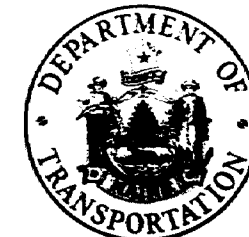


Reel #80
168-77
to
168-173 inc
#4

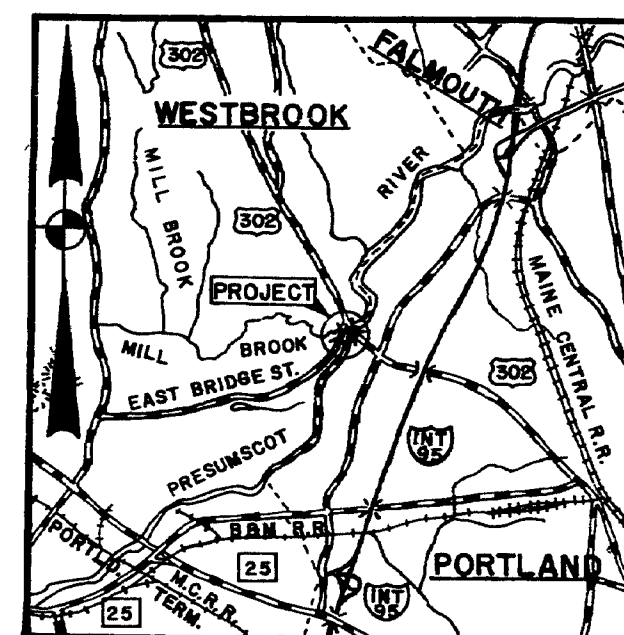
STATE OF MAINE DEPARTMENT OF TRANSPORTATION



BUREAU OF HIGHWAYS LITTLE BRIDGE OVER MILL BROOK IN THE CITY OF WESTBROOK CUMBERLAND COUNTY

PROJECT NO. M-0810(1)

COMPLETED 8/25/77



LOCATION MAP
SCALE OF MILES

CONVENTIONAL SIGNS

COUNTY LINES	=====	TRAVELLED WAY - PROPOSED	=====
TOWN LINES	=====	UNDERGROUND UTILITIES - EXISTING	-----
PROPERTY LINES	=====	UNDERGROUND UTILITIES - PROPOSED	-----
R/W LINES - EXISTING	=====	RAILROAD - SINGLE TRACK	=====
R/W LINES - NEW-ACCESS CONTROL	=====	RAILROAD - DOUBLE TRACK	=====
R/W LINES - NEW-NO ACCESS CONTROL	=====	UTILITY POLE - EXISTING	+
CULVERT - EXISTING	=====	UTILITY POLE - JOINT OCCUPANCY	+
CULVERT - PROPOSED	=====	PROPOSED UTILITY POLE - TEMPORARY	X
CURBING - EXISTING	=====	PROPOSED UTILITY POLE - PERMANENT	+
CURBING - PROPOSED	=====	TREES	⊙
TRAVELLED WAY - EXISTING	=====	WOODS	⊙

SPECIFICATIONS

DESIGN - AASHTO Standard Specifications for Highway Bridges 1973.

CONTRACT - State of Maine, State Highway Commission, Standard Specifications, Highway and Bridges Revision of June 1968.

LIVE LOADING

HS20-44

INDEX OF SHEETS

TITLE SHEET	1
SURVEY SHEET	2
SURVEY PROFILE	3
CROSS SECTIONS	4-8
LAYOUT OF PIPES	9
DEVELOPED PLANS	10
HIGHWAY STANDARDS	11-14
RIGHT OF WAY MAP	15-16

STANDARDS

AUG. 1969	5	EROSION CONTROL
AUG. 1969	6	GUARD RAIL
AUG. 1969	11	BARRICADES, WARNING SIGNS
AUG. 1969	12	FIELD OFFICES

HYDROLOGY DATA

Drainage Area = 14 square miles
Design Discharge (Q_{50}) = 750 cfs
Check Discharge (Q_{100}) = 900 cfs
Discharge Velocity (w_{Q50}) = 11 ft/sec
High Water Elevation is controlled by the Presumpscot River.

TRAFFIC DATA

A.D.T.	1976	1990
A.D.T.	1996	2960
D.H.V.	296	
T. (%)	4	
D. (%)	55	
V.	35	
P.S.D. (%)		
18 KIPS	P2.5	11

FILE NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	M-0810(1)	1	16

BRIDGE CODE NO. 3987

ESTIMATED QUANTITIES

ITEM	DESCRIPTION	UNIT	QUANTITY
201.11	Clearing	Acres	1.50
203.20	Common Excavation	CY	4500
203.24	Common Borrow	CY	5000
203.25	Granular Borrow	CY	5000
205.04	Overhaul (7' Time Measure)	CY	4100
205.05	Overhaul (Pit Measure)	CY	2400
206.06	Structural Earth Excavation - Drain & Minor Struct	CY	415
206.12	Structural Earth Excavation - Channel	CY	600
304.10	Aggregate Subbase Course - Gravel	CY	2050
403.07	Hot Bituminous Pavement - Grading B	Ton	320
403.08	Hot Bituminous Pavement - Grading C	Ton	310
403.101	Hot Bituminous Pavement - Grading D	Ton	20
410.161	Cover Coat Material, Sand (Levelling)	CY	35
509.11	132" Structural Plate Pipe	LS	1
511.07	Cofferdams	LS	1
603.162	15" BCCMP - ELIMINATED	LF	540
603.172	18" BCCMP	LF	34
606.26	Terminal Ends - Single Rail	Ea.	4
606.35	Guard Rail Delineator Posts	Ea.	4
606.55	Guard Rail, Type 3 - Single Rail	LF	562
606.60	Guard Rail, Type 3 Circular Greater than 15 Foot Radius	LF	50
610.35	Flint Riprap	CY	240
615.37	Lump	CY	110
616.03	Seeding	S.Y.	75
616.14	Seeding, Method Number 2	Unit	55
616.15	Temporary Seeding	LB	55
616.17	Reed & Sundry Grass	LB	1
619.12	Mulch	Unit	85
623.05	Loose, Straight Time	M.Hr.	50
623.05	Traffic Officers	M.Hr.	40
631.171	Truck, Small (Including Operator)	Hr.	20
631.22	Front End Loader (Including Operator)	Hr.	10
632.09	Warning Lights	Grp.	3
637.07	Sprinkling	Unit	20
637.08	Calcium Chloride	Ton	1
639.10	Field Office, Type C	Ea.	1
656.50	Eroded Hvy. In Place	Ea.	10
656.51	Sand Bags, In Place	Ea.	10
657.201	Seed & Application, Method A	Unit	30
659.10	Mobilization	LS	1

APPROVED:

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Commissioner

DATE

Sept. 5, 1977

Chief Engineer & Bureau Director

Aug. 26, 1979

REVISED Hs BUILT P.D. Bureau 3/19/81

168-77

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	11-0510(1)	2	16

GENERAL SURVEY NOTES

1. The two most structural pipe piles, 18" x 18" x 1/2" steel, are to be driven through the structural pipe piles and into the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed.

2. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed.

3. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed.

4. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed.

5. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed.

6. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed.

7. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed.

8. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed.

9. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed.

10. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed. The piles are to be driven to a depth of 10 feet below the old channel bed.

Notes: The contractor shall schedule the channel excavation and filling at the old channel in a manner which will assure that material will not be stockpiled adjacent to the stream bank for a period which will exceed two weeks. Furthermore, material shall not be stockpiled below elevation 25.6 during high water periods. Material shall not be stockpiled closer than 5' to tops of channel banks. Existing trees 6" or greater in diameter shall not be disturbed unless otherwise directed by the Engineer.

Note: Channel excavation shall be accomplished in a manner approved by the Engineer, such that the moisture content of the material removed will be minimized.

Woods & Alders

Note: The clearing lines shown on this plan are for clearing purposes only. The actual lines for payment shall be established in the field by the Engineer.

Fill in old Channel with Common Borrow or Structural Excavation Slope to drain. Fill in old Channel with Common Borrow or Structural Excavation Slope to drain. Fill in old Channel with Common Borrow or Structural Excavation Slope to drain.

Hydrologic Data

Drainage Area = 14.0 sq. miles
 Discharge (CFS) = 750 cfs
 Discharge (MGD) = 300 MGD
 Discharge Velocity (ft/sec) = 110 ft/sec
 High Water Elevation (ft) = 25.6
 Low Water Elevation (ft) = 25.6

Notes:

1. T.M. #162
 2. T.M. #162
 3. T.M. #162
 4. T.M. #162
 5. T.M. #162
 6. T.M. #162
 7. T.M. #162
 8. T.M. #162
 9. T.M. #162
 10. T.M. #162

CURVE DATA

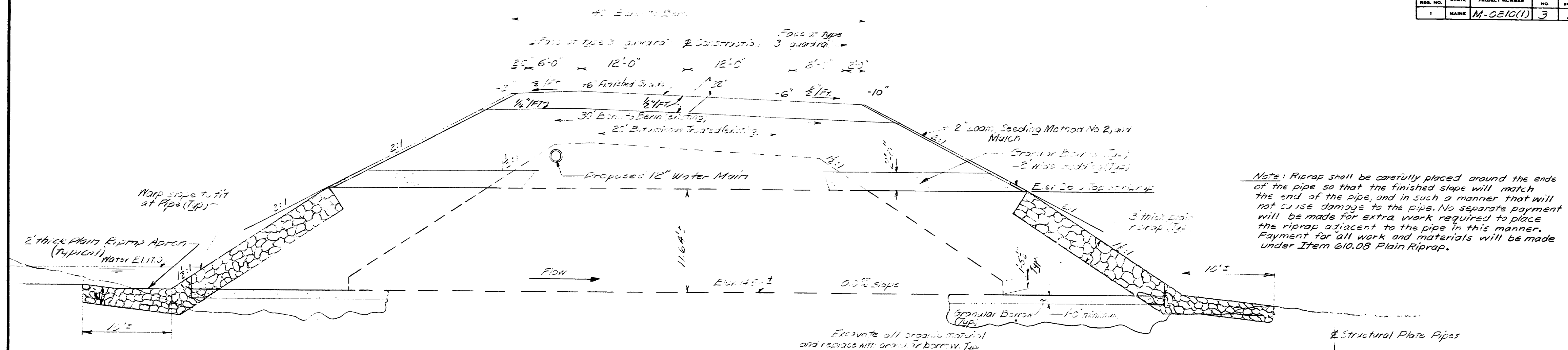
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 2. Station 44+00.00
 3. Station 44+00.00
 4. Station 44+00.00
 5. Station 44+00.00
 6. Station 44+00.00
 7. Station 44+00.00
 8. Station 44+00.00
 9. Station 44+00.00
 10. Station 44+00.00

DATE	BY	REVISIONS
10-17-73	J.P. FIDLER	1. Initial Design
11-14-73	J.P. FIDLER	2. Check & Revise
12-14-73	J.P. FIDLER	3. Check & Revise
1-14-74	J.P. FIDLER	4. Check & Revise
2-14-74	J.P. FIDLER	5. Check & Revise
3-14-74	J.P. FIDLER	6. Check & Revise
4-14-74	J.P. FIDLER	7. Check & Revise
5-14-74	J.P. FIDLER	8. Check & Revise
6-14-74	J.P. FIDLER	9. Check & Revise
7-14-74	J.P. FIDLER	10. Check & Revise

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
LITTLE BRIDGE
 OVER
MILL BROOK
 IN THE CITY OF
WESTBROOK
CUMBERLAND COUNTY
 SURVEY PLAN
 AUGUSTA, MAINE SEPT. 1973

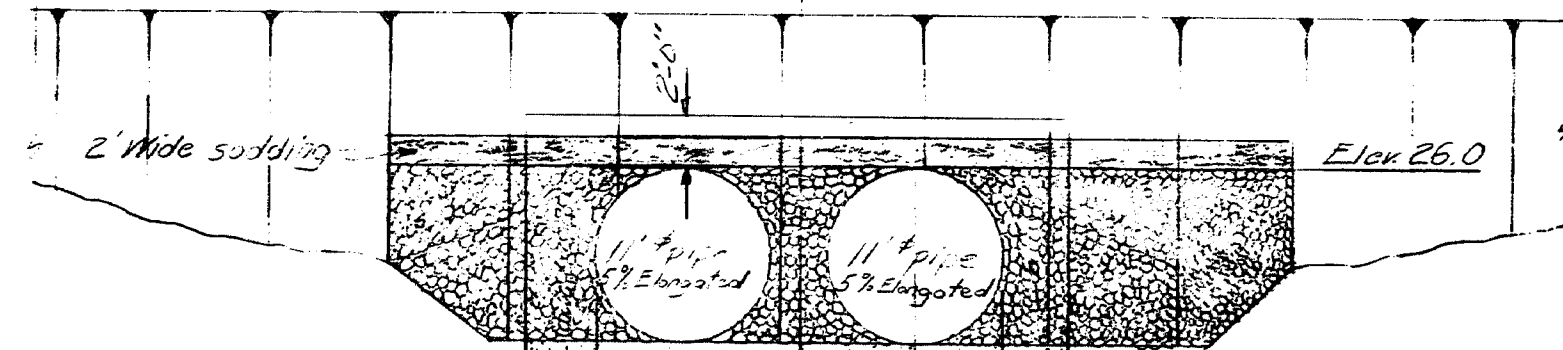
160-78

F.R.E.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	M-0510(1)	3	16

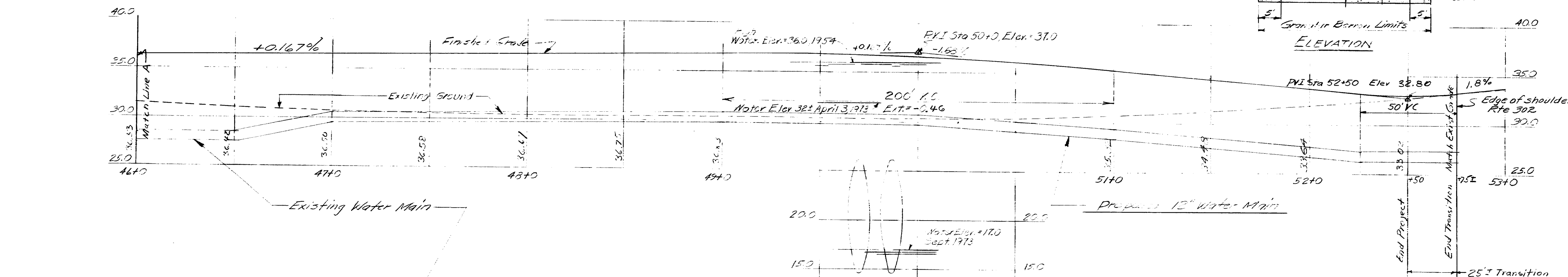


TRANSVERSE SECTION

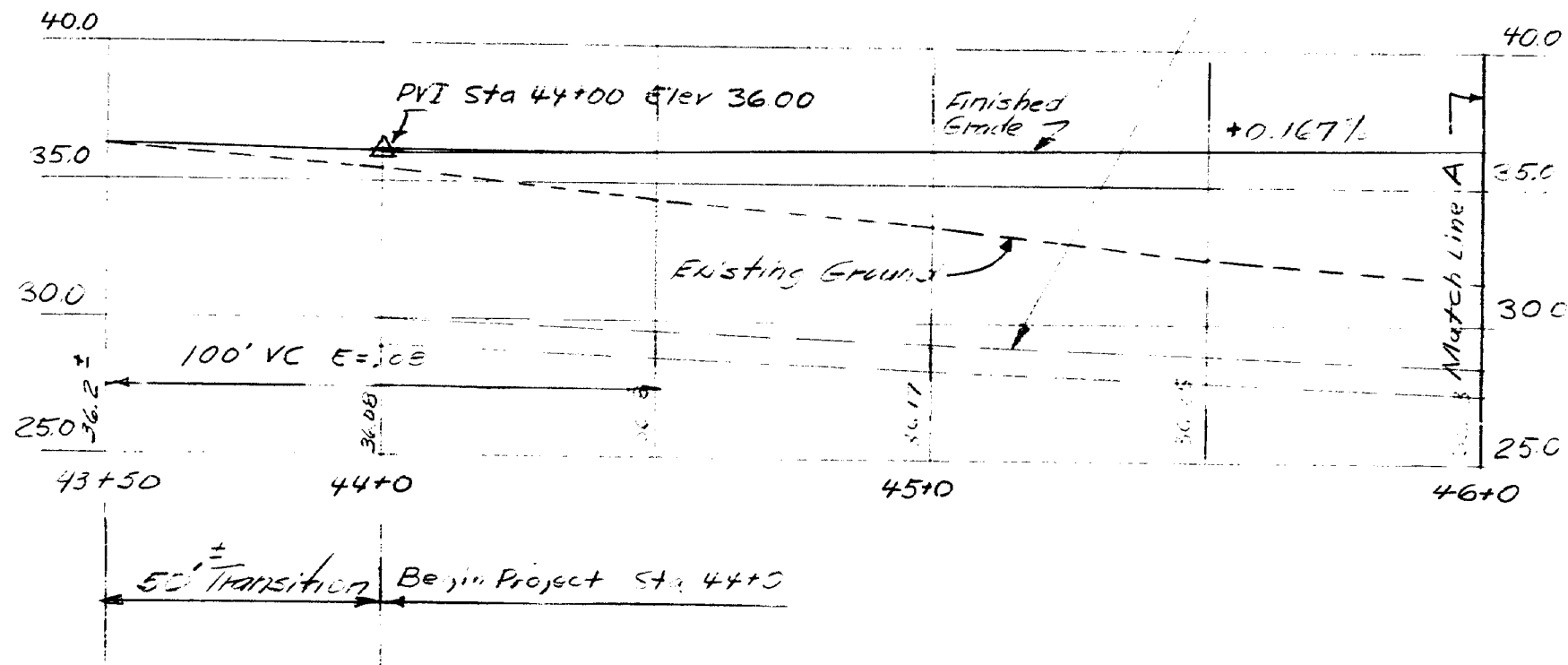
Note: Granular Barren shall meet the requirements of Subsection 70.3.19 Material for Underwater Backfill.



ELEVATION



PROFILE ALONG CONSTRUCTION

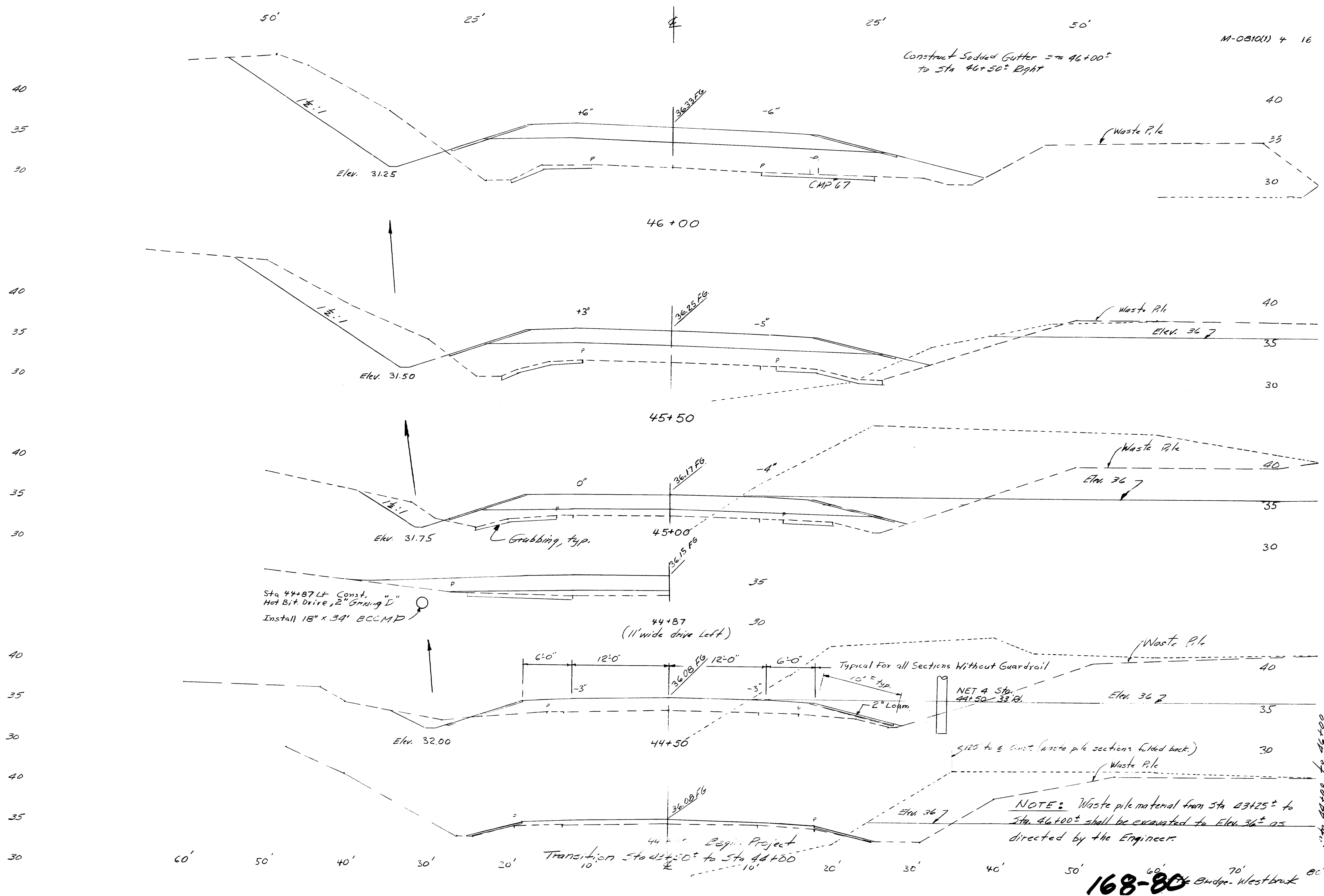


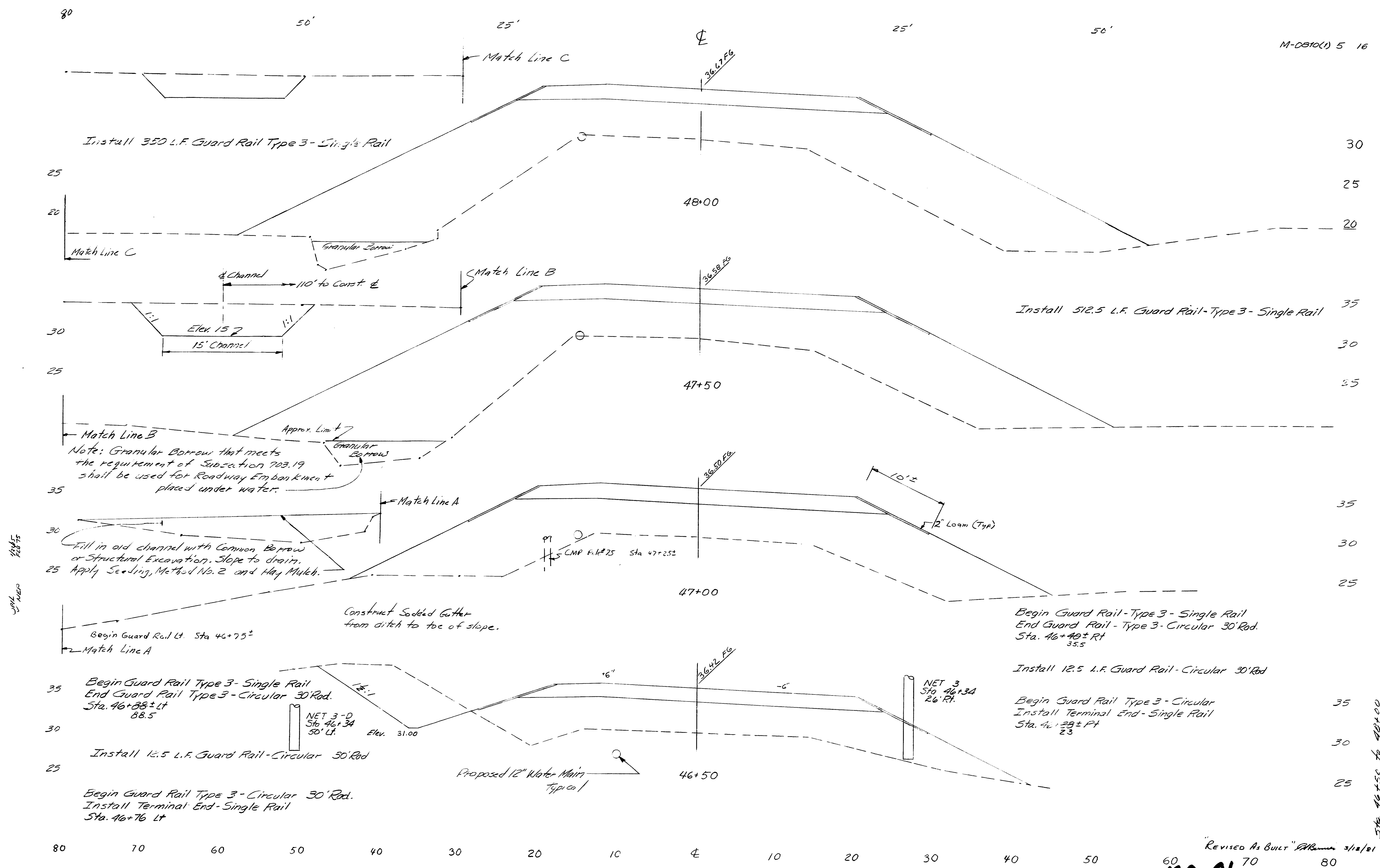
DESIGN - DETAILED
CHECKED
FIELD CHANGES

BY J.L. 10-17-73

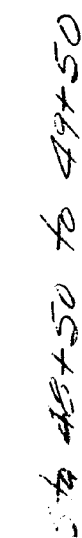
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
LITTLE BRIDGE
OVER
MILL BROOK
IN THE CITY OF
WESTBROOK
CUMBERLAND COUNTY
SURVEY PROFILE
AUGUSTA, MAINE
1973

