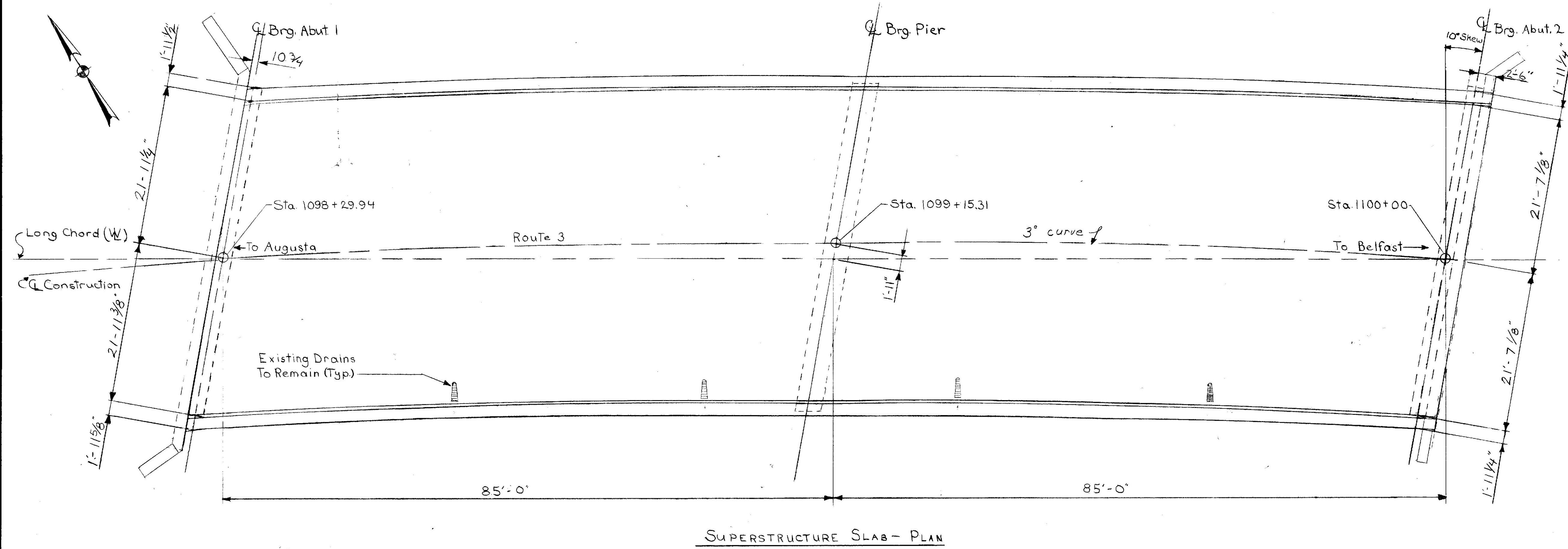


5

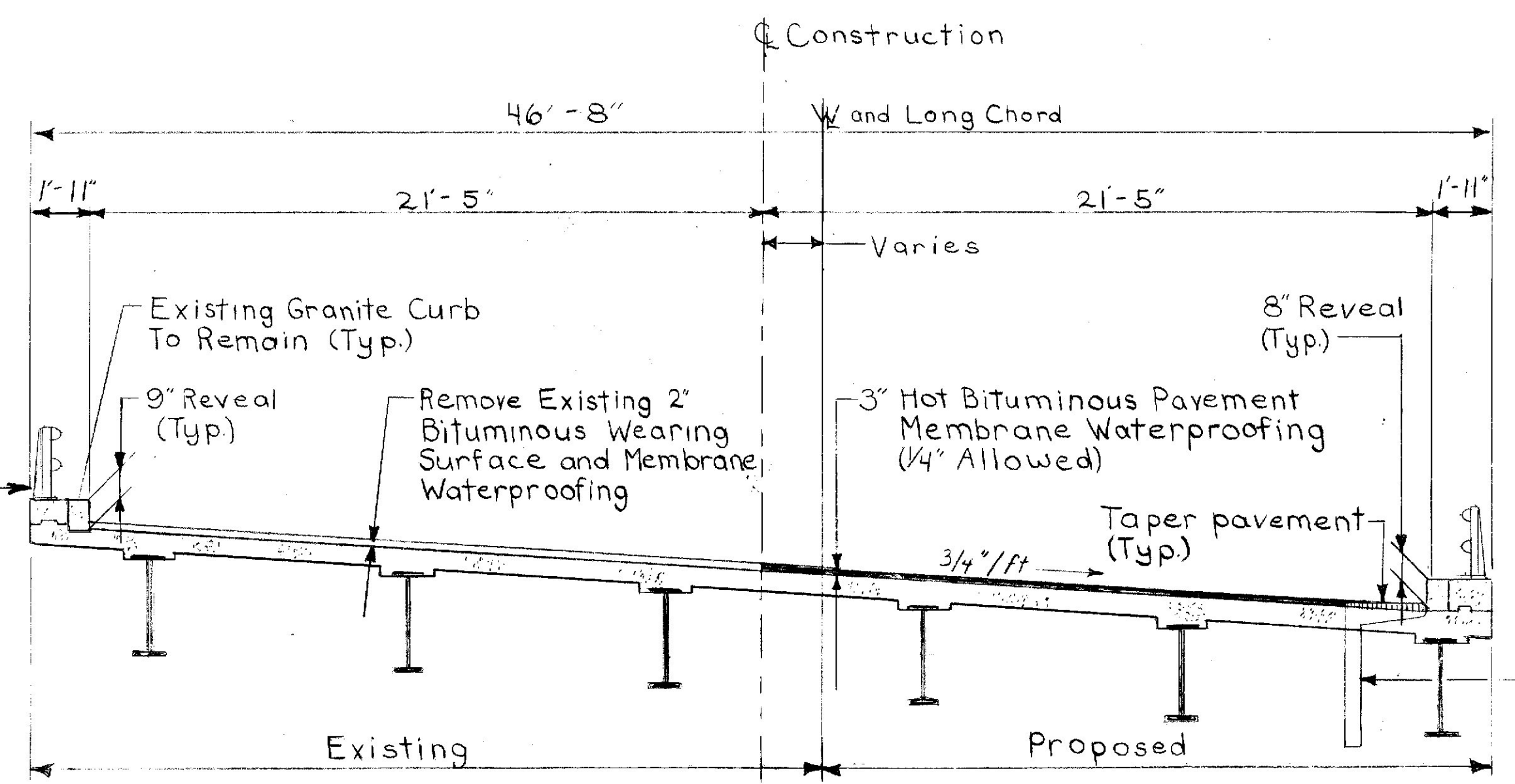
Q-Q-18

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN - DETAILED	ENM/BAW	2/17/93
CHECKED		
REVISIONS		
FIELD CHANGES		

PLANS



SUPERSTRUCTURE SLAB - PLAN



TRANSVERSE SECTION

Core reports and shear bond tests done for this bridge will be made available for the contractor's reference at the Bridge Design Office in Augusta. The report is based on the interpretation by the Department of Transportation, and the conclusions may not represent the actual conditions at the site.

Plans of existing bridge are available for the Contractor's reference at the Bridge Design Office in Augusta. These are reproductions of original drawings as prepared for the construction of the bridge and it is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.

UTILITIES

CMP
Contel of Maine, Inc.
Mobil Pipe Line Co.
China Telephone Co.

MAINTENANCE OF TRAFFIC

One way traffic shall be maintained on a 12'-0" minimum lane with traffic lights.

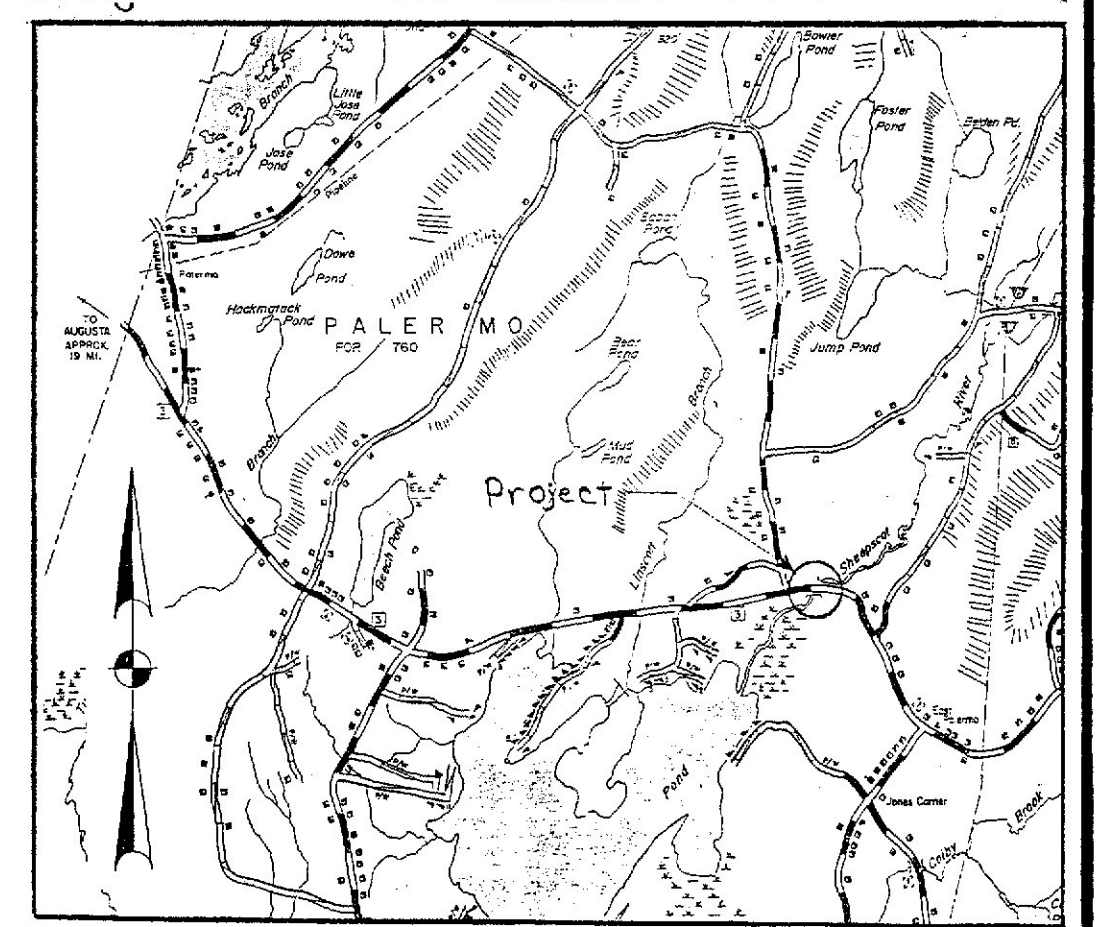
SCOPE OF WORK

Remove existing bituminous wearing surface and membrane waterproofing and rehabilitate as directed.
Retrofit aluminum bridge rail splices.
Repoint granite curb bedding mortar.
Modify Abutment #1 joint to match new grade.

Traffic Data

AADT 1994	3670
AADT 2014	5870
DHV	646
Trucks (%)	6
D (%)	60
Posted Speed	55mph
18 kip eq P 2.0	900

PIN 005317.00	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
Bridge #2758	MAINE	NH-028P(31)	1	6



Location Map

SPECIFICATION

DESIGN: AASHTO Standard Specifications for Highway Bridges, 1992 and Interim Specifications 1993.
CONTRACT: State of Maine, Department of Transportation, Standard Specifications, Highway and Bridges, Revision of October 1990.

DESIGN LOADING

LIVE LOAD: HS 20-44 (Existing)

MATERIALS

CONCRETE: ----- Class A
REINFORCING STEEL: --- ASTM A615 Grade 60
STRUCTURAL STEEL: ----- A36

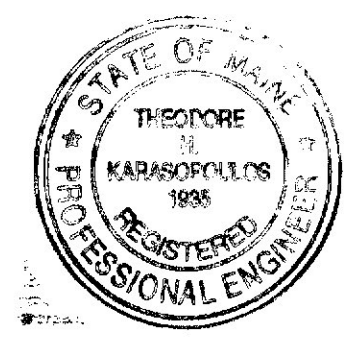
BASIC ALLOWABLE STRESSES

CONCRETE: ----- $f'_c = 4,000$ psi
REINFORCING STEEL: --- $f_y = 60,000$ psi
STRUCTURAL STEEL: --- $F_y = 36,000$ psi

INDEX OF SHEETS

DESCRIPTION	SHEET NO.
GENERAL PLANS	1
DETAILS	2
BD 401-93	3
HD 10	4
HD 11	5
HD 12	6

NOTE:
All work contemplated under this contract to be governed by and in conformity with the Standard Specifications (Revision of October 1990) and supplements thereto, as modified on the plans and in the Special Provisions.



APPROVED State of Maine Department of Transportation <i>Theodore Karasopoulos</i> COMMISSIONER CHIEF ENGINEER	DATE	United States Department of Transportation Federal Highway Administration Region 1 APPROVED DIVISION ADMINISTRATOR	DATE
--	------	---	------

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SHEEPSCOT BRIDGE
OVER
SHEEPSCOT RIVER
IN THE TOWN OF
PALERMO
WALDO COUNTY
GENERAL PLAN

SHEET 1 OF 6 AUGUSTA, MAINE Apr 17, 1995

CONSTRUCTION NOTES

- After existing bituminous pavement has been removed, the Contractor may be directed by the Engineer to rehabilitate areas of the deck. Payment will be made under Items 518.30, 518.31, or 518.32 whichever is applicable.
- Proposed reinforcing steel shall have a minimum cover of 2 inches unless otherwise indicated.
- Seal shall be approved by the Engineer prior to fabrication of joint armor.
- Existing Aluminum Bridge Rail Splices as directed by the Engineer shall be retrofitted as shown on BD401-93. Payment will be paid for under Item 507.30, Aluminum Bridge Rail Splice Retrofit. Estimated quantity of rail splices required is approximate and should be field verified.
- Any damage to the existing concrete resulting from the Contractor's operation shall be repaired by the Contractor's expense.
- The temporary signal controller shall be a two-phase fully actuated controller with volume density features. It shall have a variable initial interval of 4 seconds, 2 seconds per actuation, 12 second maximum initial.

