WARM SPRINGS WMA COLD STORAGE BUILDING

NEAR WARM SPRINGS, MONTANA FWP PROJECT #7135359

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CODES:	EXTERIOR WALL PROTECTION:	IBC TABLE 602
BUILDING 2018 INTERNATIONAL BUILDING CODE (IBC) MECHANICAL: 2018 INTERNATIONAL MECHANICAL CODE (IMC)	NONE REQUIRED	
PLUMBING: 2018 UNIFORM PLUMBING CODE (IMPO) ELECTRICAL: 2017 NATIONAL ELECTRICAL CODE (IMPO)	FLAME SPREAD: IB	C TABLE 803.5
FIRE: 2018 INTERNATIONAL FIRE CODE ENERGY: 2018 INTERNATIONAL ENERGY CONSERVATION CODE (IECC)	EXIT ENCLOSURE & PASSAGEWAYS B	
ACCESSIBILITY: ANSI 117.1	CORRIDORS B	
	ROOMS AND ENCLOSED SPACES	
BUILDING AREA:		
TOTAL BUILDING AREA: 2,400 S.F	AUTOMATIC SPRINKLER SYSTEM:	IBC SECTION 903
OCCUPANCY: IBC SECT. 303	NONE	
"S-1" OCCUPANCY	EXITS:	IBC TABLE 1004.1.1
CONSTRUCTION TYPE: IBC TABLE 601 TYPE V-B	OCCUPANT LOAD	
PERMITTED: 9,000 SF/FLR (TABLE 503)	WAREHOUSES: 500 S.F. PER OCCUPANT	
ACTUAL AREA: 2,400 SF	OCCUPANT LOAD (NEW): 4	
OCCUPANCY SEPARATION: IBC TABLE 508.4		
NA	EXIT CALCULATION:	IBC CH. 10 - TABLE 1015."
LOCATION ON PROPERTY:	1 PROVIDED	
+30' OPEN SPACE	DISTANCE TO EXITS:	IBC SECTION 1016
FIRE RESISTANCE: IBC TABLE 601	200 FT. MAX.; LESS THAN 200 FT. PROVIDED	
PERMITTED	ROOF CONSTRUCTION:	IBC TABLE 1505.1
STRUCTURAL FRAME NONE REQUIRED		IDO INBLE IOUN
INTERIOR BEARING WALLS EXTERIOR NONBEARING WALLS	EXISTING, NOT APPLICABLE	
INTERIOR NONBEARING WALLS		
ROOF CONSTRUCTION		

CIVIL SITE DESIGN BY:

LARSON CIVIL ENGINEERING, LLC

ELECTRICAL DESIGN BY:

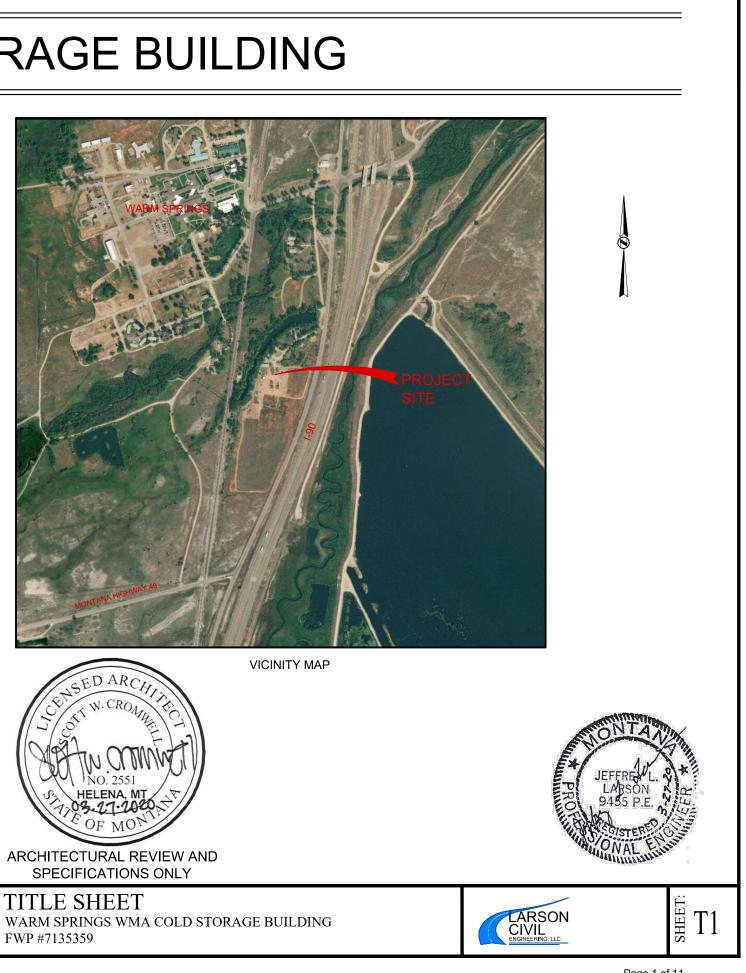
AMES ENGINEERING, LLC

MECHANICAL DESIGN BY:

MILLENIUM ENGINEERING, INC

ARCHITECTURAL REVIEW BY:

