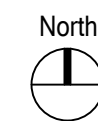
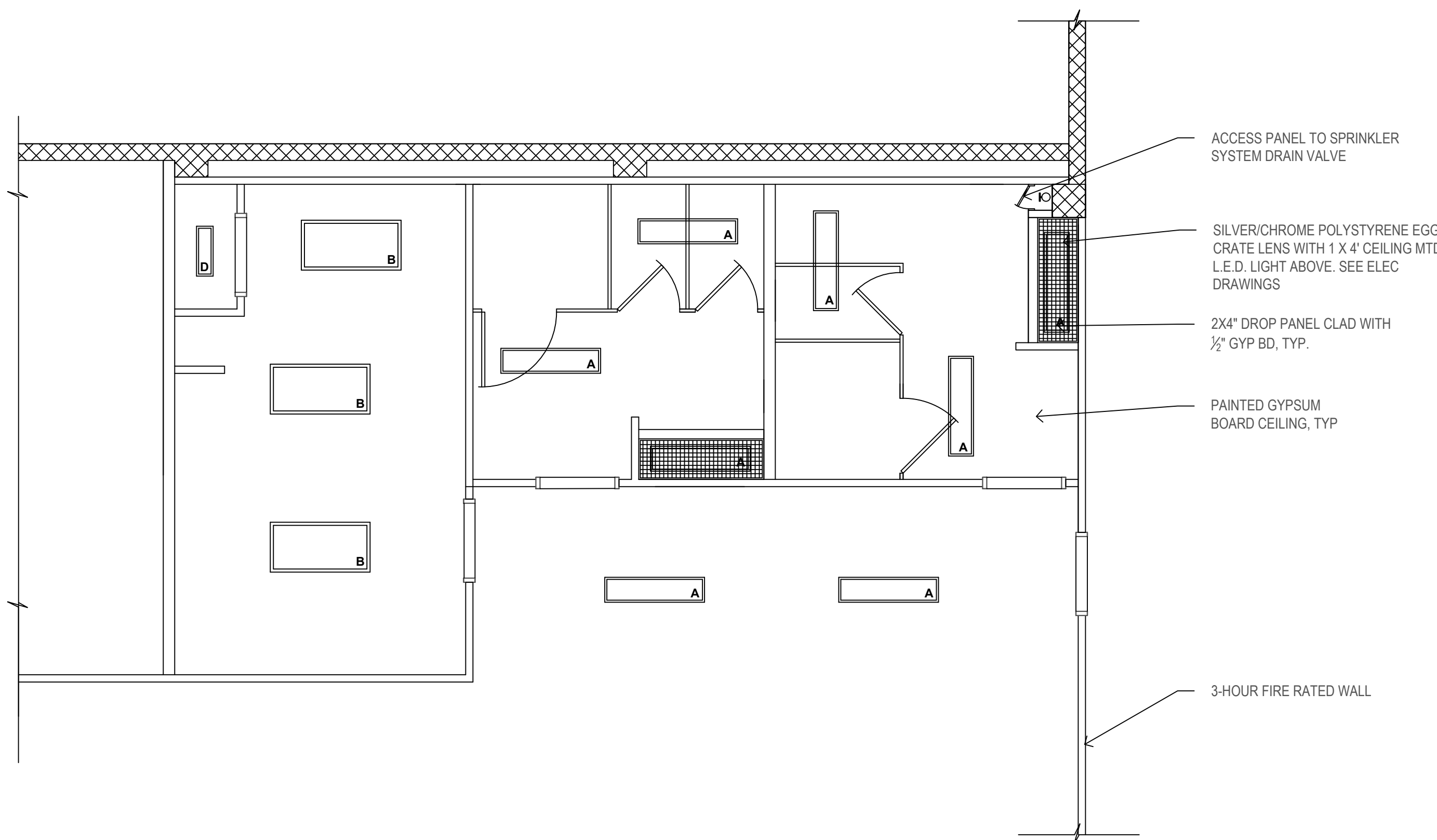


1 FLOOR PLAN

SCALE 1/4" = 1'-0"

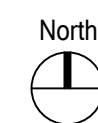


NOTE: SEE DRAWINGS 1 & 2 / A701 FOR DETAILED INFORMATION AND DIMENSIONS.



2 REFLECTED CEILING PLAN

SCALE 1/4" = 1'-0"



SYMBOLS LEGEND

- EXISTING WALLS OR OTHER EXISTING TO REMAIN
- NEW WALL PARTITION SEE WALL TYPES
- EXISTING CMU WALL SEE WALL TYPES
- NEW 1X4' CEILING MOUNTED LIGHT FIXTURE
- NEW 2X4' CEILING MOUNTED LIGHT FIXTURE
- NEW CEILING MOUNTED LIGHT FIXTURE
- COMBINATION EMERGENCY LIGHT / EXIT SIGN INSTALL 96" AFF WITH INTEGRAL BATTERY BACKUP
- EMERGENCY LIGHT INSTALL 96" AFF WITH INTEGRAL BATTERY BACKUP
- ILLUMINATED EXIT SIGN
- ILLUMINATED EXIT SIGN WITH DIRECTIONAL ARROW POINTING TO EXIT
- HVAC SUPPLY AIR DIFFUSER
- HVAC RETURN AIR

NOTE: SEE ELECTRICAL & MECHANICAL DRAWINGS TO COORDINATE SPECIFIED PRODUCTS

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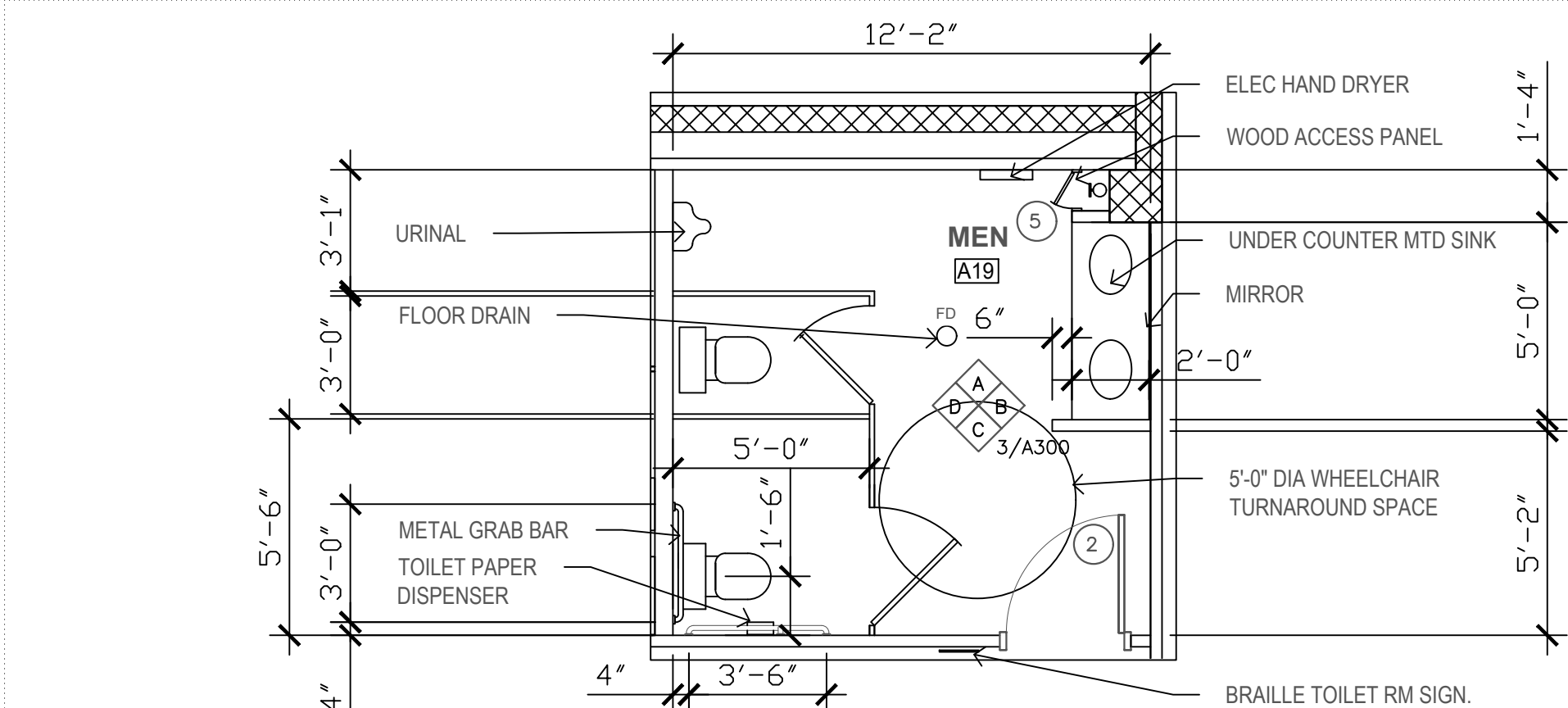
PHASE	REVISIONS
Construction	1: _____
Drawings	2: _____

SA18026

Floor Plan

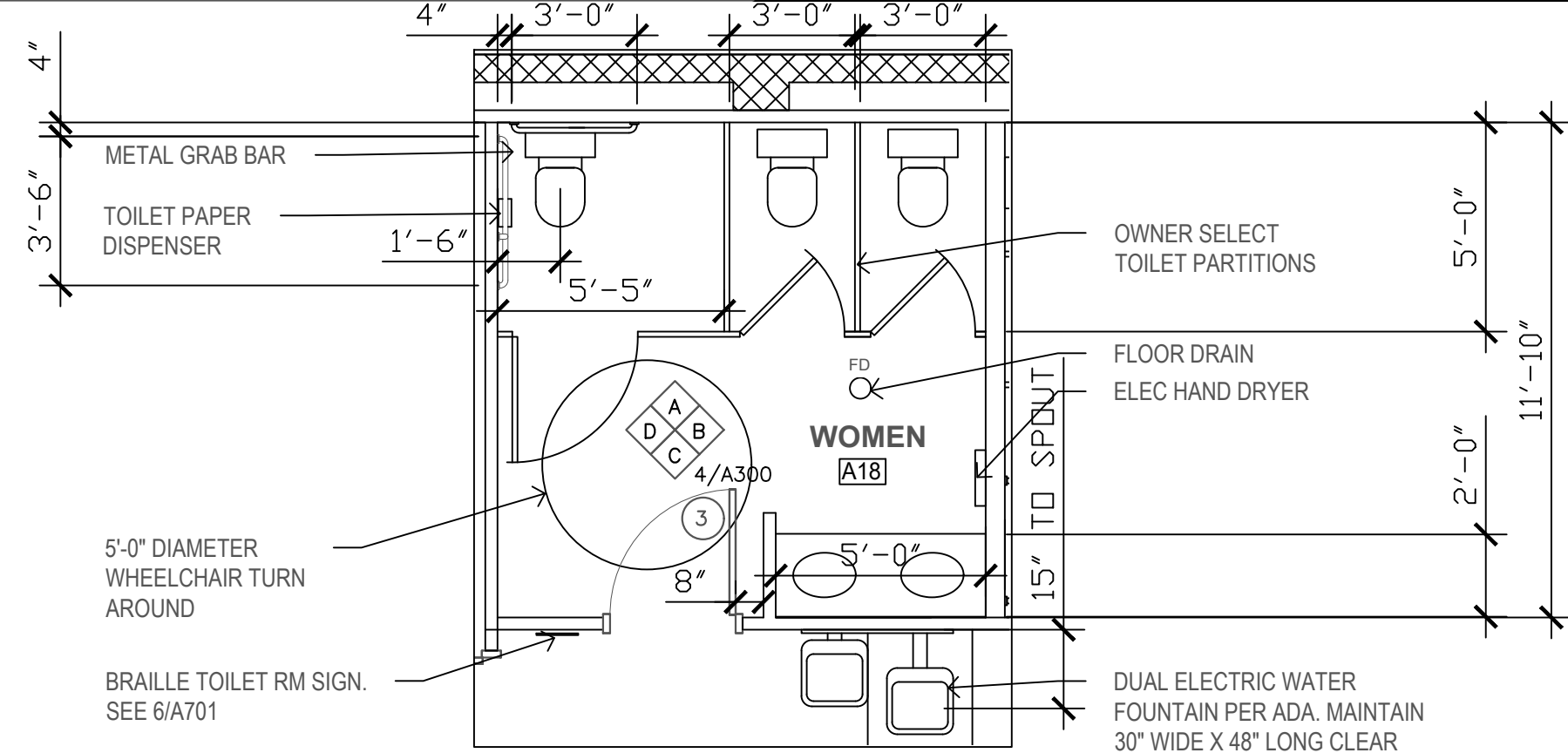
A700

04/19/2019



1 | MEN'S TOILET ROOM FLOOR PLAN - ROOM A19

SCALE 1/4" = 1'-0"

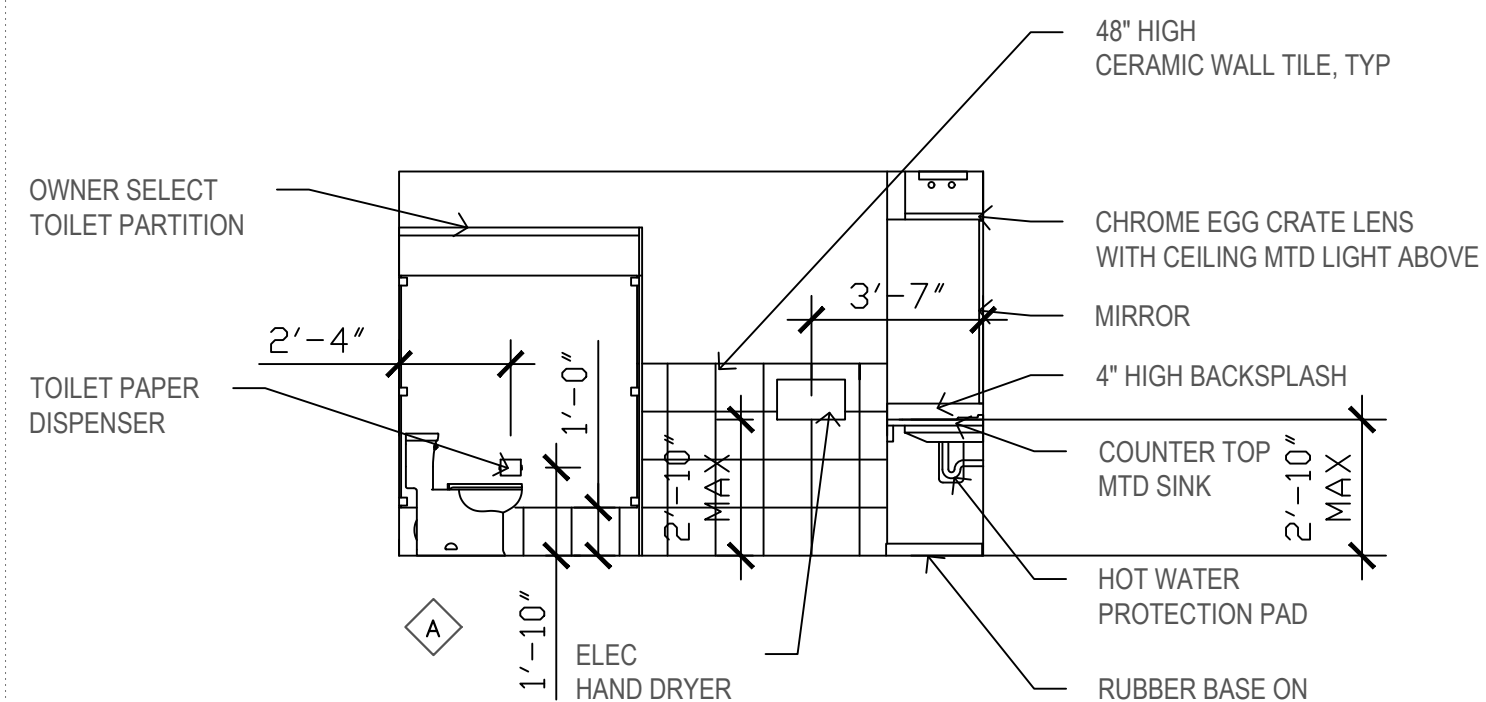


2 | WOMEN'S TOILET ROOM FLOOR PLAN - ROOM A18

SCALE 1/4" = 1'-0"

