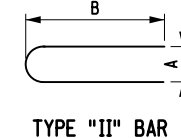
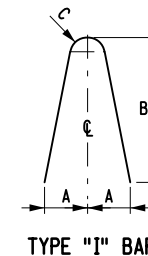


NOTES:

- TEMPORARY CONCRETE BARRIER SHALL BE PRECAST IN ACCORDANCE WITH THE REQUIREMENTS OF §704-05 PRECAST CONCRETE BARRIER.
- TEMPORARY CONCRETE BARRIER SHALL BE PRECAST UNITS OF ONE OF THE FOLLOWING NOMINAL LENGTHS 8', 10', 12', 14', 16', 18', 20'.
- STEEL PLATE REINFORCEMENT SHALL BE ASTM A36M, A572M, GRADE 345 STEEL, TUBE REINFORCEMENT SHALL BE ASTM A500, GRADE B OR C, AND REINFORCING BARS SHALL BE A615, GRADE 420. EPOXY BARS ARE NOT REQUIRED.
- ALL WELDING SHALL BE PERFORMED BY A WELDER QUALIFIED IN ACCORDANCE WITH SECTION 8 OF THE NYS STEEL CONSTRUCTION MANUAL.
- SURFACES TO BE WELDED SHALL BE FREE OF SLAG, RUST, MOISTURE, GREASE OR ANY OTHER MATERIAL THAT WILL PREVENT PROPER WELDING OR PRODUCE OBJECTIONABLE FUMES.
- WELDING SHALL BE SHIELDED METAL ARC WELDING USING PROPERLY DRIED 5/32" E7018 ELECTRODES CONFORMING TO THE REQUIREMENTS OF SECTION 7 OF THE NYS STEEL CONSTRUCTION MANUAL.
- THE LENGTH OF THE 6B2 AND 6B3 BARS WILL VARY WITH THE LENGTH OF THE BARRIER SEGMENT.
- CONCRETE CLEAR COVER FOR REINFORCING BARS SHALL BE 1/2" (MIN.) UNLESS OTHERWISE SPECIFIED.
- A MINIMUM OF (2) TWO RECESSED LIFTING DEVICES, EACH WITH THE CAPACITY TO LIFT A MASS OF 6 TONS (MINIMUM), SHALL BE INSTALLED ON EACH SEGMENT. SEGMENT MASS IS APPROXIMATELY 400 LBS/FT.
- ONE DRAINAGE POCKET SHALL BE INCLUDED IN THE CENTER OF 8'-0" AND 10'-0" SEGMENTS, TWO DRAINAGE POCKETS IN ALL OTHER SEGMENTS.
- CONNECTION KEY COVER PLATE SHALL BE INSTALLED FLUSH WITH THE BARRIER TOP.
- 1" ASTM A36M ANCHOR PINS SHALL BE PLACED IN FOUR ANCHOR HOLES OF EACH SEGMENT TO BE PINNED. PINS SHALL BE PLACED ON THE WORKZONE SIDE OF THE BARRIER.
- BASED ON SEGMENT LENGTH AND MAXIMUM JOINT ROTATION, TEMPORARY CONCRETE BARRIER CANNOT BE INSTALLED ON RADII TIGHTER THAN THE FOLLOWING MINIMUMS: 8' - 92', 10' - 115', 12' - 138', 14' - 161', 16' - 184', 18' - 207', 20' - 230'.

OPTIONAL BATTERED BOTTOM CORNER DETAIL



TYPE "I" BAR

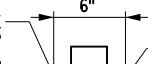
TYPE "II" BAR

1/2" R NOTE: THIS COVER PLATE SHALL BE INSTALLED SO IT IS FLUSH WITH THE TOP OF THE BARRIER.



(TYP.) 5/16"

1" X 1/2" STIFFENER (TYP.) 5/16"



6"

19

1'-8"

REFLECTOR

3/8" X 1" MAX. BOLT WITH NUT AND LOCKWASHER

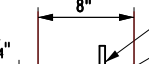
R=3/4"

5/16"

6"

1'-8"

END VIEW



SECTION E-E

CONNECTION KEY

2"

1/2" PLATE

3/4"

5/16"

1'-8"

SECTION F-F

CONNECTION KEY

2"

1/2" PLATE

3/4"

5/16"

1'-8"

SECTION F-F

CONNECTION KEY

2"

1/2" PLATE

3/4"

5/16"

1'-8"

SECTION F-F

CONNECTION KEY

2"

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3/4"

5/16"

1'-8"

SECTION F-F

CONNECTION KEY

2"

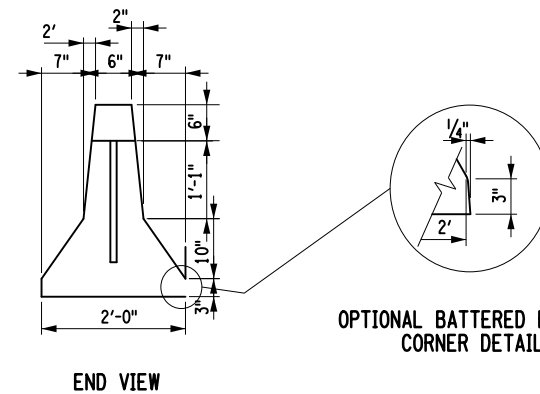
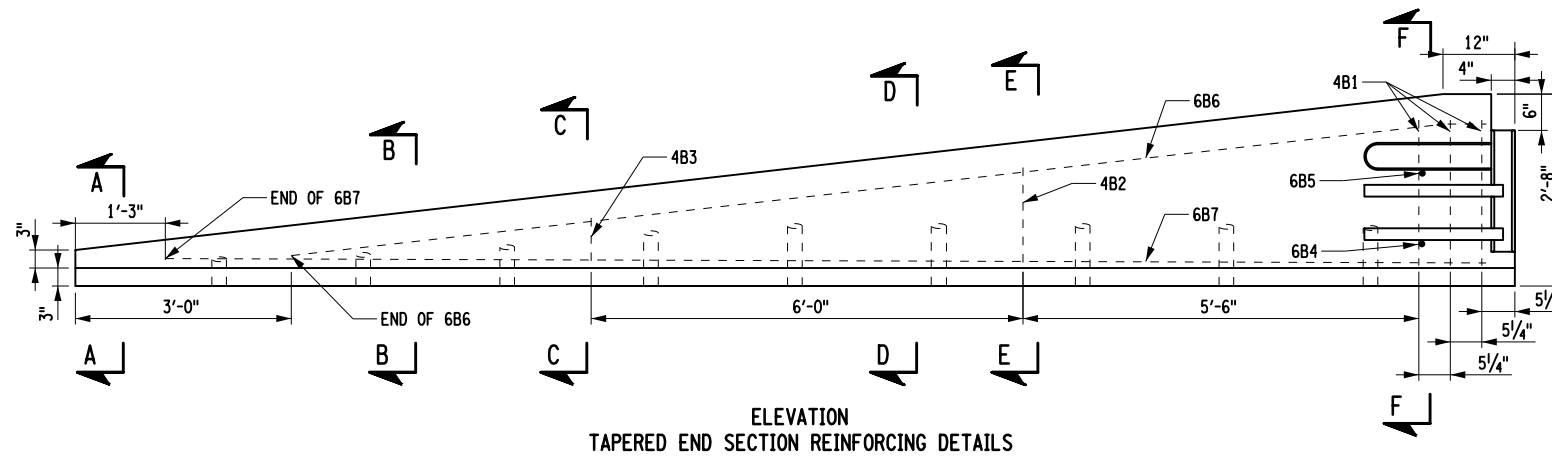
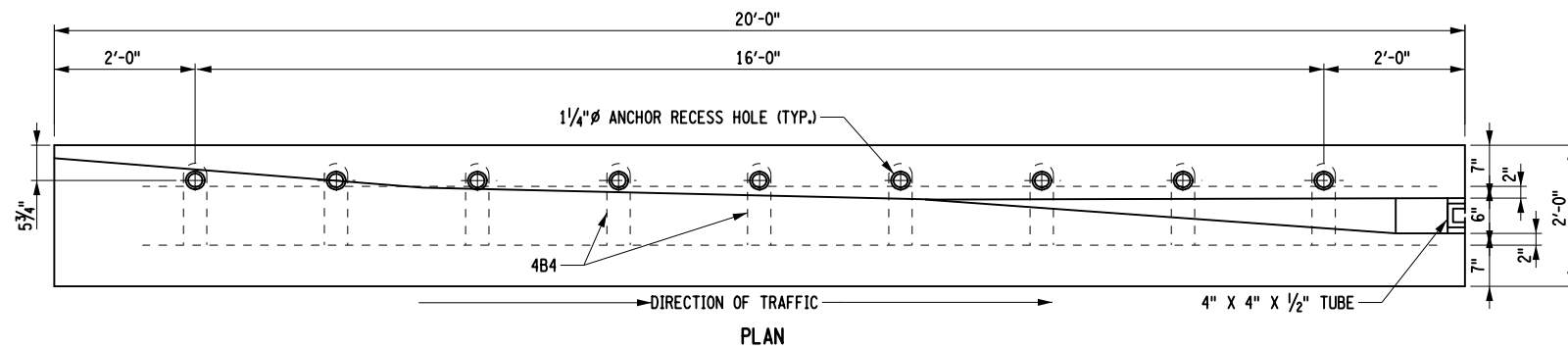
1/2" PLATE

3/4"

5/16"

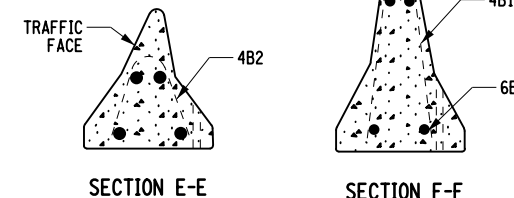
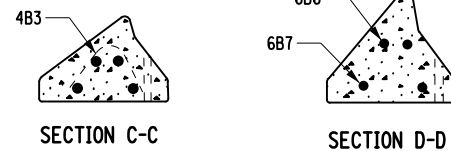
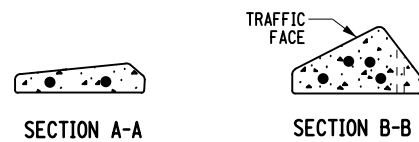
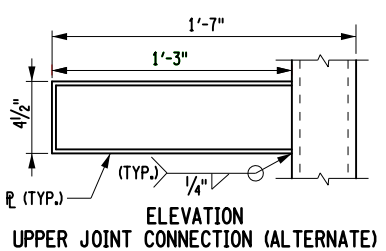
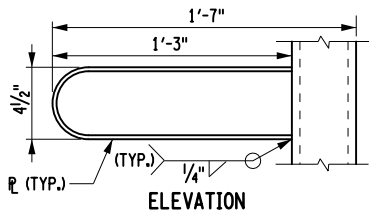
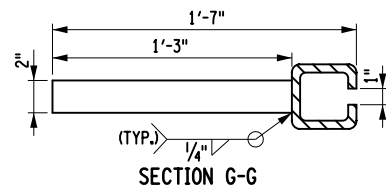
1'-8"

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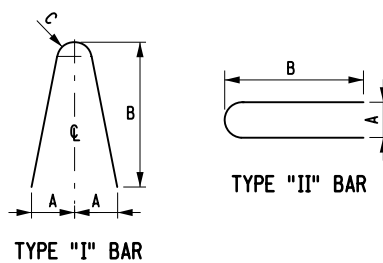


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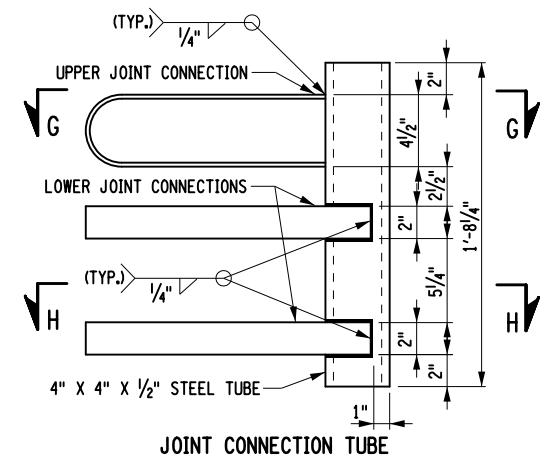
1. STEEL PLATE SHALL BE ASTM A36M, A572M, GRADE 345, TUBE STEEL SHALL BE ASTM A500 GRADE B OR C, AND REINFORCING BARS SHALL BE A615 GRADE 420.
3. ALL CORNERS ON THE TOP OF THE SEGMENT SHALL BE ROUNDED TO A 1" RADIUS. THE SEGMENT SHALL HAVE A SMOOTH TRANSITION TO A 6" END-OF-SECTION HEIGHT. ALL END SECTIONS SHALL BE PINNED UNLESS OTHERWISE NOTED.
3. THE DETAILS SHOWN FOR THE END SECTIONS ON THIS SHEET ARE FOR APPROACH ENDS WHICH ARE TO BE LOCATED TO THE LEFT OF THE TRAFFIC FLOW ON ONE-WAY OPERATIONS OR BETWEEN OPPOSING FLOWS OF TRAFFIC ON TWO-WAY OPERATIONS. WHEN AN APPROACH END IS TO BE LOCATED TO THE RIGHT OF THE TRAFFIC FLOW, THE END SEGMENT SHALL BE CONSTRUCTED SO THAT IT IS OPPOSITE-HAND (REVERSED IN ALL CONFIGURATIONS, ANCHOR HOLE LOCATIONS AND REINFORCEMENT).



TRANSITION SECTIONS



TAPERED END SECTION BAR LIST								
MARK	SIZE	NUMBER PER SECTION	LENGTH	TYPE	A	B	C	LOCATION
4B1	13	3	4'-11"	I	5"	28"	1"	STIRRUPS
4B2	13	1	3'-3"	I	5"	18"	1"	STIRRUPS
4B3	13	1	1'-8"	I	5"	8"	1"	STIRRUPS
4B4	13	9	3'-1"	II	4"	15 1/2"		HOOPS
6B4	19	1	1'-2"	STR.				TRANSVERSE (TOP)
6B5	19	1	6"	STR.				TRANSVERSE (BOTTOM)
6B6	19	2	16'-7"	STR.				
6B7	19	2	18'-2"	STR.				



NEW YORK
STATE OF OPPORTUNITY.

Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

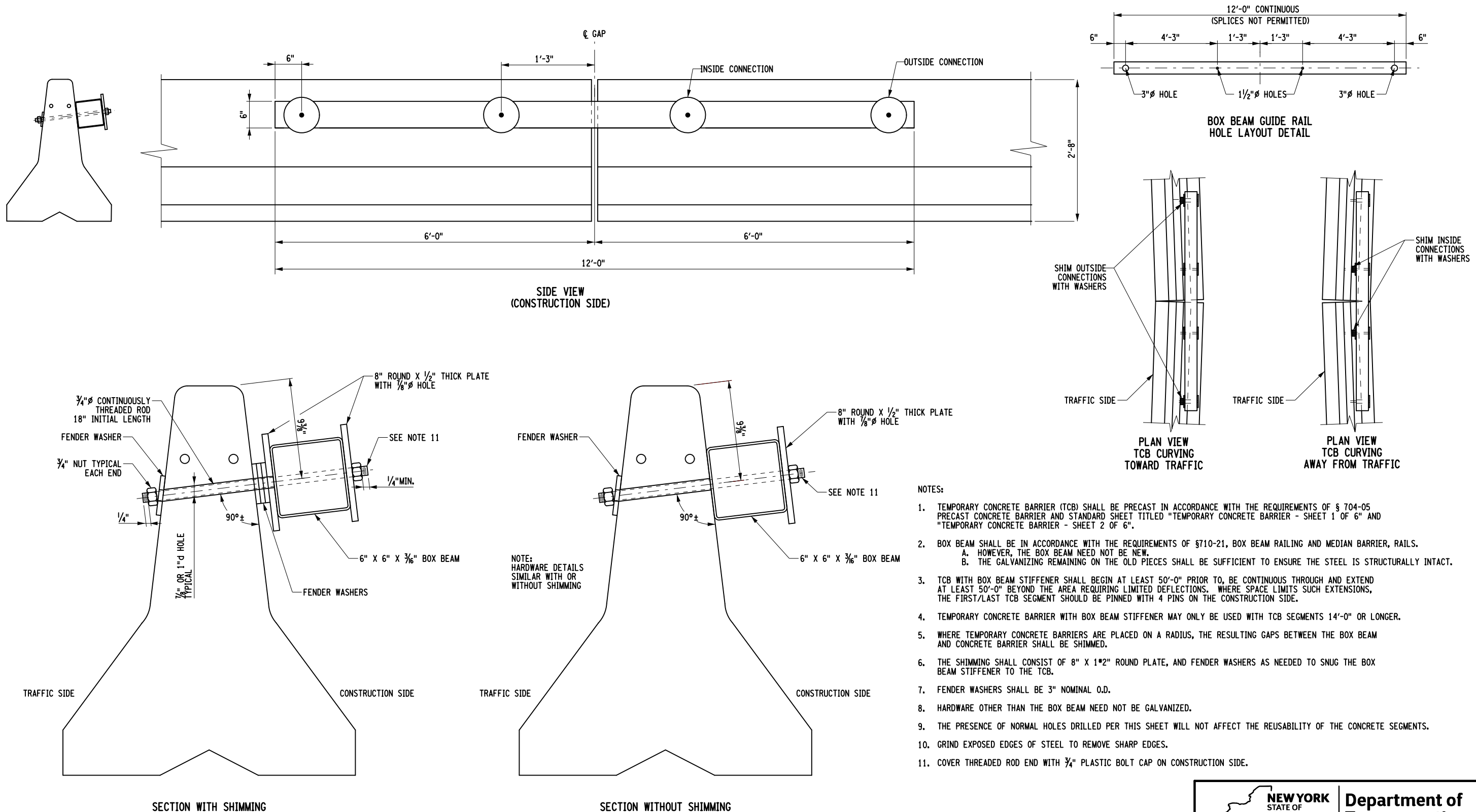
TEMPORARY CONCRETE BARRIER
(SHEET 2 OF 6)


APPROVED XXXXXXXX XX, 20XX
XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

ISSUED UNDER EB XX-XXX

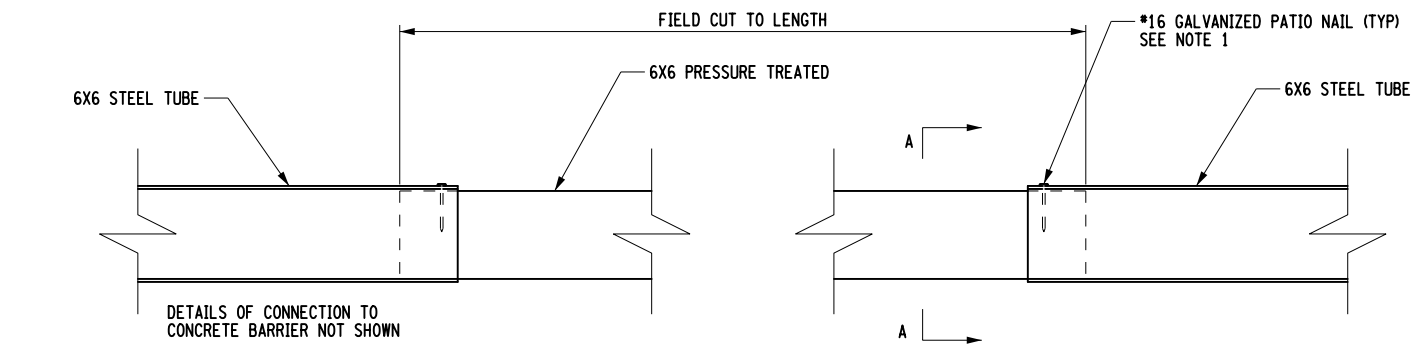
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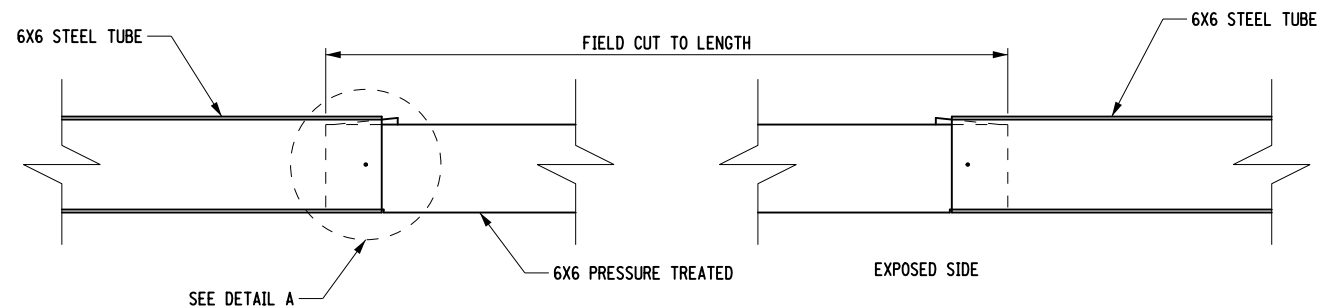


 NEW YORK STATE OF OPPORTUNITY.		Department of Transportation
U.S. CUSTOMARY STANDARD SHEET		
TEMPORARY CONCRETE BARRIER (SHEET 3 OF 6)		
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX	
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-001	

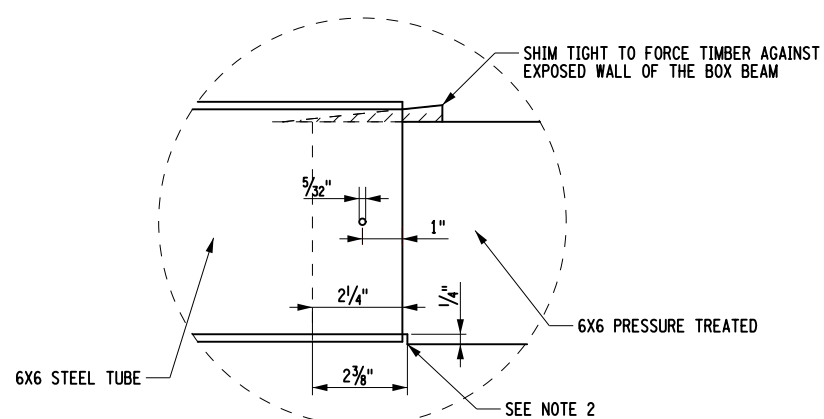
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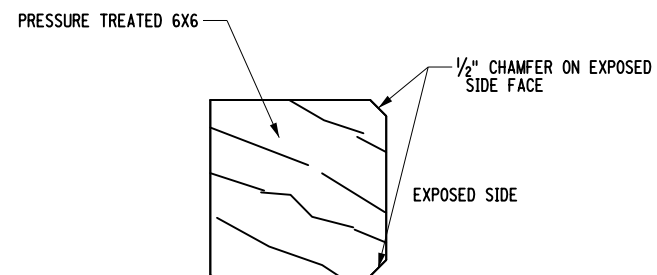
ELEVATION
CONTINUOUS BEAM OPTION



PLAN
CONTINUOUS BEAM OPTION



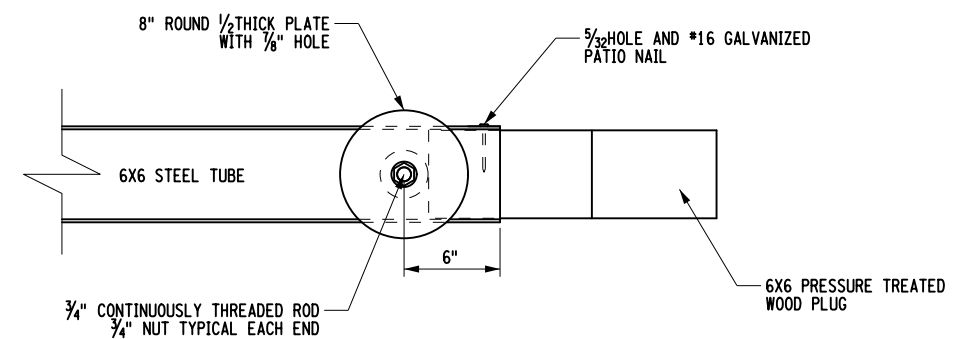
DETAIL A



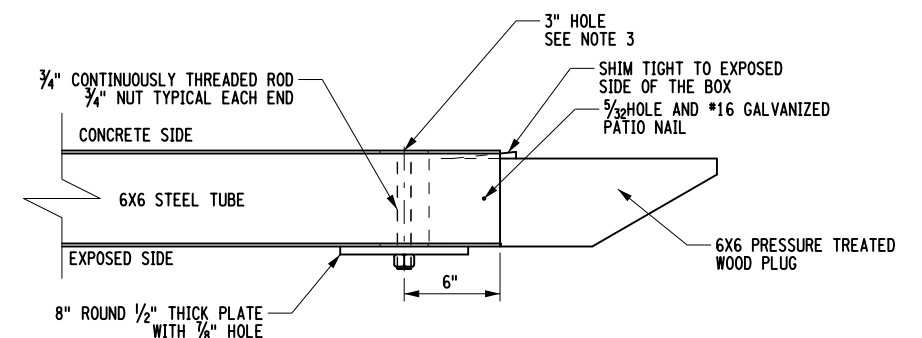
SECTION A-A

NOTES:

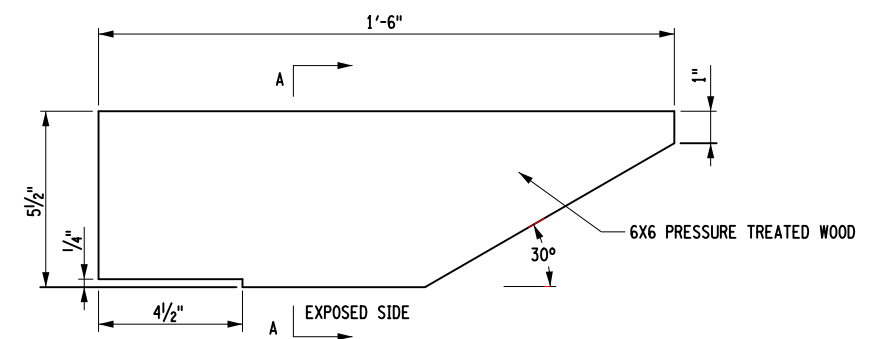
- THE FOLLOWING MODIFICATIONS SHOULD BE MADE TO THE BOX-BEAM-STIFFENING DETAILS ON SHEET 3 OF 6.
 - THE EDGES OF THE PLATES FACING THE EXPOSED SIDE SHALL BE GROUND TO REMOVE SHARP EDGES AND BURRS.
 - THE ENDS OF THE RODS HOLDING THE BOX BEAM TO THE CONCRETE BARRIER SHALL BE COVERED WITH PLASTIC BOLT CAPS.
 - THE ENDS OF THE BOX BEAM SHALL HAVE THE EXPOSED EDGES GROUND TO ELIMINATE SHARP EDGES AND BURRS.
 - THE ENDS OF THE BOX BEAM SHALL BE PLUGGED WITH ONE OF THE TWO OPTIONS SHOWN ON THIS SHEET.
- RABBET FACE 1/4" DEEP AND 2 3/8" ON EACH END OF EXPOSED SIDE.
- FOR CONNECTION WITH THE CONCRETE BARRIER SEE STANDARD SHEET 619-01, SHEET 3 OF 6.



ELEVATION
PLUG OPTION



PLAN
PLUG OPTION



PLUG DETAIL



Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

TEMPORARY CONCRETE BARRIER
(SHEET 4 OF 6)

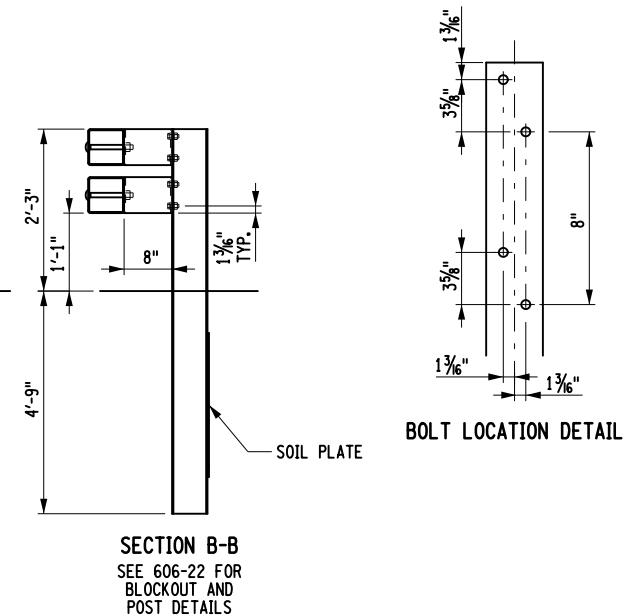
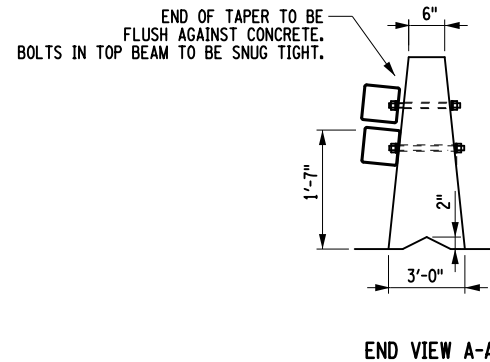
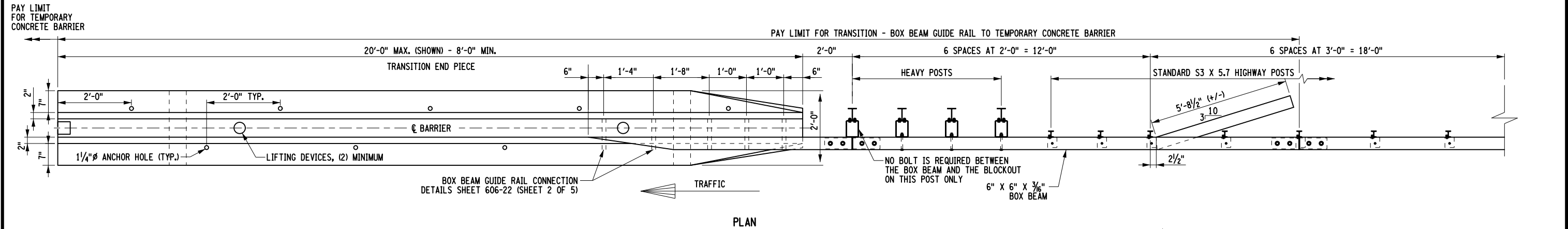
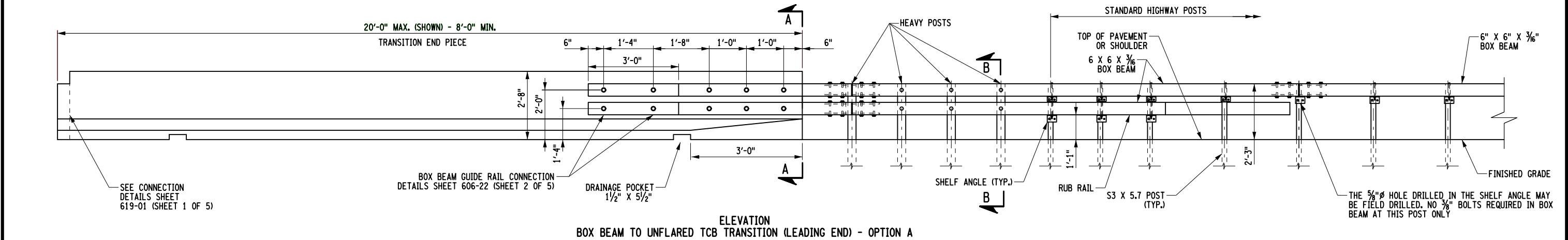
APPROVED XXXXXXXX XX, 20XX

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(XXXXXX)

ISSUED UNDER EB XX-XXX

619-001

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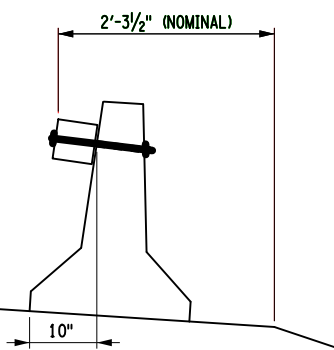
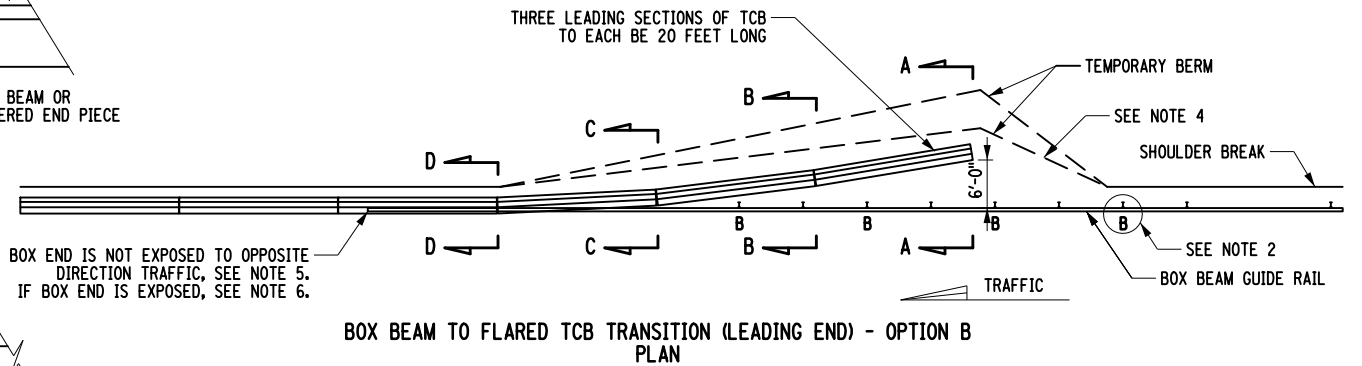
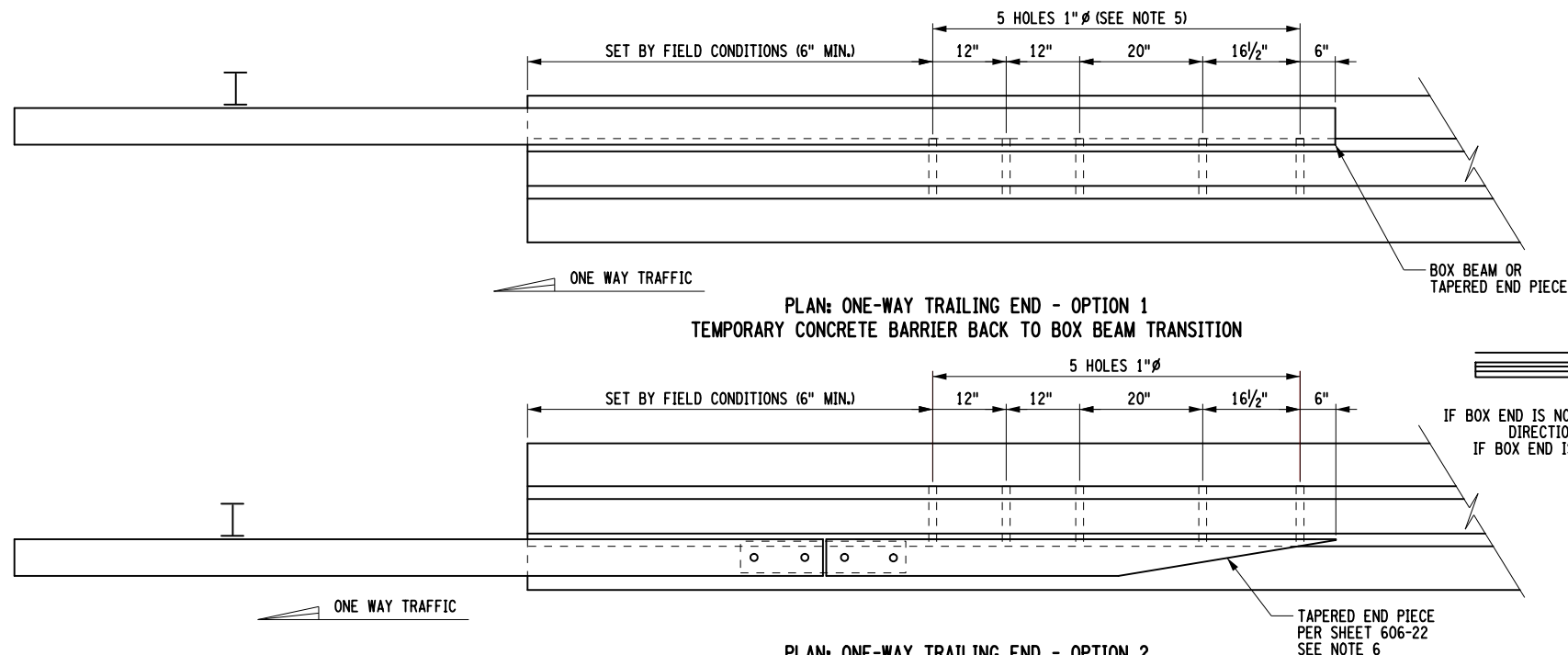


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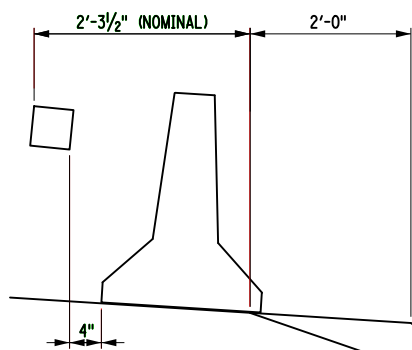
1. THE DETAILS SHOWN ON THIS SHEET REPRESENT AN ACCEPTABLE MEANS OF TRANSITIONING FROM BOX BEAM TO TEMPORARY CONCRETE BARRIER (TCB). OTHER MEANS MAY ALSO BE ACCEPTABLE IF APPROVED BY NYSDOT DESIGN ENGINEER.
2. REFER TO SHEET 619-01, (SHEET 1) FOR ADDITIONAL NOTES.
3. THE 6B2 AND 6B3 BARS SHALL BE 1'-0" SHORTER THAN THE NOMINAL LENGTH OF THE BARRIER SEGMENTS.
4. AT A MINIMUM, 1" Ø ASTM A36 ANCHOR PINS SHALL BE PLACED IN FOUR WORKERS-SIDE ANCHOR HOLES AT EACH END OF TCB RUN. EMBEDMENT LENGTH SHALL BE AS REQUIRED BY THE STANDARD SPECIFICATION SECTION 619.
5. RAILS THROUGH SECTION B-B MAY NOT BE RE-USED IN REGULAR RUNS.

	NEW YORK STATE OF OPPORTUNITY.	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET		
TEMPORARY CONCRETE BARRIER (SHEET 5 OF 6) TRANSITION FROM BOX BEAM - OPTION A		
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX	
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-001	

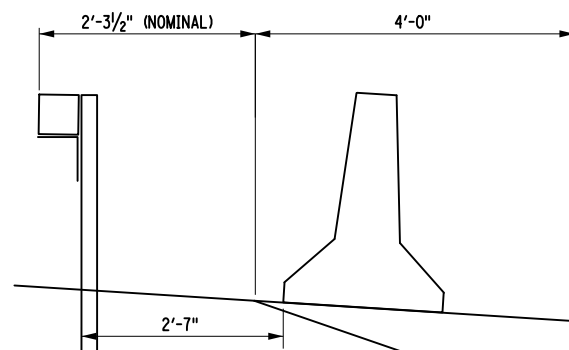
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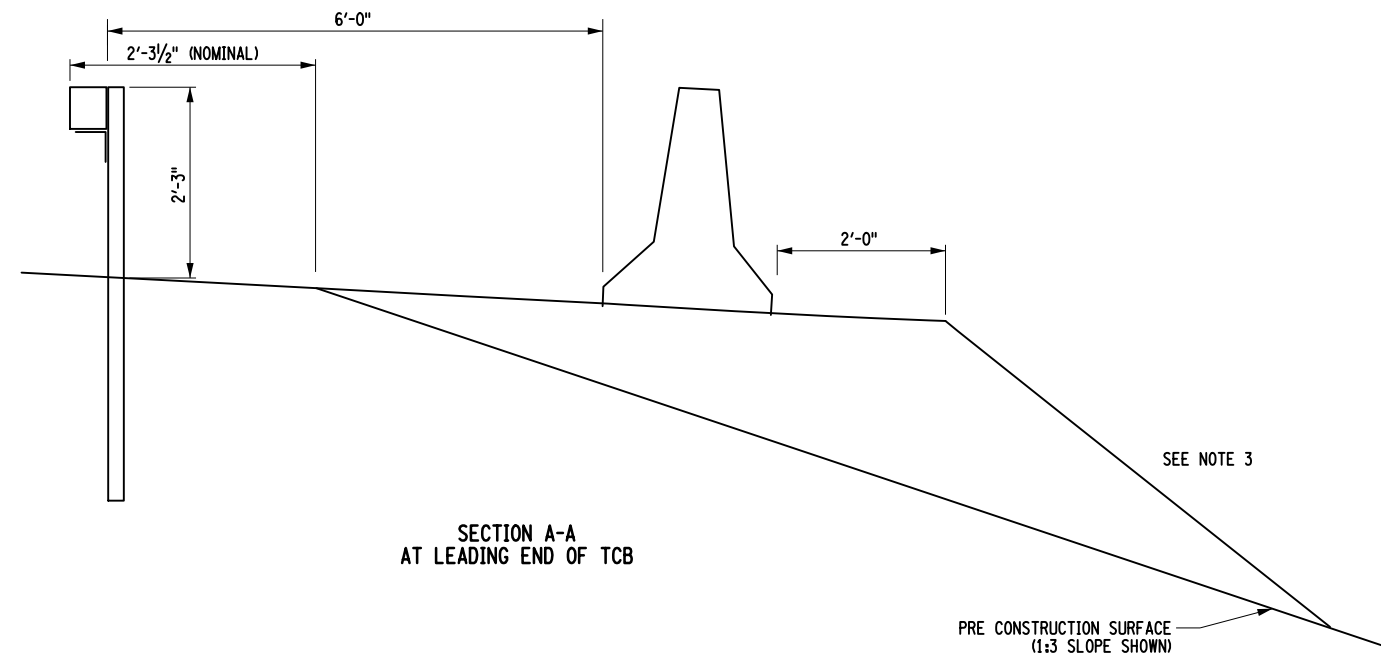
SECTION D-D
(AT THIRD TCB JOINT)



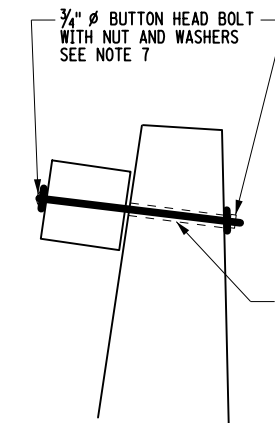
SECTION C-C
(AT SECOND TCB JOINT)



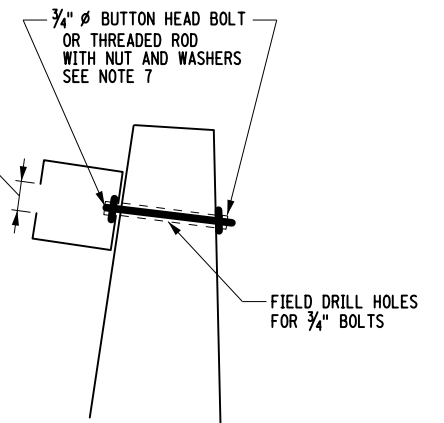
SECTION B-B
(AT FIRST TCB JOINT)



SECTION A-A
AT LEADING END OF TCB




BOLTING OPTION A

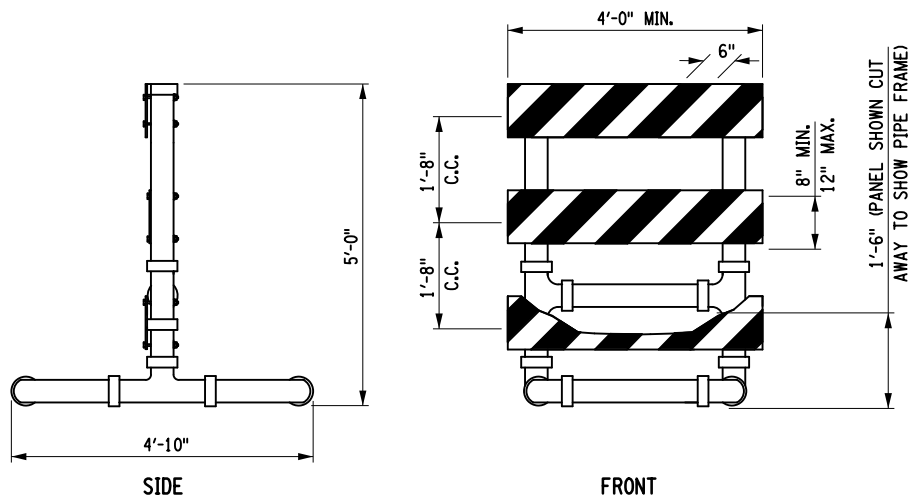


BOLTING OPTION B

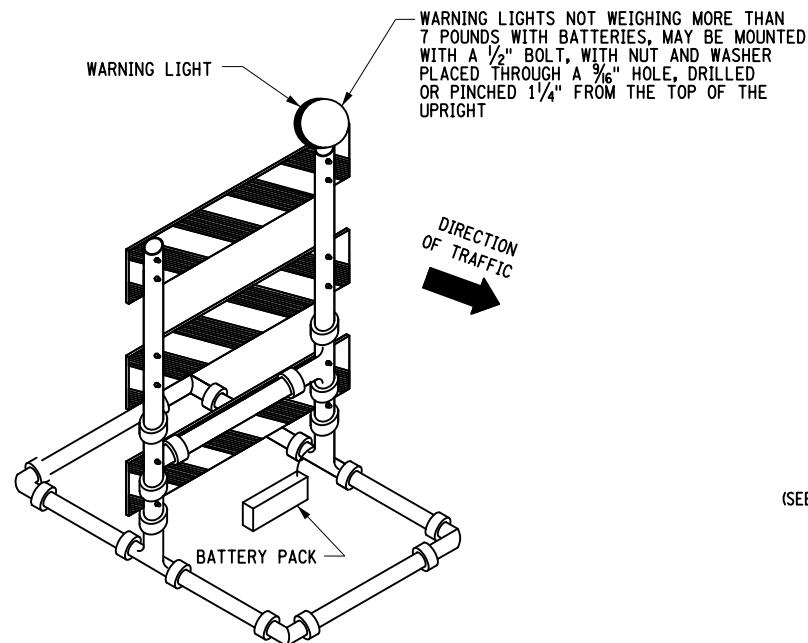
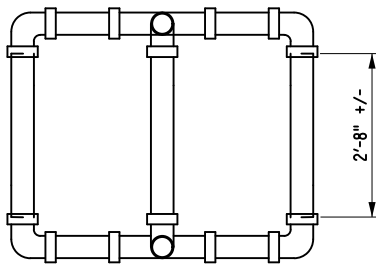
NOTES:

1. THE DETAILS SHOWN ON THIS SHEET REPRESENT ACCEPTABLE MEANS OF TRANSITIONING FROM BOX BEAM TO TEMPORARY CONCRETE BARRIER (TCB) AND BACK. OTHER MEANS MAY ALSO BE ACCEPTABLE, IF APPROVED BY THE DESIGNER.
2. BACKUP POSTS SHALL BE ADDED AS NEEDED TO ENSURE THAT POST SPACING WITHIN 15 FEET OF THE UPSTREAM END OF THE TCB DOES NOT EXCEED 3 FEET.
3. THE BERM'S TOP SLOPE SHALL BE THE SAME AS THE SLOPE OF THE SHOULDER. THE FACE OF THE BERM SHALL BE NO STEEPER THAN A 1:2 SLOPE, UNLESS THE HEIGHT IS 3 FEET OR LESS, WHICH MAY BE PLACED AS A 1:1.5. BERM MATERIAL SHALL SATISFY 203.03 EMBANKMENT IN PLACE. ALL BERM MATERIAL SHALL BE REMOVED WHEN TCB IS REMOVED AND SLOPE SHALL BE SEEDED.
4. THE LEADING TOP EDGE OF THE BERM SHALL DIVERGE FROM THE SHOULDER BREAK ON A 1:2 OR LONGER FLARE.
5. BOX BEAM END MAY BE BOLTED TO TCB, OR MAY BE SUPPORTED ON JUST POSTS WITH A MINIMUM OVERLAP OF 80 FEET. AT UPSTREAM END OF TCB, OVERLAP SHALL EXTEND DOWNSTREAM FROM POINT OF TANGENCY. WHERE BOX BEAM RESUMES BEHIND THE TCB, OVERLAP SHALL EXTEND UPSTREAM FROM END OF TCB. SECTIONS OF BOX BEAM THAT ARE DRILLED FOR HORIZONTAL BOLTS SHALL BE REPLACED WITH INTACT SECTIONS WHEN THE TCB IS REMOVED.
6. LEADING BOX BEAM END SHALL BE FASTENED TO TCB WITH A 7'-11 1/2" TAPERED END CONNECTION USING FIVE 3/4" BOLTS AS SHOWN ON 606-22.
7. ALL-THREAD BAR WITH NUTS AND WASHERS MAY BE USED IN LIEU OF HEX BOLTS. END OF BAR ON TRAFFIC SIDE TO BE FLUSH WITH NUT.
8. AT A MINIMUM, 1" Ø ASTM A36 ANCHOR PINS SHALL BE PLACED IN FOUR WORKERS-SIDE ANCHOR HOLES AT EACH END OF TCB RUN. EMBEDMENT LENGTH SHALL BE AS REQUIRED BY THE STANDARD SPECIFICATIONS (SECTION 619).

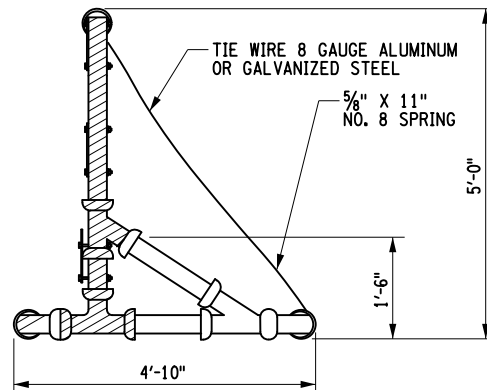
 NEW YORK STATE OF OPPORTUNITY.	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
TEMPORARY CONCRETE BARRIER (SHEET 6 OF 6) TRANSITIONS TO AND FROM BOX BEAM	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-001



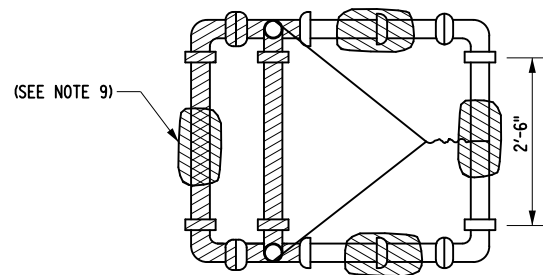
TYPE III CONSTRUCTION BARRICADE
ALTERNATE "A"



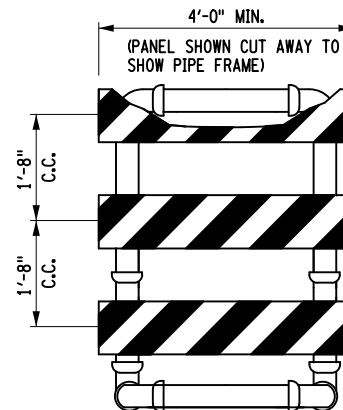
DETAILS FOR FASTENING LIGHTS ON TOP OF BARRICADE



SIDE



TYPE III CONSTRUCTION BARRICADE
ALTERNATE "B"



FRONT

NOTES:

1. THE DETAILS AND MATERIALS FOR TYPE III CONSTRUCTION BARRICADES ARE NCHRP 350 APPROVED. IF THE CONTRACTOR ELECTS TO USE AN ALTERNATE DESIGN OR MATERIALS, THE ALTERNATIVE SHALL BE NCHRP 350 APPROVED.
2. THE ALTERNATES SHOWN ON THIS SHEET ARE EQUALLY ACCEPTABLE AND THE CONTRACTOR MAY USE ANY ONE OR A MIXTURE OF TYPES.
3. PANELS SHALL HAVE 6" WIDE REFLECTORIZED ORANGE AND WHITE DIAGONAL STRIPES OF TYPE I OR TYPE III SHEETING SLOPING AT AN ANGLE OF 45°, IN ACCORDANCE WITH §729-08. THE STRIPES SHALL SLOPE DOWNWARD TOWARD THE SIDE ON WHICH TRAFFIC IS TO PASS.
4. BALLAST MAY BE PLACED ON THE BASE MEMBERS OF THE BARRICADE. BALLAST SHALL NOT EXTEND INTO THE ACCESSIBLE PASSAGE WIDTH OF 5' WHERE BARRICADES ARE USED TO CHANNELIZE PEDESTRIANS.
5. PANELS FOR BARRICADES MAY BE WOOD, PLASTIC, OR ALUMINUM. PIPE FOR BARRICADES SHALL USE SDR SIZES 21 TO 32.5.
6. WHEN THE BATTERY AND LIGHT WEIGH MORE THAN 7 LBS, THE BATTERY SHALL BE MOUNTED ON THE BOTTOM OF THE BARRICADE.
7. ALL PIPES SHALL BE WHITE. WHITE FITTINGS ARE PREFERRED, BLACK MAY BE USED. ALL JOINTS IN ALTERNATE "A" SHALL BE GLUED WITH A SOLVENT CEMENT COMPATIBLE WITH THE P.V.C. PIPE.
8. ALL JOINTS IN ALTERNATE "B" SHALL BE FREE TO SEPARATE UPON VEHICLE IMPACT. SHADED PIPES AND FITTINGS SHALL BE TIED TOGETHER WITH A MINIMUM 3/16" DIA. NYLON, OR EQUIVALENT ROPE THREADED INTO THE PIPE AND FITTING INTERIOR.
9. IF BARRICADES ARE USED TO TEMPORARILY CHANNELIZE PEDESTRIANS, THERE SHALL BE A CONTINUOUS DETECTABLE BOTTOM AND TOP RAILS WITH NO GAP BETWEEN INDIVIDUAL BARRICADES TO BE DETECTABLE TO BLIND OR VISUALLY IMPAIRED USERS OF LONG CANES. THE BOTTOM OF THE BOTTOM RAIL SHALL BE NO HIGHER THAN 6" ABOVE THE GROUND AND THE TOP OF THE TOP RAIL SHALL BE NO LOWER THAN 3' ABOVE THE GROUND.



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U.S. CUSTOMARY STANDARD SHEET

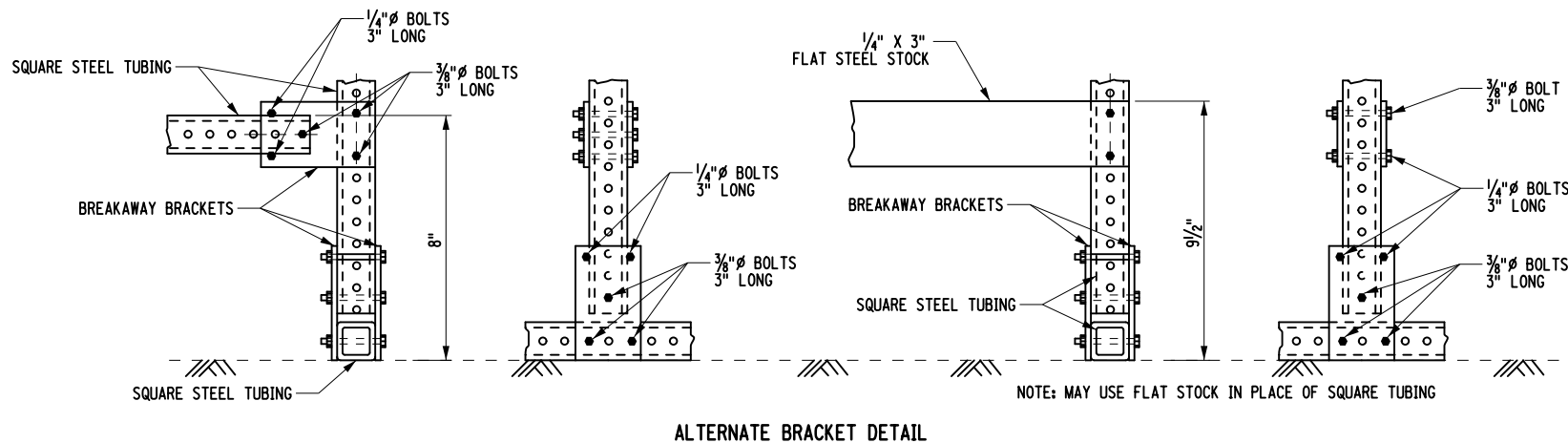
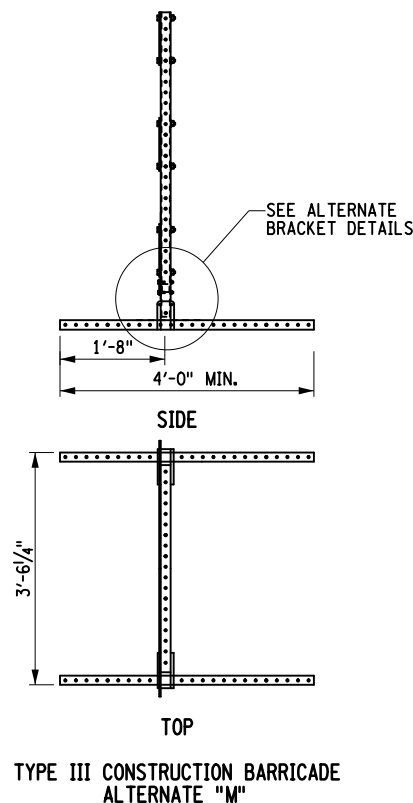
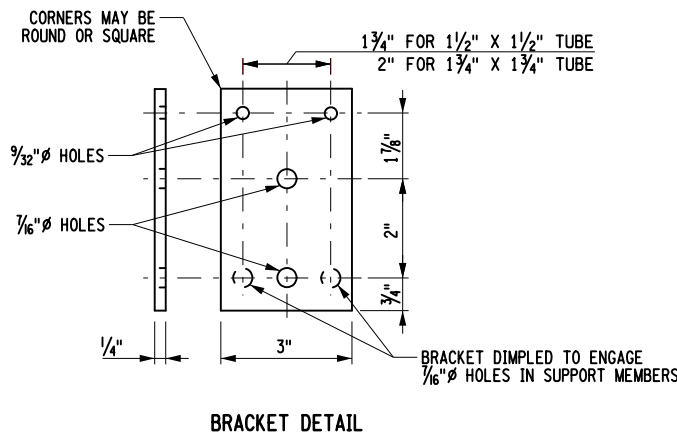
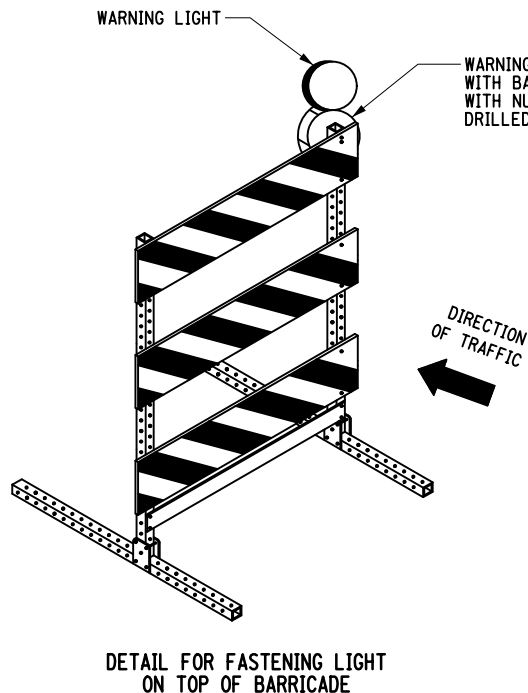
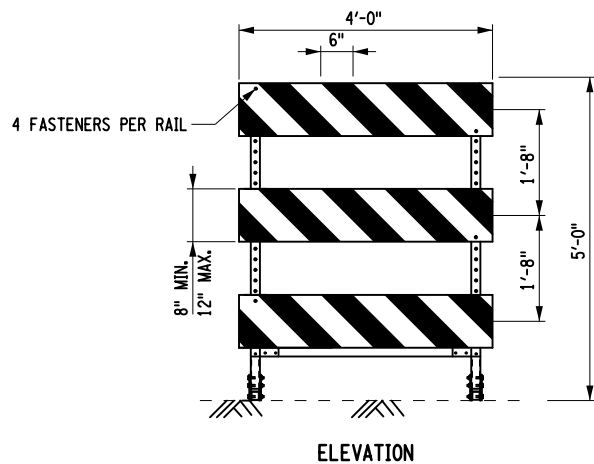
TYPE_III_CONSTRUCTION_BARRICADES
(SHEET_1_OF_2)

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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(XXXXXX)

619-002



NOTE: SQUARE STEEL TUBING SHALL MEET ONE OF THE FOLLOWING MATERIAL REQUIREMENTS:
12 GAUGE 1 3/4" X 1 3/4", ASTM A653
12 GAUGE 1 1/2" X 1 1/2", ASTM A653
14 GAUGE 1 3/4" X 1 3/4", ASTM A1011
ALL BOLTS ARE A325 OR EQUIVALENT BOLTS

NOTES:

- THE DETAILS AND MATERIALS FOR TYPE III CONSTRUCTION BARRICADES ARE NCHRP 350 APPROVED. IF THE CONTRACTOR ELECTS TO USE AN ALTERNATE DESIGN OR MATERIALS, THE ALTERNATIVE SHALL BE NCHRP 350 APPROVED.
- THE ALTERNATES SHOWN ON THIS SHEET ARE EQUALLY ACCEPTABLE AND THE CONTRACTOR MAY USE ANY ONE OR A MIXTURE OF TYPES.
- PANELS SHALL HAVE 6" WIDE REFLECTORIZED ORANGE AND WHITE DIAGONAL STRIPES OF TYPE I OR TYPE III SHEETING SLOPING AT AN ANGLE OF 45°, IN ACCORDANCE WITH §729-08. THE STRIPES SHALL SLOPE DOWNWARD TOWARD THE SIDE ON WHICH TRAFFIC IS TO PASS.
- BALLAST MAY BE PLACED ON THE BASE MEMBERS OF THE BARRICADE. BALLAST SHALL NOT EXTEND INTO THE ACCESSIBLE PASSAGE WIDTH OF 5' WHERE BARRICADES ARE USED TO CHANNELIZE PEDESTRIANS. PANELS FOR BARRICADES MAY BE WOOD, PLASTIC, OR ALUMINUM.
- WHEN THE BATTERY AND LIGHT WEIGH MORE THAN 7 LBS, THE BATTERY SHALL BE MOUNTED AT THE BOTTOM OF THE BARRICADE.
- ALTERNATE "M" BARRICADES SHALL BE EXTENDED WITH INTERNAL SPLICE MEMBERS. THE INTERNAL SPLICE MEMBERS SHALL BE ONE 1 FOOT LENGTHS OF SQUARE STEEL TUBING INSERTED 6" INTO EACH UPRIGHT. THE EXTENSION SHALL THEN BE PLACED OVER THE TOP OF THE INTERNAL SPLICE MEMBER. THE EXTENSION AND INTERNAL SPLICE MEMBER SHALL BE HELD IN PLACE WITH 3/8" BOLTS WITH NUTS AND WASHERS PLACED 4" (±1") ABOVE AND BELOW THE JOINT FORMED BY THE EXTENSION. THE INTERNAL SPLICE MEMBERS SHALL BE ONE OF THE FOLLOWING SIZES DEPENDING UPON THE TUBING USED TO FABRICATE THE BARRICADE. GAUGES FOR SQUARE TUBES SHALL BE UNITED STATES STANDARD GAUGE.
- IF BARRICADES ARE USE TO TEMPORALLY CHANNELIZE PEDESTRIANS, THERE SHALL BE CONTINUOUS DETECTABLE BOTTOM AND TOP RAILS WITH NO GAP BETWEEN INDIVIDUAL BARRICADES, TO BE DETECTABLE TO BLIND OR VISUALLY IMPAIRED USERS OF LONG CANES. THE BOTTOM OF THE BOTTOM RAIL SHALL BE NO LOWER THAN 6" ABOVE THE GROUND SURFACE. THE TOP OF THE TOP RAIL SHALL BE NO LOWER THAN 3' ABOVE THE GROUND SURFACE.

BARRICADE MEMBERS

12 GAUGE 1 3/4" X 1 3/4"
14 GAUGE 1 3/4" X 1 3/4"
12 GAUGE 1 1/2" X 1 1/2"

INTERNAL SPLICE MEMBERS

12 GAUGE 1 1/2" X 1 1/2"
14 GAUGE 1 1/2" X 1 1/2"
12 GAUGE 1 1/4" X 1 1/4"



Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

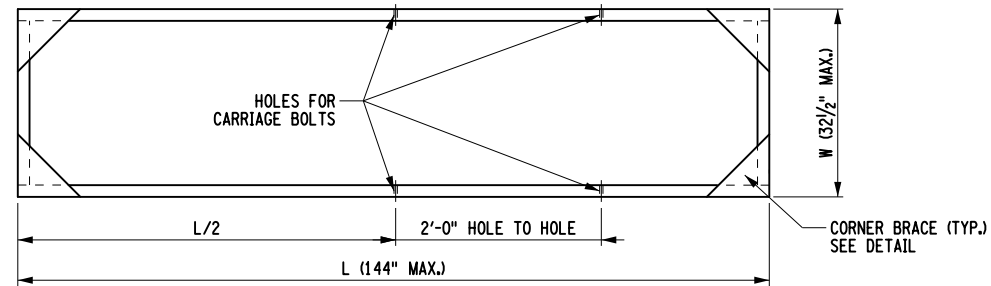
TYPE_III_CONSTRUCTION_BARRICADES
(SHEET_2.OF_2)

APPROVED XXXXXXXX XX, 20XX

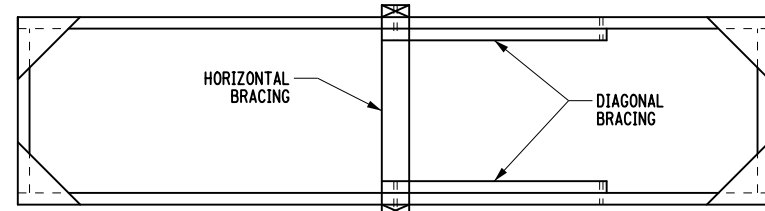
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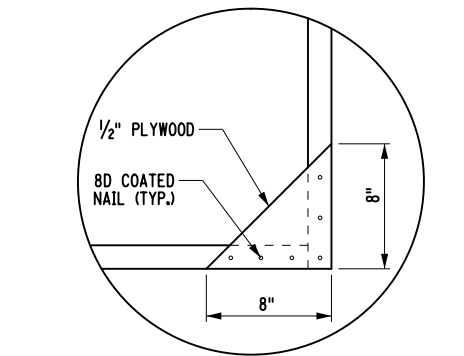
619-002



BOTTOM FRAME
TOP VIEW



TEMPORARY WOODEN SIGN STAND
TOP VIEW

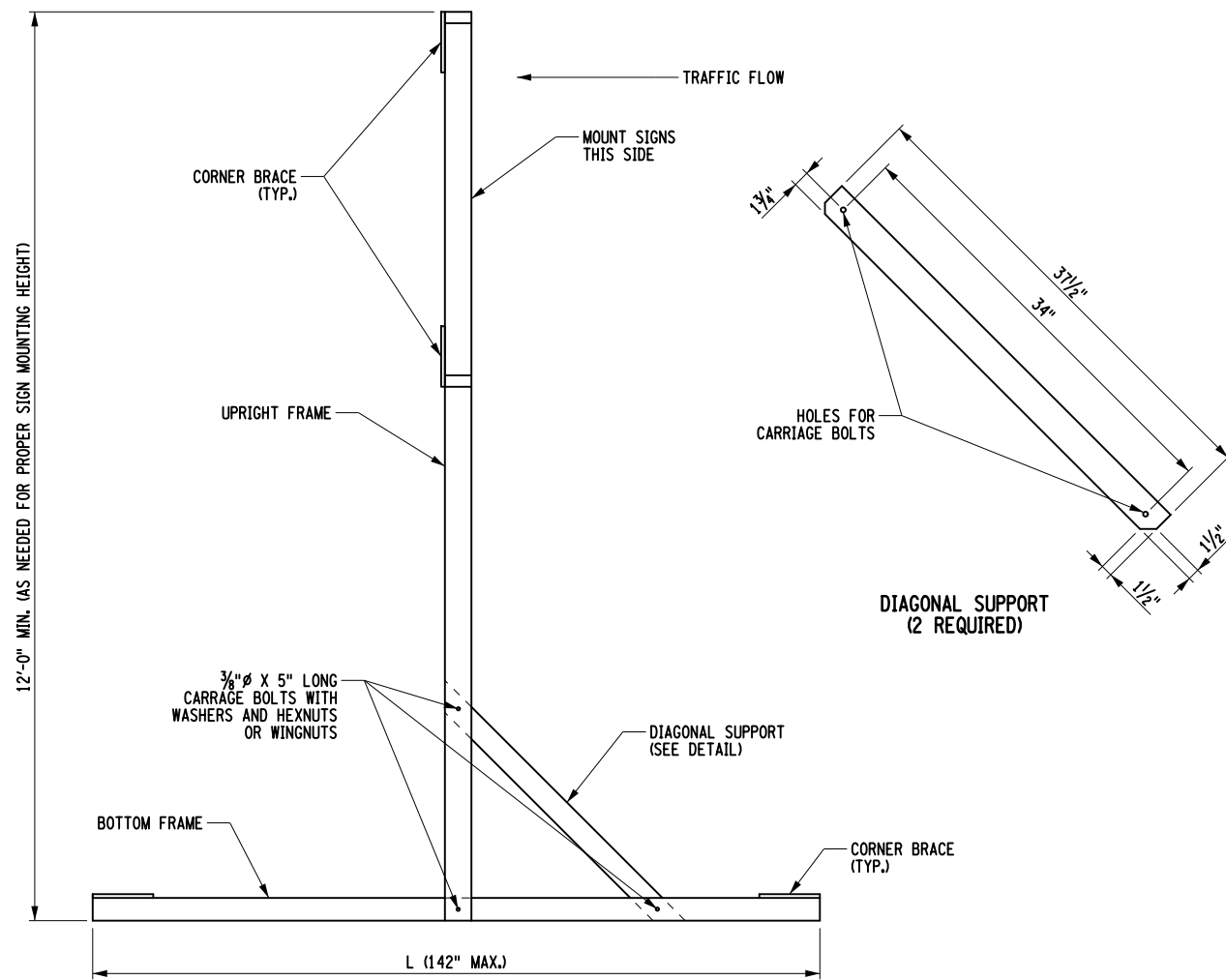


CORNER BRACE DETAIL
(TO BE USED ON UPRIGHT AND BOTTOM FRAMES)

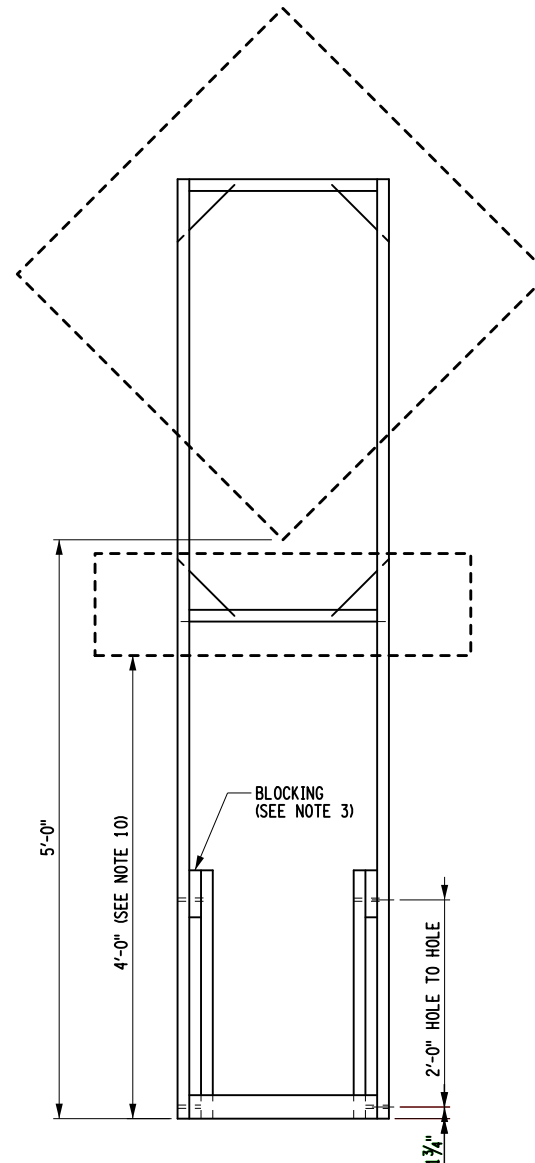
NOTES:

1. ALL LUMBER SHALL BE 2 X 4 DIMENSIONAL LUMBER. CONNECT FRAME MEMBERS WITH 2 EACH 12D COATED NAILS.
2. ALL HOLES SHALL BE DRILLED IN CENTERLINE OF FRAME MEMBERS AND DIAGONAL BRACES.
3. 6" BLOCK SPACER MAY BE USED BETWEEN DIAGONAL BRACE AND VERTICAL SUPPORT.
4. CONNECT FRAME CORNER BRACES TO FRAME MEMBERS WITH 6 EACH - 8D COATED NAILS. (3 NAILS INTO EACH FRAME MEMBER).
5. UPRIGHT FRAME MOUNTS ON THE OUTSIDE OF THE BOTTOM FRAME.
6. PAINT SIGN SUPPORT WITH 2 COATS OF WHITE PAINT.
7. DIAGONAL SUPPORTS MOUNT INSIDE BOTH UPRIGHT AND BOTTOM FRAMES. ALL UPRIGHT DIAGONAL BRACING SHALL BE SLOPED SUCH THAT BRACING COLLAPSES DOWNWARD UPON IMPACT BY A VEHICLE.
8. A SINGLE LAYER OF BALLAST PLACED ON THE BOTTOM FRAME MAY BE USED TO PREVENT SIGNS FROM TIPPING OVER FROM WIND AND VEHICLE GUSTS.
9. NO HORIZONTAL BRACING ALLOWED BETWEEN 2' AND 5' ON UPRIGHT VERTICALS, MEASURED FROM THE BOTTOM OF THE SKID BASE.
10. 5' MINIMUM SIGN MOUNTING HEIGHT, MEASURED FROM THE BOTTOM OF THE SKID BASE TO THE BOTTOM OF THE SIGN. VERTICAL SUPPORTS SHALL BE TALL ENOUGH TO ALLOW FOR HIGHER MOUNTING HEIGHTS FOR THOSE LOCATIONS REQUIRED BY THE MUTCD (I.E. SIDEWALKS, ROADSIDE PARKING AND EMBANKMENTS).
11. CONNECTIONS ALLOW FOR THE FOLDING, TRANSPORT AND STORAGE OF THE SUPPORT. WHEN FOLDED IN THE DOWN POSITION WITHIN THE CLEAR ZONE, THE MAXIMUM ASSEMBLY HEIGHT SHALL NOT EXCEED 4". SIMILAR NON-FOLDING SUPPORTS SHALL BE STORED OUTSIDE THE CLEAR ZONE OR BEHIND A BARRIER.

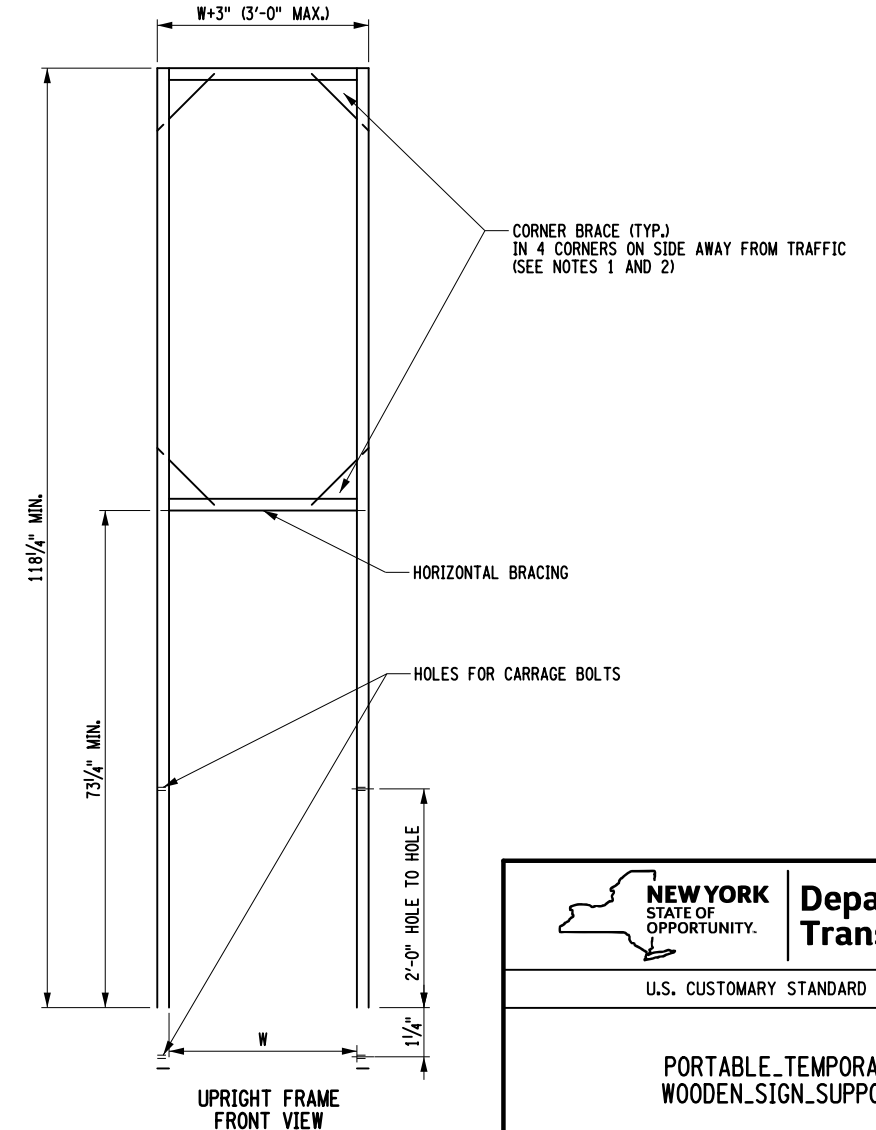
L = LENGTH OF BOTTOM FRAME.
W = WIDTH OF BOTTOM FRAME.



TEMPORARY WOODEN SIGN STAND
SIDE VIEW



TEMPORARY WOODEN SIGN STAND
FRONT VIEW



UPRIGHT FRAME
FRONT VIEW

	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
PORTABLE_TEMPORARY WOODEN_SIGN_SUPPORT	
APPROVED XXXXXXXX XX, 20XX XXXXXXXXXXXXXXXXXXXX (XXXXXX)	ISSUED UNDER EB XX-XXX 619-004

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GENERAL NOTES

1. THE TYPICAL DETAILS DEPICTED ON THE STANDARD SHEETS AND IN THE MUTCD, REFLECT THE MINIMUM REQUIREMENTS.
2. THE CONTRACTOR MUST SUBMIT TO THE ENGINEER, IN WRITING, PROPOSED REVISIONS TO THE TRAFFIC CONTROL PLAN FOR REVIEW AND APPROVAL BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE FIVE (5) WORK DAYS PRIOR TO THE PLANNED IMPLEMENTATION OF SUCH PROPOSED REVISIONS, EXCEPT FOR CHANGES THAT ALTER THE SCOPE OF THE TRAFFIC CONTROL PLAN. SUCH CHANGES IN SCOPE MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE THIRTY (30) WORKING DAYS PRIOR TO IMPLEMENTATION OF SUCH REVISIONS.
3. THE CONTRACTOR SHALL PROVIDE THE ENGINEER, IN WRITING, WITH THE NAMES, ADDRESSES, AND TELEPHONE NUMBERS OF STAFF WHO ARE AUTHORIZED TO SECURE LABOR, MATERIALS, AND EQUIPMENT FOR EMERGENCY REPAIRS OUTSIDE NORMAL WORKING HOURS. THE ENGINEER WILL PROVIDE THE SUBMITTED INFORMATION TO REGIONAL MANAGEMENT, THE NEW YORK STATE POLICE, THE RESIDENT ENGINEER, AND THE LOCAL POLICE.

ACTIVITY AREA

1. THE CONTRACTOR SHALL MAINTAIN A MINIMUM 500' LONGITUDINAL DISTANCE BETWEEN CONSTRUCTION OPERATIONS ON ALTERNATE SIDES OF THE ROADWAY, UNLESS OTHERWISE APPROVED BY THE ENGINEER.
2. WHEN TWO OR MORE AREAS ARE ADJACENT, OVERLAP, OR ARE IN CLOSE PROXIMITY, THE CONTRACTOR SHALL ENSURE THERE ARE NO CONFLICTING SIGNS AND THAT LANE CONTINUITY IS MAINTAINED THROUGHOUT ALL WORK AREAS.

SIGNS

1. THE LOCATIONS OF THE SIGNS SHOWN ON THE WORK ZONE TRAFFIC CONTROL PLANS AND DETAILS MAY BE ADJUSTED BASED ON SIGHT DISTANCE AND OTHER CONSIDERATIONS. THE FINAL LOCATIONS OF SIGNS ARE SUBJECT TO APPROVAL OF THE ENGINEER.
2. ANY EXISTING SIGNS, INCLUDING OVERHEAD SIGNS, WHICH CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL SIGN LAYOUT SHALL BE COVERED, REMOVED, STORED OR RESET, AS APPROVED BY THE ENGINEER. ALL APPROPRIATE EXISTING SIGNS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND/OR LOCATION UNLESS OTHERWISE REPLACED IN THIS CONTRACT.
3. SIGNS AT OR NEAR INTERSECTIONS SHALL BE PLACED SO THAT THEY DO NOT OBSTRUCT A MOTORIST'S LINE OF SIGHT.
4. ALL WARNING AND REGULATORY SIGNS SHALL BE POSTED ON BOTH SIDES OF MULTI-LANE DIVIDED HIGHWAYS, MULTI-LANE RAMPS, AND ONE-WAY STREETS. IN CASES WHERE LANE RESTRICTIONS REDUCE THE TRAVEL LANE TO ONE LANE, SIGNS SHALL BE POSTED ON THE RIGHT SIDE OF THE ACTIVE TRAVEL LANE, UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
5. SIGNS MOUNTED ON THE MEDIAN OF DIVIDED HIGHWAYS WHERE MEDIAN BARRIER IS IN PLACE MAY BE MOUNTED ON THE BARRIER WITH A SADDLE TYPE BRACKET. LAYING THE SIGN DOWN IN A HORIZONTAL POSITION IS NOT PERMITTED.
6. THE DIMENSIONS OF WORK ZONE TRAFFIC CONTROL SIGNS ARE DESCRIBED IN THE MUTCD. ANY CHANGES TO THE DIMENSIONS SHALL BE APPROVED BY THE REGIONAL DIRECTOR OR BY HIS/HER DESIGNEE.
7. NYR9-12 SHALL BE USED IN PLACE OF NYR9-11 WHEN A REDUCED REGULATORY SPEED LIMIT SIGN IS AUTHORIZED.

CHANNELIZING DEVICES

1. WHERE POSSIBLE ALL CHANNELIZING AND GUIDING DEVICES ARE TO BE PLACED SO AS TO PROVIDE A MINIMUM 2' LATERAL CLEARANCE TO THE TRAVELED WAY.

PUBLIC ACCESS

1. PROPERTY OWNERS WHOSE DRIVEWAYS WILL BE MADE INACCESSIBLE SHALL BE NOTIFIED BY THE CONTRACTOR AT LEAST 24 HOURS PRIOR TO RESTRICTING USE OF THE DRIVEWAY. FOR MULTIPLE ACCESS PROPERTIES, AT LEAST ONE DRIVEWAY SHALL BE OPEN AT ALL TIMES. ACCESS SHALL BE RESTORED TO ALL DRIVEWAYS AS SOON AS POSSIBLE.
2. SUITABLE RAMPS SHALL BE INSTALLED TO MAINTAIN SMOOTH TRANSITIONS FROM RESIDENTIAL AND COMMERCIAL DRIVEWAYS TO AND FROM THE WORK AREA.

LANE CLOSURES

1. THE CONTRACTOR SHALL LOCATE LANE CLOSURES TO PROVIDE OPTIMUM VISIBILITY, I.E. BEFORE CURVES AND CRESTS, TO THE EXTENT CONDITIONS PERMIT.
2. THE ENGINEER MAY REQUIRE THAT ALL LANES BE RE-OPENED AT ANY TIME IF THE ROUTE IS NEEDED FOR EMERGENCY PURPOSES. THIS COULD INCLUDE INCIDENTS AT LOCATIONS OUTSIDE THE CONTRACT LIMITS.

LANE WIDTHS

1. UNLESS AUTHORIZED BY THE ENGINEER, THE MINIMUM LANE WIDTHS FOR WORK ZONE TRAVEL LANES SHALL BE AS FOLLOWS: FREEWAYS AND/OR EXPRESSWAYS IS 11'. THE MINIMUM LANE WIDTH FOR ALL OTHER TYPES OF ROADWAYS IS 10'.
2. THE CONTRACTOR SHALL PROVIDE A WRITTEN NOTICE TO THE ENGINEER, A MINIMUM OF 21 CALENDAR DAYS IN ADVANCE OF PERFORMING ANY WORK THAT RESULTS IN THE REDUCED WIDTH OF AN EXISTING ROADWAY, SO THAT THE ENGINEER MAY NOTIFY THE REGIONAL PERMIT ENGINEER IN A TIMELY MANNER.

