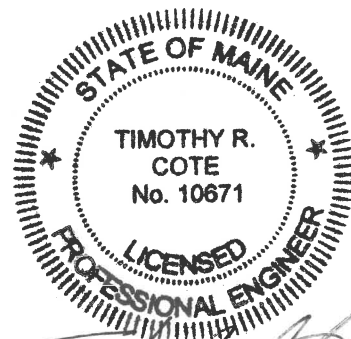


DateJuly 15, 2024**To**Peter Merfeld, P.E. – Maine Turnpike**HNTB****Technical
Memorandum****From**Tim Cote, P.E.**Subject**Revisions to the MTA Traffic Control Plans
Booklet – October 2021 Revision

After discussions between MTA and HNTB, as well as a review of MUTCD, selected details in the MTA's October 2021 Traffic Control Plans booklet have been revised to eliminate the use of supplementary (left-side) signs. These changes prioritize motorist and worker safety during the setup, maintenance, and removal of signs used in temporary traffic control layouts on the Turnpike. Notably, the adjustments remove the requirement for bracketing 'End Road Work' and 'End Work Zone Speed Limit' signs and also for bracketing 'Road Work Ahead' signs in cases involving right-hand shoulder closures. By balancing worker and motorist safety, these amendments align with MUTCD guidelines. The attached redlined revisions illustrate these changes. All detail sheets not included in this Memo remain unchanged.

Cc: John Cannell, P.E. – Maine Turnpike Authority
Ralph Norwood, P.E., PTOE – Maine Turnpike Authority
Steve Tartre, P.E. – Maine Turnpike Authority
Dale Mitchell, P.E. - HNTB



Tim Cote
7/16/2024



Maine Turnpike Authority

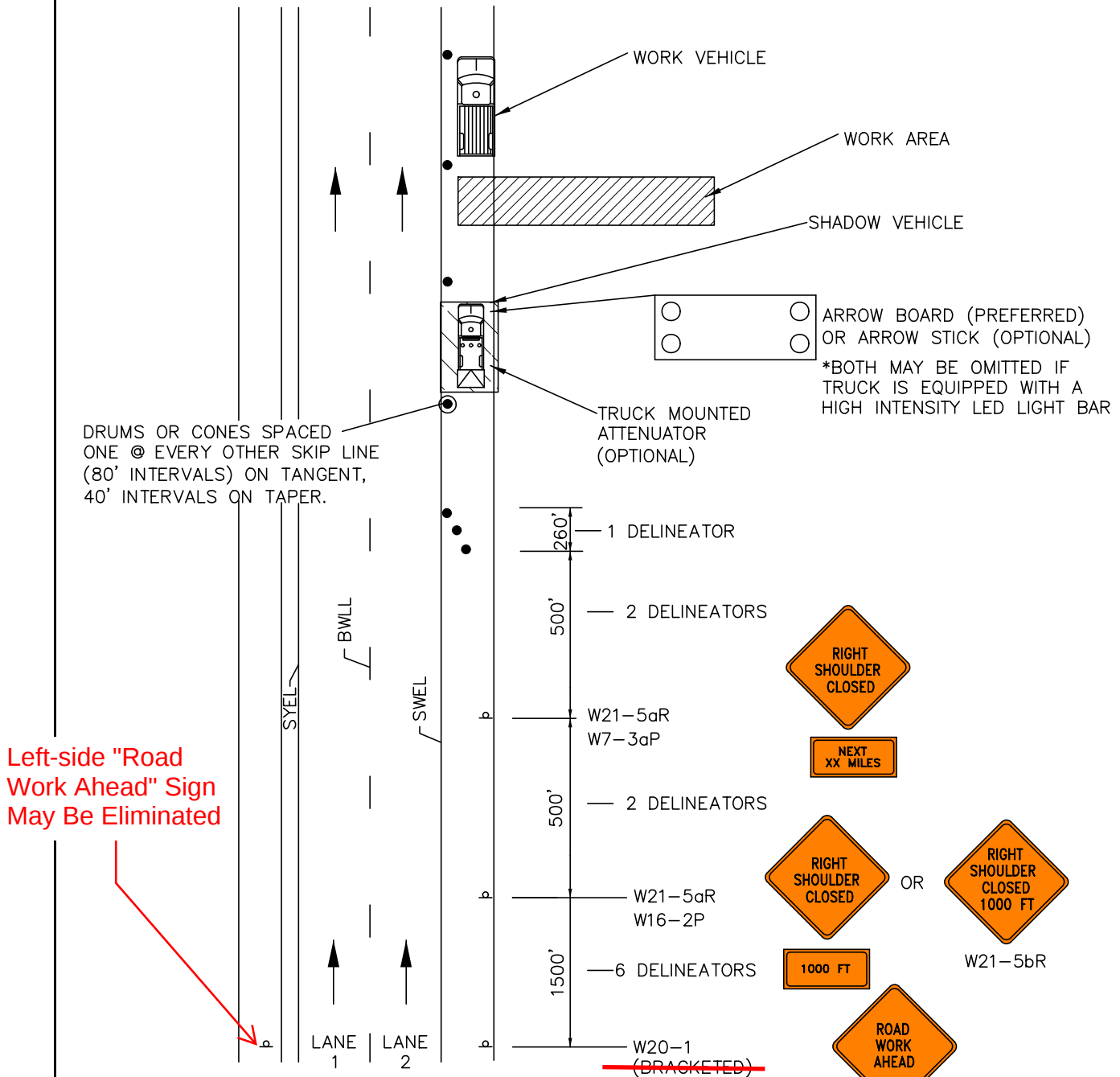
Traffic Control Plans

October 2021 Revision

With Revisions to Identify Specific Signs That May Be Eliminated From That Detail's Sign Layout. Details Not Affected By This Revision Are Not Included Here But Remain In Effect.

July 09, 2024





NOTES:

1. THE SUPPLEMENTAL PLATE NOTING THE LENGTH OF SHOULDER CLOSURE MAY BE ELIMINATED IF DRIVERS CAN SEE A PULL OFF AREA BEYOND THE CLOSED SHOULDER.
2. DRUMS SHALL BE USED FOR SHOULDER CLOSURES LEFT IN PLACE OVERNIGHT AND WHEN THE CLOSURE IS NOT ATTENDED.

DETAIL 5A NOT TO SCALE

REVISED
07-09-2024

HNTB

DATE: 10-01-2021



MAINE TURNPIKE AUTHORITY
TRAFFIC CONTROL DETAIL

SHOULDER CLOSURE
FOR WORK ACTIVITY IN THE SHOULDER

END ROAD WORK

G20-2
(BRACKETED)



E5-1

Left-side "End Road Work"
Sign May Be Eliminated. Right
Side Sign Still Required.

- NOTES:
1. THE SUPPLEMENTAL PLATE NOTING THE LENGTH OF SHOULDER CLOSURE MAY BE ELIMINATED IF DRIVERS CAN SEE A PULL OFF AREA BEYOND THE CLOSED SHOULDER.
 2. DRUMS SHALL BE USED FOR SHOULDER CLOSURES LEFT IN PLACE OVERNIGHT AND WHEN THE CLOSURE IS NOT ATTENDED.
 3. 3 LANE ROADWAY DECELERATION LANE CLOSURE SIMILAR.
 4. EXIT SIGN E5-1 SHOULD BE WHITE LETTERS AND ARROW ON GREEN BACKGROUND. SIGN SHALL BE MOUNTED 5 FEET FROM BOTTOM OF SIGN TO PAVEMENT SURFACE.

ONE @ EVERY OTHER SKIP LINE
(80' INTERVALS) ON TANGENT,
40' INTERVALS ON TAPER.



