

205-R-740 PUMP AROUND

*(Adopted 09-16-21)***Description**

This work shall consist of furnishing, installing, and maintaining a pump around in accordance with 105.03.

The pump around shall be part of the temporary stormwater control plan and shall be constructed with the other temporary stormwater control measures in accordance with 205.

Materials

Materials shall be in accordance with 205.02.

The pump around dikes shall be constructed of non-erodible materials. Sandbag dikes shall be covered with impervious plastic sheeting, placed on the open channel side of the dikes. Sheet piling shall be watertight. Pump around and dewatering hoses shall be made of impervious material.

Construction Requirements

The Contractor may use an alternate method for the channel work as shown on the plans, pending the approval of the Engineer. If an alternate method is proposed, the Contractor shall make the appropriate permit application or amendment.

Traversing the channel reach with equipment within the work area where no work is proposed shall be avoided. If equipment is required to traverse such a reach for access to another area, timber mats or similar measures shall be used to minimize disturbance to the channel. A temporary channel crossing shall be used only when necessary and as approved.

The stormwater control measures adjacent to the channel area shall be installed before construction on the pump around can begin. All work shall stay within the construction limits. Disturbance within that area shall be minimized.

Work shall not be conducted during rain events.

Pump Around

The pump around shall be in accordance with the following:

Dewatering of the channel shall be performed by using a mechanical pump. The intake suction hose shall be floated as long as possible to prevent the pump from pulling sediment from the bottom of the pooled area.

Sandbag dikes shall be installed at the upstream and downstream ends of the work area as shown in the details, and the channel flow shall be pumped around the work area. The pump shall discharge onto a stable velocity dissipater consisting of riprap or sandbags or other approved medium.

Water trapped within the work area shall be pumped to a sediment filtering measure such as a dewatering basin, filter bag, or other approved device. The sediment filtering measure shall be located such that the water drains back into a stabilized area and into the channel below the downstream dike.

Dewatering Filter Bag

A dewatering filter bag shall be securely connected to the end of the discharge hose.

The dewatering filter bag shall be a single-use or reusable type of bag and shall be constructed of non-woven, polypropylene geotextile material. The bag shall have the following minimum specifications:

Permittivity - 1.4 sec^{-1}
 Grab Tensile - 205 lbs
 Weight - 8 oz/sq yd
 Apparent Opening Size - 80 US Sieve.

The dewatering filter bag shall be placed on a flat surface and on riprap or sandbags to help increase the flow through the dewatering bag and help dissipate the velocity.

Water shall be pumped from the channeled area at a rate not to exceed the maximum manufacturer's recommended flow rate of the dewatering filter bag.

Dewatering filter bags shall be placed in a location in which runoff from the bag will pass through additional sediment control measures prior to leaving the site.

Following the completion of the dewatering, the sediment accumulated within the dewatering filter bag shall be removed from the bag and placed in an upland area.

Maintenance and Inspection

The diversion measures shall be inspected within 24 hours of each rainfall event and at least once every seven calendar days. The sediment and debris from the channel or upstream clean water dike shall be removed. The dikes shall be repaired as needed. All outlets shall be checked and repaired as needed to prevent washouts. The dewatering filter bag shall be checked and cleaned.

Removal

Pump around shall be removed after construction in the main channel is complete and permanent stormwater control features have been established. Any areas disturbed by the pump around measures shall be returned to their original condition and re-vegetated as needed.

Method of Measurement

Pump around will be measured by the number of units installed, complete in place.

Basis of Payment

The acceptable quantities of pump around will be paid for at the contract unit price per each.

Payment will be made under:

Pay Item**Pay Unit Symbol**

Pump Around.....EACH

The cost of furnishing all materials, equipment, labor, installation, maintenance, and removal required for dewatering and

operation of the temporary pump around shall be included in the cost of pump around.

The cost of temporary channel crossings if required shall be included in the cost of the pump around.
