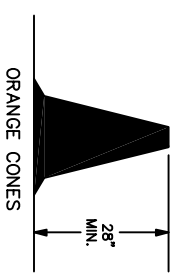


DRUMS AND TRIM LINE CHANNELLIZERS SHALL BE RETROREFLECTORIZED FULL CIRCUMFERENCE WITH AT LEAST TWO ORANGE AND TWO WHITE STRIPES. ADDITIONAL STRIPES MAY BE NON-REFLECTIVE, THEY SHALL BE NO MORE THAN NON-REFLECTIVE SPACES BETWEEN ADJACENT STRIPES, THEY SHALL BE NO MORE THAN 2" WIDE.

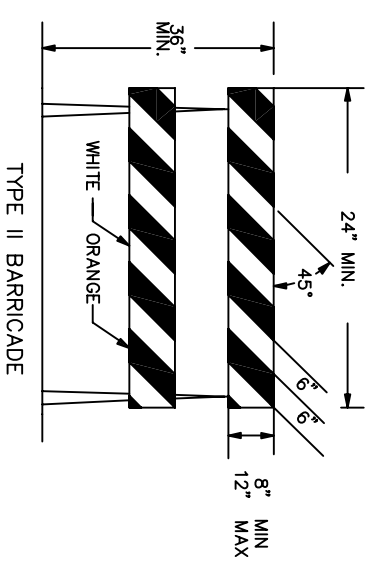
ALL RETROREFLECTIVE STRIPES ON DRUMS SHALL BE TYPE III HIGH PERFORMANCE SHEETING. THE WHITE STRIPES ON TRIM LINE CHANNELLIZERS SHALL BE TYPE III HIGH PERFORMANCE SHEETING. PROJECTS LET AFTER JANUARY 1, 2002 WILL REQUIRE THAT THE ORANGE STRIPES ON ALL TRIM LINE CHANNELLIZERS BE FLUORESCENT ORANGE PRISMATIC GRADE SHEETING.



CONES MAY BE USED AS CHANNELLIZING DEVICES FOR DAYTIME OPERATIONS ONLY. THEY WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE SUBSIDIARY TO OTHER TRAFFIC CONTROL BID ITEMS. THE ENGINEER MAY REQUIRE THAT CONES BE SUPPLEMENTED BY OTHER TRAFFIC CONTROL DEVICES IN CERTAIN SITUATIONS.

ITEM	LOCATION	CROSS-OVERS						
		DIVERSIONS	TANGENTS	TAPERS	RAMPS	HEAD TO HEAD	OBJECT IDENTIFIER	
PORTABLE								
DRUMS		YES	YES	YES	YES	YES	(1)	YES
TRIM LINES		YES	YES	YES	YES	YES	(1)	YES
VERTICAL PANELS		(2)	(2)	(2)	(2)	(2)	(1,2)	YES
DIRECTION INDICATOR BARRICADE		NO	NO	NO	NO	NO	NO	NO
TYPE II BARRICADE		(2)	(2)	(2)	(2)	(2)		YES
FIXED								
TUBULAR MARKERS		(3)	(3)	(3)	(3)	(3)		NO
VERTICAL PANELS		(3)	(3)	(3)	(3)	(3)		YES

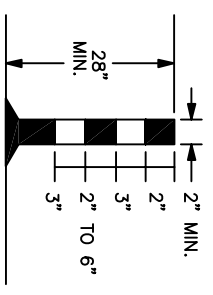
- (1) Not allowed on centerline delineation along freeways or expressways.
- (2) Sashes must slope down toward direction traffic is to pass.
- (3) May be used upon the approval of the Engineer.



FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.

THE ENTIRE AREA OF BARRICADE RAILS, BOTH FRONT AND BACK, SHALL BE FULLY REFLECTORIZED WITH HIGH PERFORMANCE RETROREFLECTIVE SHEETING.

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELLIZATION.



