

| TABLE NY1-A BARRIER VEHICLE USE REQUIREMENTS (LONG TERM, INTERMEDIATE TERM & SHORT TERM STATIONARY CLOSURES) | | | | | |
|--|---|----------------------------------|--|-----------------------|-----------------------|
| CLOSURE TYPE | EXPOSURE CONDITION ¹ | USE REQUIREMENTS ^{4, 5} | | | |
| | | FREEWAY | NON-FREEWAY (PRECONSTRUCTION POSTED SPEED LIMIT) | | |
| | | | w45 MPH | 35-40 MPH | 130 MPH |
| LANE CLOSURE | WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC | REQUIRED ³ | REQUIRED ³ | REQUIRED ³ | OPTIONAL ² |
| | NON-TRAVERSABLE HAZARD (IE. EQUIPMENT, MATERIALS, EXCAVATION) ONLY NO WORKERS EXPOSED | REQUIRED ³ | REQUIRED ³ | OPTIONAL ² | OPTIONAL ² |
| SHOULDER CLOSURE | WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC | REQUIRED ³ | REQUIRED ³ | OPTIONAL ² | OPTIONAL ² |
| | NON-TRAVERSABLE HAZARD (IE. EQUIPMENT, MATERIALS, EXCAVATION) ONLY NO WORKERS EXPOSED | REQUIRED ³ | OPTIONAL ² | OPTIONAL ² | OPTIONAL ² |

- THE EXPOSURE CONDITIONS DESCRIBED IN TABLE NY1-A ASSUMES THERE IS NO POSITIVE PROTECTION (TEMPORARY TRAFFIC BARRIER) PRESENT, WHERE WORKERS OR HAZARDS ARE PROTECTED BY A TEMPORARY TRAFFIC BARRIER, BARRIER VEHICLES ARE NOT REQUIRED.
- WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE (TABLE 6C-2) SHALL BE PROVIDED.
- REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED SHOULDER 8 FEET OR GREATER IN WIDTH. IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES PROTECTING NON-TRAVERSABLE HAZARDS SHALL REMAIN IN PLACE DURING BOTH WORKING AND NON-WORKING HOURS UNTIL THE HAZARD NO LONGER EXISTS. EXCEPTIONS TO THESE REQUIREMENTS MAY BE MADE, AS APPROVED BY THE ENGINEER, WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.
- BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE (TABLE 6C-2) SHALL BE PROVIDED.
- BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS.

| TABLE NY1-B SHADOW VEHICLE USE REQUIREMENTS (MOBILE CLOSURES ¹) | | | | | |
|---|---|-------------------------|--|-------------------------|-------------------------|
| CLOSURE TYPE | EXPOSURE CONDITION | USE REQUIREMENTS | | | |
| | | FREEWAY | NON-FREEWAY (PRECONSTRUCTION POSTED SPEED LIMIT) | | |
| | | | w45 MPH | 35-40 MPH | 130 MPH |
| LANE CLOSURE | WHEN ANY WORKERS, VEHICLES, OR OTHER HAZARD IS EXPOSED TO TRAFFIC | REQUIRED ^{2,4} | REQUIRED ^{2,4} | REQUIRED ^{2,4} | REQUIRED ^{3,4} |
| SHOULDER CLOSURE | WHEN ANY WORKERS, VEHICLES, OR OTHER HAZARD IS EXPOSED TO TRAFFIC | REQUIRED ^{2,4} | REQUIRED ^{2,4} | REQUIRED ^{3,4} | REQUIRED ^{3,4} |

- A MOBILE CLOSURE SHALL BE USED FOR ANY WORK ACTIVITY THAT MOVES CONTINUOUSLY OR INTERMITTENTLY ALONG THE TRAVELED WAY OR SHOULDER SLOWER THAN THE PREVAILING SPEED OF TRAFFIC. CHANNELIZING DEVICES ARE NOT USED FOR MOBILE CLOSURES.
- SHADOW VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED ATTENUATOR (TRUCK-MOUNTED OR TRAILER MOUNTED) FOR THE FOLLOWING MOBILE CLOSURES: LANE CLOSURES ON FREEWAYS; LANE CLOSURES ON NON-FREEWAY ROADWAYS HAVING A PRE-CONSTRUCTION POSTED SPEED LIMIT OF 35 MPH OR MORE; SHOULDER CLOSURES ON FREEWAYS; AND SHOULDER CLOSURES ON NON-FREEWAY ROADWAYS HAVING A PRE-CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE.
- FOR MOBILE LANE CLOSURES ON NON-FREEWAY ROADWAYS HAVING A PRE-CONSTRUCTION POSTED SPEED LIMIT OF 30 MPH OR LESS AND MOBILE SHOULDER CLOSURES ON NON-FREEWAY ROADWAYS HAVING A PRE-CONSTRUCTION SPEED LIMIT OF 40 MPH OR LESS, SHADOW VEHICLES ARE NOT REQUIRED TO BE EQUIPPED WITH A REAR MOUNTED ATTENUATOR.
- A SHADOW VEHICLE IS USED TO PROTECT EXPOSED WORKERS (ON FOOT OR IN A VEHICLE) AND SHALL BE REQUIRED FOR ALL MOBILE CLOSURES. SHADOW VEHICLE REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE SHADOW VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED SHOULDER 8 FEET OR GREATER IN WIDTH. ADDITIONAL SHADOW VEHICLES MAY BE REQUIRED TO PROMOTE THE SAFE OPERATION OF TRAFFIC AND THE INCREASED PROTECTION OF EXPOSED WORKERS, AS DIRECTED BY THE ENGINEER.

