	24
13 THRU 18	24	NONE REQUIRED	1	24	24	24	24
19 THRU 30	24	1"x1"x1/8" AT 60"	1	-	24	24	24
31 THRU 36	22	1"x1"x1/8" AT 60"	1	-	-	22	22

(1) TRANSVERSE REINFORCING SIZE IS DETERMINED BY DIMENSION OF SIDE TO WHICH ANGLE IS APPLIED
(2) LONGITUDINAL JOINTS TO BE PITTSBURGH OR SNAP LOCK TYPE

2 M1.11 DUCT CONSTUCTION
M6.0.02



KEYNOTES:

1. AIR BRANCH DUCT (TYP)
2. MAIN AIR DUCT

NOTES:

A. L = 1/4 W (4" MINIMUM)

1 M1.11 TYPICAL DUCT BRANCH CONNECTION
M0.0.03

EXHAUST FAN (EF)

MARK	SYSTEM TYPE	MANUFACTURER	MODEL	TYPE	AIRFLOW CFM	ESP (IN WC)	RPM	SOUND LEVEL (SONE)	DAMPER GRAVITY OR MOTOR	ELECTRICAL				FAN SPEED CONTROLLER	CONTROL DESCRIPTION	OPERATING WEIGHT (LBS)
										BHP	HP	VOLT	PH			
EF-1	PUBLIC BATHROOM	COOK	GC	CEILING CABINET	100	0.5	1060	3	GRAVITY	0.05	0.07	120	1	Yes	DIV. 26 - INT W/ LIGHTS	20
EF-2	PUBLIC BATHROOM	COOK	GC	CEILING CABINET	100	0.5	1060	3	GRAVITY	0.05	0.07	120	1	Yes	DIV. 26 - INT W/ LIGHTS	20
EF-3	PUBLIC BATHROOM	COOK	GC	CEILING CABINET	100	0.5	1060	3	GRAVITY	0.05	0.07	120	1	Yes	DIV. 26 - INT W/ LIGHTS	20
EF-4	GARAGE	COOK	SQN-D	SQUARE INLINE	200	0.5	1495	7	GRAVITY	0.10	0.17	120	1	Yes	DIV. 23 - HUMIDISTAT	55

NOTES:
MANUFACTURERS:
- COOK, CAPTIVEAIRE, GREENHECK, AND PANASONIC ARE APPROVED MANUFACTURERS. REFER TO MANUFACTURER AND MODEL FOR BASIS OF DESIGN.

ELECTRIC HEATER (EH)

MARK	LOCATION		MANUFACTURER	MODEL NO.	TYPE	ARRANGEMENT	AIRFLOW	EAT(db)(°F)	HEATING ELEMENT			CONTROL	UNIT DIMENSIONS			OPERATING WEIGHT (LBS)
	NAME	NUMBER							POWER (W)	VOLT	PH	TYPE	LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	
EH-1	RESTROOM	04	MARLEY	QFF	FAN FORCED	CEILING RECESSED	150	65	3	208	1	T-STAT	4	16	19	25
EH-2	RESTROOM	05	MARLEY	QFF	FAN FORCED	CEILING RECESSED	150	65	3	208	1	T-STAT	4	16	19	25
EH-3	JANITOR	06	MARLEY	QFF	FAN FORCED	CEILING RECESSED	150	65	2	208	1	T-STAT	4	16	19	25
EH-4	STORAGE	03	MARLEY	MUH	FAN FORCED	CEILING SUSPENDED	350	65	5	208	1	T-STAT	8	14	16	30
EH-5	STORAGE	03	MARLEY	MUH	FAN FORCED	CEILING SUSPENDED	350	65	5	208	1	T-STAT	8	14	16	30

NOTES:
- QMARK, INDEECO, AND MARKEL ARE APPROVED MANUFACTURERS. REFER TO MANUFACTURER AND MODEL FOR BASIS OF DESIGN.
- CEILING RECESSED
  a. PROVIDE WITH RECESSED MOUNTING KIT.
  b. PROVIDE WITH TAMPER PROOF/RESISTANT THERMOSTAT.
- CEILING SUSPENDED
  a. CEILING MOUNTING BRACKET.
  b. PROVIDE WITH LINE VOLTAGE REMOTE THERMOSTAT. PROVIDE INSULATED BASE FOR THERMOSTAT.

LOUVER (LV)

MARK	MANUFACTURER	MODEL	AIRFLOW (CFM)	VELOCITY (FPM)	MIN FREE AREA (SQ FT)	PRESSURE DROP (IN W.C.)	DIMENSIONS (IN)	
							WIDTH	HEIGHT
LV-1	RUSKIN	ELF15J	300	960	0.31	0.17	18	8

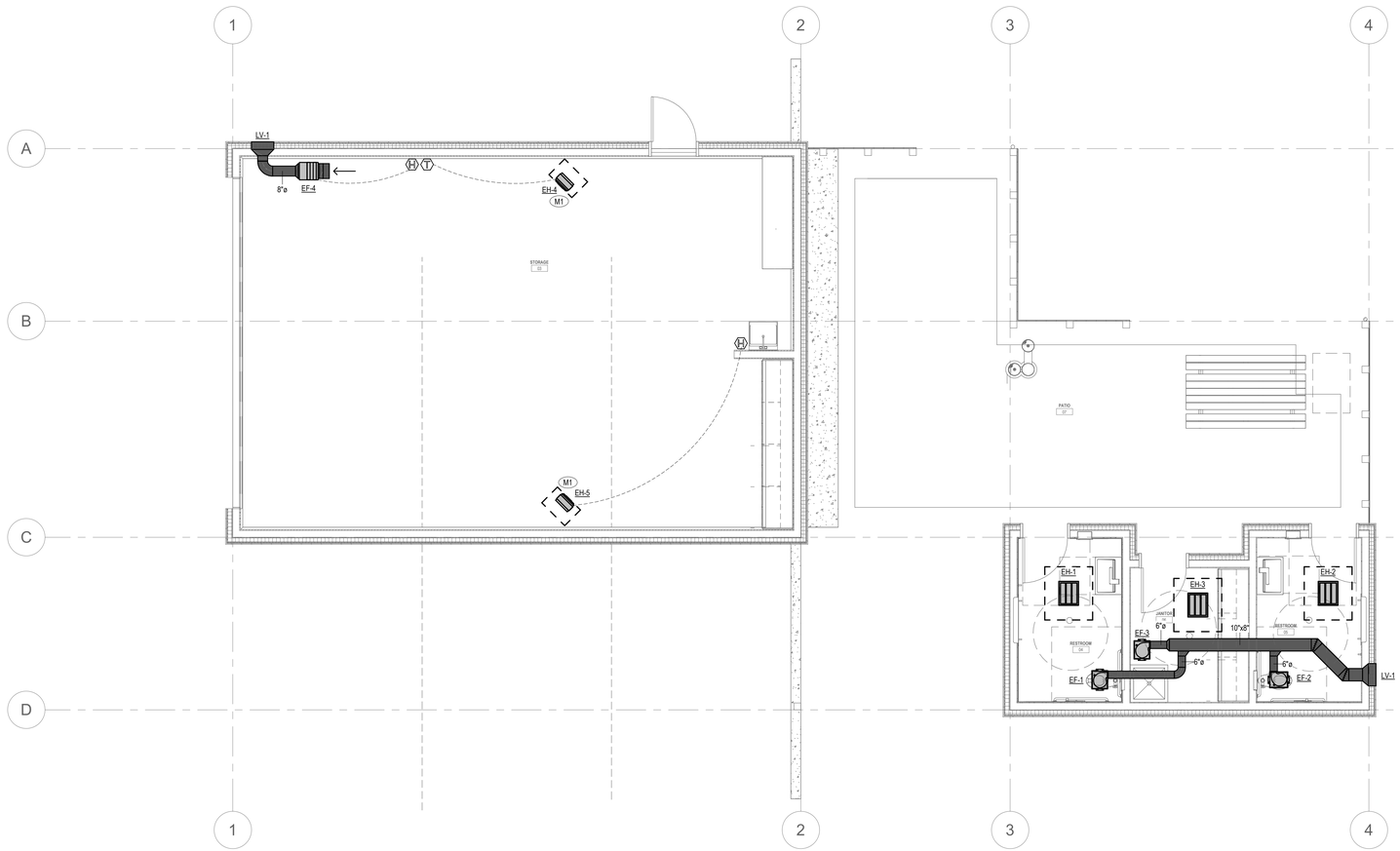
NOTES:
- RUSKIN, GREENHECK, NAILOR, AMERICAN WARMING & VENTILATION CO., AND ARROW UNITED ARE APPROVED MANUFACTURERS.
- PROVIDE WITH BIRD SCREEN. COLOR BY ARCHITECT.

PLAN NOTES

A. DO NOT FABRICATE OR PURCHASE DUCTWORK OR EQUIPMENT PRIOR TO CONFIRMING ALL ROUTING AND INSTALLATION REQUIREMENTS WITH ALL TRADES.

KEYNOTES

M1 COORDINATE FINAL UNIT HEATER LOCATION WITH ARCH/OWNER TO NOT INTERFERE WITH EQUIPMENT ACCESS.



MECHANICAL FLOOR PLAN - 1ST FLOOR
SCALE: 1/4" = 1'-0"

now IMEG
4943 NORTH 29TH EAST, SUITE A
IDAHO FALLS, ID 83401
208.552.9874 www.imegcorp.com

PROJECT #24.00551000

PROJECT NO. 2318.0
SET NO. DD-

WARM SPRINGS PRESERVE WELCOME BUILDING
201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

PURPOSE	DATE

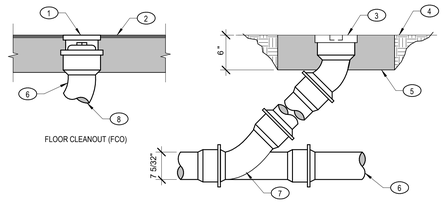
REVISION RECORD

NO.	CHANGE	DATE

DRAWN: Author
CHECKED: Checker
DATE: 10/11/2024
SHEET TITLE: MECHANICAL FLOOR PLAN

10/31/2024

SHEET M1.11 OF TOTAL



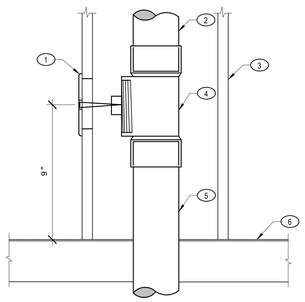
1 P0.00 TYPICAL CLEANOUT

KEYNOTES:

1. CLEANOUT AND ACCESS COVER. TOP OF COVER TO BE FLUSH WITH TOP OF FLOOR.
2. FLOOR LINE.
3. BRASS CLEANOUT PLUG WITH COUNTERSUNK HEAD.
4. FINISH GRADE.
5. 16" SQUARE CONCRETE PAD. TROWEL SMOOTH AND EDGE.
6. WASTE LINE.
7. 1/8" BEND IF CLEANOUT OCCURS AT END OF LINE.
8. BALANCE OF PIPING SAME AS CLEANOUT TO GRADE.

NOTES:

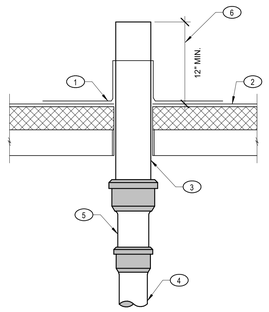
A. FCO CLEANOUT NOT TO BE LOCATED IN CARPETED AREA.
B. LOCATE FCO WHEN POSSIBLE IN LESS POPULATED AREAS.
C. FCO IN PIPING 2" OR LESS TO HAVE A CLEARANCE OF NOT LESS THAN 12 INCHES IN FRONT OF A CLEANOUT. FCO GREATER THAN 2" TO HAVE A CLEARANCE OF NOT LESS THAN 18 INCHES.



2 P0.00 TYPICAL WALL CLEANOUT

KEYNOTES:

1. CHROME WALL COVER AND SCREW.
2. MAY EXTEND AS A WASTE OR VENT LINE.
3. WALL.
4. PLUGGED TEE.
5. WASTE OR VENT PIPING.
6. FLOOR LINE.



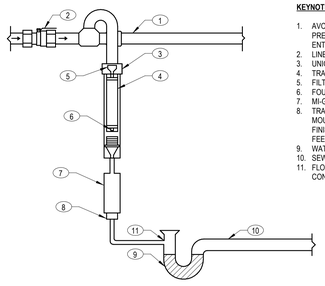
3 P0.00 TYPICAL VENT THROUGH ROOF

KEYNOTES:

1. SINGLE PLY ROOF JACK FINISHED AND INSTALLED BY ROOFING CONTRACTOR. SEAL WATERTIGHT TO VENT STACK.
2. ROOFING MATERIAL.
3. SLEEVE ROOF CONSTRUCTION AS REQUIRED.
4. VENT STACK.
5. INCREASE WHEN REQUIRED.
6. MINIMUM HEIGHT REQUIREMENT TO INCREASE DEPENDING ON AVERAGE SNOW LEVEL.

NOTES:

A. VENT TO NOT TERMINATE LESS THAN 12 INCHES FROM TOP OF ROOF.
B. PAINT ANY EXPOSED PVC OR ABS PIPING WITH A PROHIBITIVE PAINT TO PROTECT FROM UV RAYS.



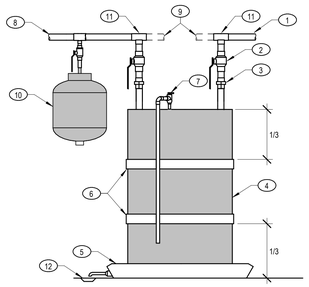
4 P0.00 TYPICAL PRESSURE DROP ACTIVATED TRAP PRIMER

KEYNOTES:

1. AVOID DIRECT INSTALLATION TO PREVENT FOREIGN MATERIAL FROM ENTERING DIRECTLY INTO PRIMER.
2. LINE SHUT OFF VALVE.
3. UNION CONNECTION.
4. TRAP PRIMER VALVE.
5. FILTER SCREEN.
6. FOUR VIEW HOLES.
7. MI-GAP AIR GAP FITTING.
8. TRAP PRIMER VALVE SHOULD BE MOUNTED ONE FOOT ABOVE THE FINISHED FLOOR FOR EVERY 20 FEET OF PRIMER LINE.
9. WATER TRAP.
10. SEWER GAS.
11. FLOOR DRAIN/ SINK TRAP PRIMER CONNECTION.

NOTES:

A. APPLIES TO ALL DRAINS/ FLOOR SINKS UNLESS NOTED OTHERWISE.
B. DO NOT INSTALL THE TRAP SEAL PRIMERS CLOSER THAN 40' APART WHEN USING THE SAME POTABLE WATER SUPPLY LINE.
C. THE DEVICE SHOULD BE LOCATED WITHIN 20' OF THE VALVE OR FAUCET FOR OPTIMAL DISCHARGE.
D. INSTALL TRAP PRIMER IN ACCESSIBLE LOCATION. PROVIDE ACCESS PANEL IF NECESSARY. COORDINATE ACCESS PANEL WITH GENERAL CONTRACTOR/ ARCHITECT.
E. CONNECT ONLY TO THE BRANCH PIPING OF FIXTURES THAT SEE FREQUENT USE.
F. TRAP PRIMERS SHOULD BE CYCLED AT LEAST SIX TIMES AFTER INSTALLATION TO ENSURE OPTIMUM PERFORMANCE.
G. USE ONLY TEFLON TAPE ON FITTINGS.



