

CITY OF CONNEAUT

CLARK STREET

WATER TANK

REPLACEMENT

CONNEAUT, OHIO

BID SET

FEBRUARY 2026



CONNEAUT COUNCIL:

TERRY MOISIO, JR.	PRESIDENT
RICK GAUGH	WARD 1
CHRIS CASTRILLA	WARD 2
OKEY EMERY	WARD 3
THOMAS KOZESKY	WARD 4
MARIANA BRANCH	COUNCIL AT LARGE
NICK PERKOSKI	COUNCIL AT LARGE

OFFICIALS:

NICK SANFORD	CITY MANAGER
JOHN WILLIAMS	FINANCIAL DIRECTOR
MICHAEL BERTOLASIO	CHIEF OF POLICE
STEVEN LEE	FIRE CHIEF



- UNDERGROUND BUILDING SERVICE UTILITY LINES ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING, MAINTAINING AND REPLACING AS NECESSARY TO ENSURE CONTINUAL SERVICE TO BUILDINGS.
- THE CONTRACTOR IS RESPONSIBLE TO CALL OHIO UTILITIES PROTECTION SERVICE @ 1-800-362-2764, THREE WORKING DAYS PRIOR TO CONSTRUCTION.



LOCATION MAP
NOT TO SCALE

APPROVALS:

	3/2/2026
CALEB RZESZETEK, DISTRIBUTION MANAGER	DATE
	2/27/26
NICK SANFORD, CITY MANAGER	DATE
	3-2-2026
WILLIAM SMITH, WATER SUPERINTENDENT	DATE

OFFICE:

THE CITY OF CONNEAUT
294 MAIN STREET
CONNEAUT, OH 44030

(440) 594-7401 PHONE
(440) 593-6908 FAX

PROJECT SITE:

LOCATED ON CLARK STREET BETWEEN LAKE ERIE STREET AND CHESTNUT STREET ON SAME PROPERTY AS CITY DISTRIBUTION GARAGE

ENGINEER:

VERDANTAS
3875 EMBASSY PARKWAY
SUITE 200
AKRON, OH 44333

(330) 375-0800 PHONE
(330) 665-0620 FAX



Alan Frygier P.E.

ALAN FRYGIER P.E.

P.E. No. 90367

3/3/2026

DATE

BID SET



8150 STERLING COURT
MENTOR, OHIO 44060
(440) 951-9000

ISSUED FOR:	REVIEW	NO	DATE
ISSUE DATE: 03/25/2025	REVISION		
SCALE: AS SHOWN			
DESIGNED BY: AEF			
DRAWN BY: AMM			
CHECKED BY: AEF			

CITY OF CONNEAUT
CLARK STREET
WATER TANK REPLACEMENT
CONNEAUT, OHIO
ASHTABULA COUNTY
COVER SHEET

PROJECT NO.	241249
DISCIPLINE	GENERAL
SHEET NAME	00G-01
SHEET	1
OF	20



8150 STERLING COURT
MENTOR, OHIO 44060
(440) 951-9000

1. PROHIBITED CONSTRUCTION ACTIVITIES

- A. DISPOSING OF EXCESS OR UNSUITABLE EXCAVATED MATERIAL IN WETLANDS OR FLOODPLAINS, EVEN WITH THE PERMISSION OF THE PROPERTY OWNER;
- B. LOCATING STOCKPILE STORAGE AREAS IN ENVIRONMENTALLY SENSITIVE AREAS;
- C. INDISCRIMINATE, ARBITRARY, OR CAPRICIOUS OPERATION OF EQUIPMENT IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR OUTSIDE THE EASEMENT LIMITS;
- D. PUMPING OF SEDIMENT-LADEN WATER FROM TRENCHES OR OTHER EXCAVATIONS DIRECTLY INTO ANY SURFACE WATERS, ANY STREAM CORRIDORS, ANY WETLANDS, OR STORM SEWERS; ALL SUCH WATER WILL BE PROPERLY FILTERED OR SETTLED TO REMOVE SILT PRIOR TO RELEASE;
- E. DISCHARGING POLLUTANTS SUCH AS CHEMICALS, FUELS, LUBRICANTS, BITUMINOUS MATERIALS, RAW SEWAGE AND OTHER HARMFUL WASTE INTO OR ALONGSIDE OF RIVERS, STREAMS, IMPOUNDMENTS, OR INTO NATURAL OR MAN-MADE CHANNELS LEADING THERETO;
- F. PERMANENT OR UNSPECIFIED ALTERATION OF THE FLOW LINE OF ANY STREAM;
- G. DAMAGING VEGETATION OUTSIDE OF THE CONSTRUCTION AREA;
- H. DISPOSAL OF TREES, BRUSH, AND OTHER DEBRIS IN ANY STREAM CORRIDORS, ANY WETLANDS, ANY SURFACE WATERS, OR AT UNSPECIFIED LOCATIONS;
- I. OPEN BURNING OF PROJECT DEBRIS WITHOUT A PERMIT;
- J. DISCHARGING INJURIOUS SILICA DUST CONCENTRATIONS INTO THE ATMOSPHERE RESULTING FROM BREAKING, CUTTING, CHIPPING, RILLING, BUFFING, GRINDING, POLISHING, SHAPING OR SURFACING CLOSER THAN 200 FEET TO PLACES OF RESIDENCES OR COMMERCIAL, PROFESSIONAL, QUASI-PUBLIC OR PUBLIC PLACES OF HUMAN OCCUPATION;
- K. STORING CONSTRUCTION EQUIPMENT AND VEHICLES AND/OR STOCKPILING CONSTRUCTION MATERIALS ON PROPERTY, PUBLIC OR PRIVATE, NOT PREVIOUSLY SPECIFIED ON THE PLANS BY THE ENGINEER FOR SUCH PURPOSES;
- L. RUNNING WELL POINT OR PUMP DISCHARGE LINES THROUGH PRIVATE PROPERTY OR PUBLIC PROPERTY AND RIGHTS-OF-WAY WITHOUT THE WRITTEN PERMISSION OF THE PROPERTY OWNER AND THE CONSENT OF THE ENGINEER;
- M. OPERATIONS ENTAILING THE USE OF VIBRATORY HAMMERS OR COMPACTORS OUTSIDE THE HOURS OF 8:00 AM AND 5:00 P.M. OR OUTSIDE THE HOURS ALLOWED FOR CONSTRUCTION BY LOCAL ORDINANCES OR REGULATIONS; AND
- N. NO CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE OR BOULEVARD WITHOUT THE PRIOR CONSENT OF MUNICIPAL OFFICIALS AND THE ENGINEER, AND CLOSING CLEAR ACCESS:

- BY FIRE PROTECTION EQUIPMENT AND EMERGENCY VEHICLES;
- BY THE PUBLIC TO ANY COMMERCIAL OR PROFESSIONAL PLACE OF BUSINESS, QUASI-PUBLIC OR PUBLIC ESTABLISHMENT, OR PLACE OF RESIDENCE; OR
- BY VEHICLES TO DRIVEWAYS WITHOUT THE PROVISION OF ALTERNATIVE MEANS OF BUILDING INGRESS AND EGRESS.

2. MITIGATIVE MEASURES

EROSION/SEDIMENT CONTROL

1. SITE CLEARING AND GRUBBING SHALL NOT COMMENCE UNTIL SUCH TIME THAT THE CONTRACTOR IS PREPARED TO START CONSTRUCTION. REMOVE ONLY THOSE TREES, SHRUBS, AND GRASSES THAT MUST BE REMOVED FOR CONSTRUCTION OF ACTUAL FACILITIES; PROTECT THE REST TO PRESERVE THEIR AESTHETIC, HABITAT, AND EROSION CONTROL VALUES.
2. IMMEDIATELY FOLLOWING SITE AND ACCESS CLEARING, TEMPORARY EROSION AND SEDIMENTATION CONTROLS SHALL BE INSTALLED. THEY WILL BE MAINTAINED IN EFFECTIVE OPERATING CONDITION DURING CONSTRUCTION UNTIL FINAL SEEDING AND SITE RESTORATION OCCURS.
3. AT THE WATER TOWER CONSTRUCTION SITE, INSTALL SEDIMENT BASINS AND DIVERSION DIKES BEFORE DISTURBING THE LAND THAT DRAINS INTO THEM.
4. DIVERSION CHANNELS WILL BE CONSTRUCTED AROUND THE WATER TOWER CONSTRUCTION SITE TO COLLECT RUNOFF AND PREVENT SILT AND OTHER ERODIBLE MATERIALS FROM ENTERING LOCAL DRAINAGE COURSES. DIVERSION CHANNELS WILL FLOW TO TEMPORARY SEDIMENT BASINS, AND ARE TO BE STABILIZED THROUGH SEEDING, RIP-RAPPING, OR LINING THEM WITH PLASTIC.
5. EXISTING TOPSOIL WILL BE STOCKPILED AND REPLACED UPON FINAL GRADING OF THE WATER TOWER CONSTRUCTION SITE.
6. EXTENSIVE AREAS OF STOCKPILED TOPSOIL AT THE WATER TOWER CONSTRUCTION SITE ARE TO BE PROTECTED THROUGH THE USE OF TEMPORARY SEEDING AND MULCHING OR COVERING SUCH AS WITH ANCHORED STRAW MULCH. SILT BARRIERS WILL BE INSTALLED DOWN GRADIENT OF THESE AREAS ON CONTOUR AND WITH THEIR ENDS UP SLOPE OF THE CONTOUR TO PREVENT SILT LADEN RUNOFF FROM ENTERING WATERWAYS OR STORM SEWERS. WITHIN 15 DAYS OF COMPLETION OF CONSTRUCTION, ANY REMAINING SOIL MUST EITHER BE REMOVED OR PERMANENTLY STABILIZED.
7. SILT FENCES SHOULD BE TRENCHED SIX TO TWELVE INCHES DEEP, THE FABRIC LAID IN THE TRENCH, AND THE SOIL PROPERLY BACKFILLED INTO THE TRENCH TO PREVENT UNDERCUTTING.
8. WHERE TRENCH EXCAVATION OCCURS PARALLEL TO ANY WATERWAY, A VEGETATED BARRIER SHOULD BE MAINTAINED BETWEEN THE STREAM AND THE CONSTRUCTION SITE. ALL TRENCH SPOILS WILL BE STOCKPILED ON THE SIDE OF THE TRENCH AWAY FROM THE WATERWAY, AND A LINE OF SILT BARRIERS WILL BE ESTABLISHED ALONG THE EDGE OF CONSTRUCTION ON THE CONTOUR BETWEEN THE TRENCH AND THE WATERWAY.
9. NO MORE THAN 200 FEET OF TRENCH SHALL BE OPEN AT ANY GIVEN TIME. TRENCH OPENING AND LAYING OF PIPE SHOULD OCCUR SO AS TO MINIMIZE THE AMOUNT OF DISTURBED AREA. ALL TRENCHES ARE TO BE BACKFILLED AND COMPACTED IMMEDIATELY AFTER PIPE INSTALLATION. IMMEDIATELY FOLLOWING THE BACKFILLING OF THE TRENCH, THE GROUND SURFACE WILL BE ROUGH GRADED TO THE EXISTING CONTOURS TO ALLOW FOR PROPER DRAINAGE, AND WILL BE SEEDED AND/OR MULCHED IN STAGES TO PREVENT EROSION.
10. ANY DISTURBED AREA THAT WILL NOT BE ACTIVELY UNDER CONSTRUCTION FOR A PERIOD OF 15 DAYS OR MORE WILL BE TEMPORARILY STABILIZED IMMEDIATELY BY SEEDING AND MULCHING OR BY ANCHORED STRAW MULCH.
11. AS CONSTRUCTION IS COMPLETED, PERMANENTLY STABILIZE EACH DISTURBED AREA IN STAGES WITH PERENNIAL VEGETATION INSTALLED ACCORDING TO OHIO EPA (OR EQUIVALENT) STANDARDS AND SPECIFICATIONS. FINAL GRADING WILL BE CONSISTENT WITH PRE-CONSTRUCTION TOPOGRAPHY FOR DRAINAGE AND AESTHETIC REASONS.
12. EXCAVATION PITS SHALL BE SURROUNDED WITH SILT BARRIERS TO PREVENT EROSION OF THE EXCAVATED PIT MATERIAL. STORM SEWER INLETS WILL BE SURROUNDED WITH SILT BARRIERS TO PREVENT SILTATION.
13. SLOPES EXCEEDING 15 PERCENT OR THAT TEND TO BE UNSTABLE REQUIRE SPECIAL TREATMENT SUCH AS WATER DIVERSION BERMS, SODDING, OR THE USE OF JUTE OR EXCELSIOR BLANKETS.
14. WHEN BORROW MATERIAL IS OBTAINED FROM OTHER THAN COMMERCIALY OPERATED SOURCES, EROSION OF THE BORROW SITE WILL BE SO CONTROLLED BOTH DURING AND AFTER COMPLETION OF THE WORK THAT EROSION WILL BE MINIMIZED AND SEDIMENT WILL NOT ENTER STREAMS OR OTHER BODIES OF WATER. WASTE OR DISPOSAL AREAS AND CONSTRUCTION ROADS SHALL BE LOCATED AND CONSTRUCTED IN A MANNER THAT WILL KEEP SEDIMENT FROM ENTERING STREAMS. TEMPORARY EROSION CONTROL BARRIERS AND LIMITED SITE CLEARING WILL BE USED AS NEEDED.
15. IF WORK IS SUSPENDED FOR ANY REASON, THE CONTRACTOR SHALL MAINTAIN THE SOIL EROSION AND SEDIMENTATION CONTROLS IN GOOD OPERATING CONDITION DURING THE SUSPENSION OF THE WORK. ALSO, WHEN SEASONAL CONDITIONS PERMIT AND THE SUSPENSION OF WORK IS EXPECTED TO EXCEED A PERIOD OF ONE MONTH, THE CONTRACTOR SHALL SEED, FERTILIZE, AND MULCH ALL DISTURBED AREAS LEFT EXPOSED WHEN THE WORK IS STOPPED.
16. INSTALL THE ABOVE EROSION AND SEDIMENT CONTROL MEASURES, AS APPROPRIATE, REFERRING TO OHIO EPA, STORM WATER TECHNICAL ASSISTANCE, RAINWATER AND LAND DEVELOPMENT MANUAL STANDARDS AND SPECIFICATIONS (FORMERLY ODNR) OR EQUIVALENT FOR PARTICULAR TECHNIQUES. THESE MEASURES ARE TO BE MAINTAINED IN EFFECTIVE WORKING CONDITION DURING CONSTRUCTION AND UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
LINK:
[HTTP://EPA.OHIO.GOV/PORTALS/35/STORM/TECHNICALASSISTANCE/RLD11-6-14All.pdf](http://EPA.OHIO.GOV/PORTALS/35/STORM/TECHNICALASSISTANCE/RLD11-6-14All.pdf)

2. MITIGATIVE MEASURES - CONTINUED

TRAFFIC CONTROL

17. AT LEAST ONE LANE OF TRAFFIC MUST BE MAINTAINED ALONG THE TRAVEL ROUTE TO THE CONSTRUCTION SITE.
18. ACCESS MUST BE MAINTAINED FOR EMERGENCY VEHICLES AT ALL TIMES.
19. NO TRENCH WILL BE LEFT OPEN AT THE END OF A WORK DAY, WHERE PRACTICAL; ANY OPEN TRENCH WILL BE PROPERLY IDENTIFIED AND BARRICADED FOR SAFETY PURPOSES.
20. ANY CONSTRUCTION EQUIPMENT OR EXCAVATIONS NEAR ROADS MUST BE MARKED WITH LIGHTS, REFLECTORS, OIL LANTERNS, OR SMUDGE POTS.
21. THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN ALL NECESSARY BARRICADES, WARNING SIGNS, DANGER SIGNALS, FLAG PERSON(S), WATCHERS, AND ALL OTHER APPROPRIATE PRECAUTIONS NECESSARY FOR THE PROTECTION OF THE WORK AND FOR SAFETY.
22. PRIOR TO CLOSING OFF CLEAR ACCESS TO ANY PUBLIC ALLEY, STREET, ROAD, AVENUE, OR BOULEVARD, THE CONTRACTOR MUST HAVE CONSENT FROM LOCAL OFFICIALS AND THE ENGINEER.

AIR POLLUTION / NOISE CONTROL

23. CONSTRUCTION ACTIVITIES WILL BE LIMITED TO DAYTIME HOURS.
24. CONSTRUCTION EQUIPMENT WILL BE PROVIDED WITH INTAKE SILENCERS AND MUFFLERS, AS REQUIRED BY SAFETY STANDARDS.
25. ALL CONSTRUCTION VEHICLES SHOULD BE EQUIPPED WITH PROPER EMISSIONS CONTROL EQUIPMENT.
26. PERIODICALLY CHECK EQUIPMENT AND MACHINERY FOR PROPER TUNING TO MINIMIZE EXHAUST EMISSIONS AND NOISE.
27. UNPAVED AREAS WILL BE WET DOWN (AS NECESSARY) DURING CONSTRUCTION TO MINIMIZE DUST GENERATION.

TREE / VEGETATION PROTECTION

28. TREE REMOVAL WILL BE LIMITED TO THAT NECESSARY FOR CONSTRUCTION AND WILL BE LIMITED FURTHER TO THE PERMANENT EASEMENT WHEREVER POSSIBLE.
29. NO TREE REMOVAL WILL BE PERMITTED OUTSIDE THE TEMPORARY EASEMENT WITHOUT PERMISSION OF THE ENGINEER.
30. TREES WHICH ARE NOT REMOVED WILL BE PROTECTED BY ENSURING THAT TREES TO BE REMOVED ARE FELLED SO AS NOT TO INJURE THE REMAINING TREES.
31. PRIOR TO CLEARING, THE CONTRACTOR AND ENGINEER, SHALL WALK THE ACQUIRED EASEMENTS IN AN EFFORT TO DESIGNATE THE TREES THAT ARE TO BE SAVED. TREES TO BE SAVED WILL BE CLEARLY MARKED BY PAINT WITH THE LETTER "S". TREES TO BE PROTECTED BY AN APPROPRIATE BARRIER SHALL BE MARKED WITH AN "S" ENCLOSED IN A CIRCLE.
32. SOIL AND OTHER MATERIAL WILL NOT BE STORED NEXT TO OR WITHIN THE DRIP-LINE OF TREES.
33. PRESERVATION OF LANDSCAPING SHOULD TAKE PRECEDENCE OVER REMOVAL. IF REMOVAL OR DAMAGE IS UNAVOIDABLE, EXISTING VEGETATION SHOULD BE REPAIRED OR REPLACED "IN-KIND" UNLESS THE HOMEOWNER SPECIFIES OTHERWISE.
34. IF TREES/SHRUBS CANNOT BE REPLACED IN THE SAME LOCATION DUE TO INSTALLATION OF IMPROVEMENTS, RELOCATION SHOULD BE CONSIDERED.
35. THE CONTRACTOR'S ARBORIST SHALL REPAIR ALL INJURIES TO BARK, TRUNKS, LIMBS, AND ROOTS OF REMAINING VEGETATION BY PROPERLY DRESSING, CUTTING, BRACING AND PAINTING, USING ONLY APPROVED TREE SURGERY METHODS, TOOLS, AND MATERIALS.
36. SELECTIVE PRUNING OF TREE LIMBS PRIOR TO INITIATION OF CONSTRUCTION SHOULD ONLY BE USED WITHIN ESTABLISHED EASEMENTS WHERE REMOVAL IS NECESSARY FOR OPERATION OF EQUIPMENT.
37. LIMIT THE USE OF RIP-RAP TO AREAS WHERE STREAM FLOW CONDITIONS PREEMPT VEGETATIVE STABILIZATION.

DEWATERING

38. ALL DEWATERING FLOWS ARE TO BE SETTLED IN SILTATION BASINS OR DIRECTED THROUGH FILTERING DEVICES BEFORE DISCHARGE TO STABILIZED SITES, SUCH AS STREAMS OR STORM SEWERS; NOT ONTO EXPOSED SOILS, STREAM BANKS, OR ANY OTHER SITE WHERE THE FLOW COULD CAUSE EROSION.
39. SILT FROM CONSTRUCTION OPERATIONS SHALL NOT BE PERMITTED TO ENTER THE STORM SEWER SYSTEM. WHEN CONSTRUCTION OCCURS NEAR STORM SEWER INLETS, EROSION CONTROL MEASURES SUCH AS INLET FILTERS AND HAY BALES SHALL BE USED TO PREVENT SILT FROM ENTERING THE STORM SEWERS.
40. CONVEY WATER FROM THE CONSTRUCTION SITE IN A CLOSED CONDUIT. DO NOT USE TRENCH EXCAVATIONS AS TEMPORARY DRAINAGE DITCHES.

ARCHAEOLOGICAL / HISTORICAL RESOURCES

41. CONTRACTORS AND SUBCONTRACTORS ARE REQUIRED UNDER OHIO REVISED CODE (O.R.C.) SECTION 149.53, TO NOTIFY THE OHIO'S STATE HISTORIC PRESERVATION OFFICE (SHPO), AND TO COOPERATE WITH THAT OFFICE IN ARCHAEOLOGICAL AND HISTORIC SURVEYS AND MITIGATION EFFORTS IF SUCH DISCOVERIES ARE UNCOVERED WITHIN THE PROJECT AREA.

CONTACT: OHIO STATE HISTORIC PRESERVATION OFFICE
DIANA WELLING, RESOURCE PROTECTION & REVIEW DEPARTMENT MANAGER
PHONE: 1-614-298-2000
EMAIL: DWELLING@OHIOHISTORY.ORG

GROUND WATER AND DRINKING WATER PROTECTION

42. REPORT ALL SPILLS TO THE APPLICANT AND TO THE OHIO EPA SPILL HOTLINE AT 1-800-282-9378.
43. POST THE OHIO EPA EMERGENCY SPILL HOTLINE NUMBER (1-800-282-9378) AT THE PROJECT SITE.

