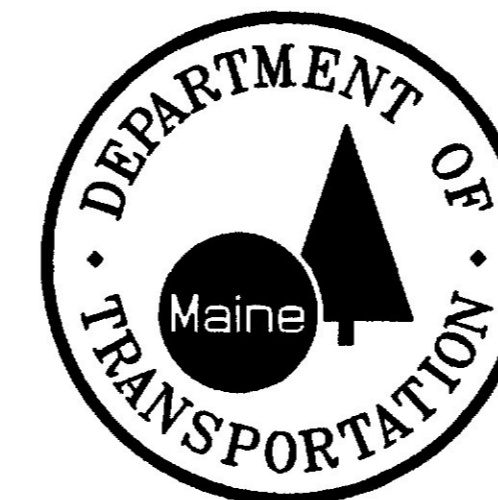


METRIC

1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-7956(00)X	1	51

STATE OF MAINE DEPARTMENT OF TRANSPORTATION



SPECIFICATIONS

DESIGN: AASHTO LRFD Bridge Design Specifications, Second Edition 1998 and Interim Specifications 1999.

CONTRACT: State of Maine, Department of Transportation, Standard Specifications, Highways and Bridges, Revision of April 1995.

STANDARD DETAILS: State of Maine, Department of Transportation, Standard Details, Highways and Bridges, April 1997.

DESIGN LOADING

Live Load MS22.5

TRAFFIC DATA

	Route 127	Indian Point Rd.
Average Annual Daily Traffic (2000)	2050	330
Average Annual Daily Traffic (2020)	2870	460
Design Hourly Volume	402	17
Heavy Trucks (% AADT)	4	8
Directional Distribution (% DHV)	55	70
80 kN Equivalent P2.0	36	11
80 kN Equivalent P2.5	35	11
Design Speed (km/h)	30	—

TIDAL DATA

Mean High Water	EL. 1.43 m
Mean Sea Level	EL. 0.00 m
Mean Low Water	EL. -1.26 m

MATERIALS

Concrete (Except as noted)	Class "A"
Concrete (Precast)	Class "P"
Concrete (Curbs)	Class "LP"
Reinforcing Steel	ASTM A 615/A 615M, Grade 420

BASIC DESIGN STRESSES

Concrete (Except as noted)	f'c = 30 MPa
Concrete (Precast)	f'c = 34.5 MPa
Concrete (Curbs)	f'c = 35 MPa
Reinforcing Steel	fy = 420 MPa

UTILITIES

Central Maine Power Company Bell Atlantic

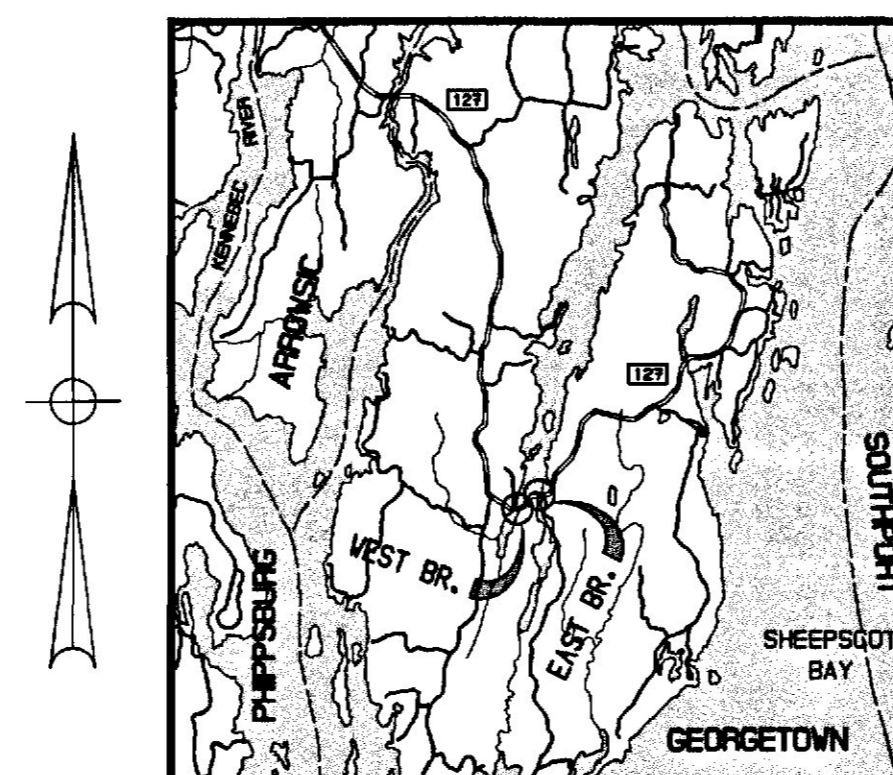
WEST BRIDGE PROJECT NO. BR-7956(00)X EAST BRIDGE PROJECT NO. BR-7959(00)X OVER ROBINHOOD COVE IN THE TOWN OF GEORGETOWN SAGADAHOC COUNTY BRIDGE REPLACEMENTS WEST BR. NO. 2927 EAST BR. NO. 2248

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NOTE

All work contemplated under this contract shall be governed by and in conformity with the Standard Specifications (Revision of April 1995), the Standard Details (April 1997), and supplementals thereto, except as modified on the plans and in the Special Provisions.



LOCATION MAP

Scale of Kilometers

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED:



John E. Dornity 7/21/00
COMMISSIONER DATE
John E. Dornity 07/21/00
CHIEF ENGINEER DATE

UNITED STATES
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
REGION 1

APPROVED:

DIVISION ADMINISTRATOR DATE

METRIC

1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

F.H.W.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-7956(00)X	2	51

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY		TOTAL	UNIT
		WEST BRIDGE	EAST BRIDGE		
		007956.00	007959.00	COMBINED	
107.27	TEMPORARY EROSION AND WATER CONTROL	0.5	0.5	1	LS
202.19	REMOVING EXISTING BRIDGE (80 m*) (85 m*)	0.55	0.45	1	LS
203.20	COMMON EXCAVATION	780	1 590	2 370	m³
203.21	ROCK EXCAVATION	10	410	420	m³
203.2312	HEALTH & SAFETY PLAN	1	--	1	LS
203.233	DISPOSAL OF SPECIAL EXCAVATION	50	--	50	m³
203.24	COMMON BORROW	10	10	20	m³
203.25	GRANULAR BORROW	130	25	155	m³
203.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	250	92	342	m³
304.10	AGGREGATE SUBBASE COURSE-GRAVEL	850	1 320	2 170	m³
403.208	SUPERPAVE HOT MIX ASPHALT 12.5 mm NOMINAL MAX SIZE	185	275	460	Mg
403.209	SUPERPAVE HOT MIX ASPHALT 9.5 mm NOMINAL MAX SIZE (INCIDENTALS)	20	18	38	Mg
403.210	SUPERPAVE HOT MIX ASPHALT 9.5 mm NOMINAL MAX SIZE	88	80	148	Mg
501.230	STATIC LOADING TEST	1	1	2	Each
501.231	DYNAMIC LOADING TEST	2	2	4	Each
501.253	PILE PROTECTIVE COATING (1 kg) (-- kg)	1	--	1	LS
501.44	STEEL H-BEAM PILES 93 kg/m, DELIVERED	51	--	51	m
501.441	STEEL H-BEAM PILES 93 kg/m, IN PLACE	51	--	51	m
501.70	STEEL PIPE PILES, DELIVERED	100	82	182	m
501.701	STEEL PIPE PILES, IN PLACE	100	82	182	m
501.90	PILE TIPS	18	8	24	Each
501.91	PILE SPLICES	18	8	24	Each
501.92	PILE DRIVING EQUIPMENT MOBILIZATION	0.82	0.38	1	LS
502.219	STRUC. CONC. ABUTS AND RET. WALLS (87 m*) (54 m*)	0.55	0.45	1	LS
502.239	STRUC. CONC. PIERS (37 m*) (31 m*)	0.54	0.48	1	LS
502.31	STRUC. CONC. APPROACH SLABS (14 m*) (14 m*)	0.5	0.5	1	LS
502.4221	STRUC. CONC. RDWY SLAB ON CONC. BRIDGE (117 m*) (80 m*)	0.59	0.41	1	LS
502.49	STRUC. CONC. CURBS & SIDEWALKS (17 m*) (12 m*)	0.59	0.41	1	LS
503.14	EPOXY COATED REINFORCING STEEL, FABRICATED AND DELIVERED	25 550	18 500	44 050	kg
503.15	EPOXY COATED REINFORCING STEEL, PLACING	25 550	18 500	44 050	kg
504.906	ROCK DOWELS	8	8	16	Each
507.0811	STEEL BRIDGE RAILING, 2 BAR	113	75	188	m
508.13	MEMBRANE WATERPROOFING (490 m*) (340 m*)	0.59	0.41	1	LS
510.12	SPECIAL DETOUR, VEH. & PED. TRAF. SEPARATE	0.8	0.4	1	LS
512.081	FRENCH DRAINS (-- m) (28 m)	--	1	1	LS
514.08	CURING BOX FOR CONC. CYLINDERS	0.5	0.5	1	Each
515.21	PROT. COATING FOR CONC. SURFACES (300 m*) (210 m*)	0.59	0.41	1	LS
526.301	TEMPORARY CONC. BARRIER, TYPE I (60 m) (80 m)	0.5	0.5	1	LS
526.34	PERMANENT CONC. TRANSITION BARRIER	4	4	8	EACH
535.82	PRESTRESSED STRUC. CONC. BOX BEAM (104 m) (83 m)	0.82	0.38	1	LS
603.179	450 mm CULVERT PIPE OPTION III	28	--	28	m
603.19	800 mm CULVERT PIPE OPTION I	--	24	24	m
603.199	800 mm CULVERT PIPE OPTION III	--	30	30	m
604.072	CATCH BASIN TYPE A1-C	2	--	2	Each
608.1721	BRIDGE TRANSITION - TYPE 1	4	3	7	Each
608.285	TERMINAL END - SINGLE RAIL - GALVANIZED STEEL	2	1	3	Each
608.35	GUARDRAIL DELINEATOR POST	8	8	16	Each
608.55	GUARDRAIL TYPE 3 - SINGLE RAIL	39	--	39	m
608.80	GUARDRAIL TYPE 3 - OVER 4.5 m RADIUS	16	4	20	m
608.812	STEEL BACKED TIMBER GUARDRAIL	--	15	15	m
608.88	TERMINAL END THRIE BEAM	--	1	1	Each
608.71	GUARDRAIL THRIE BEAM - 4.5 m RADIUS AND LESS	--	4	4	m
608.78	MODIFIED ECCENTRIC LOADER TERMINAL	2	3	5	Each
609.11	VERTICAL CURB TYPE 1	--	18	18	m
609.12	VERTICAL CURB TYPE 1 - CIRCULAR	--	12	12	m
609.234	TERMINAL CURB TYPE 1 - 1.2 m	--	2	2	Each
609.31	CURB TYPE 3	80	--	80	m
610.08	PLAIN RIPRAP	320	--	320	m³
613.319	TEMPORARY EROSION CONTROL BLANKET	75	340	415	m³
615.07	LOAM	20	45	65	m³
618.13	SEEDING METHOD NUMBER 1	--	3	3	Unit
618.14	SEEDING METHOD NUMBER 2	5	7	12	Unit
620.58	EROSION CONTROL GEOTEXTILE	200	--	200	m²
627.71	100 mm WHITE PAVEMENT MARKING LINE	360	400	760	m
627.73	100 mm YELLOW PAVEMENT MARKING LINE	180	200	380	m
629.05	HAND LABOR, STRAIGHT TIME	10	20	30	Men Hour
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	10	10	20	Hour
631.171	TRUCK - SMALL (INCLUDING OPERATOR)	10	10	20	Hour
631.36	FOREMAN	10	10	20	Hour
635.14	PREFABRICATED CONCRETE MODULAR GRAVITY WALL	230	--	230	m³
637.071	DUST CONTROL	0.5	0.5	1	LS
639.18	FIELD OFFICE TYPE A	0.5	0.5	1	Each
843.72	TEMPORARY TRAFFIC SIGNAL	0.5	0.5	1	LS
852.31	TYPE I BARRICADE	18	18	32	Each
852.312	TYPE III BARRICADE	4	4	8	Each
852.33	DRUM	10	10	20	Each
852.34	CONE	10	10	20	Each
852.35	CONSTRUCTION SIGNS	20	25	45	m²
852.381	MAINTENANCE OF TRAFFIC CONTROL DEVICES (385 CD) (385 CD)	0.5	0.5	1	LS
852.37	WARNING LIGHTS	1	1	2	GROUP
852.38	FLAGGER	100	100	200	Men Hour
859.10	MOBILIZATION	0.55	0.45	1	LS