5 P0.00 TYPICAL WATER HEATER
3/4" = 1'-0"

KEYNOTES:

1. DOMESTIC HOT WATER SUPPLY.
2. BALL VALVE (TYP).
3. UNION (TYP).
4. WATER HEATER.
5. DRAIN PAN.
6. SEISMIC STRAP - SECURE TO WALL.
7. P&T RELIEF VALVE - INDIRECT TO NEAREST FLOOR SINK/DRAIN.
8. DOMESTIC COLD WATER SUPPLY.
9. PROVIDE PIPING CONTINUATION TO ADDITIONAL WATER HEATERS AS REQUIRED PER WATER PIPING SCHEMATIC. INSTALL PIPING TO ADDITIONAL WATER HEATERS PER MANUFACTURER'S RECOMMENDATION. ARRANGE PIPING FOR EQUAL PRESSURE DROP TO EACH WATER HEATER IN A REVERSE RETURN CONFIGURATION FOR INLET AND OUTLET PIPING.
10. EXPANSION TANK - HANG OR LOCATE ON FLOOR. ONLY ONE EXPANSION TANK IS REQUIRED PER HOT WATER HEATING SYSTEM.
11. PROVIDE A 90 DEGREE ELBOW TO WATER HEATER IF A SINGLE WATER HEATER IS INSTALLED.
12. FLOOR DRAIN.

NOTES:

A. PROVIDE CONDENSATE DRAIN IF REQUIRED. ROUTE TO NEAREST FLOOR SINK.
B. PROVIDE THERMOWELL AT THE INLET AND OUTLET OF EACH CONNECTION TO EQUIPMENT.
C. PIPING CONNECTION LOCATIONS SHOWN ON THE DETAIL REPRESENT A TYPICAL WATER HEATER AND MAY NOT CONVEY THE ACTUAL CONNECTION LOCATIONS OF THE SPECIFIED EQUIPMENT. INSTALL PIPING PER MANUFACTURERS RECOMMENDATIONS.
D. PROVIDE HEAT TRAPS FOR EACH WATER HEATER PER ENERGY CODE REQUIREMENTS IF WATER HEATING SYSTEM IS NOT EQUIPPED WITH A HOT WATER RECIRCULATING SYSTEM.
E. PROVIDE A WATER TIGHT DRAIN PAN MADE OF CORROSION-RESISTANT MATERIAL BENEATH EACH WATER HEATER. PROVIDE A MINIMUM 3/4" DRAIN TO THE NEAREST FLOOR SINK/DRAIN.

GENERAL REQUIREMENTS

CONTRACTOR

INSTALL ALL PLUMBING SYSTEMS IN ACCORDANCE WITH THE ADOPTED VERSION OF THE INTERNATIONAL BUILDING CODE, INTERNATIONAL MECHANICAL CODE, INTERNATIONAL FUEL GAS CODE, INTERNATIONAL ENERGY CONSERVATION CODE, UNIFORM PLUMBING CODE, AND ALL OTHER LOCAL CODES AND ADOPTED ORDINANCES.

CLOSELY COORDINATE ALL PLUMBING WITH ELECTRICAL, ARCHITECTURAL, AND STRUCTURAL. COORDINATE FIRE LINE STUB REQUIREMENTS IN FIRE RISER ROOM WITH GENERAL CONTRACTOR/FIRE PROTECTION CONTRACTOR. PIPING IS APPROXIMATE AND DIAGRAMMATIC AND IS NOT TO BE SCALED. PROVIDE ALTERNATE ROUTING, OFFSETS, AND TRANSITIONS AS REQUIRED FOR COORDINATION OF ALL WORK WITHOUT ADDITIONAL COST TO THE OWNER.

FIELD VERIFY ALL PLUMBING PRIOR TO COMMENCING NEW WORK. DO NOT FABRICATE OR INSTALL ANY PLUMBING BEFORE VERIFYING DIMENSIONS AND ROUTING WITH BUILDING CONDITIONS AND ALL OTHER TRADES.

CONTRACTOR IS RESPONSIBLE FOR ALL APPLICABLE PERMITS AND FEES.

IF DISCREPANCIES EXIST BETWEEN BUILDING CODES, DRAWINGS, NOTES, AND SPECIFICATIONS, THE MOST STRINGENT REQUIREMENT WILL BE REQUIRED UNLESS CLARIFIED BY PROJECT ENGINEER IN AN OFFICIAL ADDENDUM OR SUPPLEMENTAL INSTRUCTION.

ALL DETAILS INCLUDED IN DESIGN DRAWINGS MUST BE APPLIED TO ALL RELEVANT INSTALLATIONS REFERRED TO IN THE DETAIL. EACH DETAIL WILL NOT BE SPECIFICALLY REFERENCED ON THE DRAWINGS.

REQUESTS FOR INFORMATION: THE CONTRACTOR ACKNOWLEDGES ITS RESPONSIBILITY TO BE FAMILIAR WITH THE CONTRACT DOCUMENTS. REQUESTS FOR INFORMATION (RFI'S) WILL BE RESPONDED TO WITHIN FIVE WORKING DAYS OF RECEIPT. TIME SPENT REVIEWING RFI'S IN WHICH THE INFORMATION REQUESTED IS CLEARLY INCLUDED IN THE DRAWINGS OR SPECIFICATIONS WILL BE CHARGED TO THE CONTRACTOR AT ENGINEERING SYSTEM SOLUTIONS' STANDARD BILLING RATES.

INSTALLATION

PROVIDE SEISMIC RESTRAINTS FOR PLUMBING EQUIPMENT AND PIPING. RESTRAINTS ARE TO COMPLY WITH SEISMIC DESIGN CRITERIA LISTED IN THE STRUCTURAL GENERAL NOTES AND IN ACCORDANCE WITH ASCE/SEI 7-10 AND BUILDING CODE. CONTRACTOR IS RESPONSIBLE TO PROVIDE INSTALLATION DETAILS THAT ARE STAMPED BY A PROFESSIONAL ENGINEER, LICENSED IN THE LOCAL JURISDICTION. DETAILS ARE TO ACCOUNT FOR SEISMIC, WIND, AND GRAVITY LOADING REQUIREMENTS. REFER TO STRUCTURAL GENERAL NOTES FOR SEISMIC DESIGN CATEGORY, SITE CLASS, RISK CATEGORY, SHORT PERIOD DESIGN SPECTRAL RESPONSE ACCELERATION COEFFICIENT (SDS), ONE SECOND PERIOD DESIGN SPECTRAL RESPONSE ACCELERATION COEFFICIENT (SD1), AND IMPORTANCE FACTOR.

CLOSE ENDS OF PIPING AND COVER FLOOR DRAINS DURING CONSTRUCTION. CLEAN ALL EQUIPMENT AND PIPING AT COMPLETION OF PROJECT.

CAULK AND SEAL ALL PENETRATIONS THROUGH CEILINGS, WALLS, AND FLOORS. PROVIDE ESCUTCHEON COVERS OR SHEET METAL FLANGES ON ALL VISIBLE PENETRATIONS.

COORDINATE ALL STRUCTURAL AND TOP PLATE PENETRATIONS FOR PIPING WITH GENERAL CONTRACTOR AND STRUCTURAL ENGINEER.

CONCEALED VENTS, DUCTS, AND ALL PIPING INSTALLED THROUGH FRAMING MEMBERS MUST BE PROTECTED FROM FASTENER PENETRATION BY A STEEL SHIELD PLATE (MINIMUM THICKNESS OF 1/16") UNLESS THE DISTANCE FROM THE FACE EDGE OF THE FRAMING IS NOT LESS THAN 1.5".

INSTALLING CONTRACTOR MUST INSTALL ALL PIPING TO MEET PIPING MANUFACTURER RECOMMENDATIONS FOR THERMAL EXPANSION. INSTALL EXPANSION LOOPS AND/ OR BENDS AS RECOMMENDED. AS A MINIMUM REQUIREMENT: ALL PIPING CONVEYING FLUIDS OF TEMPERATURES GREATER THAN 100 DEGREES, ALL PIPING WITH STRAIGHT RUNS LONGER THAN 100 FEET, ALL PEX-A PIPING, AND ALL OTHER MANUFACTURER RECOMMENDED APPLICATIONS TO INCORPORATE EXPANSION LOOPS AND/ OR BENDS TO MINIMIZE THERMAL EXPANSION STRESSES. ALL PEX-A PIPING LARGER THAN 3/4 IN DIA TO INCORPORATE PIPE SUPPORT CHANNEL PER MANUFACTURER RECOMMENDATIONS.

PROVIDE DRAIN PANS UNDER ALL PIPING LOCATED OVER ELECTRICAL PANELS AND UNDER ALL WATER HEATERS.

ANY PIPE THAT PASSES THROUGH A FOUNDATION WALL TO BE PROVIDED WITH A PIPE SLEEVE. THE SLEEVE TO BE TWO PIPE SIZES GREATER THAN THE PIPE PASSING THROUGH THE WALL. REFER TO STRUCTURAL DRAWINGS FOR ADDITIONAL REQUIREMENTS. COORDINATE ANY PENETRATIONS NOT LISTED ON DRAWINGS WITH STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

PIPING MAY DIFFER IN DIMENSIONS THAN WHAT IS INDICATED ON DRAWINGS BASED ON EASIER PROCUREMENT OR CONSISTENT SIZES. PIPING MUST BE LARGER THAN WHAT IS INDICATED ON THE DRAWINGS AND THE CONTRACTOR MUST COORDINATE ROUTING OF LARGER PIPING WITH FIELD CONDITIONS.

PIPE SIZE RUNOUTS TO INDIVIDUAL PLUMBING FIXTURES TO MATCH SIZE SHOWN IN PLUMBING FIXTURE SCHEDULE UNLESS NOTED OTHERWISE.

SUPPORT

PIPING AND EQUIPMENT HANGERS CENTERED ON STEEL I-BEAMS (CONCENTRIC HANGERS) ARE PREFERRED OVER HANGERS SUPPORTED FROM A SINGLE SIDE OF THE BOTTOM I-BEAM FLANGE. IF USING HANGERS SUPPORTED FROM A SINGLE SIDE OF THE BOTTOM FLANGE, THE MAXIMUM WEIGHT LIMIT PER HANGER IS 200 POUNDS UNLESS DIRECTED OTHERWISE BY THE PROJECT STRUCTURAL ENGINEER.

HANGERS AND SUPPORTS TO BE DESIGNED AND MANUFACTURED IN CONFORMANCE WITH ANSI/MSS SP-58.

EQUIPMENT AND FIXTURES

GENERAL REQUIREMENTS

ALL MANUFACTURER SUBSTITUTIONS MUST BE SUBMITTED THROUGH ARCHITECT AND APPROVED THROUGH AN ADDENDUM. PRIOR APPROVALS MUST BE SUBMITTED 10 DAYS PRIOR TO BID DATE.

PROVIDE SUBMITTALS ON ITEMS LISTED IN SCHEDULES TO ENGINEER FOR REVIEW PRIOR TO ORDER, PURCHASE, OR INSTALLATION. PROVIDE ALL HVAC AND PLUMBING CONSTRUCTION COSTS FOR ENGINEER DATA BASE AS PART OF SUBMITTALS.

CONTRACTOR MUST COORDINATE ALL ELECTRICAL REQUIREMENTS FOR ALL EQUIPMENT WITH ELECTRICAL CONTRACTOR AFTER SUBMITTALS ARE REVIEWED.

PROVIDE OPERATIONS AND MAINTENANCE MANUAL INCLUDING ALL PLUMBING EQUIPMENT.

REFER TO ARCHITECTURAL FOR FINAL FIXTURE AND FIXTURE ACCESSORY LOCATIONS.

PROVIDE ONE YEAR PARTS AND LABOR WARRANTY ON INSTALLATION.

ELECTRICAL REQUIREMENTS

COORDINATE ALL ELECTRICAL AND CONTROL REQUIREMENTS WITH ELECTRICIAN.

INSTALLATION

REFER TO ARCHITECTURAL FLOOR PLANS FOR EXACT FIXTURE LOCATIONS AND MOUNTING HEIGHTS.

PROVIDE BALANCE VALVES TO ALLOW COMPLETE BALANCE OF PLUMBING SYSTEMS AND ISOLATION VALVES FOR MAINTENANCE ON EACH PIECE OF EQUIPMENT.

INSTALL ALL EQUIPMENT AND FIXTURES PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE ONE YEAR PARTS AND LABOR WARRANTY ON INSTALLATION.

T&P RELIEF VALVE TO INDIRECT DRAIN AT FLOOR DRAIN.

SET ALL FIXTURE TEMPERATURE LIMIT STOPS TO 110°F UNLESS INDICATED OTHERWISE.

INSULATE HANDICAP LAVATORY TAIL PIECE, P-TRAP, TRAP ARM, HOT AND COLD WATER SUPPLY WITH HANDI LAV-GUARD.

ELECTRIC WATER HEATERS TO COMPLY WITH UL174 AND UL1453.

DOMESTIC WATER

ACCESS

PROVIDE ACCESS PANELS FOR ALL VALVES LOCATED IN WALLS OR ABOVE HARD LID CEILINGS. PROVIDE A RATED ACCESS PANEL WHERE LOCATED IN OR ABOVE A FIRE RATED ASSEMBLY. COORDINATE FINAL LOCATION WITH GENERAL CONTRACTOR AND ARCHITECT. COORDINATE ACCESS PANEL COLOR WITH ARCHITECT.

INSTALLATION

CONTRACTOR TO PROVIDE FLOW TEST FOR DOMESTIC WATER SUPPLY ON SITE AT BEGINNING OF CONSTRUCTION TO ENGINEER TO CONFIRM AVAILABLE PRESSURE, PRIOR TO PURCHASE AND INSTALLATION OF BOOSTER PUMP/PRV.

PROVIDE WATER HAMMER ARRESTOR IN EACH BRANCH LINE SERVING FIXTURES AND EQUIPMENT WITH AUTOMATIC VALVE OPERATORS. SIZE AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS.

PROVIDE ISOLATION VALVES FOR ALL BRANCH LINES SERVING THREE OR MORE FIXTURES. PROVIDE BALANCING VALVES FOR EACH DOMESTIC HOT WATER RETURN PIPING OF TWO BRANCHES OR MORE.

ALL DOMESTIC WATER PIPING ROUTED BELOW SLAB TO HAVE MINIMAL TO NO JOINTS OR FITTINGS BELOW SLAB.

ROUTE WATER PIPING IN HEATED AREAS ONLY. DO NOT ROUTE PIPING IN NON-INSULATED ATTIC, CEILING AND WALL SPACES.

PRESSURE TEST ALL DOMESTIC WATER PIPING PER PLUMBING CODE REQUIREMENTS.

DISINFECT DOMESTIC WATER PIPING PER PLUMBING CODE REQUIREMENTS.

PROVIDE STEEL CHANNEL PIPE SUPPORT BETWEEN HANGERS FOR PEX PIPING TO AVOID SAGGING.

INSULATION

INSULATE ALL DOMESTIC HOT WATER PIPING AND RECIRCULATION PIPING AND DOMESTIC COLD WATER PIPING PER INSULATION TABLE. PROVIDE ALUMINUM JACKET ON ALL INSULATION LOCATED OUTDOORS.

SANITARY SEWER

INSTALLATION

WASTE PIPING SMALLER THAN 4" IS TO BE SLOPED AT 1/4" PER FOOT. ALL WASTE PIPING 4" AND LARGER MAY BE INSTALLED AT 1/8" SLOPE PER FOOT UPON RECEIVING WRITTEN APPROVAL BY LOCAL JURISDICTION. VERIFY INVERT BEFORE INSTALLATION.

PROVIDE CLEANOUTS ON INTERIOR SANITARY PIPING ACCORDING TO LOCAL JURISDICTION AND PLUMBING CODE REQUIREMENTS.

PROVIDE GRADE CLEANOUT WHERE BUILDING SEWER CONNECTS TO SEWAGE SYSTEM.

PROVIDE VENT FOR EVERY TRAP AND TRAPPED FIXTURE. ALL VTR'S TO BE 2" MINIMUM AND TERMINATE MINIMUM 10" ABOVE ROOF AND MINIMUM 24" FROM ROOF EDGE OR PARAPET, AND 25' FROM OUTSIDE AIR INTAKE INTO BUILDING.