168-79

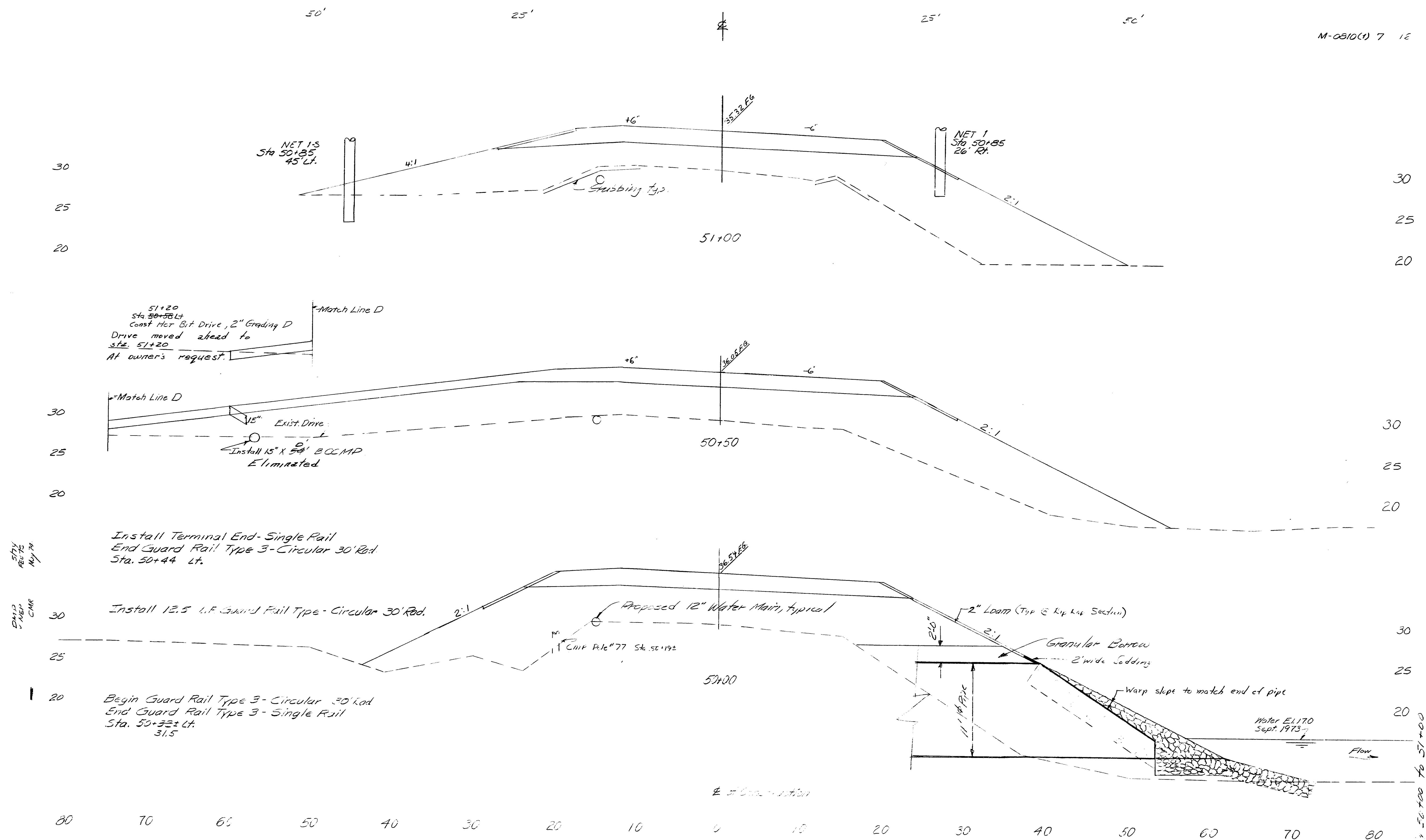




REVISED AS BUILT 3/12/21
168-81 Little Bridge - Westbrook
 60 70 80



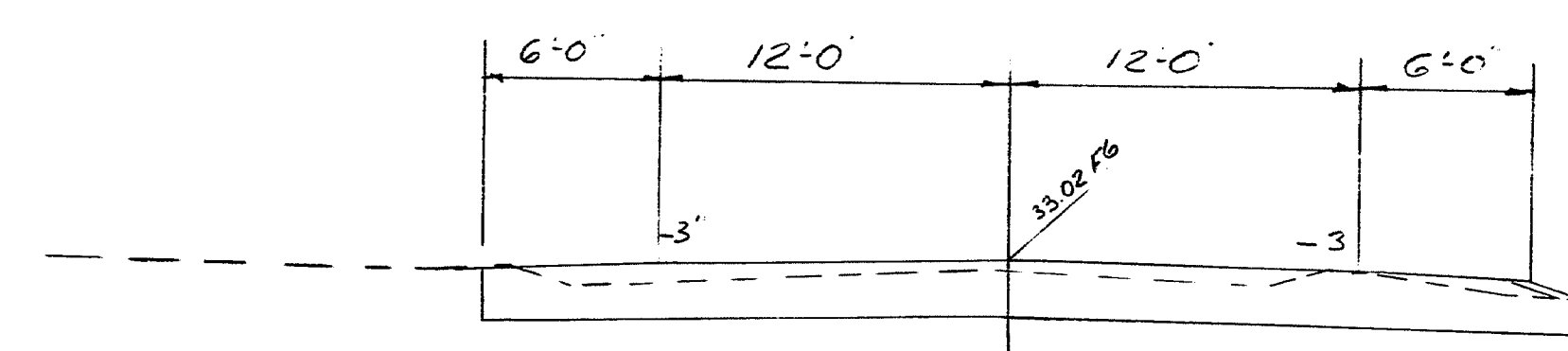
168-82 Little Bridge to ...



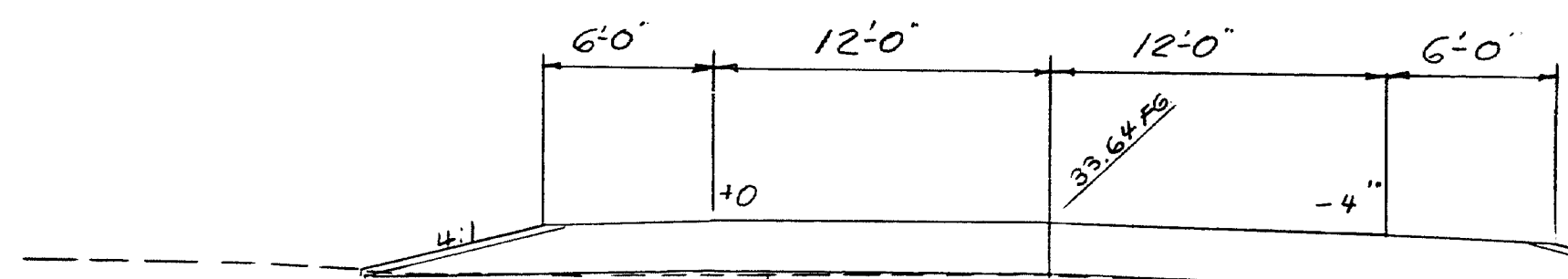
"REVISED AS BUILT" At Borden 3/12/21
168-83 412 Paulas - Westbrook

NE 239-5
Sta. 53+40
28' Eas. Side

Sta 52+75± End Trans
Match Exist Line & Grade



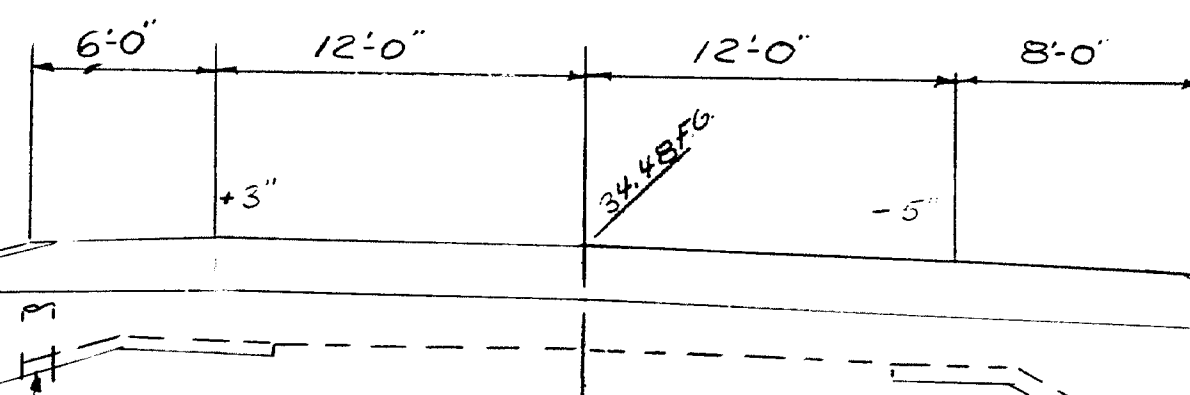
52+50 End Project, Begin 25± Transition



8' Paved Apron on drive

Construct 20' Entrance
Sta. 51+30± Rt.

Sta 51+55±
CMP Ref. # 78

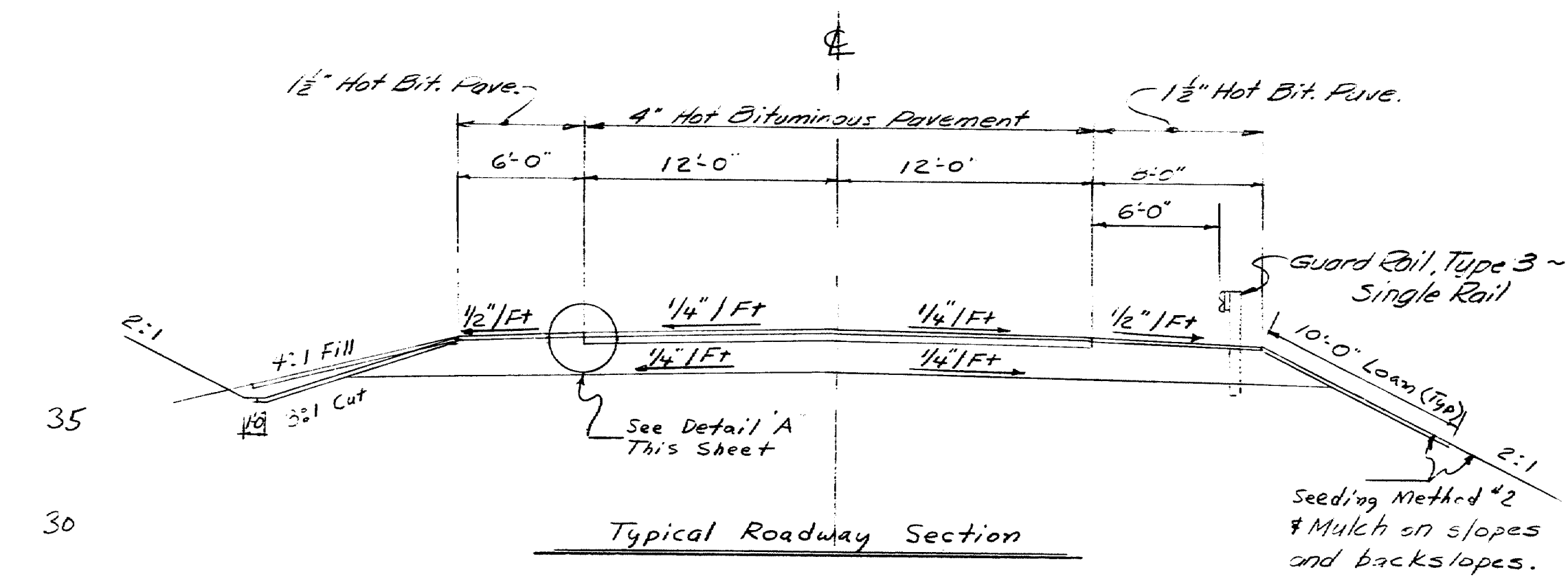


Proposed 12" Water Main, typical

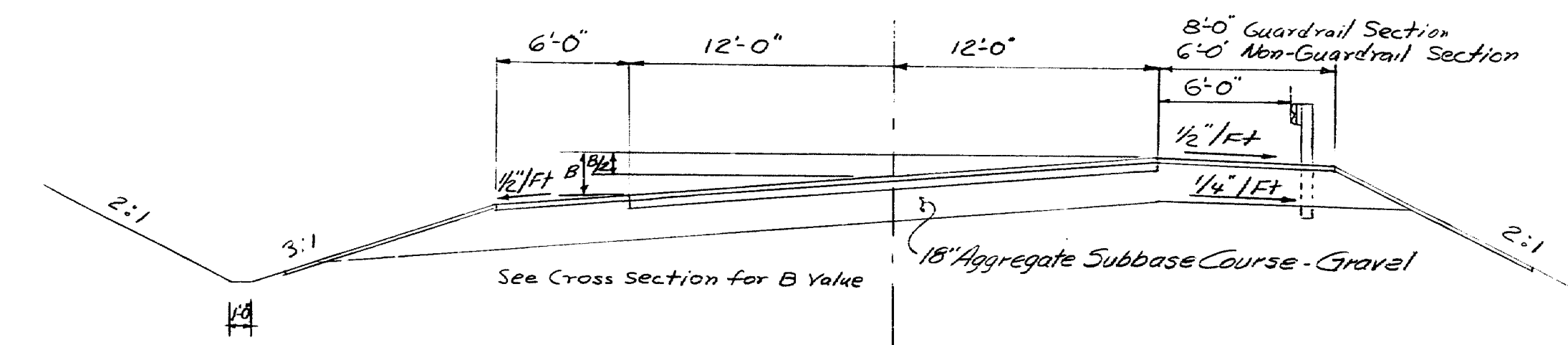
Install Terminal End - Single Rail
End Guard Rail Type 3 - Circular 30' Rad.
Sta. 51+75± Rt.
70

Install 12.5 L.F. Guard Rail Type 3 - Circular 30' Rad.

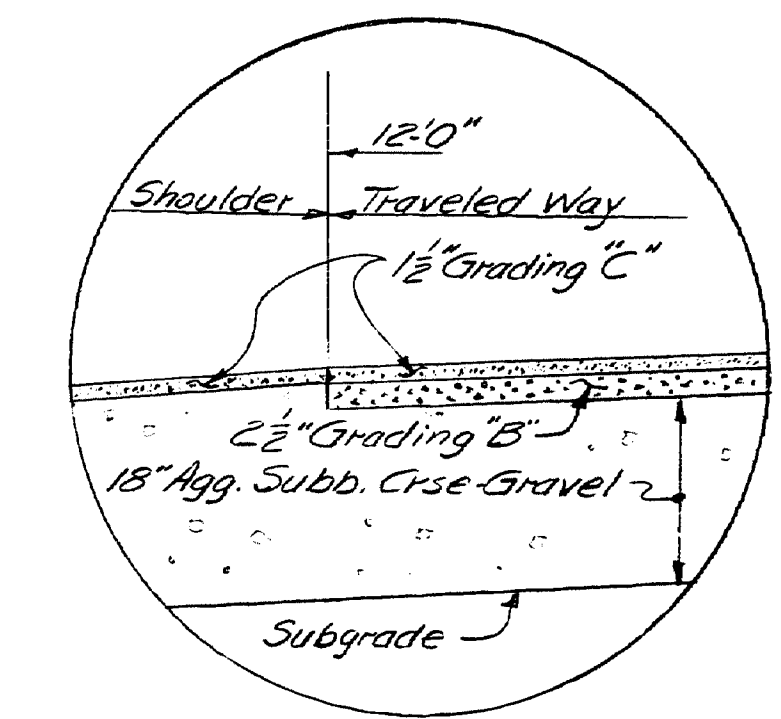
Begin Guard Rail Type 3 - Circular 30' Rad.
End Guard Rail Type 3 - Single Rail
Sta. 51+63± Rt.
57.5



Typical Roadway Section



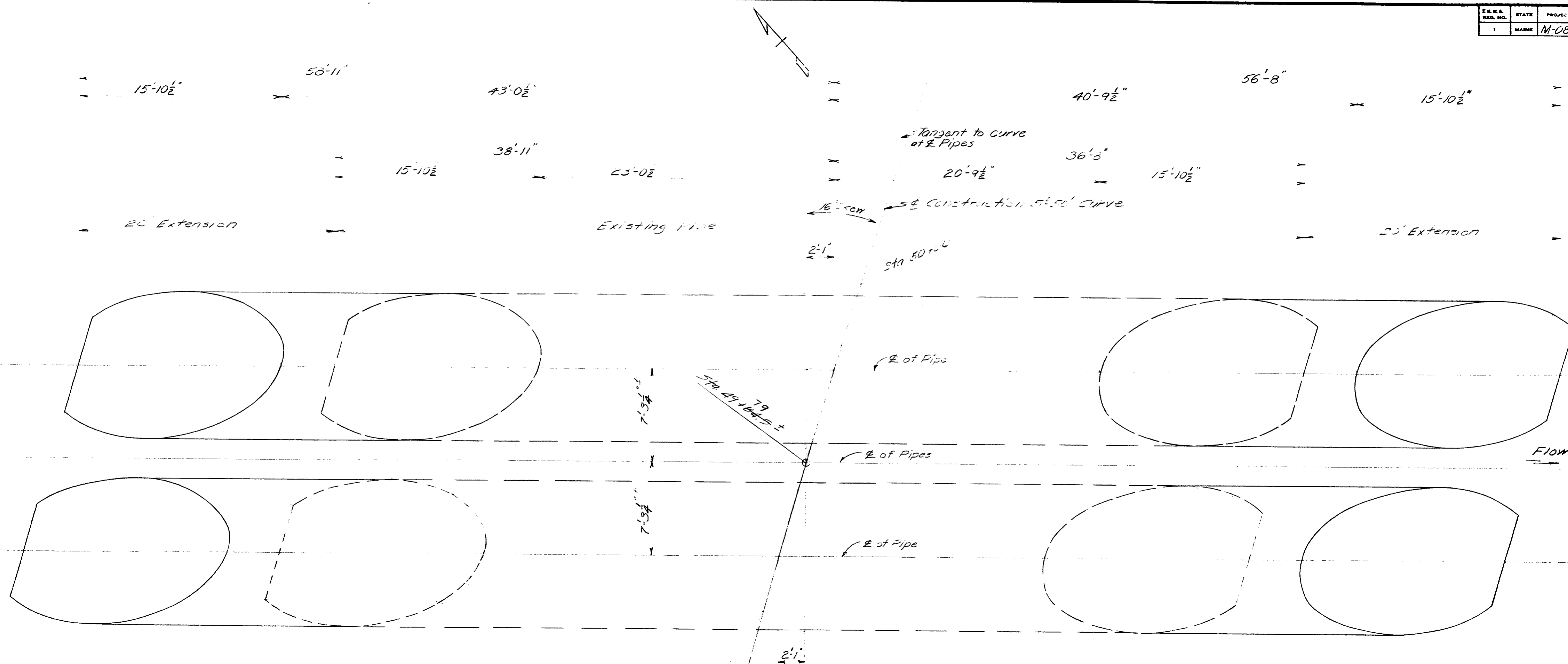
Typical Superelevated Roadway Section



DETAIL "A"

