

NOTES

- All work and materials shall conform to the provisions of Section 507 - Railings of the Standard Specifications.
- All exposed cut or sheared edges shall be rounded and free of burrs.
- All parts shall be galvanized after fabrication in accordance with ASTM A123, except that hardware shall meet the requirements of ASTM A153.
- Rail posts shall be set normal to grade unless otherwise indicated.
- Lengths of rail bar shall be attached to a minimum of two (2) rail posts and to at least four (4) posts whenever possible.
- Rail bar expansion joints shall be provided in any rail bay spanning a superstructure expansion joint. Expansion joint width shall be "X" at 45 °F and will be adjusted in the field by the Engineer.
- Holes for ribbed neck bolts shall be 1/16" - inch larger than the bolt size and shall be field - drilled.
- Rail post anchoring nuts shall be tightened to a snug fit and given an additional 1/8 turn.
- All testing of post - to - base welds shall conform to AWS D15, Article 6.7.2.
- All butt welds shall have a minimum penetration of 60 percent.
- If there is a conflict between these Standard Details and the Design Drawings, the requirements of the Design Drawings shall be followed.

MATERIALS

Rail bars ASTM A500, Grade B or ASTM A501
 All other shapes & plates ASTM A709, Grade 36
 Threaded studs, washers & exposed nuts ASTM A449
 All other bolts & nuts ASTM A307

RAIL BAR SPLICE & EXPANSION JOINT TABLE		
"T"	"L"	"X"
Splice	1'-8"	3/4"
≤ 4"	1'-8"	2 1/2"
> 4" ≤ 6 1/2"	2'-0"	3 3/4"
> 6 1/2" ≤ 9"	2'-4"	5"
> 9" ≤ 13"	2'-10"	7"

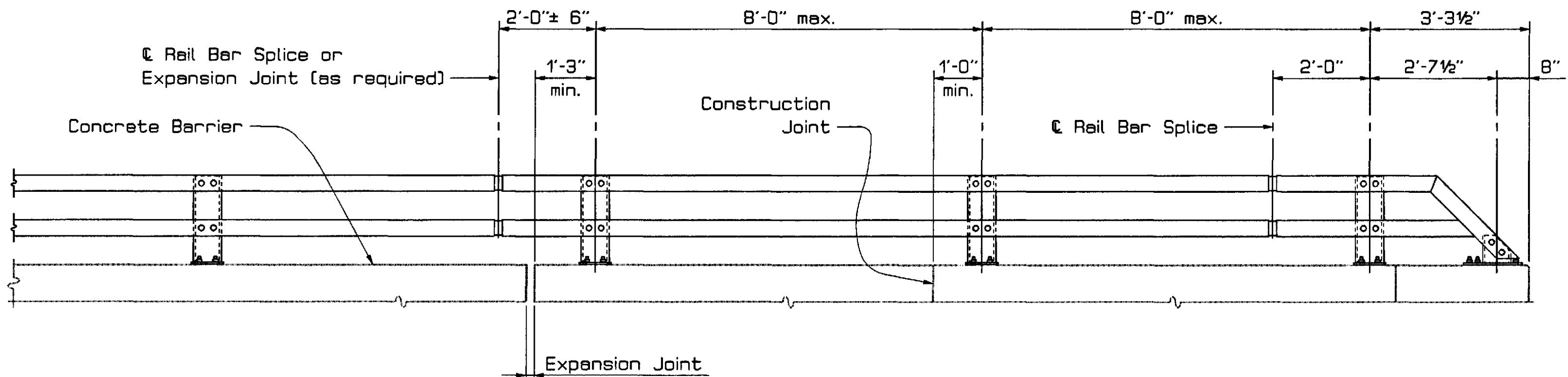
"T" = Total Movement

SPLICE TUBE DIMENSIONS	
Top & Bot. Plates	Bar 1x3/8 x "L"
Side Plates	Bar 2 3/4x3/8 x "L"

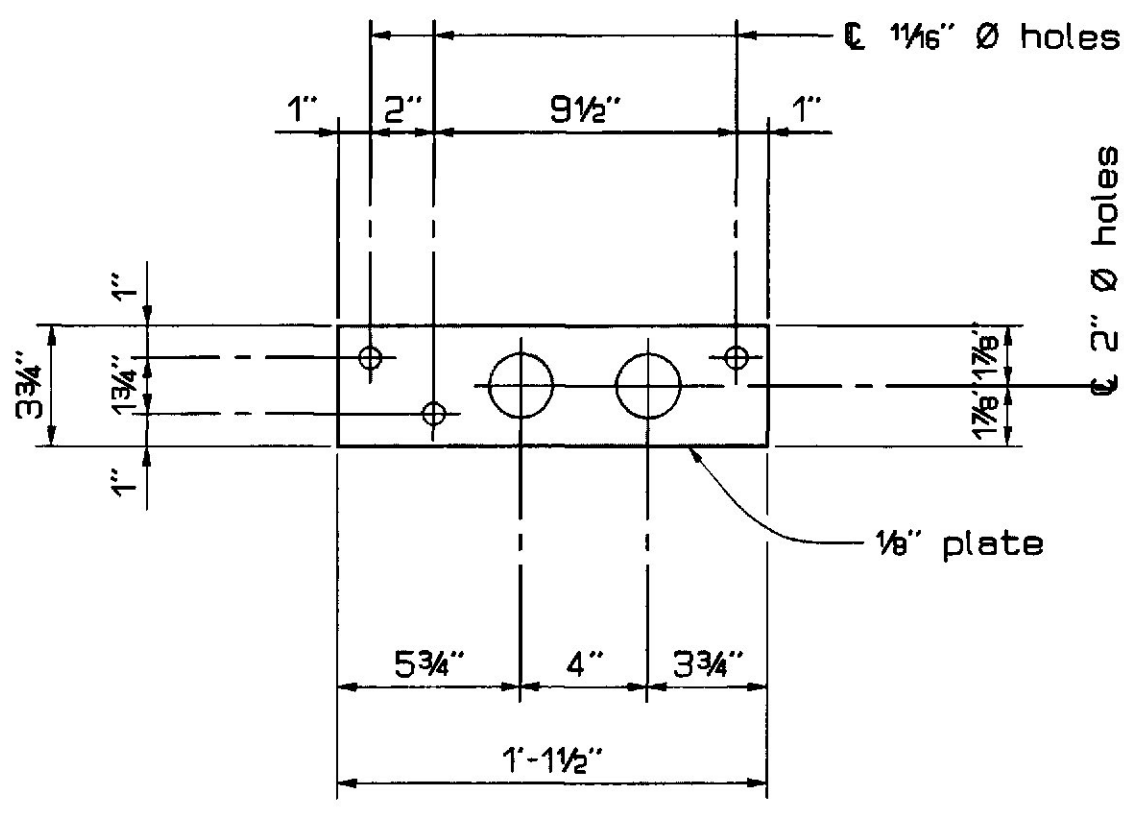
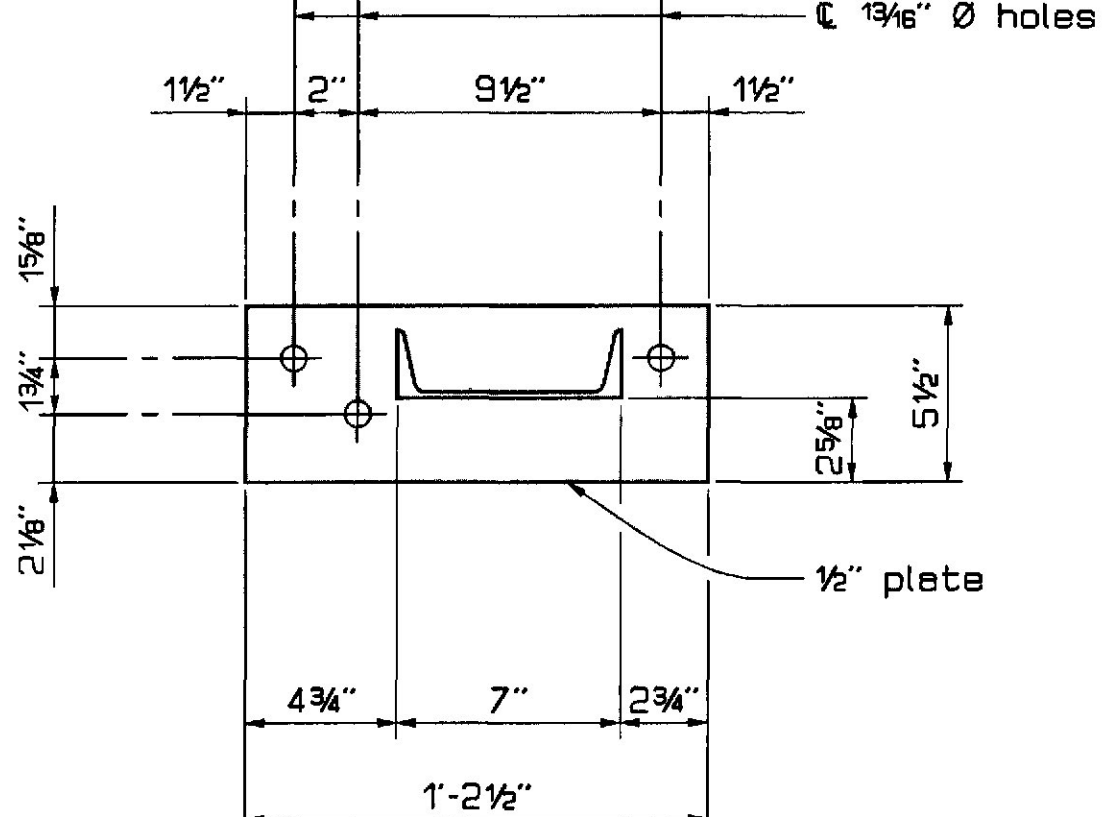
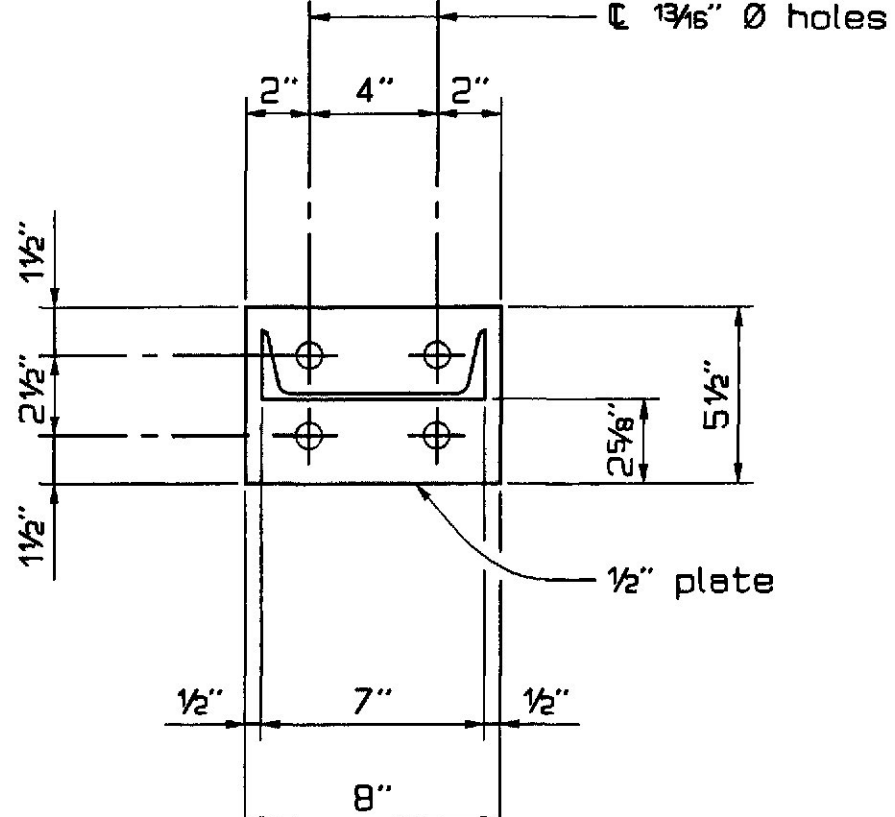
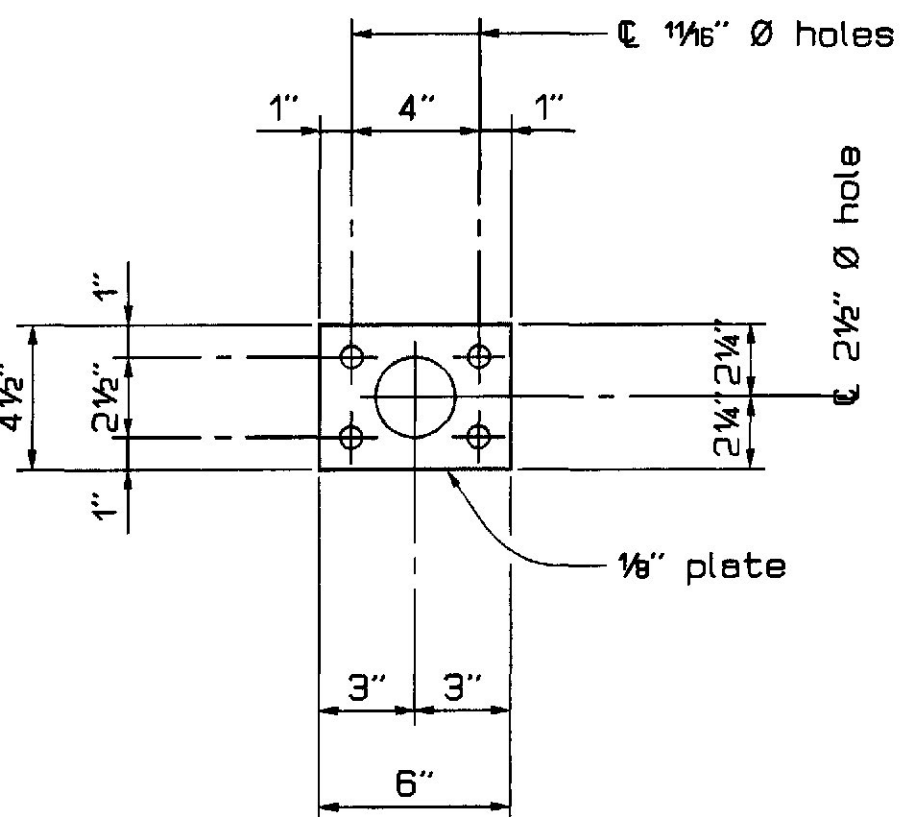
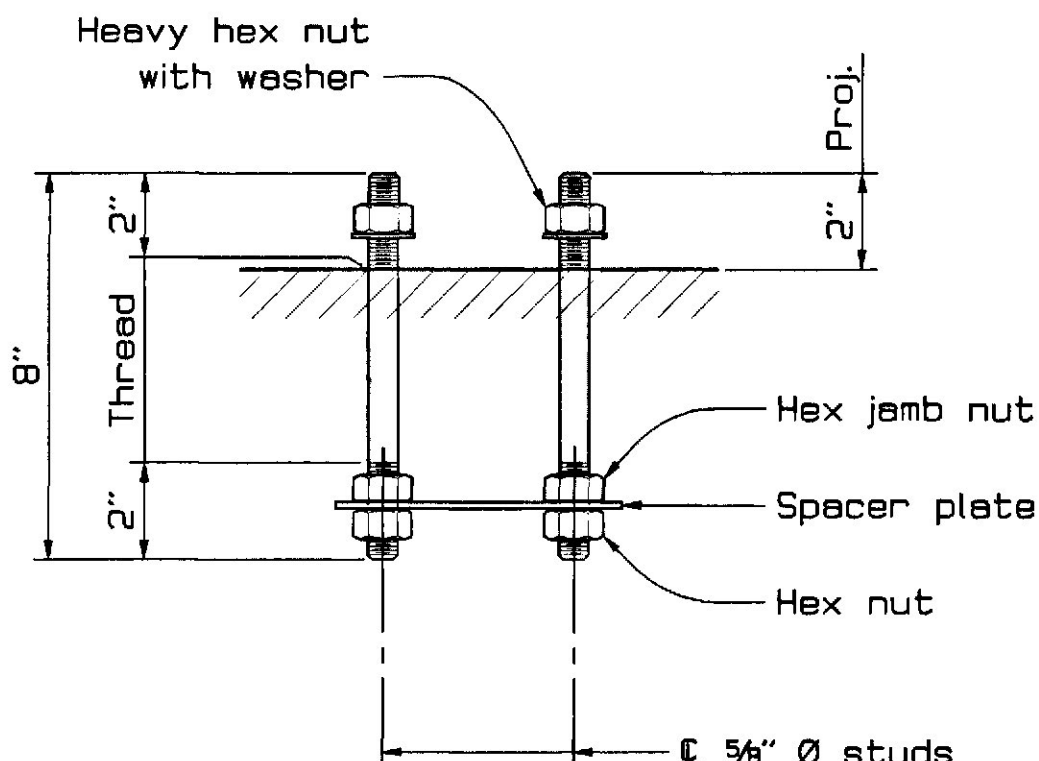
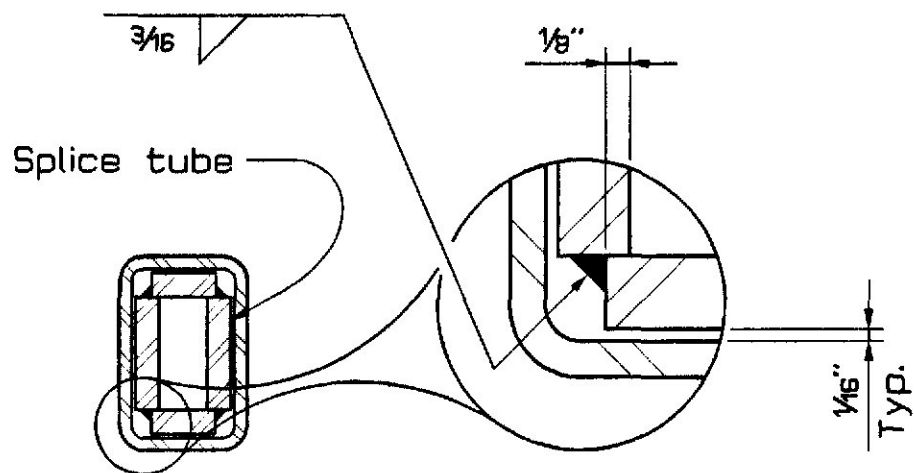
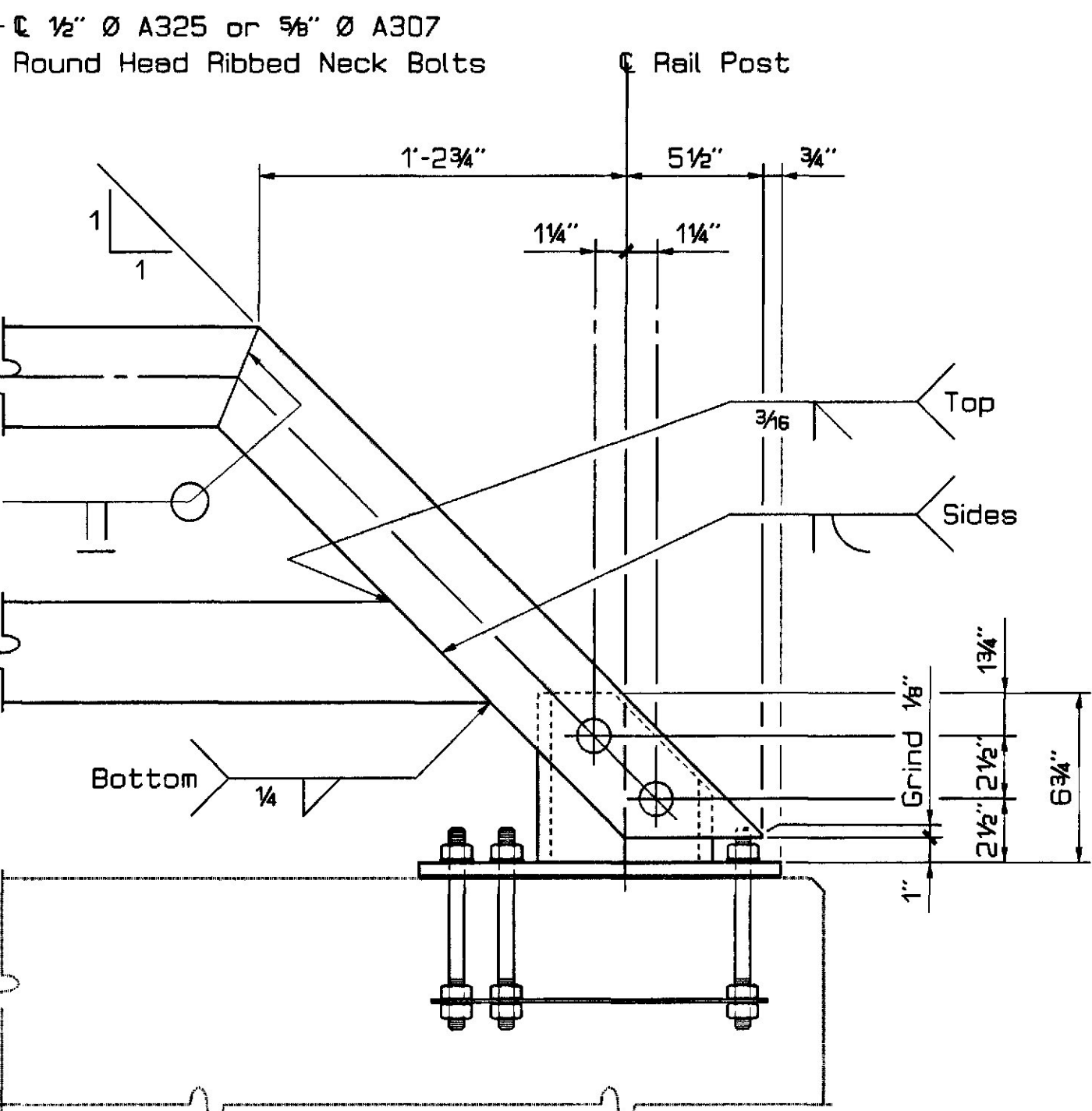
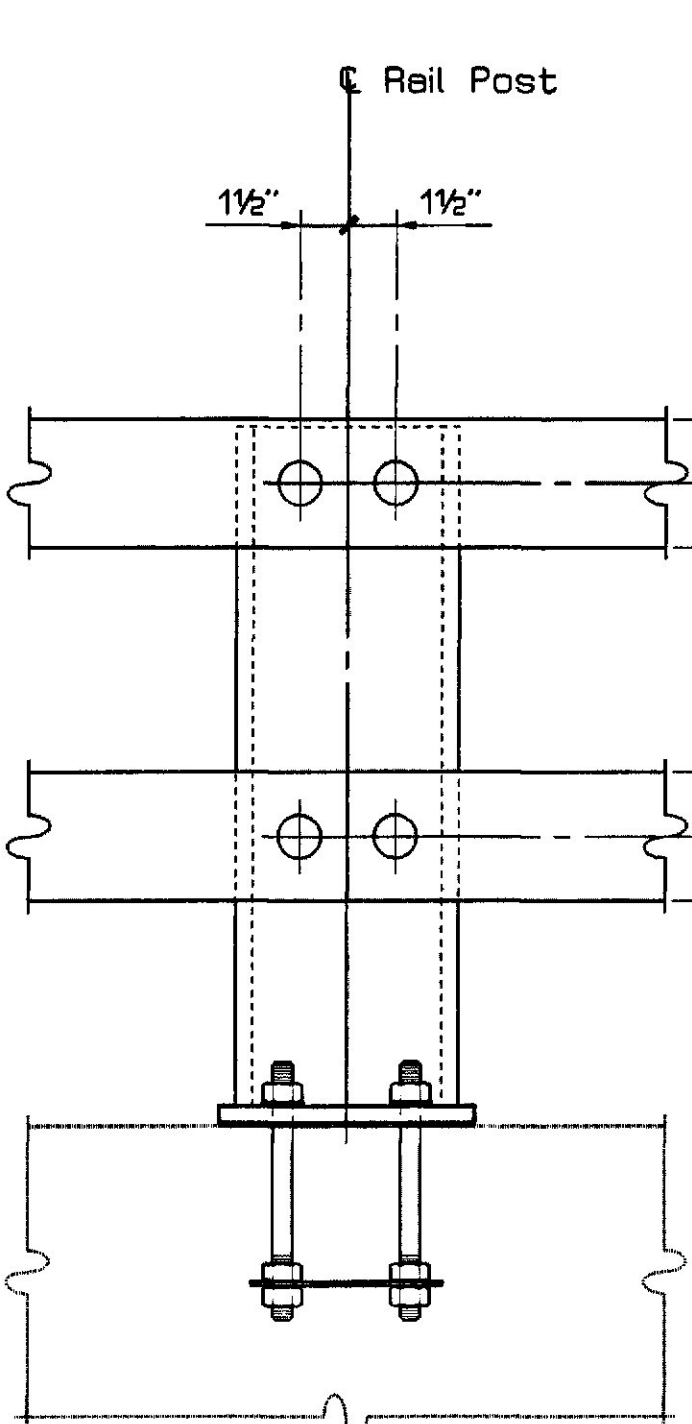
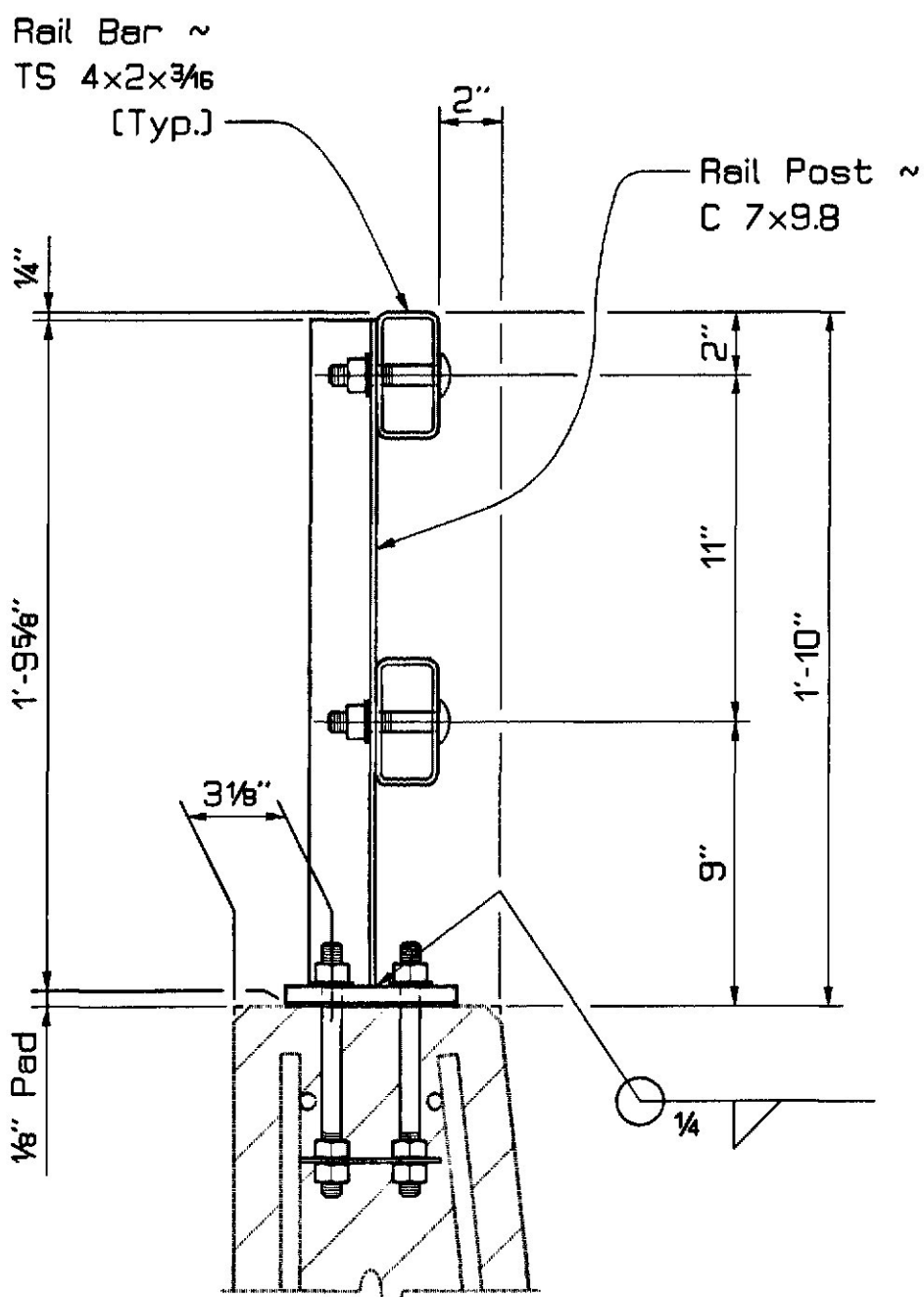
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
BD 464 - 95

BARRIER - MOUNTED
STEEL BRIDGE RAILING
2 - BAR (TUBULAR)

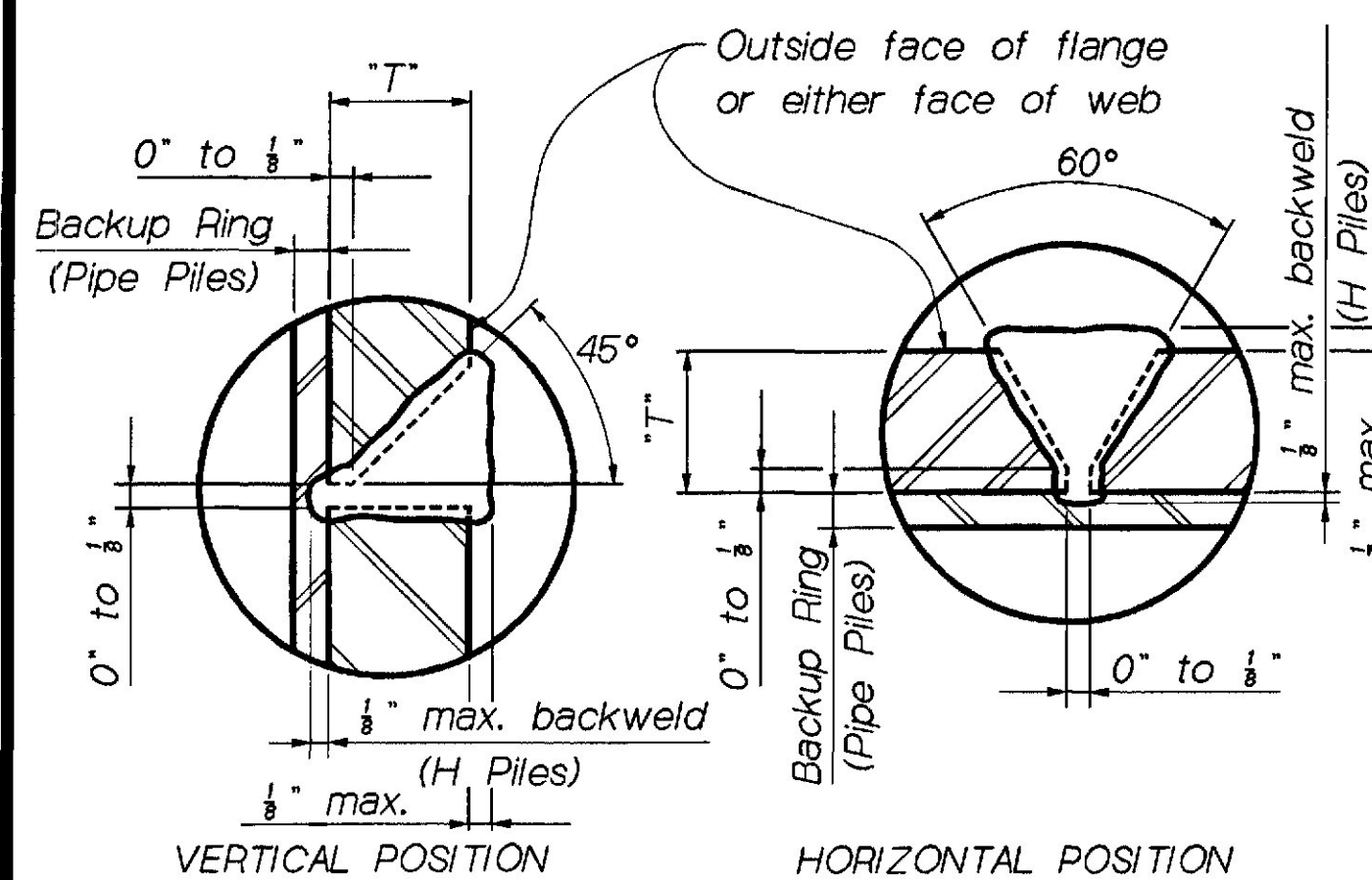
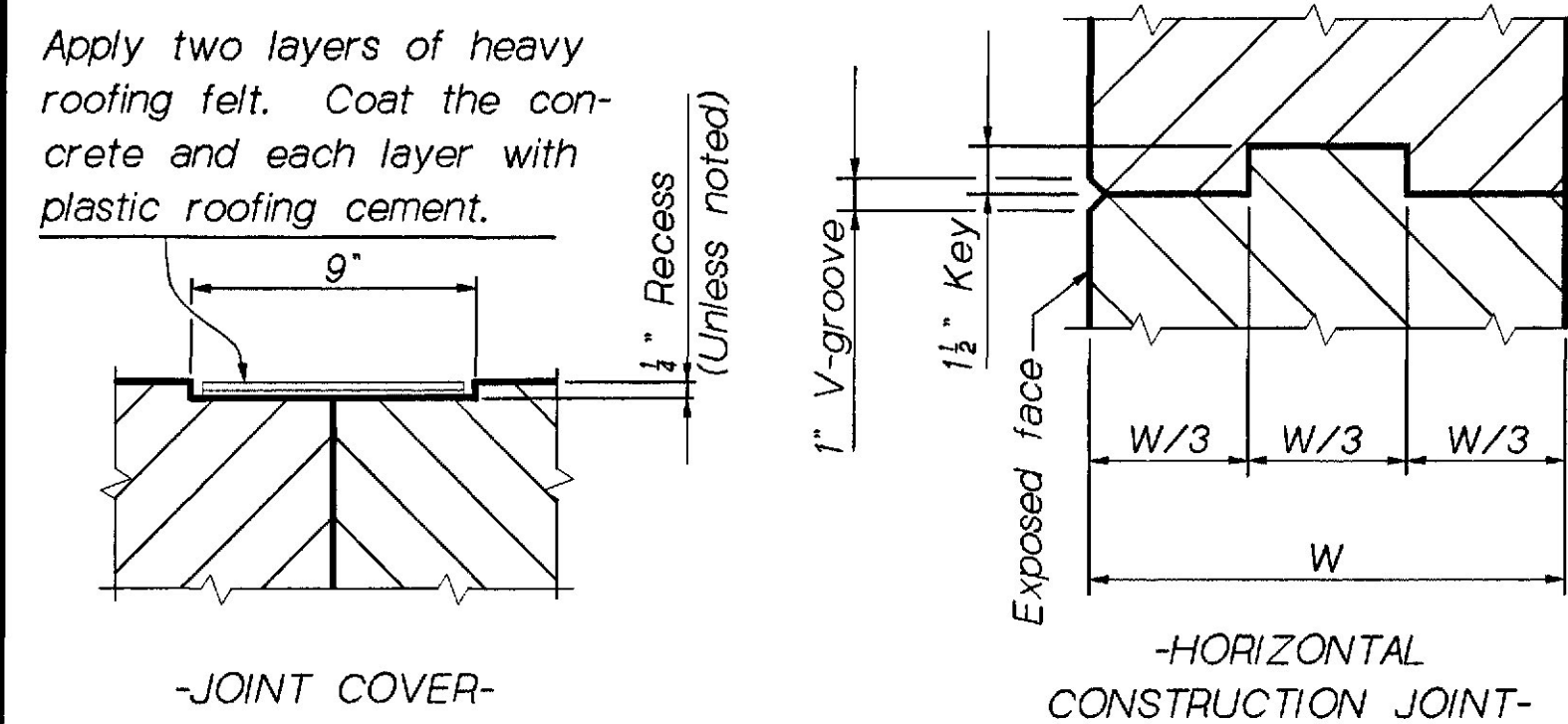
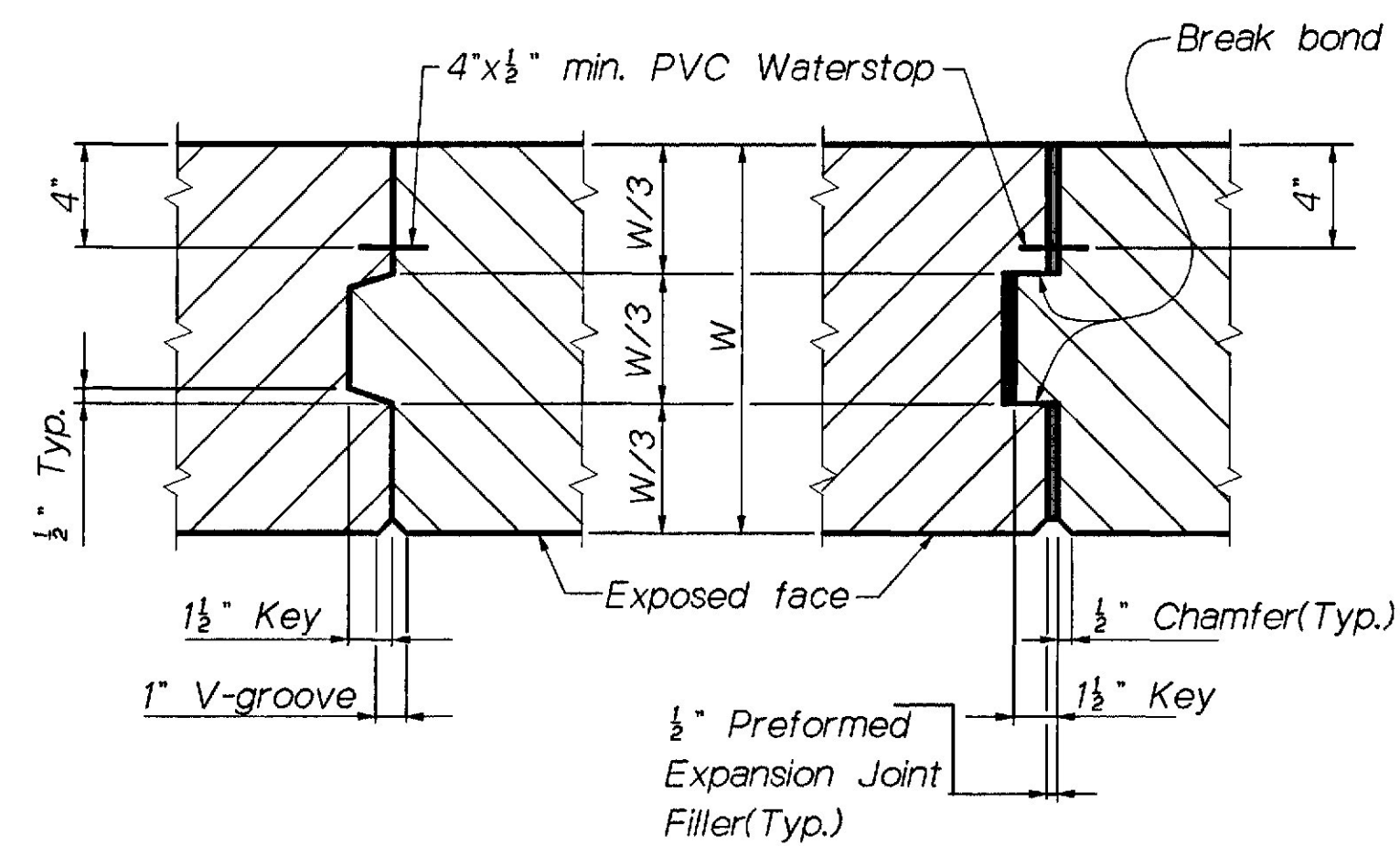
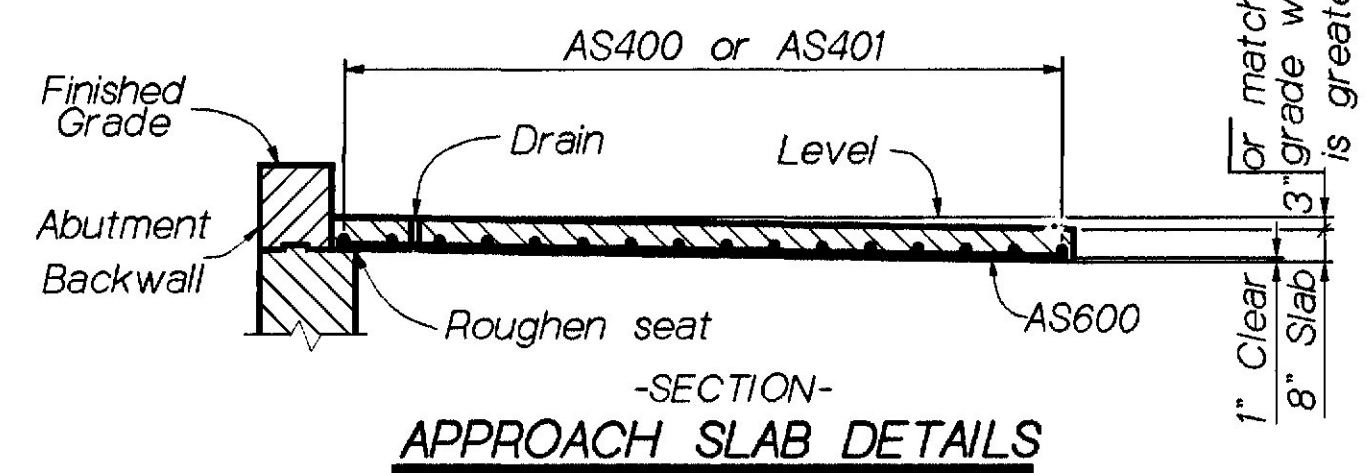
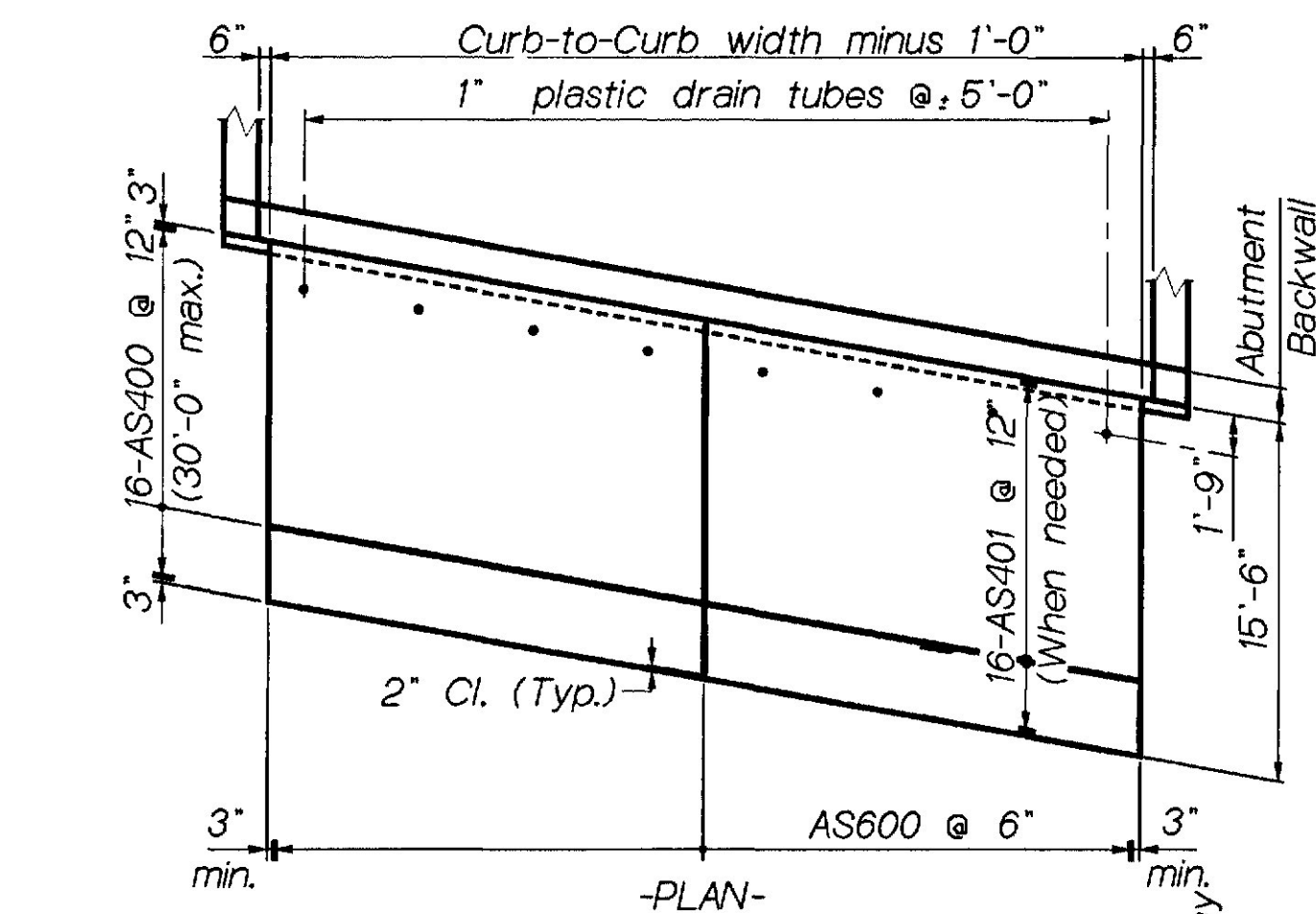