01 EB 02 WB

Minimum Green	4	4
Maximum Green	12	25
Extension	35	35
Yellow	3	
Red	12	12
Maximum 2 Green	15	15

Maximum 1 6:30AM to 9:00AM
Maximum 2 All other times

Adjust timing as necessary in the field.
Install loop detector 100 ft. from stopline.
Charge to item #843.72

ESTIMATED QUANTITIES

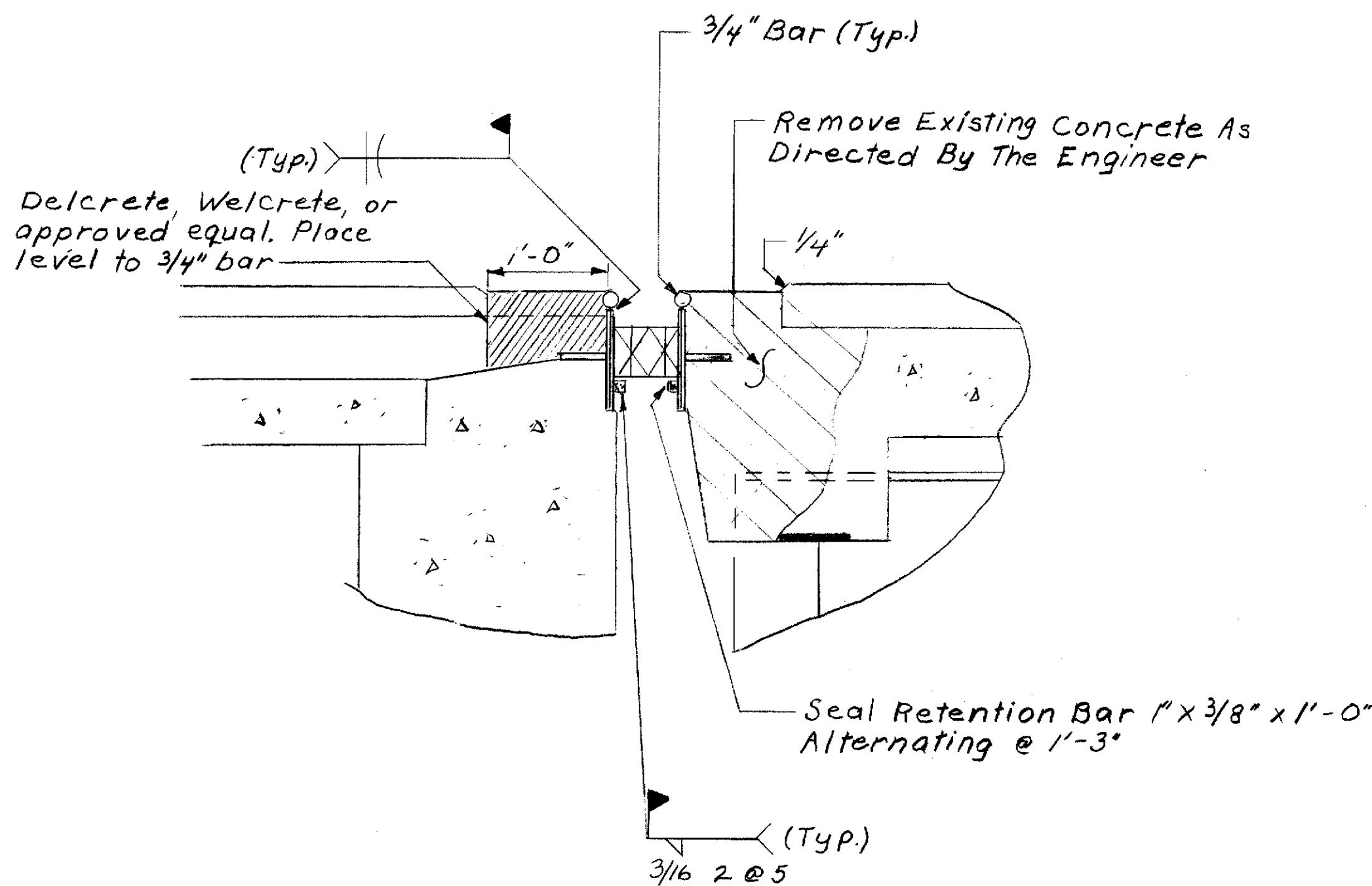
Item #	Description	# Units	Unit
202.202	REMOVING PAVEMENT SURFACE	825	SY
202.203	PAVEMENT BUTT JOINTS	587	SY
403.10	HOT BITUMINOUS PAVEMENT, GRADING D	189	T
409.15	BITUMINOUS TACK COAT APPLIED	30	G
507.30	ALUMINUM RAIL BAR SPlice RETROFIT	32	EA
508.13	MEMBRANE WATERPROOFING	1	LUMP
518.30	REHAB STR CONC SLAB TO REIN STL	370	SF
518.31	REHAB STR CONC SLAB BL REIN STL	75	SF
518.32	REHAB OF STRUCTURAL CONCRETE SLAB - FULL DEPTH	10	SF
518.39	REPAIRING GRANITE CURB BEDDING MORTAR	170	LF
520.243	BRIDGE JOINT MODIFICATION TYPE 3	1	EA
526.301	TEMPORARY CONCRETE BARRIER TYPE II	1	LUMP
527.32	PORTABLE CRASH BARRELS	13	EA
627.61	4 INCH SOLID WHITE PAVEMENT MARKING LINE	1,500	LF
627.63	4 INCH SOLID YELLOW PAVEMENT MARKING LINE	1,500	LF
627.65	WHITE OR YELLOW PAVEMENT AND CURB MARKING	50	SF
627.67	REMOVING PAVEMENT MARKINGS	1,400	SF
627.68	TEMP. 4 IN PLASTIC PAV. MARKING LINE, YELLOW OR WT.	1,500	LF
639.19	FIELD OFFICE TYPE B	1	EA
643.72	TEMPORARY TRAFFIC SIGNAL	1	LUMP
652.31	TYPE I BARRICADE	10	EA
652.312	TYPE III BARRICADE	3	EA
652.33	DRUM	10	EA
652.34	CONE	20	EA
652.35	CONSTRUCTION SIGNS	280	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	LUMP
652.38	FLAGGER	200	MH

659.10	MOBILIZATION	1	LUMP
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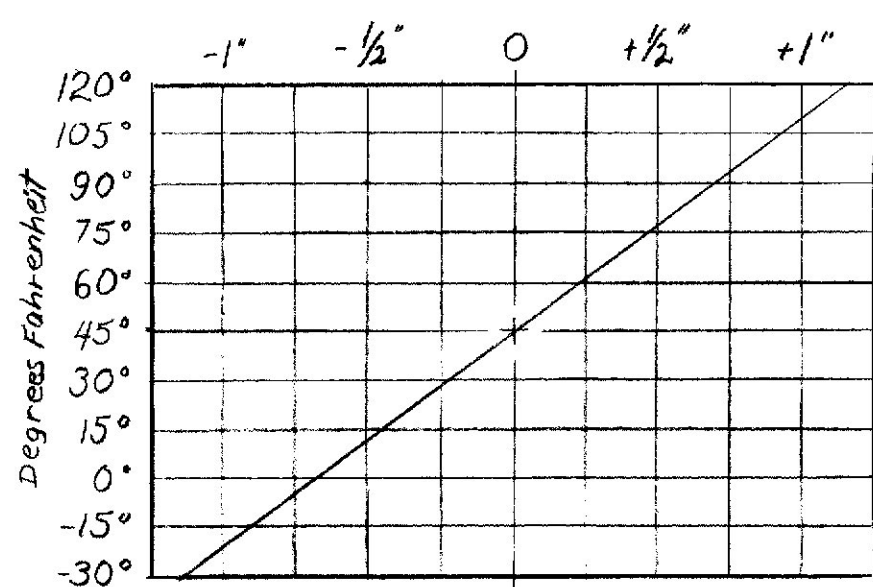
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

SHEEPSCOT BRIDGE
OVER
SHEEPSCOT RIVER
IN THE TOWN OF
PALERMO
WALDO COUNTY
BRIDGE DETAILS

SHEET 2 OF 6 AUGUSTA, MAINE APR 17, 1995

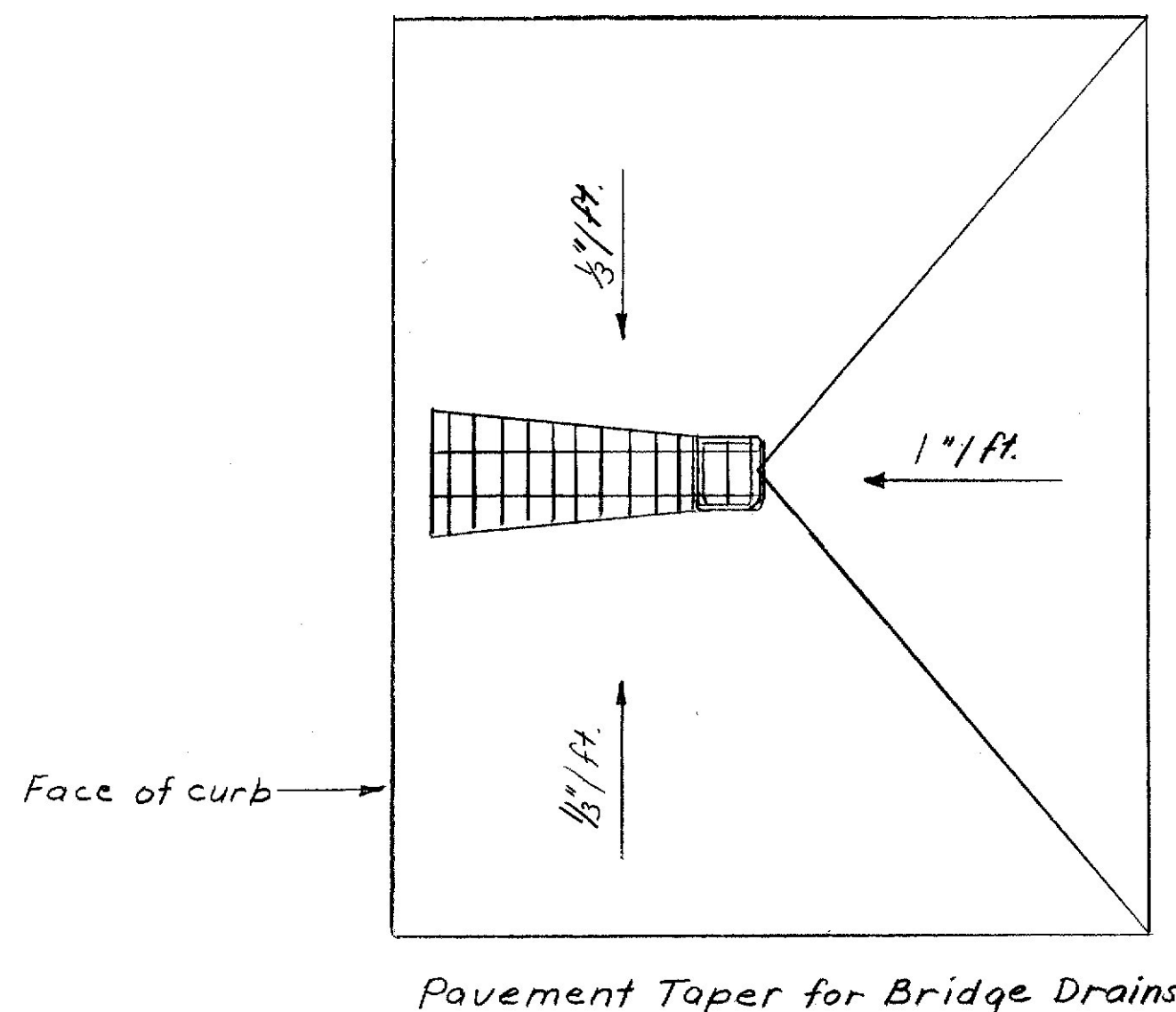


SEAL DETAIL

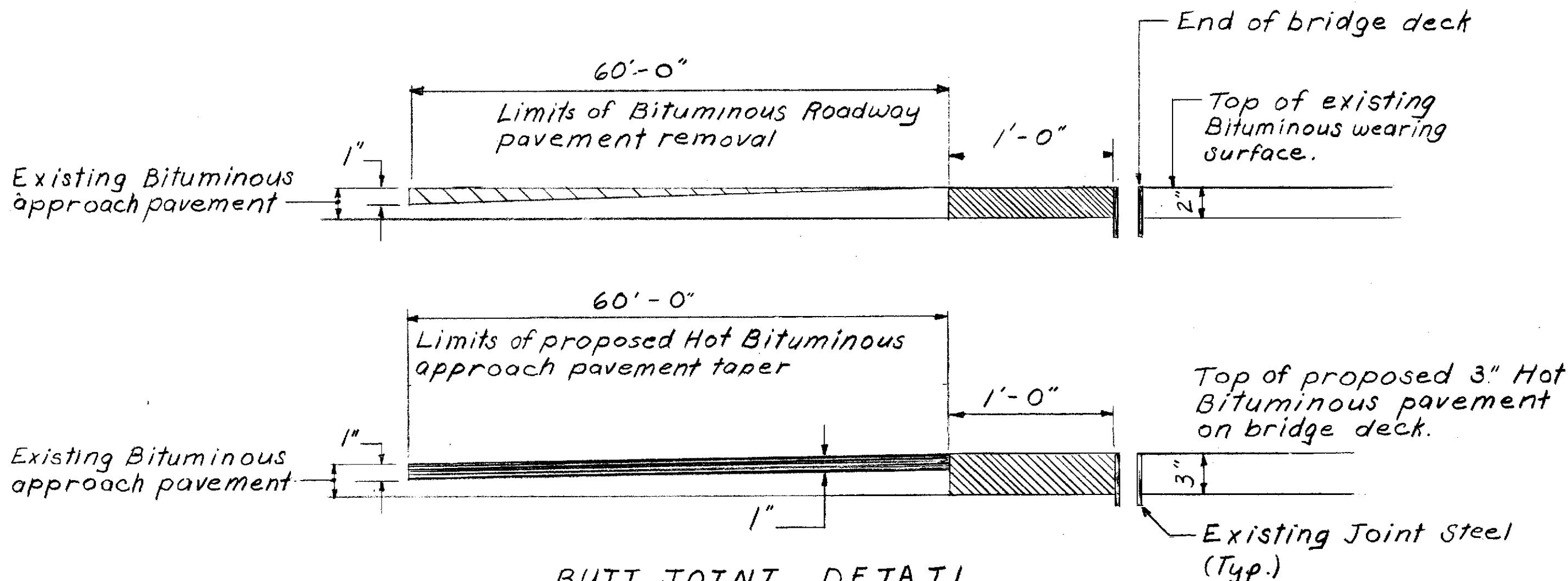


COMPRESSION SEAL ADJUSTMENT CHART

- The seal to be furnished shall have a minimum Movement Rating of:
Abutment #1 = 2 1/4"
- The seal shall be approved by the Engineer prior to modification of the joint armor.
- The joint opening will vary depending on the dimensions of the seal selected by the Contractor. The joint opening shall be set according to the opening shown on the approved shop detail drawings.
- The Compression Seal adjustment chart shows the adjustment necessary to adjust the joint opening shown on the shop detail drawings for temperatures other than 45 degrees F. Adjustment is to be measured parallel to the centerline of construction.
- Existing joint armor shall be carefully removed as required to weld retention bars and reset as directed by the Engineer.