INSTALL PRESSURE ACTIVATED TRAP PRIMERS ON ALL FLOOR DRAINS AND FLOOR SINKS UNLESS NOTED OTHERWISE. INSTALL TRAP PRIMERS COMPLYING WITH ALL MANUFACTURER REQUIREMENTS. PROVIDE ACCESS PANEL FOR ALL TRAP PRIMERS AND COORDINATE LOCATIONS WITH GENERAL CONTRACTOR/ ARCHITECT. TRAP PRIMERS ARE INTENDED TO BE INSTALLED ABOVE ACCESSIBLE CEILINGS, IN CLOSETS, OR BELOW COUNTERS. ALL TRAP PRIMERS TO BE INSTALLED ON BRANCH PIPING SERVING REGULARLY USED FIXTURES TO ENSURE CORRECT OPERATION. TRAP PRIMER TO OPERATE BASED ON A 5 PSI OR LESS PRESSURE DROP. PROVIDE MIFAB M-500 TRAP PRIMER OR APPROVED EQUAL.

PRESSURE TEST ALL SANITARY SEWER AND VENT PIPING PER PLUMBING CODE REQUIREMENTS.

STANDARD ABBREVIATIONS

(E)	EXISTING
AFF	ABOVE FINISHED FLOOR
AI	ANALOG INPUT
ALT	ALTERNATE
AO	ANALOG OUTPUT
BFF	BELOW FINISHED FLOOR
CAP	CAPACITY
CD	CONDENSATE DRAIN
CV	CONSTANT VOLUME
CWFU	COLD WATER FIXTURE UNITS
DFU	DRAINAGE FIXTURE UNITS
DI	DIGITAL INPUT
DIA OR Ø	DIAMETER
DO	DIGITAL OUTPUT
DSN	DOWNSPOUT NOZZLE
DW	DISHWASHER
EFF	EFFICIENCY
ELEV	ELEVATION
EWT	ENTERING WATER TEMPERATURE
FA	FREE AREA
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FPM	FEET PER MINUTE
FS	FLOOR SINK
FT	FEET
FW	FRESH WATER
GA	GAUGE
GAL	GALLON
GD	GARAGE DRAIN
GPM	GALLONS PER MINUTE
HP	HORSEPOWER
HR	HOUR
HT	HEIGHT
HWFU	HOT WATER FIXTURE UNITS
IAQ	INDOOR AIR QUALITY
IN.	INCH
INWC	INCHES OF WATER COLUMN
INWG	INCHES OF WATER GAUGE
LBS	POUNDS
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	THOUSAND BRITISH THERMAL UNITS/HOUR
MECH	MECHANICAL
MIN	MINIMUM
NC	NOISE CRITERIA
NIC	NOT IN CONTRACT
NO.	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OD	OVERFLOW DRAIN
OSA	OUTSIDE AIR
PD	PRESSURE DROP
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
RD	ROOF DRAIN
RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
SL	SEA LEVEL
SP	STATIC PRESSURE
SQ FT	SQUARE FEET
SR	STORY RISER
SS	SERVICE SINK OR STAINLESS STEEL
TSP	TOTAL STATIC PRESSURE
UNO	UNLESS NOTED OTHERWISE
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
VTR	VENT THROUGH ROOF
W/	WITH
W/O	WITHOUT
WCO	WALL CLEANOUT
WPD	WATER PRESSURE DROP
WT	WEIGHT

PLUMBING LEGEND

BALL VALVE	DOMESTIC COLD WATER (DCW)
BUTTERFLY VALVE	DOMESTIC HOT WATER (DHW)
GATE VALVE	DOMESTIC HOT WATER RECIRC. (DHWR)
GLOBE VALVE	S-DCW — SOFTENED DOMESTIC COLD WATER
M — MOTORIZED VALVE OPERATOR	U-DCW — UNSOFTENED DOMESTIC COLD WATER
CHECK VALVE (SWING OR LIFT AS REQ'D)	FS-DCW — FUTURE SOFTENED DOMESTIC COLD WATER
DRAINAGE FIXTURE UNITS	
SOLENOID VALVE	(TEMP)°F — DOMESTIC HOT WATER (SPECIFIED TEMP.)
AUTOMATIC CONTROL VALVE (2-WAY)	DHWR (TEMP)°F — DOMESTIC HOT WATER RECIRC. (DHWR-SPECIFIED TEMP.)
AUTOMATIC CONTROL VALVE (3-WAY)	SANITARY VENT (VT)
PRESSURE REDUCING VALVE	SANITARY SEWER ABOVE GRADE (SS)
P & T RELIEF VALVE	SANITARY SEWER BELOW GRADE (SS)
PET COCK OR GAUGE COCK	HEAT TRACING
AUTOMATIC FLOW CONTROL VALVE	CHS — CHILLED WATER SUPPLY
WATER HAMMER ARRESTOR	CHR — CHILLED WATER RETURN
AIR VENT (AUTOMATIC)	CD — CONDENSATE DRAIN
STRAINER	CWS — CONDENSOR WATER SUPPLY
VENTURI FLOW METER	CWR — CONDENSOR WATER RETURN
TEMPERATURE & PRESSURE TEST PLUG	FS — FIRE SPRINKLER SERVICE
F — FLOW SWITCH	HWS — HEATING WATER SUPPLY
T — TEMPERATURE SENSOR	HWR — HEATING WATER RETURN
PRESSURE GAUGE W/GAUGE COCK	LP — LIQUID PROPANE
THERMOMETER	NG — NATURAL GAS
PUMP	OD — OVERFLOW ROOF DRAIN
ELBOW DOWN	RD — ROOF DRAIN OR EXTERIOR DRAIN
ELBOW UP	RL — REFRIGERANT LIQUID
TEE DOWN	RS — REFRIGERANT SUCTION
HOSE BIB OR SILLCOCK	S — STEAM
PIPE CAP	SD — STORM DRAIN
REDUCER VALVE	** — PIPING BELOW GRADE (**SYS. ABR.)
UNION	GW — GREASE WASTE (GW)
YARD HYDRANT/ROOF HYDRANT	POINT OF REMOVAL FROM EXISTING
FLOOR DRAIN	POINT OF CONNECTION TO EXISTING
FLOOR SINK	P#8 — KEYED NOTE
CLEANOUT TO GRADE (CTG)	SEC# / SHEET# — SECTION CUT LINE
FLOOR CLEANOUT (FCO)	
WALL CLEANOUT (WCO)	4 / P5.1 — DETAIL TAG
EXPANSION JOINT	
FLEXIBLE PIPE CONNECTION	
REDUCED PRESSURE BACKFLOW PREVENTER	
DOUBLE CHECK BACKFLOW PREVENTER	
TP — TRAP PRIMER VALVE	

NOTE: NOT ALL SYMBOLS MAY BE USED

MINIMUM PLUMBING PIPING INSULATION THICKNESS

SYSTEM TYPES	FLUID OPERATING TEMP RANGE AND USAGE (°F)	CONDUCTIVITY (BTU*IN/(H*FT²*°F))	MEAN RATING TEMP (°F)	≤ 1	1 to < 1 1/2	1 1/2 to < 4	4 to < 8	≥ 8
DHW (120°F, 140°F),	105 - 140	0.21 - 0.28	100	1.0	1.0	1.5	1.5	1.5
DCW	40 - 60	0.21 - 0.27	75	0.5	0.5	1.0	1.0	1.0

NOTES:
1. BASED ON THE CURRENTLY ADOPTED INTERNATIONAL ENERGY CONSERVATION CODE.
2. PROVIDE ALUMINUM JACKETS ON ALL PIPING INSULATION LOCATED EXTERIOR OF THE BUILDING. PROVIDE PVC JACKET ON ALL EXPOSED PIPING INSULATION IN MECHANICAL ROOM.
3. PROVIDE PROTECTIVE SHIELDING PIPE COVERS ON ALL PIPES EXPOSED AT ADA PLUMBING FIXTURES. PROTECTIVE SHIELDING PIPE COVERS TO COMPLY WITH ADA REQUIREMENTS.

PLUMBING VALVE SCHEDULE

ACTION	NPS ≤ 2"	2" < NPS < 4"	NPS ≥ 4"
SHUT-OFF SERVICE	BALL VALVE LEAD FREE BRONZE VALVE TWO-PIECE FULL PORT BASIS OF DESIGN: APOLLO 77FLF FOR GAS: APOLLO 80-100	GATE VALVE LEAD FREE IRON VALVE FULL PORT BASIS OF DESIGN: APOLLO 610FLF	BUTTERFLY VALVE LEAD FREE IRON VALVE ALUMINUM BRONZE DISC BASIS OF DESIGN: APOLLO LC149
CHECK VALVE	SWING VALVE LEAD FREE BRONZE VALVE BASIS OF DESIGN: APOLLO 161TLF	LEAD FREE IRON VALVE LEVER & WEIGHT OR SPRING BASIS OF DESIGN: APOLLO 910FLW-LF	SWING VALVE LEAD FREE IRON VALVE LEVER & WEIGHT OR SPRING BASIS OF DESIGN: APOLLO 910FLW-LF

NOTES:
1. PROVIDE SHUT-OFF VALVES & UNIONS AT INLETS & OUTLETS OF ALL EQUIPMENT FOR SERVICING PURPOSES.
2. USE DIELECTRIC UNIONS FOR ALL DISSIMILAR METALS.
3. USE CORRECT ADAPTERS AND COUPLINGS FOR THE SPECIFIED PIPING MATERIALS.
4. ALL VALVES MUST BE COMPATIBLE WITH ANTICIPATED FLUID PRESSURES, FLUID TEMPERATURES, AND FLUID TYPES; INCLUDING GLYCOL CONCENTRATIONS AND POTABLE WATER REQUIREMENTS, ETC.
5. ALL VALVES MUST MEET A MINIMUM PRESSURE RATING OF 125 PSI AT A TEMPERATURE OF 200 °F.
6. BRONZE VALVES TO BE MADE WITH DEZINCIFICATION-RESISTANT MATERIALS.

SHEET INDEX

PLUMBING PIPING MATERIAL SCHEDULE

LOCATION	PIPE TYPE
DOMESTIC WATER	
BELOW GRADE	ASTM D 2846 CPVC
ABOVE GRADE	ASTM F 876 PEX-A
WASTE	
ALL	ASTM D 2665 PVC SCHEDULE 40, SOCKET FITTINGS DWV
VENT	
ALL	ASTM D 2665 PVC SCHEDULE 40, SOCKET FITTINGS DWV

NOTES:
1. PROVIDE DIELECTRIC FITTINGS FOR ALL DISSIMILAR METALS.

now IMEG
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IDAHO FALLS, ID 83401
208.552.9874 www.imegcorp.com

PROJECT #24.0055I0.00

PROJECT NO. 2318.0

SET NO.
DD-

WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

PURPOSE	DATE

REVISION RECORD

NO.	CHANGE	DATE

DRAWN: DT
CHECKED: HS
DATE: 10/11/2024

SHEET TITLE:
GENERAL NOTES, SHEET INDEX, LEGEND

10/31/2024

SHEET P0.00 OF TOTAL

PLUMBING FIXTURES PROVIDED TO SATISFY PLUMBING CODE REQUIREMENTS AND GENERAL CONFORMANCE WITH PROJECT. VERIFY ACCEPTANCE OF ALL FIXTURES WITH ARCHITECT AND OWNER PRIOR TO PURCHASE AND INSTALLATION. VERIFY ACCEPTANCE OF ALL FIXTURE COLORS, SIZES, LOCATIONS, AND FINISHES. VERIFY FIXTURE MOUNTING TYPE AND ALL OTHER INSTALLATION REQUIREMENTS.

PLUMBING FIXTURES

MARK	DESCRIPTION	C.W.	H.W.	WASTE	VENT	ELECTRICAL	NOTES
FD-1	FLOOR DRAIN, TRAP PRIMER CONNECTION, VANDAL-PROOF SECURED TOP	1/2"	-	2"	1 1/2"	-	ZURN Z415
FD-2	FLOOR DRAIN, TRAP PRIMER CONNECTION, VANDAL-PROOF SECURED TOP	1/2"	-	4"	2"	-	ZURN Z415
HB-1	AUTO-DRAIN HOT AND COLD WALL HYDRANT W/ INTEGRAL VACUUM BREAKER, NON FREEZE, 3/4" HOSE CONNECTION, LOOSE TEE KEY, W/ FLUSH-MOUNTED WALL BOX	3/4"	3/4"	-	-	-	WOODFORD B22
HB-2	AUTO-DRAIN WALL HYDRANT W/ INTEGRAL VACUUM BREAKER, 3/4" HOSE CONNECTION, LOOSE TEE KEY, W/ FLUSH-MOUNTED WALL BOX	3/4"	-	-	-	-	WOODFORD B65
L-1	WALL MOUNTED LAVATORY, W/ WASHBAR WB2, W/ ASSE 1070 CERTIFIED MIXING VALVE	1/2"	1/2"	1 1/2"	1 1/2"	-	BRADLEY VERGE LVQD1 MIXING VALVE: LEONARD 270-LF SET AT 110°F
SOI-1	50 GPM SAND/OIL INTERCEPTOR	-	-	4"	2"	-	STRIEM OS-50
SS-1	SERVICE SINK, FAUCET, VACUUM BREAKER, HOSE HOLDER, MOP HANGER, WALL GUARD, 3/4" HOSE CONNECTION.	1/2"	1/2"	3"	2"	-	BASIN: E.L. MUSTEE & SONS 62M FAUCET: E.L. MUSTEE & SONS 63.600A
US-1	UTILITY SINK, FLOOR MOUNTED, W/ FAUCET W/ AERATOR AND HOSE END	1/2"	1/2"	1 1/2"	1 1/2"	-	E.L. MUSTEE & SONS 12C
WC-2	WATER CLOSET, FLOOR MOUNTED, TOP SPUD BOWL AND TOUCHLESS FLUSH VALVE, ELONGATED BOWL, OPEN SEAT	1"	-	3"	2"	BATTERY	AMERICAN STANDARD 3461.576
WF-1	WATER FOUNTAIN, OUTDOOR, UPPER BOTTLE FILLING STATION BI-LEVEL PEDESTAL WITH PET STATION, NON-FILTERED, NON-REFRIGERATED, VANDAL RESISTANT, FREEZE RESISTANT	1/2"	-	1 1/2"	1 1/2"	-	ELKAY LK4420BF1UDBFRK

*VERIFY ACCEPTANCE OF ALL PLUMBING FIXTURES WITH ARCHITECT AND OWNER PRIOR TO PURCHASE AND INSTALLATION. ALL FIXTURES TO BE COMMERCIAL GRADE OR BETTER.

NOTES:
1. REFER TO ARCHITECTURAL PLANS FOR FINAL LAVATORY AND SINK MOUNTING STYLES, SIZES, LOCATIONS, ADA REQUIREMENTS, AND NUMBER OF BOWLS.
2. REFER TO ARCHITECTURAL PLANS FOR FINAL WATER CLOSET MOUNTING STYLES, LOCATIONS, FLUSH STYLE (MANUAL OR SENSOR), FLUSHING LEVER LOCATION, AND ADA REQUIREMENTS.

FIXTURE FLOW RATE

FIXTURE	MAX FLOW RATE
SINKS	1.8 GPM
PUBLIC LAVATORIES	0.5 GPM
WATER CLOSETS	1.6 GAL/FLUSH

NOTES:
A. FIXTURES EXCLUDED: CLINICAL SINKS, UTILITY SINKS, AND SERVICE SINKS.
B. VERIFY MAXIMUM FIXTURE FLOW RATES WITH LOCAL JURISDICTION AMMENDMENTS/REQUIREMENTS.

ELECTRIC WATER HEATER (EWH)

MARK	MANUFACTURER	MODEL	CAPACITY (GAL)	RECOVERY (GAL/HR)	TEMP RISE (°F)	ELEMENT SIZE (KW)	# OF ELEMENTS	ELECTRICAL		UNIT DIMENSIONS (IN)		OPERATING WEIGHT (LBS)
								VOLT	PH	HEIGHT	DIAMETER	
WH-1	AO SMITH	DEN	50	14	90	3	1	120	1	59	22	600
WH-2	AO SMITH	DEN	50	14	90	3	1	120	1	59	22	600

NOTES:
1. A.O. SMITH, BRADFORD WHITE, AND RHEEM ARE APPROVED MANUFACTURERS. REFER TO MANUFACTURER AND MODEL FOR BASIS OF DESIGN.