GENERAL NOTES

- All utility facilities shall be adjusted by the respective utilities unless otherwise indicated.
- For easements, construction limits and right of way lines, refer to Right of Way Map.
- During construction, the bridges will be closed to traffic for a period specified in the Special Provisions.
- The clearing limits shown on the plans are approximate. The exact limits will be established in the field by the Engineer. Payment for clearing will be considered incidental to contract items.
- Plans of the existing bridge are available for the Contractor's reference at the Bridge Design office in Augusta. The plans are reproductions of the original drawings as prepared for the construction of the bridge. It is very unlikely that the plans will show any construction field changes or any alterations which may have been made to the bridge during its life span.
- Temporary Erosion Control Blanket shall be installed in ditches in accordance with the Standard Details and as directed by the Engineer.
- Payment for removal of the existing underground storage tank will be considered incidental to Item No. 203.233, Disposal of Special Excavation.

PROJECT DESIGN ENGINEER	DATE	BY	DATE
CHECKED	7/00	DMD	7/00
REVISIONS	X/SX		
FIELD CHANGES			

PLANS

01MAR00-0100.10

West Bridge No. 2927 East Bridge No. 2248

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WEST BRIDGE & EAST BRIDGE
OVER
ROBINHOOD COVE
IN THE TOWN OF
GEORGETOWN
SAGADAHOC COUNTY

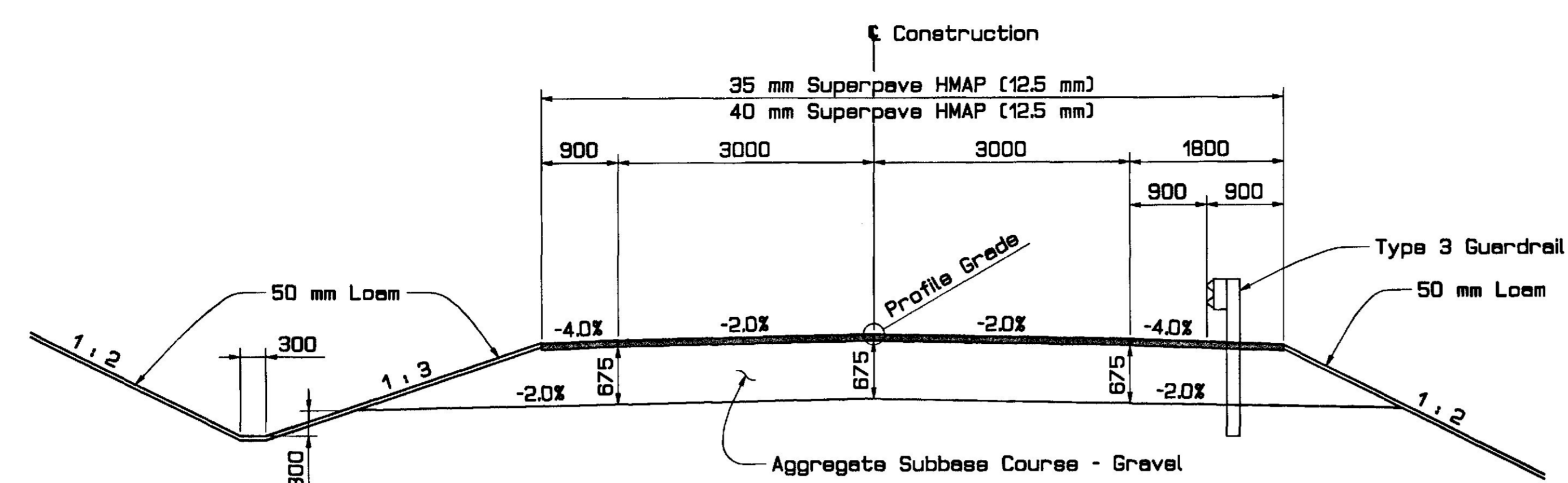
ESTIMATED QUANTITIES & NOTES

SHEET 2 OF 51 AUGUSTA, MAINE June 2000

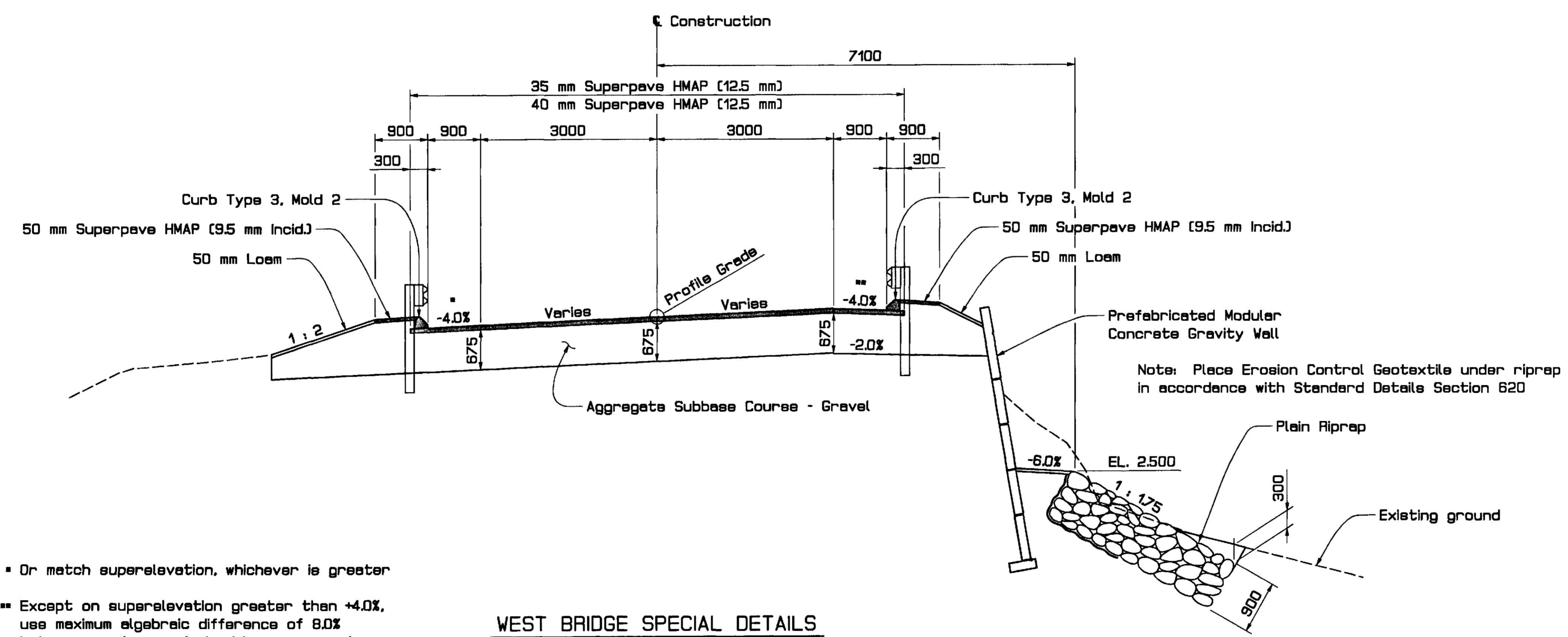
METRIC

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F.H.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-7956(00)X	3	51