E5-2 MOD

OR



E5-2



W16-9P

Left-side "Road Work
Ahead" Sign May Be
Eliminated

WORK VEHICLE

CLOSED DECELERATION LANE AND
SHOULDER

SHADOW VEHICLE



ARROW BOARD (PREFERRED)
OR ARROW STICK (OPTIONAL)

*BOTH MAY BE OMITTED IF
TRUCK IS EQUIPPED WITH A
HIGH INTENSITY LED LIGHT BAR

TRUCK MOUNTED
ATTENUATOR
(OPTIONAL)

CLOSED SHOULDER BUFFER
100' MINIMUM; A TOTAL MINIMUM BUFFER OF 425'
SHALL BE PROVIDED IN ADVANCE OF THE TRUCK
MOUNTED ATTENUATOR

260' — 1 DELINEATOR

500' — 2 DELINEATORS

W21-5aR
W7-3aP

500' — 2 DELINEATORS

W21-5aR
W16-2P

1500' — 6 DELINEATORS

W20-1
(BRACKETED)



DETAIL 5B

NOT TO SCALE

HNTB

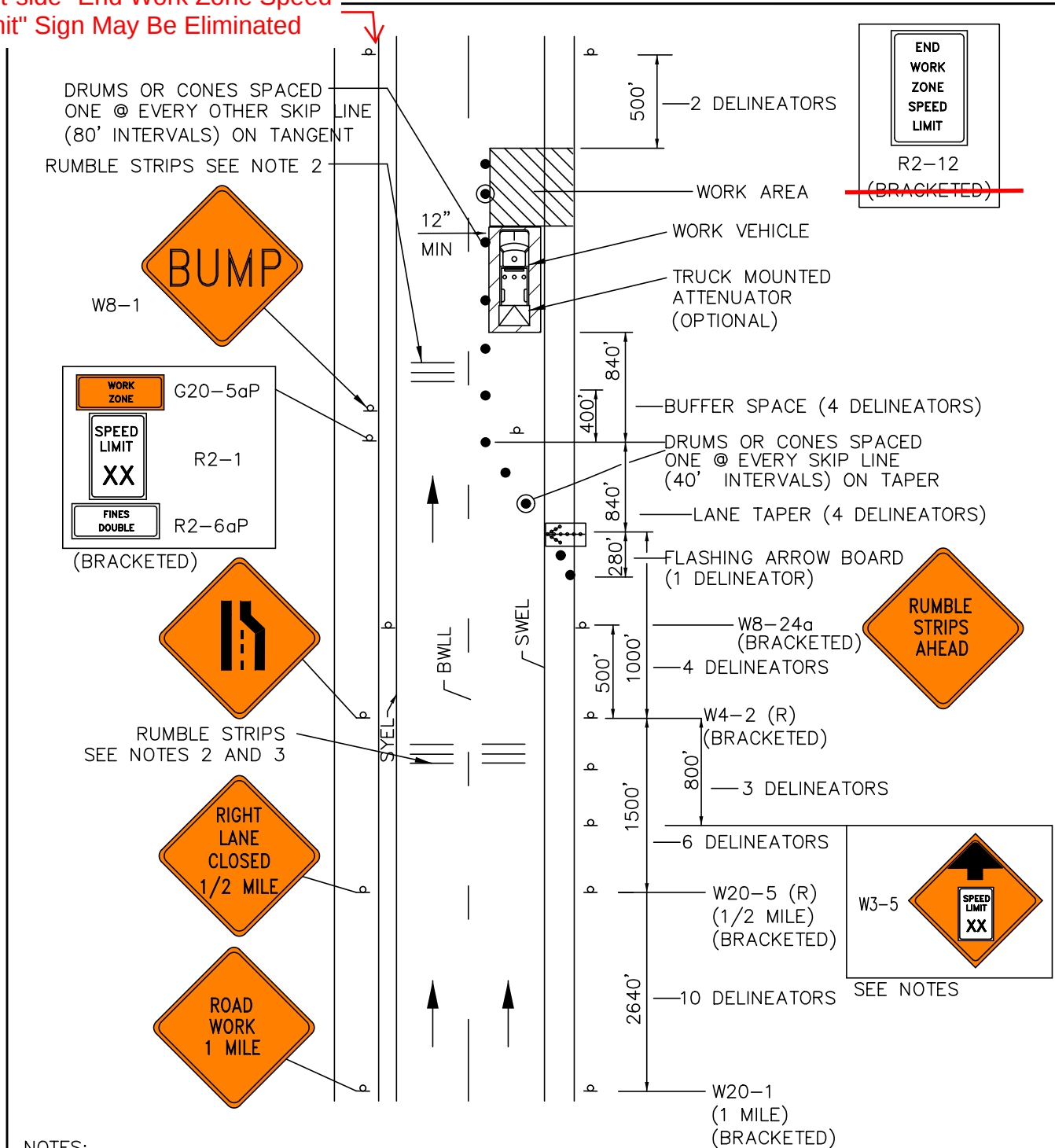
REVISED
07-09-2024

DATE: 10-01-2021



MAINE TURNPIKE AUTHORITY
TRAFFIC CONTROL DETAIL
DECELERATION LANE CLOSURE
FOR WORK ACTIVITY IN THE
DECELERATION LANE

Left-side "End Work Zone Speed Limit" Sign May Be Eliminated



NOTES:

- FOR LANE CLOSURE NOTES SEE DETAILS 33R AND 33L.
- IF RUMBLE STRIPS ARE USED THEY SHALL BE PLACED IN ONE OF THE FOLLOWING CONFIGURATIONS:
 - * ADJACENT TO THE WORK ZONE (1 UNIT)
 - * UPSTREAM FROM THE TAPER FOR THE WORKZONE (2 UNITS)
 - * BOTH ADJACENT TO THE WORK ZONE AND PRIOR TO THE TAPER (3 UNITS)

W8-1 SIGNS SHALL BE PLACED ADJACENT TO THE FIRST RUMBLE STRIP AT ANY LOCATION. ONLY ONE SET OF W8-24a SIGNS ARE REQUIRED FOR ANY OF THE ABOVE CONFIGURATIONS.
- RUMBLE STRIPS MAY BE PLACED UPSTREAM OF THE TAPER BETWEEN THE W3-5 SIGNS AND THE W4-2 SIGNS. IF RUMBLE STRIPS ARE INSTALLED PRIOR TO TAPER, W8-1 SIGNS SHALL BE PLACED ADJACENT TO THE FIRST STRIP AND THE W8-24a SIGNS SHALL BE MOVED TO 400' AFTER THE W20-5 SIGNS.

DETAIL 33

NOT TO SCALE

HNTB

REVISED
07-09-2024

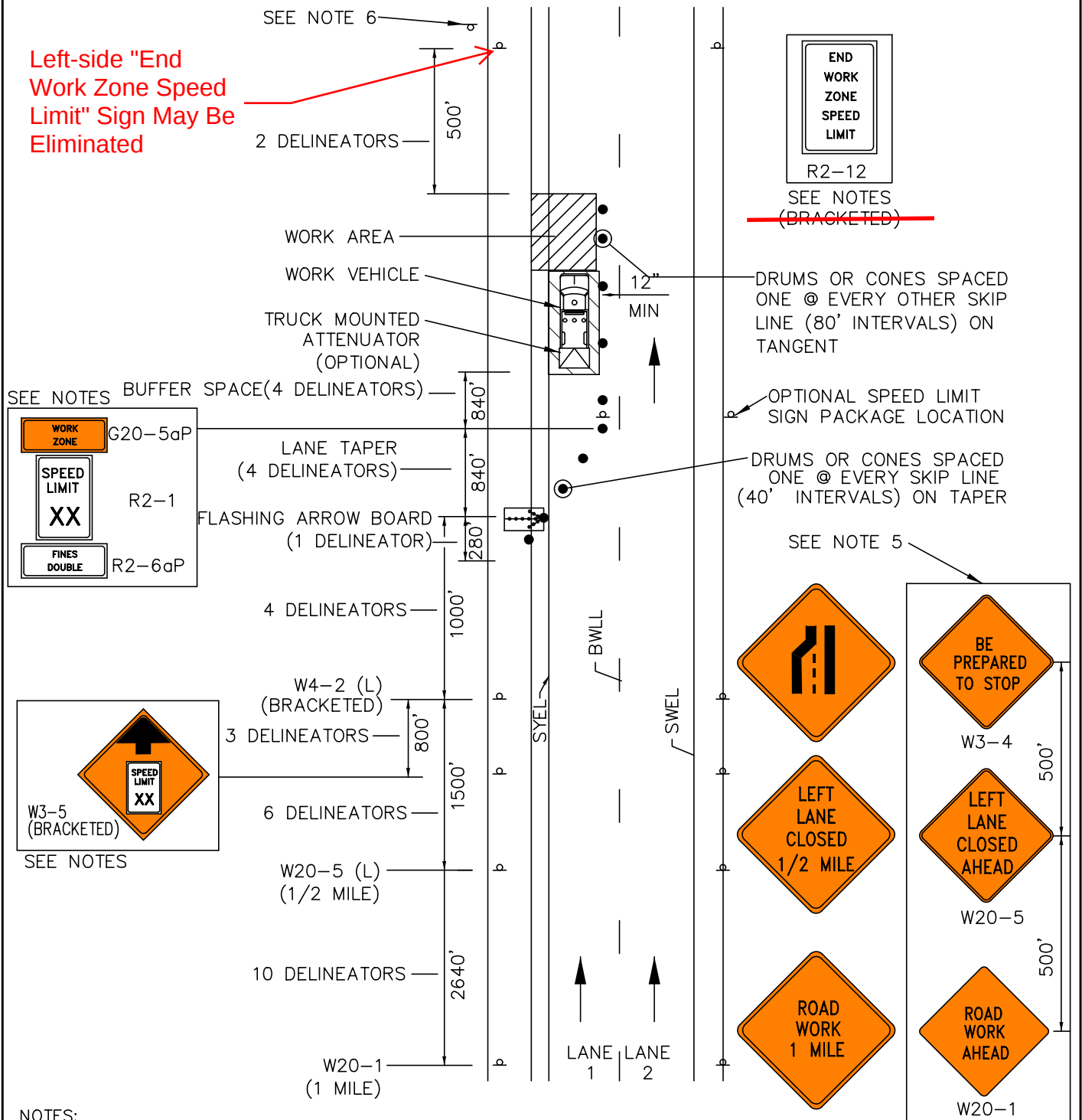
DATE: 12-22-2017



MAINE TURNPIKE AUTHORITY
TRAFFIC CONTROL DETAIL

LANE CLOSURE WITH
TEMPORARY RUMBLE STRIPS

Left-side "End Work Zone Speed Limit" Sign May Be Eliminated



NOTES:

