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Project Engineer

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Mechanical, Electrical and Plumbing Engineer

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DOC CCF TUNNEL REPAIR / REPLACEMENT MAIN
BLDG. SW WING
IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES (DAS)
2000 N 16th St, Clarinda, IA 51632

MARK	REVISION	DATE

100% CONSTRUCTION DOCUMENTS

PROJECT NUMBER 125.0278.10

DATE 10/10/2025

SHEET TITLE

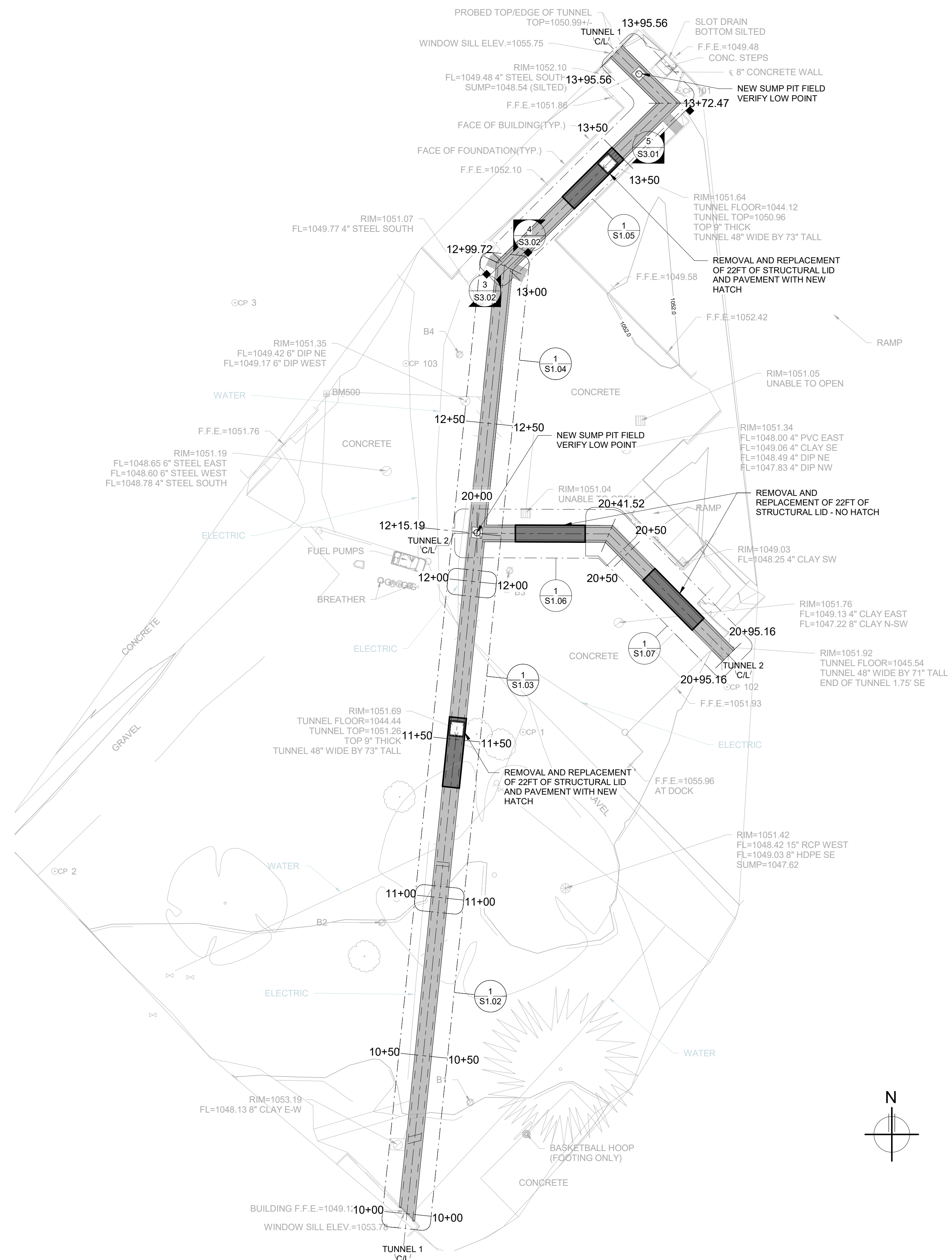
TUNNEL PLAN

SHEET NO.

S1.01

CONSTRUCTION NOTES

- COORDINATE ALL EQUIPMENT, ENTRY TIMES, AND EXIT TIMES WITH CM/CCF.
- WHILE WORKING IN YARD, NO OTHER OPENINGS IN THE TUNNEL ARE PERMITTED TO PREVENT POSSIBLE ESCAPE ROUTES.
- CONTRACTOR TO TEMPORARILY SEAL ANY HOLES IN TUNNEL AT THE END OF EACH WORK DAY.
- CONTRACTOR TO REMOVE ALL TOOLS AND EQUIPMENT AT THE END OF EACH WORK DAY.
- COORDINATE ALL WORK AND SECURITY WITH CM/CCF.
- PROTECT IN PLACE ALL UTILITIES, LIGHT POLES, ETC. AS REQUIRED DURING CONSTRUCTION.
- CONTRACTOR TO SOUND TOP OF EXISTING STRUCTURAL SLAB AND VISUALLY INSPECT FOR DELAMINTIAON, EXPOSED REBAR, OR SPALLING AND REPAIR PER NOTES PRIOR TO PLACING NEW PAVEMENT



1 TUNNEL PLAN

1" = 20'-0"

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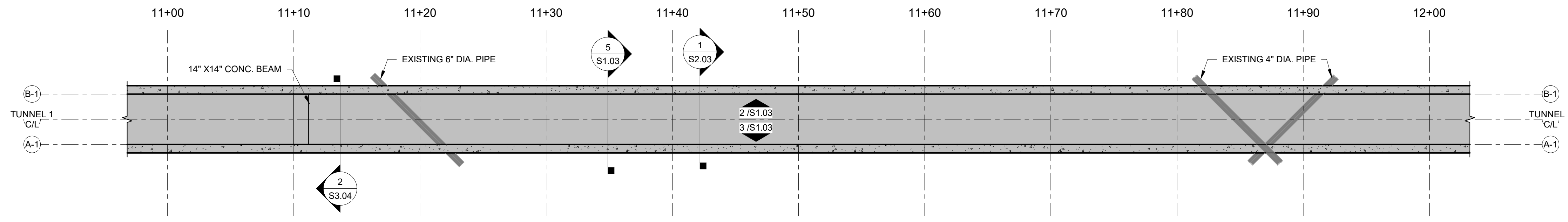
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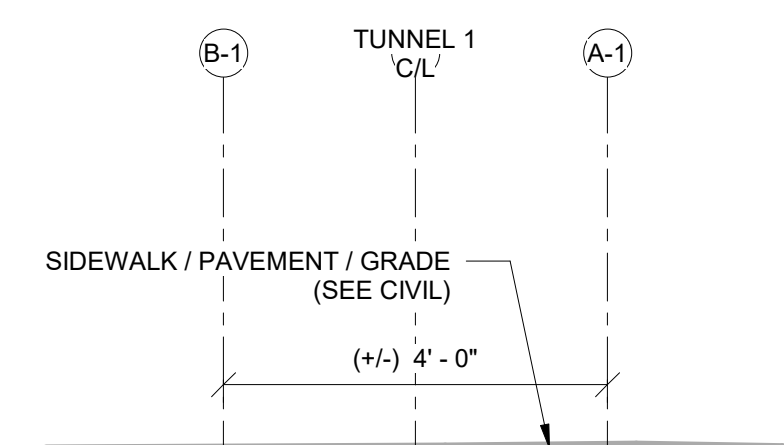
TUNNEL PLANS AND ELEVATIONS

SHEET NO.

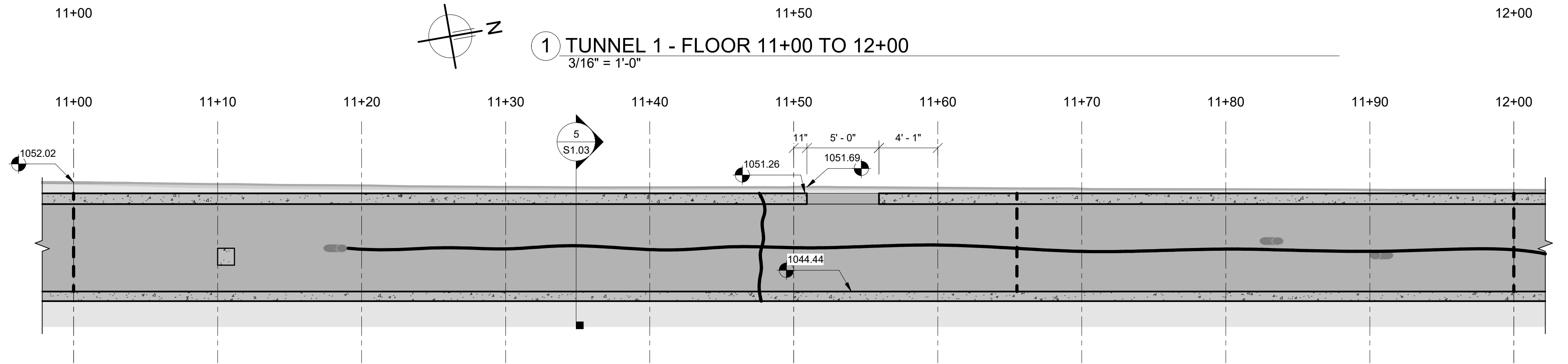
S1.03



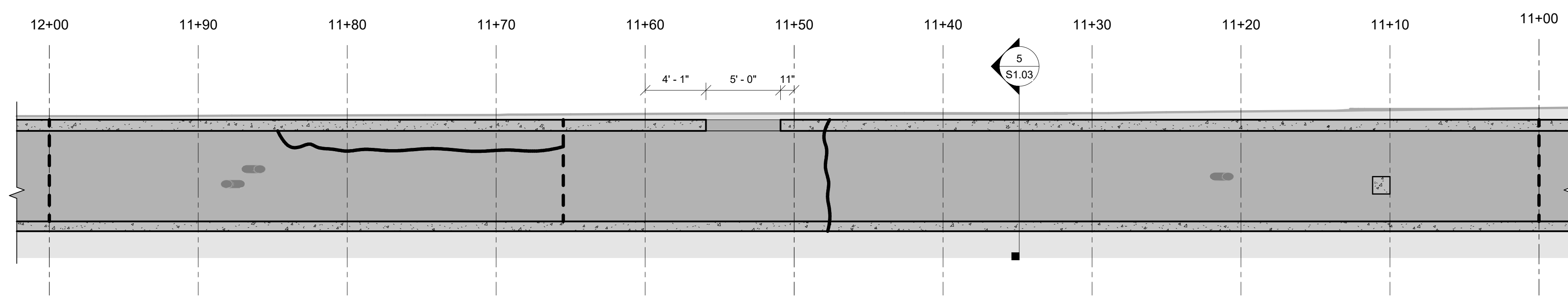
1 TUNNEL 1 - FLOOR 11+00 TO 12+00
3/16" = 1'-0"



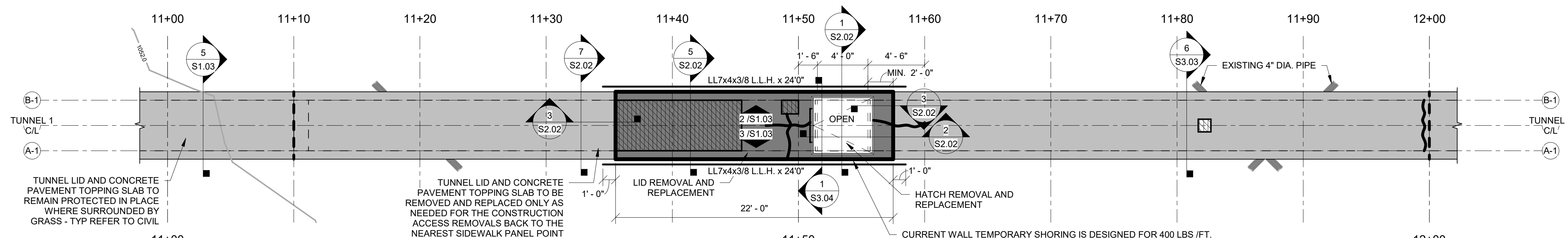
5 TUNNEL 1 - 11+00 TO 12+00 (LOOKING NE)
1/2" = 1'-0"



2 TUNNEL 1 - WEST WALL 11+00 TO 12+00
3/16" = 1'-0"



3 TUNNEL 1 - EAST WALL 11+00 TO 12+00
3/16" = 1'-0"



4 TUNNEL 1 - LID 11+00 TO 12+00
3/16" = 1'-0"

NOTES:
REMOVE AND REPLACE ALL EXISTING PIPE SUPPORTS.
CLEAN THE FLOOR OF ALL DIRT, DEBRIS, TRASH, ETC.
REMOVE ALL ABANDONED UTILITIES AND SUPPORTS OR ANY OTHER ITEMS WITHIN THE TUNNEL THAT ARE NO LONGER BEING USED- TYP.
ALL CONCRETE REPAIRS TO BE MARKED AND APPROVED FOR QUANTITY BY CM/CF AND ENGINEER PRIOR TO PERFORMING REPAIRS. CONCRETE ISSUES SHOWN ON THE DRAWINGS DO NOT NECESSARILY CORRELATE TO REPAIRS THAT WILL BE MADE BUT TO OBSERVATIONS MADE ON EXISTING CONCRETE DETERIORATION

REPAIR KEY	
	EXISTING CRACK - PREPARE AND REPAIR CONCRETE CRACK (SEE DETAILS)
	EXISTING SPALL - PREPARE AND REPAIR CONCRETE SPALL (SEE DETAILS)
	EXISTING SCALING AND HONEYCOMB - PREPARE AND REPAIR CONCRETE CONSOLIDATION OR SCALING (SEE DETAILS)
	EXISTING CONSTRUCTION JOINT PROVIDE CRACK REPAIRS WHERE CRACKS EXCEED 0.05" WIDTH (SEE DETAILS)

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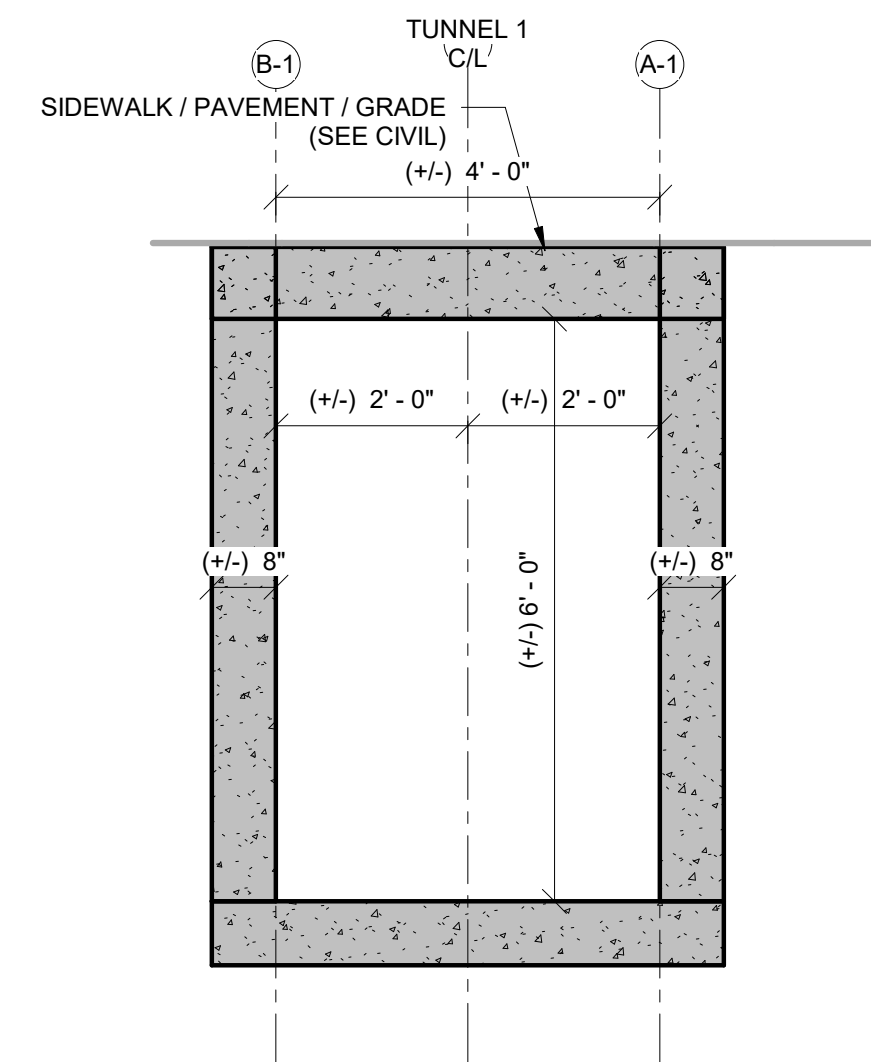
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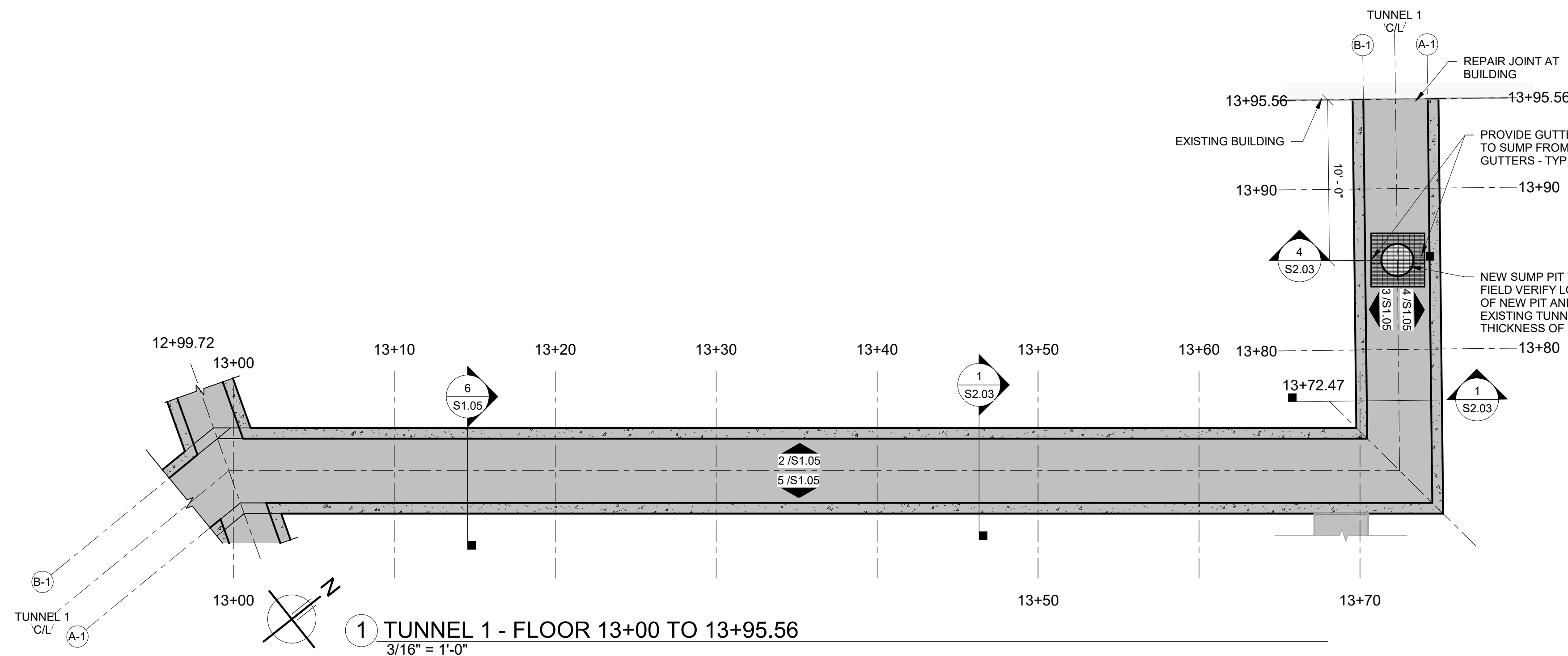
TUNNEL PLANS AND ELEVATIONS

SHEET NO.