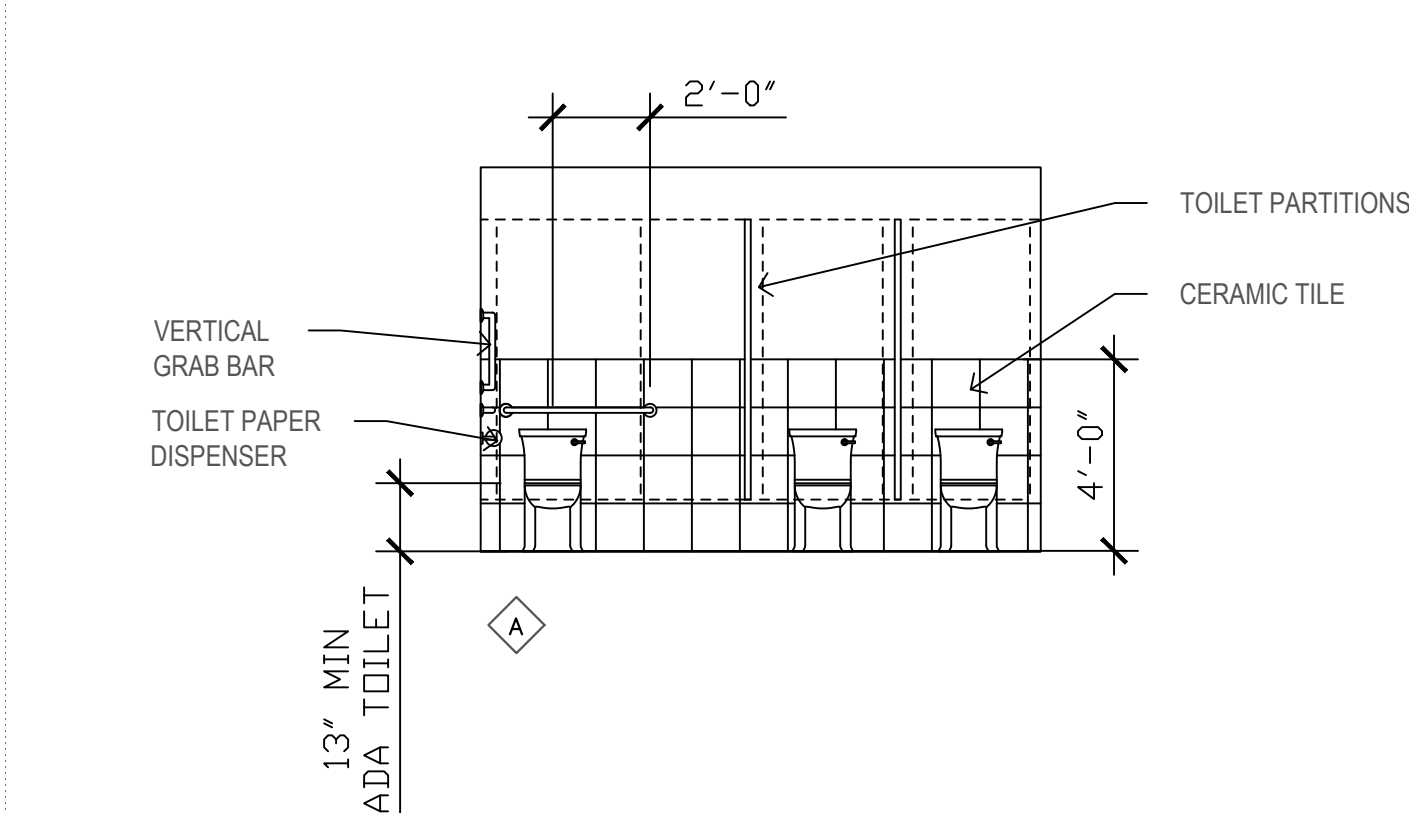
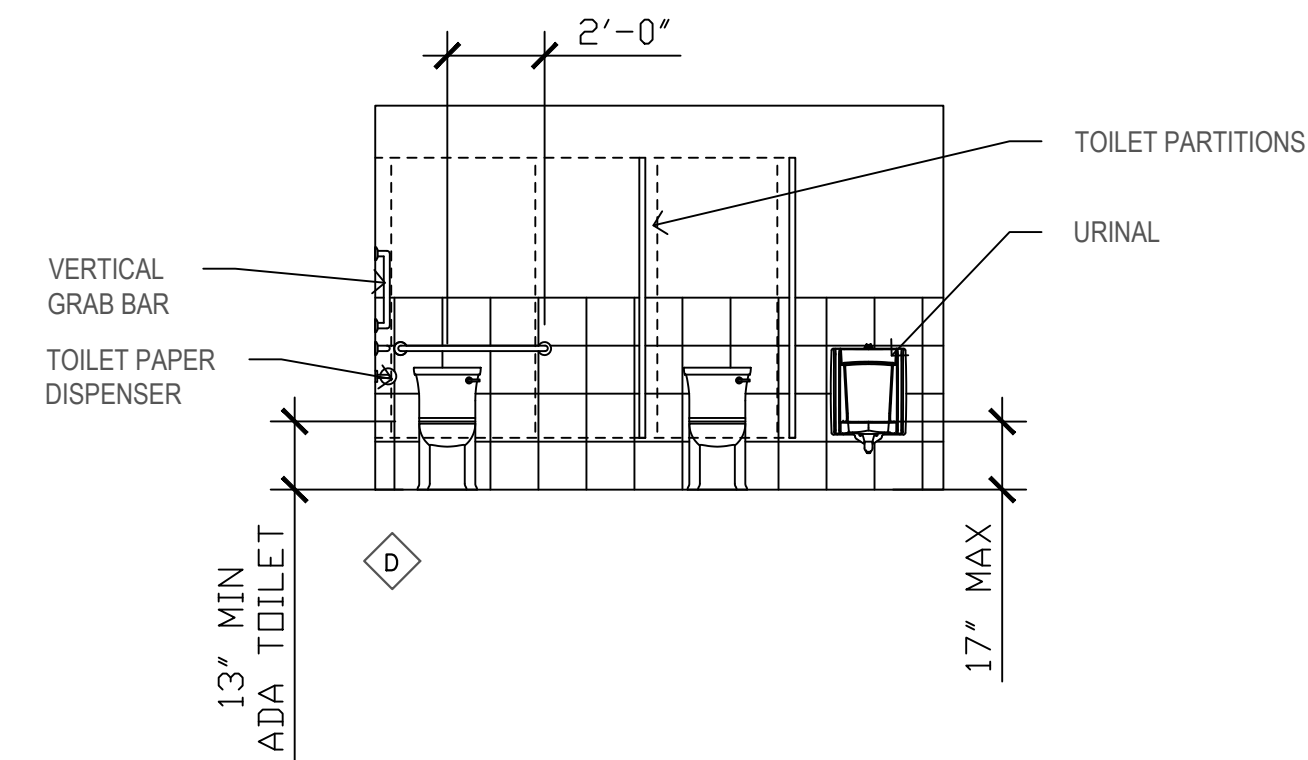
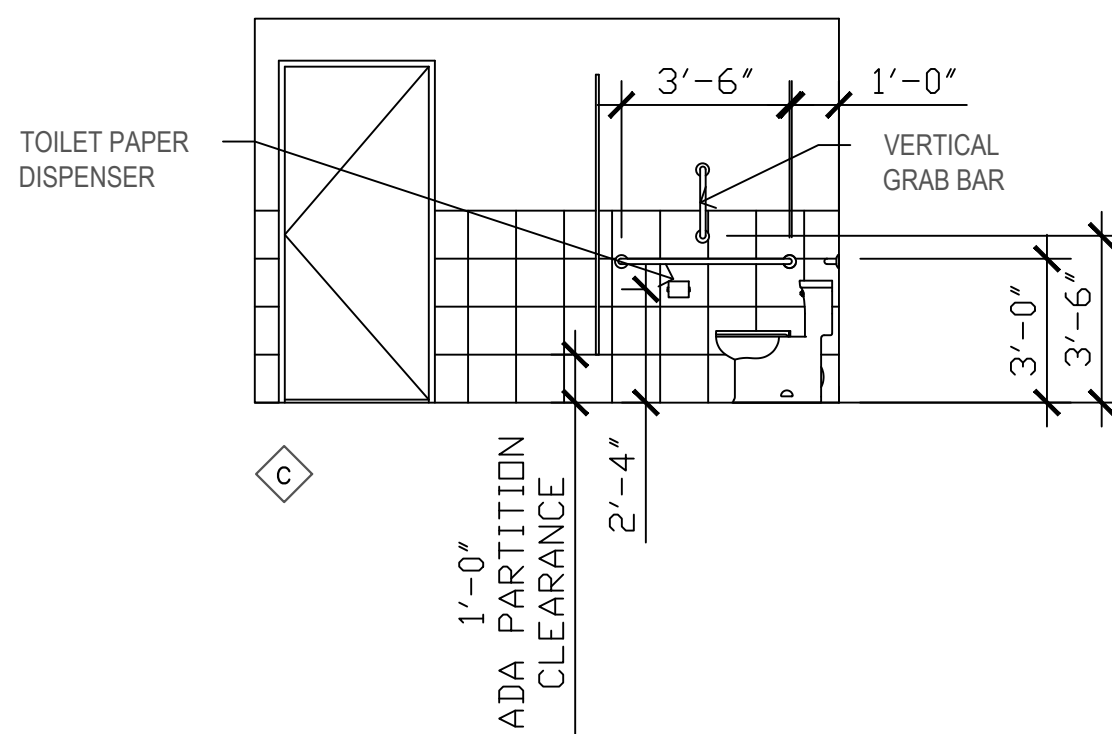
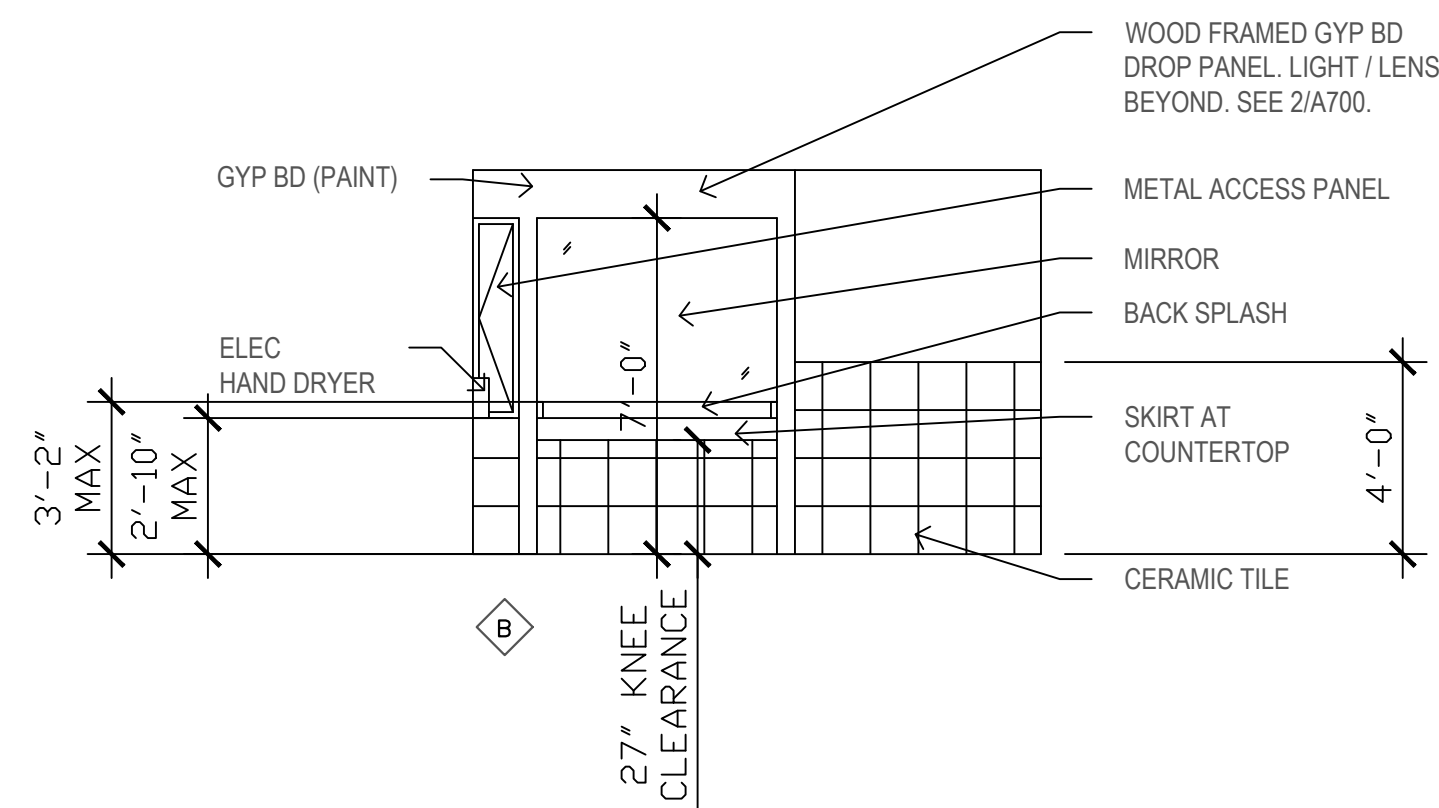
TOILET ROOM NOTES

1. PROVIDE WHEELCHAIR TURNING RADIUS - 60" DIAMETER MINIMUM.
2. CLEAR FLOOR SPACE AT EACH LAVATORY - 30" X 48" MIN.
3. MANEUVERING CLEARANCE AT DOOR - MIN. 42" PERPENDICULAR TO THE DOOR & 24" BEYOND LATCH.
4. MAINTAIN 30" X 48" CLEAR SPACE AT ADA DRINKING FOUNTAIN.



