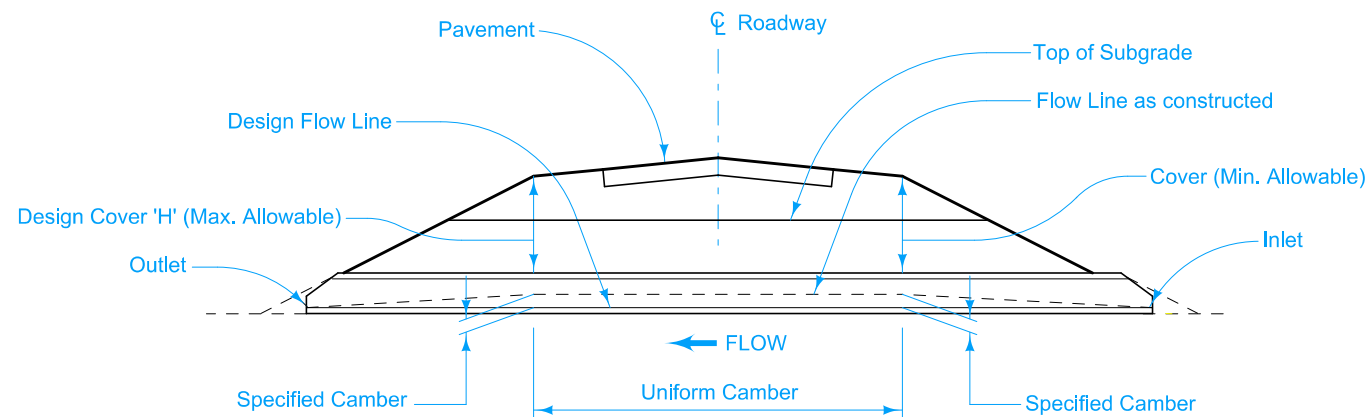


**TYPICAL INSTALLATION DUAL ROADWAY**



**TYPICAL INSTALLATION SINGLE ROADWAY**

Refer to **DR-121** for pipe joint connection and wrapping.

Refer to **DR-101** for culvert bedding and backfill.

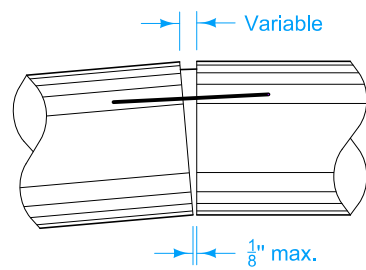
**COVER**

Refer to **DR-104** for minimum and maximum allowable cover for the particular kind of culvert.

**CAMBER**

Camber is the dimension line between inlet and outlet elevation. Some settlement of the structure is usually anticipated, resulting in the design flow line between inlet and outlet. Camber is developed uniformly from inlet and outlet to a point beneath the outside shoulder lines of the roadway and is uniform between those points, as indicated. The Normal Camber indicated in the "Allowable Camber Tables" should be used unless specific camber values are indicated elsewhere in the plans.

- ① Camber for concrete pipe is created by placing pipe sections tight at the bottom of the joint with variable opening at top of joint. Camber for corrugated metal pipe to be done as directed by the Engineer.



**TYPICAL JOINT IN CAMBERED PIPE** ①

Design Cover 'H' (feet)	Normal Camber (feet)
5	0.08
10	0.17
15	0.25
20	0.33
25	0.42
30	0.50
35	0.58

Pipe Size 'D'	Maximum Camber (feet)
24"	1.1
30"	1.2
36"	1.3
42"	1.4
48"	1.5
60"	1.6
84"	1.7

**ALLOWABLE CAMBER TABLES**

 <b>STANDARD ROAD PLAN</b>	REVISION	
	New	04-21-15
	<b>DR-102</b>	
SHEET 1 of 1		
REVISIONS: New. Replaces RF-30B.		
 <small>APPROVED BY DESIGN METHODS ENGINEER</small>		
<b>PIPE CULVERT</b> <b>(COVER AND CAMBER)</b>		