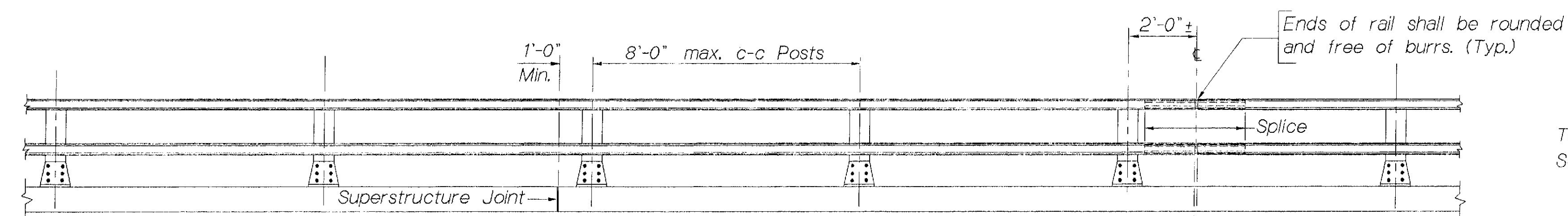
Pavement Taper for Bridge Drains



BUTT JOINT DETAIL

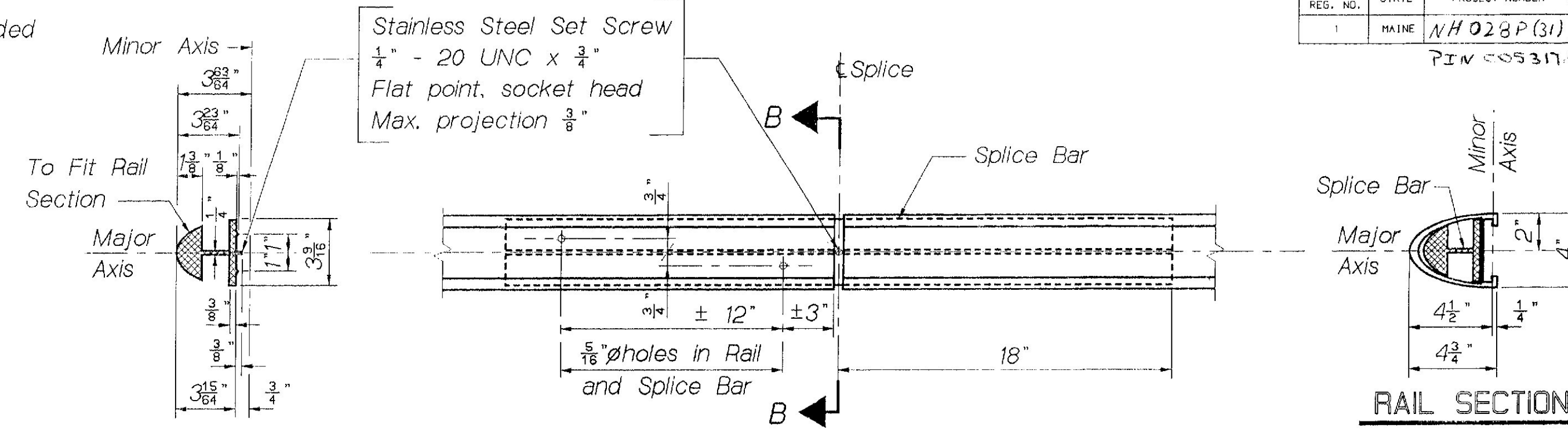
PROJECT DESIGN ENGINEER	DATE
BY: <i>AMM</i>	7/1/95
DESIGN - DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

PLANS



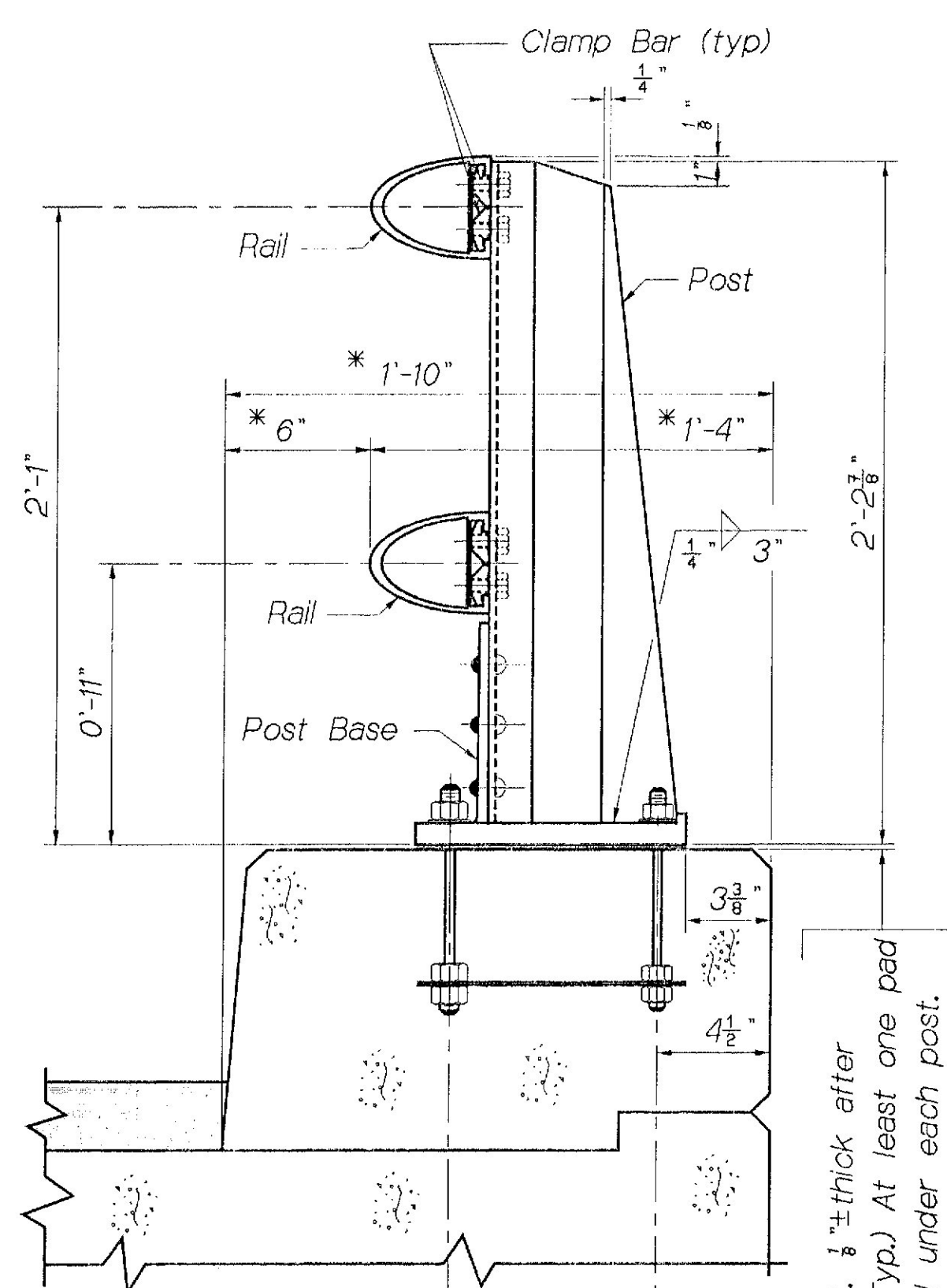
RAILING - ELEVATION

Lengths of rail shall be attached to a minimum of four (4) rail posts wherever possible, and in any case never less than two (2). Rail posts are to be set normal to grade unless otherwise shown.



SPLICE BAR DETAIL

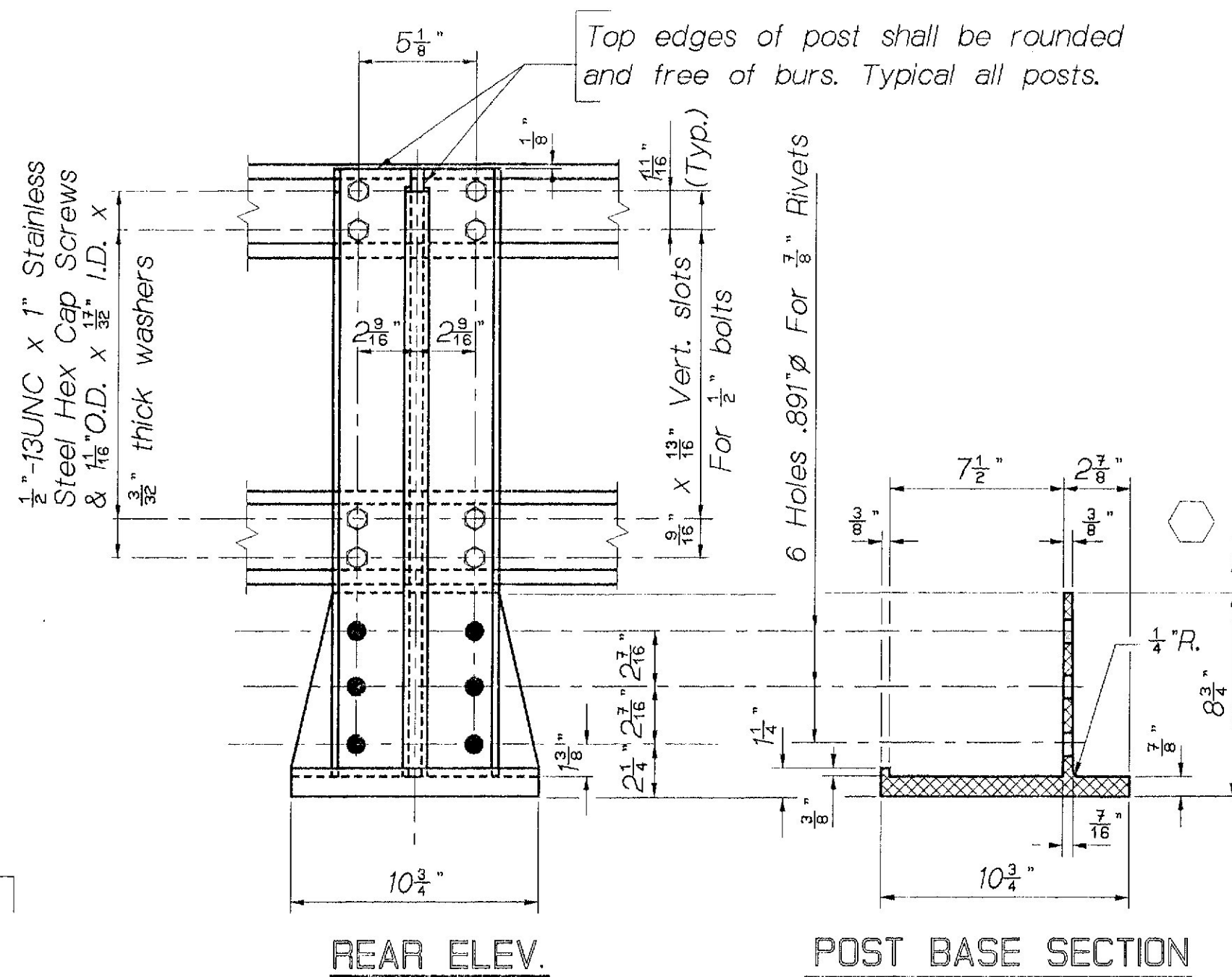
DRILL 2- $\frac{5}{16}$ " \varnothing holes and install 2- $\frac{3}{8}$ " \varnothing x1
Type F, Hex. Washer Head Tapping Set Screws (Stainless).



BRIDGE RAILING

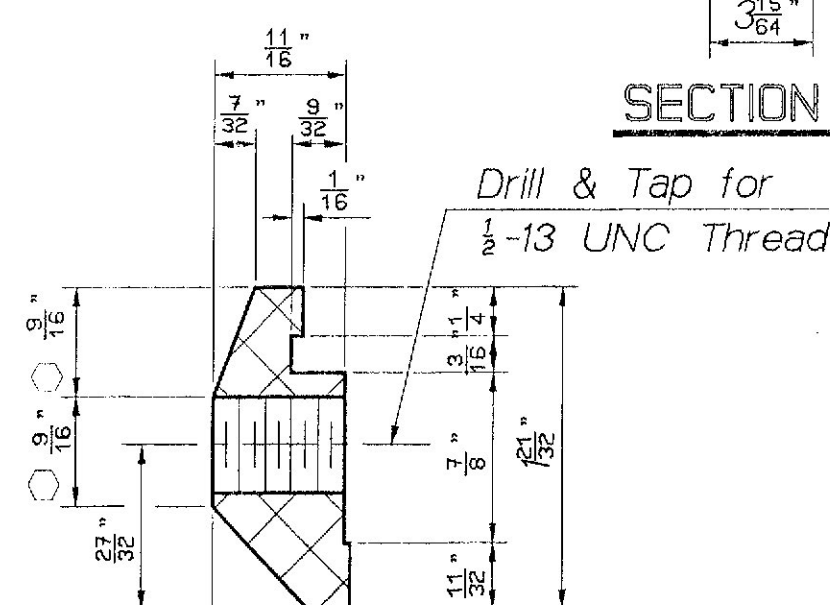
(ASSEMBLY)

Preformed Pad. $\frac{1}{8}$ " \pm thick after compression. (Typ.) At least one pad shall be placed under each post.



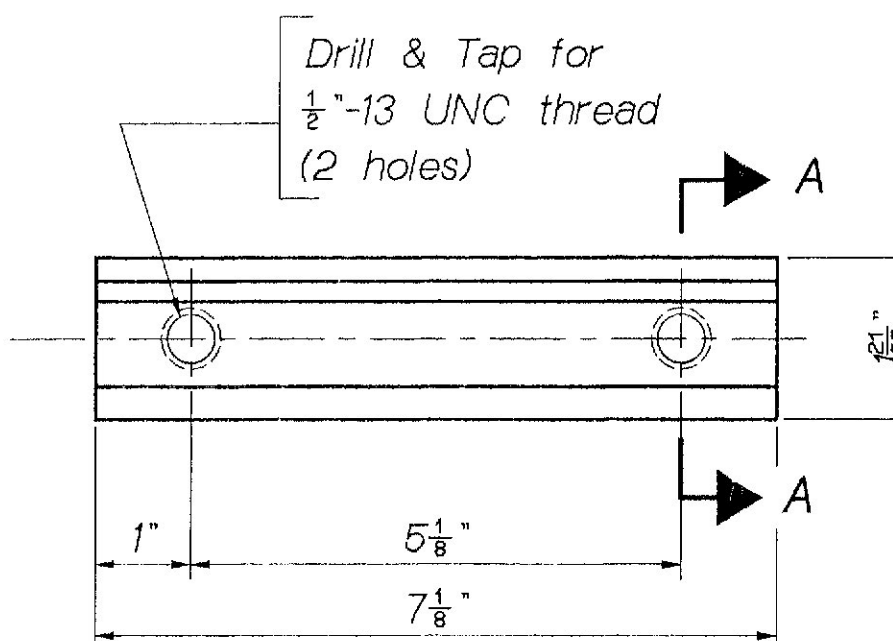
REAR ELEV.

