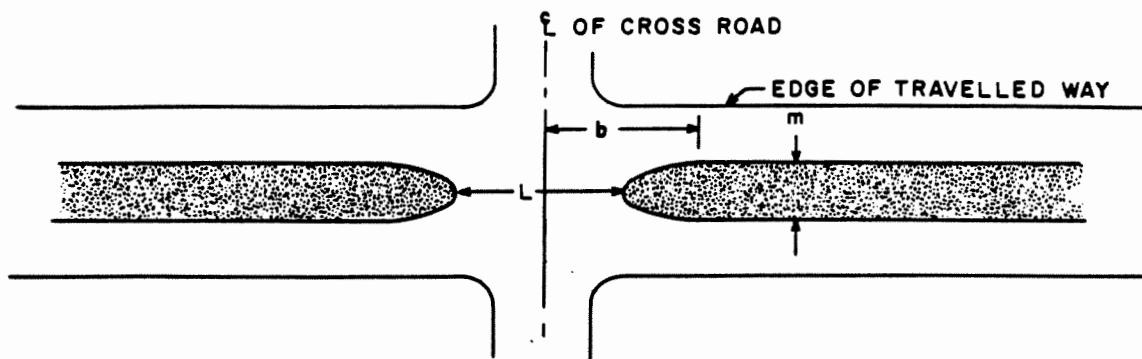
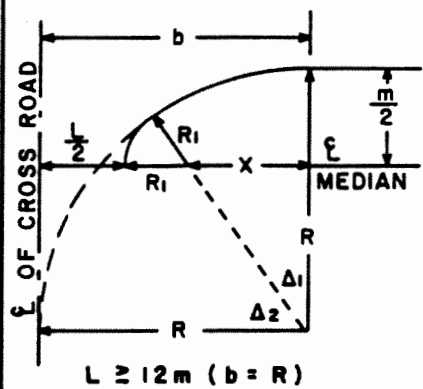




LAYOUT FOR BULLET NOSE MEDIAN - 2 CENTRED

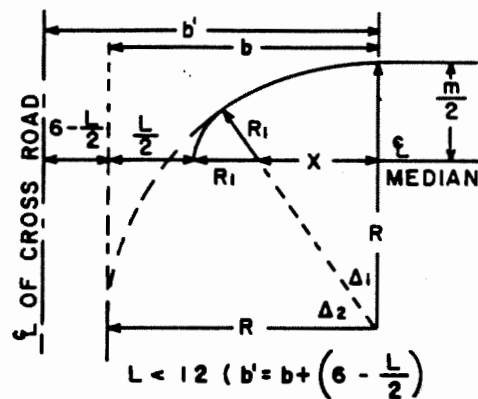


$$\Delta_1 = \text{Inv. Cos.} \left(\frac{R - \frac{m}{2}}{R - \frac{m}{5}} \right)$$

$$X = \left(R - \frac{m}{2} \right) \tan. \Delta_1$$

$$R_1 = \frac{m}{5}$$

$$L = 2 \left(R - X - R_1 \right)$$



Median width (m)	R = 12		R = 15		R = 23		R = 27	
	L	b	L	b	L	b	L	b
1	22	12	29	15	45	23	53	27
4	12	12	17	15	30	23	37	27
5	11	12	15	15	28	23	34	27
7.5	8	12	12	15	24	23	30	27
8	7	12	12	15	23	23	29	27
10	6	12	10	15	20	23	26	27
12	4	12	8	15	18	23	23	27
15	2	12	5	15	15	23	20	27
17.5	1	12	4	15	12	23	17	27
20	1	12	2	15	10	23	15	27
23	-	12	1	15	8	23	12	27
25	-	*	1	15	7	23	11	27
28	-	*	1	15	5	23	9	27
30	-	*	-	*	4	23	8	27
32	-	*	-	*	3	23	6	27

NOTE 1. $R_1 = \frac{m}{5}$ or min. 0.6m

2. m = Median width in metres

3. L = Length of median opening - min. 12.0m

USE :