BID SET



ISSUED FOR:	REVIEW	NO	REVISION	DATE
03/25/2025	AS SHOWN			
DESIGNED BY: AEF	CHECKED BY: AEF			
DRAWN BY: AMM				

**CITY OF CONNEAUT
CLARK STREET
WATER TANK REPLACEMENT
ASHTABULA COUNTY
CONNEAUT, OHIO
OHIO EPA GENERAL NOTES**

PROJECT NO.	241249
DISCIPLINE	GENERAL
SHEET NAME	00G-03
SHEET	OF
3	20

GENERAL:

1. THE CONTRACTOR SHALL PERFORM ALL OF THE WORK AND FURNISH ALL OF THE LABOR AND MATERIALS NECESSARY FOR THE FINAL COMPLETION OF THIS CONTRACT IN THE MANNER AND UNDER THE CONDITIONS HEREIN SPECIFIED AND PROVIDED AND IN ACCORDANCE WITH THE CONTRACT DRAWINGS.
2. THE CONTRACTOR SHALL NOTIFY THE CITY OF CONNEAUT A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION TO ARRANGE A PRE-CONSTRUCTION MEETING. NO WORK SHALL BEGIN UNTIL A PRE-CONSTRUCTION MEETING HAS BEEN HELD.
3. A PRE-CONSTRUCTION VIDEO TAPE OF THE PROJECT AREA WILL BE REQUIRED AND SUBMITTED TO THE ENGINEER BEFORE CONSTRUCTION BEGINS.
4. ACCESS TO ALL DRIVEWAYS WILL BE MAINTAINED AT ALL TIMES EXCEPT THE TIME WHEN UTILITY INSTALLATION AND PAVEMENT REPLACEMENT WILL NOT PERMIT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING A SITE FOR DISPOSAL OF ALL EXCAVATED MATERIAL THAT IS UNSUITABLE FOR USE AS BACKFILL AND ALL OTHER EXCESS EXCAVATED MATERIALS. THE CONTRACTOR SHALL PROVIDE THE CITY WITH THE LOCATION OF THE DISPOSAL SITE AND WRITTEN PERMISSION FOR USE OF THE SITE FROM THE PROPERTY OWNER.
6. ALL OVER-THE-ROAD VEHICLES USED ON THE PROJECT BY ALL CONTRACTORS AND SUBCONTRACTORS WILL BE CLEARLY MARKED SHOWING ITS COMPANY SYMBOL.
7. BEFORE THE CITY WILL APPROVE AND ACCEPT THE WORK AND RELEASE THE GUARANTY RETAINER, THE CONTRACTOR WILL FURNISH THE CITY OF CONNEAUT A WRITTEN REPORT INDICATING THE RESOLUTION OF ANY AND ALL PROPERTY DAMAGE CLAIMS FILED WITH THE CONTRACTOR BY ANY PARTY DURING THE CONSTRUCTION PERIOD. THE INFORMATION TO BE SUPPLIED SHALL INCLUDE, BUT NOT BE LIMITED TO, NAME OF CLAIMANT, DATE FILED WITH CONTRACTOR, NAME OF INSURANCE COMPANY AND/OR ADJUSTOR HANDLING CLAIM, HOW CLAIM WAS RESOLVED AND IF CLAIM WAS NOT RESOLVED FOR THE FULL AMOUNT, A STATEMENT INDICATING THE REASON FOR SUCH ACTION.
8. MATERIALS FOR "AS-DIRECTED" ITEMS SHALL NOT BE ORDERED OR DELIVERED TO THE PROJECT SITE OR WORK PERFORMED UNTIL AUTHORIZED BY THE ENGINEER.
9. ALL SHOP DRAWINGS WILL BE SUBMITTED TO THE ENGINEER FOR CHECKING.
10. THE CONTRACTOR SHALL NOTIFY THE CITY OF CONNEAUT POLICE AND FIRE DEPARTMENTS AND THE CITY ADMINISTRATOR AT LEAST 48 HOURS IN ADVANCE OF ANY STREET CLOSING OR TRAFFIC CHANGE.
11. THE CONTRACTOR SHALL PERFORM WORK AS TO NOT DISTURB, DAMAGE OR DESTROY ANY MAILBOX, PAPERBOX, TELEPHONE OR POWER POLES, SIGNS, LANDSCAPING ITEMS, ETC.. ANY ITEM DAMAGED OR DESTROYED SHALL BE REPLACED AT THE CONTRATOR'S EXPENSE. ANY ITEM DISTURBED OR IN CONFLICT WITH THE WORK TO BE PERFORMED SHALL BE REMOVED AND RESET AT THE CONTRACTOR'S EXPENSE. PRIOR ENGINEER APPROVAL IS REQUIRED BEFORE ANY OF THE ABOVE ITEMS ARE PERFORMED.
12. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO APPLY, WHEN ORDERED BY THE OWNER, WATER OR CALCIUM CHLORIDE FOR THE ALLEVIATION OR PREVENTION OF DUST NUISANCE ORIGINATING FROM HIS CONSTRUCTION ACTIVITIES. SUFFICIENT QUANTITIES OF CALCIUM CHLORIDE SHALL BE STORED ON THE JOB SITE AT ALL TIMES TO BE USED FOR DUST CONTROL. THE COST OF DUST CONTROL SHALL BE INCLUDED IN THE UNIT BID PRICES FOR ALL ITEMS OF THE PROPOSAL.
13. ALL SOIL AREAS DISTURBED SHALL BE TOPSOILED (4" THICK), SEEDED AND MULCHED. ALL TOPSOIL WORK INSIDE THE STREET RIGHT-OF-WAY SHALL BE INCLUDED IN THE UNIT BID PRICES FOR ALL ITEMS OF THE PROPOSAL.
14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION LAYOUT.
15. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS BEFORE INSTALLING ANY PROPOSED CONDUIT. ANY ADJUSTMENTS NEEDED SHALL BE APPROVED BY THE ENGINEER.
16. THE CITY OF CONNEAUT SPECIFICATIONS SUPPLEMENTED WHERE NECESSARY BY THE OHIO DEPT. OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS (CMS - CURRENT EDITION) SHALL GOVERN THE INSTALLATION OF WATER MAIN AND ASSOCIATED APPURTENANCES.

WATER SERVICE CONNECTIONS:

1. THE FOLLOWING NOTES APPLY TO WATER CONNECTIONS
 - a. LOCATIONS OF EXISTING SERVICE CONNECTIONS ARE APPROXIMATE. THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING CONNECTIONS AT NO ADDITIONAL COST TO THE CITY. THE CONTRACTOR SHALL RECORD ACTUAL LOCATION INFORMATION ON HIS RECORD DRAWINGS AS CONSTRUCTION OCCURS.
 - b. THERE SHALL BE NO ADDITIONAL PAYMENT MADE FOR SAW CUTTING, EXCAVATION OR BACKFILL, INCLUDING MATERIALS AND LABOR FOR, PIPING, CAPS, BULKHEADS AND APPURTENANCES PLACED FOR LATERALS WHICH ARE DETERMINED TO BE INACTIVE AND THUS ARE TO BE ABANDONED.
2. THE CONTRACTOR SHALL BE REQUIRED TO BYPASS AND MAINTAIN THE FLOW FROM ALL HOUSE UTILITY CONNECTIONS DURING CONSTRUCTION.
3. THE CONTRACTOR SHALL SUPPLY ALL PIPE AND ADAPTERS TO CONNECT TO EXISTING PIPING. THE ADAPTERS MUST BE SUBMITTED TO AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.
4. EXISTING WATER SERVICE CONNECTIONS SHALL BE PROTECTED AND MAINTAINED IN SERVICE. ANY EXISTING WATERLINE, SANITARY SEWER, AND GAS LINE, IN OR OUTSIDE OF THE CONSTRUCTION LIMITS, DAMAGED DURING CONSTRUCTION OF THE PROPOSED PROJECT, WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.

EXCESS EXCAVATION:

1. ALL EXCESS EXCAVATION SHALL BE DISPOSED OF IN A LOCATION TO BE SELECTED BY THE CONTRACTOR. THE CONTRACTOR MUST OBTAIN A PERMIT FROM THE CITY OF CONNEAUT IF THE MATERIAL IS TO BE DISPOSED OF WITHIN THE CITY LIMITS.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL CONSTRUCTION MATERIALS/DEBRIS.

PRESERVATION OF PROPERTY CORNERS AND SURVEY MARKERS:

1. THE CONTRACTOR WILL CAREFULLY PRESERVE BENCH MARKS, PROPERTY CORNERS, REFERENCE POINTS, AND STAKES AND IN CASE OF DISTURBANCE, HE SHALL ENGAGE A REGISTERED SURVEYOR TO REPLACE THEM AT HIS EXPENSE AND SHALL BE RESPONSIBLE FOR ANY MISTAKES THAT MAY BE CAUSED BY THEIR LOSS OR DISTURBANCE.

SUBSURFACE CONDITIONS:

1. IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS BID.

STATIONING AND LOCATIONS:

1. ALL LOCATIONS AND ITEMS CALLED OUT BY STATION ARE SUBJECT TO ADJUSTMENT IN THE FIELD AS APPROVED BY THE ENGINEER.

PROTECTION AGAINST VANDALISM:

1. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE SUFFICIENT SITE SECURITY MEASURES AND / OR PERSONNEL TO PROTECT ALL NEW CONCRETE WORK FROM VANDALISM UNTIL THE CONCRETE IS SUFFICIENTLY CURED AT NO ADDITIONAL COST.

EXCAVATION, BACKFILL, AND COMPACTION:

1. ALL UTILITY LINES (i.e. STORM SEWERS, STORM LATERALS, SANITARY LATERALS, WATER MAINS, WATER SERVICE CONNECTIONS, GAS MAINS, GAS SERVICE CONNECTIONS, UNDERGROUND OBT CONDUITS, CABLE T.V. LINES) CROSSING THE PROPOSED IMPROVEMENTS, WHETHER SHOWN OR NOT SHOWN ON THE PLANS, SHALL BE PROTECTED AND SUPPORTED WITH HARDWOOD PLANKS OR REMOVED AND REPLACED, RECONNECTED AND SUPPORTED ACROSS THE ENTIRE WIDTH OF THE TRENCH. NO ADDITIONAL COMPENSATION WILL BE PAID FOR THE ABOVE WORK. IF ANY OF THESE LINES ARE DAMAGED DURING CONSTRUCTION, THEY SHALL BE REPLACED.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ENGINEER FORTY-EIGHT (48) HOURS IN ADVANCE OF BEGINNING WORK WHICH REQUIRES COMPACTION TESTING AND/OR PRE-POUR INSPECTION PRIOR TO PLACEMENT OF PAVEMENT. WORK WILL NOT BEGIN UNTIL TESTING AND/OR INSPECTION HAS BEEN COMPLETED AND APPROVED BY THE ENGINEER.

EXISTING UTILITIES:

1. EACH CONTRACTOR SHALL VISIT THE SITE PERSONALLY TO ASCERTAIN THE NATURE OF THE WORK AND THOROUGHLY FAMILIARIZE HIMSELF WITH THE SITE PRIOR TO BID SUBMISSION.
2. THE DATA SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR. THE EXISTENCE OF FACILITIES ABOVE OR BELOW GROUND, WHICH MAY NOT BE SHOWN, MAY NOT BE A BASIS FOR A CLAIM FOR EXTRA WORK.
3. THE LOCATIONS OF THE UNDERGROUND UTILITIES ARE PLOTTED ACCORDING TO THE INFORMATION FURNISHED BY THE UTILITIES CONCERNED AND THE CITY DOES NOT GUARANTEE THE ACCURACY THEREOF.
4. WHERE EXISTING POWER OR TELEPHONE POLES ARE IN CLOSE PROXIMITY TO WORK, THE CONTRACTOR SHALL COORDINATE HIS WORK EFFORTS WITH THOSE OF THE UTILITY COMPANIES SUCH THAT THEIR EXISTING FACILITIES CAN BE MAINTAINED AND PROTECTED DURING THE TIME WORK IS GOING ON ADJACENT TO THE POLE. THE COST FOR ANY REQUIRED PROTECTION OR RELOCATION OF EXISTING POWER OR TELEPHONE POLES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND NOT THAT OF THE CITY.
5. DELAYS TO THE CONTRACTOR AS A RESULT OF TIMING OF POLE RELOCATION OR PROTECTION SHALL NOT BE CONSIDERED COMPENSABLE DELAYS, AS IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE HIS WORK IN CONFORMANCE TO THE UTILITY COMPANY'S SCHEDULE.
6. BEFORE ANY WORK IS STARTED THAT WILL INTERFERE WITH THE EXISTING UTILITIES, THE CONTRACTOR SHALL CALL THE "OHIO UTILITIES PROTECTION SERVICE" AT 1-800-362-2764, FORTY-EIGHT (48) HOURS IN ADVANCE OF THE WORK. NON-MEMBER UTILITIES MUST BE CONTACTED DIRECTLY. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS, AT NO ADDITIONAL EXPENSE TO THE CITY OF CONNEAUT, TO AVOID DAMAGE TO EXISTING UNDERGROUND AND OVERHEAD UTILITY LINES DURING THE ENTIRE PROJECT. IN THE EVENT OF DAMAGE TO EXISTING PUBLIC AND/OR PRIVATE UTILITIES, THE AGENCY CONCERNED SHALL BE NOTIFIED IMMEDIATELY AND ALL REPAIR WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE SPECIFICATIONS OF THE RESPECTIVE AGENCY AT NO ADDITIONAL EXPENSE TO THE CITY OF CONNEAUT, INCLUDING ANY INSPECTION FEES OR MAINTENANCE CREWS. THE UTILITY OWNERSHIPS ARE LISTED ON THE COVER SHEET.
7. WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, THE CONTRACTOR SHALL LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.
8. IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.
9. IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, THE ENGINEER SHALL BE NOTIFIED BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

LANDSCAPING BEDS, PLANTINGS AND TREE PROTECTION/ REMOVAL:

1. ANY LANDSCAPING BEDS, PLANTINGS AND TREES DISTURBED BY CONSTRUCTION ACTIVITIES BEYOND THE RIGHT-OF-WAY SHALL BE RESTORED TO ITS ORIGINAL CONDITION OR REPLACED AS DIRECTED BY THE CITY OF CONNEAUT.
2. ALL TREES WITHIN THE RIGHT-OF-WAY THAT ARE IN CONFLICT WITH CONSTRUCTION ARE TO BE REMOVED BY THE CONTRACTOR. TREES GREATER THAN 12" IN DIAMETER THAT ARE REMOVED ARE TO BE PAID FOR EACH TREE. TREES LESS THAN 12" IN DIAMETER THAT ARE REMOVED ARE TO BE INCLUDED IN THE COST FOR CLEARING AND GRUBBING.

SALVAGED ITEMS:

1. THE CITY OF CONNEAUT SHALL RECEIVE ALL SALVAGED ITEMS SUCH AS MANHOLE CASTINGS, FIRE HYDRANTS, VALVE CAPS, ETC. THE CITY OF CONNEAUT HAS THE RIGHT OF FIRST REFUSAL FOR ALL STEEL REMOVED FROM THE PROJECT.

RESTORATION:

1. THE CONTRACTOR SHALL CLEAN UP ALL DEBRIS AND MATERIALS RESULTING FROM HIS OPERATION AND RESTORE ALL SURFACES, STRUCTURES, DITCHES AND PROPERTY TO ITS ORIGINAL CONDITION TO THE SATISFACTION OF THE ENGINEER. ANY DITCHES DISTURBED DURING CONSTRUCTION SHALL BE REGRADED BY THE END OF THE SAME WORKDAY.
2. ALL EXISTING STORM AND SANITARY SEWER FACILITIES, INCLUDING TILE, DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED, REPLACED OR RECONNECTED TO THE EXISTING OR PROPOSED SYSTEM AS DIRECTED BY THE ENGINEER AT NO COST TO THE OWNER.

DEMOLITION:

1. THE CONTRACTOR SHALL REFER TO THE PROJECT SPECIFICATIONS AND CONSTRUCTION DRAWINGS.

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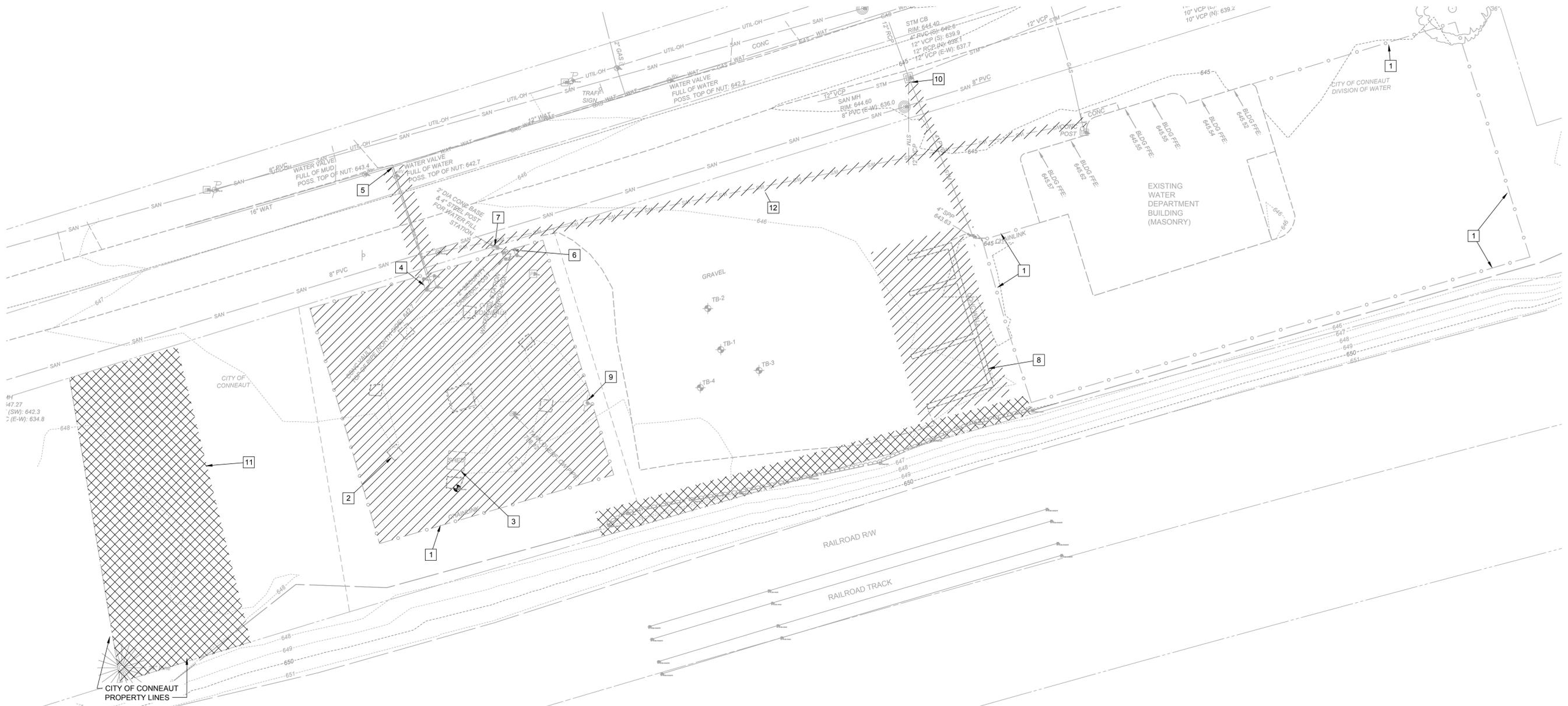


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DESIGNED BY:	AMM			
DRAWN BY:	AEF			
CHECKED BY:				

CITY OF CONNEAUT
CLARK STREET
WATER TANK REPLACEMENT
 ASHTABULA COUNTY
 CONNEAUT, OHIO
GENERAL NOTES 1

PROJECT NO.	241249
DISCIPLINE	GENERAL
SHEET NAME	00G-04
SHEET	OF
4	20



DEMOLITION GENERAL NOTES:

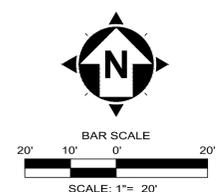
1. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL LABOR, EQUIPMENT & SERVICES TO PROPERLY EXECUTE THE DEMOLITION & REMOVAL WORK INDICATED ON THESE CONSTRUCTION DOCUMENTS.
2. THE CONTRACTOR SHALL VISIT THE SITE & INSPECT THE EXISTING STRUCTURES & VERIFY THAT ALL ITEMS INDICATED TO BE EXISTING & SO MARKED ON THE DRAWINGS ARE IN PLACE & CORRECT.
3. PROVISIONS SHALL BE MADE TO ALLEVIATE THE SPREAD OF DEBRIS, DIRT & DUST TO THE ROADWAY & ADJACENT PROPERTIES. THE PROPERTY SHALL BE KEPT CLEAN AS POSSIBLE AT ALL TIMES.
4. ALL DEBRIS & MATERIALS FROM THE DEMOLITION WORK SHALL BE DISPOSED OF OFF THE SITE IN A LEGAL MANNER. NO RECLAIMED MATERIALS SHALL BE RE-USED EXCEPT AS SPECIFICALLY APPROVED BY ENGINEER OR OWNER.
5. WHERE DEMOLITION & CUTTING WORK HAS OCCURRED OR WHERE EXISTING SURFACES, MATERIALS OR OTHER ITEMS HAVE BEEN DAMAGED OR DISTURBED AS A RESULT OF THIS CONTRACT, THE SAID SURFACES & AREAS SHALL BE CAREFULLY RESTORED AS REQUIRED TO BE CONTIGUOUS TO EXISTING SURROUNDING SURFACES.
6. WHERE ELECTRICAL NEEDS TO BE ABANDONED, REMOVE WIRE FROM LOCATION ALL THE WAY BACK TO THE ELECTRICAL PANEL/SOURCE.
7. WHERE ALL UTILITY LINES (GAS & WATER) &/OR SERVICE LINES NEED TO BE ABANDONED, CAREFULLY REMOVE ALL PIPING, SHUT-OFF VALVES & FITTINGS AS REQUIRED. GAS METER & REGULATOR & WATER METER SHALL BE REMOVED BY UTILITY COMPANY.
8. COORDINATE ALL DEMOLITION WITH NEW PLAN SO AS NOT TO CREATE CONFLICTS OF NEW INSTALLATION.

DEMOLITION CODED NOTES:

- 1 DEMOLITION OF EXISTING CHAIN FENCING
- 2 DEMOLITION OF EXISTING WATER TOWER AND FOUNDATIONS (TO A DEPTH OF 3 FEET)
- 3 DEMOLITION OF EXISTING SHED AND PAD
- 4 DEMOLITION OF EXISTING CONCRETE VAULT
- 5 CUT AND PLUG EXISTING 12" WATERLINE AND ABANDON IN PLACE
- 6 EXISTING BULK WATER HAULING STATION TO BE RELOCATED
- 7 DEMOLITION OF EXISTING 2 FOOT CONCRETE BASE AND STEEL POLE FOR BULK WATER HAULING STATION
- 8 RE-LOCATE MATERIAL STORAGE BINS PER OWNER DISCRETION
- 9 DEMOLITION OF EXISTING ELECTRIC POLE
- 10 CUT AND PLUG EXISTING STORM SEWER AND ABANDON IN PLACE
- 11 STUMPS TO BE REMOVED AND SURFACE TO BE RE-GRADED PER PROPOSED GRADING
- 12 ABANDON AND REMOVE AS NECESSARY EXISTING WATER SERVICE LINE

LEGEND:

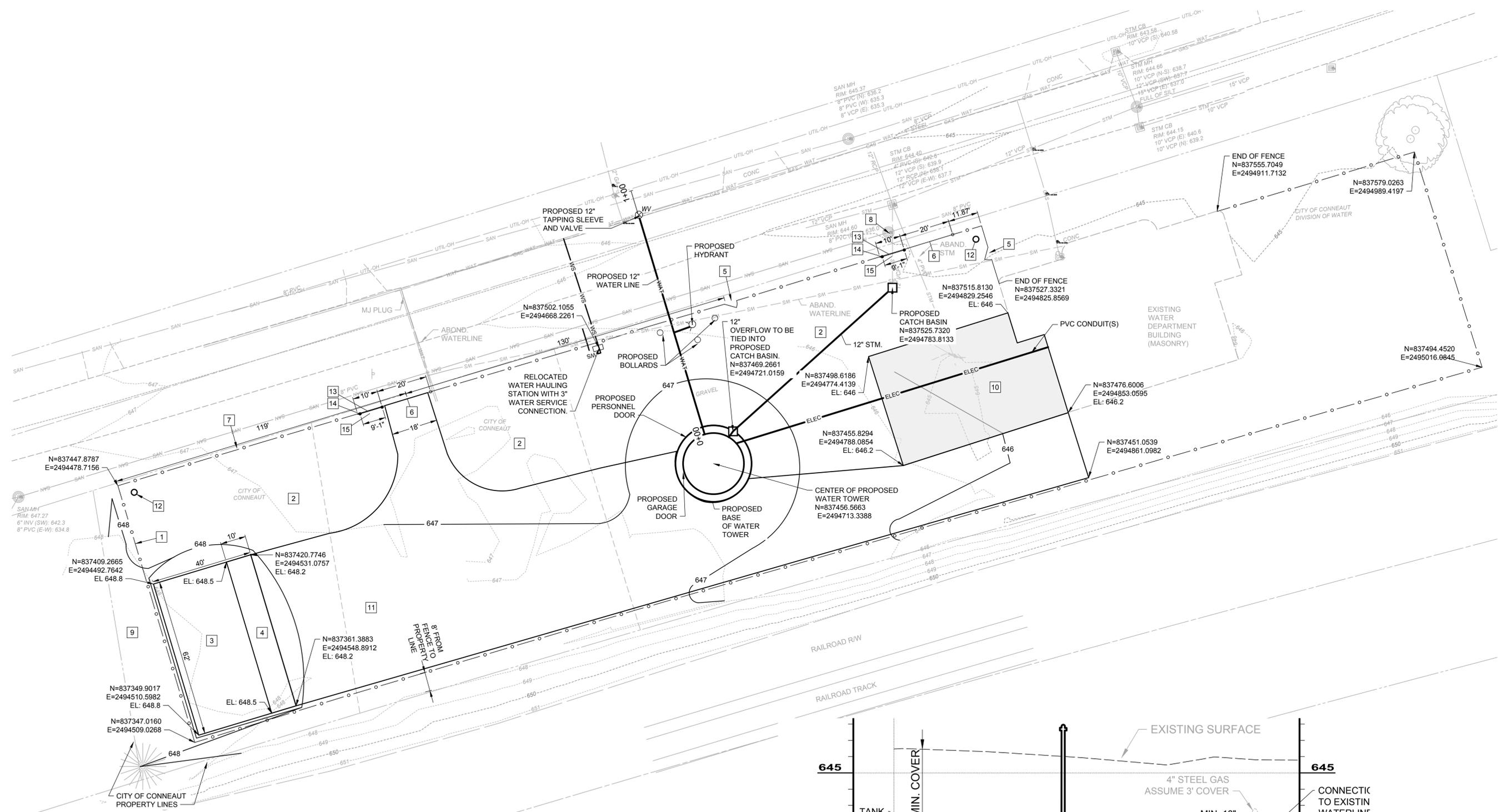
- DENOTES ITEM OR AREA FOR DEMOLITION OR RE-LOCATION
- DENOTES AREA FOR CLEAR AND GRUB



