

ALTER ENTERPRISES

PROJECT TEAM

OWNER

ALTER-SILVERSTREAM
CONTACT: RYAN ALTER/DESIREH KISSINGER
1121 E BROADWAY ST #173
MISSOULA, MT 59802
406.214.3977

ARCHITECTURAL

IN2ITIVE ARCHITECTURE
CONTACT: MARIE WILSON
127 E MAIN ST, SUITE 302
MISSOULA, MT 59802
406.926.2326

CIVIL ENGINEER

WOITH ENGINEERING, INC
CONTACT: KODY SWARTZ
3860 OLEARY ST, SUITE A
MISSOULA, MT 59808
406.203.9565

STRUCTURAL

ECLIPSE ENGINEERING, INC
CONTACT: JESSE FORTUNE
113 W MAIN ST, SUITE B
MISSOULA, MT 59802
406.721.5733

CONTRACTOR

SWANK ENTERPRISES
CONTACT: SHANE AUSTIN
701 W MAIN ST, SUITE B
MISSOULA, MT 59801
406.926.2320

MECHANICAL

TBD
CONTACT:
XXX
MISSOULA, MT 5980X
406.###.####

ELECTRICAL

TBD
CONTACT:
XXX
MISSOULA, MT 5980X
406.###.####



VICINITY MAP



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APPLICABLE CODES

CONTRACTOR MUST COMPLY WITH RULES AND REGULATIONS OF AUTHORITIES HAVING JURISDICTION AND SHALL CONFORM TO ALL CITY, COUNTY, STATE AND FEDERAL CONSTRUCTION SAFETY AND SANITARY LAWS, CODES, STATUTES AND ORDINANCES. ALL FEES, TAXES, PERMITS, APPLICATIONS AND CERTIFICATES OF INSPECTION AND THE FILING OF ALL WORK WITH GOVERNMENTAL AGENCIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THIS PROJECT SHALL COMPLY WITH THESE CODES, OR LATER EDITIONS AS REQUIRED BY THE CITY OF MISSOULA:

2018	INTERNATIONAL BUILDING CODE
2018	INTERNATIONAL MECHANICAL CODE
2018	UNIFORM PLUMBING CODE
2017	NATIONAL ELECTRIC CODE
2018	INTERNATIONAL ENERGY CONSERVATION CODE

PROJECT OVERVIEW

DESCRIPTION:	DEVELOP NEW WAREHOUSE AND ASSOCIATED SITE WORK
SITE SF:	
BUILDING TYPE:	TYPE V-B
BUILDING OCCUPANCY:	B - SINGLE OCCUPANCY
SPRINKLERED:	NO
TOTAL SF:	4000 SF
STORIES:	1
BUILDING HEIGHT:	+/-30' REFER TO SECTIONS

REFERENCE SYMBOLS

	1 View Name	VIEW TITLE		001A	DOOR SYMBOL
	1 Ref	NORTH ARROW		101	ROOM SYMBOL
	1 Ref	INTERIOR & EXTERIOR ELEVATION			WALL/PARTITION TYPE SYMBOL
	1	GRID LINES		1	KEYED NOTE
		SPOT ELEVATION			COLUMN SYMBOL
		FLOOR MATERIAL TRANSITION			REVISION SYMBOL
	1 SIM	BUILDING SECTIONS			CEILING TAG
	1 SIM	WALL SECTIONS			LEVEL SYMBOL
	1 SIM	CONSTRUCTION DETAIL			
	1 SIM	CALLOUT SYMBOL			
	Name Elevation	LEVEL SYMBOL			

GENERAL NOTES

- USE WRITTEN DIMENSIONS. DO NOT SCALE DRAWINGS. DIMENSIONS ARE TO GRID, FACE OF (N) STUDY/COL, FACE OF (E) FINISH, OR DOOR/WINDOW OPENINGS. DIMENSIONS TO OPENINGS ARE NOMINAL. VERIFY ALL OPENINGS WITH ROUGH OPENING REQUIREMENTS.
- PATCH AND INFILL ALL WALL, FLOOR AND CEILING FINISHES AT REMOVED DEVICES AND FIXTURES. PREP FOR NEW FINISHES.
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NEW MATERIALS (U.N.O.) ALL WORK SHALL BE PERFORMED BY SKILLED AND QUALIFIED WORKMEN IN ACCORDANCE WITH THE BEST PRACTICES OF THE TRADES INVOLVED, AND IN COMPLIANCE WITH BUILDING REGULATIONS AND/OR GOVERNMENTAL LAWS, STATUTES OR ORDINANCES CONCERNING THE USE OF UNION LABOR.
- EACH TRADE WILL PROCEED IN A FASHION THAT WILL NOT DELAY THE TRADES FOLLOWING THEM.
- CONSTRUCTION DOCUMENTS SHOW THE DESIGN INTENT OF THE PROJECT & MAY NOT SHOW MINOR DETAILS OF PROPOSED INSTALLATION. THE INCLUSION OF THESE MINOR DETAILS IS IMPLIED TO PROVIDE A COMPLETE PROJECT & ARE TO BE INCLUDED AS A PART OF A BID.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO INSPECT EXISTING CONDITIONS PRIOR TO PROCEEDING WITH EACH INSTALLATION OR PART OF THE WORK. DISCREPANCIES MUST BE REPORTED TO THE ARCHITECT PRIOR TO PROCEEDING.
- ALL WORK SHALL BE ERECTED AND INSTALLED PLUMB, LEVEL, SQUARE, TRUE AND IN PROPER ALIGNMENT.
- THE DESIGN, ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND HAS NOT BEEN CONSIDERED BY THE ENGINEER OR ARCHITECT. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE PRIOR TO THE COMPLETION OF ALL SHEAR WALLS, ROOF AND FLOOR DIAPHRAGMS AND FINISH MATERIALS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE DISTRIBUTION OF DRAWINGS AND/OR SPECIFICATIONS, INCLUDING ALL ADDENDA AND CONSTRUCTION DOCUMENT MODIFICATIONS, TO THE TRADES UNDER THEIR JURISDICTION.
- THE CONTRACTOR IS TO COORDINATE THE INSTALLATION OF MATERIALS & WORK OF OTHERS WHO ARE NOT SUB-CONTRACTORS TO THE G.C., YET ARE REQUIRED IN PROVIDING A COMPLETED PROJECT. AREAS OF WORK REQUIRING COORDINATION INCLUDE BUT ARE NOT LIMITED TO THOSE INDICATED AS N.I.C. ON THE CONSTRUCTION DOCUMENTS.
- IN THE CASE OF CONTRADICTIONS BETWEEN DRAWINGS & SPECIFICATIONS, ASSUME THE MORE COSTLY APPROACH FOR BIDDING PURPOSES. BRING ALL CONTRADICTIONS TO THE ATTENTION OF THE ARCHITECT
- 3-D VIEWS MAY BE USED THROUGHOUT THE CONSTRUCTION DOCUMENTS. 3-D VIEWS ARE SHOWN TO CLARIFY CONDITIONS THAT CANNOT BE SHOWN IN OTHER VIEWS. 3-D VIEWS MAY NOT SHOW ALL DETAILS REQUIRED TO COMPLETE THE AREA. REFER TO DETAILS AT ADJACENT AREAS AS NECESSARY OR ASK THE ARCHITECT PRIOR TO BIDDING.
- GENERAL CONTRACTOR TO THOROUGHLY REVIEW DRAWINGS AND EXISTING SITE CONDITIONS. ALL EXISTING DEFECTS AND DAMAGED WALLS INCLUDING POSTER AND SIGN MOUNTING DAMAGE TO BE PATCHED, REPAIRED, PREPPED AND FINISHED TO MATCH EXISTING FINISH FOR SEAMLESS APPEARANCE, INCLUDING DEMO OF FINISHES, ELECTRICAL, AND MECHANICAL SCOPE
- ALL ROOF PENETRATIONS SHALL BE FLASHED TO PREVENT MOISTURE PENETRATION AND FINISHED TO MATCH ADJACENT SURFACES.
- ALL RECEPTACLES TO BE ABOVE 15" A.F.F. AND NO HIGHER THAN 48" A.F.F.
- ALL THERMOSTATS - TOP NO HIGHER THAN 48" A.F.F.
- PROVIDE WALL BLOCKING AT ALL CABINETS, ACCESSORIES AND ALL BATHROOMS FOR GRAB BAR INSTALLATION.
- SET DOOR ROUGH OPENINGS FROM F.O.S. TYP. U.N.O.
- USE WATER-RESISTANT G.W.B. IN ALL BATHROOMS, KITCHEN, AND JANITOR ROOMS, UNO. SEE ASSEMBLY SCHEDULES.
- INSTALL 3 1/2" SOUND BATT INSULATION IN WALLS, CEILINGS AND/OR FLOORS BETWEEN BATHROOMS AND HABITABLE SPACE ADJACENT TO, ABOVE OR BELOW, SEE WALL TYPES.
- ALL PLUMBING FIXTURES TO BE OF WATER SAVING TYPE (LOW FLOW, AERATORS, ETC.).
- INSTALL W.P. GWB TO 7" BEHIND TUB & SHOWER ENCLOSURES AND TO 4" BEHIND TOILETS, UNO. SEE ASSEMBLY SCHEDULES, UNO.
- (E) UTILITY SERVICES, PANELS, METERS, ETC TO BE REVIEWED BY CONTRACTOR FOR GENERAL COMPLIANCE WITH CODE AND CAPACITY FOR RENNOVATION SCOPE. NOTIFY ARCHITECT OF ANY DISCREPANCIES OR INADEQUACIES.
- THE CONTRACTOR SHALL SECURE AND PAY FOR ALL BUILDING PERMITS FEES.
- CONSTRUCTION PRACTICES, MEANS AND METHODS EMPLOYED FOR THIS PROJECT SCOPE TO COMPLY WITH APPLICABLE CODES LISTED ON COVER SHEET
- EACH TRADE IS RESPONSIBLE FOR COMPLYING WITH THEIR RESPECTIVE GOVERNING CODES.
- ALL EXTERIOR WALLS (INFILL) TO BE 2X6 WD STUDS AT 16" O.C. AND INTERIOR WALLS TO BE 2X4 WD STUDS AT 16" O.C. U.N.O. PLUMBING WALLS TO BE 2X6 U.N.O. CONTRACTOR SHALL PROVIDE BACKING/BLOCKING AS REQUIRED FOR ALL WALL MOUNTED EQUIPMENT, FURNISHINGS, ETC.
- STRUCTURAL MEMBERS SHALL NOT BE CUT FOR PIPES, DUCTS ETC UNLESS SPECIFICALLY NOTED, DETAILED OR APPROVED IN WRITING BY ARCHITECT/ENGINEER.
- ALL WINDOW HEAD HEIGHTS TO MATCH ADJACENT (E) OPENINGS U.N.O.
- INFILL, PATCH AND REPAIR TO PROVIDE SEAMLESS APPEARANCE TO ADJACENT (E) MATERIALS AND FINISHES. PROVIDE FURRING, ADDITIONAL LAYERS OF GWB AND/OR TRIM AS REQUIRED.
- ALL EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.
- THESE DRAWINGS ARE INTENDED TO BE PRINTED IN COLOR. NOT PRINTING IN COLOR COULD RESULT IN LOSS OF INFORMATION THAT MAY BE CRITICAL FOR PROPER EXECUTION OF THE WORK.
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0	NUMBER	EIFS	EXTERIOR INSULATION FINISH SYSTEM	MIR	MIRROR	SHT	SHEET
#	AND	EJ	EXPANSION JOINT	MISC	MISCELLANEOUS	SHTG	SHEATHING
&	AT	ELEC	ELECTRICAL	MO	MASONRY OPENING	SHWR	SHOWER
@		ELEV	ELEVATION - HEIGHT	MTL	METAL	SIM	SIMILAR
A		EQ	EQUAL	N		SIP	STRUCTURAL INSULATED PANEL
A/C	AIR CONDITIONING	ETR	EXISTING TO REMAIN	(N)	NEW	SPEC / SPECS	SPECIFICATIONS
AB	ANCHOR BOLT	EW	EXTERIOR WALL ASSEMBLY	N/A	NOT APPLICABLE	SS	STAINLESS STEEL
ACT	ACOUSTICAL CEILING TILE	EWewa	EXTERIOR WALL ASSEMBLY	NIC	NOT IN CONTRACT	STD	STANDARD
ADDM	ADDENDUM	EWc	ELECTRIC WATER COOLER	NTS	NOT TO SCALE	STL	STEEL
ADJ	ADJACENT	EXT	EXTERIOR	O		STOR	STORAGE
AFF	ABOVE FINISHED FLOOR	F	FLOOR DRAIN	OC	ON CENTER	STRUCT	STRUCTURAL
AHU	AIR HANDLING UNIT	FD	FLOOR DRAIN	OH	OVERHEAD	SUB FLR	SUBFLOOR
ALT	ALTERNATE	FDN	FOUNDATION	OPNG	OPENING	SV	SHEET VINYL
ALUM	ALUMINUM	FE	FIRE EXTINGUISHER	OPP	OPPOSITE	T	TREAD
ARCH	ARCHITECTURAL	FF	FINISHED FLOOR	OSCI	OWNER SUPPLIED CONTRACTOR INSTALLED	T ALUM	TUBULAR ALUMINUM
ASPH	ASPHALT	FLR	FLOOR	OSOI	OWNER SUPPLIED OWNER INSTALLED	T&G	TONGUE AND GROVE
B		FO	FACE OF	P		TB	TEST BORE
BLDG	BUILDING	FOF	FACE OF FINISH	PAF	POWER ACTUATED FASTENER	THRU	THROUGH
BLKG	BLOCKING	FOS	FACE OF STUD	PERP	PERPENDICULAR	TJI	TRUSS JOIST I/OIST
BO	BOTTOM OF	FT	FOOT	PFE	PORTABLE FIRE EXTINGUISHER	TO	TOP OF
BOW	BOTTOM OF WALL	FTG	FOOTING	PFM	PRE-FINISHED METAL	TO FTG	TOP OF FOOTING
BRG	BEARING	GA	GAUGE	PL	PROPERTY LINE / PLATE	TOB	TOP OF BEAM
BTWN	BETWEEN	GALV	GALVANIZED	PLM	PLASTIC LAMINATE	TOJ	TOP OF JOIST
BU	BUILT UP	GL	GLASS	PLWD	PLYWOOD	TOP	TOP OF PLATE
C		GLB / GLU	GLUE LAMINATED BEAM	PNL	PANEL	TOS	TOP OF STEEL
CB	CATCH BASIN	LAM		PNL	PANEL	TOSL	TOP OF SLAB
CC	CENTER TO CENTER	GWB	GYPSUM WALL BOARD	PRE	PREFINISHED	TOW	TOP OF WALL
CF	CUBIC FEET	H		PSF	POUNDS PER SQUARE FOOT	TP DISP	TOILET PAPER DISPENSER
CH	CHANNEL	HM	HOLLOW METAL	PSI	POUNDS PER SQUARE INCHES	TS	TUBULAR STEEL
CJ	CONTROL JOINT	HORIZ	HORIZONTAL	PSL	PARALLEL STRAND LUMBER	TYP	TYPICAL
CL	CENTERLINE	HR	HOOR	PT	PAIN / PRESSURE TREATED / POINT	UG	UNDERGROUND
CLG	CEILING	HT	HEIGHT	QTY	QUANTITY	UNO	UNLESS NOTED OTHERWISE
CLR	CLEAR	HTG	HEATING	R	RADIUS, RISERS	V	FIELD VERIFY
CLT	CROSS LAMINATED TIMBER	HVAC	HEATING, VENTILATING, AIR CONDITIONING	RD	ROOF DRAIN	VAC	VACUUM OUTLET
CMU	CONCRETE MASONRY UNIT	I		RDWD	REDWOOD	VB	VAPOR BARRIER
COL/COLS	COLUMN/COLUMNS	IN	INCH	RE	REGARDING	VCT	VINYL COMPOSITION TILE
CONC	CONCRETE	INFO	INFORMATION	REF	REFERENCE	VER / VFY	VERIFY
CONST	CONSTRUCTION	INSUL	INSULATION	REFG	REFRIGERATOR	VIF	VERIFY IN FIELD
CONT	CONTINUOUS	INT	INTERIOR	REIN	REINFORCING	W	WITH
COORD	COORDINATE	J		REQD	REQUIRED	WO	WITHOUT
CPT	CARPET	JST	JOIST	RES	RESILIENT	WR	WATER RESISTANT
CSCI	CONTRACTOR SUPPLIED CONTRACTOR INSTALLED	JT	JOINT	RM	ROUGH OPENING	WC	WATER CLOSET
CT	CERAMIC TILE	LB	POUND	RO	ROUGH OPENING	WD	WOOD
CTR	CENTER	LF	LINEAL FEET	RTU	ROUGH OPENING ROOF TOP UNITS	WINDW	WINDOW
CTRD	CENTERED	LWT	LIGHTWEIGHT	S	SCHEDULE	WP	WATERPROOF
D		LVL	LAMINATED VENEER LUMBER	SCHED	SCHEDULE	WRB	WEATHER RESISTIVE BARRIER
DBL	DOUBLE	M		SD	SOAP DISPENSER	WT	WEIGHT
DF	DRINKING FOUNTAIN	MAT	MATERIAL	SG	SUPPLY GRILLE	WWF	WELDED WIRE FABRIC
DIA	DIAMETER	MAX	MAXIMUM				
DIM	DIMENSION	MDF	MEDIUM DENSITY FIBER BOARD				
DN	DOWN	MECH	MECHANICAL				
DR	DOOR	MFR	MANUFACTURER				
DS	DOWNSPOUT	MIN	MINIMUM				
DTL/DET	DETAIL						
DWG	DRAWING						
E							
(E) / EXIST	EXISTING						
EA	EACH						



ALTER ENTERPRISE LLC
ALTER/SILVERSTREAM
7151 KESTREL DR MISSOULA, MT 59808

REV	DESC	DATE	PHASE	DATE
PRE				
SD				
DD				
CD				

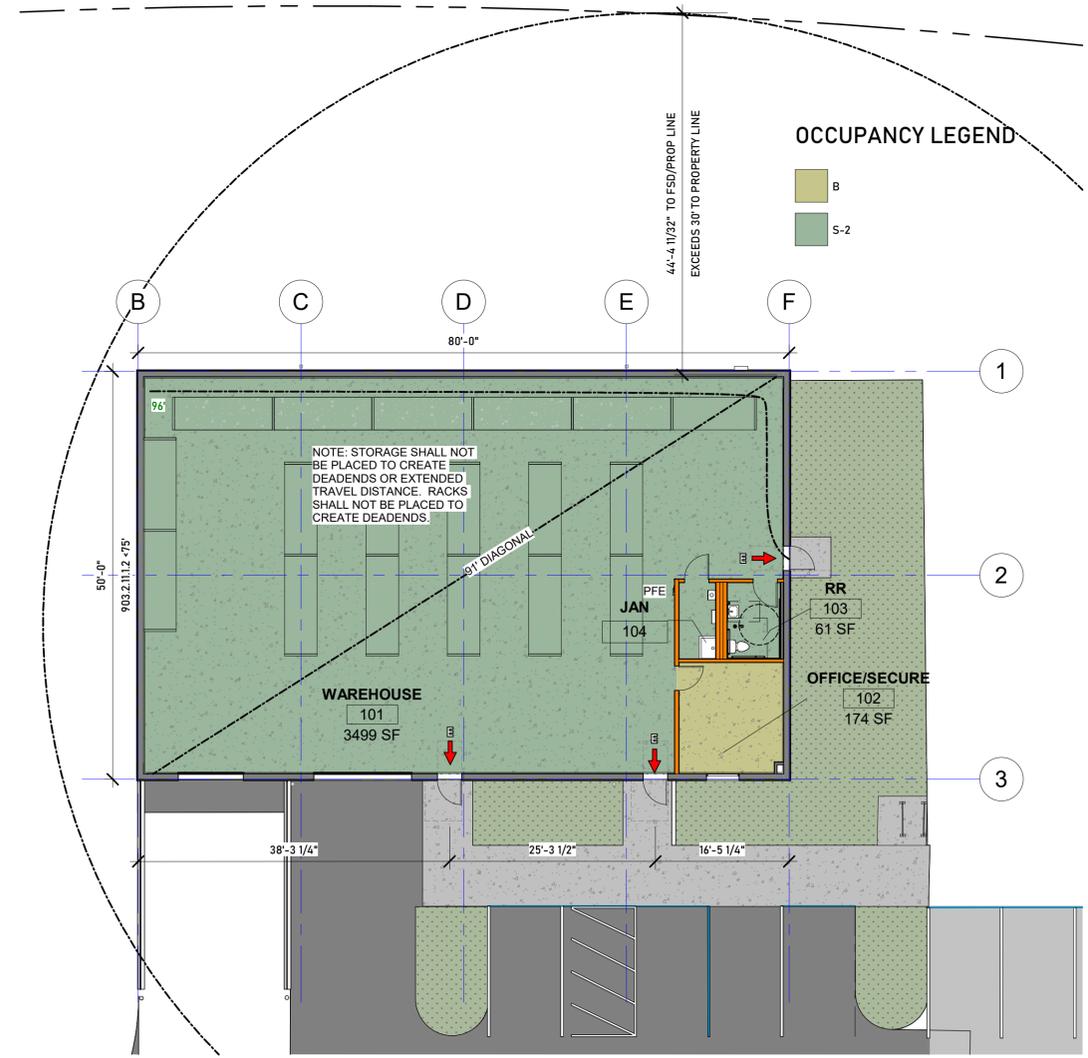
DESIGN DEVELOPMENT
COVER SHEET
CS0.02
22.05.25

CODE PLAN LEGEND

	SOUND BATT INSULATION	53	→	ACCUMULATIVE NUMBER OF OCCUPANTS SERVED WITH EGRESS DIRECTION AT ARROW LOCATION.
	EXIT PATHWAY	W_{min}	→	MINIMUM EGRESS WIDTH (INCHES) BASED ON ACCUMULATIVE NUMBER OF OCCUPANTS SERVED AT INDICATED EGRESS COMPONENT, USING FACTORS FROM TABLE 1005.1.
	EXIT WITH SIGNIFIER		→	
	PORTABLE FIRE EXTINGUISHER. SEE SPEC. REQUIRED AT EACH COMMON AREA, EACH FLOOR		→	EXIT ACCESS TRAVEL DISTANCE - MAXIMUM 200' FOR UNSPRINKLED 'E' OCCUPANCIES
	SOUND RATED ASSEMBLY		→	COMMON PATH OF EGRESS TRAVEL DISTANCE - MAXIMUM 75' PER SECTION 1014.3.
	NON-RATED ASSEMBLY		→	

OCCUPANT SCHEDULE

Number	Name	Area	Occupancy	OLF	Occupant Load	Occupant
101	WAREHOUSE	3499 SF	S-2	500 SF	7.0	
102	OFFICE/SECURE	174 SF	B	150 SF	1.2	
103	RR	61 SF	S-2	300 SF	0.2	
104	JAN	42 SF	S-2	300 SF	0.1	
					8.5	



1 1ST FLOOR CODE PLAN
A0.01 3/32" = 1'-0"

2018 IBC CODE REVIEW

USE AND OCCUPANCY CLASSIFICATION (CHAPTER 3)
 311.2 MODERATE HAZARD STORAGE S-1 OCCUPANCY (MOST RESTRICTIVE) BUILDINGS OCCUPIED FOR STORAGE THAT ARE NOT CLASSIFIED AS GROUP S-2

SPECIAL REQUIREMENTS BASED ON USE AND OCCUPANCY (CHAPTER 4)
 413.1 HIGH PILED COMBUSTIBLE STORAGE SHALL COMPLY WITH THE IFC: N/A
 LIMITATIONS:
 GROUP A STORAGE <6' TO TOP OF PRODUCT
 GROUP B&C STORAGE <12' TO TOP OF PRODUCT

GENERAL BUILDING HEIGHTS AND AREAS (CHAPTER 5)
 504.3 ALLOWABLE HEIGHT - 'S' USE NO SPRINKLER PROTECTION 40'
 504.4 ALLOWABLE STORIES - V-B CONST 1
 506.2.3 ALLOWABLE AREA PER FLOOR: SINGLE OCCUPANCY S-1 USE, NON-SPRINKLERED, V-B CONSTRUCTION
 $A_a = [A_h - (N \times W)] \times 1$
 $A_a = [9,000 - (9,000 \times .75)] \times 1 = 16,750 \text{ SF/FLOOR ALLOWED}$
 506.3.2 FRONTAGE INCREASE 4 SIDES > 30' PROVIDED = .75

TYPES OF CONSTRUCTION (CHAPTER 6)
 601 TYPE V-B, NON-SPRINKLERED
 TABLE 601 FIRE RESISTANCE OF INDIVIDUAL ELEMENTS
BLDG ELEMENT
 STRUCTURAL FRAME 0 HOUR
 EXTERIOR BEARING WALLS 0 HOUR
 INTERIOR BEARING WALLS 0 HOUR
 EXTERIOR NON-BRG WALLS 0 HOUR
 FLOORS 0 HOUR
 ROOF 0 HOUR

TABLE 602 FIRE RESISTANCE RATING EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE
 10'-X<30', TYPE V-B, S OCCUPANCY = 0 HR RATED
 >30', TYPE V-B, S OCCUPANCY = 0 HR RATED
 TYPE V CONSTRUCTION - ANY MATERIALS PERMITTED BY CODE.
 EXTERIOR WALLS MAY CONTAIN F/R TREATED WOOD.

602.5 EXTERIOR WALLS MAY CONTAIN F/R TREATED WOOD.

FIRE AND SMOKE PROTECTION FEATURES (CHAPTER 7)
 705 EXTERIOR WALLS
 705.3 BLDGS ON THE SAME LOT SHALL BE REGULATED AS SEPARATE BLDGS
 705.8 EXTERIOR WALL OPENINGS - SPRINKLERED AND UNPROTECTED:
 20'-25' SEPARATION: 45% OPENINGS ALLOWED
 25'-30' SEPARATION: 70% OPENINGS ALLOWED
 >30' SEPARATION: 100% OPENINGS ALLOWED

720.2 CONCEALED INSULATION TO HAVE FLAME SPREAD INDEX <25; & SMOKE DEVELOPED INDEX OF <450
 720.3 EXPOSED INSULATION TO HAVE FLAME SPREAD INDEX <25; & SMOKE DEVELOPED INDEX OF <450

INTERIOR FINISHES (CHAPTER 8)
 803.13 WALL AND CEILING FINISH REQUIREMENTS (NON-SPRINKLERED, S OCC):
 CORRIDORS: CLASS B - NA
 ROOMS: CLASS C

FIRE PROTECTION SYSTEMS (CHAPTER 9)
 903.2.9 AUTOMATIC SPRINKLER SYSTEM - NOT REQUIRED IN S-1 USE < 12,000
 903.2.11.1 STORIES WITHOUT OPENINGS.
 AN AUTOMATIC SPRINKLER SYSTEM SHALL BE INSTALLED THROUGHOUT ALL STORIES, INCLUDING BASEMENTS, OF ALL BUILDINGS WHERE THE FLOOR AREA EXCEEDS 1,500 SQUARE FEET AND WHERE THE STORY DOES NOT COMPLY WITH THE FOLLOWING CRITERIA FOR EXTERIOR WALL OPENINGS:
 OPENING EVERY 50 LINEAR FEET
 OPENINGS WITH SILL NOT EXCEEDING 44" A.F.F.
 PORTABLE FIRE EXTINGUISHER TO BE PROVIDED AS REQUIRED BY 906 AND THE IFC OF STRUCTURES INCLUDING WHILE UNDER CONSTRUCTION.
 MIN RATED 2-A MAX FLOOR AREA 11,250 SF OR MAX TRAVEL DISTANCE OF 75'

907.2 FIRE ALARM - N/A IN S USE
 907.5.2.3.1 NA - NO PUBLIC/COMMON USE AREAS

EGRESS (CHAPTER 10)
 1003.3.3 HORIZONTAL PROJECTIONS: HT OF 27-80" MUST PROJECT < 4" INTO WALKWAY
 1003.4 PATH OF EGRESS SHALL BE OF SLIP RESISTANT SURFACE
 1004 OCCUPANT LOAD = REFER TO CODE PLANS.
 1005 WIDTH OF EXITS REQUIRED
 1005.3.2 0.2' PER OCC FOR OTHER EGRESS COMP.
 1005.7.1 DOORS SHALL NOT REDUCE THE REQUIRED WIDTH BY MORE THAN 7" IN FULLY OPEN POSITION AND MAY NOT REDUCE THE REQUIRED WIDTH BY MORE THAN HALF IN ANY POSITION.

1006 NUMBER OF EXITS
 1006.2.1 SPACES/ROOMS WITH >29 OCCS OR 100' COMMON PATH REQUIRE 2 EXITS. NA
 1006.3 STORIES WITH >29 OCCS OR 100' COMMON PATH REQUIRE 2 EXITS. NA
 1007.1.1 EXITS MUST BE SPACED A DISTANCE APART > 1/2 THE DIAGONAL OF THE BUILDING OR AREA TO BE SERVED.
 1008 MEANS OF EGRESS TO BE ILLUMINATED
 1009.2 EACH REQUIRED ACCESSIBLE MEANS OF EGRESS SHALL BE CONTINUOUS TO A PUBLIC WAY COMPONENTS.
 1. ACCESSIBLE ROUTE PER 1104
 1010.1.1 THE MINIMUM WIDTH OF EACH DOOR OPENING SHALL BE SUFFICIENT FOR THE OCCUPANT LOAD THEREOF AND SHALL PROVIDE A CLEAR WIDTH OF 32".
 1010.1.2 EGRESS DOORS SHALL BE OF THE PIVOTED OR SIDE-HINGED SWINGING TYPE.
 1010.1.3 THE FORCE FOR PUSHING OR PULLING OPEN INTERIOR SWINGING EGRESS DOORS, OTHER THAN FIRE DOORS, SHALL NOT EXCEED 5 LBS. FOR OTHER SWINGING DOORS, AS WELL AS SLIDING AND FOLDING DOORS, THE DOOR LATCH SHALL RELEASE WHEN SUBJECTED TO A 15-LB FORCE. THE DOOR SHALL BE SET IN MOTION WHEN SUBJECTED TO A 30-LB FORCE. THE DOOR SHALL SWING TO A FULL-OPEN POSITION WHEN SUBJECTED TO A 15-LB FORCE.

1017 EXIT ACCESS TRAVEL DISTANCE: 200'
 1028 PUBLIC WAY ACCESSIBLE ROUTE REQ'D

ACCESSIBILITY (CHAPTER 11)
 1103.2.2 EMPLOYEE WORK AREAS SPACES AND ELEMENTS WITHIN EMPLOYEE WORK AREAS SHALL ONLY BE REQUIRED TO COMPLY WITH 907.5.2.3.1, 1009 AND 1104.3.1
 1104.3 WHEN A BUILDING OR PORTION OF A BUILDING IS REQUIRED TO BE ACCESSIBLE, AN ACCESSIBLE ROUTE SHALL BE PROVIDED TO EACH PORTION OF THE BUILDING, TO ACCESSIBLE BUILDING ENTRANCES CONNECTING ACCESSIBLE PEDESTRIAN WALKWAYS AND THE PUBLIC WAY.
 1104.3.1 CIRCULATION TO EMPLOYEE WORK AREAS SHALL BE AN ACCESSIBLE ROUTE
 1105.1 A SINGLE ENTRANCE SHALL BE ACCESSIBLE
 1106.1 TWO SPACES PROVIDED AT EXISTING PARKING AREA. ADDITIONAL SPACES NOT REQUIRED. SPACES AT THIS STRUCTURE FOR DELIVERIES, PICK UP AND TRUCKS

INTERIOR ENVIRONMENT (CHAPTER 12)
 1202.1 VENTILATION. BUILDINGS SHALL BE PROVIDED WITH NATURAL VENTILATION IN ACCORDANCE WITH SECTION 1202.5 (OPENINGS 4% OF FLOOR AREA-160SF) OR MECHANICAL VENTILATION IN ACCORDANCE WITH IMC
 IMC OCCUPIABLE SPACE: AN ENCLOSED SPACE INTENDED FOR HUMAN ACTIVITIES, EXCLUDING THOSE SPACES INTENDED PRIMARILY FOR OTHER PURPOSES, SUCH AS STORAGE ROOMS AND EQUIPMENT ROOMS, THAT ARE ONLY INTENDED TO BE OCCUPIED OCCASIONALLY AND FOR SHORT PERIODS OF TIME.
 1203.1 TEMPERATURE CONTROL NOT REQ'D EXC 2 - S OCCUPANCY
 1204.1 LIGHTING. EVERY SPACE INTENDED FOR HUMAN OCCUPANCY SHALL BE PROVIDED WITH NATURAL LIGHT BY MEANS OF EXTERIOR GLAZED OPENINGS IN ACCORDANCE WITH SECTION 1205.2 (GLAZED 8% OF FLOOR AREA) OR SHALL PROVIDE ARTIFICIAL LIGHT IN ACCORDANCE WITH SECTION 1205.3.
 1204.3 PROVIDE 10 FOOT CANDLES AT 30" A.F.F.

PLUMBING SYSTEMS (CHAPTER 29)
 2902.3.3 IN OCCUPANCIES OTHER THAN COVERED MALL AND OPEN MALL BUILDINGS, THE REQUIRED - EMPLOYEE TOILET FACILITIES SHALL BE LOCATED NOT MORE THAN ONE STORY ABOVE OR BELOW THE SPACE REQUIRED TO BE PROVIDED WITH TOILET FACILITIES AND THE PATH OF TRAVEL TO SUCH FACILITIES SHALL NOT EXCEED A DISTANCE OF 500'. EXC THE LOCATION AND MAX DISTANCE OF TRAVEL TO REQUIRED EMPLOYEE FACILITIES IN FACTORY AND INDUSTRIAL OCCUPANCIES ARE PERMITTED TO EXCEED THAT REQUIRED BY THIS SECTION, PROVIDED THAT THE LOCATION AND MAX DISTANCE OF TRAVEL ARE APPROVED.
 2902.6 DRINKING FOUNTAINS SHALL NOT BE REQ'D FOR AN OCC LOAD OF 15 OR FEWER.
 ARM24.301.351 PLUMBING FIXTURES BASED ON OCCUPANT LOAD FOR BUSINESS AND ACCESSORY SPACES
 OCCUPANT LOAD = 9
 WATERCLOSET @ 1/100 = 1 REQ'D; 1 PROVIDED
 LAVATORY @ 1/100 = 1 REQ'D; 1 PROVIDED
 DRINKING FOUNTAIN @ 1/400 REQ'D; 0 PROVIDED PER 2902.6

THIS CODE ANALYSIS PLAN IS FOR REFERENCE ONLY. THIS ANALYSIS IDENTIFIES SOME SPECIFIC BUILDING CODE REQUIREMENTS AND IS NOT INTENDED TO LIST ALL BUILDING CODE REQS. EACH TRADE IS RESPONSIBLE FOR COMPLYING WITH THEIR RESPECTIVE GOVERNING CODES.