BARRIER/SHADOW VEHICLES

1. BARRIER AND SHADOW VEHICLES SHALL BE REQUIRED AS PER STANDARD SHEET TITLED "WORK ZONE TRAFFIC CONTROL LEGENDS AND NOTES".
2. NO WORK ACTIVITY, EQUIPMENT, VEHICLES AND/OR MATERIALS SHALL BE LOCATED BETWEEN THE BARRIER OR SHADOW VEHICLE AND THE ACTIVE WORK AREA (ROLL AHEAD DISTANCE).
3. THE CONTRACTOR MAY BE REQUIRED TO PROVIDE A BARRIER VEHICLE IN CONJUNCTION WITH POLICE PRESENCE IN THE WORK ZONE, TO BE INCLUDED IN THE UNIT BID PRICE FOR BASIC WORK ZONE TRAFFIC CONTROL.



NEW YORK
STATE OF
OPPORTUNITY.

Department of
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U.S. CUSTOMARY STANDARD SHEET

WORK_ZONE_TRAFFIC_CONTROL
GENERAL_NOTES

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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(XXXXXX)

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TABLE NY1-A BARRIER VEHICLE USE REQUIREMENTS (LONG TERM, AND INTERMEDIATE TERM, STATIONARY CLOSURES)					
CLOSURE TYPE	EXPOSURE CONDITION ¹	USE REQUIREMENTS ^{4,5}			
		FREEWAY	NON-FREEWAY (PRECONSTRUCTION POSTED SPEED LIMIT)		
			≥ 45 MPH	35-40 MPH	≤ 30 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
FOR SHORT TERM STATIONARY CLOSURE, BARRIER VEHICLE AND TMIA ARE REQUIRED IF SPEEDS ARE 45 MPH OR GREATER. BARRIER VEHICLE IS REQUIRED AND TMIA IS RECOMMENDED IF SPEEDS ARE LESS THAN 45 MPH					

1. 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.
2. WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE (TABLE 6C-2) SHALL BE PROVIDED.
3. REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORK SPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMIA (TRUCK MOUNTED OR TRAILER MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC. BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.
4. BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE (TABLE 6C-2) SHALL BE PROVIDED.
5. BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE (TABLE 6C-2) SHALL BE PROVIDED.

TABLE NY1-B SHADOW VEHICLE USE REQUIREMENTS (MOBILE CLOSURES)					
CLOSURE TYPE	EXPOSURE CONDITION	USE REQUIREMENTS			
		FREEWAY	NON-FREEWAY (PRECONSTRUCTION POSTED SPEED LIMIT)		
			≥ 45 MPH	35-40 MPH	≤ 30 MPH
LANE CLOSURE	WHEN ANY WORKER, VEHICLE, OR OTHER HAZARD IS EXPOSED TO TRAFFIC	REQUIRED ^{2,4}	REQUIRED ^{2,4}	REQUIRED ^{2,4}	REQUIRED ^{2,4}
SHOULDER CLOSURE	WHEN ANY WORKER, VEHICLE, OR OTHER HAZARD IS EXPOSED TO TRAFFIC	REQUIRED ^{2,4}	REQUIRED ^{2,4}	REQUIRED ^{2,4}	REQUIRED ^{2,4}

1. 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.
2. SHADOW VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED ATTENUATOR (TRUCK MOUNTED OR TRAILER MOUNTED) FOR THE FOLLOWING MOBILE AND SHORT DURATION 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.
3. FOR MOBILE AND SHORT DURATION LANE CLOSURES ON NON-FREEWAY ROADWAYS HAVING A PRE-CONSTRUCTION POSTED SPEED LIMIT OF 30 MPH OR LESS AND MOBILE AND SHORT DURATION SHOULDER CLOSURES ON NON-FREEWAY ROADWAYS HAVING A PRE-CONSTRUCTION SPEED LIMIT OF 40 MPH OR LESS, SHADOW VEHICLES ARE TO BE EQUIPPED WITH A REAR MOUNTED ATTENUATOR.
4. 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 PAVED SHOULDER 8' 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE.

TABLE 6H-4: TAPER LENGTHS AND NUMBER OF CONES CHART											
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /* SKIP LINES/* OF CONES									SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR LANE WIDTH IN FT (LATERAL SHIFT OF TRAFFIC FLOW PATH)									FOR SHOULDER WIDTH	
	4	5	6	7	8	9	10	11	12	LESS THAN 8 FT. (MIN -MAX)	8 FT OR WIDER (MIN)
25	45/1/2	55/1/2	65/2/3	75/2/3	85/1/2	95/1/2	120/3/4	120/3/4	140/3/5	20/1/2-40/1/2	40/1/2
30	60/2/3	75/2/3	90/2/3	105/3/4	120/3/4	135/3/4	160/4/5	180/5/6	180/5/6	20/1/2-40/1/2	40/1/2
35	85/2/3	105/3/4	125/3/4	145/4/5	165/4/5	185/5/6	220/6/7	240/6/7	260/7/8	40/1/2-60/2/3	80/2/3
40	120/3/4	135/3/4	160/4/5	190/5/6	215/5/6	240/6/7	280/7/8	300/8/9	320/8/9	40/1/2-60/2/3	80/2/3
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15	60/2/3-100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16	80/2/3-100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18	80/2/3-120/3/4	160/4/5
55	260/7/8	350/9/10	420/11/12	490/13/14	420/11/12	390/13/14	660/17/18	720/18/19	780/20/21	100/3/4-140/4/5	180/5/6

TABLE 6C-2 LONGITUDINAL BUFFER SPACE	
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE
25	155/4
30	200/5
35	250/6
40	305/8
45	360/9
50	425/11
55	495/13
65	645/16

TABLE NY-2 ROLL AHEAD /PLACEMENT DISTANCE FOR BARRIER VEHICLES (24,000 lb MIN) IN FT		
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	MIN	MAX
25	50	100
30		
35		
40		
45	75	150
50		
55	100	200
65		

- AS DEFINED IN NYSDOT 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**	
	24,000 LBS (MINIMUM)	
	MINIMUM	MAXIMUM
> 55	180 FT.	280 FT.
45 - 55	150 FT.	250 FT.
< 45	100 FT.	200 FT.

- AS DEFINED IN NYSDOT 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 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	8:1	11:1	14:1	16:1	20:1
BOX BEAM OR HEAVY POST CORRUGATED BEAM	7:1	9:1	11:1	12:1	15:1

TABLE NY6H-3 ADVANCE WARNING SIGN SPACING					
ROAD TYPE	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
	A (FT.)	B (FT.)	C (FT.)	XX	YY
URBAN (≤ 30 MPH*)	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH*)	200	200	200	AHEAD	AHEAD
URBAN (≥ 45 MPH*)	350	350	350	1000 FT.	AHEAD
RURAL	500	500	500	1500 FT.	1000 FT.
EXPRESSWAY / FREEWAY	1000	1500	2640	1 MILE	½ MILE

- PRECONSTRUCTION POSTED SPEED LIMIT

URBAN: (MEETS MORE THAN 1 OF THE FOLLOWING CRITERIA) 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, 85TH PERCENTILE SPEEDS OF 45 MPH OR LESS.

RURAL: ANY AREA NOT EXHIBITING MORE THAN ONE OF THE ABOVE CHARACTERISTICS.

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

FREEWAYS/INTERSTATE: LOCAL OR INTER REGIONAL HIGH-SPEED, DIVIDED, HIGH-VOLUME FACILITIES WITH FULL OR PARTIAL CONTROL OF ACCESS.

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 FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR.
MOBILE IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY.

TABLE 6C-3 TAPER LENGTH FOR TEMPORARY TRAFFIC CONTROL ZONES	
TYPE OF TAPER	TAPER LENGTH (L)
MERGING TAPER	L
SHIFTING TAPER	L/2
SHOULDER TAPER	L/3
ONE-LANE, TWO-WAY TRAFFIC TAPER	50 FT MIN -100 FT. MAX
DOWNSTREAM TAPER	50 FT MIN -100 FT. MAX

WORK ZONE TRAFFIC CONTROL LEGEND	
SYMBOL	DESCRIPTION
	ARROW PANEL
	ARROW PANEL, CAUTION MODE
	ARROW PANEL TRAILER OR SUPPORT
	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 WITH TRUCK MOUNTED ATTENUATOR

Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
WORK_ZONE_TRAFFIC_CONTROL GENERAL NOTES	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-011

WORK ZONE TRAFFIC CONTROL SIGN TABLE					
SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
	E5-1	C	-----	72"X60"	72"X60"
	G20-1	A	36"X18"	48"X24"	48"X24"
	G20-2	A	36"X18"	48"X24"	48"X24"
	G20-4	A	36"X18"	-----	-----
	G20-5aP	A	24"X18"	36"X24"	36"X24"
	M1-1	G	1 OR 2 DIGITS 24"X24"	36"X36"	36"X36"
	M1-1t	G	3 DIGITS 30"X24"	45"X36"	45"X36"
	M1-4	B	1 OR 2 DIGITS 24"X24"	36"X36"	36"X36"
	M1-4t	B	3 DIGITS 30"X24"	45"X36"	45"X36"
	M3-1	SEE NOTE 3	24"X12"	36"X18"	36"X18"
	M3-2				
	M3-3				
	M3-4				
	M4-8	A	24"X12"	36"X18"	36"X18"
	M4-8a	A	24"X18"	24"X18"	24"X18"
	M4-9 M4-9L M4-9R	A	30"X24"	48"X36"	48"X36"
	M4-9a	A	30"X24"	30"X24"	-----
	M4-9b	A	30"X24"	30"X24"	-----
	M4-9c	A	30"X24"	30"X24"	-----
	M4-10L	A	48"X18"	48"X18"	48"X18"
	M4-10R				
	M5-1	SEE NOTE 3	21"X15"	30"X21"	30"X21"
	M5-2	SEE NOTE 3	21"X15"	30"X21"	30"X21"
	M6-1	SEE NOTE 3	21"X15"	30"X21"	30"X21"
	M6-2				
	M6-3				
	M6-4				
	NYM3-1	B	24"X24"	36"X36"	36"X36"
	NYM3-2	B	30"X24"	45"X36"	45"X36"
	NYM3-3	B	30"X24"	45"X36"	45"X36"

WORK ZONE TRAFFIC CONTROL SIGN TABLE					
SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
	NYR9-11	B	24"X42"	48"X84"	48"X84"
	NYR9-12	B	24"X36"	36"X54"	48"X72"
	NYW4-17	A	36"X36"	48"X48"	48"X48"
	NYW8-30	A	48"X24"	48"X24"	48"X24"
	NYW8-31	A	48"X24"	48"X24"	48"X24"
	NYW8-32	A	48"X24"	48"X24"	48"X24"
	NYW8-33	A	48"X24"	48"X24"	48"X24"
	R1-1	D	36"X36"	36"X36"	48"X48"
	R1-2	E	36"X36"X36"	48"X48"X48"	60"X60"X60"
	R2-1	B	24"X30" OR 30"X36" (SEE NOTE 5)	36"X48"	36"X48"
	R2-11	B	24"X30"	36"X48"	36"X48"
	R2-12	B	24"X36"	36"X54"	36"X54"
	R4-1	B	24"X30"	36"X48"	36"X48"
	R4-7	B	24"X30"	36"X48"	36"X48"
	R4-7c NARROW	B	18"X30"	-----	-----
	R4-8	B	24"X30"	36"X48"	36"X48"
	R4-8c NARROW	B	18"X30"	-----	-----
	R4-9	B	24"X30"	36"X48"	36"X48"
	R5-1	E	36"X36"	36"X36"	48"X48"
	R9-8	B	36"X18"	36"X18"	-----
	R9-9	B	24"X12"	24"X12"	-----
	R9-10L R9-10R	B	24"X12"	24"X12"	-----
	R9-11L R9-11R	B	24"X18"	24"X18"	-----
	R9-11aL R9-11aR	B	24"X12"	24"X12"	-----
	R10-6	B	24"X36"	24"X36"	-----
	R11-2	B	48"X30"	48"X30"	48"X30"

WORK ZONE TRAFFIC CONTROL SIGN TABLE					
SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
	R11-3a	B	60"X30"	60"X30"	-----
	W1-4L W1-4R	A	36"X36"	48"X48"	48"X48"
	W1-4bL W1-4bR	A	36"X36"	48"X48"	48"X48"
	W1-4cL W1-4cR	A	36"X36"	48"X48"	48"X48"
	W1-6L W1-6R	A	48"X24"	60"X30"	60"X30"
	W1-8L W1-8R	A (NO BORDER) A (NO BORDER)	18"X24"	30"X36"	30"X36"
	W3-1	A ⁴	36"X36"	48"X48"	48"X48"
	W3-2	A ⁴	36"X36"	48"X48"	48"X48"
	W3-3	A ⁴	36"X36"	48"X48"	48"X48"
	W3-4	A	36"X36"	48"X48"	48"X48"
	W3-5	A ⁴	36"X36"	48"X48"	48"X48"
	W4-1L W4-1R	A	36"X36"	48"X48"	48"X48"
	W4-2L W4-2R	A	36"X36"	48"X48"	48"X48"

ROADWAY DEFINITIONS:

CONVENTIONAL ROAD - A STREET OR HIGHWAY OTHER THAN A FREEWAY, OR EXPRESSWAY.

EXPRESSWAY - A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
























FREEWAY - A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS.

















COLOR CODE LEGEND	
CODE	DESCRIPTION
A	BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND
B	BLACK LEGEND AND BORDER ON A WHITE BACKGROUND
C	WHITE LEGEND AND BORDER ON A GREEN BACKGROUND
D	WHITE LEGEND AND BORDER ON A RED BACKGROUND
E	RED LEGEND AND BORDER ON A WHITE BACKGROUND
F	BLACK LEGEND AND BORDER ON A FLOURESCENT YELLOW GREEN BACKGROUND
G	WHITE LEGEND AND BORDER ON A BLUE AND RED BACKGROUND














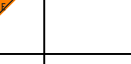




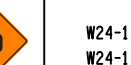




NOTES:

1. DIMENSIONS ARE SHOWN AS WIDTH X HEIGHT.
2. FOR SIGNAGE NOT SHOWN ON THESE TABLES REFER TO THE M.U.T.C.D.
3. COLORS FOR DIRECTION PLAQUES, ADVANCE TURN ARROWS, AND DIRECTIONAL ARROWS SHALL MATCH THE ROUTE OR INTERSTATE SIGN THAT THEY SUPPLEMENT AS PER THE M.U.T.C.D.
4. MULTICOLORED SYMBOL IMPOSED ON SIGN WITH BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND.
5. FOR R2-1 SIGN LARGER DIMENSIONS SHALL BE USED WHEN SIGN FACES MULTIPLE LANES ON A CONVENTIONAL ROAD.

	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
SIGN_TABLE (SHEET_1_OF_2)	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-012

WORK ZONE TRAFFIC CONTROL SIGN TABLE					
SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
	W5-1	A	36"X36"	48"X48"	48"X48"
	W5-4	A	36"X36"	48"X48"	48"X48"
	W6-3	A	36"X36"	48"X48"	48"X48"
	W7-3aP	A	24"X18"	36"X30"	36"X30"
	W8-1	A	36"X36"	48"X48"	48"X48"
	W8-3	A	36"X36"	48"X48"	48"X48"
	W8-7	A	36"X36"	48"X48"	48"X48"
	W8-8	A	36"X36"	48"X48"	48"X48"
	W8-9	A	36"X36"	48"X48"	48"X48"
	W8-12	A	36"X36"	-----	-----
	W8-14	A	36"X36"	48"X48"	48"X48"
	W8-15	A	36"X36"	48"X48"	48"X48"
	W8-17	A	36"X36"	48"X48"	48"X48"
	W8-17p	A	24"X18"	30"X24"	30"X24"
	W8-23	A	36"X36"	48"X48"	48"X48"
	W8-24	A	36"X36"	48"X48"	48"X48"
	W9-3	A	36"X36"	48"X48"	48"X48"
 	W11-1L W11-1R	A OR F	36"X36"	36"X36"	-----
 	W11-2L W11-2R	F	36"X36"	36"X36"	-----
 	W11-15L W11-15R	F	36"X36"	36"X36"	-----


WORK ZONE TRAFFIC CONTROL SIGN TABLE					
SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
	W13-1P	A	24"X24"	30"X30"	30"X30"
	W13-4	A	36"X36"	36"X36"	36"X36"
	W13-4P	A	48"X48"X36"	-----	-----
	W16-1P	SEE NOTE 3 A OR F	18"X24"	24"X30"	-----
	W16-2P	A	24"X18"	30"X24"	-----
	W16-4P	SEE NOTE 3 A OR F	30"X24"	-----	-----
	W16-5PL W16-5PR	A	24"X18"	-----	-----
	W16-7PL W16-7PR	SEE NOTE 3 A OR F	24"X12"	30"X18"	-----
	W16-9P	SEE NOTE 3 A OR F	24"X12"	30"X18"	-----
	W20-1	A	36"X36"	48"X48"	48"X48"
	W20-2	A	36"X36"	48"X48"	48"X48"
	W20-3	A	36"X36"	48"X48"	48"X48"
	W20-4	A	36"X36"	48"X48"	48"X48"
	W20-5	A	36"X36"	48"X48"	48"X48"
	W20-5a	A	36"X36"	48"X48"	48"X48"
	W20-7	A	36"X36"	48"X48"	48"X48"

WORK ZONE TRAFFIC CONTROL SIGN TABLE					
SIGN	SIGN DESIGNATION	COLOR CODE	CONVENTIONAL ROAD	EXPRESSWAY	FREEWAY
	W21-1	A	36"X36"	48"X48"	48"X48"
	W21-4	A	36"X18"	48"X24"	48"X24"
	W21-5	A	36"X36"	48"X48"	48"X48"
 	W21-5aL W21-5aR	A	36"X36"	48"X48"	48"X48"
   	W21-5bL W21-5bR	A	36"X36"	48"X48"	48"X48"
	W21-8	A	36"X36"	48"X48"	48"X48"
   	W22-1	A	36"X36"	48"X48"	48"X48"
	W22-2	A	42"X36"	42"X36"	42"X36"
	W22-3	A	42"X36"	42"X36"	42"X36"
	W23-2	A	36"X36"	48"X48"	48"X48"
 	W24-1L W24-1R	A	36"X36"	48"X48"	48"X48"
 	W24-1aL W24-1aR	A	36"X36"	48"X48"	48"X48"
 	W24-1bL W24-1bR	A	36"X36"	48"X48"	48"X48"

ROADWAY DEFINITIONS:
CONVENTIONAL ROAD - A STREET OR HIGHWAY OTHER THAN A FREEWAY, OR EXPRESSWAY.
EXPRESSWAY - A DIVIDED HIGHWAY WITH PARTIAL CONTROL OF ACCESS.
FREEWAY - A DIVIDED HIGHWAY WITH FULL CONTROL OF ACCESS.

COLOR CODE LEGEND	
CODE	DESCRIPTION
A	BLACK LEGEND AND BORDER ON AN ORANGE BACKGROUND
B	BLACK LEGEND AND BORDER ON A WHITE BACKGROUND
C	WHITE LEGEND AND BORDER ON A GREEN BACKGROUND
D	WHITE LEGEND AND BORDER ON A RED BACKGROUND
E	RED LEGEND AND BORDER ON A WHITE BACKGROUND
F	BLACK LEGEND AND BORDER ON A FLOURESCENT YELLOW GREEN BACKGROUND
G	WHITE LEGEND AND BORDER ON A BLUE AND RED BACKGROUND

- NOTES:
1. DIMENSIONS ARE SHOWN AS WIDTH X HEIGHT.
 2. FOR SIGNAGE NOT SHOWN ON THESE TABLES REFER TO THE M.U.T.C.D.
 3. WHEN USED IN CONJUNCTION WITH A BICYCLE SIGN (W11-1) OR PEDESTRIAN CROSSING (W11-2) COLOR CODE SHALL MATCH.



Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

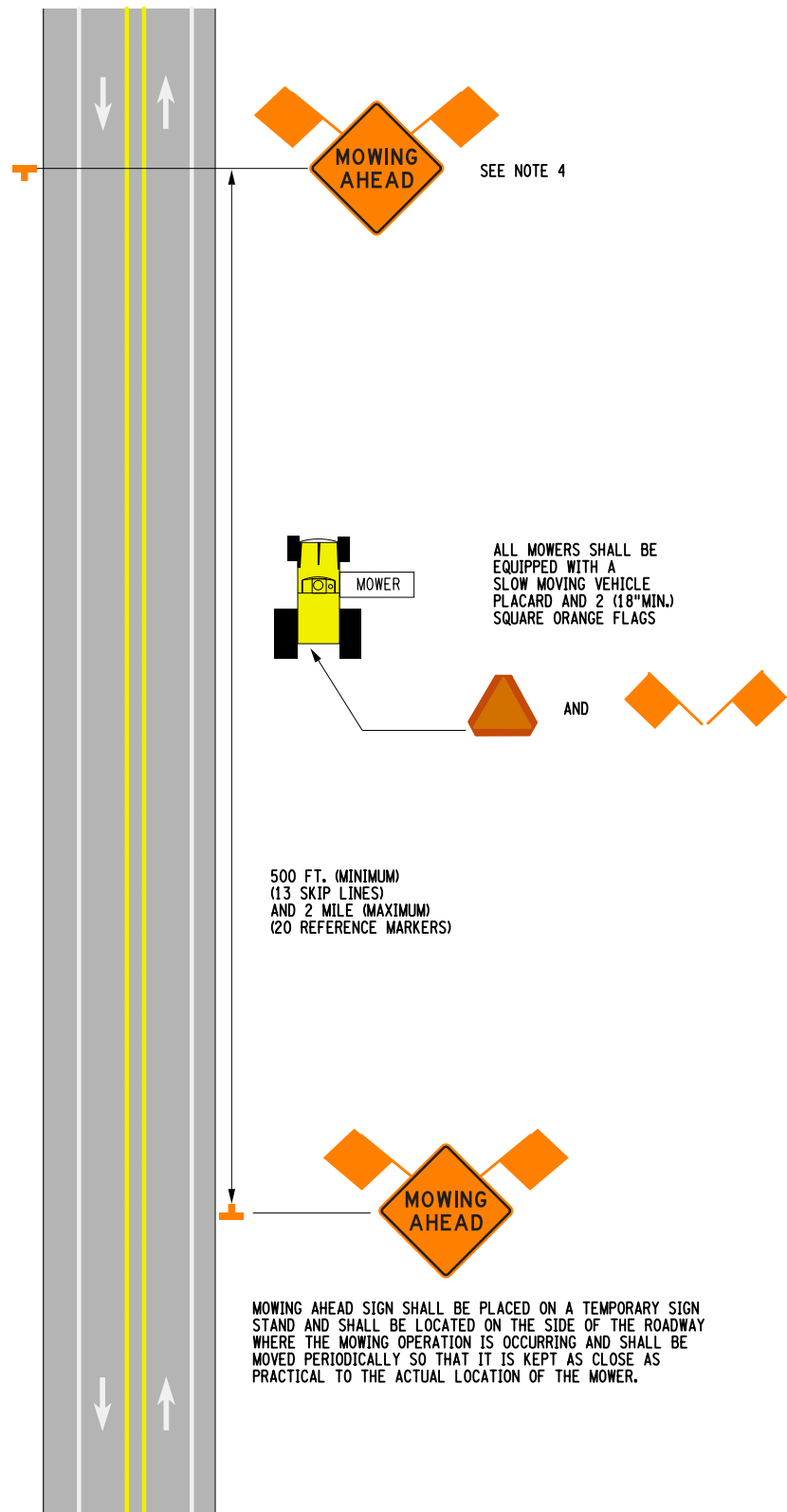
SIGN_TABLE
(SHEET_2.OF_2)

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

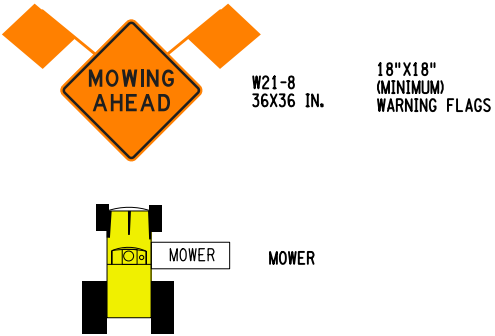
619-012



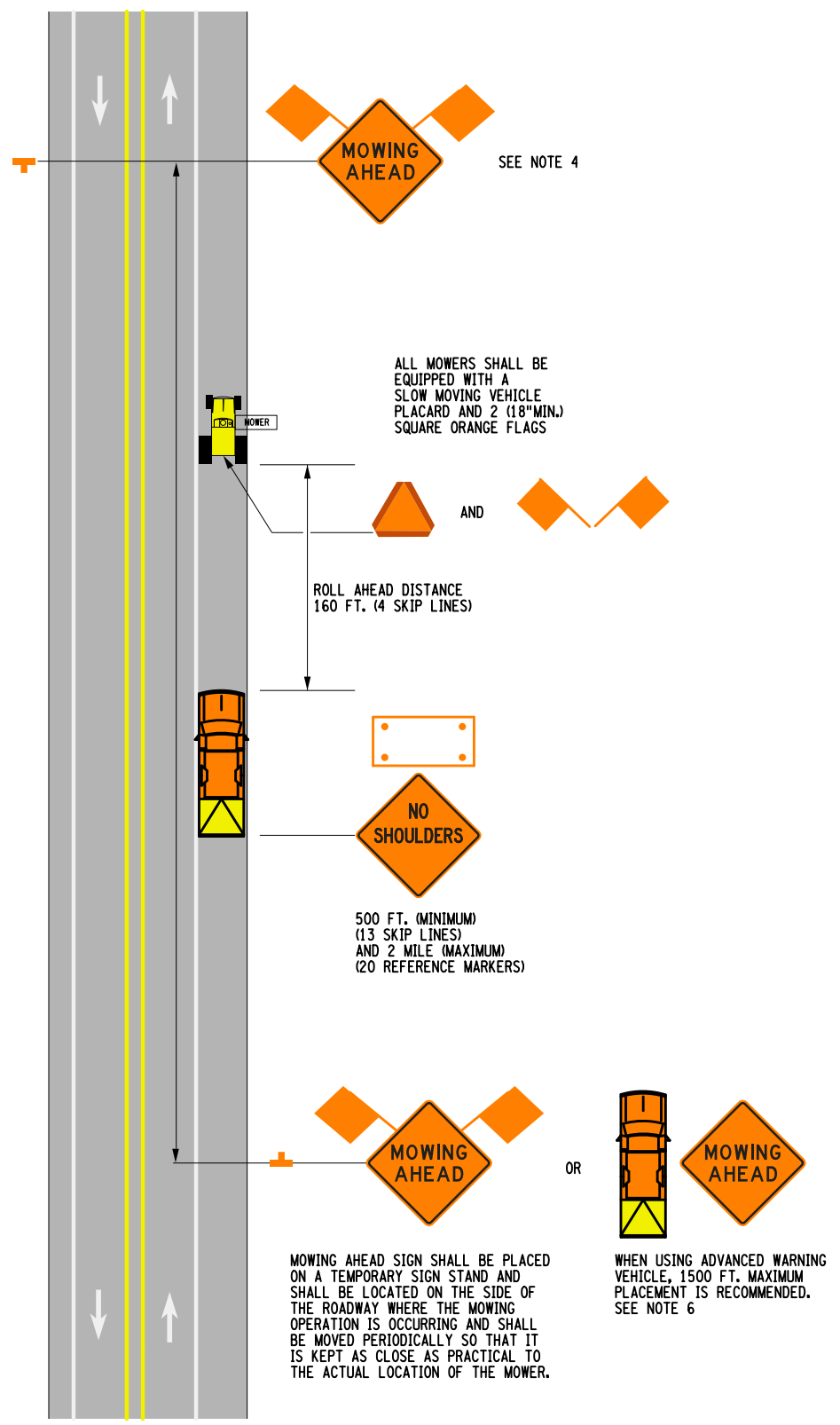
NOT TO SCALE

CONVENTIONAL ROADWAY

- NOTES:
1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
 2. THE MOWING OPERATIONS SHALL BE SCHEDULED AND COMPLETED DURING DAYLIGHT WORK SHIFTS AND HAVE LITTLE OR NO INTERFERENCE WITH TRAFFIC. THE WORK SHALL BE SUSPENDED DURING PERIODS OF POOR WEATHER OR VISIBILITY.
 3. TRACTOR MOWERS SHALL HAVE AN AMBER BEACON OPERATING AT ALL TIMES. IF IT IS NECESSARY FOR THE MOWER TO ENCROACH ONTO THE TRAVEL LANE, THE MOWER SHALL BE FOLLOWED BY A PROTECTIVE VEHICLE WITH OPERATING FLASHING LIGHTS (SEE STANDARD SHEET 619-023).
 4. "MOWING AHEAD" SIGN IS NECESSARY ON BOTH SIDES SIMULTANEOUSLY IF THE WORK WILL OCCUR ON BOTH SIDES OF THE ROAD.
 5. APPROVED PERSONAL PROTECTIVE EQUIPMENT (PPE) SHALL BE WORN WHILE ON TRACTORS NOT EQUIPPED WITH AN ENCLOSED CAB. PPE IS REQUIRED WHEN EXITING TRACTOR WITHIN RIGHT OF WAY.



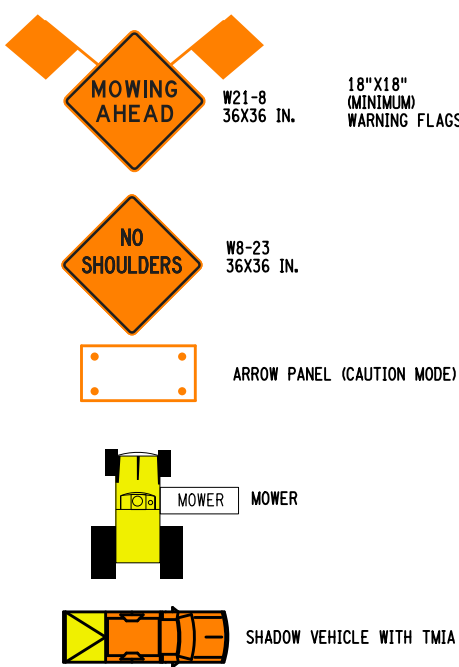
<div><div><div><div><div></div><div>NEW YORK</div><div>STATE OF OPPORTUNITY.</div></div></div><div>Department of Transportation</div></div></div>	
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY WORK BEYOND SHOULDER MOWING OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-021




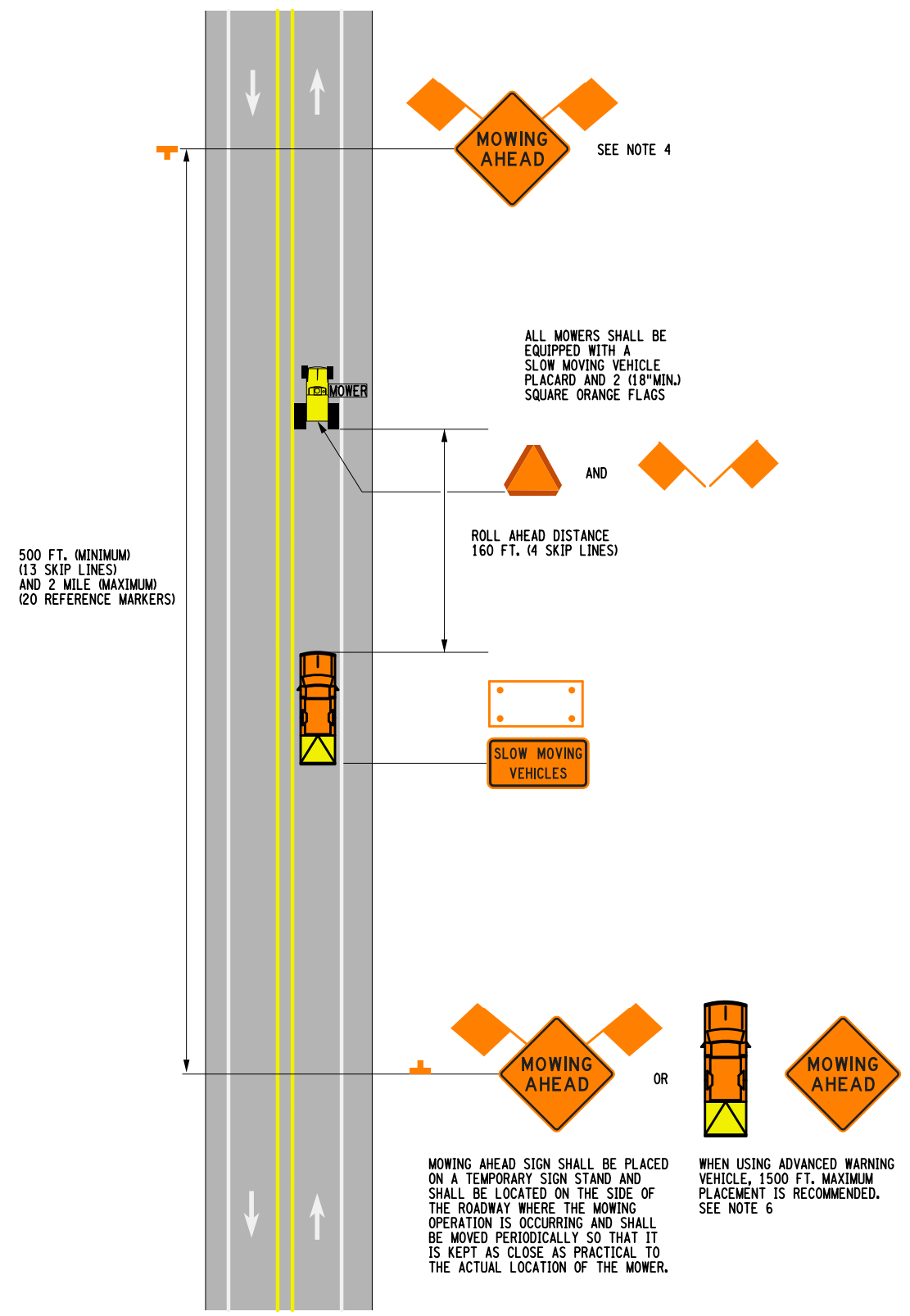
NOT TO SCALE

CONVENTIONAL ROADWAY

1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
2. THE MOWING OPERATIONS SHALL BE SCHEDULED AND COMPLETED DURING DAYLIGHT WORK SHIFTS AND HAVE LITTLE OR NO INTERFERENCE WITH TRAFFIC. THE WORK SHALL BE SUSPENDED DURING PERIODS OF POOR WEATHER OR POOR VISIBILITY.
3. TRACTOR MOWERS SHALL HAVE AN AMBER BEACON OPERATING AT ALL TIMES. IF IT IS NECESSARY FOR THE MOWER TO ENCROACH ONTO THE TRAVEL LANE, THE MOWER SHALL BE FOLLOWED BY A 24,000 LB. VEHICLE WITH OPERATING FLASHING LIGHTS (SEE STANDARD SHEET 619-023).
4. "MOWING AHEAD" SIGN IS NECESSARY ON BOTH SIDES SIMULTANEOUSLY IF THE WORK WILL OCCUR ON BOTH SIDES OF THE ROAD.
5. APPROVED PERSONAL PROTECTIVE EQUIPMENT (PPE) SHALL BE WORN WHILE ON TRACTORS NOT EQUIPPED WITH AN ENCLOSED CAB. PPE IS REQUIRED WHEN EXITING TRACTOR WITHIN RIGHT OF WAY.
6. IF SHOULDER AREA BECOMES TOO NARROW FOR THE MOWER AND/OR OTHER VEHICLES TO BE COMPLETELY ON THE SHOULDER, THE VEHICLES SHALL STAY ON THE WIDER SHOULDER AREA UNTIL OPERATORS CAN SAFELY DRIVE AROUND THE NARROW SHOULDER TO NEW SET-UP POINT.

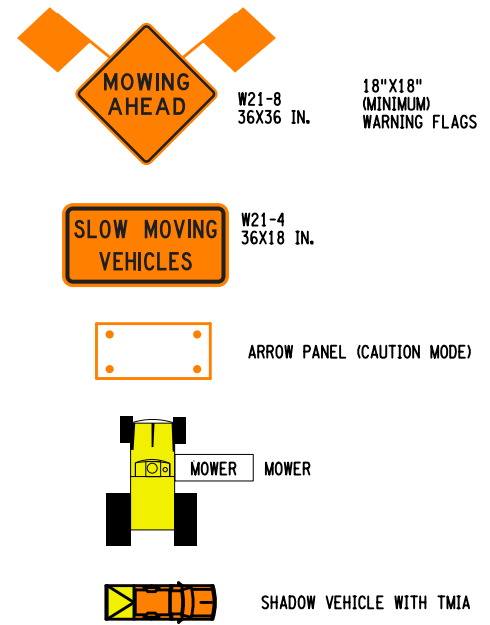



 Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY SHOULDER ENCROACHMENT MOWING OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-022



CONVENTIONAL ROADWAY

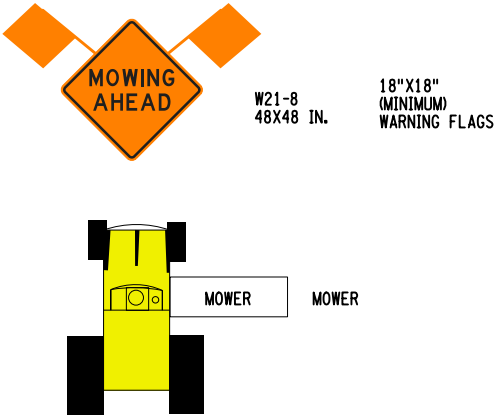
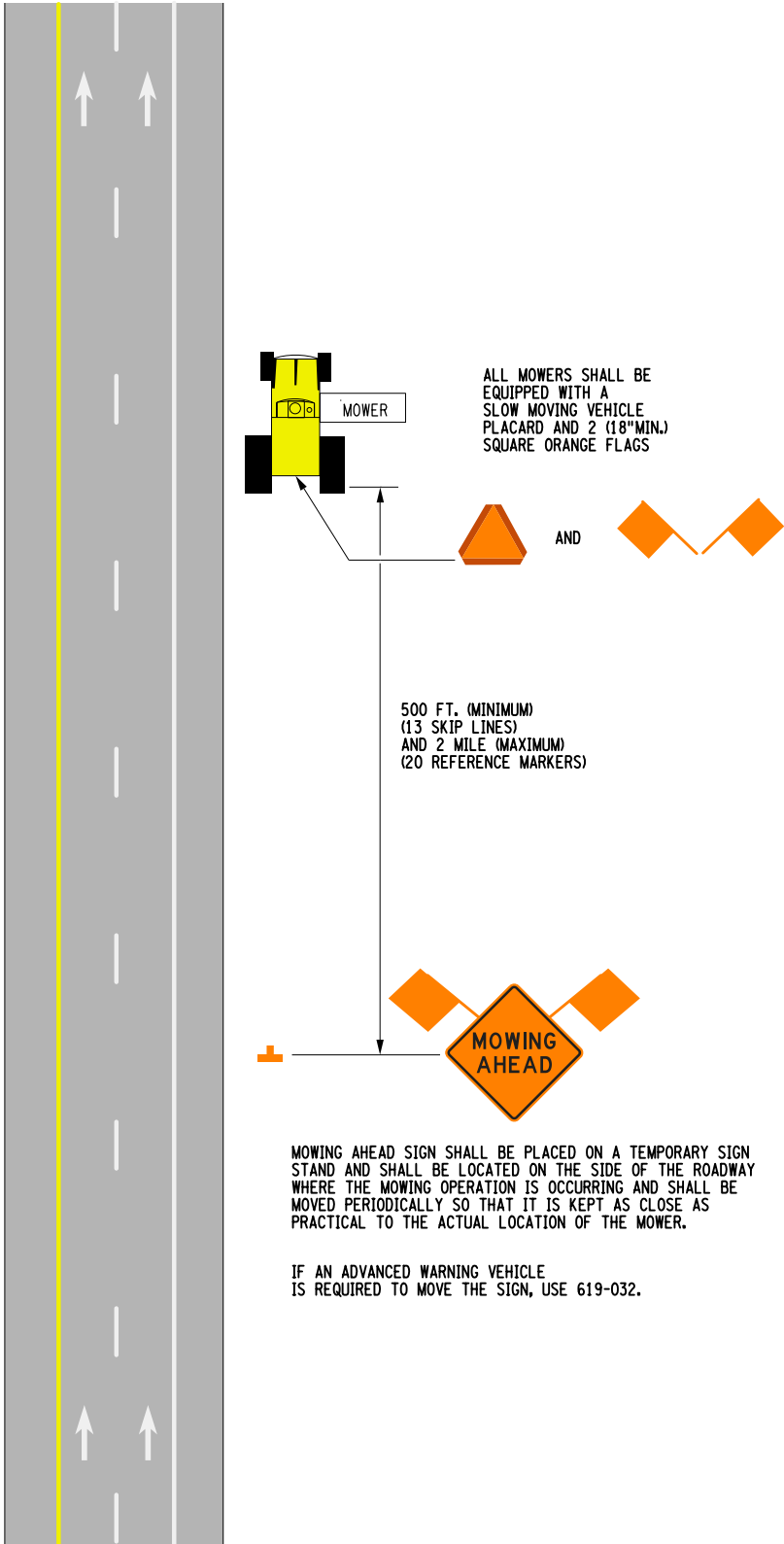
1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
2. THE MOWING OPERATIONS SHALL BE SCHEDULED AND COMPLETED DURING DAYLIGHT WORK SHIFTS AND HAVE LITTLE OR NO INTERFERENCE WITH TRAFFIC. THE WORK SHALL BE SUSPENDED DURING PERIODS OF POOR WEATHER OR POOR VISIBILITY.
3. TRACTOR MOWERS SHALL HAVE AN AMBER BEACON OPERATING AT ALL TIMES. IF IT IS NECESSARY FOR THE MOWER TO ENCROACH ONTO THE TRAVEL LANE, THE MOWER SHALL BE FOLLOWED BY A PROTECTIVE VEHICLE WITH OPERATING FLASHING LIGHTS.
4. "MOWING AHEAD" SIGN IS NECESSARY ON BOTH SIDES SIMULTANEOUSLY IF THE WORK IS GOING IN BOTH DIRECTIONS.
5. APPROVED PERSONAL PROTECTIVE EQUIPMENT (PPE) SHALL BE WORN WHILE ON TRACTORS NOT EQUIPPED WITH AN ENCLOSED CAB. PPE IS REQUIRED WHEN EXITING TRACTOR WITHIN RIGHT OF WAY.
6. IF SHOULDER AREA BECOMES TOO NARROW FOR THE ADVANCE WARNING VEHICLE TO BE COMPLETELY ON THE SHOULDER, THE VEHICLE SHALL STAY ON THE WIDER SHOULDER AREA UNTIL OPERATORS CAN SAFELY DRIVE AROUND THE NARROW SHOULDER TO NEW SET-UP POINT.



 Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY LANE ENCROACHMENT MOWING OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-023

FREEWAY OR EXPRESSWAY


- NOTES:
- 1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
 - 2. THE MOWING OPERATIONS SHALL BE SCHEDULED AND COMPLETED DURING DAYLIGHT WORK SHIFTS AND HAVE LITTLE OR NO INTERFERENCE WITH TRAFFIC. THE WORK SHALL BE SUSPENDED DURING PERIODS OF POOR WEATHER OR VISIBILITY.
 - 3. TRACTOR MOWERS SHALL HAVE AN AMBER BEACON OPERATING AT ALL TIMES. IF IT IS NECESSARY FOR THE MOWER TO ENCROACH ONTO THE TRAVEL LANE, THE MOWER SHALL BE FOLLOWED BY A PROTECTIVE VEHICLE WITH OPERATING FLASHING LIGHTS (SEE 619-033).
 - 4. APPROVED PERSONAL PROTECTIVE EQUIPMENT (PPE) SHALL BE WORN WHILE ON TRACTORS NOT EQUIPPED WITH AN ENCLOSED CAB. PPE IS REQUIRED WHEN EXITING TRACTOR WITHIN RIGHT OF WAY.



MOWING AHEAD SIGN SHALL BE PLACED ON A TEMPORARY SIGN STAND AND SHALL BE LOCATED ON THE SIDE OF THE ROADWAY WHERE THE MOWING OPERATION IS OCCURRING AND SHALL BE MOVED PERIODICALLY SO THAT IT IS KEPT AS CLOSE AS PRACTICAL TO THE ACTUAL LOCATION OF THE MOWER.

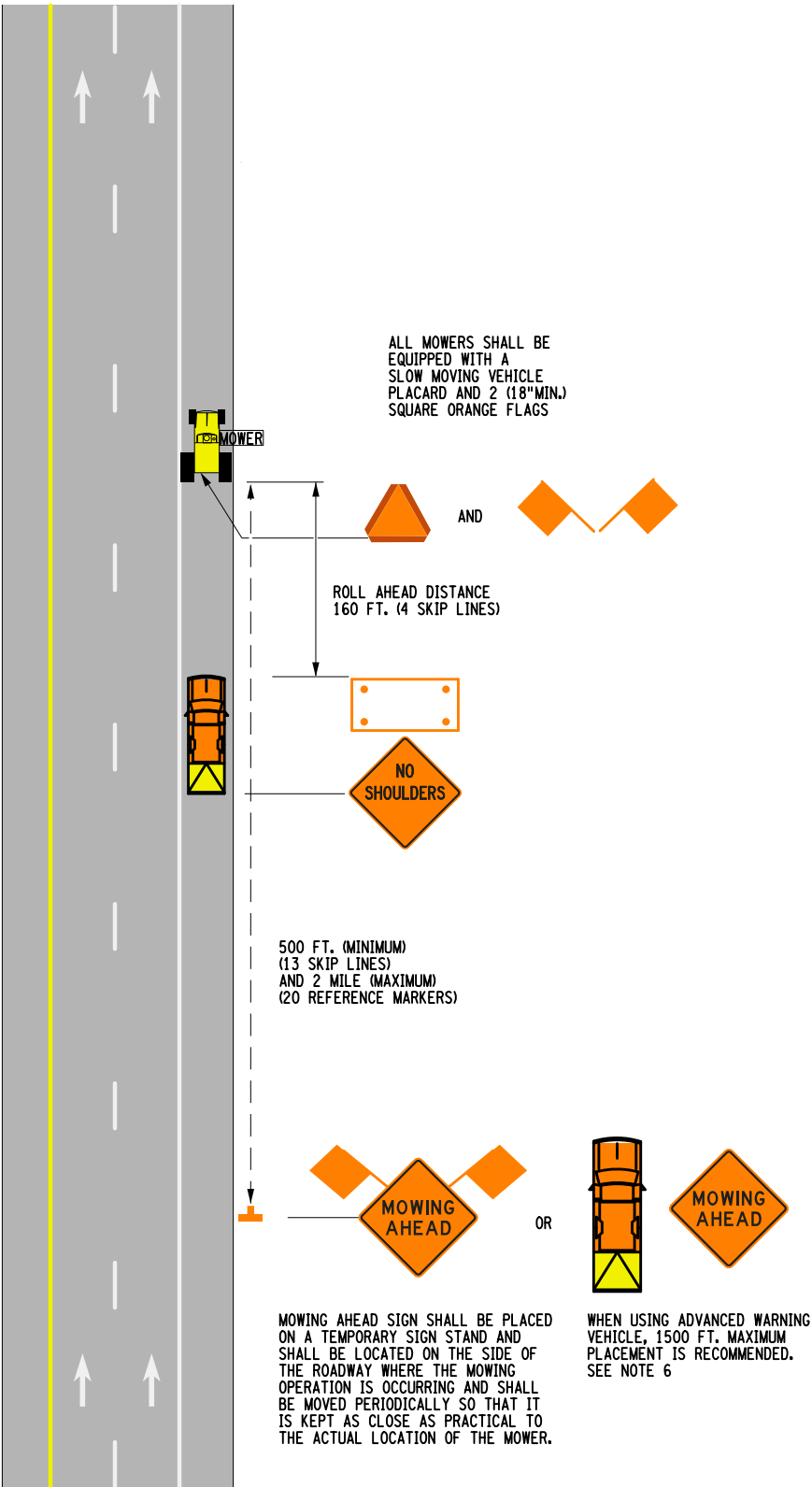
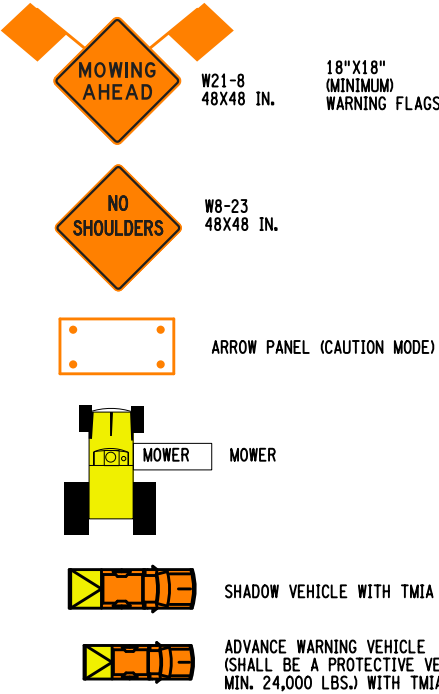
IF AN ADVANCED WARNING VEHICLE IS REQUIRED TO MOVE THE SIGN, USE 619-032.

NOT TO SCALE


	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY WORK BEYOND SHOULDER MOWING OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-031

FREEWAY OR EXPRESSWAY

- NOTES:
- 1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
 - 2. THE MOWING OPERATIONS SHALL BE SCHEDULED AND COMPLETED DURING DAYLIGHT WORK SHIFTS AND HAVE LITTLE OR NO INTERFERENCE WITH TRAFFIC. THE WORK SHALL BE SUSPENDED DURING PERIODS OF POOR WEATHER OR POOR VISIBILITY.
 - 3. TRACTOR MOWERS SHALL HAVE AN AMBER BEACON OPERATING AT ALL TIMES. IF IT IS NECESSARY FOR THE MOWER TO ENCROACH ONTO THE TRAVEL LANE, THE MOWER SHALL BE FOLLOWED BY A PROTECTIVE VEHICLE WITH OPERATING FLASHING LIGHTS (SEE 619-033).
 - 4. APPROVED PERSONAL PROTECTIVE EQUIPMENT (PPE) SHALL BE WORN WHILE ON TRACTORS NOT EQUIPPED WITH AN ENCLOSED CAB. PPE IS REQUIRED WHEN EXITING TRACTOR WITHIN RIGHT OF WAY.
 - 5. ADVANCED WARNING VEHICLE AND SHADOW VEHICLE SHALL NOT ENCROACH INTO THE TRAVEL LANE.
 - 6. IF SHOULDER AREA BECOMES TOO NARROW FOR ADVANCE WARNING VEHICLE TO BE COMPLETELY ON THE SHOULDER, THE VEHICLE SHALL STAY ON THE WIDER SHOULDER AREA UNTIL OPERATOR CAN SAFELY DRIVE AROUND THE NARROW SHOULDER TO NEW SET-UP POINT.
 - 7. THE SHADOW VEHICLE SHALL BE PLACED TO OPTIMIZE AND ENHANCE VISIBILITY FROM THE REAR OF THE OPERATION.

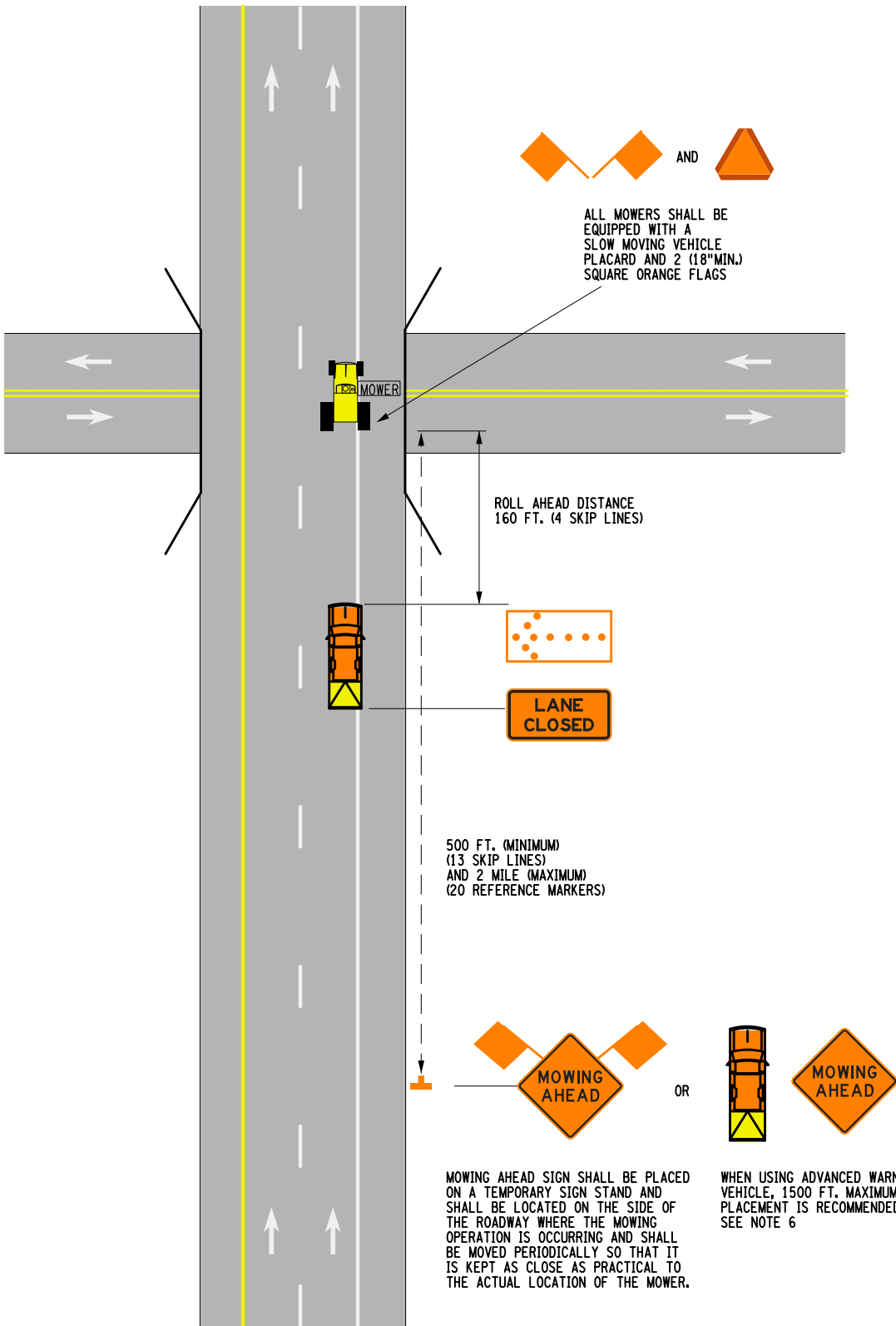
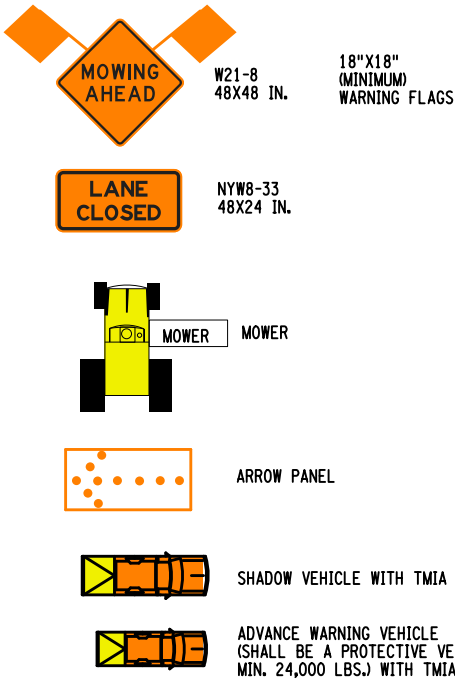


NOT TO SCALE


	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY SHOULDER ENCROACHMENT MOWING OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-032

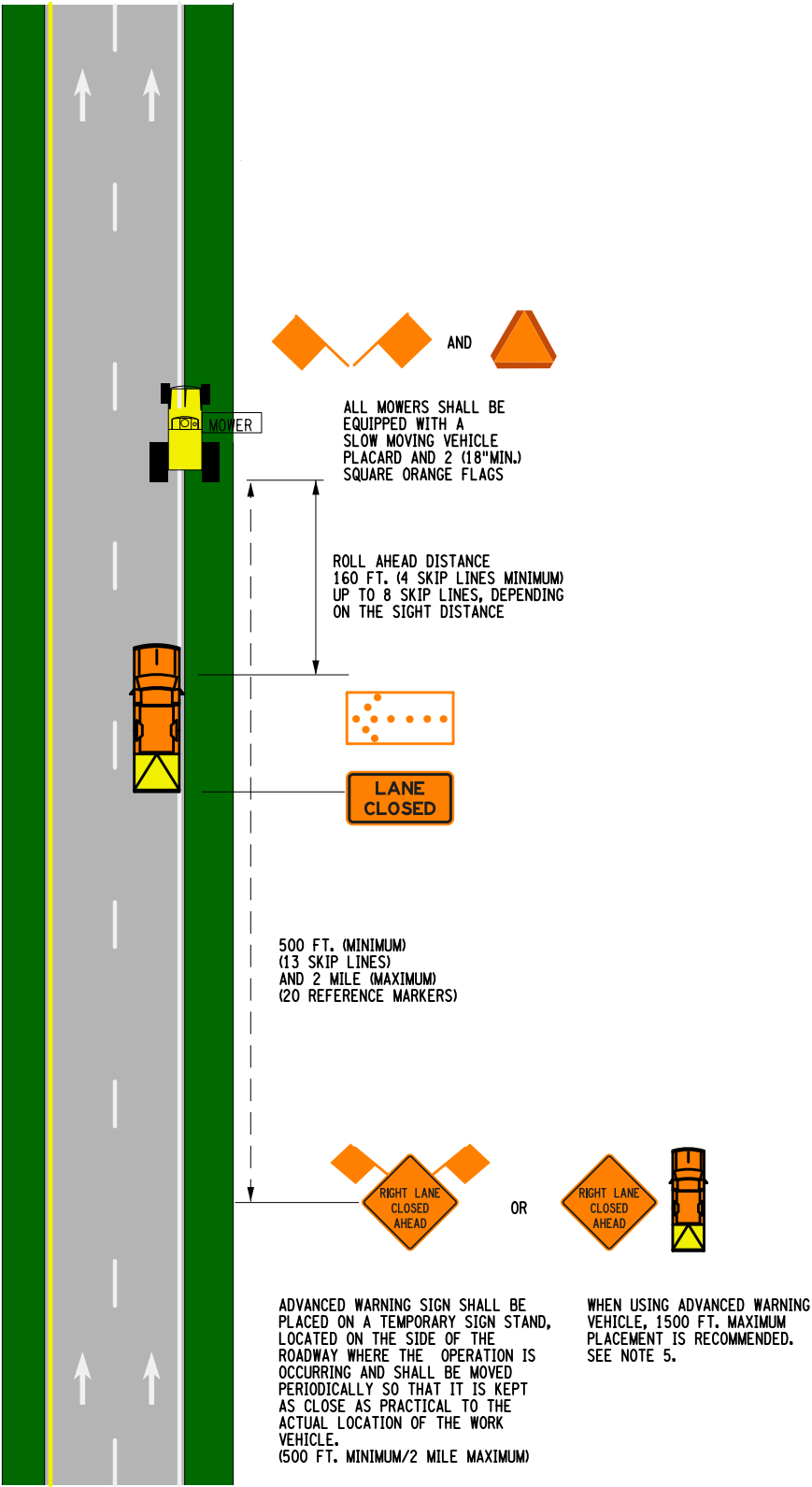
FREEWAY OR EXPRESSWAY

- NOTES:
- 1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
 - 2. THE MOWING OPERATIONS SHALL BE SCHEDULED AND COMPLETED DURING DAYLIGHT WORK SHIFTS AND HAVE LITTLE OR NO INTERFERENCE WITH TRAFFIC. THE WORK SHALL BE SUSPENDED DURING PERIODS OF POOR WEATHER OR POOR VISIBILITY.
 - 3. TRACTOR MOWERS SHALL HAVE AN AMBER BEACON OPERATING AT ALL TIMES. IF IT IS NECESSARY FOR THE MOWER TO ENCROACH ONTO THE TRAVEL LANE, THE MOWER SHALL BE FOLLOWED BY A PROTECTIVE VEHICLE WITH OPERATING FLASHING LIGHTS.
 - 4. APPROVED PERSONAL PROTECTIVE EQUIPMENT (PPE) SHALL BE WORN WHILE ON TRACTORS NOT EQUIPPED WITH AN ENCLOSED CAB. PPE IS REQUIRED WHEN EXITING TRACTOR WITHIN RIGHT OF WAY.
 - 5. ADVANCED WARNING VEHICLE SHALL NOT ENCROACH INTO THE TRAVEL LANE.
 - 6. IF SHOULDER AREA BECOMES TOO NARROW FOR THE ADVANCE WARNING VEHICLE TO BE COMPLETELY ON THE SHOULDER, THE VEHICLE SHALL STAY ON THE WIDER SHOULDER AREA UNTIL THE OPERATOR CAN SAFELY DRIVE AROUND THE NARROW SHOULDER TO NEW SET-UP POINT.
 - 7. THE SHADOW VEHICLE SHALL BE PLACED TO OPTIMIZE AND ENHANCE VISIBILITY FROM THE REAR OF THE OPERATION.



NOT TO SCALE

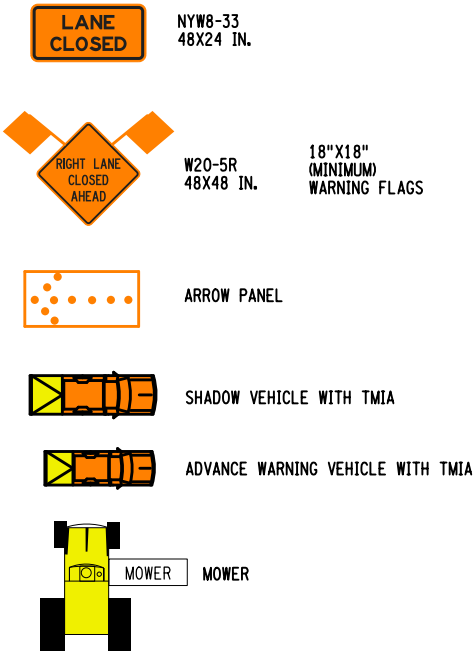
 <div>NEW YORK STATE OF OPPORTUNITY.</div>	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
<u>WORK ZONE TRAFFIC CONTROL</u> FREEWAY LANE ENCROACHMENT MOWING OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXXXX)	619-033




NOT TO SCALE

PARKWAY

- NOTES:
1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
 2. THE MOWING OPERATIONS SHALL BE SCHEDULED AND COMPLETED DURING DAYLIGHT WORK SHIFTS AND HAVE LITTLE OR NO INTERFERENCE WITH TRAFFIC. THE WORK SHALL BE SUSPENDED DURING PERIODS OF POOR WEATHER OR POOR VISIBILITY.
 3. TRACTOR MOWERS SHALL HAVE AN AMBER BEACON OPERATING AT ALL TIMES. IF IT IS NECESSARY FOR THE MOWER TO ENCROACH ONTO THE TRAVEL LANE, THE MOWER SHALL BE FOLLOWED BY A PROTECTIVE VEHICLE WITH OPERATING FLASHING LIGHTS (SEE TAG-C3).
 4. APPROVED PERSONAL PROTECTIVE EQUIPMENT (PPE) SHALL BE WORN WHILE ON TRACTORS NOT EQUIPPED WITH AN ENCLOSED CAB. PPE IS REQUIRED WHEN EXITING TRACTOR WITHIN RIGHT OF WAY.
 5. THE SHADOW VEHICLE SHALL BE PLACED TO OPTIMIZE AND ENHANCE VISIBILITY FROM THE REAR OF THE OPERATION.
 6. IF GRASS SHOULDER AREA BECOMES TOO NARROW FOR THE ADVANCE WARNING VEHICLE TO BE COMPLETELY ON THE SHOULDER, THE VEHICLE SHALL STAY ON THE WIDER SHOULDER AREA UNTIL THE OPERATOR CAN SAFELY DRIVE AROUND THE NARROW SHOULDER TO NEW SET-UP POINT.



 Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL PARKWAY LANE CLOSURE/ENCROACHMENT MOWING OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-041



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USER = cmodaffer1
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NOTES:

- ROAD WORK AHEAD

W20-1
36X36 IN.

18"X18"
(MINIMUM)
WARNING FLAGS

SLOW MOVING VEHICLE


W21-4
36X18 IN.

ARROW PANEL (CAUTION MODE)

SHADOW VEHICLE WITH TMIA

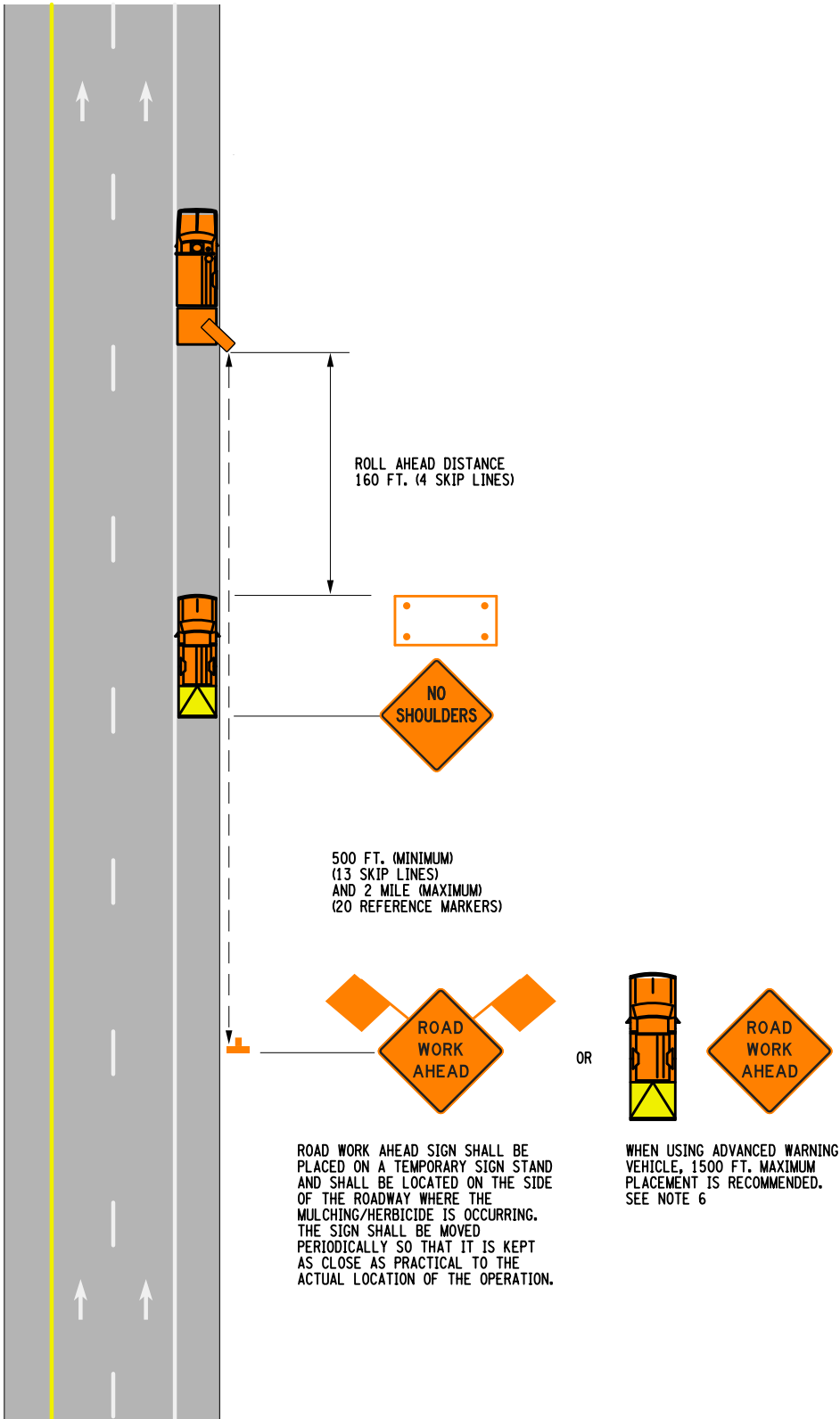
ADVANCED WARNING VEHICLE WITH TMIA

WORK VEHICLE

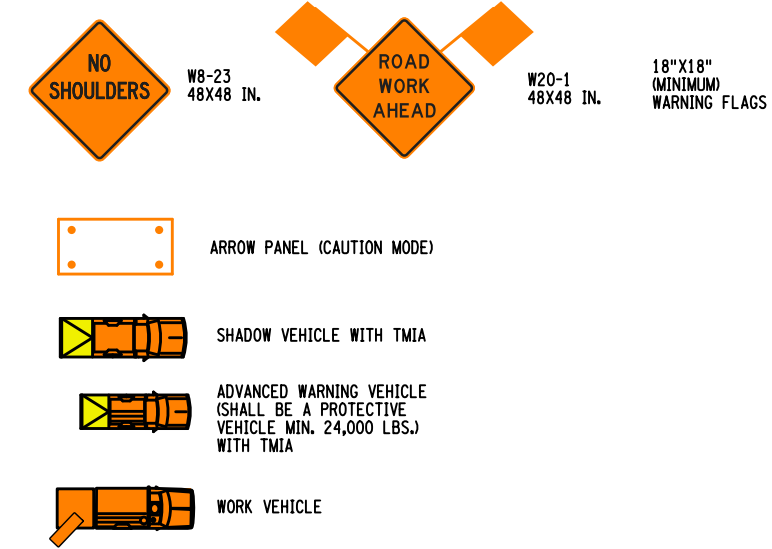
 <p>NEW YORK STATE OF OPPORTUNITY.</p>	<p>Department of Transportation</p>
<p>U.S. CUSTOMARY STANDARD SHEET</p>	
<p><u>WORK ZONE TRAFFIC CONTROL</u> TWO-LANE TWO-WAY ROADWAY SHOULDER CLOSURE/ENCROACHMENT MULCHING/HERBICIDE OPERATION</p>	
<p>APPROVED XXXXXXXX XX, 20XX</p> <p>XXXXXXXXXXXXXXXXXXXXX (XXXXXXXX)</p>	<p>ISSUED UNDER EB XX-XXX</p> <p>619-050</p>


FREEWAY OR EXPRESSWAY

- NOTES:
- 1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
 - 2. THE HERBICIDE/MULCHING OPERATIONS SHALL BE SCHEDULED AND COMPLETED DURING DAYLIGHT WORK SHIFTS AND HAVE LITTLE OR NO INTERFERENCE WITH TRAFFIC. THE WORK SHALL BE SUSPENDED DURING PERIODS OF POOR WEATHER OR POOR VISIBILITY.
 - 3. TRACTOR MOWERS SHALL HAVE AN AMBER BEACON OPERATING AT ALL TIMES. IF IT IS NECESSARY FOR THE MOWER TO ENCROACH ONTO THE TRAVEL LANE, THE MOWER SHALL BE FOLLOWED BY A PROTECTIVE VEHICLE WITH OPERATING FLASHING LIGHTS.
 - 4. APPROVED PERSONAL PROTECTIVE EQUIPMENT (PPE) SHALL BE WORN WHILE ON WORK VEHICLES NOT EQUIPPED WITH AN ENCLOSED CAB. PPE IS REQUIRED WHEN EXITING WORK VEHICLE WITHIN RIGHT OF WAY.
 - 5. ADVANCE WARNING VEHICLE SHALL NOT ENCROACH INTO THE TRAVEL LANE.
 - 6. IF SHOULDER AREA BECOMES TOO NARROW FOR THE ADVANCE WARNING VEHICLE TO BE COMPLETELY ON THE SHOULDER, THE VEHICLE SHALL STAY ON THE WIDER SHOULDER AREA UNTIL OPERATOR CAN SAFELY DRIVE AROUND THE NARROW SHOULDER TO NEW SET-UP POINT.
 - 7. THE SHADOW VEHICLE SHALL BE PLACED TO OPTIMIZE AND ENHANCE VISIBILITY FROM THE REAR OF THE OPERATION.



NOT TO SCALE



	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY SHOULDER CLOSURE/ENCROACHMENT MULCHING/HERBICIDE OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-051

CONVENTIONAL ROADWAY

- NOTES:
1. THIS TYPICAL APPLIES TO CONTINUOUSLY MOVING OPERATIONS OR STOPPING FOR NO MORE THAN 15 MINUTES.
 2. SHOULD THE WORK DURATION EXCEED 15 MINUTES, THE APPROPRIATE SHORT DURATION WORK ZONE TYPICAL APPLICATION FOR THE CONDITION SHALL BE ESTABLISHED.
 3. THIS TYPICAL IS NOT TO BE USED FOR OPERATIONS THAT INVOLVE WORKERS ON FOOT PERFORMING ROADWAY AND / OR APPURTENANCE INSPECTIONS OR REPAIRS.
 4. TRAFFIC QUEUES SHALL BE CONTINUOUSLY MONITORED. TRAFFIC SHALL BE RELIEVED AS SOON AS PRACTICABLE BY PULLING OFF ON SUITABLE SHOULDER. TRAFFIC SHALL NOT BE DIRECTED ACROSS CENTERLINE INTO OPPOSING TRAVEL LANE.
 5. THE ADVANCE WARNING VEHICLE SHALL NOT ENCROACH TRAVEL LANE AND SHALL STAY AS FAR TO THE RIGHT AS POSSIBLE AND SHALL ADJUST ITS SPACING TO ACCOMMODATE CHANGING SIGHT DISTANCE TO OPTIMIZE AND ENHANCE VISIBILITY FROM THE REAR OF THE OPERATION. IF SHOULDER AREA BECOMES TOO NARROW FOR THE ADVANCE WARNING VEHICLE TO BE COMPLETELY ON THE SHOULDER, THE VEHICLE SHALL STAY ON THE WIDER SHOULDER AREA UNTIL THE OPERATORS CAN SAFELY DRIVE AROUND THE NARROW SHOULDER AREA TO THE NEW SET -UP POINT.
 6. VERBAL COMMUNICATION MUST BE MAINTAINED BETWEEN ALL VEHICLES IN TRAIN
 7. TRUCK/TRAILER MOUNTED ATTENUATOR (TMIA) IS REQUIRED WHEN PROTECTIVE VEHICLES (SHADOW/ADVANCE WARNING) ARE PLACED ON ROAD SPEED 45 MPH OR HIGHER.
 8. IN URBAN CONDITIONS, ADVANCE WARNING VEHICLE SPACING MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS.
 9. SUPERVISORS SHOULD EVALUATE FIELD CONDITIONS THAT EFFECT DRYING TIME AND INSTALL CONES EVERYWHERE SLOW DRYING PAINT COULD COME IN CONTACT WITH AND/OR BE DAMAGED BY VEHICLES. REFER TO "USE OF CONES FOR SLOW DRYING CONDITIONS" FOR CONE REPLACEMENT REQUIREMENT.

USE OF CONES FOR SLOW DRYING CONDITIONS

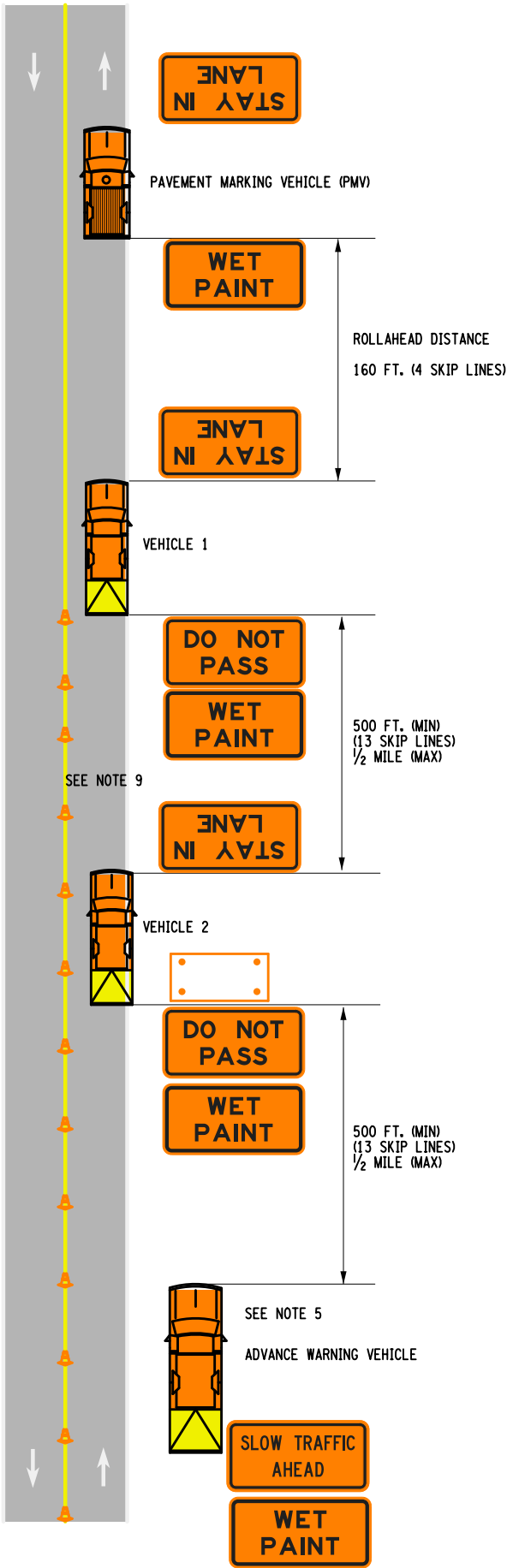
IN SLOW DRYING CONDITION WHEN CONES ARE USED TO MARK WET PAINT, THEY SHALL:

- BE PLACED BY THE SHADOW VEHICLE CLOSEST TO THE PAVEMENT MARKING VEHICLE.
- NOT BE PLACED WITHIN 25 FT. OF AN INTERSECTION TO AVOID THE IMPRESSION OF A CLOSED LANE TO TRAFFIC APPROACHING FROM A SIDE STREET OR DRIVEWAY.
- BE SPACED 40 FT. APART.
- BE STAGGERED (NOT PLACED DIRECTLY ACROSS FROM EACH OTHER) WHEN BOTH CENTER AND EDGE LINE ARE PLACED SIMULTANEOUSLY.
- CONES SHOULD BE REMOVED ONLY AFTER PAVEMENT MARKINGS ARE DRIED SUFFICIENTLY.

SETTING/RETRIEVING OF CONES SHOULD BE DONE USING APPROPRIATE TYPICAL SETUP.

NYSOT EMPLOYEES SETTING/RETRIEVING CONES SHALL ADHERE TO THE NYSOT WORK PLATFORM POLICY.

STAY IN LANE STATIC SIGNS SHOULD BE PLACED IN ADVANCE OF CONES AND EVERY HALF MILE THROUGHOUT.



NOT TO SCALE

STAY IN LANE

NYW8-31
48X24 IN.

SLOW TRAFFIC AHEAD

W23-1
48X24 IN.

WET PAINT

NYW8-30
48X24 IN.

DO NOT PASS

NYW8-32
48X24 IN.

PAVEMENT MARKING VEHICLE

ARROW PANEL
(CAUTION MODE)

SHADOW VEHICLE WITH TMIA

ADVANCED WARNING VEHICLE
WITH TMIA

NEW YORK
STATE OF
OPPORTUNITY.

Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
LANE CLOSURE
PAVEMENT MARKING OPERATIONS

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-060

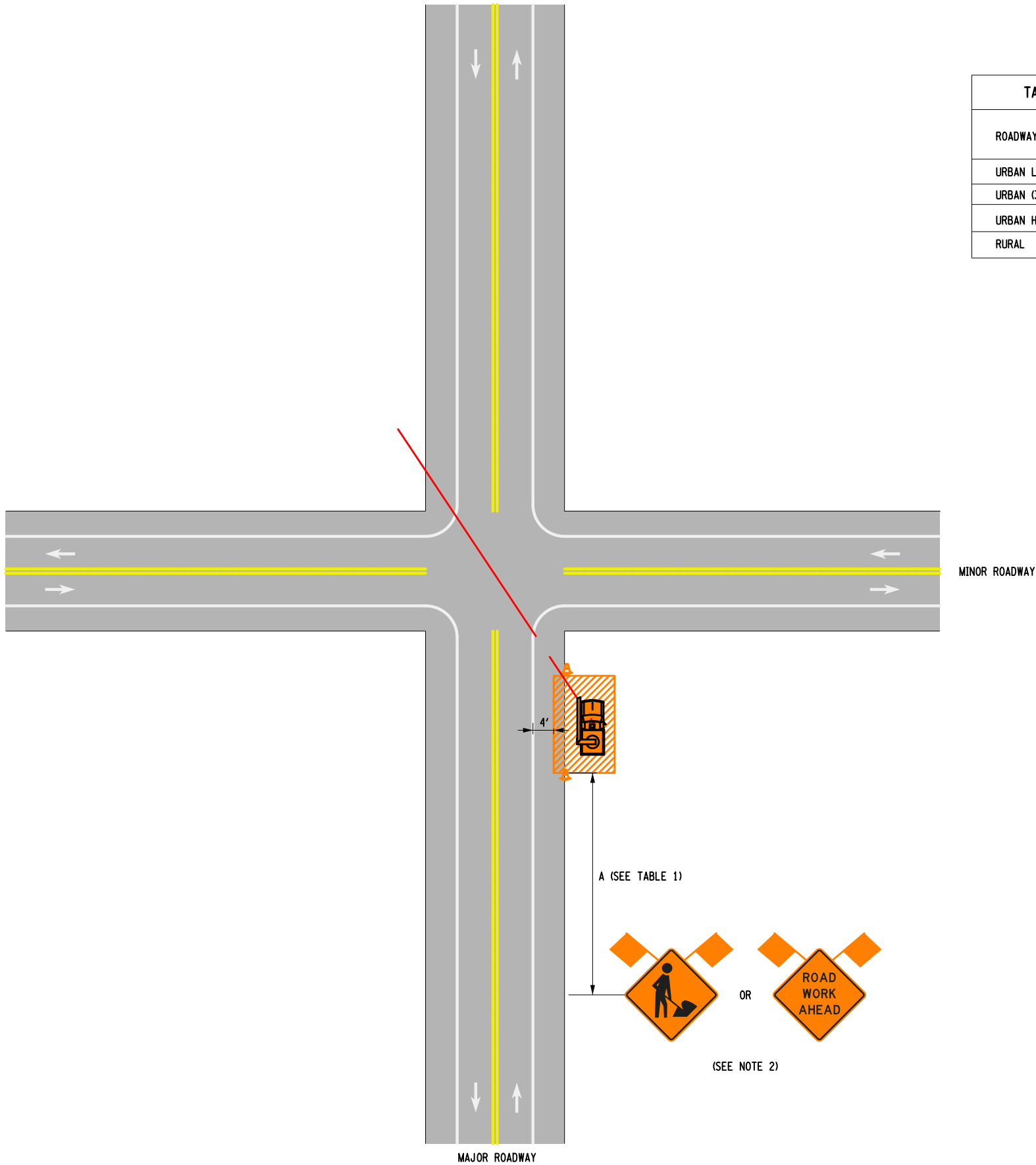
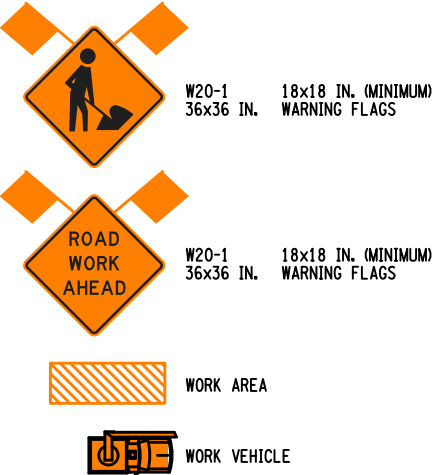



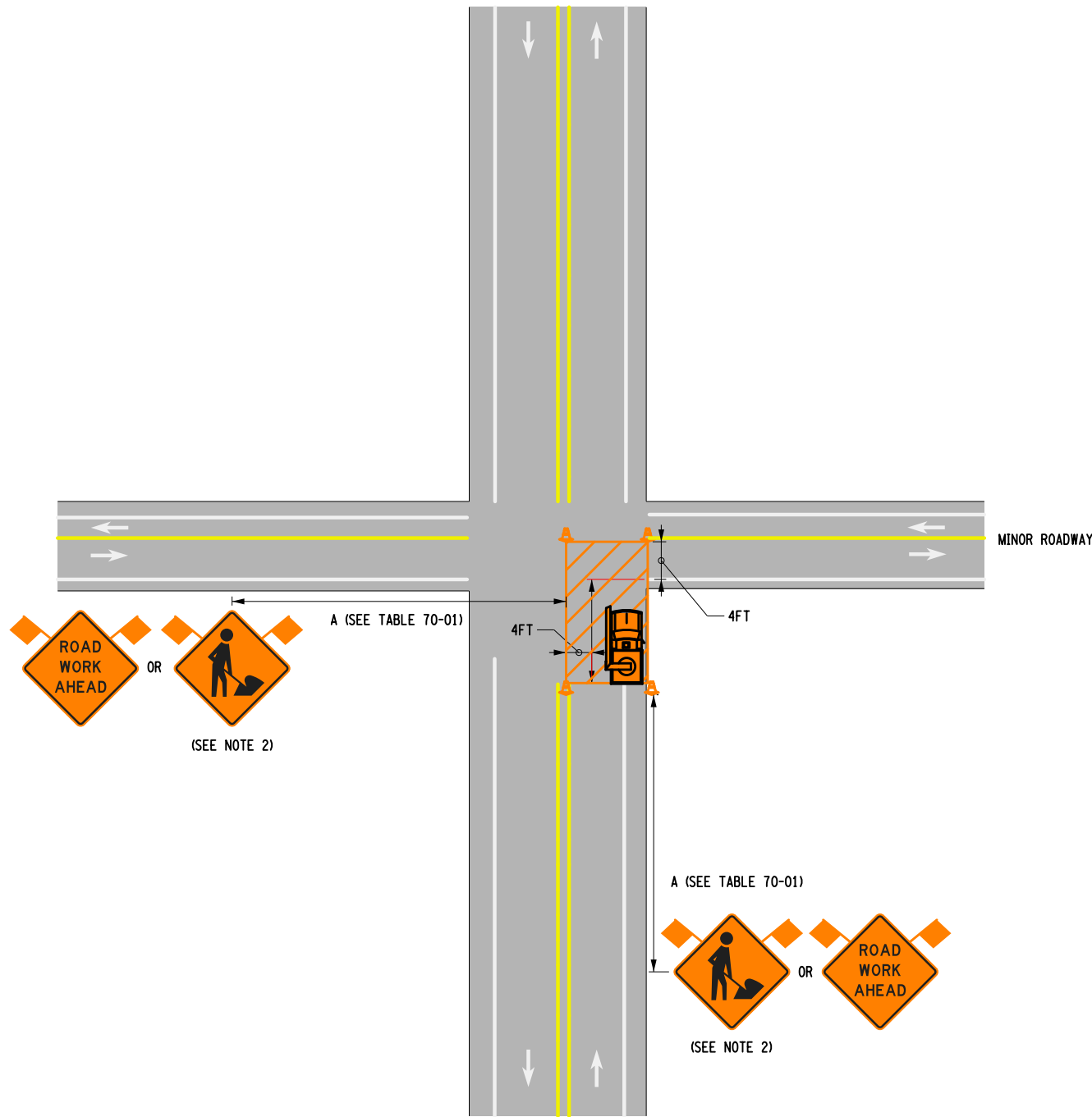
TABLE 1: ADVANCE WARNING SIGN PLACEMENT	
ROADWAY TYPE	A: DISTANCE BETWEEN SIGN AND WORK AREA
URBAN LOW (< 30 MPH)	100 FT
URBAN (35-40 MPH)	200 FT
URBAN HIGH (> 45 MPH)	350 FT
RURAL	500 FT

- NOTES:
1. THIS WORK ZONE TRAFFIC CONTROL SET UP IS FOR MOBILE WORK THAT IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME LESS THAN 15 MINUTES.
 2. THE ADVANCED WARNING SIGN MAY BE OMITTED WHEN ROADWAY POSTED SPEED LIMIT 30 MPH OR LESS ON THE TRAFFIC SIGNAL VEHICLE APPROACH OR WORK SPACE BEHIND THE BARRIER OR GUIDE RAIL OR MORE THAN 2 FT BEHIND THE NON-MOUNTABLE CURB OR 15 FT OR MORE FROM THE EDGE OF ANY ROADWAY.
 3. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS.
 4. WHEN PEDESTRIAN FACILITY EXISTS, A MINIMUM WIDTH OF 4 FT WALKWAY SHALL BE MAINTAINED.



