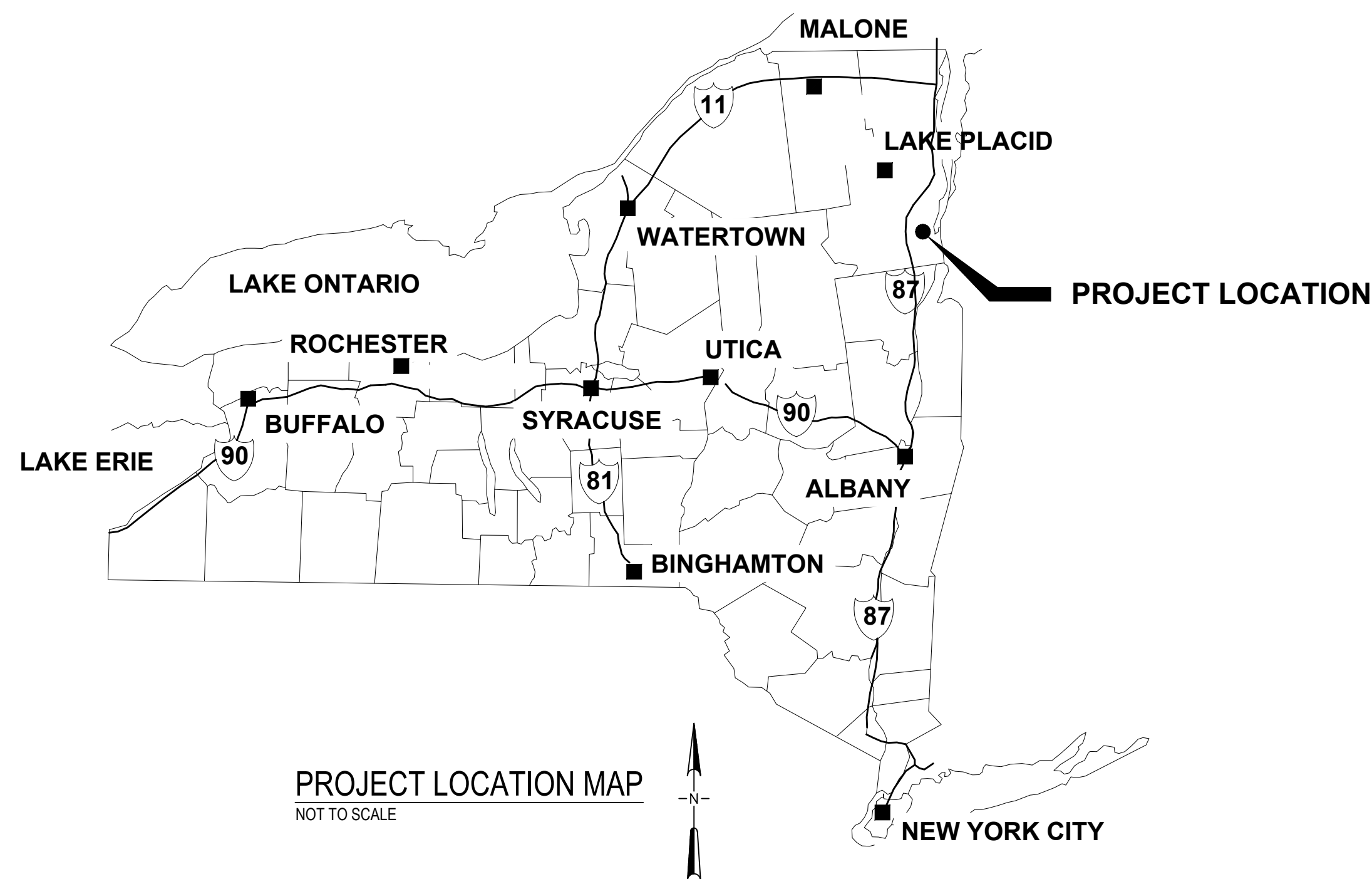


TARBELL HILL PUMP STATION IMPROVEMENTS TOWN OF MORIAH, NEW YORK CONTRACT No. 1 - GENERAL JANUARY, 2020 PROJECT No. 19016



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- E-002 ELECTRICAL SITE PLAN
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- E-004 ELECTRICAL SINGLE LINE DIAGRAMS
- E-005 ELECTRICAL CONTROL RISER DIAGRAMS
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Prepared by:

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PROJECT LOCATION MAP
NOT TO SCALE



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Landscape Architecture, Engineering & Environmental Services, D.P.C.
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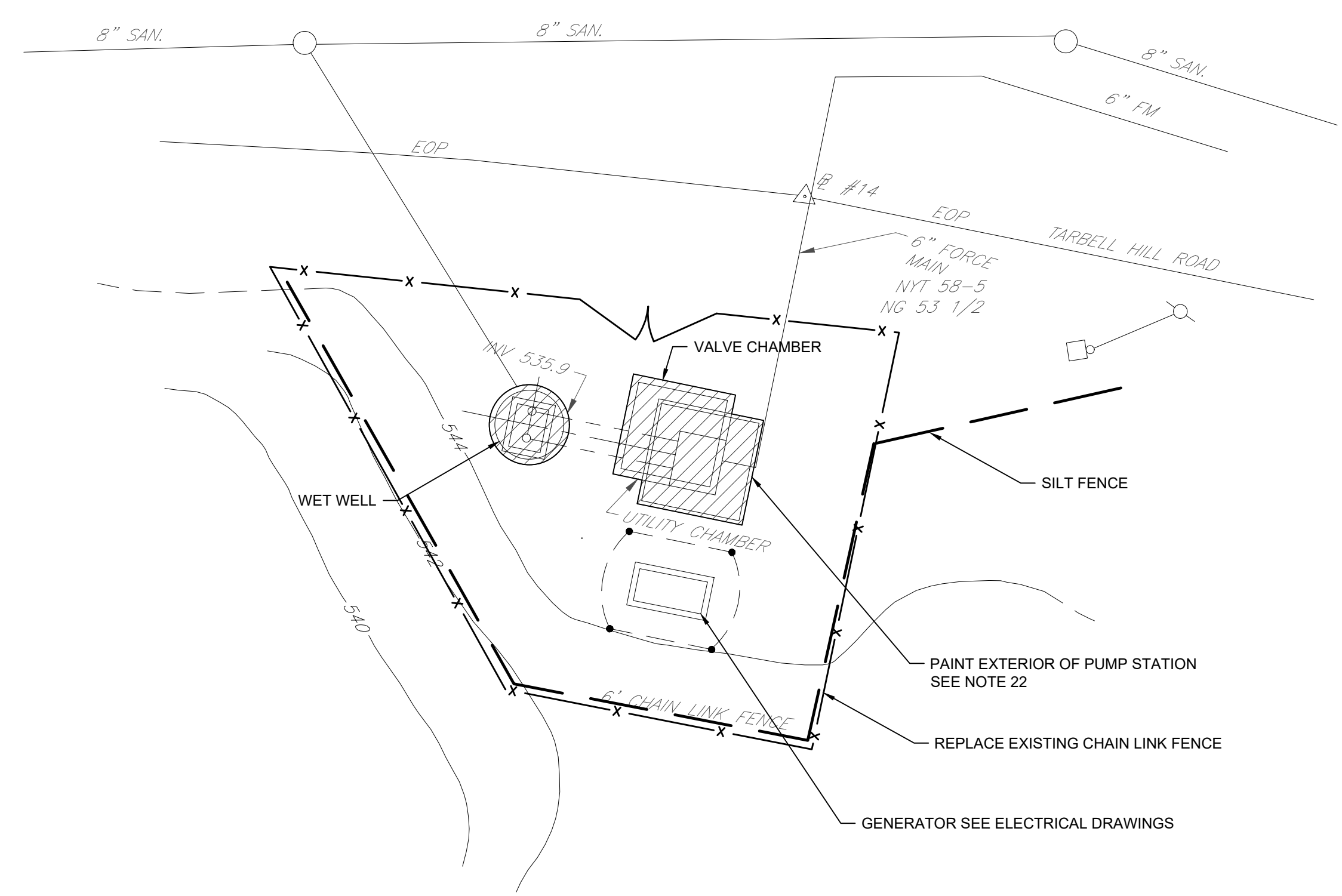
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1	02/21/19			FOR APPROVAL

PROJECT TITLE:	TARBELL HILL PUMP STATION IMPROVEMENTS
CLIENT:	TOWN OF MORIAH, NEW YORK
DRAWING TITLE:	EXISTING SITE PLAN, DETAILS, EROSION AND SEDIMENT CONTROLS
ORIGINAL SIZE:	ARCH D

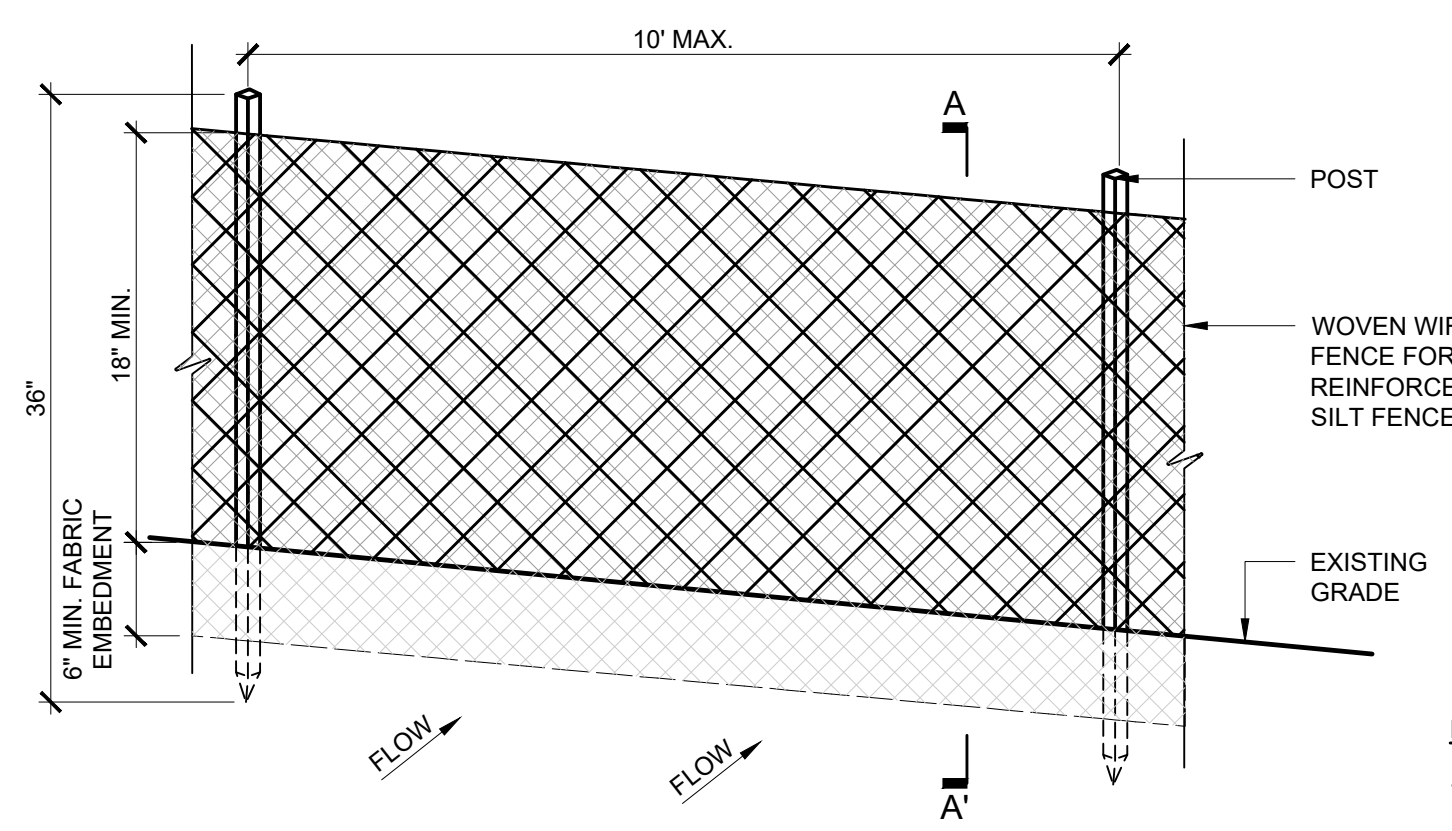
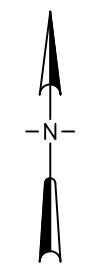
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SCALE:	AS NOTED
DRAWN:	MJL
CHECKED:	CPP
edr Job#:	19016
CONTRACT NO.:	
DRAWING NUMBER:	G-003

EROSION & SEDIMENT CONTROL PLAN NOTES

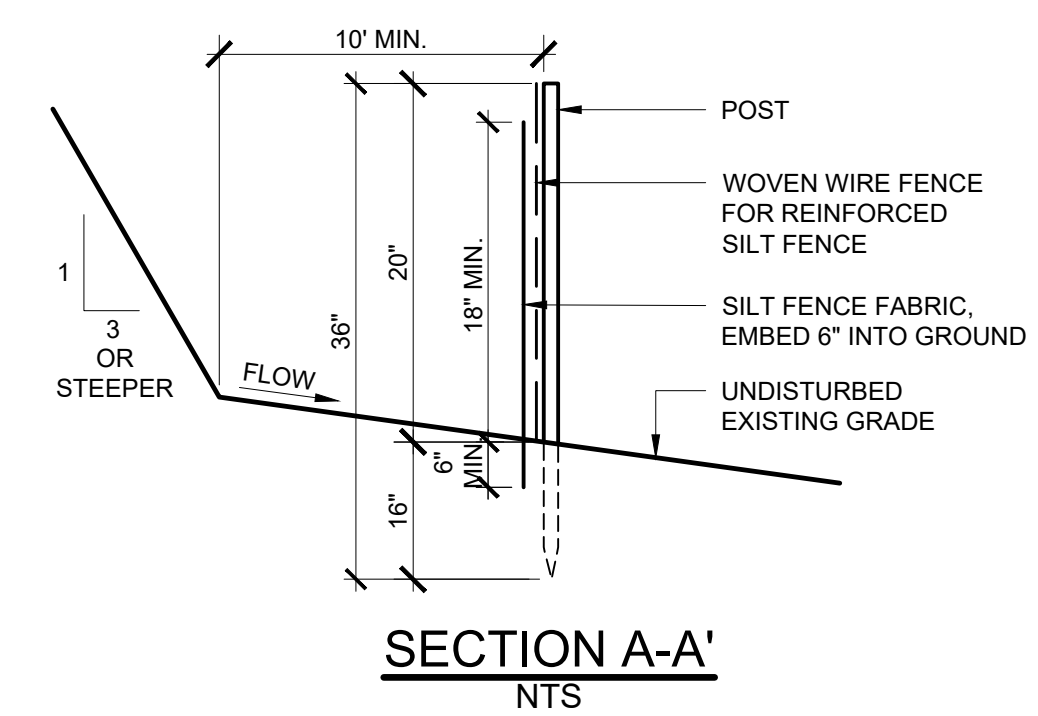
- REFER TO GENERAL NOTES.
- DISTURBED AREAS SHALL BE AS SMALL AS PRACTICAL, AND SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN THE TIME FRAME REQUIRED BY THE NYSDEC.
- MAINTAIN AN ADEQUATE SUPPLY OF EROSION AND SEDIMENT CONTROL MATERIALS AT THE CONSTRUCTION SITE AT ALL TIMES TO BE USED FOR URGENT SITUATIONS, SUCH AS UNEXPECTED HEAVY RAINFALL.
- EROSION CONTROL MEASURES INCLUDING BUT NOT LIMITED TO A STABILIZED CONSTRUCTION ENTRANCE, STABILIZED CONSTRUCTION STAGING AREA AND SILT FENCE SHALL BE THE FIRST ITEMS CONSTRUCTED WHEN SITE WORK BEGINS, AND MUST BE COMPLETELY FUNCTIONAL BEFORE DOWN SLOPE LAND DISTURBANCE BEGINS.
- ALL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND OPERATED IN ACCORDANCE WITH THEIR DESIGN. ANY NEED FOR REPAIRS OR MAINTENANCE SHALL BE ADDRESSED IMMEDIATELY TO ASSURE THE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION THROUGHOUT THE CONSTRUCTION PROCESS.
- MAINTENANCE AND REPAIR OF ALL EQUIPMENT AND VEHICLES INVOLVING OIL CHANGES, HYDRAULIC SYSTEM AND FUEL TANK DRAIN DOWN, DEGREASING OPERATIONS AND OTHER ACTIVITIES THAT MAY RESULT IN THE ACCIDENTAL RELEASE OF CONTAMINANTS MUST BE CONDUCTED OFF-SITE. ACCIDENTAL SPILLS MUST BE CLEANED UP IMMEDIATELY AND CONTAMINANTS DISPOSED OF PROPERLY.
- THE CONTRACTOR SHALL TAKE THE NECESSARY MEASURES, INCLUDING WATER SPRINKLING TO PROVIDE DUST CONTROL DURING CONSTRUCTION.
- THE CONTRACTOR SHALL INSTALL ADDITIONAL EROSION AND SEDIMENT CONTROL PRACTICES, AS SHOWN ON THE DETAIL SHEETS, AS NECESSARY DURING THE COURSE OF CONSTRUCTION AT NO COST TO THE OWNER.
- THE CONTRACTOR SHALL INSTALL AND MAINTAIN THE STABILIZED CONSTRUCTION ENTRANCE TO PREVENT THE TRANSPORT OF SEDIMENT ONTO PUBLIC ROADS AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE.
- IF SEDIMENT IS TRANSPORTED ONTO ROADS, IT MUST BE REMOVED FROM THE ROAD SURFACE ON A DAILY BASIS AND PRIOR TO RAIN EVENTS. SEDIMENT SHALL BE DISPOSED OF IN A MANNER THAT PREVENTS CONTAMINATION OF STORM WATER AND SURFACE WATER.
- VEGETATION SHALL BE PROTECTED OUTSIDE OF THE LIMITS OF DISTURBANCE.
- ALL EXISTING TOPSOIL SHALL BE STOCKPILED TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS FOR THE ESTABLISHMENT OF VEGETATION.
- THE CONTRACTOR SHALL ULTIMATELY BE RESPONSIBLE FOR LOCATING SOIL AND EXCESS EXCAVATED EARTH STOCK PILES AT A STABLE LOCATION. STOCK PILES SHALL BE STABILIZED PER THE DETAIL.
- CONSTRUCTION ROUTES SHALL BE STABILIZED PER THE NYS STANDARDS FOR EROSION AND SEDIMENT CONTROL, AS NECESSARY BASED ON SITE CONDITIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE PLACEMENT, DESIGN, APPROVAL, AND OPERATION OF THE CONCRETE WASHOUTS. THE CONCRETE WASHOUTS SHALL BE INSTALLED A MINIMUM OF 50' FROM STORM DRAINAGE OR SURFACE WATER. CONCRETE WASTE MATERIAL SHALL NOT BE ALLOWED TO ESCAPE FROM THE CONCRETE WASHOUT.
- FOR INSTALLED SEDIMENT CONTROL PRACTICES, REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS WHEN THE ACCUMULATION HAS REACHED A DEPTH OF 25% OF THE HEIGHT AND/OR VOLUME OF THE PRACTICE'S CAPACITY, OR MORE FREQUENTLY AS REQUIRED BY THE DETAILS.
- THE CONTRACTOR SHALL PROVIDE PORTABLE HANDWASHING AND SANITARY FACILITIES, THESE FACILITIES SHALL BE SERVICED REGULARLY BY AN APPROVED SERVICE PROVIDER.
- SOLID WASTE SHALL BE STORED IN COVERED DUMPSTERS OR OTHER APPROPRIATE CONTAINERS. WASTE IS TO BE DISPOSED OF REGULARLY AND PROPERLY IN ACCORDANCE WITH LOCAL, STATE, AND/OR FEDERAL REGULATIONS.
- THE EROSION AND SEDIMENT CONTROLS ARE SHOWN FOR A CONDITION WHEN ALL WORK IS OCCURRING SIMULTANEOUSLY. ACTUAL INSTALLATIONS SHALL BE ADJUSTED BASED ON CURRENT CONSTRUCTION ACTIVITY AND SITE CONDITIONS.
- DURING ROUGH GRADING, LEAVE SLOPE SURFACES SLIGHTLY ROUGHENED TO A DEPTH OF 1-2 INCHES - DO NOT BACK BLADE SLOPES.
- CONTRACTOR SHALL PURCHASE PAINT UNDER THE CONTRACT IN ACCORDANCE WITH SPECIFICATION 09900, AND PROVIDE TO THE OWNER FOR USE AT A LATER TIME. COORINATE COLOR WITH OWNER/ENGINEER.



EXISTING SITE PLAN
SCALE: 1"=10'-0"



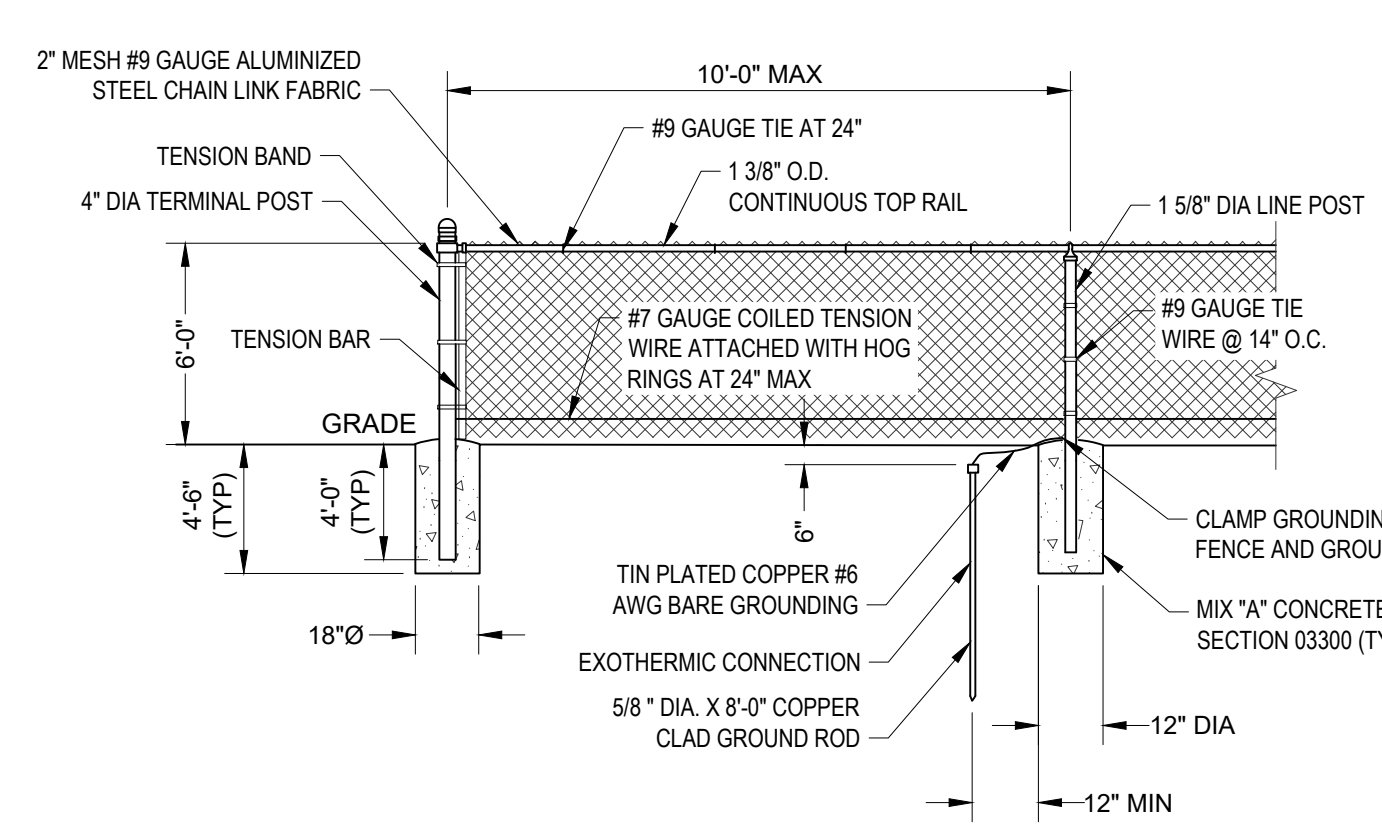
PERSPECTIVE VIEW
NTS



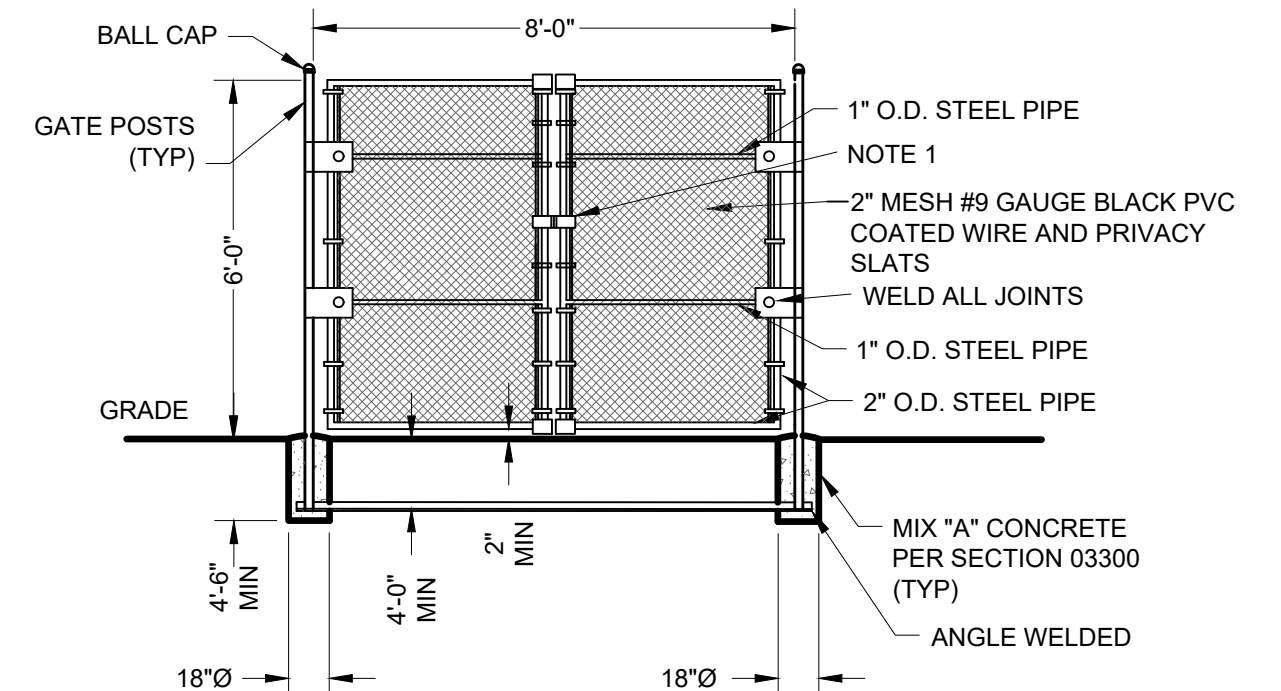
SECTION A-A'
NTS

- NOTES:**
- WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS SHALL BE EITHER STEEL 'T' OR 'U' TYPE, OR HARDWOOD.
 - SILT FENCE FABRIC TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE SHALL BE WOVEN WIRE, 6" MAXIMUM MESH OPENING.
 - WHEN TWO SECTIONS OF SILT FENCE FABRIC ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 6" AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABLINKA T140N, OR APPROVED EQUAL.
 - PREFABRICATED UNITS SHALL MEET THE MINIMUM REQUIREMENTS SHOWN.
 - MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

3 SILT FENCE
Scale: NTS

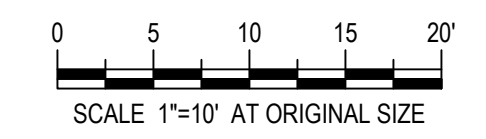


6' CHAIN LINK FENCE
NOT TO SCALE



8'-0" CHAINLINK FENCE GATE
NOT TO SCALE

- NOTES:**
- COMMERCIAL GRADE LOCKABLE DOUBLE GATE LATCH.
 - THE CONTRACTOR SHALL RESTORE EXISTING GRADE TO ORIGINAL CONDITION AFTER INSTALLING ANGLE RESTORATION SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT SHALL BE MADE.
 - REFER TO FENCE DETAIL IF BEDROCK IS ENCOUNTERED.



