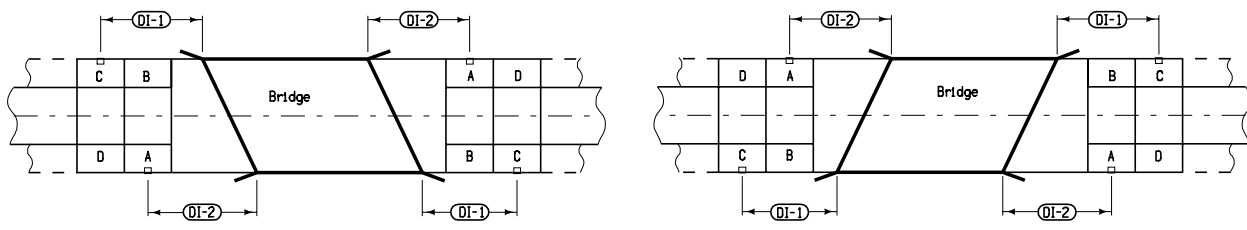
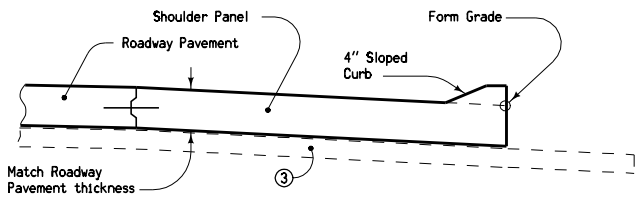
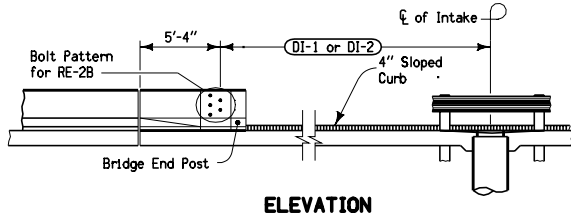


Price bid for "Bridge End Drain, RF-38" shall be considered full compensation for furnishing, installing, and constructing the Bridge End Drain as shown.

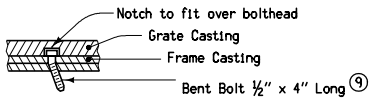
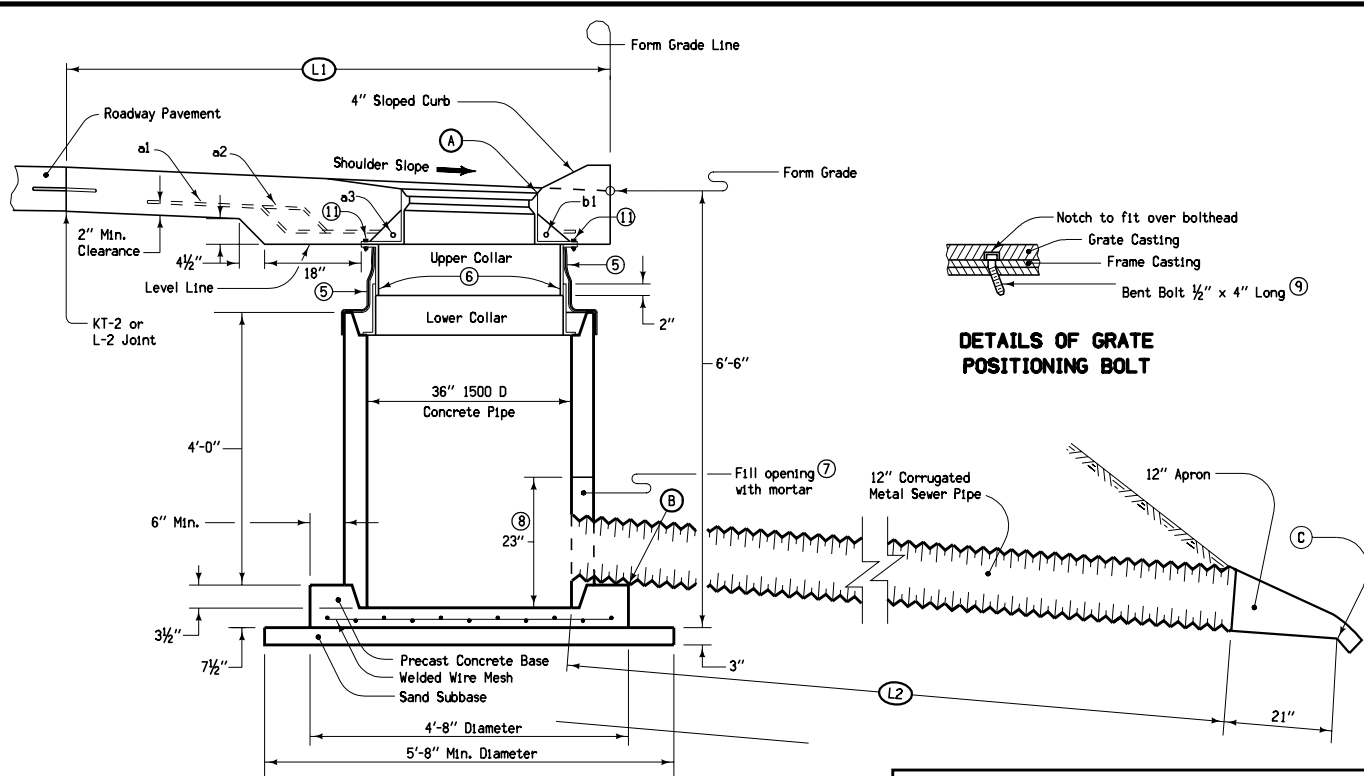
- ① Build 4" Sloped Curb 5 feet beyond centerline of intake.
- ② Paved shoulder panel will be paid for as, "Paved Shoulders, P.C. Concrete."
- ③ Modified subbase and polymer grid shall be installed under shoulder panels. See Section A-A (Standard Road Plan RK-20, RK-25, or RK-26) or Section C-C (Standard Road Plan RK-23).
- ④ Intake shall be located 5 feet or more from the nearest transverse pavement joint. Joints are determined by the bridge approach section.