ENERGY REQ'S PER IECC AND ARM 24.301.161 PROJECT LOCATION = ZONE 6B

MIN ENERGY REQUIREMENTS
NOTE: MIN ENERGY REQUIREMENTS BASED ON COMCHECK ENVELOPE COMPONENT CALCULATIONS, NOT PRESCRIPTIVE REQUIREMENTS

DOORS	OPAQUE SWING DOORS	U FACTOR=	MAX 0.32
	ENTRANCE DOORS	U FACTOR =	MAX 0.80
	OVERHEAD DOORS	U FACTOR=	R-4.75 MIN
	SHGC=		
WINDOWS	U FACTOR=	MAX 0.46	
	SHGC=	.40	
ROOF, INSULATION ABOVE DECK	R VALUE=	MIN R-30ci	
WALLS	R VALUE=	MIN R-16.1ci	
BELOW GRADE WALLS	R VALUE=	R-10ci	
SLAB ON GRADE	R VALUE=	R-10ci FOR MIN 24" BELOW GRADE	

SECTION C402 BUILDING ENVELOPE REQUIREMENTS
C402.4 AIR LEAKAGE (MANDATORY).
C402.4.1 AIR BARRIER CONSTRUCTION.
 THE CONTINUOUS AIR BARRIER SHALL BE CONSTRUCTED TO COMPLY WITH THE FOLLOWING:
 1. THE AIR BARRIER SHALL BE CONTINUOUS FOR ALL ASSEMBLIES THAT ARE THE THERMAL ENVELOPE OF THE BUILDING AND ACROSS THE JOINTS AND ASSEMBLIES.
 2. AIR BARRIER JOINTS AND SEAMS SHALL BE SEALED, INCLUDING SEALING TRANSITIONS IN PLACES AND CHANGES IN MATERIALS. AIR BARRIER PENETRATIONS SHALL BE SEALED IN ACCORDANCE WITH SECTION C402.4.2. THE JOINTS AND SEALS SHALL BE SECURELY INSTALLED IN OR ON THE JOINT FOR ITS ENTIRE LENGTH SO AS NOT TO DISLODGE, LOOSEN OR OTHERWISE IMPAIR ITS ABILITY TO RESIST POSITIVE AND NEGATIVE PRESSURE FROM WIND, STACK EFFECT AND MECHANICAL VENTILATION.
 3. RECESSED LIGHTING FIXTURES SHALL COMPLY WITH SECTION C404.2.8. WHERE SIMILAR OBJECTS ARE INSTALLED WHICH PENETRATE THE AIR BARRIER, PROVISIONS SHALL BE MADE TO MAINTAIN THE INTEGRITY OF THE AIR BARRIER.
EXCEPTION: BUILDINGS THAT COMPLY WITH SECTION C402.4.1.2.3 ARE NOT REQUIRED TO COMPLY WITH ITEMS 1 AND 3.
 THE FOLLOWING SHALL BE CAULKED, GASKETED, WEATHERSTRIPPED, OR OTHERWISE SEALED WITH AN AIR BARRIER MATERIAL, SUITABLE FILM OR SOLID MATERIAL:
 - ALL JOINTS, SEAMS AND PENETRATIONS
 - SITE BUILT WINDOWS, DOORS AND SKYLIGHTS
 - OPENINGS BETWEEN WINDOW AND DOOR ASSEMBLIES AND THEIR RESPECTIVE JAMBS AND FRAMING
 - UTILITY PENETRATIONS
 - DROPPED CEILING OR CHASES ADJACENT TO THE THERMAL ENVELOPE
 - KNEE WALLS
 - WALLS AND CEILING SEPARATING A GARAGE FROM CONDITIONED SPACES
 - BEHIND TUBS AND SHOWERS ON EXTERIOR WALLS
 - COMMON WALLS BETWEEN DWELLING UNITS
 - ATTIC ACCESS OPENINGS
 - RIM JOIST JUNCTION
 - ALL OTHER SOURCES OF INFILTRATION, INCLUDING PENETRATIONS AND DEVICES IN EXTERIOR WALLS
 - ROOF-CEILING ASSEMBLY.

C402.4.1.2.1 MATERIALS.
 MATERIALS WITH A PERMEABILITY NO GREATER THAN 0.004 CFM/FT² (0.02 L/S · M²) UNDER A PRESSURE DIFFERENTIAL OF 0.3 INCHES WATER GAUGE (W.G.) (75 PA) WHEN TESTED IN ACCORDANCE WITH ASTM E 2178 SHALL COMPLY WITH THIS SECTION. MATERIALS IN ITEMS 1 THROUGH 15 SHALL BE DEEMED TO COMPLY WITH THIS SECTION PROVIDED JOINTS ARE SEALED AND MATERIALS ARE INSTALLED AS AIR BARRIERS IN ACCORDANCE WITH THE MFR'S INSTRUCTIONS.
 1. PL WOOD WITH A THICKNESS OF NOT LESS THAN 3/8 INCH (10 MM).
 2. ORIENTED STRAND BOARD HAVING A THICKNESS OF NOT LESS THAN 3/8 INCH (10 MM).
 3. EXTRUDED POLYSTYRENE INSULATION BOARD HAVING A THICKNESS OF NOT LESS THAN 1/2 INCH (12 MM).
 4. FOIL-BACK POLYISOCYANURATE INSULATION BOARD HAVING A THICKNESS OF NOT LESS THAN 1/2 INCH (12 MM).
 5. CLOSED-CELL SPRAY FOAM A MINIMUM DENSITY OF 1.5 PCF (2.4 KG/M³) HAVING A THICKNESS OF NOT LESS THAN 1 1/2 INCHES (38 MM).
 6. OPEN CELL SPRAY FOAM WITH A DENSITY BETWEEN 0.4 AND 1.5 PCF (0.6 AND 2.4 KG/M³) AND HAVING A THICKNESS OF NOT LESS THAN 4.5 INCHES (113 MM).
 7. EXTERIOR OR INTERIOR GYPSUM BOARD HAVING A THICKNESS OF NOT LESS THAN 1/2 INCH (12 MM).
 8. CEMENT BOARD HAVING A THICKNESS OF NOT LESS THAN 1/2 INCH (12 MM).
 9. BUILT UP ROOFING MEMBRANE.
 10. MODIFIED BITUMINOUS ROOF MEMBRANE.
 11. FULLY ADHERED SINGLE-PLY ROOF MEMBRANE.
 12. A PORTLAND CEMENT/SAND PARGE, OR GYPSUM PLASTER HAVING A THICKNESS OF NOT LESS THAN 5/8 INCH (16 MM).
 13. CAST-IN-PLACE AND PRECAST CONCRETE.
 14. FULLY GROUTED CONCRETE BLOCK MASONRY.
 15. SHEET STEEL OR ALUMINUM.

AIR BARRIER PROVIDED:
 COMPLIANCE TO IECC TO IECC 2012 C402.4.1 AIR BARRIERS WILL BE VIA AIR BARRIER COMPLIANCE OPTION C402.4.1.2.1 MATERIALS. IT IS THE RESPONSIBILITY OF THE DESIGNER TO INCLUDE CONTINUOUS AIR BARRIER SPECIFIED TO BE CONSTRUCTED OF MATERIALS THAT MEET THE SPECIFICATIONS WITHIN THIS CODE SECTION (≤ 0.004cfm/ft² @ 0.3" w.c. diff. pressure). MATERIALS ARE TO BE INSTALLED PER MFR RECOMMENDATIONS TO MEET C402.4.1. THE GC IS PRIMARILY RESPONSIBLE FOR COMPLIANT INSTALLATION. CONSTRUCTION INSPECTION RESPONSIBILITY IS TO BE SHARED BY THE GC, THE OWNER'S REPRESENTATIVE, COMMISSIONING AND OTHERS, AND WILL OCCUR AT INTERVALS TO ENSURE PROPER INSTALLATION. SOME TESTING OF THE BUILDING ENVELOPE BY A QUALIFIED TESTING AGENCY, PURSUANT TO THE SPECIFICATIONS OF C402.4.1.2.2 OR C402.4.1.2.3, MAY BE CONDUCTED AT THE OWNER'S DISCRETION, AND UPON FAILURE OF THE SYSTEM TO PASS THE TESTS THE GC SHALL BE RESPONSIBLE TO RESOLVE LEAKAGE ISSUES. VERIFICATION BY A QUALIFIED EXPERT VERIFIER, WITH SPECIFIC REPORTS DEMONSTRATING COMPLIANT INSTALLATION TO BE SUBMITTED TO THE GC AND OWNER FOR INCLUSION IN THE CONTRACT DOCUMENTS AND TO BE MADE AVAILABLE TO THE AUTHORITY HAVING JURISDICTION.

C402.4.2 AIR BARRIER PENETRATIONS.
 PENETRATIONS OF THE AIR BARRIER AND PATHS OF AIR LEAKAGE SHALL BE CAULKED, GASKETED OR OTHERWISE SEALED IN A MANNER COMPATIBLE WITH THE CONSTRUCTION MATERIALS AND LOCATION. JOINTS AND SEALS SHALL BE SEALED IN THE SAME MANNER OR TAPED OR COVERED WITH A MOISTURE VAPOR-PERMEABLE WRAPPING MATERIAL. SEALING MATERIALS SHALL BE APPROPRIATE TO THE CONSTRUCTION MATERIALS BEING SEALED. THE JOINTS AND SEALS SHALL BE SECURELY INSTALLED IN OR ON THE JOINT FOR ITS ENTIRE LENGTH SO AS NOT TO DISLODGE, LOOSEN OR OTHERWISE IMPAIR ITS ABILITY TO RESIST POSITIVE AND NEGATIVE PRESSURE FROM WIND, STACK EFFECT AND MECHANICAL VENTILATION.

C402.4.3 AIR LEAKAGE OF FENESTRATION.
 THE AIR LEAKAGE OF FENESTRATION ASSEMBLIES SHALL MEET THE PROVISIONS OF TABLE C402.4.3. TESTING SHALL BE IN ACCORDANCE WITH THE APPLICABLE REFERENCE TEST STANDARD IN TABLE C402.4.3 BY AN ACCREDITED, INDEPENDENT TESTING LABORATORY AND LABELED BY THE MFR.

EXCEPTIONS:
 1. FIELD-FABRICATED FENESTRATION ASSEMBLIES THAT ARE SEALED IN ACCORDANCE WITH SECTION C402.4.1.
 2. FENESTRATION IN BUILDINGS THAT COMPLY WITH SECTION C402.4.1.2.3 ARE NOT REQUIRED TO MEET THE AIR LEAKAGE REQUIREMENTS IN TABLE C402.4.3.

ADDITIONAL REQUIREMENTS
 1. EACH TRADE IS RESPONSIBLE FOR THEIR KNOWLEDGE AND CARRYING OUT OF THE GOVERNING CODE.

- THIS CODE ANALYSIS PLAN IS FOR REFERENCE ONLY. SEE ALL OTHER PLAN SHEETS FOR CONTRACT DOCUMENT INFORMATION. THIS CODE ANALYSIS IDENTIFIES SOME SPECIFIC BUILDING CODE REQUIREMENTS AND IS NOT INTENDED TO LIST ALL BUILDING CODE REQUIREMENTS.
- SEE SITE PLAN FOR EXIT DISCHARGE, PROPERTY LINE, PUBLIC WAY LOCATIONS AND COURTYARD LAYOUT (WHERE OCCURS).
- EACH TRADE IS RESPONSIBLE FOR COMPLYING WITH THEIR RESPECTIVE GOVERNING CODES.

IN2ITIVE ARCHITECTURE
 127 East Main St, Suite 302
 Missoula, MT 59802
 www.in2itivearch.com
 406.926.2326

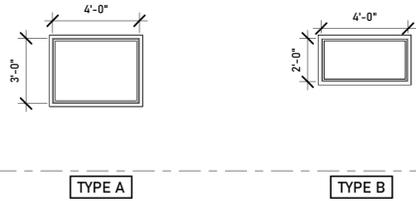
ALTER ENTERPRISE LLC
ALTER/SILVERSTREAM
7151 KESTREL DR MISSOULA, MT 59808
PROJECT # 22.01.003

DESIGN DEVELOPMENT

CODE PLANS

A0.01
22.05.25

WINDOW TYPES



WINDOW SCHEDULE NOTES:

GENERAL NOTES:

- CONTRACTOR TO VERIFY ALL ROUGH OPENING SIZES W/ MFR
- REFER TO EXTERIOR FINISH SCHEDULE FOR WINDOW FINISHES
- SEE WINDOW & DOOR DETAILS FOR TYP. WINDOW TRIM
- VERIFY JAMB DEPTH, SEE FLOOR PLANS AND SECTIONS
- PROVIDE SCREENS FOR OPENABLE WINDOWS
- SEE DETAIL SHEETS FOR WINDOW HEAD, SILL & JAMB DETAILS
- "EGRESS" WINDOW DENOTES WINDOW WITH MIN CLEAR WIDTH OF 20", MIN CLEAR HEIGHT OF 24". MIN NET CLEAR OPENING OF 5.7 sq ft (5 sq ft AT GRADE LEVEL) AND FINISHED SILL NOT TO BE MOUNTED MORE THAN 44" ABOVE FLOOR. WINDOW NOTATION CONTAINING A "T" DESIGNATES TEMPERED GLAZING.
- ALL EXTERIOR GLAZING DOUBLE PANE, LOW-E.

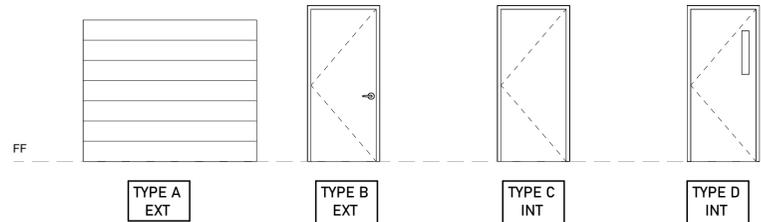
GLAZING NOTES:

- TEMPERED GLASS LOCATIONS PER IBC2406 (WINDOW NOTATION CONTAINING A "T" DESIGNATES TEMPERED GLAZING)
- GLAZING IN DOORS
 - GLAZING ADJACENT TO DOORS W/IN 24" ARC OF EITHER VERT EDGE AND ABOVE 60" GLAZING THAT MEETS ALL 4 OF THE FOLLOWING REQUIREMENTS
 - BOTTOM EDGE W/IN 18" OF FLOOR
 - TOP EDGE EXCEEDS 36" ABOVE FLOOR
 - EXPOSED AREA OF AN INDIVIDUAL PANE GREATER THAN 9 SF
 - ONE OR MORE WALKING SURFACES WITHIN 36" HORIZONTALLY OF GLAZING
 - IN WALLS ENCLOSING STAIRWAYS, LANDINGS WITHIN 60" OF THE TOP AND BOTTOM OF STAIRWAYS
 - WHERE GLASS IS LESS THAN 60" ABOVE WALKING SURFACE

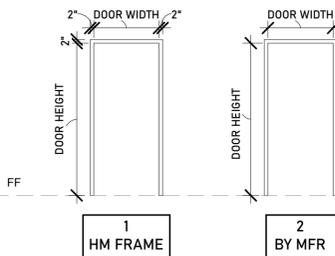
WINDOW SCHEDULE

TYPE	Count	WIDTH	HEIGHT	MATERIAL	GLAZING TYPE	HEAD DETAIL	JAMB DETAIL	SILL DETAIL	KEYED NOTES
A	1	4'-0"	3'-0"						ALUM STOREFRONT. SILL HEIGHT PER BLDG ELEVS
D	16	4'-0"	2'-0"						ALUM STOREFRONT. SILL HEIGHT PER BLDG ELEVS

DOOR TYPES



FRAME TYPES



DOOR SCHEDULE NOTES:

GENERAL NOTES:

- ALL ROOM DOORS TO BE UNDERCUT 1-1/2" ABOVE CARPET
- BLOCK FRAME OF DOOR SOLID AT DEAD BOLTS, TYPICAL
- LEVER HANDLES REQUIRED AT ALL PASSAGE DOORS
- CONTRACTOR TO VERIFY ALL ROUGH OPENING SIZES WITH DOOR MANUFACTURER
- SEE FLOOR PLANS, SECTIONS, STRUCTURAL DRAWINGS AND WALL TYPES FOR JAMB DEPTH
- SEE FLOOR PLANS FOR DOOR SWING
- PROVIDE AND INSTALL UNIT NUMBERS AT UNIT ENTRY DOORS. BOTTOM OF LETTER NUMBER TO BE 48" MIN A.F.F.
- PROVIDE ADA COMPLIANT THRESHOLDS AT ALL MAIN LEVEL DOORS
- SEE DETAILS FOR EXTERIOR DOOR HEAD, SILL & JAMB DETAILS
- SEE DETAILS FOR INTERIOR DOOR HEAD, SILL & JAMB DETAILS
- ALL EXTERIOR DOORS ARE METAL CLAD INSULATED, TYP, SEE FINISH SCHEDULE
- SEE SPECS AND SCHEDULE FOR HARDWARE, DOOR AND FRAME FINISHES

KEYED NOTES - DOOR SCHEDULE

- FIRE RATED DOOR - PROVIDE CLOSER AND SMOKE SEALS.
- PANIC HARDWARE.
- ELEVATOR OPENING - HM FRAME ONLY, NO RABBET, SEE SPEC. AND COORDINATE WITH ELEVATOR MFR AND INSTALLATION INSTRUCTIONS. VERIFY ELEV CAB DOOR MEETS FIRE RATING.
- MAG HOLD OPEN - TO BE VERIFIED WITH FINAL ACCESS CONTROL DESIGN.
- INTERIOR SECURITY DOOR AND HARDWARE.
- EXTERIOR SECURITY DOOR AND HARDWARE.
- OVERHEAD DOOR, SEE SPECS.
- OPENING WITH NO DOOR OR FRAME, PROVIDE CORNER GUARDS (4), TYP.
- STOREFRONT DOOR AND FRAME.
- ROOF ACCESS HATCH, SEE DETAILS AND SPECS.

ABBREVIATIONS

SC	SOLID CORE
SF	STOREFRONT
HC	HOLLOW CORE
CO	CASED OPENING
PT	PAINT
AL	ALUMINUM
HM	HOLLOW METAL
FF	FACTORY FINISH
INSUL	INSULATED
PH	PREHUNG FRAME, FINISH TO MATCH ADJ TRIM
LHM	LIGHT GAUGE HOLLOW METAL
RBT	RABBETED FRAME, FINISH TO MATCH ADJ TRIM
SCL	STRUCTURAL COMPOSITE LUMBER CORE
T	TEMPERED GLASS

DOOR SCHEDULE

MARK	ROOM NAME	TYPE	FIRE RATING	FRAME TYPE	FRAME MATERIAL	FRAME FINISH	DOOR MATERIAL	DOOR FINISH	WIDTH	HEIGHT	HEAD DETAIL	JAMB DETAIL	HARDWARE SET	KEYED NOTES	Level
101A		B		1	HM	PT2	MTL	PT2	3'-0"	7'-0"					1ST FLOOR
101B		B		1	HM	PT2	MTL	PT2	3'-0"	7'-0"					1ST FLOOR
101C		B		1	HM	PT2	MTL	PT2	3'-0"	7'-0"					1ST FLOOR
101D	WAREHOUSE	A		2	MTL	PT2	MTL	MFR	12'-0"	14'-0"					1ST FLOOR
101E	WAREHOUSE	A		2	MTL	PT2	MTL	MFR	8'-0"	10'-0"					1ST FLOOR
102	OFFICE/SECURE	D		1	HM	PT2	WD	ST	3'-0"	7'-0"					1ST FLOOR
103	RR	C		1	HM	PT2	WD	ST	3'-0"	7'-0"					1ST FLOOR
104	WAREHOUSE	C		1	HM	PT2	WD	ST	3'-0"	7'-0"					1ST FLOOR

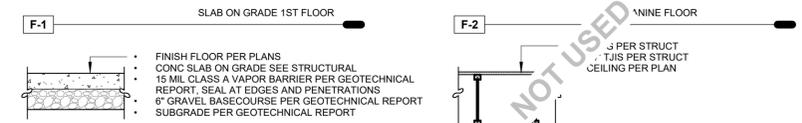
ROOM FINISH SCHEDULE

RM NUMBER	AREA	ROOM NAME	BASE	FLOOR	NORTH WALL	EAST WALL	SOUTH WALL	WEST WALL	CEILING	COMMENTS
101	3499 SF	WAREHOUSE	RB-1	CONC-1	LINER	LINER	LINER	LINER	EXP	LINER TO 8" A.F.F. WHERE OCCURS
102	174 SF	OFFICE/SECURE	RB-1	CONC-1	GWB/PT-1	GWB/PT-1	GWB/PT-1	GWB/PT-1	ACT	
103	61 SF	RR	RB-1	CONC-1	GWB/PT-1	GWB/PT-1	GWB/PT-1	GWB/PT-1	GWB/PT-1	
104	42 SF	JAN	RB-1	CONC-1	GWB/PT-1	GWB/PT-1	GWB/PT-1	GWB/PT-1	GWB/PT-1	

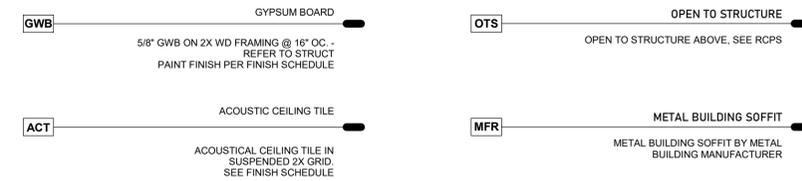
ROOM FINISH KEY:

FLOOR	
CONC-1	SEALED CONCRETE SLAB
SYNTH	NA
BASE	
RB-1	4" RUBBER BASE COLOR: BLACK
WALL	
PT-1	PAINT, SEE PAINT SECTION
LIN	LINER PANEL BY PEMB
PAINT	
PT-1	WALL AND CEILING COLOR SPEC BY OWNER
PT-2	TRIM COLOR SPEC BY OWNER
EPT-1	EXTERIOR PAINT PAINT TO MATCH MTL-2
DOORS	
WD-1	BIRCH WOOD VENEER, STAINED
HM	HOLLOW METAL - PAINTED EPT-1
WINDOWS	
ALUM-1	ANODIZED ALUMINUM - DARK BRONZE
CEILING	
EXP	EXPOSED STRUCTURE
GWB	GYPSUM WALL BOARD: PT-1
ACT	ACOUSTIC CEILING TILE

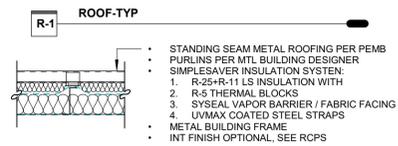
HORIZONTAL ASSEMBLIES - FLOOR



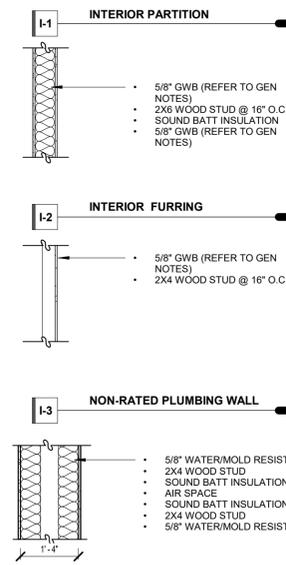
HORIZONTAL ASSEMBLIES - CEILING



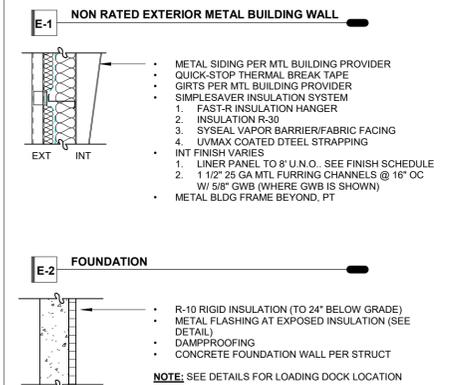
HORIZONTAL ASSEMBLIES - ROOF



WALL ASSEMBLIES - INTERIOR



WALL ASSEMBLIES - EXTERIOR



GENERAL ASSEMBLY NOTES:

- FOR GWB TYPES, REFER TO GAUL LISTING
- PROVIDE MOLDDIMOISTURE RESISTANT GWB AT ALL WET LOCATIONS
- PROVIDE CEMENT BOARD BACKING AT ALL TILE AS SHOWN ON INTERIOR ELEVATIONS
- REFER TO ROOM FINISH SCHEDULE FOR ADDITIONAL WALL FINISHES
- REFER TO REFLECTED CEILING PLAN FOR WALLS THAT GO TO UNDERSIDE OF STRUCTURE
- ALL SOUND CONTROL SYSTEMS (INCLUDING ALL STC-RATED WALL AND FLOOR-CEILING ASSEMBLIES) SHALL BE AIRTIGHT. RECESSED WALL FIXTURES, SUCH AS MEDICINE CABINETS OR ELECTRICAL AND LOW-VOLTAGE DEVICES AND PANELS, THAT PENETRATE THE GYPSUM BOARD SHALL NOT BE LOCATED BACK-TO-BACK OR IN THE SAME STUD CAVITY. ANY OPENING FOR FIXTURES OR PIPES SHALL BE CUT TO PROPER SIZE AND SEALED. THE ENTIRE PERIMETER OF A SOUND INSULATING SYSTEM SHALL BE MADE AIRTIGHT TO PREVENT SOUND FLANKING. FLEXIBLE SEALANT OR AN ACOUSTICAL GASKET SHALL BE USED TO SEAL BETWEEN THE STC RATED SYSTEM AND ALL ADJOINING SURFACES. TAPING GYPSUM BOARD WALL AND WALL-CEILING INTERSECTIONS PROVIDES AN ADEQUATE AIR SEAL AT THESE LOCATIONS. CONSULT GWB MANUFACTURER FOR A SPECIAL RECOMMENDATIONS
- MEMBRANE ROOF, WHERE OCCURS TO BE AIR BARRIER. ALL OTHER ROOF-CEILING ASSEMBLIES TO USE WEATHER BARRIER AS AIR BARRIER.

REV	DESC	DATE	PHASE	DATE
PRE	SD	DD	DD	DD

ZONING NOTES- CITY OF MISSOULA TITLE 20

ADDRESS: 7151 KESTREL DR, MISSOULA, MT 59802
 LEGAL DESCRIPTION: MISSOULA DEVELOPMENT PARK - PHASE 1 BLK 2LT 1,2,2A,3,3A,3B,6, S35, T14N, R20W, BLOCK 4 LOT 1B
 GEOCODE: 04-2325-35-4-04-03-0000
 ZONING: CITY OF MISSOULA - M1-2 LIMITED INDUSTRIAL MISSOULA DEVELOPMENT PARK (LIGHT INDUSTRY OVERLAY)
 SITE AREA: 198,633.6 SF (4.56 ACRES)
 USE: WAREHOUSE
 PERMITTED USES: WAREHOUSE

20.15 INDUSTRIAL & MANUFACTURING
MAXIMUM BLDG LOT COVERAGE: 60% FOR WAREHOUSING, 40% FOR LIGHT MFG AND R&D
 25% FOR ALL OTHER USES. (50% WITH ACCESSORY APT'S)
LOT COVERAGE PROVIDED: TBD

SETBACKS:	REQ'D	PROVIDED
FRONT SETBACK (KESTREL ST):	40'	TBD
SIDE YARD SETBACK:	20'	TBD
SIDE STREET SETBACK:	25' (PER CCR)	TBD
REAR SETBACK:	20'	TBD
BUILDING SEPARATION:	20'	TBD
PARKING/DRIVEWAY SETBACK:	15'	TBD
SIGN SETBACK:	10'	TBD
MINIMUM LANDSCAPING SETBACK 10' (PER CCR'S)		

ALLOWED HEIGHT: UP TO 50'. CANNOT EXCEED THE SHORTEST DISTANCE BETWEEN THE BUILDING AND THE CLOSEST LOT LINE.
PROPOSED HEIGHT: 22'

20.60 PARKING AND ACCESS

PARKING USE	RATIO	SF OR EMPL	TOTAL REQUIRED
OFFICE USE	1:480 SF	4,250 (EX)	9
WAREHOUSE USE	1:2 EMPLOYEES	4	2
SPACES PROVIDED:	EXISTING	NEW	TOTAL
	23	4	27

ADA STALLS REQUIRED: 2% TOTAL PARKING STALLS = 1 REQUIRED, 1 (E) TO REMAIN
 BIKE PARKING: SHORT: 1 SPACE PER 20 VEHICLES SPACES = 1 (N) REQUIRED
 BIKE PARKING: LONG: 1 SPACE PER 5 EMPLOYEES; 1 SPACE MIN = 1 (N) REQUIRED

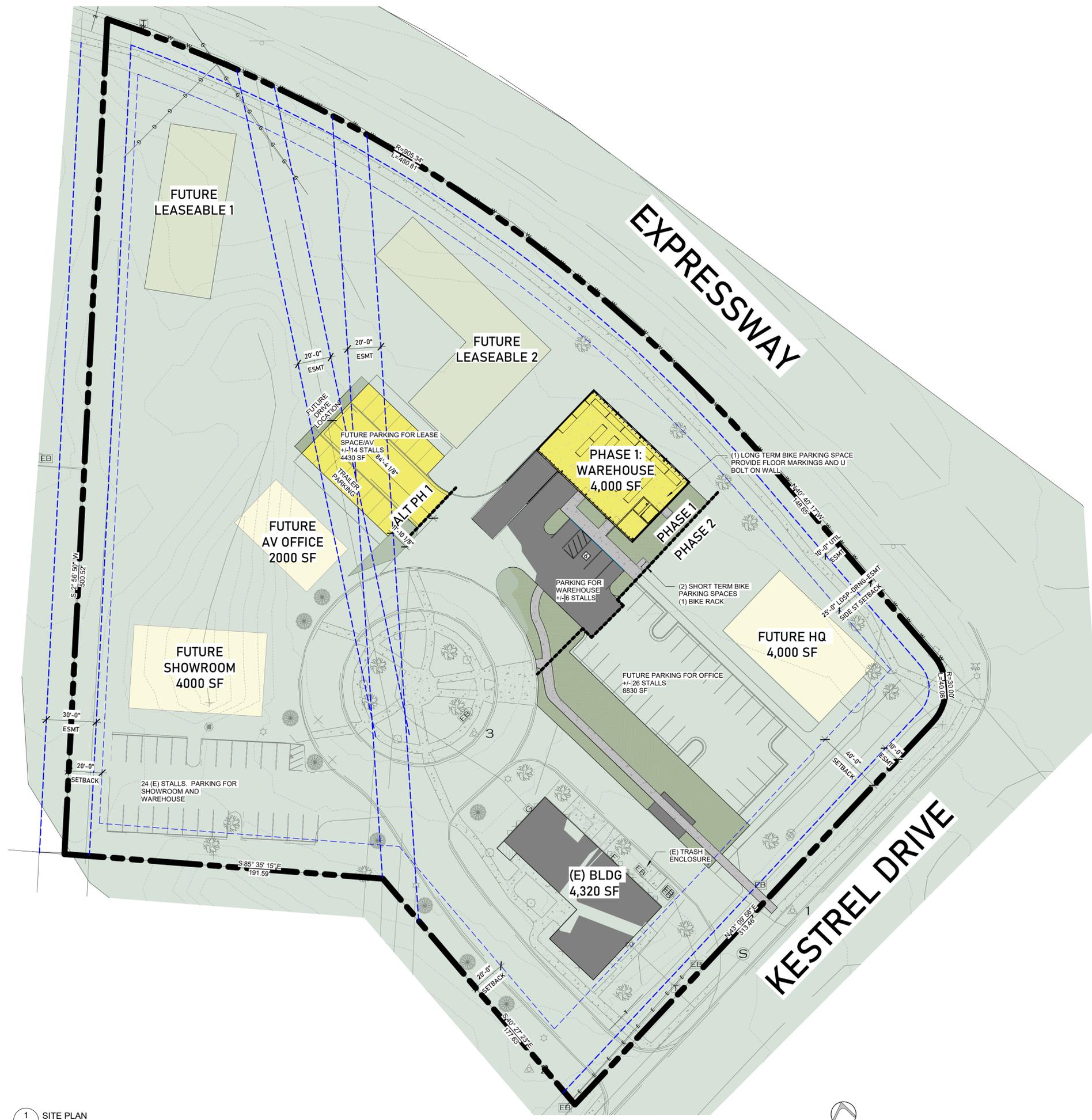
20.65 LANDSCAPING
 GENERAL - 'NEW DEVELOPMENT'
 ALL AREAS NOT COVERED TO BE LANDSCAPED
 15% OF SITE = 29,795
 1 TREE AND 6 SHRUBS/1000 SF = 30 TREES/180 SHRUBS REQ'D
 PROVIDED = 27(E) 3(N)/17 (E) 160 (N)
 BLVD DOESN'T COUNT (EXCEPT TREES) & (E) DO COUNT
 STREET FRONTAGE - CONFIRM AT KESTREL ONLY
 EXTEND INTO PARCEL FOR 10' ALONG ENTIRE FRONTAGE
 313.46' X 10' = 3135 SF
 2 TREES AND 6 SHRUBS/1000 SF = 8 TREES/24 SHRUBS
 PARKING LOT INTERIOR: 10% OF PAVED AREA WITH 9' WIDE ISLANDS EVERY 135'
 BASE ADD ALT TOTAL
 NEW PAVED AREA: 647 SF 443 SF 1090 SF
 10% REQUIRED: 647 SF 443 1091 SF
 PROVIDED: 660 492 1152 SF
 PARKING LOT PERIMETER: NA - PARKING LOCATED OUTSIDE OF AREA BETWEEN PRIMARY FACADE AND STREET RIGHT-OF-WAY
 BUFFERS - NA DOES NOT BORDER R USE/ZONE
 SCREENING - EXISTING TO REMAIN AT TRASH ENCLOSURES
 GROUND AND ROOF MOUNTED EQUIPMENT TO BE SCREENED

20.40.170 COMMERCIAL USES NOT EXCEEDING 30,000SF - NOT APPLICABLE M1-2 WAREHOUSE
 CCRS: TRASH AND OPEN STORAGE TO BE SCREENED TO 8' HIGH
 20.40.170 COMMERCIAL USES NOT EXCEEDING 30,000SF - NOT APPLICABLE M1-2 WAREHOUSE

LEGEND

	(E) ROADS		PROPERTY BOUNDARY
	(E) BUILDING		NEW WORK
	NEW ASPHALT PAVING		(E) SITE, TO BE DEMOLISHED. REFER TO CIVIL
	NEW CONCRETE PAVING		(E) BURIED GAS
	NEW BUILDING		(E) SANITARY SEWER
	NEW BUILDING FUTURE PHASE		(E) BURIED POWER
	NEW LANDSCAPING - APPROX 20,000 SF		(E) WATER MAIN
			(E) WATER MAIN SERVICE
			(E) BURIED TELEPHONE

SITE NOTES:
 1. VERIFY ALL PROPERTY LINES BEFORE EXCAVATION.
 2. SEE GEOTECH REPORT FOR SOIL ANALYSIS AND BUILDING AND DRIVEWAY REQUIREMENTS. IF NO GEOTECH REPORT IS AVAILABLE, COMPLETE SITE WORK IN ACCORDANCE WITH MPWSS AND IN CONFORMANCE WITH BEST TRADE PRACTICES.
 3. GNRL CONTRACTOR TO VERIFY AS-BUILT ROAD ELEVATIONS PRIOR TO EXCAVATION AND AS-BUILT SERVICE LINES.
 4. COORDINATE ELECTRIC AND GAS METER LOCATIONS & HOOK UPS WITH NORTHWESTERN ENERGY.
 5. ADHERE TO NORTHWESTERN ENERGY'S DETAILS ON PLACING UTILITIES IN THE SAME TRENCH.

