

# MAINE ROUTE 9/MAIN STREET

## CUMBERLAND, MAINE

### A GRADING, SIGNAL, AND PAVEMENT WIDENING PROJECT

PROJECT LENGTH: 0.34 MILES

PIN# \_\_\_\_\_; PREVIOUS PROJECT # RS-STP-138S(1)

RIGHT OF WAY REFERENCE: SHC: 3-397

**Designed by:**

DeLUCA-HOFFMAN ASSOCIATES, INC.  
778 MAIN STREET  
SUITE 8  
SOUTH PORTLAND, MAINE 04106  
207.775.1121

**Survey by:**

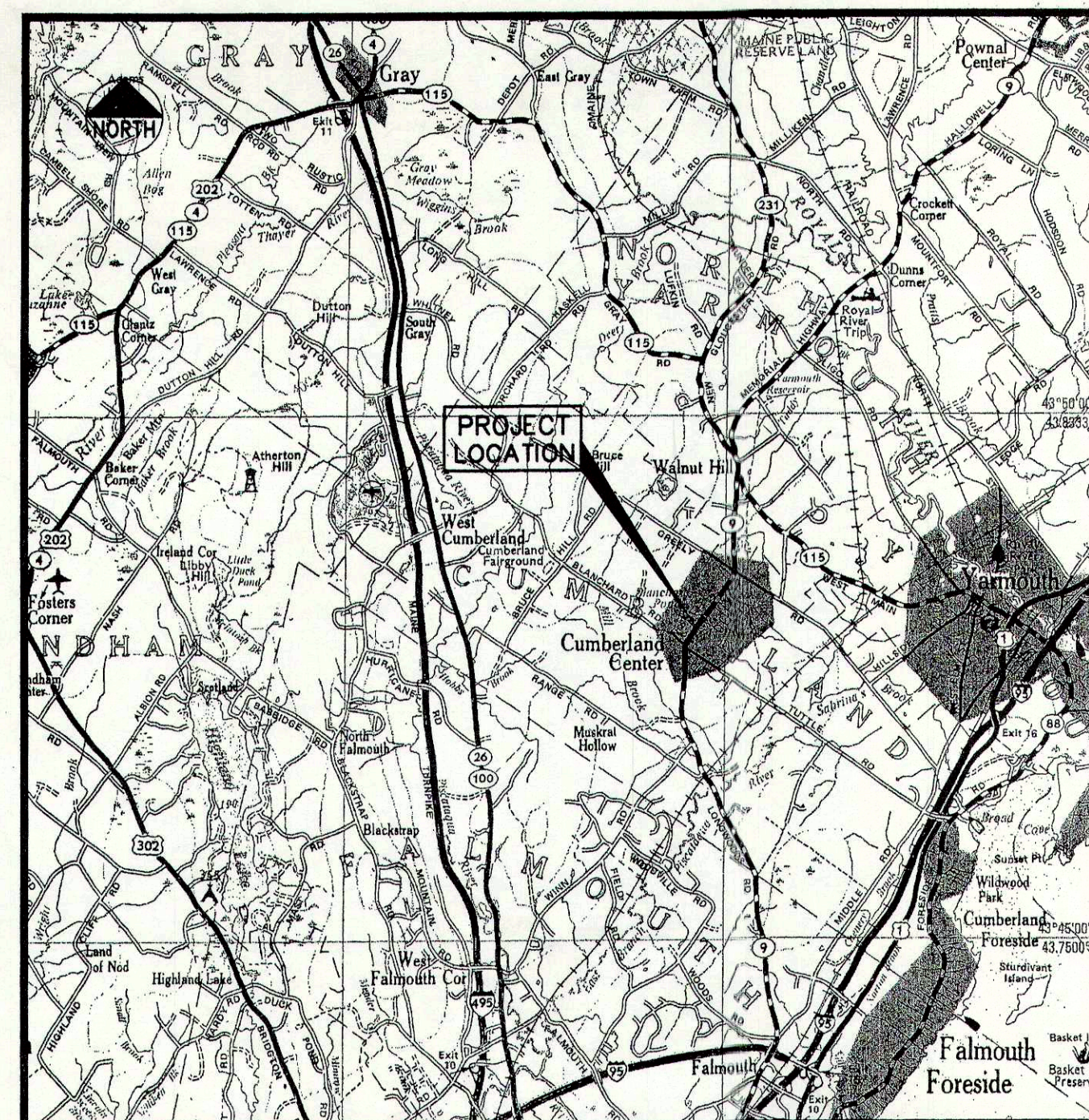
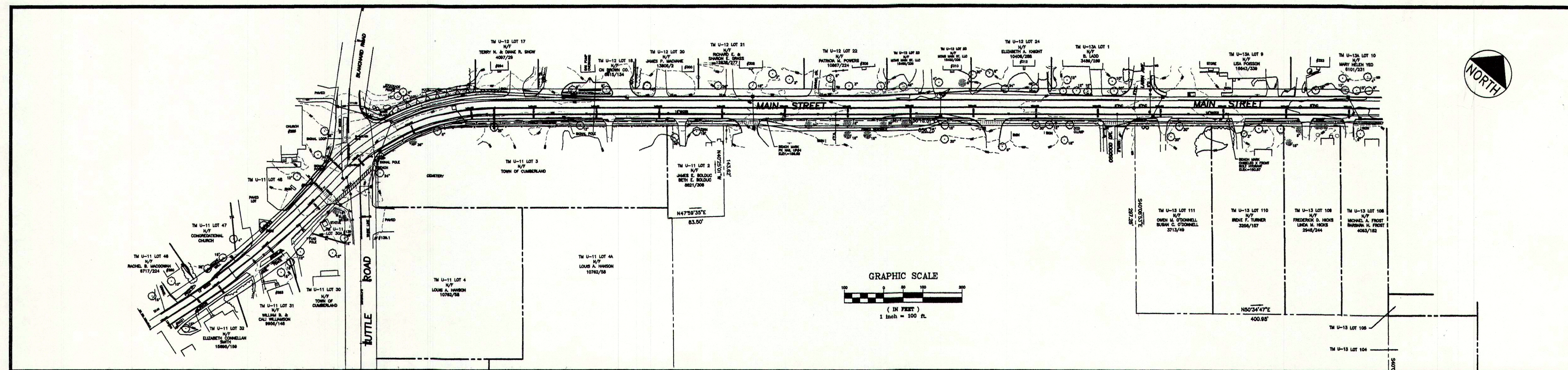
OWEN HASKELL, INC.  
16 CASCO STREET  
PORTLAND, MAINE  
207.774.0424

**Prepared For:**

STEPHEN BLATT ARCHITECTS  
10 DANFORTH STREET  
PORTLAND, MAINE 04112  
207.765.5911

**AND**

MSAD #51  
357 TUTTLE ROAD  
CUMBERLAND, MAINE 04021  
207.839.4800



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#### UTILITIES

**WATER**  
PORTLAND WATER DISTRICT  
ATTN: DAVE COFFIN  
225 DOUGLASS STREET  
PORTLAND, ME. 04104  
207.774.5961

**MUNICIPAL**  
TOWN OF CUMBERLAND  
ATTN: ADAM J. OGDEN  
290 TUTTLE ROAD  
CUMBERLAND CENTER, ME 04021  
207.829.2220

**ELECTRIC**  
CENTRAL MAINE POWER  
ATTN:  
162 CANCO ROAD  
PORTLAND, ME 04103  
800.565.3181

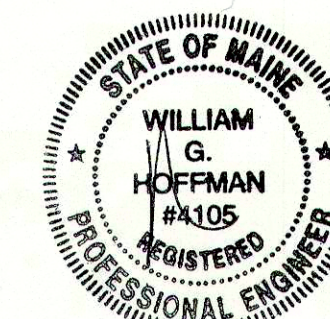
**TELEPHONE**  
VERIZON  
ATTN: PETER McDONALD  
5 DAVIS FARM ROAD  
PORTLAND, ME 04103  
207.797.1119

**CABLE TV**  
TIME WARNER CABLE  
ATTN: DON JOHNSON  
118 JOHNSON ROAD  
PORTLAND, ME 04102  
207.253.2291

**CALL BEFORE YOU DIG**  
DIGSAFE 888.DIG.SAFE

#### NOTES:

1. ALL WORK CONTEMPLATED UNDER THIS CONTRACT SHALL BE GOVERNED BY AND IN CONFORMITY WITH THE MDOT STANDARD SPECIFICATIONS " (REVISION " OF APRIL 1995) FOR HIGHWAYS, BRIDGES, AND SUPPLEMENTALS THERETO, EXCEPT AS MODIFIED ON THE PLANS AND IN THE SPECIAL PROVISIONS. EXCEPT THAT MEASUREMENT & PAYMENT FOR ALL WORK SHALL BE AT THE LUMP SUM PRICE CONTAINED IN THE BASE BID & NO OTHER OR SEPARATE PAYMENT SHALL BE MADE. NO WORK SHALL BE PERFORMED WITHIN THE MDOT ROW UNTIL WRITTEN CONSTRUCTION APPROVAL HAS BEEN ISSUED BY THE DEPARTMENT.
2. MAINTENANCE OF TRAFFIC TO BE DONE PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. BEST MANAGEMENT PRACTICES FOR EROSION AND SEDIMENT CONTROL ARE TO BE USED AS MINIMUM STANDARD FOR EROSION AND SEDIMENT CONTROL ON THIS PROJECT.
4. FIELD MONITORING/ENGINEERING TO BE PROVIDED BY TODD MOREY AT DeLUCA-HOFFMAN ASSOCIATES, INC.



THE OFFSITE IMPROVEMENTS PLANS HAVE NOT BEEN REVIEWED AND APPROVED BY THE MDOT. CHANGES TO THESE PLANS MAY BE MADE TO ADDRESS THEIR COMMENTS. THE OFFSITE IMPROVEMENTS DEPICTED IN THESE PLANS SHALL NOT BE CONSTRUCTED UNTIL AUTHORIZED BY DeLUCA-HOFFMAN ASSOCIATES, INC.

PRELIMINARY NOT FOR CONSTRUCTION

SUBMITTED TO TOWN FOR REVIEW		DATE	DESCRIPTION
NO.	DATE		
4			
3			
2			
1	5.31.02		



GENERAL NOTES:

1. Driveway fill sideslopes shall be the same as the non-guardrail fill slopes unless otherwise noted on the plans.
2. Granular borrow used to backfill muck excavation or in low wet areas to 1' above water level or old ground shall meet requirements for granular borrow - underwater backfill.
3. Paved entrances shall be constructed with:  
3 1/2" hot bituminous pavement, and 12" aggregate subbase course gravel.
4. Unpaved entrances shall be constructed with:  
14" aggregate subbase course gravel, or  
11" aggregate subbase course gravel and 3" untreated aggregate surface course.
5. Crushed stone entrances shall be constructed with:  
2" crushed stone surface, and  
12" aggregate subbase course gravel.
6. Grassed entrances shall be constructed with:  
12" aggregate subbase course gravel, and 4" loam, seed and mulch.
7. A 3' paved apron shall be placed at all gravel entrances except woods and field entrances unless otherwise directed by the Engineer.
8. Any existing paved side roads or shoulders shall be resurfaced as determined in the field by the Engineer.
9. No existing drainage shall be abandoned, removed or plugged without prior approval of the Engineer.
10. The culvert sizes shown on the plans and cross sections are smoothlined pipes unless otherwise noted.
11. Unless otherwise noted, Seeding Method No. 1 shall be utilized on all lawns and developed areas; Seeding Method No. 2 shall be utilized on all non-guardrail foreslopes from the edge of shoulder to the ditch line or toe of fill; Seeding Method No. 3 shall be utilized on all backslopes.
12. Mulch shall be applied in areas seeded by Seeding Method No. 3, Seeding Method No. 2 and Seeding Method No. 1.
13. Loam salvage shall be stockpiled at a designated site for placement on the sideslopes.
14. Excavations accomplished as part of this project shall be constructed in accordance with Subpart P of 29 CFR Part 1926.650-652. (Construction Standards for Excavations). Additional excavation for the Contractor's convenience or to comply with backslaping requirements will not be paid for directly but will be considered incidental to the related drainage items.
15. The contractor shall provide all layout necessary to complete the work.

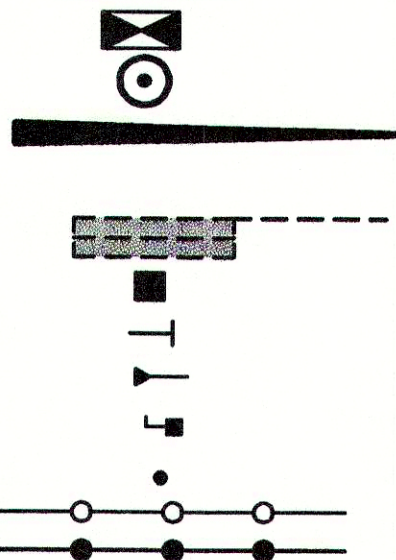
CONTRACTOR'S NOTES:

1. Prior to making any highway improvements, THE CONTRACTOR shall obtain all necessary permits required to construct such improvements.
2. Prior to making any highway improvements, THE CONTRACTOR shall submit a plan to control traffic during the period of construction to the DEPARTMENT for approval which conforms to the Federal Highway Administration's "Manual on Uniform Traffic Control Devices For Streets and Highways".
3. Prior to making any highway improvements, THE CONTRACTOR shall comply with all necessary requirements as outlined under Section 103.08 in the DEPARTMENT'S "Standard Specifications for Highways and Bridges" (hereafter Standard Specifications). Minimum insurance requirements shall include at least Workers' Compensation Insurance, Commercial General Liability and Automobile Liability Insurance as defined therein. Additional Insurance may be required where applicable. THE CONTRACTOR shall furnish to the DEPARTMENT satisfactory proof of such insurance so required. In the event that such insurance is terminated or canceled without being replaced with comparable insurance, the DEPARTMENT may suspend or terminate all highway construction in the progress at the time of such termination or cancellation.
4. Prior to making any highway improvements, THE CONTRACTOR shall furnish to the DEPARTMENT a performance bond, certified check or other negotiable security acceptable to the DEPARTMENT in the full amount of the cost to construct such improvements which conforms to the general requirements for such surety as outlined under Section 103.05 in the Standard Specifications.
5. THE CONTRACTOR shall not make any highway improvements without the express written approval of the DEPARTMENT. THE CONTRACTOR shall provide the DEPARTMENT with a schedule of work for constructing such improvements prior to receiving such approval.
6. The contractor shall call Dig Safe (1-888-DIG-SAFE) before performing any excavation in association with the proposed Highway Improvements.
7. All proposed highway improvements shall be constructed as shown on the Final Plans in accordance with the Standard Specifications.
  - a. The DEPARTMENT shall be allowed to inspect such construction and test any materials used therein at any and all times as necessary to assure compliance with the Final Plans or Standard Specifications.
  - b. The DEPARTMENT may reject any work or materials which do not conform to the Final Plans or Standard Specifications.
  - c. THE CONTRACTOR shall allow or arrange for the DEPARTMENT, its inspectors, agents, employees, contractors or invited guests, to enter upon any land outside of the highway right-of-way which may be used for construction of the highway improvements at any and all times and for any and all purposes necessary or incidental to such inspection or testing.
  - d. The placement of bituminous paving materials shall be subject to all of the weather and seasonal limitations outlined under Section 401.07 in the Standard Specifications.
  - e. All traffic shall be controlled during the period of construction in accordance with the traffic control plan approved by the DEPARTMENT.
7. THE CONTRACTOR shall indemnify and hold harmless the DEPARTMENT and its inspectors, officers, employees and agents, against all claims arising from any injury or death to any of its officers, employees, workers, trespassers, licensees, invitees and all other persons in, on or extending from the construction area of the highway improvements or from any damage to or loss of property of any third party as a result of any act, omission, neglect or default of THE CONTRACTOR or any subcontractor thereunder, its and their officers, agents and employees, including reasonable attorney's fees. This indemnification provision shall not apply to any injury or death of any person or to any damage to or completion and acceptance of such work which is caused by an injury occurring prior thereto because of any act, omission, neglect or default of THE CONTRACTOR or any subcontractor thereunder, its and their officers, agents and employees, shall not be excluded from this indemnification provision simply because such death occurred after the completion and acceptance of such work. Acceptance of such work by the DEPARTMENT shall not relieve THE CONTRACTOR of any legal liability to the DEPARTMENT for any defect or negligence in the design and construction of the highway improvements. Notwithstanding the foregoing, neither the DEPARTMENT nor THE CONTRACTOR waives any statutory or common-law defenses available to them.
9. The DEPARTMENT shall reserve the right to revoke its approval to construct any or all of the highway improvements upon notice for cause at any time that it determines such action appropriate and in the best interest of the public because of any failure by THE CONTRACTOR to comply with the Final Plans or Standard Specifications or any of the other terms or conditions outlined herein. However, in the interest of public safety, nothing in this provision shall prevent the DEPARTMENT from immediately suspending work for cause pending any necessary correction by THE CONTRACTOR.
10. Upon completion of construction, the DEPARTMENT shall conduct a final inspection of all highway improvements to determine acceptability. The DEPARTMENT shall notify THE CONTRACTOR if any additional work is necessary to conform to the Final Plans or Standard Specifications. Upon acceptance, the DEPARTMENT shall notify THE CONTRACTOR of such acceptability in writing.
11. All right, title and interest in and to all equipment, materials and supplies which become a part of the highway improvements shall vest in the DEPARTMENT upon attachment to the highway.
12. Upon completion of all highway improvements, THE CONTRACTOR shall furnish the owner a set of redline markups with all asbuilt information. This shall include but not be limited to grade & location data of all drainage structures, ditches, as well as information to confirm the roadway was constructed to line & grade. The owner shall be responsible for submitting to the DEPARTMENT a set of reproducible "as-built" plans of archival quality suitable for permanent filing showing all of the highway improvements as constructed.
13. Other notes associated with the work within the right-of-way are contained on the individual drawings.

LEGEND:

- CONTROLLER AND CABINET  
MAST ARM POLE  
MAST ARM  
SIGNAL HEAD  
LOOP DETECTOR AND LEAD IN  
PULL BOX (JUNCTION BOX)  
MAST ARM MOUNTED SIGN  
MICROWAVE DETECTOR  
PEDESTRIAN SIGNAL HEAD  
PEDESTRIAN BUTTON  
3" NON-METALLIC SIGNAL CONDUIT  
3" METALLIC SIGNAL CONDUIT

PROPOSED



EXISTING

- IRON ROD OR PIPE FOUND  
MONUMENT FOUND  
RIGHT OF WAY  
MANHOLE (S=SEWER, D=DRAIN, E=ELEC.)  
UTILITY POLE  
GUY WIRE  
LIGHT  
CATCH BASIN  
HYDRANT  
WATER VALVE  
WATER SHUT-OFF  
SIGN  
SURVEY CONTROL POINT  
TEST BORING AND GROUND ELEVATION  
NOW OR FORMERLY  
DEED BOOK/PAGE REFERENCE  
REINFORCED CONCRETE PIPE  
BLACK PLASTIC W/EXTERIOR RIBS  
CORRUGATED METAL PIPE  
TREE LINE  
CHAIN LINK FENCE  
SEWER LINE  
WATER LINE  
STORM DRAIN  
UNDERGROUND TELEPHONE  
OVERHEAD ELEC./TEL WIRES  
BOUNDARY  
EASEMENT  
EDGE OF GRAVEL  
LINE PER TAX MAP  
EDGE OF PAVEMENT  
ADA SIDEWALK  
BITUMINOUS CURB  
SLOPED GRANITE  
VERTICAL GRANITE  
GRADING LIMIT LINE  
DRAINAGE EASEMENT  
GRADING EASEMENT

LEGEND:

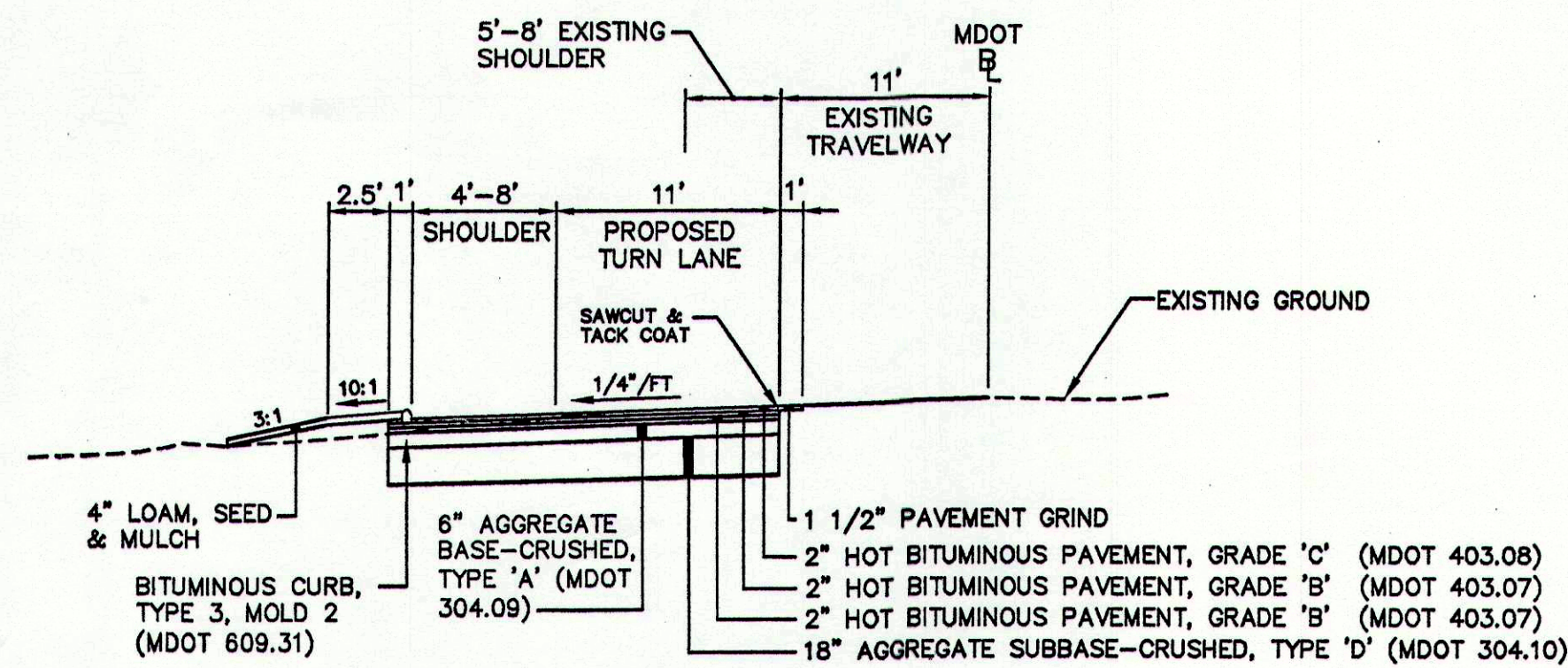
- 3/4" REBAR WITH SURVEY ID CAP SET  
IRON ROD OR PIPE FOUND  
MONUMENT FOUND  
RIGHT OF WAY  
MANHOLE (S=SEWER, D=DRAIN, E=ELEC.)  
UTILITY POLE  
GUY WIRE  
LIGHT  
CATCH BASIN  
HYDRANT  
WATER VALVE  
WATER SHUT-OFF  
SIGN  
SURVEY CONTROL POINT  
TEST BORING AND GROUND ELEVATION  
NOW OR FORMERLY  
DEED BOOK/PAGE REFERENCE  
REINFORCED CONCRETE PIPE  
BLACK PLASTIC W/EXTERIOR RIBS  
CORRUGATED METAL PIPE  
TREE LINE  
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SEWER LINE  
WATER LINE  
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UNDERGROUND TELEPHONE  
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BOUNDARY  
EASEMENT  
EDGE OF GRAVEL  
LINE PER TAX MAP  
EDGE OF PAVEMENT  
ADA SIDEWALK  
BITUMINOUS CURB  
SLOPED GRANITE  
VERTICAL GRANITE  
GRADING LIMIT LINE  
DRAINAGE EASEMENT  
GRADING EASEMENT

PROPOSED

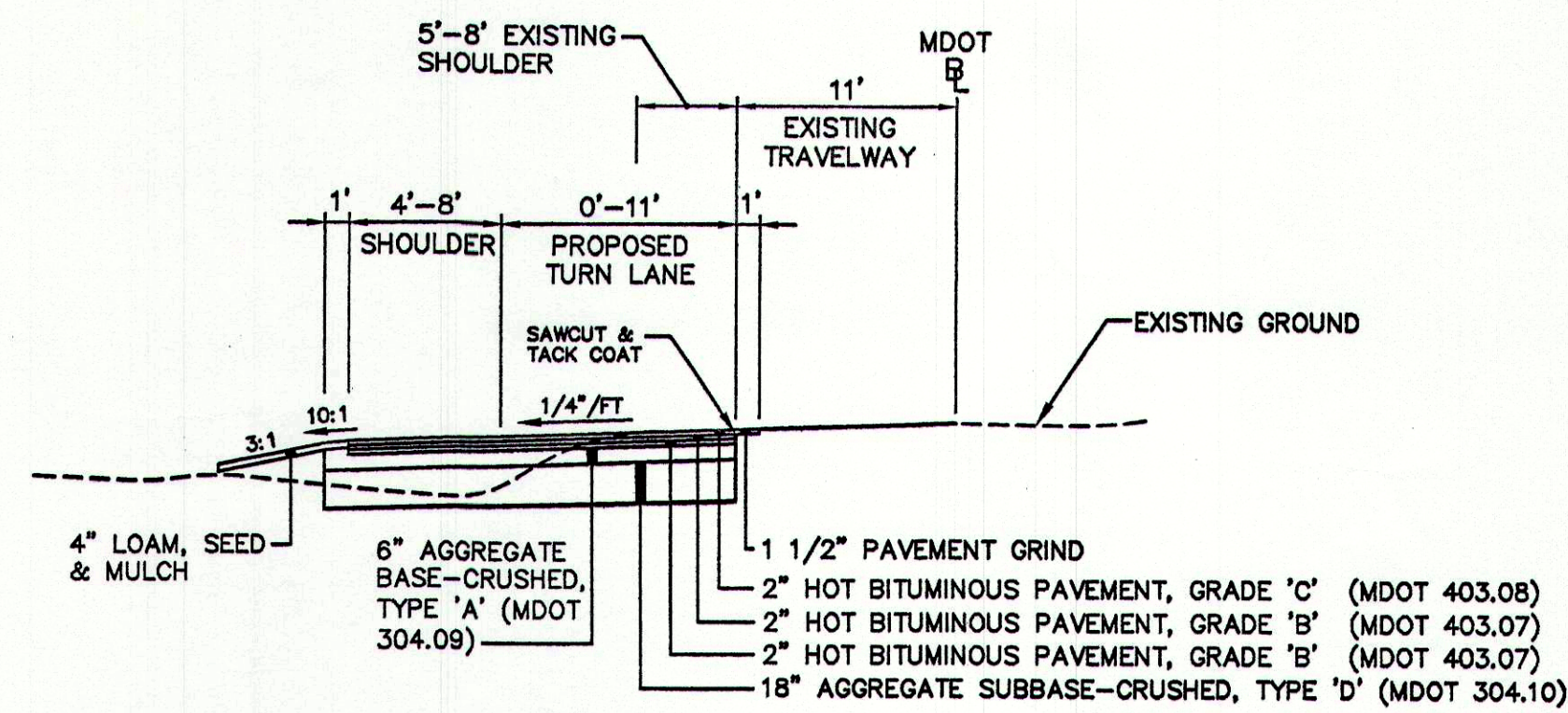


			<div>PROJECT</div> <div>MAINE STREET IMPROVEMENTS CUMBERLAND, MAINE</div>		<div><div>DeLUCA-HOFFMAN ASSOCIATES, INC. 778 MAIN STREET, SUITE 8 SOUTH PORTLAND, ME 04106 (207) 778-1121 DHA@DELUCAHOFFMAN.COM</div><div><div>DH</div><div></div></div></div>
			<div>SHEET TITLE</div> <div>GENERAL NOTES &amp; LEGEND</div>		
			<div>CLIENT</div> <div>STEPHEN BLATT ARCHITECTS</div>		<div>DRAWN: JCS</div> <div>DATE: MAY 2002</div>
					<div>DESIGNED: ERB</div> <div>SCALE: NONE</div>
					<div>CHECKED: WGH</div> <div>JOB NO. 208505</div>
					<div>FILE NAME: G:\208505\2085.05-GEN.DWG</div>
					<div>SHEET 2</div>

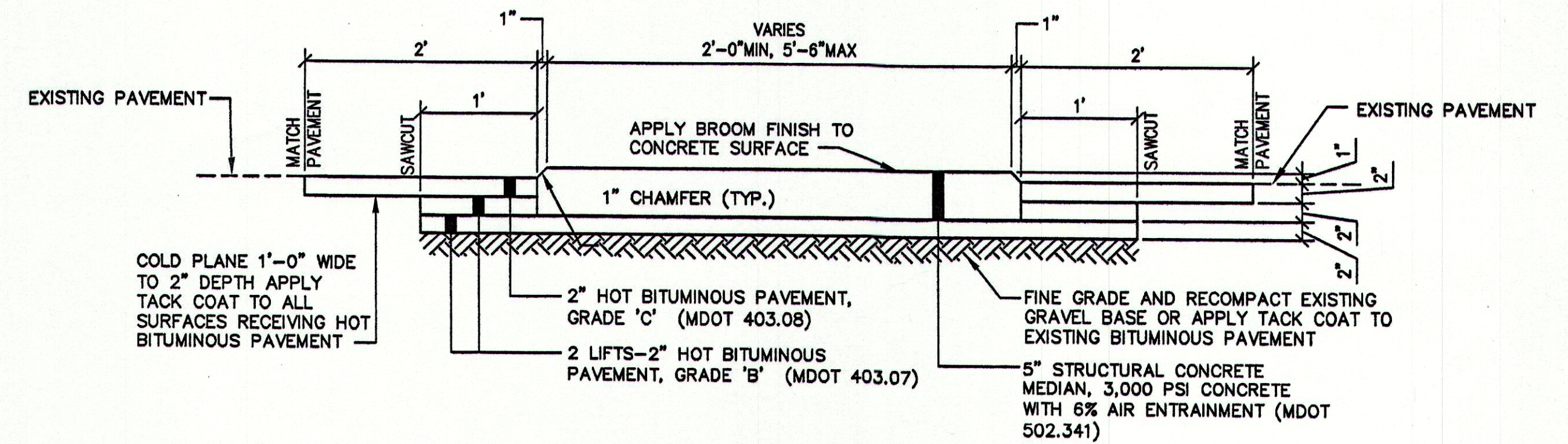




TYPICAL SECTION  
STA 141+60 TO STA 142+90  
STA 145+85 TO STA 147+00  
N.T.S.



TYPICAL SECTION  
STA 141+30 TO STA 141+60  
STA 143+30 TO STA 145+85  
N.T.S.

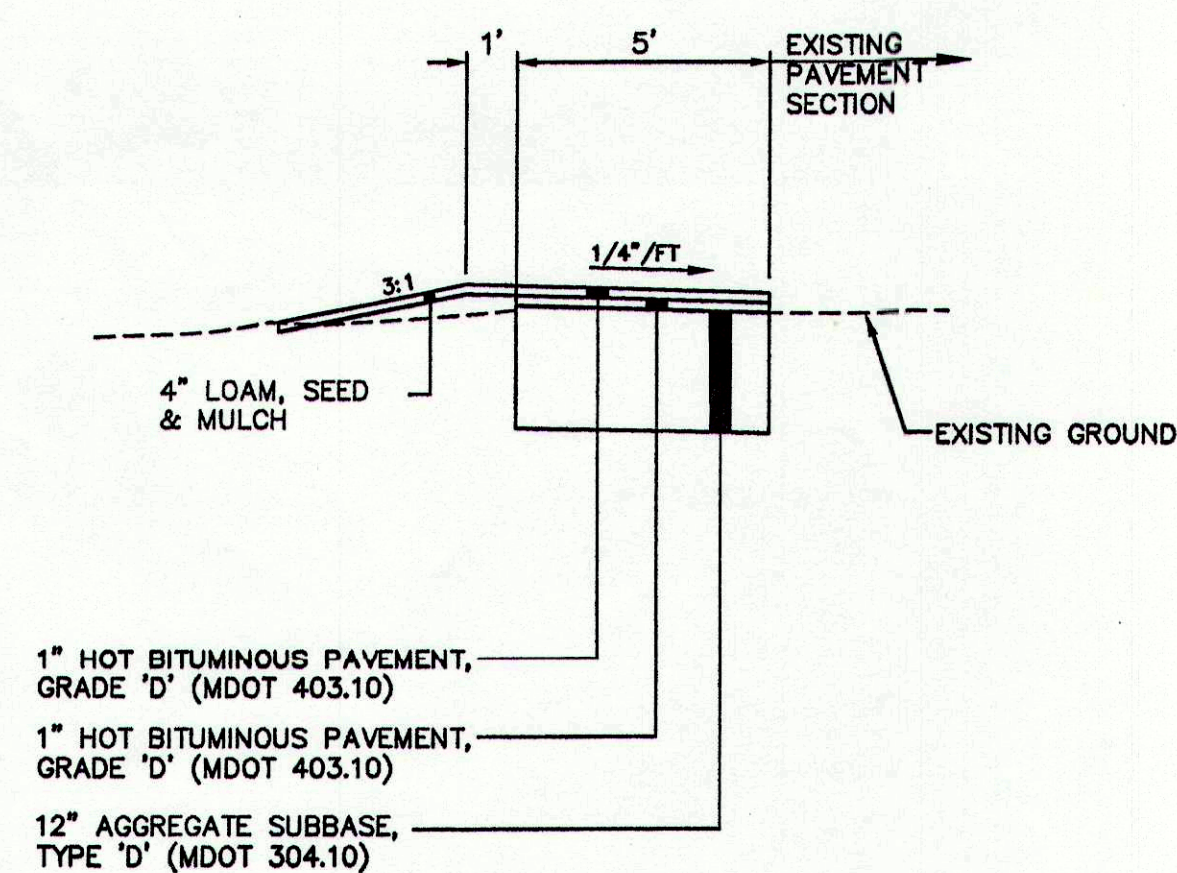


CONCRETE MEDIAN STRIP SECTION A-A  
N.T.S.

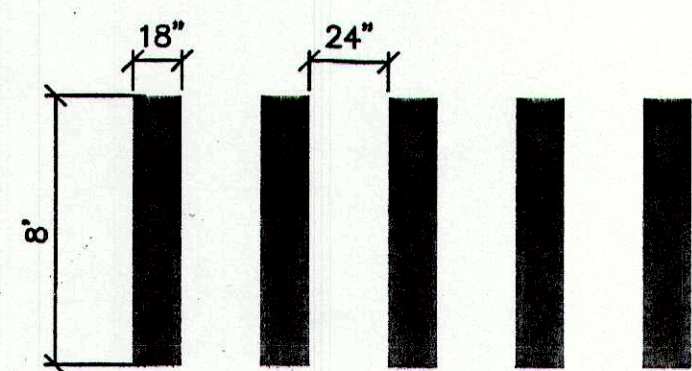
NOTE:

THE CONTRACTOR CAN, AT HIS OPTION, MAKE THE FOLLOWING SUBSTITUTIONS OF SUPERPAVE FOR THE STANDARD PAVEMENTS GIVEN:

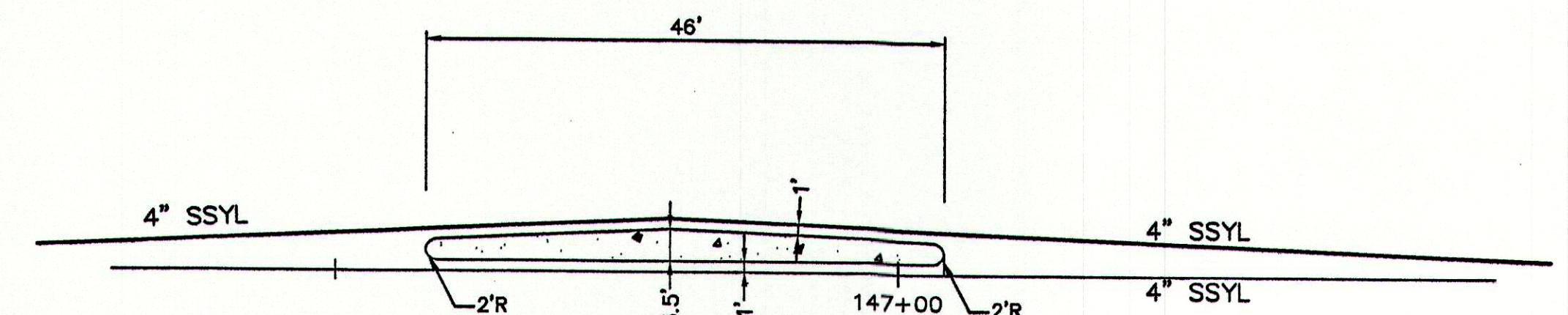
- A. 19mm SUPERPAVE HOT MIX ASPHALT FOR HOT BITUMINOUS PAVEMENT, GRADE 'B' (MDOT 403.207 FOR 403.07)
- B. 12.5mm SUPERPAVE HOT MIX ASPHALT FOR HOT BITUMINOUS PAVEMENT, GRADE 'C' (MDOT 403.208 FOR 403.08)
- C. 9.5mm SUPERPAVE HOT MIX ASPHALT FOR HOT BITUMINOUS PAVEMENT, GRADE 'D' (MDOT 403.209 FOR 403.101)



TYPICAL SECTION  
BITUMINOUS SIDEWALK  
N.T.S.



CROSSWALK STRIPING DETAIL  
N.T.S.



STA 146+58 TO STA 147+04  
RAISED CONCRETE MEDIAN  
N.T.S.

				<div>PROJECT</div> <div>MAINE STREET IMPROVEMENTS CUMBERLAND, MAINE</div>		<div><div>DH</div><div>DeLUCA-HOFFMAN ASSOCIATES, INC. 778 MAIN STREET, SUITE 8 SOUTH PORTLAND, ME 04106 (207) 775-1121 DHA@DELUCAHOFFMAN.COM</div></div>	
3	6.20.02	REVISED PER MDOT PERMIT; REISSUED TO MDOT & FOR BID ADDENDUM #3.		<div>SHEET TITLE</div> <div>TYPICAL SECTIONS &amp; SPECIAL DETAILS</div>		<div>CLIENT</div> <div>STEPHEN BLATT ARCHITECTS</div>	
2	6.07.02	SUBMITTED TO MDOT FOR REVIEW.					
1	5.31.02	SUBMITTED TO TOWN FOR REVIEW.					
REV	DATE	DESCRIPTION		P.E. WILLIAM G. HOFFMAN LIC. # 4105		DRAWN: JCS    DATE: MAY 2002	
REVISIONS						DESIGNED: ERB    SCALE: NONE	
						CHECKED: WGH    JOB NO. 2085.05	
						FILE NAME: G:\208505\2085.05-DET-TYP.DWG	
						SHEET 3	



1. CATCH BASINS IN EXCESS OF 8' IN DEPTH SHALL, IF DIRECTED, BE PROVIDED WITH STEPS SIMILAR TO THOSE DETAILED FOR MANHOLES.
2. DRAIN HOLES IN PRECAST SUMPS SHALL BE NOT OVER 3" IN DIAMETER AND SHALL BE PLUGGED WITH MORTAR WHEN CONSTRUCTED.
3. ALL PRECAST SECTIONS OF LESS THAN 8" WALL THICKNESS SHALL HAVE TONGUE AND GROOVE JOINTS.
4. CONE AND RING SECTIONS SHALL HAVE A WALL THICKNESS OF 4" MINIMUM TO 8" MAXIMUM.
5. MINIMUM WALL THICKNESS AT THE SUMP SHALL BE 4" AS SPECIFIED IN A.S.T.M. C-478.
6. THE WALL AROUND INLET AND OUTLET PIPES SHALL BE A PRECAST RING WITH AN OPENING 2" LARGER THAN THE OUTSIDE DIAMETER OF THE PIPE.
7. LIFT HOLES SHALL BE PROVIDED.

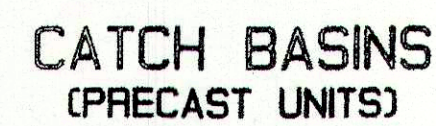
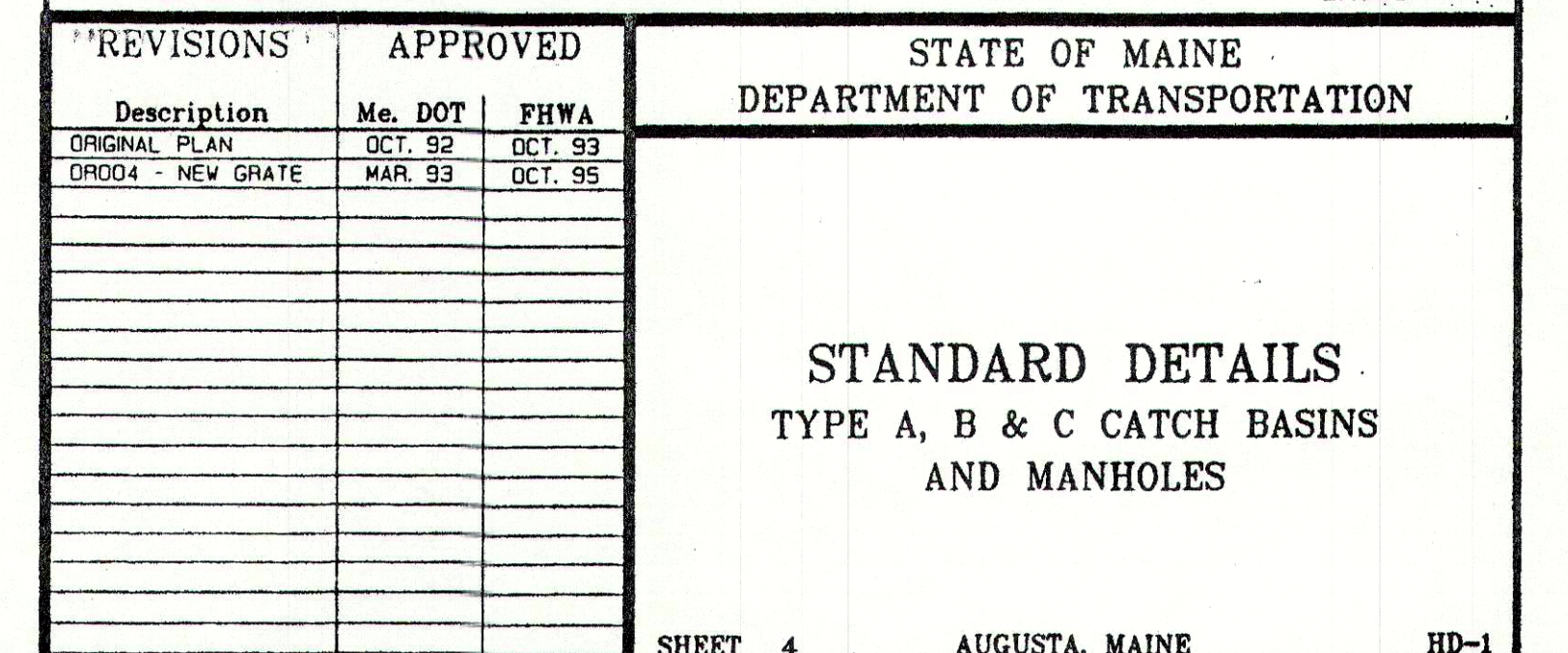
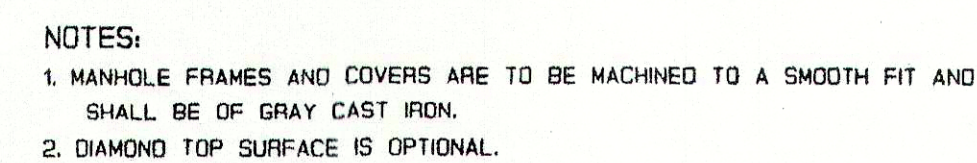
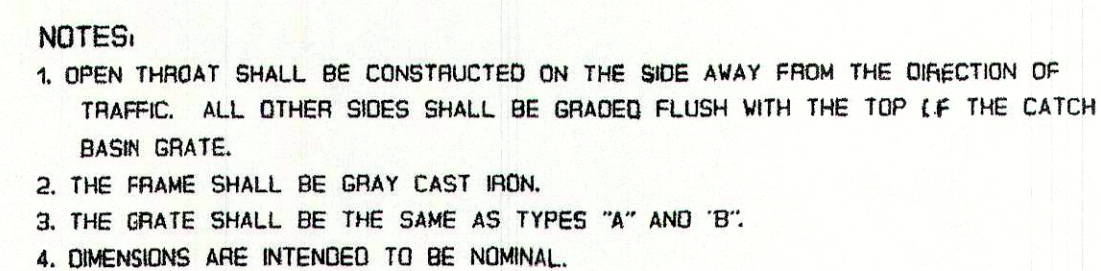
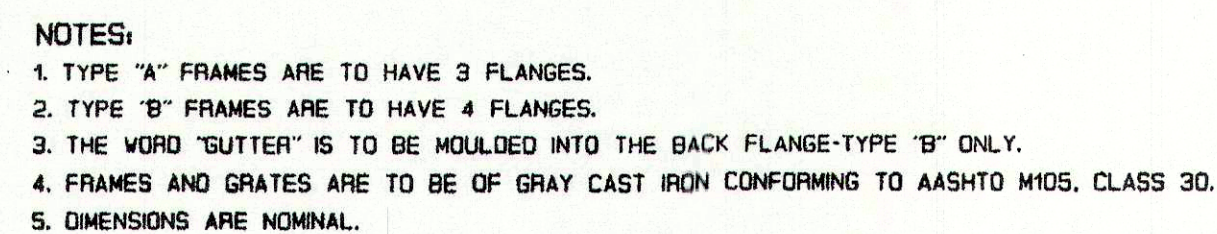
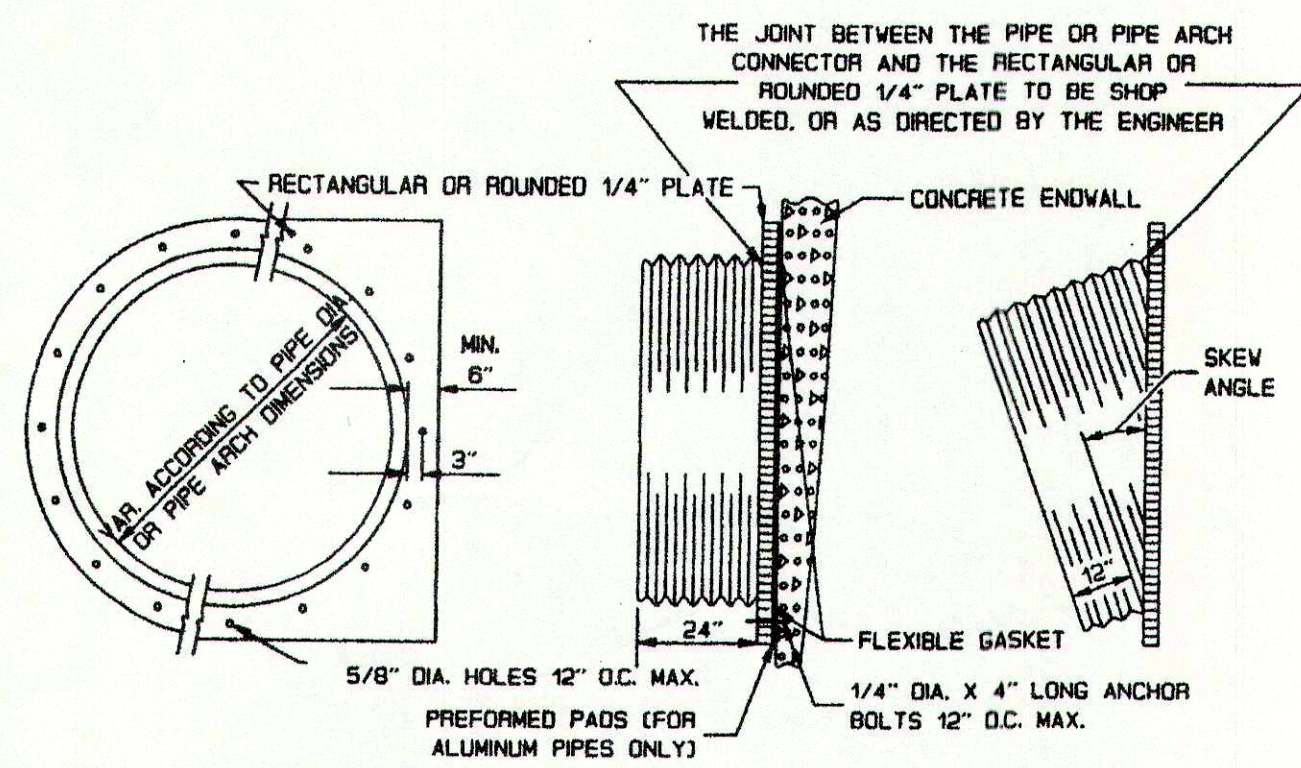


TABLE OF CATCH BASIN TYPES  
(COMBINATIONS OF TOPS AND TYPES)

FOR TYPE "E" & TYPE "F" CATCH BASINS SEE PANELS DR010 AND DR011

[illegible]





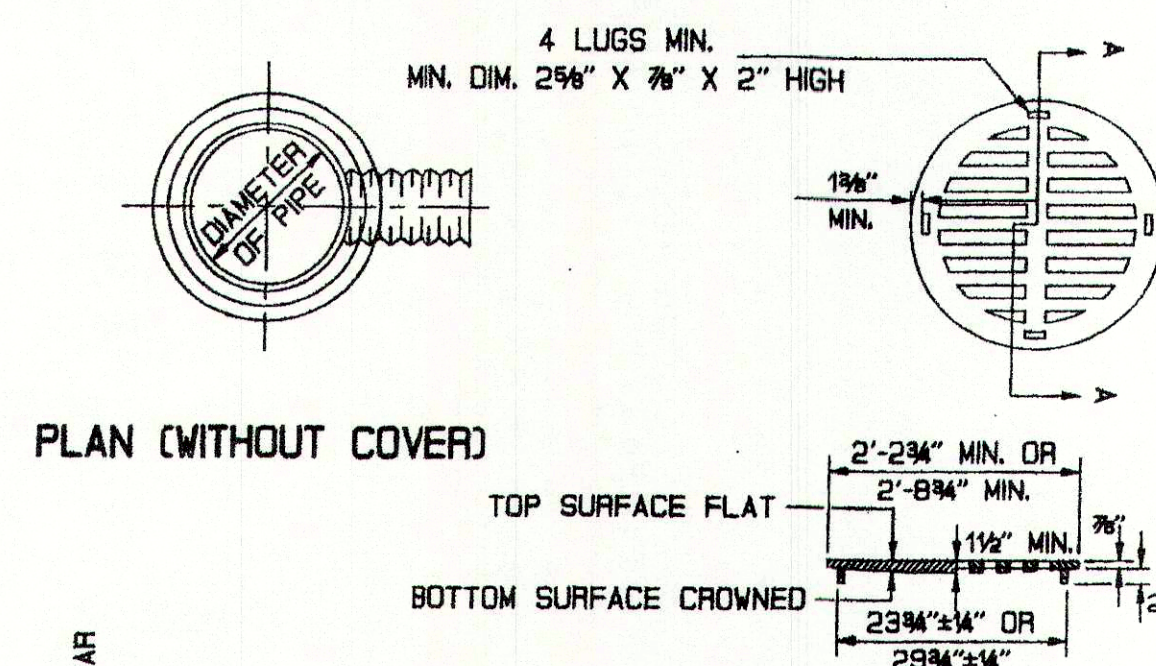
METAL CULVERT CONNECTOR

CONNECTOR FOR SKEWED PIPE

### CONCRETE BOX CULVERT EXTENSION USING CORRUGATED METAL PIPE & PIPE ARCHES

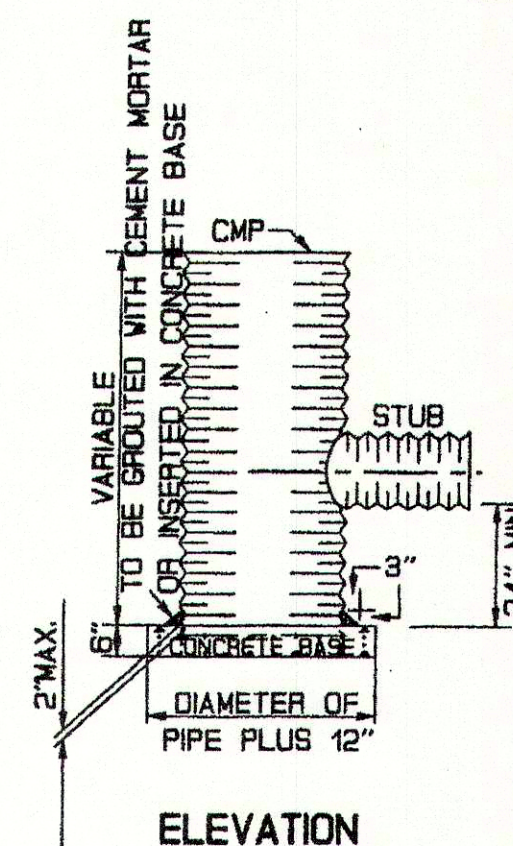
SPEC. 603

DR009



PLAN (WITHOUT COVER)

SECTION A-A



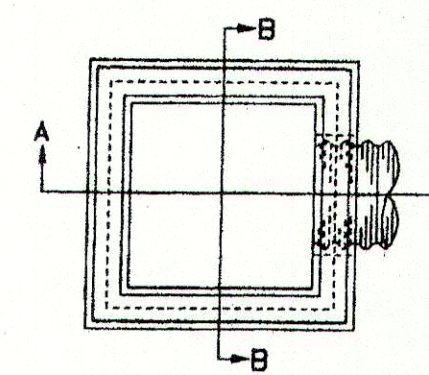
ELEVATION

1. EXCESS PIPE TO BE CUT AND FOLDED AGAINST THE INSIDE WALL OF CATCH BASIN. JOINTS TO BE CALKED WITH OAKUM AND ASPHALT CEMENT. JOINTS MAY BE SHOP WELDED.
2. STUBS TO BE MADE FROM 2 FOOT LENGTH OF PIPE. COST SHALL BE INCIDENTAL TO THE CATCH BASIN ITEM.
3. GRATE TO BE GRAY CAST IRON.
4. BARS OF GRATE TO BE PLACED PARALLEL WITH FLOW.
5. GRATE FOR 30" CATCH BASINS TYPE "E" SHALL HAVE A TOTAL CUMULATIVE WIDTH OF OPENINGS 14" MIN. GRATE FOR 24" CATCH BASINS TYPE "E" SHALL HAVE A TOTAL CUMULATIVE WIDTH OF OPENINGS 8" MIN.
6. CORRUGATED METAL PIPE SHALL CONFORM TO SECTION 712.08 OF THE STANDARD SPECIFICATIONS.

CATCH BASIN TYPE "E"

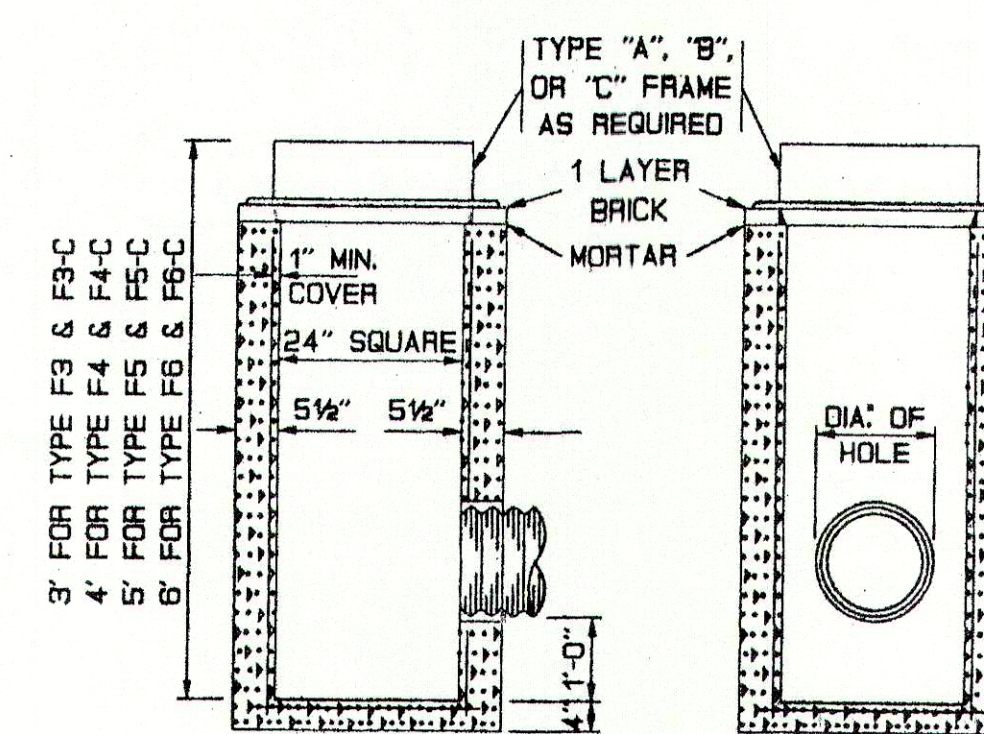
SPEC. 604

DR010



NOTE:  
ENTIRE CATCH BASIN WITH EXCEPTION OF LEVELING BRICK, FRAME AND GRATE TO BE PRECAST AS A SINGLE PORTLAND CEMENT CONCRETE UNIT

\* DIAMETER OF HOLE TO BE 3" LARGER THAN THE INSIDE DIAMETER OF FLEXIBLE PIPE OR THE OUTSIDE DIAMETER OF RIGID PIPE.



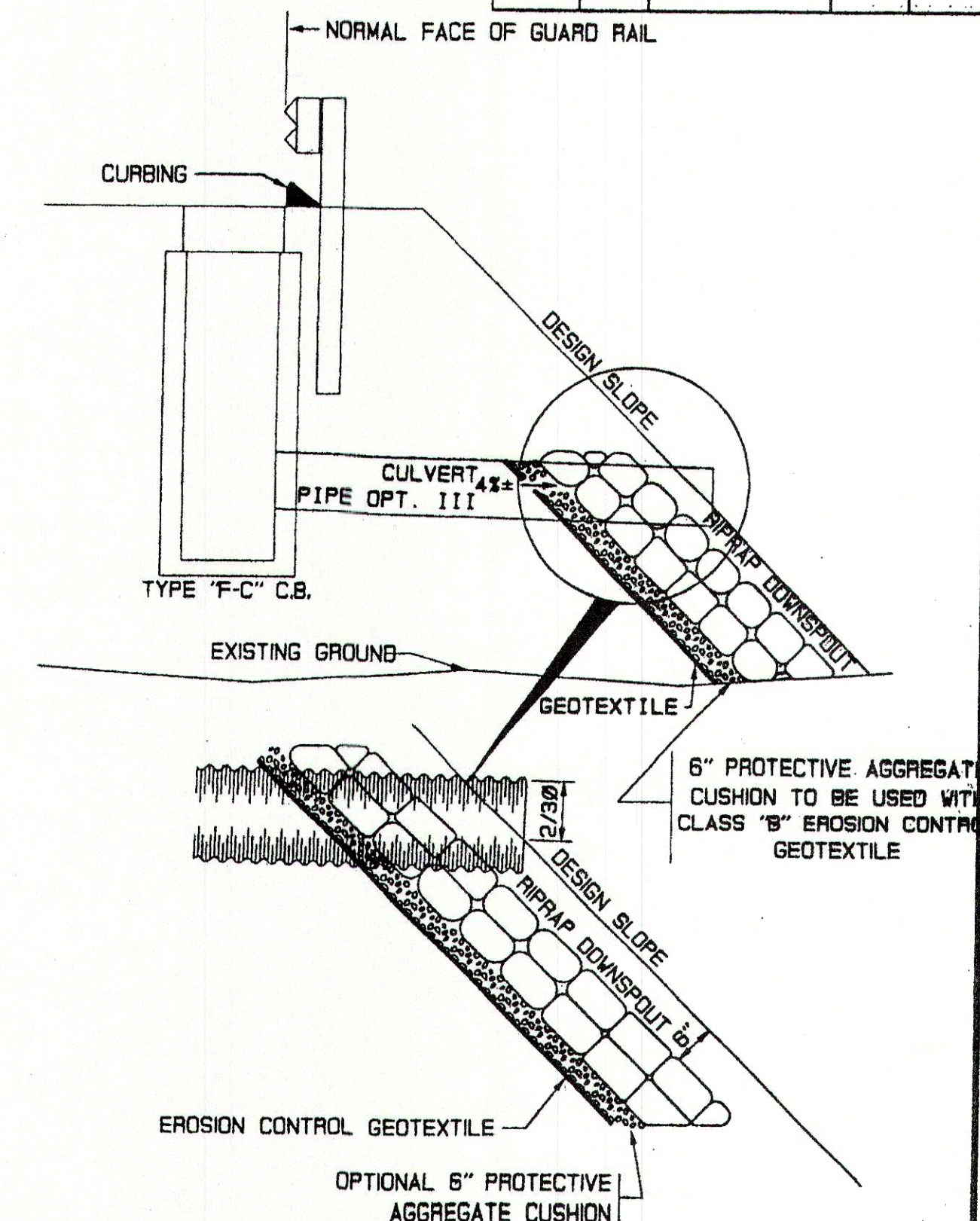
SECTION A-A

SECTION B-B

CATCH BASIN TYPE "F"

SPEC. 604

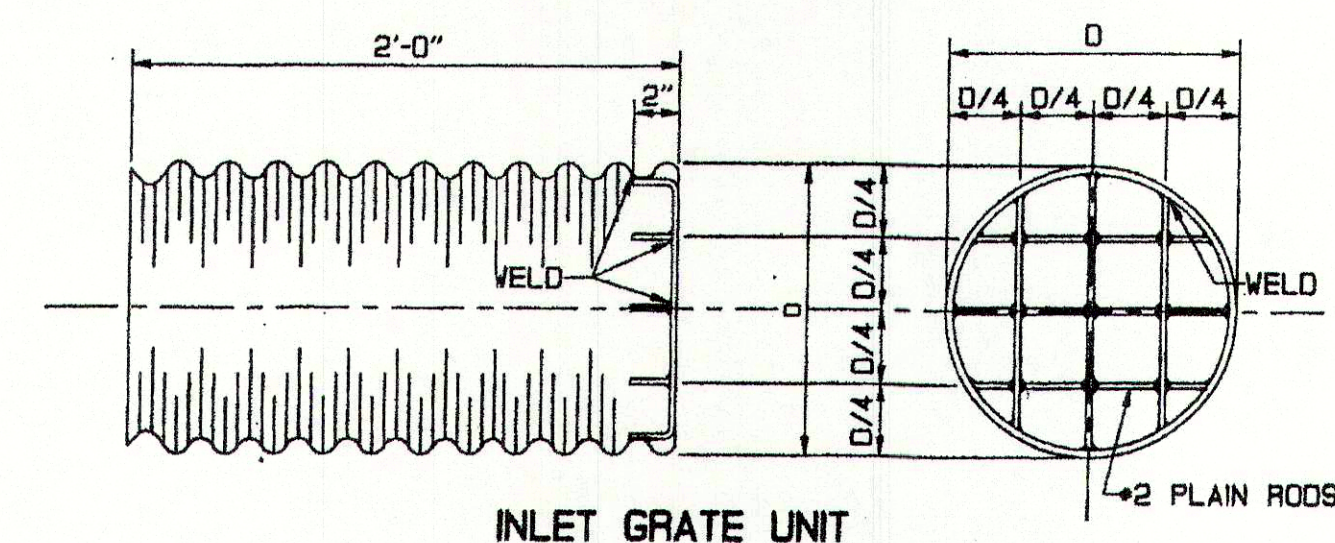
DR011



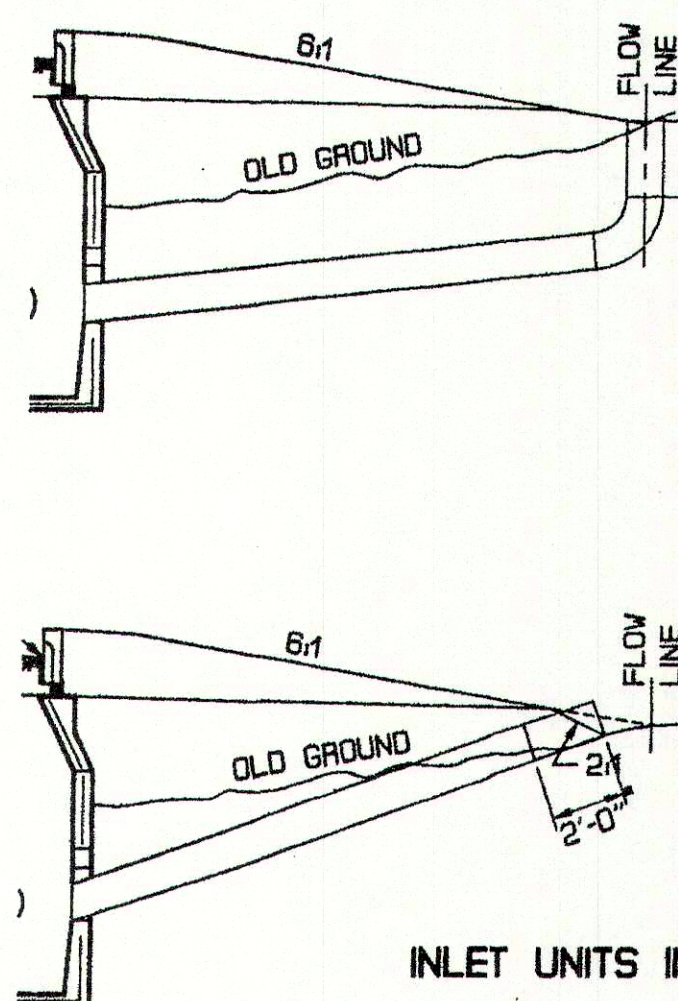
TYPE "F" CATCH BASIN WITH OUTLET PIPE (WITH RIPRAP)

SPEC. 604

DR012



INLET GRATE UNIT



INLET UNITS IN FILL AREAS

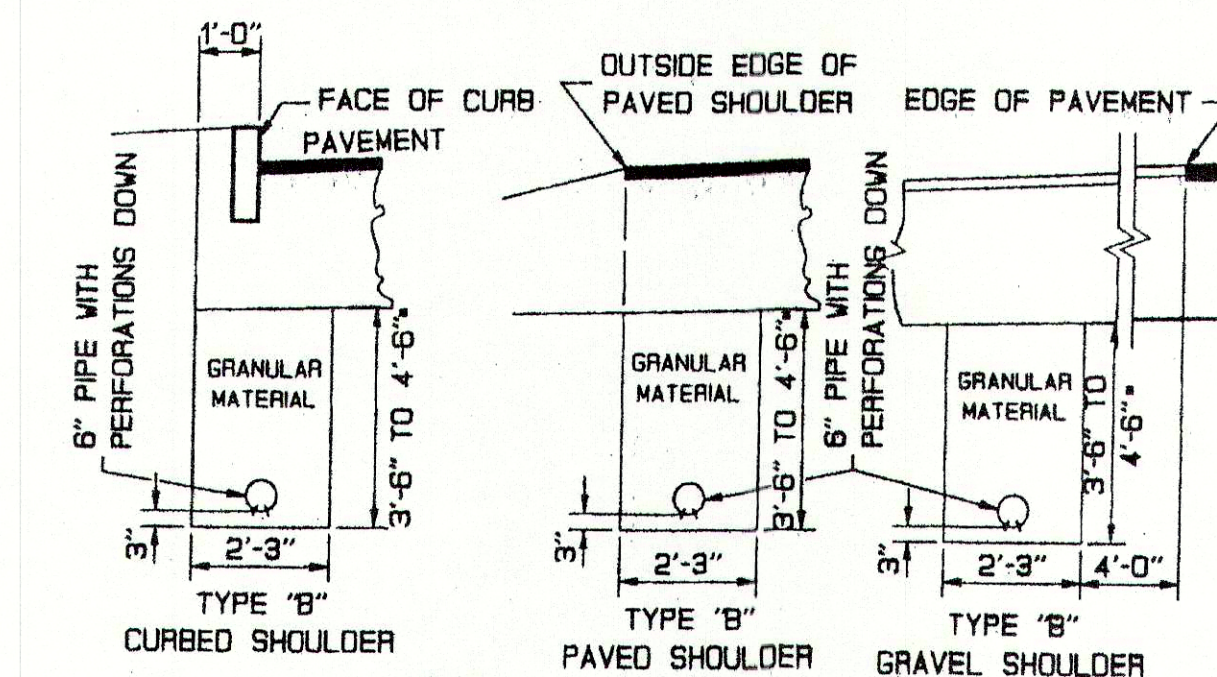
1. ALL UNITS TO BE COMPLETE SHOP ASSEMBLY.
2. ALL UNITS TO HAVE ONE SHOP COAT OF APPROVED ALUMINUM PAINT.
3. AN ELBOW SHALL BE INSTALLED IF DIRECTED BY THE ENGINEER TO PROVIDE A HORIZONTAL GRATE, AND SHALL BE PAID FOR AS 3 ADDITIONAL FEET OF THE TYPE AND SIZE OF PIPE INVOLVED.
4. RODS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 709.01 OF THE STANDARD SPECIFICATIONS.
5. PIPE FOR INLET GRATE UNIT SHALL BE THE SAME TYPE THAT IS USED TO CONNECT INTO CATCH BASIN.