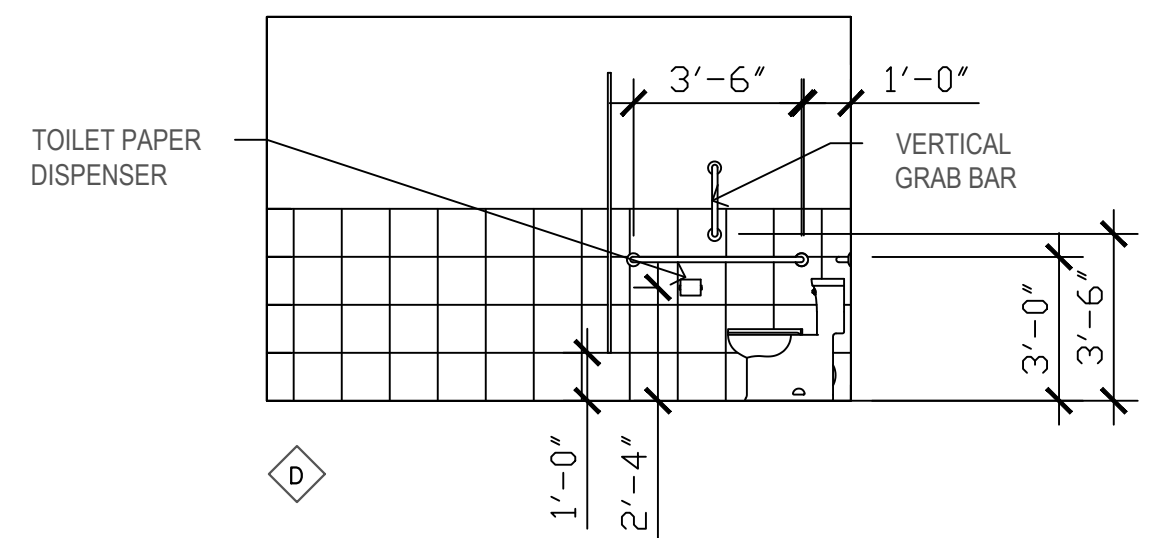
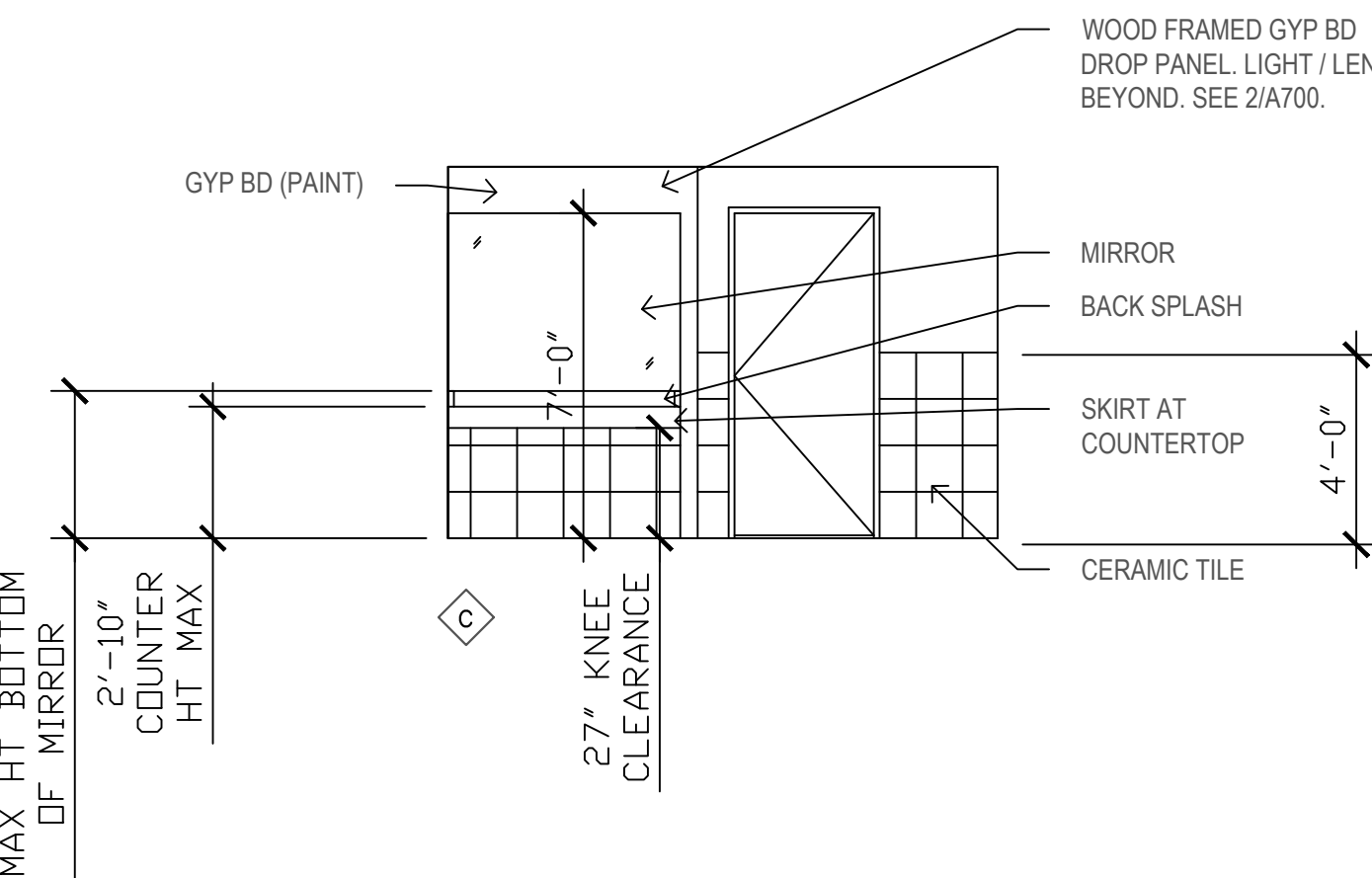
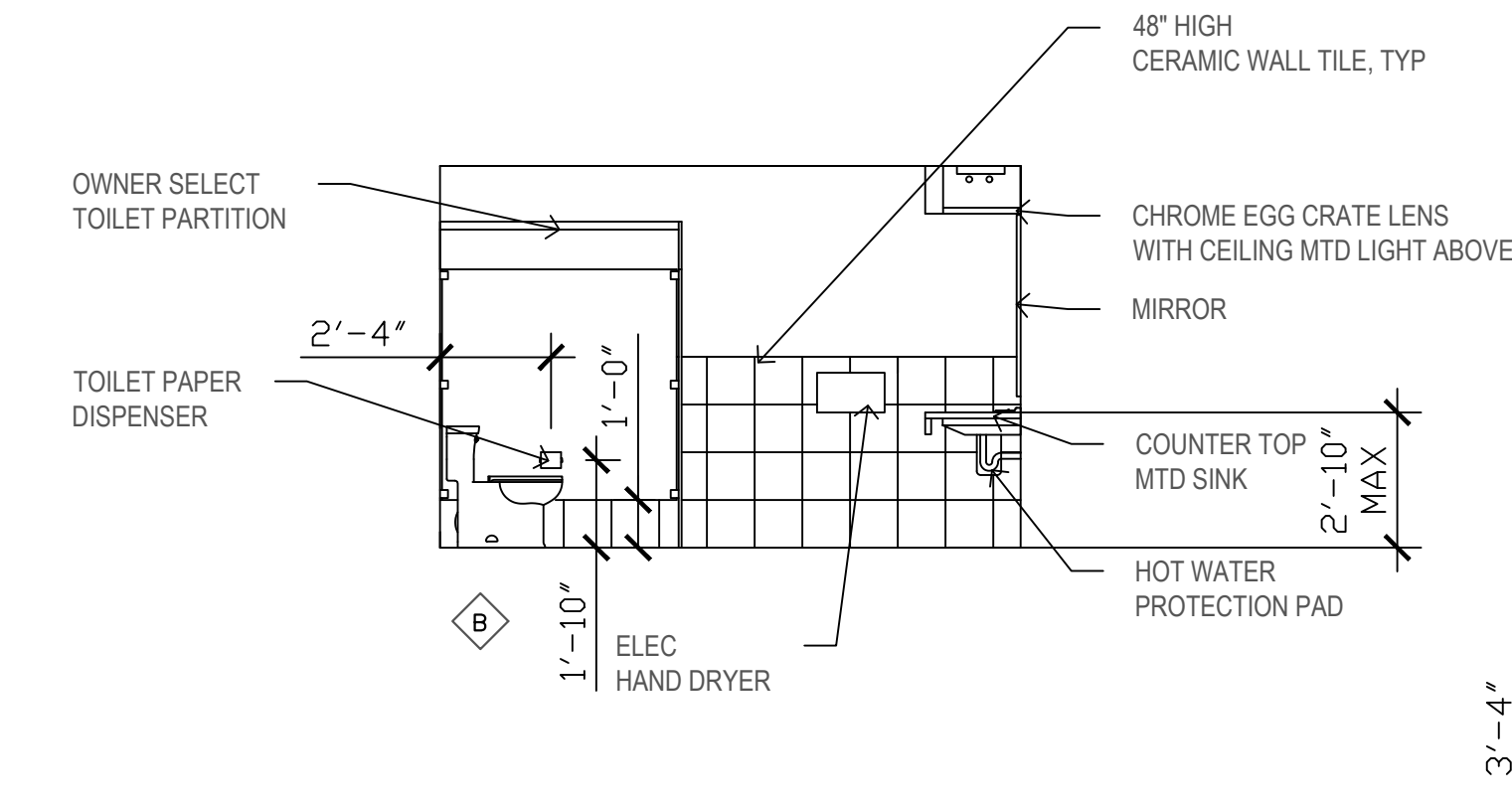
3 | INTERIOR ELEVATIONS - ROOM A19

SCALE 1/4" = 1'-0"

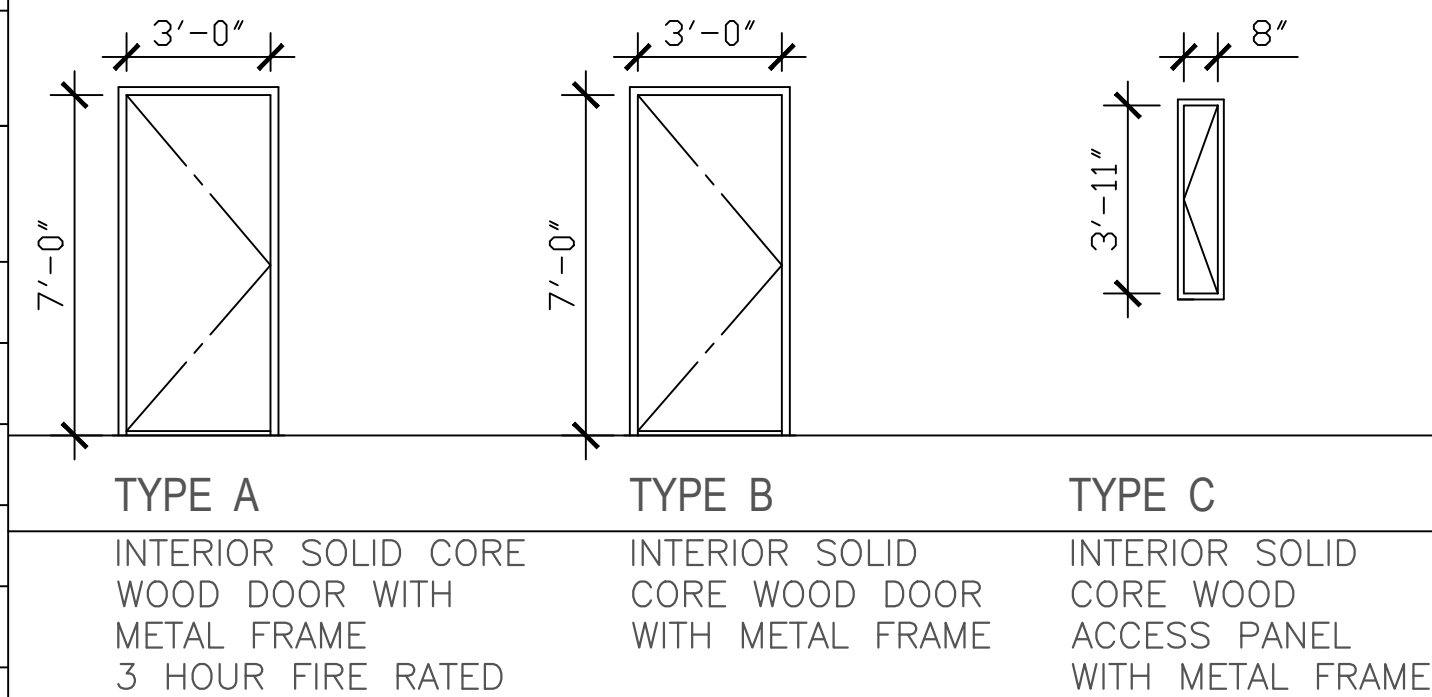


4 | INTERIOR ELEVATIONS - ROOM A18

SCALE 1/4" = 1'-0"



DOOR SCHEDULE					
DOOR No.	WIDTH	HEIGHT	TYPE	LOCATION	REMARKS
01	3'-0"	7'-0"	A	CIRCULATION A20	3-HOUR FIRE RATED DOOR. PROVIDE CLOSER & EMERGENCY EGRESS "CRASH BAR".
02	3'-0"	7'-0"	B	MEN'S A19	PROVIDE PUSH/PULL HAREWARE & CLOSER
03	3'-0"	7'-0"	B	WOMEN'S A18	PROVIDE PUSH/PULL HAREWARE & CLOSER
04	3'-0"	7'-0"	B	CONCESSION A17	PROVIDE LEVER HARDWARE WITH LOCK
05	3'-0"	7'-0"	B	CONCESSION A17	PROVIDE LEVER HARDWARE
06	0'-8"	3'-11"	C	MEN'S A19	ACCESS PANEL. PROVIDE LOCK.

