

LENGTH AND SPACING TABLE

| APPROACH SPEED* MPH | MINIMUM TAPER LENGTH FEET | BUFFER SPACE LENGTH FEET | CHANNELIZING DEVICE SPACING IN FEET | | | WORK ZONE CLEAR ZONE WIDTH FEET |
|---------------------|--|--------------------------|-------------------------------------|--------------|------------|---------------------------------|
| | | | TAPER AREA | BUFFER SPACE | WORK SPACE | |
| 20 | Shifting taper formula: $L = \frac{WS^2}{120}$ for $S \leq 40$ mph | 115 | 20 | 40 | 40 | 10 |
| 25 | | 155 | 25 | 50 | 50 | 10 |
| 30 | $L = \frac{WS}{2}$ for $S \geq 45$ mph | 200 | 30 | 60 | 60 | 10 |
| 35 | | 250 | 35 | 70 | 70 | 10 |
| 40 | Where: $L =$ Minimum length of taper $W =$ Width of offset in feet $S =$ Numerical value of posted speed limit or 85 percentile speed prior to work in miles per hour | 305 | 40 | 80 | 80 | 15 |
| 45 | | 360 | 45 | 90 | 90 | 20 |
| 50 | 425 | 50 | 100 | 100 | 20 | |
| 55 | 495 | 55 | 110 | 110 | 20 | |
| 60 | 570 | 60 | 120 | 120 | 30 | |
| 65 | 645 | 65 | 130 | 130 | 30 | |
| 70 | 730 | 70 | 140 | 140 | 30 | |

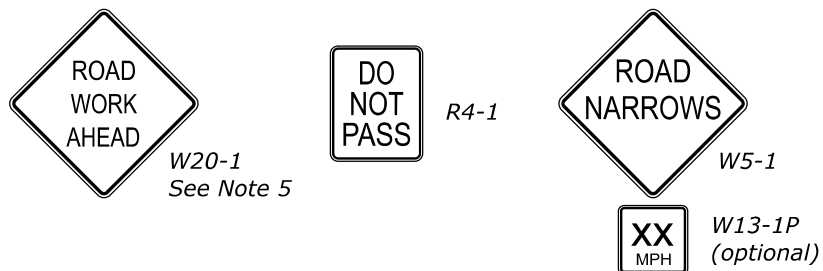
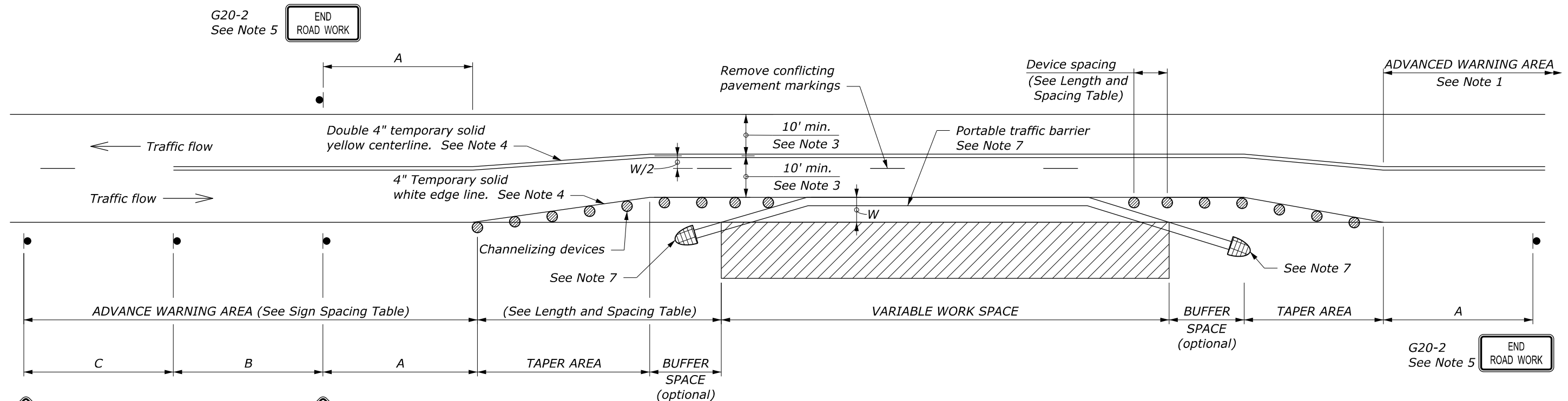
* Approach speed based on the regulatory posted speed, not the advisory speed.