1. USE OF REGULATORY REDUCED SPEEDS SHALL BE USED WHEN WORKERS ARE PRESENT OR SITE CONDITIONS WARRANT. 10MPH SPEED REDUCTION MANDATORY; IF REDUCTION GREATER THEN 10MPH IS WARRANTED THEN REQUEST THROUGH MTA DEPARTMENT DIRECTOR OR ASSIGNED MTA ENGINEER. SPEED LIMIT SIGN IS ONLY NEEDED ON ONE SIDE OR THE OTHER. SPEED LIMIT SIGNS SHALL BE 5' OFF GROUND. SIGN W3-5 NOT NEEDED FOR 10 MPH REDUCTION.
2. OPTIONAL — SPEED LIMIT SIGN PACKAGE MAY BE POST MOUNTED ON THE RIGHT SHOULDER. POST MOUNTED SIGNS SHALL BE COVERED WHEN NOT IN USE.
3. OPTIONAL — THE WORK ZONE AND FINES DOUBLE SIGN MAY BE MOUNTED ON A SEPARATE EASEL OR POST.
4. OPTIONAL — THE FINES DOUBLE SIGN MAY BE OMITTED.
5. WHEN ON-RAMP EXISTS WITHIN 1/2 MILE OF LANE CLOSURE, THIS 3-SIGN ARRAY SHALL BE SET UP ON THE RIGHT SHOULDER OF THE RAMP. THE LAST SIGN SHALL BE AT THE RAMP GORE.
6. USE "WORKERS IN MEDIAN" SIGN FOR THE OPPOSITE DIRECTION OF TRAVEL IF WORKERS WILL BE IN THE MEDIAN.

DETAIL 33L NOT TO SCALE

HNTB

REVISED
07-09-2024

DATE: 10-01-2021

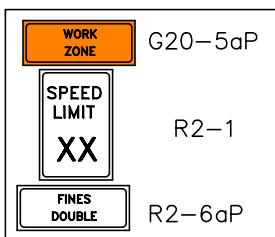


MAINE TURNPIKE AUTHORITY
TRAFFIC CONTROL DETAIL

SINGLE MAINLINE LANE CLOSURE - LEFT

Left-side "End Work Zone Speed Limit" Sign May Be Eliminated

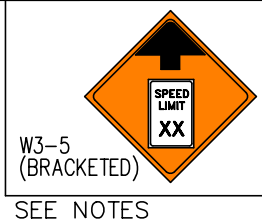
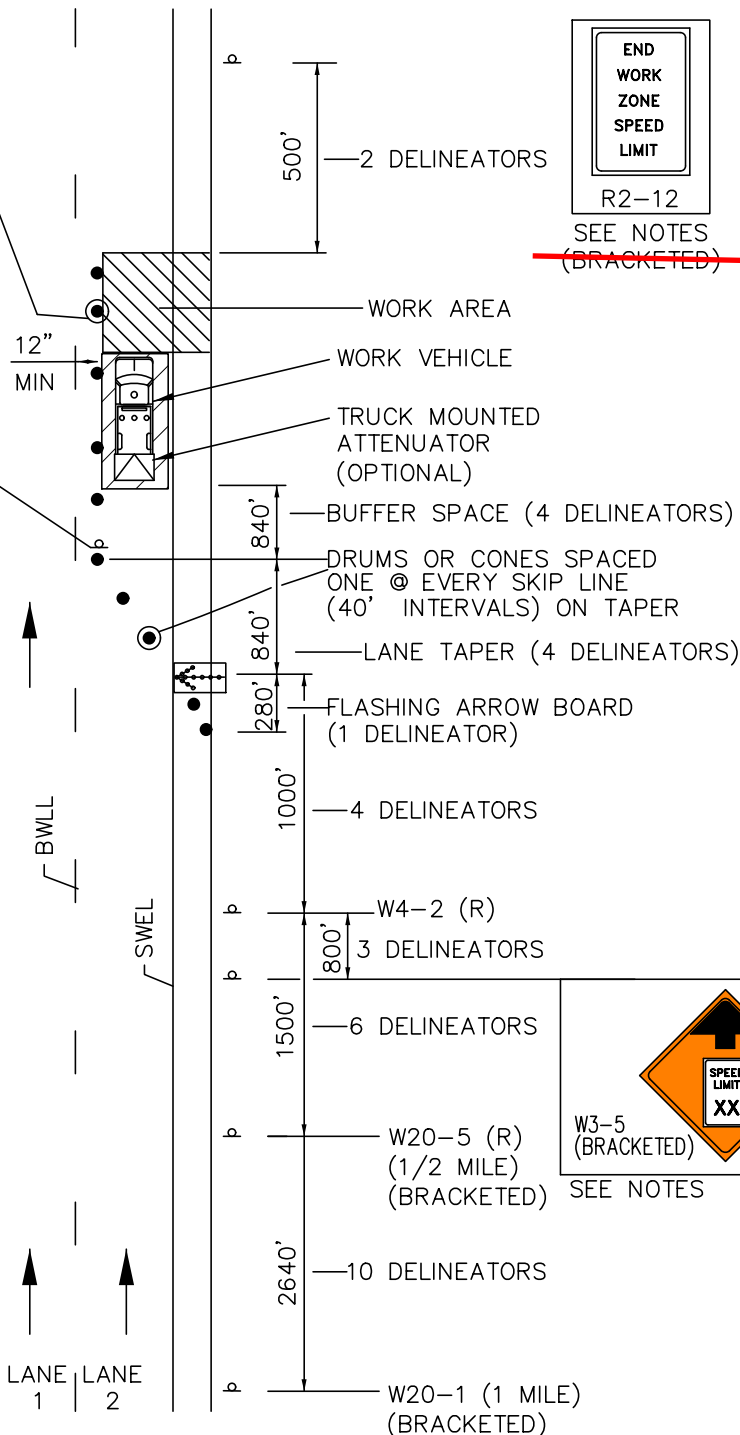
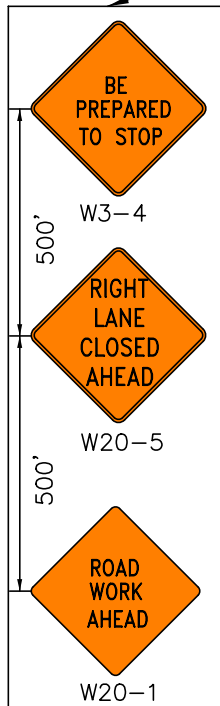
DRUMS OR CONES SPACED ONE @ EVERY OTHER SKIP LINE (80' INTERVALS) ON TANGENT



SEE NOTES

OPTIONAL SPEED LIMIT SIGN PACKAGE LOCATION

SEE NOTE 5



NOTES:

1. USE OF REGULATORY REDUCED SPEEDS SHALL BE USED WHEN WORKERS ARE PRESENT OR SITE CONDITIONS WARRANT. 10MPH SPEED REDUCTION MANDATORY; IF REDUCTION GREATER THEN 10MPH IS WARRANTED THEN REQUEST THROUGH MTA DEPARTMENT DIRECTOR OR ASSIGNED MTA ENGINEER. SPEED LIMIT SIGN IS ONLY NEEDED ON ONE SIDE OR THE OTHER. SPEED LIMIT SIGNS SHALL BE 5' OFF GROUND. SIGN W3-5 NOT NEEDED FOR 10 MPH REDUCTION.
2. OPTIONAL - THE SPEED LIMIT SIGN PACKAGE MAY BE POST MOUNTED ON THE LEFT SHOULDER. POST MOUNTED SIGNS SHALL BE COVERED WHEN NOT IN USE.
3. OPTIONAL - THE WORK ZONE AND FINES DOUBLE SIGN MAY BE MOUNTED ON A SEPARATE EASEL OR POST.
4. OPTIONAL - THE FINES DOUBLE SIGN MAY BE OMITTED.
5. WHEN ON-RAMP EXISTS WITHIN 1/2 MILE OF LANE CLOSURE, THIS 3-SIGN ARRAY SHALL BE SET UP ON THE LEFT SHOULDER OF THE RAMP. THE LAST SIGN SHALL BE AT THE RAMP GORE.

