MICHIGAN

DEPARTMENT OF TRANSPORTATION

SPECIAL PROVISION

FOR

**BYPASS PUMPING**

JAK:JRP 1 of 2 APPR:DMG:KSH:09-09-21

**a. Description.** This work consists of installing, maintaining, and removing a temporary bypass pumping system at the locations as determined by the Contractor to divert existing stream flow during construction where and when necessary. Temporary bypass pumping will be required to operate 24 hours a day, 7 days a week for the required duration.

**b. Materials.** Furnish materials in accordance with sections 208, 401, and 818 of the Standard Specifications for Construction and as specified herein.

**c. Construction.** Conduct the work in accordance with the standard specifications and as detailed herein. Submit a detailed bypass pumping plan in PDF to the Engineer for review and approval 10 days prior to starting the work. No work can begin until approval of the bypass pumping plan is approved by the Engineer.

Size the pumps to accommodate a minimum flow for a 10-year storm event. Bypass pumping is required for, but not limited to, Pahl Drain as listed below:

Pahl Drain 98 cubic feet per second

Flow information for additional culvert crossing locations will be made available upon request.

The plan must include, but not limited to, the following:

1. Staging areas for pumps;

2. Culvert plugging method and types of plugs;

3. Temporary wet wells as needed;

4. Number, size and location of pumps and piping;

5. Standby power generator size and location;

6. Downstream discharge plan;

7. Method of noise control for each pump and/or generator;

8. Schedule for installation, operation, maintenance and removal of system;

9. Coordination with the proposed construction activities;

10. Contingency plan for inadvertent system shutdown including 24 hours a day emergency contact.

11. Soil erosion and sedimentation control measures to be implemented, including during high flow events where bulkheads may be partially or fully removed to maintain flow without allowing sediment to be released into downstream creeks and rivers.

Ensure all pumps are fully automatic self-priming units that do not require the use of foot-valves or vacuum pumps in the priming system. The pumps may be electric, or diesel powered.

Maintain at least one stand-by pump of each size on site.

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

**Pay Item** **Pay Unit**

Bypass Pumping Lump Sum

**Bypass Pumping** includes designing, furnishing, installing, maintaining, and removing the required materials, supplies, and equipment needed to implement a temporary bypass pumping system for the purpose of diverting the existing flow around the portions of the project which require such a temporary bypassing system.