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CITY OF CONNEAUT
CLARK STREET
WATER TANK REPLACEMENT
CONNEAUT, OHIO
ASHTABULA COUNTY
EXISTING CONDITIONS AND DEMO

PROJECT NO.	241249
DISCIPLINE	CIVIL
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GENERAL NOTES:

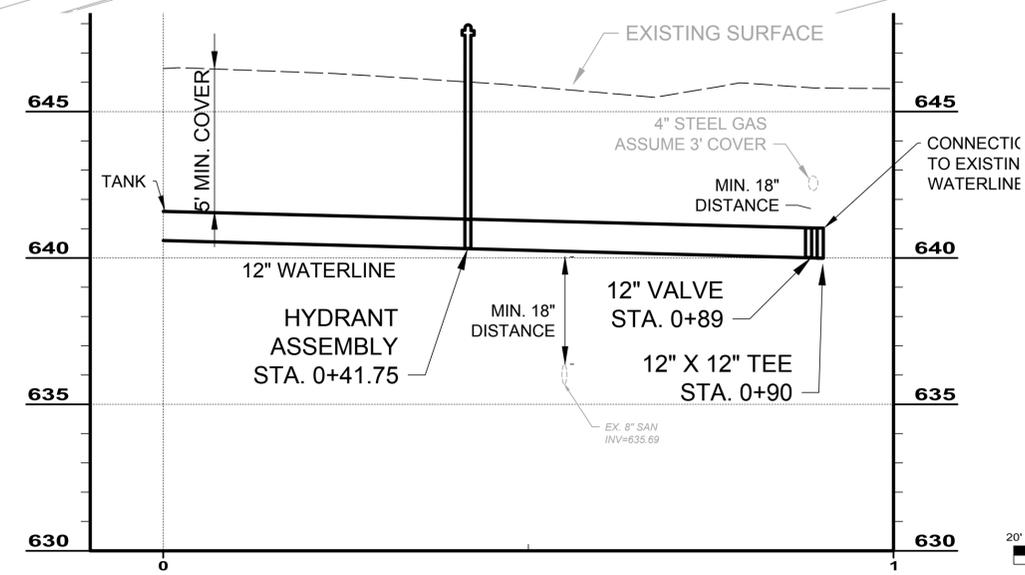
- CONTRACTOR TO MOVE EXISTING STOCK PILE BINS WALLS (PRECAST CONCRETE BLOCKS) TO NEW CONCRETE PAD AND CONFIGURE WALLS ON NEW PAD PER OWNERS DIRECTION. AFTER BIN WALLS ARE MOVED, CONTRACTOR TO FINISH GRADE TO PROPOSED CONTOURS.
- ALL WATERLINE JOINTS SHALL BE RESTRAINED JOINTS.

SITE HATCH LEGEND:

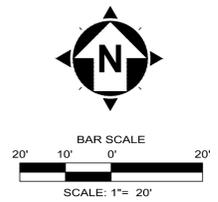
- PROPOSED ASPHALT
- PROPOSED GRAVEL

CODED NOTES:

- PRIVACY SLATS ALONG WEST SIDE OF CHAIN LINK FENCE (COLOR BLACK)
- PROPOSED GRASS AREA (SEED/MULCH/ FERTILIZE)
- CONTRACTOR TO RELOCATE BINS ON TOP OF PROPOSED CONCRETE PAD
- PROPOSED 10' X 62' CONCRETE SLAB TO BE SLOPED FROM WEST TO EAST
- PROPOSED 3' MAN-DOOR GATE (TYPE 2)
- AUTOMATIC CANTILEVER SLIDE GATE WITH 20' CLEAR OPENING
- PROPOSED COATED BLACK CHAIN LINK FENCE WITH BARBED WIRE STRANDS AT TOP OF FENCE
- RESEAT EXISTING SANITARY MANHOLE WITH NEW MANHOLE FRAME AND LID AND FASTEN TO MANHOLE TOP
- CONTRACTOR TO CLEAR AND GRUB TREE STUMPS, FINISH GRADE, AND SEED/ MULCH/ FERTILIZE.
- PROPOSED ASPHALT PARKING AREA
- PROPOSED GRAVEL DRIVE
- PROPOSED SITE LIGHTING AND LIGHT POLE
- PROPOSED 10' CANTILEVER SLIDE GATE COUNTERBALANCE
- CANTILEVER SLIDE GATE COUNTERBALANCE SUPPORT POLES SPACED 9'-1"
- AUTOMATIC POST-MOUNTED GATE OPERATOR ON CONCRETE PAD



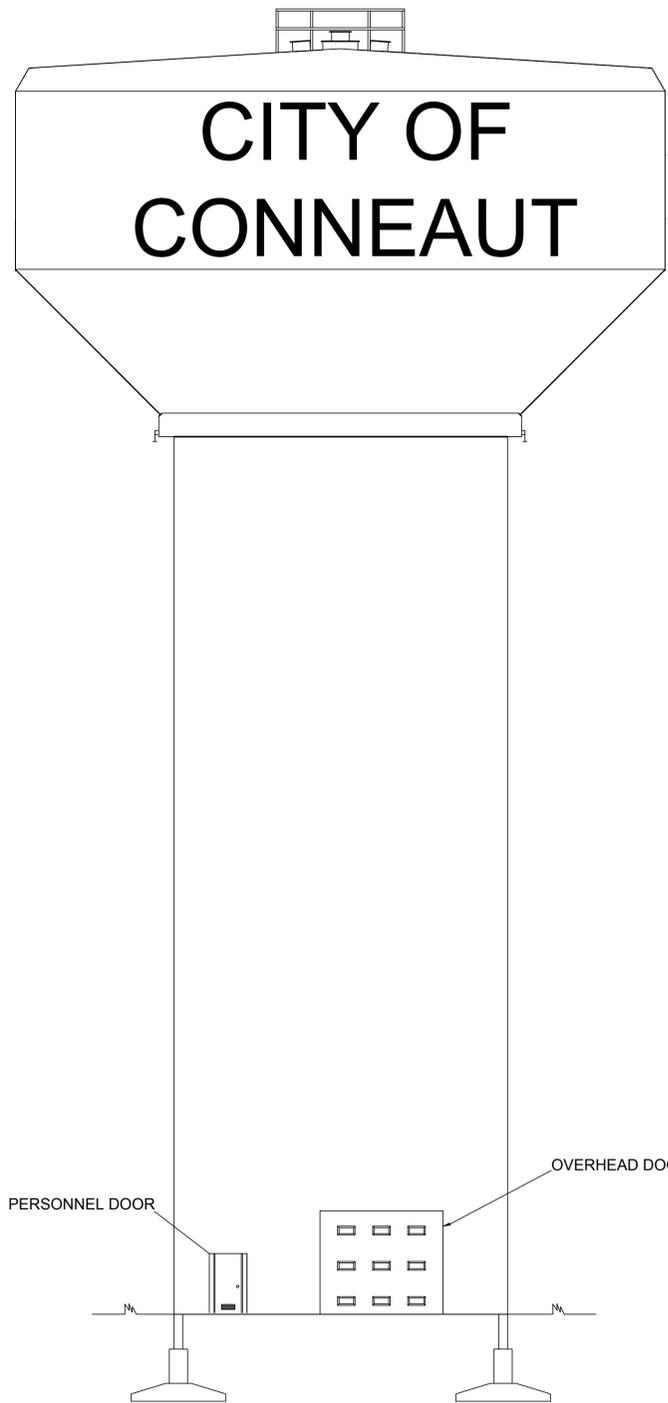
PROPOSED WATERLINE PROFILE VIEW



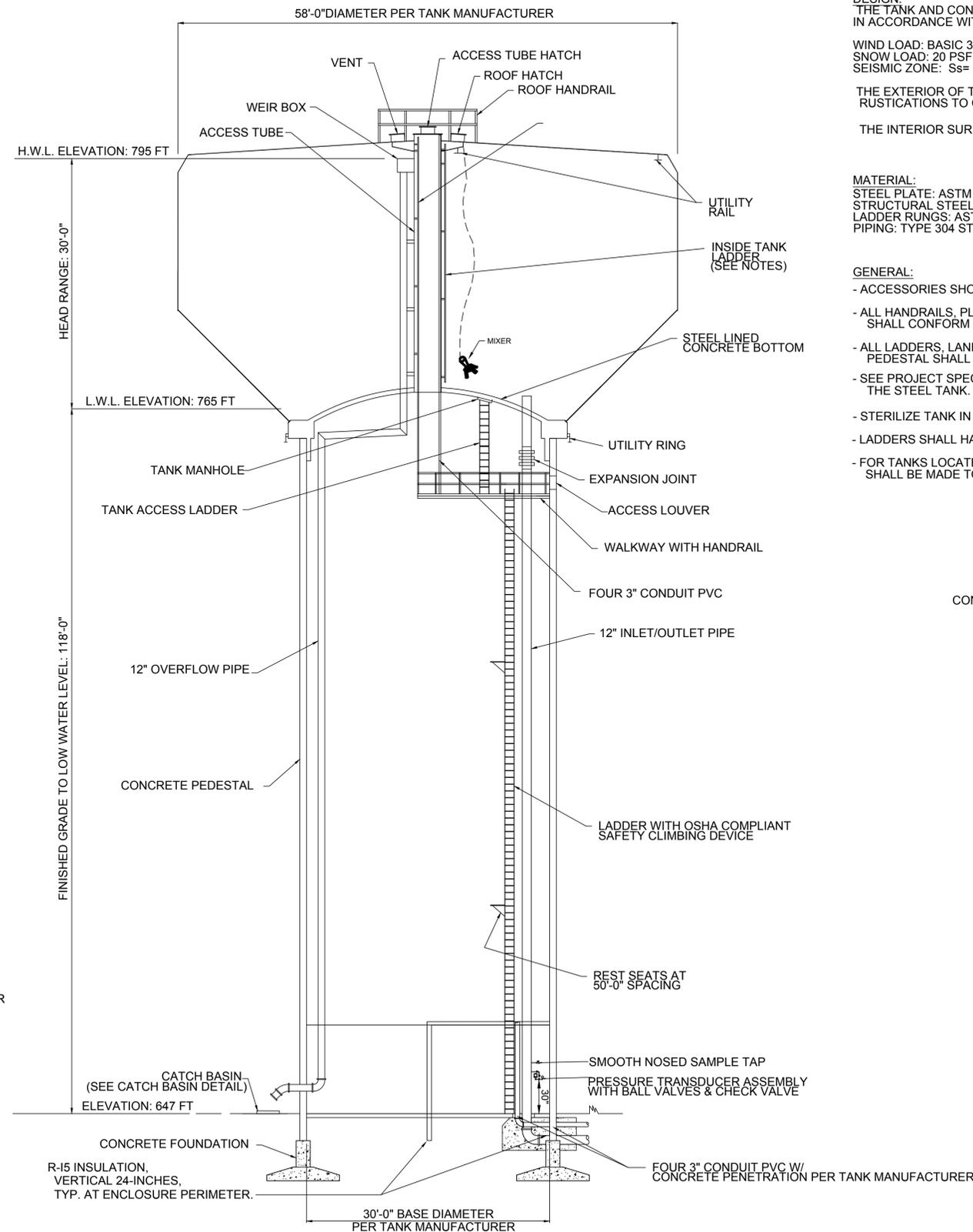
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ISSUE DATE: 03/25/2025	AS SHOWN			
SCALE:	DESIGNED BY: AEF			
	DRAWN BY: AMM			
	CHECKED BY: AEF			

CITY OF CONNEAUT
CLARK STREET
WATER TANK REPLACEMENT
 CONNEAUT, OHIO
 ASHTABULA COUNTY
 PLAN AND PROFILE

PROJECT NO.	241249
DISCIPLINE	GENERAL
SHEET NAME	10C-01
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OF	20



WEST ELEVATION DETAIL (N.T.S.)



****NORTH ELEVATION CUTAWAY VIEW (N.T.S.)**

****NOTE:** CUTAWAY VIEW ORIENTATIONS FOR EACH ITEM MAY NOT BE CORRECTLY DEPICTED. SEE FLOOR PLAN FOR CORRECT LOCATION/PERSPECTIVE OF ALL PIPING, PIPE DROPS, HEATED ENCLOSURE, ETC.

NOTES:

DESIGN:
THE TANK AND CONCRETE SUPPORT PEDESTAL SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AWWA D100-96, A.C.I. 318-99, A.C.I. 301-96 AND PROJECT SPECIFICATIONS.

WIND LOAD: BASIC 3-SECOND GUST WIND SPEED 120 MPH, EXPOSURE CATEGORY C
SNOW LOAD: 20 PSF
SEISMIC ZONE: Ss= 0.126 , S1= 0.055, SEISMIC DESIGN CATEGORY= C

THE EXTERIOR OF THE CONCRETE PEDESTAL SHALL INCORPORATE VERTICAL AND HORIZONTAL RUSTICATIONS TO CREATE AN ARCHITECTURAL PATTERN.

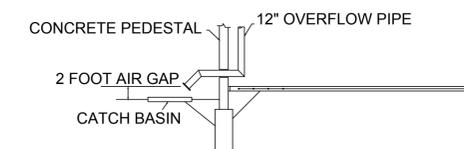
THE INTERIOR SURFACES SHALL HAVE A SMOOTH AS-CAST FINISH.

MATERIAL:

STEEL PLATE: ASTM A283 GR. C/A36
STRUCTURAL STEEL SHAPES: ASTM A36
LADDER RUNGS: ASTM A706
PIPING: TYPE 304 STAINLESS STEEL

GENERAL:

- ACCESSORIES SHOWN ON ELEVATION DRAWINGS ARE ROTATED FOR CLARITY.
- ALL HANDRAILS, PLATFORM LANDINGS, WALKWAYS, LADDERS AND SAFETY CLIMB DEVICES SHALL CONFORM WITH CURRENT OSHA STANDARDS.
- ALL LADDERS, LANDINGS AND ASSOCIATED COMPONENTS INSTALLED INSIDE THE CONCRETE PEDESTAL SHALL BE HOT-DIP GALVANIZED.
- SEE PROJECT SPECIFICATIONS FOR SHOP AND FIELD PAINT REQUIREMENTS FOR THE STEEL TANK.
- STERILIZE TANK IN ACCORDANCE WITH AWWA C652-92 AND PROJECT SPECIFICATIONS.
- LADDERS SHALL HAVE SWING-OUT REST SEATS AT 50'-0" MAXIMUM SPACING.
- FOR TANKS LOCATED IN REGIONS WHERE FREEZING CONDITIONS MAY OCCUR, CONSIDERATION SHALL BE MADE TO ROUTE OVERFLOW PIPE INSIDE ACCESS TUBE AND OMIT INSIDE TANK LADDER.



CATCH BASIN DETAIL (N.T.S.)

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PROJECT NO.	
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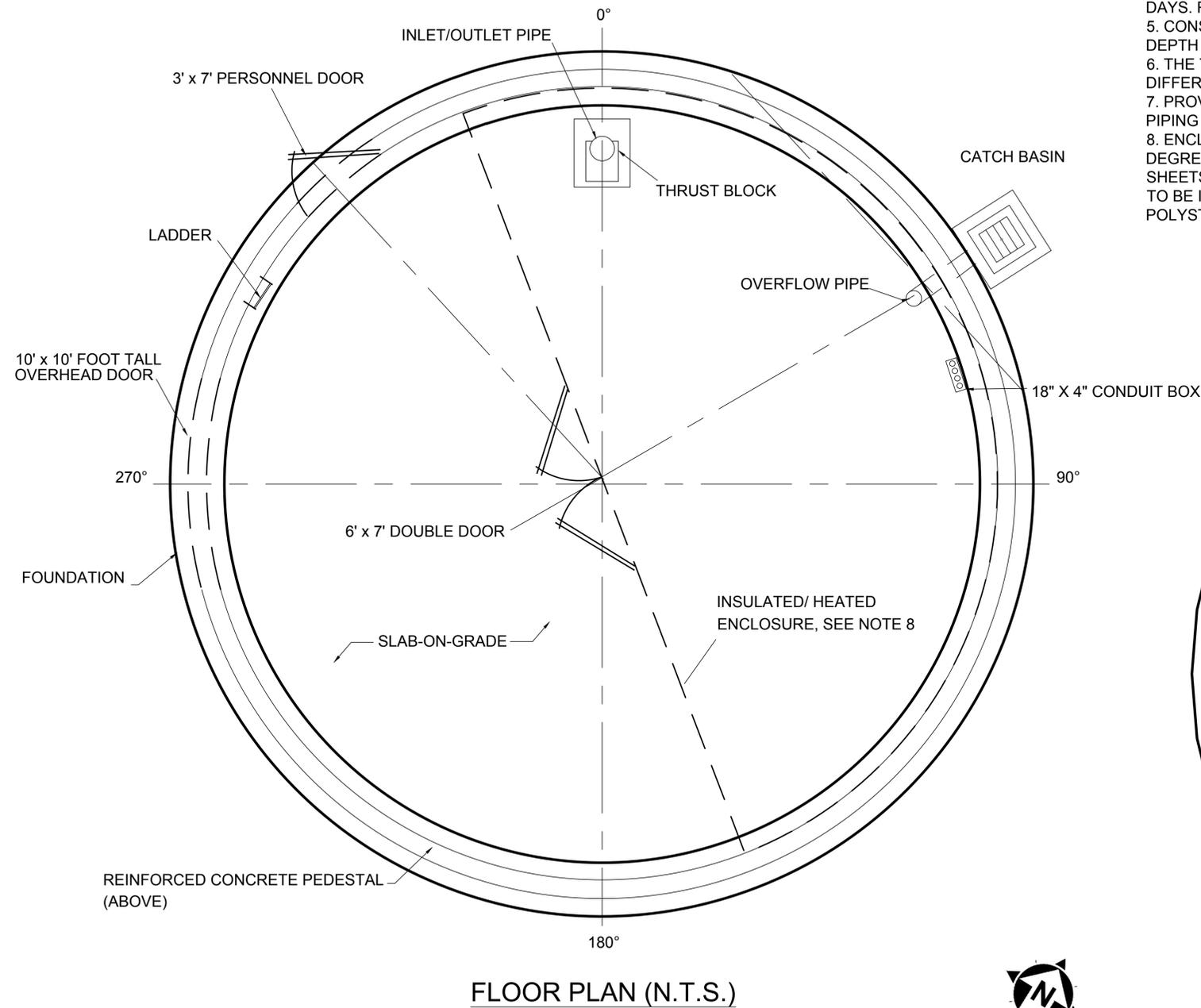
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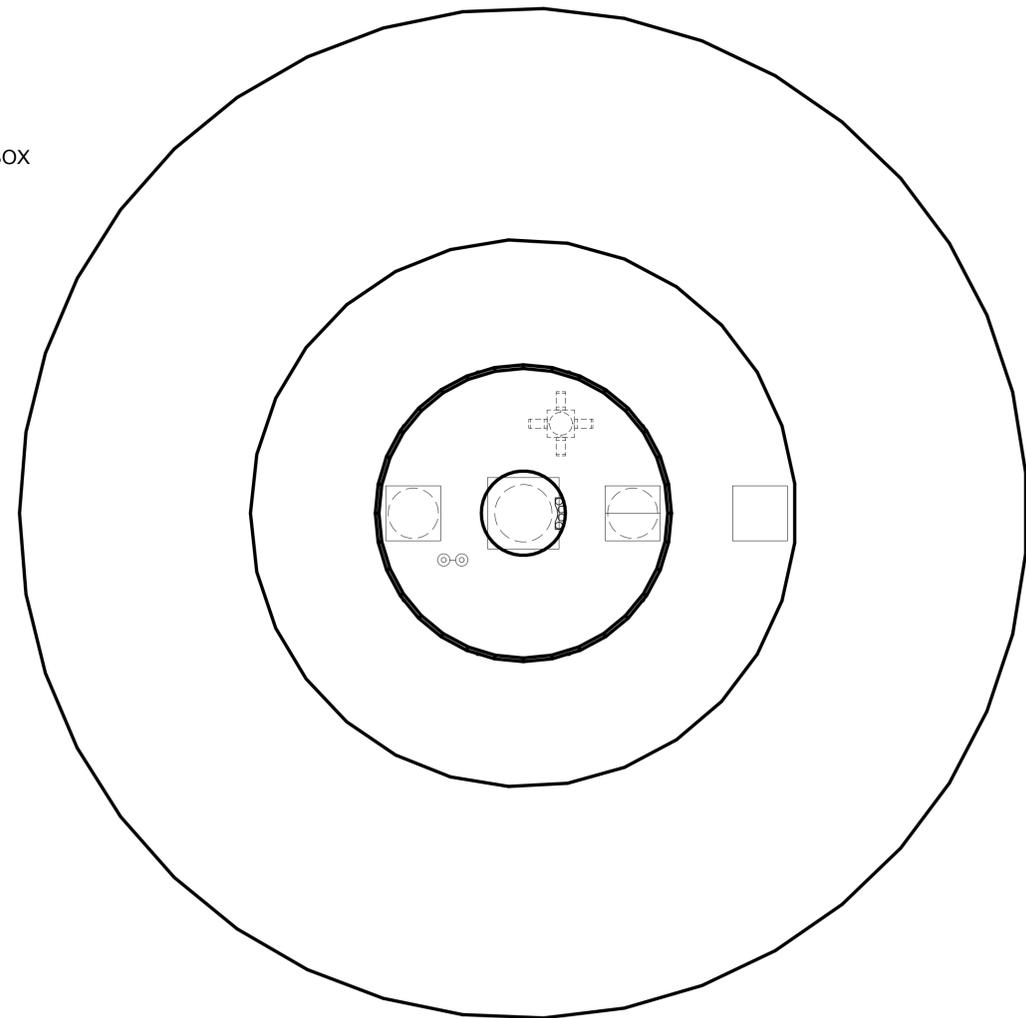
8150 STERLING COURT
MENTOR, OHIO 44060
(440) 951-9000

NOTES:

1. FOUNDATION CONSTRUCTION SHALL COMPLY WITH A.C.I. 318-99, A.C.I. 301-96, AWWA D100-96, AND APPLICABLE SECTIONS OF THE PROJECT SPECIFICATIONS AND THE PROJECT SOILS REPORT.
2. FOUNDATION DESIGN WILL BE THE RESPONSIBILITY OF THE TANK CONTRACTOR.
3. PEDESTAL AND FOOTING DIMENSIONS AND CONCRETE REINFORCEMENT SHALL BE DETERMINED BY THE TANK CONTRACTOR.
4. MINIMUM FOUNDATION CONCRETE COMPRESSIVE STRENGTH SHALL BE 4,000 P.S.I. AT 28 DAYS. REINFORCEMENT SHALL CONFORM TO ASTM A615 GR. 60.
5. CONSTRUCTION JOINTS SHALL BE ROUGHENED ACROSS ENTIRE FACE WITH 1/4" MINIMUM DEPTH INDENTATIONS.
6. THE TOP OF THE RINGWALL SHALL BE LEVEL WITHIN (\pm) 1/8" IN 30 FEET WITH A MAXIMUM DIFFERENTIAL OF (\pm) 1/4" BETWEEN ANY TWO POINTS ON THE CIRCUMFERENCE.
7. PROVIDE 1/2" THICK EXPANSION JOINT MATERIAL BETWEEN FLOOR AND WALL AND AT ALL PIPING PENETRATIONS.
8. ENCLOSURE IS INSULATED, METAL FRAMED, WITH VINYL PANELS. ENCLOSURE IS 180-DEGREE SEMI-CIRCLE AND ALONG PERIMETER OF CONCRETE PEDESTAL. SEE ATTACHED SHEETS FOR DETAILS. PROVIDE PERIMETER FOUNDATION INSULATION. PERIMETER INSULATION TO BE INSTALLED ALONG SAME OUTLINE OF SEMI-CIRCLE ENCLOSURE. INSULATION TO BE POLYSTYRENE RIGID FOAM, 3 INCH THICK, R-15 MINIMUM, INSTALLED VERTICALLY 24 INCHES.