SLATE ARCHITECTURE





ARCHITECTURAL REVIEW AND

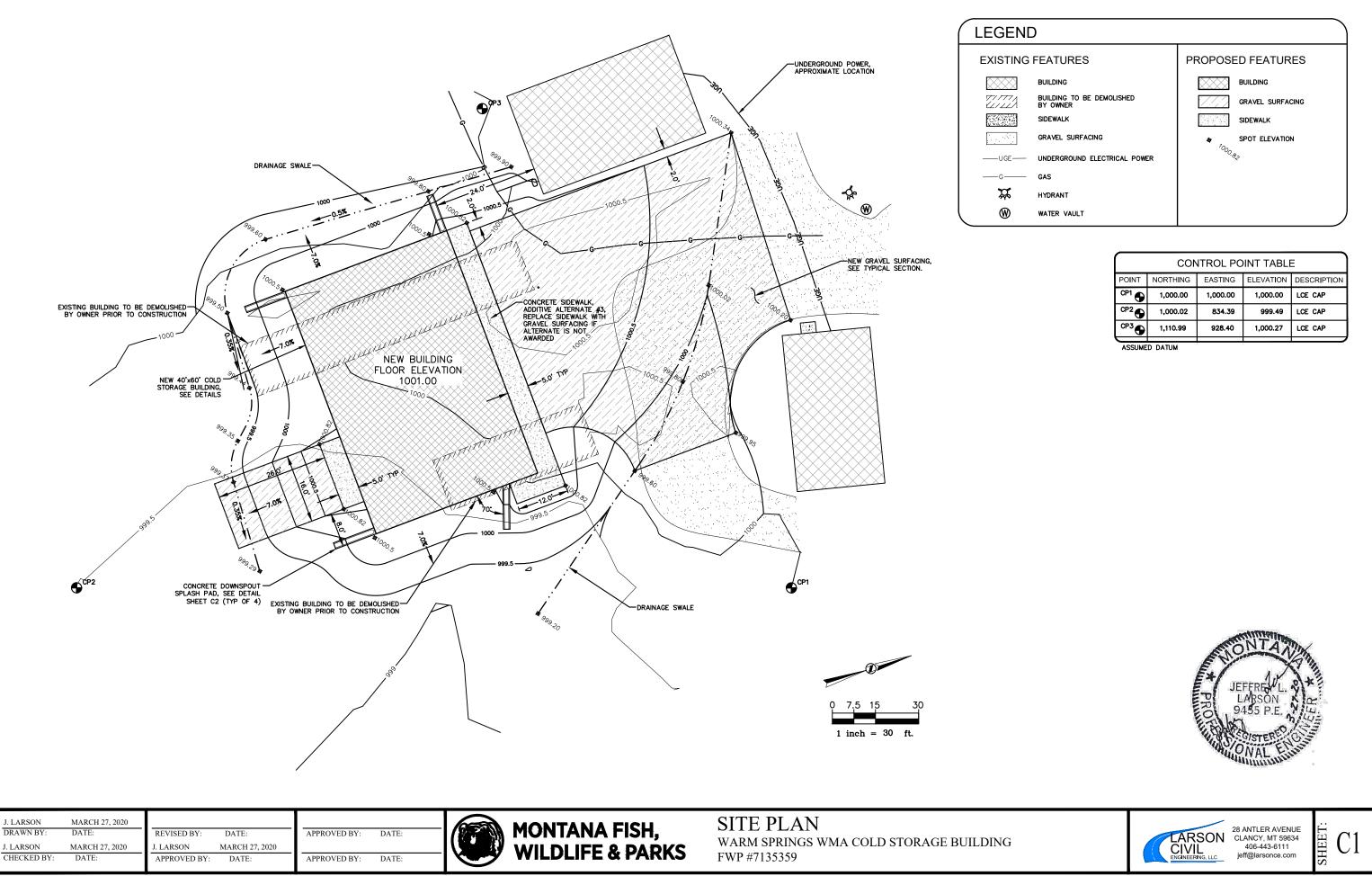
WARM SPRINGS WMA COLD STORAGE BUILDING FWP #7135359

. LARSON	MARCH 27, 2020		
RAWN BY:	DATE:	REVISED BY:	DAT
LARSON	MARCH 27, 2020	J. LARSON	MAR
HECKED BY:	DATE:	APPROVED BY:	DA

DATE:	APPROVED BY:
MARCH 27, 2020	
DATE:	APPROVED BY:

DATE:	
	_113
DATE:	7 1





ĺ	CONTROL POINT TABLE											
	POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION							
		1,000.00	1,000.00	1,000.00	LCE CAP							
		1,000.02	834.39	999.49	LCE CAP							
		1,110.99	928.40	1,000.27	LCE CAP							
f		1,110.99	928.40	1,000.27	LUE CAP							

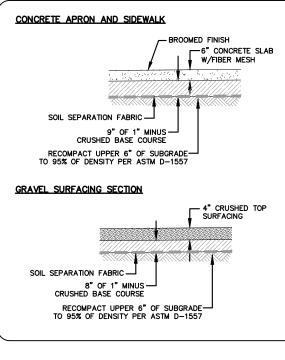
CONSTRUCTION NOTES:

- ALL SITE WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH "MONTANA 1. PUBLIC WORKS STANDARD SPECIFICATIONS", SIXTH EDITION (MPW).
- 2. BEFORE DIGGING, CALL 811 FOR LOCATION OF EXISTING UTILITIES.
- 3. CRUSHED BASE COURSE SHALL BE 1" MINUS PER MPW SPECIFICATIONS.
- CONCRETE SLABS AND SIDEWALK SHALL BE REINFORCED WITH FIBER MESH. 4.
- CRUSHED TOP SURFACING FOR GRAVEL SURFACING SHALL MEET THE 5.
 - FOLLOWING SPECIFICATIONS INCLUDING BINDER OR BLENDING MATERIAL:

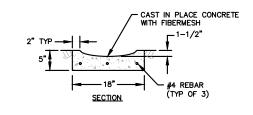
SIEVE SIZE	% PASSING			
3/4" SIEVE	100%			
No. 4 SIEVE	40-80%			
No. 10 SIEVE	25-60%			
No. 200 SIEVE	8-20%			

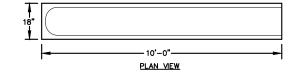
IN ADDITION, THE PORTION PASSING THE NO. 200 SIEVE CANNOT EXCEED 2/3 OF THE PORTION PASSING THE #40 SIEVE; THE MAXIMUM LIQUID LIMIT FOR THE MATERIAL PASSING THE NO. 40 SIEVE SHALL NOT EXCEED 35, WHILE THE PLASTICITY INDEX CAN VARY BETWEEN 3 AND 10; THE WEAR FACTOR SHALL NOT EXCEED 50% AT 500 REVOLUTIONS; AND AT LEAST 20% OF THE AGGREGATE RETAINED ON NO. 4 SIEVE SHALL HAVE A FRACTURED FACE.