| TABLE NY2-A PLACEMENT DISTANCE FOR BARRIER VEHICLES | | | | |
|--|-------------------------|---------|------------|---------|
| PRECONSTRUCTION POSTED SPEED LIMIT (MPH) | PLACEMENT DISTANCE (FT) | | | |
| | BARRIER VEHICLES | | | |
| | 18000 LBS. | | 24000 LBS. | |
| | MINIMUM | MAXIMUM | MINIMUM | MAXIMUM |
| > 55 | | | | |
| 45 - 55 | | | | |
| < 45 | | | | |

AS DEFINED IN NYS DOT STANDARD SPECIFICATION 619:
BARRIER VEHICLE: VEHICLE USED FOR STATIONARY SHOULDER CLOSURES, LANE CLOSURES AND OTHER STATIONARY WORK ZONES.
 MINIMUM DISTANCE SHOWN REFLECTS THE ACTUAL ROLL AHEAD DISTANCE FROM MANUFACTURER.

| TABLE NY2-B PLACEMENT DISTANCE FOR SHADOW VEHICLES | | | | |
|---|-------------------------|---------|------------|---------|
| PRECONSTRUCTION POSTED SPEED LIMIT (MPH) | PLACEMENT DISTANCE (FT) | | | |
| | SHADOW VEHICLES | | | |
| | 18000 LBS. | | 24000 LBS. | |
| | MINIMUM | MAXIMUM | MINIMUM | MAXIMUM |
| > 55 | | | | |
| 45 - 55 | | | | |
| < 45 | | | | |

AS DEFINED IN NYS DOT STANDARD SPECIFICATION 619:
SHADOW VEHICLE: VEHICLE USED FOR MOBILE OR SHORT DURATION WORK OPERATIONS.
 MINIMUM DISTANCE SHOWN REFLECTS THE ACTUAL ROLL AHEAD DISTANCE FROM MANUFACTURER.

| TABLE NY6H-3 ADVANCE WARNING SIGN SPACING | | | | | |
|--|------------------------|-----------|-----------|-------------|----|
| ROAD TYPE | DISTANCE BETWEEN SIGNS | | | SIGN LEGEND | |
| | A (FT) | B (FT) | C (FT) | XX | YY |
| URBAN (130 MPH*) | | | | | |
| URBAN (35-40 MPH*) | | | | | |
| URBAN (w45 MPH*) | | | | | |
| RURAL | | | | | |
| EXPRESSWAY/FREEWAY | | | | | |

* PRECONSTRUCTION POSTED SPEED LIMIT

URBAN: ANY AREA EXHIBITING AT LEAST TWO OF THE FOLLOWING CHARACTERISTICS: SIDEWALKS; BICYCLE USAGE; CURBING; CLOSED DRAINAGE SYSTEMS; DRIVEWAY DENSITIES GREATER THAN 24 DRIVEWAYS PER MILE; MINOR COMMERCIAL DRIVEWAY DENSITIES OF 10 DRIVEWAYS PER MILE OR GREATER; MAJOR COMMERCIAL DRIVEWAYS; NUMEROUS RIGHT-OF-WAY CONSTRAINTS; HIGH DENSITY OF CROSS STREETS; OPERATING SPEEDS OF 45 MPH OR LESS.

RURAL: ANY AREA EXHIBITING NO MORE THAN ONE OF ABOVE CHARACTERISTICS.

EXPRESSWAY: DIVIDED HIGHWAYS FOR THROUGH TRAFFIC WITH FULL OR PARTIAL CONTROL OF ACCESS AND GENERALLY WITH GRADE SEPARATIONS AT MAJOR CROSSROADS.

FREEWAY/INTERSTATE: LOCAL OR INTERREGIONAL HIGH-SPEED, DIVIDED, HIGH-VOLUME FACILITIES WITH FULL OR PARTIAL CONTROL OF ACCESS.