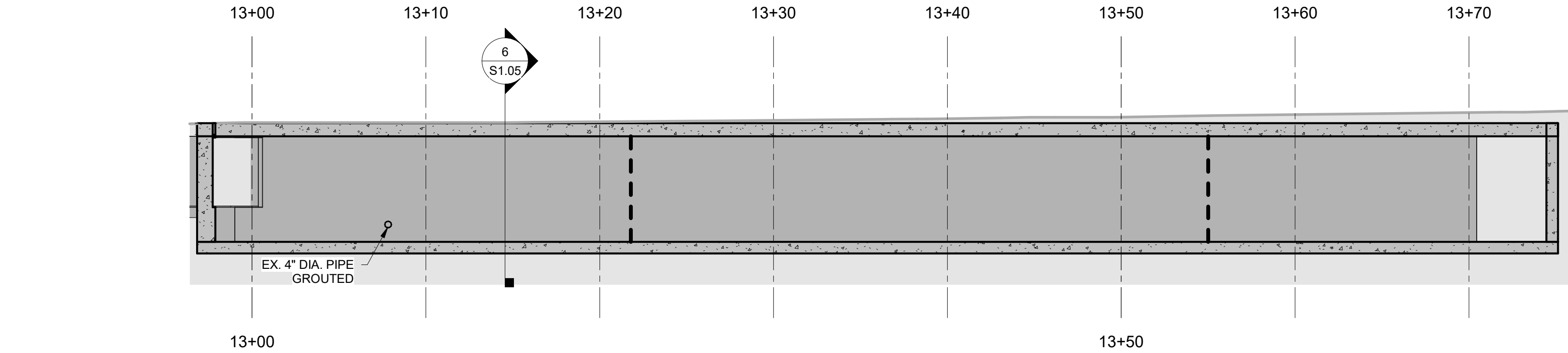
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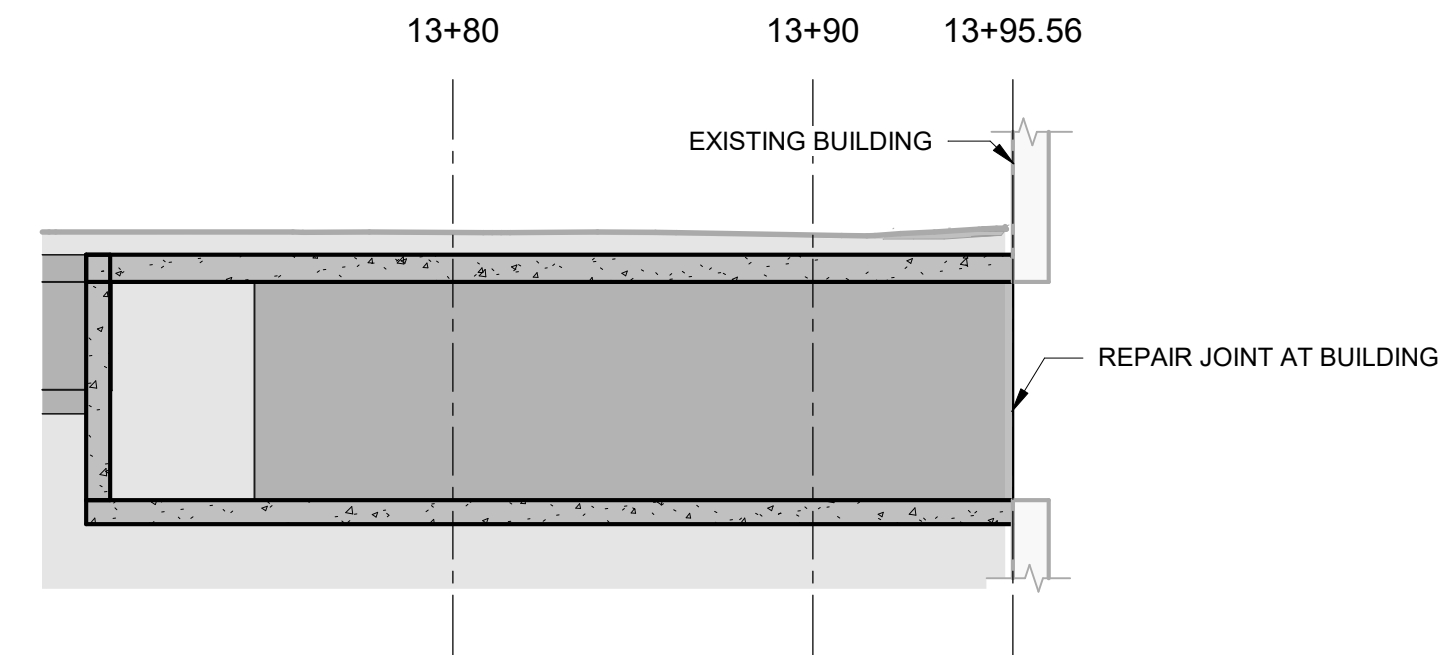
6 TUNNEL 1 - 13+00 TO 13.95.56 (LOOKING EAST)
1/2" = 1'-0"



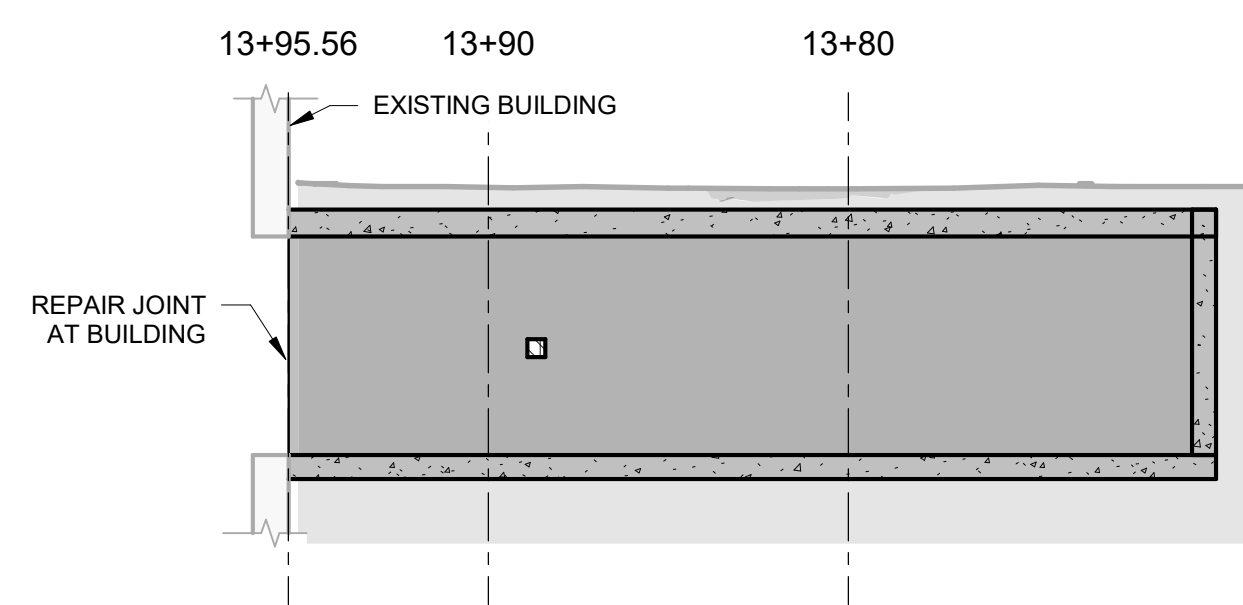
1 TUNNEL 1 - FLOOR 13+00 TO 13+95.56
3/16" = 1'-0"



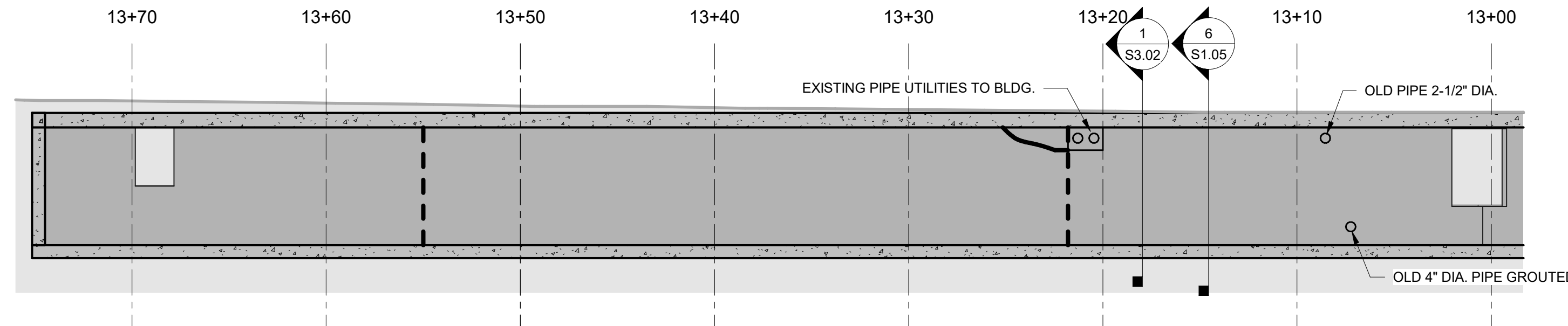
2 TUNNEL 1 - WEST WALL 13+00 TO 13+72.47
3/16" = 1'-0"



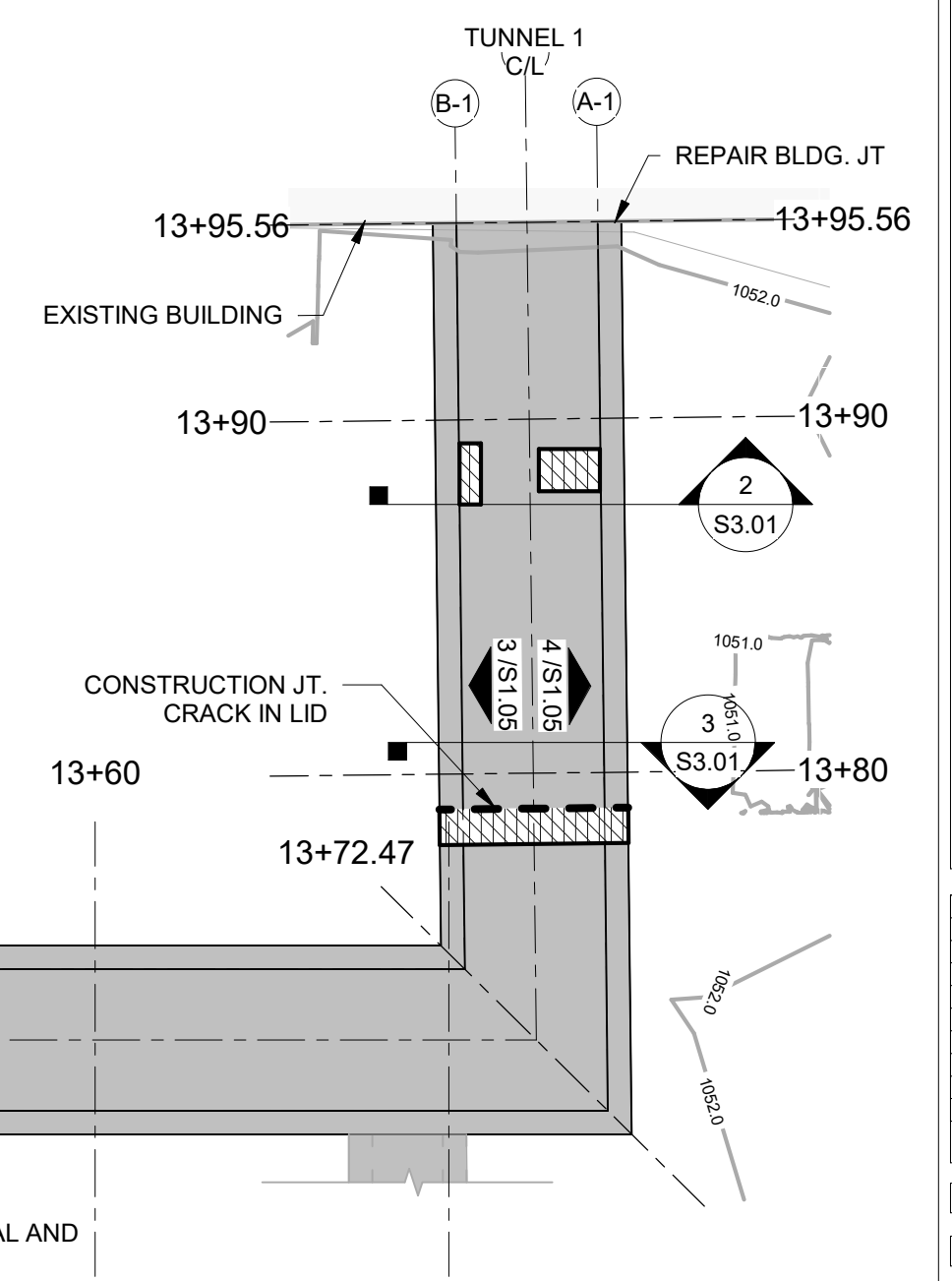
3 TUNNEL 1 - WEST WALL 13+72.47 TO 13+95.56
3/16" = 1'-0"



4 TUNNEL 1 - EAST WALL 13+72.47 TO 13+95.56
3/16" = 1'-0"



5 TUNNEL 1 - EAST WALL 13+00 TO 13+72.47
3/16" = 1'-0"



7 TUNNEL 1 - LID 13+00 TO 13+95.56
3/16" = 1'-0"

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1 PHOTO 1



2 PHOTO 2



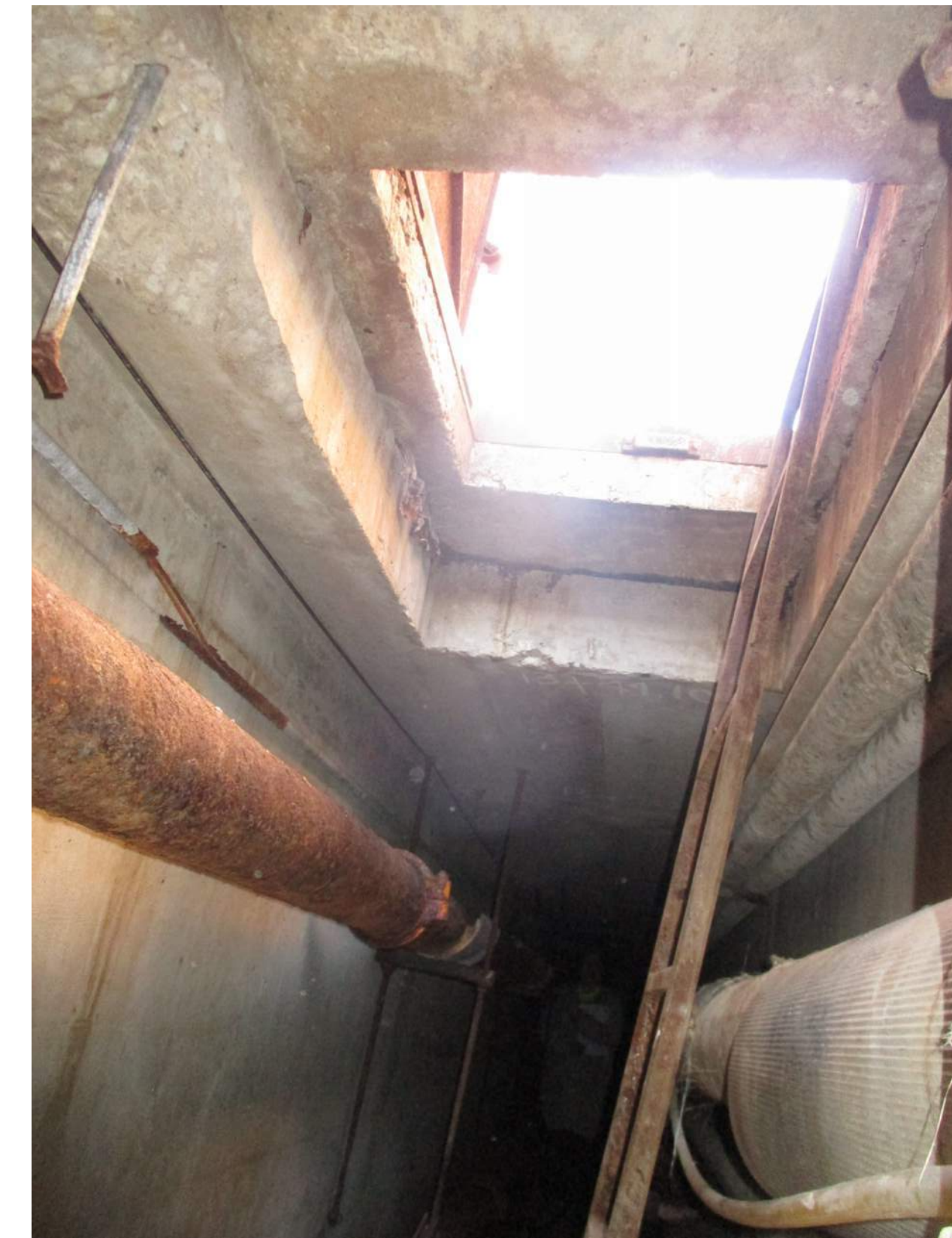
3 PHOTO 3



4 PHOTO 4



5 PHOTO 5



6 PHOTO 6



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PHOTOS

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S3.01



1 PHOTO 7



2 PHOTO 8



3 PHOTO 9



4 PHOTO 10



5 PHOTO 11



6 PHOTO 12



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PHOTOS

SHEET NO.

S3.02



① PHOTO 13



② PHOTO 14



③ PHOTO 15



④ PHOTO 16



⑤ PHOTO 17



⑥ PHOTO 18



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S3.03



1 PHOTO 19



2 PHOTO 20



3 PHOTO 21



4 PHOTO 22



5 PHOTO 23



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S3.04

MECHANICAL SYMBOLS

MECHANICAL PIPING AND PLUMBING SYMBOLS		MECHANICAL PIPING AND PLUMBING SYSTEMS	
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
	AUTOMATIC CONTROL VALVE, 2-WAY		FLEXIBLE PIPING
	AUTOMATIC CONTROL VALVE, 3-WAY		UNION
	BALANCING VALVE		PIPE IN SLEEVE
	ISOLATION VALVE (BALL OR BUTTERFLY)		CONCENTRIC REDUCER
	CHECK VALVE (ARROW INDICATED FLOW)		ECCENTRIC REDUCER INVERT
	GLOBE VALVE		ECCENTRIC REDUCER CROWN
	GAS COCK		PIPE PITCH DOWN
	MANUAL AIR VENT		F AND T TRAP CAP LBS/HR
	ARROW INDICATED FLOW DIRECTION		BUCKET TRAP CAP LBS/HR
	PIPE CONTINUATION		NEW TO EXISTING CONNECTION
	PIPE CAP		MECH EQUIPMENT WITH ELEC CONNECTION, SEE MECHANICAL/ELECTRICAL COORDINATION SCHEDULE.
	PRESSURE GAUGE WITH GAUGE COCK		POINT OF DISCONNECT
	PRESSURE OR TEMPERATURE MEASURING POINTS		
	PRESSURE RELIEF VALVE		
	PRESSURE REGULATING VALVE (PRV)		
	PRESSURE REDUCING VALVE		
	PRESSURE / TEMPERATURE TEST PORT		
	DESIGNATES UTILITIES AND EQUIPMENT MARKS WHICH ARE EXISTING		
	AUTOMATIC AIR VENT		
	MANUAL AIR VENT WITH ISOLATION VALVE		
	STRAINER WITH DRAIN VALVE AND HOSE END		

SYMBOLS INDICATED HERE AND NOT USED IN THE CONTRACT DOCUMENTS DO NOT APPLY TO THIS PROJECT. ADDITIONAL SYMBOLS AND ABBREVIATIONS MAY BE INDICATED IN THE CONTRACT DOCUMENTS.