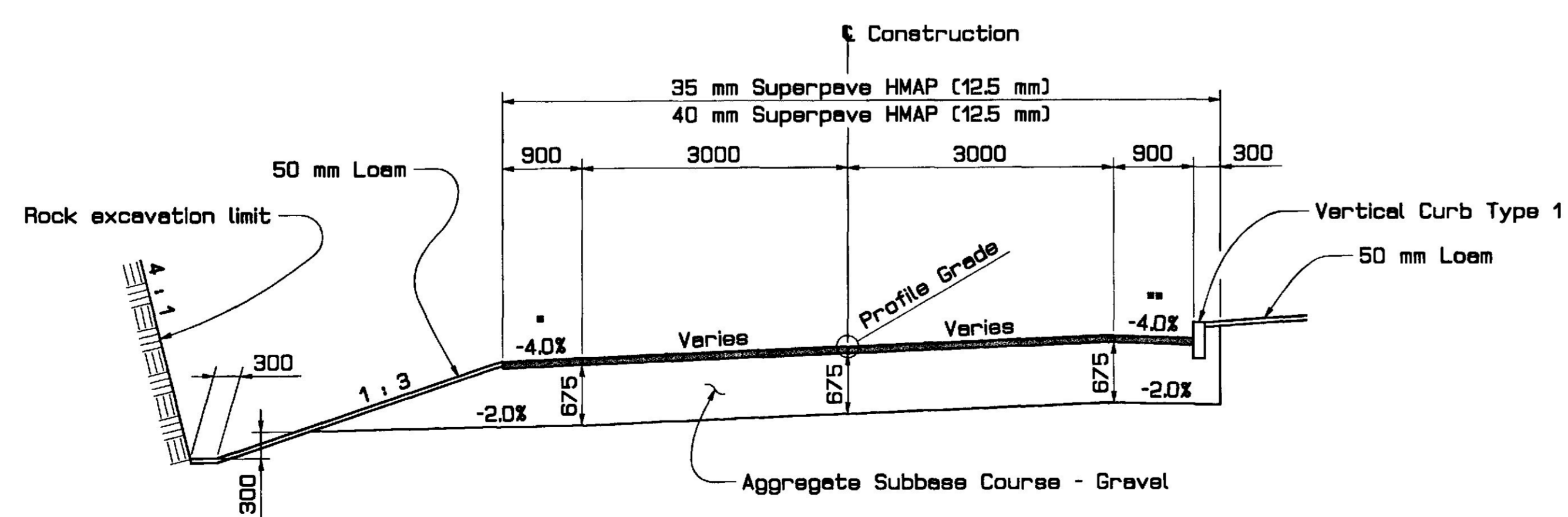


APPROACH DESIGN SECTION



WEST BRIDGE SPECIAL DETAILS

- Or match superelevation, whichever is greater
- Except on superelevation greater than +4.0%, use maximum algebraic difference of 8.0% between roadway and shoulder cross - slope



EAST BRIDGE SPECIAL DETAILS

PROJECT DESIGN ENGINEER	CHECKED	REVISIONS	FIELD CHANGES
RWR/GMAN	DMD	X	

DATE: 5/00
X/5X

BY: RWR/GMAN

DESIGN-DETAILED

PLANS

01MARD0-010010
APPROACH

West Bridge No. 2927 East Bridge No. 2248

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

WEST BRIDGE & EAST BRIDGE
 OVER
 ROBINHOOD COVE
 IN THE TOWN OF
 GEORGETOWN
 SAGADAHOC COUNTY

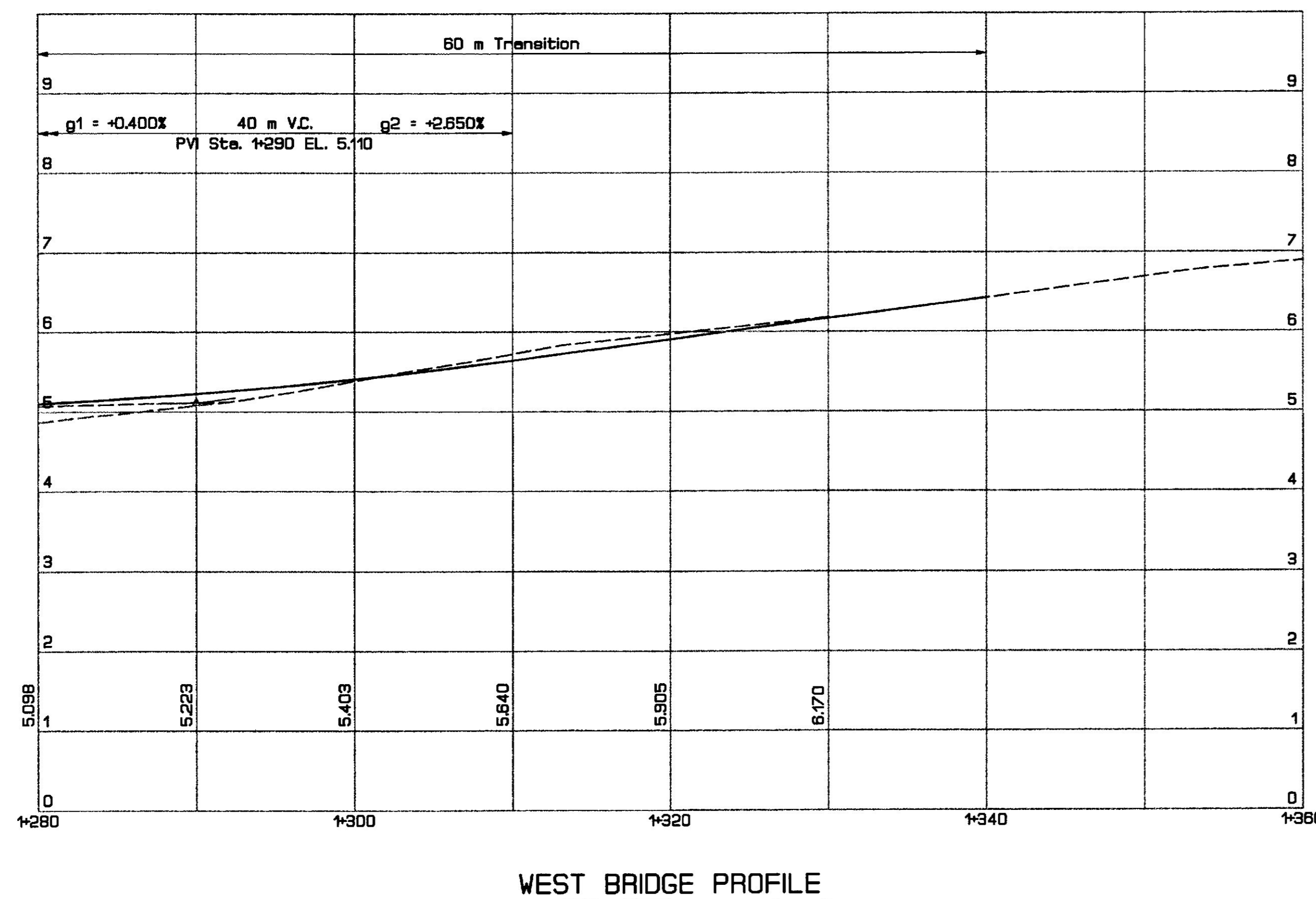
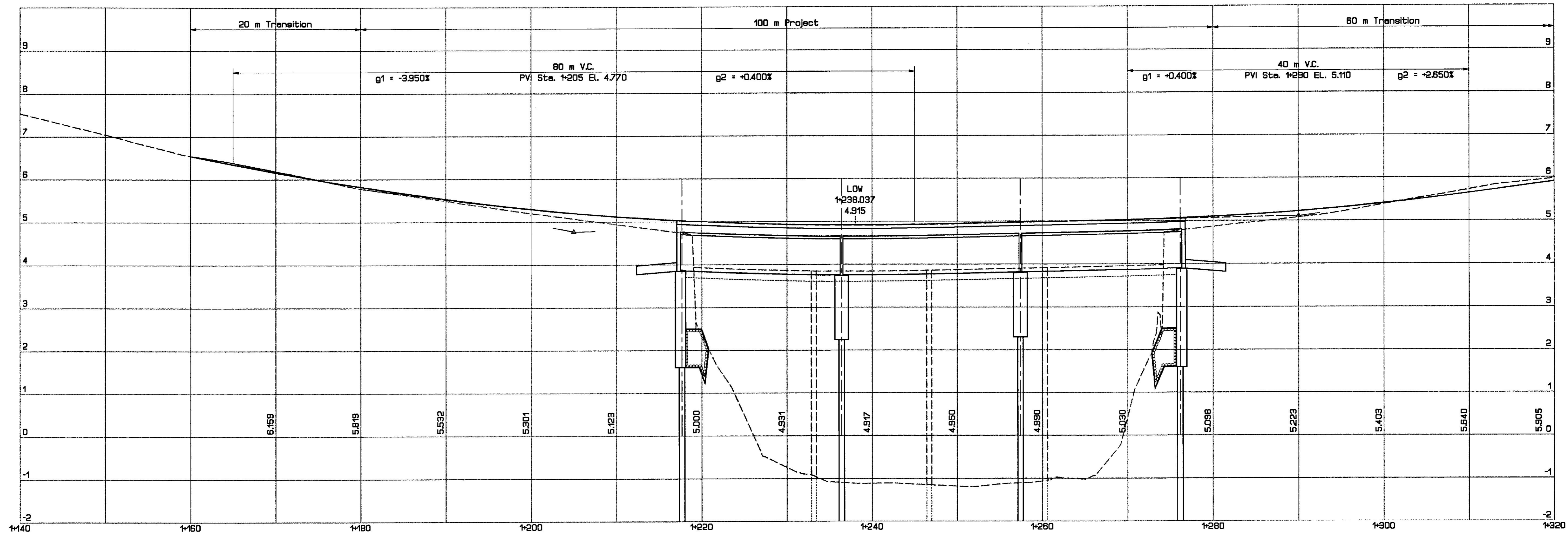
TYPICAL APPROACH SECTIONS

SHEET 3 OF 51 AUGUSTA, MAINE June 2000

METRIC

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F.P.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-7956(00)X	5	51



PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	RMR	8/99
CHECKED	X	X/9X
REVISIONS		
FIELD CHANGES		

01MAR00-01.00.10
PROP2

Bridge No. 2927

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WEST BRIDGE
OVER
ROBINHOOD COVE
IN THE TOWN OF
GEORGETOWN
SAGADAHOC COUNTY