EXPANSION TANK (ET)

MARK	MANUFACTURER	MODEL	SYSTEM SERVED	TANK VOL (GAL)	ACCEPTANCE VOL (GAL)	PRE CHARGE (PSI)	WATER TEMP (°F)	UNIT DIMENSIONS (IN)		OPERATING WEIGHT (LBS)
								DIAMETER	HEIGHT	
ET-1	WATTS	DETA-5	DHW	3.5	2.3	40	90	10	14	50
ET-2	WATTS	DETA-5	DHW	3.5	2.3	40	90	10	14	50

NOTES:
- AMTROL, WATTS, AND TACO ARE APPROVED MANUFACTURERS. REFER TO MANUFACTURER AND MODEL FOR BASIS OF DESIGN.
- TO BE SUITABLE FOR POTABLE WATER.

WATER AND WASTE SERVICE CALCULATIONS

JOB NAME: WARM SPRINGS PRESERVE — DATE: 10/11/24

FIXTURE TYPE	OCCUPANCY	NO.	WASTE		COLD WATER		HOT WATER		TOTAL WATER
			DFU	TOTAL	WSFU	TOTAL	WSFU	TOTAL	WSFU
DRINKING FOUNTAIN	PUBLIC/PRIVATE	1	0.5	0.5	0.5	0.5	0		0.5
LAVATORY	PUBLIC/PRIVATE	2	1	2	0.75	1.5	0.75	1.5	2
UTILITY SINK	PUBLIC/PRIVATE	1	2	2	1.5	1.5	1.5	1.5	2
SERVICE SINK OR MOP BASIN	PUBLIC/PRIVATE	1	3	3	1.5	1.5	1.5	1.5	1.5
WATER CLOSET, FLUSH VALVE	PUBLIC	2	4	8	5	10	0		10
HOSE BIBB 1ST	PUBLIC/PRIVATE	1	0		2.5	2.5	0		2.5
HOSE BIBB ADDITIONAL	PUBLIC/PRIVATE	1	0		1	1	0		1
FLOOR DRAIN	PUBLIC/PRIVATE	3	2	6	0		0		
¾ FLUSH VALVE 100%	TOTAL	12		21.500		18.500		4.500	19.500
EQUIVALENT WATER FLOW RATE (GPM):				DCW (GPM)	34.0	DHW (GPM)	4	OVERALL	RUNNING PRESSURE
PRESSURE AVAILABLE AT MAIN (PSI):								60	60
METER LOSS (PSI):								3	57
BACKFLOW PREVENTER LOSS (PSI):								10	47
MAIN TO BUILDING LOSSES (PSI):								3	44

	DCW	RUNNING PRESSURE	DHW	RUNNING PRESSURE
ELEVATION RISE (FT):	10	40	10	40
MINIMUM REQUIRED FIXTURE PRESSURE (PSI):	30	10	30	10
EQUIVALENT PIPE LENGTH TO MOST REMOTE FIXTURE (FT):	100	-	100	-
MAXIMUM ALLOWABLE FRICTION LOSS (PSI/100 FT):	9.7	-	9.7	-

MINIMUM REQUIRED WATER MAIN PIPE SIZE (INCHES):		MATERIAL	PEX	2"
MINIMUM REQUIRED WASTE MAIN PIPE SIZE (INCHES):	SLOPE	1/4"/FT	MATERIAL	PVC	3"

WATER PIPE SIZING CHART

PIPE SIZES CALCULATED BASED ON UPC

SIZE: PEX		DCW MAX FLOW		CWFU		DHW MAX FLOW		HWFU	DHWR MAX FLOW		
NOMINAL DIAMETER	INTERNAL DIAMETER	GPM	FPS	FLUSH TANK	FLUSH VALVE	GPM	FPS	HOT WATER	GPM	FPS	FLOW LOSS (PSI/100 FT)
1/2"	0.475	2.6	4.8	3	0	2.6	4.8	3	1.1	2	1.9
3/4"	0.671	6.6	6.0	6	0	6.6	6.0	6	2.2	2	1.3
1"	0.862	12.7	7.0	17	5	12.7	7.0	17	3.6	2	1.0
1-1/4"	1.054	21.5	7.9	32	7	21.5	7.9	32	5.4	2	0.8
1-1/2"	1.244	33.2	8.8	64	18	30.3	8.0	54	7.6	2	0.6
2"	1.629	65.0	10.0	199	89	52.0	8.0	135	13.0	2	0.5

PLAN NOTES

A. ROUTE PIPING FROM EACH FIXTURE TO NEAREST MAINLINE. REFER TO PLUMBING FIXTURE SCHEDULE FOR REQUIRED PIPE CONNECTIONS AND PIPE RUNOUT SIZES.
B. RPBP BASIS OF DESIGN: WATTS LF009, OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S REQUIREMENTS.

KEYNOTES

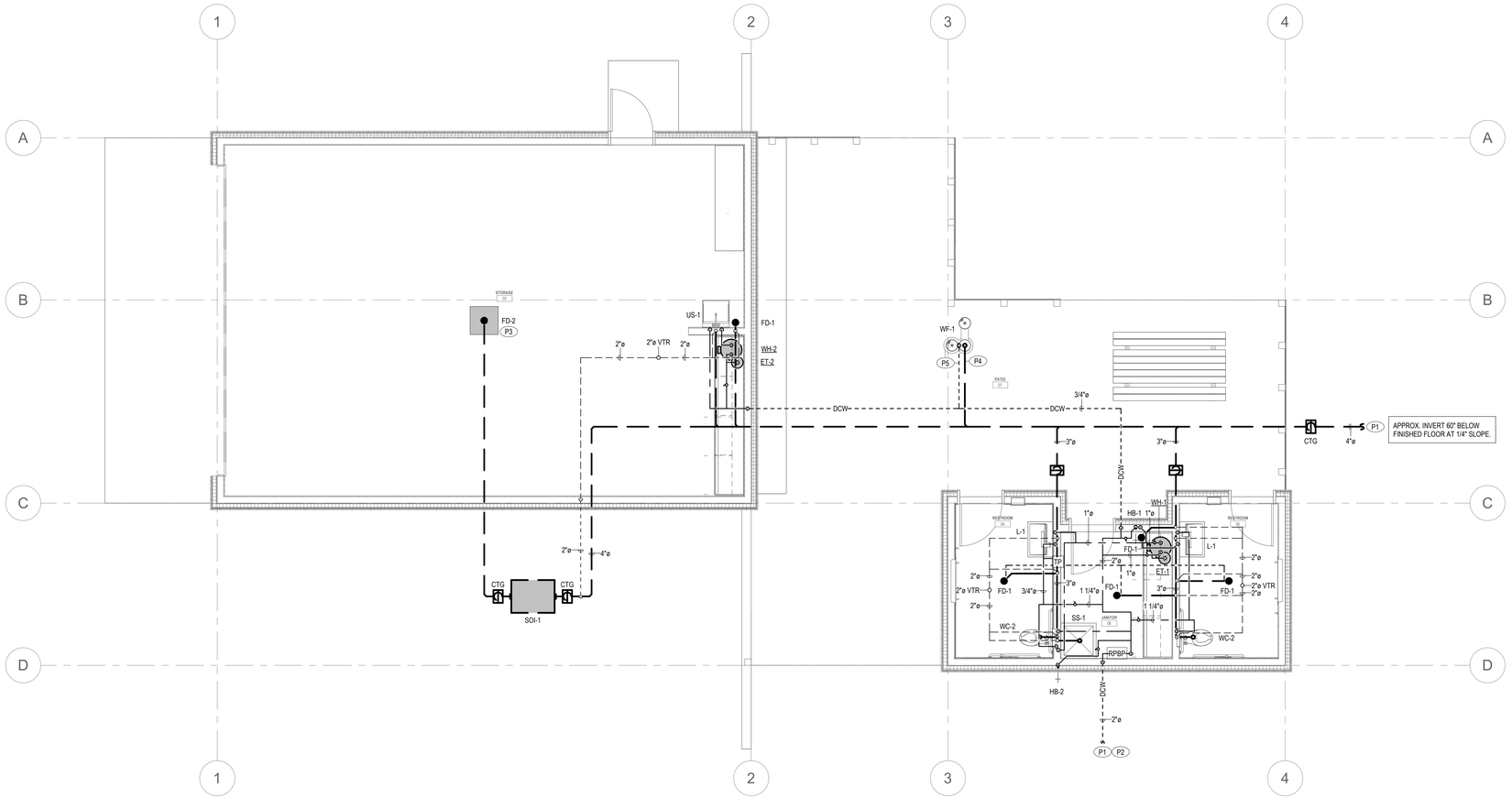
P1 REFER TO CIVIL FOR CONTINUATION OF PIPING.

P2 DOMESTIC WATER SYSTEM DESIGNED BASED ON 60 PSI STATIC WATER PRESSURE TO BUILDING. CONTRACTOR TO VERIFY STATIC WATER PRESSURE TO BUILDING AND IS TO COORDINATE WITH ENGINEER FOR ADDITIONAL REQUIREMENTS (PIPE SIZING, PRV, BOOSTER PUMP) IF WATER PRESSURE IS LESS THAN OR GREATER THAN 60 PSI.

P3 PROVIDE A SUMP WITH A FLOOR DRAIN AT THE BOTTOM. PROVIDE A GRATE OVER THE SUMP PIT. COORDINATE FINAL SIZE, LOCATION AND REQUIREMENTS WITH ARCHITECT, AND GENERAL CONTRACTOR.

P4 PROVIDE SANITARY FREEZE TRIPLE VALVE CONTROL ASSEMBLY. INSTALL PIPING PER MANUFACTURER'S INSTALLATION REQUIREMENTS.

P5 INSTALL WATER FREEZE RESISTANT VALVE BELOW FROST LINE PER MANUFACTURER'S INSTALLATION REQUIREMENTS.



1ST FLOOR PLUMBING PLAN
SCALE: 1/4" = 1'-0"

now IMEG
4943 NORTH 29TH EAST, SUITE A
IDAHO FALLS, ID 83401
208.552.9874 www.imegcorp.com

PROJECT #24.00551O.00

PROJECT NO. 2318.0
SET NO. DD-

WARM SPRINGS PRESERVE WELCOME BUILDING
201-311 BALD MOUNTIAN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

PURPOSE	DATE

REVISION RECORD

NO.	CHANGE	DATE

DRAWN: DT
CHECKED: HS
DATE: 10/11/2024

SHEET TITLE:
PLUMBING FLOOR PLAN

10/31/2024

SHEET P1.11 OF TOTAL

SYMBOLS

- CONDUIT CONTINUATION
- CONDUIT CONCEALED IN WALL OR CEILING
- E CONDUIT EXISTING
- CONDUIT CONCEALED UNDERGROUND
- HOMERUN
- CONDUIT STUB DOWN
- STUB THROUGH
- CONDUIT STUB UP
- JUNCTION BOX (NEW, EXISTING, DEMO)
- ELECTRICAL DISTRIBUTION PANELBOARD
- EQUIPMENT ENCLOSURE AS NOTED
- SIMPLEX RECEPTACLE
- DUPLEX RECEPTACLE (NEW, EXISTING, DEMO)
- DOUBLE DUPLEX RECEPTACLE
- OVER-COUNTER RECEPTACLE
- CONTROLLED RECEPTACLE
- GFCI RECEPTACLE
- GFCI OVER-COUNTER RECEPTACLE
- GFCI CONTROLLED RECEPTACLE
- WEATHERPROOF GFCI RECEPTACLE
- OVER-COUNTER WEATHERPROOF GFCI RECEPTACLE
- ISOLATED GROUND RECEPTACLE
- USB CHARGER/DUPLEX RECEPTACLE
- OVER-COUNTER USB CHARGER/DUPLEX RECEPTACLE
- CONTROLLED USB CHARGER/DUPLEX RECEPTACLE
- HORIZONTAL FACEPLATE
- FLOOR RECEPTCLES: FLUSH WITH COVER
- FLUSH FLOOR BOX DUPLEX RECEPTACLE, COMM/DATA, A/V
- CEILING RECEPTACLE: FLUSH WITH CEILING
- SPECIAL ELECTRICAL CONNECTION: COORDINATE REQUIREMENTS WITH EQUIPMENT BEING SERVED

- EMERGENCY EXIT SIGN WITH BATTERY BACKUP: SHADED QUARTER OF SYMBOL INDICATES LIGHTED 'EXIT' ON THAT FACE ARROWS INDICATE LIGHTED DIRECTIONAL ARROW ON THAT FACE. CONNECT TO UNSWITCHED LOCAL LIGHTING CIRCUIT
- EMERGENCY LIGHTING (SURFACE, RECESSED) CONNECT TO UNSWITCHED LOCAL LIGHTING CIRCUIT
- FIXTURES WITH HALF-SHADING ARE EMERGENCY LIGHTS WITH BATTERY BACKUP. BATTERY BACKUP SHALL PROVIDE MINIMUM 1100 LUMENS PER FIXTURE FOR 90 MINUTES. EMERGENCY BATTERY UNIT SHALL BE CONNECTED TO UNSWITCHED LOCAL LIGHTING CIRCUIT. FIXTURES SHALL BE SWITCHED WITH ROOM LIGHTS. FIXTURES TO REMAIN ON AT LOSS OF POWER. FIXTURES WITH 'NL' SHALL BE EMERGENCY/NIGHT LIGHTS CONNECTED FOR 24 HOUR OPERATION.
- 2X4 LIGHT FIXTURE
- 2X2 LIGHT FIXTURE
- STRIP LIGHT FIXTURE
- PENDANT FIXTURE
- RECESSED DOWNLIGHT FIXTURE
- WALL SCONCE
- WALL MOUNTED FIXTURE
- RECESSED STEP FIXTURE
- BOLLARD FIXTURE
- POST TOP LIGHT FIXTURE, POLE, AND BASE
- XX LIGHT FIXTURE CALLOUT
- SWITCH 120/277 VOLT, 20 AMP
- X SWITCH
  - X = 2 - DOUBLE POLE-DOUBLE THROW
  - 3 - THREE-WAY
  - 3 - FOUR-WAY
  - D - DIMMER
  - HP - HORSEPOWER RATED SWITCH WITH THERMAL OVERLOADS SIZED AS REQUIRED BY EQUIPMENT LABEL RATING
  - K - KEY OPERATED
  - OV - LOW VOLTAGE MOMENTARY OVERRIDE SWITCH
  - OS - OCCUPANCY SENSOR PASSIVE INFRARED WALL SWITCH, WITH A 30 MINUTE TIME DELAY, PROVIDE WITH STAINLESS STEEL FACEPLATE
  - P - NEON PILOT LIGHT
  - L - LIGHTED SWITCH
  - T - TIMER AS NOTED
  - W - WIRELESS SWITCH
  - WP - WEATHERPROOF
- OS CEILING OCCUPANCY SENSOR
- DS INTERIOR DAYLIGHT SENSOR
- PC EXTERIOR PHOTOCELL