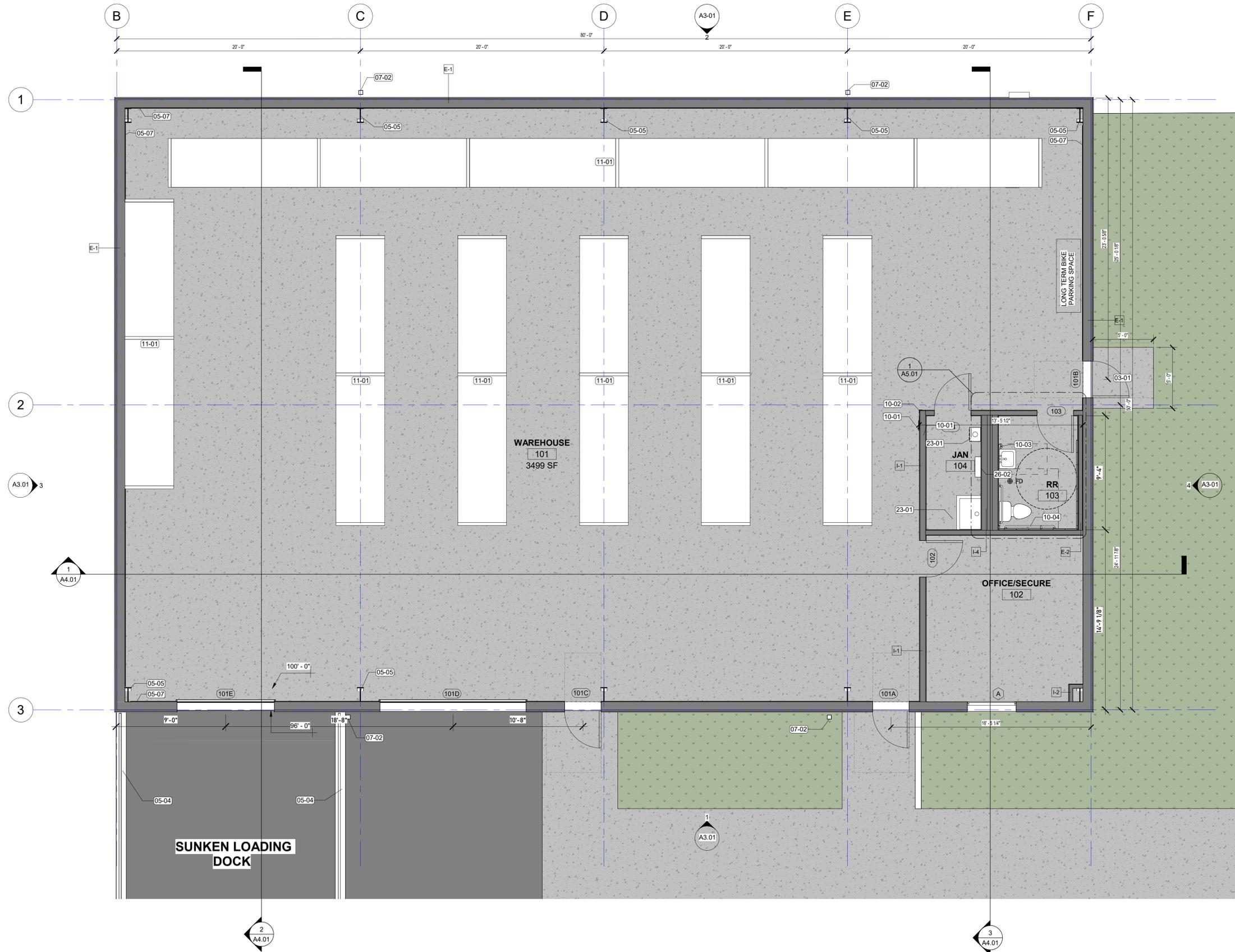


ALTER ENTERPRISE LLC
 ALTER/SILVERSTREAM
 7151 KESTREL DR MISSOULA, MT 59808
 PROJECT # 22.01.003

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DESIGN DEVELOPMENT
 ARCHITECTURAL SITE PLAN

A1.01
 22.05.25



LEGEND - PLAN

- WD_CPT FLOORING TRANSITION
- E-1 WALL TAG
- 1 KEYNOTE
- LINE OF WALL ABV/BLW
- ==== DEMO WALL
- (E) WALL
- (N) WALL
- ===== SOUND INSULATION
- DEMO
- EXISTING
- NEW
- MATCH LINE
- FE FIRE EXTINGUISHER
- FD FLOOR DRAIN, REFER TO ENLARGED PLANS
- DS DOWNSPOUT PER MTL BUILDING PROVIDER
- PT-X PAINT COLOR, DENOTES EXTENT OF WALL. REFER TO FINISH SCHEDULE.
- CROSSHATCHED AREA INDICATES AREA OF SYNTH FLOORING. REFER TO FINISH KEY

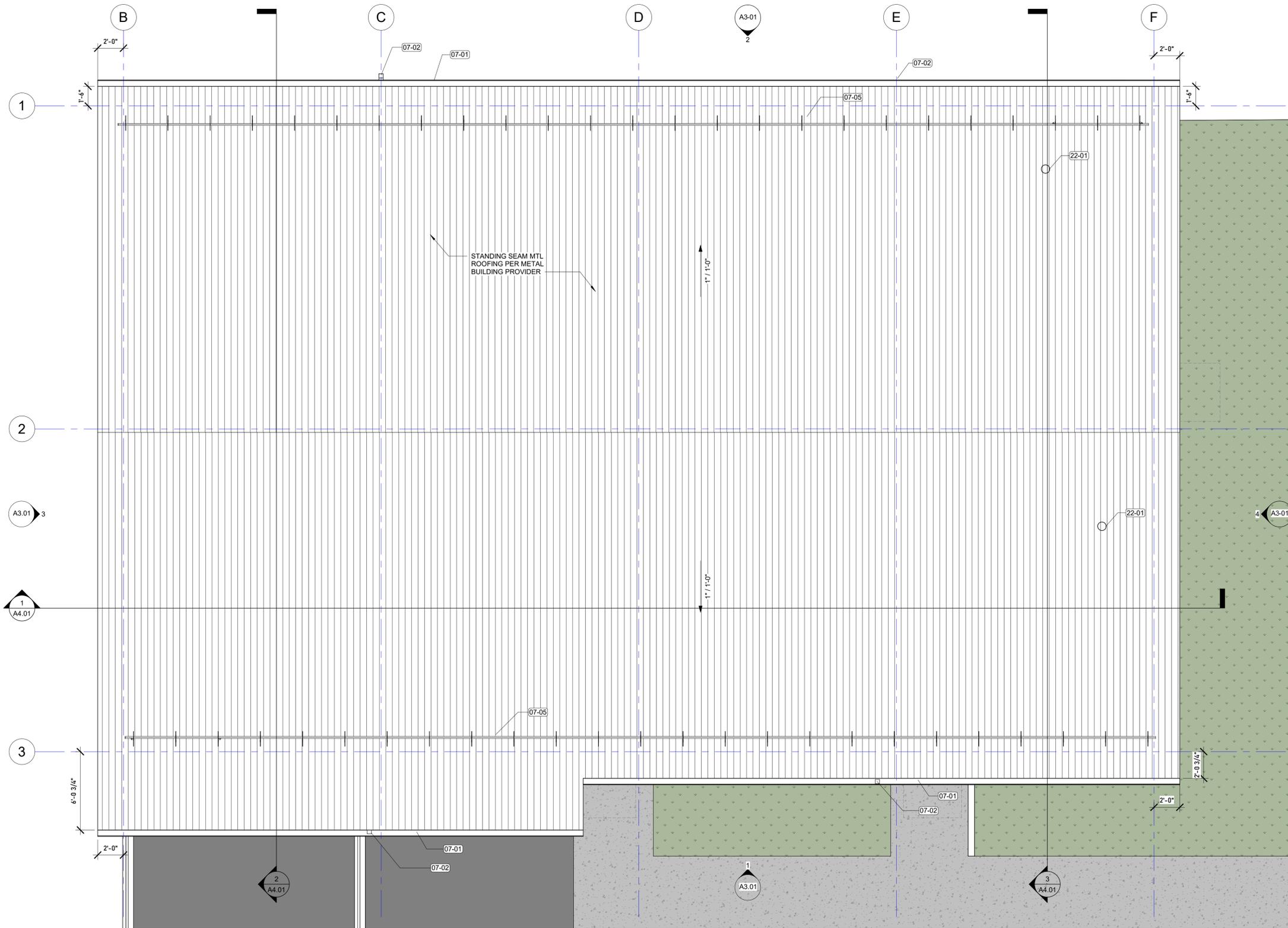
- ### GENERAL NOTES-FLOOR PLANS
1. USE WRITTEN DIMENSIONS. DO NOT SCALE DRAWINGS. DIMENSIONS ARE TO GRID, FACE OF (N) STUD/COL, FACE OF (E) FINISH, OR DOOR/WINDOW OPENINGS. AT ICPS DIMENSIONS ARE TO FACE OF CONCRETE. DIMENSIONS TO OPENINGS ARE NOMINAL. VERIFY ALL OPENINGS WITH ROUGH OPENING REQUIREMENTS.
 2. ALL ROOF PENETRATIONS SHALL BE FLASHED TO PREVENT MOISTURE PENETRATION AND FINISHED TO MATCH ADJACENT SURFACES.
 3. ALL RECEPTACLES TO BE ABOVE 15' AFF AND NO HIGHER THAN 48" AFF
 4. ALL THERMOSTATS - TOP NO HIGHER THAN 48" AFF
 5. PROVIDE WALL BLOCKING AT ALL CABINETS AND ACCESSORIES.
 6. DOOR ROUGH OPENINGS TO BE 6" FROM F.O.S., TYP. U.N.O.
 7. CONTRACTOR TO VERIFY ALL ROUGH OPENING SIZES W/ MFR PRIOR TO FINISH.
 8. USE WATER-RESISTANT G.W.B. IN ALL BATHROOMS, KITCHEN, AND JANITOR ROOMS.
 9. FURNITURE AND CASEWORK BY OWNER. SHOWN IN GREY FOR SPACE PLANNING ONLY.
 10. KITCHEN AND BATHROOM FANS TO BE VENTED TO THE EXTERIOR
 11. ALL EXTERIOR DOORS AND ANY GLASS WITHIN 24" OF ANY DOOR OR DOOR SWING AND WITHIN 18" OF ANY WALKING SURFACE TO BE OF APPROVED SAFETY GLAZING.
 12. (E) UTILITY SERVICES PANELS, METERS, ETC TO BE REVIEWED BY CONTRACTOR FOR GENERAL COMPLIANCE WITH CODE AND CAPACITY FOR RENNOVATION SCOPE
 13. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL BUILDING PERMITS FEES.
 14. CONSTRUCTION PRACTICES, MEANS AND METHODS EMPLOYED FOR THIS PROJECT SCOPE TO COMPLY WITH APPLICABLE CODES LISTED ON COVER SHEET
 15. INFILL, PATCH AND REPAIR TO PROVIDE SEAMLESS APPEARANCE TO ADJACENT (E) MATERIALS AND FINISHES. PROVIDE FURRING, ADDITIONAL LAYERS OF GWS AND/OR TRIMS AS REQUIRED.
 16. CONTRACTOR TO PROVIDE CARBON MONOXIDE DETECTORS AND SMOKE DETECTORS PER IBC.
 17. ALL EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT.
 18. PATCH AND INFILL ALL WALL, FLOOR AND CEILING FINISHES AT REMOVED DEVICES AND FIXTURES. PREP FOR NEW FINISHES
 19. PROVIDE 4" SS CORNER GUARDS AT EACH EXPOSED G.W.B CORNER
 20. REFER TO OVERALL FLOOR PLAN FOR FLOOR MATERIAL TRANSITIONS
 21. REFER TO INT ELEV FOR CONTROL JOINT LOCATIONS

KEYNOTE LEGEND

Key Value	Keynote Text
03-01	CONCRETE PAD, CENTER ON DOUBLE DOORS, TYP. ALIGN WITH HINGE-SIDE JAMB ON SINGLE LEAF DOORS, TYP. UNO
05-04	METAL GUARD RAILING, SEE DETAILS AND CIVIL
05-05	METAL BUILDING FRAME
05-07	
07-02	DOWNSPOUT PER MTL BLDG MFR, CARRY ROOF RUNOFF WATER AT LEAST 10 HORIZ FT AWAY FROM BLDG
10-01	FIRE EXTINGUISHER & CABINET
10-02	CORNER GUARD
10-03	SOAP DISPENSER, OSCI
10-04	GRAB BARS, SEE ADA DETAILS FOR MOUNTING HTS AND DIMENSIONS
11-01	SHELVING, PALLET RACK, BY OWNER
23-01	PLUMBING FIXTURE, REFER TO MECHANICAL DRAWINGS. SEE ADA DETAILS FOR MOUNTING HEIGHT
26-02	ELECTRICAL SERVICE/PANEL, REF ELEC

1 1ST FLOOR
A2.11 1/4" = 1'-0"

REV	DESC	DATE	PHASE	DATE
PRE	SD	DD	DD	DD



LEGEND - ROOF PLAN

-  TPO ROOFING
-  CRICKET
-  LINE OF WALL BELOW
-  ROOF SLOPE (RISE/RUN)
-  ROOF DRAIN
-  VALLEY IN TAPERED INSULATION

- NOTES:**
1. DOWN SPOUT OVER FASCIA. LOCATIONS ARE SHOWN GRAPHICALLY. EXACT LOCATIONS TO BE VERIFIED WITH INSTALLER. DOWN SPOUTS TO BE IN LANDSCAPE AREA MIN. 2'-0" EXTENSION FROM BUILDING WITH SPLASH BLOCK. ENSURE PROPER SLOPES FOR DRAINAGE. SEE CIVIL FOR DRAINAGE UNDER SLAB/SIDEWALK TO PROPERLY REMOVE ROOF DRAINAGE OFF OF SIDEWALKS.
 2. ALL VENTS, STACKS AND OTHER ROOF PENETRATIONS SHALL BE PAINTED TO MATCH THE ROOFING MATERIAL.
 3. ALL ROOF PENETRATIONS SHALL BE FLASHED TO PREVENT MOISTURE PENETRATION AND FINISHED TO MATCH ADJACENT SURFACES.

GENERAL NOTES - PLAN

1. USE WRITTEN DIMENSIONS. DO NOT SCALE DRAWINGS.
2. DIMENSIONS ARE TO THE EXTERIOR FACES OF STUD WALLS OR UNIT SEPERATION CENTER LINES, UNLESS NOTED OTHERWISE.
3. ALL EXTERIOR FACES OF STUD WALLS ARE ALIGNED TO GRID LINES.
4. ALL ROOF PENETRATIONS SHALL BE FLASHED TO PREVENT MOISTURE PENETRATION AND FINISHED TO MATCH ADJACENT SURFACES. SEE MECHANICAL, ELECTRICAL, AND PLUMBING PLANS FOR LOCATIONS AND VERIFY WITH EACH TRADE SUBCONTRACTOR.
5. ALL OUTLETS TO BE ABOVE 15" A.F.F. AND NO HIGHER THAN 48" A.F.F.
6. ALL THERMOSTATS - TOP NO HIGHER THAN 48" A.F.F. U.N.O. CENTER CLOSET DOOR ALONG LENGHT OF CLOSET U.N.O.
7. PROVIDE WALL BLOCKINGS AT ALL CABINERY, ACCESSORIES, HANDI/GUARDRAILS AND GRAB BAR LOCATIONS.
8. PROVIDE GAARBAGE DISPOSALS AT ALL KITCHEN SINKS.
9. SET DOOR ROUGH OPENINGS 6" FROM F.O.S. TYP. U.N.O. CENTER CLOSET DOOR ALONG LENGHT OF CLOSET U.N.O.
10. DASHED LINES AT DOORS, APPLIANCES AND PLUMBING FIXTURES INDICATE CODE REQUIRED CLEAR FLOOR SPACE FOR ACCESSIBILITY. CONTRACTOR TO COORDINATE WITH SUBCONTRACTORS AND FRAMING.
11. USE WATER-RESISTANT GWB IN ALL BATHROOMS, LAUNDRY ROOMS AND TRASH ROOMS. USE CEMENT BOARD BACKING AT ALL TILE LOCATIONS.
12. WHERE RATED ASSEMBLIES JOIN OTHER ASSEMBLIES, CONTRACTOR TO PROVIDE ADDITIONAL LAYERS OF SHEATHING, RESILIENT CHANNEL ECT. TO PROVIDE A UNIFORM, SEAMLESS FINISHED SURFACE.
13. PROVIDE FIRE EXTINGUISHERS IN THE NATURAL PATH OF TRAVEL SUCH THAT TRAVEL DISTANCE DOES NOT EXCEED 75'.
14. SEE STRUCTURAL PLANS FOR SLAB JOINT LOCATIONS

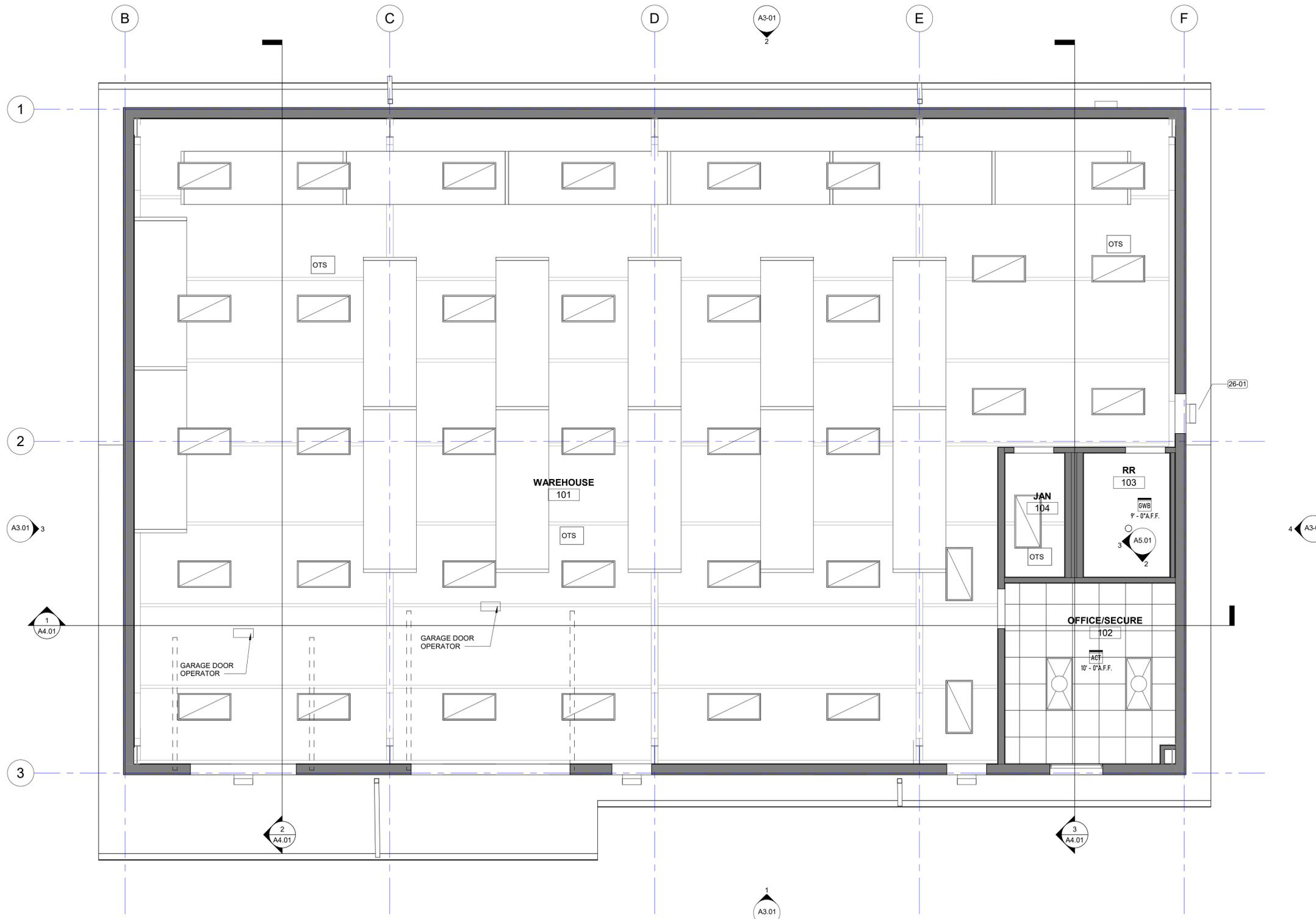
KEYNOTE LEGEND

Key Value	Keynote Text
07-01	COMMERCIAL GUTTER, RECTANGULAR, 6X6
07-02	DOWNSPOUT PER MTL BLDG MFR. CARRY ROOF RUNOFF WATER AT LEAST 10 HORIZ FT AWAY FROM BLDG
07-05	ROOF ACCESSORIES, SNO FENCE
22-01	ROOF VENT. VERIFY QUANTITY AND LOCATION WITH PLUMBING PLANS.

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1 ROOF PLAN
 A2.13 1/4" = 1'-0"





1 1ST FLOOR RCP
A2.21 1/4" = 1'-0"

REFLECTED CEILING PLAN LEGEND

	ACTI	2X4 ACOUSTIC CEILING TILE BOD: ARMSTRONG CALLA TEGULAR FINISH: 15/16" PRELUDE
	GWB	1/2" GYPSUM CEILING BOARD ON 2X WD FRAMING FINISH: LEVEL 4, PAINT PER FINISH SCHED
	MSI	METAL SOFFIT ON 2X WD FRAMING BOD: METAL SALES SOFFIT PANEL 246A FINISH: CHAMPAGNE
	OTS	OPEN TO STRUCTURE, FACTORY FINISHED MATERIALS TO BE EXPOSED

ELECTRICAL/ LIGHTING SYMBOLS
REFERENCE ELECTRICAL FOR ADD'L INFO.

	2X4 LIGHT		1X4 LIGHT
	GENERAL LIGHTING		RECESSED DOWNLIGHTS
	FAN		WALL LIGHT
			TUBULAR DAYLIGHT DEVICE

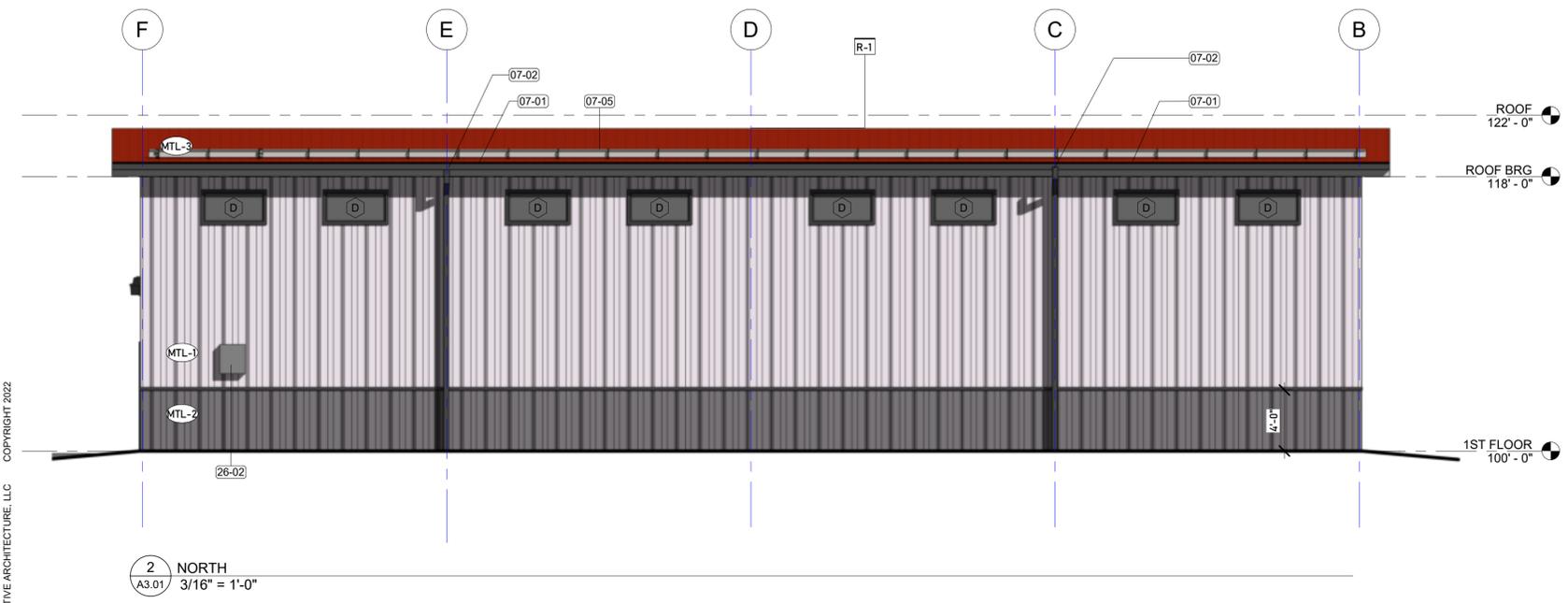
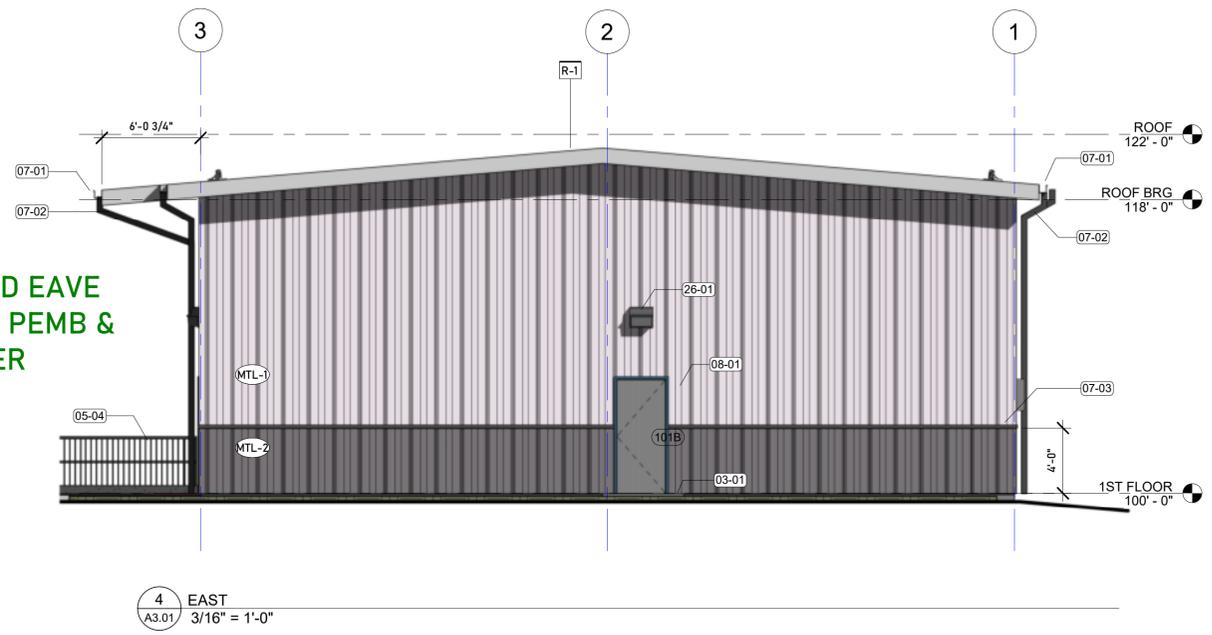
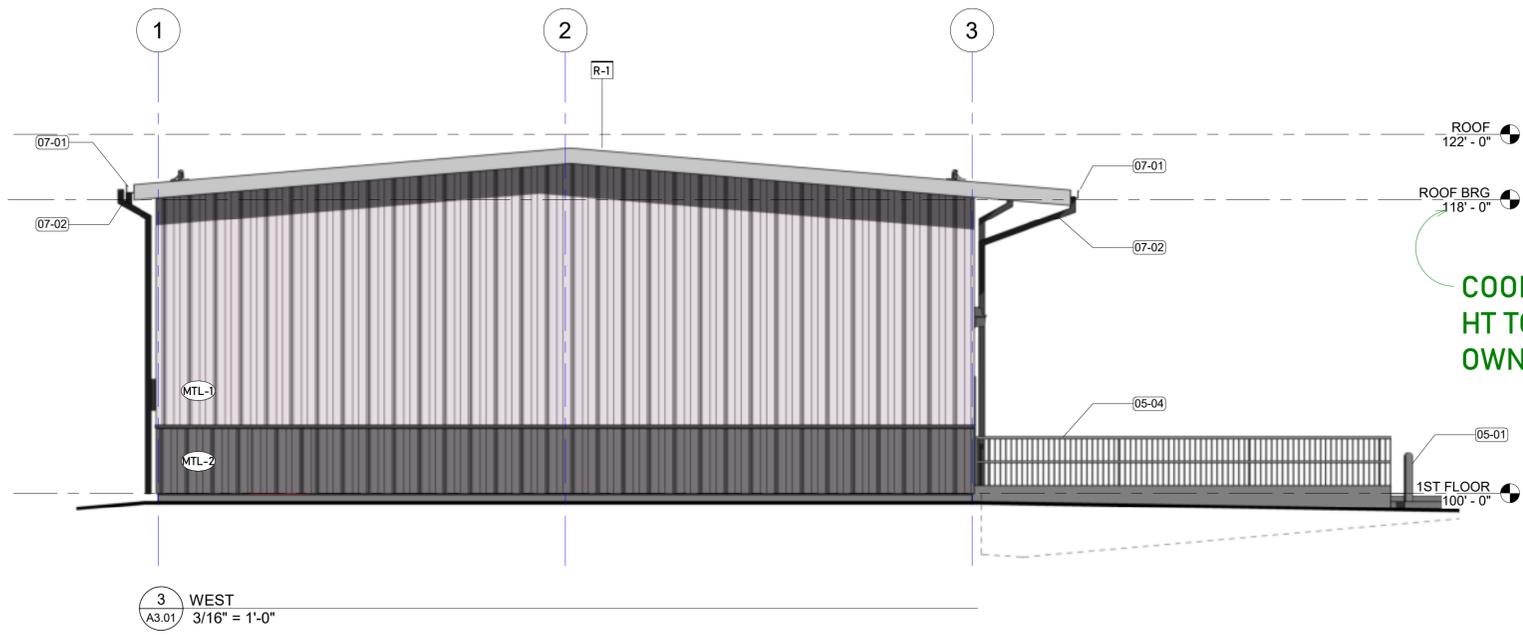
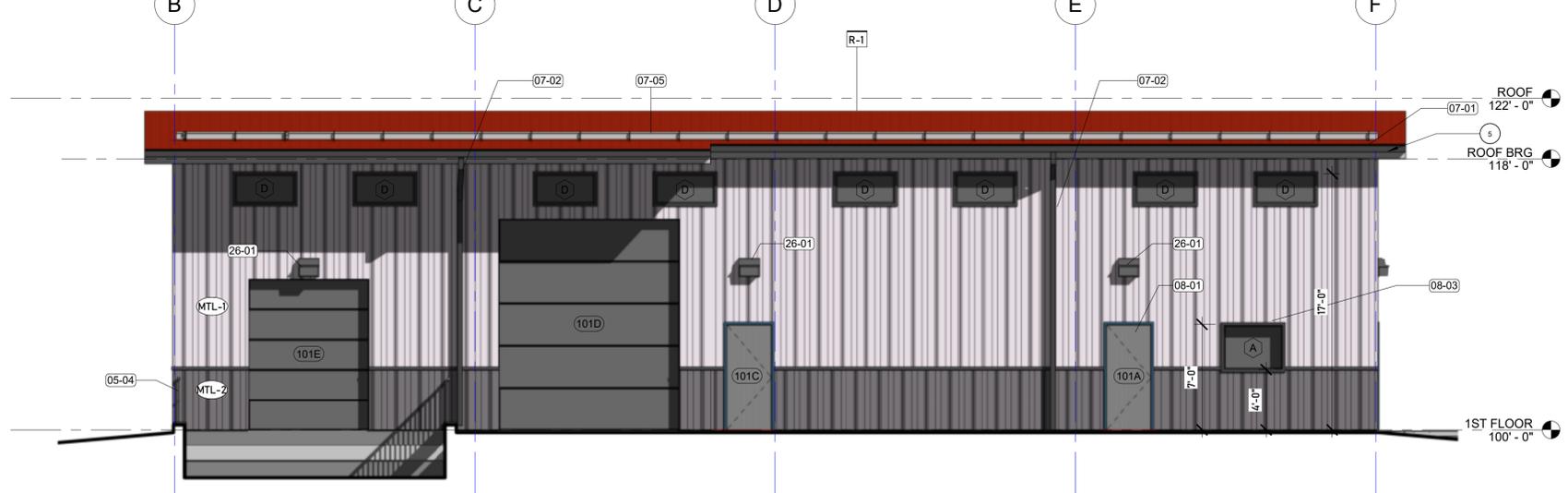
MECHANICAL SYMBOLS
REFERENCE MECHANICAL FOR ADD'L INFO.