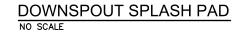
- CRUSHED TOP SURFACE SHALL BE PLACED AND COMPACTED AS IDENTIFIED 6. IN MPW SPECIFICATION 02/235 CRUSHED BASE COURSE.
- ALL EXCAVATION AND EMBANKMENT ON THIS PROJECT, SHALL MEET THE 7. REQUIREMENTS OF MPW SPECIFICATION 02/230 STREET EXCAVATION, BACKFILL AND COMPACTION.
- CONCRETE SHALL BE M-4000 PER MPW SPECIFICATIONS. ALL REBAR #4 AND LARGER 8. SHALL BE ASTM GRADE 60, #3 REBAR SHALL BE ASTM GRADE 40.
- 9. ALL HOLES DRILLED IN CONCRETE FOR BOLT EMBEDS SHALL BE THOROUGHLY CLEANED OF DUST BY BLOWING OUT THE HOLE WITH AN AIR COMPRESSOR.
- 10. COMPACTION AND CONCRETE TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE MPW SPECIFICATIONS BY AN INDEPENDENT LABORATORY HIRED BY THE CONTRACTOR. SUBMIT RESULT TO BOTH OWNER AND ENGINEER. PROVIDE TESTING AS INDICATED IN THE FOLLOWING SCHEDULE:
 - -SUBGRADE FOR SIDEWALK, BUILDING SLAB AND GRAVEL SURFACING-
 - ONE TEST PER 600 SF. -GRAVEL FOR SIDEWALK, BASE UNDER SLAB AND GRAVEL SURFACING-
 - ONE TEST PER 600 SF.
- 11. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILED DRAWINGS AND STRUCTURAL CALCULATIONS FOR THE BUILDING AND FOUNDATION. DRAWINGS AND CALCULATIONS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN MONTANA.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A BUILDING PERMIT FROM THE STATE OF MONTANA. THE COST OF THE PERMIT SHALL BE PAID BY THE CONTRACTOR AND SHALL BE INCLUDED IN THE CONTRACTORS BID.
- 13. PROVIDE ONE FIRE EXTINGUISHER AND CABINET AS SPECIFIED. LOCATION TO BE DETERMINED BY OWNER.
- SOIL SEPARATION FABRIC SHALL BE NON-WOVEN POLYPROPYLENE GEOTEXTILE THAT IS INERT TO 14. BIOLOGICAL DEGRADATION AND RESISTANT TO NATURALLY OCCURRING CHEMICALS, ALKALIS AND ACIDS. SOIL SEPARATION FABRIC SHALL HAVE AN TENSILE STRENGTH (GRAB) OF 160 LBS AND SHALL BE GEOTEX 601 OR APPROVED EQUAL.







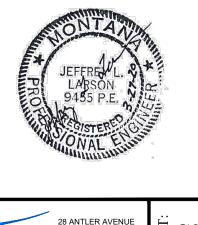




J. LARSON	MARCH 27, 2020						NOTE
DRAWN BY:	DATE:	REVISED BY:	DATE:	APPROVED BY:	DATE:	MONTANA FISH,	WADMS
J. LARSON	MARCH 27, 2020	J. LARSON	MARCH 27, 2020			WILDLIFE & PARKS	WARM S
CHECKED BY:	DATE:	APPROVED BY:	DATE:	APPROVED BY:	DATE:		FWP #71

ES AND DETAILS SPRINGS WMA COLD STORAGE BUILDING 35359

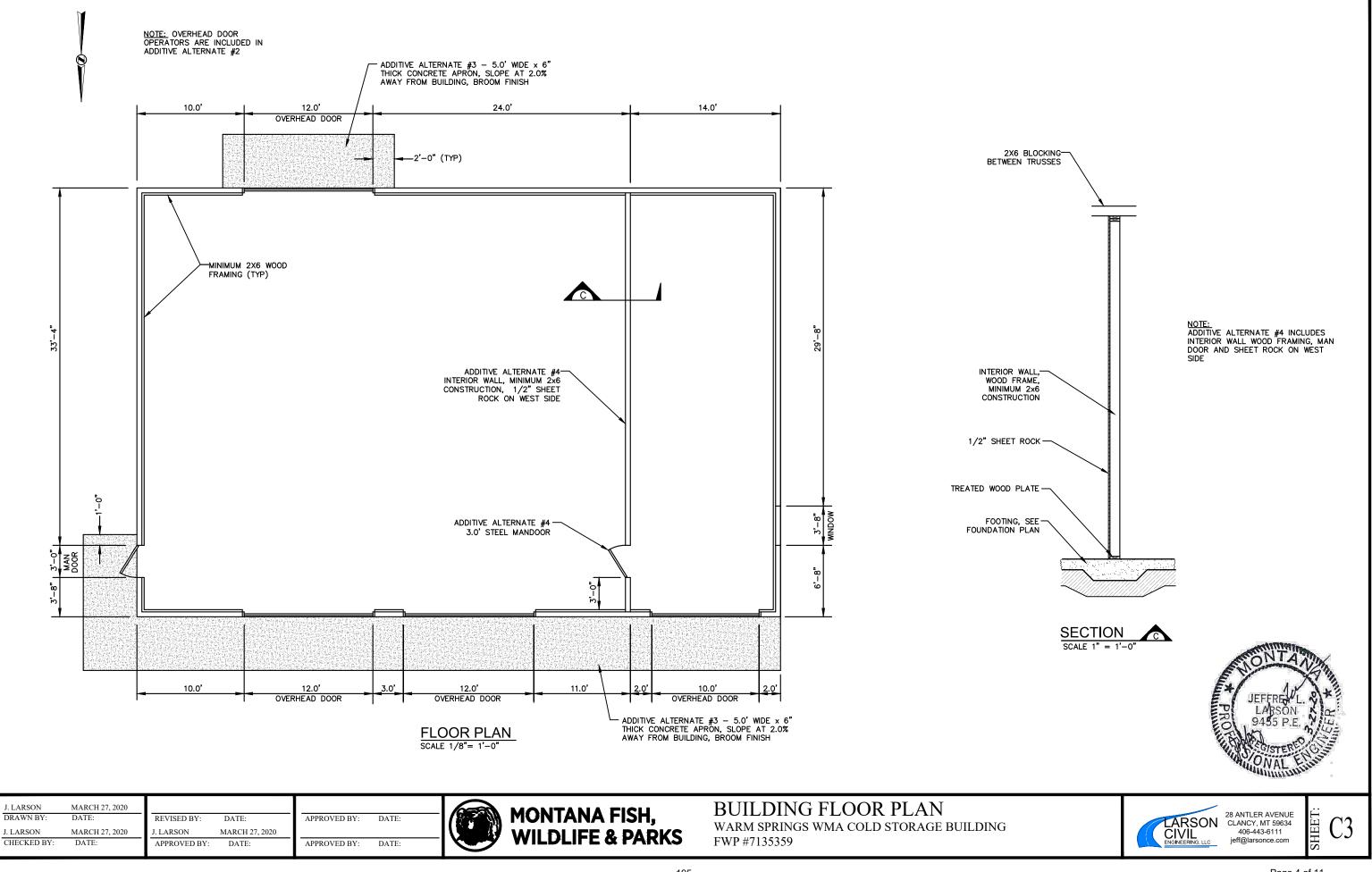
NOTE: SPLASH PAD FOR THE NORTHWEST BUILDING CORNER SHALL BE 9.0'