RIBBED NECK BOLT (with washer & lock nut)



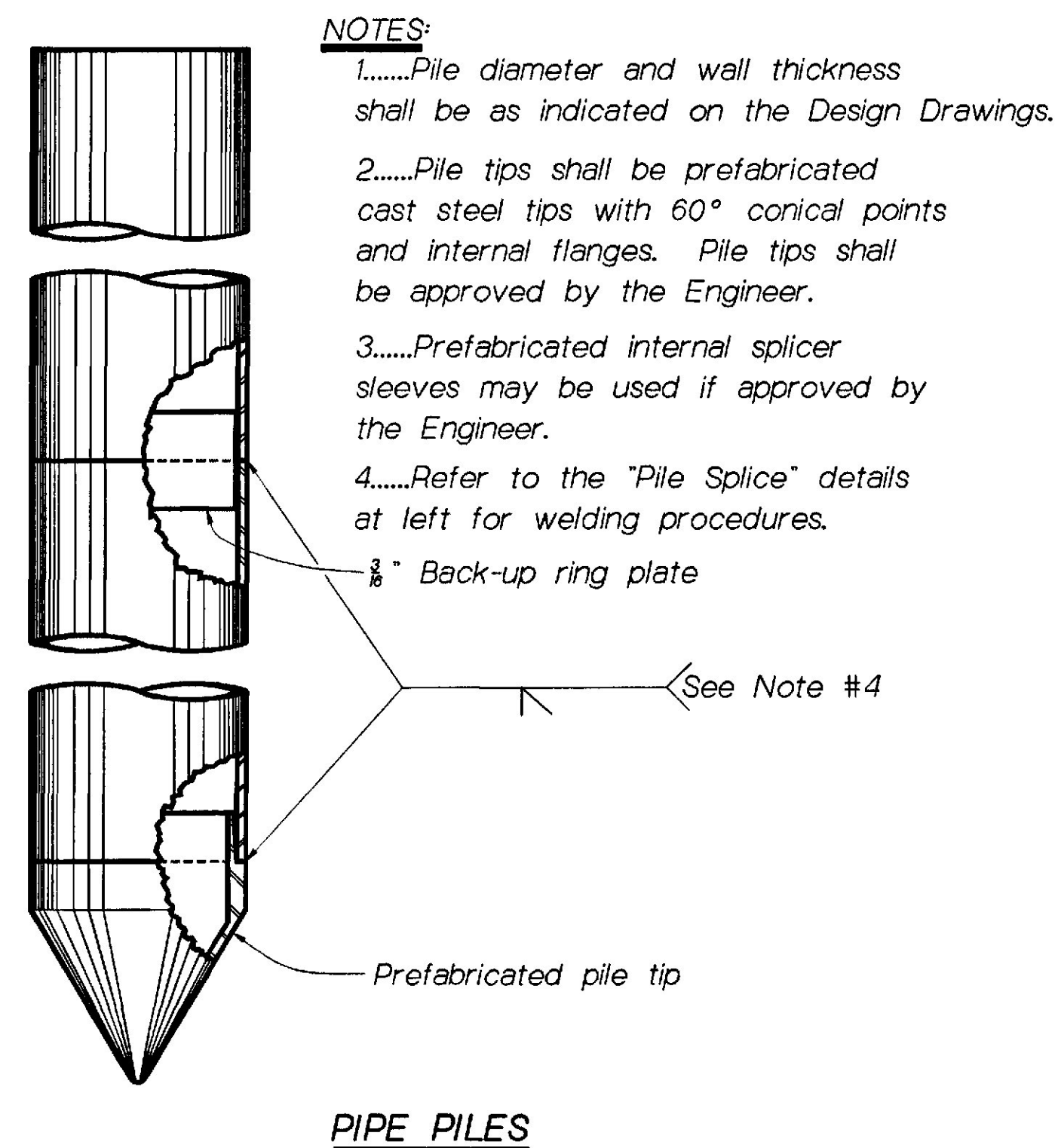
PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	LTH	5/95
CHECKED		
REVISIONS		
FIELD CHANGES		

2900196-0100.30
BD464



Base Metal Thickness "T"	Min. Number of Passes
$\frac{3}{8}, \frac{7}{16}$	3
$\frac{1}{2}, \frac{9}{16}$	4
$\frac{11}{16}, 2, \frac{5}{8}$	5

- 1.....All cutting shall be done with the use of a mechanical guide.
- 2.....Gouge root before welding second side. (H Piles).
- 3.....Use Manual Shielded-Arc Process and 6010 or 6011 electrodes, unless a different process has been approved by the Engineer.
- 4.....Electrodes shall be dry when used, in accordance with the provisions of A.W.S. Spec. D15, as amended by AASHTO.



NOTE: Use only those items called for on the design drawings.

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

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

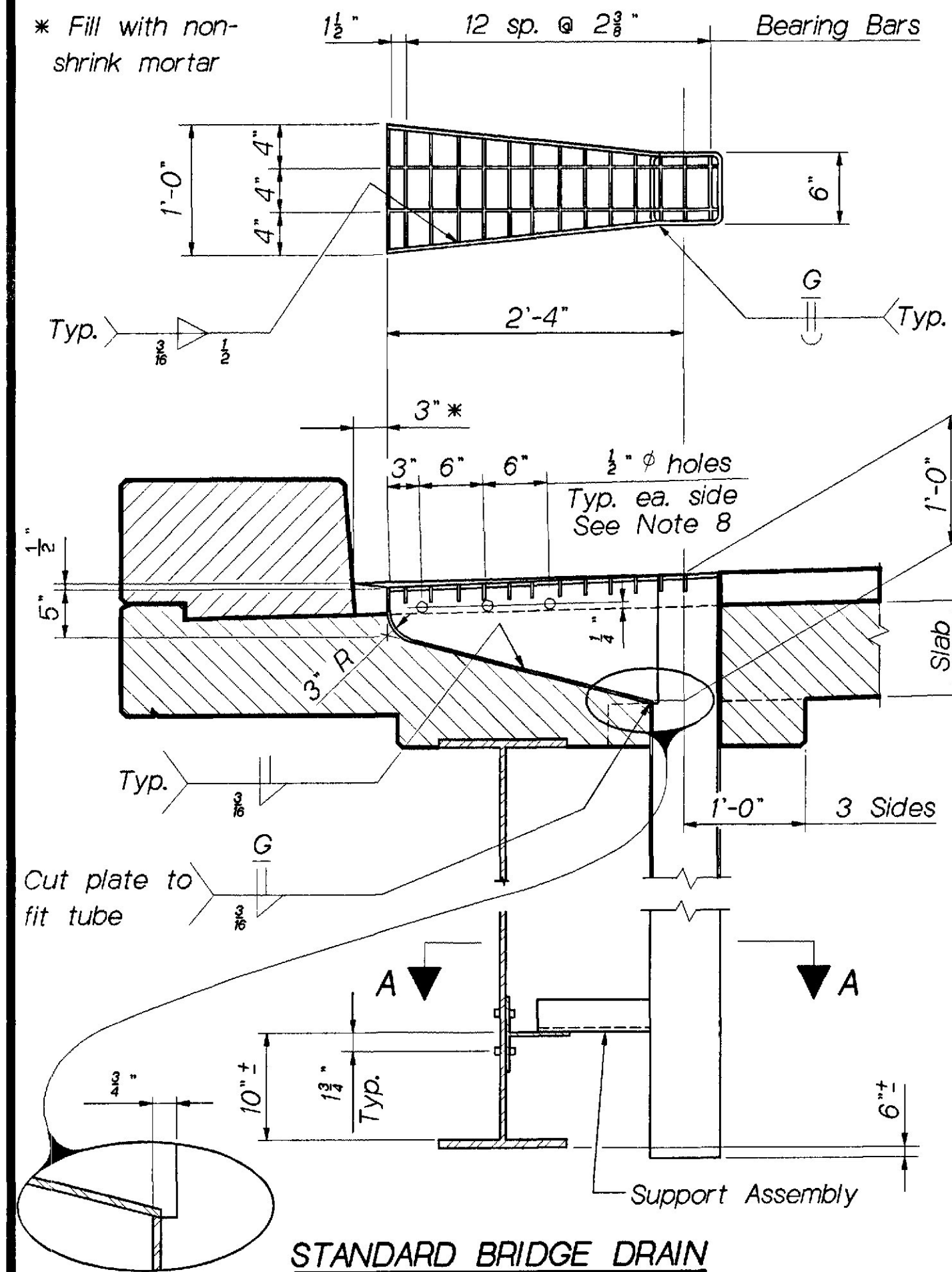
STANDARD DETAILS
BD 501 - 93

SUBSTRUCTURE DETAILS
APPROACH SLAB
CONCRETE JOINT DETAILS
PILE SPACE ~ PIPE PILES

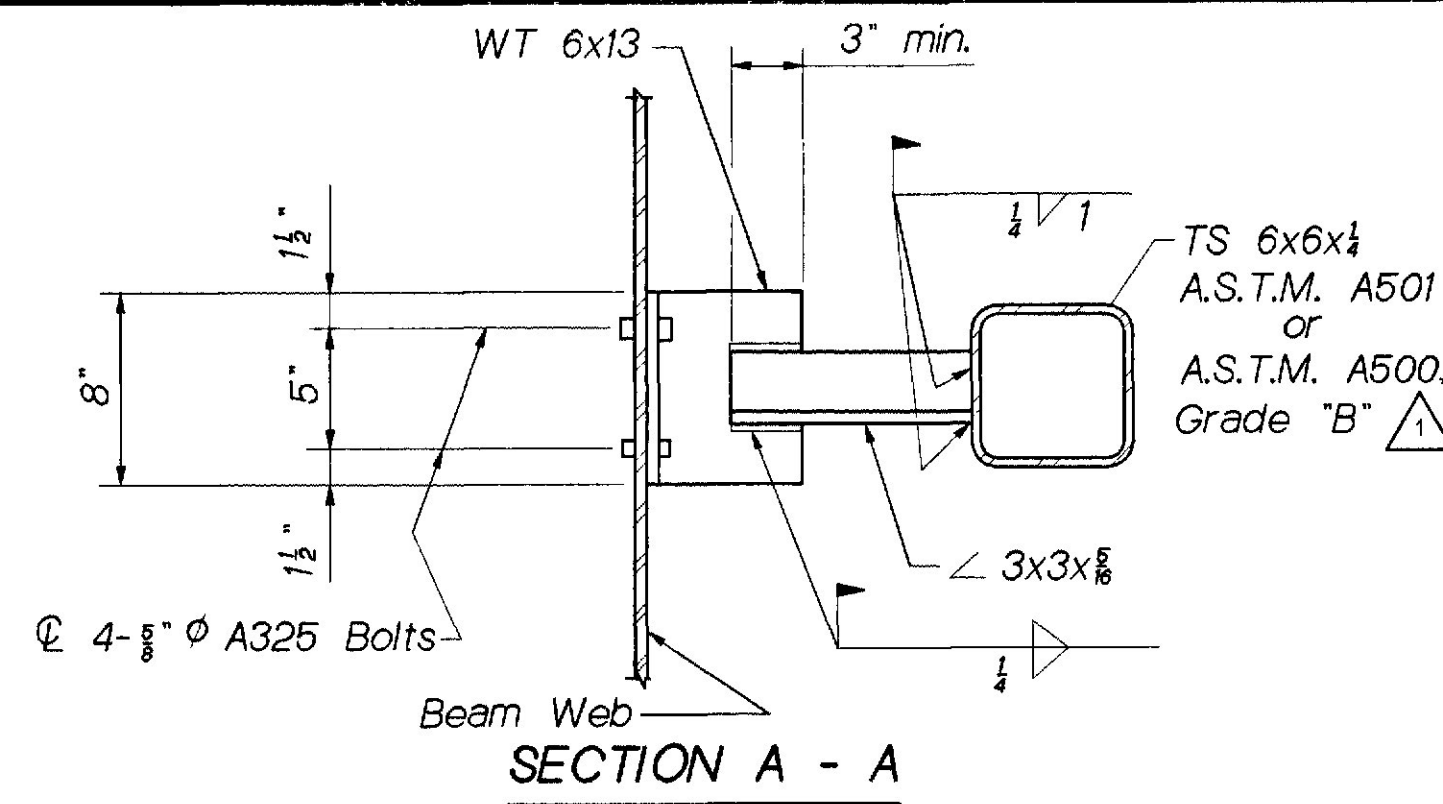
PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

PLANS

29OCT95-0100.30
BD521

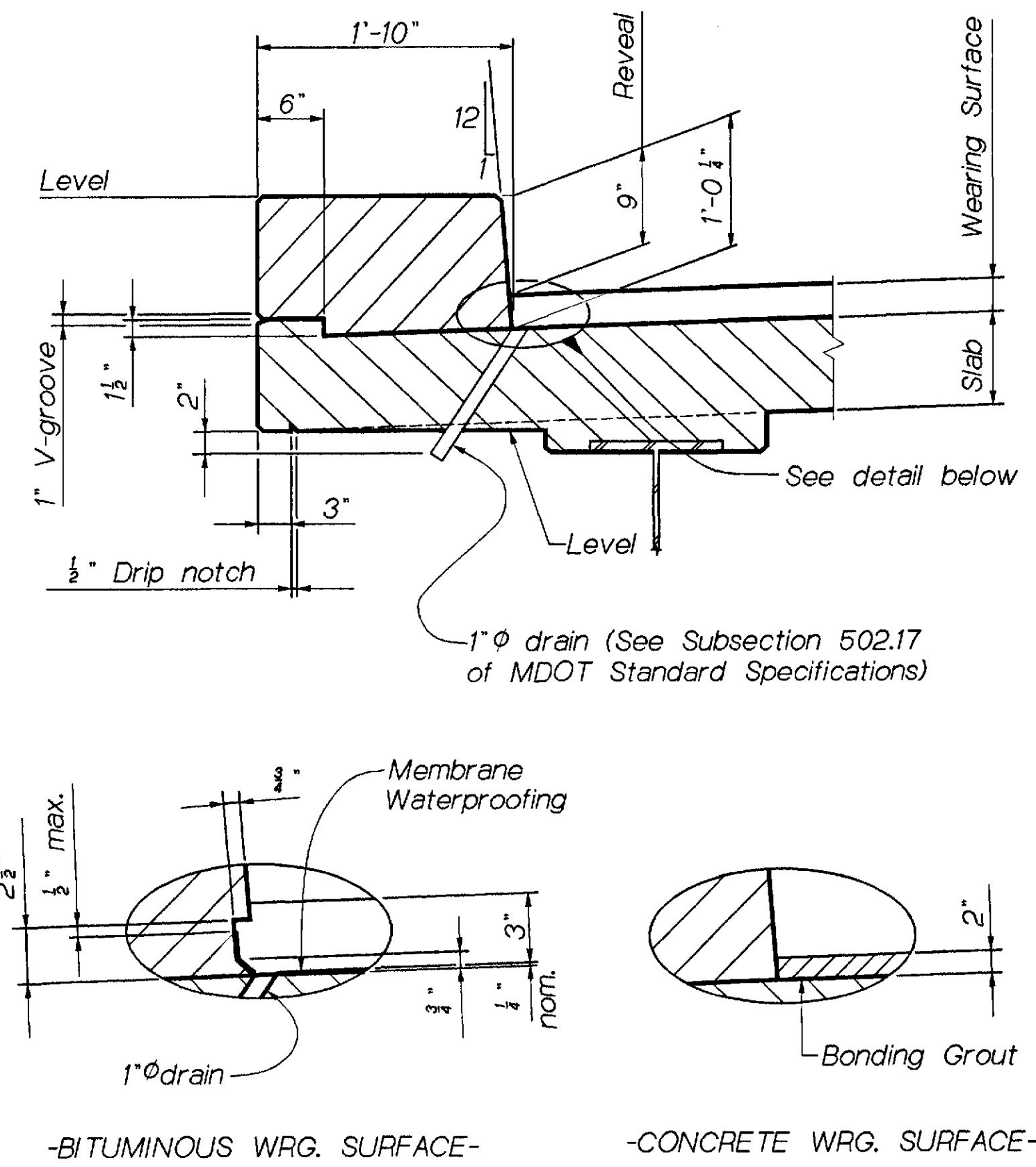


STANDARD BRIDGE DRAIN

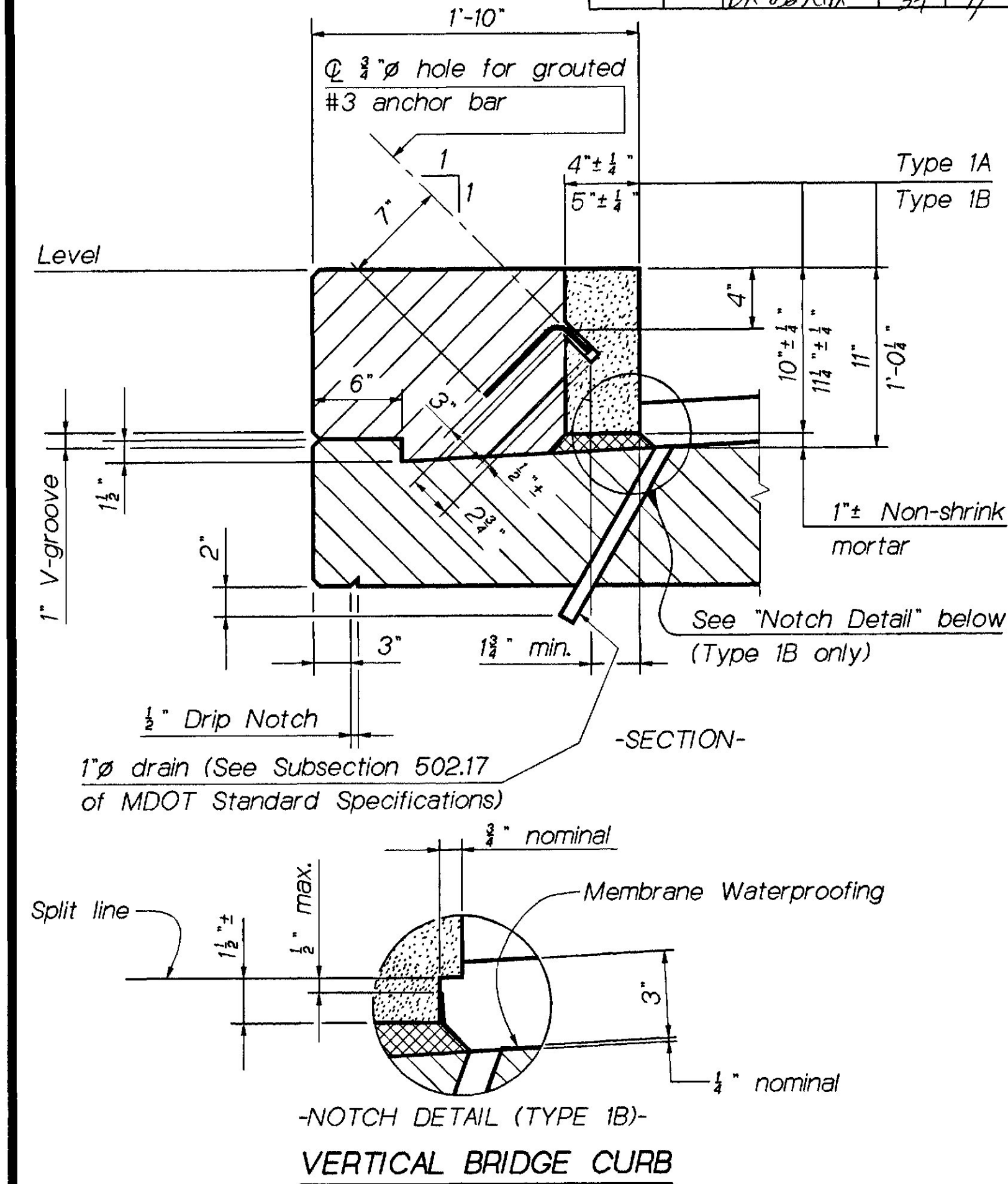


NOTES:

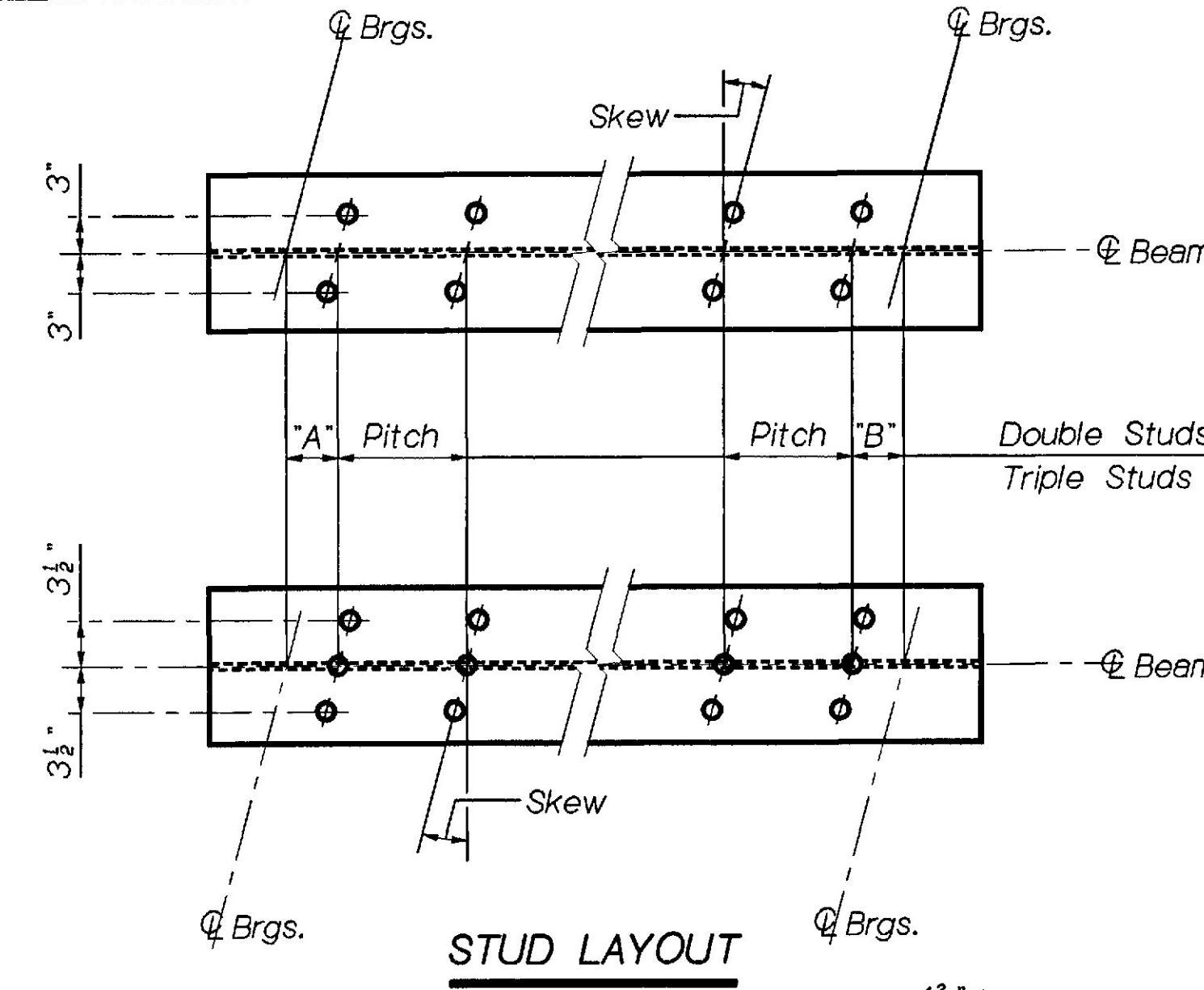
- At the option of the Contractor, the Bridge Drain may be modified to allow the use of a 6" Schedule 40 Steel Pipe in place of the TS 6x6x1/4.
- Grating shall be a commercial heavy-duty grating with 1 1/2"x3/8" bearing bars, and 3/4" cross bars.
- Plates shall be A.S.T.M. A36, 1/4" thick.
- WT 6x13 shall be of the same material as the beam web, and shall be paid for under the Structural Steel pay items.
- If the minimum thickness of concrete below the drain is 2" or less, the haunch shall be extended as shown.
- The Bridge Drain and 3 x 3 shall be galvanized to ASTM A123.
- Payment for Bridge Drain shall be as specified under subsection 502.19 of the Standard Specifications.
- 1/2" holes for bituminous wearing surface only.



SLAB OVERHANG & CURB DETAIL

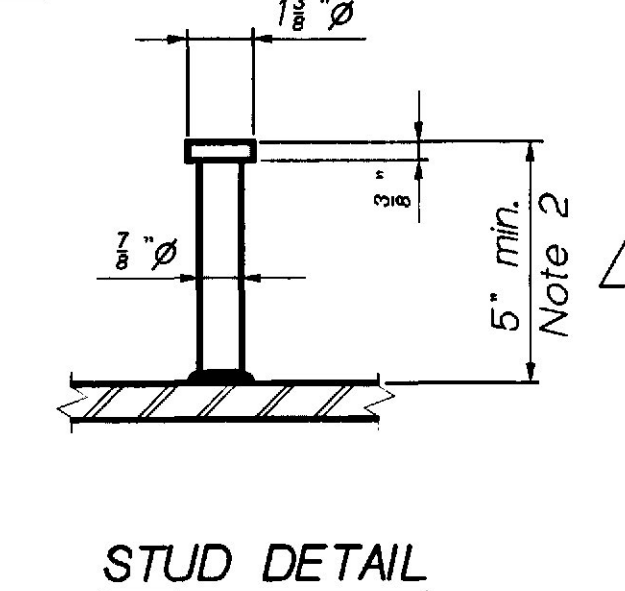


VERTICAL BRIDGE CURB

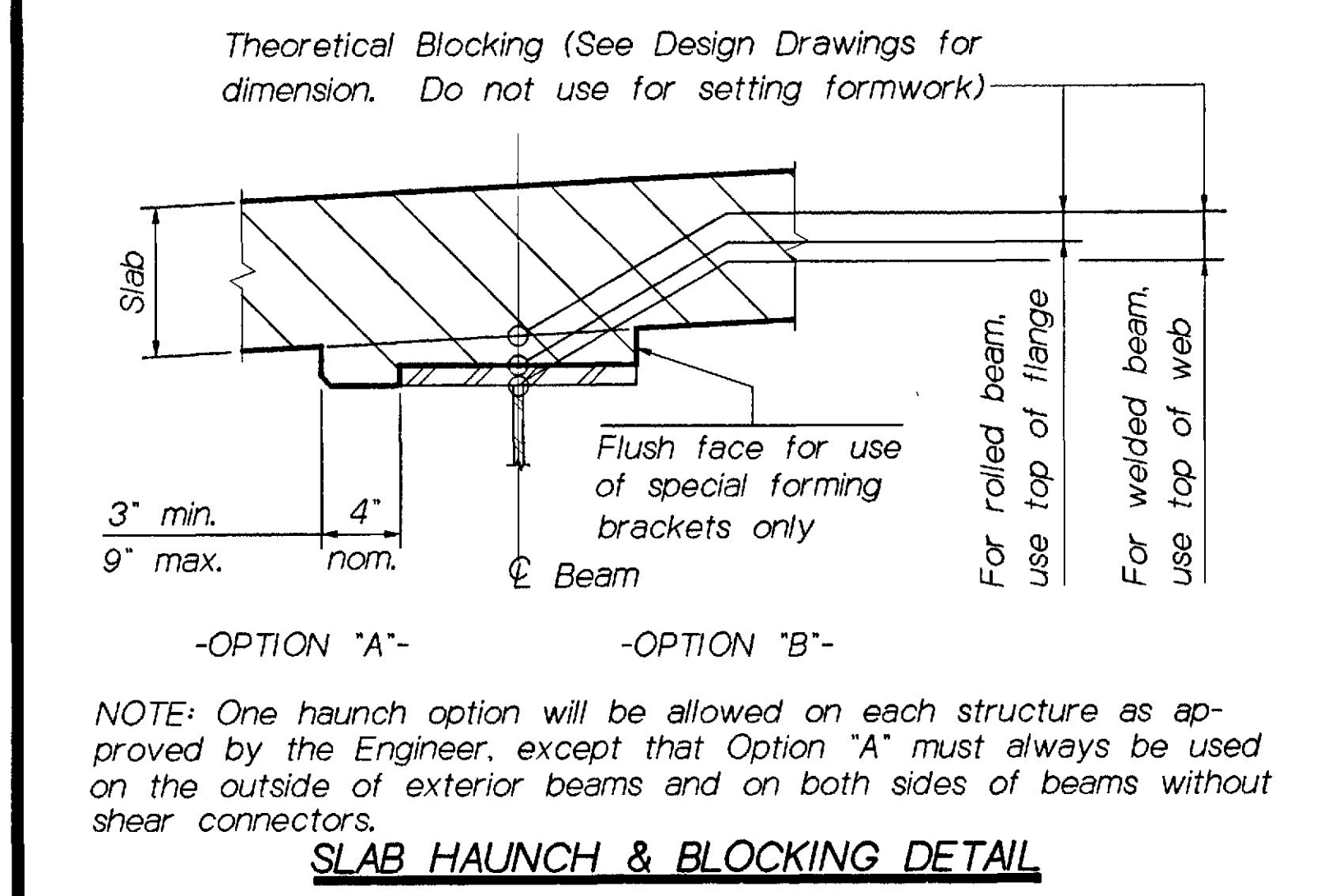


STUD LAYOUT

- NOTES:
- Refer to Design Drawings for dimensions "A" and "B", stud pitch and skew angle.
 - Studs shall project at least two inches above the bottom of the slab.



STUD DETAIL

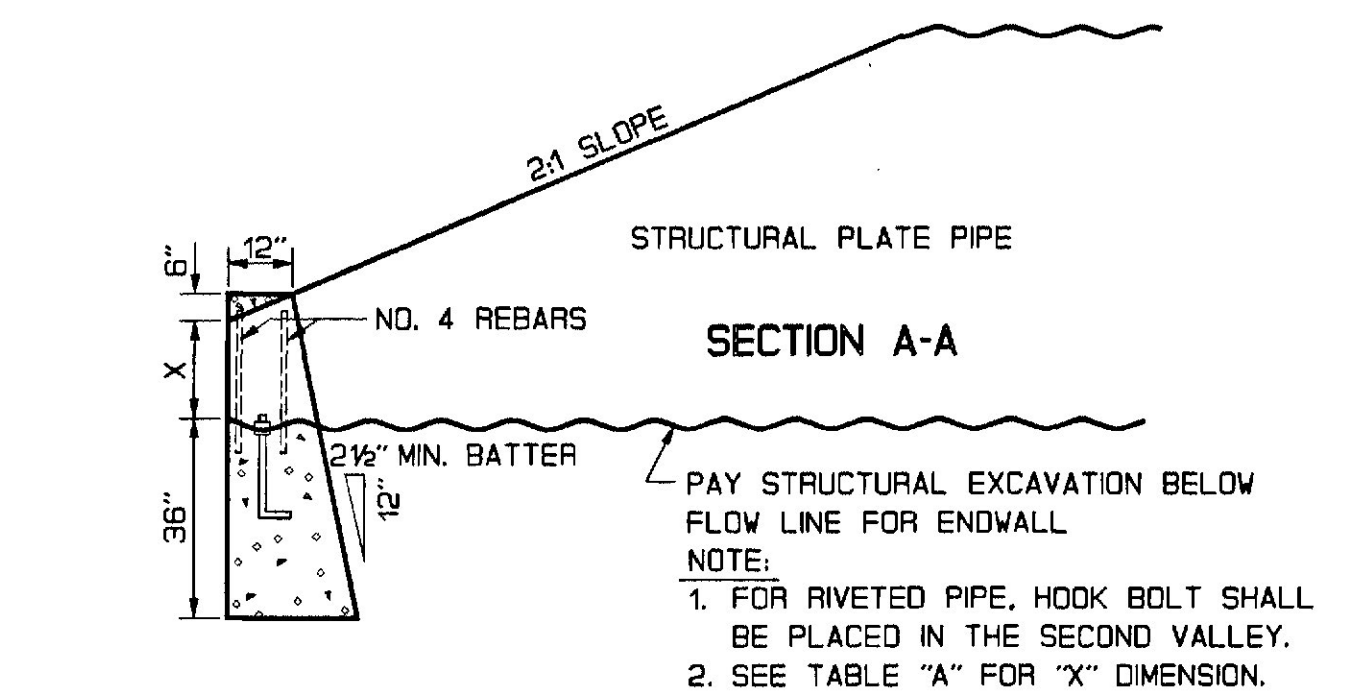


SLAB HAUNCH & BLOCKING DETAIL

NOTE: Use only those items called for on the design drawings.
GENERAL NOTE:
In case of conflict between these Standard Details and the Design Drawings, the requirements of the Design Drawings shall be followed.