	SUPPLY		RETURN
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- NOTES:**
1. GENERALLY CENTER CEILING GRIDS IN EACH ROOM AS SHOWN ON PLANS TO PROVIDE EQUALLY SIZED PANELS ON OPPOSITE WALLS. IF PLANS INDICATE A GRID ALIGNING WITH A COLUMN, WALL, SOFFIT, ETC., START GRID AT INDICATED SURFACE.
 2. ALL KEYED NOTES NOT INDICATING A LOCATION OF WORK ARE ASSUMED TO ENCOMPASS THE ENTIRE AREA THAT THEY ARE WITHIN.
 3. SEE FLOOR PLAN FOR WALL TYPES AND WALLS THAT EXTEND FULL HEIGHT TO STRUCTURE.
 4. SEE TYPICAL CEILING DETAILS ON INTERIOR DETAIL SHEETS.
 5. CEILING FIXTURES ARE SHOWN FOR REFERENCE ONLY FOR COORDINATION WITH CEILING FINISH SYSTEM. SEE MECHANICAL, ELECTRICAL AND SPRINKLER DRAWINGS FOR CEILING FIXTURES TYPES AND SCHEDULES.
 6. SPOT ELEVATIONS ARE FROM FINISH FLOOR TO SURFACE FINISH OF CEILING AND ARE ROUNDED TO THE NEAREST INCH.
 7. ANY J-BOXES REQUIRED TO REMAIN WITHOUT AN INSTALLED DEVICE, SHALL HAVE BLANK FACE PLATE INSTALLED TO MATCH (N) FACE PLATES. PAINTED METAL BOX COVERS TO BE REPLACED.
 8. REMOVE AND REPLACE EXISTING ELECTRICAL CONDUIT / WIREMOLD AS REQUIRED TO PERFORM REPAIR / PATCH WORK.

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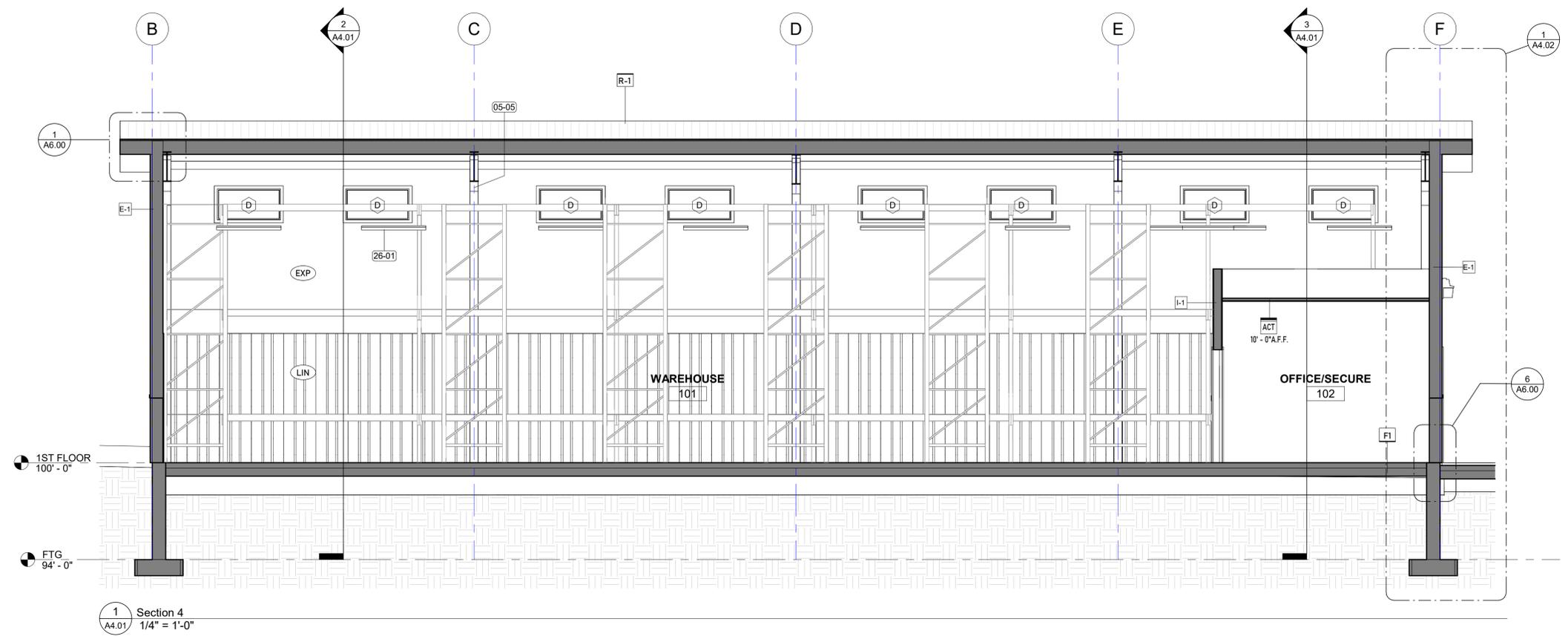


Key Value	Keynote Text
03-01	CONCRETE PAD. CENTER ON DOUBLE DOORS, TYP. ALIGN WITH HINGE-SIDE JAMB ON SINGLE LEAF DOORS, TYP, UNO
05-01	METAL BOLLARDS
05-04	METAL GUARD RAILING. SEE DETAILS AND CIVIL
07-01	COMMERCIAL GUTTER, RECTANGULAR, 6X6
07-02	DOWNSPOUT PER MTL BLDG MFR, CARRY ROOF RUNOFF WATER AT LEAST 10 HORIZ FT AWAY FROM BLDG
07-03	SHEET MTL FLASHING PER MTL BLDG MFR
07-05	ROOF ACCESSORIES, SNO FENCE
08-01	HOLLOW METAL DOORS & FRAMES
08-03	ALUMINUM-FRAMED STOREFRONT WINDOWS
26-01	LIGHTING
26-02	EXTERIOR SERVICE PANEL, SEE ELEC

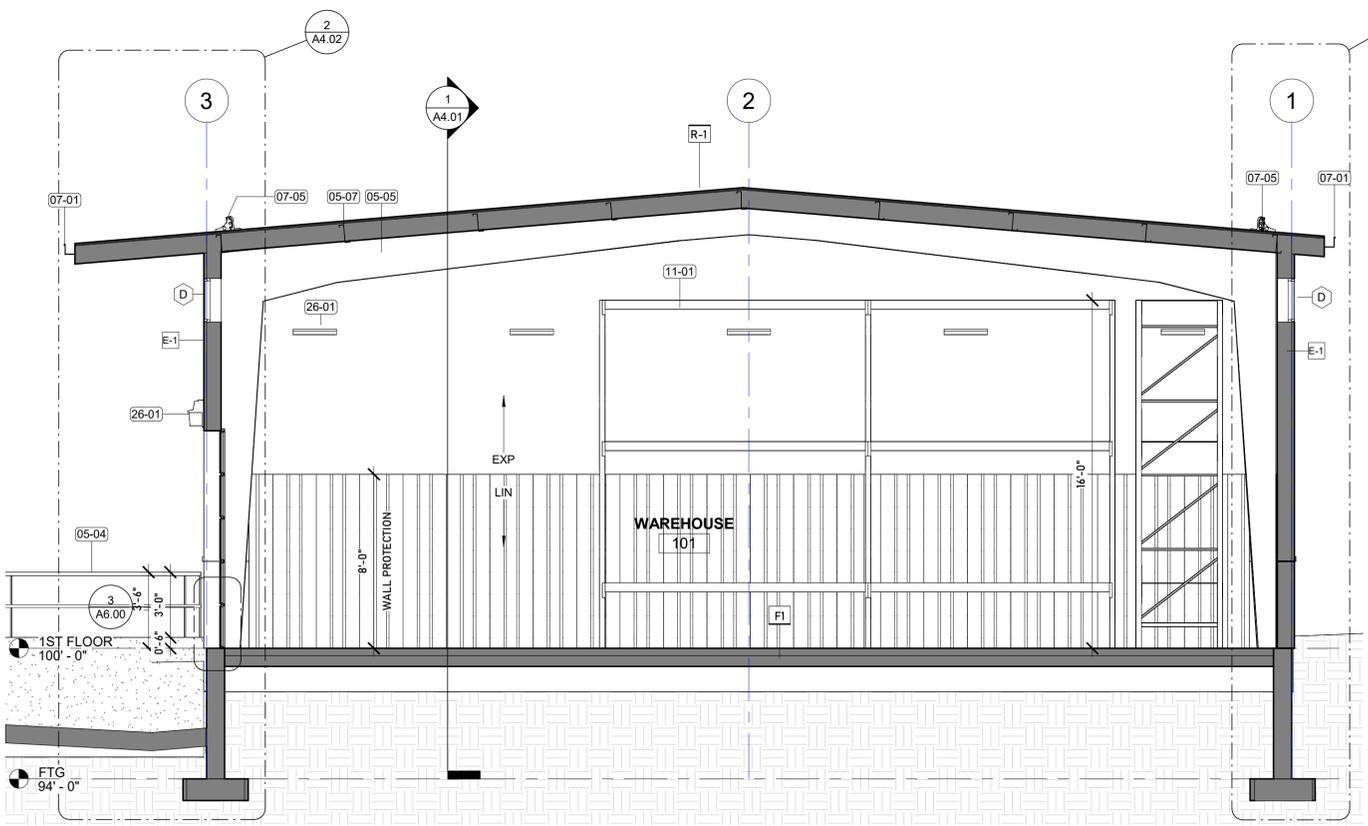


LEGEND - EXTERIOR FINISHES	
MTL-1	PBR METALLIC BLDG COLOR: SLATE GREY
MTL-2	PBR METALLIC BLDG COLOR: MIDNIGHT BRONZE
MTL-3	STANDING SEAM DOUBLE-LOK METALLIC BUILDING COLOR: BRITE RED (ALT COPPER/ COLONIAL)
TR-2	DOORS AND WINDOWS MATCH MTL-2 COLOR: BLACK

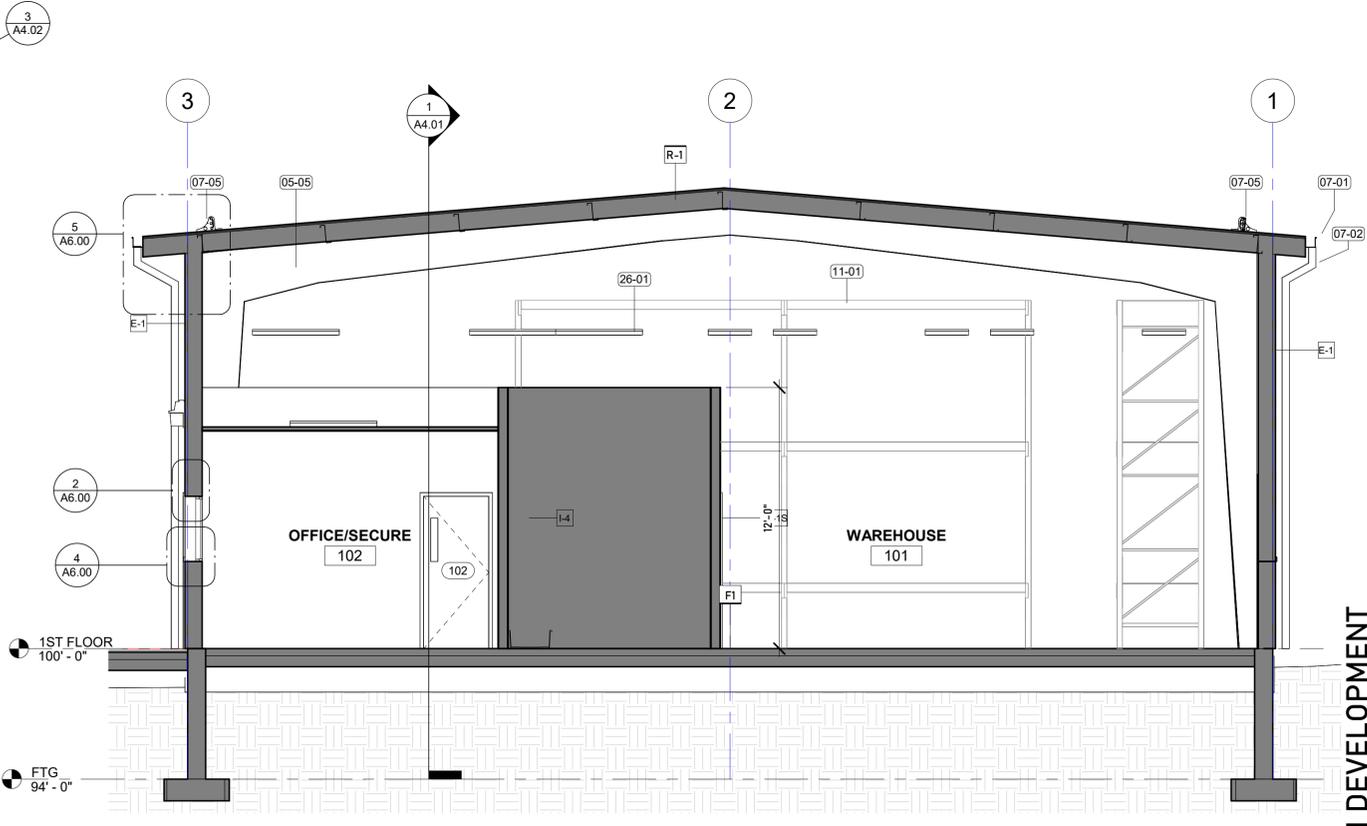
- GENERAL ELEVATION NOTES**
- SEE WALL SECTIONS FOR VERTICAL DIMENSIONS
 - REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION
 - VERIFY ALL DIMENSIONS IN FIELD
 - CENTER PENETRATIONS AS APPLICABLE, UNO



1 Section 4
A4.01 1/4" = 1'-0"



2 Section 5
A4.01 1/4" = 1'-0"



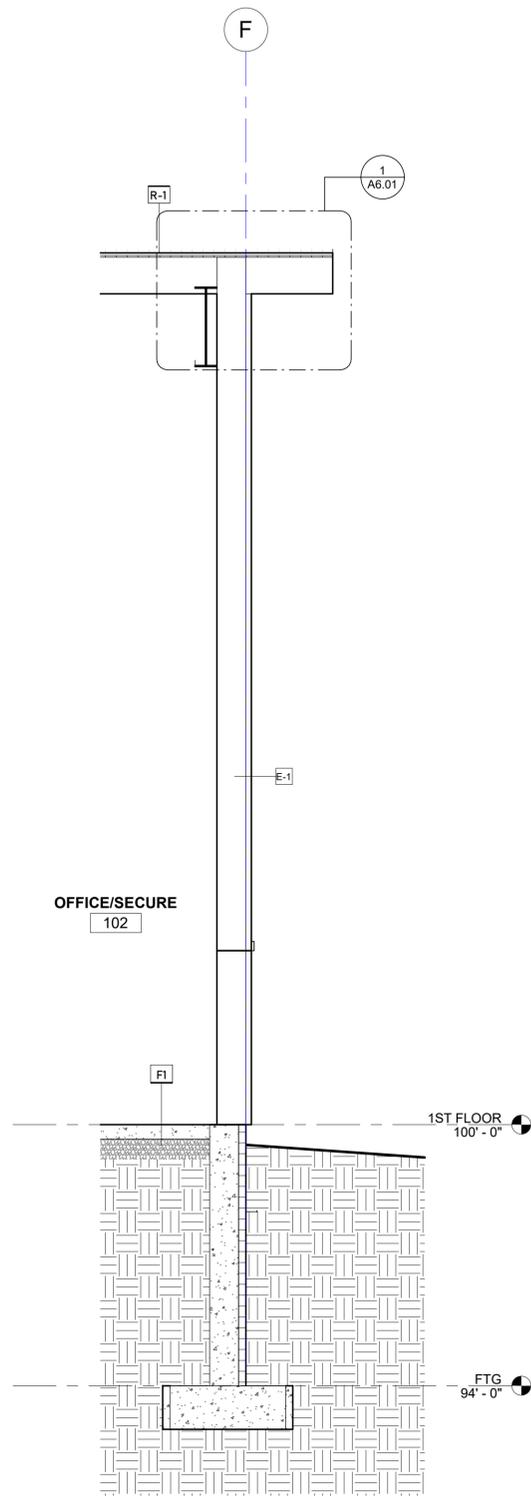
3 Section 6
A4.01 1/4" = 1'-0"

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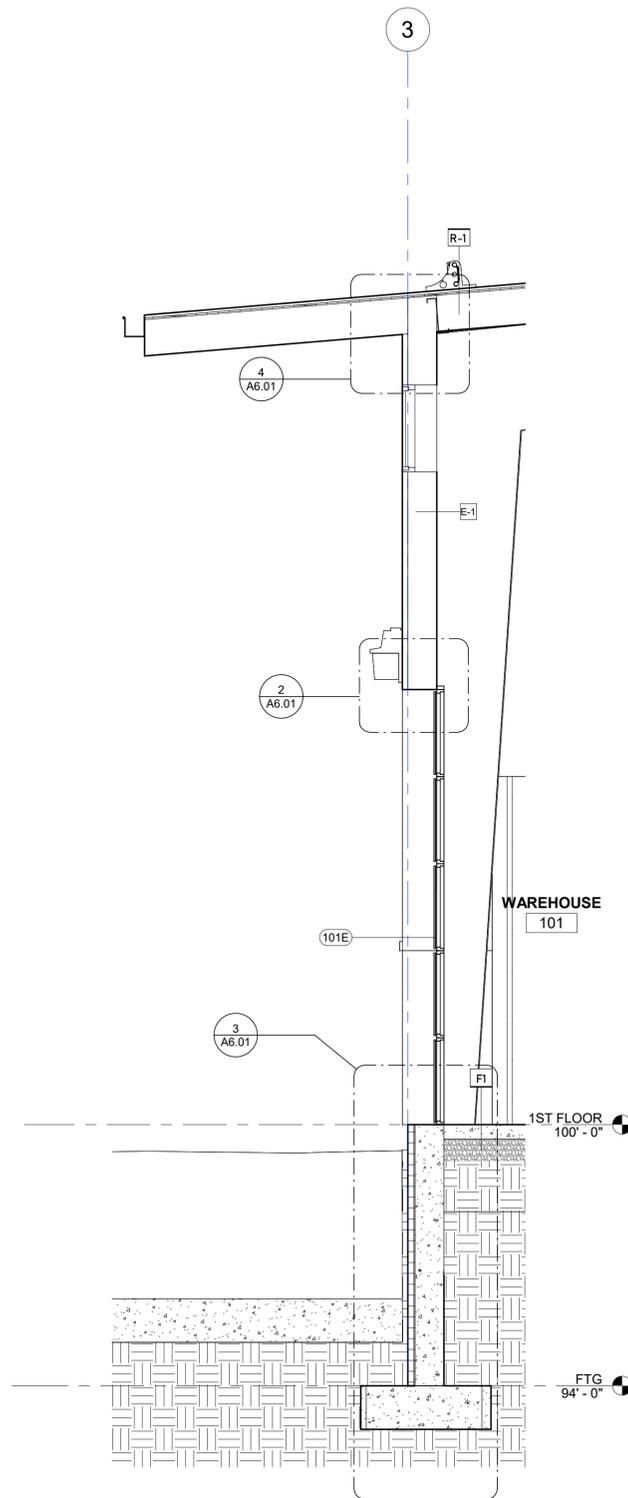
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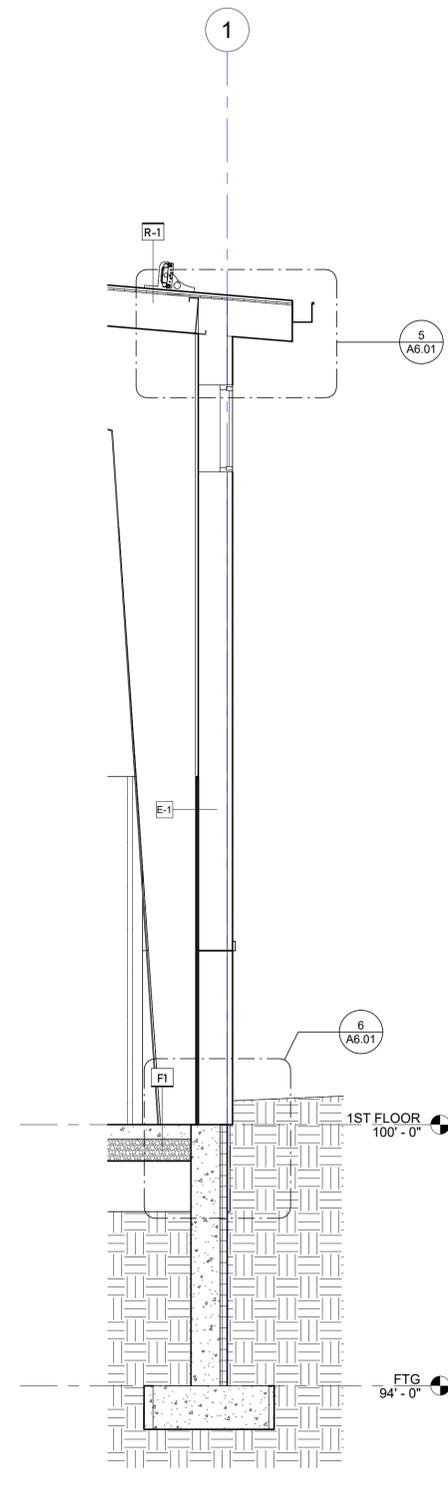
BUILDING SECTIONS



1 WALL SECTION-END WALL
A4.02 1/2" = 1'-0"



2 WALL SECTION-SIDEWALL SOUTH
A4.02 1/2" = 1'-0"



3 WALL SECTION-SIDE WALL NORTH
A4.02 1/2" = 1'-0"

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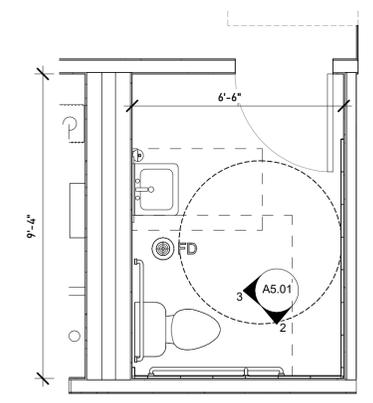
- ### FLOOR PLAN KEYNOTES:
- ① ELECTRICAL PANEL. REFER TO ELECT.
 - ② ROOF LADDER
 - ③ MOP SINK, REFER TO MECH
 - ④ WATER HEATER, REFER TO MECH
 - ⑤ SURFACE MOUNTED SOAP DISP
 - ⑥ SURFACE MOUNT PAPER TOWEL DISP, SEE SPEC.
 - ⑦ CONCRETE PAD. CENTER ON DOUBLE DOORS. TYP. ALIGN WITH HINGE-SIDE JAMB ON SINGLE LEAF DOORS. TYP. UNO
 - ⑧ 4' HIGH S.S CORNER GUARD
 - ⑨ RECESSED FIRE EXTINGUISHER CABINET. VERIFY SIZE AND LOCATION WITH LOCAL AUTHORITY. SURFACE MOUNT ACCEPTABLE AT METAL BUILDING WALLS, IF NOT LOCATED IN WALKING PATH.



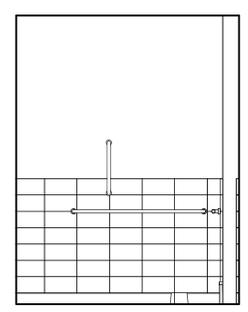
IN2ITIVE
ARCHITECTURE
127 East Main St, Suite 302
Missoula, MT 59802
www.in2itivearch.com
406.926.2326

- ### GENERAL NOTES-FLOOR PLANS
1. USE WRITTEN DIMENSIONS, DO NOT SCALE DRAWINGS. DIMENSIONS ARE TO GRID, FACE OF (N) STUD/COL, FACE OF (E) FINISH, OR DOOR/WINDOW OPENINGS. AT 1/8" DIMENSIONS ARE TO FACE OF CONCRETE. DIMENSIONS TO OPENINGS ARE NOMINAL. VERIFY ALL OPENINGS WITH ROUGH OPENING REQUIREMENTS.
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 19. PROVIDE 4" SS CORNER GUARDS AT EACH EXPOSED GWB CORNER
 20. REFER TO OVERALL FLOOR PLAN FOR FLOOR MATERIAL TRANSITIONS
 21. REFER TO INT ELEV FOR CONTROL JOINT LOCATIONS

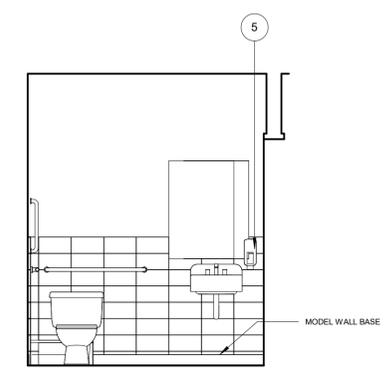
ALTER ENTERPRISE LLC
ALTER/SILVERSTREAM
7151 KESTREL DR MISSOULA, MT 59808
PROJECT # 22.01.003



① 1ST FLOOR REST ROOM PLAN1
A5.01 3/8" = 1'-0"



② INTERIOR ELEVATION-RESTROOM SOUTH
A5.01 3/8" = 1'-0"



③ INTERIOR ELEVATION-RESTROOM WEST
A5.01 3/8" = 1'-0"

LEGEND - PLAN

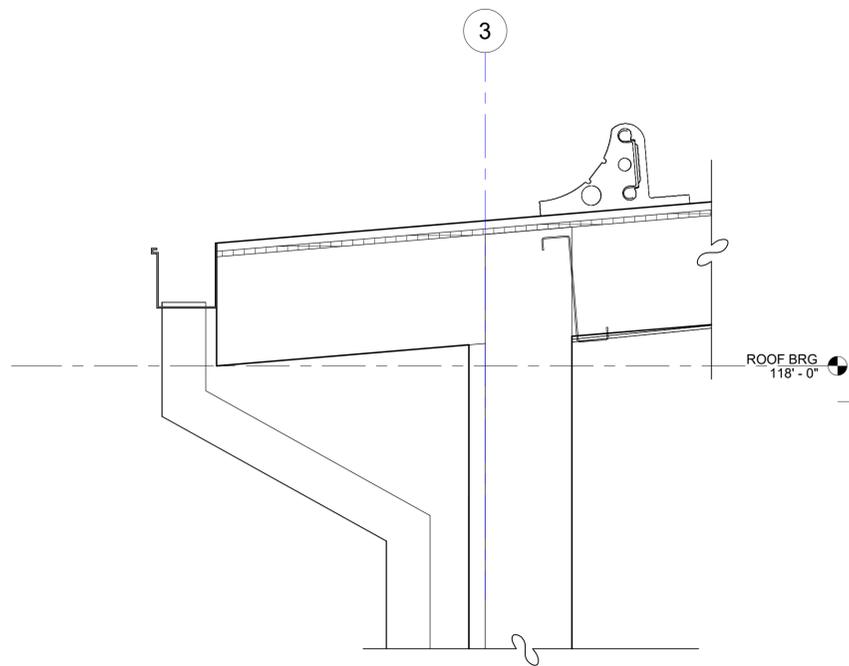
WD	CPT	FLOORING TRANSITION
E-1		WALL TAG
①		KEYNOTE
---		LINE OF WALL AB/IBLW
z z z z		DEMO WALL
---		(E) WALL
---		(N) WALL
		SOUND INSULATION
---		DEMO
---		EXISTING
---		NEW
---		MATCH LINE
FE		FIRE EXTINGUISHER
FD		FLOOR DRAIN, REFER TO ENLARGED PLANS
DS		DOWNSPOUT PER MTL BUILDING PROVIDER
PT-X		PAINT COLOR, DENOTES EXTENT OF WALL. REFER TO FINISH SCHEDULE.
[Crosshatched]		CROSSHATCHED AREA INDICATES AREA OF SYNTH FLOORING. REFER TO FINISH KEY

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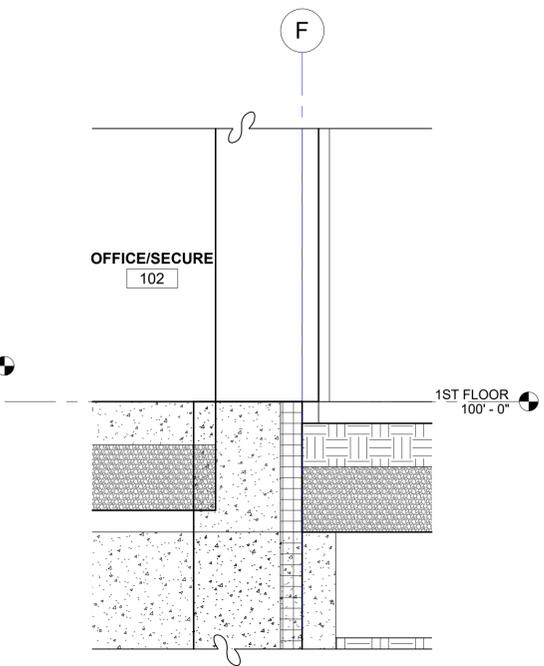
DESIGN DEVELOPMENT

ENLARGE PLAN

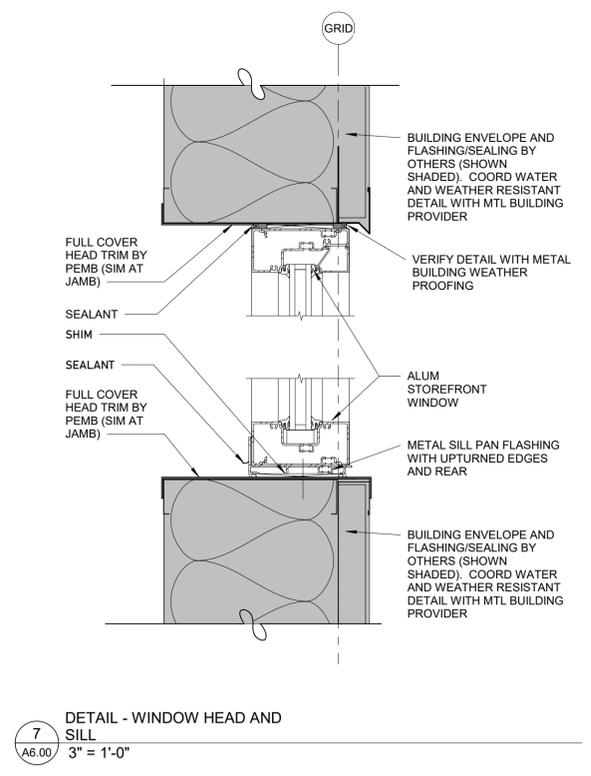
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22.05.25



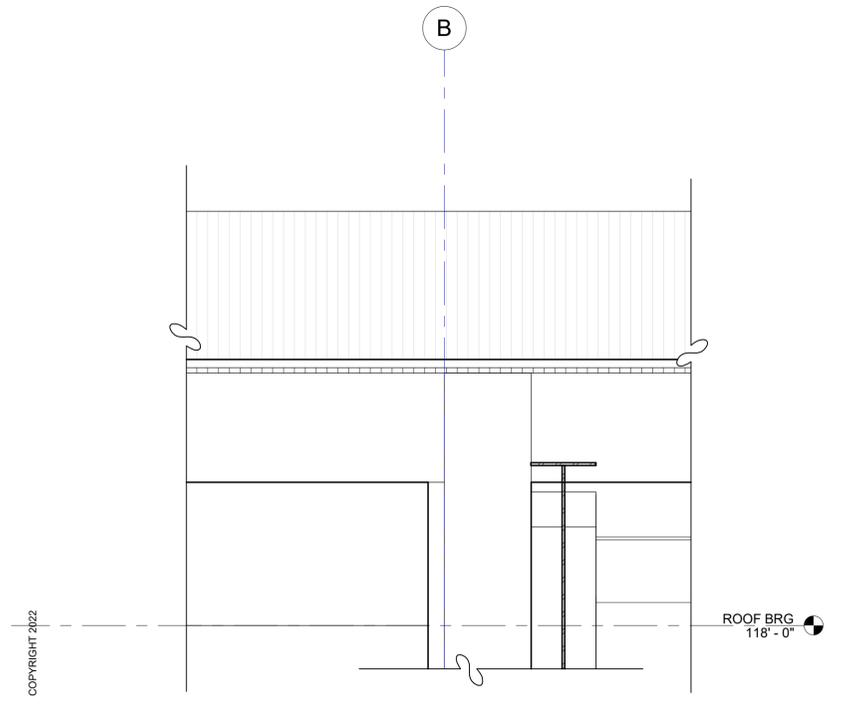
5 SECTION DETAIL 5
A6.00 1 1/2" = 1'-0"