SCALE 1"=10' AT ORIGINAL SIZE



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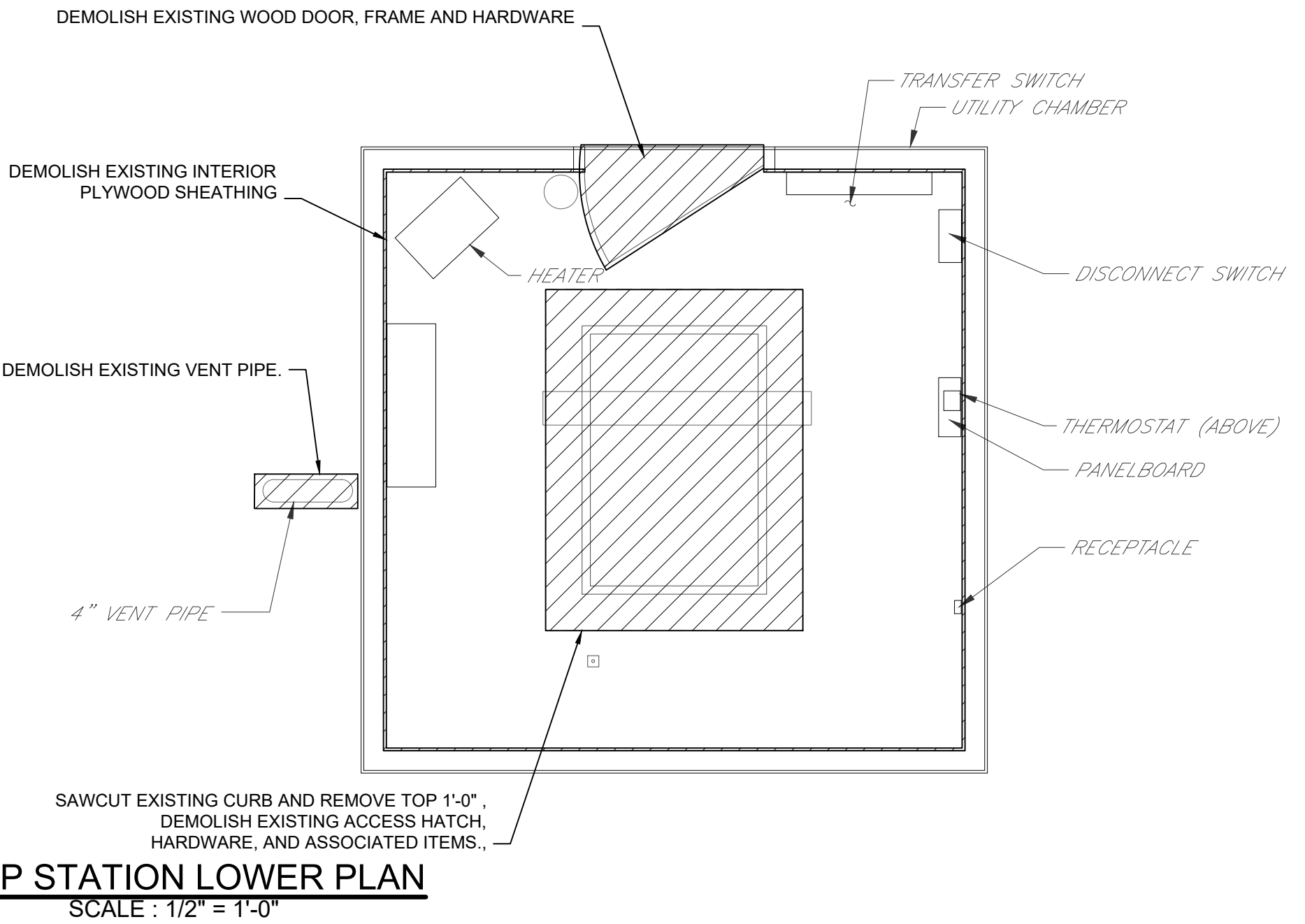
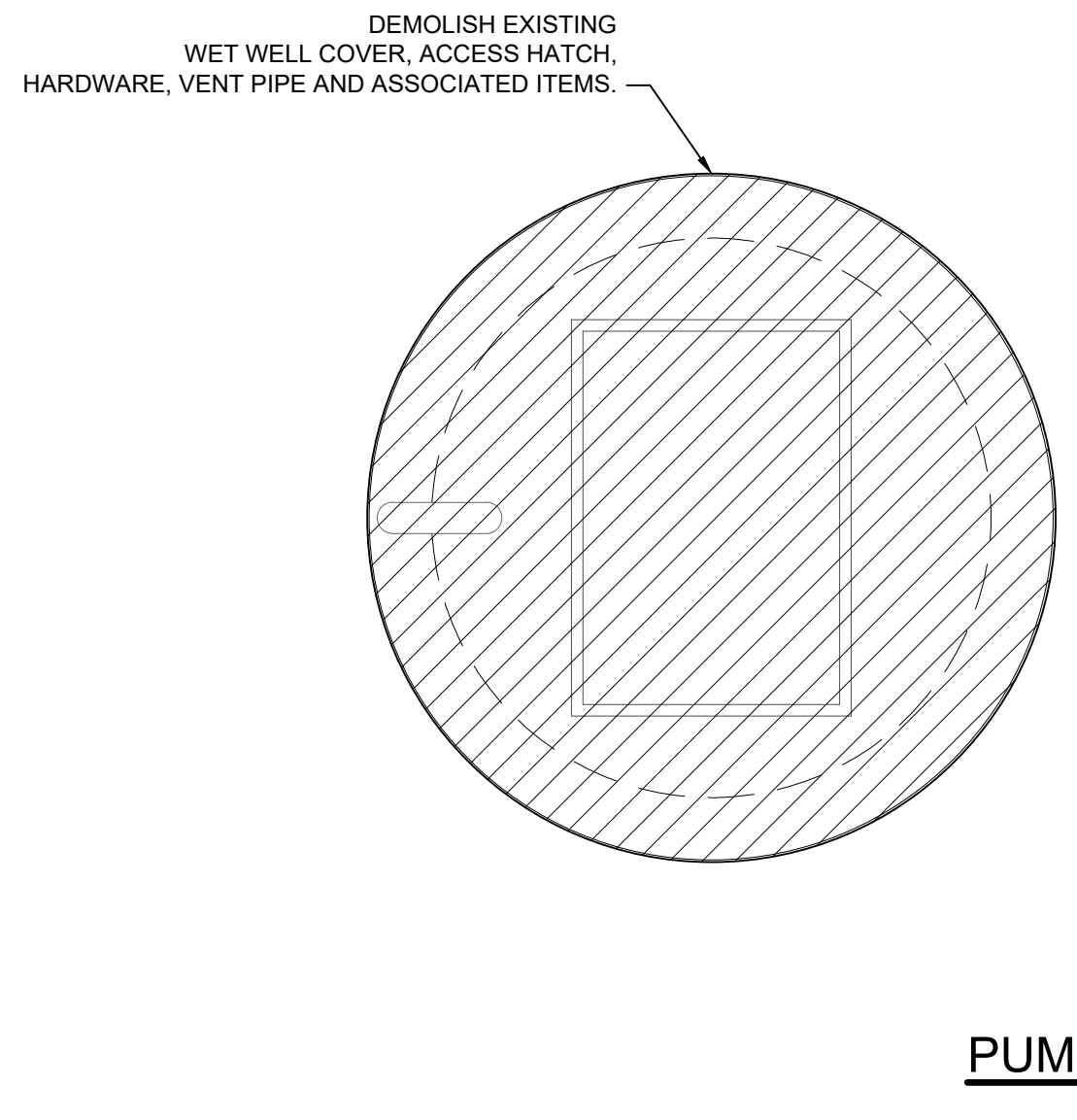
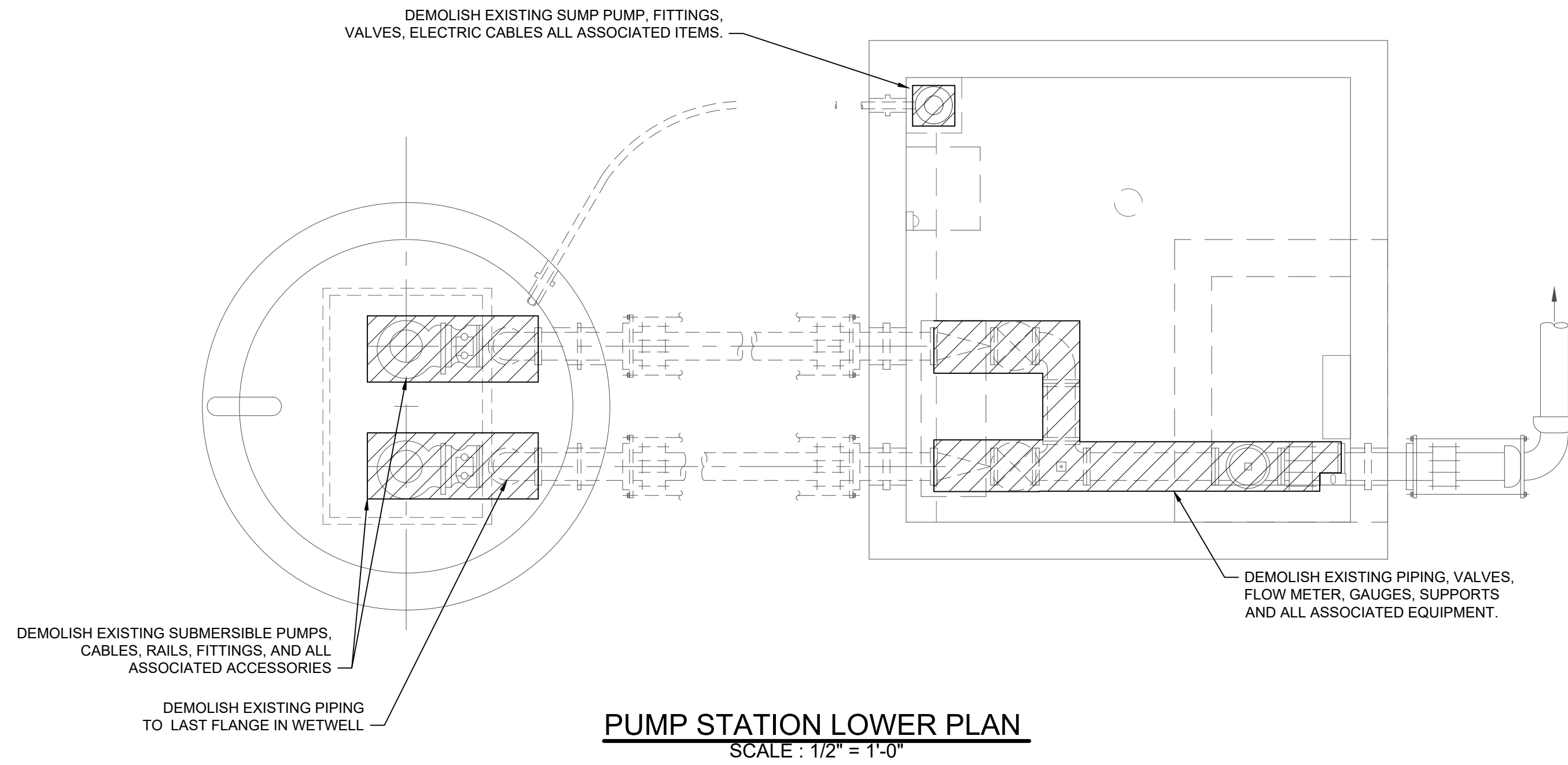


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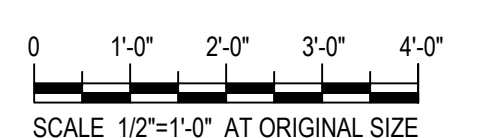
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TARBELL HILL PUMP STATION IMPROVEMENTS		ORIGINAL SIZE
PROJECT TITLE:	TOWN OF MORIAH, NEW YORK	ARCH D
CLIENT:		
DRAWING TITLE:	EXISTING PUMP STATION DEMOLITION PLANS	

DATE:	JANUARY 10, 2020
SCALE:	AS NOTED
DRAWN:	M.J.L.
CHECKED:	CPP
edr Job#:	19016
CONTRACT NO.:	
DRAWING NUMBER:	M-001



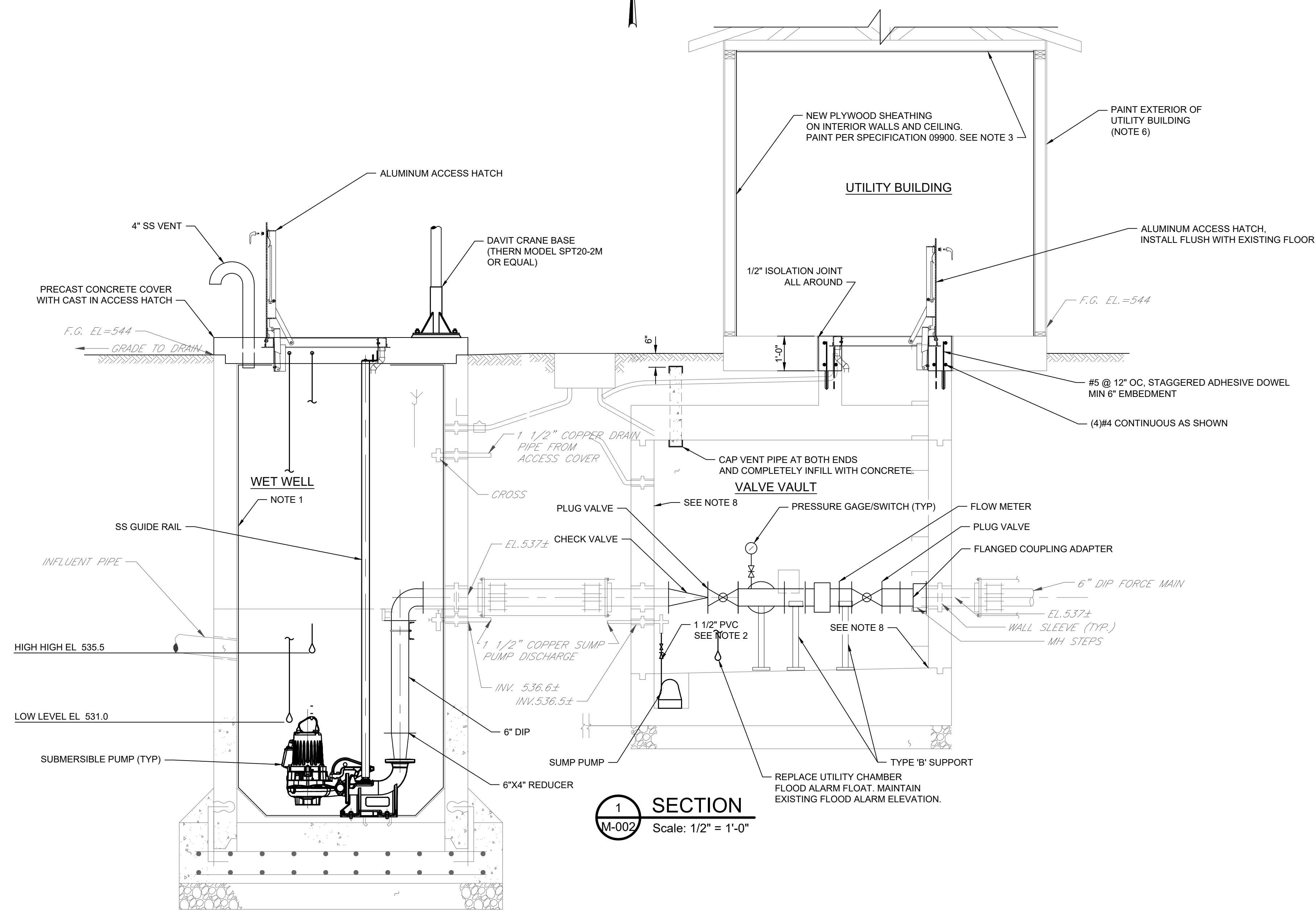
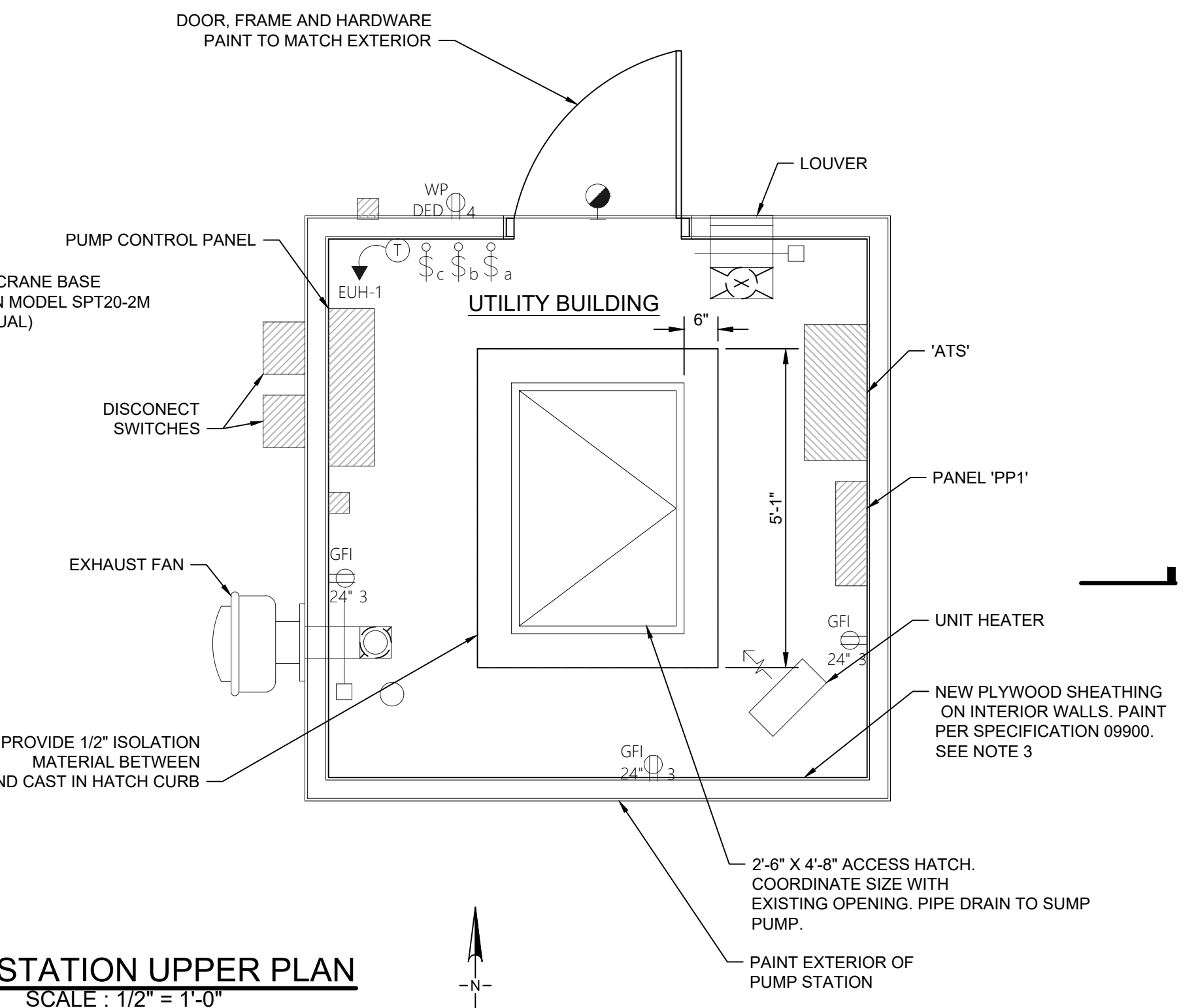
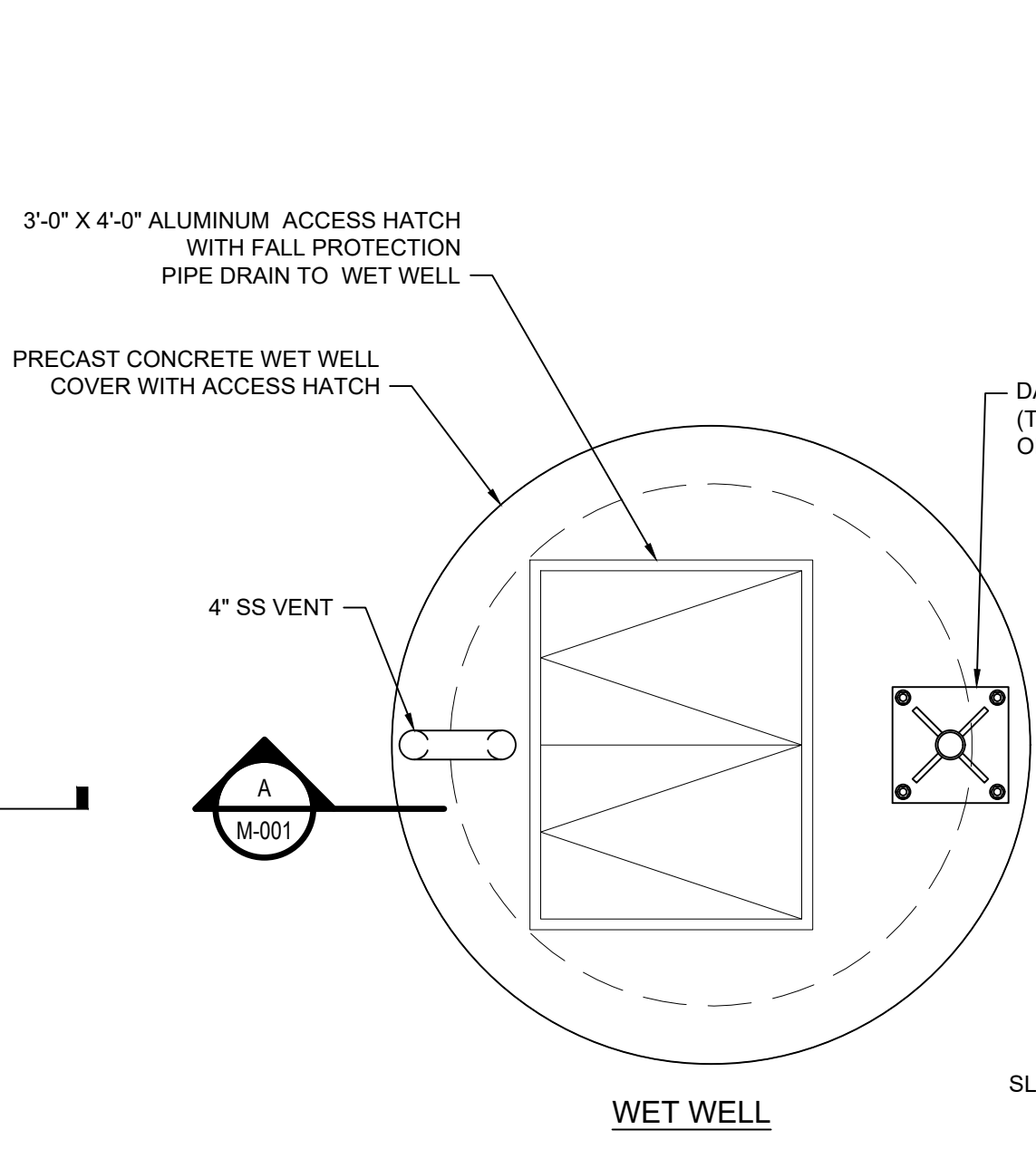
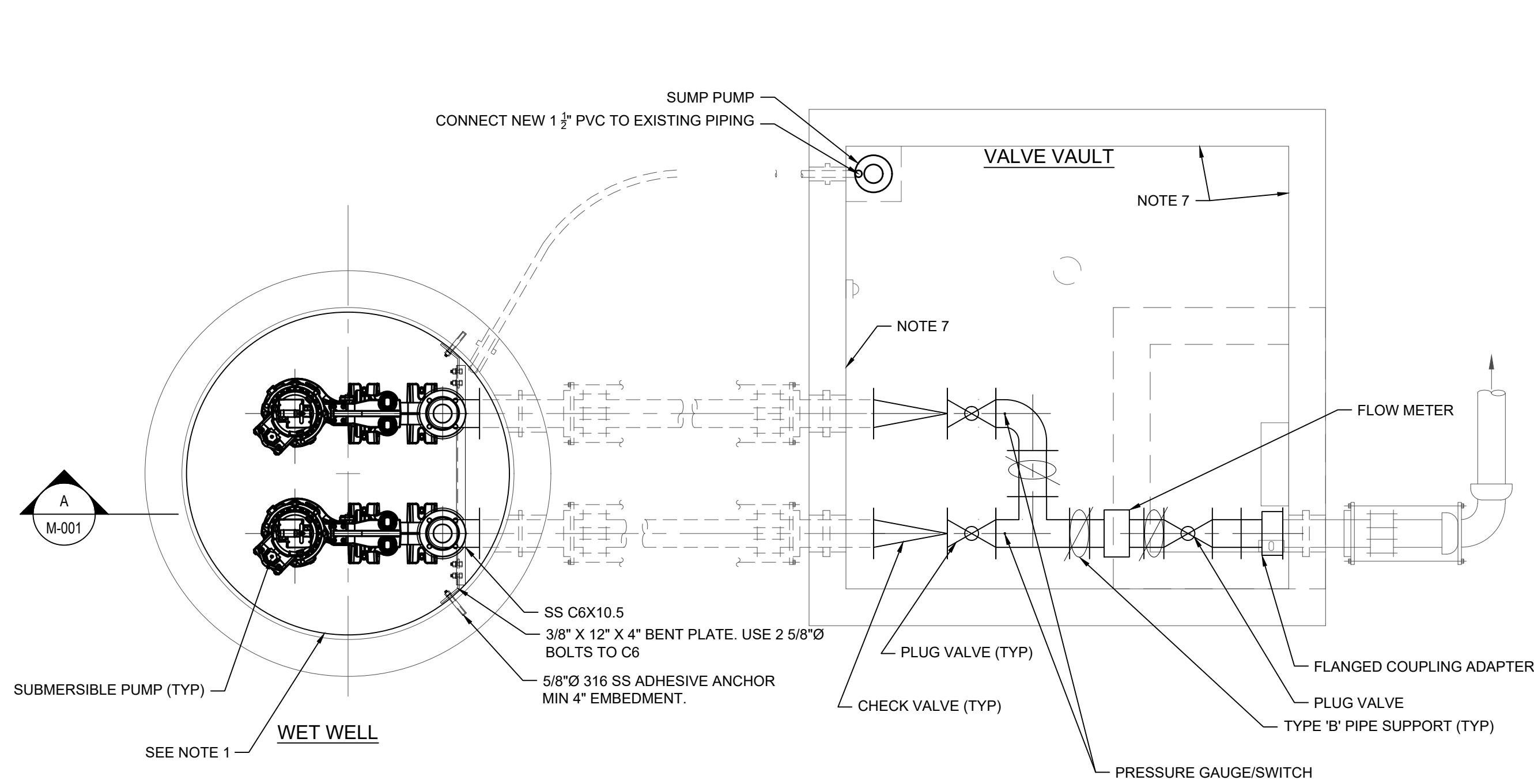
- DEMOLITION NOTES:**
- CONTRACTOR SHALL COORDINATE THE REMOVAL OF THE INTERIOR PLYWOOD SHEATHING WITH THE REPLACEMENT OF THE ELECTRIC PANELS.





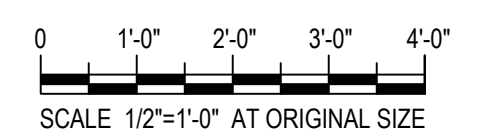
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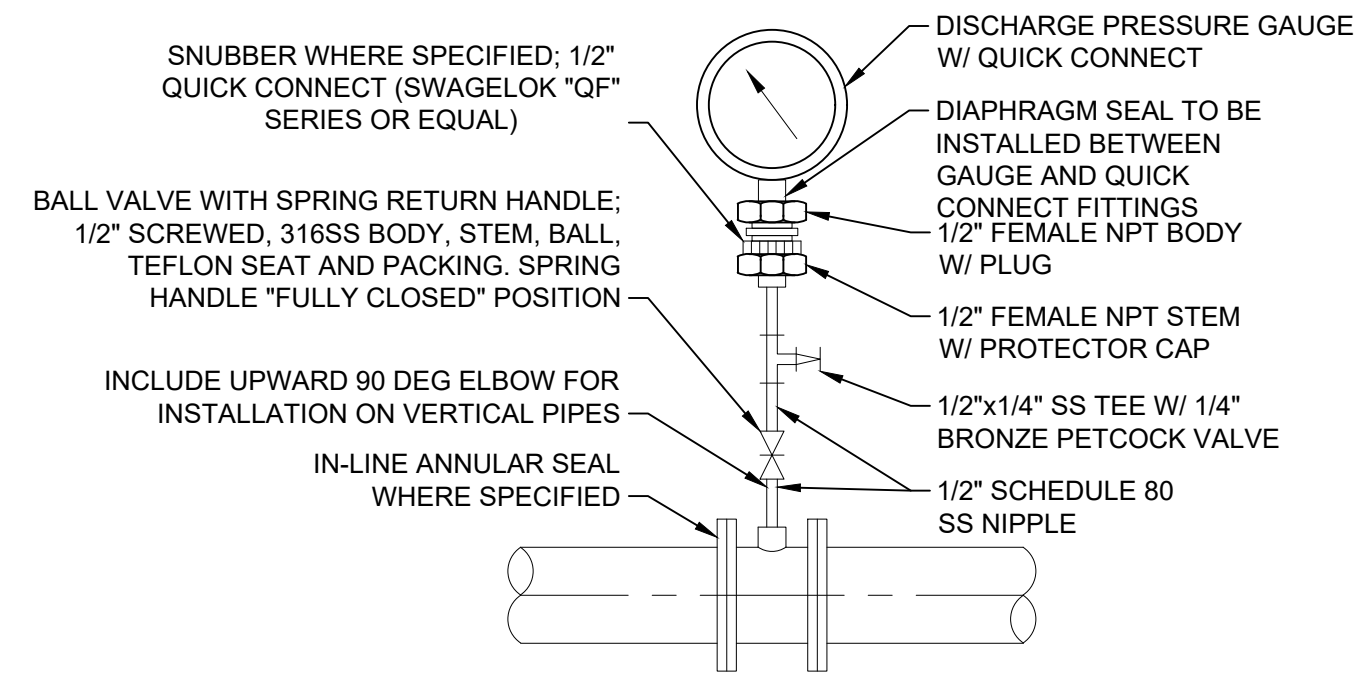
NOTES:

1. WET WELL SHALL BE HIGH PRESSURE WASHED AND RECOATED WITH PARSONS ENVIRONMENTAL PRODUCTS, INC. CA100+ OR EQUAL WITH A MINIMUM 1/4" APPLICATION IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. ALL INTERIOR SURFACES SHALL BE RECOATED. CONTRACTOR SHALL REMOVE ALL CONTENT DUE TO CLEANING AND DISPOSE OF OFFSITE. PRIOR TO RESURFACING, CONTRACTOR SHALL TEST THE PH OF THE WALL AND CONFIRM PH IS WITHIN REQUIREMENTS WITH THE MANUFACTURER.
2. CONTRACTOR SHALL PERFORM CONCRETE REPAIRS AS REQUIRED PRIOR TO APPLYING FINISH.
3. SEE DRAWING M003 FOR SUMP PUMP DISCHARGE PIPING.
4. PROVIDE AC 1/2" 5 PLY PLYWOOD, USE EXTERIOR DECK SCREWS TO FASTEN TO WALLS.
5. SUMP PUMP SHALL BE MEYERS MC1050 OR EQUAL IN ACCORDANCE WITH SECTION 11316.
6. CONTRACTOR SHALL PURCHASE PAINT FOR THE EXTEIOR OF THE PUMP STATION UNDER THE CONTRACT IN ACCORDANCE WITH SPECIFICATION SECTION 09900 AND PROVIDE TO THE OWNER FOR USE AT A LATER TIME. COORDINATE COLOR SELECTION WITH THE OWNER/ENGINEER.
7. VALVE VAULT SHALL BE HIGH PRESSURE WASHED ON ALL SURFACES. REMOVE ALL CONTENT DUE TO CLEANING AND DISPOSE OF OFFSITE. CONTRACTOR SHALL PERFORM CONCRETE REPAIRS AS REQUIRED.
8. CONTRACTOR SHALL INJECT SIKAFIX HH HYDROPHILIC, OR EQUAL TO REDUCE OR STOP WATER INFILTRATION. INSTALL PER MANUFACTURERS RECOMMENDATION.
9. ADD ALTERNATE: VALVE VAULT SHALL BE HIGH PRESSURE WASHED AND RECOATED WITH PARSONS ENVIRONMENTAL PRODUCTS, INC. CA100+ OR EQUAL WITH A MINIMUM 1/4" APPLICATION IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS. ALL INTERIOR SURFACES SHALL BE RECOATED. CONTRACTOR SHALL REMOVE ALL CONTENT DUE TO CLEANING AND DISPOSE OF OFFSITE. PRIOR TO RESURFACING, CONTRACTOR SHALL TEST THE PH OF THE WALL AND CONFIRM PH IS WITHIN REQUIREMENTS WITH THE MANUFACTURER.



PROJECT TITLE: TARBELL HILL PUMP STATION IMPROVEMENTS
CLIENT: TOWN OF MORIAH, NEW YORK
DRAWING TITLE: PUMP STATION PLANS AND SECTIONS

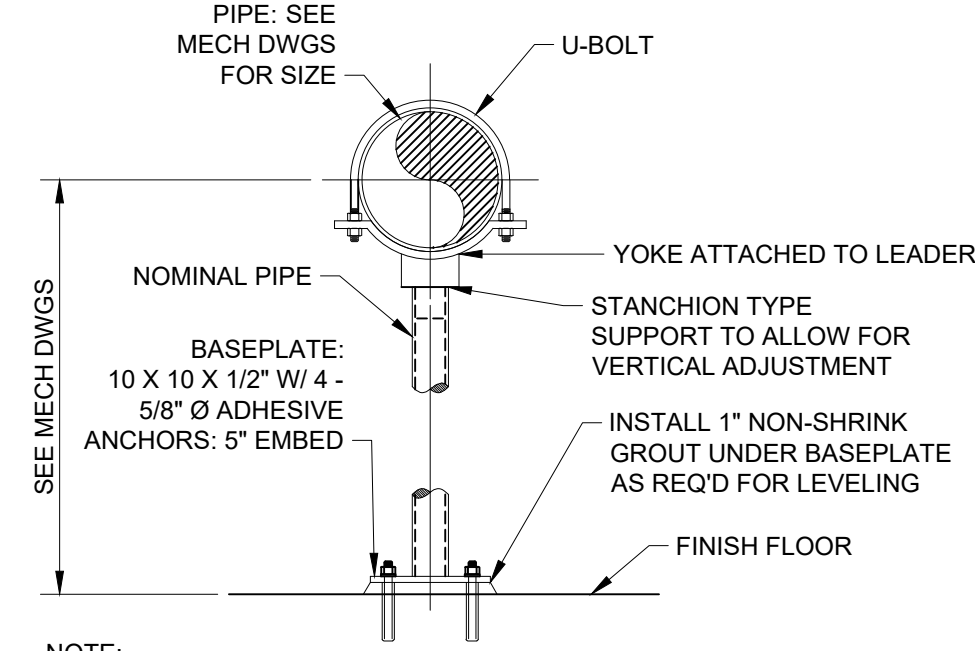
DATE: JANUARY 10, 2020
SCALE: AS NOTED
DRAWN: MJL
CHECKED: CPP
edr Job#: 19016
CONTRACT NO.:
DRAWING NUMBER:
M-002



NOTES:

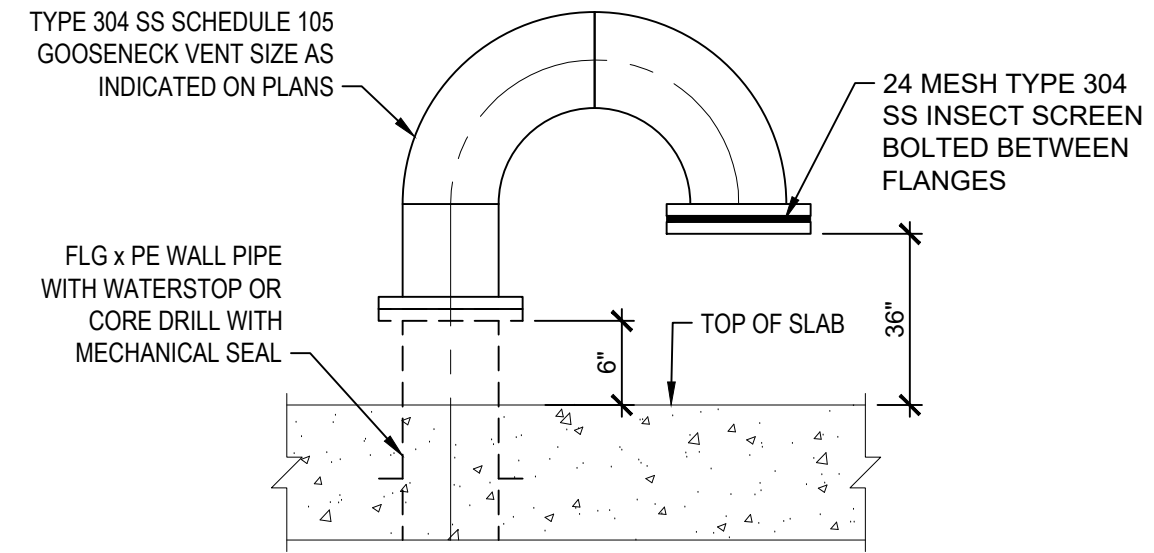
1. SNUBBERS NOT TO BE USED WHEN DIAPHRAGM SEALS REQUIRED.
2. INSTALL AT CROWN OF HORIZONTAL PIPES.
3. WHERE GAUGE CONNECTIONS ARE IDENTIFIED, PROVIDE ALL ITEMS EXCEPT PRESSURE GAUGE.
4. INSTALLATION OF PRESSURE GAUGE SHOWN APPLIES TO HORIZONTAL OR VERTICAL PIPING ARRANGEMENTS.

