

CHECKING PRINT

CHECKED: _____ DATE: _____ CORRECTED: _____ DATE: _____

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ITEM 680 – COMPLETE WASTE TREATMENT SYSTEM

- THE FOLLOWING ARE ABBREVIATED SPECIFICATIONS. ALL ITEMS NECESSARY FOR A COMPLETE, OPERABLE JOB THAT MEETS INDUSTRY STANDARDS (TO THE SATISFACTION OF THE OWNER) AND EPA STANDARDS WHETHER SHOWN OR IMPLIED SHALL BE HELD AS THE RESPONSIBILITY OF THIS CONTRACTOR.
- THIS CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL AND EQUIPMENT NECESSARY TO INSTALL ALL COMPONENTS OF THE SEPTIC SYSTEM AS SHOWN OR IMPLIED ON THE DRAWINGS AND PROVIDE A COMPLETE OPERATIVE SYSTEM TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS, LICENSES AND INSPECTIONS INCIDENTAL TO WORK UNDER THIS CONTRACT. WHEN THE WORK IS COMPLETED, THE REQUIRED CERTIFICATES OF APPROVAL SHALL BE FURNISHED TO THE OWNER. THE EPA PERMIT TO INSTALL WILL BE OBTAINED BY THE OWNER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL NECESSARY CUTTING, SUBSEQUENT REPAIR AND REQUIRED BACKFILL OF ANY AREA DAMAGED TO THE SATISFACTION OF THE OWNER.
- THE CONTRACTOR SHALL VISIT THE SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING HIS WORK. NO EXTRAS WILL BE PERMITTED FOR LACK OF KNOWLEDGE OF EXISTING CONDITIONS. PAY QUANTITIES FOR WORK SHALL BE BASED ON FIELD MEASURED CONDITIONS.
- INSTALLATION MUST BE COORDINATED WITH ALL OTHER TRADES. COORDINATE SHUTDOWN TIMES AND WORKING HOURS WITH THE OWNER, INCLUDING OFF HOURS, WEEKEND AND HOLIDAY WORK AS REQUIRED.
- THE CONTRACTOR SHALL FURNISH THE OWNER WITH A WRITTEN GUARANTEE TO PROMPTLY REMEDY ALL DEFECTS WITHOUT CHARGE FOR A PERIOD OF ONE YEAR AFTER FINAL ACCEPTANCE AND INSPECTION.
- DAILY CLEAN-UP AND FINAL CLEAN-UP SHALL BE PERFORMED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER.
- CONTRACTOR MUST BE LICENSED IN THE STATE AND COUNTY OF THE PROJECT SITE. A P.E. REGISTERED IN THE STATE OF OHIO IS REQUIRED TO BE ON-SITE DURING CONSTRUCTION.
- ALL ROAD SURFACES, LAWNS, APRONS, SHOULDERS, DRIVES, EASEMENTS OR RIGHT-OF-WAYS DISTURBED BY CONSTRUCTION OF ANY PART OF THIS IMPROVEMENT ARE TO BE RESTORED COMPLETELY TO THE BEFORE CONSTRUCTION CONDITION OR BETTER BEFORE ACCEPTANCE OF WORK BY THE OWNER.
- THE PRICE BID IS FOR ALL PIPE, TANKS, PUMP STATIONS, CONTROLS, ELECTRICAL SERVICE, FILTERS ETC. IN PLACE REGARDLESS OF SOIL, ROCK OR GROUNDWATER CONDITIONS.
- ALL WORK COMPLETED UNDER THIS CONTRACT SHALL COMPLY WITH THE U.S. DEPARTMENT OF LABOR AND OCCUPATIONAL SAFETY AND HEALTH ACT AS WELL AS LOCAL REGULATIONS.
- ALL ELEVATIONS AND DISTANCES ARE BELIEVED TO BE ACCURATE. HOWEVER, THE CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL INFORMATION SHOWN ON THE DRAWINGS. THE CONSTRUCTION OF THIS PROJECT MAY INCLUDE MINOR FIELD REVISIONS. COORDINATE ADJUSTMENT OF PROPOSED INFRASTRUCTURE WITH THE OWNER'S ON-SITE REPRESENTATIVE.
- THE CONTRACTOR SHALL STAKE AND ESTABLISH CONTROL FOR THE LOCATION OF ALL SEPTIC SYSTEM COMPONENTS, AND SHALL INCLUDE THESE COSTS IN HIS BID.
- THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE AT ALL TIMES AND SHALL BACKFILL AND/OR GRADE AREAS SO AS TO ELIMINATE THE PONDING OF WATER.
- ANY DEFECTS DISCOVERED IN CONSTRUCTION, WORKMANSHIP, OR MATERIALS SHALL BE REPLACED, REPAIRED OR CORRECTED BY APPROVED METHODS AS DIRECTED BY THE OWNER PRIOR TO ACCEPTANCE.
- ALL POINTS OF CONNECTION OF PROPOSED IMPROVEMENTS TO EXISTING IMPROVEMENTS SHALL BE UNCOVERED AND ELEVATIONS VERIFIED BY FIELD CHECK BEFORE ANY CONSTRUCTION BEGINS.
- ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION ARE TO BE PROTECTED AND/OR HELD IN PLACE, IF DAMAGED THEY ARE TO BE COMPLETELY RESTORED TO THE SATISFACTION OF THE OWNER AT THE EXPENSE OF THE CONTRACTOR.
- AS THE CONTRACTOR ENCOUNTERS UTILITIES HE SHALL IMMEDIATELY NOTIFY THE FIELD REPRESENTATIVE AND TAKE THE NECESSARY AND PROPER STEPS TO PROTECT THE FACILITY AND ASSURE/RESTORE THE CONTINUANCE OF SERVICE.
- THE CONTRACTOR MUST ALERT OUPS AT 1-800-362-2764 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION. NON-MEMBER UTILITIES MUST BE CONTACTED DIRECTLY. NO UTILITIES ARE KNOWN TO EXIST WITHIN THE LIMITS OF CONSTRUCTION.