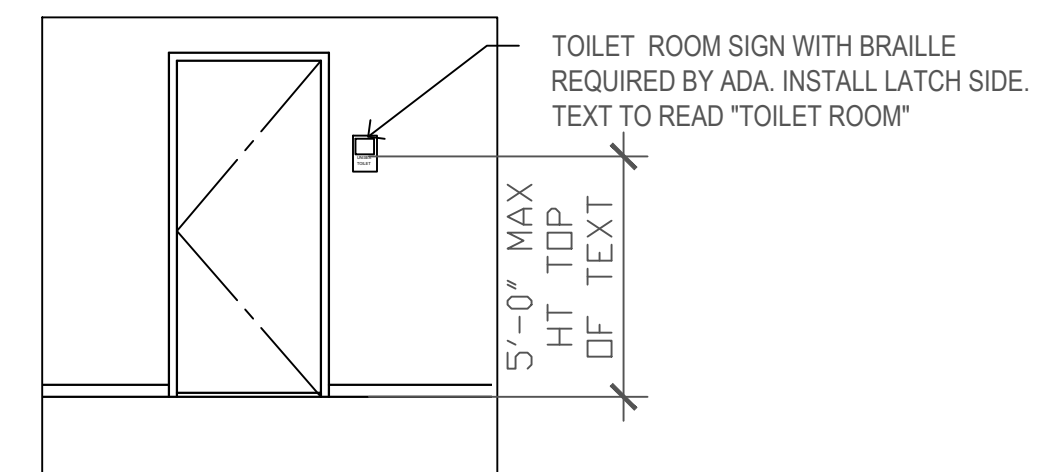


5 | DOOR TYPES

SCALE 1/4" = 1'-0"

DOOR NOTES

1. NEW DOORS TO BE SOLID WOOD TO MATCH OTHER DOORS IN THE BUILDING.
2. TOILET ROOM DOORS NO. 2 & 3 TO RECEIVE PUSH / PULL HARDWARE WITH HYDRAULIC CLOSER.
3. PROVIDE EMERGENCY "CRASH BAR" HARDWARE FOR DOOR NO. 1.
4. PROVIDE LEVER HANDLES FOR DOORS NO. 4 & 5.
5. PROVIDE LOCK FOR DOOR NO. 4. SELECTED BY OWNER.
6. PROVIDE 3 HINGES MIN FOR EACH SWING DOOR.
7. INTERIOR DOOR FRAMES 16 GAUGE.
8. PROVIDE FLOOR MTD DOOR STOPS WHERE DOOR LOCATED ADJACENT TO WALL, U.N.O.
9. PROVIDE (3) SILENCERS AT EACH FRAME, MIN.
10. MAXIMUM THRESHOLD HEIGHT AT ALL EXTERIOR DOORS 3/4" MAX. PER ADA.



6 | ADA BRAILLE BATHROOM WALL SIGN

SCALE 1/4" = 1'-0"

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19011
Interior Elevations

A701

04/19/2019

MECHANICAL LEGEND

— — —	DOMESTIC COLD WATER
— - -	DOMESTIC HOT WATER
— - - - -	DOMESTIC RECIRCULATING HOT WATER
— S —	SANITARY SEWER SOIL AND WASTE
— V —	SANITARY SEWER VENT
— S —	SANITARY SEWER BUILDING DRAIN
— G —	NATURAL GAS
— ⤿ —	BREAK IN PIPE
— ○ —	PIPE UP
— ○ —	PIPE DOWN
— ○ —	PIPE OFFSET
— ▷ —	CONCENTRIC REDUCER
— ▽ —	ECCENTRIC REDUCER
— —	UNION
— A.V. —	AIR VENT
— ⤿ —	VALVE IN VERTICAL PIPE
— —	TEMPERATURE GAUGE OR THERMOMETER
— (P) —	PRESSURE GAUGE
— —	GATE VALVE OR BALL VALVE
— —	CHECK VALVE
— —	BACKFLOW PREVENTER, DOUBLE CHECK/REDUCED PRESSURE
— —	GAS COCK
— (R) —	RELIEF VALVE
— —	SHEET METAL DUCT (SIZE, WIDTH X DEPTH)
— —	EG
— —	FEC
— CO —	CLEANOUT ON PIPE
— FCO —	FLOOR CLEANOUT
— WCO —	WALL CLEANOUT
— I.D. —	INDIRECT WASTE
— V.T.R. —	VENT THRU ROOF
— —	NOTE DESIGNATION
— (P) —	PLUMBING FIXTURE MARK
— —	MECHANICAL EQUIPMENT UNIT IDENTIFICATION
— —	GRILLE AND REGISTER MARK
— —	CONN. OF NEW SYSTEM TO EXISTING
— —	POINT OF CONNECTION

GENERAL

CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF MECHANICAL PLANS WITH ELECTRICAL, ARCHITECTURAL AND STRUCTURAL PLANS, AND SHALL NOT RELY ON MECHANICAL PLANS ONLY FOR BID AND CONSTRUCTION PHASES. SPECIFICATIONS ARE PART OF CONTRACT DOCUMENTS AND SHALL BE INCLUDED IN ALL PHASES OF WORK.

CONTRACTOR TO COORDINATE MECHANICAL EQUIPMENT ELECTRICAL CHARACTERISTICS WITH ELECTRICAL MOTOR CONTROL SCHEDULE PRIOR TO SUBMITTAL TO A/E. INCONSISTENCIES SHALL BE NOTED.

MECHANICAL CONTRACTOR TO VERIFY POWER SUPPLY AND CONTROL DEVICES FOR MECHANICAL EQUIPMENT WITH ELECTRICAL CONNECTIONS.

CONTRACTOR TO COORDINATE AND VERIFY LOCATION OF GRILLES, REGISTERS WITH ELECTRICAL LIGHT LAYOUT.

CONTRACTOR TO COORDINATE MECHANICAL SYSTEMS TO PROVIDE 3'-0" FRONT CLEARANCE AND 30" TOP CLEARANCE AT ELECTRICAL PANELS PER CODE.

WHEREVER DISCREPANCIES BETWEEN ARCHITECTURAL AND MECHANICAL PLANS OCCUR, CONTRACTOR SHALL NOTIFY ENGINEER PRIOR TO ROUGH-IN WORK FOR DIRECTIVE ON LOCATION OF ROUGH-INS.

PIPING SCHEMATICS ARE REPRESENTATIVE ONLY AND INDICATE GENERAL PIPING LOCATIONS, RELATIONSHIPS AND SIZING.

CONTRACTOR TO COORDINATE LOCATIONS OF WASTE, VENT AND WATER PIPING WITH SPECIFIC CONSTRUCTION, FRAMING AND STRUCTURAL ELEMENTS.

CONTRACTOR SHALL NOT LOCATE WATER-FILLED PIPING SYSTEMS ABOVE OR IN CLOSE PROXIMITY TO ELECTRICAL PANELS IN COMPLIANCE WITH CODE.

CONTRACTOR SHALL MAINTAIN MINIMUM 30" CLEARANCE AT MECHANICAL EQUIPMENT FOR SERVICE AND REPLACEMENT.

WATER-FILLED PIPING SHALL NOT BE LOCATED IN ATTIC OR EXTERIOR WALLS UNDER ANY CIRCUMSTANCE.

MAINTAIN MIN. 10'-0" CLEARANCE BETWEEN FA INTAKE AND EX. OUTLETS, FLUES, RELIEF OPENINGS AND PLUMBING VTR.

ALL SA, RA & EA DUCT OUTSIDE BUILDING INSULATION ENVELOPE SHALL BE INSULATED. SEE SPECIFICATIONS.

CONTRACTOR TO COORDINATE COLOR OF ALL EQUIPMENT & DEVICES LOCATED IN PUBLIC AREAS WITH ARCHITECT PRIOR TO ORDERING.

GRILLES / REGISTERS / DIFFUSERS

MARK	MFG.	CATALOG DATA					MATERIAL	FINISH	GAUGE	NOTE
		LOCATION	MODEL	FRAME	DAMP.	DEFLEC.				
RG-1	TUTTLE/BAILEY	CLG	CRE500	SF	—	—	ALUM	—	—	(1)
DG-1	TUTTLE/BAILEY	DOOR	DXFR	AUXL	—	—	STEEL	—	—	(1)

VOLUME DAMPERS — ALL STEEL OPPOSED BLADE DESIGN, PARALLEL TO SHORTEST DIMENSION OF GRILLE.

(1) COLOR AS SELECTED BY ARCHITECT.

FANS

MARK	MFG.	LOC.	WGT.	CATALOG NUMBER			CFM	S.P. W.C.	TIP SPEED	RPM	MOTOR				F.D.	NOTE
				FAN	OUTLET	SW					HP	ELECT.	FLA	SONE		
EF-1	GREENHECK	CFG	30	SP224	ROOF CAP	(2)	225	1/4	—	1000	FHP	120/1Ø	.8	3/4	—	(1)(3)
EF-2	GREENHECK	CFG	30	SP224	ROOF CAP	(2)	225	1/4	—	1000	FHP	120/1Ø	.8	3/4	—	(1)(3)
EF-3	GREENHECK	CFG	30	SP9	ROOF CAP	SW	150	1/4	—	1050	FHP	120/1Ø	1.7	3.6	—	(1)(3)

CEILING FANS TO HAVE HANGER RODS WITH R.I.S. VIB. ISOL.

(1) METALLIC EGG CRATE CEILING GRILLE.

(2) SEE ELECTRICAL FOR FAN CONTROL.

(3) GRILLE COLOR TO BE AS SELECTED BY ARCHITECT.

PLUMBING FIXTURES

MARK	FIXTURE TYPE	LOC.	MFG.	CATALOG NUMBER				SERVICES				NOTE	
				FIXTURE	TRAP	TRIM	SUPPLY	WST.	W	V	CW		HW
P-1	WTR CLOSET	FLR	KOHLER	K3422	—	—	W/STOP	—	3	2	1/2	—	(1)
P1A	HC WTR CLOSET	FLR	KOHLER	K3427	—	—	W/STOP	—	3	2	1/2	—	(1)
P2A	HC URINAL	WALL	KOHLER	K4972T	SLOAN FLUSH	ROYAL VALVE	W/STOP	—	2	1-1/2	1	—	(2)
P-3	LAV	DI	KOHLER	K21968	P-TRAP	K7490	W/STOP	—	1-1/2	1-1/2	1/2	1/2	(3)
P3A	HC LAV	DI	KOHLER	K21968	OFFSET P-TRAP	K7490	W/STOP	—	1-1/2	1-1/2	1/2	1/2	(2)(3)
P3B	HAND SINK	WALL	KOHLER	K2005	P-TRAP	K7404	W/STOP	—	1-1/2	1-1/2	1/2	1/2	
P4A	HC DRINK FOUNT.	WALL	ELKAY	EZSTL8C	P-TRAP	—	W/STOP	—	1-1/2	1-1/2	1/2	—	(2)
P-5	3 COMP SINK	FLR	ELKAY	SS8372	—	(2) LK66A	W/STOP	—	—	—	1/2	1/2	(4)
P-6	FLOOR DRAIN	—	JR SMITH	2005A	P-TRAP	—	—	—	2	1-1/2	1/2	—	(5)
P6A	FLOOR DRAIN	—	JR SMITH	2005A	P-TRAP	—	—	—	2	1-1/2	—	—	FUNNEL
P6B	FLOOR DRAIN	—	JR SMITH	2005A	P-TRAP	—	—	—	2	1-1/2	—	—	
P-7	FLOOR SINK	—	JR SMITH	3100	P-TRAP	—	—	—	3	1-1/2	—	—	
TP-1	TRAP PRIMER	—	JR SMITH	2698	—	—	—	—	—	—	1/2	—	

P-TRAPS — MINIMUM 17 GAUGE

ALL HANDICAPPED FIXTURES SHALL BE ADA COMPLIANT.

(1) SOLID PLASTIC WHITE SEAT, OPEN FRONT WITH LID.

(2) ADA CARRIER.

(3) TP-1 WATTS MODEL LPUSGP MIXING-METERING VALVE.

(4) THREE MODEL LK25RT DRAIN VALVE WITH LEVER.

(5) TRAP PRIMER CONNECTION.

WATER HEATERS

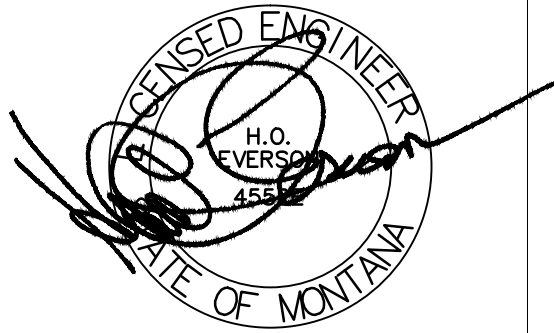
MARK	MFG.	MODEL	SIZE (GAL.)	INPUT		EFF. %	POWER		RECOVERY 90F T.R.	OUTLET TEMP.	VENT	WGT. LBS.	NOTES
				MBH	KW		GAS	ELEC.					
WH-1	LOCHINVAR	LTN040	40	50	—	—	NATL	—	51	130	4	138	(1)

ASME RATED T&P RELIEF VALVE PIPED TO FLOOR, INSULATING UNIONS ON WATER LINES.

(1) SEE DETAIL ON DRAWING FOR SALIENT FEATURES.