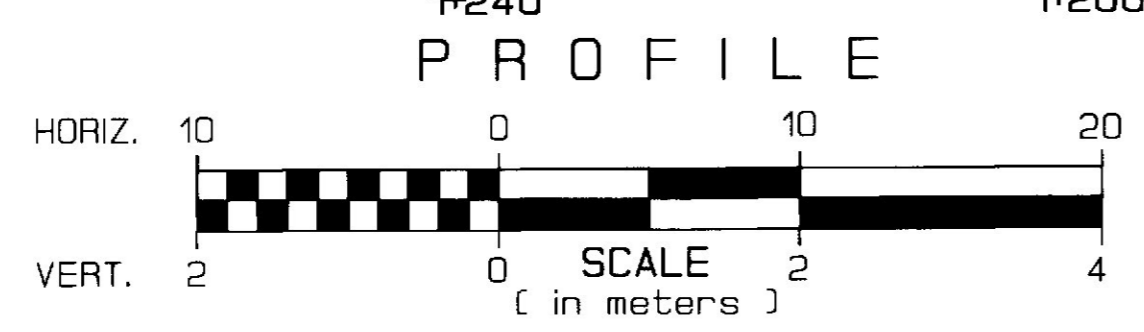
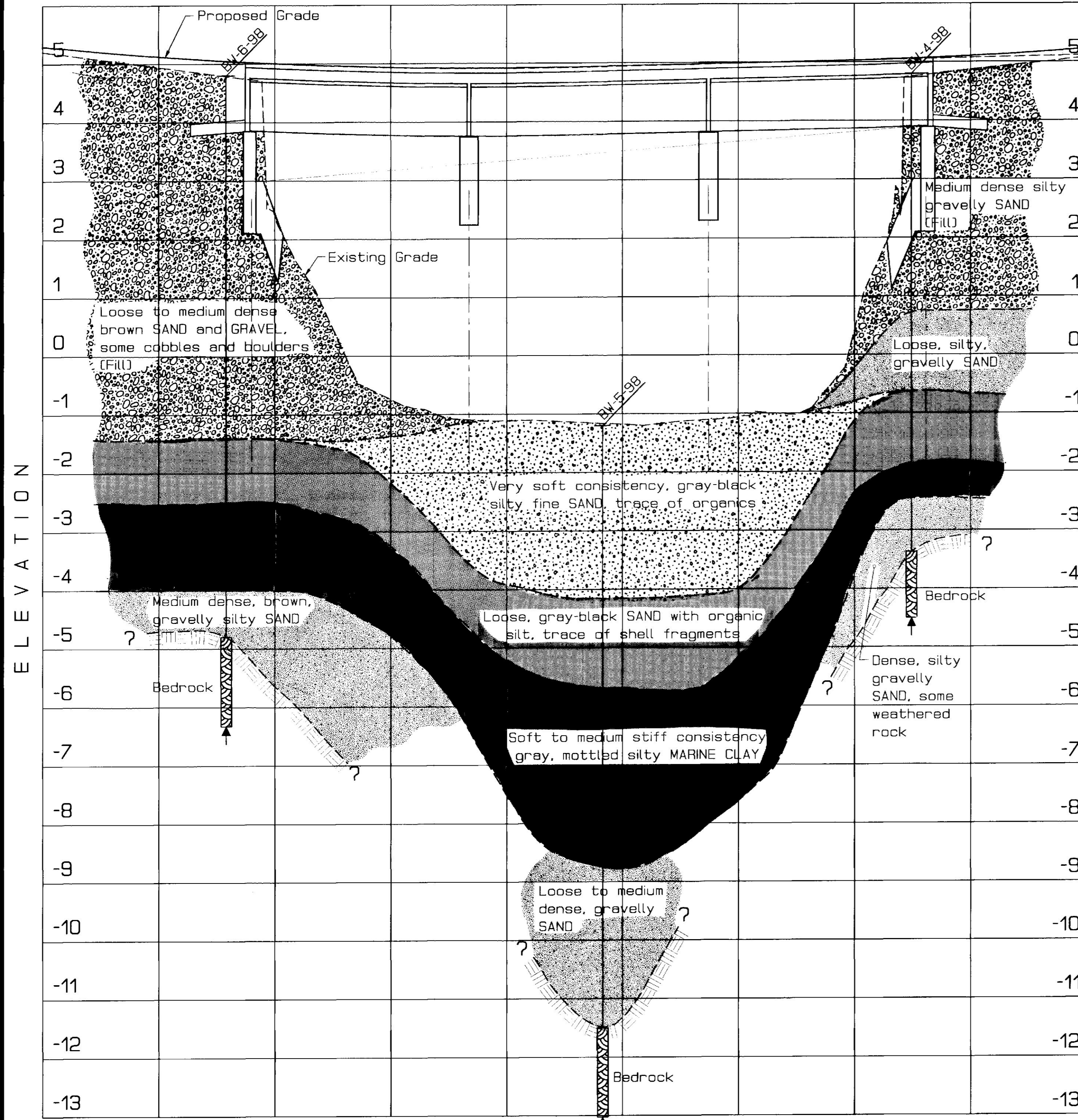
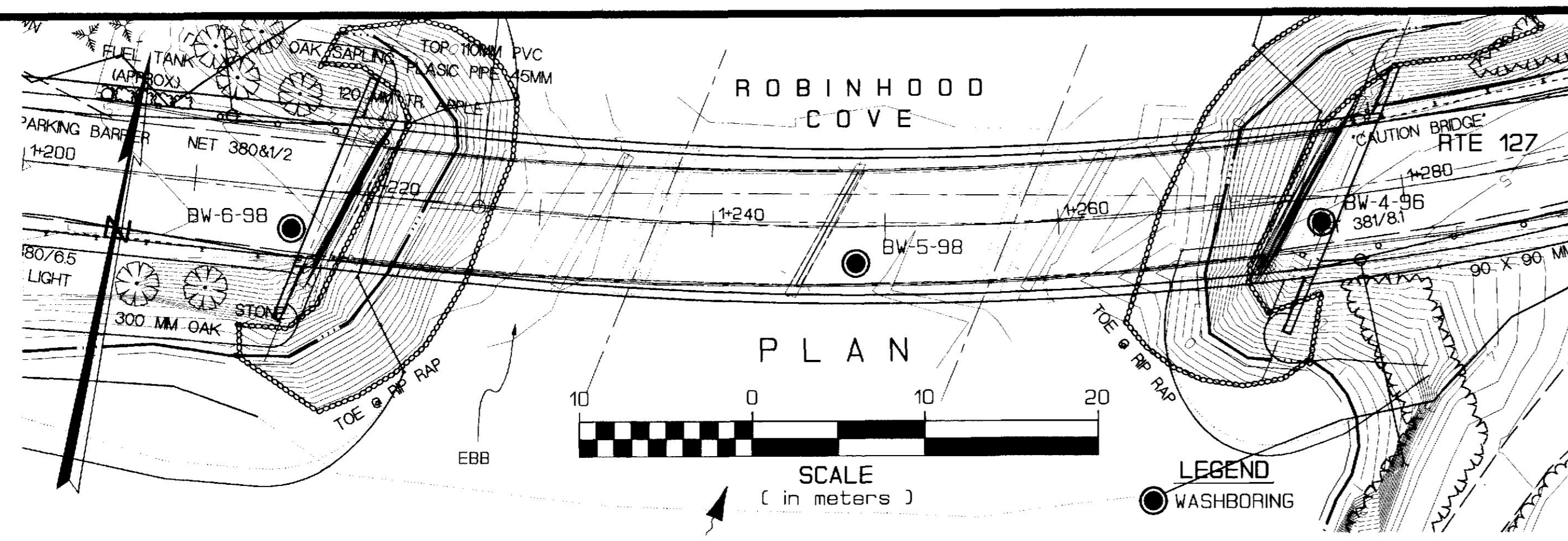
PROFILE