R = 12 for predominantly P vehicles

R = 15 for predominantly SU vehicles

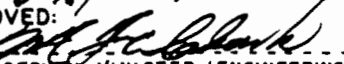
R = 23 for predominantly WB12 vehicles

R = 27 for predominantly WB15 vehicles

* - Semi-circular, use $L=12$, $R=\frac{m}{2}$, $b=R+6$

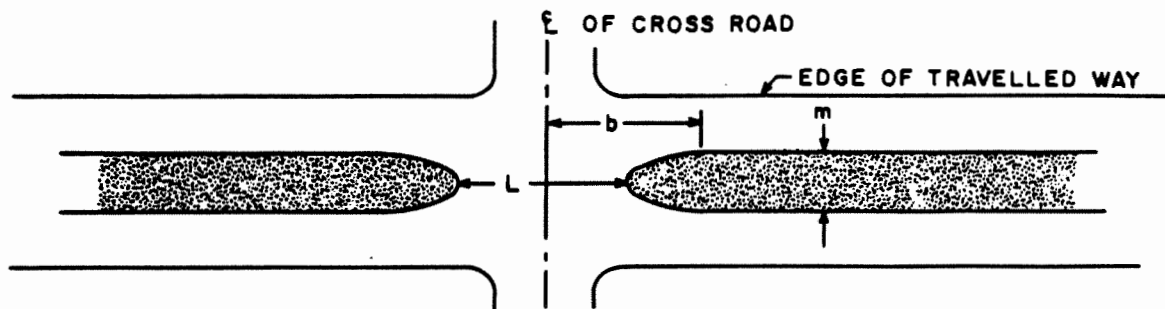
- NOTE :
1. LENGTH OF MEDIAN OPENING SHALL BE EQUAL TO WIDTH OF CROSS ROAD TRAVELLED WAY PLUS SHOULDER, PLUS MEDIAN, BUT SHALL NOT BE LESS THAN 12.0 m.
 2. MEDIAN OPENINGS LONGER THAN 25 - 30m SHOULD BE AVOIDED. WHEN THIS OCCURS, ALTERNATE DESIGNS SHOULD BE CONSIDERED.
 3. THE ABOVE DATA IS FOR RIGHT ANGLE OPENINGS. FOR SKEWED INTERSECTIONS A DETAIL DESIGN OF THE MEDIAN OPENING WILL BE REQUIRED.
 4. FOR DETAILS ON USE, SEE DM 505.

RECOMMENDED:

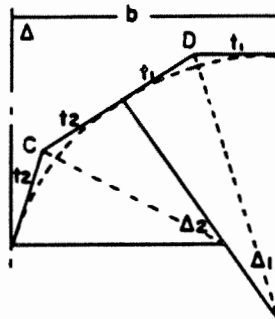
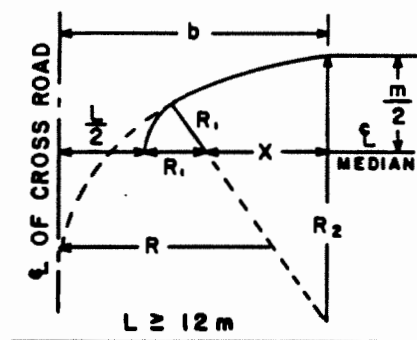
 ROAD DESIGN ENGINEER
 APPROVED:

 ASSOC. DEPUTY MINISTER (ENGINEERING)
 DATE: SEPT. 4, 1984

SASKATCHEWAN DEPARTMENT OF HIGHWAYS
**MEDIAN OPENINGS
 AT INTERSECTIONS
 (TWO CENTRED)**

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LAYOUT FOR BULLET NOSE MEDIAN - 3 CENTRED



$$\Delta = 90^\circ$$

$$\Delta_1 = \text{Inv. Cos.} \left(\frac{R_2 - \frac{m}{2}}{R_2 - \frac{m}{5}} \right)$$