PRESSURE GAUGE - LIQUID SERVICE
NOT TO SCALE

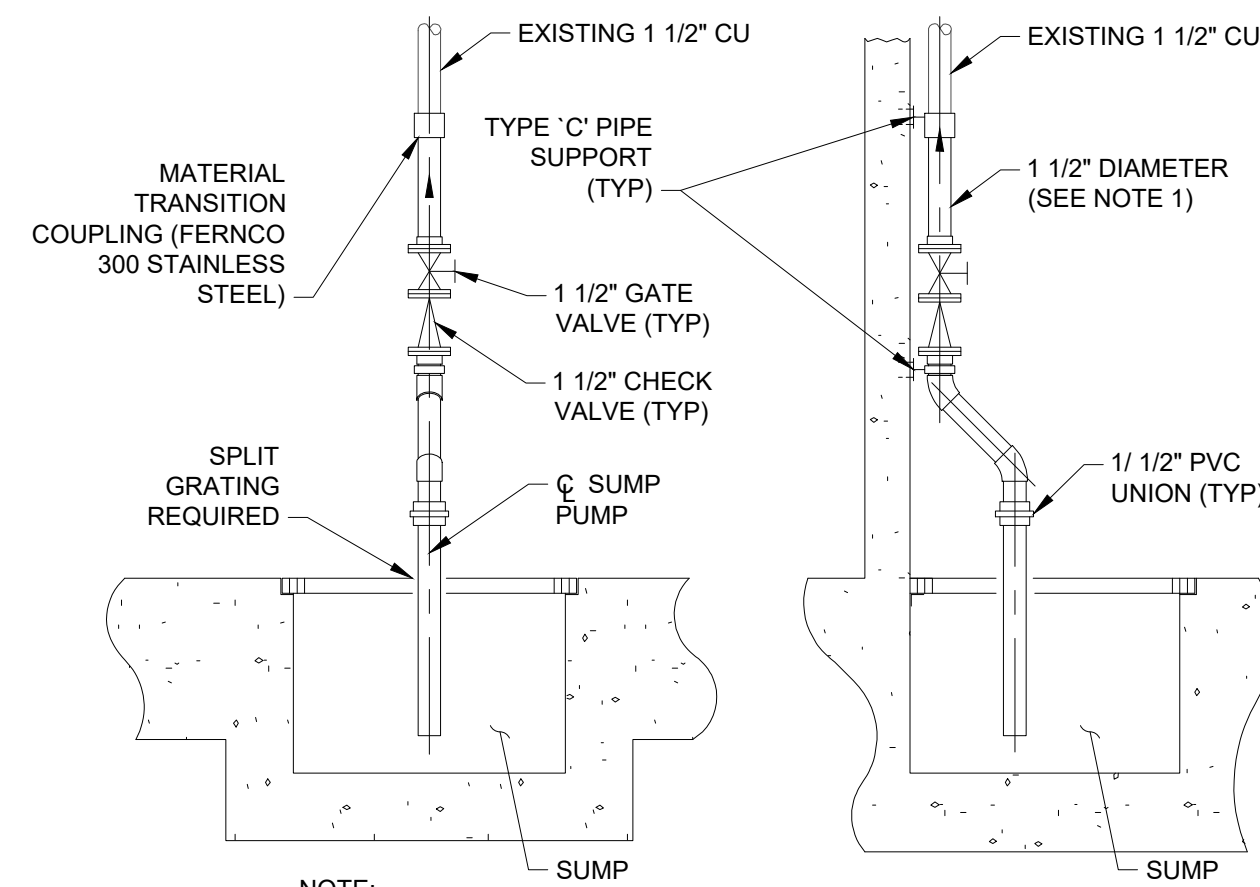


- NOTE:**
1. ALL MATERIALS INCLUDING FASTENERS AND HARDWARE SHALL BE TYPE 304 STAINLESS STEEL.

TYPE "B" PIPE SUPPORT
NOT TO SCALE

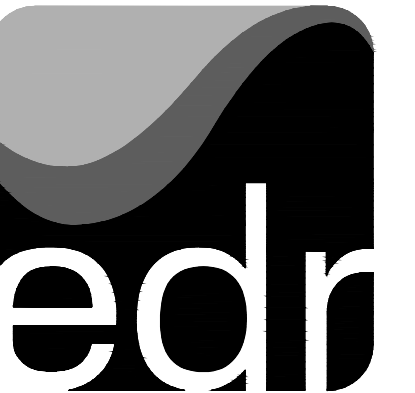


STAINLESS STEEL GOOSENECK VENT
NOT TO SCALE



- NOTE:**
1. SUMP PUMP DISCHARGE PIPE, FITTINGS, AND VALVES SHALL BE PVC.

SUMP PUMP DISCHARGE
NOT TO SCALE



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NO.	DATE	REVISION	DATE
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2	01/20/20	FOR BID	MET
1	02/20/19	FOR APPROVAL	MET

PROJECT TITLE: TARBELL HILL PUMP STATION IMPROVEMENTS
CLIENT: TOWN OF MORIAH, NEW YORK
DRAWING TITLE: STANDARD AND MISCELLANEOUS DETAILS
ORIGINAL SIZE: ARCH D

DATE:	JANUARY 10, 2020
SCALE:	AS NOTED
DRAWN:	MJL
CHECKED:	CPP
edr Job#:	19016
CONTRACT NO.:	
DRAWING NUMBER:	M003

GENERAL NOTES

SYMBOLS AND ABBREVIATIONS

THIS SHEET CONTAINS SYMBOLS AND ABBREVIATIONS TYPICALLY SHOWN ON ELECTRICAL DRAWINGS AND SCHEMATICS. THIS CONTRACT DRAWING SET MAY NOT CONTAIN ALL SYMBOLS AND ABBREVIATIONS SHOWN ON THIS SHEET.

UTILITY

ELECTRICAL UTILITY COMPANY WHICH SERVES THE SITE IS NATIONAL GRID. COORDINATE ALL WORK WITH THE UTILITY AS REQUIRED. CONTRACTOR TO INITIATE ANY REQUIRED WORK ORDER NUMBER WITH UTILITY AS REQUIRED.

SAFEGUARDS DURING CONSTRUCTION

ALL CONSTRUCTION WORK COVERED IN THE UNIFORM CODE, INCLUDING ANY DEMOLITION, SHALL COMPLY WITH THE REQUIREMENTS OF CHAPTER 33 OF THE IFC AND CHAPTER 33 OF THE 2015 IBC.

PERMITS AND INSPECTIONS

THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND ARRANGE FOR ALL REQUIRED INSPECTIONS IN ACCORDANCE WITH STATE AND LOCAL GOVERNING AUTHORITIES. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2014 NEC, AND STATE AND LOCAL GOVERNING REGULATIONS. PERFORM WORK AS REQUIRED BY CODES, REGULATIONS, LAWS OF LOCAL, STATE AND FEDERAL GOVERNMENTS, AND OTHER AUTHORITIES WITH LAWFUL JURISDICTION. ALL MATERIAL AND EQUIPMENT SHALL BE UL, NEMA, ANSI, IEEE, ADA & CBM.

SCOPE

UNLESS OTHERWISE INDICATED, PROVIDE A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM INCLUDING ALL NECESSARY MATERIAL, LABOR, AND EQUIPMENT. ALL DISCONNECTS REQUIRED BY CODE MAY NOT BE SHOWN. CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS AND OVERCURRENT PROTECTIVE DEVICES. ALL EQUIPMENT AND MATERIAL SHALL BE LABELED AND LISTED, AND INSTALLED IN ACCORDANCE WITH THEIR LISTING. PROVIDE ELECTRICAL CONNECTION FOR EVERY FIXTURE, OR ITEM OF EQUIPMENT REQUIRING SAME, WHICH IS SHOWN OR LISTED ON ANY CONTRACT DRAWING. CONTRACTOR SHALL PROVIDE NECESSARY SUPPORT FRAMING, STIFFENERS, BRACING, AND HANGERS WHETHER SHOWN OR NOT TO ENSURE A COMPLETE AND DURABLE SYSTEM. SUPPORT FRAMING CONNECTIONS SHALL BE WELDED UNLESS SPECIFICALLY SHOWN OTHERWISE. ACTUAL SUPPORTS MAY VARY FROM THOSE SHOWN IN DETAILS TO ACCOMMODATE EXISTING FIELD CONDITIONS. THE WORK INCLUDED IN THIS CONTRACT ENCOMPASSES THE DRAWINGS AND SPECIFICATIONS. WORK INCLUDED ON THE DRAWINGS ONLY, OR IN THE SPECIFICATIONS ONLY, SHALL BE INCORPORATED AS IF INCLUDED IN BOTH. ALL SYSTEMS SHOWN ARE INTENDED TO BE COMPLETE AND FULLY FUNCTIONING. THE CONTRACTOR SHALL PROVIDE SUCH COMPONENTS AS NECESSARY FOR A FULLY FUNCTIONING SYSTEM. ALL EQUIPMENT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER, RECTILINEAR TO BUILDING STRUCTURE. CONTRACTOR SHALL FIELD VERIFY ALL SITE CONDITIONS AND DIMENSIONS PRIOR TO COMMENCEMENT OF ANY WORK OR SHOP FABRICATION. REQUIRED CHANGES TO WORK SHOWN ON CONSTRUCTION DRAWINGS SHALL BE APPROVED BY THE ENGINEER IN WRITING, OTHER TRADES, AND OWNER AS REQUIRED PRIOR TO ANY CONSTRUCTION.

COORDINATION OF WORK

THE CONTRACTOR SHALL COORDINATE AND VERIFY THAT WORKING AND DEDICATED EQUIPMENT SPACE REQUIREMENTS ARE MET PER NEC AND AHJ. FIELD LOCATE ALL CORE DRILL LOCATIONS. BEFORE CUTTING OR DRILLING INTO BUILDING ELEMENTS INSPECT AND LAYOUT WORK TO AVOID DAMAGING STRUCTURAL ELEMENTS AND BUILDING UTILITIES. BEFORE SELECTING MATERIAL/EQUIPMENT AND PROCEEDING WITH WORK, INSPECT AREAS WHERE MATERIAL AND EQUIPMENT ARE TO BE INSTALLED TO INSURE SUITABILITY, AND CHECK NEEDED SPACE FOR PLACEMENT, CLEARANCES AND INTERCONNECTIONS. POSSIBLE SYSTEM SHUT-DOWNS AND WORK AREAS CLOSURES MUST BE COORDINATED WITH THE OWNER. VERIFY RECEPTACLE, SWITCH, & COVER PLATE COLORS WITH OWNER. TURN OVER TO THE OWNER ALL MANUFACTURER'S WARRANTIES FOR EQUIPMENT AND MATERIALS PROVIDED.

DEFINITIONS

THE DEFINITION OF ELECTRICAL TERMS USED SHALL BE AS DEFINED IN THE EDITION OF THE NATIONAL ELECTRIC CODE (NEC) AS REFERENCED IN THE BUILDING CODE OF NEW YORK STATE. THE TERM "INDICATED" SHALL MEAN "AS SHOWN ON CONTRACT DOCUMENTS (SPECIFICATIONS, DRAWINGS, AND RELATED ATTACHMENTS)". THE TERM "PROVIDE" SHALL MEAN "TO FURNISH, INSTALL, AND CONNECT COMPLETELY". THE TERM "SIZE" SHALL MEAN ONE OR MORE OF THE FOLLOWING: "LENGTH, CURRENT AND VOLTAGE RATING, NUMBER OF POLES, NEMA SIZE, AND OTHER SIMILAR ELECTRICAL CHARACTERISTICS".

PLANS

ELECTRICAL PLANS, DETAILS, AND ONE LINE DIAGRAMS SHOW THE GENERAL LOCATION AND ARRANGEMENT OF THE ELECTRICAL SYSTEM. THEY ARE DIAGRAMMATIC AND DO NOT SHOW ALL CONDUIT BODIES, CONNECTORS, BENDS, FITTINGS, HANGERS, AND ADDITIONAL PULL BOXES WHICH THE CONTRACTOR MUST PROVIDE TO COMPLETE THE ELECTRICAL SYSTEM. ELECTRICAL PLANS AND DETAILS DO NOT SHOW ALL INTERFERENCES AND CONDITIONS, VISIBLE AND/OR HIDDEN, THAT MAY EXIST. CONTRACTOR MUST INSPECT AND SURVEY THE SPACE BEFORE PERFORMING THE WORK. THESE DRAWINGS ARE SCHEMATIC IN NATURE AND REPRESENT A COMPLETED PROJECT. MINOR MODIFICATIONS OF WORK SHALL BE PROVIDED BY THE CONTRACTOR TO COMPLY WITH PROJECT REQUIREMENTS, LOCATIONS OF DEVICES AND EQUIPMENT SHOW A GENERAL ARRANGEMENT AND INTENDED FUNCTION. ALL COMPONENTS SHOWN ON THE RISER DIAGRAMS, BUT NOT ON THE PLAN OR VICE VERSA, SHALL BE INCLUDED AS IF SHOWN ON BOTH. EXACT LOCATION OF MECHANICAL EQUIPMENT THAT REQUIRE ELECTRICAL CONNECTIONS ARE SHOWN ON THE MECHANICAL DRAWINGS. BEFORE INSTALLATION OF WORK, CHECK FOR SWINGS AND ALL REQUIRED CLEARANCES TO AVOID INTERFERENCE WITH OTHER TRADES. COORDINATE WITH ALL CONTRACT DOCUMENTS, SHOP DRAWINGS AND EQUIPMENT DRAWINGS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED CONTRACT DRAWINGS.

METHODS

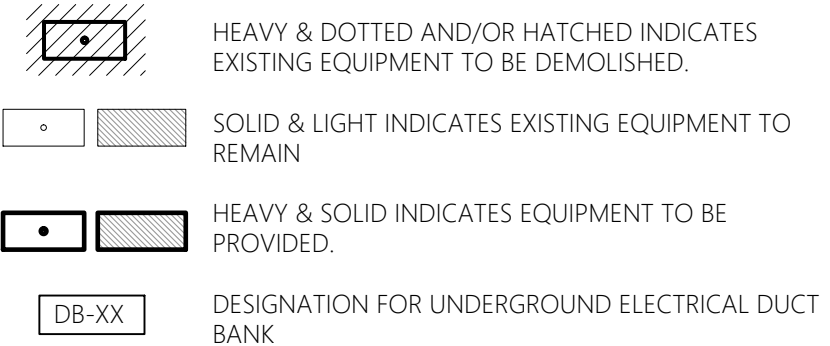
ALL EXTERIOR CONDUITS TO HAVE DUCT SEAL INSTALLED AT ALL ENDS, BOXES, WEATHERHEADS, PENETRATIONS TO INTERIOR SPACES, ETC. ALL THRU FLOOR CONDUIT PENETRATIONS TO BE PROPERLY SEALED TO ELIMINATE POTENTIAL FOR WATER TO ENTER CONDUIT SYSTEM OR PASS THRU FLOOR PENETRATION. DUCT BANKS SHALL NOT BE ROUTED DIRECTLY ABOVE OR BELOW EXISTING/PROPOSED UTILITIES EXCEPT WHEN CROSSING. WHERE CROSSING EXISTING OR PROPOSED UTILITY DUCT BANKS SHALL CROSS AT 90 DEGREE ANGLES. ALL CONDUIT SYSTEMS EXPOSED TO TEMPERATURE DIFFERENTIALS, IN POTENTIAL CONDENSING ATMOSPHERES, EXTERIOR INSTALLED, OR INSTALLED UNDERGROUND SHALL HAVE PROVISIONS FOR DRAINING WATER OUT OF CONDUIT SYSTEMS. WHERE WIRE SIZE IS NOT NOTED ON DRAWINGS, CONTRACTOR SHALL SIZE ACCORDING TO THE NEC AND SHALL ADHERE TO THE FOLLOWING CRITERIA: EQUIPMENT CIRCUITS AND FEEDERS LESS THAN OR EQUAL TO 100A SHALL BE SIZED USING THE 60°C COPPER AMPACITY COLUMN (NEC T310.16). EQUIPMENT CIRCUITS AND FEEDERS GREATER THAN 100A SHALL BE SIZED USING THE 75°C COPPER AMPACITY COLUMN (NEC T310.16). MINIMUM WIRE SIZE SHALL BE #12 THHN/THWN. ALUMINUM SHALL NOT BE USED. CONDUCTORS SHALL BE SOLID UP THROUGH #10.

UNDERGROUND UTILITIES

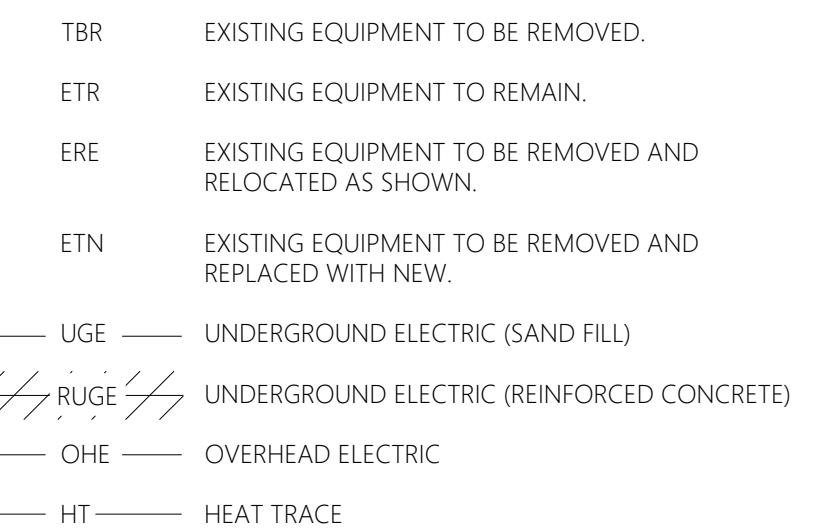
UNDERGROUND UTILITY LOCATIONS ARE NOT GUARANTEED, NOR IS THERE ANY GUARANTEE THAT ALL EXISTING UTILITIES WHETHER FUNCTIONAL OR ABANDONED WITHIN THE PROJECT AREA ARE SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UNDERGROUND UTILITIES BEFORE BEGINNING WORK & SHALL BE RESPONSIBLE FOR ALL DAMAGE RESULTING FROM HIS/HER WORK. THE CONTRACTOR SHALL NOTIFY "DIG SAFELY NEW YORK" 1-800-962-7962 PRIOR TO ANY EXCAVATION. NO ATTEMPT WAS MADE TO LOCATE SUBSURFACE STRUCTURES, ABOVEGROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE EXISTING UTILITIES NEEDED TO COMPLETE THE WORK AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. CONTRACTOR SHALL COMPLY WITH THE STATE OF NEW YORK DEPARTMENT OF PUBLIC SERVICE, 16NYCRR PART 753. THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY CONDITIONS THAT VARY FROM THOSE SHOWN ON THE PLANS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE ENGINEER AND OWNER. CONTRACTOR SHALL PROTECT ALL EXISTING STORM WATER DRAINAGE FACILITIES, INCLUDING PIPES, DRAINAGE STRUCTURES, SWALES, DITCHES, ETC. CONTRACTOR SHALL REPLACE AND RESTORE ANY AND ALL OF THESE FACILITIES, AFFECTED BY CONSTRUCTION ACTIVITIES, AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING UTILITIES DURING OPERATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESTORING ANY SURVEY OR RIGHT-OF-WAY MONUMENTS DISTURBED DURING CONSTRUCTION. THE CONTRACTOR SHALL EMPLOY A LICENSED LAND SURVEYOR TO RESTORE ALL DISTURBED MONUMENTS TO THEIR ORIGINAL LOCATION. RESTORE ALL SURFACES TO AS GOOD OR BETTER CONDITION THAN BEFORE CONSTRUCTION AS SOON AS POSSIBLE FOLLOWING COMPLETION OF WORK IN ANY AREA. THE CONTRACTOR SHALL BECOME FAMILIAR WITH SITE CONDITIONS AND SHALL INCLUDE PROVISIONS TO AVOID CONFLICTS WITH AND/OR RESTORE SITE FEATURES IN THE BID. ALL SUITABLE EXCAVATED MATERIAL SHALL BE REUSED ON SITE AND BE SUITABLY STABILIZED SO THAT IT CANNOT REASONABLY RE-ENTER ANY BODY OF WATER. ALL EXCAVATION SHALL BE CONDUCTED IN ACCORDANCE WITH OSHA STANDARDS, LOCAL REGULATIONS, STATE REGULATIONS, AND FEDERAL REGULATIONS.

GENERAL SCHEDULES

DRAWING NOTATION

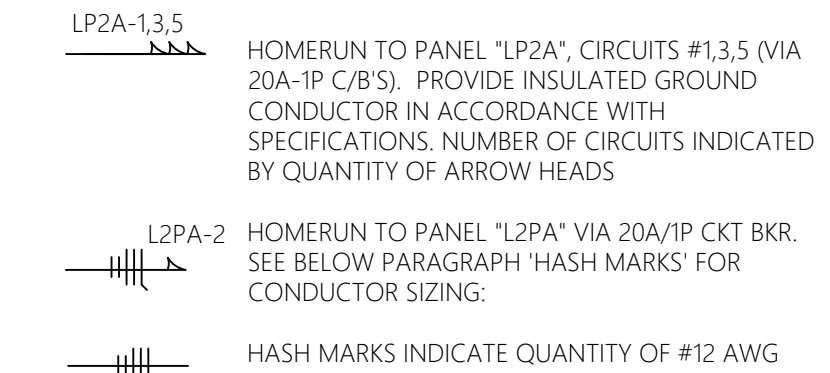


TEXT ADJACENT TO EQUIPMENT IS SOMETIMES ADDED FOR EXTRA CLARIFICATION ON DEMO/EXISTING TO REMAIN ITEMS. REFER TO LIST BELOW FOR DEFINITIONS.



CIRCUITING LEGEND

CIRCUITING



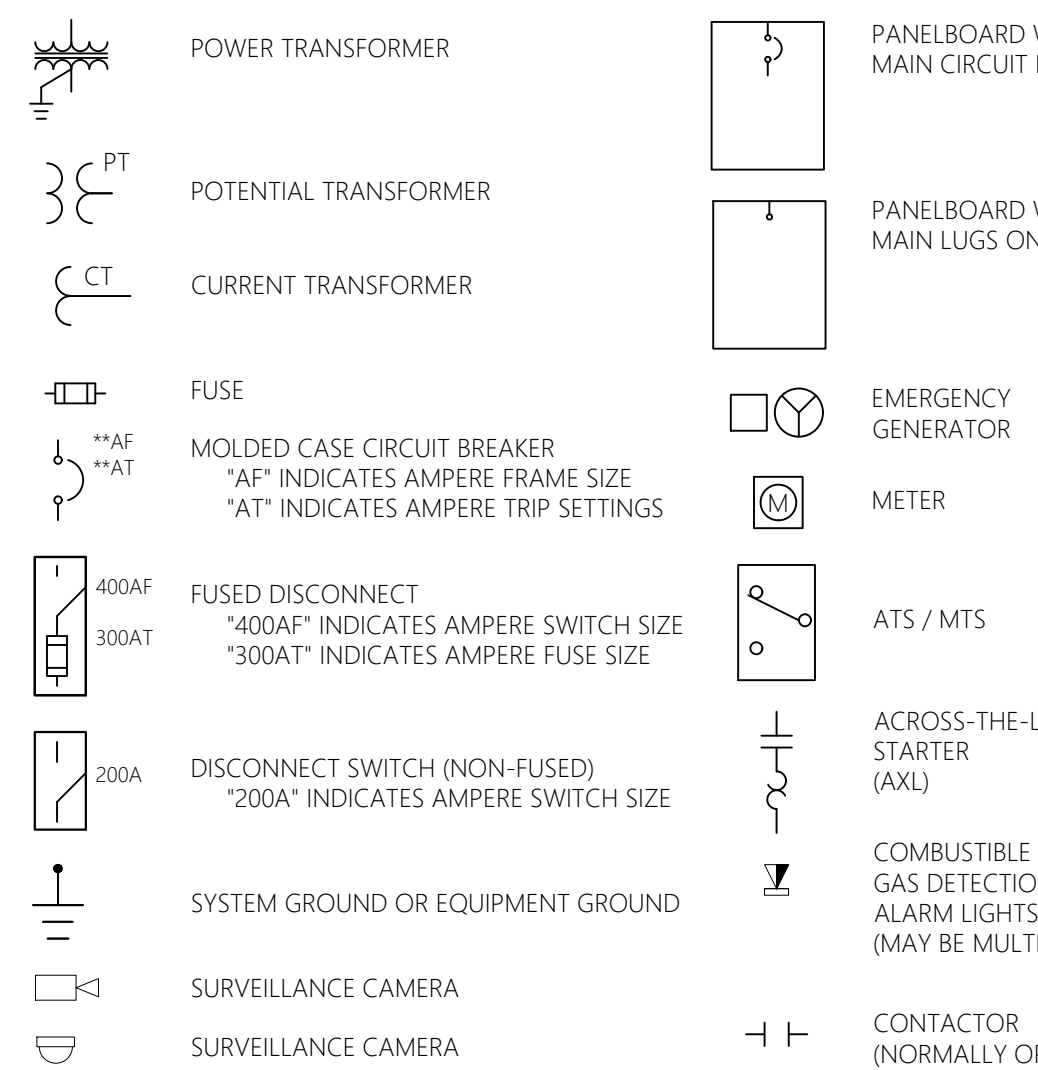
CIRCUIT ROUTING SHOWN ON DRAWINGS SHALL BE CONSIDERED DIAGRAMMATIC ONLY. CONTRACTOR SHALL PROVIDE NECESSARY OFFSETS AND ROUTE FEEDERS AFTER HAVING CONSIDERED ALL FIELD OBSTACLES.

GENERAL ABBREVIATIONS

Table of general abbreviations including terms like AMPERES, ABOVE FINISH FLOOR, BUILDING, BASIS OF DESIGN, CONDUIT, CIRCUIT BREAKER, etc.

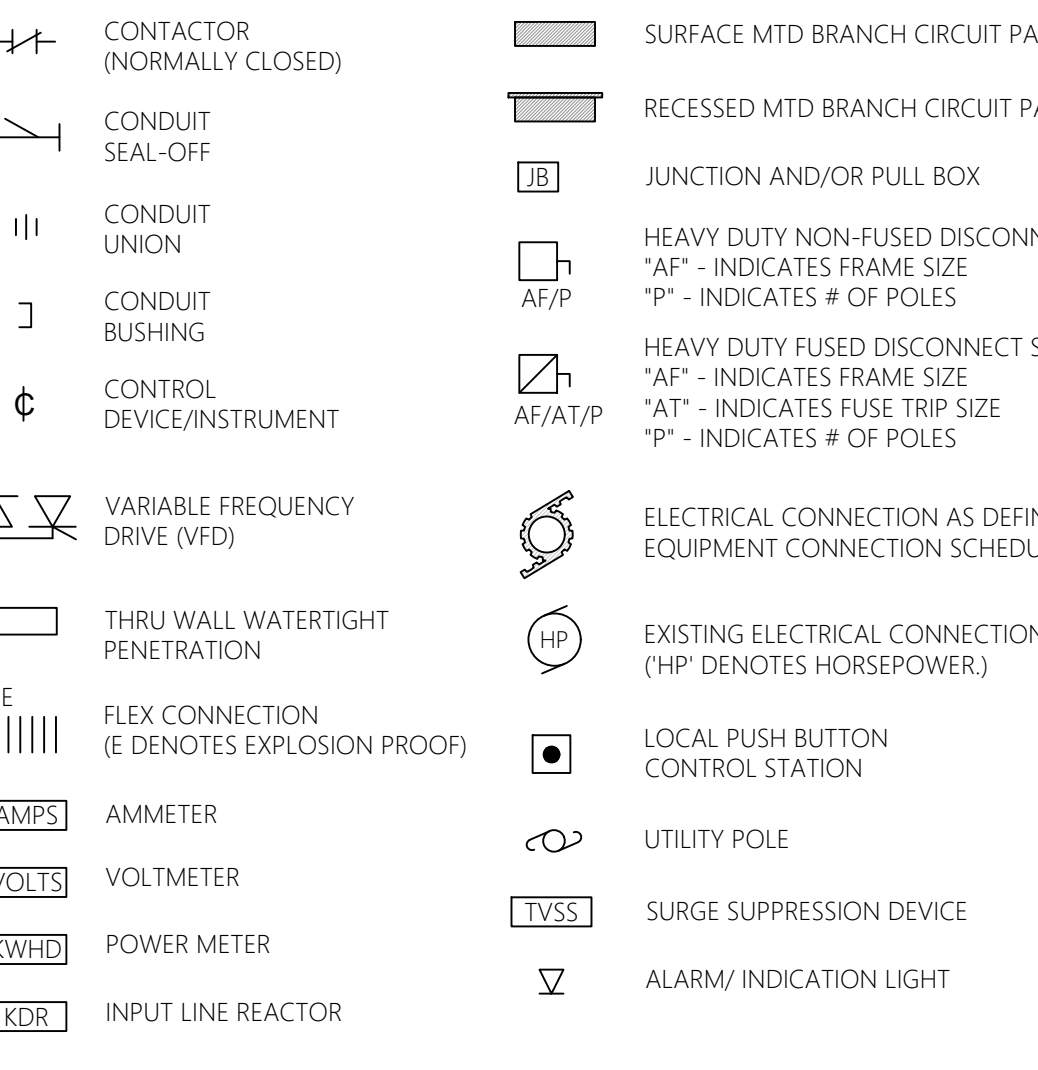
POWER EQUIPMENT

SINGLE LINE DIAGRAM



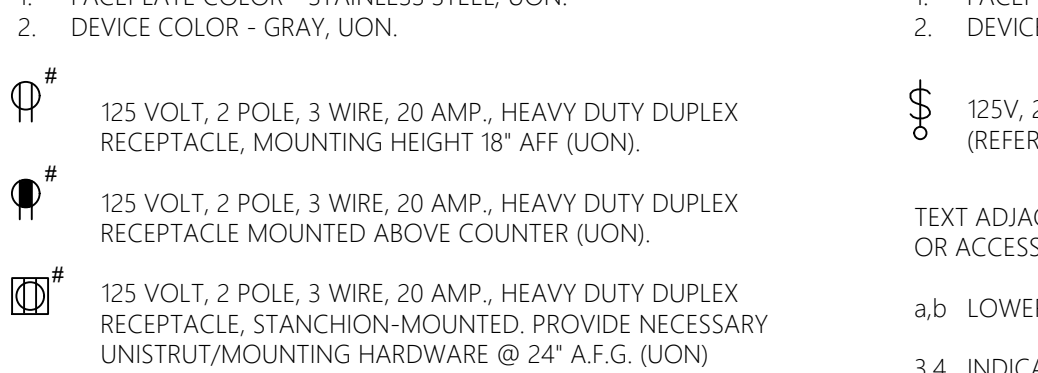
SWITCHES

FLOOR PLAN

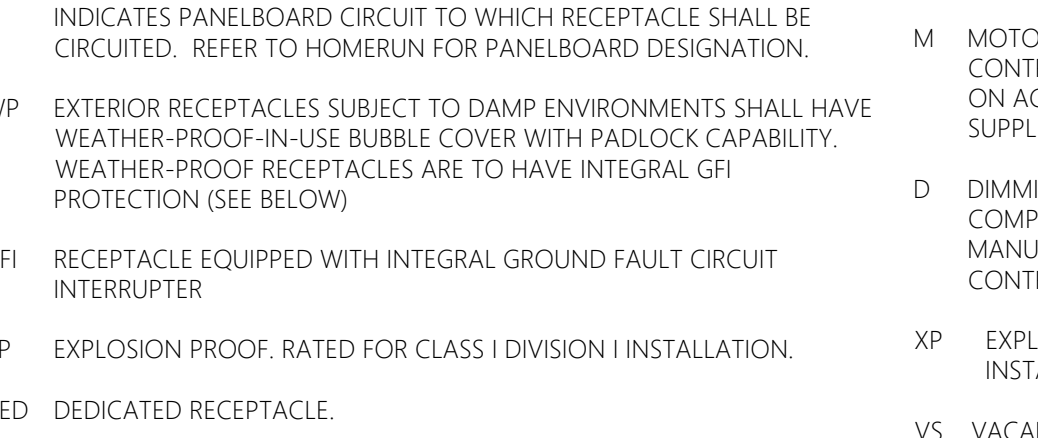


WIRING DEVICES

RECEPTACLES

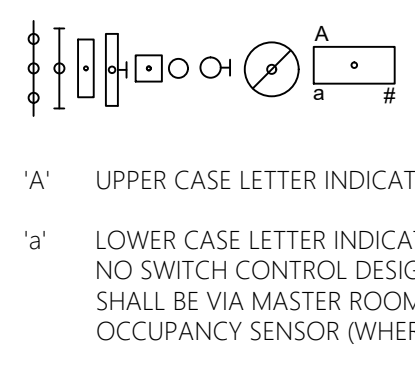


TEXT ADJACENT TO RECEPTACLES INDICATES CONFIGURATION OR ACCESSORIES. REFER TO LIST BELOW FOR DEFINITIONS.

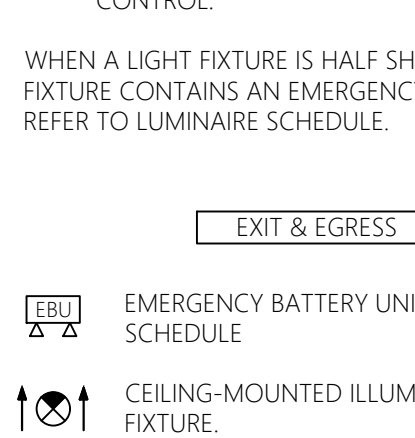


LIGHTING

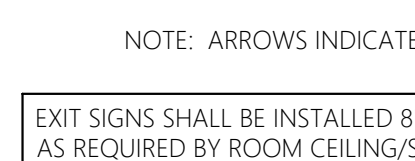
LIGHT FIXTURES



TEXT ADJACENT TO SWITCH INDICATES SPECIAL CONFIGURATION OR ACCESSORIES. REFER TO LIST BELOW FOR DEFINITIONS.



EXIT & EGRESS



NOTE: ARROWS INDICATE DIRECTION OF EGRESS. EXIT SIGNS SHALL BE INSTALLED 8'-6" AFF. PROVIDE PENDANTS AS REQUIRED BY ROOM CEILING/STRUCTURE HEIGHT.