\* 24" INLET GRATE UNIT.

INLETS

SPEC. 604

DR014



1. THE MAXIMUM VERTICAL MEASUREMENT OF DEPTH FOR PAYMENT OF STRUCTURAL ROCK EXCAVATION WILL BE TO A HORIZONTAL PLANE LOCATED 1 FOOT BELOW THE BOTTOM OF THE INVERT OF THE PIPE FOR UNDERDRAIN TYPE "B" AND UNDERDRAIN TYPE "C".
2. THE MATERIAL FOR ELBOWS, TEES & YES FOR UNDERDRAIN TYPES "B" AND "C" SHALL BE AT LEAST AS THICK AS THE LARGEST SIZE PIPE BEING CONNECTED.
3. THE INVERT ELEVATION OF UNDERDRAIN TYPE "B" OUTLETS SHALL BE A MINIMUM OF 8 INCHES ABOVE THE FLOW LINE OF A DITCH OR THE ORIGINAL GROUND.
4. WIDTH OF THE TRENCH FOR UNDERDRAIN OUTLET WILL BE THE SAME AS THE UNDERDRAIN TRENCH.
5. NO ALLOWANCE FOR PAYMENT WILL BE MADE FOR EXCAVATING OR MATERIAL EXCAVATED BEYOND THE HORIZONTAL DIMENSIONS SHOWN FOR TYPES "B", OR "C" UNDERDRAIN.
6. IN "BOX SECTIONS" THE EDGE OF THE TRENCH SHALL BE IN LINE WITH EDGE OF THE BOX SECTION.

\* UNLESS OTHERWISE SHOWN ON THE PLANS

UNDERDRAIN

SPEC. 605

DR015

DIAMETER	TYPE "B" AND TYPE "C" UNDERDRAIN PIPE			METAL PIPE (NOMINAL WALL THICKNESS)			PLASTIC PIPE STIFFNESS • 5% DEFLECTION		
				P V C PIPE			POLYETHYLENE PIPE		
				M 278			M 294 SP DUAL-WALL UNANCHORED		
TYPE "B" 6"	0.084	0.052	0.048	46	50				
TYPE "C" 12"	0.079	0.064	0.075	46			50		
15"	0.079	0.064	0.075	46			42		
18"	0.079	0.064	0.075				40		
21"	0.079	0.064	0.075						
24"	0.079	0.064	0.075				40		
30"	0.109	0.079	0.105				28		
36"	0.109	0.079	0.105				22		

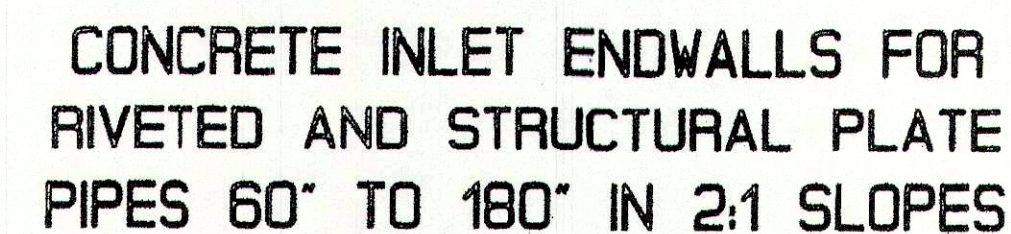
M 218-Zinc coated (galvanized) corrugated steel pipe  
M 274-Aluminum coated (Type 2) corrugated steel pipe  
M 197-Corrugated Aluminum Alloy pipe  
M 278-Smoothwall PVC pipe  
ASTM F 949-PVC corrugated sewer pipe with smooth interior  
M 294 SP-Corrugated Polyethylene pipe with smooth inner liner  
M 252 SP-Corrugated Polyethylene drainage tubing with smooth inner liner  
Type "B" Underdrain outlet shall be metal pipe meeting the requirements of this chart.

SPEC. 605

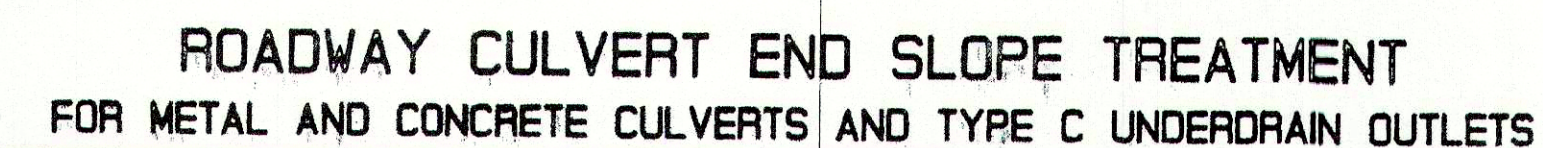
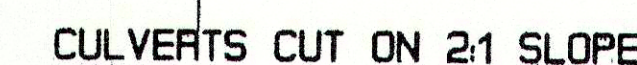
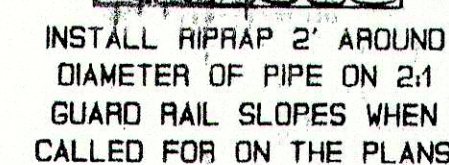
DR016

REVISIONS			APPROVED		STATE OF MAINE	
Description			Me. DOT	FHWA	DEPARTMENT OF TRANSPORTATION	
ORIGINAL PLAN	OCT. 92				STANDARD DETAILS TYPE E & F CATCH BASINS INLET GRATE UNIT UNDERDRAIN	
DR010 - NOTE 6	NOV. 93					
DR013 - DELETED	FEB. 94					
DR015 - ADDED DIMS.	APR. 95	OCT. 95				
DR011	APR. 95	OCT. 95				
DR012	APR. 95	OCT. 95				
DR015	APR. 95	OCT. 95				
DR016	APR. 95	OCT. 95				
SHEET 5					AUGUSTA, MAINE	HD-2

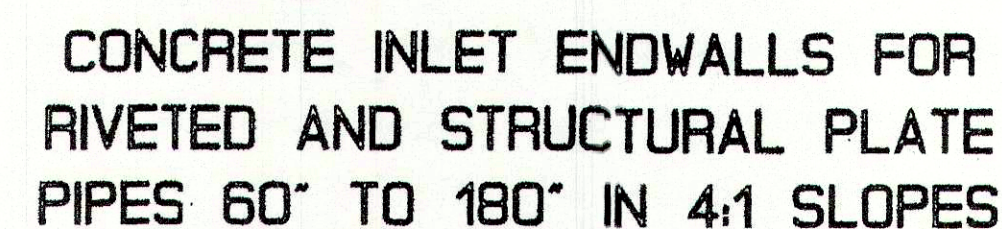




1. THE DIMENSIONS SHOWN ARE APPROXIMATES AND MAY BE MODIFIED BY THE RESIDENT ENGINEER.
2. RIPRAP WILL BE REQUIRED ON PORTIONS OF THE CULVERT END TREATMENT 1:1 AND STEEPER. THE REMAINING PORTION SHALL BE SODDED, OR LOAMED, SEEDED AND HAY MULCHED AS DIRECTED BY THE ENGINEER.
3. CULVERTS INSTALLED ON 2:1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

TABLE A

- SPEC. 604      CONCRETE INLET ENDWALL      DR020



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.O.T. Spec. 70704  
 Minimum cover is 3 feet  
 (2) Either size acceptable

Helically corrugated metal pipe 12" diameter and larger shall have the ends rolled to provide at least 2 annular corrugations. Pipe with spiral corrugations shall have continuous helical lock seams.

M 196-Corrugated Aluminum Alloy Pipe  
M 36-Corrugated Steel Pipe

Metal Pipe values are for 2 3/8" x 1/2" Corrugations unless diameter is followed by (1) which requires 3" x 1" Corrugations for Aluminum Pipes and 3x1" or 5x1" 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 262/Polymer for galvanized corrugated steel pipe	M 197/Corrugated aluminum alloy pipe
FIBER BONDED M.D.T. Spec. 707.04	

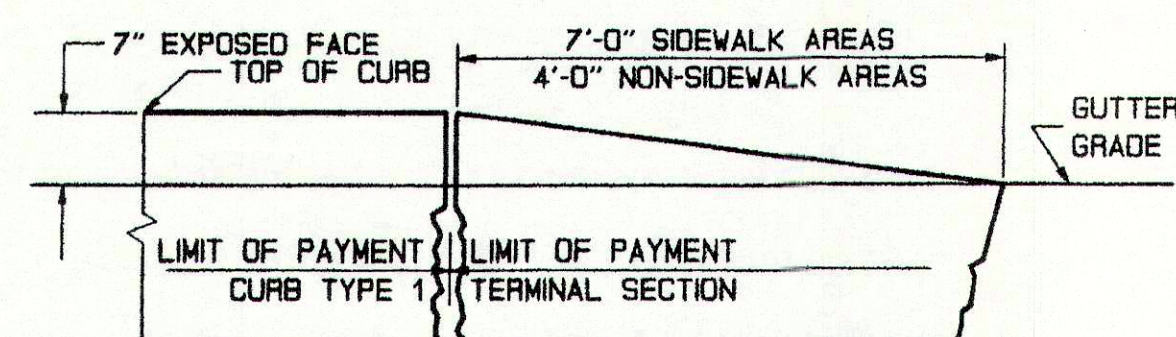
# STANDARD DETAILS

## CULVERT INLETS & OUTLETS

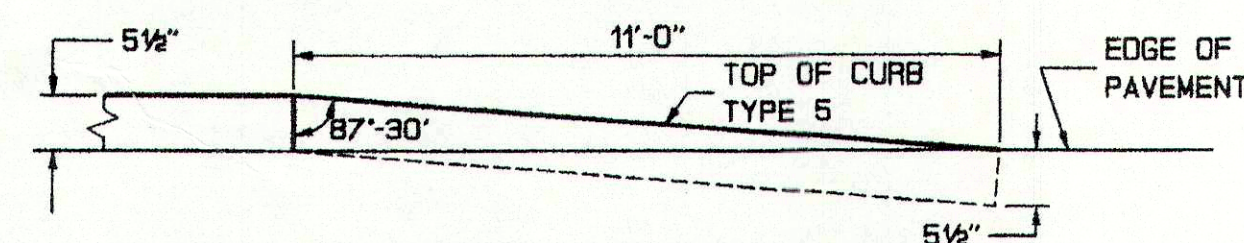
### CULVERT PIPE DATA



CURB TYPES 1 & 5 ON CURVES				
T <sub>Y</sub>	RADIUS OF CURVE	LENGTH	PAID FOR AS	STONE IS CUT OR CAST
1 & 2	0' TO 60' INCL.	4' MIN.	CIRCULAR	ARC TO FIT CURVE
	OVER 60' TO 160'	4' TO 6'	STRAIGHT	STRAIGHT PIECES
5	0' TO 8' INCL.	2' MIN.	CIRCULAR	TO FIT CURVE
	OVER 8' TO 30' INCL.	12" MIN. CHORD	CIRCULAR	STR. PIECES, RADIAL ENDS
	OVER 30' & UNDER 160'	2' TO 3'	STRAIGHT	STRAIGHT PIECES
	160' AND OVER	3' TO 6'	STRAIGHT	STRAIGHT PIECES



TERMINAL SECTION TYPE "1"

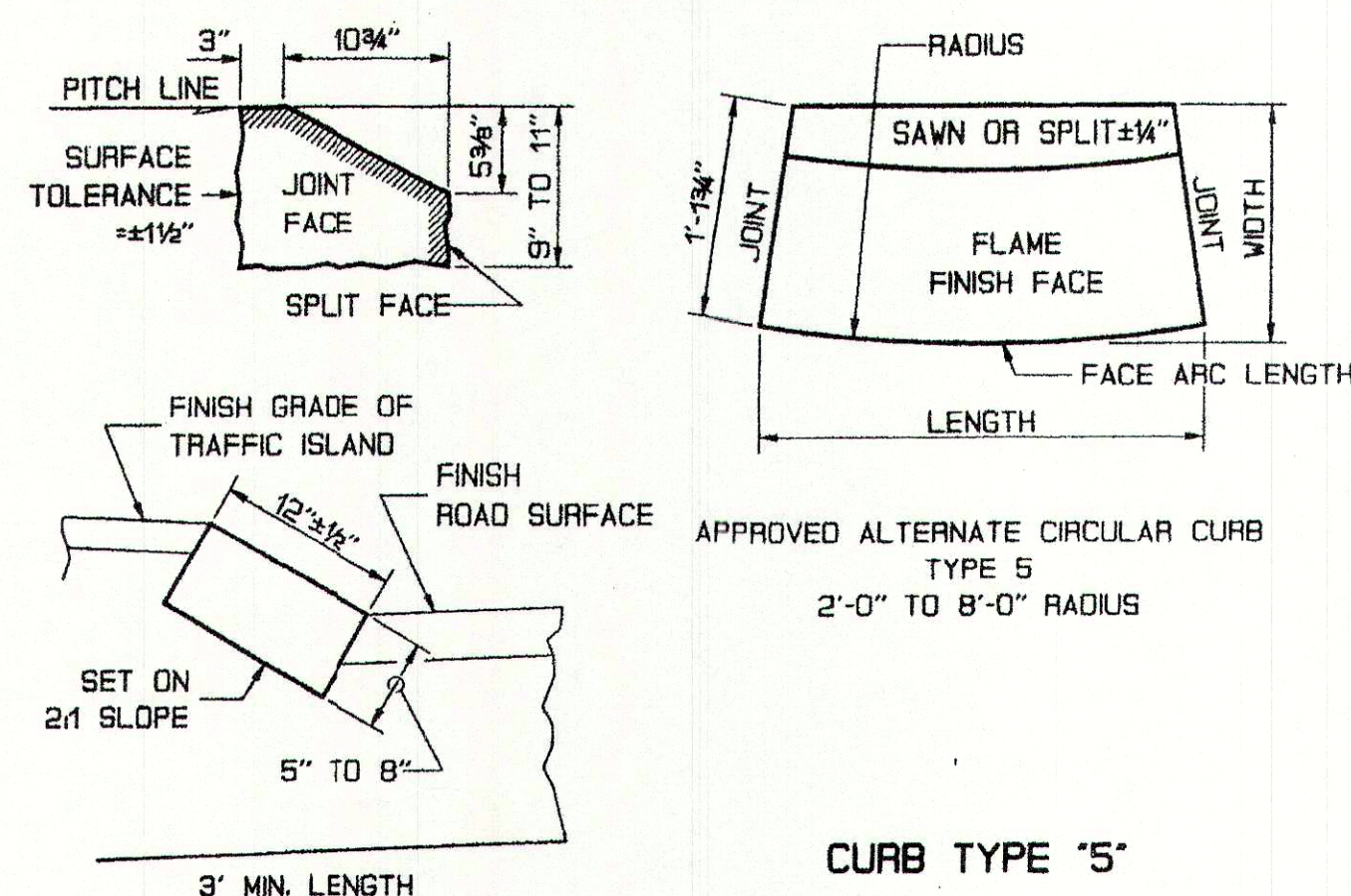


TERMINAL SECTION TYPE "5"  
(USE WHEN SHOWN ON PLANS ONLY)

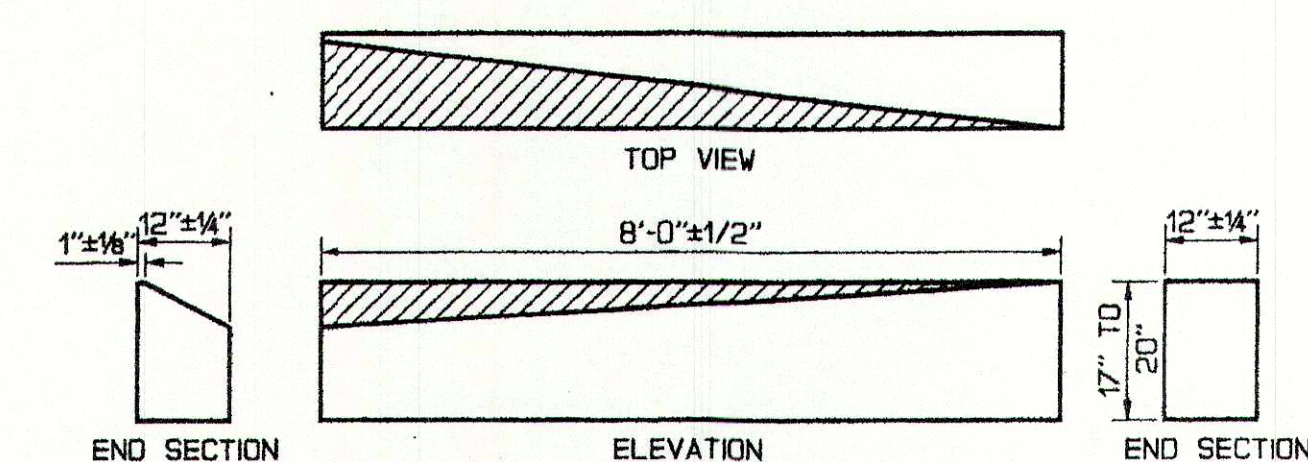
SPEC. 609

### TERMINAL CURB SECTION

CU001



CURB TYPE "5"

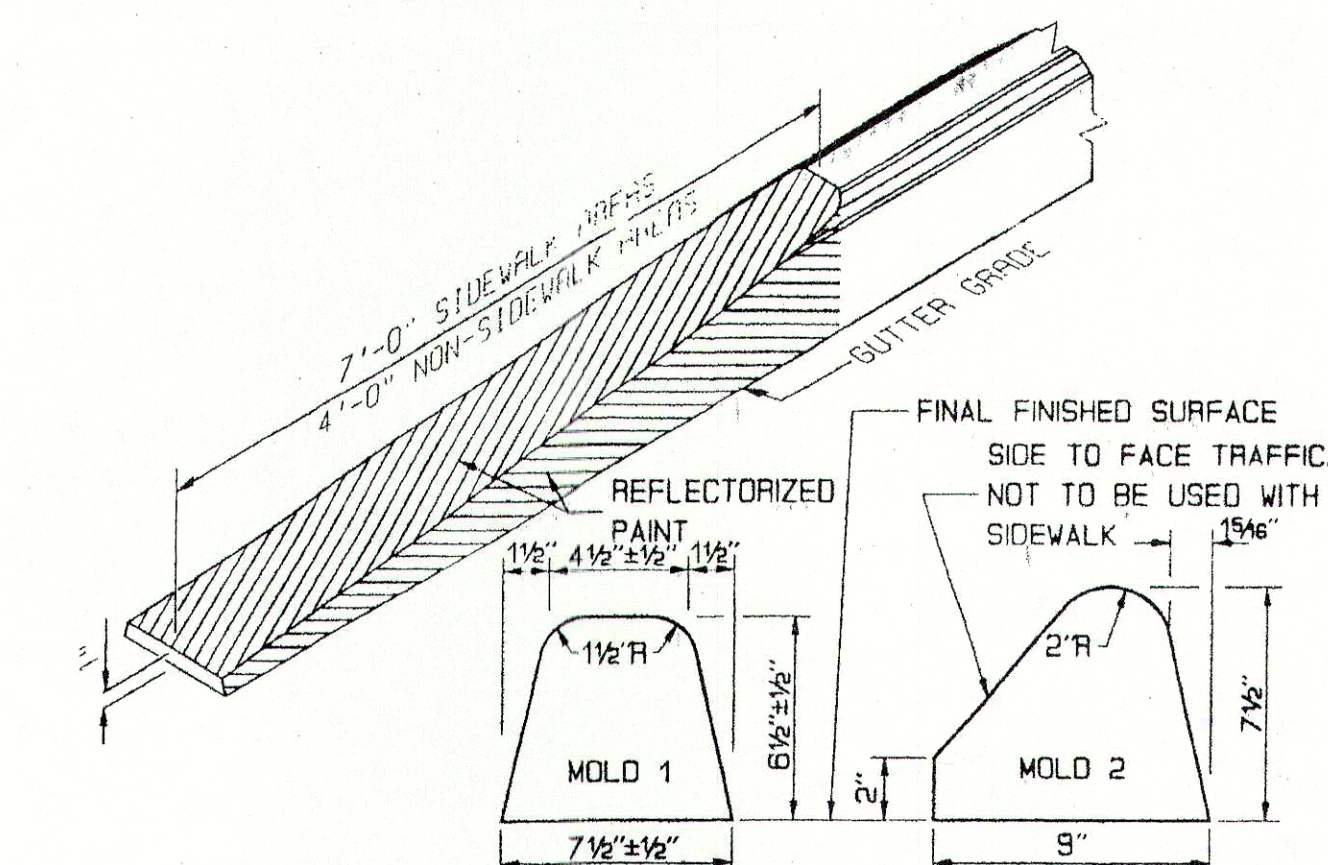


TRANSITION SECTION "B"  
CURB TYPE "5" TO VERTICAL CURB TYPE "1"

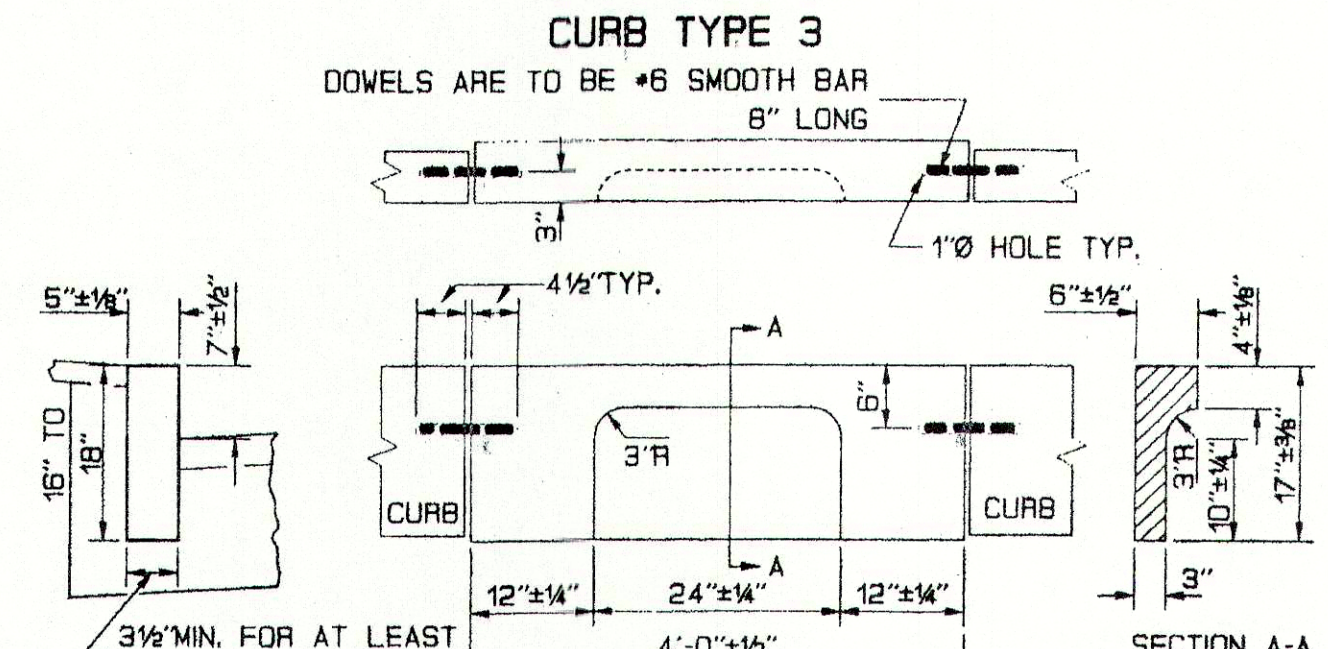
SPEC. 609

### CURB TRANSITION

CU002



CURB MOLD 2 WILL BE USED IN ALL SITUATIONS EXCEPT FOR WHERE THE CURB FORMS THE EDGE OF THE SIDEWALK. MOLD 1 SHALL BE USED IN CONJUNCTION WITH SIDEWALKS OR WHERE THERE IS A POTENTIAL FOR SIDEWALKS.



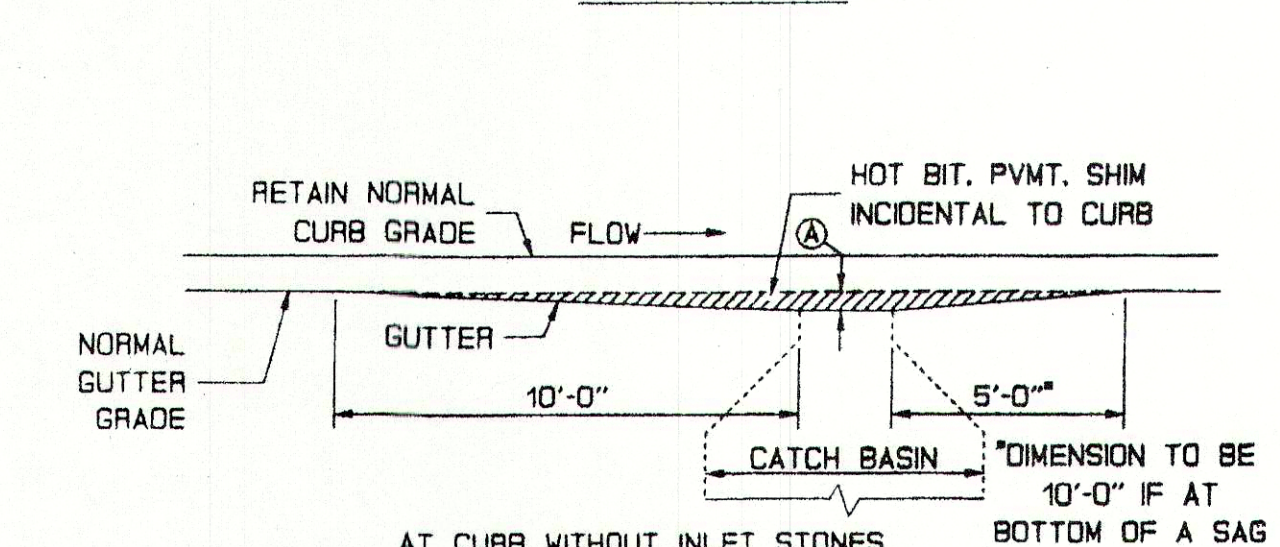
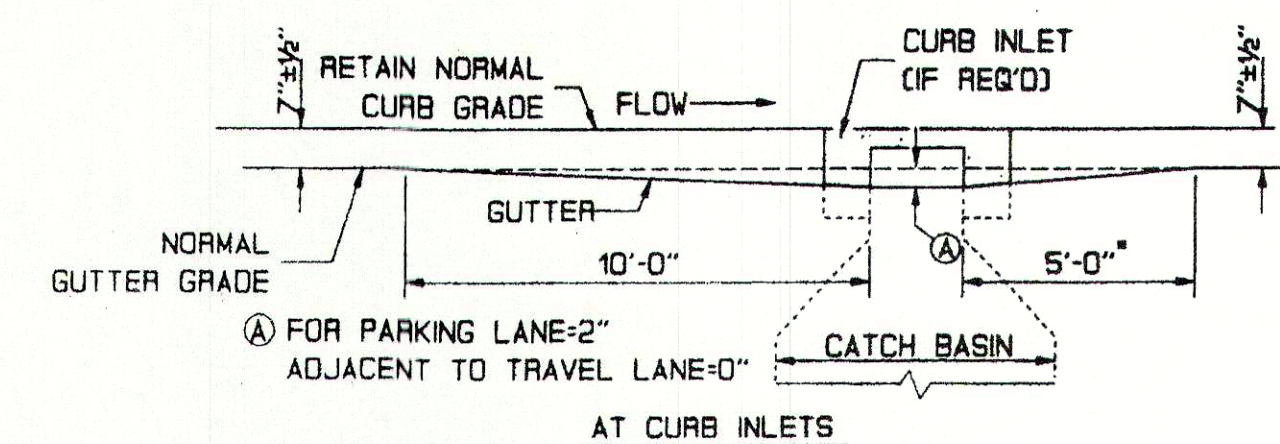
VERTICAL CURB  
TYPE 1 & 2

SPEC. 609

### CURB

CU003

F.W.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			

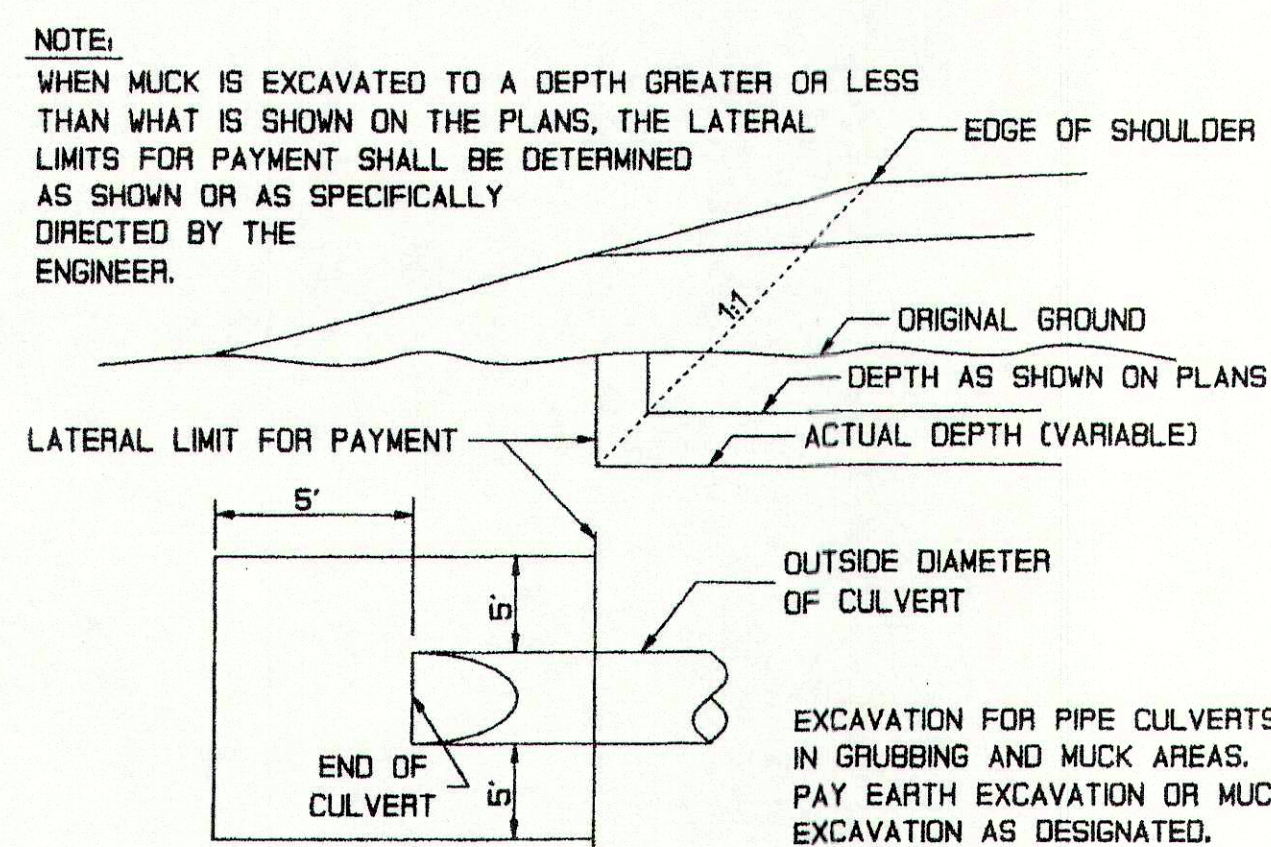


NOTE:  
GRATES SHALL BE INSTALLED ON GRADIENT OF THE GUTTER AND BE DEPRESSED 2" BELOW THE NORMAL GUTTER GRADE UNLESS THIS DEPRESSION INTERFERES WITH TRAFFIC.

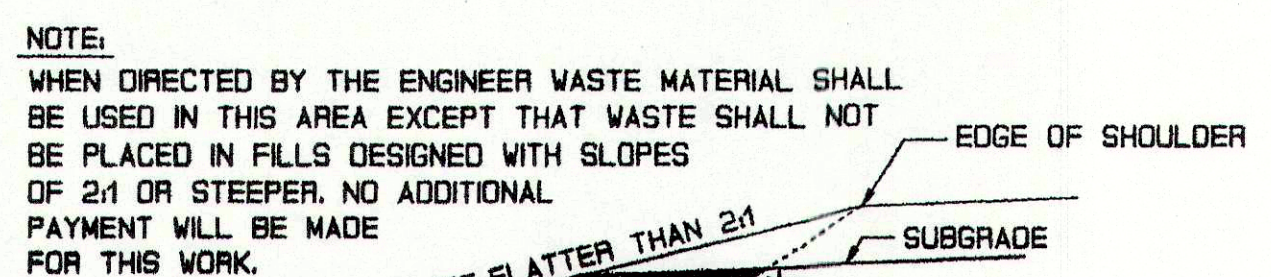
### GUTTER GRADE TRANSITION AT CATCH BASIN

SPEC. 609

CU004



MUCK EXCAVATION PAY LIMITS

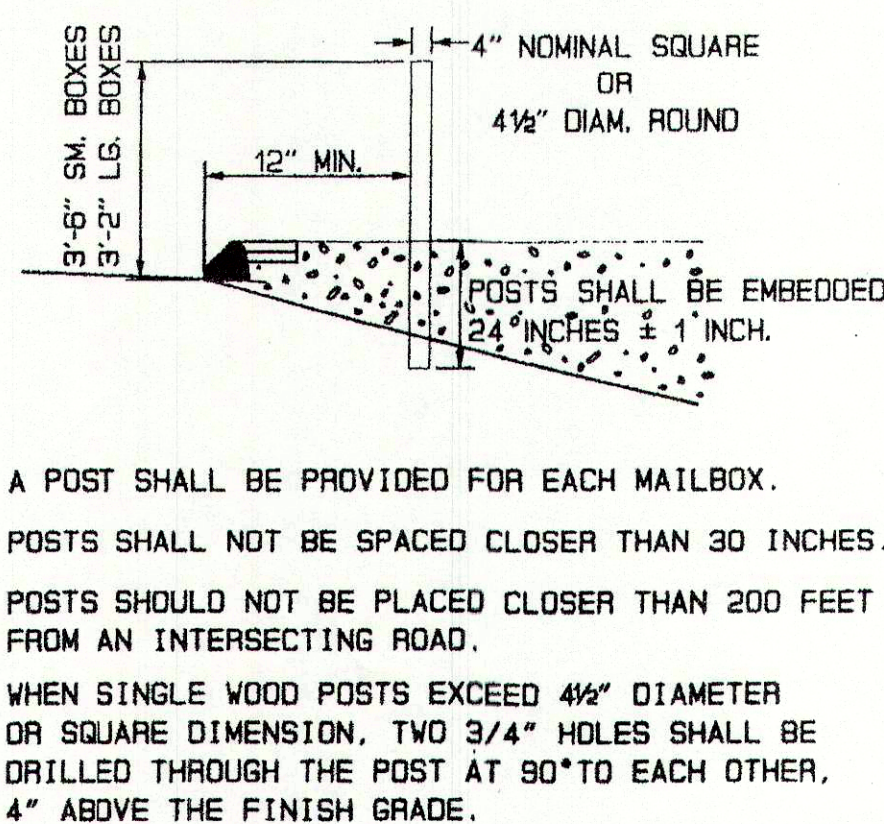


DISPOSAL OF WASTE MATERIALS  
(WASTE STORAGE AREA)

### MUCK EXCAVATION AND WASTE DISPOSAL

SPEC. 203

MS001



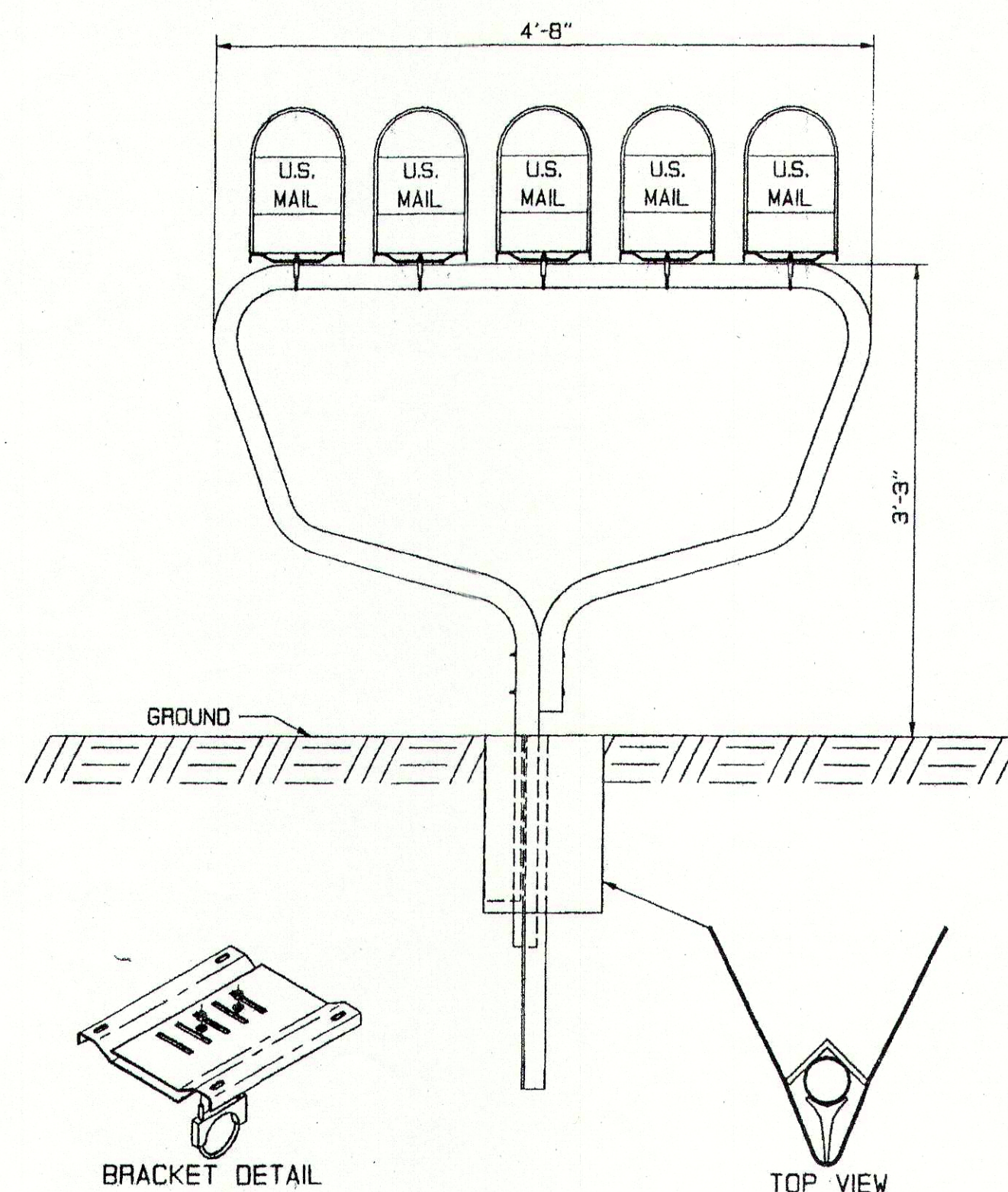
SINGLE WOOD POST

1. A POST SHALL BE PROVIDED FOR EACH MAILBOX.
2. POSTS SHALL NOT BE SPACED CLOSER THAN 30 INCHES.
3. POSTS SHOULD NOT BE PLACED CLOSER THAN 200 FEET FROM AN INTERSECTING ROAD.
4. WHEN SINGLE WOOD POSTS EXCEED 4 1/2" DIAMETER OR SQUARE DIMENSION, TWO 3/4" HOLES SHALL BE DRILLED THROUGH THE POST AT 90° TO EACH OTHER, 4" ABOVE THE FINISH GRADE.

SPEC. 606

### MAILBOX POSTS

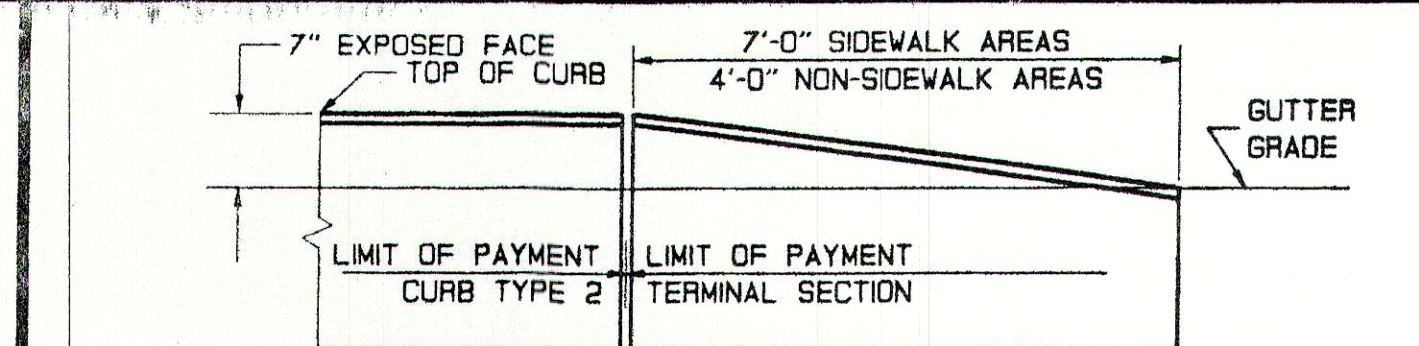
MS003



ITEM NO. 606.51  
MULTIPLE MAILBOX SUPPORT

SPEC. 606

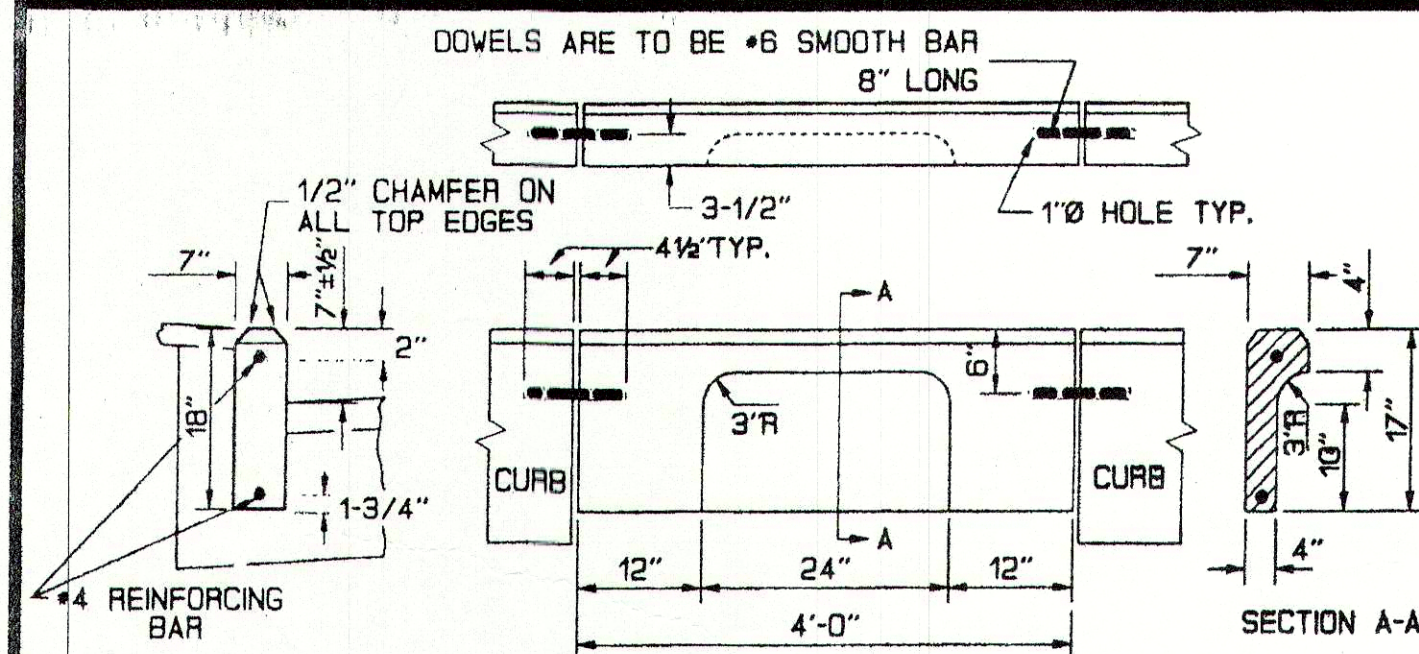
MS004



TERMINAL SECTION TYPE "2"

SPEC. 609

CU005



VERTICAL CURB  
TYPE 2

SPEC. 609

### CURB

CU006

REVISIONS			APPROVED		STATE OF MAINE	
Description	Me.	DOT	Me.	DOT	DEPARTMENT OF TRANSPORTATION	
ORIGINAL PLAN	OCT.	82				
MS001 - ADDED DIM.	JAN.	93				
MS003 - ALT. NOTE 2	FEB.	94				
CU005 - TYPE 2	JAN.	95				
CU006 - TYPE 2	JAN.	95				
CU001	APR.	95				
CU002	APR.	95				
MS001	APR.	95				

### STANDARD DETAILS CURBING, MUCK EXCAVATION AND WASTE DISPOSAL & MAILBOX POST ASSEMBLIES

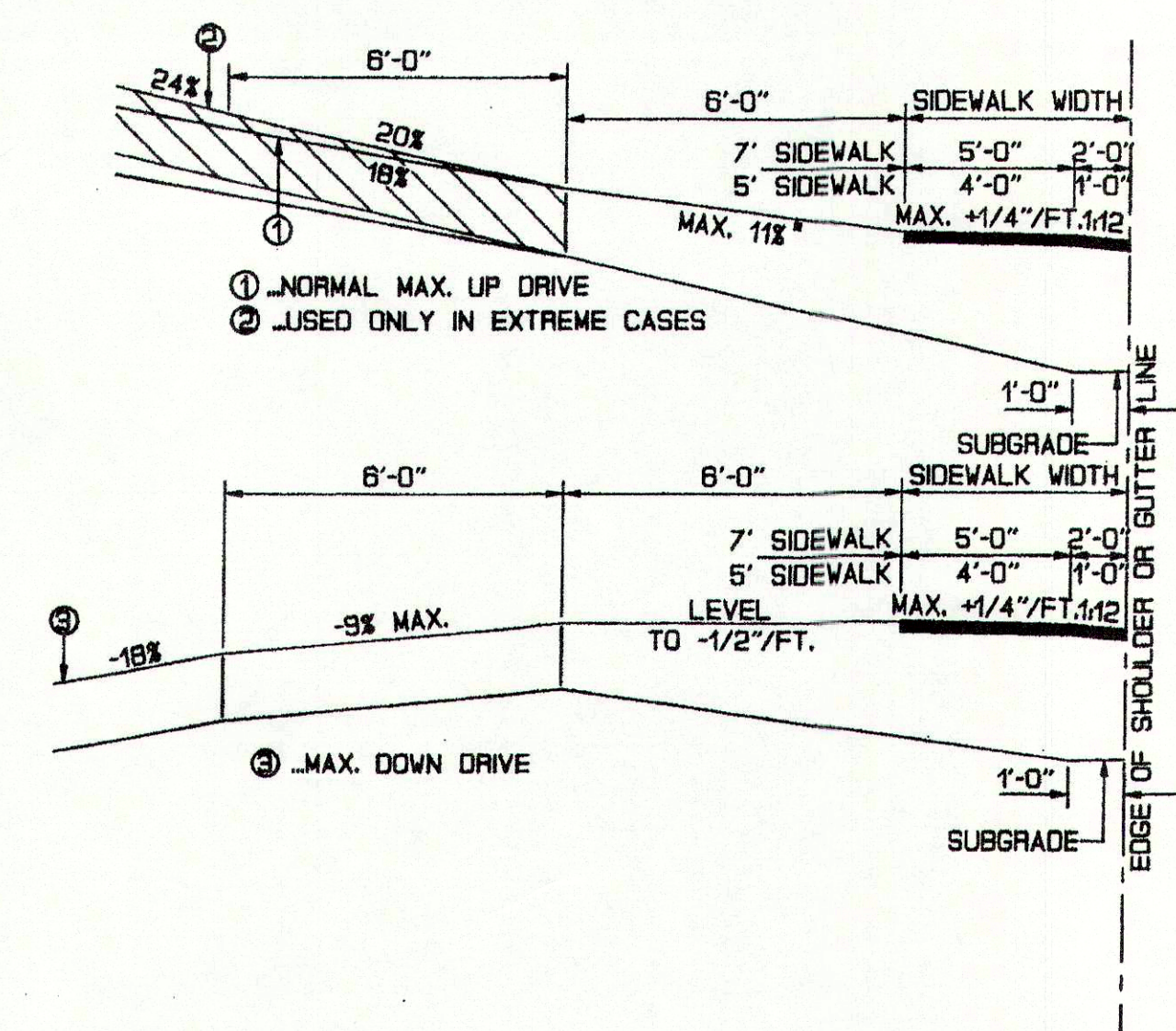
SHEET 7

AUGUSTA, MAINE

HD-4

ROUTE 9, CUMBERLAND



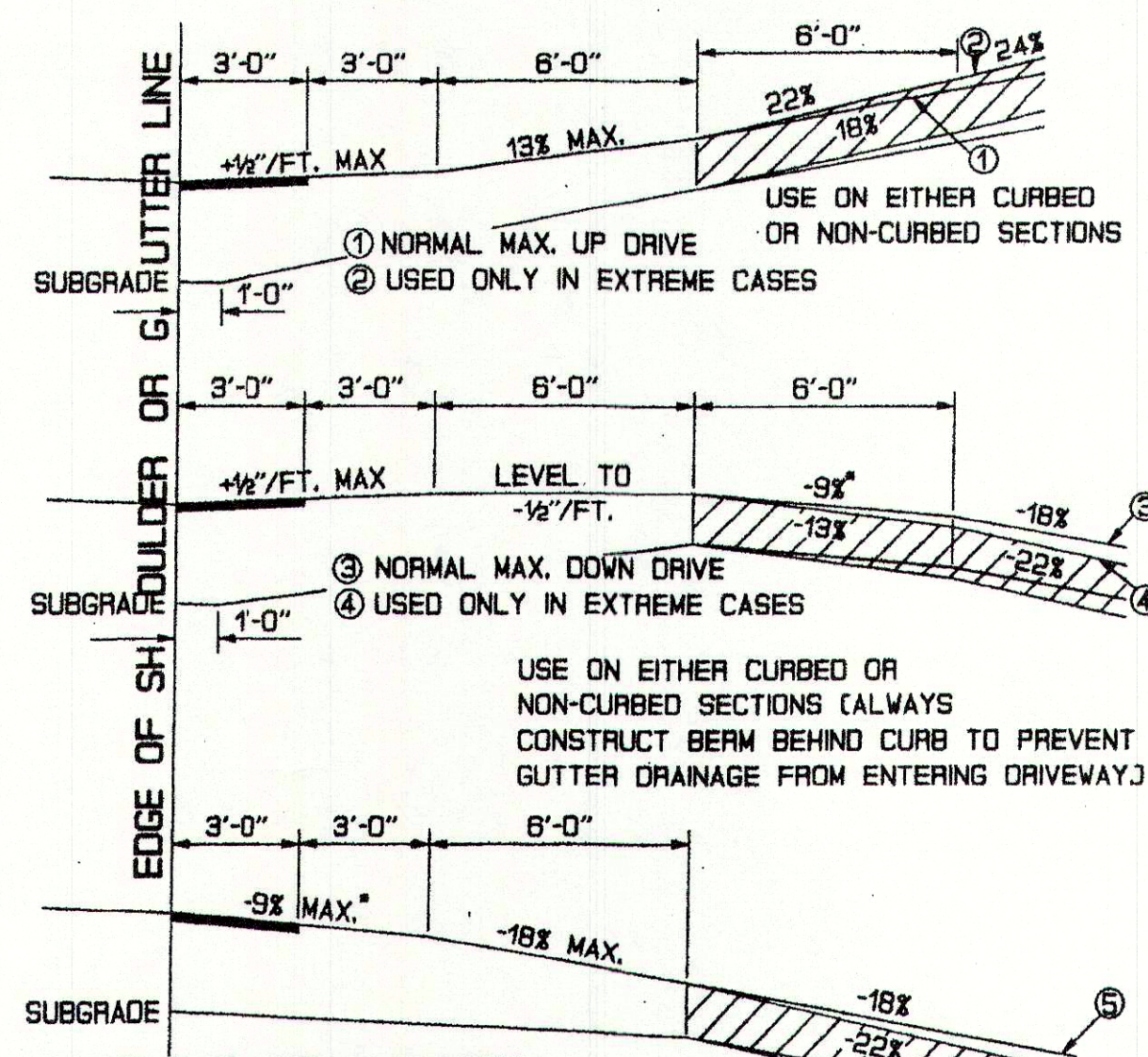


**GENERAL NOTES:**  
 1. THE SIDEWALK WIDTH SHALL BE PAVED IN ALL CASES.  
 2. ALL RESIDENTIAL OR COMMERCIAL DRIVES 10% AND OVER SHALL BE PAVED.

**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 8% 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 8% IN A 8 FOOT INCREMENT OF DRIVEWAY LENGTH. THIS APPLIES TO BOTH UP AND DOWN PROFILES.

DRIVES ON SIDEWALK SECTIONS

EN001

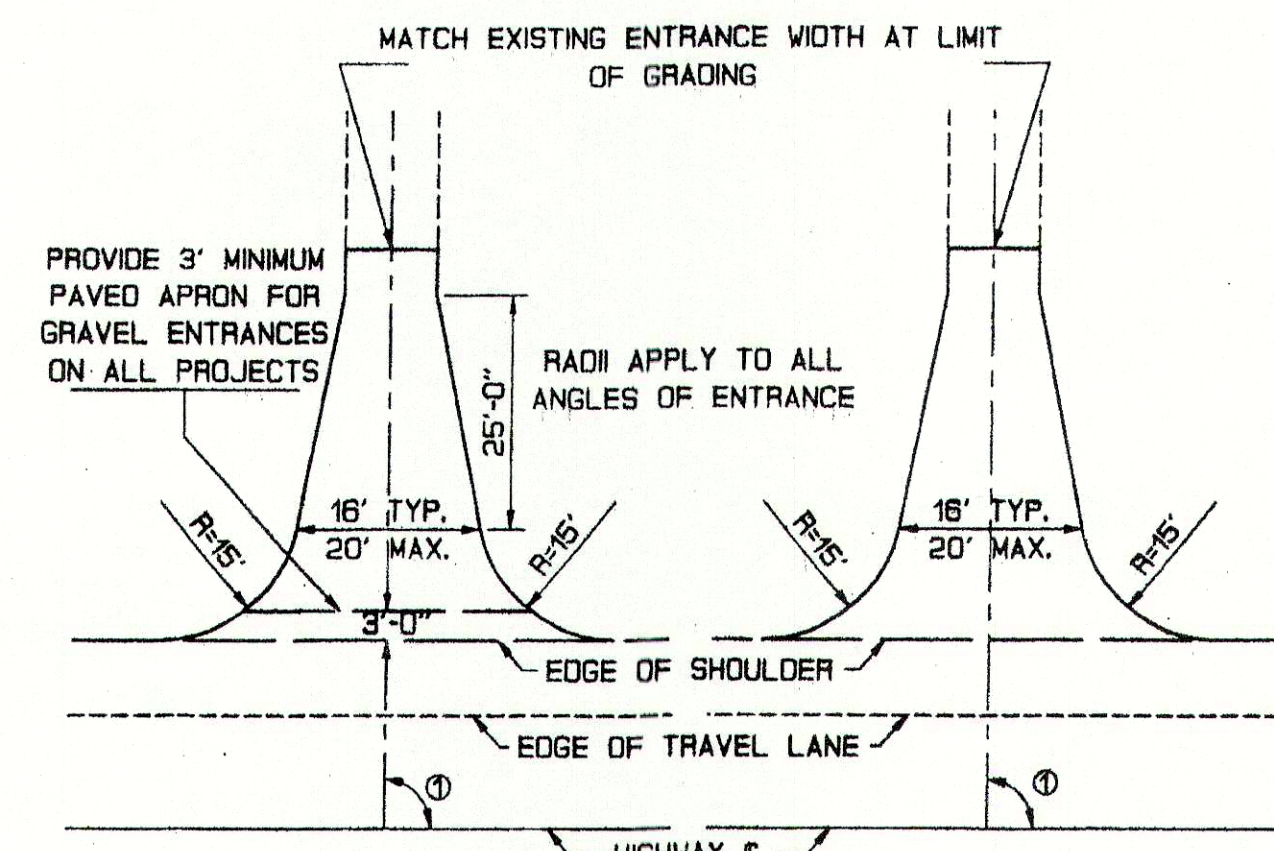


**GENERAL NOTES:**  
 1. IF THERE IS NO PROBLEM OF WATER DRAINING DOWN THE DRIVE THEN  
 ⑤ NORMAL MAX. DOWN DRIVE  
 ⑥ USED ONLY IN EXTREME CASES  
 USE ONLY ON NON-CURBED SECTIONS ON SEASONAL OR LIMITED USE ENTRANCES OR WHEN DRAINAGE IS NOT A FACTOR.

**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 8% 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 8% IN A 8 FOOT INCREMENT OF DRIVEWAY LENGTH. THIS APPLIES TO BOTH UP AND DOWN PROFILES.

DRIVES ON NON-SIDEWALK SECTIONS

EN002

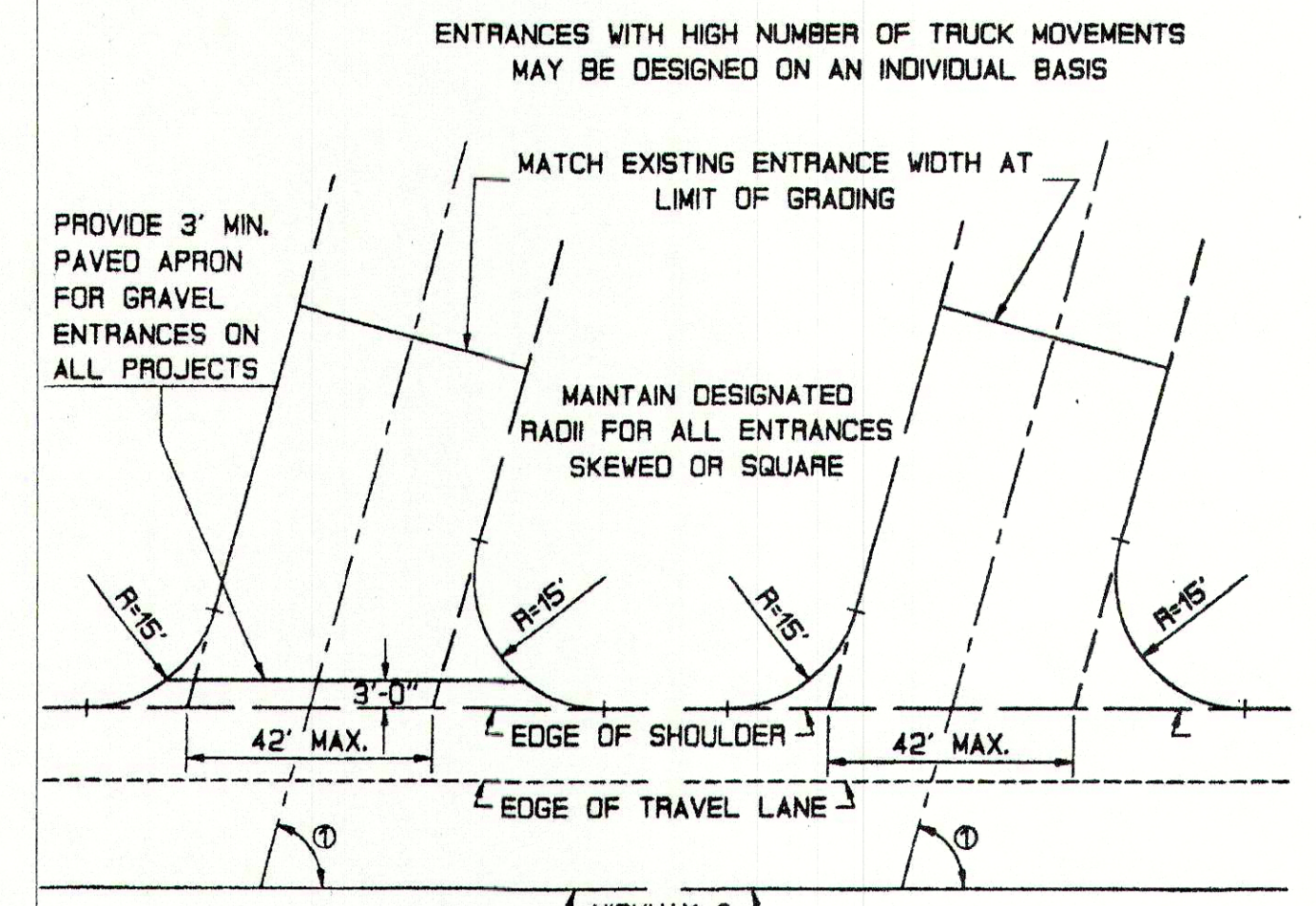


GRAVEL ENTRANCE PAVED ENTRANCE

① ENTRANCE ANGLE SHOULD NOT BE LESS THAN 45°

RESIDENTIAL ENTRANCE  
 ONTO UNCURBED HIGHWAY  
 (PAVED SHOULDERS)

EN003

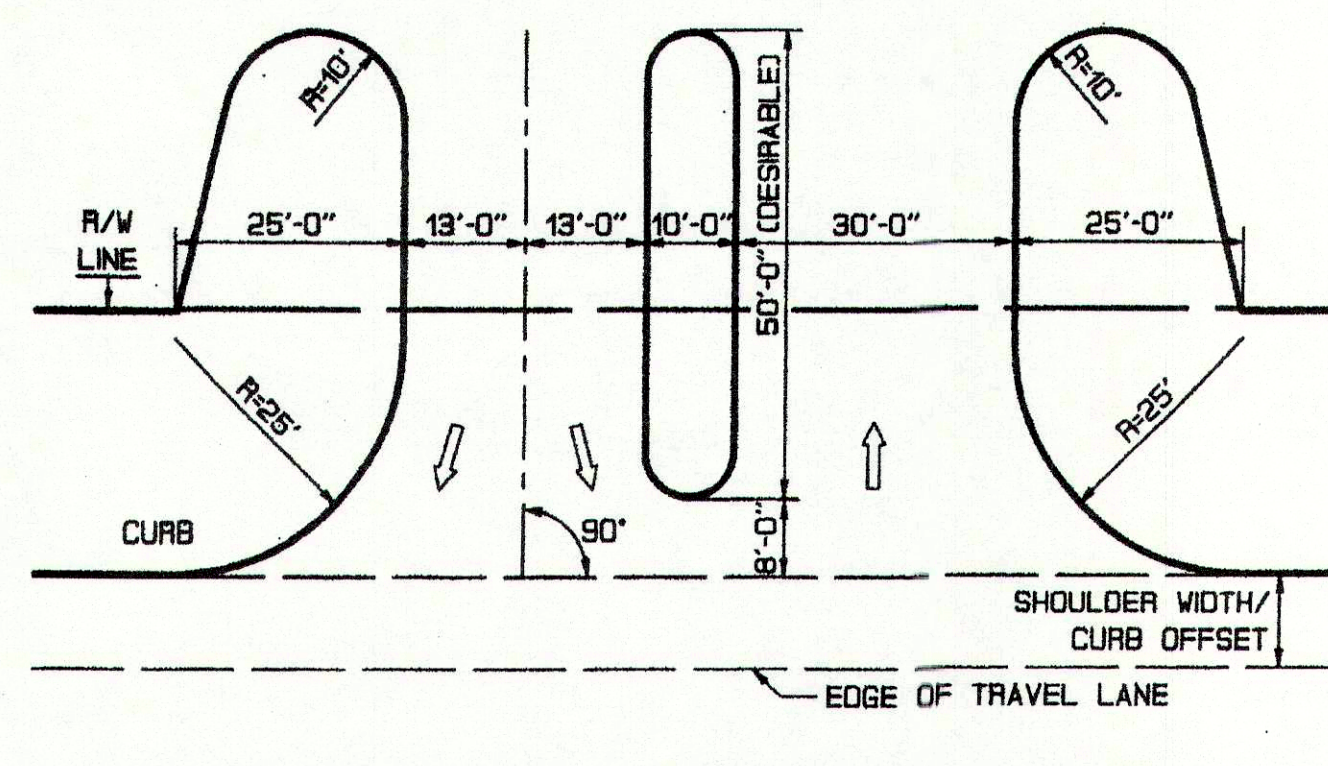


GRAVEL ENTRANCE PAVED ENTRANCE

① ENTRANCE ANGLE SHOULD NOT BE LESS THAN 45°

COMMERCIAL/INDUSTRIAL ENTRANCE  
 ONTO UNCURBED HIGHWAY  
 (PAVED SHOULDERS)

EN004

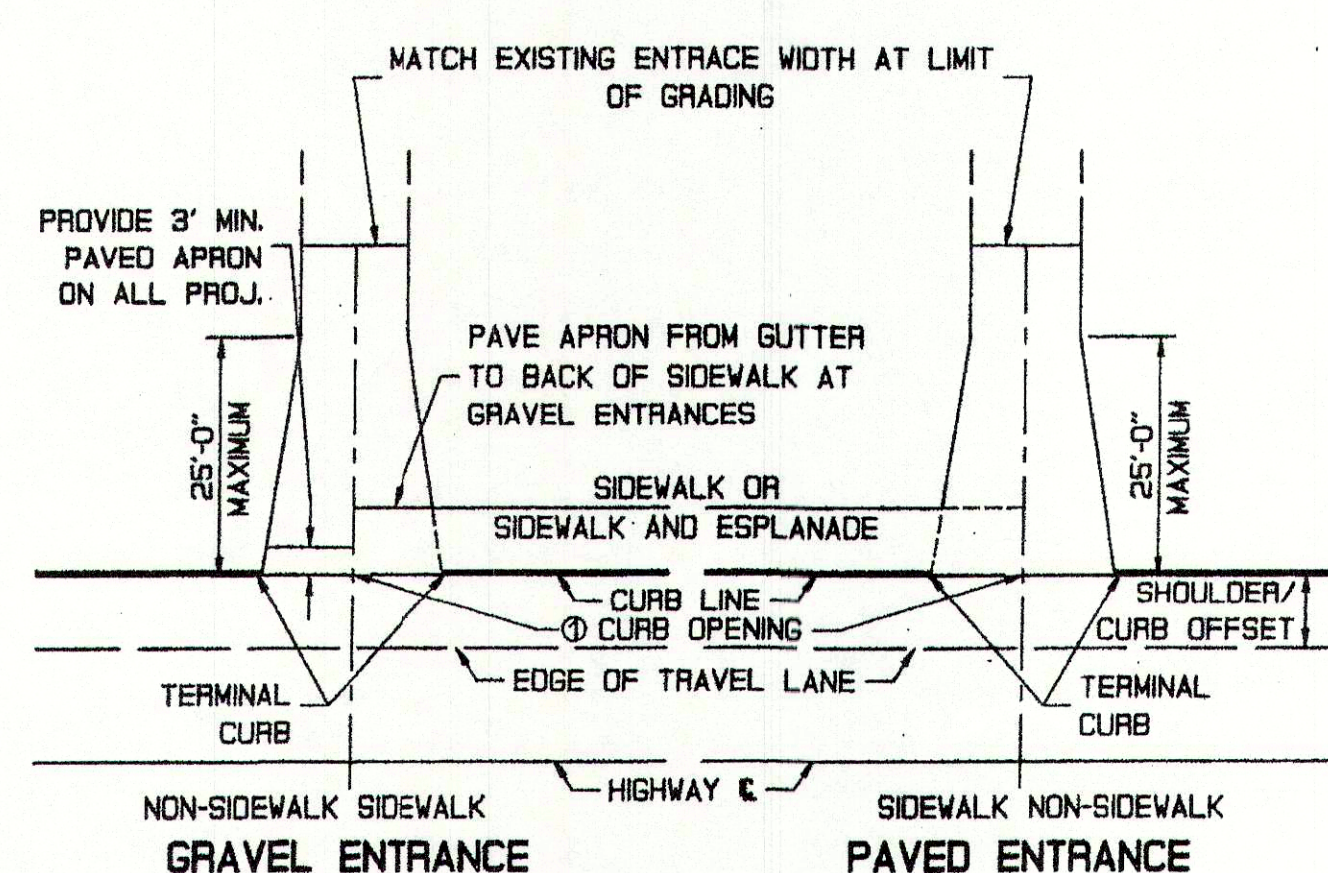


PAVED ENTRANCE

**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

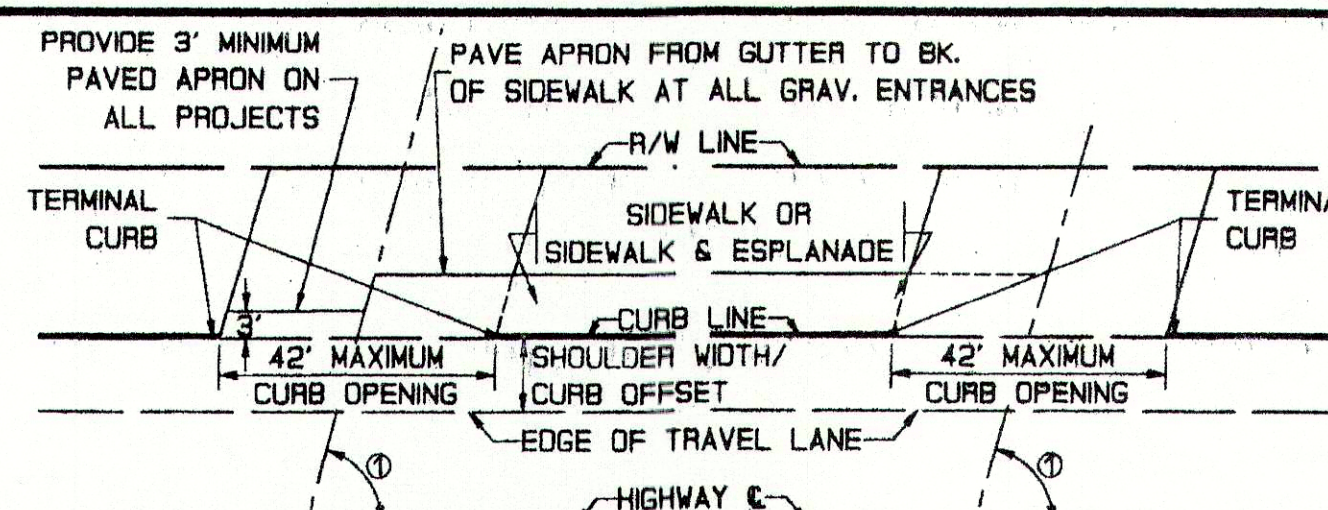


GRAVEL ENTRANCE PAVED ENTRANCE

① MINIMUM CURB OPENING IS 20' WHERE THE SHOULDER WIDTH IS 6' AND 25' WHERE THE SHOULDER WIDTH IS < 6'.