21. PRESERVATION OF VEGETATION SHALL TAKE PRECEDENCE OVER REMOVAL. CONTRACTOR TO REVIEW CLEARING LIMITS WITH OWNER PRIOR TO REMOVAL. REMOVE ONLY THOSE TREES AND SHRUBS NECESSARY TO COMPLETE CONSTRUCTION.

22. ANY DITCHES DISTURBED BY THE INSTALLATION OF THE SEPTIC SYSTEM SHALL BE LINED WITH 4' WIDE EXCELSIOR MATTING.

STORM WATER / EROSION CONTROL

- TEMPORARY WATER POLLUTION, SOIL EROSION AND SILTATION CONTROL WILL BE REQUIRED.
- SILT-FREE DEWATERING FLOWS WILL BE DISCHARGED DIRECTLY TO STABILIZED SITES SUCH AS STREAMS OR STORM SEWERS, NOT ONTO EXPOSED SOILS OR ANY OTHER SITE WHERE FLOWS COULD CAUSE EROSION.
- INLET FILTERS SHALL BE INSTALLED AROUND ALL STORM SEWER CATCH BASINS, TO PREVENT SILTATION.
- STOCKPILED TOPSOIL AND FILL MATERIALS WILL BE PROTECTED FROM EROSION BY COVERING, TEMPORARY SEEDING, OR SURROUNDING WITH EROSION CONTROL BARRIERS.
- NO TOPSOIL, FILL, OR HEAVY CONSTRUCTION EQUIPMENT WILL BE STORED WITHIN 50 FEET OF THE RIVER OR SWALES.
- CONTOURS IN ALL DISTURBED AREAS WILL BE RESTORED IN A MANNER THAT MAINTAINS EXISTING DRAINAGE PATTERNS FOLLOWED BY SEEDING AND MULCHING. IF, DUE TO WEATHER, FINAL GRADING CANNOT BE ACCOMPLISHED IMMEDIATELY, TEMPORARY SEEDING, WITHIN THIRTY DAYS WILL BE USED UNTIL FINAL RESTORATION CAN OCCUR.
- SILT FENCE SHALL BE PLACED AT ALL DITCHES/OUTFALLS. WHERE DITCHES ARE DISTURBED DUE TO THE INSTALLATION OF THE SEPTIC SYSTEM, SILT FENCE CHECK DAMS SHALL BE INSTALLED TO REDUCE EROSION OF THE DITCH UNTIL GRASS IS ESTABLISHED.