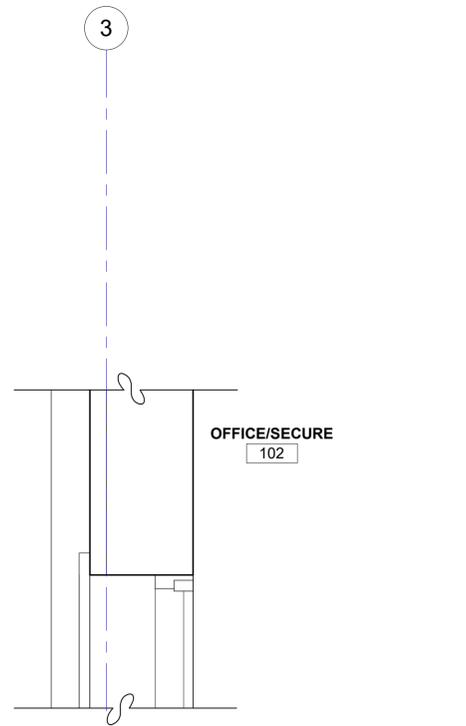
6 SECTION DETAIL 6
A6.00 1 1/2" = 1'-0"



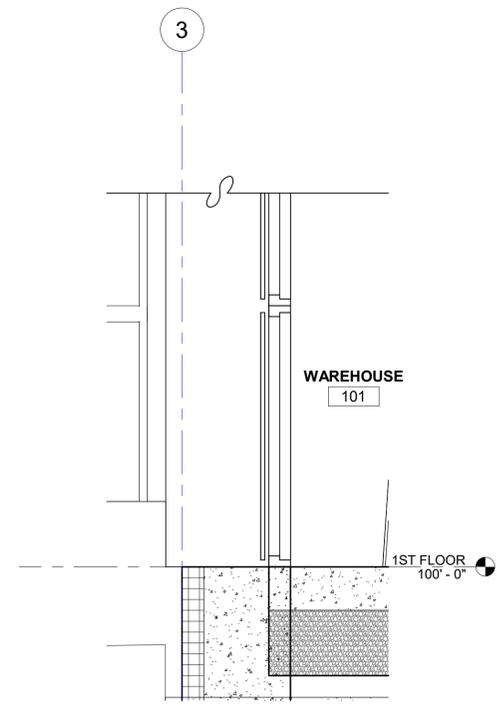
7 DETAIL - WINDOW HEAD AND SILL
A6.00 3" = 1'-0"



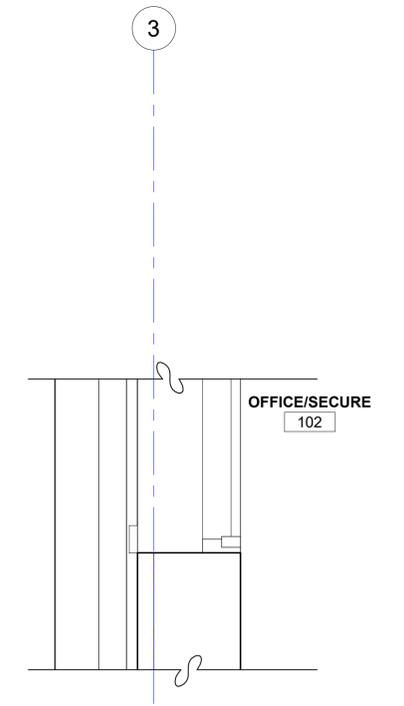
1 SECTION DETAIL 1
A6.00 1 1/2" = 1'-0"



2 SECTION DETAIL 2
A6.00 1 1/2" = 1'-0"



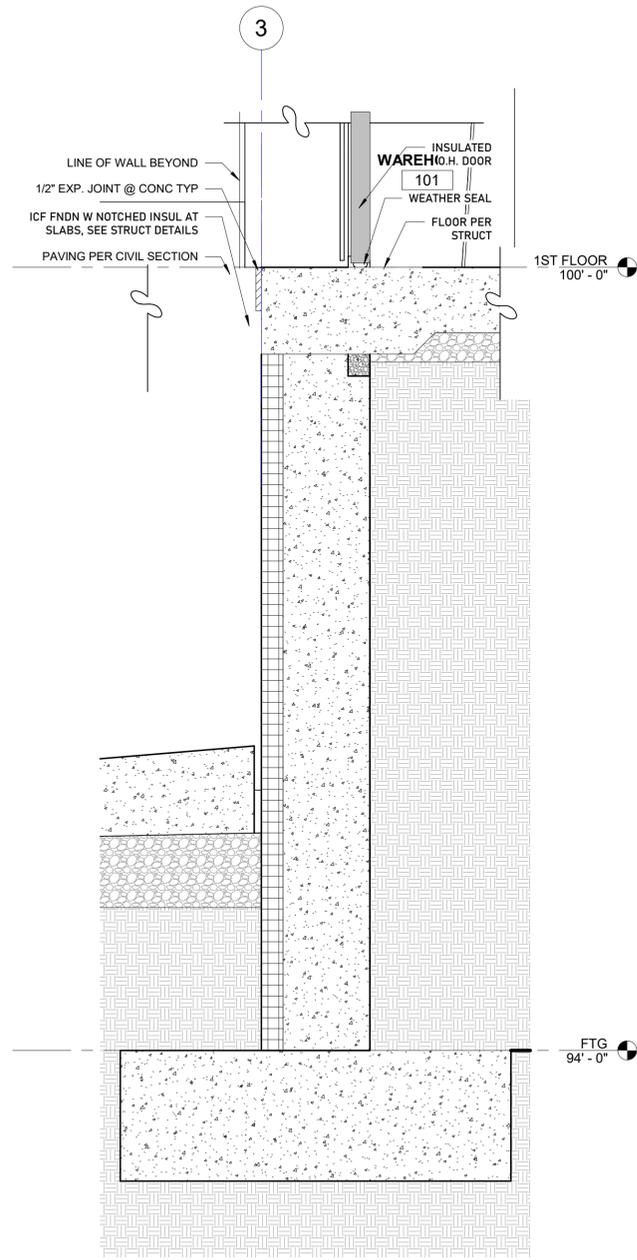
3 SECTION DETAIL 3
A6.00 1 1/2" = 1'-0"



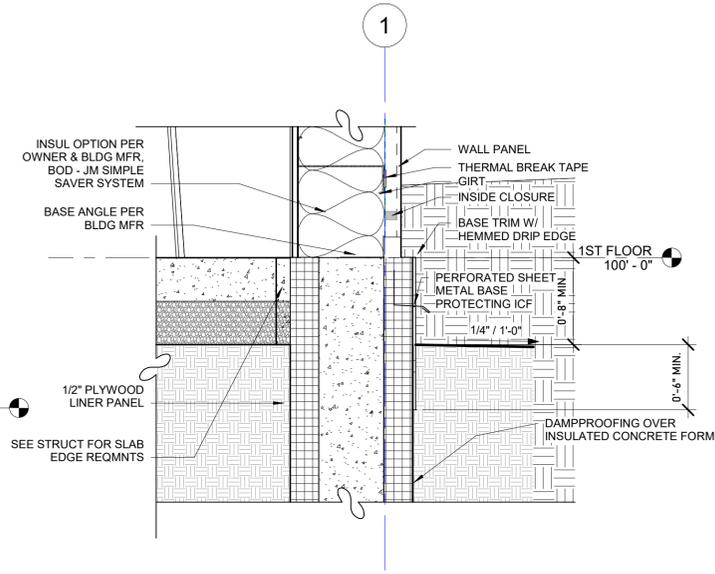
4 SECTION DETAIL 4
A6.00 1 1/2" = 1'-0"

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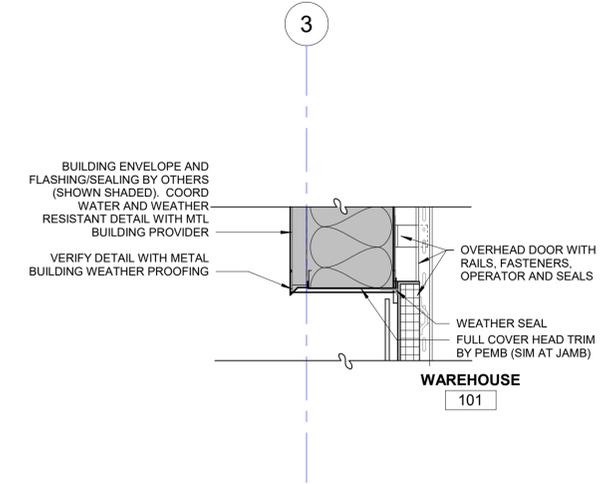
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			DD	
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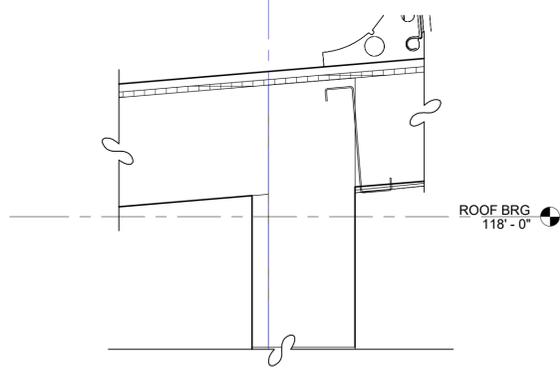
3 WALL SECTION-SIDEWALL SOUTH - DETAIL 3
A6.01 1 1/2" = 1'-0"



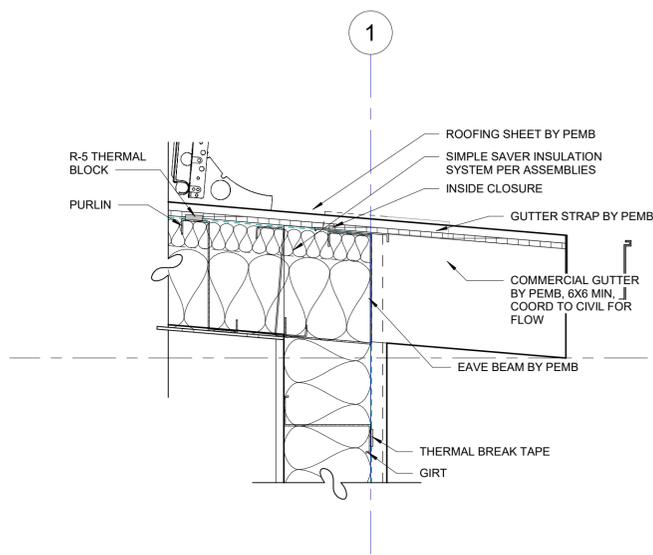
6 WALL SECTION-SIDEWALL NORTH - DETAIL 6
A6.01 1 1/2" = 1'-0"



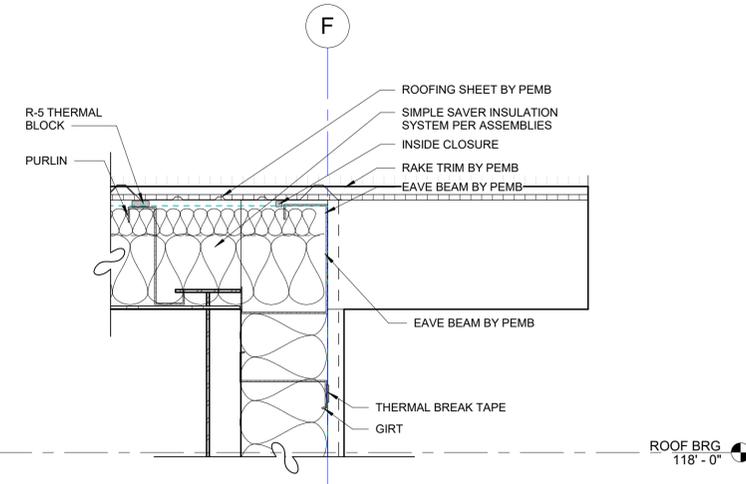
2 WALL SECTION-SIDEWALL SOUTH - DETAIL 2
A6.01 1 1/2" = 1'-0"



4 WALL SECTION-SIDEWALL SOUTH - DETAIL 4
A6.01 1 1/2" = 1'-0"

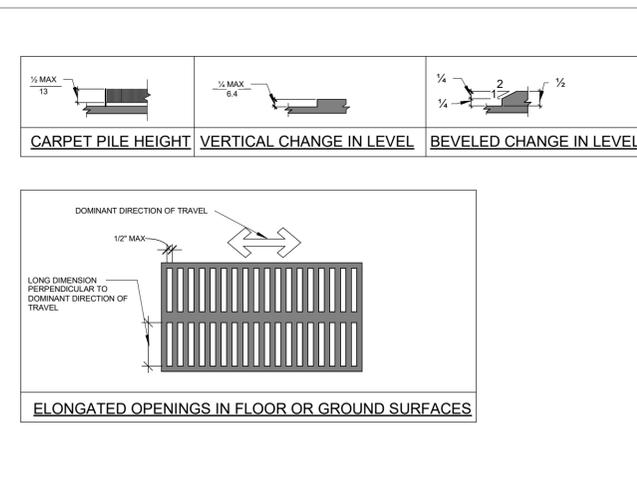


5 WALL SECTION-SIDE WALL NORTH - DETAIL 5
A6.01 1 1/2" = 1'-0"

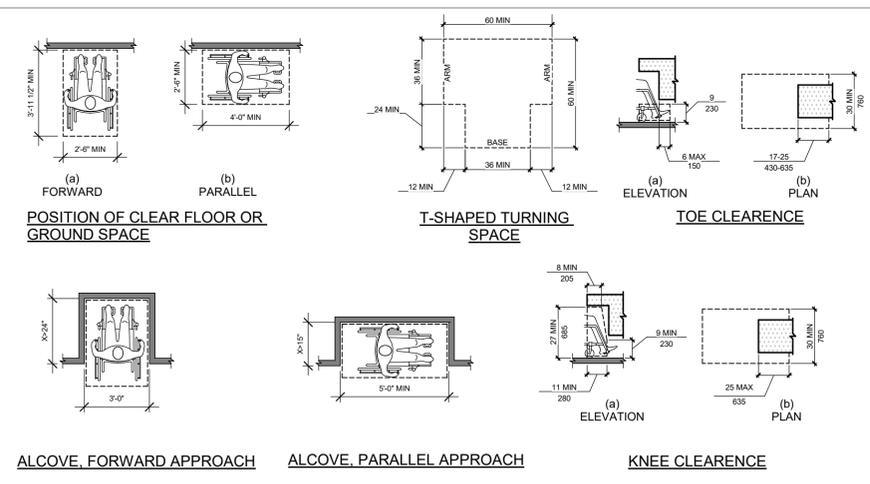


1 WALL SECTION-END WALL - DETAIL 1
A6.01 1 1/2" = 1'-0"

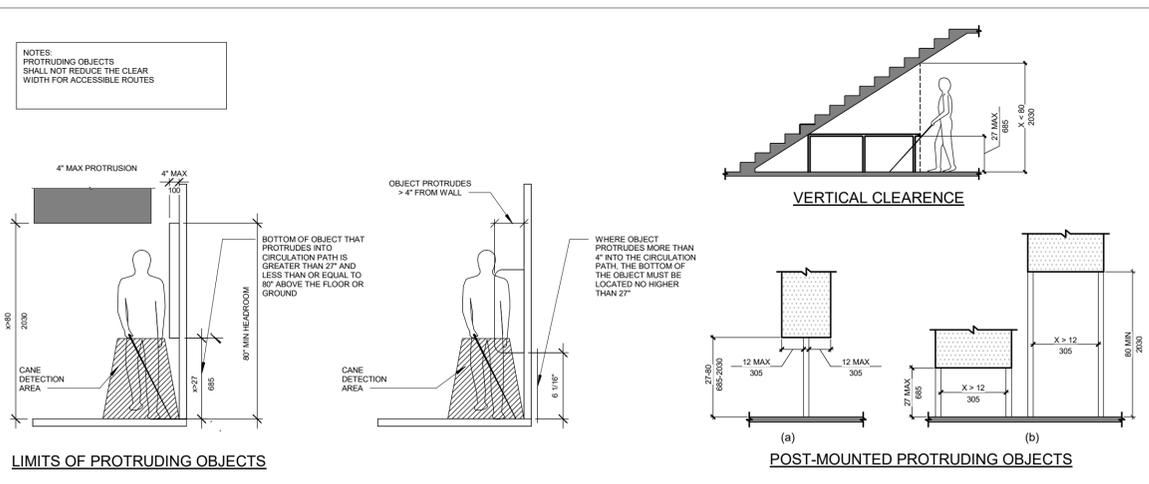
FLOORING



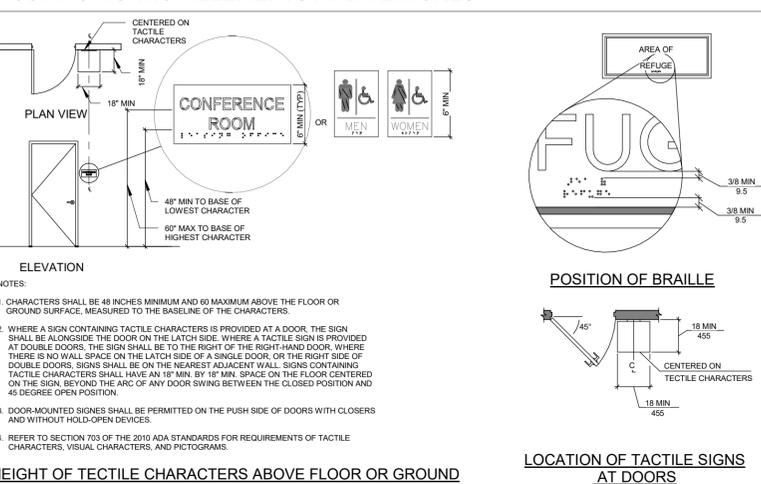
MANEUVERING CLEARANCES



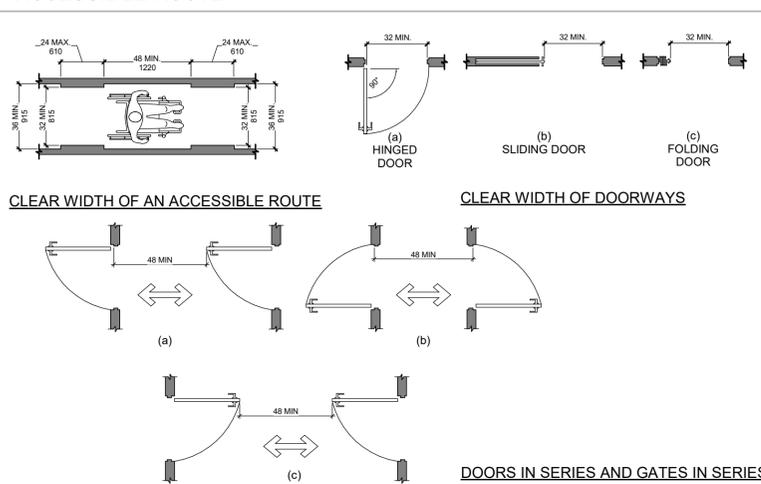
PROTRUDING OBJECTS CLEARANCES



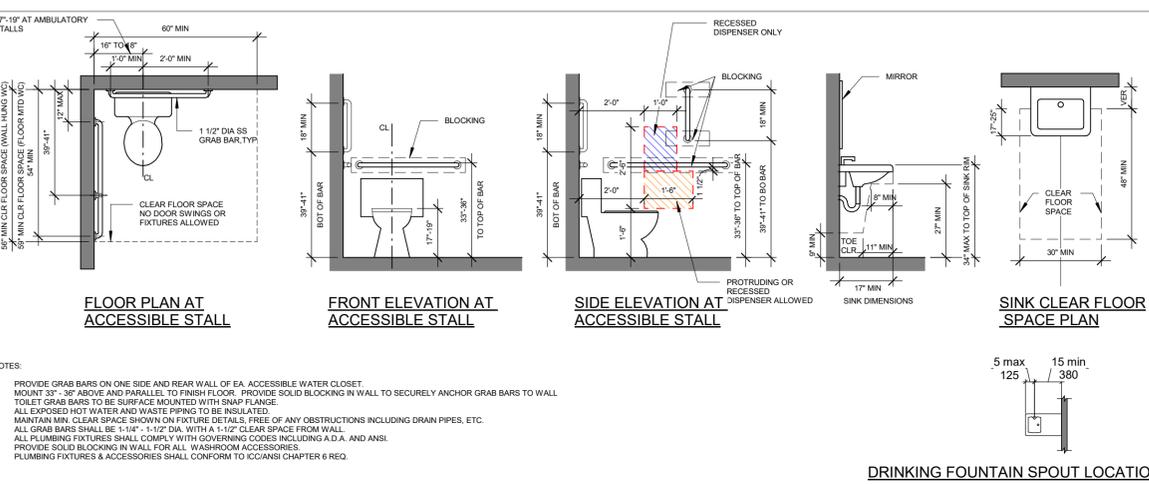
COMMUNICATION ELEMENTS AND FEATURES



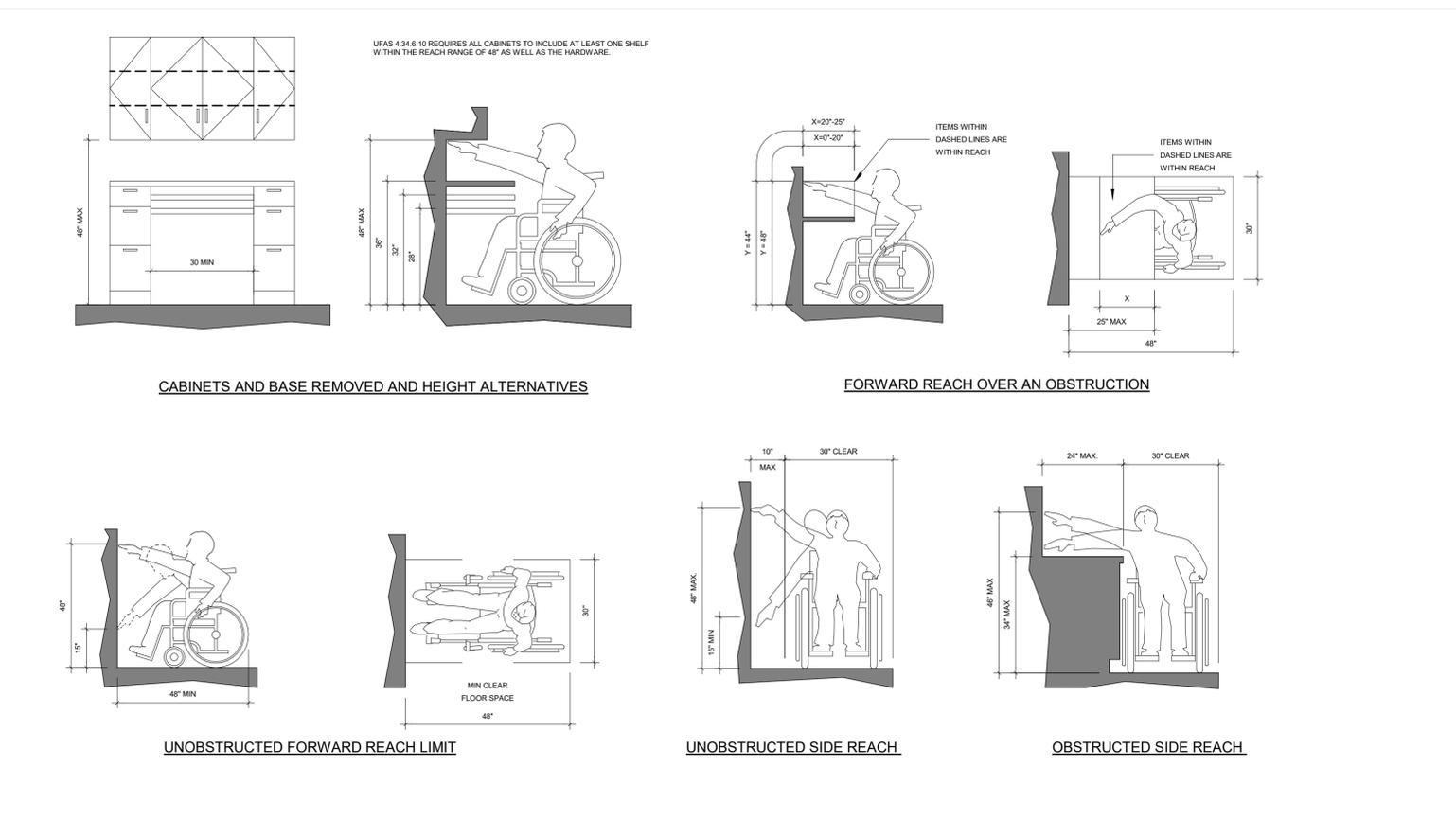
ACCESSIBLE ROUTE



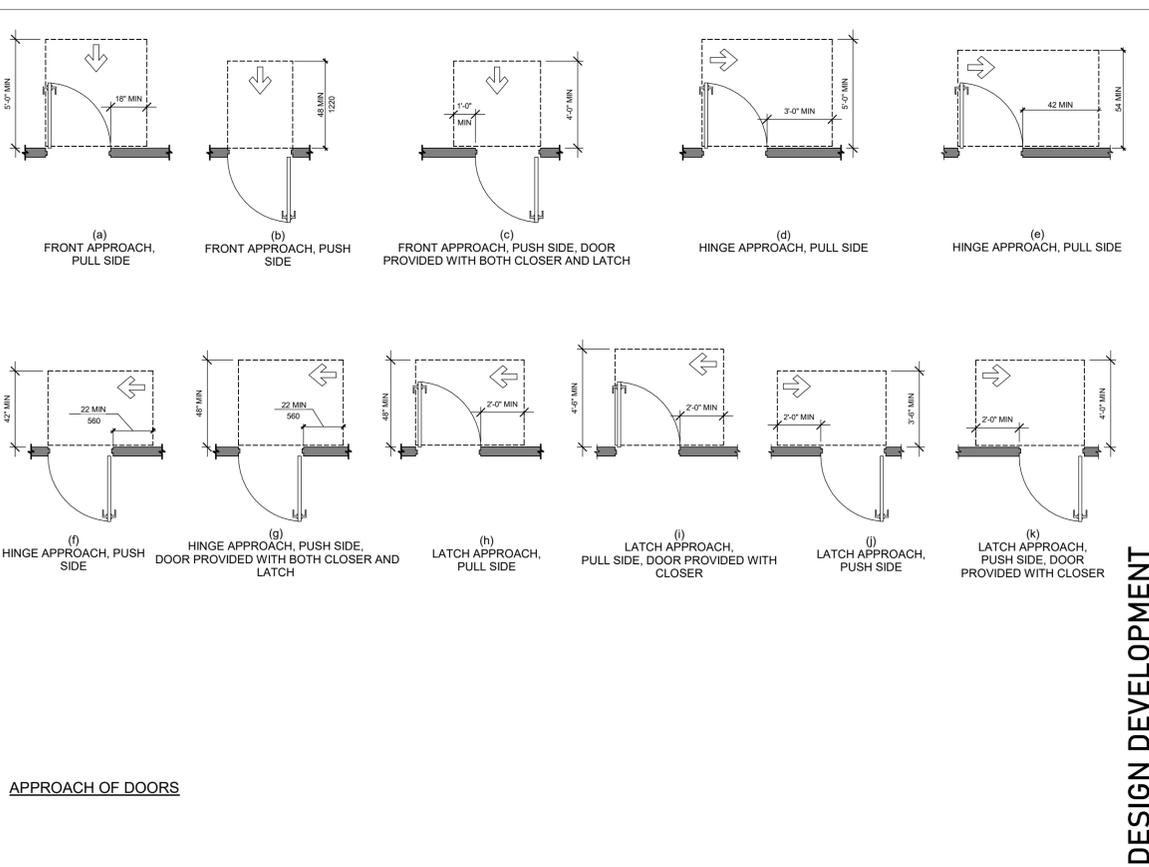
PLUMBING ELEMENTS AND FACILITIES



ACCESSIBLE MOUNTING HEIGHT DETAILS



DOOR SWING CLEARANCES



IN2ITIVE ARCHITECTURE
127 East Main St, Suite 302
Missoula, MT 59802
www.in2itivearch.com
406.926.2326

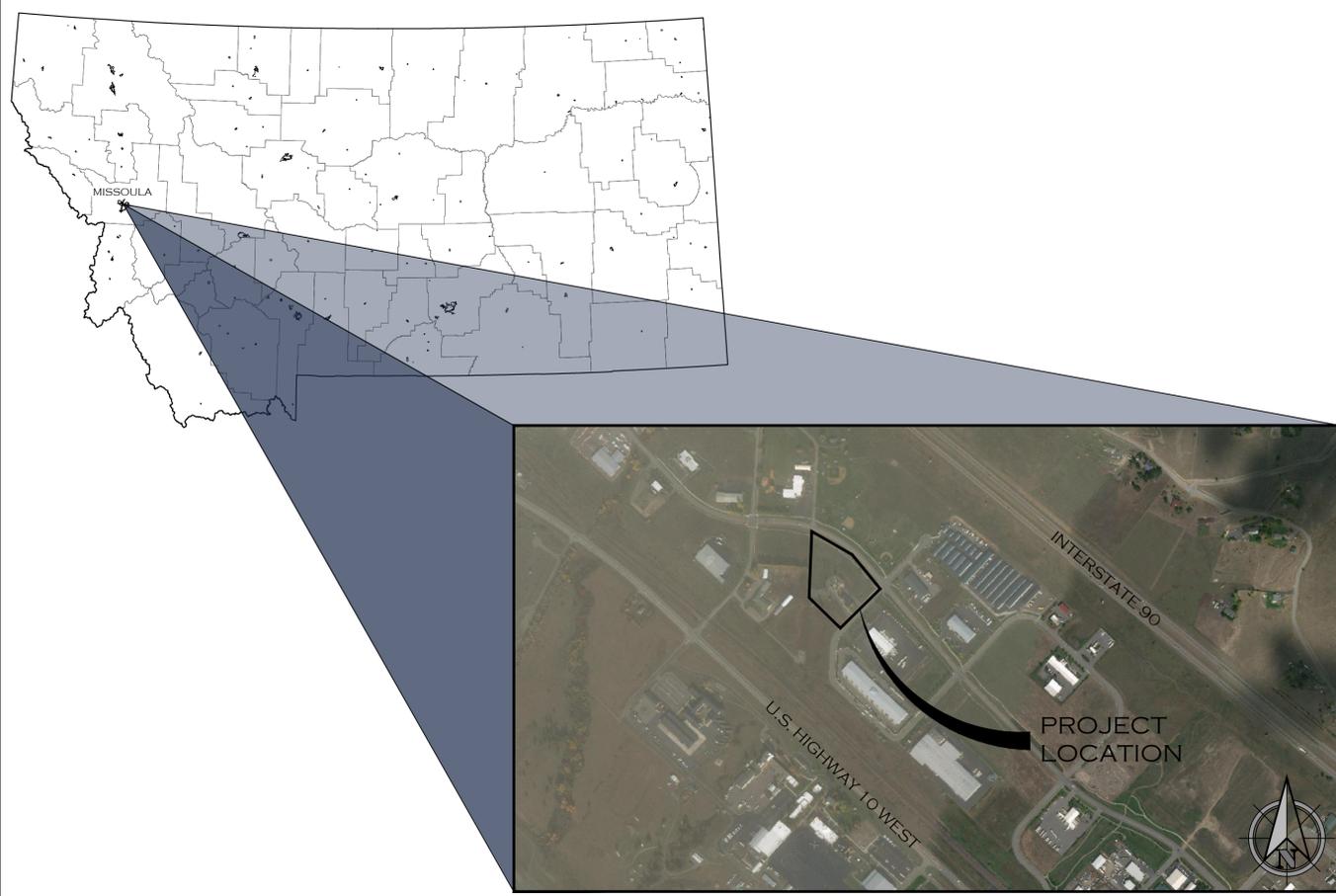
ALTER ENTERPRISE LLC
ALTER/SILVERSTREAM
7151 KESTREL DR MISSOULA, MT 59808
PROJECT # 22.01.003

REV	DESC	DATE	PHASE	DATE
PRE	SD	DD	DD	CD

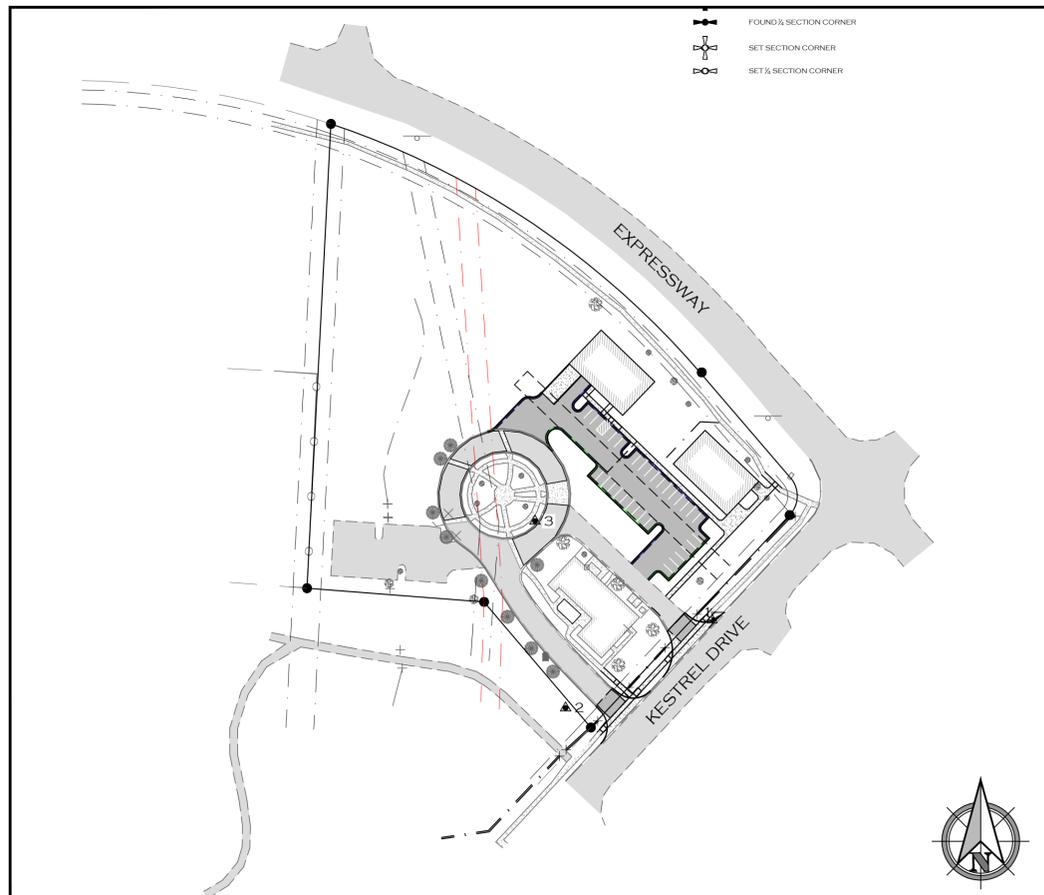
ADA DETAILS

DESIGN DEVELOPMENT

A7.02
22.05.25



VICINITY MAP
NOT TO SCALE



PROJECT MAP
NOT TO SCALE

CIVIL CONSTRUCTION PLANS FOR ALTER-SILVERSTREAM SITE DEVELOPMENT

MISSOULA, MONTANA

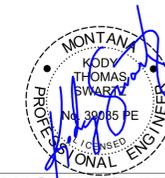
CITY OF MISSOULA PROJECT NO.

