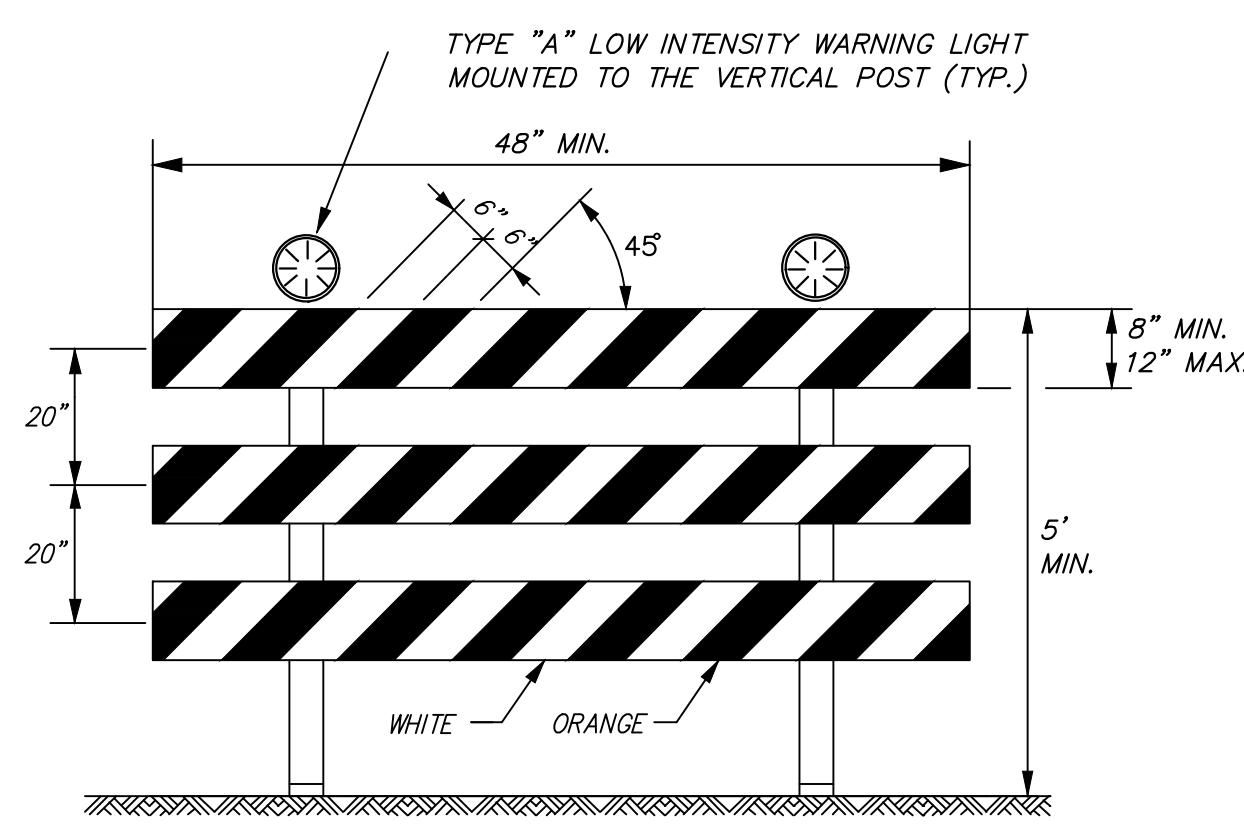


- 1) Design Speed: Those items delegated to temporary traffic control should be designed and installed using the posted/legal speed of the roadway prior to work starting.
- 2) Minimum lane width: Lane widths shall be a minimum of 11' (measured between centerlines of pavement markings) or as shown on the plans, or as directed by the engineer. A lane width less than 11' may require restricted roadway width signing.
- 3) Consideration should be made to separate pedestrian and, if needed, bicycle movements from both work site activity and vehicular traffic. Unless a reasonable safe route that does not involve crossing the roadway can be provided, pedestrians should be appropriately directed with advance signing that encourages them to cross to the opposite side of the roadway. In urban and suburban areas with high vehicular traffic volumes, these signs should be placed at intersections (rather than midblock locations) so that pedestrians are not confronted with midblock work sites that will induce them to attempt skirting the work site or making a midblock crossing.
- 4) When existing pedestrian facilities are disrupted, closed, or relocated, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.
- 5) When the driving surface open to traffic is milled, is a temporary surface made of loose material, or when directed by the engineer use the W8-15 (Grooved Pavement) or W8-7 (Loose Gravel) a "C" distance after the W20-1 (Road Work Ahead) on mainline approaches. Signs may be used with the W8-15p motorcycle plaque as directed by the engineer. Display signs in advance of the condition as long as the condition is present.
- 6) Alternative temporary rumble strip options may be available. Please contact the Temporary Traffic Control Unit for more information at 785-296-0355 or 785-296-1183.