FLOOR PLAN (N.T.S.)



ROOF PLAN (N.T.S.)

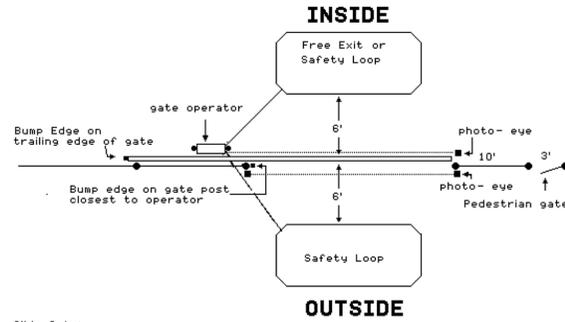
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ISSUE DATE: 07/17/2024	07/17/2024	
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CHECKED BY: AEF	AEF	

CITY OF CONNEAUT
 CLARK STREET
 WATER TANK REPLACEMENT
 CONNEAUT, OHIO
 ASHTABULA COUNTY
 TANK FLOOR AND ROOF PLANS

PROJECT NO.	241249
DISCIPLINE	GENERAL
SHEET NAME	20S-02
SHEET	9
OF	20

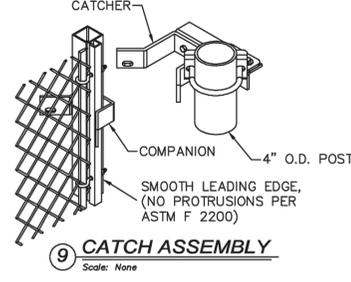
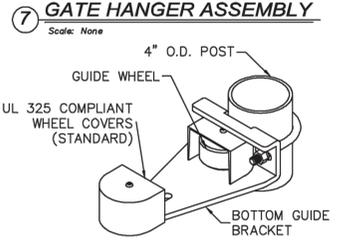
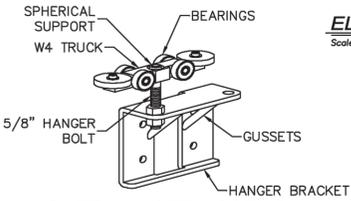
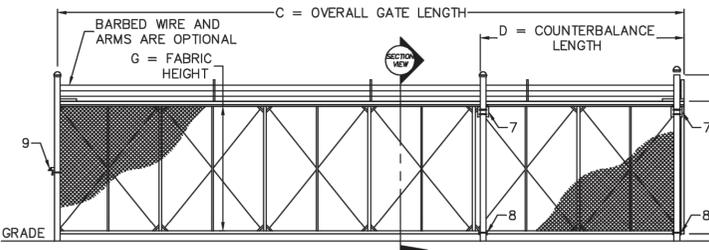
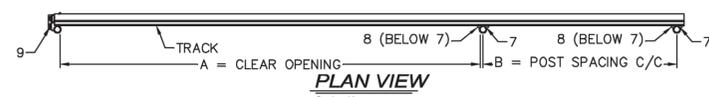
SLIDE GATE & GATE OPERATOR



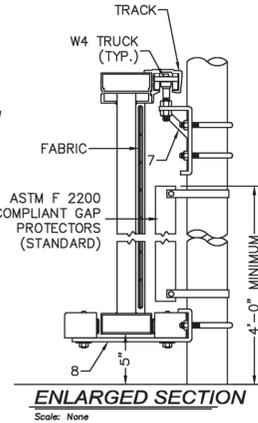
Slide Gate;
Tymetal Fortress Aluminum Heavy Duty

Gate operator system:

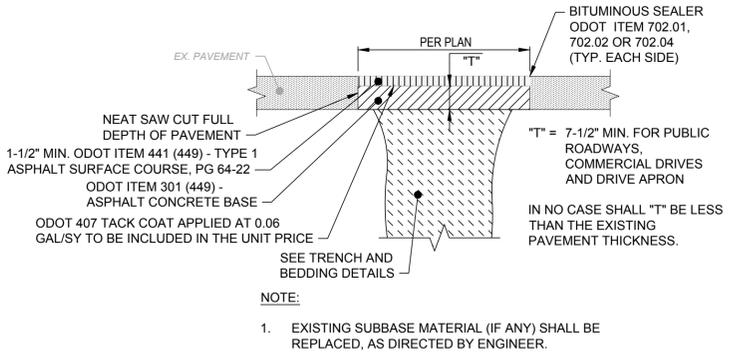
- Linear VS-6SL6 1 H.P.
- Cold Weather package with heater
- 1 - Free Exit/Safety loop detector and vehicle loop in drive
- 1 - Safety loop detector and vehicle loop in drive
- 2 - Photo - eyes covering the opening
- 1 - Bump edge on the trailing edge of the gate - transmitter & Receiver style
- 1 - Bump edge mounted on the gate post located on the operator side of the drive hardwired to the operator
- 1 - Linear 6RD Single Channel Receiver
- 1 - Exterior Antenna Mounted above the fence line
- Supply DT - 1 Channel Visor transmitters (quantity by owner)



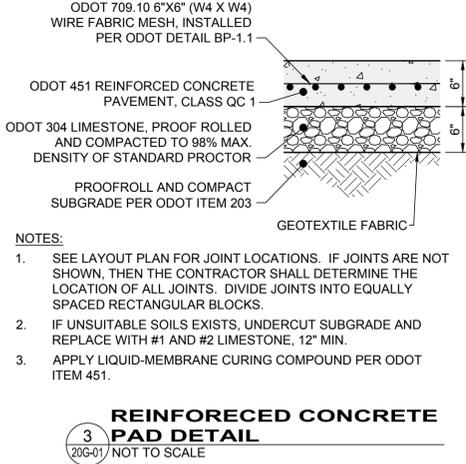
CRITICAL DIMENSION CHART			
MARK	DESCRIPTION	FORMULA	DIM.
A	CLEAR OPENING	A	-
B	COUNTERBALANCE POST SPACING C/C	(A/2)-11"	-
C	OVERALL GATE LENGTH	A x 1.5	-
D	COUNTERBALANCE LENGTH	A x 0.5	-
E	NOMINAL GATE HEIGHT	E	-
F	POST HEIGHT (W BARB ARMS)	E + 1'-6"	-
G	FABRIC HEIGHT	E - 1'-0"	-



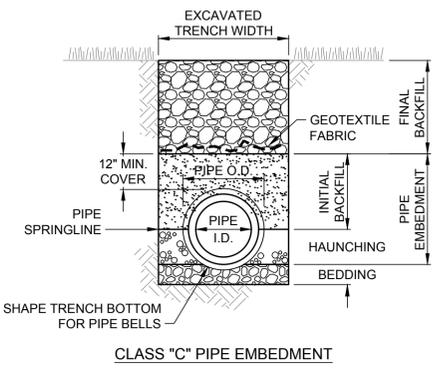
1 SLIDE GATE DETAIL
20G-01 NOT TO SCALE



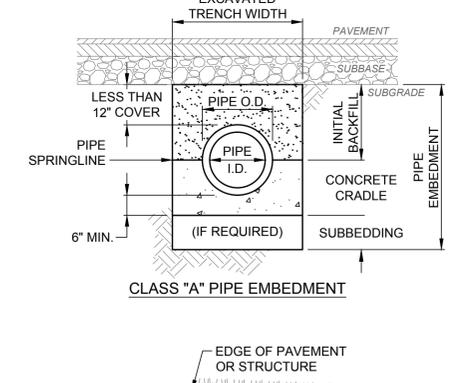
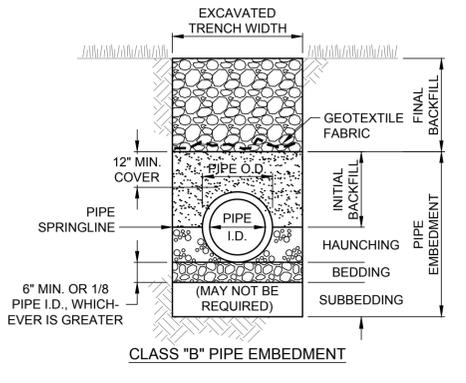
2 TYPE 'C' PAVEMENT REPLACEMENT (ASPHALT), ROADWAY
20G-01 NOT TO SCALE



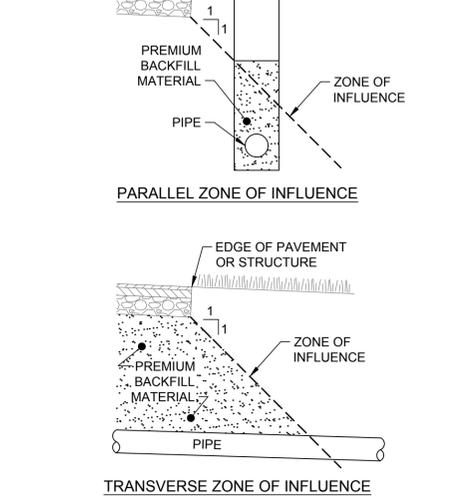
3 REINFORCED CONCRETE PAD DETAIL
20G-01 NOT TO SCALE



- 1) EXCAVATED TRENCH WIDTH: MEASURED FROM BOTTOM OF TRENCH TO 12" OVER TOP OF PIPE (WITHIN THE PIPE EMBEDMENT), THE MIN. TRENCH WIDTH SHALL BE 9" AND THE MAX. SHALL BE:
 - O.D.+24" FOR 24" AND SMALLER I.D. PIPE
 - O.D.+30" FOR 27" THRU 72" I.D. PIPE
 - O.D.+48" FOR 84" AND LARGER I.D. PIPE
- 2) FINAL BACKFILL: ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE SHALL BE PREMIUM BACKFILL (ODOT ITEM 304 LIMESTONE). PAVEMENT INCLUDES ROADWAY, SHOULDER AND DRIVEWAY, BUT NOT SIDEWALK. NO SLAG OR SLACKER AGGREGATES ALLOWED. IN ALL OTHER AREAS, THE FINAL BACKFILL SHALL BE SUITABLE ON-SITE MATERIAL.
- 3) PIPE EMBEDMENT:
 - CLASS "A": SHALL BE USED FOR ALL PIPES UNDER PAVEMENT OR STRUCTURES WITH LESS THAN 12" OF PIPE COVER TO THE SUBGRADE. THE CONCRETE CRADLE SHALL BE IN ACCORDANCE WITH ODOT ITEM 499, CLASS QC-1. THE INITIAL BACKFILL SHALL BE NO. 57 COURSE INTERLOCKING LIMESTONE AGGREGATE.
 - CLASS "B": SHALL BE USED FOR ALL PIPES UNLESS OTHERWISE NOTED ON THE PLANS. BEDDING AND HAUNCHING SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE. IN AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE, THE INITIAL BACKFILL SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE. IN ALL OTHER AREAS, THE INITIAL BACKFILL MAY BE SUITABLE ON-SITE MATERIAL FOR RIGID PIPE, AND SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE FOR FLEXIBLE PIPE.
 - CLASS "C": SHALL BE USED ONLY FOR DUCTILE IRON WATER MAIN OR FORCE MAIN. THE PIPE EMBEDMENT SHALL BE NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE IN ALL AREAS UNDER PAVEMENT, STRUCTURES OR WITHIN THE ZONE OF INFLUENCE. IN ALL OTHER AREAS, THE PIPE EMBEDMENT SHALL BE SUITABLE ON-SITE MATERIAL. BEDDING IS NOT REQUIRED. WHERE ROCK OR SHALE IS ENCOUNTERED, BEDDING SHALL BE 6" MIN. OF NO. 8 OR 57 COURSE INTERLOCKING LIMESTONE AGGREGATE OR SAND.



- 4) SUBBEDDING: WHERE AN UNSTABLE TRENCH BOTTOM CONDITION IS ENCOUNTERED, EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH MATERIAL AS DIRECTED BY THE ENGINEER.
- 5) GEOTEXTILE FABRIC SHALL BE PER ODOT 712.09, TYPE A, AND INSTALLED AFTER ALL INITIAL BACKFILL.
- 6) CLAY TRENCH DAMS SHALL BE REQUIRED AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.



4 TRENCHING, EMBEDMENT AND BACKFILL DETAIL
20G-01 NOT TO SCALE

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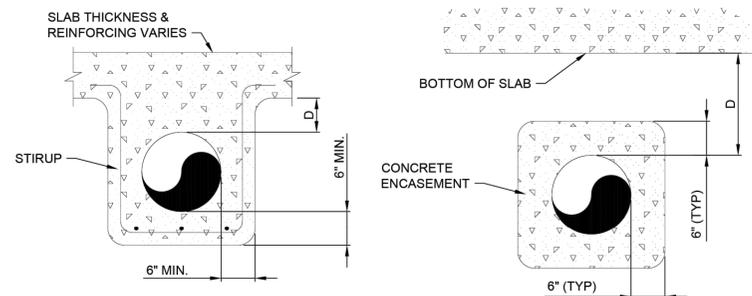
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NO.	REVISION	DATE

CITY OF CONNEAUT
CLARK STREET
WATER TANK REPLACEMENT
CONNEAUT, OHIO
ASHTABULA COUNTY
CONSTRUCTION DETAILS - 20 SERIES
CONSTRUCTION DETAILS 1

PROJECT NO.	241249
DISCIPLINE	GENERAL
SHEET NAME	VALUE
SHEET	OF
10	20



FOR ALL UNDERSLAB PIPE ENCASEMENT WHEN $D < 4'-0"$.

FOR ALL UNDERSLAB PIPE ENCASEMENT WHEN $D > 4'-0"$.

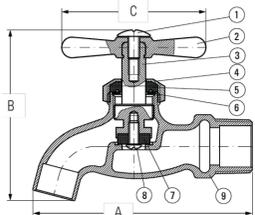
PIPE ENCASEMENT REINFORCING TABLE		
PIPE SIZE	STIRUPS	BOTTOM BARS
4"-14"	#3@12	3#4
16"-20"	#3@12	4#4
24"-30"	#4@12	4#4
36"-48"	#4@8	5#4

1 UNDER SLAB PIPE ENCASEMENT DETAILS
20G-02 / NOT TO SCALE

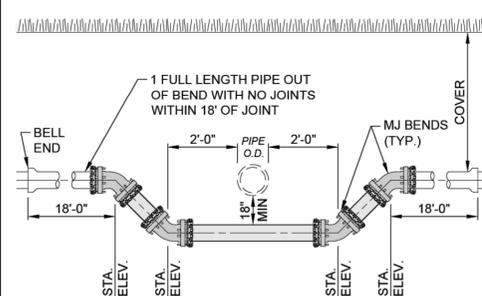
PART	MATERIAL	SPECIFICATION
1	Handle screw	Hot-rolled carbon steel JIS G3507-1
2	Thimble	Zinc Commercial grade, Z30A
3	Stem	Lead-free brass UNS Alloy C48400
4	Bonnet nut	Forged brass ASTM B124 UNS alloy C37700
5	Stem packing	NBR (Buna-NI) rubber Commercial grade
6	Packing support washer	Stainless steel AISI Grade 304
7	Seat washer	NBR (Buna-NI) rubber Commercial grade
8	Seat screw	Lead-free brass JIS H4280 UNS Alloy C26000
9	Body	Lead-free brass UNS Alloy C48400

DIMENSIONS		
Nominal Size	A	B (closed)
1/2" MNPT x plain	3.38	2.57
3/4" MNPT x plain	3.39	2.57

- Third-party tested and certified in compliance with U.S. Federal Public Law 111-380 (National lead-free plumbing law).
- End connections comply with the following specifications:
 - ANSI/ASME B1.20.1 (male NPT inlet).
 - ANSI/ASME B16.18 (1/2" CTS solder inlet)
- Manufactured in an ISO accredited facility.

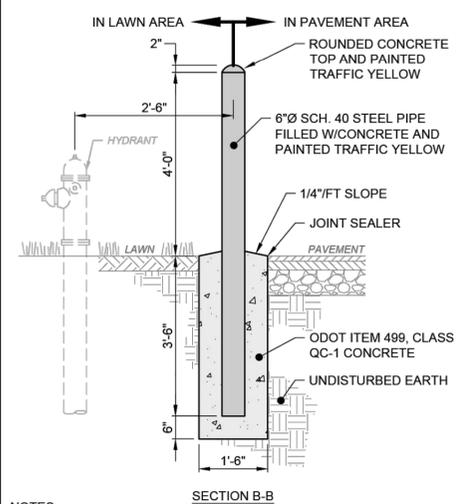
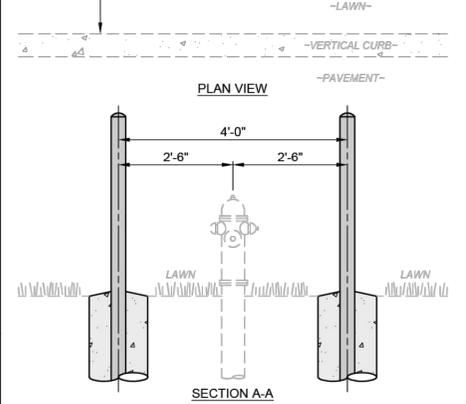
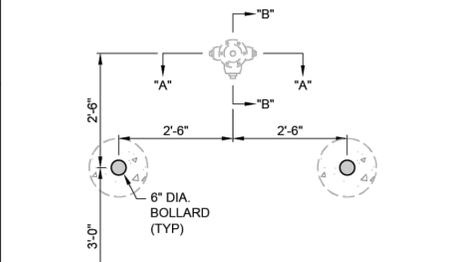


2 SMOOTH NOSED SAMPLE TAP DETAIL
20G-02 / NOT TO SCALE



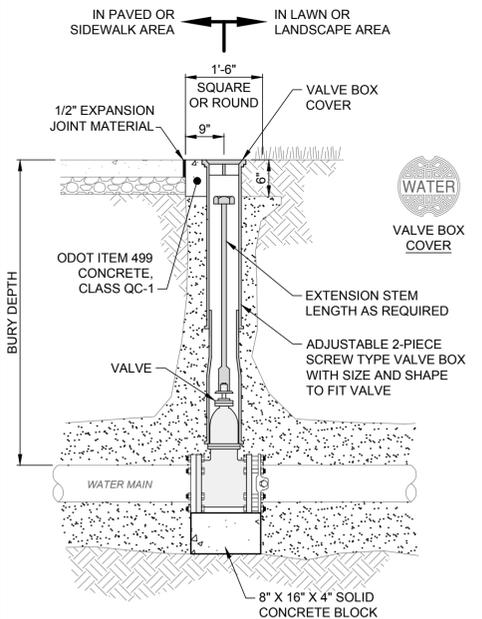
- NOTES:
- ENTIRE OFFSET INCLUDING BENDS SHALL BE BUILT WITH DUCTILE IRON RESTRAINED MECHANICAL JOINTS, CLASS 52 CEMENT LINED PIPE. IF AN INTERMEDIATE JOINT IS REQUIRED BETWEEN BENDS, THE ENTIRE UNDERPASS SHALL BE BUILT WITH BOLTLESS RESTRAINED PIPE AND FITTINGS.

3 WATER MAIN UNDERPASS FOR OBSTRUCTION LESS THAN 24" DIAMETER OR WIDTH DETAIL
20G-02 / NOT TO SCALE

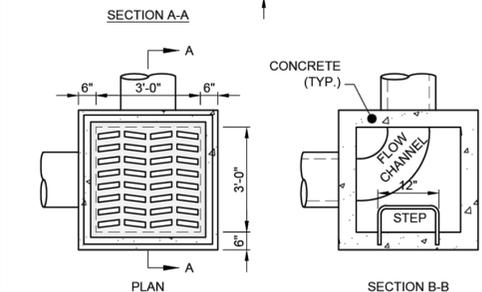
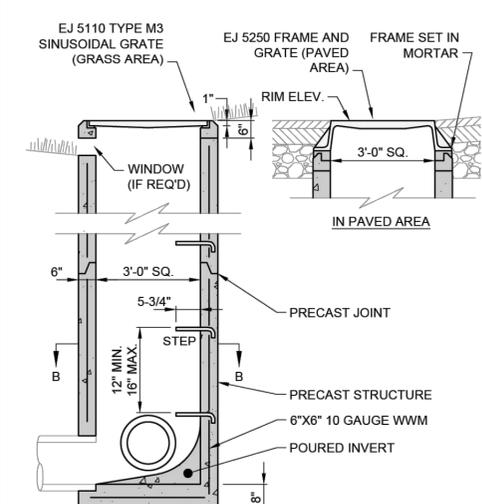


- NOTES:
- THIS DETAIL SHOWS THE LOCATION OF BOLLARDS IN RELATION TO HYDRANT FOR REFERENCE ONLY; SEE LAYOUT PLAN FOR ACTUAL CONFIGURATION
 - SEE SEPARATE DETAILS FOR BOLLARD AND HYDRANT.