Sta 51+50 to 52+50

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	M-0810(1)	9	16



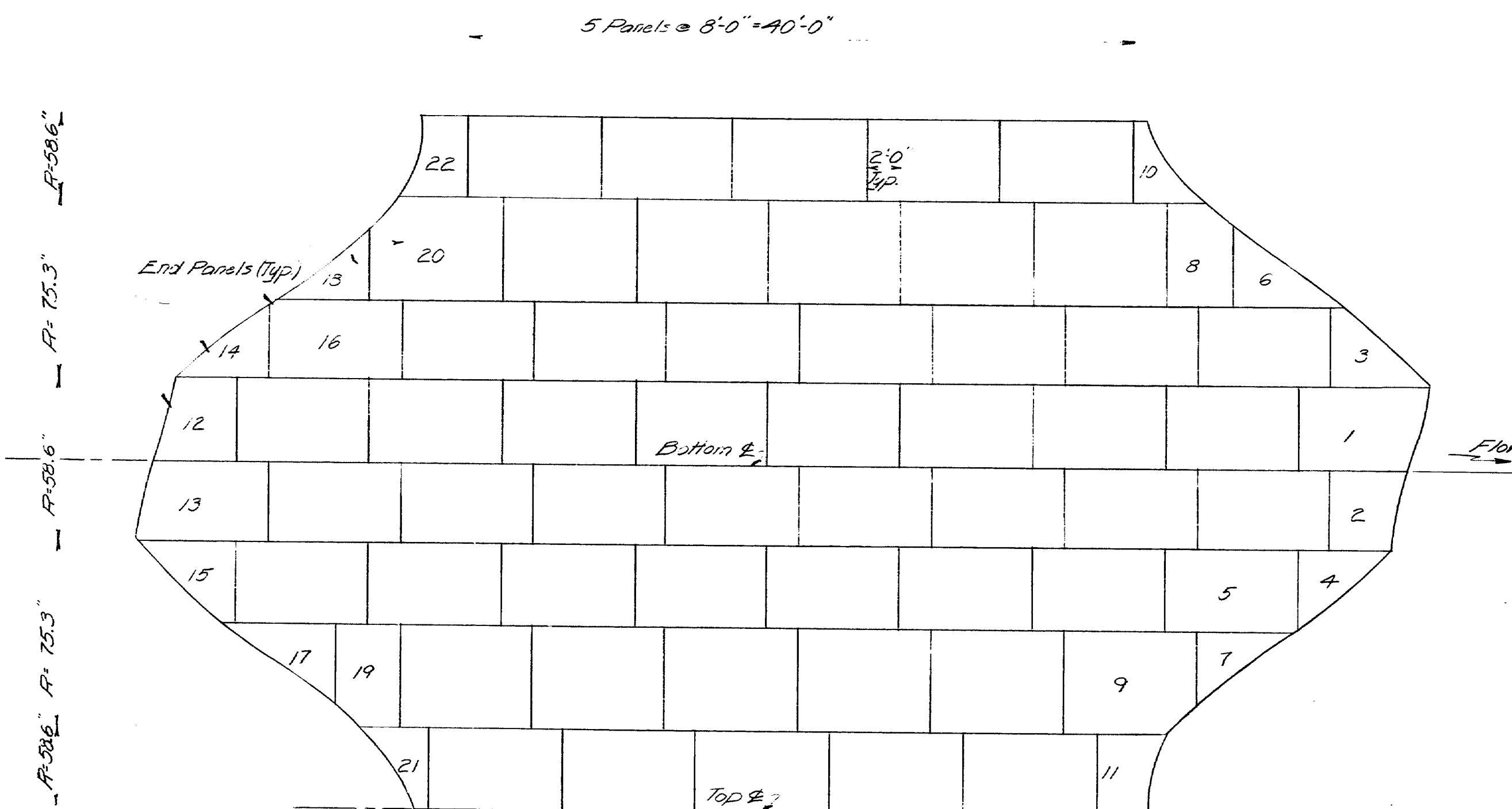
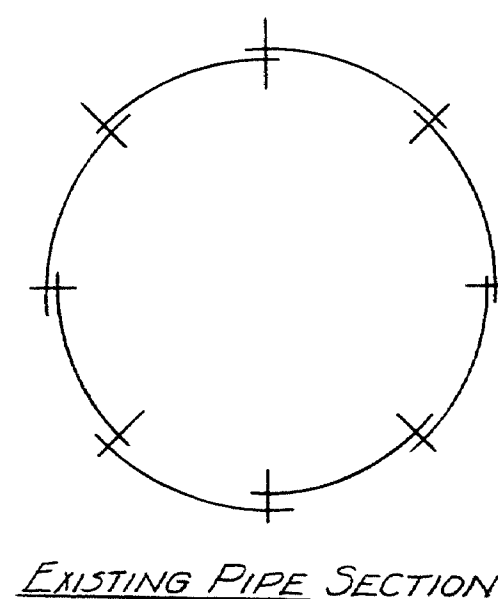
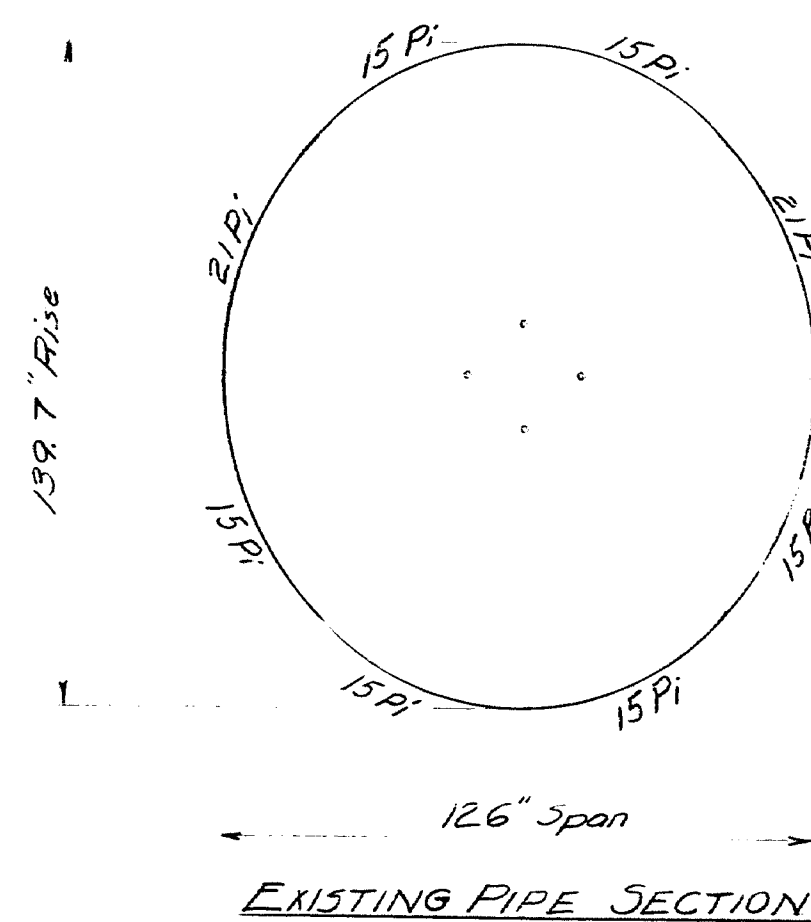
PLAN LAYOUT
 (Showing existing pipe with added 20' extensions on each end)

DESIGN - DETAILED	CHECKED	REVISIONS	FIELD CHANGES
BY <i>DM</i>	<i>DM</i>		
DATE <i>10/74</i>	<i>10/74</i>		

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
LITTLE BRIDGE
 OVER
MILL BROOK
 IN THE CITY OF
WESTBROOK
CUMBERLAND COUNTY
 LAYOUT OF PIPES
 AUGUSTA, MAINE AUG. 1974

168-85 Revised As Built By *DM* 3/18/81

STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
MAINE	14-0310(1)	10	16

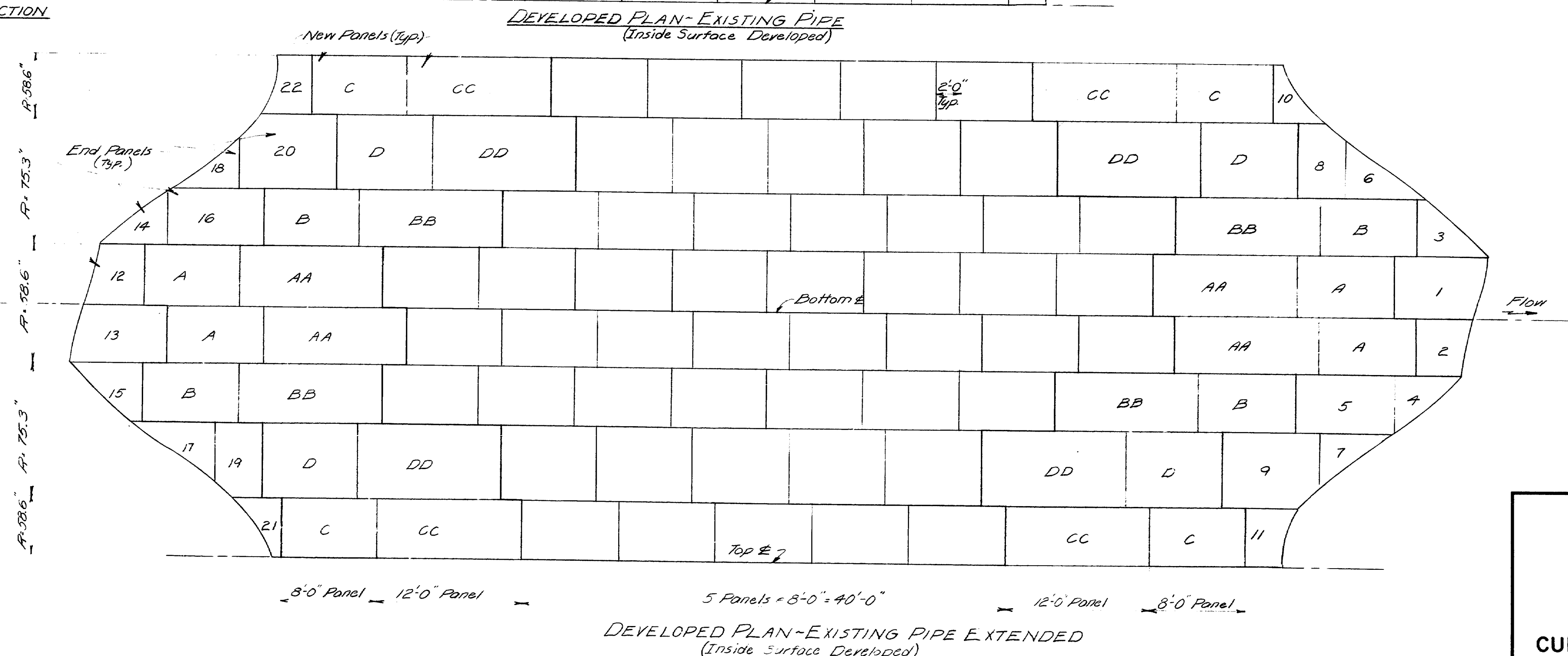


Mark	No.	Gage	Pi	Radius	Net Length
AA	8	7	15	58.6	12'0"
BB	8	7	15	75.3	12'0"
CC	8	8	15	58.6	12'0"
DD	8	8	21	75.3	12'0"
A	8	7	15	58.6	8'0"
B	8	7	15	75.3	8'0"
C	8	8	15	58.6	8'0"
D	8	8	21	75.3	8'0"

* Total No. is for two pipes.
The structural plates shall meet the requirements of Section 907.09 of the Standard Specifications. The corrugations are 6"x2" with 4 holes per foot along the longitudinal seam.