Reinforced Section  
 Non-Reinforced Section

**PANEL LOCATIONS**

Iowa Department of Transportation	REVISION
	9   10-16-07
STANDARD ROAD PLAN	RF-38
SHEET 1 of 2	
REVISIONS: General Note correction. Changed RF-46 to RF-38 Re-numbered Circle Notes on sheet 2.	
<i>Deanna Masfield</i> APPROVED BY DESIGN METHODS ENGINEER	
INTAKE FOR BRIDGE END DRAIN	



**DETAILS OF GRATE POSITIONING BOLT**

Precast base shall be constructed using 4" x 4" steel wire mesh No. 6 wire reinforcing or equivalent.

All joints in corrugated metal pipe made with connecting bands shall be installed with approved asphaltic sealer to ensure a water-tight joint.

Flow line (A) elevation is 0.10 feet below Form Grade Elevation.

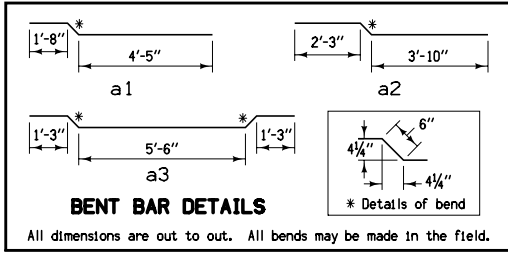
Flow line (B) elevation is 5.75 feet below flow line (A).

Flow line (C) elevation is 0 - 0.5 feet above ditch grade.

Refer to project plans for actual flow line elevations of (A), (B), (C), and dimensions L1 and L2.

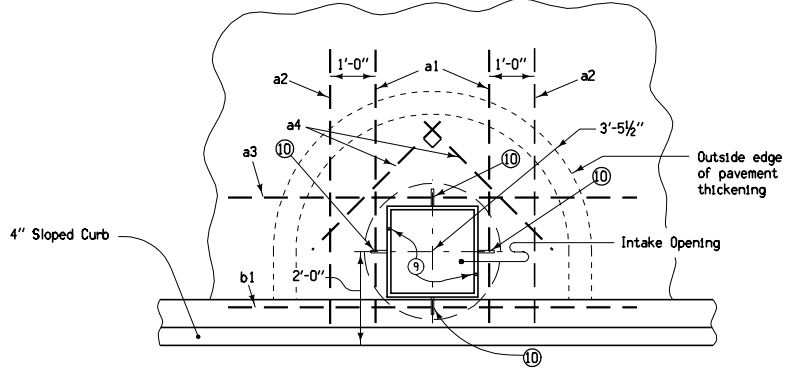
- ⑤ Before backfilling around the intake assembly, wrap two thicknesses of engineering fabric around the settlement collar. Tape all the way around with 2" duct tape immediately below the flange of upper section and 4" below the top of well pipe.
- ⑥ Slip joint casting shall be fastened temporarily with (4) 1/2" cap screws during pavement construction. Cap screws shall be removed after pavement is hardened.
- ⑦ Refer to Article 4149.07 of the Standard Specifications.
- ⑧ 23" x 15" slot for insertion of 12" corrugated metal pipe.
- ⑨ Field place 1/2" x 4" long bolt in upstream side and bend underside to prevent removal.
- ⑩ Reinforcing shall be placed through the appropriate holes in the intake casting.
- ⑪ Frame casting fastened to Upper Collar casting at 4 locations using 1/2" x 2" long hex bolts and 1/2" nuts.

**SECTION B-B THROUGH INTAKE**



**BENT BAR DETAILS**

All dimensions are out to out. All bends may be made in the field.



**REINFORCING LAYOUT**

Note: Place bars a1, a3, & b1 through holes in intake casting.

REINFORCING BAR LIST						
MARK	SIZE	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
a1 ⑩	4	Shoulder	~	2	6'-7"	9
a2	4	Shoulder	~	2	6'-7"	9
a3 ⑩	4	Shoulder	~	1	9'-0"	6
a4	4	Shoulder	~	2	4'-0"	5
b1 ⑩	4	Curb	~	1	8'-9"	6
Total						35 lbs.

<p>Iowa Department of Transportation</p> <p><b>STANDARD ROAD PLAN</b></p> <p>REVISIONS: General Note correction. Changed RF-46 to RF-38. Re-numbered Circle Notes on sheet 2.</p> <p style="text-align: right;"><i>Deanna Macfild</i> APPROVED BY DESIGN METHODS ENGINEER</p>	REVISION 9   10-16-07
	<b>RF-38</b> SHEET 2 of 2
	<b>INTAKE FOR BRIDGE END DRAIN</b>