1. low height Concrete Block Retaining Wall (revised 2-2-2022)

Description. This work consists of furnishing all materials, equipment, and labor necessary for placement of a footing, installation of a concrete block retaining wall, and placement of backfill material in accordance with the plans.

Materials.

Provide precast concrete wall blocks capable of retaining a soil cut up to 4 feet in height, via gravity resistance, without internal soil reinforcement. The soil slope above and behind the wall is considered to be level to nearly level.

Leveling Pad. Provide granular material meeting the requirements of Section 701 for Crushed Aggregate Course.

Provide wall backfill material consisting of a well-graded sand and gravel, free of organic and other deleterious material, meeting the AASHTO M 145 requirements of A-1-a group classification, with 100% passing the 2 inch sieve and a maximum of 8% by weight passing the #200 sieve.

Provide geotextile-wrapped 4-inch Corrugated Polyethylene Drainage Pipe conforming to AASHTO M 252 type SP requirements with Class 2 perforations for backfill drainage pipe. The geotextile must meet the requirements of Section 716 for Subsurface Drainage Geotextile Filter, High Survivability, Class A.

Provide splices, fittings, and connectors that will not impede flow or damage the drainage pipe and have sufficient strength to withstand construction handling and permanent loading.

Provide rodent guards for each drain outlet consisting of steel screen with ½ inch by ½ inch openings and a stainless steel clamp or pre-manufactured guards meeting the opening requirements.

Construction.

Excavate the leveling pad area a minimum of 1 foot below the planned wall base elevation and a minimum of 1.5 feet wider than the width of the bottom concrete block(s).

Scarify the top 8 inches of the footing subgrade and compact in accordance with Section 203.

Backfill footing excavation with leveling pad material as specified above and compact in accordance with Section 203.

Do not operate heavy compaction equipment within the excavation limits of the wall. Compact the backfill using a lightweight mechanical tamper, roller, vibratory, or other system approved by the Project Manager.

Place drainage pipe in accordance with the plans. Do not allow the drainage pipe to move more than 3 inches from the plan location during backfill operations. Do not compact directly over the drainage pipe until there is a minimum cover of 8 inches.

Terminate drainage pipe in a manner that provides positive gravity drainage at the location shown in the plans and install rodent guards at all exposed pipe outlets.

Backfill the wall excavation with wall backfill material as specified above and compact in accordance with Section 203.

Construct the wall according to the manufacturer’s recommendations, up to a maximum height of 4 feet of retained soil. If the wall height must exceed 4 feet, contact the MDT Geotechnical Section at (406) 444-6281.

Method of Measurement. Concrete Block Retaining Wall is measured by the square yard of wall face, complete and in place, measured from the top of the leveling pad to the top of the wall.

Basis of Payment. Accepted quantities of Concrete Block Retaining wall are paid at the contract unit price bid for Retaining Wall. Payment at the contract unit price is full compensation for all resources necessary to complete the item of work under the contract.