MICHIGAN

DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

FOR

**PRECAST CONCRETE SURGE TANK**

UTL:CJD 1 of 2 APPR:DMG:NJM:03-29-22

**a. Description.** This work consists of furnishing and installing a 5000-gallon precast concrete septic tank for use as surge capacity, as shown on the plans, including the manhole frames and covers, secondary fall through protection, grade adjusting rings, PVC connection pipes and fittings, and all excavation, bedding, backfill, compaction, and dewatering as necessary to complete the installation.

Ensure the precast concrete surge tank is in accordance with all state and local regulations which apply to construction, installation, and use in a septic system.

**b. Materials.** Ensure the precast concrete surge tank is rated at a minimum of 5000 gallons and constructed of precast concrete segments free of interior lateral or other bracing, as manufactured by Advance Concrete Products Company, Kerkstra Precast, Inc., Norwalk Concrete Industries or Engineer approved equal. Ensure the surge tank is certified to meet HS-20 loading by a Professional Engineer licensed in the State of Michigan.

Furnish Schedule 40 PVC pipe in accordance with *ASTM D2665* for the equalization pipe to the proposed dosing tank. Pipe connections to tanks must utilize cast-in connectors or boot connectors as approved by the Engineer.

Furnish manhole frames and covers in accordance with the Standard Plan R-18 Series, Cover Q.

Furnish secondary fall through protection system compatible with the manhole riser and bolt down cover Type Q. Ensure the secondary protection system is Sim/Tech Filter Safety Net, Polylok Safety Screen, or Engineer approved equal.

Furnish granular material Class IIIA for bedding in accordance with section 902 of the Standard Specifications for Construction. Ensure the bedding material is from a natural source. The use of fine material generated from recycled crushed concrete is prohibited.

**c. Construction.** Place surge tank on firm and compacted soil capable of bearing the weight of the tank and its contents. Set the tank level on a layer of six-inch thick bedding material comprised of granular material Class IIIA compacted to 95 percent of the maximum unit weight. Ensure excavation and backfill is in accordance with sections 206, 402, and 902 of the Standard Specifications for Construction.

Minimize disturbance to the existing ground and avoid damage to existing vegetation.

Fill the surge tank with water and monitor for leakage for 48 hours before backfilling. No leakage is allowed. If leakage is discovered ensure the tank is repaired and retested or replaced at no cost to the contract. If a tank is replaced due to leakage the replacement is subject to leakage testing.

Submit shop drawings in PDF for all appurtenances associated with the concrete surge tank. Ensure shop drawings are reviewed and approved prior to beginning work on the concrete surge tank.

**d. Measurement and Payment.** The completed work, as described, will be measured and paid for at the contact unit price using the following pay item:

**Pay Item Pay Unit**

Conc Surge Tank, 5000 Gallon Each

**Conc Surge Tank, 5000 Gallon** includes installing the 5000-gallon precast concrete septic tank for use as surge capacity. All manhole frames and covers, secondary fall through protection, grade adjusting rings, PVC connection pipes and fittings, excavation, bedding, backfill, compaction, and dewatering will not be paid for separately but is included in the pay item **Conc Surge Tank, 5000 Gallon.**