DETAIL 33R NOT TO SCALE

HNTB

REVISED
07-09-2024

DATE: 10-01-2021



**MAINE TURNPIKE AUTHORITY
TRAFFIC CONTROL DETAIL**

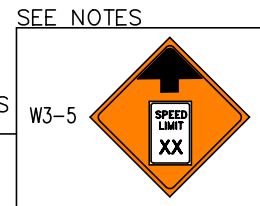
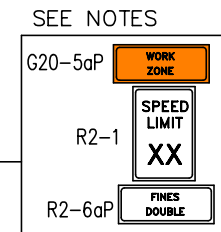
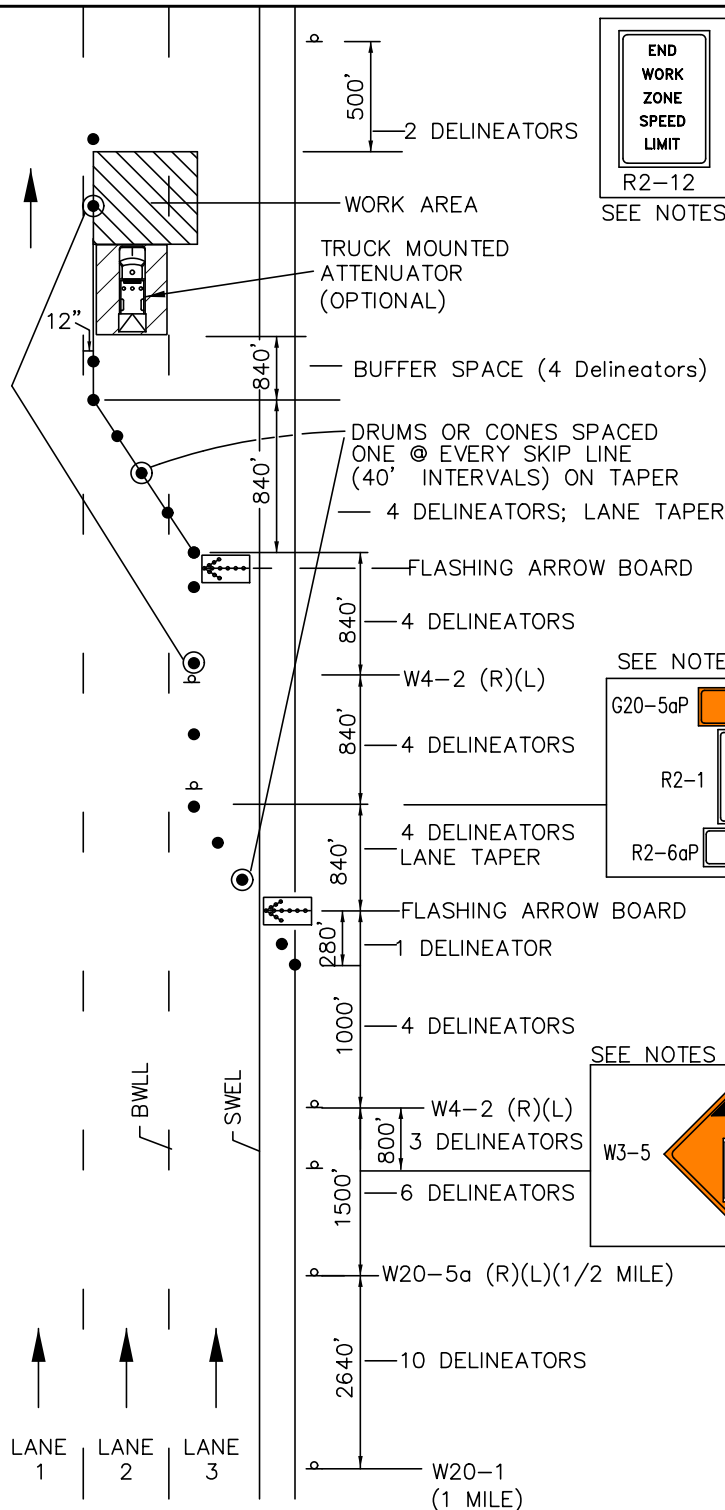
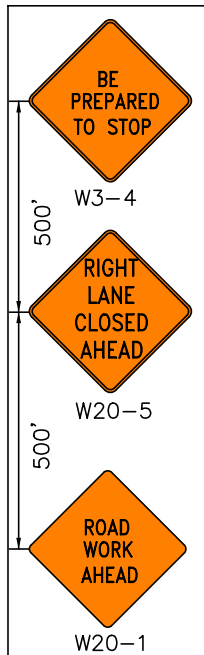
SINGLE MAINLINE LANE CLOSURE - RIGHT

Left-side "End Work Zone Speed Limit" Sign May Be Eliminated

DRUMS OR CONES SPACED ONE @ EVERY OTHER SKIP LINE (80' INTERVALS) ON TANGENT



OPTIONAL



NOTES:

1. USE OF REGULATORY REDUCED SPEEDS SHALL BE USED WHEN WORKERS ARE PRESENT OR SITE CONDITIONS WARRANT. 10MPH SPEED REDUCTION MANDATORY; IF REDUCTION GREATER THEN 10MPH IS WARRANTED THEN REQUEST THROUGH MTA DEPARTMENT DIRECTOR OR ASSIGNED MTA ENGINEER. SPEED LIMIT SIGN IS ONLY NEEDED ON ONE SIDE OR THE OTHER. SPEED LIMIT SIGNS SHALL BE 5' OFF GROUND. SIGN W3-5 NOT NEEDED FOR 10 MPH REDUCTION.
2. OPTIONAL - THE SPEED LIMIT SIGN PACKAGE MAY BE POST MOUNTED ON THE LEFT SHOULDER. POST MOUNTED SIGNS SHALL BE COVERED WHEN NOT IN USE.
3. OPTIONAL - THE WORK ZONE AND FINES DOUBLE SIGNS MAY BE MOUNTED ON A SEPARATE EASEL OR POST.
4. OPTIONAL - THE FINES DOUBLE SIGNS MAY BE OMITTED.
5. WHEN ON-RAMP EXISTS WITHIN 1/2 MILE OF LANE CLOSURE, THIS 3-SIGN ARRAY SHALL BE SET UP ON THE LEFT SHOULDER OF THE RAMP. THE LAST SIGN SHALL BE AT THE RAMP GORE.