POST BASE SECTION

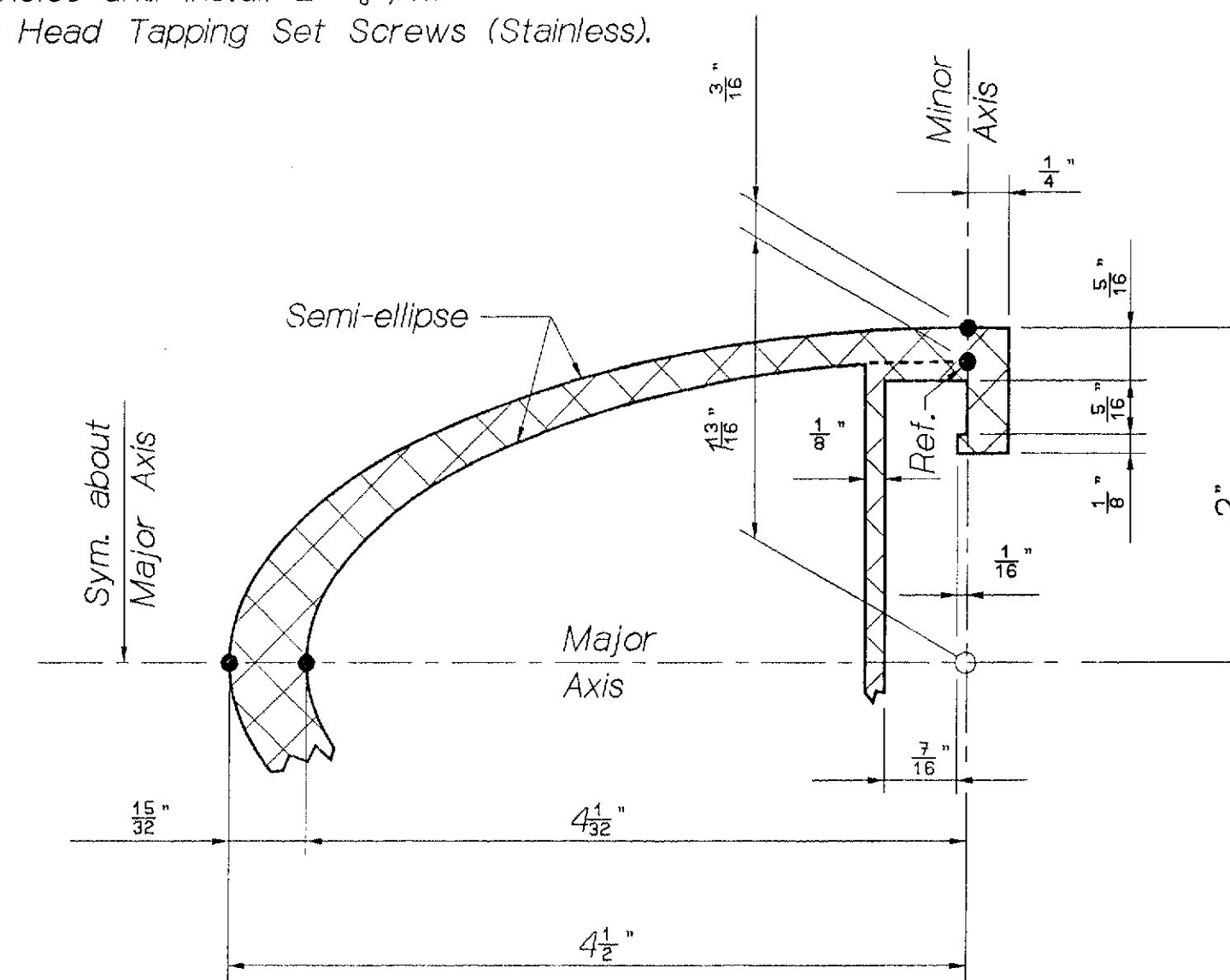


SECTION A-A

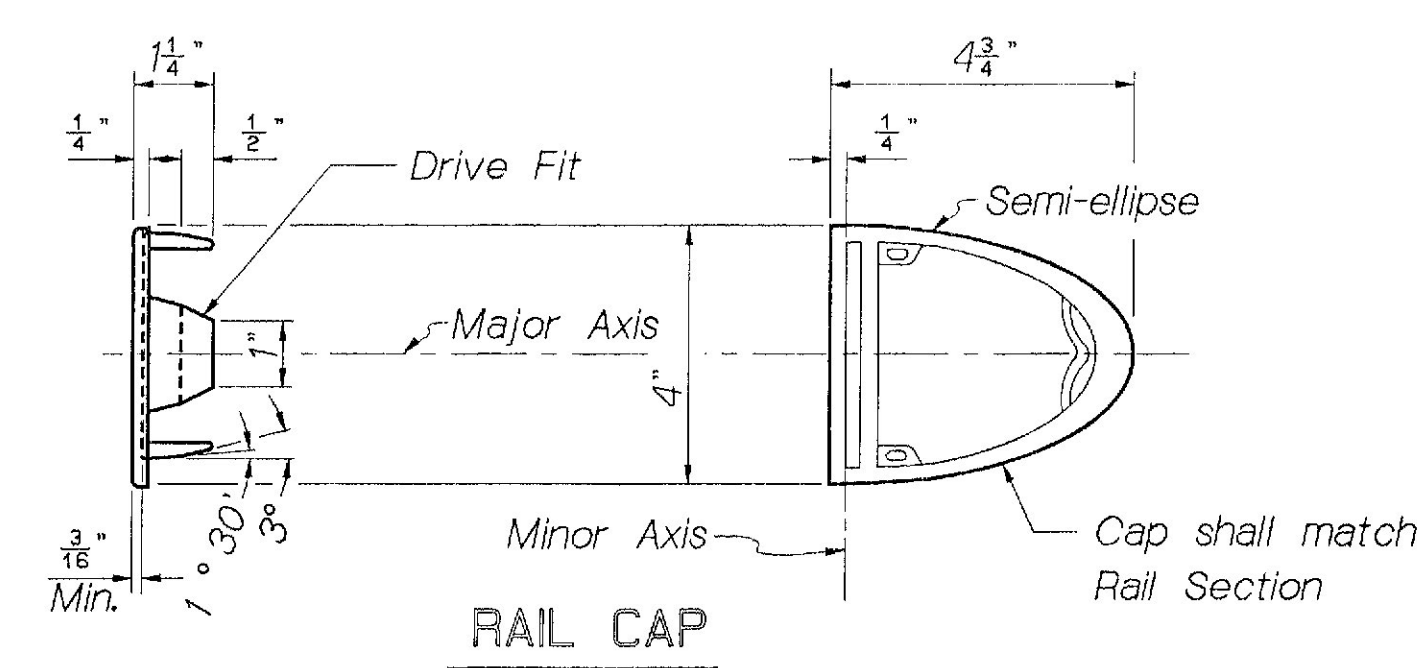
Alternate dimensions may be used if approved by the Engineer.



