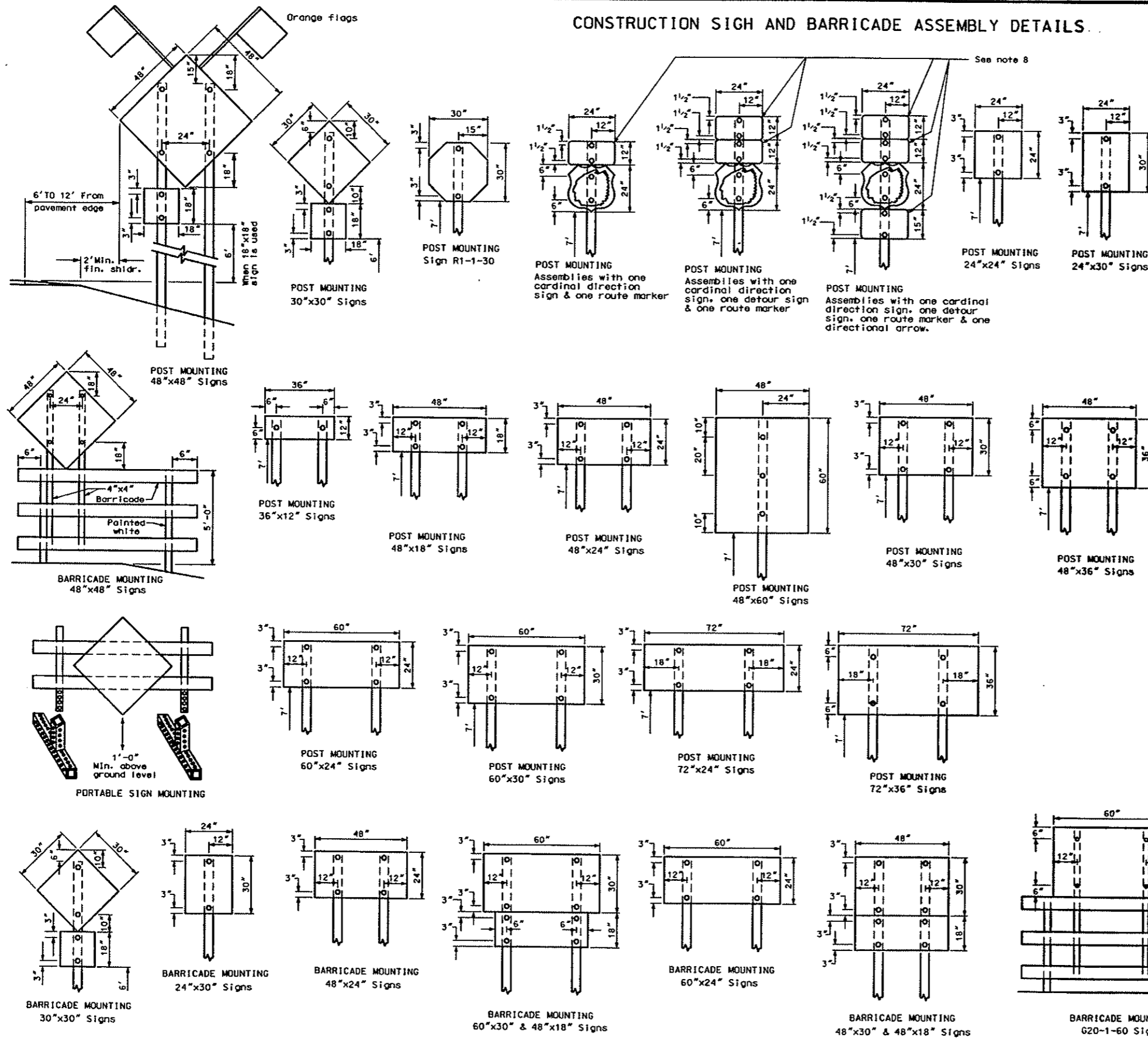


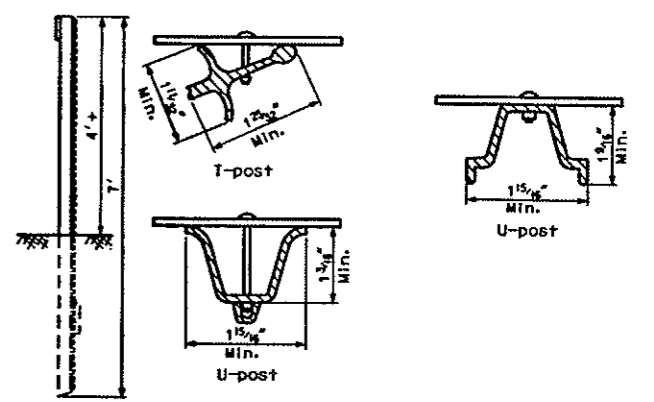
CONSTRUCTION SIGN AND BARRICADE ASSEMBLY DETAILS