ABBREVIATIONS

AFF ABOVE FINISHED FLOOR	DCVC DOUBLE DETECTOR CHECK VALVE	GA GAUGE	NIC NOT IN CONTRACT	SCHD SCHEDULE
AHJ AUTHORITY HAVING JURISDICTION	ASBMB ASSEMBLY BACKFLOW PREVENTER	GALV GALVANIZED	NO NORMALLY OPEN	SCW SOFT COLD WATER
ASHRAE AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS	DISC DISCONNECT	GEN GENERAL CONTRACTOR	NOM NOMINAL	SHW SOFT HOT WATER
ASME AMERICAN SOCIETY OF MECHANICAL ENGINEERS	DIST DISTRIBUTION	GFN GENERATOR	NPW NON-POTABLE WATER	SIM SIMILAR
ASTM STANDARD SPECIFICATIONS FOR THE AMERICAN SOCIETY FOR TESTING MATERIALS	DN DOWN	GPM GALLONS PER MINUTE	NTS NOT TO SCALE	SM SPRINKLER MAIN
AUX AUXILIARY	DPAC DRY PIPE AIR COMPRESSOR	GW GARAGE WASTE	OA OUTDOOR AIR	SMACNA SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
AV ACID VENT	DPS DOOR POSITION SWITCH	HGT HEIGHT	OC ON CENTER	SPER PERPENDICULAR
AVG AVERAGE	DPV DRY PIPE VALVE	HP HORSEPOWER	PIV POST INDICATOR VALVE	SPECS SPECIFICATIONS
AW ACID WASTE	DWG DRAWING	HTG HEATING	PLUBS PLUMBING	SS STAINLESS STEEL
AWG AMERICAN WIRE GAUGE	DX DIRECT EXPANSION	HVAC HEATING, VENTILATING AND AIR CONDITIONING	PNL PANEL	STD STANDARD
BMCS BUILDING MANAGEMENT CONTROL SYSTEM	EA EXHAUST AIR	HZ HERTZ, HIGH ZONE WET STANDPIPE	PS PLASTER SINK	TEMP TEMPERATURE
BFP DOUBLE CHECK BACKFLOW PREVENTER	EHC ELECTRIC HEATING COIL	IE INVERT ELEVATION	PSF POUNDS PER SQUARE FOOT	TYP TYPICAL
BLDG BUILDING	EL ELEVATION	IP INTERNET PROTOCOL	PSI POUNDS PER SQUARE INCH	UG UNDERGROUND
BTU BRITISH THERMAL UNIT	ELEC ELECTRICAL	KW KILOWATT	PVC POLYVINYL CHLORIDE	UL UNDERWRITERS LABORATORY
BTUH BRITISH THERMAL UNIT PER HOUR	EMS ENERGY MANAGEMENT SYSTEM	LBS POUNDS	PWR POWER	UNO UNLESS NOTED OTHERWISE
CFM CUBIC FEET PER MINUTE	EOA ECONOMIZER OUTDOOR AIR	LZ LOW ZONE WET STANDPIPE	RA RETURN AIR	UPS UNINTERRUPTIBLE POWER SUPPLY
CL CENTER LINE	EPO EMERGENCY POWER OFF	MA MIXED AIR	RCD REQUIRED	VA VOLT-AMPS
CLG CEILING	EQUIP EQUIPMENT	MAX MAXIMUM	RGS RIGID GALVANIZED STEEL	VERT VERTICAL
CLR CLEAR	EXH EXHAUST	MBH 1000 BTU/HOUR	RH RELATIVE HUMIDITY	VFC VARIABLE FREQUENCY CONTROL
CPVC CHLORINATED POLYVINYL CHLORIDE	EXIST EXISTING	MECH MECHANICAL	RLFA RELIEF AIR	VTR VENT THROUGH ROOF
CRAC COMPUTER ROOM AIR CONDITIONER	F FIRE WATER	MERV MINIMUM EFFICIENCY REPORTING VALUE	RM ROOM	W WATT
CV CONSTANT VOLUME	FA FIRE ALARM	MIN MINIMUM	RO REVERSE OSMOSIS WATER	WG WATER GAUGE
	FOC FLOOR CLEAN OUT	MISC MISCELLANEOUS	RPBPF REDUCED PRESSURE BACKFLOW PREVENTER	WP WETTERPROOF
	FD FIRE DEPARTMENT CONNECTION	MOA MINIMUM OUTDOOR AIR	RPZ REDUCED PRESSURE ZONE BACKFLOW PREVENTER	XFMR TRANSFORMER
	FHC FIRE HOSE CABINET	MTD MOUNTED	SA SUPPLY AIR	
	FHV FIRE HOSE VALVE	NC NORMALLY CLOSED	SAN SANITARY	
	FL FLOOR	NFPA NATIONAL FIRE PROTECTION ASSOCIATION		
	FT FEET			
	FW FILTERED WATER			

SUBSCRIPTS

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
EP	SUBSCRIPT "EP" APPLIED TO ANY SYMBOL INDICATES EXPLOSION PROOF, CLASS, GROUP & DIVISION AS NOTED	K	SUBSCRIPT "K" ADDED TO ANY SYMBOL INDICATES KEY OPERATED	WP	SUBSCRIPT "WP" APPLIED TO ANY SYMBOL INDICATES WEATHERPROOF NEMA 3R OR EQUIVALENT
E	SUBSCRIPT "E" ADDED TO ANY SYMBOL INDICATES EXISTING	WG	SUBSCRIPT "WG" ADDED TO ANY SYMBOL INDICATES WIRE GUARD	P	SUBSCRIPT "P" ADDED TO ANY SYMBOL INDICATES PILOT LIGHT
PD	SUBSCRIPT "PD" ADDED TO ANY FLOOR OUTLET INDICATES PEDESTAL MOUNTED			NL	SUBSCRIPT "NL" ADDED TO ANY SYMBOL INDICATES AN UNSWITCHED LUMINAIRE OPERATING AS A NIGHT LIGHT
AC	SUBSCRIPT "AC" ADDED TO ANY SYMBOL INDICATES ABOVE COUNTER, LOCATE CENTER OF DEVICE 4" ABOVE COUNTER SURFACE OR WHERE PRESENT, 4" ABOVE BACKSPASH, WHERE INDICATED ADJACENT TO LAVATORY WITHOUT COUNTER, LOCATE CENTER OF DEVICE 8" ABOVE RIM OF LAVATORY.				

ABBREVIATIONS

A AMPERE	EC ELECTRICAL CONTRACTOR	KW KILOWATT	PNL PANEL
AFF ABOVE FINISHED FLOOR	EGB ELECTRICAL GROUND BAR	LTG LIGHTING	QTY QUANTITY
AHJ AUTHORITY HAVING JURISDICTION	ELEC ELECTRICAL	MAX MAXIMUM	RM ROOM
AIC AMPERES INTERRUPTING CURRENT	EMD ESTIMATED MAXIMUM DEMAND	MCB MAIN CIRCUIT BREAKER	SBB SECONDARY BONDING BUSBAR
ATS AUTOMATIC TRANSFER SWITCH	EMI ELECTROMAGNETIC INTERFERENCE	MCC MOTOR CONTROL CENTER	SCCR SHORT CIRCUIT CURRENT RATING
AUX AUXILIARY	EPO EMERGENCY POWER OFF	MECH MECHANICAL	SCHD SCHEDULE
AV AUDIOVISUAL	EXIST EXISTING	MGB MAIN GROUND BAR	SPD SURGE PROTECTIVE DEVICE
AWG AMERICAN WIRE GAUGE	FA FIRE ALARM	MIN MINIMUM	SPECS SPECIFICATIONS
BMCS BUILDING MANAGEMENT CONTROL SYSTEM	FAA FIRE ALARM ANNUNCIATOR PANEL	MISC MISCELLANEOUS	SS STAINLESS STEEL
C CONDUIT	FACP FIRE ALARM CONTROL PANEL	MLO MAIN LUGS ONLY	STD STANDARD
CATV CABLE TELEVISION	FD FOOT CANDLES	N1 NEMA 1 ENCLOSURE	SW SWITCH
CB CIRCUIT BREAKER	FLA FULL LOAD AMPS	N3R NEMA 3R ENCLOSURE	SWB SWITCHBOARD
CCT CORRELATED COLOR TEMPERATURE	FT FEET	N4X NEMA 4X ENCLOSURE	SWG SWITCHGEAR
CCTV CLOSED CIRCUIT TELEVISION	FSAE FIRE SERVICE ACCESS ELEVATOR	NX NORMALLY CLOSED	TELECOM TELECOMMUNICATIONS
CKT CIRCUIT	GC GENERAL CONTRACTOR	NIC NOT IN CONTRACT	TYP TYPICAL
CL CENTER LINE	GEC GROUNDING ELECTRODE CONDUCTOR	NO NORMALLY OPEN	UG UNDERGROUND
CLG CEILING	GFCI GROUND FAULT CIRCUIT INTERRUPTER	NTS NOT TO SCALE	UNO UNLESS NOTED OTHERWISE
CRI COLOR RENDERING INDEX	GND GROUND	OC ON CENTER	UPS UNINTERRUPTIBLE POWER SUPPLY
DISC DISCONNECT	HP HORSEPOWER	OPCI OWNER FURNISHED CONTRACTOR INSTALLED	VA VOLT-AMPERES
DIST DISTRIBUTION	HZ HERTZ	PB PULLBOX	W WATT
DMX DIGITAL MULTI-PLEX	JB JUNCTION BOX	PBB PRIMARY BONDING BUSBAR	XFMR TRANSFORMER
DN DOWN	KCMIL THOUSAND CIRCULAR MILS	PDU POWER DISTRIBUTION UNIT	
DWG DRAWING	KV KILOVOLT	PIV POST INDICATOR VALVE	
	KVA KILOVOLT AMPERE		

PLUMBING GENERAL NOTES:

- DO NOT RUN PLUMBING PIPING OR EQUIPMENT ABOVE ELECTRICAL OR TELECOMMUNICATION PANELS AND ASSOCIATED EQUIPMENT OR IN CODE-REQUIRED CLEARANCE SPACES. COORDINATE ALL ROUTING WORK WITH ALL OTHER TRADES.
- DRAWINGS, PLANS, SCHEMATICS, AND DIAGRAMS INDICATE THE GENERAL LOCATIONS AND THE ARRANGEMENT OF SYSTEMS. WHEREVER PRACTICAL, INSTALL SYSTEMS AS INDICATED. PROVIDE OFFSETS AND ELEVATION CHANGES TO PLUMBING PIPING AND DUCTWORK AS REQUIRED TO MEET THE LAYOUT AND COORDINATION PROCESS AS WELL AS MEET ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- PIPING AND FIXTURES SHOWN WITH THIN LINES INDICATE EXISTING TO REMAIN. PIPING AND FIXTURES SHOWN WITH BOLD LINES INDICATE NEW.
- COORDINATE SHUT DOWN OF EXISTING WATER SERVICE WITH OWNERS REPRESENTATIVE.
- SAW CUT AND REMOVE FLOOR AS REQUIRED FOR INSTALLATION OF NEW PIPING.

ELECTRICAL DEMOLITION NOTES:

- THE OWNER SHALL HAVE FIRST SALVAGE RIGHTS TO ALL FIXTURES, DEVICES AND EQUIPMENT REMOVED. COORDINATE WITH OWNER PRIOR TO DEMOLITION.
- WHERE EXISTING CIRCUITS ARE NOT REUSED, REMOVE CONDUCTORS AND ASSOCIATED ACCESSIBLE RACEWAYS BACK TO THE SOURCE. WHERE AN EXISTING DEVICE IS REMOVED FROM AN EXISTING CIRCUIT, PROVIDE NEW WIRING AS REQUIRED TO MAINTAIN CONTINUITY OF EXISTING CIRCUIT. UNLESS NOTED OTHERWISE, ABANDON CONCEALED CONDUITS IN WALLS WHICH ARE NOT REMOVED. WHERE AN EXISTING RACEWAY TO BE REMOVED IS STUBBED FROM A CONCRETE FLOOR OR WALL, CHISEL 2 INCHES BELOW SURFACE OF FLOOR, CUT CONDUIT, AND GROUT FLOOR TO MATCH ADJACENT SURFACE. PROVIDE BLANK PLATES FOR ABANDONED BOXES.
- REPAIR OR REPLACE BUILDING ELEMENTS WHICH ARE DAMAGED AS PART OF DEMOLITION WORK.
- DEMOLITION DRAWINGS INDICATE FIXTURES, DEVICES AND MAJOR PIECES OF EQUIPMENT WHICH ARE TO BE REMOVED OR RECONNECTED. REMOVE INDICATED ITEMS AND ASSOCIATED ITEMS NOT INDICATED BUT WHICH MUST BE REMOVED TO ACCOMMODATE REMODELING. THE ITEMS INDICATED SPECIFICALLY ON THE DRAWINGS TO BE REMOVED ARE ONLY TO INDICATE IN GENERAL TO THE CONTRACTOR THE AMOUNT OF DEMOLITION WORK REQUIRED. THE CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE EXTENT OF DEMOLITION REQUIRED AND SHALL BECOME FAMILIAR WITH EXISTING CONDITIONS PRIOR TO THE BID DATE. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.

ELECTRICAL GENERAL NOTES:

- INSTALL GREEN INSULATED GROUND WIRE WITH EACH LIGHTING, RECEPTACLE, AND EQUIPMENT BRANCH CIRCUIT.
- PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT REQUIRING A NEUTRAL, UNLESS OTHERWISE NOTED.
- REPAIR OR REPLACE BUILDING ELEMENTS THAT ARE DAMAGED AS PART OF ELECTRICAL WORK.
- SPECIFICATIONS LIST ACCEPTABLE WIRING METHODS AND MATERIALS. OTHER WIRING METHODS AND MATERIALS NOT LISTED IN THE SPECIFICATIONS (SUCH AS MC CABLE, ETC.) ARE NOT ACCEPTABLE.

MECHANICAL DEMOLITION NOTES:

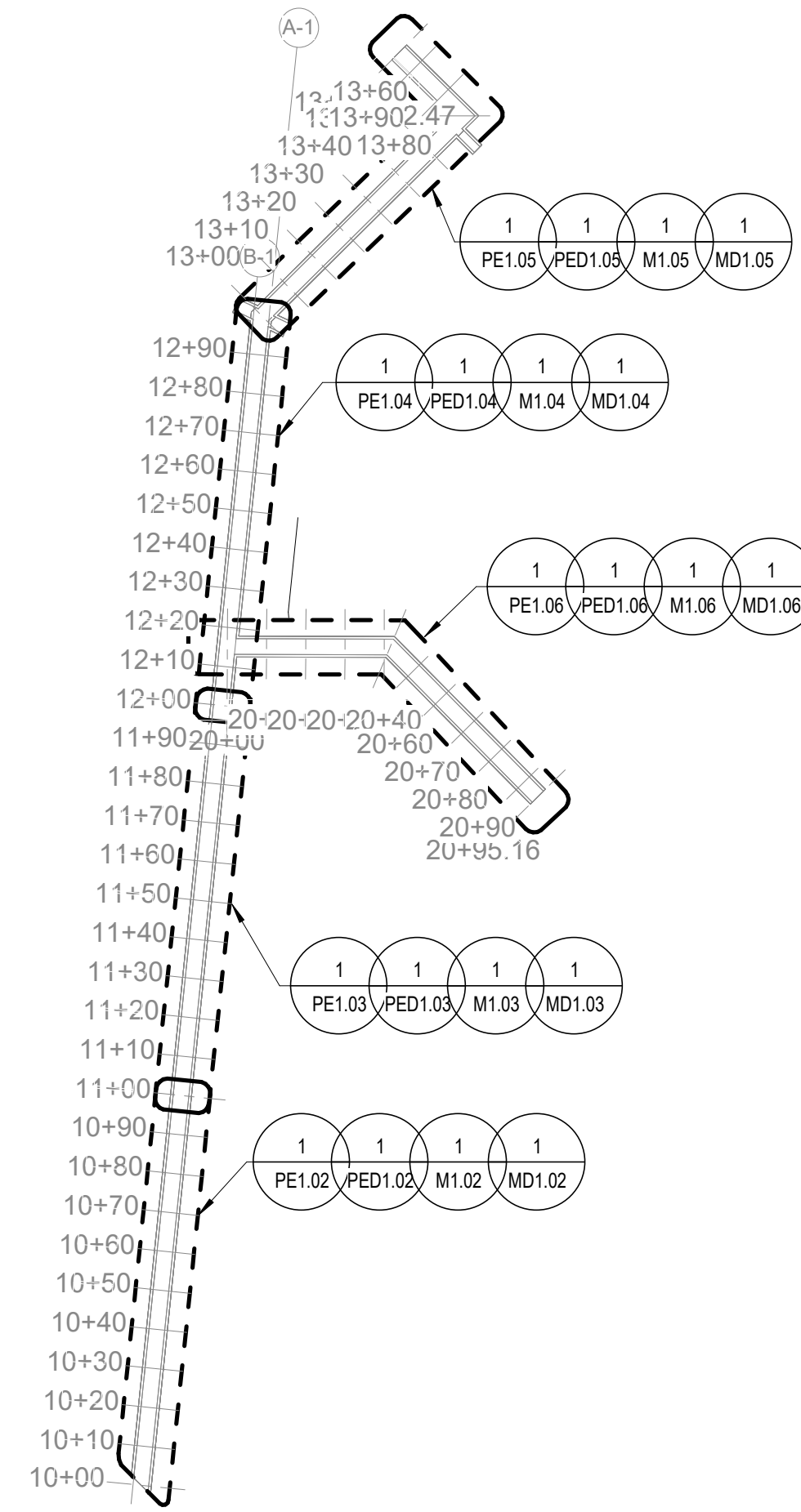
- THE OWNER SHALL HAVE THE FIRST RIGHT OF SALVAGE FOR ALL MECHANICAL, ELECTRICAL, AND PLUMBING ITEMS BEING REMOVED. IF OWNER DECLINES, THE CONTRACTOR SHALL REMOVE FROM THE PREMISES DISPOSE OF PROPERLY. VERIFY OWNER'S INTENT PRIOR TO REMOVAL OR DEMOLITION.
- INFORMATION PERTAINING TO THE EXISTING BUILDING HAS BEEN OBTAINED THROUGH THE BUILDINGS ORIGINAL DRAWINGS WHERE AVAILABLE. REPORT DISCREPANCIES TO THE ARCHITECT/ENGINEER PRIOR TO ANY DEMOLITION. CONTRACTOR TO BE REMOVED AND SALVAGED. DISCONNECT AND CAP SERVICES AND REMOVE EQUIPMENT AND DELIVER TO OWNER.
- COORDINATE SHUT DOWN OF ALL UTILITIES FOR DEMOLITION WORK WITH THE OWNER.
- DISCONNECT AND REMOVE MECHANICAL SYSTEMS, EQUIPMENT, AND COMPONENTS AS INDICATED TO BE REMOVED. PIPING TO BE REMOVED: REMOVE PORTION OF PIPING INDICATED TO BE REMOVED AND CAP REMAINING PIPING WITH THE SAME OR COMPATIBLE PIPING MATERIAL. PIPING TO BE ABANDONED IN PLACE: DRAIN PIPING AND CAP WITH THE SAME OR COMPATIBLE PIPING MATERIAL. DUCTS TO BE REMOVED: REMOVE PORTIONS OF DUCT AND CAP REMAINING DUCTS WITH THE SAME OR COMPATIBLE DUCTWORK MATERIAL. DUCTS TO BE ABANDONED IN PLACE: CAP DUCTS WITH THE SAME OR COMPATIBLE DUCTWORK MATERIAL. EQUIPMENT TO BE REMOVED: DISCONNECT AND CAP SERVICES AND REMOVE EQUIPMENT. EQUIPMENT TO BE REMOVED AND REINSTALLED: DISCONNECT AND CAP SERVICES AND REMOVE. CLEAN, AND STORE EQUIPMENT. WHEN APPROPRIATE, REINSTALL, RECONNECT, AND MAKE EQUIPMENT FULLY OPERATIONAL. EQUIPMENT TO BE REMOVED AND SALVAGED: DISCONNECT AND CAP SERVICES AND REMOVE EQUIPMENT AND DELIVER TO OWNER.
- IF PIPE OR EQUIPMENT INSULATION TO REMAIN IS DAMAGED IN APPEARANCE OR IS UNSERVICEABLE, REMOVE DAMAGED OR UNSERVICEABLE PORTIONS AND REPLACE WITH NEW PRODUCTS OF EQUAL CAPACITY AND QUALITY.
- CONTRACTOR IS REQUIRED TO VISIT SITE AND FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO BIDDING PROJECT.
- COORDINATE DEMOLITION WITH THE WORK OF OTHER TRADES. PROVIDE TEMPORARY UTILITIES AS REQUIRED TO ALLOW THE WORK OF OTHER TRADES TO PROCEED.
- PIPING, PLUMBING, AND EQUIPMENT SHOWN (BOLD) SHALL BE REMOVED TO THE EXTENTS INDICATED.

DETAIL NOTE:

- PROJECT DETAILS ARE PROVIDED ON DESIGNATED DETAIL SHEETS. DETAILS APPLY TO THE ENTIRE PROJECT IN ALL LOCATIONS WHERE DETAILED CONDITION EXISTS AND ARE ONLY REFERENCED TO PROVIDE CLARITY IF NECESSARY.

MISCELLANEOUS MECHANICAL GENERAL NOTES:

- COORDINATE SCHEDULE OF SHUTDOWN FOR EXISTING HVAC SYSTEMS, FOR INSTALLATION OF NEW HVAC SYSTEMS, WITH THE OWNER'S REPRESENTATIVE PRIOR TO SHUT DOWN.
- THIN LINE ITEMS INDICATE EXISTING TO REMAIN. BOLD LINE ITEMS INDICATE NEW WORK.
- CONTRACTOR IS RESPONSIBLE FOR ANY CUTTING AND PATCHING NEEDED FOR MECHANICAL INSTALLATION. PATCHING MUST MATCH EXISTING.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL ISOLATION VALVES, VENTS AND PIPE CONNECTIONS NECESSARY FOR FLUSHING, CLEANING AND FILLING NEW PIPE SYSTEMS AND ISOLATING THEM FROM EXISTING SYSTEMS TO ALLOW THIS WORK TO TAKE PLACE. EXISTING FILL ASSEMBLIES FOR SYSTEMS MODIFIED CAN BE UTILIZED TO FILL SYSTEMS AFTER WORK IS COMPLETE WHERE COORDINATED WITH OWNER.