SEPTEMBER 2022

IMPROVEMENTS BY: ALTER-SILVERSTREAM
7151 KESTREL DRIVE,
MISSOULA, MT 59808

APPROVED BY:

KODY SWARTZ, PE
3860 O'LEARY ST. SUITE A,
MISSOULA, MT. 59808
(406) 203-0869



SHEET LIST TABLE

SHEET NUMBER	SHEET TITLE
C0.0	COVER
C0.1	GENERAL NOTES
C1.0	EXISTING SITE CONDITIONS
C2.0	SITE PLAN - OVERALL
C2.1	SITE PLAN - WEST
C2.2	SITE PLAN - EAST
C2.3	SITE PLAN - DRIVEWAY APRONS
C2.4	SITE PLAN - SOUTHERN SWALE
C4.1	SEWER PLAN & PROFILE
C7.0	UTILITY DETAILS
C7.1	SITE DETAILS
C7.2	DRAINAGE DETAILS

COLOR VERIFICATION
ELEMENTS ON THIS SHEET ARE
INTENDED TO BE IN COLOR. IF
PROPERLY REPRODUCED, RED, GREEN
AND BLUE WILL BE VISIBLE.

JOB #:	2166
DRAWN:	LJJ, MOH
DESIGN:	LJJ, MOH
QA:	KTS
DATE:	9/7/2022



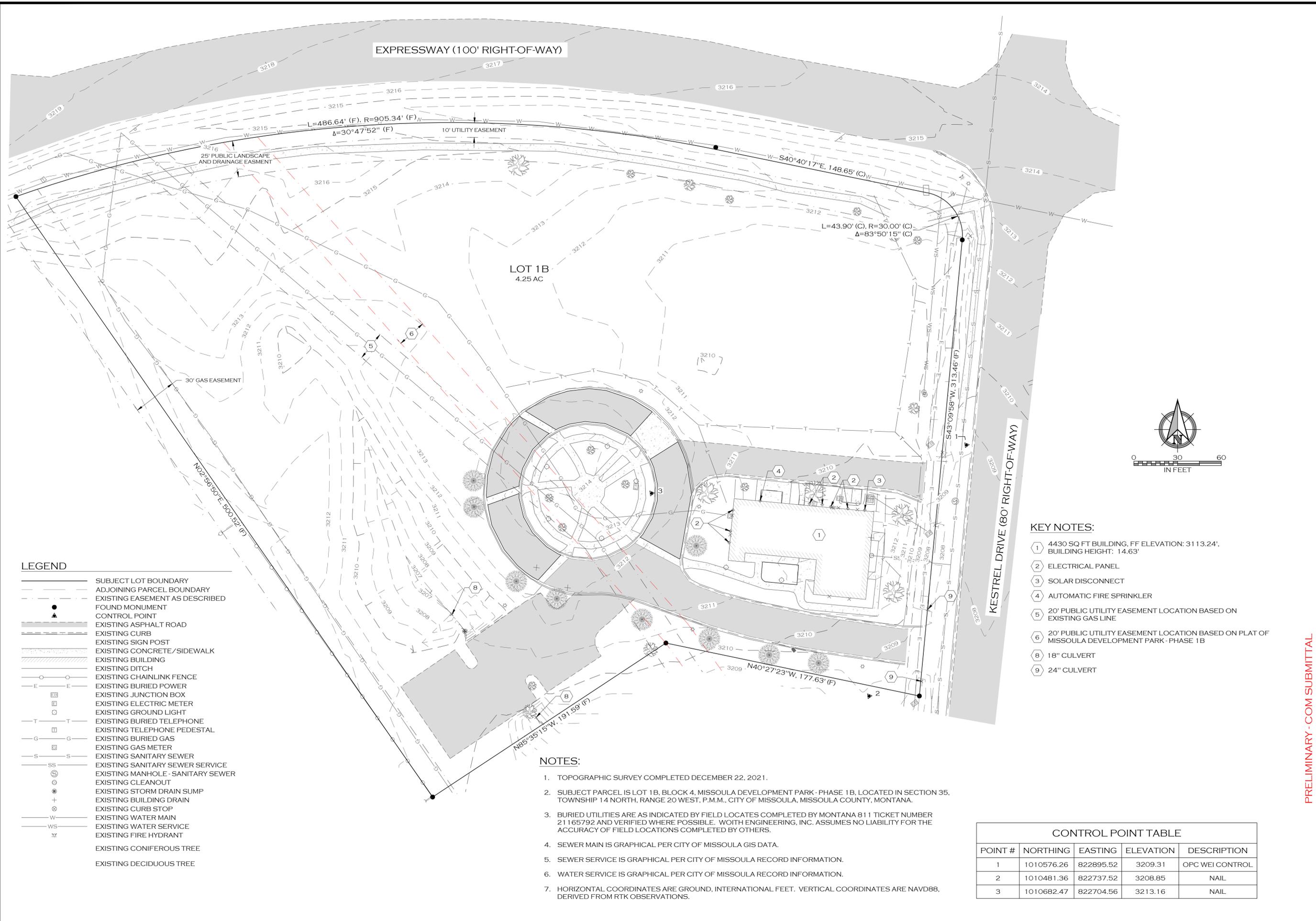
#	DESCRIPTION	DATE

WOITH ENGINEERING, INC.
ENGINEERS & SURVEYORS
405 3RD STREET NW, SUITE 205 - GREAT FALLS, MT 59403 - 406-761-1955
3860 O'LEARY STREET, SUITE A - MISSOULA, MT 59808 - 406-203-0869
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MISSOULA
MONTANA
ALTER-SILVERSTREAM SITE DEVELOPMENT
COVER

C0.0





LEGEND

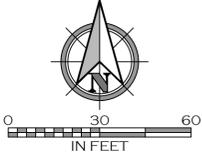
---	SUBJECT LOT BOUNDARY
---	ADJOINING PARCEL BOUNDARY
---	EXISTING EASEMENT AS DESCRIBED
●	FOUND MONUMENT
▲	CONTROL POINT
---	EXISTING ASPHALT ROAD
---	EXISTING CURB
---	EXISTING SIGN POST
---	EXISTING CONCRETE/SIDEWALK
---	EXISTING BUILDING
---	EXISTING DITCH
---	EXISTING CHAINLINK FENCE
E-E	EXISTING BURIED POWER
J	EXISTING JUNCTION BOX
M	EXISTING ELECTRIC METER
L	EXISTING GROUND LIGHT
T-T	EXISTING BURIED TELEPHONE
P	EXISTING TELEPHONE PEDESTAL
G-G	EXISTING BURIED GAS
M	EXISTING GAS METER
S-S	EXISTING SANITARY SEWER
SS	EXISTING SANITARY SEWER SERVICE
⊙	EXISTING MANHOLE - SANITARY SEWER
⊙	EXISTING CLEANOUT
⊙	EXISTING STORM DRAIN SUMP
+	EXISTING BUILDING DRAIN
⊙	EXISTING CURB STOP
W	EXISTING WATER MAIN
WS	EXISTING WATER SERVICE
⊙	EXISTING FIRE HYDRANT
⊙	EXISTING CONIFEROUS TREE
⊙	EXISTING DECIDUOUS TREE

- NOTES:**
- TOPOGRAPHIC SURVEY COMPLETED DECEMBER 22, 2021.
 - SUBJECT PARCEL IS LOT 1B, BLOCK 4, MISSOULA DEVELOPMENT PARK - PHASE 1B, LOCATED IN SECTION 35, TOWNSHIP 14 NORTH, RANGE 20 WEST, P.M.M., CITY OF MISSOULA, MISSOULA COUNTY, MONTANA.
 - BURIED UTILITIES ARE AS INDICATED BY FIELD LOCATES COMPLETED BY MONTANA 811 TICKET NUMBER 21165792 AND VERIFIED WHERE POSSIBLE. WOITH ENGINEERING, INC. ASSUMES NO LIABILITY FOR THE ACCURACY OF FIELD LOCATIONS COMPLETED BY OTHERS.
 - SEWER MAIN IS GRAPHICAL PER CITY OF MISSOULA GIS DATA.
 - SEWER SERVICE IS GRAPHICAL PER CITY OF MISSOULA RECORD INFORMATION.
 - WATER SERVICE IS GRAPHICAL PER CITY OF MISSOULA RECORD INFORMATION.
 - HORIZONTAL COORDINATES ARE GROUND, INTERNATIONAL FEET. VERTICAL COORDINATES ARE NAVD88, DERIVED FROM RTK OBSERVATIONS.

- KEY NOTES:**
- 4430 SQ FT BUILDING, FF ELEVATION: 3113.24', BUILDING HEIGHT: 14.63'
 - ELECTRICAL PANEL
 - SOLAR DISCONNECT
 - AUTOMATIC FIRE SPRINKLER
 - 20' PUBLIC UTILITY EASEMENT LOCATION BASED ON EXISTING GAS LINE
 - 20' PUBLIC UTILITY EASEMENT LOCATION BASED ON PLAT OF MISSOULA DEVELOPMENT PARK - PHASE 1B
 - 18" CULVERT
 - 24" CULVERT

CONTROL POINT TABLE

POINT #	NORTHING	EASTING	ELEVATION	DESCRIPTION
1	1010576.26	822895.52	3209.31	OPC WEI CONTROL
2	1010481.36	822737.52	3208.85	NAIL
3	1010682.47	822704.56	3213.16	NAIL



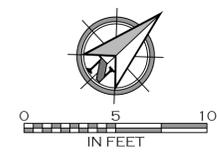
2166	JOB #:	LJJ, MOH	DESIGN:	LJJ, MOH	CA:	KTS	DATE:	2/17/2022
<p>PRELIMINARY CIVIL BID SET ONLY</p>								
DATE								
DESCRIPTION								
4A								
<p>WOITH ENGINEERING, INC. ENGINEERS & SURVEYORS 405 8RD STREET NW, SUITE 205 - GREAT FALLS, MT 59404 - 406.761.1955 3880 CLARY STREET, SUITE A - MISSOULA, MT 59808 - 406.803.5555 WWW.WOITHENG.COM</p>								
<p>ALTER-SILVERSTREAM SITE DEVELOPMENT</p>								
<p>MISSOULA</p>								
<p>EXISTING SITE CONDITIONS</p>								
<p>C1.0</p>								

PRELIMINARY - COM SUBMITTAL

EXISTING CONDITIONS DWG PLOTTED BY LOGAN JACOBS ON SEP/07/2022

SEE BELOW
MATCH LINE

SEE SHEET C2.4
MATCH LINE



KEY NOTES

KEY NOTES:

- ① CATCH BASIN PER CITY OF MISSOULA STD-614. USE LID: EJIW TYPE 7222.
- ② FIT STORM PIPE END WITH FLARED END TREATMENT
- ③ CUT CURB TO WIDEN DRIVEWAY ROAD ACCESS. SEE CITY OF MISSOULA STD-741.
- ④ CUT DITCH BOTTOM 1.5' WIDE. CUT DITCH BANKS TO DAYLIGHT AT 3:1 SLOPE. WHERE SIDEWALK IS PRESENT, DAYLIGHT FROM CENTER OF DITCH TO SIDEWALK.
- ⑤ CLEAR EXISTING PIPE OF DEBRIS, SOIL, AND/OR VEGETATION
- ⑥ ADA-ACCESSIBLE RAMP. COORDINATE HANDRAIL REQUIREMENTS WITH ARCHITECT AND OWNER.

NOTES:

- 1. EXISTING SUBSURFACE UTILITIES ARE SHOWN FOR VISUAL REFERENCE. CONTRACTOR SHALL FIELD VERIFY LOCATION AND DEPTH OF ALL CROSSING UTILITIES PRIOR TO COMMENCING WORK.
- 2. ADD 3200' ON ALL CALLED OUT ELEVATIONS.

PRELIMINARY - COM SUBMITTAL

JOB #:	2166
DRAWN:	LJJ, MOH
DESIGN:	LJJ, MOH
CA:	KTS
DATE:	2/17/2022



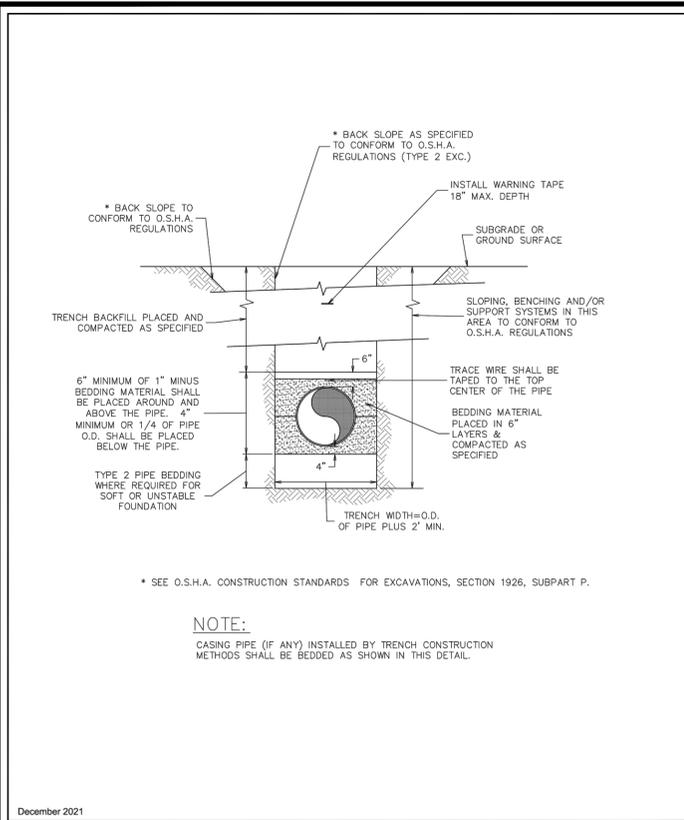
DATE	DESCRIPTION

WOITH ENGINEERING, INC.
ENGINEERS & SURVEYORS
 405 3RD STREET NW, SUITE 205 - GREAT FALLS, MT 59404 - 406-761-1955
 3880 CLARY STREET, SUITE A - MISSOULA, MT 59808 - 406-903-9565
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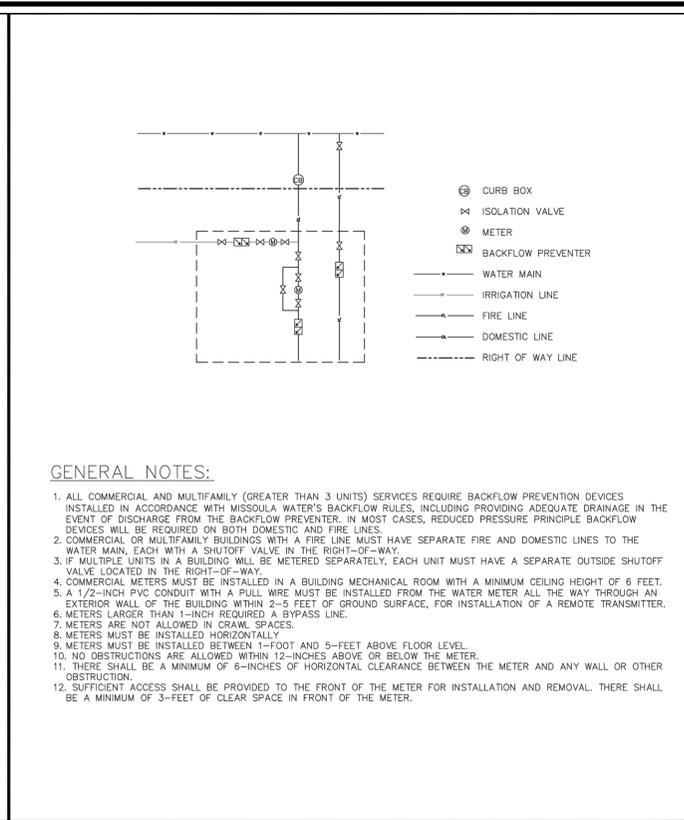
MISSOULA	MONTANA
ALTER-SILVERSTREAM SITE DEVELOPMENT	
SITE PLAN - DRIVEWAY APRONS	

C2.3



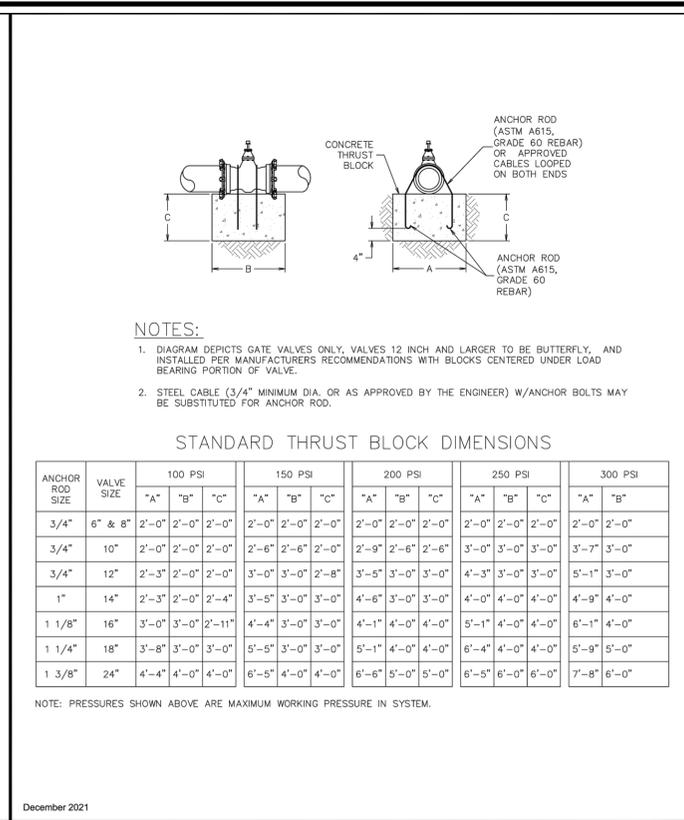
December 2021

Engineering Division *Joyan McInnis* Approved By Utilities Engineer Logan McInnis, PE Revised: 09/28/2020 **STD - 401**



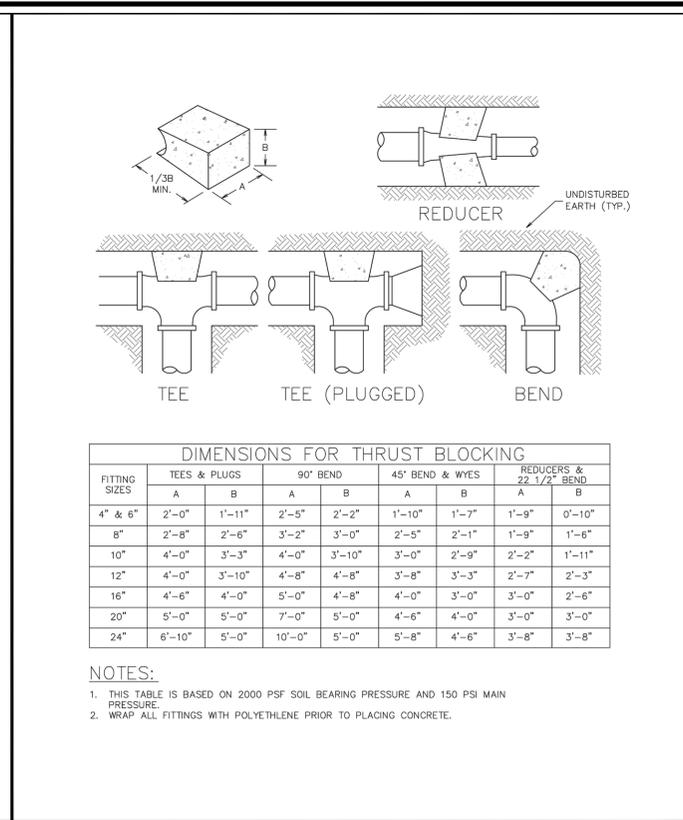
December 2021

Engineering Division *Joyan McInnis* Approved By Utilities Engineer Logan McInnis, PE Revised: 09/28/2020 **STD - 403**



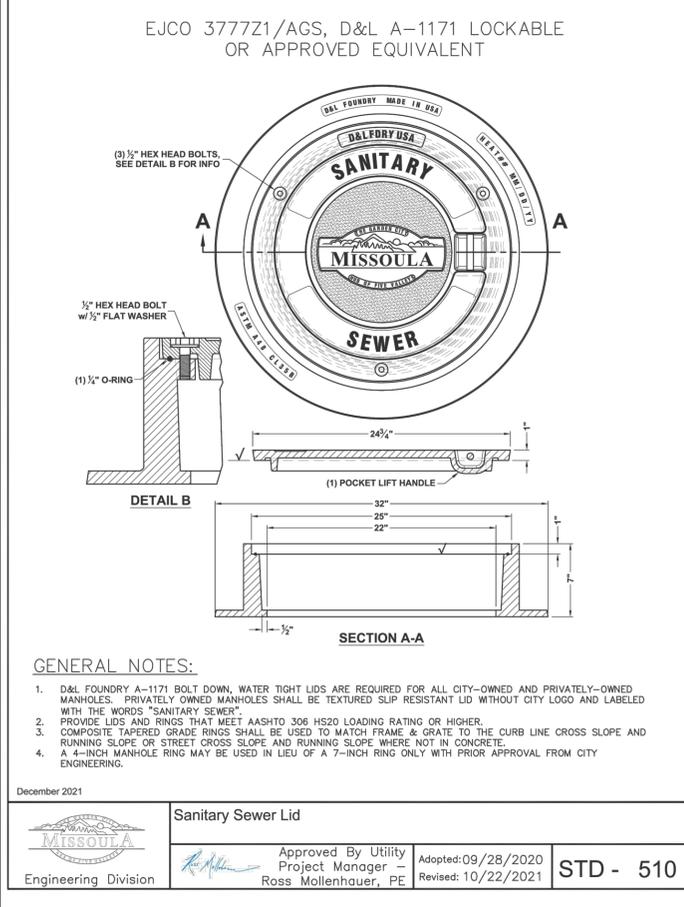
December 2021

Engineering Division *Joyan McInnis* Approved By Utilities Engineer Logan McInnis, PE Adopted: 09/28/2020 Revised: 02/04/2021 **STD - 406**



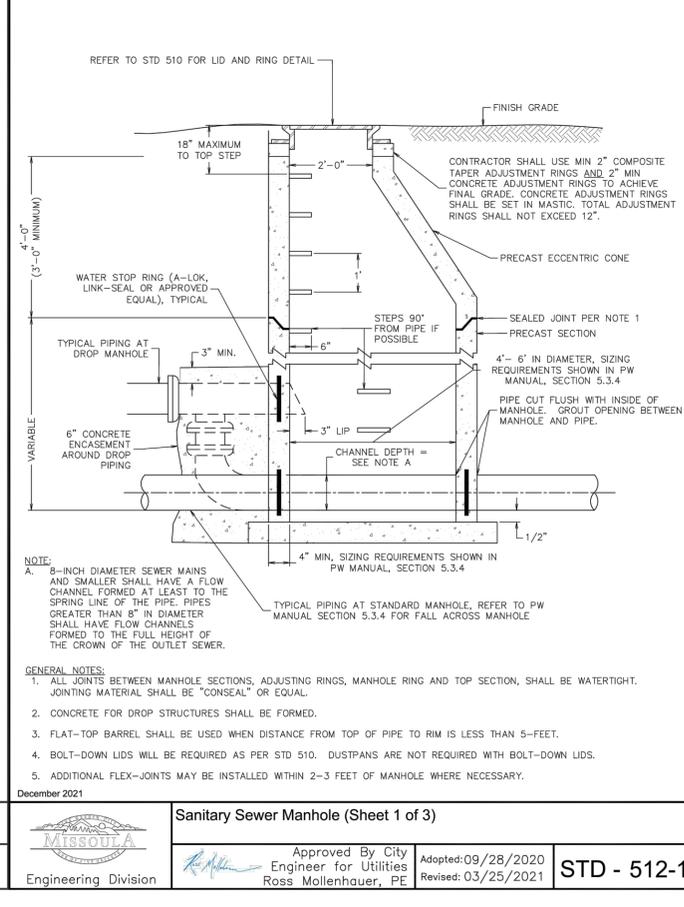
December 2021

Engineering Division *Joyan McInnis* Approved By Utilities Engineer Logan McInnis, PE Revised: 09/28/2020 **STD - 407**



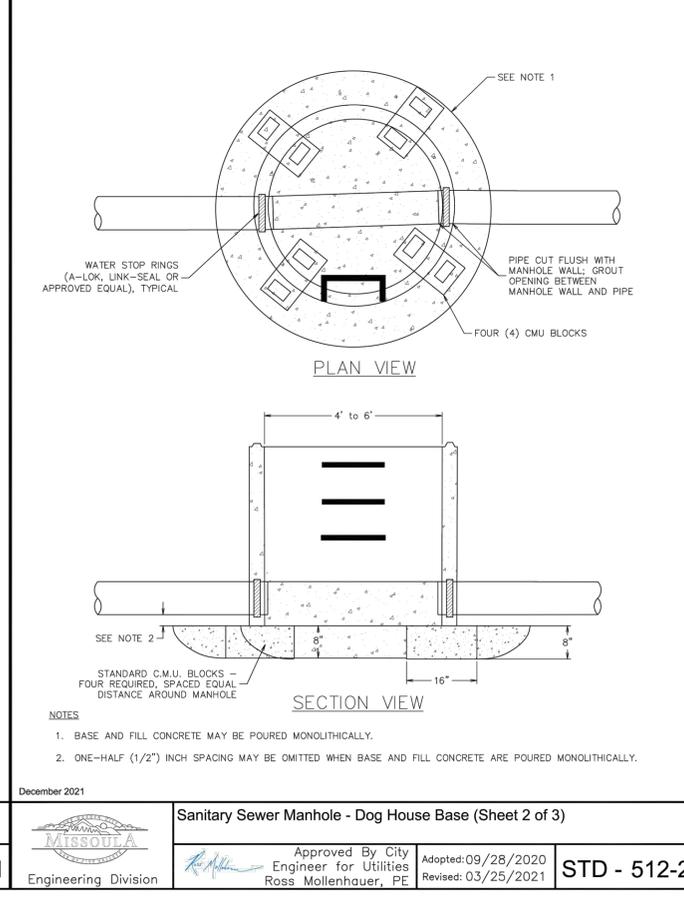
December 2021

Engineering Division *Ross Mollenhauer* Approved By Utility Project Manager Ross Mollenhauer, PE Adopted: 09/28/2020 Revised: 10/22/2021 **STD - 510**



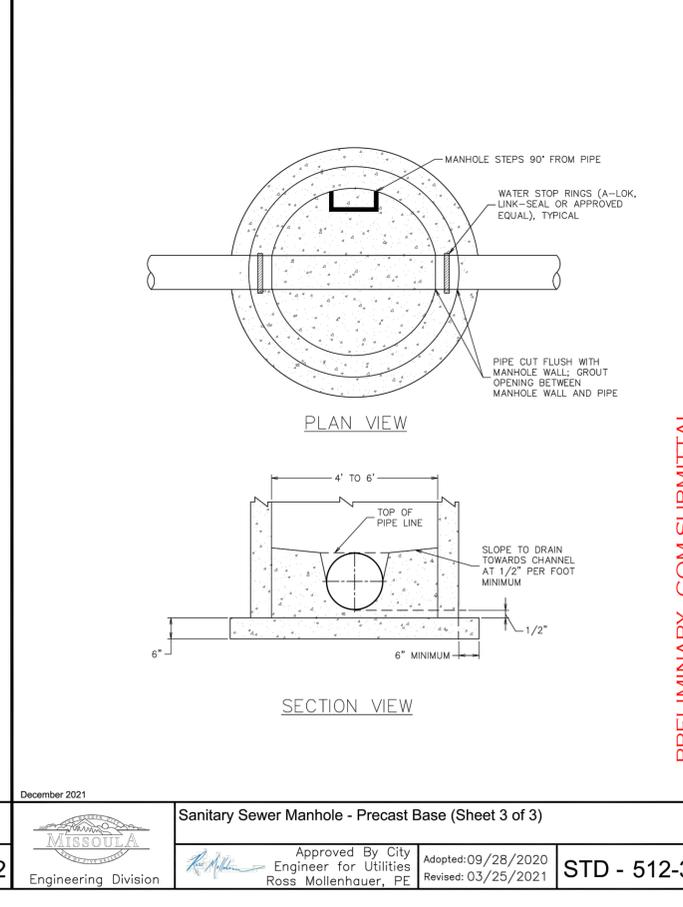
December 2021

Engineering Division *Ross Mollenhauer* Approved By City Engineer for Utilities Ross Mollenhauer, PE Adopted: 09/28/2020 Revised: 03/25/2021 **STD - 512-1**



December 2021

Engineering Division *Ross Mollenhauer* Approved By City Engineer for Utilities Ross Mollenhauer, PE Adopted: 09/28/2020 Revised: 03/25/2021 **STD - 512-2**



December 2021

Engineering Division *Ross Mollenhauer* Approved By City Engineer for Utilities Ross Mollenhauer, PE Adopted: 09/28/2020 Revised: 03/25/2021 **STD - 512-3**

2166
JOB #:
DRAWN: LJJ, MOH
DESIGN: LJJ, MOH
CA: KTS
DATE: 2/17/2022

PRELIMINARY
CIVIL BID SET ONLY
CONSULTING ENGINEER

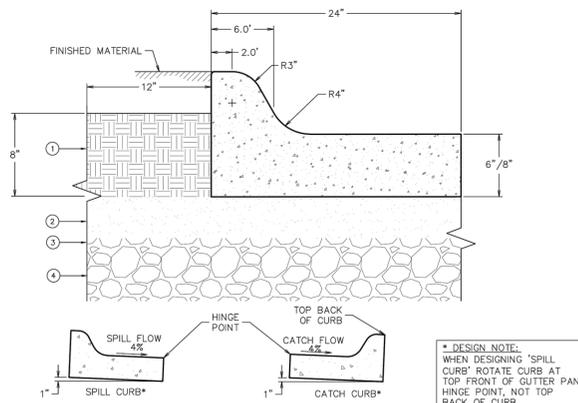
DATE: _____
DESCRIPTION: _____

MISSOULA
ENGINEERING, INC.
ENGINEERS & SURVEYORS
605 8RD STREET NW SUITE 205 - GREAT FALLS, MT 59404 - 406-761-1955
3880 O'LEARY STREET SUITE A - MISSOULA, MT 59808 - 406-805-9565
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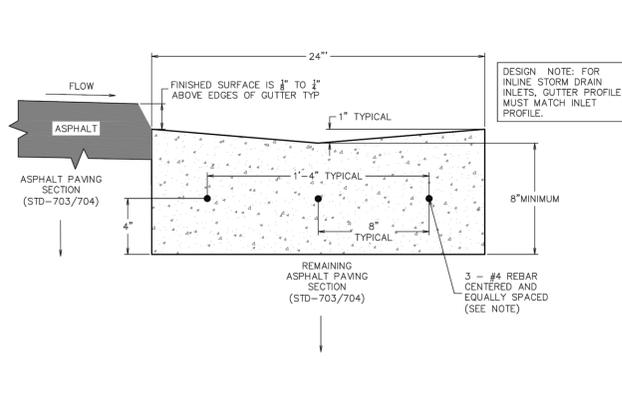
MISSOULA
MONTANA
ALTER-SILVERSTREAM SITE DEVELOPMENT
UTILITY DETAILS
PRELIMINARY - COM SUBMITTAL

C7.0

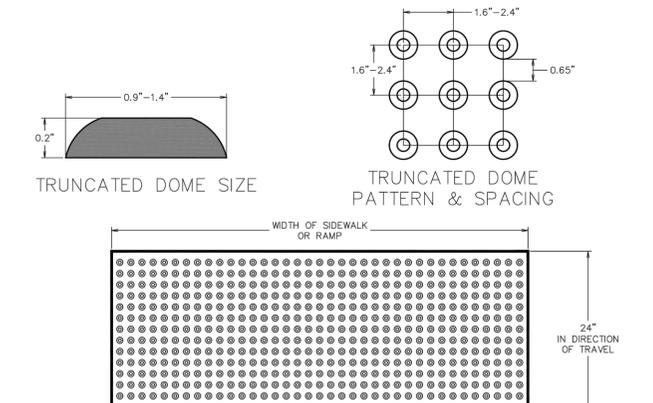
UTILITY DETAILS DWG PLOTTED BY LOGAN JACOBS ON SEP 07 2022



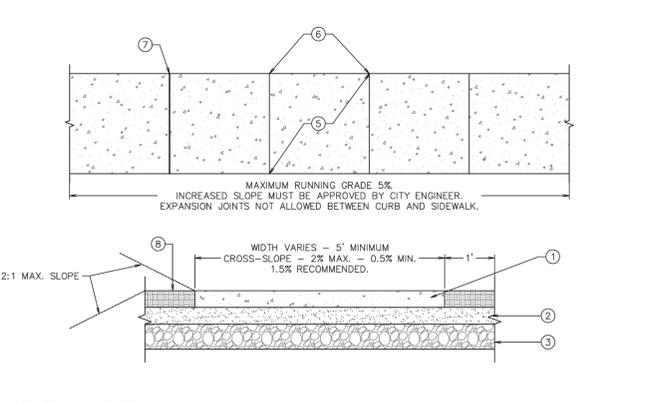
- KEYED NOTES:**
- FILL MATERIAL: MINIMUM OF EIGHT (8") INCHES OF FILL MATERIAL COMPACTED TO 95% PROCTOR DENSITY BEHIND CURB. SEE STD-141 FOR SIDEWALK SECTION IF APPLICABLE.
 - BASE: MINIMUM OF FOUR (4") INCHES OF BASE SHALL BE COMPACTED TO 95% PROCTOR DENSITY. EXTEND 1' FOOT BEHIND CURB.
 - BASE: CITY ENGINEER MAY REQUIRE ADDITIONAL BASE, DEPENDING ON ADEQUACY OF SUB GRADE MATERIAL BASED ON A CBR.
 - SUB GRADE: MINIMUM OF SIX (6") INCHES OF SUB GRADE SHALL BE COMPACTED TO 95% PROCTOR DENSITY. EXTEND 1' FOOT BEHIND CURB.
- GENERAL NOTES:**
- CONTRACTION JOINTS SHALL BE PLACED EVERY TEN (10') FEET AND SHALL BE ONE-FOURTH (1/4) THE CONCRETE THICKNESS OR A MINIMUM OF ONE (1") INCH DEEP.
 - EXPANSION JOINTS OF ONE-HALF (1/2") INCH MASTIC MATERIAL SHALL BE PLACED AT THE FOLLOWING LOCATIONS:
 - P.C.S AND P.T.S OF CURVES WHERE RADII ARE THIRTY (30') FEET OR LESS.
 - GRADE BREAKS.
 - NO CLOSER THAN FOUR (4') FEET ON EITHER SIDE OF A DRAINAGE STRUCTURE.
 - AT OTHER LOCATIONS AS SPECIFIED BY CITY ENGINEER.
 - MINIMUM GUTTER FLOW LINE SHALL BE FOUR-TENTHS (0.4%) PERCENT SLOPE.
 - NO CURB OR SIDEWALK SHALL BE POURED WITHOUT AN INSPECTION AND APPROVAL OF FORM PLACEMENT BY CITY ENGINEERING DIVISION.
 - "L" TYPE CURB IS SUITABLE FOR USE AS LANDSCAPE RETAINING CURB AND MAY BE POURED WITH SIDEWALK UPON APPROVAL.
 - CONSTRUCTION MATERIALS AND PROCEDURES SHALL CONFORM TO EXISTING CITY SPECIFICATIONS FOR M-4000 CEMENT CONCRETE AND MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS SECTIONS 02528 AND 03310.
 - THE CITY OF MISSOULA REQUIRES 564 LBS OF PORTLAND CEMENT PER CY OF CONCRETE.
 - NOT FOR USE IN NEW ROAD CONSTRUCTION.