- TELEPHONE TERMINAL BOARD (PLAN VIEW)
- SIGNAL OUTLETS SYSTEM NOTES: SYSTEMS ARE RACEWAY ONLY FOR THIS CONTRACTOR UON. 4" SQUARE BOX MINIMUM WITH SINGLE GANG MUD RING UON. 1" MINIMUM CONDUIT SIZE FROM BOX TO NEAREST ACCESSIBLE CEILING.
- (2) PORT RJ-45 DATA OUTLET WITH (2) HOMERUNS TO SERVER
- (M) MOTOR CONNECTION
- STARTER OR CONTACTOR: SIZE AS REQUIRED BY EQUIPMENT MANUFACTURER
- COMBINATION MOTOR STARTER/DISCONNECT: SIZE AS REQUIRED BY EQUIPMENT MANUFACTURER
- DISCONNECT SWITCH: SIZE AS REQUIRED BY EQUIPMENT MANUFACTURER F=FUSED, BLANK=UNFUSED
- 1 / 30 / 3 SWITCH/DISCONNECT CONFIGURATION DESIGNATION
  - NUMBER OF POLES
  - AMPERE RATING OF THE SWITCH
  - NEMA CLASSIFICATION
- T TS THERMOSTAT OR TEMPERATURE SENSOR: SEE MECHANICAL DRAWINGS FOR LOCATIONS FURNISH AND INSTALL BACKBOX AND 1"C TO ABOVE ACCESSIBLE CEILING. COORDINATE INSTALLATION WITH MECHANICAL
- SD DUCT TYPE SMOKE DETECTOR: SEE MECHANICAL DRAWINGS FOR LOCATIONS VERIFY REQUIREMENTS WITH MECHANICAL AND FIRE PROTECTION FURNISH AND INSTALL ALL ELECTRICAL REQUIRED FOR COMPLETE OPERATIONAL SYSTEM
- D SMOKE DAMPER: SEE MECHANICAL DRAWINGS FOR LOCATIONS VERIFY REQUIREMENTS WITH MECHANICAL AND FIRE PROTECTION FURNISH AND INSTALL ALL ELECTRICAL REQUIRED FOR COMPLETE OPERATIONAL SYSTEM
- SD SMOKE/CO DETECTOR: KIDDE i12010SCO (OR APPROVED EQUIVALENT)
- XX- XX MECHANICAL EQUIPMENT CALLOUT
- ## KEYED NOTES CALLOUT
- 1 REVISION DELTA

ELECTRICAL ABBREVIATIONS

#"C	SIZE OF TRADE SIZE CONDUIT. # = 1/2"C, 2"C.
#P	NUMBER OF POLES. # = 1P, 2P, ETC.
#W	NUMBER OF WIRES, # = 3W, 4W, ETC.
A	AMPERE
AC	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
ANN	ANNUNCIATOR
AUX	AUXILIARY
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CD	CANDELLA
CLG	CEILING
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
EMT	ELECTRICAL METALLIC TUBING
EP	EXPLOSION PROOF
EWH	ELECTRIC WATER HEATER
F	FUSE
FACP	FIRE ALARM CONTROL PANEL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
HOA	HAND-OFF-AUTO
HP	HORSE POWER
HVAC	HEATING VENTILATION AND AIR CONDITIONING
I/O	INPUT / OUTPUT
IG	ISOLATED GROUND
INC	INCANDESCENT
J-BOX	JUNCTION BOX
KCMIL	THOUSAND CIRCULAR MIL
KO	KNOCK OUT
KV	KILOVOLT
KVA	KILOVOLT AMPERE
KW	KILOWATT
KWH	KILOWATT HOUR
LV	LOW VOLTAGE
MCC	MOTOR CONTROL CENTER
MDSB	MAIN DISTRIBUTION SWITCHBOARD
MFR	MANUFACTURER
MLO	MAIN LUG ONLY
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NESC	NATIONAL ELECTRICAL SAFETY CODE
NO	NORMALLY OPEN
NO.	NUMBER
NRTL	NATIONALLY RECOGNIZED TESTING LABORATORY - AS DEFINED BY OSHA
O.H.	OPPOSITE HAND - MIRRORED OR ROTATED LAYOUT
OC	OVER COUNTER TOP BACKSPLASH - COORDINATE INSTALLATION
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
PF	POWER FACTOR
PH	PHASE
REV	REVISION
RTU	ROOF TOP UNIT
SPDT	SINGLE POLE, DOUBLE THROW
SPST	SINGLE POLE, SINGLE THROW
SST	SOFT START/STOP MOTOR STARTER
TTB	TELEPHONE TERMINAL BOARD
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSOR
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTABLE POWER SUPPLY
USB	UNIVERSAL SERIAL BUS
V	VOLTAGE
VA	VOLT-AMPERE
VFD	VARIABLE FREQUENCY MOTOR DRIVE
WP	WEATHERPROOF
XFMR	TRANSFORMER
XFR	TRANSFER SWITCH

DRAWING INDEX

GENERAL NOTES:

A. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE LOCALLY ADOPTED ELECTRICAL CODE. ALL LOCAL CODES, AND TO THE FULL ACCEPTANCE OF THE AUTHORITY HAVING JURISDICTION. WHENEVER THE REQUIREMENTS OF THE ELECTRICAL SPECIFICATIONS OR DRAWINGS EXCEED THOSE OF THE APPLICABLE CODES OR STANDARDS, THE REQUIREMENTS OF THE SPECIFICATIONS AND DRAWINGS SHALL GOVERN.

B. BIDDERS SHALL VIEW THE SITE AND SHALL INCLUDE ALL COSTS INCURRED BY EXISTING CONDITIONS IN THE BID PROPOSAL. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH ALL RELEVANT BID DOCUMENTS, BID FORMS AND SPECIFICATIONS. ANY INCREASED COST INCURRED DUE TO FAILURE TO BECOME FAMILIAR WITH THESE DOCUMENTS SHALL BE BORNE BY THE CONTRACTOR. WORK SHALL INCLUDE ALL LABOR, EQUIPMENT, APPLIANCES, MATERIALS, TRANSPORTATION, FACILITIES AND SERVICES NECESSARY FOR AND/OR REASONABLY INCIDENTAL TO THE COMPLETION OF ALL ELECTRICAL WORK IN STRICT COMPLIANCE WITH THE DRAWINGS AND OTHER CONTRACT DOCUMENTS. WORK SHALL INCLUDE, BUT NOT BE NECESSARILY LIMITED TO, THE WORK SPECIFIED AND INDICATED ON DRAWINGS.

C. OBTAIN ALL PERMITS, COORDINATE, FURNISH, INSTALL, CONNECT AND TEST ALL ELECTRICAL EQUIPMENT REQUIRED FOR ALL THE SYSTEMS INSTALLED UNDER THIS CONTRACT TO INSURE COMPLETE AND FULLY OPERATIONAL SYSTEMS.

D. CONTRACTOR SHALL MAINTAIN A COMPLETE SET OF AS-BUILT DRAWINGS. AS-BUILT SET OF DRAWINGS SHALL BE UPDATED DAILY AND SHALL DOCUMENT THE ACTUAL INSTALLED CONDITION OF THE ENTIRE ELECTRICAL INSTALLATION. AS-BUILT SET OF DRAWINGS SHALL BE AVAILABLE AT ALL TIMES ON THE SITE FOR INSPECTION BY CODE OFFICIALS, OWNER, ARCHITECT, AND ENGINEER.

E. PROPOSED MODIFICATIONS OF ENGINEERED ELECTRICAL DRAWINGS SHALL BE APPROVED BY ENGINEER OF RECORD PRIOR TO PROCEEDING WITH WORK. PROPOSED CHANGES SHALL COMPLY WITH ALL APPLICABLE CODES/JURISDICTION REQUIREMENTS. COST OF ANY ENGINEERING/REVIEW REQUIRED BY PROPOSED CHANGES SHALL BE BORNE BY ENTITY PROPOSING CHANGE.

F. DESIGN IS BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS TO DETERMINE STATUS OF ACTUAL CONDITIONS AS THEY RELATE TO THE SCOPE OF WORK AS SHOWN ON THESE PLANS.

G. COORDINATE ALL ELECTRICAL WORK WITH ALL OTHER TRADES.

H. COORDINATE EXACT LOCATION AND MOUNTING HEIGHTS OF ALL ELECTRICAL EQUIPMENT AND DEVICES WITH THE ARCHITECTURAL ELEVATIONS AND DETAILS PRIOR TO ROUGH-IN.

I. CONTRACTOR SHALL COORDINATE WITH WALL TYPES AND FURNISH AND INSTALL EXTENSION RINGS AS REQUIRED. (I.E. WALLS WITH TWO LAYERS OF GYP BOARD).

J. ALL MATERIALS AND EQUIPMENT FURNISHED TO THE PROJECT SHALL BE NEW AND SHALL BEAR THE LISTING LABEL OF A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL), WHERE APPLICABLE.

K. ALL ELECTRICAL BOXES, FITTINGS AND CABINETS SHALL BE OF STEEL CONSTRUCTION, GALVANIZED OR POWDER COATED, NEMA 1 TYPE, UON.

L. ALL DEVICES (SWITCHES/RECEPTACLES/TELECOMMUNICATIONS) SHALL BE WHITE AND COVERPLATES SHALL BE WHITE, UON.

M. ALL CIRCUIT BREAKERS SUPPLYING MOTOR LOADS SHALL BE HACR RATED.

N. ALL ELECTRICAL DEVICES AND TERMINALS SHALL BE RATED 75°C MINIMUM.

O. ALL CONDUCTORS SHALL BE STRANDED COPPER, 600 VOLT RATED. INSULATION TYPE SHALL BE THHN/THWN, FULLY COLOR CODED WITH GAUGE, TYPE AND MANUFACTURER MARKED EVERY 24" ALONG. CONDUCTOR COLOR CODE SHALL BE AS FOLLOWS:

208Y/120 VOLT SYSTEM	480Y/277 VOLT SYSTEM
PHASE A - BLACK	PHASE A - BROWN
PHASE B - RED	PHASE B - ORANGE
PHASE C - BLUE	PHASE C - YELLOW
NEUTRAL - WHITE	NEUTRAL - GRAY
GROUND - GREEN	GROUND - GREEN

P. MINIMUM SIZE WIRE FOR POWER AND LIGHTING CIRCUITS SHALL BE #12 AWG, UON. CONDUCTOR SIZE SHALL BE CONTINUOUS THROUGHOUT THE ENTIRE LENGTH OF THE CIRCUIT.

Q. ALL CIRCUITS SHALL HAVE AN INDEPENDENT NEUTRAL CONDUCTOR. NO EDISON STYLE SHARED NEUTRAL CONDUCTORS ARE ALLOWED.

R. ALL CONDUITS SHALL CONTAIN A GROUND CONDUCTOR SIZED PER NEC.

S. ALL POWER AND LIGHTING CONDUCTORS SHALL BE ROUTED IN 3/4" CONDUIT MINIMUM. NO MC TYPE CABLE IS ALLOWED WITH THE EXCEPTION OF CEILING WHIPS 6' OR LESS.

T. CONDUIT AND WIRE FOR FEEDER OR BRANCH CIRCUITS SHALL NOT BE RUN ON OR ABOVE THE ROOF. ELECTRICAL SERVICES FOR ROOF MOUNTED EQUIPMENT ARE TO BE RUN IN A STRAIGHT LINE FROM THE ROOF PENETRATION TO THE ELECTRICAL CONNECTION FOR THE UNIT SERVED.

U. ROUTE ALL CONDUIT HOME RUNS TO PANELS OVERHEAD AND ABOVE ACCESSIBLE CEILINGS WHERE AVAILABLE.

V. INSTALL CONDUIT A MINIMUM OF 4" BELOW BOTTOM OF CONCRETE SLAB WHERE RUNNING UNDER FLOOR. ALL ELBOWS SHALL BE RIGID METAL CONDUIT OR INTERMEDIATE METAL CONDUIT.

W. ALL EQUIPMENT, SWITCHING DEVICES AND PANELS SHALL BE MOUNTED SO AS TO BE ACCESSIBLE AND SHALL BE MOUNTED PLUMB AND SQUARE WITH WALLS.

X. BOXES MOUNTED IN A COMMON WALL SHALL BE OFFSET A MINIMUM OF 12" OR MOUNTED IN ADJACENT STUD SPACES. BOXES MOUNTED BACK-TO-BACK ARE NOT ALLOWED.

Y. ALL ELECTRICAL EQUIPMENT, RACEWAY, FIXTURE AND DEVICE SUPPORTS SHALL BE CAPABLE OF SUSTAINING NOT LESS THAN FOUR (4) TIMES THE ULTIMATE WEIGHT OF THE OBJECT OR OBJECTS. FASTEN SUPPORTS TO THE BUILDING STRUCTURE. CONDUIT IS NOT PERMITTED TO BE SUPPORTED FROM THE CEILING FIXTURE WIRES.

Z. FURNISH AND INSTALL SAFETY WIRES AT ALL LIGHT FIXTURES INSTALLED IN A SUSPENDED CEILING.

AA. MOUNTING METHODS INDICATED AND REFERRED TO ARE MINIMUM CODE REQUIREMENTS. COMPLY WITH LOCAL CODES FOR ADDITIONAL SEISMIC RESTRAINTS.

BB. DEVICES AND RACEWAYS PENETRATING FIRE RATED WALLS AND FLOORS SHALL BE SEALED WITH FIRE RESISTIVE MATERIAL, COMPATIBLE WITH CONSTRUCTION PENETRATED, TO MAINTAIN RATING OF THE WALL. SEALANT SYSTEM SHALL BE A NRTL APPROVED SYSTEM AND INSTALLED PER MANUFACTURER'S INSTRUCTIONS.

CC. FURNISH AND INSTALL A PULL CORD IN ALL EMPTY CONDUITS.

DD. MAKE ALL CONNECTIONS TO EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.

EE. ALL CONDUCTORS IN ELECTRICAL PANELS, CABINETS AND EQUIPMENT SHALL BE NEATLY TRAINED AND LACED.

FF. CLEARLY LABEL ALL ACCESSIBLE CONDUIT STUBS WITH SYSTEM NAME AND LOCATION (ROOM NUMBER) WHERE THE OTHER END OF THE CONDUIT TERMINATES. USE INDELIBLE INK. THE LABELS SHALL BE LOCATED ON THE CONDUIT IN A POSITION THAT CAN BE EASILY READ BY THE OWNER IN THE FUTURE.

GG. ALL JUNCTION BOX COVERS WITH POWER WIRING SHALL HAVE THE PANEL AND CIRCUIT LABELED ON THE OUTSIDE SURFACE. ALL LABELS FOR EXPOSED JUNCTION BOXES IN "FINISHED AREAS" SHALL BE LABELED UTILIZING CLEAR SELF ADHESIVE LABELS PRODUCED BY A MECHANICAL LABELING MACHINE. LABELS FOR JUNCTION BOX COVERS IN CONCEALED LOCATIONS SHALL CONSIST OF THE INFORMATION BEING NEATLY HANDWRITTEN ON THE OUTSIDE SURFACE OF THE COVER WITH A PERMANENT STYLE MARKER. JUNCTION BOX COVERS FOR FIRE ALARM AND EMERGENCY SYSTEMS SHALL BE PAINTED RED AND LABELED "FA" FOR FIRE ALARM AND "E" FOR EMERGENCY.

HH. THE CONTRACTOR SHALL PROVIDE TYPED CIRCUIT PANEL DIRECTORIES FOR ALL PANELS THAT CONTAIN CIRCUITS IMPACTED BY THIS PROJECT. OLD DIRECTORIES SHALL BE RETAINED BEHIND THE NEW.

AI. THE CONTRACTOR SHALL PROVIDE SUBMITTALS TO THE GENERAL CONTRACTOR FOR APPROVAL BY ARCHITECT AND ENGINEER PRIOR TO ORDERING EQUIPMENT. SUBMITTALS SHALL CONSIST OF CATALOG CUT DESIGNATING PART NUMBERS TO BE SUPPLIED FOR EACH TYPE OF THE FOLLOWING: ELECTRICAL GEAR, LIGHT FIXTURES, BALLASTS, DRIVERS, LAMPS, DEVICES AND COVERPLATES.