DETAIL 37 NOT TO SCALE

HNTB

REVISED
07-09-2024

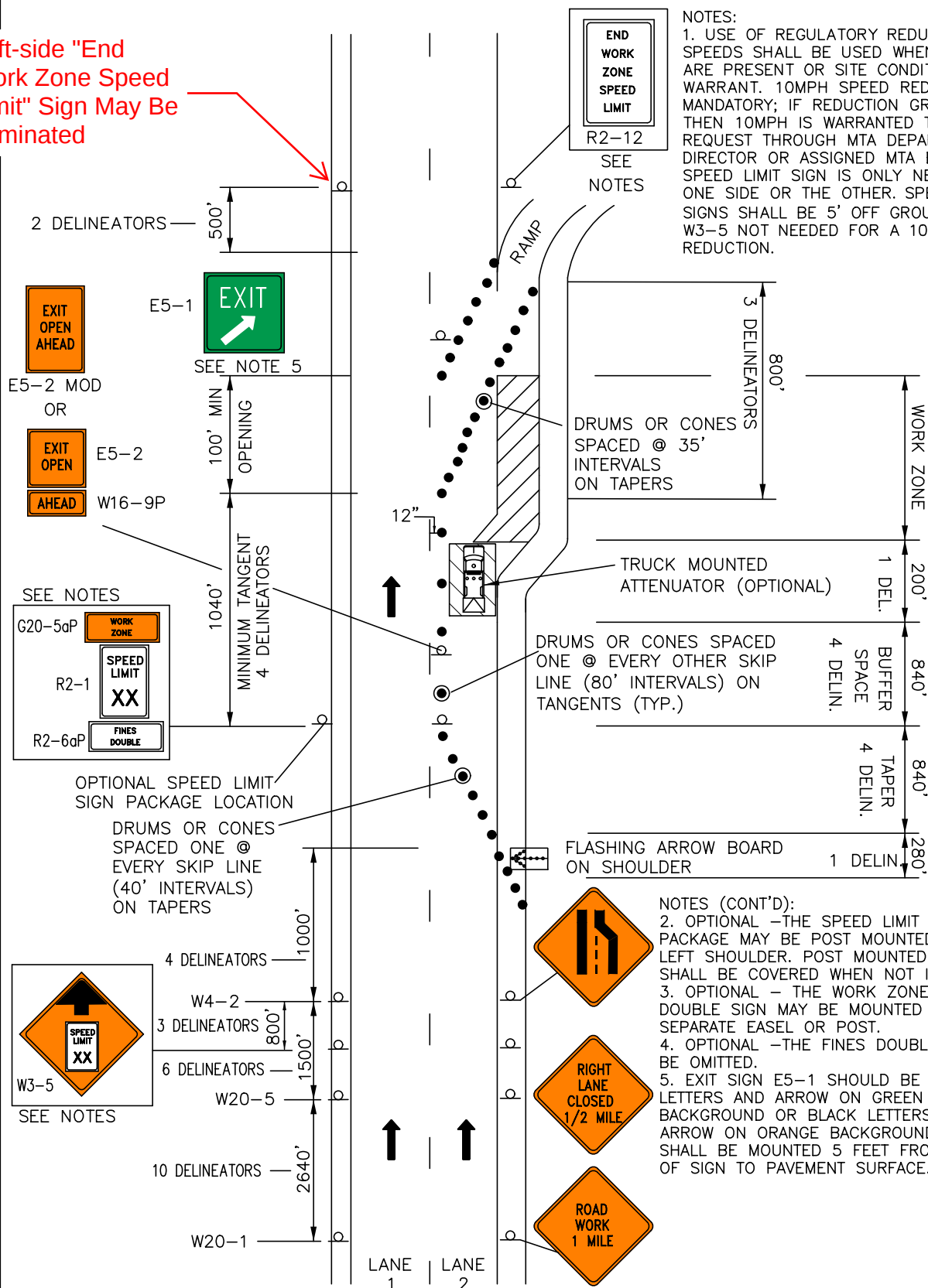
DATE: 10-01-2021



MAINE TURNPIKE AUTHORITY
TRAFFIC CONTROL DETAIL

DOUBLE MAINLINE LANE CLOSURE

Left-side "End Work Zone Speed Limit" Sign May Be Eliminated



NOTES:

1. USE OF REGULATORY REDUCED SPEEDS SHALL BE USED WHEN WORKERS ARE PRESENT OR SITE CONDITIONS WARRANT. 10MPH SPEED REDUCTION MANDATORY; IF REDUCTION GREATER THEN 10MPH IS WARRANTED THEN REQUEST THROUGH MTA DEPARTMENT DIRECTOR OR ASSIGNED MTA ENGINEER. SPEED LIMIT SIGN IS ONLY NEEDED ON ONE SIDE OR THE OTHER. SPEED LIMIT SIGNS SHALL BE 5' OFF GROUND. SIGN W3-5 NOT NEEDED FOR A 10 MPH REDUCTION.

NOTES (CONT'D):

2. OPTIONAL -THE SPEED LIMIT SIGN PACKAGE MAY BE POST MOUNTED ON THE LEFT SHOULDER. POST MOUNTED SIGNS SHALL BE COVERED WHEN NOT IN USE.

3. OPTIONAL - THE WORK ZONE AND FINES DOUBLE SIGN MAY BE MOUNTED ON A SEPARATE EASEL OR POST.

4. OPTIONAL -THE FINES DOUBLE SIGN MAY BE OMITTED.

5. EXIT SIGN E5-1 SHOULD BE WHITE LETTERS AND ARROW ON GREEN BACKGROUND OR BLACK LETTERS AND ARROW ON ORANGE BACKGROUND. SIGN SHALL BE MOUNTED 5 FEET FROM BOTTOM OF SIGN TO PAVEMENT SURFACE.

DETAIL 42A NOT TO SCALE

HNTB

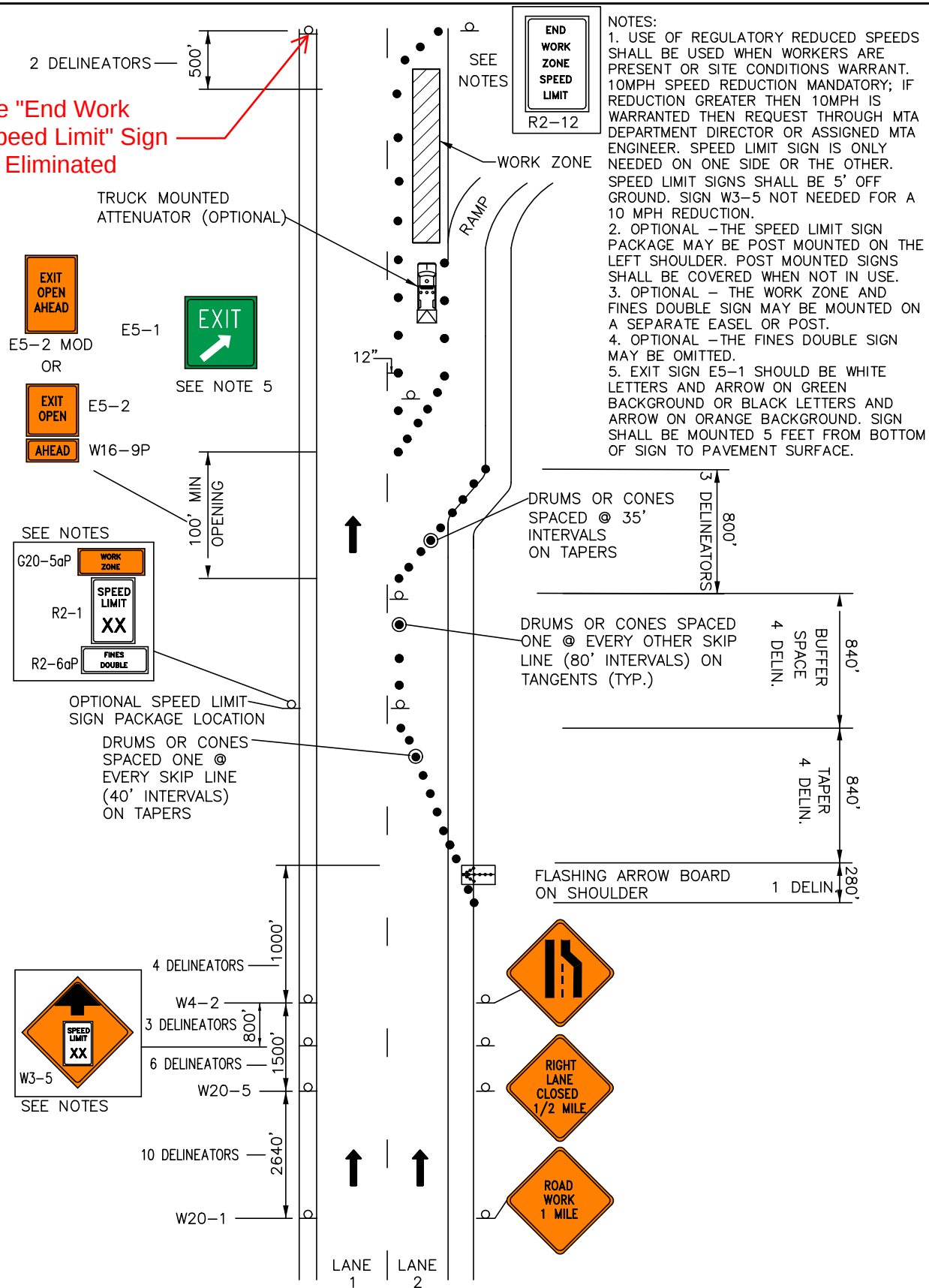
REVISED
07-09-2024

DATE: 10-19-2021



MAINE TURNPIKE AUTHORITY
TRAFFIC CONTROL DETAIL
TRAVEL LANE CLOSURE AT AN EXIT RAMP
WORK AREA BEFORE RAMP

Left-side "End Work Zone Speed Limit" Sign May Be Eliminated



DETAIL 42B NOT TO SCALE

HNTB

REVISED
07-09-2024

DATE: 10-19-2021



MAINE TURNPIKE AUTHORITY
TRAFFIC CONTROL DETAIL
TRAVEL LANE CLOSURE AT AN EXIT RAMP
WORK AREA AFTER RAMP

2 DELINEATORS —

NOTES:

1. STOP CONDITION SHALL BE USED AS DETERMINED BY MTA DEPARTMENT DIRECTOR OR ASSIGNED MTA ENGINEER.
2. USE OF REGULATORY REDUCED SPEEDS SHALL BE USED WHEN WORKERS ARE PRESENT OR SITE CONDITIONS WARRANT. SPEED LIMIT SIGNS SHALL BE 5' OFF GROUND. SIGN W3-5 NOT NEEDED FOR 10 MPH REDUCTION.