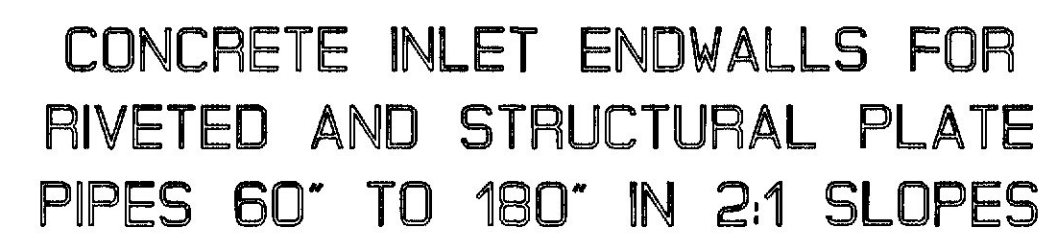
REVISIONS	APPROVED
Description	MeDOT FHWA
Original Plan	JULY, 1993
Rvs'd drain tube grade	DEC.94

STATE OF MAINE DEPARTMENT OF TRANSPORTATION
STANDARD DETAILS BD 521 - 93
SUPERSTRUCTURE DETAILS STANDARD BRIDGE DRAIN SLAB OVERHANG & CURB DETAILS VERT. BRIDGE CURB ~ SHEAR CONNECTORS SLAB HAUNCH & BLOCKING DETAIL
SHEET OF AUGUSTA, MAINE July 1993



SPEC. 604

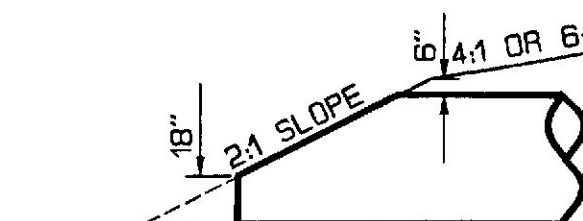
DRO17



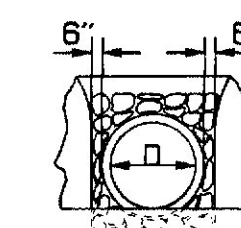
CONCRETE INLET ENDWALLS FOR RIVETED AND STRUCTURAL PLATE PIPES 60" TO 180" IN 2:1 SLOPES

DR01E

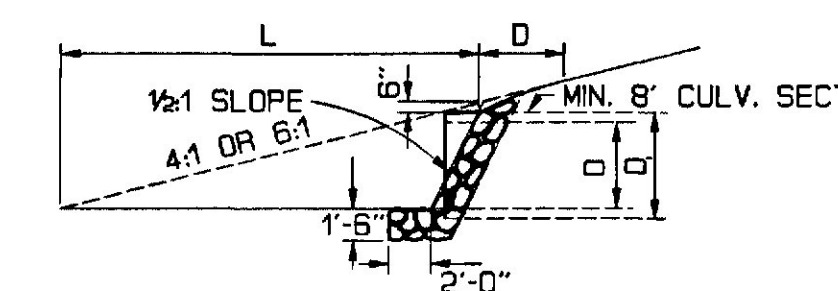
1. THE DIMENSIONS SHOWN ARE APPROXIMATES AND MAY BE MODIFIED BY THE RESIDENT ENGINEER.
2. RIPRAP WILL BE REQUIRED ON PORTIONS OF THE CULVERT END TREATMENT 1:1 AND STEEPER. THE REMAINING PORTION SHALL BE SODDED, OR LOAMED, SEEDED AND HAY MULCHED AS DIRECTED BY THE ENGINEER.
3. CULVERTS INSTALLED ON 2:1 SLOPES SHALL HAVE RIPRAP LAID ON 2:1 SLOPE AROUND THE INLET AND OUTLETS.



CULVERTS CUT ON 2:1 SLOPE



FRONT VIEW



SECTION C-C

ROADWAY CULVERT END SLOPE TREATMENT FOR METAL AND CONCRETE CULVERTS AND TYPE C UNDERDRAIN OUTLETS

BR019

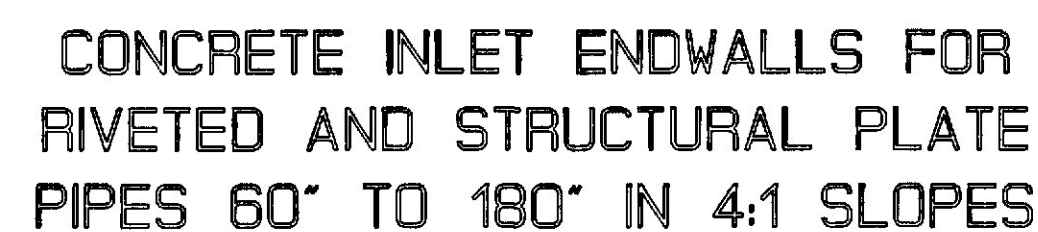
TABLE A

NOTES:

1. CULVERTS INSTALLED UNDER 2:1 SLOPES SHALL HAVE RIPRAP LAID ON 2:1 SLOPE AND NO DITCH TRANSITIONS. ALL RIPRAP AS SHOWN SHALL BE HAND LAID.
2. EXCAVATION REQUIRED TO GRADE CULVERT INLETS AND OUTLETS AS SHOWN WILL NOT BE PAID SEPARATELY, BUT WILL BE INCIDENTAL TO THE CULVERT.
3. BOLTS ARE REQUIRED IN METAL PIPES ONLY AND WILL BE INCIDENTAL TO CONCRETE ITEMS.
4. CONCRETE ENDWALL SHALL BE STRUCTURAL CONCRETE CLASS "A" AND SHALL BE PAID FOR AS ITEM 502.32. STRUCTURAL CONCRETE CULVERT ENDWALLS. REINFORCING STEEL WILL NOT BE PAID FOR SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 502.32.
5. STANDARD GALVANIZED CARRIAGE OR MACHINE BOLTS 1/2" x 8" LONG OR 3/4" x 6" LONG WITH MINIMUM 2" THREAD, MAY BE FURNISHED IN PLACE OF HOOK BOLTS. WASHERS SHALL BE FURNISHED AT THE HEAD OF EACH BOLT.
6. BOLT MATERIAL SHALL CONFORM TO ASTM A307. NUTS SHALL CONFORM TO ASTM A563. BOLTS, NUTS, AND WASHERS SHALL BE HOT DIP GALVANIZED AFTER FABRICATION TO MEET ASTM A153.

SPEC. 604

DR020



CONCRETE INLET ENDWALLS FOR RIVETED AND STRUCTURAL PLATE PIPES 60" TO 180" IN 4:1 SLOPES

DRO24

Metal Pipe values are for 2-2/3"x1/2" corrugations unless
 size is followed by a (1) which denotes 3"x1" corrugations
 M 246-Polymer pre-coated galvanized corrugated steel pipe
 M 197-Corrugated aluminum alloy pipe
 FIBER BONDED-M.D.T. Spec. 707.04
 Minimum cover is 3 feet
 (2) Either size acceptable

SPEC. 603

DAD22

Metal Pipe values are for 2-2/3"x1/2" Corrugations unless diameter is followed by (1) which requires 3" x 1" Corrugations for Aluminum Pipes and 3"x1" or 5"x1" Corrugations for Steel Pipes.
 Option 1 Pipes shall only be used for entrances.
 Fill heights over 15' may require larger metal gages.
 M 218: Zinc coated (galvanized) corrugated steel pipe M 170: Reinforced concrete pipe
 M 274: Aluminum coated (Type 2) corrugated steel pipe M 278: Polyvinyl chloride pipe
 M 246: Polymer pre-coated galvanized corrugated steel pipe M 197: Corrugated aluminum alloy pipe
 FIBER BONDED-M.D.O.T. Spec. 70704

SPEC. 603

DR024

[illegible]

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
CULVERT INLETS & OUTLETS
CULVERT PIPE DATA

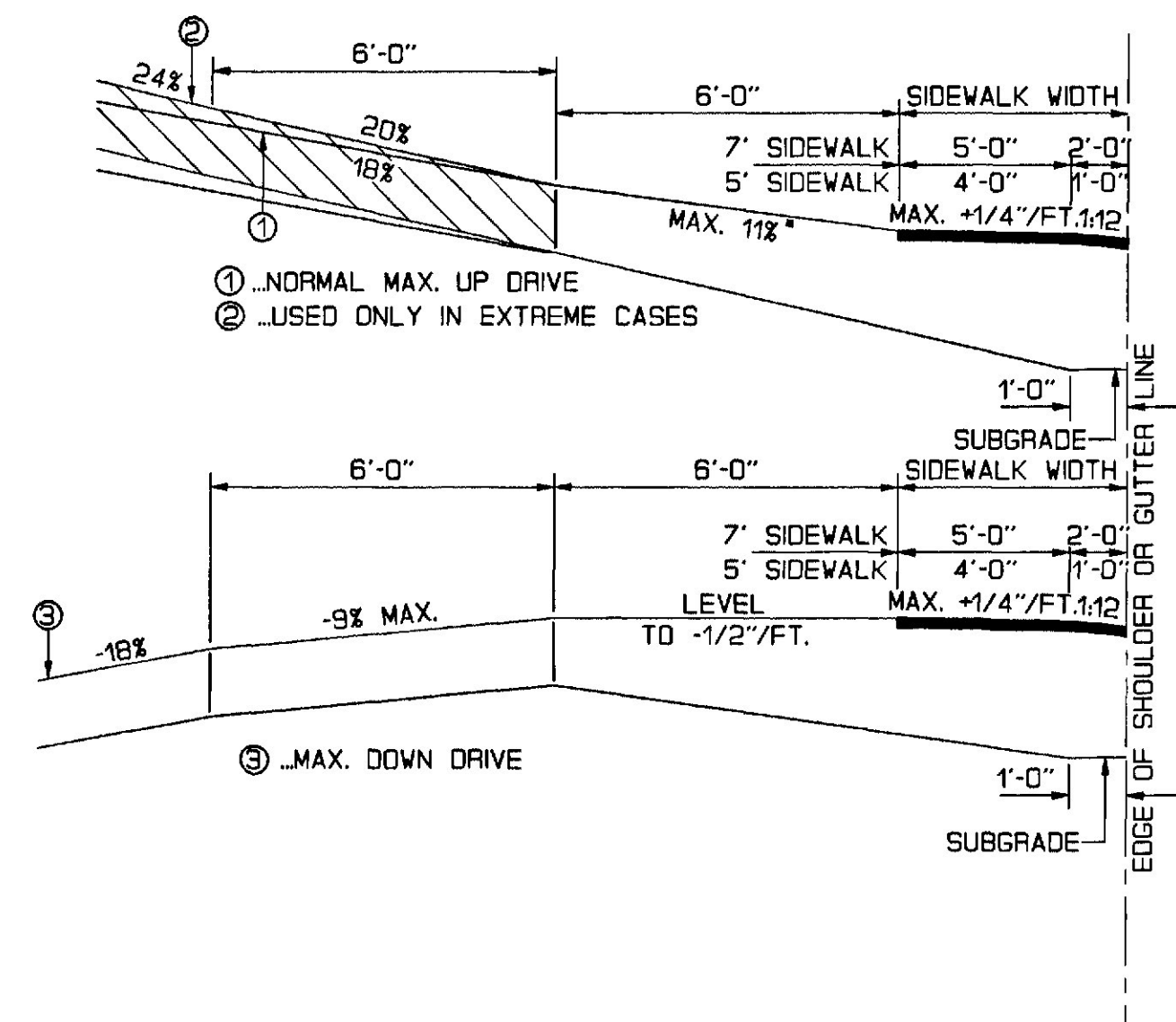
SHEET

AUGUSTA, MAINE

HD-3

PLANS	REVISIONS	CHECKED	DATE
FIELD CHANGES			

290CT96-0100.30



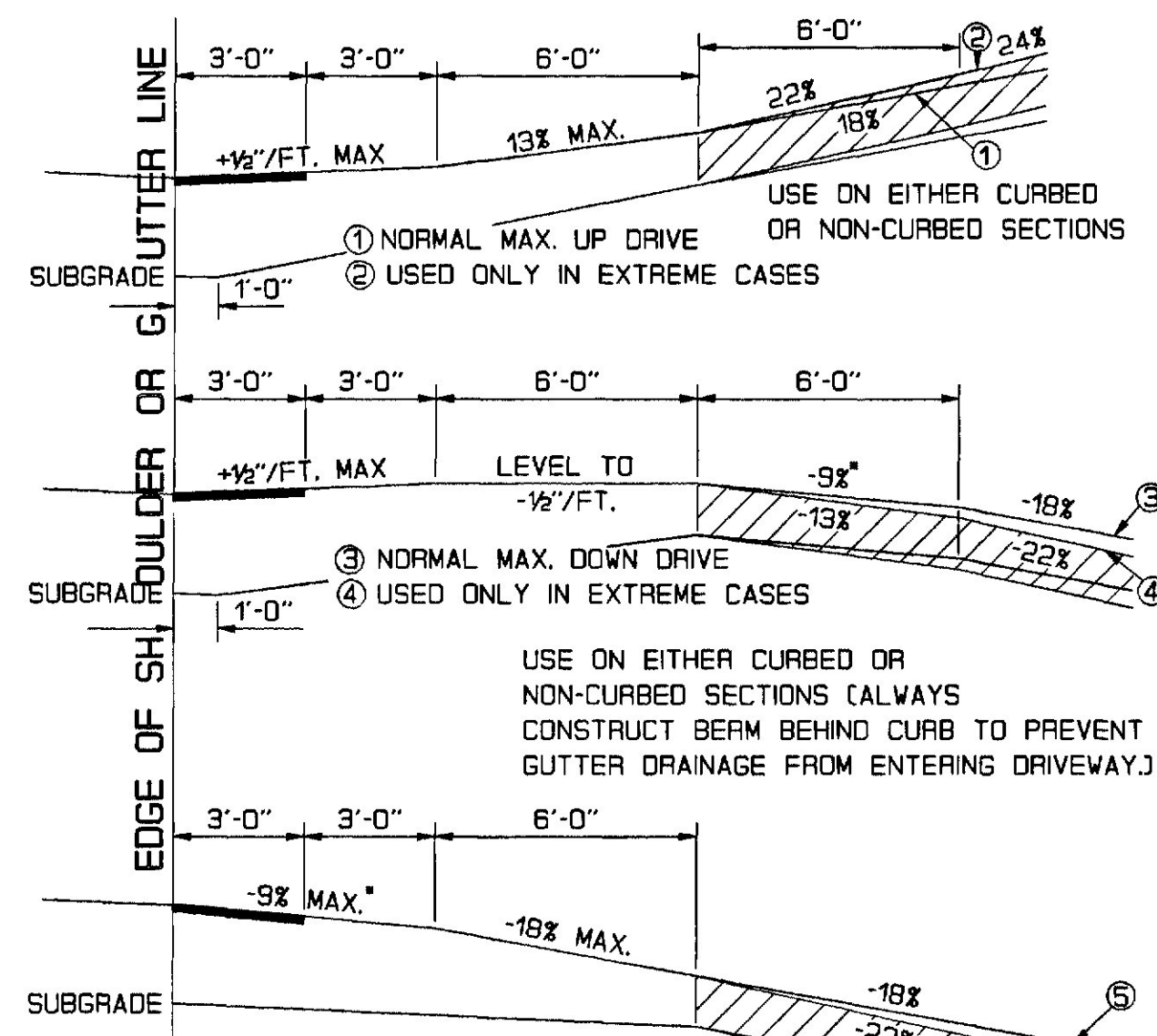
- GENERAL NOTES:
1. THE SIDEWALK WIDTH SHALL BE PAVED IN ALL CASES.
 2. ALL RESIDENTIAL OR COMMERCIAL DRIVES 10% AND OVER SHALL BE PAVED.

NOTES ON MAXIMUM DRIVEWAY PROFILES:

1. THESE PROFILES ARE A GUIDE FOR THE MAJORITY OF CASES, BUT SHOULD BE FIELD CHECKED WHEN THE MAIN LINE GRADE IS STEEP (4% TO 6% OR GREATER) OR THE ANGLE OF APPROACH TO THE DRIVE IS UNUSUAL.
2. GENERALLY THE MAJORITY OF DRIVES ON A PROJECT WILL BE BUILT WITH FLATTER PROFILES THAN THESE MAXIMUM CASES.
3. WHEN GRADING DRIVES WHICH ARE FLATTER THAN THE MAXIMUM PROFILES THE FOLLOWING RULE OF THUMB SHOULD BE USED. DO NOT EXCEED A GRADE % CHANGE OF MORE THAN 9% IN A 6 FOOT INCREMENT OF DRIVEWAY LENGTH. THIS APPLIES TO BOTH UP AND DOWN PROFILES.

DRIVES ON SIDEWALK SECTIONS

EN001



- IF THERE IS NO PROBLEM OF WATER DRAINING DOWN THE DRIVE THEN
1. NORMAL MAX. UP DRIVE
 2. USED ONLY IN EXTREME CASES
 3. NORMAL MAX. DOWN DRIVE
 4. USED ONLY IN EXTREME CASES
 5. MAX. DOWN DRIVE
 6. USED ONLY IN EXTREME CASES
- USE ONLY ON NON-CURBED SECTIONS ON SEASONAL OR LIMITED USE ENTRANCES OR WHEN DRAINAGE IS NOT A FACTOR.

GENERAL NOTES:

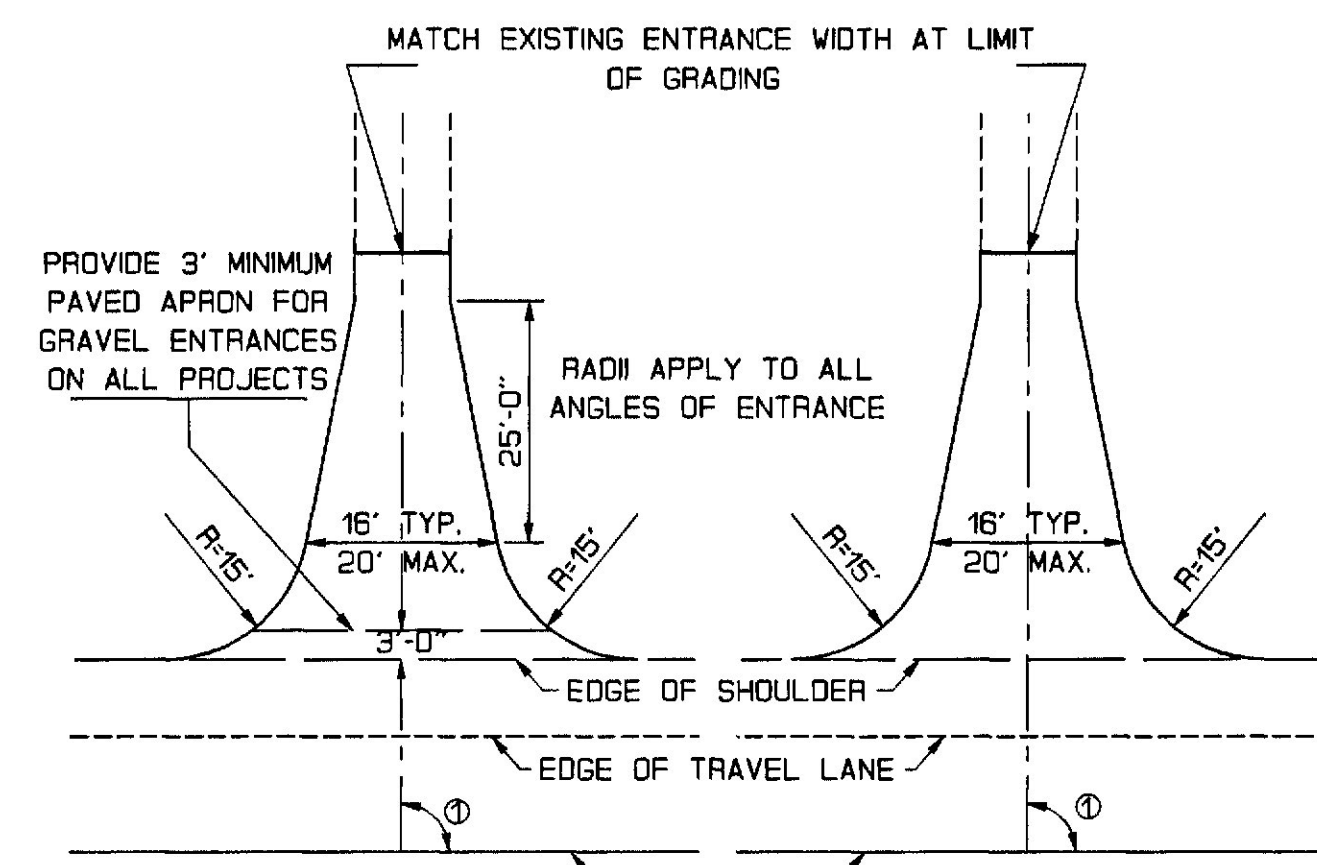
1. THE FIRST 3' SHOWN AS PAVEMENT SHALL BE PAVED ONLY WHEN ABUTTING A PAVED AREA.
2. ALL RESIDENTIAL OR COMMERCIAL DRIVES 10% AND OVER SHALL BE PAVED.

NOTES ON MAXIMUM DRIVEWAY PROFILES:

1. THESE PROFILES ARE A GUIDE FOR THE MAJORITY OF CASES, BUT SHOULD BE FIELD CHECKED WHEN THE MAIN LINE GRADE IS STEEP (4% TO 6% OR GREATER) OR THE ANGLE OF APPROACH TO THE DRIVE IS UNUSUAL.
2. GENERALLY THE MAJORITY OF DRIVES ON A PROJECT WILL BE BUILT WITH FLATTER PROFILES THAN THESE MAXIMUM CASES.
3. WHEN GRADING DRIVES WHICH ARE FLATTER THAN THE MAXIMUM PROFILES THE FOLLOWING RULE OF THUMB SHOULD BE USED. DO NOT EXCEED A GRADE % CHANGE OF MORE THAN 9% IN A 6 FOOT INCREMENT OF DRIVEWAY LENGTH. THIS APPLIES TO BOTH UP AND DOWN PROFILES.

DRIVES ON NON-SIDEWALK SECTIONS

EN002



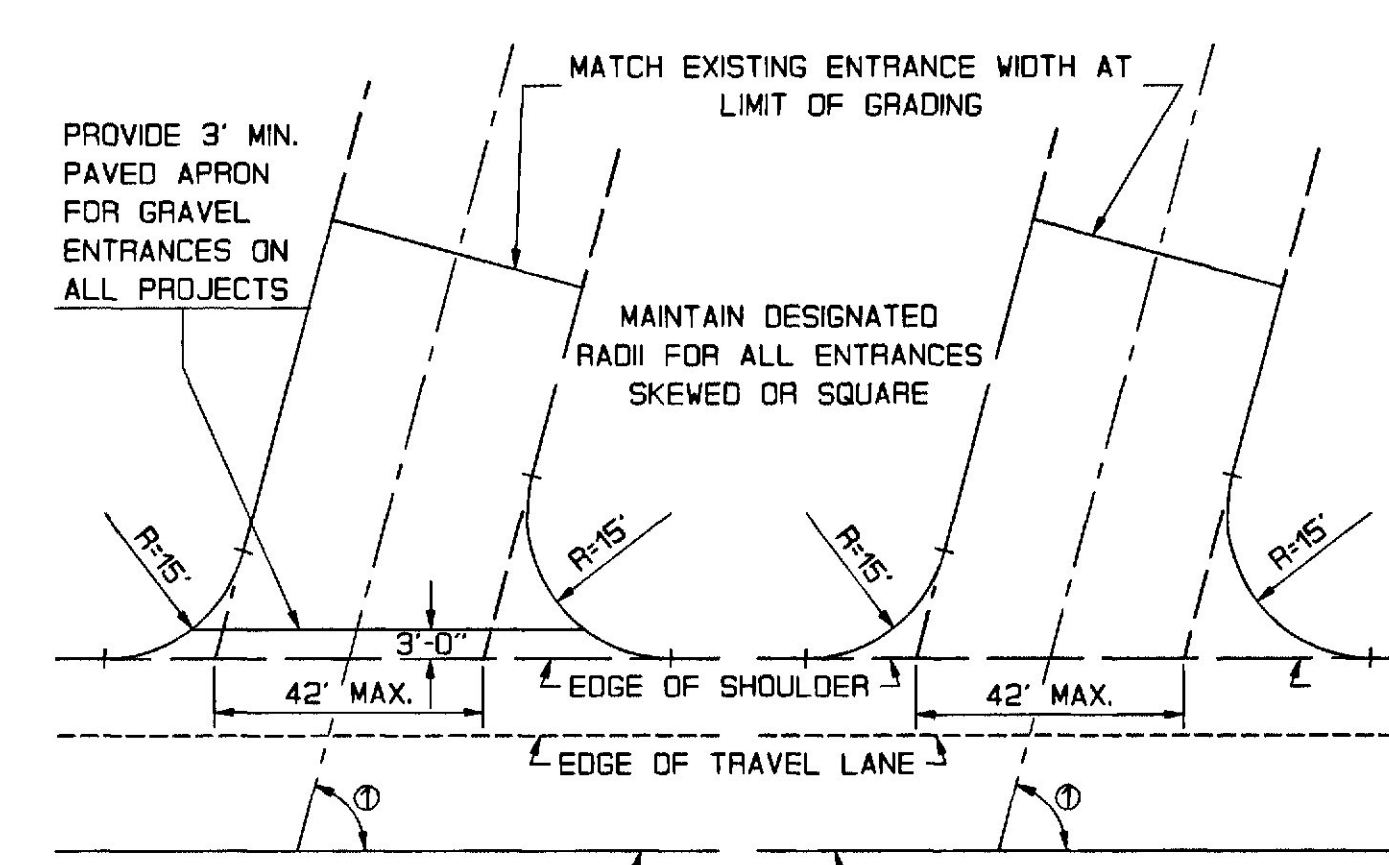
GRAVEL ENTRANCE

PAVED ENTRANCE

ENTRANCE ANGLE SHOULD NOT BE LESS THAN 45°

RESIDENTIAL ENTRANCE
ONTO UNCURBED HIGHWAY
(PAVED SHOULDERS)

EN003



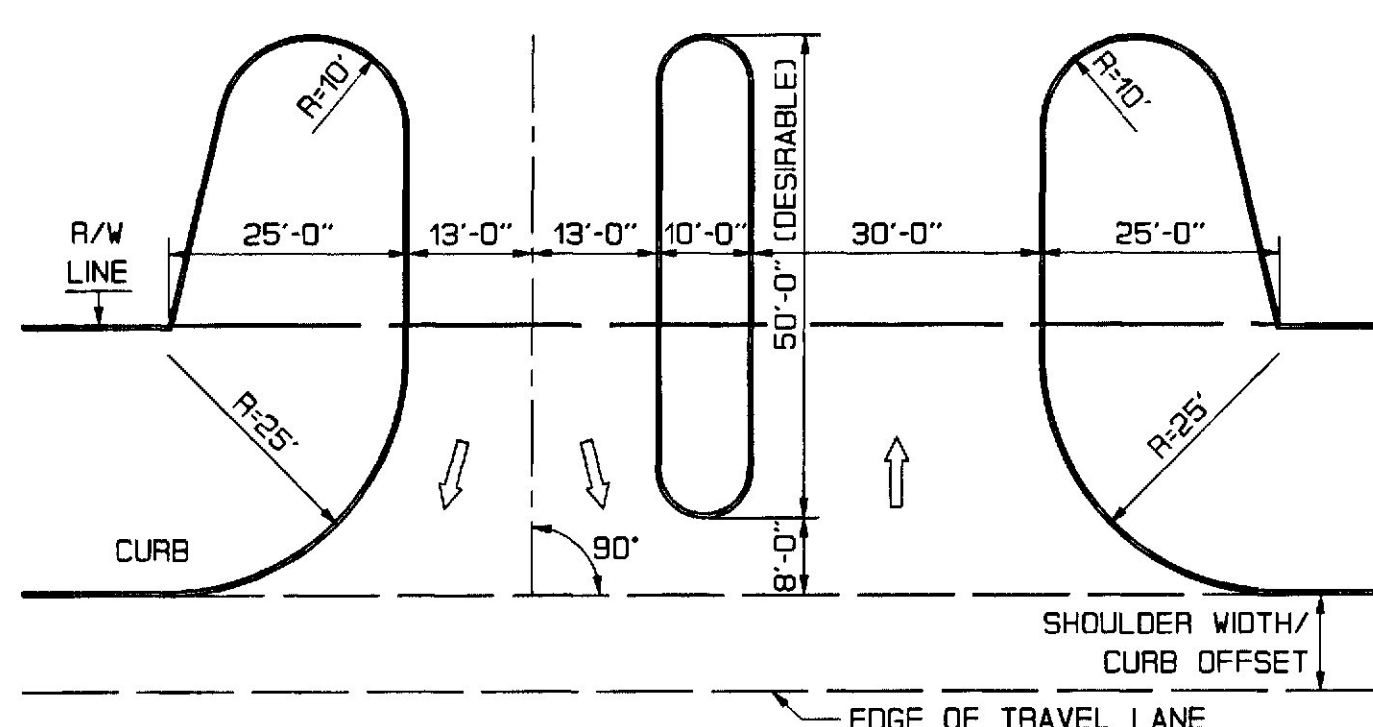
GRAVEL ENTRANCE

PAVED ENTRANCE

ENTRANCE ANGLE SHOULD NOT BE LESS THAN 45°

COMMERCIAL/INDUSTRIAL ENTRANCE
ONTO UNCURBED HIGHWAY
(PAVED SHOULDERS)

EN004



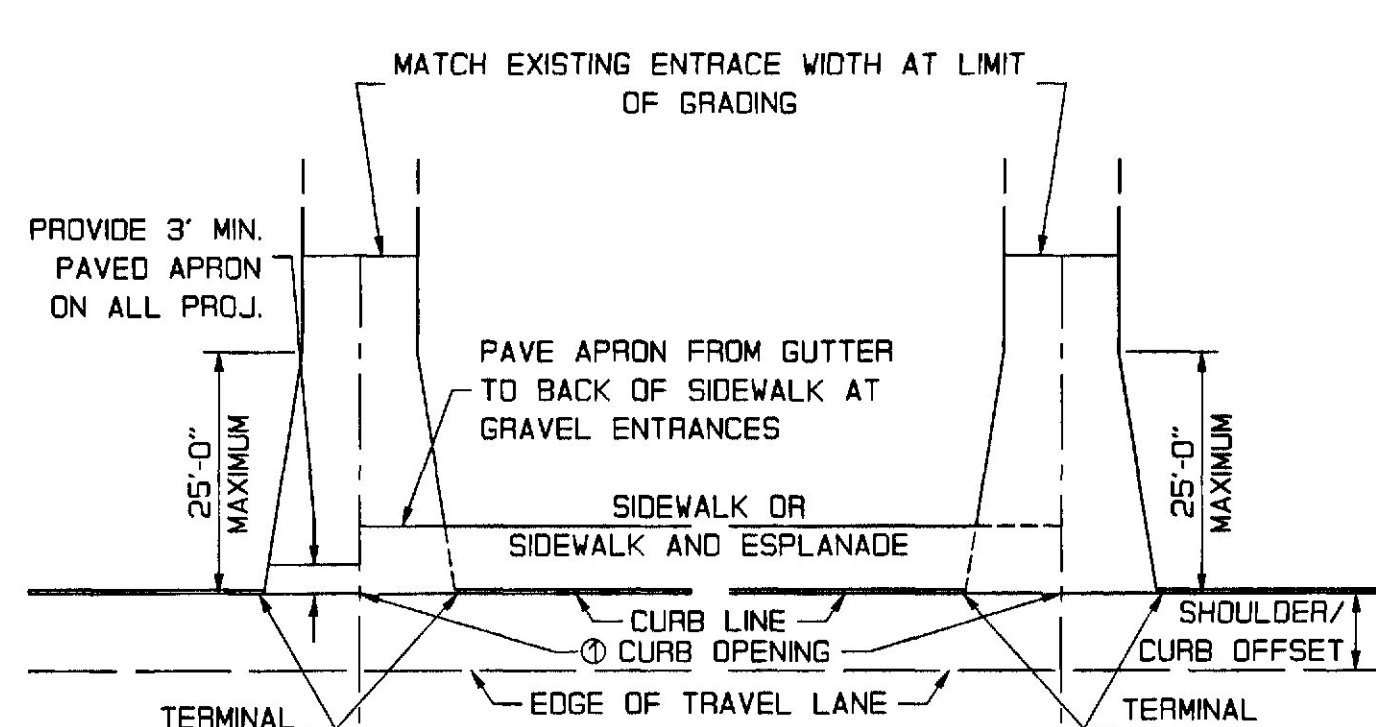
PAVED ENTRANCE

NOTES:

1. THIS TYPE OF ENTRANCE SUITABLE FOR OTHER HIGH TRAFFIC VOLUME, PUBLIC-TYPE INSTALLATIONS.
2. ALL ISLAND BORDERS SHALL BE CURBED.

SHOPPING CENTER ENTRANCE ONTO HIGHWAY
(PAVED SHOULDERS)

EN005



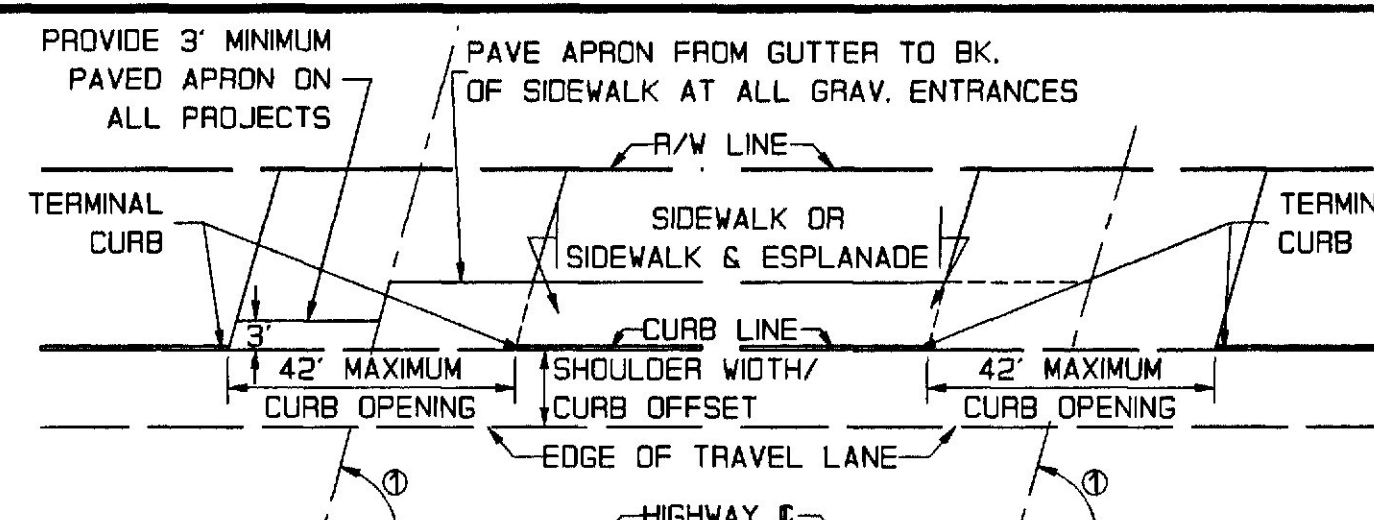
NON-SIDEWALK SIDEWALK
GRAVEL ENTRANCE

SIDEWALK NON-SIDEWALK
PAVED ENTRANCE

1. MINIMUM CURB OPENING IS 20' WHERE THE SHOULDER WIDTH IS 6' AND 26' WHERE THE SHOULDER WIDTH IS < 6'.

RESIDENTIAL ENTRANCE ONTO CURBED HIGHWAY
(WITH/WITHOUT SIDEWALKS)

EN006



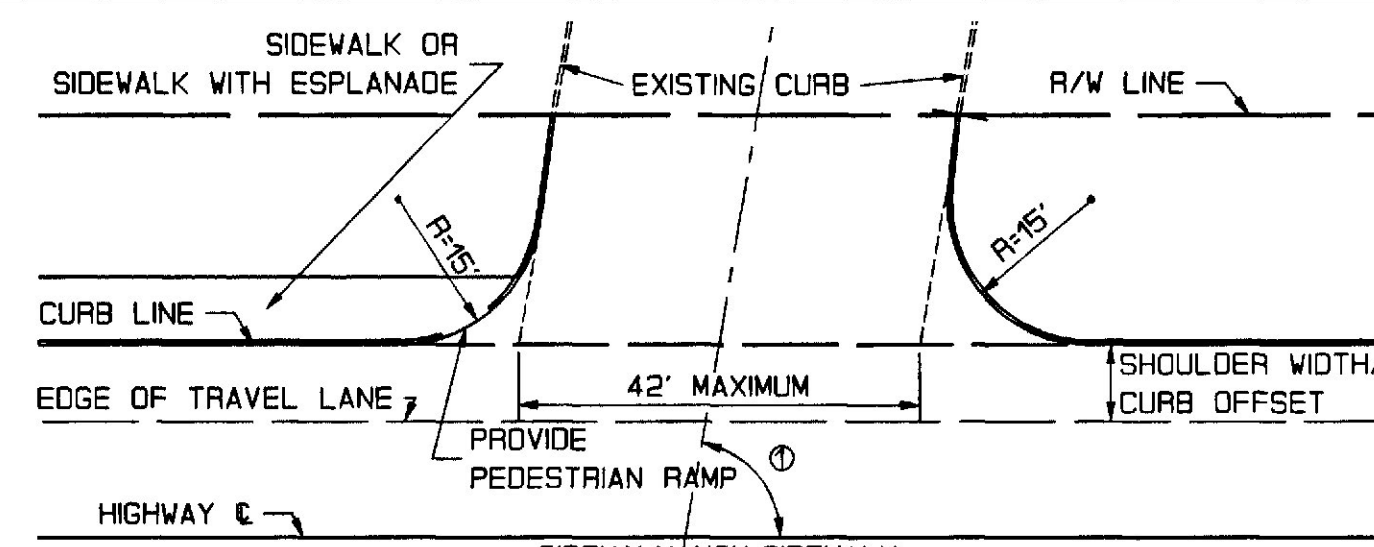
GRAVEL ENTRANCE

PAVED ENTRANCES

1. MINIMUM ENTRANCE ANGLE IS 45° WHERE THE SHOULDER WIDTH ≥ 6' AND 60° WHERE THE SHOULDER WIDTH < 6'.
2. IF THERE ARE HIGH TRUCK TURNING VOLUMES, THE DESIGNER SHOULD CONSIDER PROVIDING TURNING RADII OF 15' - 25' AND/OR A WIDER OPENING AND/OR LIMITING THE ANGLE OF TURN TO ACCOMMODATE TRUCKS.