1 KEY PLAN
1" = 40'-0"

PIPING GENERAL NOTES:

- DO NOT RUN PIPING PLUMBING OR EQUIPMENT ABOVE ELECTRICAL OR TELECOMMUNICATION PANELS AND ASSOCIATED EQUIPMENT OR IN CODE-REQUIRED CLEARANCE SPACES. COORDINATE ALL ROUTING WORK WITH ALL OTHER TRADES.
- DRAWINGS, PLANS, SCHEMATICS, AND DIAGRAMS INDICATE THE GENERAL LOCATIONS AND THE ARRANGEMENT OF SYSTEMS. WHEREVER PRACTICAL, INSTALL SYSTEMS AS INDICATED. PROVIDE OFFSETS AND ELEVATION CHANGES TO PIPING, PLUMBING, AND CUTWORK AS REQUIRED TO COMPLETE THE LAYOUT AND COORDINATION PROCESS AS WELL AS MEET ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- ALL PIPING INSULATION SHALL MEET THE ENERGY CODES INSTALLED R VALUE REQUIREMENTS.
- INDICATED SIZES FOR PIPE AND PIPING SPECIALTY CONNECTIONS FOR EQUIPMENT AND COILS ARE INTENDED TO ROUTE TO THE EQUIPMENT CONNECTION POINT. WHEN CONTROL VALVE SIZES ARE SMALLER THAN INDICATED PIPE OR EQUIPMENT CONNECTION SIZE PROVIDE ECCENTRIC REDUCERS ON INLET AND OUTLET OF CONTROL VALVE.
- ROUTE ALL HORIZONTAL HVAC PIPING IN MECHANICAL ROOMS AT A MINIMUM OF 7'-6" ABOVE FINISHED FLOOR.
- PIPING AND EQUIPMENT SHOWN WITH THIN LINES INDICATES EXISTING TO REMAIN. PIPING AND EQUIPMENT SHOWN WITH BOLD LINES INDICATES NEW.
- DIELECTRIC NIPPLES OR FLANGE INSULATION KITS SHALL BE UTILIZED FOR ALL DISSIMILAR PIPE CONNECTIONS. DIELECTRIC UNIONS WILL NOT BE ACCEPTED.
- FOR DRAWING CLARITY PIPING IN TUNNEL IS NOT SHOWING REQUIRED SLOPE OR EXACT ELEVATION OF PIPING IN TUNNEL. REFER TO SPECIFICATIONS FOR SLOPING REQUIREMENTS. REPLACEMENT STEAM SUPPLY AND RETURN PIPING SHALL BE INSTALLED IN A SIMILAR MANNER AND SLOPE TO THE PIPING BE REMOVED. PIPING TO SLOPE TO STEAM TRAPS AT LOCATIONS INDICATED FOR A FULLY FUNCTIONAL SYSTEM. ELEVATION OF PIPING WILL NEED TO BE FIELD VERIFIED TO MAINTAIN REQUIRED SLOPES AND TO ALLOW NEW TO EXISTING CONNECTIONS AT ENDS OF TUNNELS.

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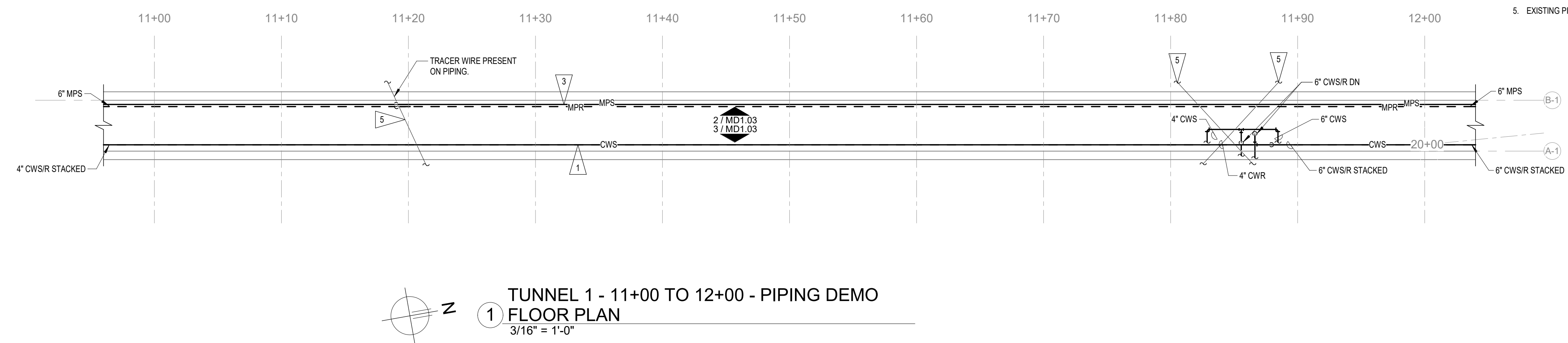
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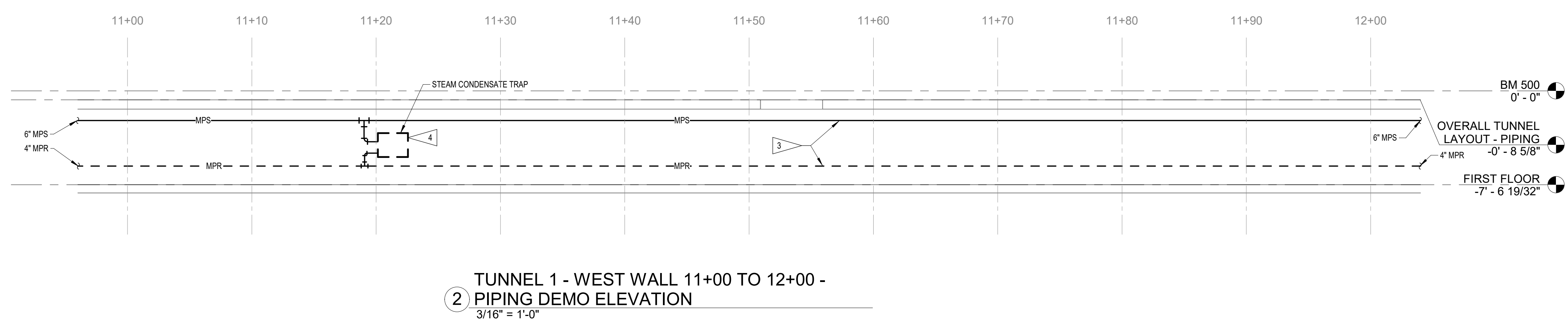
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PROJECT NUMBER	125.0278.10
DATE	10/10/2025
SHEET TITLE	MEP0.00
SHEET NO.	

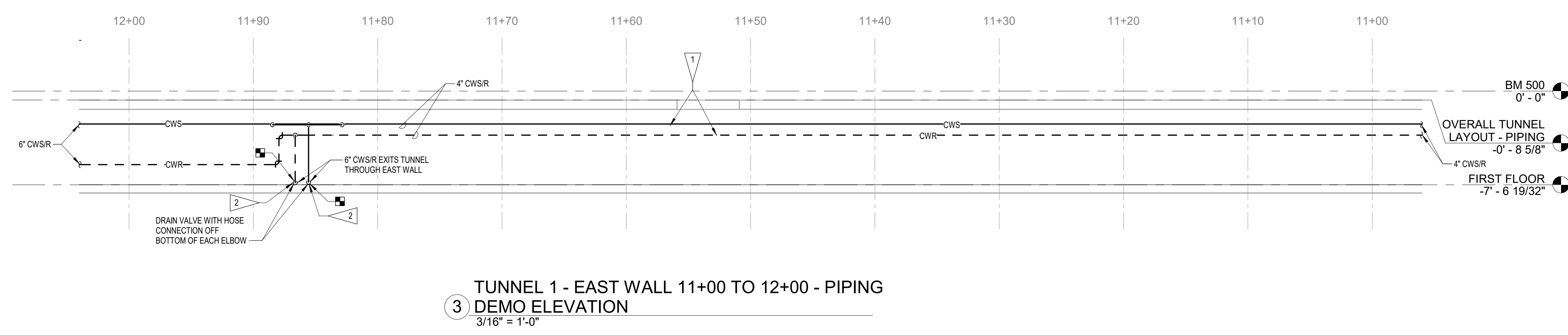
- # FLAG NOTES
1. REMOVE CHILLED WATER PIPING FROM TUNNEL, INCLUDING ALL EXISTING HANGERS AND INSULATION.
 2. DISCONNECT 90 DEGREE FITTING AT FLOOR FROM CONNECTION AT PIPE COMING THROUGH TUNNEL WALL. REMOVE ALL PIPING ON TUNNEL SIDE OF CONNECTION AND COVER AND PROTECT THROUGH WALL PIPING CONNECTION FOR EXTENSION UNDER NEW WORK.
 3. REMOVE EXISTING MPS/MPR PIPING FROM TUNNEL, INCLUDING ALL EXISTING HANGERS AND INSULATION.
 4. REMOVE EXISTING CONDENSATE STEAM TRAP ASSEMBLY AND DOCUMENT LOCATION AND SIZE OF ASSEMBLY FOR NEW ASSEMBLY LOCATION UNDER NEW WORK.
 5. EXISTING PIPING CROSSING TUNNEL TO REMAIN AS IS. COVER AND PROTECT DURING CONSTRUCTION.



1 TUNNEL 1 - 11+00 TO 12+00 - PIPING DEMO
 FLOOR PLAN
 3/16" = 1'-0"

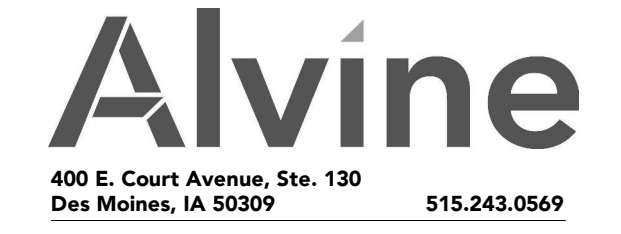


2 TUNNEL 1 - WEST WALL 11+00 TO 12+00 -
 PIPING DEMO ELEVATION
 3/16" = 1'-0"



3 TUNNEL 1 - EAST WALL 11+00 TO 12+00 - PIPING
 DEMO ELEVATION
 3/16" = 1'-0"

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MARK	REVISION	DATE

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PROJECT NUMBER	125.0278.10
DATE	10/10/2025
SHEET TITLE	TUNNEL PLANS AND ELEVATIONS DEMO
SHEET NO.	MD1.03



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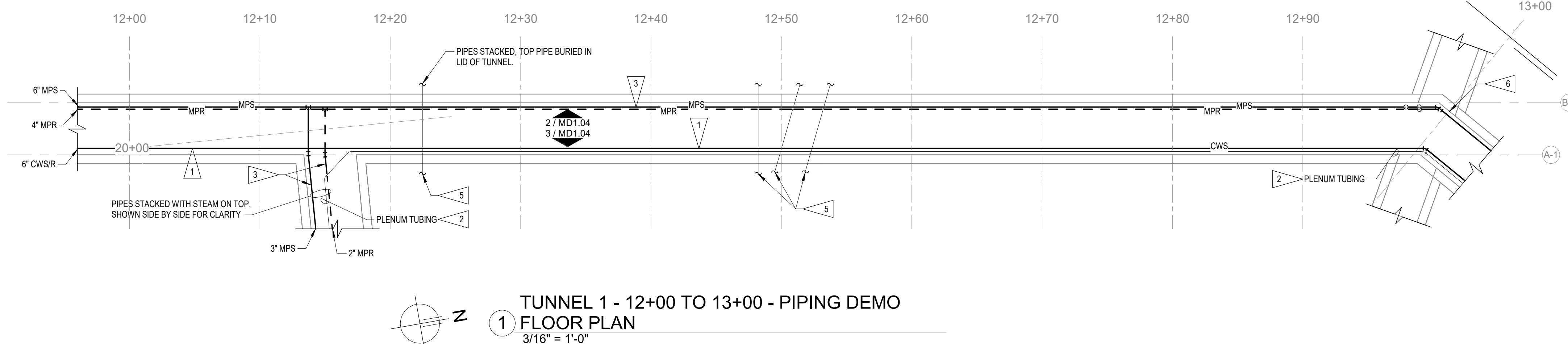
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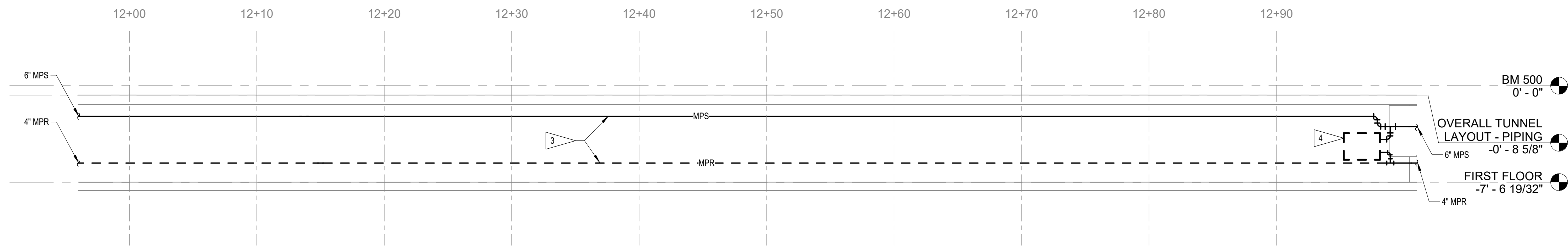
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FLAG NOTES

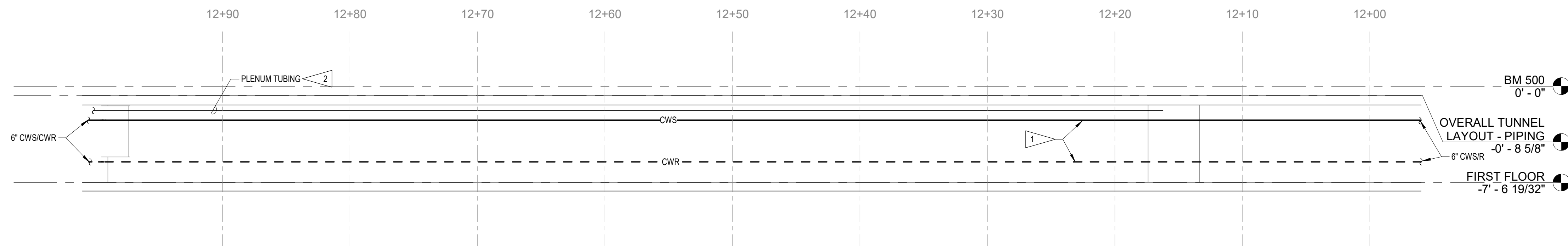
1. REMOVE CHILLED WATER PIPING FROM TUNNEL, INCLUDING ALL EXISTING HANGERS AND INSULATION.
2. EXISTING PLENUM CONTROL TUBING TO REMAIN, PROTECT DURING CONSTRUCTION.
3. REMOVE EXISTING MPS/MPR PIPING FROM TUNNEL, INCLUDING ALL EXISTING HANGERS AND INSULATION.
4. REMOVE EXISTING CONDENSATE STEAM TRAP ASSEMBLY AND DOCUMENT LOCATION AND SIZE OF ASSEMBLY FOR NEW ASSEMBLY LOCATION UNDER NEW WORK.
5. EXISTING PIPING CROSSING TUNNEL TO REMAIN AS IS, COVER AND PROTECT DURING CONSTRUCTION.
6. REMOVE PREVIOUSLY ABANDONED STEAM PIPING BRANCHES AT THIS APPROXIMATE LOCATION THAT EXIT THROUGH PARTIAL TUNNEL CAP AND ABANDON PIPE CONNECTIONS IN PARTIAL TUNNEL WALL.



1 TUNNEL 1 - 12+00 TO 13+00 - PIPING DEMO FLOOR PLAN
3/16" = 1'-0"



2 TUNNEL 1 - WEST WALL 12+00 TO 13+00 - PIPING DEMO ELEVATION
3/16" = 1'-0"



3 TUNNEL 1 - EAST WALL 12+00 TO 13+00 - PIPING DEMO ELEVATION
3/16" = 1'-0"

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PROJECT NUMBER	125.0278.10
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SHEET NO.	
MD1.04	

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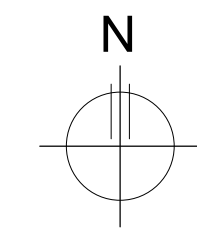
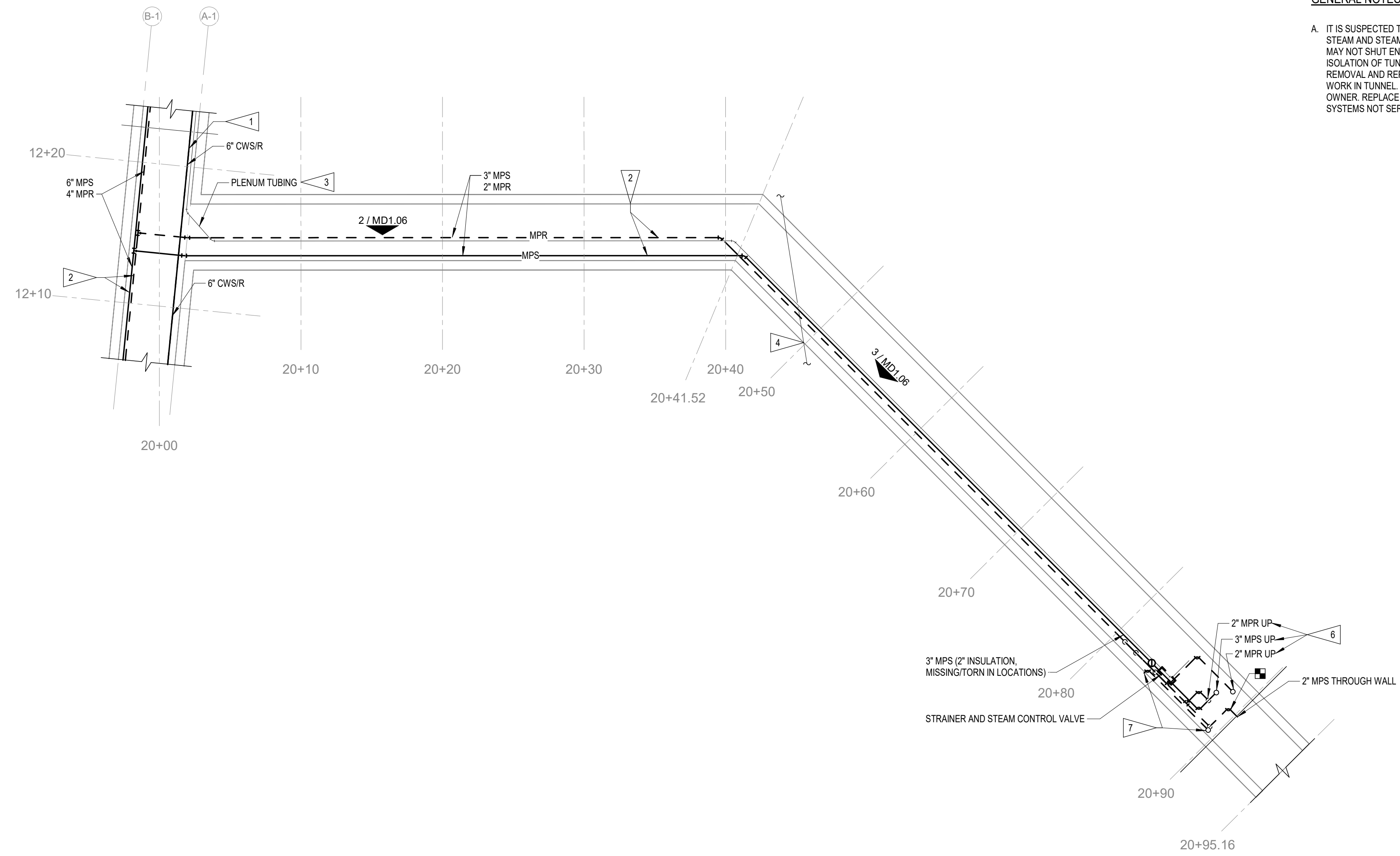
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 PROJECT NUMBER: 125.0278.10
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 SHEET TITLE:
**TUNNEL PLANS AND ELEVATIONS
 DEMO**
 SHEET NO.
MD1.06

GENERAL NOTES

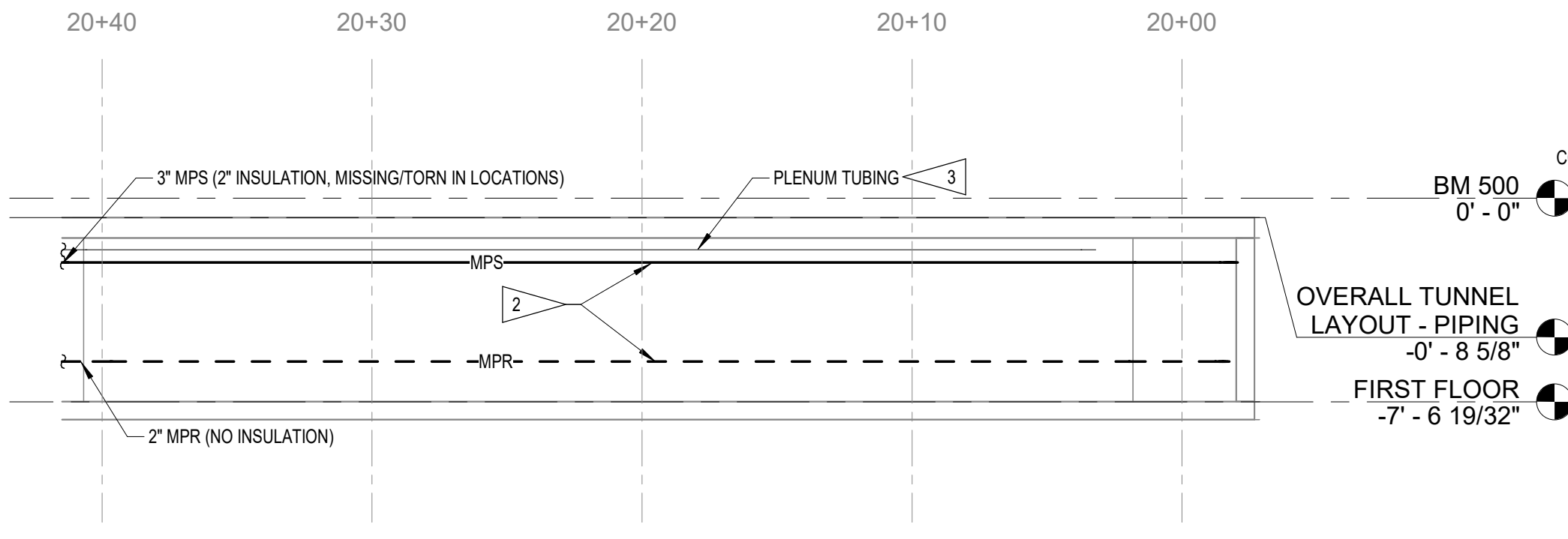
- A. IT IS SUSPECTED THAT THE EXISTING ISOLATION VALVE(S) THAT SUPPLY STEAM AND STEAM CONDENSATE IN THE TUNNEL ARE COMPROMISED AND MAY NOT SHUT ENTIRELY. CONTRACTOR SHALL INCLUDE IN SCOPE ISOLATION OF TUNNEL SYSTEM FROM PLANT AND BUILDINGS TO ALLOW REMOVAL AND REPLACEMENT OF FAULTY VALVES PRIOR TO COMMENCING WORK IN TUNNEL. FIELD VERIFY AND COORDINATE VALVE LOCATIONS WITH OWNER. REPLACE VALVES IN A MANNER TO MINIMIZE DOWNTIME OF SYSTEMS NOT SERVING TUNNEL.