$$\Delta_2 = 90^\circ - \Delta_1$$

$$t_1 = R_2 \tan \frac{\Delta_1}{2}$$

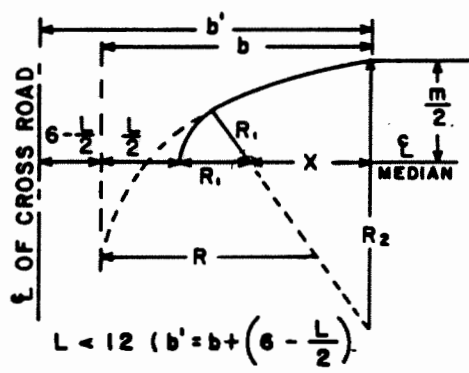
$$t_2 = R \tan \frac{\Delta_2}{2}$$

$$CD = t_1 + t_2$$

$$b = t_1 + \sin \Delta_2 \left(\frac{CD}{\sin \Delta} \right)$$

$$L = (b - X - R_1) \times 2$$

$$X = \text{Inv. Cos.} \left(R_2 - \frac{m}{2} \right)$$



NOTE:

1. $R_1 = \frac{m}{5}$ or min. 0.6 m
2. m = Median width in metres
3. L = Length of median opening in metres - minimum $L = 12.0$ m

Median width (m)	R = 12						R = 15						R = 23						R = 27					
	R ₂ = 27		R ₂ = 45		R ₂ = 70		R ₂ = 27		R ₂ = 45		R ₂ = 70		R ₂ = 27		R ₂ = 45		R ₂ = 70		R ₂ = 27		R ₂ = 45		R ₂ = 70	
	L	b	L	b	L	b	L	b	L	b	L	b	L	b	L	b	L	b	L	b	L	b	L	b
1	20	14	21	16	21	17	25	17	26	18	27	20	39	23	40	24	41	27	45	27	47	29	48	31
4	16	16	17	20	18	23	20	19	22	22	23	25	31	24	34	26	36	32	37	27	40	31	43	35
5	12	17	16	21	17	24	19	19	21	23	22	26	29	24	32	29	35	33	34	27	38	32	41	36
7.5	12	18	14	22	16	27	16	20	16	25	20	29	25	24	29	30	32	34	30	27	35	33	38	36
8	12	16	14	23	15	27	15	20	16	26	19	29	25	24	29	30	31	35	29	27	34	33	37	38
10	10	19	13	24	14	29	14	21	16	28	18	31	22	25	27	31	30	37	28	27	32	33	35	40
12	9	20	11	25	13	31	12	21	15	27	17	32	20	25	25	32	28	36	24	27	29	34	33	41
15	7	21	10	27	11	33	10	22	13	29	15	34	17	25	22	33	26	40	20	27	26	35	31	42
17.5	6	21	9	26	10	35	8	23	12	29	14	36	14	25	20	34	24	41	17	27	24	36	29	44
20	5	22	8	29	9	36	7	23	11	30	13	38	12	26	18	34	22	43	15	27	22	36	27	45
23	4	23	7	30	8	36	6	24	9	31	12	40	10	27	16	35	20	44	12	27	20	37	25	46
25	4	23	6	31	7	39	5	24	8	32	11	41	9	27	15	36	19	45	11	27	18	37	24	47
28	3	24	5	32	7	41	4	24	7	33	10	42	7	28	13	38	16	46	9	27	16	38	22	48
30	2	24	4	33	6	42	3	25	6	34	9	43	6	29	12	37	17	47	8	27	15	38	21	49
32	2	25	3	34	5	43	2	25	6	35	8	44	5	30	12	37	16	48	6	27	14	39	19	50

RECOMMENDED:

APPROVED: *J. J. Synn*
ROAD DESIGN ENGINEER

ASSOC. DEPUTY MINISTER (ENGINEERING)

DATE: SEPT. 4, 1984

SASKATCHEWAN DEPARTMENT OF HIGHWAYS

MEDIAN OPENINGS
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