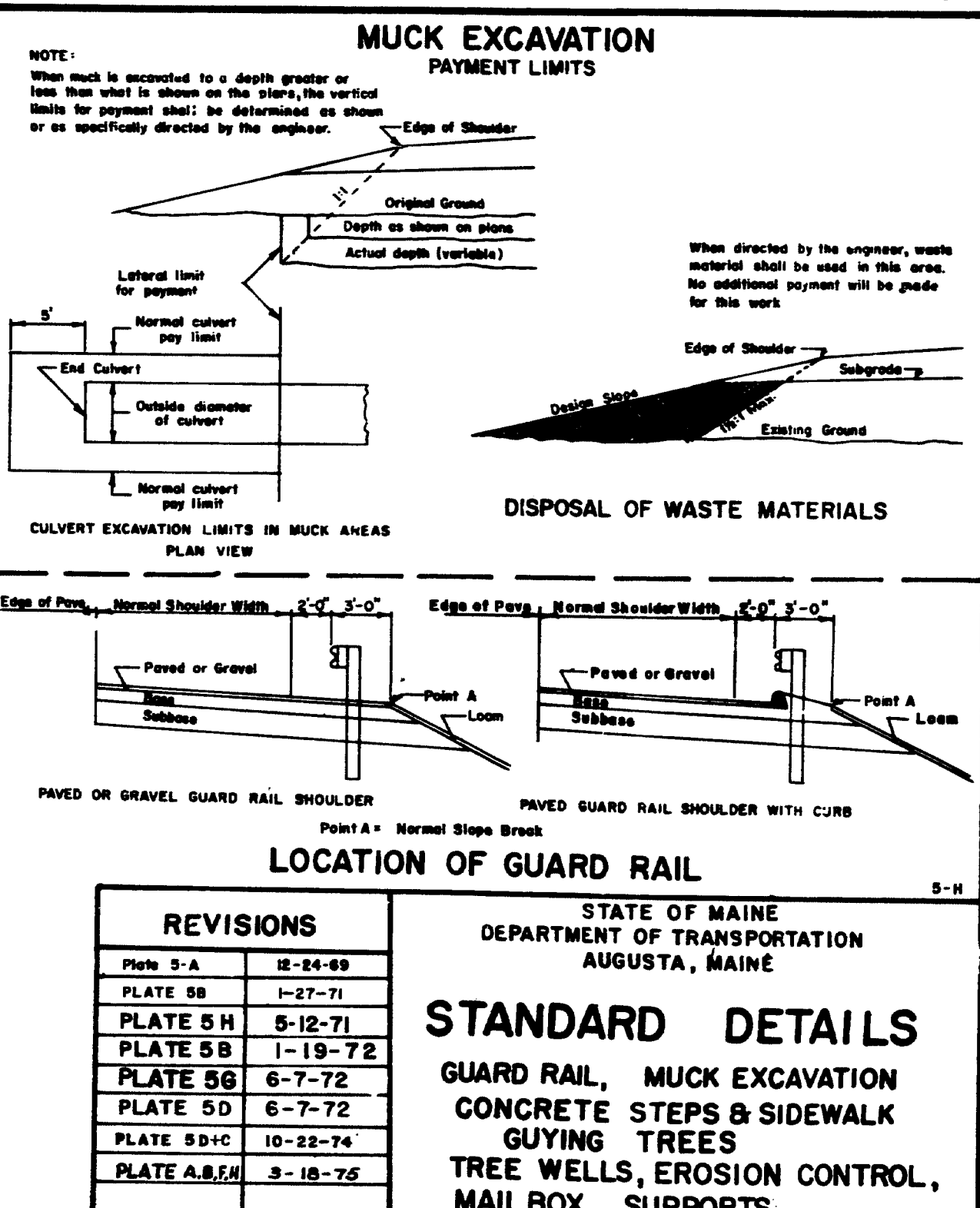
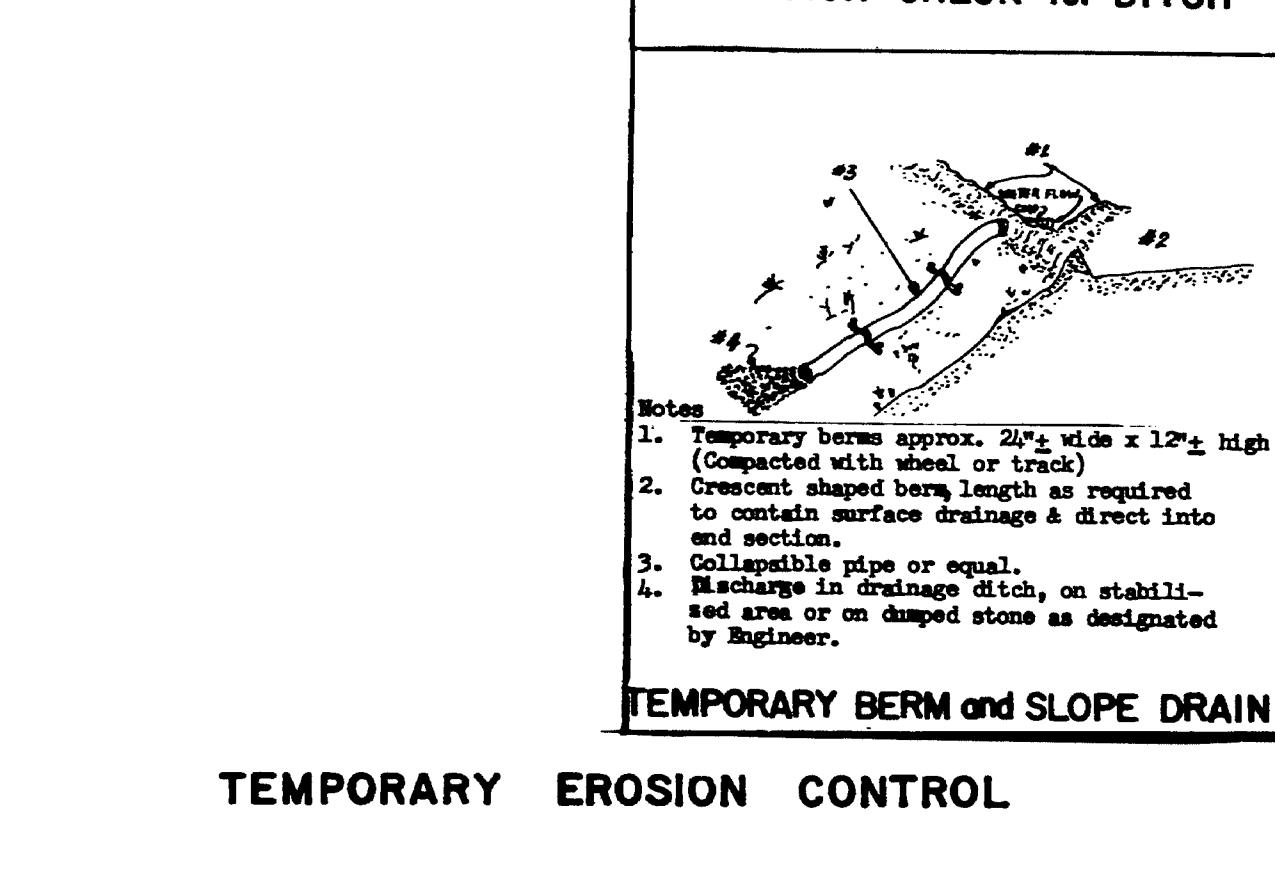
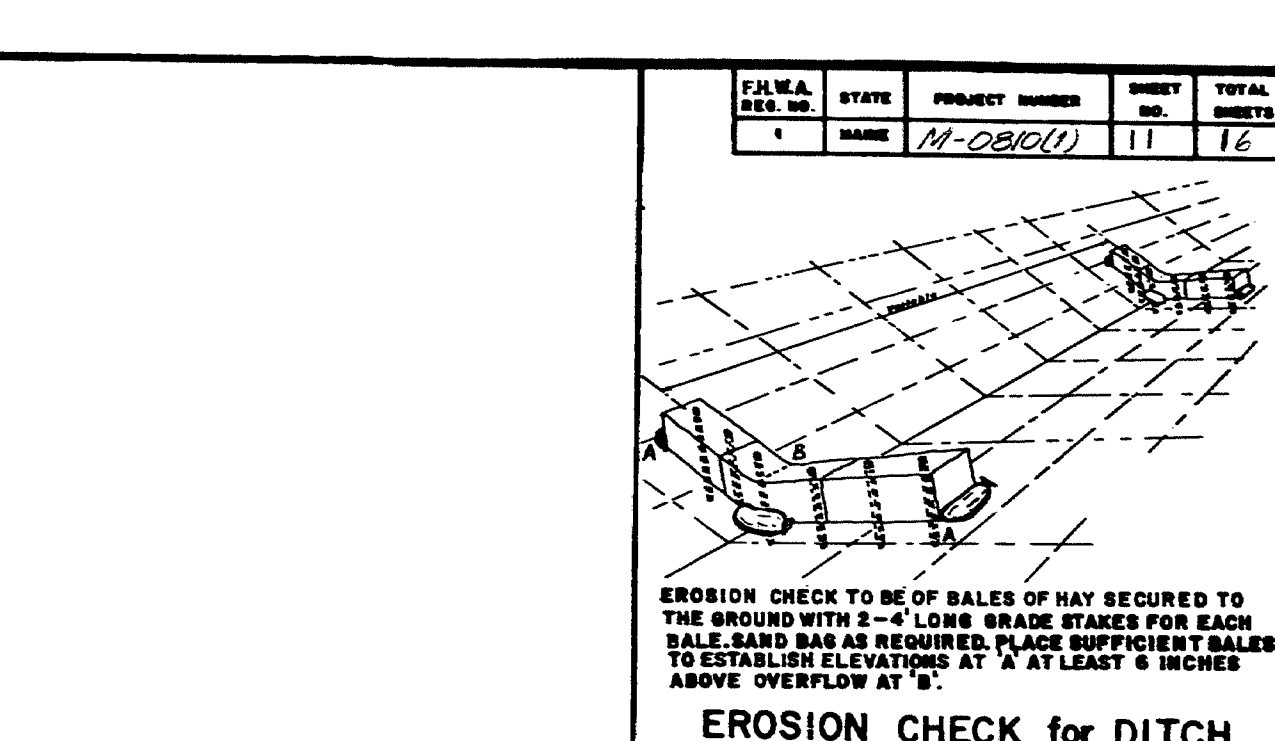
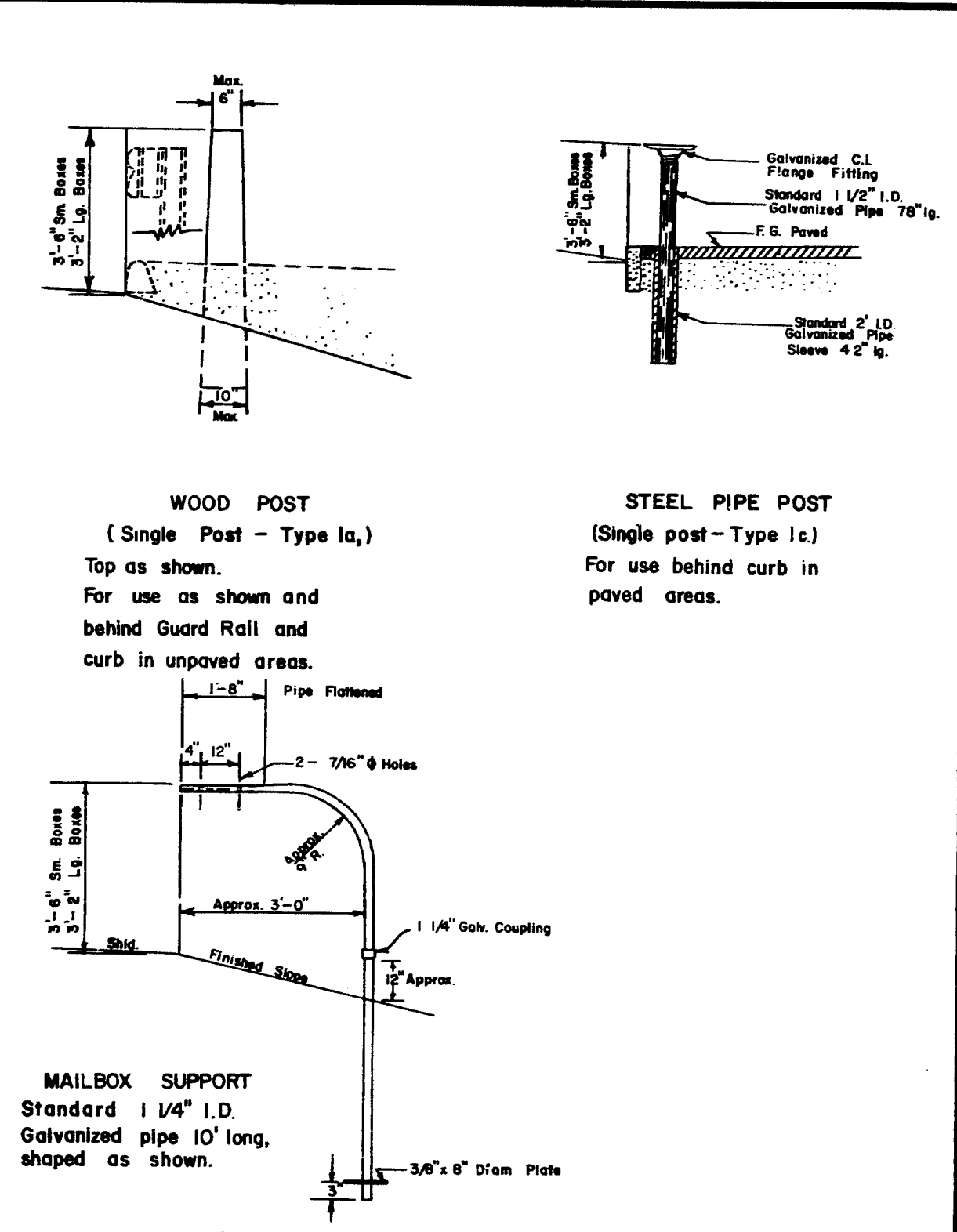
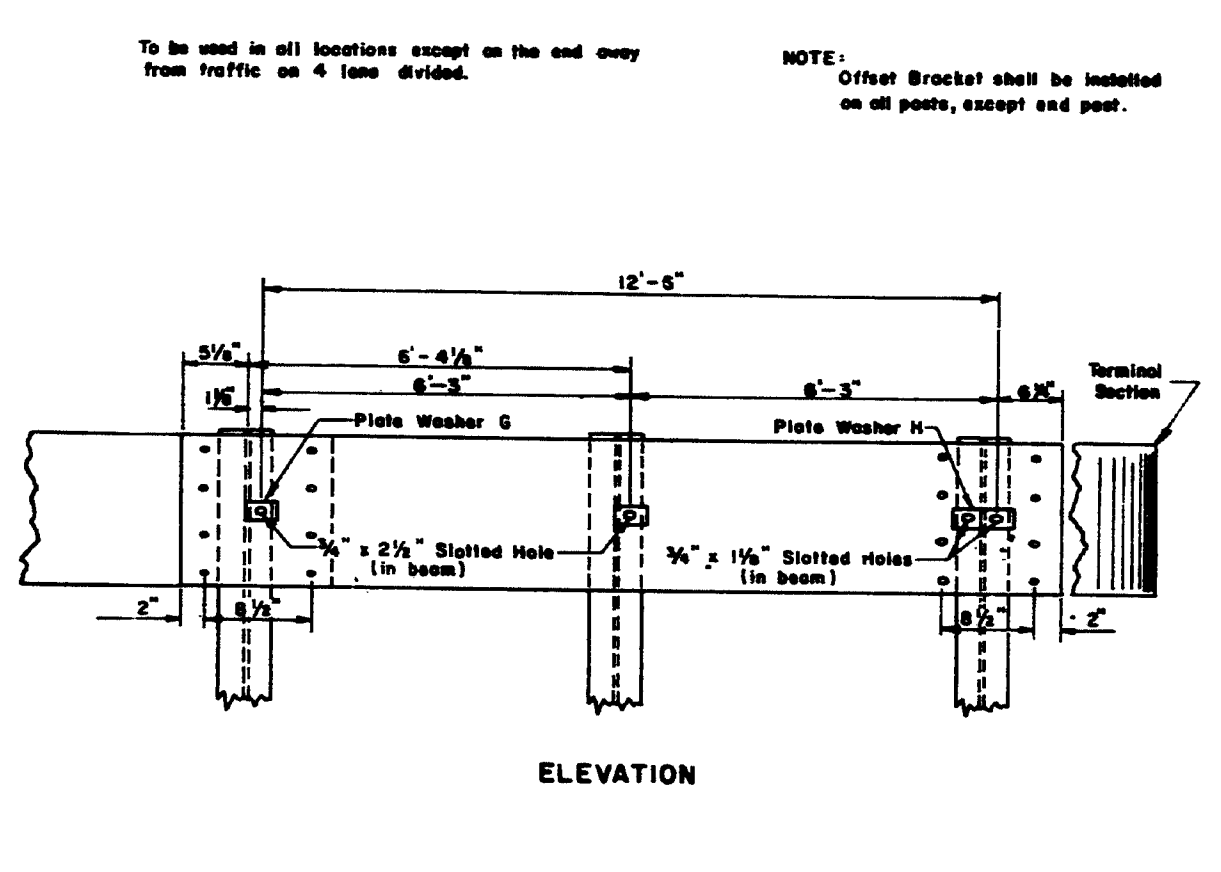
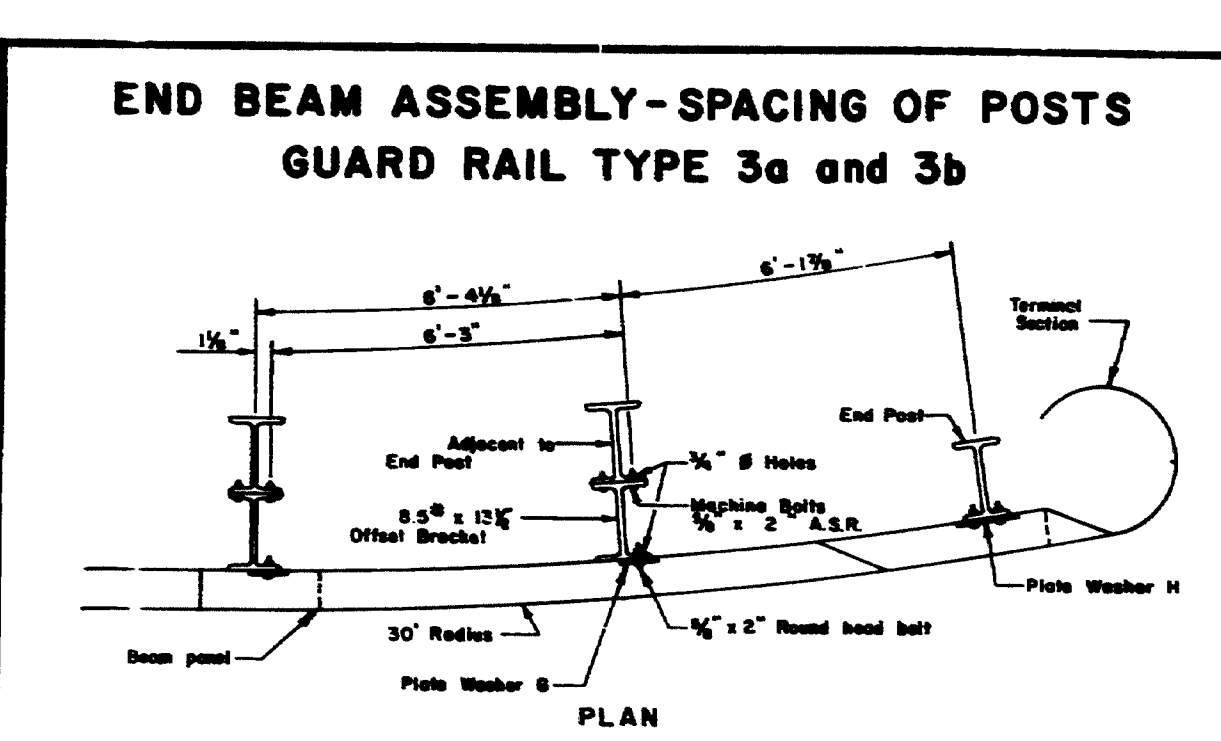
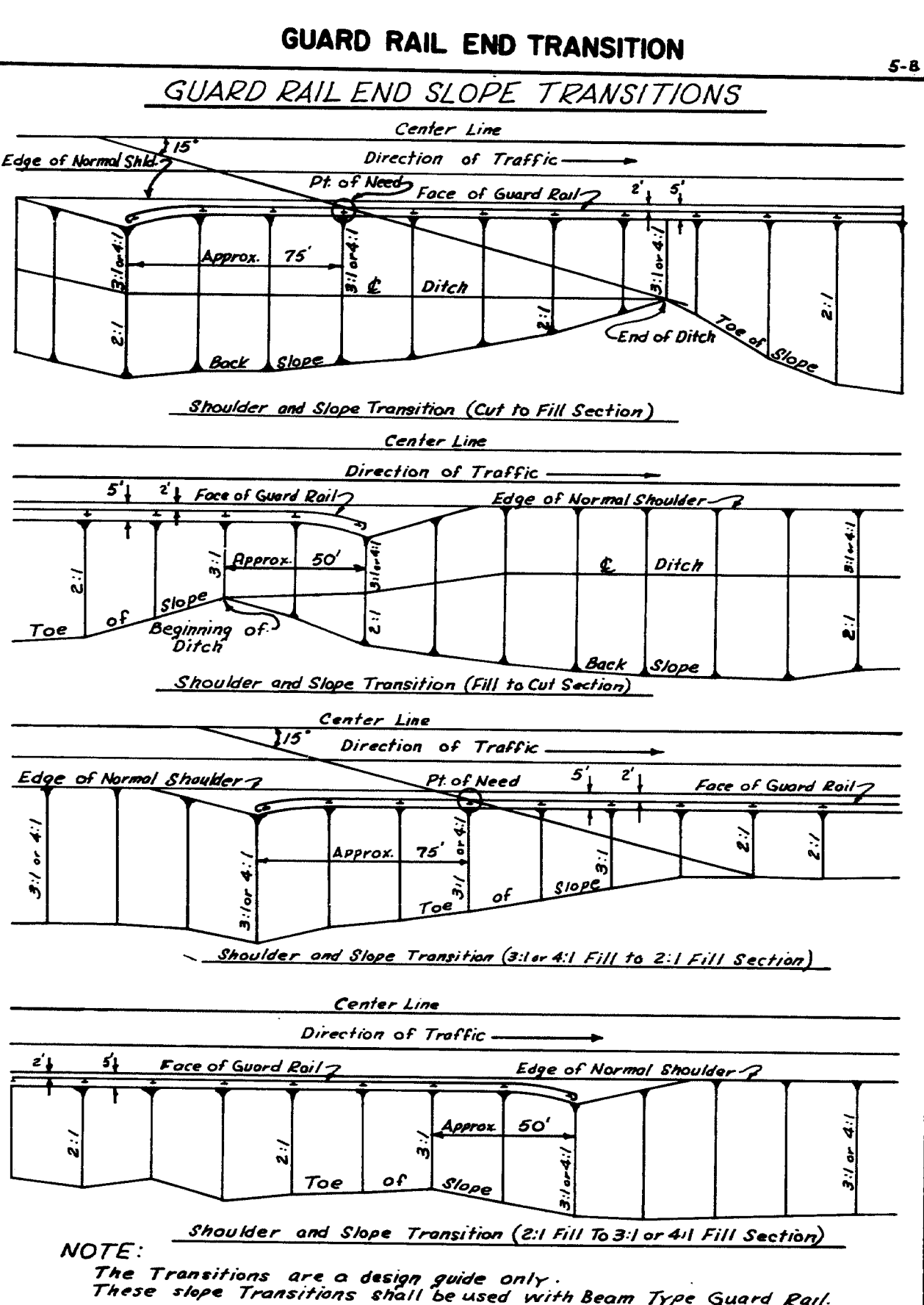
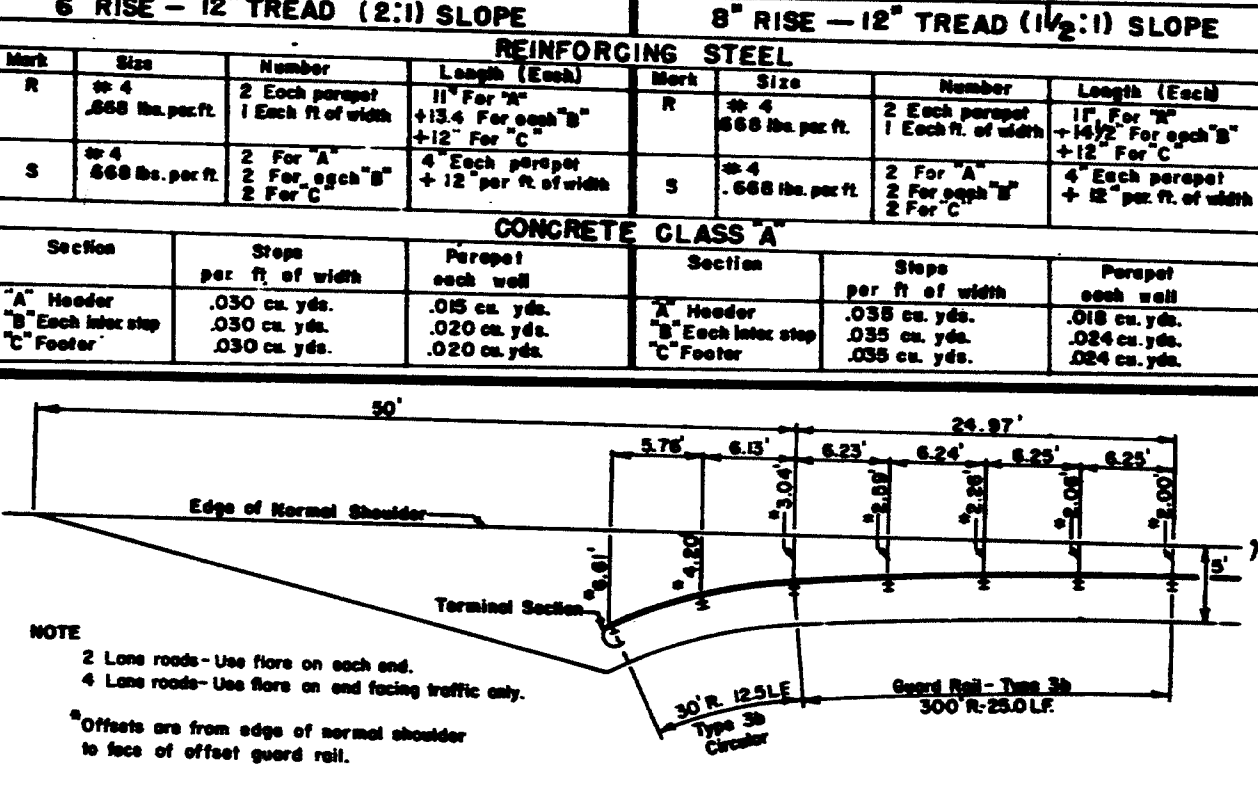
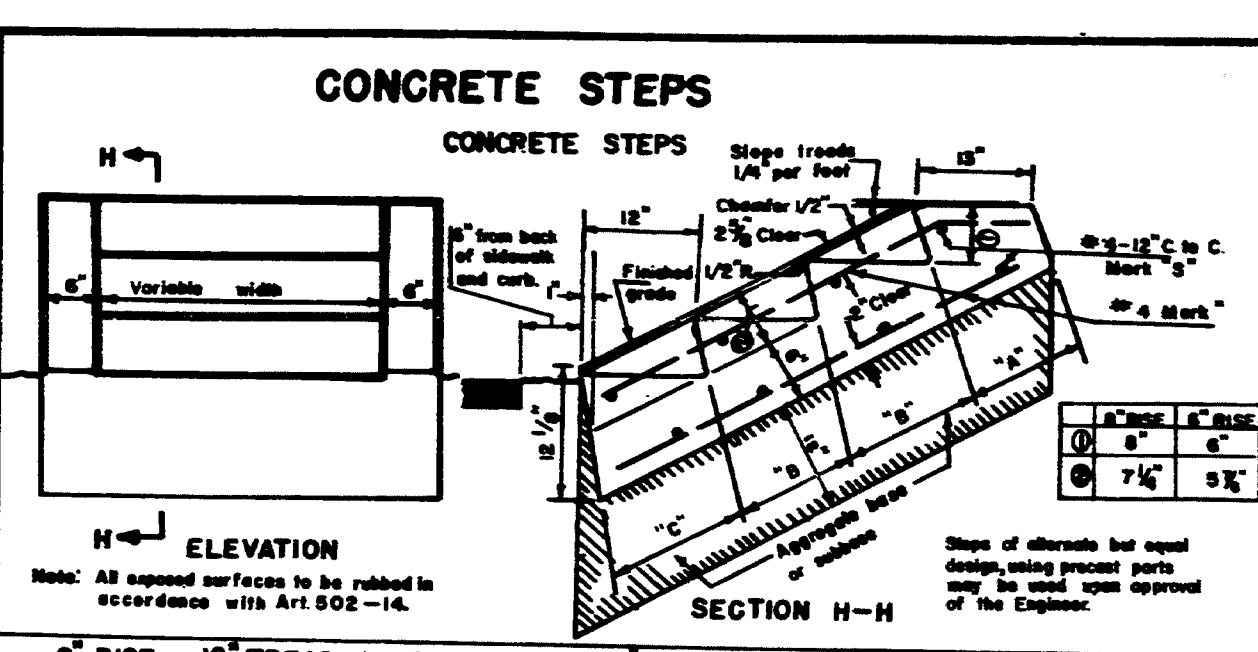
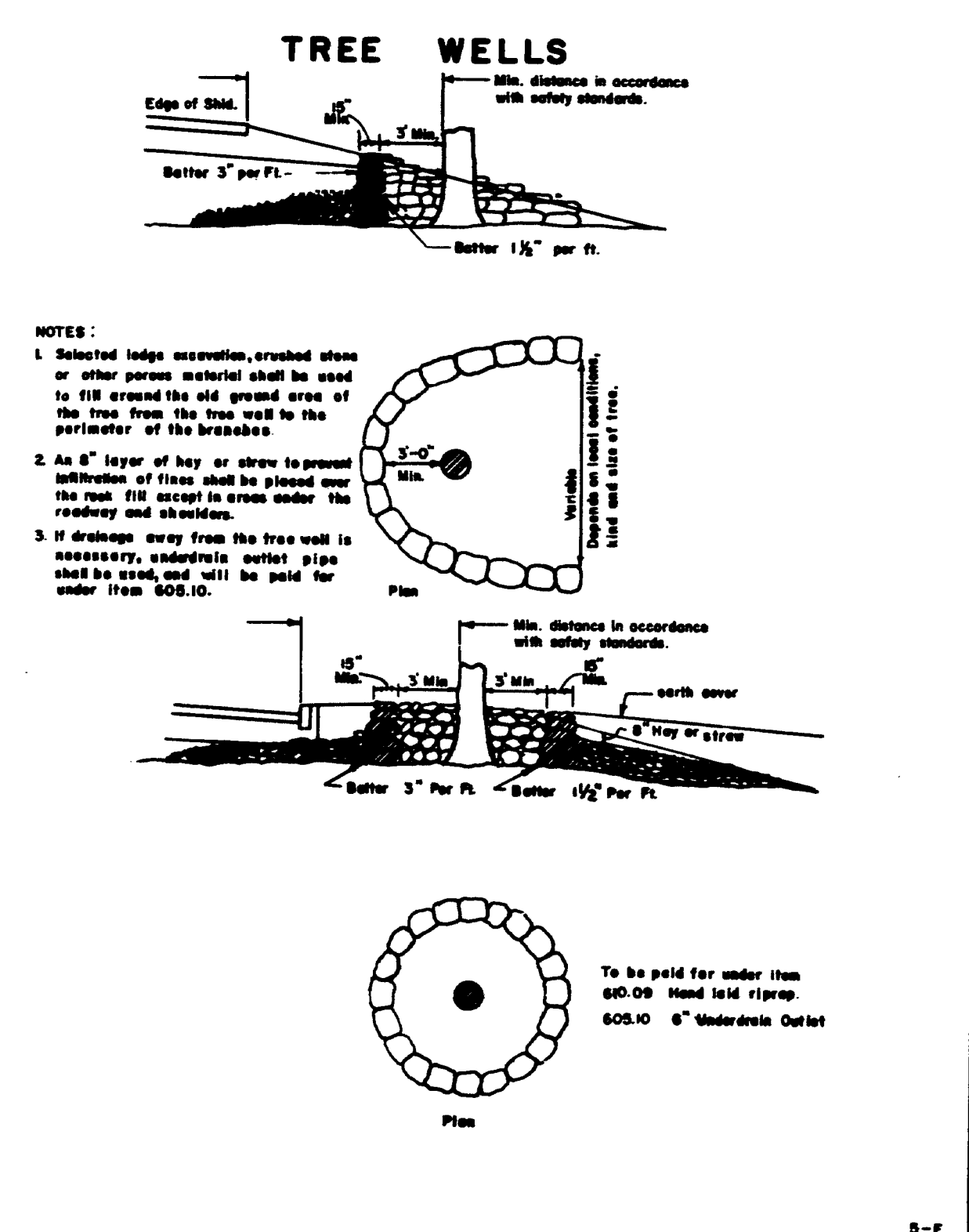
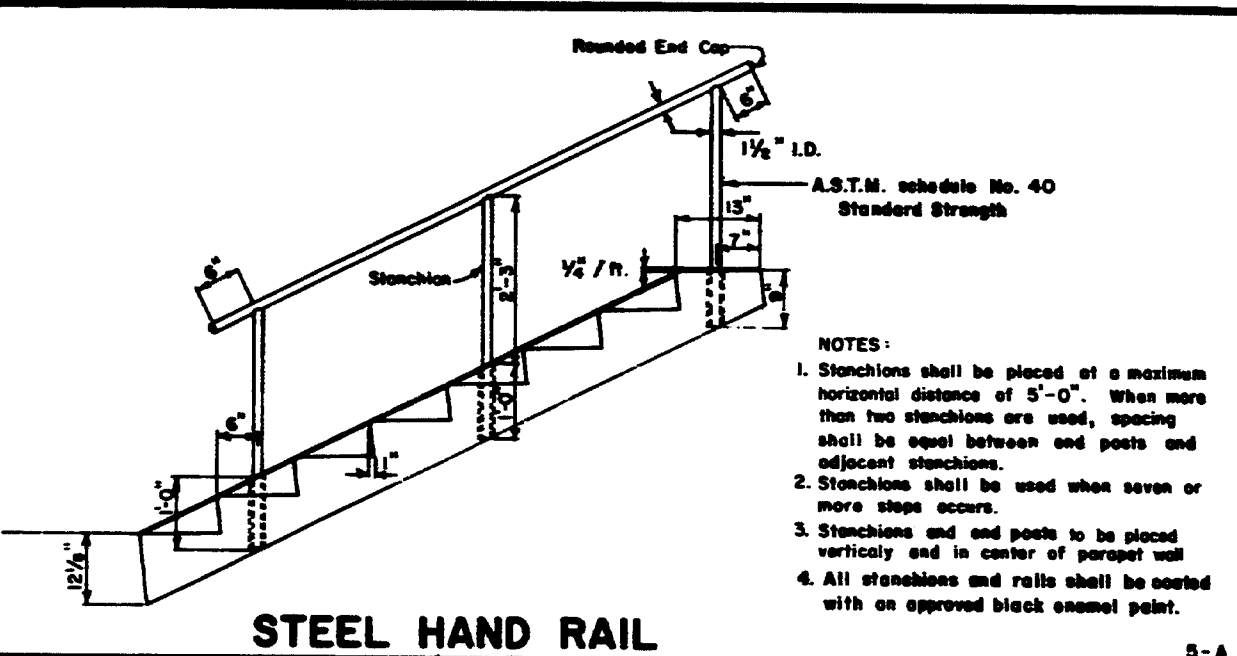
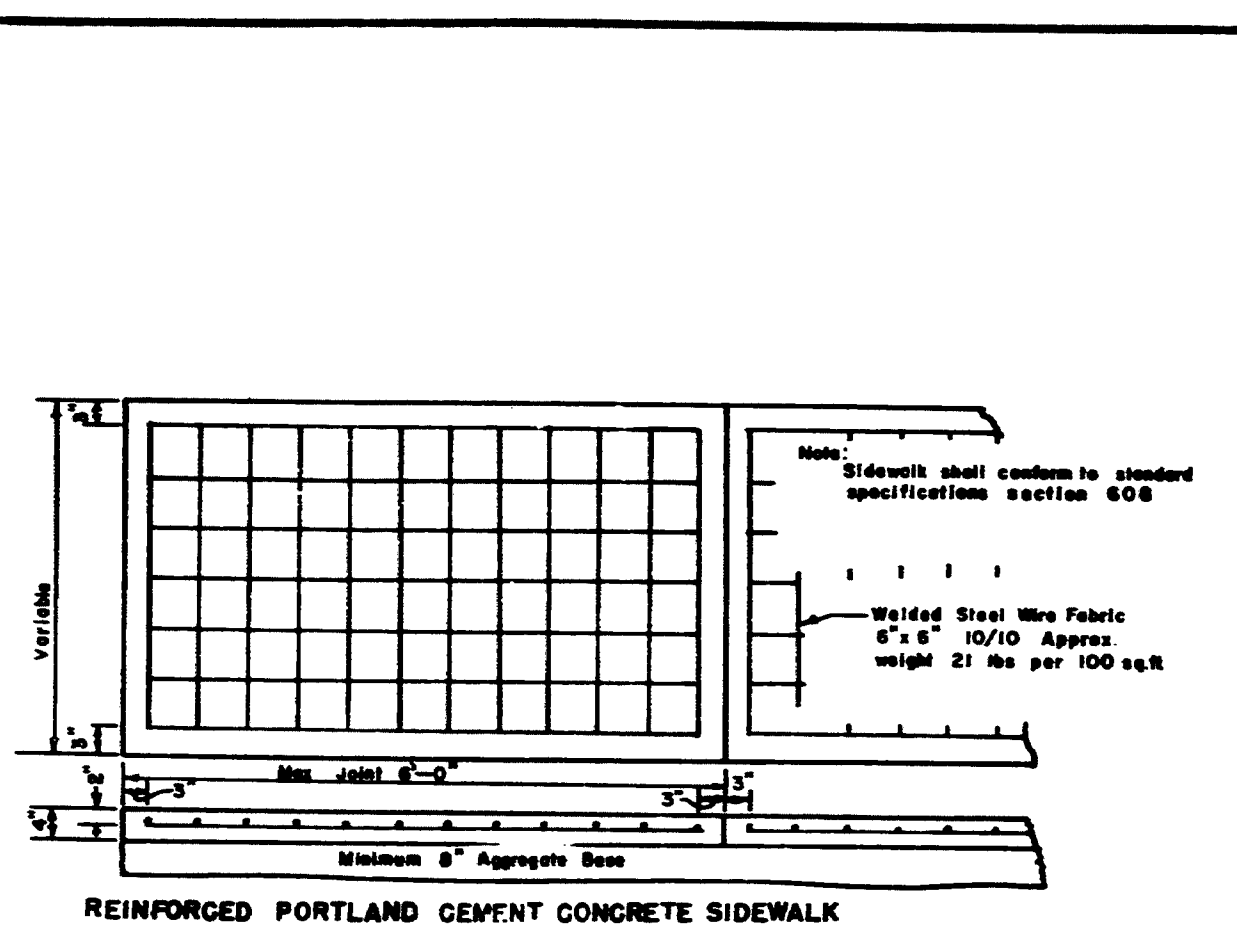
CONSTRUCTION NOTES