SIGN SPACING TABLE

| ROAD TYPE | DISTANCE BETWEEN SIGNS IN FEET | | |
|----------------------------------|--------------------------------|------|------|
| | A | B | C |
| Urban and Rural 30 mph and less | 100 | 100 | 100 |
| Urban and Rural 35 mph to 50 mph | 350 | 350 | 350 |
| Rural greater than 50 mph | 500 | 500 | 500 |
| Expressway / Freeway | 1000 | 1500 | 2640 |

NOTE:

1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
2. Final location and spacing of devices may be changed to fit field conditions as approved.
3. For project specific minimum width, refer to Special Contract Requirements, Section 156.
4. If the roadway surface is paved, install temporary pavement markings. If nearest no-passing zone is within 400 ft, extend markings to connect zones.
5. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
6. Install PASS WITH CARE sign (R4-2) at ends of no-passing zone if directed.
7. Place the barrier according to the AASHTO Roadside Design Guide. Terminate barrier ends outside the work zone clear zone or protect the barrier ends with a crash cushion. Include reflectors on barrier at 25 ft intervals.
8. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION, FHWA
OFFICE OF FEDERAL LANDS HIGHWAY
**TEMPORARY TRAFFIC CONTROL
PART LANE WIDTH AND
SHOULDER CLOSURE LAYOUT
WITH TEMPORARY BARRIER**

FLH STANDARD
635-12
SPECIFICATION
FP-24, FP-14
APPROVED FOR USE
2/2024

LENGTH AND SPACING TABLE

| APPROACH SPEED* | | MINIMUM TAPER LENGTH m | BUFFER SPACE LENGTH m | CHANNELIZING DEVICE SPACING IN METERS | | | WORK ZONE CLEAR ZONE WIDTH m |
|-----------------|------|---|-----------------------------|--|-----------------|---------------|---------------------------------------|
| mph | km/h | | | TAPER AREA | BUFFER SPACE | WORK SPACE | |
| 20 | 30 | Shifting taper formula: $L = \frac{WS^2}{310}$ for $S \leq 70$ km/h | 35 | 6 | 12 | 12 | 3.0 |
| 25 | 40 | | 45 | 8 | 15 | 15 | 3.0 |
| 30 | 50 | | 60 | 9 | 18 | 18 | 3.0 |
| 35 | 55 | $L = \frac{WS}{3.2}$ for $S \geq 70$ km/h | 75 | 11 | 21 | 21 | 3.0 |
| 40 | 65 | | 95 | 12 | 24 | 24 | 4.6 |
| 45 | 70 | | 110 | 14 | 27 | 27 | 6.1 |
| 50 | 80 | Where: L = Minimum length of taper W = Width of offset in meters S = Metric equivalent of posted speed limit or 85 percentile speed prior to work in kilometers per hour | 130 | 15 | 30 | 30 | 6.1 |
| 55 | 90 | | 150 | 17 | 34 | 34 | 6.1 |
| 60 | 95 | | 175 | 18 | 37 | 37 | 9.0 |
| 65 | 105 | | 195 | 20 | 40 | 40 | 9.0 |
| 70 | 115 | | 225 | 21 | 43 | 43 | 9.0 |

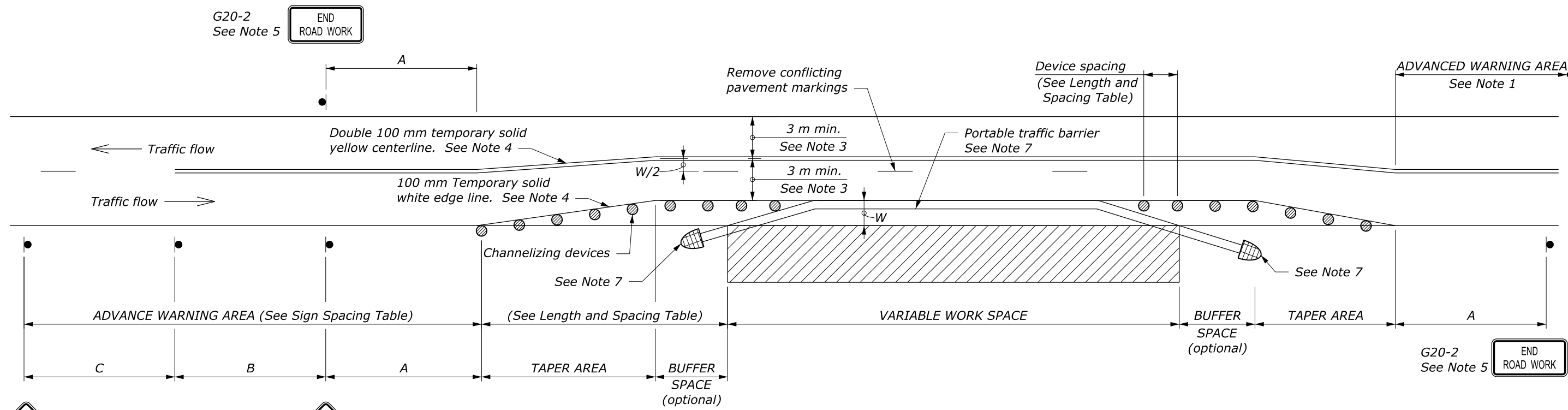
* Approach speed based on the regulatory posted speed, not the advisory speed.

SIGN SPACING TABLE

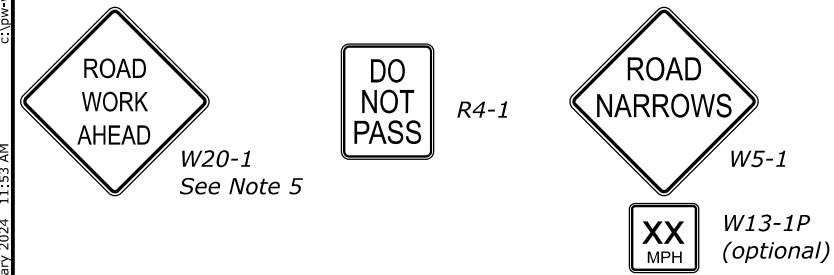
| ROAD TYPE | DISTANCE BETWEEN SIGNS IN METERS | | |
|---|----------------------------------|-----|-----|
| | A | B | C |
| Urban and Rural ≤ 50 km/h [≤ 30 mph] | 30 | 30 | 30 |
| Urban and Rural 60-80 km/h [35-50 mph] | 100 | 100 | 100 |
| Rural greater than 80 km/h [50 mph] | 150 | 150 | 150 |
| Expressway / Freeway | 300 | 450 | 800 |

NOTE:

1. Signs are shown for one direction of travel only. Place signs similar to those depicted for the opposite direction of travel.
2. Final location and spacing of devices may be changed to fit field conditions as approved.
3. For project specific minimum width, refer to Special Contract Requirements, Section 156.
4. If the roadway surface is paved, install temporary pavement markings. If nearest no-passing zone is within 120 m, extend markings to connect zones.
5. If closure is completely within the project limits, eliminate the ROAD WORK AHEAD (W20-1) and END ROAD WORK (G20-2) signs.
6. Install PASS WITH CARE sign (R4-2) at ends of no-passing zone if directed.
7. Place the barrier according to the AASHTO Roadside Design Guide. Terminate barrier ends outside the work zone clear zone or protect the barrier ends with a crash cushion. Include reflectors on barrier at 7.6 m intervals.
8. Do not allow equipment, materials, or vehicles to be parked or stored in the buffer space.



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This drawing contains **Metric** units of measure. Dimensions without units are millimeters.

NO SCALE

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|---|-------------------------------|
| U.S. DEPARTMENT OF TRANSPORTATION, FHWA OFFICE OF FEDERAL LANDS HIGHWAY | FLH STANDARD M635-12 |
| TEMPORARY TRAFFIC CONTROL PART LANE WIDTH AND SHOULDER CLOSURE LAYOUT WITH TEMPORARY BARRIER | SPECIFICATION FP-24, FP-14 |
| | APPROVED FOR USE 2/2024 |