| THRUWAY WORK DURATION DEFINITIONS | |
|-------------------------------------|--|
| LONG-TERM STATIONARY | IS WORK THAT OCCUPIES A LOCATION MORE THAN 3 CONSECUTIVE DAYS. |
| INTERMEDIATE-TERM STATIONARY | IS WORK THAT OCCUPIES A LOCATION MORE THAN ONE DAYLIGHT PERIOD UP TO 3 CONSECUTIVE DAYS, OR NIGHTTIME WORK LASTING MORE THAN 1 HOUR. |
| SHORT-TERM STATIONARY | IS DAYTIME WORK THAT OCCUPIES A LOCATION WITHIN A SINGLE DAYLIGHT PERIOD. |
| SHORT DURATION | IS WORK THAT OCCUPIES A LOCATION UP TO 2 HOURS |
| MOBILE | IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY. |

| TABLE 619-4 FLARE RATES FOR POSITIVE BARRIER | | | | | |
|---|--------------------|--------|--------|--------|--------|
| TYPE OF POSITIVE BARRIER | POSTED SPEED LIMIT | | | | |
| | 30 MPH | 40 MPH | 50 MPH | 55 MPH | 65 MPH |
| TEMPORARY CONCRETE BARRIER | | | | | |
| BOX BEAM OR HEAVY POST CORRUGATED BEAM | | | | | |

| TABLE 6C-2 LONGITUDINAL BUFFER SPACE | |
|--|----------|
| PRECONSTRUCTION POSTED SPEED LIMIT (MPH) | DISTANCE |
| 25 | |
| 30 | |
| 35 | |
| 40 | |
| 45 | |
| 50 | |
| 55 | |
| 60 | |
| 65 | |

| TABLE 6C-3 TAPER LENGTH CRITERIA FOR WORK ZONES | |
|---|--|
| TYPE OF TAPER | |
| MERGING TAPER | |
| SHIFTING TAPER | |
| SHOULDER TAPER | |
| ONE-LANE, TWO-WAY TRAFFIC TAPER | |
| DOWNSTREAM TAPER | |

| TABLE 6H-4 FORMULAS FOR DETERMINING TAPER LENGTHS | | | | | | | | | | |
|--|---|--------|--------|--------|--------|--------|--------|--------|--------|--|
| SPEED LIMIT (S) (MPH) | TAPER LENGTH (L) (FEET) | | | | | | | | | |
| 40 MPH OR LESS | | | | | | | | | | |
| 45 MPH OR MORE | | | | | | | | | | |
| L = TAPER LENGTH (FEET) W = WIDTH OF OFFSET (FEET) S = PRE-CONSTRUCTION POSTED SPEED LIMIT (MPH) | | | | | | | | | | |
| STANDARD TAPER LENGTHS | | | | | | | | | | |
| LATERAL SHIFT OF TRAFFIC FLOW PATH | WORK ZONE PRE-CONSTRUCTION POSTED SPEED LIMIT | | | | | | | | | |
| | 25 MPH | 30 MPH | 35 MPH | 40 MPH | 45 MPH | 50 MPH | 55 MPH | 60 MPH | 65 MPH | |
| 4 FT | | | | | | | | | | |
| 5 FT | | | | | | | | | | |
| 6 FT | | | | | | | | | | |
| 7 FT | | | | | | | | | | |
| 8 FT | | | | | | | | | | |
| 9 FT | | | | | | | | | | |
| 10 FT | | | | | | | | | | |
| 11 FT | | | | | | | | | | |
| 12 FT | | | | | | | | | | |

| WORK ZONE TRAFFIC CONTROL LEGEND | |
|----------------------------------|---|
| SYMBOL | DESCRIPTION |
| | ARROW PANEL |
| | ARROW PANEL, CAUTION MODE |
| | ARROW PANEL SUPPORT OR TRAILER |
| | CHANGEABLE MESSAGE SIGN (PVMS) |
| | CHANNELIZING DEVICE |
| | CRASH CUSHION/TEMPORARY IMPACT ATTENUATOR |
| | DIRECTION OF TEMPORARY TRAFFIC DETOUR |
| | DIRECTION OF TRAFFIC |
| | FLAGGER |
| | FLAG TREE |
| | LUMINAIRE |
| | PAVEMENT MARKINGS THAT SHALL BE REMOVED FOR A LONG TERM PROJECT |
| | SIGN, TEMPORARY |
| | TEMPORARY BARRIER |
| | TEMPORARY BARRIER WITH WARNING LIGHTS |
| | TRAFFIC OR PEDESTRIAN SIGNAL |
| | TYPE III BARRICADE |
| | WARNING LIGHTS |
| | WORK SPACE |
| | WORK VEHICLE |
| | WORK VEHICLE W/ TRUCK MOUNTED ATTENUATOR |

| DATE | DESCRIPTION | BY | SYM. |
|------|-------------|----|------|
| | | | |
| | | | |
| | | | |
| | | | |

REVISIONS

NEW YORK STATE THRUWAY AUTHORITY
DEPARTMENT OF ENGINEERING
200 SOUTHERN BLVD., ALBANY, N.Y. 12209

TITLE OF PROJECT
TITLE OF PROJECT LINE 1
TITLE OF PROJECT LINE 2

LOCATION OF PROJECT
LOCATION OF PROJECT LINE 1
LOCATION OF PROJECT LINE 2

TITLE OF DRAWING
**WORK ZONE
TRAFFIC CONTROL
TABLES AND LEGEND**

CONTRACT NUMBER:
TA

DATE:
2/09

DRAWING NUMBER:
TL



CHECKED BY: CAD

DRAFTED BY: CAD

DESIGNED BY: TA

IN CHARGE OF: TA