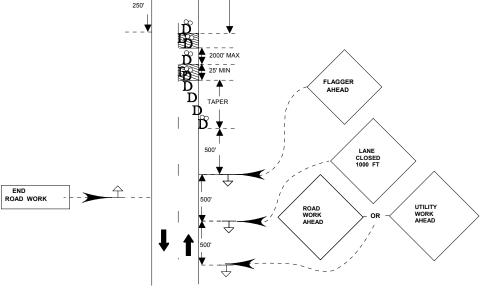
STANDARD DESIGN TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS CASE 12 TWO-LANE, TWO-WAY TRAFFIC, WORK AREAS IN SERIES DAY OR NIGHT OPERATIONS BARRICADE SYMBOLS ROAD WORK AHEAD UTILITY WORK AHEAD Type III 500 SYMBOLS 4 D Drums 500 ONE LANE 77//// Work area ROAD 1000 FT $\widehat{}$ Sign (bottom of all signs must be at least five(5) feet $\widehat{}$ END ROAD WORK 500 above roadway surface) 는 250 Traffic Flow 29 Flagger station ۰. D - 50' MAX 4 LIGHT SYMBOLS Type "A" amber flashing light ñ 4 Ď O Type "B" amber high-intensity light TAPER D 20:1 Type "B" red high-intensity light Th TYPICAL APPLICATIONS Pavement patching 500' Cable laying Ŷ Utility operations 500 ONE LANE ROAD 1000 FT Ţ ONE LANE $\hat{\mathbf{T}}$ ROAD 1000 FT 500



2000'

500'

FLAGGER AHEAD

CASE 12

TWO-LANE, TWO-WAY TRAFFIC, WORK AREAS IN SERIES DAY OR NIGHT OPERATIONS

Where, at any time, any vehicle, equipment, worker or their activities will encroach in the area between the centerline and the outside of the roadway or pavement.

General Notes

- 1. All vehicles, equipment, workers (except FLAGGER) and their activities are restricted at all times to one side of the pavement, unless otherwise authorized by the Traffic Engineer.
- 2. When the distance between successive patches is less than 2,000 feet, the entire operation will be considered as one work area. When the distance between successive patches exceeds 2,000 feet, additional advance warning signs as shown shall be installed. Under restricted sight distance conditions, such additional warning signs may also be required for distances less than 2,000 feet at the discretion of the Engineer.
- 3. Construction, maintenance or utility operations shall be confined to one traffic lane, leaving the opposite lane open traffic. At least 500 feet of both lanes shall be available for traffic movements at intervals not greater than 4,000 feet. A complete traffic control plan must be approved for any project expected to exceed 4,000 feet in length including both taper and work areas.
- 4. Two (2) FLAGGERS shall be required for each separate operation where successive patches are more than 2,000 feet apart, unless otherwise authorized by the Engineer, due to low volume of traffic. Where successive patches are more than 50 feet, but less than 2,000 feet apart, Drums with one (1) AMBER TYPE "B" flashing warning lights as shown shall be placed on the pavement beyond and in advance of the patches.
- 5. The FLAGGER's shall be in sight of each other or in communications at all times.
- 6. When there is no work being performed, FLAGGER AHEAD signs and the FLAGGER will not be required, ONE LANE ROAD 500 FEET signs shall be installed in place of the FLAGGER AHEAD signs. Traffic may use shoulder when authorized by the Engineer. An unattended obstacle or excavation in the work area shall be protected by Drums. At night one (1) AMBER TYPE "B" flashing lights shall be installed above the Drums.
- 7. A minimum of two (2) TYPE "B" high-intensity flashing warning lights shall be used at night on each approach in advance of the work area. One AMBER flashing light shall be installed above each of the first two (2) advance warning signs in the series.
- 8. Cones may be substituted for Drums during day operations.
- 9. All signs shall be post mounted if the closure time exceeds four (4) days, unless otherwise authorized by the Engineer.
- 10. Longitudinal dimensions may be adjusted slightly to fit field conditions.
- 11. When a side road intersects the highway on which work is being performed, additional traffic control devices shall be erected as directed by the Engineer.
- 12. All vehicles in a work area shall display flashing lights installed for the purpose of warning approaching drivers of a vehicular traffic hazard requiring unusual care in approaching, overtaking, or passing.