 NEW YORK STATE OF OPPORTUNITY.	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY WORK BEYOND SHOULDER SIGNAL WORK	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-070

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DATE/TIME = 17-FEB-2021 10:49
USER = omodaffer1



NOT TO SCALE

CONVENTIONAL ROADWAY

619-071

NOTES:

1. THIS TRAFFIC CONTROL SETUP IS RESTRICTED TO TRAFFIC SIGNAL WORK ACTIVITIES THAT REQUIRES THE WORK VEHICLE TO OCCUPY THE TRAVEL LANE(S) IN ITS ENTIRETY AND IS LESS THAN 15 MINUTES.
2. ADVANCE WARNING SIGN MAY BE OMITTED ON THE TRAFFIC SIGNAL VEHICLE APPROACH WHEN ROADWAY POSTED SPEED LIMIT IS NOT MORE THAN 30 MPH, AND NO WORKERS ON FOOT.
3. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS
4. WHEN PEDESTRIAN FACILITY EXISTS, A MINIMUM WIDTH OF 4 FT WALKW Y SHALL BE MAINTAINED.
5. THIS TRAFFIC CONTROL SETUP REQUIRES AN APPROVED WORK VEHICLE AN SPOTTER OR A UNIFORMED LAW ENFORCEMENT OFFICER.
6. WHEN A UNIFORMED LAW ENFORCEMENT OFFICER IS NOT PRESENT TO C TROL THE TRAFFIC, THE TRAFFIC SIGNAL MAY BE PLACED ON "ALL FLASHING OPERATIONS" BASED ON ROAD TYPE, SITE CONDITION, TRAFFIC VOLUME A D SPEED.
7. ALL NECESSARY EQUIPMENT AND MATERIAL SHALL BE PREPARED PRIOR TO ENTERING THE ROADWAY.

TABLE 70-01:ADVANCE WARNING SIGN PLACEMENT

ROADWAY TYPE	A: DISTANCE BETWEEN SIGN AND WORK AREA
URBAN LOW (≤30 MPH)	100 FT
URBAN (35-40 MPH)	200 FT
URBAN HIGH (≥45 MPH)	350 FT
RURAL	500 FT



WORK VEHICLE



W20-1
36X36



W21-1
36X36 IN.



WORK AREA



Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

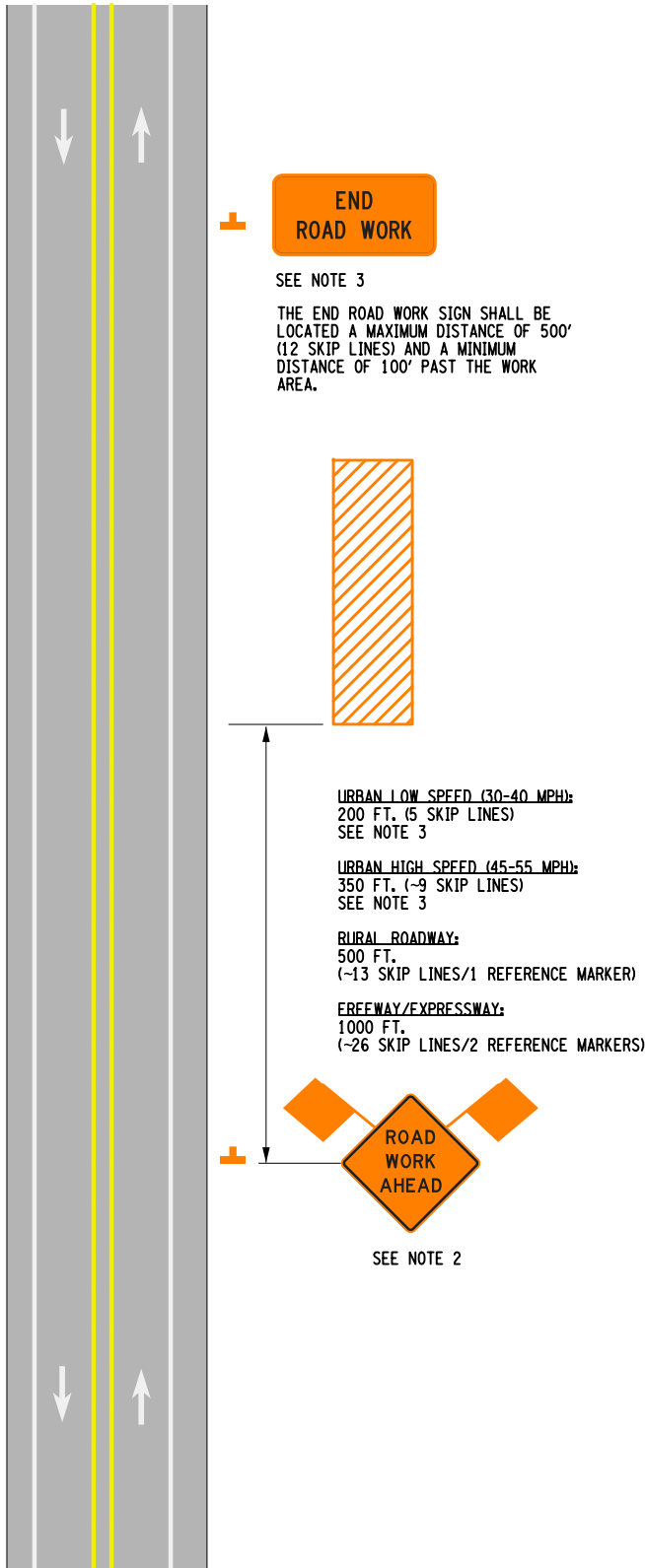
WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
LANE CLOSURE/ENCROACHMENT
SIGNAL WORK

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

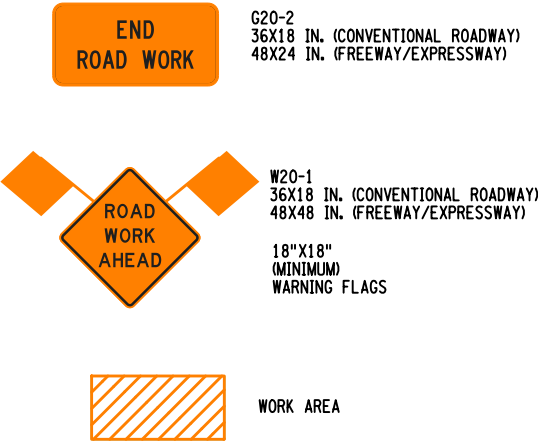
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619-071




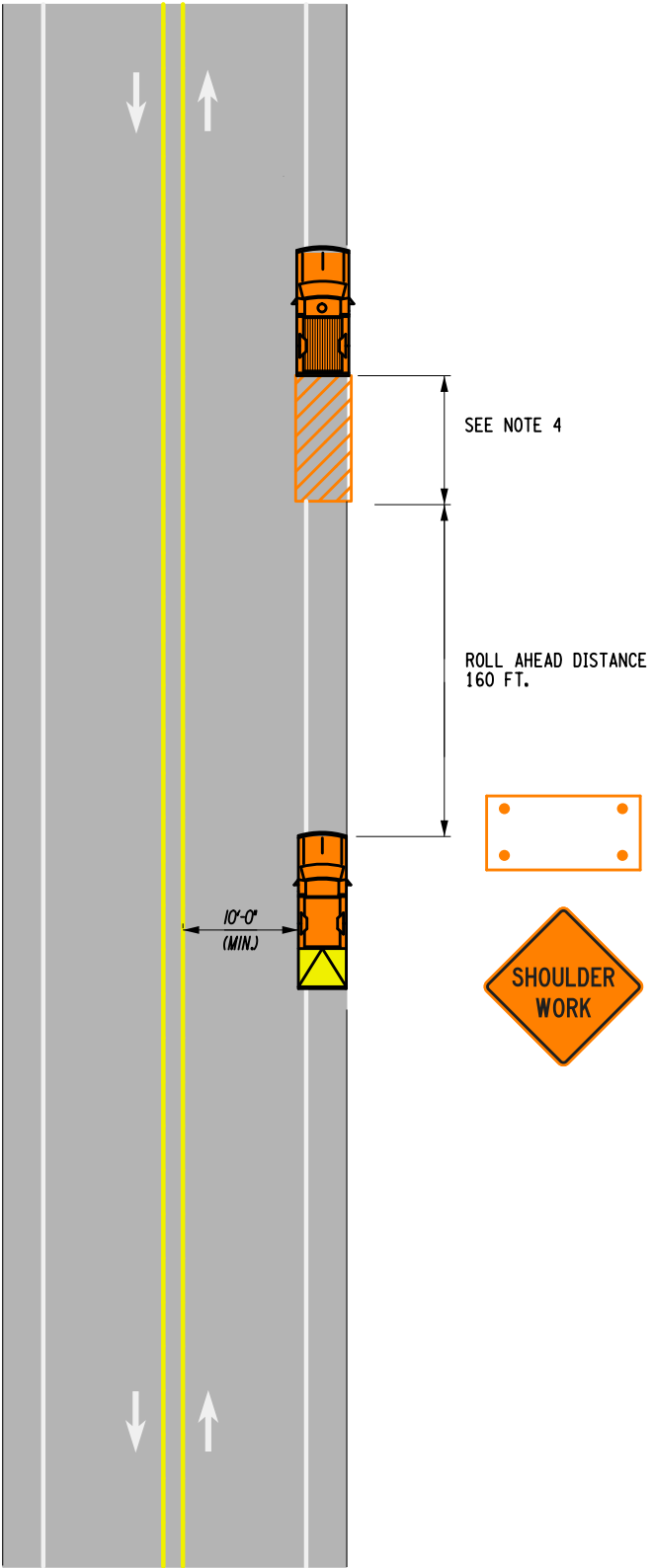
ALL ROADWAYS

- NOTES:
1. THE ROAD WORK AHEAD SIGN MAY BE OMITTED WHERE THE WORK SPACE IS 15 FT. OR MORE FROM THE EDGE OF ANY ROADWAY.
 2. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACING MAY BE REDUCED TO 100 FT. (MIN) IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS.
 3. END ROAD WORK SIGN IS OPTIONAL IF WORK DURATION IS LESS THAN 1 HOUR.



NOT TO SCALE

	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL ALL ROADWAYS WORK BEYOND SHOULDER ALL DURATIONS	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-080



CONVENTIONAL ROADWAY

- NOTES:
1. THIS TYPICAL APPLIES TO CONTINUOUSLY MOVING OR OPERATIONS STOPPING FOR NO MORE THAN 5 MINUTES.
 2. SHOULD THE WORK DURATION EXCEED 5 MINUTES, THE WZTC SETUP SHALL BE RECONFIGURED TO MEET THE REQUIREMENTS OF SHORT TERM STATIONARY RIGHT LANE OR RIGHT SHOULDER CLOSURE SET-UP.
 3. THIS TYPICAL MAY BE USED FOR OPERATIONS SUCH AS SETTING UP STATIONARY TRAFFIC CONTROL (E.G., PLACING CONES, DRUMS AND SIGNS), DEBRIS REMOVAL.)
 4. WORK AREA SHALL NOT EXCEED 40 FEET IN LENGTH AND SHALL REMAIN ENTIRELY IN THE CLOSED LANE.
 5. THE SHADOW VEHICLE SHALL BE PLACED TO OPTIMIZE AND ENHANCE VISIBILITY FROM THE REAR OF THE OPERATION.
 6. IF THE REDUCED TRAVEL LANE IS LESS THAN THE 10 FOOT MINIMUM, USE TYPICAL APPLICATION 619-102.



W21-5
36X36 IN.



WORK AREA



ARROW PANEL
(CAUTION MODE)



SHADOW VEHICLE WITH TMIA



WORK VEHICLE

THIS VEHICLE SHALL STAY AS FAR RIGHT AS POSSIBLE AND SHALL ADJUST ITS SPACING TO ACCOMMODATE CHANGING SIGHT DISTANCE AND OTHER FIELD CONDITIONS.

NOT TO SCALE



Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
RIGHT SHOULDER CLOSURE
MOBILE OPERATION

APPROVED XXXXXXXX XX, 20XX

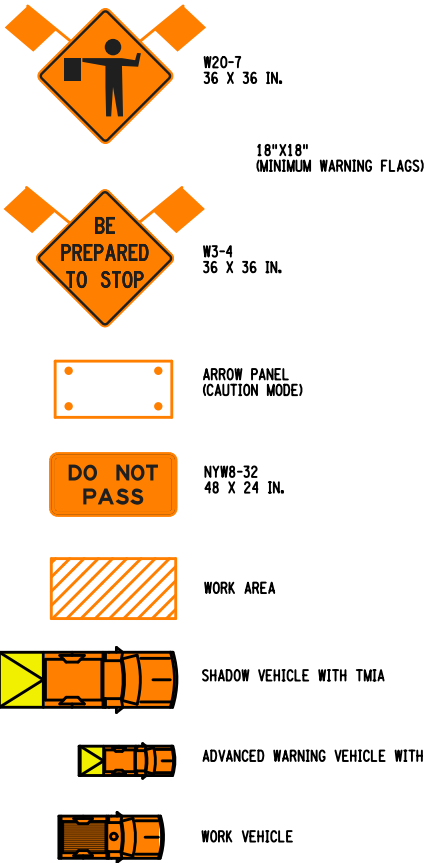
ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

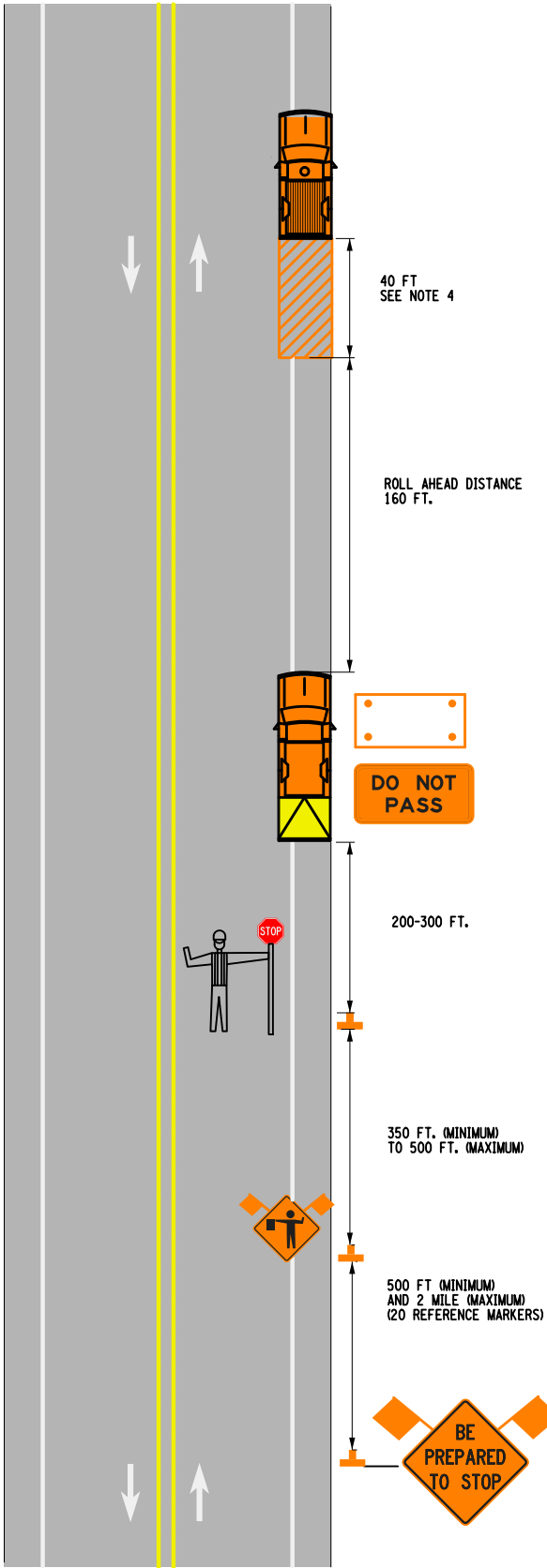
619-101

CONVENTIONAL ROADWAY

- NOTES:
1. THIS TYPICAL APPLIES TO CONTINUOUSLY MOVING OR OPERATIONS STOPPING FOR NO MORE THAN 5 MINUTES.
 2. SHOULD THE WORK DURATION EXCEED 5 MINUTES, THE WZTC SETUP SHALL BE RECONFIGURED TO MEET THE REQUIREMENTS OF SHORT TERM STATIONARY RIGHT LANE OR RIGHT SHOULDER CLOSURE SET-UP.
 3. THIS TYPICAL MAY BE USED FOR OPERATIONS SUCH AS SETTING UP STATIONARY TRAFFIC CONTROL (E.G., PLACING CONES, DRUMS AND SIGNS), DEBRIS REMOVAL.)
 4. WORK AREA SHALL NOT EXCEED 40 FEET IN LENGTH AND SHALL REMAIN ENTIRELY IN THE CLOSED LANE.
 5. THE SHADOW VEHICLE SHALL BE PLACED TO OPTIMIZE AND ENHANCE VISIBILITY FROM THE REAR OF THE OPERATION.
 6. THE FLAGGER SHALL HOLD TRAFFIC UNTIL THE OPERATION IS COMPLETED, AND WORK VEHICLE CLEARS THE LANE. THE TRAFFIC SHALL NOT BE DIRECTED INTO OPPOSING LANE.



NOT TO SCALE

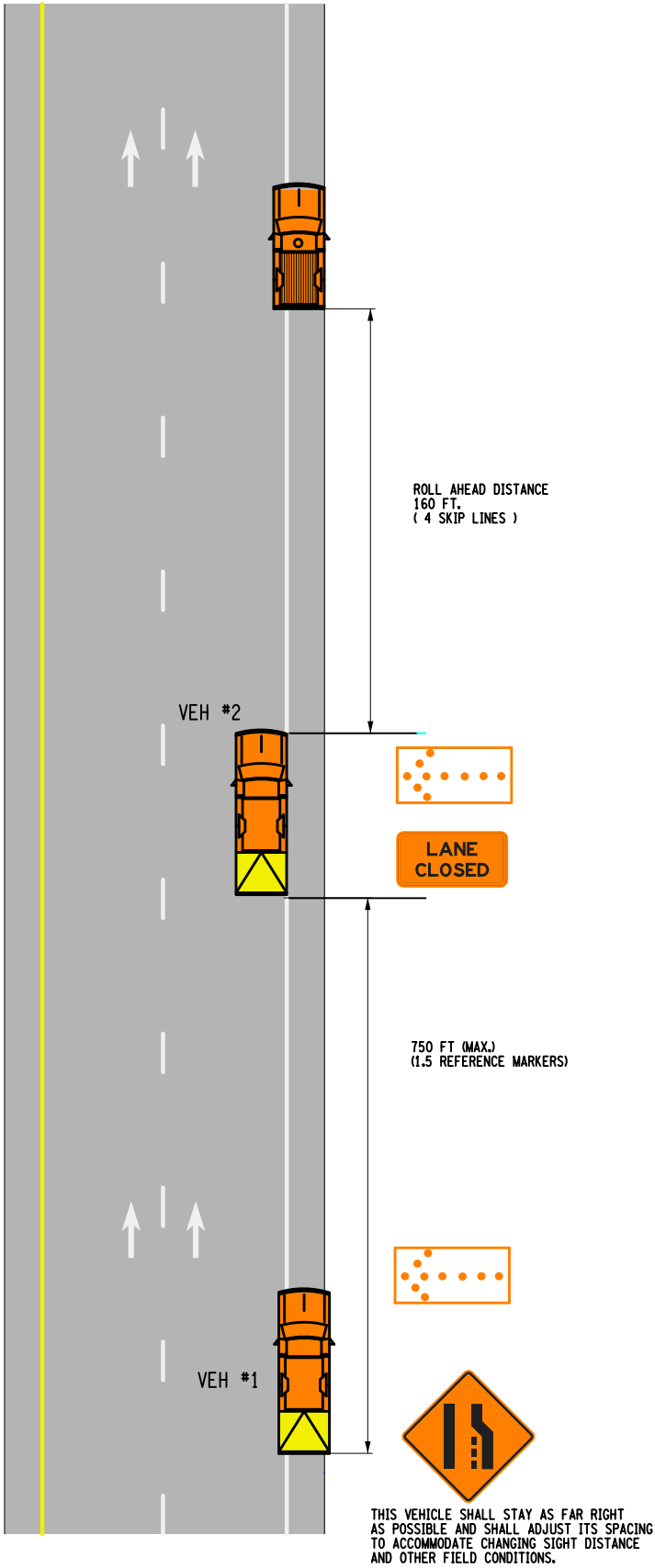


THIS VEHICLE SHALL STAY AS FAR RIGHTAS POSSIBLE AND SHALL ADJUST ITS SPACING TO ACCOMMODATE CHANGING SIGHT DISTANCE AND OTHER FIELD CONDITIONS.

	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY LANE CLOSURE MOBILE OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-102

FREEWAY OR EXPRESSWAY

- NOTES:
- 1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
 - 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 15 MINUTE MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT DURATION STATIONARY RIGHT LANE SHOULDER CLOSURE SET-UP.
 - 3. THIS TYPICAL MAY BE USED FOR VEHICLE BASED OPERATIONS SUCH AS SETTING UP STATIONARY TRAFFIC CONTROL (PLACING CONES, DRUMS AND SIGNS), BUT IS NOT TO BE USED FOR OPERATIONS THAT INVOLVE WORKERS ON FOOT PERFORMING ROADWAY AND / OR APPURTENANCE REPAIRS.



LANE
CLOSED

NY W8-33
48X24 IN.



W4-2R
48 X 48 IN.



ARROW PANEL



WORK VEHICLE



SHADOW VEHICLE WITH TMIA

NOT TO SCALE



Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
FREEWAY<8 FOOT SHOULDER
RIGHT SHOULDER CLOSURE
MOBILE OPERATION
SHEET 1 OF 2

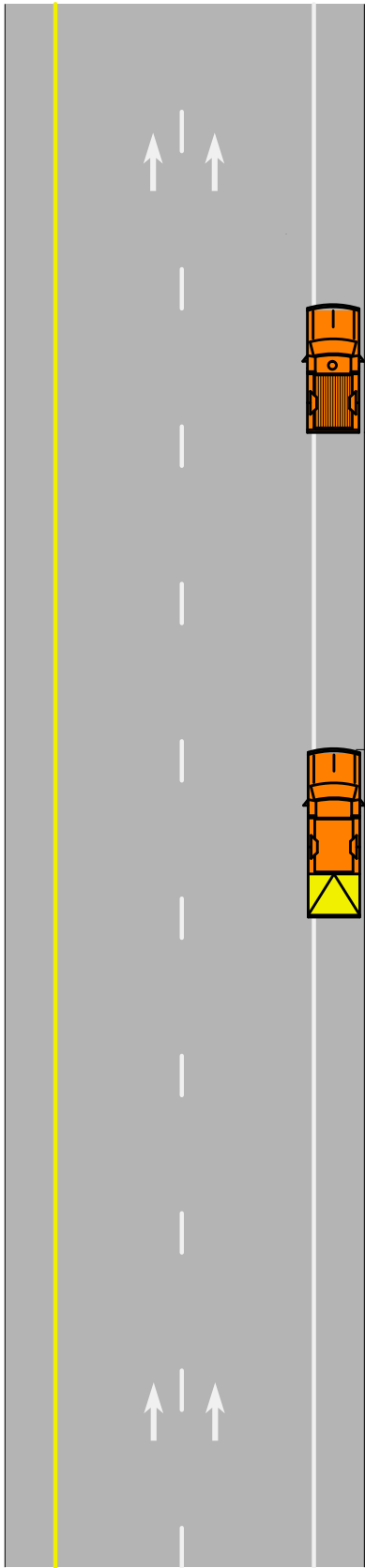
APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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619-103

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ROLL AHEAD DISTANCE
160 FT.
(4 SKIP LINES)



FREEWAY OR EXPRESSWAY

TAM-E1

NOTES:

1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 15 MINUTE MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT DURATION STATIONARY RIGHT SHOULDER CLOSURE SET-UP.
3. THIS TYPICAL MAY BE USED FOR VEHICLE BASED OPERATIONS SUCH AS SETTING UP STATIONARY TRAFFIC CONTROL (PLACING CONES, DRUMS AND SIGNS), BUT IS NOT TO BE USED FOR OPERATIONS THAT INVOLVE WORKERS ON FOOT PERFORMING ROADWAY AND / OR APPURTENANCE REPAIRS.



W21-5
48 X 48 IN.



WORK AREA



ARROW PANEL
(CAUTION MODE)



SHADOW VEHICLE WITH TMIA



WORK VEHICLE

NOT TO SCALE



Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
FREEWAY 8 FOOT + SHOULDER
RIGHT SHOULDER CLOSURE
MOBILE OPERATION
SHEET 2 OF 2

APPROVED XXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-103

FREEWAY OR EXPRESSWAY

NOTES:

1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 15 MINUTE MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT DURATION STATIONARY RIGHT TWO LANE CLOSURE SET-UP.
3. THIS TYPICAL MAY BE USED FOR VEHICLE BASED OPERATIONS SUCH AS SETTING UP STATIONARY TRAFFIC CONTROL (PLACING CONES, DRUMS AND SIGNS), BUT IS NOT TO BE USED FOR OPERATIONS THAT INVOLVE WORKERS ON FOOT PERFORMING ROADWAY AND/OR APPURTENANCE REPAIRS.

LANE
CLOSED

NYW8-33
48X24 IN.



W4-2R
48X48 IN.



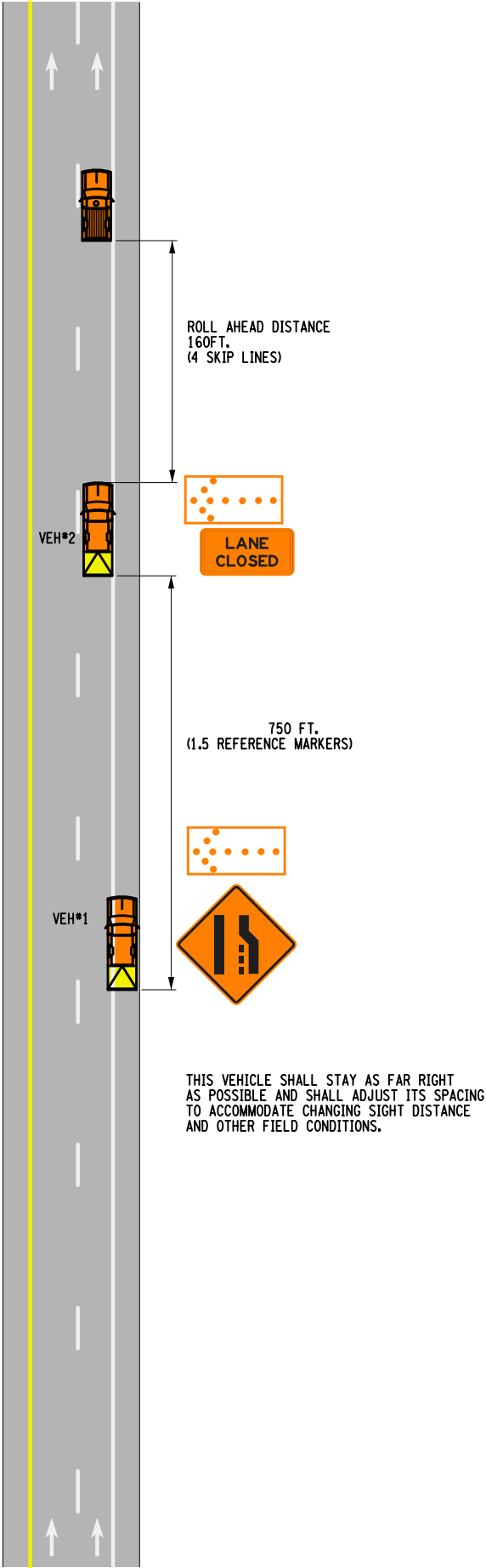
ARROW PANEL




WORK VEHICLE



SHADOW VEHICLE WITH TMIA

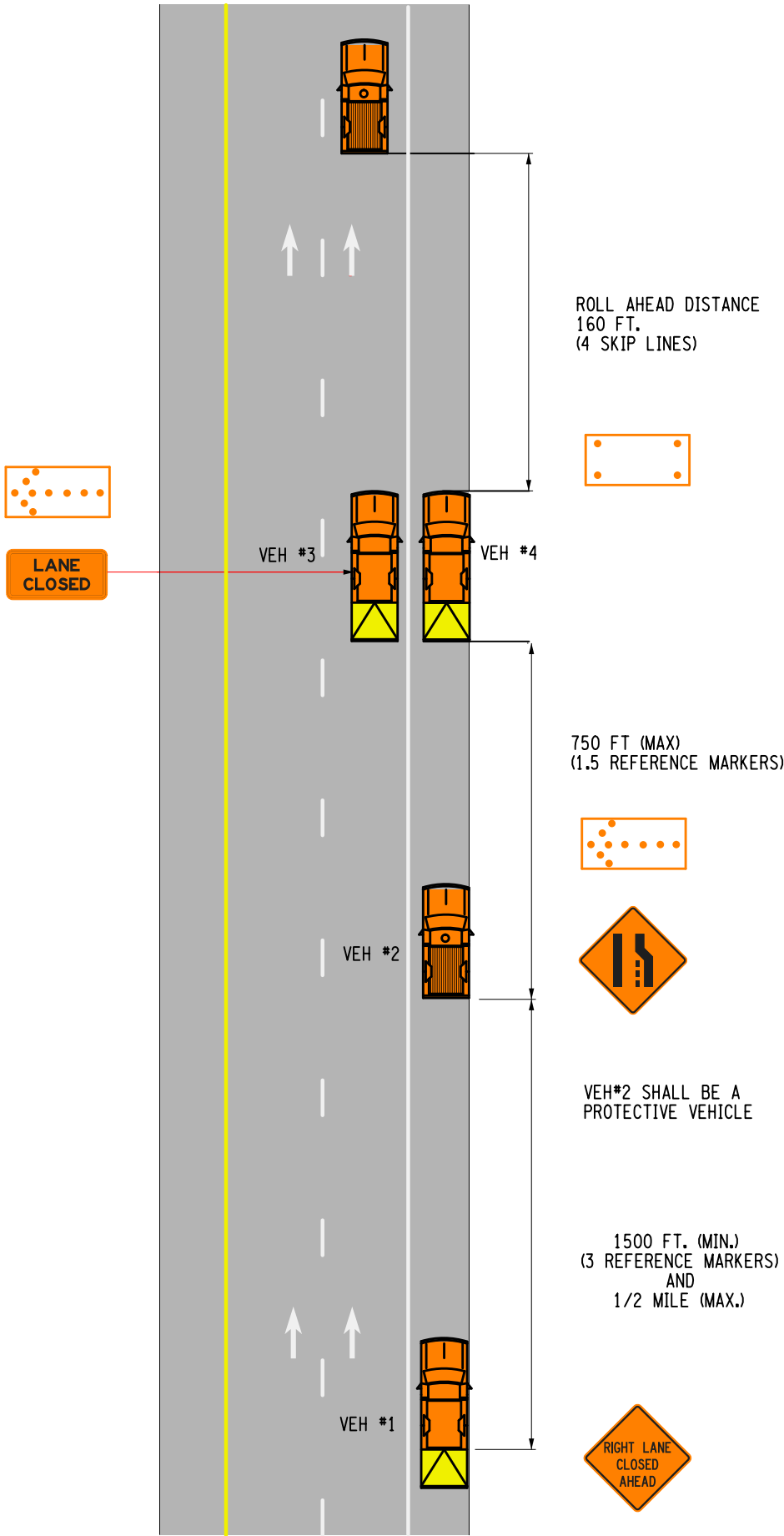


NOT TO SCALE

	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY< 8 FOOT SHOULDER RIGHT LANE CLOSURE MOBILE OPERATION SHEET 1 OF 2	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-104

FREEWAY OF EXPRESSWAY

- NOTES:
- 1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
 - 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 15 MINUTE MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT DURATION STATIONARY RIGHT LANE CLOSURE SET-UP.
 - 3. THIS TYPICAL MAY BE USED FOR VEHICLE BASED OPERATIONS SUCH AS SETTING UP STATIONARY TRAFFIC CONTROL (PLACING CONES, DRUMS AND SIGNS), BUT IS NOT TO BE USED FOR OPERATIONS THAT INVOLVE WORKERS ON FOOT PERFORMING ROADWAY AND / OR APPURTENANCE REPAIRS.



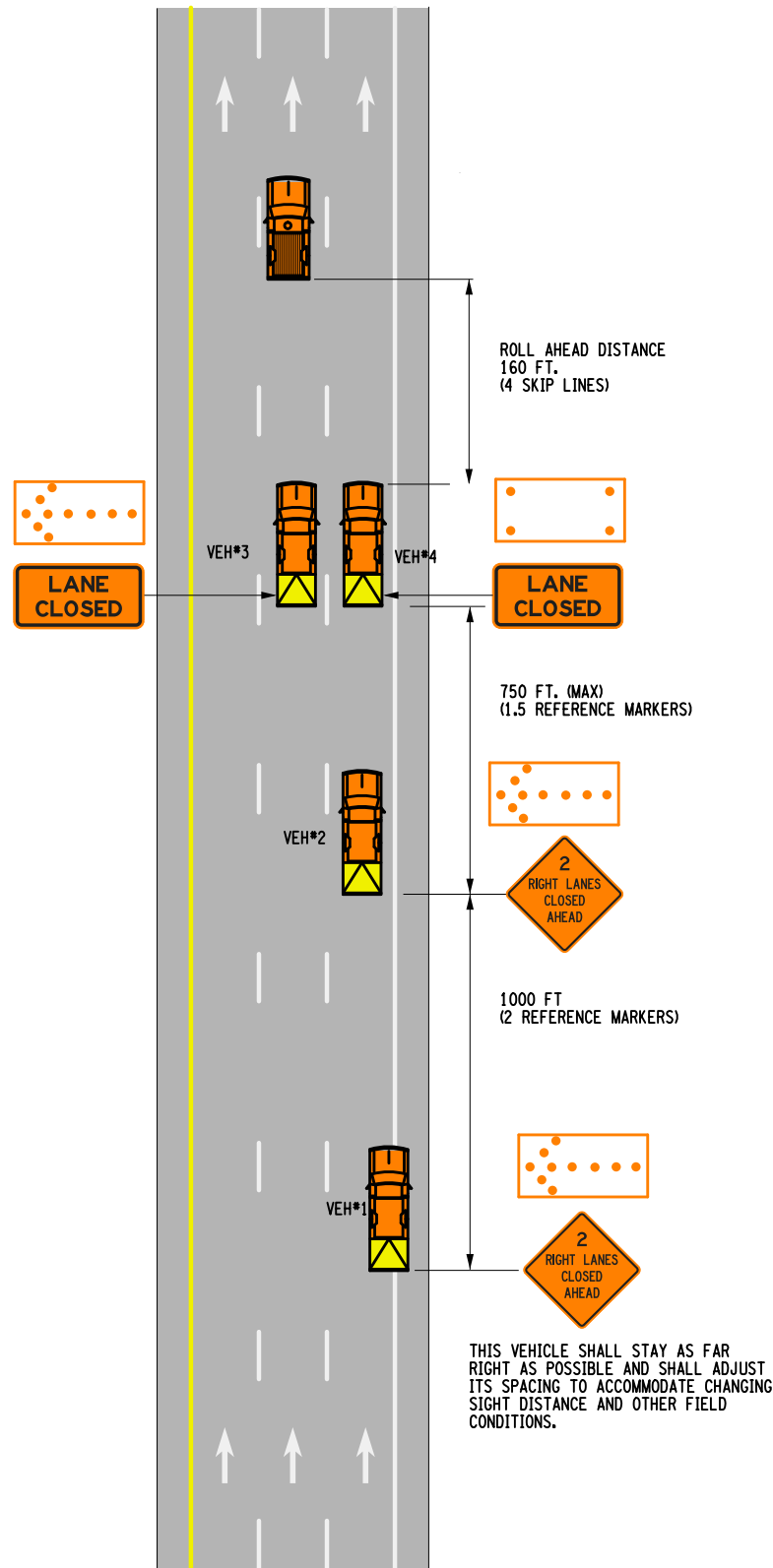
- LANE
CLOSED NYW8-33
48 X 24 IN.
- W4-2R
48 X 48 IN.
- RIGHT LANE
CLOSED
AHEAD W20-5R
48 X 48 IN.
- ARROW PANEL
(CAUTION MODE)
- ARROW PANEL
- WORK VEHICLE
- SHADOW VEHICLE WITH TMIA


NOT TO SCALE

	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY 8 FOOT + SHOULDER RIGHT LANE CLOSURE MOBILE OPERATION SHEET 2 OF 2	
APPROVED XXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-104

FREEWAY OR EXPRESSWAY


- NOTES:
- 1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
 - 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 15 MINUTE MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT DURATION STATIONARY RIGHT TWO LANE CLOSURE SET-UP.
 - 3. THIS TYPICAL MAY BE USED FOR VEHICLE BASED OPERATIONS SUCH AS SETTING UP STATIONARY TRAFFIC CONTROL (PLACING CONES, DRUMS AND SIGNS), BUT IS NOT TO BE USED FOR OPERATIONS THAT INVOLVE WORKERS ON FOOT PERFORMING ROADWAY AND/OR APPURTENANCE REPAIRS.






LANE
CLOSED

NYW8-33
48X24 IN.




2
RIGHT LANES
CLOSED
AHEAD


W20-5AR
48X48 IN.




ARROW PANEL
(CAUTION MODE)



ARROW PANEL




WORK VEHICLE



SHADOW VEHICLE WITH TMIA

NOT TO SCALE

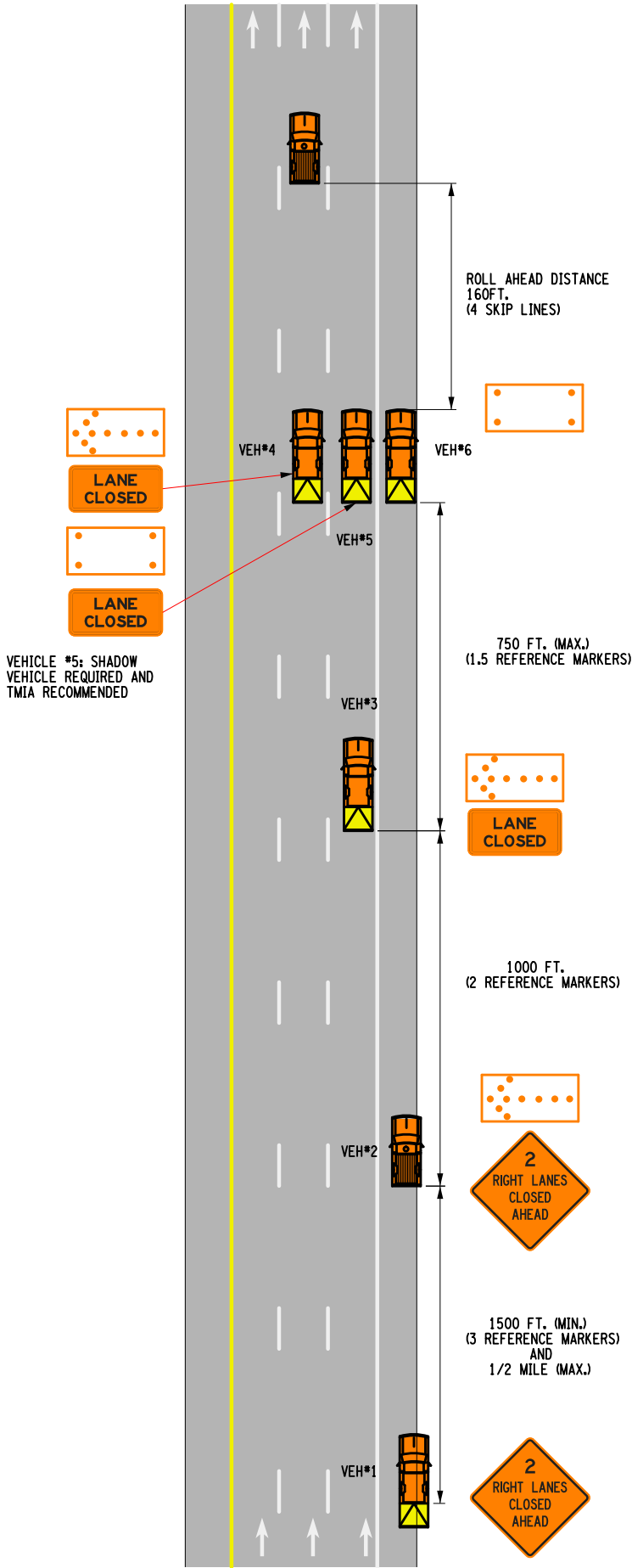
	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY <8 FOOT SHOULDER RIGHT TWO LANE CLOSURE MOBILE OPERATION (SHEET 1 OF 2)	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-105

FREEWAY OR EXPRESSWAY

NOTES:

1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 15 MINUTE MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT DURATION STATIONARY RIGHT TWO LANE CLOSURE SET-UP.

VEHICLE BASED OPERATIONS
3. THIS TYPICAL MAY BE USED FOR STATIONARY TRAFFIC CONTROL (PLACING CONES, DRUMS AND SIGNS), BUT IS NOT TO BE USED FOR OPERATIONS THAT INVOLVE WORKERS ON FOOT PERFORMING ROADWAY AND/OR APPURTENANCE REPAIRS. SUCH AS SETTING UP



NOT TO SCALE

LANE
CLOSED

NYW8-33
48X24 IN.

2
RIGHT LANES
CLOSED
AHEAD

W20-5AR
48X48 IN.

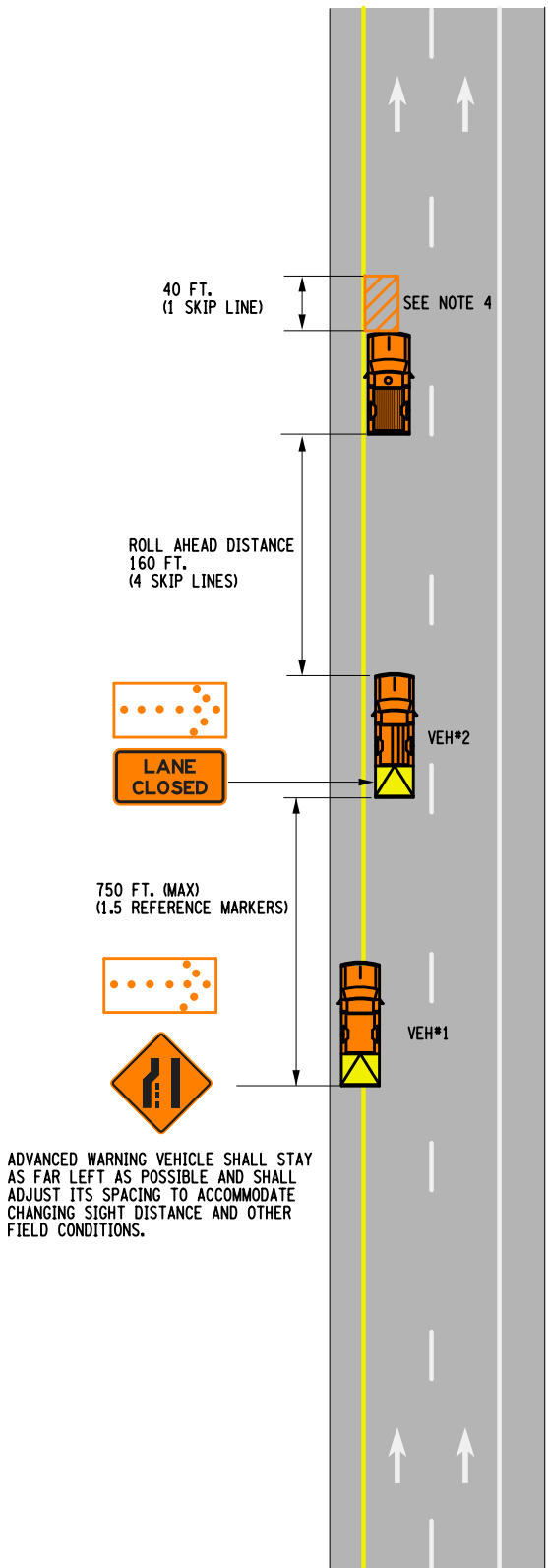
ARROW PANEL
(CAUTION MODE)

ARROW PANEL

WORK VEHICLE

SHADOW VEHICLE WITH TMIA

<div><div>NEW YORK STATE OF OPPORTUNITY.</div><div>Department of Transportation</div></div>	
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY 8 FOOT + SHOULDER RIGHT TWO LANE CLOSURE MOBILE OPERATION SHEET 2 OF 2	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-105



FREEWAY OR EXPRESSWAY

- NOTES:
1. THIS TYPICAL APPLIES TO CONTINUOUSLY MOVING OPERATIONS OR STOPPING FOR NO MORE THAN 5 MINUTES.
 2. SHOULD THE WORK DURATION EXCEED 5 MINUTES, THE WZTC SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF SHORT DURATION STATIONARY LEFT LANE OR LEFT SHOULDER CLOSURE SET-UP.
 3. THIS TYPICAL MAY BE USED FOR OPERATIONS SUCH AS SETTING UP STATIONARY TRAFFIC CONTROL (E.G., PLACING CONES, DRUMS AND SIGNS) AND DEBRIS REMOVAL.
 4. WORK AREA SHALL NOT EXCEED 40 FEET IN LENGTH AND SHALL REMAIN ENTIRELY IN THE CLOSED LANE.
 5. THE SHADOW VEHICLE SHALL BE PLACED TO OPTIMIZE AND ENHANCE VISIBILITY FROM THE REAR OF THE OPERATION

	NYW8-33 48X24 IN.
	W4-2L 48X48 IN.
	ARROW PANEL
	WORK VEHICLE
	SHADOW VEHICLE WITH TMIA
	ADVANCED WARNING VEHICLE WITH TMIA

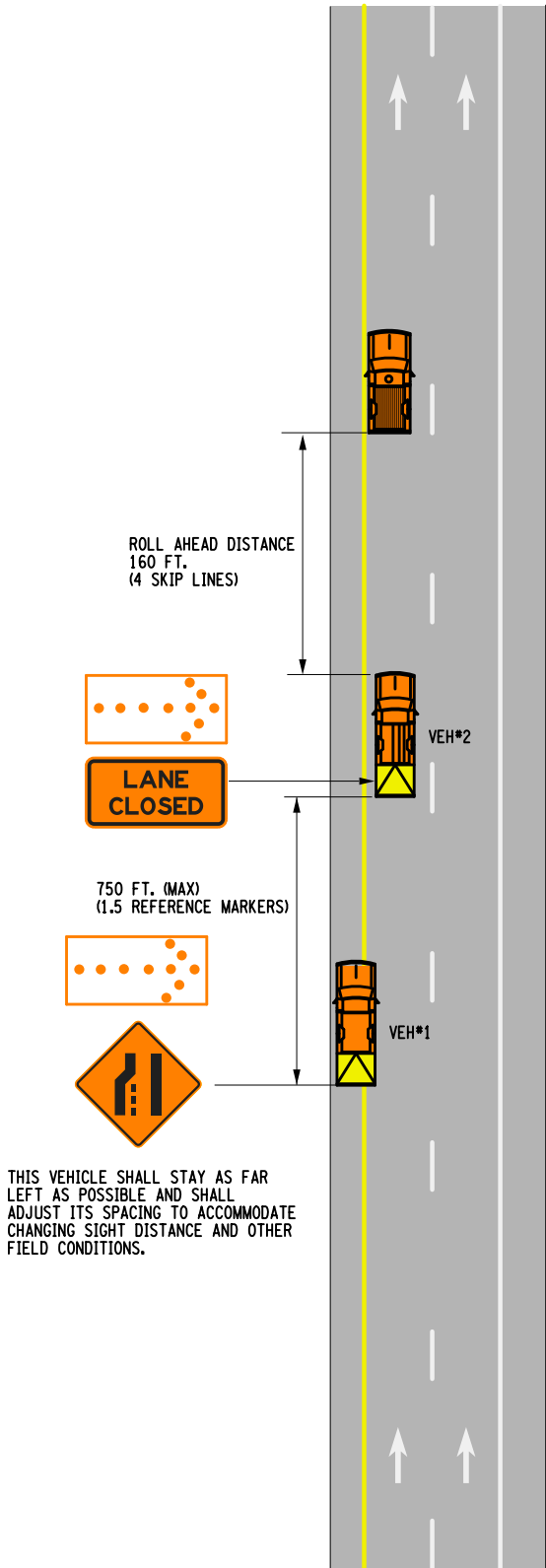
ADVANCED WARNING VEHICLE SHALL STAY AS FAR LEFT AS POSSIBLE AND SHALL ADJUST ITS SPACING TO ACCOMMODATE CHANGING SIGHT DISTANCE AND OTHER FIELD CONDITIONS.






NOT TO SCALE

	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY LEFT LANE/SHOULDER CLOSURE MOBILE OPERATION UNDER 5 MINUTES	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-106


FREEWAY OR EXPRESSWAY

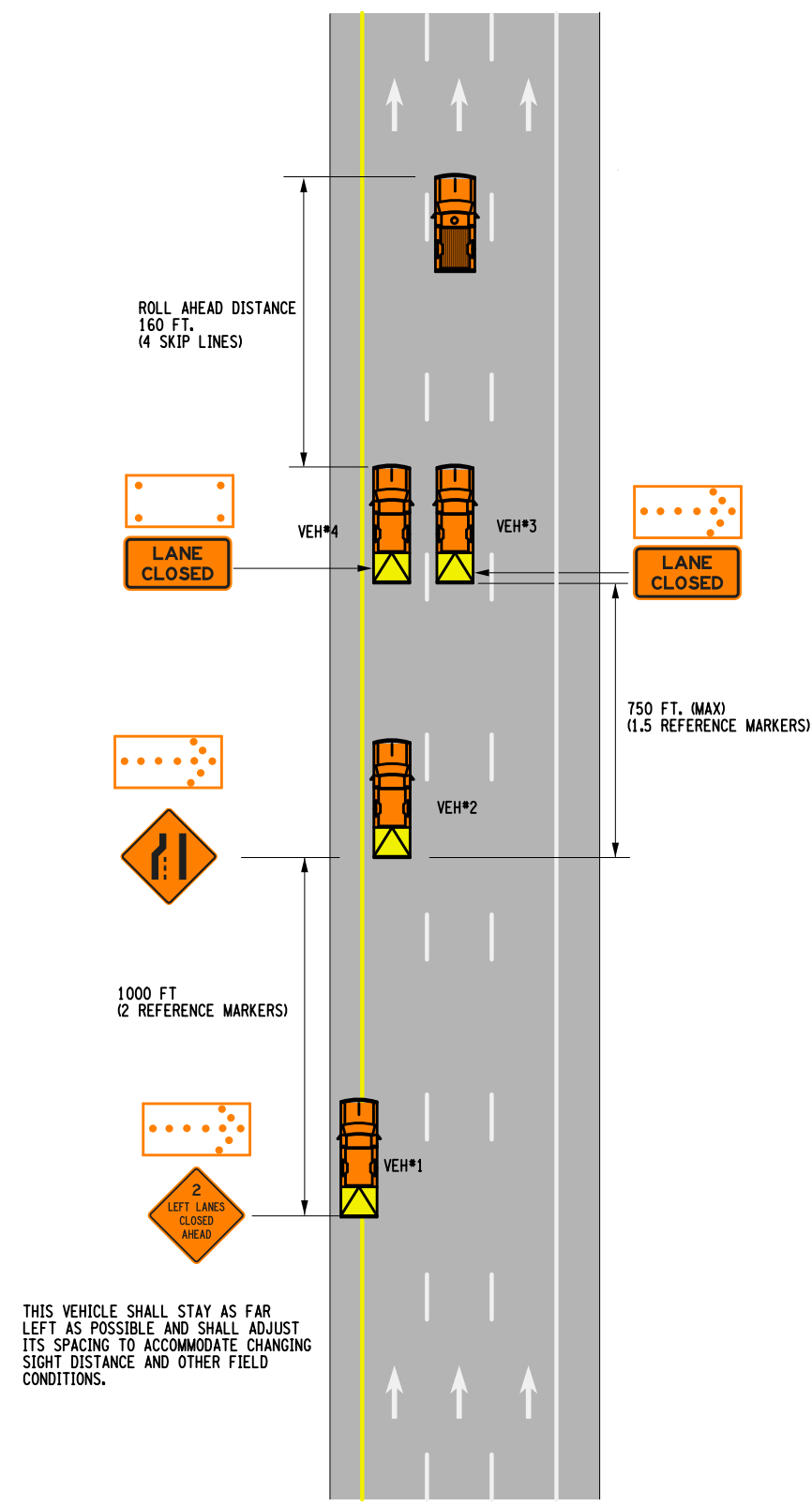
- NOTES:
- 1. THIS TYPICAL IS FOR MOBILE WORK WHICH IS CONTINUOUSLY MOVING. NO STOPPING ALLOWED.
 - 2. SHOULD THE WORK DURATION INVOLVE A STOP AND GO OPERATION, THE WZTC SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF SHORT DURATION STATIONARY LEFT SHOULDER CLOSURE SET-UP.
 - 3. THIS TYPICAL MAY BE USED FOR VEHICLE BASED OPERATIONS SUCH AS SETTING UP STATIONARY TRAFFIC CONTROL (PLACING CONES, DRUMS AND SIGNS), BUT IS NOT TO BE USED FOR OPERATIONS THAT INVOLVE WORKERS ON FOOT PERFORMING ROADWAY AND/OR APPURTENANCE REPAIRS.



-  NYW8-33
48X24 IN.
-  W4-2L
48X48 IN.
-  ARROW PANEL
-  WORK VEHICLE
-  SHADOW VEHICLE WITH TMIA

NOT TO SCALE









 NEW YORK STATE OF OPPORTUNITY.		Department of Transportation
U.S. CUSTOMARY STANDARD SHEET		
WORK ZONE TRAFFIC CONTROL FREEWAY <8 FOOT SHOULDER LEFT LANE OR SHOULDER CLOSURE MOBILE OPERATION- 5 TO 15 MINUTES		
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX	
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-107	




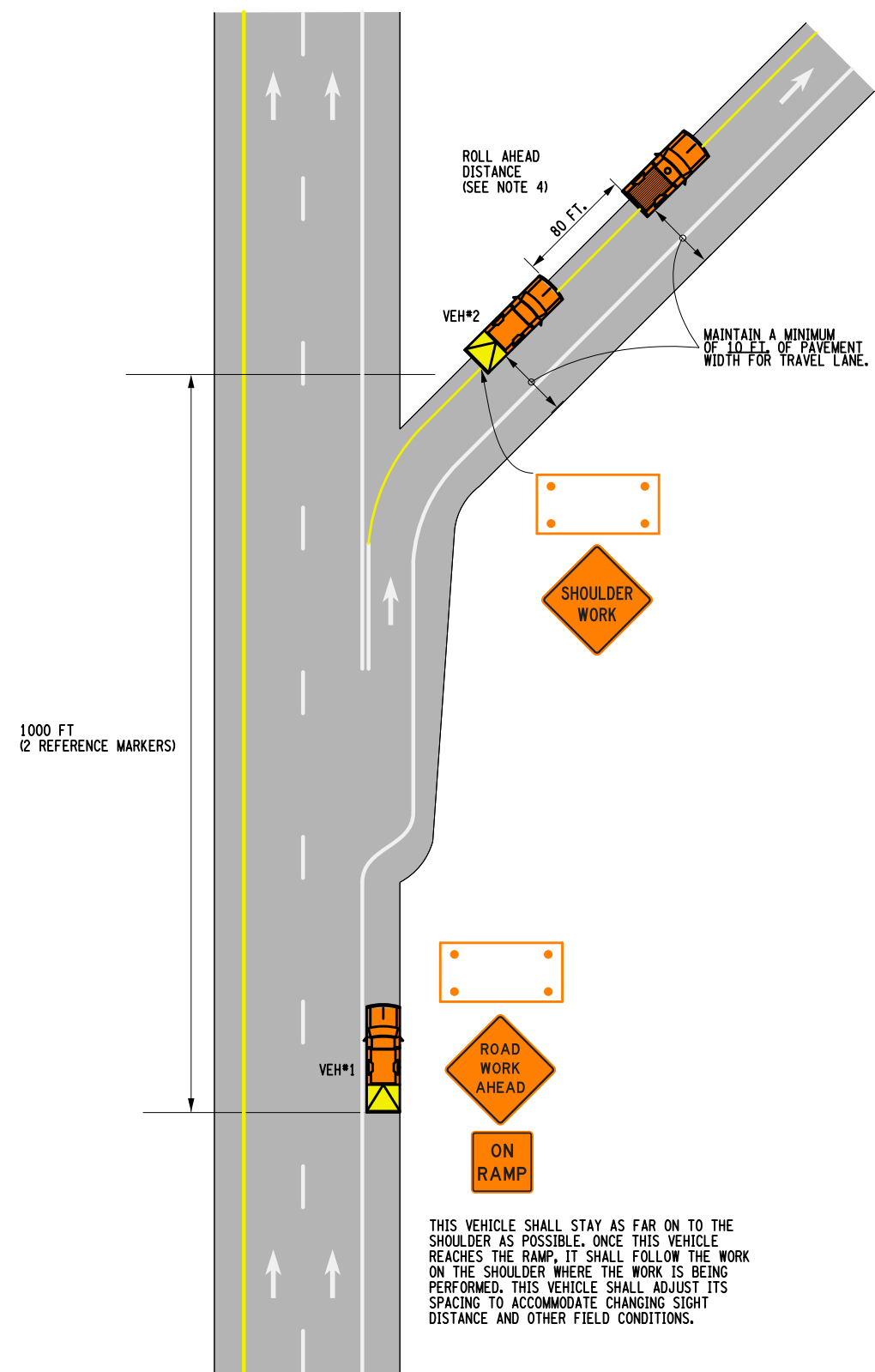
NOT TO SCALE

FREEWAY OR EXPRESSWAY

- NOTES:
1. THIS TYPICAL IS FOR MOBILE WORK WHICH IS CONTINUOUSLY MOVING. NO STOPPING ALLOWED.
 2. SHOULD THE WORK DURATION INVOLVE A STOP AND GO OPERATION, THE WZTC SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF SHORT DURATION STATIONARY LEFT SHOULDER CLOSURE SET-UP.
 3. THIS TYPICAL MAY BE USED FOR VEHICLE BASED OPERATIONS SUCH AS SETTING UP STATIONARY TRAFFIC CONTROL (PLACING CONES, DRUMS AND SIGNS), BUT IS NOT TO BE USED FOR OPERATIONS THAT INVOLVE WORKERS ON FOOT PERFORMING ROADWAY AND/OR APPURTENANCE REPAIRS.

	W20-5L 48X48 IN.
	NYW8-33 48X24 IN.
	W4-2L 48X48 IN.
	ARROW PANEL (CAUTION MODE)
	ARROW PANEL
	WORK VEHICLE
	SHADOW VEHICLE WITH TMIA
	W20-5AL 48X48 IN.

	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY <8 FOOT SHOULDER LEFT TWO LANE/SHOULDER CLOSURE MOBILE OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-108




NOT TO SCALE


FREEWAY OR EXPRESSWAY

NOTES:


1. MOBILE WORK IS CONTINUOUSLY MOVING OR STOPPED FOR A BRIEF PERIOD OF TIME, LESS THAN 15 MINUTES.
2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 15 MINUTE MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF SHORT-TERM STATIONARY LEFT SHOULDER CLOSURE SET-UP.
3. THIS TYPICAL MAY BE USED FOR VEHICLE BASED OPERATIONS SUCH AS SETTING UP STATIONARY TRAFFIC CONTROL (PLACING CONES, DRUMS AND SIGNS), BUT IS NOT TO BE USED FOR OPERATIONS THAT INVOLVE WORKERS ON FOOT PERFORMING ROADWAY AND/OR APPURTENANCE REPAIRS.
4. THE 80 FT. ROLL AHEAD DISTANCE IS BASED ON RAMP SPEEDS OF 45 MPH OR LESS. IF SPEEDS ARE GREATER THAN 45 MPH INCREASE DISTANCE TO 160 FT.




SHOULDER WORK
W21-5
48X48 IN.




ROAD WORK AHEAD
W20-1
48X48 IN.




ON RAMP
W13-4P
36X36 IN.




ARROW PANEL
(CAUTION MODE)

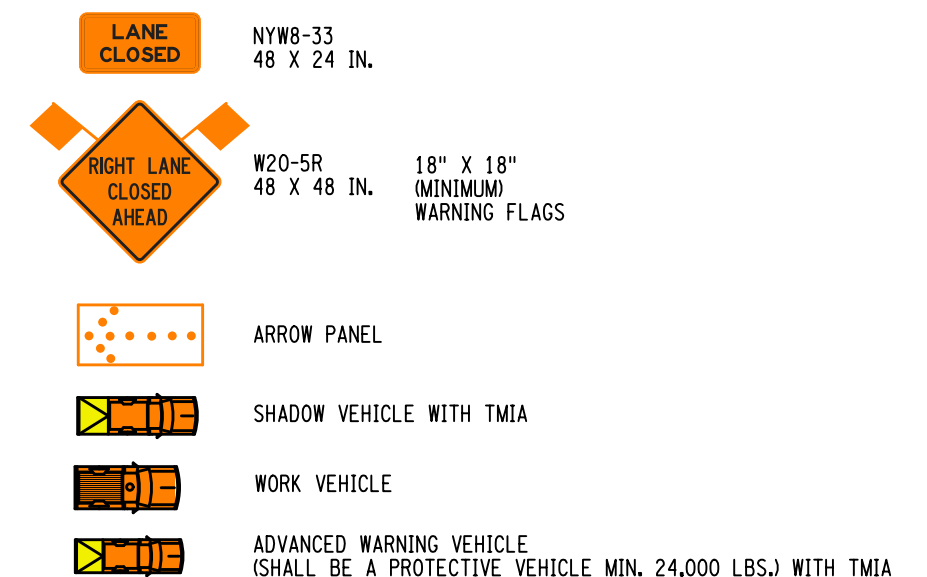
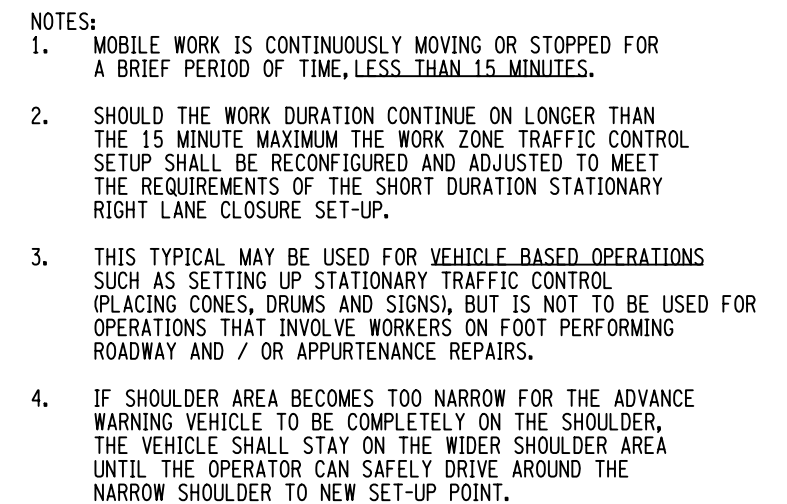


WORK VEHICLE

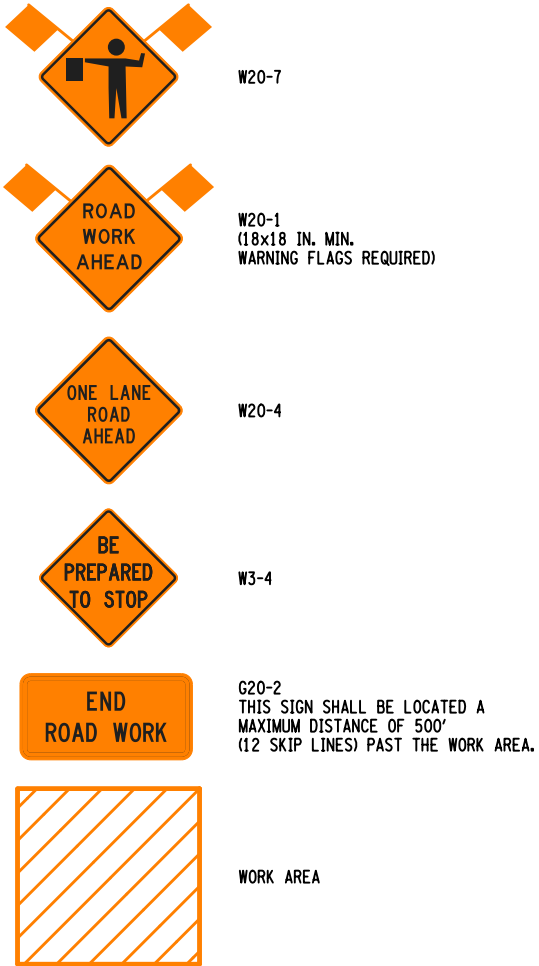
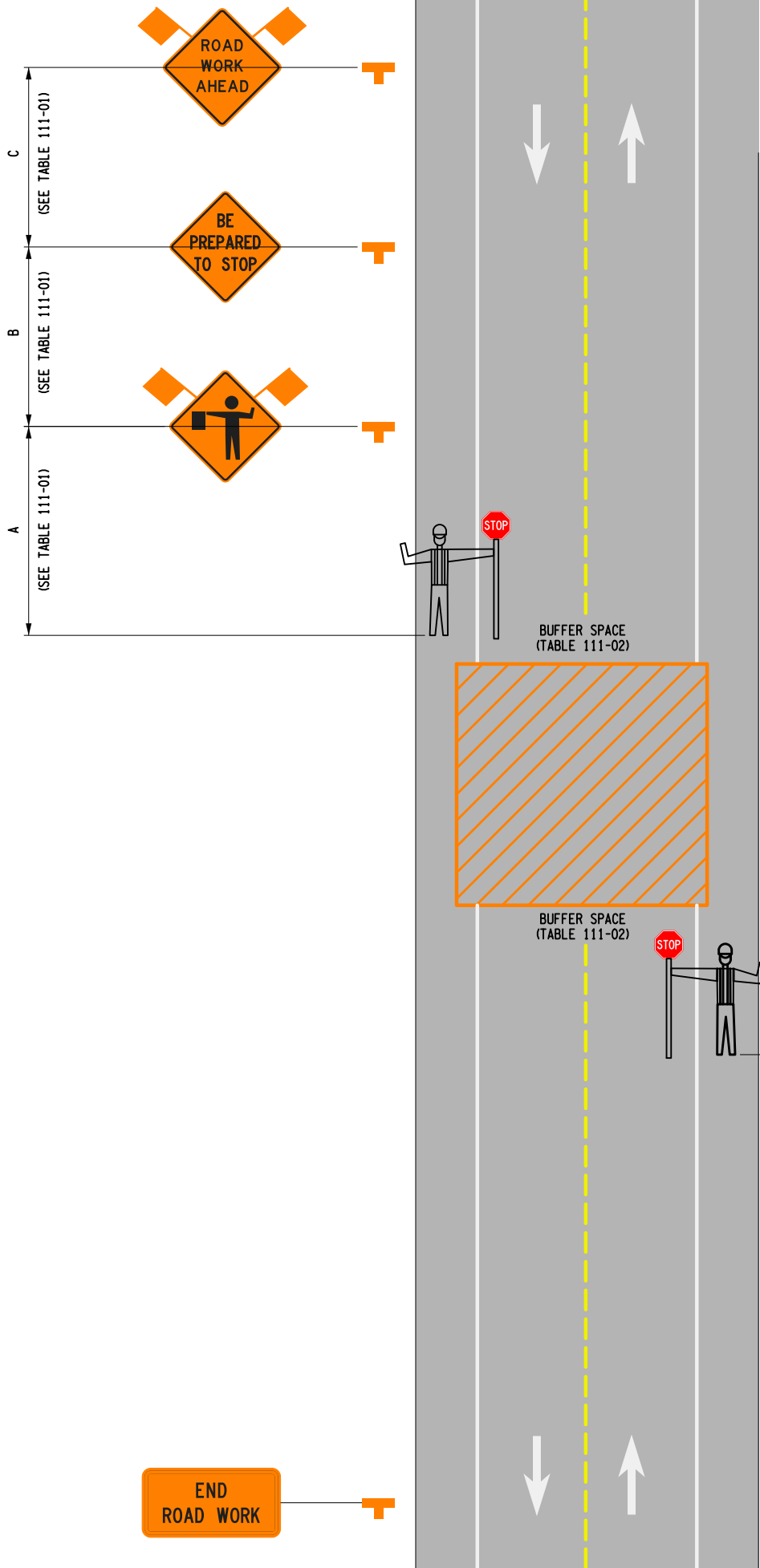


SHADOW VEHICLE WITH TMIA

 Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY SHOULDER CLOSURE ON RAMP MOBILE OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-109



NOT TO SCALE



NOTES:


1. DURATION OF THE CLOSURE SHALL NOT EXCEED 5 MINUTES.
2. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS.
3. FLAGGER SYMBOL SIGN (W20-7) AND "BE PREPARED TO STOP" (W3-4) SHALL BE REMOVED, COVERED OR TURNED AWAY FROM ROAD USERS WHEN FLAGGING OPERATIONS ARE NOT OCCURRING.
4. FOR MULTI LANE ROADWAYS, A SITE SPECIFIC PLAN IS REQUIRED ILLUSTRATING PROPOSED STRATEGIES / SIGNAGE TO REDUCE THE ROAD TO A SINGLE LANE ON EACH APPROACH TO THE WORK AREA.

TABLE 111-01 ADVANCE WARNING SIGN SPACING				
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS		
		FOR LANE WIDTH		
		A (FT.)	B (FT.)	C (FT.)
URBAN LOW (≤ 30 MPH)	30	100	100	100
URBAN (35 - 40 MPH)	35	200	200	200
	40	100	100	100
URBAN HIGH (≥ 45 MPH)	45	350	350	350
RURAL		500	500	500

TABLE 111-02	
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT
25	155 (~ 4 SKIP LINES)
30	200 (~ 5 SKIP LINES)
35	250 (~ 6 SKIP LINES)
40	305 (~ 8 SKIP LINES)
45	360 (~ 9 SKIP LINES)
50	425 (~ 11 SKIP LINES)
55	495 (~ 13 SKIP LINES)

TABLE 111-03 : REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY / EXPRESSWAY
W20-7	36x36	48x48
W20-1	36x36	48x48
W20-4	36x36	48x48
W3-4	36x36	48x48
G20-2	36x18	48x24
*FREEWAY / EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST.		

NOT TO SCALE



NEW YORK
STATE OF
OPPORTUNITY.

Department of
Transportation

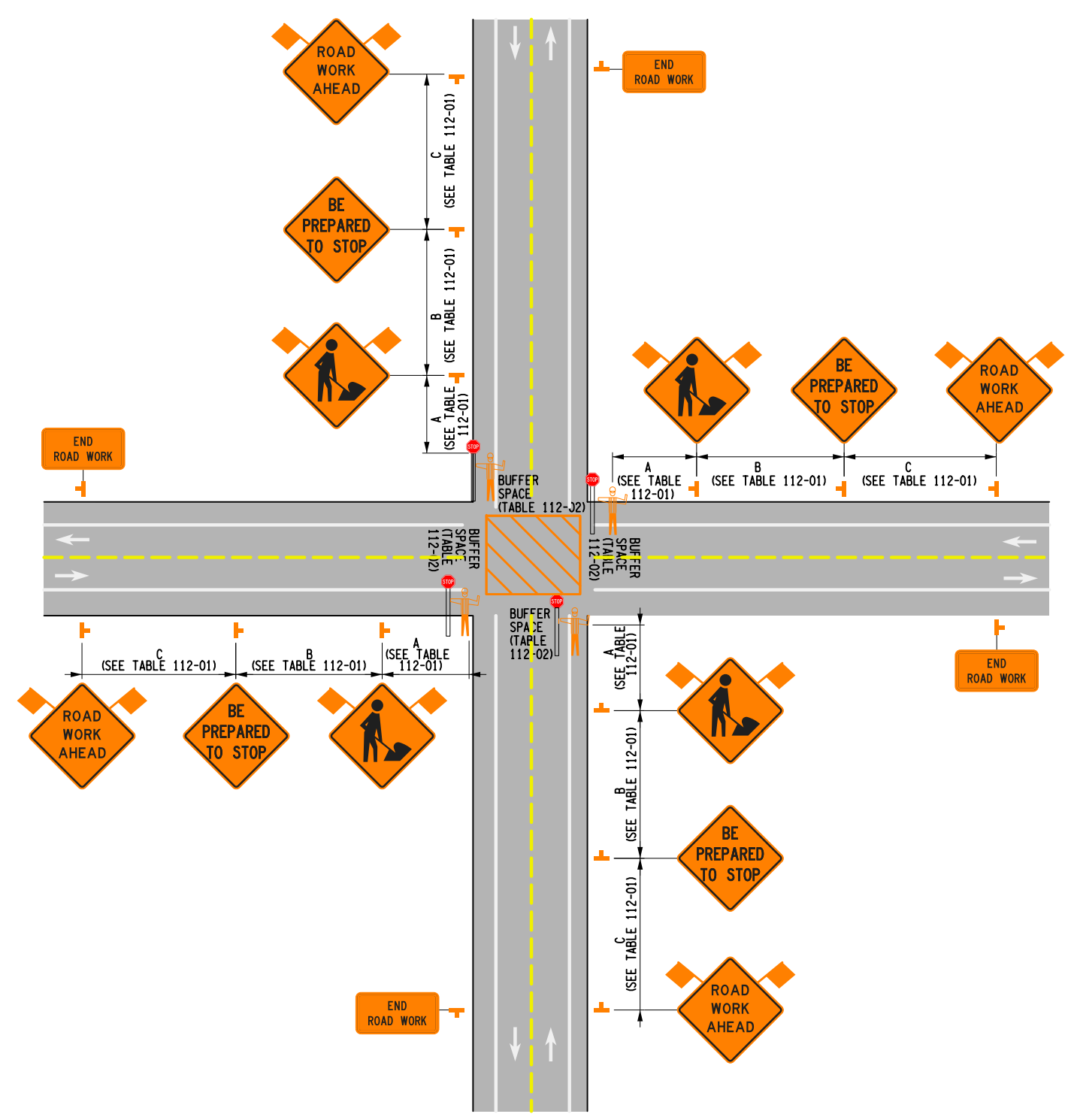
U.S. CUSTOMARY STANDARD SHEET

TWO-LANE TWO-WAY ROADWAY
ROAD CLOSURE
MOBILE OPERATION

APPROVED XXXXXXXX XX, 20XX
XXX
DIRECTOR, OFFICE OF
TRAFFIC SAFETY AND MOBILITY

ISSUED UNDER EB XX-XXX

619-111



W3-4

W21-1
36X36 IN.

W20-1
(18X18 IN. MIN. WARNING
FLAGS REQUIRED)

WORK AREA

END
ROAD WORK

THIS SIGN SHALL BE LOCATED A MAXIMUM
DISTANCE OF 500' (12 SKIP LINES) PAST
THE WORK AREA.

- NOTES:
1. DURATION OF THE CLOSURE SHALL NOT EXCEED 5 MINUTES.
 2. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS.
 3. FLAGGER SYMBOL SIGN (W20-7) AND "BE PREPARED TO STOP" (W3-4) SHALL BE REMOVED, COVERED OR TURNED AWAY FROM ROAD USERS WHEN FLAGGING OPERATIONS ARE NOT OCCURRING.
 4. FOR INTERSECTIONS WITH MULTIPLE LANE APPROACHES, A SITE SPECIFIC PLAN IS REQUIRED ILLUSTRATING PROPOSED STRATEGIES/SIGNAGE TO REDUCE ALL APPROACHES TO A SINGLE LANE.

TABLE 112-01 : ADVANCE WARNING SIGN SPACING				
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS		
		A (FT.)	B (FT.)	C (FT.)
URBAN LOW (≤ 30 MPH)	30	100	100	100
URBAN (35-40 MPH)	35	200	200	200
	40			
URBAN HIGH (≥ 45 MPH)	45	350	350	350
RURAL		500	500	500

TABLE 112-02	
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT
25	155 (4-SKIP LINES)
30	200 (5-SKIP LINES)
35	250 (6-SKIP LINES)
40	305 (8-SKIP LINES)
45	360 (9-SKIP LINES)
50	425 (11-SKIP LINES)
55	495 (13-SKIP LINES)

TABLE 112-03 : REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/EXPRESSWAY
W20-7	36X36 IN.	48X48 IN.
W20-1	36X36 IN.	48X48 IN.
W20-4	36X36 IN.	48X48 IN.
W3-4	36X36 IN.	48X48 IN.
G20-2	48X18 IN.	48X24 IN.

*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST.

NEW YORK
STATE OF
OPPORTUNITY.

Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
INTERSECTION CLOSURE
MOBILE OPERATION

APPROVED XXXXXXXX XX, 20XX

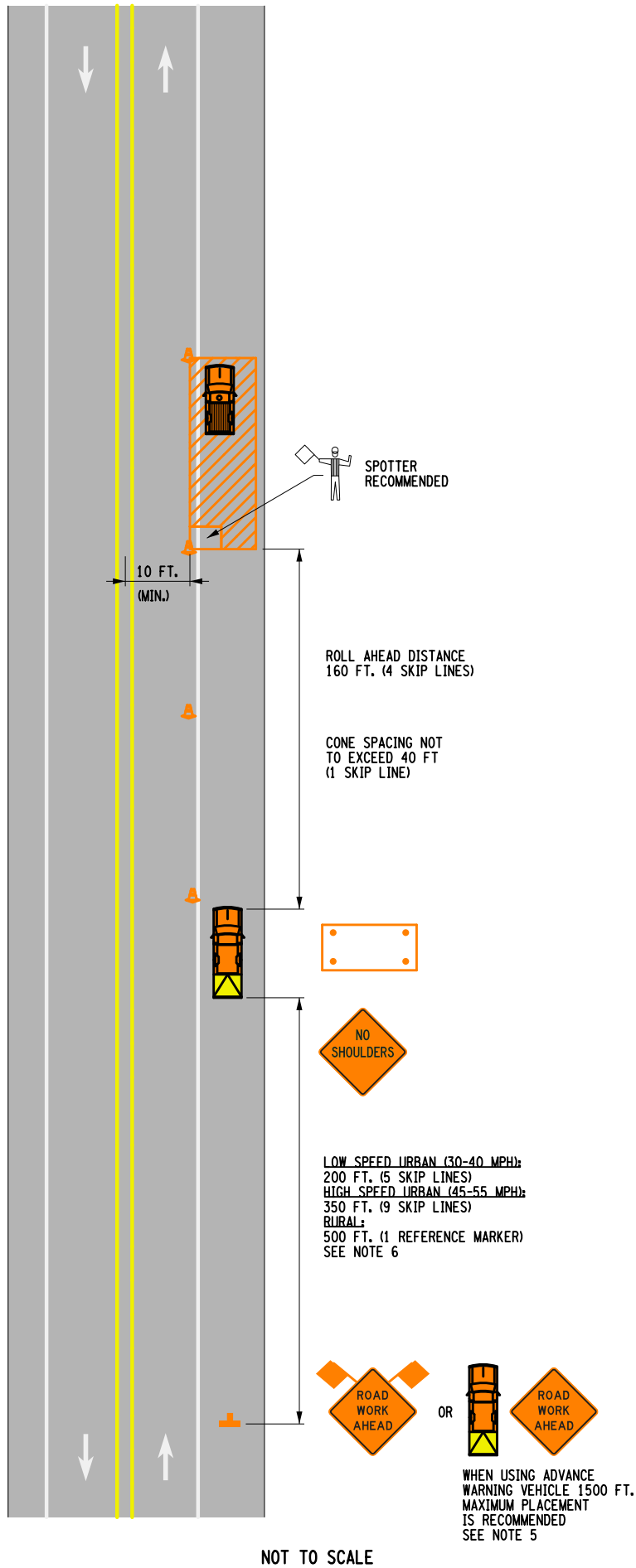
ISSUED UNDER EB XX-XXX

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(XXXXXX)

619-112

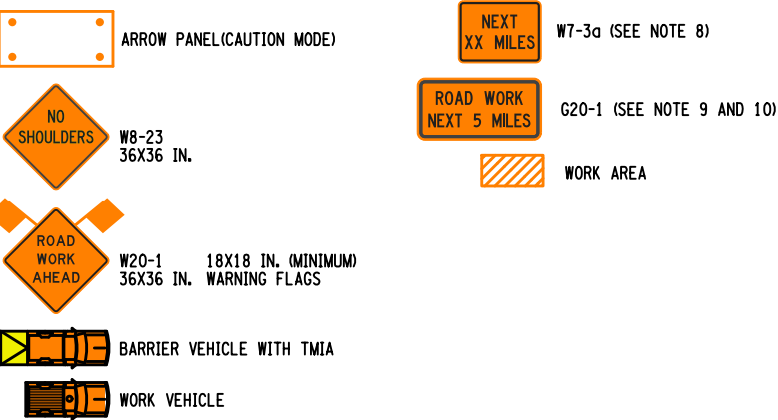
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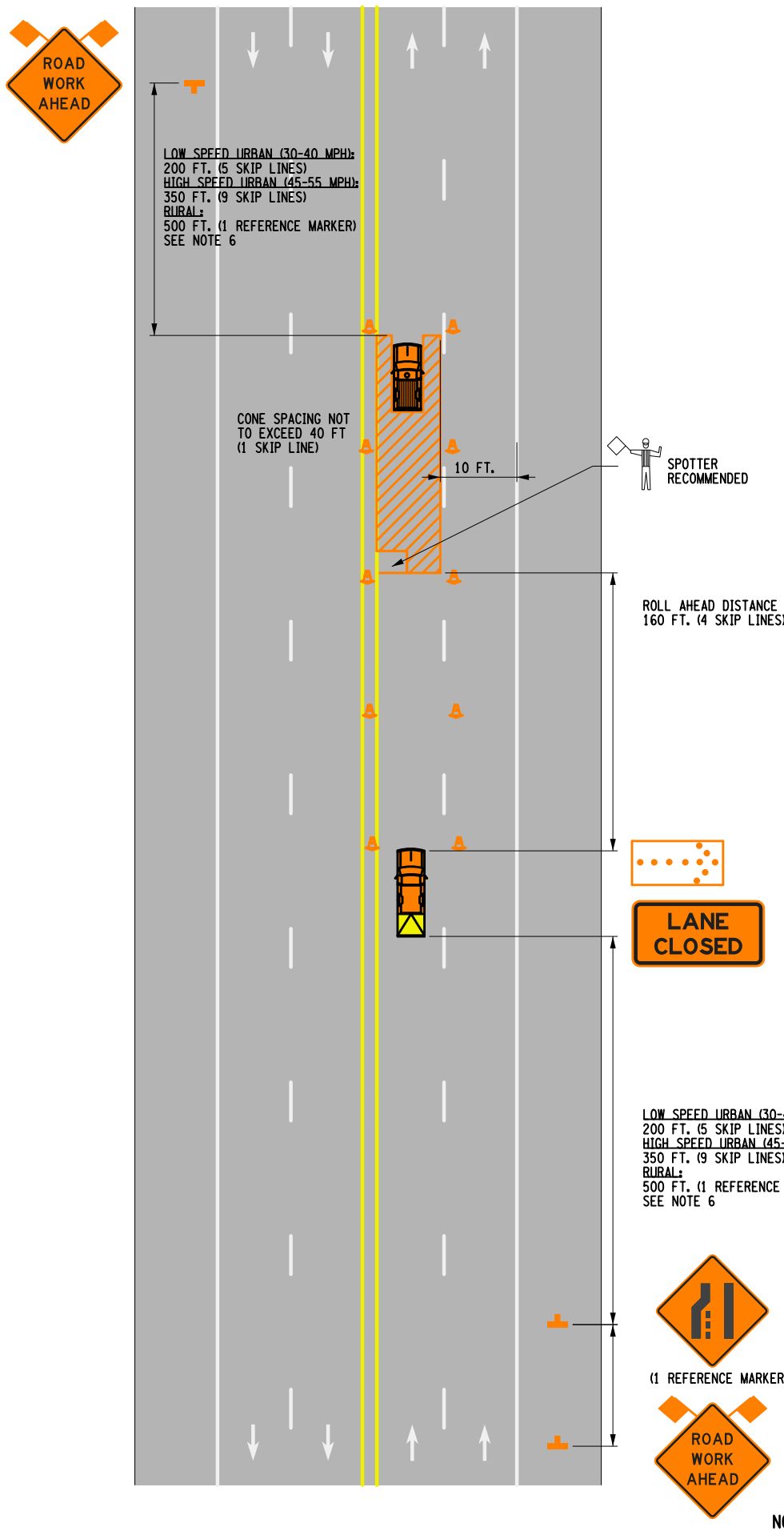
CONVENTIONAL ROADWAY

- NOTES:
1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM, THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY SHOULDER CLOSURE SETUP.
 3. SAFETY IS A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
 5. IF SHOULDER AREA BECOMES TOO NARROW FOR THE ADVANCE WARNING VEHICLE TO BE COMPLETELY ON THE SHOULDER, THE VEHICLE SHALL STAY ON THE WIDER SHOULDER AREA UNTIL THE OPERATOR CAN SAFELY DRIVE AROUND THE NARROW SHOULD TO THE NEW SET-UP POINT.
 6. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.
 7. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMODATE SIDE STREETS AND DRIVEWAYS.
 8. WHEN THE DISTANCE BETWEEN THE ADVANCE WARNING AND WORK IS 2 MILES TO 5 MILES, A SUPPLEMENTAL DISTANCE PLAQUE (W7-3a) SHOULD BE USED WITH THE ROAD WORK AHEAD SIGN W20-1.
 9. THE ROAD WORK NEXT XX MILES SIGN (WG20-1) MAY BE USED INSTEAD OF THE ROAD WORK AHEAD SIGN (W20-1). IF THE LOCATIONS OCCUR OVER A DISTANCE OF MORE THAN 2 MILES.
 10. IN THOSE SITUATIONS WHERE MULTIPLE WORK LOCATIONS EXIST WITHIN A LIMITED DISTANCE MAKE IT PRACTICAL TO PLACE STATIONARY SIGNS, THE DISTANCE BETWEEN THE ADVANCE WARNING SIGN AND WORK SHALL NOT EXCEED 5 MILES.



 Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL TWO-WAY TWO-LANE ROADWAY RIGHT SHOULDER CLOSURE SHORT DURATION OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-201

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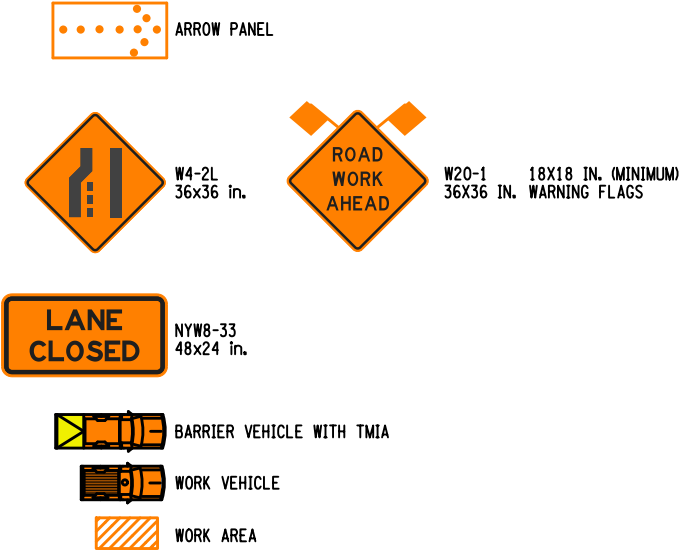



NOT TO SCALE

TASD-C2

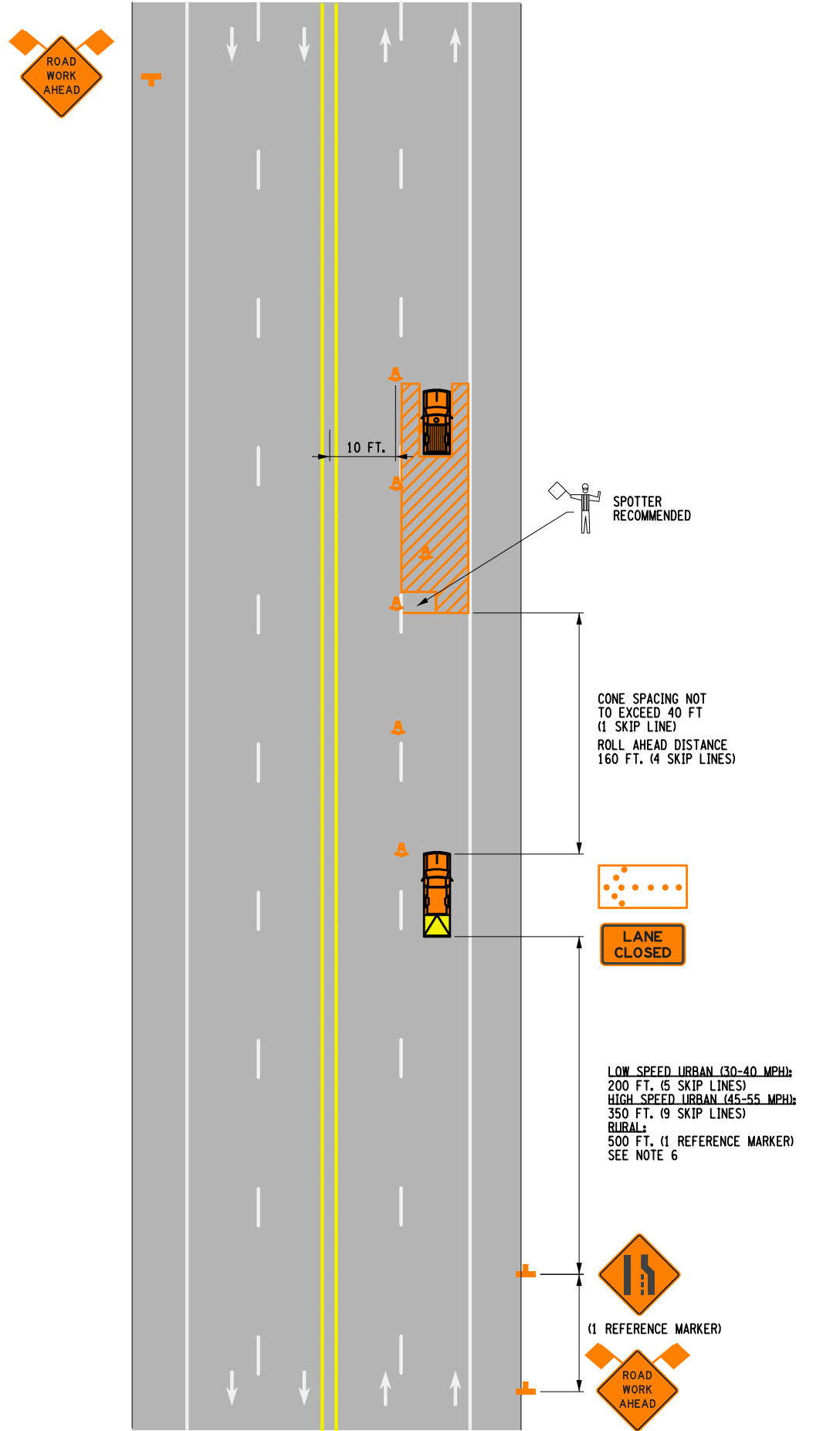
CONVENTIONAL ROADWAY

- NOTES:
1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM, THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY OPERATION.
 3. SAFETY IS A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
 5. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.
 6. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMODATE SIDE STREETS AND DRIVEWAYS.



 NEW YORK STATE OF OPPORTUNITY.		Department of Transportation
U.S. CUSTOMARY STANDARD SHEET		
WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY INTERIOR LANE CLOSURE SHORT DURATION OPERATION		
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX	
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-202	

FILE NAME = 619-203.dgn
DATE/TIME = 17-FEB-2021 10:49
USER = omodaffer1



NOT TO SCALE

TASD-C3

CONVENTIONAL ROADWAY

- NOTES:
1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM, THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY OPERATION.
 3. SAFETY IS A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
 5. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.
 6. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS.

ARROW PANEL

W4-2R 48x48 in. ROAD WORK AHEAD W20-1 36x36 in. 18X18 IN. (MINIMUM) WARNING FLAGS

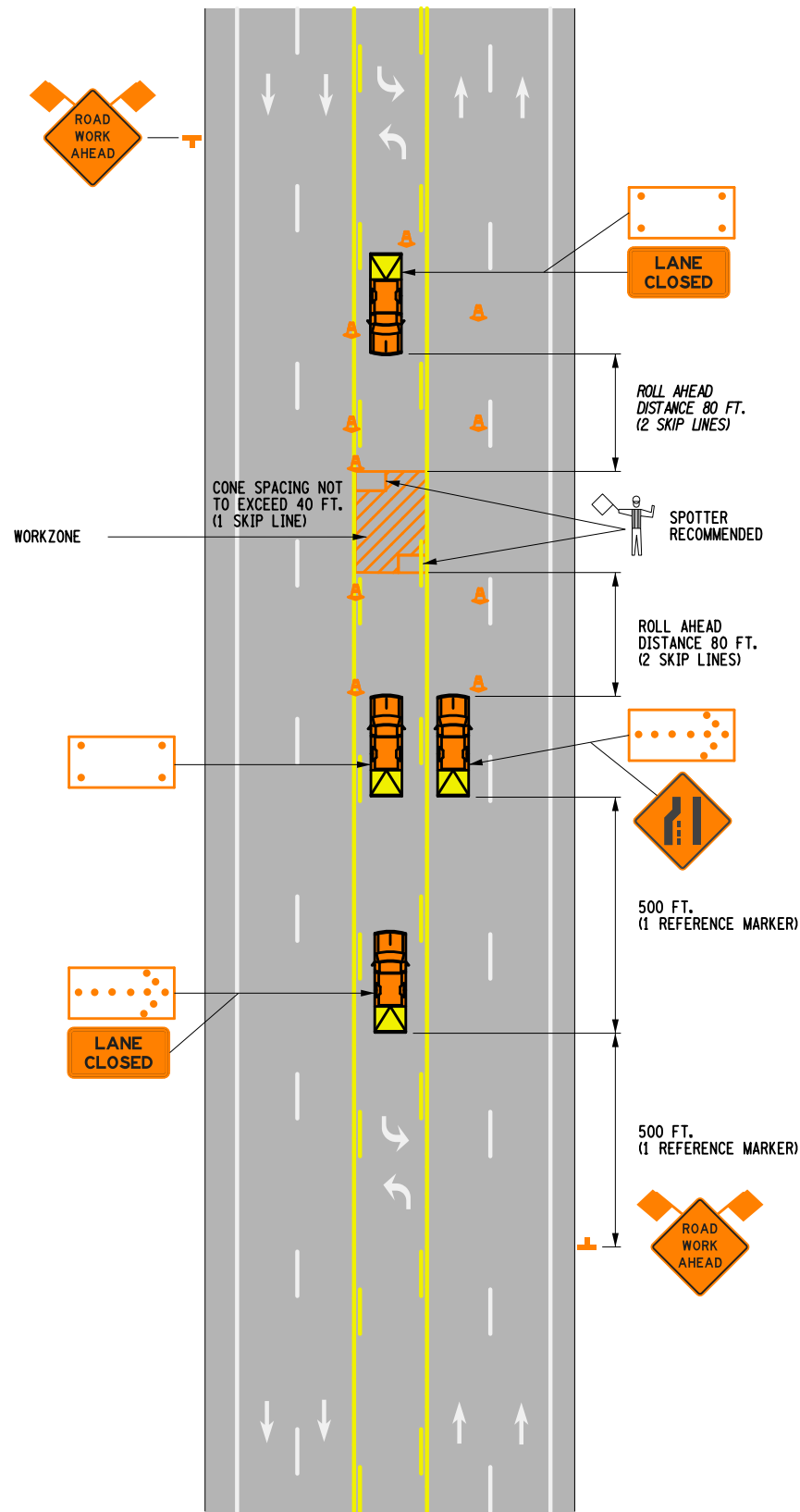
LANE CLOSED NYW8-33 48x24 in.

BARRIER VEHICLE WITH TMIA

WORK VEHICLE

WORK AREA









	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY EXTERIOR LANE CLOSURE SHORT DURATION OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXX (XXXXXX)	519-203



NOT TO SCALE

CONVENTIONAL ROADWAY

- NOTES:
1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM, THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY SETUP.
 3. SAFETY IN A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR ENTIRE DURATION OF THE OPERATION.
 5. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.
 6. IF WORK AREA OCCUPIES MEDIAN LANE, ADJACENT LANE SHOULD BE CLOSED.

 LANE CLOSED	NYW8-33 48x24 in.	 ARROW PANEL
 ARROW PANEL (CAUTION MODE)		
 W4-2L 36x36 in.		 BARRIER VEHICLE WITH TMIA
 ROAD WORK AHEAD	W20-1 36x36 in. 18x18 in. (MINIMUM) WARNING FLAGS	 WORK VEHICLE
		 WORK AREA



Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY (RURAL)
CENTER LEFT TURN/INTERIOR LANE CLOSURE
SHORT DURATION OPERATION

APPROVED XXXXXXXX XX, 20XX

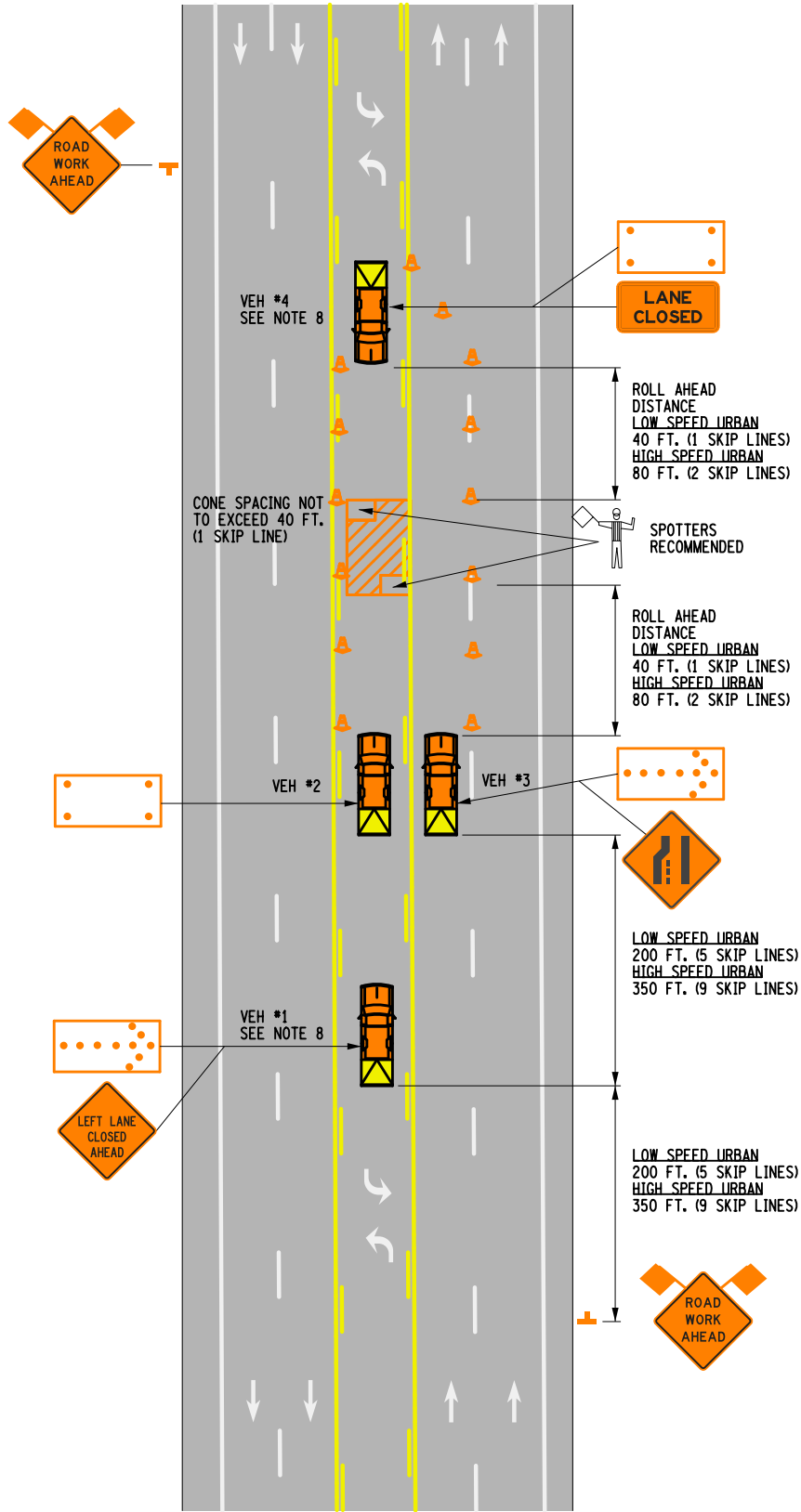
ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-204

CONVENTIONAL ROADWAY

- NOTES:
1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY SETUP.
 3. SAFETY IN A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
 5. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD DISTANCE.
 6. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS.
 7. IF WORK AREA OCCUPIES MEDIAN LANE, ADJACENT LANE SHOULD BE CLOSED.
 8. FOR LOW SPEED URBAN ROAD (30-40 MPH), TMIA IS RECOMMENDED ON VEHICLE #1 AND VEHICLE #4.



NOT TO SCALE

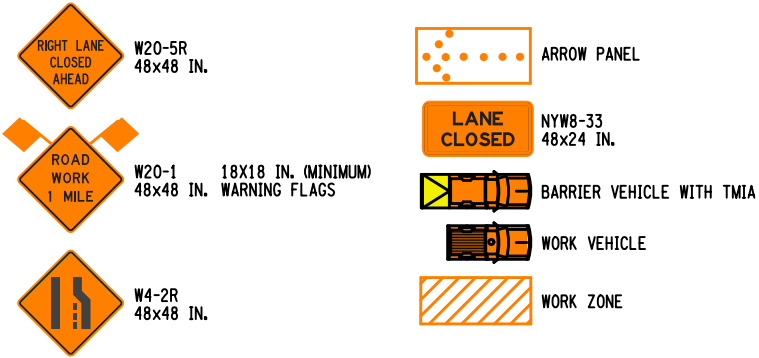
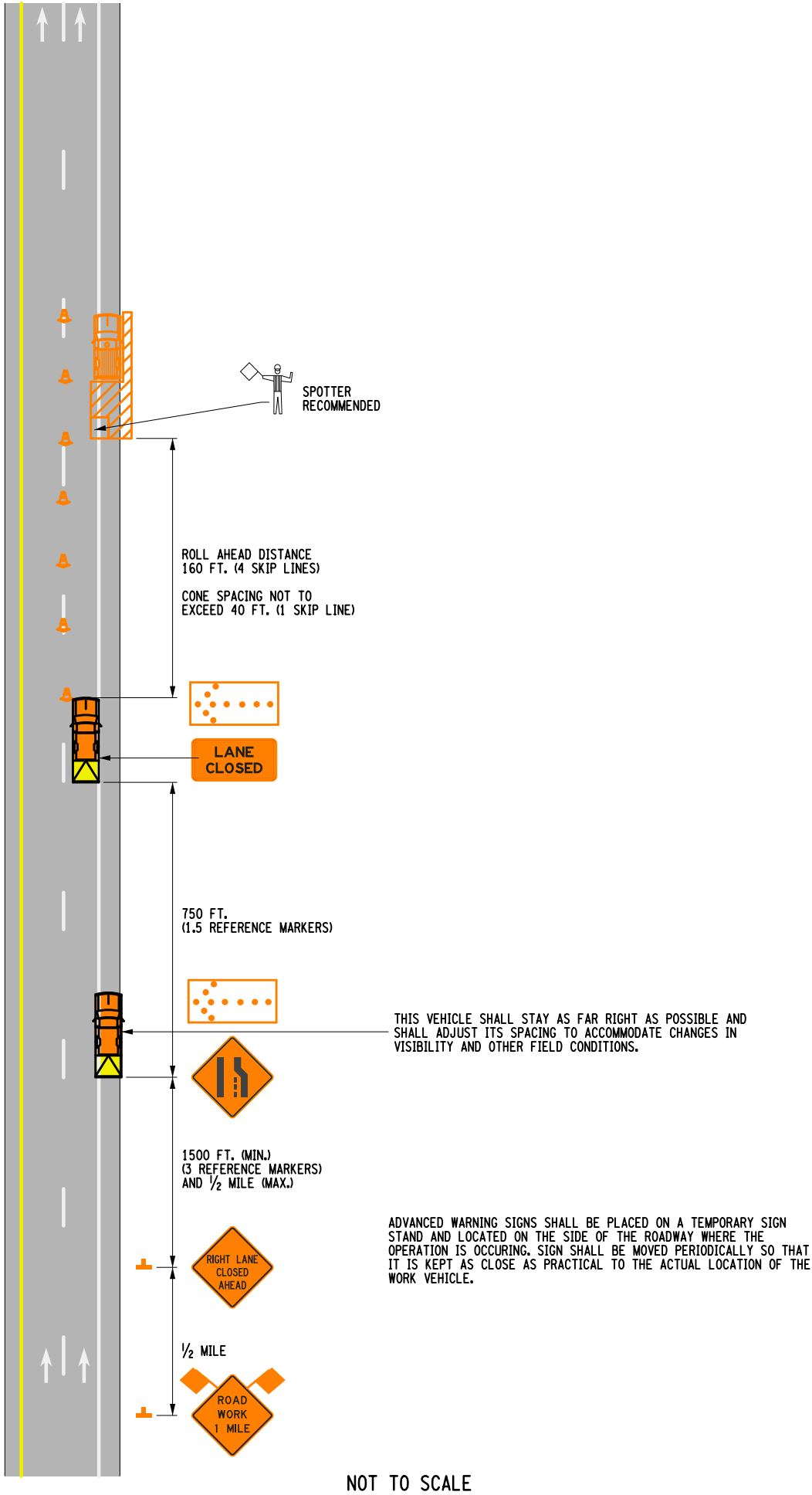
	NYW8-33 48x24 IN.		ARROW PANEL
	W20-5L 36x36 IN.		ARROW PANEL (CAUTION MODE)
			BARRIER VEHICLE WITH TMIA
			WORK AREA
	W4-02L 36x36 IN.		
	W20-1 36x36 IN.	18x18 IN. (MINIMUM) WARNING FLAGS	


	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY (URBAN) CENTER LEFT TURN/INTERIOR LANE CLOSURE SHORT DURATION OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-205

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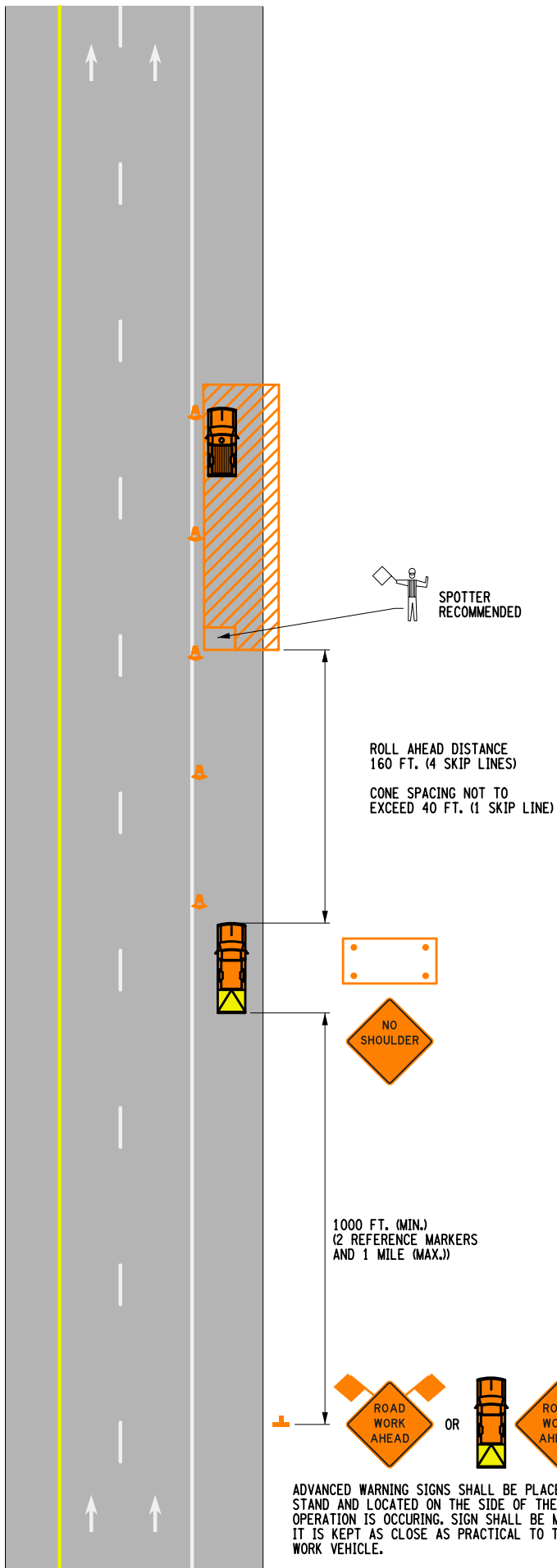
FREEWAY OR EXPRESSWAY

- NOTES:
1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY RIGHT LANE CLOSURE SET-UP.
 3. SAFETY IN A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
 5. ~~THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.~~



 NEW YORK STATE OF OPPORTUNITY.		Department of Transportation
U.S. CUSTOMARY STANDARD SHEET		
WORK ZONE TRAFFIC CONTROL FREEWAY RIGHT SHOULDER CLOSURE < 8 FT SHOULDER SHORT DURATION OPERATION (SHEET 1 OF 2)		
APPROVED XXXXXX XX, 20XX		ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXX (XXXXXX)		619-206

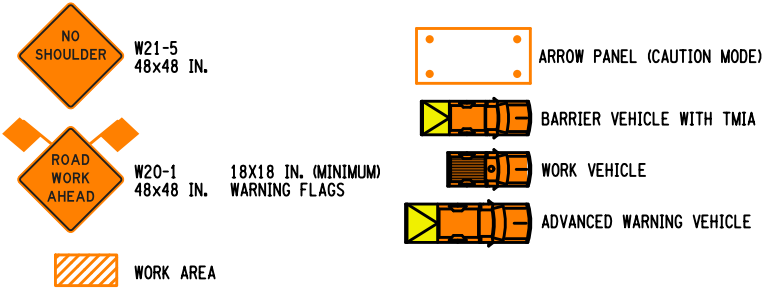
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USER = omodaffer1




TASD-E1

FREEWAY OR EXPRESSWAY

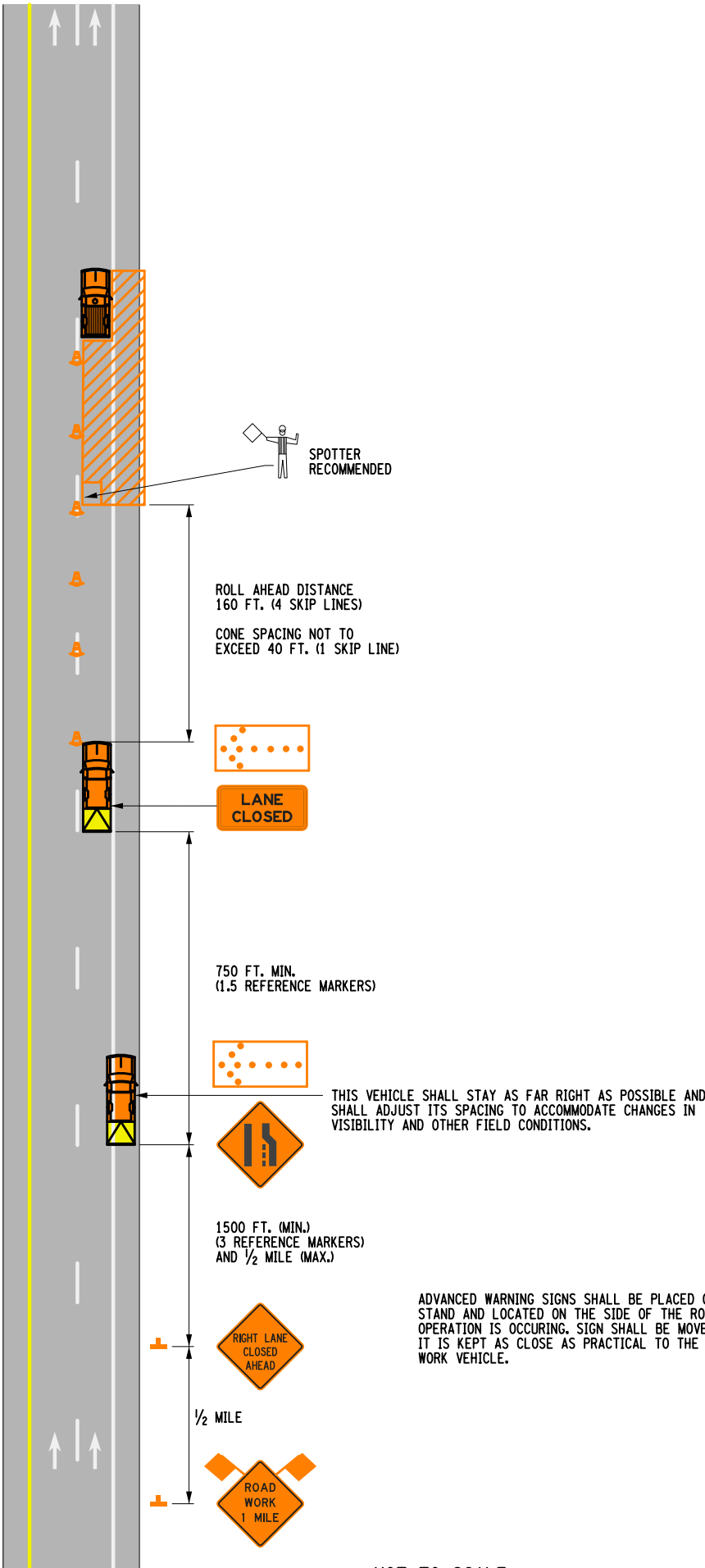
- NOTES:
1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY SHOULDER CLOSURE SET-UP.
 3. SAFETY IN A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
 5. ADVANCED WARNING VEHICLE MAY BE OCCUPIED. IF IT IS UNOCCUPIED, THE PARKING BRAKE MUST BE SET AND THE FRONT WHEELS TURNED AWAY FROM THE TRAVEL LANE.
 6. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.



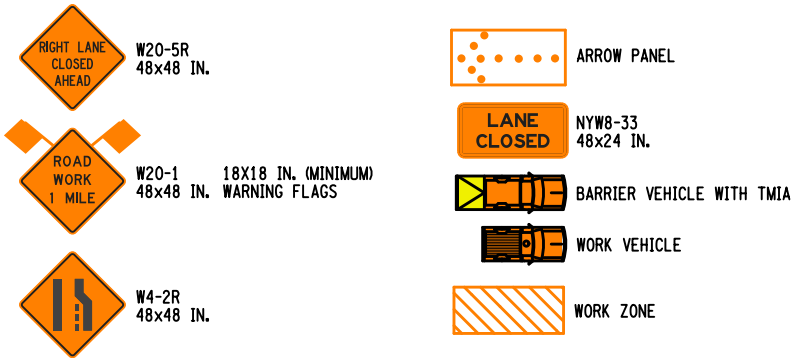
 <div>NEW YORK STATE OF OPPORTUNITY.</div>	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL RIGHT SHOULDER CLOSURE 8 FT + SHOULDER SHORT DURATION OPERATION (SHEET 2 OF 2)	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-206


FREEWAY OR EXPRESSWAY

- NOTES:
1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY RIGHT LANE CLOSURE SET-UP.
 3. SAFETY IN A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
 5. ~~THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.~~



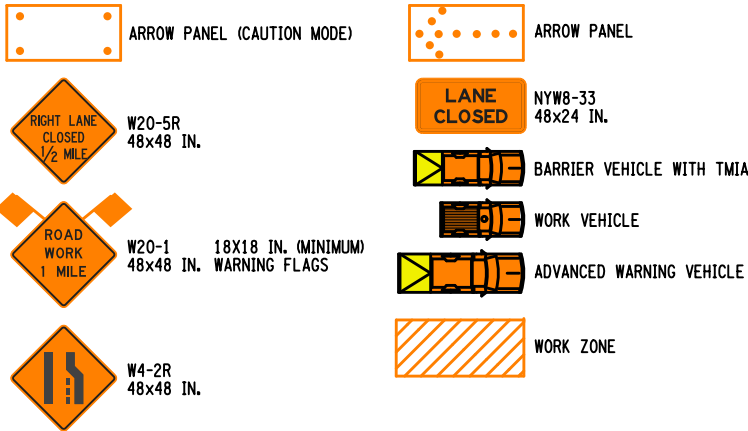
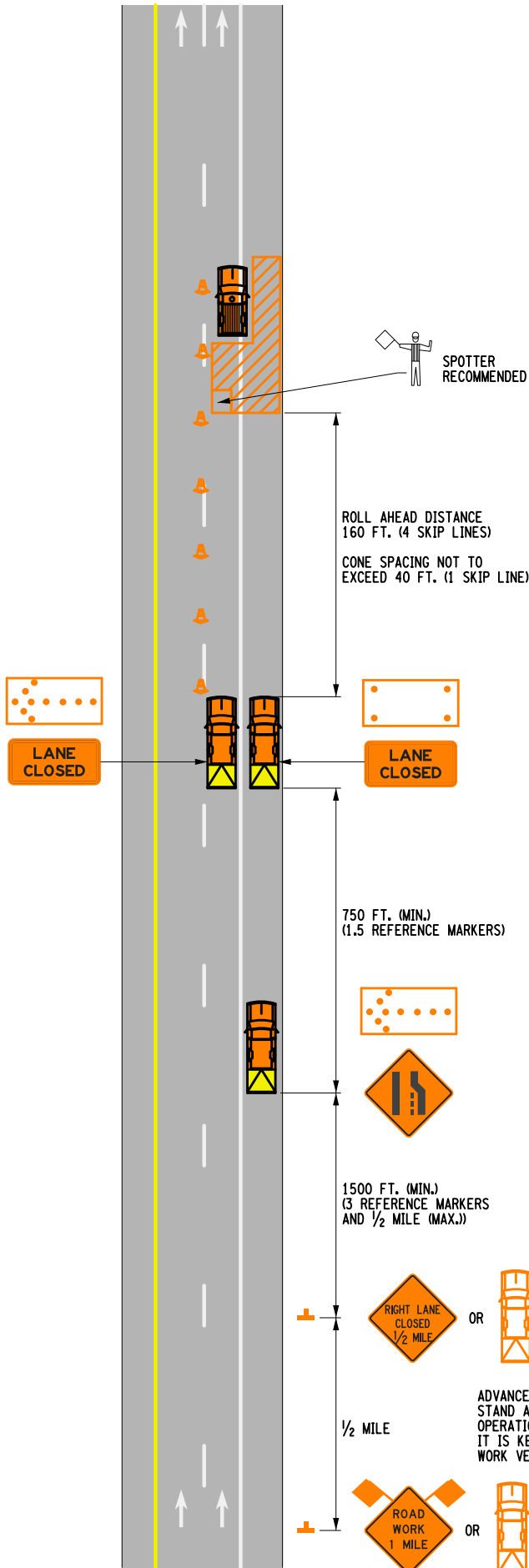
NOT TO SCALE



 NEW YORK STATE OF OPPORTUNITY.		Department of Transportation
U.S. CUSTOMARY STANDARD SHEET		
WORK ZONE TRAFFIC CONTROL FREEWAY RIGHT LANE CLOSURE SHORT DURATION OPERATION LESS THAN 8 FOOT SHOULDER (SHEET 1 OF 2)		
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX	
XXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-207	

FREEWAY OR EXPRESSWAY

- NOTES:
1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY RIGHT LANE CLOSURE SET-UP.
 3. SAFETY IN A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
 5. ADVANCED WARNING VEHICLE MAY BE OCCUPIED. IF IT IS UNOCCUPIED, THE PARKING BRAKE MUST BE SET AND THE FRONT WHEELS TURNED AWAY FROM THE TRAVEL LANE.
 6. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.



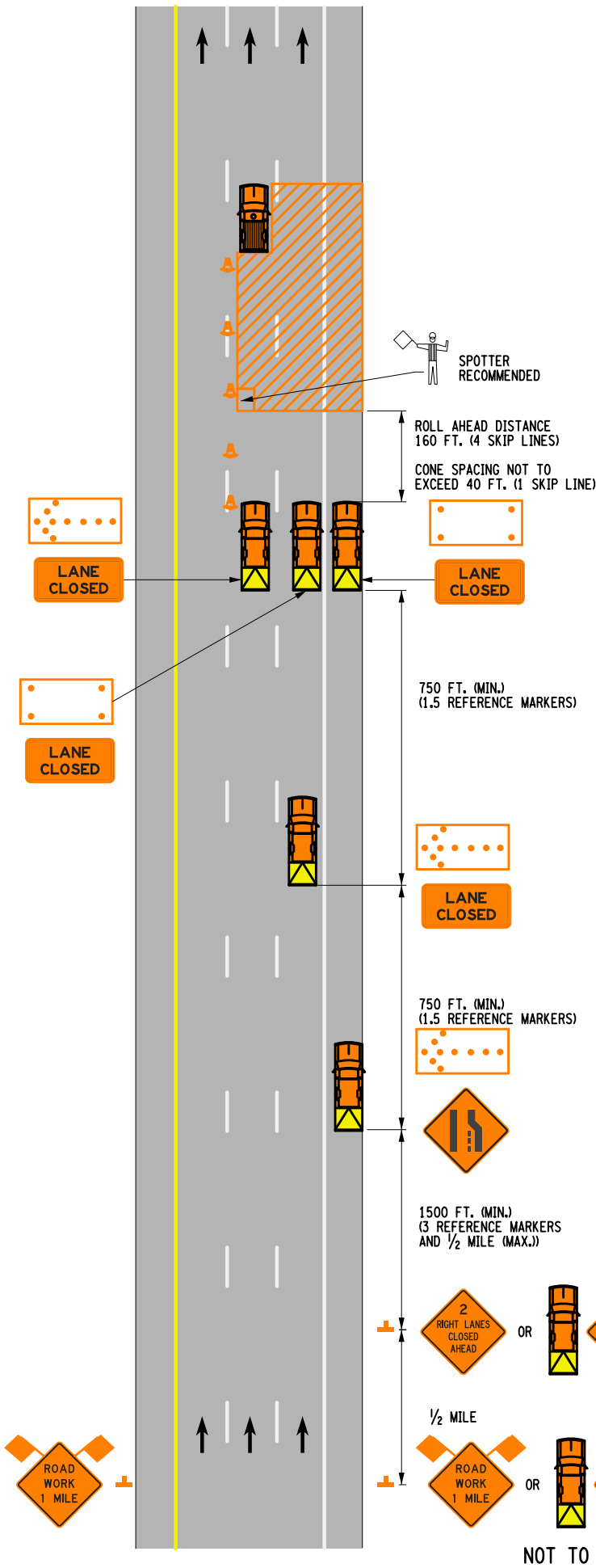
ADVANCED WARNING SIGNS SHALL BE PLACED ON A TEMPORARY SIGN STAND AND LOCATED ON THE SIDE OF THE ROADWAY WHERE THE OPERATION IS OCCURING. SIGN SHALL BE MOVED PERIODICALLY SO THAT IT IS KEPT AS CLOSE AS PRACTICAL TO THE ACTUAL LOCATION OF THE WORK VEHICLE.

NOT TO SCALE

	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTRL FREEWAY RIGHT LANE CLOSURE SHORT DURATION OPERATION 8 FOOT + SHOULDER (SHEET 2 OF 2)	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-207

FREEWAY OR EXPRESSWAY

- NOTES:
- 1. SHORT DURATION IS WORK OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 - 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM, THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY OPERATION SET-UP.
 - 3. SAFETY IS A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 - 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
 - 5. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.



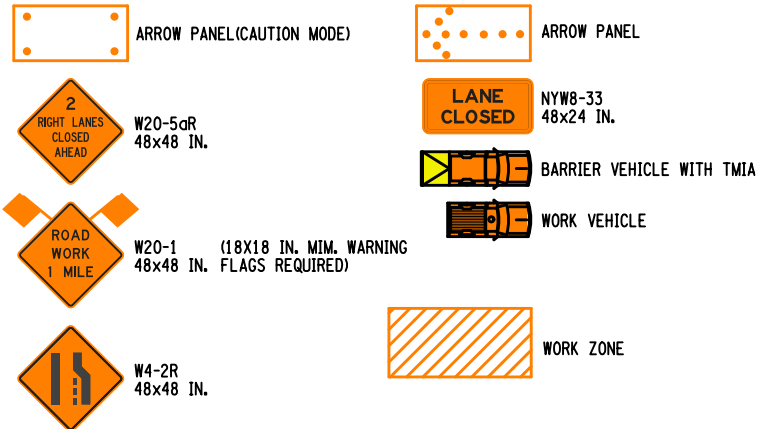
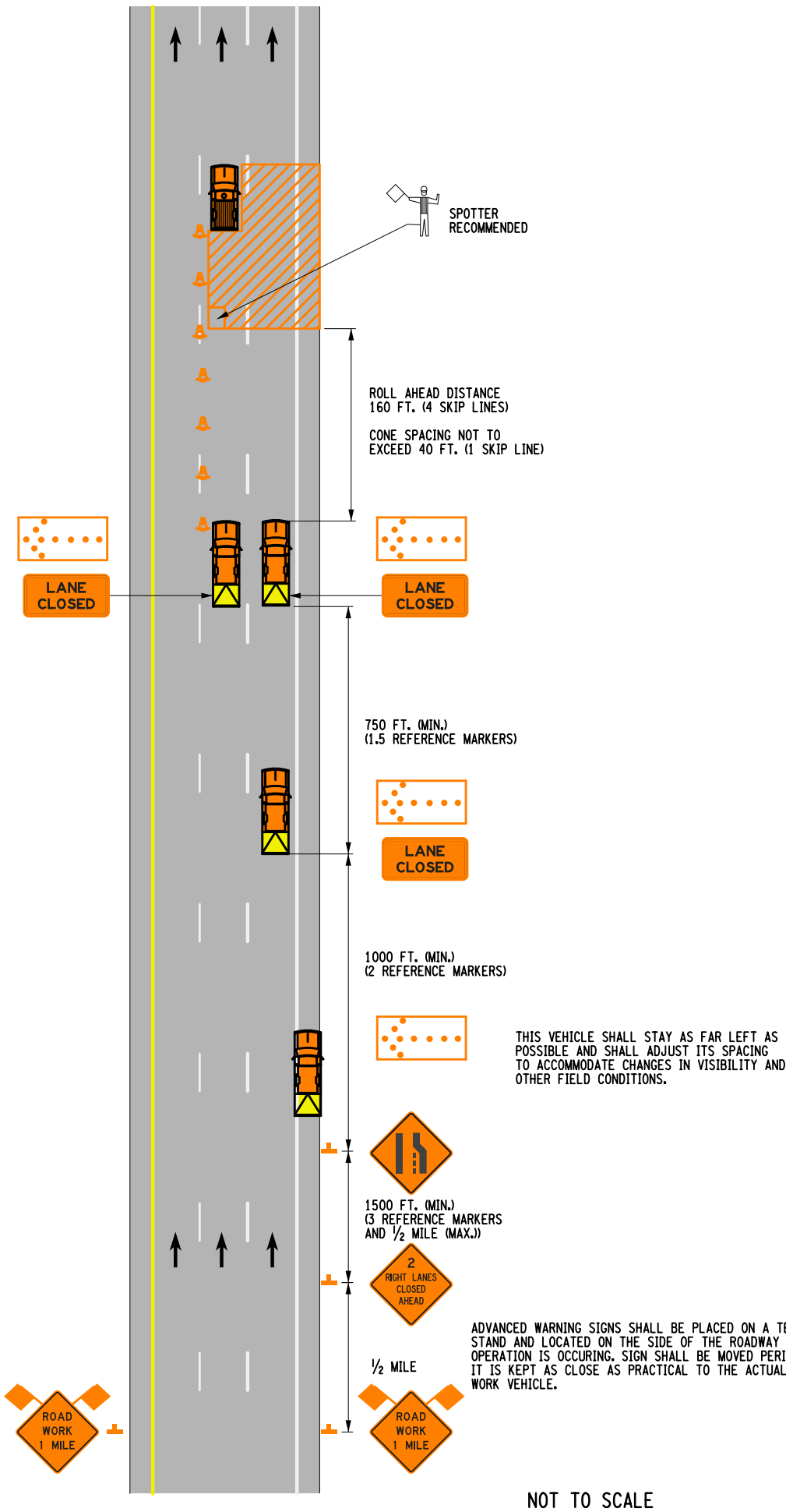
	ARROW PANEL(CAUTION MODE)		ARROW PANEL
	W20-5QR 48x48 IN.		NYW8-33 48x24 IN.
	W20-1 48x48 IN. (18X18 IN. MIN. WARNING 48X48 IN. FLAGS REQUIRED)		BARRIER VEHICLE WITH TMIA
	W4-2R 48x48 IN.		WORK VEHICLE
			WORK ZONE


		Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET			
WORK ZONE TRAFFIC CONTROL FREEWAY RIGHT TWO LANE CLOSURE 8+ FOOT SHOULDER SHORT DURATION OPERATION (SHEET 1 OF 2)			
APPROVED XXXXXXXX XX, 20XX		ISSUED UNDER EB XX-XXX	
XXXXXXXXXXXXXXXXXXXX (XXXXXX)		619-208	

FILE NAME = 619-208-2.dgn
DATE/TIME = 17-FEB-2021 10:50
USER = omodeffert

FREEWAY OR EXPRESSWAY

- NOTES:
1. SHORT DURATION IS WORK OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM, THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY OPERATION SET-UP.
 3. SAFETY IS A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
 5. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.



 Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY RIGHT TWO LANE CLOSURE 8+ FOOT SHOULDER SHORT DURATION OPERATION (SHEET 2 OF 2)	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-208

FREEWAY OR EXPRESSWAY

- NOTES:
1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY LEFT LANE CLOSURE SET-UP.
 3. SAFETY IN A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
 5. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.

LEFT LANE CLOSED 1/2 MILE

W20-5L

48x48 IN.

ROAD WORK 1 MILE

W20-1

48x48 IN.

18X18 IN. (MINIMUM) WARNING FLAGS

W4-2L

48x48 IN.

ARROW PANEL

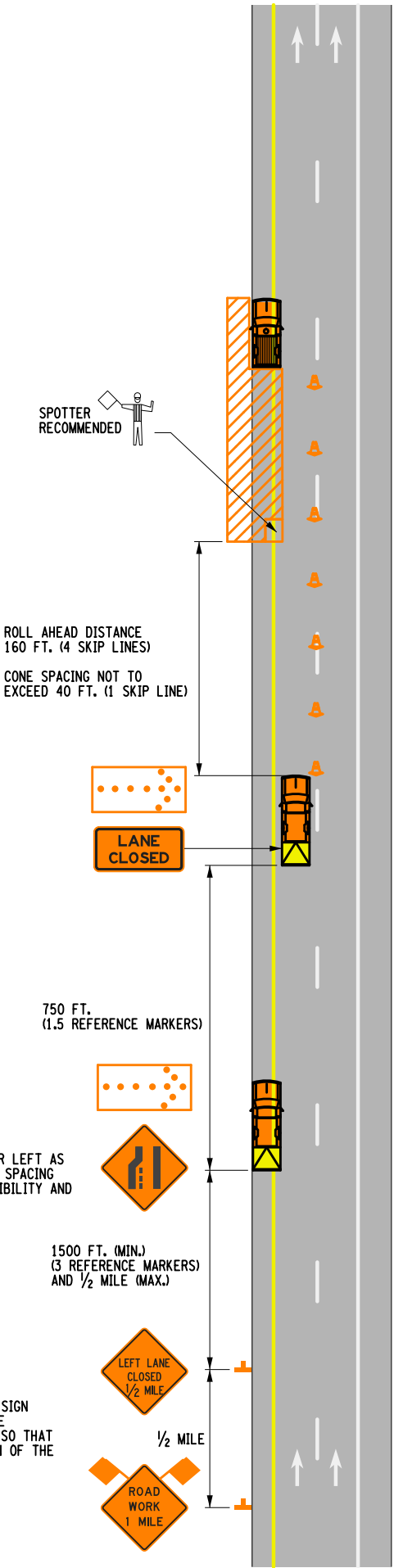
NYW8-33

48x24 IN.

BARRIER VEHICLE WITH TMIA

WORK VEHICLE

WORK ZONE



THIS VEHICLE SHALL STAY AS FAR LEFT AS POSSIBLE AND SHALL ADJUST ITS SPACING TO ACCOMMODATE CHANGES IN VISIBILITY AND OTHER FIELD CONDITIONS.

ADVANCED WARNING SIGNS SHALL BE PLACED ON A TEMPORARY SIGN STAND AND LOCATED ON THE SIDE OF THE ROADWAY WHERE THE OPERATION IS OCCURRING. SIGN SHALL BE MOVED PERIODICALLY SO THAT IT IS KEPT AS CLOSE AS PRACTICAL TO THE ACTUAL LOCATION OF THE WORK VEHICLE.

<div><div>NEW YORK</div><div>STATE OF OPPORTUNITY.</div></div> <div>Department of Transportation</div>	
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY LEFT SHOULDER CLOSURE SHORT DURATION OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-209

FREEWAY OR EXPRESSWAY

- NOTES:
1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY LEFT LANE CLOSURE SET-UP.
 3. SAFETY IN A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
 5. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.

ROLL AHEAD DISTANCE
160 FT. (4 SKIP LINES)
CONE SPACING NOT TO
EXCEED 40 FT. (1 SKIP LINE)



750 FT.
(1.5 REFERENCE MARKERS)



THIS VEHICLE SHALL STAY AS FAR LEFT AS
POSSIBLE AND SHALL ADJUST ITS SPACING
TO ACCOMMODATE CHANGES IN VISIBILITY AND
OTHER FIELD CONDITIONS.

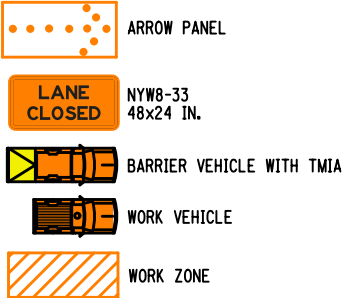
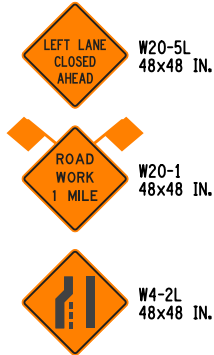
1500 FT. (MIN.)
(3 REFERENCE MARKERS)
AND 1/2 MILE (MAX.)



1/2 MILE



ADVANCED WARNING SIGNS SHALL BE PLACED ON A TEMPORARY SIGN
STAND AND LOCATED ON THE SIDE OF THE ROADWAY WHERE THE
OPERATION IS OCCURRING. SIGN SHALL BE MOVED PERIODICALLY SO THAT
IT IS KEPT AS CLOSE AS PRACTICAL TO THE ACTUAL LOCATION OF THE
WORK VEHICLE.



NOT TO SCALE

	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY LEFT LANE CLOSURE SHORT DURATION OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-210

FREEWAY OR EXPRESSWAY

- NOTES:
- 1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 - 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY LEFT TWO LANE CLOSURE SET-UP.
 - 3. SAFETY IN A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 - 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
 - 5. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.

ARROW PANEL (CAUTION MODE)

W20-5aL
48x48 IN.

W20-1
48x48 IN. (MINIMUM)
18x18 IN. (MINIMUM) WARNING FLAGS

W4-2L
48x48 IN.

ARROW PANEL

NYW8-33
48x24 IN.

BARRIER VEHICLE WITH TMIA

WORK VEHICLE

WORK ZONE

ADVANCED WARNING SIGNS SHALL BE PLACED ON A TEMPORARY SIGN STAND AND LOCATED ON THE SIDE OF THE ROADWAY WHERE THE OPERATION IS OCCURING. SIGN SHALL BE MOVED PERIODICALLY SO THAT IT IS KEPT AS CLOSE AS PRACTICAL TO THE ACTUAL LOCATION OF THE WORK VEHICLE.

NEW YORK
STATE OF
OPPORTUNITY.

Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
FREEWAY
LEFT TWO-LANE CLOSURE
SHORT DURATION OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

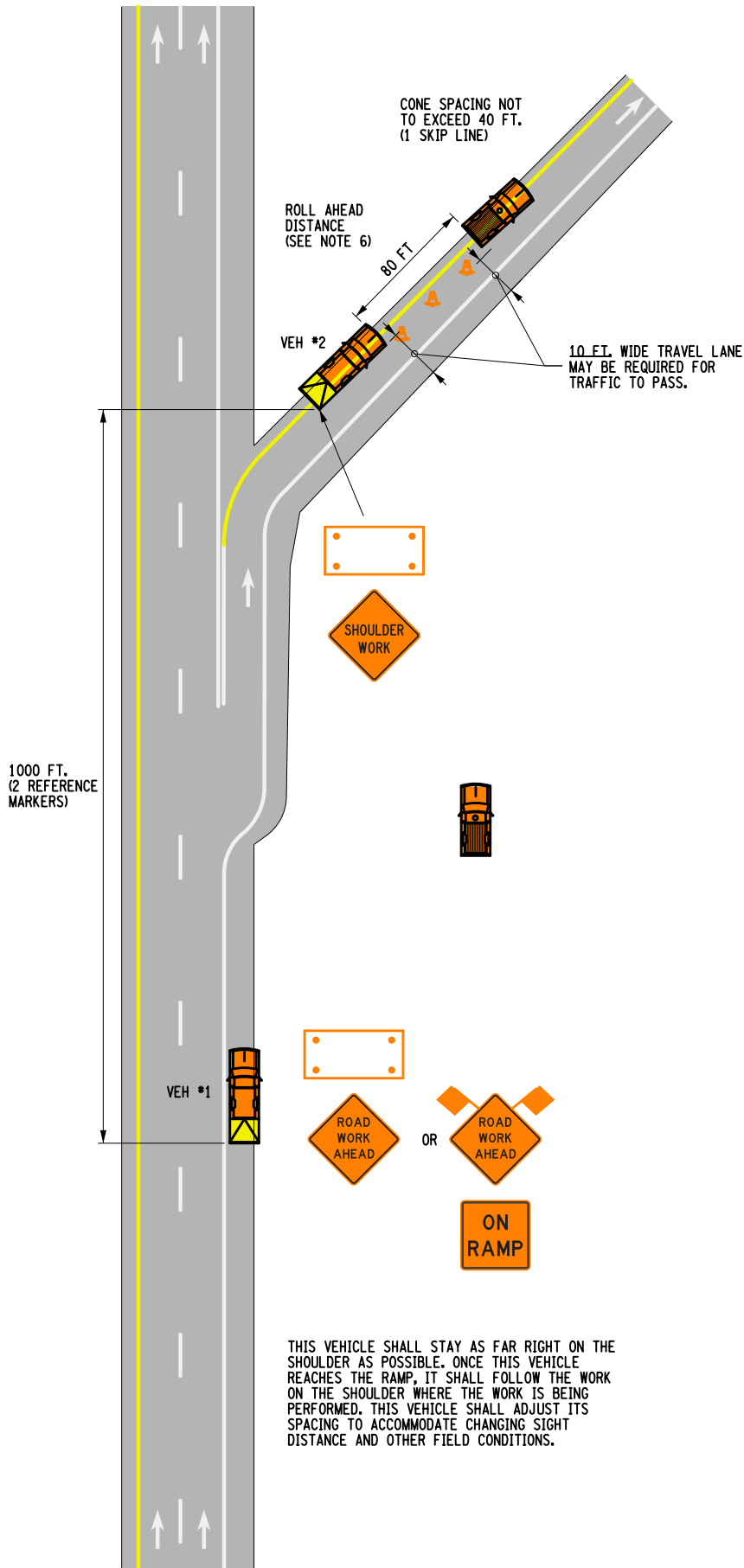
619-211

FILE NAME = 619-211.dgn
DATE/TIME = 17-FEB-2021 10:50
USER = omodaffer1

FILE NAME = 619-212.dgn
DATE/TIME = 17-FEB-2021 10:50
USER = omodaffer1


FREEWAY OR EXPRESSWAY

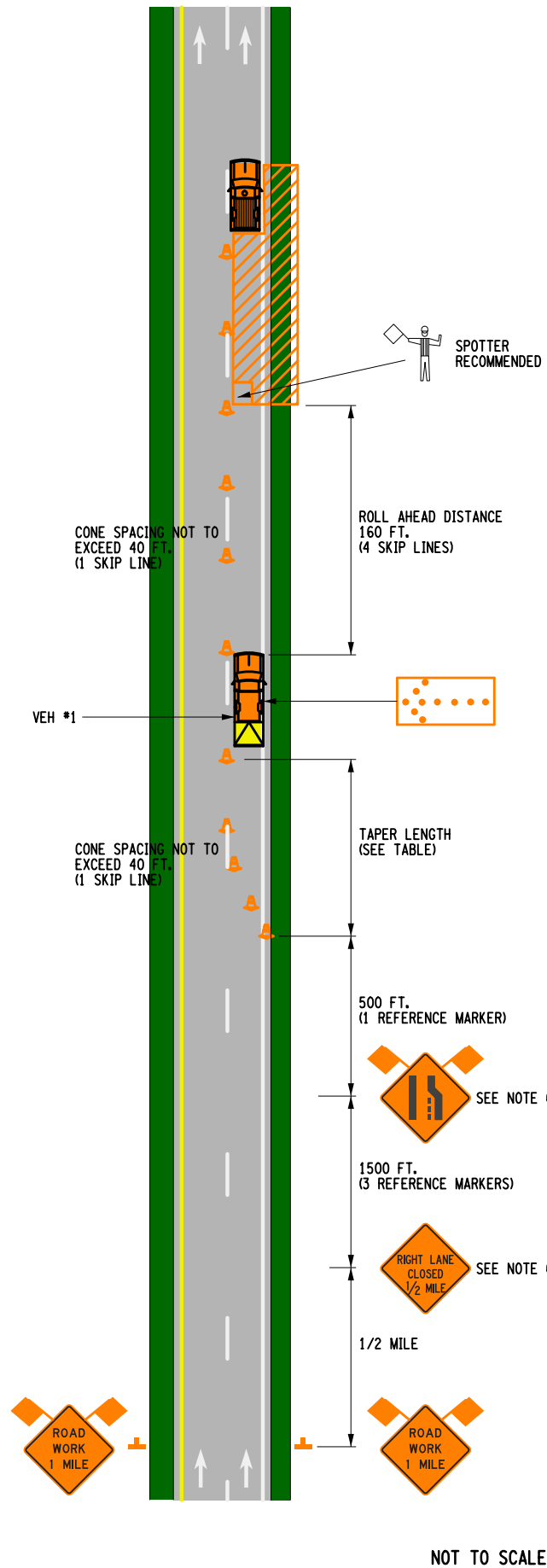
- NOTES:
- 1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
 - 2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY OPERATION SET-UP.
 - 3. SAFETY IN A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
 - 4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
 - 5. ~~THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.~~
 - 6. THE 80 FT. ROLL AHEAD DISTANCE IS BASED ON RAMP SPEEDS OF 45 MPH OR LESS. IF SPEEDS ARE GREATER THAN 45 MPH INCREASE DISTANCE TO 160 FT.



NOT TO SCALE

- ARROW PANEL (CAUTION MODE)
- SHOULDER WORK W21-5 48x48 IN.
- ROAD WORK AHEAD W20-1 18X18 IN. (MINIMUM) 48x48 IN. WARNING FLAGS
- ON RAMP W13-4P 36x36 IN.
- BARRIER VEHICLE WITH TMIA
- WORK VEHICLE

<div><div><div>NEW YORK STATE OF OPPORTUNITY.</div></div><div>Department of Transportation</div></div>	
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL FREEWAY LEFT SHOULDER CLOSURE ON EXIT RAMP SHORT DURATION OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-212

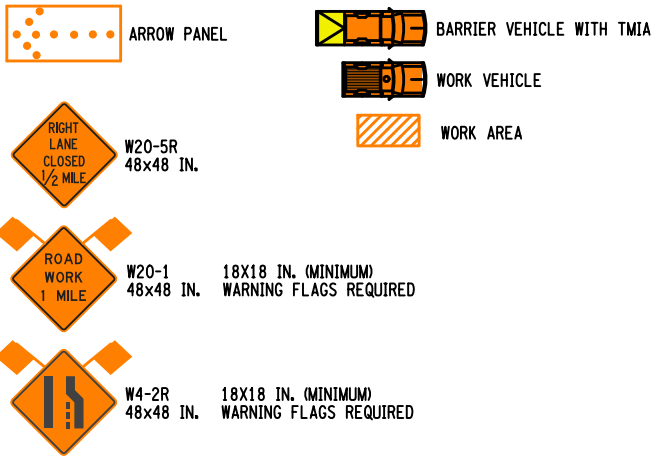


PARKWAY

NOTES:

1. SHORT DURATION IS WORK THAT OCCUPIES A LOCATION FOR UP TO 1 HOUR.
2. SHOULD THE WORK DURATION CONTINUE ON LONGER THAN THE 1 HOUR MAXIMUM THE WORK ZONE TRAFFIC CONTROL SETUP SHALL BE RECONFIGURED AND ADJUSTED TO MEET THE REQUIREMENTS OF THE SHORT TERM STATIONARY RIGHT LANE CLOSURE SET-UP.
3. SAFETY IN A SHORT DURATION OPERATION SHOULD NOT BE COMPROMISED BY USING FEWER DEVICES SIMPLY BECAUSE THE OPERATION WILL FREQUENTLY CHANGE ITS LOCATION.
4. OPERATOR OF THE BARRIER VEHICLE SHALL REMAIN SEATED INSIDE THE CAB WITH SEATBELT ON AND HEADREST PROPERLY ADJUSTED FOR THE ENTIRE DURATION OF THE OPERATION.
5. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE ROLL AHEAD DISTANCE.
6. THIS TYPICAL SHOWS SET UP FOR RIGHT LANE CLOSURE. SIMILAR SET UP CAN BE USED FOR LEFT LANE CLOSURE WITH APPROPRIATE LANE CLOSURE SIGNS.

SPEED LIMIT (MPH)	MERGING TAPER LENGTHS BASED ON LANE SHIFT			SHOULDER TAPER FROM 4'-6' SHIFT
	10'	11'	12'	
45	450'	495'	540'	60'-90'
50	500'	550'	600'	70'-100'
55	550'	605'	660'	75'-110'
65	650'	715'	760'	90'-130'





NEW YORK
STATE OF
OPPORTUNITY.

Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
PARKWAY
RIGHT/LEFT LANE CLOSURE
SHORT DURATION OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

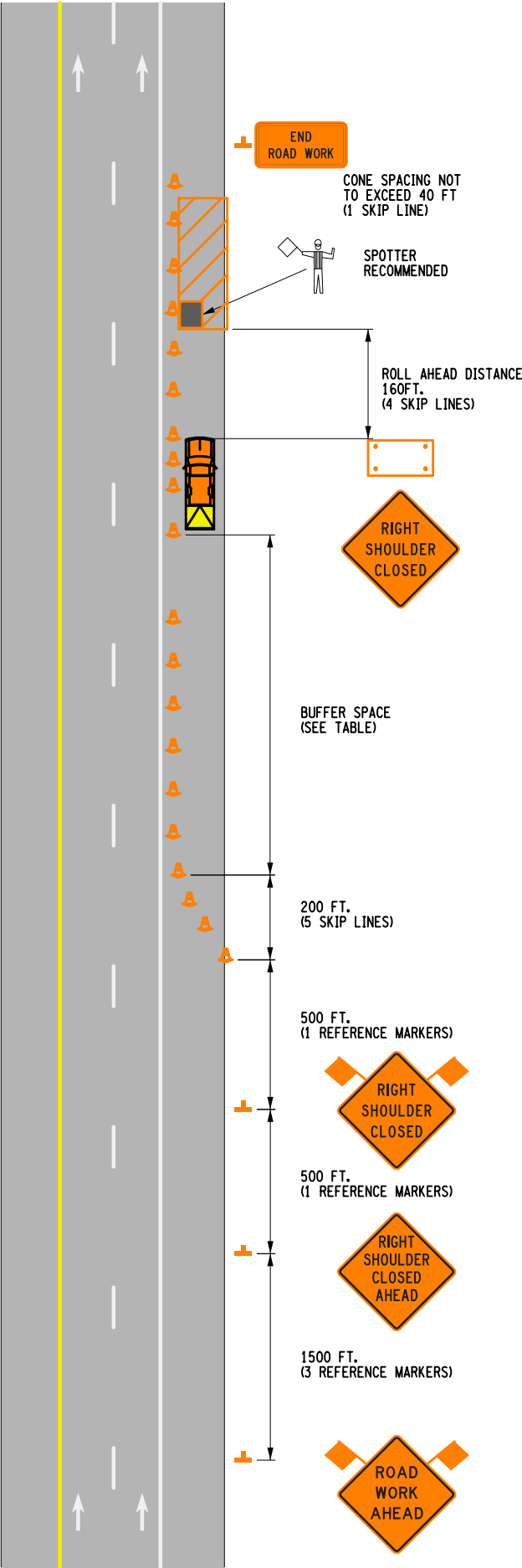
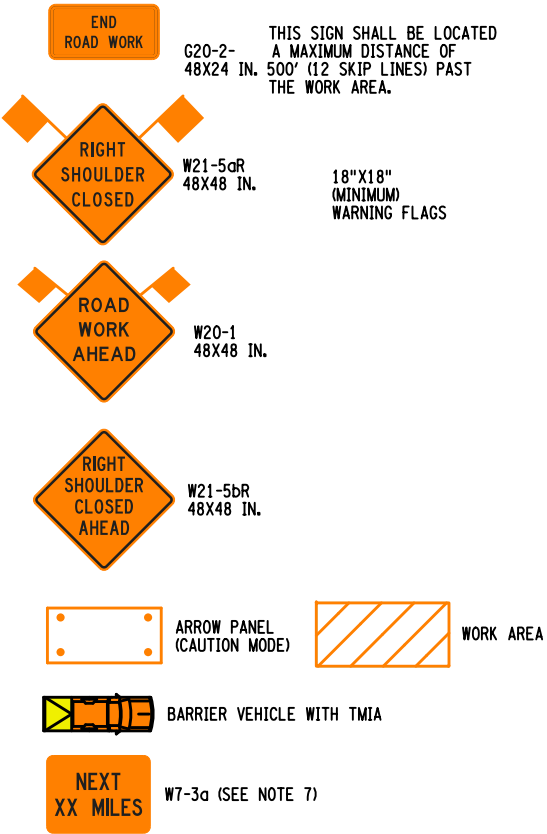
619-213

FREEWAY OR EXPRESSWAY


NOTES:

- 1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
- 2. THE BARRIER VEHICLE SHALL BE AN UNOCCUPIED TRUCK WITH THE PARKING BRAKE SET AND WITH THE FRONT WHEELS TURNED AWAY FROM THE TRAVEL LANE.
- 3. THERE SHALL BE NO WORKERS, EQUIPMENT, OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD DISTANCE.
- 4. LEFT SHOULDER CLOSURES ARE SYMMETRICAL, SUBSTITUTE LEFT SHOULDER CLOSED AHEAD SIGN (W21-5bL) AND LEFT SHOULDER CLOSED SIGN (W21-5dL) FOR RIGHT SHOULDER CLOSED SIGNS (W21-5bR AND W21-5dR).
- 5. WHEN THE MINIMUM LANE WIDTH OF 11' CANNOT BE MAINTAINED DUE TO A SHOULDER CLOSURE, USE THE DETAILS FOR SHORT, INTERMEDIATE, OR LONG TERM STATIONARY SINGLE LANE CLOSURES.
- 6. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
- 7. THE "NEXT X MILE" SUPPLEMENTAL SIGN (W7-3a) IS REQUIRED WHEN THE SHOULDER IS CLOSED FOR A DISTANCE GREATER THAN 2 MILES.
- 8. TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.

SPEED LIMIT(MPH)	BUFFER SPACE
50	425' (~11 SKIP LINES)
55	495' (~13 SKIP LINES)
65	645' (~16 SKIP LINES)



NOT TO SCALE



NEW YORK
STATE OF
OPPORTUNITY.

Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
FREEWAY (8FT+ SHOULDER)
RIGHT SHOULDER CLOSURE
SHORT TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619- 301

ALL ROADWAYS

NOTES:

1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
2. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS.
3. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD DISTANCE.
4. THE BARRIER VEHICLE SHALL BE AN UNOCCUPIED TRUCK, WITH THE PARKING BRAKE SET AND WITH THE FRONT WHEELS TURNED AWAY FROM THE TRAVEL LANE.
5. BARRIER VEHICLE AND TMIA ARE REQUIRED IF SPEEDS ARE 45 MPH OR GREATER. BARRIER VEHICLE IS REQUIRED AND TMIA IS RECOMMENDED IF SPEEDS ARE LESS THAN 45 MPH.
6. LEFT LANE CLOSURES ARE SYMMETRICAL TO RIGHT LANE CLOSURES. SUBSTITUTE LEFT LANE CLOSED SIGN (W20-5) AND THE CORRESPONDING LANE ENDS SIGN (W4-2L).
7. WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK SPACE AND TO DIRECT VEHICULAR TRAFFIC TO REMAIN IN THE TRAVELED WAY.
8. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
9. TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.

TABLE 1 : ADVANCE WARNING SIGN SPACING						
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
		A (FT.)	B (FT.)	C (FT.)	XX	YY
URBAN LOW (≤ 30 MPH)	30	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH)	35 40	200	200	200		
URBAN HIGH (≥ 45 MPH)	45	350	350	350	1000 FT.	AHEAD
RURAL		500	500	500	1500 FT.	1000 FT.
EXPRESSWAY /FREEWAY		1000	1500	2640	1 MILE	1/2 MILE

TABLE 2								
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT	ROLL AHEAD DISTANCE IN FT		LANE TAPER :L(IN FT.) /#SKIP LINES/#OF CONES			SHOULDER TAPER:L/3 (IN FT.) /#SKIP LINES/#OF CONES	
		MIN	MAX	FOR LANE WIDTH			FOR SHOULDER WIDTH	
				10 FT	11 FT	12 FT	LESS THAN 8FT. (MIN - MAX)	8 FT OR WIDER(MIN)
25	155 (~4 Skip Lines)	50	100	120/3/4	120/3/4	140/3/5	20/1/2 - 40/1/2	40/1/2
30	200 (~5 Skip Lines)			160/4/5	180/5/6	180/5/6	20/1/2 - 40/1/2	40/1/2
35	250 (~6 Skip Lines)			220/6/7	240/6/7	260/7/8	40/1/2 - 60/2/3	80/2/3
40	305 (~8 Skip Lines)			280/7/8	300/8/9	320/8/9	40/1/2 - 60/2/3	80/2/3
45	360 (~9 Skip Lines)	75	150	460/12/12	500/13/13	540/14/14	60/2/3 - 100/3/4	120/3/4
50	425 (~11 Skip Lines)			500/13/14	560/14/15	600/15/16	80/2/3 - 100/3/4	140/4/5
55	495 (~13 Skip Lines)	100	200	560/14/15	620/16/17	660/17/18	80/2/3 - 120/3/4	160/4/5
65	645 (~16 Skip Lines)			660/17/18	720/18/19	780/20/21	100/3/4 - 140/4/5	180/5/6

TABLE 3: REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/EXPRESSWAY
W20-1	36X36 IN.	48X48 IN.
W20-5R	36X36 IN.	48X48 IN.
W4-2R	36X36 IN.	48X48 IN.
NYW8-33	48X24 IN.	48X24 IN.
G20-2	36X18 IN.	48X24 IN.
*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST.		



Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

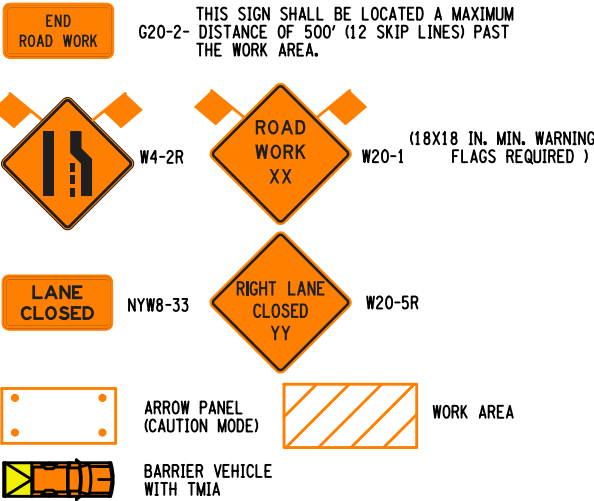
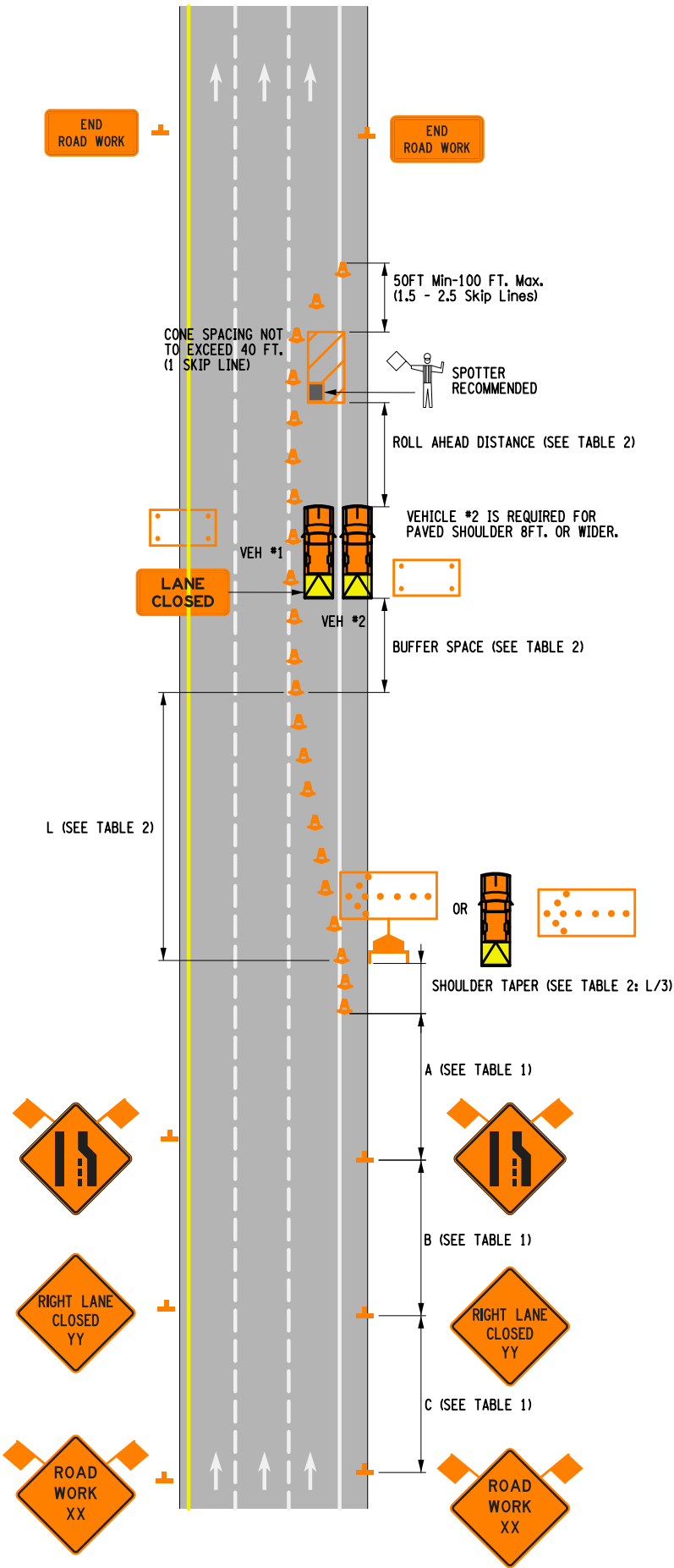
WORK ZONE TRAFFIC CONTROL
MULTI-LANE DIVIDED ROADWAY
RIGHT LANE CLOSURE
SHORT TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

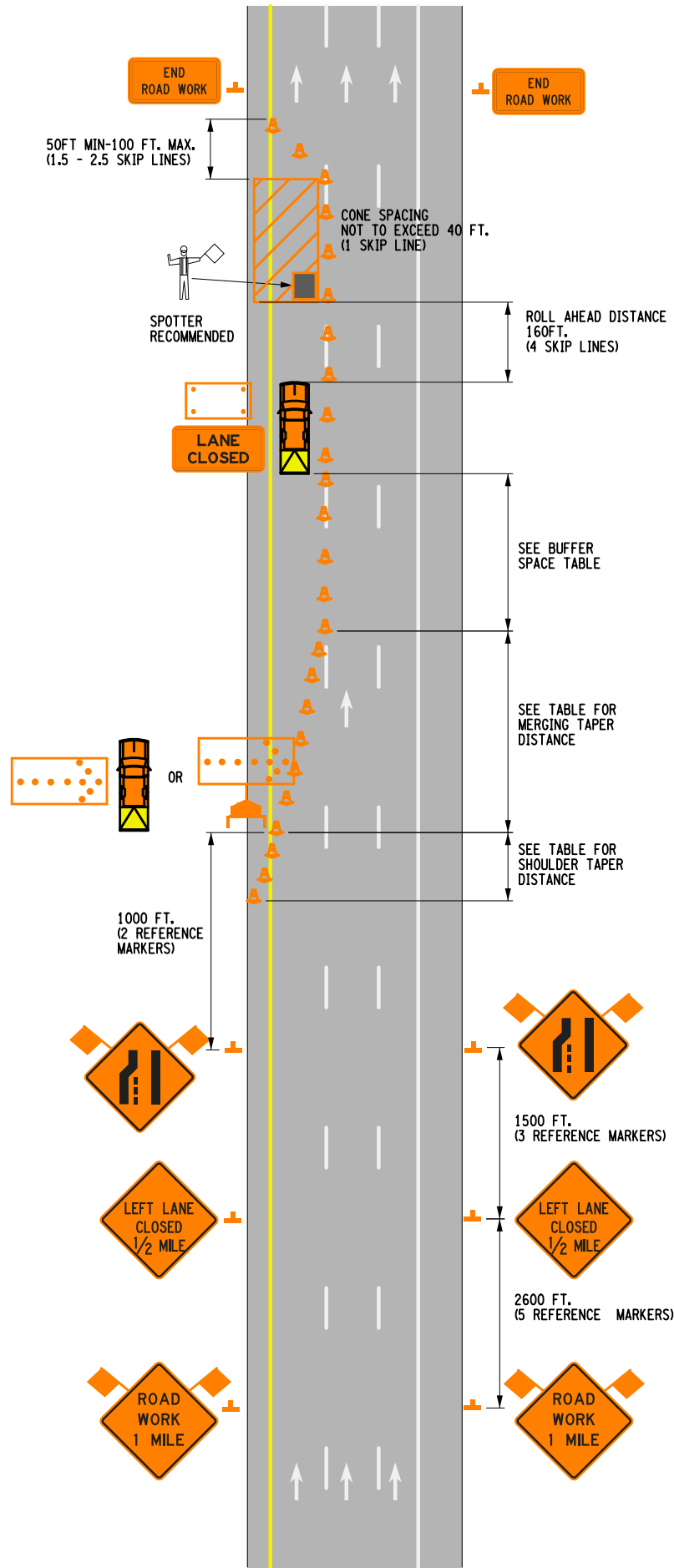
ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-302



NOT TO SCALE



FREEWAY OR EXPRESSWAY

- NOTES:
1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
 2. THE BARRIER VEHICLE SHALL BE AN UNOCCUPIED TRUCK WITH THE PARKING BRAKE SET AND WITH THE FRONT WHEELS TURNED AWAY FROM THE TRAVEL LANE.
 3. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE BUFFER SPACE OR ROLL AHEAD DISTANCE.

SPEED LIMIT	BUFFER SPACE
45	360' (9 SKIP LINES)
50	425' (~11 SKIP LINES)
55	495' (~13 SKIP LINES)
65	645' (~16 SKIP LINES)

SPEED LIMIT (MPH)	MERGING TAPER LENGTHS BASED ON LANE SHIFT			SHOULDER TAPER FROM 4'-6' SHIFT
	10'	11'	12'	
45	450'	495'	540'	60'-90'
50	500'	550'	600'	70'-100'
55	550'	605'	660'	75'-110'
65	650'	715'	760'	90'-130'

END ROAD WORK G20-2-48X24 IN. THIS SIGN SHALL BE LOCATED A MAXIMUM DISTANCE OF 500' (12 SKIP LINES) PAST THE WORK AREA.

LANE CLOSED NYW8-33 48X24 IN.

ROAD WORK 1 MILE W20-1 48X48 IN.

18"X18" (MINIMUM) WARNING FLAGS

LEFT LANE CLOSED 1/2 MILE W20-5L 48X48 IN.

W4-2L 48X48 IN.

WORK AREA

ARROW PANEL (CAUTION MODE)

BARRIER VEHICLE WITH TMIA



Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
FREEWAY (< 8 FT SHOULDER)
LEFT LANE CLOSURE
SHORT TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-304

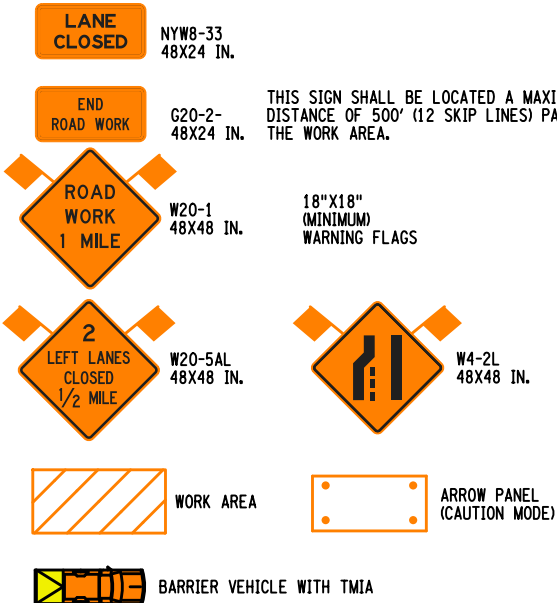
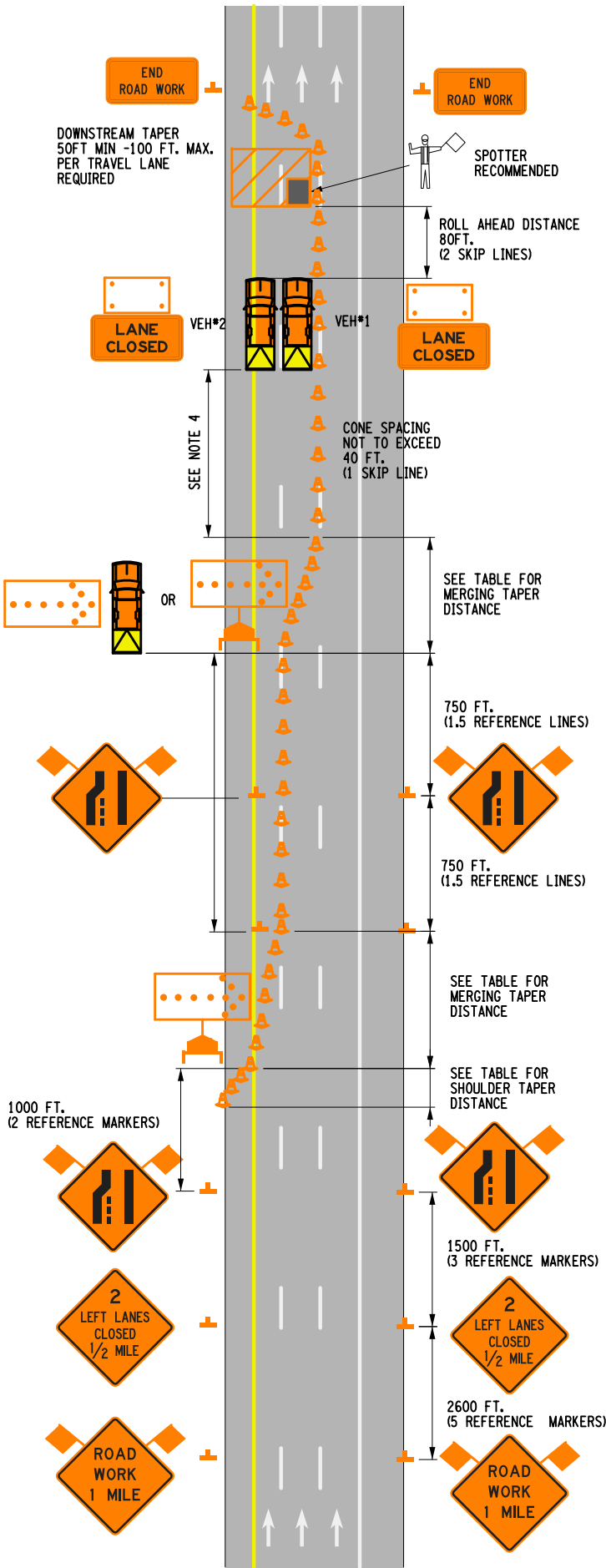
NOT TO SCALE


FREEWAY OR EXPRESSWAY

- NOTES:
- 1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
 - 2. THE BARRIER VEHICLE SHALL BE AN UNOCCUPIED TRUCK WITH THE PARKING BRAKE SET AND WITH THE FRONT WHEELS TURNED AWAY FROM THE TRAVEL LANE.
 - 3. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE BUFFER SPACE OR ROLL AHEAD DISTANCE.