4 HYDRANT BOLLARD DETAIL
20G-02 / NOT TO SCALE

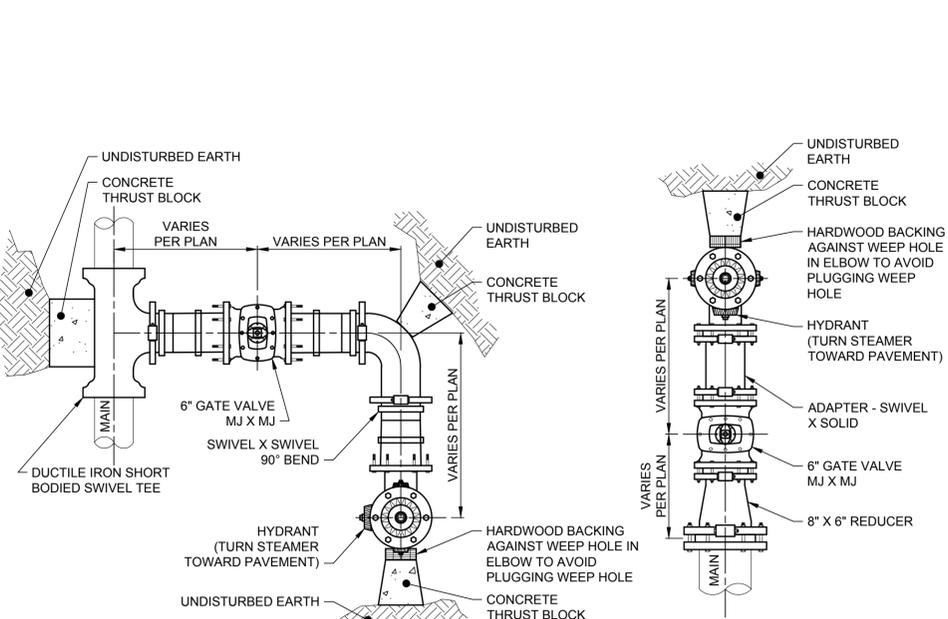


5 WATER VALVE AND VALVE BOX SETTING DETAIL
20G-02 / NOT TO SCALE

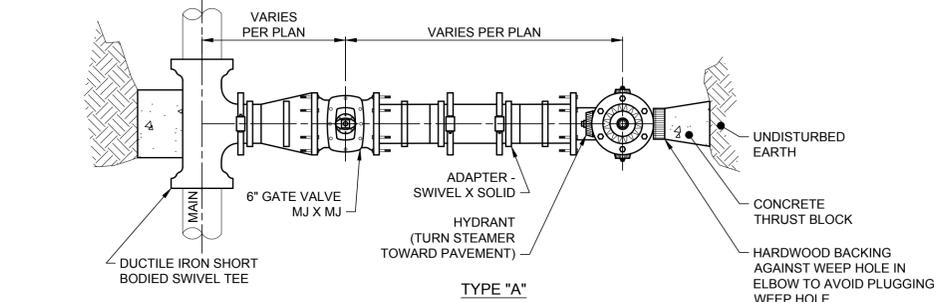


- NOTES:
- ALL CONCRETE SHALL BE ODOT ITEM 499, CLASS QC-1.
 - STRUCTURE SHALL MEET H-20 LOADING.
 - INSTALL STEPS IF STRUCTURE IS MORE THAN 4' DEEP.
 - PRECAST KNOCKOUT SIDES FOR CURB DRAIN, PIPE CONNECTION HOLES AND WINDOWS, AS REQUIRED. PIPE OPENINGS SHALL BE O.D. OF PIPE PLUS 2", AND INTERSTITIAL SPACE FILLED WITH GROUT.
 - GRADE ADJUSTMENT BY PRE-CAST CONCRETE ADJUSTING COLLAR OR MAX. 2 COURSES ASTM C-32 BRICK MASONRY SET IN MORTAR.
 - GRATE MUST INCLUDE LETTERING "DUMP NO WASTE" AND FISH IMAGE.
 - BASIN SHALL INCLUDE SUMP IF REQUIRED PER PLAN.
 - THIS DETAIL IS FOR REFERENCE AND DIMENSION CONTROL ONLY; SEE UTILITY PLAN FOR ACTUAL SIZES.

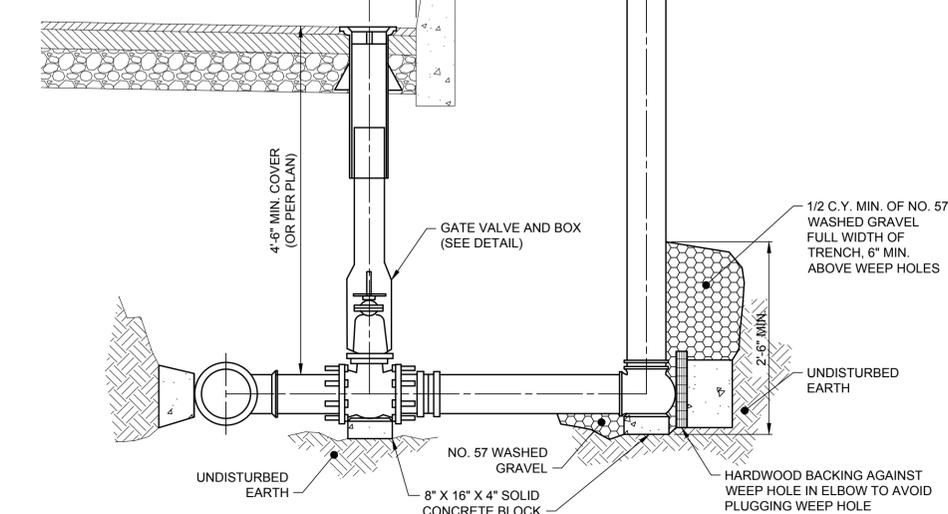
6 CONCRETE 3'X3' INLET BASIN DETAIL
20G-02 / NOT TO SCALE



7 HYDRANT ASSEMBLY DETAIL
20G-02 / NOT TO SCALE



- NOTES:
- SEE DETAIL FOR CONCRETE THRUST BLOCKS.
 - HYDRANT SHALL BE MUELLER SUPER CENTURION 250 (TYPICAL MODEL NUMBER: A421 5Y2 BR4 4Y2 MVO 4 SZ)
 - HYDRANT SHALL MEET THE REQUIREMENTS OF THE AWWA SPECIFICATION C502, LATEST REVISION. HYDRANTS SHALL HAVE TWO 2.5" HOSE NOZZLES AND ONE 5" FACTORY INSTALLED STORTZ NOZZLE. THE 2.5" NOZZLES SHALL HAVE NATIONAL STANDARD THREADS. ALL HYDRANTS SHALL BE PAINTED FEDERAL SAFETY YELLOW AND SHALL OPEN LEFT.



7 HYDRANT ASSEMBLY DETAIL
20G-02 / NOT TO SCALE

BID SET

verdantas

8150 STERLING COURT
MENTOR, OHIO 44060
(440) 951-9000

NO.	REVISION	DATE

ISSUED FOR:	REVIEW:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:

**CITY OF CONNEAUT
CLARK STREET
WATER TANK REPLACEMENT
CONSTRUCTION DETAILS - 20 SERIES
CONSTRUCTION DETAILS 2**

CONNEAUT, OHIO
ASHTABULA COUNTY

PROJECT NO.	241249
DISCIPLINE	GENERAL
SHEET NAME	VALUE
SHEET	11
OF	20

ADMINISTRATIVE NOTES	
1.	AN OHIO EPA NPDES PERMIT IS REQUIRED WHERE CONSTRUCTION ACTIVITIES DISTURB 1 OR MORE ACRES OF LAND, OR SMALLER SITES LESS THAN 1 ACRE THAT ARE PART OF A LARGER COMMON DEVELOPMENT. DISTURBED LAND IS LAND IN WHICH VEGETATION HAS BEEN CLEARED AND SOILS ARE EXPOSED TO STORM WATER. A NOI IS REQUIRED FOR THIS PROJECT AND MUST BE FILED WITH THE OHIO EPA AT LEAST 21 DAYS PRIOR TO THE START OF CONSTRUCTION BECAUSE THE TOTAL LAND DISTURBANCE IS GREATER THAN 1 ACRE. THE LIMIT OF EARTH DISTURBANCE FOR THIS PROJECT IS APPROXIMATELY 2.11 ACRES.
2.	THE CONTRACTOR SHALL FOLLOW THE PRACTICES AND REQUIREMENTS PROVIDED IN THE OHIO EPA NPDES CONSTRUCTION SITE STORM WATER GENERAL PERMIT OH000004 AND THE ODNR RAINWATER AND LAND DEVELOPMENT MANUAL, AND BE RESPONSIBLE FOR ALL NPDES TERMS AND CONDITIONS UNTIL A NOT IS FILED.
3.	NO CONSTRUCTION ACTIVITIES MAY BEGIN UNTIL ALL OF THE FOLLOWING OCCUR: <ul style="list-style-type: none"> OHIO EPA NPDES AUTHORIZATION LETTER RECEIVED THE CONTRACTOR FILES A CO-PERMITTEE APPLICATION TO THE OHIO EPA THE CONTRACTOR ATTENDS A PRE-CONSTRUCTION MEETING WITH THE SWCD TO DISCUSS OHIO EPA NPDES PERMIT REQUIREMENTS
4.	ELECTRONIC VERSIONS OF OHIO EPA FORMS INCLUDING NOI, NOT, CO-PERMITTEE NOI/NOT, INDIVIDUAL LOT NOI/NOT AND TRANSFER ARE AVAILABLE THROUGH THE OHIO EPA AND CAN BE SUBMITTED ELECTRONICALLY. VISIT THE OHIO EPA ELECTRONIC BUSINESS SERVICES WEBSITE AT WWW.EPA.OHIO.GOV/DSW/STORM/INDEX FOR MORE INFORMATION AND GUIDANCE.
5.	THE CONTRACTOR SHALL SELECT INDIVIDUALS TO BE RESPONSIBLE FOR INSPECTIONS, MAINTENANCE AND REPAIR ACTIVITIES, AND COMPLETING INSPECTION AND MAINTENANCE REPORTS. THE CONTRACTOR SHALL COMPLETE A "DELEGATION OF AUTHORITY FOR STORM WATER POLLUTION PREVENTION PLAN" AND PROVIDE A COPY TO THE OWNER AND SWCD.
6.	ALL PROCEDURES AND REQUIREMENTS CONTAINED IN THIS SWP3 APPLY TO ALL GENERAL AND SUBCONTRACTORS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO IMPLEMENT, INFORM, REQUIRE AND ENFORCE ALL ASPECTS AND PROCEDURES OF THE SWP3. THE CONTRACTOR SHALL HAVE ALL SUBCONTRACTORS THAT ARE OR MAY BE ENGAGED IN ACTIVITIES THAT COULD IMPACT STORM WATER COMPLETE A "SUBCONTRACTOR AGREEMENT FOR EROSION AND SEDIMENT CONTROL", AND PROVIDE A COPY TO THE OWNER AND SWCD.
7.	THE CONTRACTOR SHALL KEEP ON-SITE COPIES OF THE NOI, NPDES, SWP3 AND INSPECTION LOGS/REPORTS.
8.	ALL EROSION AND SEDIMENT CONTROL WORK SHALL BE SUBJECT TO INSPECTION BY THE SWCD AND OHIO EPA.

GENERAL NOTES	
1.	THIS SWP3 HAS BEEN PREPARED SHOWING THE ITEMS LISTED BELOW, BUT THE CONTRACTOR MAY NEED TO MOVE OR ADD ITEMS AS CONSTRUCTION PROGRESSES OR DURING THE VARIOUS STAGES OF CONSTRUCTION. OR THE CONTRACTOR IS REQUIRED TO DEVELOP THE SWP3 FOR THIS PROJECT AND SUBMIT FOR APPROVAL TO THE SWCD SHOWING THE ITEMS LISTED BELOW. SOME ITEMS MAY ALREADY BE SHOWN ON THE SWP3, BUT MOVED TO BETTER SUIT THE CONTRACTOR'S MEANS AND METHODS. <ul style="list-style-type: none"> LIMITS OF EARTH DISTURBING ACTIVITY CONSTRUCTION ENTRANCE(S) EROSION AND SEDIMENT CONTROL MEASURES INLET PROTECTIONS CONCRETE WASHOUT PIT(S) EQUIPMENT STAGING FUEL STORAGE AND VEHICLE FUELING AREA CONSTRUCTION TRAILER(S) SANITATION FACILITY MATERIAL STOCKPILE LOCATION(S) CHEMICAL COMPOUND MIXING AND STORAGE AREA ANY OTHER EROSION CONTROL REQUIRED
2.	ALL WORK REQUIRED TO IMPLEMENT THE SWP3 INCLUDING INSPECTION FEES, MAINTENANCE AND REPAIRS SHALL BE DONE BY AND AT THE EXPENSE OF THE CONTRACTOR.
3.	THE CONTRACTOR SHALL AMEND THE SWP3 WHEN THERE IS A CHANGE IN DESIGN, CONSTRUCTION, OPERATION OR MAINTENANCE THAT REQUIRES INSTALLATION OF BMPs OR MODIFICATION TO EXISTING BMPs.
4.	ADDITIONAL OR DIFFERENT BMPs MAY BE NEEDED AS CONSTRUCTION PROGRESSES OR AS REQUIRED BY THE OWNER, SWCD OR OHIO EPA.
5.	PHASE CONSTRUCTION ACTIVITIES TO MINIMIZE LAND DISTURBED AT ANY ONE TIME AND LEAVE EXISTING VEGETATION IN PLACE AS LONG AS POSSIBLE.

OTHER WASTE CONTROL NOTES	
1.	SOIL STOCKPILES SHALL BE RINGED WITH SILT FENCE ALONG THE BOTTOM FOOTPRINT. IF THE STOCKPILE WILL BE INACTIVE FOR 14 DAYS OR MORE, THE SURFACE SHALL BE SEEDED OR STABILIZED WITHIN 7 DAYS OF LAST DISTURBANCE.
2.	CONCRETE TRUCKS ARE NOT PERMITTED TO WASH OUT OR DISCHARGE SURPLUS CONCRETE OR DRUM WASH WATER ONTO THE GROUND OR INTO STORM INLETS, DITCHES, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS. ALL EXCESS CONCRETE AND CONCRETE WASHOUT, INCLUDING FROM HAND MIXERS AND LIGHT EQUIPMENT, MUST BE DISPOSED OF IN A CONCRETE WASHOUT AREA TO COLLECT AND HARDEN.
3.	OFF-SITE TRACKING OF SEDIMENT BY CONSTRUCTION VEHICLES MUST BE MINIMIZED. THE CONTRACTOR SHALL SWEEP ALL ADJACENT ROADS TO REMOVE MUD, DIRT OR ROCK TRACKED FROM THE SITE AT THE END OF EACH WORK DAY OR AS REQUIRED DURING THE DAY. DUMP TRUCKS HAULING MATERIAL FROM THE SITE SHALL BE COVERED WITH A TARPAULIN.
4.	IT IS PROHIBITED TO BURN, BURY OR POUR ONTO THE GROUND OR INTO STORM INLETS, DITCHES, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS SOLID OR LIQUID WASTE INCLUDING TRASH, CONSTRUCTION DEBRIS, SOLVENTS, PAINT, DIESEL FUEL, GASOLINE, MOTOR OIL, HYDRAULIC FLUID, CEMENT CURING COMPOUND, ANTIFREEZE OR OTHER TOXIC OR HAZARDOUS WASTE. WASTE MATERIALS SHALL BE COLLECTED IN A SECURELY LIDDED DUMPSTER, DISPOSED OF IN AN APPROVED LANDFILL AND EMPTIED AS NECESSARY.
5.	FUEL TANKS, DRUMS AND OTHER CONTAINERS HOLDING CHEMICALS MUST BE STORED WITHIN A DIKED AREA WITH A VOLUME OF AT LEAST 110% OF THE LARGEST TANK. A DIKED AREA IS NOT NECESSARY IF A SELF-CONTAINED SPILL PROOF TANK IS USED.
6.	THE CONTRACTOR SHALL PROVIDE TEMPORARY SANITARY FACILITIES AT THE SITE. SANITARY WASTE SHALL BE COLLECTED FROM THE PORTABLE UNITS 1 TIME PER WEEK, OR MORE OFTEN IF NECESSARY.
7.	ANY TOXIC OR HAZARDOUS MATERIAL SPILL, REGARDLESS OF SIZE, MUST BE REPORTED WITHIN 30 MINUTES TO THE LOCAL FIRE DEPARTMENT AND OHIO EPA.
8.	CONTAMINATED SOIL, SOIL WHERE CONSTRUCTION CHEMICALS HAVE BEEN SPILLED OR HAZARDOUS WASTE MATERIALS MUST BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH FEDERAL, STATE AND LOCAL REGULATIONS.
9.	STORM WATER THAT COMES IN CONTACT WITH CONTAMINATED SOIL OR HAS A VISIBLE SHEEN MUST BE COLLECTED BY A VACUUM TRUCK AND DISPOSED OF AS A WASTE WATER.

EROSION CONTROL NOTES	
1.	SPECIAL MEASURES SHALL BE TAKEN TO STABILIZE DRAINAGE CHANNELS AND STORM WATER OUTFALLS.
2.	DIVERT SURFACE RUNOFF AWAY FROM DISTURBED AREAS AND STEEP SLOPES WHEREVER PRACTICABLE.
3.	STABILIZATION OF DISTURBED AREAS SHALL BE INITIATED WITHIN THE TIME FRAMES IN THE FOLLOWING TABLES:
AREA REQUIRING TEMPORARY STABILIZATION	TIME FRAME TO APPLY CONTROLS
AREA WITHIN 50 FEET OF A SURFACE WATER, NOT AT FINAL GRADE AND TO REMAIN IDLE MORE THAN 14 DAYS	WITHIN 2 DAYS OF MOST RECENT DISTURBANCE
ANY OTHER AREA TO BE DORMANT MORE THAN 14 DAYS, BUT LESS THAN 1 YEAR	WITHIN 7 DAYS OF MOST RECENT DISTURBANCE
AREA TO REMAIN IDLE OVER WINTER	PRIOR TO ONSET OF WINTER WEATHER
AREA TO BE PAVED	STABILIZE WITH STONE SUBBASE UNTIL PAVED
AREA REQUIRING PERMANENT STABILIZATION	TIME FRAME TO APPLY CONTROLS
AREA TO BE DORMANT FOR 1 YEAR OR MORE	WITHIN 7 DAYS OF MOST RECENT DISTURBANCE
AREA WITHIN 50 FEET OF A SURFACE WATER AND AT FINAL GRADE	WITHIN 2 DAYS OF REACHING FINAL GRADE
ANY OTHER AREA AT FINAL GRADE	WITHIN 7 DAYS OF REACHING FINAL GRADE

SEDIMENT CONTROL NOTES	
1.	INLET PROTECTION AND SEDIMENT BARRIERS MUST BE INSTALLED PRIOR TO CLEARING AND GRUBBING.
2.	PERIMETER SEDIMENT BARRIERS SHALL BE INSTALLED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF CLEARING AND GRUBBING.
3.	SEDIMENT PONDS, TEMPORARILY MODIFIED PERMANENT PONDS AND PERIMETER SEDIMENT BARRIERS MUST BE INSTALLED AS THE FIRST STEP OF GRADING AND WITHIN 7 DAYS FROM THE START OF CLEARING AND GRUBBING, AND CONTINUE TO FUNCTION UNTIL ALL DISTURBED UPLAND AREAS ARE STABILIZED.
4.	SEDIMENT CONTROLS MUST POND RUNOFF TO BE CONSIDERED FUNCTIONAL.
5.	SEDIMENT-LADEN TRENCH OR GROUND WATER MUST PASS THROUGH A SEDIMENT SETTLING POND OR BE DEWATERED IN-PLACE USING A SUMP PIT, FILTER BAG OR OTHER COMPARABLE METHOD, PRIOR TO DISCHARGE FROM THE SITE.
6.	TRENCH AND GROUND WATER FREE FROM SEDIMENT OR OTHER POLLUTANTS MAY BE DISCHARGED WITHOUT TREATMENT, PROVIDED THIS WATER DOES NOT BECOME POLLUTANT-LADEN BY TRAVERSING OVER DISTURBED SOILS OR OTHER POLLUTANT SOURCES.
7.	SETTLED MATERIAL SHALL BE DISPOSED OF IN A STABILIZED LOCATION WHERE IT WILL NOT BE CARRIED OFF-SITE OR INTO A STORM SEWER BY RAINFALL.

EROSION CONTROL TIMETABLE	
	2025
	J F M A M J J A S O N D
STABILIZATION	J F M A M J J A S O N D
TEMP. SEEDING	
PERM. SEEDING	
SODDING	
MULCHING	
PAVING	
☉ IRRIGATION NEEDED	

TMDLS AND BMPs SELECTED	
1.	APPLICABLE TMDLS FOR THE SITE: <input type="checkbox"/> PHOSPHORUS <input type="checkbox"/> AMMONIA <input type="checkbox"/> HABITAT <input type="checkbox"/> NITROGEN <input type="checkbox"/> BACTERIA <input type="checkbox"/> FLOW <input type="checkbox"/> SEDIMENT/TOTAL SUSPENDED SOLIDS <input type="checkbox"/> DISSOLVED OXYGEN/ORGANIC ENRICHMENT 2. THE FOLLOWING BMPs ARE SELECTED TO ADDRESS APPLICABLE TMDLS FOR THE PROJECT: CONSTRUCTION SITE: <input type="checkbox"/> DEMARCATATE PROTECTED AREA BEFORE CONSTRUCTION <input type="checkbox"/> MAINTAIN PORTABLE TOILET AND EMPTY W/OUT SPILL <input type="checkbox"/> PROPER STORAGE OF LANDSCAPE FERTILIZER <input type="checkbox"/> MS4 MONTHLY INSPECTIONS DURING CONSTRUCTION <input type="checkbox"/> RESOLVE NON-COMPLIANCE SWP3 INSPECTION ITEMS <input type="checkbox"/> FINAL INSPECTION TO ENSURE BMP IMPLEMENTATION TEMPORARY EROSION CONTROL: <input type="checkbox"/> CHECK DAMS <input type="checkbox"/> TEMPORARY DIVERSION <input type="checkbox"/> SLOPE DRAIN <input type="checkbox"/> STREAM UTILITY CROSSING <input type="checkbox"/> DEWATERING <input type="checkbox"/> STREAM CROSSING TEMPORARY SEDIMENT CONTROL: <input type="checkbox"/> SEDIMENT BASIN <input type="checkbox"/> SEDIMENT TRAP <input type="checkbox"/> SILT FENCE <input type="checkbox"/> INLET PROTECTION <input type="checkbox"/> FILTER SOCK <input type="checkbox"/> FILTER BERM SOIL STABILIZATION: <input type="checkbox"/> DUST CONTROL <input type="checkbox"/> PHASED DISTURBANCE <input type="checkbox"/> MULCHING <input type="checkbox"/> CLEARING AND GRUBBING <input type="checkbox"/> SODDING <input type="checkbox"/> TEMPORARY SEEDING <input type="checkbox"/> TOPSOILING <input type="checkbox"/> PERMANENT SEEDING <input type="checkbox"/> GRADE TREATMENT <input type="checkbox"/> CONSTRUCTION ENTRANCE <input type="checkbox"/> TEMPORARY ROLLED EROSION CONTROL PRODUCTS <input type="checkbox"/> TURF REINFORCEMENT MATTING <input type="checkbox"/> TREE AND NATURAL AREA PRESERVATION PERMANENT EROSION CONTROL: <input type="checkbox"/> GRASSED SWALE <input type="checkbox"/> ROCK LINED CHANNEL <input type="checkbox"/> LEVEL SPREADER <input type="checkbox"/> ROCK OUTLET PROTECTION <input type="checkbox"/> DIVERSION <input type="checkbox"/> SUBSURFACE DRAIN POLLUTION PREVENTION AND GOOD HOUSEKEEPING: <input type="checkbox"/> ROUTINE FACILITY INSPECTIONS <input type="checkbox"/> VISUAL ASSESSMENT OF STORM WATER DISCHARGE <input type="checkbox"/> ANNUAL COMPREHENSIVE SITE INSPECTION <input type="checkbox"/> SWEEP PARKING LOT AND DRIVE LANES <input type="checkbox"/> CLEAN CATCH BASINS <input type="checkbox"/> STORE WASTE IN LIDDED CONTAINERS <input type="checkbox"/> LOCATE SNOW DISPOSAL AREAS AWAY FROM BMPs <input type="checkbox"/> ESTABLISH "PICK-UP PET WASTE" STATION POST-CONSTRUCTION: <input type="checkbox"/> WETLAND SETBACK <input type="checkbox"/> STREAM SETBACK <input type="checkbox"/> WATER QUALITY POND <input type="checkbox"/> PERMEABLE PAVEMENT <input type="checkbox"/> GRASS FILTER STRIP <input type="checkbox"/> INFILTRATION TRENCH <input type="checkbox"/> TREE BOX FILTER <input type="checkbox"/> SAND FILTER <input type="checkbox"/> GREEN ROOF <input type="checkbox"/> LTMA <input type="checkbox"/> BIORETENTION AREA <input type="checkbox"/> CISTERN <input type="checkbox"/> BIORETENTION WITH INTERNAL WATER STORAGE <input type="checkbox"/> OPEN CHANNEL SWALES <input type="checkbox"/> WET EXTENDED DETENTION BASIN <input type="checkbox"/> DRY EXTENDED DETENTION BASIN WITH FOREBAY <input type="checkbox"/> RETROFIT SWMF TO TREAT WQV <input type="checkbox"/> RETROFIT SWMF TO INCREASE INFILTRATION <input type="checkbox"/> RETROFIT SWMF POND TO FUNCTION AS WETLAND <input type="checkbox"/> AS-BUILT POST-BMPs <input type="checkbox"/> SUBMIT LTMA ANNUAL MAINTENANCE REPORT TO MS4 <input type="checkbox"/> REDUCE IMPERVIOUS SURFACES <input type="checkbox"/> DECREASE QUANTITY OF PARKING SPACES <input type="checkbox"/> LOW IMPACT DEVELOPMENT <input type="checkbox"/> CONSERVATION DEVELOPMENT <input type="checkbox"/> DISCONNECT DOWNSPOUT AND REDIRECT TO BMP <input type="checkbox"/> VEGETATE MAINTENANCE/STORAGE YARD OPEN AREAS <input type="checkbox"/> IMPLEMENT LOW-MOW OR NO-MOW PRACTICES <input type="checkbox"/> PEST MANAGEMENT PROGRAM
PERMIT CLOSURE REQUIREMENTS	
1.	FINAL STABILIZATION REQUIRES THE CONTRACTOR TO REMOVE ALL TEMPORARY SEDIMENT AND EROSION CONTROLS FROM THE SITE AND ALL SEDIMENT TRAPPED BY THOSE CONTROLS BE PERMANENTLY STABILIZED.
2.	THE CONTRACTOR SHALL COMPLETE A "FINAL CERTIFICATION AND NOTIFICATION FOR EROSION AND SEDIMENT CONTROL" UPON PROJECT COMPLETION AND PROVIDE A COPY TO THE OWNER AND SWCD.
3.	ONCE CONSTRUCTION ACTIVITIES HAVE CEASED AND THE SITE REACHES FINAL STABILIZATION, THE CONTRACTOR MUST TERMINATE THE NPDES PERMIT COVERAGE BY FILING A NOT WITH THE OHIO EPA WITHIN 45 DAYS OF FINAL STABILIZATION. FINAL STABILIZATION IS DEFINED AS AN ESTABLISHED VEGETATIVE GROUND COVER OF AT LEAST 70% GROWTH DENSITY, OR OTHER MEANS OF PERMANENT STABILIZATION, OVER ALL AREAS DISTURBED DURING CONSTRUCTION.
4.	THE CONTRACTOR MUST MAINTAIN ALL REPORTS FOR 3 YEARS AFTER THE NOT IS FILED, AND PROVIDE DIGITAL COPIES TO THE OWNER AND SWCD.