**TYPE III BARRICADE WITH LIGHTS**

The entire area of barricade rails, both front and back, shall have ASTM Type III sheeting.

The stripes shall slope downward to the side traffic is to proceed or toward the center of the roadway at road closures.

Approved signs mounted on Type III barricades should not cover more than 50% of the top two rails or 33% of the total area of the three rails.

When barricades are placed end-to-end or staggered, a Type "A" low intensity warning light shall be mounted to the vertical post near each outside corner of the end barricades.

**BARRICADE PLACEMENT:**

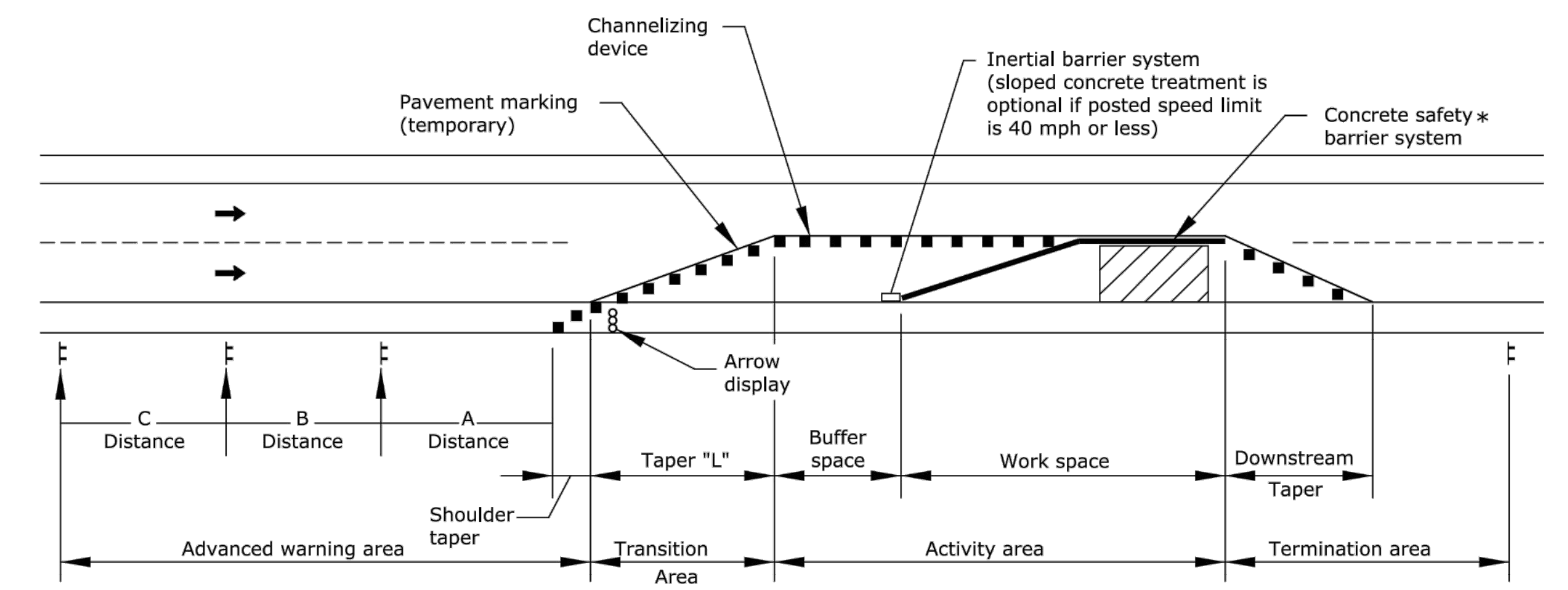
**A) COMPLETE ROAD CLOSURE**

When a roadway is closed, Type III barricades shall be placed end-to-end to completely cover the roadway and shoulders. When access must be allowed for construction or other official/government vehicles, Type III barricades shall be longitudinally staggered far enough apart from one another to allow safe passage of vehicles and maintain the appearance of a closed roadway. Type III barricades shall be realigned and placed end-to-end to deny any access when the construction activity has ceased for the day.