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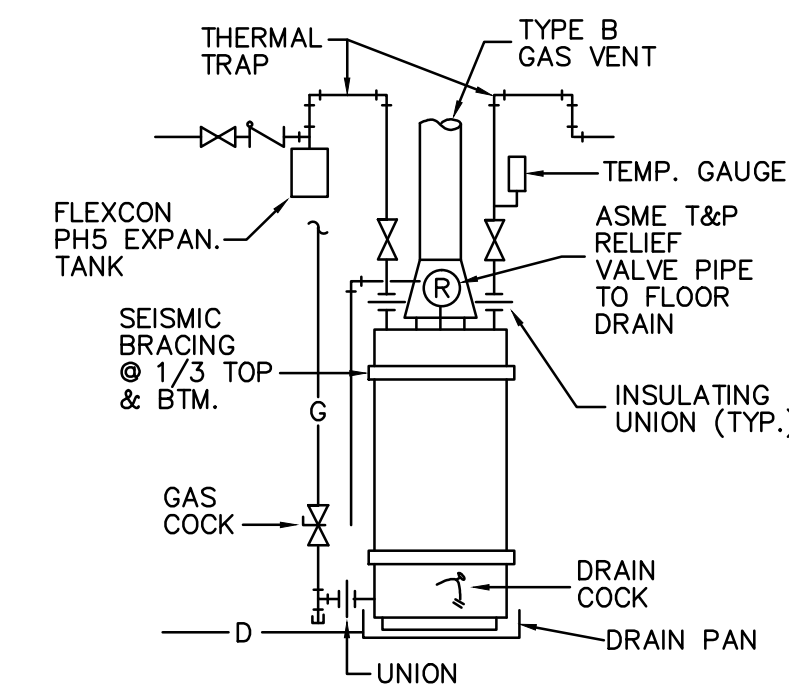
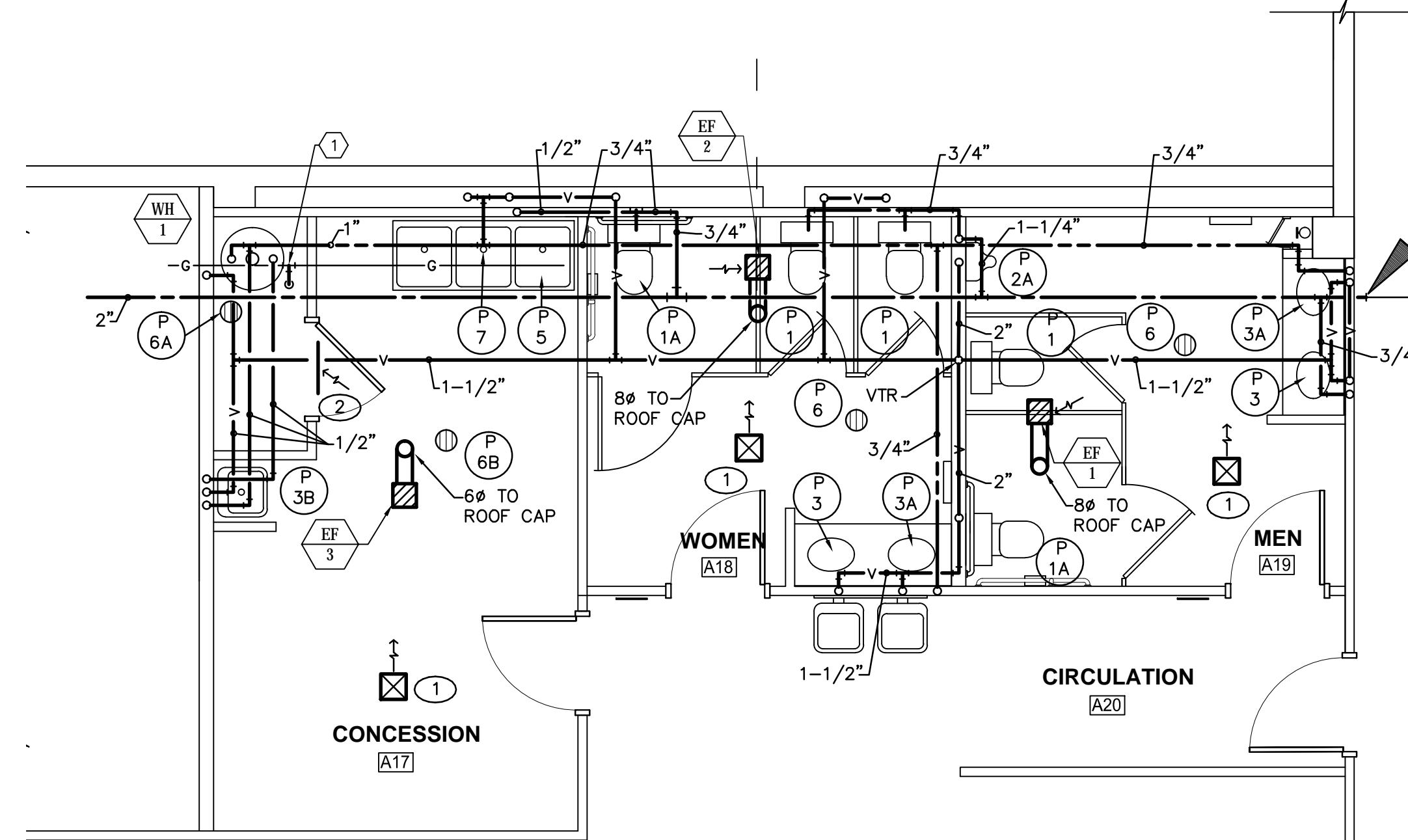
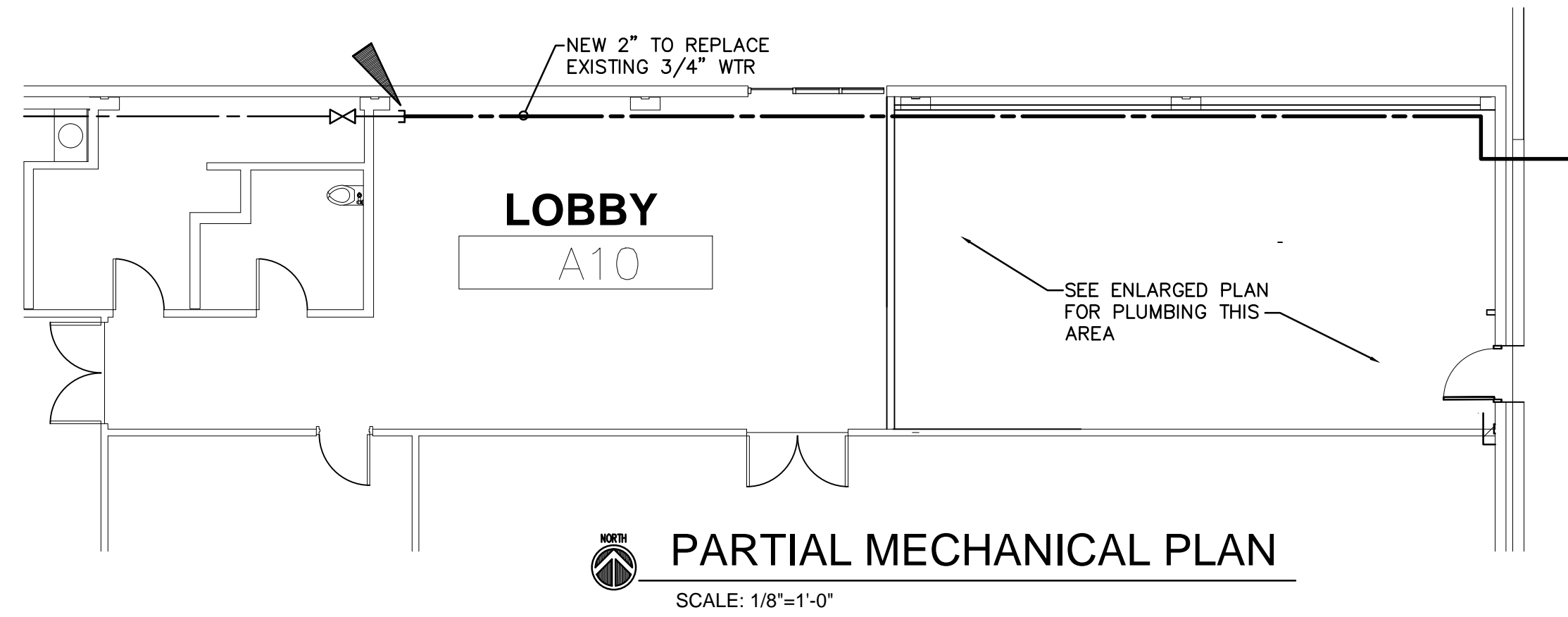
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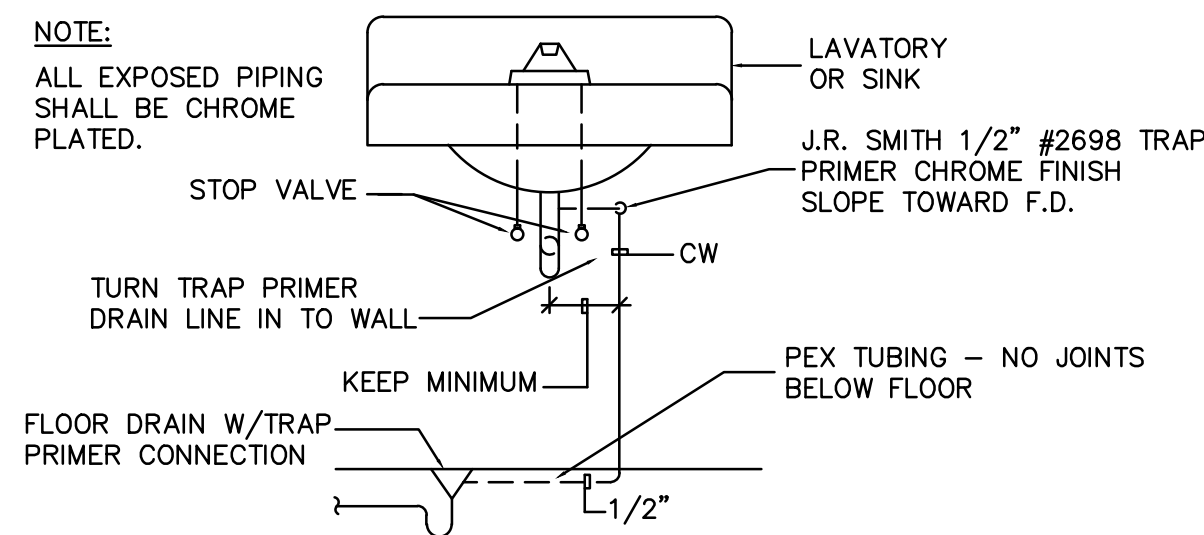
PHASE REVISIONS
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Mech.
Schedules
M100



1 WTR HTR PIPING
NO SCALE

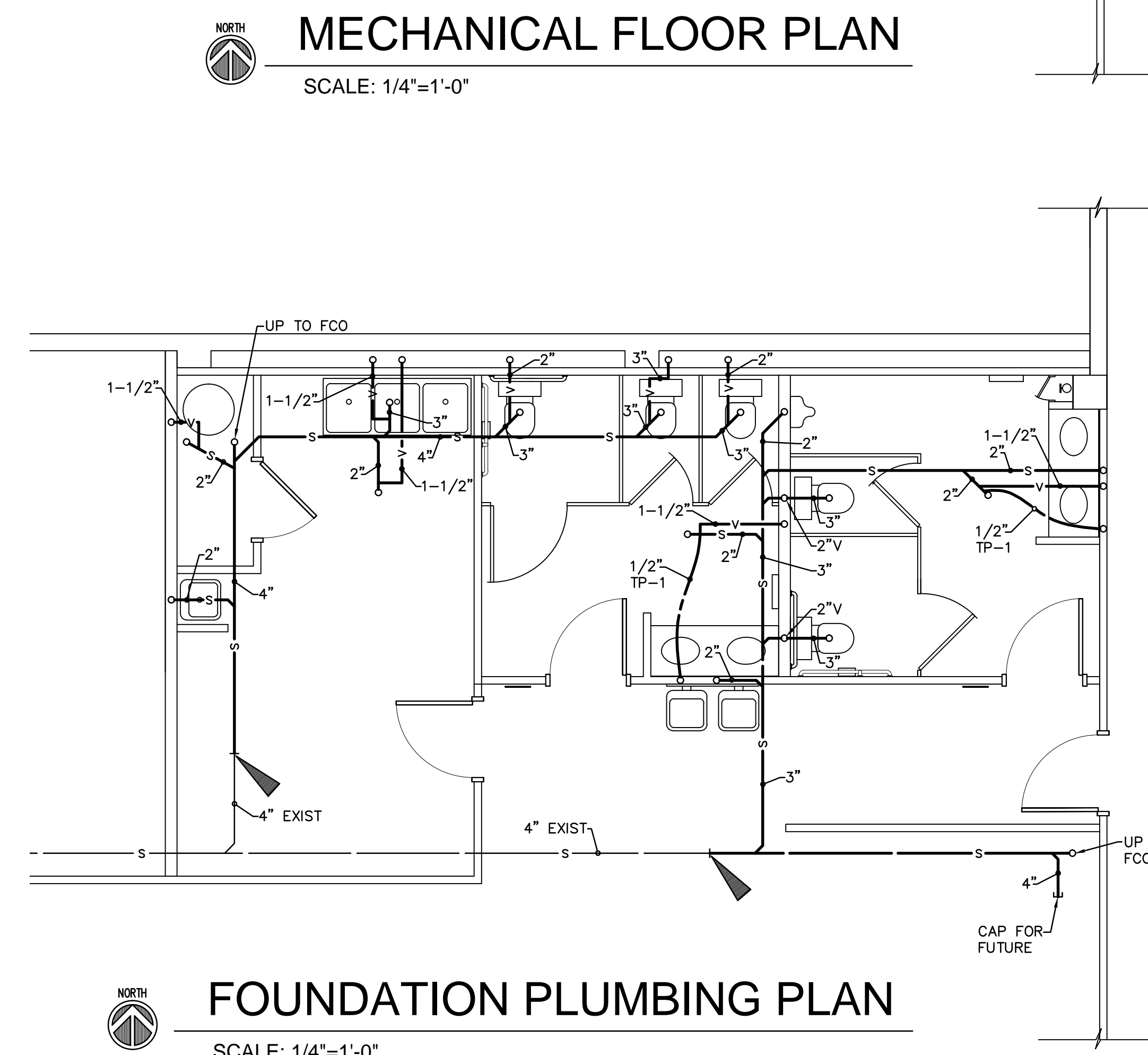


2 TRAP PRIMER DETAIL (TYPE 1)
NO SCALE

DIFFUSER & GRILLE LEGEND				
MARK	SIZE	TYPE	DISTR.	CFM
1	12x12	RG-1	-	-
2	16x16	DG-1	-	-
* RETURN AIR TO MATCH SUPPLY AIR CFM.				

NOTES:
1 TAP INTO EXISTING GAS LINE WITH NEW 1/2" LINE TO NEW WATER HEATER.

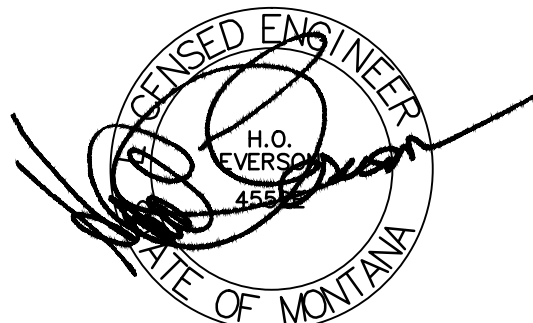
MECHANICAL SPECIFICATIONS:
A. DOMESTIC WATER PIPE INSULATION-FIBER GLASS 25 ASJ/SSL 1/2" THICKNESS.
B. DOMESTIC WATER PIPING-TYPE L HARD COPPER WITH SOCKET FITTING AND LEAD FREE SOLDER.
C. GAS PIPING-SCHEDULE 40 BLACK STEEL WITH Banded SCREWED FITTINGS.
D. WASTE AND VENT PIPING-PIPING SHALL BE DWV SCHEDULE 40 PIPE AND FITTINGS.



