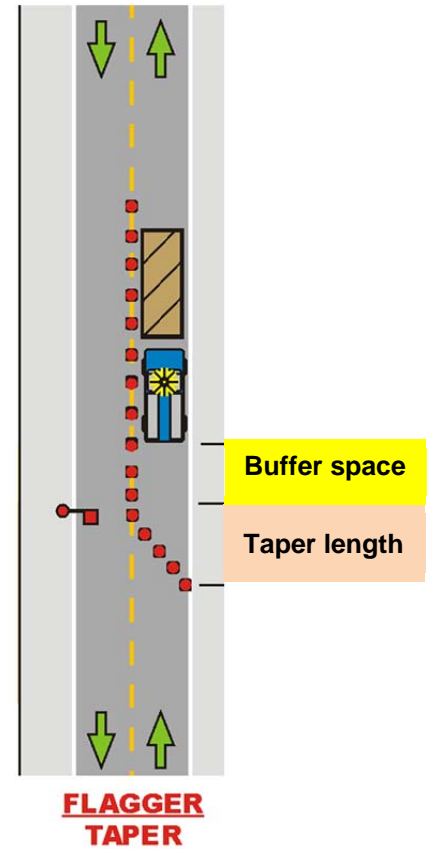
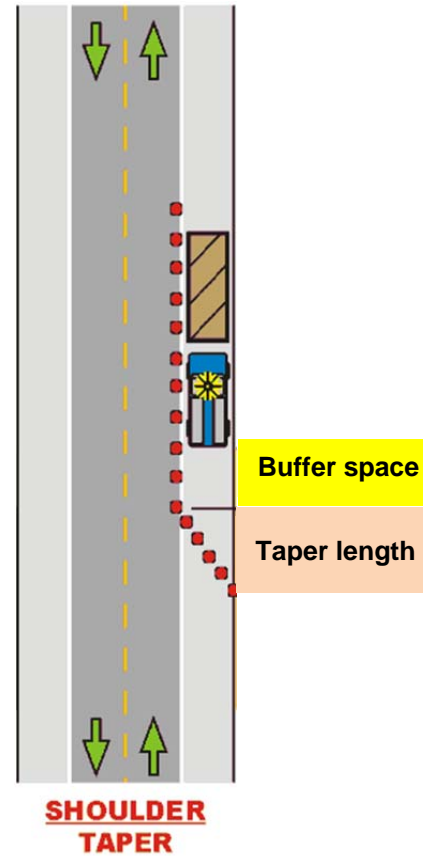
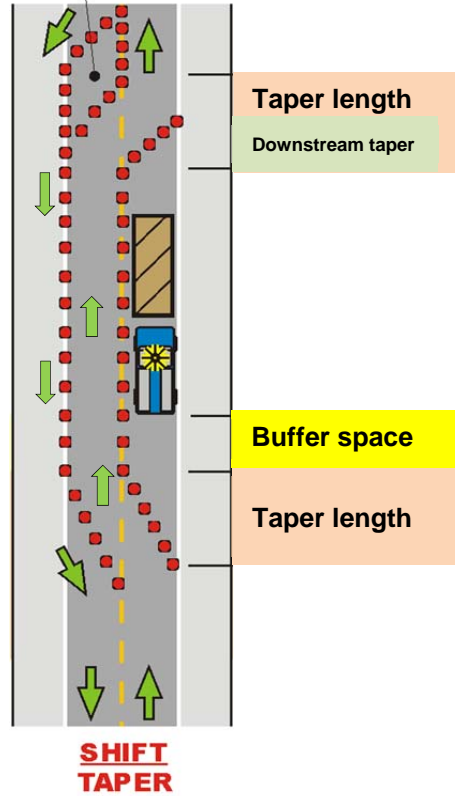
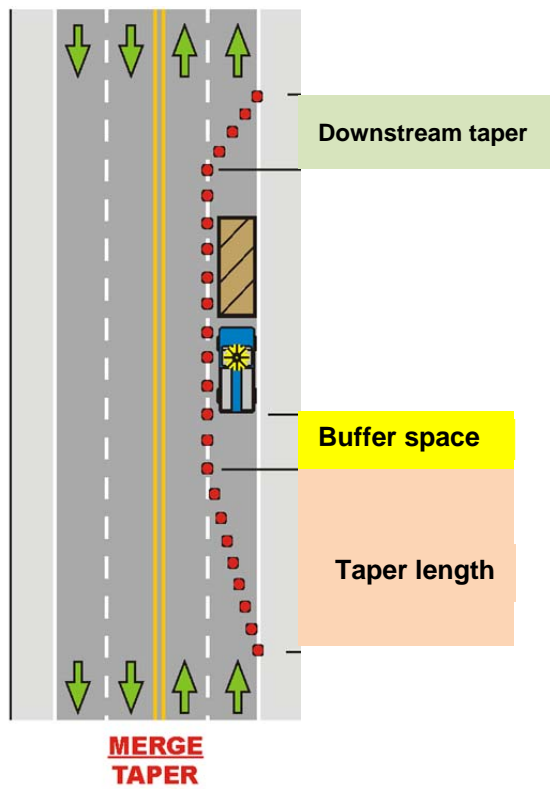