RESIDENTIAL ENTRANCE ONTO CURBED HIGHWAY  
 (WITH/WITHOUT SIDEWALKS)

EN006

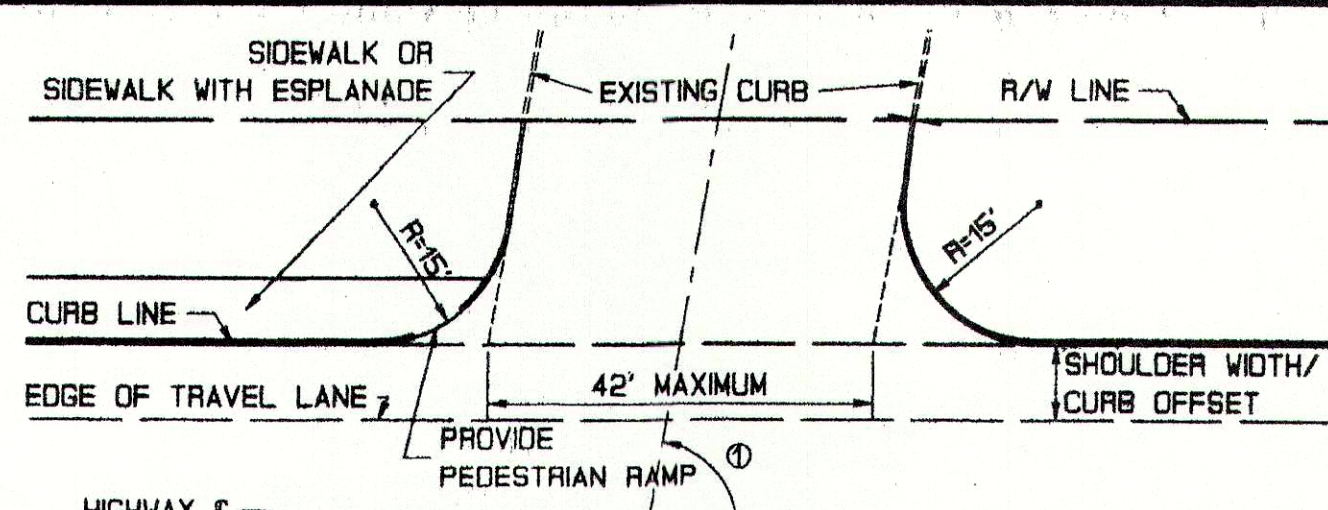


GRAVEL ENTRANCE PAVED ENTRANCES

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 RADI 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



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

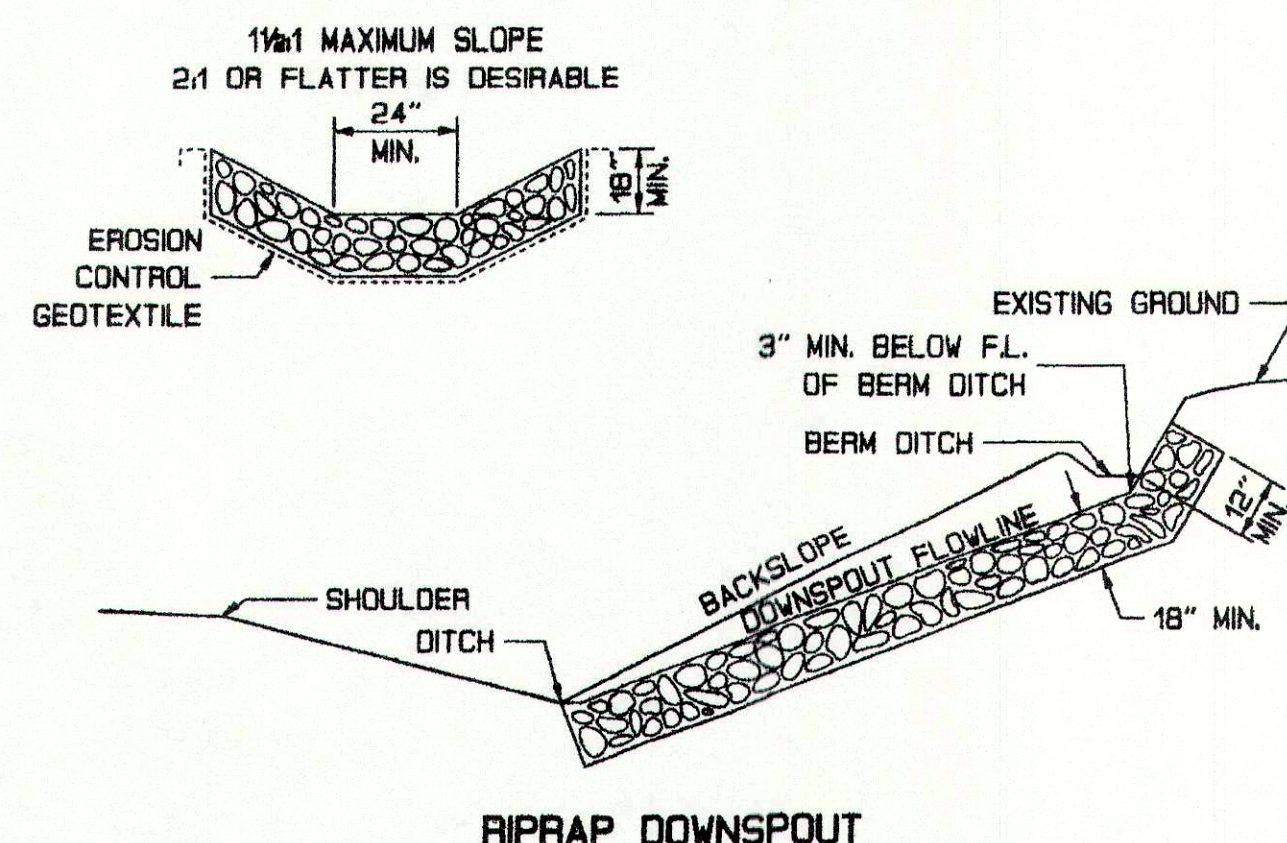
REVISIONS	APPROVED
Description	Me. DOT FHWA
ORIGINAL PLAN	OCT. 92
EN003	APR. 95
EN004	APR. 95
EN006	APR. 95
EN007	APR. 95
EN009	APR. 95

STATE OF MAINE  
 DEPARTMENT OF TRANSPORTATION

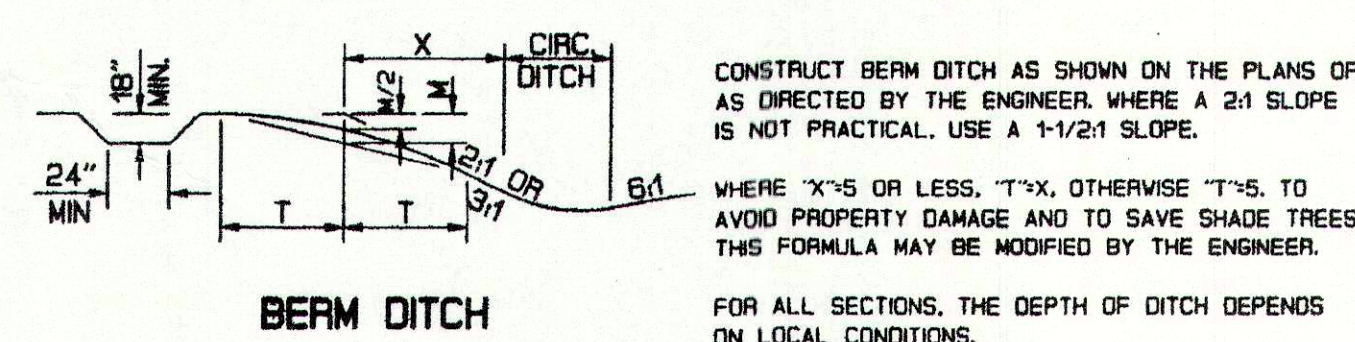
STANDARD DETAILS  
 DRIVES & ENTRANCES



F.H.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



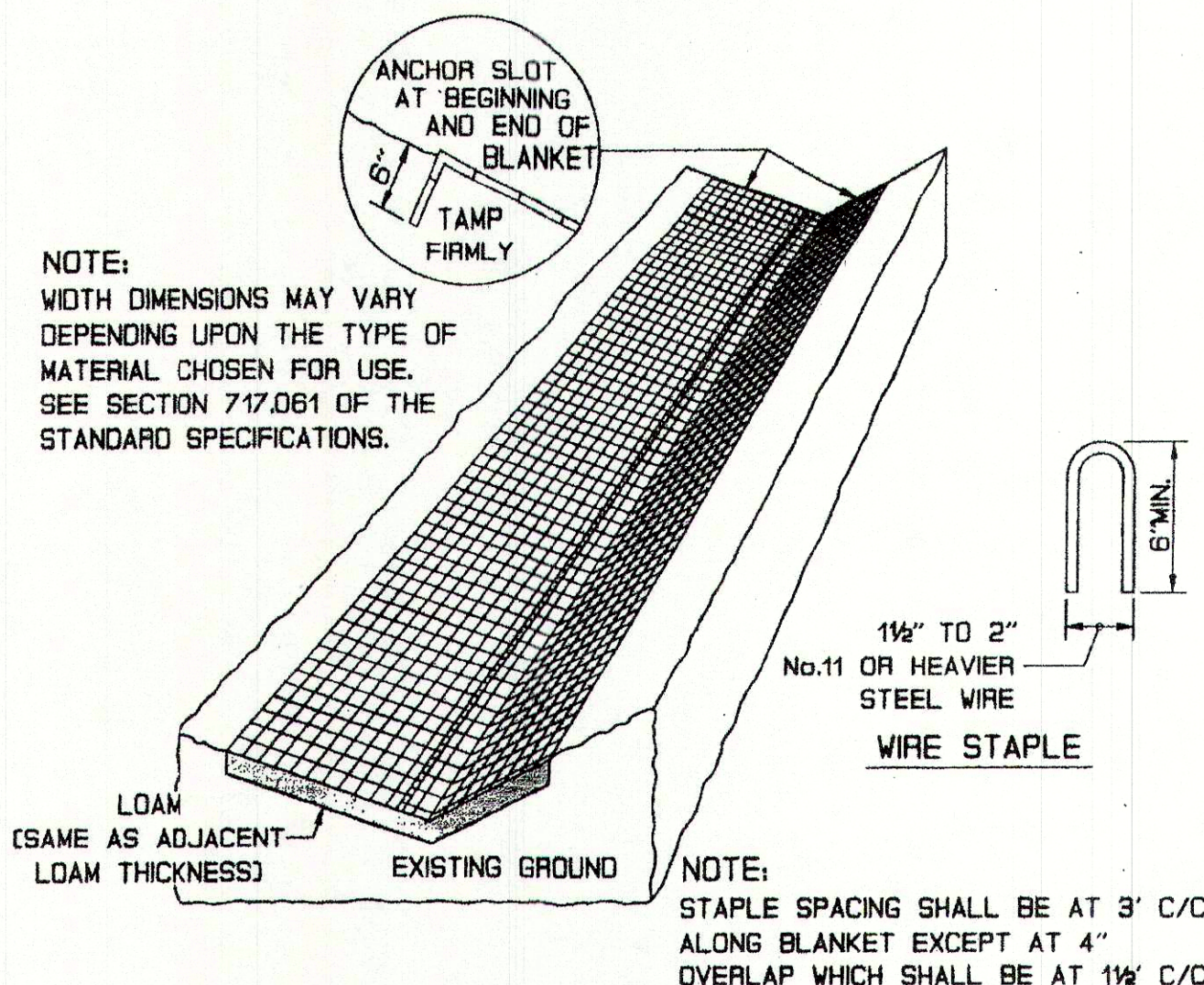
RIPRAP DOWNSPOUT



RIPRAP DOWNSPOUTS  
AND BERM DITCHES

SPEC. 610

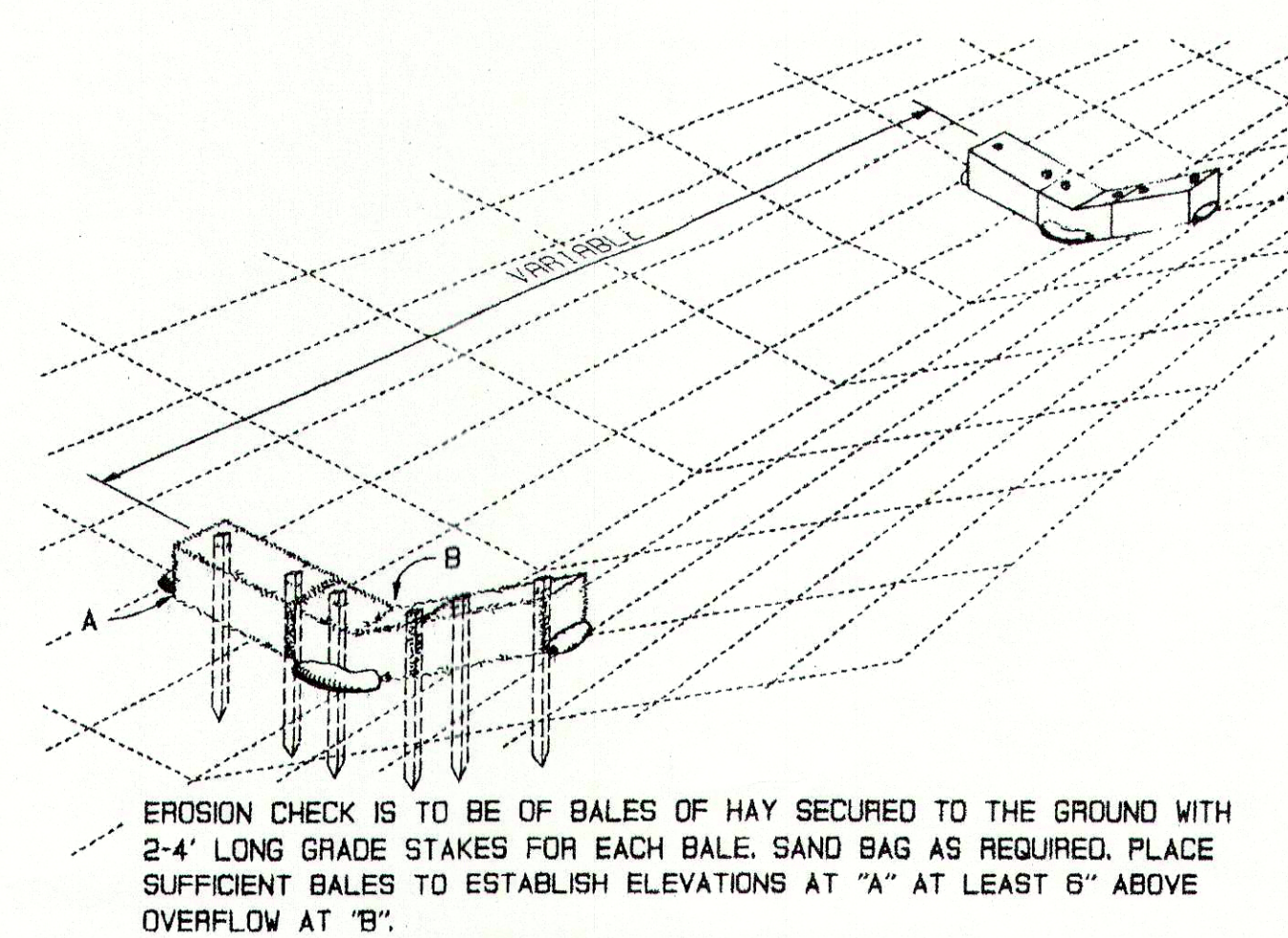
ER001



TEMPORARY EROSION CONTROL BLANKET

SPEC. 613

ER002



EROSION CHECK FOR DITCH

#### DESCRIPTIONS:

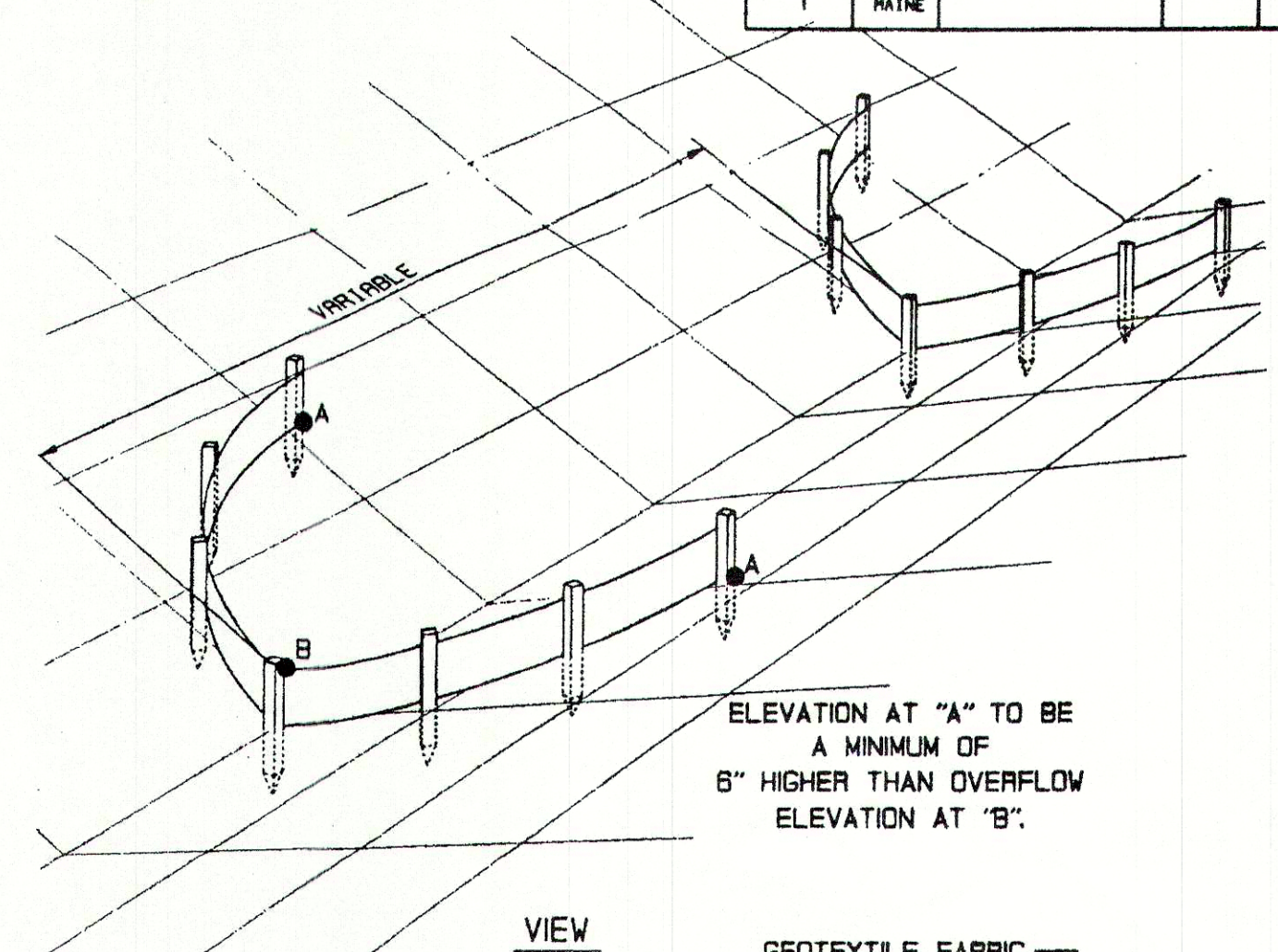
1. TEMPORARY BERMS APPROX. 24" BY 12" HIGH (COMPACTED WITH WHEEL OR TRACK).
2. CRESCENT SHAPED BERM, LENGTH AS REQUIRED TO CONTAIN SURFACE DRAINAGE & DIRECT INTO THE END SECTION.
3. COLLAPSIBLE PIPE OR EQUAL.
4. DISCHARGE IN THE DRAINAGE DITCH, ON STABILIZED AREA OR ON DUMPED STONE AS INDICATED BY THE ENGINEER.

TEMPORARY BERM AND SLOPE DRAIN

SPEC. 656

TEMPORARY EROSION CONTROL

ER003

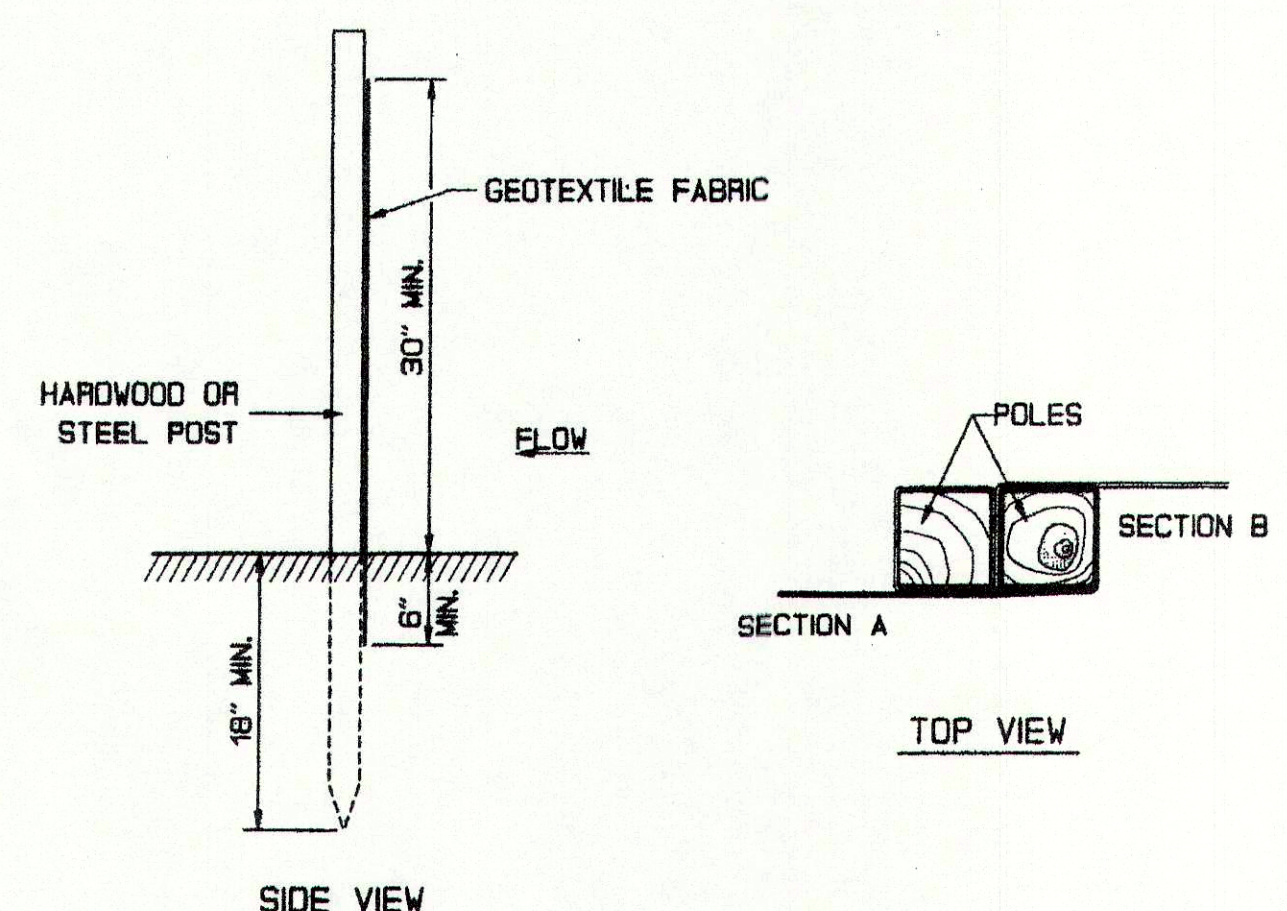


TEMPORARY SILT FENCE

SPEC. 656

EROSION CHECK FOR DITCH

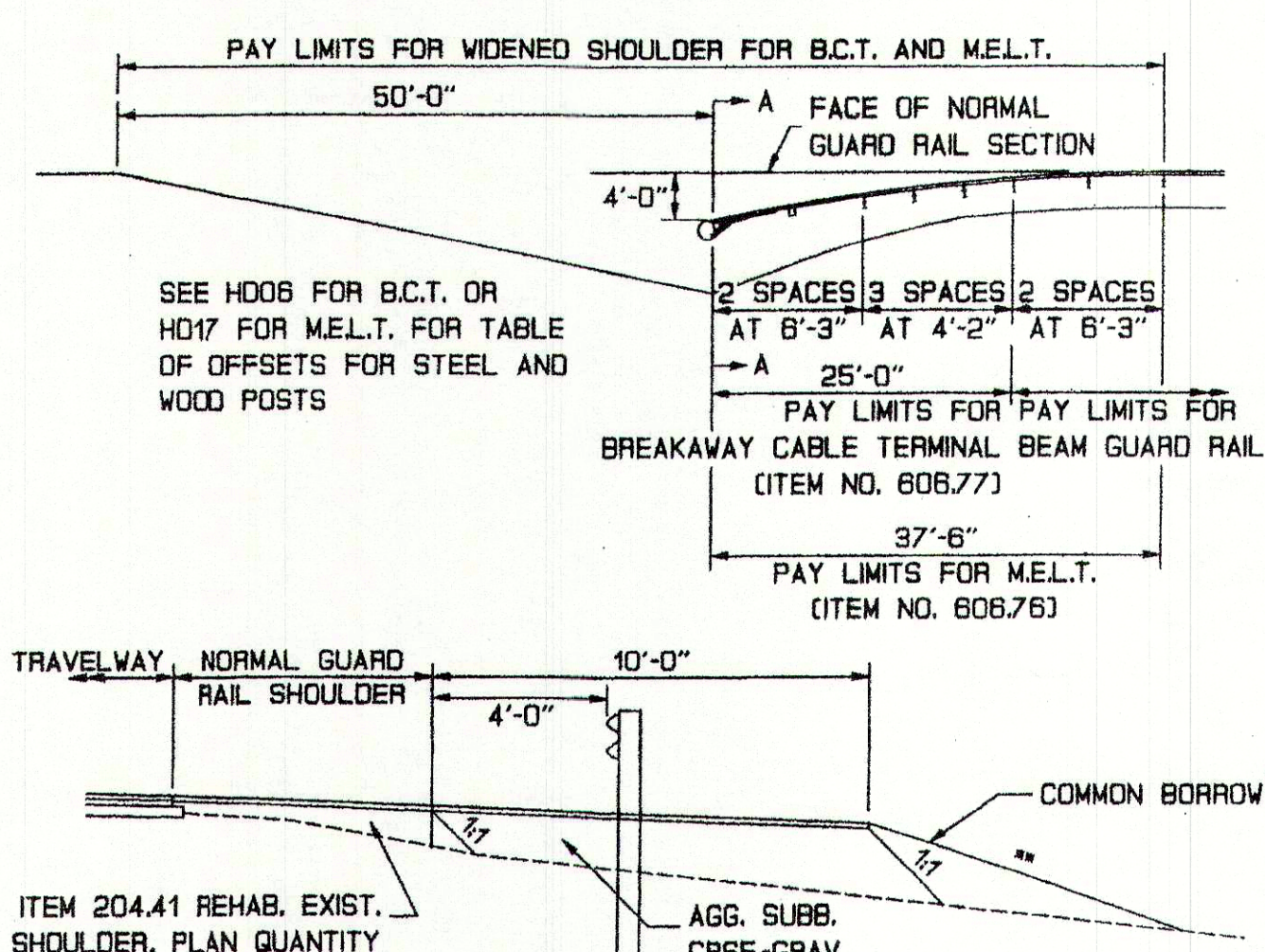
ER004



TEMPORARY SILT FENCE

SPEC. 656

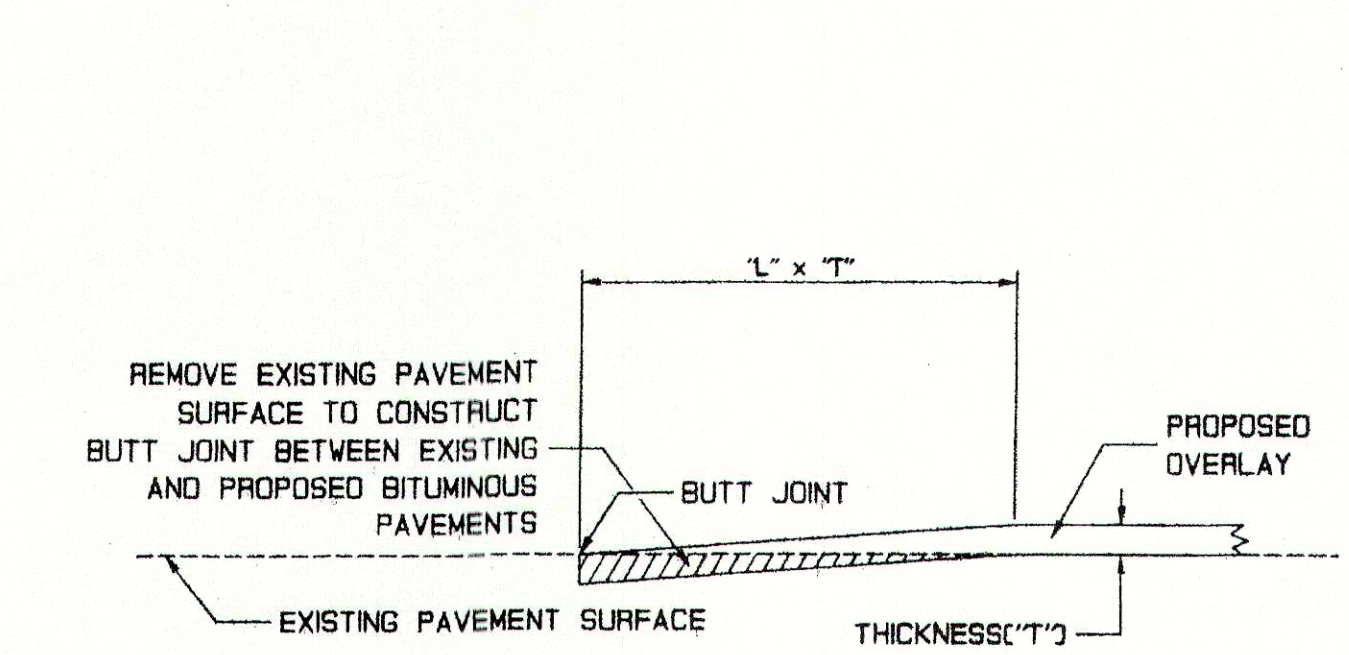
ER005



DETAIL OF WIDENED SHOULDER  
FOR B.C.T. AND M.E.L.T.

SPEC. 606

GR001



PAVEMENT OVERLAY

BUTT JOINT DETAIL (ROADWAYS)

PV001

REVISIONS			APPROVED		STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
Description	Me. DOT	FHWA				
ORIGINAL PLAN	OCT. 92					
ER001 - DEL. SLOPE	FEB. 94					
BLANKET DETAIL						
GR001 - ADDED DIMS.	FEB. 94					
AND SLOPE NOTE						
ER004 - ADDED SPEC.	FEB. 94					
ER005 - ADDED SPEC.	FEB. 94					
PV001 - ADDED SPEC.	FEB. 94					
ER002	APR. 95	OCT. 95				
ER003	APR. 95	OCT. 95				
ER004	APR. 95	OCT. 95				
ER005	APR. 95	OCT. 95				
GR001	APR. 95	OCT. 95				
GR001 - M.E.L.T. REF.	MAY 95					

STANDARD DETAILS  
EROSION CONTROL FOR  
DITCHES AND SLOPES,  
PAVEMENT BUTT JOINTS,  
& SHOULDER WIDENING FOR  
B.C.T. AND M.E.L.T.



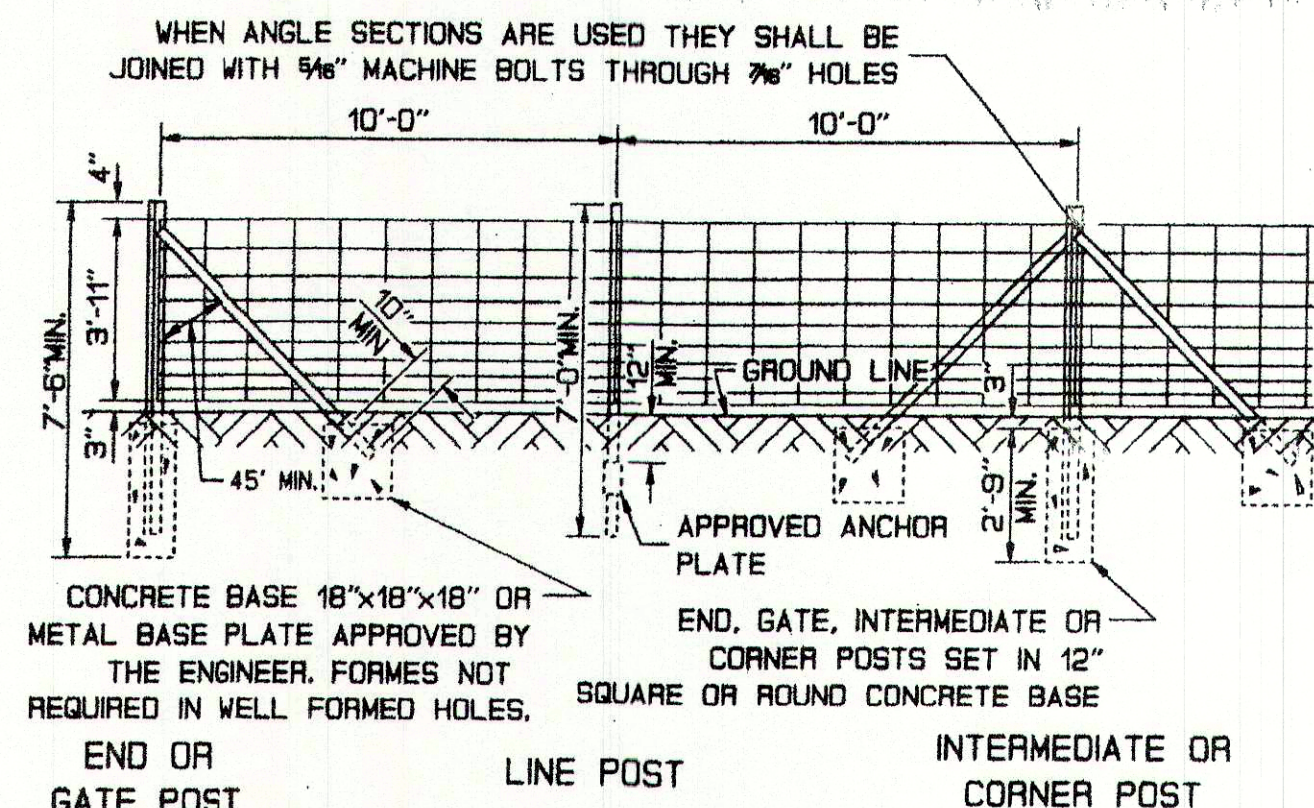
WOVEN WIRE FENCE	NOMINAL SIZE (INCHES)	SHAPE	WEIGHT (LBS/FT)	COMMENTS
END, INTERMEDIATE & CORNER POSTS	2 1/2 X 2 1/2 X 1/4	4	4.1	GRADE 1" WITH TOP CAP
	2	0	3.65	GRADE 2" WITH TOP CAP
	2	0	3.17	
GATE POSTS	3 1/2 X 3 1/2 X 5/8	4	7.2	GRADE 1" WITH TOP CAP
	2 1/2	0	5.79	GRADE 2" WITH TOP CAP
	2 1/2	0	4.64	
LINE POSTS	1 1/4	T	1.33	STUDDED
	1 1/4	0	2.27	GRADE 1" WITH TOP CAP
	1 1/4	0	1.836	GRADE 2" WITH TOP CAP
BRACES	1 1/4 X 1 1/4 X 1/4	4	2.77	
	1 1/4	0	2.27	
	1 1/4	0	1.836	
CHAIN LINK FENCE	NOMINAL SIZE (INCHES)	SHAPE	WEIGHT (LBS/FT)	COMMENTS
END & CORNER POSTS	2 I.D.	0	3.85	GRADE 1
	2 I.D.	0	3.17	GRADE 2
	2 1/2 X 2	H	4.10	
	3 1/2 X 3 1/2	4	5.14	INTEGRAL LOOPS
LINE POSTS	1 1/2 I.D.	0	2.72	GRADE 1
	1 1/2 I.D.	0	2.281	GRADE 2
	1 3/4 X 1 3/4	H	2.70	
	1 3/4 X 1 3/4	C	2.28	
TOP & BRACE RAILS	1 1/4 I.D.	0	2.27	GRADE 1
	1 1/4 I.D.	0	1.84	GRADE 2
	1 3/4 X 1 1/4	C		

\* AASHTO M 181 Per. 29.1

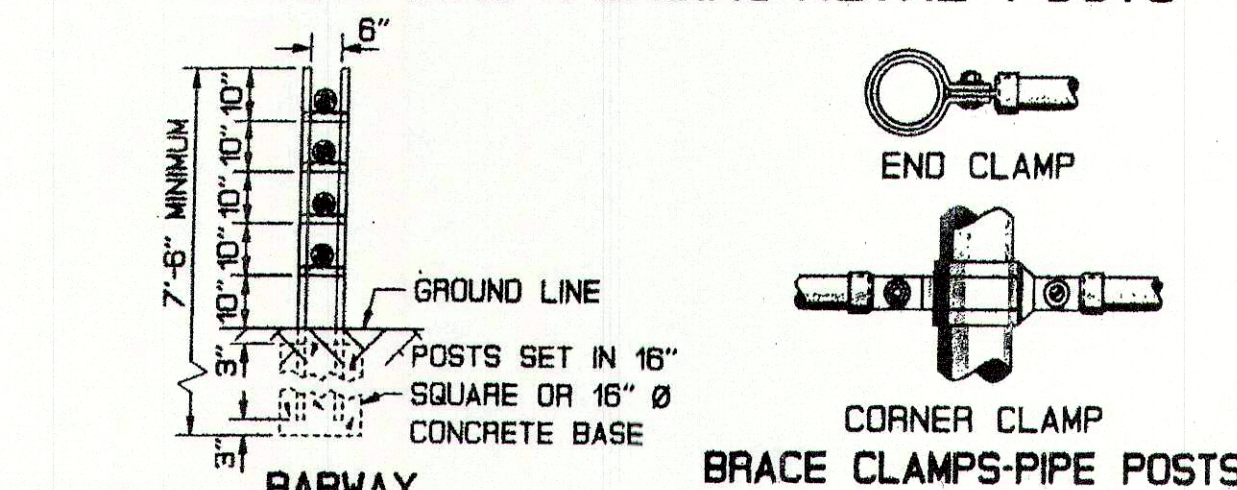
## FENCE POST, RAIL AND BRACE OPTIONS

SPEC. 607

FE001



## WOVEN WIRE FENCING-METAL POSTS

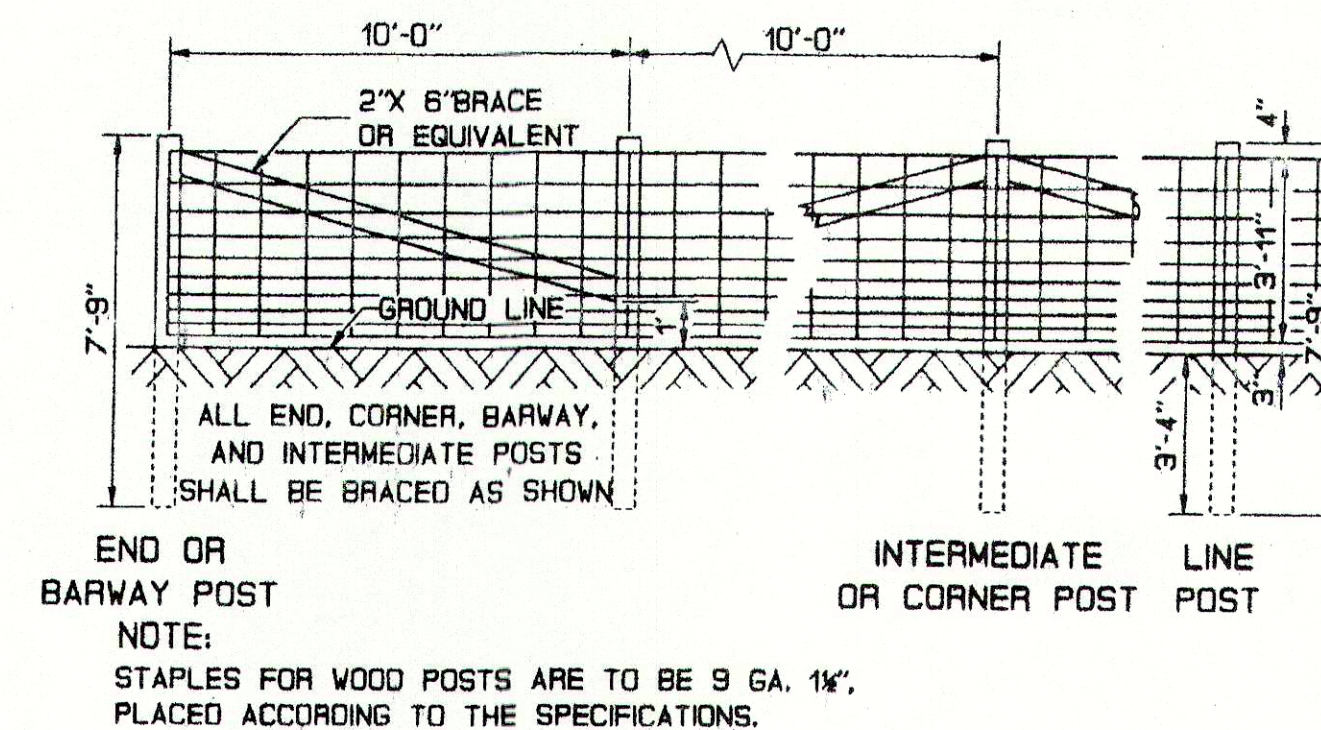


BARWAYS:  
METAL POSTS SHALL BE INSTALLED FOR A 16'-0" OPENING. BARWAY POSTS AND BRACES SHALL CONFORM TO THE REQUIREMENTS OF "GATE POSTS" AND "BRACES" UNDER "WOVEN WIRE FENCING-METAL POSTS". CROSS BAR SUPPORTS FOR BARWAYS SHALL BE 1 1/2" X 1 1/2" X 1/4" ROLLED ANGLE SECTION. WHEN ROUND GATE POSTS ARE 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 5/8" X 4 1/2" 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 5/8" 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".

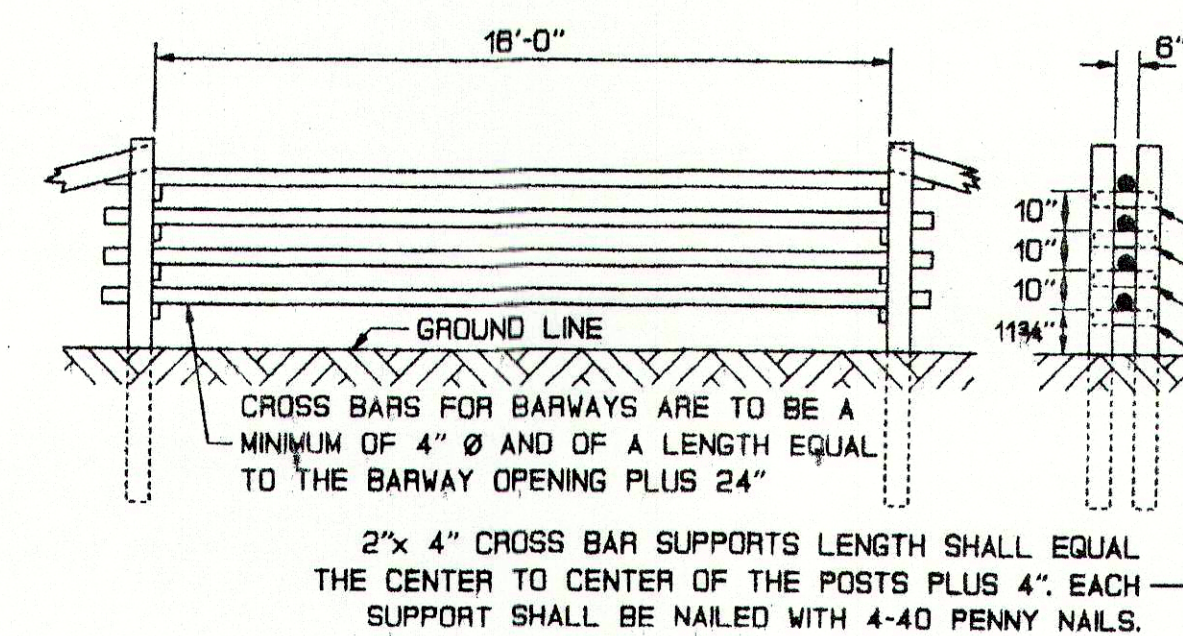
## BARWAYS-METAL POSTS

SPEC. 607

FE002



## WOVEN WIRE FENCING-WOOD POSTS

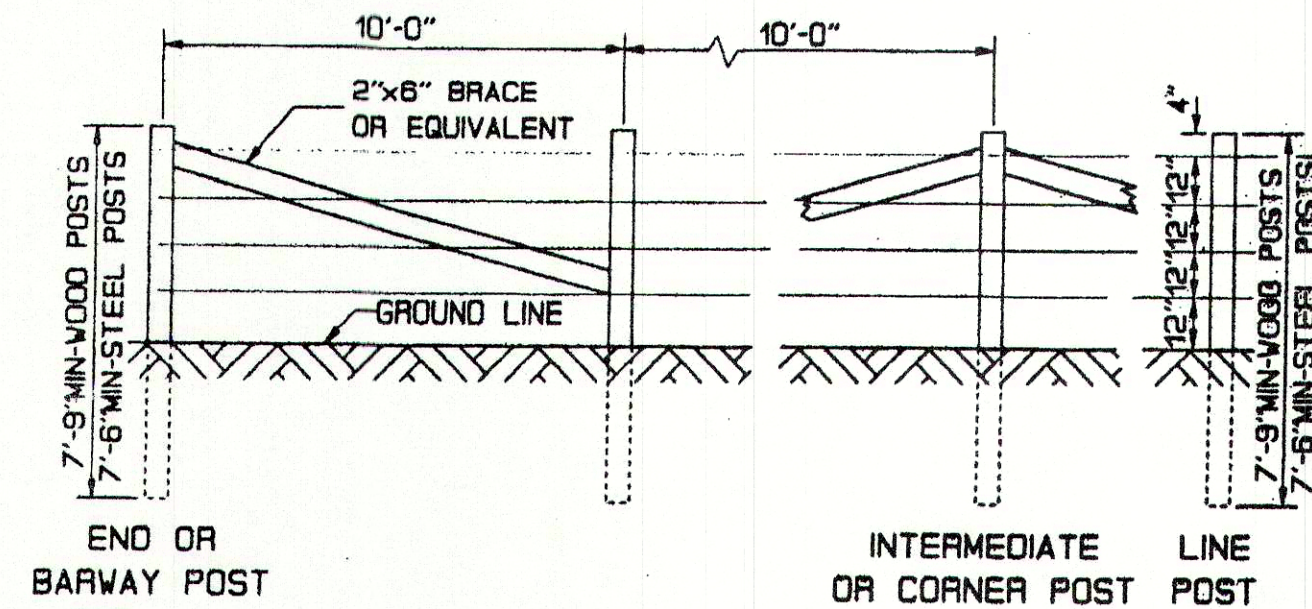


SPEC. 607

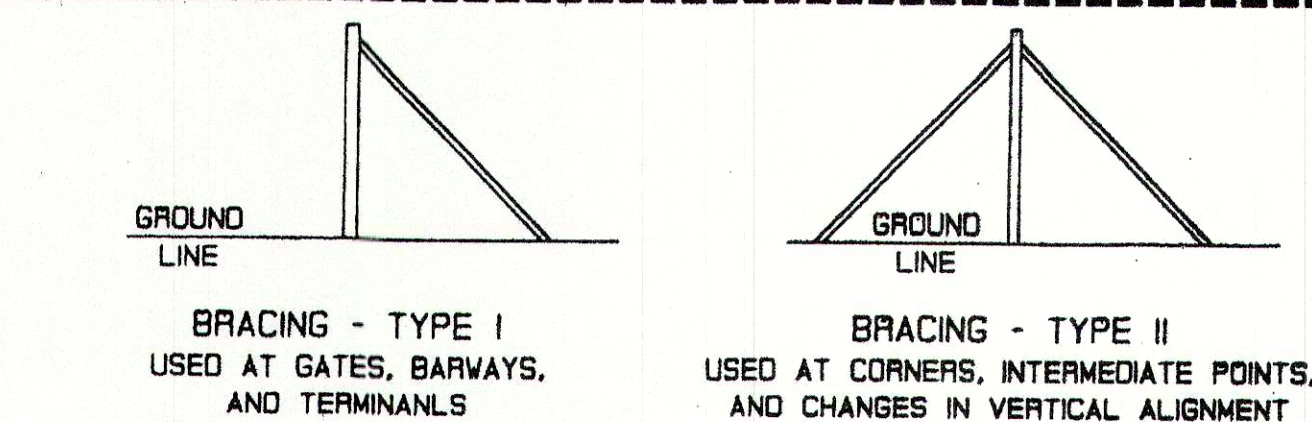
## BARWAYS-WOOD POSTS

FE003

F.H.V.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



## 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

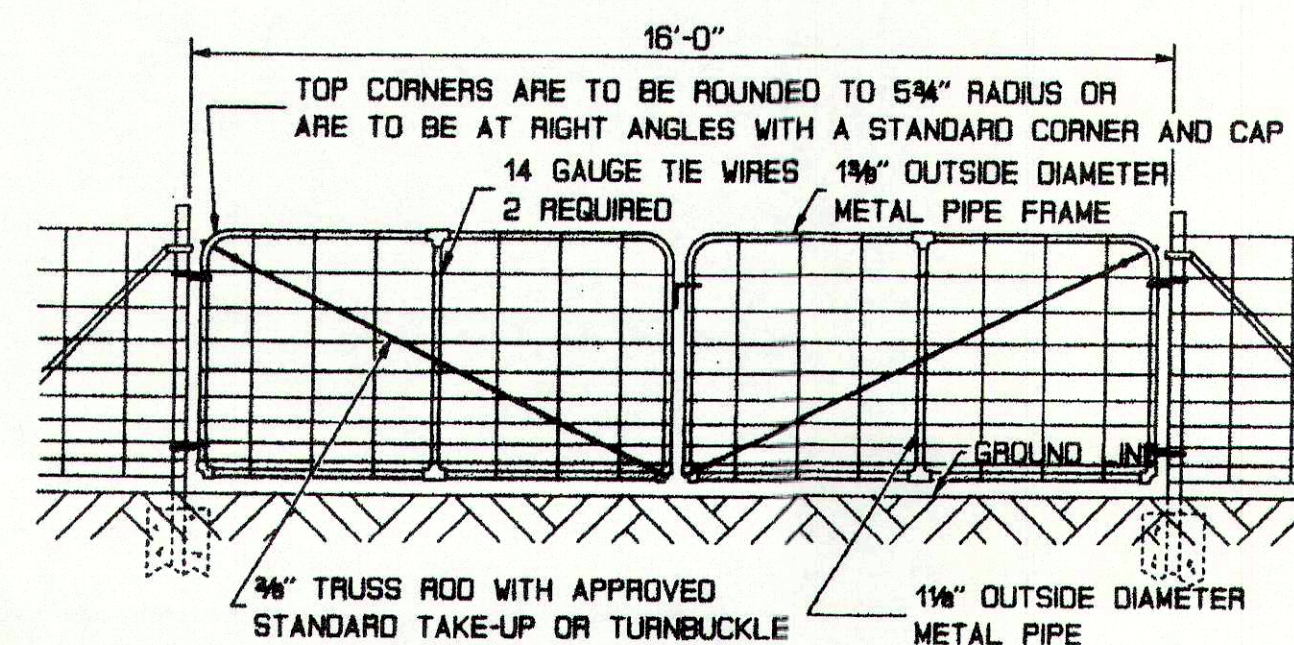
SPEC. 607

FE008

## STATE OF MAINE DEPARTMENT OF TRANSPORTATION

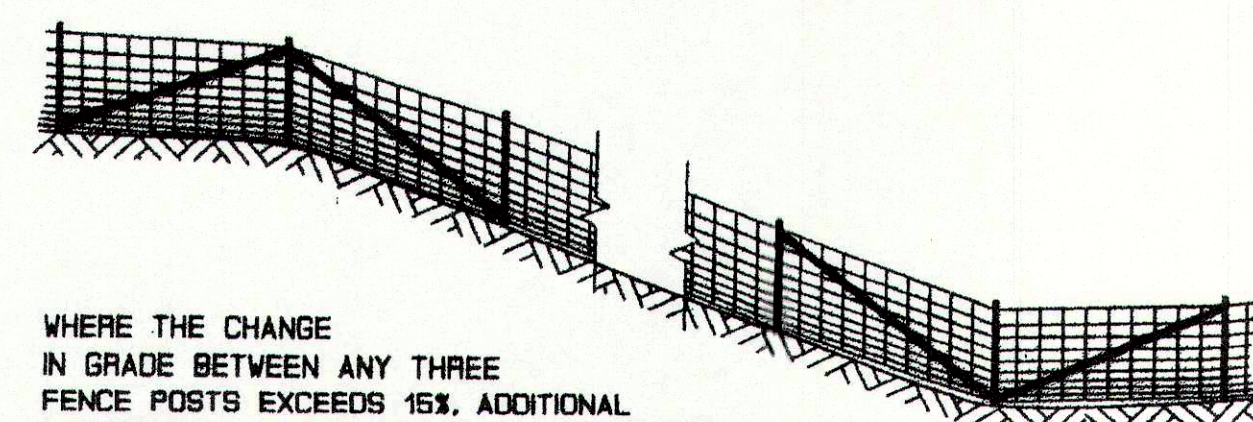
## STANDARD DETAILS FENCING

SHEET 10 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.

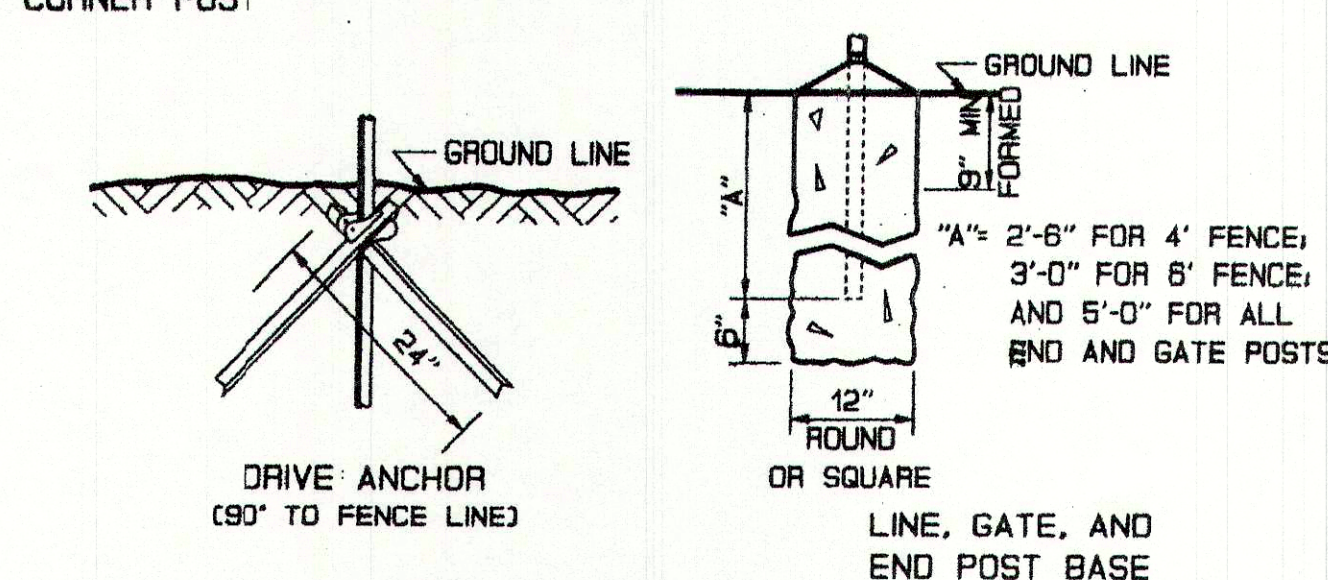
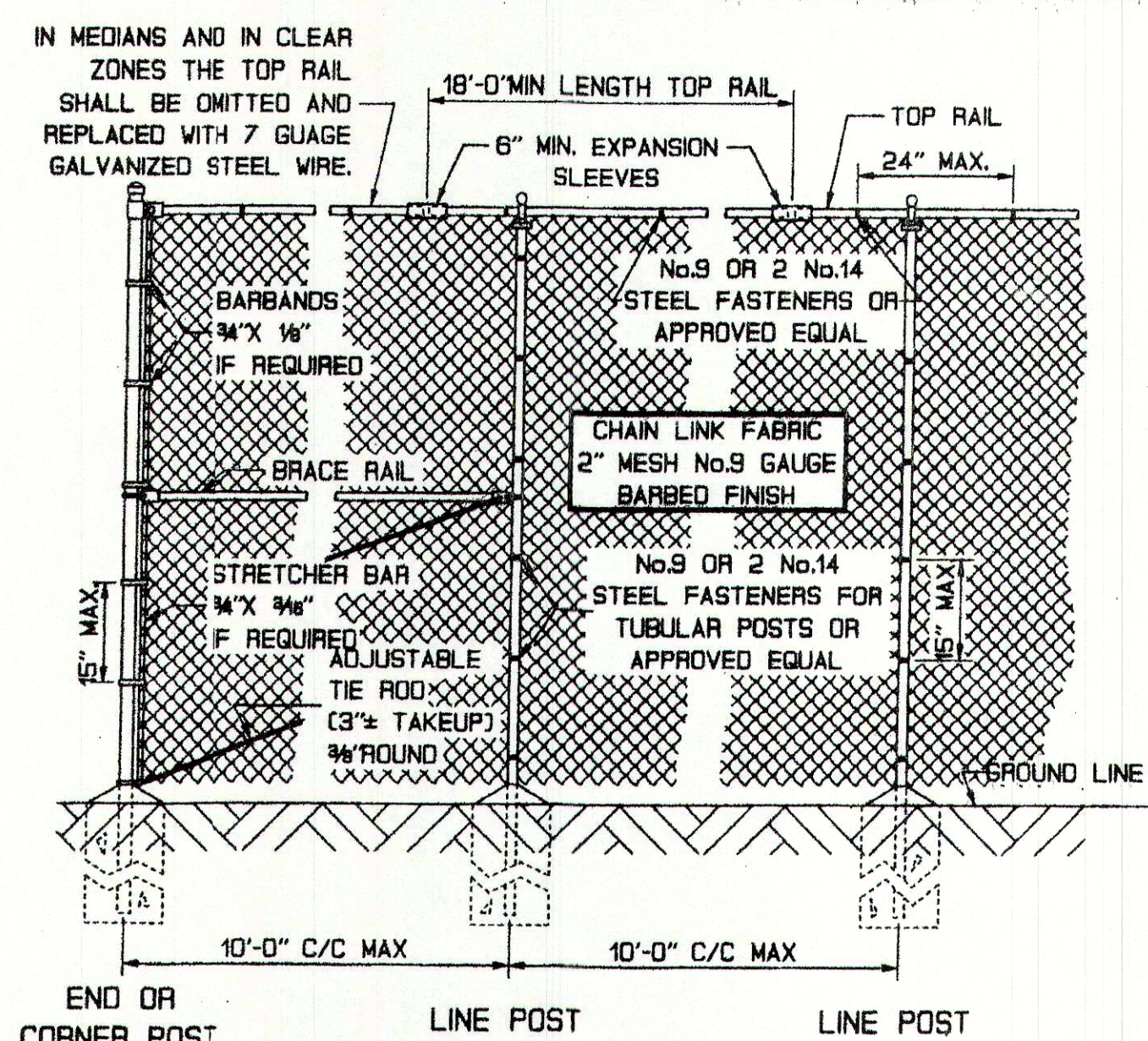
## DRIVE GATEWAYS-16 FEET



SPEC. 607

## INTERMEDIATE BRACING

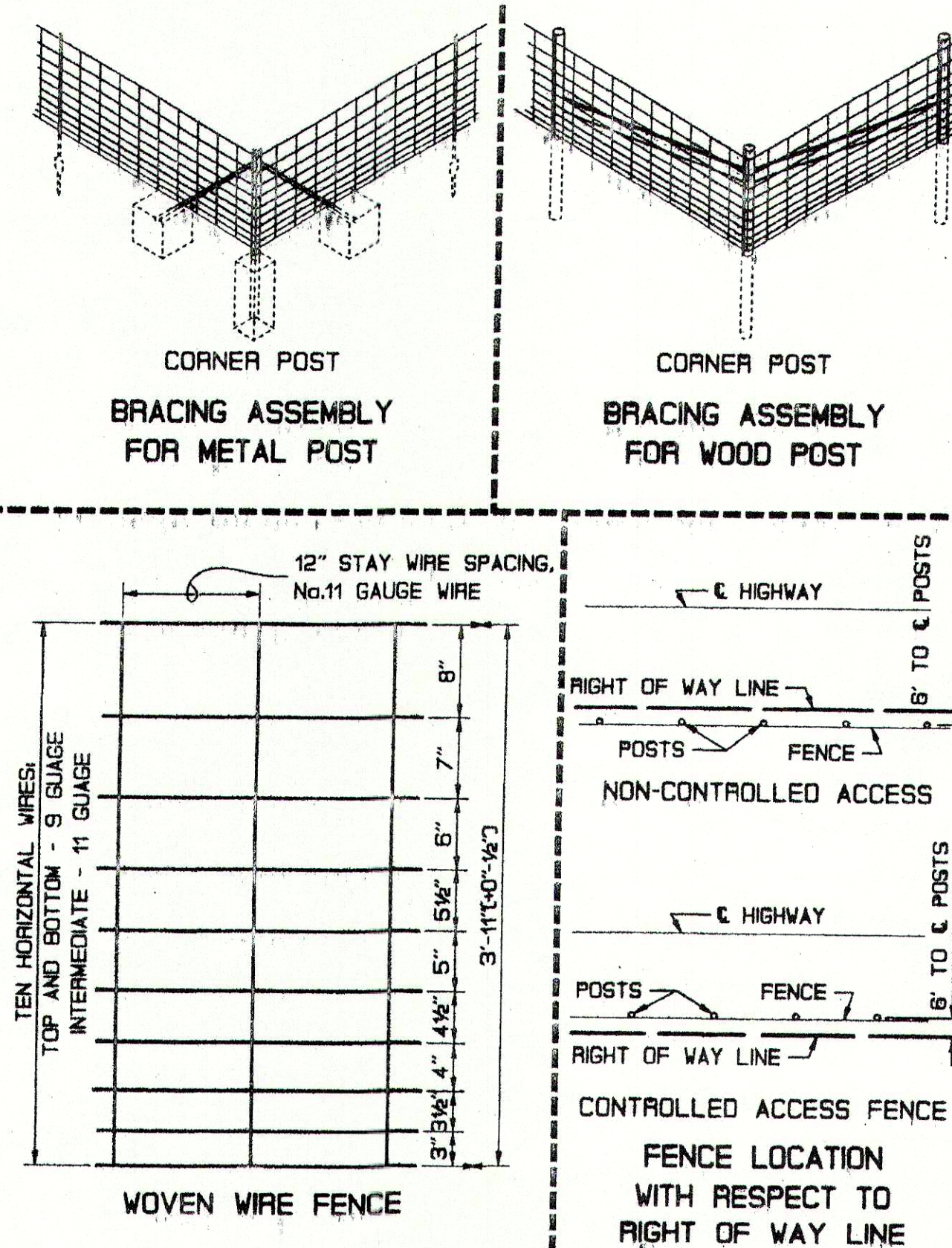
FE005



SPEC. 607

## CHAIN LINK FENCE

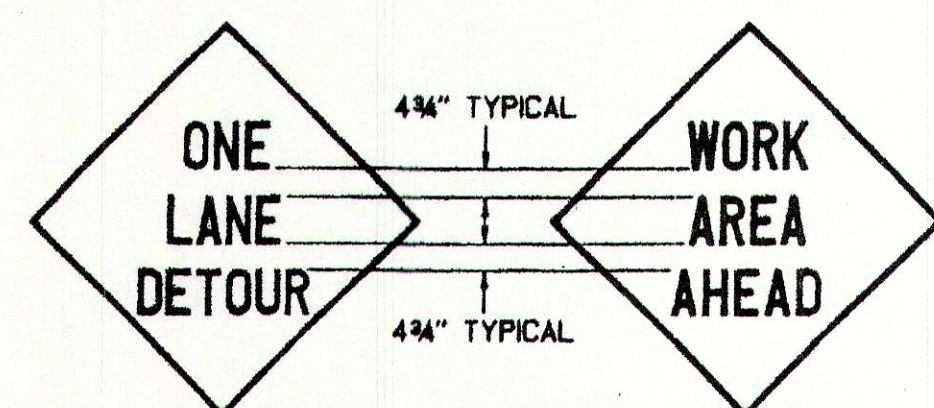
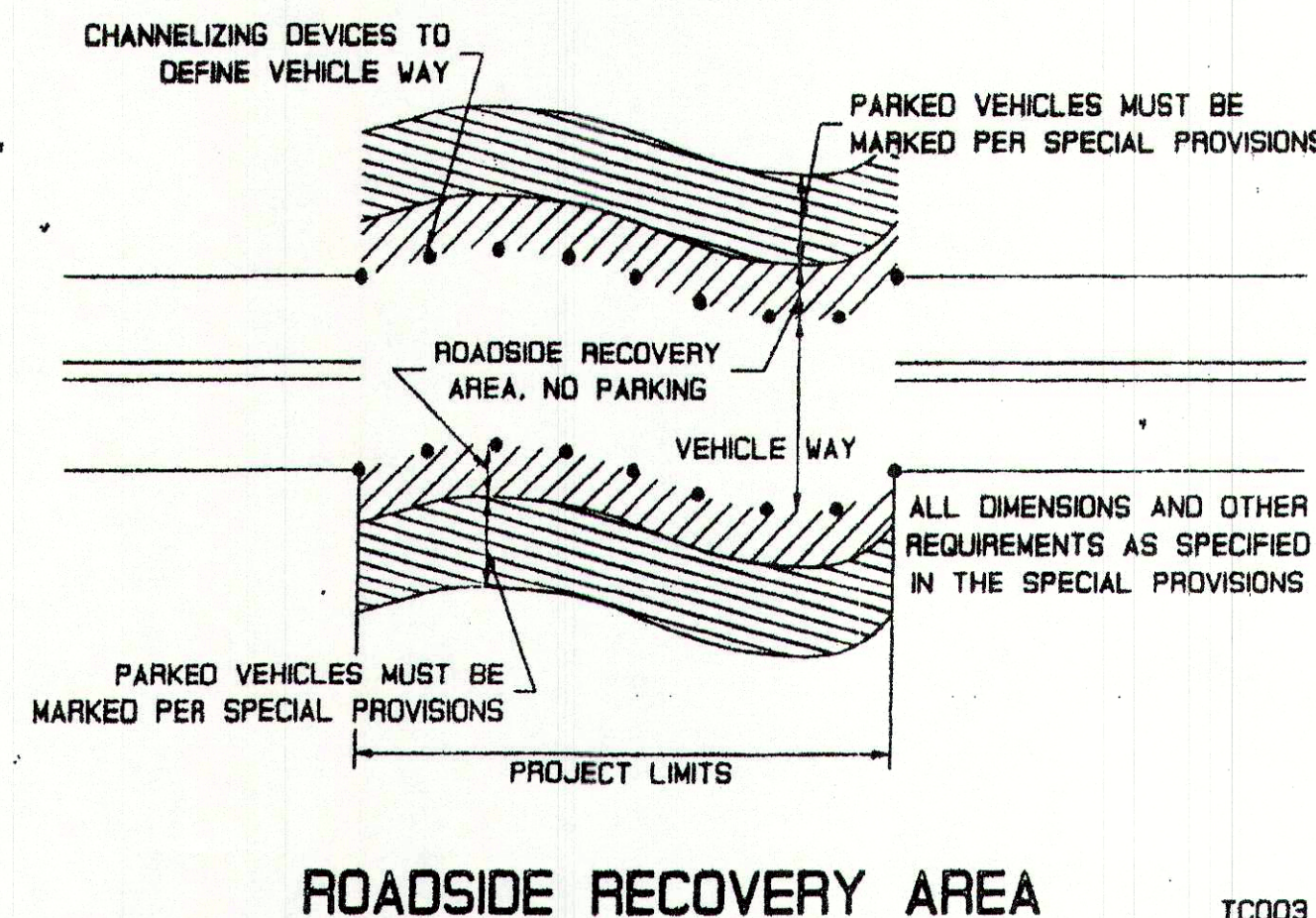
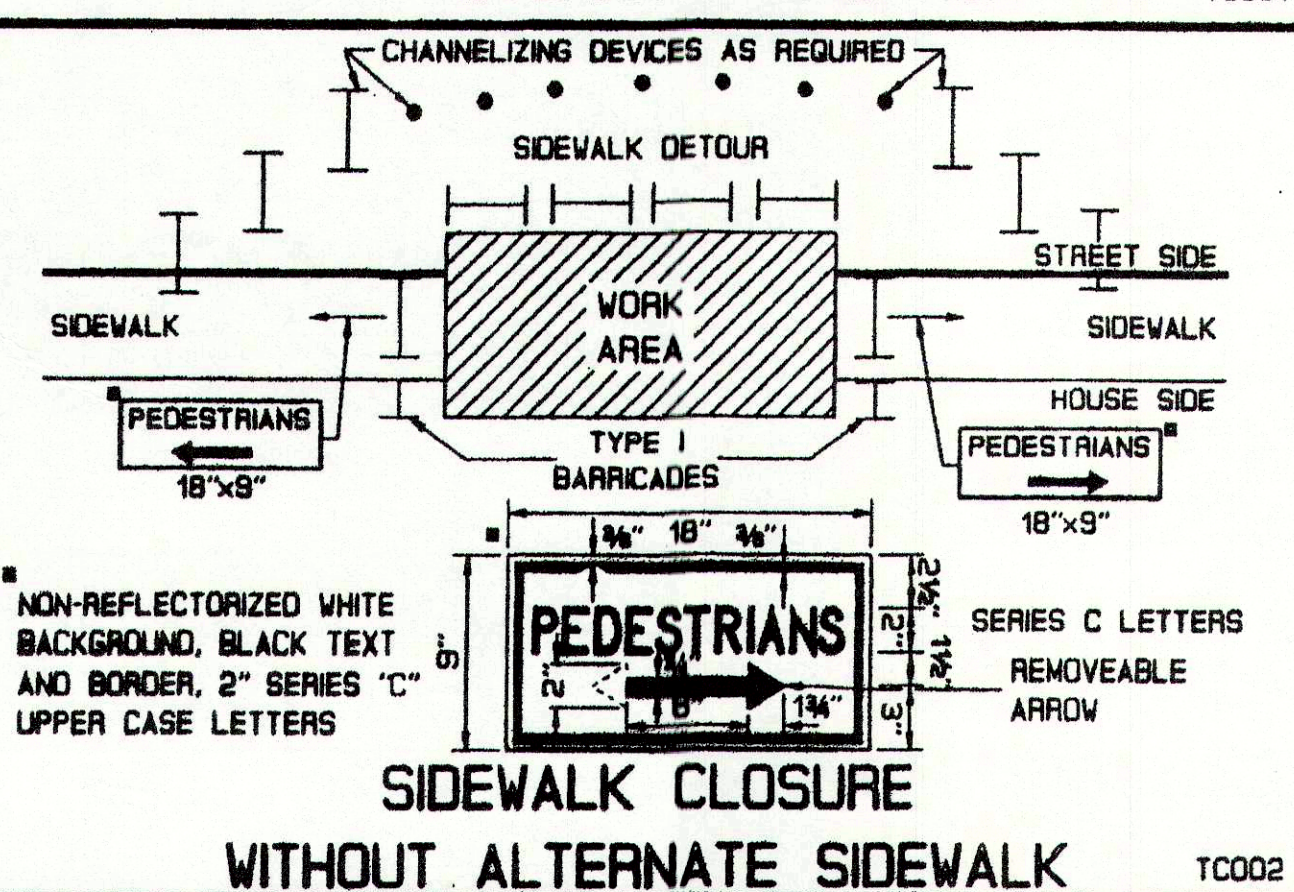
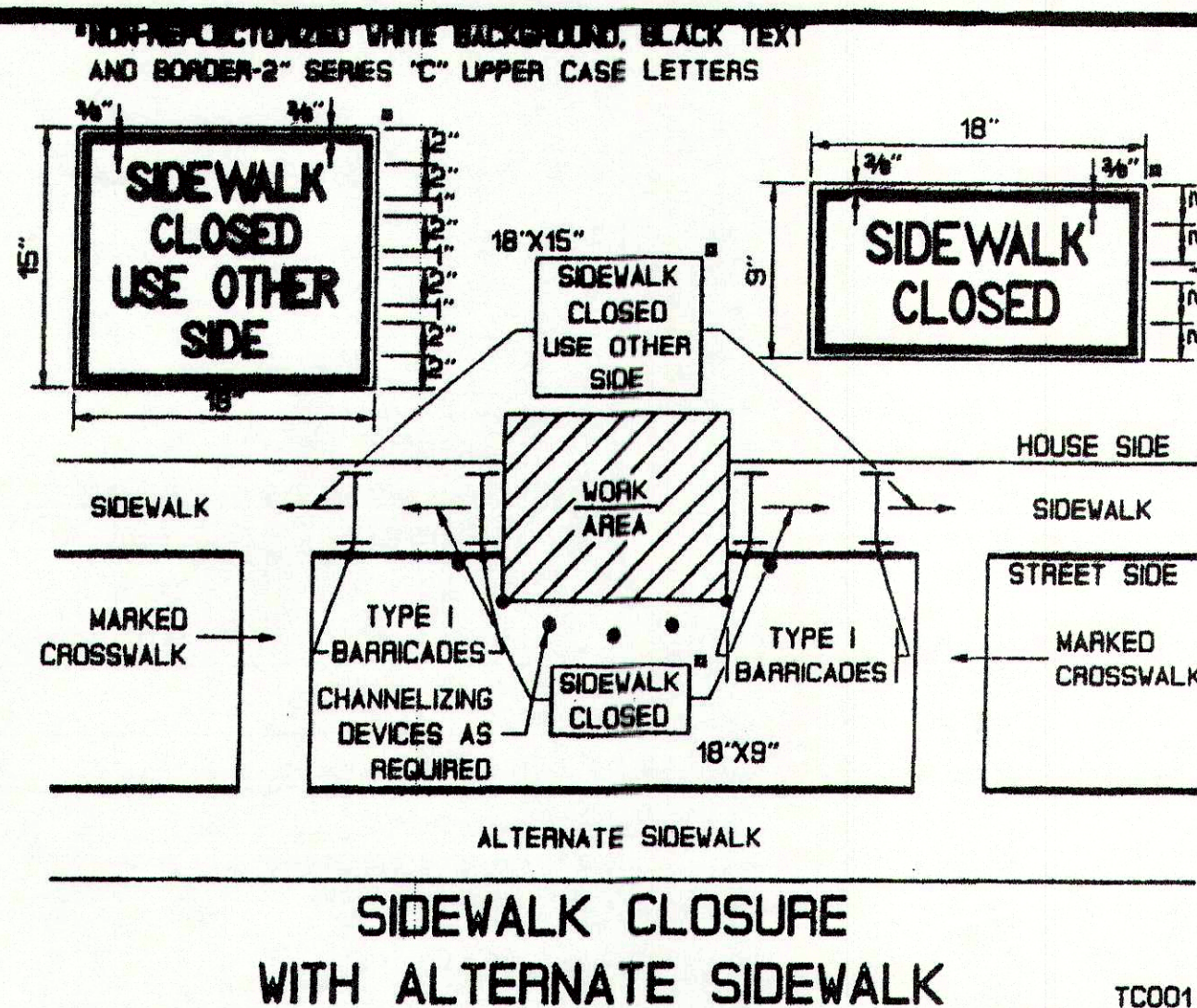
FE006



SPEC. 607

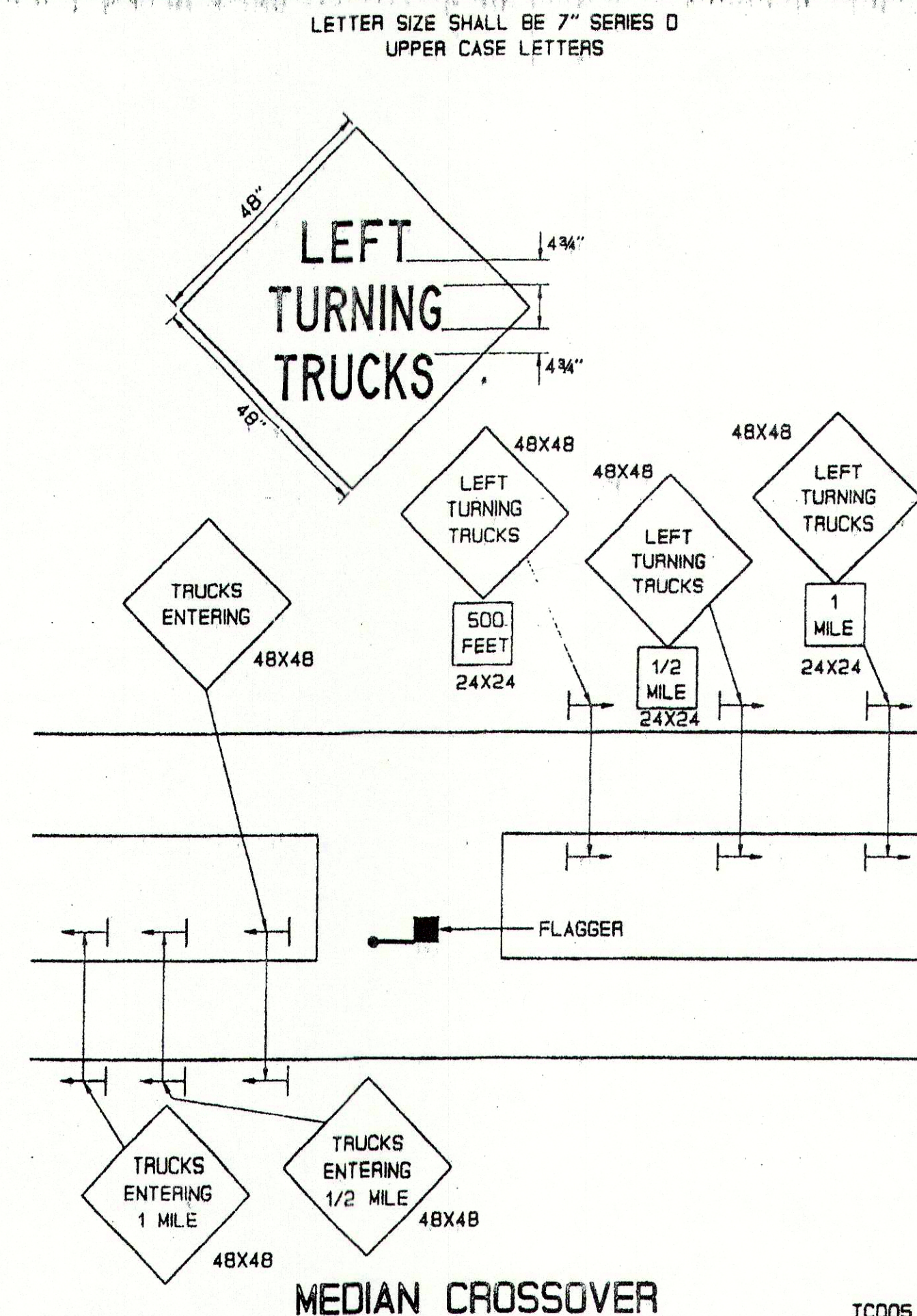
FE007





NOTE:  
1. LETTER SIZE SHALL BE 7" SERIES D.  
2. BORDER DIMENSIONS AND LEGEND DESIGN SHALL CONFORM TO "STANDARD HIGHWAY SIGNS".

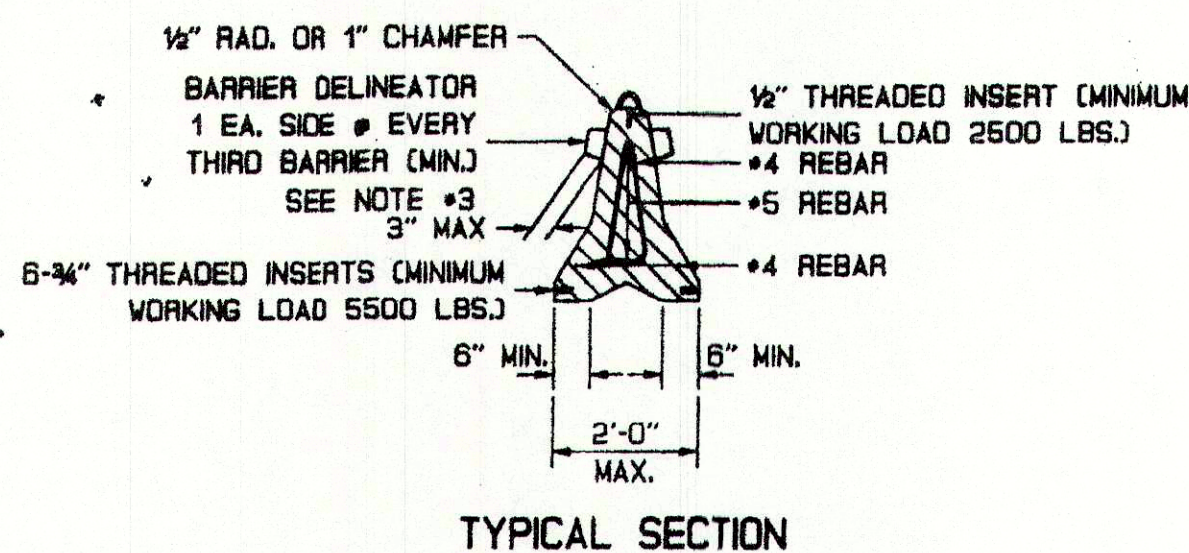
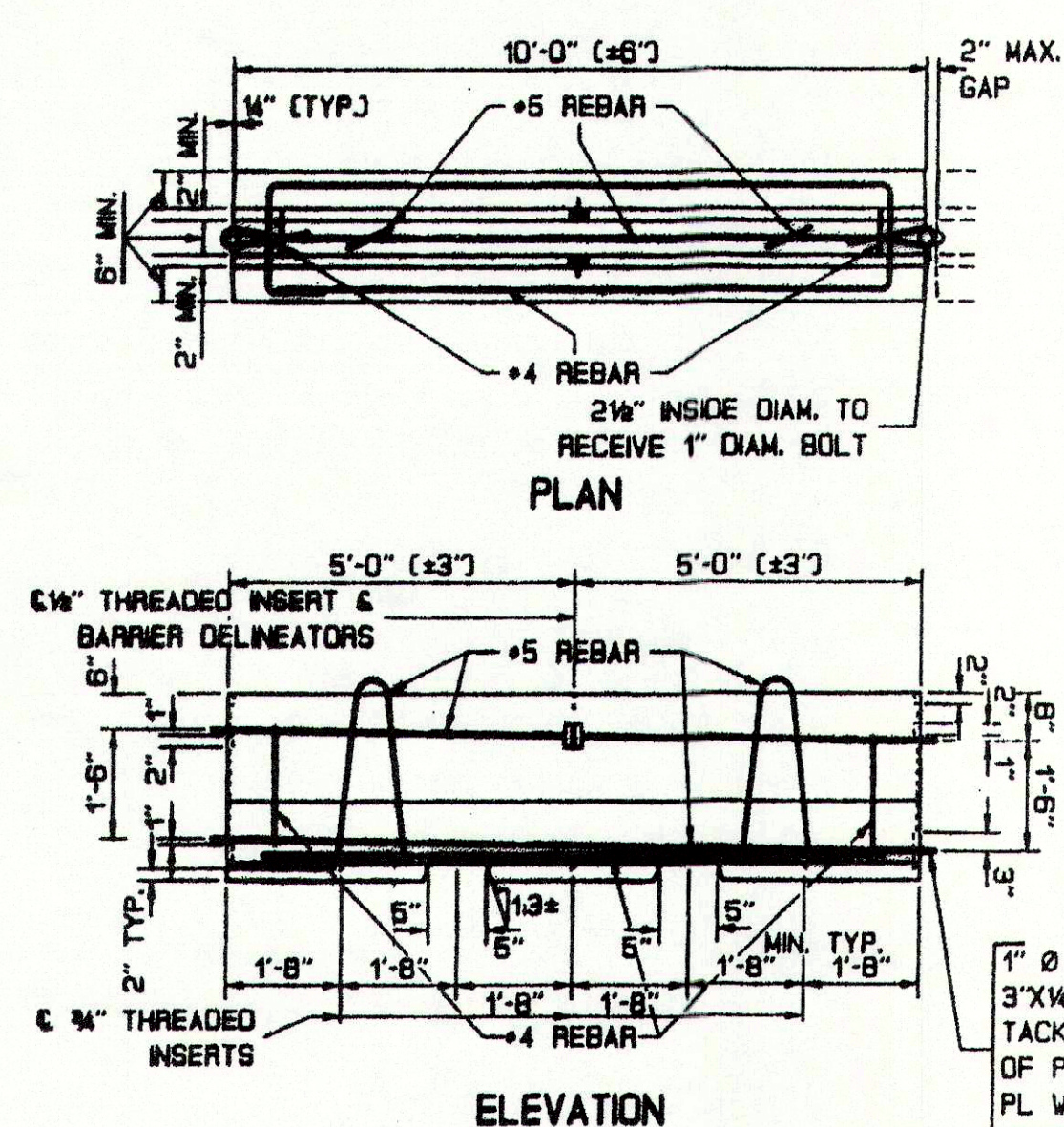
CONSTRUCTION WARNING SIGN DETAIL



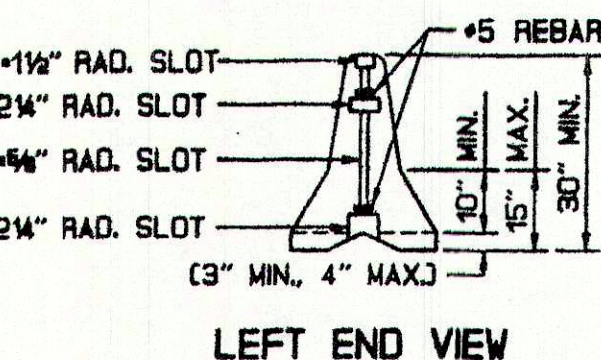
# GENERAL NOTES FOR SIGNING

- 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 M.P.H.  
 $L = (V \times S \times S) / 60$   
IF S IS EQUAL TO OR GREATER THAN 45 M.P.H.  
 $L = V \times S$   
WHERE:  
L = LENGTH OF TAPER IN FEET  
S = POSTED SPEED IN M.P.H.  
V = 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 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.
- ALL SIGNS SHALL CONFORM TO "STANDARD HIGHWAY SIGNS", FHWA, 1979, AND REVISIONS THERETO.

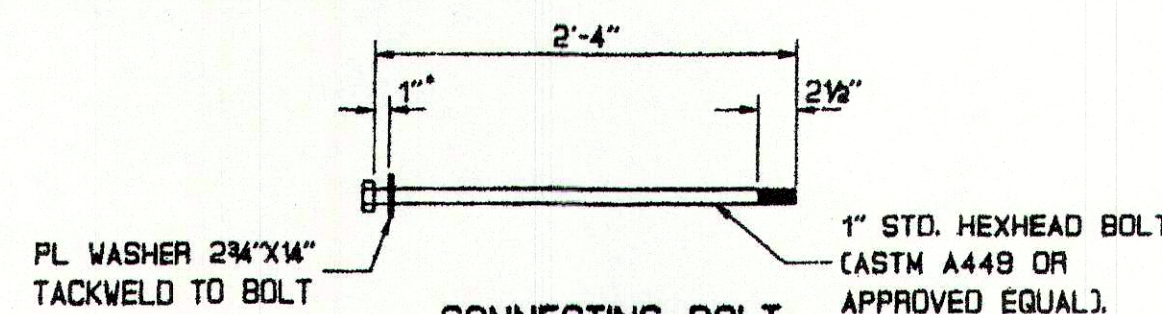
TC007



TYPICAL SECTION



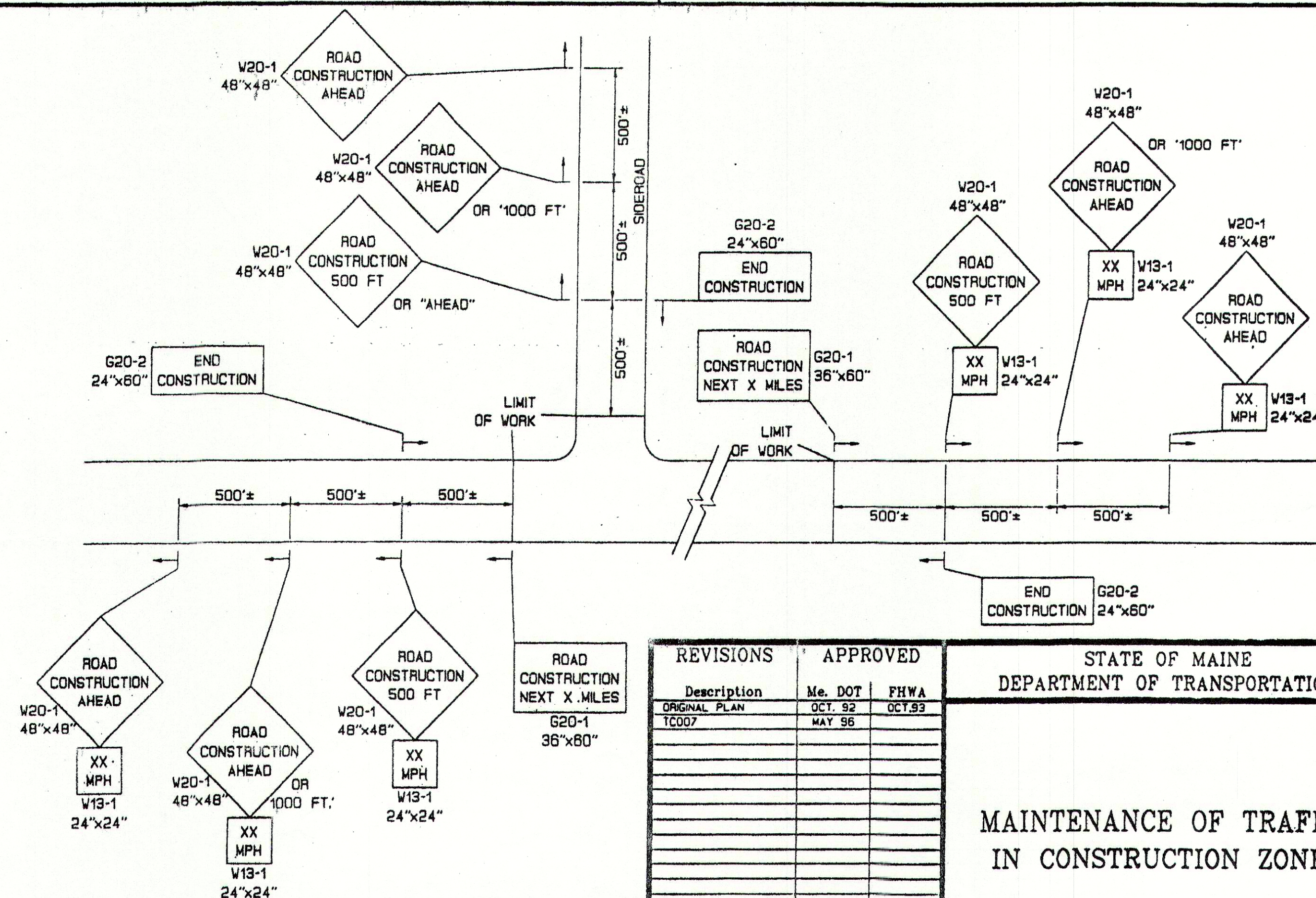
LEFT END VIEW



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



PROJECT APPROACH SIGNING  
TWO WAY TRAFFIC

REVISIONS	APPROVED
Description	Me. DOT
ORIGINAL PLAN	PHWA
TC007	OCT. 92
	MAY 96

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC  
IN CONSTRUCTION ZONES

SHEET 11 AUGUSTA, MAINE RD-10

ROUTE 9, CUMBERLAND





TCO:

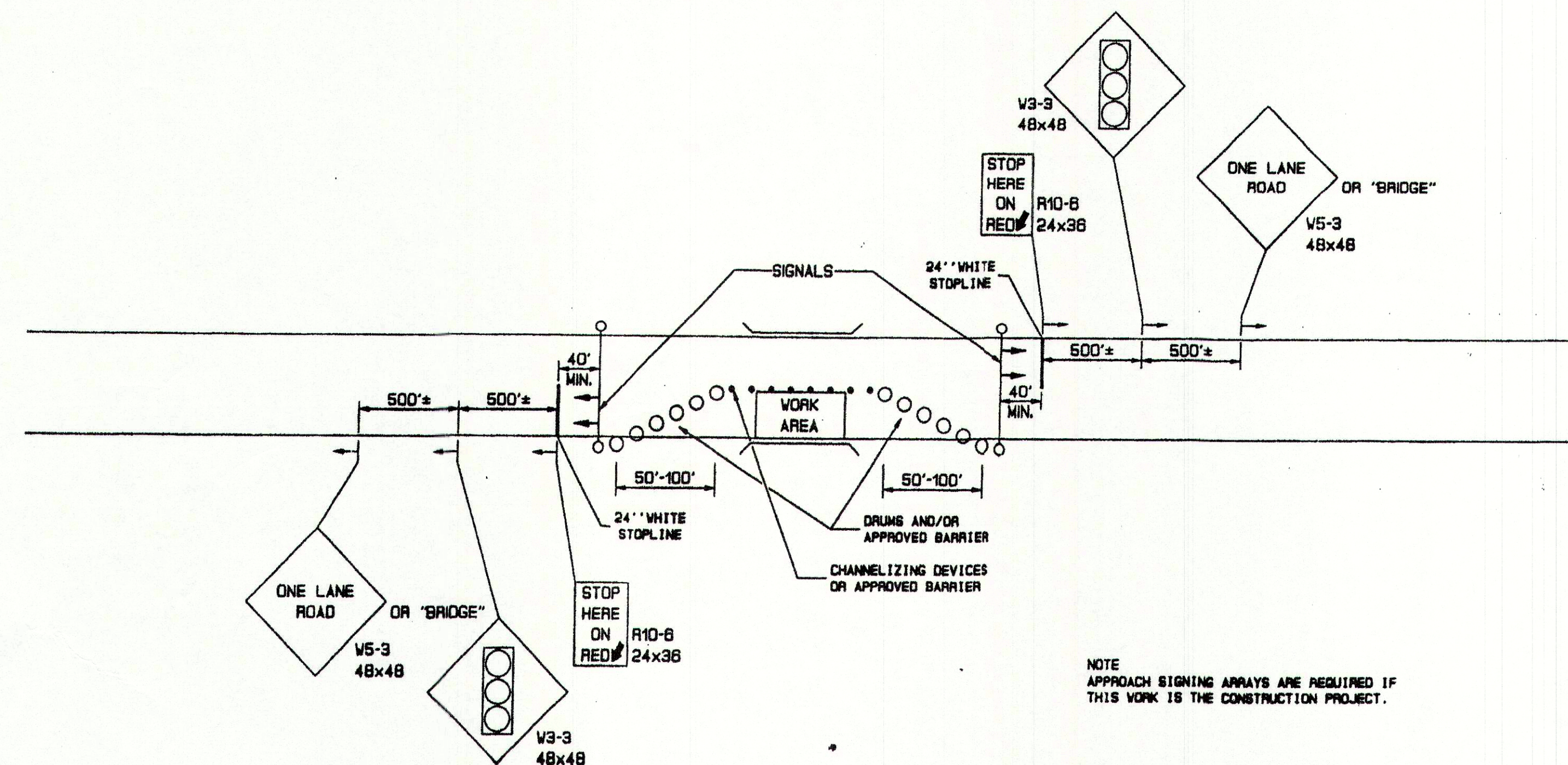


STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC  
IN CONSTRUCTION ZONES

SHEET 12 AUGUSTA, MAINE HD-11

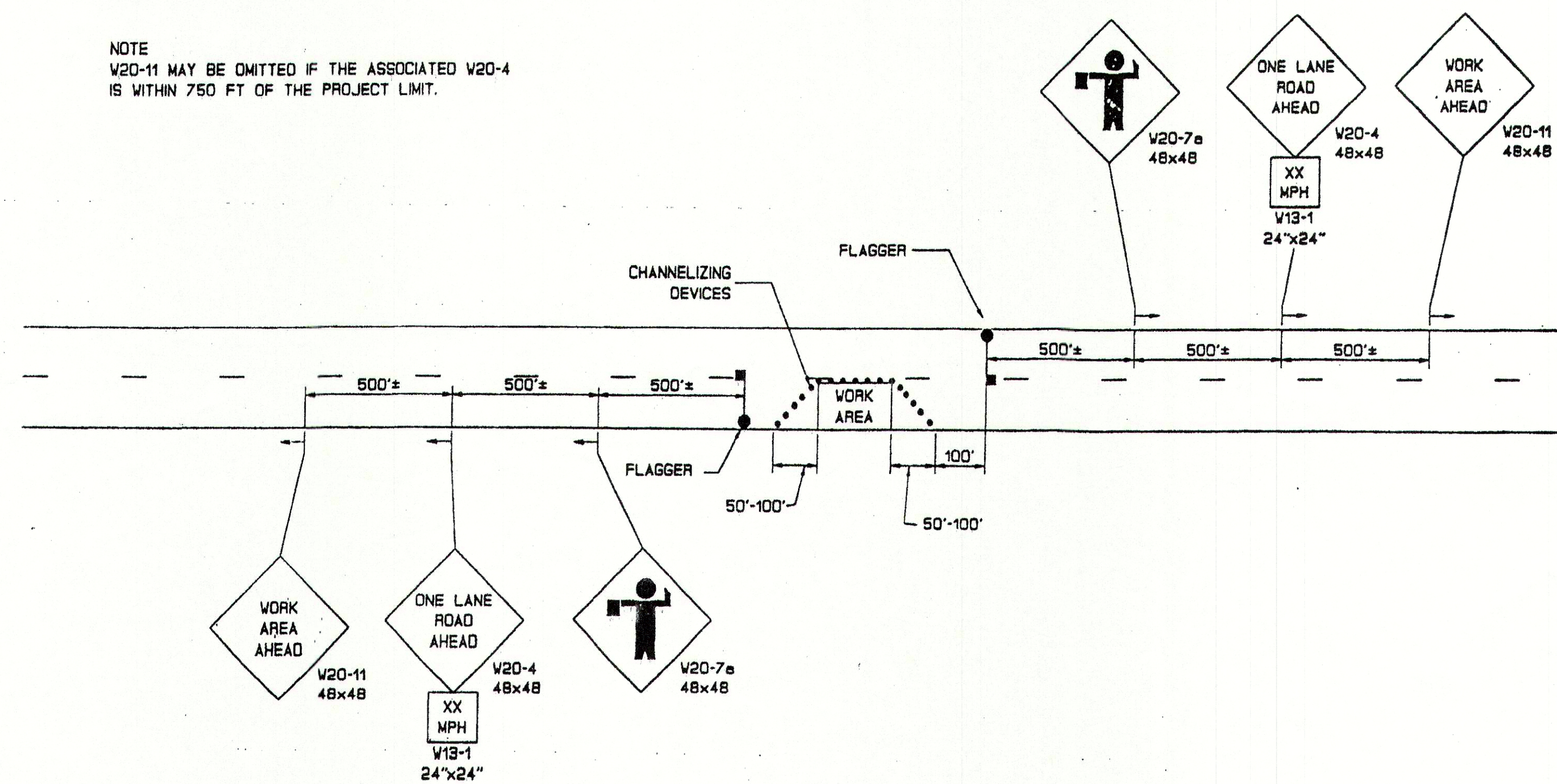




**TWO WAY TRAFFIC LANE CLOSURE  
WITH TEMPORARY TRAFFIC SIGNALS**

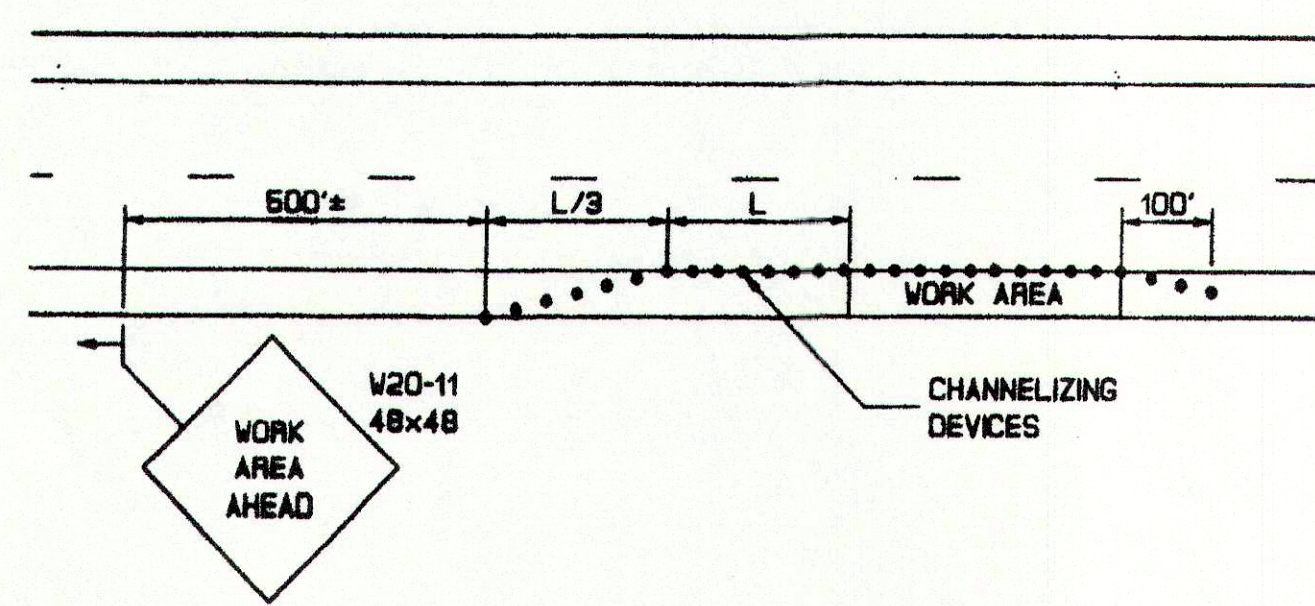
TC015

NOTE  
V20-11 MAY BE OMITTED IF THE ASSOCIATED V20-4  
IS WITHIN 750 FT OF THE PROJECT LIMIT.



**TWO-WAY TRAFFIC LANE CLOSURE WITH FLAGGERS**

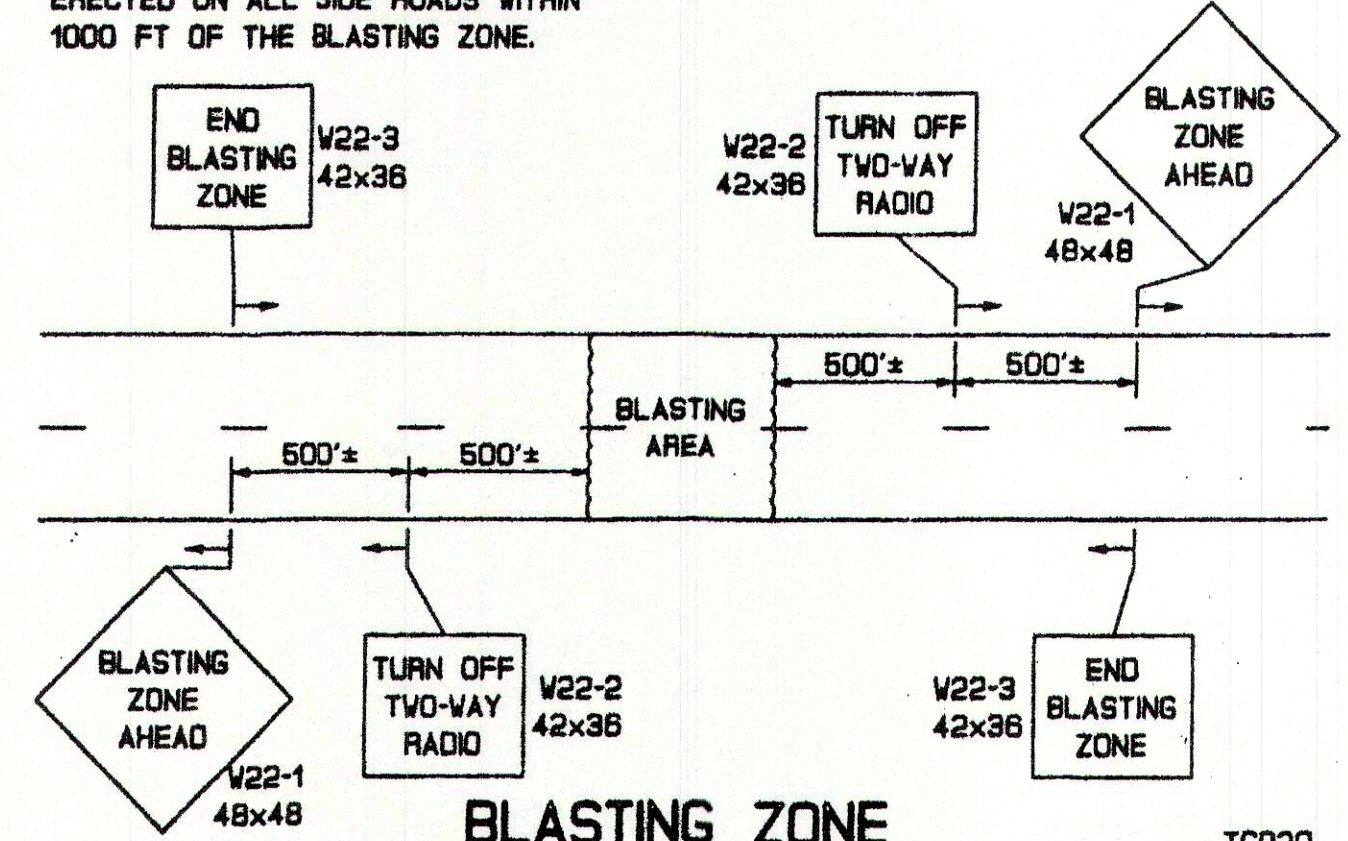
TC016



**ROADSIDE WORK AREA SIGNING**

TC017

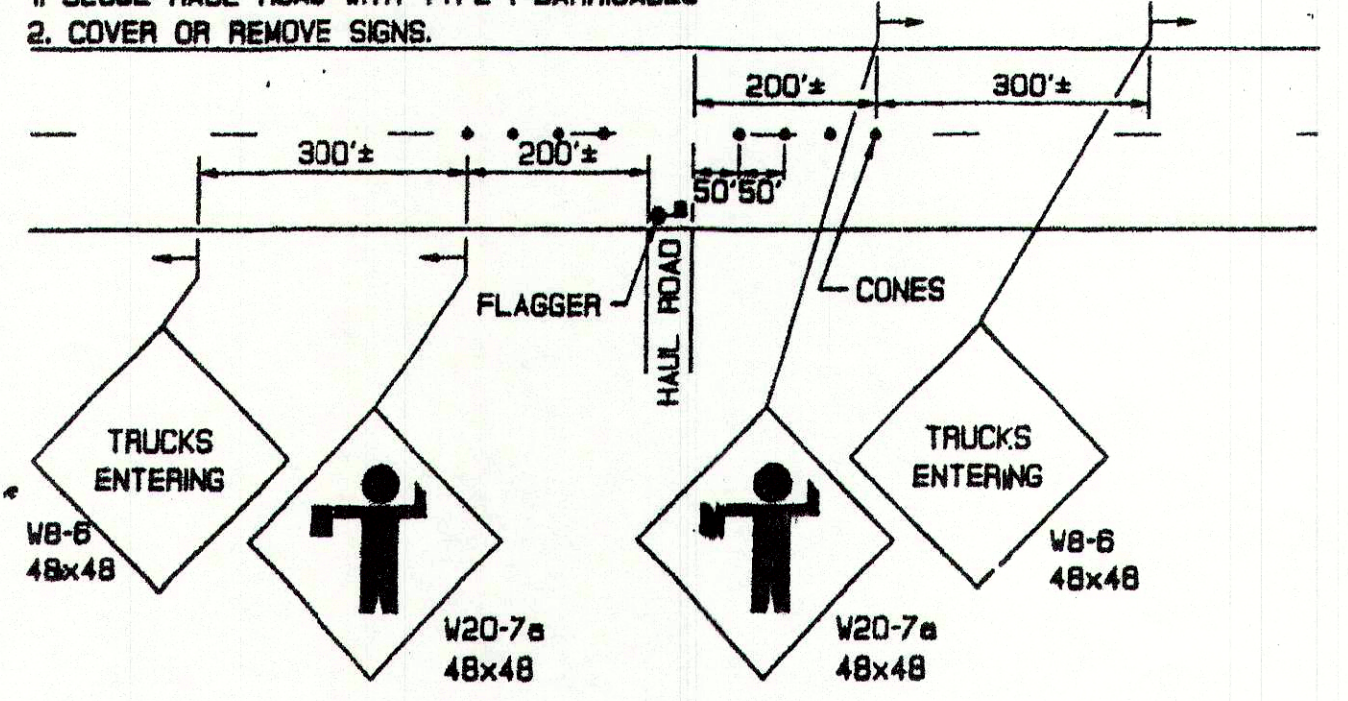
NOTE  
SIMILAR SIGN SEQUENCE SHALL BE  
ERECTED ON ALL SIDE ROADS WITHIN  
1000 FT OF THE BLASTING ZONE.



**BLASTING ZONE**

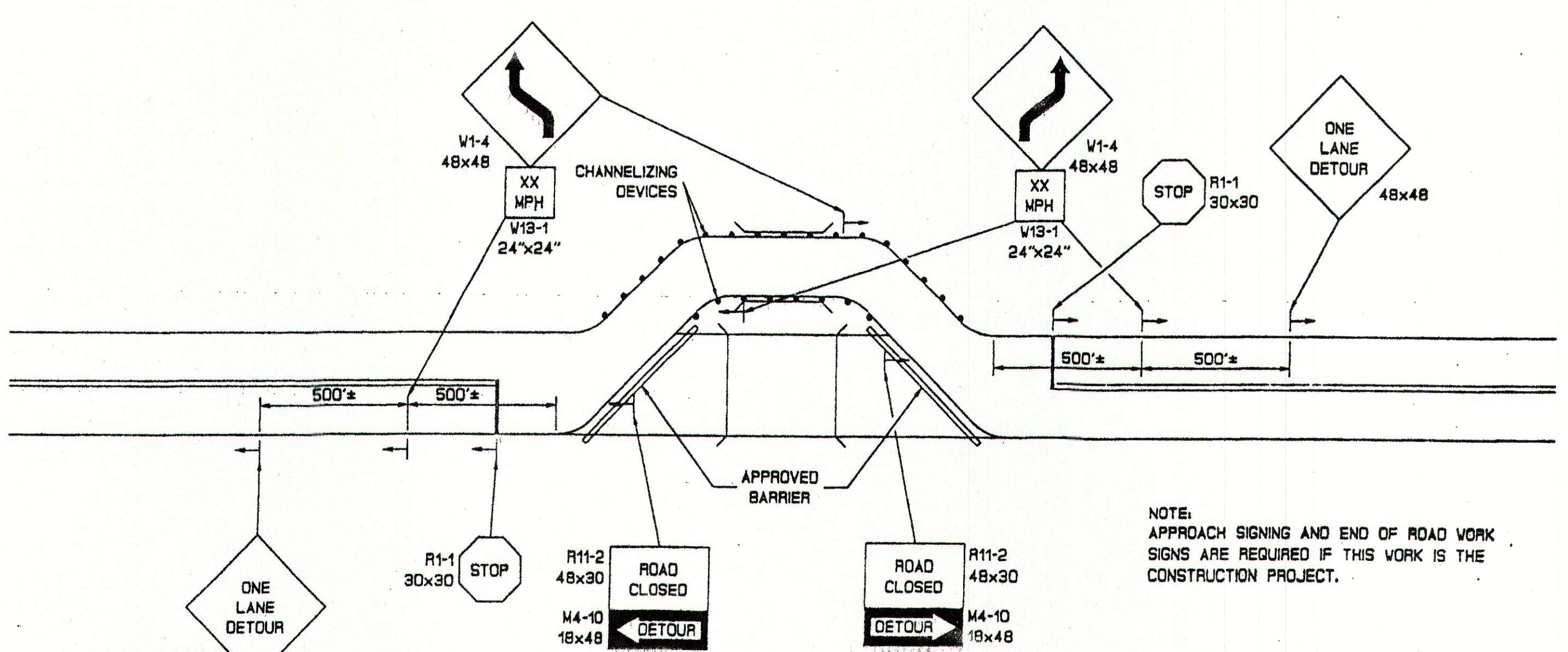
TC020

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

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

REVISIONS	APPROVED
Description	Me. DOT
ORIGINAL PLAN	OCT 92
Add TC022	JUNE 93
TC018 Signing Note	MAY 96

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

**MAINTENANCE OF TRAFFIC  
IN CONSTRUCTION ZONES**

**PORTABLE ENERGY ABSORPTION UNITS**

ARRAYS FOR SPEEDS OF  
20 TO 65 MPH

KEY  
(21) PLASTIC CRASH BARREL  
WEIGHT OF SAND IN  
HUNDREDS OF POUNDS

ITEM NO. 527.32

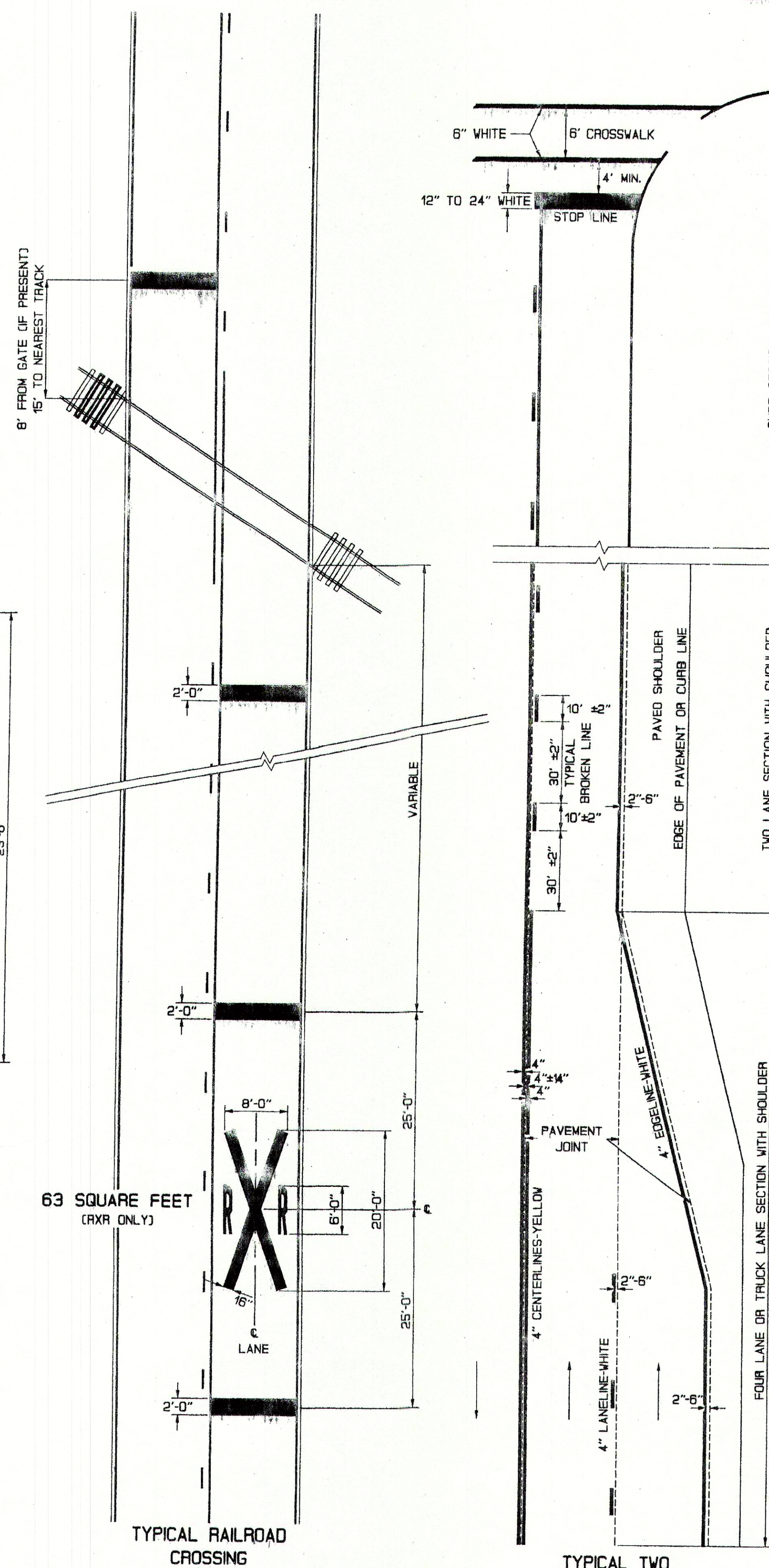
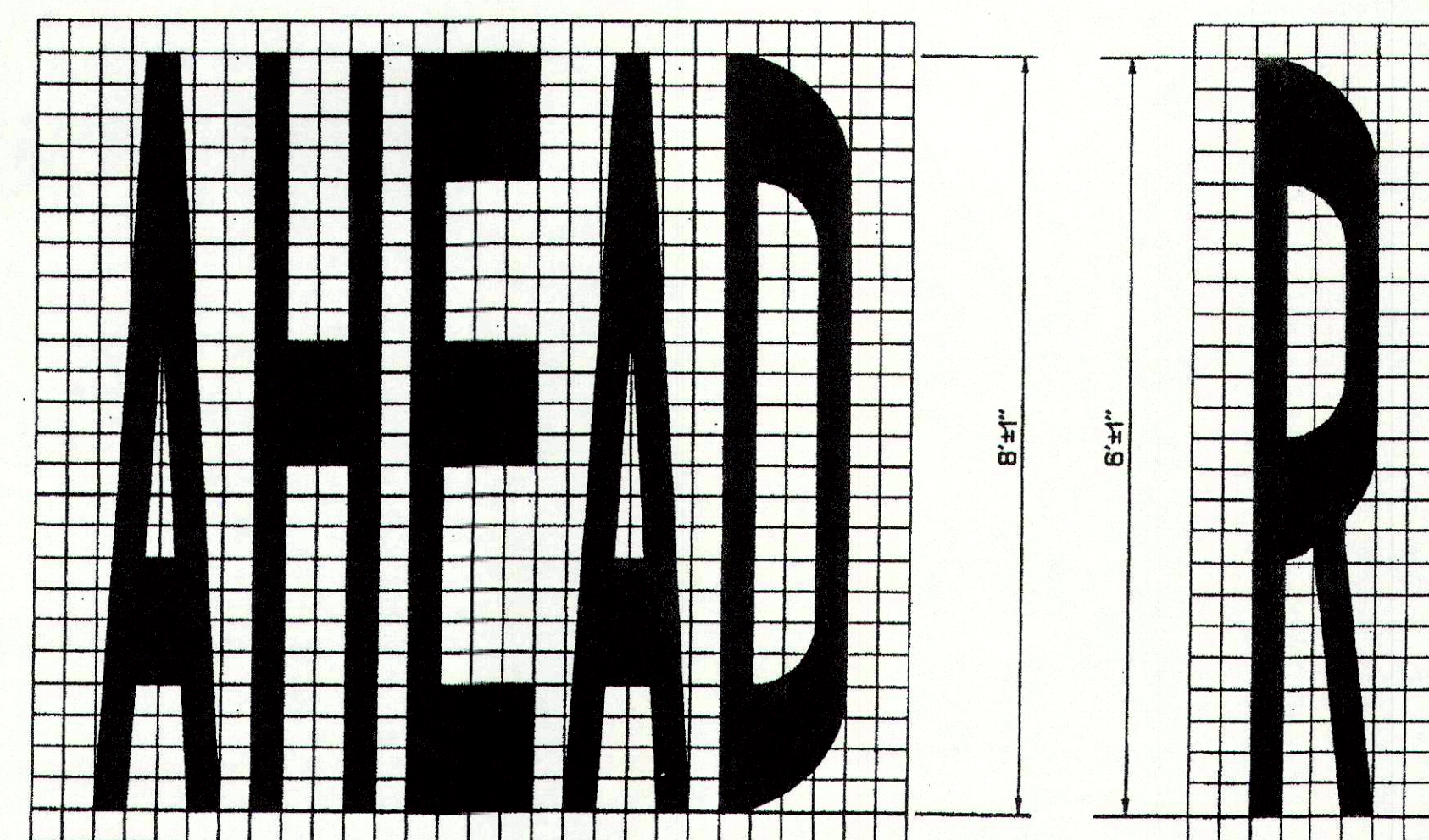
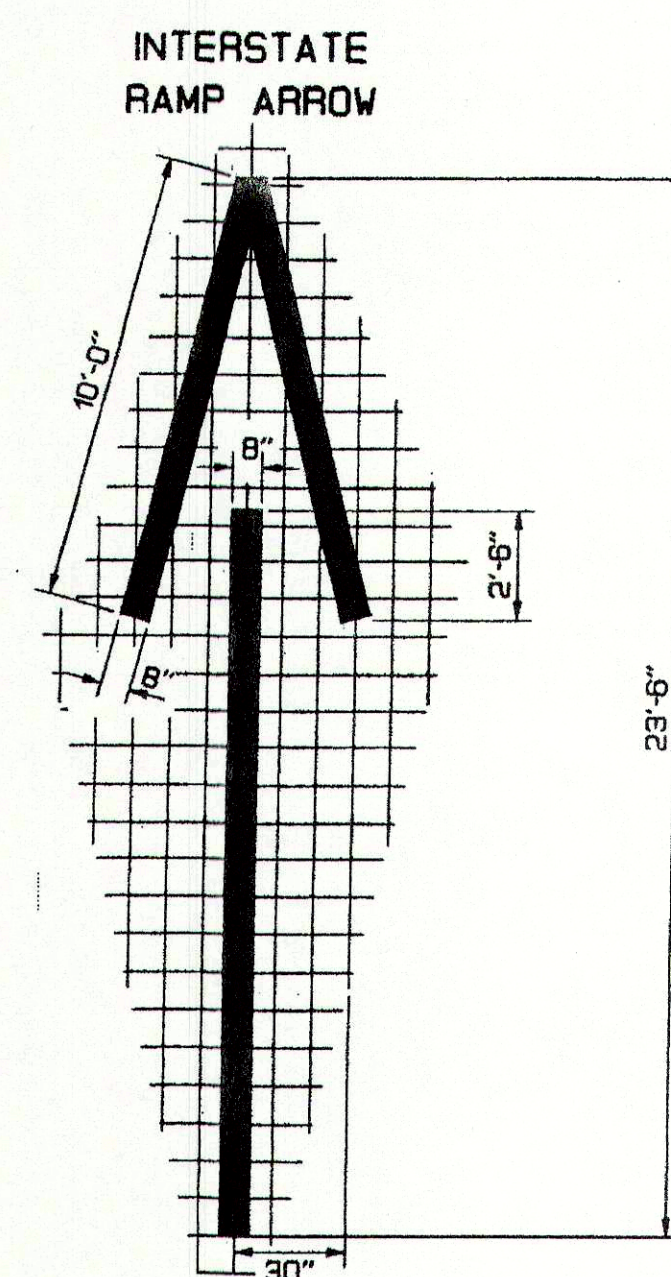
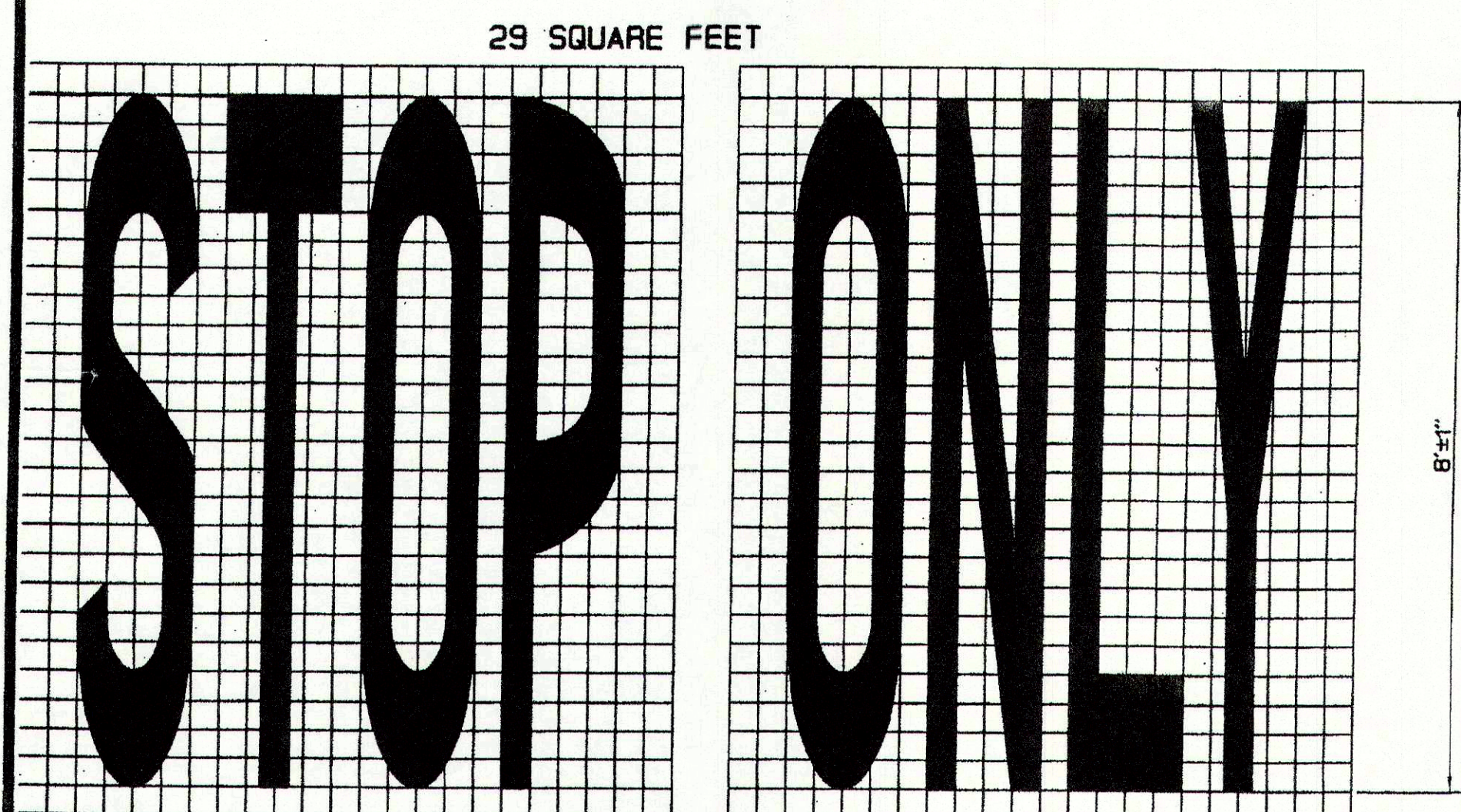
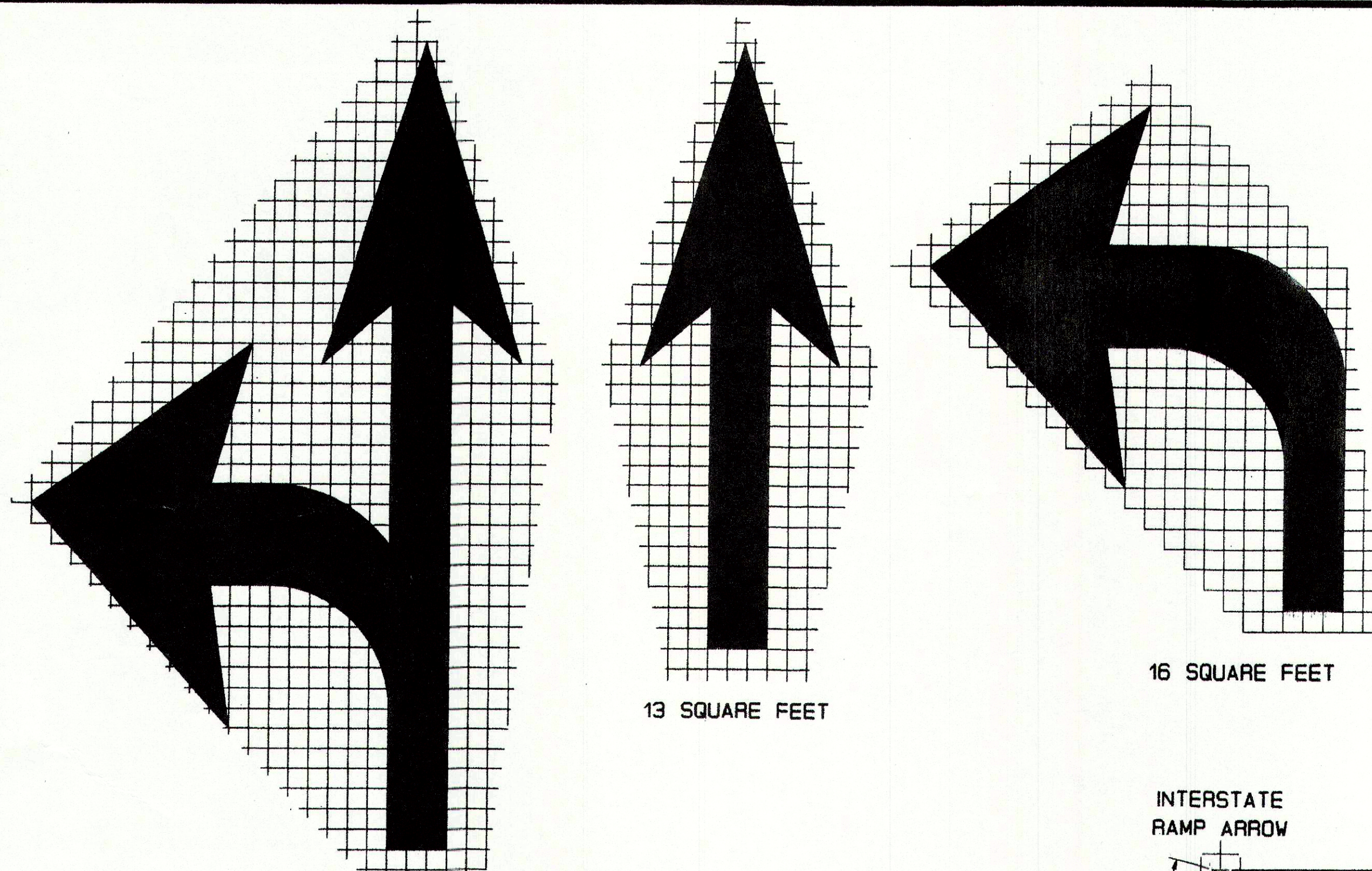
Direction of Traffic	Direction of Traffic
20 & 25 MPH	50 MPH
30 & 35 MPH	55 MPH
40 MPH	60 & 65 MPH
45 MPH	

Maximum Deceleration = 6 - 7 G's

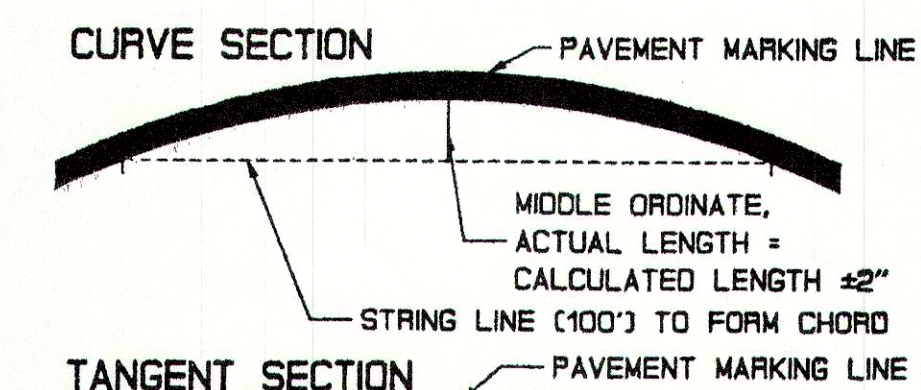
DEMOS-01000-30



F.H.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE			



## TOLERANCE FOR PAVEMENT MARKING LINES



**TANGENT SECTION**

PAVEMENT MARKING LINE

STRING LINE (100') PARALLEL TO PAVEMENT MARKING LINE. DISTANCE FROM STRING TO PAVEMENT MARKING LINE SHALL NOT VARY MORE THAN  $\pm 2''$

### 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]

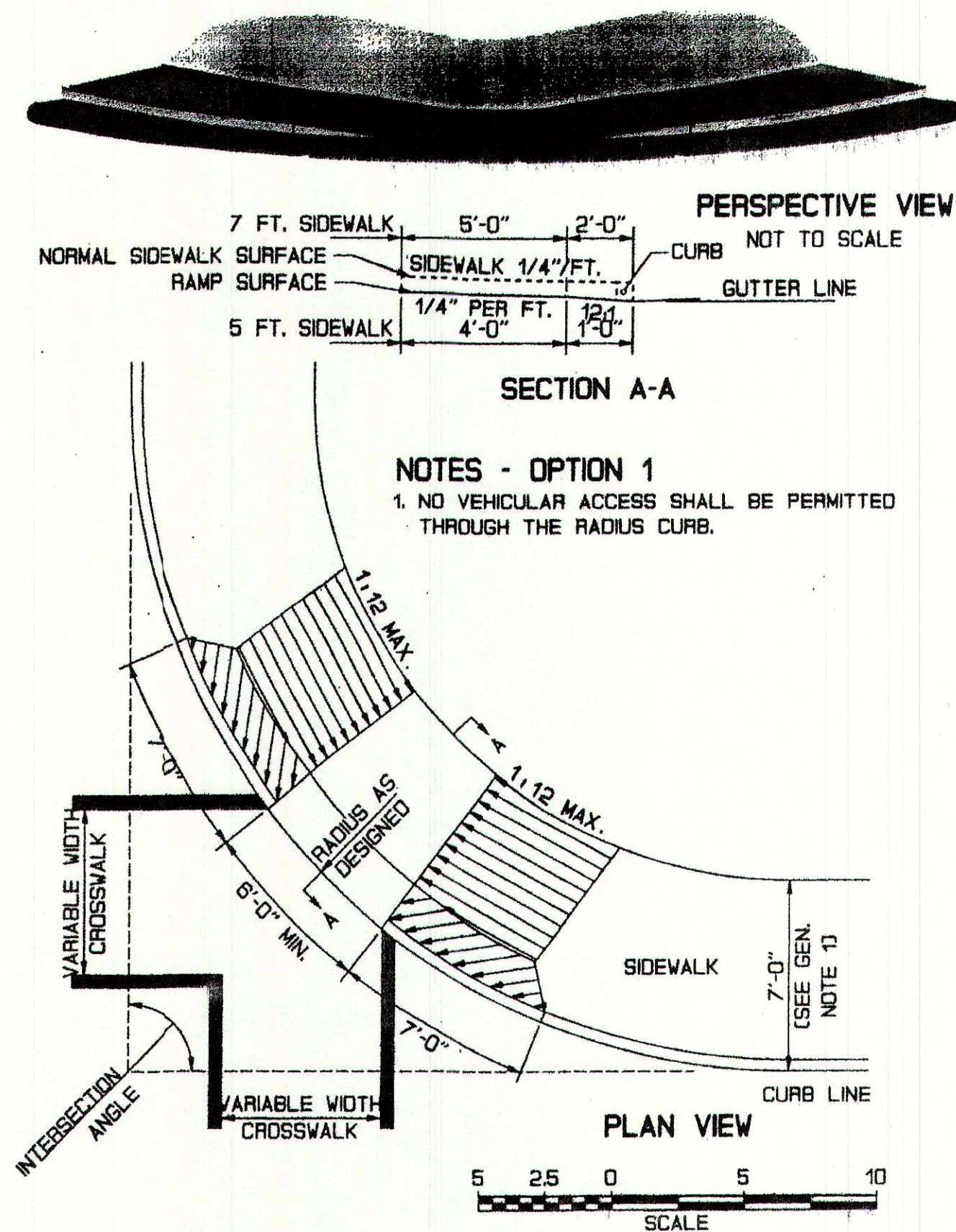


# GENERAL NOTES

1. WHEN THE SIDEWALK IS LESS THAN 5'-0" IN WIDTH, A MINIMUM PAD 5'-0"x5'-0" SLOPING NO MORE THAN 1/4" PER FOOT SHALL BE PROVIDED WHENEVER A CHANGE IN DIRECTION MUST BE MADE.
2. THERE SHALL BE A MINIMUM OF 12" AGGREGATE SUBBASE COURSE-GRAVEL UNDER THE 2" PAVEMENT ON PEDESTRIAN RAMPS.
3. CURB OPENINGS FOR PEDESTRIAN RAMPS SHALL BE 6" MINIMUM.