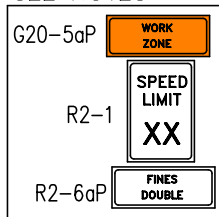


W4-1

1 DELINEATOR —

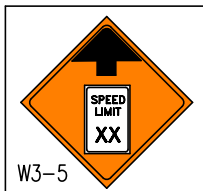
4 DELINEATORS —

OPTION SPEED LIMIT SIGN PACKAGE LOCATION
SEE NOTES



4 DELINEATORS —
LANE TAPER

DRUMS OR CONES
SPACED ONE @
EVERY SKIP LINE
(40' INTERVALS)
ON TAPERS



W3-5

SEE NOTES

4 DELINEATORS —

W4-2

3 DELINEATORS —

6 DELINEATORS —

W20-5

10 DELINEATORS —

W20-1

500'

WORK ZONE

264'

840'

DESIRABLE IF
SPACE AVAILABLE

840'

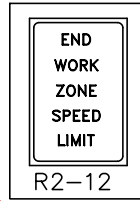
TAPER

1000'

1500'

2640'

LANE 1
LANE 2



R2-12

SEE NOTES

Left-side "End Work Zone Speed Limit" Sign May Be Eliminated

DRUMS OR CONES SPACED ONE @
EVERY OTHER SKIP LINE (80'
INTERVALS) ON TANGENTS (TYP.)

SEE NOTE 7

TRUCK MOUNTED
ATTENUATOR



R1-1



W3-1



W20-5



W20-1

500 FEET IS 2 DELINEATORS

FLASHING
ARROW BOARD
IN SHOULDER
AT START OF
TAPER

NOTES CONTINUED:

3. OPTIONAL —THE SPEED LIMIT SIGN PACKAGE MAY BE POST MOUNTED ON THE LEFT SHOULDER. POST MOUNTED SIGNS SHALL BE COVERED WHEN NOT IN USE.
4. OPTIONAL — THE WORK ZONE AND FINES DOUBLE SIGN MAY BE MOUNTED ON A SEPARATE EASEL OR POST.
5. OPTIONAL —THE FINES DOUBLE SIGN MAY BE OMITTED.
6. 10MPH SPEED REDUCTION MANDATORY; IF REDUCTION GREATER THEN 10MPH IS WARRANTED THEN REQUEST THROUGH MTA DEPARTMENT DIRECTOR OR ASSIGNED MTA ENGINEER. SPEED LIMIT SIGN IS ONLY NEEDED ON ONE SIDE OR THE OTHER.
7. THESE SIGNS SHOULD BE PLACED IN ADVANCE OF THE "STOP AHEAD" SIGN

DETAIL 44B NOT TO SCALE

HNTB

REVISED
07-09-2024

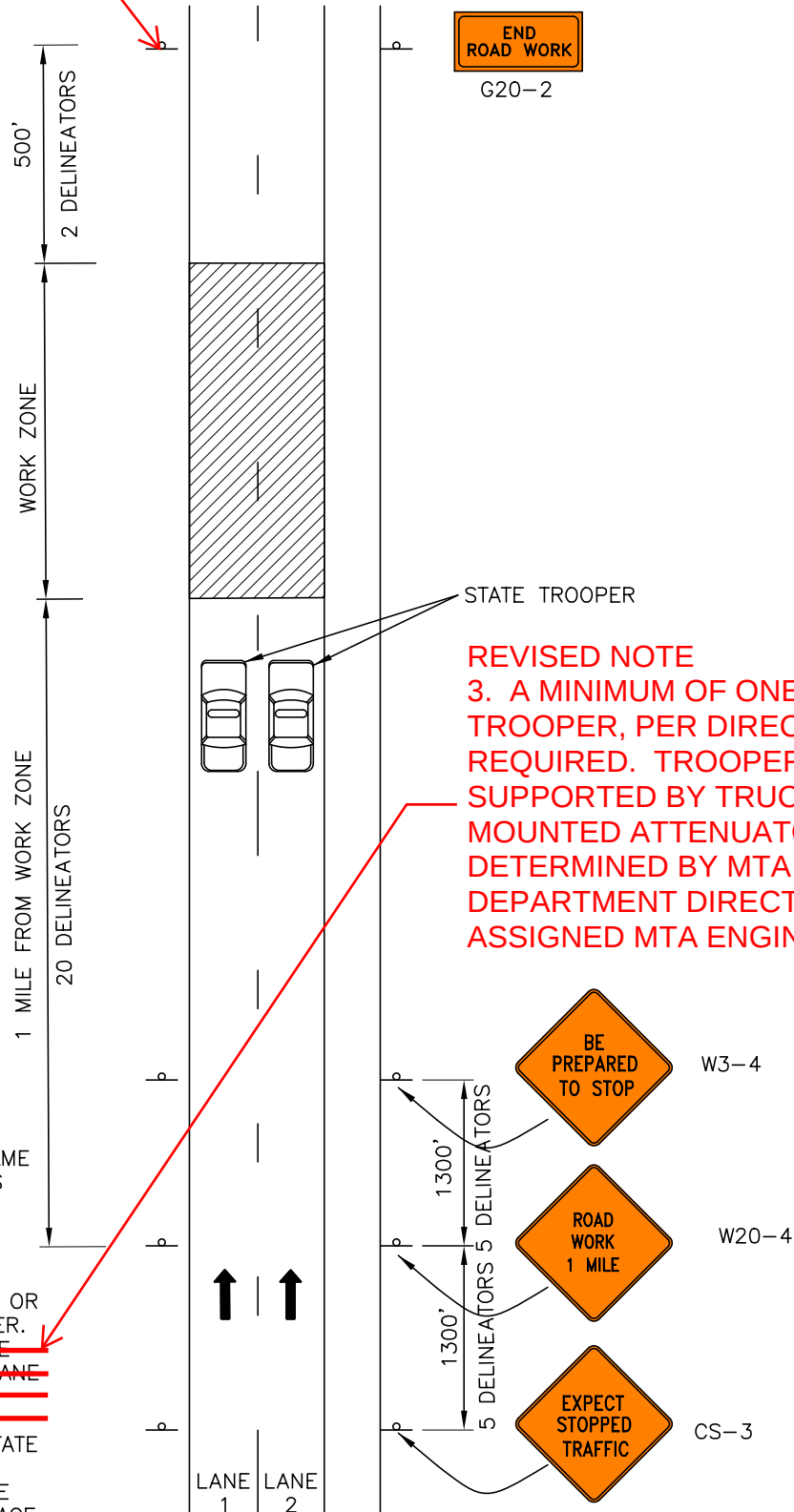
DATE: 10-19-2021



MAINE TURNPIKE AUTHORITY
TRAFFIC CONTROL DETAIL

TRAVEL LANE CLOSURE AT AN ENTRANCE RAMP
WITHOUT ACCELERATION LANE

Left-side "End Road Work" Sign May Be Eliminated



NOTES:

1. SET UP IS THE SAME NB OR SB, TWO LANES OR THREE.
2. ALL MAINLINE STOPPAGES SHALL BE APPROVED BY MTA DEPARTMENT DIRECTOR OR ASSIGNED MTA ENGINEER.
- ~~3. A MINIMUM OF ONE STATE TROOPER PER LANE IS REQUIRED IN THREE LANE SECTION.~~
4. THE NUMBER OF STATE TROOPERS MAY BE REDUCED IF THERE ARE LANE CLOSURES IN PLACE.

REVISED NOTE

3. A MINIMUM OF ONE (1) STATE TROOPER, PER DIRECTION, IS REQUIRED. TROOPER SHALL BE SUPPORTED BY TRUCK MOUNTED ATTENUATORS AS DETERMINED BY MTA DEPARTMENT DIRECTOR OR ASSIGNED MTA ENGINEER.