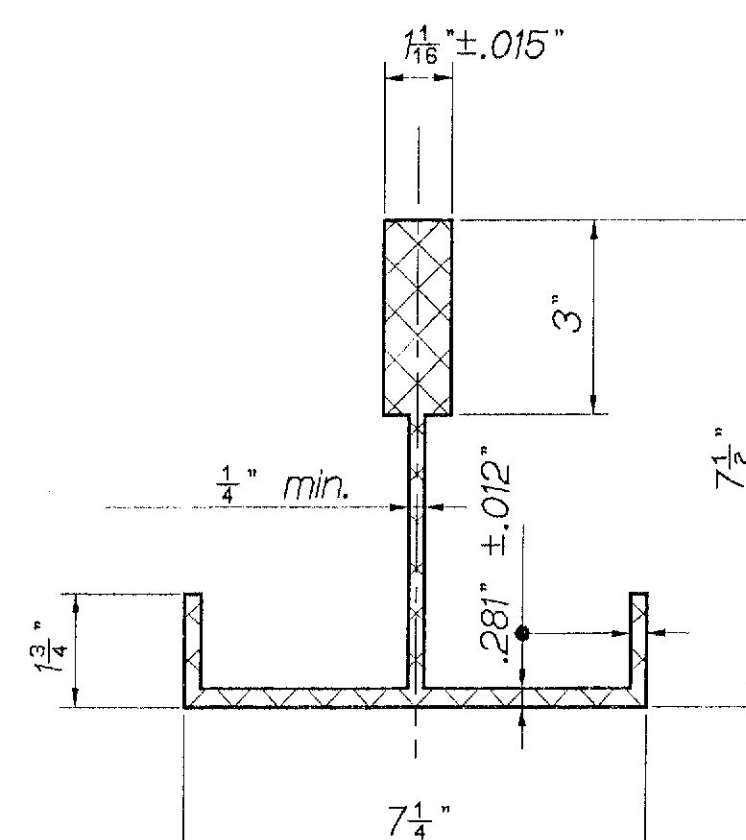
CLAMP BAR



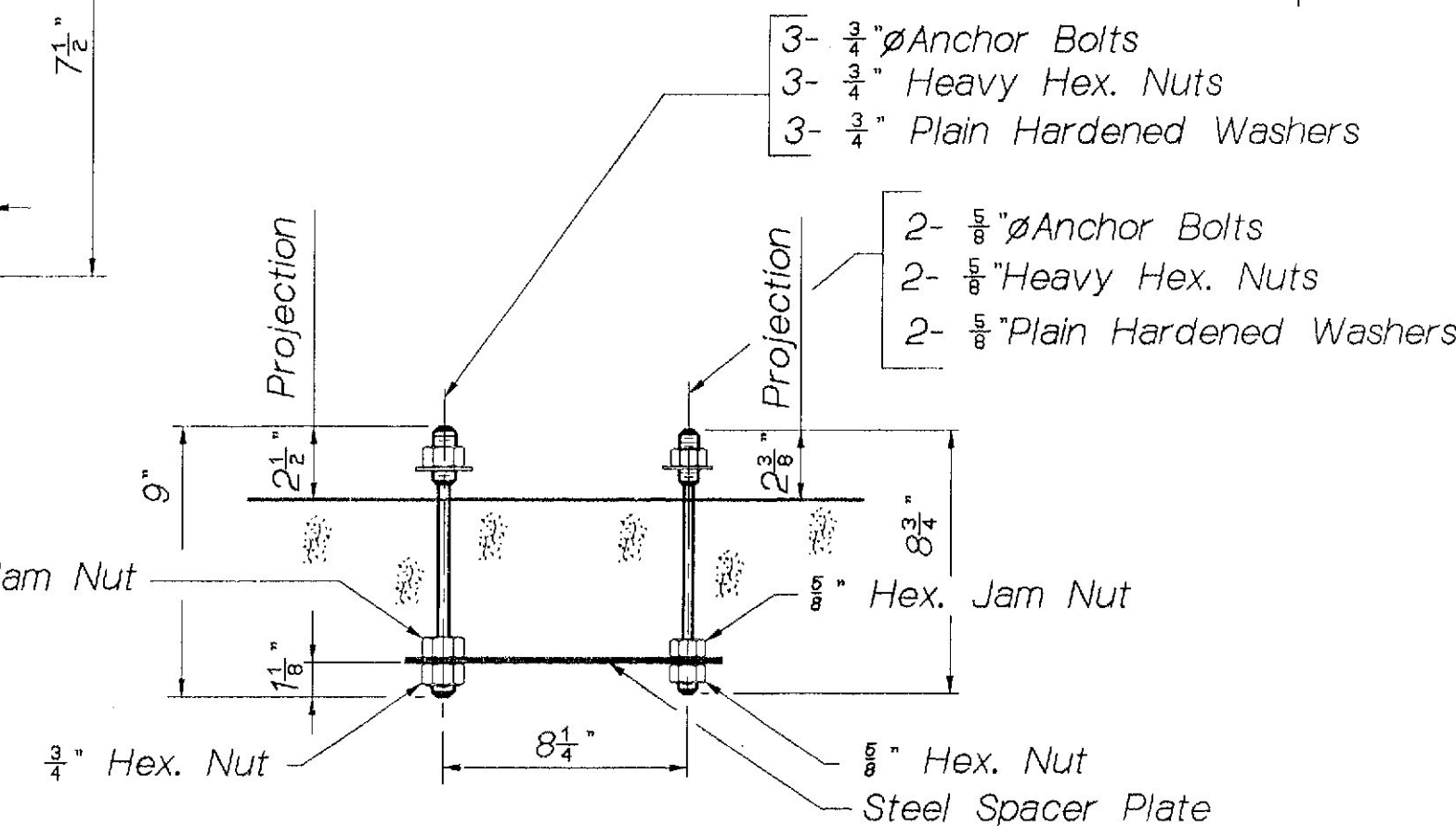
TRAFFIC RAIL
RAIL DETAIL



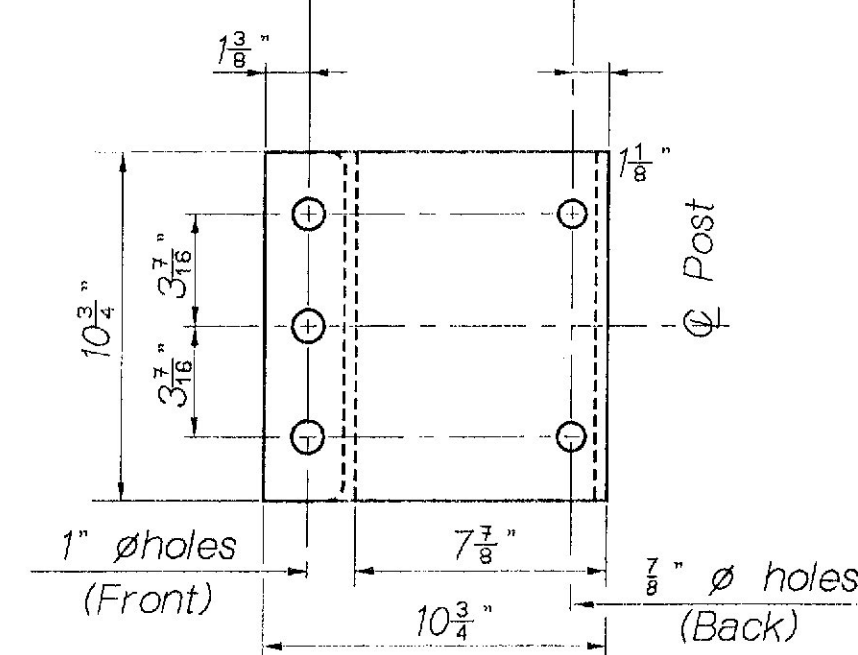
RAIL CAP



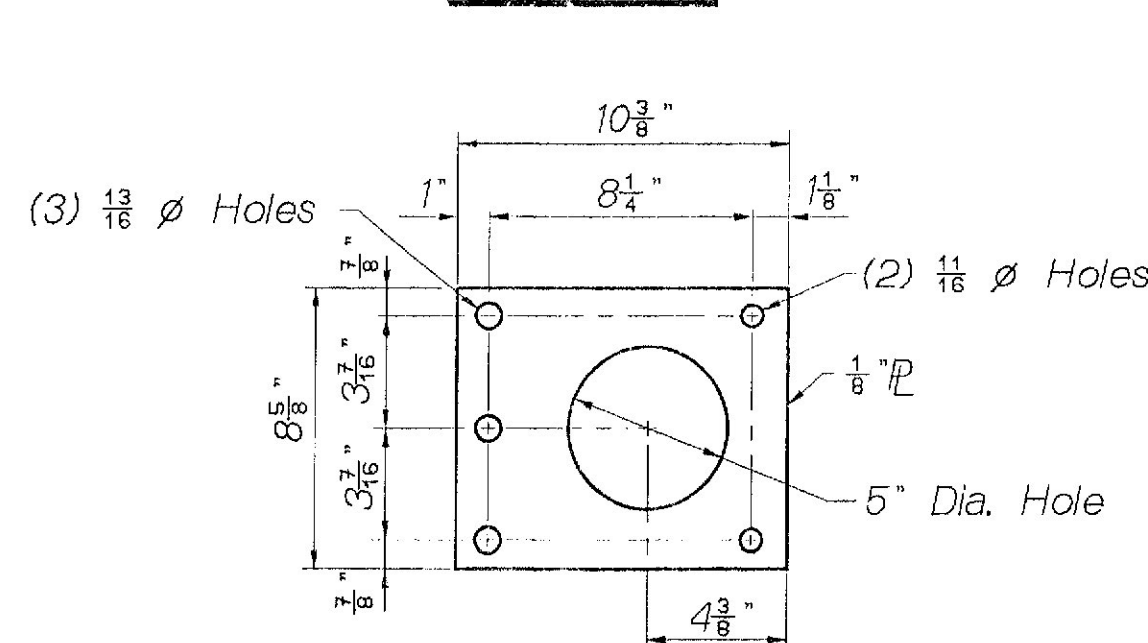
POST SECTION



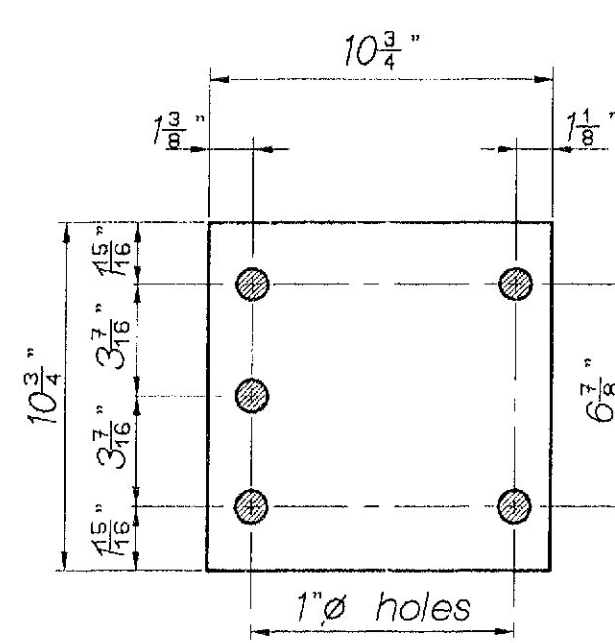
RAIL POST ANCHORAGE



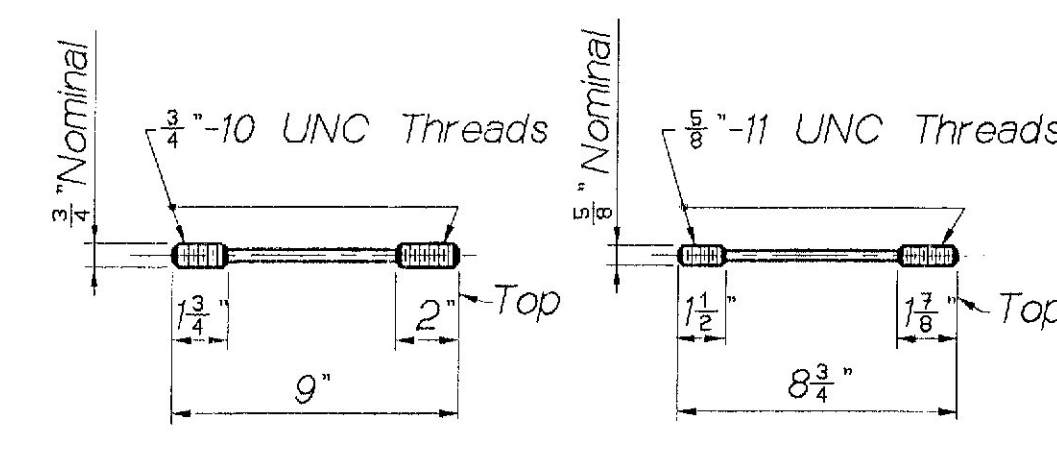
POST BASE
(Bottom View)



STEEL SPACER PLATE
(For Anchorage)



PREFORMED PAD



ANCHOR BOLTS

If cut threads are used, body diameter shall be not less than nominal diameter.

If rolled threads are used, body diameter shall be not less than the pitch diameter of the threads.

* Alternate dimensions may be used if approved by the Engineer.

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

18APR95-01.00.10
BD40189

GENERAL NOTE:
In case of conflict between these Standard Details and the Design Drawings,
the requirements of the Design Drawings shall be followed.

REVISIONS	APPROVED		STATE OF MAINE DEPARTMENT OF TRANSPORTATION
Description	MeDOT	FHWA	
Original Plan	JULY, 1993		
STANDARD DETAILS			BD 401 - 93
ALUMINUM BRIDGE RAILING			
2 - BAR (SEMI - ELLIPSE)			
SHEET 5 OF 6			AUGUSTA, MAINE JULY, 1993

GENERAL NOTES FOR SIGNING

- DISTANCES SHOWN FOR SIGN PLACEMENT ARE NOMINAL. EXACT LOCATIONS SHALL BE DETERMINED BY THE ENGINEER.
- GRADES ON TEMPORARY ROADWAYS THROUGH THE CONSTRUCTION ZONE USED BY THE PUBLIC SHALL NOT EXCEED 10 PERCENT.
- ADVISORY SPEED CONSISTANT WITH PREVAILING CONDITIONS SHALL BE AS DETERMINED BY THE ENGINEER.
- USE SHADED SIGNS WHEN SPECIFIED IN THE SPECIAL PROVISIONS.
- THE LENGTH OF TAPERS SHALL BE DETERMINED FROM THE FOLLOWING FORMULAE:
IF S IS EQUAL TO OR LESS THAN 40 MPH.
 $L = W \times S \times S / 60$
IF S IS EQUAL TO OR GREATER THAN 45 MPH.
 $L = W \times S$

WHERE:
L=LENGTH OF TAPER IN FEET
S=POSTED SPEED IN MPH.
W=WIDTH OF ROADWAY TO BE CLOSED IN FEET

TAPER LENGTHS SHALL BE ROUNDED TO THE NEAREST FIVE FEET. IT MAY BE REQUIRED TO EXTEND LANE CLOSURE TAPERS TO PROVIDE A SMOOTH TRANSITION WHERE GEOMETRIC ALIGNMENT REDUCES SIGHT ALIGNMENT.

- THE MAXIMUM LONGITUDINAL SPACING OF CHANNELIZING DEVICES SHALL CONFORM TO THE FOLLOWING:

A. 50 FEET THROUGH WORK AREAS

B. A DISTANCE IN TAPERS EQUAL TO THE NUMERICAL VALUE OF THE OPERATION SPEED, I.E., 45 MPH= 45 FEET.

C. IN ALL AREAS NOT COVERED ABOVE MAXIMUM SPACING SHALL BE AS FOLLOWS:

RADIUS OF CURVE	SPACING
50' TO 300'	25'
301' TO 700'	50'
701' TO 1000'	75'
OVER 1000'	4 TIMES THE POSTED SPEED

THE MAXIMUM TRANSVERSE SPACING IN TAPERS SHALL BE DETERMINED FROM THE FOLLOWING FORMULA:

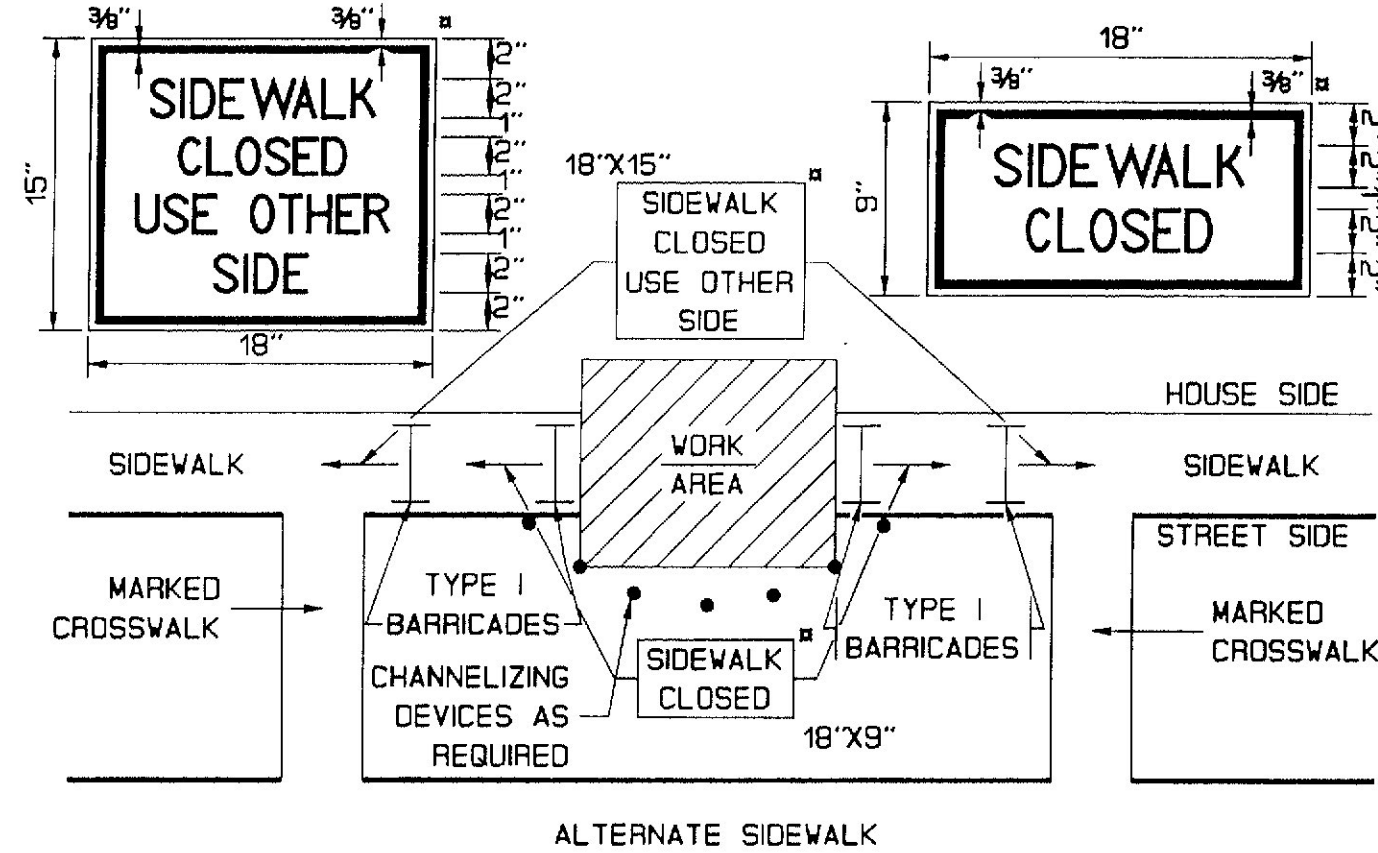
$$D = W \times S / L$$

WHERE:

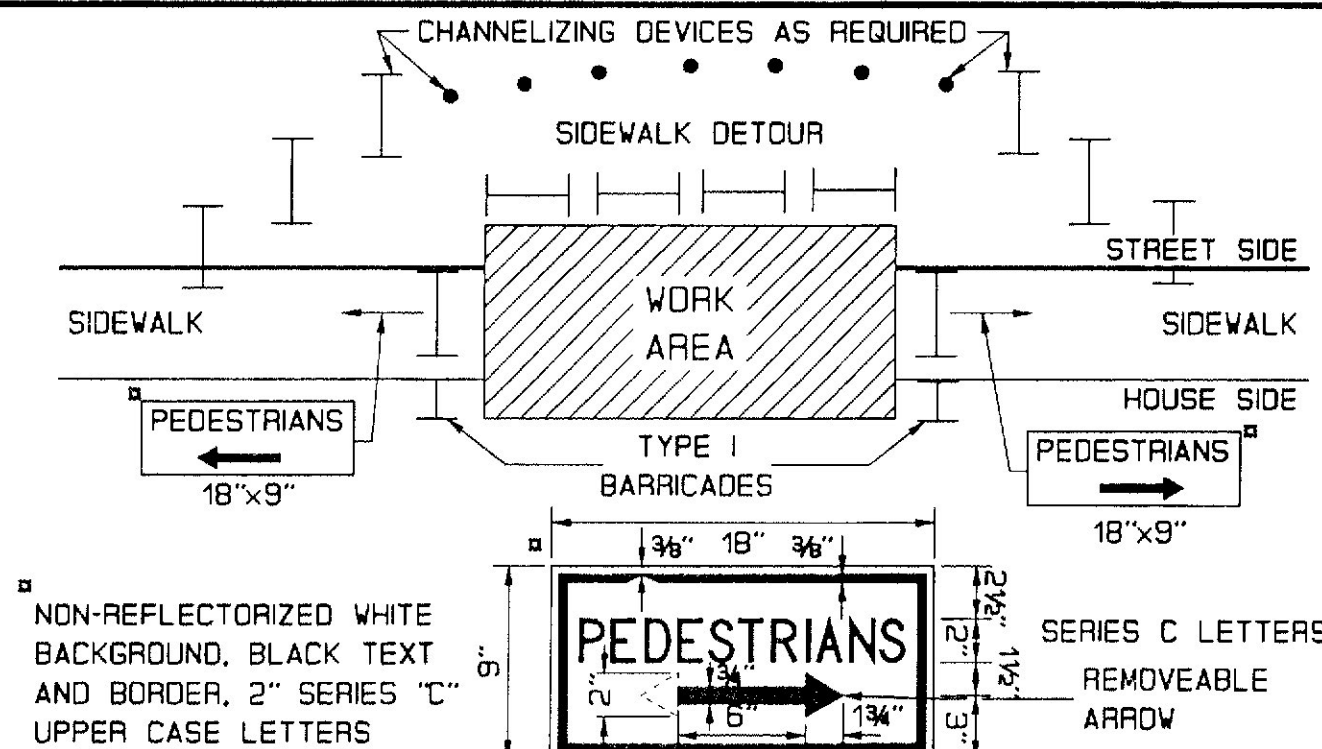
D=TRANSVERSE SPACING IN FEET
W=WIDTH OF ROADWAY TO BE CLOSED IN FEET
L=LENGTH OF TAPER IN FEET
S=POSTED SPEED IN MPH.

- ALL SIGNS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS", FHWA, 1979, AND REVISIONS THERETO.