1. Remove cut numbered end panels. In removing existing bolts no torch cutting of bolts will be allowed.
2. Erect new lettered panels.
3. Re-erect end panels.
4. Use all new 3/4" hot dipped galv. A449 bolts and A563 nuts.
5. Excavate only enough existing embankment along pipes to remove numbered plates. The horizontal pay limit beyond the sides of the pipes is 5'0".
6. Plate thickness for 7 gage = 0.188" and 8 gage = 0.168".



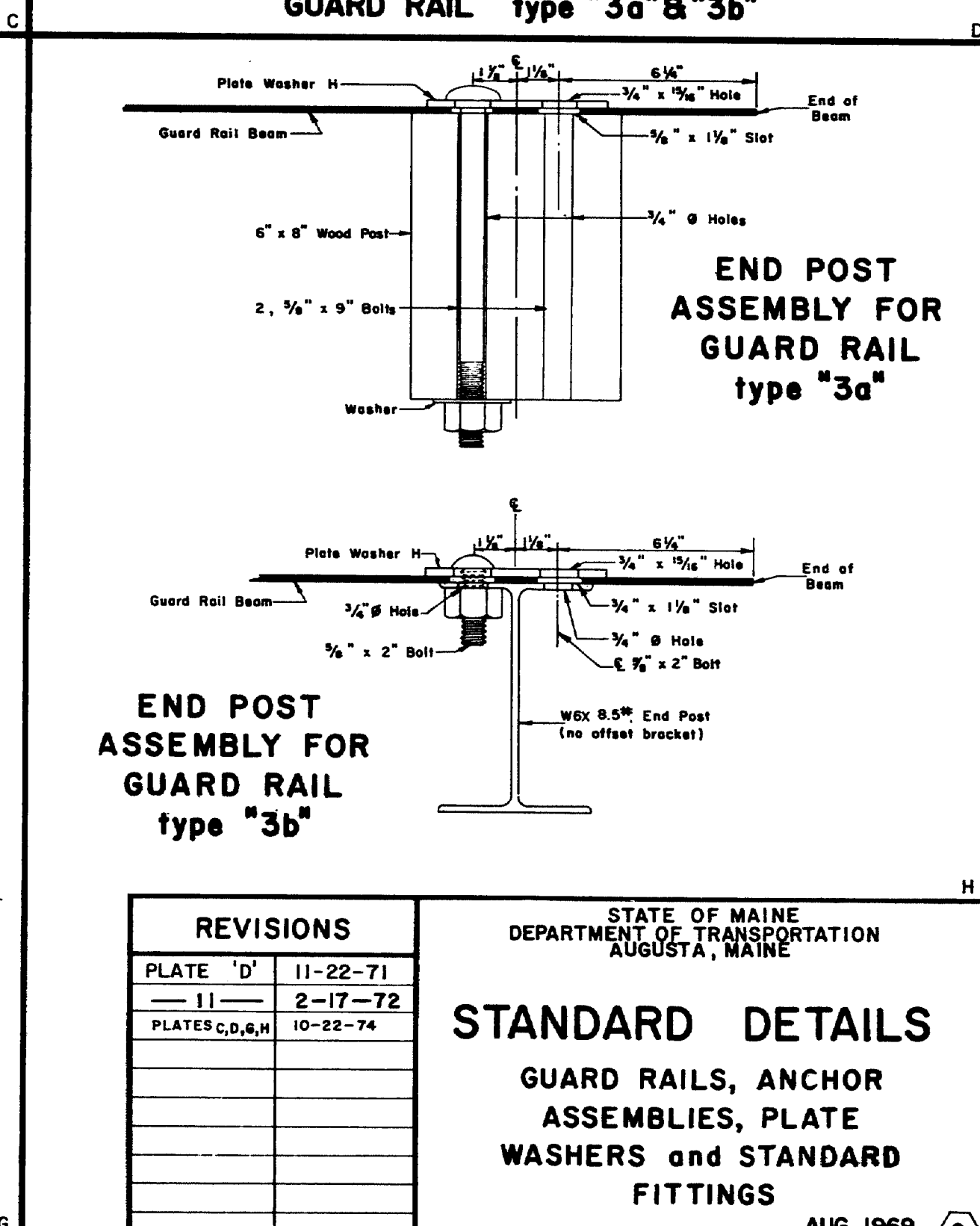
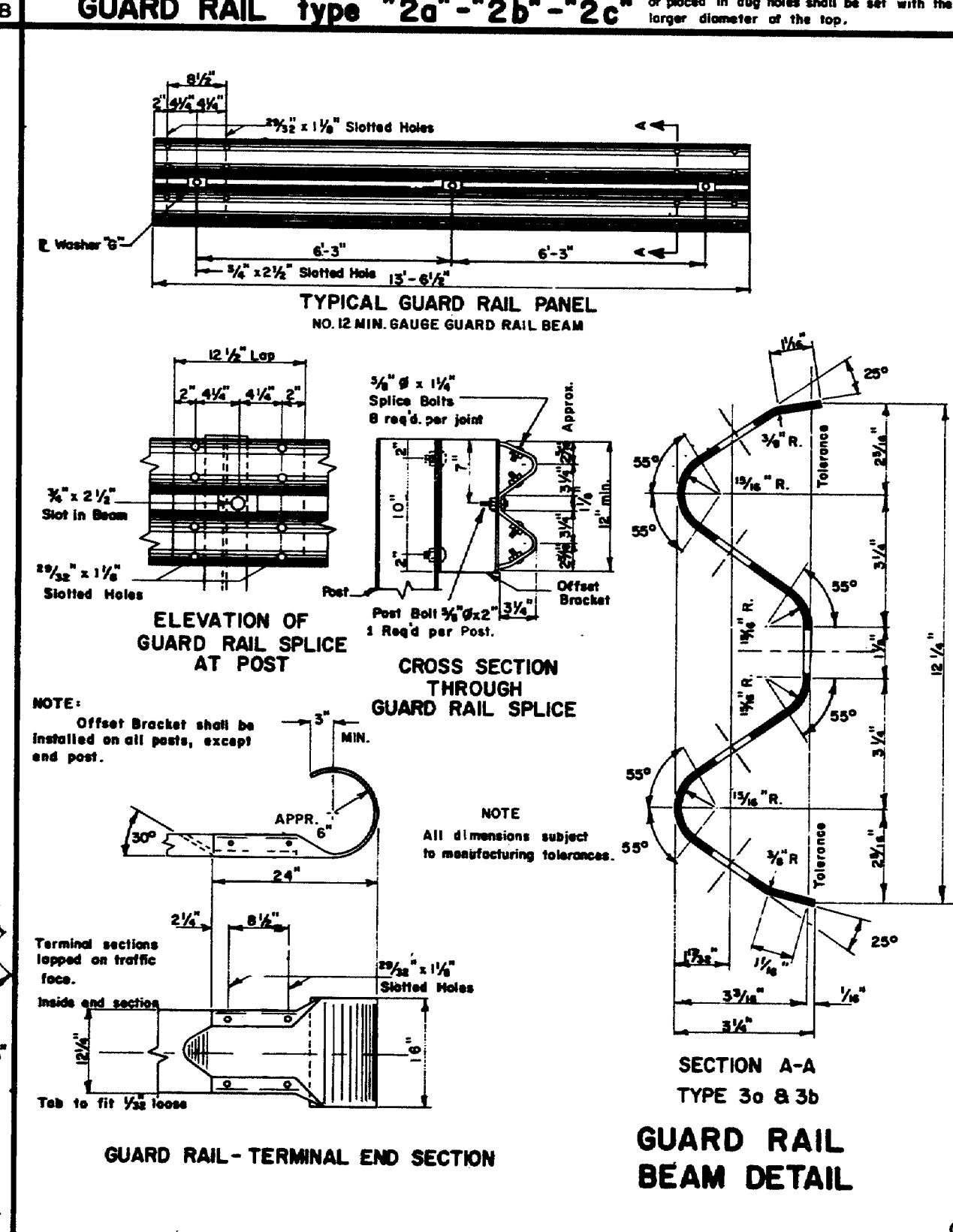
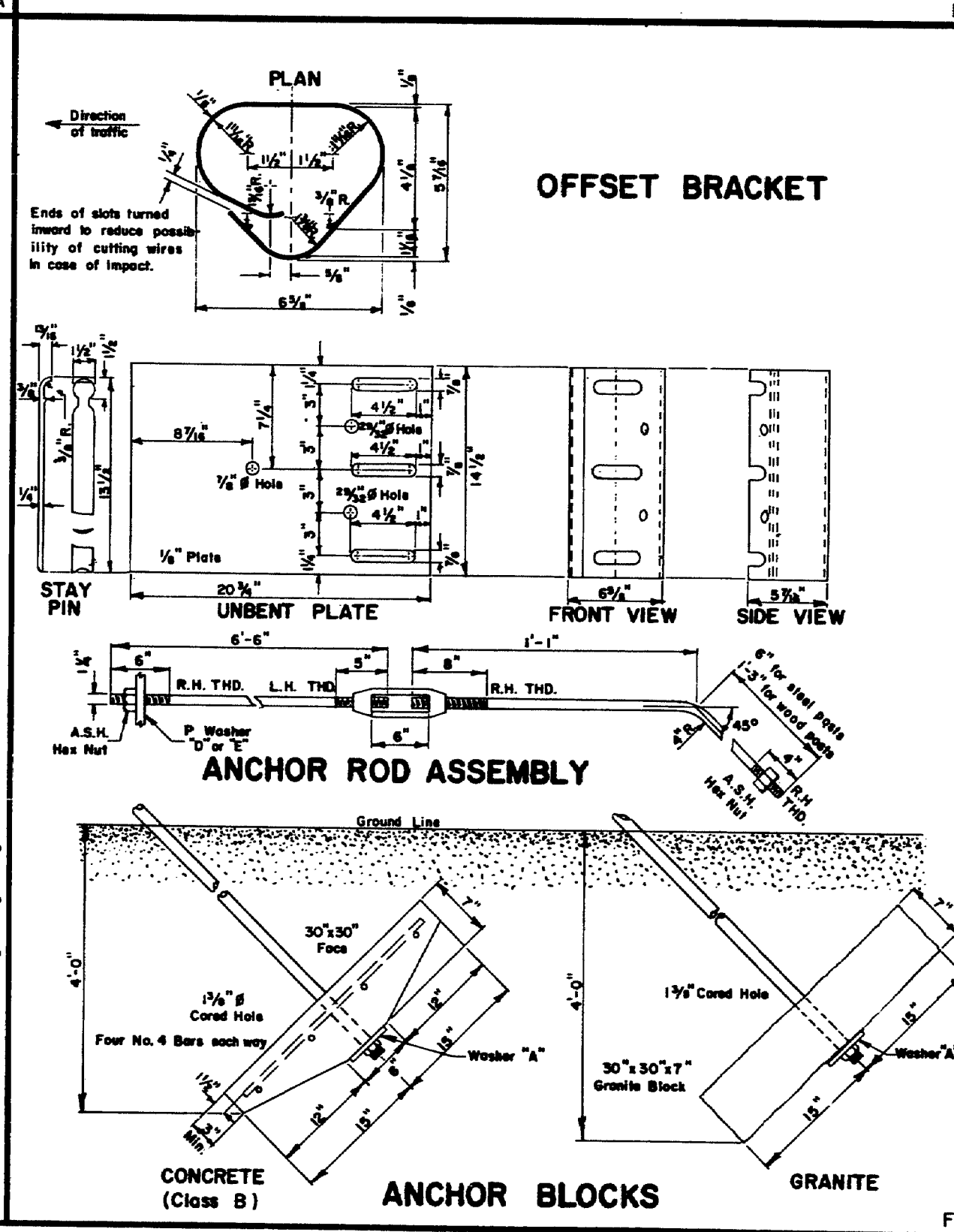
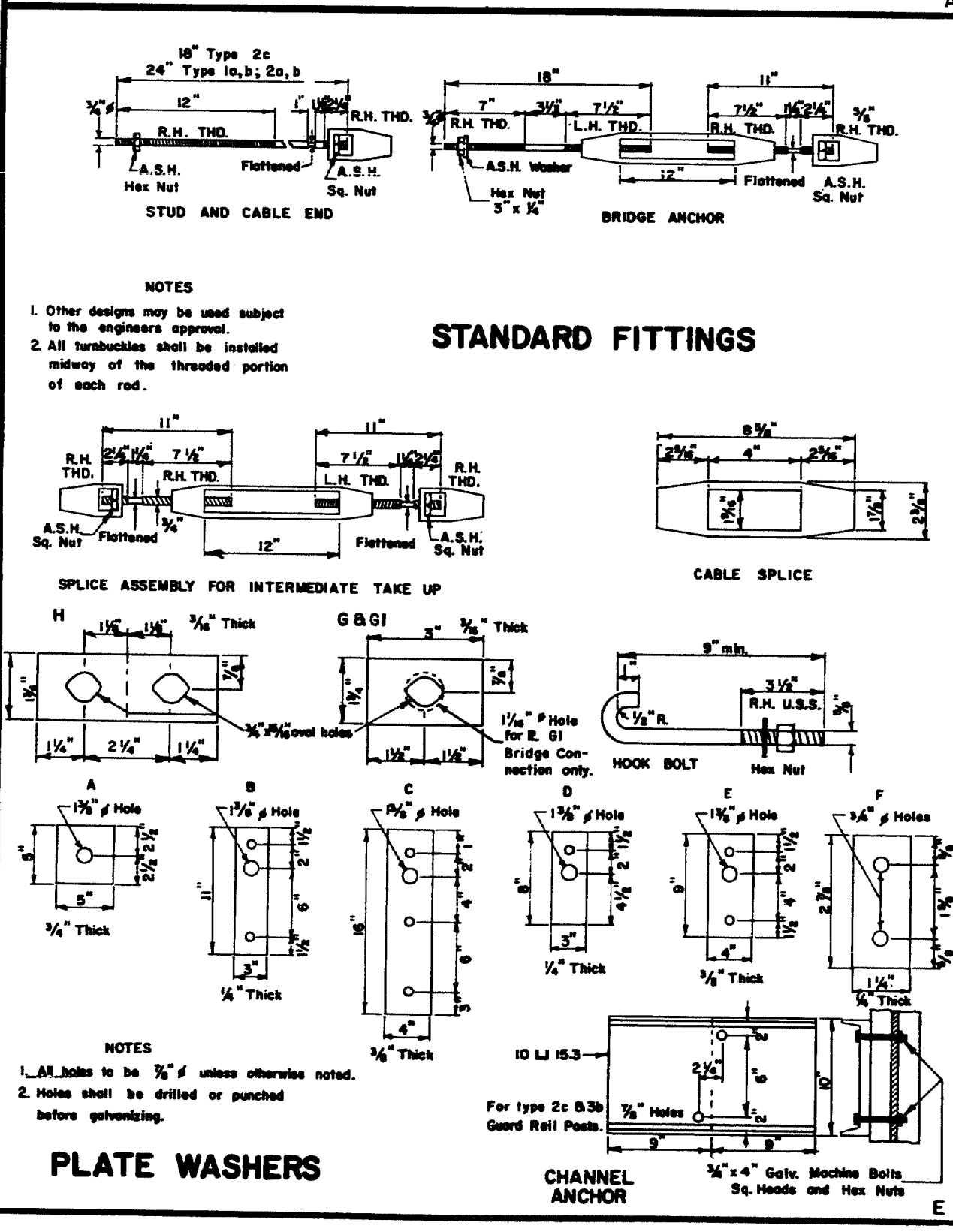
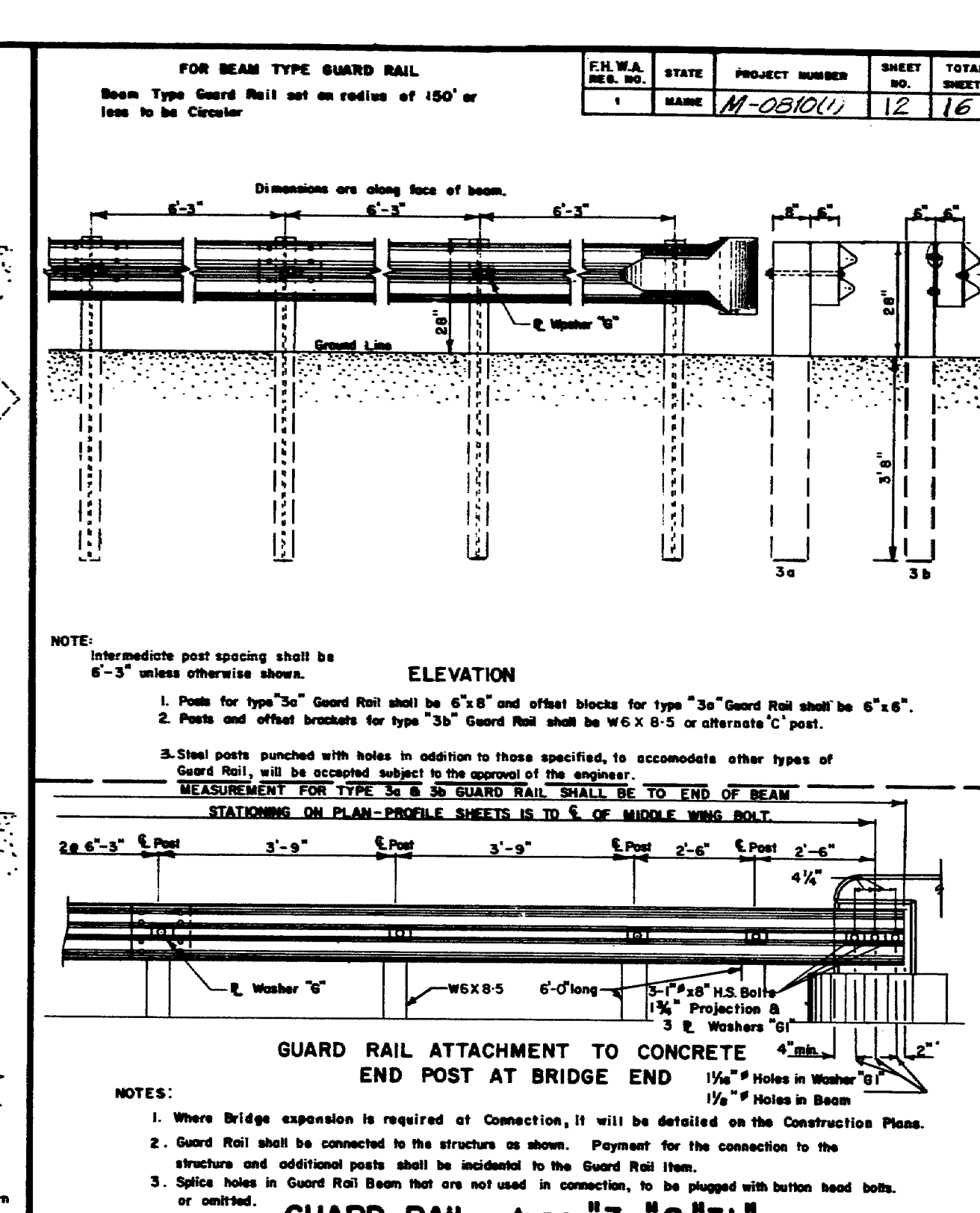
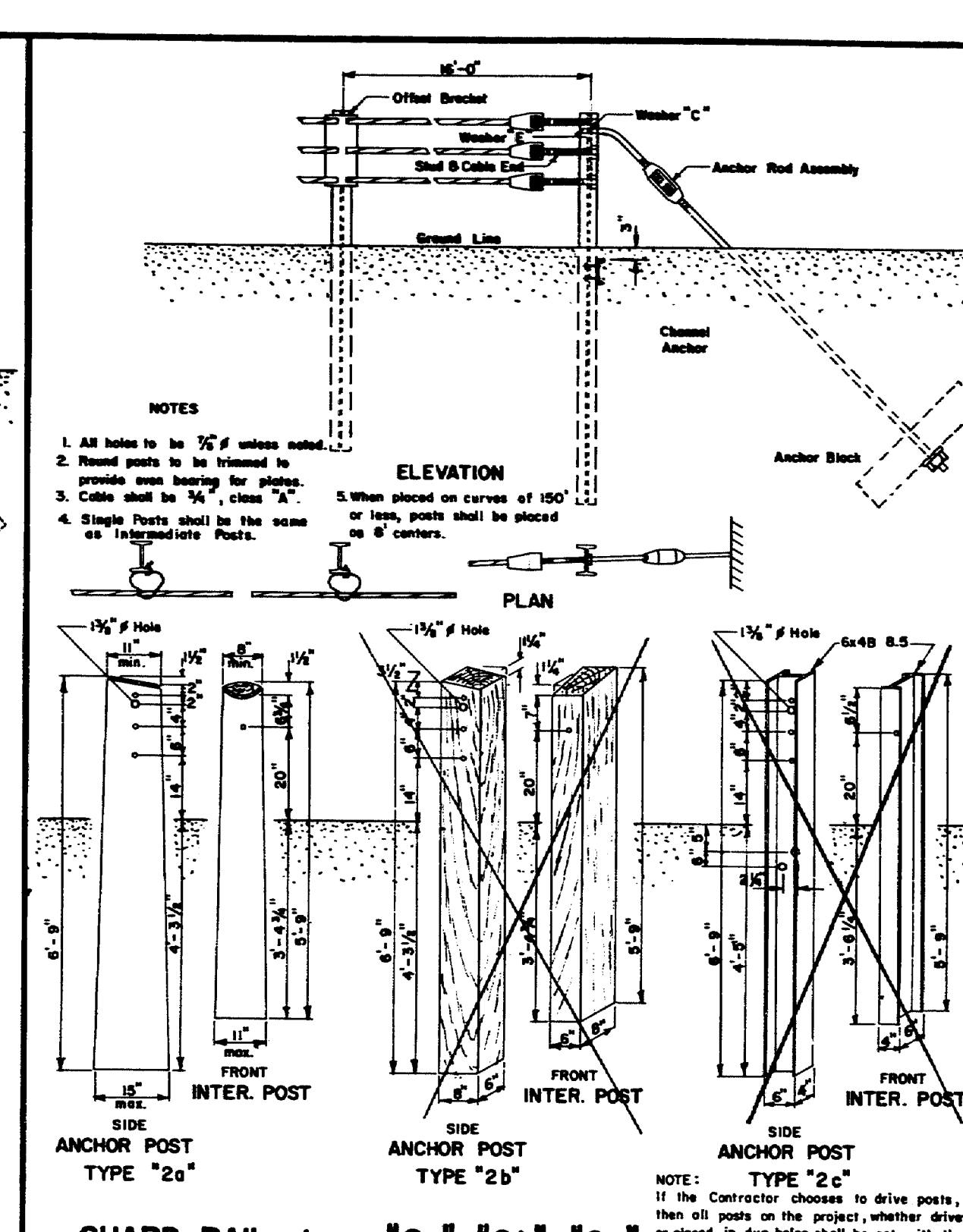
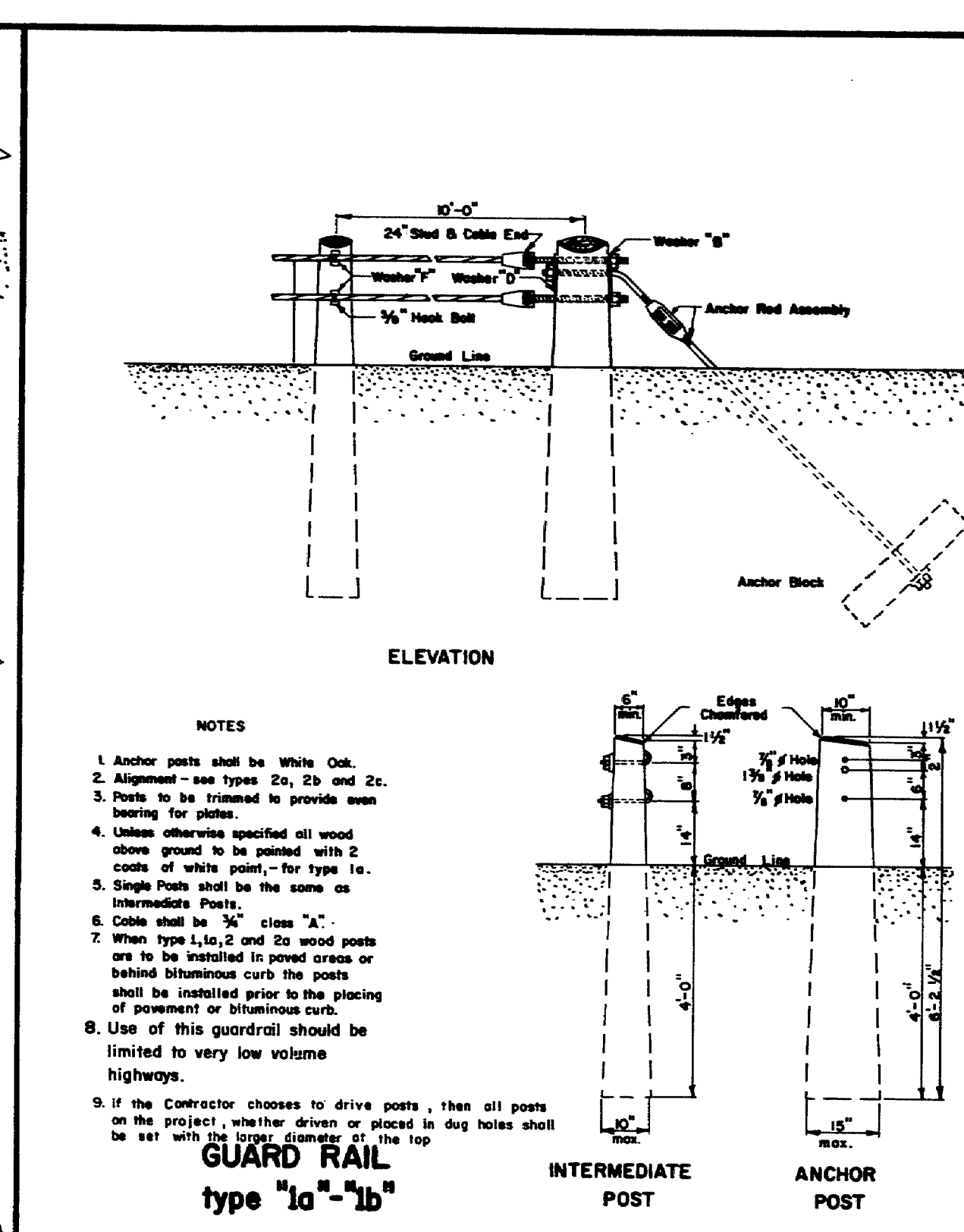
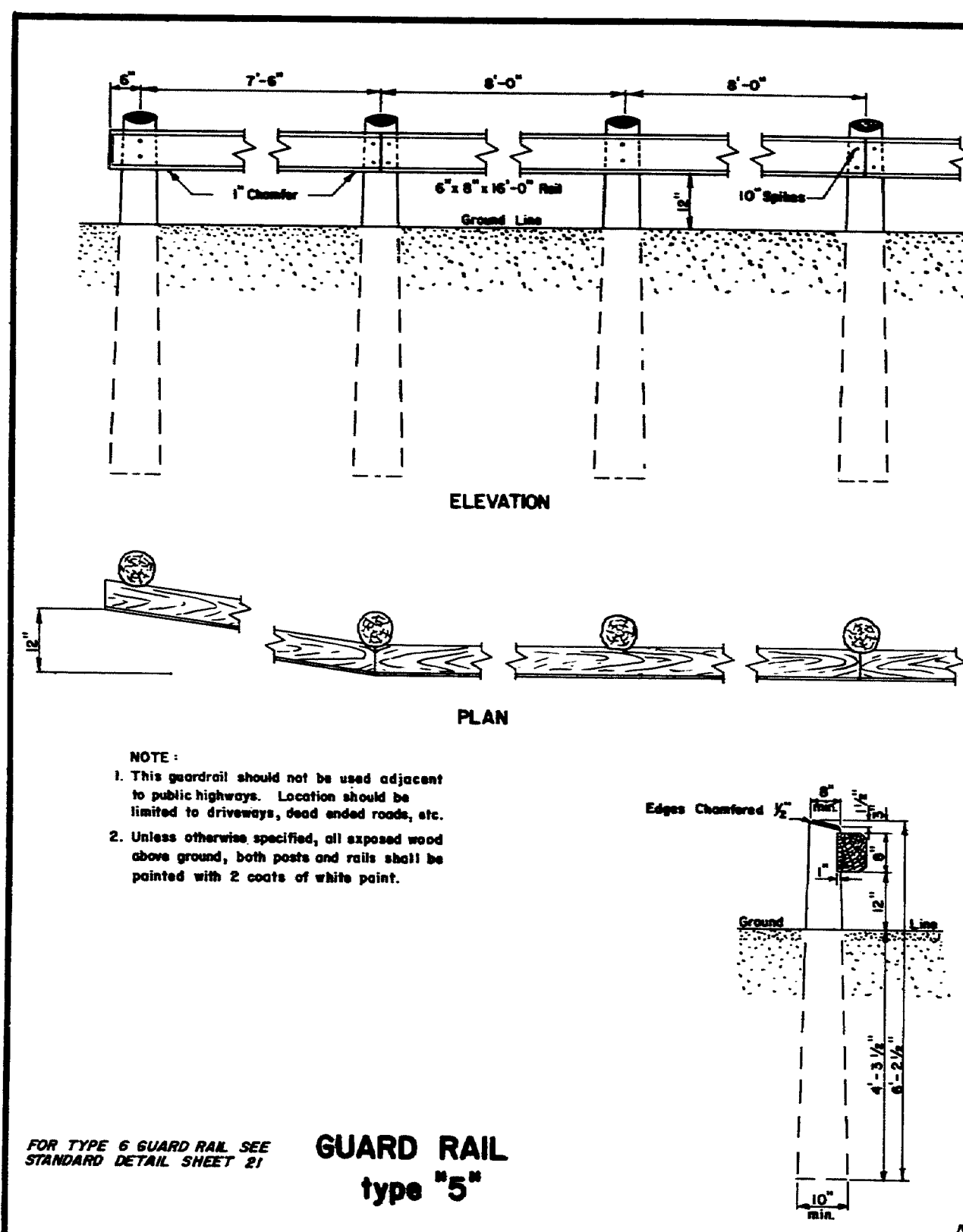
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
LITTLE BRIDGE
OVER
MILL BROOK
IN THE CITY OF
WESTBROOK
CUMBERLAND COUNTY
DEVELOPED PLANS
AUGUSTA, MAINE AUG. 1974