LAYOUT

THE CONTRACTOR SHALL FIELD STAKE ALL COMPONENTS OF THE SYSTEMS FOR APPROVAL BY THE OWNER PRIOR TO ANY EXCAVATION, TRENCHING OR OTHER WORK BEGINS.

SEPTIC SYSTEM NOTES

- APPROVAL BY THE OWNER AND/OR THEIR REPRESENTATIVE CONSTITUTES NEITHER EXPRESSED NOR IMPLIED WARRANTIES AS TO THE FITNESS, ACCURACY, OR SUFFICIENCY OF PLANS, DESIGNS, OR SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND COMPLYING WITH ALL PERMITS, PERFORMANCE BONDS, INSPECTIONS, OR SPECIAL PROVISIONS REQUIRED BY THE OHIO EPA.
- EXCAVATION OUTSIDE NORMAL PAY LIMITS SHALL NOT BE COMMENCED WITHOUT APPROVAL OF THE OWNER.
- THE CONTRACTOR SHALL PROVIDE TO THE OWNER AND TO THE OHIO EPA A SET (TWO SETS TOTAL) OF AS-BUILT DRAWINGS WITH THE LOCATIONS OF ALL COMPONENTS OF THE SEPTIC SYSTEM AND ALL OTHER UNDERGROUND UTILITIES ENCOUNTERED FOR THE ENTIRE PROJECT. NO SEPARATE PAYMENT SHALL BE MADE FOR THIS WORK.
- COST OF ANY SHEETING OR DEWATERING NECESSARY FOR INSTALLATION OF THE SEPTIC SYSTEM SHALL BE INCLUDED IN PRICE BID OF RESPECTIVE ITEMS.
- NOTIFY OWNER ONE (1) WEEK PRIOR TO STARTING CONSTRUCTION. NOTIFY THE OHIO EPA 48 HOURS BEFORE STARTING CONSTRUCTION.
- FOUR (4) SETS OF SHOP DRAWINGS OF ALL MATERIALS SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL PRIOR TO PURCHASE.
- THE CONTRACTOR MUST MAINTAIN A 10-FOOT MINIMUM HORIZONTAL CLEARANCE FROM THE OHIO TURNPIKE INTERSTATE 80 L/A.
- ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SEPTIC SYSTEM ARE PROHIBITED.
- MINIMUM SANITARY SEWER SLOPE OF 1% TO BE MAINTAINED AT ALL TIMES UP TO THE EVAPO-TRANSPIRATION FIELD. THE MAXIMUM ALLOWABLE SLOPE FOR THE EVAPO-TRANSPIRATION FIELD SHALL BE 0.50%.
- THE CONTRACTOR SHALL SCHEDULE INSPECTION WITH REGULATORY AGENCIES SUCH THAT WORK PROGRESS IS NOT AFFECTED BY INSPECTION REQUIREMENTS.