MAINTENANCE REQUIREMENTS	
1.	BMPs SHALL BE MAINTAINED IN GOOD WORKING ORDER UNTIL UPSLOPE AREAS THEY CONTROL ARE STABILIZED.
2.	THE CONTRACTOR SHALL PROVIDE A QUALIFIED PERSON KNOWLEDGEABLE IN THE PRINCIPLES AND PRACTICES OF EROSION AND SEDIMENT CONTROLS, POSSESS THE TECHNICAL SKILLS TO ASSESS SITE CONDITIONS THAT COULD IMPACT STORM WATER QUALITY, AND CAN ASSESS THE EFFECTIVENESS OF ANY BMP SELECTED.
3.	A QUALIFIED PERSON MUST INSPECT BMPs AT LEAST ONCE EVERY 7 DAYS AND WITHIN 24 HOURS OF A 0.5" OR GREATER RAINFALL IN A 24-HOUR PERIOD TO DETERMINE IF THE SWP3 WAS PROPERLY IMPLEMENTED.
4.	THE QUALIFIED PERSON MUST PREPARE A WRITTEN REPORT AFTER EACH INSPECTION SUMMARIZING INSPECTION RESULTS INCLUDING THE FOLLOWING: <ul style="list-style-type: none"> DATE OF INSPECTION NAME AND QUALIFICATION OF THE INSPECTOR WEATHER CONDITIONS LOCATIONS WHERE IN-STREAM OR OFF-SITE SEDIMENTATION OR OTHER POLLUTANTS WERE OBSERVED. LOCATIONS OF BMPs NEEDING MAINTENANCE. LOCATIONS OF BMPs FAILING TO OPERATE CORRECTLY OR PROVIDE ADEQUATE PROTECTION. LOCATION OF AREAS IN NEED OF ADDITIONAL BMPs NOT IN PLACE AT THE TIME OF INSPECTION. CORRECTIVE ACTIONS REQUIRED, CHANGES TO THE SWP3 AND IMPLEMENTATION DATES. GRADING AND STABILIZATION ACTIVITY LOG EROSION AND SEDIMENT CONTROL AMENDMENT LOG
5.	ALL INCIDENCES OF NON-COMPLIANCE MUST BE IDENTIFIED IN THE REPORT. IF A REPORT DOES NOT IDENTIFY INCIDENCES OF NON-COMPLIANCE, IT MUST CONTAIN A CERTIFICATION THE SITE IS IN COMPLIANCE AT THE TIME OF INSPECTION.
6.	BMP MAINTENANCE OR REPAIR MUST BE COMPLETED WITHIN 3 DAYS, AND SEDIMENT POND MAINTENANCE OR REPAIR WITHIN 10 DAYS, OF THE INSPECTION THAT REVEALED A DEFICIENCY.
7.	WHEN AN INSPECTION REVEALS A BMP IS NOT EFFECTIVE AND A MORE APPROPRIATE BMP IS REQUIRED, THE SWP3 SHALL BE AMENDED, THE NEW BMP INSTALLED WITHIN 10 DAYS OF THE INSPECTION THAT REVEALED THE DEFICIENCY, AND THE "STORM WATER POLLUTION PREVENTION PLAN AMENDMENT LOG" FORM COMPLETED.
8.	WHEN AN INSPECTION REVEALS A BMP HAS NOT BEEN INSTALLED, BUT IS REQUIRED TO PROVIDE ADEQUATE CONTROL, IT MUST BE INSTALLED PRIOR TO THE NEXT STORM EVENT WHICH PRODUCES RUNOFF, BUT IN NO CASE LATER THAN 10 DAYS FROM THE INSPECTION THAT REVEALED THE DEFICIENCY.
9.	THE INSPECTION FREQUENCY MAY BE REDUCED TO 1 TIME PER MONTH IF THE ENTIRE SITE IS TEMPORARILY STABILIZED OR RUNOFF IS UNLIKELY DUE TO WINTER WEATHER (I.E. SUSTAINED SNOW COVER OR FROZEN GROUND CONDITIONS). A WAIVER OF INSPECTION REQUIREMENTS IS AVAILABLE UNTIL 1 MONTH BEFORE THAWING CONDITIONS ARE EXPECTED IF ALL THE FOLLOWING CONDITIONS ARE MET: <ol style="list-style-type: none"> FROZEN CONDITIONS ARE ANTICIPATED TO CONTINUE FOR EXTENDED PERIODS OF TIME (I.E. MORE THAN 1 MONTH). SOIL DISTURBANCE ACTIVITIES HAVE BEEN SUSPENDED. THE BEGINNING AND ENDING DATES OF THE WAIVER PERIOD ARE DOCUMENTED IN THE SWP3. ONCE A DEFINABLE AREA HAS BEEN FULLY STABILIZED, IT MAY BE MARKED ON THE SWP3 AND NO FURTHER INSPECTION REQUIREMENTS ARE REQUIRED FOR THAT AREA OF THE SITE. INSPECTIONS SHALL BE PERFORMED UNTIL A NOT IS FILED WITH THE OHIO EPA.

SEQUENCE OF MAJOR CONSTRUCTION ACTIVITIES	
1.	HOLD A PRE-CONSTRUCTION MEETING TO DISCUSS OHIO EPA NPDES PERMIT REQUIREMENTS.
2.	CONTRACTOR SUBMITS CONSTRUCTION SCHEDULE FOR CONSTRUCTION ACTIVITIES.
3.	BEGIN INSPECTION, MAINTENANCE, RECORD KEEPING AND SITE POSTING OF BMPs.
4.	ESTABLISH STAGING AREA AND NON-SEDIMENT BMPs.
5.	INSTALL SILT FENCE, INLET PROTECTION AND CONSTRUCTION ENTRANCE.
6.	INSTALL OTHER TEMPORARY EROSION AND SEDIMENT CONTROL ITEMS AS SOON AS POSSIBLE, BUT NO LATER THAN 7 DAYS AFTER FIRST SOIL DISTURBANCE. INSPECT AND MAINTAIN BMPs FOR THE PROJECT DURATION UNTIL UPSLOPE AREAS ARE PERMANENTLY STABILIZED.
7.	BEGIN SITE DEMOLITION AND CONSTRUCTION.
8.	INSTALL DEWATERING MEASURES.
9.	BEGIN EARTHWORK OPERATIONS.
10.	APPLY TEMPORARY SEED.
11.	INSTALL WATER LINES STORM SEWERS AND INLETS.
12.	INSTALL WATER TOWER & CONTROL BUILDING.
13.	CONSTRUCT REMAINING UTILITIES INCLUDING SANITARY, WATER, ELECTRIC, GAS AND PHONE.
14.	INSTALL PAVING.
15.	INSPECT AND CLEAN EXISTING AND NEW STORM SEWERS AND INLETS.
16.	APPLY PERMANENT SEED.
17.	INSTALL LANDSCAPING.
18.	CONTINUE INSPECTIONS, MAINTENANCE, RECORD KEEPING, AND SITE POSTING UNTIL FINAL STABILIZATION ACHIEVED.
19.	REMOVE TEMPORARY BMPs FROM STORM SEWER AND INLETS, AND OPEN GUTTERS AND DITCHES TO OBTAIN FREE DRAINAGE.
20.	DISPOSE OF ALL DEBRIS AND WASTE MATERIAL.

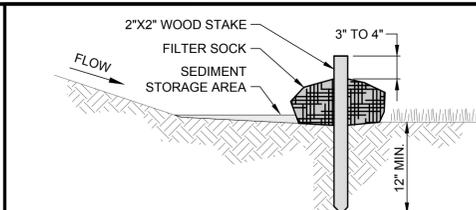
BID SET

8160 STERLING COURT
MENTOR, OHIO 44060
(440) 951-9000

DATE	REVISION	NO	REVIEW	ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
					07/17/2024	NO SCALE	AEF	AMM	AEF

CITY OF CONNEAUT
 CLARK STREET
 WATER TANK REPLACEMENT
 CONNEAUT, OHIO
 ASHTABULA COUNTY
 SWPP
 SWP3 GENERAL NOTES

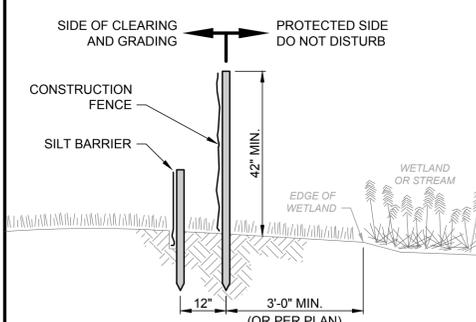
PROJECT NO.	241249
DISCIPLINE	GENERAL
SHEET NAME	SWPP-1
SHEET	13
OF	20



- NOTES:
- FILTER SOCKS SHALL BE 3 OR 5 MIL CONTINUOUS, TUBULAR, HDPE 3/8" KNITTED MESH NETTING MATERIAL, FILLED WITH COMPOST.
 - COMPOST SHALL BE WEED, PATHOGEN AND INSECT FREE, FREE OF ANY REFUSE, CONTAMINANTS OR OTHER MATERIALS TOXIC TO PLANT GROWTH, BE DERIVED FROM A WELL-DECOMPOSED SOURCE OF ORGANIC MATTER, AND CONSIST OF PARTICLES RANGING FROM 3/8" TO 2".
 - FILTER SOCKS SHALL BE PLACED ON A LEVEL LINE ACROSS SLOPES PARALLEL TO THE BASE OF THE SLOPE. ON SLOPES APPROACHING 2:1, ADDITIONAL SOCKS SHALL BE PROVIDED AT THE TOP AND MID-SLOPE.
 - FILTER SOCKS SHALL BE PLACED AT LEAST 5' FROM THE TOE OF SLOPE FOR SEDIMENT DEPOSIT.
 - BUILT UP SEDIMENT SHALL BE REMOVED WHEN IT HAS REACHED 1/3 THE FILTER SOCK HEIGHT.
 - WHEN A FILTER SOCK IS NO LONGER REQUIRED, IT SHALL BE DISPERSED ON-SITE.
 - THE MAXIMUM DRAINAGE AREA PER 100 FEET OF FILTER SOCK IS 1/2 ACRE AND IS DEPENDENT ON THE SLOPE FOLLOWING THE GUIDANCE CHART BELOW:

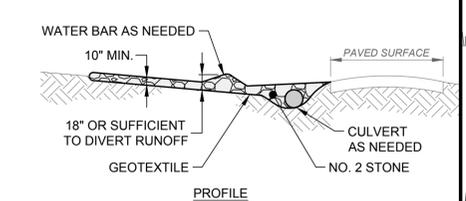
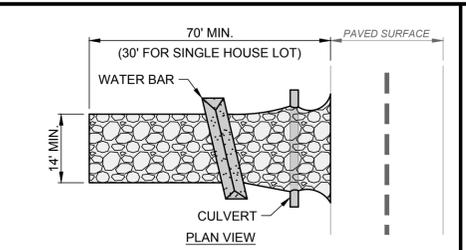
MAX. SLOPE LENGTH ABOVE FILTER SOCK					
SLOPE	RATIO (H:V)	8'	12'	18'	24'
0% - 2%	0 - 50:1	125'	250'	300'	350'
2% - 10%	50:1 - 10:1	100'	125'	200'	250'
10% - 20%	10:1 - 5:1	75'	100'	150'	200'
20% - 50%	5:1 - 2:1	N/A	50'	75'	100'
≥ 50%	≥ 2:1	N/A	25'	50'	75'

FILTER SOCK DETAIL
SCALE: NONE



- NOTES:
- THE CONTRACTOR SHALL INSTALL AND MAINTAIN TEMPORARY BARRIERS AROUND NON-IMPACTED WETLANDS AND STREAMS TO PREVENT DISTURBANCE OR CONSTRUCTION ACTIVITIES WITHIN THE PROTECTED AREAS AND, UPON COMPLETION OF THE PROJECT, BE REMOVED.
 - CONSTRUCTION FENCE SHALL BE HIGH VISIBILITY, ORANGE COLOR, HIGH DENSITY POLYETHYLENE GRID SECURED TO STEEL POSTS LOCATED ON MAXIMUM 10' CENTERS.
 - THE FOLLOWING ACTIVITIES ARE PROHIBITED WITHIN OR THROUGH NON-IMPACTED WETLANDS AND STREAMS:
 - EXCAVATION OR OTHER DIGGING
 - IMPOUNDMENT OF WATER
 - STORAGE OF CONSTRUCTION MATERIALS, DEBRIS OR EXCAVATED MATERIAL
 - OPERATING OR PARKING VEHICLES OR EQUIPMENT
 - FOOT TRAFFIC
 - ATTACHMENT OF SIGNS TO OR WRAPPING MATERIALS AROUND TREES
 - ANYTHING THAT WOULD DISTURB THE GROUND

WETLAND BARRIER DETAIL
SCALE: NONE



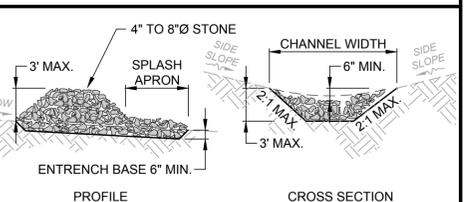
NOTES:

- GEOTEXTILE SHALL BE COMPOSED OF STRONG ROT-PROOF POLYMERIC FIBERS MEETING THE FOLLOWING:

TENSILE STRENGTH	200 LB
PUNCTURE STRENGTH	80 PSI
TEAR STRENGTH	50 LB
BURST STRENGTH	320 PSI
ELONGATION	20%
EQUIVALENT OPENING SIZE	< 0.6 MM
PERMITTIVITY	0.001 CM/SEC.

- INSTALL WATER BAR, AS NEEDED, TO PREVENT SURFACE RUNOFF FROM FLOWING OUT ONTO PAVEMENT.
- APPLY ADDITIONAL STONE AS CONDITIONS DEMAND, REPLENISH STONE WHEN THE DEPTH IS LESS THAN 6", AND REPLACE IF STONES BECOMES MUD-LADEN.
- IMMEDIATELY REMOVE MUD DROPPED, WASHED OR TRACKED ONTO ROADS OR ANY SURFACE WHERE RUNOFF IS NOT CHECKED BY SEDIMENT CONTROLS BY SCRAPING OR SWEEPING.
- CONSTRUCTION ENTRANCE SHALL NOT BE RELIED UPON TO REMOVE MUD FROM VEHICLES OR PREVENT OFF-SITE TRACKING. VEHICLES THAT ENTER AND LEAVE THE SITE SHALL BE RESTRICTED FROM MUDDY AREAS.
- CONSTRUCTION ENTRANCE SHALL REMAIN UNTIL THE DISTURBED AREA IS STABILIZED OR REPLACED WITH A PERMANENT ROADWAY.

CONSTRUCTION ENTRANCE
SCALE: NONE

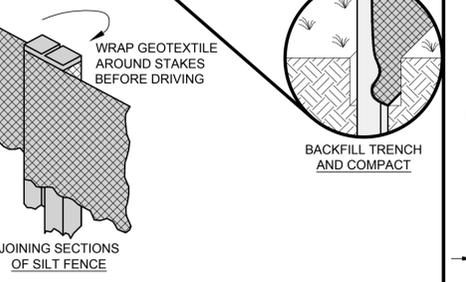
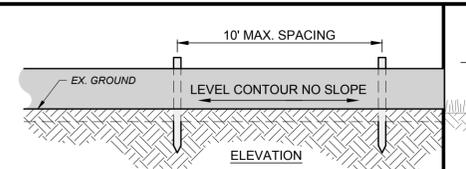


- NOTES:
- STONE MUST COVER THE FULL CHANNEL WIDTH.
 - ODOT TYPE 'D' STONE IS ACCEPTABLE, BUT MUST BE UNDERLAIN WITH NO. 3 OR 4 STONE OR FILTER FABRIC.
 - THE MIDPOINT OF THE CHECK DAM SHALL BE A MINIMUM OF 6" LOWER THAN THE SIDES TO DIRECT WATER ACROSS THE CENTER AND AWAY FROM CHANNEL SIDES.
 - SPACE CHECK DAMS SO TOE OF UPSTREAM DAM IS AT SAME ELEVATION AS TOP OF DOWNSTREAM DAM, OR AS FOLLOWS:

CHECK DAM HEIGHT	CHANNEL SLOPE			
	< 5%	5% - 10%	10% - 15%	15% - 20%
1 FT.	65 FT.	30 FT.	20 FT.	15 FT.
2 FT.	130 FT.	65 FT.	40 FT.	30 FT.
3 FT.	200 FT.	100 FT.	65 FT.	50 FT.

- IF CHECK DAMS TO REMAIN IN USE FOR EXTENDED PERIOD OF TIME, INSTALL SPLASH APRON 6" MINIMUM THICK WITH LENGTH 2 TIMES CHECK DAM HEIGHT.

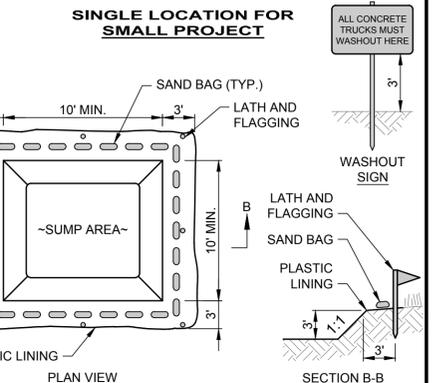
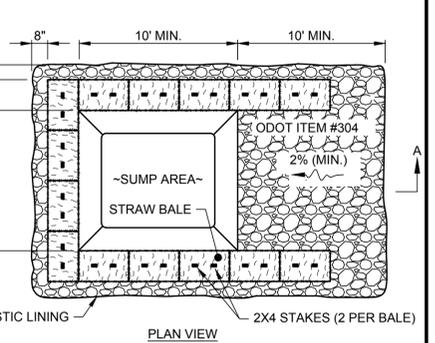
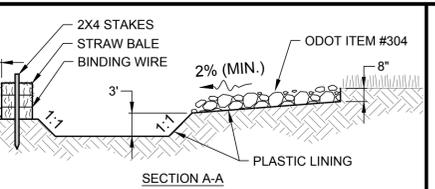
CHECK DAM DETAIL
SCALE: NONE



FABRIC PROPERTIES	VALUES	TEST METHOD
GRAB TENSILE STRENGTH	90 LB. MIN	ASTM D-1682
MULLEN BURST STRENGTH	190 PSI MIN	ASTM D-3786
SLURRY FLOW RATE	0.3 GAL./MIN./S.F. MAX.	
EQUIVALENT OPENING SIZE	40-80	US STD. SIEVE CW-02215
ULTRAVIOLET RADIATION STABILITY	90% MIN	ASTM-G-26

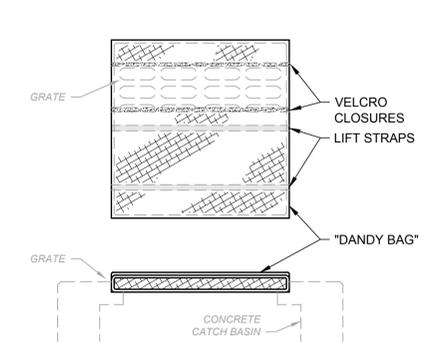
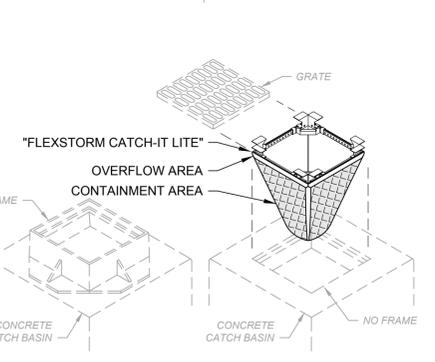
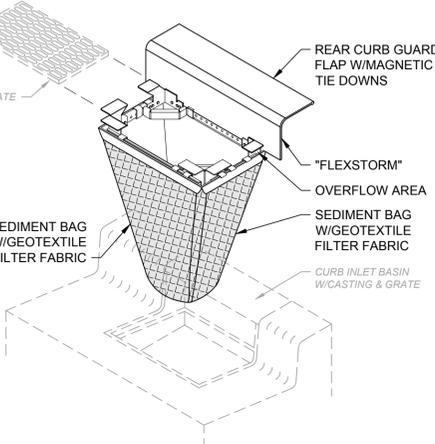
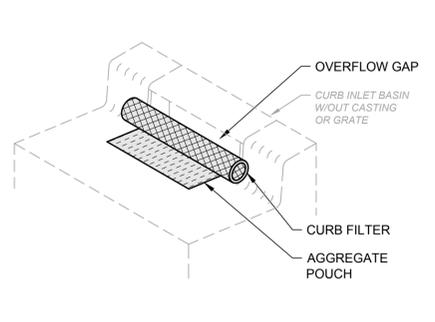
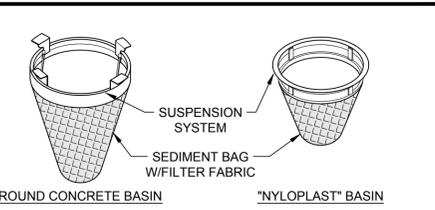
- NOTES:
- PRESERVE VEGETATION FOR 5 FEET OR AS MUCH AS POSSIBLE UPSLOPE FROM THE SILT FENCE. IF VEGETATION IS REMOVED, IT SHALL BE RE-ESTABLISHED WITHIN 7 DAYS FROM SILT FENCE INSTALLATION.
 - THE MAXIMUM DRAINAGE AREA PER 100 FEET OF SILT FENCE IS DEPENDENT ON THE SLOPE, BUT NO MORE THAN 1/2 ACRE. SILT FENCE CANNOT BE USED FOR DRAINAGE AREAS WITH SLOPES GREATER THAN 50%.
 - SILT FENCE MAY ONLY PASS RUNOFF AS DIFFUSE FLOW THROUGH THE GEOTEXTILE. IF RUNOFF OVERTOPS THE SILT FENCE, FLOWS UNDER OR AROUND THE ENDS, OR IN ANY OTHER WAY BECOMES A CONCENTRATED FLOW, THEN CHANGE THE LAYOUT OF THE SILT FENCE, REMOVE ACCUMULATED SEDIMENT OR INSTALL OTHER PRACTICES.
 - SILT FENCE SHALL BE INSPECTED FOR DEPTH OF SEDIMENT, TEARS, VERIFICATION FABRIC IS SECURELY ATTACHED TO FENCE POSTS, AND VERIFICATION FENCE POSTS ARE FIRMLY IN THE GROUND. BUILT UP SEDIMENT SHALL BE REMOVED FROM SILT FENCE WHEN IT HAS REACHED 1/3 THE FENCE HEIGHT.