SPEED LIMIT	BUFFER SPACE
45	360' (9 SKIP LINES)
50	425' (~11 SKIP LINES)
55	495' (~13 SKIP LINES)
65	645' (~16 SKIP LINES)

SPEED LIMIT (MPH)	MERGING TAPER LENGTHS BASED ON LANE SHIFT			SHOULDER TAPER FROM 4'-6' SHIFT
	10'	11'	12'	
45	450'	495'	540'	60'-90'
50	500'	550'	600'	70'-100'
55	550'	605'	660'	75'-110'
65	650'	715'	760'	90'-130'





Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
FREEWAY (< 8 FT SHOULDER)
LEFT TWO-LANE CLOSURE
SHORT TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-305

NOT TO SCALE

PARKWAY

NOTES:

1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
2. THE BARRIER VEHICLE SHALL BE AN UNOCCUPIED TRUCK WITH THE PARKING BRAKE SET AND WITH THE FRONT WHEELS TURNED AWAY FROM THE TRAVEL LANE.
3. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE BUFFER SPACE OR ROLL AHEAD DISTANCE.

SPEED LIMIT (MPH)	BUFFER SPACE
50	425' (~11 SKIP LINES)
55	495' (~13 SKIP LINES)
65	645' (~16 SKIP LINES)

SPEED LIMIT (MPH)	MERGING TAPER LENGTHS BASED ON LANE SHIFT			SHOULDER TAPER FROM 4'-6' SHIFT
	10'	11'	12'	
45	450'	495'	540'	60'-90'
50	500'	550'	600'	70'-100'
55	550'	605'	660'	75'-110'
65	650'	715'	760'	90'-130'

END ROAD WORK

G20-2-48X24 IN.

THIS SIGN SHALL BE LOCATED A MAXIMUM DISTANCE OF 500' (12 SKIP LINES) PAST THE WORK AREA.

ROAD WORK 1 MILE

W20-1 48X48 IN.

ROAD WORK 1 MILE

W4-2R 48X48 IN.

18"X18" (MINIMUM) WARNING FLAGS

RIGHT LANE CLOSED 1/2 MILE

W20-5R 48X48 IN.

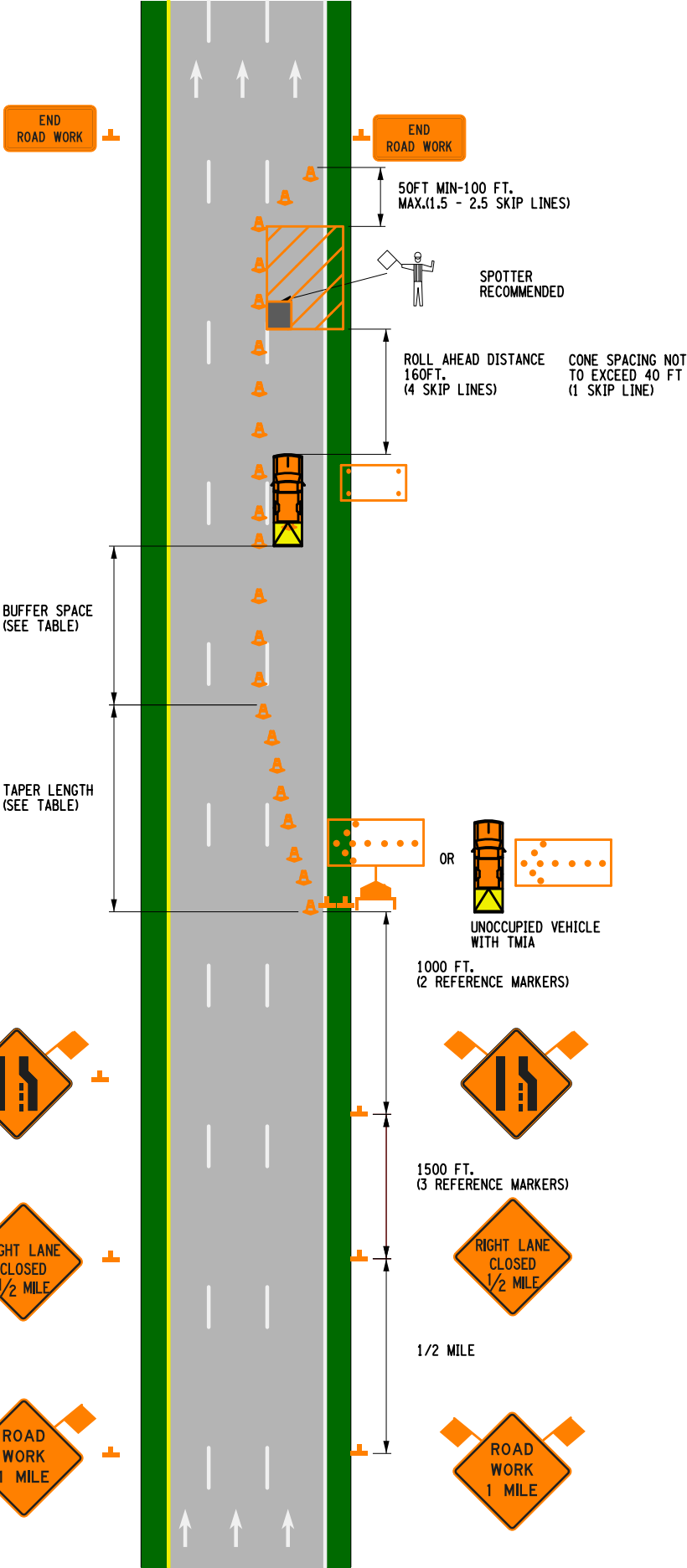
RIGHT LANE CLOSED 1/2 MILE

ARROW PANEL (CAUTION MODE)

BARRIER VEHICLE WITH TMIA

WORK AREA

ADVANCED WARNING VEHICLE (SHALL BE A PROTECTIVE VEHICLE MIN. 24,000 LBS.) WITH TMIA



NOT TO SCALE

NEW YORK

STATE OF OPPORTUNITY.

Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
PARKWAY (< 8 FT SHOULDER)
RIGHT LANE CLOSURE
SHORT TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-306

CONVENTIONAL ROADWAY

- NOTES:
1. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS.
 2. CENTERLINE CONES MAY BE ADDED TO ENHANCE THE VISIBILITY OF THE FLAGGER STATION. IF CONES ARE USED, PLACE THEM 100 FT. (MINIMUM) FROM FLAGGER.
 3. FLAGGER SYMBOL SIGN (W20-7) AND "ONE LANE ROAD AHEAD" SIGN (W20-4) SHALL BE REMOVED, COVERED OR TURNED AWAY FROM ROAD USERS WHEN FLAGGING OPERATIONS ARE NOT OCCURRING.
 4. SHOULD THE TRAFFIC QUEUE PRIOR TO THE ADVANCE WARNING SIGNS, THE "BE PREPARED TO STOP" SIGN CAN BE ADDED TO THE SIGN SERIES AT LOCATION SHOWN OR THE ENTIRE ADVANCE WARNING SIGN SERIES SHALL BE MOVED TO A LOCATION PRIOR TO THE QUEUED TRAFFIC.
 5. IF CONDITION WARRANTS, BARRIER VEHICLE WITH APPROPRIATE ROLL AHEAD DISTANCE MAY BE USED IN ADVANCE OF THE WORK AREA. TO USE BARRIER VEHICLE, BUFFER SPACE SHALL BE PROVIDED ACCORDINGLY.
 6. FOR MOVING FLAGGING OPERATION, REFER TO TAST-CMF.
 7. WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK AREA AND DIRECT VEHICULAR TRAFFIC TO REMAIN IN THE TRAVEL WAY.
 8. WHEN A SIDE ROAD OR DRIVEWAY INTERSECTS THE ROADWAY WITHIN A WORK ZONE TRAFFIC CONTROL AREA, ADDITIONAL TEMPORARY TRAFFIC CONTROL DEVICES AND/OR FLAGGERS SHALL BE PLACED AS NEEDED. ADDITIONAL FLAGGERS SHALL BE LOCATED AT ALL INTERSECTIONS AND COMMERCIAL DRIVEWAYS LOCATED WITHIN OR NEAR THE ACTIVE WORK SPACE. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
 9. TRANSVERSE DEVICES SHALL BE REQUIRED AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.
 11. FLAGGER AND FLAG TREE SHALL BE ILLUMINATED TO LEVEL II ILLUMINATION DURING NIGHTTIME OPERATIONS.
 12. ALL FLAGGERS SHALL USE 24"(MIN.) OCTAGON SHAPED STOP/SLOW PADDLES HAVING 6' STAFF.

TABLE 1 : ADVANCE WARNING SIGN SPACING				
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS		
		A (FT.)	B (FT.)	C (FT.)
URBAN LOW (≤30 MPH)	30	100	100	100
URBAN (35-40 MPH)	35	200	200	200
	40			
URBAN HIGH (≥45 MPH)	45	350	350	350
RURAL		500	500	500

TABLE 2	
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT.
25	155 (~4 Skip Lines)
30	200 (~5 Skip Lines)
35	250 (~6 Skip Lines)
40	305 (~8 Skip Lines)
45	360 (~9 Skip Lines)
50	425 (~11 Skip Lines)
55	495 (~13 Skip Lines)

TABLE 3: REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/EXPRESSWAY
W20-7	36X36 IN.	48X48 IN.
W20-1	36X36 IN.	48X48 IN.
W20-4	36X36 IN.	48X48 IN.
W3-4	36X36 IN.	48X48 IN.
G20-2	36X18 IN.	48X24 IN.

*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST.



Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

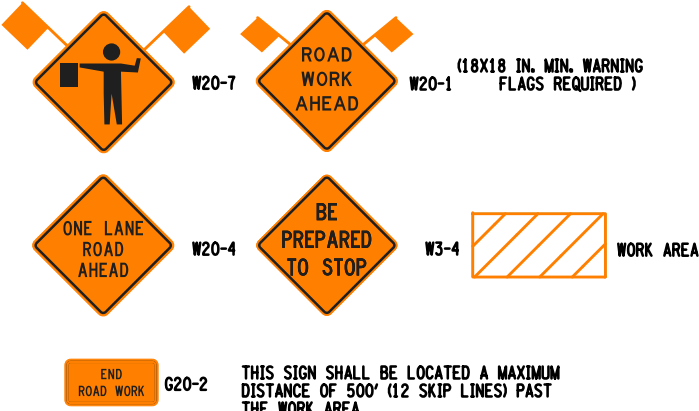
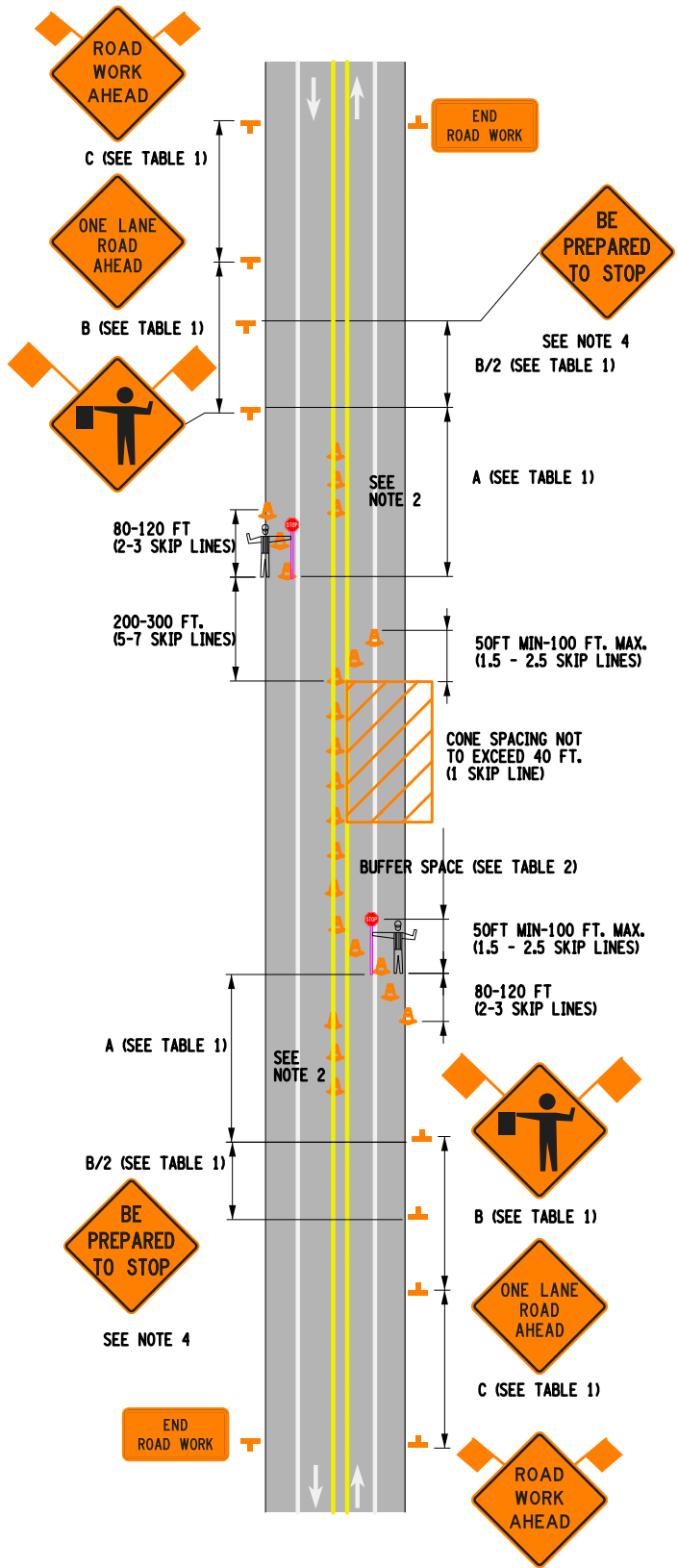
WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
LANE CLOSURE WITH FLAGGERS
SHORT TERM OPERATIONS

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-307



NOT TO SCALE

CONVENTIONAL ROADWAY

NOTES:

1.

IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS.
2.

CENTERLINE CONES MAY BE ADDED TO ENHANCE THE VISIBILITY OF THE FLAGGER STATION. IF CONES ARE USED, PLACE THEM 100 FT. (MINIMUM) FROM FLAGGER.
3.

FLAGGER SYMBOL SIGN (W20-7) AND "ONE LANE ROAD AHEAD" SIGN (W20-4) SHALL BE REMOVED, COVERED OR TURNED AWAY FROM ROAD USERS WHEN FLAGGING OPERATIONS ARE NOT OCCURRING.
4.

SHOULD THE TRAFFIC QUEUE PRIOR TO THE ADVANCE WARNING SIGNS, THE "BE PREPARED TO STOP" SIGN CAN BE ADDED TO THE SIGN SERIES AT LOCATION SHOWN OR THE ENTIRE ADVANCE WARNING SIGN SERIES SHALL BE MOVED TO A LOCATION PRIOR TO THE QUEUED TRAFFIC.
5.

IF CONDITION WARRANTS, BARRIER VEHICLE WITH APPROPRIATE ROLL AHEAD DISTANCE MAY BE USED IN ADVANCE OF THE WORK AREA. TO USE BARRIER VEHICLE, BUFFER SPACE SHALL BE PROVIDED ACCORDINGLY.

TABLE 1 : ADVANCE WARNING SIGN SPACING				
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS		
		A (FT.)	B (FT.)	C (FT.)
URBAN LOW (≤ 30 MPH)	30	100	100	100
URBAN (35-40 MPH)	35	200	200	200
	40			
URBAN HIGH (≥ 45 MPH)	45	350	350	350
RURAL		500	500	500

TABLE 2	
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT.
25	155 (~4 Skip Lines)
30	200 (~5 Skip Lines)
35	250 (~6 Skip Lines)
40	305 (~8 Skip Lines)
45	360 (~9 Skip Lines)
50	425 (~11 Skip Lines)
55	495 (~13 Skip Lines)

TABLE 3: REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/EXPRESSWAY
W20-7	36X36 IN.	48X48 IN.
W20-1	36X36 IN.	48X48 IN.
W20-4	36X36 IN.	48X48 IN.
W3-4	36X36 IN.	48X48 IN.
G20-2	36X18 IN.	48X24 IN.
*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST.		



Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

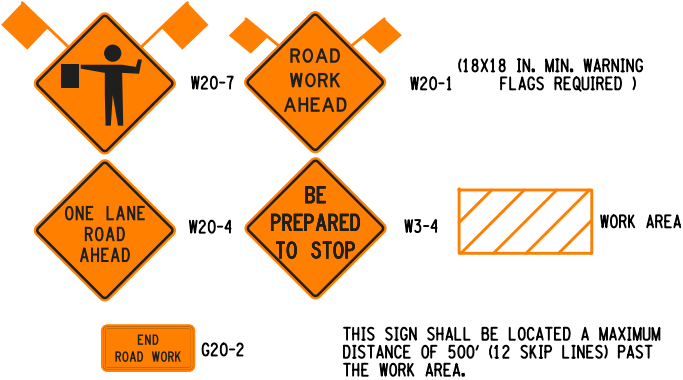
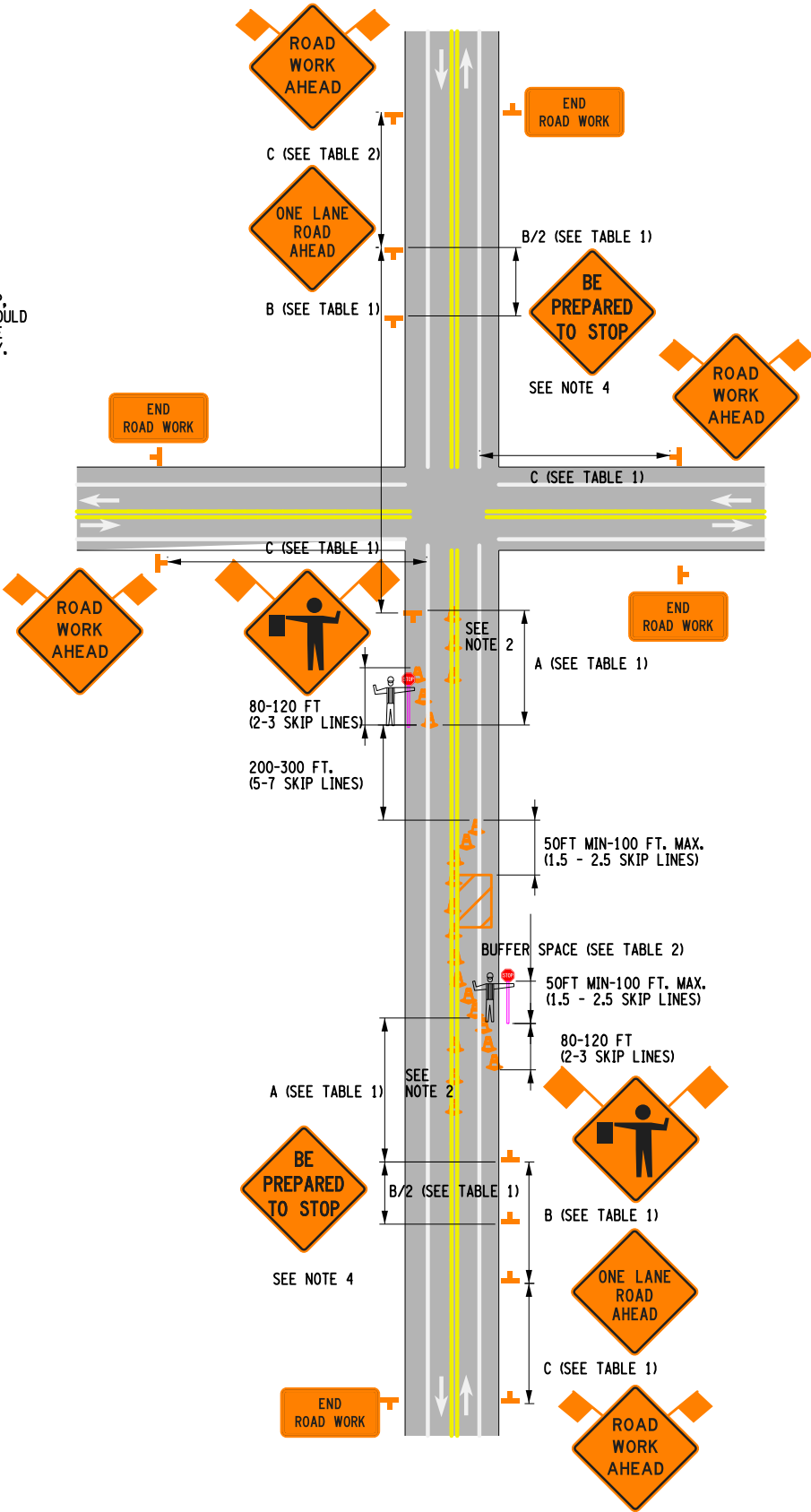
WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
LANE CLOSURE WITH FLAGGERS PRIOR
TO INTERSECTION
SHORT TERM

APPROVED XXXXXXXX XX, 20XX

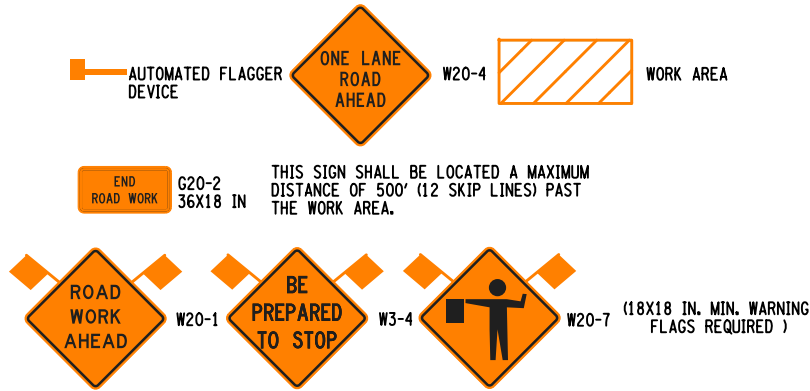
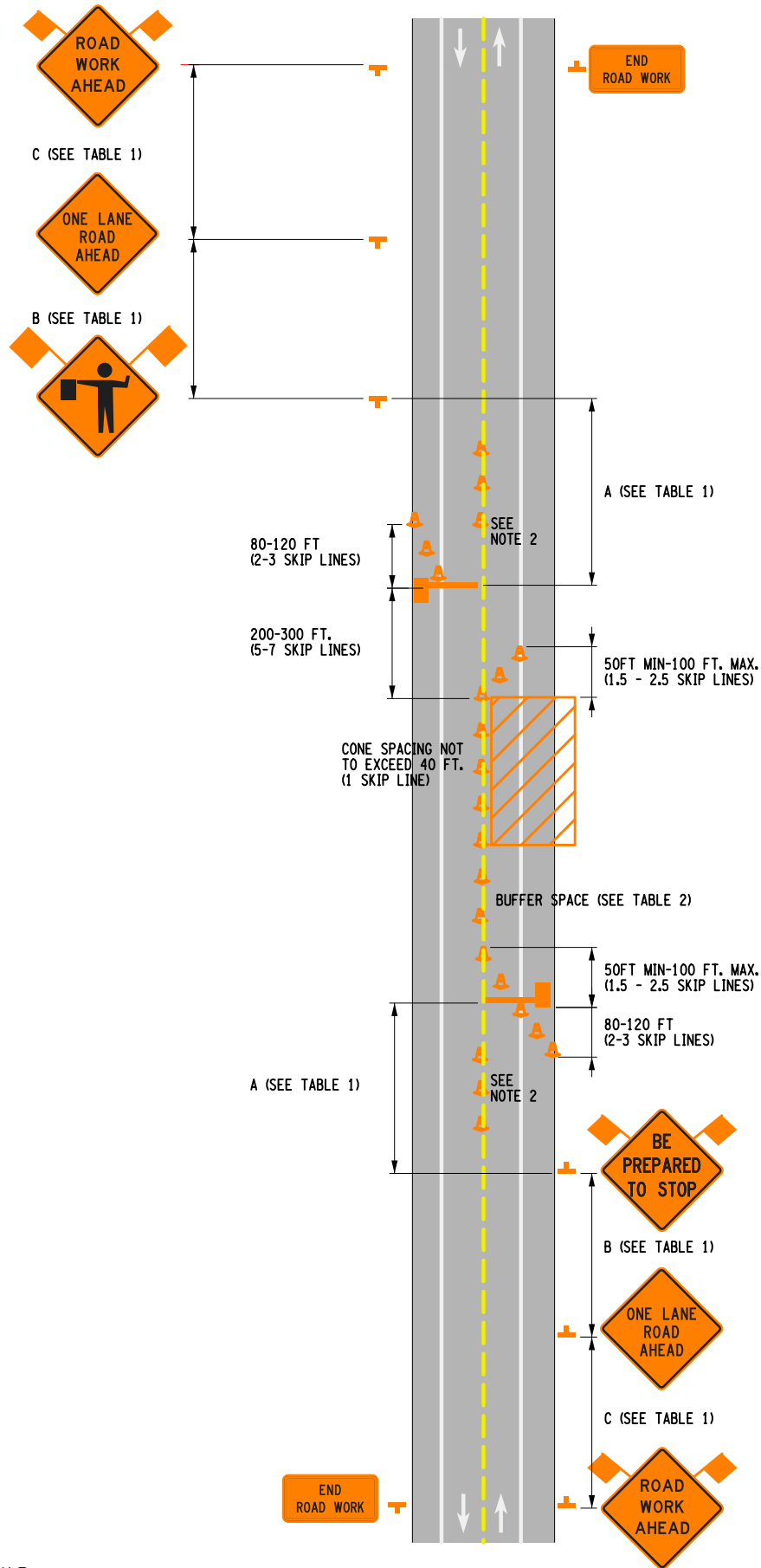
ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-308



NOT TO SCALE



CONVENTIONAL ROADWAY

NOTES:

- IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS.
- THIS TYPICAL APPLICATION SHALL BE USED WITH BOTH RED/YELLOW LENS AUTOMATED FLAGGER ASSISTANCE DEVICES (AFAD) AND STOP/SLOW AFADS.
- AFADS SHALL ONLY BE USED IN SITUATIONS WHERE THERE IS ONLY ONE LANE OF APPROACHING TRAFFIC IN THE DIRECTION TO BE CONTROLLED.
- THE OPERATOR OF THE AFAD SHALL:
 - BE TRAINED ON THE OPERATION OF THE MODEL AFAD THEY ARE USING,
 - HAVE AN UNOBSTRUCTED VIEW OF THE AFAD,
 - HAVE AN UNOBSTRUCTED VIEW OF APPROACHING TRAFFIC IN BOTH DIRECTIONS, AND
 - NOT LEAVE THE AFAD(S) UNATTENDED AT ANY TIME WHILE THE AFAD(S) IS BEING USED.
- THE AFAD SHALL BE PLACED ON THE SHOULDER ADJACENT TO THE TRAVEL LANE ENSURING THAT THE GATE ARM REACHES AT LEAST TO THE CENTER OF THE LANE BEING CONTROLLED.
- CONES/DRUMS MAY BE PLACED ON THE SHOULDER AND/OR CENTERLINE TO ASSIST/GUIDE ROAD USERS WITH PROPER LANE POSITION/ALIGNMENT.
- THE OPERATOR OF THE AFAD SHALL NOT DISPLAY THE AFAD'S SLOW FACE OR YELLOW LENS PHASE UNTIL ALL ONCOMING VEHICLES HAVE CLEARED THE ONE-LANE PORTION OF THE WORK ZONE.
- THE OPERATOR OF THE AFAD SHALL MAINTAIN VERBAL AND/OR VISUAL (IN THE ABSENCE OF TWO-WAY RADIOS) CONTACT WITH THE FLAGGER.
- "FLAGGER SYMBOL SIGN" (W20-7), "BE PREPARED TO STOP" SIGN (W3-4) AND "ONE LANE ROAD AHEAD" SIGN (W20-4) SHALL BE REMOVED, COVERED OR TURNED AWAY FROM ROAD USERS WHEN FLAGGING OPERATIONS ARE NOT OCCURRING.
- APPROPRIATE FLAGGEAR TOOLS (STOP/SLOW PADDLE, RED FLAG, HIGH VISIBILITY APPAREL, ETC.) SHALL BE ON-SITE, AVAILABLE AND READY TO USE IN THE EVENT OF AN AFAD MALFUNCTION OR TRAFFIC VOLUMES EXCEED THE CAPABILITY OF THE AFAD TO EFFECTIVELY CONTROL TRAFFIC.

TABLE 1 : ADVANCE WARNING SIGN SPACING				
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS		
		A (FT.)	B (FT.)	C (FT.)
URBAN LOW (≤ 30 MPH)	30	100	100	100
URBAN (35-40 MPH)	35	200	200	200
	40			
URBAN HIGH (≥ 45 MPH)	45	350	350	350
RURAL		500	500	500

TABLE 2	
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT.
25	155 (~4 Skip Lines)
30	200 (~5 Skip Lines)
35	250 (~6 Skip Lines)
40	305 (~8 Skip Lines)
45	360 (~9 Skip Lines)
50	425 (~11 Skip Lines)
55	495 (~13 Skip Lines)

TABLE 3: REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/EXPRESSWAY
W20-7	36X36 IN.	48X48 IN.
W20-1	36X36 IN.	48X48 IN.
W20-4	36X36 IN.	48X48 IN.
W3-4	36X36 IN.	48X48 IN.
G20-2	36X18 IN.	48X24 IN.

*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST.



Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
LANE CLOSURE WITH (1) AUTOMATED FLAGGER ASSISTANCE DEVICE AND (1) FLAGGER
SHORT TERM OPERATION (SHEET 1 OF 2)

APPROVED XXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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(XXXXXX)

619-309

NOT TO SCALE

CONVENTIONAL ROADWAY

NOTES:

- 1. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMODATE SIDE STREETS AND DRIVEWAYS.
- 2. THIS TYPICAL APPLICATION SHALL BE USED WITH BOTH RED/YELLOW LENS AUTOMATED FLAGGER ASSISTANCE DEVICES (AFAD) AND STOP/SLOW AFADS.
- 3. AFADS SHALL ONLY BE USED IN SITUATIONS WHERE THERE IS ONLY ONE LANE OF APPROACHING TRAFFIC IN THE DIRECTION TO BE CONTROLLED.
- 4. THE OPERATOR OF THE AFAD SHALL:
 - A. BE TRAINED ON THE OPERATION OF THE MODEL AFAD THEY ARE USING,
 - B. HAVE AN UNOBSTRUCTED VIEW OF THE AFAD,
 - C. HAVE AN UNOBSTRUCTED VIEW OF APPROACHING TRAFFIC IN BOTH DIRECTIONS, AND
 - D. NOT LEAVE THE AFAD(S) UNATTENDED AT ANY TIME WHILE THE AFAD(S) IS BEING USED.
- 5. THE AFAD SHALL BE PLACED ON THE SHOULDER ADJACENT TO THE TRAVEL LANE ENSURING THAT THE GATE ARM REACHES AT LEAST TO THE CENTER OF THE LANE BEING CONTROLLED.
- 6. CONES/DRUMS MAY BE PLACED ON THE SHOULDER AND/OR CENTERLINE TO ASSIST/GUIDE ROAD USERS WITH PROPER LANE POSITION/ALIGNMENT.
- 7. THE OPERATOR OF THE AFAD SHALL NOT DISPLAY THE AFAD'S SLOW FACE OR YELLOW LENS PHASE UNTIL ALL ONCOMING VEHICLES HAVE CLEARED THE ONE-LANE PORTION OF THE WORK ZONE.
- 8. "BE PREPARED TO STOP" SIGN (W3-4) AND "ONE LANE ROAD AHEAD" SIGN (W20-4) SHALL BE REMOVED, COVERED OR TURNED AWAY FROM ROAD USERS WHEN FLAGGING OPERATIONS ARE NOT OCCURRING.
- 9. APPROPRIATE FLAGGER TOOLS (STOP/SLOW PADDLE, RED FLAG, HIGH VISIBILITY APPAREL, ETC.) SHALL BE ON-SITE, AVAILABLE AND READY TO USE IN THE EVENT OF AN AFAD MALFUNCTION OR TRAFFIC VOLUMES EXCEED THE CAPABILITY OF THE AFAD TO EFFECTIVELY CONTROL TRAFFIC.

TABLE 1 : ADVANCE WARNING SIGN SPACING

ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS		
		A (FT.)	B (FT.)	C (FT.)
URBAN LOW (≤ 30 MPH)	30	100	100	100
URBAN (35-40 MPH)	35	200	200	200
	40			
URBAN HIGH (≥ 45 MPH)	45	350	350	350
RURAL		500	500	500

TABLE 2

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT.
25	155 (~4 Skip Lines)
30	200 (~5 Skip Lines)
35	250 (~6 Skip Lines)
40	305 (~8 Skip Lines)
45	360 (~9 Skip Lines)
50	425 (~11 Skip Lines)
55	495 (~13 Skip Lines)

TABLE 3: REQUIRED SIGN SIZES*

SIGN	CONVENTIONAL HIGHWAY	FREEWAY/EXPRESSWAY
W20-7	36X36 IN.	48X48 IN.
W20-1	36X36 IN.	48X48 IN.
W20-4	36X36 IN.	48X48 IN.
W3-4	36X18 IN.	48X48 IN.
G20-2	36X18 IN.	48X24 IN.

*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS



Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

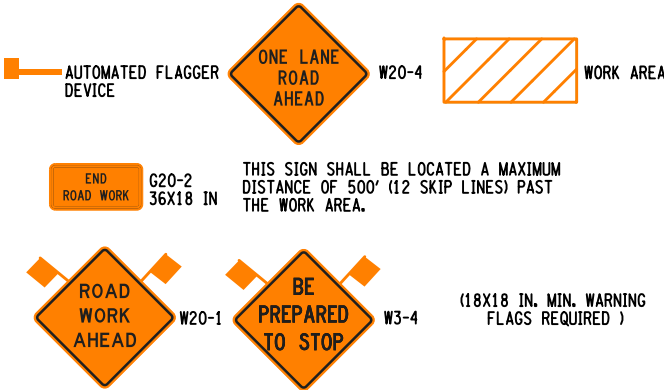
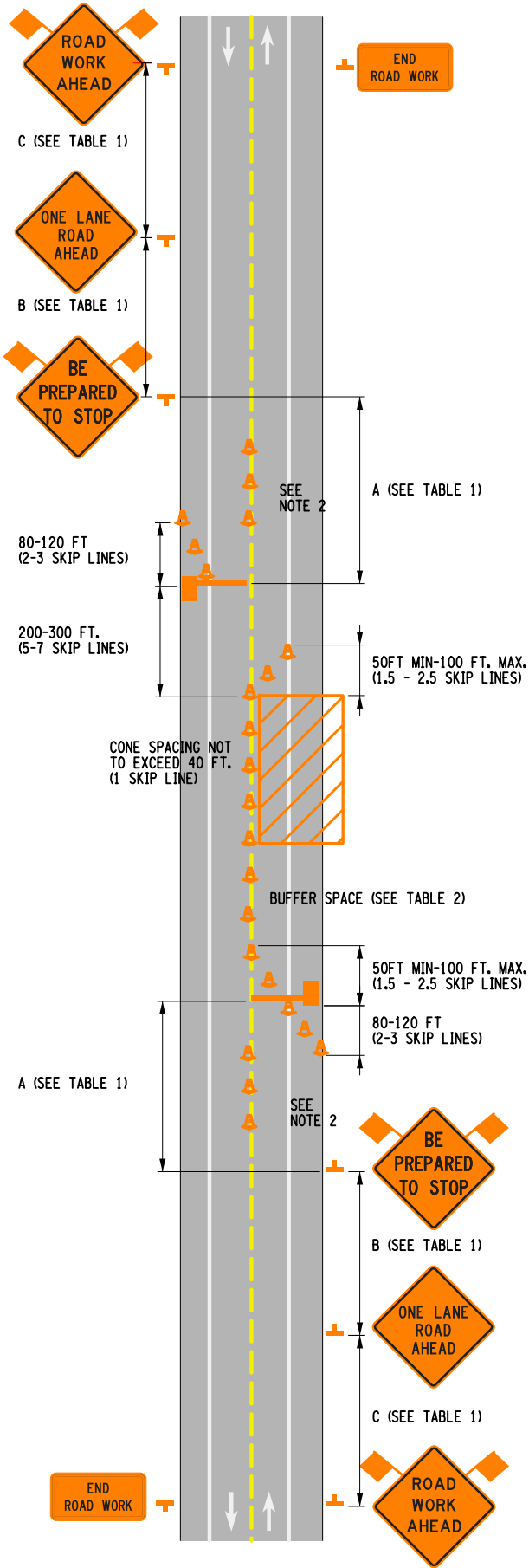
WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
LANE CLOSURE WITH (2) AUTOMATED FLAGGER ASSISTANCE DEVICES
SHORT TERM OPERATION (SHEET 2 OF 2)

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-309



NOT TO SCALE

CONVENTIONAL ROADWAY


NOTES:

1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
2. THE BARRIER VEHICLE SHALL BE AN UNOCCUPIED TRUCK, WITH THE PARKING BRAKE SET AND WITH THE FRONT WHEELS TURNED AWAY FROM THE TRAVEL LANE.
3. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD DISTANCE.
4. WHEN THE MINIMUM LANE WIDTH OF 10' CANNOT BE MAINTAINED DUE TO A SHOULDER CLOSURE, USE THE DETAIL FOR SHORT TERM STATIONARY FLAGGING OPERATION.
5. WHEN THE DISTANCE BETWEEN THE ADVANCE WARNING AND WORK IS 2 MILES TO 5 MILES, A SUPPLEMENTAL DISTANCE PLAQUE (W7-3a) SHOULD BE USED WITH THE SHOULDER WORK SIGN (W21-5).
6. THE ROAD WORK NEXT XX MILES SIGN (WG20-1) MAY BE USED INSTEAD OF THE ROAD WORK AHEAD SIGN (W20-1) IF THE LOCATIONS OCCUR OVER A DISTANCE OF MORE THAN 2 MILES.
7. IN THOSE SITUATIONS WHERE MULTIPLE WORK LOCATIONS EXIST WITHIN A LIMITED DISTANCE MAKE IT PRACTICAL TO PLACE STAIONARY SIGNS, THE DISTANCE BETWEEN THE ADVANCE WARNING SIGN AND WORK SHALL NOT EXCEED 5 MILES.
8. TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.

TABLE 1 : ADVANCE WARNING SIGN SPACING			
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS	
		A (FT.)	B (FT.)
URBAN LOW (≤30 MPH)	30	100	100
URBAN (35-40 MPH)	35	200	200
	40		
URBAN HIGH (≥45 MPH)	45	350	350
RURAL		500	500

TABLE 2					
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT.	ROLL AHEAD DISTANCE IN FT.		SHOULDER TAPER:L/3 (IN FT.) /*SKIP LINES/*OF CONES	
		MIN	MAX	FOR SHOULDER WIDTH	
				LESS THAN 8FT. (MIN - MAX)	8 FT. OR WIDER
25	155 (~4 Skip Lines)	50	100	20/1/2 - 40/1/2	40/1/2
30	200 (~5 Skip Lines)			20/1/2 - 40/1/2	40/1/2
35	250 (~6 Skip Lines)			40/1/2 - 60/2/3	80/2/3
40	305 (~8 Skip Lines)			40/1/2 - 60/2/3	80/2/3
45	360 (~9 Skip Lines)	75	150	60/2/3 - 100/3/4	120/3/4
50	425 (~11 Skip Lines)			80/2/3 - 100/3/4	140/4/5
55	495 (~13 Skip Lines)			80/2/3 - 120/3/4	160/4/5

TABLE 3: REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/EXPRESSWAY
W20-1	36X36 IN.	48X48 IN.
W21-5	36X36 IN.	48X48 IN.
G20-2	36X18 IN.	48X24 IN.
*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST.		



NEW YORK
STATE OF
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Department of
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U.S. CUSTOMARY STANDARD SHEET

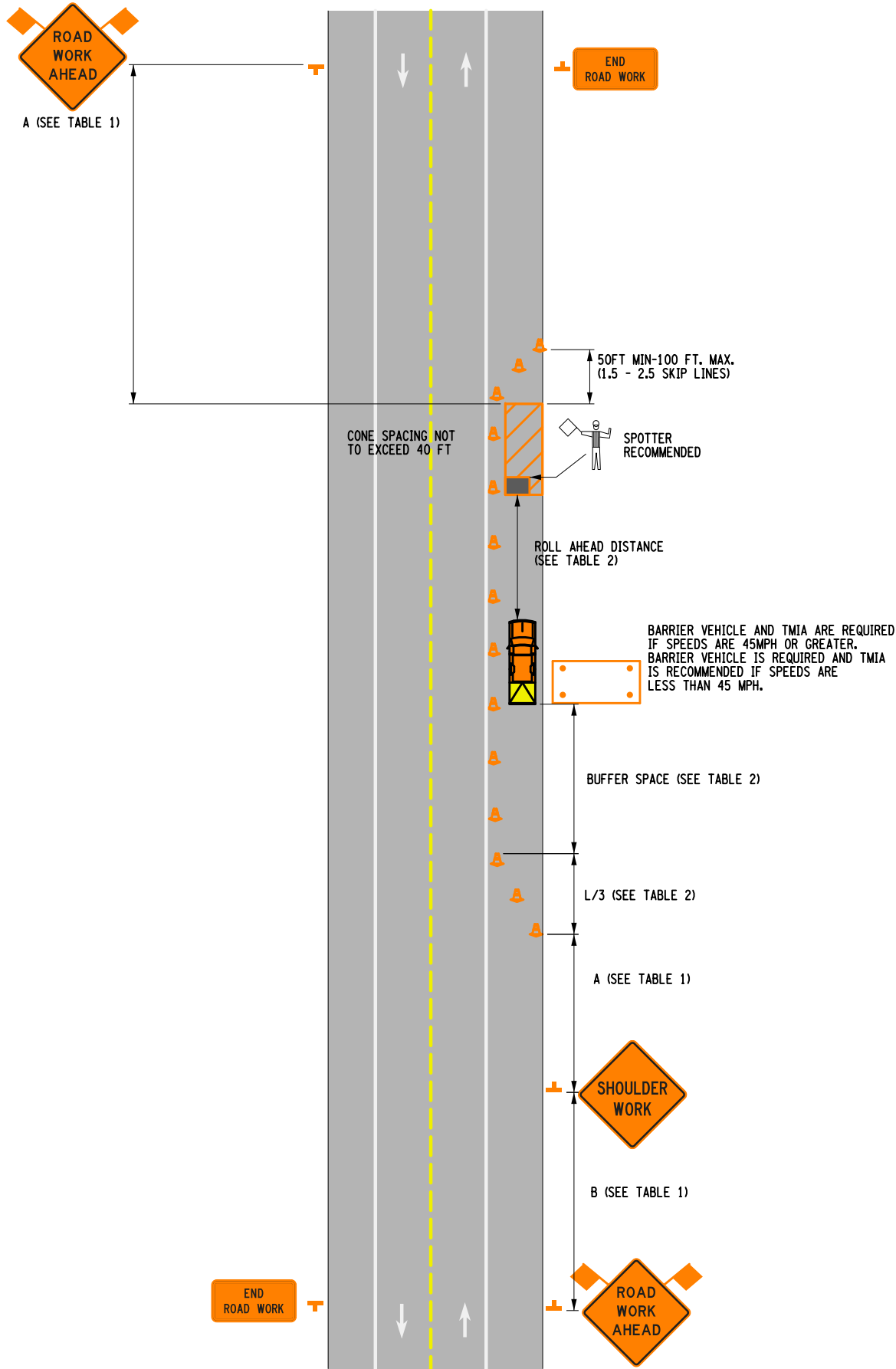
WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
SHOULDER CLOSURE WITH NO LANE
ENCROACHMENT

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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(XXXXXX)

619-310



END ROAD WORK

G20-2

THIS SIGN SHALL BE LOCATED A MAXIMUM DISTANCE OF 500' (12 SKIP LINES) PAST THE WORK AREA.

ROAD WORK AHEAD

W20-1

(18X18 IN. MIN. WARNING FLAGS REQUIRED)

SHOULDER WORK

W21-5

WORK AREA

ARROW PANEL (CAUTION MODE)

BARRIER VEHICLE WITH TMIA

NEXT XX MILES

W7-3a (SEE NOTE 5)

ROAD WORK NEXT X MILES

G20-1 (SEE NOTE 6 AND 7)

CONVENTIONAL ROADWAY

NOTES:

1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
2. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACINGS MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS.
3. THE BARRIER VEHICLE (AND ADVANCE WARNING VEHICLE(S) WHERE APPROPRIATE) SHALL MAINTAIN THE APPROPRIATE ROLL-AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK, POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (PARK / NEUTRAL), HAVE THE WHEELS ALIGNED WITH THE LANE STRIPING AND LANE TO MAINTAIN LANE DISCIPLINE AND TO STAY IN LANE IF STRUCK.
4. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD DISTANCE.

TABLE 1 : ADVANCE WARNING SIGN SPACING

ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS		
		A (FT.)	B (FT.)	C (FT.)
URBAN LOW (≤30 MPH)	30	100	100	100
URBAN (35-40 MPH)	35 40	200	200	200
URBAN HIGH (≥45 MPH)	45	350	350	350
RURAL		500	500	500

TABLE 2

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT.	ROLL AHEAD DISTANCE IN FT.		LANE TAPER L (IN FT.) /*SKIP LINES/*OF CONES			SHOULDER TAPER:L/3(IN FT.) /*SKIP LINES/*OF CONES
		MIN	MAX	FOR LANE WIDTH			FOR SHOULDER WIDTH
				10 FT	11 FT	12 FT	LESS THAN 8FT. (MIN - MAX)
25	155 (~4 Skip Lines)	50	100	120/3/4	120/3/4	140/3/5	20/1/2 - 40/1/2
30	200 (~5 Skip Lines)			160/4/5	180/5/6	180/5/6	20/1/2 - 40/1/2
35	250 (~6 Skip Lines)			220/6/7	240/6/7	260/7/8	40/1/2 - 60/2/3
40	305 (~8 Skip Lines)			280/7/8	300/8/9	320/8/9	40/1/2 - 60/2/3
45	360 (~9 Skip Lines)	75	150	460/12/12	500/13/13	540/14/14	60/2/3 - 100/3/4
50	425 (~11 Skip Lines)			500/13/14	560/14/15	600/15/16	80/2/3 - 100/3/4
55	495 (~13 Skip Lines)			560/14/15	620/16/17	660/17/18	80/2/3 - 120/3/4

TABLE 3: REQUIRED SIGN SIZES*

SIGN	CONVENTIONAL HIGHWAY	FREEWAY/EXPRESSWAY
W20-1	36X36 IN.	48X48 IN.
W20-5R	36X36 IN.	48X48 IN.
W4-2R	36X36 IN.	48X48 IN.
NYW8-33	48X24 IN.	48X24 IN.
G20-2	36X18 IN.	48X24 IN.

*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST.



Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

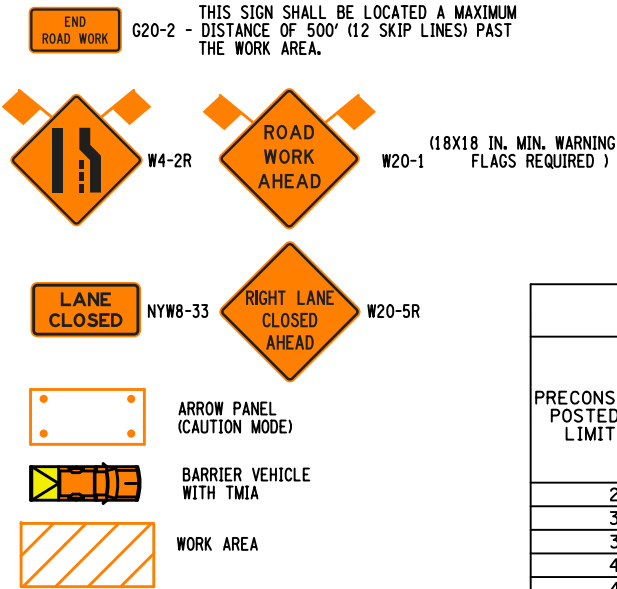
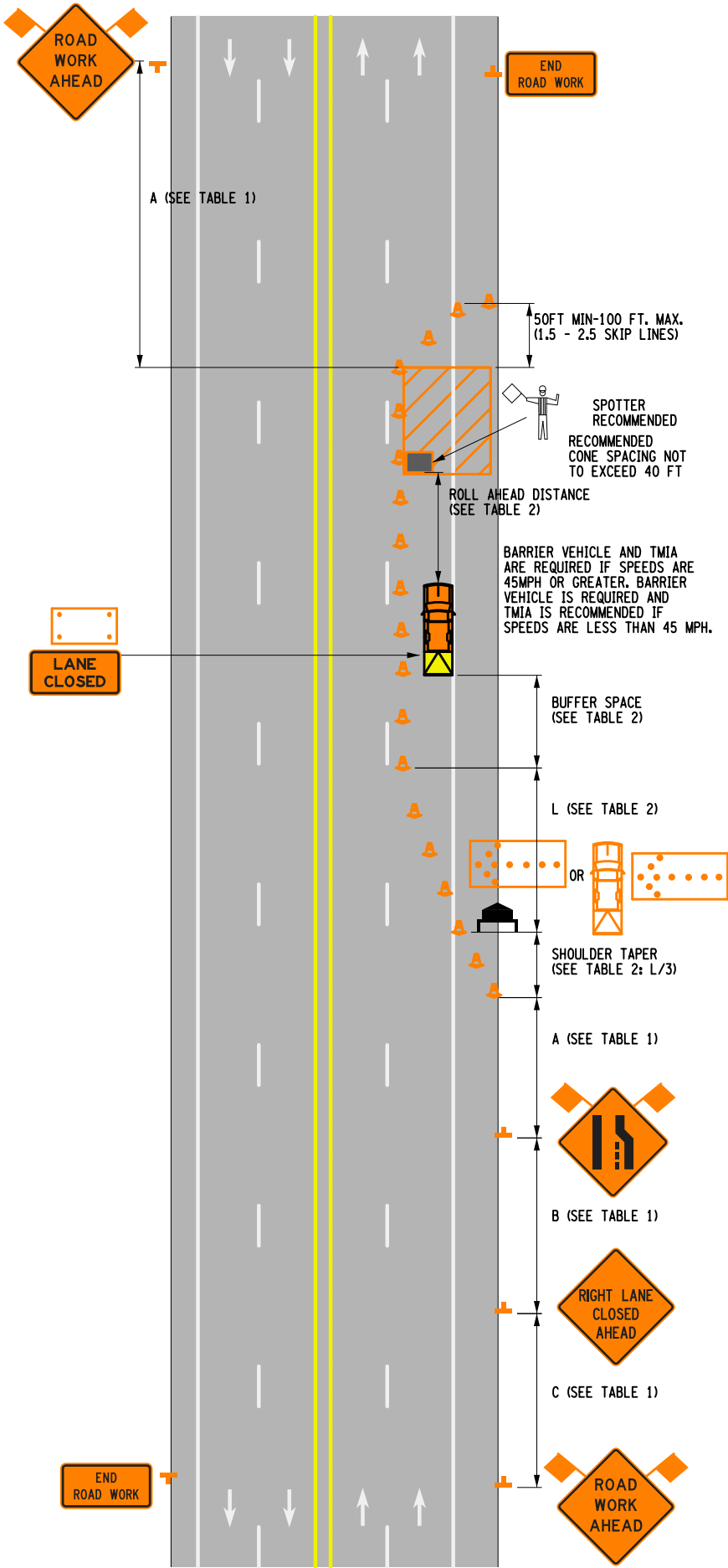
WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY (LOW SPEED URBAN)
RIGHT LANE CLOSURE
SHORT TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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(XXXXXX)

619-311



NOT TO SCALE

CONVENTIONAL ROADWAY

NOTES:

1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
2. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACING MAY BE ADJUSTED IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD DISTANCE.
3. THE BARRIER VEHICLE (AND ADVANCE WARNING VEHICLE(S) WHERE APPROPRIATE) SHALL MAINTAIN THE APPROPRIATE ROLL-AHEAD DISTANCE, BE AN UNOCCUPIED TRUCK, POSITIONED PARALLEL TO TRAFFIC, PARKING BRAKE SET, PLACED IN 2ND GEAR (PARK / NEUTRAL), HAVE THE WHEELS ALIGNED WITH THE LANE STRIPING AND LANE TO MAINTAIN LANE DISCIPLINE AND TO STAY IN LANE IF STRUCK.
4. IF USING BOTH A BARRIER VEHICLE AND A BUFFER SPACE, FIRST PLACE THE BARRIER VEHICLE AT THE REQUIRED ROLL- AHEAD DISTANCE FROM THE WORK AREA, AND THEN PROVIDE AS MUCH BUFFER SPACE AS PRACTICAL.
5. DEPENDING UPON THE ACTIVITY BEING PERFORMED AND THE WORK SPACE NEEDED FOR THE OPERATION, CLOSING ADJACENT LANE SHOULD BE CONSIDERED.
6. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
7. TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.

TABLE 1 : ADVANCE WARNING SIGN SPACING			
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS	
		A (FT.)	B (FT.)
URBAN LOW (≤ 30 MPH)	30	100	100
URBAN (35-40 MPH)	35	200	200
	40		
URBAN HIGH (≥ 45 MPH)	45	350	350
RURAL		500	500

TABLE 2						
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT.	ROLL AHEAD DISTANCE IN FT		LANE TAPER :L(IN FT.) /*SKIP LINES/*OF CONES		
		MIN	MAX	FOR LANE WIDTH		
				10 FT	11 FT	12 FT
25	155 (~4 Skip Lines)	50	100	120/3/4	120/3/4	140/3/5
30	200 (~5 Skip Lines)			160/4/5	180/5/6	180/5/6
35	250 (~6 Skip Lines)			220/6/7	240/6/7	260/7/8
40	305 (~8 Skip Lines)			280/7/8	300/8/9	320/8/9
45	360 (~9 Skip Lines)	75	150	460/12/12	500/13/13	540/14/14
50	425 (~11 Skip Lines)			500/13/14	560/14/15	600/15/16
55	495 (~13 Skip Lines)			560/14/15	620/16/17	660/17/18

TABLE 3: REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/EXPRESSWAY
W20-1	36X36 IN.	48X48 IN.
W9-3	36X36 IN.	48X48 IN.
R4-7	24X30 IN.	36X48 IN.
G20-2	36X18 IN.	48X24 IN.
*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST.		



Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

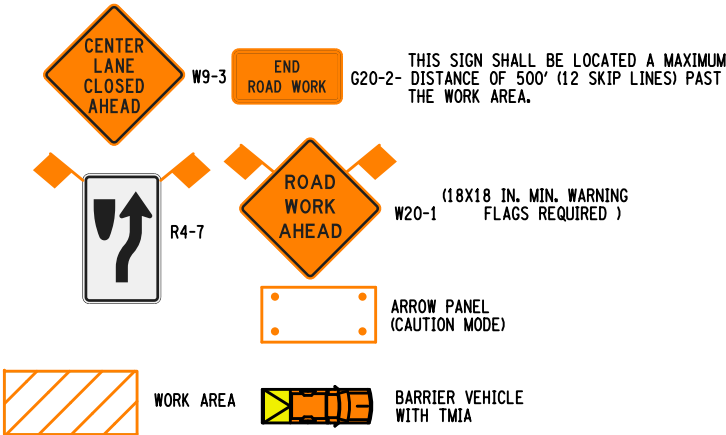
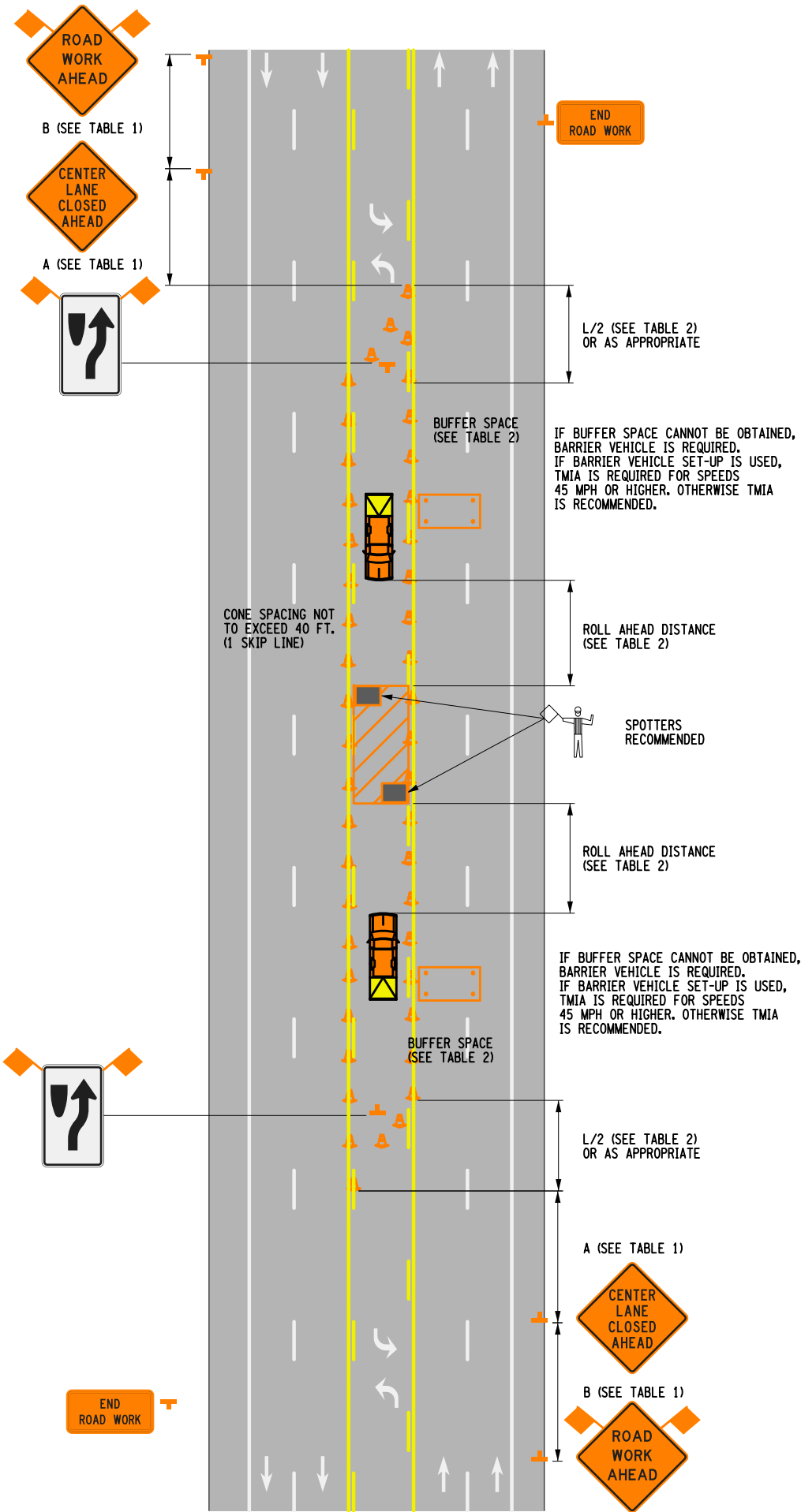
WORK ZONE TRAFFIC CONTROL
MULTI-LANE UNDIVIDED ROADWAY
CENTER TURN LANE CLOSURE
SHORT TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-312



NOT TO SCALE

CONVENTIONAL ROADWAY

NOTES:

1. SHORT-TERM STATIONARY IS DAYTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR WITHIN A SINGLE DAYLIGHT PERIOD.
2. IN URBAN CONDITIONS, ADVANCE WARNING SIGN SPACING MAY BE REDUCED TO A 100 FT. (MIN.) IN ORDER TO ACCOMMODATE SIDE STREETS AND DRIVEWAYS.
3. THERE SHALL BE NO WORKERS, EQUIPMENT OR OTHER VEHICLES IN THE BUFFER SPACE OR THE ROLL AHEAD DISTANCE.
4. THE BARRIER VEHICLE SHALL BE AN UNOCCUPIED TRUCK, WITH THE PARKING BRAKE SET AND WITH THE FRONT WHEELS TURNED AWAY FROM THE TRAVEL LANE.
5. BARRIER VEHICLE AND TMIA ARE REQUIRED IF SPEEDS ARE 45 MPH OR HIGHER. BARRIER VEHICLE IS REQUIRED AND TMIA IS RECOMMENDED IF SPEEDS ARE LESS THAN 45 MPH.
6. SIDE ROAD TRAFFIC CONTROL MAY BE MODIFIED DEPENDING ON AVAILABLE SITE DISTANCE.

TABLE 1 : ADVANCE WARNING SIGN SPACING				
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS		
		A (FT.)	B (FT.)	C (FT.)
URBAN LOW (≤30 MPH)	30	100	100	100
URBAN (35-40 MPH)	35	200	200	200
	40			
URBAN HIGH (≥45 MPH)	45	350	350	350
RURAL		500	500	500

TABLE 2							
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT	ROLL AHEAD DISTANCE IN FT		LANE TAPER L (IN FT.) / *SKIP LINES/*OF CONES			SHOULDER TAPER L/3 (IN FT.) / *SKIP LINES/*OF CONES
		MIN	MAX	FOR LANE WIDTH			FOR SHOULDER WIDTH
				10 FT	11 FT	12 FT	LESS THAN 8FT. (MIN - MAX)
25	155 (~4 Skip Lines)	50	100	120/3/4	120/3/4	140/3/5	20/1/2 - 40/1/2
30	200 (~5 Skip Lines)			160/4/5	180/5/6	180/5/6	20/1/2 - 40/1/2
35	250 (~6 Skip Lines)			220/6/7	240/6/7	260/7/8	40/1/2 - 60/2/3
40	305 (~8 Skip Lines)			280/7/8	300/8/9	320/8/9	40/1/2 - 60/2/3
45	360 (~9 Skip Lines)	75	150	460/12/12	500/13/13	540/14/14	60/2/3 - 100/3/4
50	425 (~11 Skip Lines)			500/13/14	560/14/15	600/15/16	80/2/3 - 100/3/4
55	495 (~13 Skip Lines)			560/14/15	620/16/17	660/17/18	80/2/3 - 120/3/4

TABLE 3: REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/EXPRESSWAY
W20-1	36X36 IN.	48X48 IN.
W20-5R	36X36 IN.	48X48 IN.
W4-2R	36X36 IN.	48X48 IN.
G20-2	36X18 IN.	48X24 IN.
NYW8-33	48X24 IN.	48X24 IN.
*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST.		



Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

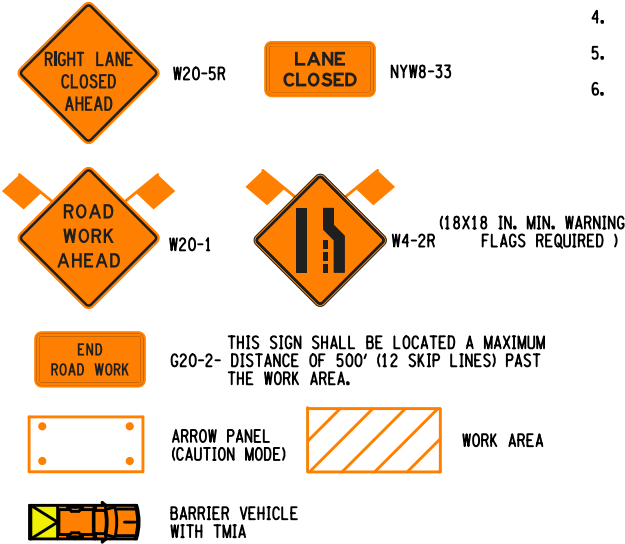
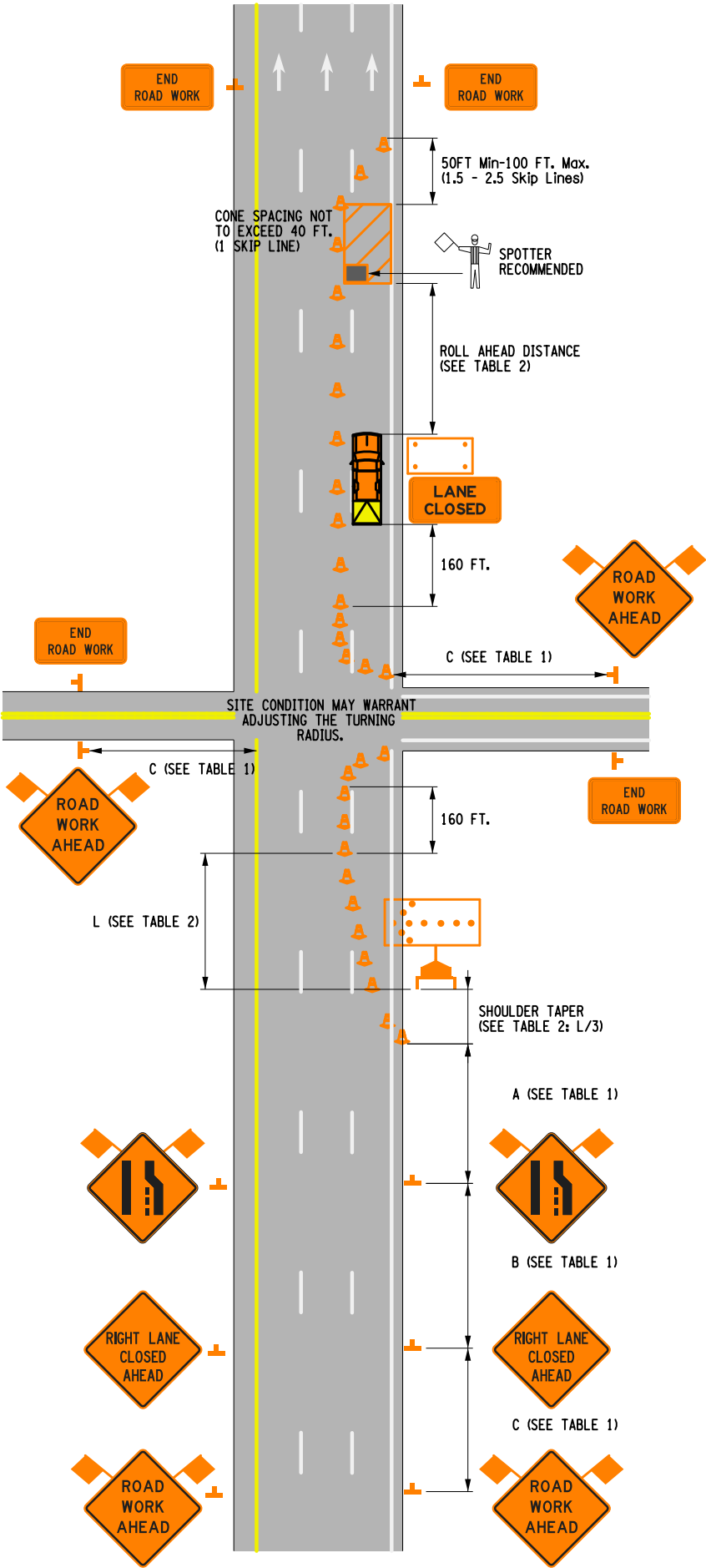
WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
RIGHT LANE CLOSURE THROUGH INTERSECTION
SHORT TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

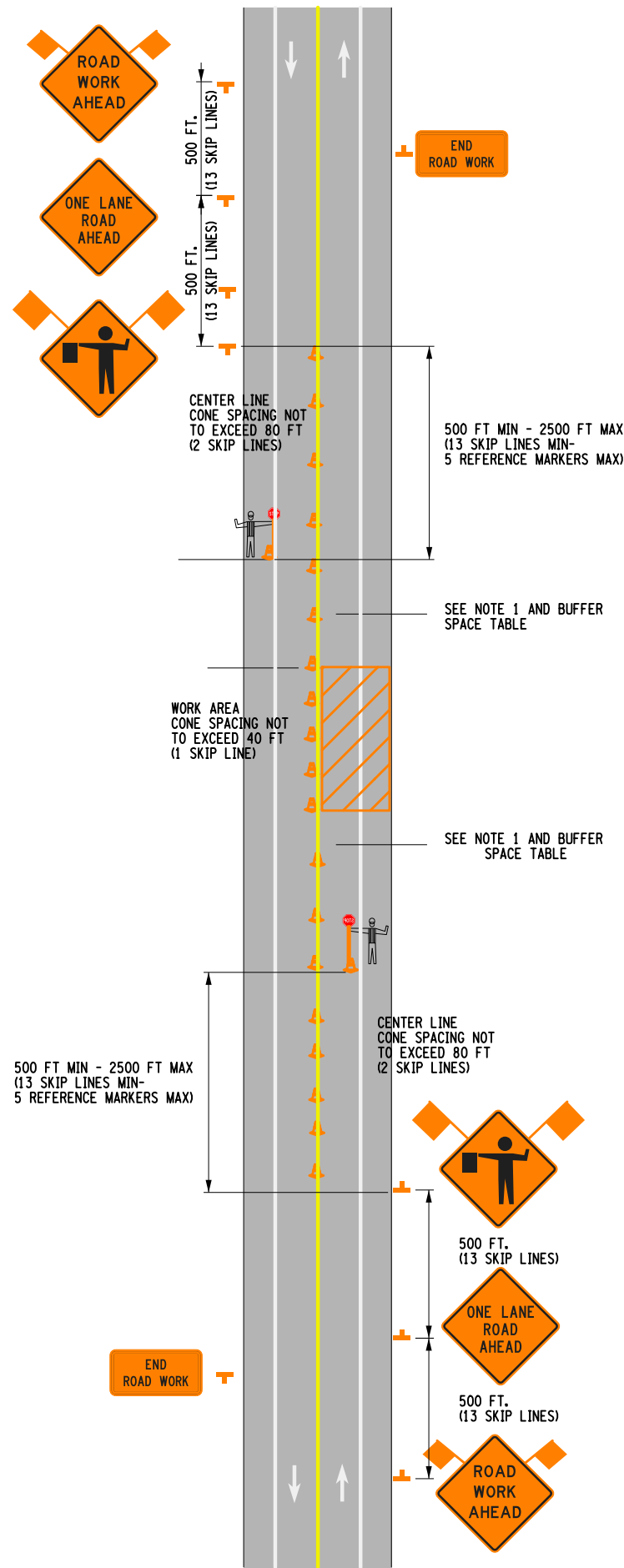
ISSUED UNDER EB XX-XXX

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(XXXXXX)

619-313



NOT TO SCALE

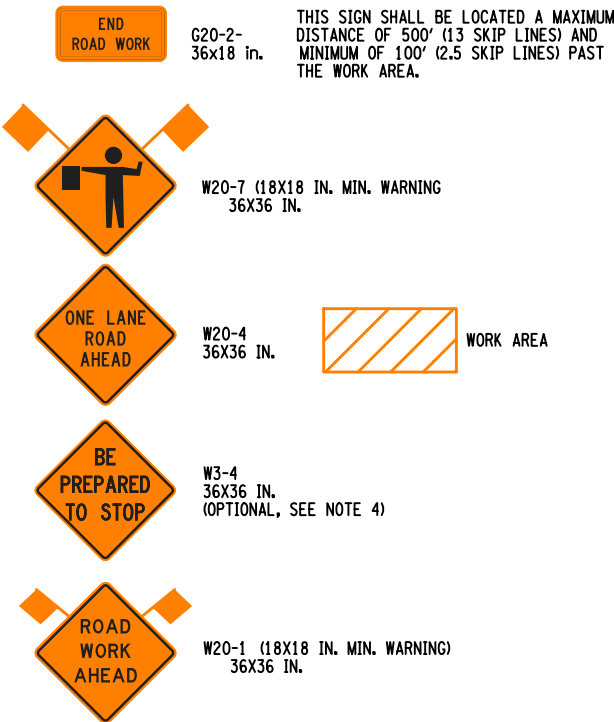



CONVENTIONAL ROADWAY

NOTES:

1. BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS. A BUFFER SPACE MAY BE PROVIDED WHERE TRAFFIC CONDITIONS ALLOW
2. CENTERLINE CONES ARE REQUIRED.
3. FLAGGER SYMBOL SIGN (W20-7) AND "ONE LANE ROAD AHEAD" SIGN (W20-4) SHALL BE REMOVED, COVERED OR TURNED AWAY FROM ROAD USERS WHEN FLAGGING OPERATIONS ARE NOT OCCURRING.
4. SHOULD THE TRAFFIC QUEUE UP PRIOR TO THE ADVANCE WARNING SIGNS, THE "BE PREPARED TO STOP" SIGN CAN BE ADDED TO THE SIGN SERIES AND SHALL BE MOVED TO A LOCATION PRIOR TO THE QUEUED TRAFFIC.
5. LED STOP/SLOW PADDLES ARE REQUIRED FOR THIS OPERATION.

SPEED LIMIT	BUFFER SPACE
30	200' (5 SKIP LINES)
35	250' (~6 SKIP LINES)
40	305' (~8 SKIP LINES)
45	360' (9 SKIP LINES)
50	425' (~11 SKIP LINES)
55	495' (~13 SKIP LINES)





NEW YORK
STATE OF
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**Department of
Transportation**

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
LANE CLOSURE WITH MOVING FLAGGERS
SHORT TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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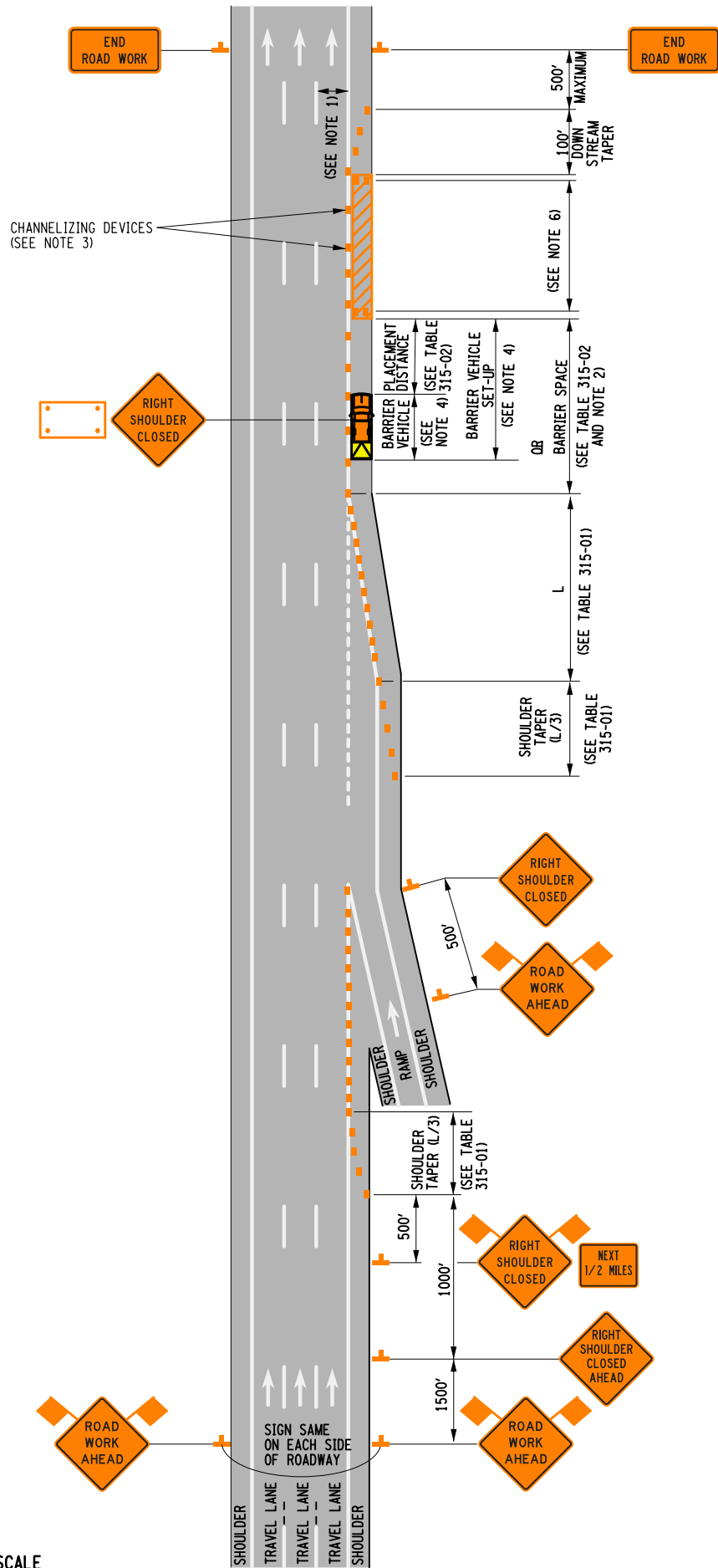
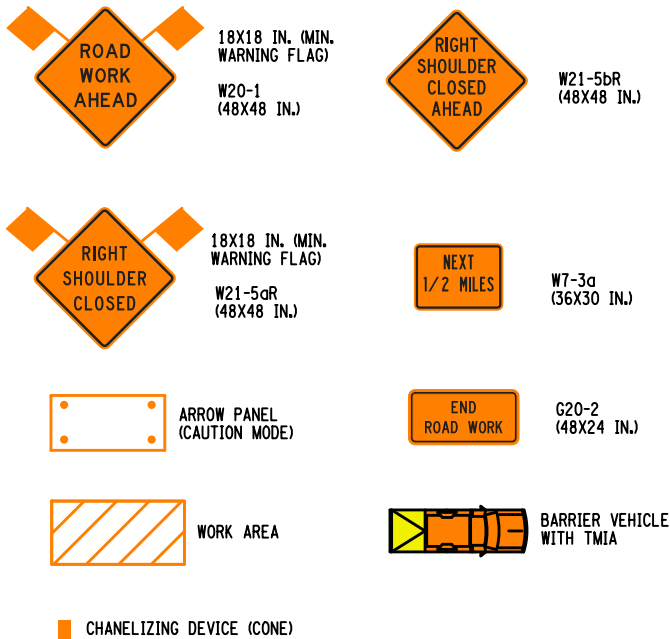



TABLE 315-01: TAPER LENGTHS AND NUMBER OF CONES CHART											
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /* SKIP LINES/* OF CONES										SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES
	FOR LANE WIDTH IN FT (LATERAL SHIFT OF TRAFFIC FLOW PATH)										FOR SHOULDER WIDTH
	4	5	6	7	8	9	10	11	12	LESS THAN 8 FT. (MIN -MAX)	8 FT OR WIDER (MIN)
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15	60/2/3-100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16	80/2/3-100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18	80/2/3-120/3/4	160/4/5
65	260/7/8	350/9/10	420/11/12	490/13/14	560/14/15	630/16/17	660/17/18	720/18/19	780/20/21	100/3/4-140/4/5	180/5/6

TABLE 315-02			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT/* SKIP LINES	ROLL AHEAD /PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/ * SKIP LINES	
		MIN	MAX
45	360/9	75/2	150/4
50	425/11		
55	495/13	100/3	200/5
65	645/16		

NOTES:

1. WHEN THE MINIMUM LANE WIDTH OF 11' CANNOT BE MAINTAINED DUE TO A SHOULDER CLOSURE, USE THE DETAIL FOR SHORT OR INTERMEDIATE TERM, STATIONARY SINGLE LANE CLOSURE NEAR ENTRANCE RAMP.
2. NO WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A BUFFER SPACE.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
4. FOR SHORT TERM STATIONARY CLOSURE, BARRIER VEHICLE AND TMIA ARE REQUIRED IF SPEEDS ARE 45 MPH OR GREATER. BARRIER VEHICLE IS REQUIRED AND TMIA IS RECOMMENDED IF SPEED ARE LESS THAN 45 MPH.
5. THE "NEXT X MILE" SUPPLEMENTAL SIGN (W7-3a) IS REQUIRED WHEN THE SHOULDER IS CLOSED FOR A DISTANCE GREATER THAN 2 MILES.
6. TRANSVERSE DEVICES SHALL BE REQUIRED WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.





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U.S. CUSTOMARY STANDARD SHEET

FREWAY
SHOULDER CLOSURE AT RAMP APPROACH
SHORT TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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(XXXXXX)

619- 315

NOT TO SCALE

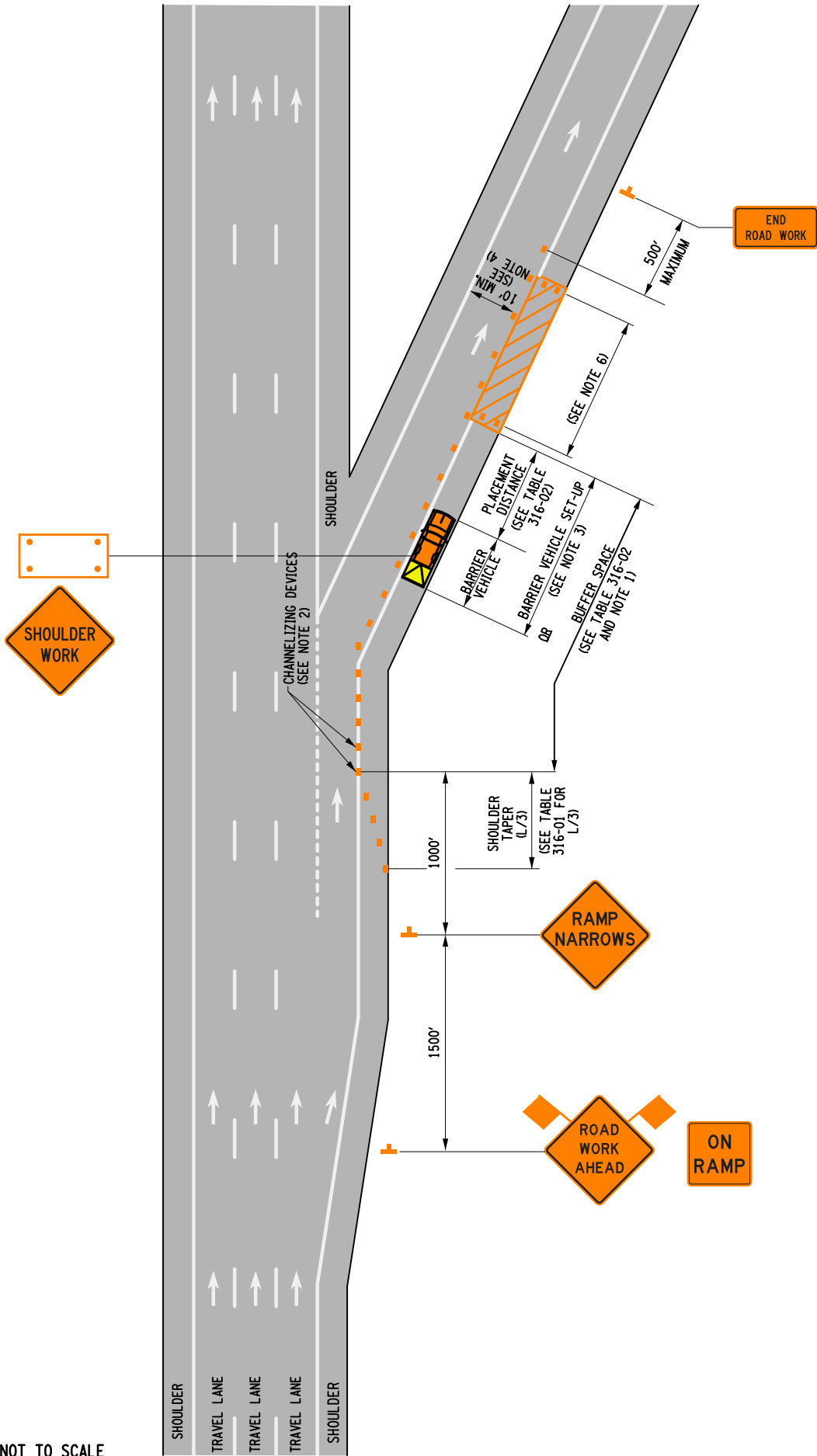
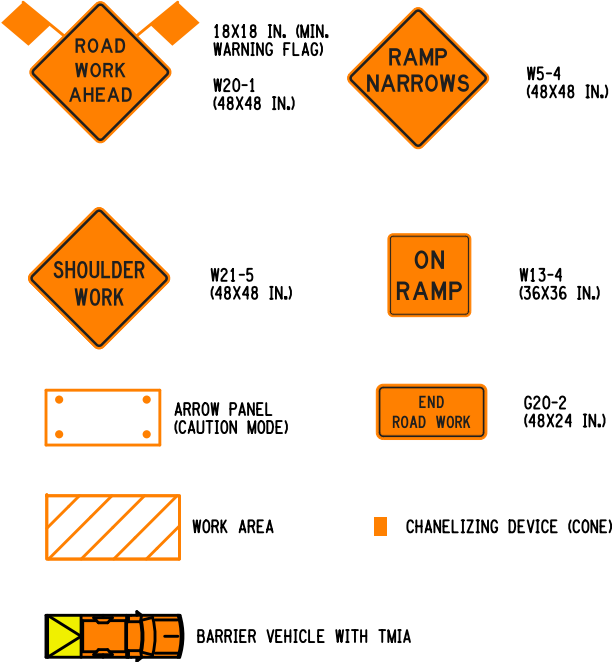



TABLE 316-01		
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR SHOULDER WIDTH	
	LESS THAN 8 FT. (MIN -MAX)	8 FT. OR WIDER (MIN)
45	60/2/3-100/3/4	120/3/4
50	80/2/3-100/3/4	140/4/5
55	80/2/3-120/3/4	160/4/5
65	100/3/4-140/4/5	180/5/6

TABLE 316-02			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT/* SKIP LINES	ROLL AHEAD /PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/* SKIP LINES	
		MIN	MAX
45	360/9	75/2	150/4
50	425/11		
55	495/13	100/3	200/5
65	645/16		

- NOTES:
1. NO WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A BUFFER SPACE.
 2. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
 3. FOR SHORT TERM STATIONARY CLOSURE, BARRIER VEHICLE AND TMIA ARE REQUIRED IF SPEEDS ARE 45 MPH OR GREATER. BARRIER VEHICLE IS REQUIRED AND TMIA IS RECOMMENDED IF SPEED ARE LESS THAN 45 MPH.
 4. TRUCK OFF-TRACKING SHOULD BE CONSIDERED WHEN DETERMINING WHETHER THE MINIMAL LANE WIDTH OF 10' IS ADEQUATE.
 5. THE ENGINEER MAY REQUIRE THE USE OF AN ADVISORY SPEED PLAQUE (W13-1) TO SUPPLEMENT A WARNING SIGN. THE PLAQUE WILL BE USED TO INDICATE AN ADVISORY SPEED FOR THE WORK ZONE CONDITION. (IE. NARROW LANES, BUMPS, POOR ROADWAY SURFACE, LOW OR NO SHOULDER, DROP-OFFS, GEOMETRIC CONSTRAINTS, AND/OR POOR SIGHT CONDITIONS.)
 6. TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.