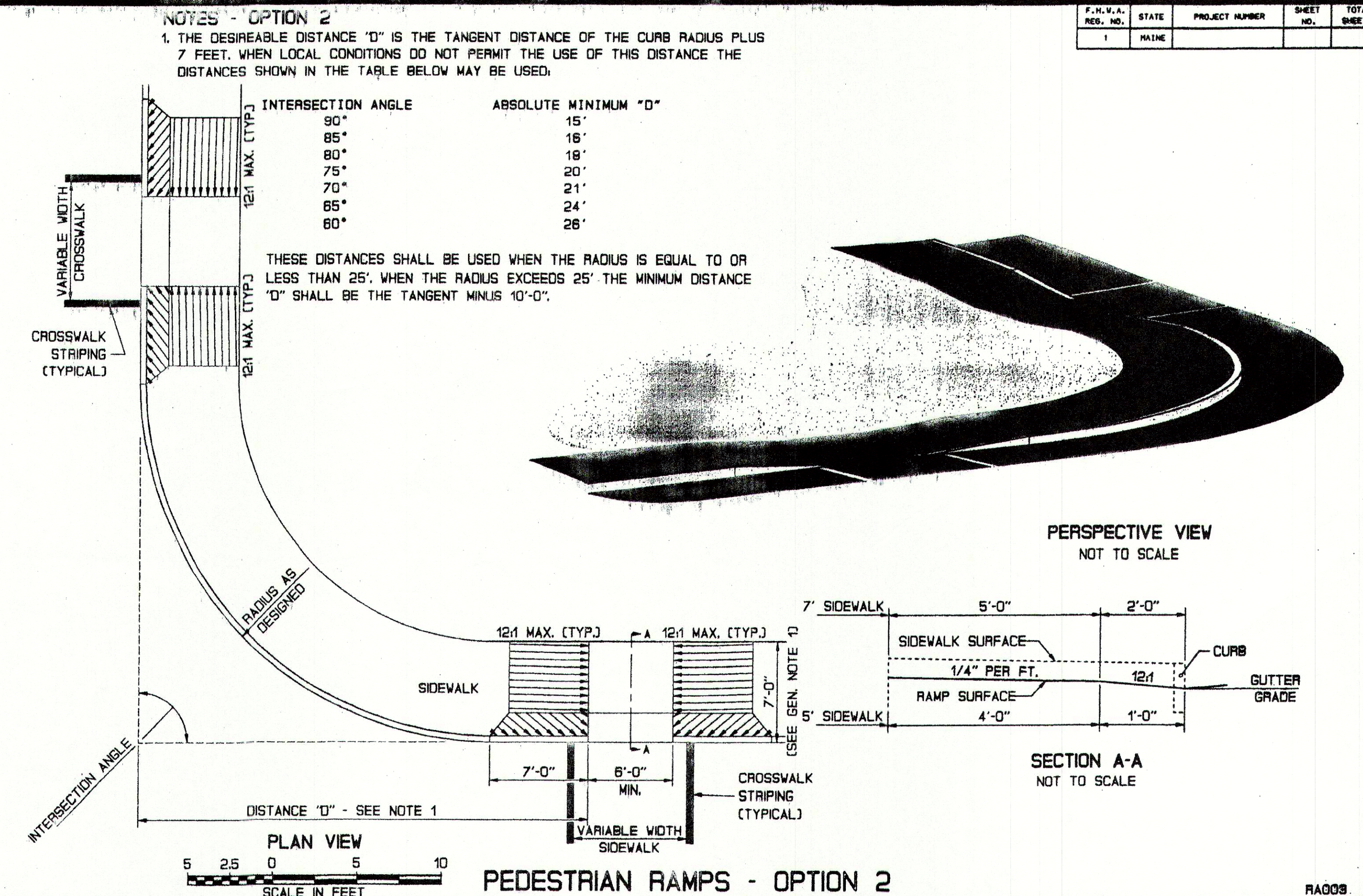
PEDESTRIAN RAMP NOTES

RA001



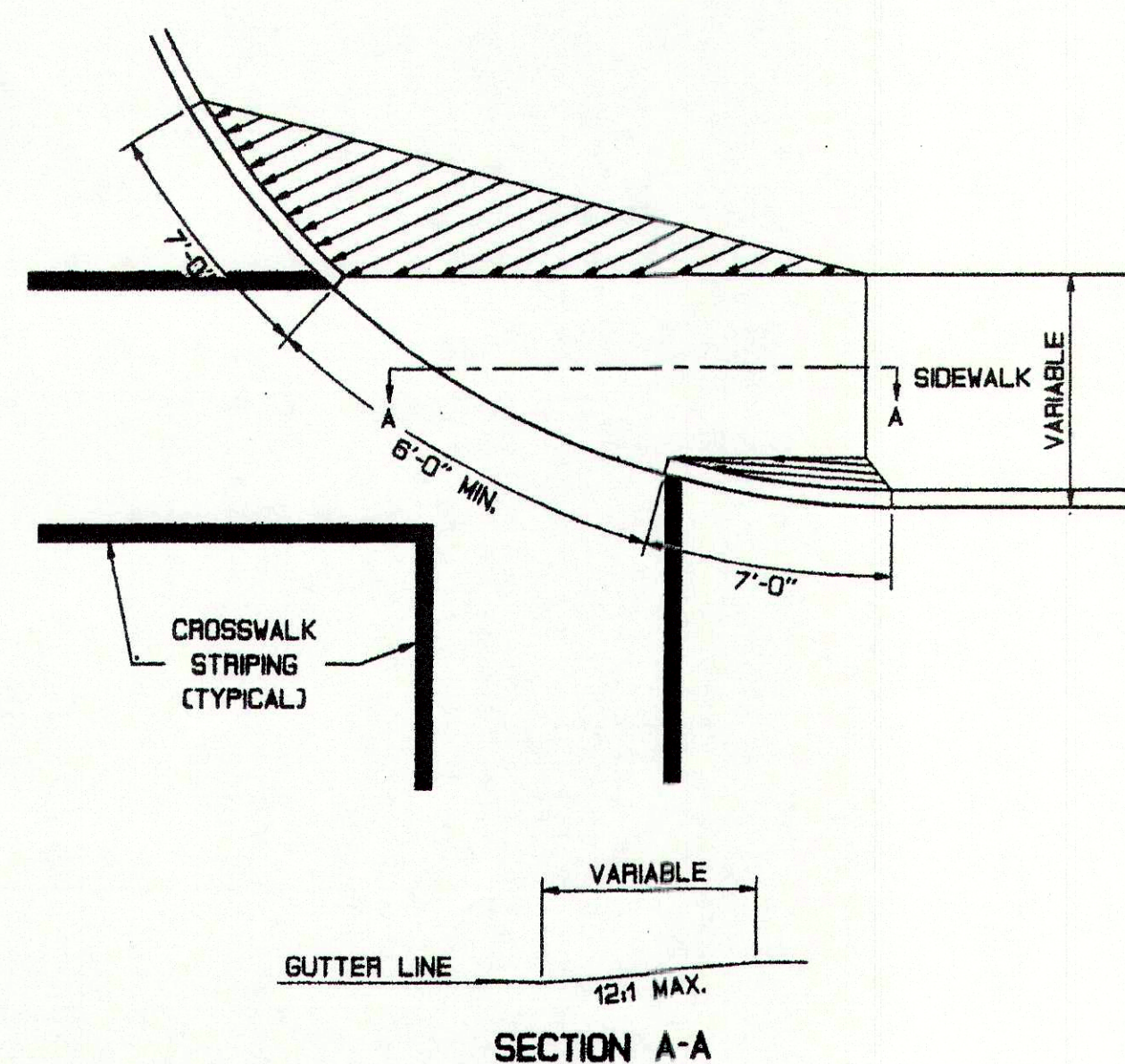
PEDESTRIAN RAMP - OPTION 1

RA002



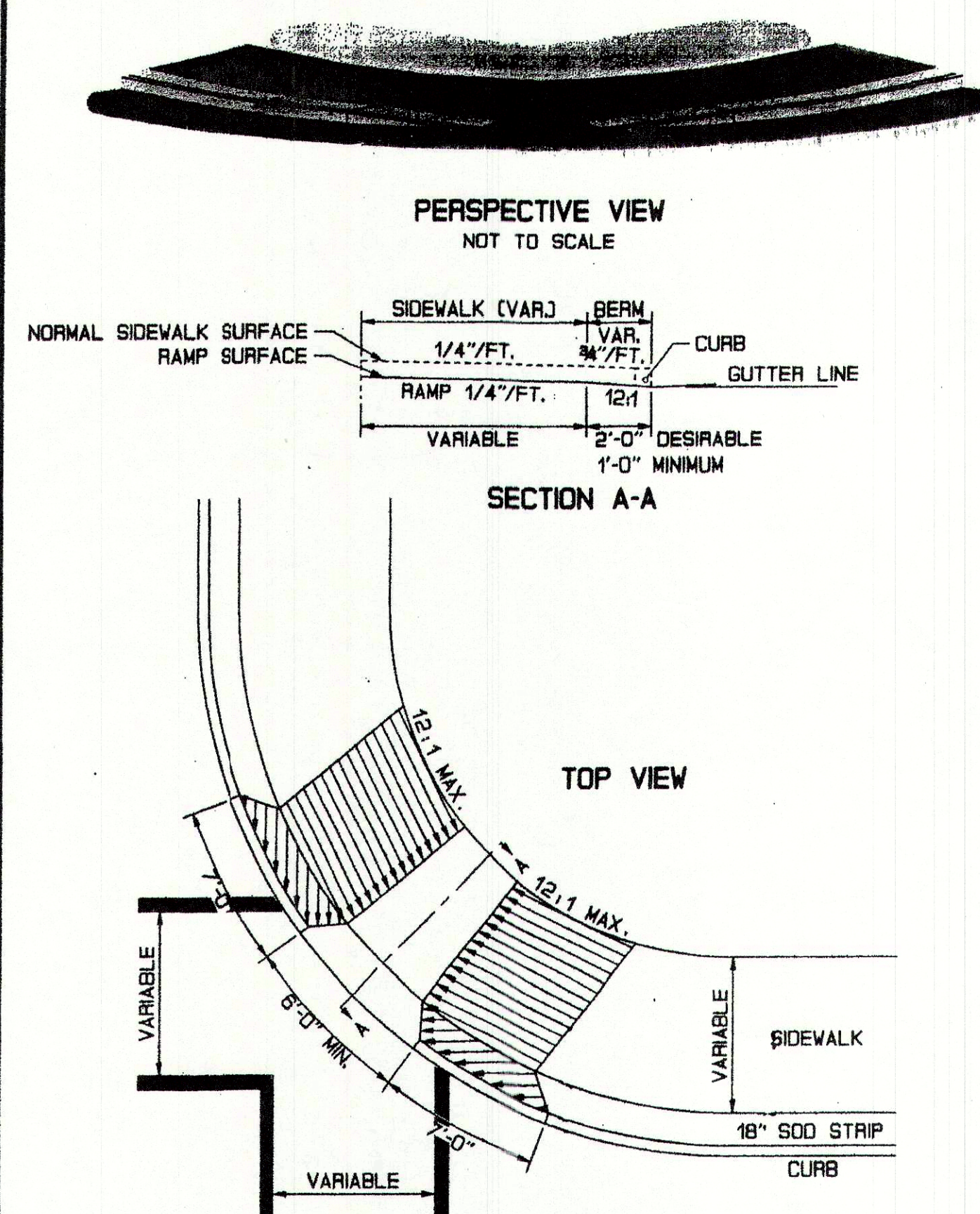
PEDESTRIAN RAMPS - OPTION 2

RA003



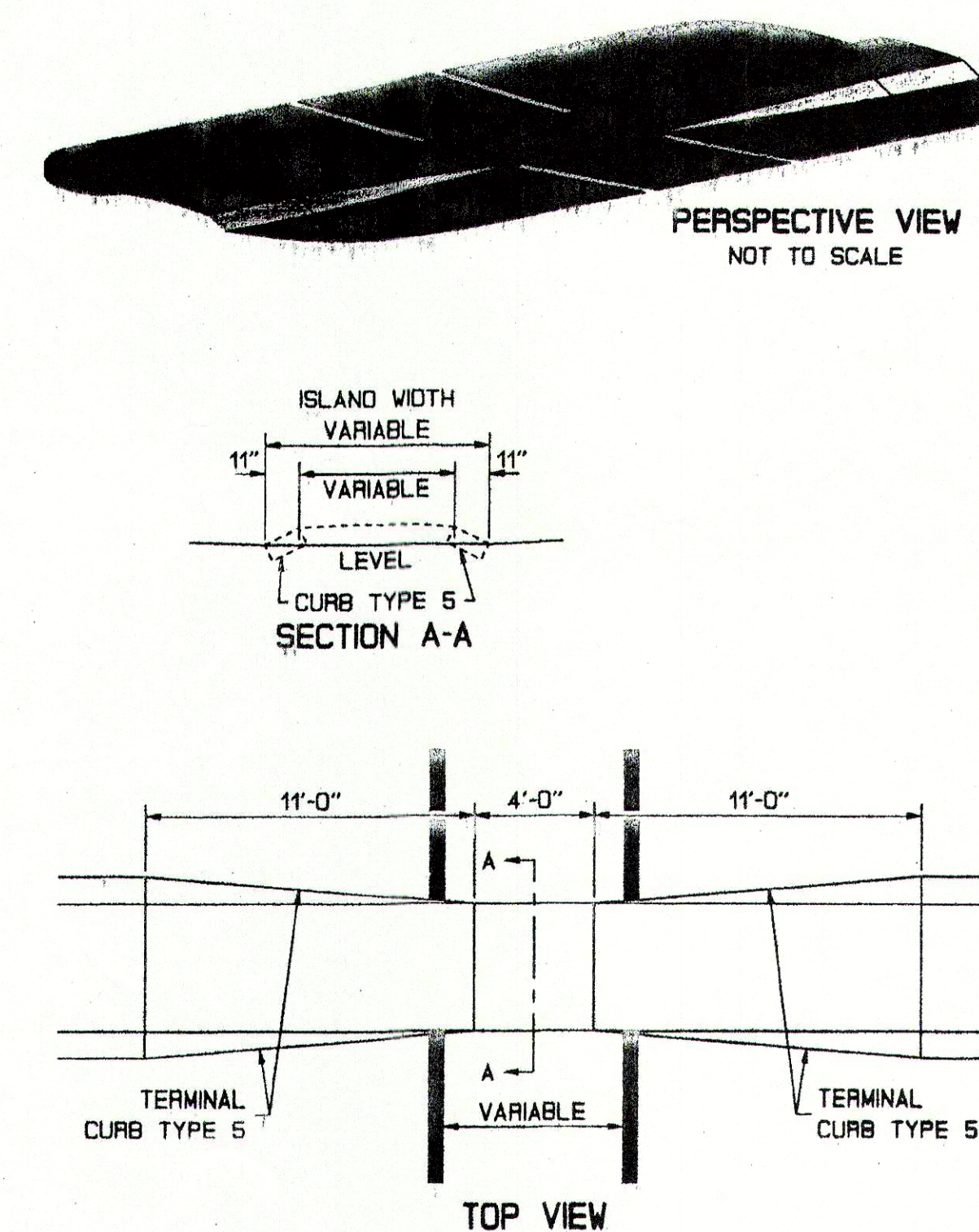
PEDESTRIAN RAMPS - OPTION 3

RA004



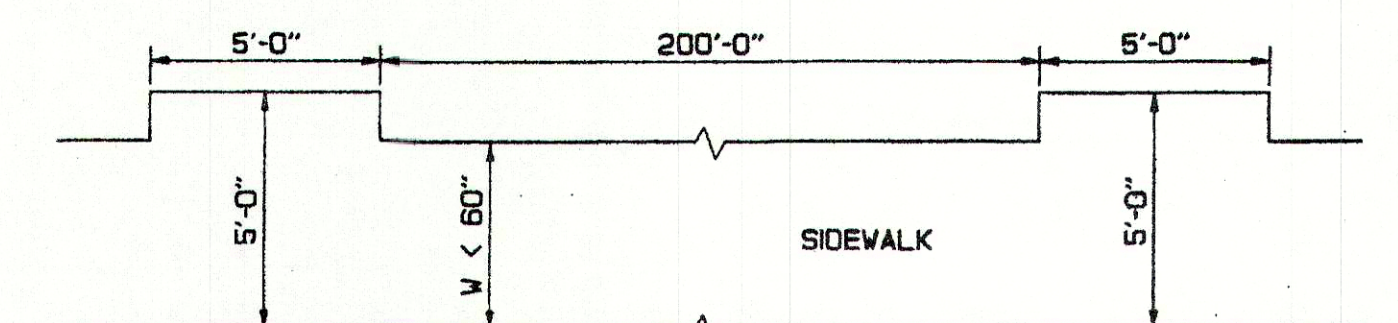
PEDESTRIAN RAMP WITH BERM

RA005



PEDESTRIAN RAMP  
ISLAND - CURB TYPE 5

RA006

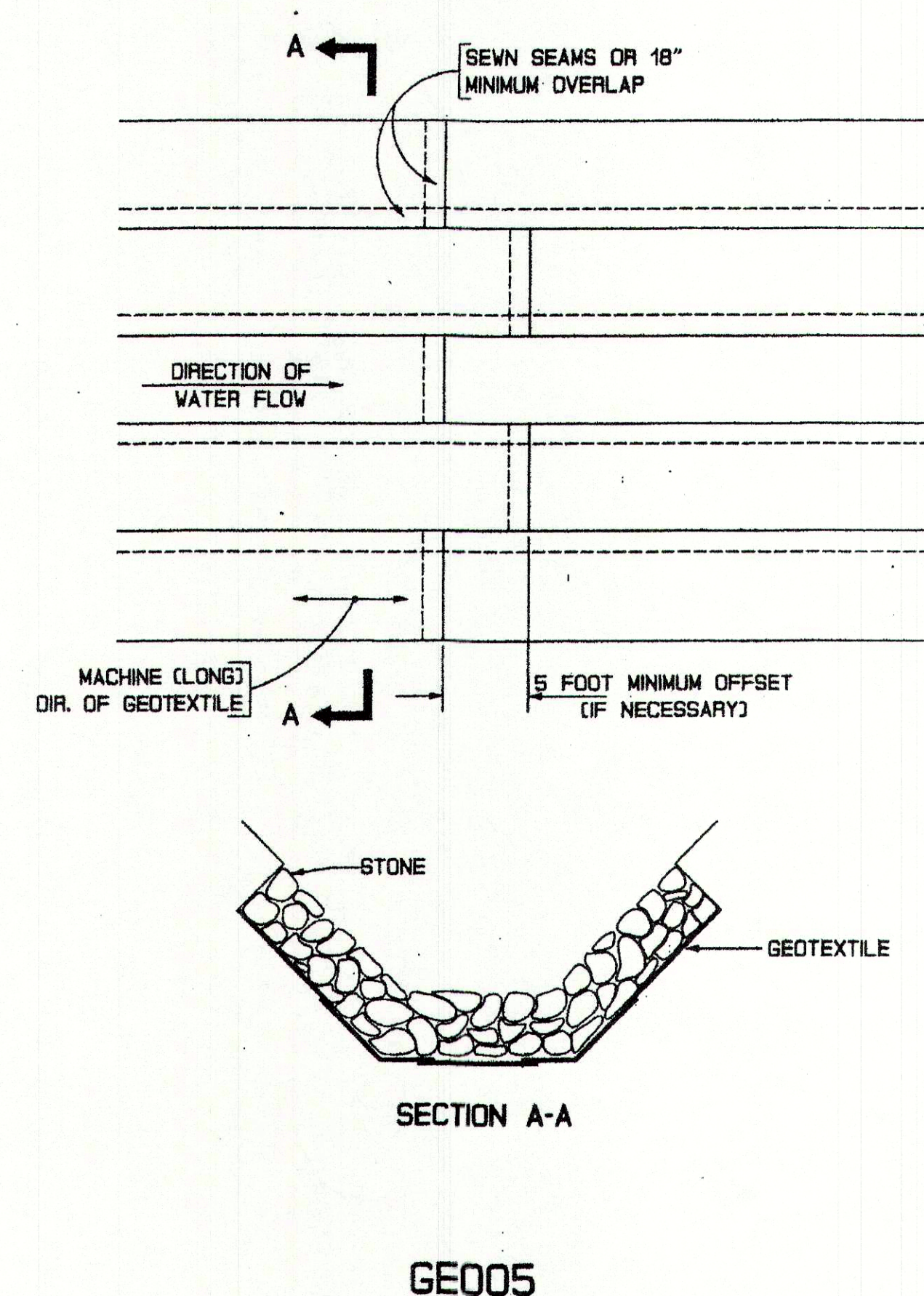
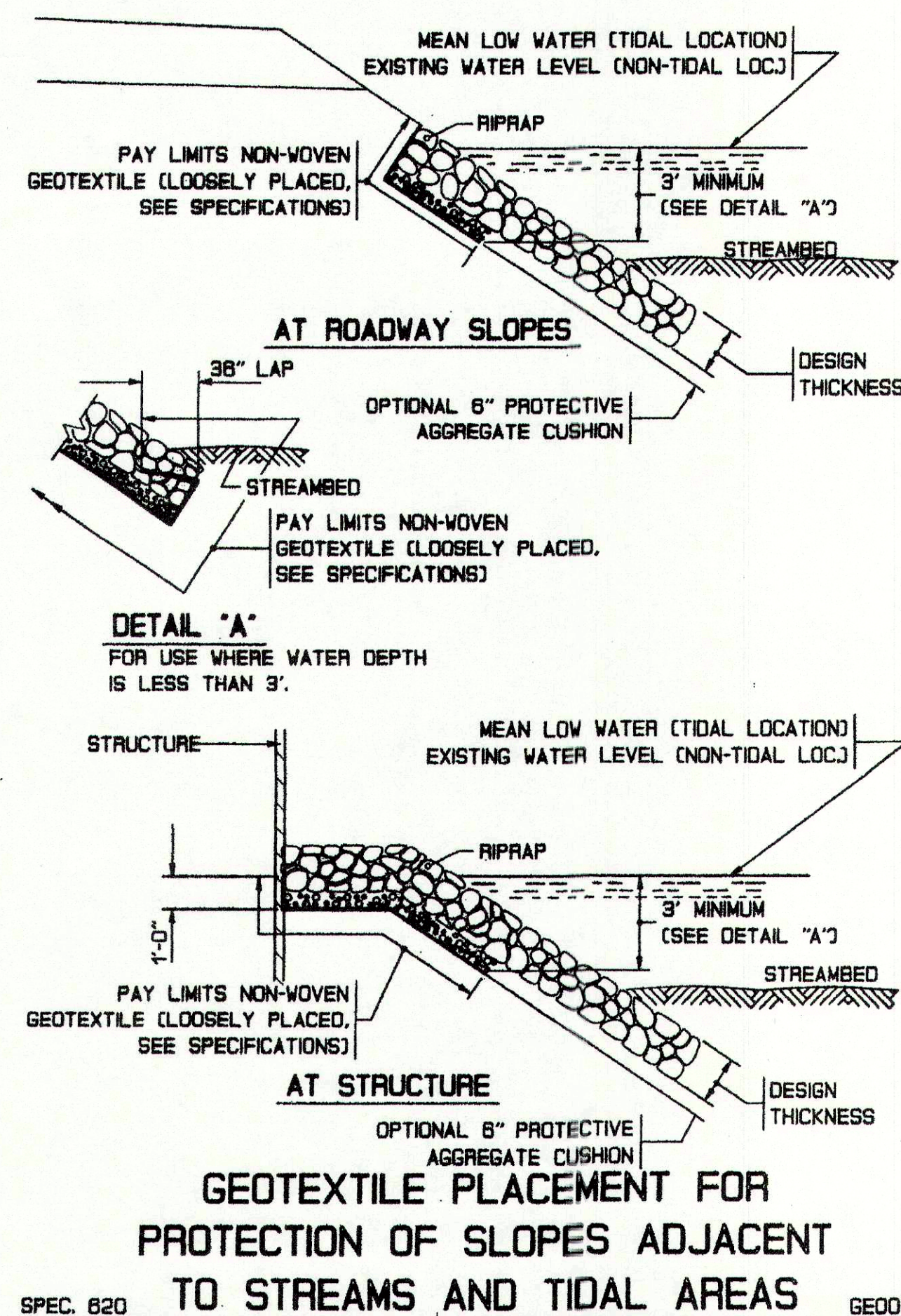
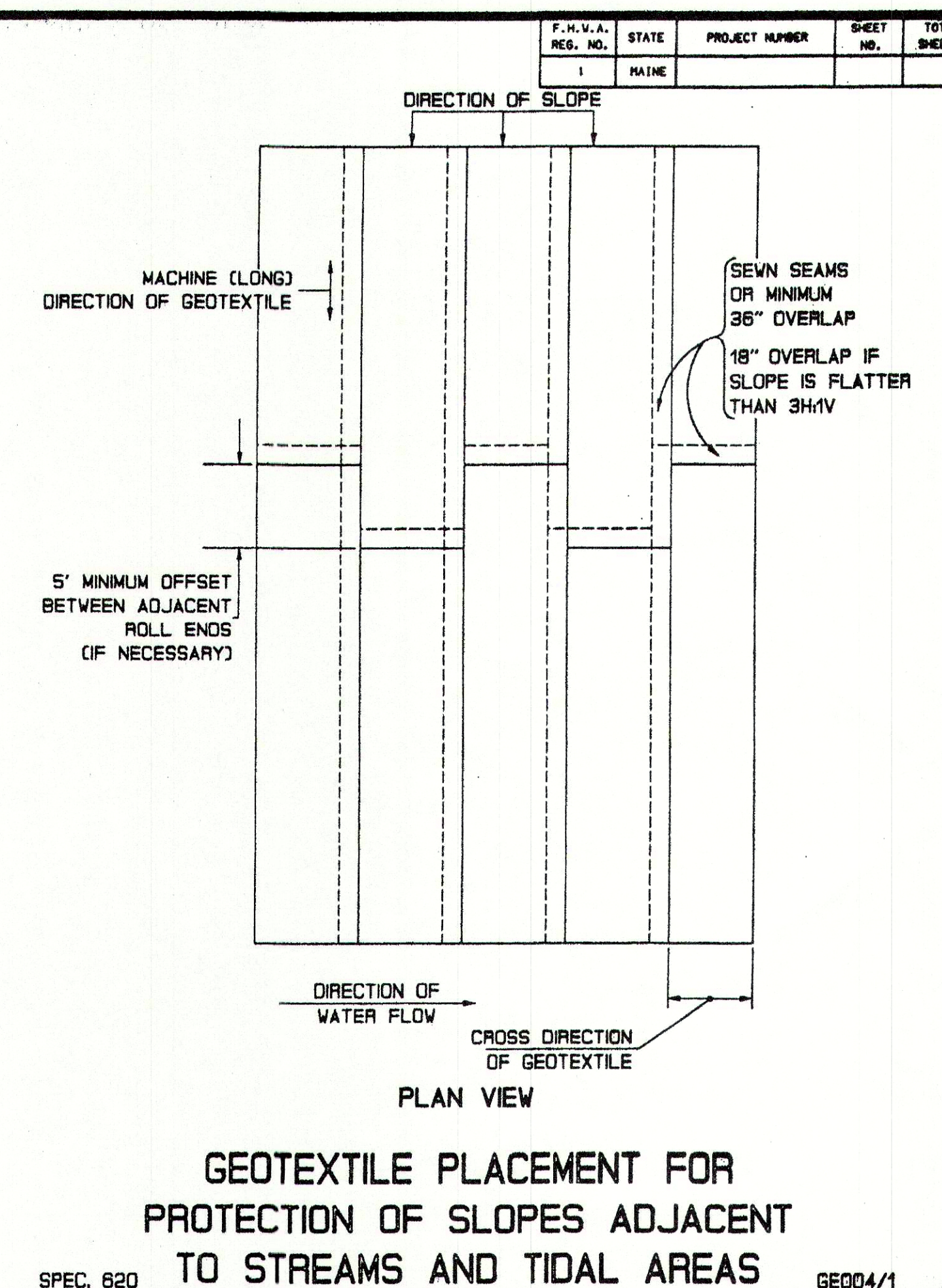
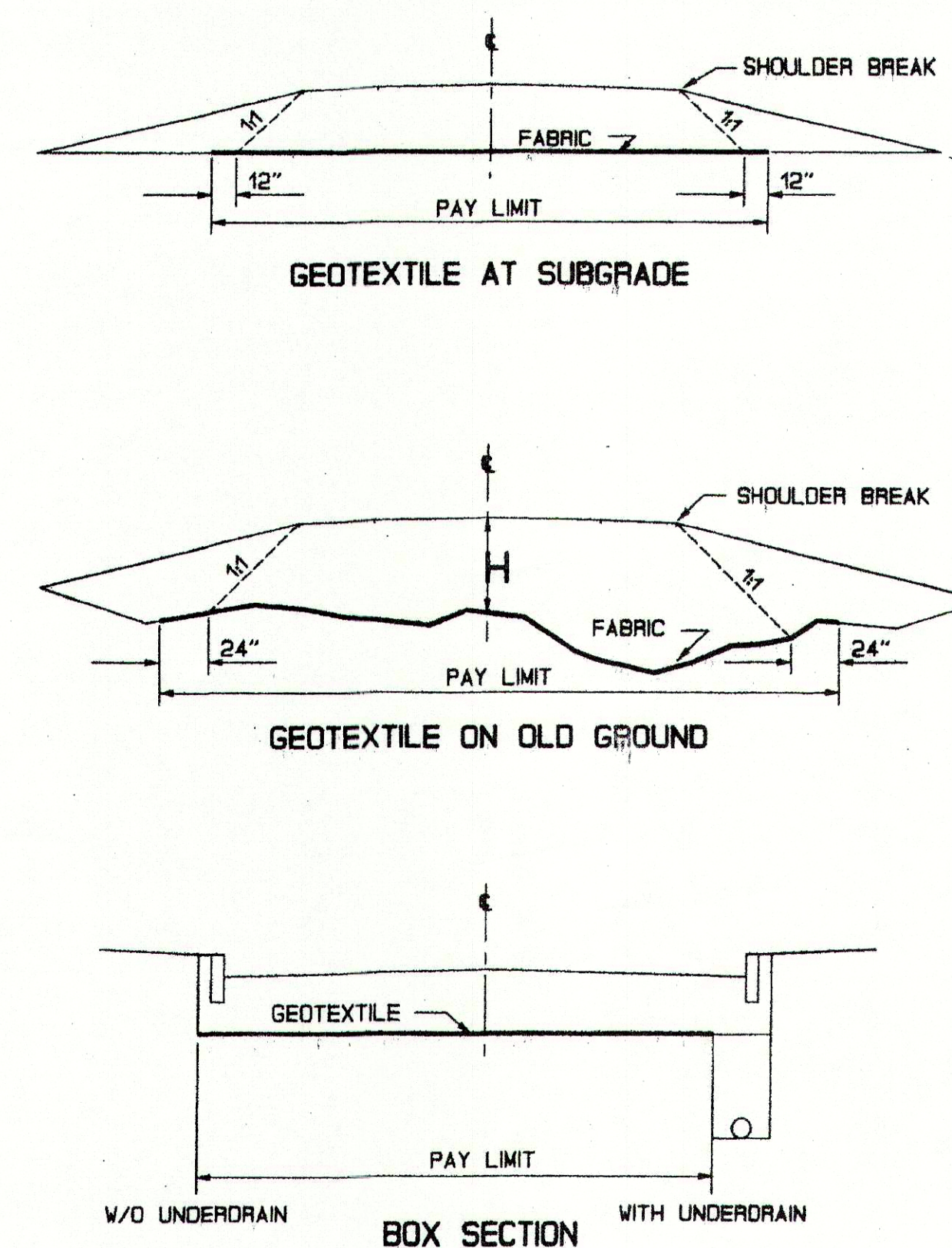
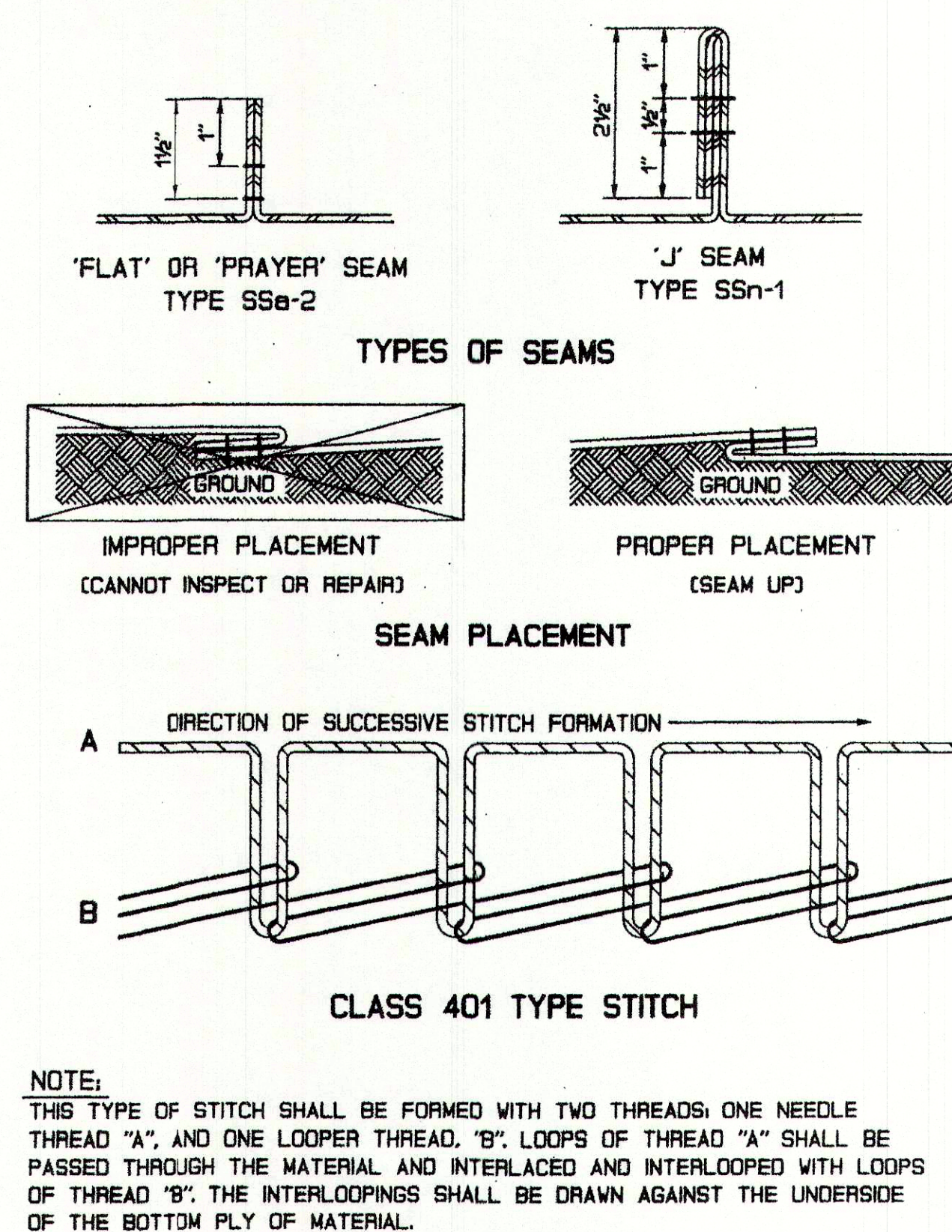
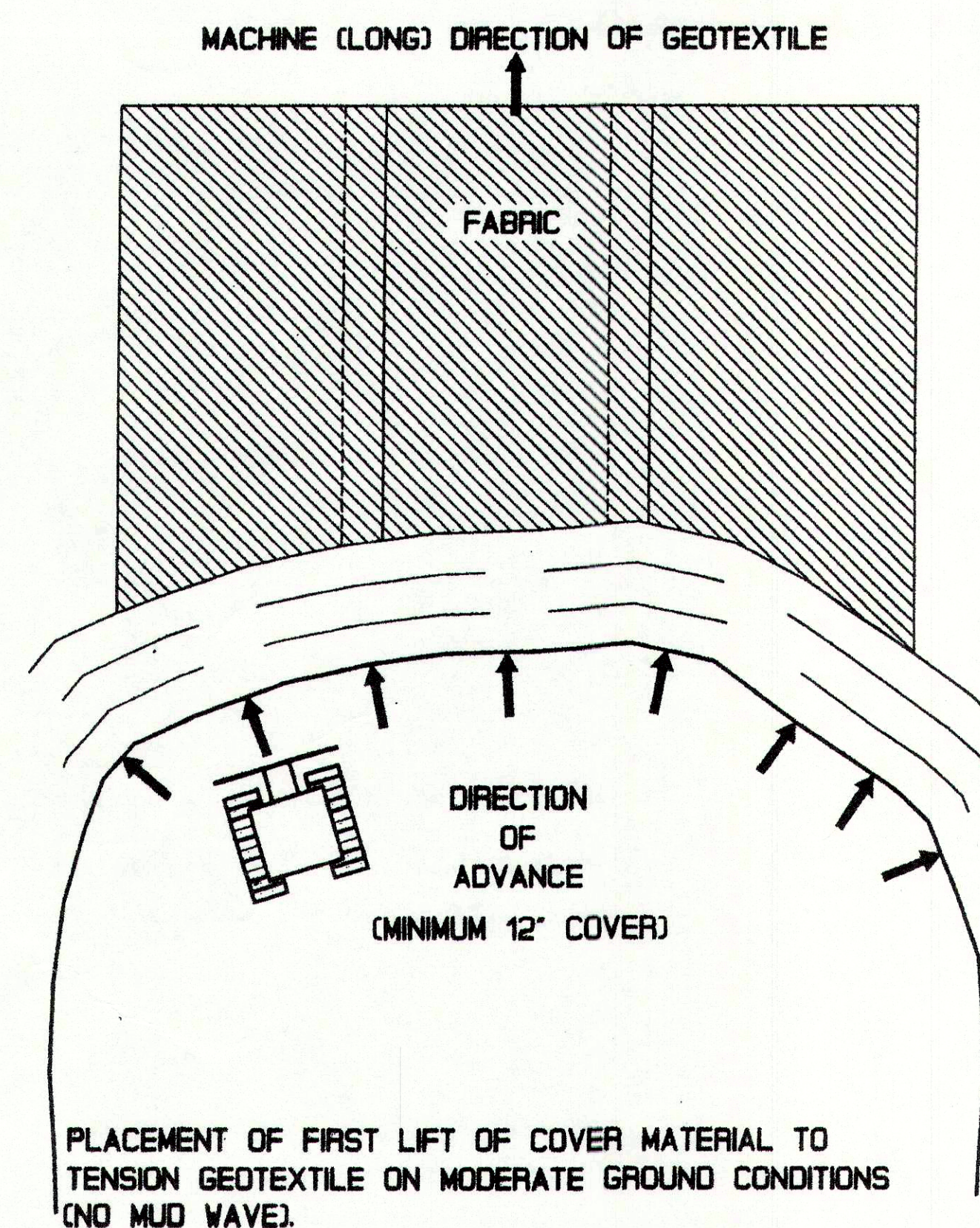


PEDESTRIAN PASSING AREAS

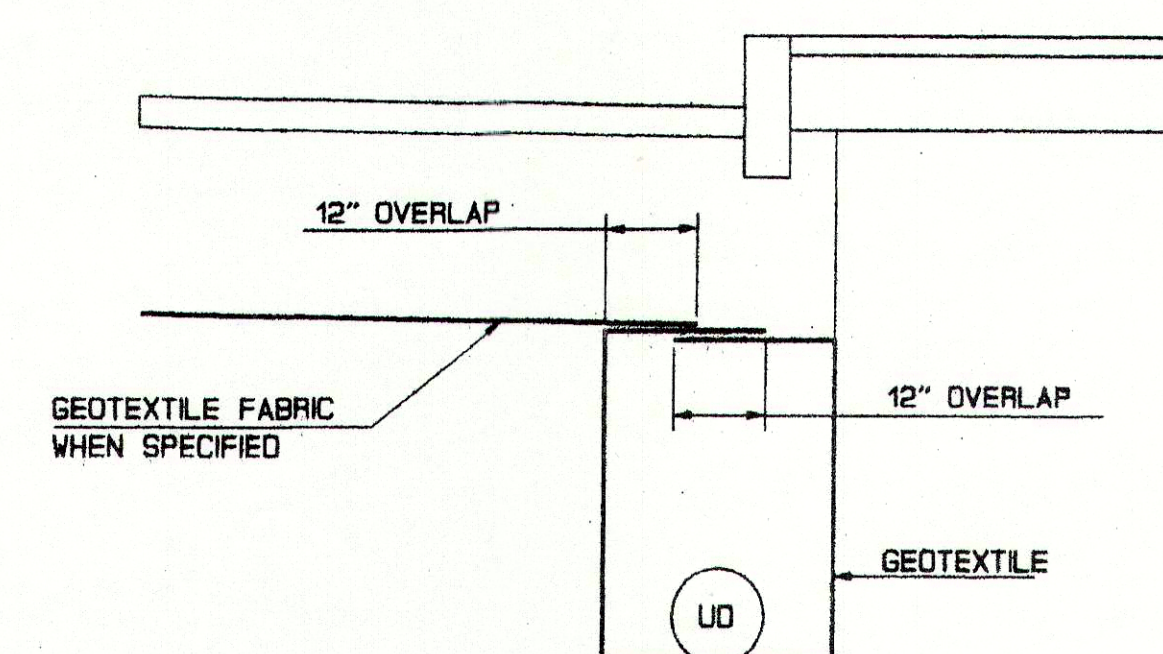
RA007

REVISIONS			APPROVED		STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
Description	Me. DOT	FHWA			STANDARD DETAILS PEDESTRIAN RAMPS	
ORIGINAL PLAN	OCT. 92	OCT. 93				
RA001 - CHANGED MIN. PAD DIMENSION	APR. 93	OCT. 93				
RA002 - REV. NOTE ADDED SLOPES	APR. 93	OCT. 93				
RA003 - ADD. SLOPES	APR. 93	OCT. 93				
RA004 - ADD. LABELS	APR. 93	OCT. 93				
RA005 - ADD. SLOPES	APR. 93	OCT. 93				
RA007 - ORIG. PLAN	APR. 93	OCT. 93				
RA002	APR. 95					
RA005	APR. 95					
RA006	APR. 95					
					SHEET 15	AUGUSTA, MAINE

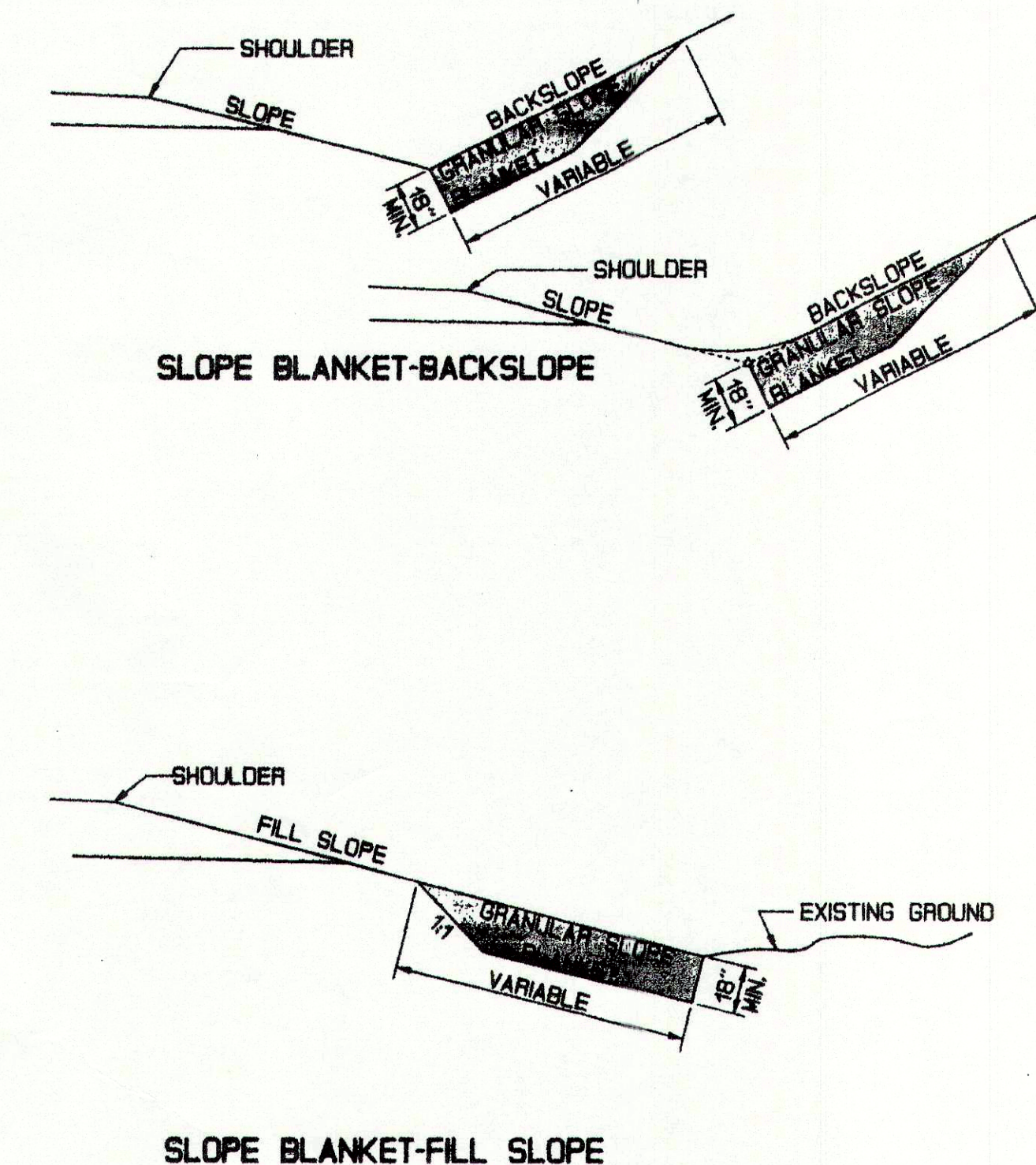




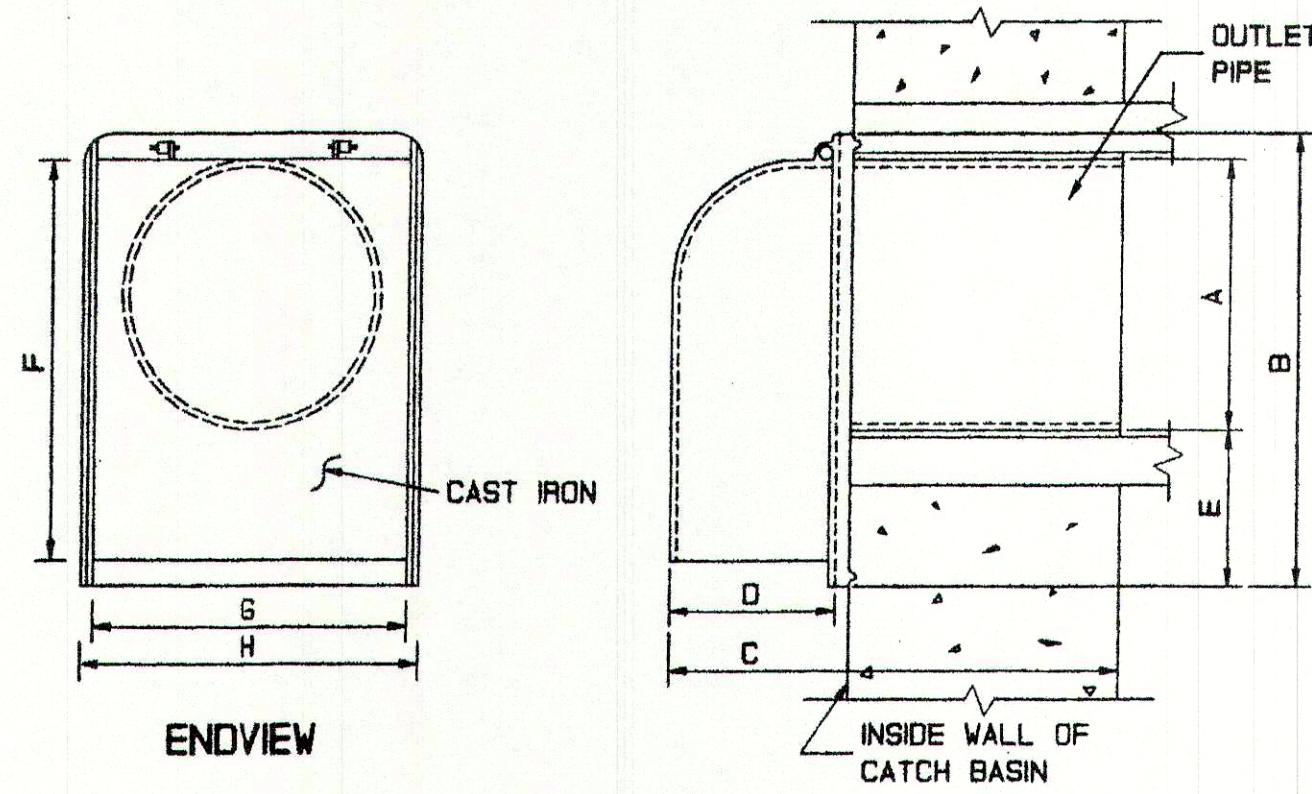
SLOPE HORIZONTAL:VERTICAL	PIN SPACING ALONG OVERLAPS (CENTER TO CENTER)
3:1 TO 4:1	3 FT.
4:1 OR FLATTER	4 FT.

[illegible]





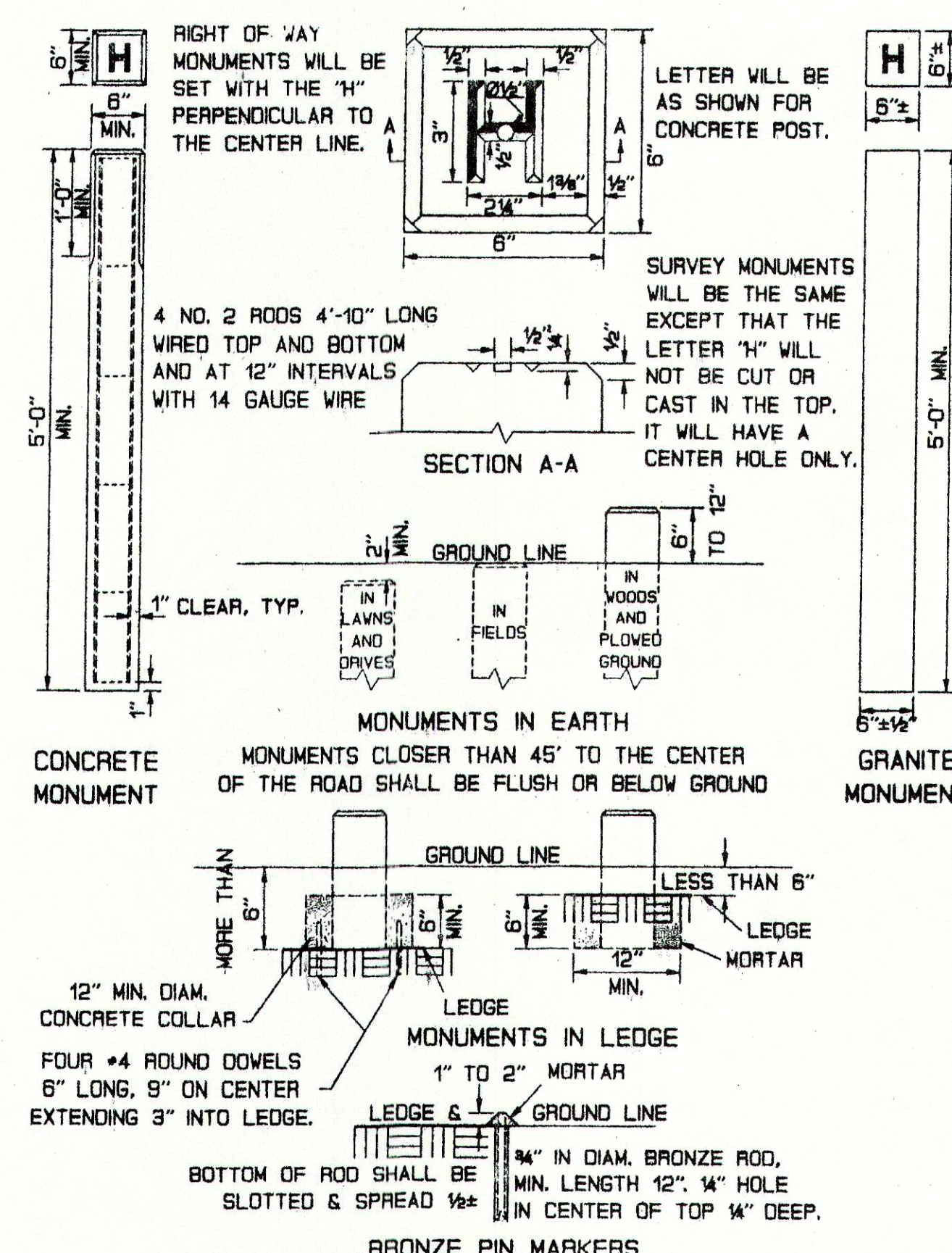
SPEC. 613 SLOPE BLANKETS ERO06



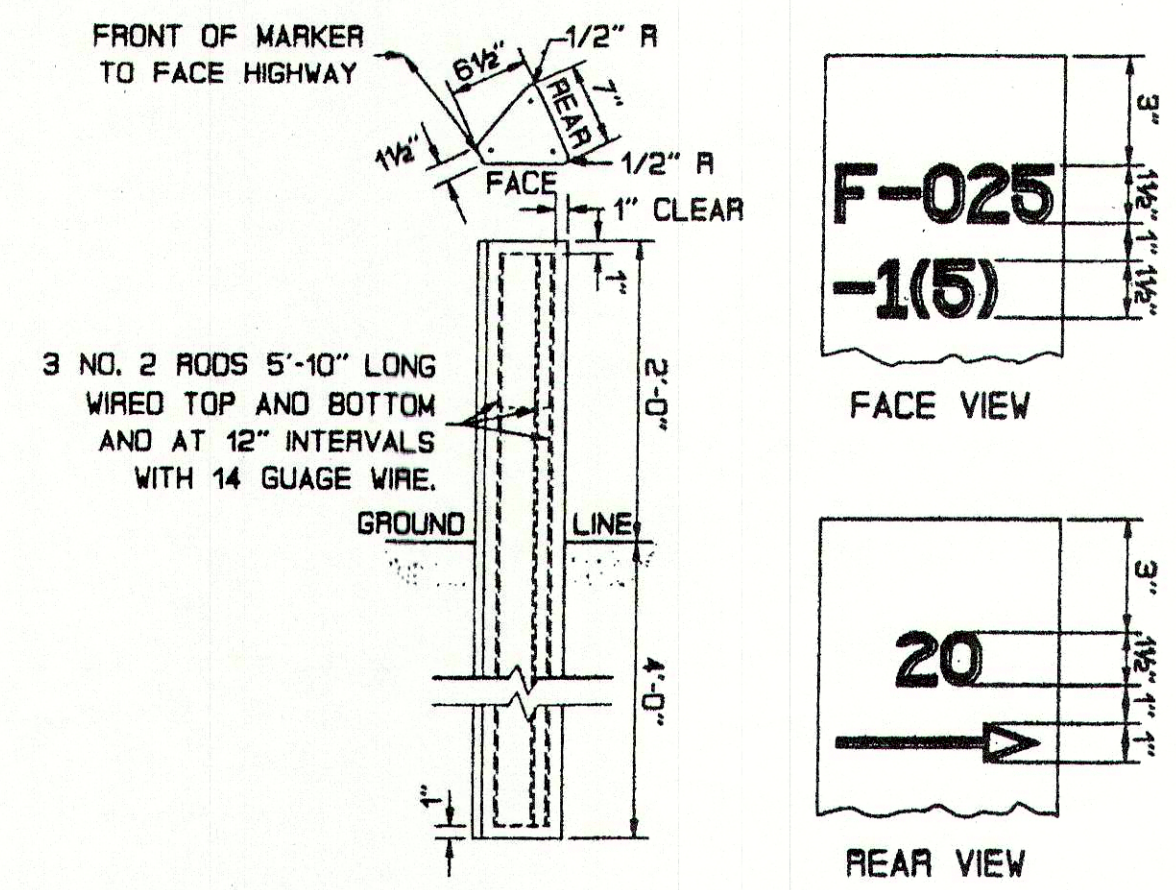
SIZE	A	B	C	D	E	F	G	H
6 IN.	5 1/2	13 3/4	13 3/4	5 1/2	5 1/2	11 1/2	5 1/2	7 1/4
8 IN.	7 1/2	15	15 3/4	5 1/2	5 1/2	13 3/4	8 3/4	9 3/4
10 IN.	9 1/2	16	16 3/4	8	4 1/2	14 1/2	11 1/2	12 3/4
12 IN.	11 1/2	17	22	8	3 1/4	15 1/2	12 1/2	13 3/4
15 IN.								

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

SPEC. 604 DRO13

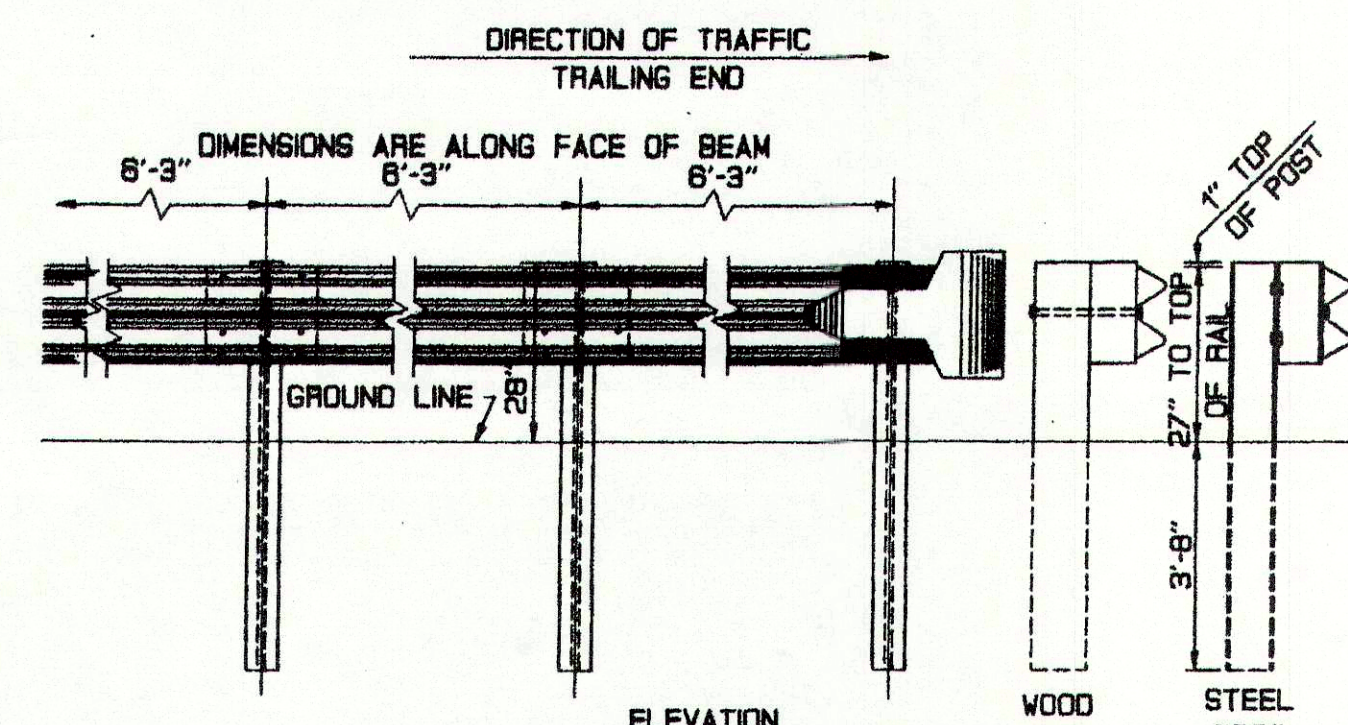


SPEC. 623 MN001

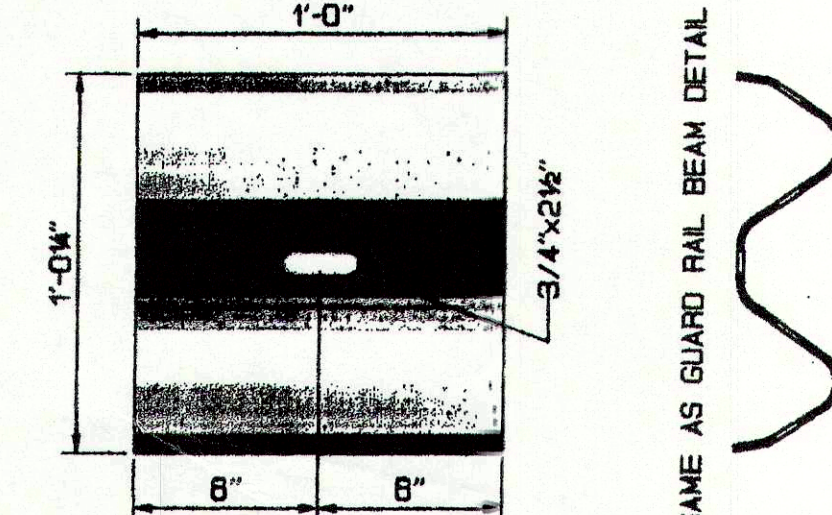


- NOTES
1. DISTANCE FROM ROADWAY SHALL BE 30' MINIMUM.
  2. WHEN POSTS CANNOT BE SET ON THE EXACT STATION OF THE PROJECT TERMINI, THE FRONT OF THE POST SHALL BE PAINTED BLACK FROM THE TOP TO 3" DOWN, AND THE OFFSET DISTANCE MARKED ON REAR WITH AN ARROW POINTING IN THE DIRECTION OF BEGINNING OR END OF PROJECT.
  3. ALL MARKINGS SHALL BE 1/4" DEEP AND 3/16" WIDE.

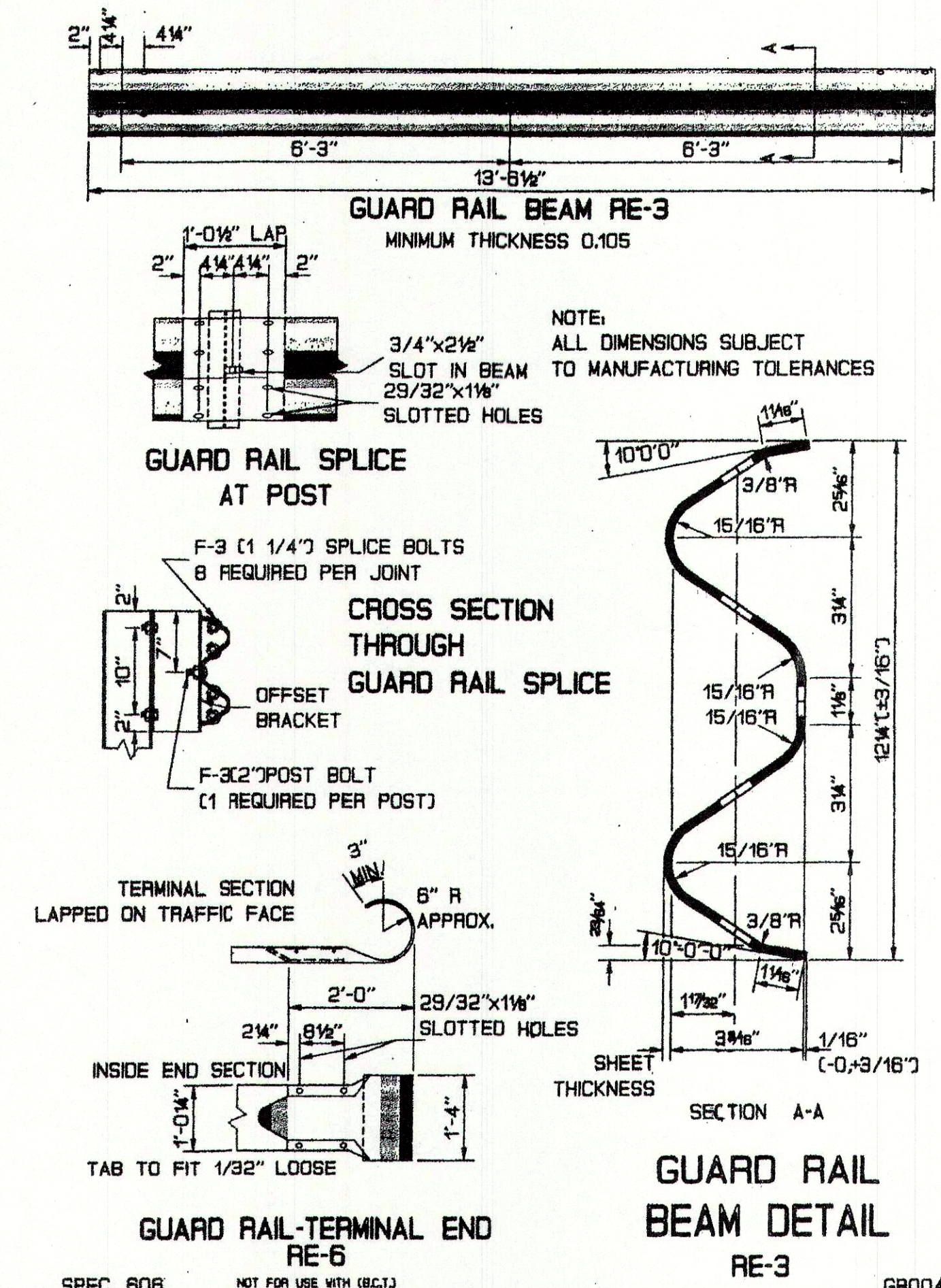
SPEC. 624 MN002



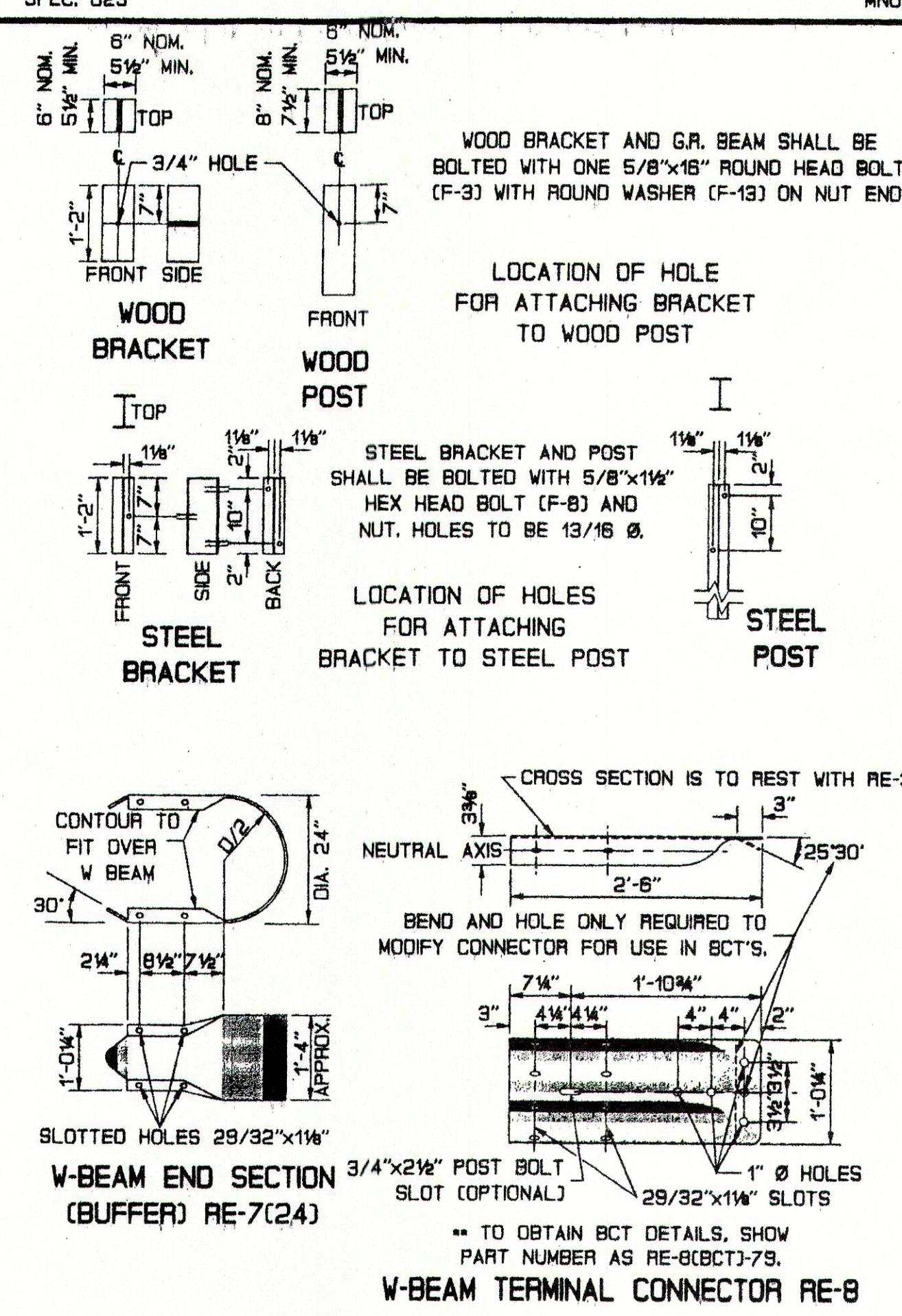
1. INTERMEDIATE POST SPACING SHALL BE 6'-3" UNLESS OTHERWISE SHOWN.
2. WOOD POSTS FOR GUARD RAIL SHALL BE 6" NOM. (5 1/2" MIN.) x 8" NOM. (7 1/2" MIN.) AND OFFSET BLOCKS FOR TYPE 36" GUARD RAIL SHALL BE 6"x6" NOM. (5 1/2"x5 1/2" MIN.)
3. STEEL POSTS AND OFFSET BRACKETS FOR GUARD RAIL SHALL BE W6x9.0.
4. 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.
5. "V" BEAM BACKUP PLATES SHALL BE PLACED BEHIND RAIL ELEMENTS AT INTERMEDIATE STEEL POSTS (NON SPLICE POSTS).
6. BEAM TYPE GUARD RAIL SET ON RADIUS OF 150' OR LESS SHALL BE CIRCULAR GUARD RAIL.
7. OFFSET BRACKET SHALL BE INSTALLED ON ALL POSTS, EXCEPT AT B.C.T. AND TWISTED END SECTIONS.
8. 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 3 POSTS.
9. IDENTIFICATION LETTERS AND NUMBERS ON DRAWINGS REFER TO THE STANDARD DETAIL DRAWINGS SHOWN IN "A GUIDE TO STANDARDIZED HIGHWAY BARRIER RAIL HARDWARE" BY AASHTO-ABC-ARTBA JOINT COOPERATIVE COMMITTEE.