D-704-14



NOTES:

1. In urban areas the vertical clearance shall be increased to 7 feet on all signs, except when supplemental signs are placed below main signs. The supplemental signs shall be placed at a 6'-0" minimum clearance.
2. Barricade and Sign Supports: Wooden supports shall be painted white. Steel supports shall be galvanized or painted.
3. Barricade Mounting Signs: The bottom of the sign shall be flush with the top of the top rail. Wood sign posts shall be 4"x4" min. SFS or equivalent steel posts. All barricades and barricade mounted signs shall be assembled with 3/8" bolts.
4. Sign Supports: Sign supports shall be 4"x4" min. SFS or equivalent steel post. The anchor for steel supports shall have a stub height of 4" or less. Wood posts more than 4"x4" shall be breakaway. Sign supports shall be imbedded to a sufficient depth so that signs will remain plumb throughout duration of project. It is suggested that wood posts have a min. depth of embedment of 5' and steel posts be embedded a min. 3'-6". Material: All signs shall be 0.100" aluminum, 12 gauge steel, 1/2" plywood or other approved material. Holes: All holes to be punched round for 3/8" bolts.
5. Alternate Messages: The signs that have alternate messages may have these alternate messages placed on a reflectorized plate without a border and this plate installed and removed as required.
6. Advance Warning Flashing or Sequencing Arrow Panels: The minimum mounting height shall be 7 feet above the roadway to the bottom of the panel, except on vehicle mounted panels which shall be as high as practicable.
7. Delineator Posts: Typical fence post sections are shown in Attachment Details. Other types of metal fence posts may be substituted upon approval of the engineer. These substituted posts shall have reflectors attached similar to the ones shown.
8. Route Marker Auxiliary Signs: The route marker auxiliary signs such as the cardinal direction and directional arrows shall have background colors the same as the route marker they are used with (Interstate route markers, blue background, US and State route markers, white background, Interstate Business loop and spur, green background, and County route markers, blue background).



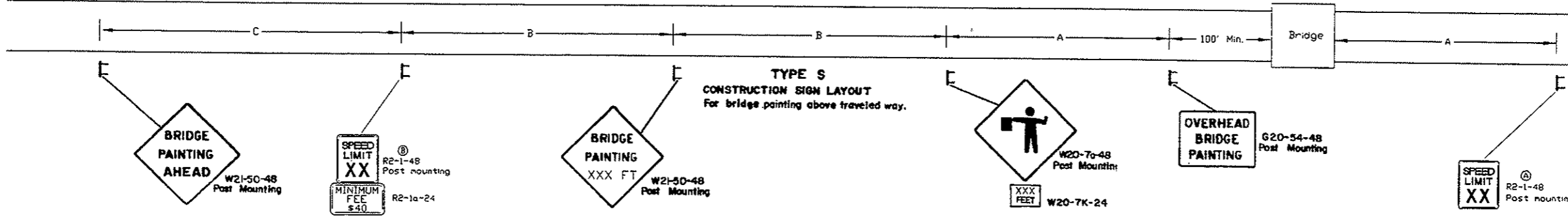
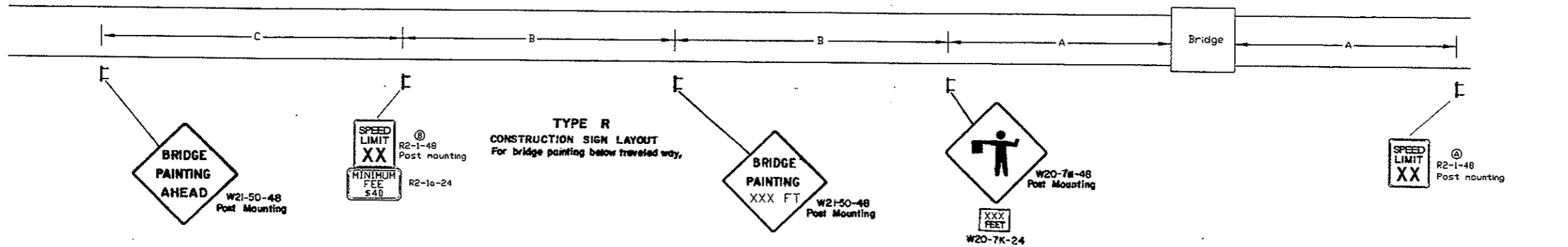
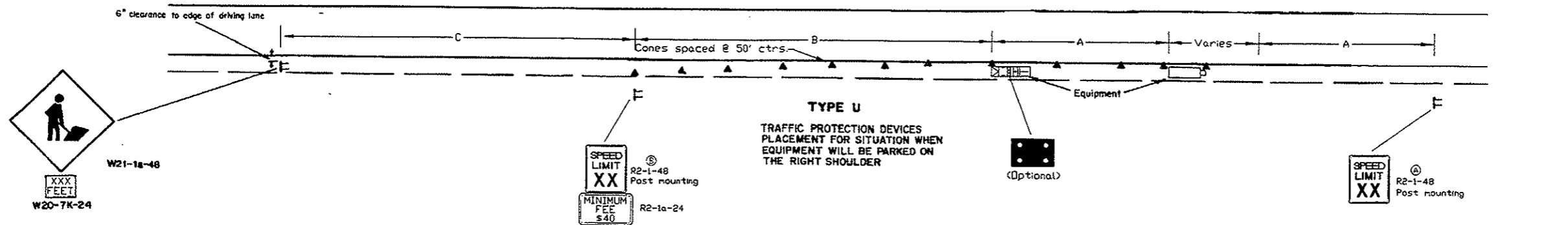
DELINEATOR ATTACHMENT AND POST MOUNTING DETAILS