UNCURBED COMMERCIAL/INDUSTRIAL
ENTRANCE ONTO CURBED HIGHWAY
(WITH/WITHOUT SIDEWALK)

EN007

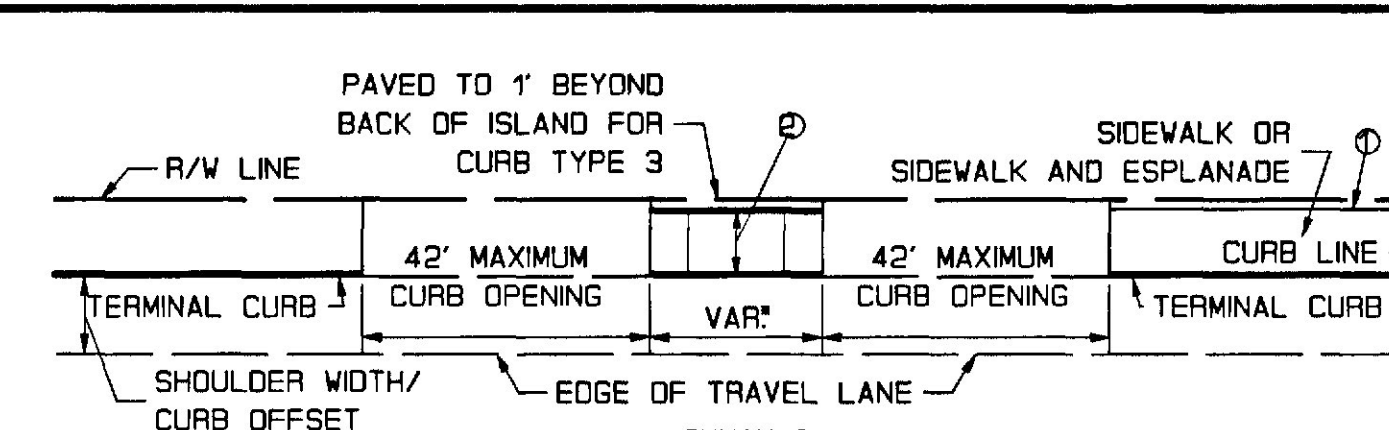


SIDEWALK NON-SIDEWALK
PAVED ENTRANCE

1. MINIMUM ENTRANCE ANGLE IS 45° WHERE THE SHOULDER WIDTH ≥ 6' AND 60° WHERE THE SHOULDER WIDTH < 6'.

CURBED COMMERCIAL/INDUSTRIAL
ENTRANCE ONTO CURBED HIGHWAY
(WITH/WITHOUT SIDEWALK)

EN008



NON-SIDEWALK

SIDEWALK

1. RELECTORIZED (OF BITUMINOUS)
2. 18" MIN. IN SIDEWALK AREAS
3. 12" MIN. IN NON-SIDEWALK AREAS
4. GRANITE CURB WITH SLOPED TERMINAL ENDS OR BITUMINOUS CURB WITH SLOPED ENDS

CENTRAL ISLAND

1. WHERE PARKING OF SERVICE AREA ABUTS SIDEWALK, A CURB, GUARDRAIL OR FENCE SHOULD BE PROVIDED.
2. ISLAND WIDTH WILL EXTEND WITHIN 1' OF RIGHT-OF-WAY LINE, IF PRACTICAL, WHEN ISLAND WIDTH EXCEEDS 10', USE DESIGN IN FIGURE 8-41 IN HIGHWAY DESIGN GUIDE.
3. IF THERE ARE HIGH TRUCK TURNING VOLUMES, THE DESIGNER SHOULD CONSIDER PROVIDING TURNING RADII OF 15' - 25' AND/OR A WIDER OPENING AND/OR LIMITING THE ANGLE OF TURN TO ACCOMMODATE TRUCKS.

COMMERCIAL/INDUSTRIAL DOUBLE ENTRANCES
ONTO CURBED HIGHWAY
(NARROW RIGHT-OF-WAY)

EN009

REVISIONS	APPROVED
Description	Me. DOT FHWA
ORIGINAL PLAN	OCT. 92
EN003	APR. 95 OCT. 95
EN004	APR. 95 OCT. 95
EN006	APR. 95 OCT. 95
EN007	APR. 95 OCT. 95
EN009	APR. 95 OCT. 95

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS
DRIVES & ENTRANCES

SHEET AUGUSTA, MAINE

HD-5

WOVEN WIRE FENCE	NOMINAL SIZE (INCHES)	SHAPE	WEIGHT (LBS/FT)	COMMENTS
END, INTERMEDIATE & CORNER POSTS	2 1/2 X 2 1/2 X 1/4	4	4.1	GRADE 1 * WITH TOP CAP GRADE 2 * WITH TOP CAP
		0	3.65	
		0	3.17	
GATE POSTS	3 1/2 X 3 1/2 X 5/16	4	7.2	GRADE 1 * WITH TOP CAP GRADE 2 * WITH TOP CAP
		2 1/2	5.79	
		0	4.64	
LINE POSTS	1 1/4	T	1.33	STUDDED GRADE 1 * WITH TOP CAP GRADE 2 * WITH TOP CAP
		0	2.27	
		0	1.836	
BRACES	1 3/4 X 1 3/4 X 1/4	4	2.77	
		1 1/4	2.27	
		0	1.836	

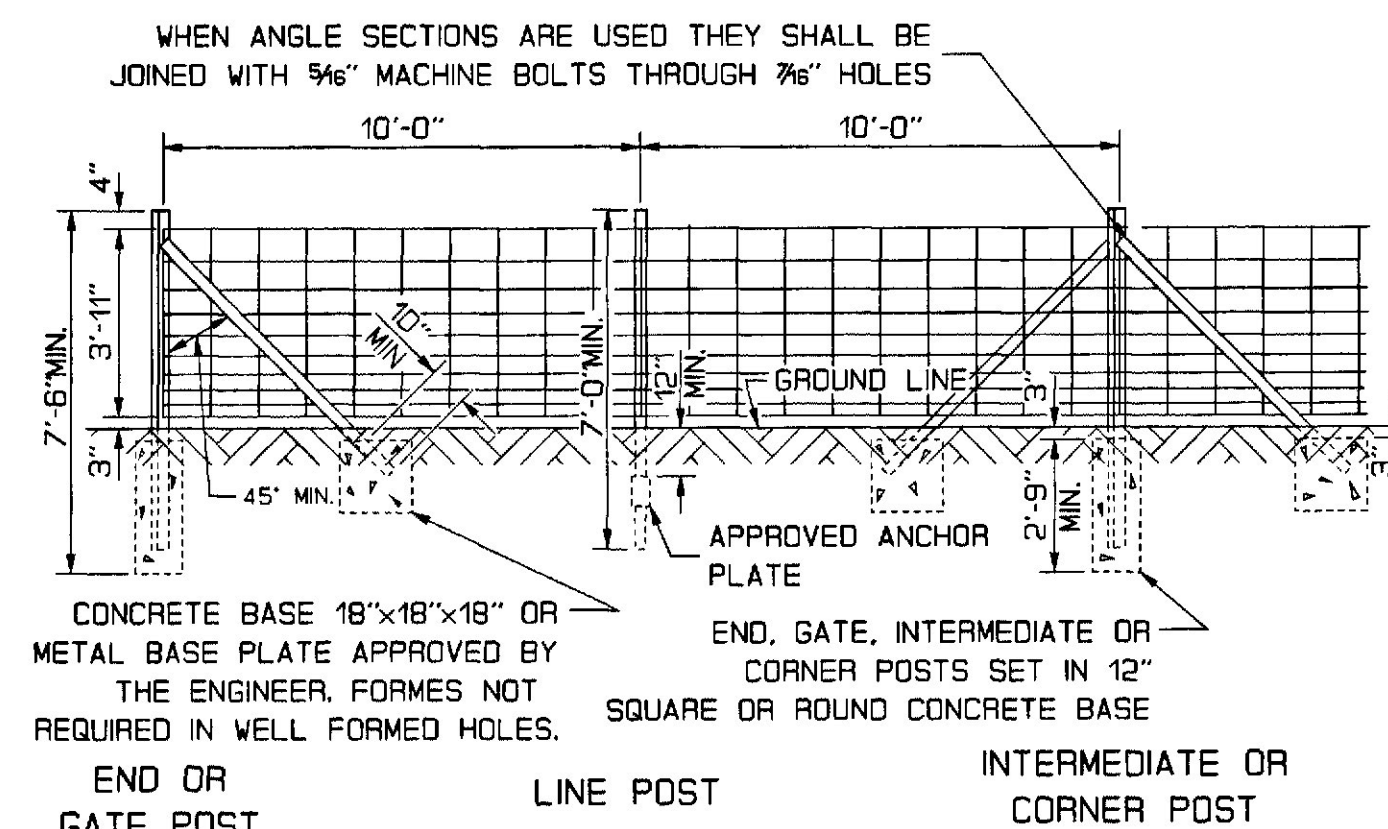
CHAIN LINK FENCE	NOMINAL SIZE (INCHES)	SHAPE	WEIGHT (LBS/FT)	COMMENTS
END & CORNER POSTS	2 I.D. 2 I.D. 2 1/2 X 2 3 1/2 X 3 1/2	0	3.65	GRADE 1 GRADE 2 INTEGRAL LOOPS
		0	3.17	
		H	4.10	
		4	5.14	
LINE POSTS	1 1/2 I.D. 1 1/2 I.D. 1 3/8 X 1 3/8 1 3/8 X 1 3/8	0	2.72	GRADE 1 GRADE 2
		0	2.281	
		H	2.70	
		C	2.28	
TOP & BRACE RAILS	1 1/4 I.D. 1 1/4 I.D. 1 3/8 X 1 1/4	0	2.27	GRADE 1 GRADE 2
		0	1.84	
		C		

* AASHTO M 181 Part 29.1

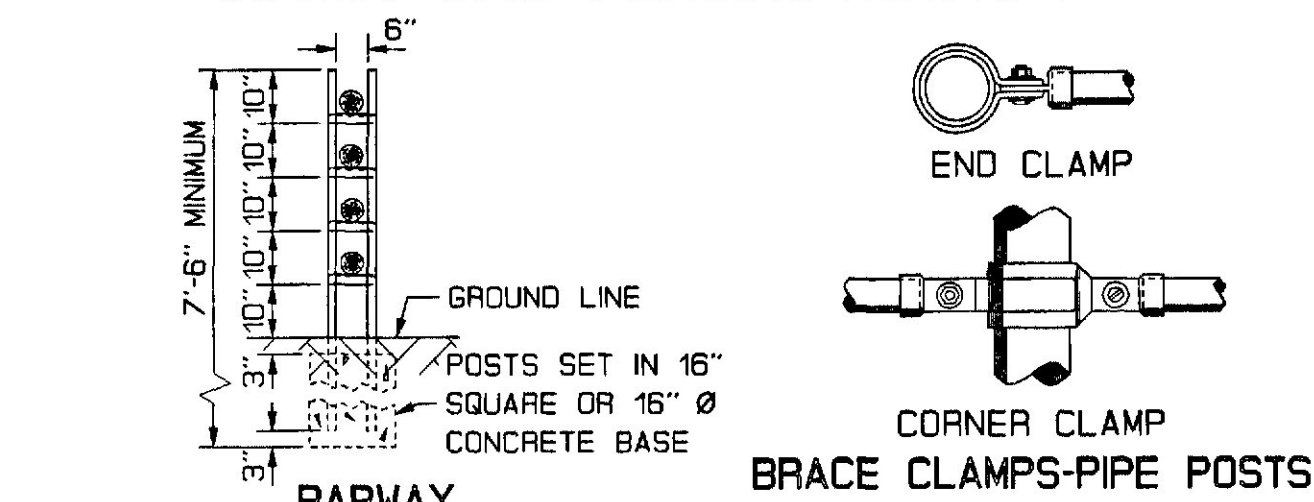
FENCE POST, RAIL AND BRACE OPTIONS

SPEC. 607

FE001



WOVEN WIRE FENCING-METAL POSTS



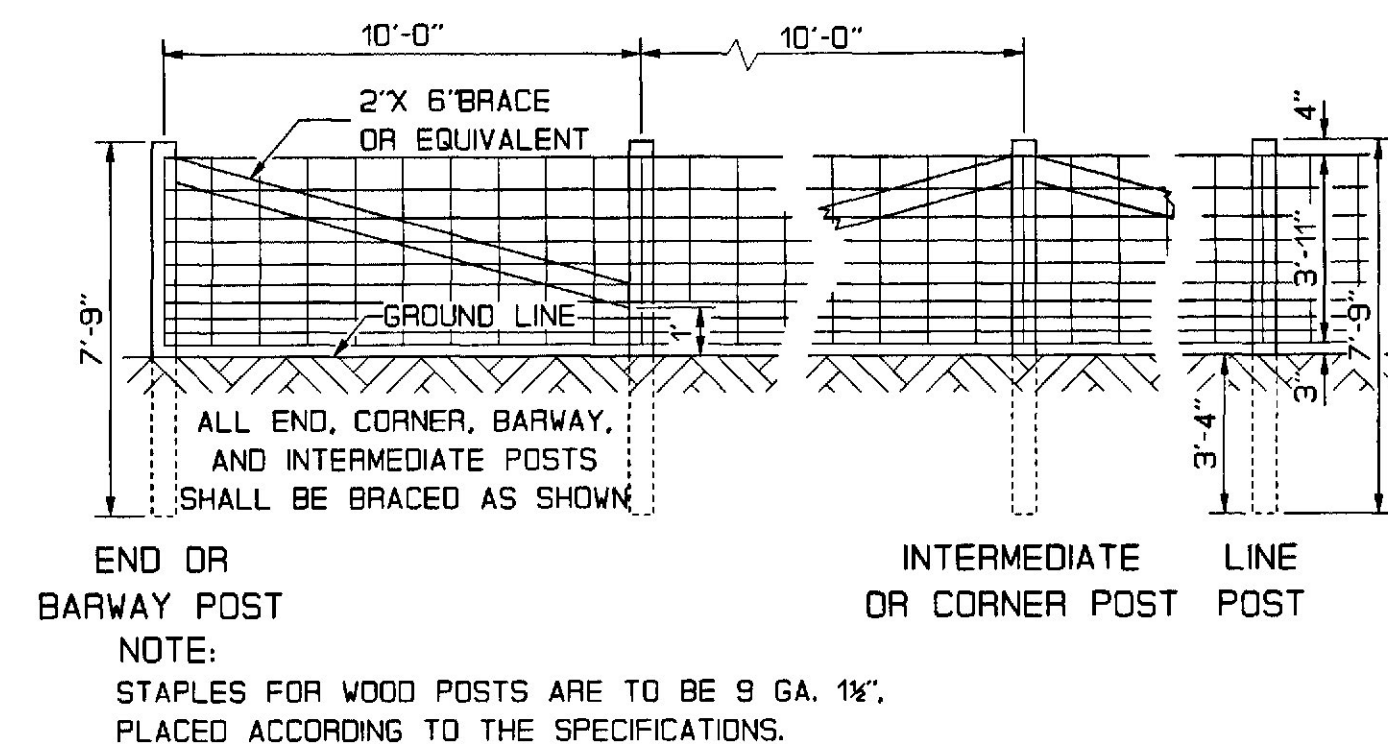
BARWAYS:

METAL POSTS SHALL BE INSTALLED FOR A 16'-0" OPENING. BARWAY POSTS AND BRACES SHALL CONFORM TO THE REQUIREMENTS OF "GATE POSTS" AND "BRACES" UNDER "WOVEN WIRE FENCING-METAL POSTS". CROSS BAR SUPPORTS FOR BARWAYS SHALL BE 1/4" X 1/4" X 1/4" ROLLED ANGLE SECTION. WHEN ROUND GATE POSTS ARE USED, THE LENGTH OF THE CROSS BAR SUPPORTS SHALL EQUAL THE CENTER-TO-CENTER OF THE POSTS PLUS 2 INCHES AND THEY SHALL BE ATTACHED TO THE BARWAY POST WITH 5/16" X 4 1/4" MACHINE BOLTS. WHEN ANGLE SECTION GATE POSTS ARE USED, THE LENGTH OF THE CROSS BAR SUPPORTS SHALL BE EQUAL TO THE OUT-TO-OUT DIMENSIONS OF THE ANGLE SECTIONS AND SHALL BE ATTACHED WITH 5/16" X 1" MACHINE BOLTS. ALL BRACING SHALL CONFORM TO THE REQUIREMENTS OF "WOVEN WIRE FENCING-METAL POSTS". CROSS BARS SHALL BE AS REQUIRED FOR "BARWAYS-WOOD POSTS".

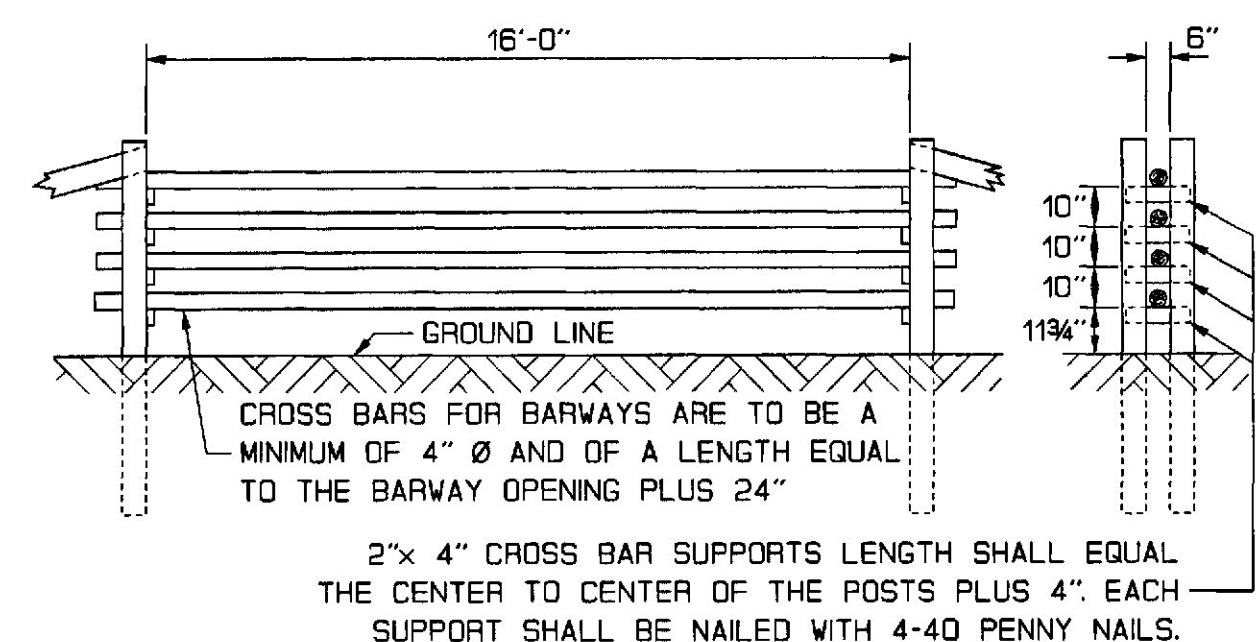
BARWAYS-METAL POSTS

SPEC. 607

FE002



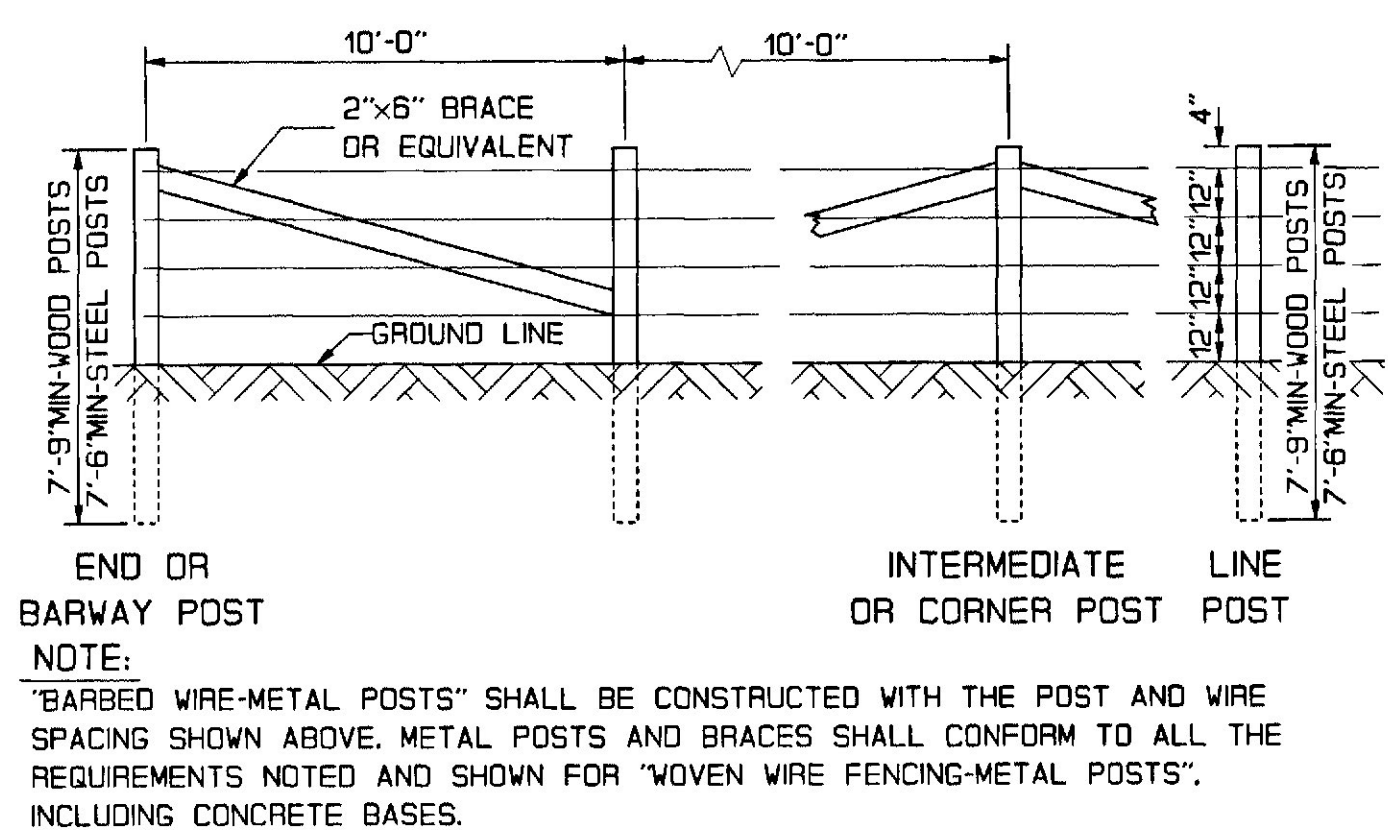
WOVEN WIRE FENCING-WOOD POSTS



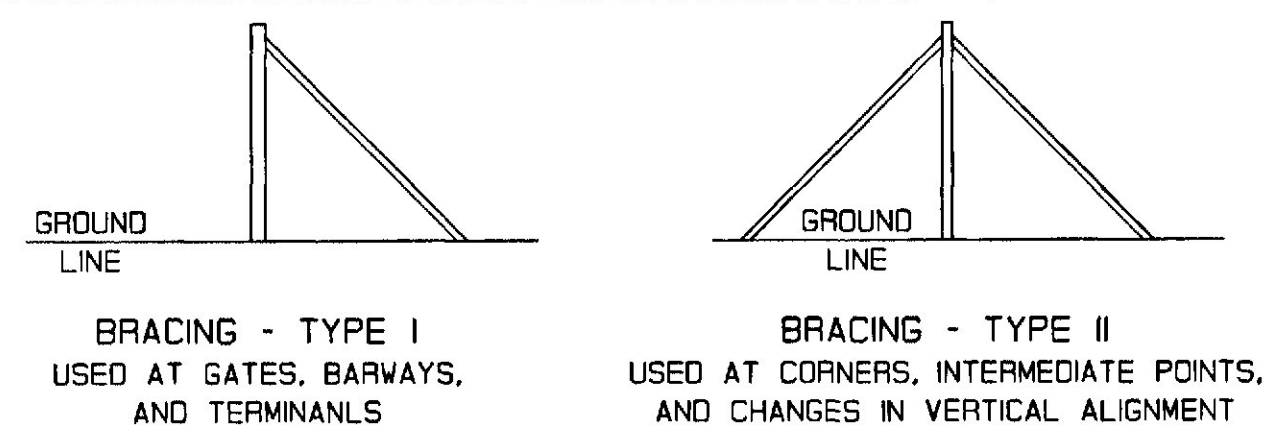
SPEC. 607

BARWAYS-WOOD POSTS

FE003



BARBED WIRE FENCING-WOOD POSTS AND BARBED WIRE FENCING-METAL POSTS



BRACING ASSEMBLIES FOR WOVEN AND BARBED WIRE FENCING

SPEC. 607

FE004

GENERAL NOTES FENCING

- WHEN LEDGE IS ENCOUNTERED, STEEL POSTS SHALL BE SET AND GROUTED 12" DEEP UNLESS THE POSTS PENETRATE THE GROUND TO THE DEPTH INDICATED ON THE DRAWINGS.
- WHEN WOOD POSTS ARE USED, BRACES SHALL BE ATTACHED TO THE POSTS WITH A MINIMUM OF 4 - 40 PENNY NAILS PER ATTACHMENT.
- WHEN THE WORD "STANDARD" IS USED, IT SHALL BE INTERPRETED AS IF IT WERE FOLLOWED BY THE EXPRESSION "TO THE FENCE INDUSTRY".
- WOVEN WIRE AND BARBED WIRE FENCING SHALL BE ATTACHED TO WOOD POSTS WITH 9 GAUGE 1-1/2" GALVANIZED STAPLES.
- CONCRETE FOR POST FOUNDATIONS SHALL BE CLASS B.
- IN WELL FORMED HOLES WITH VERTICAL WALLS, FORMS WILL BE REQUIRED ONLY AT THE TOP 9 INCHES. HOLES WHICH CANNOT BE WELL FORMED SHALL HAVE FORMS FOR THE FULL DEPTH OF THE BASE.

SPACING OF FENCE POSTS ON CURVES

RADIUS OF CURVE AT FENCE LOCATION	NORMAL POST SPACING
OVER 500 FEET	10 FEET
OVER 200 FEET TO 500 FEET	8 FEET
OVER 100 FEET TO 200 FEET	6 FEET
100 FEET AND LESS	5 FEET

SPEC. 607

FE005

STATE OF MAINE DEPARTMENT OF TRANSPORTATION

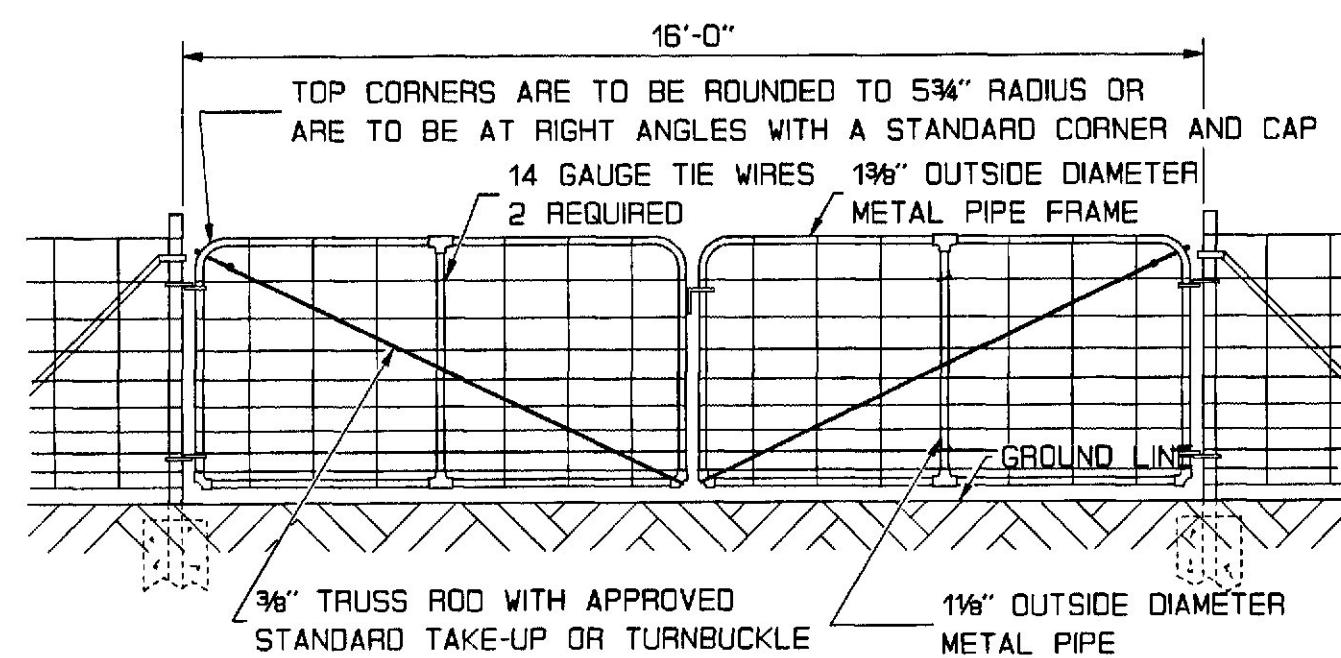
REVISIONS	APPROVED
DESCRIPTION	Me. DOT FHWA
ORIGINAL PLAN	OCT. 93 OCT. 93
FE006 - DRIVE ANCHOR	NOV. 93
FE002	APR. 95 OCT. 95
FE004	APR. 95 OCT. 95
FE005	APR. 95 OCT. 95
FE006	APR. 95 OCT. 95
FE007	APR. 95 OCT. 95

STANDARD DETAILS FENCING

SHEET

AUGUSTA, MAINE

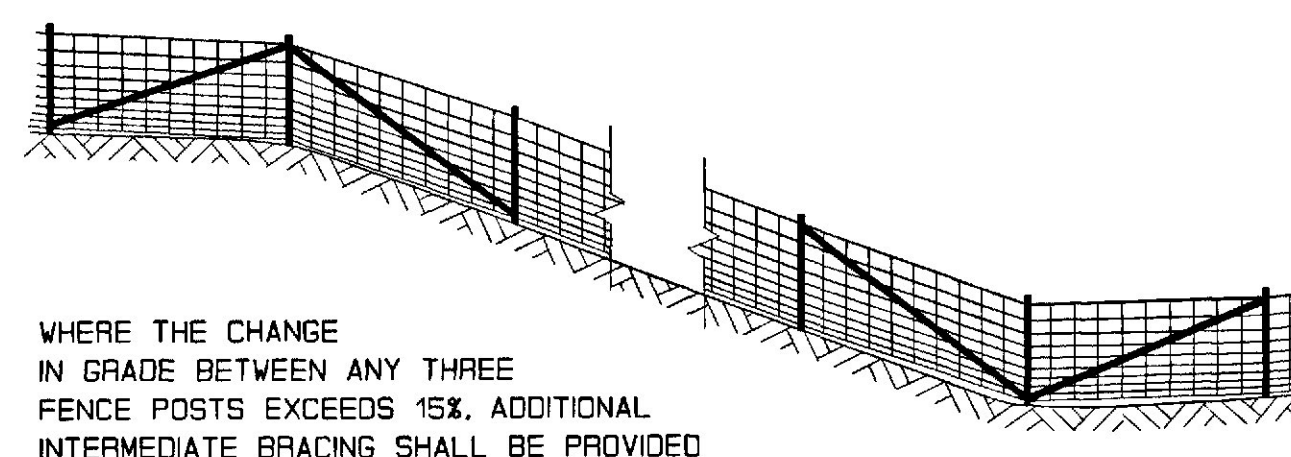
HD-9



NOTES:

- GATE POSTS, BRACES AND ANCHORAGES TO BE AS SPECIFIED UNDER "WOVEN WIRE FENCING-METAL POSTS".
- ALL GATES SHALL BE INSTALLED WITH THE TOP HINGE PIN POINTING DOWN.
- WIRE FOR GATES SHALL CONFORM TO A.S.T.M. A116.
- THE REQUIRED FITTINGS FOR FENCE AND GATES SHALL BE STEEL OR MALLEABLE IRON OF AN APPROVED STANDARD TYPE.
- GATES SHALL BE FURNISHED WITH A STANDARD FORK LATCH AND ON PIECE OF 3/16" STRAIGHT LINK ALLOY STEEL CHAIN, 24" LONG. ONE END SHALL BE ATTACHED TO THE GATE FRAME AND THE OTHER END SHALL BE A SNAP LOCK OR OTHER APPROVED FASTENING DEVICE.

DRIVE GATEWAYS-16 FEET

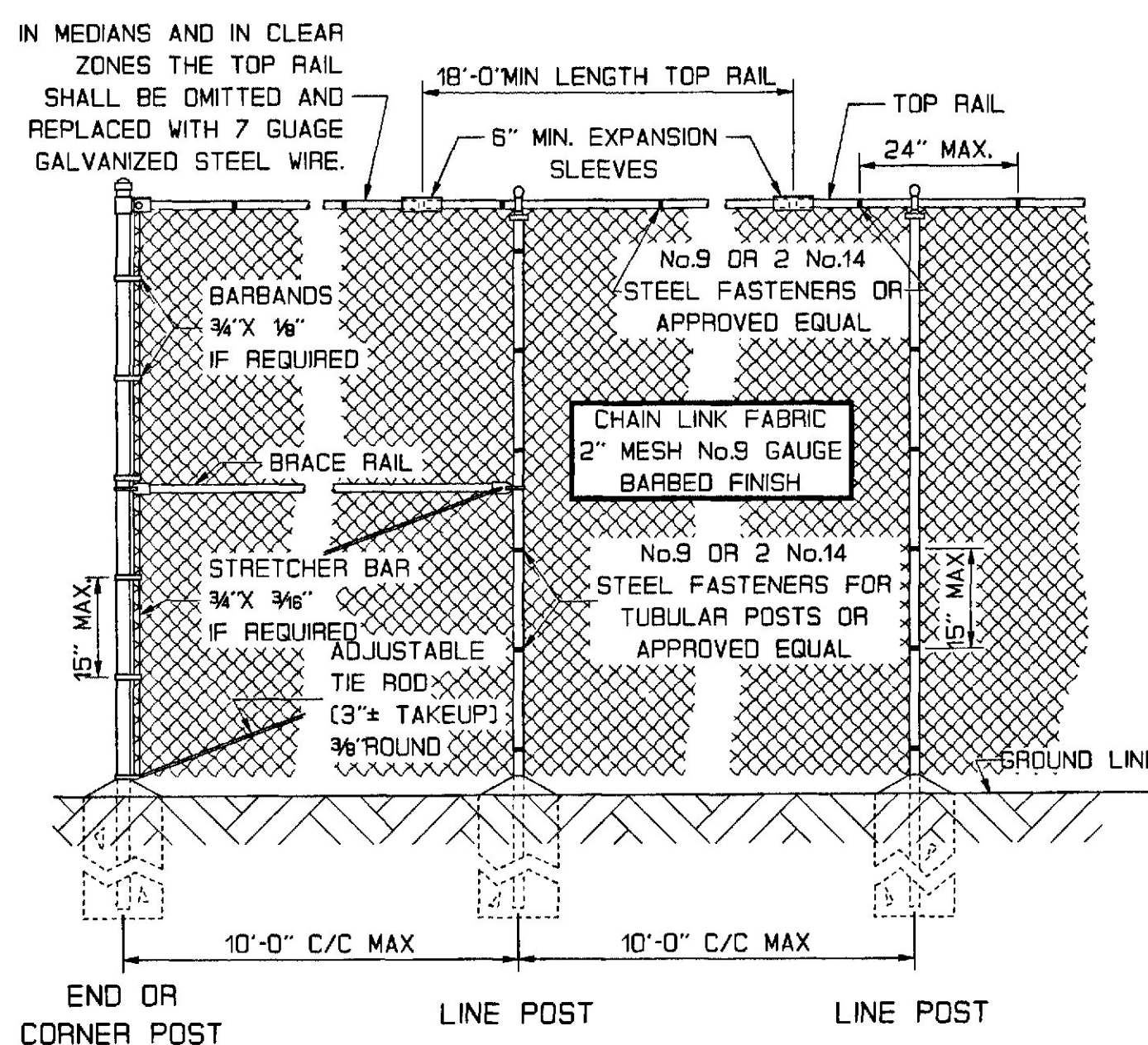


WHERE THE CHANGE IN GRADE BETWEEN ANY THREE FENCE POSTS EXCEEDS 15%, ADDITIONAL INTERMEDIATE BRACING SHALL BE PROVIDED

SPEC. 607

INTERMEDIATE BRACING

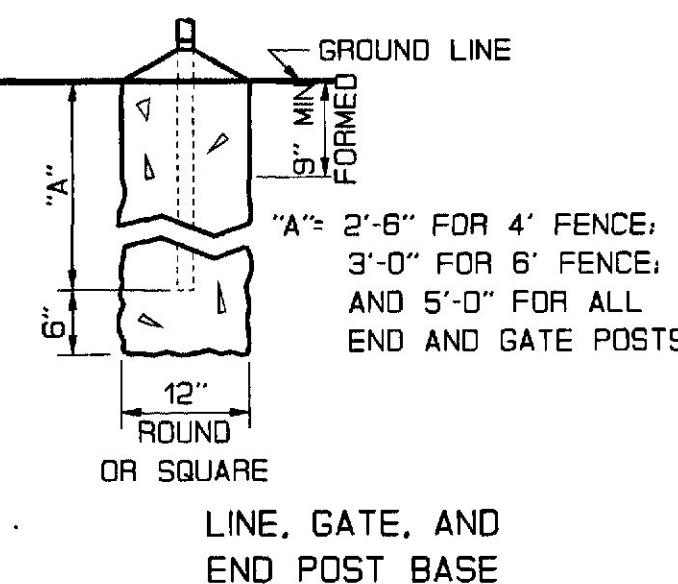
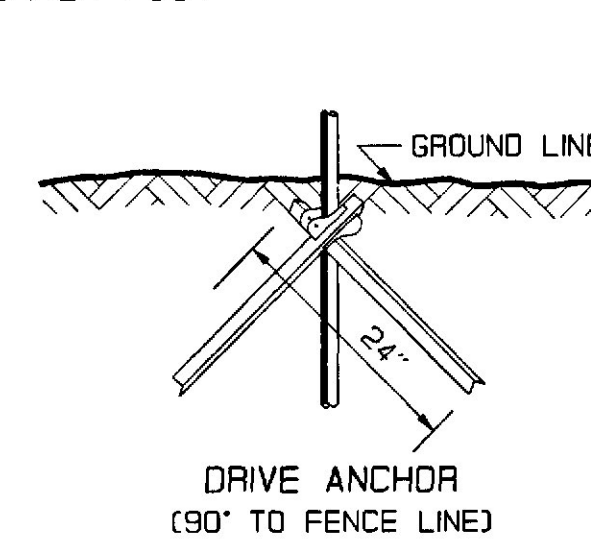
FE005