SPEC. 606 GRO03



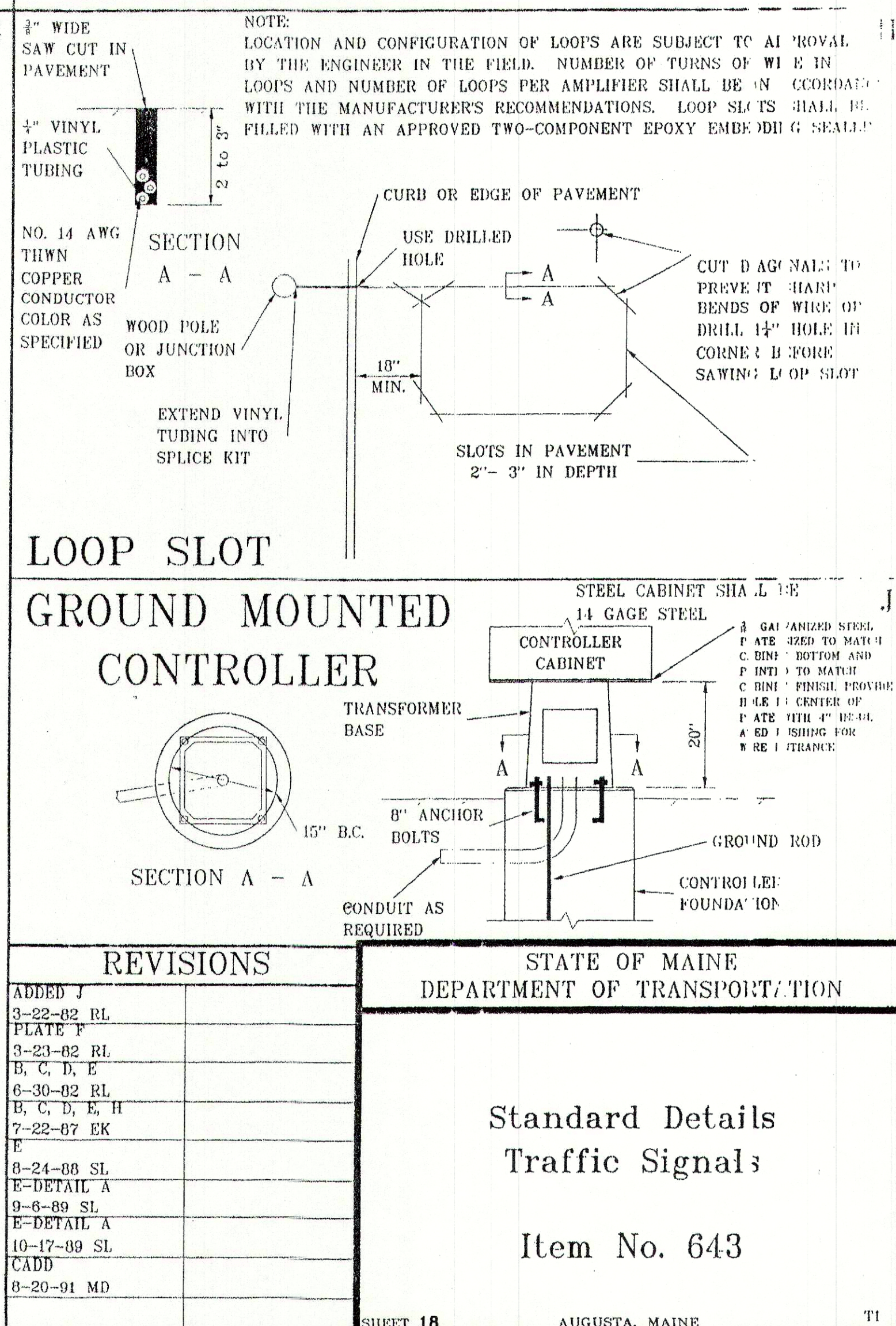
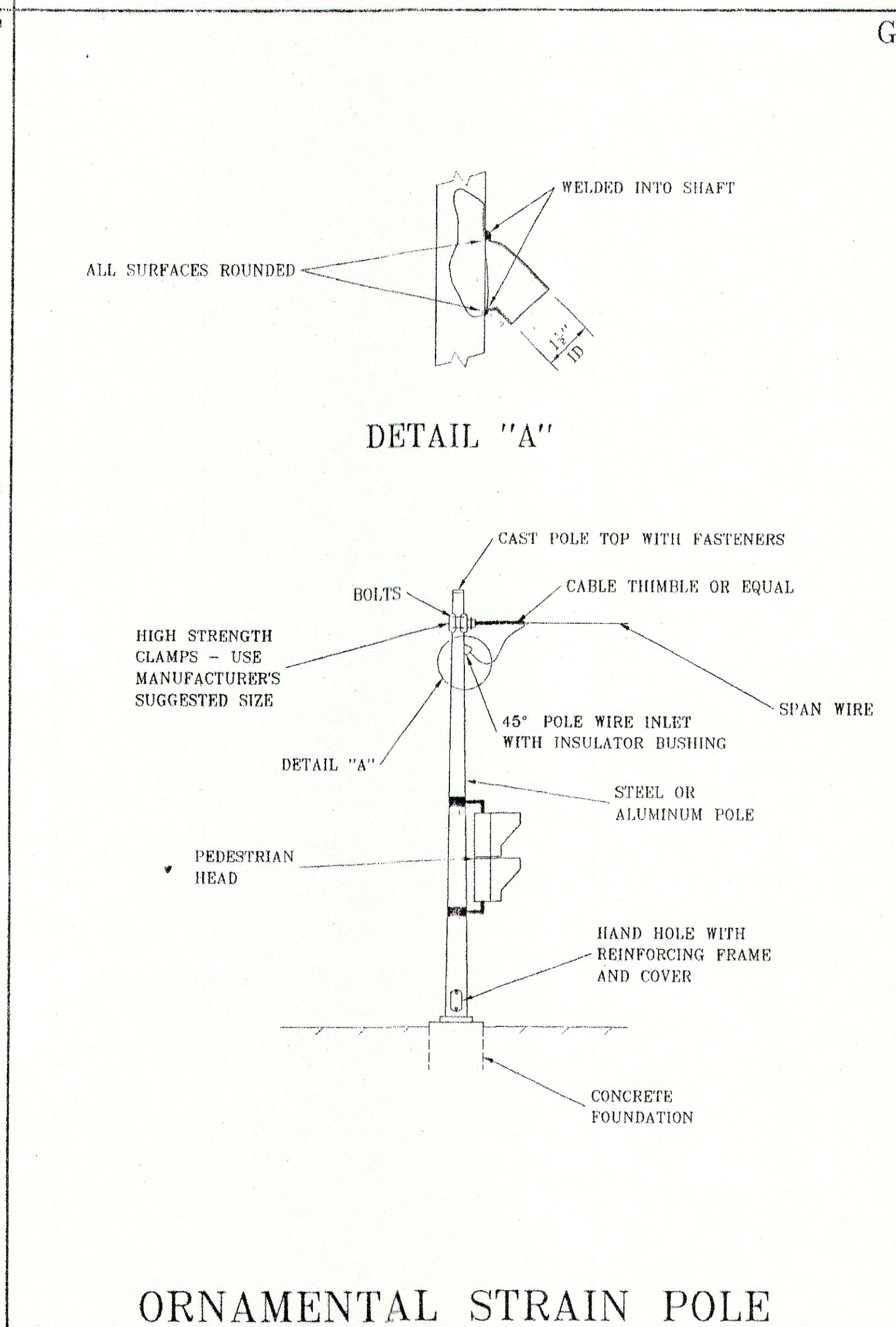
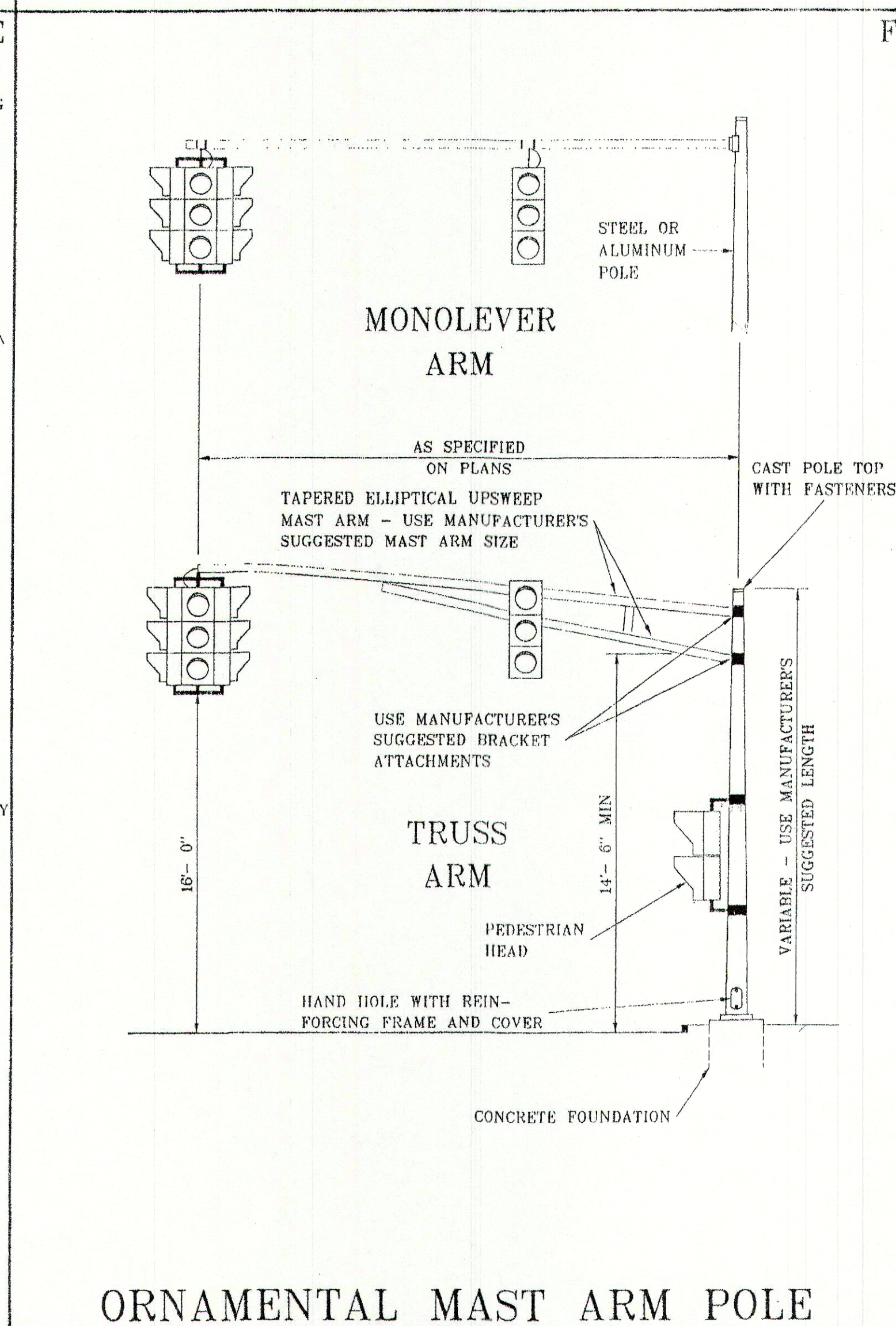
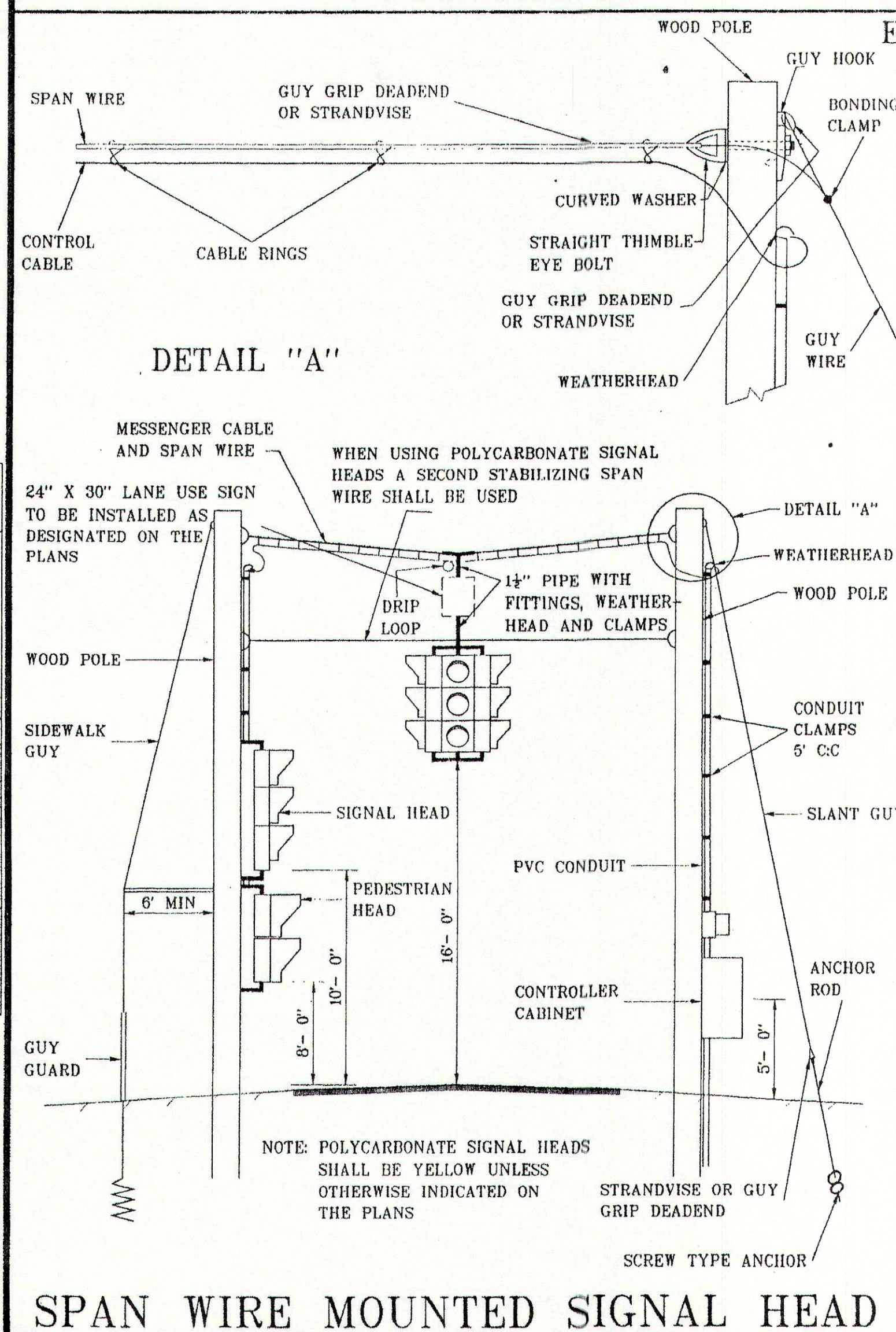
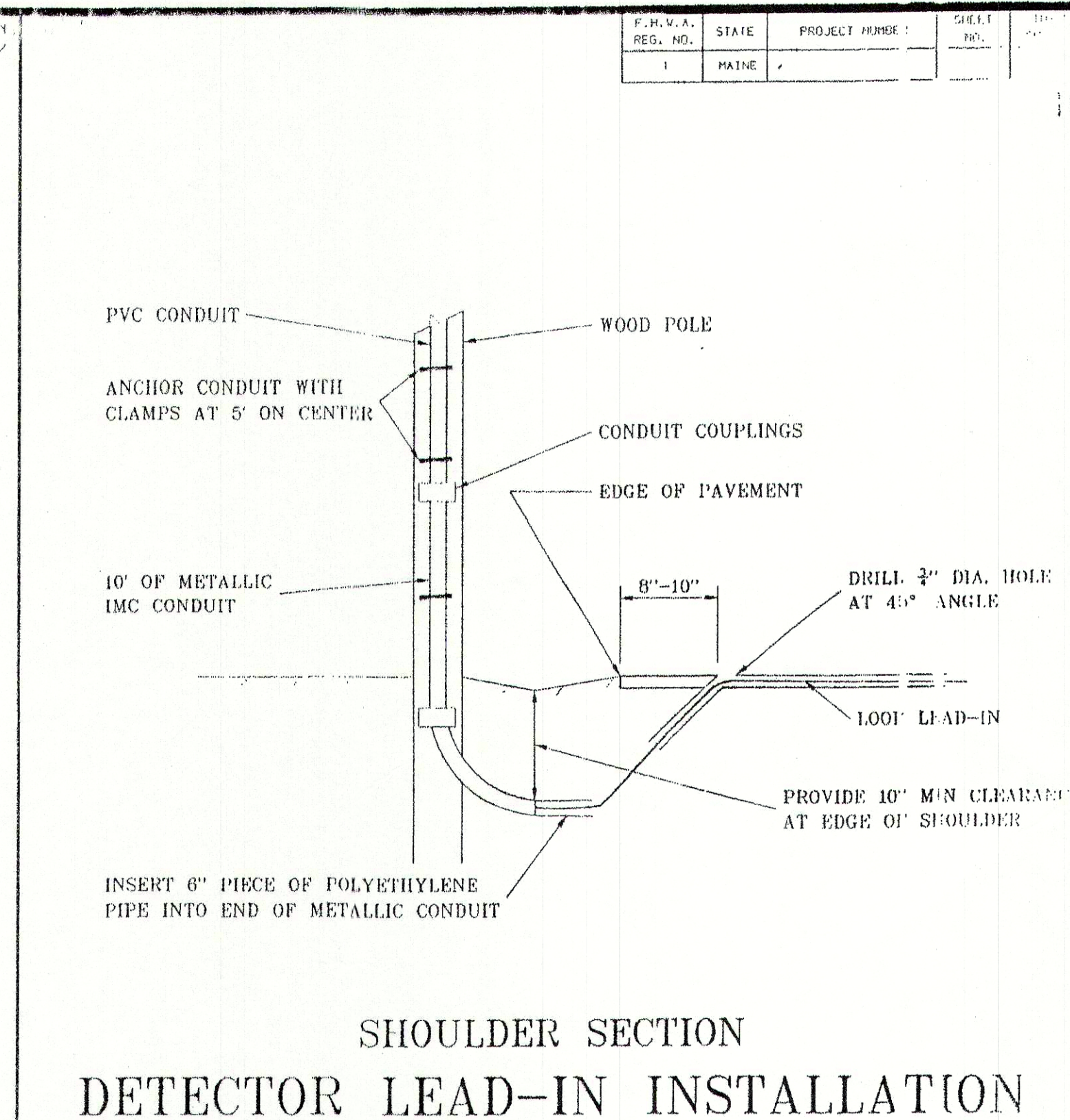
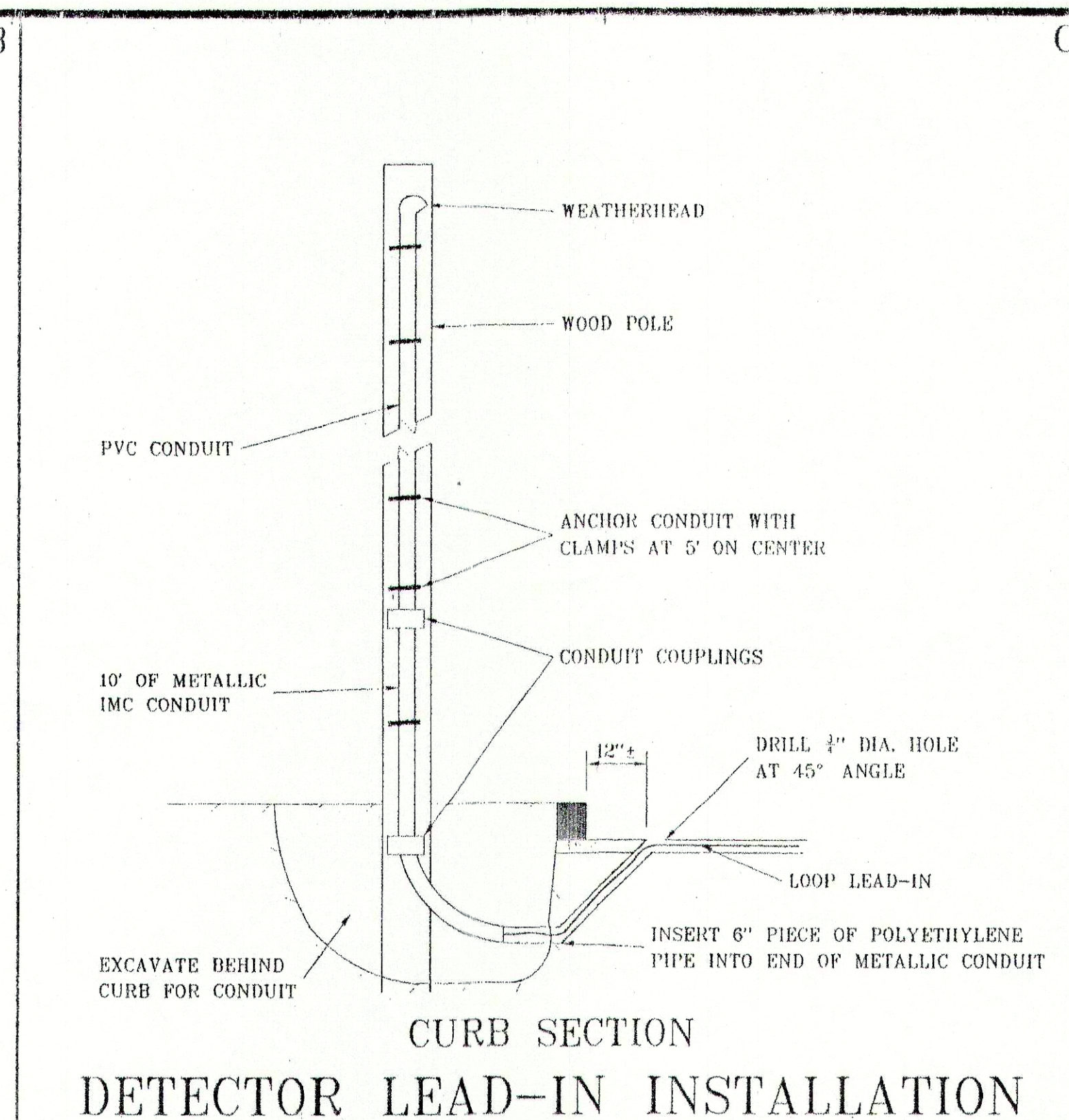
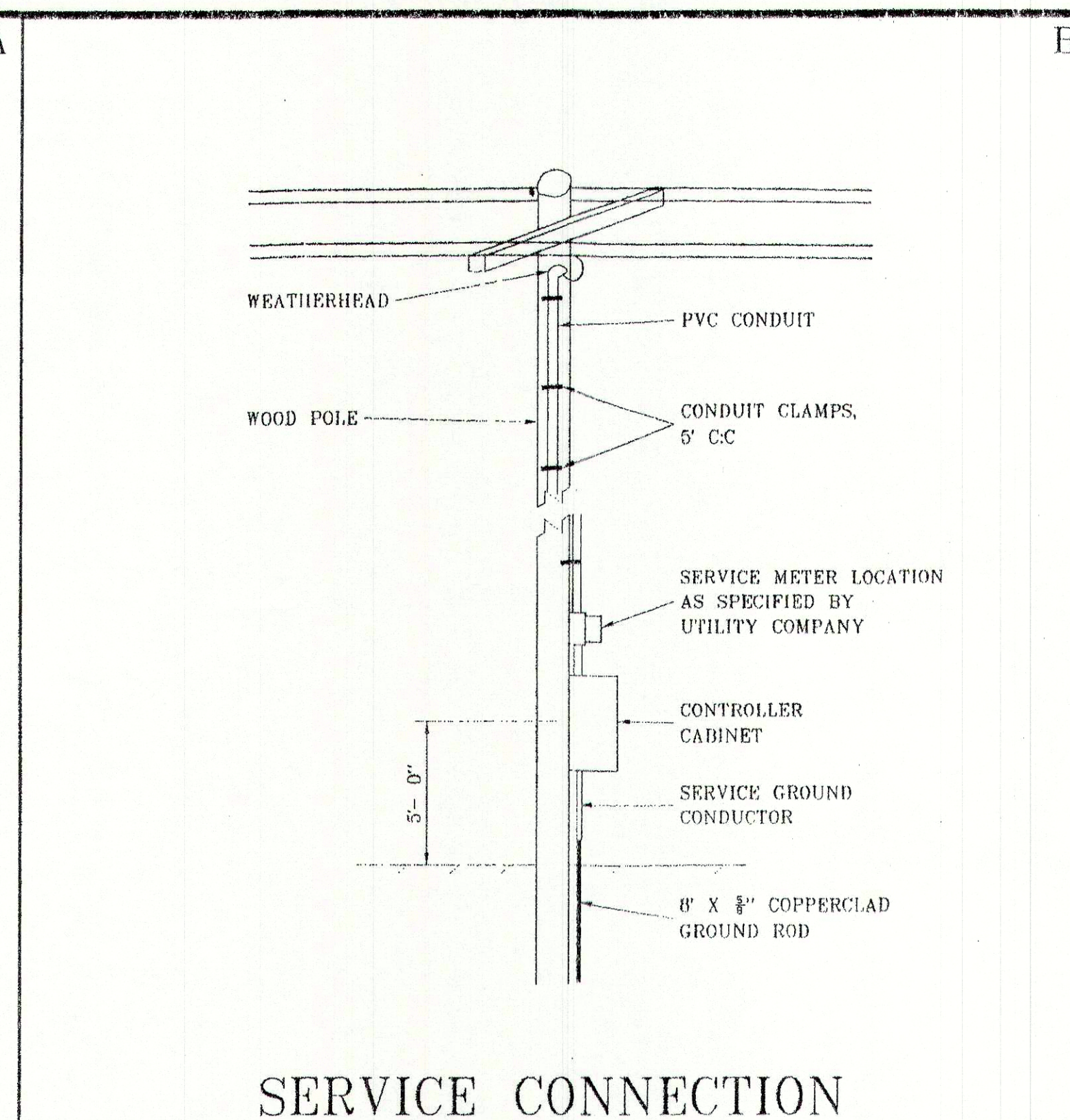
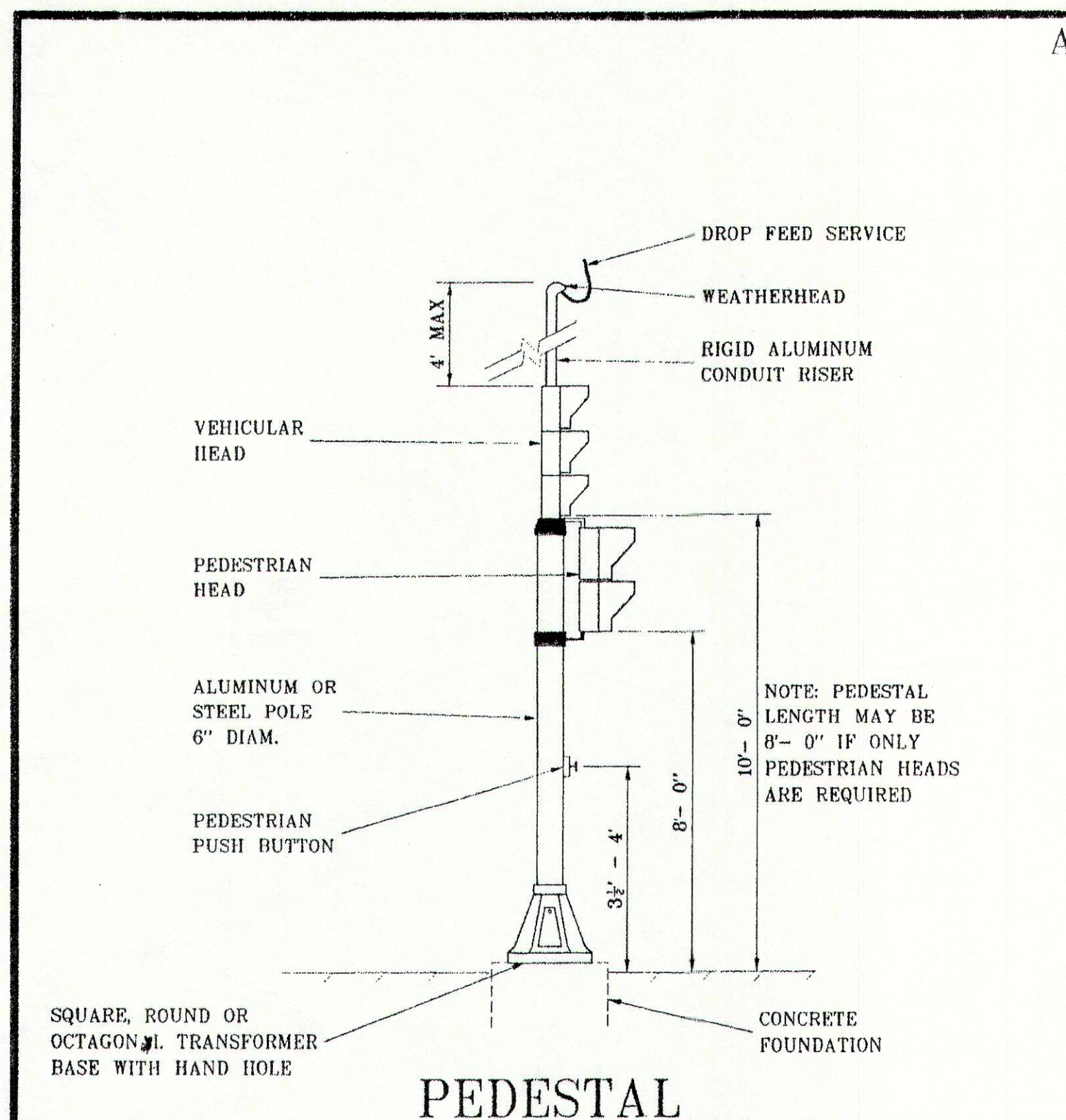
SPEC. 606 GRO04



SPEC. 606 GRO05

REVISIONS			APPROVED		STATE OF MAINE	
Description	Me.	DOT	FWHA		DEPARTMENT OF TRANSPORTATION	
ORIGINAL PLAN		FEB. 94			STANDARD DETAILS EROSION CONTROL, DRAINAGE, MONUMENTS & GUARD RAIL	
ER006 - ADDED		APR. 95		OCT. 95		
GRO03 - ADDED		MAY 96				
GRO04 - ADDED		MAY 96				
GRO05 - ADDED		MAY 96				
					SHEET 17	HD-16





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

REVISIONS	
ADDED J	
3-22-82 RL	
PLATE F	
3-23-82 RL	
B, C, D, E	
6-30-82 RL	
B, C, D, E, H	
7-22-87 EK	
E	
8-24-88 SL	
E-DETAIL A	
9-6-89 SL	
E-DETAIL A	
10-17-89 SL	
CADD	
8-20-91 MD	

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

Standard Details  
Traffic Signals

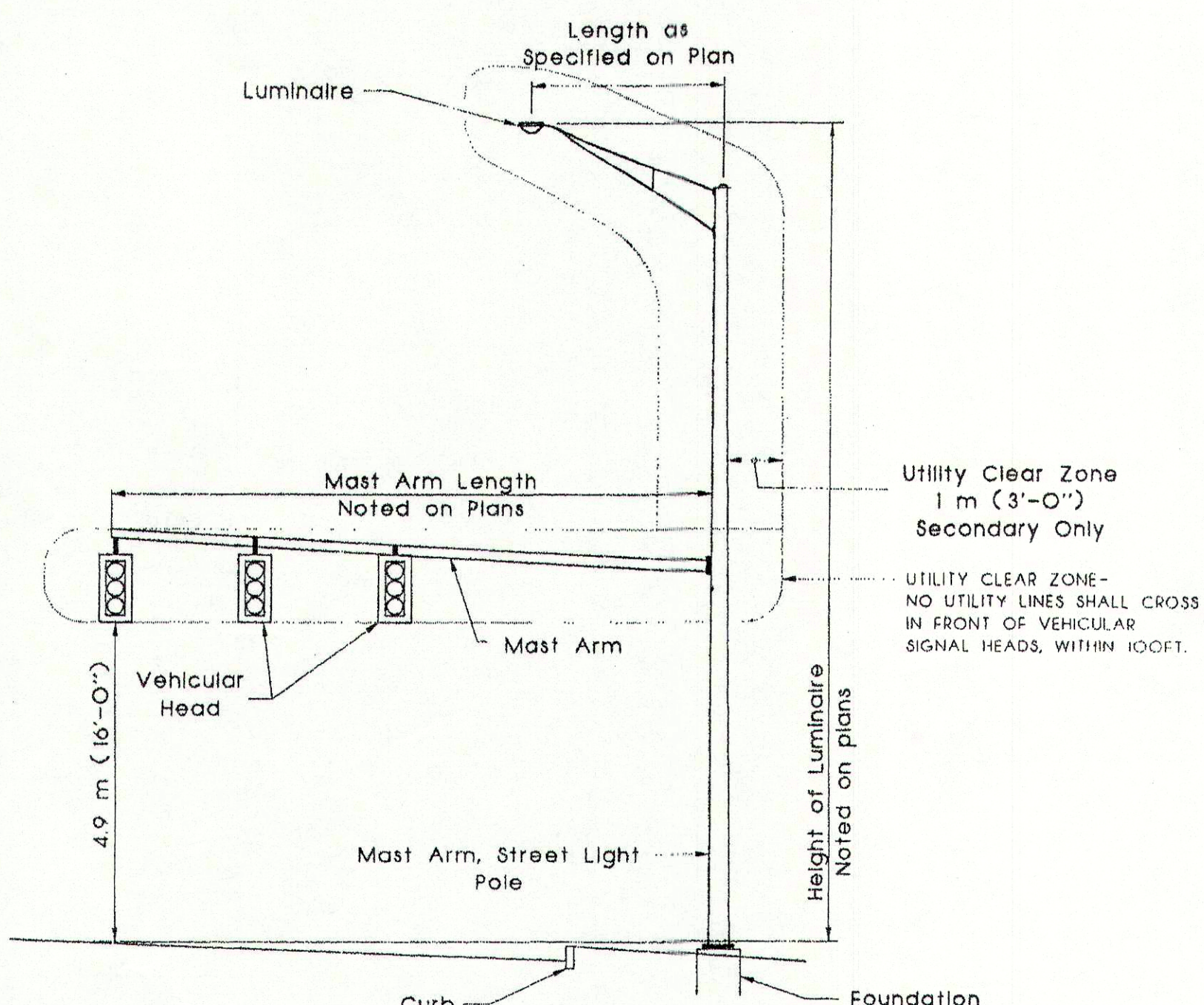
Item No. 643

SHEET 18

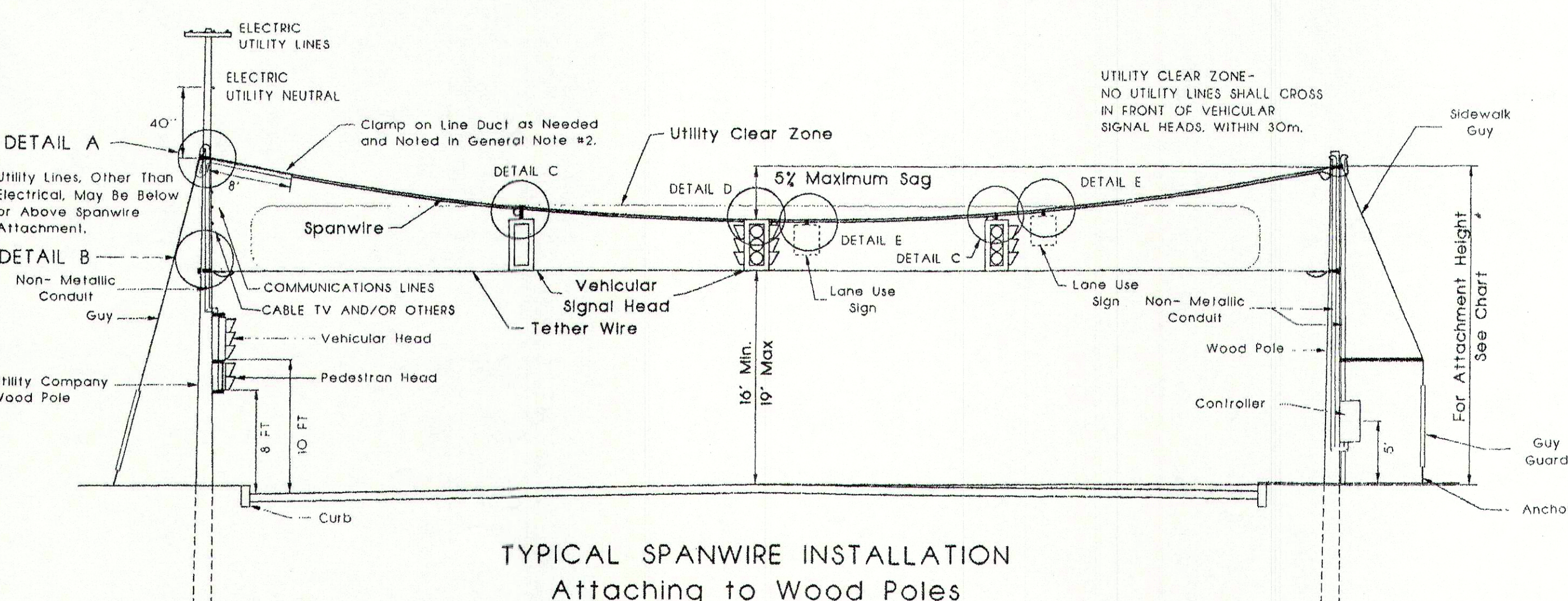
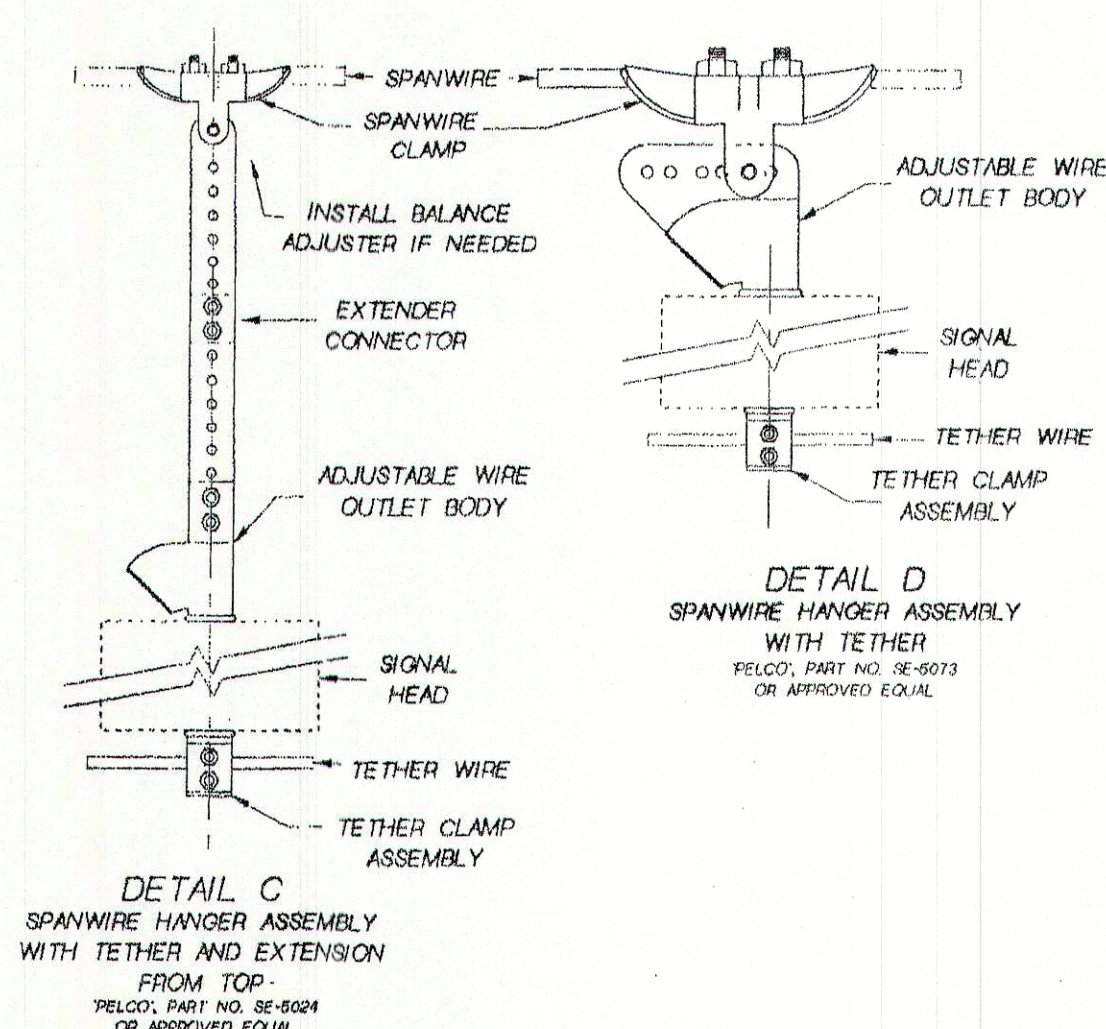
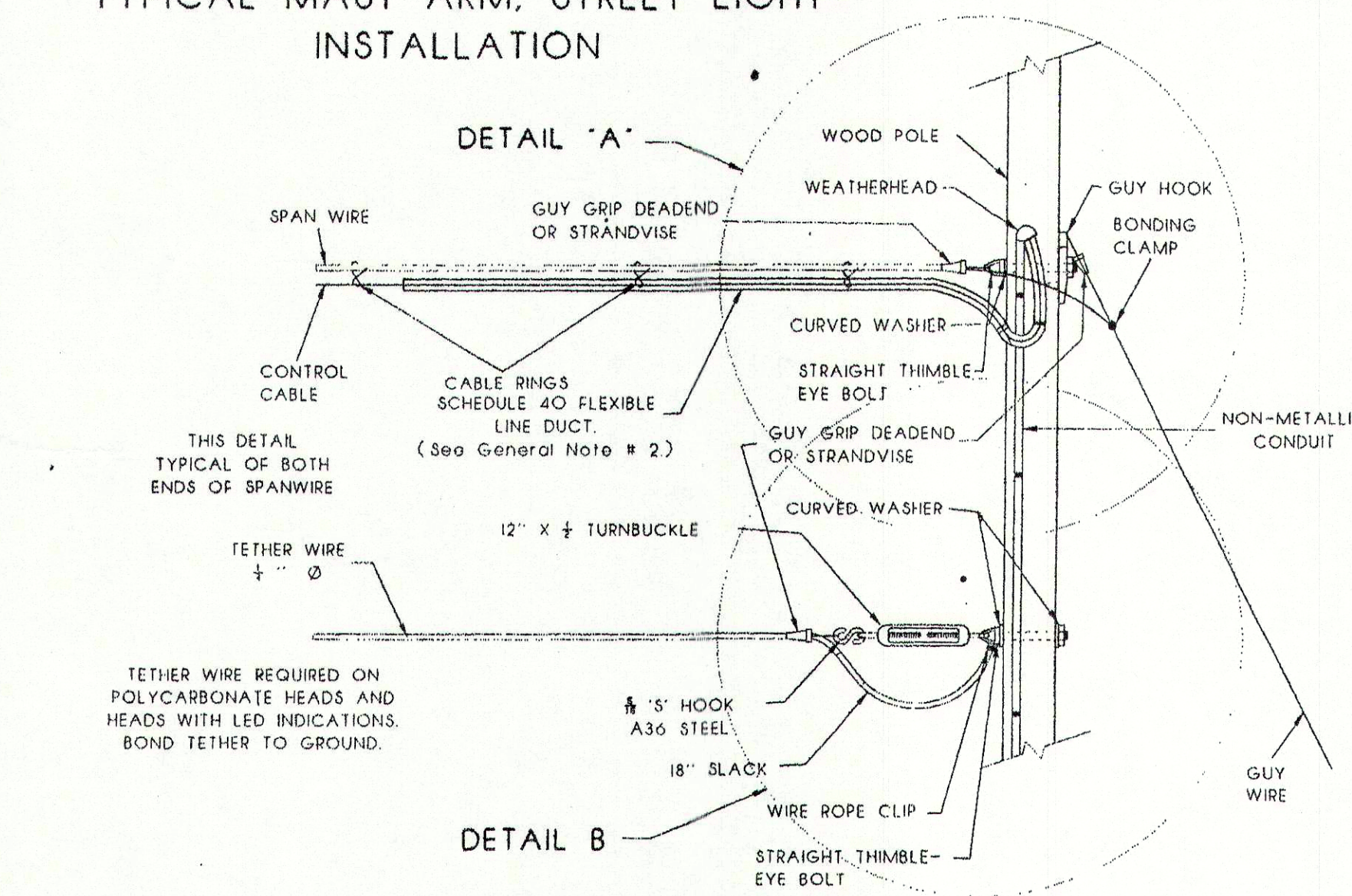
AUGUSTA, MAINE

TI





TYPICAL MAST ARM, STREET LIGHT INSTALLATION



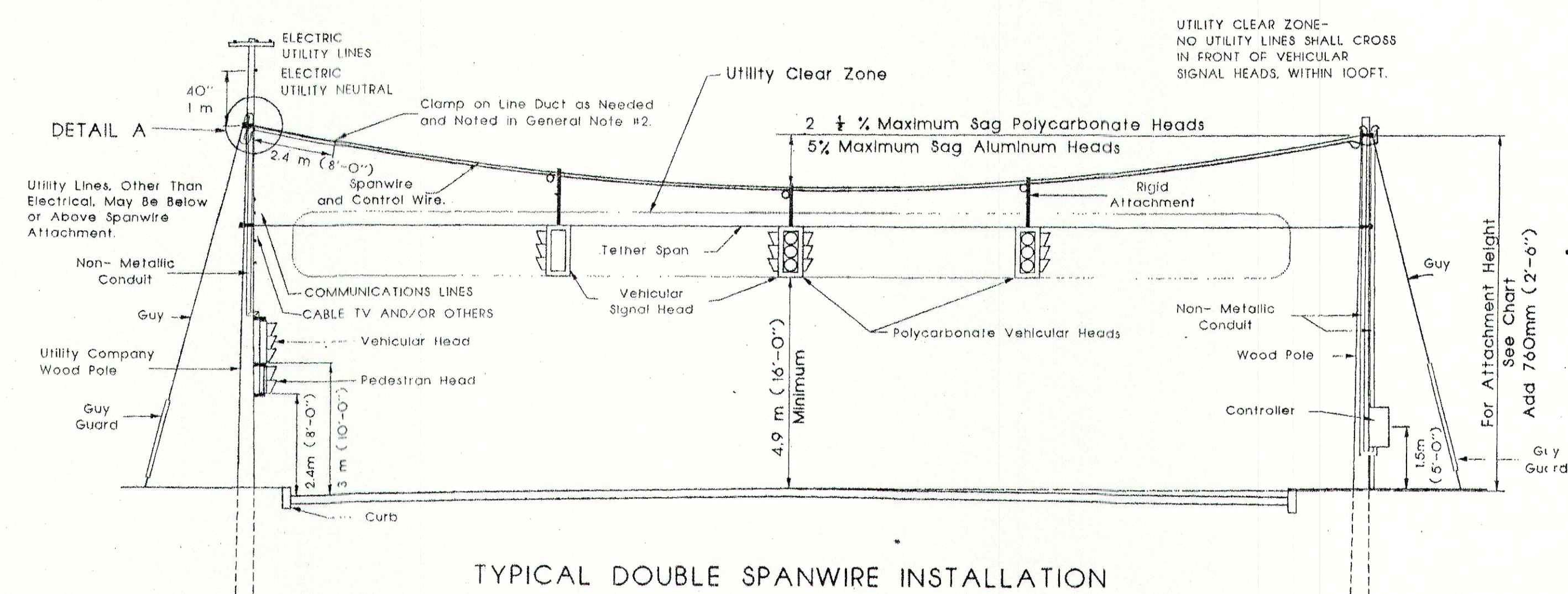
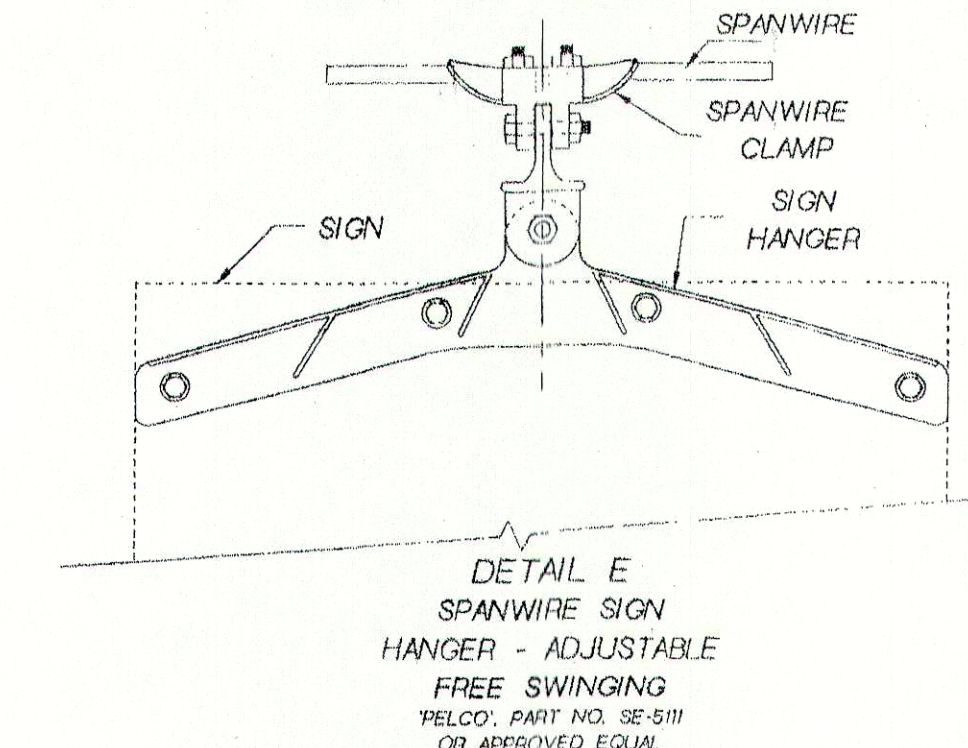
TYPICAL SPANWIRE INSTALLATION  
Attaching to Wood Poles  
( TETHER AT BOTTOM OF SIGNAL HEADS )

GENERAL NOTES

1. HEIGHT OF SPANWIRE ATTACHMENT IS SHOWN ON CHART AT RIGHT, WHEN ATTACHING TO UTILITY CO. OWNED POLES THE CONTRACTOR SHALL CHECK WITH RESPECTIVE UTILITY COMPANIES TO DETERMINE IF ALL ADJUSTMENTS HAVE BEEN MADE.
2. WHEN UTILITY POLE CLEARANCES CANNOT BE MET, THE SIGNAL SPANWIRE SHALL BE PROTECTED BY FLEXIBLE SCHEDULE 40 LINE DUCT.
3. THE UTILITY COMPANIES SHALL BE RESPONSIBLE FOR AVOIDING THE TRAFFIC SIGNAL CLEAR ZONE AS SHOWN BELOW. AT THE PRE-CONSTRUCTION UTILITY MEETING CONFLICTS, IF ANY, WILL BE RESOLVED.
4. CONDUITS INSTALLED ON UTILITY COMPANY OWNED POLES WILL BE INSTALLED BY THE RESPECTIVE UTILITY. THE CONDUIT WILL BE PROVIDED BY THE SIGNAL CONTRACTOR.
5. UTILITIES WILL BE NO LOWER THAN 19'-0" AT MID SPAN.
6. THE LOCATION OF ALL SIGNAL EQUIPMENT AND RELATED ITEMS SHALL BE IN CONFORMITY WITH 'AMERICANS WITH DISABILITIES ACT' (ADA) ACCESSIBILITY STANDARDS. USE OF SIDEWALKS AND PEDESTRIAN RAMPS SHALL NOT BE OBSTRUCTED.

HEIGHT OF SPANWIRE ATTACHMENT

HORIZONTAL SPAN WIDTH	HEIGHT OF SPANWIRE ATTACHMENT- 5% Sag	HEIGHT OF TOP ATTACHMENT- 2 1/2% Sag
	Aluminum Heads	DOUBLE SPANWIRE Polycarbonate Heads
UP TO 11.6m (38ft)	6.70m (22'-0")	7.11m (23'-4")
12.2m (40ft)	6.86m (22'-6")	7.16m (23'-6")
13.7m (45ft)	6.93m (22'-9")	
15.2m (50ft)	7.01m (23'-0")	7.24m (23'-9")
16.8m (55ft)	7.08m (23'-3")	
18.3m (60ft)	7.16m (23'-6")	7.31m (24'-0")
19.8m (65ft)	7.24m (23'-9")	
21.3m (70ft)	7.31m (24'-0")	7.39m (24'-3")
22.9m (75ft)	7.39m (24'-3")	
24.4m (80ft)	7.47m (24'-6")	7.46m (24'-6")
26.0m (85ft)	7.54m (24'-9")	
27.4m (90ft)	7.62m (25'-0")	7.54m (24'-9")
29.0m (95ft)	7.69m (25'-3")	
30.5m (100ft)	7.77m (25'-6")	7.62m (25'-0")
32.0m (105ft)	7.84m (25'-9")	
33.5m (110ft)	7.92m (26'-0")	7.69m (25'-3")
35.0m (115ft)	8.00m (26'-3")	
36.5m (120ft)	8.07m (26'-6")	7.77m (25'-6")
38.0m (125ft)	8.15m (26'-9")	
39.6m (130ft)	8.23m (27'-0")	7.85m (25'-9")
41.0m (135ft)	8.31m (27'-3")	
42.7m (140ft)	8.38m (27'-6")	7.92m (26'-0")
44.2m (145ft)	8.45m (27'-9")	
45.7m (150ft)	8.53m (28'-0")	8.00m (26'-3")
47.2m (155ft)	8.61m (28'-3")	
48.7m (160ft)	8.68m (28'-6")	8.08m (26'-6")
50.0m (165ft)	8.86m (28'-9")	



TYPICAL DOUBLE SPANWIRE INSTALLATION  
Attaching to Wood Poles

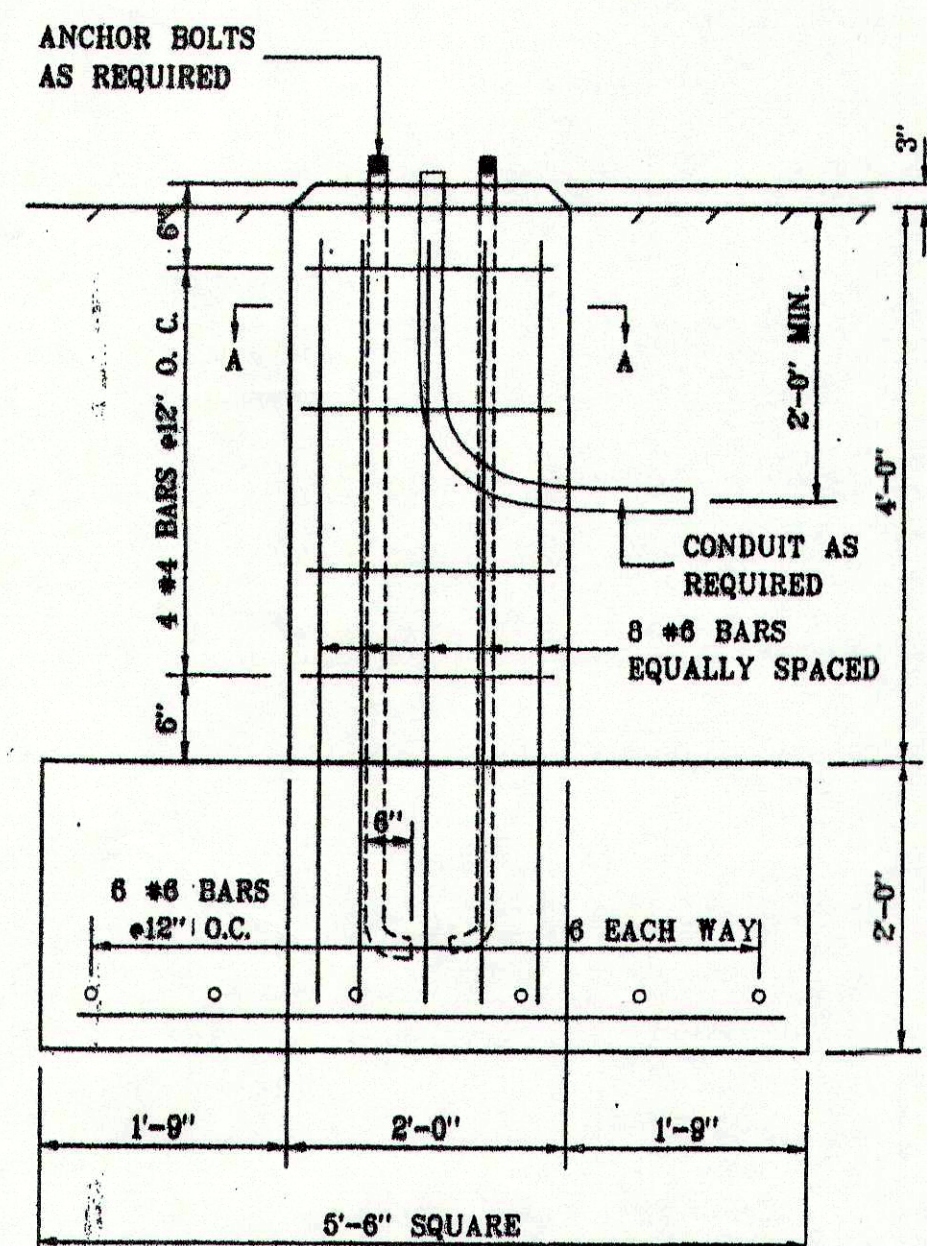
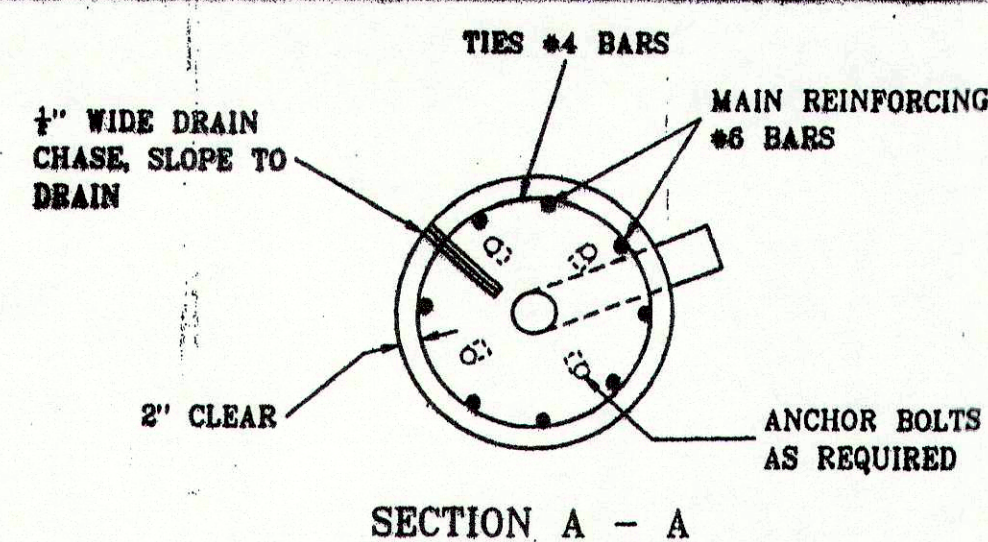
REVISIONS Description	APPROVED	
	Me. DOT	FHWA
ORIGINAL	Feb. 1994	Dec. 1994
Removed Single Spanwire	Apr. 1996	
Bottom Tether	Feb. 1997	

STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
Standard Details Traffic Signals	
Item No. 643	

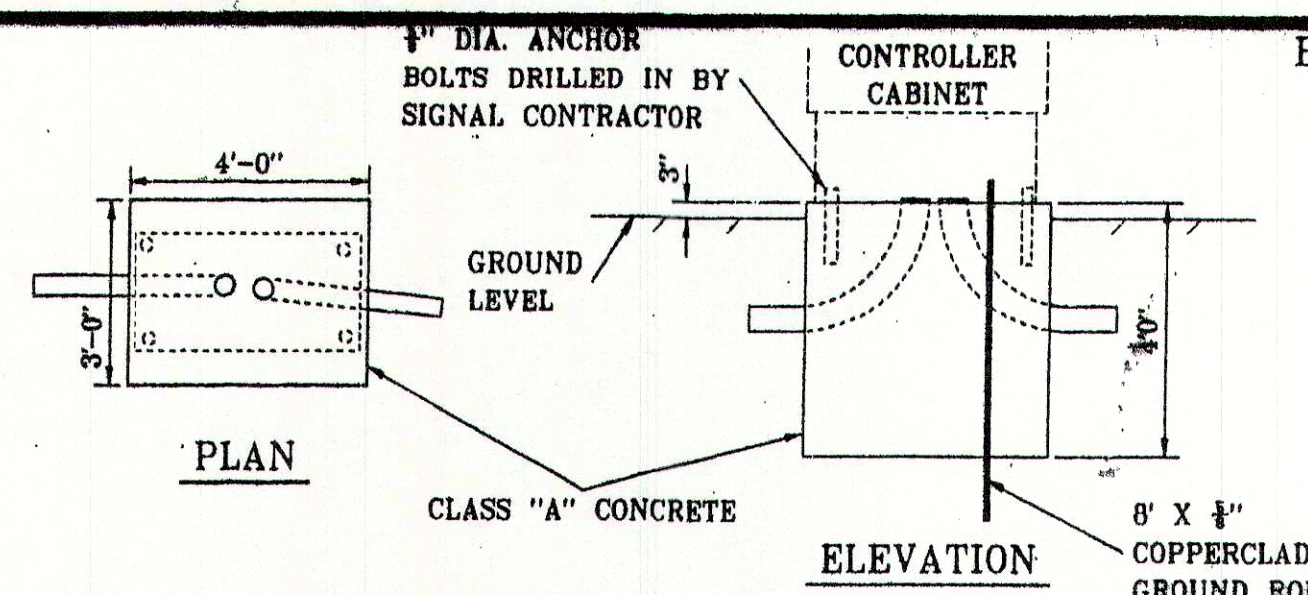
PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