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U.S. CUSTOMARY STANDARD SHEET

**FREWAY
PARTIAL EXIT RAMP CLOSURE
SHORT TERM OPERATION**

APPROVED XXXXXXXX XX, 20XX











ISSUED UNDER EB XX-XXX

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(XXXXXX)

619- 316



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- | | | | |
|---|---|---|---|
|  | 18X18 IN. (MIN.
WARNING FLAG)
W4-2R |  | 18X18 IN. (MIN.
WARNING FLAG)
W20-1 |
|  | NYW8-33 |  | W20-5 |
|  | ARROW PANEL
(CAUTION MODE) |  | ARROW PANEL |
|  | BARRIER VEHICLE
WITH TMIA |  | G20-2 |
|  | WORK AREA |  | CHANELIZING DEVICE (CONE) |



	NEW YORK STATE OF OPPORTUNITY.	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET		
<p style="text-align: center;"> MULTI LANE DIVIDED ROADWAY SINGLE LANE CLOSURE SHORT TERM OPERATION (SHEET 1 OF 2) </p>		
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX	
_____ XXXXXXXXXXXXXXXXXXXXXXXX (XXXXXXXX)	619-317	

TABLE 317-01 : ADVANCE WARNING SIGN SPACING						
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
		FOR LANE WIDTH			XX	YY
		A (FT.)	B (FT.)	C (FT.)		
URBAN LOW ≤(30 MPH)	30	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH)	35 40	200	200	200		
URBAN HIGH ≥(45 MPH)	45	350	350	350	1000 FT.	AHEAD
RURAL		500	500	500	1500 FT.	1000 FT.

TABLE 317-02: TAPER LENGTHS AND NUMBER OF CONES CHART											
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /* SKIP LINES/* OF CONES									SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR LANE WIDTH IN FT (LATERAL SHIFT OF TRAFFIC FLOW PATH)									FOR SHOULDER WIDTH	
	4	5	6	7	8	9	10	11	12	LESS THAN 8 FT. (MIN -MAX)	8 FT OR WIDER (MIN)
	25	45/1/2	55/1/2	65/2/3	75/2/3	85/2/3	95/3/4	120/3/4	120/3/4	140/3/5	20/1/2-40/1/2
30	60/2/3	75/2/3	90/2/3	105/3/4	120/3/4	135/3/4	160/4/5	180/5/6	180/5/6	20/1/2-40/1/2	40/1/2
35	85/2/3	105/3/4	125/3/4	145/4/5	164/4/5	185/5/6	220/6/7	240/6/7	260/7/8	40/1/2-60/2/3	80/2/3
40	120/3/4	135/3/4	160/4/5	190/5/6	215/5/6	240/6/7	280/7/8	300/8/9	320/8/9	40/1/2-60/2/3	80/2/3
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15	60/2/3-100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16	80/2/3-100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18	80/2/3-120/3/4	160/4/5

TABLE 317-03			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT/* SKIP LINES	ROLL AHEAD /PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/ * SKIP LINES	
		MIN	MAX
25	155/4	50/1	100/3
30	200/5		
35	250/6		
40	305/8		
45	360/9	75/2	150/4
50	425/11		
55	495/13		
		100/3	200/5

TABLE 317-04 : REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/ EXPRESSWAY
W4-2R	36X36 IN.	48X48 IN.
W20-1	36X36 IN.	48X48 IN.
W20-5	36X36 IN.	48X48 IN.
NYW8-33	48X24 IN.	48X24 IN.
G20-2	36X18 IN.	48X24 IN.
*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS		



NEW YORK
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U.S. CUSTOMARY STANDARD SHEET

MULTI LANE DIVIDED ROADWAY
SINGLE LANE CLOSURE
SHORT TERM OPERATION
(SHEET 2 OF 2)

APPROVED XXXXXXXX XX, 20XX

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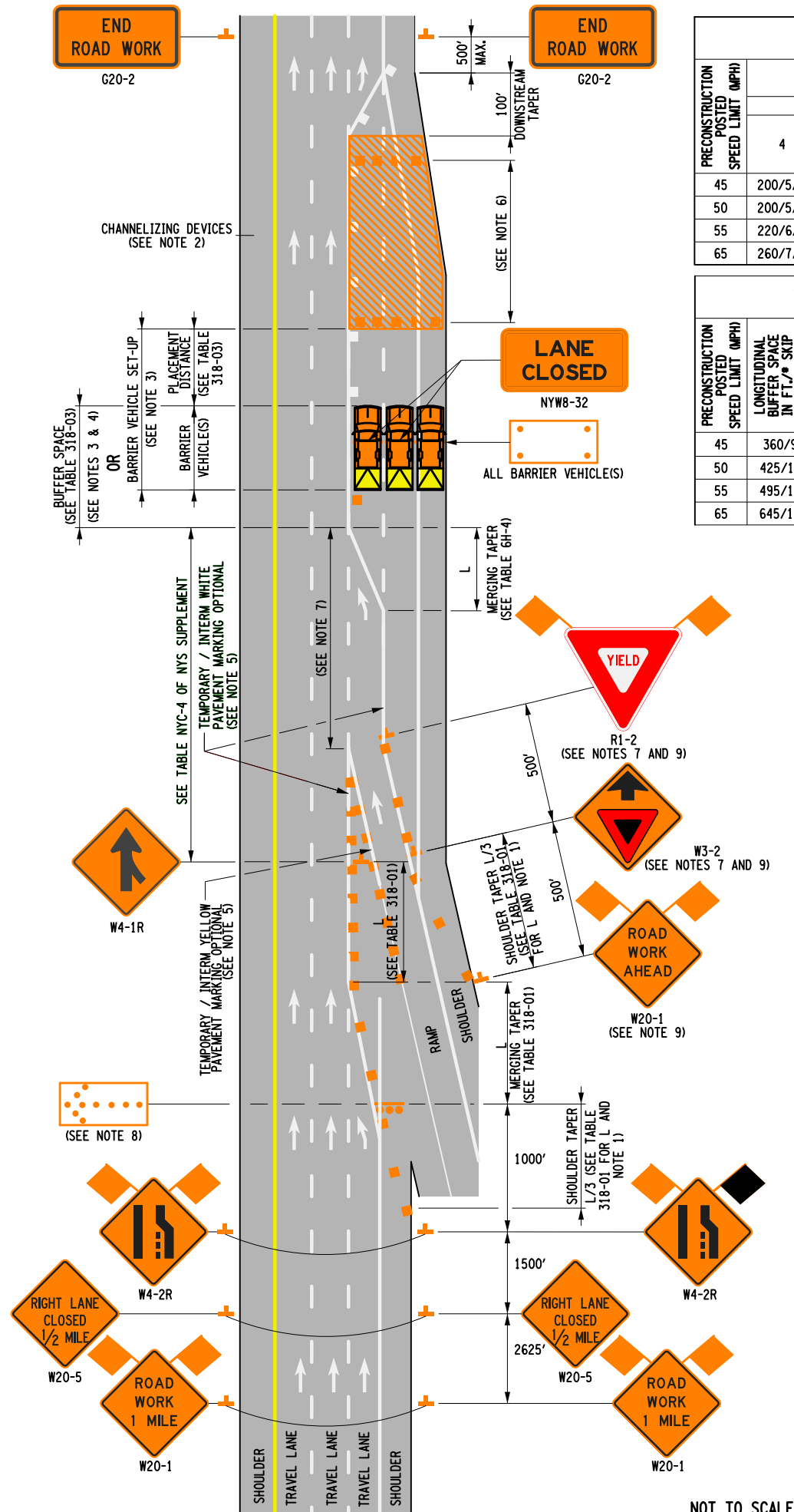


TABLE 318-01: TAPER LENGTHS AND NUMBER OF CONES CHART											
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.)/* SKIP LINES/* OF CONES								SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES		
	FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATHS)								FOR SHOULDER WIDTH		
	4	5	6	7	8	9	10	11	12	LESS THAN 8 FT. (MIN - MAX)	8 FT. OR WIDER (MIN)
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15	60/2/3 - 100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16	80/2/3 - 100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18	80/2/3 - 120/3/4	160/4/5
65	260/7/8	350/9/10	420/11/12	490/13/14	560/14/15	630/16/17	660/17/18	720/18/19	780/20/21	100/3/4 - 140/4/5	180/5/6

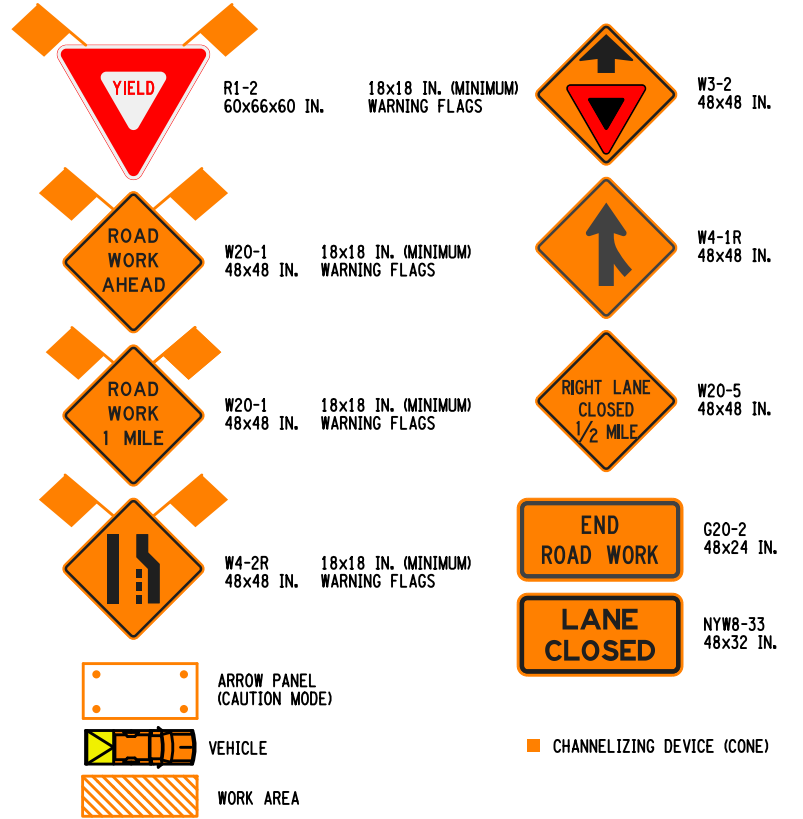
TABLE 318-02			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT./* SKIP LINES	ROLL AHEAD/PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT./* SKIP LINES	
		MIN	MAX
45	360/9		
50	425/11	75/2	150/4
55	495/13		
65	645/16	100/3	200/5

TABLE 318-03: ADVANCE PLACEMENT OF WARNING SIGN'	
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	ADVANCE PLACEMENT DISTANCE IN FT.
45	930
50	1030
55	1135
60	1280
65	1365

1. BASED ON TABLE NY2C-4 OF NYS SUPPLEMENT TO THE 2009 MUTCD

NOTES:

- WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK SPACE AND TO DIRECT VEHICULAR TRAFFIC TO REMAIN IN THE TRAVELED WAY.
- CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
- FOR SHORT TERM STATIONARY CLOSURE, BARRIER VEHICLE AND TMIA ARE REQUIRED IF SPEEDS ARE 45 MPH OR GREATER. BARRIER VEHICLE IS REQUIRED AND TMIA IS RECOMMENDED IF SPEEDS ARE LESS THAN 45 MPH.
- NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
- FOR LONG DURATION LANE CLOSURES, TEMPORARY / INTERIM PAVEMENT MARKINGS SHALL BE USED IN ACCORDANCE TO THE CONTRACT DOCUMENTS. ANY EXISTING PAVEMENT MARKINGS THAT ARE CONFLICTING OR MISLEADING SHALL BE REMOVED OR COVERED.
- TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.
- CONTRACTOR SHALL PROVIDE EXISTING ACCELERATION DISTANCE FOR YIELD CONDITION AS PER THE CONTRACT PLANS.
- MAINLINE MERGING TAPER WITH THE ARROW PANEL AT ITS STARTING POINT SHALL BE LOCATED SUFFICIENTLY IN ADVANCE SO THAT THE ARROW PANEL IS NOT VISIBLE TO DRIVERS ON THE ENTRANCE RAMP, AND SO THAT THE MAINLINE MERGING TRAFFIC FROM THE LANE CLOSURE HAS THE OPPORTUNITY TO STABILIZE BEFORE ENCOUNTERING THE VEHICULAR TRAFFIC MERGING FROM THE RAMP.
- IF THE RAMP CURVES SHARPLY TO THE RIGHT, WARNING SIGNS WITH ADVISORY SPEED PLAQUES LOCATED IN ADVANCE OF THE ENTRANCE TERMINAL SHALL BE PLACED IN PAIRS (ONE ON EACH SIDE OF THE RAMP).



Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

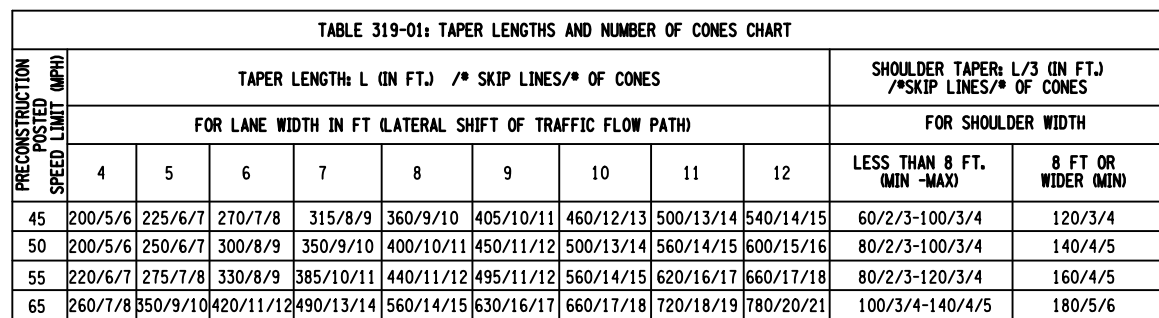
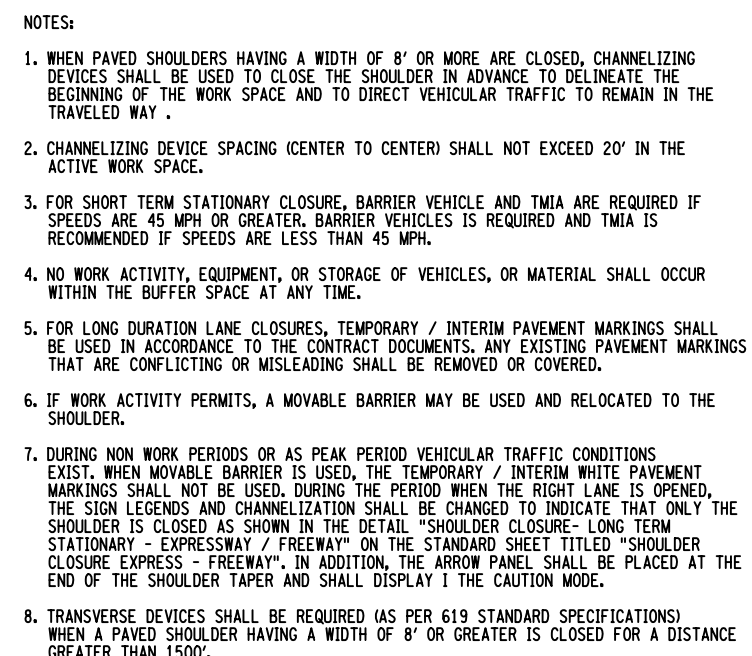
WORK ZONE TRAFFIC CONTROL
FREEWAY
SINGLE LANE CLOSURE NEAR ENTRANCE RAMP
SHORT TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

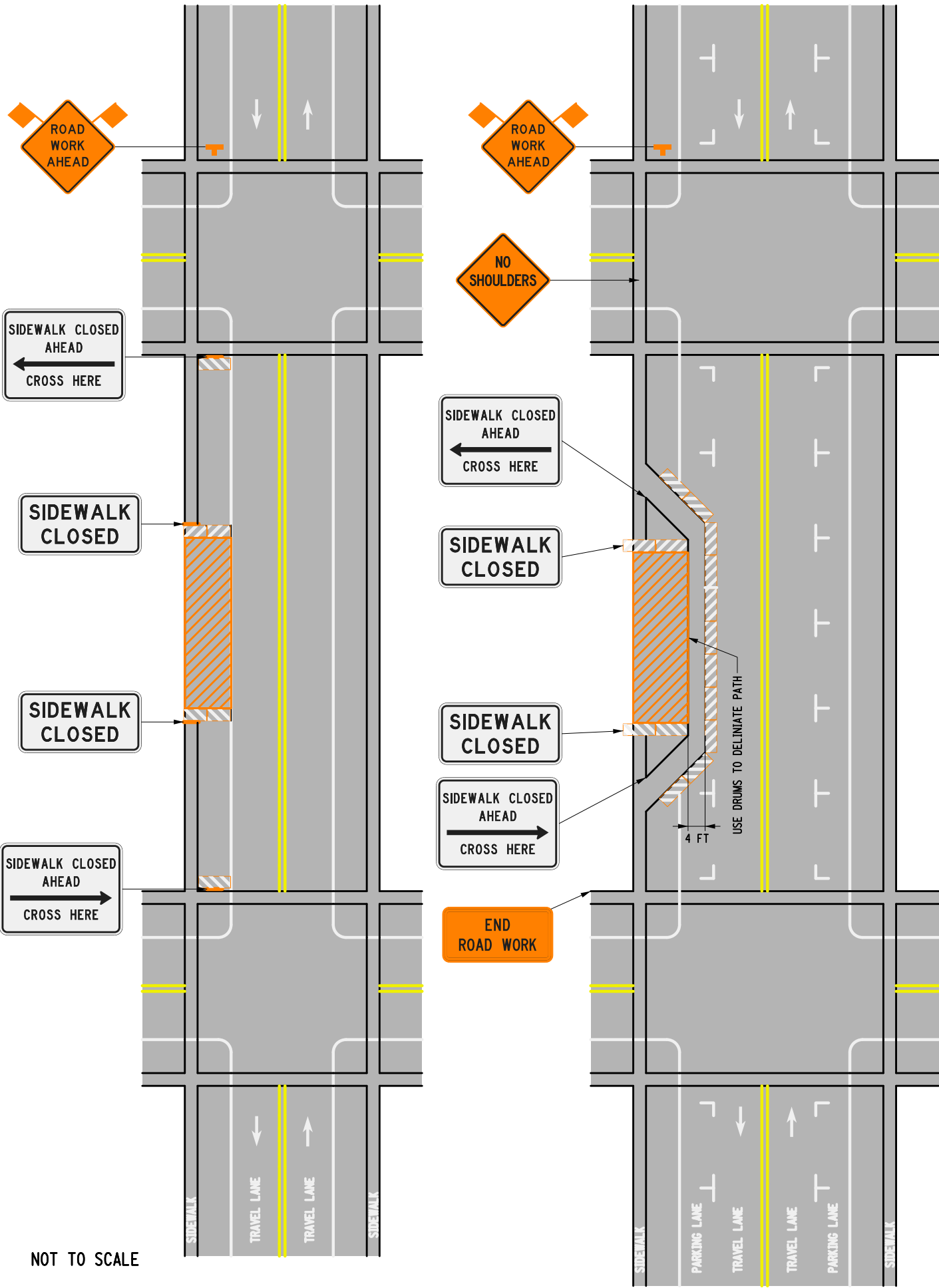
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619-318



PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT/ • SKIP LINES	ROLL AHEAD /PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/ • SKIP LINES	
		MIN	MAX
45	360/9	75/2	150/4
50	425/11		
55	495/13	100/3	200/5
65	645/16		



- NOTES:
1. WHEN CROSSWALKS OR OTHER PEDESTRIAN FACILITIES ARE CLOSED OR RELOCATED, TEMPORARY FACILITIES SHALL BE DETECTABLE AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING FACILITY.
 2. WHERE HIGH SPEEDS ARE ANTICIPATED, A TEMPORARY TRAFFIC BARRIER AND TEMPORARY IMPACT ATTENUATOR SHOULD BE USED TO SEPARATE THE TEMPORARY SIDEWALKS FROM VEHICULAR TRAFFIC.
 3. ONLY THE WORK ZONE TRAFFIC CONTROL DEVICES RELATED TO PEDESTRIANS ARE SHOWN. OTHER DEVICES, SUCH AS LANE CLOSURE SIGNING OR ROAD NARROWS SIGNS (W5-4), MAY BE USED TO CONTROL VEHICULAR TRAFFIC.
 4. FOR NIGHTTIME CLOSURES, FLASHING WARNING LIGHTS SHALL BE USED ON BARRICADES SUPPORTING SIGNS AND CLOSING SIDEWALKS.
 5. SIGNS SUCH AS KEEP RIGHT (LEFT) SHALL BE PLACED ALONG A TEMPORARY SIDEWALK, WHERE APPLICABLE AND ACCORDING TO AMERICAN WITH DISABILITIES STANDARDS, TO GUIDE OR DIRECT PEDESTRIANS.
 6. TYPE II BARRICADES MAY BE SUBSTITUTED FOR TYPE III BARRICADES AS PER 619 STANDARD SPECIFICATIONS.

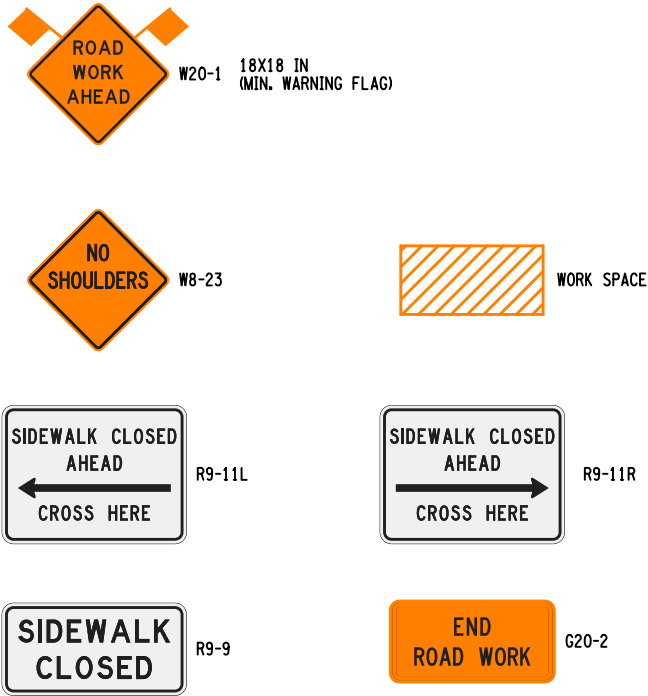



TABLE 321-01: REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL ROAD	FREEWAY/EXPRESSWAY
W8-23	36X36 IN.	48X48 IN.
W20-1	36X36 IN.	48X48 IN.
R9-11L/ R9-11R**	24X18 IN.	24X18 IN.
R9-9**	24X12 IN.	24X12 IN.
G20-2	36X18 IN.	48X24 IN.

* FREEWAY/EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS



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U.S. CUSTOMARY STANDARD SHEET

TWO-LANE TWO-WAY ROADWAY
SIDEWALK DETOUR DIVERSION
SHORT TERM OPERATION

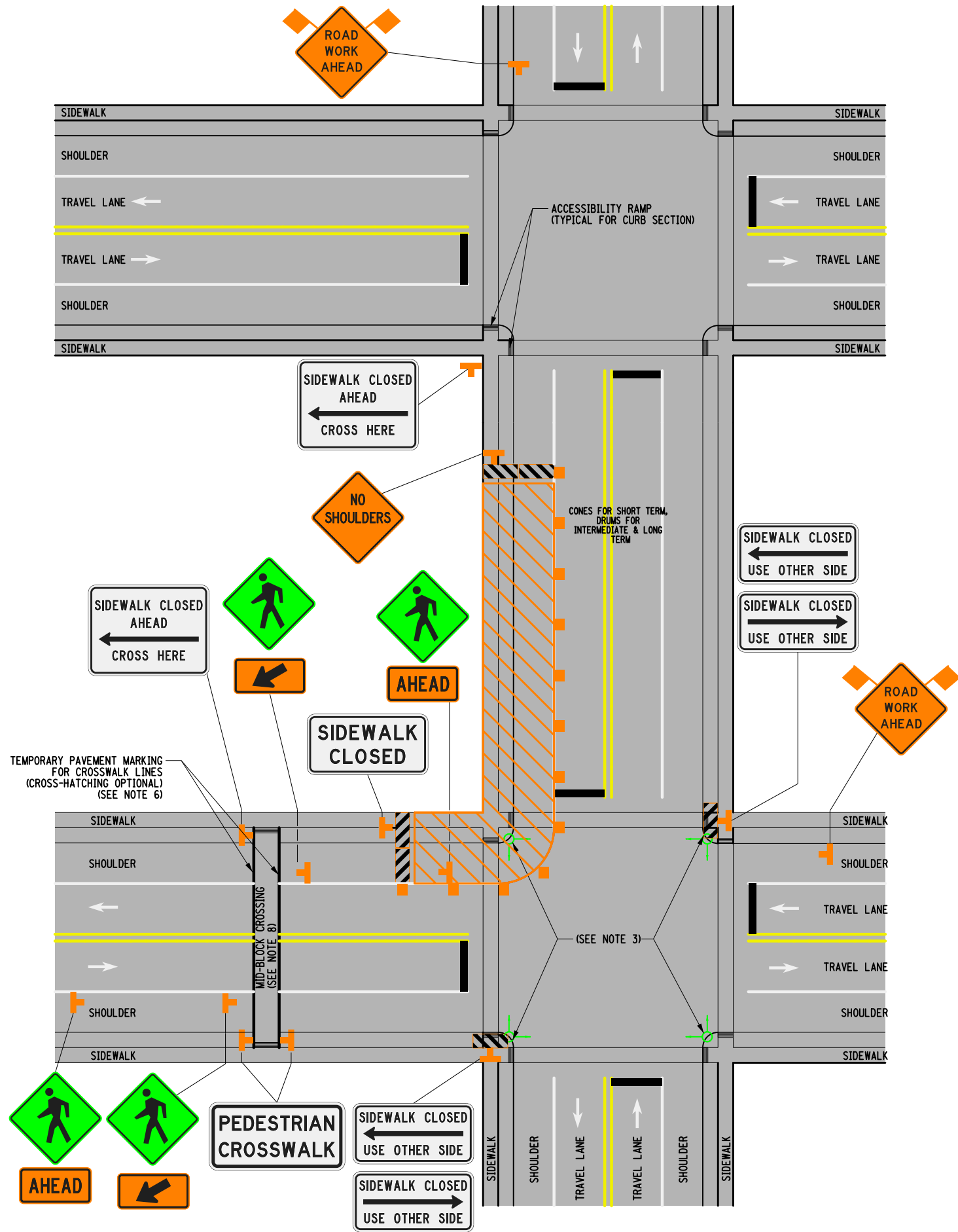
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NOTES:

1. WHEN CROSSWALKS OR OTHER PEDESTRIAN FACILITIES ARE CLOSED OR RELOCATED, TEMPORARY FACILITIES SHALL BE DETECTABLE AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING FACILITY.
2. CURB PARKING SHALL BE PROHIBITED FOR AT LEAST 50' IN ADVANCE OF THE MID-BLOCK CROSSWALK.
3. PEDESTRIAN TRAFFIC SIGNAL DISPLAYS CONTROLLING CLOSED CROSSWALKS SHOULD BE COVERED OR DEACTIVATED.
4. ONLY THE WORK ZONE TRAFFIC CONTROL DEVICES RELATED TO PEDESTRIANS ARE SHOWN. OTHER DEVICES, SUCH AS LANE CLOSURE SIGNING OR ROAD NARROWS SIGNS (W5-4), MAY BE USED TO CONTROL VEHICULAR TRAFFIC.
5. FOR NIGHTTIME CLOSURES, FLASHING WARNING LIGHTS SHALL BE USED ON BARRICADES SUPPORTING SIGNS AND CLOSING SIDEWALKS.
6. FOR LONG-TERM STATIONARY WORK, THE DOUBLE YELLOW CENTERLINE AND/OR LANE LINES SHOULD BE REMOVED BETWEEN THE TEMPORARY CROSSWALK LINES.
7. ONLY THE WORK ZONE TRAFFIC CONTROL DEVICES RELATED TO PEDESTRIANS ARE SHOWN. OTHER DEVICES, SUCH AS LANE CLOSURE SIGNING OR ROAD NARROWS SIGNS (W5-4), MAY BE USED TO CONTROL VEHICULAR TRAFFIC.
8. FOR NIGHTTIME CLOSURES, FLASHING WARNING LIGHTS SHALL BE USED ON BARRICADES SUPPORTING SIGNS AND CLOSING SIDEWALKS.
9. FOR LONG-TERM STATIONARY WORK, THE DOUBLE YELLOW CENTERLINE AND/OR LANE LINES SHOULD BE REMOVED BETWEEN THE TEMPORARY CROSSWALK LINES.
10. FREEWAY/EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS IF SPACE ALLOWS.

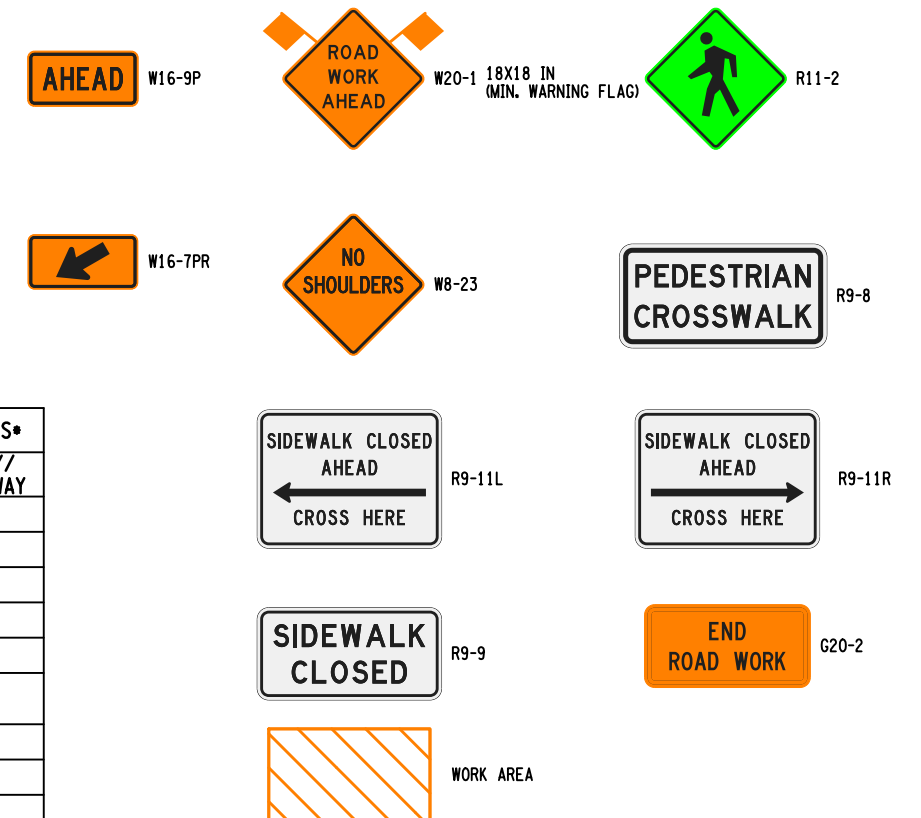



TABLE 322-01: REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL ROAD	FREEWAY/EXPRESSWAY
W8-23	36X36 IN.	48X48 IN.
W16-9P**	24X12 IN.	30X18 IN.
W16-7PR**	24X12 IN.	30X18 IN.
R9-8**	36X18 IN.	36X18 IN.
R9-9**	24X12 IN.	24X12 IN.
R9-11L/ R9-11R**	24X18 IN.	24X18 IN.
R11-2	48X30 IN.	48X30 IN.
G20-2	36X18 IN.	48X24 IN.

* FREEWAY/EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS
** SIGNS NOT FOR FREEWAY USE

 Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
TWO-LANE TWO-WAY ROADWAY CROSSWALK CLOSURE AND PEDESTRIAN DETOUR SHORT TERM OPERATIONS	
APPROVED XXXXXXXX XX, 20XX XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	ISSUED UNDER EB XX-XXX 619-322

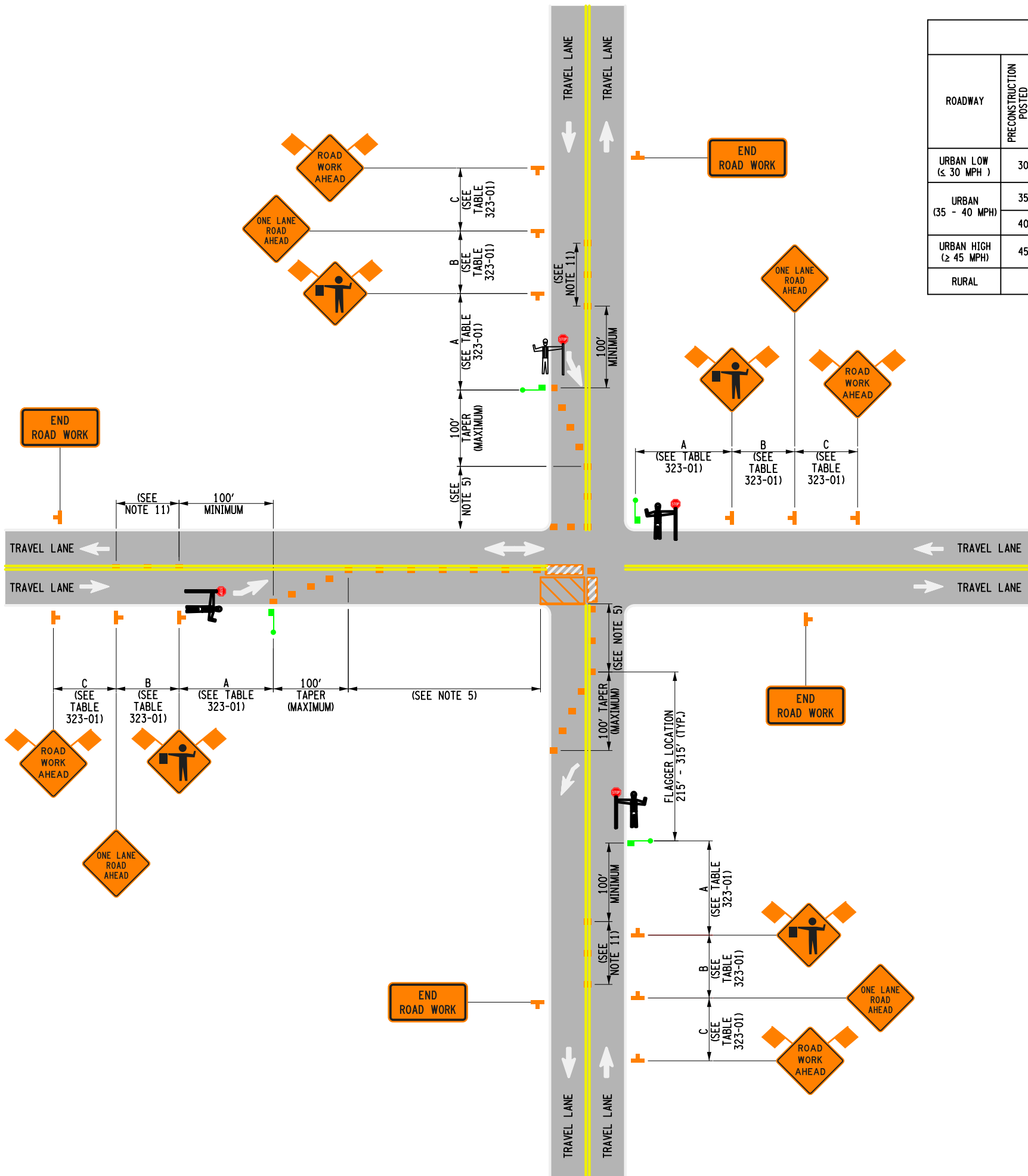



TABLE 323-01 ADVANCE WARNING SIGN SPACING						
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
		FOR LANE WIDTH			XX	XY
		A (FT.)	B (FT.)	C (FT.)		
URBAN LOW (≤ 30 MPH)	30	100	100	100	AHEAD	AHEAD
URBAN (35 - 40 MPH)	35	200	200	200		
	40					
URBAN HIGH (≥ 45 MPH)	45	350	350	350	1000 FT.	1000 FT.
RURAL		500	500	500	1500 FT.	1500 FT.


NOTES:

1. AT SIGNALIZED INTERSECTIONS, SIGNALS SHALL BE TURNED OFF FOR ANY FLAGGING OPERATIONS, UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
2. WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK AREA AND DIRECT VEHICULAR TRAFFIC TO REMAIN IN THE TRAVEL WAY.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
4. THE END ROAD WORK SIGN (G20-2) SHALL BE PLACED A MAXIMUM OF 500' PAST THE END OF THE WORK SPACE.
5. WHERE DIRECTED BY THE ENGINEER, A BUFFER SPACE SHALL BE PROVIDED IN ORDER TO LOCATE THE ONE-LANE, TWO-WAY TRAFFIC TAPER PRIOR TO ANY HORIZONTAL OR VERTICAL CURVE, IN ORDER TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGERS AND/OR A QUEUE OF STOPPED VEHICLES.
6. THE FLAG TREE SHALL BE LOCATED ON THE SHOULDER, AT APPROXIMATELY 1½ THE DISTANCE BETWEEN THE FLAGGER SIGN (W20-7a) AND THE FLAGGER.
7. FLAGGER SIGN (W20-7a) AND ONE LANE ROAD AHEAD SIGN (W20-4) SHALL BE REMOVED, COVERED OR TURNED AWAY FROM ROAD USERS WHEN FLAGGING OPERATIONS ARE NOT OCCURRING.
8. FLAGGER AND FLAG TREE SHALL BE ILLUMINATED TO LEVEL II ILLUMINATION DURING NIGHT TIME OPERATIONS.
9. ALL FLAGGERS SHALL USE 24" (MIN.) OCTAGON SHAPED STOP/SLOW PADDLES HAVING 6' STAFF.
10. ADDITIONAL FLAGGERS SHALL BE LOCATED AT ALL INTERSECTIONS AND COMMERCIAL DRIVEWAYS LOCATED WITHIN OR NEAR THE ACTIVE WORK AREA.
11. CENTERLINE CHANNELIZING DEVICES ARE OPTIONAL AND MAY BE ELIMINATED WHERE SPACE CONSTRAINTS EXIST.
12. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
13. FOR PEDESTRIAN DETOUR ACCOMMODATIONS REFER TO THE STANDARD SHEETS TITLED "SIDEWALK DETOUR OR DIVERSION" AND "CROSSWALK CLOSURE AND PEDESTRIAN DETOUR".
14. FREEWAY / EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS IF SPACE ALLOWS.


TABLE 323-02 : REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY / EXPRESSWAY
W20-1	36x36IN.	48x48IN.
W20-4	36x36IN.	48x48IN.
W20x7a	36x36IN.	48x48IN.
G20-2	36x18IN.	48x24IN.
*FREEWAY / EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST.		




W20-7a
(SEE NOTE 7)
18x18 IN. (MIN. WARNING FLAG)




W20-1
18x18 IN. (MIN. WARNING FLAG)



W20-4
(SEE NOTE 7)




G20-2
(SEE NOTE 4)



WORK AREA

NOT TO SCALE



NEW YORK
STATE OF
OPPORTUNITY.

**Department of
Transportation**

U.S. CUSTOMARY STANDARD SHEET

**TWO-LANE TWO-WAY ROADWAY
FLAGGING OPERATION AT INTERSECTION
SHORT TERM OPERATION**

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-323

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TABLE 324-01 ADVANCE WARNING SIGN SPACING						
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
		FOR LANE WIDTH			XX	XY
		A (FT.)	B (FT.)	C (FT.)		
URBAN LOW (≤ 30 MPH)	30	100	100	100	AHEAD	AHEAD
URBAN (35 - 40 MPH)	35	200	200	200		
	40					
URBAN HIGH (≥ 45 MPH)	45	350	350	350	1000 FT.	1000 FT.
RURAL		500	500	500	1500 FT.	1500 FT.

TABLE 324-05 : REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY / EXPRESSWAY
W1-4L/W1-4R	36x36IN.	48x48IN.
W1-6L/W1-6R	48x24IN.	60x30IN.
W9-3	36x36IN.	48x48IN.
W20-1	36x36IN.	48x48IN.
W20-4	36x36IN.	48x48IN.
W20-5	36x36IN.	48x48IN.
W24-1L	36x36IN.	48x48IN.
R4-7	24x30IN.	36x48IN.
NYWB-33	48x24IN.	48x24IN.
G20-2	36x18IN.	48x24IN.
*FREEWAY / EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST.		


TABLE 324-02: TAPER LENGTHS AND NUMBER OF CONES CHART											
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /*SKIP LINES /*OF CONES									SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)									FOR SHOULDER WIDTH	
	4	5	6	7	8	9	10	11	12	LESS THAN 8FT. (MIN - MAX)	8FT. OR WIDER (MIN)
25	45/1/2	55/1/2	65/2/3	75/2/3	85/2/3	95/3/4	120/3/4	120/3/4	140/3/5	20/1/2 - 40/1/2	40/1/2
30	60/2/3	75/2/3	90/2/3	105/3/4	120/3/4	135/3/4	160/4/5	180/5/6	180/5/6	20/1/2 - 40/1/2	40/1/2
35	85/2/3	105/3/4	125/3/4	145/4/5	165/4/5	185/5/6	220/6/7	240/6/7	260/7/8	40/1/2 - 60/2/3	80/2/3
40	120/3/4	135/3/4	160/4/5	190/5/6	215/5/6	240/6/7	280/7/8	300/8/9	320/8/9	40/1/2 - 60/2/3	80/2/3
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15	60/2/3 - 100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16	80/2/3 - 100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18	80/2/3 - 120/3/4	160/4/5

TABLE 324-04: GUIDELINES FOR ADVANCE PLACEMENT OF WARNING SIGNS															
POSTED OR 85%- PERCENTILE SPEED (MPH)	ADVANCE PLACEMENT DISTANCE (FT.) ¹														
	CONDITION A: SPEED REDUCTION AND LANE CHANGING IN HEAVY TRAFFIC ²	CONDITION B: DECELERATION TO THE LISTED ADVISORY SPEED (MPH) FOR THE CONDITION ⁴													
		CONDITION C: NO SPEED REDUCTION NECESSARY ⁵													
		0 ³	5	10	15	20	25	30	35	40	45	50	55		
20	410	115	110	105	90	75	-	-	-	-	-	-	-		
25	515	155	160	150	135	120	95	-	-	-	-	-	-		
30	620	200	205	195	185	165	140	110	-	-	-	-	-		
35	720	250	255	245	235	215	190	160	130	-	-	-	-		
40	825	305	320	310	295	280	255	225	190	150	-	-	-		
45	930	360	380	370	360	340	315	285	255	210	165	-	-		
50	1030	425	455	450	435	415	390	360	330	285	240	185	-		
55	1135	495	530	520	505	490	460	435	400	355	315	255	205		

- NOTES:
- THE DISTANCES HAVE NOT BEEN MODIFIED TO ACCOUNT FOR SIGN LEGIBILITY.
 - TYPICAL CONDITIONS ARE LOCATIONS WHERE THE ROAD USER MUST USE EXTRA TIME TO ADJUST SPEED AND CHANGE LANES IN HEAVY TRAFFIC BECAUSE OF A COMPLEX DRIVING SITUATION. TYPICAL SIGNS ARE MERGE AND RIGHT LAND ENDS. THE DISTANCES ARE TAKEN FROM THE 2004 AASHTO POLICY, EXHIBIT 3-3, DECISION SIGHT DISTANCE, AVOIDANCE MANEUVER E.
 - TYPICAL CONDITION IS THE WARNING OF A POTENTIAL STOP SITUATION. TYPICAL SIGNS ARE STOP AHEAD, YIELD AHEAD, SIGNAL AHEAD, AND INTERSECTION WARNING SIGNS. THE DISTANCES ARE TAKEN FROM THE 2004 AASHTO POLICY, STOPPING SIGHT DISTANCE, EXHIBIT 3-1.
 - TYPICAL CONDITIONS ARE LOCATIONS WHERE THE ROAD USER MUST DECREASE SPEED TO MANEUVER THROUGH THE WARNED CONDITION. TYPICAL SIGNS ARE TURN, CURVE, REVERSE TURN, OR REVERSE CURVE. THE DISTANCES ARE DETERMINED BY PROVIDING A 2.5 SECOND PRT AND A VEHICLE DECELERATION RATE OF 10 FT/SECOND. ²
 - TYPICAL SIGNS ARE ADDED LANE, ROAD NARROWS, DIVIDED HIGHWAY, AND CONDITION B SIGNS DISPLAYED WITHOUT AN ADVISORY SPEED.

TABLE 324-03			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT / * SKIP LINES	ROLL AHEAD/ PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/ * SKIP LINES	
		MIN	MAX
25	155/4	50/1	100/3
30	200/5		
35	250/6		
40	305/8	75/2	150/4
45	360/9		
50	425/11		
55	495/13	100/3	200/4

NOT TO SCALE



NEW YORK
STATE OF
OPPORTUNITY.

**Department of
Transportation**

U.S. CUSTOMARY STANDARD SHEET

TWO-LANE TWO-WAY ROADWAY
CROSSWALK CLOSURE AND PEDESTRIAN DETOUR
SHORT TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-324
2 OF 2

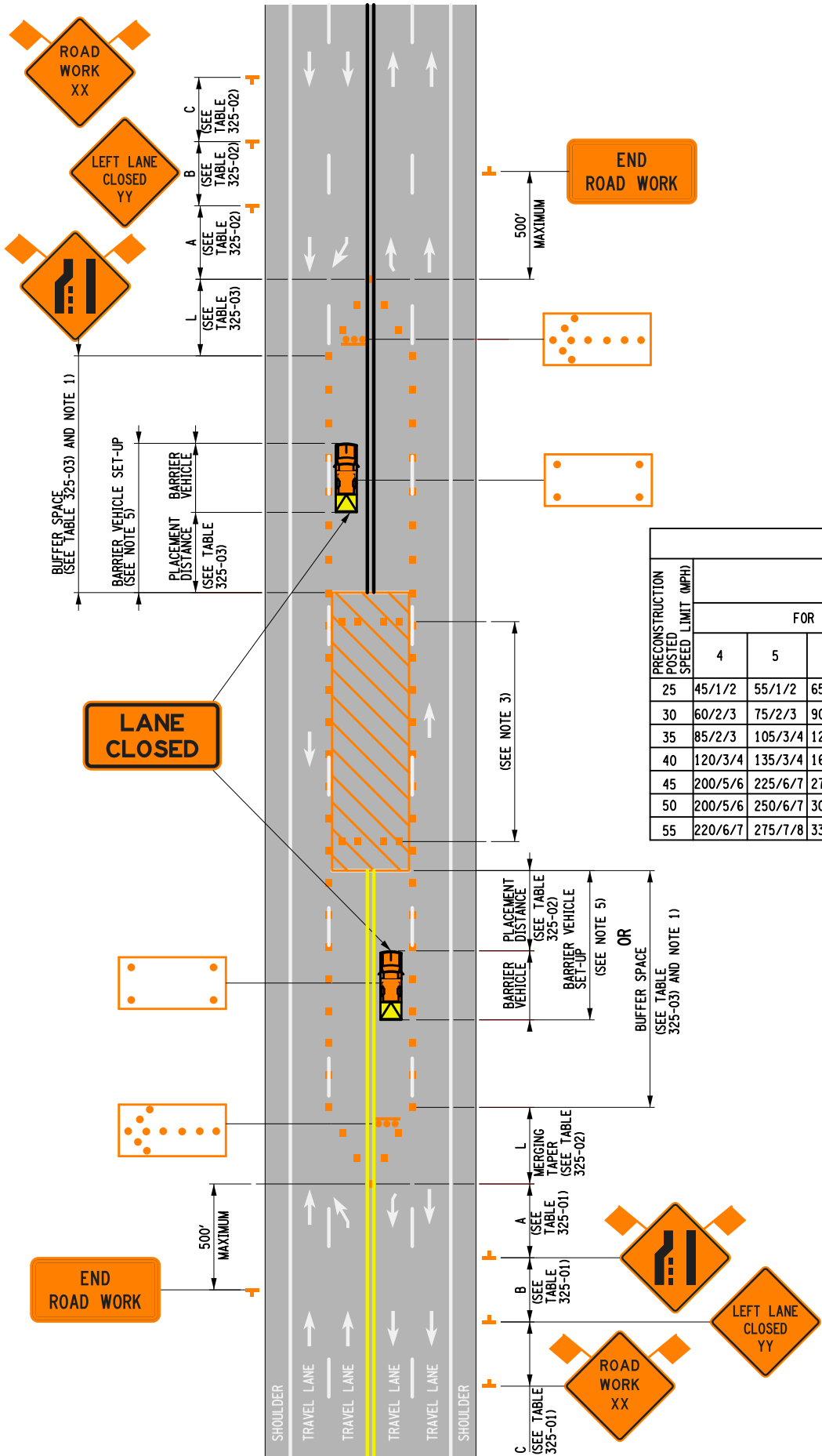


TABLE 325-01 ADVANCE WARNING SIGN SPACING						
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
		FOR LANE WIDTH			XX	YY
		A (FT.)	B (FT.)	C (FT.)		
URBAN LOW (≤ 30 MPH)	30	100	100	100	AHEAD	AHEAD
URBAN (35 - 40 MPH)	35	200	200	200		
	40					
URBAN HIGH (≥ 45 MPH)	45	350	350	350	1000 FT.	AHEAD
RURAL		500	500	500	1500 FT.	1000 FT.

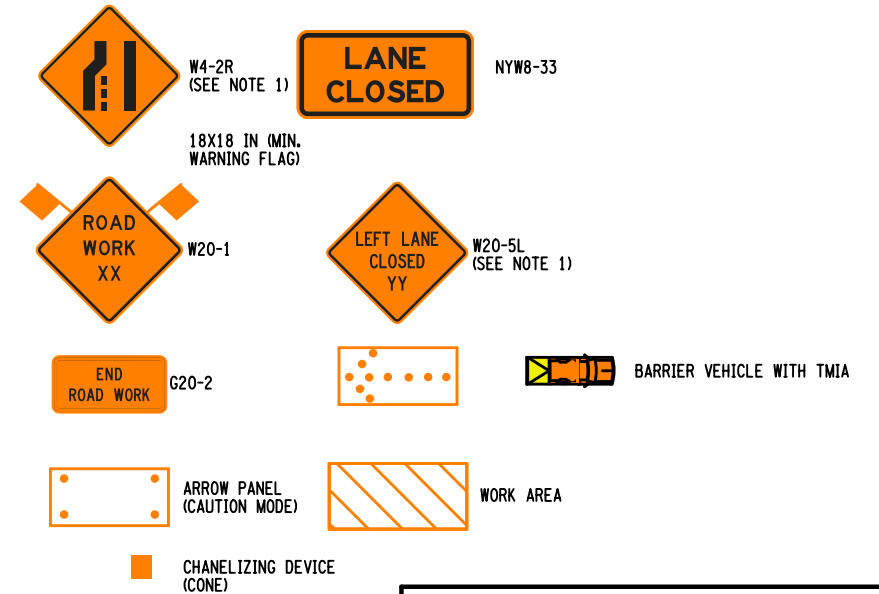
TABLE 325-02: TAPER LENGTHS AND NUMBER OF CONES CHART												
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /* SKIP LINES/* OF CONES										SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR LANE WIDTH IN FT (LATERAL SHIFT OF TRAFFIC FLOW PATH)										FOR SHOULDER WIDTH	
	4	5	6	7	8	9	10	11	12		LESS THAN 8 FT. (MIN -MAX)	8 FT OR WIDER (MIN)
25	45/1/2	55/1/2	65/2/3	45/1/2	85/2/3	95/3/4	120/3/4	120/3/4	140/3/5		20/1/2-40/1/2	40/1/2
30	60/2/3	75/2/3	90/2/3	105/3/4	120/3/4	135/3/4	160/4/5	180/5/6	180/5/6		20/1/2-40/1/2	40/1/2
35	85/2/3	105/3/4	125/3/4	145/4/5	165/4/5	185/5/6	220/6/7	240/6/7	260/7/8		40/1/2-60/2/3	80/2/3
40	120/3/4	135/3/4	160/4/5	190/5/6	215/5/6	240/6/7	280/7/8	300/8/9	320/8/9		40/1/2-60/2/3	80/2/3
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15		60/2/3-100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16		80/2/3-100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18		80/2/3-120/3/4	160/4/5


TABLE 325-03			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT	ROLL AHEAD /PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/ * SKIP LINES	
		MIN	MAX
25	155/4	50/1	100/3
30	200/5		
35	250/6		
40	305/8	75/2	150/4
45	360/9		
50	425/11		
55	495/13	100/3	200/4

NOTES:

1. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
2. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE, AND SHALL NOT EXCEED 20' IN THE TAPER AREA.
3. TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.
4. FOR LONG DURATION LANE CLOSURES, TEMPORARY PAVEMENT MARKINGS SHALL BE USED IN ACCORDANCE TO THE CONTRACT DOCUMENTS. ANY EXISTING PAVEMENT MARKINGS THAT ARE CONFLICTING OR MISLEADING SHALL BE REMOVED OR COVERED.
5. FOR 619- 323 REPLACE NOTE 5 WITH "FOR SHORT TERM STATIONARY CLOSURE, BARRIER VEHICLE AND TMIA ARE REQUIRED IF SPEEDS ARE 45 MPH OR GREATER. BARRIER VEHICLE IS REQUIRED AND TMIA IS RECOMMENDED IF SPEEDS ARE LESS THAN 45 MPH "
6. FOR LOW SPEED, LOW VOLUME URBAN STREETS, THE LEFT LANE CLOSED XXX FT. SIGN (W20-5) CAN BE OMITTED AND THE ROAD WORK AHEAD SIGN (W20-1) RELOCATED TO THAT LOCATION.
7. FREEWAY/EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS IF SPACE ALLOWS

TABLE 325-04: REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL ROAD	FREEWAY/ EXPRESSWAY
W4-2L	36X36 IN.	48X48 IN.
W20-1	36X36 IN.	48X48 IN.
W20-5	36X36 IN.	48X48 IN.
NYW8-33	48X24 IN.	48X24 IN.
G20-2	36X18 IN.	48X24 IN.
*FREEWAY/EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS		



 Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
MULTI-LANE TWO-WAY ROADWAY DOUBLE INTERIOR LANE CLOSURE SHORT TERM OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-325

NOT TO SCALE

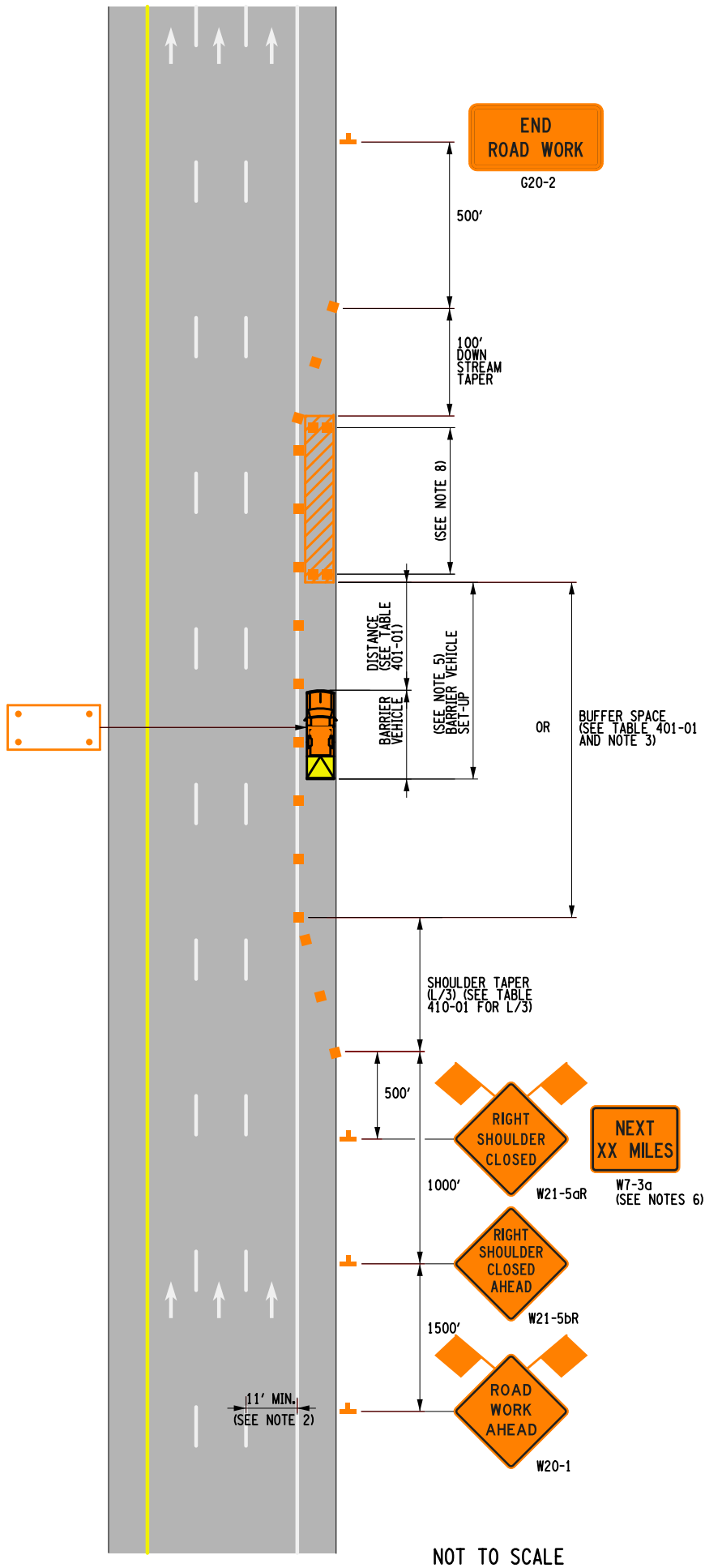


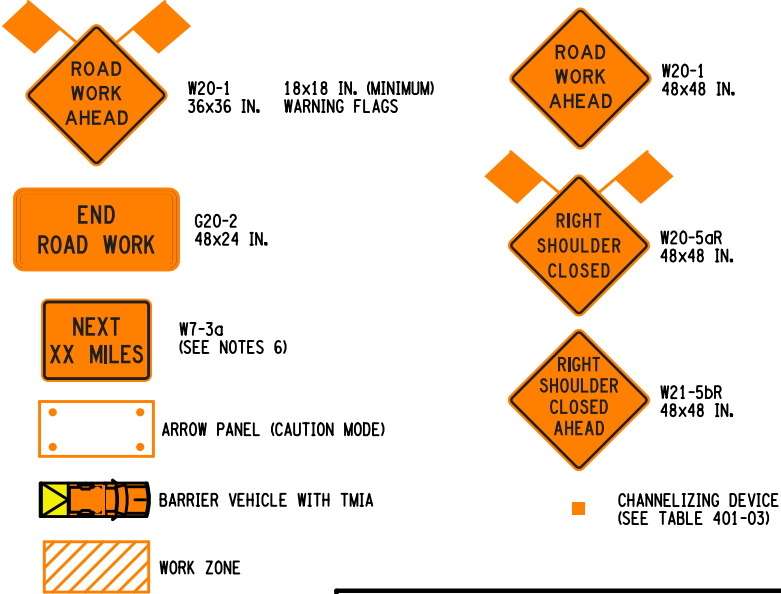
TABLE 401-01					
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT/*SKIP LINES	ROLL AHEAD/PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/*SKIP LINES		SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
		MIN	MAX	FOR SHOULDER WIDTH	
				LESS THAN 8 FT. (MIN - MAX)	8 FT. WIDER (MIN)
45	360/9	75/2	150/4	60/2/3 - 100/3/4	120/3/4
50	425/11			80/2/3 - 100/3/4	140/4/5
55	495/13	100/3	200/5	80/2/3 - 120/3/4	160/4/5
65	645/16			100/3/4 - 140/4/5	180/5/6


TABLE 401-02 BARRIER VEHICLE REQUIREMENT FOR INTERMEDIATE TERM CLOSURE		
CLOSURE TYPE	EXPOSURE CONDITION	FREEWAY
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED*
	NON-TRAVERSABLE HAZARD UE. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED*
1. THE EXPOSURE CONDITIONS DESCRIBED IN TABLE NY1 - A ASSUME THERE IS NO POSITIVE PROTECTION (TEMPORARY TRAFFIC BARRIER) PRESENT. WHERE WORKERS OR HAZARDS ARE PROTECTED BY A TEMPORARY TRAFFIC BARRIER VEHICLES ARE NOT REQUIRED.		
2. WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.		
3. REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMIA (TRUCK MOUNTED OR TRAILER MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.		
4. BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.		
5. BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.		

TABLE 401-03 CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE-TERM STATIONARY WORK ZONES										
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	CHANNELIZING DEVICE								
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES
INTERMEDIATE-TERM WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	20 FT.	X							X	X
	40 FT.	X							X	X
SHOULDER/MERGING/SHIFTING TAPERS										
MARKING FOR TRANSVERSE BUMP*	N/A	X*			X*				X*	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X			X	X	X
REMOVAL OF EXISTING GUIDE RAIL	80 FT.									
	40 FT.	X		X	X	X		X	X	X
NOTES: X = ALLOWED, BLANK = NOT ALLOWED, O = OPTIONAL										
1. - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.										
2. - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.										

- NOTES:
1. LEFT SHOULDER CLOSURES ARE SYMMETRICAL, SUBSTITUTE LEFT SHOULDER CLOSED AHEAD SIGN (W21-5bL) AND LEFT SHOULDER CLOSED SIGN (21-5c) FOR RIGHT SHOULDER CLOSED SIGNS (W21-5bR AND W21-5cR).
 2. WHEN THE MINIMUM LANE WIDTH OF 11' CANNOT BE MAINTAINED DUE TO A SHOULDER CLOSURE, USE THE DETAILS FOR SHORT, INTERMEDIATE, OR LONG TERM, STATIONARY SINGLE LANE CLOSURES.
 3. NO WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A BUFFER SPACE.
 4. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORKSPACE.
 5. FOR SHADOW VEHICLE USE REQUIREMENTS SEE TABLES 401-02 AND 401-03
 6. THE "NEXT X MILE" SUPPLEMENTAL SIGN (W7-3c) IS REQUIRED WHEN THE SHOULDER IS CLOSED FOR A DISTANCE GREATER THAN 2 MILES.
 7. THE TEMPORARY CONCRETE BARRIER SHALL NOT BE PLACED ALONG THE MERGING TAPER. THE SHOULDER SHALL BE CLOSED USING CHANNELIZING DEVICES.
 8. TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED

- NOTES ON NIGHTTIME WORK:
- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
 - N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.
 - N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH 107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
 - N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
 - N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
 - N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
 - N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
 - N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.





**Department of
Transportation**

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
FREEWAY
RIGHT TWO-LANE CLOSURE (8 FT + SHOULDER)
RIGHT SHOULDER CLOSURE -
INTERMEDIATE TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-401

NOTES:

1. LEFT LANE CLOSURES ARE SYMMETRICAL TO RIGHT LANE CLOSURES. SUBSTITUTE LEFT LANE CLOSED SIGN (W20-5) AND THE CORRESPONDING LANE ENDS SIGN (W4-2L).
2. WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK SPACE AND TO DIRECT VEHICULAR TRAFFIC TO REMAIN IN THE TRAVELED WAY.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
4. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
5. FOR BARRIER VEHICLE USE REQUIREMENTS SEE TABLES 402-03 AND 402-02.
6. TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.

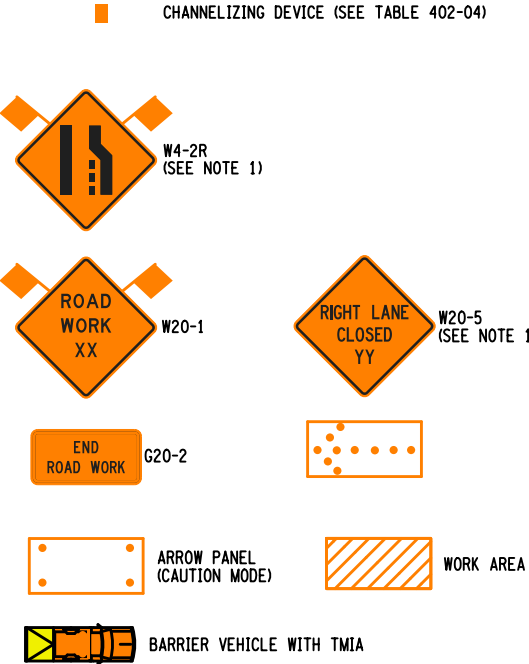
NOTES ON NIGHTTIME WORK:


- I. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- II. ALL SIGNS SHALL BE RETRO REFLECTIVE.
- III. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH 16/6107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
- IV. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
- V. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- VI. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- VII. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- VIII. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID CLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.

TABLE 402-01 ADVANCE WARNING SIGN SPACING						
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS FOR LANE WIDTH			SIGN LEGEND	
		A (FT.)	B (FT.)	C (FT.)	XX	YY
URBAN LOW (≤30 MPH)	30	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH)	35 40	200	200	200		
URBAN HIGH (≥45 MPH)	45	350	350	350	1000 FT	AHEAD
RURAL		500	500	500	1500 FT	1000 FT

TABLE 402-02									
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT. / * SKIP LINES	ROLL AHEAD / PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT. / * SKIP LINES		LANE TAPER: L (IN FT.) / * SKIP LINES / * OF CONES			SHOULDER TAPER: L / 3 (IN FT.) / * SKIP LINES / * OF CONES		
		MIN.	MAX.	FOR LANE WIDTH			FOR SHOULDER WIDTH		
				10 FT	11 FT	12 FT	LESS THAN 8 FT. (MIN - MAX)	8 FT OR WIDER (MIN)	
25	155 / 4	50/1	100/3	120/3/4	120/3/4	140/3/5	20/1/2 - 40/1/2	40/1/2	
30	200 / 5			160/4/5	180/5/6	180/5/6	20/1/2 - 40/1/2	40/1/2	
35	250 / 6			220/6/7	240/6/7	260/7/8	40/1/2 - 60/2/3	80/2/3	
40	305 / 8			280/7/8	300/8/9	320/8/9	40/1/2 - 60/2/3	80/2/3	
45	360 / 9	75/2	150/4	460/12/12	500/13/13	540/14/14	60/2/3 - 100/3/4	120/3/4	
50	425 / 11			500/13/14	560/14/15	600/15/16	80/2/3 - 100/3/4	140/4/5	
55	495 / 13	100/3	200/5	560/14/15	620/16/17	660/17/18	80/2/3 - 120/3/4	160/4/5	

TABLE 402-03 BARRIER VEHICLE				
CLOSURE TYPE	EXPOSURE CONDITION	NON-FREEWAY	NON-FREEWAY	NON-FREEWAY
		≥45 MPH	35-40 MPH	≤30 MPH
LANE CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED ³	REQUIRED ³	OPTIONAL ²
	NON-TRAVERSABLE HAZARD UE. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED ³	OPTIONAL ²	OPTIONAL ²
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED ³	OPTIONAL ²	OPTIONAL ²
	NON-TRAVERSABLE HAZARD UE. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED ³	OPTIONAL ²	OPTIONAL ²
1. 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.				
2. WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.				
3. REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMIA (TRUCK MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.				
4. BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.				
5. BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.				





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U.S. CUSTOMARY STANDARD SHEET

MULTI-LANE DIVIDED ROADWAY - RIGHT
LANE CLOSURE - INTERMEDIATE TERM

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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(XXXXXX)

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1 OF 2

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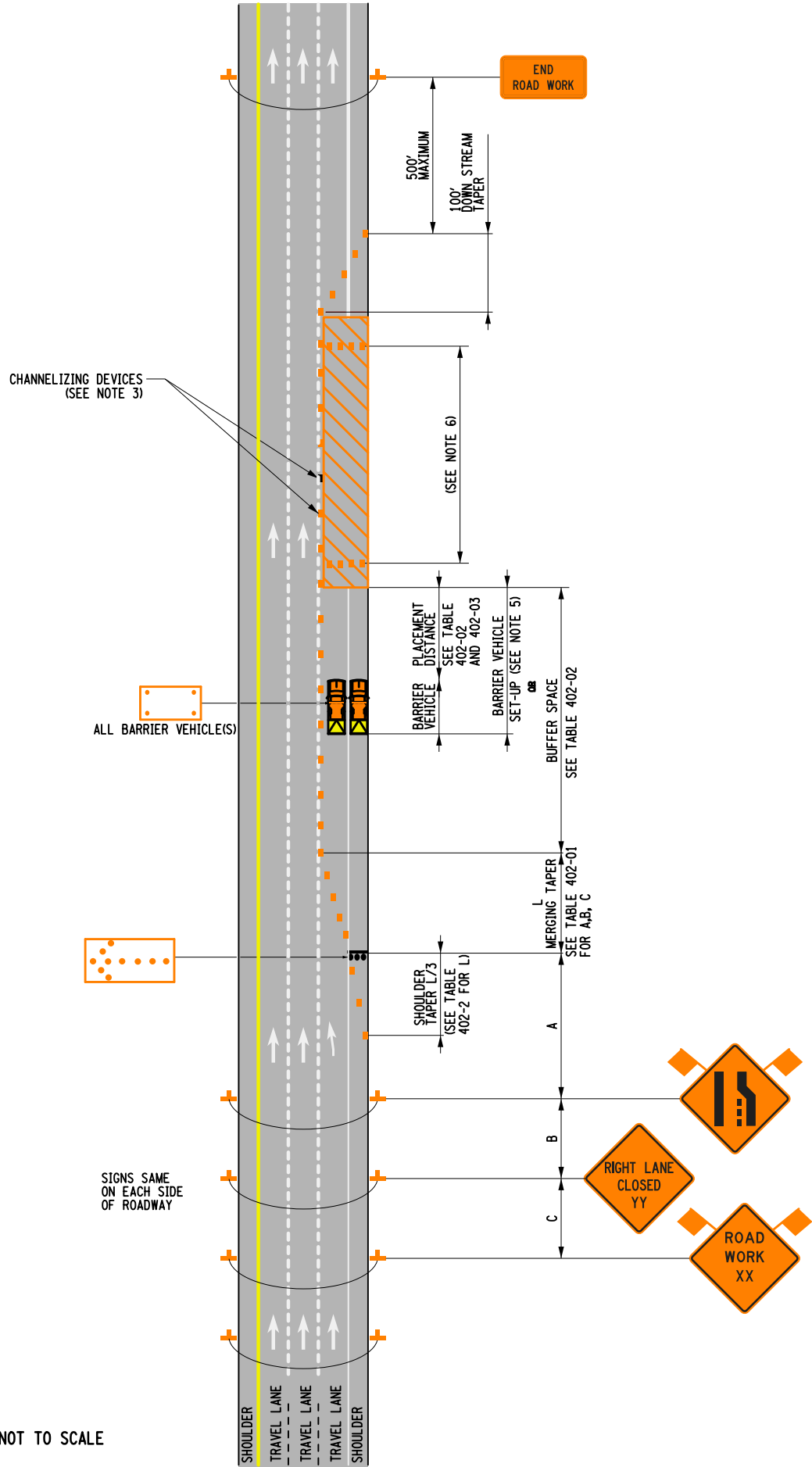


TABLE 402-04											
CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE-TERM STATIONARY WORK ZONES											
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACINGCENTER TO CENTER	CHANNELIZING DEVICE									
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	20 FT	X							X	X	
	40 FT	X							X	X	
SHOULDER/MERGING/SHIFTING TAPERS											
LONGITUDINAL LANE OR SHOULDER CLOSURE W/WORKERS PRESENT	40 FT	X		X	X				X	X	
LONGITUDINAL LANE OR SHOULDER CLOSURE W/WORKERS PRESENT	80 FT	X		X	X				X	X	
MARKING FOR TRANSVERSE BUMPS 1	N/A	X ²			X ²				X ²		
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	80 FT	X		X	X			X	X	X	0
	40 FT										
NOTES: X = ALLOWED BLANK = NOT ALLOWED 0 = OPTIONAL 1 - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE. 2 - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.											

TABLE 402-05: REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/EXPRESSWAY
W4-2R	36X36 in.	48X48 in.
W20-1	36X36 in.	48X48 in.
W20-5	36X36 in.	48X48 in.
G20-2	36X18 in.	48X24 in.



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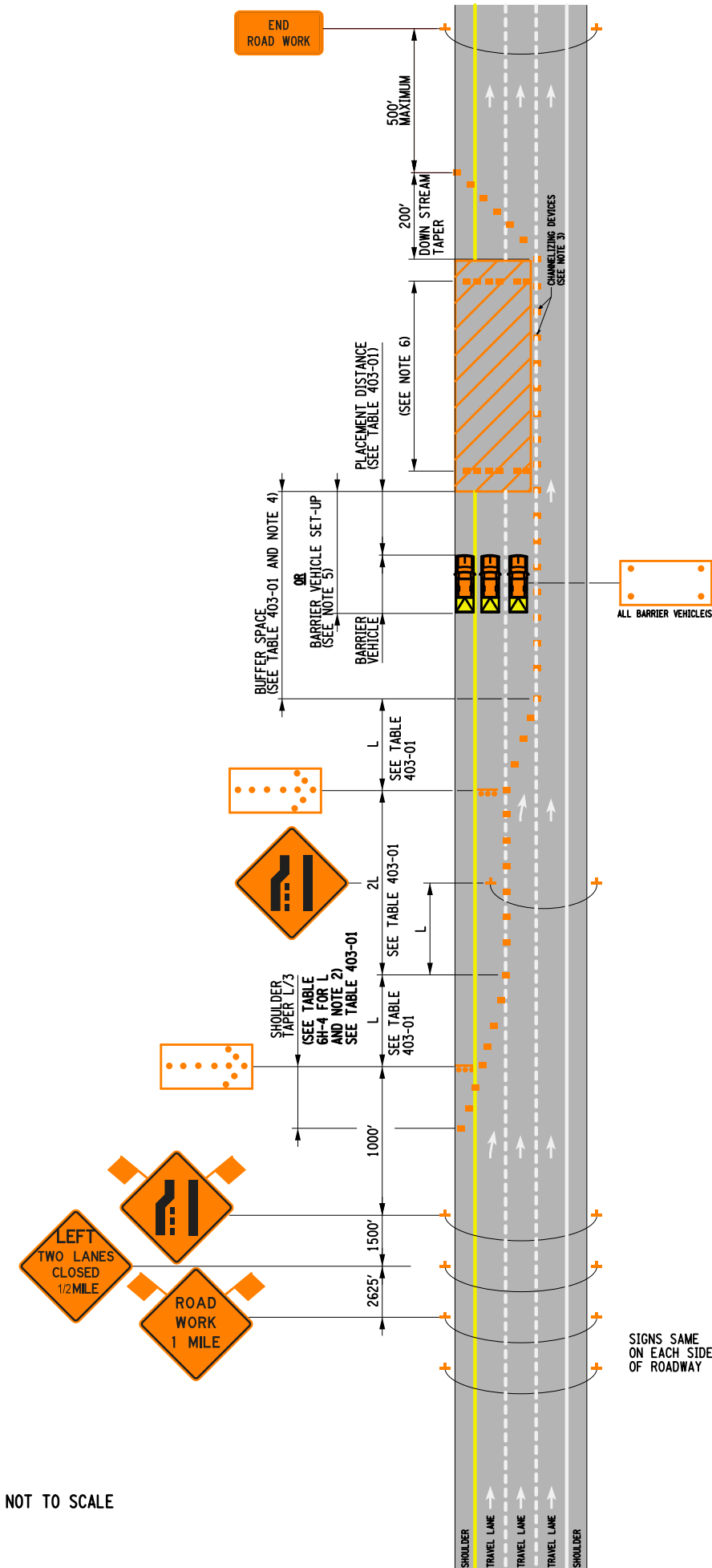
MULTI-LANE DIVIDED ROADWAY - RIGHT
LANE CLOSURE - INTERMEDIATE TERM

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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(XXXXXX)

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2 OF 2



NOT TO SCALE

TABLE 403-01							
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT / # SKIP LINES	ROLL AHEAD / PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT		LANE TAPER: L (IN FT.) / # SKIP LINES / # OF CONES			SHOULDER TAPER: L/3 (IN FT.) / # SKIP LINES / # OF CONES
		MIN.	MAX.	FOR LANE WIDTH			FOR SHOULDER WIDTH
				10 FT	11 FT	12 FT	LESS THAN 8 FT, 8 FT OR (MIN -MAX) 8 FT WIDER (MIN) (MIN)
45	360 /9	75/2	150/4	460/12/12 2	500/13/13	540/14/14	60/2/3-100/3/4
50	425 /11			500/13/14 4	560/14/15	600/15/16	80/2/3-100/3/4
55	495 /13	100/3	200/5	560/14/15 5	620/16/17	660/17/18	80/2/3-120/3/4
65	645/16			660/17/18 8	720/18/19	780/20/21	100/3/4-140/4/5
							120/3/4
							140/4/5
							160/4/5
							180/5/6

TABLE 403-02									
CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE-TERM STATIONARY WORK ZONES									
WORK ZONE PROVISIONS		MAXIMUM DEVICE SPACING (CENTER TO CENTER)	CHANNELIZING DEVICE						
			DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR									
SHOULDER/MERGING/SHIFTING TAPERS		20 FT X 40 FT X	X						X X
LONGITUDINAL LANE OR SHOULDER CLOSURE W/WORKERS PRESENT		40 FT X	X	X	X				X X
LONGITUDINAL LANE OR SHOULDER CLOSURE W/WORKERS PRESENT		80 FT X	X	X	X				X X
MARKING FOR TRANSVERSE BUMPS 1		N/A	X ²		X ²				X ²
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER		80 FT X	X	X	X			X	X X 0
		40 FT							
NOTES: X = ALLOWED BLANK = NOT ALLOWED 0 = OPTIONAL 1 - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE. 2 - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.									

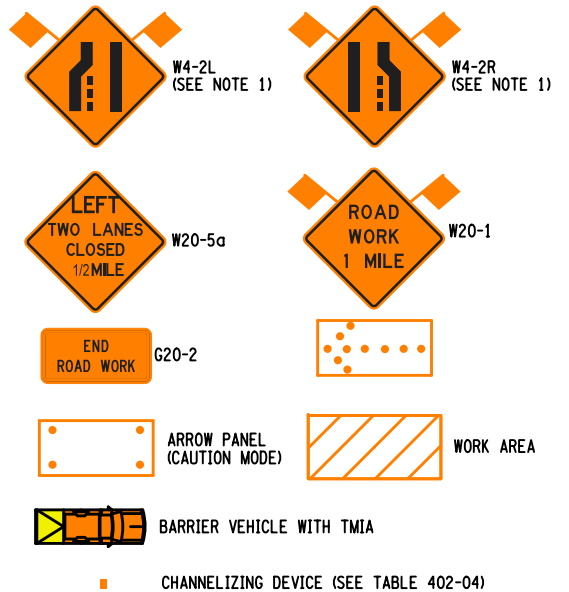
TABLE 403-03		
CLOSURE TYPE	EXPOSURE CONDITION	FREEWAY
LANE CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED ³
	NON-TRAVERSABLE HAZARD UE, EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED ³
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED ³
	NON-TRAVERSABLE HAZARD UE, EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED ³
1.THE EXPOSURE CONDITIONS DESCRIBED IN TABLE ASSUMES THERE IS NO POSITIVE PROTECTION A TEMPORARY TRAFFIC BARRIER) PRESENT. WHERE WORKERS OR HAZARDS ARE PROTECTED BY A TEMPORARY TRAFFIC BARRIER, BARRIER VEHICLES ARE NOT REQUIRED.		
2.WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE.		
3.REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMIA (TRUCK MOUNTED OR TRAILER MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC.BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE HAZARDS SHALL REMAIN IN PLACE DURING BOTH WORKING AND NON-WORKING HOURS UNTIL THE HAZARD NO LONGER EXISTS. E XCEPTIONS TO THESE REQUIREMENTS MAY BE MADE, AS APPROVED BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.		
4.BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE [TABLE 6C-2] SHALL BE PROVIDED.		
5.BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE [TABLE 6C-2] SHALL BE PROVIDED.		

NOTES:

- RIGHT LANE CLOSURES ARE SYMMETRICAL TO LEFT LANE CLOSURES. SUBSTITUTE RIGHT TWO LANES CLOSED 1/2 MILE SIGN (W20-5a) AND THE CORRESPONDING LANE ENDS SIGN (W4-2R).
- WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK SPACE AND TO DIRECT VEHICULAR TRAFFIC TO REMAIN IN THE TRAVELED WAY.
- CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
- NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
- FOR BARRIER VEHICLE USE REQUIREMENTS SEE TABLES 403-03 AND 403-01.
- TRANSVERSE DEVICES SHALL BE REQUIRED WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.

NOTES ON NIGHTTIME WORK:

- WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS
- ALL SIGNS SHALL BE RETRO REFLECTIVE
- ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES
- VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES
- LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY



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U.S. CUSTOMARY STANDARD SHEET	
FREEWAY LEFT TWO LANE CLOSURE INTERMEDIATE TERM	
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WORK AREA

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMET AND NIGHTTIME APPAREL IN ACCORDANCE WITH 407-05A . HIGH VISIBILITY APPAREL AT ALL TIMES.
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 30 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED , INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.

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TABLE 407-01 ADVANCE WARNING SIGN SPACING						
ROADWAY	PRE CONSTRUCTION	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
	POSTED	FOR LANE WIDTH			XX	XY
	SPEED LIMIT (MPH)	A(FT.)	B(FT.)	C(FT.)	AHEAD	AHEAD
URBAN LOW (≤ 30 MPH)	30	100	100	100		
URBAN (35-40 MPH)	35	200	200	200		
	40					
URBAN HIGH (≤ 45 MPH)	45	350	350	350	1000 FT.	AHEAD
RURAL		500	500	500	1500 FT.	1000 FT.

TABLE 407-04		
REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/ EXPRESSWAY
W20-4	36x36 IN.	48x48 IN.
W20-1	36x36 IN.	48x48 IN.
W20-7a	36x36 IN.	48x48 IN.
G20-2	36x18 IN.	48x24 IN.
*FREEWAY/EXPRESSWAY SIZES MAY BE USED ONCONVENTIONAL HIGHWAYS		

TABLE 407-02			
PRE CONSTRUCTION		SHOULDER TAPER: L/3 (IN FT.) /*SKIP	
POSTED		FOR SHOULDER	
SPEED LIMIT (MPH)		LESS THAN 8FT. (MIN-MAX)	8FT. OR WIDER (MIN)
45	360/9	60/2/3 - 100/3/4	120/3/4
50	425/11	80/2/3- 100/3/4	160/4/5
55	495/13	80/2/3- 100/3/4	160/4/5
65	645/16	100/3/4- 140/4/5	180/5/6

407-03											
CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE-TERM STATIONARY WORK ZONES											
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACEING (CENTER TO CENTER)	CHANNELIZING DEVICE									
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	20 FT.	X							X	X	
	40 FT.	X							X	X	
LONGITUDINAL LANE OR SHOULDER CLOSURE W/WORKERS PRESENT	40 FT.	X		X	X				X	X	
LONGITUDINAL LANE OR SHOULDER CLOSURE W/NO WORKERS PRESENT	80 F.	X		X	X				X	X	
MARKING FOR TRANSVERSE BUMPS¹	N/A	X²			X²				X²		
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X			X	X	X	0
	40 FT.										
NOTES: X= ALLOWED BLANK =NOT ALLOWED 0 = OPTIONAL											
1 - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.											
2 - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.											