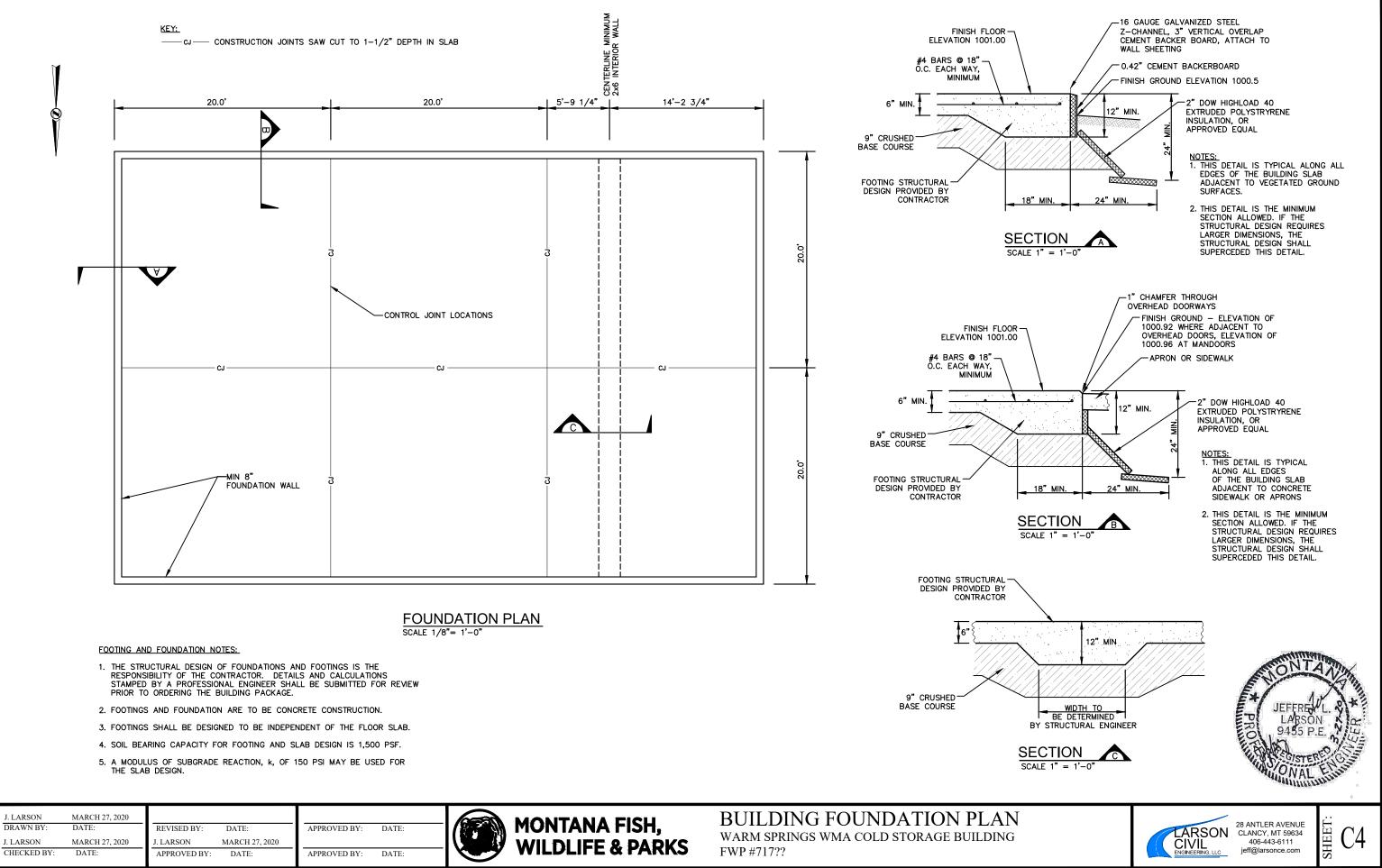


LARSON CLANCY, MT 59634 406-443-6111 ieff@larsonce.com