END OR CORNER POST

LINE POST

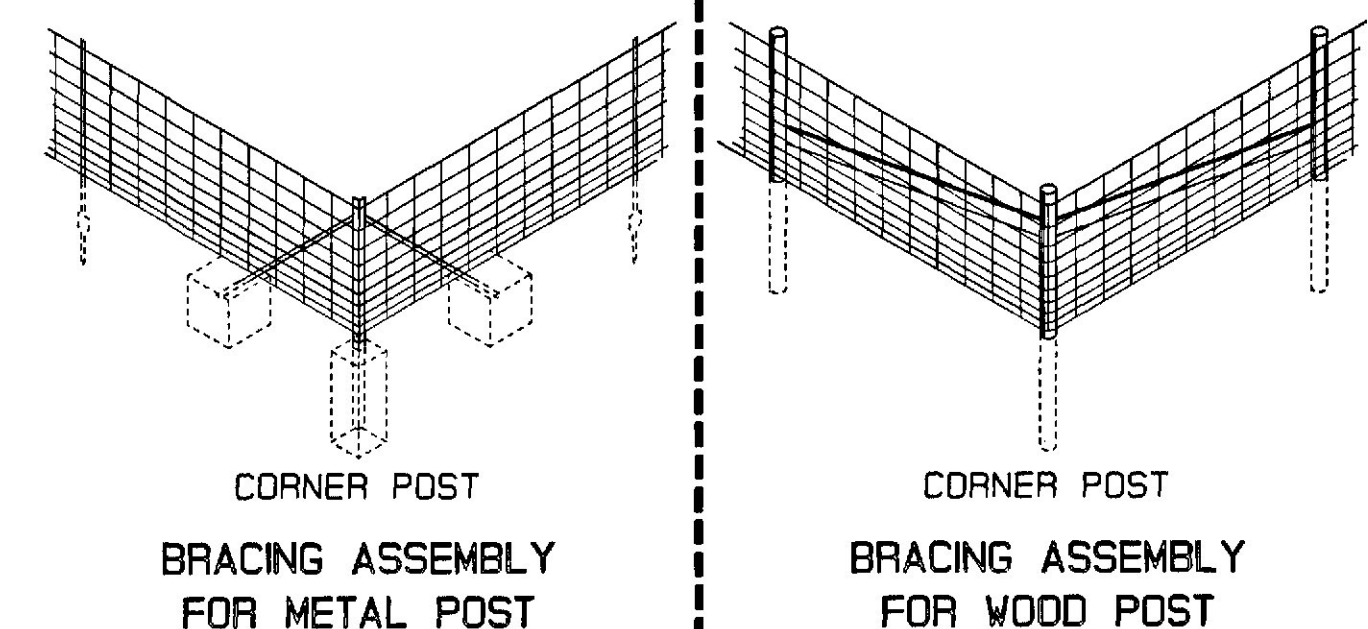
LINE POST



SPEC. 607

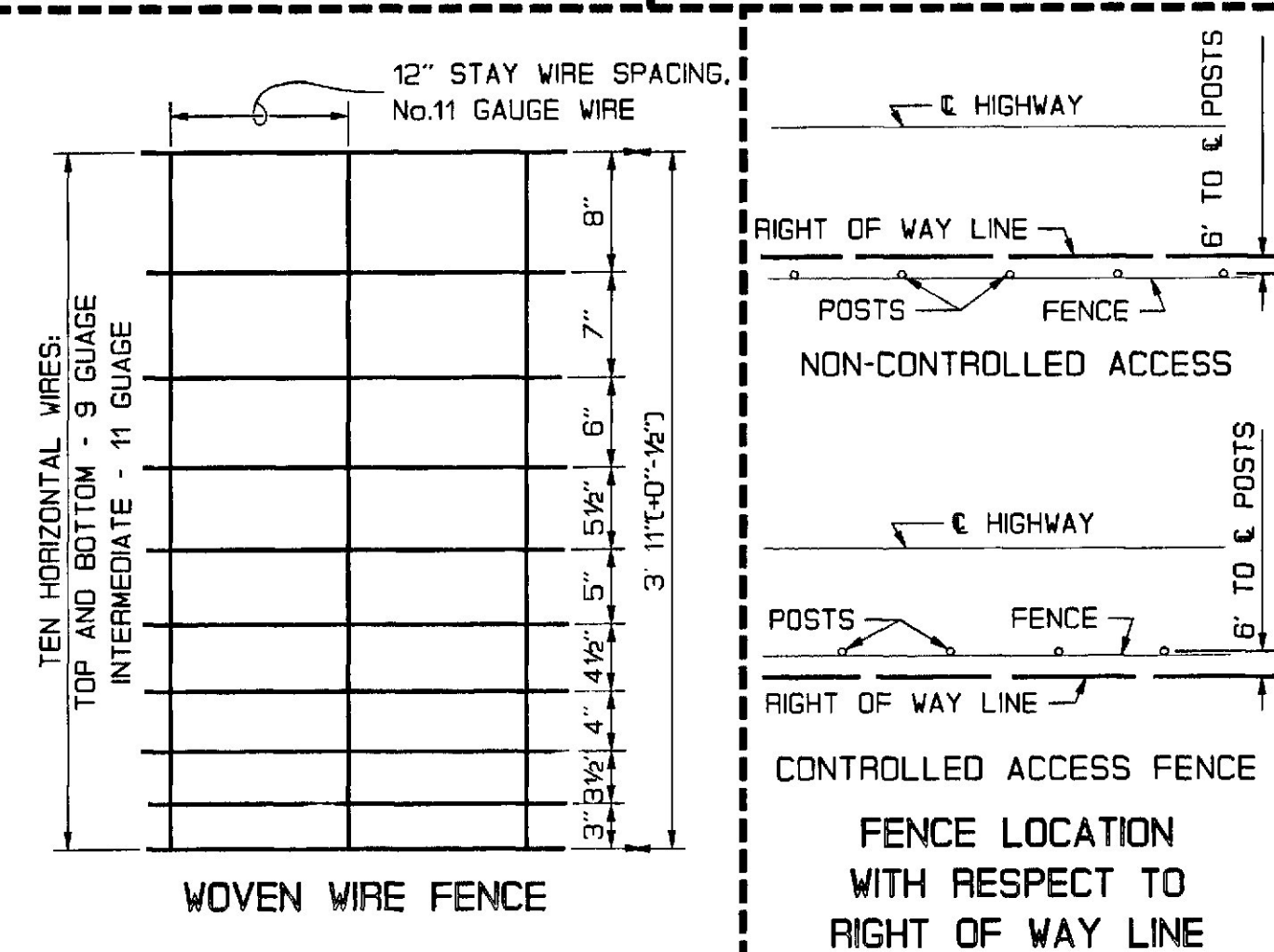
CHAIN LINK FENCE

FE006



BRACING ASSEMBLY FOR METAL POST

BRACING ASSEMBLY FOR WOOD POST

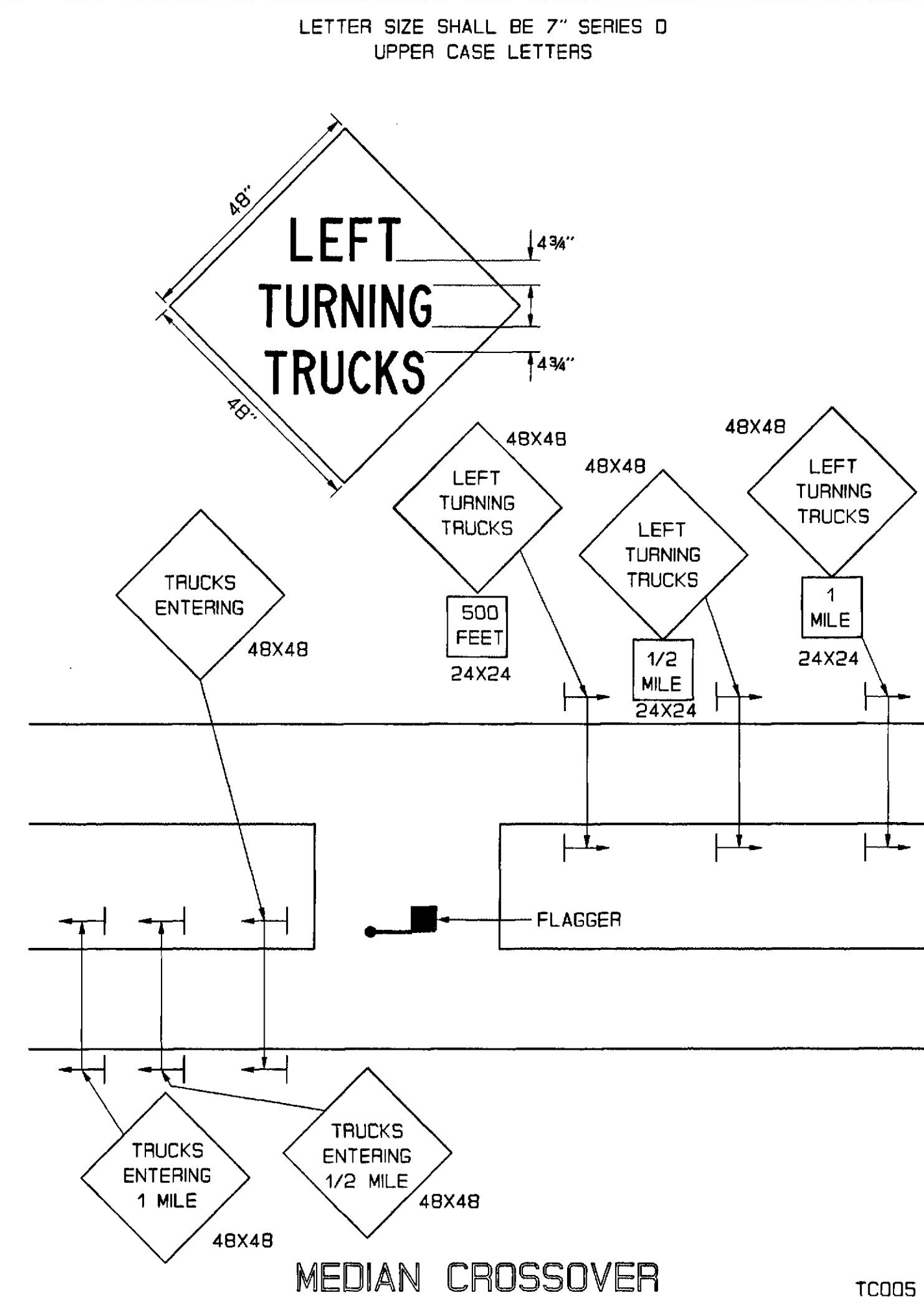
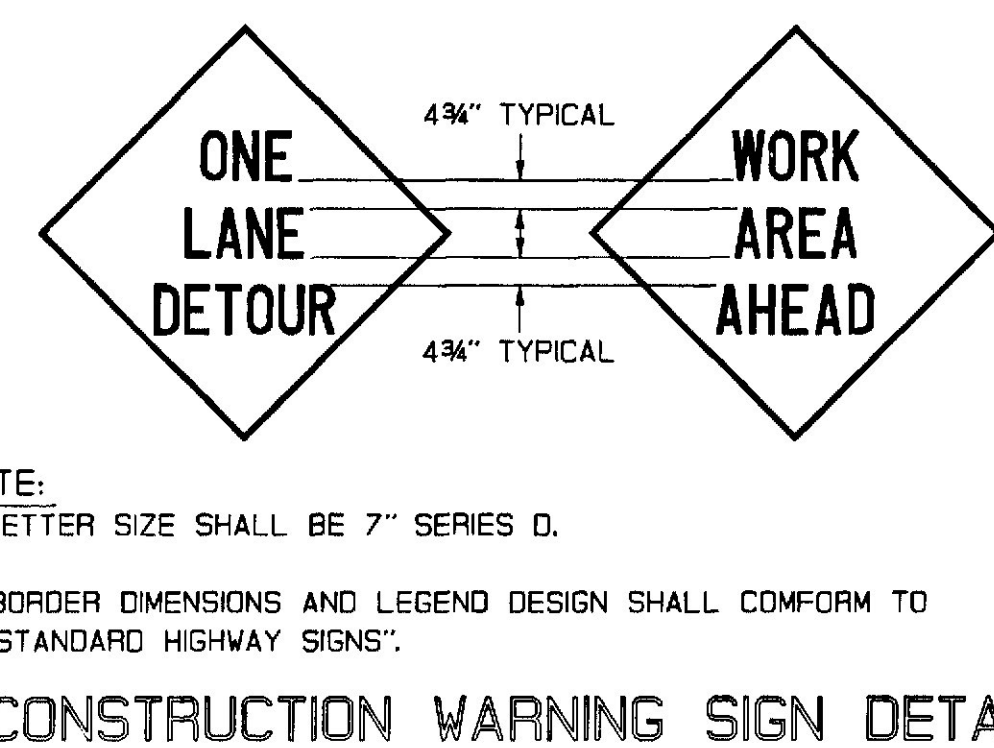
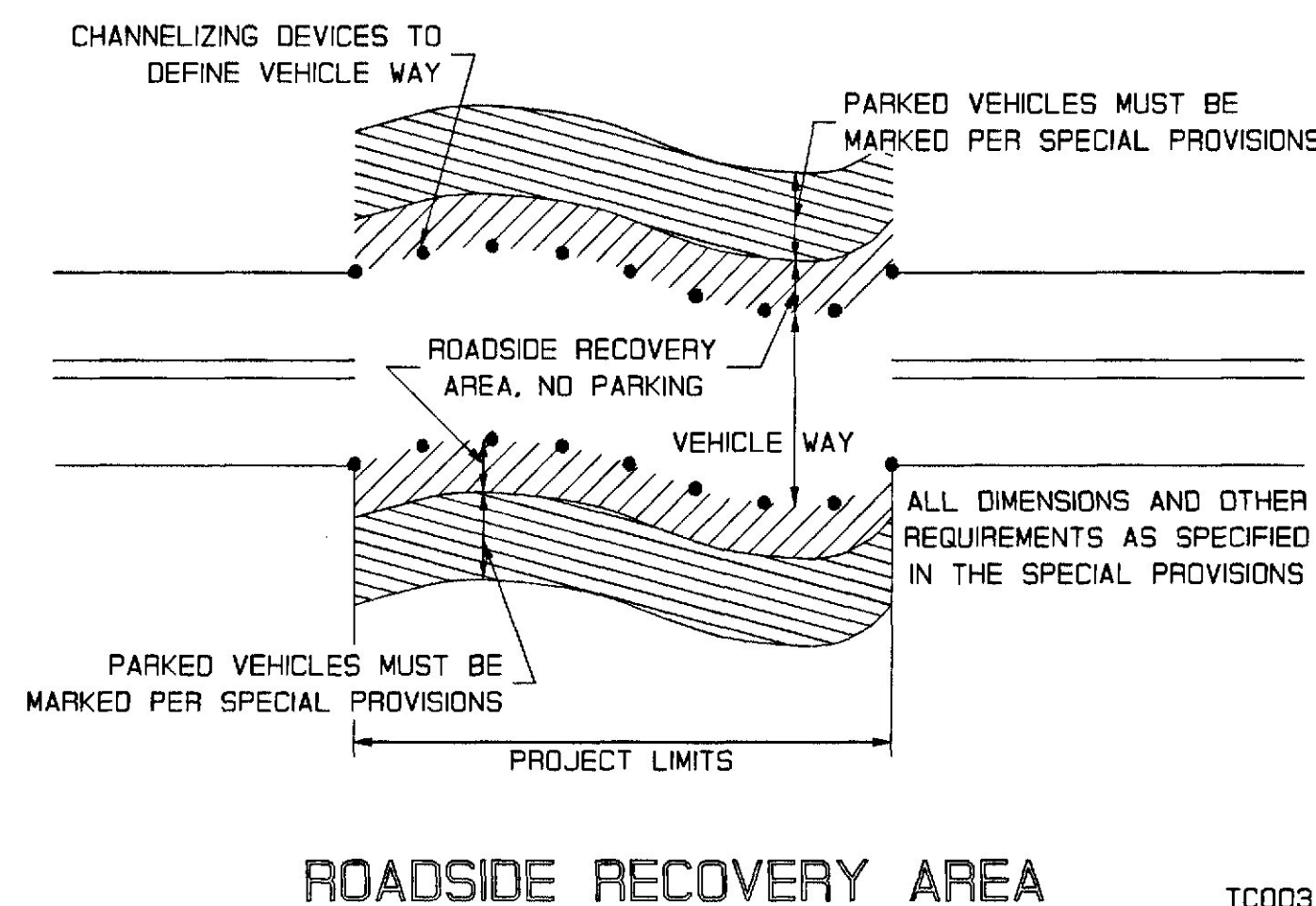
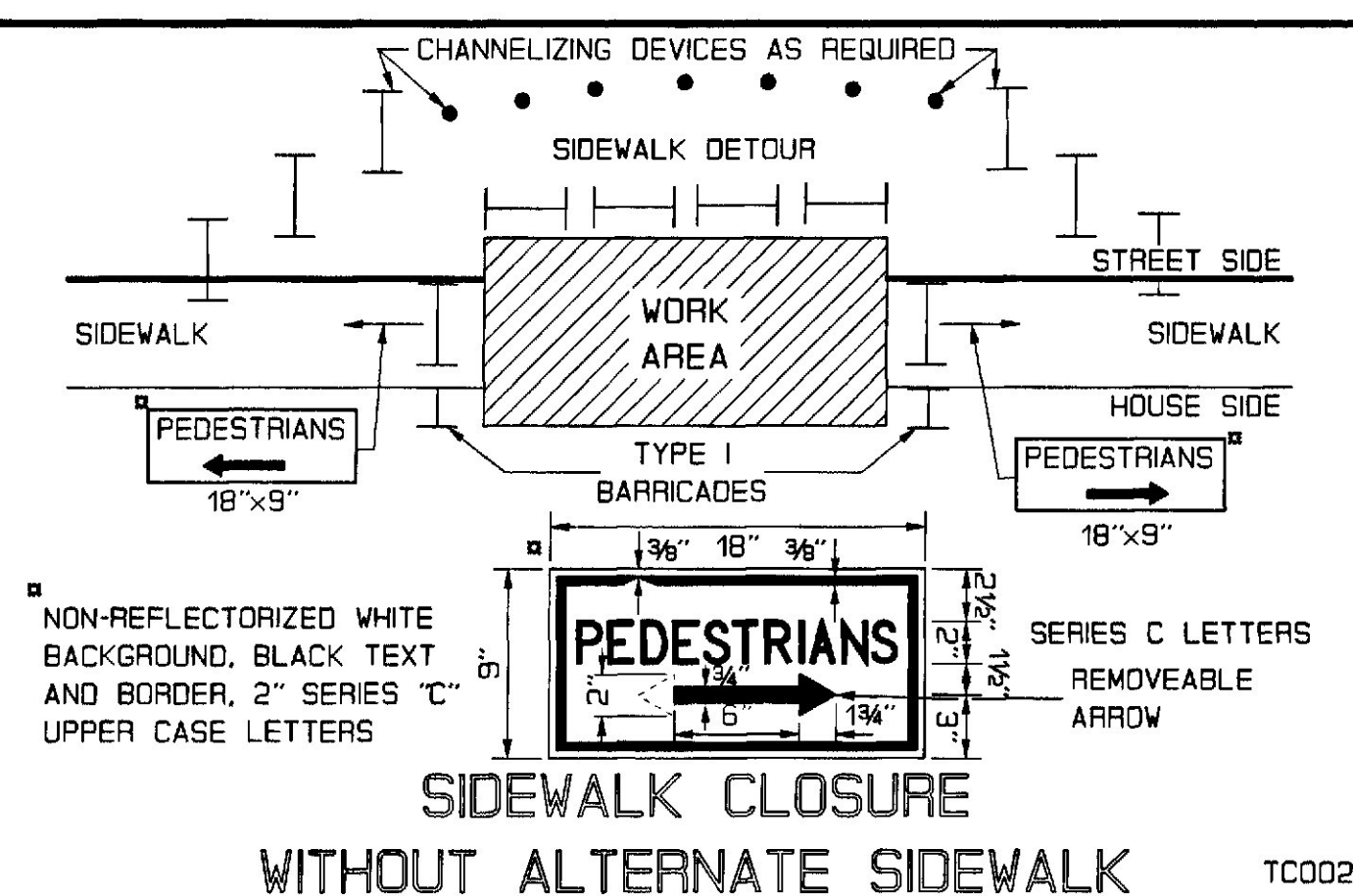
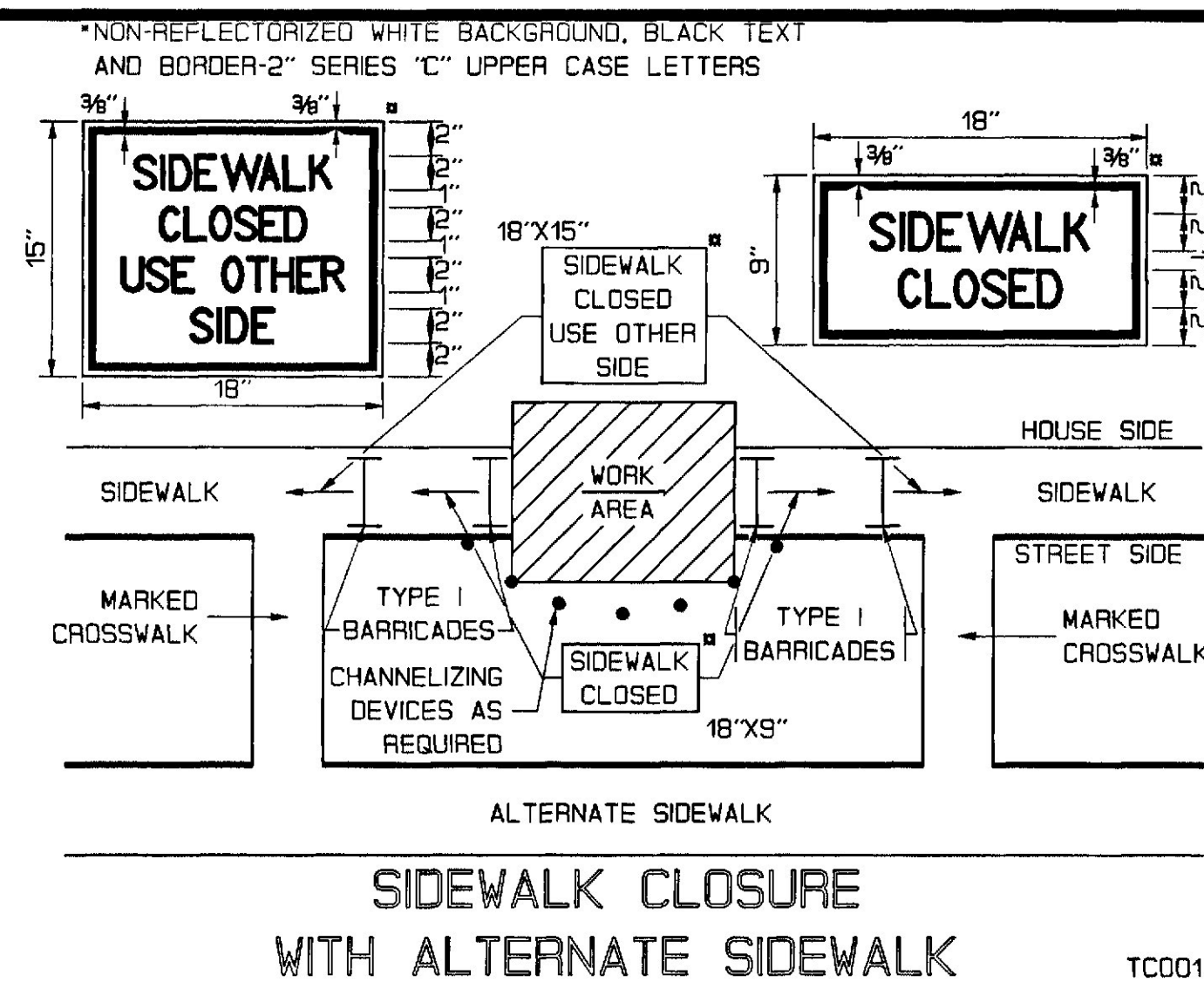


SPEC. 607

FE007

PROJECT DESIGN ENGINEER
DESIGN-DETAILED
CHECKED
REVISIONS
FIELD CHANGES

290CT96-0100.30



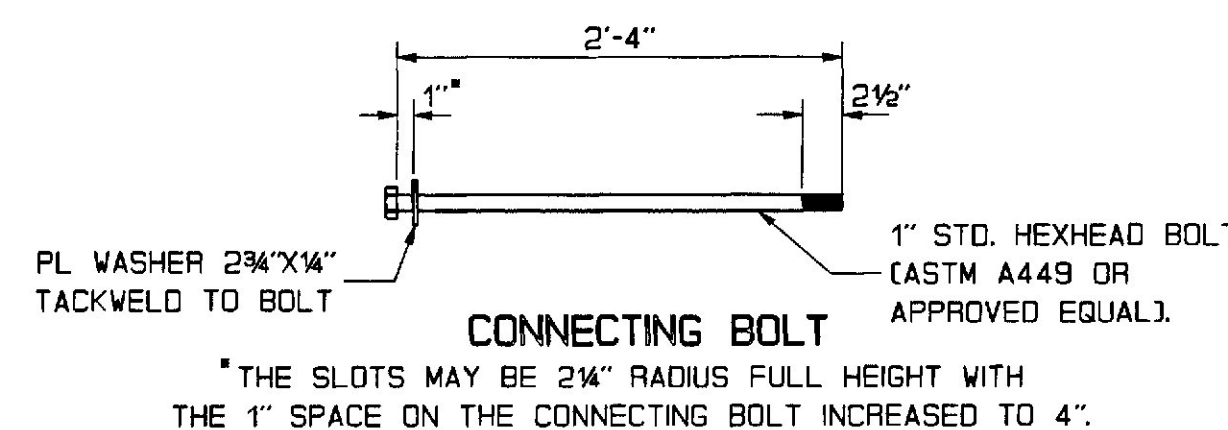
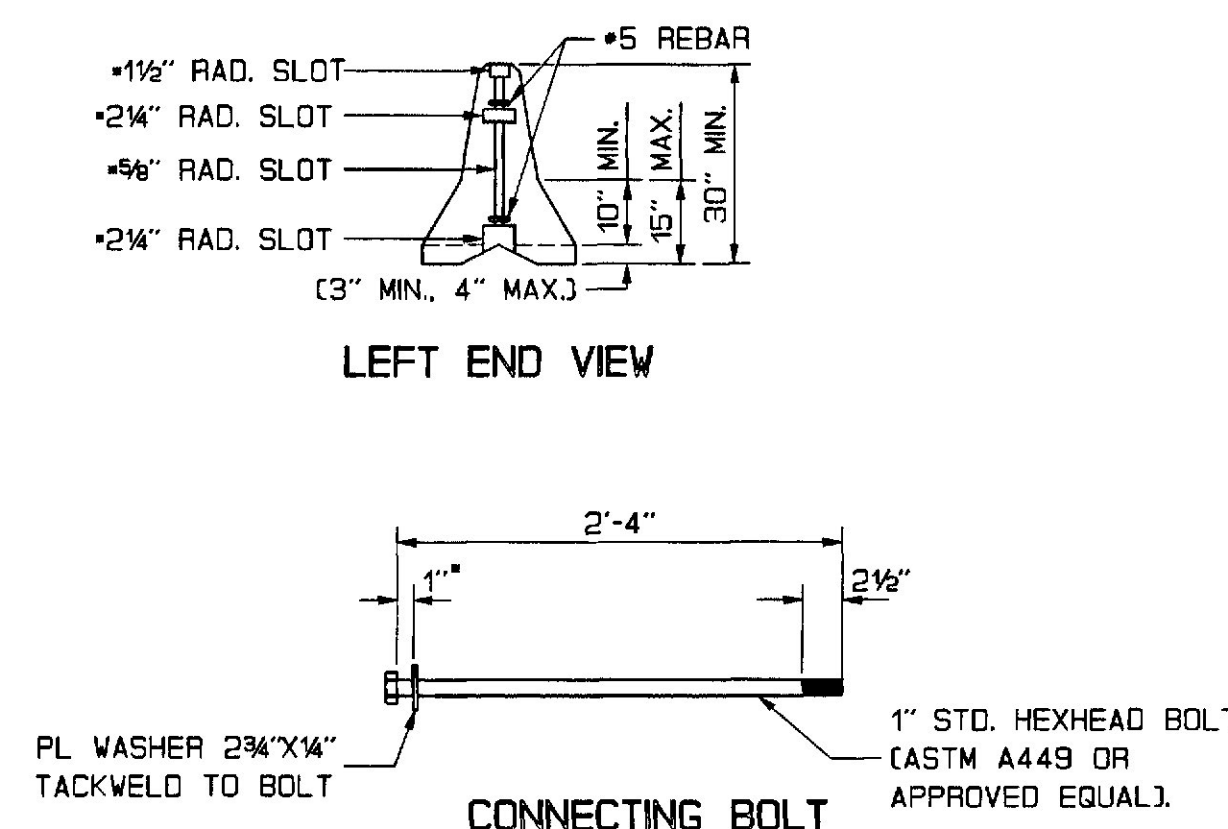
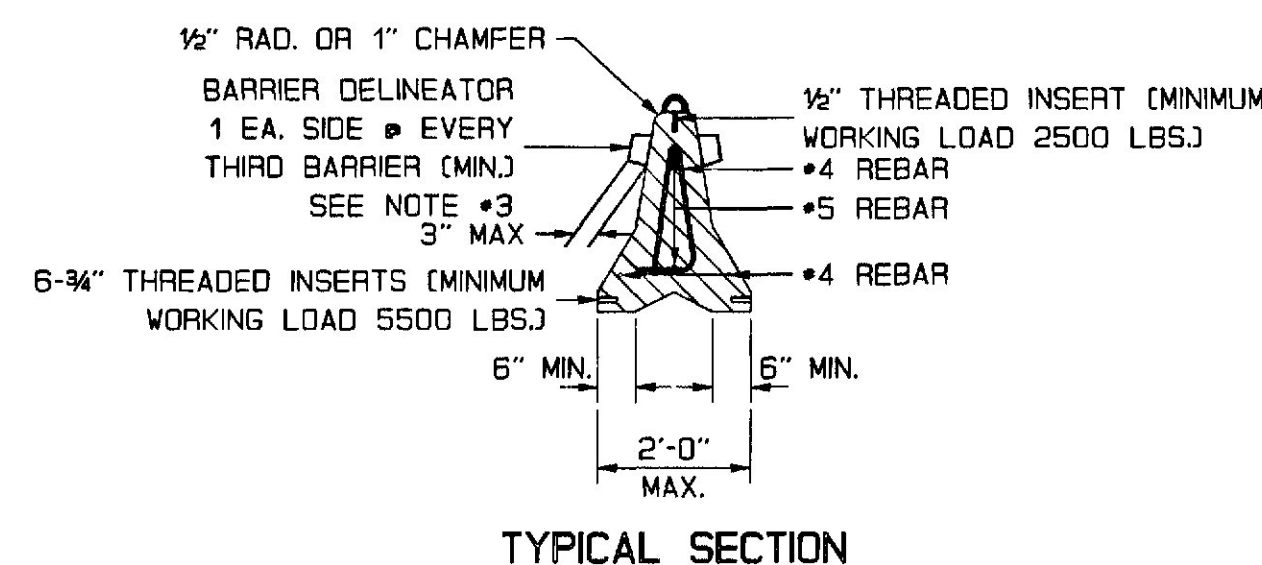
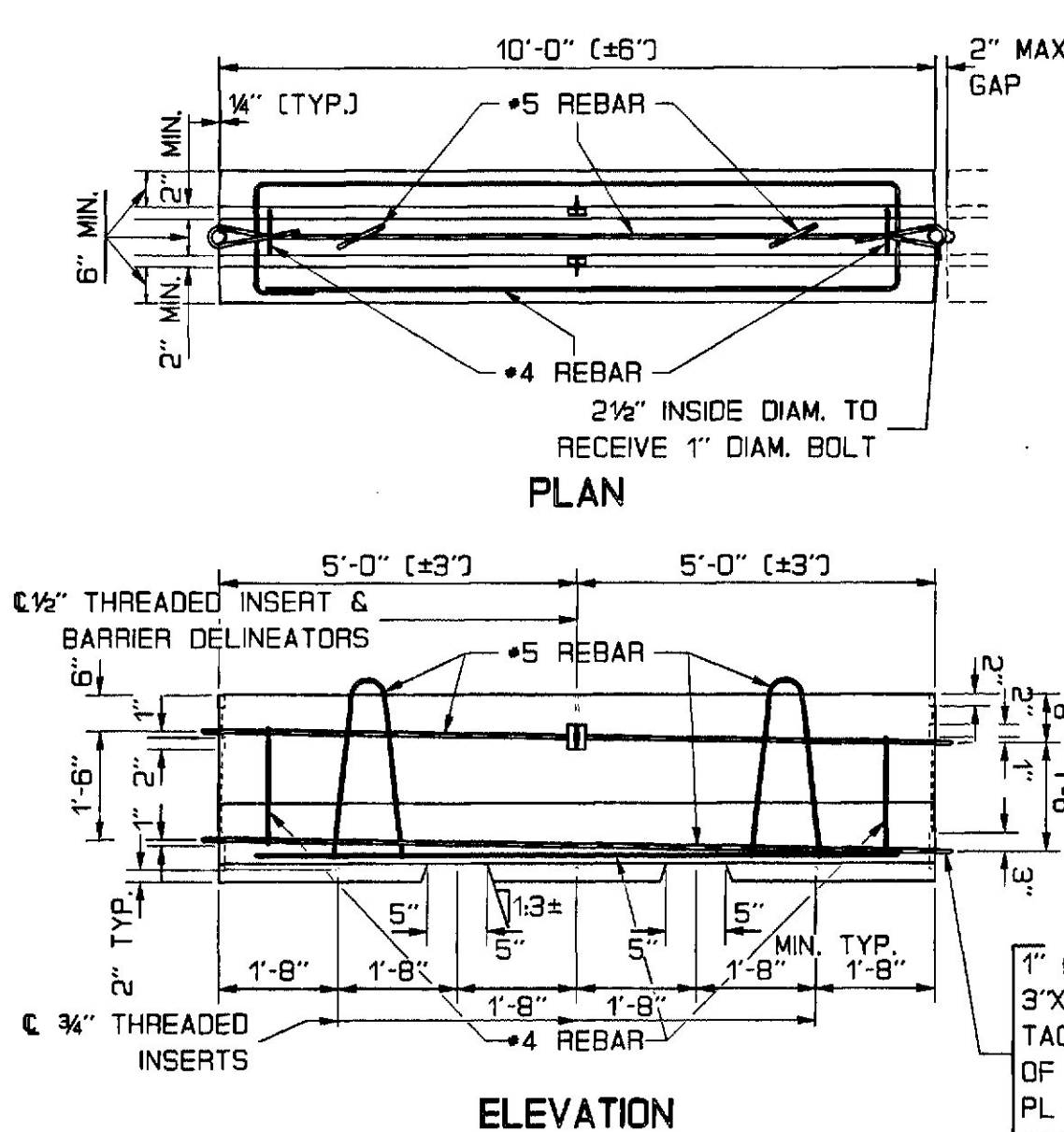
GENERAL NOTES FOR SIGNING

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

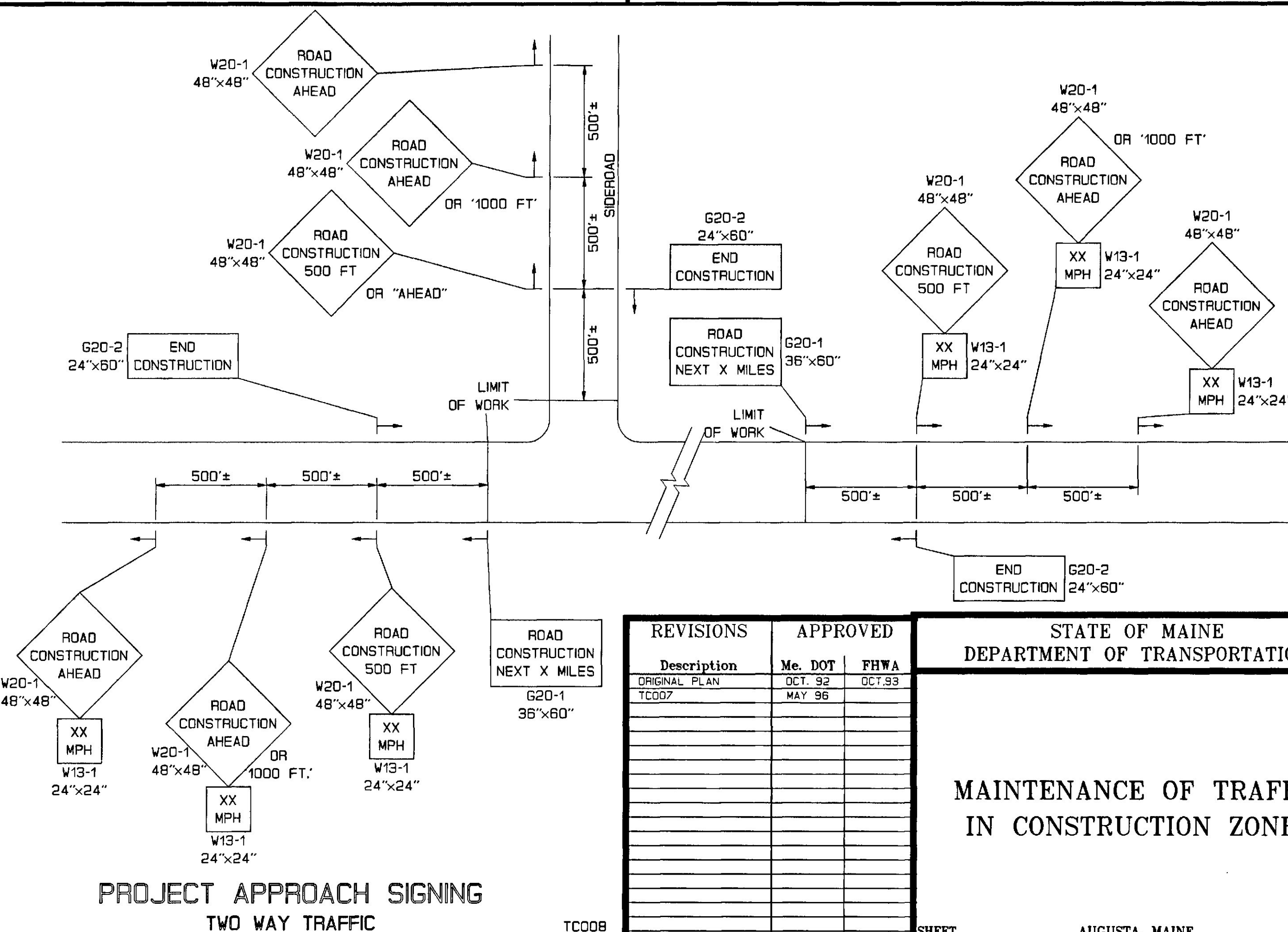
IF S IS EQUAL TO OR GREATER THAN 45 M.P.H.
$$L = W \times S$$

WHERE:
L-LENGTH OF TAPER IN FEET
S-POSTED SPEED IN M.P.H.
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.
6. 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 M.P.H.= 45 FEET.
 - C. A DISTANCE IN TANGENT CHANNELIZATION EQUAL TO TWICE THE NUMERICAL VALUE OF THE OPERATION SPEED, I.E. 50 M.P.H. = 100 FT.
 7. ALL SIGNS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS", FHWA, 1979, AND REVISIONS THERETO.