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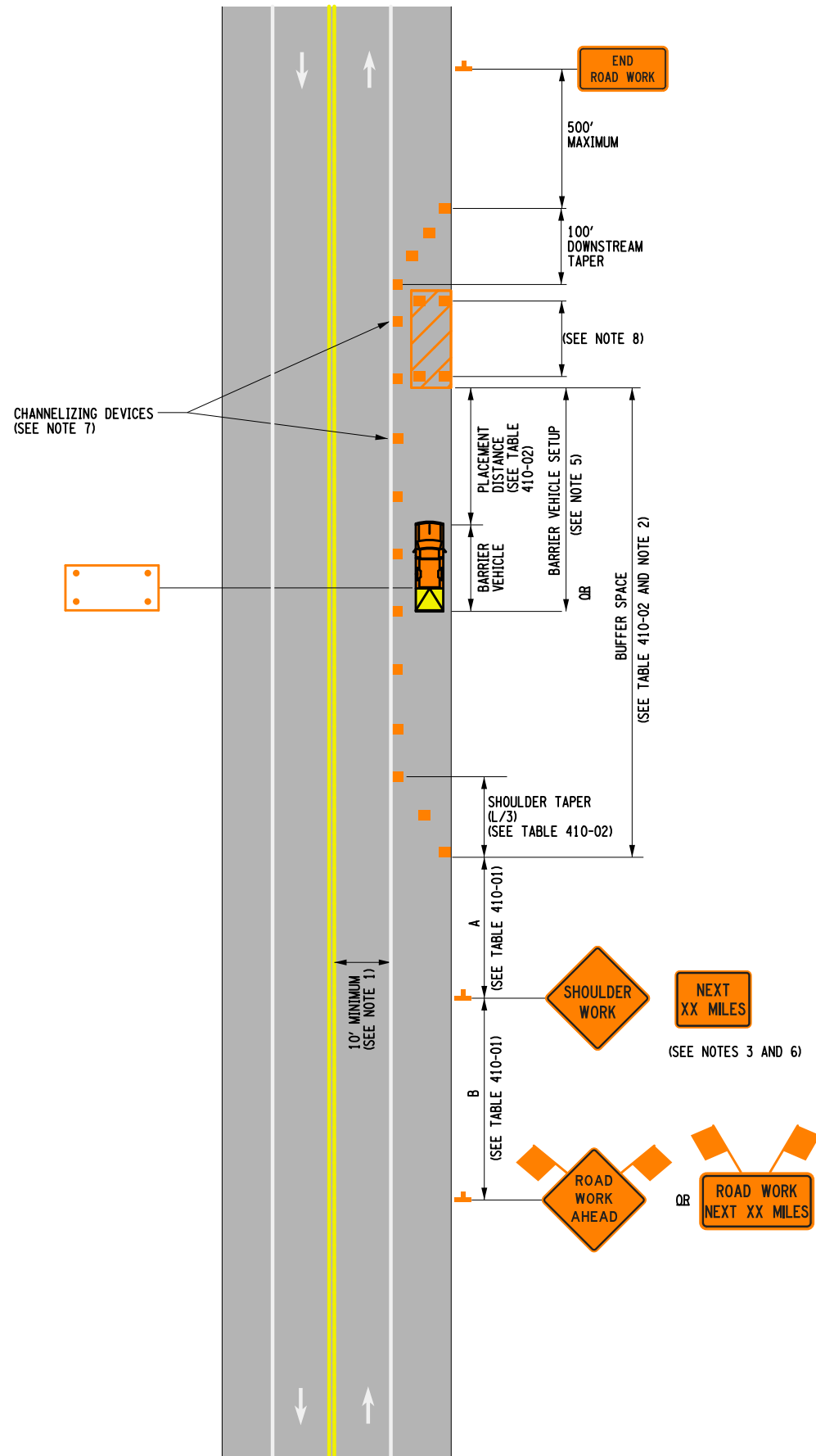
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TWO-LANE TWO-WAY ROADWAY
LANE CLOSURE WITH FLAGERS
INTERMEDIATE TERM OPERATION

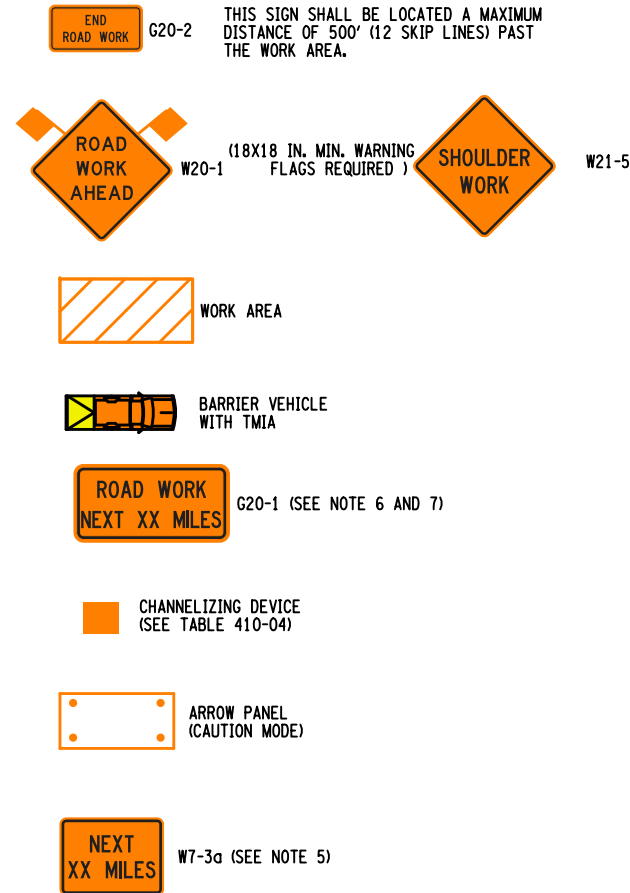
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/S/ DAVID J. CLEMENTS, P.E.
DIRECTOR, OFFICE OF
TRAFFIC SAFETY AND MOBILITY

ISSUED UNDER EB XX-XXX
619-407
2 Of 2

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NOTES:

1. WHEN THE MINIMUM LANE WIDTH OF 10' CANNOT BE MAINTAINED DUE TO A SHOULDER CLOSURE, USE THE DETAIL FOR SHORT OR INTERMEDIATE TERM STATIONARY FLAGGING OPERATION.
2. NO WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A BUFFER SPACE.
3. WHEN THE DISTANCE BETWEEN THE ADVANCE WARNING SIGNS AND WORK IS 2 MILES TO 5 MILES, A SUPPLEMENTAL DISTANCE PLAQUE (W7-3A) SHOULD BE USED WITH THE SHOULDER WORK SIGN (W21-5).
4. THE ROAD WORK NEXT XX MILES SIGN (G20-1) MAY BE USED INSTEAD OF THE ROAD WORK AHEAD SIGN (W20-1) IF WORK LOCATIONS OCCUR OVER A DISTANCE OF MORE THAN 2 MILES.
5. FOR BARRIER VEHICLE USE REQUIREMENTS SEE TABLE 410-03 AND TABLE 410-02.
6. IN THOSE SITUATIONS WHERE MULTIPLE WORK LOCATIONS EXIST WITHIN A LIMITED DISTANCE MAKE IT PRACTICAL TO PLACE STATIONARY SIGNS, THE DISTANCE BETWEEN THE ADVANCE WARNING SIGN AND WORK SHALL NOT EXCEED 5 MILES.
7. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
8. TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.

NOTES ON NIGHTTIME WORK:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH 107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.


 NEW YORK STATE OF OPPORTUNITY.	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
WORK ZONE TRAFFIC CONTROL TWO-LANE TWO-WAY ROADWAY SHOULDER CLOSURE WITH NO LANE ENCROACHMENT INTERMEDIATE TERM OPERATION (SHEET 1 OF 2)	
APPROVED XXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-410


TABLE 410-01 : ADVANCE WARNING SIGN SPACING			
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS	
		A (FT.)	B (FT.)
URBAN LOW ≤ 30 MPH	30	100	100
URBAN (35-40 MPH)	35	200	200
	40		
URBAN HIGH ≥ 45 MPH	45	350	350
RURAL		500	500

TABLE 410-02					
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT./ *SKIP LINES	ROLLAHEAD / PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT./ * SKIP LINES		SHOULDER TAPER L/3 (IN FT.) /*SKIP LINES/*OF CONES	
		MIN	MAX	FOR SHOULDER WIDTH	
				LESS THAN 8FT. (MIN - MAX)	8 FT. OR WIDER (MIN)
25	155/4	50/1	100/3	20/1/2 - 40/1/2	40/1/2
30	200/5			20/1/2 - 40/1/2	40/1/2
35	250/6			40/1/2 - 60/2/3	80/2/3
40	305/8			40/1/2 - 60/2/3	80/2/3
45	360/9	75/2	150/4	60/2/3 - 100/3/4	120/3/4
50	425/11			80/2/3 - 100/3/4	140/4/5
55	495/13			80/2/3 - 120/3/4	160/4/5

TABLE 410-05 : REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/ EXPRESSWAY
W20-1	36X36 IN	48X48 IN
W21-5	36X36 IN	48X48 IN
W7-3a	24X18 IN	36X30 IN
G20-1	36X18 IN	48X24 IN
G20-2	36X18 IN	48X24 IN
*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS		

TABLE 410-03 BARRIER VEHICLE REQUIREMENT FOR INTERMEDIATE TERM CLOSURE				
CLOSURE TYPE	EXPOSURE CONDITION	NON-FREEWAY		
		≥ 45 MPH	35-40 MPH	≤ 30 MPH
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED*	OPTIONAL*	OPTIONAL*
	NON-TRAVERSABLE HAZARD I.E. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED*	OPTIONAL*	OPTIONAL*
1. THE EXPOSURE CONDITIONS DESCRIBED IN TABLE NYI- 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.				
2. WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.				
3.REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMI(ATRUCK MOUNTED OR TRAILER MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.				
4.BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.				
5.BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.				

TABLE 410-04 CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE- TERM STATIONARY WORK ZONES											
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	CHANNELIZING DEVICE									
INTERMEDIATE-TERM WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
SHOULDER/MERGING/ SHIFTING TAPERS	20 FT.	X							X	X	
	40 FT.	X							X	X	
MARKING FOR TRANSVERSE BUMPS¹	NA	X¹			X¹				X¹		
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X			X	X	X	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT.	X		X	X	X		X	X	X	0
	40 FT.										
NOTES: X= ALLOWED, BLANK= NOT ALLOWED, 0=OPTIONAL 1- A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE. 2- CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.											



NEW YORK
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U.S. CUSTOMARY STANDARD SHEET

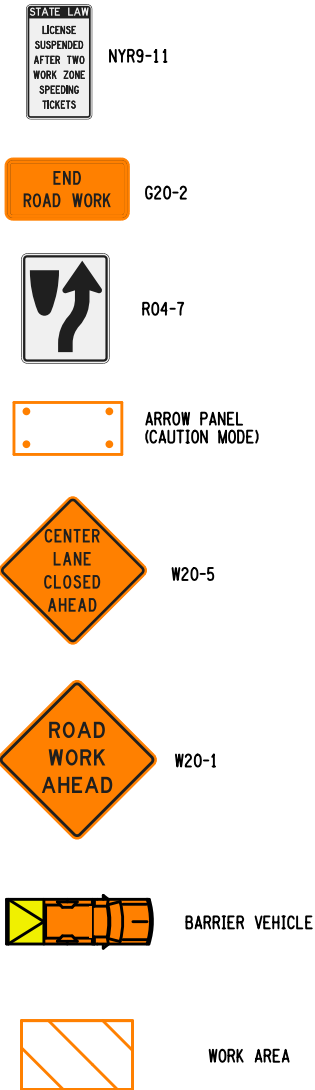
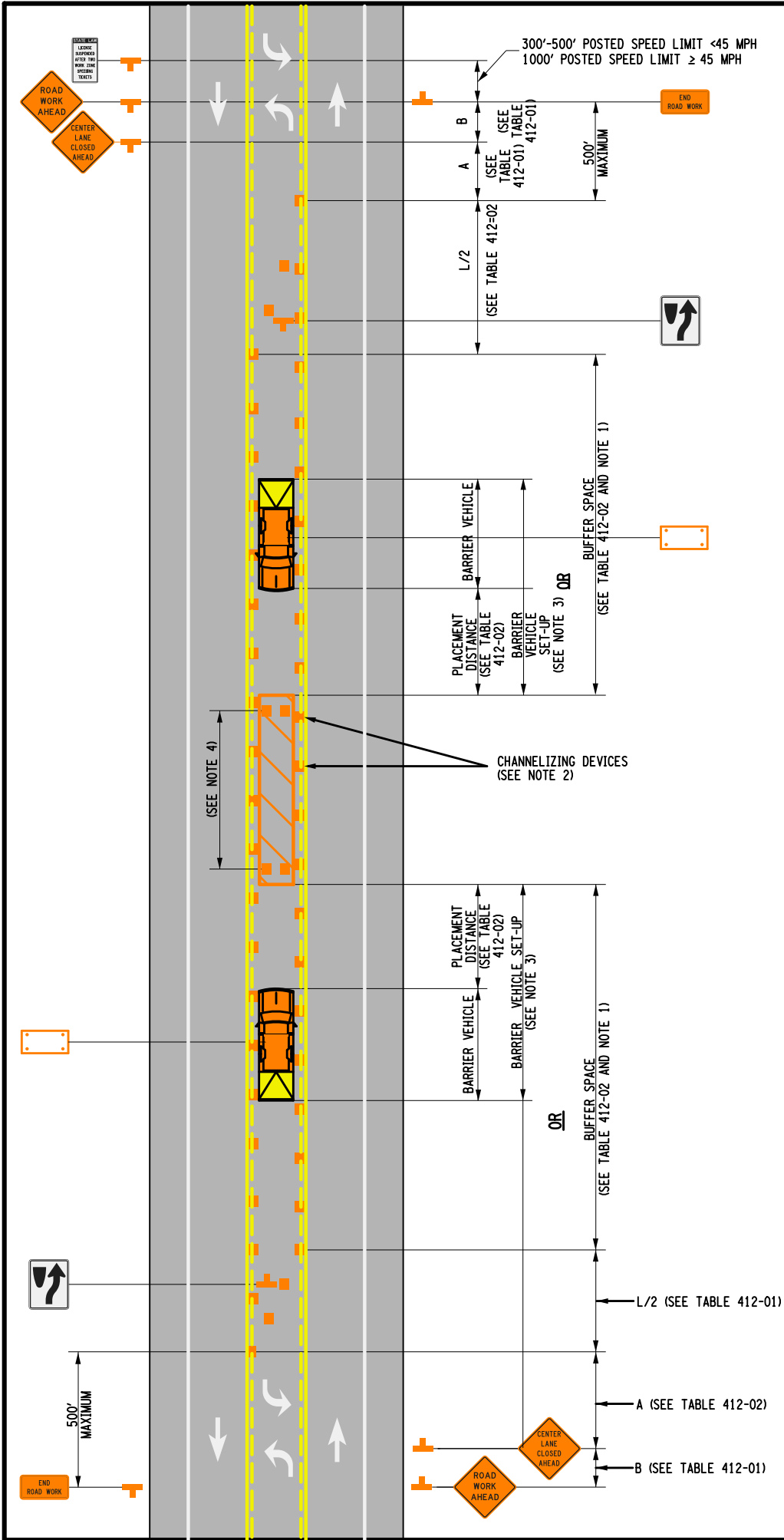
WORK ZONE TRAFFIC CONTROL
TWO-LANE TWO-WAY ROADWAY
SHOULDER CLOSURE WITH NO LANE
ENCROACHMENT INTERMEDIATE TERM OPERATION
(SHEET 2 OF 2)

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXXX
(XXXXXXXX)

619-410



NOTES:

1. N WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A BUFFER SPACE.
2. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
3. FOR BARRIER VEHICLE USE REQUIREMENTS SEE TABLE 412-04.
4. TRANSVERSE DEVICES SHALL BE REQUIRED WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.

NOTES ON NIGHTTIME WORK:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMET AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A . HIGH VISIBILITY APPAREL AT ALL TIMES.
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED , INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.



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MULTI-LANE UNDIVIDED ROADWAY
CENTER TURN LANE CLOSURE
INTERMEDIATE TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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(XXXXXX)

619-412
1 OF 2

NOT TO SCALE

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TABLE 412-02						
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT / * SKIP LINES	DISTANCE BETWEEN SIGNS		SHIFTING TAPER: L/2 (IN FT.) /* SKIP LINES/* OF CONES		
		MIN	MAX	FOR LANE WIDTH		
				10 FT.	11 FT.	12 FT.
25	155/4	50/1	100/3	60/2/2	60/2/2	70/2/3
30	200/5			80/2/3	90/3/3	90/3/4
35	250/6			110/3/4	120/3/4	130/4/4
40	305/8			140/3/5	150/4/5	160/4/5
45	360/9	75/2	150/4	230/6/7	250/7/7	270/7/7
50	425/11			260/7/8	280/7/8	300/8/8
55	495/13	100/3	200/5	280/7/8	310/8/9	330/9/9

TABLE 412-01 ADVANCE WARNING SIGN SPACING						
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
		FOR LANE WIDTH			XX	YY
		A (FT.)	B (FT.)	C (FT.)		
URBAN LOW (≤ 30 MPH)	30	100	100	100	AHEAD	AHEAD
URBAN (35 - 40 MPH)	35	200	200	200		
	40	100	100	100		
URBAN HIGH (≥ 45 MPH)	45	350	350	350	1000 FT.	AHEAD
RURAL		500	500	500	1500 FT.	1000 FT.

TABLE 412-05 REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/ EXPRESSWAY
W20-5	36x36 IN.	48x48 IN.
W20-1	36x36 IN.	48x48 IN.
R4-07	24x30 IN.	38x48 IN.
G20-2 NYR9-11	36x18 IN.	48x24 IN.
	24x42 IN.	48x84 IN.
*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS		

TABLE 412-03												
CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE-TERM STATIONARY WORK ZONES												
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	CHANNELIZING DEVICE										
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES	
SHOULDER/MERGING/ SHIFTING TAPERS	20 FT.	X							X	X		
	40 FT.	X							X	X		
LONGITUDINAL LANE OR SHOULDER CLOSURE W/WORKERS PRESENT	40 FT.	X		X	X				X	X		
LONGITUDINAL LANE OR SHOULDER CLOSURE W/NO WORKERS PRESENT	80 F.	X		X	X				X	X		
MARKING FOR TRANSVERSE BUMPS¹	N/A	X²			X²				X²			
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X			X	X	X	0	
	40 FT.											
NOTES: X= ALLOWED BLANK =NOT ALLOWED 0 = OPTIONAL												
1 - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.												
2 - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.												

TABLE 412-04 BARRIER VEHICLE				
CLOSURE TYPE		NON-FREEWAY		
		≥ 45 MPH	≥ 45 MPH	≥ 45 MPH
LANE CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	≥ 45 MPH	≥ 45 MPH	≥ 45 MPH
	NON-TRAVERSABLE HAZARD UE. EQUIPMENT, MATERIALS. EXCAVATION ONLY NO WORKERS EXPOSED	≥ 45 MPH	≥ 45 MPH	≥ 45 MPH
<p>1. THE EXPOSURE CONDITIONS DESCRIBED IN TABLE NYI-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.</p> <p>2. WHERE THE REQUIREMENT IS "OPTIONAL" , EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</p> <p>3. REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER² OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMIA (TRUCK MOUNTED OR TRAILER MOUNTED ATTENUATOR.) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.</p> <p>4. BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</p> <p>5. BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</p>				



Department of
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U.S. CUSTOMARY STANDARD SHEET

MULTI-LANE UNDIVIDED ROADWAY
CENTER TURN LANE CLOSURE
INTERMEDIATE TERM OPERATION

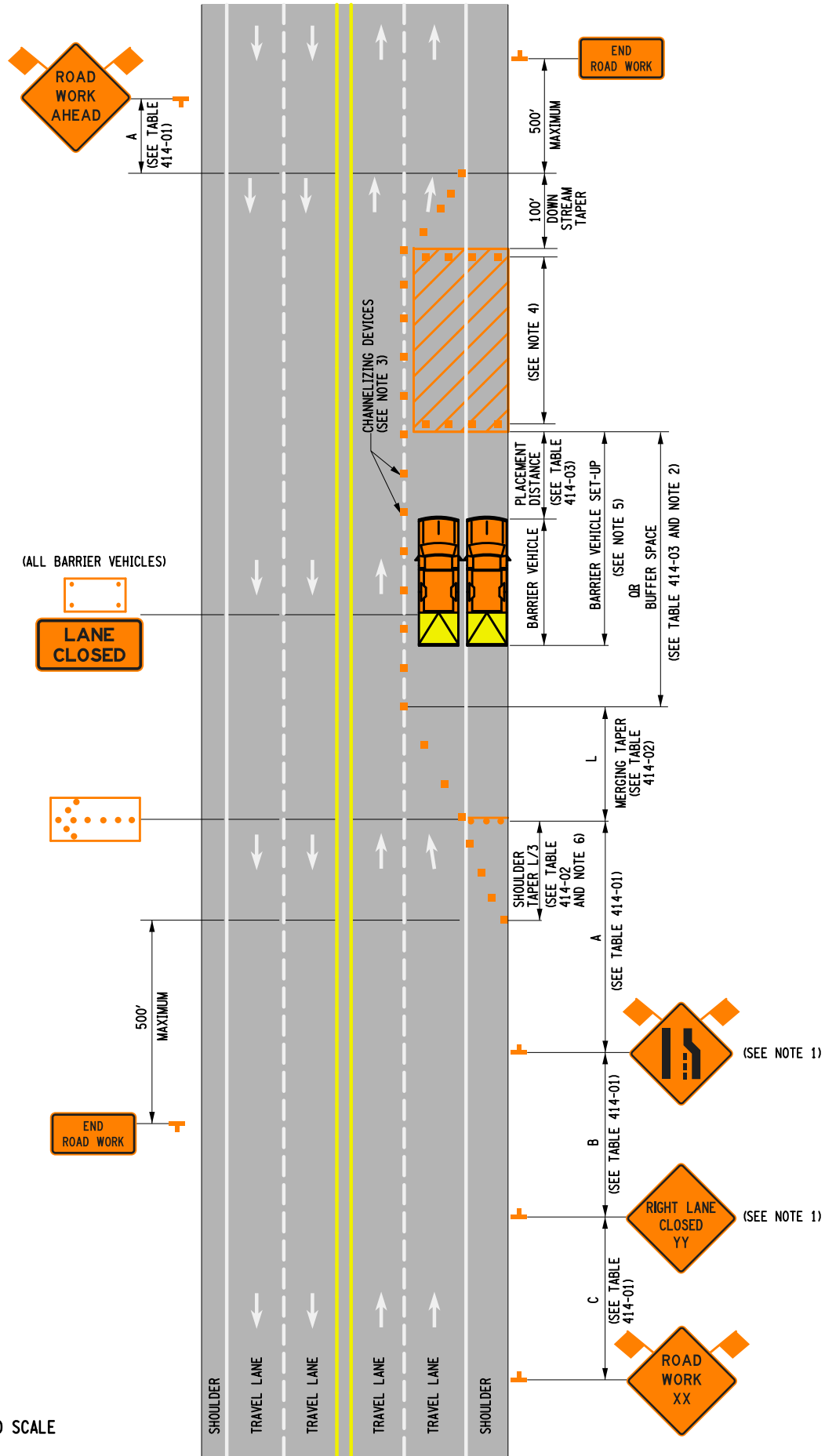
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ISSUED UNDER EB XX-XXX

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(XXXXXX)

619-412
2 OF 2

NOT TO SCALE



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18X18 IN. (MIN. WARNING FLAG)
W4-2R

18X18 IN. (MIN. WARNING FLAG)
W20-1

NYW8-33

W20-5R

ARROW PANEL
(CAUTION MODE)

ARROW PANEL

BARRIER VEHICLE
WITH TMIA

G20-2

CHANELIZING DEVICE
(SEE TABLE 414-05)

WORK AREA

- NOTES:
1. LEFT LANE CLOSURES ARE SYMMETRICAL TO RIGHT LANE CLOSURES. SUBSTITUTE LEFT LANE CLOSED SIGN (W20-5) AND THE CORRESPONDING LANE ENDS SIGN (W4-2L).
 2. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
 3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
 4. TRANSVERSE DEVICES SHALL BE REQUIRED WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.
 5. FOR BARRIER VEHICLE USE REQUIREMENTS SEE TABLES 414-04.
 6. WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK SPACE AND TO DIRECT VEHICULAR TRAFFIC TO REMAIN IN THE TRAVELED WAY.
 7. FREEWAY/EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS IF SPACE CONSTRAINTS DO NOT EXIST.

- NOTES ON NIGHTTIME WORK:
- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
 - N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.
 - N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
 - N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
 - N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
 - N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
 - N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
 - N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.

NEW YORK
STATE OF
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Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

MULTI LANE DIVIDED ROADWAY
SINGLE LANE CLOSURE
INTERMEDIATE
(SHEET 1 OF 2)

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-414

TABLE 414-01 : ADVANCE WARNING SIGN SPACING						
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
		FOR LANE WIDTH			XX	YY
		A (FT.)	B (FT.)	C (FT.)		
URBAN LOW ≤ 30 MPH)	30	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH)	35	200	200	200		
	40					
URBAN HIGH ≥ 45 MPH)	45	350	350	350	1000 FT.	AHEAD
RURAL		500	500	500	1500 FT.	1000 FT.


TABLE 414-02: TAPER LENGTHS AND NUMBER OF CONES CHART												
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /* SKIP LINES/* OF CONES										SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR LANE WIDTH IN FT (LATERAL SHIFT OF TRAFFIC FLOW PATH)										FOR SHOULDER WIDTH	
	4	5	6	7	8	9	10	11	12		LESS THAN 8 FT. (MIN -MAX)	8 FT OR WIDER (MIN)
25	45/1/2	55/1/2	65/2/3	75/2/3	85/2/3	95/3/4	120/3/4	120/3/4	140/3/5		20/1/2-40/1/2	40/1/2
30	60/2/3	75/2/3	90/2/3	105/3/4	120/3/4	135/3/4	160/4/5	180/5/6	180/5/6		20/1/2-40/1/2	40/1/2
35	85/2/3	105/3/4	125/3/4	145/4/5	164/4/5	185/5/6	220/6/7	240/6/7	260/7/8		40/1/2-60/2/3	80/2/3
40	120/3/4	135/3/4	160/4/5	190/5/6	215/5/6	240/6/7	280/7/8	300/8/9	320/8/9		40/1/2-60/2/3	80/2/3
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15		60/2/3-100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16		80/2/3-100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18		80/2/3-120/3/4	160/4/5

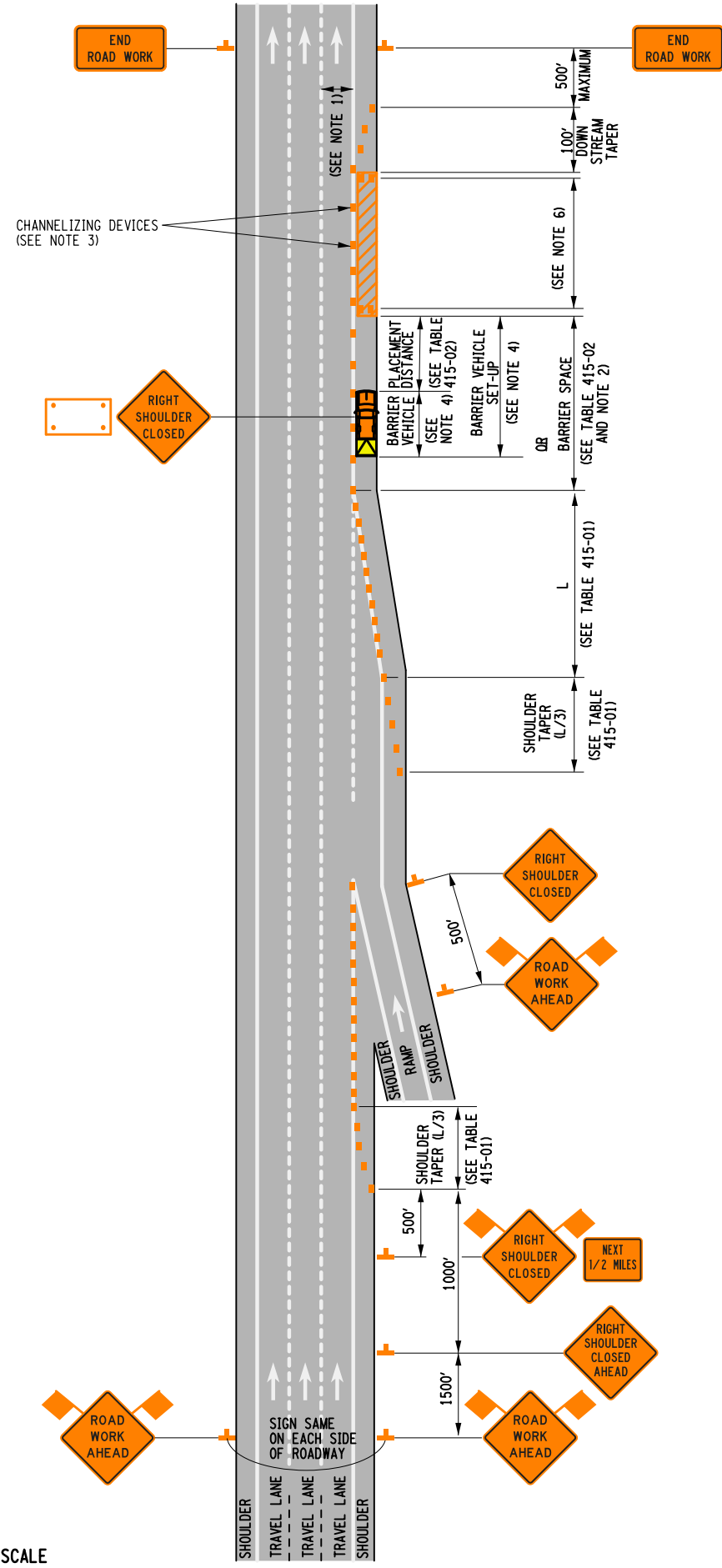
TABLE 414-03			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT/* SKIP LINES	ROLL AHEAD /PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/ * SKIP LINES	
		MIN	MAX
25	155/4	50/1	100/3
30	200/5		
35	250/6		
40	305/8		
45	360/9	75/2	150/4
50	425/11		
55	495/13		

TABLE 414-04		
CLOSURE TYPE	EXPOSURE CONDITION	FREEWAY
LANE CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED'
	NON-TRAVERSABLE HAZARD I.E. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED'
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED'
	NON-TRAVERSABLE HAZARD I.E. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED'
1. THE EXPOSURE CONDITIONS DESCRIBED IN THE TABLE 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. 2. WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED. 3.REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMI(TRUCK MOUNTED OR TRAILER MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC. 4.BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED. 5.BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.		

TABLE 414-05 CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE- TERM STATIONARY WORK ZONES												
WORK ZONE PROVISIONS		MAXIMUM DEVICE SPACING (CENTER TO CENTER)	CHANNELIZING DEVICE									
INTERMEDIATE-TERM AND WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR			DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
SHOULDER/MERGING/ SHIFTING TAPERS		20 FT.	X							X	X	
		40 FT.	X							X	X	
MARKING FOR TRANSVERSE BUMPS'		N/A	X'			X'				X'		
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER		800 FT.	X		X	X			X	X	X	0
REMOVAL OF EXISTING GUIDE RAIL		80 FT.	X		X	X	X		X	X	X	0
		40 FT.										
NOTES: X= ALLOWED, BLANK= NOT ALLOWED, 0=OPTIONAL 1- A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE. 2- CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.												

TABLE 414-06 : REQUIRED SIGN SIZES'		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/ EXPRESSWAY
W4-2R	36X36 IN.	48X48 IN.
W20-1	36X36 IN.	48X48 IN.
W20-5	36X36 IN.	48X48 IN.
NYW8-33	48X24 IN.	48X24 IN.
G20-2	36X18 IN.	48X24 IN.
*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS		

<div><div><div>NEW YORK STATE OF OPPORTUNITY.</div></div><div>Department of Transportation</div></div>	
U.S. CUSTOMARY STANDARD SHEET	
MULTI LANE DIVIDED ROADWAY SINGLE LANE CLOSURE INTERMEDIATE (SHEET 2 OF 2)	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-414



18X18 IN. (MIN. WARNING FLAG)
W20-1
(48X48 IN.)

W21-5bR
(48X48 IN.)

18X18 IN. (MIN. WARNING FLAG)
W21-5aR
(48X48 IN.)

W7-3a
(36X30 IN.)

G20-2
(48X24 IN.)

ARROW PANEL
(CAUTION MODE)

WORK AREA

BARRIER VEHICLE WITH TMIA

CHANELIZING DEVICE
(SEE TABLE 415-04)

- NOTES:
1. WHEN THE MINIMUM LANE WIDTH OF 11' CANNOT BE MAINTAINED DUE TO A SHOULDER CLOSURE, USE THE DETAIL FOR SHORT OR INTERMEDIATE TERM, STATIONARY SINGLE LANE CLOSURE NEAR ENTRANCE RAMP.
 2. NO WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A BUFFER SPACE.
 3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
 4. FOR BARRIER VEHICLE USE REQUIREMENTS SEE TABLES 415-02, 415-03.
 5. THE "NEXT X MILE" SUPPLEMENTAL SIGN (W7-3a) IS REQUIRED WHEN THE SHOULDER IS CLOSED FOR A DISTANCE GREATER THAN 2 MILES.
 6. TRANSVERSE DEVICES SHALL BE REQUIRED WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.

- NOTES ON NIGHTTIME WORK:
- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
 - N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.
 - N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
 - N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
 - N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
 - N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
 - N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
 - N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.

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	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
FREWAY SHOULDER CLOSURE AT RAMP APPROACH INTERMEDIATE OPERATION (SHEET 1 OF 2)	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619- 415

FILE NAME = 619-415-2.dgn
DATE/TIME = 17-FEB-2021 10:51
USER = omodaffer1


NOT TO SCALE

TABLE 415-01: TAPER LENGTHS AND NUMBER OF CONES CHART											
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /* SKIP LINES/* OF CONES									SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR LANE WIDTH IN FT (LATERAL SHIFT OF TRAFFIC FLOW PATH)									FOR SHOULDER WIDTH	
	4	5	6	7	8	9	10	11	12	LESS THAN 8 FT. (MIN -MAX)	8 FT OR WIDER (MIN)
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15	60/2/3-100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16	80/2/3-100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18	80/2/3-120/3/4	160/4/5
65	260/7/8	350/9/10	420/11/12	490/13/14	560/14/15	630/16/17	660/17/18	720/18/19	780/20/21	100/3/4-140/4/5	180/5/6

TABLE 415-02			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT/* SKIP LINES	ROLL AHEAD /PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/ * SKIP LINES	
		MIN	MAX
45	360/9	75/2	150/4
50	425/11		
55	495/13	100/3	200/5
65	645/16		

TABLE 415-03 BARRIER VEHICLE REQUIREMENT FOR INTERMEDIATE TERM CLOSURE				
CLOSURE TYPE	EXPOSURE CONDITION	NON-FREEWAY		
		≥ 45 MPH	35-40 MPH	≤ 30 MPH
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED*	OPTIONAL*	OPTIONAL*
	NON-TRAVERSABLE HAZARD I.E. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED*	OPTIONAL*	OPTIONAL*
<p>1. THE EXPOSURE CONDITIONS DESCRIBED IN THE TABLE 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.</p> <p>2. WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</p> <p>3.REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMIA(TRUCK MOUNTED OR TRAILER MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.</p> <p>4.BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</p> <p>5.BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</p>				

TABLE 415-04 CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE- TERM STATIONARY WORK ZONES												
WORK ZONE PROVISIONS		MAXIMUM DEVICE SPACING (CENTER TO CENTER)	CHANNELIZING DEVICE									
INTERMEDIATE-TERM WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR			DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
SHOULDER/MERGING/ SHIFTING TAPERS		20 FT.	X						X	X		
		40 FT.	X						X	X		
MARKING FOR TRANSVERSE BUMPS¹		N/A	X*			X*			X*			
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER		800 FT.	X		X	X			X	X	X	0
REMOVAL OF EXISTING GUIDE RAIL		80 FT.	X		X	X	X		X	X	X	0
		40 FT.										
NOTES: X= ALLOWED, BLANK= NOT ALLOWED, 0=OPTIONAL 1- A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE. 2- CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.												



NEW YORK
STATE OF
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Department of
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U.S. CUSTOMARY STANDARD SHEET

FREEWAY
SHOULDER CLOSURE AT RAMP APPROACH
INTERMEDIATE OPERATION
(SHEET 2 OF 2)

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

619- 415

XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)



TABLE 416-01		
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR SHOULDER WIDTH	
	LESS THAN 8 FT. (MIN -MAX)	8 FT. OR WIDER (MIN)
45	60/2/3-100/3/4	120/3/4
50	80/2/3-100/3/4	140/4/5
55	80/2/3-120/3/4	160/4/5
65	100/3/4-140/4/5	180/5/6

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT/* SKIP LINES	ROLL AHEAD /PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/ * SKIP LINES	
		MIN	MAX
45	360/9	75/2	150/4
50	425/11		
55	495/13	100/3	200/5
65	645/16		

NOTES:

1. NO WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A BUFFER SPACE.
2. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
3. FOR BARRIER VEHICLE USE REQUIREMENTS SEE TABLES 416-02 AND 416-03.
4. TRUCK OFF-TRACKING SHOULD BE CONSIDERED WHEN DETERMINING WHETHER THE MINIMAL LANE WIDTH OF 10' IS ADEQUATE.
5. THE ENGINEER MAY REQUIRE THE USE OF AN ADVISORY SPEED PLAQUE (W13-1) TO SUPPLEMENT A WARNING SIGN. THE PLAQUE WILL BE USED TO INDICATE AN ADVISORY SPEED FOR THE WORK ZONE CONDITION. (IE. NARROW LANES, BUMPS, POOR ROADWAY SURFACE, LOW OR NO SHOULDER, DROP-OFFS, GEOMETRIC CONSTRAINTS, AND/OR POOR SIGHT CONDITIONS.)
6. TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.

NOTES ON NIGHTTIME WORK:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.

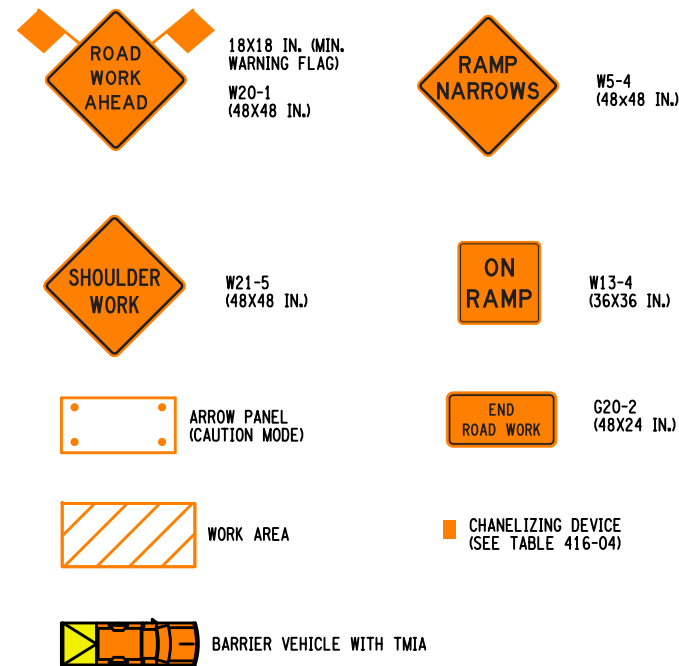



TABLE 416-03 BARRIER VEHICLE REQUIREMENT FOR INTERMEDIATE TERM CLOSURE		
CLOSURE TYPE	EXPOSURE CONDITION	FREEWAY
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED'
	NON-TRAVERSABLE HAZARD I.E. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED'
<div>1. THE EXPOSURE CONDITIONS DESCRIBED IN THE TABLE 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.</div> <div>2. WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</div> <div>3.REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMIA(TRUCK MOUNTED OR TRAILER MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.</div> <div>4.BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</div> <div>5.BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</div>		

TABLE 416-04 CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE- TERM STATIONARY WORK ZONES										
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	CHANNELIZING DEVICE								
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES
INTERMEDIATE-TERM WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR										
SHOULDER/MERGING/ SHIFTING TAPERS	20 FT.	X							X	X
	40 FT.	X							X	X
MARKING FOR TRANSVERSE BUMPS'	N/A	X'			X'				X'	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X			X	X	X
REMOVAL OF EXISTING GUIDE RAIL	80 FT.									
	40 FT.	X		X	X	X		X	X	X
<div>NOTES: X= ALLOWED, BLANK= NOT ALLOWED, O=OPTIONAL</div> <div>1- A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.</div> <div>2- CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.</div>										

NOT TO SCALE



NEW YORK
STATE OF
OPPORTUNITY.

Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

FREEWAY
PARTIAL EXIT RAMP CLOSURE
INTERMEDIATE OPERATION
(SHEET 2 OF 2)

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

619- 416

XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

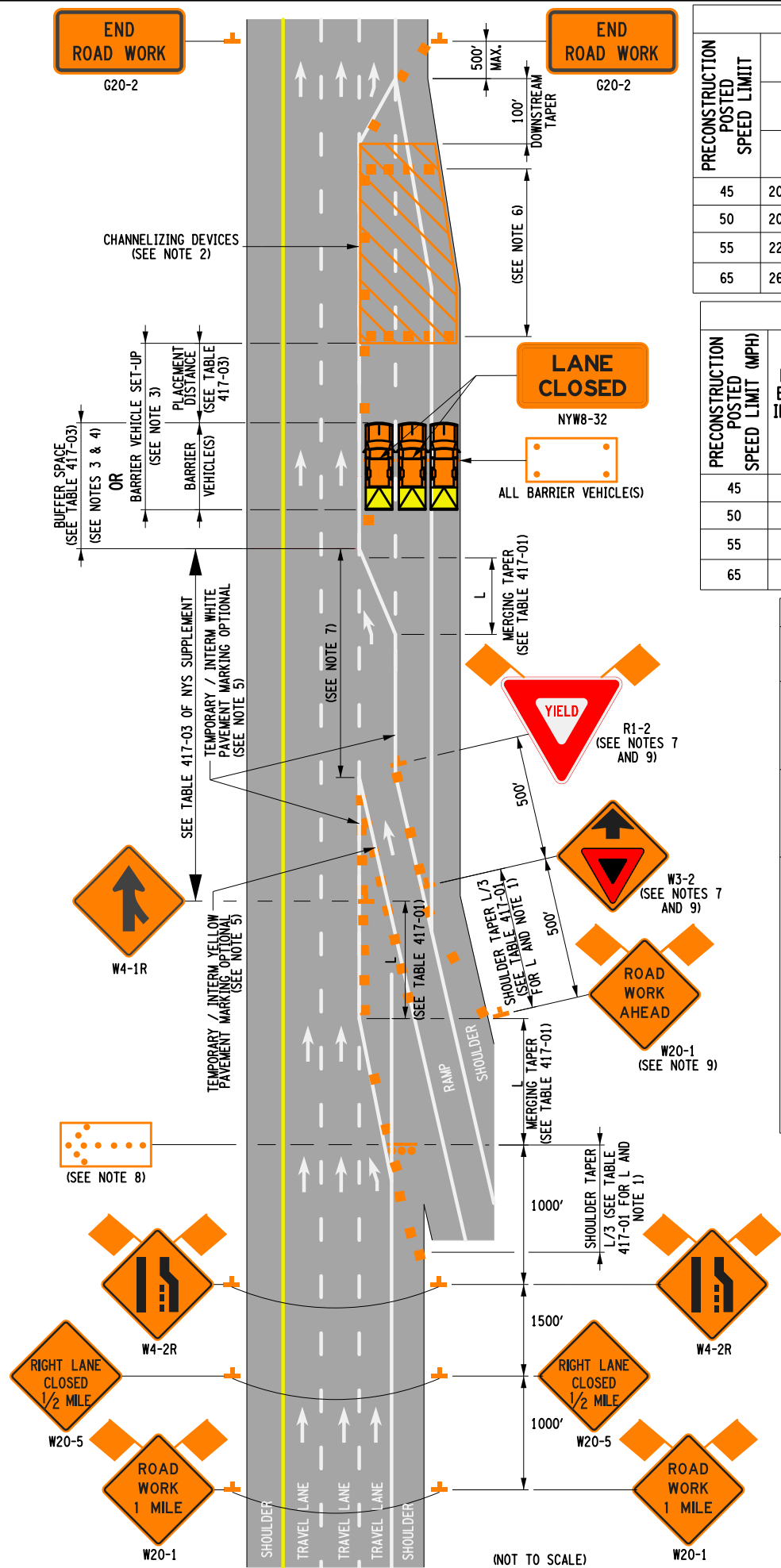


TABLE 417-01: TAPER LENGTHS AND NUMBER OF CONES CHART											
PRECONSTRUCTION POSTED SPEED LIMIT	TAPER LENGTH: L(IN FT.) / * SKIP LINES/* OF CONES								SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES		
	FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)								FOR SHOULDER WIDTH		
	4	5	6	7	8	9	10	11	12	LESS THAN 8 FT. (MIN. - MAX.)	8 FT. OR WIDER (MIN.)
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15	60/2/3 - 100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/5/6	80/2/3 - 100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18	80/2/3 - 120/3/4	160/4/5
65	260/7/8	350/9/10	420/11/12	490/13/14	560/14/15	630/16/17	660/17/18	720/18/19	780/20/21	100/3/4 - 140/4/5	180/5/6

TABLE 417-02			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT. /* SKIP LINES	ROLL AHEAD / PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT. /* OF SKIP LINES	
		MIN.	MAX.
45	360/9	75/2	150/4
50	425/11		
55	495/11	100/3	200/5
65	645/16		

TABLE 417-03: ADVANCE PLACEMENT OF WARNING SIGNS ¹	
PRECONSTRUCTION POSTED SPEED LIMIT	ADVANCE PLACEMENT DISTANCE IN FT.
45	930
50	1030
55	1135
60	1280
65	1365

1. BASED ON TABLE NY2C-4 OF NYS SUPPLEMENT TO THE 2009 MUTCD

TABLE 417-04		
CLOSURE TYPE	EXPOSURE CONDITION	FREEWAY
LANE CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED ³
	NON-TRAVERSABLE HAZARD UE. EQUIPMENT, MATERIALS, EXCAVATION ONLY, NO WORKERS EXPOSED	REQUIRED ³
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED ³
	NON-TRAVERSABLE HAZARD UE. EQUIPMENT, MATERIALS, EXCAVATION ONLY, NO WORKERS EXPOSED	REQUIRED ³

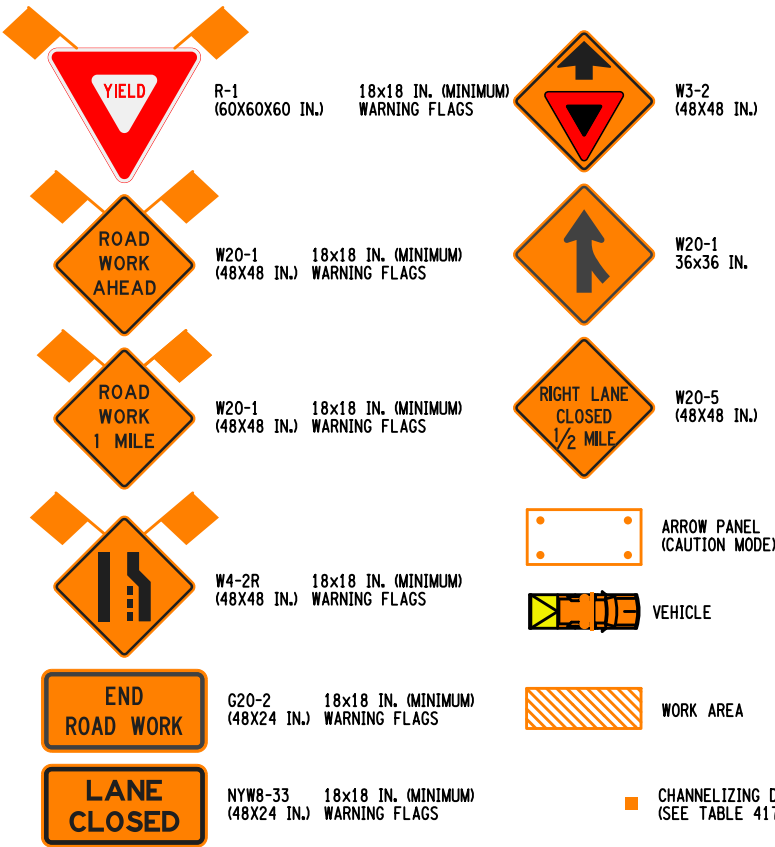
- THE EXPOSURE CONDITIONS DESCRIBED IN TABLE ASSUMES THERE IS NO POSITIVE PROTECTION (A TEMPORARY TRAFFIC BARRIER) PRESENT. WHERE WORKERS OR HAZARDS ARE PROTECTED BY A TEMPORARY TRAFFIC BARRIER, BARRIER VEHICLES ARE NOT REQUIRED.
- WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE.
- REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMIA (TRUCK MOUNTED OR TRAILER MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC. BARRIER VEHICLES PROTECTING NON-TRAVERSABLE 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE 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 SHALL BE PROVIDED.
- BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHLL BE PROVIDED.

TABLE 417-05: CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE-TERM STATIONARY WORK ZONES									
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS
INTERMEDIATE-TERM AND WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	20 FT.	X							X
	40 FT.	X							X
SHOULDER/MERGING/SHIFTING TAPERS									
MARKING FOR TRANSVERSE BUMPS ¹	N/A	X ²			X ²				X ²
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X			X	X
REMOVAL OF EXISTING GUIDE RAIL	80 FT.			X	X	X		X	X
	40 FT.	X		X	X	X		X	X

NOTES: X = ALLOWED, BLANK = NOT ALLOWED, O = OPTIONAL
1 - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.
2 - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.

NOTES:

- WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK SPACE AND TO DIRECT VEHICULAR TRAFFIC TO REMAIN IN THE TRAVELED WAY.
- CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
- FOR BARRIER VEHICLE USE REQUIREMENTS SEE TABLES 417-02, 417-04.
- NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
- FOR LONG DURATION LANE CLOSURES, TEMPORARY / INTERIM PAVEMENT MARKINGS SHALL BE USED IN ACCORDANCE TO THE CONTRACT DOCUMENTS. ANY EXISTING PAVEMENT MARKINGS THAT ARE CONFLICTING OR MISLEADING SHALL BE REMOVED OR COVERED.
- TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.
- CONTRACTOR SHALL PROVIDE EXISTING ACCELERATION DISTANCE FOR YIELD CONDITION AS PER THE CONTRACT PLANS.
- MAINLINE MERGING TAPER WITH THE ARROW PANEL AT ITS STARTING POINT SHALL BE LOCATED SUFFICIENTLY IN ADVANCE SO THAT THE ARROW PANEL IS NOT VISIBLE TO DRIVERS ON THE ENTRANCE RAMP, AND SO THAT THE MAINLINE MERGING TRAFFIC FROM THE LANE CLOSURE HAS THE OPPORTUNITY TO STABILIZE BEFORE ENCOUNTERING THE VEHICULAR TRAFFIC MERGING FROM THE RAMP.
- IF THE RAMP CURVES SHARPLY TO THE RIGHT, WARNING SIGNS WITH ADVISORY SPEED PLAQUES LOCATED IN ADVANCE OF THE ENTRANCE TERMINAL SHALL BE PLACED IN PAIRS (ONE ON EACH SIDE OF THE RAMP).



**Department of
Transportation**

U.S. CUSTOMARY STANDARD SHEET

WORK ZONE TRAFFIC CONTROL
FREEWAY
SINGLE LANE CLOSURE NEAR ENTRANCE RAMP
INTERMEDIATE TERM OPERATION

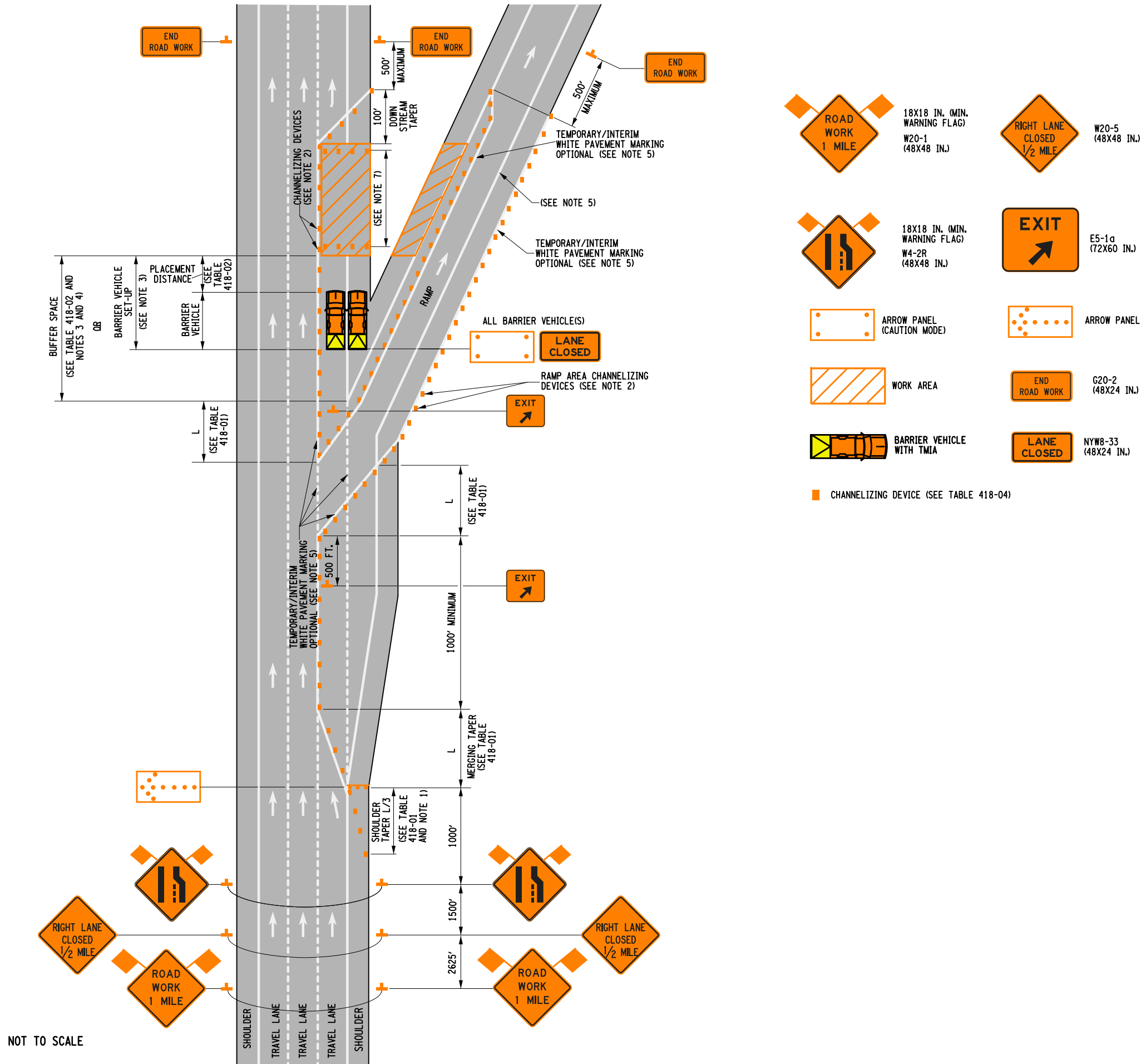
APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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619-417

FILE NAME = 619-418-1.dgn
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NOTES:

1. WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK SPACE AND TO DIRECT VEHICULAR TRAFFIC TO REMAIN IN THE TRAVELED WAY.
2. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 20' IN THE ACTIVE WORK SPACE.
3. FOR BARRIER VEHICLE USE REQUIREMENTS SEE TABLES 418-02 AND 418-03.
4. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
5. FOR LONG DURATION LANE CLOSURES, TEMPORARY / INTERIM PAVEMENT MARKINGS SHALL BE USED IN ACCORDANCE TO THE CONTRACT DOCUMENTS. ANY EXISTING PAVEMENT MARKINGS THAT ARE CONFLICTING OR MISLEADING SHALL BE REMOVED OR COVERED.
6. IF WORK ACTIVITY PERMITS, A MOVABLE BARRIER MAY BE USED AND RELOCATED TO THE SHOULDER.
7. DURING NON WORK PERIODS OR AS PEAK PERIOD VEHICULAR TRAFFIC CONDITIONS EXIST. WHEN MOVABLE BARRIER IS USED, THE TEMPORARY / INTERIM WHITE PAVEMENT MARKINGS SHALL NOT BE USED. DURING THE PERIOD WHEN THE RIGHT LANE IS OPENED, THE SIGN LEGENDS AND CHANNELIZATION SHALL BE CHANGED TO INDICATE THAT ONLY THE SHOULDER IS CLOSED AS SHOWN IN THE DETAIL "SHOULDER CLOSURE- LONG TERM STATIONARY - EXPRESSWAY / FREEWAY". IN ADDITION, THE ARROW PANEL SHALL BE PLACED AT THE END OF THE SHOULDER TAPER AND SHALL DISPLAY I THE CAUTION MODE.
8. TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.

NOTES ON NIGHTTIME WORK:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.



Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

FREEWAY
SINGLE LANE CLOSURE NEAR EXIT RAMP
INTERMEDIATE TERM OPERATION
(SHEET 1 OF 2)

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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(XXXXXX)

619- 418

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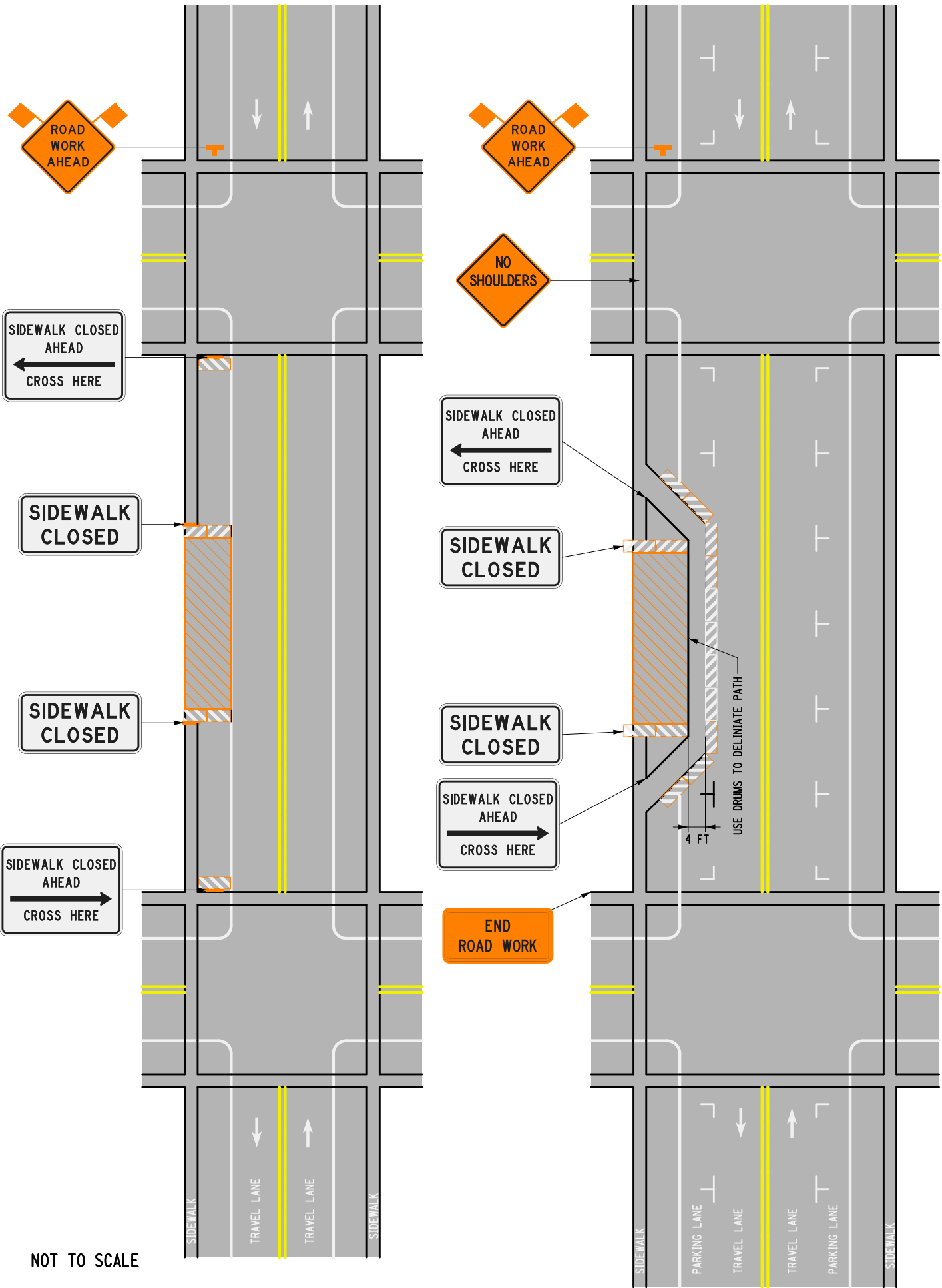
TABLE 418-01: TAPER LENGTHS AND NUMBER OF CONES CHART											
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /* SKIP LINES/* OF CONES									SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR LANE WIDTH IN FT (LATERAL SHIFT OF TRAFFIC FLOW PATH)									FOR SHOULDER WIDTH	
	4	5	6	7	8	9	10	11	12	LESS THAN 8 FT. (MIN -MAX)	8 FT OR WIDER (MIN)
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15	60/2/3-100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16	80/2/3-100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18	80/2/3-120/3/4	160/4/5
65	260/7/8	350/9/10	420/11/12	490/13/14	560/14/15	630/16/17	660/17/18	720/18/19	780/20/21	100/3/4-140/4/5	180/5/6

TABLE 418-02			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT/* SKIP LINES	ROLL AHEAD /PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/ * SKIP LINES	
		MIN	MAX
45	360/9	75/2	150/4
50	425/11		
55	495/13	100/3	200/5
65	645/16		

TABLE 418-03		
CLOSURE TYPE	EXPOSURE CONDITION	FREEWAY
LANE CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED*
	NON-TRAVERSABLE HAZARD I.E. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED*
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED*
	NON-TRAVERSABLE HAZARD I.E. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED*
<p>1. THE EXPOSURE CONDITIONS DESCRIBED IN THE TABLE 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.</p> <p>2. WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</p> <p>3.REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMA(TRUCK MOUNTED OR TRAILER MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.</p> <p>4.BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</p> <p>5.BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</p>		

TABLE 418-04 CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE- TERM STATIONARY WORK ZONES												
WORK ZONE PROVISIONS		MAXIMUM DEVICE SPACING (CENTER TO CENTER)	CHANNELIZING DEVICE									
INTERMEDIATE-TERM AND WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR			DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
SHOULDER/MERCING/ SHIFTING TAPERS	20 FT.	X							X	X		
	40 FT.	X							X	X		
MARKING FOR TRANSVERSE BUMPS¹		N/A	X¹			X¹			X¹			
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER		800 FT.	X		X	X			X	X	X	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT.	X		X	X	X		X	X	X	0	
	40 FT.											
NOTES: X= ALLOWED, BLANK= NOT ALLOWED, 0=OPTIONAL 1- A TYPE I OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE. 2- CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.												

	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
FREEWAY SINGLE LANE CLOSURE NEAR EXIT RAMP INTERMEDIATE TERM OPERATION (SHEET 2 OF 2)	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619- 418

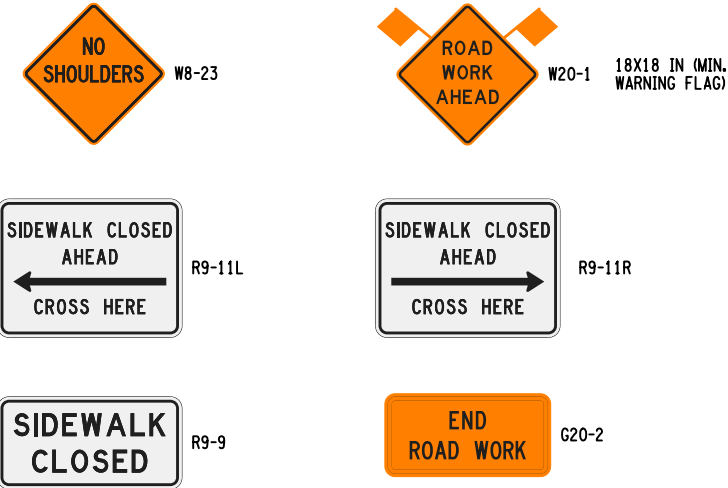



NOT TO SCALE

- NOTES:
1. WHEN CROSSWALKS OR OTHER PEDESTRIAN FACILITIES ARE CLOSED OR RELOCATED, TEMPORARY FACILITIES SHALL BE DETECTABLE AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING FACILITY.
 2. WHERE HIGH SPEEDS ARE ANTICIPATED, A TEMPORARY TRAFFIC BARRIER AND TEMPORARY IMPACT ATTENUATOR SHOULD BE USED TO SEPARATE THE TEMPORARY SIDEWALKS FROM VEHICULAR TRAFFIC.
 3. ONLY THE WORK ZONE TRAFFIC CONTROL DEVICES RELATED TO PEDESTRIANS ARE SHOWN. OTHER DEVICES, SUCH AS LANE CLOSURE SIGNING OR ROAD NARROWS SIGNS (W5-4), MAY BE USED TO CONTROL VEHICULAR TRAFFIC.
 4. FOR NIGHTTIME CLOSURES, FLASHING WARNING LIGHTS SHALL BE USED ON BARRICADES SUPPORTING SIGNS AND CLOSING SIDEWALKS.
 5. SIGNS SUCH AS KEEP RIGHT (LEFT) SHALL BE PLACED ALONG A TEMPORARY SIDEWALK, WHERE APPLICABLE AND ACCORDING TO AMERICAN WITH DISABILITIES STANDARDS, TO GUIDE OR DIRECT PEDESTRIANS.
 6. TYPE II BARRICADES MAY BE SUBSTITUTED FOR TYPE III BARRICADES AS PER 619 STANDARD SPECIFICATIONS.

- NOTES ON NIGHTTIME WORK:
- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS
- N2. ALL SIGNS SHALL BE RETRO REFLECTIVE
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05 HIGH VISIBILITY APPAREL AT ALL TIMES
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY

TABLE 419-01: REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL ROAD	FREEWAY/ EXPRESSWAY
W8-23	36X36 IN.	48X48 IN.
W20-1	36X36 IN.	48X48 IN.
R9-11L/ R9-11R**	24X18 IN.	24X18 IN.
R9-9**	24X12 IN.	24X12 IN.
G20-2	36X18 IN.	48X24 IN.
*FREEWAY/EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS		





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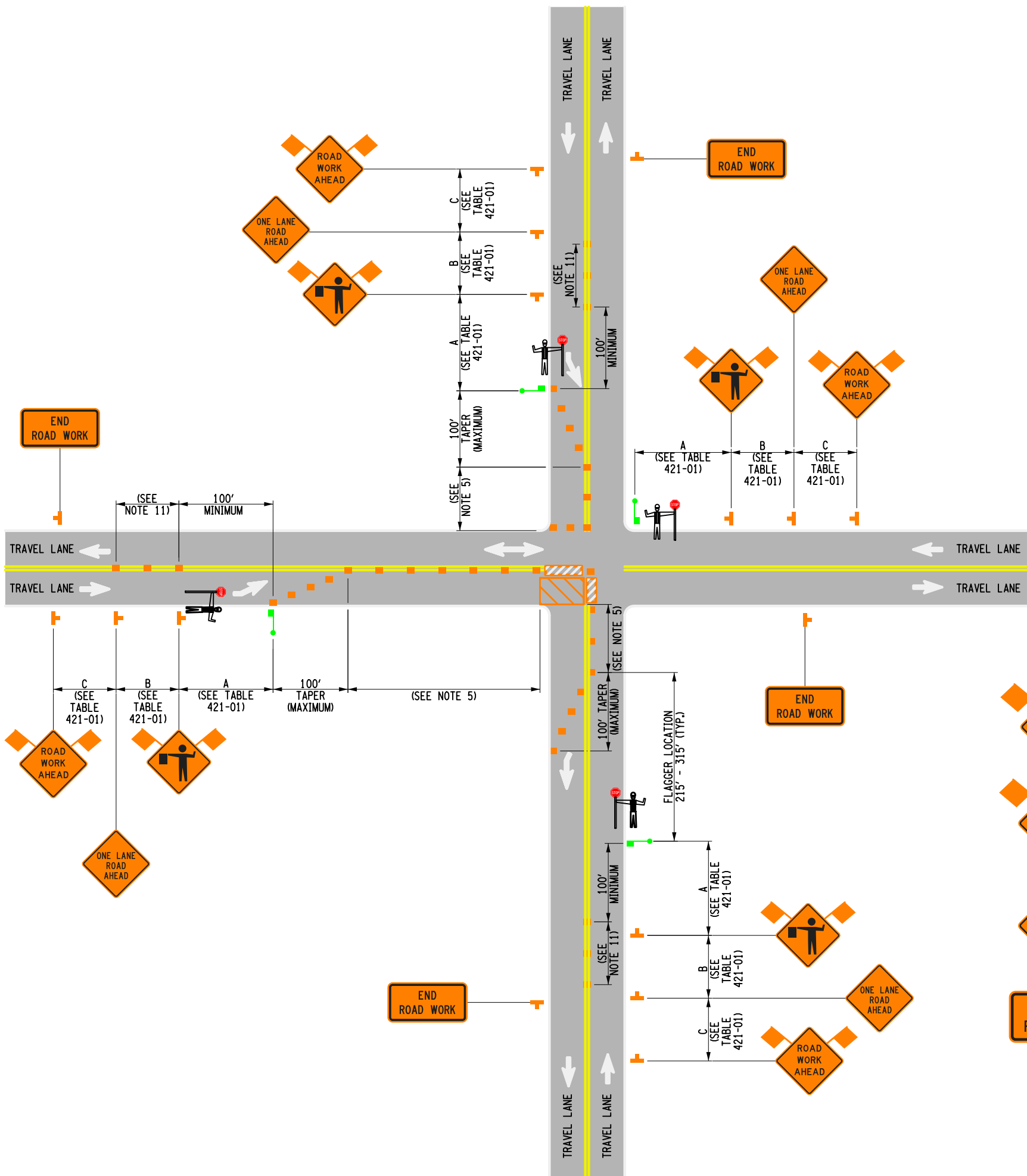
TWO-LANE TWO-WAY ROADWAY
SIDEWALK DETOUR DIVERSION
INTERMEDIATE OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-419




NOTES:

1. AT SIGNALIZED INTERSECTIONS, SIGNALS SHALL BE TURNED OFF FOR ANY FLAGGING OPERATIONS, UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER.
2. WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK AREA AND DIRECT VEHICULAR TRAFFIC TO REMAIN IN THE TRAVEL WAY.
3. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
4. THE END ROAD WORK SIGN (G20-2) SHALL BE PLACED A MAXIMUM OF 500' PAST THE END OF THE WORK SPACE.
5. WHERE DIRECTED BY THE ENGINEER, A BUFFER SPACE SHALL BE PROVIDED IN ORDER TO LOCATE THE ONE-LANE, TWO-WAY TRAFFIC TAPER PRIOR TO ANY HORIZONTAL OR VERTICAL CURVE, IN ORDER TO PROVIDE ADEQUATE SIGHT DISTANCE FOR THE FLAGGERS AND/OR A QUEUE OF STOPPED VEHICLES.
6. THE FLAG TREE SHALL BE LOCATED ON THE SHOULDER, AT APPROXIMATELY 1*2 THE DISTANCE BETWEEN THE FLAGGER SIGN (W20-7a) AND THE FLAGGER.
7. FLAGGER SIGN (W20-7a) AND ONE LANE ROAD AHEAD SIGN (W20-4) SHALL BE REMOVED, COVERED OR TURNED AWAY FROM ROAD USERS WHEN FLAGGING OPERATIONS ARE NOT OCCURRING.
8. FLAGGER AND FLAG TREE SHALL BE ILLUMINATED TO LEVEL II ILLUMINATION DURING NIGHT TIME OPERATIONS.
9. ALL FLAGGERS SHALL USE 24" (MIN.) OCTAGON SHAPED STOP/SLOW PADDLES HAVING 6" STAFF.
10. ADDITIONAL FLAGGERS SHALL BE LOCATED AT ALL INTERSECTIONS AND COMMERCIAL DRIVEWAYS LOCATED WITHIN OR NEAR THE ACTIVE WORK AREA.
11. CENTERLINE CHANNELIZING DEVICES ARE OPTIONAL AND MAY BE ELIMINATED WHERE SPACE CONSTRAINTS EXIST.
12. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
13. FOR PEDESTRIAN DETOUR ACCOMMODATIONS REFER TO THE STANDARD SHEETS TITLED "SIDEWALK DETOUR OR DIVERSION" AND "CROSSWALK CLOSURE AND PEDESTRIAN DETOUR".
14. FREEWAY / EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS IF SPACE ALLOWS.

NOTES ON NIGHTTIME WORK:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMET AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A . HIGH VISIBILITY APPAREL AT ALL TIMES.
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED , INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.

NOT TO SCALE

 Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
TWO-LANE TWO-WAY ROADWAY FLAGGING OPERATION AT INTERSECTION INTERMEDIATE OPERATION	
APPROVED XXXXXXXX XX, 20XX XXXXXXXXXXXXXXXXXXXX (XXXXXX)	ISSUED UNDER EB XX-XXX 619-421 1 OF 2

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TABLE 421-01 ADVANCE WARNING SIGN SPACING						
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
		FOR LANE WIDTH			XX	YY
		A (FT.)	B (FT.)	C (FT.)		
URBAN LOW (≤ 30 MPH)	30	100	100	100	AHEAD	AHEAD
URBAN (35 - 40 MPH)	35	200	200	200		
	40					
URBAN HIGH (≥ 45 MPH)	45	350	350	350	1000 FT.	AHEAD
RURAL		500	500	500	1500 FT.	1000 FT.

TABLE 421-03 : REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY / EXPRESSWAY
W20-1	36x36IN.	48x48IN.
W20-4	36x36IN.	48x48IN.
W20x7a	36x36IN.	48x48IN.
G20-2	36x18IN.	48x24IN.
*FREEWAY / EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST.		

TABLE: 421-02											
CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE-TERM STATIONARY WORK ZONES											
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	CHANNELIZING DEVICE									
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
SHOULDER/MERGING/ SHIFTING TAPERS	20 FT.	X							X	X	
	40 FT.	X							X	X	
MARKING FOR TRANSVERSE BUMPS ¹	N/A	X ²			X ²				X ²		
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X			X	X	X	0
REMOVAL OF EXSISTING GUIDE RAIL	80 FT.	X		X	X			X	X	X	0
	40 FT.										
NOTES: X= ALLOWED BLANK =NOT ALLOWED 0 = OPTIONAL											
1 - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.											
2 - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.											

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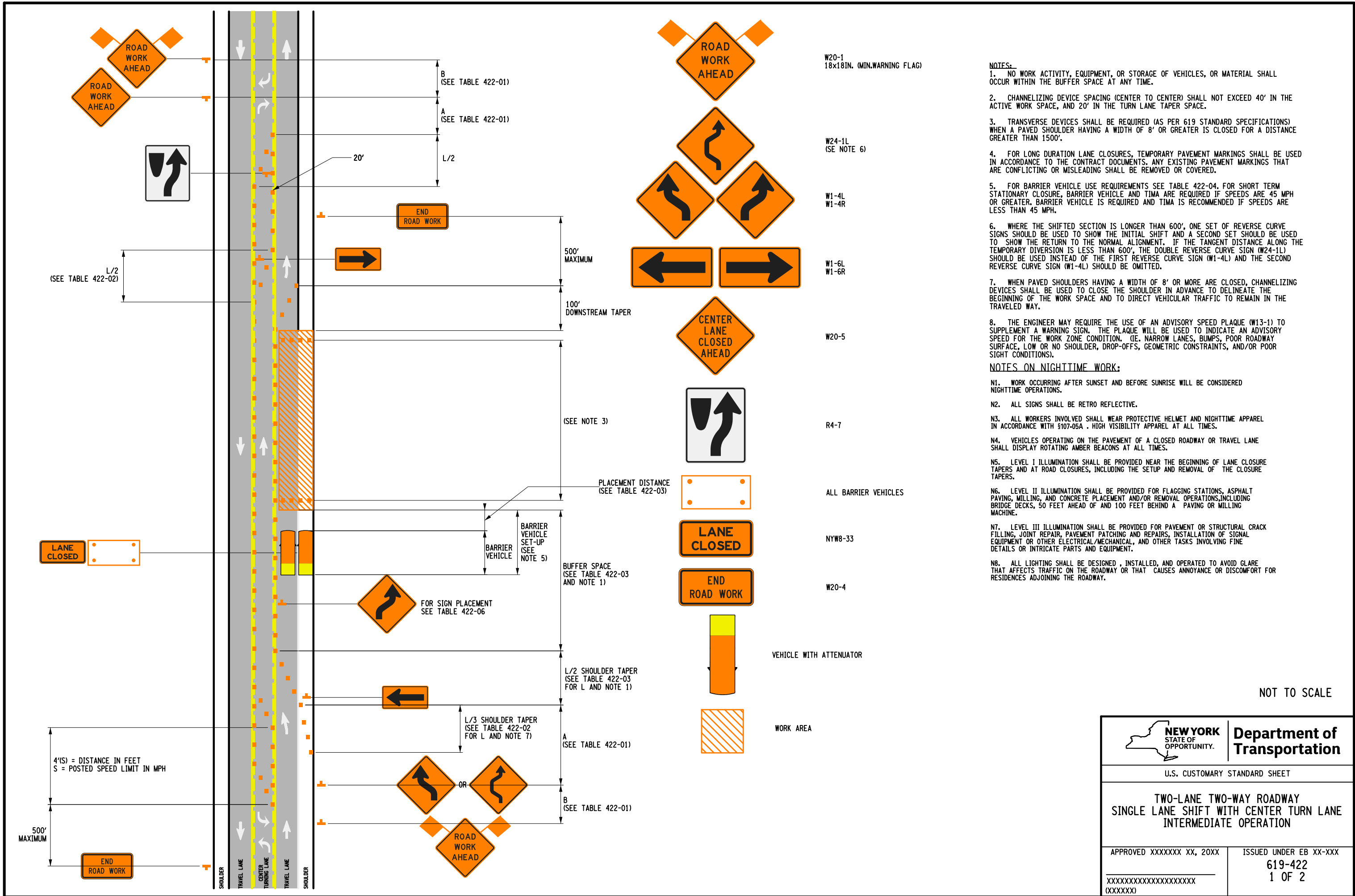
TWO-LANE TWO-WAY ROADWAY
FLAGGING OPERATION AT INTERSECTION
INTERMEDIATE OPERATION

APPROVED XXXXXXXX XX, 20XX


XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

ISSUED UNDER EB XX-XXX
619-421
2 OF 2

FILE NAME = 619-422-1.dgn
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 Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
TWO-LANE TWO-WAY ROADWAY SINGLE LANE SHIFT WITH CENTER TURN LANE INTERMEDIATE OPERATION	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-422 1 OF 2

FILE NAME = 619-422-2.dgn
DATE/TIME = 17-FEB-2021 10:52
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TABLE 422-06: GUIDELINES FOR ADVANCE PLACEMENT OF WARNING SIGNS														
POSTED OR 85% PERCENTILE SPEED (MPH)	AVANCE PLACEMENT DISTANCE (FT.) ¹													
	CONDITION A: SPEED REDUCTION AND LANE CHANGING IN HEAVY TRAFFIC ²	CONDITION B: DECELERATION TO THE LISTED ADVISORY SPEED (MPH) FOR THE CONDITION ⁴												
		CONDITION C: NO SPEED REDUCTION NECESSARY ⁵												
		0 ³	5	10	15	20	25	30	35	40	45	50	55	
20	410	115	110	105	90	75	-	-	-	-	-	-	-	
25	515	155	160	150	135	120	95	-	-	-	-	-	-	
30	620	200	205	195	185	165	140	110	-	-	-	-	-	
35	720	250	255	245	235	215	190	160	130	-	-	-	-	
40	825	305	320	310	295	280	255	225	190	150	-	-	-	
45	930	360	380	370	360	340	315	285	255	210	165	-	-	
50	1030	425	455	450	435	415	390	360	330	285	240	185	-	
55	1135	495	530	520	505	490	460	435	400	355	315	255	205	

NOTES:

- THE DISTANCES HAVE NOT BEEN MODIFIED TO ACCOUNT FOR SIGN LEGIBILITY.
- TYPICAL CONDITIONS ARE LOCATIONS WHERE THE ROAD USER MUST USE EXTRA TIME TO ADJUST SPEED AND CHANGE LANES IN HEAVY TRAFFIC BECAUSE OF A COMPLEX DRIVING SITUATION. TYPICAL SIGNS ARE MERGE AND RIGHT LAND ENDS. THE DISTANCES ARE TAKEN FROM THE 2004 AASHTO POLICY, EXHIBIT 3-3, DECISION SIGHT DISTANCE, AVOIDANCE MANEUVER E.
- TYPICAL CONDITION IS THE WARNING OF A POTENTIAL STOP SITUATION. TYPICAL SIGNS ARE STOP AHEAD, YIELD AHEAD, SIGNAL AHEAD, AND INTERSECTION WARNING SIGNS. THE DISTANCES ARE TAKEN FROM THE 2004 AASHTO POLICY, STOPPING SIGHT DISTANCE, EXHIBIT 3-1.
- TYPICAL CONDITIONS ARE LOCATIONS WHERE THE ROAD USER MUST DECREASE SPEED TO MANEUVER THROUGH THE WARNED CONDITION. TYPICAL SIGNS ARE TURN, CURVE, REVERSE TURN, OR REVERSE CURVE. THE DISTANCES ARE DETERMINED BY PROVIDING A 2.5 SECOND PRT AND A VEHICLE DECELERATION RATE OF 10 FT/SECOND.²
- TYPICAL SIGNS ARE ADDED LANE, ROAD NARROWS, DIVIDED HIGHWAY, AND CONDITION B SIGNS DISPLAYED WITHOUT AN ADVISORY SPEED.

TABLE 422-04: BARRIER VEHICLE REQUIREMENT FOR INTERMEDIATE TERM CLOSURE				
CLOSURE TYPE	EXPOSURE CONDITION	NON-FREEWAY		
		≥ 45 MPH	35-40 MPH	≤ 30 MPH
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED ³	OPTIONAL ²	OPTIONAL ²
	NON-TRAVERSABLE HAZARD UE. EQUIPMENT, MATERIALS, EXCAVATION ONLY, NO WORKERS EXPOSED	REQUIRED ³	OPTIONAL ²	OPTIONAL ²
NOTES:				
1. EXPOSURE CONDITIONS DESCRIBED IN THE TABLE 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.				
2. WHERE THE REQUIREMENTS ID "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.				
3. REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TIMA (TRUCK MOUNTED OR TRAILER MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.				
4. BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.				
5. BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.				

TABLE 422-03			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT / * SKIP LINES	ROLL AHEAD/ PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/ * SKIP LINES	
		MIN	MAX
25	155/4	50/1	100/3
30	200/5		
35	250/6		
40	305/8		
45	360/9	75/2	150/4
50	425/11		
55	495/13		


TABLE 422-02: TAPER LENGTHS AND NUMBER OF CONES CHART											
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /*SKIP LINES /*OF CONES									SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)									FOR SHOULDER WIDTH	
	4	5	6	7	8	9	10	11	12	LESS THAN 8FT. (MIN - MAX)	8FT. OR WIDER (MIN)
25	45/1/2	55/1/2	65/2/3	75/2/3	85/2/3	95/3/4	120/3/4	120/3/4	140/3/5	20/1/2 - 40/1/2	40/1/2
30	60/2/3	75/2/3	90/2/3	105/3/4	120/3/4	135/3/4	160/4/5	180/5/6	180/5/6	20/1/2 - 40/1/2	40/1/2
35	85/2/3	105/3/4	125/3/4	145/4/5	165/4/5	185/5/6	220/6/7	240/6/7	260/7/8	40/1/2 - 60/2/3	80/2/3
40	120/3/4	135/3/4	160/4/5	190/5/6	215/5/6	240/6/7	280/7/8	300/8/9	320/8/9	40/1/2 - 60/2/3	80/2/3
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15	60/2/3 - 100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16	80/2/3 - 100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18	80/2/3 - 120/3/4	160/4/5

TABLE: 422-05											
CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE-TERM STATIONARY WORK ZONES											
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACEING (CENTER TO CENTER)	CHANNELIZING DEVICE									
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR											
SHOULDER/MERGING/ SHIFTING TAPERS	20 FT.	X							X	X	
	40 FT.	X							X	X	
MARKING FOR TRANSVERSE BUMPS ¹	N/A	X ²			X ²				X ²		
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X			X	X	X	0
REMOVAL OF EXSISTING GUIDE RAIL	80 FT.	X		X	X	X		X	X	X	0
	40 FT.										
NOTES: X= ALLOWED BLANK =NOT ALLOWED 0 = OPTIONAL											
1 - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.											
2 - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.											

TABLE 422-01 ADVANCE WARNING SIGN SPACING						
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
		FOR LANE WIDTH			XX	YY
		A (FT.)	B (FT.)	C (FT.)		
URBAN LOW (≤ 30 MPH)	30	100	100	100	AHEAD	AHEAD
URBAN (35 - 40 MPH)	35	200	200	200		
	40					
URBAN HIGH (≥ 45 MPH)	45	350	350	350	1000 FT.	AHEAD
RURAL		500	500	500	1500 FT.	1000 FT.

TABLE 422-07 : REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY / EXPRESSWAY
W1-4L/W1-4R	36x36IN.	48x48IN.
W1-6L/W1-6R	48x24IN.	60x30IN.
W9-3	36x36IN.	48x48IN.
W20-1	36x36IN.	48x48IN.
W20-4	36x36IN.	48x48IN.
W20-5	36x36IN.	48x48IN.
W24-1L	36x36IN.	48x48IN.
R4-7	24x30IN.	36x48IN.
NYWB-33	48x24IN.	48x24IN.
G20-2	36x18IN.	48x24IN.
*FREEWAY / EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IFSpace CONSTRAINTS DO NOT EXIST.		