SILT FENCE
SCALE: NONE



- NOTES:
- CONCRETE WASHOUT AREA SHALL BE LOCATED A MINIMUM OF 100' FROM STORM SEWER INLETS, STREAMS, WETLANDS OR ANY OTHER SURFACE WATERS.
 - IF CONCRETE WASHOUT AREA IS LOCATED AWAY FROM A PAVED SURFACE, CONSTRUCT A GRAVEL ACCESS ROUTE EQUAL IN COMPOSITION TO A CONSTRUCTION ENTRANCE.
 - CONCRETE WASHOUT AREA SHALL BE SUFFICIENT SIZE TO CONTAIN CONCRETE WASTE GENERATED. LARGE SITES MAY REQUIRE MULTIPLE CONCRETE WASHOUT AREAS.
 - PLASTIC LINING SHALL BE DOUBLE-LINED, CONTINUOUS 10-MIL POLYETHYLENE SHEETING FREE OF HOLES, TEARS OR OTHER DEFECTS INSTALLED ON A SMOOTH, LEVEL SURFACE, FREE OF LARGE ROCKS AND DEBRIS.
 - CONCRETE WASHOUT SIGNAGE SHALL BE CLEARLY VISIBLE AND LOCATED WITHIN 30 FEET OF EACH WASHOUT AREA.
 - CONCRETE WASHOUT AREA SHALL BE COVERED DURING INCLEMENT WEATHER TO PREVENT OVERFLOW.
 - PREFABRICATED, PORTABLE AND RE-USABLE CONCRETE WASHOUT CONTAINERS ARE ACCEPTABLE.
 - CONCRETE WASHOUT AREA SHALL BE INSPECTED DAILY TO CHECK FOR DAMAGE AND DETERMINE IF IT NEEDS CLEANED OR REPLACED. ANY DAMAGE TO THE SIDEWALLS OR PLASTIC LINING SHALL BE REPAIRED IMMEDIATELY. REPLACE THE ENTIRE CONCRETE WASHOUT AREA WHEN IT IS 75% FULL.

CONCRETE WASHOUT AREA DETAIL
SCALE: NONE



- NOTES:
- ALL NEW AND EXISTING STORM INLET BASINS WITHIN THE WORK LIMITS SHALL HAVE INLET PROTECTION INSTALLED.
 - INLET PROTECTION SHALL BE INSTALLED AS EACH STORM INLET IS CONSTRUCTED.
 - NOT ALL ITEMS SHOWN MAY APPLY OR DIFFERENT TYPES OR CONFIGURATIONS MAY BE REQUIRED. THE CONTRACTOR SHALL MEASURE EACH INLET TO CONFIGURE AND ASSEMBLE CUSTOMIZED INLET FILTERS.

INLET PROTECTION DETAIL
SCALE: NONE

BID SET

verdantas
8150 STERLING COURT
MENTOR, OHIO 44060
(440) 951-9000

NO	REVISION	DATE

ISSUED FOR:	REVIEW:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
07/17/2024	NONE	AEF	AMM	AEF	

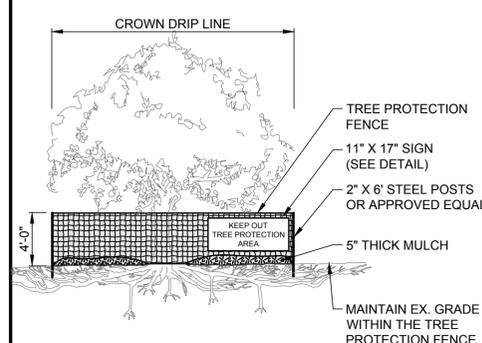
CITY OF CONNEAUT
CLARK STREET
WATER TANK REPLACEMENT
CONNEAUT, OHIO
ASHTABULA COUNTY
SWPP
SWP3 DETAILS 1

PROJECT NO.	241249
DISCIPLINE	GENERAL
SHEET NAME	SWPP-2
SHEET	14
OF	20

NOTES:

- MULCH SHALL CONSIST OF ONE OF THE FOLLOWING:
 - UNROTTED SMALL GRAIN STRAW SPREAD UNIFORMLY AT 2 TONS/AC. (2 TO 3 BALES).
 - WOOD-CELLULOSE FIBER (I.E. HYDROSEEDING) APPLIED AT 1 TON/AC.
 - ROLLED EROSION CONTROL PRODUCT OR MULCH MATTING APPLIED PER MANUFACTURER RECOMMENDATION.
 - WOOD MULCH OR CHIPS APPLIED AT 6 TONS/AC.
- MULCH SHALL BE ANCHORED IMMEDIATELY BY ONE OF THE FOLLOWING METHODS:
 - PUNCH OR ANCHOR THE MULCH MATERIAL INTO THE SOIL USING A DISK, CRIMPER OR SIMILAR TOOL. DO NOT FINELY CHOP STRAW TO BE MECHANICALLY ANCHORED, BUT LEAVE LONGER THAN 6".
 - NETTING PER MANUFACTURER RECOMMENDATION IN AREAS OF CONCENTRATED RUNOFF OR ON CRITICAL SLOPES.
 - SYNTHETIC BINDERS AT MANUFACTURER RATE.
 - WOOD-CELLULOSE FIBER BINDER AT A NET DRY WEIGHT OF 750 LB/AC., MIXED WITH WATER, AND CONTAIN 50 LB/100 GAL. MAX. OF WOOD CELLULOSE FIBER.

MULCHING DETAIL



NOTES:

- TREE PROTECTION FENCE MUST BE INSTALLED PRIOR TO BEGINNING CLEARING OPERATIONS AND REMAIN UNTIL FINAL GRADING HAS BEEN COMPLETED.
- FENCE MUST BE PLACED BEYOND THE DRIP LINE OR CANOPY OF TREES (SEE PLANS FOR GENERAL FENCE ALIGNMENT).
- FENCE SHALL BE ORANGE COLOR, HIGH DENSITY POLYETHYLENE FENCING WITH 3.5" X 1.5" OPENINGS.
- STEEL POSTS SHALL BE INSTALLED AT 8' O.C. MIN.
- SIGN SHALL BE LAMINATED IN PLASTIC AND SPACED EVERY 50' ALONG THE FENCE.
- NO EQUIPMENT SHALL OPERATE INSIDE THE PROTECTIVE FENCING, INCLUDING FENCE INSTALLATION AND REMOVAL.

TREE PROTECTION DETAIL

SCALE: NONE

NOTES:

- SOD SHALL BE HARVESTED, DELIVERED AND INSTALLED WITHIN 48 HOURS. SOD NOT TRANSPLANTED WITHIN THIS PERIOD SHALL BE INSPECTED AND APPROVED PRIOR TO INSTALLATION.
- SOD SHALL BE KEPT MOIST AND COVERED DURING HAULING AND PREPARATION FOR PLACEMENT.
- SOD SHALL BE MACHINE CUT AT A UNIFORM SOIL THICKNESS OF 3/4" ± 1/4", EXCLUDING TOP GROWTH AND THATCH.
- AREAS SHALL BE GRADED AND TOPSOIL SPREAD AS NEEDED.
- THE SEEDBED SHALL BE PREPARED BY APPLYING AGRICULTURAL GROUND LIMESTONE OR FERTILIZER AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY LIME AT 100 LB/1,000 S.F. OR FERTILIZER AT 12 LB/1,000 S.F. OF 10-10-10 OR 12-12-12 ANALYSIS. LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL TO A DEPTH OF 3".
- BEFORE LAYING SOD, THE SURFACE SHALL BE FINE GRADED AND CLEARED OF DEBRIS, STONES AND CLODS LARGER THAN 3" DIAMETER. KNOCK DOWN HIGH SPOTS AND FILL IN LOW SPOTS SO SOIL IS LEVEL AND 1" BELOW THE GRADE OF ANY PAVED SURFACE, SUCH AS CURBS, WALKS AND PAVEMENT.
- DURING PERIODS OF EXCESSIVELY HIGH TEMPERATURES, THE SOIL SHALL BE LIGHTLY IRRIGATED PRIOR TO LAYING SOD.
- DO NOT PLACE SOD ON FROZEN SOIL.
- THE FIRST ROW OF SOD SHALL BE LAID IN A STRAIGHT LINE WITH SUBSEQUENT ROWS PLACED PARALLEL TO AND TIGHTLY WEDGED AGAINST EACH OTHER. LATERAL JOINTS SHALL BE STAGGERED IN A BRICK-LIKE PATTERN. ENSURE SOD IS NOT STRETCHED OR OVERLAPPED, AND JOINTS ARE BUTTED TIGHT.
- ON SLOPING AREAS WHERE EROSION MAY BE A PROBLEM, SOD SHALL BE LAID WITH THE LONG EDGE PARALLEL TO THE CONTOUR, WITH STAGGERED JOINTS AND BE SECURED WITH PEGS OR STAPLES.
- AS SODDING IS COMPLETED IN ANY ONE SECTION, ROLL OR TAMP THE SOD TO ENSURE SOLID CONTACT OF ROOTS WITH THE SOIL. WATER IMMEDIATELY AFTER ROLLING OR TAMPING UNTIL THE SOD AND SURFACE BELOW ARE THOROUGHLY WET. THE OPERATIONS OF LAYING, TAMPING AND IRRIGATING FOR ANY PIECE OF SOD SHALL BE COMPLETED WITHIN 8 HOURS.
- IN THE ABSENCE OF ADEQUATE RAINFALL DURING THE FIRST WEEK, WATER DAILY OR AS NECESSARY TO MAINTAIN MOIST SOIL. AFTER THE FIRST WEEK, WATER SOD AS NECESSARY TO MAINTAIN ADEQUATE MOISTURE AND ENSURE ESTABLISHMENT.
- DO NOT MOW UNTIL SOD IS FIRMLY ROOTED.

SODDING DETAIL

NOTES:

- THE SEED BED SHALL BE PULVERIZED AND LOOSE TO ENSURE THE SUCCESS OF ESTABLISHING VEGETATION.
- SOIL AMENDMENTS MAY BE REQUIRED TO ESTABLISH VEGETATION. PERFORM SOIL TESTS TO PREDICT THE NEED FOR LIME OR FERTILIZER. IN LIEU OF A SOIL TEST, APPLY LIME AT 2 TONS/AC. OR FERTILIZER AT 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS
- APPLY SEED UNIFORMLY. COVER BROADCASTED SEED BY RAKING OR DRAGGING, AND LIGHTLY TAMPING INTO PLACE.
- MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
- INSPECT FOR SOIL EROSION OR VEGETATION LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED AND RE-MULCH AS NEEDED.

TEMPORARY SEEDING SPECIES SELECTION			
DATES	SPECIES	LB/1,000 SF	LB/AC.
MARCH 1 - AUGUST 15	OATS	3	128
	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
AUGUST 16 - OCTOBER 31	PERENNIAL RYEGRASS	2	40
	TALL FESCUE	1	40
	RYE	3	112
NOVEMBER 1 - FEBRUARY 28	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
	WHEAT	3	120
	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
	TALL FESCUE	2	40
	TALL FESCUE	1	40
	PERENNIAL RYEGRASS	1	40
NOVEMBER 1 - FEBRUARY 28	ONLY MULCH OR DORMANT SEEDING.		

TEMPORARY SEEDING DETAIL

NOTES:

- SUBSOILING SHALL OCCUR WHEN SOIL MOISTURE IS LOW ENOUGH TO ALLOW THE SOIL TO CRACK OR FRACTURE. SUBSOILING IS NOT PERMITTED ON SLIP-PRONE AREAS.
- DISTURBED AREAS SHALL BE GRADED AND TOPSOIL SPREAD.
- THE SEED BED SHALL BE PREPARED BY APPLYING AGRICULTURAL GROUND LIMESTONE OR FERTILIZER AS RECOMMENDED BY A SOIL TEST. IN LIEU OF A SOIL TEST, APPLY LIME AT 2 TONS/AC. OR FERTILIZER AT 500 LB/AC. OF 10-10-10 OR 12-12-12 ANALYSIS. LIME AND FERTILIZER SHALL BE WORKED INTO THE SOIL TO A DEPTH OF 3".
- APPLY SEED UNIFORMLY ON FIRM, MOIST SEED BED BETWEEN MARCH 1 AND MAY 31 OR AUGUST 1 AND SEPTEMBER 30. TILLAGE FOR SEEDBED PREPARATION SHALL OCCUR WHEN THE SOIL IS DRY ENOUGH TO CRUMBLE AND NOT FORM RIBBONS WHEN COMPRESSED BY HAND. SEEDING SHOULD NOT BE APPLIED BETWEEN OCTOBER 1 AND NOVEMBER 20 BECAUSE SEEDS MAY GERMINATE, BUT WILL NOT SURVIVE THE WINTER. IF SEEDING MUST OCCUR, INCREASE THE SEEDING RATE BY 50% AND ANCHOR. APPLY ADDITIONAL MULCH AND IRRIGATION AS REQUIRED TO ENSURE GERMINATION.
- MULCH SHALL BE APPLIED IMMEDIATELY AFTER SEEDING.
- SEEDING SHALL INCLUDE IRRIGATION TO ESTABLISH VEGETATION DURING DRY OR HOT WEATHER OR ON ADVERSE SITE CONDITIONS. AVOID EXCESSIVE IRRIGATION TO PREVENT EROSION AND DAMAGE FROM RUNOFF.
- SEEDING SHALL NOT BE CONSIDERED ESTABLISHED FOR AT LEAST 1 FULL YEAR FROM THE TIME OF SEEDING. DURING THIS PERIOD INSPECT FOR SOIL EROSION OR VEGETATION LOSS AND REPAIR BARE OR SPARSE AREAS, FILL GULLIES, RE-FERTILIZE, RE-SEED AND RE-MULCH AS NEEDED.
- ADEQUATE PERMANENT VEGETATION SHALL BE GROUND COVER DENSE ENOUGH TO COVER 80% OF THE SOIL SURFACE BASED ON VISUAL INSPECTION.

PERMANENT SEEDING FERTILIZATION AND MOWING CHART				
MIXTURE	FORMULA	LB/AC.	TIME	MOW
CREeping RED FESCUE	10-10-10	500	FALL, YEARLY,	≥3"
DOMESTIC RYEGRASS			OR AS NEEDED	
TALL FESCUE	10-10-10	500		≥4"
TURF-TYPE FESCUE	10-10-10	500		
CROWN VETCH FESCUE	0-20-20	400	SPRING, AND YEARLY AFTER ESTABLISHED	DO NOT MOW
FLAT PEA FESCUE	0-20-20	400		

PERMANENT SEEDING SPECIES SELECTION		
SEED MIX	SEED RATE LB/AC.	NOTES:
GENERAL USE		
CREeping RED FESCUE	20 - 40	FOR CLOSE MOWING AND WATERWAYS WITH <2.0 FT./SEC. VELOCITY
DOMESTIC RYEGRASS	10 - 20	
KENTUCKY BLUEGRASS	20 - 40	
TALL FESCUE	40 - 50	
TURF-TYPE FESCUE	90	
STEEP BANKS OR CUT SLOPES		
TALL FESCUE	40 - 50	
CROWN VETCH	10 - 20	DO NOT SEED LATER THAN AUGUST
TALL FESCUE	20 - 30	
FLAT PEA	20 - 25	DO NOT SEED LATER THAN AUGUST
TALL FESCUE	20 - 30	
ROAD DITCHES AND SWALES		
TALL FESCUE	40 - 50	
TURF-TYPE FESCUE	90	
KENTUCKY BLUEGRASS	5	
LAWN		
KENTUCKY BLUEGRASS	100 - 120	FOR SHADED AREAS
PERENNIAL RYEGRASS	100 - 120	
KENTUCKY BLUEGRASS	100 - 120	
CREeping RED FESCUE	100 - 120	

PERMANENT SEEDING DETAIL

BID SET

verdantas
8150 STERLING COURT
MENTOR, OHIO 44060
(440) 951-9000

DATE	REVISION	NO	REVIEW	ISSUED FOR:	ISSUE DATE:	SCALE:	DESIGNED BY:	DRAWN BY:	CHECKED BY:
					07/17/2024	NONE	AEF	AMM	AEF

CITY OF CONNEAUT
CLARK STREET
WATER TANK REPLACEMENT
CONNEAUT, OHIO
ASHTABULA COUNTY
SWPP
SWP3 DETAILS 2

PROJECT NO.	241249
DISCIPLINE	GENERAL
SHEET NAME	SWPP-3
SHEET	OF
15	20

ELECTRICAL SYMBOLS - PLAN:

	HOME RUN TO PANEL
	MOTOR
	MOTOR CONTROLLER
	FUSIBLE SAFETY SWITCH
	NON-FUSIBLE DISCONNECT SWITCH
	SIMPLEX RECEPTACLE, EXPLOSION PROOF
	DUPLEX RECEPTACLE
	QUADPLEX RECEPTACLE
	DATA PORT, RJ45
	SPECIAL RECEPTACLE, NEMA TYPE NOTED
	SINGLE-POLE SWITCH, "3" INDICATES 3-WAY, "OS" INDICATES OCCUPANCY SENSING
	DRY-TYPE TRANSFORMER
	PUSHBUTTON STATION
	LOUVER OPERATOR
	JUNCTION BOX
	SOLENOID VALVE
	LIMIT SWITCH
	FLOW: SWITCH, SENSOR, TRANSMITTER W / DISPLAY
	LEVEL: SWITCH, SENSOR, TRANSMITTER W / DISPLAY
	PRESSURE: SWITCH, SENSOR, TRANSMITTER W / DISPLAY
	TEMPERATURE: SWITCH, SENSOR, TRANSMITTER W / DISPLAY
	OTHER SENSOR / INDICATING TRANSMITTER AS NOTED
	HAZARDOUS AREA LIGHT FIXTURE
	OUTDOOR CANOPY LIGHT FIXTURE
	EXTERIOR WALL-PACK LIGHT FIXTURE
	HIGH BAY LIGHT FIXTURE
	LINEAR LED LIGHT FIXTURE
	EXIT SIGN
	EMERGENCY REMOTE HEAD
	EMERGENCY WALL-PACK
	FIRE ALARM PULL STATION, STROBE, HORN-STROBE
	FIRE ALARM AREA SMOKE DETECTOR

ELECTRIC SYMBOLS - UTILITIES:

EX:	PR:	
		AIR CONDITIONING UNIT
		ELECTRIC CONTROL BOX
		ELECTRIC JUNCTION BOX
		ELECTRIC PULL BOX
		ELECTRIC RISER BOX
		ELECTRIC VAULT BOX
		ELECTRIC LIGHT - GROUND
		ELECTRIC LIGHT - POST
		ELECTRIC MARKER POST
		ELECTRIC METER
		ELECTRIC MANHOLE - 48"
		ELECTRIC MANHOLE - 48" - ADJUST
		ELECTRIC MANHOLE - LID
		ELECTRIC PAINT MARK
		ELECTRIC PEDESTAL
		ELECTRIC TRANSFORMER

SINGLE LINE, ELEMENTARY, & INTERCONNECTION DIAGRAMS (ONLY) SYMBOLOGY:

	DISCONNECT SWITCH - AMP RATING
	FUSE - AMP RATING
	CIRCUIT BREAKER - AMP RATING
	MOTOR W / HORSEPOWER INDICATED
	AMMETER
	VOLT METER
	POWER FACTOR METER
	GROUND FAULT RELAY
	TRANSFORMER
	RELAY COIL
	TIMING RELAY COIL
	MOTOR STARTER COIL
	ELAPSED TIME TOTALIZER
	GROUNDING BUS
	TRANSIENT VOLTAGE SURGE SUPPRESSOR
	N.O. LIMIT SWITCH
	N.O. FLOW SWITCH
	N.O. LEVEL SWITCH
	N.O. PRESSURE SWITCH
	N.O. TEMPERATURE SWITCH
	N.O. TIME DELAY AFTER ENERGIZATION
	N.C. TIME DELAY AFTER ENERGIZATION
	N.C. TIME DELAY AFTER DE-ENERGIZATION
	N.O. TIME DELAY AFTER DE-ENERGIZATION
	N.O. SWITCH (GENERAL)
	START PUSHBUTTON NORMALLY OPEN
	STOP PUSHBUTTON NORMALLY CLOSED
	CONTACT - NORMALLY OPEN
	CONTACT - NORMALLY CLOSED
	SOLENOID COIL
	PILOT LIGHT - PUSH TO TEST (COLOR)
	GROUND
	CAPACITOR
	2 POSITION SELECTOR SWITCH
	3 POSITION SELECTOR SWITCH
	EQUIPMENT FIELD TERMINAL

ABBREVIATIONS:

A	AMPS	IAW	IN ACCORDANCE WITH	PT	POTENTIAL TRANSFORMER
AF	AMPERE FRAME	ICP	INSTRUMENTATION & CONTROL PANEL	R	RELAY
AI	ANALOG INPUT (PLC)	IPP	INSTRUMENT POWER PANEL	RCP	REINFORCED CONCRETE PIPE
AL	ALUMINUM	JB	JUNCTION BOX	RL	RUN LIGHT
AM	AMMETER	JBC	JUNCTION BOX-CONTROL	SCP	SURGE CONTROL PANEL
AO	ANALOG OUTPUT (PLC)	JBM	JUNCTION BOX-METERING	SCR	SILICON-CONTROLLED RECTIFIER
AP	ALARM PANEL	JBP	JUNCTION BOX-POWER	SEC	SECONDARY
AT	AMPERE TRIP	KCM	KILO (1000) CIRCULAR MILL	SF	SUPPLY FAN
AWG	AMERICAN WIRE GAUGE	KVA	KILOVOLT AMPERES	SHLD	SHIELDED
C	CONDUIT	KVAR	KILOVOLT AMPERES-REACTIVE	SP	SHEAR PIN SWITCH
CAP	CAPACITOR	KW	KILOWATT	SPK	SPEAKER
CB	CIRCUIT BREAKER	LA	LIGHTING ARRESTOR	SS	SELECTOR SWITCH OR STAINLESS STEEL
CJB	CONTROL JUNCTION BOX	LGT	LIGHT	SSOR	SOLID STATE OVERLOAD RELAY
CP	CONTROL PANEL	LOR	LOCAL/OFF/REMOTE SELECTOR SWITCH	SSPB	START/STOP PUSHBUTTON
CPT	CONTROL POWER TRANSFORMER	LP	LIGHTING PANEL	SSS	SOLID STATE STARTER
CR	CORROSION RESISTANT	LS	LEVEL SWITCH	STD	STANDARD
CS	CONTROL STATION	MCC	MOTOR CONTROL CENTER	STP	SHIELDED TWISTED PAIR
CT	CURRENT TRANSFORMER	MCP	MOTOR CIRCUIT PROTECTOR	STRTR	STARTER
CU	COPPER	MDP	MAIN DISTRIBUTION PANEL	SV	SOLENOID VALVE
DB	DUCT BANK	MJB	METERING JUNCTION BOX	SW	SWITCH
DI	DIGITAL INPUT (PLC)	NEC	NATIONAL ELECTRICAL CODE	T	TELEPHONE
DO	DIGITAL OUTPUT (PLC)	NEMA	NATIONAL ELECTRICAL MFR ASSOC.	TB	TERMINAL BOARD
EAG	ELECTRICALLY ACTIVATED GATE	NEUT	NEUTRAL	TC	TIME CLOCK
EAV	ELECTRICALLY ACTIVATED VALVE	NFDS	NON-FUSED DISCONNECT SWITCH	TD	TRENCH DUCT
EF	EXHAUST FAN	OCSS	OPEN/CLOSE SELECTOR SWITCH	TEB	TELEPHONE EQUIPMENT BACKBOARD
ESPB	EMERGENCY STOP PUSHBUTTON (MAINTAINED)	OL	OVERLOAD	TEMP	TEMPERATURE
ETT	ELAPSED TIME TOTALIZER	OOSS	ON/OFF SELECTOR SWITCH	TOR	THERMAL OVERLOAD RELAY
EWD	ELEMENTARY WIRING DIAGRAM	OS	OCCUPANCY SENSING	TR	TIMING RELAY
FDS	FUSED DISCONNECT SWITCH	OT	OVER TORQUE SWITCH	TSTAT	THERMOSTAT
FLA	FULL LOAD AMPERES	P	POLE	TVSS	TRANSIENT VOLTAGE SUPPRESSOR
FS	FLOW SWITCH	PB	PUSHBUTTON	UH	UNIT HEATER
FVC	FULL VOLTAGE CONTACTOR	PBC	PULLBOX-CONTROL	UON	UNLESS OTHERWISE NOTED
FVNR-1	FULL VOLTAGE NON-REVERSING STARTER SIZE 1	PBM	PULLBOX-METERING	UPS	UNINTERRUPTIBLE POWER SUPPLY
GFI	GROUND FAULT INTERRUPTER	PBP	PULLBOX-POWER	UTP	UNSHIELDED TWISTED PAIR
GND	GROUND	PC	PHOTO CONTROL	V	VOLTS
GFR	GROUND FAULT RELAY	PF	POWER FACTOR	VC	VOLUME CONTROL
HOA	HAND/OFF/AUTO SELECTOR SWITCH	PH	PHASE	VFD	VARIABLE FREQUENCY DRIVE
HP	HORSEPOWER	PLC	PROGRAMMABLE LOGIC CONTROLLER	VM	VOLT METER
HT	HIGH TORQUE SWITCH	PJB	POWER JUNCTION BOX	XP	EXPLOSION PROOF
HTR	HEATER	PP	POWER PANEL	XFMR	TRANSFORMER
Hz	HERTZ	PRI	PRIMARY	WP	WATERPROOF
		PS	PRESSURE SWITCH	ZS	LIMIT SWITCH