SEPTIC TANK

SEPTIC TANK SHALL BE AS SHOWN IN THE GENERAL DETAILS. THE SIDES AND BOTTOM SHALL BE CONSTRUCTED OF 6" THICK, 4000 PSI CONCRETE. TANK SHALL HAVE TWO 18" RISERS AND COVERS EXTENDED TO THE SURFACE. WHERE INLET AND OUTLET PIPES CONNECT TO THE SEPTIC TANKS, A FLEXIBLE WATERTIGHT JOINT IS REQUIRED. FLEXIBLE CONNECTIONS SHALL MEET ASTM C-923. SEPTIC TANKS SHALL APPLY WITH ASTM C1227-05.

DOSING TANK PUMP STATION

THE SEPTIC TANK EFFLUENT PUMP STATION SHALL BE A DUPLEX PUMP STATION WITH A GOULDS, ZOLLER, BARNES PUMP OR AN APPROVED EQUAL. THE OPERATING POINT SHALL BE 16' TDH @ 60 GPM. THE PUMPS SHALL HAVE CAST IRON HOUSING AND IMPELLERS WITH A STAINLESS STEEL SHAFT AND FITTINGS. THE PUMP CONTROL PANEL SHALL BE DUPLEX WITH AN HOA SWITCH AND RUN LIGHTS. PUMPS SHALL ALTERNATE OPERATION. A HIGH WATER FLOAT AND ALARM WITH LIGHT SHALL BE INCLUDED. NO WIRE JUNCTIONS ARE ALLOWED INSIDE OF THE WET WELL. THE CONTROL PANEL SHALL BE NEMA 3R. VOLTAGE TO BE 230 V, 1Ø. THE CONTRACTOR IS REQUIRED TO INSTALL ELECTRICAL SERVICE TO THE DOSING TANK. THE FORCEMAINS WITHIN THE DOSING TANK AND RISER SHALL BE SECURED TO THE SIDE OF THE TANK USING STAINLESS STEEL BRACKETS. VERTICAL FORCEMAIN PIPING WITHIN THE RISER SHALL EXTEND WITHIN 18" OF THE TOP OF THE TANK TO ALLOW THE PIPING TO BE DISCONNECTED AND THE PUMPS PULLED TO THE SURFACE.

PIPING

ALL TRENCHING AND PIPING SHALL BE INSTALLED AS SHOWN IN THE TRENCH DETAIL. ALL PIPING SHALL HAVE A MINIMUM COVER OF 3'-6".


SEPTIC SYSTEM GRAVITY FLOW PIPING SHALL BE PVC SDR 35 ASTM D3034 WITH GASKETED JOINTS PER ASTM D-3212 . BEDDING SHALL COMPLY WITH ASTM D-2321, CLASS I. PIPING SHALL BE CONSTRUCTED AT NO LESS THAN A 1% GRADE UNLESS OTHERWISE NOTED ON IN THE PLANS AND DETAILS.

THE FORCE MAIN IS TO BE ASTM D-2241 PVC SDR 21 WITH PUSH-ON JOINTS PER ASTM D-3139 AND ASTM 2321, CLASS 1 BEDDING. THE 4" FORCEMAIN SHALL BE SLOPED TO DRAIN BACK TOWARDS TO THE DOSING TANK.

CONTROL PANEL

THE CONTROL PANEL FOR THE DUPLEX PUMPING SYSTEM SHALL HAVE A VISUAL-TYPE ALARM. THE EXACT LOCATION OF THE CONTROL PANEL WILL BE DETERMINED IN THE FIELD BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR EXTENDING ELECTRICAL SERVICE AND CONTROL WIRING TO (AND BETWEEN) THE PUMPS AND CONTROL PANEL AS NEEDED.

DESIGN AGENCY



BY DATE
LAA 7/16/20
MLE 7/28/20

REVISIONS

NO.	ADDENDUM #1	ADDENDUM #2
1		
2		

DESIGNED

ME

DRAWN

RM

WSTS GENERAL NOTES

PROJECT 39-20-03A

DATE: 5/22/2020

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OHIO TURNPIKE

OHIO TURNPIKE AND INFRASTRUCTURE COMMISSION

OHIO TURNPIKE