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

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Mech. Plans
M101

04/18/2019

BASIC ELECTRICAL REQUIREMENTS

SUMMARY OF WORK:
FURNISH ALL LABOR AND MATERIALS AND PERFORM ALL OPERATIONS NECESSARY FOR THE INSTALLATION OF COMPLETE AND OPERATING ELECTRICAL SYSTEMS SUBJECT TO THE CONDITIONS OF THE CONTRACT. PROVIDE SATISFACTORY OPERATION OF ALL EQUIPMENT AND CONTROLS TO THE ARCHITECT/ENGINEER UPON REQUEST.

EXAMINATION OF SITE:
VISIT THE SITE BEFORE SUBMITTING BID AS NO EXTRAS WILL BE ALLOWED FOR LACK OF KNOWLEDGE OF EXISTING CONDITIONS.

COORDINATION:
COORDINATE AND ORDER THE PROGRESS OF WORK TO CONFORM TO THE OWNER'S SCHEDULE AND THE PROGRESS OF THE WORK OF THE OTHER TRADES. SCHEDULE WORK SO THAT THE DURATION OF THE INTERRUPTIONS ARE KEPT TO A MINIMUM. ELECTRICAL DRAWINGS ARE DIAGMMATIC AND BECAUSE OF THE SMALL SCALE, IT IS NOT POSSIBLE TO INDICATE EVERY REQUIRED OFFSET, FITTING, ETC. VERIFY ALL SPACE REQUIREMENTS, COORDINATING WITH OTHER TRADES, AND INSTALL THE SYSTEMS IN THE SPACE PROVIDED WITHOUT EXTRA CHARGES TO THE OWNER.

VERIFY ALL EQUIPMENT IS READY FOR ELECTRICAL CONNECTIONS. COORDINATE ALL ELECTRICAL CONNECTIONS WITH THE START-UP OF THE EQUIPMENT.

THE CONTRACTOR SHALL PLAN HIS WORK TO PROCEED WITH MINIMUM INTERFERENCE WITH OTHER TRADES AND IT SHALL BE HIS RESPONSIBILITY TO INFORM THE GENERAL CONTRACTOR OF ALL OPENINGS REQUIRED IN THE BUILDING STRUCTURE FOR INSTALLATION OF WORK, AND TO PROVIDE SLEEVES, AS REQUIRED.

QUALITY ASSURANCE:
PERFORM WORK IN ACCORDANCE WITH INDUSTRY STANDARDS. PERFORM WORK IN ACCORDANCE WITH ALL APPLICABLE STATE AND LOCAL STANDARDS. THE QUALITY APPEARANCE OF THE FINISHED WORK SHALL BE OF EQUAL IMPORTANCE WITH ITS ELECTRICAL EFFICIENCY. THE ARCHITECT/ENGINEER MAY REJECT WORK IF WORKMANSHIP AND APPEARANCE ARE NOT SATISFACTORY. INSTALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDATIONS, UNLESS SPECIFICALLY INDICATED OTHERWISE, OR WHERE LOCAL CODES OR REGULATIONS TAKE PRECEDENCE.

REGULATORY AND CODE REQUIREMENTS:
APPLY FOR AND PAY FOR ALL PERMITS, FEES, LICENSES AND INSPECTIONS FOR THE DIVISION OF WORK. COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS AND ORDINANCES. COMPLY WITH REQUIREMENTS OF THE UTILITY COMPANIES. IN THE CASE OF DIFFERENCES BETWEEN THESE REQUIREMENTS AND ORDINANCES, THE MOST STRINGENT SHALL GOVERN. CALL FOR INSPECTIONS REQUIRED BY LOCAL BUILDING INSPECTION AUTHORITY.

WORK SHALL MEET THE REQUIREMENTS OF THE PLANS AND SHALL MEET NO LESS THAN THE MINIMUM REQUIREMENTS AND LATEST CODES AND STANDARDS OF THE FOLLOWING: ANSI, NEC, NEMA, NFPA, OSHA, UL, UBC, LOCAL FIRE MARSHAL, AND SERVING UTILITIES.

PLANS AND SPECIFICATIONS GO HAND IN HAND. WHAT IS REQUIRED IN ONE IS REQUIRED IN BOTH. WHERE CONFLICTS BETWEEN THESE SPECIFICATIONS AND PLANS EXIST, THE MOST STRINGENT REQUIREMENTS SHALL APPLY.

RESPONSIBILITY:
BE RESPONSIBLE FOR THE INSTALLATION OF A SATISFACTORY AND COMPLETE SYSTEM IN ACCORDANCE WITH THE INTENT OF THE DRAWINGS. PROVIDE, AT NO EXTRA COST TO THE OWNER, ALL INCIDENTAL ITEMS REQUIRED FOR COMPLETION OF THE WORK, EVEN THOUGH THEY ARE NOT SPECIFICALLY MENTIONED OR INDICATED ON THE DRAWINGS.

AT ALL TIMES DURING THE PERFORMANCE OF THE CONTRACTOR, PROPERLY PROTECT WORK FROM DAMAGE AND PROTECT THE OWNER'S PROPERTY FROM INJURY OR LOSS. MAKE GOOD ANY DAMAGE, INJURY, OR LOSS, EXCEPT SUCH AS MAY BE DIRECTLY DUE TO THE ERRORS IN THE PROPOSAL DOCUMENTS OR CAUSED BY REPRESENTATIVES OF THE OWNER. ADEQUATELY PROTECT ADJACENT PROPERTY AS PROVIDED BY LAW AND THE DOCUMENTS. PROVIDE AND MAINTAIN PASSAGEWAYS, GUARD FENCES, LIGHTS, AND OTHER FACILITIES AS REQUIRED FOR PROTECTION.

WORKMANSHIP:
WORK UNDER THIS CONTRACT SHALL BE PERFORMED BY WORKMEN SKILLED IN THE PARTICULAR TRADE, INCLUDING WORK NECESSARY TO PROPERLY COMPLETE THE INSTALLATION IN A WORKMANLIKE MANNER TO PRESENT A NEAT AND FINISHED APPEARANCE.

SHOP DRAWINGS:
SUBMIT SHOP DRAWINGS FOR ALL MATERIALS AND EQUIPMENT SHOWING ANY CHANGES REQUIRED IN DISTRIBUTION BOARDS, PANELBOARDS, LIGHT FIXTURES, ELECTRICAL WIRING, SPACE ALLOCATION, ETC.

PROVIDE PRODUCT DATA WITH MANUFACTURER'S CATALOG INFORMATION SHOWING RATINGS, DIMENSIONS, CONFIGURATIONS AND CONSTRUCTION. ALSO PROVIDE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

PROJECT RECORD DRAWINGS:
AT COMPLETION OF WORK, DELIVER COMPLETED PROJECT RECORD DOCUMENTS MARKED WITH FIELD CHANGES TO ARCHITECT/ENGINEER.

OPERATION AND MAINTENANCE DATA:
AT THE COMPLETION OF WORK, SUBMIT (3) TYPED AND HARD-BOUND COPIES OF AN OPERATING AND MAINTENANCE MANUAL TO THE ARCHITECT/ENGINEER FOR APPROVAL BEFORE SCHEDULING ANY SYSTEM DEMONSTRATION FOR THE OWNER.

WARRANTIES:
PROVIDE A WRITTEN WARRANTY TO THE OWNER COVERING THE ENTIRE ELECTRICAL WORK TO BE FREE FROM DEFECTIVE MATERIALS, EQUIPMENT AND WORKMANSHIP FOR A PERIOD OF ONE YEAR AFTER DATE OF ACCEPTANCE.

CLEAN-UP AND CLOSE-OUT:
KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL OR RUBBISH CAUSED BY THIS CONTRACTOR'S WORK OR HIS EMPLOYEES.

UPON COMPLETION OF WORK, REMOVE MATERIALS, SCRAPS AND DEBRIS RELATIVE TO THIS CONTRACTOR'S WORK AND LEAVE THE PREMISES, INCLUDING CRAWL SPACES AND CHASES, IN CLEAN AND ORDERLY CONDITION.

CLEAN EXPOSED SURFACES OF LIGHT FIXTURES, DISTRIBUTION BOARDS, PANELS AND OTHER EXPOSED ITEMS OF GREASE, DIRT OR OTHER FOREIGN MATERIAL. REMOVE RUBBISH AND DEBRIS RESULTING FROM THE OPERATIONS OF THIS CONTRACTOR AND LEAVE SPACES CLEAN AND READY FOR USE.

BASIC MATERIALS AND METHODS

MOTORS AND STARTERS:
ALL MOTORS, STARTERS AND OTHER ELECTRICAL CONTROL EQUIPMENT SHALL BE LISTED PER THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC).

COREDRIILLING AND SAWCUTTING:
PROVIDE ALL COREDRILLING AND SAWCUTTING REQUIRED BY THE WORK IN THIS DIVISION. FIRE AND SMOKE SEAL ALL PENETRATIONS TO MAINTAIN RATINGS OF ALL AREA SEPARATIONS. PATCH AND PREPARE SURFACE TO RECEIVE NEW FINISH WHERE SPECIFIED BY THE ARCHITECT. FINISH SURFACE TO MATCH SURROUNDING SURFACE FINISHES, AS SPECIFIED.

SEALING:
MAINTAIN ALL CEILING, FLOOR AND WALL PROTECTION RATINGS FOR FIRE AND SMOKE. SEAL ALL CONDUIT AND ENCLOSURE PENETRATIONS TO COMPLY WITH UL ASSEMBLY AND BUILDING CODE REQUIREMENTS. ALL SEALANTS AND CONSTRUCTIONS SHALL BE APPROVED BY THE ARCHITECT PRIOR TO APPLICATION. ALL OPENINGS SHALL BE SEALED DAILY.

RACEWAYS:
RACEWAYS SHALL BE CONCEALED AND APPROVED FOR USE AND LOCATION. DRY LOCATIONS - GRC, IMC, EMT, FLEXIBLE CONDUIT - GALVANIZED STEEL, LIQUDTIGHT.

JUNCTION AND PULL BOXES: SIZE PER THE NEC. DRY LOCATIONS - STEEL WITH COVERS. WET LOCATIONS - CAST ALUMINUM.

COUPLINGS AND CONNECTORS:
GRC - THREADED
IMC - THREADED
EMT - COMPRESSION
PVC - CEMENT
JOINT TYPE. INDENTER TYPE CONNECTORS PROHIBITED.

WIRING DEVICES AND PLATES:

DUPLEX OUTLETS - HUBBELL - HBL5362X SERIES, 120VAC, 20 AMP (OR SERIES IS NOT ACCEPTABLE)
GFCI OUTLETS - HUBBELL - GF20X SERIES, 120VAC, 20 AMP
AC SWITCHES - HUBBELL - HBL1221X SERIES, 120VAC, 20 AMP (OR SERIES IS NOT ACCEPTABLE)
DEVICE COLOR - COLOR SELECTED BY ARCHITECT.
PLATES - IVORY NON-BREAKABLE NYLON (COLOR SELECTED BY ARCHITECT)

ALL RATINGS SHALL MATCH BRANCH CIRCUIT AND LOAD CHARACTERISTICS. ALL 15 AND 20 AMP RECEPT. IN KITCHEN TO BE GFI PROTECTED PER NEC.

WIRE:
COPPER ONLY WITH THHN/THWN TYPE INSULATION IN RACEWAY. NO ALUMINUM CONDUCTORS ALLOWED WITHOUT PRIOR APPROVAL FROM THE ENGINEER. UL LISTED LUGS AND CONNECTORS, NEC APPROVED COLOR CODING. ALL WIRE SHALL HAVE AN INSULATION VOLTAGE RATING OF 600 VOLTS, AND AN INSULATION TEMPERATURE RATING OF 75 DEGREES C.

WIRE COLORS: BLACK, RED, AND BLUE FOR CIRCUITS AT 120/240V, SINGLE PHASE.

SUPPORTS AND HANGERS:
SUPPORTS AND HANGERS MUST BE UL LISTED AND APPROVED BY LOCAL INSPECTORS.

ANCHORS:
HOLLOW MASONRY - TOGGLE BOLT.
SOLID MASONRY - EXPANSION BOLT.
METAL - MACHINE SCREWS, BOLTS, WELDING.
WOOD - WOOD SCREWS.

GROUNDING:
IN STRICT ACCORDANCE WITH THE NEC AND UTILITY COMPANY REGULATIONS. PROVIDE COPPER EQUIPMENT GROUNDING CONDUCTOR IN ALL RACEWAYS.

PERMANENTLY ATTACH EQUIPMENT AND GROUNDING CONDUCTORS PRIOR TO ENERGIZING EQUIPMENT.

NAMEPLATES:
PROVIDE ON ALL PANELS, DISCONNECTS AND EQUIPMENT. NAMEPLATES SHALL HAVE 3/16" HIGH LETTERS ENGRAVED WITH CONTRASTING COLOR FILL. DEVICE PLATE ENGRAVING SHALL BE 1/8" HIGH LETTERS WITH CONTRASTING COLOR FILL.

PANELBOARDS:
MANUFACTURER, STYLE, ETC. EXISTING. COMPLETE WITH TYPEWRITTEN DIRECTORY, CIRCUIT BREAKERS (MULTIPLE-POLE INTERNAL TRIP), DEAD FRONT, LOCKING DOORS, UL LISTING, ETC. PROVIDE NEW TYPEWRITTEN PANEL DIRECTORIES IN ALL PANELS AFFECTED BY THE RENOVATION SCOPE OF WORK.

LIGHT FIXTURES:
PROVIDE NEW LIGHT FIXTURES AS SCHEDULED COMPLETE WITH TRIMS, LAMPS, FUSES, GASKETS, BALLASTS, OPTIONS, ACCESSORIES, ETC. AS SCHEDULED.

INSTALL SUSPENDED LIGHT FIXTURES USING CHAIN HANGERS WITH SUFFICIENT LENGTH REQUIRED TO SUSPEND THE FIXTURE AT HEIGHT SPECIFIED.

SUPPORT LIGHT FIXTURES INDEPENDENT OF CEILING FRAMING. CONNECT LIGHT FIXTURES TO BRANCH CIRCUITS, AS INDICATED. INSTALL SPECIFIED LAMPS IN EACH FIXTURE.

MECHANICAL EQUIPMENT:
SEE PLANS FOR CONNECTION OF MECHANICAL EQUIPMENT. PROVIDE FLEXIBLE CONDUIT (WITH EQUIPMENT GROUND CONDUCTOR) CONNECTION AT ALL MOTORS.

ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT LOCATION OF ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL CONNECTION WITH MECHANICAL CONTRACTOR. ALSO, ELECTRICAL CONTRACTOR SHALL OBTAIN MECHANICAL SUBMITTALS TO COORDINATE DISCONNECT MEANS, SPECIFICATIONS, AND VOLTAGE REQUIREMENTS PRIOR TO ROUGH-IN. VERIFY REQUIREMENTS FOR EACH UNIT WHEN DELIVERED TO SITE. IF DISCREPANCIES OCCUR, NOTIFY THE ELECTRICAL ENGINEER AND ARCHITECT IMMEDIATELY.