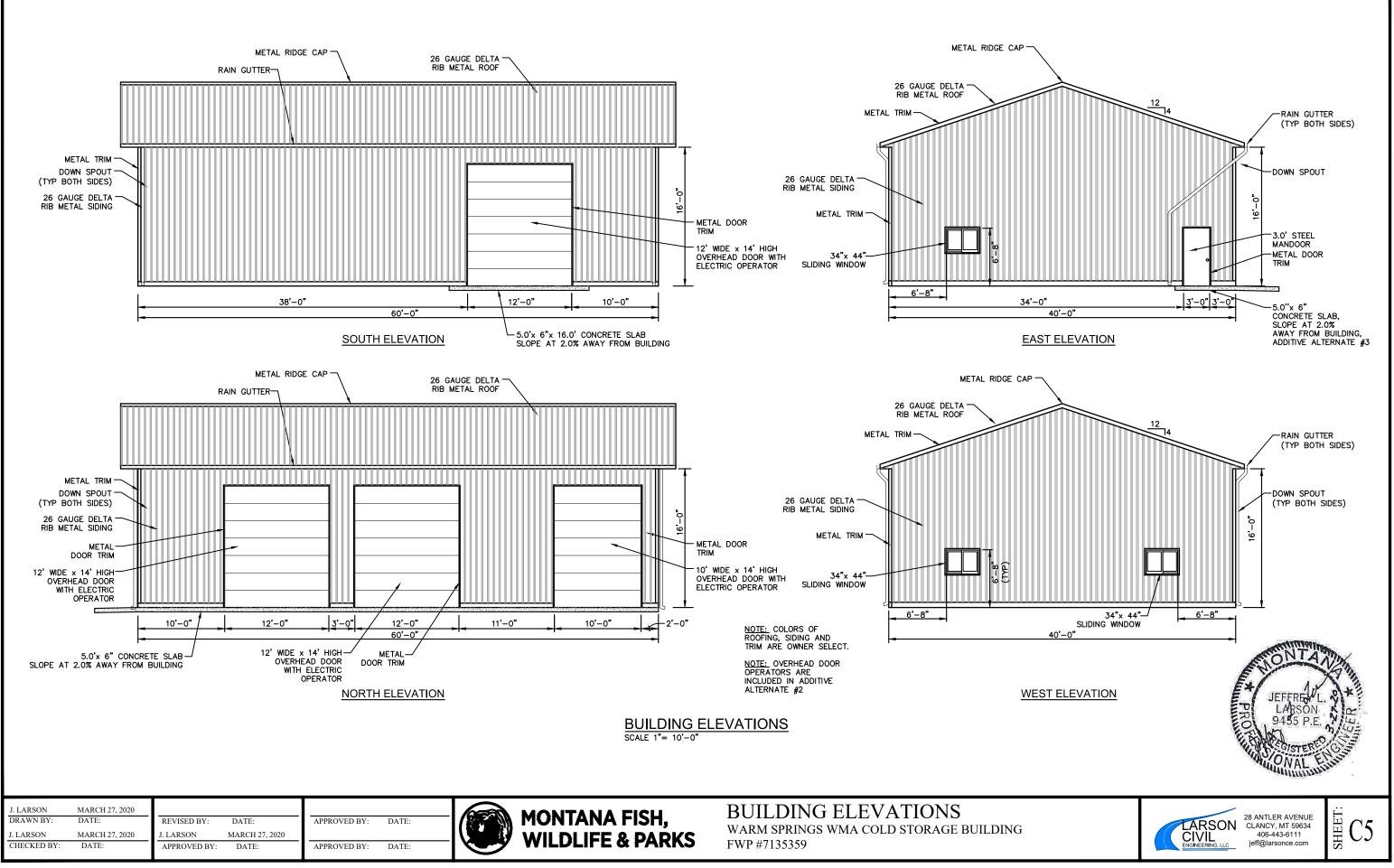
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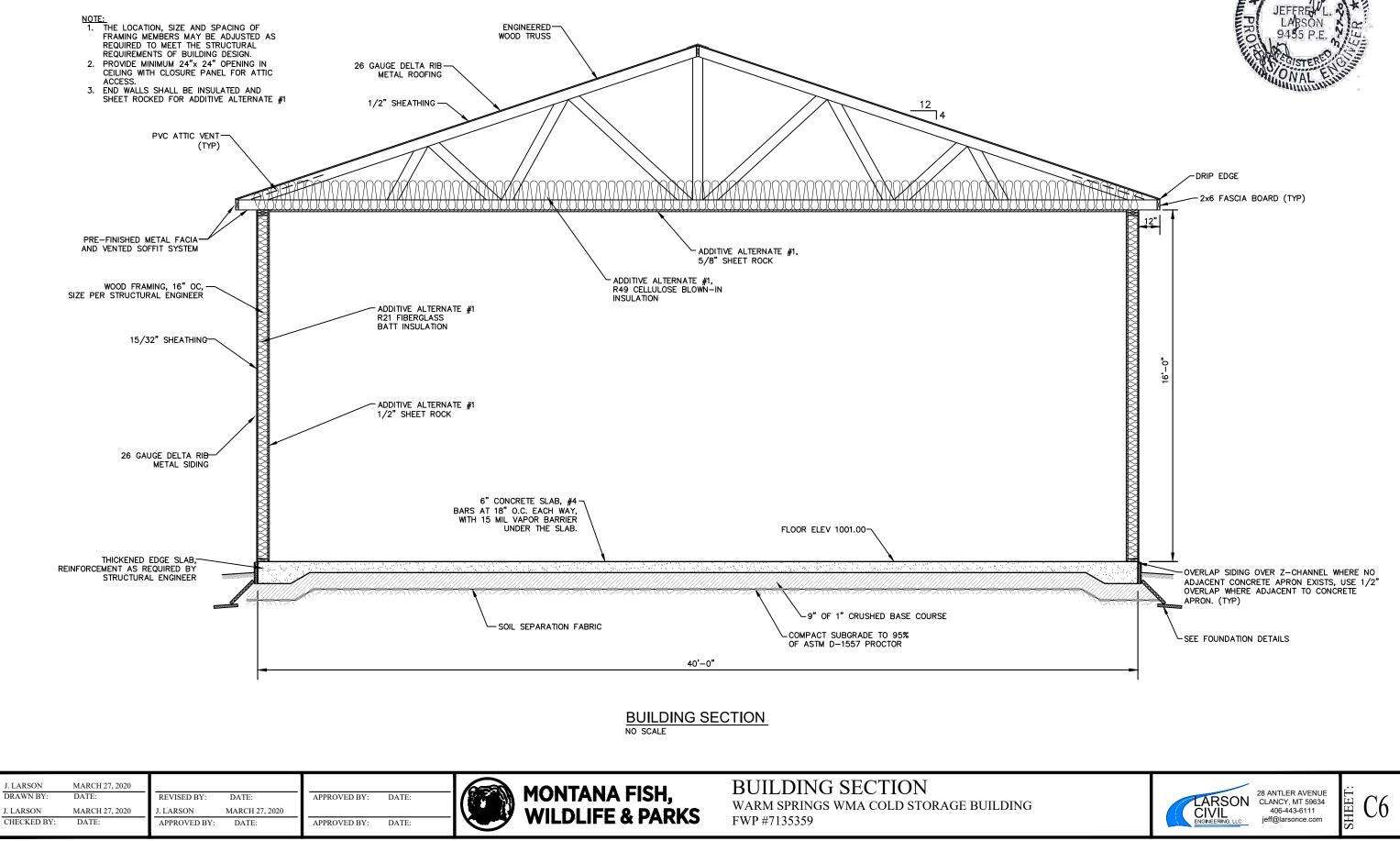