NOT TO SCALE

 Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
TWO-LANE TWO-WAY ROADWAY SINGLE LANE SHIFT WITH CENTER TURN LANE INTERMEDIATE OPERATION	
APPROVED XXXXXXXX XX, 20XX XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	ISSUED UNDER EB XX-XXX 619-422 2 OF 2

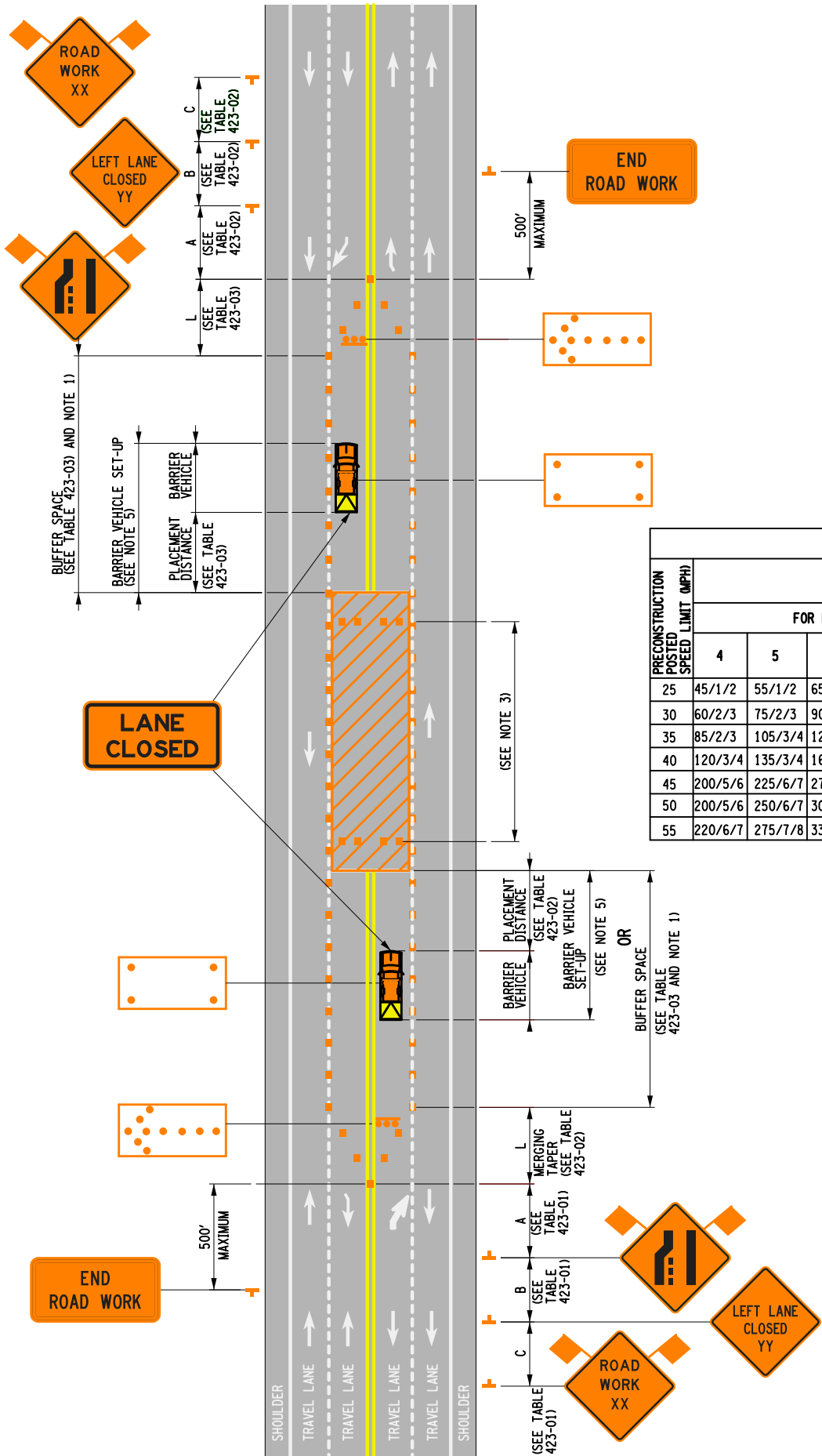


TABLE 423-01 ADVANCE WARNING SIGN SPACING						
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
		FOR LANE WIDTH			XX	YY
		A (FT.)	B (FT.)	C (FT.)		
URBAN LOW (≤ 30 MPH)	30	100	100	100	AHEAD	AHEAD
URBAN (35 - 40 MPH)	35	200	200	200		
	40					
URBAN HIGH (≥ 45 MPH)	45	350	350	350	1000 FT.	AHEAD
RURAL		500	500	500	1500 FT.	1000 FT.

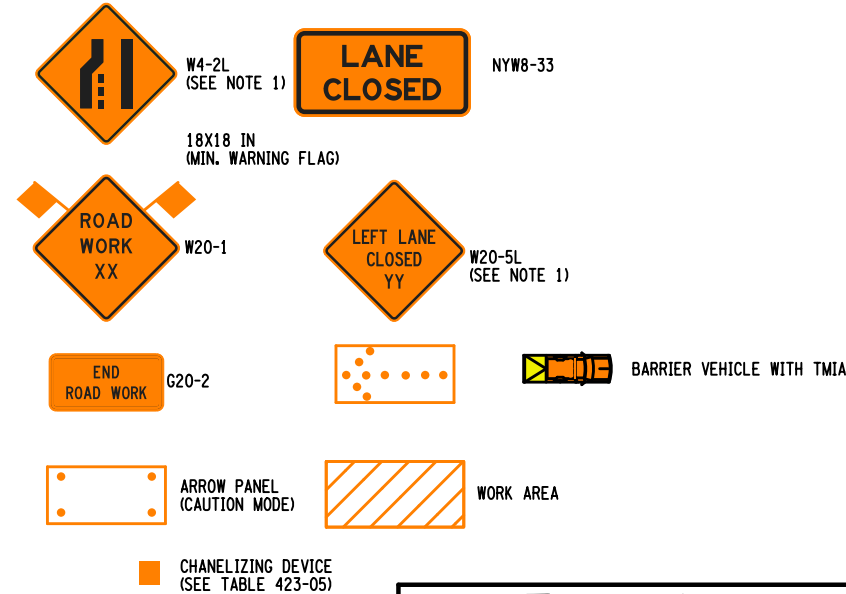
TABLE 423-02: TAPER LENGTHS AND NUMBER OF CONES CHART												
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /* SKIP LINES/* OF CONES										SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR LANE WIDTH IN FT (LATERAL SHIFT OF TRAFFIC FLOW PATH)										FOR SHOULDER WIDTH	
	4	5	6	7	8	9	10	11	12		LESS THAN 8 FT. (MIN -MAX)	8 FT OR WIDER (MIN)
25	45/1/2	55/1/2	65/2/3	75/2/3	85/2/3	95/3/4	120/3/4	120/3/4	140/3/5		20/1/2-40/1/2	40/1/2
30	60/2/3	75/2/3	90/2/3	105/3/4	120/3/4	135/3/4	160/4/5	180/5/6	180/5/6		20/1/2-40/1/2	40/1/2
35	85/2/3	105/3/4	125/3/4	145/4/5	165/4/5	185/5/6	220/6/7	240/6/7	260/7/8		40/1/2-60/2/3	80/2/3
40	120/3/4	135/3/4	160/4/5	190/5/6	215/5/6	240/6/7	280/7/8	300/8/9	320/8/9		40/1/2-60/2/3	80/2/3
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15		60/2/3-100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16		80/2/3-100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18		80/2/3-120/3/4	160/4/5


NOTES:

1. NO WORK ACTIVITY, EQUIPMENT, OR STORAGE OF VEHICLES, OR MATERIAL SHALL OCCUR WITHIN THE BUFFER SPACE AT ANY TIME.
2. CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE, AND SHALL NOT EXCEED 20' IN THE TAPER AREA.
3. TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.
4. FOR LONG DURATION LANE CLOSURES, TEMPORARY PAVEMENT MARKINGS SHALL BE USED IN ACCORDANCE TO THE CONTRACT DOCUMENTS. ANY EXISTING PAVEMENT MARKINGS THAT ARE CONFLICTING OR MISLEADING SHALL BE REMOVED OR COVERED.
5. FOR BARRIER VEHICLE USE REQUIREMENTS SEE TABLES 423-04,
6. FOR LOW SPEED, LOW VOLUME URBAN STREETS, THE LEFT LANE CLOSED XXX FT. SIGN (W20-5) CAN BE OMITTED AND THE ROAD WORK AHEAD SIGN (W20-1) RELOCATED TO THAT LOCATION.
7. FREEWAY/EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS IF SPACE ALLOWS

NOTES ON NIGHTTIME WORK:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS
- N2. ALL SIGNS SHALL BE RETRO REFLECTIVE
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A . HIGH VISIBILITY APPAREL AT ALL TIMES
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY



**Department of
Transportation**

U.S. CUSTOMARY STANDARD SHEET

MULTI-LANE TWO-WAY ROADWAY
DOUBLE INTERIOR LANE CLOSURE
INTERMEDIATE TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX
619-423
1 OF 2


XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

TABLE 423-06: REQUIRED SIGN SIZES•		
SIGN	CONVENTIONAL ROAD	FREEWAY/ EXPRESSWAY
W4-2L	36X36 IN.	48X48 IN.
W20-1	36X36 IN.	48X48 IN.
W20-5	36X36 IN.	48X48 IN.
NYW8-33	48X24 IN.	48X24 IN.
G20-2	36X18 IN.	48X24 IN.
•FREEWAY/EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS		

TABLE 423-03			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT * SKIP LINES	ROLL AHEAD /PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/ * SKIP LINES	
		MIN	MAX
25	155/4	50/1	100/3
30	200/5		
35	250/6		
40	305/8		
45	360/9	75/2	150/4
50	425/11		
55	495/13		

TABLE 423-04		
CLOSURE TYPE	EXPOSURE CONDITION	FREEWAY
LANE CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED•
	NON-TRAVERSABLE HAZARD UE, EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED•
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED•
	NON-TRAVERSABLE HAZARD UE, EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED•
1.THE EXPOSURE CONDITIONS DESCRIBED IN TABLE ASSUMES THERE IS NO POSITIVE PROTECTION A TEMPORARY TRAFFIC BARRIER) PRESENT. WHERE WORKERS OR HAZARDS ARE PROTECTED BY A TEMPORARY TRAFFIC BARRIER, BARRIER VEHICLES ARE NOT REQUIRED.		
2.WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE.		
3.REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMIA (TRUCK MOUNTEDOR OR TRAILER MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC.BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE HAZARDS SHALL REMAIN IN PLACE DURING BOTH WORKING AND NON-WORKING HOURS UNTIL THE HAZARD NO LONGER EXISTS. E XCEPTIONS TO THESE REQUIREMENTS MAY BE MADE, AS APPROVED BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.		
4.BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.		
5.BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.		

TABLE 423-05 CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE-TERM STATIONARY WORK ZONES										
WORK ZONE PROVISIONS	CHANNELIZING DEVICE									
	MAXIMUM DEVICE SPACING(CENTER TO CENTER)	DRUMS	STANDARD CONES	Tall Cones	Ext ¹ o Tall Cones	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES
INTERMEDIATE-TERM AND WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	20 FT	X							X	X
	40 FT	X							X	X
MARKING FOR TRANSVERSE BUMPS 1	N/A	X ²			X ²				X ²	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT	X		X	X			X	X	X
REMOVAL OF EXISTING GUIDE RAIL	80 FT	X		X	X	X		X	X	X
	40 FT									0
NOTES: X = ALLOWED BLANK = NOT ALLOWED 0 = OPTIONAL 1 - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE. 2 - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.										



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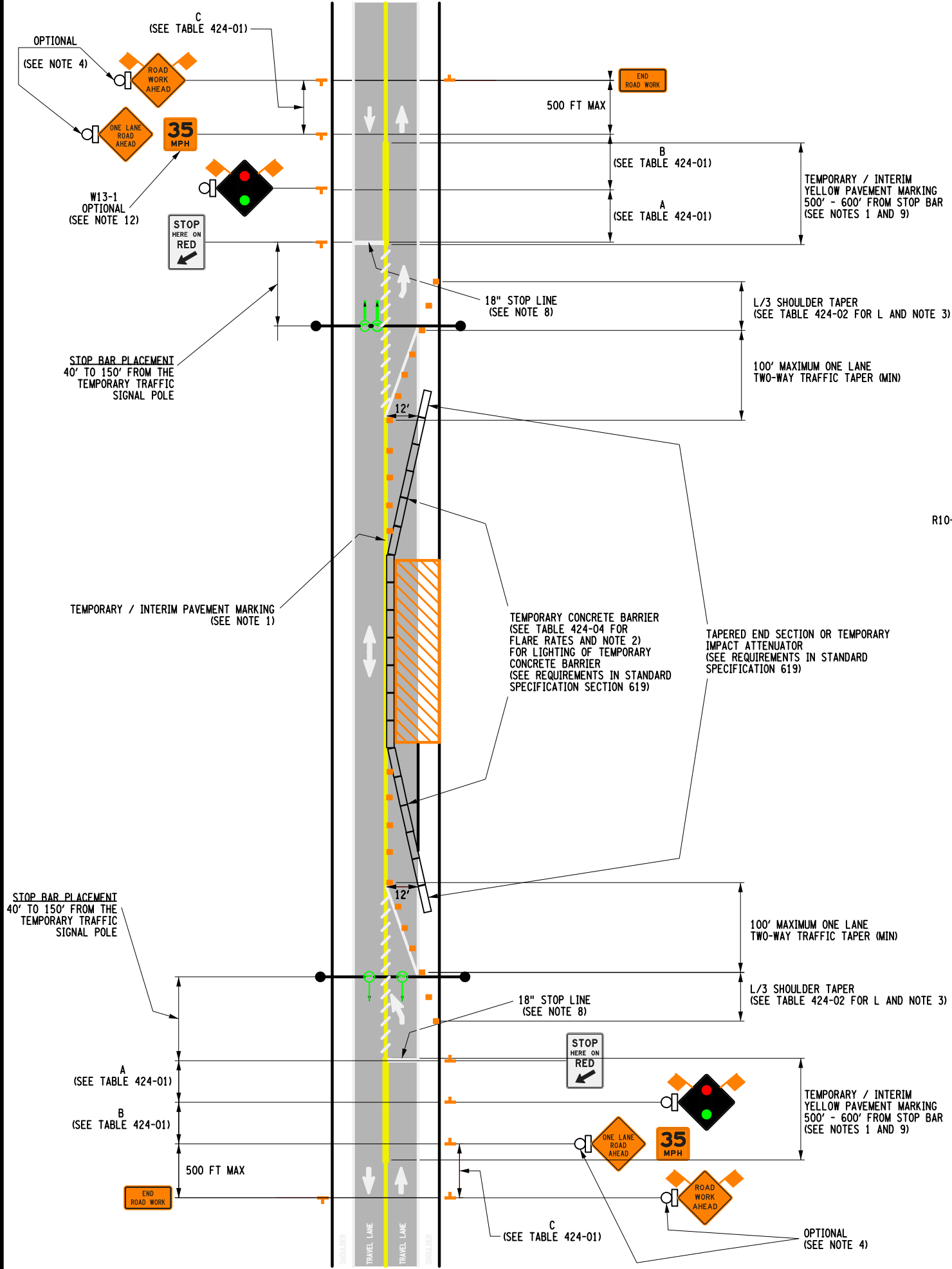
U.S. CUSTOMARY STANDARD SHEET

TWO-LANE TWO-WAY ROADWAY
FLAGGING OPERATION AT INTERSECTION
INTERMEDIATE OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX
619-423
2 OF 2

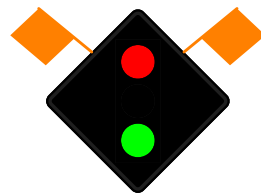
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W20-1
18x18 IN. (MIN. WARNING FLAG)



W20-4



W3-3
18x18 IN. (MIN. WARNING FLAG)



R10-6L



W13-1 OPTIONAL (SEE NOTE 12)



W20-02

NOTE: TEMPORARY SIGNAL TIMING SHALL BE DETERMINED BY THE REGIONAL TRAFFIC OFFICE

OPERATIONAL SCHEDULE FOR TEMPORARY TRAFFIC SIGNALS					
PHASE	FACE	1	2	3	4
1	CLEARANCE	G	G	R	R
	ALL RED	R	R	R	R
2	CLEARANCE	R	R	G	G
	ALL RED	R	R	R	R
EMERGENCY FLASH		FR	FR	FR	FR

NOTES:

- FOR LONG DURATION LANE CLOSURES, TEMPORARY / INTERIM PAVEMENT MARKINGS SHALL BE USED IN ACCORDANCE TO THE CONTRACT DOCUMENTS. ANY EXISTING PAVEMENT MARKINGS THAT ARE CONFLICTING OR MISLEADING SHALL BE REMOVED OR COVERED.
- THE TEMPORARY CONCRETE BARRIER SHALL NOT BE PLACED ALONG THE MERGING TAPER. THE LANE SHALL BE CLOSED USING CHANNELIZING DEVICES AND PAVEMENT MARKINGS.
- WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK SPACE AND TO DIRECT VEHICULAR TRAFFIC TO REMAIN IN THE TRAVELED WAY.
- FLASHING WARNING LIGHTS ARE REQUIRED ON THE W3-3 SIGNAL AHEAD SIGN. FLASHING WARNING LIGHTS ARE AN OPTION ON THE ROAD WORK AHEAD SIGN (W20-1) AND ONE LANE ROAD AHEAD SIGNS (W20-4) AND MAY BE USED TO INCREASE TARGET VALUE AND VISIBILITY, AS DETERMINED BY THE ENGINEER.
- REFER TO MUTCD FOR ADDITIONAL TRAFFIC SIGNAL REQUIREMENTS.
- DETECTORS SHALL BE INSTALLED ON ALL APPROACH LANES AND ALL PHASES SHALL BE ACTUATED. DURATION OF RED CLEARANCE INTERVALS SHALL BE ADEQUATE TO CLEAR THE ONE-LANE SECTION OF CONFLICTING TRAFFIC.
- THE TRAFFIC SIGNAL CYCLE SHALL REST IN RED, WHEN THE SIGNAL IS CHANGED TO THE FLASHING MODE, EITHER MANUALLY OR AUTOMATICALLY, RED SIGNAL INDICATIONS SHALL BE FLASHED TO ALL APPROACHES.
- STOP LINES SHALL BE INSTALLED WITH TEMPORARY TRAFFIC SIGNALS FOR INTERMEDIATE AND LONG-TERM CLOSURES. EXISTING, CONFLICTING PAVEMENT MARKINGS AND RAISED PAVEMENT MARKINGS, BETWEEN THE ACTIVITY AREA AND THE STOP LINE, SHALL BE REMOVED. AFTER THE TEMPORARY TRAFFIC SIGNAL IS REMOVED, THE STOP LINES AND ALL TEMPORARY PAVEMENT MARKINGS SHALL BE REMOVED AND PERMANENT PAVEMENT MARKINGS RESTORED.
- WHERE NO-PASSING LINES ARE NOT ALREADY IN PLACE, THEY SHALL BE ADDED FOR A DISTANCE OF 500'-600' FROM THE STOP BAR. ANY EXISTING PAVEMENT MARKINGS THAT ARE CONFLICTING OR MISLEADING SHALL BE REMOVED OR COVERED.
- ADJUSTMENTS IN THE LOCATION OF ADVANCED WARNING SIGNS SHOULD BE MADE TO ACCOMMODATE THE HORIZONTAL AND VERTICAL ALIGNMENT OF THE ROADWAY, RECOGNIZING THAT THE DISTANCES SHOWN FOR SIGN SPACING ARE MINIMUMS. ADJUSTMENTS IN THE HEIGHT OF THE SIGNAL HEADS SHALL BE MADE AS NEEDED TO CONFORM TO THE VERTICAL ALIGNMENT.
- THE SUPPORTS FOR TEMPORARY TRAFFIC CONTROL SIGNALS SHALL NOT ENCROACH INTO THE MINIMUM REQUIRED WIDTH OF A "PEDESTRIAN ACCESS ROUTE" OF 4' OR AN "ALTERNATE CIRCULATION PATH" OF 3'.
- THE ENGINEER MAY REQUIRE THE USE OF AN ADVISORY SPEED PLAQUE (W13-1) TO SUPPLEMENT A WARNING SIGN. THE PLAQUE WILL BE USED TO INDICATE AN ADVISORY SPEED FOR THE WORK ZONE CONDITION, (IE. NARROW LANES, BUMPS, POOR ROADWAY SURFACE, LOW OR NO SHOULDER, DROP-OFFS, GEOMETRIC CONSTRAINTS, AND/OR POOR SIGHT CONDITIONS).

NOTES ON NIGHTTIME WORK:

- WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- ALL SIGNS SHALL BE RETRO REFLECTIVE.
- ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMET AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A . HIGH VISIBILITY APPAREL AT ALL TIMES.
- VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
- LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- ALL LIGHTING SHALL BE DESIGNED , INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.



Department of
Transportation

U.S. CUSTOMARY STANDARD SHEET

TWO-LANE TWO-WAY ROADWAY
TEMPORARY TRAFFIC SIGNAL
INTERMEDIATE OPERATIONS

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-424
1 OF 2

NOT TO SCALE

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TABLE 424-01 ADVANCE WARNING SIGN SPACING						
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
		FOR LANE WIDTH			XX	YY
		A (FT.)	B (FT.)	C (FT.)		
URBAN LOW (≤ 30 MPH)	30	100	100	100	AHEAD	AHEAD
URBAN (35 - 40 MPH)	35	200	200	200		
	40					
URBAN HIGH (≥ 45 MPH)	45	350	350	350	1000 FT.	AHEAD
RURAL		500	500	500	1500 FT.	1000 FT.


TABLE 424-02: TAPER LENGTHS AND NUMBER OF CONES CHART											
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /*SKIP LINES /*OF CONES									SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)									FOR SHOULDER WIDTH	
	4	5	6	7	8	9	10	11	12	LESS THAN 8FT. (MIN - MAX)	8FT. OR WIDER (MIN)
25	45/1/2	55/1/2	65/2/3	75/2/3	85/2/3	95/3/4	120/3/4	120/3/4	140/3/5	20/1/2 - 40/1/2	40/1/2
30	60/2/3	75/2/3	90/2/3	105/3/4	120/3/4	135/3/4	160/4/5	180/5/6	180/5/6	20/1/2 - 40/1/2	40/1/2
35	85/2/3	105/3/4	125/3/4	145/4/5	165/4/5	185/5/6	220/6/7	240/6/7	260/7/8	40/1/2 - 60/2/3	80/2/3
40	120/3/4	135/3/4	160/4/5	190/5/6	215/5/6	240/6/7	280/7/8	300/8/9	320/8/9	40/1/2 - 60/2/3	80/2/3
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15	60/2/3 - 100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16	80/2/3 - 100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18	80/2/3 - 120/3/4	160/4/5

TABLE: 424-03											
CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE-TERM STATIONARY WORK ZONES											
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACEING (CENTER TO CENTER)	CHANNELIZING DEVICE									
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
INTERMEDIATE-TERM STATIONARY WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	20 FT.	X						X	X		
	40 FT.	X						X	X		
MARKING FOR TRANSVERSE BUMPS ¹	N/A	X ²			X ²			X ²			
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X		X	X	X	0	
REMOVAL OF EXSISTING GUIDE RAIL	80 FT.	X		X	X	X		X	X	X	0
	40 FT.										
NOTES: X= ALLOWED BLANK =NOT ALLOWED 0 = OPTIONAL											
1 - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.											
2 - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.											

TABLE 424-04: 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	8:1	11:1	14:1	16:1	20:1
BOX BEAM OR HEAVY POST CORRUGATED BEAM	7:1	9:1	11:1	12:1	15:1

TABLE 424-05 : REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY / EXPRESSWAY
W3-3	36x36IN.	48x48IN.
W13-1P	24x24IN.	30x30IN.
W20-1	36x36IN.	48x48IN.
W20-4	36x36IN.	48x48IN.
R10-6L / R10-6R**	24x36IN.	24x36IN.
G20-2	36x18IN.	48x24IN.
*FREEWAY / EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST. **SIGNS NOT FOR FREEWAY USE.		

NOT TO SCALE



NEW YORK
STATE OF
OPPORTUNITY.

Department of
Transportation

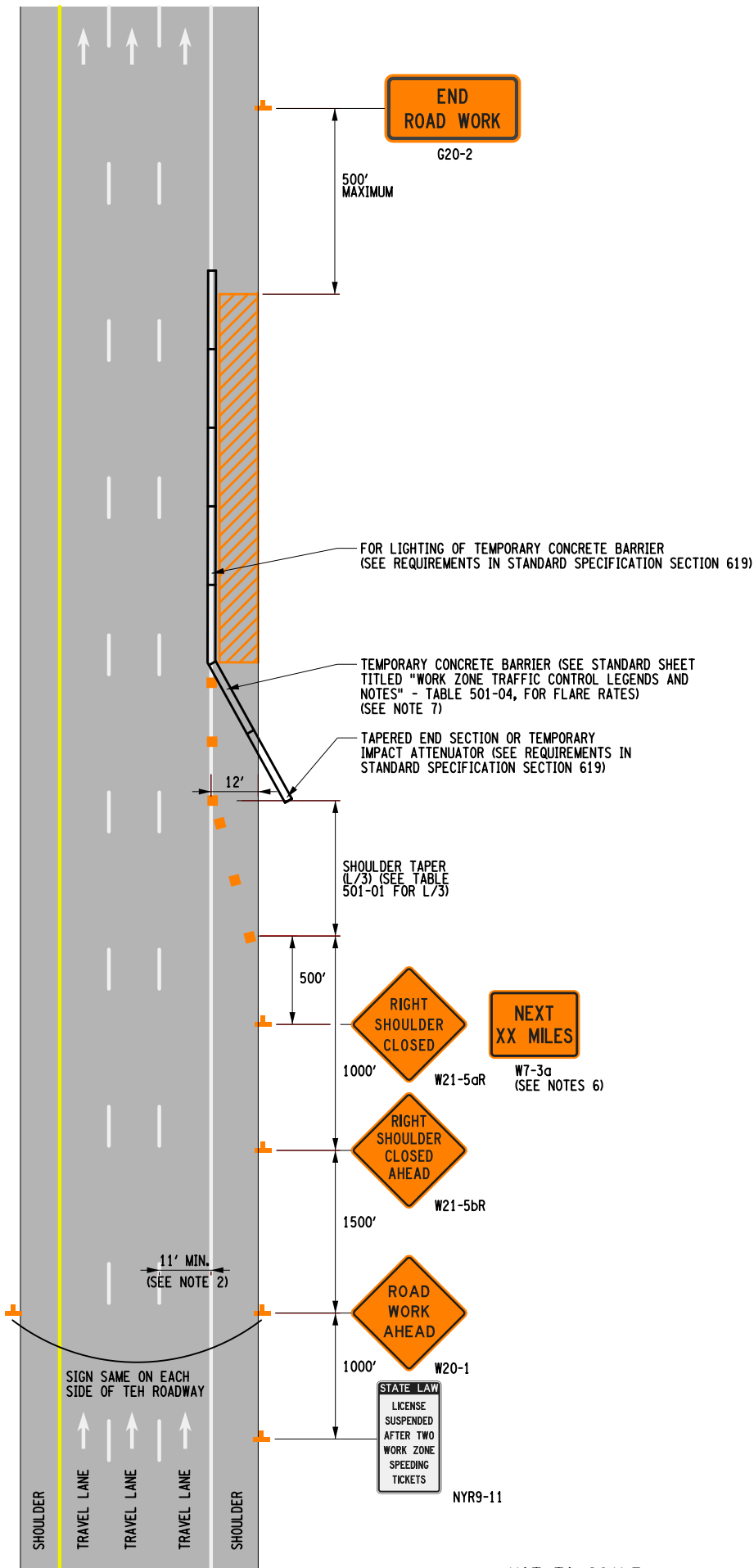
U.S. CUSTOMARY STANDARD SHEET

TWO-LANE TWO-WAY ROADWAY
TEMPORARY TRAFFIC SIGNAL
INTERMEDIATE OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX
619-424
2 OF 2

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(XXXXXX)



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TABLE 501-01					
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT / * SKIP LINES	ROLL AHEAD /PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/* SKIP LINES		SHOULDER TAPER: L/3 (IN/FT.) /* SKIP LINES / * OF CONES	
		MIN	MAX	FOR SHOULDER WIDTH	
				LESS THAN 8 FT. (MIN - MAX)	8 FT OR WIDER (MIN)
45	360/9	75/2	150/4	60/2/3 - 100/3/4	120/3/4
50	425/11			80/2/3 - 100/3/4	140/4/5
55	495/13	100/3	200/5	80/2/3 - 120/3/4	160/4/5
65	645/16			100/3/4 - 140/4/5	180/5/6

TABLE 501-02 BARRIER VEHICLE REQUIREMENT FOR LONG TERM CLOSURE		
CLOSURE TYPE	EXPOSURE CONDITION	FREEWAY
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED*
	NON-TRAVERSABLE HAZARD UE. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED*
1. THE EXPOSURE CONDITIONS DESCRIBED IN TABLE NYI-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.		
2. WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.		
3. REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMIA (TRUCK MOUNTED OR TRAILER MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.		
4. BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.		
5. BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.		

TABLE 501-03 CHANNELIZING DEVICE APPLICATION FOR LONG-TERM WORK ZONES										
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	CHANNELIZING DEVICE								
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES
LONG TERM WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	20 ft.	X						X	X	
	40 ft.	X						X	X	
SHOULDER/MERGING/SHIFTING TAPERS	800 ft.	X		X	X			X	X	0
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	80 ft.	X		X	X			X	X	0
REMOVAL OF EXISTING GUIDE RAIL	40 ft.	X		X	X			X	X	0
NOTE: X = ALLOWED, BLANK = NOT ALLOWED, 0 = OPTIONAL 1 - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE. 2 - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.										

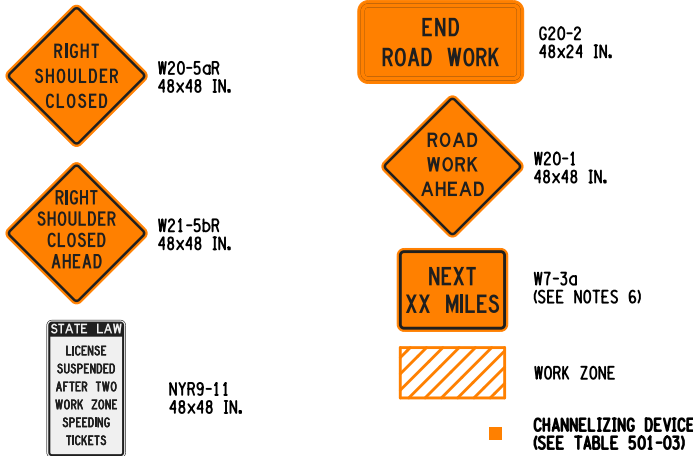
TABLE 501-04 FLARE RATES FOR POSITIVE BARRIER			
TYPE OF POSITIVE BARRIER			
	50 MPH	55 MPH	65 MPH
TEMPORARY CONCRETE BARRIER	14:1	16:1	20:1
BOX BEAM OR HEAVY POST CORRUGATED BEAM	11:1	12:1	15:1

NOTES:

- LEFT SHOULDER CLOSURES ARE SYMMETRICAL. SUBSTITUTE LEFT SHOULDER CLOSED AHEAD SIGN (W21-5bL) AND LEFT SHOULDER CLOSED SIGN (21-5dL) FOR RIGHT SHOULDER CLOSED SIGNS (W21-5bR AND W21-5dR).
- WHEN THE MINIMUM LANE WIDTH OF 11' CANNOT BE MAINTAINED DUE TO A SHOULDER CLOSURE, USE THE DETAILS FOR SHORT, INTERMEDIATE, OR LONG TERM, STATIONARY SINGLE LANE CLOSURES.
- NO WORK ACTIVITY OR STORAGE OF EQUIPMENT, VEHICLES, OR MATERIAL SHOULD OCCUR WITHIN A BUFFER SPACE.
- CHANNELIZING DEVICE SPACING (CENTER TO CENTER) SHALL NOT EXCEED 40' IN THE ACTIVE WORK SPACE.
- FOR SHADOW VEHICLE USE REQUIREMENTS SEE TABLES 501-01 AND 501-02.
- THE "NEXT X MILE" SUPPLEMENTAL SIGN (W7-3a) IS REQUIRED WHEN THE SHOULDER IS CLOSED FOR A DISTANCE GREATER THAN 2 MILES.
- THE TEMPORARY CONCRETE BARRIER SHALL NOT BE PLACED ALONG THE MERGING TAPER. THE SHOULDER SHALL BE CLOSED USING CHANNELIZING DEVICES.
- TRANSVERSE DEVICES SHALL BE REQUIRED (AS PER 619 STANDARD SPECIFICATIONS) WHEN A PAVED SHOULDER HAVING A WIDTH OF 8' OR GREATER IS CLOSED FOR A DISTANCE GREATER THAN 1500'.

NOTES ON NIGHTTIME WORK:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH 107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.



NOTE: SEE STANDARD SHEET TITLED "WORK ZONE TRAFFIC CONTROL LEGENDS AND NOTES" FOR LEGEND OF SYMBOLS AND/OR LETTER CODES USED IN THIS DRAWING.

Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

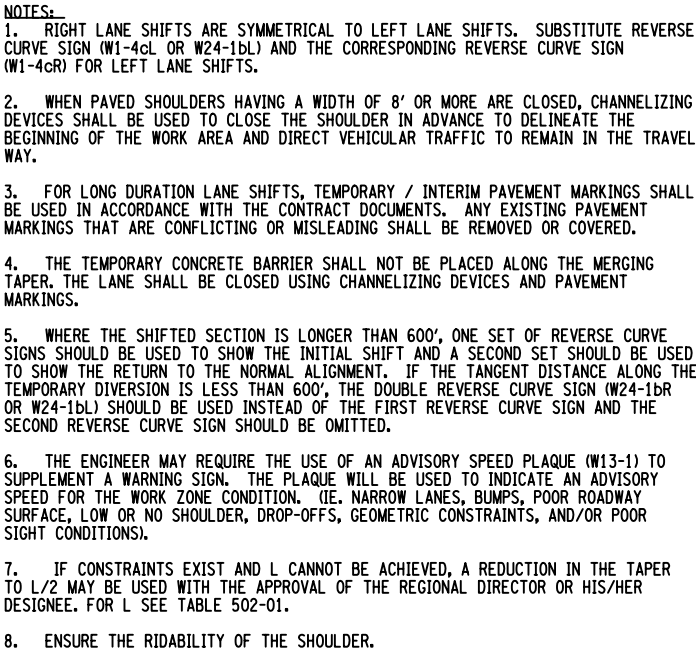
WORK ZONE TRAFFIC CONTROL
FREEWAY
RIGHT TWO-LANE CLOSURE (8 FT + SHOULDER)
RIGHT SHOULDER CLOSURE -
LONG TERM OPERATION

APPROVED XXXXXXXX XX, 20XX


ISSUED UNDER EB XX-XXX

XXXXXXXXXXXXXXXXXXXX
(XXXXXX)

619-501



- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMET AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A - HIGH VISIBILITY APPAREL AT ALL TIMES.
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.

 NEW YORK STATE OF OPPORTUNITY.	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
FREEWAY MULTI LANE SHIFT LONG TERM OPTIONS	
APPROVED XXXXXXXX XX, 20XX XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	ISSUED UNDER EB XX-XXX 619-502 1 of 2

FILE NAME = 619-502-2.dgn
DATE/TIME = 17-FEB-2021 10:52
USER = omodafferi

TABLE 502-01: TAPER LENGTHS AND NUMBER OF CONES CHART											
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /*SKIP LINES /*OF CONES									SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)									FOR SHOULDER WIDTH	
	4	5	6	7	8	9	10	11	12	LESS THAN 8FT. (MIN - MAX)	8FT. OR WIDER (MIN)
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15	60/2/3 - 100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16	80/2/3 - 100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18	80/2/3 - 120/3/4	160/4/5
65	260/7/8	350/9/10	420/11/12	490/13/14	560/14/15	630/16/17	660/17/18	720/18/19	780/20/21	100/3/4 - 140/4/5	180/5/6

TABLE 502-6 : REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY / EXPRESSWAY
W1-4bL	36x36IN.	48x48IN.
W13-1P	24x24IN.	30x30IN.
W20-1	36x36IN.	48x48IN.
W24-1 cL	36x36IN.	48x48IN.
R4-9	24x30IN.	36x48IN.
NYR9-11	24x42IN.	48x48IN.
G20-2	36x18IN.	48x24IN.
*FREEWAY / EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST.		


TABLE 502-05 GUIDELINES FOR ADVANCE PLACEMENT OF WARNING SIGNS																
POSTED OR 85%- PERCENTILE SPEED (MPH)	ADVANCE PLACEMENT DISTANCE (FT.) ¹															
	CONDITION A: SPEED REDUCTION AND LANE CHANGING IN HEAVY TRAFFIC ²	CONDITION B: DECELERATION TO THE LISTED ADVISORY SPEED (MPH) FOR THE CONDITION ⁴														
		CONDITION C: NO SPEED REDUCTION NECESSARY ⁵														
		0 ³	5	10	15	20	25	30	35	40	45	50	55	60	65	
45	930	360	380	370	360	340	315	285	255	210	165	-	-	-	-	
50	1030	425	455	450	435	415	390	360	330	285	240	185	-	-	-	
55	1135	495	530	520	505	490	460	435	400	355	315	255	205	205	205	
60	1135	495	530	520	505	490	460	435	400	355	315	255	205	205	205	
65	1135	495	530	520	505	490	460	435	400	355	315	255	205	205	205	
NOTES:																
1. THE DISTANCES HAVE NOT BEEN MODIFIED TO ACCOUNT FOR SIGN LEGIBILITY.																
2. TYPICAL CONDITIONS ARE LOCATIONS WHERE THE ROAD USER MUST USE EXTRA TIME TO ADJUST SPEED AND CHANGE LANES IN HEAVY TRAFFIC BECAUSE OF A COMPLEX DRIVING SITUATION. TYPICAL SIGNS ARE MERGE AND RIGHT LAND ENDS. THE DISTANCES ARE TAKEN FROM THE 2004 AASHTO POLICY, EXHIBIT 3-3, DECISION SIGHT DISTANCE, AVOIDANCE MANEUVER E.																
3. TYPICAL CONDITION IS THE WARNING OF A POTENTIAL STOP SITUATION. TYPICAL SIGNS ARE STOP AHEAD, YIELD AHEAD, SIGNAL AHEAD, AND INTERSECTION WARNING SIGNS. THE DISTANCES ARE TAKEN FROM THE 2004 AASHTO POLICY, STOPPING SIGHT DISTANCE, EXHIBIT 3-1.																
4. TYPICAL CONDITIONS ARE LOCATIONS WHERE THE ROAD USER MUST DECREASE SPEED TO MANEUVER THROUGH THE WARNED CONDITION. TYPICAL SIGNS ARE TURN, CURVE, REVERSE TURN, OR REVERSE CURVE. THE DISTANCES ARE DETERMINED BY PROVIDING A 2.5 SECOND PRT AND A VEHICLE DECELERATION RATE OF 10 FT/SECOND. ²																
5. TYPICAL SIGNS ARE ADDED LANE, ROAD NARROWS, DIVIDED HIGHWAY, AND CONDITION B SIGNS DISPLAYED WITHOUT AN ADVISORY SPEED.																

TABLE 502-03: 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	8:1	11:1	14:1	16:1	20:1
BOX BEAM OR HEAVY POST CORRUGATED BEAM	7:1	9:1	11:1	12:1	15:1

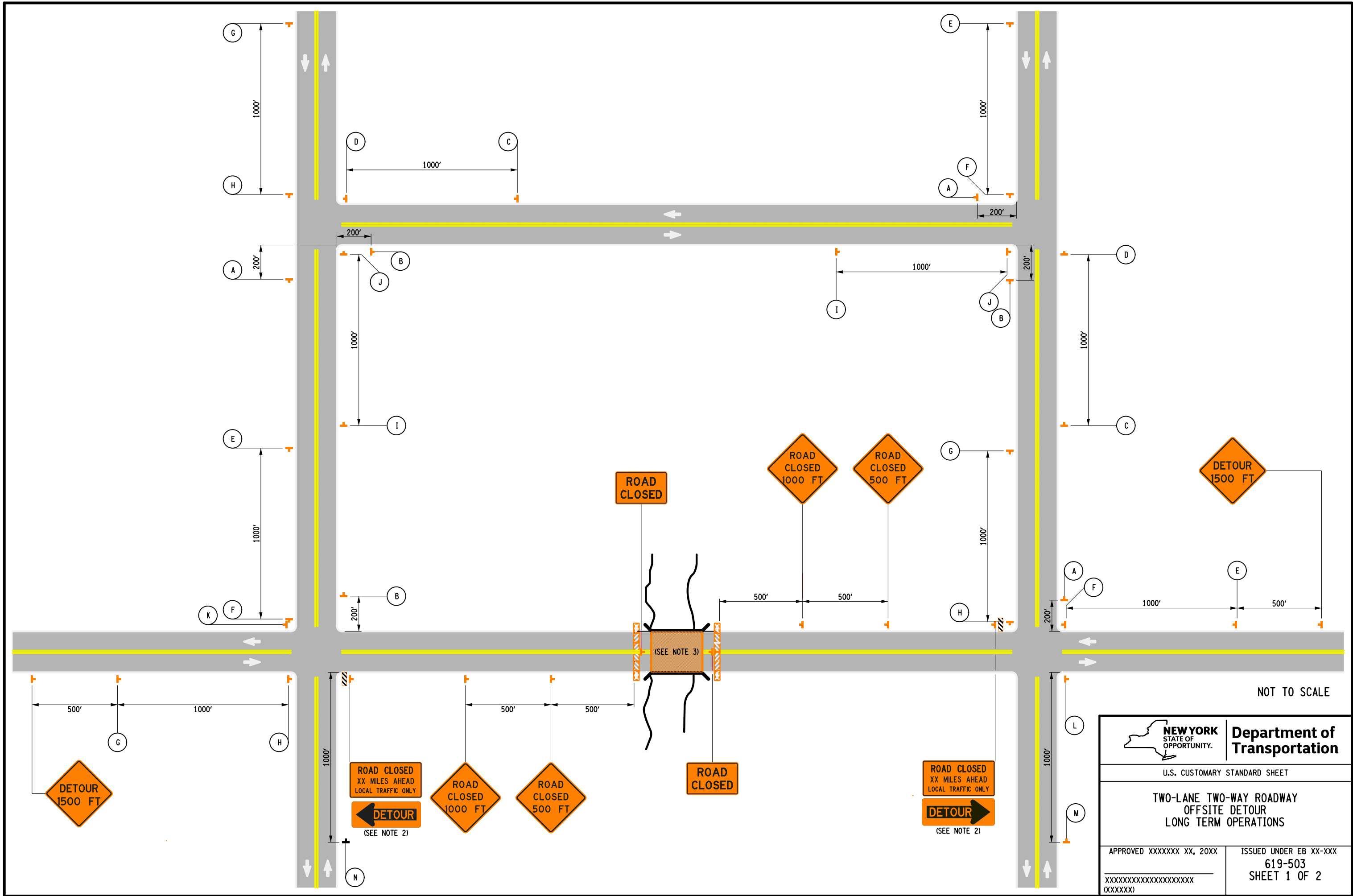
TABLE 502-02			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT / * SKIP LINES	ROLL AHEAD/ PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/ * SKIP LINES	
		MIN	MAX
45	360/9	75/2	150/4
50	425/11		
55	495/13	100/3	200/5
65	645/16		


TABLE 502-04											
CHANNELIZING DEVICE APPLICATION FOR LONG-TERM WORK ZONES											
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	CHANNELIZING DEVICE									
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
LONG TERM WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	20 FT.	X							X	X	
	40 FT.	X							X	X	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X			X	X	X	0
REMOVAL OF EXSISTING GUIDE RAIL	80 FT.	X		X	X	X		X	X	X	0
	40 FT.										
NOTES: X= ALLOWED BLANK =NOT ALLOWED 0 = OPTIONAL											
1 - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.											
2 - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.											

NOT TO SCALE

	Department of Transportation
U.S. CUSTOMARY STANDARD SHEET	
FREEWAY MULTI LANE SHIFT LONG TERM OPTIONS	
APPROVED XXXXXXXX XX, 20XX	ISSUED UNDER EB XX-XXX
XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	619-502 2 of 2

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 Department of Transportation	
U.S. CUSTOMARY STANDARD SHEET	
TWO-LANE TWO-WAY ROADWAY OFFSITE DETOUR LONG TERM OPERATIONS	
APPROVED XXXXXXXX XX, 20XX XXXXXXXXXXXXXXXXXXXXX (XXXXXX)	ISSUED UNDER EB XX-XXX 619-503 SHEET 1 OF 2

DETOUR SIGN SCHEDULE

Diagram	Sign 1	Sign 2	Sign 3	Sign 4
A	DETOUR M4-8	WEST M3-4	X M1-4	
B	DETOUR M4-8	EAST M3-2	X M1-4	
C	DETOUR M4-8	WEST M3-4	X M1-4	Left Turn Arrow M5-1
D	DETOUR M4-8	WEST M3-4	X M1-4	Left Turn Arrow M6-1
E	DETOUR M4-8	WEST M3-4	X M1-4	Right Turn Arrow M5-1
F	DETOUR M4-8	WEST M3-4	X M1-4	Right Turn Arrow M6-1
G	DETOUR M4-8	EAST M3-2	X M1-4	Left Turn Arrow M5-1
H	DETOUR M4-8	EAST M3-2	X M1-4	Left Turn Arrow M6-1
I	DETOUR M4-8	EAST M3-2	X M1-4	Right Turn Arrow M5-1
J	DETOUR M4-8	EAST M3-2	X M1-4	Right Turn Arrow M6-1
K	END DETOUR M4-8a	WEST M3-4	X M1-4	
L	END DETOUR M4-8a	EAST M3-2	X M1-4	
M	DETOUR M4-8	WEST M3-4	X M1-4	Up Arrow M6-3
N	DETOUR M4-8	EAST M3-2	X M1-4	Up Arrow M6-3



M4-8a 24x18IN.

- NOTES:
1. CONFIRMATION SIGNING (A) AND (B) SHALL BE REPEATED A MINIMUM DISTANCE OF EVERY 1/2 MILE.
2. IF THE ROAD IS OPENED FOR SOME DISTANCE BEYOND THE INTERSECTION AND/OR THERE ARE SIGNIFICANT ORIGIN/DESTINATION POINTS BEYOND THE INTERSECTION, THE R11-3A ROAD CLOSED SIGN AND THE M4-10L/R) SIGN ON TYPE III BARRICADES MAY BE LOCATED AT THE EDGE OF THE TRAVELED WAY.
3. SEE REQUIREMENTS IN THE STANDARD SPECIFICATION SECTION 619 FOR VEHICLE BARRIER SYSTEM REQUIREMENTS.
4. ANY EXISTING SIGN, INCLUDING OVERHEAD SIGNS, WHICH CONFLICT WITH THE TEMPORARY TRAFFIC CONTROL SIGN LAYOUT SHALL BE COVERED, REMOVED, STORED OR RESET ABOVE. BLANK COVERS USED TO COVER PORTIONS OF EXISTING SIGNS SHALL BE OF A COLOR AND REFLECTORIZED MATERIAL MATCHING THAT OF THE SIGN BEING PARTIALLY COVERED. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE TO SIGNS CAUSED BY THE METHODS USED TO TEMPORARILY REMOVE, REPLACE, RELOCATE OR COVER SIGN PANELS OR SIGN TEXT, AT NO ADDITIONAL COST TO THE STATE. ALL APPROPRIATE EXISTING SIGNS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AND/OR LOCATION UNLESS OTHERWISE REPLACED IN THE CONTACT DOCUMENTS.
5. SIGN GROUPINGS (W), (P), (H), (D), (K), AND (C) SHALL ALWAYS BE POSTED A MAXIMUM OF 50' FROM AN INTERSECTION.
6. FOR LOCAL AND/OR COUNTY ROAD DETOUR SIGNAGE DETAILS REFER TO MUTCD WITH NEW YORK STATE SUPPLEMENT FOR GUIDANCE.

N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.

N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.

N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMET AND NIGHTTIME APPAREL IN ACCORDANCE WITH ^{107-USA} HIGH VISIBILITY APPAREL AT ALL TIMES.

N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.

N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.

N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.

N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.

N8. ALL LIGHTING SHALL BE DESIGNED , INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.

SIGN	CONVENTIONAL HIGHWAY	FREEWAY / EXPRESSWAY
W20-2	36x36IN.	48x48IN.
W20-3	36x36IN.	48x48IN.
R11-2	48x30IN.	48x30IN.
R11-3a**	60x30IN.	60x30IN.
M4-8a	24x18IN.	24x18IN.
M4-10L / M4-10R	48x18IN.	48x18IN.
*FREEWAY / EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IFSPACE CONSTRAINTS DO NOT EXIST. **SIGNS NOT FOR FREEWAY USE.		



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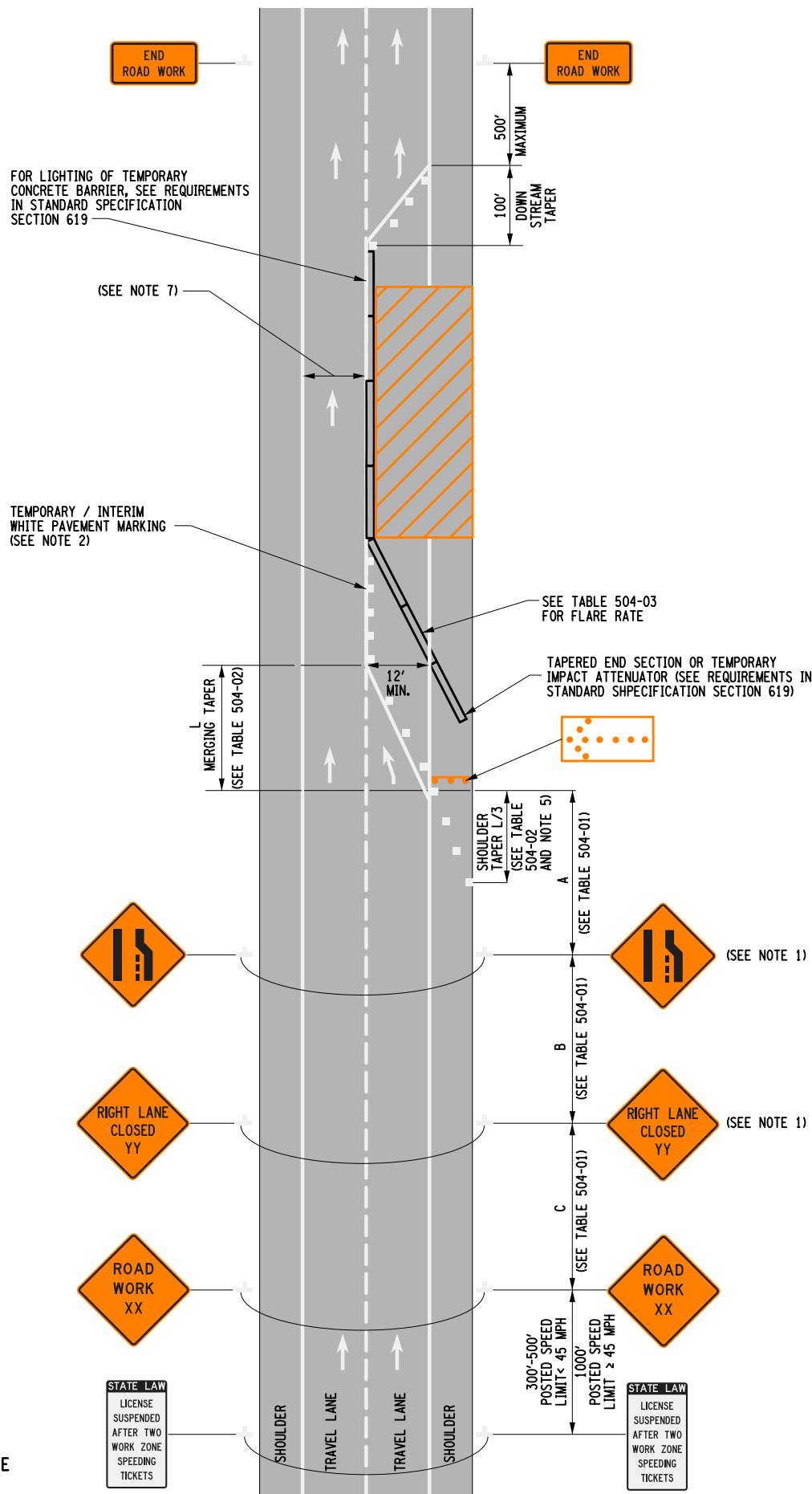
TWO-LANE TWO-WAY ROADWAY
OFFSITE DETOUR
LONG TERM OPERATIONS


APPROVED XXXXXXXX XX, 20XX

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(XXXXXX)


ISSUED UNDER EB XX-XXX

619-503
SHEET 2 OF 2

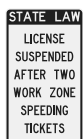





W4-2R




W20-1




NYR9-11




W20-5R




G20-2



ARROW PANEL




WORK AREA



CHANNELIZING DEVICE
(SEE TABLE 504-04)

- NOTES:
1. LEFT LANE CLOSURES ARE SYMMETRICAL TO RIGHT LANE CLOSURES. SUBSTITUTE LEFT LANE CLOSED SIGN (W20-5) AND THE CORRESPONDING LANE ENDS SIGN (W4-2L).
 2. FOR LONG DURATION LANE CLOSURES, TEMPORARY / INTERIM PAVEMENT MARKINGS SHALL BE USED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ANY EXISTING PAVEMENT MARKINGS THAT ARE CONFLICTING OR MISLEADING SHALL BE REMOVED OR COVERED.
 3. THE TEMPORARY CONCRETE BARRIER SHALL NOT BE PLACED ALONG THE MERGING TAPER. THE LANE SHALL BE CLOSED USING CHANNELIZING DEVICES AND PAVEMENT MARKINGS.
 4. IF WORK ACTIVITY PERMITS, A MOVABLE BARRIER MAY BE USED AND RELOCATED TO THE SHOULDER DURING NON WORK PERIODS OR AS PEAK PERIOD VEHICULAR TRAFFIC CONDITIONS EXIST. WHEN MOVABLE BARRIER IS USED, THE TEMPORARY WHITE PAVEMENT MARKINGS SHALL NOT BE USED. DURING THE PERIOD WHEN THE RIGHT LANE IS OPENED, THE SIGN LEGENDS AND CHANNELIZATION SHALL BE CHANGED TO INDICATE THAT ONLY THE SHOULDER IS CLOSED AS SHOWN ON THE LONG TERM SHOULDER CLOSURE DETAIL. IN ADDITION, THE ARROW PANEL SHALL BE PLACED AT THE END OF THE SHOULDER TAPER AND SHALL DISPLAY IN THE CAUTION MODE.
 5. WHEN PAVED SHOULDERS HAVING A WIDTH OF 8' OR MORE ARE CLOSED, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK SPACE AND TO DIRECT VEHICULAR TRAFFIC TO REMAIN IN THE TRAVELED WAY.
 6. FREEWAY/EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS IF SPACE ALLOWS.
 7. UNLESS AUTHORIZED BY THE ENGINEER, THE MINIMUM LANE WIDTHS FOR WORK ZONE TRAVEL LANES SHALL BE AS FOLLOWS: FREEWAYS AND/OR EXPRESSWAYS IS 11'. THE MINIMUM LANE WIDTH FOR ALL OTHER TYPES OF ROADWAYS IS 10'.

- NOTES ON NIGHTTIME WORK:
- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
 - N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.
 - N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
 - N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
 - N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
 - N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
 - N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
 - N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.



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MULTI LANE DIVIDED ROADWAY/FREEWAY
SINGLE LANE CLOSURE
LONG TERM OPERATIONS
(SHEET 1 OF 2)

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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(XXXXXX)

619-504


TABLE 504-01 : ADVANCE WARNING SIGN SPACING						
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
		FOR LANE WIDTH			XX	YY
		A (F.T.)	B (F.T.)	C (F.T.)		
URBAN LOW (≤30 MPH)	30	100	100	100	AHEAD	AHEAD
URBAN (35-40 MPH)	35	200	200	200		
	40					
URBAN HIGH (≥45 MPH)	45	350	350	350	1000 FT.	AHEAD
RURAL		500	500	500	1500 FT.	1000 FT.
EXPRESSWAY / FREEWAY		1000	1500	2460	1 MILE	1/2 MILE

TABLE 504-02: TAPER LENGTHS AND NUMBER OF CONES CHART												
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /* SKIP LINES/* OF CONES										SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR LANE WIDTH IN FT (LATERAL SHIFT OF TRAFFIC FLOW PATH)										FOR SHOULDER WIDTH	
	4	5	6	7	8	9	10	11	12	LESS THAN 8 FT. (MIN -MAX)	8 FT OR WIDER (MIN)	
	25	45/1/2	55/1/2	65/2/3	75/2/3	85/2/3	95/3/4	120/3/4	120/3/4	140/3/5	20/1/2-40/1/2	40/1/2
30	60/2/3	75/2/3	90/2/3	105/3/4	120/3/4	135/3/4	160/4/5	180/5/6	180/5/6	20/1/2-40/1/2	40/1/2	
35	85/2/3	105/3/4	125/3/4	145/4/5	164/4/5	185/5/6	220/6/7	240/6/7	260/7/8	40/1/2-60/2/3	80/2/3	
40	120/3/4	135/3/4	160/4/5	190/5/6	215/5/6	240/6/7	280/7/8	300/8/9	320/8/9	40/1/2-60/2/3	80/2/3	
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15	60/2/3-100/3/4	120/3/4	
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16	80/2/3-100/3/4	140/4/5	
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18	80/2/3-120/3/4	160/4/5	
65	260/7/8	350/9/10	420/11/12	490/13/14	560/14/15	630/16/17	660/17/18	720/18/19	780/20/21	100/3/4-140/4/5	180/5/6	

TABLE 504-03: FLARE RATES FOR POSITIVE BARRIER					
TYPE OF POSITIVE BARRIER	POSTED SPEED LIMIT				
	30 MPH	40 MPH	50 MPH	55 MPH	60 MPH
TEMPORARY CONCRETE BARRIER	8:1	11:1	14:1	16:1	20:1
BOX BEAM OR HEAVY POST CORRUGATED BEAM	7:1	9:1	11:1	12:1	15:1

TABLE 504-04 CHANNELIZING DEVICE APPLICATION FOR LONG-TERM STATIONARY WORK ZONES												
WORK ZONE PROVISIONS		MAXIMUM DEVICE SPACING (CENTER TO CENTER)	CHANNELIZING DEVICE									
LONG TERM AND WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR			DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
SHOULDER/MERGING/ SHIFTING TAPERS	20 FT.	X							X	X		
	40 FT.	X							X	X		
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER		800 FT.	X		X	X			X	X	X	O
REMOVAL OF EXISTING GUIDE RAIL	80 FT.	X		X	X	X		X	X	X	O	
	40 FT.											
NOTES: X= ALLOWED, BLANK= NOT ALLOWED, O=OPTIONAL 1- A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE. 2- CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.												

TABLE 504-05 : REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY/ EXPRESSWAY
W4-2R	36X36 IN.	48X48 IN.
W20-1	36X36 IN.	48X48 IN.
W20-5	36X36 IN.	48X48 IN.
NYW9-11	24X42 IN.	48X84 IN.
G20-2	36X18 IN.	48X24 IN.
*FREEWAY/EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS		



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U.S. CUSTOMARY STANDARD SHEET

MULTI LANE DIVIDED ROADWAY/FREEWAY
SINGLE LANE CLOSURE
LONG TERM OPERATIONS
(SHEET 2 OF 2)

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX


XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)

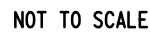
619-504

NOT TO SCALE



NOTES: X = ALLOWED, BLANK = NOT ALLOWED, O = OPTIONAL
1 - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.
2 - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.

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|  <p>NEW YORK
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Transportation</p> |
| <p>U.S. CUSTOMARY STANDARD SHEET</p> | |
| <p>WORK ZONE TRAFFIC CONTROL
FREEWAY
SINGLE LANE CLOSURE NEAR ENTRANCE RAMP
LONG TERM OPERATION</p> | |
| <p>APPROVED XXXXXXXX XX, 20XX</p> <p>XXXXXXXXXXXXXXXXXXXXX
(XXXXXX)</p> | <p>ISSUED UNDER EB XX-XXX</p> <p>619-517</p> |



- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES.
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.

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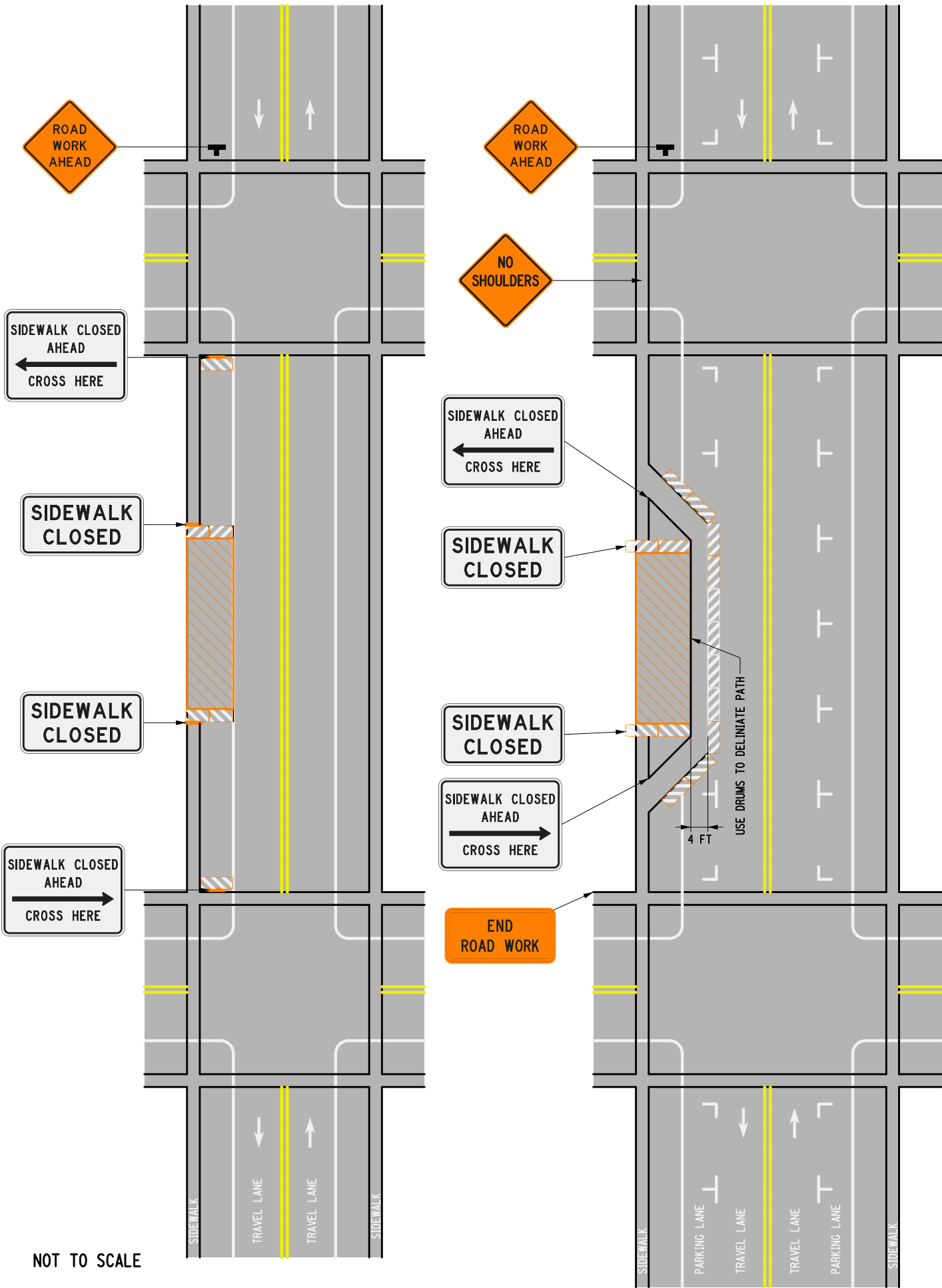
TABLE 518-01: TAPER LENGTHS AND NUMBER OF CONES CHART											
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /* SKIP LINES/* OF CONES									SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR LANE WIDTH IN FT (LATERAL SHIFT OF TRAFFIC FLOW PATH)									FOR SHOULDER WIDTH	
	4	5	6	7	8	9	10	11	12	LESS THAN 8 FT. (MIN -MAX)	8 FT OR WIDER (MIN)
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15	60/2/3-100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16	80/2/3-100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18	80/2/3-120/3/4	160/4/5
65	260/7/8	350/9/10	420/11/12	490/13/14	560/14/15	630/16/17	660/17/18	720/18/19	780/20/21	100/3/4-140/4/5	180/5/6

TABLE 518-02			
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT/* SKIP LINES	ROLL AHEAD /PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/ * SKIP LINES	
		MIN	MAX
45	360/9	75/2	150/4
50	425/11		
55	495/13	100/3	200/5
65	645/16		

TABLE 518-03		
CLOSURE TYPE	EXPOSURE CONDITION	FREEWAY
LANE CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED*
	NON-TRAVERSABLE HAZARD I.E. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED*
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED*
	NON-TRAVERSABLE HAZARD I.E. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED*
<p>1. THE EXPOSURE CONDITIONS DESCRIBED IN THE TABLE 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.</p> <p>2. WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</p> <p>3.REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMIA(TRUCK MOUNTED OR TRAILER MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE 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 REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.</p> <p>4.BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</p> <p>5.BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.</p>		

TABLE 518-04 CHANNELIZING DEVICE APPLICATION FOR LONG- TERM STATIONARY WORK ZONES												
WORK ZONE PROVISIONS		MAXIMUM DEVICE SPACING (CENTER TO CENTER)	CHANNELIZING DEVICE									
			DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
INTERMEDIATE-TERM AND WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR												
SHOULDER/MERGING/ SHIFTING TAPERS		20 FT.	X							X	X	
		40 FT.	X							X	X	
MARKING FOR TRANSVERSE BUMPS¹		N/A	X*			X*				X*		
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER		800 FT.	X		X	X			X	X	X	0
REMOVAL OF EXISTING GUIDE RAIL		80 FT.	X		X	X	X		X	X	X	0
		40 FT.										
NOTES: X= ALLOWED, BLANK= NOT ALLOWED, 0=OPTIONAL 1- A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE. 2- CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.												

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FREEWAY SINGLE LANE CLOSURE NEAR EXIT RAMP LONG TERM OPERATION (SHEET 2 OF 2)	
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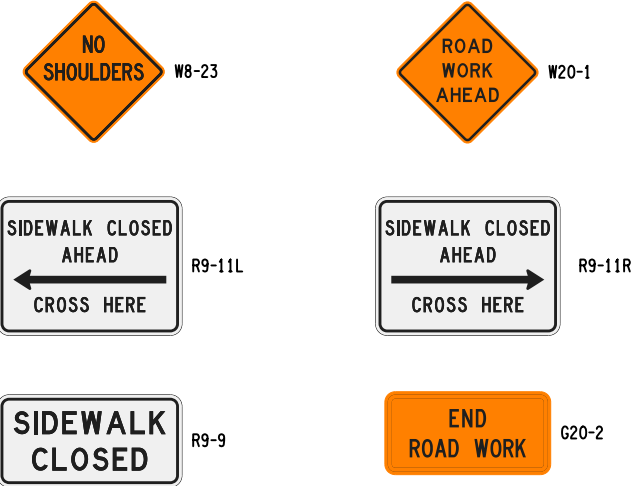



NOT TO SCALE

- NOTES:
1. WHEN CROSSWALKS OR OTHER PEDESTRIAN FACILITIES ARE CLOSED OR RELOCATED, TEMPORARY FACILITIES SHALL BE DETECTABLE AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING FACILITY.
 2. WHERE HIGH SPEEDS ARE ANTICIPATED, A TEMPORARY TRAFFIC BARRIER AND TEMPORARY IMPACT ATTENUATOR SHOULD BE USED TO SEPARATE THE TEMPORARY SIDEWALKS FROM VEHICULAR TRAFFIC.
 3. ONLY THE WORK ZONE TRAFFIC CONTROL DEVICES RELATED TO PEDESTRIANS ARE SHOWN. OTHER DEVICES, SUCH AS LANE CLOSURE SIGNING OR ROAD NARROWS SIGNS (W5-4), MAY BE USED TO CONTROL VEHICULAR TRAFFIC.
 4. FOR NIGHTTIME CLOSURES, FLASHING WARNING LIGHTS SHALL BE USED ON BARRICADES SUPPORTING SIGNS AND CLOSING SIDEWALKS.
 5. SIGNS SUCH AS KEEP RIGHT (LEFT) SHALL BE PLACED ALONG A TEMPORARY SIDEWALK, WHERE APPLICABLE AND ACCORDING TO AMERICAN WITH DISABILITIES STANDARDS, TO GUIDE OR DIRECT PEDESTRIANS.
 6. TYPE II BARRICADES MAY BE SUBSTITUTED FOR TYPE III BARRICADES AS PER 619 STANDARD SPECIFICATIONS.

- NOTES ON NIGHTTIME WORK:
- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS
- N2. ALL SIGNS SHALL BE RETRO REFLECTIVE
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A . HIGH VISIBILITY APPAREL AT ALL TIMES
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- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY

TABLE 519-01: REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL ROAD	FREEWAY/EXPRESSWAY
W8-23	36X36 IN.	48X48 IN.
W20-1	36X36 IN.	48X48 IN.
R9-11L/ R9-11R**	24X18 IN.	24X18 IN.
R9-9**	24X12 IN.	24X12 IN.
G20-2	36X18 IN.	48X24 IN.
*FREEWAY/EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS		





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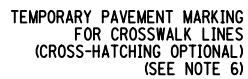
TWO-LANE TWO-WAY ROADWAY
SIDEWALK DETOUR DIVERSION
LONG TERM OPERATIONS

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX

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SIGN	CONVENTIONAL ROAD	FREEWAY/ EXPRESSWAY
W8-23	36X36 IN.	48X48 IN.
W16-9P●●	24X12 IN.	30X18 IN.
W16-7PR●●	24X12 IN.	30X18 IN.
R9-8●●	36X18 IN.	36X18 IN.
R9-9●●	24X12 IN.	24X12 IN.
R9-11L/ R9-11R●●	24X18 IN.	24X18 IN.
R11-2	48X30 IN.	48X30 IN.
G20-2	36X18 IN.	48X24 IN.

NOTES:

1. WHEN CROSSWALKS OR OTHER PEDESTRIAN FACILITIES ARE CLOSED OR RELOCATED, TEMPORARY FACILITIES SHALL BE DETECTABLE AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING FACILITY.
2. CURB PARKING SHALL BE PROHIBITED FOR AT LEAST 50' IN ADVANCE OF THE MID-BLOCK CROSSWALK.
3. PEDESTRIAN TRAFFIC SIGNAL DISPLAYS CONTROLLING CLOSED CROSSWALKS SHOULD BE COVERED OR DEACTIVATED.
4. ONLY THE WORK ZONE TRAFFIC CONTROL DEVICES RELATED TO PEDESTRIANS ARE SHOWN. OTHER DEVICES, SUCH AS LANE CLOSURE SIGNING OR ROAD NARROWS SIGNS (W5-4), MAY BE USED TO CONTROL VEHICULAR TRAFFIC.
5. FOR NIGHTTIME CLOSURES, FLASHING WARNING LIGHTS SHALL BE USED ON BARRICADES SUPPORTING SIGNS AND CLOSING SIDEWALKS.
6. FOR LONG-TERM STATIONARY WORK, THE DOUBLE YELLOW CENTERLINE AND/OR LANE LINES SHOULD BE REMOVED BETWEEN THE TEMPORARY CROSSWALK LINES.
7. ONLY THE WORK ZONE TRAFFIC CONTROL DEVICES RELATED TO PEDESTRIANS ARE SHOWN. OTHER DEVICES, SUCH AS LANE CLOSURE SIGNING OR ROAD NARROWS SIGNS (W5-4), MAY BE USED TO CONTROL VEHICULAR TRAFFIC.
8. FOR NIGHTTIME CLOSURES, FLASHING WARNING LIGHTS SHALL BE USED ON BARRICADES SUPPORTING SIGNS AND CLOSING SIDEWALKS.
9. FOR LONG-TERM STATIONARY WORK, THE DOUBLE YELLOW CENTERLINE AND/OR LANE LINES SHOULD BE REMOVED BETWEEN THE TEMPORARY CROSSWALK LINES.
10. FREEWAY/EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS IF SPACE ALLOWS.

NOTES ON NIGHTTIME WORK:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS
- N2. ALL SIGNS SHALL BE RETRO REFLECTIVE
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMETS AND NIGHTTIME APPAREL IN ACCORDANCE WITH ¹⁵/₆₄107-05A. HIGH VISIBILITY APPAREL AT ALL TIMES
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL EQUIPMENT, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY



U.S. CUSTOMARY STANDARD SHEET

TWO-LANE TWO-WAY ROADWAY
CROSSWALK CLOSURE AND PEDESTRIAN DETOUR
LONG TERM OPERATIONS

APPROVED XXXXXXXX XX, 20XX

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(XXXXXX)

ISSUED UNDER EB XX-XXX

619-520



TABLE 523-02: TAPER LENGTHS AND NUMBER OF CONES CHART

PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	LONGITUDINAL BUFFER SPACE IN FT * SKIP LINES	ROLL AHEAD /PLACEMENT DISTANCE OF BARRIER VEHICLE IN FT/ * SKIP LINES	
		MIN	MAX
25	155/4	50/1	100/3
30	200/5		
35	250/6		
40	305/8		
45	360/9	75/2	150/4
50	425/11		
55	495/13		
		100/3	200/4

- N8. ALL LIGHTING SHALL BE DESIGNED, INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY



Department of Transportation

U.S. CUSTOMARY STANDARD SHEET

MULTI-LANE TWO-WAY ROADWAY
DOUBLE INTERIOR LANE CLOSURE
LONG TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX


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(XXXXXX)

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1 OF 2

TABLE 523-06: REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL ROAD	FREEWAY/EXPRESSWAY
W4-2L	36X36 IN.	48X48 IN.
W20-1	36X36 IN.	48X48 IN.
W20-5	36X36 IN.	48X48 IN.
NYW8-33	48X24 IN.	48X24 IN.
NYR9-11	24X42 IN.	48X48 IN.
G20-2	36X18 IN.	48X24 IN.
*FREEWAY/EXPRESSWAY SIGN SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS		

TABLE 523-04		
CLOSURE TYPE	EXPOSURE CONDITION	FREEWAY
LANE CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED*
	NON-TRAVERSABLE HAZARD UE. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED*
SHOULDER CLOSURE	WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC	REQUIRED*
	NON-TRAVERSABLE HAZARD UE. EQUIPMENT, MATERIALS, EXCAVATION ONLY NO WORKERS EXPOSED	REQUIRED*
1.THE EXPOSURE CONDITIONS DESCRIBED IN TABLE ASSUMES THERE IS NO POSITIVE PROTECTION A TEMPORARY TRAFFIC BARRIER) PRESENT. WHERE WORKERS OR HAZARDS ARE PROTECTED BY A TEMPORARY TRAFFIC BARRIER, BARRIER VEHICLES ARE NOT REQUIRED.		
2.WHERE THE REQUIREMENT IS "OPTIONAL", EITHER A BARRIER VEHICLE OR THE STANDARD LONGITUDINAL BUFFER SPACE.		
3.REQUIREMENTS SHALL INCLUDE PROVIDING A SEPARATE BARRIER VEHICLE FOR EACH CLOSED LANE AND EACH CLOSED PAVED SHOULDER 8' OR GREATER IN WIDTH. IF THE WORKSPACE MOVES WITHIN THE STATIONARY CLOSURE, THE BARRIER VEHICLE SHALL BE REPOSITIONED ACCORDINGLY. BARRIER VEHICLES SHALL BE EQUIPPED WITH AN APPROVED REAR MOUNTED TMIA (TRUCK MOUNTED OR TRAILER MOUNTED ATTENUATOR) WORKERS ON FOOT OR IN VEHICLES EXPOSED TO TRAFFIC.BARRIER VEHICLES PROTECTING NON-TRANSVERSABLE HAZARDS SHALL REMAIN IN PLACE DURING BOTH WORKING AND NON-WORKING HOURS UNTIL THE HAZARD NO LONGER EXISTS. E XCEPTIONS TO THESE REQUIREMENTS MAY BE MADE, AS APPROVED BY THE REGIONAL DIRECTOR OR HIS/HER DESIGNEE WHERE BARRIER VEHICLE PLACEMENT WOULD BE INEFFECTIVE OR WOULD INTERFERE WITH THE SAFE OPERATION OF TRAFFIC.		
4.BARRIER VEHICLES ARE NOT REQUIRED FOR MILLING AND/OR PAVING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.		
5.BARRIER VEHICLES ARE NOT REQUIRED FOR FLAGGING OPERATIONS, BUT THE STANDARD LONGITUDINAL BUFFER SPACE SHALL BE PROVIDED.		

TABLE 523-05 CHANNELIZING DEVICE APPLICATION FOR LONG TERM STATIONARY WORK ZONES											
WORK ZONE PROVISIONS	CHANNELIZING DEVICE										
	MAXIMUM DEVICE SPACING(CENTER TO CENTER)	DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERTICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
INTERMEDIATE-TERM AND WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	20 FT	X							X	X	
	40 FT	X							X	X	
SHOULDER/MERGING/SHIFTING TAPERS											
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT	X		X	X			X	X	X	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT	X		X	X	X		X	X	X	0
	40 FT										
NOTES: X = ALLOWED BLANK = NOT ALLOWED 0 = OPTIONAL 1 - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE. 2 - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.											



NEW YORK
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U.S. CUSTOMARY STANDARD SHEET

MULTI-LANE TWO-WAY ROADWAY
DOUBLE INTERIOR LANE CLOSURE
LONG TERM OPERATION

APPROVED XXXXXXXX XX, 20XX

ISSUED UNDER EB XX-XXX
619-523
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(XXXXXX)



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- NOTES ON NIGHTTIME WORK:

- N1. WORK OCCURRING AFTER SUNSET AND BEFORE SUNRISE WILL BE CONSIDERED NIGHTTIME OPERATIONS.
- N2. ALL SIGNS SHALL BE RETRO REFLECTIVE.
- N3. ALL WORKERS INVOLVED SHALL WEAR PROTECTIVE HELMET AND NIGHTTIME APPAREL IN ACCORDANCE WITH §107-05A . HIGH VISIBILITY APPAREL AT ALL TIMES.
- N4. VEHICLES OPERATING ON THE PAVEMENT OF A CLOSED ROADWAY OR TRAVEL LANE SHALL DISPLAY ROTATING AMBER BEACONS AT ALL TIMES.
- N5. LEVEL I ILLUMINATION SHALL BE PROVIDED NEAR THE BEGINNING OF LANE CLOSURE TAPERS AND AT ROAD CLOSURES, INCLUDING THE SETUP AND REMOVAL OF THE CLOSURE TAPERS.
- N6. LEVEL II ILLUMINATION SHALL BE PROVIDED FOR FLAGGING STATIONS, ASPHALT PAVING, MILLING, AND CONCRETE PLACEMENT AND/OR REMOVAL OPERATIONS, INCLUDING BRIDGE DECKS, 50 FEET AHEAD OF AND 100 FEET BEHIND A PAVING OR MILLING MACHINE.
- N7. LEVEL III ILLUMINATION SHALL BE PROVIDED FOR PAVEMENT OR STRUCTURAL CRACK FILLING, JOINT REPAIR, PAVEMENT PATCHING AND REPAIRS, INSTALLATION OF SIGNAL EQUIPMENT OR OTHER ELECTRICAL/MECHANICAL, AND OTHER TASKS INVOLVING FINE DETAILS OR INTRICATE PARTS AND EQUIPMENT.
- N8. ALL LIGHTING SHALL BE DESIGNED , INSTALLED, AND OPERATED TO AVOID GLARE THAT AFFECTS TRAFFIC ON THE ROADWAY OR THAT CAUSES ANNOYANCE OR DISCOMFORT FOR RESIDENCES ADJOINING THE ROADWAY.

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U.S. CUSTOMARY STANDARD SHEET	
TWO-LANE TWO-WAY ROADWAY TEMPORARY TRAFFIC SIGNAL LONG TERM OPERATIONS	
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TABLE 524-01 ADVANCE WARNING SIGN SPACING						
ROADWAY	PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	DISTANCE BETWEEN SIGNS			SIGN LEGEND	
		FOR LANE WIDTH			XX	YY
		A (FT.)	B (FT.)	C (FT.)		
URBAN LOW (≤ 30 MPH)	30	100	100	100	AHEAD	AHEAD
URBAN (35 - 40 MPH)	35	200	200	200		
	40					
URBAN HIGH (≥ 45 MPH)	45	350	350	350	1000 FT.	AHEAD
RURAL		500	500	500	1500 FT.	1000 FT.

TABLE 524-04 : REQUIRED SIGN SIZES*		
SIGN	CONVENTIONAL HIGHWAY	FREEWAY / EXPRESSWAY
W3-3	36x36IN.	48x48IN.
W13-1P	24x24IN.	30x30IN.
W20-1	36x36IN.	48x48IN.
W20-4	36x36IN.	48x48IN.
R10-6L / R10-6R**	24x36IN.	24x36IN.
NYR9-11	24x42IN.	48x84IN.
G20-2	36x36IN.	48x48IN.
*FREEWAY / EXPRESSWAY SIZES MAY BE USED ON CONVENTIONAL HIGHWAYS, IF SPACE CONSTRAINTS DO NOT EXIST. **SIGNS NOT FOR FREEWAY USE.		

TABLE 524-02: TAPER LENGTHS AND NUMBER OF CONES CHART											
PRECONSTRUCTION POSTED SPEED LIMIT (MPH)	TAPER LENGTH: L (IN FT.) /*SKIP LINES /*OF CONES									SHOULDER TAPER: L/3 (IN FT.) /* SKIP LINES/* OF CONES	
	FOR LANE WIDTH IN FT. (LATERAL SHIFT OF TRAFFIC FLOW PATH)									FOR SHOULDER WIDTH	
	4	5	6	7	8	9	10	11	12	LESS THAN 8FT. (MIN - MAX)	8FT. OR WIDER (MIN)
25	45/1/2	55/1/2	65/2/3	75/2/3	85/2/3	95/3/4	120/3/4	120/3/4	140/3/5	20/1/2 - 40/1/2	40/1/2
30	60/2/3	75/2/3	90/2/3	105/3/4	120/3/4	135/3/4	160/4/5	180/5/6	180/5/6	20/1/2 - 40/1/2	40/1/2
35	85/2/3	105/3/4	125/3/4	145/4/5	165/4/5	185/5/6	220/6/7	240/6/7	260/7/8	40/1/2 - 60/2/3	80/2/3
40	120/3/4	135/3/4	160/4/5	190/5/6	215/5/6	240/6/7	280/7/8	300/8/9	320/8/9	40/1/2 - 60/2/3	80/2/3
45	200/5/6	225/6/7	270/7/8	315/8/9	360/9/10	405/10/11	460/12/13	500/13/14	540/14/15	60/2/3 - 100/3/4	120/3/4
50	200/5/6	250/6/7	300/8/9	350/9/10	400/10/11	450/11/12	500/13/14	560/14/15	600/15/16	80/2/3 - 100/3/4	140/4/5
55	220/6/7	275/7/8	330/8/9	385/10/11	440/11/12	495/11/12	560/14/15	620/16/17	660/17/18	80/2/3 - 120/3/4	160/4/5

TABLE: 524-03											
CHANNELIZING DEVICE APPLICATION FOR INTERMEDIATE-TERM STATIONARY WORK ZONES											
WORK ZONE PROVISIONS	MAXIMUM DEVICE SPACING (CENTER TO CENTER)	CHANNELIZING DEVICE									
		DRUMS	STANDARD CONES	TALL CONES	EXTRA TALL CONES	TEMPORARY TUBULAR MARKERS	INTERIM TUBULAR MARKERS	VERTICAL PANELS	OVERSIZED VERICAL PANELS	TYPE II BARRICADES	TYPE III BARRICADES
LONG TERM WORK ZONES INVOLVE WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 DAYLIGHT PERIOD OR NIGHTTIME WORK THAT OCCUPIES A LOCATION FOR MORE THAN 1 HOUR	20 FT.	X							X	X	
	40 FT.	X							X	X	
TRANSVERSE DEVICE WITHIN CLOSED TRAFFIC LANE AND/OR SHOULDER	800 FT.	X		X	X			X	X	X	0
REMOVAL OF EXISTING GUIDE RAIL	80 FT.	X		X	X	X		X	X	X	0
	40 FT.										
NOTES: X= ALLOWED BLANK =NOT ALLOWED 0 = OPTIONAL											
1 - A TYPE 1 OBJECT MARKER MAY BE USED IN LIEU OF CHANNELIZING DEVICE.											
2 - CHANNELIZING DEVICES SHALL BE EQUIPPED WITH A FLASHING WARNING LIGHT.											

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NEW YORK
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U.S. CUSTOMARY STANDARD SHEET

TWO-LANE TWO-WAY ROADWAY
TEMPORARY TRAFFIC SIGNAL
LONG TERM OPERATIONS

APPROVED XXXXXXXX XX, 20XX

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