**B) ROAD CLOSED - LOCAL TRAFFIC**

As shown in figure 4, when local traffic must be allowed access into the work zone, Type III barricades shall be longitudinally staggered to maintain the appearance of a closed roadway. A second line of end-to-end Type III barricades shall be placed just beyond the last access point in the work zone, to completely close the roadway as described in note 2-A.

As shown in figure 1 and figure 3, at the point where thru traffic must detour and local traffic can proceed to the location where the roadway is completely closed, the R11-3a (road closed miles ahead local traffic only) or R11-4 (road closed # local traffic only or road closed to thru traffic) sign shall be used with Type III barricades (winged position), placed on the shoulders of roadway.



**TYPICAL WORK ZONE COMPONENTS**

\* When concrete barrier system is used, portable channelizing devices are not needed along the tangent barrier section.

Minimum advance warning sign spacing (in feet):

SPEED (MPH) *	A	B	C
URBAN (40 MPH OR LOWER)	100	100	100
URBAN (45 MPH OR HIGHER)	350	350	350
RURAL (55 MPH OR LOWER)	500	500	500
RURAL (60 MPH OR HIGHER)	750	750	750
EXPRESSWAY/FREEWAY	1000	1500	2640

**Taper Formulas:**

$L = WS$  for speeds of 45 MPH or more

$L = WS^2/60$  for speeds of 40 MPH or less

Where: L = Minimum length of taper in feet  
 S = Numerical value of posted speed prior to work starting in MPH  
 W = Width in offset feet

Shifting taper = 1/2 L  
 Shoulder taper = 1/3 L

\* Posted speed prior to work starting

The minimum spacing between signs shall be no less than 100', unless directed by the engineer.

The spacing between any signs may be increased beyond the minimum values in the table above as approved by the engineer in order to maximize visibility.

- Channelizer placement:**
- (1) The spacing between devices in transition area (taper) should not exceed a distance in feet equal to 1/2 the posted speed limit in mph prior to work starting.
  - (2) The spacing between devices in the advanced warning area and the activity area should not exceed a distance in feet equal to two times the posted speed limit in mph prior to work starting.
  - (3) Channelizing devices shall be placed for optimum visibility, normally at right angles to the traffic flow.
  - (4) Place directional indicator barricades in series to direct traffic onto the new path. The arrow sign should not be visible to opposing traffic.
  - (5) Alternating diagonal orange and white striping must slope downward in the direction traffic is expected to pass.

**Buffer Space**

SPEED (MPH) *	20	25	30	35	40	45	50	55	60	65	70	75
LENGTH (ft)	115	155	200	250	305	360	425	495	570	645	730	820

\* Posted speed prior to work starting

Neither work activity nor storage of equipment, vehicles, or material should occur in the buffer space. When a protection vehicle is placed in advance of the work space, only the space upstream of the vehicle constitutes the buffer space.

If temporary concrete safety barrier system is used to separate approaching traffic from the work space, the barrier system shall be considered part of the activity area. A full lane width should be available throughout the length of the buffer space.

See typical work zone components above.

3					
2					
1	08/18/15	Channelizer spacing info		R.W.B.	K.E.
NO.	DATE	REVISIONS		BY	APP'D
KANSAS DEPARTMENT OF TRANSPORTATION					
TRAFFIC CONTROL GENERAL NOTES					
TE700					
FHWA APPROVAL	08/18/15	APP'D	Kristina Ericksen		
DESIGNED	B.A.H.	DETAILED	R.W.B.	QUANTITIES	TRACED
DESIGN CK.	DETAIL CK.	QUAN. CK.			TRACE CK.