Types of Taper



Merge Taper: When a lane is closed and vehicles in that lane must merge with traffic in an adjacent lane. **The number of lanes is reduced.**

Shift Taper: There is a shift in the path of the lanes, but the normal **number of lanes is not reduced.**

Shoulder Taper: Work is done on the shoulder with no or minimal encroachment into the lane of traffic. **The shoulder is closed.**

Flagger Taper: Opposing directions of traffic share **one lane.**

Table 1. Taper Lengths

Merge Taper

SPEED MPH	WIDTH OF LANE OFFSET From Original Lane Width (in feet)		
	8'	10'	12'
20	53'	67'	80'
	3 (cones)	3 (cones)	4 (cones)
25	83'	104'	125'
	3	4	5
30	120'	150'	180'
	4	5	6
35	165'	205'	245'
	5	6	7
40	215'	270'	320'
	6	7	8
45	360'	450'	540'
	10	10	12
50	400'	500'	600'
	8	10	12

Shift Taper

SPEED MPH	WIDTH OF LANE OFFSET From Original Lane Width (in feet)		
	8'	10'	12'
20	27'	34'	40'
	2 (cones)	2 (cones)	2 (cones)
25	42'	52'	63'
	2	2	3
30	60'	75'	90'
	2	3	3
35	85'	105'	125'
	3	3	4
40	110'	135'	160'
	3	4	4
45	180'	225'	270'
	4	5	6
50	200'	250'	300'
	4	5	6

Shoulder Taper

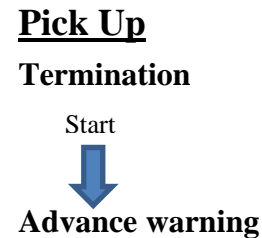
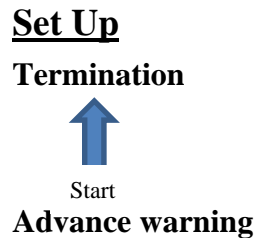
SPEED MPH	WIDTH OF LANE OFFSET From Original Lane Width (in feet)		
	8'	10'	12'
20	18'	22'	27'
	2 (cones)	2 (cones)	2 (cones)
25	28'	35'	42'
	2	2	2
30	40'	50'	60'
	2	2	2
35	55'	70'	85'
	2	2	3
40	75'	90'	110'
	2	3	3
45	120'	150'	180'
	3	4	4
50	135'	170'	200'
	3	4	4

Minimum taper length in feet

Minimum # of cones required

Flagger Taper

	All Speed
Minimum taper length	50 ft
Maximum taper length	100 ft
Maximum spacing between cones	20 ft



* Maximum spacing between cones is equal to speed limit (example: 35 mph = 35 feet)

Table 2. Length for Downstream Taper, Longitudinal Buffer Space and Flagger Station Distance

SPEED MPH	Downstream Taper (in feet)	Longitudinal Buffer Space (in feet)	Flagger Stations (in feet)
20	50'	115'	115'
	2 (cones)	6 (cones)	6 (cones)
25	50'	155'	155'
	2	6	6
30	50'	200'	200'
	2	7	7
35	50'	250'	250'
	2	7	7
40	50'	305'	305'
	2	8	8
45	50'	360'	360'
	2	8	8
50	50'	425'	425'
	2	9	9

* Maximum length for downstream taper is 100 feet

* Maximum spacing for all speed on downstream taper is 20 ft

Table 3. Advance Warning Sign Spacing

ROAD TYPE	DISTANCE BETWEEN SIGNS (in feet)		
	A	B	C
Urban (Low Speed)-25 mph or less	100	100	100
Urban (High Speed)-more than 25 mph	250	250	250
Urban (High Speed)-more than 40 mph	350	350	350

* **Distance "A"** is the distance from the transition point to the first sign.

* **Sign "A"** is the first sign or sign closest to the work zone.