FLAG NOTES

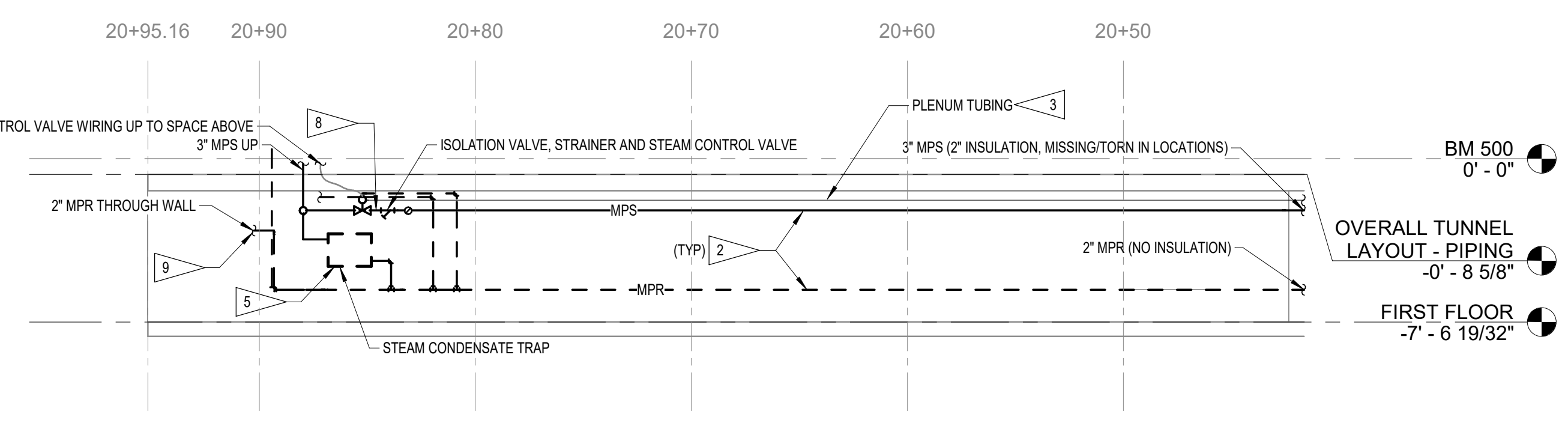
- REMOVE CHILLED WATER PIPING FROM TUNNEL, INCLUDING ALL EXISTING HANGERS AND INSULATION.
- REMOVE EXISTING MPS/MPR PIPING FROM TUNNEL, INCLUDING ALL EXISTING HANGERS AND INSULATION.
- EXISTING PLENUM CONTROL TUBING TO REMAIN, PROTECT DURING CONSTRUCTION.
- EXISTING PIPING CROSSING TUNNEL TO REMAIN AS IS, COVER AND PROTECT DURING CONSTRUCTION.
- REMOVE EXISTING CONDENSATE STEAM TRAP ASSEMBLY AND DOCUMENT LOCATION AND SIZE OF ASSEMBLY FOR NEW ASSEMBLY LOCATION UNDER NEW WORK.
- FIELD VERIFY NEAREST STEAM SUPPLY AND STEAM CONDENSATE RETURN PIPE FITTING CONNECTIONS LOCATED ABOVE FLOOR IN BUILDING ABOVE AND REMOVE ALL PIPING, INCLUDING FITTING, ON TUNNEL SIDE OF CONNECTION. COVER AND PROTECT BUILDING SIDE PIPING CONNECTION FOR EXTENSION UNDER NEW WORK.
- EXISTING PIPING PASSES THROUGH TUNNEL WALL AND UP THROUGH FLOOR AT THIS APPROXIMATE LOCATION. THIS IS ASSUMED TO BE MPR PIPING THAT IS STILL ACTIVE. FIELD VERIFY SIZE AND REMOVE PIPING UP TO TUNNEL LID AND WALL. PROTECT CONNECTIONS AT WALL AND LID FOR EXTENSION AND REPLACEMENT UNDER NEW WORK.
- REMOVE EXISTING CONTROL VALVE, STRAINER AND ISOLATION VALVE ASSEMBLY. VALVE IS NO LONGER OPERATIONAL AND WILL NOT BE REPLACED.
- MPR PIPE THROUGH WALL AT THIS LOCATION IS PREVIOUSLY ABANDONED. REMOVE PIPING UP TO WALL CONNECTION AND CAP AND ABANDON WALL CONNECTION.



1 TUNNEL 2 - 20+00 TO 20+95.16 - PIPING DEMO
 FLOOR PLAN
 3/16" = 1'-0"

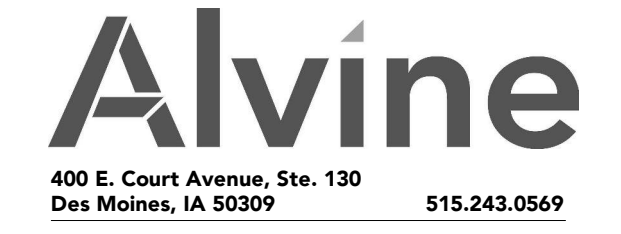


2 TUNNEL 2 - EAST WALL 20+00 TO 20+41.52 - PIPING DEMO ELEVATION
 3/16" = 1'-0"



3 TUNNEL 2 - EAST WALL 20+41.52 TO 20+95.16 - PIPING DEMO ELEVATION
 3/16" = 1'-0"

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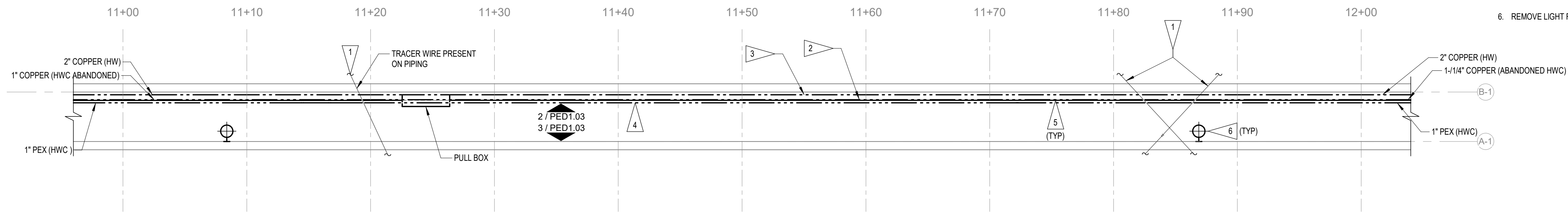
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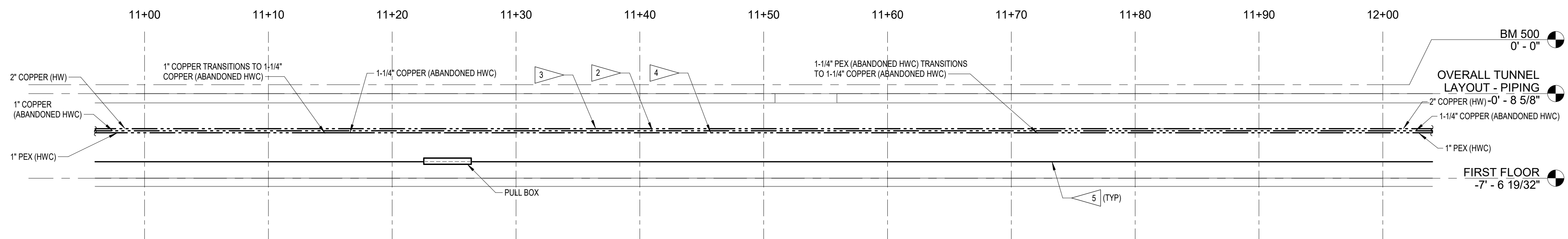
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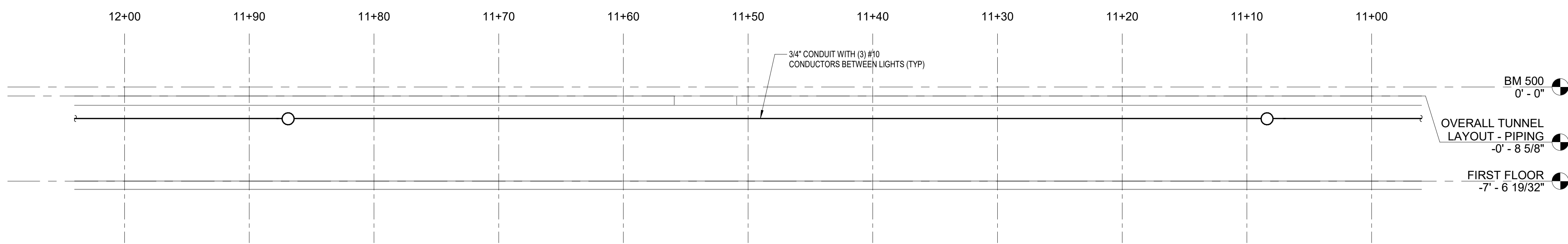
- EXISTING PIPING CROSSING TUNNEL TO REMAIN, COVER AND PROTECT DURING CONSTRUCTION.
- REMOVE EXISTING 1" AND 1-1/4" COPPER LINE (ABANDONED HWC), INSULATION AND HANGERS FROM TUNNEL. COPPER LINE HAS MULTIPLE LOCATIONS THAT WERE REPAIRED PREVIOUSLY WITH PEX PIPE OR OTHER MATERIALS. REMOVE ENTIRE RUN OF PIPING AND INSULATION REGARDLESS OF MATERIAL.
- REMOVE 2" COPPER (HW) PIPING FROM TUNNEL INCLUDING INSULATION AND HANGERS.
- REMOVE 1" PEX (HWC) FROM TUNNEL INCLUDING HANGERS.
- REMOVE 3" CONDUIT WITH (3) 12KV CONDUCTORS, INCLUDING HANGERS AND JUNCTION BOXES.
- REMOVE LIGHT FIXTURES, ASSOCIATED CONDUIT, BOXES, HANGERS AND WIRING.



1 TUNNEL 1 - 11+00 TO 12+00 - PLUMBING & ELECTRICAL DEMO FLOOR PLAN
3/16" = 1'-0"



2 TUNNEL 1 - WEST WALL 11+00 TO 12+00 - PLUMBING & ELECTRICAL DEMO ELEVATION
3/16" = 1'-0"



3 TUNNEL 1 - EAST WALL 11+00 TO 12+00 - PLUMBING & ELECTRICAL DEMO ELEVATION
3/16" = 1'-0"

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SHEET NO.		
PED1.03		



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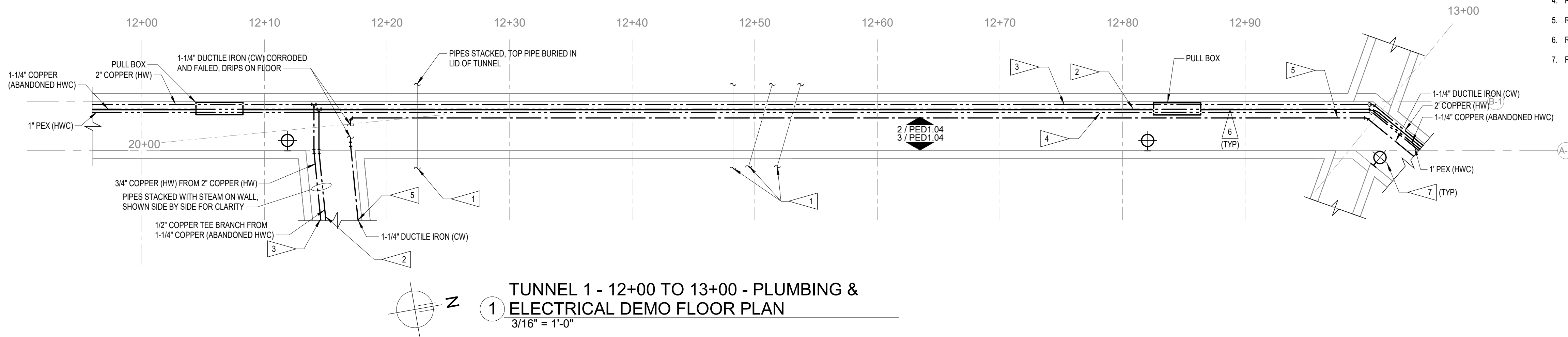
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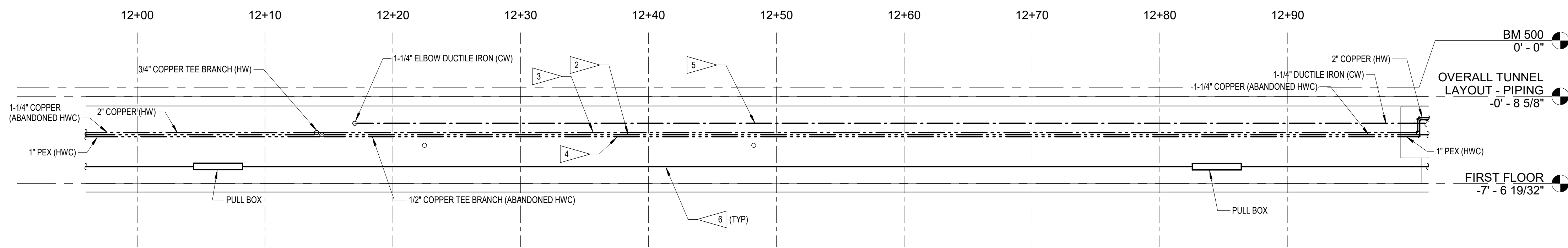
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FLAG NOTES

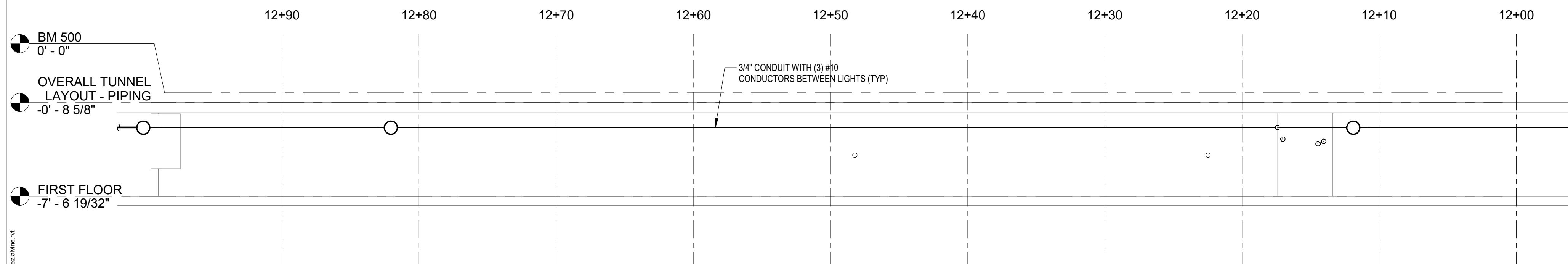
- EXISTING PIPING CROSSING TUNNEL TO REMAIN AS IS, COVER AND PROTECT DURING CONSTRUCTION.
- REMOVE EXISTING COPPER LINE (ABANDONED HWC), INSULATION AND HANGERS FROM TUNNEL. COPPER LINE HAS MULTIPLE LOCATIONS THAT WERE REPAIRED PREVIOUSLY WITH PEX PIPE OR OTHER MATERIALS, REMOVE ENTIRE RUN OF PIPING AND INSULATION REGARDLESS OF MATERIAL.
- REMOVE COPPER (HW) PIPING FROM TUNNEL INCLUDING INSULATION AND HANGERS.
- REMOVE 1" PEX (HWC) FROM TUNNEL INCLUDING HANGERS.
- REMOVE 1-1/4" DUCTILE IRON (CW) PIPING, INCLUDING HANGERS FROM TUNNEL.
- REMOVE 3" CONDUIT WITH (3) 12KV CONDUCTORS, INCLUDING HANGERS AND JUNCTION BOXES.
- REMOVE LIGHT FIXTURES, ASSOCIATED CONDUIT, BOXES, HANGERS AND WIRING.



1 TUNNEL 1 - 12+00 TO 13+00 - PLUMBING & ELECTRICAL DEMO FLOOR PLAN
3/16" = 1'-0"



2 TUNNEL 1 - WEST WALL 12+00 TO 13+00 - PLUMBING & ELECTRICAL DEMO ELEVATION
3/16" = 1'-0"



3 TUNNEL 1 - EAST WALL 12+00 TO 13+00 - PLUMBING & ELECTRICAL DEMO ELEVATION
3/16" = 1'-0"

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Des Moines, IA 50309 515.243.0569

DOC CCF TUNNEL REPAIR / REPLACEMENT MAIN BLDG. SW WING
IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES (DAS)
2000 N 16 ST. CLARINDA, IA 51632

MARK	REVISION	DATE

100% CONSTRUCTION DOCUMENTS

PROJECT NUMBER	125.0278.10
DATE	10/10/2025
SHEET TITLE	TUNNEL PLANS AND ELEVATIONS DEMO
SHEET NO.	PED1.04



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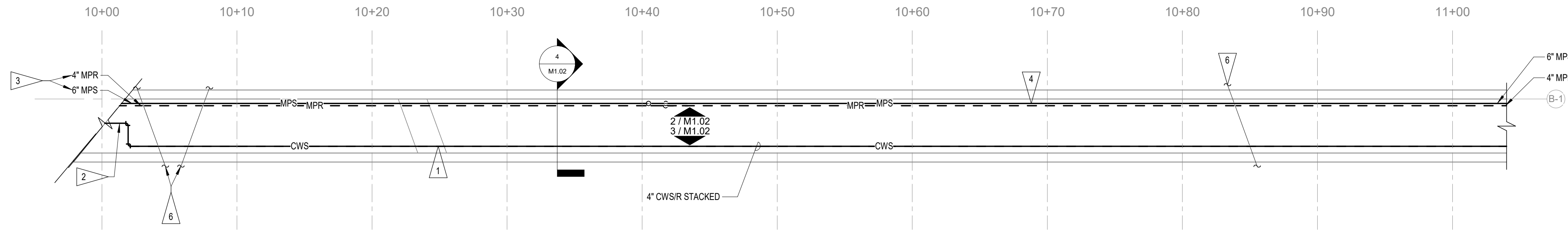
DOC CCF TUNNEL REPAIR / REPLACEMENT MAIN
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GENERAL NOTES

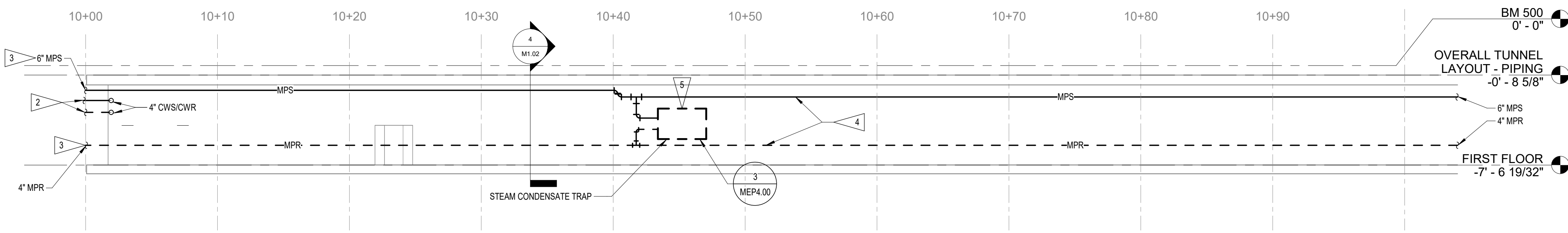
- A. REFER TO STRUCTURAL FOR MAIN PIPE SUPPORTS AT 12' INTERVALS TO BE USED TO SUPPORT NEW SYSTEMS. MECHANICAL CONTRACTOR SHALL COORDINATE WITH PLUMBING CONTRACTOR, ELECTRICAL CONTRACTOR AND STRUCTURAL CONTRACTOR TO DETERMINE EXACT ELEVATION OF PIPE SUPPORTS TO ALLOW ALL SYSTEMS TO COEXIST AND BE ROUTED AT CORRECT SLOPES. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL ADDITIONAL PIPE ATTACHMENTS, SUPPORTS AND HANGERS NECESSARY TO ATTACH TO STRUCTURAL SUPPORTS SHOWN.
- B. IT IS SUSPECTED THAT THE EXISTING ISOLATION VALVE(S) THAT SUPPLY STEAM AND STEAM CONDENSATE IN THE TUNNEL ARE COMPROMISED AND MAY NOT SHUT ENTIRELY. CONTRACTOR SHALL INCLUDE IN SCOPE ISOLATION OF TUNNEL SYSTEM FROM PLANT AND BUILDINGS TO ALLOW REMOVAL AND REPLACEMENT OF FAULTY VALVES PRIOR TO COMMENCING WORK IN TUNNEL. FIELD VERIFY AND COORDINATE VALVE LOCATIONS WITH OWNER. REPLACE VALVES IN A MANNER TO MINIMIZE DOWNTIME OF SYSTEMS NOT SERVING TUNNEL.