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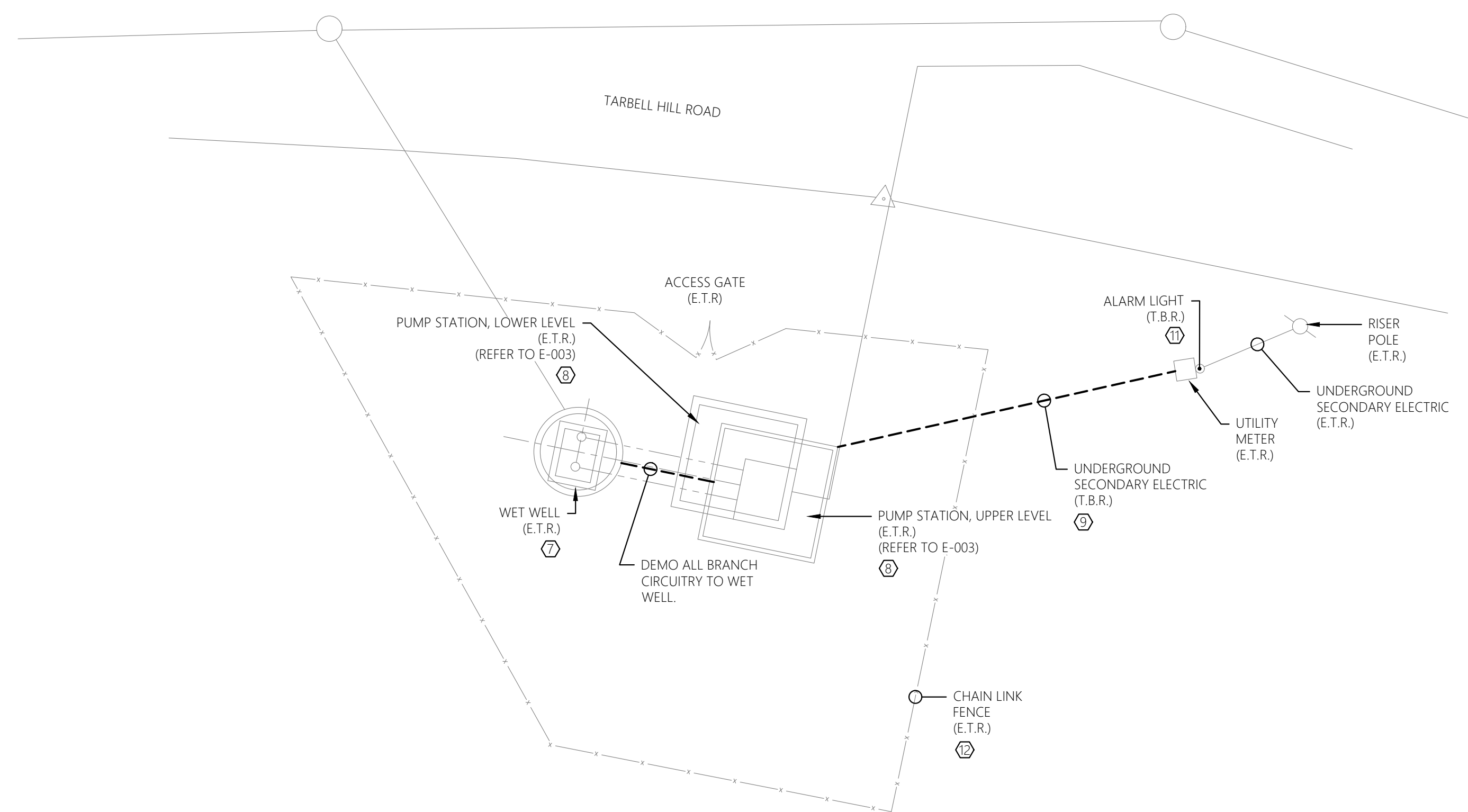
Professional Engineer information and contact details.

Approval table with columns for NO, DATE, REVISION, DRAWN, APPROVED, and JER.

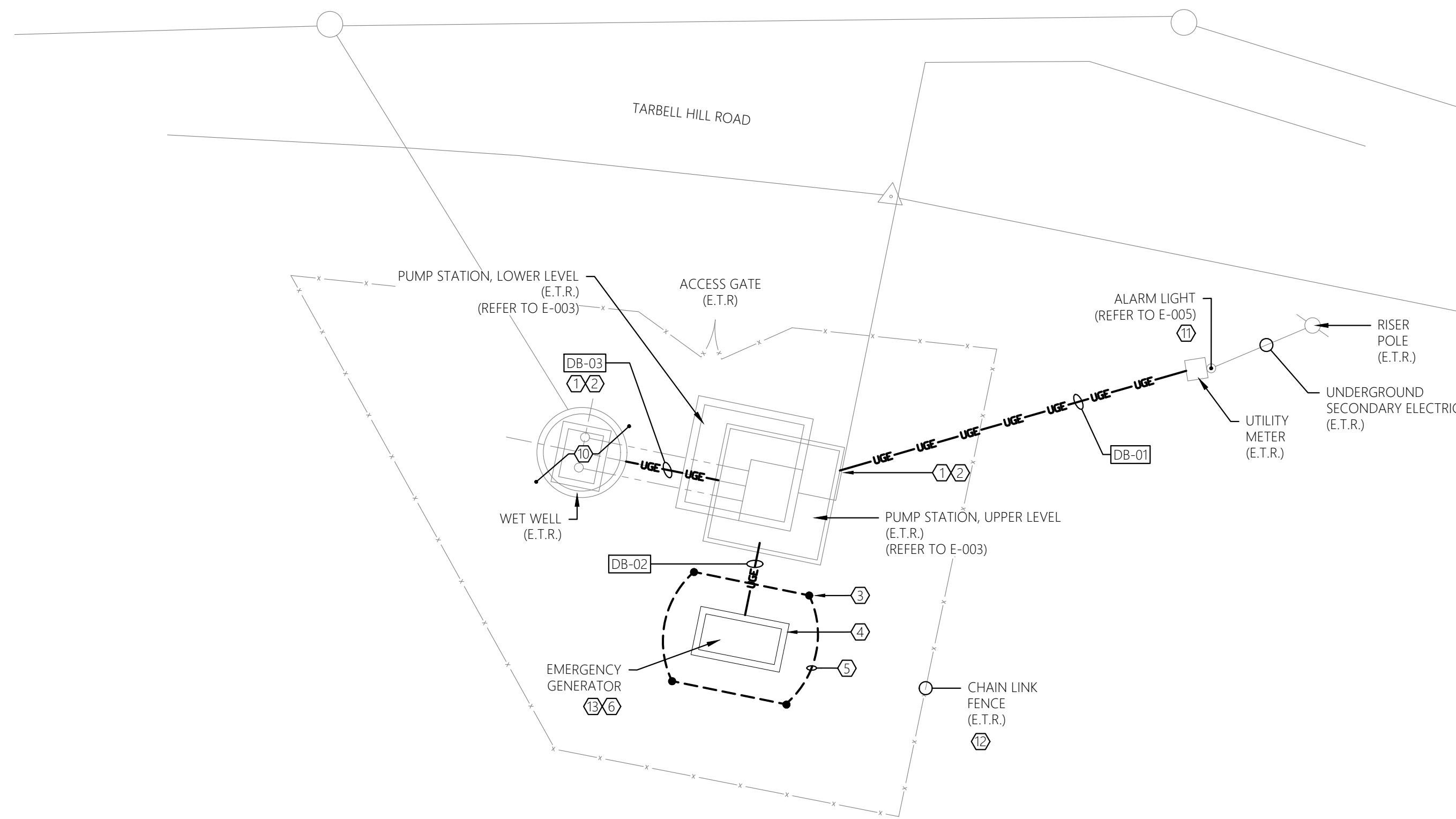
Project information table including PROJECT TITLE (TARBELL HILL PUMP STATION IMPROVEMENTS), CLIENT (TOWN OF MORIAH, NEW YORK), DRAWING TITLE, ORIGINAL SIZE (ARCH D), and PROJECT NUMBER (19016).

Revision table with columns for DATE, SCALE, DRAWN, CHECKED, and CONTRACT NO. Includes revision 1 for JANUARY 10, 2020.

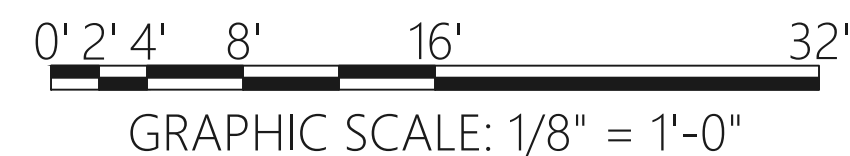
E-001



1 ELECTRICAL SITE PLAN - DEMOLITION
E-002 SCALE: 1/8" = 1'-0"



2 ELECTRICAL SITE PLAN - NEW WORK
E-002 SCALE: 1/8" = 1'-0"



GENERAL DEMO NOTES:

- REFER TO E-001 FOR ELECTRICAL LEGENDS, ABBREVIATIONS, AND GENERAL PROJECT NOTES.
- ITEMS INDICATED TO BE REMOVED:
 - REMOVE ALL CONDUCTORS AND EXPOSED CONDUIT BACK TO SOURCE (UOI).
 - REMOVE CIRCUIT WIRING AND CIRCUIT BREAKER FROM SOURCE PANEL (UOI).
 - REMOVE ALL ASSOCIATED CONTROL CONDUCTORS, CONDUITS, AND DEVICES (UOI).
 - REMOVE ASSOCIATED STARTERS, DISCONNECTS, CONTROL STATIONS, AND ALL ASSOCIATED CIRCUITRY (UOI).
 - REMOVE EQUIPMENT PADS & MOUNTING HARDWARE, BRACKETS, ACCESSORIES, ETC... (UOI).
 - REVISE PANELBOARD DIRECTORIES/NAME PLATES AS CHANGES OCCUR (UOI).
- THESE DEMOLITION DRAWINGS ARE SCHEMATIC IN NATURE AND ARE BASED ON CURSORY FIELD OBSERVATION AND EXISTING DRAWINGS. IT IS NOT THE INTENTION OF THESE DRAWINGS TO INDICATE EVERY DEVICE/FIXTURE REQUIRING REMOVAL/DEMO RATHER GENERAL SYSTEMS WHICH ARE TO BE REMOVED. COORDINATE REMOVAL EFFORTS CLOSELY WITH ALL TRADE CONTRACTORS.
- CIRCUITS NOT IN AREA OF WORK THAT ARE AFFECTED BY WORK SHALL BE OPERATIONAL DURING PROJECT. PROVIDE TEMPORARY CIRCUITS AS NECESSARY.
- CIRCUIT, EQUIPMENT, AND DEVICE REMOVAL SHALL NOT AFFECT THE INTEGRITY OR FUNCTIONALITY OF CIRCUITS TO REMAIN. ALL CIRCUITS TO REMAIN SHALL BE MAINTAINED. PROVIDE ALL NECESSARY CIRCUIT MODIFICATIONS AND EXTENSIONS.
- WHERE REMOVALS LEAVE HOLES AND DAMAGED SURFACES EXPOSED IN THE FINISHED WORK, PATCH AND REPAIR THESE HOLES AND DAMAGED SURFACES TO MATCH ADJACENT FINISHED SURFACES. WHERE NEW WORK IS TO BE APPLIED TO EXISTING SURFACES, PERFORM REMOVALS, AND PATCHING IN A MANNER TO PRODUCE SURFACES SUITABLE FOR RECEIVING NEW WORK. COORDINATE ALL WORK WITH OWNER.
- CONTRACTOR TO COORDINATE SEQUENCE OF REMOVALS WITH THE OWNER. NOTE: PUMP STATION MUST REMAIN OPERATIONAL AT ALL TIMES. REFER TO SPECIFICATIONS AND DEMOLITION SINGLE LINE DIAGRAMS FOR ADDITIONAL INFO.
- NOT ALL EQUIPMENT/DEVICES WITHIN THE PUMP STATION ARE SHOWN FOR CLARITY. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT DISCREPANCIES TO ENGINEER PRIOR TO COMMENCEMENT OF DEMOLITION.
- WHERE REMOVAL OF CONDUIT SYSTEM IS NOT FEASIBLE CONTRACTOR TO REMOVE ALL CONDUCTORS FROM CONDUIT SYSTEM, CUT FLUSH, CAP CONDUIT SYSTEM, AND ABANDON IN PLACE. CONTRACTOR TO FIELD VERIFY AND COORDINATE FINAL REQUIREMENTS WITH THE OWNER, TYPICAL.
- NOT ALL EXISTING UNDERGROUND UTILITIES SHOWN FOR CLARITY. REFER TO GENERAL SITE PLANS AND GENERAL NOTES ON SHEET E-001 FOR ADDITIONAL SITE INFORMATION. CONTRACTOR TO FIELD VERIFY AS REQUIRED.
- ALL EXISTING UNDERGROUND/SUB-SURFACE ELECTRICAL DUCT BANKS, FEEDERS, AND BRANCH CIRCUITS NOT SHOWN FOR CLARITY. REFER TO ELECTRICAL SINGLE LINE DIAGRAM DEMOLITION SHEETS FOR REMOVAL INFO.
- ALL UTILITY CHARGES RESULTING FROM THE DISCONNECT/RECONNECT OF THE EXISTING ELECTRICAL SERVICE TO BE BILLED DIRECTLY TO THE OWNER FROM THE UTILITY COMPANY.

GENERAL SHEET NOTES:

- REFER TO E-001 FOR ELECTRICAL LEGENDS, ABBREVIATIONS AND GENERAL PROJECT NOTES.
- PROPOSED UG DUCT BANKS AND STRUCTURES SHOWN ARE APPROXIMATE IN LOCATION. ROUTE UG DUCT BANKS WITH GENERAL ROUTING AS SHOWN ON PLANS. ROUTE DUCT BANKS AS NECESSARY TO AVOID CONFLICTS WITH SITE CONDITIONS AND PROPOSED PIPING SYSTEMS.
- DUCT BANKS SHALL NOT BE LOCATED ABOVE OTHER PIPING SYSTEMS EXCEPT WHERE CROSSING. MAINTAIN NESC SEPARATION BETWEEN UTILITIES.
- REFER TO UNDERGROUND UTILITIES (GENERAL NOTES) ON SHEET E-001 FOR ADDITIONAL INFORMATION.
- COORDINATE FINAL DUCT BANK LOCATIONS (PRIOR TO ROUGH-IN) WITH THE OWNER TO AVOID CONFLICT WITH PROPOSED WORK AND EXISTING CONDITIONS.
- REFER TO DUCT BANK SCHEDULE FOR ADDITIONAL INFORMATION REGARDING DUCT BANK ROUTING, PURPOSE, AND CONTENTS.
- PROVIDE A DEDICATED GROUNDING CONDUCTOR FOR ALL ELECTRICAL EQUIPMENT AND ASSOCIATED EQUIPMENT/DEVICES.
- EQUIPMENT AND DEVICE LOCATIONS ARE SHOWN AS GENERAL IN NATURE. REFER TO GENERAL SHEETS AND COORDINATE WITH ALL CONTRACT DRAWINGS FOR EXACT LOCATIONS.
- CONTRACTOR TO COORDINATE ALL ASPECTS OF SEQUENCE OF CONSTRUCTION WITH THE OWNER.
- REFER TO ELECTRICAL SINGLE LINE DIAGRAMS, FLOOR PLANS, RISER DIAGRAMS, SCHEDULES, & DETAILS FOR ADDITIONAL INFORMATION/REQUIREMENTS.
- REFER TO OVERALL SITE PLANS ON GENERAL DRAWINGS FOR ADDITIONAL SITE INFORMATION.
- NOT ALL EXISTING/PROPOSED SITE UTILITIES SHOWN FOR CLARITY. REFER TO GENERAL DRAWINGS FOR ADDITIONAL SITE INFORMATION.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL SITE RESTORATION WITH THE OWNER. REFER TO TYPICAL DUCT BANK SECTION DETAILS FOR ADDITIONAL INFORMATION.
- CONTRACTOR TO COORDINATE PARKING & LAYDOWN AREA WITH THE OWNER.

SHEET KEY NOTES:

- COORDINATE PROPOSED CONDUIT STUB UPS AT EQUIPMENT AREA AND BUILDING TO AVOID CONFLICTS.
- FINAL CONDUIT PENETRATION LOCATION THROUGH WALL TO BE CLOSELY COORDINATED WITH THE OWNER. CONTRACTOR TO FIELD VERIFY.
- 3/4" x 10'-0" COPPER GROUND ROD. TYPICAL OF 4, ONE AT EACH CORNER OF THE GROUND RING.
- CONCRETE GENERATOR PAD. REFER TO 'TYPICAL GENERATOR PAD DETAIL' ON SHEET E-006 FOR ADDITIONAL INFORMATION.
- GROUND RING. GROUND RING TO BE BURIED AT MINIMUM 3 FEET BELOW FINISHED GRADE. GROUND RING TO BE KEPT AT MINIMUM OF 3 FEET AWAY FROM EQUIPMENT AT ALL TIMES. PROVIDE AND INSTALL 3/4" x 10" COPPER GROUND RODS AT EACH CORNER OF GROUND RING FOR A TOTAL OF FOUR (4) GROUND RODS. ALL GROUND CONDUCTORS SHALL BE #4 COPPER, U.O.N.
- EMERGENCY GENERATOR. GENERATOR TO BE KEPT A MINIMUM OF 5'-0" FROM THE PUMP STATION BUILDING AT ALL TIMES. FINAL LOCATION TO BE ADJUSTED TO AVOID CONFLICT AND COMPLY WITH NEC ARTICLE 110.26 'SPACE ABOUT ELECTRICAL EQUIPMENT'. COORDINATE FINAL LOCATION IN THE FIELD WITH THE OWNER AND ENGINEER.
- CONTRACTOR TO PROVIDE COMPLETE ELECTRICAL DEMOLITION FOR THE EXISTING WET WELL INCLUDING BUT NOT LIMITED TO ALL MOTORS (DISCONNECT/REMOVE BRANCH CIRCUITRY), INSTRUMENTATION, BRANCH CIRCUITRY, FLOATS, ETC. WET WELL STRUCTURE TO REMAIN. COORDINATE FINAL REQUIREMENTS CLOSELY WITH THE OWNER.
- PROVIDE COMPLETE ELECTRICAL DEMOLITION FOR THIS BUILDING. REMOVE THE FOLLOWING DEVICES INCLUDING BUT NOT LIMITED TO THE FOLLOWING; ALL MOTORS (DISCONNECT/REMOVE BRANCH CIRCUITRY), DISTRIBUTION EQUIPMENT, BRANCH CIRCUITRY (CONDUIT AND CONDUCTORS), DISCONNECT SWITCHES, RECEPTACLES, JUNCTION BOXES, AND LIGHTING FIXTURES (ASSOCIATED CONTROL DEVICES). COORDINATE REMOVAL EFFORTS CLOSELY WITH APPLICABLE TRADE CONTRACTORS.
- WHERE REMOVAL OF CONDUIT SYSTEM IS NOT FEASIBLE CONTRACTOR TO REMOVE ALL CONDUCTORS FROM CONDUIT SYSTEM, CUT FLUSH, CAP CONDUIT SYSTEM, AND ABANDON IN PLACE. CONTRACTOR TO FIELD VERIFY AND COORDINATE FINAL REQUIREMENTS WITH THE OWNER, TYPICAL.
- WET WELL INTERIOR IS A CLASS I GROUP D SPACE. ALL WIRING METHODS TO COMPLY WITH NEC ARTICLE 501. ALL ELECTRICAL EQUIPMENT AND DEVICES INTERIOR TO THESE SPACES TO BE EXPLOSION PROOF RATED FOR USE IN A CLASS I DIVISION I GROUP D ENVIRONMENT.
- ALARM LIGHT IS TO BE REMOVED AND REPLACED WITH NEW. REFER TO NEW WORK PLANS FOR ADDITIONAL INFORMATION.
- CONTRACTOR TO COORDINATE FENCE REPLACEMENT WITH OWNER. REFER TO G-SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
- GENERATOR SHALL BE PROVIDED BY THE OWNER AND TURNED OVER TO THE CONTRACTOR. CONTRACTOR IS RESPONSIBLE FOR INSTALLATION AS SHOWN. GENERATOR TO BE FURNISHED BY THE OWNER IS OLYMPIAN MODEL D60P2 (PORTABLE). CONTRACTOR TO FIELD VERIFY DIMENSIONS OF OWNER'S GENERATOR PRIOR TO BID.



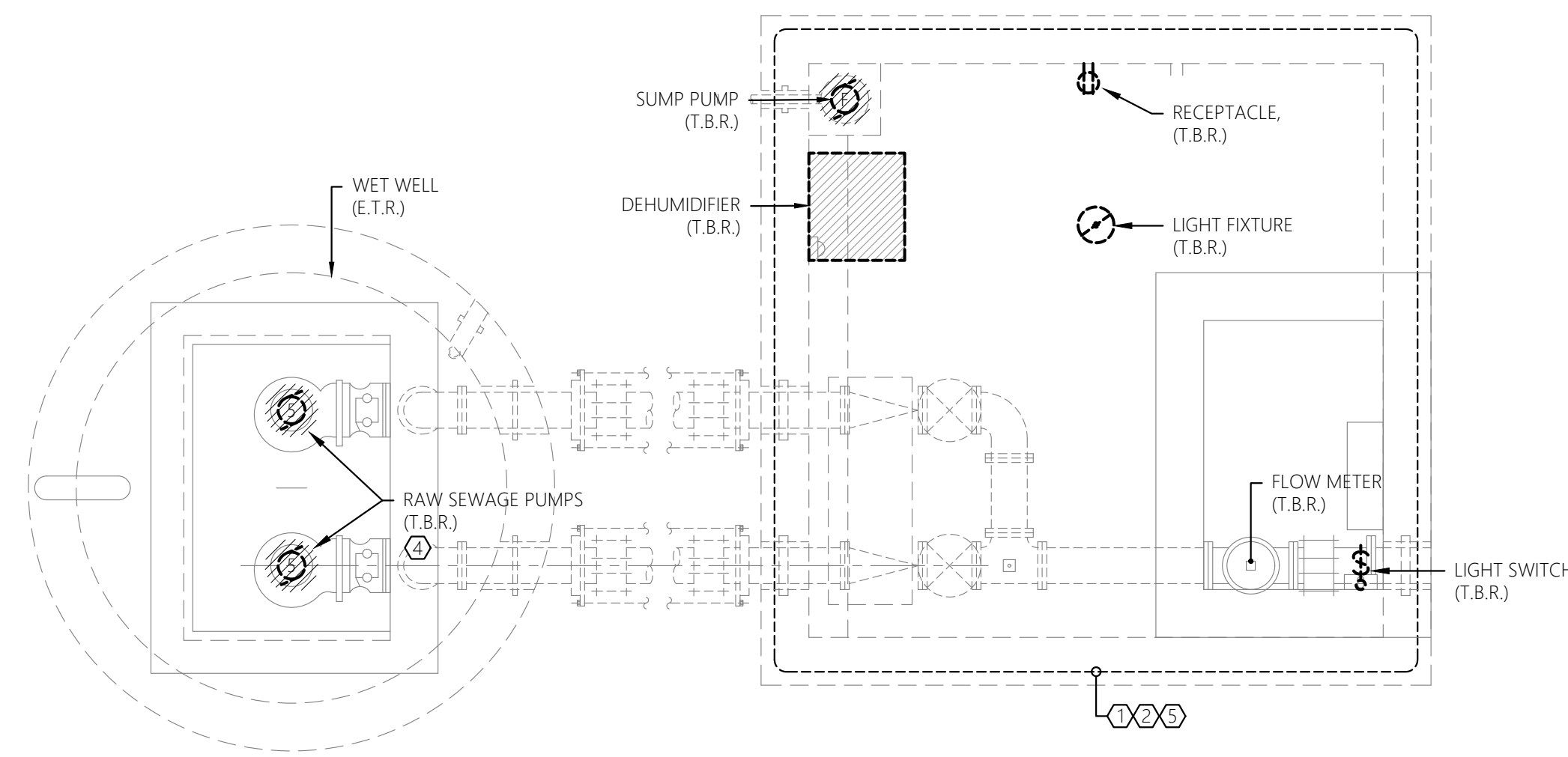
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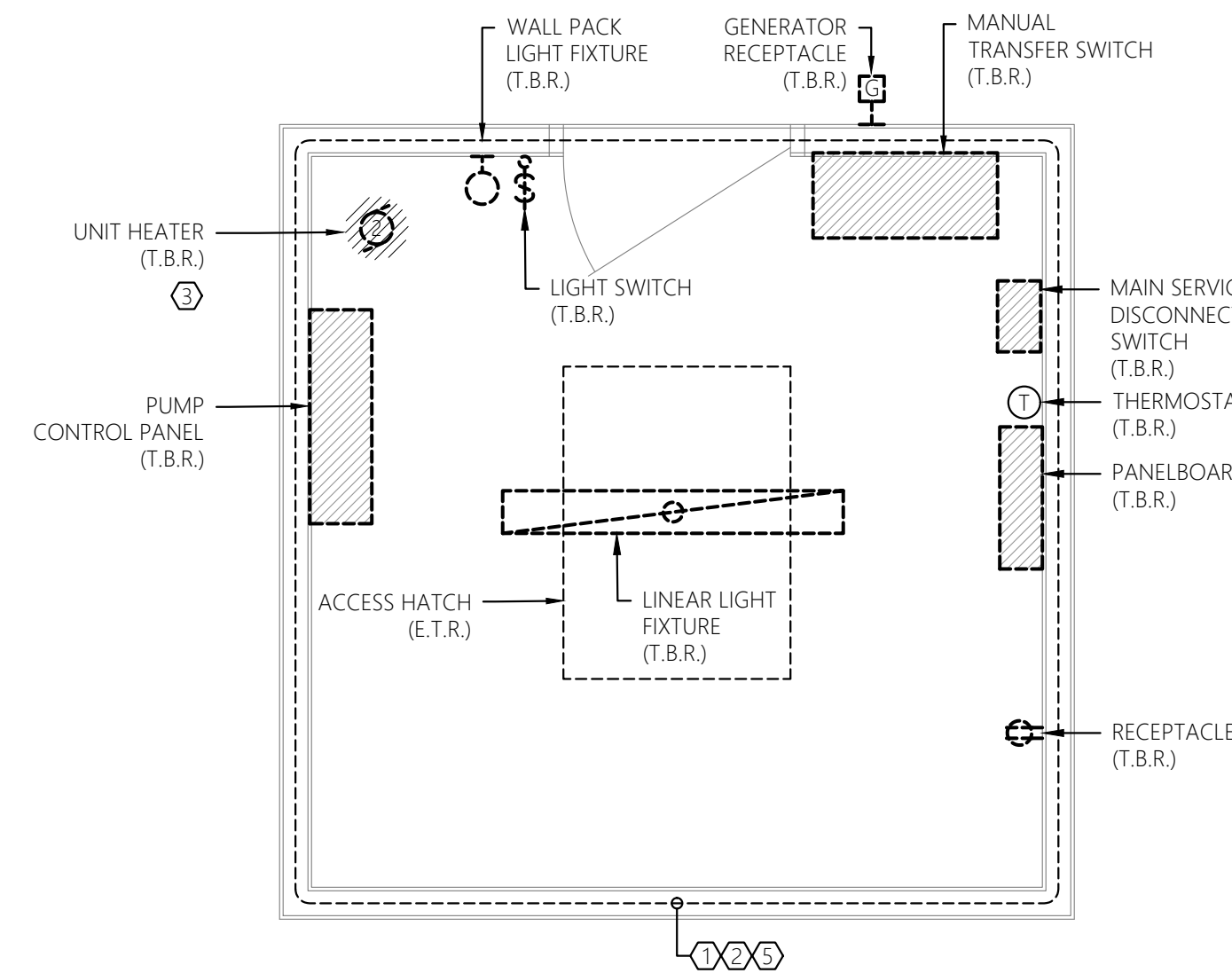
DRAWING REVISIONS		DRAWING APPROVALS	
NO.	DATE	REVISION	APPROVAL
5			JER
4			JER
3	01/20/20	FOR BID	EB
2	04/20/19	FOR APPROVAL	JER
1			EB

PROJECT TITLE:	TARBELL HILL PUMP STATION IMPROVEMENTS
CLIENT:	TOWN OF MORIAH, NEW YORK
DRAWING TITLE:	ELECTRICAL SITE PLANS
ORIGINAL SIZE:	ARCH D

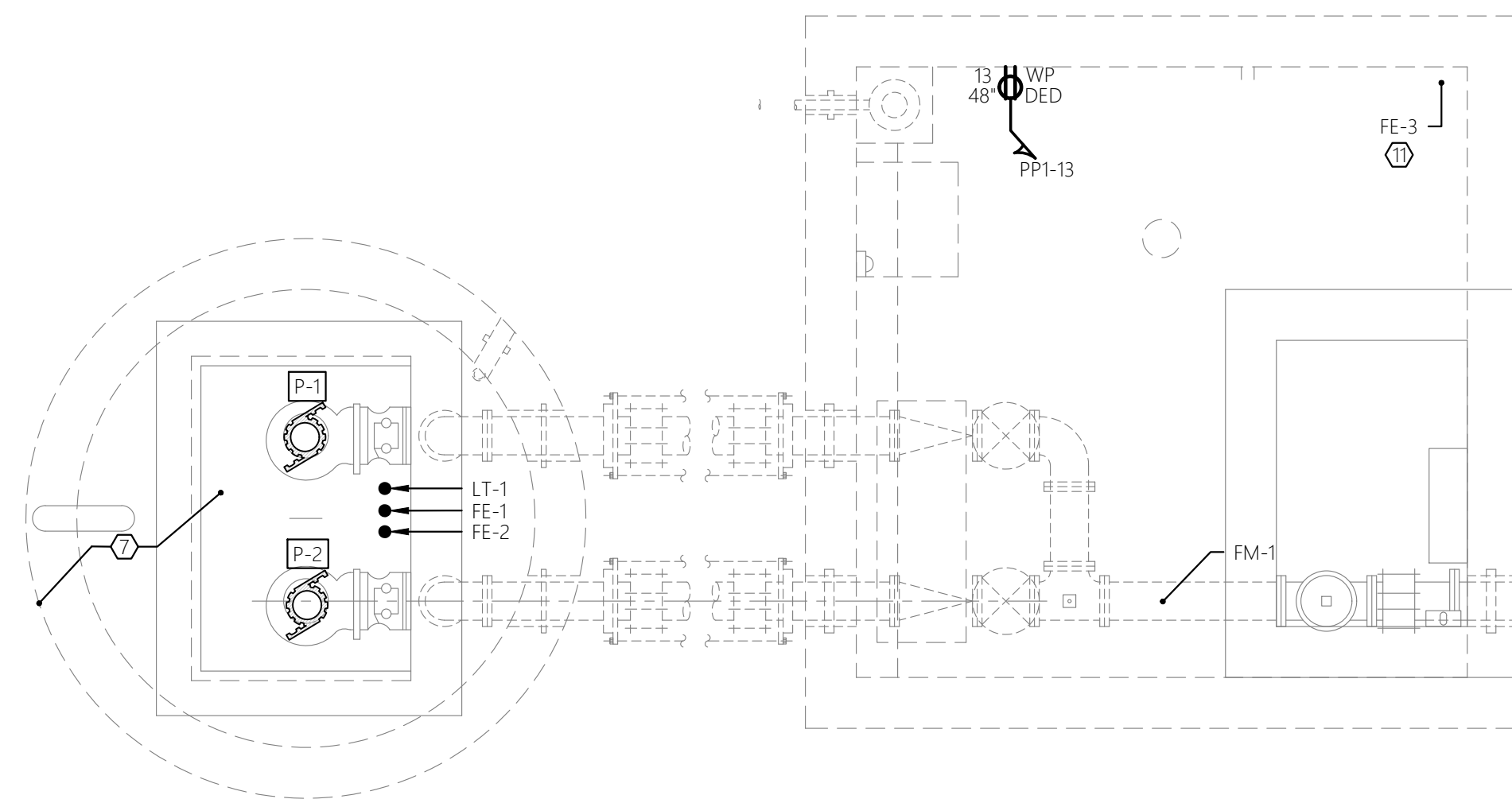
DATE:	JANUARY 10, 2020
SCALE:	AS NOTED
DRAWN:	EB
CHECKED:	JER
JOB #:	19016
CONTRACT NO.:	
DRAWING NUMBER:	E-002



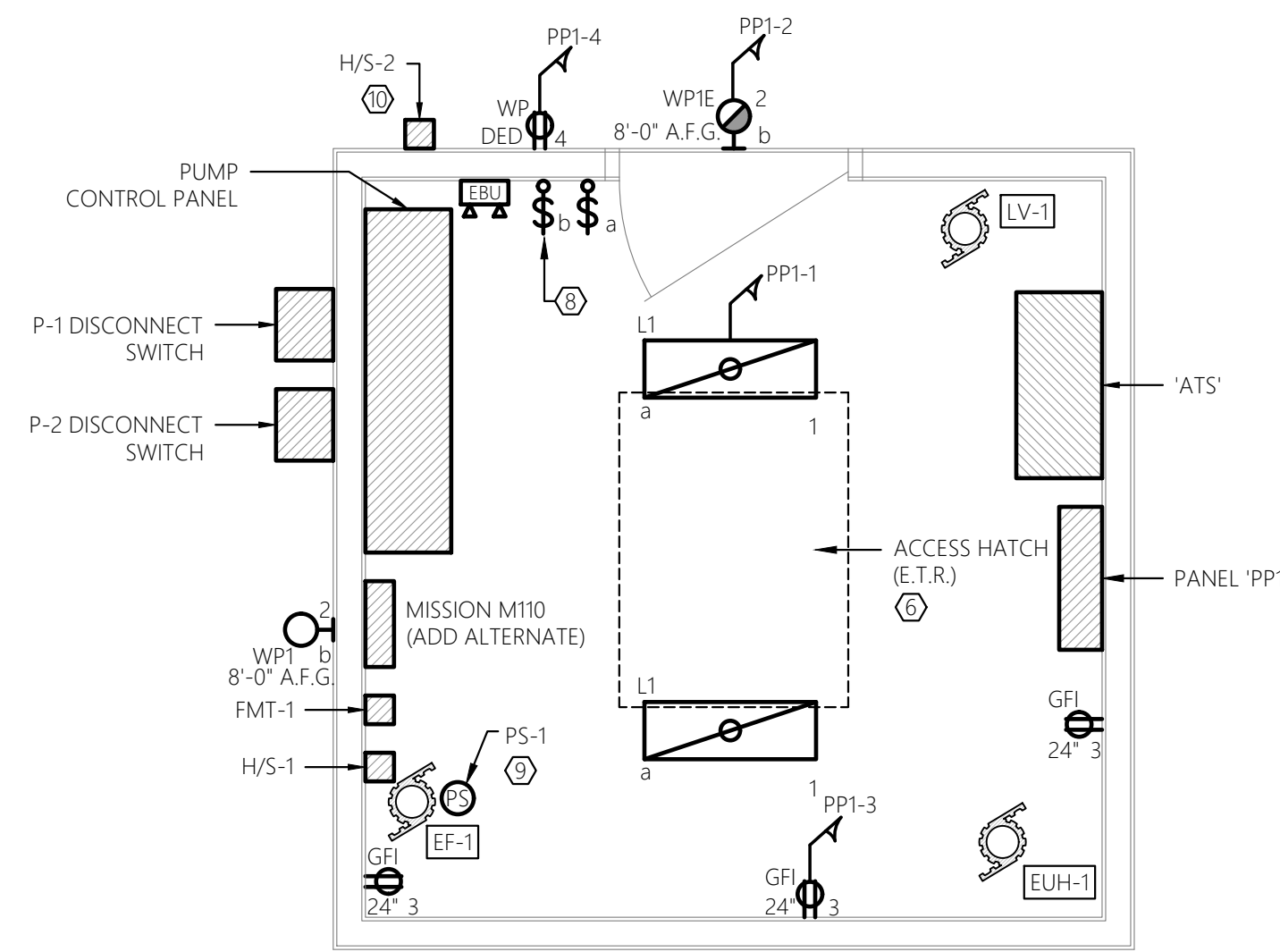
1 ELECTRICAL DEMOLITION PLAN - PUMP STATION LOWER LEVEL
E-003 SCALE: 1/2" = 1'-0"