ELECTRICAL CONTRACTOR IS TO REVIEW AND COORDINATE WITH MECHANICAL AND PLUMBING DRAWINGS, INCLUDING ALL EQUIPMENT SCHEDULES TO ENSURE THAT ALL CONNECTIONS FOR THEIR EQUIPMENT ARE PROVIDED. DEVICE LOCATIONS ARE TO BE COORDINATED WITH THE APPROPRIATE CONTRACTOR PRIOR TO COMMENCEMENT OF WORK OR ELECTRICAL ROUGH-INS.

ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH MECHANICAL CONTRACTOR TO PROVIDE 120V POWER, IF NEEDED, TO ACCOMMODATE ANY LOW VOLTAGE REQUIREMENTS THAT MECHANICAL EQUIPMENT MAY HAVE.

INSTALL DISCONNECT SWITCHES, CONTROLLERS, ETC, TO COMPLETE ALL EQUIPMENT WIRING REQUIREMENTS.

DRAWINGS AND MEASUREMENTS:
CONTRACT DRAWINGS FOR ELECTRICAL WORK ARE IN PART DIAGRAMMATIC, INTENDED TO CONVEY THE SCOPE OF WORK AND INDICATE GENERAL ARRANGEMENT OF EQUIPMENT, CONDUITS AND APPROXIMATE SIZES AND LOCATIONS OF EQUIPMENT AND OUTLETS. ELECTRICAL TRADES SHALL FOLLOW THESE DRAWINGS IN LAYING OUT THEIR WORK, CONSULT GENERAL CONSTRUCTION DRAWINGS TO FAMILIARIZE THEMSELVES WITH ALL CONDITIONS AFFECTING THEIR WORK, AND SHALL VERIFY SPACES IN WHICH THEIR WORK WILL BE INSTALLED. COORDINATE WORK WITH OTHER TRADES AS JOB CONDITIONS REASONABLY REQUIRE.

WHERE JOB CONDITIONS REQUIRE REASONABLE CHANGES IN INDICATED LOCATIONS AND ARRANGEMENT, MAKE SUCH CHANGES WITHOUT EXTRA COST TO OWNER.

THE DRAWINGS ARE NOT INTENDED TO BE SCALED FOR ROUGH-IN MEASUREMENTS AND ARE NOT TO SERVE AS SHOP DRAWINGS.

ALL RACEWAYS SHALL BE CONCEALED IN FINISHED SPACES UNLESS NOTED OTHERWISE. SURFACE-MOUNTED RACEWAYS (WIREWOLD) SHALL BE LIMITED IN USE AND ONLY PERMITTED WHERE PRIOR APPROVAL IS OBTAINED FROM THE ARCHITECT. RACEWAYS IN NON-FINISHED SPACES, SUCH AS MECHANICAL ROOMS AND CRAWL SPACES, SHALL BE PERMITTED TO BE EXPOSED. ALL EXPOSED RACEWAYS SHALL BE ROUTED PLUMB AND SQUARE TO BUILDING SURFACES. RACEWAYS IN NON-FINISHED SPACES SHALL BE INSTALLED SUCH THAT MAJOR RELOCATION IS NOT REQUIRED WHEN CEILINGS AND WALLS ARE INSTALLED IN THE FUTURE.

OWNER SUPPLIED EQUIPMENT:
COORDINATE ELECTRICAL CONNECTIONS FOR OWNER-SUPPLIED EQUIPMENT WITH OWNER, MANUFACTURER DATA, AND EQUIPMENT NAMEPLATE INFORMATION.

SUBSTITUTIONS:
ALL SUBSTITUTIONS TO BE APPROVED BY OWNER, ARCHITECT AND ENGINEER.

INSTALLATION:
INSTALL WORK IN ACCORDANCE WITH STATE AND LOCAL STANDARDS.

RACEWAY ROUTING, WHEN SHOWN, IS IN APPROXIMATE LOCATIONS. FIELD COORDINATE ROUTING.

CUT CONDUIT SQUARE USING SAW OR PIPE CUTTER; DEBURR CUT ENDS.

INSTALL SUITABLE PULLSTRING OR CORD IN EACH EMPTY RACEWAY. INSTALL SUITABLE CAPS TO PROTECT INSTALLED CONDUIT AGAINST ENTRANCE OF DIRT AND MOISTURE.

INSTALL FITTINGS TO ACCOMMODATE EXPANSION AND DEFLECTION WHERE RACEWAY CROSSES CONTROL AND EXPANSION JOINTS.

ELECTRICAL IDENTIFICATION:
PROVIDE ELECTRICAL IDENTIFICATION:
A. ALL NEW JUNCTION BOX COVERS AND RECEPTACLE COVERPLATES TO HAVE PANEL, CIRCUIT AND SERVICE INFORMATION.
B. ALL PANELS TO HAVE NEW TYPE WRITTEN REGISTERS.
C. ALL PANELS SHALL BE LABELED ON OUTSIDE OF COVER (3" WIDE BY 1-1/4" HIGH WITH 1/4" LETTERS) WITH:
1. PANEL DESIGNATION
2. CIRCUIT # & LOCATION PANEL IS SERVED FROM
3. VOLTAGE / PHASE
4. WIRING COLOR DESIGNATIONS
5. ON OUTSIDE OF CIRCUIT BREAKER DOOR PLACE NEC 70E WARNING LABEL FOR ARC FLASH. LABEL REQUIREMENTS SHALL INCLUDE PPE REQUIREMENTS FOR WORKING ON LIVE PANELS.
D. PROVIDE LABELING ON ALL EQUIPMENT STARTERS/DISCONNECTS OF EQUIPMENT STATING EQUIPMENT DESIGNATION, PANEL & CIRCUIT EQUIPMENT IS SERVED FROM.
E. PROVIDE LABELING ON ALL CONTACTORS STATING SERVICE, PANEL & CIRCUIT CONTACTOR IS SERVED FROM.

ELECTRICAL LEGEND

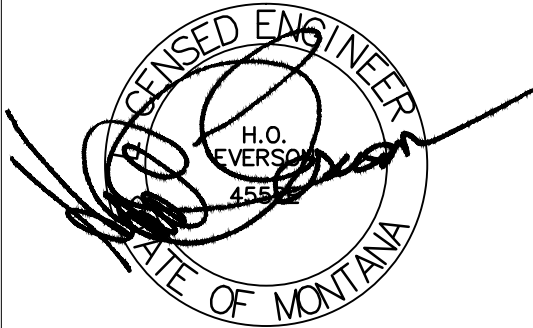
- PANEL
- DISCONNECT SWITCH
- BRANCH CIRCUIT CONCEALED IN WALL OR CEILING
- BRANCH CIRCUIT CONCEALED IN OR UNDER FLOOR
- EMPTY CONDUIT -3/4" UNLESS OTHERWISE NOTED
- HOME RUN TO PANEL. NUMBER OF ARROWS INDICATES NUMBER OF CIRCUITS
- NUMBER OF HASHMARKS INDICATES NUMBER OF CONDUCTORS. NO HASHMARKS INDICATES TWO CONDUCTORS.
- FLUORESCENT LIGHT FIXTURE (SURFACE)
- EMERGENCY LIGHTING
- DUPLEX CONVENIENCE RECEPTACLE - GROUNDED TYPE
- THERMOSTAT
- MOTOR
- SPECIAL EQUIPMENT OUTLET AS NOTED
- SWITCH
- SWITCH-WITH PILOT
- SWITCH-DIMMER
- MECHANICAL EQUIPMENT UNIT IDENTIFICATION
- OCCUPANCY SENSOR-WATT STOPPER PW-100

ELECTRICAL ABBREVIATIONS LIST

AMP	AMPHERE	PNL	PANELBOARD
AC	ALTERNATING CURRENT	PHN	PHONE
AFC	ABOVE FINISHED COUNTERTOP	PR	PRINTER
AFF	ABOVE FINISHED FLOOR	PRI	PRIMARY
AWG	AMERICAN WIRE GAUGE	RECP	RECEPTACLE
BKR	BREAKER	RM	ROOM
BLDG	BUILDING	SCHED	SCHEDULE
CD	CIRCUIT BREAKER	SEC	SECONDARY
C	CONDUIT	SHT	SHEET
CLG	CEILING	SPD	SURGE PROTECTIVE DEVICE
IT	DATA COMMUNICATIONS ROOM	SPEC	SPECIFICATIONS
DIA	DIAMETER	SWBD	SWITCHBOARD
DISC	DISCONNECT	TVSS	TRANSIENT VOLTAGE SUPPRESSOR
DWG	DRAWING	TYP	TYPICAL
EC	ELECTRICAL CONTRACTOR	UNO	UNLESS NOTED OTHERWISE
ELEC	ELECTRICAL	V/D	VOICE/DATA
EQUIP	EQUIPMENT	V	VOLT. VOLTAGE
EX	EXISTING	VA	VOLT AMPHERES
EG	EQUIPMENT GROUND	VC	VIDEO CAMERA
EMT	ELECTRICAL METALLIC TUBING	WP	WATER PROOF
EWC	ELECTRIC WATER COOLER	WS	WR WATER RESISTANT
GC	GENERAL CONTRACTOR	WS	WORK STATION
GRD	GROUND	XFMR	TRANSFORMER
GFI	GROUND FAULT INTERRUPTING	#	NUMBER
IG	ISOLATED GROUND		
KVA	KILOVOLT AMPHERE		
KW	KILOWATT		
LAN	LOCAL AREA NETWORK		
MCB	MAIN CIRCUIT BREAKER		
MLO	MAIN LUGS ONLY		
MM	MILLIMETERS		
NA	NOT APPLICABLE		
NEC	NATIONAL ELECTRICAL CODE		
NEMA	NATIONAL ELECTRICAL		
NTS	NOT TO SCALE		
P	POLE		
PH	PHASE		

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PHASE	REVISIONS
Construction	1: _____
Drawings	2: _____

SA18026

Electrical
Requirements

E100

PANEL SCHEDULE

PANEL	AA	MAIN	LUGS ONLY	LOCATION	CONCESSIONS
AMPS	100	FEED	TOP	DIMENSION	-
VOLTAGE	120/240	ISC	10,000	MOUNTING	RECESSED
WIRES	3 PHASE 1			TYPE	SQUARE-D QO LOAD CENTER

CIRCUIT	PH	LOAD WATT	AMP TRIP	CKT NO.	LOAD		CKT NO.	AMP TRIP	LOAD WATT	PH	CIRCUIT
					A	B					
LIGHTS	A	530	20	1	890		2	20	360	A	CO-BATH RMS
SPARE	B	0	20	3		500	4	20	500	B	CO-WATER COOLER
SPARE	A	0	20	5	540		6	20	540	A	CO-CONCESSIONS
SPARE	B	0	20	7		540	8	20	540	B	CO-CONCESSIONS
ELEC. HTR CONCESSIONS	A	1000	20	9	1540		10	20	540	A	CO-CONCESSIONS
	B	1000		11		1000	12	20	0	B	SPACE
ELEC. HTR	A	500	20	13	500		14	20	0	A	↑
	B	500		15		500	16	20	0	B	
ELEC. HTR	A	500	20	17	500		18	20	0	A	
	B	500		19		500	20	20	0	B	
WATER HTR WH-1	A	2250	20	21	2250		22	20	0	A	SPACE
	B	2250		23		2400	24	20	150	B	EXHAUST FAN-CONCESSIONS

CONNECTED LOAD PER PHASE-WATTS A 6220 B 5440 NOTES: _____
DEMAND FACTOR 100% ALL _____

DEMAND LOAD PER PHASE-WATTS	A	<u>6220</u>	B	<u>5440</u>	
DEMAND LOAD PER PHASE-AMPS	A	<u>52</u>	B	<u>45</u>	

WIRE SIZE 3 #4 THHN CONDUIT SIZE 1-1/4" FEED FROM EXIST PANEL

ELECTRIC HEATER SCHEDULE

UNIT	TYPE	MANUFACTURER	CATALOG NO.	WATTS	VOLTS	NOTES
EH-1	FAN FORCED	MARKEL	HF4003TA-RP	1000W	240	①
EH-2	FAN FORCED	MARKEL	HF4003TA-RP	1000W	240	①
EH-3	FAN FORCED	MARKEL	F3384DRP	2000W	240	②

- ① PROVIDE HTR WITH INTEGRAL MOUNT TAMPER PROOF THERMOSTAT.
- ② PROVIDE A REMOTE MOUNT LINE VOLTAGE THERMOSTAT.

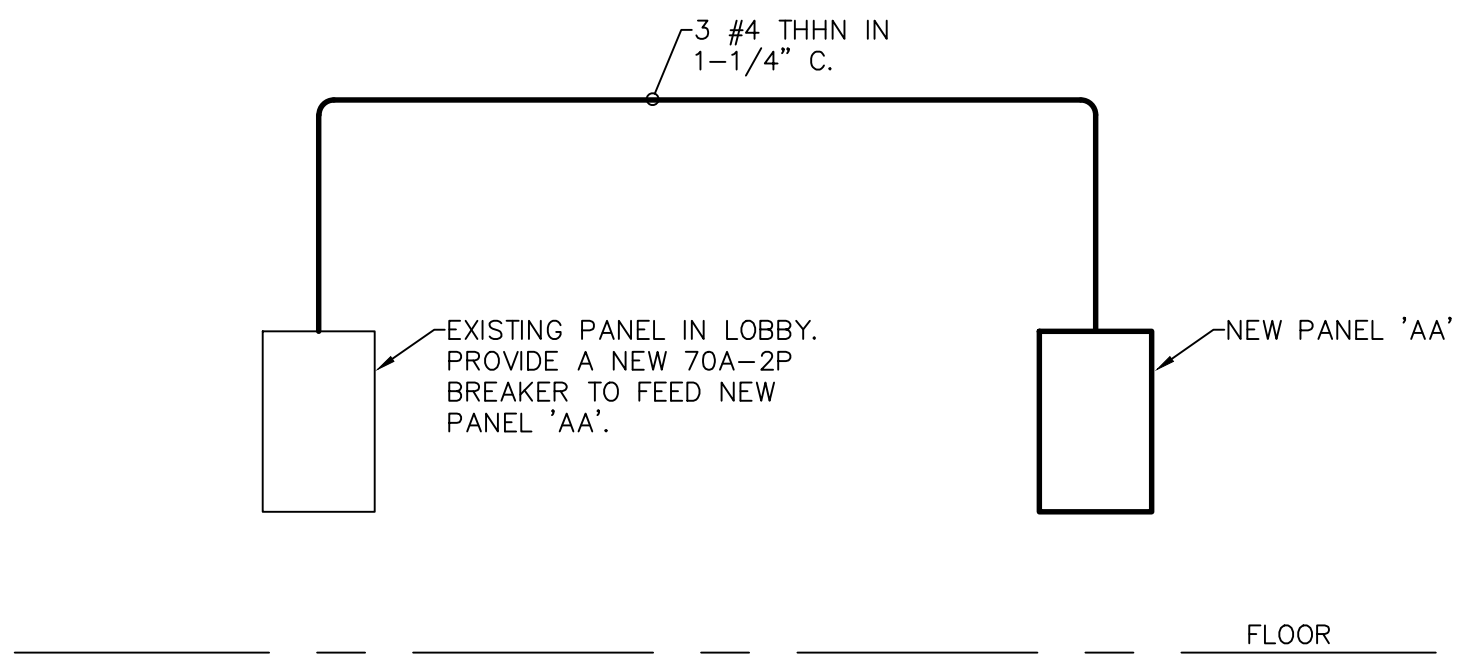
SCHEDULE OF MOTOR STARTERS AND CONTROL EQUIPMENT									
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	MOTOR			STARTER				O.L. HTS	DEVICES		
UNIT	LOAD	PH	VOLTS	MFR.	CATALOG NO.	SIZE	POLES		SWT	PILOT	NOTES
EF-1	100W	1	120	—	—	—	—	—	—	—	①
EF-2	100W	1	120	—	—	—	—	—	—	—	①
EF-3	150W	1	120	—	—	—	—	—	—	—	②
WH-1	4500W	1	240	—	—	—	—	—	—	—	③

- ① CIRCUIT & CONTROL WITH ROOM LTS.
- ② PROVIDE SWITCH WITH PILOT ADJACENT TO DOOR.
- ③ PROVIDE A 30A-2P FUSED GENERAL DUTY SERVICE DISCONNECT. FUSE @ 30 AMPS.