10-1-86	
REVISIONS	
DATE	CHANGE
8-1-88	Sign assembly
5-1-88	Sign assembly
3-30-83	Sign assembly note
3-6-86	Sign height
8-18-86	Note #1
7-10-87	Note Revision

NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION
APPROVED: *K. H. E. Bit*
DESIGN ENGINEER

CONSTRUCTION SIGN AND BARRICADE LOCATION DETAILS

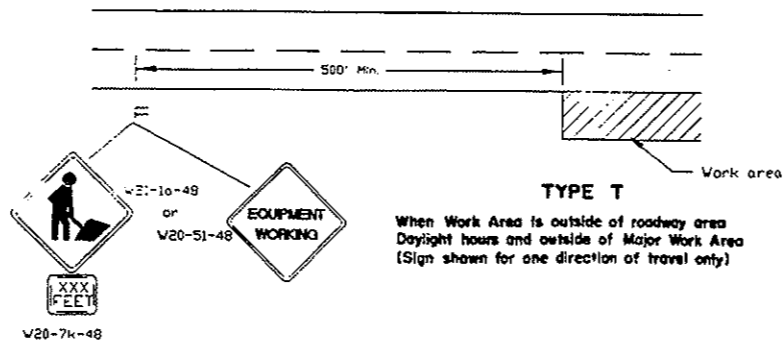
D-704-24



Flags: When warning signs are in urban areas, flags shall be installed. These flags shall be 24 inch square mounted perpendicular to the edges of the diamond sign and at such a distance above the edge so that when flag is limp it will not touch the sign. Portable warning signs will not require flags. Rural areas will not require flags.

KEY

- TYPE I BARRICADE
- TYPE II BARRICADE
- TYPE III BARRICADE
- SIGN
- DELINEATOR DRUM
- ▲ CONES
- ▨ WORK AREA
- FLAGGER
- TYPE A DELINEATOR
- FLASHING ARROW PANEL CAUTION MODE



- Ⓐ The speed limit shall be re-established. The exact speed limit shall be determined in the field dependent on location and conditions.
- Ⓑ The speed limit shall be determined by the engineer in the field.

Road type	ADVANCE WARNING SIGN SPACING		
	Distance between signs (ft.)		
	A	B	C
Urban - low speed (less than 40 mph)	200	200	200
Urban - high speed (40 mph or more)	350	350	350
Rural	500	500	500
Interstate/4-lane divided (Maintenance and surveying)	750	1000	1500
Interstate/4-lane divided (Construction)	1000	1600	2600

10-1-86	
REVISIONS	
DATE	CHANGE
8-3-87	NOTE
4-25-89	W 21 SIGN NO.
5-1-92	GENERAL REVISIONS
9-30-93	GENERAL REVISIONS
6-23-95	SPEED LIMIT
8-15-96	REVISE FLAG NOTE
9-3-96	70 MPH
11-31-97	SIGN SPACING

NORTH DAKOTA
DEPARTMENT OF TRANSPORTATION
APPROVED: *David K. ...*
DESIGN ENGINEER