F.H.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-0527(1)X	39	47



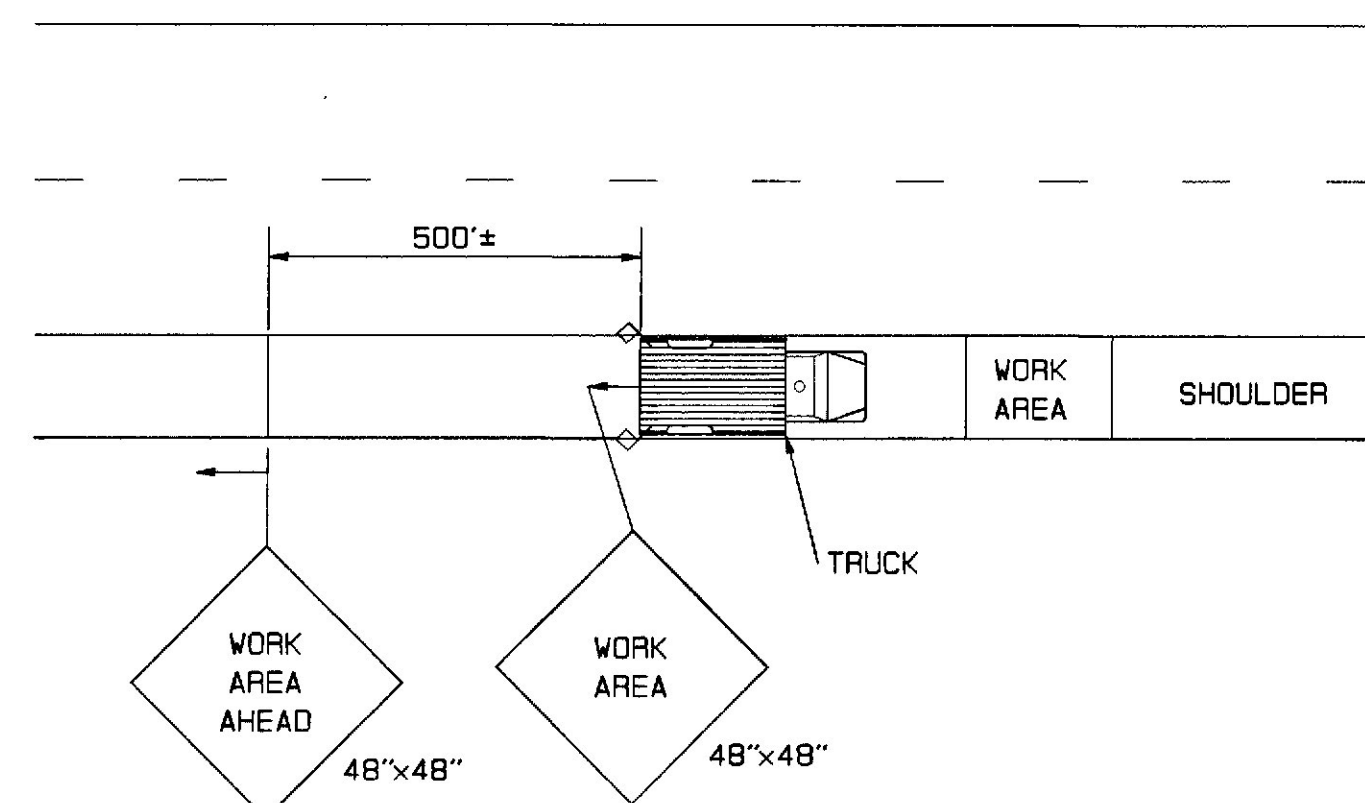
- NOTES:
1. SUBJECT TO APPROVAL BY THE ENGINEER, END CONNECTIONS OTHER THAN THE ONE DETAILED MAY BE USED, PROVIDED THEY ARE OF EQUIVALENT OR GREATER STRENGTH. ALL END CONNECTIONS SUBMITTED FOR APPROVAL SHALL INCORPORATE A CONNECTING PIN OR OTHER LOCKING DEVICE THAT IS POSITIVELY SECURED AGAINST ACCIDENTALLY BEING DISLODGED UNDER IMPACT.
 2. THE REINFORCING STEEL SHOWN IS THE MINIMUM REQUIRED. LIFTING ARRANGEMENT SIZE AND LOCATIONS OF HOLD-DOWN INSERTS ARE ADVISORY ONLY. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE ADEQUATE LIFTING POINTS AND HOLD-DOWN ARRANGEMENTS.
 3. BARRIER DELINEATORS SHALL BE BI-DIRECTIONAL WITH A MINIMUM EFFECTIVE REFLECTIVE AREA OF 8.0 SQUARE INCHES AS APPROVED BY THE ENGINEER. THE REFLECTOR SHALL PREFERABLY BE OF METHYL METHACRYLATE, AND THE HOUSING OF ACRYLONITRILE BUTADIENE STYRENE. AS AN ALTERNATIVE REFLECTORS MAY BE MOUNTED ON THE TOP OF THE BARRIER.

[illegible]

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

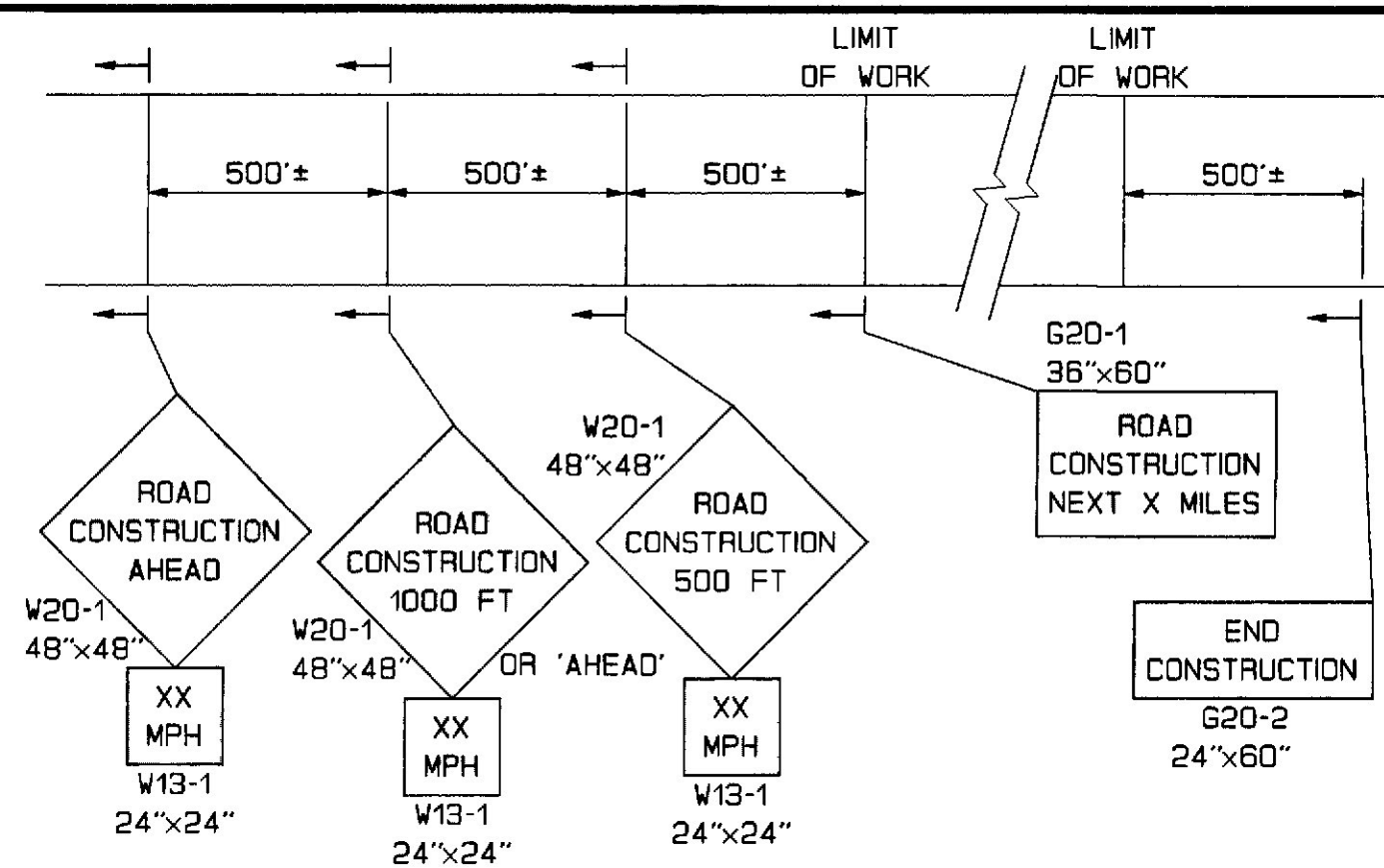
MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONES

SHEET AUGUSTA, MAINE HD-10



SHOULDER WORK-MOBILE

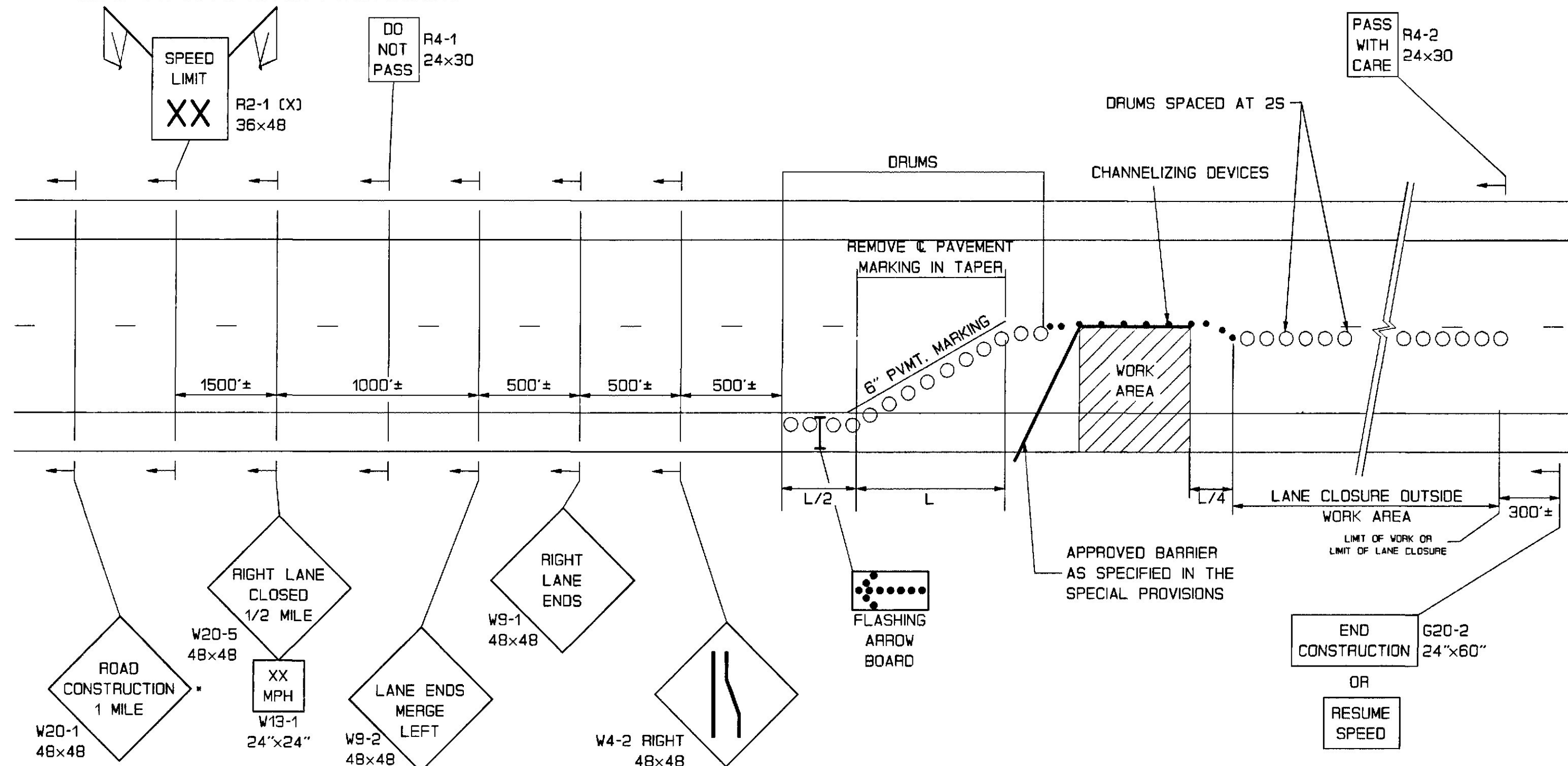
TC010



PROJECT APPROACH SIGNING
EXPRESSWAY

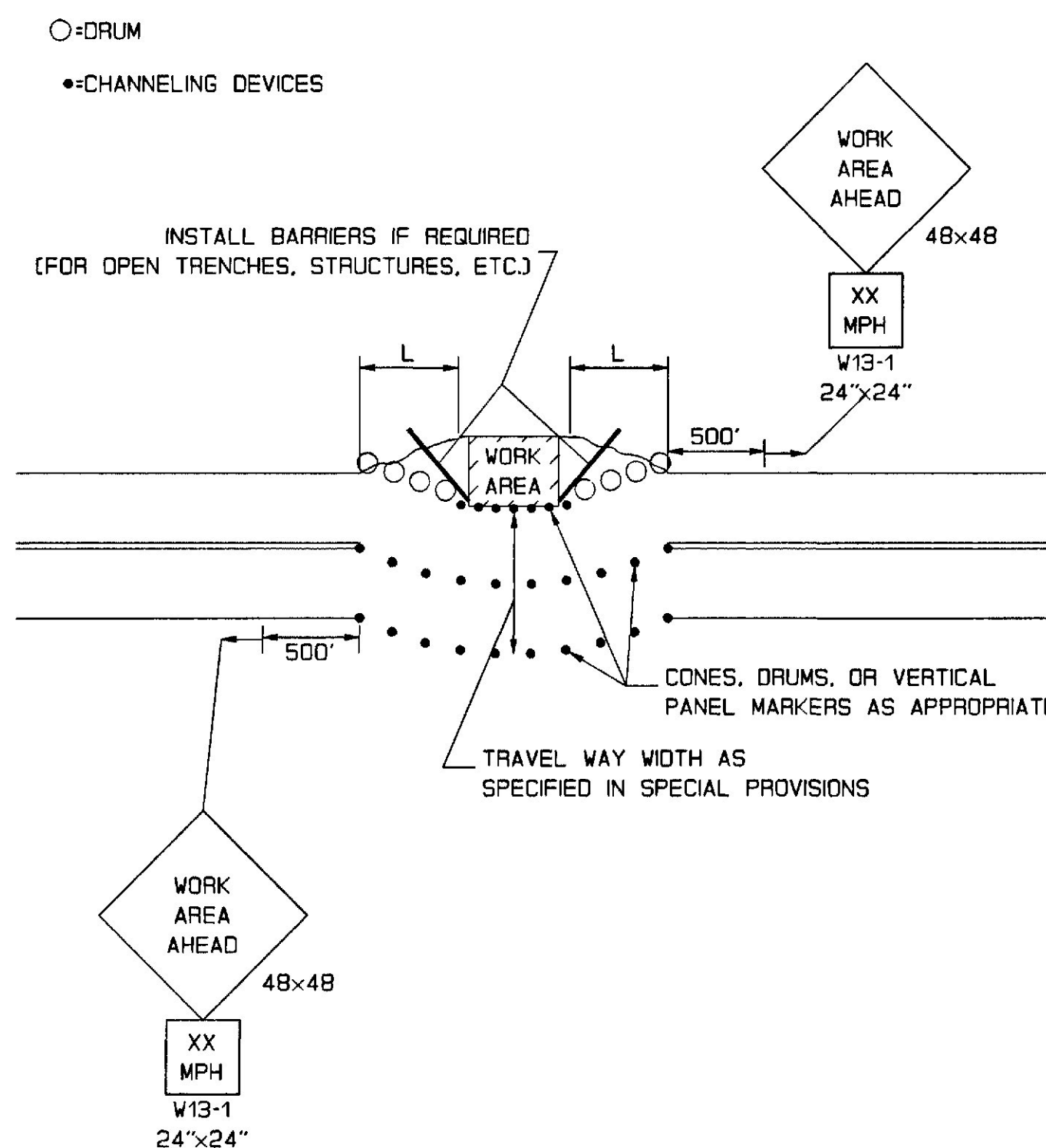
TC009

NOTE
• OMIT W20-1 IF LANE CLOSURE SIGNING ARRAY IS WITHIN PROJECT LIMITS.
ALTER PAVEMENT MARKINGS AS REQUIRED.
MAINTAIN 15 FT. LATERAL CLEARANCE.
USE SIMILAR SIGNING FOR LEFT LANE CLOSURE.



EXPRESSWAY LANE CLOSURE

TC011



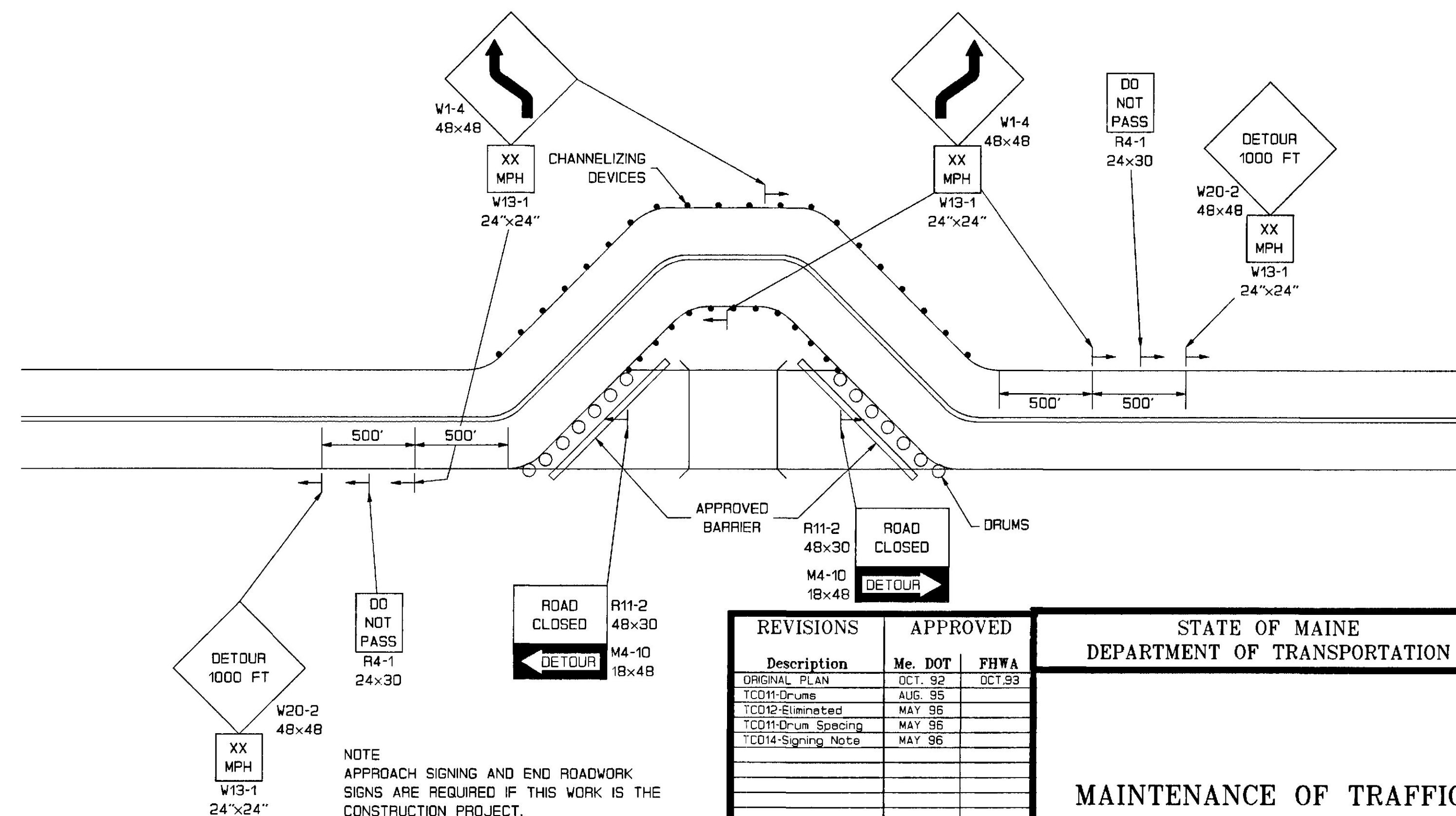
TWO WAY TRAFFIC
MAINTAINED THROUGH WORK AREA

TC013

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

PLANS

29OCT96-010030



TWO WAY TWO LANE DETOUR

TC014

REVISIONS	APPROVED
Description	Me. DOT
ORIGINAL PLAN	OCT. 92
TC011-Drums	AUG. 95
TC012-Eliminated	MAY. 96
TC011-Drum Spacing	MAY. 96
TC014-Signing Note	MAY. 96

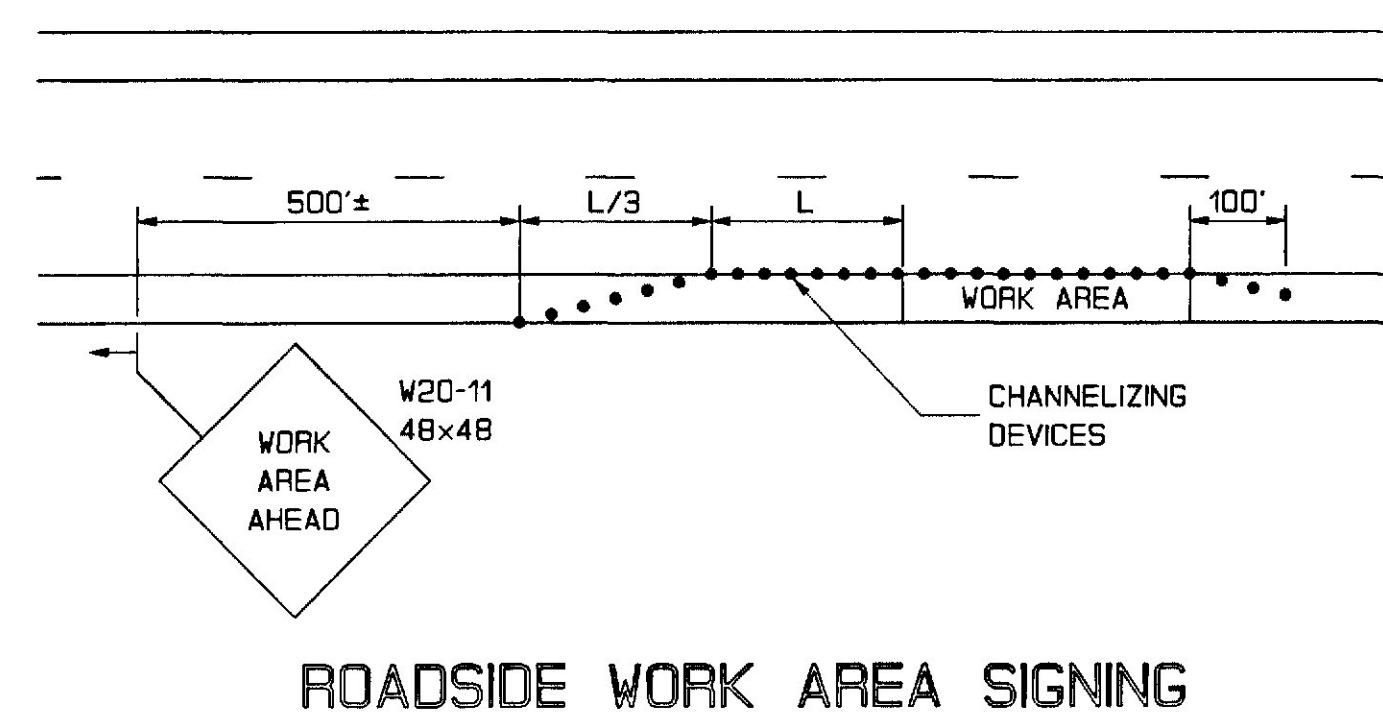
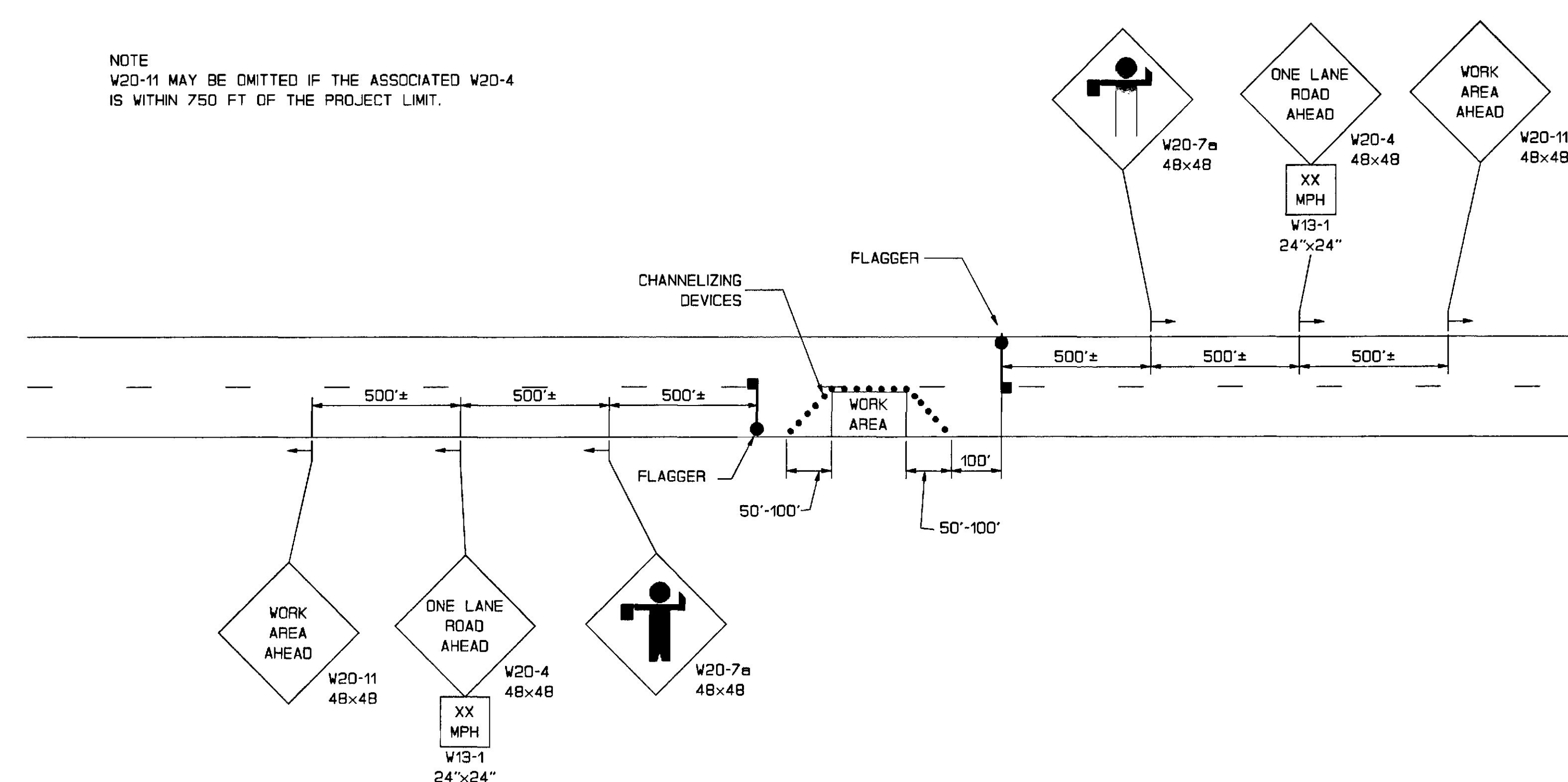
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONES

SHEET

AUGUSTA, MAINE

HD-11

SCARBORO



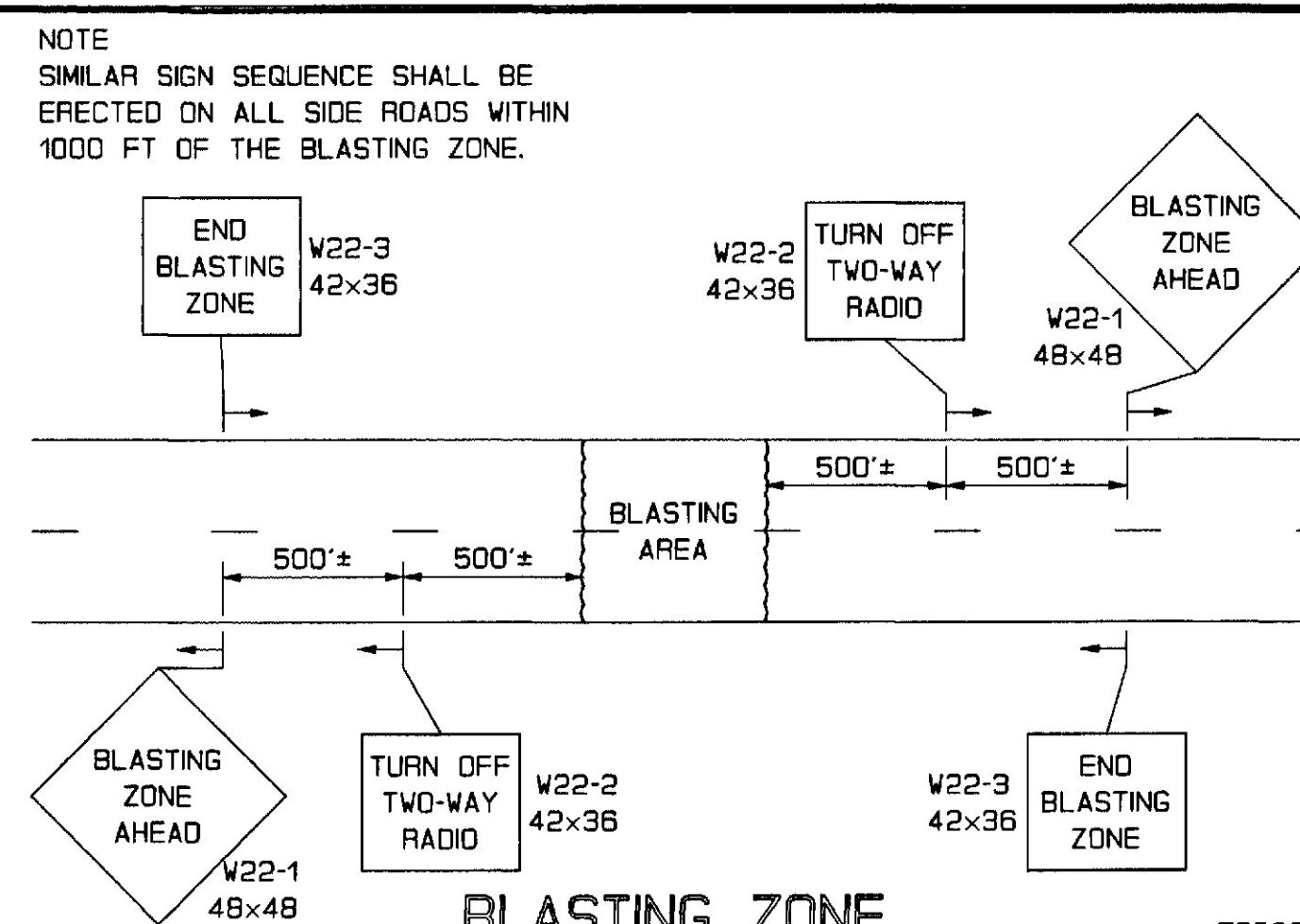
KEY

(21) PLASTIC CRASH BARREL

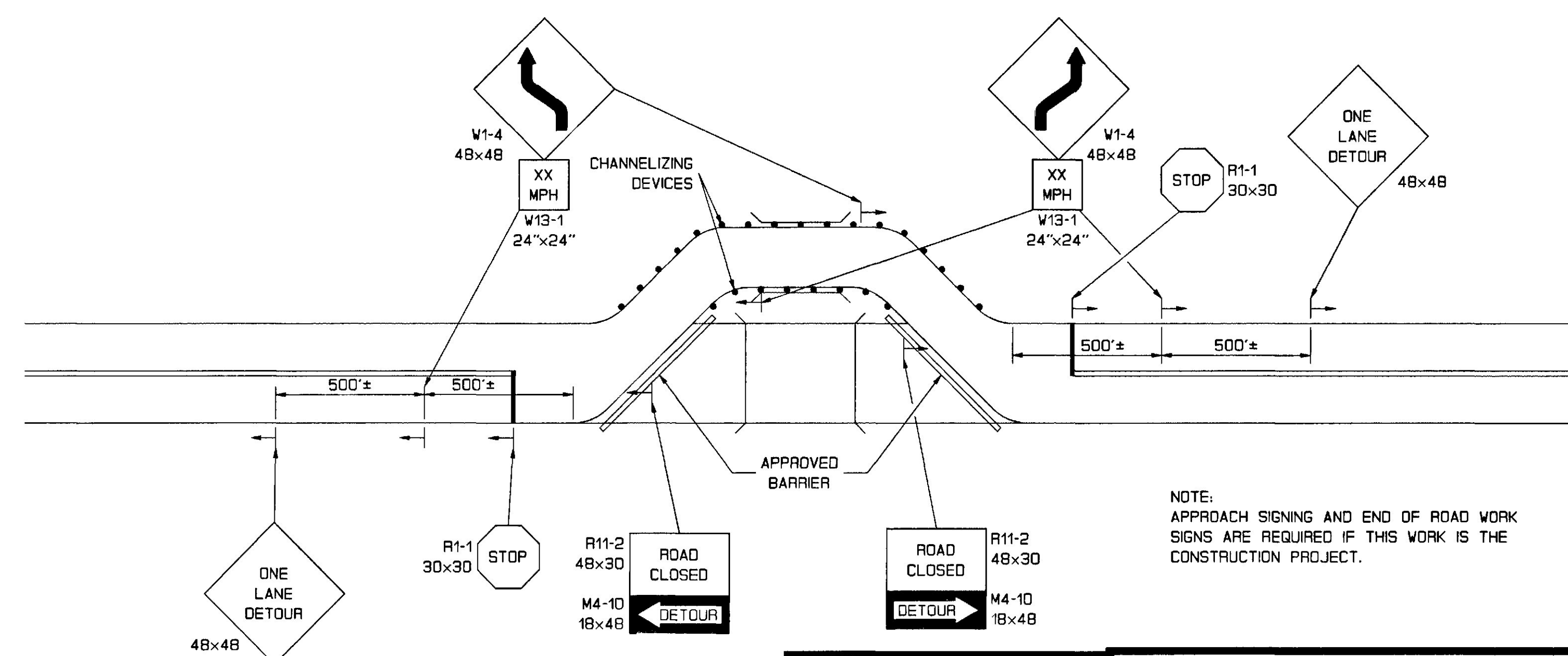
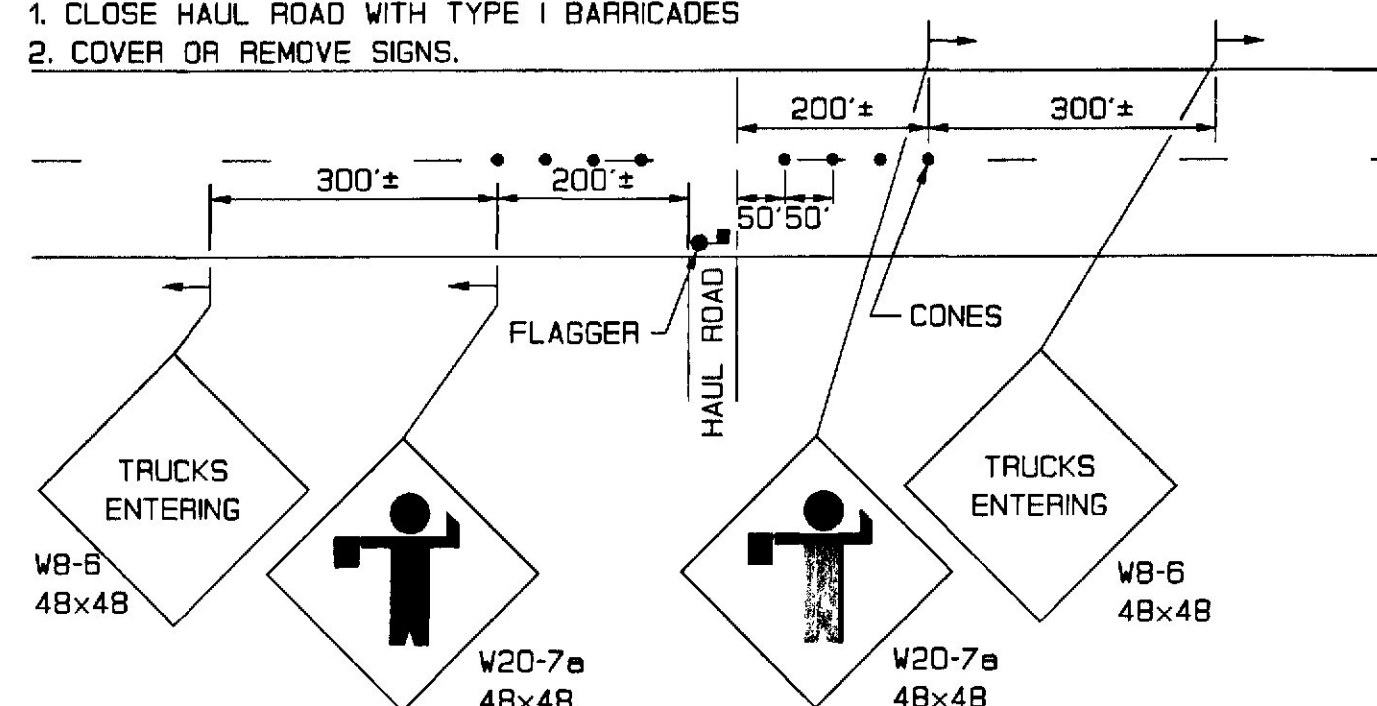
WEIGHT OF SAND IN
HUNDREDS OF POUNDS

ITEM NO. 52732	
20 & 25 MPH Direction of Traffic → (14) (21) (14) (21)	50 MPH Direction of Traffic → (2) (2) (4) (7) (7) (14) (14) (21) (7) (14) (14) (21)
30 & 35 MPH Direction of Traffic → (7) (14) (14) (21) (14) (14) (21)	55 MPH Direction of Traffic → (2) (2) (2) (4) (7) (7) (14) (14) (21) (7) (14) (14) (21)
40 MPH Direction of Traffic → (4) (7) (14) (14) (21) (14) (14) (21)	60 MPH Direction of Traffic → (2) (2) (2) (4) (7) (4) (7) (14) (14) (21) (4) (7) (14) (14) (21)
45 MPH Direction of Traffic → (2) (4) (7) (7) (14) (14) (21) (7) (14) (14) (21)	