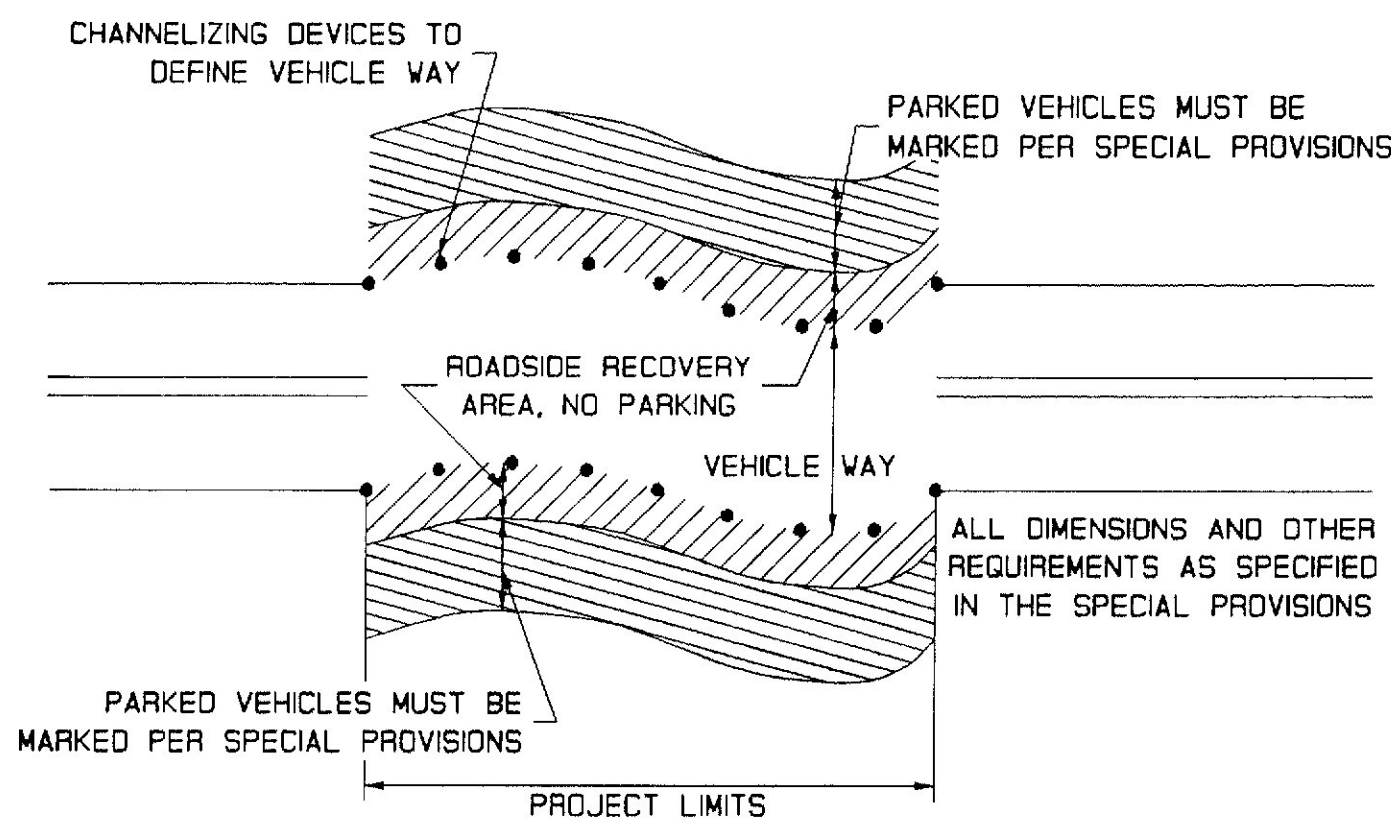
*NON-REFLECTORIZED WHITE BACKGROUND, BLACK TEXT AND BORDER-2" SERIES "C" UPPER CASE LETTERS

SIDEWALK CLOSURE
WITH ALTERNATE SIDEWALK

TC001

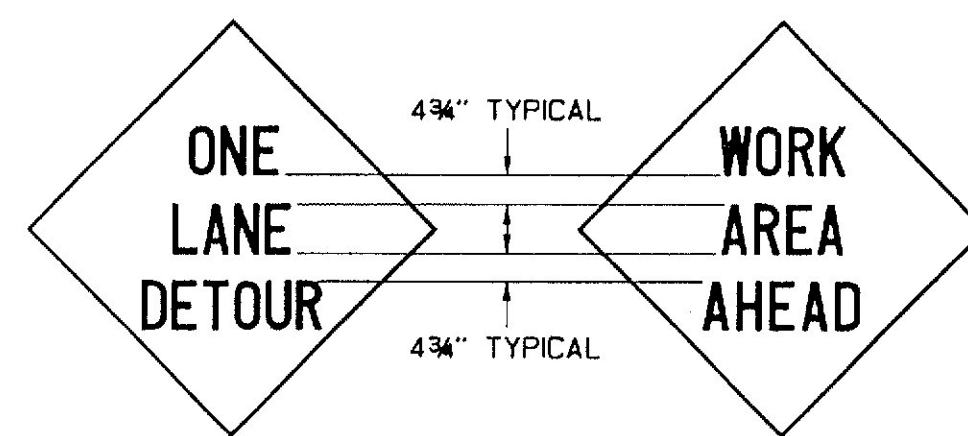
SIDEWALK CLOSURE
WITHOUT ALTERNATE SIDEWALK

TC002



ROADSIDE RECOVERY AREA

TC003



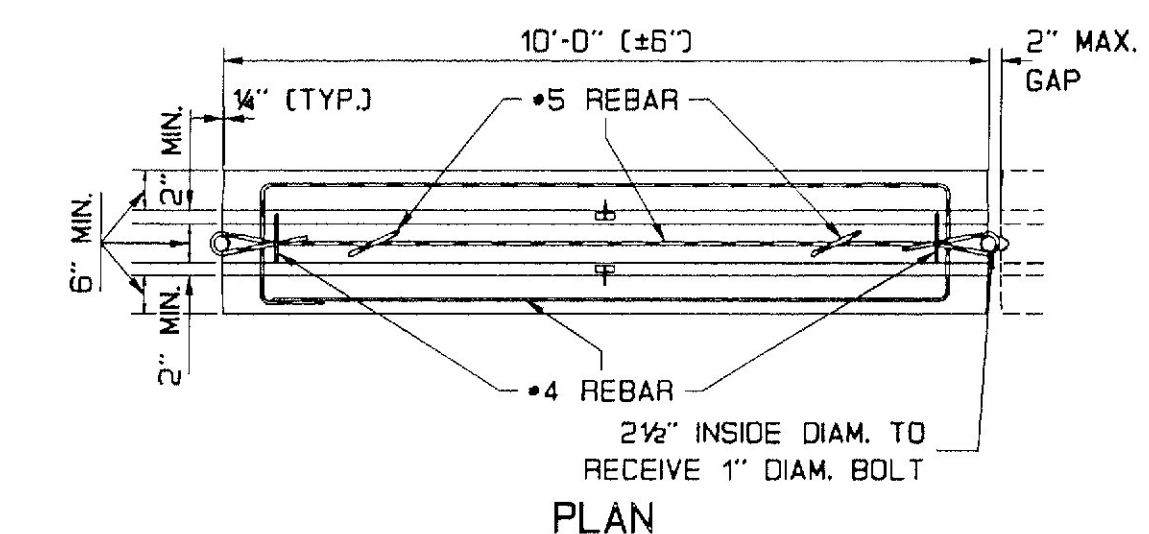
NOTE:

- LETTER SIZE SHALL BE 7" SERIES D.

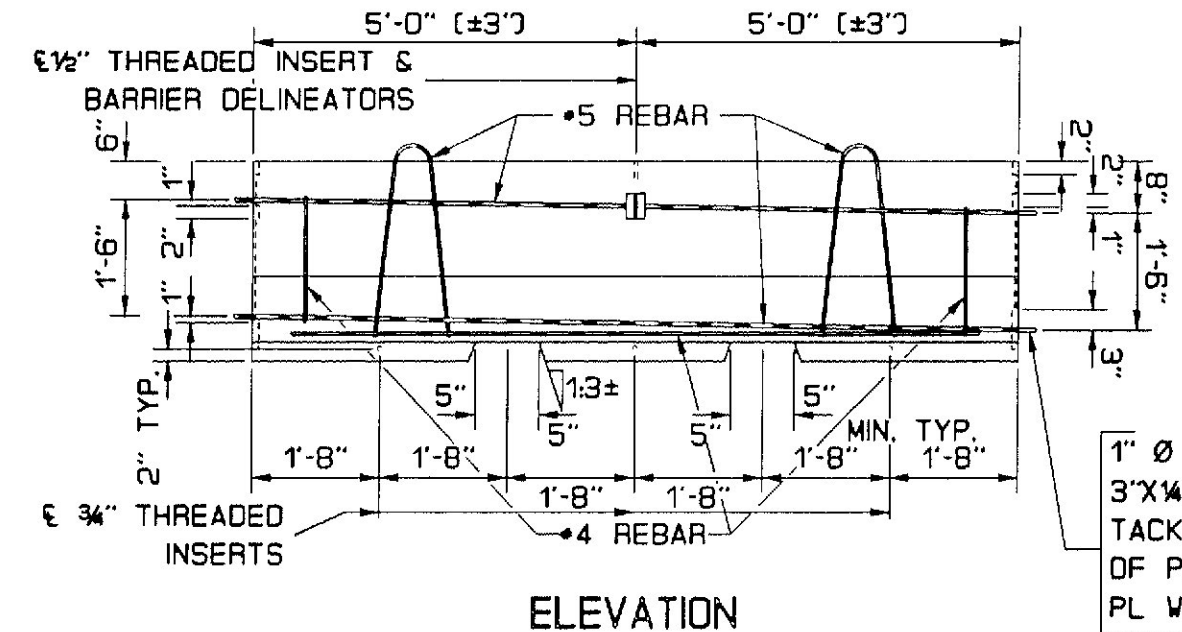
- BORDER DIMENSIONS AND LEGEND DESIGN SHALL CONFORM TO "STANDARD HIGHWAY SIGNS".