XL ENGINEERING
5257 Wild Dunes Ln., Idaho Falls, ID
208-709-3111 - www.xlengineering.net

PROJECT NO. 2310.0

SET NO. DD-

WARM SPRINGS PRESERVE WELCOME BUILDING
201-311 BALD MOUNTAIN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

PURPOSE	DATE

REVISION RECORD

NO.	CHANGE	DATE
0		

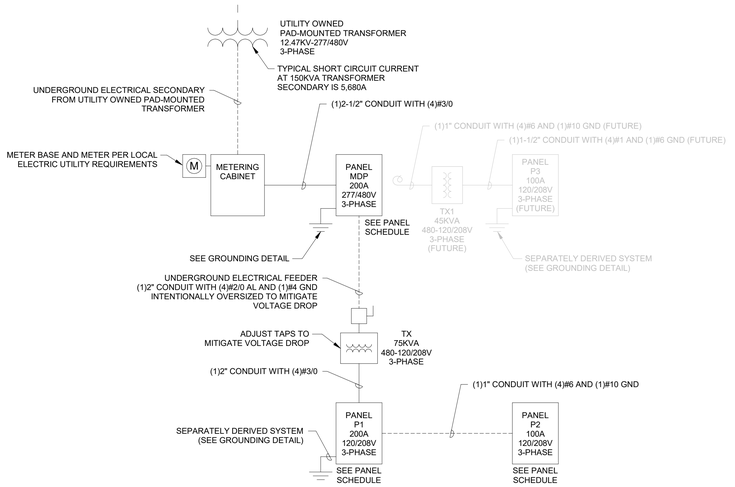
DRAWN: MTO

CHECKED: MTO

DATE: 11/5/24

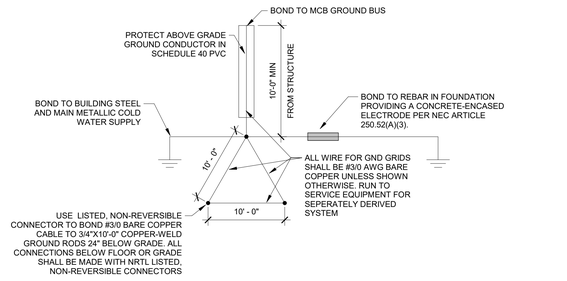
SHEET TITLE: ELECTRICAL SYMBOLS & ABBREV.

SHEET E00 OF TOTAL

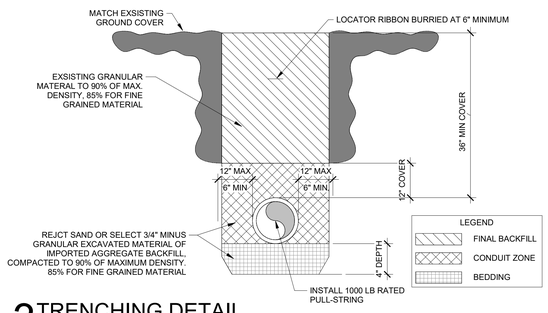


1 RISER DIAGRAM
NTS

NOTE: ALL CONDUCTORS ARE SIZED PER NEC TABLE 310.15(b)(16), COPPER, 75 DEG C TEMPERATURE RATING, THHW INSULATION 90 DEG C RATED CONDUCTORS MAY BE USED AS ALLOWED BY CODE



2 GROUNDING DETAIL
NTS



3 TRENCHING DETAIL
1/8" = 1'-0"

Branch Panel: P1

Location: STORAGE 03
Supply From: TX
Mounting: Recessed
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type: CIRCUIT BREAKER
Mains Rating: 200 A
MCB Rating: 200 A

Notes:

CKT	Circuit Description	BRKR Type	BRKR AMPS	Poles	A		B		C		Poles	BRKR AMPS	BRKR Type	Circuit Description	CKT
1	LIGHTING, GARAGE		20 A	1	3.3	4.2					1	20 A		REC RESTROOMS	2
3	REC OVERHEAD DOOR		20 A	1			1.5								4
5	REC EAVE HEAT TRACE		20 A	1					4.2	8.1	1	20 A		REC JANITOR	6
7	REC GARAGE & EF-4		20 A	1	7.4	7.5					1	20 A		REC GARAGE	8
9								24.0			2	35 A		ELECTRIC HEATER (EH-4)	10
11	WATER HEATER (WH-2_		35 A	1					25.0	24.0					12
13	WATER HEATER (WH-1)		35 A	1	25.0	48.0					2	60 A		EV CHARGER	14
15	ELECTRIC HEATER (EH-5)		35 A	2			24.0	48.0							16
17									24.0						18
19					36.8										20
21	P2		100 A	3			37.6								22
23									43.7						24
25															26
27															28
29															30
31															32
33															34
35															36
37															38
39															40
41															42
			Total Amps:		126 A		122 A		122 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	14 VA	100.00%	14 VA		
Receptacle	4060 VA	100.00%	4060 VA	**Total Conn. Load:**	44465 VA
Lighting	576 VA	125.00%	720 VA	**Total Est. Demand:**	44609 VA
Power	39815 VA	100.00%	39815 VA	**Total Conn.:**	123 A
				Total Est. Demand:	124 A

Branch Panel: P2

Location: JANITOR 06
Supply From: P1
Mounting: Recessed
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating:
Mains Type:
Mains Rating: 225 A
MCB Rating:

Notes:

CKT	Circuit Description	BRKR Type	BRKR AMPS	Poles	A		B		C		Poles	BRKR AMPS	BRKR Type	Circuit Description	CKT
1	LIGHTING, RESTROOMS		20 A	1	1.0	0.6					1	20 A		LIGHTING, PATHWAY BOLLARDS	2
3	REC EAVE HEAT TRACE		20 A	1			4.2	9.6							4
5										9.6	2	15 A		ELECTRIC HEATER (EH-3)	6
7	ELECTRIC HEATER (EH-1)		20 A	2	14.4										8
9							14.4	14.4							10
11	SEWAGE GRINDER PUMP (SP-1)		40 A	2					26.2	14.4	2	20 A		ELECTRIC HEATER (EH-2)	12
13					26.2										14
15															16
17															18
19															20
21															22
23															24
25															26
27															28
29															30
31															32
33															34
35															36
37															38
39															40
41															42
			Total Amps:		37 A		38 A		44 A						

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Receptacle	500 VA	100.00%	500 VA		
Lighting	191 VA	125.00%	239 VA	**Total Conn. Load:**	14142 VA
Power	13451 VA	100.00%	13451 VA	**Total Est. Demand:**	14190 VA
				Total Conn.:	39 A
				Total Est. Demand:	39 A

PROJECT NO. 2310.0

SET NO.
DD-

WARM SPRINGS PRESERVE WELCOME BUILDING
201-311 BALD MOUNTAIN ROAD
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CHECKED: MTO
DATE: 11/5/24

SHEET TITLE:
RISER AND DETAILS

PROFESSIONAL ENGINEER
REGISTERED
11092
11/07/2024
STATE OF IDAHO
MARK T. OWENS

XL ENGINEERING
5257 Wild Dunes Ln., Idaho Falls, ID
208-709-3111 - www.xlengineering.net

SHEET E01 OF TOTAL

Lighting Fixture Schedule

Type	Count	Lamp	Description	Mounting	Manufacturer	Model	Voltage	Wattage	Comments
A1	8	LED	EXTERIOR 6" SQUARE DOWNLIGHT	RECESSED - CEILING	LUCIFER	A2SS W 1 00 BB AD N 9010D 27 50 4PH	120 V	9 VA	OR APPROVED EQUIVALENT
A1E	2	LED	EXTERIOR 6" SQUARE DOWNLIGHT - EMERGENCY	RECESSED - CEILING	LUCIFER	A2SS W 1 00 BB AD N 9010D 27 50 4PH WITH REMOTE INVERTER (ASSURANCE Si-250)	120 V	9 VA	WITH 90 MINUTE BATTERY BACKUP OR APPROVED EQUIVALENT
A2	4	LED	INTERIOR 6" SQUARE DOWNLIGHT	RECESSED - CEILING	LUCIFER	A2SS T 1 00 BB FD N 8016D 27 50 4PH	120 V	18 VA	OR APPROVED EQUIVALENT
B	6	LED	BOLLARD PATHWAY LIGHTING	BOLLARD	LIGMAN	FREETOWN 1 UFRE 10001 12W W27 01 120	120 V	12 VA	OR APPROVED EQUIVALENT
C	6	LED	4' STRIP LIGHT	SURFACE - CEILING	LITHONIA	BLWP4 60L ADSM GZ1 LP840	120 V	49 VA	OR APPROVED EQUIVALENT
CE	1	LED	4' STRIP LIHGT - EMERGENCY	SURFACE - CEILING	LITHONIA	BLWP4 60L ADSM GZ1 LP840 E10WLCP	120 V	49 VA	WITH 90 MINUTE BATTERY BACKUP OR APPROVED EQUIVALENT
D	1	LED	3" SQUARE WALL CYLINDER	SURFACE - WALL	LUCIFER SQUILINDER	SW2 DF2 BBBB 90S11A 27 40 00 PH2 WITH REMOTE INVERTER (ASSURANCE Si-2500)	120 V	14 VA	WITH 90 MINUTE BATTERY BACKUP OR APPROVED EQUIVALENT
E	1	LED	EXIT/EGRESS COMBO	SURFACE - CEILING	LITHONIA	ECBG LED M6	120 V	2 VA	OR APPROVED EQUIVALENT

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.2.2 [EL22][1]	Spaces required to have light-reduction controls have a manual control that allows the occupant to reduce the connected lighting load in a reasonably uniform illumination pattern >= 50 percent.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1, C405.2.1.1 [EL18][1]	Occupancy sensors installed in classrooms/lecture/training rooms, conference/meeting/multipurpose rooms, copy/print rooms, lounges/breakrooms, enclosed offices, open plan office areas, restrooms, storage rooms, locker rooms, warehouse storage areas, and other spaces <= 300 sqft that are enclosed by floor-to-ceiling height partitions. Reference section language C405.2.1.2 for control function in warehouses and section C405.2.1.3 for open plan office spaces.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1.2 [EL19][1]	Occupancy sensors control function in warehouses: In warehouses, the lighting in aisleways and open areas is controlled with occupant sensors that automatically reduce lighting power by 50% or more when the areas are unoccupied. The occupant sensors control lighting in each aisleway independently and do not control lighting beyond the aisleway being controlled by the sensor.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.1.3 [EL20][1]	Occupant sensor control function in open plan office areas: Occupant sensor controls in open office spaces >= 300 sq.ft. have controls 1) configured so that general lighting can be controlled separately in control zones with floor areas <= 600 sq.ft. within the space, 2) automatically turn off general lighting in all control zones within 20 minutes after all occupants have left the space, 3) are configured so that general lighting power in each control zone is reduced by >= 80% of the full zone general lighting power within 20 minutes of all occupants leaving that control zone, and 4) are configured such that any daylight responsive control will activate space general lighting or control zone general lighting only when occupancy for the same area is detected.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.2, C405.2.2.1, C405.2.2.2 [EL21][2]	Each area not served by occupancy sensors (per C405.2.1) have time-switch controls and functions detailed in sections C405.2.2.1 and C405.2.2.2.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Section # & Req.ID	Rough-In Electrical Inspection	Complies?	Comments/Assumptions
C405.2.3, C405.2.3.1, C405.2.3.2 [EL23][2]	Daylight zones provided with individual controls that control the lights independent of general area lighting. See code section C405.2.3 Daylight-responsive controls for applicable spaces, C405.2.3.1 Daylight responsive control function and section C405.2.3.2 Sidelit zone.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.4 [EL26][1]	Separate lighting control devices for specific uses installed per approved lighting plans.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.4 [EL27][1]	Additional interior lighting power allowed for special functions per the approved lighting plans and is automatically controlled and separated from general lighting.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.5 [EL28][null]	Manual controls required by the energy code are in a location with ready access to occupants and located where the controlled lights are visible, or identify the area served and their status.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.2.6 [EL30][null]	Automatic lighting controls for exterior lighting installed. Controls will be daylight controlled, set based on business operation time-of-day, or reduce connected lighting > 30%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.3 [EL6][1]	Exit signs do not exceed 5 watts per face.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.6 [EL26][1]	Low-voltage dry-type distribution electric transformers meet the minimum efficiency requirements of Table C405.6.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.7 [EL27][2]	Electric motors meet the minimum efficiency requirements of Tables C405.7(1) through C405.7(4). Efficiency verified through certification under an approved certification program or the equipment efficiency ratings shall be provided by motor manufacturer (where certification programs do not exist).	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.8.2, C405.8.2.1 [EL28][2]	Escalators and moving walks comply with ASME A17.1/CSA B44 and have automatic controls configured to reduce speed to the minimum permitted speed in accordance with ASME A17.1/CSA B44 or applicable local code when not conveying passengers.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.9 [EL29][2]	Total voltage drop across the combination of feeders and branch circuits <= 5%.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

Section # & Req.ID	Final Inspection	Complies?	Comments/Assumptions
C303.3, C408.2.5.2 [FI17][1]	Furnished O&M instructions for systems and equipment to the building owner or designated representative.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C405.4.1 [FI18][1]	Interior installed lamp and fixture lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Interior Lighting fixture schedule for values.*
C405.5.1 [FI19][1]	Exterior lighting power is consistent with what is shown on the approved lighting plans, demonstrating proposed watts are less than or equal to allowed watts.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	*See the Exterior Lighting fixture schedule for values.*
C408.1.1 [FI57][1]	Building operations and maintenance documents will be provided to the owner. Documents will cover manufacturers' information, specifications, programming procedures and means of illustrating to owner how building, equipment and systems are intended to be installed, maintained, and operated.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.2.5.1 [FI16][1]	Furnished as-built drawings for electric power systems within 90 days of system acceptance.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	
C408.3 [FI33][2]	Lighting systems have been tested to ensure proper calibration, adjustment, programming, and operation.	☐Complies ☐Does Not ☐Not Observable ☐Not Applicable	

[redacted]

PROJECT NO. 2310.0

SET NO.
DD-

WARM SPRINGS PRESERVE WELCOME BUILDING
201-311 BALD MOUNTAIN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

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NO.	CHANGE	DATE
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DRAWN: MTO

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DATE: 11/5/24

SHEET TITLE:
LIGHTING SCHEDULE & COMCHECK

PROFESSIONAL ENGINEER REGISTERED 11092 11/07/2024 STATE OF IDAHO MARK T. OWENS

XL ENGINEERING
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SHEET E02 OF TOTAL

[redacted]

GENERAL NOTES

A ALL CONDUITS WITH CIRCUIT CONDUCTORS SHALL HAVE A COPPER EQUIPMENT GROUNDING CONDUCTOR SIZED IN ACCORDANCE WITH NEC 250.

B CONTRACTOR TO VERIFY EQUIPMENT ELECTRICAL REQUIREMENTS PRIOR TO INSTALLATION OF RELATED CIRCUIT. CIRCUIT(S) ARE TO BE SIZED AS REQUIRED BY LABEL RATING.

C ELECTRICAL DEVICES NOTED WITH AN 'OC' SUBSCRIPT ARE TO BE MOUNTED ABOVE THE COUNTER BACK SPLASH. THE BOTTOM OF THE DEVICE COVERPLATE SHALL CLEAR THE TOP OF THE BACK SPLASH. COORDINATE THE MOUNTING HEIGHT WITH THE MILLWORK BEING INSTALLED.

D COORDINATE HOMERUN CIRCUIT NUMBERS WITH PANEL SCHEDULES.

E THIS PLAN DOES NOT REFLECT COMMUNICATION EQUIPMENT. COORDINATE WITH ARCHITECT FOR THE QUANTITY AND LOCATION OF RJ-45 PORTS. THE SERVER SHALL BE LOCATED NEAR THE ELECTRICAL SERVICE ENTRANCE. ALL RJ-45 PORTS SHALL BE CONNECTED TO THE SERVER VIA DEDICATED CAT. 6A ETHERNET CABLE. CONFIRM WITH THE ARCHITECT THAT TELEPHONE AND TV WILL BE INTERNET BASED AND THAT NO COAXIAL OR COPPER TELEPHONE WIRE IS NECESSARY.