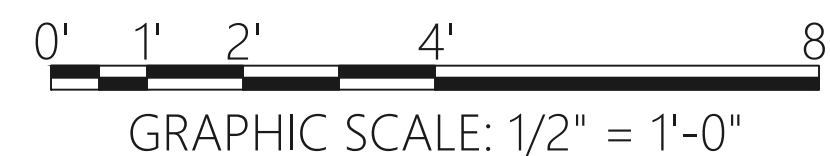
3 ELECTRICAL DEMOLITION PLAN - PUMP STATION UPPER LEVEL
E-003 SCALE: 1/2" = 1'-0"



2 ELECTRICAL NEW WORK PLAN - PUMP STATION LOWER LEVEL
E-003 SCALE: 1/2" = 1'-0"



4 ELECTRICAL NEW WORK PLAN - PUMP STATION UPPER LEVEL
E-003 SCALE: 1/2" = 1'-0"



GENERAL DEMO NOTES:

- REFER TO E-001 FOR ELECTRICAL LEGENDS, ABBREVIATIONS, AND GENERAL PROJECT NOTES.
- ITEMS INDICATED TO BE REMOVED:
 - REMOVE ALL CONDUCTORS AND EXPOSED CONDUIT BACK TO SOURCE (UOI).
 - REMOVE CIRCUIT WIRING AND CIRCUIT BREAKER FROM SOURCE PANEL (UOI).
 - REMOVE ALL ASSOCIATED CONTROL CONDUCTORS, CONDUITS, AND DEVICES (UOI).
 - REMOVE ASSOCIATED STARTERS, DISCONNECTS, CONTROL STATIONS, AND ALL ASSOCIATED CIRCUITRY (UOI).
 - REMOVE EQUIPMENT PADS & MOUNTING HARDWARE, BRACKETS, ACCESSORIES, ETC., (UOI).
 - REVISE PANELBOARD DIRECTORIES/NAME PLATES AS CHANGES OCCUR (UOI).
- THESE DEMOLITION DRAWINGS ARE SCHEMATIC IN NATURE AND ARE BASED ON CURSORY FIELD OBSERVATION AND EXISTING DRAWINGS. IT IS NOT THE INTENTION OF THESE DRAWINGS TO INDICATE EVERY DEVICE/FIXTURE REQUIRING REMOVAL/DEMO RATHER GENERAL SYSTEMS WHICH ARE TO BE REMOVED. COORDINATE REMOVAL EFFORTS CLOSELY WITH ALL TRADE CONTRACTORS.
- CIRCUITS NOT IN AREA OF WORK THAT ARE AFFECTED BY WORK SHALL BE OPERATIONAL DURING PROJECT. PROVIDE TEMPORARY CIRCUITS AS NECESSARY.
- CIRCUIT, EQUIPMENT, AND DEVICE REMOVAL SHALL NOT AFFECT THE INTEGRITY OR FUNCTIONALITY OF CIRCUITS TO REMAIN. ALL CIRCUITS TO REMAIN SHALL BE MAINTAINED. PROVIDE ALL NECESSARY CIRCUIT MODIFICATIONS AND EXTENSIONS.
- WHERE REMOVALS LEAVE HOLES AND DAMAGED SURFACES EXPOSED IN THE FINISHED WORK, PATCH AND REPAIR THESE HOLES AND DAMAGED SURFACES TO MATCH ADJACENT FINISHED SURFACES. WHERE NEW WORK IS TO BE APPLIED TO EXISTING SURFACES, PERFORM REMOVALS, AND PATCHING IN A MANNER TO PRODUCE SURFACES SUITABLE FOR RECEIVING NEW WORK. COORDINATE ALL WORK WITH OWNER.
- CONTRACTOR TO COORDINATE SEQUENCE OF REMOVALS WITH THE OWNER. NOTE, PUMP STATION MUST REMAIN OPERATIONAL AT ALL TIMES. REFER TO SPECIFICATIONS AND DEMOLITION SINGLE LINE DIAGRAMS FOR ADDITIONAL INFO.
- NOT ALL EQUIPMENT/DEVICES WITHIN THE PUMP STATION ARE SHOWN FOR CLARITY. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT DISCREPANCIES TO ENGINEER PRIOR TO COMMENCEMENT OF DEMOLITION.
- WHERE REMOVAL OF CONDUIT SYSTEM IS NOT FEASIBLE CONTRACTOR TO REMOVE ALL CONDUCTORS FROM CONDUIT SYSTEM, CUT FLUSH, CAP CONDUIT SYSTEM, AND ABANDON IN PLACE. CONTRACTOR TO FIELD VERIFY AND COORDINATE FINAL REQUIREMENTS WITH THE OWNER, TYPICAL.

GENERAL SHEET NOTES:

- REFER TO E-001 FOR ELECTRICAL LEGENDS, ABBREVIATIONS AND GENERAL PROJECT NOTES.
- PROVIDE A DEDICATED GROUNDING CONDUCTOR FOR ALL ELECTRICAL EQUIPMENT AND ASSOCIATED EQUIPMENT/DEVICES.
- EQUIPMENT AND DEVICE LOCATIONS ARE SHOWN AS GENERAL IN NATURE. REFER TO M SHEETS AND H SHEETS FOR EXACT LOCATIONS. CLOSE COORDINATION FOR TRADE CONTRACTORS REQUIRED.
- CONTRACTOR TO ADJUST FINAL PROPOSED INTERIOR LIGHT FIXTURES LOCATIONS TO AVOID CONFLICT WITH PROPOSED EQUIPMENT AND PIPING SYSTEMS. COORDINATE WITH ALL TRADE CONTRACTORS TO AVOID CONFLICT.
- ALL PROPOSED EQUIPMENT LOCATIONS/INSTALLATIONS TO COMPLY WITH NEC ARTICLE 110.26 'SPACES ABOUT ELECTRICAL EQUIPMENT'.
- CONTRACTOR RESPONSIBLE FOR MOUNTING OF ALL PROVIDED PANELS. PROVIDE ALL NECESSARY MOUNTING HARDWARE/EQUIPMENT. ALL MOUNTING HARDWARE/EQUIPMENT TO BE STAINLESS STEEL.
- REFER TO ELECTRICAL SINGLE LINE DIAGRAMS, RISER DIAGRAMS, SCHEDULES, AND DETAILS FOR ADDITIONAL INFORMATION/REQUIREMENTS.
- CONTRACTOR TO COORDINATE ALL ASPECTS OF SEQUENCE OF CONSTRUCTION WITH THE OWNER.

SHEET KEY NOTES:

- CONTRACTOR TO DISCONNECT & REMOVE ALL EXISTING LIGHT FIXTURES, LIGHT SWITCHES, LIGHTING CONTROL DEVICES, MOUNTING HARDWARE, AND ASSOCIATED COMPONENTS IN THEIR ENTIRETY. REMOVE CONDUIT AND CONDUCTORS BACK TO SOURCE. CONTRACTOR TO FIELD VERIFY.
- CONTRACTOR TO PROVIDE TEMPORARY LIGHTING INCLUDING ALL CIRCUITING AND CONTROLS FOR A COMPLETE AND OPERABLE TEMPORARY LIGHTING SYSTEM THROUGHOUT THE DURATION OF PROJECT. CONTRACTOR TO COORDINATE FINAL TEMPORARY LIGHTING REQUIREMENTS WITH THE OWNER AND PROVIDE AS NECESSARY. TEMPORARY LIGHTING SYSTEMS TO BE PROVIDED FOR ALL AREAS IN WHICH THE EXISTING LIGHTING SYSTEMS ARE DISTURBED AS PART OF THIS PROJECT.
- CONTRACTOR TO CLOSELY COORDINATE THE REMOVAL EFFORTS OF ALL HVAC EQUIPMENT SCHEDULED FOR REMOVAL WITH THE H-DRAWINGS. TYPICAL.
- CONTRACTOR TO CLOSELY COORDINATE THE REMOVAL EFFORTS OF ALL PUMP STATION PROCESS EQUIPMENT/DEVICES SCHEDULED FOR REMOVAL WITH THE GENERAL DRAWINGS. TYPICAL.
- PROVIDE COMPLETE ELECTRICAL DEMOLITION FOR THIS AREA (UNLESS OTHERWISE NOTED). REMOVE THE FOLLOWING DEVICES INCLUDING BUT NOT LIMITED TO THE FOLLOWING: ALL DISTRIBUTION EQUIPMENT, DISCONNECTS/MOTOR STARTERS, RECEPTACLES, INTERIOR/EXTERIOR LIGHTING, JUNCTION BOXES, BONDING/GROUNDING ELECTRODES, ELECTRIC VALVES, MOTORS (DISCONNECT & REMOVE BRANCH CIRCUITRY), AND INSTRUMENTATION/CONTROLS. COORDINATE REMOVAL EFFORTS CLOSELY WITH APPLICABLE TRADE CONTRACTOR.
- ACCESS HATCH (BELOW), CONTRACTOR TO KEEP AREA CLEAR FOR FUTURE PROVISIONS OF REMOVING EQUIPMENT.
- WET WELL INTERIOR IS A CLASS I DIVISION I GROUP D SPACE. ALL WIRING METHODS TO COMPLY WITH NEC ARTICLE 501. ALL ELECTRICAL EQUIPMENT AND DEVICES INTERIOR TO THESE SPACES TO BE EXPLOSION PROOF RATED FOR USE IN A CLASS I DIVISION I GROUP D ENVIRONMENT.
- CONTRACTOR TO PROVIDE TIME SWITCH AS WATTSTOPPER RT-200 ASTRONOMICAL TIME SWITCH OR APPROVED EQUAL. TIME SWITCH TO CONTROL TWO (2) PROPOSED EXTERIOR LIGHTING FIXTURES ONE (1) TYPE 'WPI', ONE (1) TYPE 'WPIE'. PROGRAM THE SWITCH FOR LIGHTING 'ON' AT ASTRONOMICAL SUNSET AND 'OFF' AT ASTRONOMICAL SUNRISE. FINAL ON/OFF PARAMETERS TO BE COORDINATED WITH THE OWNER.
- DUCT MOUNTED PRESSURE/FLOW SWITCH. REFER TO E-005.
- HVAC VENTILATION MONITORING ALARM HORN/STROBE. INSTALL AT 8'-0" ABOVE FINISHED FLOOR/GRADE. REFER TO SPECIFICATIONS AND RISER DIAGRAM ON SHEET E-005 FOR ADDITIONAL INFORMATION. TYPICAL OF 2.
- FLOAT SWITCH INTENDED TO PROVIDE GENERAL ALARM TO OPERATORS IN THE EVENT WATER STARTS TO BUILD WITHIN THE LOWER LEVEL. INSTALL AT 6" A.F.F. PROVIDE NECESSARY CLAMPS AND INSTALLATION HARDWARE TO SECURELY INSTALL FLOAT SWITCH AS INDICATED.

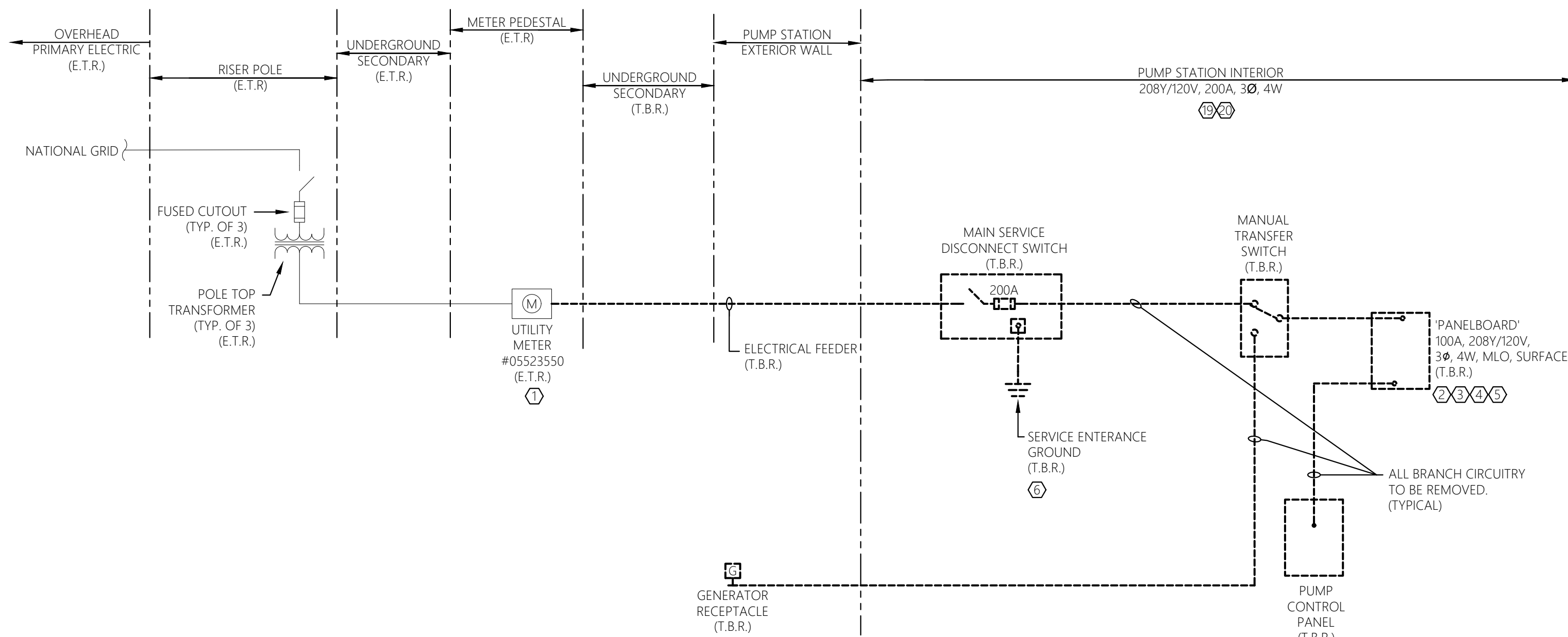


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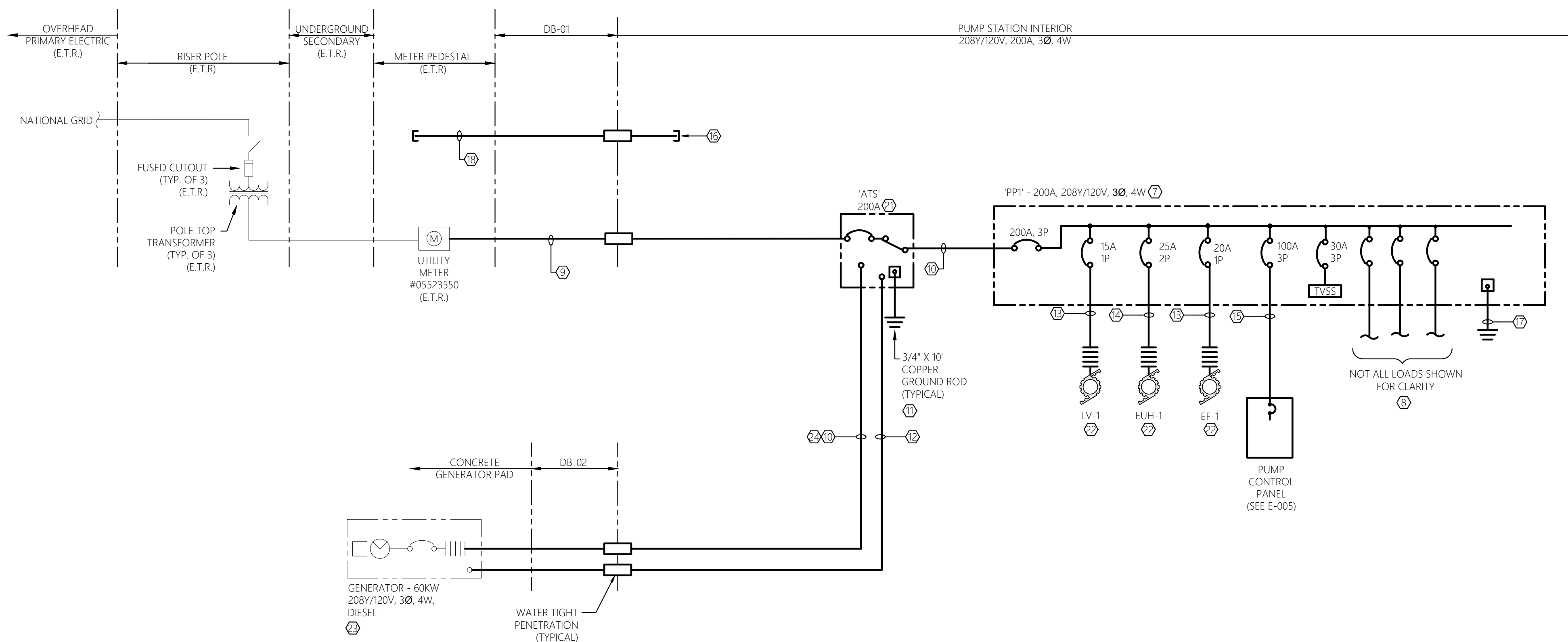
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PROJECT TITLE:	TARBELL HILL PUMP STATION IMPROVEMENTS
CLIENT:	TOWN OF MORIAH, NEW YORK
DRAWING TITLE:	ELECTRICAL FLOOR PLANS
ORIGINAL SIZE:	ARCH D

DATE:	JANUARY 10, 2020
SCALE:	AS NOTED
DRAWN:	EB
CHECKED:	JER
wp Job#:	19016
CONTRACT NO.:	
DRAWING NUMBER:	E-003



1 ELECTRICAL SINGLE LINE DEMOLITION DIAGRAM
E-004 SCALE: NTS



2 ELECTRICAL SINGLE LINE NEW WORK DIAGRAM
E-004 SCALE: NTS

GENERAL DEMO NOTES:

- REFER TO E-001 FOR ELECTRICAL LEGENDS, ABBREVIATIONS, AND GENERAL PROJECT NOTES.
- ITEMS INDICATED TO BE REMOVED.
- REMOVE ALL CONDUCTORS AND EXPOSED CONDUIT BACK TO SOURCE (UOI).
- REMOVE CIRCUIT WIRING AND CIRCUIT BREAKER FROM SOURCE PANEL (UOI).
- REMOVE ALL ASSOCIATED CONTROL CONDUCTORS, CONDUITS, AND DEVICES (UOI).
- REMOVE ASSOCIATED STARTERS, DISCONNECTS, CONTROL STATIONS, AND ALL ASSOCIATED CIRCUITRY (UOI).
- REMOVE EQUIPMENT PADS & MOUNTING HARDWARE, BRACKETS, ACCESSORIES, ETC... (UOI).
- REVISE PANELBOARD DIRECTORIES/NAME PLATES AS CHANGES OCCUR (UOI).
- THESE DEMOLITION DRAWINGS ARE SCHEMATIC IN NATURE AND ARE BASED ON CURSORY FIELD OBSERVATION AND EXISTING DRAWINGS. IT IS NOT THE INTENTION OF THESE DRAWINGS TO INDICATE EVERY DEVICE/FIXTURE REQUIRING REMOVAL/DEMO RATHER GENERAL SYSTEMS WHICH ARE TO BE REMOVED. COORDINATE REMOVAL EFFORTS CLOSELY WITH ALL TRADE CONTRACTORS.
- CIRCUITS NOT IN AREA OF WORK THAT ARE AFFECTED BY WORK SHALL BE OPERATIONAL DURING PROJECT. PROVIDE TEMPORARY CIRCUITS AS NECESSARY.
- CIRCUIT, EQUIPMENT, AND DEVICE REMOVAL SHALL NOT AFFECT THE INTEGRITY OR FUNCTIONALITY OF CIRCUITS TO REMAIN. ALL CIRCUITS TO REMAIN SHALL BE MAINTAINED. PROVIDE ALL NECESSARY CIRCUIT MODIFICATIONS AND EXTENSIONS.
- WHERE REMOVALS LEAVE HOLES AND DAMAGED SURFACES EXPOSED IN THE FINISHED WORK, PATCH AND REPAIR THESE HOLES AND DAMAGED SURFACES TO MATCH ADJACENT FINISHED SURFACES. WHERE NEW WORK IS TO BE APPLIED TO EXISTING SURFACES, PERFORM REMOVALS, AND PATCHING IN A MANNER TO PRODUCE SURFACES SUITABLE FOR RECEIVING NEW WORK. COORDINATE ALL WORK WITH OWNER.
- CONTRACTOR TO COORDINATE SEQUENCE OF REMOVALS WITH THE OWNER. NOTE, PUMP STATION MUST REMAIN OPERATIONAL AT ALL TIMES. REFER TO SPECIFICATIONS AND DEMOLITION SINGLE LINE DIAGRAMS FOR ADDITIONAL INFO.
- NOT ALL EQUIPMENT/DEVICES WITHIN THE PUMP STATION ARE SHOWN FOR CLARITY. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND REPORT DISCREPANCIES TO ENGINEER PRIOR TO COMMENCEMENT OF DEMOLITION.
- WHERE REMOVAL OF CONDUIT SYSTEM IS NOT FEASIBLE CONTRACTOR TO REMOVE ALL CONDUCTORS FROM CONDUIT SYSTEM, CUT FLUSH, CAP CONDUIT SYSTEM, AND ABANDON IN PLACE. CONTRACTOR TO FIELD VERIFY AND COORDINATE FINAL REQUIREMENTS WITH THE OWNER, TYPICAL.

GENERAL SHEET NOTES NEW WORK:

- REFER TO E-001 FOR ELECTRICAL LEGENDS, ABBREVIATIONS AND GENERAL PROJECT NOTES.
- PROVIDE GROUNDING PER NEC FOR ALL ELECTRICAL EQUIPMENT AND ASSOCIATED EQUIPMENT.
- ALL PROPOSED EQUIPMENT LOCATIONS/INSTALLATIONS TO COMPLY WITH NEC ARTICLE 110.26 'SPACES ABOUT ELECTRICAL EQUIPMENT'.
- NEW ELECTRICAL EQUIPMENT BASIS OF DESIGN - EATON
- ALL CONDUCTORS AND EQUIPMENT NOT SHOWN FOR CLARITY. COORDINATE WITH ALL TRADE CONTRACTORS AND PROVIDE COMPLETE ELECTRICAL CIRCUITING FOR ALL INSTALLED EQUIPMENT. ALL REQUIREMENTS TO BE PER NEC.
- NOT ALL REQUIRED THRU-WALL AND THRU-FLOOR WATERTIGHT PENETRATIONS SHOWN FOR CLARITY. CONTRACTOR TO PROVIDE A THRU-WALL/FLOOR WATERTIGHT PENETRATION FOR ALL PENETRATIONS WITHIN BUILDING WALLS/FLOORS. REFER TO DETAIL SHEETS FOR ADDITIONAL INFORMATION.
- CONTRACTOR TO COORDINATE OVERALL SEQUENCE OF CONSTRUCTION WITH THE OWNER.
- CIRCUITS SHOWN ARE POWER. REFER TO CONTROL RISER DIAGRAMS FOR INSTRUMENTATION AND CONTROL CIRCUITS. REFER TO SCHEDULES FOR ADDITIONAL CIRCUITS.
- REFER TO FLOOR PLANS FOR GENERAL DEVICE/EQUIPMENT LOCATIONS. COORDINATE FINAL LOCATIONS WITH ALL CONTRACT DRAWINGS.
- CONTRACTOR TO COORDINATE MOUNTING LOCATIONS OF ALL PANELS WITH THE OWNER.
- CONTRACTOR TO PROVIDE ARC FLASH WARNING LABELS FOR ALL NEW OR MODIFIED ELECTRICAL EQUIPMENT. REFER TO SPECIFICATIONS (POWER SYSTEM ANALYSIS) FOR REQUIREMENTS.
- SERVICE EQUIPMENT TO BE LABELED WITH MAX AVAILABLE FAULT CURRENT PER NEC 110.24. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

SHEET KEY NOTES:

- CONTRACTOR TO COORDINATE DISCONNECTION & REMOVAL OF SECONDARY SERVICE CONDUCTORS CLOSELY WITH THE UTILITY. CONTRACTOR TO INITIATE ANY REQUIRED WORK ORDER NUMBER WITH UTILITY AS REQUIRED.
- NOT ALL LOADS SHOWN FOR CLARITY.
- CONTRACTOR TO DISCONNECT AND REMOVE/DEMOLISH IN ITS ENTIRETY. EQUIPMENT IS TO BECOME PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE SITE IN ITS ENTIRETY.
- NOT ALL EXISTING INTERNAL CABLING/COMPONENTS SHOWN FOR CLARITY. CONTRACTOR TO FIELD VERIFY AND REMOVE ALL ASSOCIATED INTERNAL CABLING/COMPONENTS.
- CONTRACTOR TO COORDINATE ALL EQUIPMENT SCHEDULED FOR REMOVAL AND FINAL SEQUENCE REMOVAL REQUIREMENTS WITH ALL CONTRACT DRAWINGS PRIOR TO COMMENCEMENT OF DEMOLITION. CONTRACTOR TO FIELD VERIFY.
- CONTRACTOR TO REMOVE SERVICE ENTRANCE GROUND SYSTEM IN ITS ENTIRETY, INCLUDING BUT NOT LIMITED TO, ALL ASSOCIATED GROUND RODS, BONDING EQUIPMENT, AND CABLES. CONTRACTOR TO FIELD VERIFY AND PROVIDE COMPLETE ELECTRICAL DEMOLITION AS REQUIRED.
- PANELBOARD TO BE PROVIDED WITH INTEGRAL TVSS PER PANELBOARD MANUFACTURERS RECOMMENDATIONS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- NOT ALL LOADS SHOWN FOR CLARITY. REFER TO EQUIPMENT CONNECTION SCHEDULE, PANEL SCHEDULE, AND DETAILS FOR ADDITIONAL CIRCUITING REQUIREMENTS/INFORMATION.
- (4)#3/0, 2°C
- (4)#3/0 & #6G, 2°C
- CONTRACTOR TO PROVIDE TWO (2) 3/4" x 10' COPPER GROUND RODS. PROVIDE TYPING ELECTRODE FOR PUMP STATION SERVICE PER NEC. GROUND RODS TO BE PLACED AT MINIMUM OF 10 FEET APART. BOND GROUND RODS TOGETHER WITH A LOOPED #4 COPPER CONDUCTOR.
- (8)#14 & (2)#18STP, 1°C
- (2)#12 & #12G, 3/4°C
- (2)#10 & #10G, 3/4°C
- (4)#2 & #8G, 1-1/2°C
- PROVIDE SPARE CONDUIT FROM UTILITY METER PEDESTAL TO BUILDING INTERIOR. STUB CONDUIT ADJACENT TO SERVICE EQUIPMENT. PROVIDE PULL ROPE & CAP BOTH ENDS.
- CONTRACTOR TO BOND TO BUILDING GROUND SYSTEM USING #4 COPPER GROUND CONDUCTOR.
- SPARE 2" CONDUIT.
- PUMP STATION IS TO BE OPERATIONAL AT ALL TIMES. PROVIDE TEMPORARY POWER PROVISIONS AS REQUIRED TO FACILITATE PUMP STATION OPERATION DURING ELECTRICAL DEMOLITION AND INSTALLATION. PROVIDE ALL NECESSARY EQUIPMENT, DEVICES, CABLING, ETC... AS REQUIRED FOR AN OVERALL COMPLETE AND OPERABLE TEMPORARY POWER SYSTEM. CONTRACTOR TO MINIMIZE DOWN TIMES TO THE GREATEST EXTENT POSSIBLE. COORDINATE ALL REQUIREMENTS WITH THE OWNER. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION REGARDING TEMPORARY POWER.
- CONTRACTOR TO PROVIDE TEMPORARY POWER PLAN IN WRITING TO ENGINEER FOR APPROVAL PRIOR TO PERFORMING ELECTRICAL SERVICE DISRUPTIONS.
- TRANSFER SWITCH TO BE SERVICE ENTRANCE RATED. PROVIDE LABEL INDICATING SWITCH POSITION PER NEC. PROVIDE LABEL INDICATING MAX AVAILABLE FAULT CURRENT AS SPECIFIED.
- REFER TO EQUIPMENT CONNECTION SCHEDULE FOR ADDITIONAL INFORMATION/REQUIREMENTS.
- EMERGENCY GENERATOR IS EXISTING AND TO BE FURNISHED BY THE OWNER. CONTRACTOR TO REMOVE EXISTING PORTABLE ENGINE GENERATOR FROM TRAILER AND INSTALL/ANCHOR TO CONCRETE PAD. CONTRACTOR TO FIELD VERIFY EXISTING GENERATOR PRIOR TO BID.
- CONTRACTOR TO REMOVE EXISTING POWER CORD (WHIP) FROM ENGINE GENERATOR AND INSTALL PERMANENT CIRCUITRY AS SHOWN/SPECIFIED.