SHEET OF AUGUSTA, MAINE June 2000

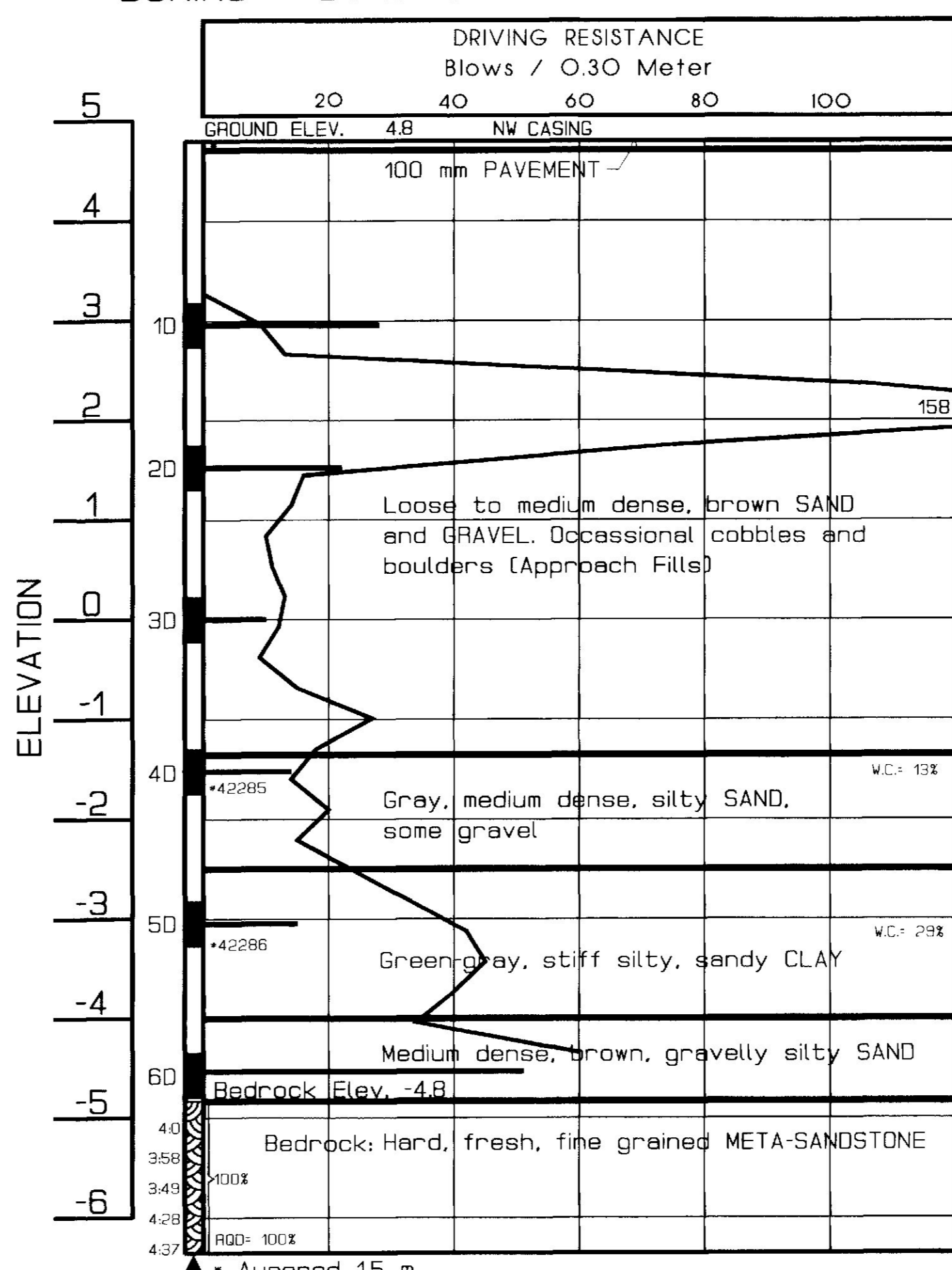
METRIC

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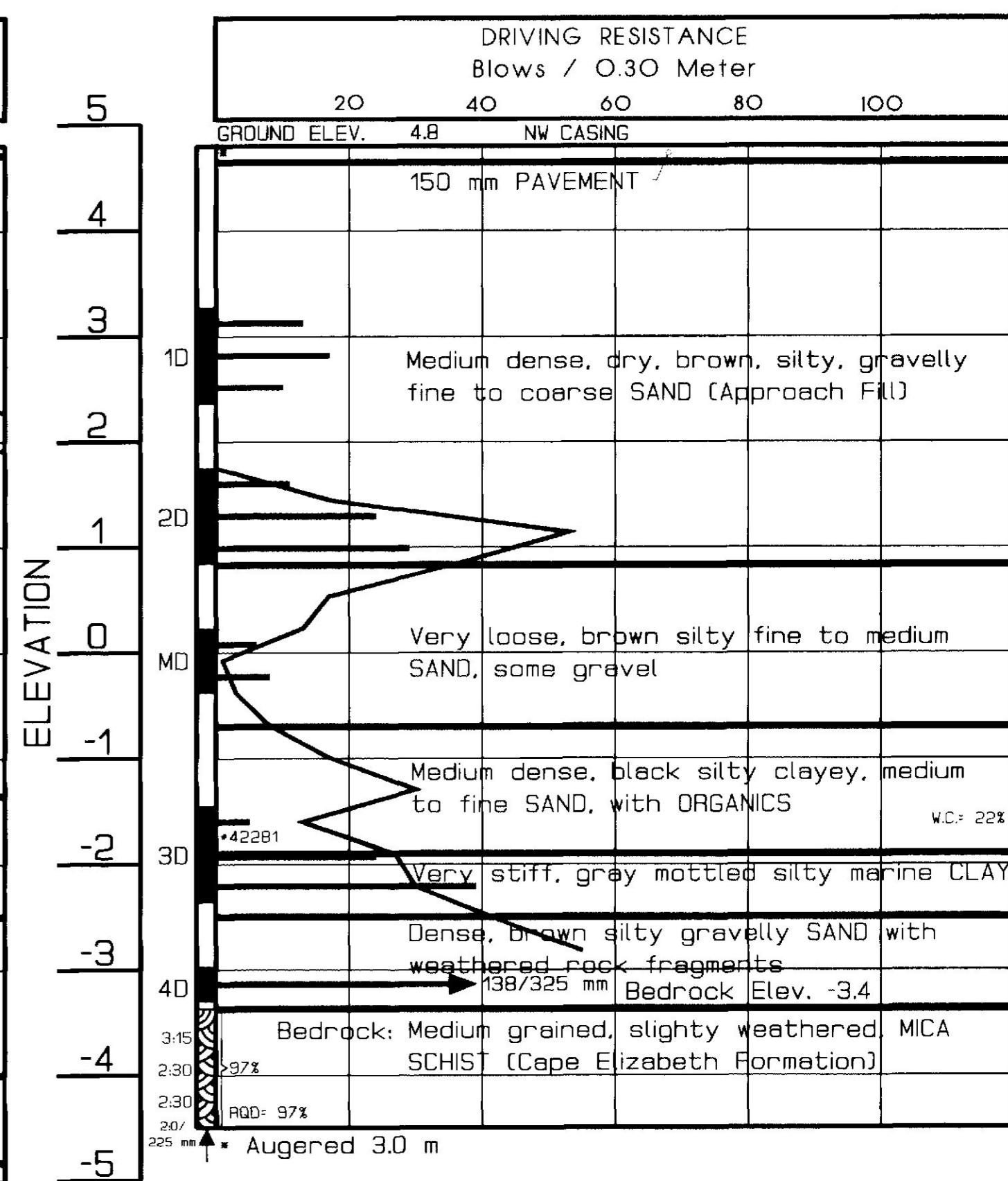
F.D.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	007956.00	6	51



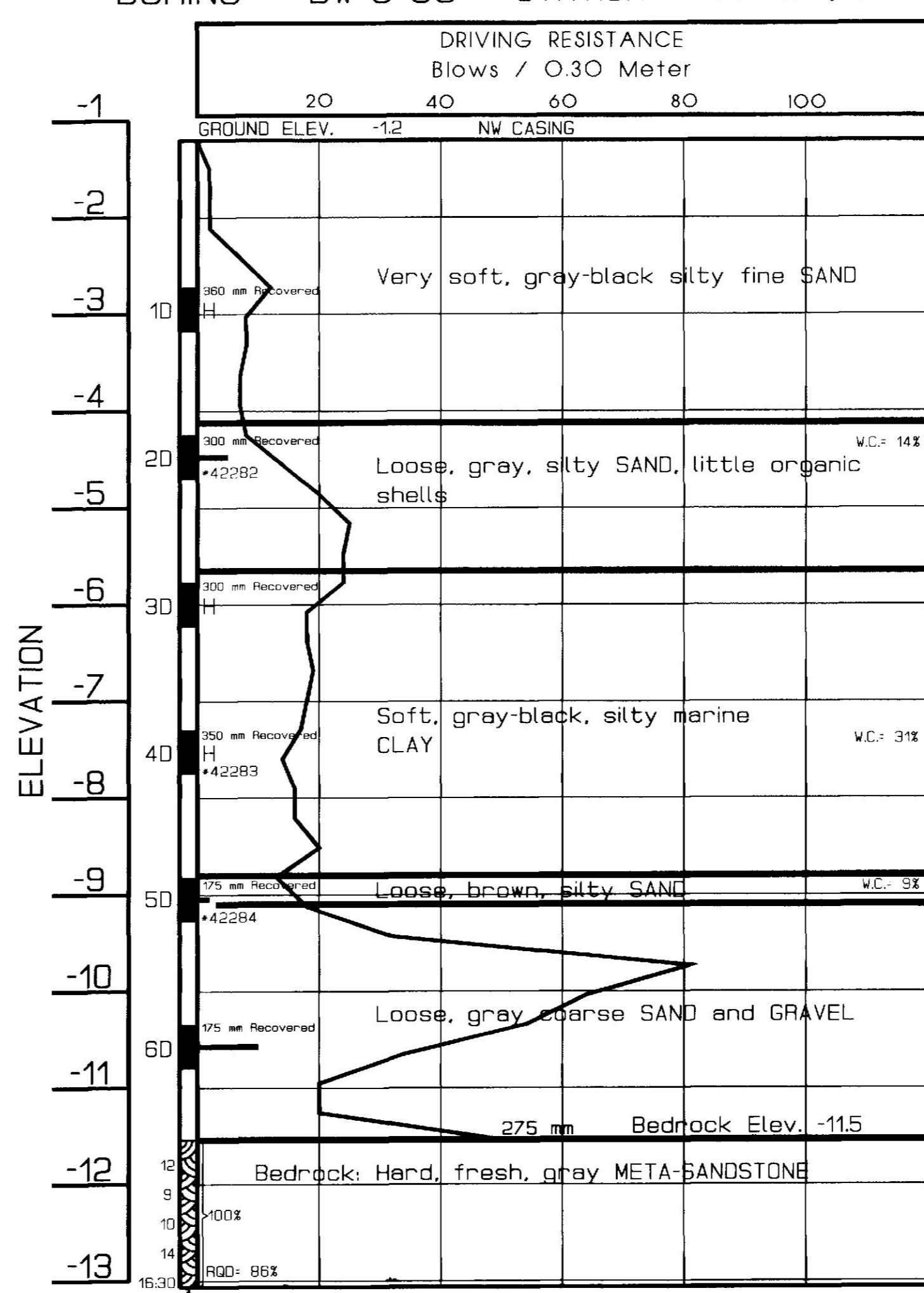
BORING BW-6-98 STATION 1+215.8, 2.3 RT.



BORING BW-4-98 STATION 1+274.9, 1.3 RT.



BORING BW-5-98 STATION 1+248.3, 2.1 RT.



BORING NOTES

- Water Elevation
- Number of blows required to drive extra heavy casing 0.3 meters with 542 Nm of energy per blow
- Location of sample or sample attempt
- Number and type of dry sample
 - ID Split spoon sampler
 - IC 51 mm O.D. 16 ga. seamless tubing
 - IU 88 mm O.D. 16 ga. seamless tubing
 - IW Wash sample and number
 - MD Unsuccessful sample attempt and type of sampler
 - DS Dredge Spoil Samples
- Number of blows required to drive spoon or tubing 0.3 meters with 475 Nm of energy per blow
- Sampling spoon or seamless tubing driven by static weight of drill rods and hammer
- P Piston sampler
- Field vane test
- Bottom of boring (may not be bottom of soil strata)
- Refusal of drill rods or casing (may not be ledge)
- Locations cored by diamond bit and percent recovery of rock
- Minutes/0.3 Meter Drilled

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WEST BRIDGE
over
ROBINHOOD COVE
in the town of
GEORGETOWN
SAGadahoc COUNTY

