

Price bid for "Bridge End Drain, RF-39" is full compensation for furnishing, installing, and constructing the Bridge End Drain as shown.

- 1 Continue 4 inch sloped curb to edge of flume per section B-B. Refer to *RK-20*, *RK-25*, *RK-26*, or *RK-27* for details of 4 inch curb.
- 2 DI-1 and DI-2 distances measured from center of Bolt Pattern. Locate center of flume 9 feet or more from the nearest transverse pavement joint. Joint locations are determined by the bridge approach section.
- 3 Extend TRM flume 4 feet beyond toe of slope.
- 4 Abut Outlet or Channel Scour Protection panels to the edge of the pavement to prevent from being undercut by water. Cut panels to fit around guardrail posts to ensure pavement edge contract. No deduction will be made for area of Outlet or Channel Scour Protection panel removed for guardrail posts.

Possible Contract Items:

Bridge End Drain, RF-39
 Paved Shoulder, Portland Cement Concrete (Paved Shoulder Panel for Bridge End Drain)

Incidental to Paved Shoulder:

Modified Subbase
 Polymer Grid

Incidental to Bridge End Drain:

Outlet or Channel Scour Protection
 Seeding and Fertilizing
 Soil Fill
 Special Ditch Control (Wood Excelsior Mat)
 Turf Reinforced Mat, Type 2
 Watering for Sod, Special Ditch Control, or Slope Protection
 Mobilization for Watering

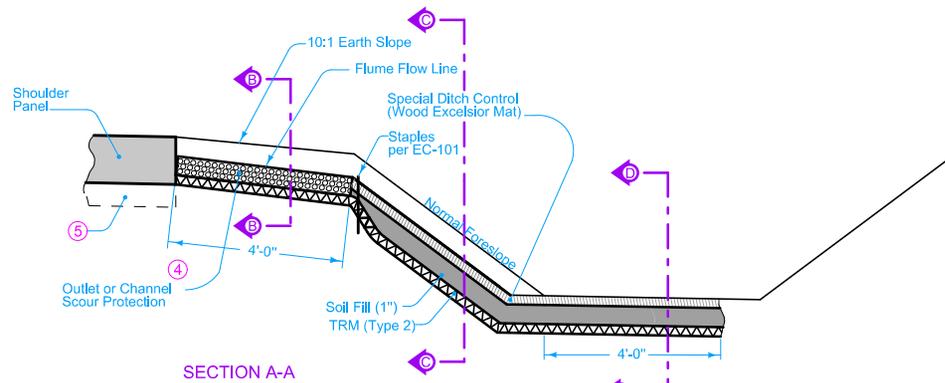
Possible Tabulation:
 104-8A

IOWA DOT	REVISION	
	19	10-21-14
	STANDARD ROAD PLAN	
RF-39		SHEET 1 of 2

REVISIONS: Changed all references from "Scourstop" to "Outlet or Channel Scour Protection". Added new Possible Contract Item for Bridge End Drain.

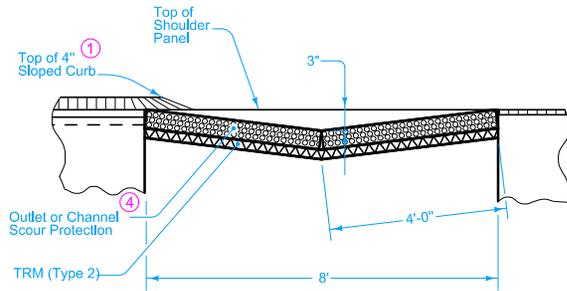
Brian Smith
 APPROVED BY DESIGN METHODS ENGINEER

**SCOUR PROTECTION
 FOR BRIDGE END DRAIN**

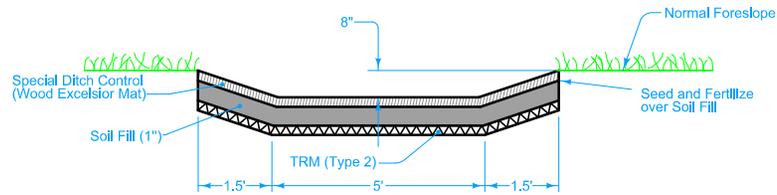


SECTION A-A

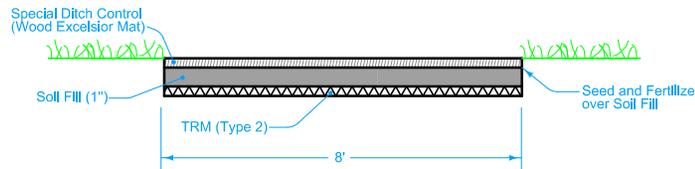
- ① Continue 4 inch sloped curb to edge of flume per section B-B. Refer to [RK-20](#), [RK-25](#), [RK-26](#), or [RK-27](#) for details of 4 inch curb.
- ④ Abut Outlet or Channel Scour Protection panels to the edge of the pavement to prevent from being undercut by water. Cut panels to fit around guardrail posts to ensure pavement edge contact. No deduction will be made for area of Outlet or Channel Scour Protection panel removed for guardrail posts.
- ⑤ Install modified subbase and polymer grid under PCC shoulder panels as shown in Section A-A on [RK-20](#), [RK-25](#), [RK-26](#), or [RK-27](#).
- ⑥ Transition the flume flow line depth from 3 inches at the downstream edge of Outlet or Channel Scour Protection to 8 inches with an approximate transition rate of 1 inch vertical per 1 foot horizontal.
- ⑦ Transition the flume flow line depth from 8 inches at the toe of slope to 0 inches with an approximate transition rate of 2 inches vertical per 1 foot horizontal.



SECTION B-B



SECTION C-C



SECTION D-D

IOWA DOT	REVISION	
	19	10-21-14
	STANDARD ROAD PLAN	
RF-39		SHEET 2 of 2

REVISIONS: Changed all references from "Scourstop" to "Outlet or Channel Scour Protection". Added new Possible Contract Item for Bridge End Drain.

Brian Smith
APPROVED BY DESIGN METHODS ENGINEER

**SCOUR PROTECTION
FOR BRIDGE END DRAIN**