- GENERAL NOTES:**
- TYPICAL 2' COVE GUTTER SECTION SHALL BE MINIMUM OF EIGHT (8") INCHES DEPTH (THROUGHOUT COVE GUTTER SECTION) PORTLAND CEMENT CONCRETE POURED TWO (2) FEET WIDE WITH A ONE (1") INCH DEPRESSION (VALLEY) THROUGH THE CENTER AS SHOWN ABOVE.
 - CONTRACTION JOINTS SHALL BE PLACED EVERY TEN (10') FEET AND SHALL BE ONE-FOURTH (1/4) THE CONCRETE THICKNESS OR A MINIMUM OF ONE (1") INCH DEEP.
 - EXPANSION JOINTS OF ONE-HALF (1/2") INCH MASTIC MATERIAL SHALL BE PLACED AT THE FOLLOWING LOCATIONS:
 - P.C.S AND P.T.S OF CURVES.
 - GRADE BREAKS.
 - NO CLOSER THAN FOUR (4') FEET ON EITHER SIDE OF A DRAINAGE STRUCTURE, BUT NOT REQUIRED OR RECOMMENDED.
 - AT OTHER LOCATIONS AS SPECIFIED BY CITY ENGINEER.
 - EXPANSION JOINTS MAY BE ELIMINATED FOR EXTRUDED CURB WITH APPROVAL OF CITY ENGINEER.
 - REINFORCING BAR (REBAR) SHALL BE #4 (1/2") EPOXY COATED, THREE (3) EACH, EQUALLY SPACED (EIGHT (8") INCHES TYPICAL) WITH A MINIMUM THREE (3") INCHES) OF CONCRETE COVER. REINFORCING BAR (REBAR) SHALL BE PLACED AND SUPPORTED WITH APPROVED REBAR SUPPORTS.
 - MINIMUM GUTTER FLOW LINE SHALL BE FIVE-TENTHS (0.5%) PERCENT SLOPE.
 - NO CURB OR SIDEWALK SHALL BE POURED WITHOUT AN INSPECTION AND APPROVAL OF FORM PLACEMENT BY CITY ENGINEERING DIVISION.
 - CONSTRUCTION MATERIALS AND PROCEDURES SHALL CONFORM TO EXISTING CITY STANDARD SPECIFICATIONS FOR M-4000 CEMENT CONCRETE AND MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS SECTIONS 02528 AND 03310.
 - CITY OF MISSOULA REQUIRES 564 LBS OF PORTLAND CEMENT PER CY OF CONCRETE.



- NOTES:**
- DETECTABLE WARNING PANEL SHALL FULLY COMPLY WITH THE MOST STRINGENT CURRENT CITY OF MISSOULA AND PROWAG REQUIREMENTS AND SPECIFICATIONS
 - DETECTABLE WARNING PANEL SHALL EXTEND THE FULL WIDTH OF THE CROSSING OR RAMP
 - CURRENT ACCEPTABLE DETECTABLE WARNING PANEL MATERIALS:
 - CAST IRON
 - DETECTABLE WARNING PANEL SHALL BE PLACED ON RUNNING SLOPE TO MATCH SIDEWALK / RAMP:
 - NOT TO EXCEED EIGHT (8%) PERCENT MAXIMUM RUNNING SLOPE
 - NOT TO EXCEED TWO (2%) PERCENT MAXIMUM CROSS-SLOPE
 - DETECTABLE WARNING PANEL SHALL BE PLACED PERPENDICULAR WITH DIRECTION OF PEDESTRIAN TRAVEL EXCEPT WHERE NOTED ON STD DWGS
 - DETECTABLE WARNING PANEL SHALL BE PLACED WITHIN TWO (2") INCHES FROM BACK EDGE OF CURB ON A MINIMUM OF ONE (1) EDGE
 - DETECTABLE WARNING PANEL COLOR SHALL CONTRAST VISUALLY WITH THE ADJOINING SIDEWALK / RAMP SURFACE
 - DETECTABLE WARNING PANEL SHALL BE CAST-IN-PLACE AND FLUSH WITH SIDEWALK / RAMP SURFACE



- KEYED NOTES:**
- MINIMUM OF FOUR (4") INCHES OF CONCRETE SIDEWALK (TYPICAL), MINIMUM SIX (6") INCHES CONCRETE SIDEWALK THROUGH RESIDENTIAL DRIVEWAY OR MINIMUM EIGHT (8") INCHES CONCRETE SIDEWALK THROUGH COMMERCIAL DRIVEWAY OR ON ADA RAMP PER STD DWGS.
 - MINIMUM OF FOUR (4") INCHES OF BASE SHALL BE COMPACTED TO 95% PROCTOR DENSITY.
 - MINIMUM OF SIX (6") INCHES OF SUB GRADE SHALL BE COMPACTED TO 95% PROCTOR DENSITY.
 - CITY ENGINEER MAY REQUIRE ADDITIONAL BASE, DEPENDING ON SUB GRADE MATERIAL.
 - CONTRACTION JOINTS SHALL FORM AS NEAR A SQUARE PANEL AS POSSIBLE. NO SINGLE PANEL SHALL EXCEED TEN (10') FEET ON ANY SIDE. LONGITUDINAL JOINTS REQUIRED IF SIDEWALK WIDTH EXCEEDS TEN (10') FEET.
 - CONTRACTION JOINTS SHALL BE ONE-FOURTH (1/4) THE CONCRETE THICKNESS OR A MINIMUM OF ONE (1") INCH DEEP.
 - EXPANSION JOINTS OF ONE-HALF (1/2") INCH THICK MASTIC MATERIAL SHALL BE PLACED AT THE FOLLOWING LOCATIONS:
 - EVERY FIFTY (50') FEET OF UNINTERRUPTED SIDEWALK.
 - P.C.S AND P.T.S OF CURVES.
 - GRADE BREAKS.
 - RESIDENTIAL DRIVEWAYS SIX (6") INCH DEEP MASTIC SHALL BE INSTALLED AT THE TOP OF THE TRANSITION ON BOTH SIDES AND SHALL BE PINNED IN PLACE BEFORE POURING.
 - COMMERCIAL DRIVEWAYS EIGHT (8") INCH DEEP MASTIC SHALL BE INSTALLED AT THE TOP OF THE TRANSITION ON BOTH SIDES AND SHALL BE PINNED IN PLACE BEFORE POURING.
 - AT OTHER LOCATIONS AS SPECIFIED BY CITY ENGINEERING DIVISION.
 - ALL EXPANSION JOINTS SHALL BE PLACED FLUSH OR JUST BELOW TOP FINISHED SURFACE OF SIDEWALK.
 - ALL EXPANSION JOINTS SHALL BE FULL DEPTH, FULL WIDTH AND SECURED IN PLACE BEFORE THE FORMS WILL BE APPROVED.
 - FINISHED SURFACE - 12" MINIMUM SHOULDER UNLESS OTHERWISE APPROVED BY CITY ENGINEER.
 - FINISHED SIDEWALK SURFACE SHALL HAVE MEDIUM-TO-HEAVY BROOM TEXTURE.
 - NO SIDEWALK SHALL BE POURED WITHOUT AN INSPECTION AND APPROVAL OF FORM PLACEMENT BY CITY ENGINEERING DIVISION.
 - CONSTRUCTION MATERIALS AND PROCEDURES SHALL CONFORM TO EXISTING CITY STANDARD SPECIFICATIONS FOR M-4000 CEMENT CONCRETE AND MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS SECTIONS 02528 AND 03310.
 - CITY OF MISSOULA REQUIRES 564 LBS OF PORTLAND CEMENT PER CY OF CONCRETE.

Typical "L" Type Curb/Gutter Section

Engineering Division

Approved By City Engineer Kevin J. Slovorp

Adopted: 01/30/1980
Revised: 03/15/2017

STD - 740

Typical 2' Valley Gutter Section

Engineering Division

Approved By City Engineer Kevin J. Slovorp

Adopted: 08/01/1986
Revised: 09/03/2020

STD - 745

Detectable Warning Panel

Engineering Division

Approved By City Engineer Kevin J. Slovorp

Adopted: 03/12/2004
Revised: 03/14/2017

STD - 750

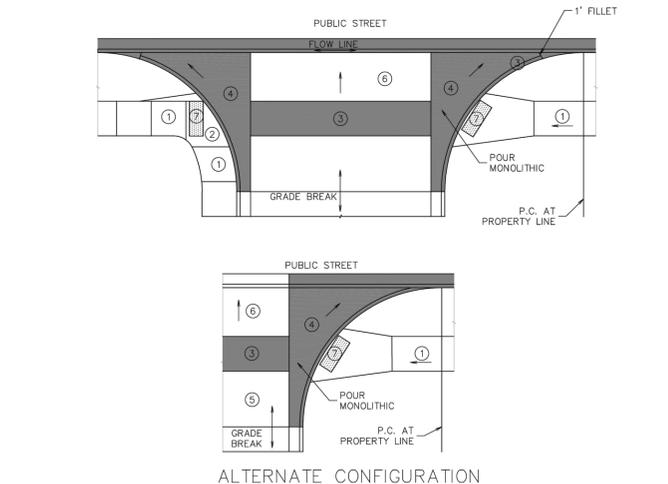
Typical Sidewalk Section

Engineering Division

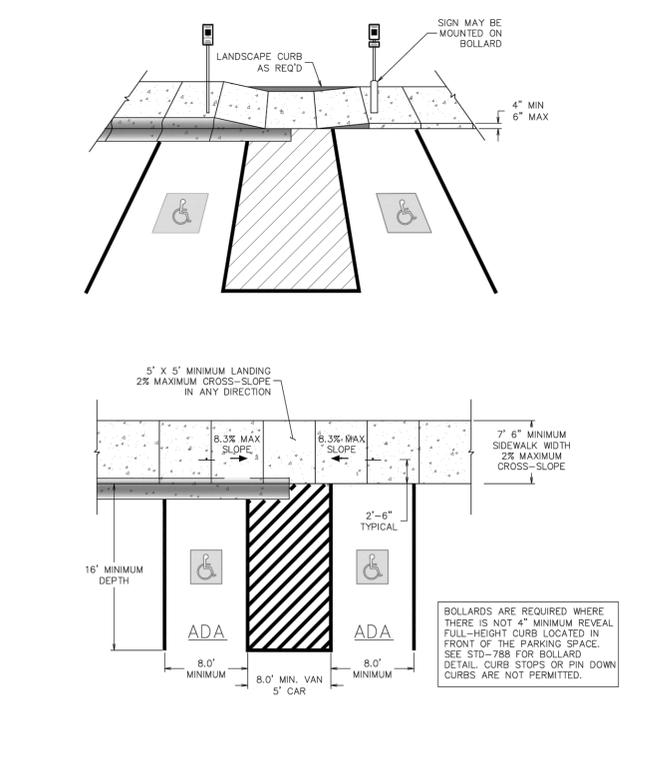
Approved By City Engineer Kevin J. Slovorp

Adopted: 02/29/1996
Revised: 03/22/2017

STD - 752



- KEYED NOTES:**
- RAMP, 8.3% MAXIMUM RUNNING SLOPE, 2% MAXIMUM CROSS-SLOPE.
 - LANDING, 5' x 5' PREFERRED DIMENSION, 4' x 4' MINIMUM, MAXIMUM SLOPE IS 2% IN ANY DIRECTION.
 - SIDEWALK/CROSSWALK, 2% MAXIMUM CROSS-SLOPE, 8" CONCRETE DEPTH.
 - FILLET, POUR MONOLITHIC AS SHOWN TO ELIMINATE CONCRETE TAPERS, 8" CONCRETE DEPTH.
 - DRIVEWAY SECTION, CONCRETE OR ASPHALT.
 - APRON SECTION, 8" CONCRETE DEPTH.
 - DETECTABLE WARNING PANELS (IF REQUIRED) PER STD-750.
- GENERAL NOTES:**
- THE DRIVEWAY GRADE MUST BE DESIGNED SO AS TO CONFINE STORM RUNOFF TO THE STREET. SLOPE DRIVEWAY FILLET TOWARDS STREET.
 - THE DRIVEWAY GRADES MUST NOT EXCEED 2% THROUGH THE DRIVEWAY PORTIONS OF THE APRON AND FILLETS.
 - FLOW LINES MUST BE CARRIED THROUGH THE FILLETS TO FACILITATE DRAINAGE PATTERNS.
 - CURB AND SIDEWALK PER STD-740 AND 752.



Accessible Front In Parking Spaces Access In Narrow Sidewalk (Sheet 2 of 2)

Engineering Division

Approved By City Engineer Kevin J. Slovorp

Adopted: 02/27/1999
Revised: 01/13/2017

STD - 782-2

- CONSTRUCTION NOTES:**
- MOST CURRENT / RECENT VERSION OF AMERICANS WITH DISABILITIES ACT (ADA) AND PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) ARE REQUIRED.
 - AN ACCESSIBLE ROUTE SHALL BE PROVIDED FROM THE ACCESSIBLE PARKING SPACE TO THE ACCESSIBLE ENTRANCE AND SHALL BE LOCATED ON THE SHORTEST REASONABLE ACCESSIBLE ROUTE TO THE ACCESSIBLE ENTRANCE.
 - ALL PEDESTRIAN PATHWAYS USED FOR ACCESSIBLE ROUTES SHALL BE CONCRETE AND A MINIMUM FIVE FEET (5') IN WIDTH.
 - MINIMUM SIDEWALK WIDTH SHALL BE SEVEN AND A HALF FEET (7' 6") WHEN ANGLE OR PERPENDICULAR PARKING IS ADJACENT TO THE CURBSIDE SIDEWALK (CAN GO DOWN TO SEVEN FEET (7') WITH A "L" CURB").
 - ACCESSIBLE RAMPS SHALL NOT EXTEND INTO AN ACCESS ASILE AND/OR PATH OF VEHICLES.
 - ALL ACCESSIBLE PARKING SPACE(S) AND ACCESS AISLE(S) SHALL NOT EXCEED TWO (2%) PERCENT MAXIMUM GRADE AND / OR CROSS-SLOPE IN ANY DIRECTION.
 - CURB/GUTTER AND / OR MONOLITHIC SIDEWALK SHALL HAVE A MINIMUM FOUR (4") INCH REVEAL ADJACENT TO PARKING OR DRIVE LANES, OTHERWISE BOLLARDS WILL BE REQUIRED.
 - AN ACCESSIBLE ROUTE:
 - SHALL NOT CONTAIN CURBS, STEPS, STAIRS AND / OR CURVILINEAR RAMPS
 - SHALL BE A MINIMUM FIVE (5') FEET WIDE.
 - SHALL BE CONSTRUCTED OF A STABLE, SMOOTH, NON-SLIP SURFACE MATERIAL.
 - SHALL BE 2% MAX CROSS-SLOPE AND LESS THAN 5% RUNNING SLOPE; IF OVER 5% REFER TO ADA AND PROWAG FOR ADDITIONAL REQUIREMENTS.
 - ALL ACCESSIBLE PARKING SPACES SHALL BE PROPERLY SIGNED AND MAINTAINED.
 - ADA SIGNAGE SHALL FULLY COMPLY WITH ADA AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REQUIREMENTS FOR SIGN COLOR, SIZE AND RETROREFLECTIVITY COMPLIANCE.
 - ADA SIGNAGE IS ESTABLISHED IN MONTANA CODE ANNOTATED (MCA) 49-4-307.
 - ADA SIGNAGE SHALL BE EITHER POST MOUNTED OR WALL MOUNTED IF WALL IS AT THE BACK OF SIDEWALK.
 - ADA SIGNAGE SHALL BE LOCATED TWO FOOT, SIX INCH (2'-6") MINIMUM UP TO TWELVE (12'-0") FOOT MAXIMUM FROM CURB FACE, FACE OF MONOLITHIC SIDEWALK OR ANY OTHER POINT OF CURB.
 - ADA SIGNAGE SHALL BE LOCATED IMMEDIATELY FRONTING THE DESIGNATED SPACE.
 - ADA SIGNAGE PLACED IN THE CITY PUBLIC RIGHT-OF-WAY SHALL BE CONSTRUCTED OF TELESPAR POST MATERIALS AND MOUNTED PER CITY STANDARD STD-720.
 - ADA SYMBOL ON GROUND FOR PARKING SPACES IS OPTIONAL BUT RECOMMENDED.
 - CITY OF MISSOULA ADA ACCESSIBILITY PERMIT IS REQUIRED FOR CONSTRUCTION AND / OR ALTERATION (MODIFICATION / RECONSTRUCTION) TO ADA ACCESSIBLE PARKING SPACES AND / OR ADA ACCESSIBLE ROUTE.

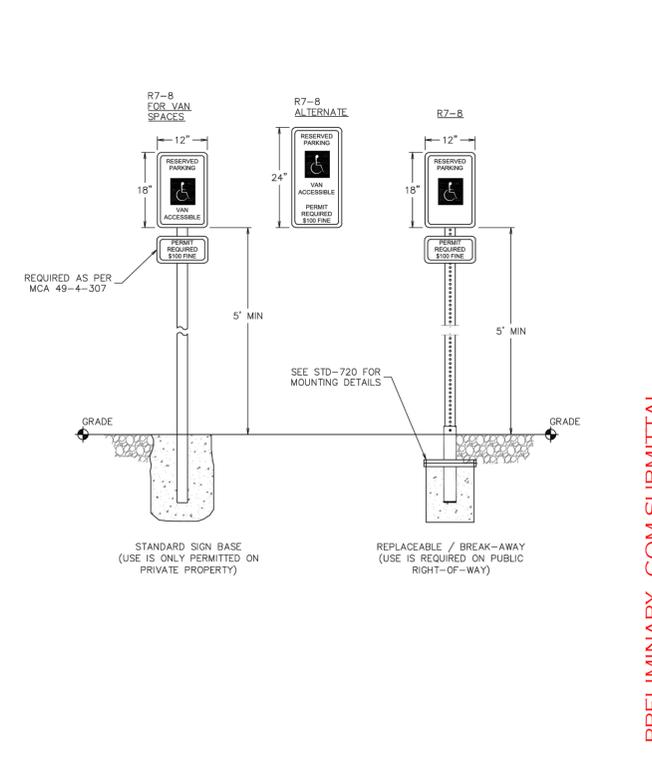
Accessible Parking Spaces Requirements and Specifications

Engineering Division

Approved By City Engineer Kevin J. Slovorp

Adopted: 02/27/1999
Revised: 01/13/2017

STD - 785



Accessible Parking Spaces Signage Requirements

Engineering Division

Approved By City Engineer Kevin J. Slovorp

Adopted: 01/27/1999
Revised: 01/12/2017

STD - 787

Commercial Driveway - Boulevard Sidewalk 25 or More Parking Spaces

Engineering Division

Approved By City Engineer Kevin J. Slovorp

Adopted: 02/29/1996
Revised: 04/04/2017

STD - 775

2166
JOB #:
DRAWN: LJJ, MOH
DESIGN: LJJ, MOH
CA: KTS
DATE: 2/17/2022

PRELIMINARY CIVIL BID SET ONLY

DATE DESCRIPTION

48

MISSOULA ENGINEERS & SURVEYORS
605 8RD STREET NW, SUITE 205 - GREAT FALLS, MT 59404 - 406.761.095
3880 O'LEARY STREET, SUITE A - MISSOULA, MT 59808 - 406.803.9585
WWW.WOITHENGINEERING.COM

WOITH ENGINEERING, INC.
ENGINEERS & SURVEYORS

MONTANA

ALTER-SILVERSTREAM SITE DEVELOPMENT

MISSOULA

SITE DETAILS

PRELIMINARY - COM SUBMITTAL

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SITE DETAILS DWG PLOTTED BY LOGAN JACOBS ON SEP/07/2022

BEST MANAGEMENT PRACTICE NOTES

INFORMATION PROVIDED TAKEN FROM THE EPA STORMWATER MENU OF BMP'S

EROSION CONTROL AND MAINTENANCE NOTES:

- SWPPP TO BE FILED WITH MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY BY GENERAL CONTRACTOR.
- NOTICE OF INTENT (NOI), SWPPP PACKET, AND NOI CONFIRMATION LETTER MUST BE SUBMITTED TO THE CITY OF MISSOULA IN ORDER TO OBTAIN A CITY STORM WATER PERMIT.
- PUBLIC SIGNAGE FOR SWPPP IS REQUIRED PER SECTION 1.2.3. OF THE MDEQ GENERAL PERMIT.
- NOTICE OF TERMINATION (NOT) AND NOT CONFIRMATION LETTER MUST BE SUBMITTED TO CITY OF MISSOULA UPON FINAL STABILIZATION TO CLOSE OUT CITY PERMIT.
- THE GENERAL CONTRACTOR MUST STRICTLY ADHERE TO THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) DURING CONSTRUCTION OPERATIONS.
- LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL APPROVAL TO DO SO HAS BEEN RECEIVED FROM CITY OF MISSOULA.
- NO LAND CLEARING OR GRADING SHALL BEGIN UNTIL ALL PERIMETER EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- ALL EXPOSED AREAS SHALL BE SEEDED AS SPECIFIED WITHIN 14 DAYS OF FINAL GRADING.
- SHOULD CONSTRUCTION STOP FOR LONGER THAN 14 DAYS, THE SITE SHALL BE SEEDED AS SPECIFIED.
- SEDIMENT AND EROSION CONTROL MEASURES SHALL BE INSPECTED ONCE EVERY SEVEN (7) DAYS AND WITHIN 24 HOURS OF A RAINFALL EXCEEDING 0.5 INCHES DURING A 24-HOUR PERIOD OR MORE FREQUENTLY IF REQUIRED BY GOVERNING NPDES GENERAL PERMIT. ALL MAINTENANCE REQUIRED BY INSPECTION SHALL COMMENCE WITHIN 24 HOURS AND BE COMPLETED WITHIN 48 HOURS OF REPORT.
- THIS PLAN SHALL NOT BE CONSIDERED ALL INCLUSIVE AS THE GENERAL CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SOIL SEDIMENT FROM LEAVING THE SITE.
- GENERAL CONTRACTOR SHALL COMPLY WITH ALL STATE AND LOCAL ORDINANCES THAT APPLY.
- ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSTALLED IF DEEMED NECESSARY BY ON SITE INSPECTION.
- GENERAL CONTRACTOR SHALL ESTABLISH PERMANENT SOIL STABILIZATION.
- ON SITE DUST CONTROL SHALL BE ACCOMPLISHED BY USING WATER. APPLICATION OF WATER MAY BE REQUIRED MULTIPLE TIMES PER DAY DURING CONSTRUCTION ACTIVITY.
- AN UP-TO-DATE SWPPP PACKET WITH SWPPP INSPECTION RECORDS SHALL BE PROVIDED TO THE ENGINEER TO PROVIDE TO THE CITY AT TIME OF ASBUILTS. SWPPP PERMITTEE RESPONSIBLE FOR PROVIDED NOT AND NOT CONFIRMATION FROM DEQ TO CITY TO CLOSE OUT CITY STORM WATER PERMIT.
- CONTRACTOR TO PERFORM CLEARING AND EARTH-MOVING ACTIVITIES ONLY DURING DRY WEATHER. MEASURES TO ENSURE ADEQUATE EROSION PREVENTION AND SEDIMENT CONTROL SHALL BE INSTALLED PRIOR TO EARTH-MOVING ACTIVITIES AND CONSTRUCTION.
- MEASURES TO ENSURE ADEQUATE EROSION PREVENTION AND SEDIMENT CONTROL ARE REQUIRED YEAR-ROUND. STABILIZE DENUDEED AREAS AND MAINTAIN EROSION PREVENTION MEASURES CONTINUOUSLY BETWEEN FROM MARCH 1 THROUGH NOVEMBER 1.
- USE SEDIMENT CONTROLS OR FILTRATION TO REMOVE SEDIMENT WHEN DEWATERING SITE AND OBTAIN FEDERAL AND STATE PERMITS, AS NECESSARY.
- LIMIT CONSTRUCTION ACCESS ROUTES TO STABILIZED, DESIGNATED ACCESS POINTS.
- AVOID TRACKING DIRT OR OTHER MATERIALS OFF SITE; CLEAN OFF-SITE PAVED AREAS AND SIDEWALKS USING DRY SWEEPING METHODS.
- TRAIN AND PROVIDE INSTRUCTION TO ALL EMPLOYEES AND SUBCONTRACTORS REGARDING THE CURRENT VERSION OF THE MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY FIELD GUIDE FOR BEST MANAGEMENT PRACTICES.
- PLACEMENT OF EROSION PREVENTION MATERIALS AT ALL LOCATIONS SPECIFIED ON THE SWPPP IS REQUIRED ON WEEKENDS AND DURING RAIN EVENTS.
- THE AREAS DELINEATED ON THE PLANS FOR PARKING, GRUBBING, STORAGE, ECT., SHALL NOT BE ENLARGED OR "RUN OVER".
- CONSTRUCTION SITES ARE REQUIRED TO HAVE EROSION PREVENTION AND SEDIMENT CONTROL MATERIALS ON SITE DURING THE "OFF-SEASON".
- EROSION PREVENTION AND SEDIMENT CONTROL MATERIALS SHALL BE STORED ON SITE.
- TREE PROTECTION SHALL BE IN PLACE BEFORE ANY DEMOLITION, GRADING, EXCAVATING, OR GRUBBING IF NECESSARY.

POLLUTION CONTROL NOTES:

- ALL POLLUTANTS, INCLUDING WASTE MATERIALS AND DEMOLITION DEBRIS, THAT OCCUR DURING SITE CONSTRUCTION SHALL BE STORED, HANDLED, AND DISPOSED OF IN A MANNER THAT DOES NOT CAUSE CONTAMINATION OF STORMWATER. NO MATERIALS SHALL BE STORED ON THE STREET
- COVER, CONTAINMENT, AND PROTECTION FROM VANDALISM SHALL BE PROVIDED FOR ALL CHEMICALS, LIQUID PRODUCTS, PETROLEUM PRODUCTS AND NON-INERT WASTES PRESENT ON THE SITE.
- MAINTENANCE AND REPAIR OF HEAVY EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM DRAINAGE, SOLVENT AND DE-GREASING CLEANING ACTIVITIES, AND OTHER ACTIVITIES WHICH MAY RESULT IN DISCHARGE OR SPILLAGE OF POLLUTANTS TO THE GROUND OR INTO STORMWATER RUNOFF MUST BE CONDUCTED USING SPILL PREVENTION MEASURES, SUCH AS DRIP PANS. CONTAMINATED SURFACES SHALL BE CLEANED IMMEDIATELY FOLLOWING ANY DISCHARGE OR SPILL INCIDENT. EMERGENCY REPAIRS MAY BE PERFORMED ON SITE USING TEMPORARY PLASTIC PLACED BENEATH, AND IF RAINING, OVER THE VEHICLE.
- CONTROL AND PREVENT THE DISCHARGE OF ALL POTENTIAL POLLUTANTS, INCLUDING PAVEMENT CUTTING WASTES, PAINTS, CONCRETE, PETROLEUM PRODUCTS, CHEMICALS, WASH WATER, OR SEDIMENTS, AND NON-STORM WATER DISCHARGES TO STORM DRAINS AND WATERCOURSES.
- AVOID CLEANING, FUELING, OR MAINTAINING VEHICLES ON SITE, EXCEPT IN A DESIGNATED AREA WHERE WASH WATER IS CONTAINED AND TREATED. LIMIT AND TIME APPLICATIONS OF PESTICIDES AND FERTILIZERS TO PREVENT POLLUTED RUNOFF.

POINT OF CONTACT:

KODY SWARTZ, PE OF WOITH ENGINEERING, INC
EMAIL: KODY@WOITHENG.COM
PHONE: 406-203-0869

SILT FENCE

PURPOSE AND DESCRIPTION

THE PURPOSE OF A SILT FENCE IS TO RETAIN THE SOIL ON DISTURBED LAND, SUCH AS A CONSTRUCTION SITE, UNTIL THE ACTIVITIES DISTURBING THE LAND ARE SUFFICIENTLY COMPLETED TO ALLOW REVEGETATION AND PERMANENT SOIL STABILIZATION TO BEGIN. KEEPING THE SOIL ON A CONSTRUCTION SITE, RATHER THAN LETTING IT BE WASHED OFF INTO NATURAL WATER BODIES (E.G., STREAMS, RIVERS, PONDS, LAKES, ESTUARIES) PREVENTS THE DEGRADATION OF AQUATIC HABITATS AND SILTATION OF HARBOR CHANNELS, AND NOT LETTING SOIL WASH OFF ONTO ROADS, WHICH READILY TRANSPORT IT TO STORM SEWERS, AVOIDS HAVING SEWERS CLOGGED WITH SEDIMENT. THE COST OF INSTALLING SILT FENCES ON A WATERSHED'S CONSTRUCTION SITES IS CONSIDERABLY LESS THAN THE COSTS ASSOCIATED WITH LOSING AQUATIC SPECIES, DREDGING NAVIGATION CHANNELS, AND CLEANING SEDIMENT OUT OF MUNICIPAL STORM SEWERS. A SILT FENCE IS A TEMPORARY SEDIMENT BARRIER MADE OF POROUS FABRIC. IT'S HELD UP BY WOODEN OR METAL PORTS DRIVEN INTO THE GROUND. SO IT'S INEXPENSIVE AND RELATIVELY EASY TO REMOVE. THE FABRIC PONDS SEDIMENT LADEN STORMWATER RUNOFF, CAUSING SEDIMENT TO BE RETAINED BY THE SETTLING PROCESSES. A SINGLE 100 FOOT (FT) RUN OF SILT FENCE MAY HOLD 50 TONS OF SEDIMENT IN PLACE. MOST CONSTRUCTION SITES TODAY DO HAVE SILT FENCES, BUT MANY DO NOT WORK EFFECTIVELY BECAUSE THEY ARE NOT WELL DESIGNED, INSTALLED, OR MAINTAINED. THE FOCUS OF THIS FACT SHEET IS-HOW TO MAKE SILT FENCES WORK.

DESIGN

THE THREE PRINCIPAL ASPECTS OF SILT FENCE DESIGN ARE: PROPER PLACEMENT OF FENCING, ADEQUATE AMOUNT OF FENCING, AND APPROPRIATE MATERIALS.

PROPER PLACEMENT OF FENCING

PLACEMENT IS IMPORTANT BECAUSE WHERE A FENCE STARTS, RUNS, AND ENDS IS CRITICAL TO ITS EFFECTIVENESS. IMPROPER PLACEMENT CAN MAKE THE FENCE A COMPLETE WASTE OF MONEY. ANALYZE THE CONSTRUCTION SITE'S CONTOURS TO DETERMINE THE PROPER PLACEMENT. SEGMENT THE SITE INTO MANAGEABLE SEDIMENT STORAGE AREAS FOR USING MULTIPLE SILT FENCE RUNS. THE DRAINAGE AREA ABOVE ANY FENCE SHOULD USUALLY NOT EXCEED A QUARTER OF AN ACRE. WATER FLOWING OVER THE TOP OF A FENCE DURING A NORMAL RAINFALL INDICATES THE DRAINAGE AREA IS TOO LARGE. AVOID LONG RUNS OF SILT FENCE BECAUSE THEY CONCENTRATE THE WATER IN A SMALL AREA WHERE IT WILL EASILY OVERFLOW THE FENCE.

INTAKE FILTER

DESCRIPTION

STORM DRAIN INLET PROTECTION MEASURES PREVENT COIL AND DEBRIS FROM ENTERING STORM DRAIN DROP INLETS. THESE MEASURES ARE USUALLY TEMPORARY AND ARE IMPLEMENTED BEFORE A SITE IS DISTURBED.

THERE ARE SEVERAL TYPES OF INLET PROTECTION:

EXCAVATION AROUND THE PERIMETER OF THE DROP INLET: EXCAVATING A SMALL AREA AROUND AN INLET CREATES A SETTLING POOL THAT REMOVES SEDIMENTS AS WATER IS RELEASED SLOWLY INTO THE INLET THROUGH SMALL HOLES PROTECTED BY GRAVEL AND FILTER FABRIC.