FOUNDATION SURVEY WEST

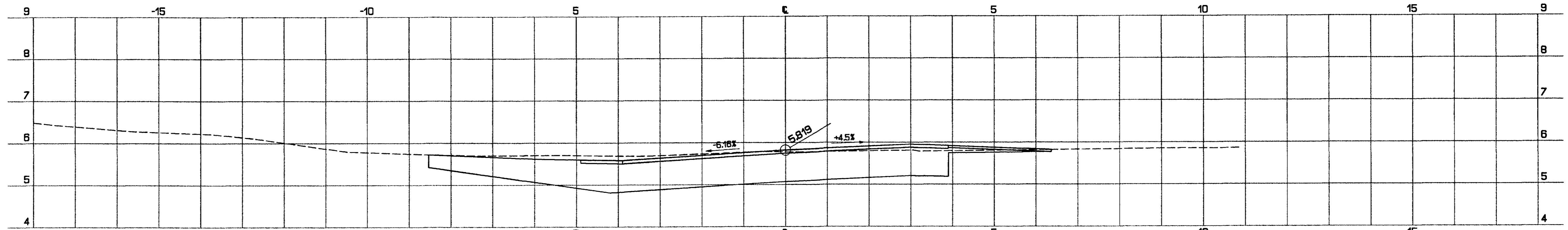
SHEET OF AUGUSTA, MAINE

PROJECT DESIGN ENGINEER	DATE
L. KRUSINSKI	
DESIGN-DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

20NOV97-0100.10

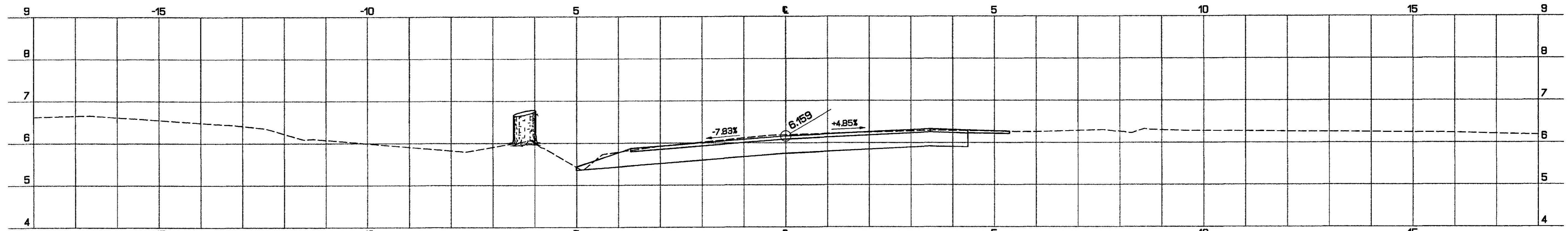
DATE	
BY	
SAVED	
PLOTTED	
DATE	
AREAS	
CHECKED	
NO.	
FINAL SURVEY NOTE BOOK	

DATE	
BY	
SAVED	
PLOTTED	
DATE	
AREAS	
CHECKED	
NO.	
ORIGINAL SURVEY NOTE BOOK	



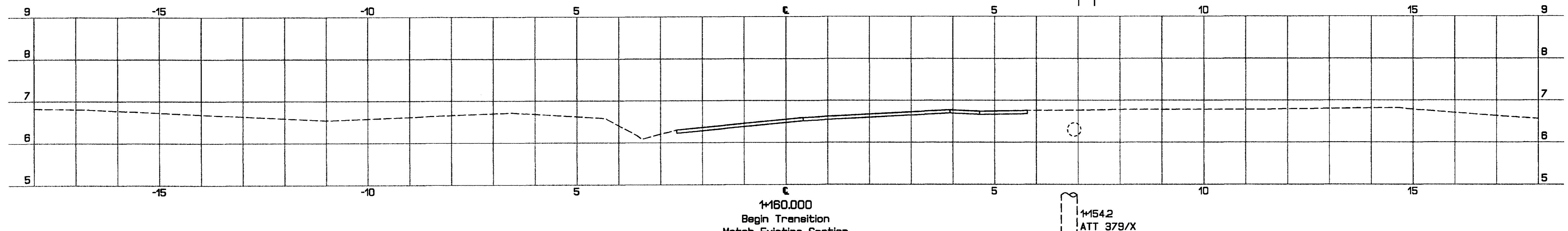
Invert. Existing Cross
Culvert, El. 5.062 at
Sta. 1+175.673±, Left

1+180.000
End Transition
Begin Project



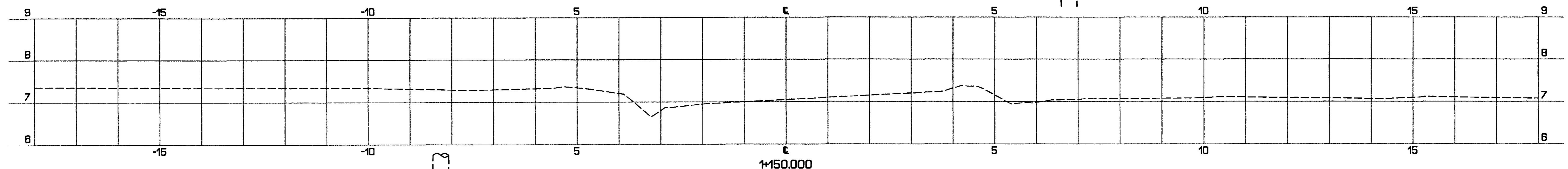
1+170.000

1+166.8
Install new pole (by others)



1+160.000
Begin Transition
Match Existing Section

1+154.2
ATT 379/X
Remove (by others)

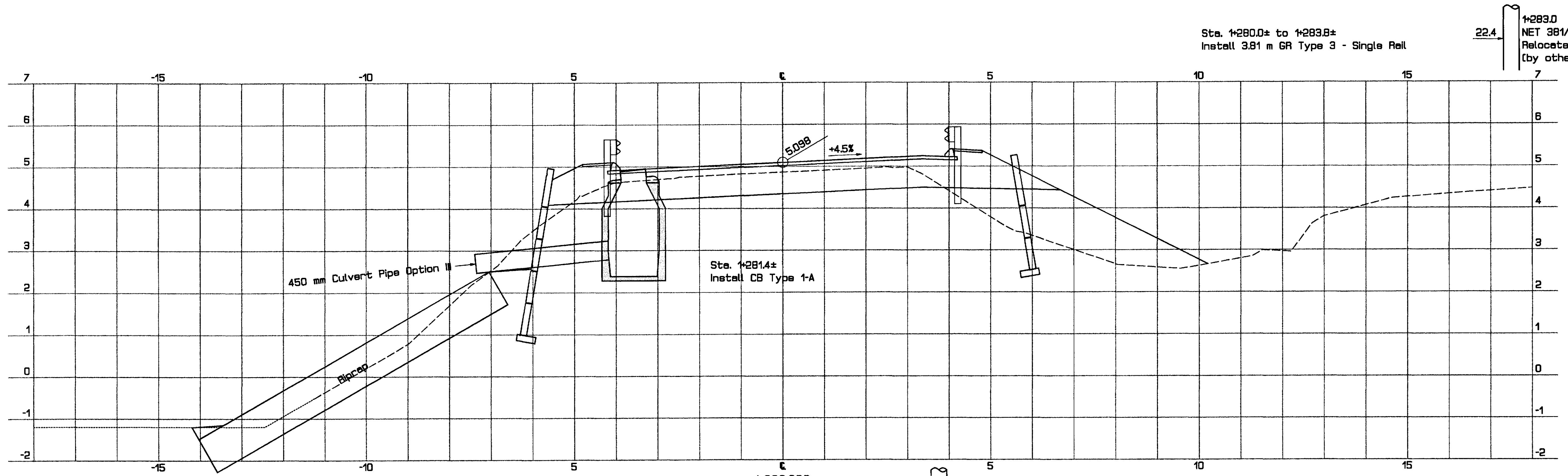


1+141.7
Pole

X1
10FE800-0100.20

DATE	
BY	
REVISIONS	
PLOTTED	
TEMPLATE	
AREAS	
APPROVED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
REVISIONS	
PLOTTED	
TEMPLATE	
AREAS	
APPROVED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

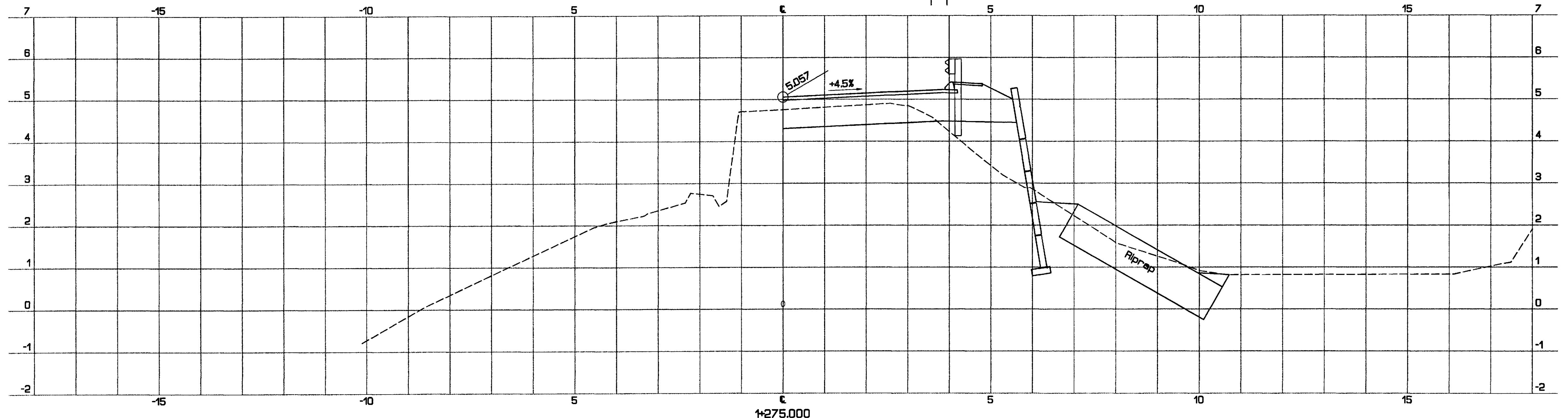


Transition Barrier to Sta. 1+284.7±
Install Bridge Connection Type I

1+280.000

1+277.0
NET 381/8.1
Remove (by others)