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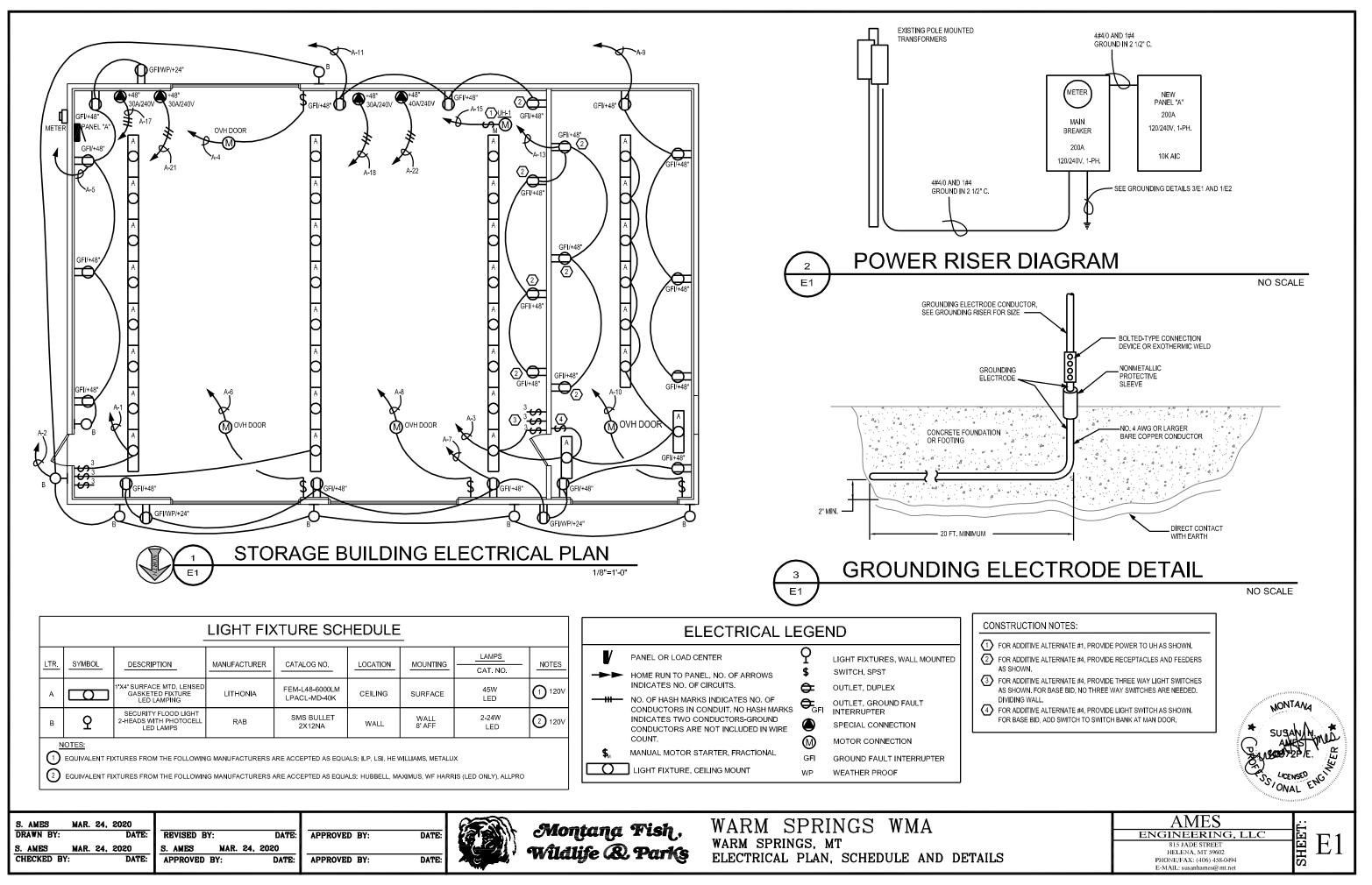


ARCH 27, 2020						6000	MON
ATE:	REVISED BY: DATE:		APPROVED BY:	DATE:	1/	19-3- All	MUN
ARCH 27, 2020	J. LARSON MARCH 27, 2	2020				Contract V	
DATE:	APPROVED BY: DATE:		APPROVED BY:	DATE:			AA I L
						<u> </u>	









	9 20 1 #12 RECEPTS 1	
BONDING JUMPER	11 20 1 #12 RECEPTS 1	
MIN. #2 CU.	13 20 1 #12 RECEPTS 1	1
	15 20 1 #12 UH-1 1	
NEUTRAL	17 30 2 #10 AIR COMP	1 2
	19	1
	21 30 2 #10 EQUIPMENT	1 2
	23	1
PROVIDE #6 MIN. BONDING JUMPER BETWEEN HOT AND COLD WATER PIPING		1
	TOTAL CONNECTED LOAD	2
#4 CU 3/4* C.		
#6 CU - 3/4" PVC	BREAKER TYPES	1
#2 CU 3/4" C	N = NORMAL S = SHUNT-TRIP	
$\langle \gamma \rangle$ $\langle \gamma \rangle$	G = GFCI	
#2 CU 3/4" C.		
BOND TO DOMESTIC WATER PIPING AHEAD OF METER. JUMPER AFTER METER. CONCRETE ENCASED ELECTRODE,		
AFTER METER. ACROSS METER		
INSTALL GROUND ROD IN ACCORDANCE WITH N.E.C. 250-50. USE A MINIMUM OF 8' OF NOT LESS THAN 3/4" CONDUIT OR PIPE.		
BOND TO GROUND ROD USE A MINIMUM OF 8' OF NOT LESS THAN 3/4" CONDUIT OR PIPE.		
GROUNDING RISER DETAIL		
NO SCALE		
5. AMES MAR. 24, 2020	WARM SPRINGS WMA	
DRAWN BY: DATE: REVISED BY: DATE: APPROVED BY: DATE: CMOTLATA TIST,	WARM SPRINGS, MT	
S. AMES MAR. 24, 2020 DRAWN BY: DATE: S. AMES MAR. 24, 2020 S. AMES MAR. 24, 2020 CHECKED BY: DATE: APPROVED BY: DATE: APPROVED BY: DATE: APPROVED BY: DATE:	ELECTRICAL SPECS AND PANEL SCHEDULE	
ALL		
200		

Electrical Specifications

Scope: All electrical work under this contract as shown on the plans and indicated In the specifications. Work shall be performed by a licensed and bonded contractor utilizing tradesmen skilled in the art and in accordance with acceptable practices. All work shall comply with local, state, and the National Electrical Code, latest edition.

Permits: The electrical contractor shall secure all permits in connection with his work.

Work Included: All lighting and power systems including fixtures, devices, boxes, conduit, disconnects, motor starters, etc. Provide and install all incidental items required for a complete and functioning system. Service equipment, motors, etc. to be located and installed as shown on the plan. Deviations shall be approved prior to installation by the architect and/or engineer.

Tests: Prior to tests or usage, all switches, panels, devices shall be in place. All branch circuits shall be free of faults or shorts. The complete Installation and all components shall have a resistance between conductors and between conductors and ground as specified by the N.E.C.

Ground: There shall be continuity of ground throughout the system. System ground to comply with N.E.C. requirements.

Materials: All materials such as receptacles, switches, conduit, conductors, panelboards, devices, fixtures, etc. to be new and bear the U.L. label or to conform to applicable standards.

Guarantee/Warranty: Contractor guarantees that all work and plant will be free from defects of materials and workmanship for a period of one (1) year from the date of final acceptance. Contractor further agrees that he will replace or repair all defective equipment and installation that become defective during the term of the warranty. This does not include excessive abuse or damage inflected by the owner and/or others.

Manufacturers Directions, Procedures and Operating Instructions: Manufacturers materials and equipment applied installed connected erected used cleaned and conditioned as per manufacturers directions or recommendations prior to installatio

Installation: All equipment, circuitry, etc. shall be installed as follows or as specified otherwise. The electrical contractor shall verify all nameplate ratings of equipment to be connected and verify electrical compatibility and code compliance. Manufacturer's recommendations shall take precedence unless verified otherwise.