CONSTRUCTION WARNING SIGN DETAIL

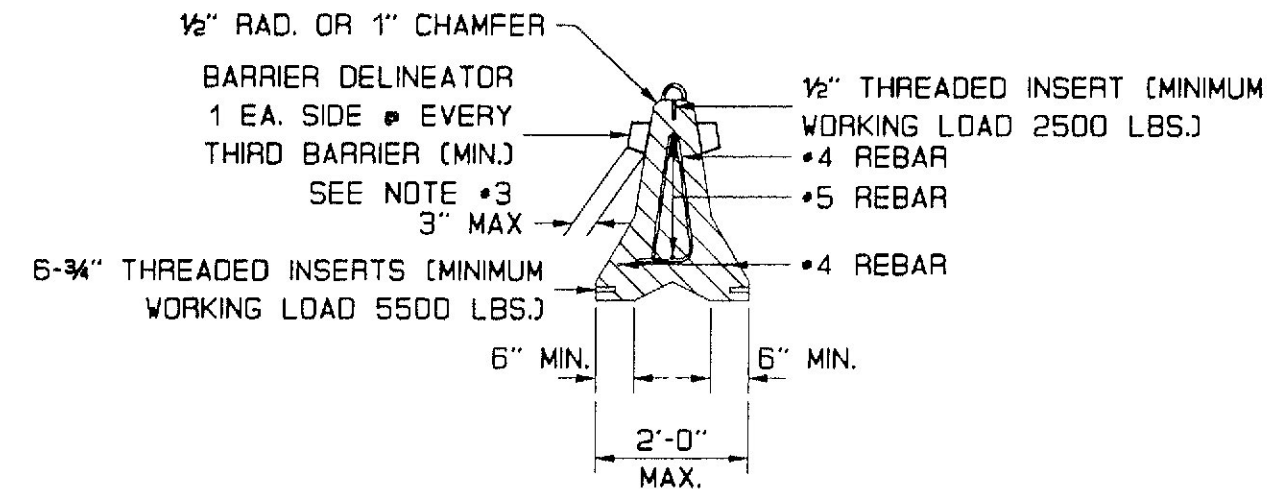
TC004



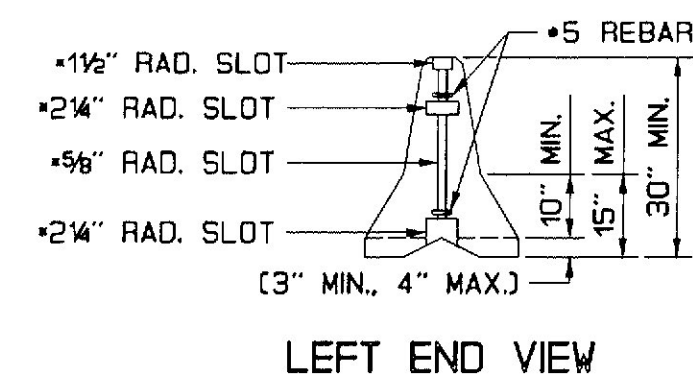
PLAN



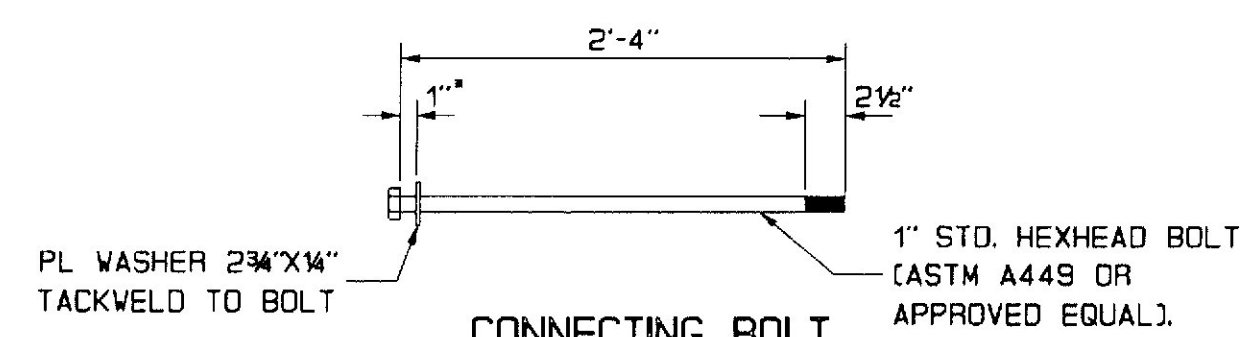
ELEVATION



TYPICAL SECTION



LEFT END VIEW



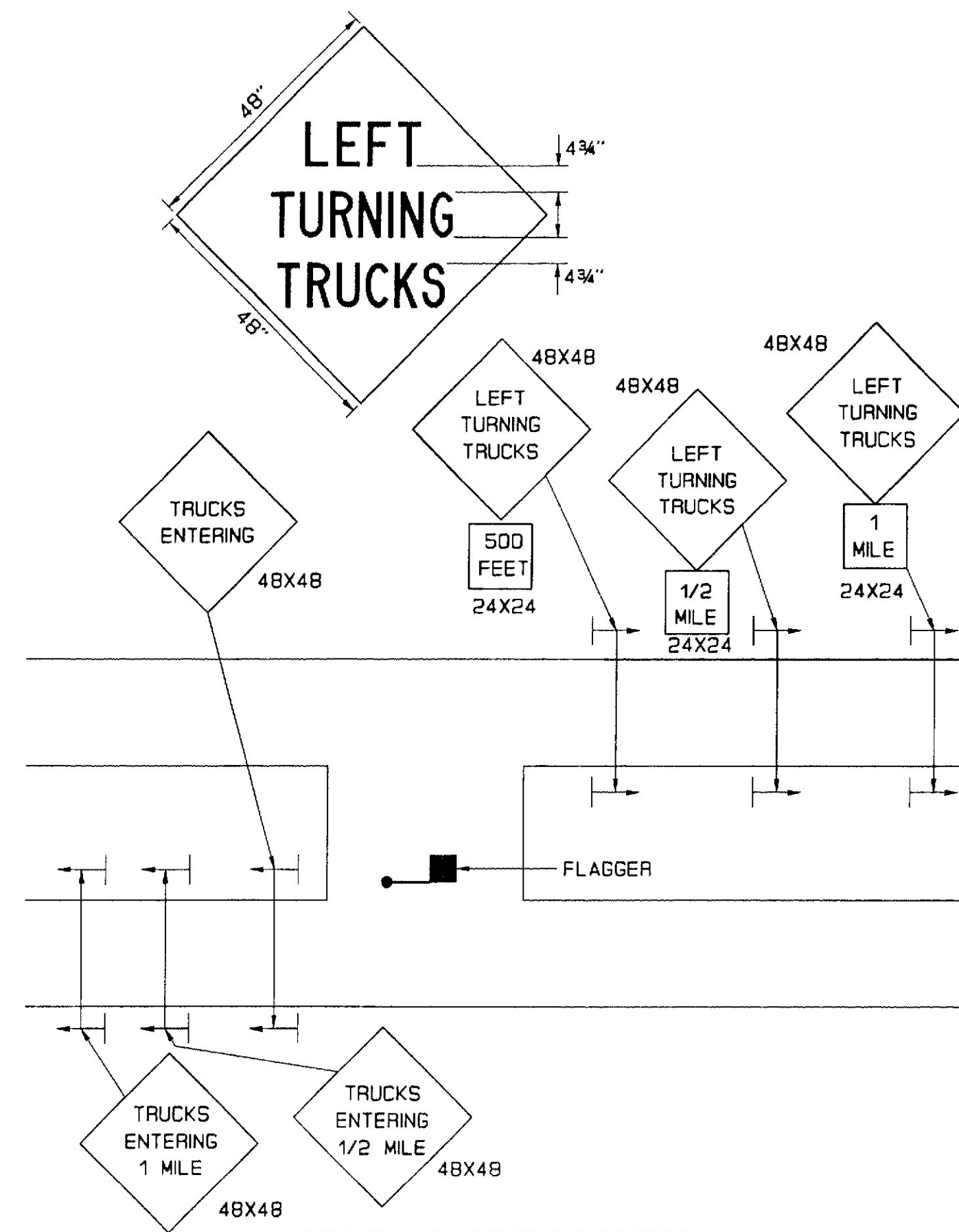
CONNECTING BOLT

*THE SLOTS MAY BE 2 1/4" RADIUS FULL HEIGHT WITH THE 1" SPACE ON THE CONNECTING BOLT INCREASED TO 4".

TEMPORARY CONCRETE BARRIER-TYPE I

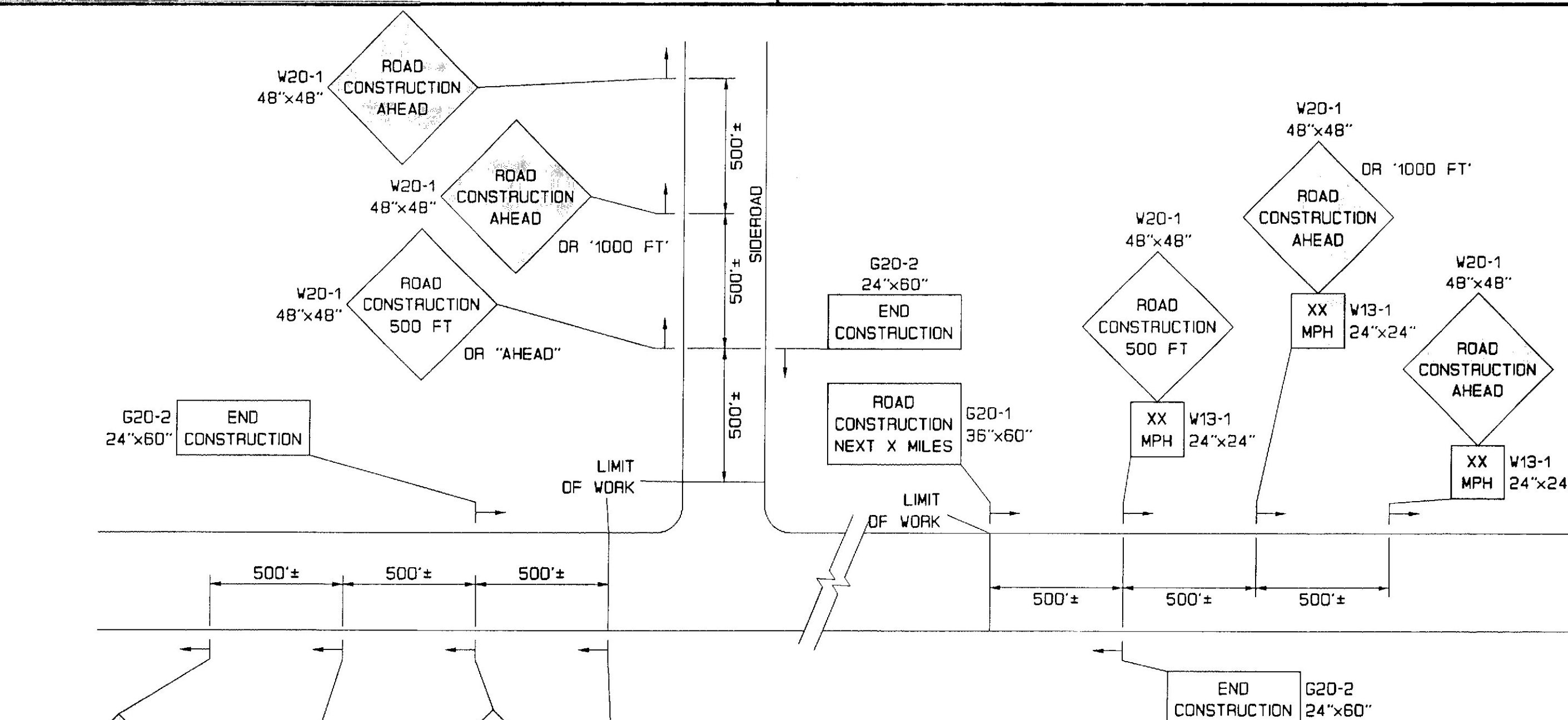
TC005

LETTER SIZE SHALL BE 7" SERIES D
UPPER CASE LETTERS



MEDIAN CROSSOVER

TC005

PROJECT APPROACH SIGNING
TWO WAY TRAFFIC

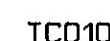
TC008

REVISIONS		APPROVED		STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
Description		Me. DOT	FHWA	MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONES	
ORIGINAL PLAN		OCT. 92	OCT. 93		
				SHEET 4 OF 6 AUGUSTA, MAINE	
				PALERMO SHEEPSHOT RIVER BRIDGE	

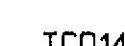
PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

PLANS

19APR95-0100.10



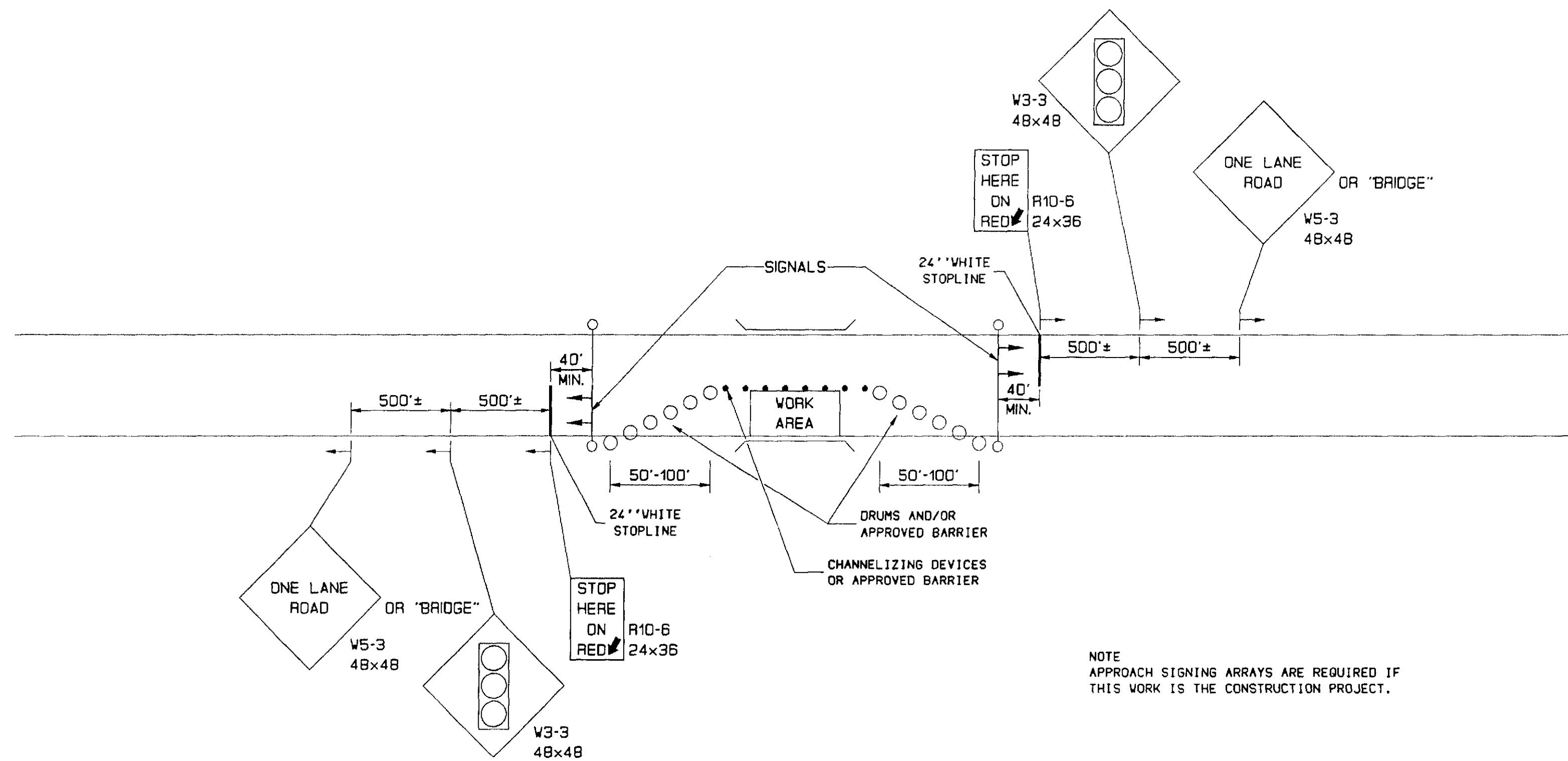
TC012



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

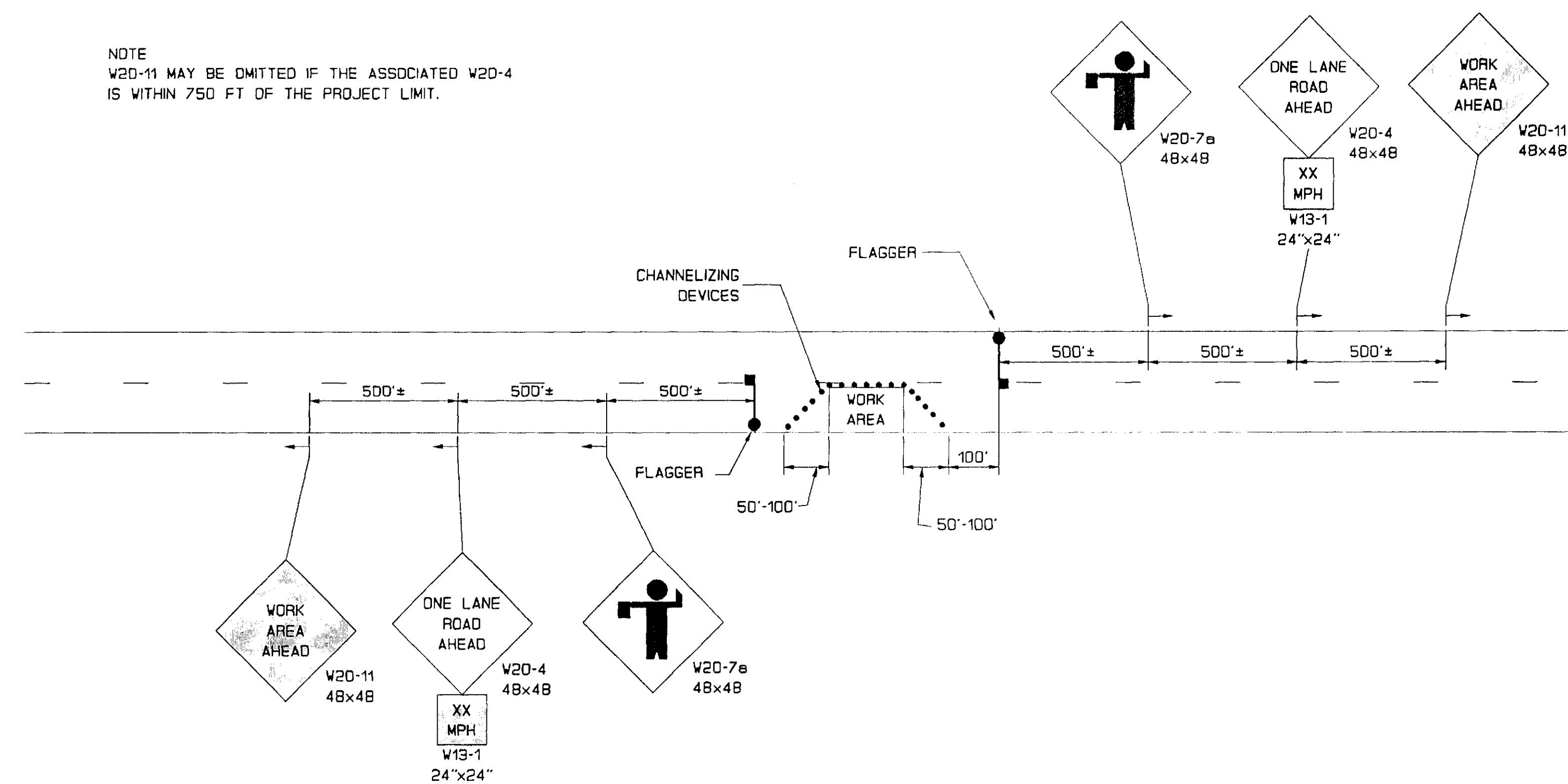
MAINTENANCE OF TRAFFIC
IN CONSTRUCTION ZONES