TC022 Maximum Deceleration : 6 - 7 G's



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

[illegible]

NOTE:
APPROACH SIGNING AND END OF ROAD WORK
SIGNS ARE REQUIRED IF THIS WORK IS THE
CONSTRUCTION PROJECT.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

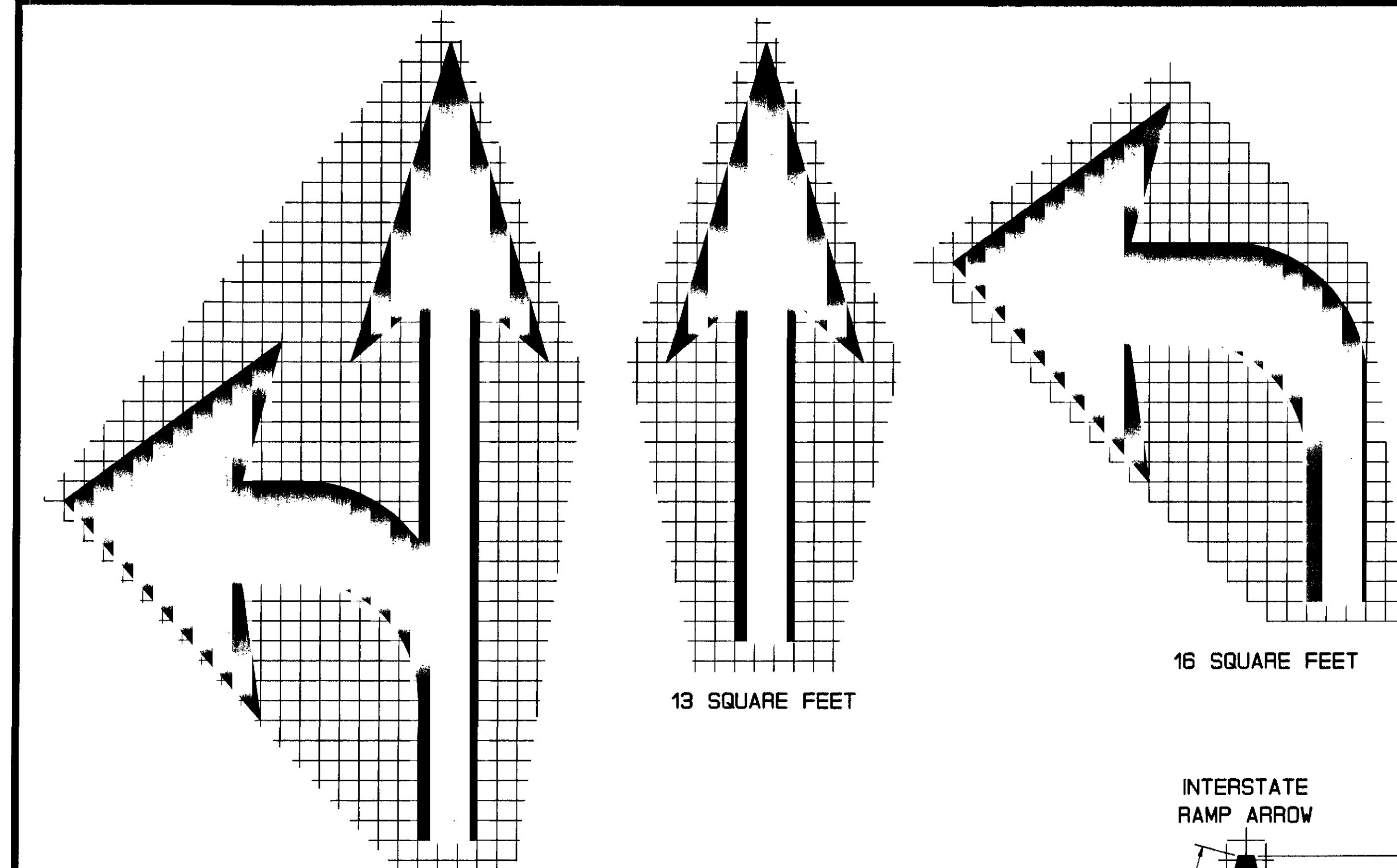
MAINTENANCE OF TRAFFIC IN CONSTRUCTION ZONES

SHEET AUGUSTA, MAINE HD-12

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

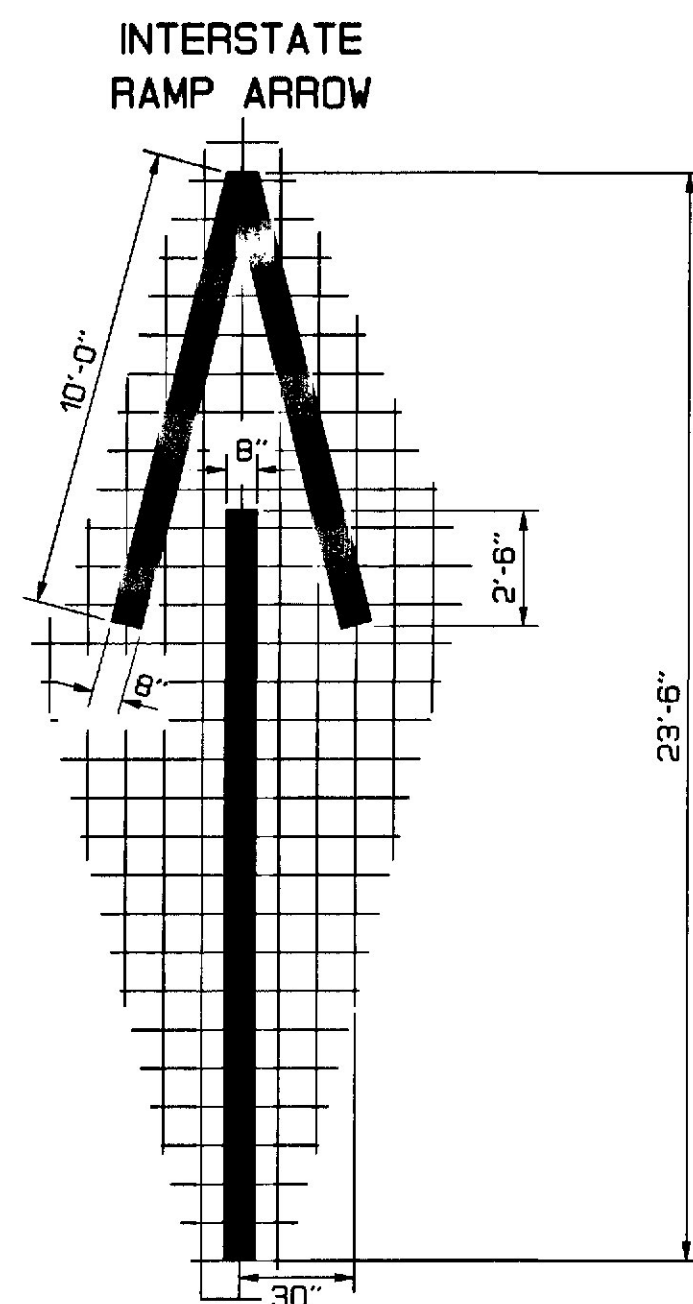
PLANS

29OCT96-01.00.30

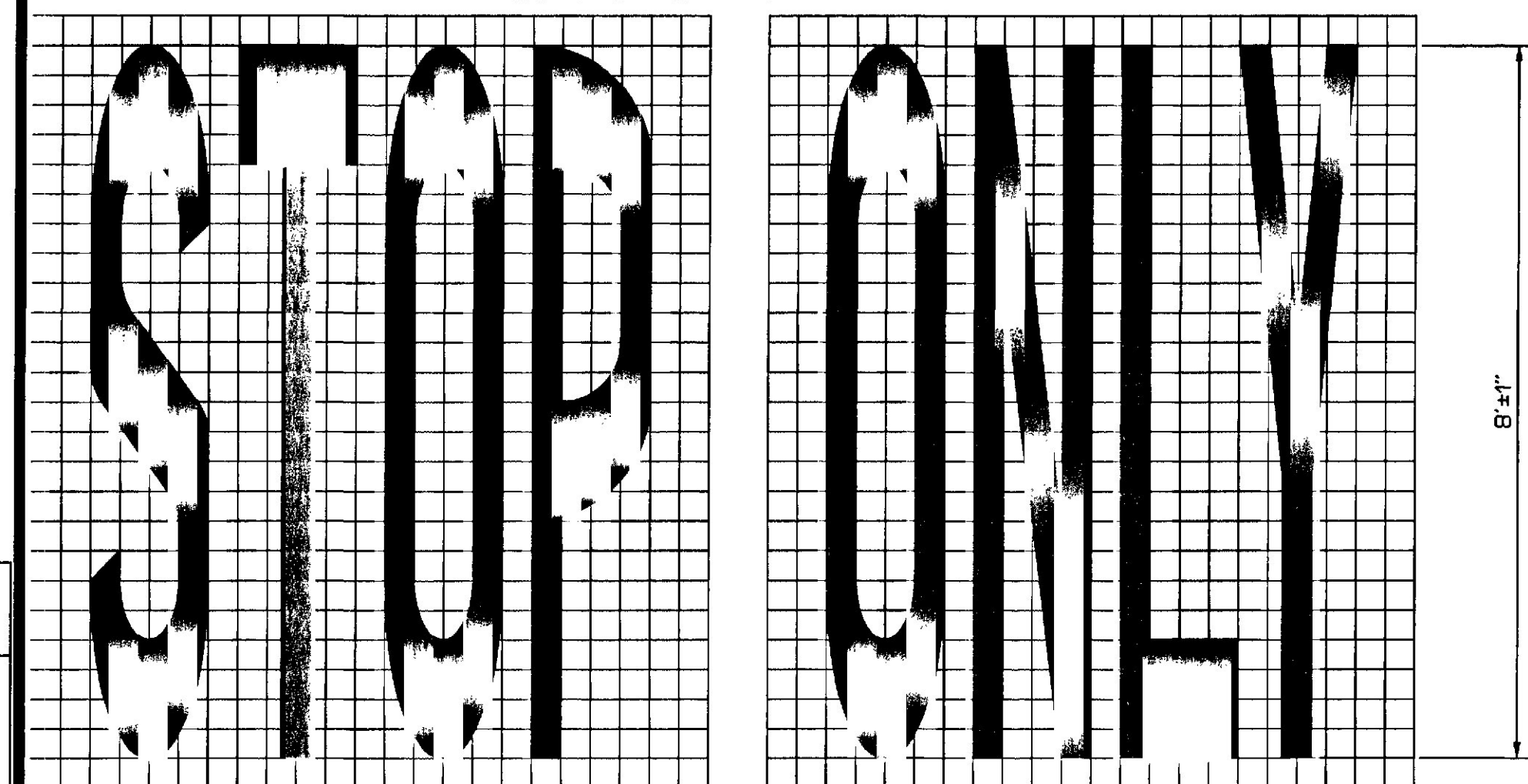


13 SQUARE FEET

16 SQUARE FEET

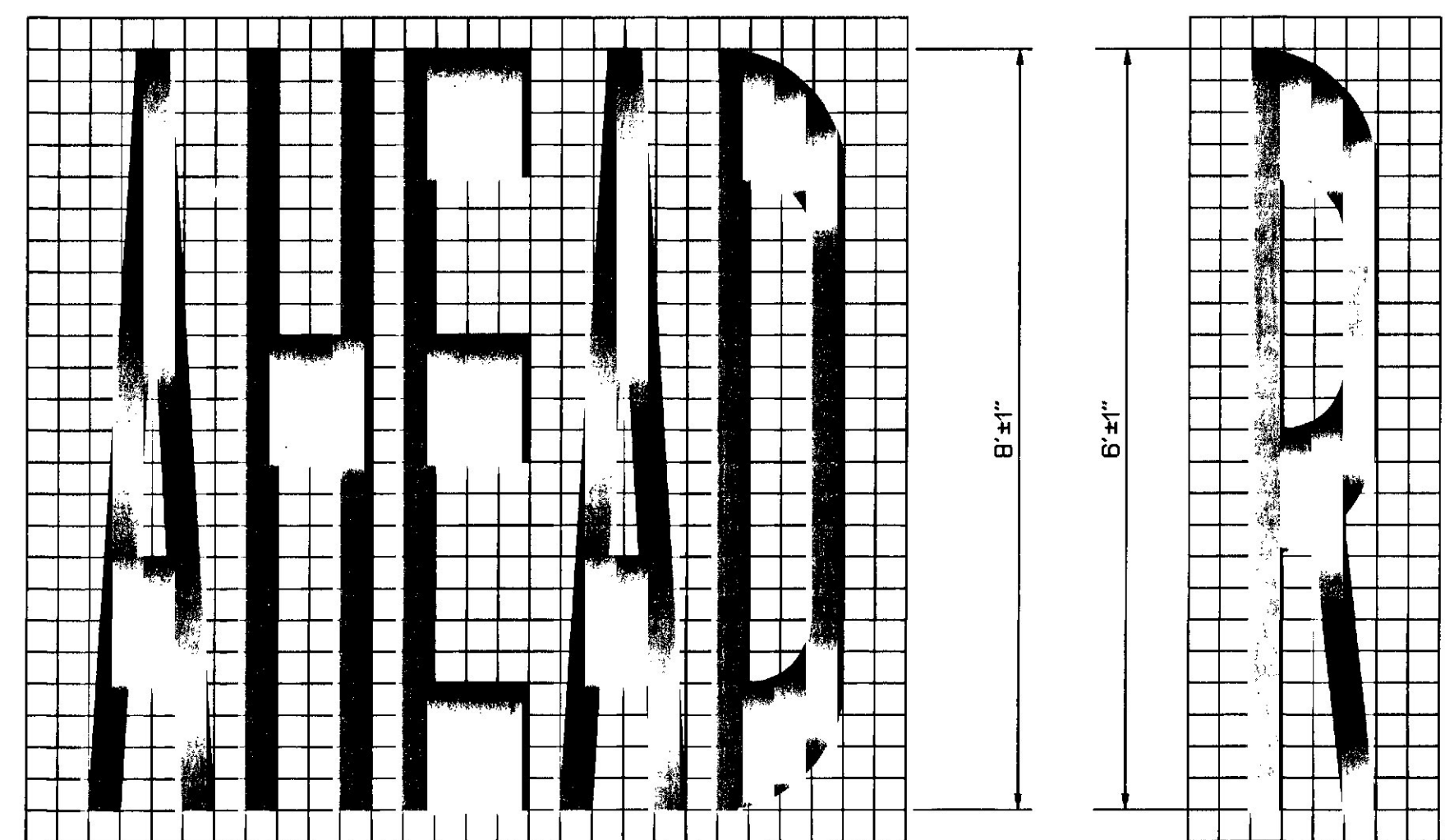


ONE SQUARE=10 INCHES
25 SQUARE FEET



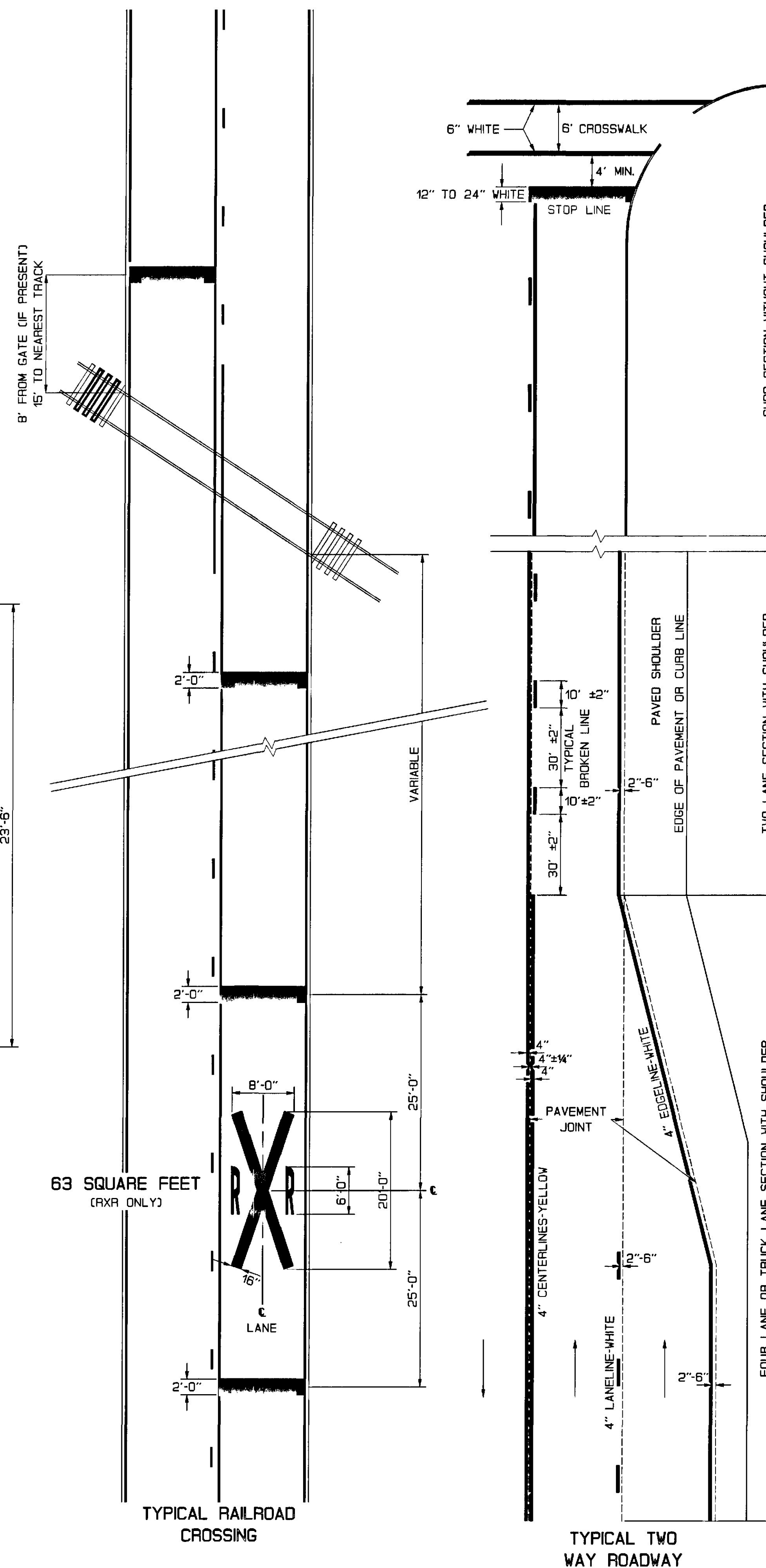
22 SQUARE FEET

22 SQUARE FEET

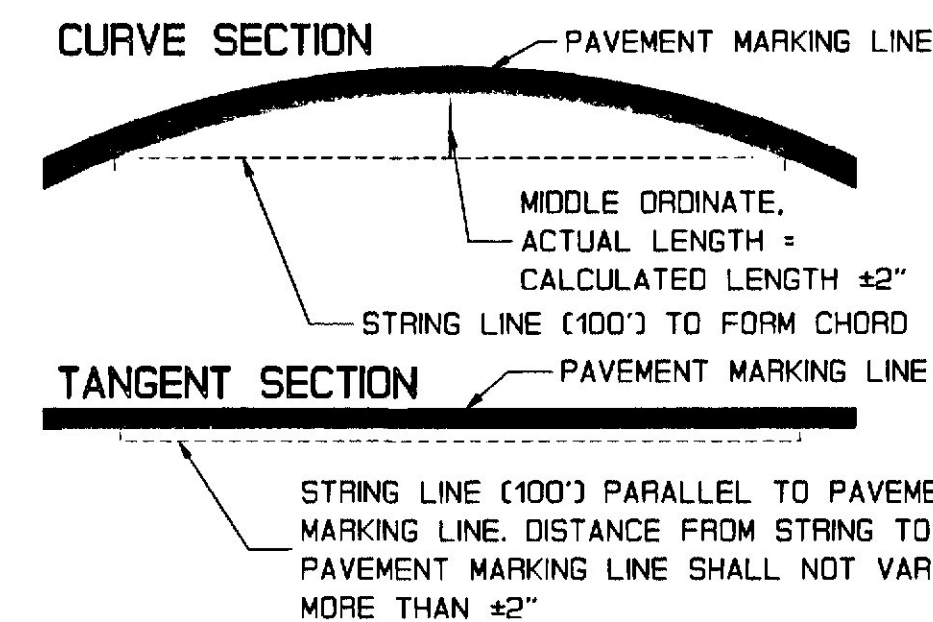


27 SQUARE FEET

ONE SQUARE=3 INCHES



TOLERANCE FOR PAVEMENT MARKING LINES



GENERAL NOTES

ALL PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", U. S. DOT, FHWA, 1988.

SYMBOLS AND ARROWS

STROKE WIDTH AND LINE WIDTH VARIANCE SHALL BE NO MORE THAN $\pm 1/4$ " FROM
DIMENSIONS SHOWN.

SQUARE FOOT DIMENSIONS SHOWN ARE PAY DIMENSIONS, PAID BY ITEM NO. 627.65

GRID IS MARKED IN FOUR INCH INTERVALLS EXCEPT AS NOTED. SYMPOLS AND LETTERS SHALL BE PROPORTIONED ACCORDING TO GRID AS SHOWN.

SPACING BETWEEN CHARACTERS SHALL BE ONE UNIT, BUT VISUAL SPACING MAY BE USED.

SPACING BETWEEN SYMBOL AND STOPLINE SHALL BE A MINIMUM OF 20'. SPACING BETWEEN
SYMBOL AND SYMBOL SHALL BE A MINIMUM OF 50' OR AS DIRECTED BY THE ENGINEER.

PAVEMENT MARKING LINES ON INTERSTATE HIGHWAYS SHALL BE 6" IN WIDTH.

6" CROSSWALK LINES SHALL BE PAID FOR BY ITEM 627.65.

4" LINES FOR PARKING SPACES SHALL BE PAID FOR BY ITEM 627.65.

[illegible]

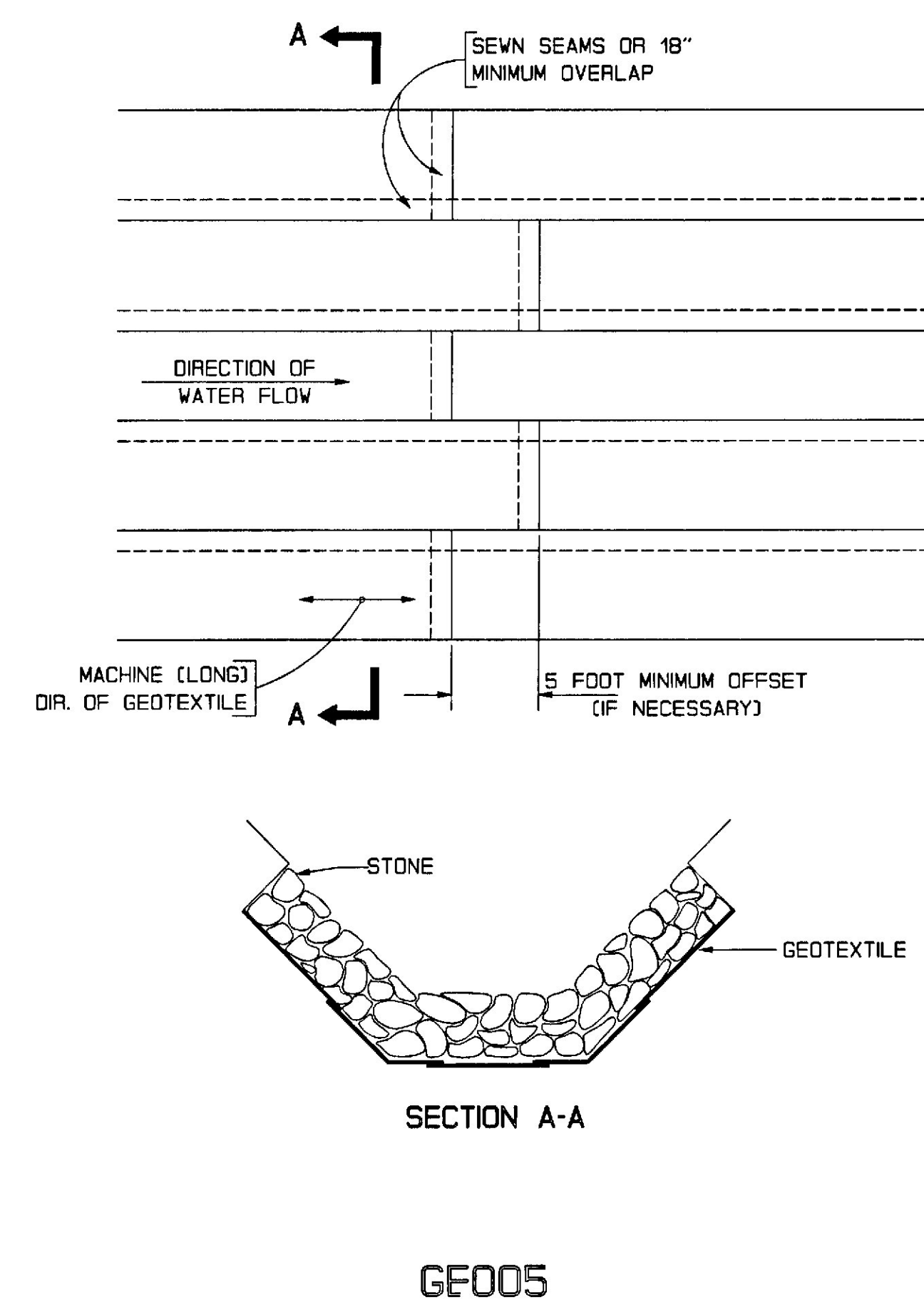
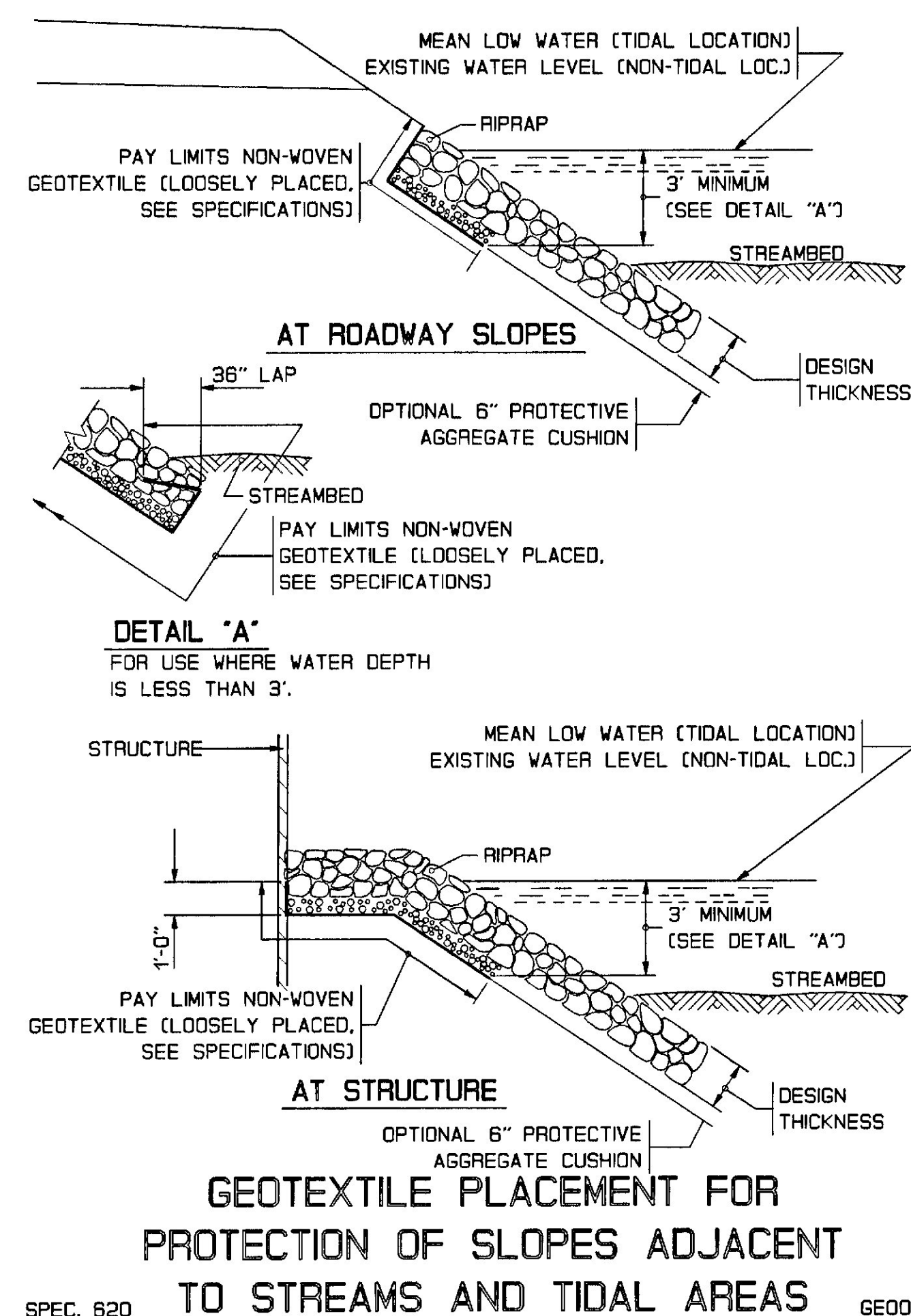
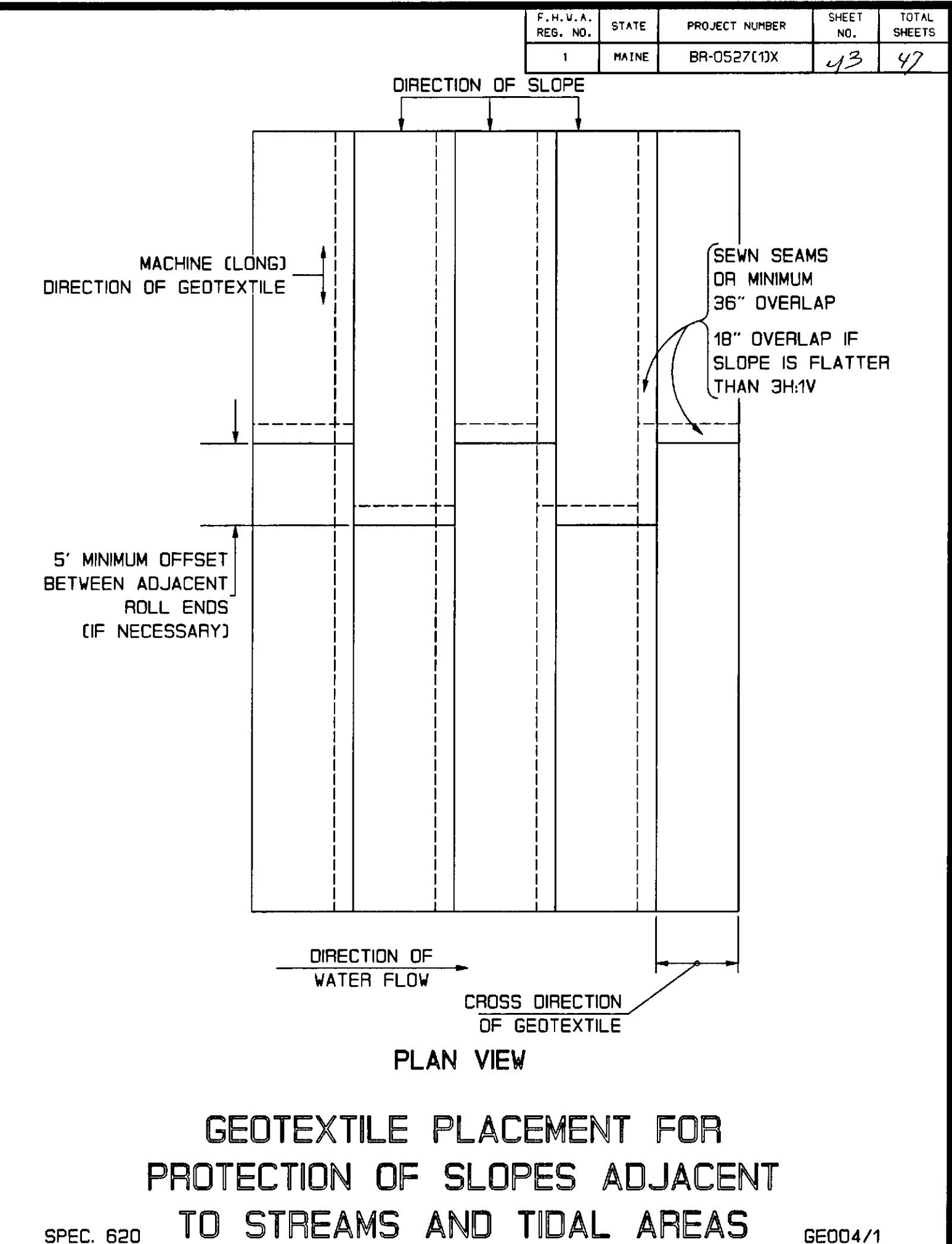
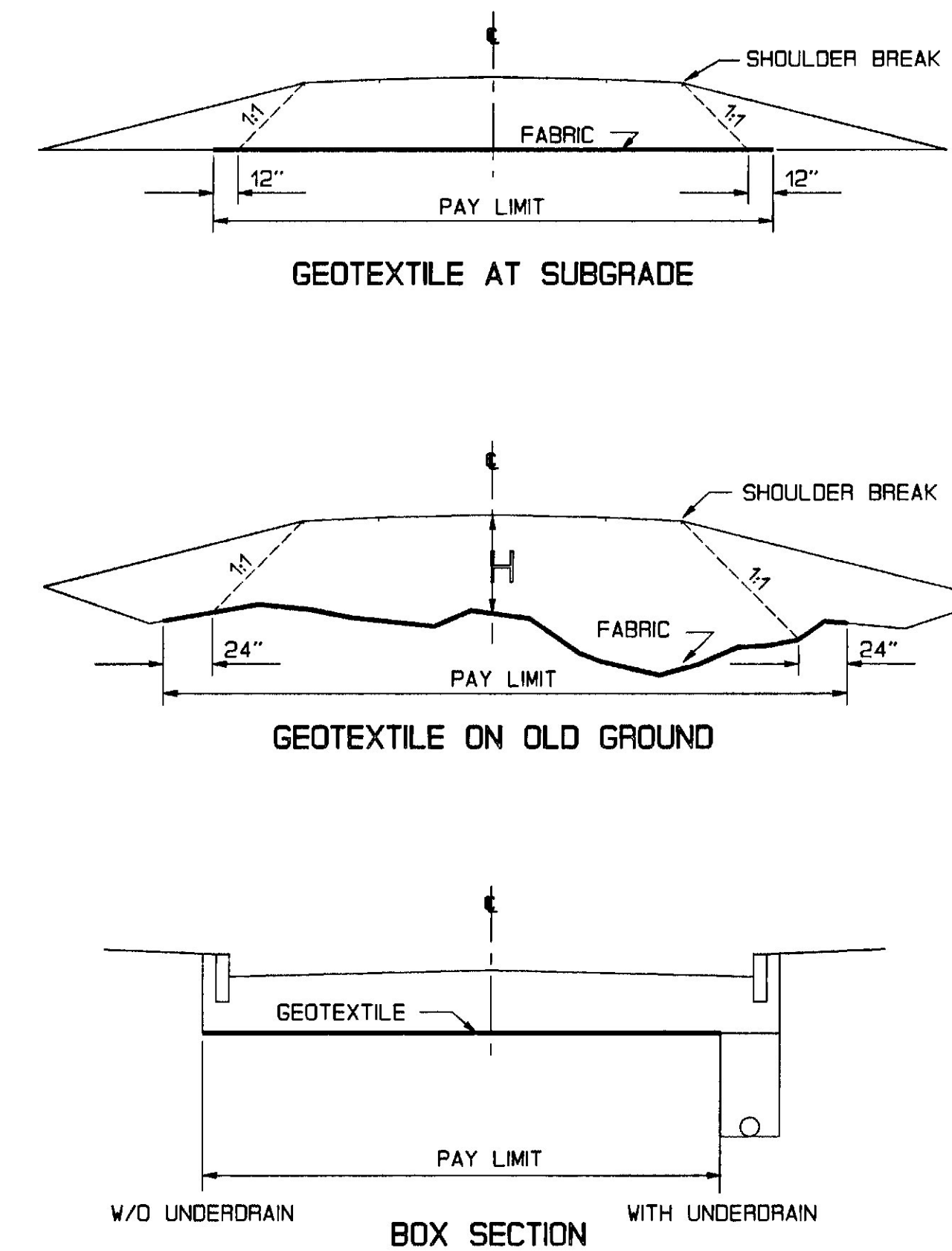
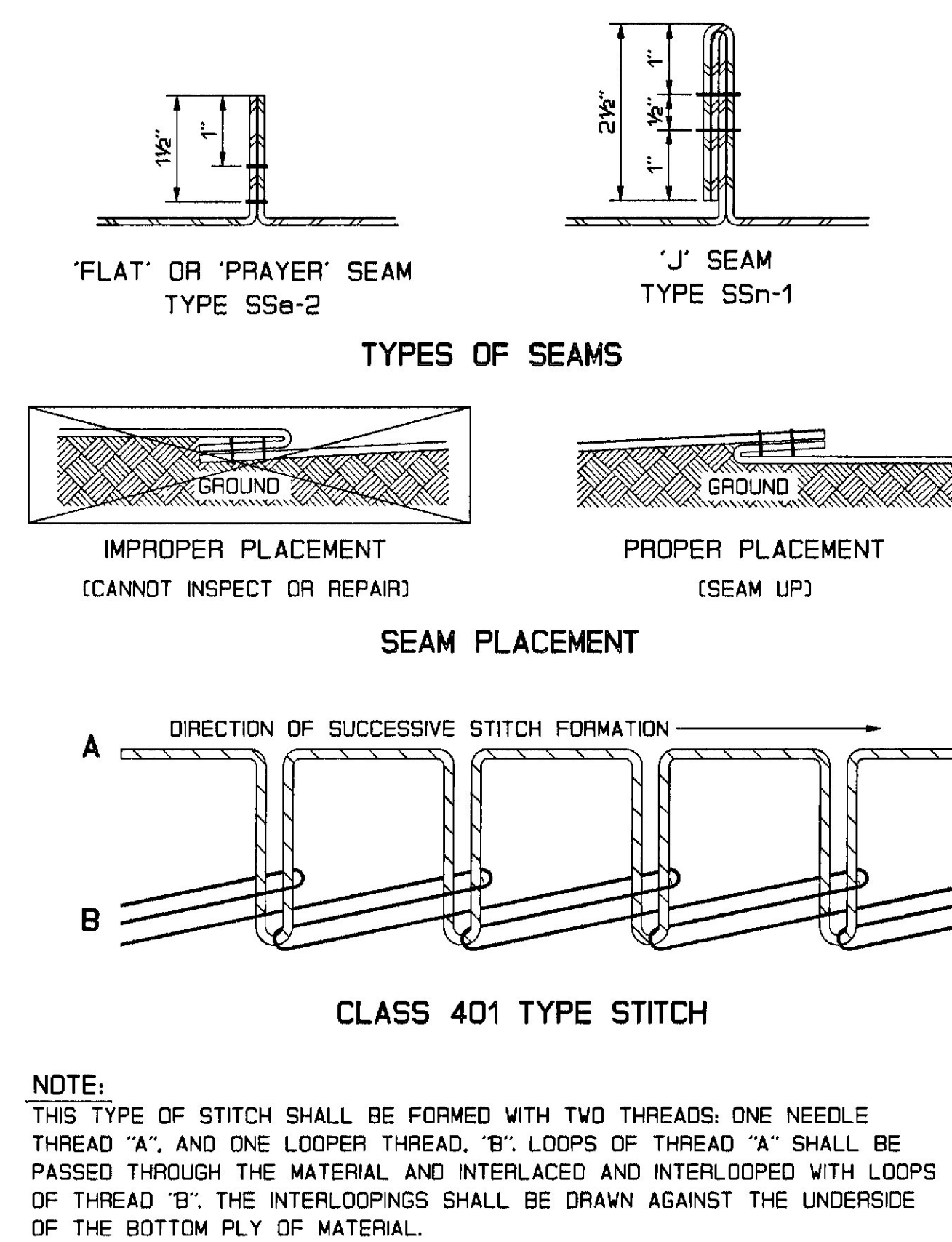
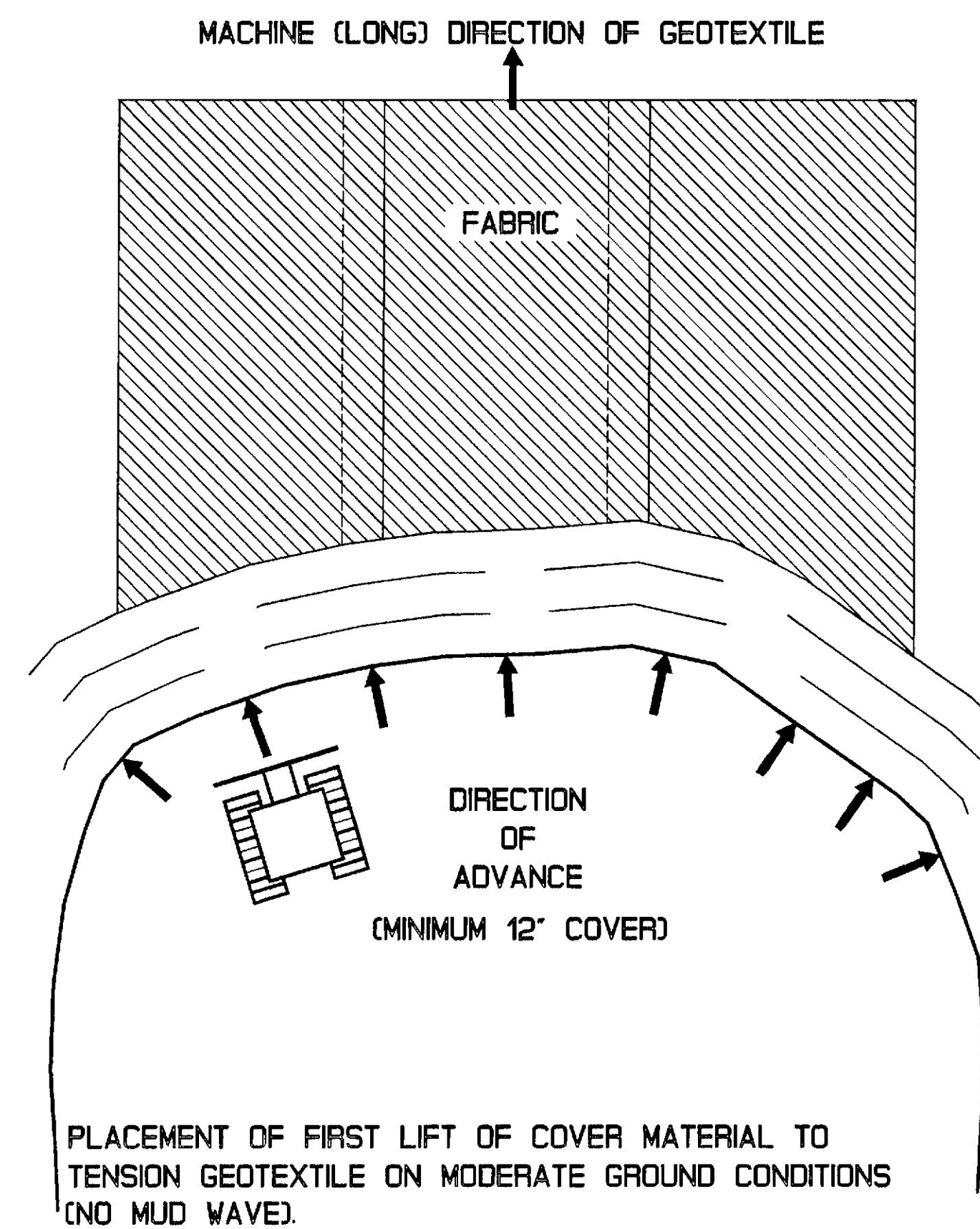
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STANDARD DETAILS

