PARTIAL RAMP CLOSURE DETAILS

SHOULDER

SHOULDER

12' (3.6) min.

CONES AT 25' (8 m) CENTERS
OR DRUMS AT 50' (15 m) CENTERS

NO WORK ALLOWED
IN THIS AREA UNLESS
RAMP IS CLOSED OR
RIGHT LANE IS CLOSED

200'
(60 m)

200'
(60 m)

1:10 TAPER

TYPICAL ENTRANCE RAMP

RAMP
WORK
AHEAD

NARROW
RAMP
AHEAD

SHOULDER

SHOULDER

SHOULDER

12' (3.6) min.

L/3 TAPER

CONES AT 25' (8 m) CENTERS
OR DRUMS AT 50' (15 m) CENTERS

500'
(150 m)

200'
(60 m)

TYPICAL EXIT RAMP

RAMP
WORK
AHEAD

NARROW
RAMP
AHEAD

SHOULDER

SHOULDER

SHOULDER

12' (3.6) min.

L/3 TAPER

CONES AT 25' (8 m) CENTERS
OR DRUMS AT 50' (15 m) CENTERS

500'
(150 m)

200'
(60 m)

TYPICAL EXIT RAMP

RAMP
WORK
AHEAD

NARROW
RAMP
AHEAD

SYMBOLS

➡ ARROWBOARD

▨ WORK AREA

⊦ SIGN ON PORTABLE OR PERMANENT SUPPORT

● FLAGGER WITH CONTROL SIGN

⊨ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY
BURN MONO-DIRECTIONAL LIGHT

○ CONE, DRUM OR BARRICADE

SHOULDER CLOSURE DETAILS

REFLECTIVE 6 (150) EDGE LINE ON
LOWER SLOPE OF WALL (LEFT EDGE
YELLOW, RIGHT EDGE WHITE)

SHOULDER

SHOULDER

SEE DETAIL "A"

12:1 MIN. TAPER

SEE STANDARD 704001
(TYPICAL)

1600' (480 m)

1000' (300 m)

L/3 TAPER

100' (30 m)

DRUMS AT 50' (15 m) CENTERS

DRUMS AT 100' (30 m) CENTERS

OR WHEN SPECIFIED INSTALL TEMPORARY CONCRETE
BARRIER WALL WITH BARRIER WALL REFLECTORS PER
TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)

PERMANENT SHOULDER CLOSURE

ROAD
CONSTRUCTION
AHEAD

W 20-1(0)-48

SHOULDER
CLOSED
AHEAD

FLAGGER   OR

W 20-110(0)-48

W 20-7a(0)-48
(SEE NOTE 7)

SHOULDER

SHOULDER

500' (150 m)

500' (150 m)

L/3 TAPER

CONES OR DRUM AT
25' (8 m) CENTERS

500' (150 m)

CONES OR DRUMS AT 50' (15 m) CENTERS

THIS DETAIL IS USED WHERE:
1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES
   ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE
   EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.

DAYTIME SHOULDER CLOSURE

ROAD
CONSTRUCTION
AHEAD

W 20-1(0)-48

SHOULDER
CLOSED
AHEAD

EDGE OF TRAFFIC LANE

ARRAY DESIGN PER
MANUFACTURER TO BE
NCHRP 350 COMPLIANT FOR
POSTED SPEED.

5' (1.5 m) MIN.
OFFSET
FOR SAND
MODULE ARRAY

DETAIL "A"
IMPACT ATTENTUATOR, TEMPORARY
(SEE NOTE 5)

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)
UNLESS OTHERWISE SHOWN.

GENERAL NOTES

1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS	
	METRIC	ENGLISH
45 mph (80 km/h) OR GREATER:	L=0.65(WxS)	L=(WxS)

   W = WIDTH OF OFFSET IN FEET (METERS)
   S = NORMAL POSTED SPEED MPH (KM/H)

2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING
   AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTIME
   CLOSURES.

3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME
   EXCEEDS FOUR DAYS.

4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS
   AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.

5. THE IMPACT ATTENTUATOR, TEMPORARY IS NOT REQUIRED
   WHEN THE TEMPORARY CONCRETE BARRIER WALL IS
   PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL.
   IF OFFSET IS LESS THAN 5 FEET USE "TRAFFIC BARRIER
   TERMINAL, TYPE III, TEMPORARY" DEVICE TO MEET NCHRP350
   FOR POSTED SPEED.

6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS
   REQUIRED FOR ALL FREEWAY CLOSURES.

7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE
   WORK SITES WHEN:
   a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES
      IN A ONE HOUR PERIOD.
   b. THE WORK ACTIVITY REQUIRES FREQUENT ENCROACHMENT
      INTO THE LANE OPEN TO TRAFFIC.
   THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m)
   TO 200' (60 m) IN ADVANCE OF THE WORKERS.

TRAFFIC CONTROL FOR SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES