

May be mounted on back of "ROAD WORK AHEAD" (CW20-1D) sign with approval of Engineer. (See note 2 below)

- 1. The typical minimum signing on a crossroad approach should be a "ROAD WORK AHEAD" (CW20-1D) sign and a (G20-2) "END ROAD WORK" sign, unless noted otherwise in plans.
- 2. The Engineer may use the reduced size 36" x 36" ROAD WORK AHEAD (CW20-1D) sign mounted back to back with the reduced size 36" x 18" "END ROAD WORK" (G20-2) sign on low volume crossroads (see Note 4 under "Typical Construction Warning Sign Size and Spacing"). See the "Standard Highway Sign Designs for Texas" manual for sign details. The Engineer may omit the advance warning signs on low volume crossroads. The Engineer will determine whether a road is low volume. This information shall be shown in the plans.
- Based on existing field conditions, the Engineer/Inspector may require additional signs such as FLAGGER AHEAD, LOOSE GRAVEL, or other appropriate signs. When additional signs are required, these signs will be considered part of the minimum requirements. The Engineer/Inspector will determine the proper location and spacing of any sign not shown on the BC sheets, Traffic Control Plan sheets or the Work Zone Standard Sheets.
- 4. The "ROAD WORK NEXT X MILES" (G20-1aT) sign shall be required at high volume crossroads to advise motorists of the length of construction in either direction from the intersection. The Engineer will determine whether a roadway is considered high volume.
- 5. Additional traffic control devices may be shown elsewhere in the plans for higher volume crossroads.
- 6. When work occurs in the intersection area, appropriate traffic control devices, as shown elsewhere in the plans or as determined by the Engineer/Inspector, shall be in place.

T-INTERSECTION ROAD WORK ROAD WORK NEXT X MILES => G20-1bTR ⟨⇒ NEXT X MILES G20-1bTL 1000'-1500' - Hwy **INTERSECTED** 1 Block - City 1000'-1500' - Hwy 1 Block - City ROADWAY G20-5aP WORK ZONE ZONE Limit G20-5aP BEGIN ROAD WORK NEXT X MILES TRAFFIC FINES DOUBLE R20-5T G20-5T FINES R20-5T DOUBLE NAME ADDRESS CITY STATE R20-5aTP WHEN WORKERS ARE PRESENT G20-6T R20-50TP WHEN WORKERS ARE PRESENT CONTRACTOR END ROAD WORK G20-2

CSJ LIMITS AT T-INTERSECTION

with sign

location

- 1. The Engineer will determine the types and location of any additional traffic control devices, such as a flagger and accompanying signs, or other signs, that should be used when work is being performed at or near an intersection.
- 2. If construction closes the road at a T-intersection the Contractor shall place the "CONTRACTOR" NAME"(G20-6T) sign behind the Type 3 Barricades for the road closure (see BC(10) also). The "ROAD WORK NEXT X MILES" left arrow(G20-1bTL) and "ROAD WORK NEXT X MILES" right arrow (G20-1bTR)" signs shall be replaced by the detour signing called for in the plans.

NOTES

No decimals shall be used.

TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING 1,5,6

SIZE

51ZE										
Sign Number or Series	Conventional Road	Expressway/ Freeway								
CW20 <sup>4</sup> CW21 CW22 CW23 CW25	48" × 48"	48" × 48"								
CW1, CW2, CW7, CW8, CW9, CW11, CW14	36" × 36"	48" × 48"								
CW3, CW4, CW5, CW6, CW8-3, CW10, CW12	48" × 48"	48" × 48"								

Sign Posted Speed Spacing Feet Apprx. 120 160 240 320 45 400 50 500<sup>2</sup> 55 600<sup>2</sup> 60 700 2 65 800<sup>2</sup> 70 900 <sup>2</sup> 75 1000<sup>2</sup> 80

SPACING

- \* For typical sign spacings on divided highways, expressways and freeways, see Part 6 of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) typical application diagrams or TCP Standard Sheets.
- Δ Minimum distance from work area to first Advance Warning sign nearest the work area and/or distance between each additional sign.

## GENERAL NOTES

- 1. Special or larger size signs may be used as necessary.
- 2. Distance between signs should be increased as required to have 1500 feet advance warning.
- 3. Distance between signs should be increased as required to have 1/2 mile or more advance warning.
- 4. 36" x 36" "ROAD WORK AHEAD" (CW20-1D) signs may be used on low volume crossroads at the discretion of the Engineer. See Note 2 under "Typical Location of Crossroad Signs".
- 5. Only diamond shaped warning sign sizes are indicated.
- 6. See sign size listing in "TMUTCD", Sign Appendix or the "Standard Highway Sign Designs for Texas" manual for complete list of available sign design

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING AT THE CSJ LIMITS WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS G20-9TP X X BEGIN WORK ZONE SPEED STAY ALERT ROAD WORK AHEAD R4-1 DO NOT PASS appropriate) TRAFFIC FINES R20-5TX X BEGIN WARNING ROAD WORK NEXT X MILES **★** ★ G20-5T CW1-4L SIGNS CW13-1P XX R20-50TPX X WHEN MORKERS ARE PRESENT STATE LAW NAME ADDRESS CITY STATE CW20-1D ROAD \* \*R2-1 TALK OR TEXT LATER X XG20-6T ROAD WORK CW20-1D CW1-4R R20-3T\* X / G20-10T \* \*\ WORK WORK AREA AHEAD XX MPH CW13-1P CONTRACTOR AHEAD Type 3 Barricade or channelizing devices \ WORK SPACE Beginning of —/NO-PASSING SPEED  $\Rightarrow$ END \* R2-1 LIMIT | WORK ZONE | G20-2bT \* \* line should Channelizing Devices CSJ Limit END coordinate ROAD WORK

G20-2 X X

When extended distances occur between minimal work spaces, the Engineer/Inspector should ensure additional "ROAD WORK AHEAD" (CW20-1D) signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TCP sheets for exact location and spacing of signs and channelizing devices.

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING DOWNSTREAM OF THE CSJ LIMITS

**X** ★ G20-5aP STAY ALERT ZONE X X G20-5T ROAD WORK NEXT X MILES SPEED LIMIT OBEY WARNING ROAD <del>X</del> X R20-5T ROAD ROAD FINES SIGNS NAME ADDRESS CITY STATE CLOSED R11-2 WORK STATE LAW TALK OR TEXT LATER AHEAD √2 MILE XXR20-5aTP WHEN WORKERS ARE PRESENT CW1-6 Type 3 X X R2-1 G20-10T R20-3T Barricade or CONTRACTOR <del>\* \*</del> channelizing devices  $\langle \neg$ --- CSJ Limit  $\Rightarrow$ Channelizing Devices SPEED R2-1 LIMIT (\*) END ROAD WORK G20-2 \* \*

The Contractor shall determine the appropriate distance to be placed on the G20-1 series signs and "BEGIN ROAD WORK NEXT X MILES" (G20-5T) sign for each specific project. This distance shall replace the "X" and shall be rounded to the nearest whole mile with the approval of the Engineer.

- The "BEGIN WORK ZONE"(G20-9TP) and "END WORK ZONE" (G20-2bT shall be used as shown on the sample layout when advance signs are required outside the CSJ Limits. They inform the motorist of entering or leaving a part of the work zone lying outside the CSJ Limits where traffic fines may double if workers are present.
- \* Required CSJ Limit signing. See Note 10 on BC(1). TRAFFIC FINES DOUBLE signs will not be required on projects consisting solely of mobile operations work.
- Area for placement of "ROAD WORK AHEAD" (CW20-1D)sign and other signs or devices as called for on the Traffic Control Plan.
- Contractor will install a regulatory speed limit sign at X the end of the work zone.

	LEGEND						
	Type 3 Barricade						
000	Channelizing Devices						
-	Sign						
X	See Typical Construction Warning Sign Size and Spacing chart or the TMUTCD for sign spacing requirements.						

SHEET 2 OF 12

Texas Department of Transportation

Operations Division Standard

Traffic

## BARRICADE AND CONSTRUCTION PROJECT LIMIT

BC(2)-14

ILE:	bc-14. dgn	DN: T	xDOT	CK: TXDOT	DW:	TxDOT	ck: TxDOT
C TxDOT	November 2002	CONT	SECT	JOB		HIGHWAY	
	REVISIONS						
9-07	8-14	DIST	COUNTY				SHEET NO.
7-13							R 17
96							