Transition Barrier to Sta. 1+280.0±
Install Bridge Connection Type I



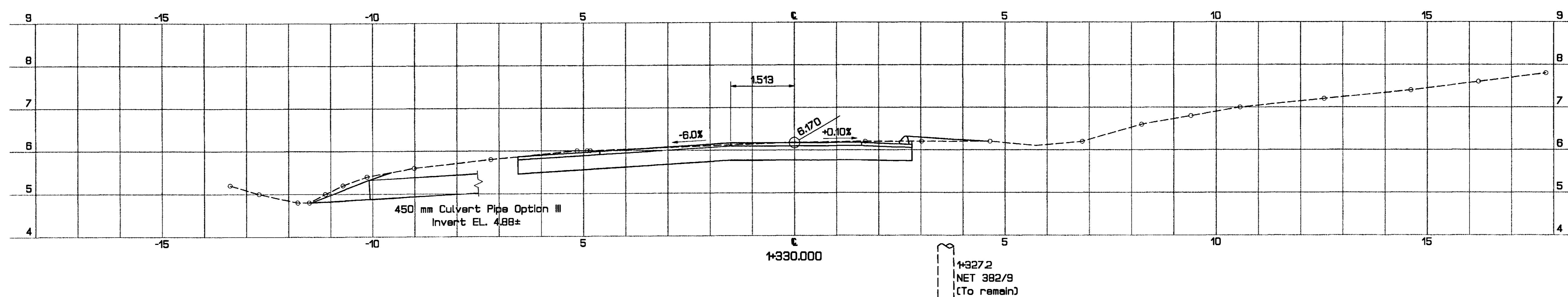
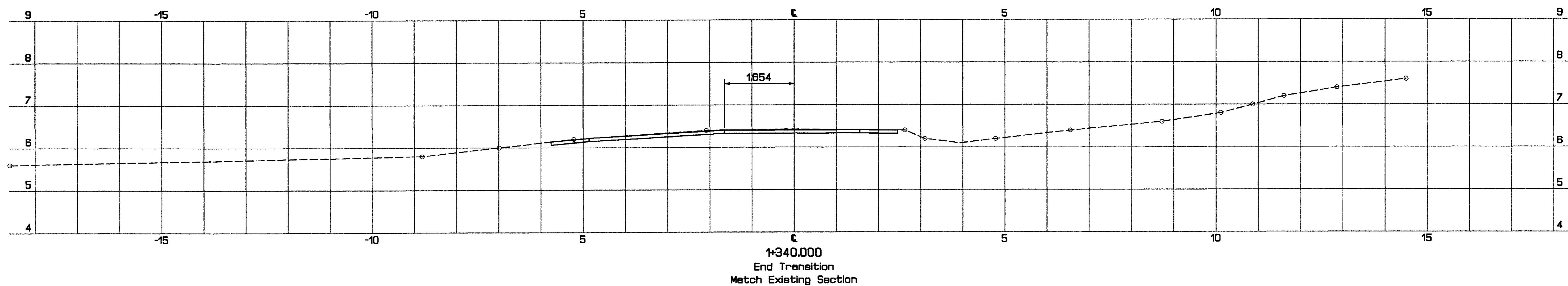
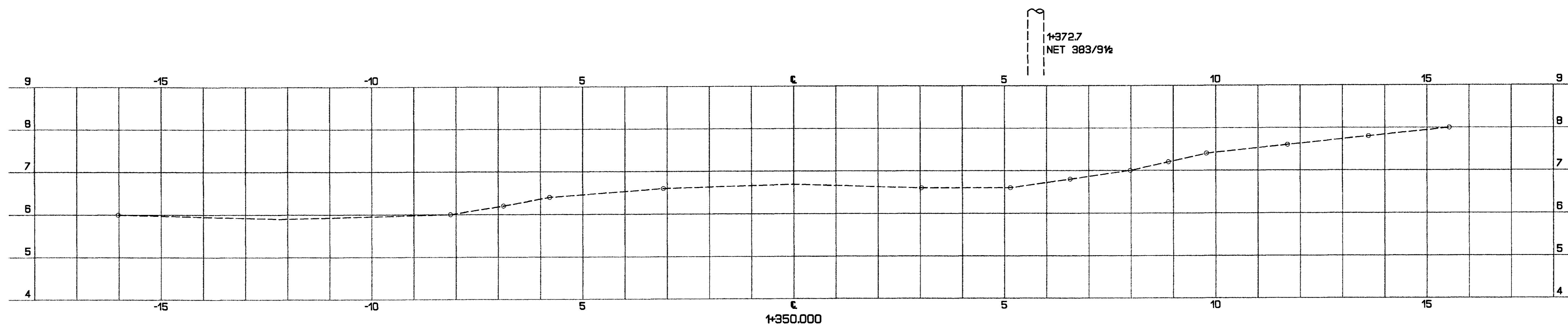
1+275.000

X5
10FEB00-0100.20

DATE	
BY	
APPROVED	
DATE	
DESIGNED	
DATE	
CHECKED	
DATE	
FINAL SURVEY	
NOTE BOOK	
AREA CHECKED	

DATE	
BY	
APPROVED	
DATE	
DESIGNED	
DATE	
CHECKED	
DATE	
ORIGINAL SURVEY	
NOTE BOOK	
AREA CHECKED	

X8
10FE800-0100.20



METRIC 1. All dimensions are in millimeters unless otherwise noted.
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F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-7956/00X	14	51

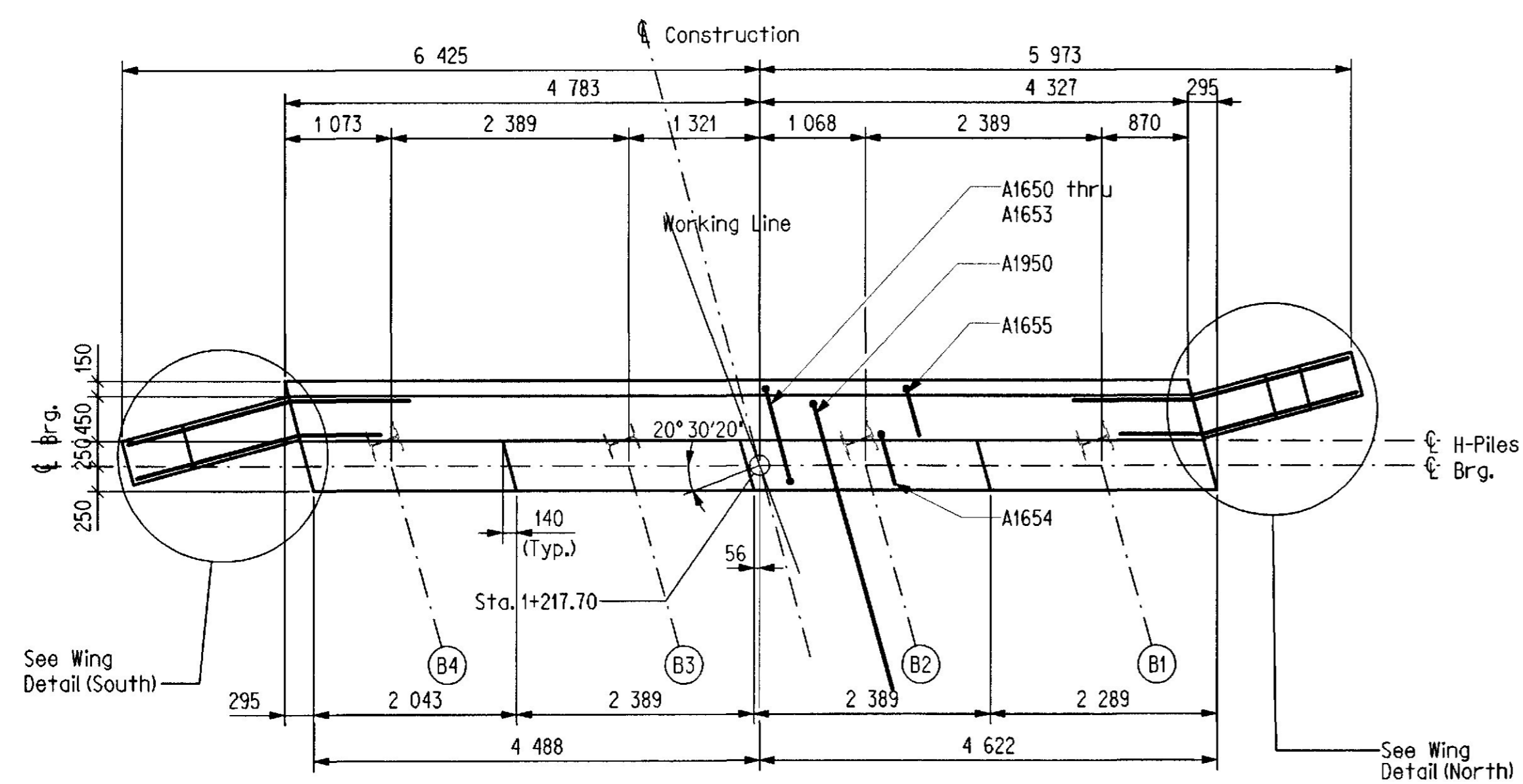
007956.00

ABUTMENT NOTES

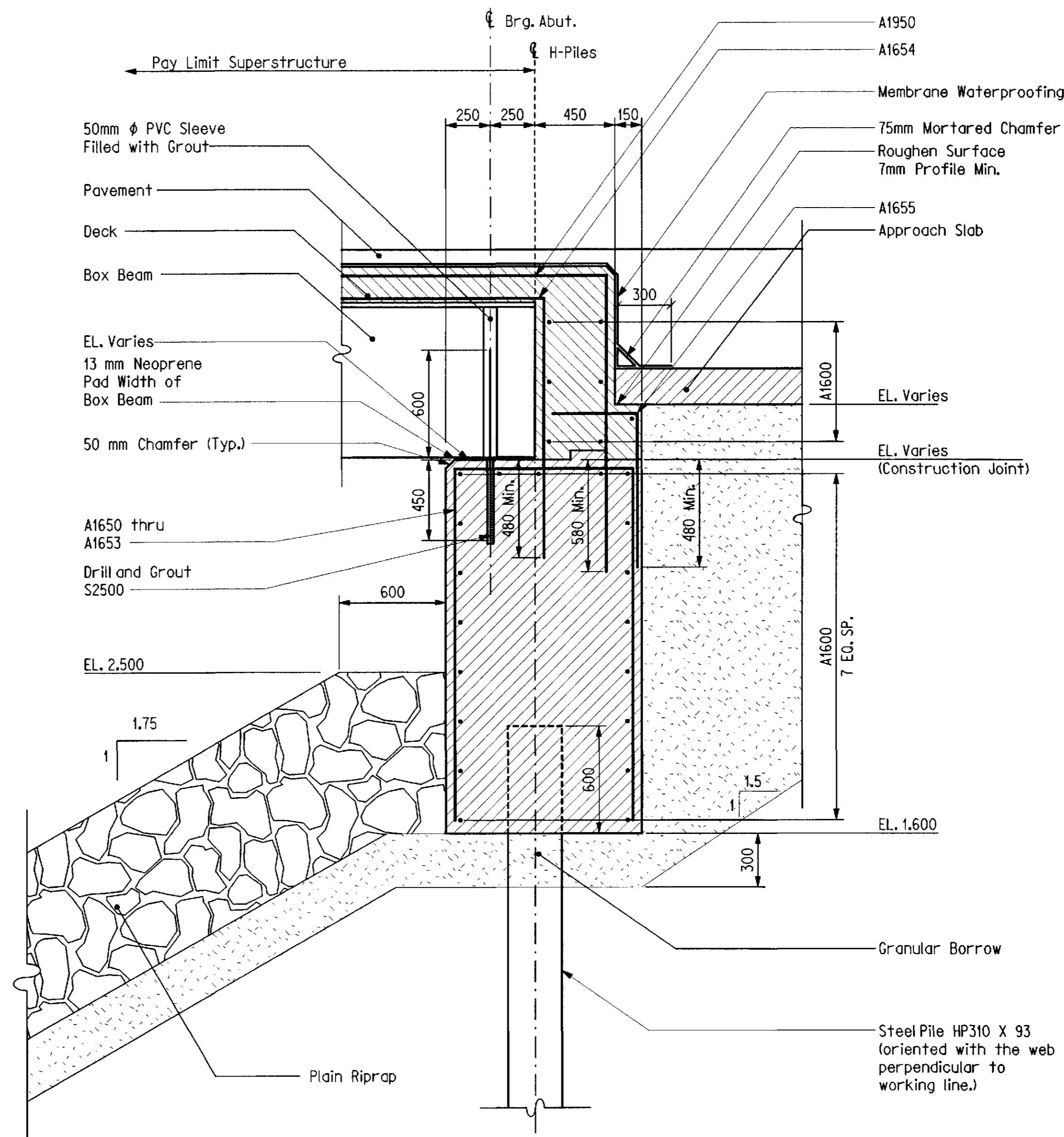
1. Reinforcing steel shall have 50 mm cover unless otherwise indicated.
2. #16 reinforcing bars shall be spaced at 300 mm in both directions unless otherwise indicated.
3. Protective coating for concrete surfaces: (see East)