TUBULAR MARKERS

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 OF OFFSET IN FEET

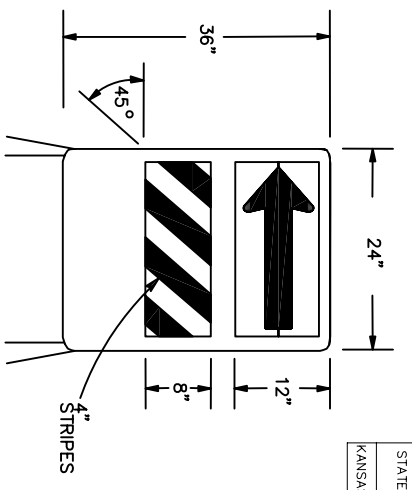
CHANNELLIZER PLACEMENT:

(A) THE SPACING BETWEEN DEVICES IN THE TAPER SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO THE POSTED SPEED LIMIT IN MPH PRIOR TO WORK STARTING.

(B) THE SPACING BETWEEN DEVICES IN THE WORK ZONE SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO TWO TIMES THE POSTED SPEED LIMIT IN MPH PRIOR TO WORK STARTING.

(C) CHANNELLIZING DEVICES SHALL BE PLACED FOR OPTIMUM VISIBILITY, NORMALLY AT RIGHT ANGLES TO THE TRAFFIC FLOW.

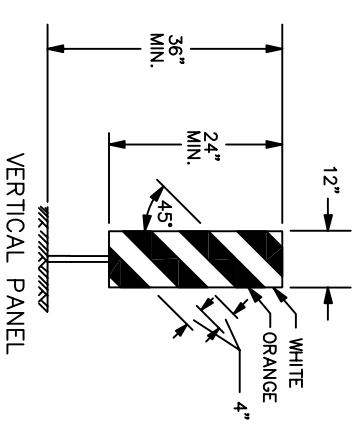
(D) CHANNELLIZING DEVICES PLACED ALONG SHOULDER EDGES OR IN DROPOFFS SHALL HAVE A MINIMUM OF 24" FROM THE TOP OF THE CHANNELLIZING DEVICE TO THE TOP OF THE PAVEMENT.



DIRECTION INDICATOR BARRICADE

THE ARROW PANEL SHALL BE BLACK ON FLUORESCENT ORANGE PRISMATIC GRADE SHEETING. THE STRIPES SHALL BE ORANGE AND WHITE TYPE III HIGH PERFORMANCE RETROREFLECTIVE SHEETING SLOPING DOWNWARD TO THE DIRECTION TRAFFIC IS TO PASS.

THE DIRECTION INDICATOR BARRICADE SHALL BE USED IN SERIES TO DIRECT THE MOTORIST INTO THE INTENDED LANE OF TRAVEL. THE ARROW PANEL SHOULD NOT BE VISIBLE TO OPPOSING TRAFFIC.



VERTICAL PANEL

THE ENTIRE AREA OF VERTICAL PANELS, BOTH FRONT AND BACK, SHALL BE FULLY REFLECTORIZED WITH HIGH PERFORMANCE RETROREFLECTIVE SHEETING. STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELLIZATION.

STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL
KANSAS	87N-0237-01	2006	55	78

NO.	DATE	REVISIONS	BY	APP'D
3	11-19-03	CHANGED BORDER	B.H.	S.A.B.
2	9-28-02	MODIFIED NOTES	J.H.	S.A.B.
1	11-13-01	REVISED CHANNELLIZING DEVICE MARK	J.H.	S.A.B.

KANSAS DEPARTMENT OF TRANSPORTATION  
 CHANNELLIZING DEVICES

DESIGNED	BY	DATE	DESIGNED	BY	DATE
DESIGN OK	LEB	11-26-03	DESIGN OK	BAH	11-26-03
TRACED	BY	DATE	TRACED	BY	DATE
TRACE OK			TRACE OK		