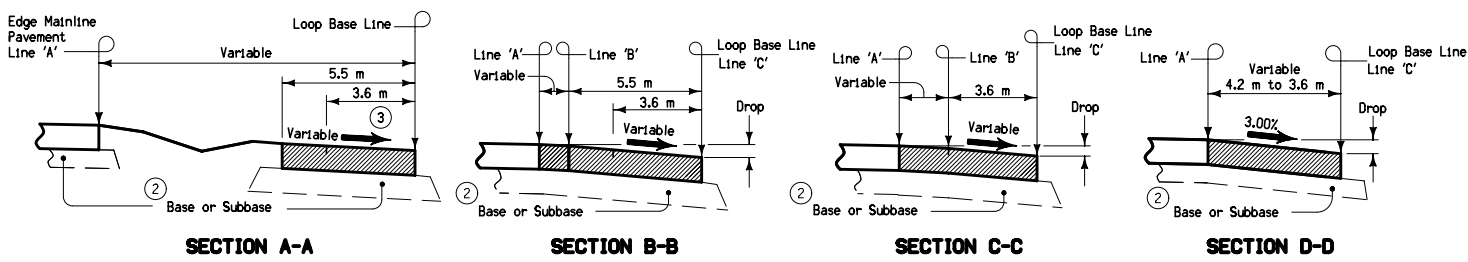


NOTE: The algebraic difference between profile grade for Loop B at (F) and relative profile of Mainline at (H) is 0.38%

**PROFILE**

TABLE OF OFFSETS AND DROPS FOR 5.5 m LOOP ENTRANCE																						
Distance From Point (E) Along Line 'A' (m)	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0							
From Line 'A' To Line 'B'	Offset (m)	6.257	5.130	4.088	3.129	2.255	1.464	0.757														
	Slope (%)	3.00	3.00	3.00	3.00	3.00	3.00	3.00														
	Drop (mm)	188	154	123	94	68	44	23														
From Line 'B' To Line 'C'	Offset (m)	5.5	5.5	5.5	5.5	5.5	5.5	5.5														
	Slope (%)	4.00	4.00	4.00	4.00	4.00	4.00	3.64														
	Drop (mm)	220	220	220	220	220	220	200														
From Line 'A' To Line 'C'	Offset (m)								5.643	5.101	4.642	4.267	3.975	3.767	3.642	3.600						
	Slope (%)								3.21	3.00	3.00	3.00	3.00	3.00	3.00	3.00						
	Drop (mm)								408	374	343	314	288	264	223	181	153	139	128	119	113	109
Distance From Point (G) Along Line 'C' (m)	139.676	129.659	119.651	109.651	99.658	89.673	79.694	70.040	60.025	50.014	40.007	30.003	20.001	10.000	0							

NOTE: From (G) to (P) cross slope between Line A and Line C is a constant 3%.



Loop exit pavement shall be the same thickness as mainline pavement.  
 Loop exit pavement shown by shaded area is 1130 square meters.  
 Special shaping of area between lines A and B may be required to assure proper drainage.  
 For jointing layout, see Standard Road Plan RV-10.  
 This design is based on 100 km/h design speed at e max = 6%.

- For header construction details at the beginning of taper, refer to Typical 7101 or Typical 7102.
- Subbase for loop exit pavement shall be the same thickness as mainline subbase.
- The loop pavement cross slope between (J) and (F) is determined by superelevation rotated about line C. Refer to Standard Road Plan RP-3 and plans for superelevation transition requirements.

TABLE OF SHOULDER TRANSITION LENGTHS			
W <sub>0</sub>	Shoulder Width beyond Edge of Mainline Pavement		
	2.4m	3m	3.6m
3.6m	NA	60m	90m
4.2m	30m	60m	NA

NOTE: W<sub>0</sub> is the width of the outside lane to the Edge of Pavement.

All dimensions given in millimeters unless noted.

<b>M</b> <b>METRIC VERSION</b>	 Iowa Department of Transportation	REVISION 5 04-21-09
		<b>RV-9</b>
		SHEET 1 of 1
		REVISIONS: Corrected circle note 2. Removed mainline pavement and shoulder widths. Added table for shoulder transition distance. (Metrics Re-instated.)
		<i>Deanna Mihoff</i> APPROVED BY DESIGN METHODS ENGINEER
<b>ACCELERATION TAPER FOR 5.5 m ENTRANCE LOOP</b>		