168-86



REVISIONS	STATE OF MAINE DEPARTMENT OF TRANSPORTATION AUGUSTA, MAINE
Plate 3-A	12-24-69
PLATE 5B	1-27-71
PLATE 5H	5-12-71
PLATE 5B	1-19-72
PLATE 5B	6-7-72
PLATE 5D	6-7-72
PLATE 5D+C	10-22-74
PLATE A,B,E,H	3-18-75

STANDARD DETAILS
 GUARD RAIL, MUCK EXCAVATION
 CONCRETE STEPS & SIDEWALK
 GUYING TREES
 TREE WELLS, EROSION CONTROL,
 MAILBOX SUPPORTS.



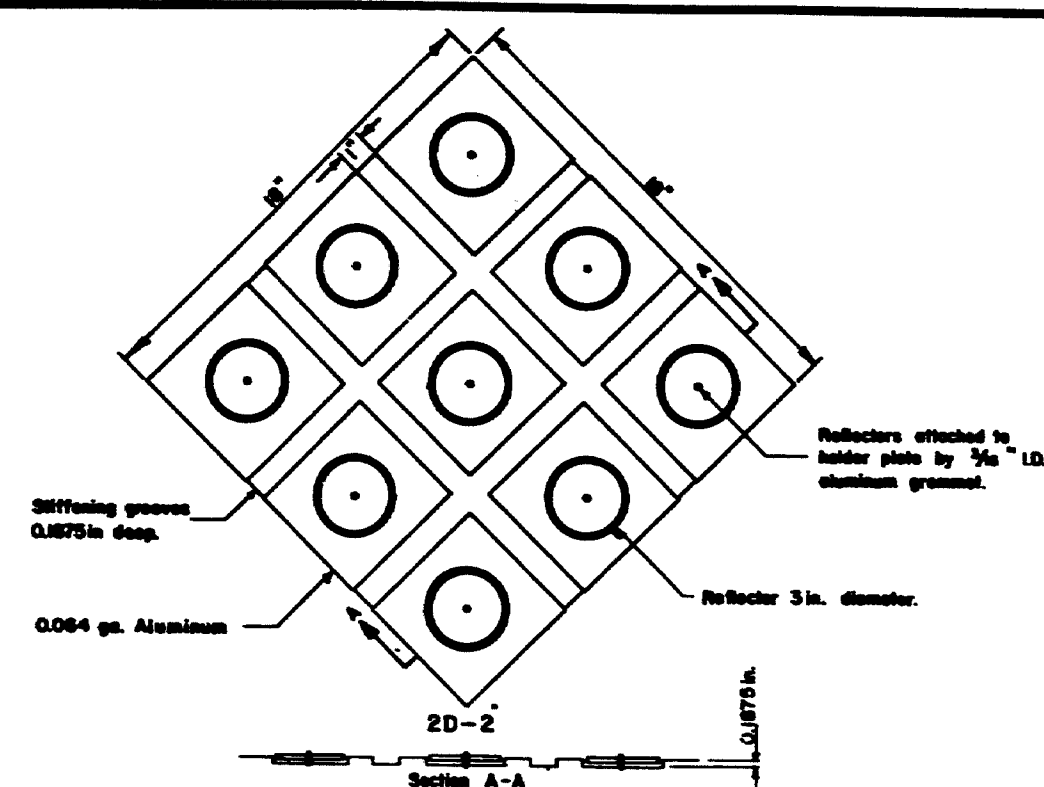
REVISIONS	
PLATE 'D'	11-22-71
PLATE 'E'	2-17-72
PLATES C,D,E,H	10-22-74

STANDARD DETAILS

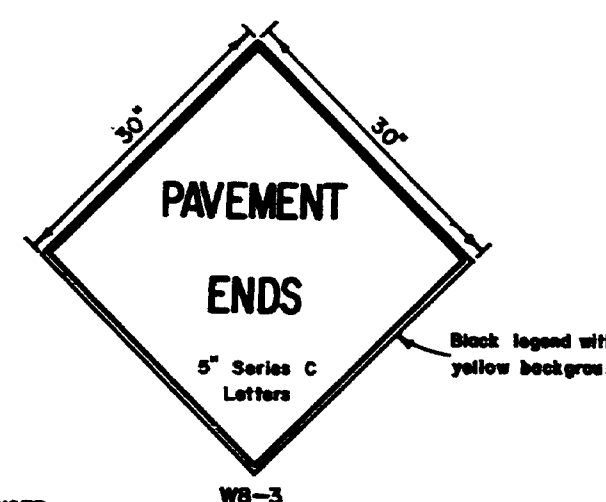
GUARD RAILS, ANCHOR ASSEMBLIES, PLATE WASHERS AND STANDARD FITTINGS

AUG. 1969

168-88



HAZARD MARKER

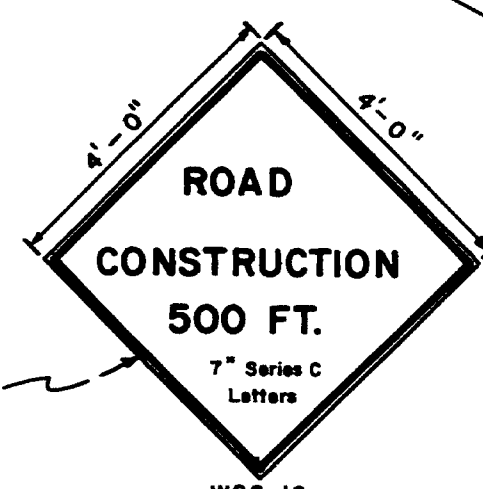
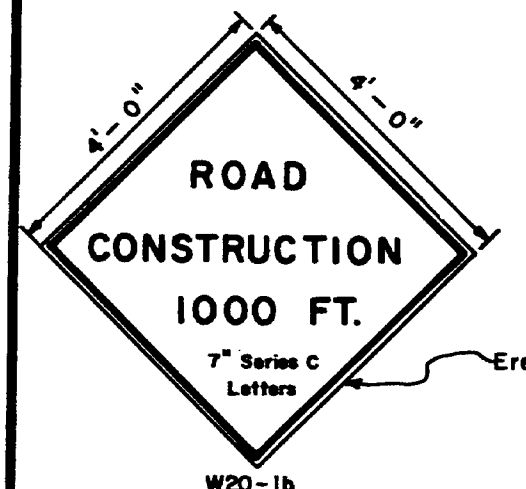
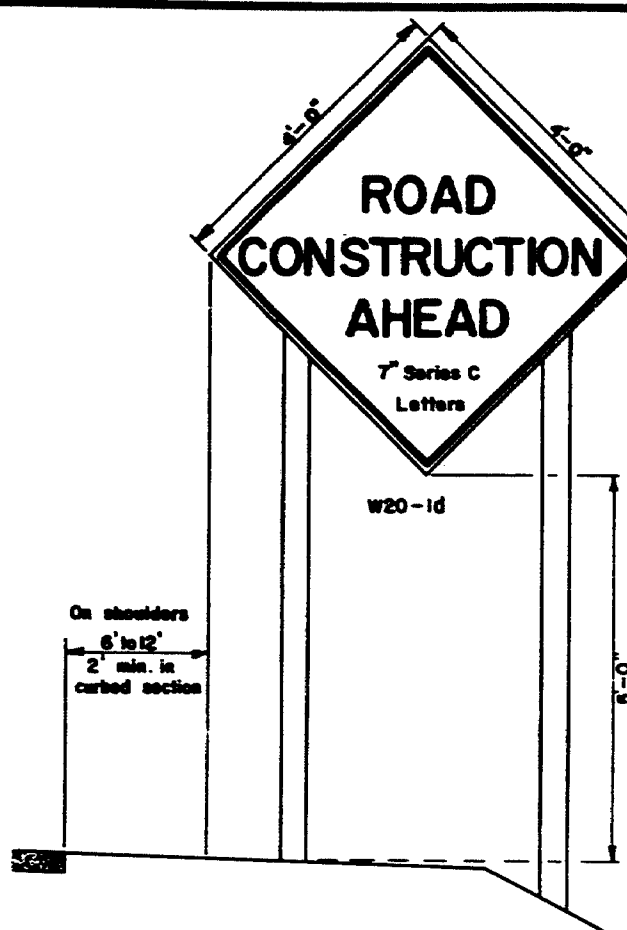
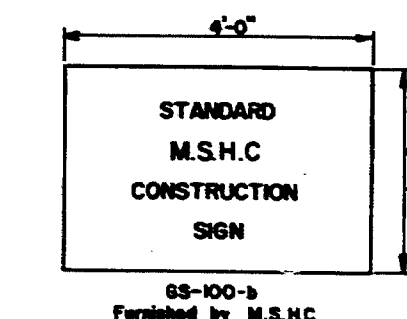
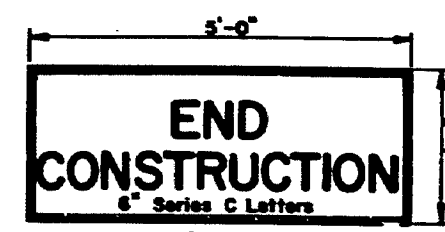


NOTE

SIGNING IN AN AREA WHERE BLASTING IS NECESSARY SHALL BE PLACED AS OUTLINED IN THE "MANUAL", AND THE PRECAUTIONS OF SUBSECTION 107.12 OF THE STANDARD SPECIFICATIONS SHALL BE OBSERVED.

GENERAL NOTE

1. Sign Borders: All signs shall have borders conforming to the sizes and spacing as shown below:
 - a. 30" x 30" Sign - 1/4" Border, 1/2" Space from sign edge.
 - b. 2' x 5' Sign - 1/4" Border, 1/2" Space from sign edge.
 - c. 2' x 4' Sign - 1/4" Border, 1/2" Space from sign edge.
 - d. 4' x 4' Sign - 1/4" Border, 1/2" Space from sign edge.



CONSTRUCTION SIGNS

GENERAL NOTES - BARRICADES

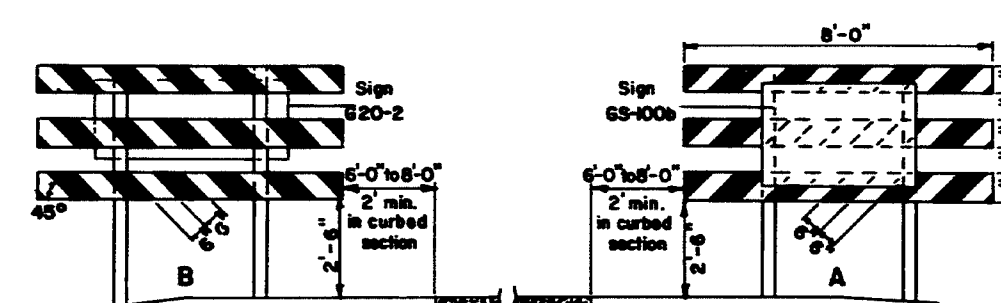
1. Unless otherwise designated, sign designation letters shall refer to the "Manual of Uniform Traffic Control Devices for Streets and Highways," published by the U.S. Department of Transportation, Federal Highway Administration, 1971.
2. White stripes shall be of silver reflective sheeting bonded to 0.019 minimum gauge aluminum, 16 minimum gauge galvanized steel, or 1/4" plywood. Individual white sheets may be attached to a black background or orange reflectorized background to form the black or orange and white stripes. At the Contractor's option the reflective sheeting and backing may extend the full width of the barricade with an opaque film or paint applied to form the stripes.
3. All signs shall be of reflective sheeting on 5/8" thick plywood. The plywood shall conform to subsection 712.25, Maine State Highway Commission, Standard Specifications, June 1968.
4. Pressure sensitive reflective sheeting will be an acceptable alternate to the reflective sheeting required by Maine State Highway Commission, Standard Specifications.