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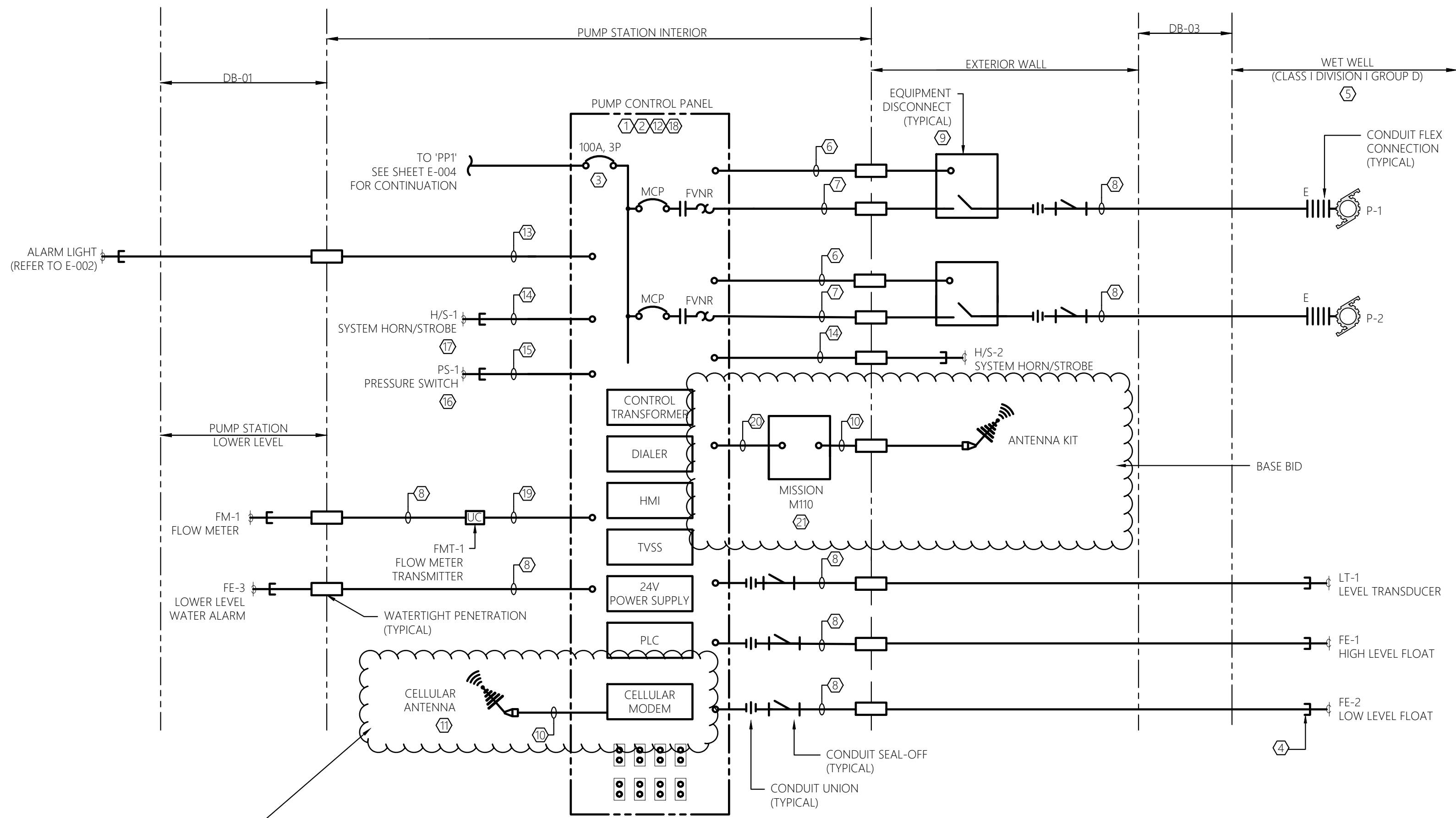


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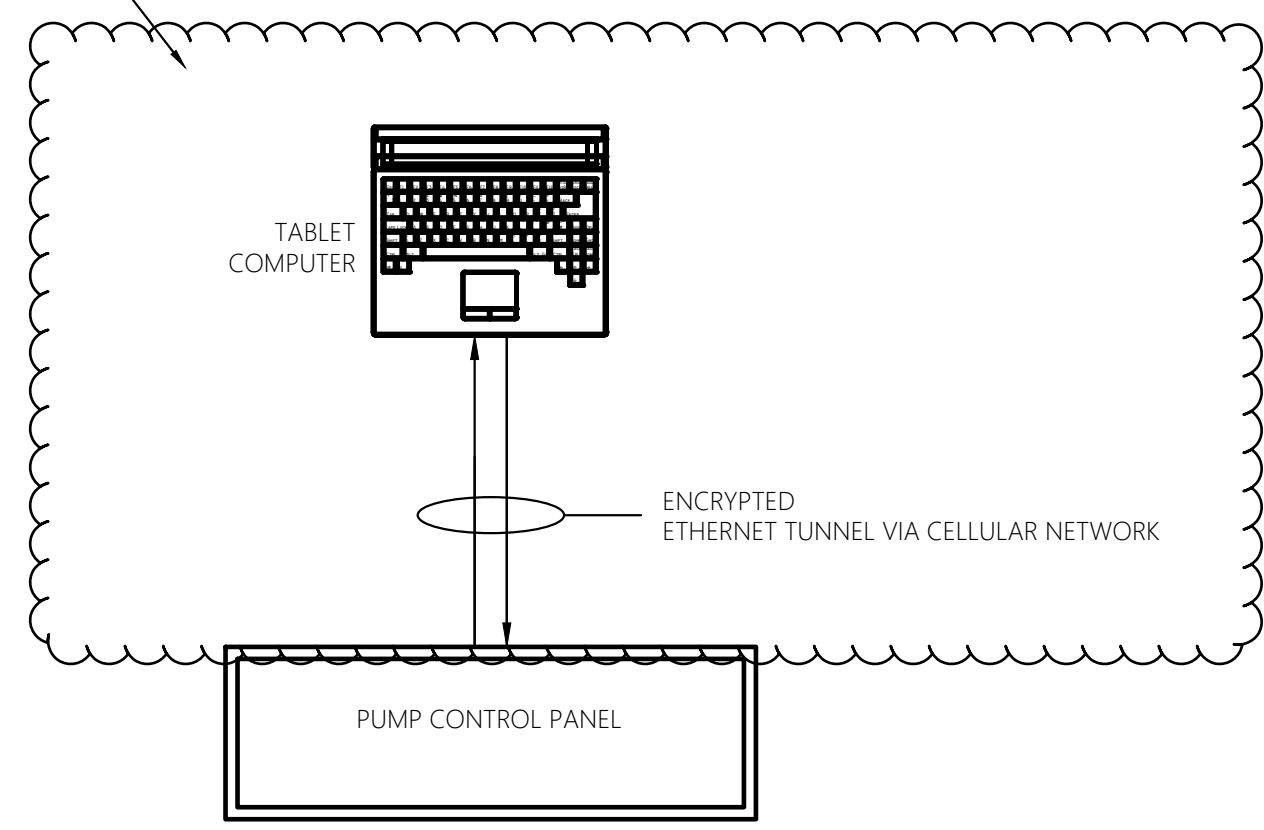
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PROJECT TITLE:	TARBELL HILL PUMP STATION IMPROVEMENTS
CLIENT:	TOWN OF MORIAH, NEW YORK
DRAWING TITLE:	ELECTRICAL SINGLE LINE DIAGRAMS
ORIGINAL SIZE:	ARCH D

DATE:	JANUARY 10, 2020
SCALE:	AS NOTED
DRAWN:	EB
CHECKED:	JER
JOB NO.:	19016
CONTRACT NO.:	
DRAWING NUMBER:	E-004



1 PUMP CONTROL PANEL RISER DIAGRAM
E-005 SCALE: NTS



REFER TO THE SPECIFICATION SECTION 16095, I/O TABLE, AND ELECTRICAL RISER DIAGRAM FOR ADDITIONAL INFORMATION/REQUIREMENTS.

2 TYPICAL CONTROL COMMUNICATION SCHEMATIC
E-005 SCALE: NTS

I/O TABLE			
EQUIPMENT	FUNCTION	HOMERUN	UNITS/RANGE
LT-1	LEVEL (WET WELL LEVEL)	PUMP CONTROL PANEL	
P-1	RUNNING	PUMP CONTROL PANEL	
	FAULT	PUMP CONTROL PANEL	
	MOTOR OVER TEMPERATURE	PUMP CONTROL PANEL	
P-2	SEAL-LEAK DETECTION	PUMP CONTROL PANEL	
	RUNNING	PUMP CONTROL PANEL	
	FAULT	PUMP CONTROL PANEL	
FE-1	MOTOR OVER TEMPERATURE	PUMP CONTROL PANEL	
	SEAL-LEAK DETECTION	PUMP CONTROL PANEL	
	HIGH LEVEL FLOAT	PUMP CONTROL PANEL	
FE-2	LOW LEVEL FLOAT	PUMP CONTROL PANEL	
H/S-1	VENTILATION SYSTEM MONITORING	PUMP CONTROL PANEL	
H/S-2	VENTILATION SYSTEM MONITORING	PUMP CONTROL PANEL	
PS-1	AIR FLOW SWITCH	PUMP CONTROL PANEL	
FM-1	FLOW INDICATION	FMT-1	
FMT-1	FLOW INDICATION	PUMP CONTROL PANEL	
FE-3	LOWER LEVEL WATER ALARM	PUMP CONTROL PANEL	
PUMP CONTROL PANEL	ENCRYPTED ETHERNET TUNNEL	TABLET COMPUTER	ADD ALTERNATE

GENERAL SCHEDULE NOTES:
 1. REFER TO THE ELECTRICAL RISER DIAGRAM AND SPECIFICATIONS FOR ADDITIONAL INFORMATION/REQUIREMENTS.
 2. REFER TO 'CONTROL COMMUNICATION SCHEMATIC' FOR ADDITIONAL REFERENCE.
 3. ALL AVAILABLE STATUS, ALARMS, I/O AND CONTROL POINTS FOR THE PUMP STATION SHALL BE INTEGRATED INTO THE CONTROL NETWORK. CONTRACTOR SHALL FIELD VERIFY AND COORDINATE WITH THE OWNER AND ENGINEER.

GENERAL SHEET NOTES:

- REFER TO E-001 FOR ELECTRICAL LEGENDS, ABBREVIATIONS AND GENERAL PROJECT NOTES.
- ALL CONDUCTORS NOT SHOWN FOR CLARITY. COORDINATE WITH ALL CONTRACT DRAWINGS AND PROVIDE COMPLETE ELECTRICAL CIRCUITING FOR ALL INSTALLED EQUIPMENT. ALL REQUIREMENTS TO BE PER NEC.
- CIRCUITS SHOWN ARE POWER, CONTROL, INSTRUMENTATION, AND CONTROL CIRCUIT POWER. REFER TO SINGLE LINE DIAGRAMS, SCHEDULES, AND DETAILS FOR ADDITIONAL CIRCUITS.
- PROVIDE GROUNDING PER NEC FOR ALL ELECTRICAL EQUIPMENT AND ASSOCIATED EQUIPMENT.
- REFER TO FLOOR PLANS FOR GENERAL DEVICE/EQUIPMENT LOCATIONS. COORDINATE FINAL LOCATIONS WITH THE OWNER.
- NOT ALL REQUIRED CLASSIFIED SPACE WIRING METHODS INCLUDING, BUT NOT LIMITED TO SEAL-OFFS MAY BE SHOWN. PROVIDE WIRING METHODS PER NEC (LATEST EDITION). PROVIDE CONDUIT UNION WITHIN 6" OF EACH SEAL-OFF AT CONTROL PANELS, DISTRIBUTION PANELS, VFDS, STARTERS, DISCONNECTS, JUNCTION BOXES, OR SOURCE OF SUPPLY WHERE FEASIBLE.
- ALL CONTROL/COMMUNICATION WIRING REQUIREMENTS INCLUDING BUT NOT LIMITED TO WIRE SIZE, TYPE, AND QUANTITY OF CONDUCTORS TO BE VERIFIED WITH EQUIPMENT MANUFACTURER.
- QUANTITY OF CONDUCTORS CALLED FOR MAY INCLUDE SPARE CONDUCTORS. PROVIDE CONDUCTORS SHOWN OR MINIMUM NUMBER REQUIRED PER MANUFACTURERS WRITTEN INSTRUCTIONS. ALL REQUIREMENTS TO BE PER NEC.
- CONTRACTOR TO COORDINATE MOUNTING LOCATIONS OF ALL PANELS FURNISHED WITH THE OWNER.
- CONTRACTOR TO COORDINATE OVERALL SEQUENCE OF CONSTRUCTION WITH THE OWNER.

SHEET KEY NOTES:

- CONTRACTOR IS RESPONSIBLE FOR ALL FIELD WIRING BETWEEN DEVICES, TERMINATIONS, AND MOUNTING/INSTALLATION OF PANEL AS SHOWN/INDICATED. REFER TO SUBMITTAL DOCUMENTATION TO PROVIDE COMPLETE SYSTEM FIELD CIRCUITRY AND TERMINATIONS AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.
- NOT ALL INTERNAL COMPONENTS SHOWN FOR CLARITY. DIAGRAM IS INTENDED TO SHOW ALL REQUIRED FIELD CIRCUITING AND TERMINATION REQUIRED. REFERENCE SUBMITTAL DOCUMENTATION FOR ALL PANEL INTERNAL COMPONENTS. CONTRACTOR TO PROVIDE ADDITIONAL INTERNAL CONTACTS AND JUMPERS PER CONTROL PANEL MANUFACTURERS RECOMMENDATIONS FOR AN OVERALL COMPLETE AND OPERABLE SYSTEM.
- DISCONNECT SIZE SHOWN FOR BIDDING PURPOSES ONLY. COORDINATE DISCONNECT SIZE WITH EQUIPMENT MANUFACTURERS RECOMMENDATIONS. COORDINATE CONDUCTOR/CONDUIT SIZE WITH MANUFACTURERS RECOMMENDED DISCONNECT SIZE. ALL REQUIREMENTS TO BE PER NEC.
- PROVIDE CONDUIT BUSHING, FITTING, OR FLEX CONNECTION AS REQUIRED FOR PROPER CONNECTION OF DEVICE. ALL BUSHINGS, FITTINGS, OR FLEX CONNECTIONS TO BE SUITED FOR ENVIRONMENT INSTALLED WITHIN. COORDINATE EQUIPMENT MANUFACTURER. TYPICAL.
- WET WELL IS A CLASS I DIVISION I GROUP D SPACE. ALL WIRING METHODS TO COMPLY WITH NEC ARTICLE 501. ALL ELECTRICAL EQUIPMENT, DEVICES, AND WIRING METHODS WITHIN THIS AREA TO BE EXPLOSION PROOF RATED FOR USE IN A CLASS I DIVISION I GROUP D ENVIRONMENT.
- (4)#14, 1/2" C. CIRCUIT TO BE UTILIZED FOR THE ASSOCIATED MOTOR THERMAL SAFETY SWITCH AND SEAL-LEAK DETECTION. CIRCUIT TO CONTROL TERMINALS OF PROPOSED STARTER AND PUMP MONITORING RELAY WITHIN CONTROL PANEL. IN THE EVENT OF A MOTOR HIGH TEMPERATURE CONDITION OR SEAL-LEAK DETECTION THE UNIT IS TO BE SHUT DOWN TO PREVENT DAMAGE TO UNIT.
- (3)#8 & #10G, 1" C.
- FACTORY CABLE BY EQUIPMENT MANUFACTURER. PROVIDE 3/4" CONDUIT FOR INSTRUMENTS AND 1" CONDUIT FOR PUMPS WHERE EXPOSED TO PHYSICAL DAMAGE AND RECOMMENDED BY THE EQUIPMENT MANUFACTURER. CONDUIT SIZE IS LISTED AS MINIMUM. PROVIDE LARGER AS REQUIRED PER MANUFACTURER. COORDINATE FINAL INSTALLATION REQUIREMENTS WITH MANUFACTURER.
- REFER TO EQUIPMENT CONNECTION SCHEDULE FOR ADDITIONAL INFORMATION/REQUIREMENTS.
- FACTORY CABLE PROVIDED AS PART OF CELLULAR ANTENNA SYSTEM. PROVIDE IN 3/4" (WHERE NECESSARY). REFER TO SPECIFICATIONS FOR ADDITIONAL CELLULAR ANTENNA INFORMATION/REQUIREMENTS.
- REFER TO 'CONTROL COMMUNICATION SCHEMATIC', I/O SCHEDULE, AND SPECIFICATION SECTION 16095 FOR ADDITIONAL INFORMATION/REQUIREMENTS. CELLULAR ANTENNA TO BE DIRECTLY MOUNTED TO CONTROL PANEL ENCLOSURE. COORDINATE FINAL REQUIREMENTS WITH EQUIPMENT MANUFACTURER AND PROVIDE ALL REQUIRED MOUNTING HARDWARE, BRACKETS, ACCESSORIES, ETC... TO SECURELY FASTEN ANTENNA TO ENCLOSURE.
- THE CONTROL PANEL IS TO BE INTEGRATED INTO AN EXISTING SCADA SYSTEM. WORK IS TO INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING: INTEGRATION SERVICES TO INTEGRATE INTO EXISTING SYSTEM AT WWTP, ALL LABOR, ETC. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. COORDINATE FINAL REQUIREMENTS CLOSELY WITH THE OWNER. INTEGRATION SERVICES TO BE INCLUDED WITHIN ADD ALTERNATE.
- (6)#14, 3/4" C.
- (8)#14, 3/4" C.
- (2)#14, 1/2" C.
- DUCT MOUNTED PRESSURE/FLOW SWITCH. REFER TO H-DRAWINGS FOR ADDITIONAL INFORMATION.
- EACH H/S IDENTIFIED ON PLAN CONSISTS OF A "GO" LED LIGHT, "NO GO" LED LIGHT, AND A SOUNDER/HORN. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. TYPICAL OF TWO.
- REFER TO SPECIFICATION SECTION 16095 FOR ADDITIONAL INFORMATION.
- (2)#18 STP, 1/2" C.
- (12)#14 & (2)#18STP, 1" C. CONTRACTOR TO INTEGRATE WET WELL LOW LEVEL, WET WELL HIGH LEVEL, PUMP FAIL, AND GENERATOR RUN SIGNALS INTO MISSION SYSTEM.
- CONTRACTOR TO PROVIDE MISSION SERIES M110 CONTROL SYSTEM IN NEMA 1 ENCLOSURE. CONTRACTOR TO INCLUDE 1 YEAR OF WEB DEVELOPMENT, WEB HOSTING, AND SETUP OF MISSION SYSTEM. WORK TO BE INCLUDED UNDER THE BASE BID AS SHOWN. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.



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2	01/2020	EB	JER
1	04/2019	EB	JER

PROJECT TITLE: **TARBELL HILL PUMP STATION IMPROVEMENTS**
 CLIENT: **TOWN OF MORIAH, NEW YORK**
 DRAWING TITLE: **ELECTRICAL CONTROL RISER DIAGRAMS**
 ORIGINAL SIZE: **ARCH D**

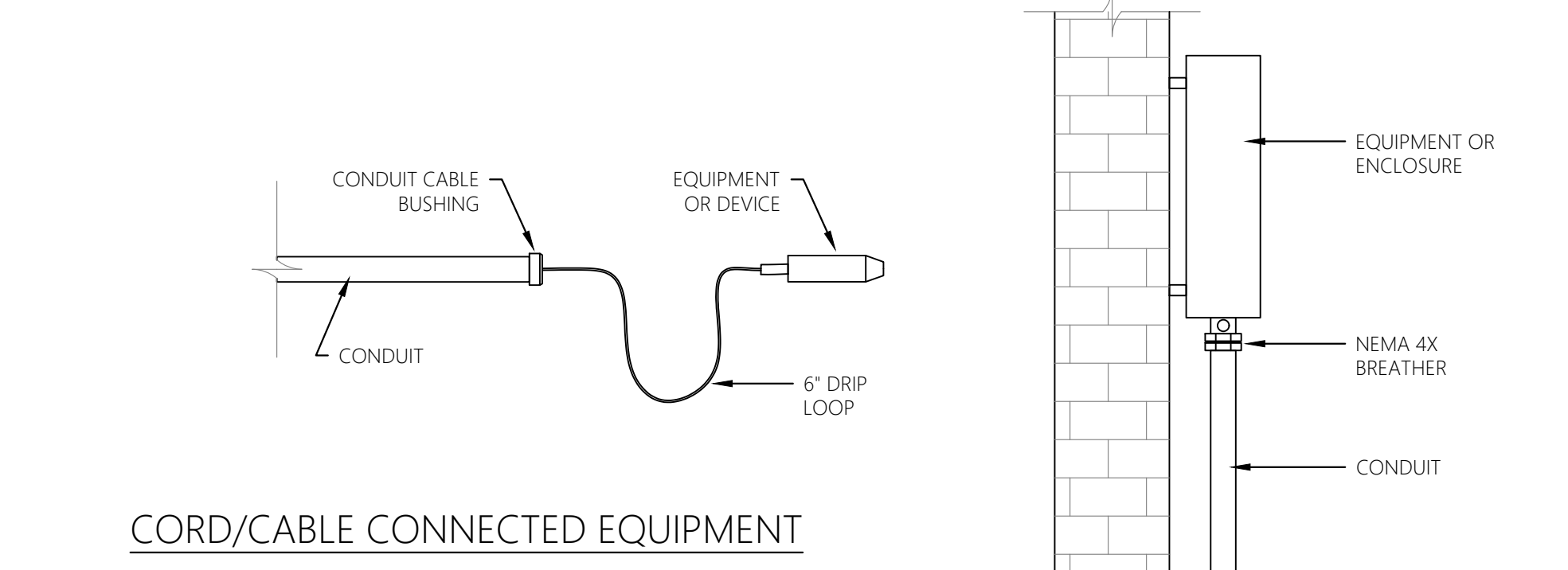
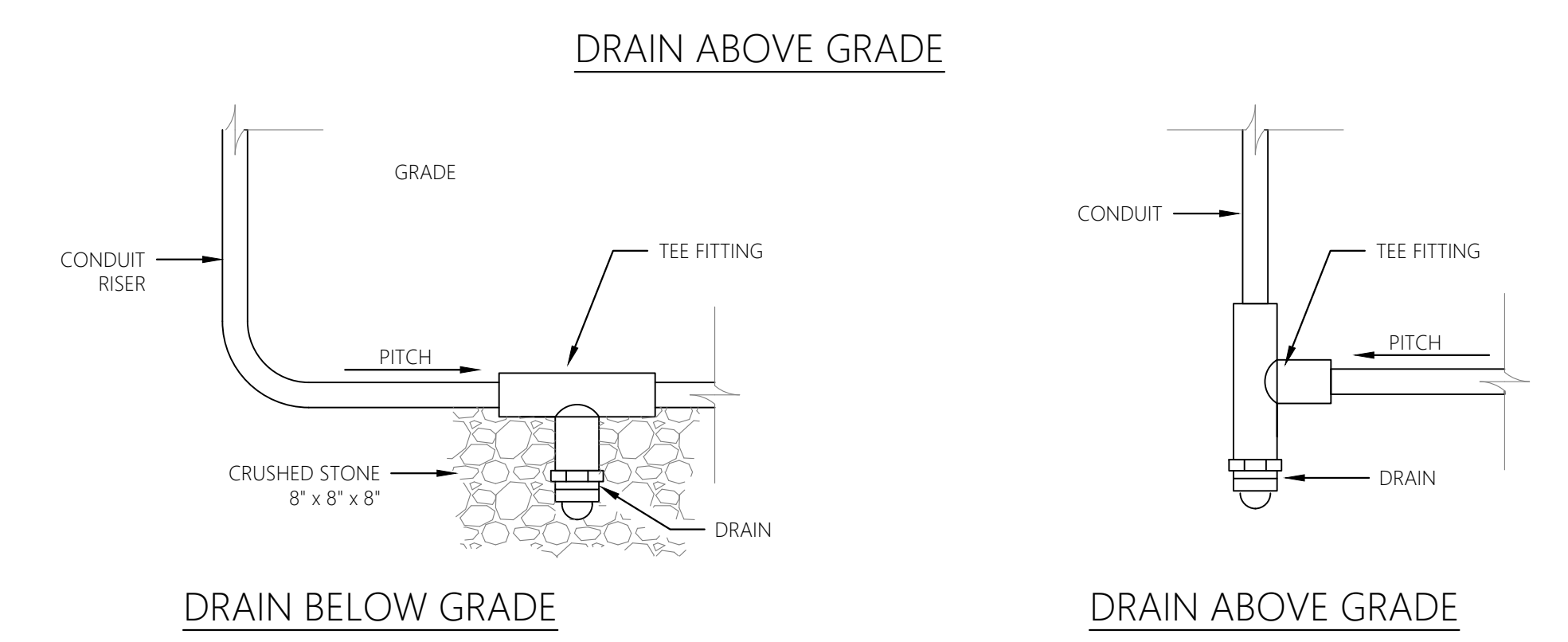
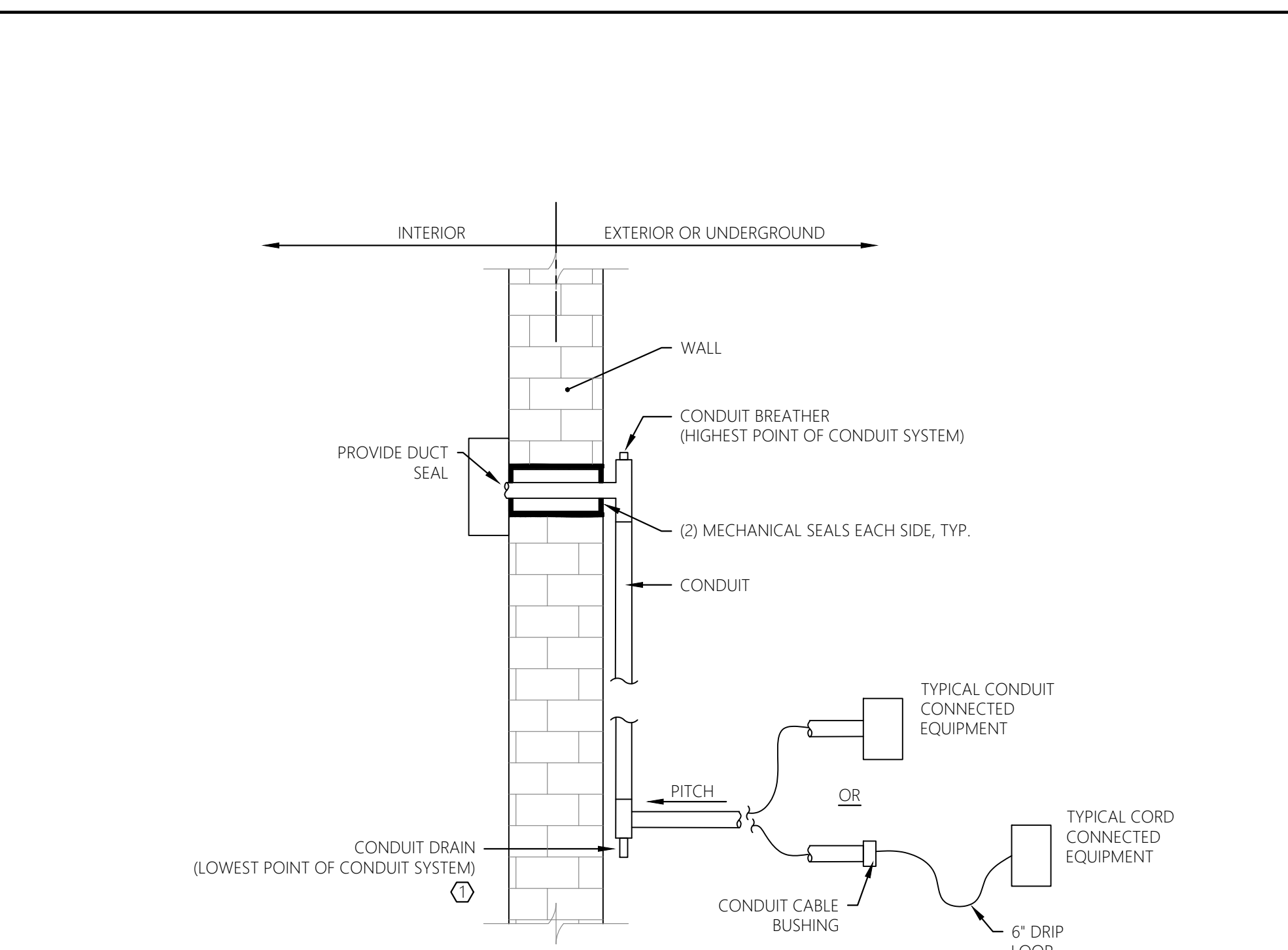
DATE:	JANUARY 10, 2020
SCALE:	AS NOTED
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JOB #:	19016
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DRAWING NUMBER:	E-005



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PROJECT TITLE:	TARBELL HILL PUMP STATION IMPROVEMENTS
CLIENT:	TOWN OF MORIAH, NEW YORK
DRAWING TITLE:	ELECTRICAL DETAILS
DATE:	JANUARY 10, 2020
SCALE:	AS NOTED
DRAWN:	EB
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REF. JOB#:	19016
CONTRACT NO.:	
DRAWING NUMBER:	E-006



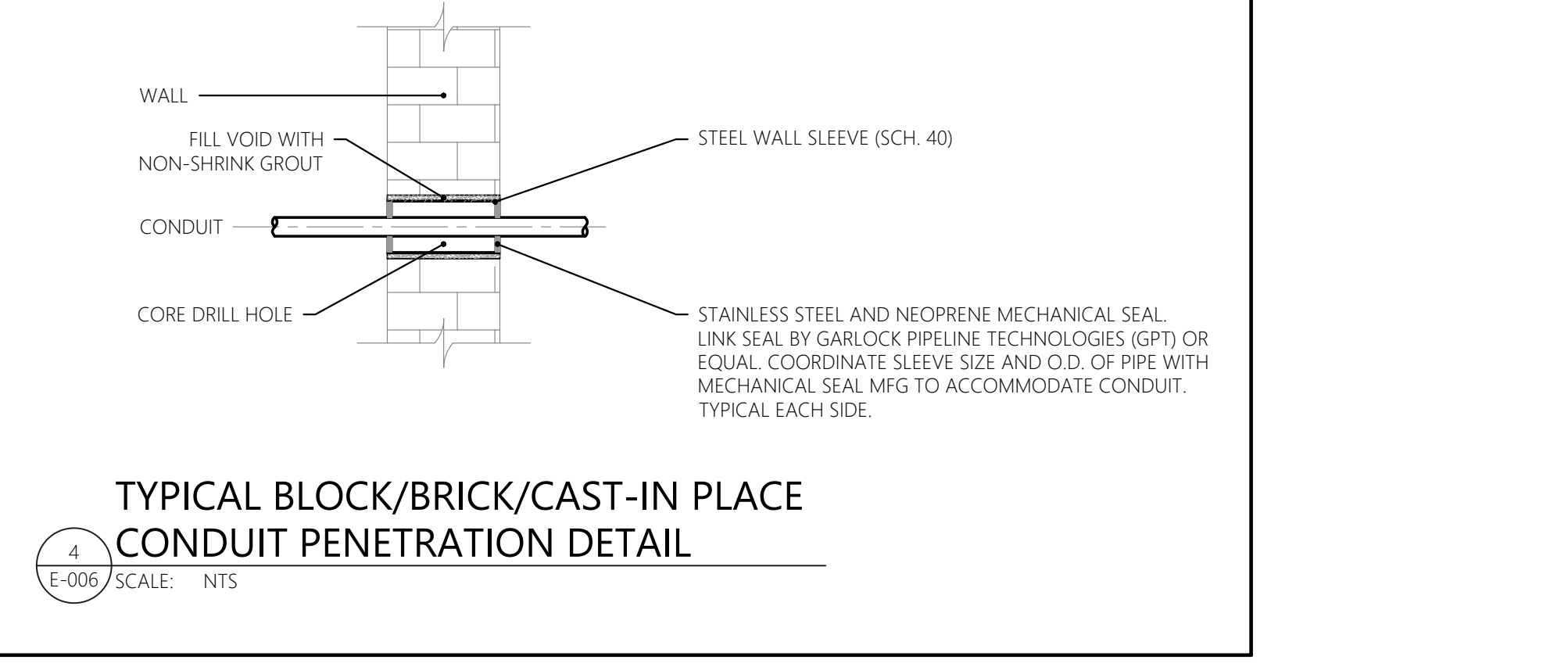
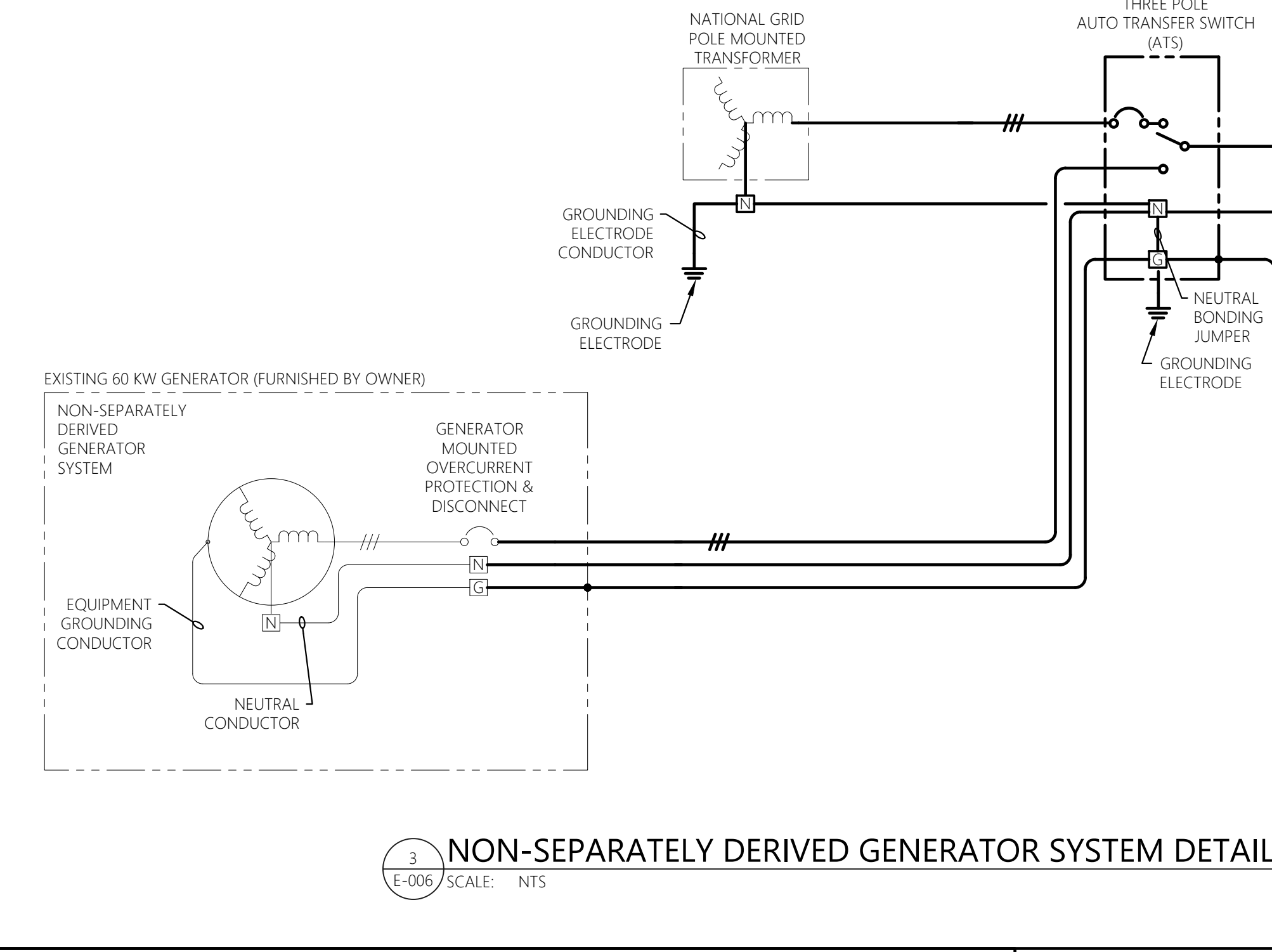
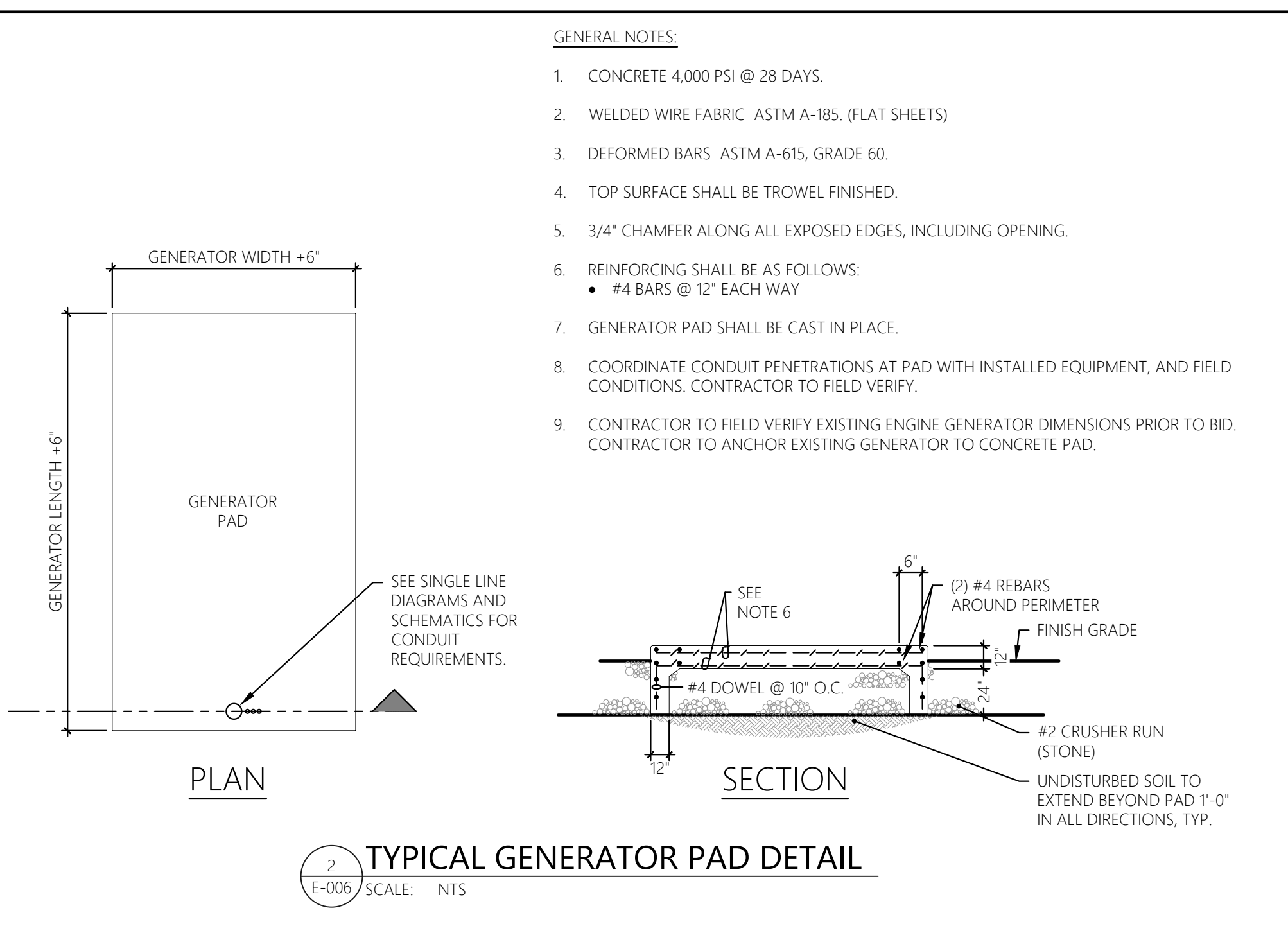
GENERAL NOTES:

- ALL CONDUIT SYSTEMS EXPOSED TO TEMPERATURE DIFFERENTIALS, IN POTENTIAL CONDENSING ATMOSPHERES, EXTERIOR INSTALLED, OR INSTALLED UNDERGROUND SHALL HAVE PROVISIONS FOR DRAINING WATER OUT OF CONDUIT SYSTEMS. PROVIDE DRAIN IN CONDUIT SYSTEMS AT LOW POINTS. LOW POINT SHALL NOT BE AT EQUIPMENT OR DEVICE. A BREATHER SHALL BE PROVIDED AT THE HIGH POINT OF THE SYSTEM.
- ALL DRAIN FITTINGS TO BE STAINLESS STEEL AND ALL TEE FITTINGS TO BE OF RIGID GALVANIZED STEEL MATERIAL.