FLAG NOTES

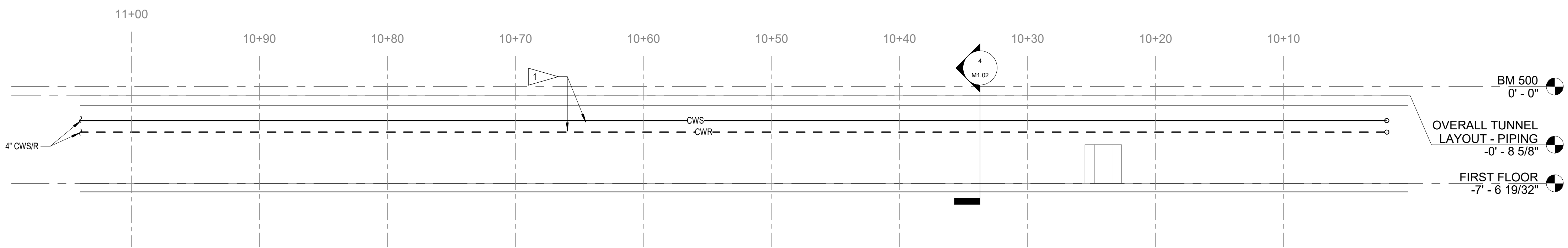
- 1. PROVIDE AND INSTALL NEW CWS/CWR PIPING IN TUNNEL, INCLUDING NEW INSULATION. ROUTE IN SIMILAR MANNER TO PREVIOUS CWS/CWR PIPING THAT WAS REMOVED. PIPING TO BE MOUNTED ON PIPE SUPPORTS AS SHOWN ON STRUCTURAL DRAWINGS. COORDINATE EXACT PLACEMENT, SIZE AND SPACING OF SUPPORTS WITH STRUCTURAL PRIOR TO INSTALLATION.
- 2. MODIFY AND EXTEND EXISTING CWS/CWR BUILDING SIDE CONNECTIONS THAT REMAIN AFTER DEMO WORK IS COMPLETE WITH NEW CWS/CWR PIPING. NEW PIPING TO PASS INTO TUNNEL IN SIMILAR MANNER TO CWS/CWR PIPING THAT WAS REMOVED.
- 3. MODIFY AND EXTEND EXISTING MPS/MPR BUILDING SIDE CONNECTIONS THAT REMAIN AFTER DEMO WORK IS COMPLETE WITH NEW MPS/MPR PIPING. NEW PIPING TO PASS INTO TUNNEL IN SIMILAR MANNER TO MPS/MPR PIPING THAT WAS REMOVED.
- 4. PROVIDE AND INSTALL NEW MPS/MPR PIPING IN TUNNEL, INCLUDING NEW INSULATION. ROUTE IN SIMILAR MANNER TO PREVIOUS MPS/MPR PIPING THAT WAS REMOVED. PIPING TO BE MOUNTED ON PIPE SUPPORTS AS SHOWN ON STRUCTURAL DRAWINGS. COORDINATE EXACT PLACEMENT, SIZE AND SPACING OF SUPPORTS WITH STRUCTURAL PRIOR TO INSTALLATION.
- 5. PROVIDE AND INSTALL NEW STEAM TRAP ASSEMBLY AT APPROXIMATE LOCATION WHERE EXISTING TRAP ASSEMBLY WAS REMOVED. NEW ASSEMBLY SHALL MATCH PIPE SIZING AND CAPACITY OF EXISTING ASSEMBLY THAT WAS REMOVED.
- 6. EXISTING PIPING CROSSING TUNNEL TO REMAIN AS IS, COVER AND PROTECT DURING CONSTRUCTION.



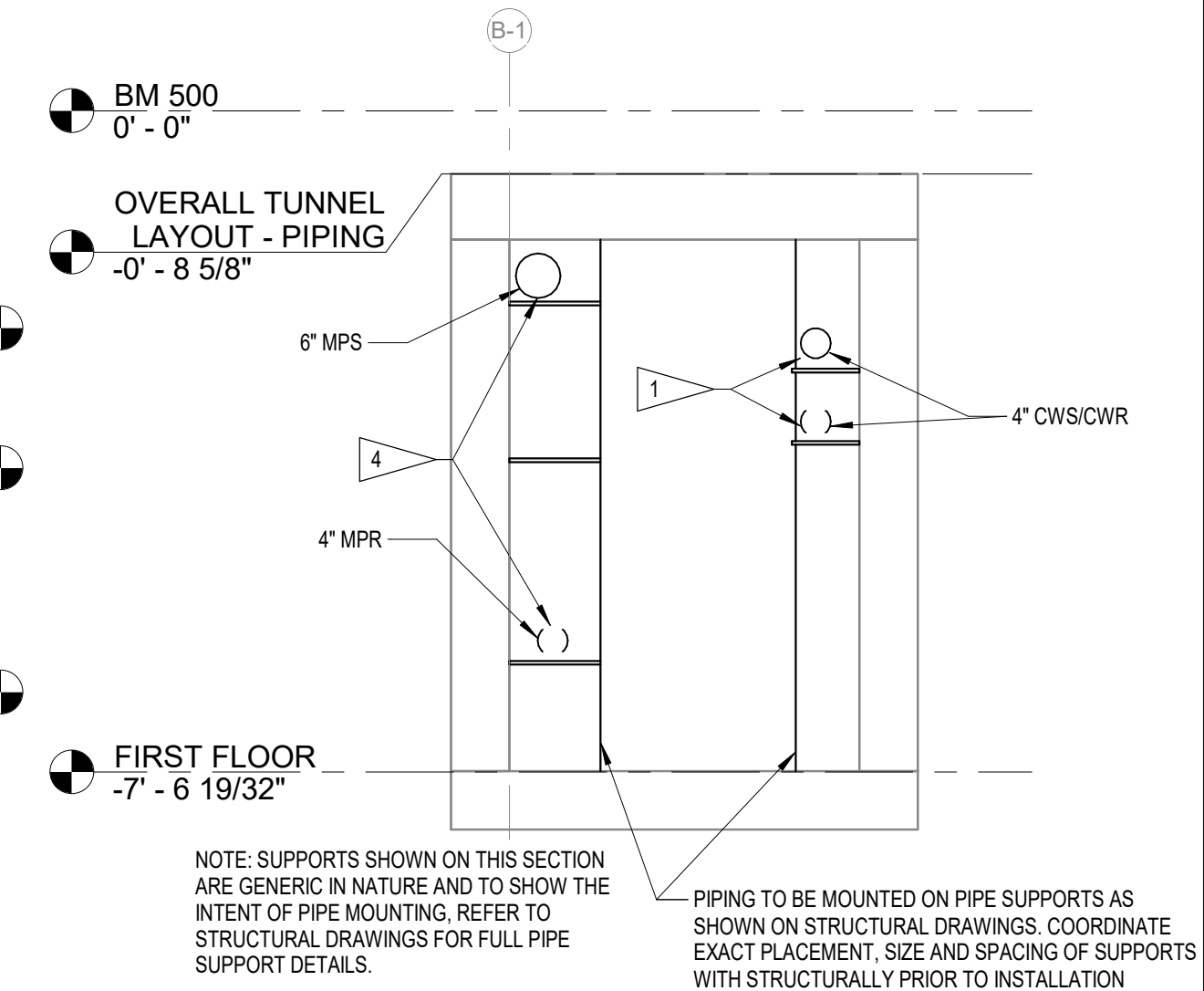
1 TUNNEL 1 - 10+00 TO 11+00 - PIPING FLOOR PLAN
3/16" = 1'-0"



2 TUNNEL 1 - WEST WALL 10+00 TO 11+00 - PIPING ELEVATION
3/16" = 1'-0"



3 TUNNEL 1 - EAST WALL 10+00 TO 11+00 - PIPING ELEVATION
3/16" = 1'-0"



4 TUNNEL 1 - 10+00 TO 11+00 (LOOKING NE) - PIPING SECTION
1/2" = 1'-0"

NOTE: SUPPORTS SHOWN ON THIS SECTION ARE GENERIC IN NATURE AND TO SHOW THE INTENT OF PIPE MOUNTING. REFER TO STRUCTURAL DRAWINGS FOR FULL PIPE SUPPORT DETAILS.
PIPING TO BE MOUNTED ON PIPE SUPPORTS AS SHOWN ON STRUCTURAL DRAWINGS. COORDINATE EXACT PLACEMENT, SIZE AND SPACING OF SUPPORTS WITH STRUCTURALLY PRIOR TO INSTALLATION

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MARK	REVISION	DATE

100% CONSTRUCTION DOCUMENTS

PROJECT NUMBER 125.0278.10

DATE 10/10/2025

SHEET TITLE

TUNNEL PLANS AND ELEVATIONS

SHEET NO.

M1.02



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Project Engineer SNYDER & ASSOCIATES, INC. 231 BENNETT AVE. COUNCIL BLUFFS, IOWA 51503 P: 712-322-3202 www.snyder-associates.com

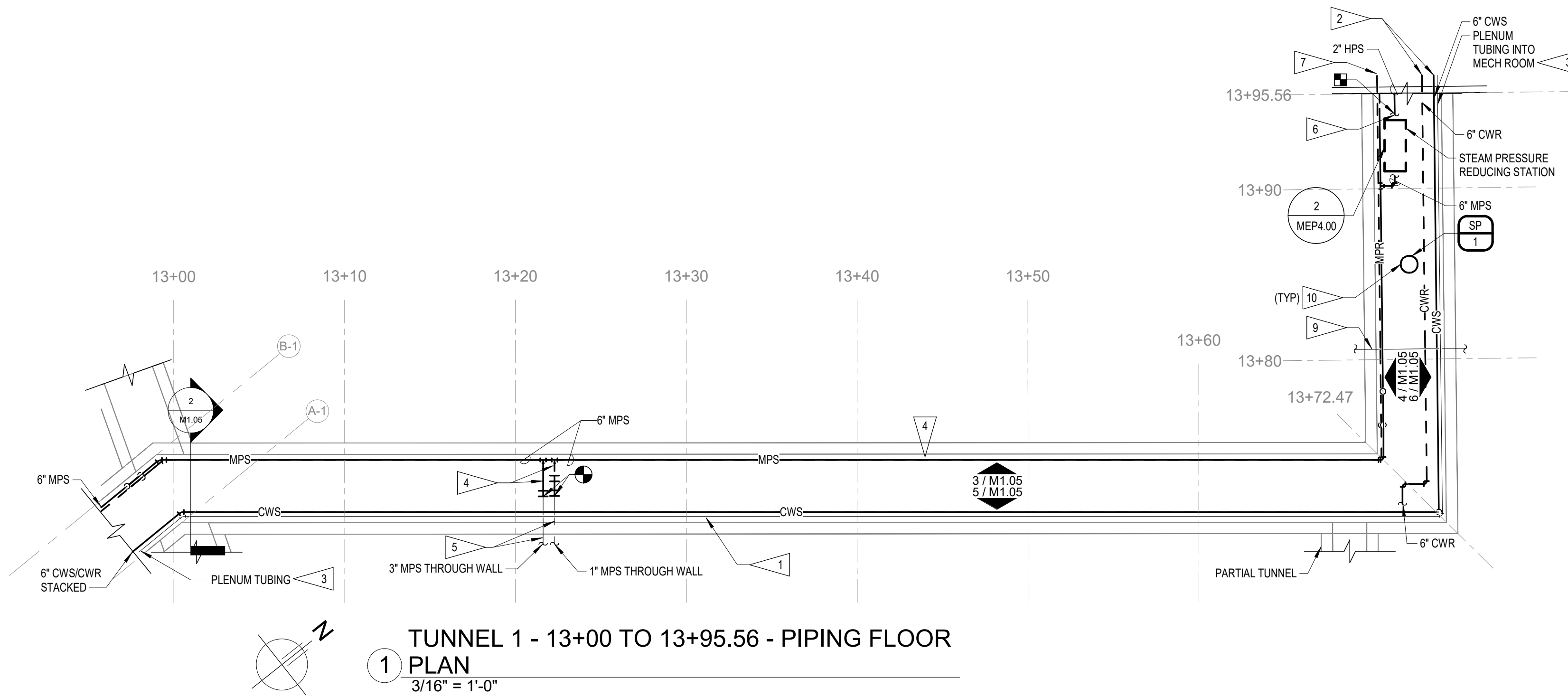
Mechanical, Electrical and Plumbing Engineer ALVINE ENGINEERING 400 E COURT AVE SUITE 130 DES MOINES, IA 50309 www.alvine.com

DOC CCF TUNNEL REPAIR / REPLACEMENT MAIN BLDG. SW WING IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES (DAS) 2000 N 16 ST. CLARINDA, IA 51632

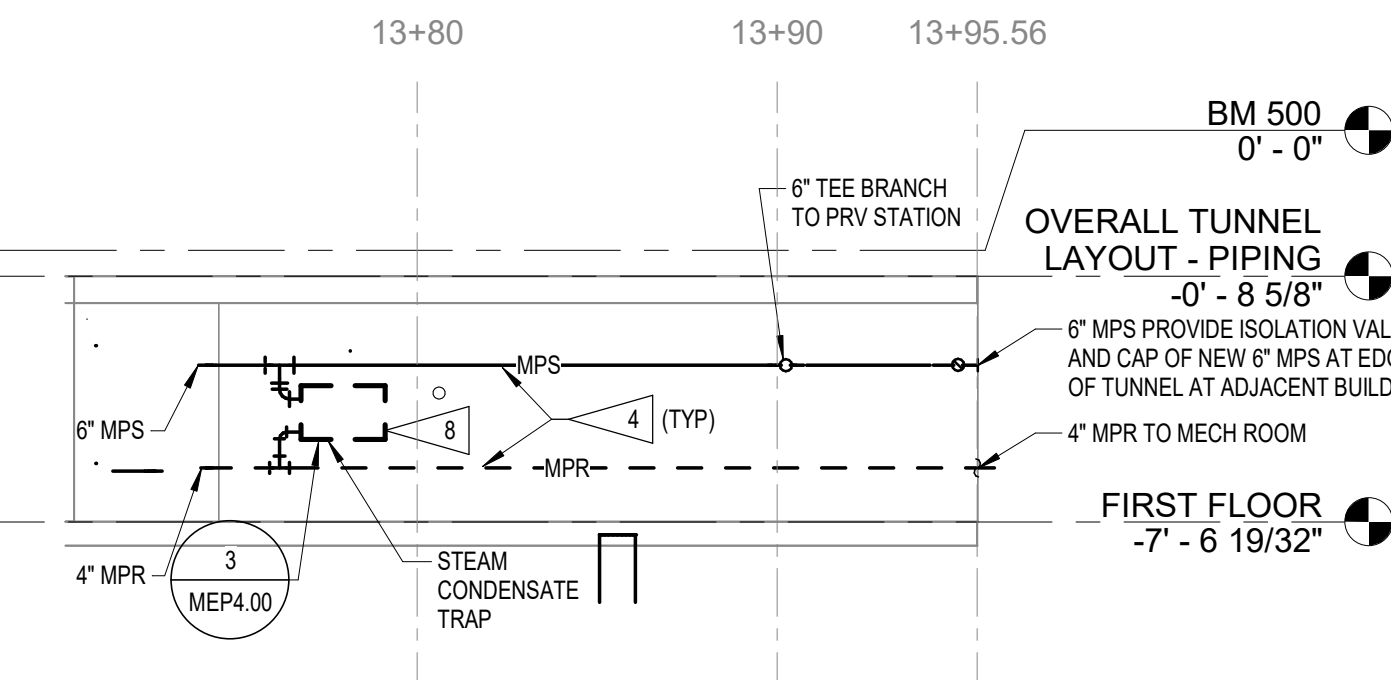
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GENERAL NOTES

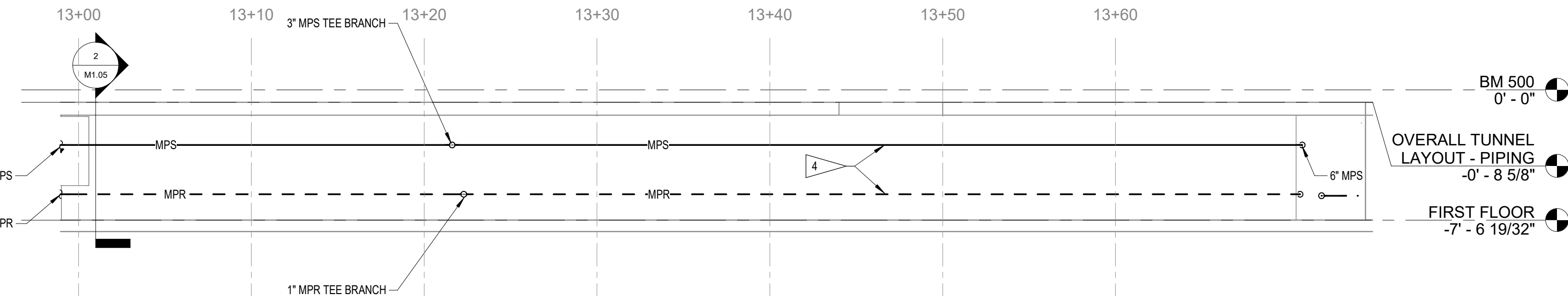
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B. IT IS SUSPECTED THAT THE EXISTING ISOLATION VALVE(S) THAT SUPPLY STEAM AND STEAM CONDENSATE IN THE TUNNEL ARE COMPROMISED AND MAY NOT SHUT ENTIRELY. CONTRACTOR SHALL INCLUDE IN SCOPE ISOLATION OF TUNNEL SYSTEM FROM PLANT AND BUILDINGS TO ALLOW REMOVAL AND REPLACEMENT OF FAULTY VALVES PRIOR TO COMMENCING WORK IN TUNNEL FIELD VERIFY AND COORDINATE VALVE LOCATIONS WITH OWNER. REPLACE VALVES IN A MANNER TO MINIMIZE DOWNTIME OF SYSTEMS NOT SERVING TUNNEL.
FLAG NOTES
1. PROVIDE AND INSTALL NEW CWS/CWR PIPING IN TUNNEL, INCLUDING NEW INSULATION. ROUTE IN SIMILAR MANNER TO PREVIOUS CWS/CWR PIPING THAT WAS REMOVED. PIPING TO BE MOUNTED ON PIPE SUPPORTS AS SHOWN ON STRUCTURAL DRAWINGS. COORDINATE EXACT PLACEMENT, SIZE AND SPACING OF SUPPORTS WITH STRUCTURAL PRIOR TO INSTALLATION.
2. MODIFY AND EXTEND EXISTING CWS/CWR BUILDING SIDE CONNECTIONS THAT REMAIN AFTER DEMO WORK IS COMPLETE WITH NEW CWS/CWR PIPING. NEW PIPING TO PASS INTO TUNNEL IN SIMILAR MANNER TO CWS/CWR PIPING THAT WAS REMOVED.
3. EXISTING PLENUM CONTROL TUBING TO REMAIN, PROTECT DURING CONSTRUCTION.
4. PROVIDE AND INSTALL NEW MPR/MPR PIPING IN TUNNEL, INCLUDING NEW HANGERS AND NEW INSULATION. ROUTE IN SIMILAR MANNER TO PREVIOUS MPR/MPR PIPING THAT WAS REMOVED. PIPING TO BE MOUNTED ON PIPE SUPPORTS AS SHOWN ON STRUCTURAL DRAWINGS. COORDINATE EXACT PLACEMENT, SIZE AND SPACING OF SUPPORTS WITH STRUCTURAL PRIOR TO INSTALLATION.
5. CONNECT NEW MPR/MPR PIPING TO EXISTING THROUGH WALL PIPING STUB THAT REMAINS AFTER DEMO WORK IS COMPLETE. MODIFY AND EXTEND EXISTING CONNECTION AS REQUIRED FOR NEW WORK.
6. PROVIDE AND INSTALL NEW PRV STATION AT APPROXIMATE LOCATION WHERE EXISTING PRV STATION WAS REMOVED. NEW STATION SHALL MATCH SIZING AND CAPACITY OF EXISTING STATION THAT WAS REMOVED. EXTEND AND MODIFY EXISTING CONTROL WIRING, CONTROL TUBING AND ALL CONTROL APPURTENANCES TO NEW PRV STATION. MODIFY AND EXTEND EXISTING MPR BUILDING SIDE CONNECTION THAT REMAINS AFTER DEMO WORK IS COMPLETE WITH NEW MPR PIPING. NEW PIPING TO PASS INTO TUNNEL IN SIMILAR MANNER TO MPR PIPING THAT WAS REMOVED.
7. MODIFY AND EXTEND EXISTING MPR BUILDING SIDE CONNECTION THAT REMAINS AFTER DEMO WORK IS COMPLETE WITH NEW MPR PIPING. NEW PIPING TO PASS INTO TUNNEL IN SIMILAR MANNER TO MPR PIPING THAT WAS REMOVED.
8. PROVIDE AND INSTALL NEW STEAM TRAP ASSEMBLY AT APPROXIMATE LOCATION WHERE EXISTING TRAP ASSEMBLY WAS REMOVED. NEW ASSEMBLY SHALL MATCH PIPE SIZING AND CAPACITY OF EXISTING ASSEMBLY THAT WAS REMOVED.
9. EXISTING PIPING CROSSING TUNNEL TO REMAIN AS IS, COVER AND PROTECT DURING CONSTRUCTION.
10. COORDINATE ROUTING OF PIPES IN THIS AREA TO ALLOW CLEAR SPACE FOR NEW SUMP PUMP AND PIT IN THIS APPROXIMATE LOCATION. PIPES SHOULD BE ROUTED IN A MANNER TO ALLOW PROPER ACCESS TO SUMP. REFER TO PLUMBING AND STRUCTURAL PLANS.