Conductors and Cable: All conductors shall be copper with a weather resistant thermoplastic cover. No branch circuit conductors shall be smaller than #12 unless for low voltage wiring.

Motor Circuits: Motors and circuitry to be installed and connected as indicated. All motors to be provided with a disconnecting means per the N.E.C. If fractional horsepower motors do not have an Integral disconnecting means such as a plug or snap switch, electrical contractor to provide and install an acceptable disconnecting means. Equipment connected with flexible conduit with green jacketed ground wire within conduit to-conduit system or equipment ground. Connect for correct rotation.

Conduits: PVC schedule 40 acceptable where routed underground. If PVC is used, provide ground wire. Compression couplings in wet locations and in concrete walls and floors. Romex and MC cable are not acceptable.

Outlet Boxes Fixture and Special Purpose 4" x 4" x 2 1/8" Duplex, Switch and Telephone 3" x 2" x 2 3/4" Special Purpose Outlet 4" x 4" x 2 1/8"

Wire and Cable: Type THHN or THWN for application or as noted otherwise. Color code in accord with the NEC.

Current Characteristics: 120/240V, 1 phase, 3W

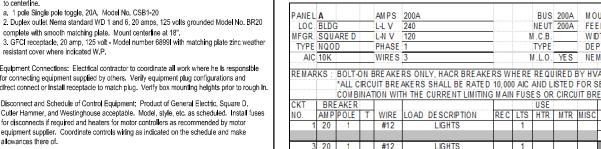
Wiring Devices: Product: Leviton, P&S, Hubbell, and Slater acceptable. Switch and receptacle colors; selected by owner. Devices and finish plates to match in color - no exceptions. 1. Standard switches 20 amps, 277 volt with matching smooth plastic plate. Mount 44"

to centerine. a. 1 pole Single pole toggle, 20A, Model No. CSB1-20

complete with smooth matching plate. Mount centerine at 18". 3. GFCI receptacle, 20 amp, 125 volt - Model number 6899I with matching plate zinc weather resistant cover where indicated W.P.

Equipment Connections: Electrical contractor to coordinate all work where he is responsible for connecting equipment supplied by others. Verify equipment plug configurations and direct connect or install receptacle to match plug. Verify box mounting heights prior to rough in.

Disconnect and Schedule of Control Equipment: Product of General Electric, Square D, Cutler Hammer, and Westinghouse acceptable. Model, style, etc. as scheduled. Install fuses for disconnects if required and heaters for motor controllers as recommended by motor equipment supplier. Coordinate controls wiring as indicated on the schedule and make allowances there of.



