

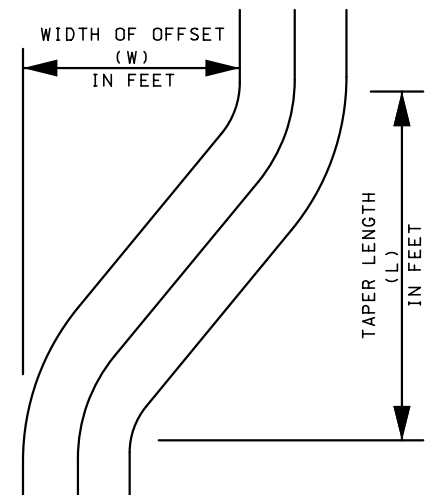
## TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION TAPER LENGTH CRITERIA TABLE

SPEED (S) IN MPH	WIDTH OF OFFSET (W) IN FEET											
	1	2	3	4	5	6	7	8	9	10	11	12
	TAPER LENGTH (L) IN FEET WHERE $L = WS^2/60$											
25	11	21	32	42	53	63	73	84	94	105	115	125
30	15	30	45	60	75	90	105	120	135	150	165	180
35	21	41	62	82	103	123	143	164	184	205	225	245
40	27	54	80	107	134	160	187	214	240	267	294	320
	TAPER LENGTH (L) IN FEET WHERE $L = WS$											
45	45	90	135	180	225	270	315	360	405	450	495	540
50	50	100	150	200	250	300	350	400	450	500	550	600
55	55	110	165	220	275	330	385	440	495	550	605	660
60	60	120	180	240	300	360	420	480	540	600	660	720
65	65	130	195	260	325	390	455	520	585	650	715	780
70	70	140	210	280	350	420	490	560	630	700	770	840

**NOTES:**

1. AN "ABRUPT" LANE SHIFT IS ANY SHIFT WITH A TAPER LENGTH (L) LESS THAN THE VALUE SPECIFIED IN THE TAPER LENGTH CRITERIA TABLE ABOVE. REFER TO STANDARD MD 104.01-27.
2. WHEN MULTIPLE LANES IN ONE DIRECTION ARE CLOSED, THE MERGING TAPERS SHOULD BE SEPARATED BY A MINIMUM DISTANCE (TANGENT APPROACH) OF 2L. FOR EXPRESSWAYS/FREEWAYS, THE MINIMUM TANGENT APPROACH OF 2L BETWEEN THE MERGING TAPERS SHOULD BE AT LEAST 2000 FEET.
3. WHEN TWO CONSECUTIVE LANE SHIFTS IN ONE DIRECTION ARE USED, THE MINIMUM TANGENT APPROACH OF 2L SHOULD BE USED TO SEPARATE THE SHIFTS. THE LARGER OF THE TWO VALUES OF THE TWO OFFSETS SHOULD BE USED TO CALCULATE THE VALUE OF 2L.
4. THE MINIMUM TAPER LENGTH (L) SHALL BE AS FOLLOWS:

TYPE OF TAPER	TAPER LENGTH, L (FEET)
MERGING TAPER	L MINIMUM. THE MERGING TAPER LENGTH ON EXPRESSWAY/FREEWAY SHALL BE 1000 FEET MINIMUM, UNLESS DIRECTED BY THE ENGINEER.
SHIFTING TAPER	L MINIMUM RECOMMENDED. WHEN CONDITIONS DO NOT PERMIT SHIFTING TAPER LENGTH L, AT LEAST 0.5L MAY BE USED.
SHOULDER TAPER	1/3 L MINIMUM. THE SHOULDER TAPER LENGTH ON EXPRESSWAY/FREEWAY SHALL BE 330 FEET MINIMUM, UNLESS DIRECTED BY THE ENGINEER.
TWO-WAY TAPER (FLAGGING)	50 FEET MINIMUM, 100 FEET MAXIMUM.
TERMINATION TAPER	100 FEET MINIMUM PER LANE OPENED.



<b>SPECIFICATION</b>	<b>CATEGORY CODE ITEMS</b>	<b>MARYLAND DEPARTMENT OF TRANSPORTATION</b> STATE HIGHWAY ADMINISTRATION  <b>STANDARDS FOR HIGHWAYS AND INCIDENTAL STRUCTURES</b>  <b>TAPER LENGTH CRITERIA TABLE</b>  <b>STANDARD NO. MD 104.01-80</b>
<b>APPROVED</b>	 DIRECTOR - OFFICE OF TRAFFIC AND SAFETY	
<b>APPROVAL SHA REVISIONS</b>	<b>APPROVAL FEDERAL HIGHWAY ADMINISTRATION</b>	
<b>APPROVAL</b> 8-20-03	<b>APPROVAL</b> 9-23-03	
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<b>REVISED</b>	<b>REVISED</b>	