NOTES - PORTABLE BARRICADES

1. Lumber sizes for portable barricades shall be 2" x 8" except posts which shall be 4" x 4" (nominal sizes).
2. The detour sign shall be an oversized M-10 sign with a demountable "DETOUR" message which shall be made of screened reflective sheeting on 1/4" plywood, masonite, sheet steel or sheet aluminum.
3. Hazard markers shall be attached to the barricade with a bolt assembly of steel cadmium plated 5/16" bolt, lock washer and vandal resistant nuts.
4. When two M-10 signs are required, R11-2, R11-3, or R11-4 signs shall be omitted.
5. Flashing lights housings shall be mounted to permit rotating in a vertical axis to allow for adjustment to face oncoming traffic.
6. Location of electric service and meter to be determined after the power source has been located.

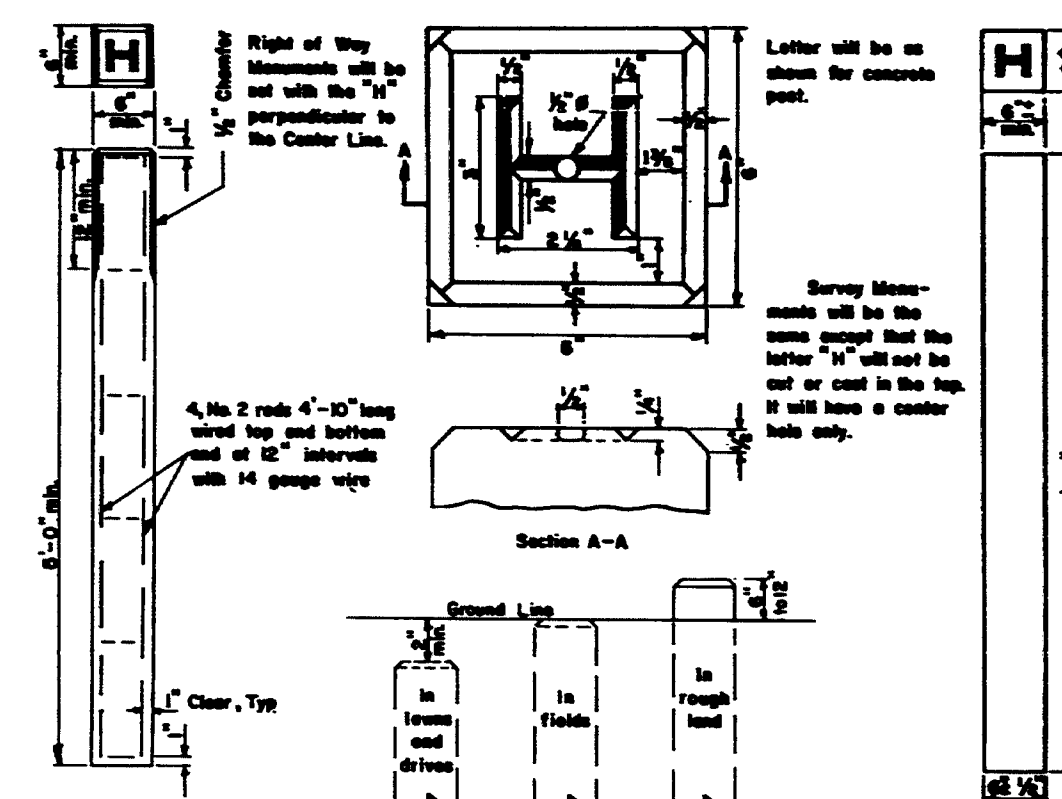
NOTES - WING BARRICADES

1. Lumber sizes for wing barricades shall be 1" x 8" except posts which shall be 4" x 4" (nominal sizes).
2. Wing barricades will not be required unless specifically called for in the special provisions.
3. Location of signs and barricades will be determined by the Engineer.



WING BARRICADES

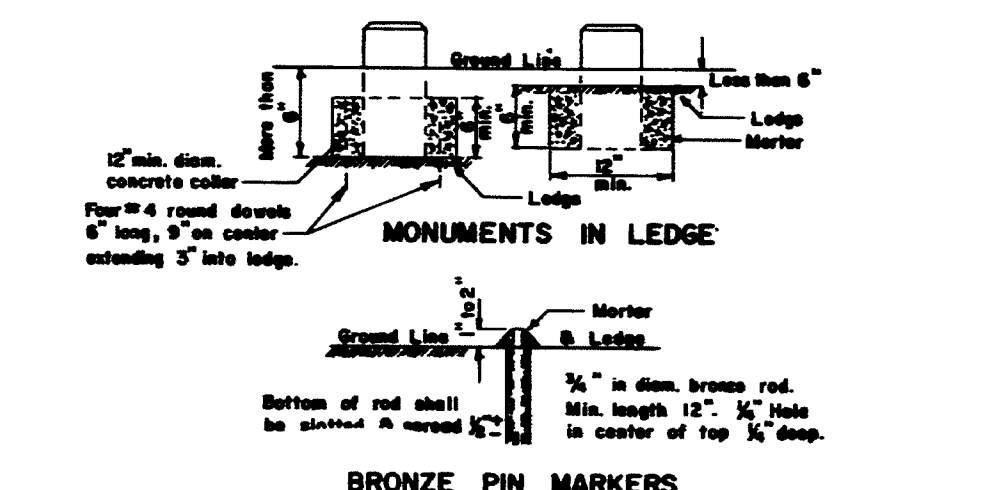
RIGHT OF WAY & SURVEY MONUMENTS



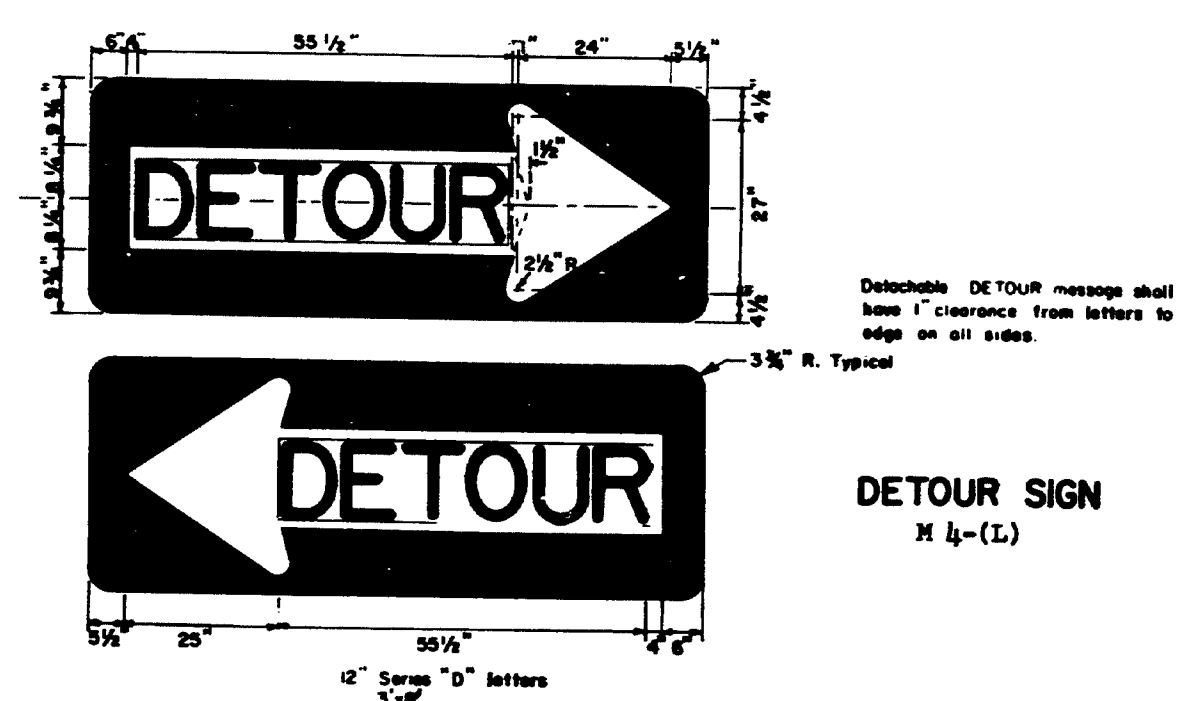
CONCRETE MONUMENT

MONUMENTS IN EARTH

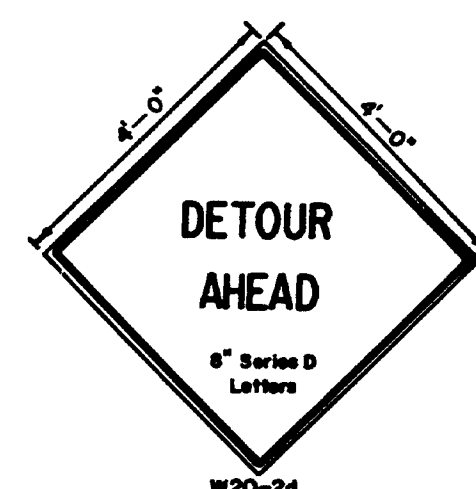
GRANITE MONUMENT



BRONZE PIN MARKERS

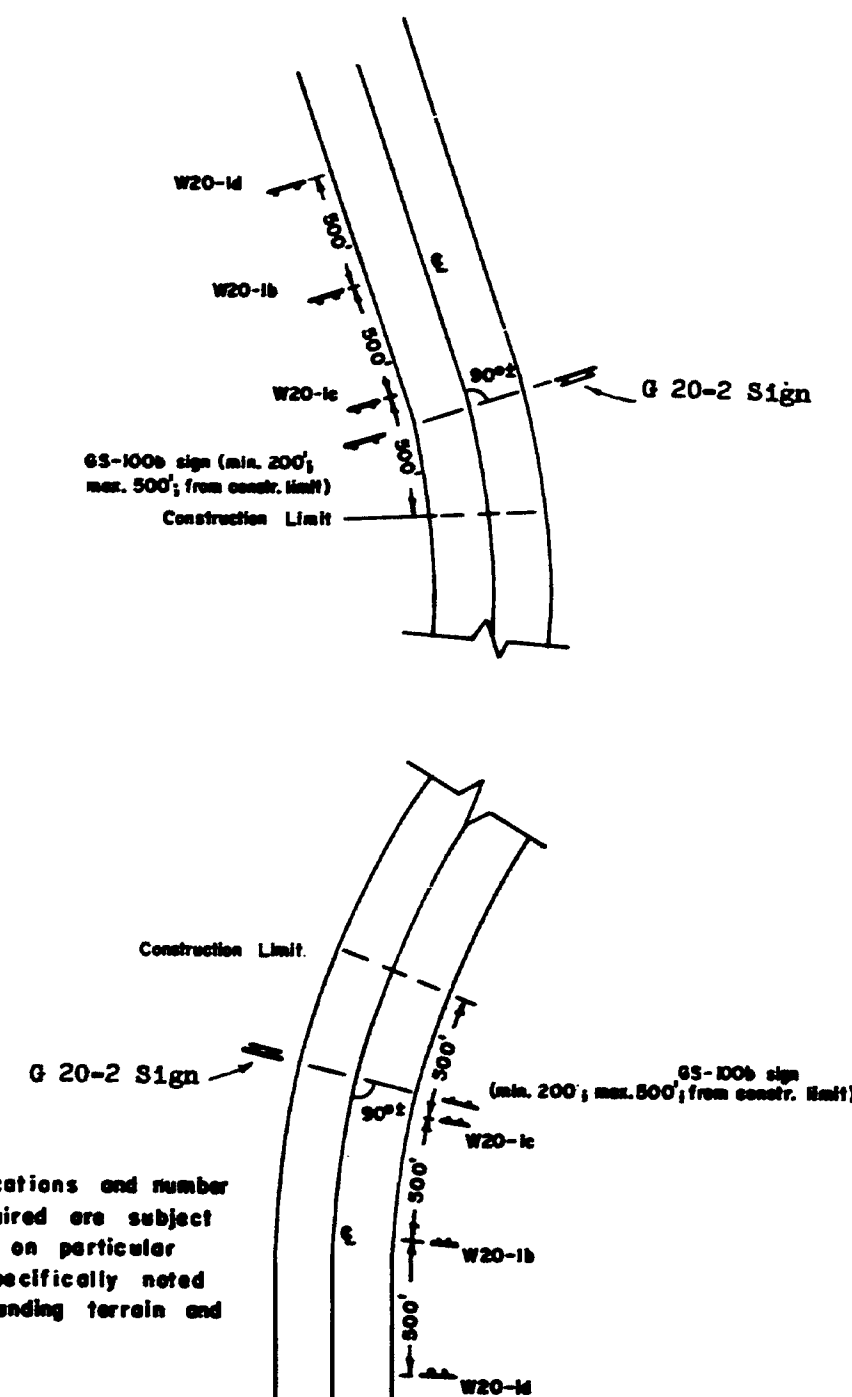


DETOUR SIGN
M 14-(L)



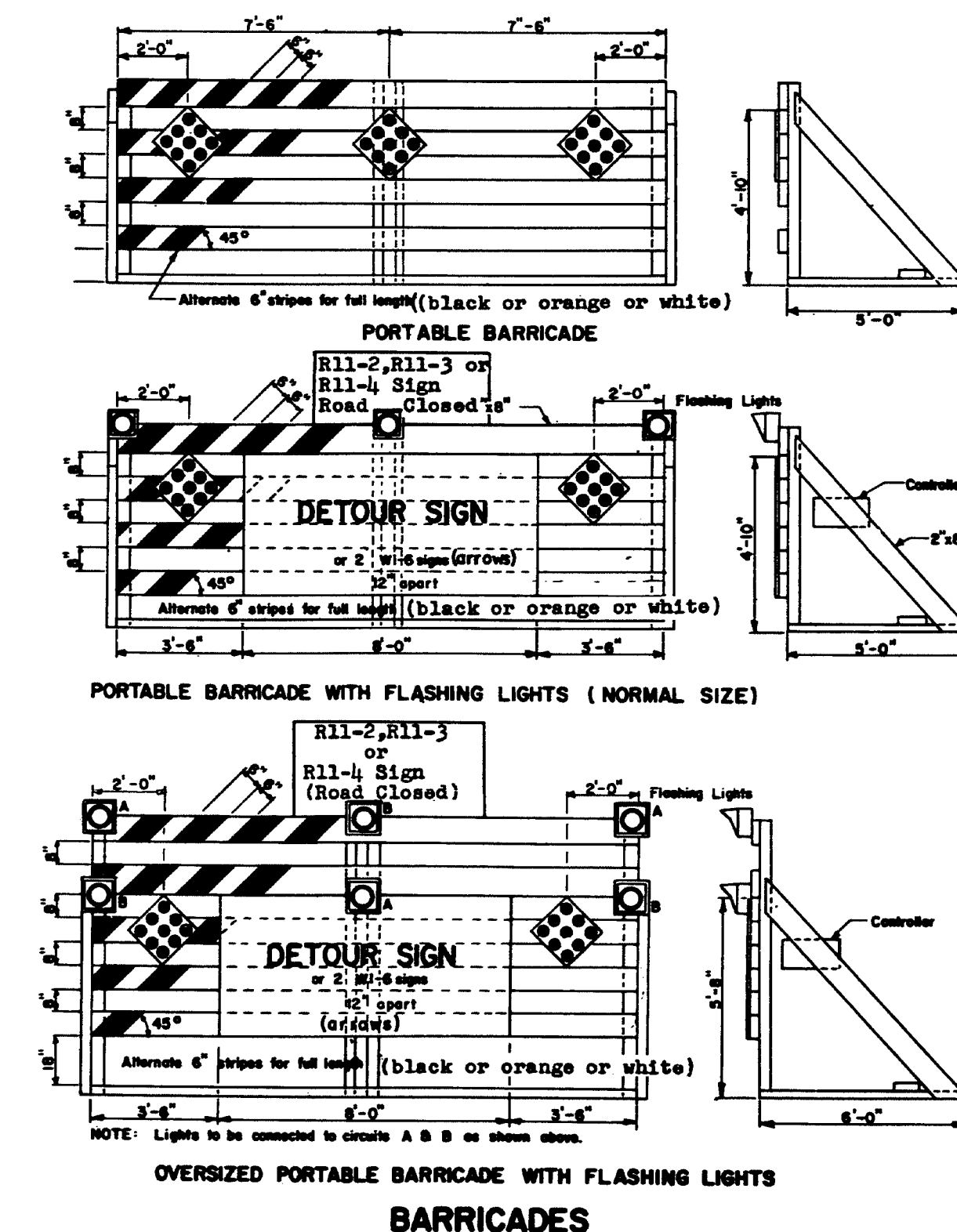
W20-2d

STANDARD SIGN LOCATIONS

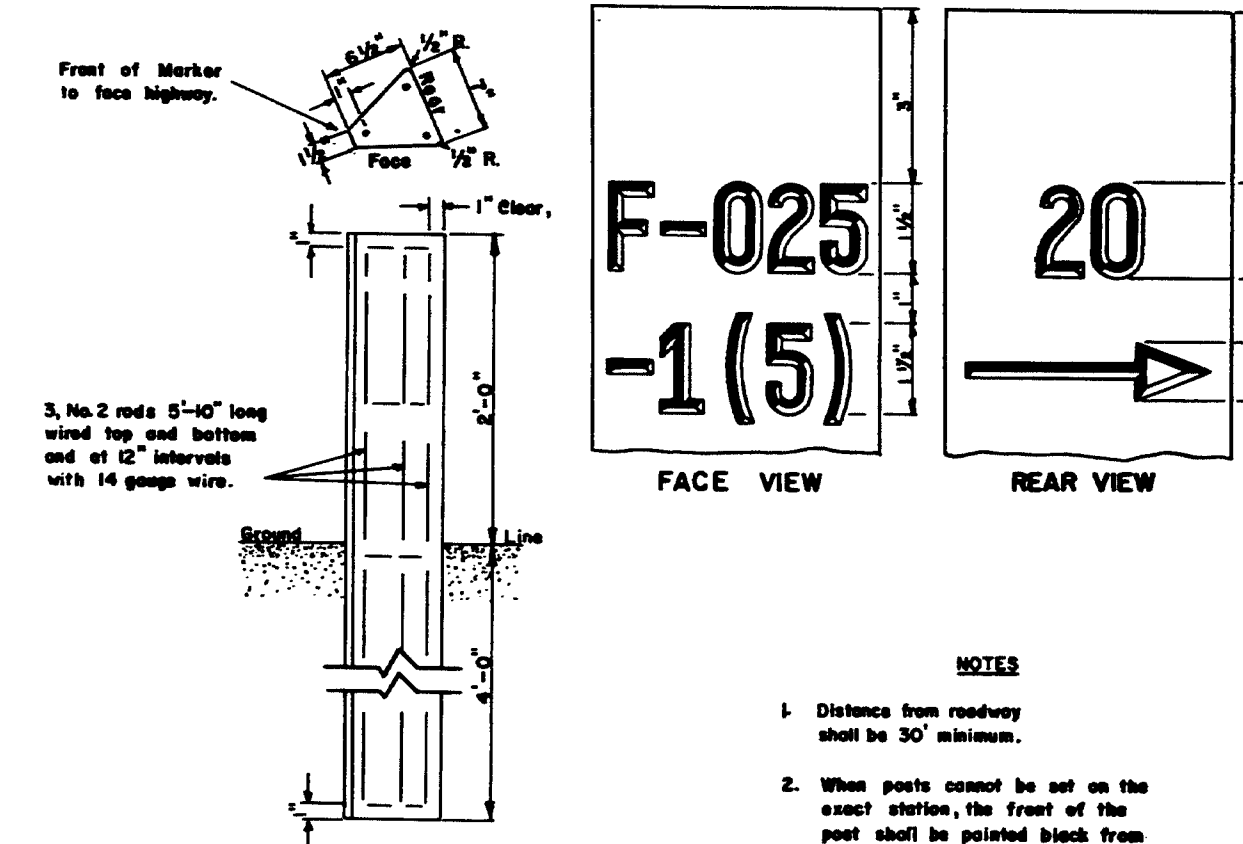


NOTE:

Standard locations and number of signs required are subject to variation on particular projects if specifically noted due to surrounding terrain and land use.



BARRICADES



NOTES

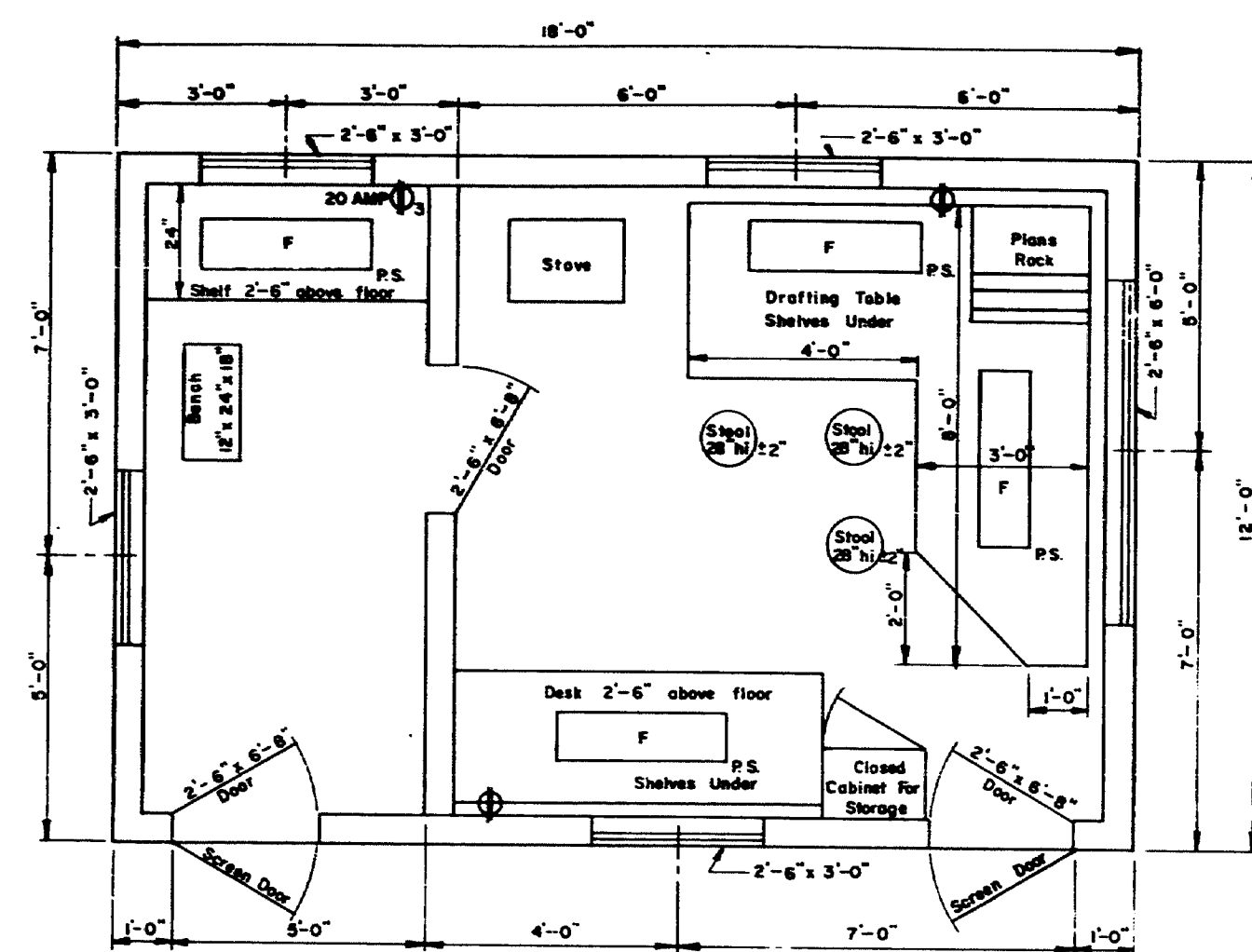
1. Distance from roadway shall be 30' minimum.
2. When posts cannot be set on the exact station, the front of the post shall be painted black from the top to 3' down, and the offset distance marked on rear with an arrow pointing in direction of beginning or end of project.
3. All markings to be 1/4" deep and 1/2" wide.