290CT96-010030

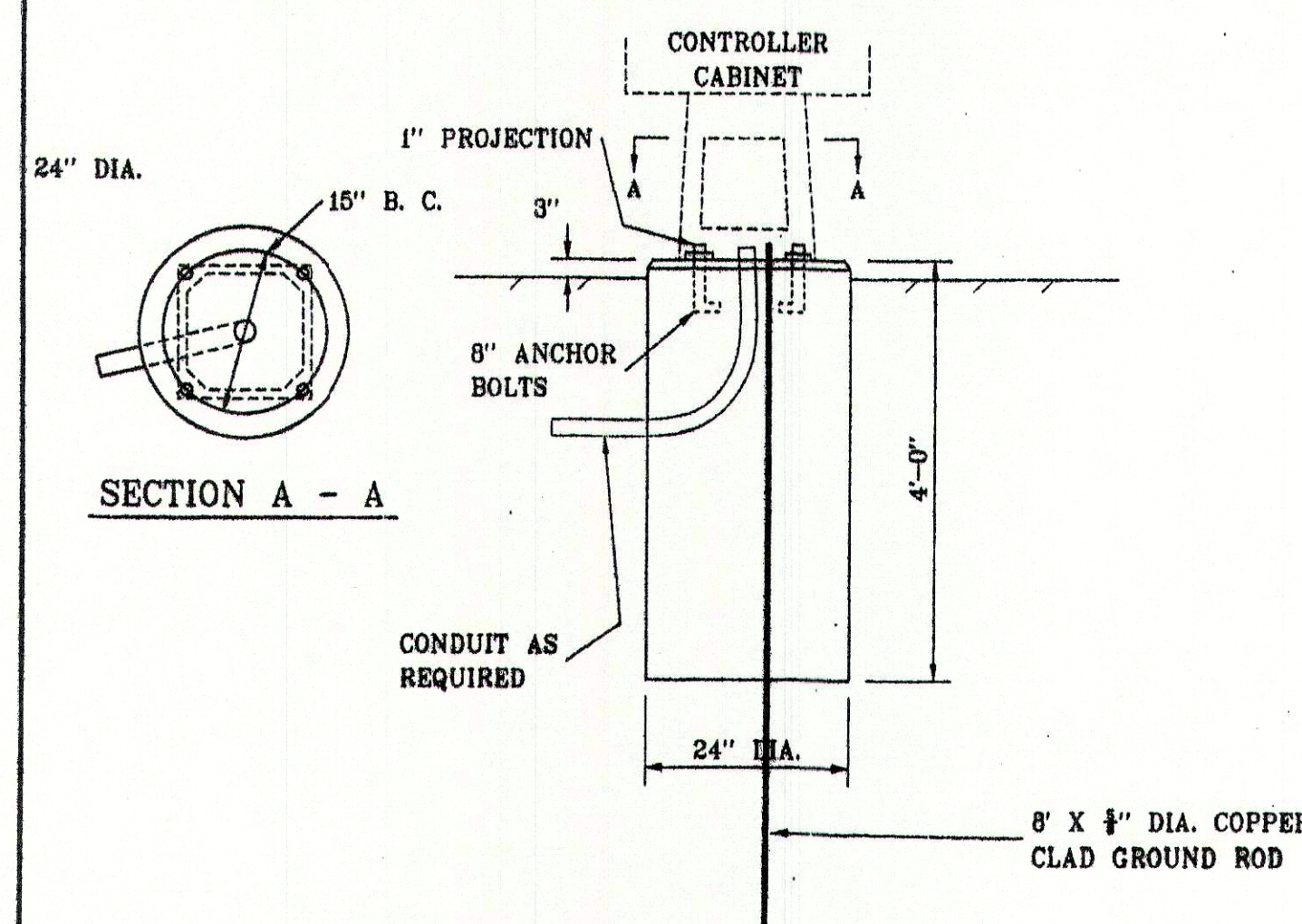




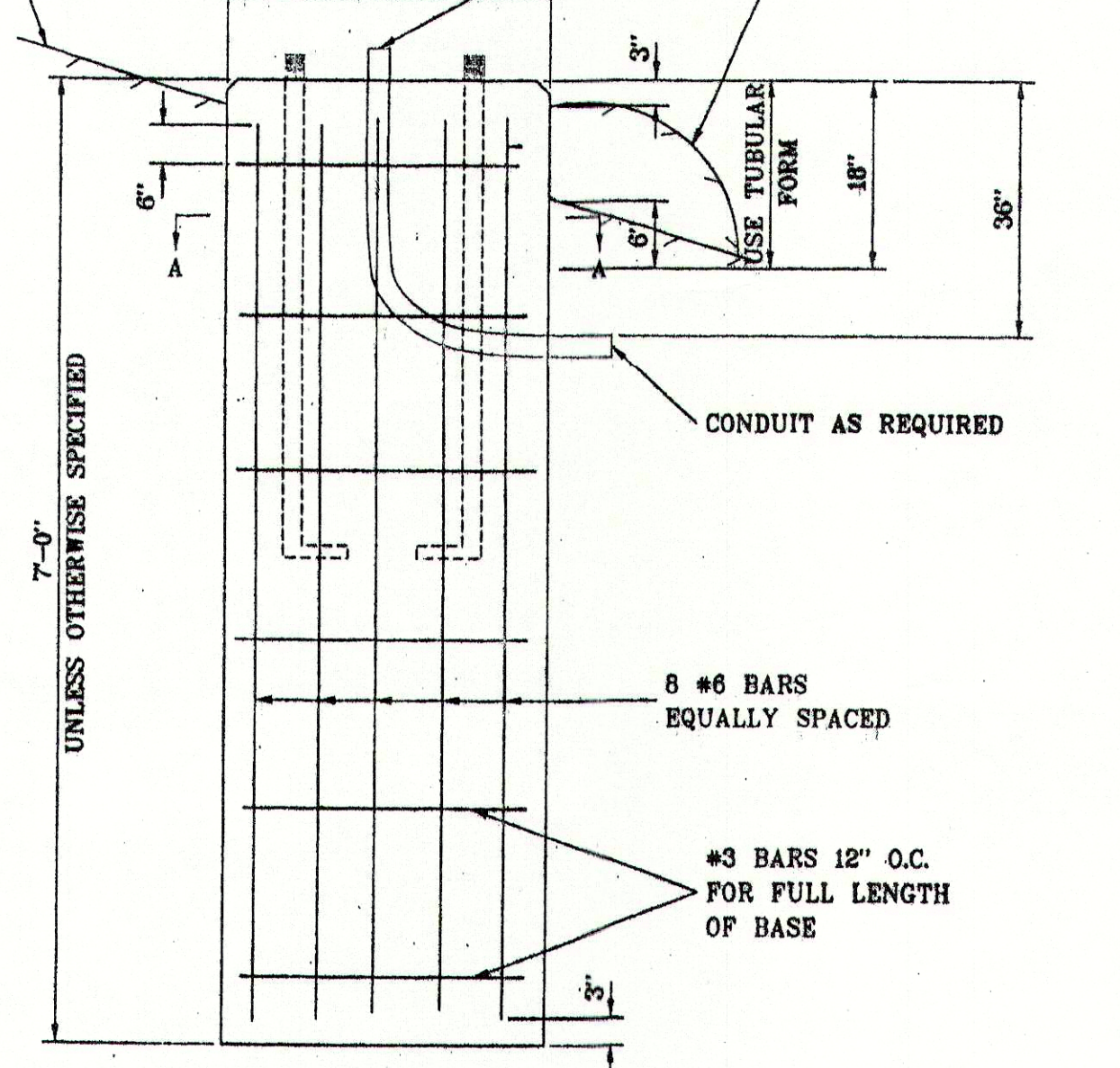
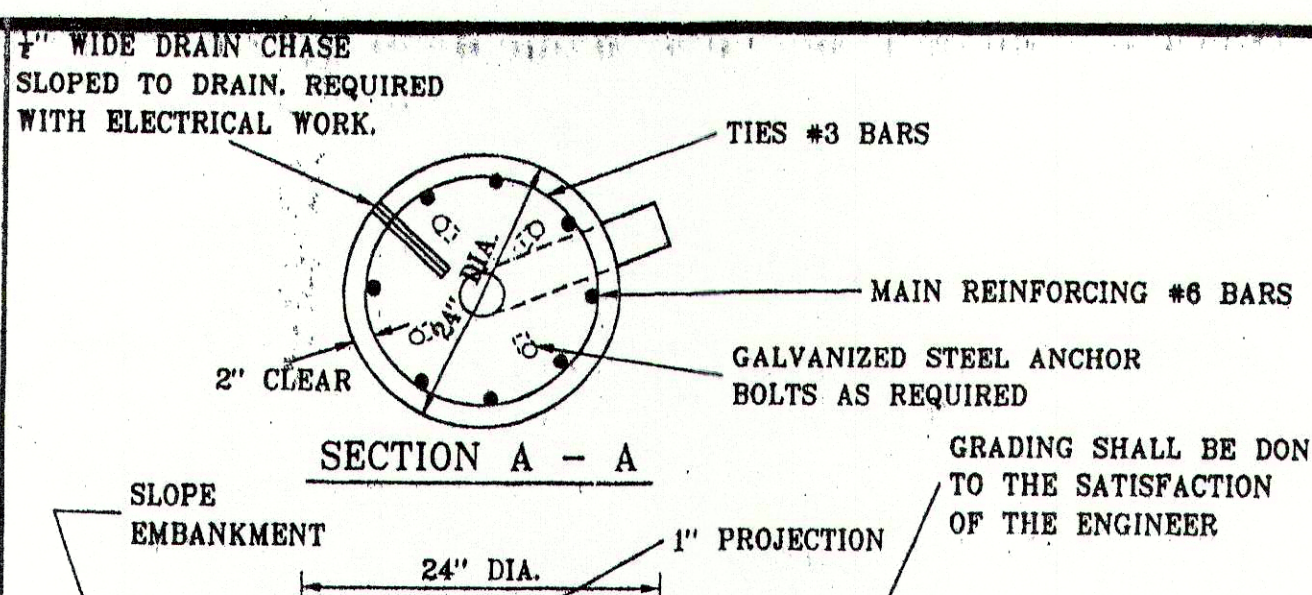
**SIGNAL POLE FOUNDATION**  
ITEM NO. 626.34



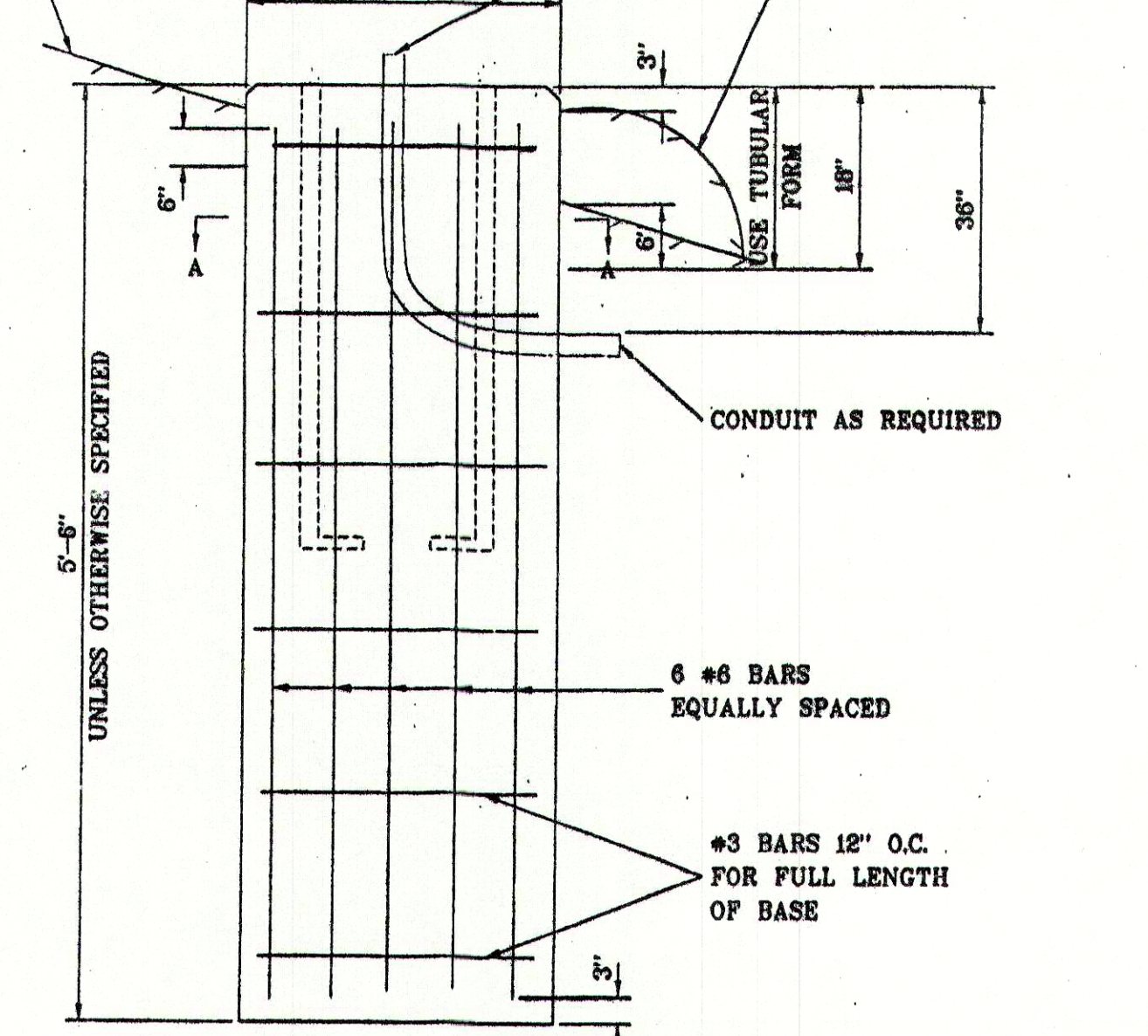
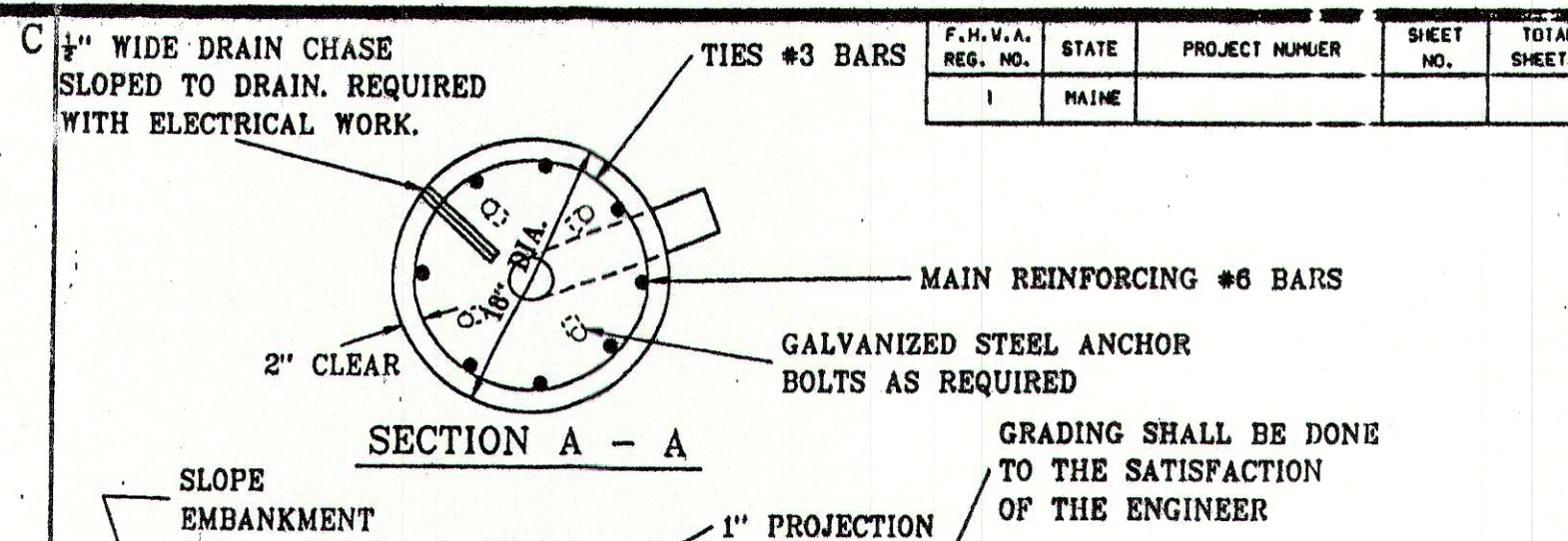
**GROUND MOUNTED CONTROLLER CABINET FOUNDATION**



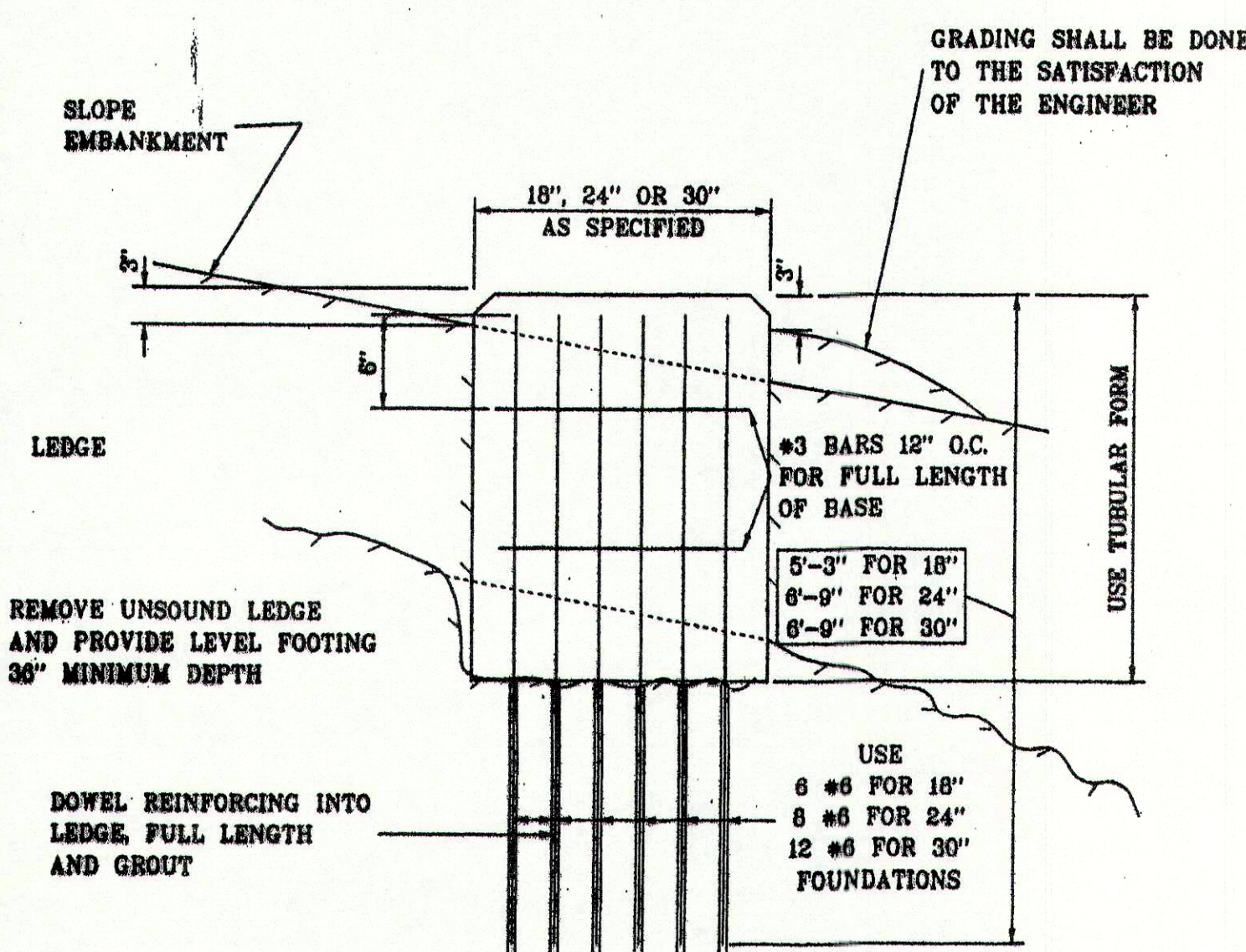
**CONTROLLER CABINET FOUNDATION**  
ITEM NO. 626.35



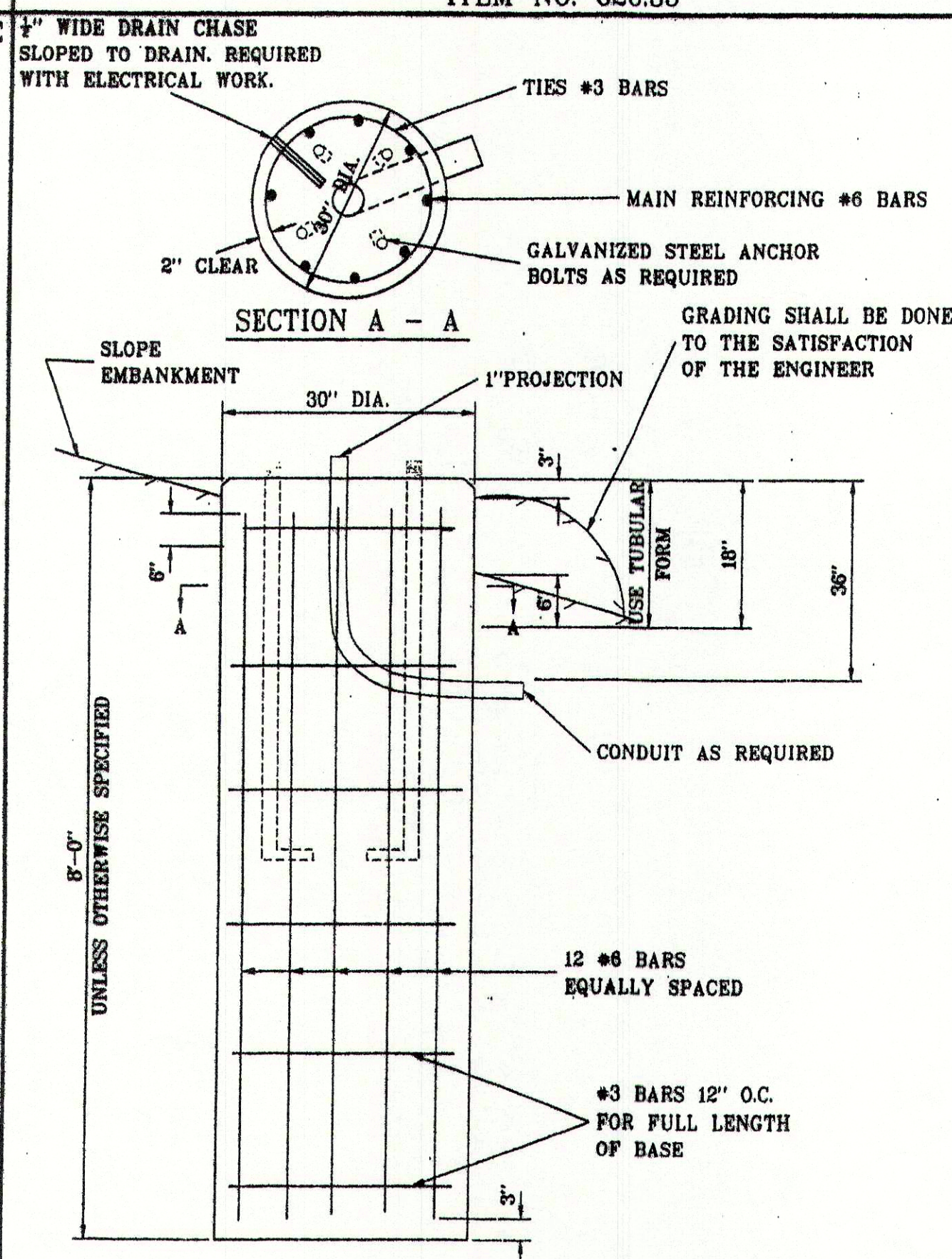
**24" FOUNDATION**  
ITEM NO. 626.32



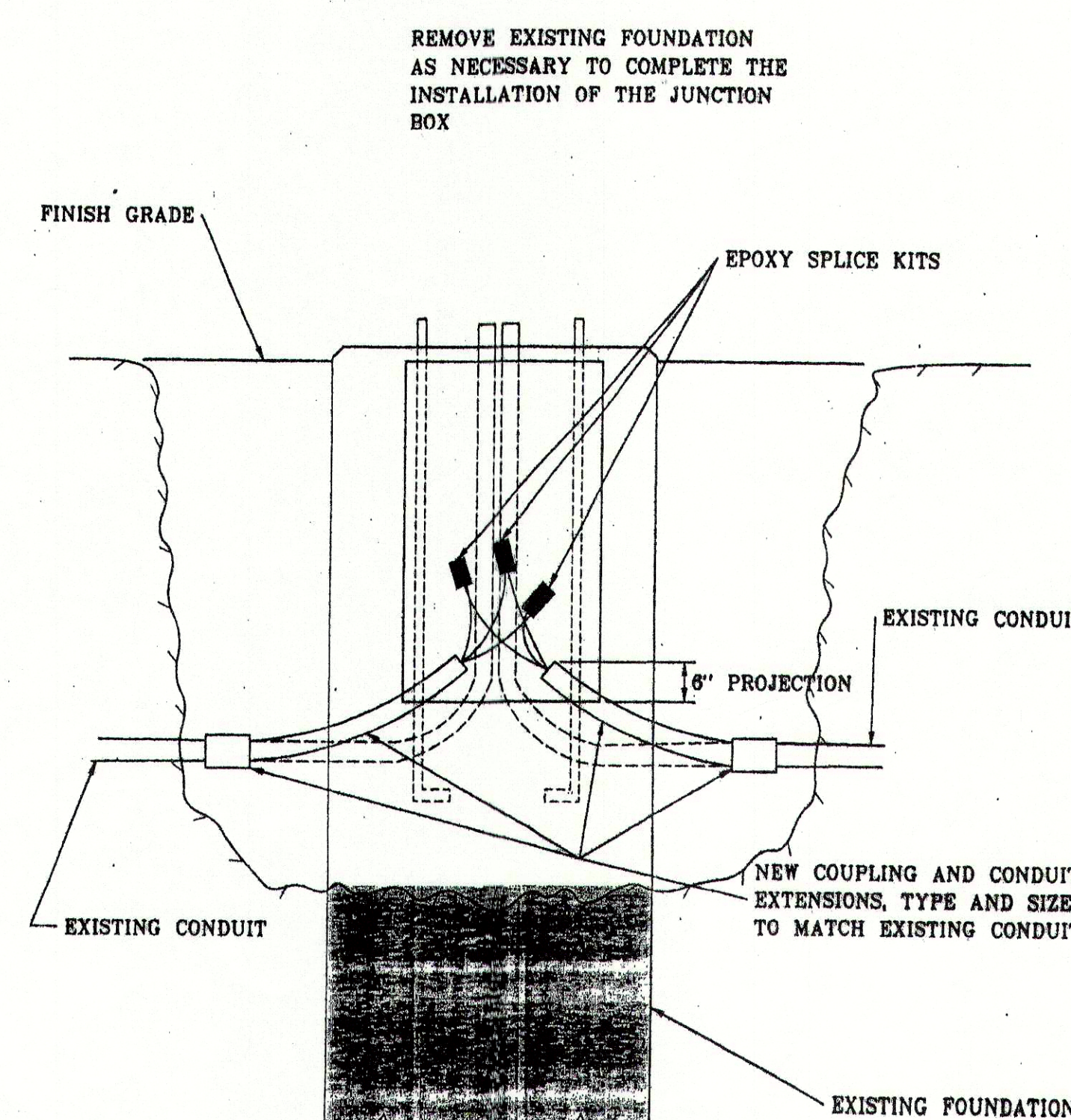
**18" FOUNDATION**  
ITEM NO. 626.31



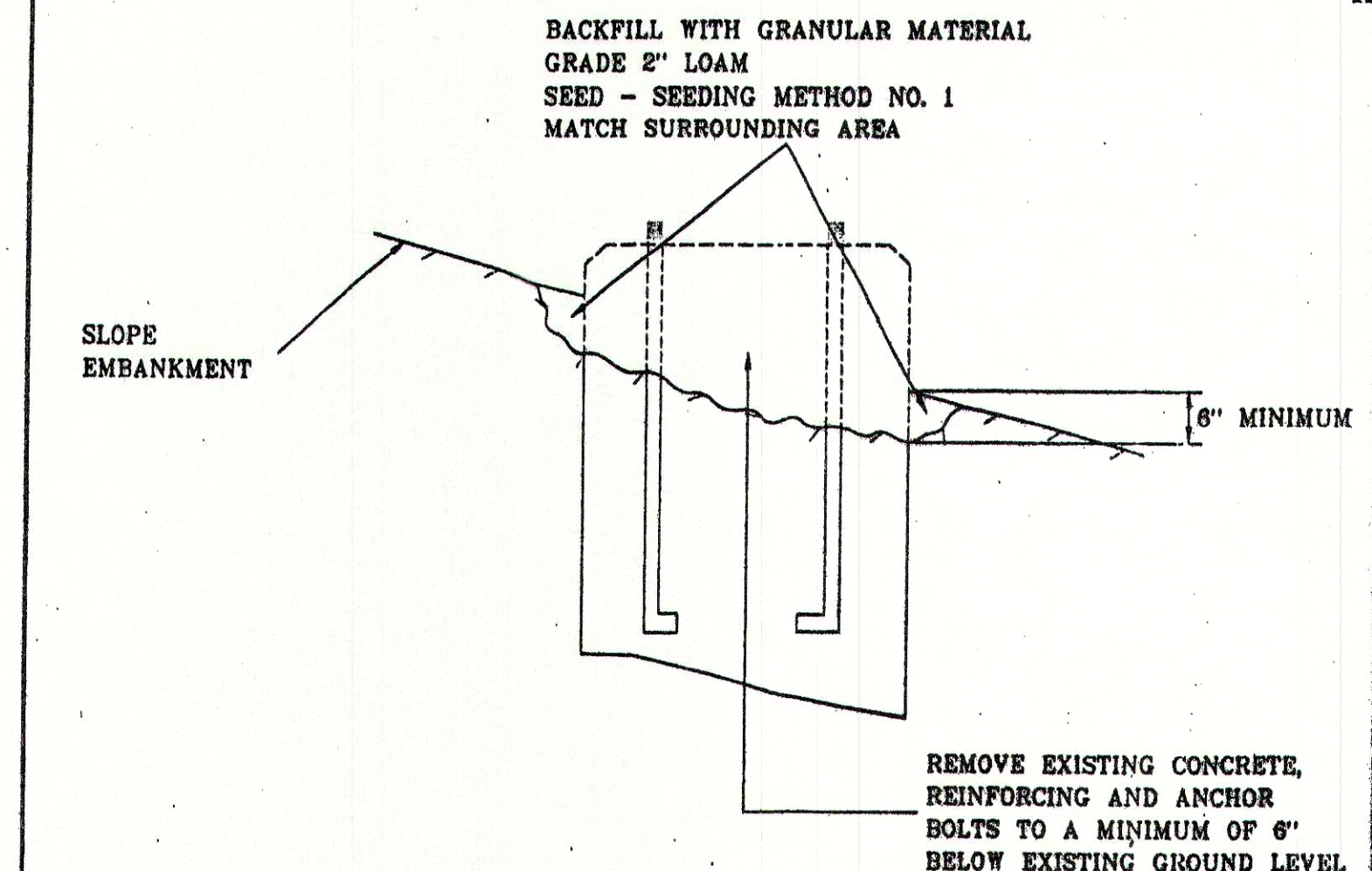
**18", 24" OR 30" FOUNDATIONS**  
WHERE SOLID ROCK IS ENCOUNTERED AT LESS THAN THE REQUIRED DISTANCE BELOW GROUND LEVEL



**30" FOUNDATION**  
ITEM NO. 626.33



**MODIFICATION OF CONCRETE FOUNDATION**  
ITEM NO. 626.36

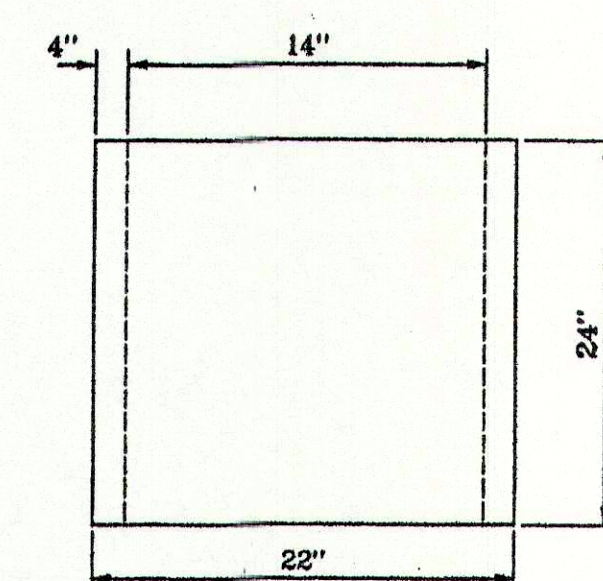


**REMOVAL OF CONCRETE FOUNDATION**  
ITEM NO. 626.36

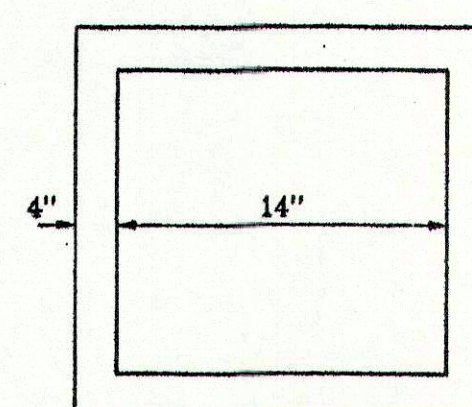
REVISIONS		STATE OF MAINE DEPARTMENT OF TRANSPORTATION	
PLATE B	3-23-82 RL	Standard Details Concrete Foundations for Highway Lighting, Traffic Signals and Highway Signing	
PLATE BB	9-23-82 RL		
CADD	9-13-91 MD		
SHEET 20 OF		AUGUSTA, MAINE	



F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEET
1	MAINE			

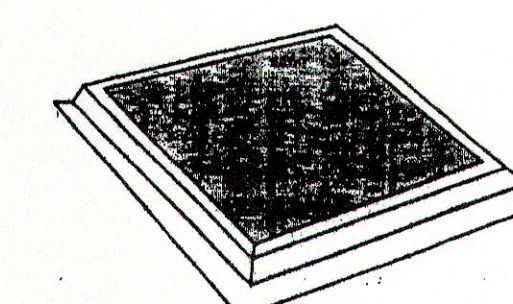


GROUT FRAME IN PLACE  
ON TOP OF BOX

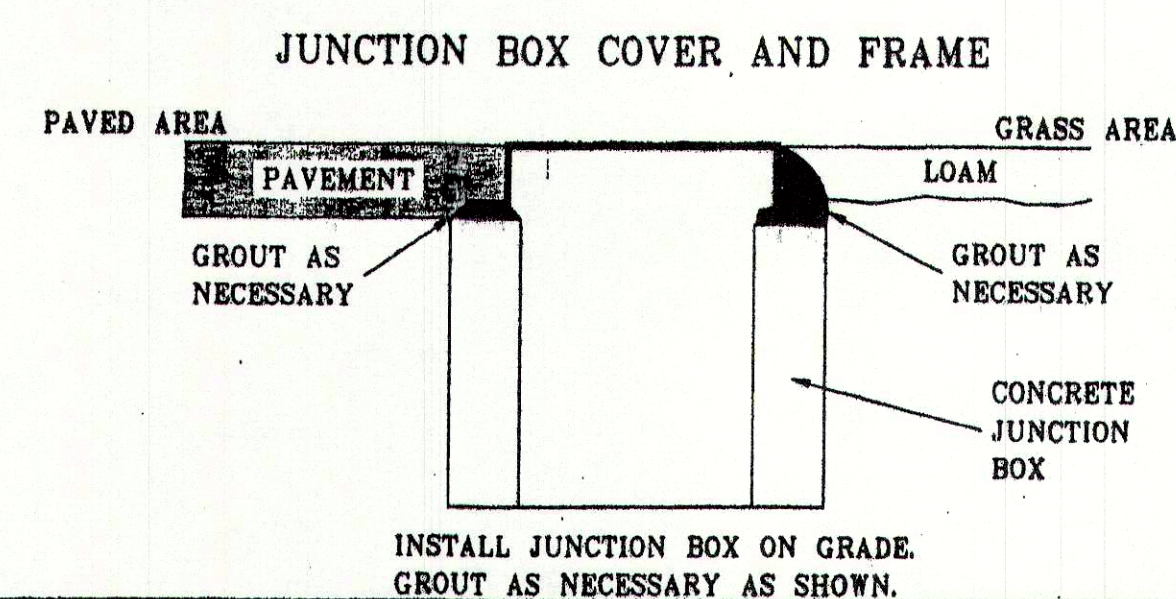


TOP

NOTE: FOR USE IN  
SIDEWALK AREAS



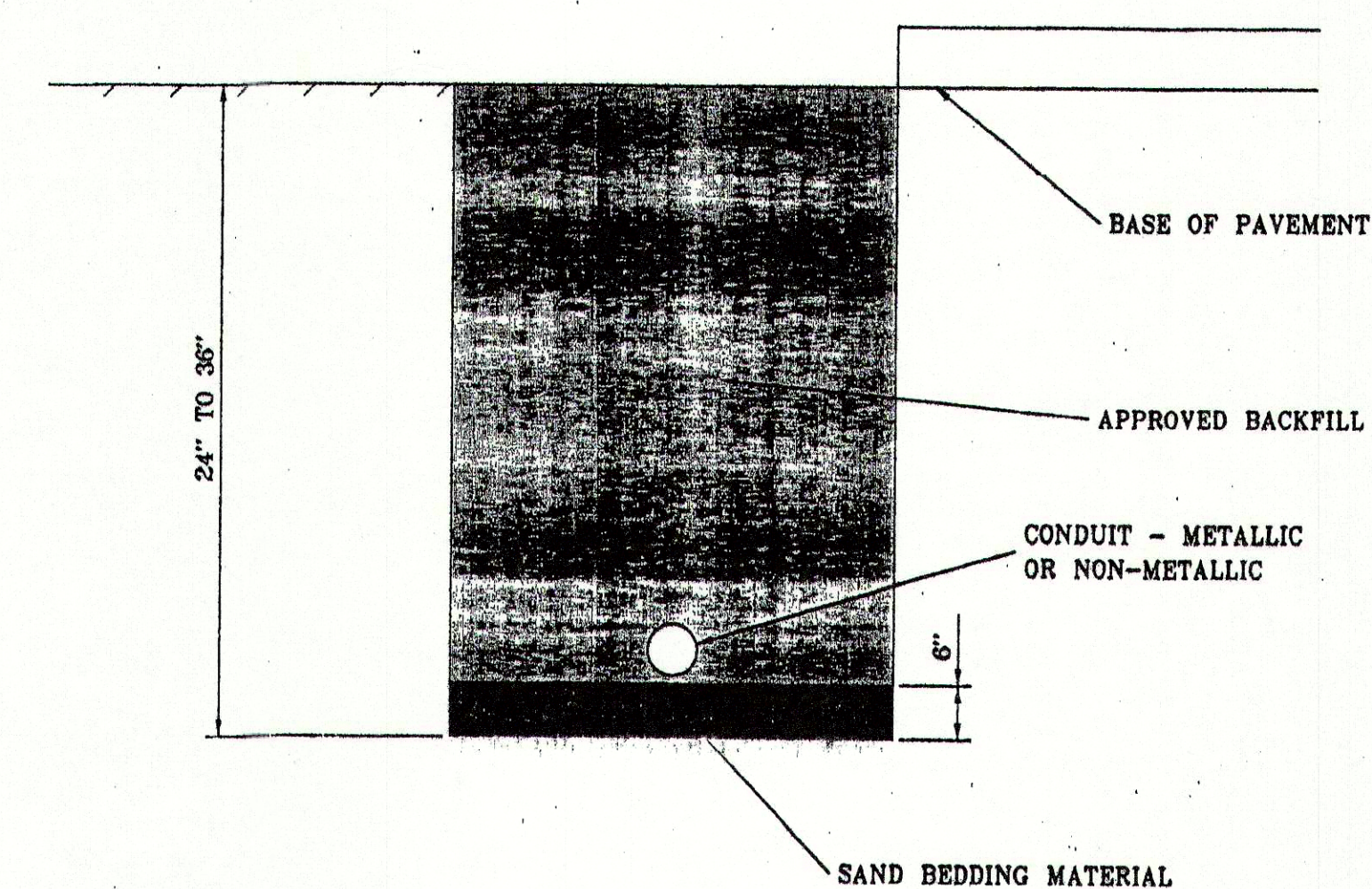
ELECTRICAL PULL BOX  
COVER



PRECAST CONCRETE JUNCTION BOX  
ITEM NO. 626.111

1

NOTES: ALL CONDUIT LOCATED IN WHOLE OR IN PART UNDER THE PAVEMENT SHALL BE GALVANIZED STEEL CONDUIT UNLESS OTHERWISE NOTED. OTHER RUNS MAY BE METALLIC OR NON-METALLIC AS NOTED



## CONDUIT TRENCH

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED		
CHECKED		
REVISED		
FIELD CHANGES		
<b>PLANS</b>		

290CT96-010030

17

[illegible]

STATE OF MAINE  
DEPARTMENT OF TRANSPORTATION

Standard Details  
Junction Boxes  
Conduit Trenches  
for Highway Lighting  
and Traffic Signals

SHEET 21 OF

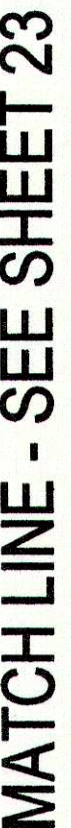
AUGUSTA, MAINE

T

3/41 ROUTE 9, CUMBERLAND



100 UNKNOWN STA / OFFSET TO STA 142+29, 24' RT, EXISTING 6" UNDERDRAIN, INV OUT=183.3'  
101 STA 142+29, 24' RT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C. RIM=186.70, INV IN(6")=UD=183.3', INV OUT(12")=183.2'  
102 STA 142+29, 24' RT TO STA 142+30, 38' RT, EXISTING 12" PVC STORMDRAIN, INV IN=180.2', INV OUT=180.6'  
103 STA 142+30, 38' RT TO STA 142+30, 4' DIA CATCH BASIN, TYPE A1-C. RIM=186.29, INV IN(12")=180.5', INV OUT(12")=180.5'  
104 STA 142+30, 38' RT TO STA 143+37, 14' RT, EXISTING 12" PVC STORMDRAIN, INV IN=180.5', INV OUT=180.3'  
105 STA 143+37, 14' RT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C. RIM=187.21, INV IN(12")=180.3', INV OUT(15")=180.2'  
106 STA 143+37, 14' RT TO STA 143+80, 16' LT, EXISTING 15" PVC STORMDRAIN, INV IN=180.2, INV OUT=179.7'  
107 STA 143+80, 16' LT, EXISTING 4" DIA DRAIN MANHOLE, RIM=188.93, INV IN(15")=179.7, INV IN(24")=176.5, INV OUT(24")=176.4, ADJUST FRAME & COVER TO MATCH  
108 STA 143+80, 16' LT TO STA 143+26, 9' LT, EXISTING 24" RCP STORMDRAIN, INV IN=176.4, INV IN(24")=175.9  
109 STA 143+26, 9' LT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C. RIM=184.97, INV IN(24")=175.9, INV IN(24")=175.8'  
110 STA 143+26, 9' LT TO UNKNOWN STA / OFFSET, EXISTING 24" UNDERDRAIN, INV IN=175.8'  
111 STA 146+49, 17' LT TO STA 143+80, 16' LT, EXISTING 24" UNDERDRAIN, INV IN=177.1, INV OUT=176.5'  
112 STA 146+49, 17' LT TO STA 143+80, 16' LT, EXISTING 4" DIA CATCH BASIN, RIM=184.64, INV IN(24")=177.2, INV OUT=177.1, ADJUST FRAME & GRATE TO GRADE  
113 STA 146+49, 16' RT TO STA 152+50, 15' RT, EXISTING 6" UNDERDRAIN, INV OUT=181.7, INV OUT=180.3, HIGH POINT STA 148+38.  
114 STA 146+49, 16' RT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C. RIM=187.46, INV IN(6")=UD=181.7, INV OUT(15")=181.6'  
115 STA 146+49, 16' RT TO UNKNOWN STA / OFFSET, EXISTING 15" UNDERDRAIN, INV IN=181.6'  
116 STA 149+51, 17' LT TO STA 146+49, 17' LT, EXISTING 24" UNDERDRAIN, INV IN=178.0, INV OUT=177.2'  
117 STA 149+51, 17' LT TO STA 149+51, 17' LT, EXISTING 4" DIA CATCH BASIN, TYPE B1-C. RIM=185, INV IN(24")=178.1, INV IN(24")=178.1, INV OUT(24")=178.0'  
118 STA 149+51, 34' RT TO STA 149+51, 17' LT, EXISTING 12" PVC STORMDRAIN, INV IN=179.9, INV OUT=178.1'  
119 STA 149+51, 34' RT, EXISTING 4" DIA CATCH BASIN, TYPE B1-C. RIM=187.90, INV OUT(12")=179.9  
120 STA 152+50, 21' LT TO 149+53, 17' LT, EXISTING 24" UNDERDRAIN, INV IN=179.2, INV OUT=178.1'  
121 STA 152+50, 21' LT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C. RIM=184.60, INV IN(12")=179.9, INV IN(24")=179.9, INV OUT(24")=179.2'  
122 STA 154+03, 16' LT TO STA 152+50, 21' LT, EXISTING 24" UNDERDRAIN, INV IN=180.3, INV OUT=179.3'  
123 STA 152+50, 13' RT TO STA 152+50, 21' LT, EXISTING 12" PVC STORMDRAIN, INV IN=180.2, INV OUT=179.4'  
124 STA 152+50, 15' RT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C. RIM=184.79, INV IN(6")=UD=180.3, INV IN(12")=180.3, INV OUT(12")=180.2'  
125 STA 153+19, 35' RT TO STA 152+50, 15' RT, EXISTING 12" PVC STORMDRAIN, INV IN=181.8, INV OUT=180.3'  
126 STA 153+19, 35' RT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C. RIM=185.61, INV OUT(12")=181.8  
127 STA 154+03, 33' RT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C. RIM=186.47, INV OUT(12")=182.1'  
128 STA 155+16, 33' RT TO STA 155+89, 17' RT, EXISTING 12" PVC STORMDRAIN, INV IN=182.1, INV OUT=180.8'  
  
129 STA 155+89, 17' RT EXISTING 4" DIA. CATCH BASIN, TYPE A1-C. RIM=186.89, INV IN(12")=180.8, INV IN(6")=UD=180.7, INV OUT(12")=180.7  
130 STA 155+89, 17' RT TO 156+05, 16' LT EXISTING 12" PVC STORMDRAIN, INV IN=180.7, INV OUT=180.4'  
131 STA 156+05, 16' LT TO STA 155+89, 17' RT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C. RIM=186.79, INV IN(12")=180.4, INV IN(8")=180.5, INV OUT(12")=180.4'  
132 STA 156+05, 16' LT TO 152+50, 16' LT EXISTING 18" UNDERDRAIN, INV IN=180.4, INV OUT=183.24'  
133 STA 159+00, 16' LT EXISTING 4" DIA. CATCH BASIN, TYPE A1-C. RIM=189.79, INV IN(12")=183.39, INV OUT(18")=183.29  
134 STA 159+18, 16' RT TO STA 159+00, 16' LT, EXISTING 12" PVC STORMDRAIN, INV IN=183.6, INV OUT=183.39  
135 STA 159+18, 16' RT EXISTING 4" DIA CATCH BASIN, TYPE A1-C. RIM=189.78, INV IN(12")=183.5, INV OUT(12")=183.6  
136 UNKNOWN STA / OFFSET TO STA 159+18, 16' RT, EXISTING 12" UNDERDRAIN, INV OUT=183.5'

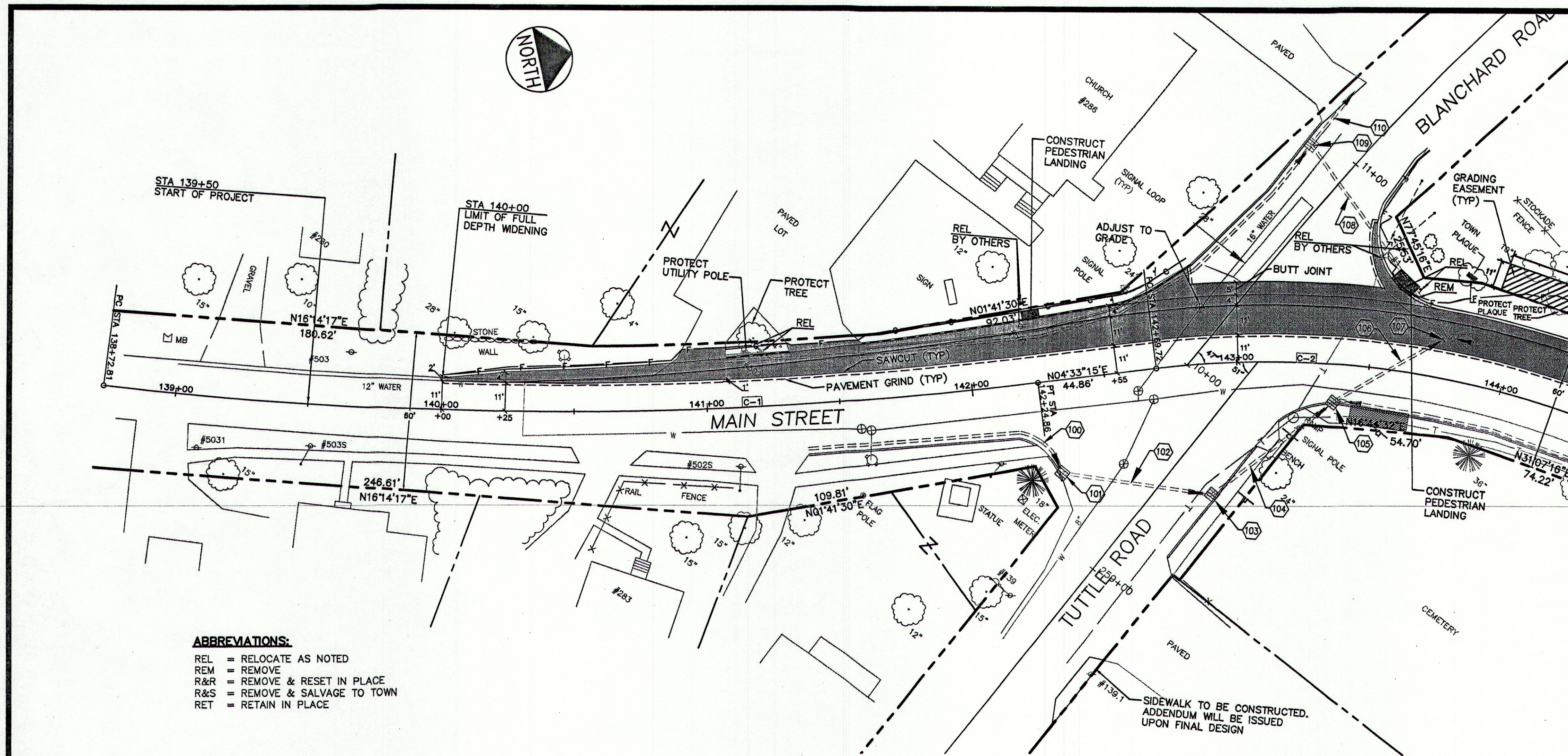


DRAWN:	JCS	DATE:	MAY 2002
DESIGNED:	ERB	SCALE:	1"=25'
CHECKED:	WGH	JOB NO.	208505
FILE NAME:	G:208505\2085.05-EXIST.DWG		
SHEET	22		





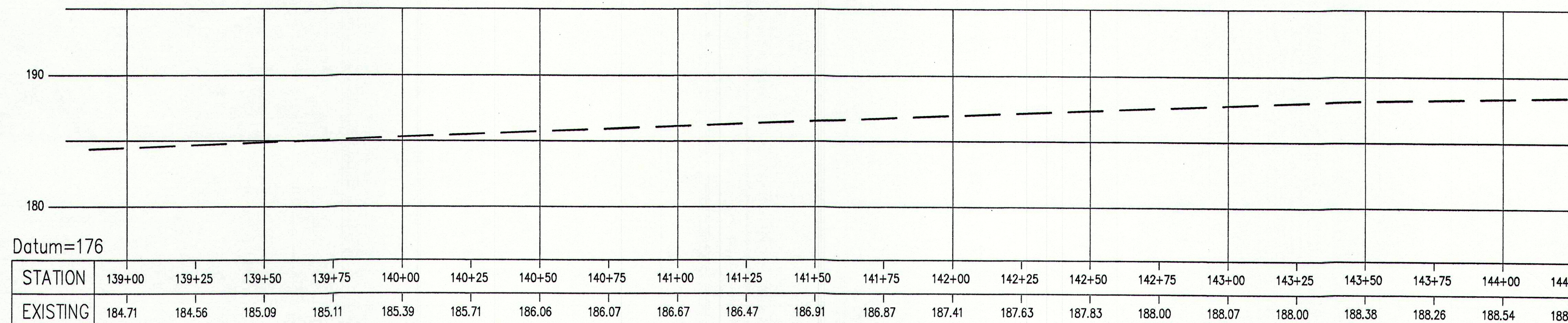




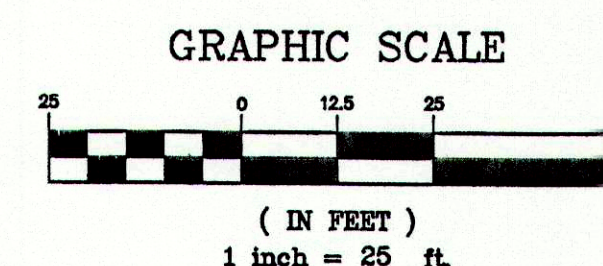
**DRAINAGE NOTES:**

- 100 STA 141+00, 17' RT TO STA 142+29, 24' RT, EXISTING 6" UNDERDRAIN, INV OUT=183.3'
- 101 STA 142+29, 24' RT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C, RIM=186.70', INV IN(6"UD)=183.3', INV OUT(12")=183.2'
- 102 STA 142+29, 24' RT TO STA 142+90, 38' RT, EXISTING 12" PVC STORMDRAIN, INV IN=183.2, INV OUT=180.6'
- 103 STA 142+90, 38' RT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C, RIM=186.29', INV IN(12")=180.6, INV OUT(12")=180.5'
- 104 STA 142+90, 38' RT TO STA 143+37, 14' RT, EXISTING 12" PVC STORMDRAIN, INV IN=180.5, INV OUT=180.3'
- 105 STA 143+37, 14' RT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C, RIM=187.21', INV IN(12")=180.3, INV OUT(15")=180.2'
- 106 STA 143+37, 14' RT TO STA 143+80, 16' LT, EXISTING 15" PVC STORMDRAIN, INV IN=180.2, INV OUT=179.7'
- 107 STA 143+80, 16' LT, EXISTING 4" DIA DRAIN MANHOLE, RIM=188.93', INV IN(15")=179.7, INV IN(24")=176.5, INV OUT(24")=176.4', ADJUST FRAME & COVER TO GRADE
- 108 STA 143+80, 16' LT TO STA 143+26, 91' LT, EXISTING 24" RCP STORMDRAIN, INV IN=176.4, INV OUT=175.9'
- 109 STA 143+26, 91' LT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C, RIM=184.97', INV IN(6"UD)=179.15, INV IN(24")=175.9, INV OUT(24")=175.8'
- 110 STA 143+26, 91' LT TO UNKNOWN STA / OFFSET, EXISTING 24" UNDERDRAIN, INV IN=175.8'

MATCH LINE - SEE SHEET 25



PRELIMINARY NOT FOR CONSTRUCTION



REV	DATE	DESCRIPTION	REVISIONS
3	6.20.02	REVISED PER MDOT PERMIT; REISSUED TO MDOT & FOR BID ADDENDUM #3.	
2	6.07.02	SUBMITTED TO MDOT FOR REVIEW.	
1	5.31.02	SUBMITTED TO TOWN FOR REVIEW.	
P.E. WILLIAM G. HOFFMAN			LIC. # 4105

PROJECT	ME ROUTE 9 IMPROVEMENTS
SHEET TITLE	GENERAL PLAN & PROFILE-1
CLIENT	STEPHEN BLATT ARCHITECTS

DRAWN:	JCS	DATE:	MAY 2002
DESIGNED:	ERB	SCALE:	1"=25'
CHECKED:	WGH	JOB NO.	2085.05
FILE NAME:	G:208505\2085.05-BASE.DWG		
SHEET	24		

**DH** DeLUCA-HOFFMAN ASSOCIATES, INC.  
 778 MAIN STREET, SUITE 8  
 SOUTH PORTLAND, ME 04106  
 (207) 778-1121  
 DH@DELUCAHOFFMAN.COM





MATCH LINE - SEE SHEET 24

MATCH LINE - SEE SHEET 26

**ABBREVIATIONS:**

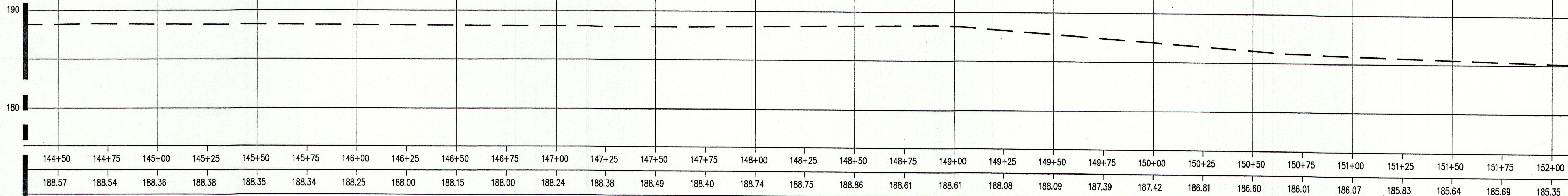
REL = RELOCATE AS NOTED  
REM = REMOVE  
R&R = REMOVE & RESET IN PLACE  
R&S = REMOVE & SALVAGE TO TOWN  
RET = RETAIN IN PLACE

**CURVE DATA**

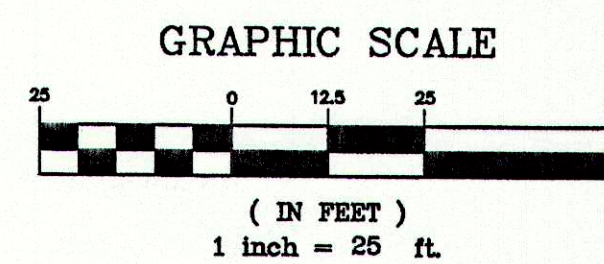
[C-1]		[C-2]	
140+49.76	PI	144+12.69	
1413'47"LT	Δ	45'42'37.5"RT	
402'31"	D	16'53'29"	
176.94'	T	142.97'	
352.05'	L	270.61'	
1417'53'	R	339.20'	

**DRAINAGE NOTES:**

111 STA 146+49, 17' LT TO STA 143+80, 16' LT, EXISTING 24" UNDERDRAIN, INV IN = 177.1', INV OUT = 176.5'  
112 STA 146+49, 17' LT, EXISTING 4" DIA CATCH BASIN, RIM=187.64', INV IN(24")=177.2', INV OUT=177.1', ADJUST FRAME & GRATE TO DRAIN  
113 STA 146+49, 16' RT TO STA 152+50, 15' RT, EXISTING 6" UNDERDRAIN, INV IN = 181.7', INV OUT = 180.3', HIGH POINT STA 148+38  
114 STA 146+49, 16' RT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C, RIM=187.46', INV IN(6" UD)=181.7', INV OUT(15")=181.6'  
115 STA 146+47, 16' RT TO STA 143+37, 14' RT, EXISTING 15" UNDERDRAIN, INV IN = 181.6', INV OUT=180.3'  
116 STA 149+51, 17' LT TO STA 146+49, 17' LT, EXISTING 24" UNDERDRAIN, INV IN = 178.0', INV OUT = 177.2'  
117 STA 149+51, 17' LT, EXISTING 4" DIA CATCH BASIN, TYPE A1-C, RIM=187.45', INV IN(12")=178.1', INV IN(24")=178.1', INV OUT(24")=178.0'  
118 STA 149+51, 34' RT TO STA 149+51, 17' LT, EXISTING 12" PVC STORMDRAIN, INV IN = 179.9', INV OUT = 178.1'  
119 STA 149+51, 34' RT, EXISTING 4" DIA CATCH BASIN, TYPE B1-C, RIM=187.90', INV OUT(12")=179.9'  
120 STA 152+50, 21' LT TO 149+53, 17' LT, EXISTING 24" UNDERDRAIN, INV IN = 179.2', INV OUT = 178.1'



PRELIMINARY NOT FOR CONSTRUCTION



PROJECT				ME ROUTE 9 IMPROVEMENTS		SHEET TITLE	
GENERAL PLAN & PROFILE-2				CLIENT		STEPHEN BLATT ARCHITECTS	
REVISIONS				P.E. WILLIAM G. HOFFMAN		LIC. # 4105	
REV	DATE	DESCRIPTION		DRAWN:		DATE:	
3	6.20.02	REVISED PER MDOT PERMIT; REISSUED TO MDOT & FOR BID ADDENDUM #3.		JCS		MAY 2002	
2	6.07.02	SUBMITTED TO MDOT FOR REVIEW.		DESIGNED:		SCALE:	
1	5.31.02	SUBMITTED TO TOWN FOR REVIEW.		ERB		1"=25'	
				CHECKED:		JOB NO.	
				WGH		2085.05	
				FILE NAME:		G:\208505\2085.05-BASE.DWG	
				SHEET		25	

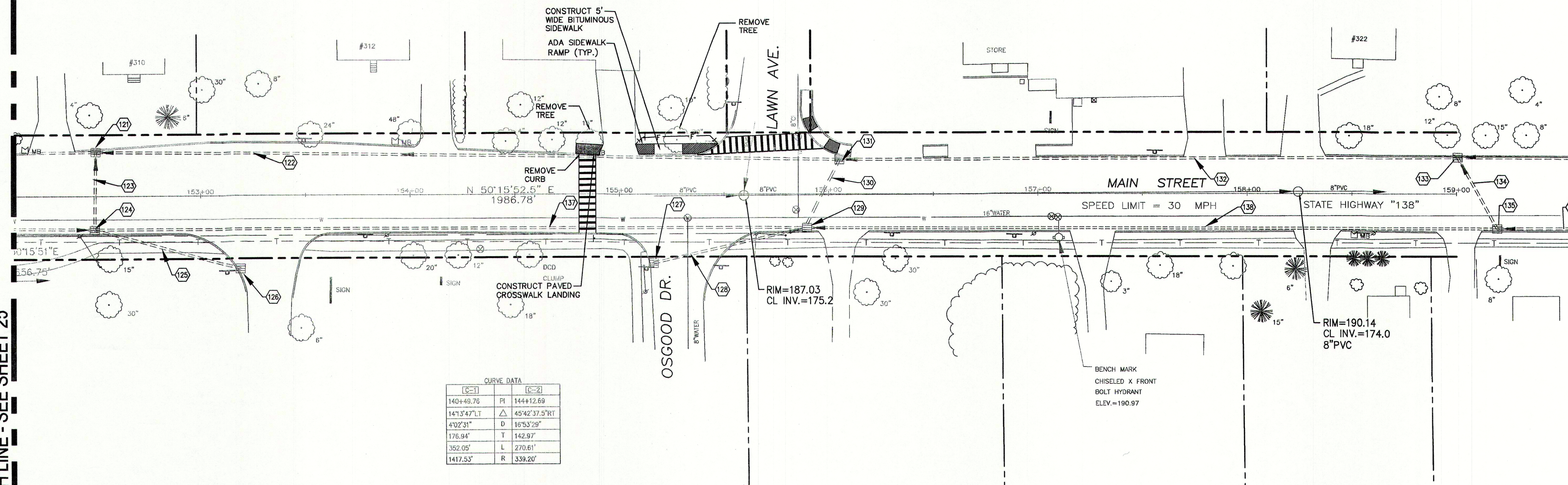


DRAWN: JCS DATE: MAY 2002  
DESIGNED: ERB SCALE: 1"=25'  
CHECKED: WGH JOB NO. 2085.05  
FILE NAME: G:\208505\2085.05-BASE.DWG  
SHEET 25

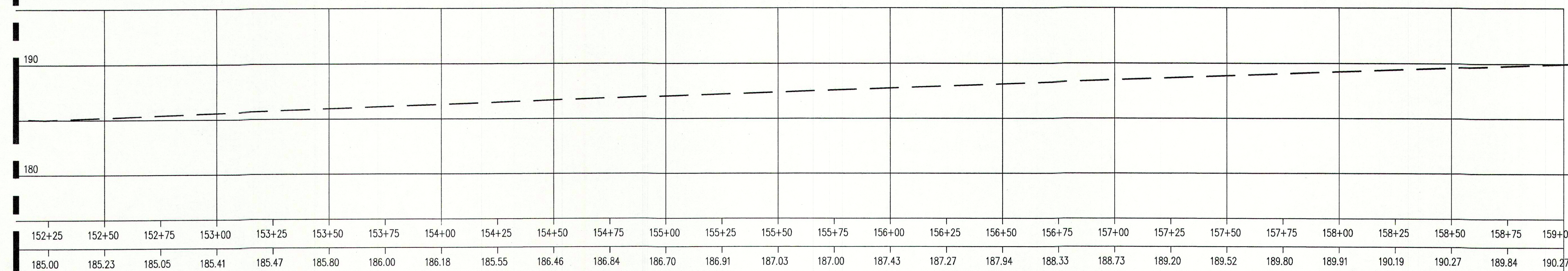




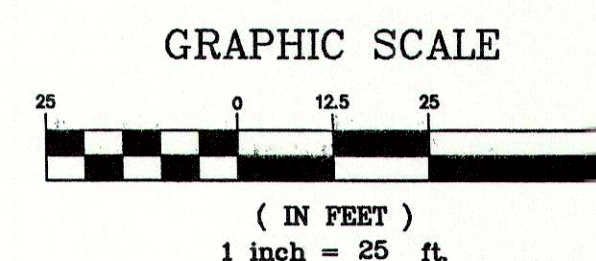
MATCHLINE - SEE SHEET 25



CURVE DATA		
[C-1]		[C-2]
140+49.76	PI	144+12.69
141°3'47"LT	△	45°42'37.5"RT
4°02'31"	D	16°53'29"
176.94'	T	142.97'
352.05'	L	270.61'
1417.53'	R	339.20'



PRELIMINARY NOT FOR CONSTRUCTION



		PROJECT ME ROUTE 9 IMPROVEMENTS		DRAWN: JCS DATE: MAY 2002	
		SHEET TITLE GENERAL PLAN & PROFILE-3		DESIGNED: ERB SCALE: 1"=25'	
		CLIENT STEPHEN BLATT ARCHITECTS		CHECKED: WGH JOB NO. 2085.05	
				FILE NAME: G:\208505\2085.05-BASE.DWG	
				SHEET 26	

1

5.31.02

SUBMITTED TO TOWN FOR REVIEW.