F ELECTRICAL CONTRACTOR IS RESPONSIBLE TO FURNISH AND INSTALL TAMPER-RESISTANT (TR) RECEPTACLES IN ALL 15A AND 20A LOCATIONS PER NEC 406.12(1).

G ELECTRICAL CONTRACTOR IS RESPONSIBLE TO FURNISH AND INSTALL ARC-FAULT CIRCUIT-INTERRUPTER (AFCI) PROTECTION PER IN ALL 15A AND 20A LOCATIONS PER NEC 210.12(A).

H ELECTRICAL CONTRACTOR IS RESPONSIBLE TO FURNISH AND INSTALL GROUND-FAULT CIRCUIT-INTERRUPTER (GFCI OR GFI) PROTECTION PER NEC 210.08(A). ALL SINGLE-PHASE RECEPTACLES RATED 125-VOLT, 50 AMPS OR LESS AND THREE-PHASE RECEPACLES RATED 125-VOLT, 100 AMPS OR LESS SHALL BE GFCI PROTECTED. RECEPTACLES THAT ARE INACCESSIBLE ABOVE OR BEHIND APPLIANCES SHALL BE PROTECTED WITH GFCI PROTECTED CIRCUIT BREAKERS AT THE SOURCE PANEL.

I PROVIDE COMBINATION EXIT/EGRESS LIGHTING AS SHOWN. LIGHT BARS SHALL BE AIMED TO ILLUMINATE THE EGRESS PATH WITH ARROW/CHEVRON INDICATING THE DIRECTION TO THE EXIT.

J DAYLIGHT ZONE(S) ARE NOT REQUIRED TO HAVE DAYLIGHT-RESPONSIVE CONTROLS DUE TO AREA CONTAINING LESS THAN 150 TOTAL WATTS OF GENERAL LIGHTING PER IECC C405.2.3

K INTERIOR LIGHTING IS CONTROLLED BY OCCUPANCY SENSOR OR DAYLIGHT SENSOR CONTROLS (SOME CEILING MOUNTED WIDE-AREA CONTROLS AND OTHERS WALL MOUNTED CONTROLS). A LOWER CASE LETTER "x" INDICATES THE ZONE OF CONTROL WHEN MORE THAN ONE CONTROLLER IS PRESENT IN A COMMON SPACE.

L OCCUPANT SENSOR CONTROL FUNCTION:

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L b BE MANUAL ON OR CONTROLLED TO AUTOMATICALLY TURN THE LIGHTING ON TO NOT MORE THAN 50 PERCENT POWER.

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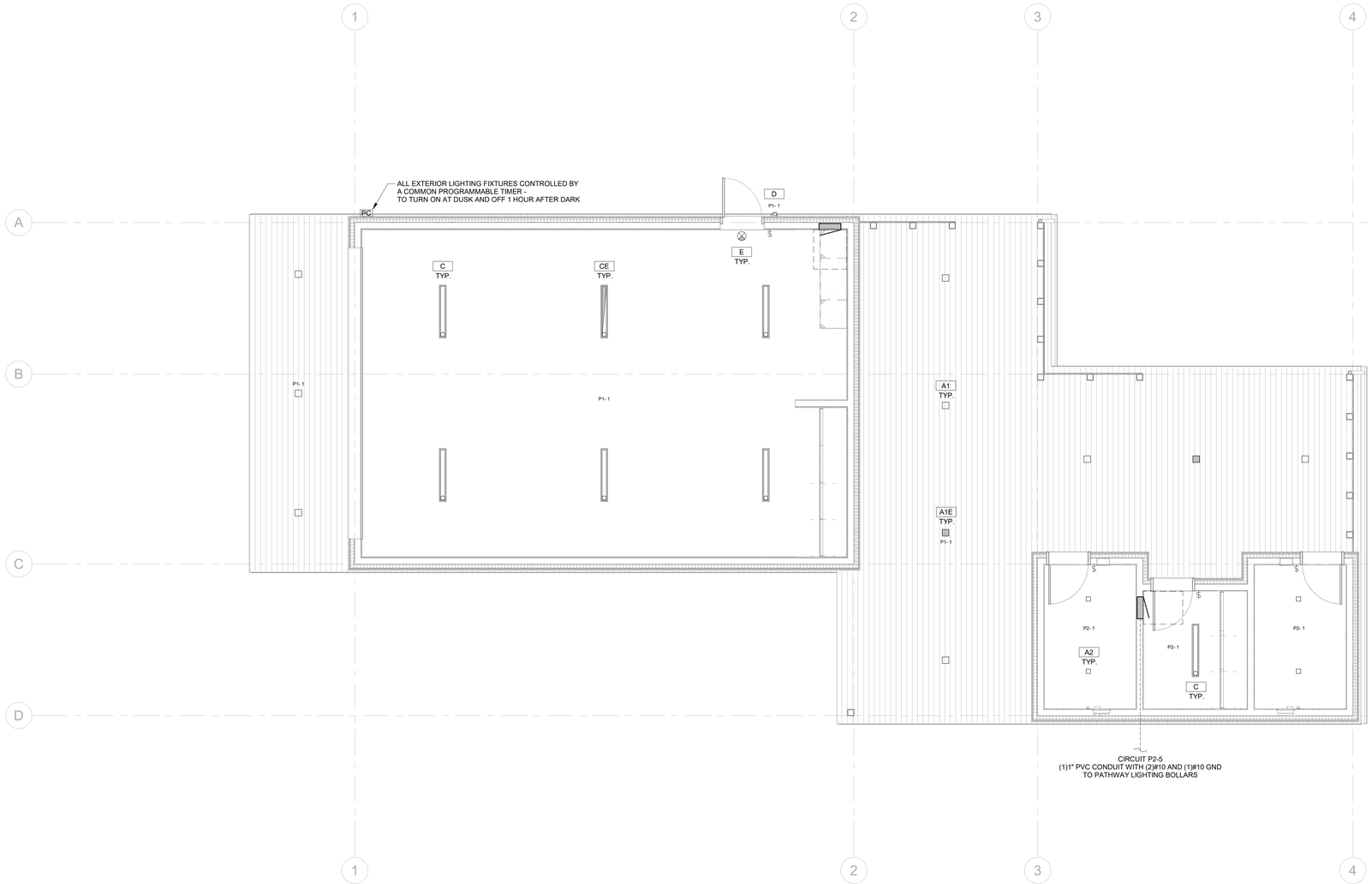
(#) KEYED NOTES



1 LIGHTING PLAN - LEVEL 1
1/4" = 1'-0"

[redacted]

PROJECT NO. 2310.0

SET NO.
DD-

WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTAIN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

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LIGHTING PLAN LEVEL 1

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SHEET E11 OF TOTAL

[redacted]

GENERAL NOTES

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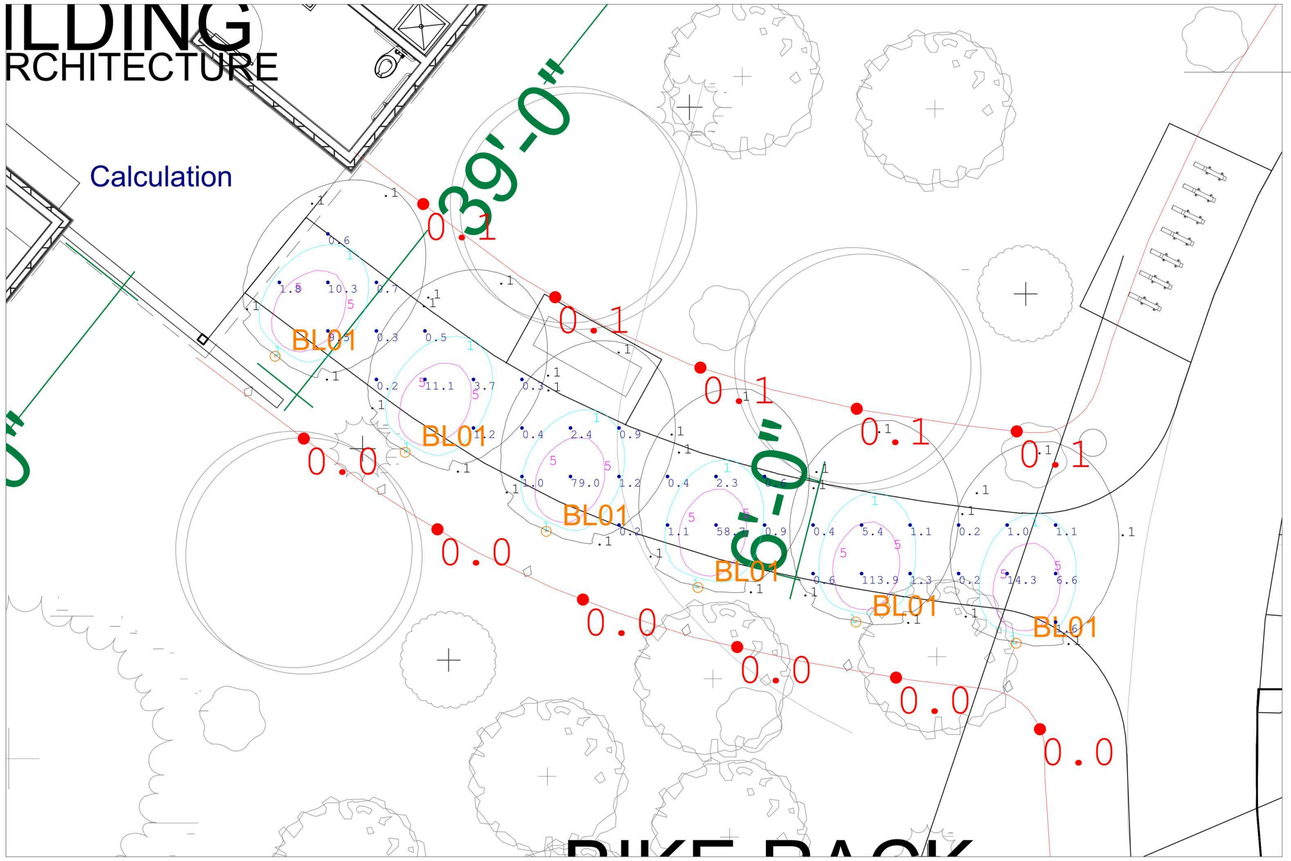
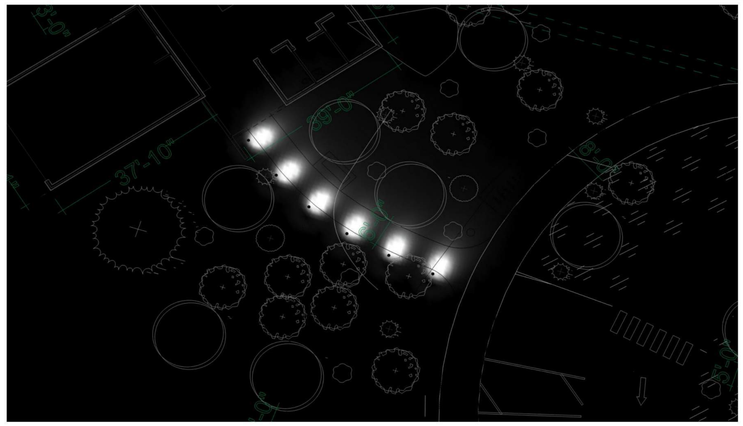
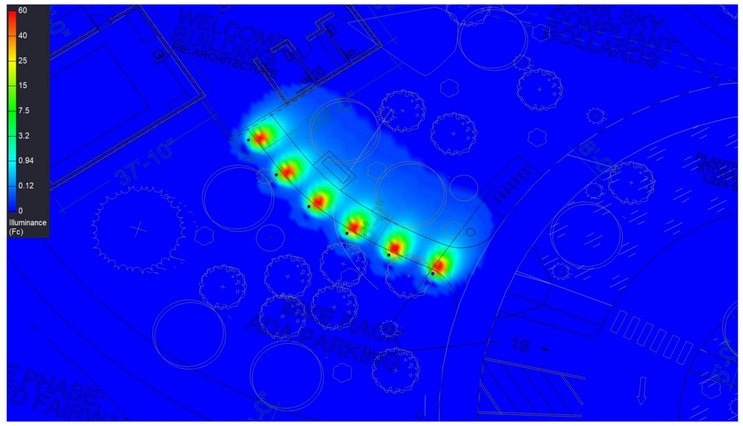
ILDING
RCHITECTURE







Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description
Calculation	Illuminance	Fc	8.87	113.9	0.2	44.35	569.50	Grid points 3 x 3'
Trespass line 01	Illuminance	Fc	0.10	0.1	0.1	1.00	1.00	Points space 10'
Trespass line 02	Illuminance	Fc	0.00	0.0	0.0	N.A.	N.A.	Points space 10'

Luminaire Schedule									
Symbol	Qty	Label	Description	LLF	Arrangement	Luminaire Watts	Luminaire Lumens	Arrangement Watts	Arrangement Luminaire Lumens
⊕	6	BL01	UFRE-10001-W27	0.900	Single	11	648	11	648

Calculation Summary								
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min	Description
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PROJECT NO. 2310.0

SET NO. DD-

WARM SPRINGS PRESERVE WELCOME
BUILDING
201-311 BALD MOUNTAIN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

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CHECKED: MTO

DATE: 11/5/24

SHEET TITLE:
LIGHTING PLAN - SITE

PROFESSIONAL ENGINEER REGISTERED 11092 11/07/2024 STATE OF IDAHO MARK T. OWENS

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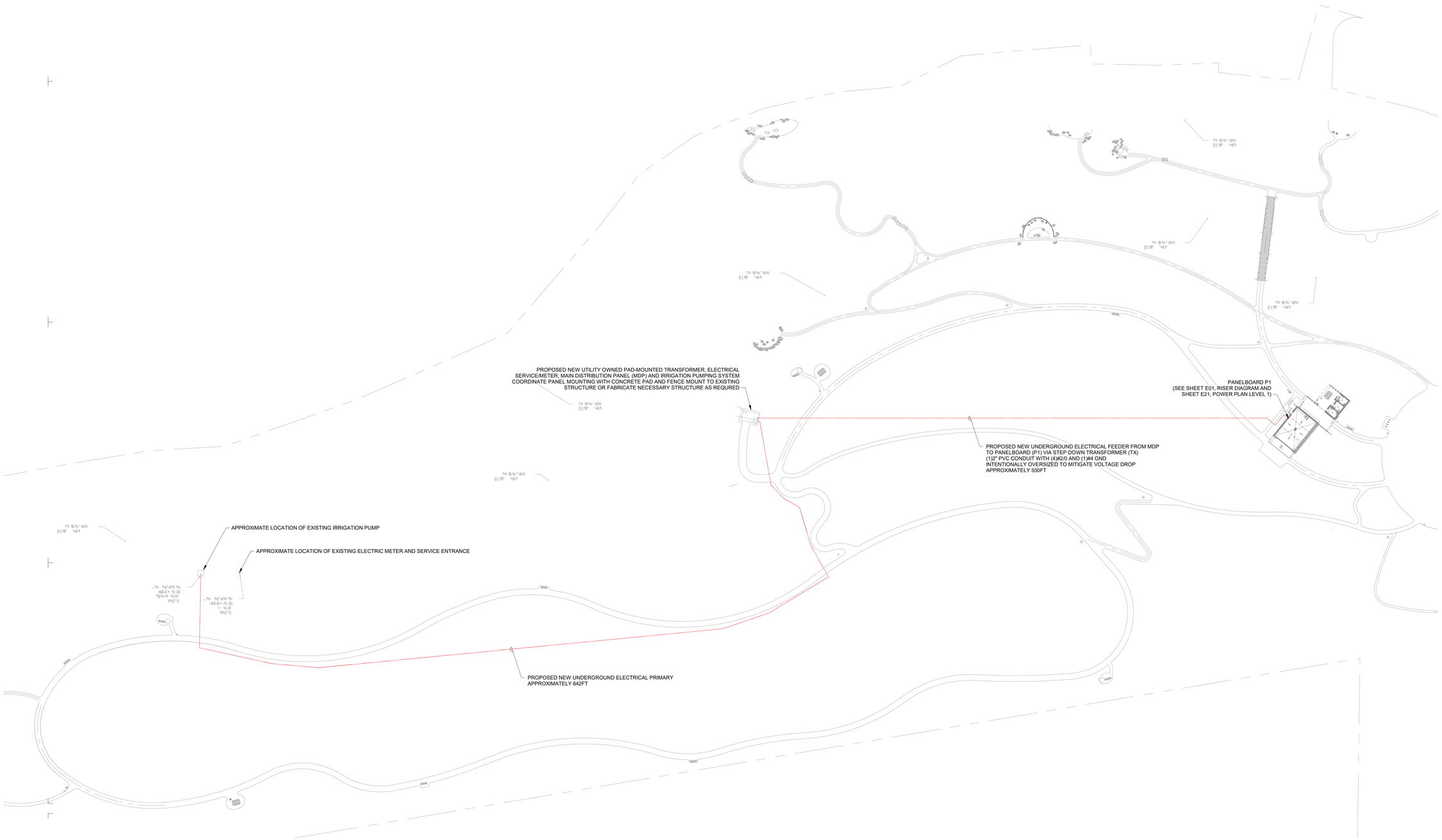
SHEET E12 OF TOTAL