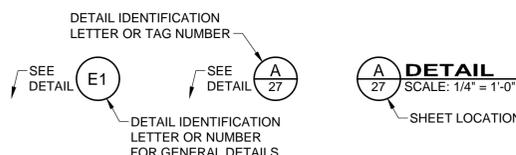
ELECTRICAL LINE SYMBOLOGY:

	CONDUIT AND WIRE RUN EXPOSED
	CONDUIT AND WIRE BELOW GRADE
	ELECTRIC LINE
	ELECTRIC LINE - OVERHEAD
	ELECTRIC LINE - UNDERGROUND
	ELECTRIC SERVICE
	ELECTRIC SERVICE - OVERHEAD
	ELECTRIC SERVICE - UNDERGROUND
	ELECTRIC LIGHTING - OVERHEAD
	ELECTRIC LIGHTING - UNDERGROUND
	ELECTRIC LINE
	ELECTRIC LINE - ABANDONED
	ELECTRIC LINE - OVERHEAD
	ELECTRIC LINE - UNDERGROUND
	ELECTRIC SERVICE
	ELECTRIC SERVICE - OVERHEAD
	ELECTRIC SERVICE - UNDERGROUND
	ELECTRIC LIGHTING - OVERHEAD
	ELECTRIC LIGHTING - UNDERGROUND
	ELECTRIC DUCT

ELECTRICAL CODED NOTES:

	NEW WORK - NOTE 1		DEMOLITION - NOTE 1		REVISION - NOTE 1
	NEW WORK - NOTE 1		DEMOLITION - NOTE 2		REVISION - NOTE 2
	NEW WORK - NOTE 1		DEMOLITION - NOTE 3		REVISION - NOTE 3

ELECTRICAL DETAIL REFERENCE:



ELECTRICAL GENERAL NOTES:

- ALL ELECTRICAL EQUIPMENT AND MATERIALS WILL BE SELECTED AND INSTALLED IN COMPLIANCE WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL FIRE CODES, INCLUDING BUT NOT LIMITED TO ALL PERTINENT NFPA REGULATIONS. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO ENSURE COMPLIANCE WITH THESE CODES.
 - DO NOT INSTALL DEVICES SCALED FROM THESE DRAWINGS. ALL DEVICES SHALL BE INSTALLED AT LOCATIONS SHOWN IN THE APPROVED CONDUIT/DEVICE LAYOUT DRAWINGS AND WITH DIMENSIONS TAKEN IN THE FIELD.
 - ELECTRICIAN TO VISIT SITE AND VERIFY ALL EXISTING CONDITIONS PRIOR TO BID.
 - NO DUCTWORK OR PIPING TO BE RUN ABOVE ELECTRICAL PANELS OR THROUGH ELECTRICAL EQUIPMENT ROOMS. ELECTRICIAN SHALL COORDINATE WITH ALL TRADES FOR EQUIPMENT LAYOUTS PRIOR TO ROUGH-IN OF ALL SYSTEMS.
 - MANUFACTURERS AND CATALOG NUMBERS SHOWN IN THE LIGHT FIXTURE SCHEDULE ARE PROVIDED TO INDICATE DESIRED LIGHT FIXTURE CHARACTERISTICS. IT IS THE INTENT OF THE DOCUMENTS TO ALLOW ALTERNATE MANUFACTURERS TO PROVIDE LIGHTING PRODUCTS FOR THE PROJECT, AS LONG AS PROPOSED ALTERNATES PROVIDE THE SAME GENERAL DESIGN AND LIGHTING CHARACTERISTICS AS NOTED IN THE LIGHT FIXTURE DESCRIPTION.
 - ELECTRICIAN TO CONFIRM LOCATIONS OF ALL ELECTRICAL EQUIPMENT AND ELECTRICAL CHARACTERISTICS OF PROCESS EQUIPMENT PROVIDED BY OTHER TRADES PRIOR TO INSTALLING ROUGH-INS AS SHOWN ON THE ELECTRICAL PLANS. ALL SHOP DRAWING REQUIREMENTS WILL BE CONSIDERED AS THE MEANS AND METHODS OF INSTALLATION.
 - THIS PROJECT INVOLVES WORK AT AN INDUSTRIAL FACILITY (ELEVATED WATER TANK) AND THE CONTRACTOR IS EXPECTED TO PROVIDE CRAFTSMANSHIP REFLECTING THE NATURE OF THE FACILITY. CONDUITS IN PROCESS AREAS ARE TO BE SURFACE MOUNTED RIGID GALVANIZED STEEL (RGS). ALL CONDUITS ENTERING OR LEAVING A MOTOR CONTROL CENTER, CONTROL PANEL, VALVE ACTUATOR, INSTRUMENT, A BUILDING, OR A PANELBOARD SHALL BE MADE WATER-TIGHT USING AN INFLATABLE SEALED BLADDER DUCT SEALING SYSTEM, RAYCHEM RAYFLATE DUCT SEALING SYSTEM RDSS OR APPROVED EQUAL. ALL HARDWARE IS TO BE STAINLESS STEEL UNLESS OTHERWISE DIRECTED.
- ALL ENCLOSURES ARE TO BE RATED AS FOLLOWS:**
- OUTDOORS: NEMA 4X (STAINLESS STEEL)
 - INDOORS (CORROSIVE AREAS): NEMA 4X (STAINLESS STEEL), UNLESS OTHERWISE NOTED
 - INDOORS (CONTROLLED ENVIRONMENT) NEMA 12, UNLESS OTHERWISE NOTED
- ELECTRICIAN SHALL REVIEW ALL OTHER TRADES' CONSTRUCTION DOCUMENTS AND/OR COORDINATE WITH OTHER TRADES AND VERIFY IF THERE ARE ANY ADDITIONAL ELECTRICAL REQUIREMENTS NOT SHOWN ON ELECTRICAL DRAWINGS. COST FOR WORK SHOWN ON OTHER TRADES' DRAWINGS SHALL BE INCLUDED IN BASE BID. ALL FIELD WIRING AND TERMINATIONS OF PROCESS EQUIPMENT AND INSTRUMENTATION AND CONTROLS SHALL BE THE RESPONSIBILITY OF THE ELECTRICIAN. ALL CABLES AND WIRES PROVIDED BY VENDORS SHALL BE INSTALLED AND TERMINATED BY THE ELECTRICIAN. WIRE ALL MISCELLANEOUS POWER AND CONTROLS AS REQUIRED TO PROVIDE A COMPLETE FUNCTIONING SYSTEM
 - A 4-20mA SIGNAL IS AN ANALOG SIGNAL USED TO TRANSMIT DATA (LEVEL, FLOW, ETC.) FOR PROCESS CONTROLS. THE ELECTRICIAN SHALL PROVIDE, INSTALL, AND TERMINATE SHIELDED TWISTED PAIRS (STP) WIRING IN RIGID GALVANIZED STEEL CONDUIT (RGS). RGS IS USED IN AN ATTEMPT TO REDUCE THE DISTORTION AFFECT FROM EMI AND RFI. BELOW GRADE CONDUITS SHALL BE PVC SCHED-40. PARALLEL RUNS OF DATA CONDUITS AND POWER CONDUITS SHALL BE SEPARATED BY 2 FEET. THE STP SHIELD SHALL BE GROUNDED AT THE CONTROL PANEL ONLY (DO NOT GROUND AT BOTH ENDS).
 - THE ELECTRICIAN SHALL BE RESPONSIBLE FOR LAYOUT AND COORDINATION OF OPENINGS AND CHASES AND SHALL PERFORM ALL CUTTING AND PATCHING AS REQUIRED TO INSTALL THEIR WORK. ALL CONCRETE HOUSE KEEPING PADS SHALL BE FRAMED AND POURED BY THE ELECTRICIAN. PADS SHALL HAVE A 45 DEGREE, 1" CHAMFER AROUND UPPER EDGE.
 - THE ELECTRICIAN SHALL INSTALL & DISTRIBUTE TEMPORARY POWER SERVICE FOR THE DURATION OF THIS PROJECT AS DEFINED IN DIVISION 1 SPECIFICATIONS. ALL COSTS ASSOCIATED WITH THE INSTALLATION, DISTRIBUTION AND MAINTENANCE OF THE TEMPORARY POWER IS THE RESPONSIBILITY OF THE ELECTRICIAN. THERE SHALL BE 120/240V, 1PH, 3W POWER AVAILABLE AT ALL LOCATIONS OF CONSTRUCTION AS DIRECTED IN FIELD AND AS SPECIFIED. ALL TEMPORARY EQUIPMENT, CONDUITS & CONDUCTORS SHALL BE COMPLETELY REMOVED AT COMPLETION OF PROJECT.
 - ALL ELECTRICAL EQUIPMENT, DEVICES, LIGHTING FIXTURES, CONDUIT, AND WIRING SHOWN ON THE ELECTRICAL DRAWINGS IS NEW UNLESS CLEARLY CALLED OUT AS EXISTING. ALL EXISTING ELECTRICAL EQUIPMENT THAT IS CALLED OUT TO BE REUSED SHALL BE INSPECTED IN THE FIELD BY THE ELECTRICIAN AND THE CONSTRUCTION MANAGER TO DETERMINE ITS CONDITION PRIOR TO STARTING ANY WORK. PROVIDE DOCUMENTATION TO OWNER INDICATING CONDITION OF THE EXISTING EQUIPMENT, AND REUSE EXISTING EQUIPMENT ONLY IF ALL PARTIES AGREE THE CONDITION IS ACCEPTABLE. ALL EXISTING EQUIPMENT DETERMINED TO BE UNUSABLE SHALL BE REPLACED WITH LIKE KIND AS DIRECTED BY THE OWNER. ANY OF THE OWNERS EQUIPMENT DETERMINED TO BE REUSED THAT IS DAMAGED BY ANY CONTRACTOR DURING SWITCHOVER SHALL BE REPLACED BY THAT CONTRACTOR. ALL EXISTING EQUIPMENT IS THE PROPERTY OF THE OWNER (NOT THE CONTRACTOR) AND SHALL BE TREATED ACCORDINGLY.
 - THE ELECTRICIAN SHALL BE HELD RESPONSIBLE TO ENSURE ALL CONTROLLERS TO BE INSTALLED ARE CAPABLE OF LOCKOUT / TAGOUT PRIOR TO INSTALLATION.
 - CONFORM TO THE NEC, OSHA, FIRE MARSHAL, BUILDING DEPARTMENT AND OTHER APPLICABLE CODES AND REGULATIONS. OBTAIN PERMITS, PAY ALL FEES, AND ARRANGE FOR REQUIRED INSPECTIONS.
 - ALL LIGHTING AND RECEPTACLE WIRING TO BE #12 XHHW WITH EQUIPMENT GROUND IN 3/4" C UNLESS OTHERWISE NOTED.
 - DO NOT MOUNT ANY LIGHT FIXTURE DIRECTLY OVER PIPING OR EQUIPMENT THAT WILL INTERFERE WITH NORMAL LIGHTING DISTRIBUTION.
 - SIZE JUNCTION BOXES AS REQUIRED PER NEC. PROVIDE BARRIER TYPE TERMINAL STRIPS, AND ALL WIRING TO BE IN CONDUIT.
 - PROVIDE SEPARATE PB'S FOR CONTROL AND POWER.
 - MOTOR OVERLOAD SETTING SHALL BE FIELD SELECTED PER MOTOR NAME PLATE CURRENT AND INSTALLED ACCORDINGLY.
 - MOUNT LOCAL CONTROLS AND SERVICE DISCONNECTS ON WALL NEAREST EQUIPMENT WHERE POSSIBLE. (MAXIMUM 60" ABOVE FINISHED FLOOR OR FINAL GRADE, MAXIMUM LATERAL DISTANCE FROM WALL TO EQUIPMENT - 10 FEET).
 - ALL FEEDERS RUN BELOW GRADE SHALL BE RUN IN PVC CONDUIT AT MINIMUM 3'-0" BELOW FINISHED GRADE. TRANSITION TO ABOVE GRADE SHALL BE MADE USING FACTORY PVC COATED RIGID STEEL CONDUIT SWEEPS.

BID SET

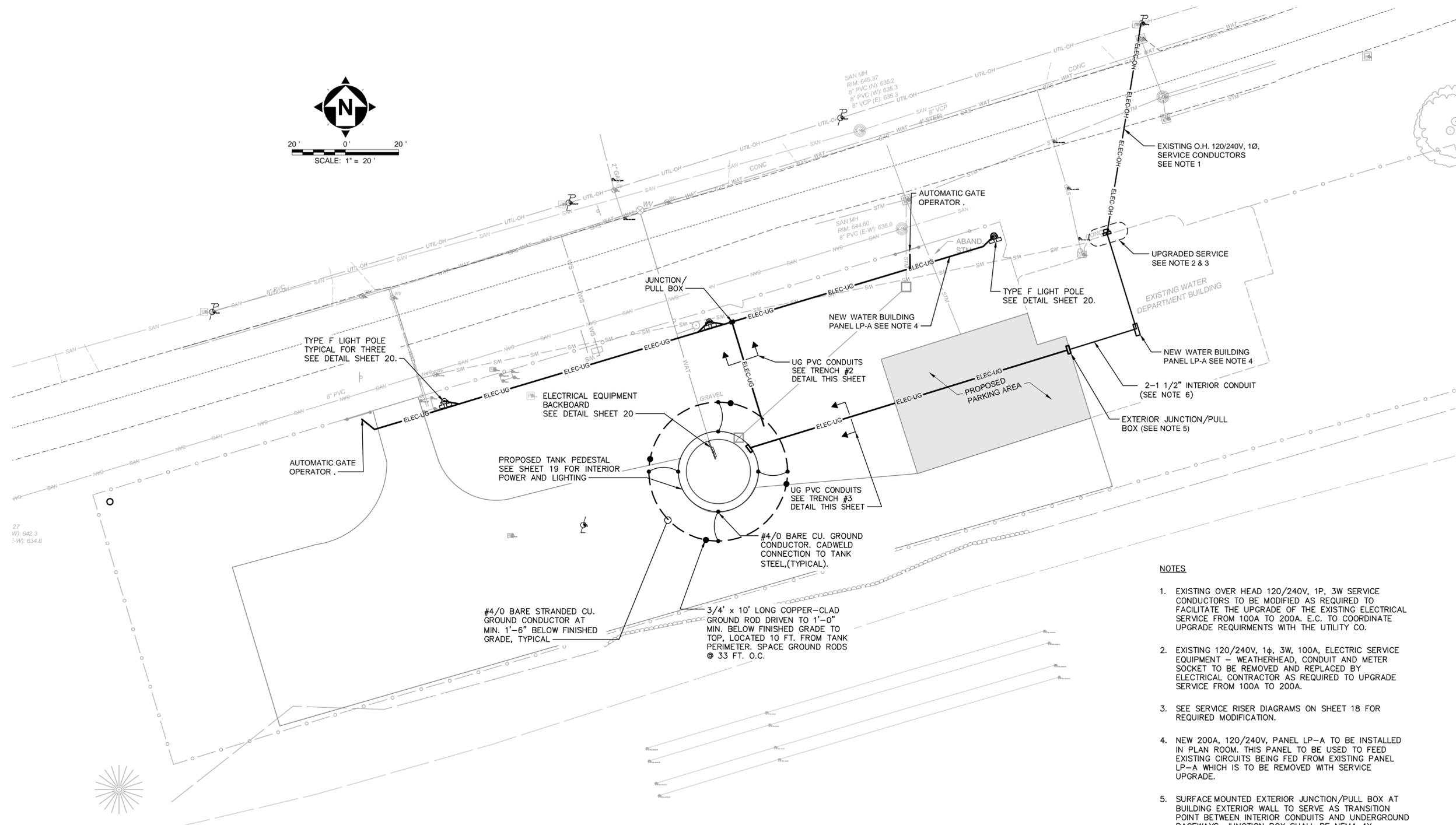
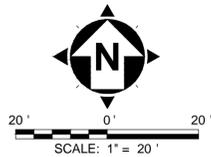
verdantas

8150 STERLING COURT
MENTOR, OHIO 44060
(440) 951-9000

DATE	
REVISION	
NO	
ISSUED FOR:	
ISSUE DATE:	10/16/24
SCALE:	AS NOTED
DESIGNED BY:	ELE
DRAWN BY:	ELE
CHECKED BY:	Value

CITY OF CONNEAUT
CLARK STREET
WATER TANK REPLACEMENT
CONNEAUT, OHIO
ASHTABULA COUNTY
ELECTRICAL - E SERIES
GENERAL NOTES & LEGEND

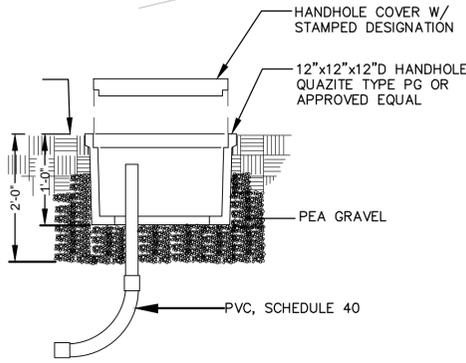
PROJECT NO.	241249
DISCIPLINE	ELECTRICAL
SHEET NAME	20-E-01
SHEET	16
OF	20



NOTES

- EXISTING OVER HEAD 120/240V, 1P, 3W SERVICE CONDUCTORS TO BE MODIFIED AS REQUIRED TO FACILITATE THE UPGRADE OF THE EXISTING ELECTRICAL SERVICE FROM 100A TO 200A. E.C. TO COORDINATE UPGRADE REQUIREMENTS WITH THE UTILITY CO.
- EXISTING 120/240V, 1φ, 3W, 100A, ELECTRIC SERVICE EQUIPMENT - WEATHERHEAD, CONDUIT AND METER SOCKET TO BE REMOVED AND REPLACED BY ELECTRICAL CONTRACTOR AS REQUIRED TO UPGRADE SERVICE FROM 100A TO 200A.
- SEE SERVICE RISER DIAGRAMS ON SHEET 18 FOR REQUIRED MODIFICATION.
- NEW 200A, 120/240V, PANEL LP-A TO BE INSTALLED IN PLAN ROOM. THIS PANEL TO BE USED TO FEED EXISTING CIRCUITS BEING FED FROM EXISTING PANEL LP-A WHICH IS TO BE REMOVED WITH SERVICE UPGRADE.
- SURFACE MOUNTED EXTERIOR JUNCTION/PULL BOX AT BUILDING EXTERIOR WALL TO SERVE AS TRANSITION POINT BETWEEN INTERIOR CONDUITS AND UNDERGROUND RACEWAYS. JUNCTION BOX SHALL BE NEMA 4X, FIBERGLASS REINFORCED POLYESTER (FRP) ENCLOSURE SUITABLE FOR WET LOCATIONS, COMPLETE WITH GASKETED COVER AND STAINLESS STEEL HARDWARE
- (2) 1 1/2" INTERIOR CONDUIT W/ PANEL LP-B FEEDERS AND COMMUNICATION WIRING OR PULL WIRE FOR FUTURE COMMUNICATIONS Recommended Drawing Note

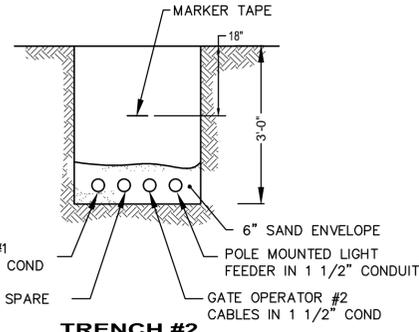
PULL BOXES:
Provide pull boxes where required for underground conduit runs to facilitate conductor installation. Size pull boxes in accordance with NEC requirements based on the largest conduit entering the box and the number of conduits. Minimum pull box size shall be 12" x 12" x 12" unless otherwise noted. Provide larger pull boxes where required by conductor bending radius or pull length. Install pull boxes flush with finished grade and rated for traffic loading where located in paved areas.



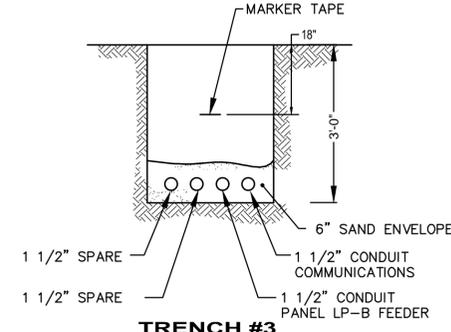
HANDHOLE DETAIL
NOT TO SCALE

CONSTRUCT TRENCH #2 IN CONFORMANCE WITH UTILITY SPECIFICATIONS. PLACE SAND ENVELOPE BED AND TRACER TAPE. BACKFILL AND RESTORE TRENCH.

WHERE CONDUITS PASS BENEATH DRIVE WAY, ENCASE CONDUIT IN 3" CONCRETE ENVELOPE ALL AROUND AND EXTEND CONCRETE ENCASEMENT TO 2'-0" BEYOND EDGE OF DRIVE WAY.



TRENCH #2



TRENCH #3

CONDUIT TRENCH DETAILS
NOT TO SCALE

NO	REVISION	DATE

ISSUED FOR: PROJECT NO. 241249
 ISSUE DATE: 10/16/24 DISCIPLINE: ELECTRICAL
 SCALE: AS NOTED SHEET NAME: 20-E-02
 DESIGNED BY: ELE SHEET NO. OF 17 OF 20
 DRAWN BY: ELE
 CHECKED BY: Value

CITY OF CONNEAUT
 CLARK STREET
 WATER TANK REPLACEMENT
 CONNEAUT, OHIO
 ASHTABULA COUNTY
 ELECTRICAL - E SERIES
 SITE PLAN