DETAIL 50 NOT TO SCALE

HNTB

REVISED
07-09-2024

DATE: 10-19-2021

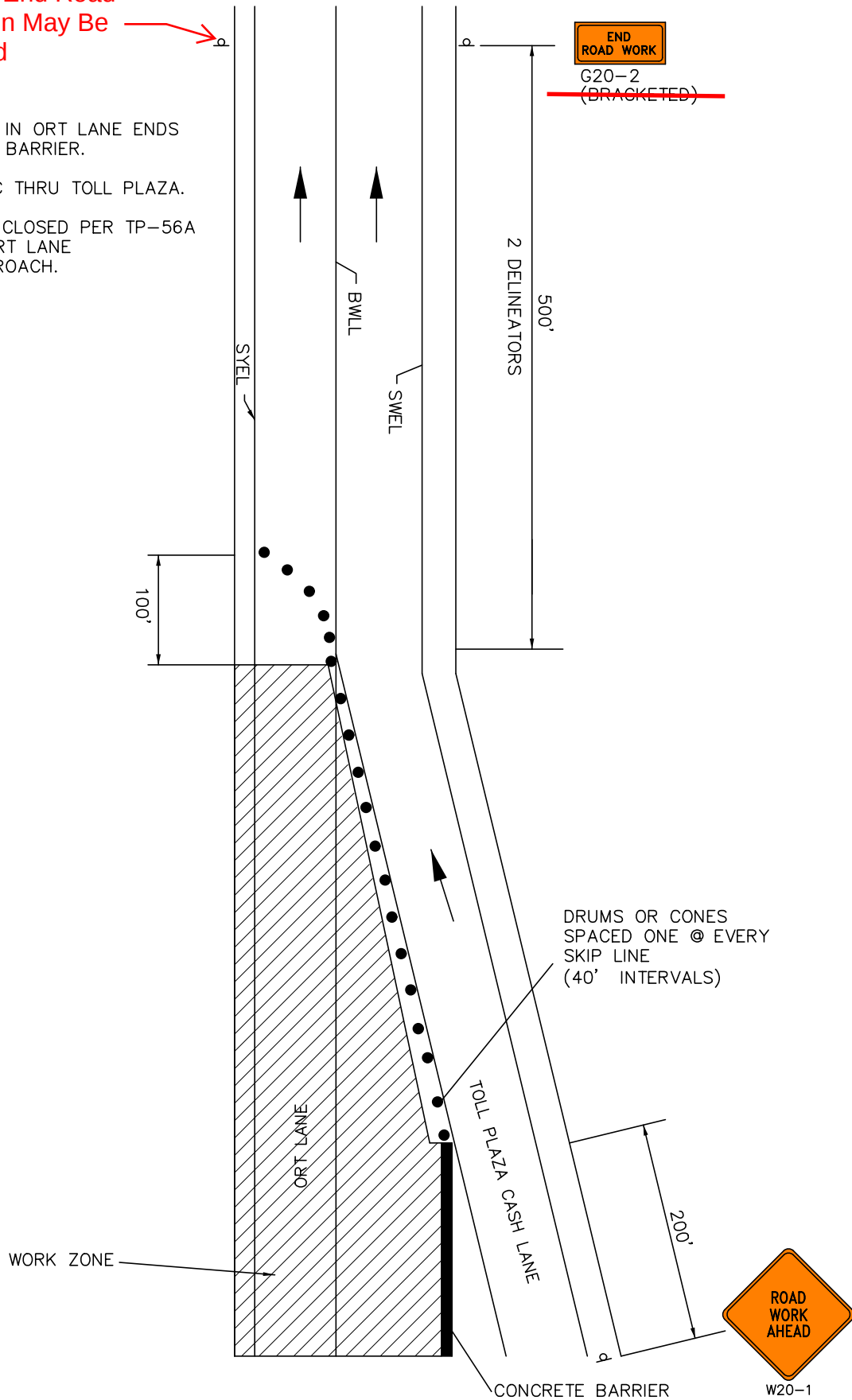


MAINE TURNPIKE AUTHORITY
TRAFFIC CONTROL DETAIL
STOPPING MAINLINE TRAFFIC

Left-side "End Road Work" Sign May Be Eliminated

NOTES:

1. WORK ZONE IN ORT LANE ENDS PRIOR TO EXIT BARRIER.
2. ALL TRAFFIC THRU TOLL PLAZA.
3. ORT LANES CLOSED PER TP-56A STATIONARY ORT LANE CLOSURE-APPROACH.



DETAIL TP-56B NOT TO SCALE

HNTB

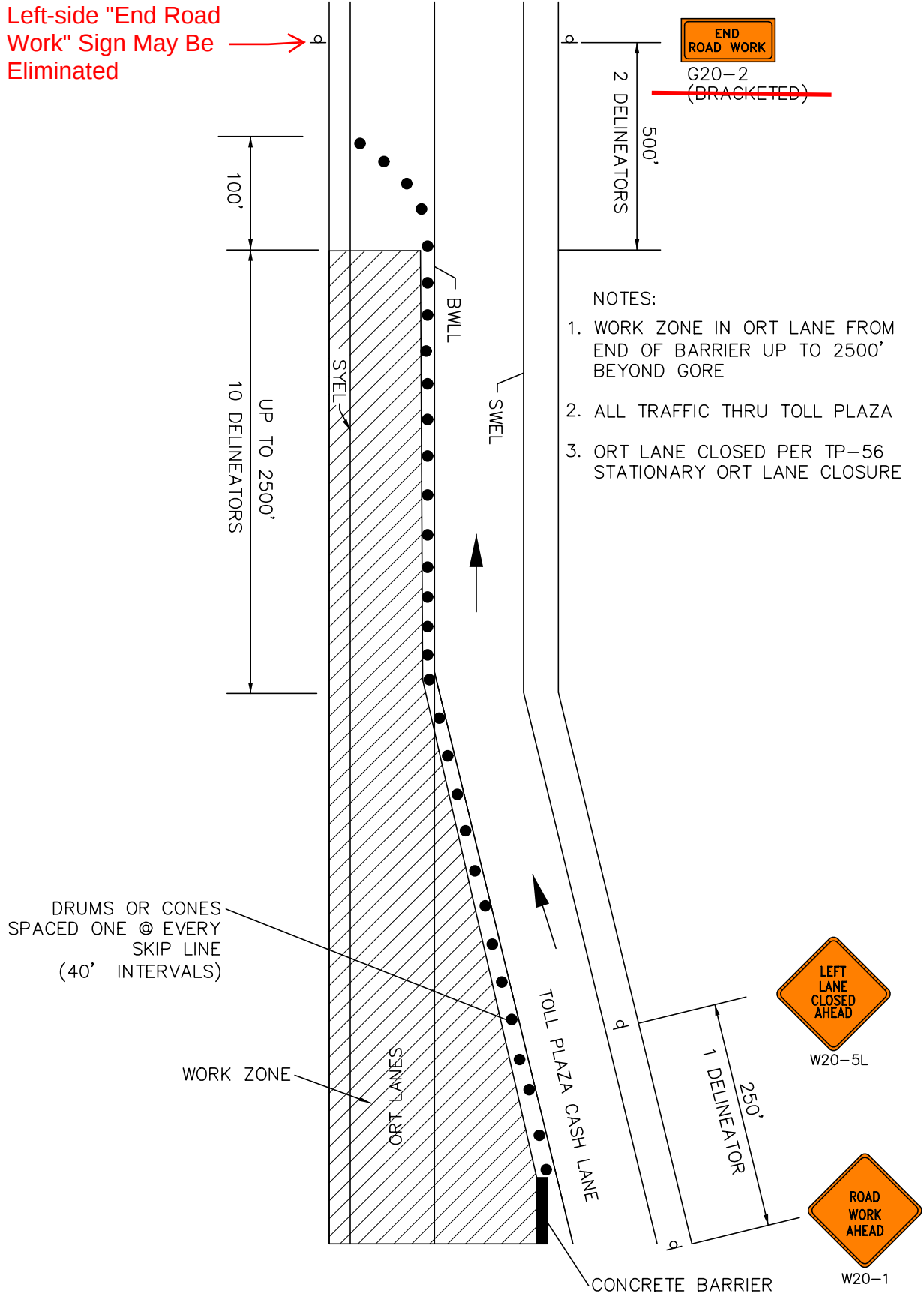
DATE: 10-19-2021

REVISED
07-09-2024



MAINE TURNPIKE AUTHORITY
TOLL PLAZA TRAFFIC CONTROL
SINGLE LANE ORT BARRIER PLAZA
STATIONARY SINGLE LANE ORT CLOSURE
DEPARTURE 1

Left-side "End Road Work" Sign May Be Eliminated



DETAIL TP-56C NOT TO SCALE

HNTB

DATE: 10-19-2021

REVISED
07-09-2024



MAINE TURNPIKE AUTHORITY
TOLL PLAZA TRAFFIC CONTROL
SINGLE LANE ORT BARRIER PLAZA
STATIONARY SINGLE LANE ORT CLOSURE
DEPARTURE 2