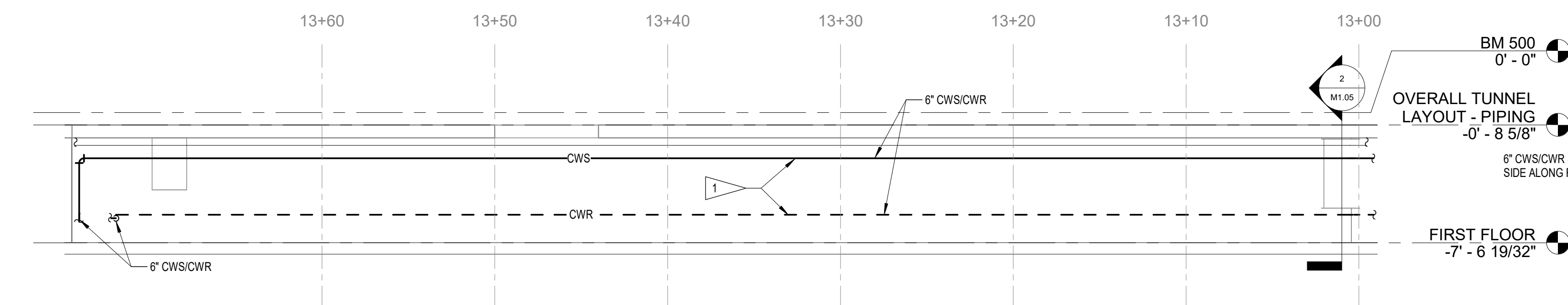
TUNNEL 1 - 13+00 TO 13+40 (LOOKING EAST) - PIPING SECTION. 1/2\"/>



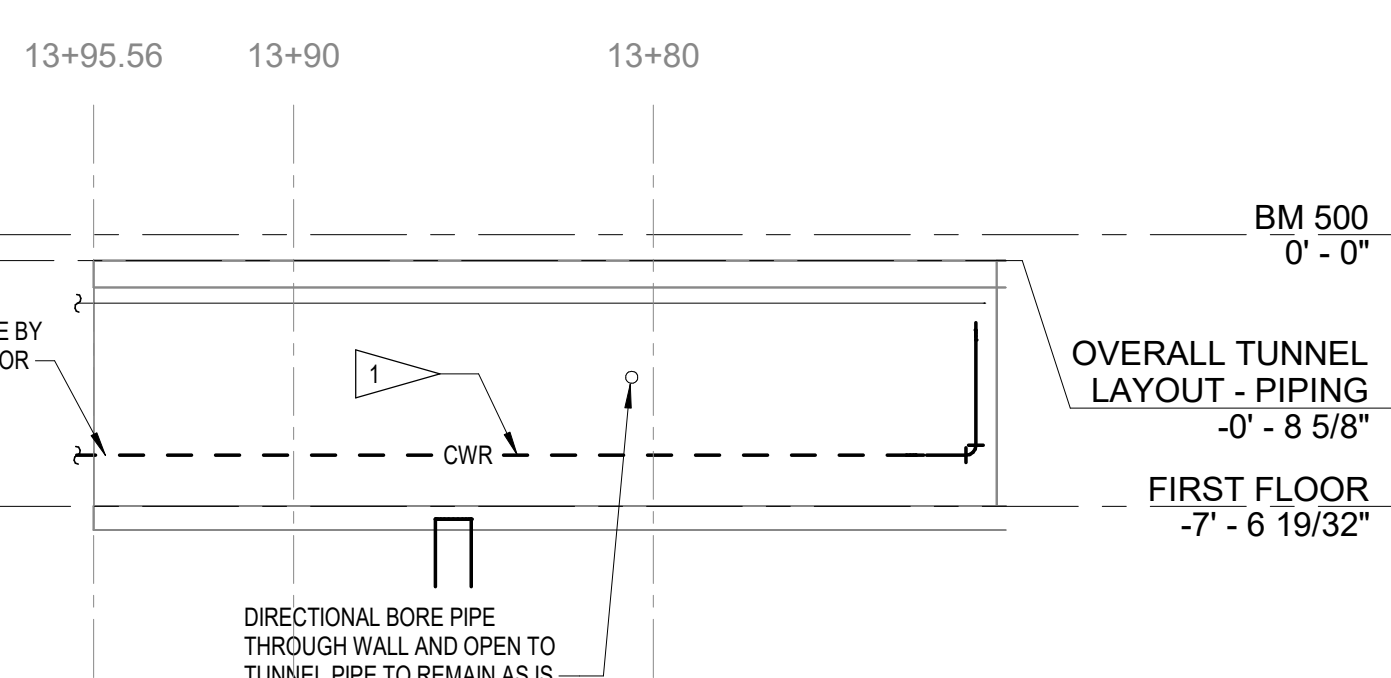
TUNNEL 1 - WEST WALL 13+72.47 TO 13+95.56 - PIPING ELEVATION. 3/16\"/>



TUNNEL 1 - WEST WALL 13+00 TO 13+72.47 - PIPING ELEVATION. 3/16\"/>



TUNNEL 1 - EAST WALL 13+00 TO 13+72.47 - PIPING ELEVATION. 3/16\"/>



TUNNEL 1 - EAST WALL 13+72.47 TO 13+95.56 - PIPING ELEVATION. 3/16\"/>

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PICTURE 1
NO SCALE

1
M3.01



PICTURE 2
NO SCALE

2
M3.01



PICTURE 3
NO SCALE

3
M3.01



PICTURE 4
NO SCALE

4
M3.01



PICTURE 5
NO SCALE

5
M3.01



PICTURE 6
NO SCALE

6
M3.01

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MARK	REVISION	DATE

100% CONSTRUCTION DOCUMENTS

PROJECT NUMBER 125.0278.10

DATE 10/10/2025

SHEET TITLE

PICTURES

SHEET NO.

M3.01



PICTURE 7

NO SCALE

2
M3.02



PICTURE 8

NO SCALE

3
M3.02



PICTURE 9

NO SCALE

4
M3.02



PICTURE 10

NO SCALE

5
M3.02



PICTURE 11

NO SCALE

6
M3.02



PICTURE 12

NO SCALE

1
M3.02

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BLDG. SW WING**
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MARK	REVISION	DATE

100% CONSTRUCTION DOCUMENTS

PROJECT NUMBER 125.0278.10

DATE 10/10/2025

SHEET TITLE

PICTURES

SHEET NO.

M3.02



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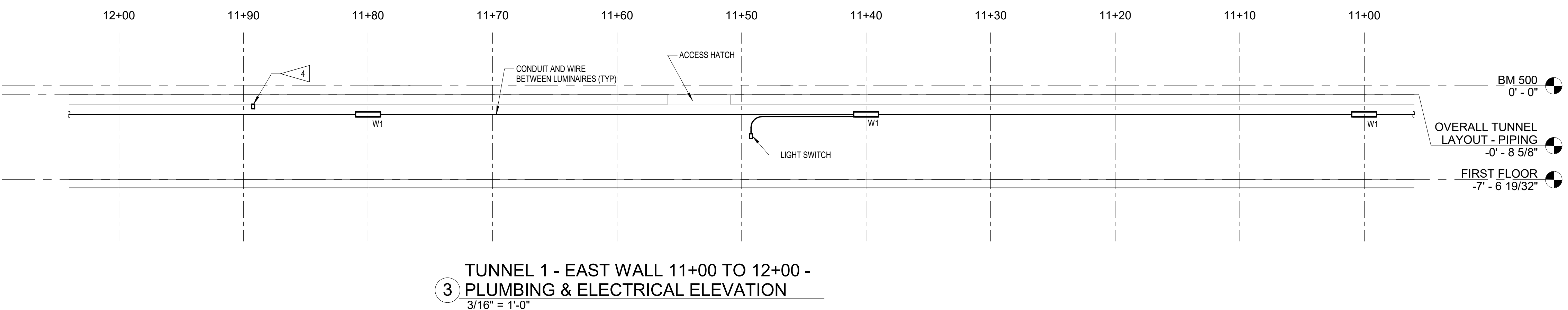
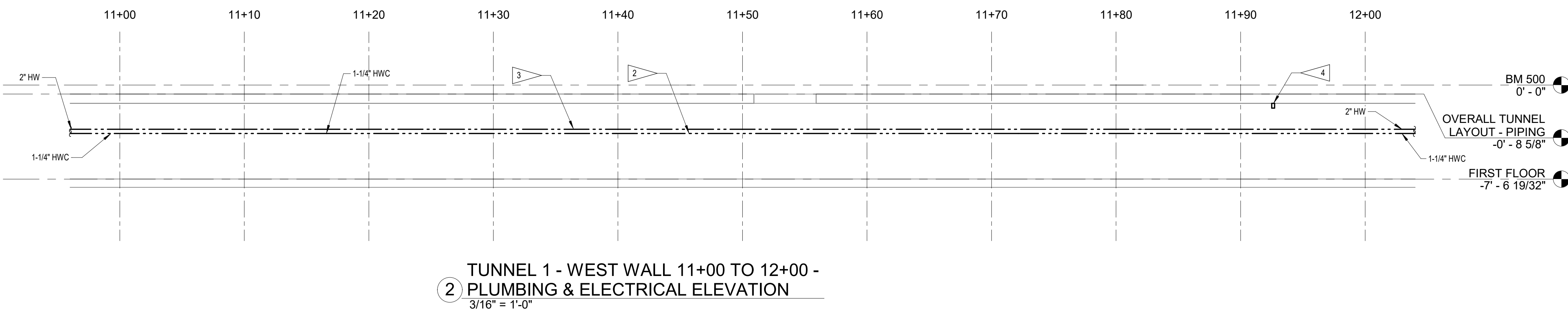
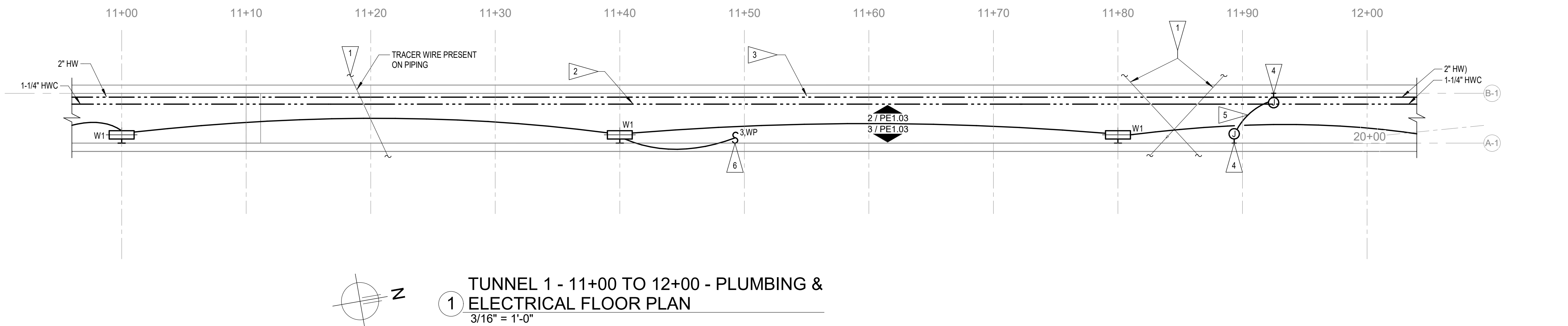
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BLDG. SW WING
IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES (DAS)
2000 N 16 ST. CLARINDA, IA 51632

GENERAL NOTES

- A. ALL NEW PLUMBING PIPING TO BE SCHEDULE 80 CPVC RATED FOR DOMESTIC HOT WATER AND COLD WATER SYSTEMS. PROVIDE APPROPRIATE TRANSITION FITTINGS AT LOCATIONS WHERE CONNECTING TO EXISTING PIPING SYSTEMS OF DISSIMILAR MATERIALS.
- B. REFER TO STRUCTURAL FOR MAIN PIPE SUPPORTS AT 12' INTERVALS TO BE USED TO SUPPORT NEW SYSTEMS. PLUMBING CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR AND STRUCTURAL CONTRACTOR TO DETERMINE EXACT ELEVATION OF PIPE SUPPORTS TO ALLOW ALL SYSTEMS TO COEXIST AND BE ROUTED AT CORRECT SLOPES. PLUMBING CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL ADDITIONAL PIPE ATTACHMENTS, SUPPORTS AND HANGERS NECESSARY TO ATTACH TO STRUCTURAL SUPPORTS SHOWN.
- C. MAIN STRUCTURAL PIPE SUPPORTS ARE LOCATED EVERY 12', REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION. PLUMBING PIPING WILL REQUIRE ADDITIONAL WALL SUPPORTS BETWEEN THESE MAIN SUPPORTS AT MAXIMUM 6' INTERVALS. PLUMBING CONTRACTOR SHALL COORDINATE EXACT PLACEMENT OF PLUMBING PIPING ON MAIN STRUCTURAL SUPPORTS TO ALLOW INTERMEDIATE INSTALLATION OF STAND ALONE WALL SUPPORTS WHERE REQUIRED BETWEEN MAIN STRUCTURAL SUPPORT LOCATIONS. PROVIDE ALL HANGER AND ATTACHMENTS NECESSARY TO PROPERLY SUPPORT SYSTEMS.

FLAG NOTES

- 1. EXISTING PIPING CROSSING TUNNEL TO REMAIN, COVER AND PROTECT DURING CONSTRUCTION.
- 2. PROVIDE AND INSTALL NEW HWC PIPING IN TUNNEL, INCLUDING NEW HANGERS AND NEW INSULATION. ROUTE IN SIMILAR MANNER TO PREVIOUS HW PIPING THAT WAS REMOVED.
- 3. PROVIDE AND INSTALL NEW HW PIPING IN TUNNEL, INCLUDING NEW HANGERS AND NEW INSULATION. ROUTE IN SIMILAR MANNER TO PREVIOUS HW PIPING THAT WAS REMOVED.
- 4. INSTALL NEW JUNCTION BOX ON WALL WHERE EXISTING CONDUIT ENTERS/EXITS TUNNEL WALL.
- 5. INSTALL (3) #10 CONDUCTORS IN 3/4" CONDUIT BETWEEN JUNCTION BOXES. CONNECT NEW CONDUCTORS TO EXISTING CONDUCTORS ENTERING/EXITING THE TUNNEL WALL.
- 6. NEW SWITCH FOR CONTROL OF LIGHTS IN MAIN TUNNEL. FIELD COORDINATE EXACT LOCATION TO BE ON WALL NEAR TUNNEL ID.



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MARK	REVISION	DATE

100% CONSTRUCTION DOCUMENTS
PROJECT NUMBER 125.0278.10
DATE 10/10/2025
SHEET TITLE
TUNNEL PLANS AND ELEVATIONS
SHEET NO.
PE1.03



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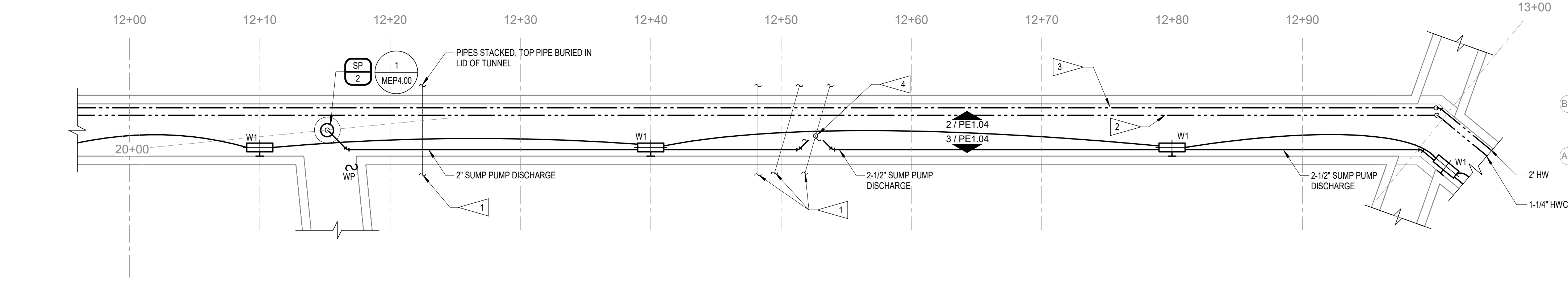
DOC CCF TUNNEL REPAIR / REPLACEMENT MAIN
BLDG. SW WING
IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES (DAS)
2000 N 16 ST. CLARINDA, IA 51632

GENERAL NOTES

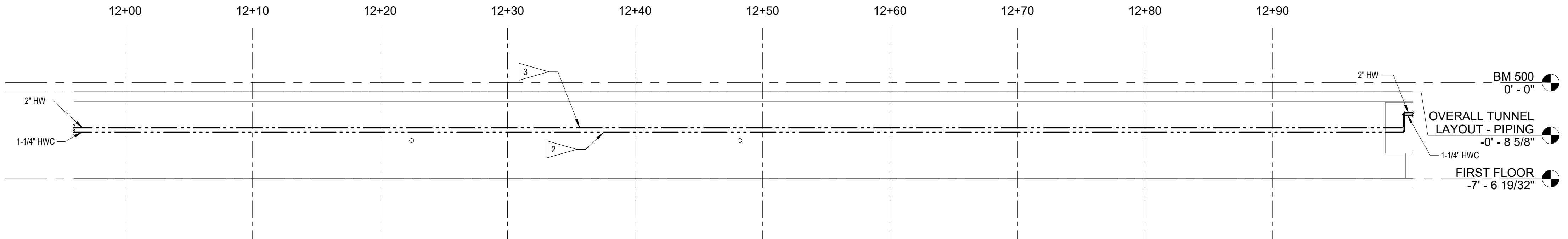
- A. ALL NEW PLUMBING PIPING TO BE SCHEDULE 80 CPVC RATED FOR DOMESTIC HOT WATER AND COLD WATER SYSTEMS. PROVIDE APPROPRIATE TRANSITION FITTINGS AT LOCATIONS WHERE CONNECTING TO EXISTING PIPING SYSTEMS OF DISSIMILAR MATERIALS.
- B. REFER TO STRUCTURAL FOR MAIN PIPE SUPPORTS AT 12' INTERVALS TO BE USED TO SUPPORT NEW SYSTEMS. PLUMBING CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR, ELECTRICAL CONTRACTOR AND STRUCTURAL CONTRACTOR TO DETERMINE EXACT ELEVATION OF PIPE SUPPORTS TO ALLOW ALL SYSTEMS TO COEXIST AND BE ROUTED AT CORRECT SLOPES. PLUMBING CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL ADDITIONAL PIPE ATTACHMENTS, SUPPORTS AND HANGERS NECESSARY TO ATTACH TO STRUCTURAL SUPPORTS SHOWN.
- C. MAIN STRUCTURAL PIPE SUPPORTS ARE LOCATED EVERY 12'. REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION. PLUMBING PIPING WILL REQUIRE ADDITIONAL WALL SUPPORTS BETWEEN THESE MAIN SUPPORTS AT MAXIMUM 6' INTERVALS. PLUMBING CONTRACTOR SHALL COORDINATE EXACT PLACEMENT OF PLUMBING PIPING ON MAIN STRUCTURAL SUPPORTS TO ALLOW INTERMEDIATE INSTALLATION OF STAND ALONE WALL SUPPORTS WHERE REQUIRED BETWEEN MAIN STRUCTURAL SUPPORT LOCATIONS. PROVIDE ALL HANGER AND ATTACHMENTS NECESSARY TO PROPERLY SUPPORT SYSTEMS.