AMPS 200A

REC LTS HTR MTR MISC

L-L V 240

WIRES 3

#12

#12

#12

#12

5 20

7 20 1 #12

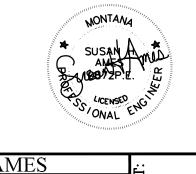
LIGHTS

LIGHTS

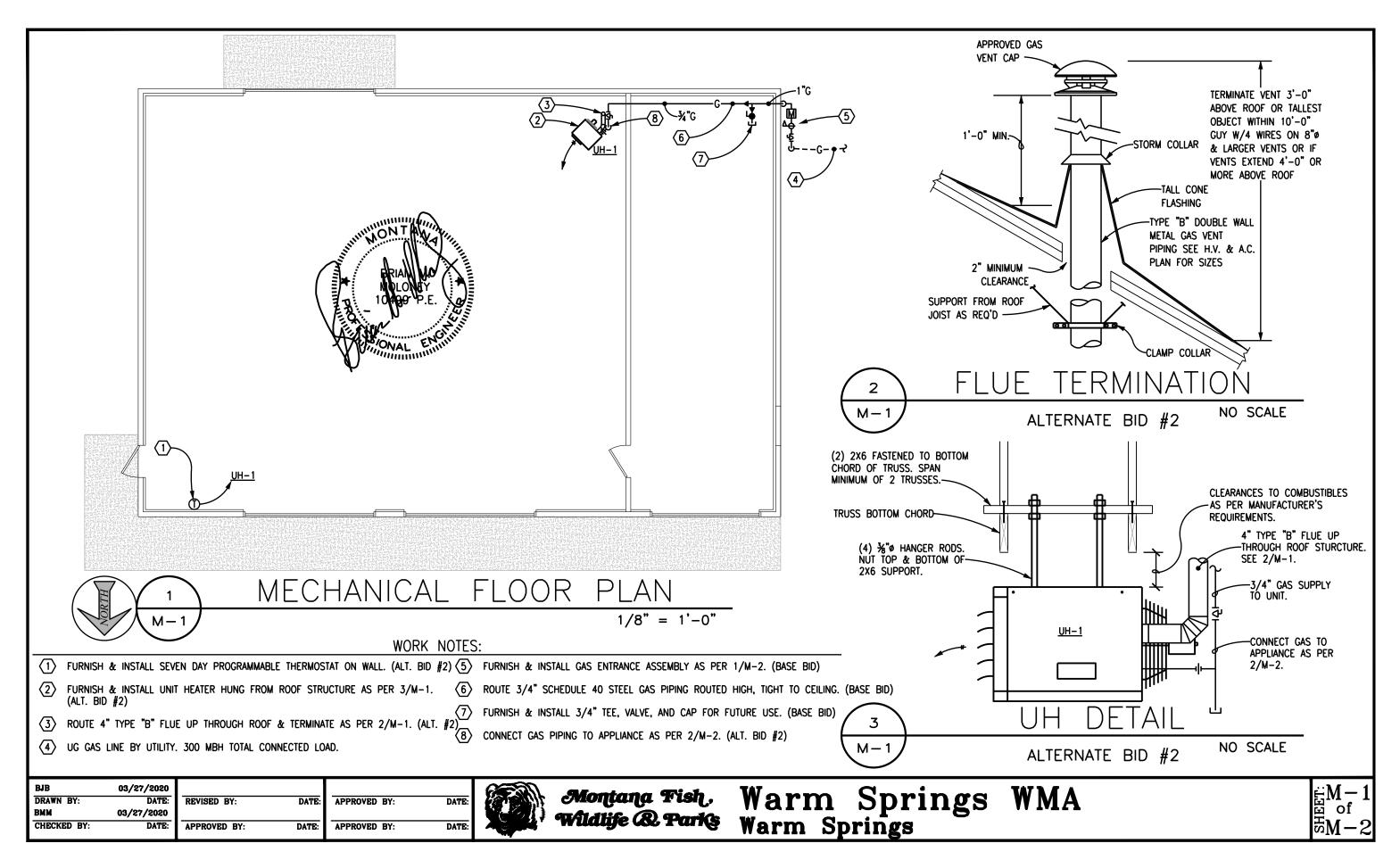
RECEPTS

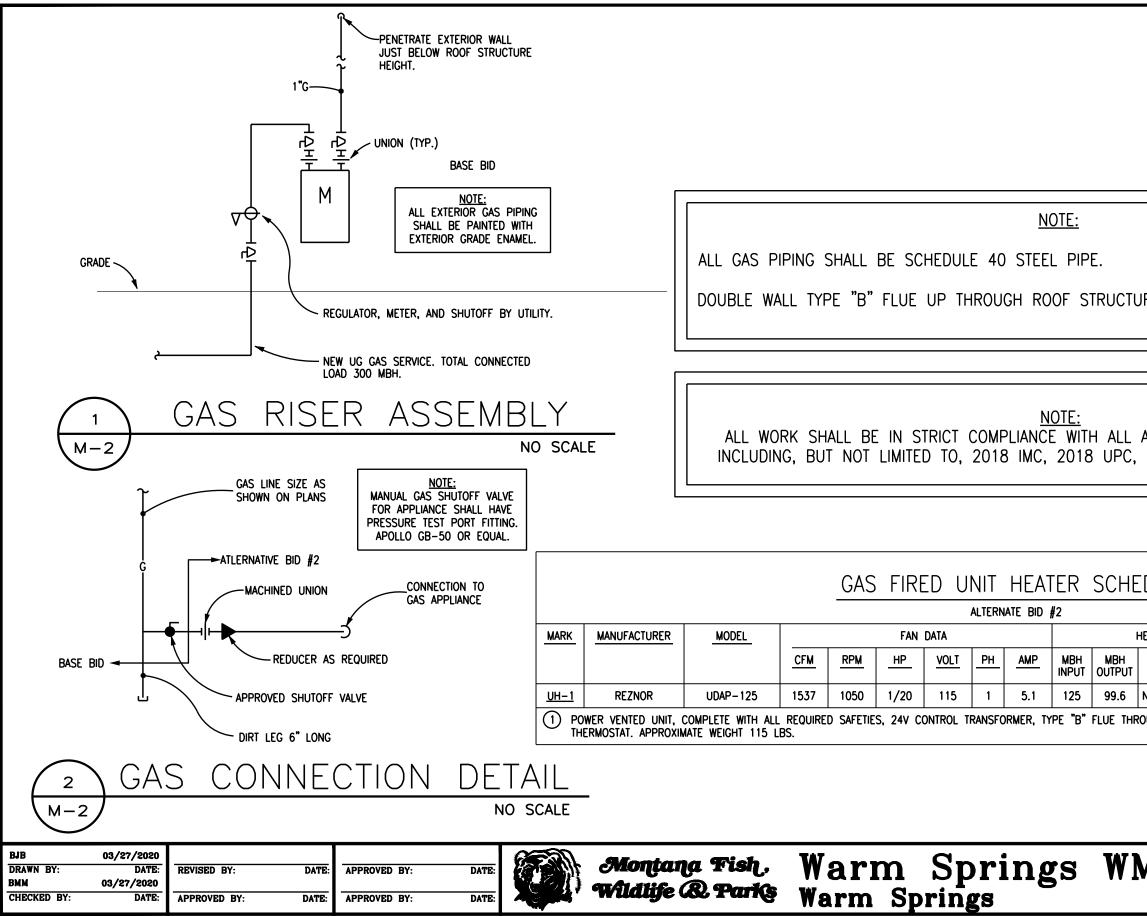
RECEPTS

		200A	MO	UNT	SURFA						NOTES			00A/2P		
		200A	FEE		BOTTON	1							(er in	METER		
	N.C.B.		WIE		20"							MAIN				
	TYPE		DEI	PTH	5.75"											
	M.L.O.	YES	NEI	MA	1											
RE	REQU	JIRE D I	BY HV	AC UNIT	MANUE	ACTUR	ER									
				SERIES												
JS	ES OR	CIRCL	JIT BR	EAKERS												
	USE			LOAD	(VA)			USE					BRE	AKER		CKT
S	HTR	MTR	MISC	L1	L2	REC	LTS	HTR	MTR	MISC	LOAD DESCRIPTION	WIRE	AMP	POLE	Т	NO.
				720												
				300			1				EXTERIOR LTS	#12	20	1		2
					720											
					850				1		OVH DOOR	#12	20	1		4
				900												
				850					1		OVH DOOR	#12	20	1		6
					1260											
					850				1		OVH DOOR	#12	20	1		8
				540												
				850					1		OVH DOOR	#12	20	1		10
_					720											
											SPARE	_	20	1		12
_				1080												
											SPARE	_	20	1	_	14
	1				600						00.405					40
				0000							SPARE	_	20	1	_	16
_			1	2000		-				4	EQUIPMENT	#10	20	0		40
			1	2000	2000					1	EQUIPMENT	#10	30	2	_	18
			1		2000					1						20
_			1	2000	2000							_				20
			1	3000						1	CUTTE R	#8	40	2		22
_			1	3000	2000						CUTTER	#0	40	2		22
					3000					1						24
				14240	14000					1						24
				14240	14000		00	NNEC	CTE D L	0 AD		DIV.	DE	AND		
				28240	VA	RF		T 10			KVA	100%		5 KVA		
				20240	•~			MAIN		ч.J	KVA	50%) KVA		
								GHTI		17	KVA	125%		KVA		
				LOAD	PHASE			ES HI			KVA	125%		KVA		
				50%	==			ИОТС			KVA	100%		KVA		
				50%		MI			EOUS	18.0		50%) KVA		
										LOAD		0070		2 KVA		
										AMPS				AMPS		



AMES	ü
ENGINEERING, LLC	
815 JADE STREET	19 ビノ
HELENA, MT 59602 PHONE/FAX: (406) 458-0494	
E-MAIL: susanhames@mt.net	20





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RE.			
APPLICABLE CODES & STANDARDS, 2018 IBC, 2018 IFGC, 2018 IECC.			
]
DULE			
IEATING DATA		NOTES	
fuel Type	NOMINAL EFFICIENCY		
NATURAL GAS	83%		
OUGH ROOF, CEILING SUSPENSION KIT, 7 DAY PROGRAMMABLE			
MA			∷M-2 of M-2