KEY NOTES:

- PROVIDE CRUSHED STONE (MIN. 8" x 8" x 8") WHERE LOWEST POINT IS LOCATED BENEATH GRADE.

1
E-006 / SCALE: NTS
TYPICAL CONDUIT DRAIN DETAILS



200 AMP FRAME 200A MCB 208Y/120V 3φ, 4W+G 22KAIC RMS SYM					
PANEL 'PP1'					
CIRCUIT NUMBER	CIRCUIT SERVED	BREAKER		CIRCUIT SERVED	
		AMP	POLE	AMP	POLE
1	LIGHT INTERIOR	20	1	20	1
3	RECEPT INTERIOR	20	1	20	1
5	GENERATOR BLOCK HEATER	20	2	20	1
7	↓	15	1		
9	UNIT HEATER (EUH-1)	25	2	20	2
11					
13	LOWER LEVEL RECEPTACLE	20	1	20	1
15	EXHAUST FAN (EF-1)	20	1		
17	PUMP CONTROL PANEL			30	2
19		100	3		
21				20	1
23	SPARE	20	1		
25	SPARE	20	1		
27	SPARE			30	3
29	SPARE				

ACCESSORIES & TRIM:					
1.	MOUNTING SURFACE				
2.	NEMA 1 ENCLOSURE				
3.	DOOR-IN-DOOR COVER				
4.	COPPER BUS BARS				
5.	BASIS OF DESIGN: EATON PRL1A				
6.	INTEGRAL TVSS PER MANUFACTURER'S RECOMMENDATIONS.				

GENERAL SCHEDULE NOTES:

- VERIFY ALL CIRCUIT BREAKER REQUIREMENTS WITH EQUIPMENT MANUFACTURER. PROVIDE AS REQUIRED.
- PROVIDE SPARE BREAKERS AS INDICATED.
- PROVIDE TOTAL NUMBER OF 1P SPACES AS INDICATED. PROVIDE BLOCK OFF PLATES FOR ALL SPACES WHICH ARE NOT UTILIZED.
- REFER TO ELECTRICAL PLANS FOR GENERAL LOCATIONS OF EQUIPMENT.
- REFER TO ELECTRICAL SINGLE LINE DIAGRAMS & SCHEDULES FOR ADDITIONAL INFORMATION/REQUIREMENTS.
- CONTRACTOR TO BALANCE PROPOSED PANEL LOAD ACROSS ALL PHASES EQUALLY.

DUCT BANK SCHEDULE							
DESIGNATION [DB-XX]	TYPE	ORIGIN	DESTINATION	CIRCUIT			REMARKS
				CONDUCTORS/CONDUIT	ORIGIN	DESTINATION	
DB-01	SAND FILL	RISER POLE	PUMP STATION	(4)#3/0, 2" C	UTILITY	UTILITY METER	①
				(6)#14, 3/4" C	PUMP CONTROL PANEL	ALARM LIGHT	
				2" C (SPARE)	RISER POLE	ADJACENT TO SERVICE EQUIPMENT	
DB-02	SAND FILL	EMERGENCY GENERATOR	PUMP STATION	(4)#3/0, & 6G, 2" C	PROPOSED GENERATOR	PROPOSED 'ATS'	②
				(8)#14 & (2)#18STP, 1" C	PROPOSED GENERATOR	PROPOSED 'ATS'	
				(2)#12 & #12G, 3/4" C	GENERATOR BATTERY CHARGER	PANEL 'PP1'	
				(2)#10 & #10G, 3/4" C	GENERATOR BLOCK HEATER	PANEL 'PP1'	
DB-03	SAND FILL	WET WELL	PUMP STATION	FACTORY CABLE 1" C	P-1	EQUIPMENT DISCONNECT	
				FACTORY CABLE 1" C	P-2	EQUIPMENT DISCONNECT	
				FACTORY CABLE 3/4" C	LT-1	PUMP CONTROL PANEL	
				FACTORY CABLE 3/4" C	FE-1	PUMP CONTROL PANEL	

GENERAL SCHEDULE NOTES:

- VERIFY CIRCUIT REQUIREMENTS WITH APPLICABLE EQUIPMENT MANUFACTURERS. PROVIDE CONDUCTORS AND CONDUIT AS REQUIRED.
- COORDINATE DUCT BANK LOCATIONS AND INSTALLATIONS WITH EXISTING AND PROPOSED STRUCTURES, EQUIPMENT, PIPING SYSTEMS, AND WITH THE OWNER.
- REFER TO THE TYPICAL DUCT BANK DETAILS FOR ADDITIONAL REQUIREMENTS.
- REFER TO THE ELECTRICAL PLANS FOR GENERAL LOCATIONS, ROUTING AND ADDITIONAL INFORMATION.
- REFER TO THE ELECTRICAL SINGLE LINE DIAGRAMS FOR ADDITIONAL INFORMATION/REQUIREMENTS.
- CONTRACTOR RESPONSIBLE TO RESTORE ALL DISTURBED SURFACES AS PART OF THIS PROJECT TO SIMILAR CONDITIONS OF THAT BEFORE THE PROJECT COMMENCED. COORDINATE FINAL REQUIREMENTS WITH THE OWNER.
- CONTRACTOR TO CLOSELY COORDINATE FINAL DUCT BANK REQUIREMENTS WITH THE OWNER AND SHARE A COMMON TRENCH WHERE FEASIBLE/PRACTICAL. WHERE A COMMON TRENCH BETWEEN UTILITIES IS USED CONTRACTOR TO MAINTAIN NESC SEPARATION BETWEEN UTILITIES AT ALL TIMES.

REMARKS:

- CONTRACTOR TO PROVIDE PULL ROPE AND CAP BOTH ENDS OF PROPOSED SPARE CONDUIT. STUB SPARE CONDUIT ADJACENT TO EQUIPMENT AS INDICATED, OR AS DIRECTED BY OWNER. PROVIDE LABEL FOR ALL SPARE CONDUITS INDICATING CONDUIT DESTINATION.
- CONTRACTOR TO FIELD VERIFY OWNER'S EXISTING GENERATOR PRIOR TO BID TO DETERMINE EXTENT OF REQUIRED BRANCH CIRCUITRY.

BRANCH CIRCUIT SCHEDULE			
CIRCUIT BREAKER	PHASE CONDUCTORS AND/OR NEUTRAL CONDUCTORS	GROUND CONDUCTOR	CONDUIT
3 POLE CIRCUITS			
50/3	(3)#6	#10	1-1/4" OR MC CABLE
40/3	(3)#8	#10	1" OR MC CABLE
30/3	(3)#10	#10	3/4" OR MC CABLE
20/3	(3)#12	#12	3/4" OR MC CABLE
15/3	(3)#12	#12	1/2" OR MC CABLE
2 POLE CIRCUITS			
50/2	(2)#6	#10	1-1/4" OR MC CABLE
40/2	(2)#8	#10	1" OR MC CABLE
30/2	(2)#10	#10	3/4" OR MC CABLE
20/2	(2)#12	#12	1/2" OR MC CABLE
15/2	(2)#12	#12	1/2" OR MC CABLE
1 POLE CIRCUITS			
50/1	(2)#6	#10	1" OR MC CABLE
40/1	(2)#8	#10	3/4" OR MC CABLE
30/1	(2)#10	#10	3/4" OR MC CABLE
20/1	(2)#12	#12	1/2" OR MC CABLE
15/1	(2)#12	#12	1/2" OR MC CABLE

NOTES REGARDING THE USE OF THIS SCHEDULE:

- USE THIS SCHEDULE FOR:
 - ALL RECEPTACLE AND LIGHTING CIRCUITS.
 - WHERE SPECIFIC CONDUCTOR/CONDUIT SIZING IS NOT INDICATED ELSEWHERE ON THE DRAWING SET.
 - FOR ANY BRANCH CIRCUITS THAT ARE REQUIRED TO BE RELOCATED/EXTENDED, ETC.
- DO NOT USE THIS SCHEDULE:
 - FOR LARGE MECHANICAL LOADS (ANYTHING SHOWN WITHIN THE EQUIPMENT CONNECTION SCHEDULE).
 - FOR SERVICE ENTRANCE CONDUCTORS.
 - WHERE SPECIFIC CONDUCTOR/CONDUIT IS CALLED FOR ON THE DRAWINGS.
- WHERE CIRCUIT LENGTH EXCEEDS 100' - CONTRACTOR SHALL USE NEXT HIGHER PHASE/NEUTRAL CONDUCTOR SIZE, TO COMPENSATE FOR VOLTAGE DROP.
- NOTE MC CABLE IS ONLY TO BE USED AS SPECIFIED WITHIN THE RACEWAY SCHEDULE.

LUMINAIRE SCHEDULE									
TYPE	DESCRIPTION	FIXTURE BASIS OF DESIGN	LENS/DIFFUSER/ FINISH	VOLTAGE	LAMPS	BALLAST BASIS OF DESIGN	MOUNTING	DIMMING	REMARKS
L1	7"x2'-0" SURFACE MOUNT LED	COOPER (METALLUX) 2VT2-LD5-3-DR-UNV-LB40-CD1-WL-SSL-U	ACRYLIC FROSTED LENS	120V	LED 3,000 LUMENS / 4000K 22W	0-10V DIMMING DRIVER	SURFACE	NO	②
WPI	EXTERIOR WALL MOUNT LUMINAIRE	COOPER (MCGRAW-EDISON) IST-AF-450-LED-E1-SL4-BZ	BRONZE	120V	LED 2,805 LUMENS / 4000K 25.5W	LED DRIVER	WALL	NO	③ ④
WPIE	EXTERIOR WALL MOUNT LUMINAIRE W/EMERGENCY	COOPER (MCGRAW-EDISON) IST-AF-450-LED-E1-SL4-BZ-CWB-120	BRONZE	120V	LED 2,805 LUMENS / 4000K 25.5W	LED DRIVER	WALL	NO	③ ④ ⑤
EBU	LED EMERGENCY LIGHT	COOPER (SURE-LITES) SEL-D-W-60-SD	SILVER	120V	LED TWO 300 LUMEN HEADS 5W	LED DRIVER	WALL	NO	①

GENERAL SCHEDULE NOTES:

- MODELS ARE GIVEN FOR QUALITY ONLY. SUBSTITUTE LIGHT FIXTURES SHALL BE OF APPROVED EQUAL OR GREATER QUALITY.
- ALL FIXTURES (WHERE APPLICABLE) SHALL BE POST FABRICATION PAINTED, BAKED ACRYLIC ENAMEL.
- PROVIDE ALL NECESSARY MOUNTING HARDWARE, BRACKETS, ACCESSORIES, ETC., FOR INSTALLATION TYPE AS INDICATED.
- ALL FIXTURES TO BE PROVIDED WITH LAMPS INSTALLED.
- REFER TO ELECTRICAL PLANS FOR QUANTITIES AND GENERAL LOCATIONS.
- REFER TO ELECTRICAL PLANS AND DETAILS FOR LIGHTING CONTROLS AND ADDITIONAL INFORMATION/REQUIREMENTS.

REMARKS:

- FIXTURE TO BE PROVIDED WITH INTEGRAL EMERGENCY BATTERY BACK-UP.
- PROVIDE EACH FIXTURE WITH STAINLESS STEEL MOUNTING BRACKETS FOR SURFACE MOUNTING AS SPECIFIED AND INDICATED ON FLOOR PLAN SHEETS. ACCESSORY VT2-SS-MBC.
- REFER TO FLOOR PLAN SHEETS FOR MOUNTING HEIGHTS. FINAL MOUNTING HEIGHT TO BE COORDINATED WITH THE OWNER/ENGINEER PRIOR TO ROUGH-IN.
- FIXTURE TO BE UL LISTED FOR WET LOCATIONS AND TO BE DARK SKY COMPLIANT.
- FIXTURE TO BE PROVIDED WITH INTEGRAL COLD WEATHER BATTERY PACK.

RACEWAY SCHEDULE		
AREA	CABLING/RACEWAY METHOD	REMARKS
EXTERIOR EXPOSED	RGS	SEE NOTES BELOW
RISERS FROM UNDERGROUND	RGS	SEE NOTES BELOW
UNDERGROUND 90 DEGREE SWEEPS	RGS	SEE NOTES BELOW
UNDERGROUND (SAND FILL DUCT BANK)	PVC #80	SEE NOTES BELOW
IN SLAB	PVC #40	SEE NOTES BELOW
PUMP STATION INTERIOR	RGS	SEE NOTES BELOW
WET WELL INTERIOR	PVC COATED RGS	SEE NOTES BELOW

GENERAL CONDUIT SCHEDULE NOTES:

- FITTINGS:
 - EMT: SET SCREW TYPE
 - RGS: THREADED
 - PVC: BELL OR GLUE
- ALL CIRCUITS SHALL CONTAIN DEDICATED NEUTRALS (NO MULTI-WIRE CKTS PERMITTED)
- CONDUIT SHALL NOT BE UTILIZED FOR EFFECTIVE GROUND FAULT RETURN PATH - ALL CIRCUITS SHALL CONTAIN DEDICATED GREEN INSULATED CONDUCTOR, SIZED PER DRAWINGS, OR IN ACCORDANCE WITH APPLICABLE NEC CRITERIA.
- ALL RACEWAY TYPES ARE UNLESS OTHERWISE NOTED ON THE DRAWINGS.
- CONTRACTOR TO PROVIDE TRANSITION FITTINGS TO SWITCH BETWEEN RACEWAY TYPES AS REQUIRED
- PVC COATED RGS CONDUIT AND ASSOCIATED COMPONENTS TO BE BY PLASTI-BOND OR APPROVED EQUAL. WHEN USING PVC COATED RGS CONDUIT CONTRACTOR TO USE A CORROSION RESISTANT PRODUCT LINE AS MANUFACTURED BY POWER-STRUT DEFENDER OR APPROVED EQUAL FOR ALL ASSOCIATED CHANNEL, FITTINGS, AND CONDUIT CLAMPS/SUPPORTS.
- "UNPROTECTED SERVICE CONDUCTORS - WITHIN A BUILDING" REFERS TO BUILDING SERVICE/FEEDER CONDUCTORS BETWEEN THE POINT THEY ENTER THE BUILDING UNTIL THE POINT AT WHICH THEY REACH THE FIRST DISCONNECTING DEVICE WITHIN THAT BUILDING.

TRANSFER SWITCH SCHEDULE									
DESIGNATION	TRANSFER TYPE	VOLTAGE	AMPERAGE	MAIN INPUT BREAKER	POLE	KAIC	NEUTRAL	NEMA ENCLOSURE	REMARKS
ATS	AUTOMATIC	208Y/120V, 3φ	200A	200A	3	35	SOLID	1	-

GENERAL SCHEDULE NOTES:

- SWITCH TO HAVE A SOLID GROUND BAR.
- REFER TO SINGLE LINE DIAGRAM FOR ADDITIONAL INFORMATION/REQUIREMENTS.
- TRANSFER SWITCH TO BE RATED AT MINIMUM 35KAIC.
- TRANSFER SWITCH TO BE OF THE OPEN TRANSITION TYPE.
- TRANSFER SWITCH TO BE SERVICE ENTRANCE RATED.
- TRANSFER SWITCH TO INTERFACE WITH OWNER'S EXISTING ENGINE GENERATOR SYSTEM. CONTRACTOR TO FIELD VERIFY.



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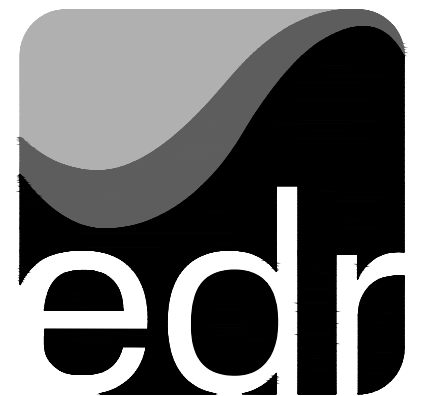


DATE	NO.	REVISION	FOR APPROVAL	FOR BID
	5			
	4			
	3			
	2		01/20/20	04/20/19
	1			

ORIGINAL SIZE: ARCH D

TARBELL HILL PUMP STATION IMPROVEMENTS
 CLIENT: TOWN OF MORIAH, NEW YORK
 DRAWING TITLE: ELECTRICAL SCHEDULES

DATE:	JANUARY 10, 2020
SCALE:	AS NOTED
DRAWN:	EB
CHECKED:	JER
JOB #:	19016
CONTRACT NO.:	
DRAWING NUMBER:	E-007



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DRAWING REVISIONS		NO.	DATE	REVISION	FOR APPROVAL
5					JER
4					JER
3					JER
2	01/20/20				FOR BID
1	04/2019				FOR APPROVAL

PROJECT TITLE: **TARBELL HILL PUMP STATION IMPROVEMENTS**
CLIENT: **TOWN OF MORIAH, NEW YORK**
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DATE:	JANUARY 10, 2020
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REF. JOB#:	19016
CONTRACT NO.:	
DRAWING NUMBER:	E-008

EQUIPMENT			ELECTRICAL LOAD				POWER CONNECTION			CONTROL CONNECTION		DISCONNECT/SAFETY SWITCH		STARTER		REMARKS
EQUIPMENT TAG	EQUIPMENT TYPE	LOCATION ON PLAN	FLA	HP (KW)	V	PH	HOMERUN TO	CKT BKR	CONDUCTORS & CONDUIT	HOMERUN / INTERLOCK TO	CONDUCTORS	DISCONNECT TYPE/SIZE	NEMA ENCLOSURE TYPE	STARTER TYPE	NEMA ENCLOSURE TYPE	
INDICATED BY ON PLAN SHEETS EQUIPMENT CONNECTION SCHEDULE SPECIFIC NOTES: 1. WHEN LOCATION IS NOT REFERENCED ON 'E' SHEETS, REFER TO ASSOCIATED CONTRACT DRAWINGS. 2. LOCATIONS SHOWN ARE GENERAL IN NATURE. COORDINATE WITH ALL TRADE CONTRACTORS PRIOR TO ROUGH-IN. TYPES: A: NON-FUSED B: FUSED M: MOTOR RATED SWITCH R: RECEPTACLE/CORD/PLUG N: NOT REQUIRED C: CKT BREAKER WITHIN SIGHT VFD: VARIABLE FREQUENCY DRIVE CMS: COMBINATION MOTOR STARTER WITH DISCONNECT ATL: ACROSS THE LINE, FVNR MAGNETIC STARTER M: MOTOR RATED SWITCH - MANUAL STARTER N: NOT REQUIRED P: PACKAGED CONTROLLER BY MANUFACTURER																
P-1	PUMP	WET WELL	30.8	10	208	3	PUMP CONTROL PANEL	-	(3)#8 & #10G, 1" C	REFER TO CONTROL RISER DIAGRAM		A	4X	ATL	-	①
P-2	PUMP	WET WELL	30.8	10	208	3	PUMP CONTROL PANEL	-	(3)#8 & #10G, 1" C	REFER TO CONTROL RISER DIAGRAM		A	4X	ATL	-	①
EUH-1	UNIT HEATER	PUMP STATION - UPPER LEVEL	15.8	(3.3)	208	1	PP1	25/2	(2)#10 & #10G, 3/4" C	LINE VOLTAGE THERMOSTAT		-	-	-	-	② ④ ⑤
EF-1	EXHAUST FAN	PUMP STATION - UPPER LEVEL	4.4	1/15	120	1	PP1	20/1	(2)#12 & #12G, 3/4" C	INTERLOCK W/ LV-1		-	-	-	-	② ⑤ ⑥ ⑦
LV-1	LOUVER	PUMP STATION - UPPER LEVEL	4.4	-	120	1	PP1	15/1	(2)#12 & #12G, 3/4" C	INTERLOCK W/ EF-1		-	-	-	-	② ③

GENERAL SCHEDULE NOTES:
 1. CONTRACTOR TO INSTALL STARTER/DISCONNECT ADJACENT TO UNIT, UNLESS OTHERWISE INDICATED. INSTALLATION TO COMPLY WITH NEC ARTICLE 110.26. CONTRACTOR TO PROVIDE ALL NECESSARY STAINLESS STEEL MOUNTING HARDWARE/EQUIPMENT. COORDINATE FINAL LOCATION W/OWNER PRIOR TO ROUGH-IN.
 2. CONFIRM HP, VOLTAGE AND PHASE CONNECTIONS PRIOR TO ROUGH-IN OF EQUIPMENT. COORDINATION REQUIRED BETWEEN TRADES.
 3. CIRCUIT BREAKERS INDICATED ON SCHEDULE ABOVE SHALL BE PROVIDED BY THE CONTRACTOR (UNLESS OTHERWISE NOTED ON THE DRAWINGS) IN THE PROPOSED OR EXISTING PANEL (THEY ARE NOT EXISTING BREAKERS, UNLESS INDICATED ON THE PANELBOARD SCHEDULE).
 4. NOTE, THIS SCHEDULE DOES NOT INCLUDE THE REQUIRED ELECTRICAL CONNECTIONS FOR PROPOSED INSTRUMENTS, CONTROLLERS, VALVES, ETC.. REFER TO THE SINGLE LINE DIAGRAMS, RISER DIAGRAMS, AND SCHEDULES FOR REQUIRED ELECTRICAL POWER AND CONTROL CONNECTIONS FOR ALL PROPOSED INSTRUMENTS, CONTROLS, VALVES, ETC..

- REMARKS:
 ① STARTER IS INTERNAL TO PUMP CONTROL PANEL.
 ② CONTRACTOR RESPONSIBLE FOR PROVIDING ALL NECESSARY INTERLOCK CIRCUITRY (CONDUIT & CONDUCTORS) FOR AN OVERALL COMPLETE AND OPERABLE SYSTEM. REFER TO H-DRAWINGS FOR ADDITIONAL INFORMATION.
 ③ PROVIDE CIRCUIT BREAKER SUITABLE FOR USE AS AN EQUIPMENT DISCONNECT. PROVIDE PERMANENT LOCK-OUT CAPABILITY FOR PROPOSED CIRCUIT BREAKER. CIRCUIT BREAKER SHALL BE OF THE INDICATING TYPE. ALL REQUIREMENTS TO BE PER NEC.
 ④ THIS CONTRACT IS RESPONSIBLE FOR PROVIDING ALL NECESSARY INTERLOCK CIRCUITRY. REFER TO H-DRAWINGS FOR THERMOSTAT LOCATION AND FINAL REQUIREMENTS.
 ⑤ EQUIPMENT PROVIDED WITH FACTORY MOUNTED DISCONNECT SWITCH.
 ⑥ EXHAUST FAN IS INTENDED TO OPERATE CONTINUOUSLY TO DE-CLASSIFY THE PUMP STATION. ALL REQUIREMENTS TO COMPLY WITH NFPA 820.
 ⑦ VENTILATION SYSTEM TO BE EQUIPPED WITH A PRESSURE/FLOW SWITCH FOR MONITORING. REFER TO E-003, E-005, AND SPECIFICATION 16095 FOR ADDITIONAL INFORMATION.

JADE STONE ENGINEERING LOAD ANALYSIS

TARBELL HILL PUMP STATION (TOWN OF MORIAH)

Demand Calculation

Demand Load Calculations

TARBELL HILL PUMP STATION													LOAD (KVA)											
No.	Proposed/Existing/Removal	Item Description	Quantity	Volts	Phase	FLA	KW	PF	KVA	LOAD Diversity	Demand Load (KVA)	Note	Lighting	Recept.	Equipment		Kitchen	MECHANICAL EQUIPMENT						
															Cont.	Non-cont.		All Season	Cooling	Heating	Stand-by	C/N		
1	PROPOSED	SEWAGE PUMP	2	208	3	30.8	22.19	1.00	22.19	1.00	22.19					22.19								
2	PROPOSED	HVAC	1	208	3	20	7.21	1.00	7.21	1.00	7.21								7.21					
3	PROPOSED	EMERGENCY GENERATOR BLOCK HEATER / BATTERY CHARGER	1	208	3	7	2.52	1.00	2.52	1.00	2.52					2.52								
4	PROPOSED	MISCELLANEOUS (LIGHTS, CONVENIENCE POWER, INSTRUMENTS, ETC.)	1	208	3	15	5.40	1.00	5.40	1.00	5.40					5.40								
SUB-TOTALS													0.00	0.00	22.19	7.93	0.00	7.21	0.00	0.00	0.00			

SERVICE ENTRANCE	
VOLTAGE	208
PHASE	3
AMPS	98.10

FEEDER DEMAND: CONSERVATIVE			
DEMAND kVA	DEMAND AMPS	%	SERVICE SIZE
35.3	98.1	125%	123

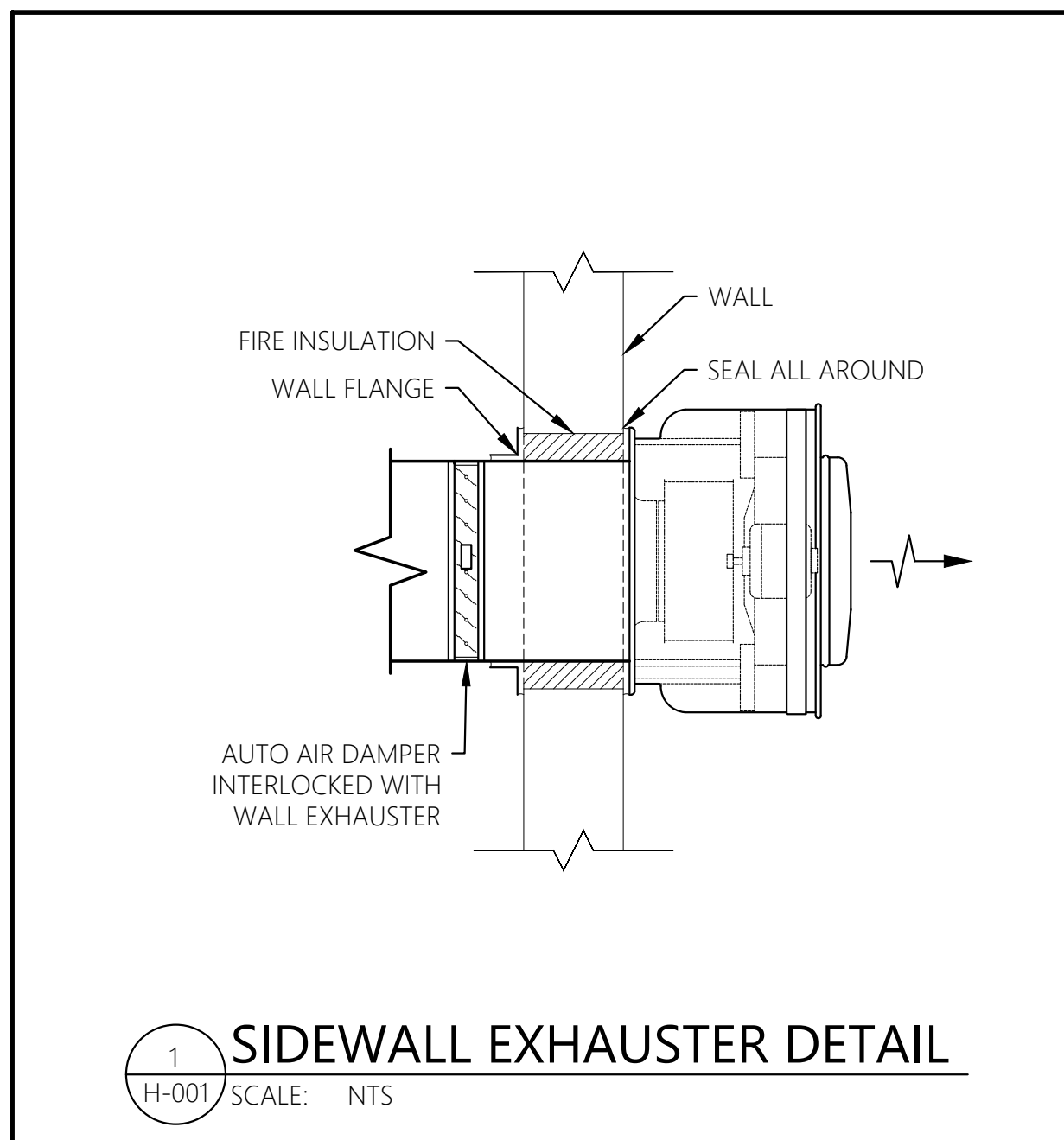
FEEDER DEMAND: NEC			
Lighting	0.0	0.0	125% 0
Receptacle	0.0	0.0	100% 0
Equipment: Continuous	22.2	61.6	125% 77
Equipment: Non-Continuous	5.9	16.5	100% 17
Kitchen	0.0	0.0	100% 0
Mech: Concurrent	7.2	20.0	100% 20
Mech: Non-Concurrent	0.0	0.0	100% 0
Largest motor	10.0	27.8	25% 7
TOTALS	45.3	125.9	96% 120

TOTAL DEMAND LOAD			
Load Type	Connected KVA	Factor	Demand kVA
Lighting	0.00	1	0.00
Receptacles	0.00	0.5	0.00
Equipment: Continuous	22.19	1	22.19
Equipment: Non-Continuous	7.93	0.75	5.94
Kitchen	0.00	0.5	0.00
Mechanical: Concurrent	7.21	1	7.21
Mech: Non-Concurrent	0.00	0.7	0.00
Standby (Not Inc. in Demand)	0.00	N/A	N/A
TOTAL KVA	37.32		35.34

1 ELECTRICAL SERVICE DEMAND CALCULATION

E-008 SCALE: NTS

SYMBOL	DESCRIPTION
	THERMOSTAT OR TEMPERATURE SENSOR
	PRESSURE SENSOR/SWITCH (AIRFLOW)
	AIR FLOW
	AUTOMATIC AIR VENT
	PRESSURE/TEMPERATURE PLUG
	PRESSURE GAUGE w/GAUGE COCK
	THERMOMETER
	SMOKE DETECTOR
	AIR MONITORING DEVICE
	SUPPLY AIR DIFFUSER
	RETURN AIR GRILLE
	EXHAUST AIR GRILLE
	FIRE DAMPER
	SMOKE DAMPER
	FIRE SMOKE DAMPER
	MANUAL VOLUME DAMPER
	SQUARE TO ROUND DUCT TRANSITION
	FLEXIBLE CONNECTION
	DUCTWORK SOUND LINING, 1" THICK
	ACCESS DOOR
	MOTOR OPERATED DAMPER
	DUCT TRANSITION
	RECTANGULAR BRANCH TAKE-OFF
	BELL MOUTH BRANCH TAKE-OFF
	ROUND BRANCH TAKE-OFF
	CIRCULAR AIR DIFFUSER
	CIRCULAR DUCT DROP OFF BOTTOM
	SUPPLY AIR DEVICE WITH 2'x2' LAY-IN PANEL
	RETURN AIR DEVICE WITH 2'x2' LAY-IN PANEL
	FLEXIBLE DUCTWORK
	SUPPLY/OUTSIDE AIR DUCT RISER
	RETURN AIR DUCT RISER
	EXHAUST/RELIEF AIR DUCT RISER
	ELBOW w/ DOUBLE THICKNESS TURNING VANES
	ROUND DUCT RISER
	DIAMETER



1 SIDEWALL EXHAUSTER DETAIL
H-001 SCALE: NTS

ABBREVIATIONS			
@	AT	MBH	THOUSAND BRITISH THERMAL UNITS PER HOUR
AAD	AUTOMATIC AIR DAMPER	MCA	MINIMUM CIRCUIT AMPS
ABV	ABOVE	MOP	MAXIMUM OVERCURRENT PROTECTION
AFF	ABOVE FINISHED FLOOR		
BDD	BACKDRAFT DAMPER	NO	NUMBER
BHP	BRAKE HORSEPOWER	OA	OUTDOOR AIR
BTU/HR	BRITISH THERMAL UNITS PER HOUR		
CFM	CUBIC FEET PER MINUTE	%	PERCENT
DIA, Ø	DIAMETER	PH	PHASE
DN	DOWN	PSI	POUNDS PER SQUARE INCH
(E)	EXISTING	RM	ROOM
EA	EXHAUST AIR	RPM	REVOLUTIONS PER MINUTE
EAT	ENTERING AIR TEMPERATURE	RX	REMOVE EXISTING
EF	EXHAUST FAN	SA	SUPPLY AIR
EFF	EFFICIENCY	SF	SUPPLY FAN
ESP	EXTERNAL STATIC PRESSURE	SP	STATIC PRESSURE
EXH	EXHAUST	SPEC	SPECIFICATION
		SQ	SQUARE
		SQ FT	SQUARE FOOT
*F	DEGREES FAHRENHEIT	ΔT	TEMPERATURE DROP
FC	FLEXIBLE CONNECTION	TEMP, T	TEMPERATURE
FPM	FEET PER MINUTE	TSP	TOTAL STATIC PRESSURE
HP	HORSEPOWER	TYP	TYPICAL
HZ	HERTZ	V	VENT, VOLTS
IN."	INCH, INCHES	VD	VOLUME DAMPER
KW	KILOWATT	VEL	VELOCITY
LAT	LEAVING AIR TEMPERATURE	W/	WITH
LV	LOUVER		

EQUIPMENT	
	EXHAUST FAN
	ELECTRIC UNIT HEATER
DRAWING	
	DRAWING NORTH ARROW

LOUVER SCHEDULE									
UNIT TAG	WIDTH	HEIGHT	CFM	FREE AREA (SQ FT)	FACE VELOCITY (FPM)	BIRD SCREEN	BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL NUMBER	REMARKS
LV-1	12	12	100	0.22	455	YES	GREENHECK	ESD-202	①
① WITH FACTORY PROVIDED 120V AAD, COORDINATE INTERLOCK CIRCUITING WITH ELECTRICAL DRAWINGS.									