Left-side "End Road Work"
Sign May Be Eliminated

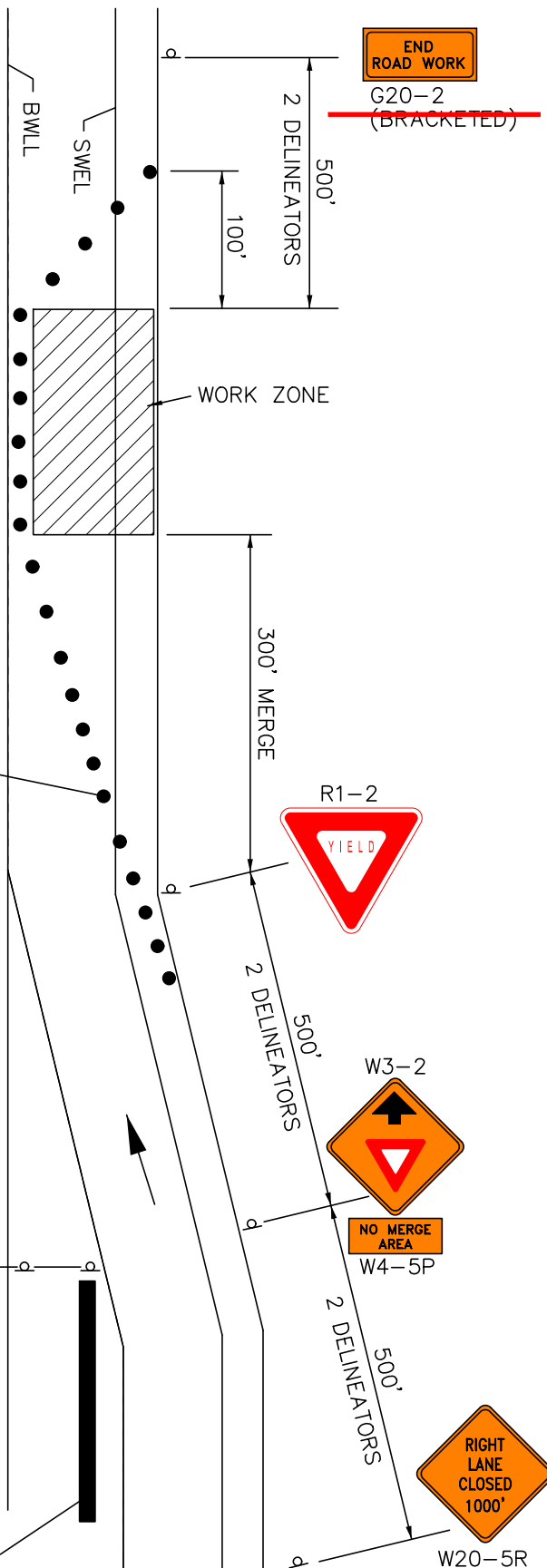
NOTES:

1. WORK ZONE IN TOLL PLAZA DEPARTING LANE BEYOND GORE
2. TRAFFIC THRU BOTH ORT AND TOLL PLAZA LANES
3. INSTALL ADVANCED ROAD WORK AND RIGHT LANE CLOSED SIGNS BEFORE APPROACH TOLL PLAZA LANE/ORT LANE SPLIT
4. ALTERNATE - DEPENDING ON TRAFFIC VOLUME - CLOSE ORT LANE PER DETAIL TP-57C AND SEND ALL TRAFFIC THROUGH TOLL PLAZA AND PERMIT FREE FLOW OUT OF PLAZA INTO LANE 1

DRUMS OR CONES
SPACED ONE @ EVERY
SKIP LINE
(40' INTERVALS)



ORT BARRIER



DETAIL TP-57B NOT TO SCALE

HNTB

DATE: 10-19-2021

REVISED
07-09-2024

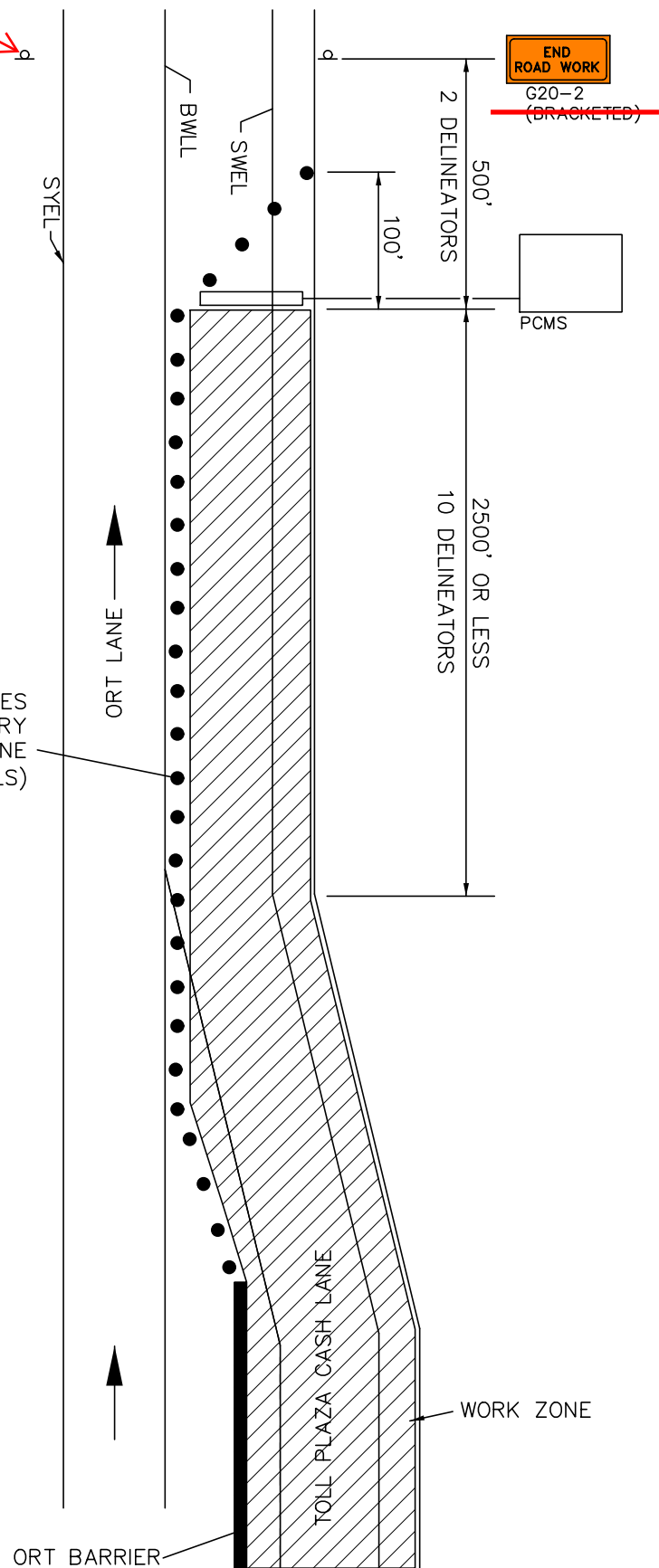
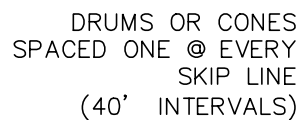


MAINE TURNPIKE AUTHORITY
TOLL PLAZA TRAFFIC CONTROL
SINGLE LANE ORT BARRIER PLAZA
STATIONARY RIGHT LANE CLOSURE - DEPARTURE
CASH LANES OPEN

Left-side "End Road Work" Sign May Be Eliminated

NOTES:

1. WORK ZONE IN TOLL PLAZA LANE
END OF BARRIER UP TO 2500'
BEYOND GORE.
2. ALL TRAFFIC THRU ORT LANE.
3. TOLL PLAZA LANES CLOSED PER
TP-57C STATIONARY RIGHT LANE
CLOSURE-APPROACH CASH LANES
CLOSED.
4. ALL NON-EMERGENCY CASH LANES
CLOSURES MUST BE COORDINATED
WITH MTA FARE COLLECTION, TOLL/ITS
DEPARTMENT, DEPARTMENT DIRECTOR
OR ASSIGNED MTA ENGINEER ONE (1)
WEEK IN ADVANCE OF THE CLOSURE.



DETAIL TP-57D NOT TO SCALE

HNTB

DATE: 10-19-2021

REVISED
07-09-2024



MAINE TURNPIKE AUTHORITY
TOLL PLAZA TRAFFIC CONTROL
SINGLE LANE ORT BARRIER PLAZA
STATIONARY RIGHT LANE CLOSURE - DEPARTURE
CASH LANES CLOSED