HD-11



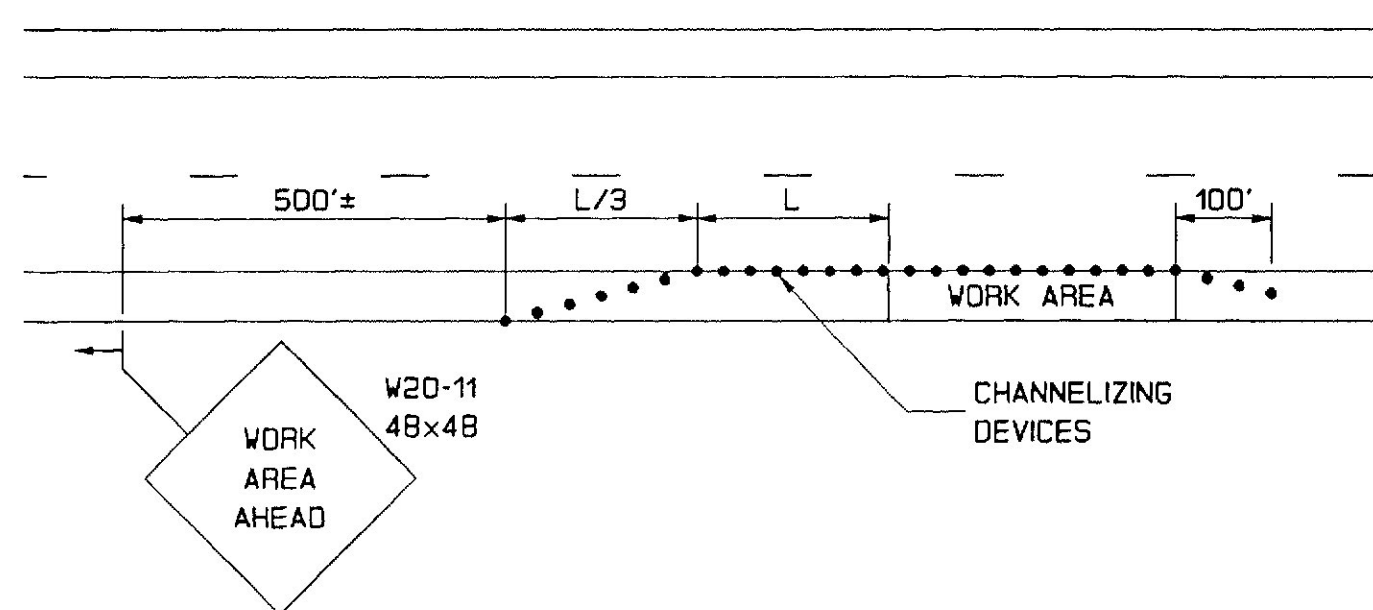
TWO WAY TRAFFIC LANE CLOSURE
WITH TEMPORARY TRAFFIC SIGNALS

TC015



TWO-WAY TRAFFIC LANE CLOSURE WITH FLAGGERS

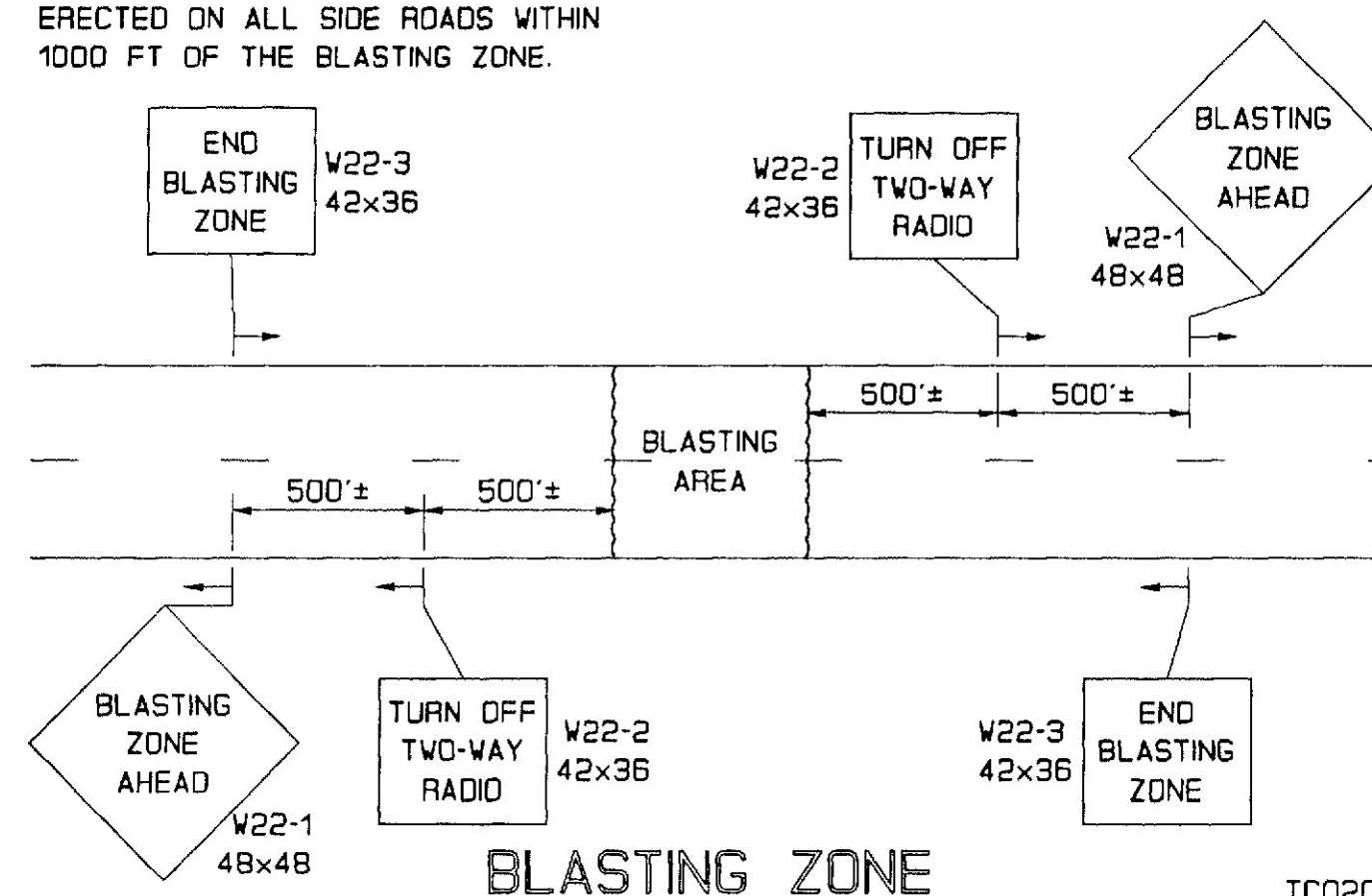
TC016



ROADSIDE WORK AREA SIGNING

TC017

NOTE:
SIMILAR SIGN SEQUENCE SHALL BE
ERECTED ON ALL SIDE ROADS WITHIN
1000 FT OF THE BLASTING ZONE.



BLASTING ZONE

TC020

PORTABLE ENERGY ABSORPTION UNITS

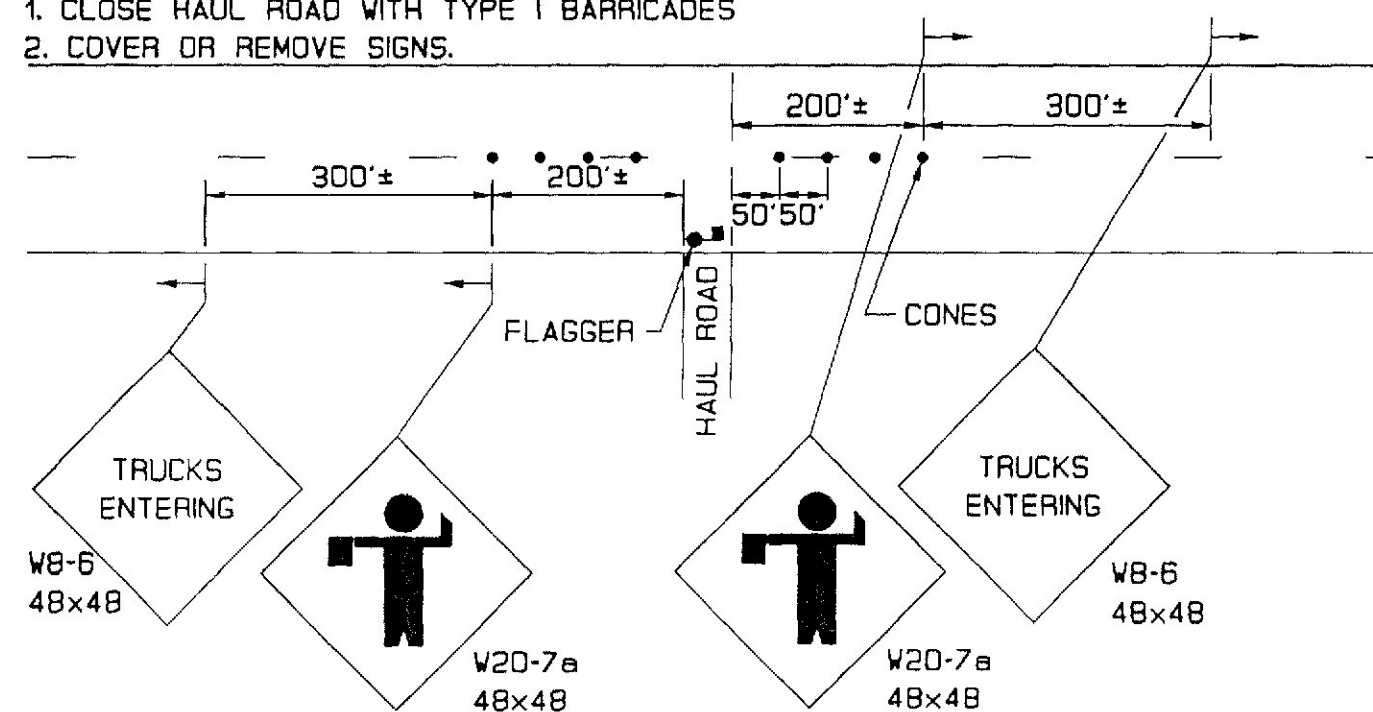
ARRAYS FOR SPEEDS OF
20 TO 65 MPH

KEY
① PLASTIC CRASH BARREL
② WEIGHT OF SAND IN
HUNDREDS OF POUNDS

ITEM NO. 527.32

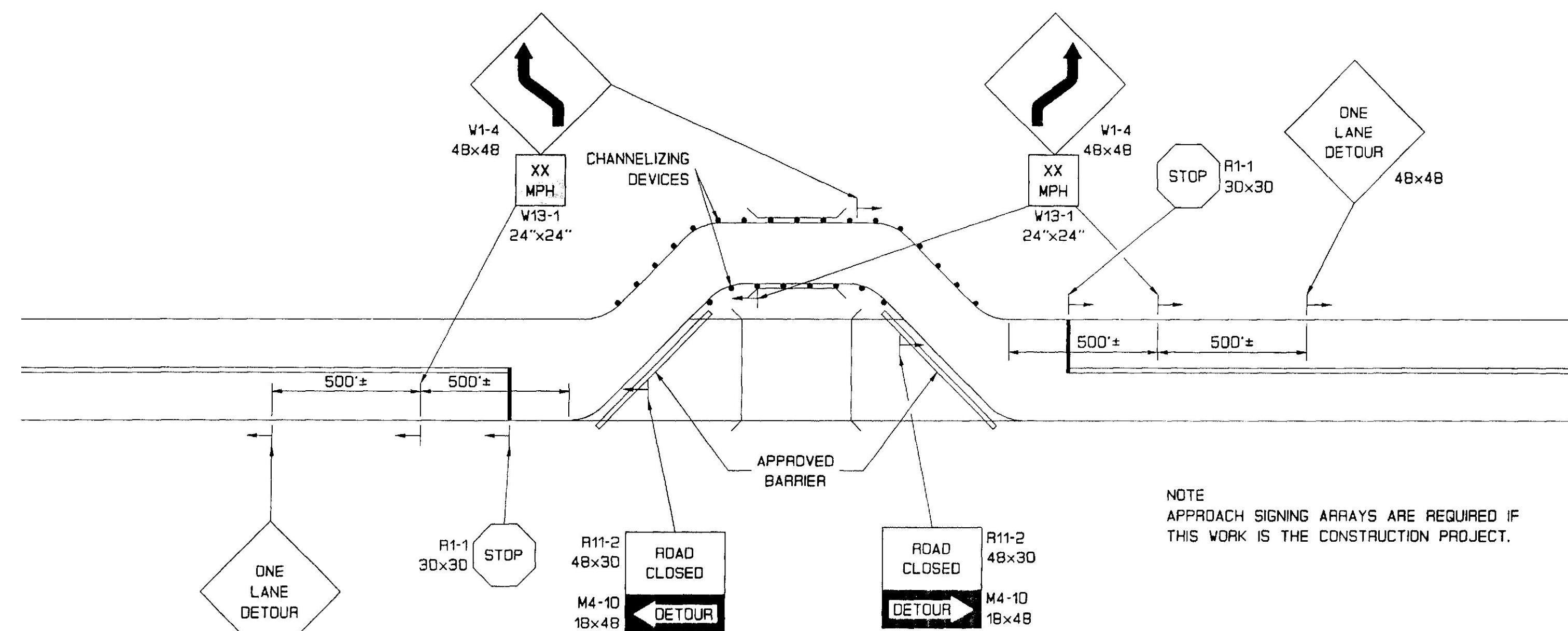
Direction of Traffic	Direction of Traffic
20 & 25 MPH	50 MPH
30 & 35 MPH	55 MPH
40 MPH	60 & 65 MPH
45 MPH	

NOTE:
WHEN HAUL ROAD IS NOT IN USE--
1. CLOSE HAUL ROAD WITH TYPE I BARRICADES
2. COVER OR REMOVE SIGNS.



HAUL ROADS

TC019



ONE WAY DETOUR
LOW VOLUME ROAD WITH ADEQUATE SIGHT DISTANCE

TC018

REVISIONS	APPROVED
Description	Me. DOT
ORIGINAL PLAN	OCT. 92
Add TC022	JUNE 93

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
IN CONSTRUCTION ZONES

SHEET 6 OF 6 AUGUSTA, MAINE

HD-12

PALERMO SHEEPSHOT RIVER BRIDGE

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

19APR95-0100.10

TC022

Maximum Deceleration = 6 - 7 G's