1 ELECTRICAL PLAN SITE
NTS

PROJECT NO. 2310.0

SET NO.
DD-

WARM SPRINGS PRESERVE WELCOME BUILDING

201-311 BALD MOUNTAIN ROAD
KETCHUM, IDAHO
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ELECTRICAL PLAN - SITE

PROFESSIONAL ENGINEER
REGISTERED
11092
11/07/2024
STATE OF IDAHO
MARK T. OWENS

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SHEET E20 OF TOTAL

GENERAL NOTES

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C	ELECTRICAL DEVICES NOTED WITH AN 'OC' SUBSCRIPT ARE TO BE MOUNTED ABOVE THE COUNTER BACK SPLASH. THE BOTTOM OF THE DEVICE COVERPLATE SHALL CLEAR THE TOP OF THE BACK SPLASH. COORDINATE THE MOUNTING HEIGHT WITH THE MILLWORK BEING INSTALLED.
D	COORDINATE HOMERUN CIRCUIT NUMBERS WITH PANEL SCHEDULES.
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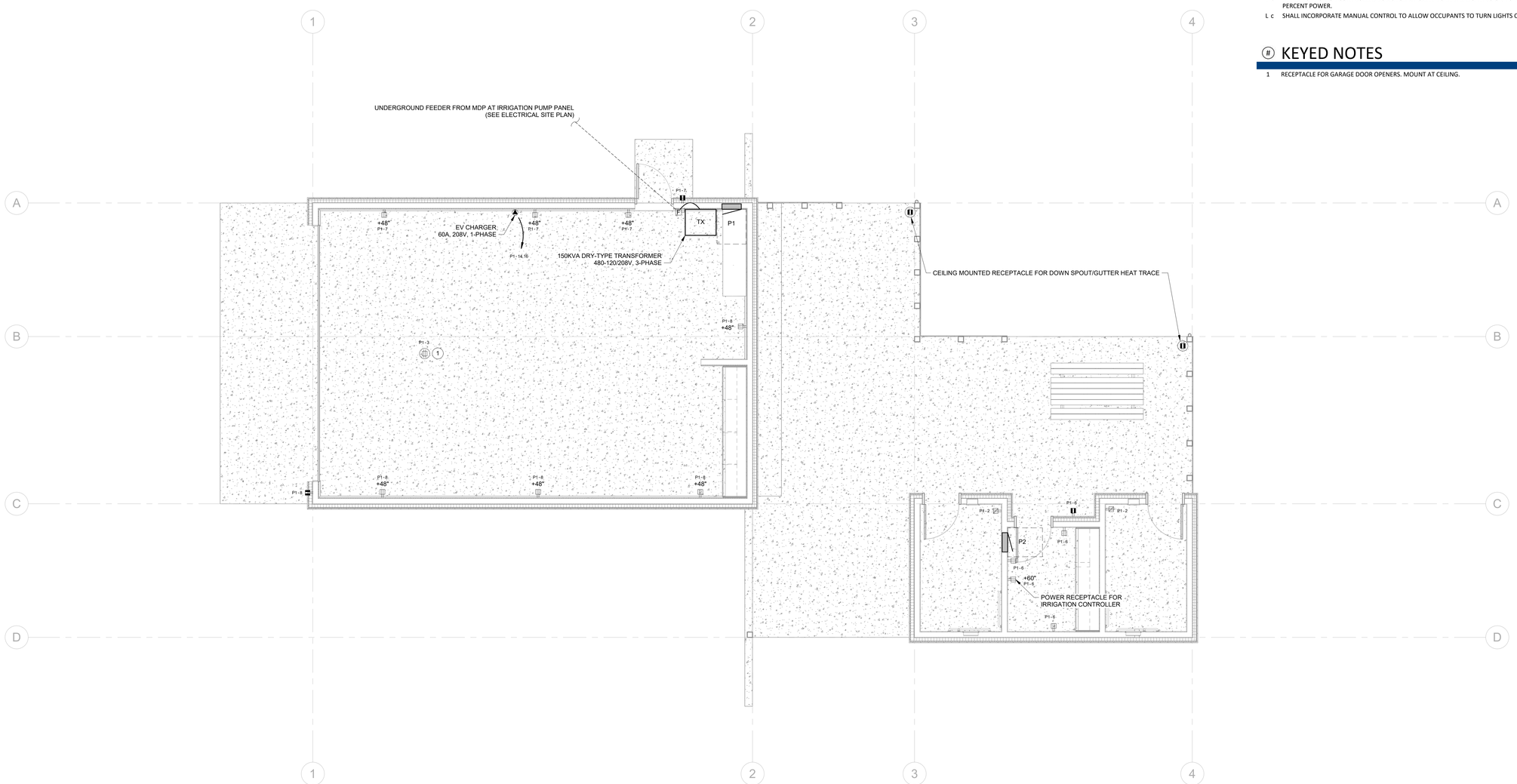
L c	SHALL INCORPORATE MANUAL CONTROL TO ALLOW OCCUPANTS TO TURN LIGHTS OFF.

(#) KEYED NOTES

1	RECEPTACLE FOR GARAGE DOOR OPENERS. MOUNT AT CEILING.



1 POWER PLAN - LEVEL 1

1/4" = 1'-0"

PROJECT NO. 2310.0

SET NO. DD-

WARM SPRINGS PRESERVE WELCOME BUILDING
201-311 BALD MOUNTAIN ROAD
KETCHUM, IDAHO
83340

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SHEET TITLE: POWER PLAN LEVEL 1

PROFESSIONAL ENGINEER REGISTERED 11092 11/07/2024 STATE OF IDAHO MARK T. OWENS

XL ENGINEERING
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SHEET E21 OF TOTAL

GENERAL NOTES

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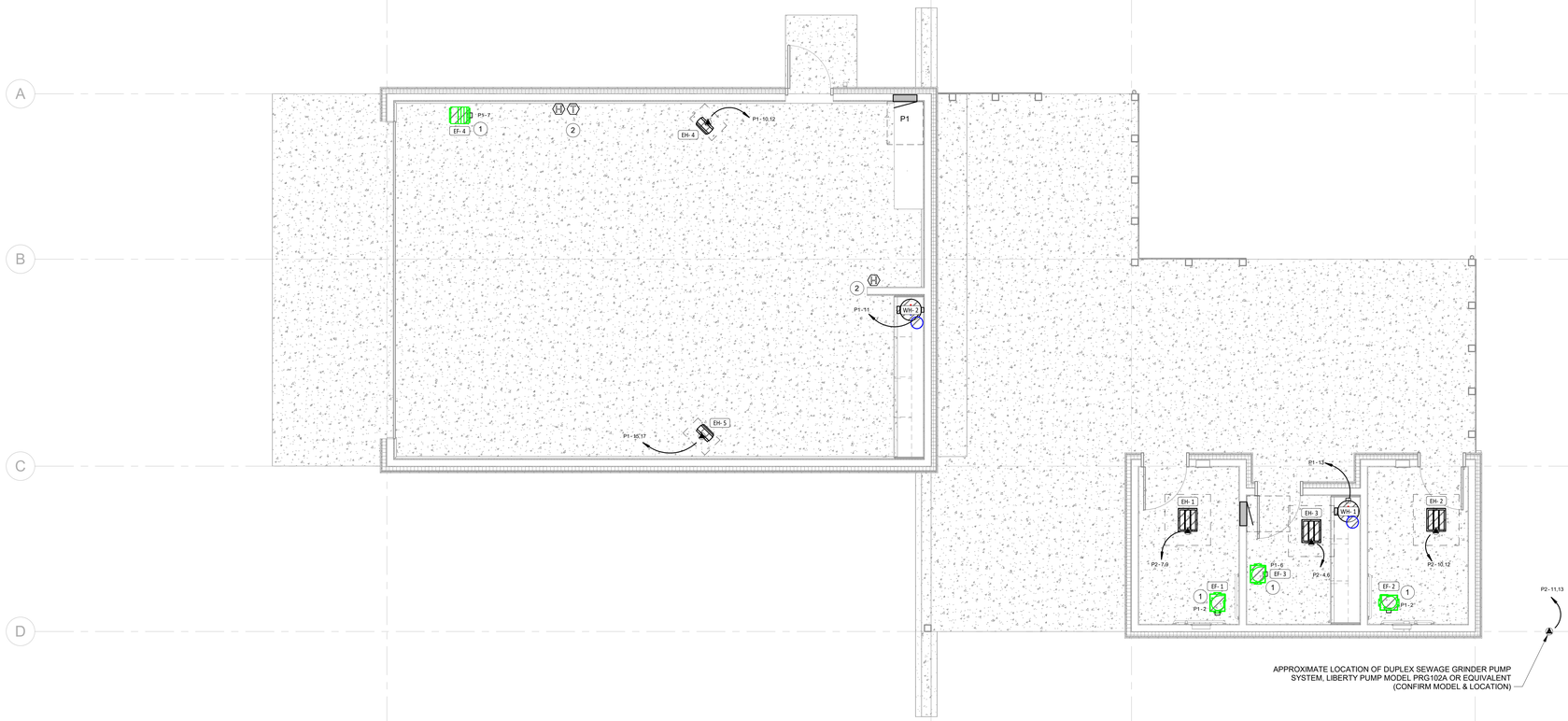
C	ELECTRICAL DEVICES NOTED WITH AN 'OC' SUBSCRIPT ARE TO BE MOUNTED ABOVE THE COUNTER BACK SPLASH. THE BOTTOM OF THE DEVICE COVERPLATE SHALL CLEAR THE TOP OF THE BACK SPLASH. COORDINATE THE MOUNTING HEIGHT WITH THE MILLWORK BEING INSTALLED.
D	COORDINATE HOMERUN CIRCUIT NUMBERS WITH PANEL SCHEDULES.
E	THIS PLAN DOES NOT REFLECT COMMUNICATION EQUIPMENT. COORDINATE WITH ARCHITECT FOR THE QUANTITY AND LOCATION OF RJ-45 PORTS. THE SERVER SHALL BE LOCATED NEAR THE ELECTRICAL SERVICE ENTRANCE. ALL RJ-45 PORTS SHALL BE CONNECTED TO THE SERVER VIA DEDICATED CAT. 6A ETHERNET CABLE. CONFIRM WITH THE ARCHITECT THAT TELEPHONE AND TV WILL BE INTERNET BASED AND THAT NO COAXIAL OR COPPER TELEPHONE WIRE IS NECESSARY.
F	ELECTRICAL CONTRACTOR IS RESPONSIBLE TO FURNISH AND INSTALL TAMPER-RESISTANT (TR) RECEPTACLES IN ALL 15A AND 20A LOCATIONS PER NEC 406.12(1).
G	ELECTRICAL CONTRACTOR IS RESPONSIBLE TO FURNISH AND INSTALL ARC-FAULT CIRCUIT-INTERRUPTER (AFCI) PROTECTION PER IN ALL 15A AND 20A LOCATIONS PER NEC 210.12(A).
H	ELECTRICAL CONTRACTOR IS RESPONSIBLE TO FURNISH AND INSTALL GROUND-FAULT CIRCUIT-INTERRUPTER (GFCI OR GFI) PROTECTION PER NEC 210.08(A). ALL SINGLE-PHASE RECEPTACLES RATED 125-VOLT, 50 AMPS OR LESS AND THREE-PHASE RECEPACLES RATED 125-VOLT, 100 AMPS OR LESS SHALL BE GFCI PROTECTED. RECEPTACLES THAT ARE INACCESSIBLE ABOVE OR BEHIND APPLIANCES SHALL BE PROTECTED WITH GFCI PROTECTED CIRCUIT BREAKERS AT THE SOURCE PANEL.
I	PROVIDE COMBINATION EXIT/EGRESS LIGHTING AS SHOWN. LIGHT BARS SHALL BE AIMED TO ILLUMINATE THE EGRESS PATH WITH ARROW/CHEVRON INDICATING THE DIRECTION TO THE EXIT.
J	DAYLIGHT ZONE(S) ARE NOT REQUIRED TO HAVE DAYLIGHT-RESPONSIVE CONTROLS DUE TO AREA CONTAINING LESS THAN 150 TOTAL WATTS OF GENERAL LIGHTING PER IECC C405.2.3
K	INTERIOR LIGHTING IS CONTROLLED BY OCCUPANCY SENSOR OR DAYLIGHT SENSOR CONTROLS (SOME CEILING MOUNTED WIDE-AREA CONTROLS AND OTHERS WALL MOUNTED CONTROLS). A LOWER CASE LETTER "x" INDICATES THE ZONE OF CONTROL WHEN MORE THAN ONE CONTROLLER IS PRESENT IN A COMMON SPACE.
L	OCCUPANT SENSOR CONTROL FUNCTION:
L a	AUTOMATICALLY TURN OFF LIGHTS WITHIN 30 MINUTES OF ALL OCCUPANTS LEAVING THE SPACE.
L b	BE MANUAL ON OR CONTROLLED TO AUTOMATICALLY TURN THE LIGHTING ON TO NOT MORE THAN 50 PERCENT POWER.
L c	SHALL INCORPORATE MANUAL CONTROL TO ALLOW OCCUPANTS TO TURN LIGHTS OFF.

(#) KEYED NOTES

1	CIRCUIT ALL EXHAUST FANS (EF) TO ADJACENT RECEPTACLE CIRCUIT. PROVIDE INDEPENDENT SWITCHING COORDINATED WITH THE LOCATION OF LIGHITNG SWITCHES.
2	ELECTRICAL CONTRACTOR SHALL INSTALL 3/4" CONDUIT FROM THERMOSTAT TO CRAWL/ATTCI SPACE. COTROL WIRING SHALL BE INSTALLED AND TERMINATED BY THE MECHANCIAL CONTRACTOR. COORDINATE WITH MECHANICAL CONTRACTOR FOR CONDUCTOR INSTALLATION AND TERMINATIONS.



1 MECHANICAL POWER PLAN - LEVEL 1
1/4" = 1'-0"

PROJECT NO. 2310.0

SET NO.
DD-

WARM SPRINGS PRESERVE WELCOME BUILDING
201-311 BALD MOUNTAIN ROAD
KETCHUM, IDAHO
83340

PRINT RECORD

PURPOSE	DATE

REVISION RECORD

NO.	CHANGE	DATE
0		

DRAWN: MTO
CHECKED: MTO
DATE: 11/5/24

SHEET TITLE:
MECHANICAL POWER PLAN
LEVEL 1

PROFESSIONAL ENGINEER REGISTERED 11092 11/07/2024 STATE OF IDAHO MATTHEW T. OWENS

XL ENGINEERING
5257 Wild Dunes Ln., Idaho Falls, ID
208-709-3111 - www.xlengineering.net

SHEET E31 OF TOTAL