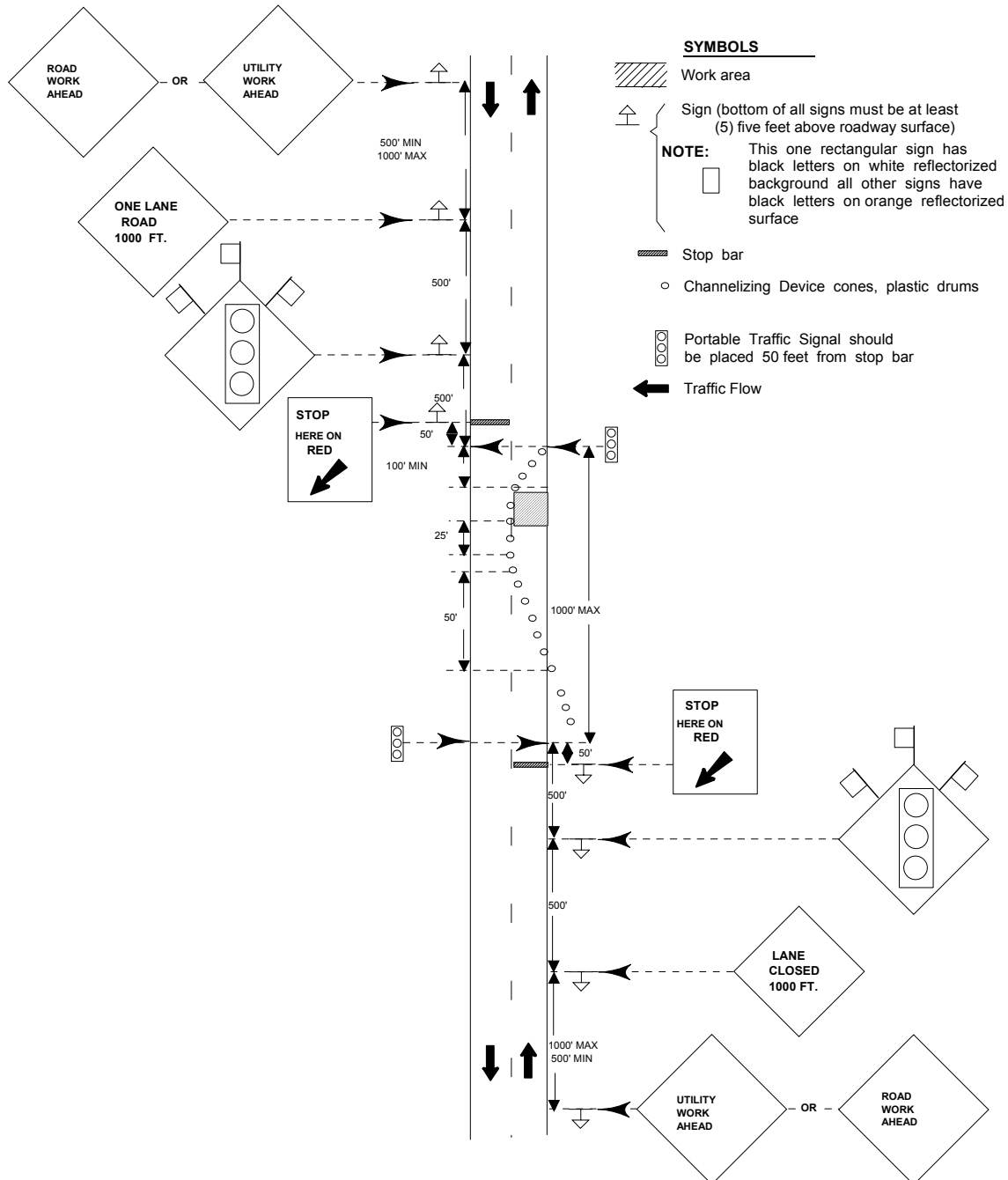


STANDARD DESIGN
TYPICAL APPLICATION OF TRAFFIC CONTROL DEVICES FOR
HIGHWAY CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS
CASE 10
STATIONARY SHORT-TERM PORTABLE TRAFFIC SIGNAL OPERATION
ON A TWO-LANE TWO-WAY ROADWAY



CASE 10

STATIONARY SHORT-TERM PORTABLE TRAFFIC SIGNAL OPERATION ON A TWO-LANE TWO-WAY ROADWAY

General Notes

1. Contractor shall submit a plan indicating the placement and operation of the portable traffic signals to the Engineer for approval 10 days prior to use. Portable traffic signals must be of a type approved for use on construction/utility or maintenance operations required by the Engineer.
2. Additional signing and devices shall be installed as required by the Engineer.
3. Portable traffic signals shall not be used where:
 - a) Approaching speeds are greater than 40 M.P.H.
 - b) Sight distance to the signals is less than required in the MUTCD.
 - c) Overhead signals are required by field conditions.
4. The operator must have an unobstructed view of both ends of the roadway segment being controlled when manual controls are in use.
5. If the total distance between each pair of the traffic signals is greater than 1,000 feet or the operator's view of the signal head or traffic flow through the work zone is obstructed, under manual operation a separate operator is required at each end and communication must be maintained between the operators.
6. Signal heads shall be a minimum of four feet off the edge of the travelway, and a minimum of eight feet to the bottom above the roadway. A signal face shall be located on each side of the roadway in each direction.
7. Minimum change interval (yellow) is three (seconds).
8. Minimum clearance interval (red) is determined by the length of the area controlled by the traffic signals and speed of traffic flow through the work area.
9. The contractor/utility company or maintenance department must replace the lamps in accordance with the manufactures recommendations and a record of this must be maintained by the contractor/utility company or maintenance department.
10. The location of the portable traffic signals may be modified, with the project Engineer's approval to obtain the required visibility for both operator and motorists.
11. All vehicles in the 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.
12. Provide for alternate operation of the signal during period of failure, either flash, manually or by having manual traffic direction.
13. Have properly skilled maintenance available without undue delay for all emergency calls, including lamp failure.
14. Provide properly skilled maintenance for all components.
15. Maintain the appearance of the installation in a manner consistent with the intention of this manual, with particular emphasis on painting and cleaning of the optical system.
16. Service equipment and lamps as frequently as experience proves necessary to prevent undue failures.
17. Provide adequate stand-by equipment to minimize the interruption of signal operation due to equipment failure.
18. Every controller should be kept in effective operation in strict accordance with its predetermined timing schedule.
19. A careful check of the correctness of time operation of the controller should be made frequently enough to insure its operating in accordance with the planned timing schedule. Timing changes should be made only by authorized persons. A written record shall be made of all timing changes.
20. All traffic signal equipment shall be carefully cleaned and serviced at least as frequently as specified by the manufacturer and more frequently if experience proves it necessary.