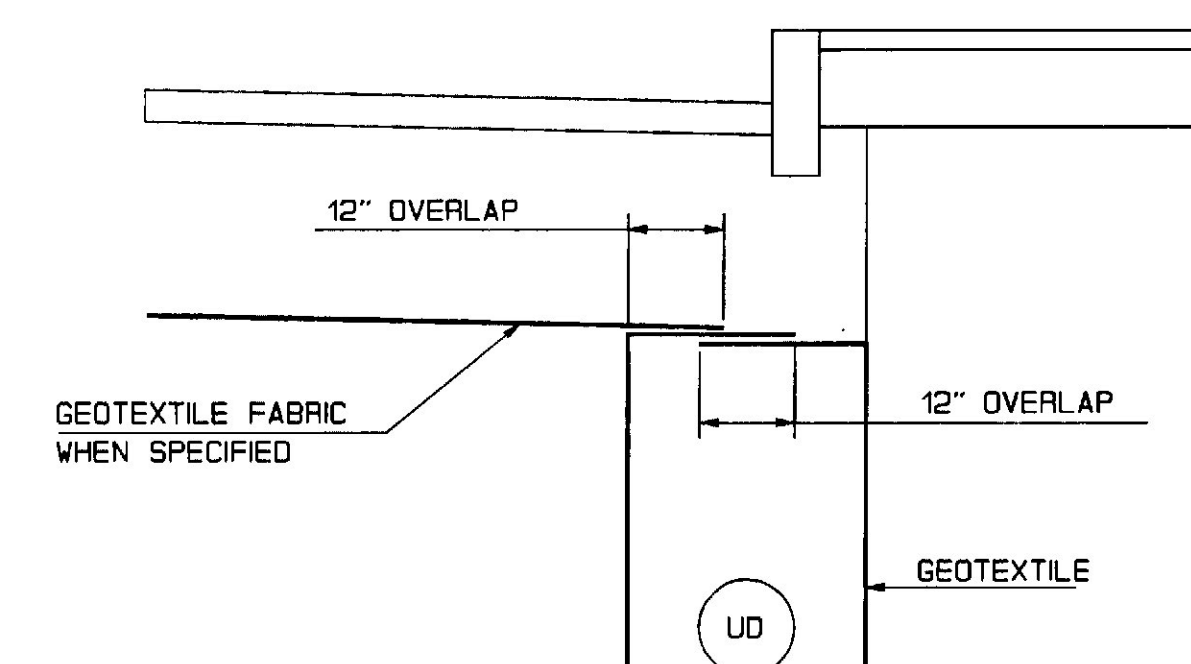
PAVEMENT MARKINGS

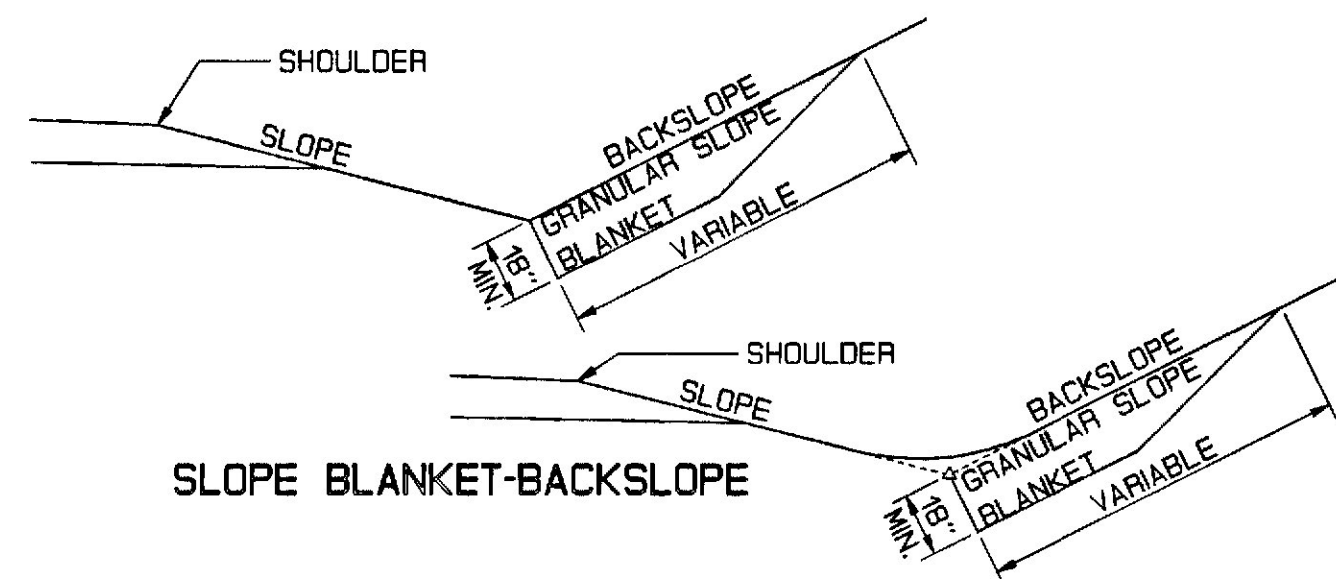
SHEET AUGUSTA, MAINE

HD-13

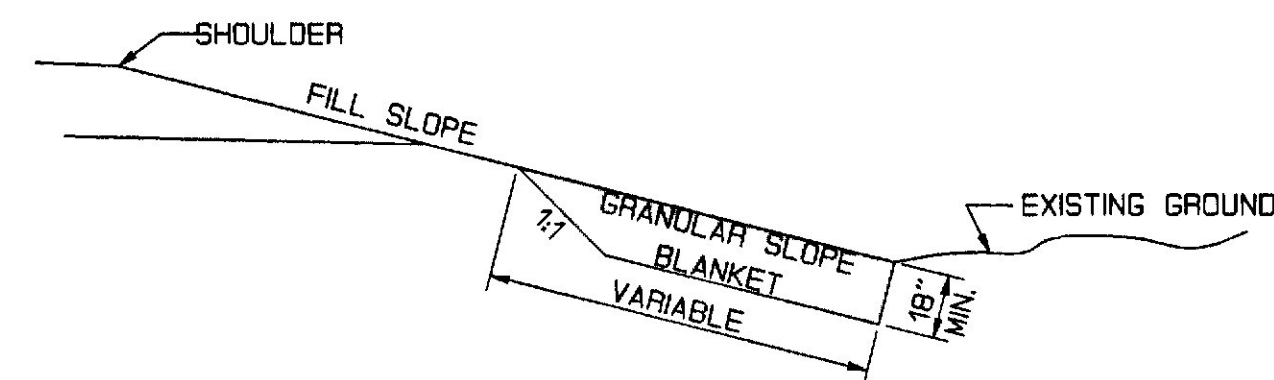


SLOPE HORIZONTAL:VERTICAL	PIN SPACING ALONG OVERLAPS (CENTER TO CENTER)
3:1 TO 4:1	3 FT.
4:1 OR FLATTER	4 FT.

[illegible]



SLOPE BLANKET-BACKSLOPE

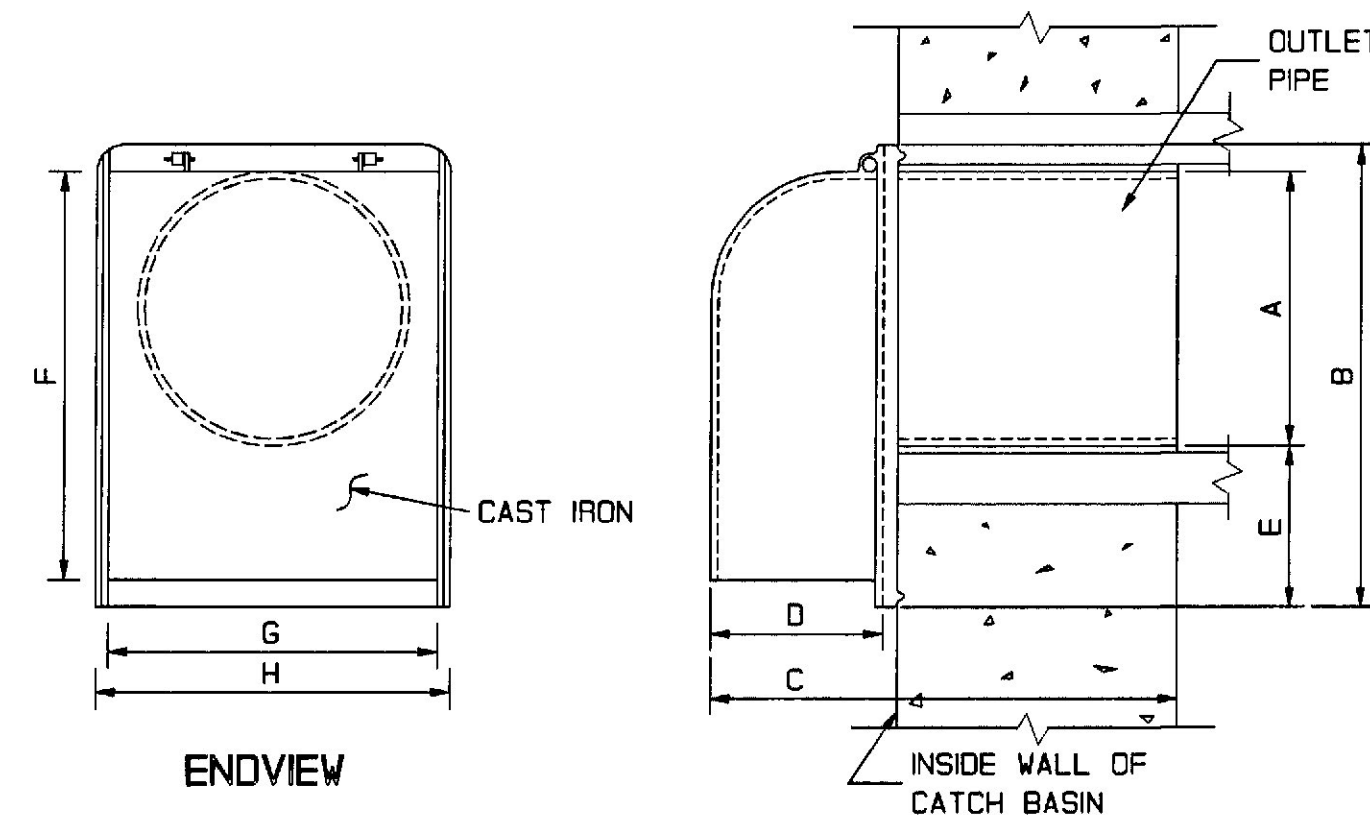


SLOPE BLANKET-FILL SLOPE

SPEC. 613

SLOPE BLANKETS

ER006

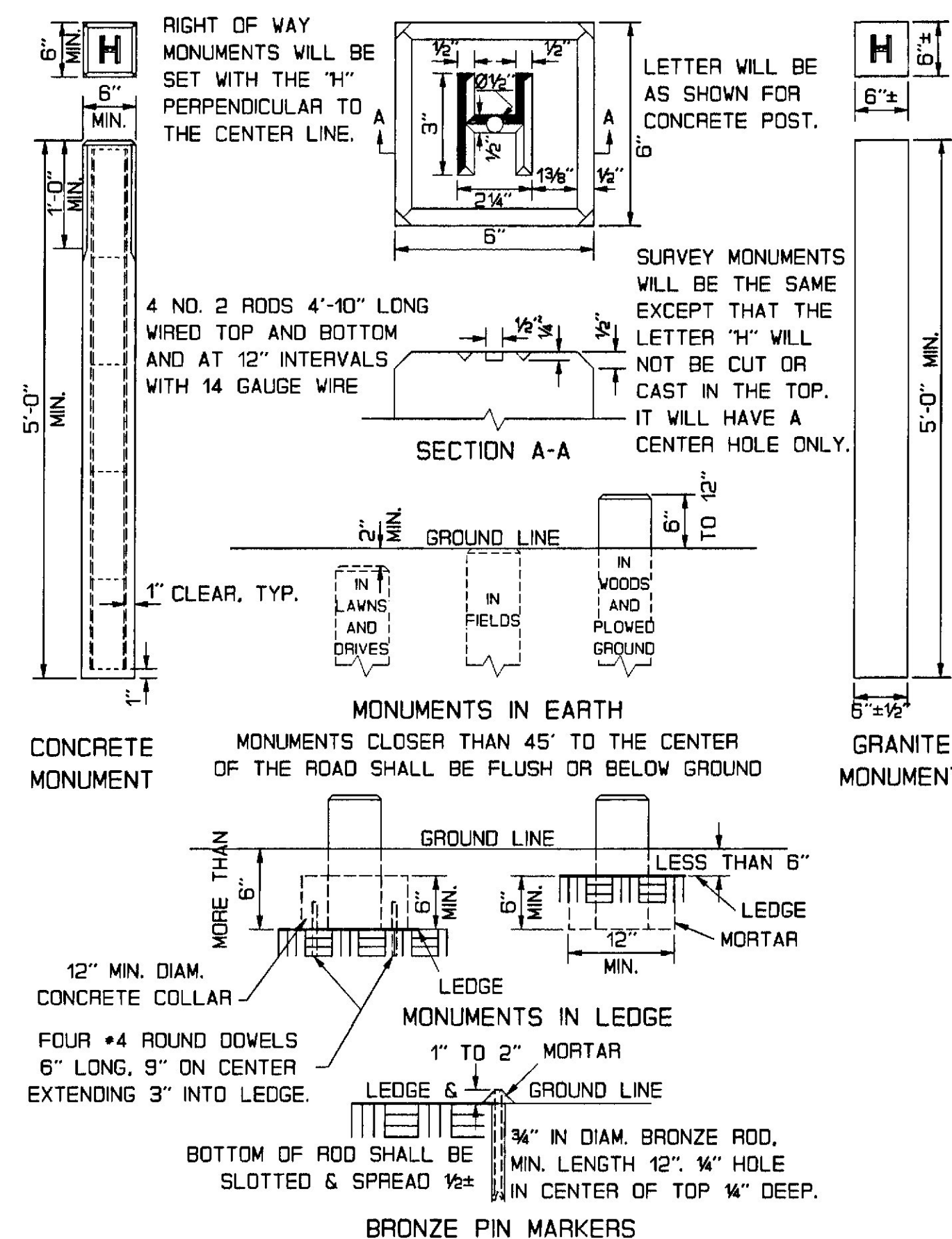


SIZE	A	B	C	D	E	F	G	H
6 IN.	5 1/2	13 3/4	13 3/4	5 3/4	5 3/4	11 3/4	6 1/2	7 1/4
8 IN.	7 1/2	15	15 3/4	5 1/2	5 3/4	13 3/4	8 3/4	9 3/4
10 IN.	9 1/2	16	16 1/4	6	4 1/2	14 1/4	11 1/2	12 3/4
12 IN.	11 1/2	17	22	8	3 1/4	15 1/2	12 1/2	13 3/4
15 IN.								

CATCH BASIN TRAP DETAIL
TRAPS OF EQUAL DESIGN AND QUALITY
MAY BE FURNISHED IF APPROVED

SPEC. 604

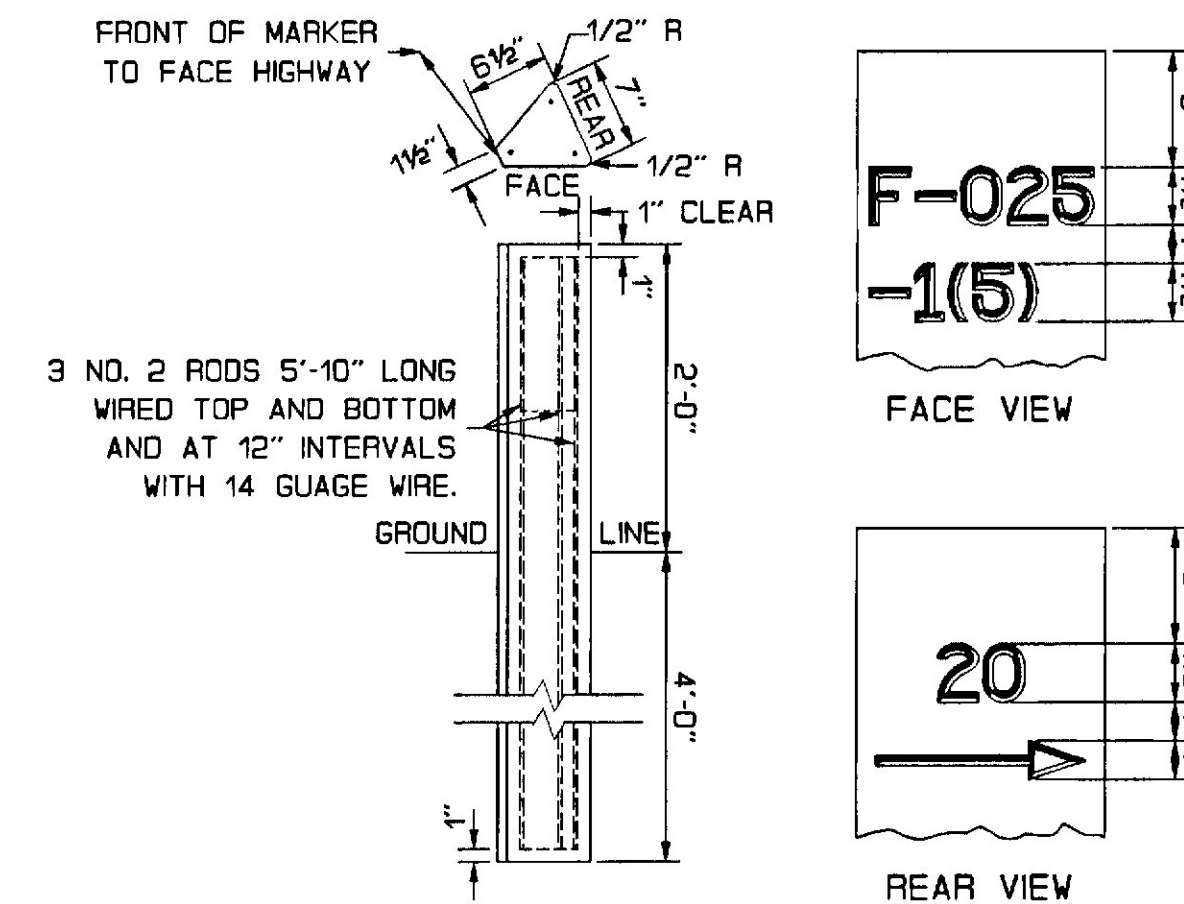
DR013



RIGHT OF WAY & SURVEY MONUMENTS

SPEC. 623

MN001



- NOTES
- DISTANCE FROM ROADWAY SHALL BE 30" MINIMUM.
 - WHEN POSTS CANNOT BE SET ON THE EXACT STATION OF THE PROJECT TERMINI, THE FRONT OF THE POST SHALL BE PAINTED BLACK FROM THE TOP TO 3" DOWN, AND THE OFFSET DISTANCE MARKED ON REAR WITH AN ARROW POINTING IN THE DIRECTION OF BEGINNING OR END OF PROJECT.
 - ALL MARKINGS SHALL BE 1/4" DEEP AND 3/8" WIDE.

SPEC. 624

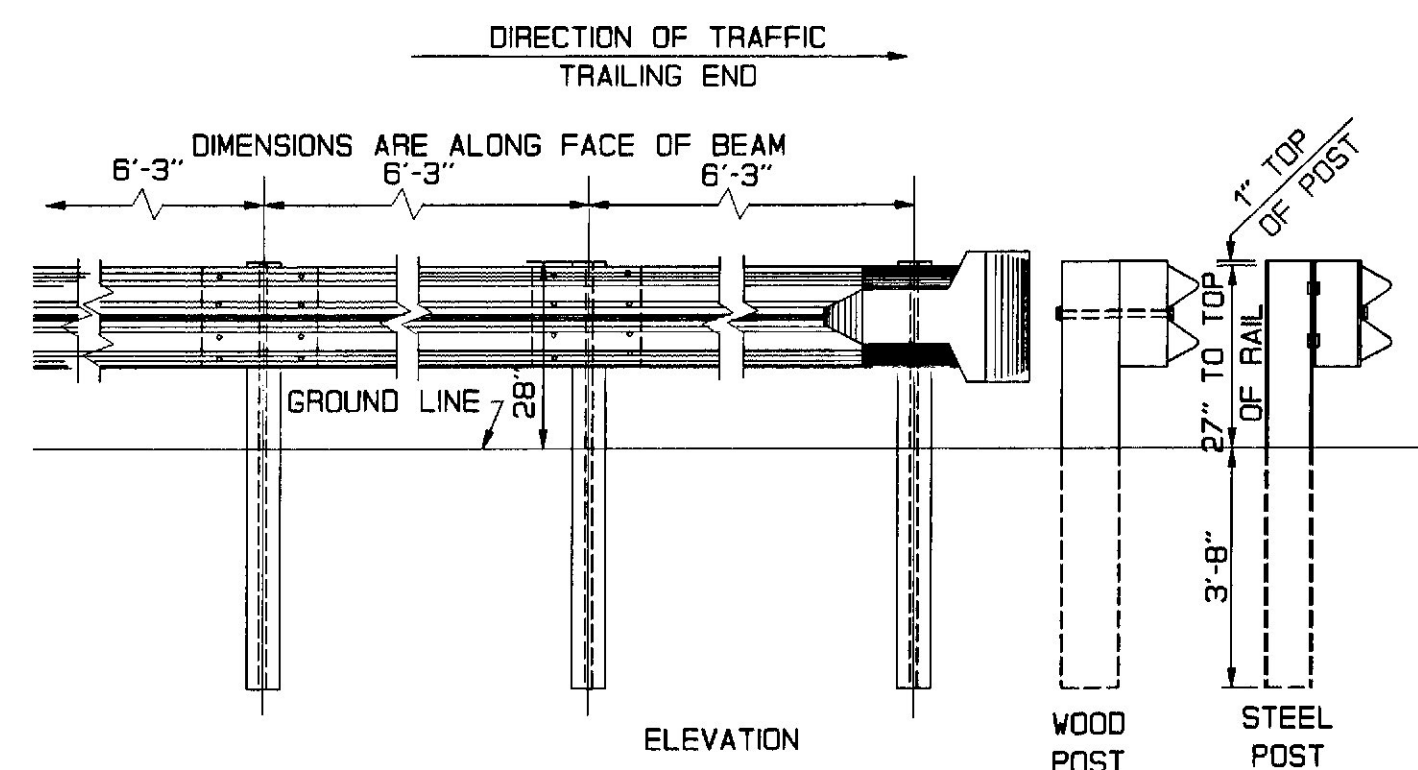
PROJECT MARKERS

MN002

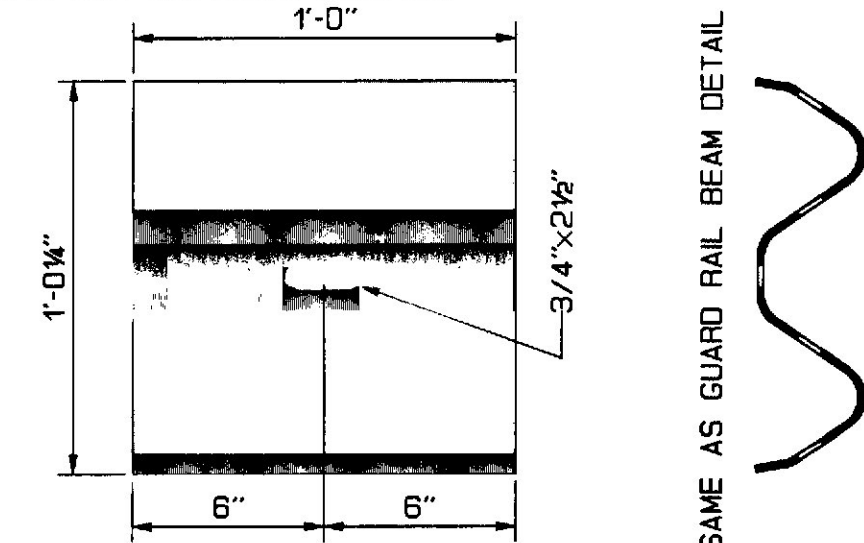
PROJECT DESIGN ENGINEER	DATE
BY	
DESIGN-DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

PLANS

290CT96 0100.30



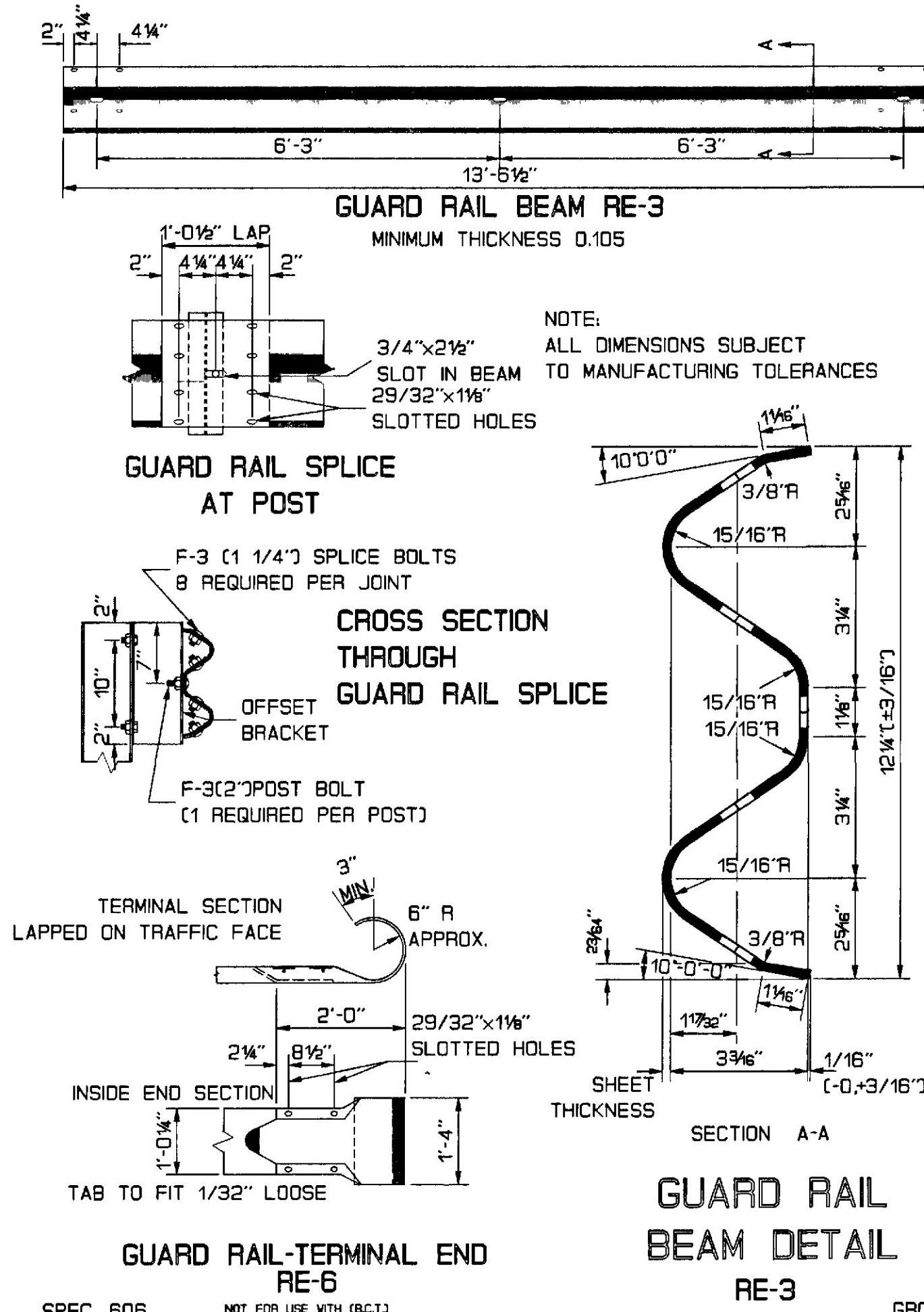
- INTERMEDIATE POST SPACING SHALL BE 6'-3" UNLESS OTHERWISE SHOWN.
- WOOD POSTS FOR GUARD RAIL SHALL BE 6" NOM. (5 1/2" MIN.) X 8" NOM. (7 1/2" MIN.) AND OFFSET BLOCKS FOR TYPE 3H GUARD RAIL SHALL BE 6'X8" NOM. (5 1/2"X5 1/2" MIN.)
- STEEL POSTS AND OFFSET BRACKETS FOR GUARD RAIL SHALL BE W6X90.
- STEEL POSTS PUNCHED WITH HOLES IN ADDITION TO THOSE SPECIFIED, TO ACCOMMODATE OTHER TYPES OF GUARD RAIL, WILL BE ACCEPTED SUBJECT TO THE APPROVAL OF THE ENGINEER.
- 1" BEAM BACKUP PLATES SHALL BE PLACED BEHIND RAIL ELEMENTS AT INTERMEDIATE STEEL POSTS (NON SPLICE POSTS).
- BEAM TYPE GUARD RAIL SET ON RADIUS OF 150' OR LESS SHALL BE CIRCULAR GUARD RAIL.
- OFFSET BRACKET SHALL BE INSTALLED ON ALL POSTS, EXCEPT AT B.C.T. AND TWISTED END SECTIONS.
- GUARD RAIL-TERMINAL END (RE-6) TO BE USED ONLY ON OFF-TRAFFIC END OF GUARD RAIL, ON DIVIDED HIGHWAY. WASHERS F-12 SHALL BE INSTALLED ON THE LAST 9 POSTS.
- IDENTIFICATION LETTERS AND NUMBERS ON DRAWINGS REFER TO THE STANDARD DETAIL DRAWINGS SHOWN IN "A" GUIDE TO STANDARDIZED HIGHWAY BARRIER RAIL HARDWARE" BY AASHTO-AGC-ARTBA JOINT COOPERATIVE COMMITTEE.



W-BEAM BACKUP PLATE - RE-4

SPEC. 606

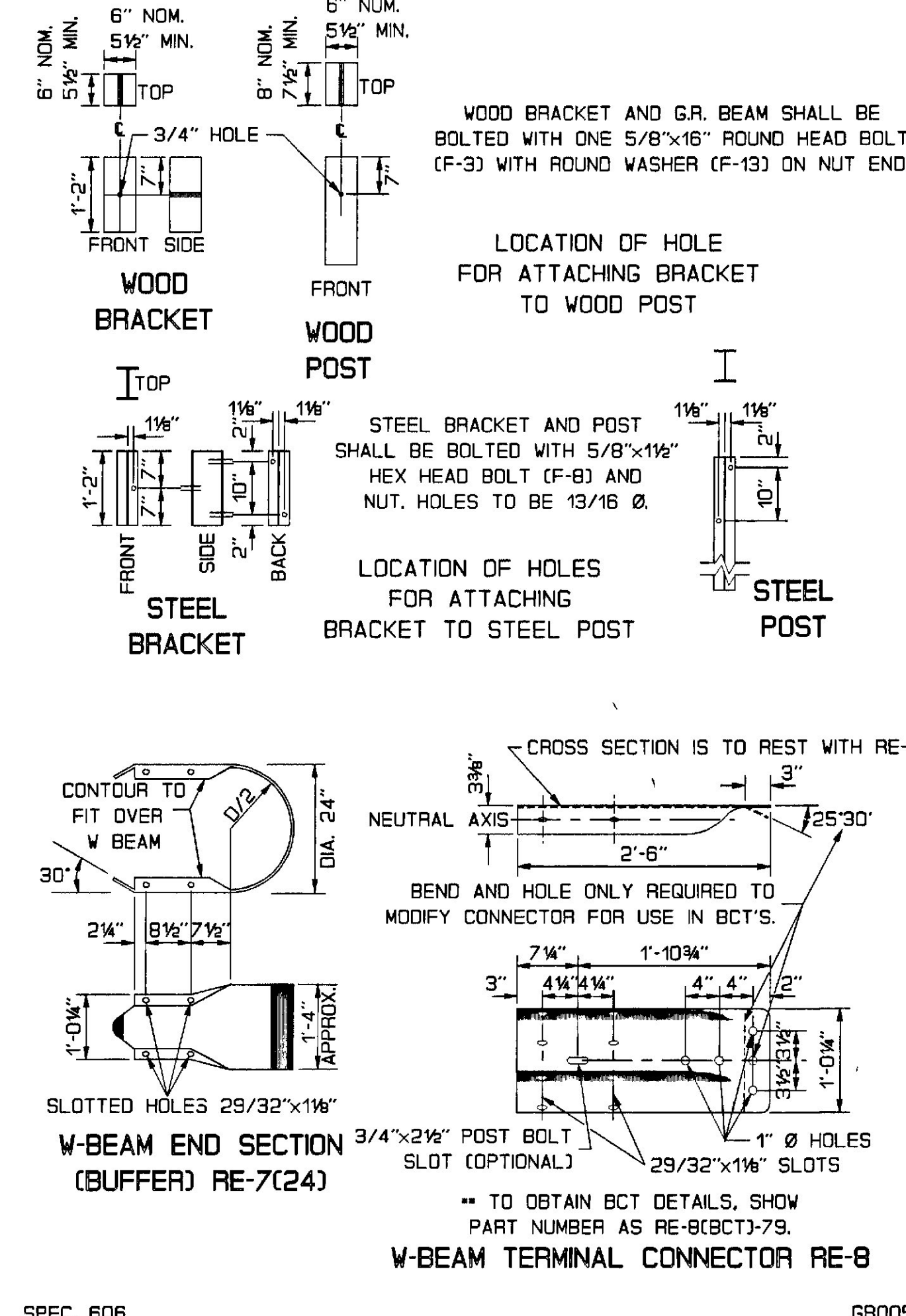
GR003



GUARD RAIL BEAM DETAIL
RE-3

SPEC. 606

GR004



SPEC. 606

GR005

REVISIONS			APPROVED		STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
Description	Me.	DOT	FHWA		STANDARD DETAILS EROSION CONTROL, DRAINAGE, MONUMENTS & GUARD RAIL	
ORIGINAL PLAN	FEB.	94				
ER006	APR.	95				
GR003 - ADDED	MAY	96				
GR004 - ADDED	MAY	96				
GR005 - ADDED	MAY	96				
SHEET					AUGUSTA, MAINE	HD-16