PROJECT MARKERS

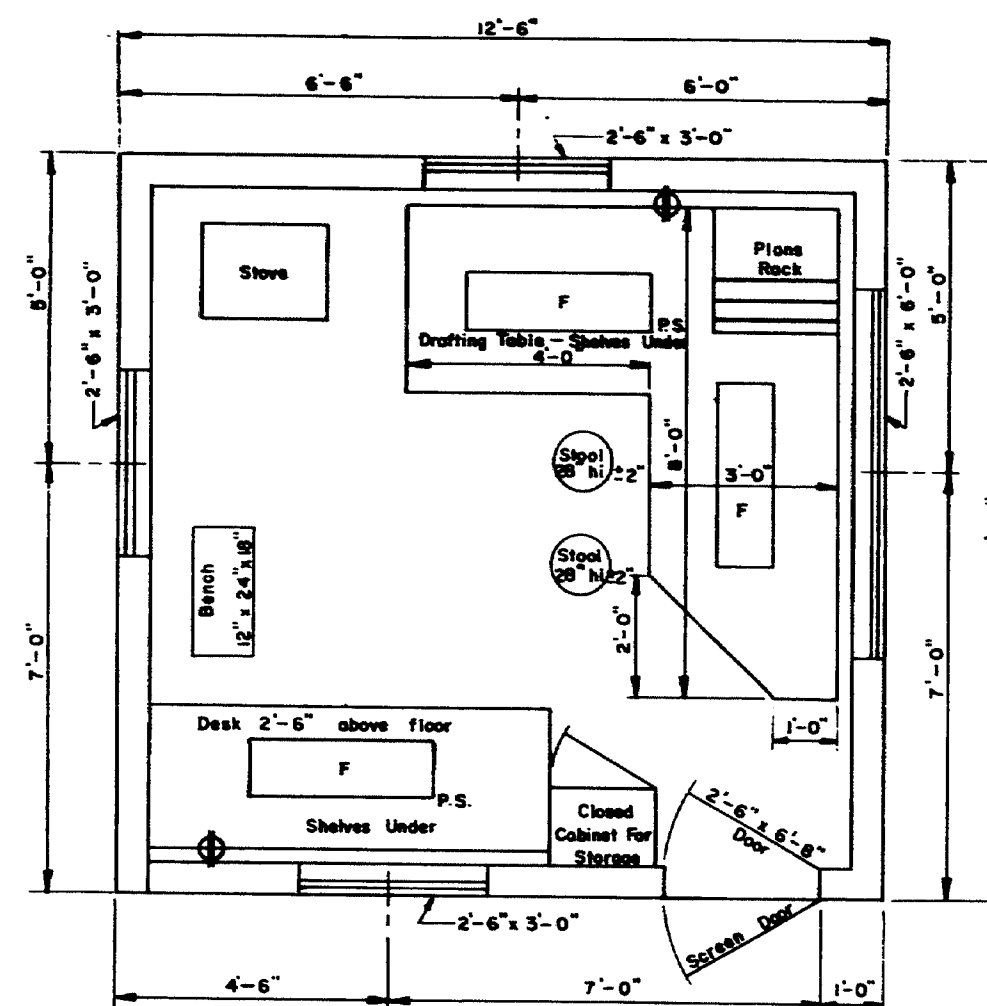
REVISION	
PLATE B	12-21-70
PLATE C	12-15-71
PLATE D	10-12-72

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE
**BARRICADES
WARNING SIGNS
MONUMENTS
PROJECT MARKERS**
AUG. 1969

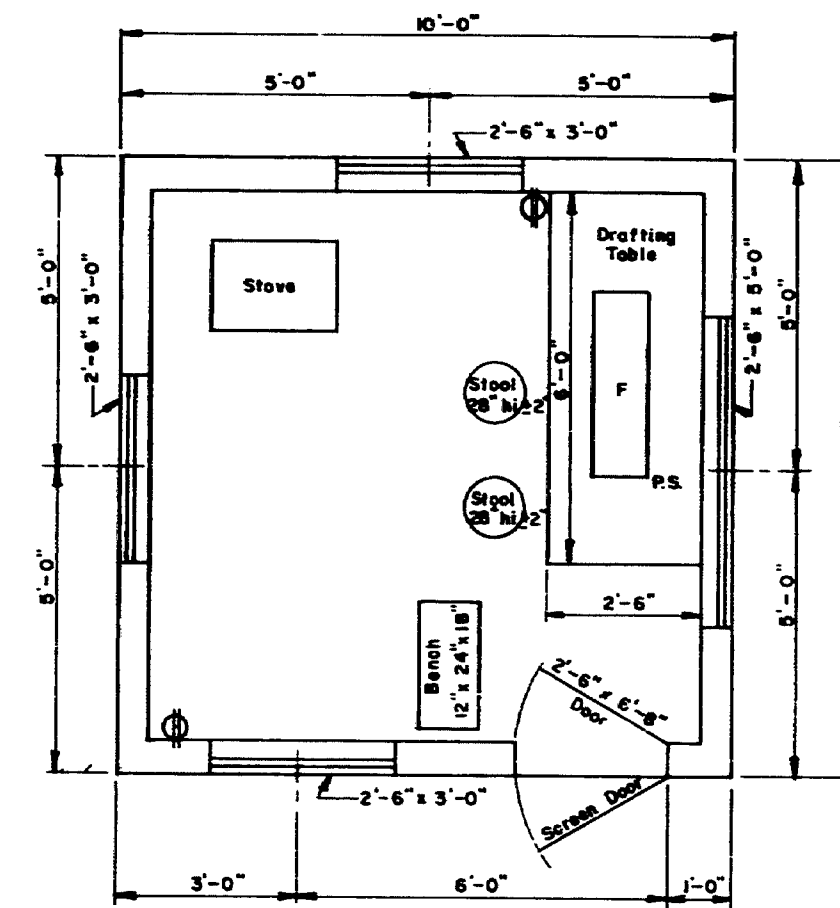
168-89



FLOOR PLAN
TYPE "A"

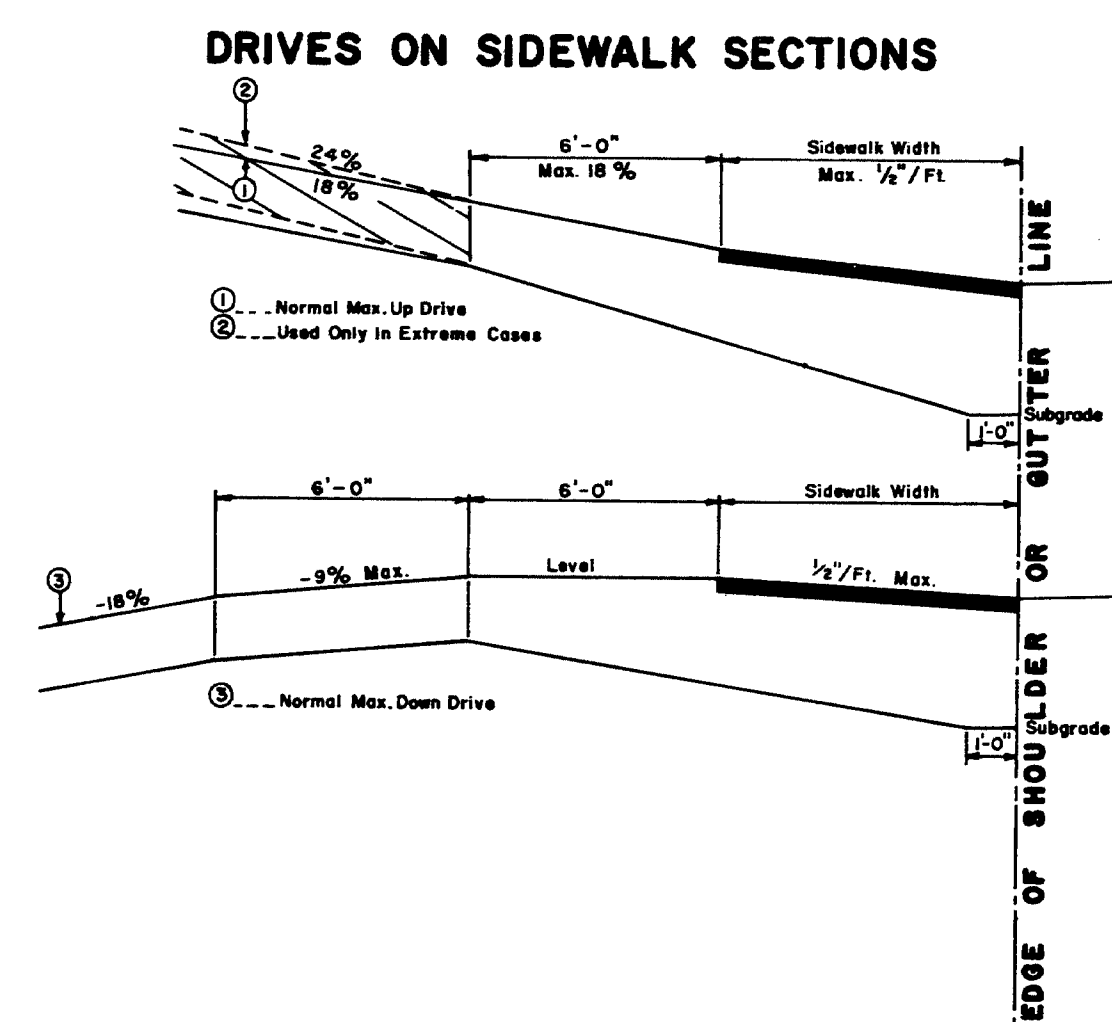


FLOOR PLAN
TYPE "B"



FLOOR PLAN
TYPE "C"

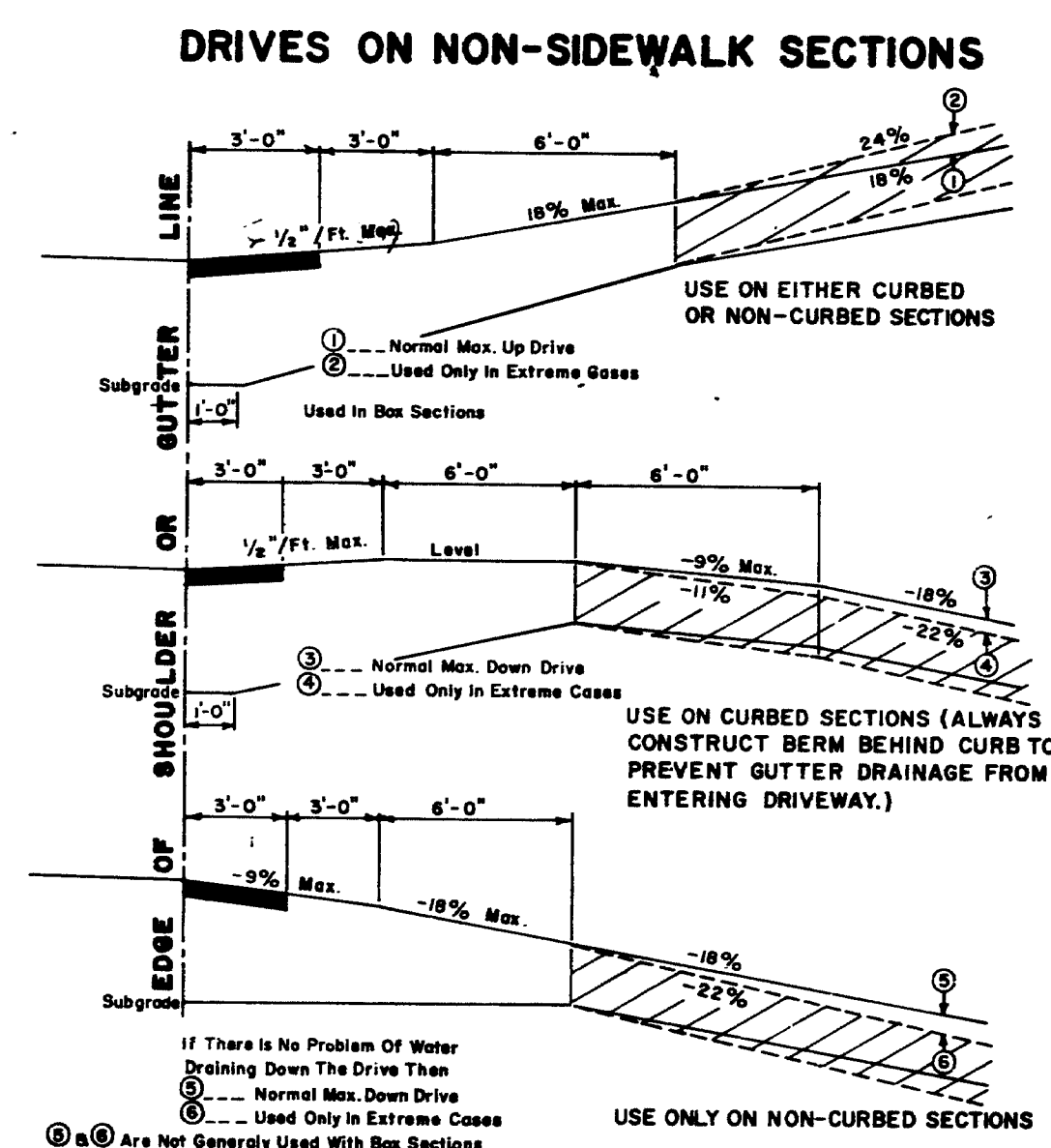
- GENERAL NOTES**
- Drafting table shall be 3'-4" high at front edge and placed 2" from shade to allow prints to hang down behind table when in use.
 - Shelves under desk shall be constructed to receive 1 1/2" x 14" x 25" transfiles.
 - Windows shall be double hung.
 - Stovepipe shall not be in direct contact with combustible material; the pipe shall be surrounded with at least 6" of fireproof material.
 - Continuous 110 volt 60 cycle electric service shall be supplied.
 - The engineer may rearrange the items shown on the plan views during construction of the field office.
 - FURNISHINGS TO BE SUPPLIED:**
 - 2 Straight back chairs for types A and B
 - 1 Bench for types A, B & C
 - 3 Stool for type A
 - 2 Stools for types B & C
 - SYMBOLS:**
 - F Fluorescent lights (2 light, rapid start 48" strips and 40 watt bulbs)
 - P.S. Pull switch
 - ⊕ Duplex wall outlet—15 amp unless otherwise noted
 - ⊕₃ Triples Wall Outlet
 - For the Type "A" Field Office one clean 55 gal. drum shall be supplied, installed on a suitable rack and equipped with a spigot suitable for drawing off water. The drum shall be furnished with water at all times.



- GENERAL NOTES**
- The sidewalk width shall be paved in all cases.
 - All residential or commercial drives 10% and over shall be paved.

NOTES ON MAXIMUM DRIVEWAY PROFILES

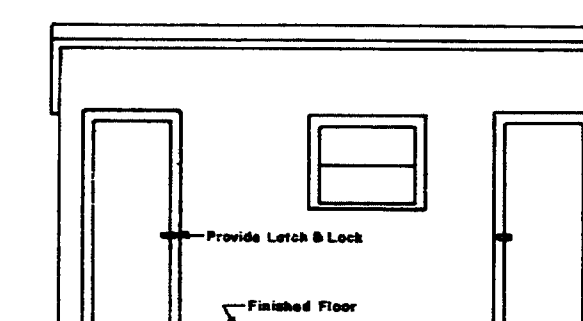
- These profiles are a guide for the majority of cases, but should be field checked when the main line grade is steep (4% to 6% or greater) or the angle of approach to the drive is unusual.
- Generally the majority of drives on a project will be built with flatter profiles than these maximum cases.
- When grading drives which are flatter than the maximum profiles the following rule of thumb should be used, do not exceed a grade % change of more than 9% in a 6 foot increment of driveway length. This applies to both up and down profiles.



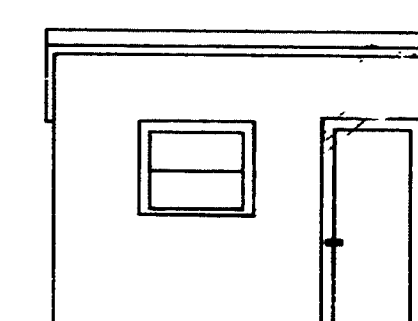
- GENERAL NOTES**
- The first 3' shown as pavement shall be paved only when abutting a paved area.
 - All residential or commercial drives 10% and over shall be paved.

NOTES ON MAXIMUM DRIVEWAY PROFILES

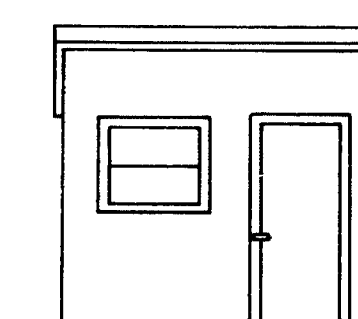
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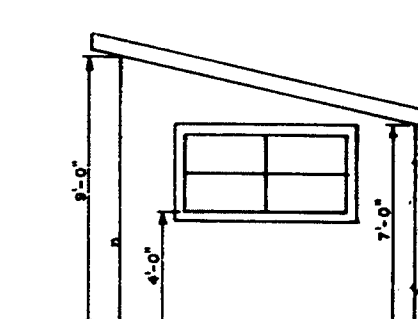
FRONT ELEVATION
TYPE "A"



FRONT ELEVATION
TYPE "B"



FRONT ELEVATION
TYPE "C"



SIDE ELEVATION
TYPES "A", "B", & "C"

REVISIONS		
PLATE	D.C.	3-16-73

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
AUGUSTA, MAINE

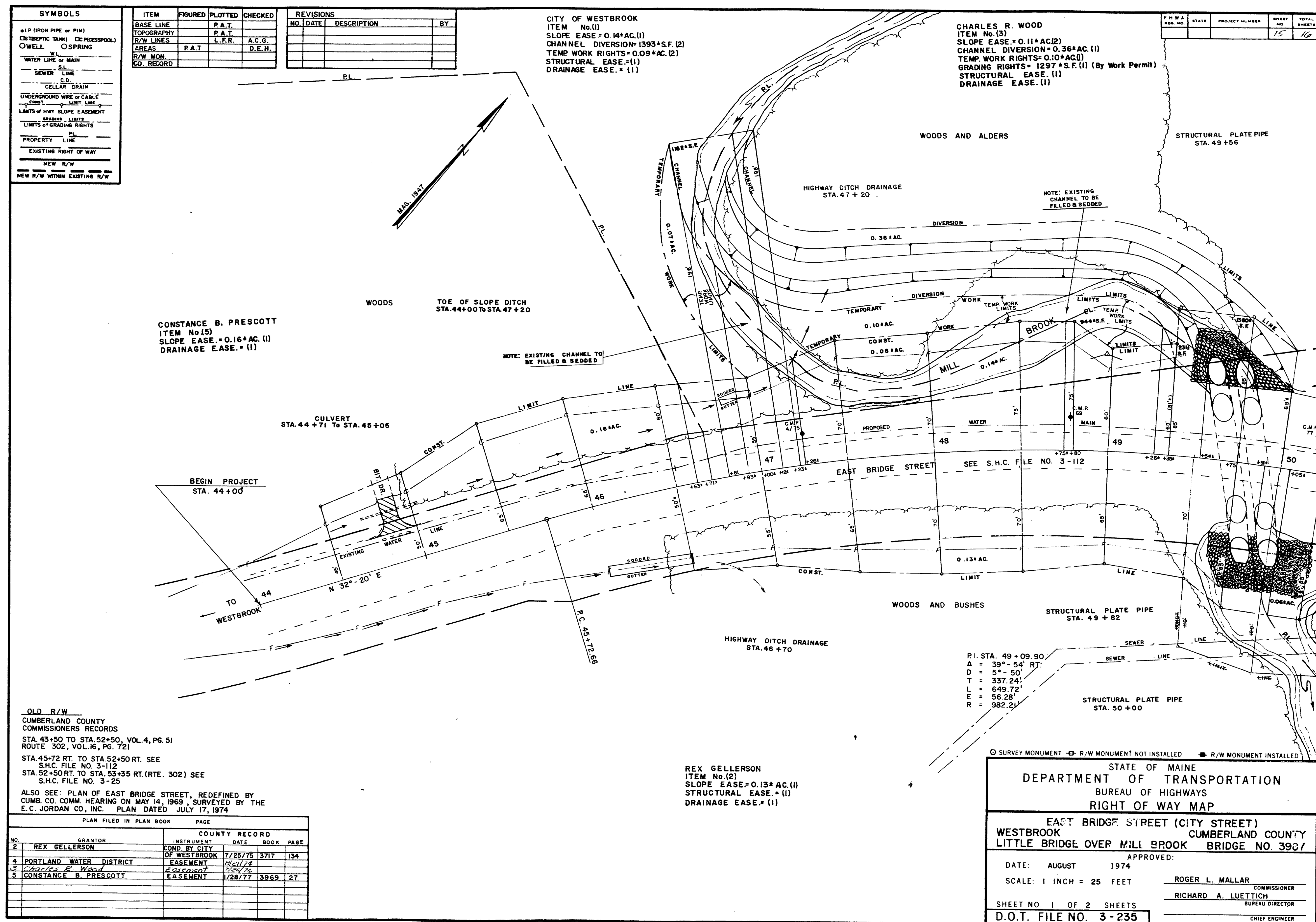
STANDARD DETAILS

DRIVEWAY DETAILS
FIELD OFFICES
TESTING LABORATORY

AUG. 1969

12

168-90



168-91

