Index 430-010 through 430-012 U-Type Concrete Endwalls

Design Criteria

FDOT Design Manual (FDM); ***Drainage Manual (DM); Drainage Design Guide (DDG)***

Design Assumptions and Limitations

Locate endwalls in accordance with the ***Drainage Manual Chapter 3***.

Steel Grating Use Criteria

Provide positive debris control at all upgradient openings. Do not install grates unless one or more of the following conditions exist:

A. Pipe culvert endwalls are located within the designated clear zone.
B. Drainage area to culvert consists of median or infield areas or areas where debris and/or drift is negligible.
C. Runoff to culvert is by sheet flow or in such ill-defined channels that debris transport is not considered a major problem.
D. Runoff to culvert is minor except on an infrequent basis (10 to 15 year frequency); for example a drainage basin in flat sandy terrain with normally low ground water table.
E. Areas where culvert blockage with resultant backwater would not seriously affect roadway embankment, traffic operation, or upland property.

For sod around end treatments, see ***Index 570-001***.

Plan Content Requirements

In the Roadway Plans:

Summarize quantity by location in the Summary of Drainage Structures, Summary of Sidedrain, or Summary of Miscellaneous Drainage Items in accordance with ***FDM 916***.

Clearly show the location of each U-Type Concrete Endwall.

Payment

Item number	Item Description	Unit Measure
430-6AB-CDD	U-Type Concrete Endwalls	EA
570-1-A	Performance Turf	SY

See the ***BOE*** and ***Specification 430*** for additional information on payment, pay item use and compensation.