FLAG NOTES

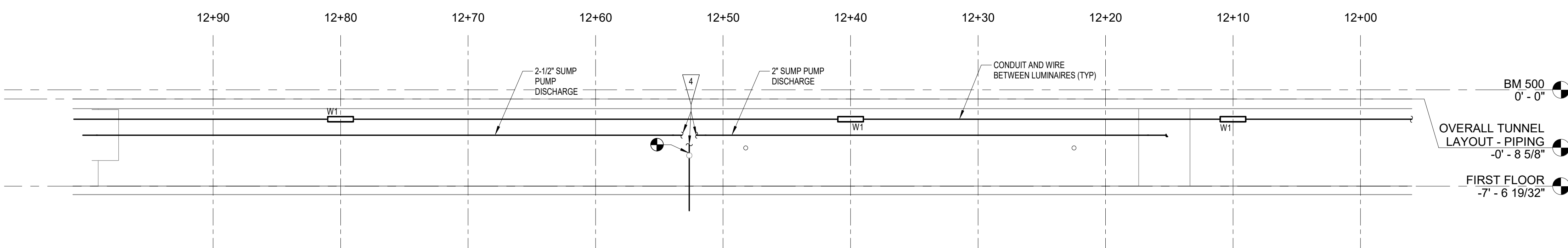
- 1. EXISTING PIPING CROSSING TUNNEL TO REMAIN, COVER AND PROTECT DURING CONSTRUCTION.
- 2. PROVIDE AND INSTALL NEW HWC PIPING IN TUNNEL, INCLUDING NEW HANGERS AND NEW INSULATION. ROUTE IN SIMILAR MANNER TO PREVIOUS HW PIPING THAT WAS REMOVED.
- 3. PROVIDE AND INSTALL NEW HW PIPING IN TUNNEL, INCLUDING NEW HANGERS AND NEW INSULATION. ROUTE IN SIMILAR MANNER TO PREVIOUS HW PIPING THAT WAS REMOVED.
- 4. PROVIDE 3" DIAMETER STANDPIPE TIED INTO TOP OF EXISTING 4" STORM LINE CROSSING TUNNEL. NEW 3" STANDPIPE SHALL MATCH MATERIAL OF EXISTING STORM PIPING CROSSING TUNNEL. PROVIDE MINIMUM 18" TALL STANDPIPE TO ACCEPT DISCHARGE FROM SP-1 AND SP-2. CONNECT EACH SUMP DISCHARGE PIPING TO STAND PIPE SEPARATELY.



1 TUNNEL 1 - 12+00 TO 13+00 - PLUMBING & ELECTRICAL FLOOR PLAN
3/16" = 1'-0"



2 TUNNEL 1 - WEST WALL 12+00 TO 13+00 - PLUMBING & ELECTRICAL ELEVATION
3/16" = 1'-0"



3 TUNNEL 1 - EAST WALL 12+00 TO 13+00 - PLUMBING & ELECTRICAL ELEVATION
3/16" = 1'-0"

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Alvine
400 E. Court Avenue, Ste. 130
Des Moines, IA 50309 515.243.0569

MARK	REVISION	DATE

100% CONSTRUCTION DOCUMENTS
PROJECT NUMBER 125.0278.10
DATE 10/10/2025
SHEET TITLE
TUNNEL PLANS AND ELEVATIONS
SHEET NO.
PE1.04

LUMINAIRE SCHEDULE													
MARK	DESCRIPTION	MANUFACTURER	CATALOG NO.	SOURCE DATA			DIMMING PROTOCOL	COLOR TEMP (K)	VOLTAGE	MOUNTING	FINISH	ALTERNATE MANUFACTURER	REMARKS
				LUMENS	LOAD (VA)	PER FOOT							
W1	2'-0" LOW PROFILE ENCLOSED AND GASKETED VAPOR TIGHT, FIBERGLASS HOUSING, WET LOCATION, IMPACT RESISTANT FROSTED ACRYLIC LENS, WIDE DISTRIBUTION, 80 CRI	LITHONIA	FEM	3000	20		0-10 V	4000	120 V	SURFACE, WALL	WHITE		

- GENERAL NOTES
- SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
 - CONTRACTOR TO VERIFY LUMINAIRE CATALOG NUMBER AND INSTALLATION REQUIREMENTS PRIOR TO ORDERING.
 - LUMINAIRE MARKS WITH THE LETTER "E" SUFFIX SHALL BE PROVIDED WITH AN EMERGENCY BATTERY PACK.
 - LUMINAIRE MARKS WITH THE LETTER "S" SUFFIX SHALL BE PROVIDED WITH INTEGRAL SENSOR(S).
 - LISTED ALTERNATE MANUFACTURERS ARE PERMITTED TO BID AN EQUIVALENT LUMINAIRE WHICH COMPLIES WITH THE PRODUCT REQUIREMENTS IDENTIFIED IN THIS SCHEDULE AND THE SPECIFICATIONS WITHOUT SUBMITTING A PRIOR APPROVAL REQUEST. ALTERNATE LUMINAIRE WILL BE REVIEWED DURING THE SUBMITTAL PROCESS AND THE MANUFACTURER WILL BE RESPONSIBLE TO PROVIDE A LUMINAIRE WHICH MEETS THE PRODUCT REQUIREMENTS.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE THE SPECIFIED LUMINAIRE DEFINED WITHIN THIS SCHEDULE AND ASSOCIATED CONTRACT DOCUMENTS. IF REQUIRED, THE ELECTRICAL CONTRACTOR MAY UTILIZE MULTIPLE DISTRIBUTORS AND/OR DISTRIBUTORS MAY UTILIZE MULTIPLE LIGHTING MANUFACTURER REPRESENTATIVES TO COMPLY WITH THE CONTRACT DOCUMENTS FOR THIS PROJECT.

MECHANICAL / ELECTRICAL COORINATION SCHEDULE															
ABBREVIATIONS:															
A	AMPS	C	COMBINATION STARTER AND SAFETY SWITCH	S	SWITCH	N1	NEMA 1			SF	SWITCH AND FUSTAT	N3R	NEMA 3R		
ENCL	ENCLOSURE	CB	CIRCUIT BREAKER	SS	SAFETY SWITCH	N4X	NEMA 4X			T	LINE VOLTAGE THERMOSTAT				
HP	HORSEPOWER	CP	CONTROL PANEL	VFC	VARIABLE FREQUENCY CONTROLLER	SCCR	SHORT CIRCUIT CURRENT RATING								
KW	KILOWATTS	C+P	CORD AND PLUG	EC	ELECTRICAL CONTRACTOR										
PH	PHASE	I	INTEGRAL WITH EQUIPMENT	MC	MECHANICAL CONTRACTOR										
V	VOLTAGE	NF	NON-FUSED												
W	WATTS	OS	OCCUPANCY SENSOR												

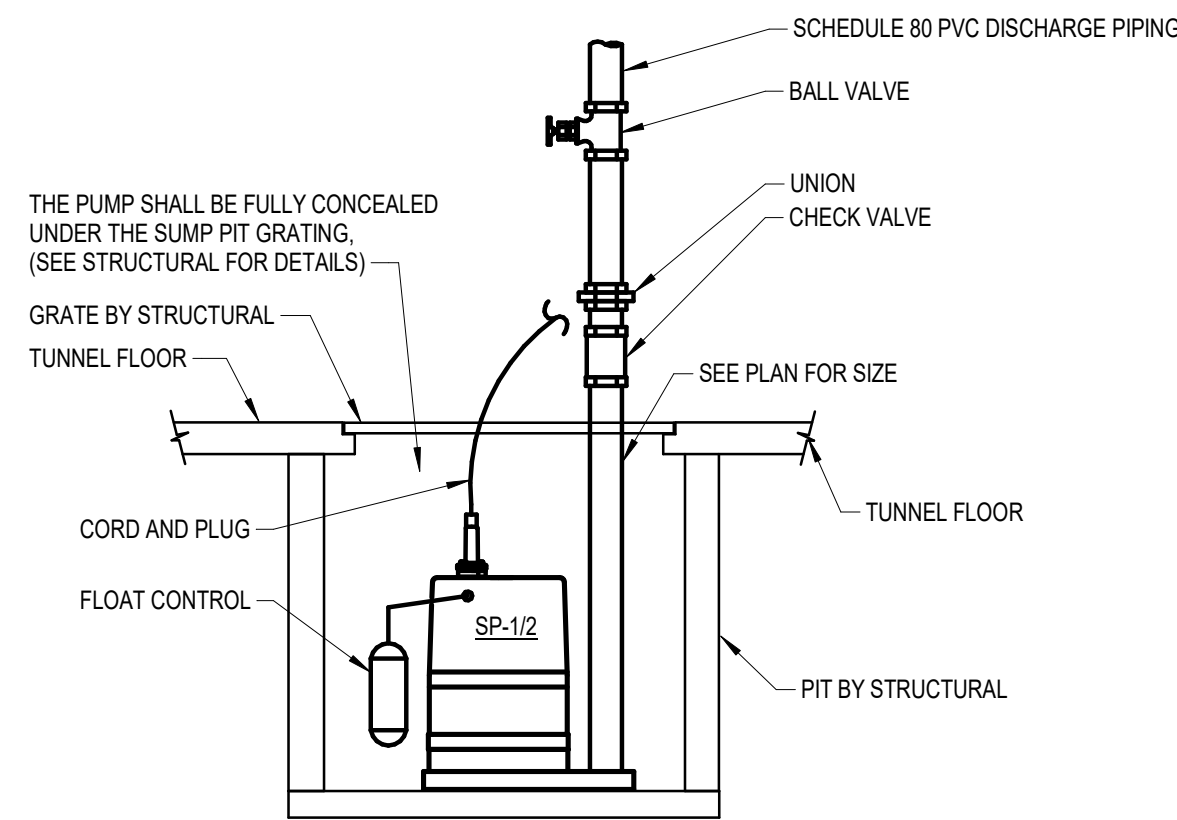
MARK	DESCRIPTION	LOAD	V	PH	ELECTRICAL SYSTEM			DISCONNECT			LINE VOLTAGE CONTROLLER			AVAILABLE FAULT CURRENT (AMPS)	REMARKS
					FEEDER OR BRANCH CIRCUIT	PANEL - CIRCUIT	FURNISHED BY/ INSTALLED BY	TYPE	RATING (AMPS)	ENCL	FURNISHED BY/ INSTALLED BY	TYPE	ENCL		
SP-1	SUMP PUMP	1/2 HP	120 V	1	2 - #12, 1 - #12 GND, IN 3/4" C	BP	EC/EC	C+P	20	N3R	MCI-	-	-	-	1
SP-2	SUMP PUMP	1/2 HP	120 V	1	2 - #8, 1 - #8 GND, IN 1" C	BP	EC/EC	C+P	20	N3R	MCI-	-	-	-	1

- GENERAL NOTES
- VERIFY/COORDINATE RATINGS FOR EQUIPMENT SUPPLIED BY THE SELECTED MANUFACTURER. WHERE RATINGS ARE OTHER THAN AS REQUIRED FOR SPECIFIED UNIT, DISCONNECTS, MOTOR STARTERS, OVERCURRENT DEVICES AND RELATED REVISIONS SHALL BE PROVIDED ACCORDINGLY. THE CONTRACTOR THAT FURNISHES EQUIPMENT WITH RATINGS OTHER THAN AS NOTED SHALL BE RESPONSIBLE FOR COORDINATION AND COSTS FOR REVISIONS TO ACCOMMODATE SELECTED EQUIPMENT.
 - SHORT CIRCUIT CURRENT RATING (SCCR) OF EQUIPMENT SHALL BE EQUAL TO OR GREATER THAN THE AVAILABLE FAULT CURRENT LISTED. SHORT CIRCUIT CURRENT RATING APPLIES TO EQUIPMENT AND DISCONNECT.
 - FRACTIONAL HORSEPOWER SINGLE PHASE MOTORS SHALL BE PROVIDED WITH INTEGRAL OVERLOAD PROTECTION.
 - DISCONNECTS SHALL BE FUSIBLE UNLESS NOTED OTHERWISE.
 - ELECTRICAL CONTRACTOR SHALL PROVIDE CIRCUIT TO EQUIPMENT AS INDICATED.
 - WHERE DISCONNECT IS NOT INDICATED ON PLANS, LOCATE AT EQUIPMENT PER NEC.
 - EQUIPMENT IDs THAT END IN ".X" INDICATE THAT THERE ARE MULTIPLE UNITS THAT ARE IDENTICAL AND PROVIDED ON THE PROJECT. SEE PLANS FOR THE UNIQUE SEQUENTIAL DESIGNATION.

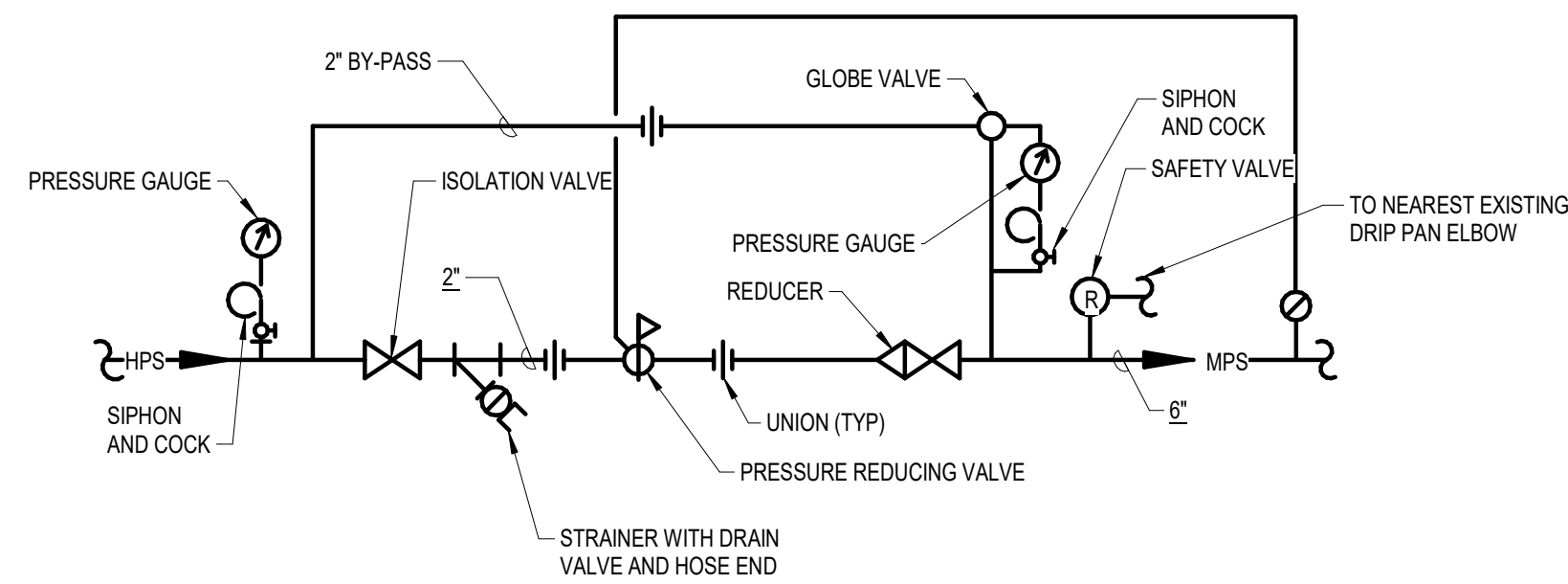
- REMARKS
- CONNECT TO NEW 20/1 BREAKER IN PANEL INDICATED. PANEL IS LOCATED ON 2ND FLOOR OF THE PLANT APPROXIMATELY 100' BEYOND THE 13+95.56 TUNNEL MARKER. NEW BREAKERS TO MATCH TYPE AND AIC RATING OF EXISTING BREAKERS.

PLUMBING PUMP SCHEDULE												
MARK	SERVES	LOCATION	TYPE	FLOW (GPM)	TOTAL HEAD (FT)	MAX FLUID TEMP (F)	HP	MAX RPM	MANUFACTURER	MODEL	REFERENCE SPECIFICATION	REMARKS
SP-1/SP-2	SUMP PIT	SEE PLANS	SUBMERSIBLE	50	17	130	1/2	1750	ZOELLER	282	22 1429	1, 2

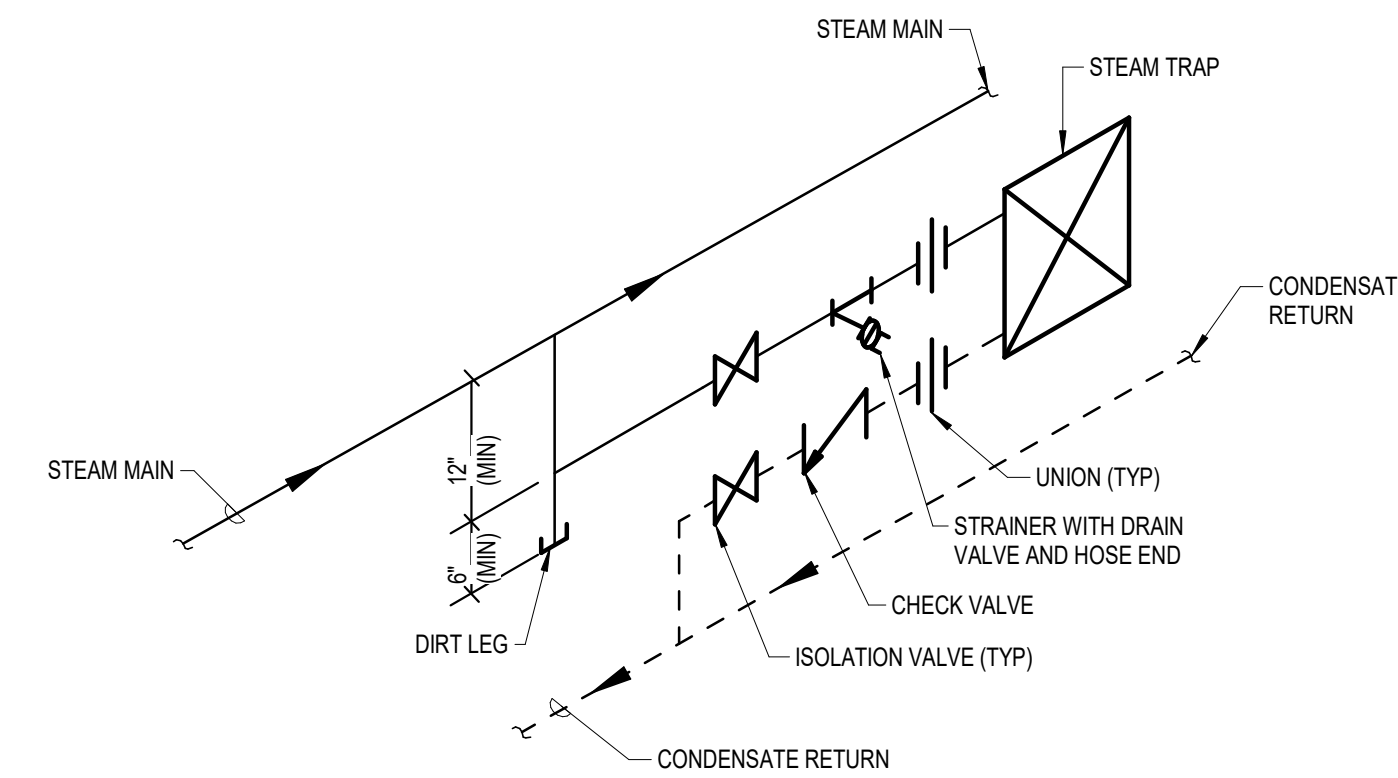
- REMARKS:
- SEE MECHANICAL/ELECTRICAL COORDINATION SCHEDULE ON SHEET MEP4.00 FOR ELECTRICAL DATA
 - PROVIDE WITH FACTORY FLOAT AND AUTOMATIC OPERATION.



1 SUMP PUMP
MEP4.00 NO SCALE
Std. 06/27/2023



2 STEAM PRESSURE REDUCING STATION
MEP4.00 NO SCALE
Std. 03/16/2022



3 TRAP AT STEAM MAIN
MEP4.00 NO SCALE
Std. 03/16/2022

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100% CONSTRUCTION DOCUMENTS
PROJECT NUMBER 125.0278.10
DATE 10/10/2025
SHEET TITLE
MECHANICAL ELECTRICAL & PLUMBING SCHEDULES & DETAILS
SHEET NO.
MEP4.00

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BLDG. SW WING
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