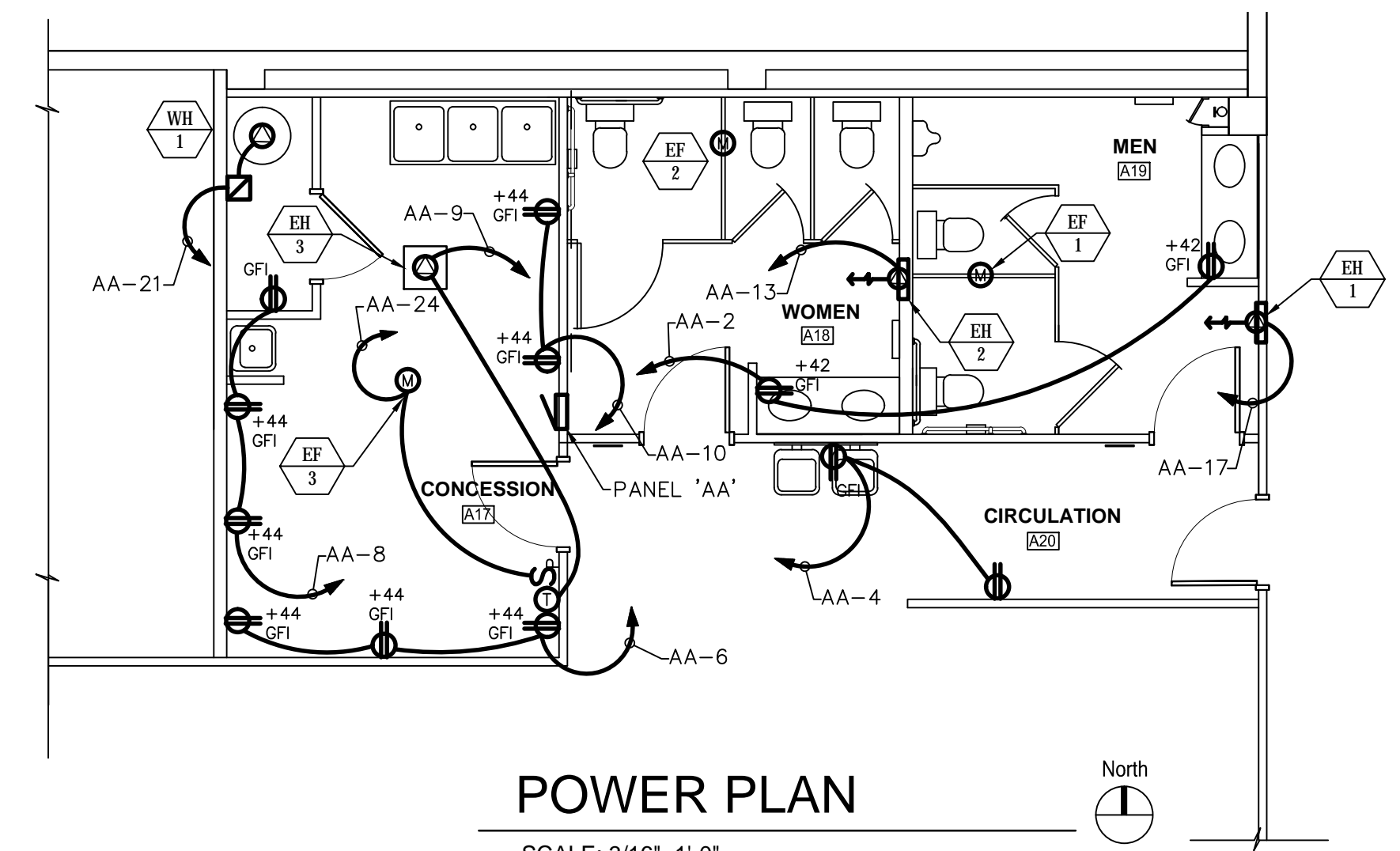
LIGHT FIXTURE SCHEDULE

LETTER DESIG.	FIXTURE				LAMP		NOTES
	MANUFACTURER	CATALOG NO.	LOCATION	TYPE	TYPE	NO.	
A	LSI	SDL4LED40LFUNV DIM 1 40 80CRI	CEILING	SURFACE	30W LED	-	
B	LSI	SFP24LED50UE DIM 40 SFP5MK24	CEILING	SURFACE	50W LED	-	
C	MULE	SQ-LEDW	WALL	SURFACE	LED	-	
D	LSI	SDL2LED20LFUNV DIM 40 80 CRI	CEILING	SURFACE	20W LED	-	



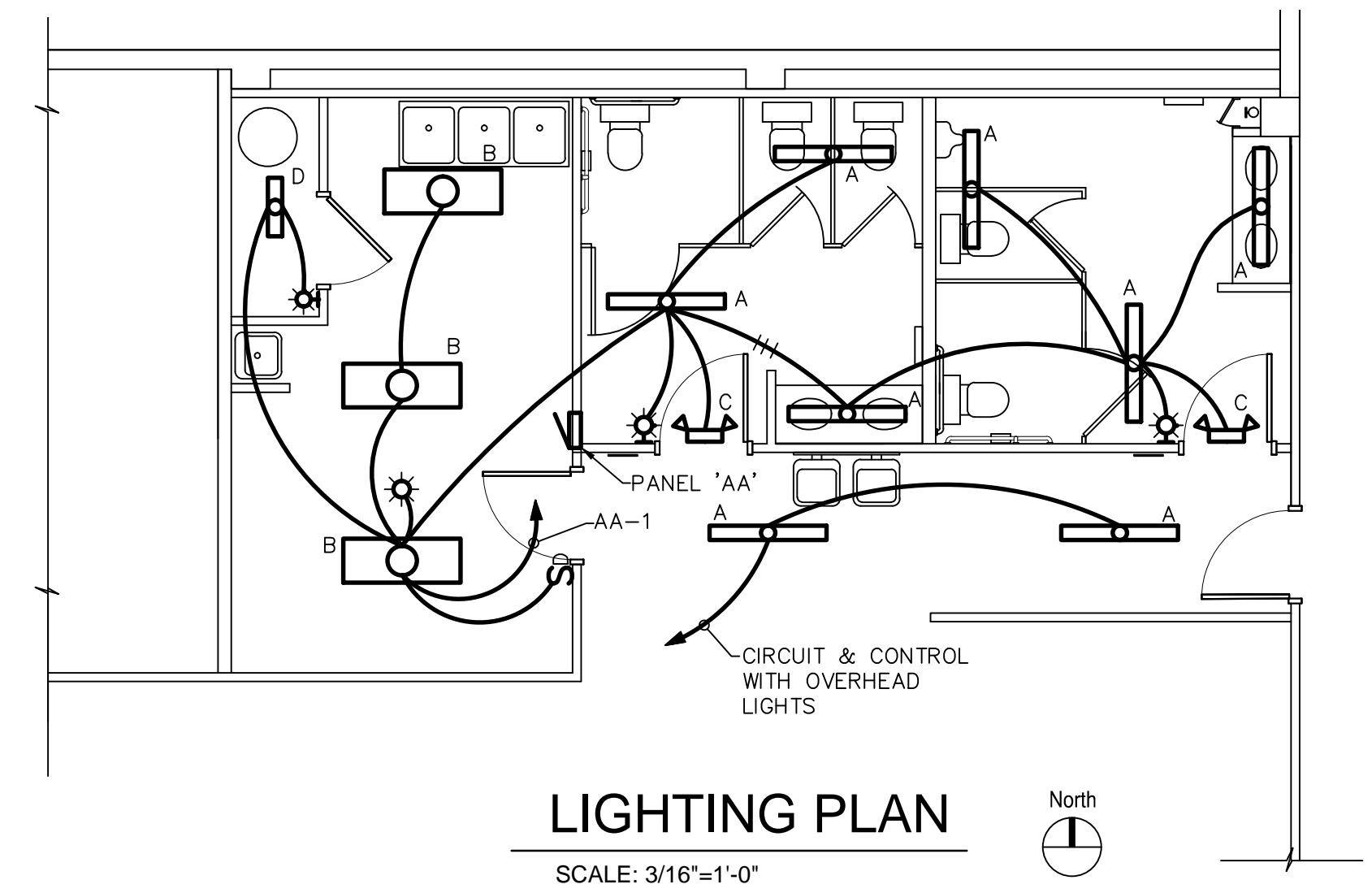
PANEL RISER DIAGRAM

NO SCALE



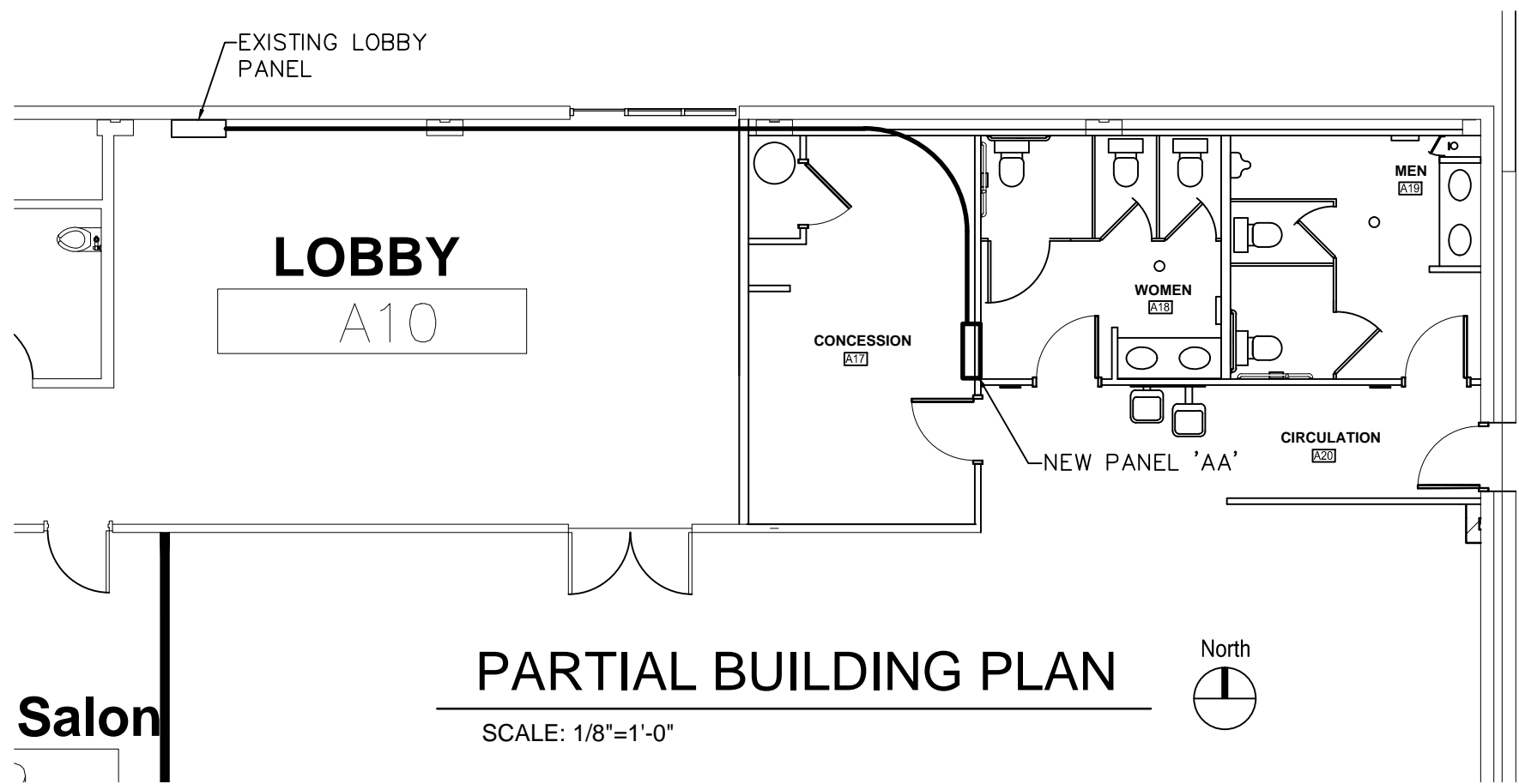
POWER PLAN

SCALE: 3/16"=1'-0"



LIGHTING PLAN

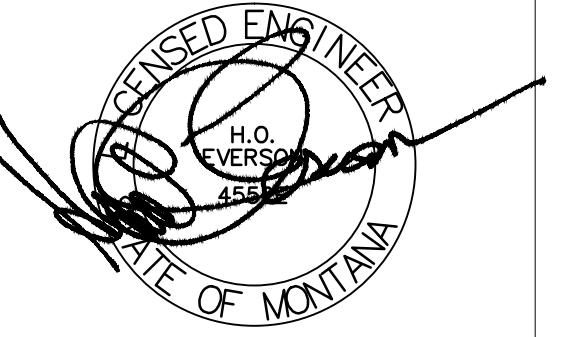
SCALE: 3/16"=1'-0"



PARTIAL BUILDING PLAN

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

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Electrical Plans

E101