ELECTRIC UNIT HEATER SCHEDULE									
UNIT TAG	MOUNTING ARRANGEMENT	KW	SUPPLY CFM	ELECTRICAL			BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL NUMBER	REMARKS
				VOLTS	PHASE	MOP			
EUH-1	VERTICAL	3.3	400	208	1	20A	TRANE	UHEC-03	① ②
① PROVIDE WITH WALL MOUNTED LINE VOLTAGE (208V) THERMOSTAT. COORDINATE ALL CIRCUITING WITH ELECTRICAL DRAWINGS.									
② PROVIDE WITH FACTORY MOUNTED DISCONNECT SWITCH.									

EXHAUST FAN SCHEDULE														
UNIT TAG	SERVICE	ARRANGEMENT	DRIVE	CFM	SP (IN WG)	FAN RPM	MAX SONES	WALL OPENING SIZE	ELECTRICAL			BASIS OF DESIGN MANUFACTURER	BASIS OF DESIGN MODEL NUMBER	REMARKS
									HP	VOLTS	PHASE			
EF-1	EXHAUST	WALL MOUNTED	DIRECT	100	0.3	1725	3.8	6.5"x6.5"	1/15	115	1	GREENHECK	CW-060-VG	①
① PROVIDE WITH 120V AAD, UNIT MOUNTED DISCONNECT SWITCH, AND SPEED CONTROLLER. COORDINATE INTERLOCK CIRCUITING WITH ELECTRICAL DRAWINGS.														

- ### GENERAL NOTES
- WORK SHALL CONFORM TO THE CONTRACT DRAWINGS, SPECIFICATIONS, THE LATEST APPLICABLE CODE OF THE AUTHORITY HAVING JURISDICTION, AND APPLICABLE RULES, REGULATIONS, LAWS, AND ORDINANCES OF FEDERAL AND LOCAL AUTHORITIES.
 - THE SCOPE OF WORK INDICATED IN THESE DOCUMENTS SHALL INCLUDE MECHANICAL AND ELECTRICAL SYSTEMS, FULLY ADJUSTED, TESTED AND READY TO USE. PROVIDE ITEMS NECESSARY TO COMPLETE THE SYSTEMS SUCH AS CUTTING, AND PATCHING ROOFING, CARPENTRY ETC. EXAMINE WORK INDICATED FOR TRADES IN ORDER TO DETERMINE THE EXTENT OF THE WORK REQUIRED TO BE COMPLETED.
 - IT IS THE INTENTION OF THESE DRAWINGS TO CALL FOR FINISHED WORK, TESTED AND READY FOR OPERATION. WHEREVER THE WORD "PROVIDE" IS USED, IT SHALL MEAN "FURNISH AND INSTALL COMPLETE, TESTED, AND READY FOR USE."
 - THE DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW EVERY COMPONENT AND/OR ACCESSORY REQUIRED FOR A COMPLETE INSTALLATION. ADDITIONAL DETAILS REQUIRED FOR A COMPLETE INSTALLATION AND NOT SHOWN ON THE DRAWINGS ARE REQUIRED TO BE DEVELOPED BY THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE ITEMS NECESSARY FOR A PROPERLY WORKING SYSTEM IN COMPLIANCE WITH ACCEPTED INDUSTRY STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
 - PRIOR TO BID, THE CONTRACTOR MAY VISIT THE SITE AND IDENTIFY ITEMS THAT MAY AFFECT THEIR BID. FAILURE OF THE CONTRACTOR TO VISIT THE SITE TO UNDERSTAND THE COMPLEXITY OF THE PROJECT SHALL NOT ALLOW THE CONTRACTOR TO SUBMIT CONTRACT CHANGES RELATED TO SITE FACILITY CONDITIONS. PRIOR TO THE INSTALLATION, FABRICATION, REMOVAL OR RELOCATION OF ANY WORK, THE CONTRACTOR SHALL REVIEW THE ACTUAL CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED AND SHALL COORDINATE WORK WITH THE PLANS, EXISTING EQUIPMENT AND SYSTEMS, BUILDING STRUCTURE AND WORK OF OTHER TRADES. WHERE CONFLICTS OCCUR, OR IF CONNECTIONS THERETO CAN NOT BE MADE, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER PRIOR TO MATERIAL FABRICATION OR INSTALLATION.
 - WHERE THE WORK OF VARIOUS TRADES WILL BE INSTALLED IN CLOSE PROXIMITY TO ONE ANOTHER OR WHERE THERE IS EVIDENCE THAT THE WORK OF ONE TRADE WILL INTERFERE WITH WORK OF OTHER, THE CONTRACTOR SHALL WORK OUT SPACE CONDITIONS TO MAKE A SATISFACTORY ADJUSTMENT. IF THE CONTRACTOR ALLOWS ONE TRADE TO INSTALL HIS WORK BEFORE COORDINATING WITH WORK OF OTHER TRADES THE CONTRACTOR SHALL MAKE NECESSARY CHANGES TO CORRECT THE CONDITIONS IN A MANNER ACCEPTABLE TO THE OWNER AND BEAR THE COST OF SUCH CORRECTIONS. MAINTENANCE ACCESS TO EXISTING AND NEW SYSTEMS AND EQUIPMENT SHALL NOT BE COMPROMISED.
 - THE CONTRACTOR SHALL LOCATE EQUIPMENT WHICH MUST BE SERVICED, OPERATED, OR MAINTAINED IN FULLY ACCESSIBLE POSITION. EQUIPMENT SHALL INCLUDE, BUT NOT BE LIMITED TO, VALVES, MOTORS, CONTROLLERS, DRAIN PANS, ETC. IF REQUIRED FOR ACCESSIBILITY, FURNISH ACCESS DOORS FOR THE PURPOSE. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ALLOW FOR BETTER ACCESSIBILITY AND ANY CHANGES FOR THAT PURPOSE SHOULD BE PRE-APPROVED BY THE ENGINEER.
 - WORK IN OCCUPIED SPACE SHALL BE COORDINATED WITH THE OWNER, SCHEDULED IN ADVANCE AND ARRANGE TO MINIMIZE DISRUPTION TO THE OWNER'S OPERATION.
 - THE CONTRACTOR SHALL LEAVE THE ENTIRE MECHANICAL SYSTEM INSTALLED UNDER THIS CONTRACT IN PROPER WORKING ORDER AND SHALL, WITHOUT CHARGE, REPLACE ANY WORK OR MATERIALS WHICH DEVELOP DEFECTS, WITHIN ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR, AND SHALL INCUR FINANCIAL RESPONSIBILITIES FOR, ANY DAMAGES CAUSED BY OR RESULTING FROM DEFECTS IN HIS WORK.
 - PRIOR TO THE BEGINNING OF WORK, THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND SUBMITTALS OF EQUIPMENT FOR REVIEW BY THE ENGINEER. ADDITIONALLY, THE CONTRACTOR SHALL FURNISH A DRAWING SHOWING THE DIMENSIONED LOCATION AND SIZE OF PENETRATIONS FOR ENGINEER'S APPROVAL.
 - CONTRACTOR SHALL COORDINATE FINAL LOCATIONS AND HEIGHTS OF THERMOSTATS WITH OWNER PRIOR TO INSTALLATION. CONTRACTOR SHALL ADHERE TO ADA REQUIREMENTS AND SHALL NOT MOUNT THERMOSTATS GREATER THAN 48 INCHES OFF FINISHED FLOOR AND NO LESS THAN 15 INCHES ABOVE FINISHED FLOOR.
 - WHEREVER PIPES, CONDUITS, OR OTHER ITEMS PASS THROUGH FIRE RATED WALLS AND FLOORS, THE SPACE BETWEEN THE ITEM AND THE MASONRY OR THE SPACE BETWEEN THE ITEM AND THE SLEEVE SHALL BE ADEQUATELY FIRE STOPPED WITH A NON COMBUSTIBLE, NON MELTING UL LISTED SYSTEM IN ACCORDANCE WITH NFPA STANDARDS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
 - OPENINGS RESULTING FROM DEMOLITION SHALL BE CLOSED, SEALED AND FINISHED TO MATCH EXISTING AND TO MAINTAIN FIRE RATINGS. IMMEDIATELY FOR FIRE SEPARATIONS AND TEMPORARILY FOR OPENINGS TO MAINTAIN FIRE SEPARATION.
 - PROVIDE REPAIR OR REPLACEMENT OF WALLS, CEILINGS, FLOORS, ROOFS ETC., REQUIRED FOR DEMOLITION OR NEW WORK, REPAIR OR REPLACEMENT TO MATCH EXISTING & ADJACENT FINISHES. CONTRACTOR SHALL PATCH AND FINISH DAMAGED AREA TO NEAREST WALL CORNER.
 - FINISHES DAMAGED DURING THE PROJECT SHALL BE REPAIRED TO MATCH EXISTING.
 - WORK SHALL BE PERFORMED IN ACCORDANCE WITH NFPA 70, THE NATIONAL ELECTRICAL CODE, THE NATIONAL ELECTRICAL SAFETY CODE, INTERNATIONAL MECHANICAL CODE, OSHA AND NATIONAL SAFETY CODE REQUIREMENTS.
 - SHOULD ANY OUTAGES BE REQUIRED IN THE COURSE OF THIS PROJECT, THE CONTRACTOR SHALL COORDINATE SUCH OUTAGES WITH THE PROJECT MANAGER OR DESIGNATED REPRESENTATIVE, SCHEDULING ANY OUTAGES DURING THE NON WORKING HOURS, SO AS NOT TO EFFECT FACILITY OPERATIONS. 72 HOURS NOTICE WILL BE REQUIRED PRIOR TO ANY OUTAGE. NO OUTAGE MAY BE EXECUTED PRIOR TO APPROVAL OF THE OWNER'S DESIGNATED REPRESENTATIVE AND THE FACILITY MANAGER.
 - ALL ROOF WORK SHALL BE PERFORMED BY A CERTIFIED ROOF INSPECTOR. ROOF OPENINGS BEING REUSED SHALL BE CAPPED UNTIL REPLACEMENT EQUIPMENT IS INSTALLED.
 - DUCT DIMENSIONS SHOWN ON DRAWINGS ARE SHOWN AS "SIDE SEEN" X "SIDE NOT SEEN" AND INDICATE CLEAR INSIDE DIMENSIONS. ROUND DUCT MAY BE SUBSTITUTED FOR RECTANGULAR DUCT, AS APPROVED, PROVIDING CROSS-SECTIONAL AREA IS MAINTAINED. SUBSTITUTE SIZES ACCORDING TO THE TABLE OF EQUIVALENT RECTANGULAR DUCT DIMENSIONS, ASHRAE HANDBOOK OF FUNDAMENTALS. FIELD VERIFY CLEARANCE FOR ROUND DUCT IN LIEU OF RECTANGULAR.
 - COORDINATE ALL WALL, FLOOR, AND ROOF PENETRATIONS TO AVOID CONFLICT.



DRAWING REVISIONS		APPROVALS	
NO.	DATE	DESIGN	REVISION
5			
4			
3			
2	01/20/20	FOR BID	RJK
1	04/20/19	FOR APPROVAL	EB

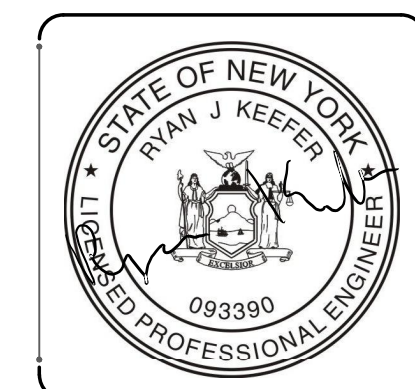
PROJECT TITLE: **TARBELL HILL PUMP STATION IMPROVEMENTS**
CLIENT: **TOWN OF MORIAH, NEW YORK**
DRAWING TITLE: **HVAC LEGEND, NOTES, SCHEDULES, AND DETAILS**
ORIGINAL SIZE: **ARCH D**

DATE:	JANUARY 10, 2020
SCALE:	AS NOTED
DRAWN:	EB
CHECKED:	RJK
REF. JOB#:	19016
CONTRACT NO.:	
DRAWING NUMBER:	H-001



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NO.	DATE	REVISION	DESIGN	APPROVAL
5				
4				
3	01/20/20	FOR BID	RJK	RJK
2	01/20/20	FOR BID	EB	EB
1	04/2019	FOR APPROVAL		

PROJECT TITLE:	TARBELL HILL PUMP STATION IMPROVEMENTS	ORIGINAL SIZE:	ARCH D
CLIENT:	TOWN OF MORIAH, NEW YORK		
DRAWING TITLE:	HVAC FLOOR PLANS		

DATE:	JANUARY 10, 2020
SCALE:	AS NOTED
DRAWN:	EB
CHECKED:	RJK
ref. Job#:	19016
CONTRACT NO.:	
DRAWING NUMBER:	H-002

GENERAL SHEET NOTES - DEMOLITION:

- REFER TO H-001 FOR HVAC LEGENDS, ABBREVIATIONS AND GENERAL PROJECT NOTES.
- UNLESS OTHERWISE NOTED, MECHANICAL/PLUMBING ITEMS SHOWN HEAVY DASHED (---) SHALL BE DEMOLISHED AND MECHANICAL/PLUMBING ITEMS SHOWN LIGHT SOLID (—) SHALL BE EXISTING TO REMAIN.

SHEET KEY NOTES - DEMOLITION:

- EXISTING DEHUMIDIFIER TO BE REMOVED IN ITS ENTIRETY. COORDINATE DISCONNECTION OF ELECTRICAL SERVICE WITH ELECTRICAL DRAWINGS.
- EXISTING UNIT HEATER AND ASSOCIATED CONTROLS TO BE REMOVED IN THEIR ENTIRETY. COORDINATE DISCONNECTION OF ELECTRICAL SERVICE WITH ELECTRICAL DRAWINGS. CONTRACTOR TO TURN EQUIPMENT OVER TO OWNER FOR USE AS A SPARE.

GENERAL SHEET NOTES - NEW WORK:

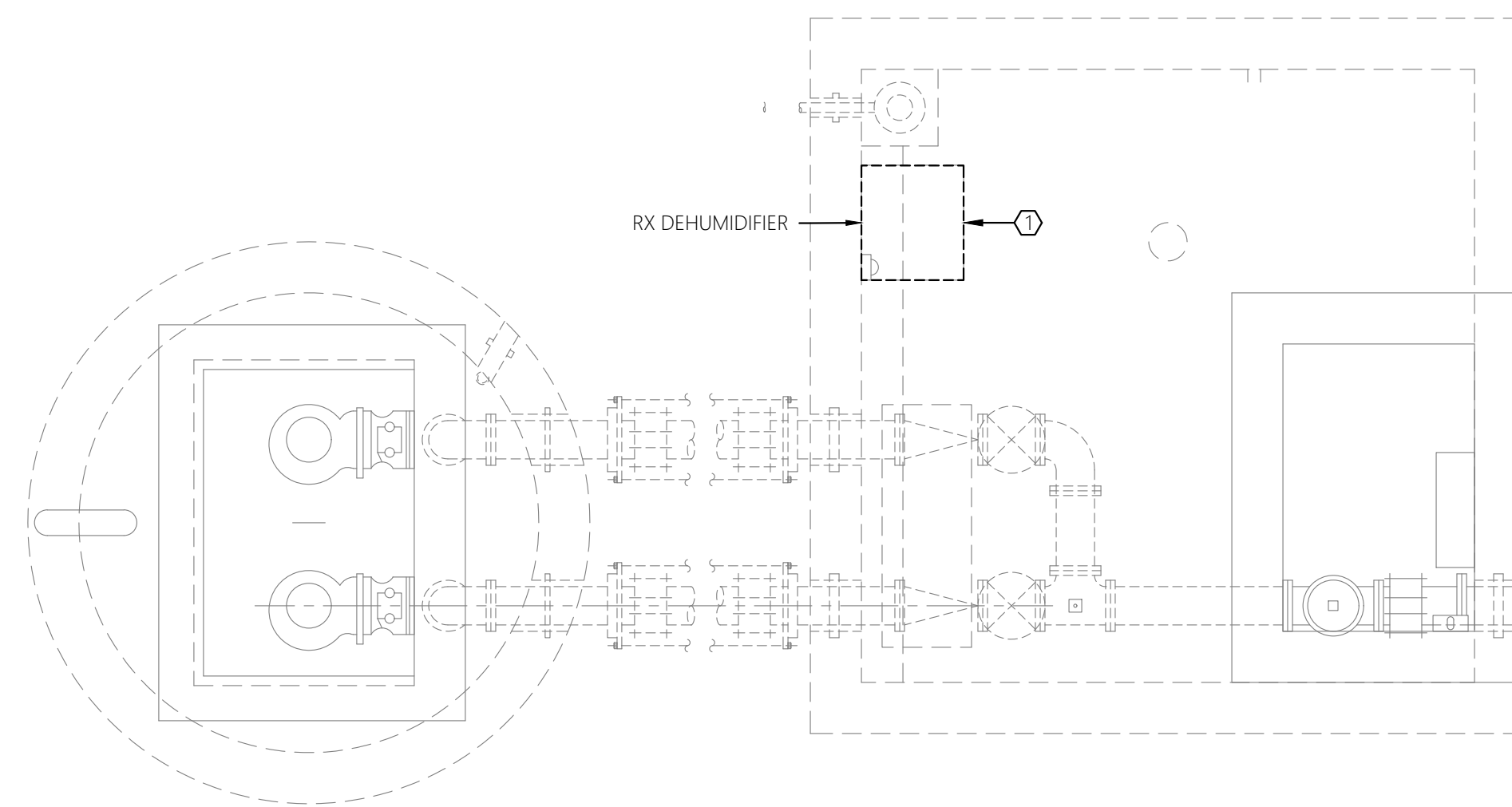
- REFER TO H-001 FOR HVAC LEGENDS, ABBREVIATIONS AND GENERAL PROJECT NOTES.
- UNLESS OTHERWISE NOTED, MECHANICAL/PLUMBING ITEMS SHOWN HEAVY SOLID (—) SHALL BE NEW AND MECHANICAL/PLUMBING ITEMS SHOWN LIGHT SOLID (—) SHALL BE EXISTING TO REMAIN.

SHEET KEY NOTES - NEW WORK:

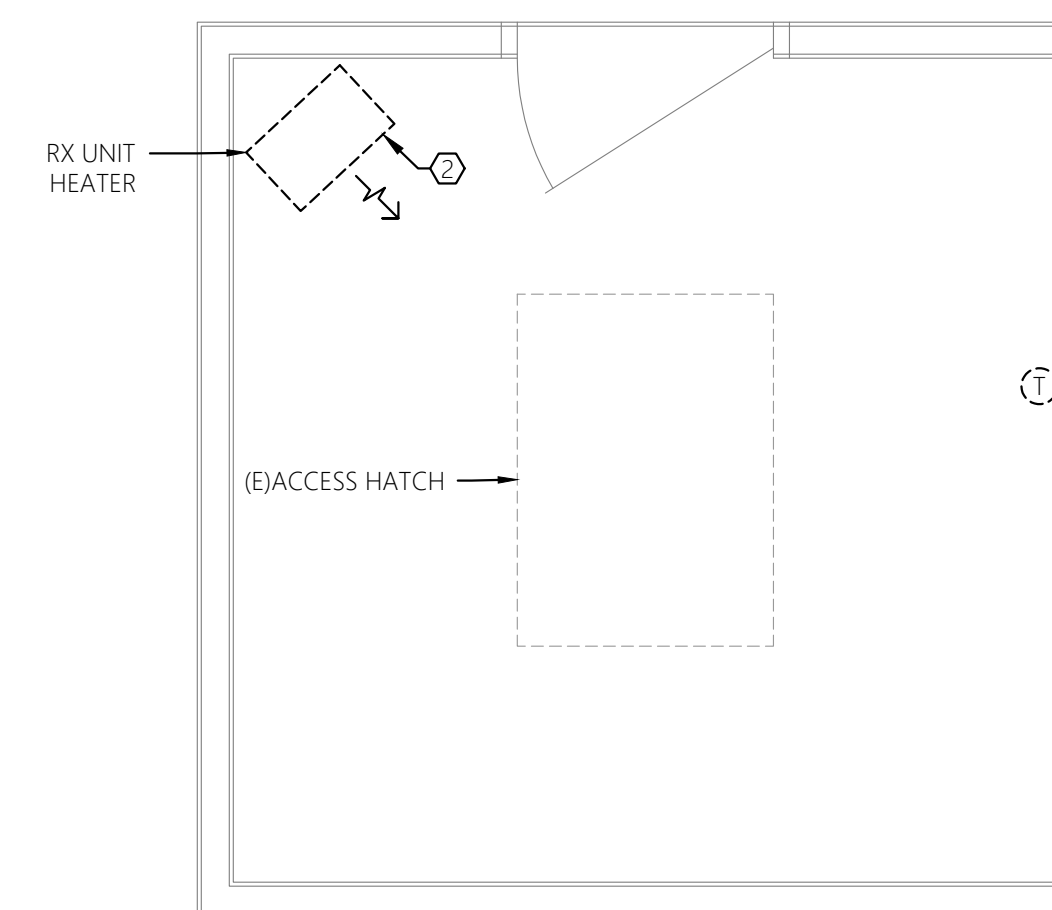
- ACCESS HATCH (BELOW). CONTRACTOR TO KEEP AREA CLEAR FOR FUTURE PROVISIONS OF REMOVING EQUIPMENT.
- NEW ELECTRIC UNIT HEATER TO BE INSTALLED AT LOCATION SHOWN. COORDINATE FINAL MOUNTING LOCATION TO AVOID CONFLICT. COORDINATE CONNECTION OF ELECTRICAL SERVICE WITH ELECTRICAL DRAWINGS.
- NEW WALL MOUNTED EXHAUST FAN TO BE INSTALLED AT LOCATION SHOWN PER DETAIL ON SHEET H-001. COORDINATE FINAL MOUNTING LOCATION AND DUCT PENETRATION THRU FLOOR TO AVOID CONFLICT. COORDINATE CONNECTION OF ELECTRICAL SERVICE WITH ELECTRICAL DRAWINGS.
- NEW DIFFERENTIAL PRESSURE SENSOR/SWITCH/TRANSMITTER TO BE INSTALLED IN DUCTWORK FOR AIRFLOW MONITORING OF EXHAUST FAN. DIFFERENTIAL PRESSURE UNIT SHALL BE DWYER SERIES DH3 OR EQUAL.
- NEW LOUVER TO BE INSTALLED AT LOCATION SHOWN. COORDINATE FINAL MOUNTING LOCATION AND DUCT PENETRATION THRU FLOOR TO AVOID CONFLICT.

SEQUENCE OF OPERATIONS:

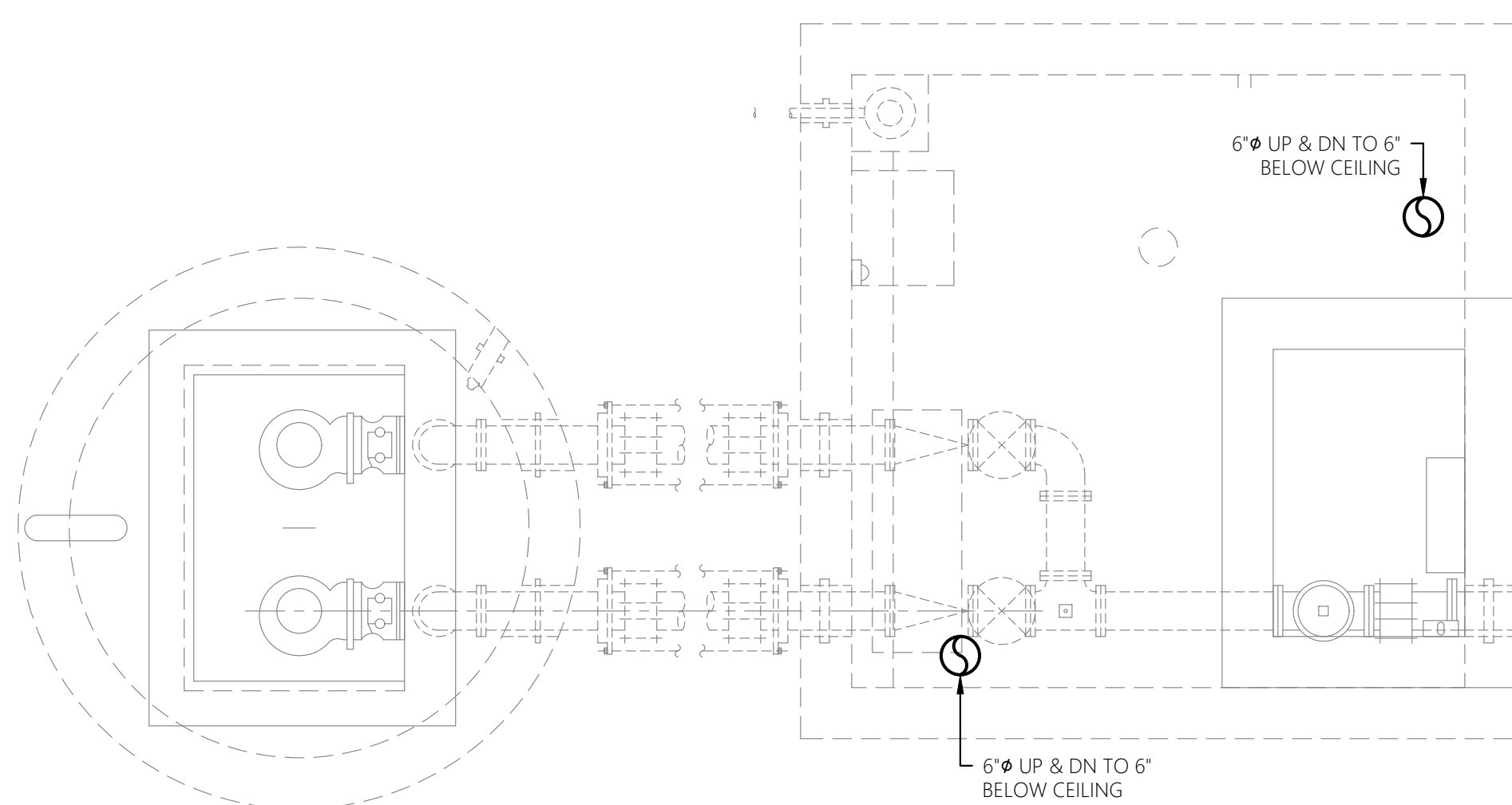
EF-1 SHALL OPERATE CONTINUOUSLY TO DECLASSIFY PUMP STATION LOWER LEVEL.



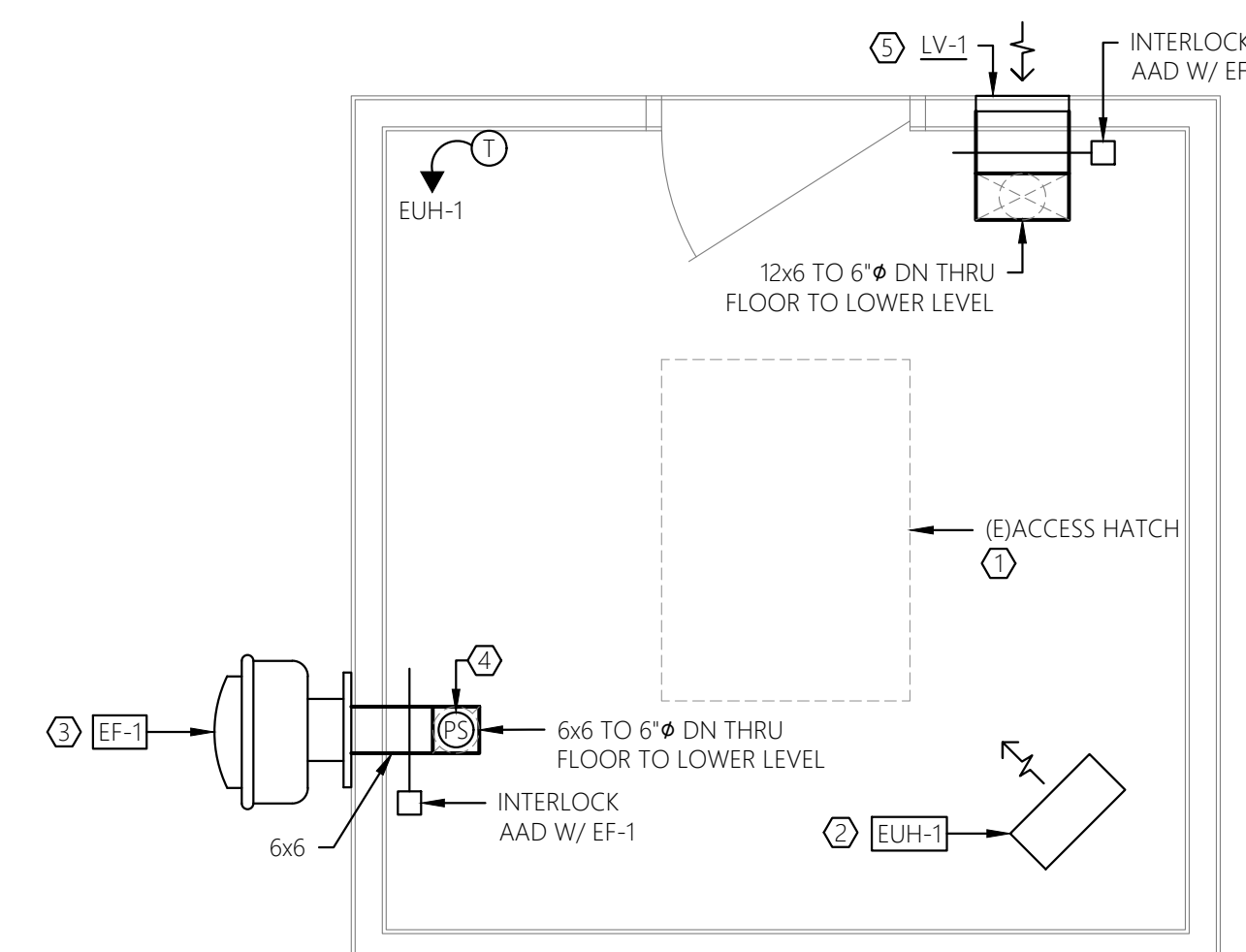
1 HVAC DEMOLITION PLAN - PUMP STATION LOWER LEVEL
H-002 SCALE: 1/2" = 1'-0"



3 HVAC DEMOLITION PLAN - PUMP STATION UPPER LEVEL
H-002 SCALE: 1/2" = 1'-0"



2 HVAC NEW WORK PLAN - PUMP STATION LOWER LEVEL
H-002 SCALE: 1/2" = 1'-0"



4 HVAC NEW WORK PLAN - PUMP STATION UPPER LEVEL
H-002 SCALE: 1/2" = 1'-0"