REV

DATE

DESCRIPTION

REVISIONS

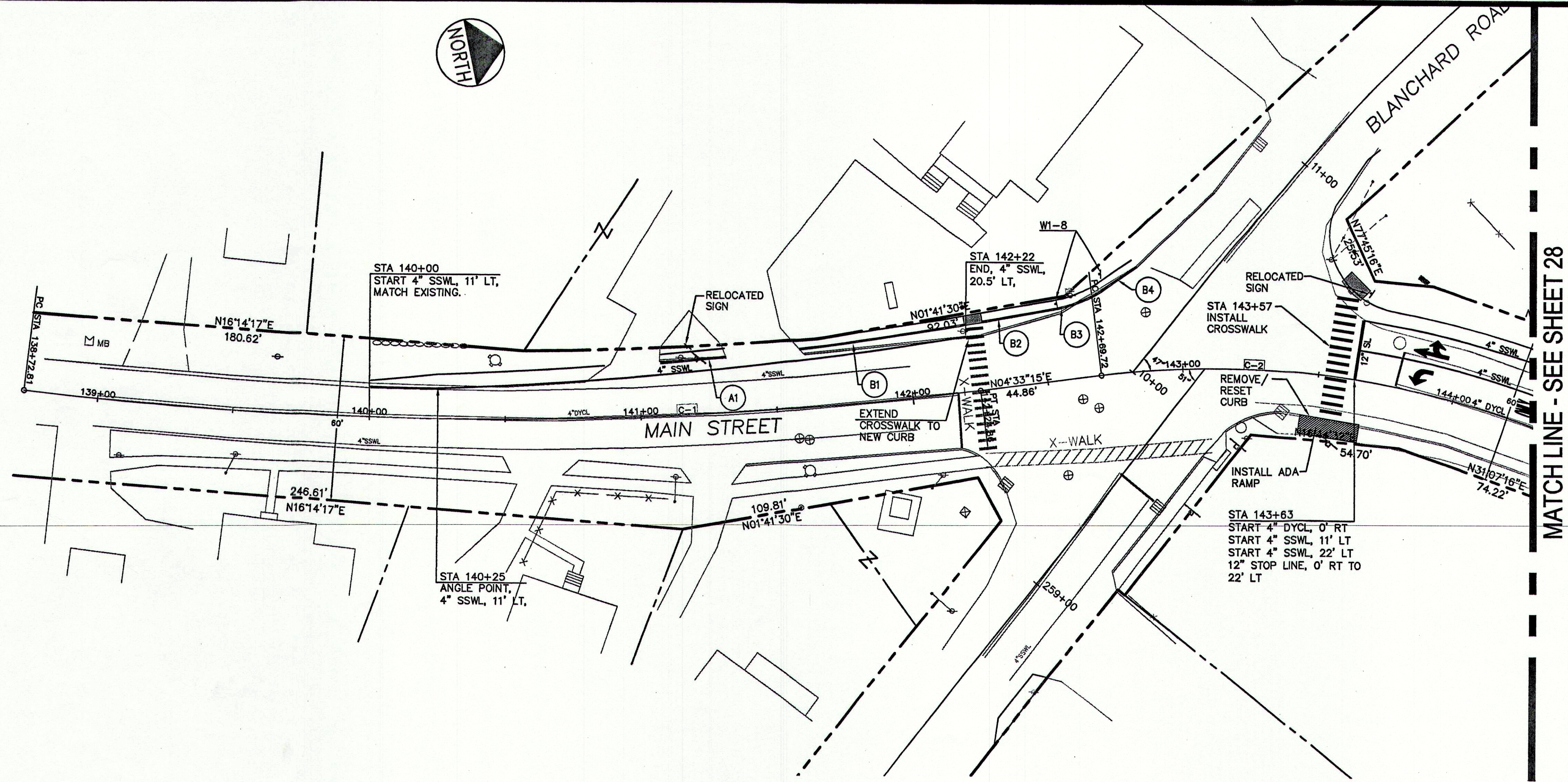
P.E. WILLIAM G. HOFFMAN

LIC. # 4105

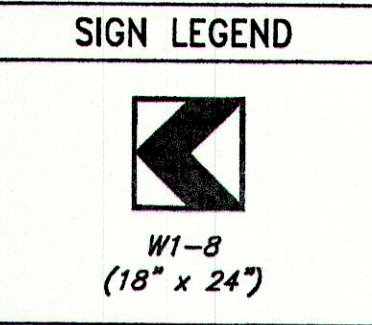
DH

DeLUCA-HOFFMAN ASSOCIATES, INC.  
778 MAIN STREET, SUITE 8  
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(207) 778-1121  
DHA@DELUCAHOFFMAN.COM



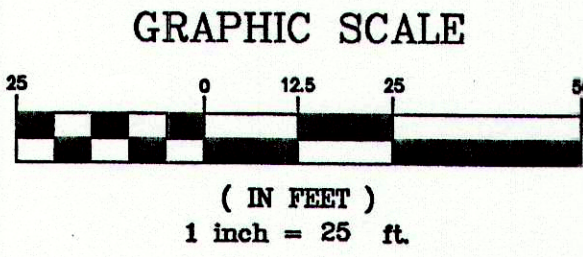


CURB LAYOUT TABLE							
CURB ID	STATION FROM	OFFSET	STATION TO	OFFSET	LENGTH (ft)	RADIUS (ft)	COMMENTS
A1	140+08.00	18.98' LT	140+32.00	20.13' LT	23.70	1396.34	3
B1	141+60.00	21.47' LT	142+21.26	24.82' LT	60.28	1258.07	3 7' Tipdown
B2	142+26.48	24.74' LT	142+54.19	26.48' LT	27.71	1258.07	3 7' Tipdown
B3	142+54.19	26.48' LT	142+72.51	30.23' LT	19.14	50	3
B4	142+72.51	30.23' LT	142+87.25	38.29' LT	16.72	-	3
C1	145+86.00	25.00' LT	146+10.00	23.87' LT	24.00	-	3 Match Existing
D1	146+46.70	22.12' LT	147+24.00	18.29' LT	77.38	-	3 Match Existing
D2	147+69.00	18.00' LT	147+90.00	17.54' LT	21.00	-	3 Match Existing
E1	154+73.71	18.45' RT	154+80.65	18.53' RT	6.94	-	3 Match Existing, 7' Tipdown
E2	154+88.65	18.63' RT	154+95.68	18.72' RT	7.02	-	3 Match Existing, 7' Tipdown
F1	155+9.61	18.70' RT	155+37.40	18.95' RT	27.79	-	3 7' Tipdown
F2	155+37.40	18.95' RT	155+52.67	30.14' RT	19.41	25	3 7' Tipdown, Match Existing
G1	155+86.93	37.38' RT	155+89.98	30.02' RT	8.00	25.38	3 Match Existing, 7' Tipdown
G2	155+97.15	22.42' RT	156+04.77	18.84' RT	8.46	25.38	3 Match Existing, 7' Tipdown



PAVEMENT MARKING LEGEND  
SIGNAGE AND PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REGARDING SIZE, INSTALLATION, LOCATION, & REFLECTIVITY.  
12" SL - 12" WIDE STOP LINE  
4" SSWL - 4" WIDE SINGLE SOLID WHITE LINE  
4" DYCL - 4" WIDE DOUBLE YELLOW CENTERLINE  
4" SBWL - 4" WIDE SINGLE BROKEN WHITE LINE

PRELIMINARY NOT FOR CONSTRUCTION



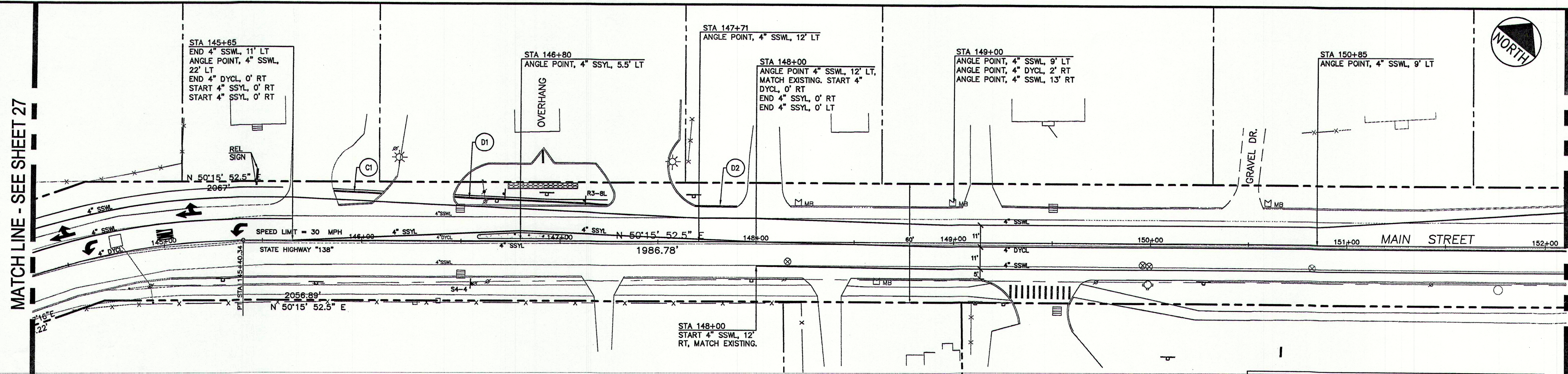
PROJECT ME ROUTE 9 IMPROVEMENTS			DRAWN: JCS DATE: MAY 2002	
SHEET TITLE STRIPING AND SIGNING PLAN-1			DESIGNED: ERB SCALE: 1"=25'	
CLIENT STEPHEN BLATT ARCHITECTS			CHECKED: WGH JOB NO. 2085.05	
REVISIONS			FILE NAME: G:208505\2085.05-BASE.DWG	
P.E. WILLIAM G. HOFFMAN LIC. # 4105			SHEET 27	

DeLUCA-HOFFMAN ASSOCIATES, INC.  
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SOUTH PORTLAND, ME 04106  
(207) 778-1121  
DHA@DELUCAHOFFMAN.COM



MATCH LINE - SEE SHEET 27

MATCH LINE - SEE BELOW

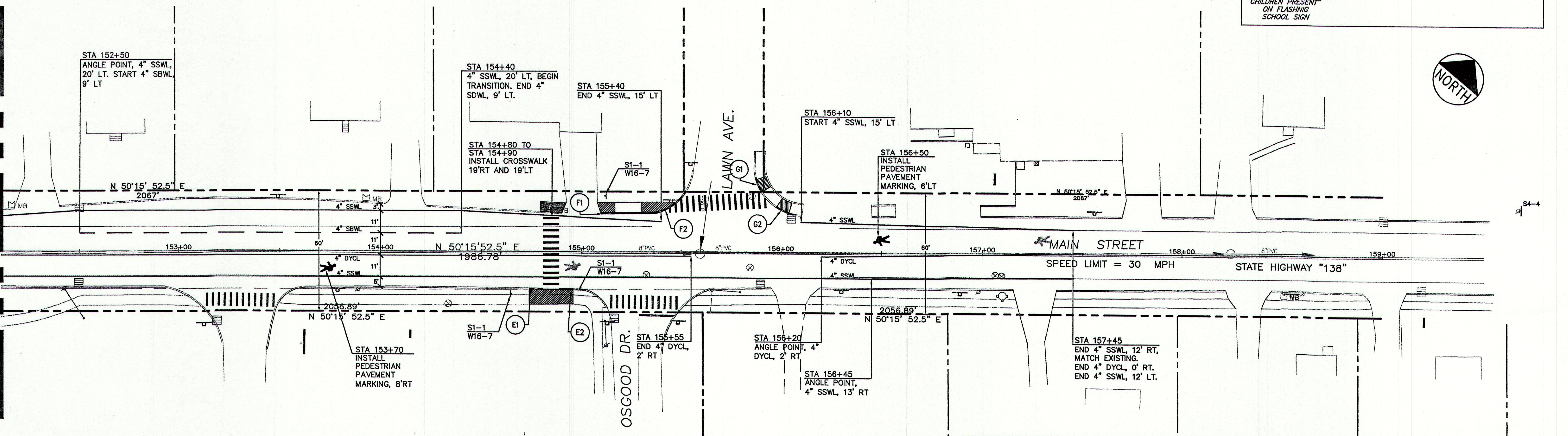


**PAVEMENT MARKING LEGEND**  
SIGNAGE AND PAVEMENT MARKING SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) REGARDING SIZE, INSTALLATION, LOCATION, & REFLECTIVITY.  
12" SL - 12" WIDE STOP LINE  
4" SSWL - 4" WIDE SINGLE SOLID WHITE LINE  
4" DYCL - 4" WIDE DOUBLE YELLOW CENTERLINE  
4" SBWL - 4" WIDE SINGLE BROKEN WHITE LINE

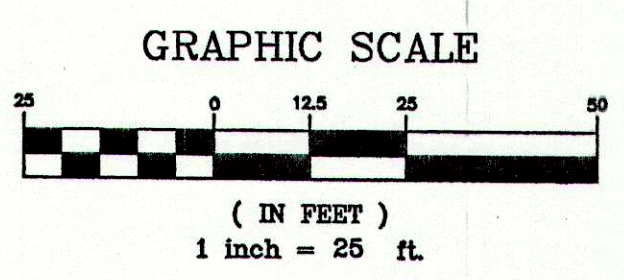
**SIGN LEGEND**

 S4-4 (36" x 15") TO REPLACE EXISTING "WHEN CHILDREN PRESENT" ON FLASHING SCHOOL SIGN	 R3-BL (30" x 30")	 W16-7 (30" x 18") FLOURESCENT YELLOW-GREEN	 S1-1 (30" x 30") FLOURESCENT YELLOW-GREEN
--	--------------------------	---	--

MATCH LINE - SEE ABOVE

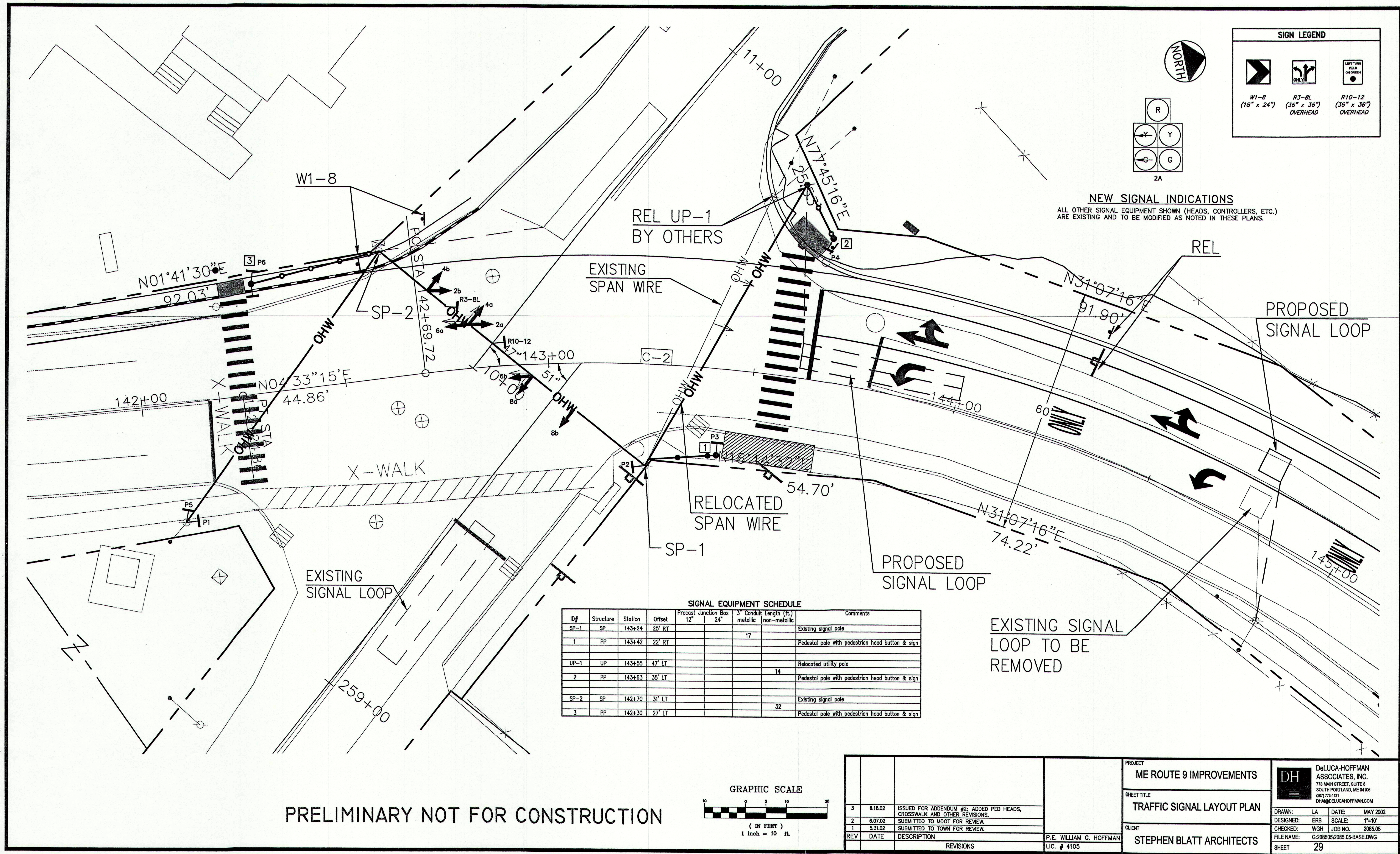


PRELIMINARY NOT FOR CONSTRUCTION



				<div>PROJECT</div> <div>ME ROUTE 9 IMPROVEMENTS</div>		<div><div><div>DH</div><div></div></div></div> <div>DeLUCA-HOFFMAN ASSOCIATES, INC. 778 MAIN STREET, SUITE 8 SOUTH PORTLAND, ME 04106 (603) 775-1151 DHH@DELUCAHOFFMAN.COM</div>	
				<div>SHEET TITLE</div> <div>STRIPING AND SIGNING PLAN-2</div>		<div>DRAWN: JCS</div> <div>DATE: MAY 2002</div>	
				<div>CLIENT</div> <div>STEPHEN BLATT ARCHITECTS</div>		<div>DESIGNED: ERB</div> <div>SCALE: 1"=25'</div>	
				<div>P.E. WILLIAM G. HOFFMAN LIC. # 4105</div>		<div>CHECKED: WGH</div> <div>JOB NO. 2085.05</div>	
				<div>REVISIONS</div>		<div>FILE NAME: G:\208505\2085.05-BASE.DWG</div>	
3	6.18.02	ISSUED FOR ADDENDUM #2; EXTENDED LEFT TURN LANE 40', REVISED PAVEMENT MARKINGS AND OTHER CHANGES.				<div>SHEET</div> <div>28</div>	
2	6.07.02	SUBMITTED TO MDOT FOR REVIEW.					
1	5.31.02	SUBMITTED TO TOWN FOR REVIEW.					
REV	DATE	DESCRIPTION					







GENERAL SIGNAL NOTES

1. The traffic signal equipment and installations shall conform to the current standards set forth in the Maine Department of Transportation Standard Specifications, April 1, 1995: Highways & Bridges. Payment shall be included in the price bid for various items listed in the proposal. All equipment and work required to accomplish the safe installation and operation of the traffic signals will be incidental to these items.

2. The contractor shall meet all requirements of the utility companies when installing equipment on their poles or near their wires. The contractor shall be responsible for contacting the utility companies to determine their requirements.

3. The contractor shall verify all layout information and signal support layout prior to ordering equipment and commencing work. Any conflicts or discrepancies shall be immediately reported to the Design Engineer and Traffic Department, Town of Cumberland for resolution. The contractor shall also be responsible for providing the required documentation to assure the signals and supports will safely handle all signal heads and signage specified.

4. Traffic detection loops shall be as shown on plans, centered in the appropriate lanes. Loops at stop lines shall extend three feet beyond the line.

5. All new signals and new pedestrian heads shall have LED lenses. Heads shall be manufactured of polycarbonate or acrylic material and shall be flat black. Poles shall be unpainted galvanized steel.

6. Minimum clearance to the bottom of overhead signal housings shall be 16 feet above pavement or 10' above ground for pedestal mounting. All signals shall be mounted with solid mount astro bracket.

7. Lead-ins from all detectors and related amplifiers shall be tagged and diagrammed in the controller cabinet to identify the detector which they serve.

8. All cabinet back panel components including mechanical timers, relays or ancillary equipment shall be identified by label.

9. The contractor shall provide the MDOT traffic division, the Design Engineers, and the Town of Cumberland a minimum of two weeks notice prior to commencing the signal equipment installation. The contractor shall also be responsible for coordinating all required state and local inspection.

10. The signal contractor shall notify the MDOT, the Design Engineers and the Town of Cumberland no less than three days prior to the following schedule:

- A. The date of beginning construction.  
B. The date of cutting loops in pavement.  
C. Date when signals will be activated.  
D. Set a date for preliminary review of construction.  
E. The date of final inspection.

11. Catalog cuts and or shop drawings of proposed equipment to be used shall be NEMA TS-2 compatible and shall be submitted for approval prior to the installation of said equipment. At least three copies of catalog cuts or shop drawings of the proposed equipment shall be submitted to the Traffic Engineer for review and approval within 7 days after the award of the contract.

12. All pavement markings shown shall be installed by the Signal Contractor.

13. The signal contractor shall coordinate work with the pavement marking contractor and the roadway contractor.

14. The Contractor shall install pedestrian push buttons, signs and signal heads on the pedestrian poles as shown.

15. All signal supports shall be placed on concrete foundations. The Contractor shall be responsible for foundation design and documentation.

16. All street excavations shall conform to the Town of Cumberland street opening policy.

DETECTOR SCHEDULE

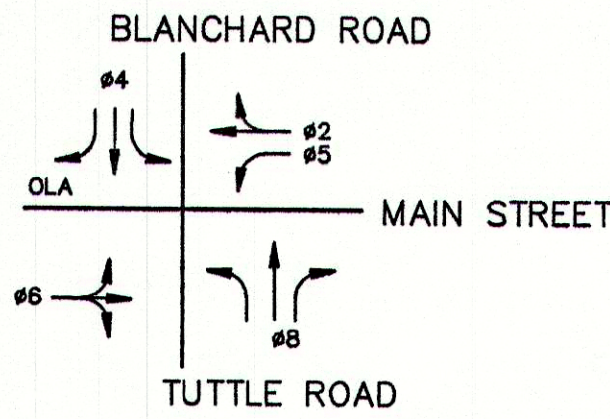
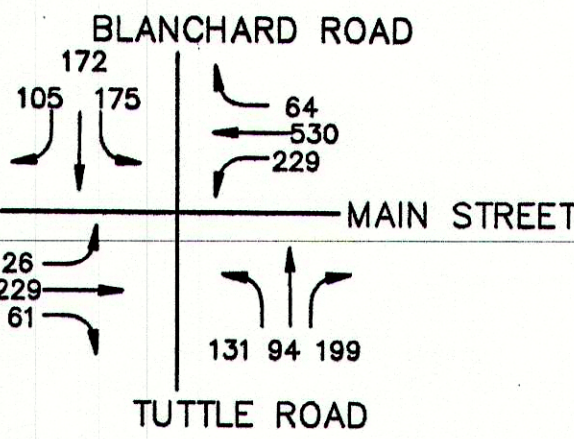
DETECTOR								AMPLIFIER		INDUCT UH	RESISTANCE OF LOOPS	RESISTANCE OF LOOPS GRD. EG.	RESISTANCE SHIELD GRD. MEG.	COMMENTS
STREET	DIRECTION	LANE	PHASE	SIZE*	OPERATION	CALL PHASE	EXTEND PHASE	NO.	CHANNEL					
MAIN STREET EASTBOUND	EB	LT/TH/RT	6	6X8**	PULSE	6	6							EXISTING DETECTOR
MAIN STREET WESTBOUND	WB	TH/RT	2	6X8**	PULSE	2	2							EXISTING TO BE RELOCATED -
	WB	LT	5	6X40	PRESENCE	5	5							
BLANCHARD RD SOUTHBOUND	SB	LT/TH/RT	4	6X40**	PRESENCE	4	4							EXISTING DETECTOR
TUTTLE ROAD NORTHBOUND	NB	LT/TH/RT	8	6X40**	PRESENCE	8	8							EXISTING DETECTOR

\*DETECTOR LOOPS SHALL BE QUADRAPOLE-2-4-2 TURNS.

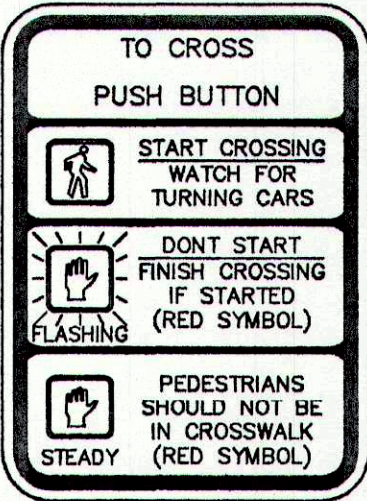
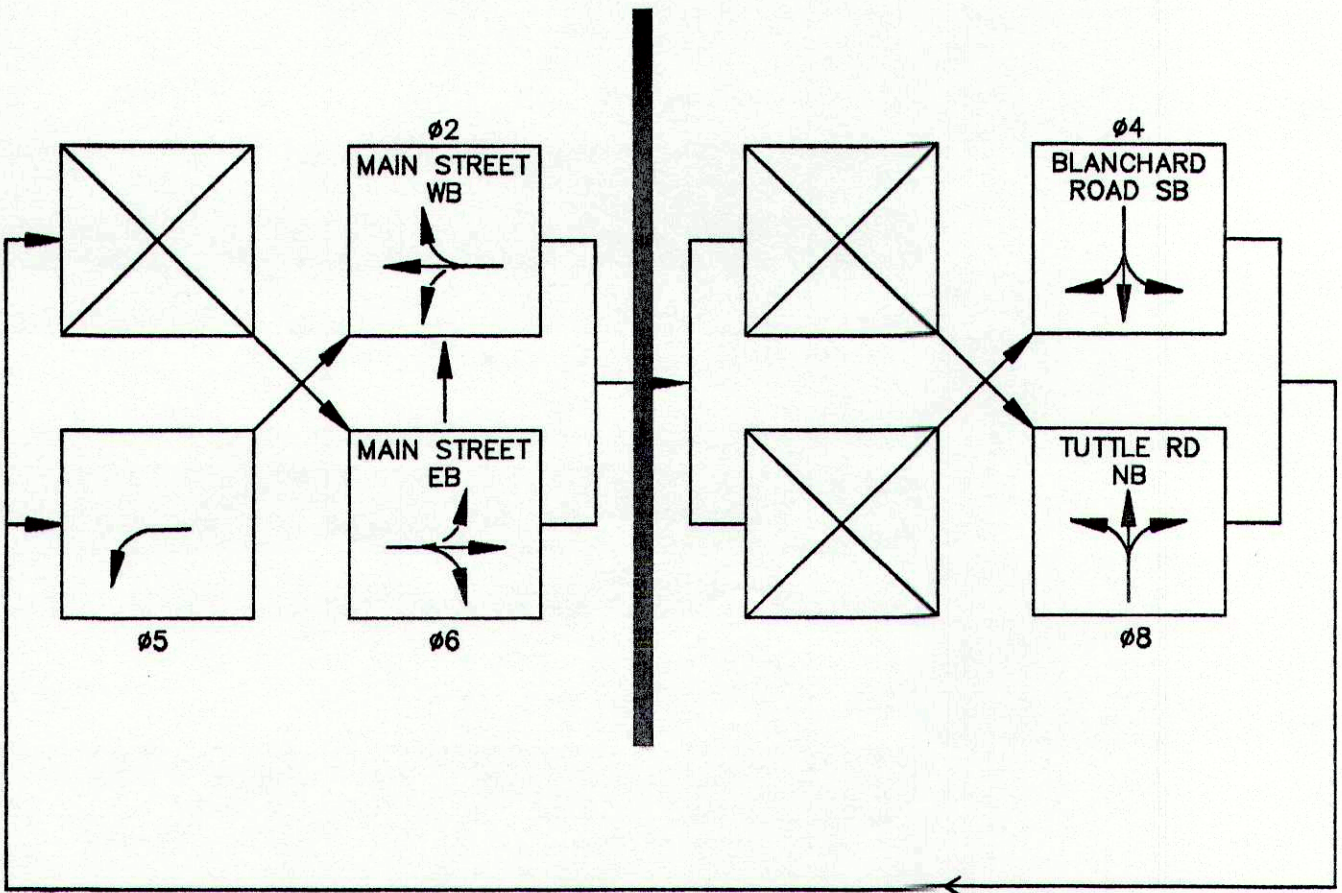
\*\*EXISTING DETECTOR

LOCATION 1 SEQUENCE & TIMING FOR FULLY ACTUATED CONTROL MAIN STREET, BLANCHARD ROAD AND TUTTLE ROAD			PHASE A 2 & 5			PHASE B 2 & 6			PHASE C 4 & 8			
APPROACH	DIRECTION	FACES	1	2	3	4	5	6	7	8	9	FLASH
MAIN STREET	WB	2a				G	Y	R	R	R	R	Y
		2b	G	G	G	G	Y	R	R	R	R	Y
MAIN STREET	EB	6a,6b	R	R	R	G	Y	R	R	R	R	Y
BLANCHARD ROAD	SB	4a,4b	R	R	R	R	R	R	G	Y	R	R
TUTTLE ROAD	NB	8a,8b	R	R	R	R	R	R	G	Y	R	R
PEDESTRIAN	EB-WB	P1 & P2	DW	DW	DW	W/FDW	FDW	DW	DW	DW	DW	DARK
	NB-SB	P3 & P4	DW	DW	DW	DW	DW	DW	W/FDW	FDW	DW	DARK
	NB-SB	P5 & P6	DW	DW	DW	DW	DW	DW	W/FDW	FDW	DW	DARK
TIMING IN SECONDS												
INITIAL INTERVAL			3			8			3			
VEHICLE EXTENSION			1			4			1			
MAX I GREEN			4			21			34			
MAX II GREEN												
YELLOW INTERVAL				4			4			4		
ALL RED INTERVAL							2				2	
PEDESTRIAN WALK						4			25			
FLASHING DON'T WALK						17	4		9	4		
DETECTION				NON-LOCK			NON-LOCK			NON-LOCK		
RECALL				NONE			SOFT			NONE		

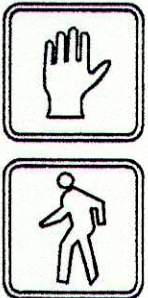
2003 AM DHV



PHASE ASSIGNMENT



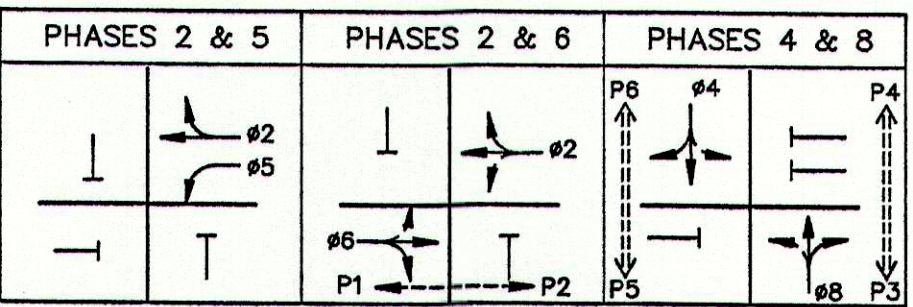
PEDESTRIAN PUSH  
BUTTON SIGN




18" HEADS

P3, P4  
P5, P6

L.E.D.S.  
PEDESTRIAN  
SIGNAL HEADS



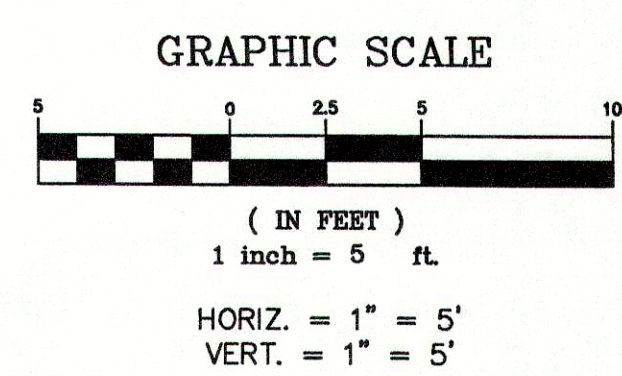
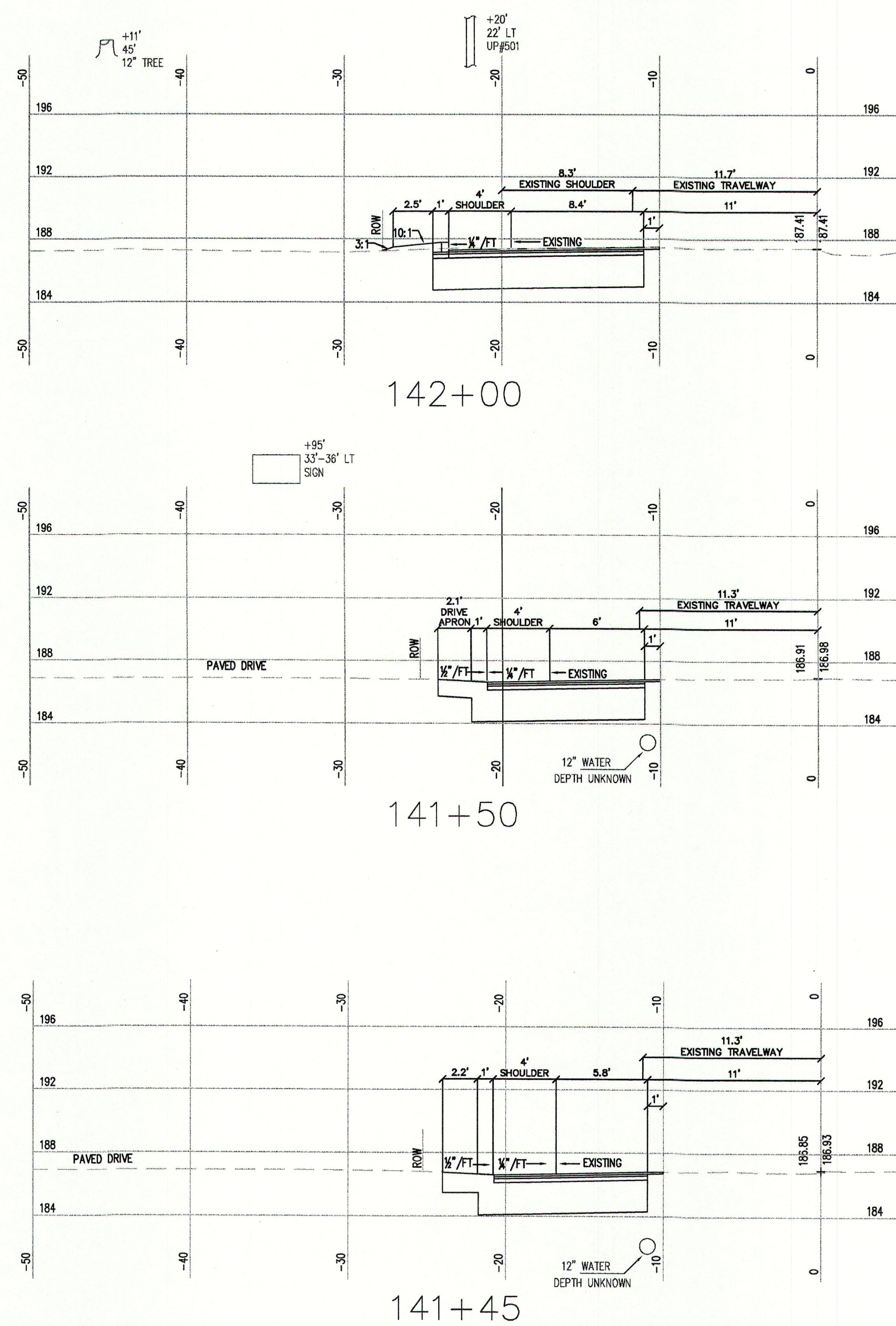
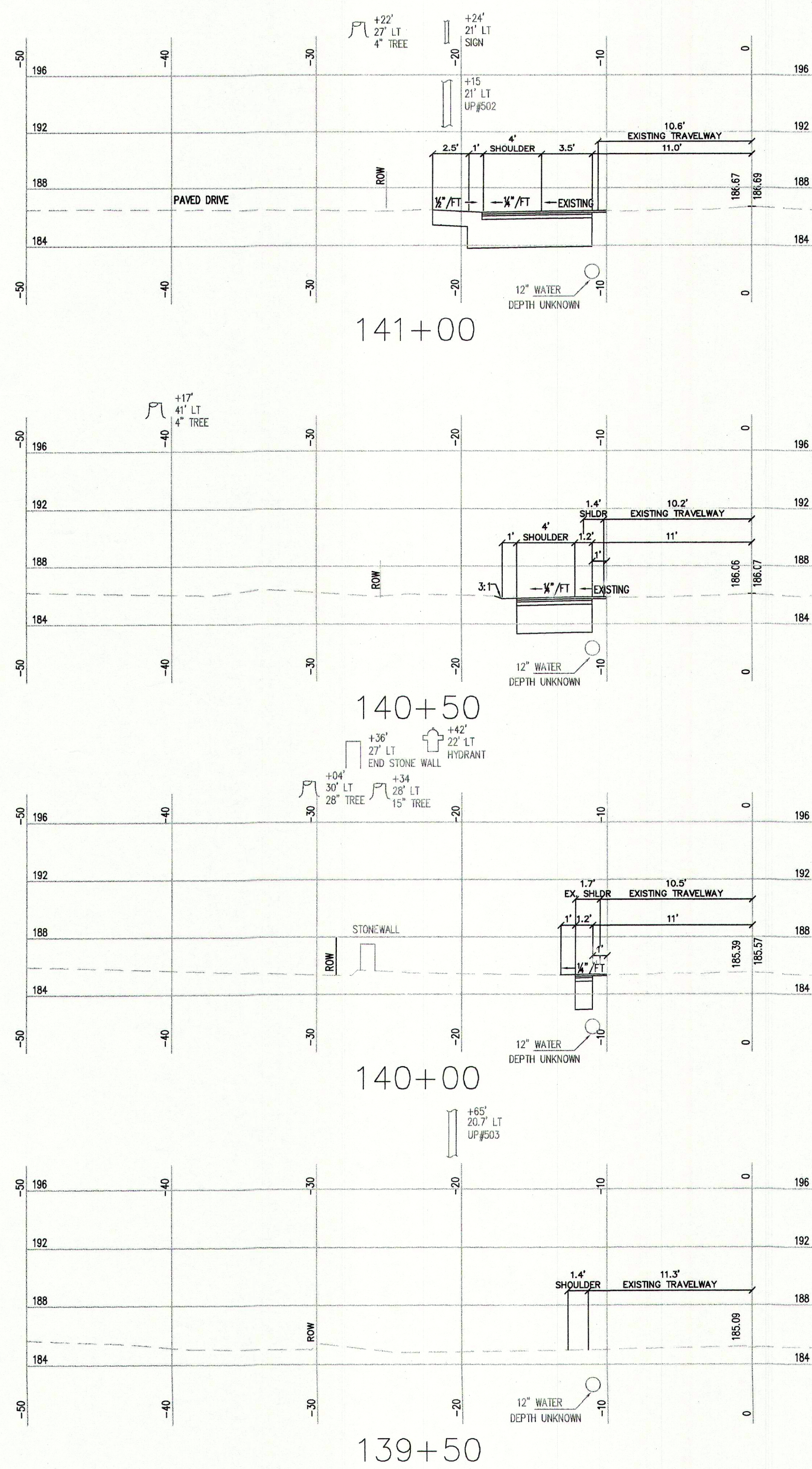
DUAL ENTRY  
PHASES 2 & 6 ONLY.  
PHASES 4 & 8 ONLY.

			PROJECT ME ROUTE 9 IMPROVEMENTS		 <div>DeLUCA-HOFFMAN ASSOCIATES, INC. 778 MAIN STREET, SUITE 8 SOUTH PORTLAND, ME 04106 (207) 775-1121 DH@DUQUINE.RR.COM</div>
			SHEET TITLE TRAFFIC SIGNAL OPERATION & NOTES		
			CLIENT STEPHEN BLATT ARCHITECTS		
			DRAWN: ERB DATE: MAY 2002 DESIGNED: ERB SCALE: NONE CHECKED: WGH JOB NO. 2086.05 FILE NAME: G:\208505\2085.05-SIG-NOTES.DWG SHEET 30		
REV	DATE	DESCRIPTION	WILLIAM G. HOFFMAN LIC. # 4105		
REVISIONS					
3	6.20.02	REVISED PER MDOT PERMIT; REISSUED TO MDOT & FOR BID ADDENDUM #3.			
2	6.07.02	SUBMITTED TO MDOT FOR REVIEW.			
1	5.31.02	SUBMITTED TO TOWN FOR REVIEW.			

DH DeLUCA-HOFFMAN ASSOCIATES, INC.  
778 MAIN STREET, SUITE 8  
SOUTH PORTLAND, ME 04106  
(207) 778-1121  
DHA@MAINE.RR.COM



MAINE ROUTE 9  
IMPROVEMENTS  
CUMBERLAND  
STA 443+00 TO  
STA 445+00



PRELIMINARY NOT FOR CONSTRUCTION

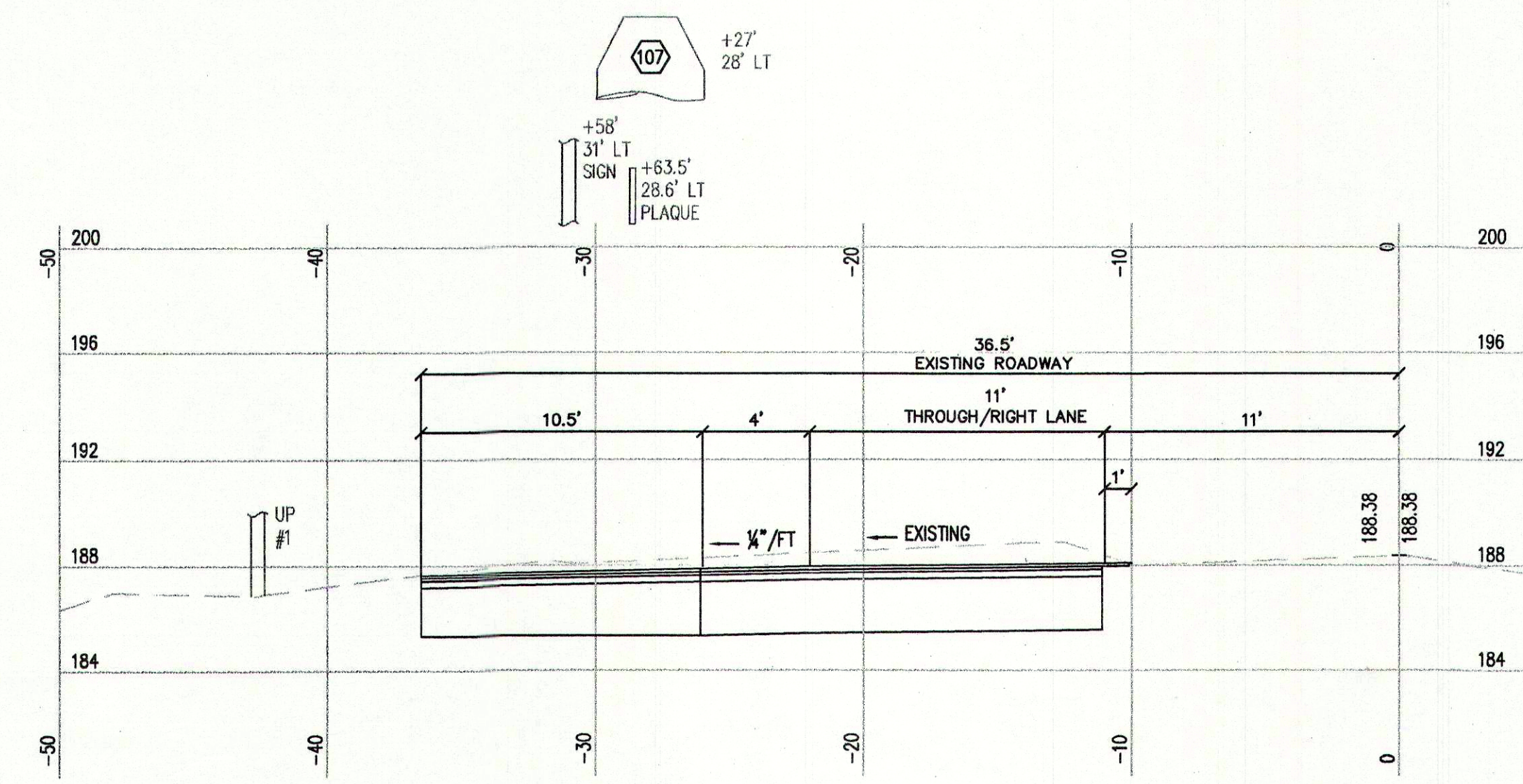
REV	DATE	DESCRIPTION
2	-	-
1	5.31.02	SUBMITTED TO TOWN FOR REVIEW.
1	-	-

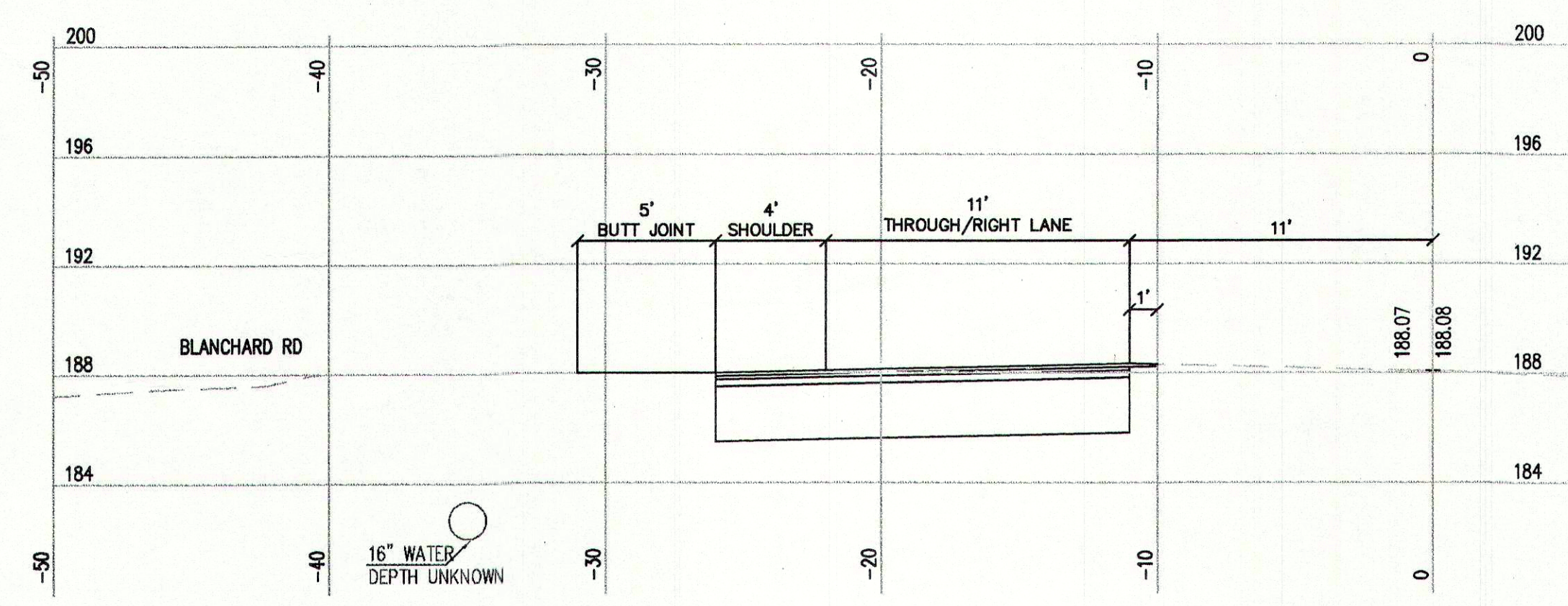
	DeLuca-Hoffman Associates, Inc.		JOB NO.
	Consulting Engineers		2085.05
	778 Main Street		SHEET
	South Portland, Maine 04106		31



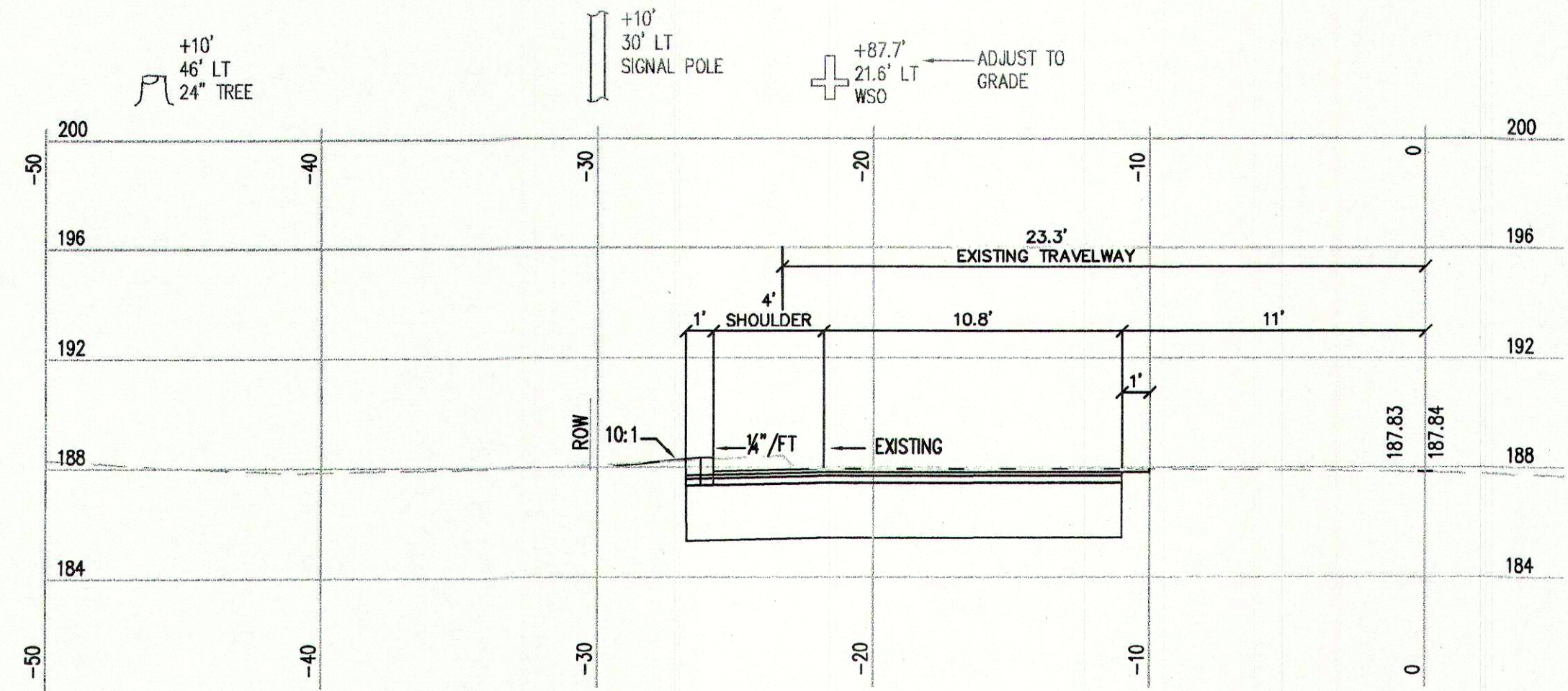
MAINE ROUTE 9  
IMPROVEMENTS  
CUMBERLAND  
STA 443+00 TO  
STA 445+00



143+50

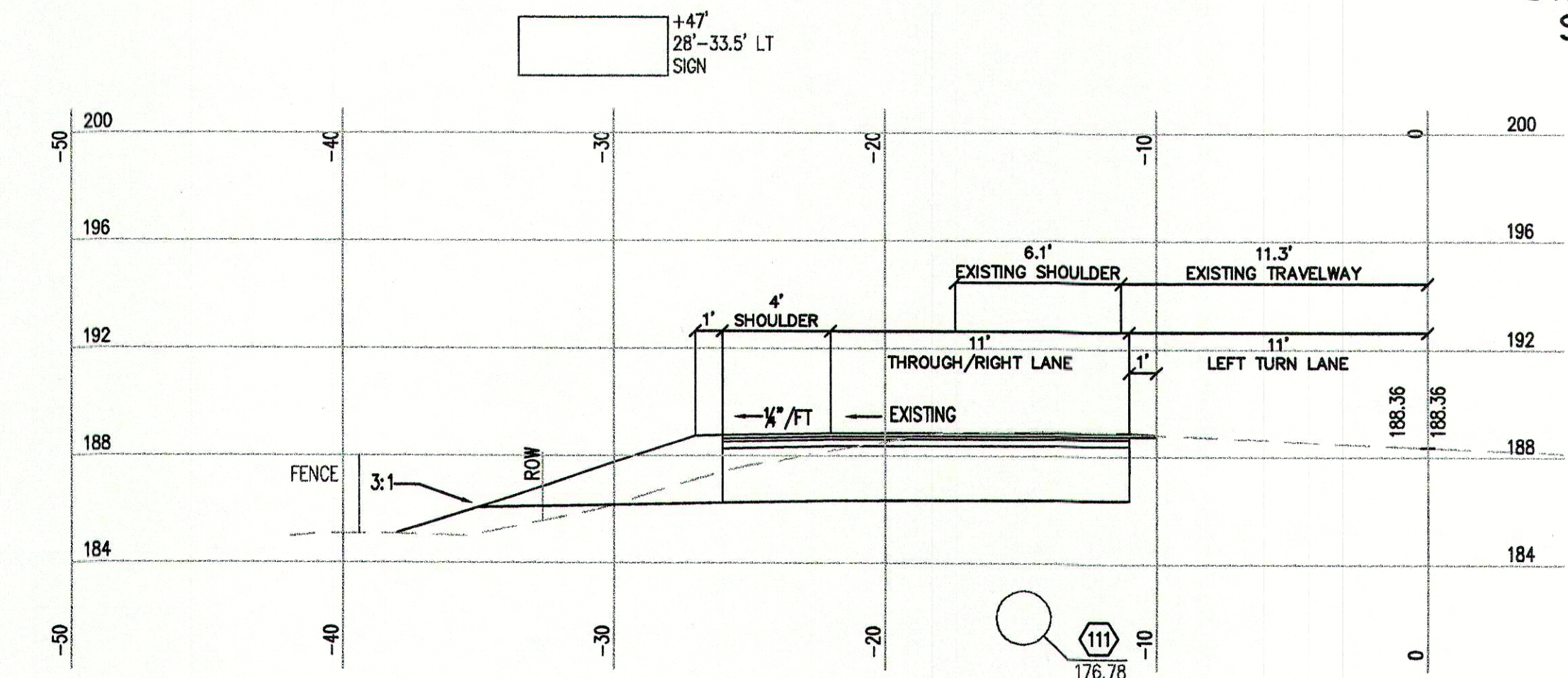


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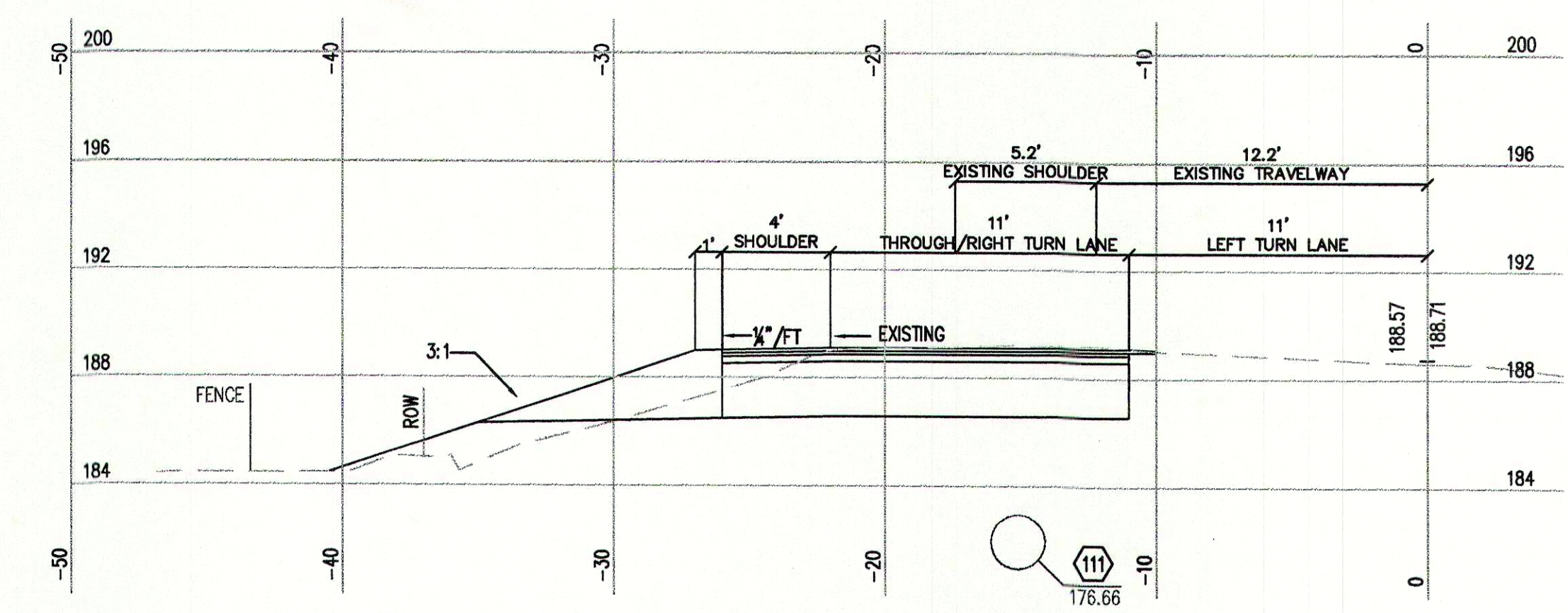


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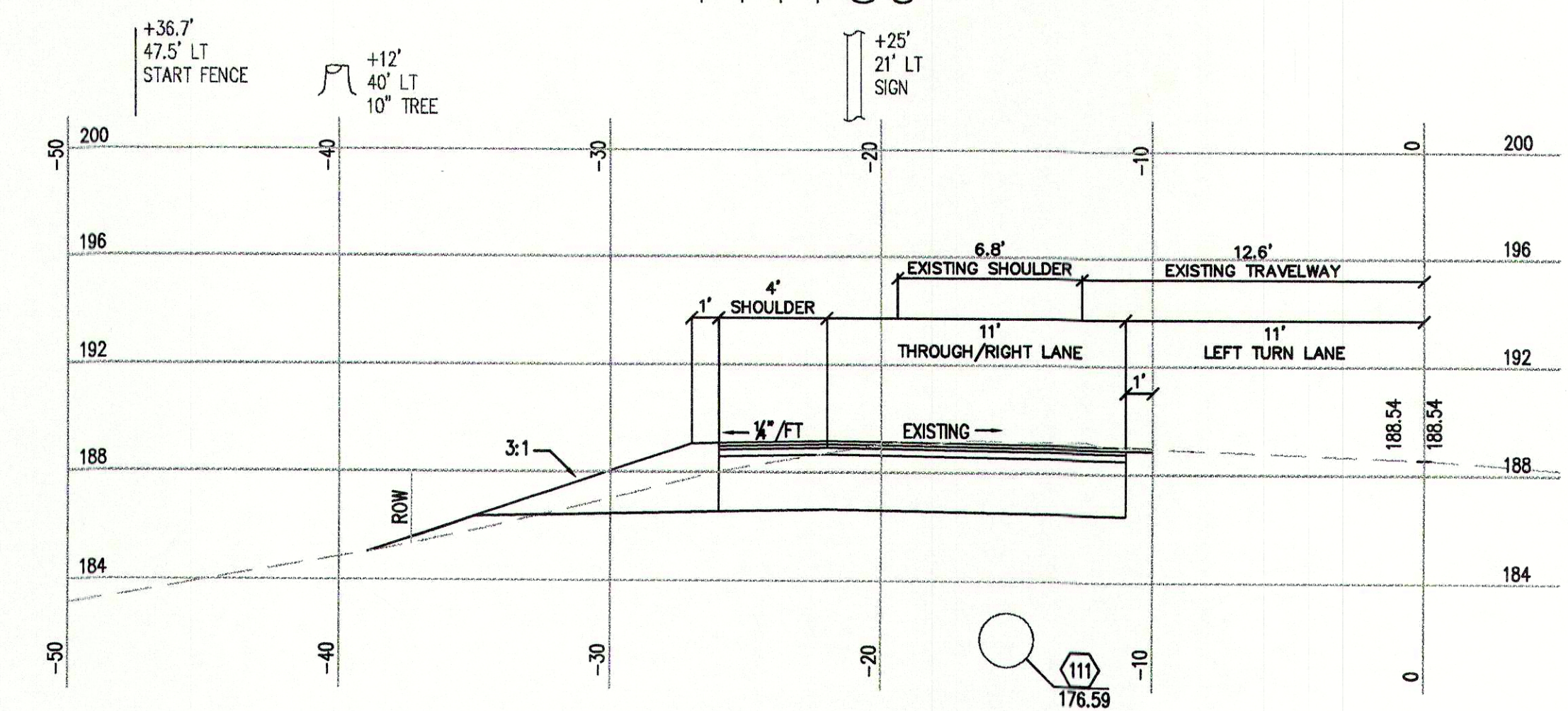
- 107 STA 143+80, 16" LT. EXISTING 4' DIA DRAIN MANHOLE. RIM=188.93', INV IN(15")=179.7', INV IN(24")=176.5', INV OUT(24")=176.4' ADJUST FRAME & COVER TO GRADE
- 108 STA 143+80, 16" LT TO STA 143+26, 91' LT. EXISTING 24" RCP STORMDRAIN, INV IN = 176.4', INV OUT = 175.9'
- 111 STA 146+49, 17' LT TO STA 143+80, 16" LT. EXISTING 24" UNDERDRAIN, INV IN = 177.1', INV OUT = 176.5'



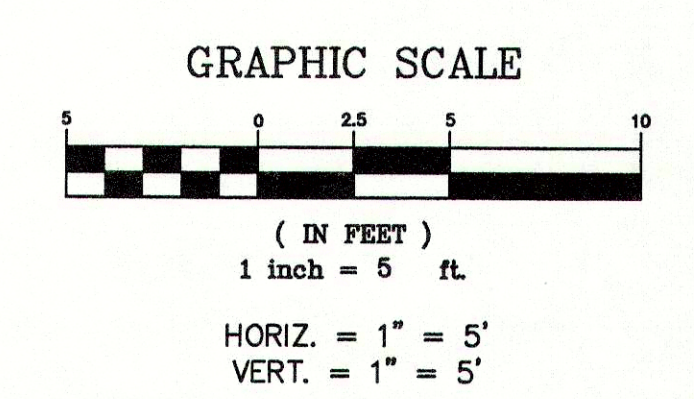
145+00



144+50



144+00



PRELIMINARY NOT FOR CONSTRUCTION

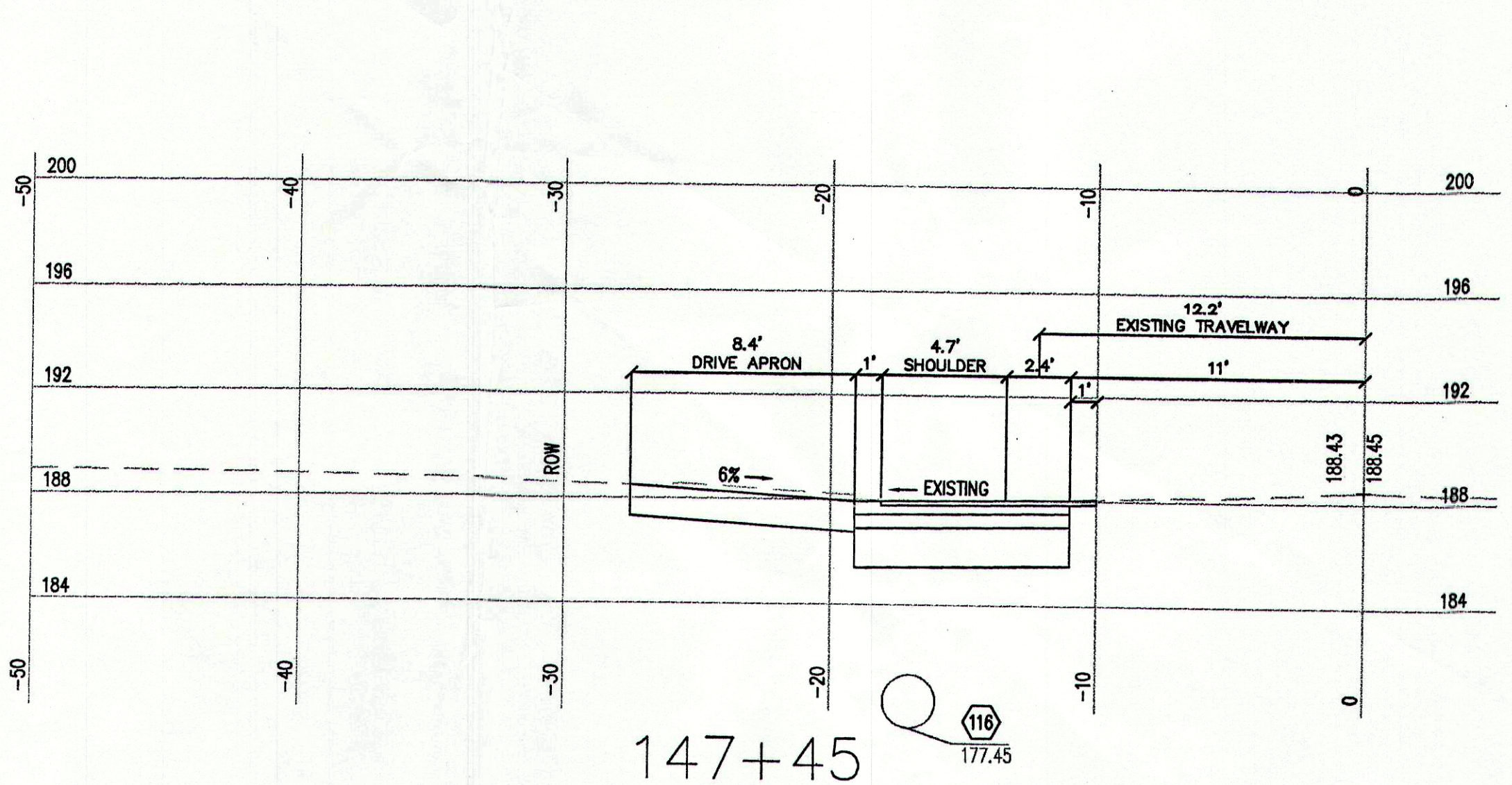
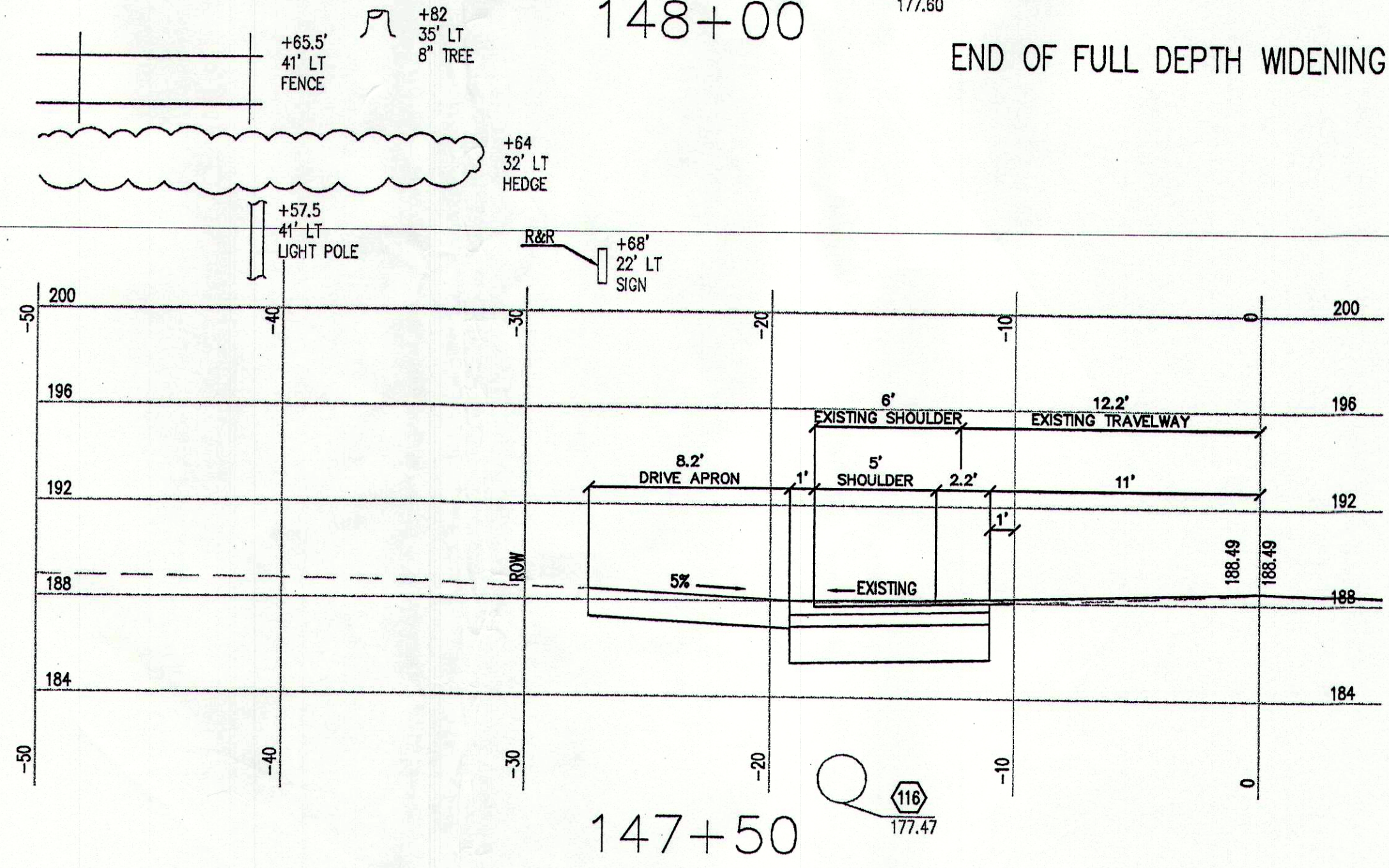
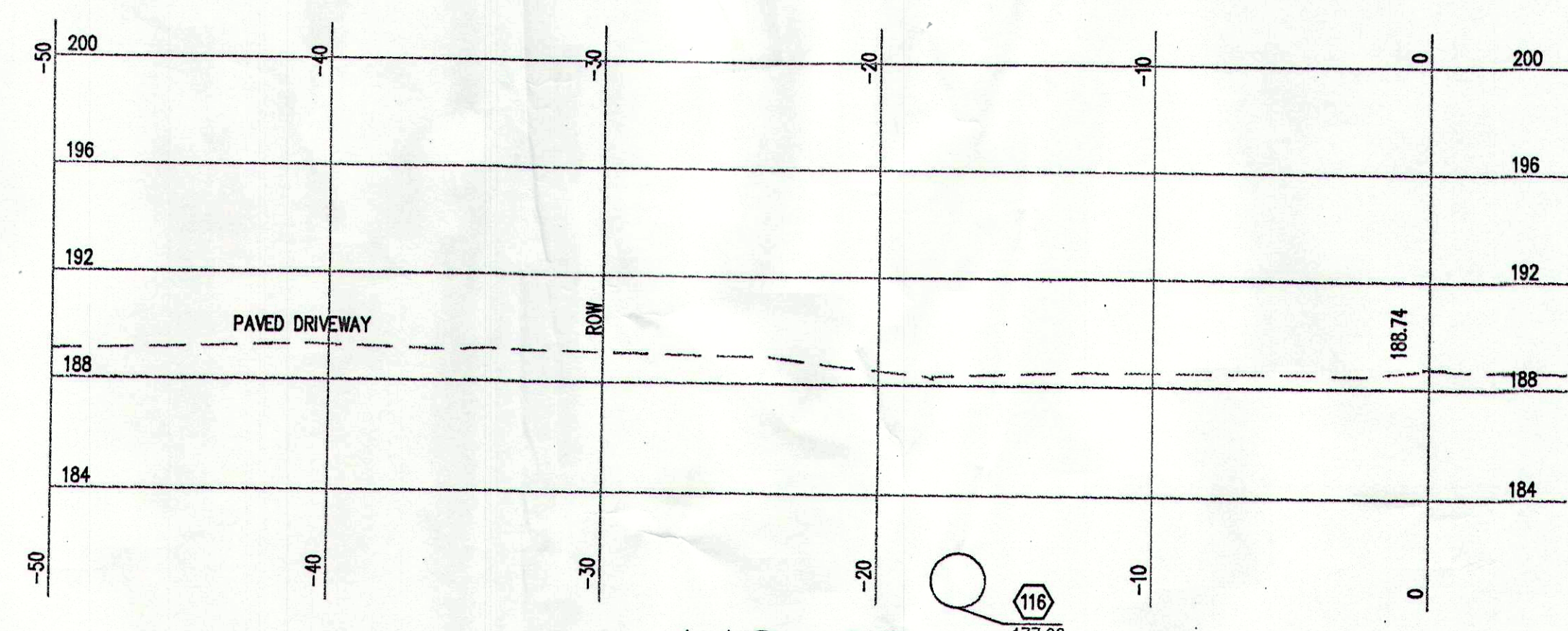
REV	DATE	DESCRIPTION	JOB NO.
1	5.31.02	SUBMITTED TO TOWN FOR REVIEW.	2085.05
2			
DH DeLuca-Hoffman Associates, Inc.			SHEET
Consulting Engineers			32
778 Main Street			
South Portland, Maine 04106			
2077751121			



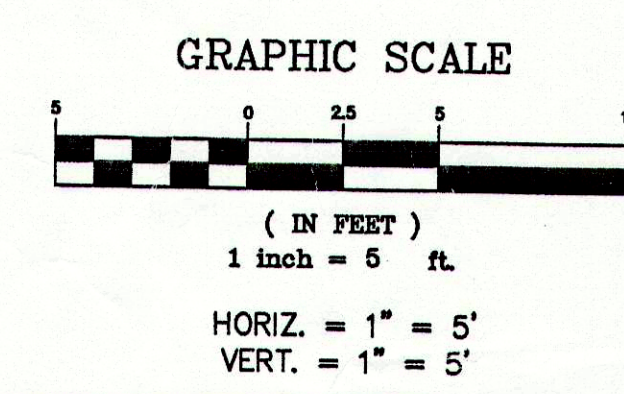




MAINE ROUTE 9  
IMPROVEMENTS  
CUMBERLAND  
STA 147+45 TO  
STA 148+00



DRAINAGE NOTES:  
(116) STA 149+51, 17' LT TO STA 146+49, 17' LT, EXISTING 24" UNDERDRAIN, INV IN = 178.0', INV OUT = 177.2'



PRELIMINARY NOT FOR CONSTRUCTION

3	6.20.02	REVISED PER MDOT PERMIT; REISSUED TO MDOT & FOR BID ADDENDUM #3.
2	6.07.02	SUBMITTED TO MDOT FOR REVIEW.
1	5.31.02	SUBMITTED TO TOWN FOR REVIEW.
REV	DATE	DESCRIPTION
<div> <div>DH</div> <div>DeLuca-Hoffman Associates, Inc. Consulting Engineers 778 Main Street South Portland, Maine 04106 2077751121</div> </div>		
		JOB NO. 2085.05
		SHEET 34