FABRIC BARRIERS AROUND INLET ENTRANCES: ERECTING A BARRIER MADE OF POROUS FABRIC AROUND AN INLET CREATES A SHIELD AGAINST SEDIMENT WHILE ALLOWING WATER TO FLOW INTO THE DRAIN. THIS BARRIER SLOWS RUNOFF WHILE CATCHING SOIL AND OTHER DEBRIS AT THE DRAIN INLET.

BLOCK AND GRAVEL PROTECTION: STANDARD CONCRETE BLOCKS AND GRAVEL CAN BE USED TO FORM A BARRIER TO SEDIMENTS THAT PERMITS WATER RUNOFF TO FLOW THROUGH SELECT BLOCKS LAID SIDEWAYS.

SANDBAGS CAN ALSO BE USED TO CREATE TEMPORARY SEDIMENT BARRIERS AT INLETS. FOR PERMANENT INLET PROTECTION AFTER THE SURROUNDING AREA HAS BEEN STABILIZED, DOD CAN BE INSTALLED. THIS PERMANENT MEASURE IS AN AESTHETICALLY PLEASING WAY TO FLOW STORMWATER NEAR DROP INLET ENTRANCES AND TO REMOVE SEDIMENTS AND OTHER POLLUTANTS FROM RUNOFF.

APPLICABILITY

ALL TEMPORARY INLET PROTECTION SHOULD HAVE A DRAINAGE AREA NO GREATER THAN 1 ACRE PER INLET. TEMPORARY CONTROLS SHOULD BE CONSTRUCTED BEFORE THE SURROUNDING LANDSCAPE IS DISTURBED. EXCAVATED DROP INLET PROTECTION AND BLOCK AND GRAVEL INLET PROTECTION ARE APPLICABLE TO AREAS OF HIGH FLOW, WHERE DRAIN OVERFLOW IS EXPECTED. FABRIC BARRIERS ARE RECOMMENDED FOR SMALLER, FLATTER DRAINAGE AREAS (SLOPES LESS THAN 5 PERCENT LEADING TO THE DRAIN). TEMPORARY DROP INLET CONTROL MEASURES ARE OFTEN USED IN SEQUENCE OR WITH OTHER EROSION CONTROL TECHNIQUES.

SITING AND DESIGN CONSIDERATIONS

WITH THE EXCEPTION OF SOD DROP INLET PROTECTION, INSTALL THESE CONTROLS BEFORE ANY SOIL DISTURBANCE IN THE DRAINAGE AREA. EXCAVATE AROUND DROP INLETS AT LEAST 1 FOOT DEEP (2 FEET MAXIMUM), EXCAVATING A VOLUME OF AT LEAST 35 YD³ PER ACRE DISTURBED. SIDE SLOPES LEADING TO THE INLET SHOULD BE NO STEEPER THAN 2:1. DESIGN THE SHAPE OF THE EXCAVATED AREA SUCH THAT THE DIMENSIONS FIT THE AREA FROM WHICH STORMWATER IS EXPECTED TO DRAIN. FOR EXAMPLE, THE LONGEST SIDE OF AN EXCAVATED AREA SHOULD BE ALONG THE SIDE OF THE INLET EXPECTED TO DRAIN THE LARGEST AREA.

STAKE FABRIC INLET PROTECTION CLOSE TO THE INLET TO PREVENT OVERFLOW ONTO UNPROTECTED SOILS. STAKES SHOULD BE AT LEAST 3 FEET LONG AND SPACED NO MORE THAN 3 FEET APART. CONSTRUCT A FRAME FOR FABRIC SUPPORT DURING OVERFLOW PERIODS, AND BURY IT AT LEAST 1 FOOT BELOW THE SOIL SURFACE. IT SHOULD RISE TO A HEIGHT NO GREATER THAN 1.5 FEET ABOVE THE GROUND. THE TOP OF THE FRAME AND FABRIC SHOULD BE BELOW THE DOWNSLOPE GROUND ELEVATION TO KEEP RUNOFF FROM BYPASSING THE INLET.

BLOCK AND GRAVEL INLET BARRIERS SHOULD BE AT LEAST 1 FOOT HIGH (2 FEET MAXIMUM). DO NOT USE MORTAR. LAY THE BOTTOM ROW OF BLOCKS AT LEAST 2 INCHES BELOW THE SOIL SURFACE. FLUSH AGAINST THE DRAIN FOR STABILITY. PLACE ONE BLOCK IN THE BOTTOM ROW ON EACH SIDE OF THE INLET ON ITS SIDE TO ALLOW DRAINAGE. PLACE 1/2-INCH WIRE MESH OVER ALL BLOCK OPENINGS TO PREVENT GRAVEL FROM ENTERING THE INLET. PLACE GRAVEL (3/4 TO 1 1/2 INCH IN DIAMETER) OUTSIDE THE BLOCK STRUCTURE AT A SLOPE NO GREATER THAN 2:1.

DO NOT CONSIDER SOD INLET PROTECTION UNTIL THE ENTIRE SURROUNDING DRAINAGE AREA IS STABILIZED. LAY THE SOD SO THAT IT EXTENDS AT LEAST 4 FEET FROM THE INLET IN EACH DIRECTION TO FORM A CONTINUOUS MAT AROUND THE INLET. LAY THE SOD STRIPS PERPENDICULAR TO THE DIRECTION OF FLOWS. STAGGER THEM SO THAT THE STRIP ENDS ARE NOT ALIGNED. THE SLOPE OF THE SODDED AREA SHOULD NOT BE STEEPER THAN 4:1 APPROACHING THE DROP INLET.

LIMITATIONS

TO INCREASE THE EFFECTIVENESS OF THESE PRACTICES, USE THEM WITH OTHER MEASURES, SUCH AS SMALL IMPOUNDMENTS OR SEDIMENT TRAPS (USEPA, 1992). IN GENERAL, STORMWATER INLET PROTECTION MEASURES ARE PRACTICAL FOR AREAS RECEIVING RELATIVELY CLEAN RUNOFF THAT IS NOT HEAVILY LADEN WITH SEDIMENT. THEY ARE DESIGNED TO HANDLE DRAINAGE FROM AREAS LESS THAN 1 ACRE (CASQA, 2003). TO PREVENT CLOGGING, STORM DRAIN CONTROL STRUCTURES MUST BE MAINTAINED FREQUENTLY. IF SEDIMENT AND OTHER DEBRIS CLOG THE WATER INTAKE, DROP INLET CONTROL MEASURES CAN ACTUALLY CAUSE EROSION IN UNPROTECTED AREAS.

MAINTENANCE CONSIDERATIONS

CHECK ALL TEMPORARY CONTROL MEASURES AFTER EACH STORM EVENT. TO MAINTAIN THE CAPACITY OF THE SETTLING POOLS, REMOVE ACCUMULATED SEDIMENT FROM THE AREA AROUND THE DROP INLET (EXCAVATED AREA, AREA AROUND FABRIC BARRIER OR BLOCK STRUCTURE) WHEN THE CAPACITY IS REDUCED BY HALF. REMOVE ADDITIONAL DEBRIS FROM THE SHALLOW POOLS PERIODICALLY. THE WEEP HOLES IN EXCAVATED AREAS AROUND INLETS CAN BECOME CLOGGED. PREVENTING WATER FROM DRAINING OUT OF THE POOLS. IF THAT HAPPENS, IT MIGHT BE DIFFICULT AND COSTLY TO UNCLOG THE INTAKE.

STABILIZED CONSTRUCTION ENTRANCE

DESCRIPTION

THE PURPOSE OF STABILIZING ENTRANCES TO A CONSTRUCTION SITE IS TO MINIMIZE THE AMOUNT OF SEDIMENT LEAVING THE AREA AS MUD AND SEDIMENT ATTACHED TO VEHICLES. INSTALLING A PAD OF GRAVEL OVER FILTER CLOTH WHERE CONSTRUCTION TRAFFIC LEAVES A SITE CAN HELP STABILIZE A CONSTRUCTION ENTRANCE. AS A VEHICLE DRIVES OVER THE PAD, THE PAD REMOVES MUD AND SEDIMENT FROM THE WHEELS AND REDUCES SOIL TRANSPORT OFF THE SITE. THE FILTER CLOTH SEPARATES THE GRAVEL FROM THE SOIL BELOW, KEEPING THE GRAVEL FROM BEING GROUND INTO THE SOIL. THE FABRIC ALSO REDUCES THE AMOUNT OF RUTTING CAUSED BY VEHICLE TIRES. IT SPREADS THE VEHICLE'S WEIGHT OVER A SOIL AREA LARGER THAN THE TIRE WIDTH.

IN ADDITION TO USING A GRAVEL PAD, A VEHICLE WASHING STATION CAN BE ESTABLISHED AT THE SITE ENTRANCE. USING WASH STATIONS ROUTINELY CAN REMOVE A LOT OF SEDIMENT FROM VEHICLES BEFORE THEY LEAVE THE SITE. DIVERTING RUNOFF FROM VEHICLE WASHING STATIONS INTO A SEDIMENT TRAP HELPS TO MAKE SURE THE SEDIMENT FROM VEHICLES STAYS ONSITE AND IS HANDLED PROPERLY.

APPLICABILITY

TYPICALLY, STABILIZED CONSTRUCTION ENTRANCES ARE INSTALLED WHERE CONSTRUCTION TRAFFIC LEAVES OR ENTERS AN EXISTING PAVED ROAD, BUT SITE ENTRANCE STABILIZATION SHOULD BE EXTENDED TO ANY ROADWAY OR ENTRANCE WHERE VEHICLES ENTER OR LEAVE THE SITE FROM A PUBLIC RELATIONS POINT OF VIEW. STABILIZING CONSTRUCTION SITE ENTRANCES CAN BE WORTH THE EFFORT. IF THE SITE ENTRANCE IS THE MOST NOTICEABLE PART OF A CONSTRUCTION SITE, STABILIZING THE ENTRANCE CAN IMPROVE BOTH THE APPEARANCE AND THE PUBLIC PERCEPTION OF THE CONSTRUCTION PROJECT.

SITING AND DESIGN CONSIDERATIONS

STABILIZE ALL ENTRANCES TO A SITE BEFORE CONSTRUCTION AND FURTHER SITE DISTURBANCE BEGIN. MAKE SURE THE STABILIZED SITE ENTRANCES ARE LONG AND WIDE ENOUGH TO ALLOW THE LARGEST CONSTRUCTION VEHICLE THAT WILL ENTER THE SITE TO FIT THROUGH WITH ROOM TO SPARE. IF MANY VEHICLES ARE EXPECTED TO USE AN ENTRANCE IN ANY ONE DAY, MAKE THE SITE ENTRANCE WIDE ENOUGH FOR TWO VEHICLES TO PASS AT THE SAME TIME WITH ROOM ON EITHER SIDE OF EACH VEHICLE. IF A SITE ENTRANCE LEADS TO A PAVED ROAD, MAKE THE END OF THE ENTRANCE FLARED SO THAT LONG VEHICLES DO NOT LEAVE THE STABILIZED AREA WHEN THEY TURN ONTO OR OFF THE PAVED ROADWAY. IF A CONSTRUCTION SITE ENTRANCE GROSSES A STREAM, SWALE, OR OTHER DEPRESSION, PROVIDE A BRIDGE OR CULVERT TO PREVENT EROSION FROM UNPROTECTED BANKS. MAKE SURE STONE AND GRAVEL USED TO STABILIZE THE CONSTRUCTION SITE ENTRANCE ARE LARGE ENOUGH SO THAT THEY ARE NOT CARRIED OFF-SITE BY VEHICLES. AVOID SHARPEDEDGED STONE TO REDUCE THE POSSIBILITY OF PUNCTURING TIRES. INSTALL STONE OR GRAVEL AT A DEPTH OF AT LEAST 6 INCHES FOR THE ENTIRE LENGTH AND WIDTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

LIMITATIONS

ALTHOUGH STABILIZING A CONSTRUCTION ENTRANCE REDUCES THE AMOUNT OF SEDIMENT LEAVING A SITE, SOME SOIL MIGHT STILL BE DEPOSITED FROM VEHICLE TIRES ONTO PAVED SURFACES. TO FURTHER REDUCE THE CHANCE OF THESE SEDIMENTS POLLUTING STORMWATER RUNOFF, SWEEP THE PAVED AREA ADJACENT TO THE STABILIZED SITE ENTRANCE. FOR SITES THAT USE WASH STATIONS, A RELIABLE WATER SOURCE TO WASH VEHICLES BEFORE LEAVING. THE SITE MIGHT NOT BE INITIALLY AVAILABLE. WATER MIGHT HAVE TO BE TRUCKED TO THE SITE AT ADDITIONAL COST.

MAINTENANCE CONSIDERATIONS

MAINTAIN STABILIZATION OF THE SITE ENTRANCES UNTIL THE REST OF THE CONSTRUCTION SITE HAS BEEN FULLY STABILIZED. YOU MIGHT NEED TO ADD STONE AND GRAVEL PERIODICALLY TO EACH STABILIZED CONSTRUCTION SITE ENTRANCE TO KEEP THE ENTRANCE EFFECTIVE. SWEEP UP SOIL TRACKED OFF-SITE IMMEDIATELY FOR PROPER DISPOSAL. FOR SITES WITH WASH RACKS AT EACH SITE ENTRANCE, CONSTRUCT SEDIMENT TRAPS AND MAINTAIN THEM FOR THE LIFE OF THE PROJECT. PERIODICALLY REMOVE SEDIMENT FROM THE TRAPS TO MAKE SURE THEY KEEP WORKING.

EFFECTIVENESS

STABILIZING CONSTRUCTION ENTRANCES TO PREVENT SEDIMENT TRANSPORT OFF-SITE IS EFFECTIVE ONLY IF ALL THE ENTRANCES TO THE SITE ARE STABILIZED AND MAINTAINED. STABILIZING THE SITE ENTRANCES MIGHT NOT BE VERY EFFECTIVE UNLESS A WASH RACK IS INSTALLED AND ROUTINELY USED (CORISH, 1995). THIS CAN BE PROBLEMATIC FOR SITES WITH MULTIPLE ENTRANCES AND HIGH VEHICLE TRAFFIC.

JOB #:	2166
DRAWN:	LJJ, MOH
DESIGN:	LJJ, MOH
QA:	KTS
DATE:	2/17/2022

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<p>WOITH ENGINEERING, INC. ENGINEERS & SURVEYORS 406 3RD STREET NW, SUITE 205 - GREAT FALLS, MT 59403 - 406-761-1985 3880 O'LEARY STREET, SUITE A - MISSOULA, MT 59808 - 406-203-0865 WWW.WOITHENG.COM</p>
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<p>ALTER-SILVERSTREAM SITE DEVELOPMENT</p>
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<p>MISSOULA</p>

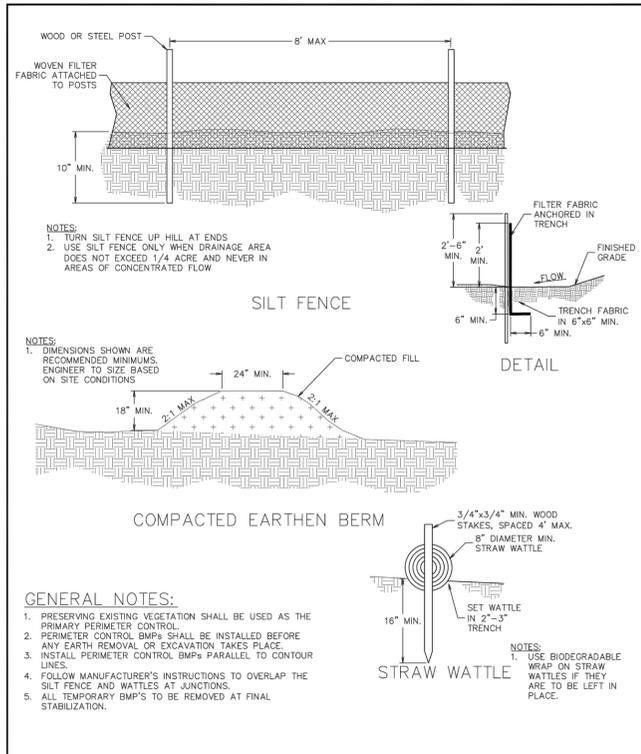
<p>STORM WATER POLLUTION PREVENTION PLAN</p>
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<p>MONTANA</p>

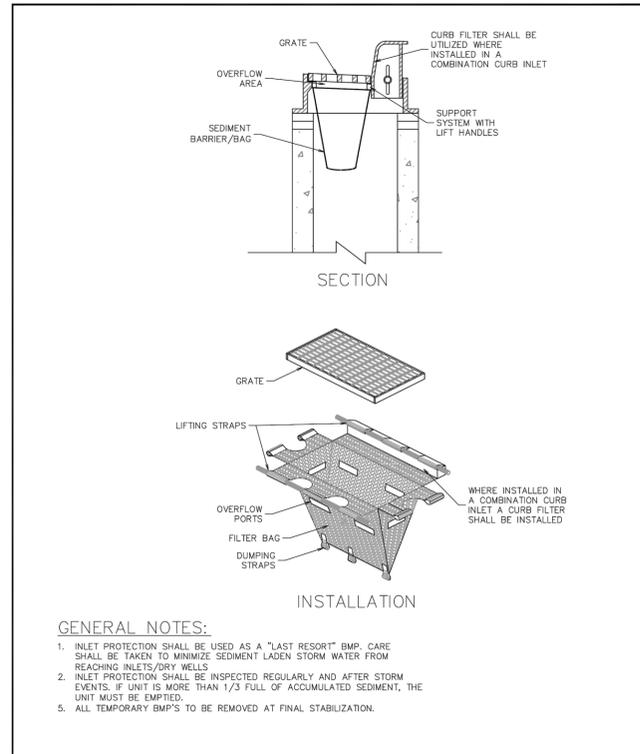
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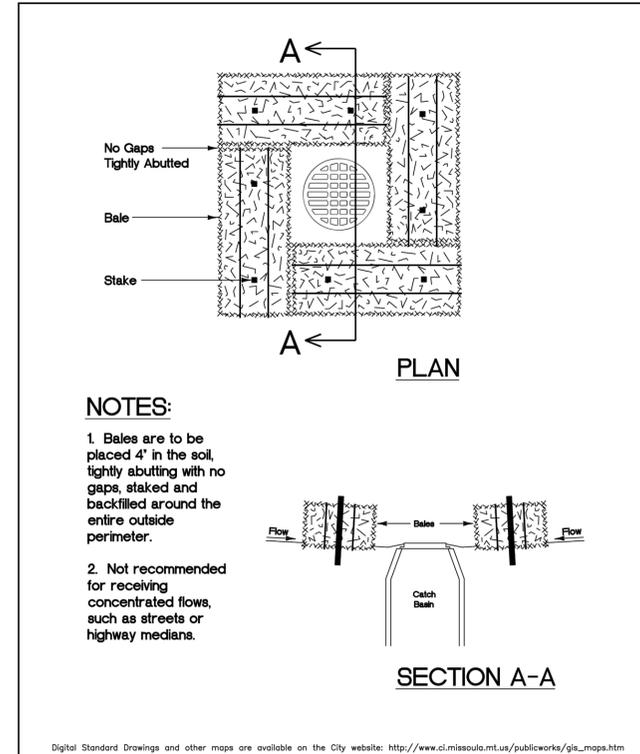
<p>SWPPP-DWG PLOTTED BY LOGAN JACOBS ON SEP/07/2022</p>



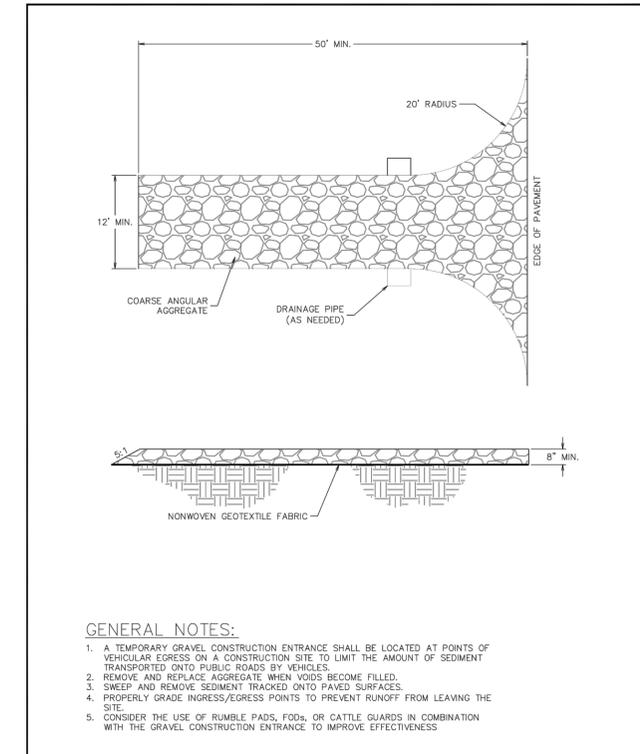
Engineering Division	Perimeter Control	Approved By Utility Engineer Andy Schultz, PE	Revised: 09/28/2020	STD - 652
	<i>A.S.D.</i>			



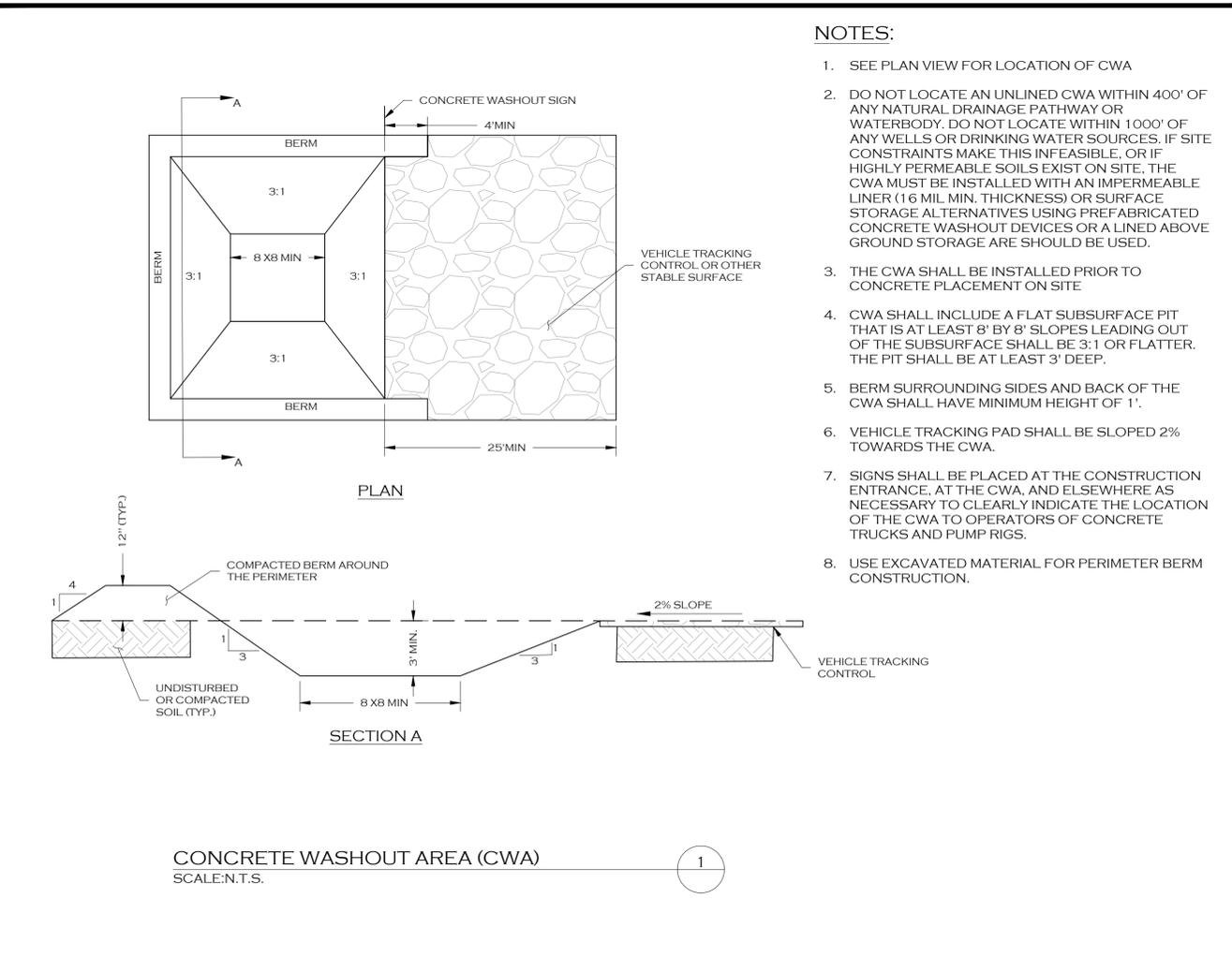
Engineering Division	Inlet Protection	Approved By Utility Engineer Andy Schultz, PE	Revised: 09/28/2020	STD - 651
	<i>A.S.D.</i>			



Engineering Division	Straw Bale Sediment Control at Field Catch Basins	Approved By City Engineer R. Steven King	Adopted: 01/01/2005 Revised:	STD - 609
	<i>A.S.D.</i>			



Engineering Division	Temporary Gravel Construction Entrance	Approved By Utility Engineer Andy Schultz, PE	Revised: 09/28/2020	STD - 650
	<i>A.S.D.</i>			

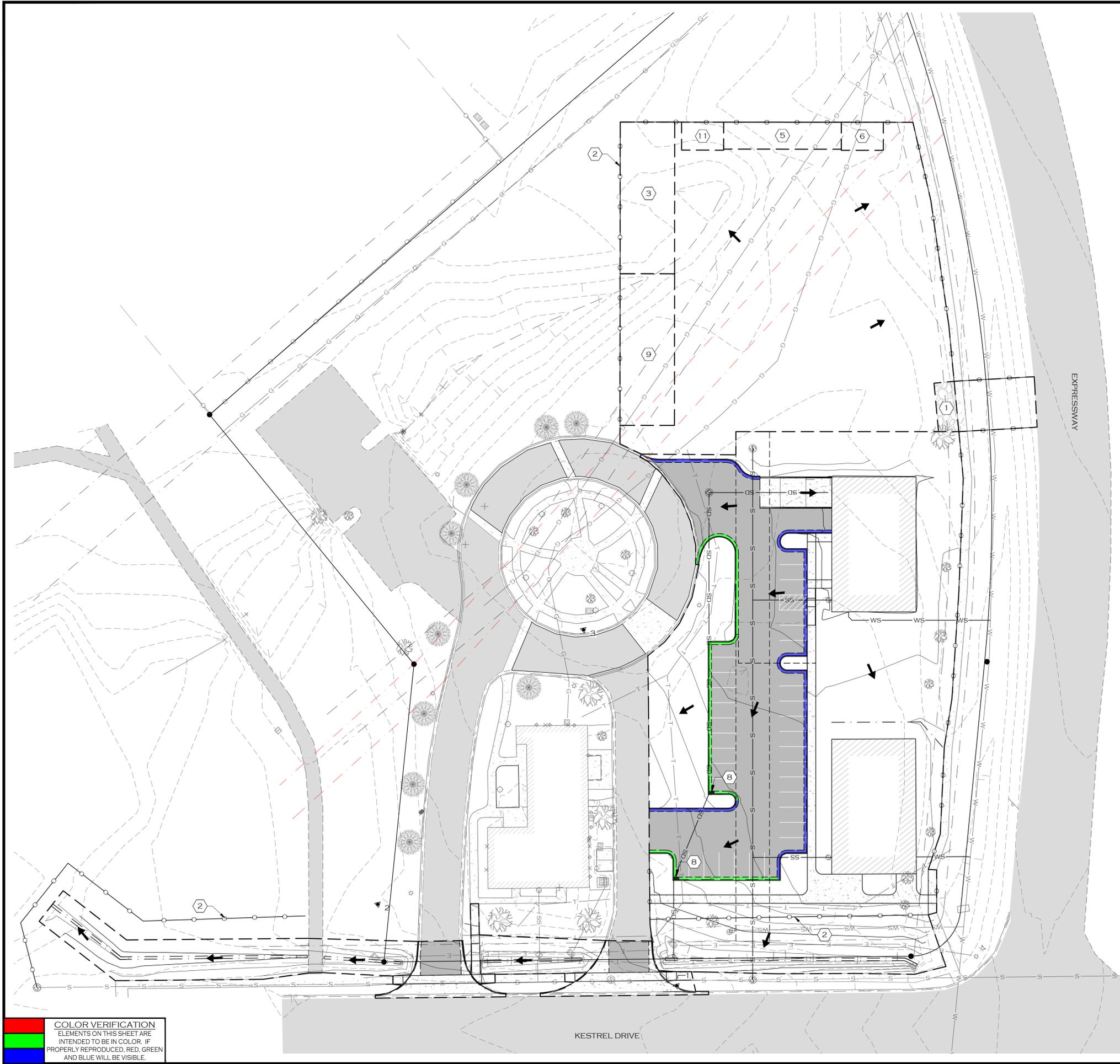


CONCRETE WASHOUT AREA (CWA)
SCALE:N.T.S.

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2166	JOB #:	LJJ, MOH	DESIGN:	LJJ, MOH	CA:	KTS	DATE:	2/17/2022
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<p>MISSOULA ENGINEERS & SURVEYORS</p> <p>405 8RD STREET NW, SUITE 205 - GREAT FALLS, MT 59404 - 406.761.1955</p> <p>3880 CLARY STREET, SUITE A - MISSOULA, MT 59808 - 406.803.5555</p> <p>WWW.WOITHENG.COM</p> <p>COPYRIGHT © WOITH ENGINEERING, INC., 2022</p>								
MISSOULA	MONTANA	ALTER-SILVERSTREAM SITE DEVELOPMENT						
STORM WATER POLLUTION PREVENTION PLAN NOTES								
C9.1								



SWPPP KEY NOTES:

PHASE 1

CONSTRUCTION OF TEMPORARY GRAVEL CONSTRUCTION ENTRANCE PER CITY OF MISSOULA GUIDELINES OR TRACK OUT DEVICE AS APPROVED BY THE ENGINEER. SEE CITY OF MISSOULA STANDARD DETAIL STD-607 ON SHEET C9.2 FOR DETAILS AND SPECIFICATIONS. ONLY REQUIRED FOR DESIGNATED ENTRANCES INTO LOT.

- ① PROVIDE AND INSTALL SILT FENCE AS SHOWN. SEE CITY OF MISSOULA STANDARD DETAIL STD-604 ON SHEET C9.2 FOR DETAILS AND SPECIFICATIONS. KEEP IN GOOD CONDITION.
- ② STAGING AREA AND MATERIALS STORAGE AREA ARE DESIGNATED AS SHOWN.
- ③ PROTECT EXISTING STORM DRAIN INLETS. SEE CITY OF MISSOULA STANDARD DETAIL STD-651 ON SHEET C9.2 FOR DETAILS AND SPECIFICATIONS.
- ④ PORTABLE TOILET, JOBSITE TRAILER AND PARKING AREA.

PHASE 2

- ⑤ PROVIDE CONCRETE TRUCK WASHOUT AREA PER BEST PRACTICES ENSURING THAT ALL WASHOUT IS CONTAINED.
- ⑥ PROTECT STORM DRAIN INLETS AS INSTALLED. SEE CITY OF MISSOULA STANDARD DETAIL STD-651 ON SHEET C9.2 FOR DETAILS AND SPECIFICATIONS.

EXAMPLE SOIL STOCKPILE LOCATIONS (ACTUAL LOCATIONS DETERMINED BY CONTRACTOR) TEMPORARILY STABILIZE ALL SOIL STOCKPILES WITH THE USE OF EROSION CONTROL BLANKET OR PLASTIC LAID OVER THE STOCKPILE OR INSTALL A V-DITCH AND BERM AROUND THE PERIMETER OF THE STOCKPILE SET A MINIMUM OF 5 FEET FROM THE TOE OF THE PILE.

- ⑦ LIMIT EARTH DISTURBING ACTIVITIES NEAR THE BOUNDARY OF THE SITE TO PRESERVE EXISTING VEGETATION AND PROVIDE VEGETATIVE BUFFER. IF SLOPES STEEPER THAN 3:1 ARE DISTURBED, SURFACE ROUGHEN AND TEMPORARILY SEED.
- ⑧ REFUSE PILES/ DEBRIS BOX LOCATION.

NOTES:

- 1. IF THE SHOWN LOCATIONS FOR POLLUTION AND EROSION CONTROL PROTECTION MEASURES ARE NOT SUITABLE THIS PLAN MUST BE UPDATED WITH THE NEW LOCATIONS.
- 2. SWPPP ADMINISTRATOR TO EVALUATE SITE AND IDENTIFY ALL INLETS AFFECTED BY THE CURRENT PROJECT PHASING AND ENSURE INLET PROTECTION IS INSTALLED. UPDATED PLANS WITH ANY ADDITIONAL INLETS THAT HAVE INLET PROTECTION.
- 3. STORMWATER BMP'S ARE CATEGORIZED UNDER THREE PHASES:
 PHASE 1: PRE CONSTRUCTION
 PHASE 2: PROGRESSIVE CONSTRUCTION
 PHASE 3: POST CONSTRUCTION
- 4. PHASE 3 POST CONSTRUCTION BMP'S SHALL INCLUDE RESEEDING ACTIVITIES IN ORDER TO STABILIZE SITE WITH VEGETATION IN ACCORDANCE TO THE PROJECT WEED MANAGEMENT AND REVEGETATION PLAN, AND TO REMOVE BMP'S THAT ARE NO LONGER NEEDED.



COLOR VERIFICATION
 ELEMENTS ON THIS SHEET ARE INTENDED TO BE IN COLOR. IF PROPERLY REPRODUCED, RED, GREEN AND BLUE WILL BE VISIBLE.

2166	J.L.J. MOH	J.L.J. MOH	KTS	2/17/2022
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WOITH ENGINEERING, INC.
ENGINEERS & SURVEYORS
 405 8RD STREET NW, SUITE 205 - GREAT FALLS, MT 59403 - 406.761.1955
 3880 O'LEARY STREET, SUITE A - MISSOULA, MT 59808 - 406.803.9585
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MISSOULA	MONTANA
ALTER-SILVERSTREAM SITE DEVELOPMENT	CONSTRUCTION BEST MANAGEMENT PRACTICES

C9.2

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