PILE NOTES

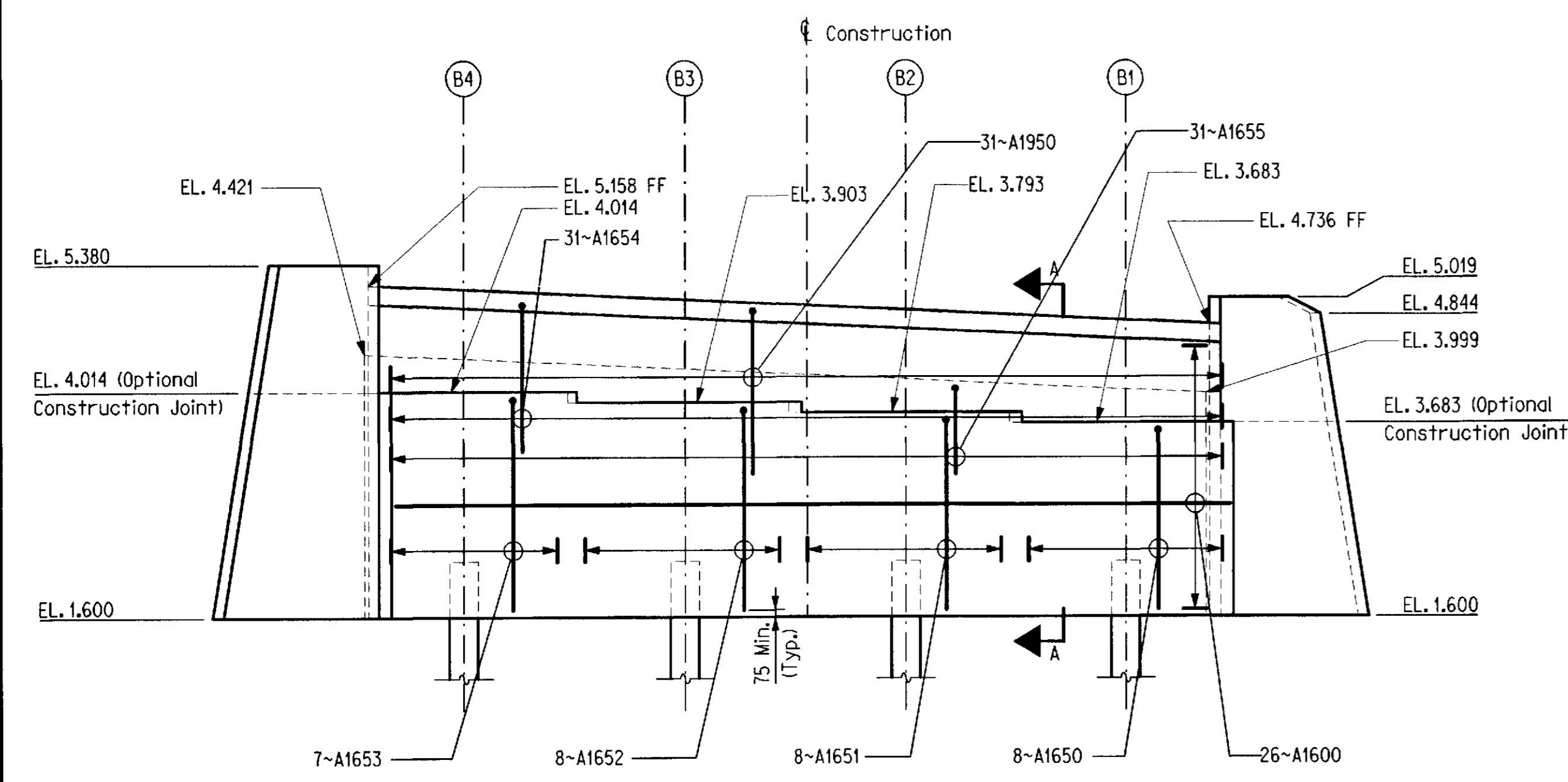
1. The required ultimate pile capacity of each HP310x93 is 2430 kN/pile based on a maximum unfactored design load of 881 kN/pile and a factor of safety of 2.75
2. Piles shall be driven to sound ledge.
3. A wave equation analysis shall be performed by the Contractor to estimate driving stresses and driving criteria. The analysis shall be submitted to the Contractor for review by the Engineer. Preparation and submission of the analysis shall be considered incidental to Item 501.701.
4. Estimate of piles required:
Abutment #1 4-HP310x93 @ 7.0m
Abutment #2 4-HP310x93 @ 5.6m
5. H Pile material shall be ASTM A572M Grade 345.
6. The Contractor is warned that cobbles were encountered in test borings on the west approach fills. Obstructions should be expected.
7. All piles shall be equipped with a pile tip in accordance with Standard Specification, Section 501.10.
8. Piles shall not be out of position more than 50 mm in any direction.



ABUTMENT NO.1 - PLAN



SECTION A-A



ABUTMENT NO.1 - ELEVATION

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	5/00
CHECKED	5/00
REVISIONS	
FIELD CHANGES	

PLANS

BRIDGE NO. 2927

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WEST BRIDGE
OVER
ROBINHOOD COVE
IN THE TOWN OF
GEORGETOWN
SAGADAHOC COUNTY

ABUT NO. 1

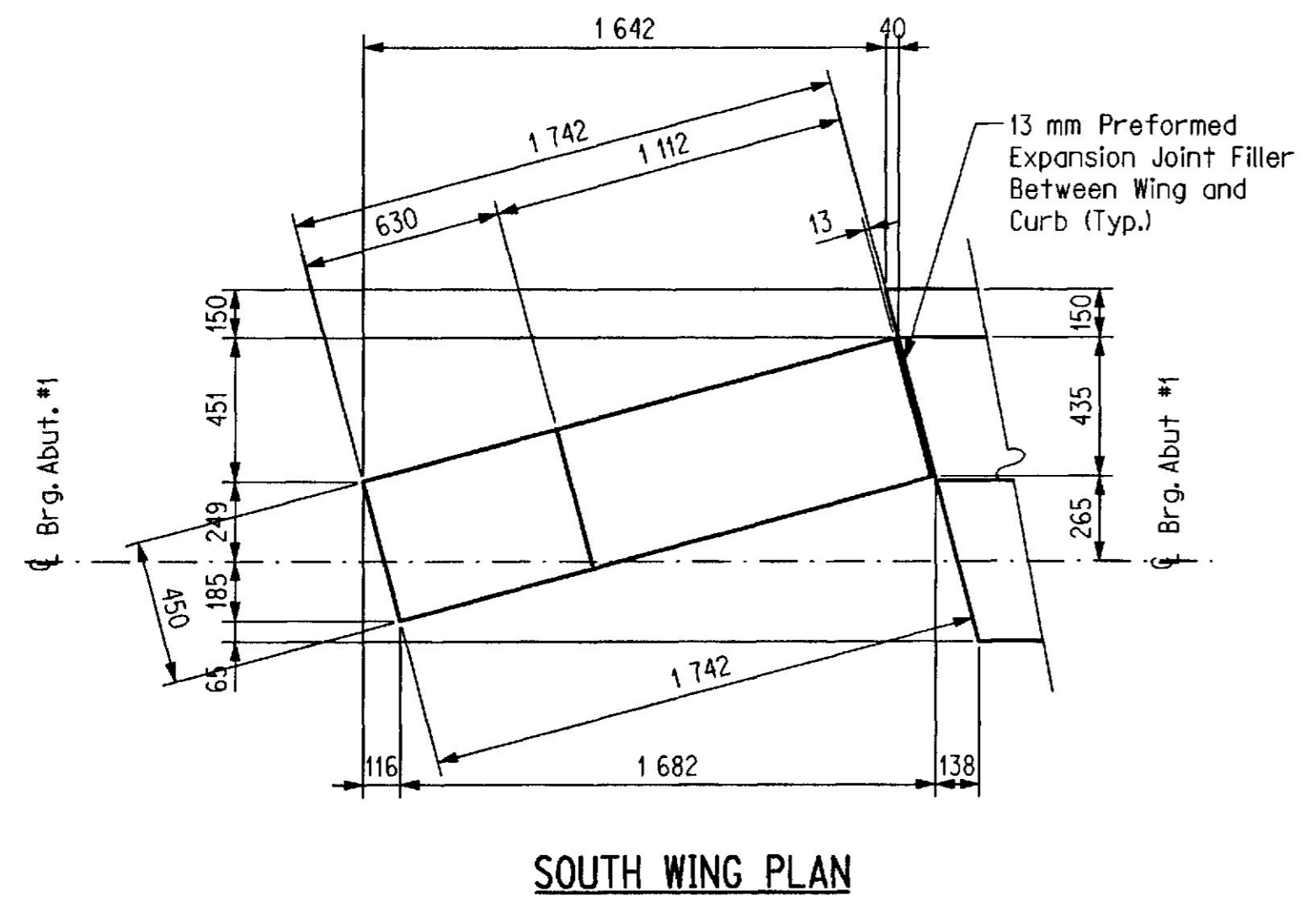
SHEET OF AUGUSTA, MAINE

Filename: ... \014_abut1.dgn
User: Dana Damron
Date: 30 MAY 2000

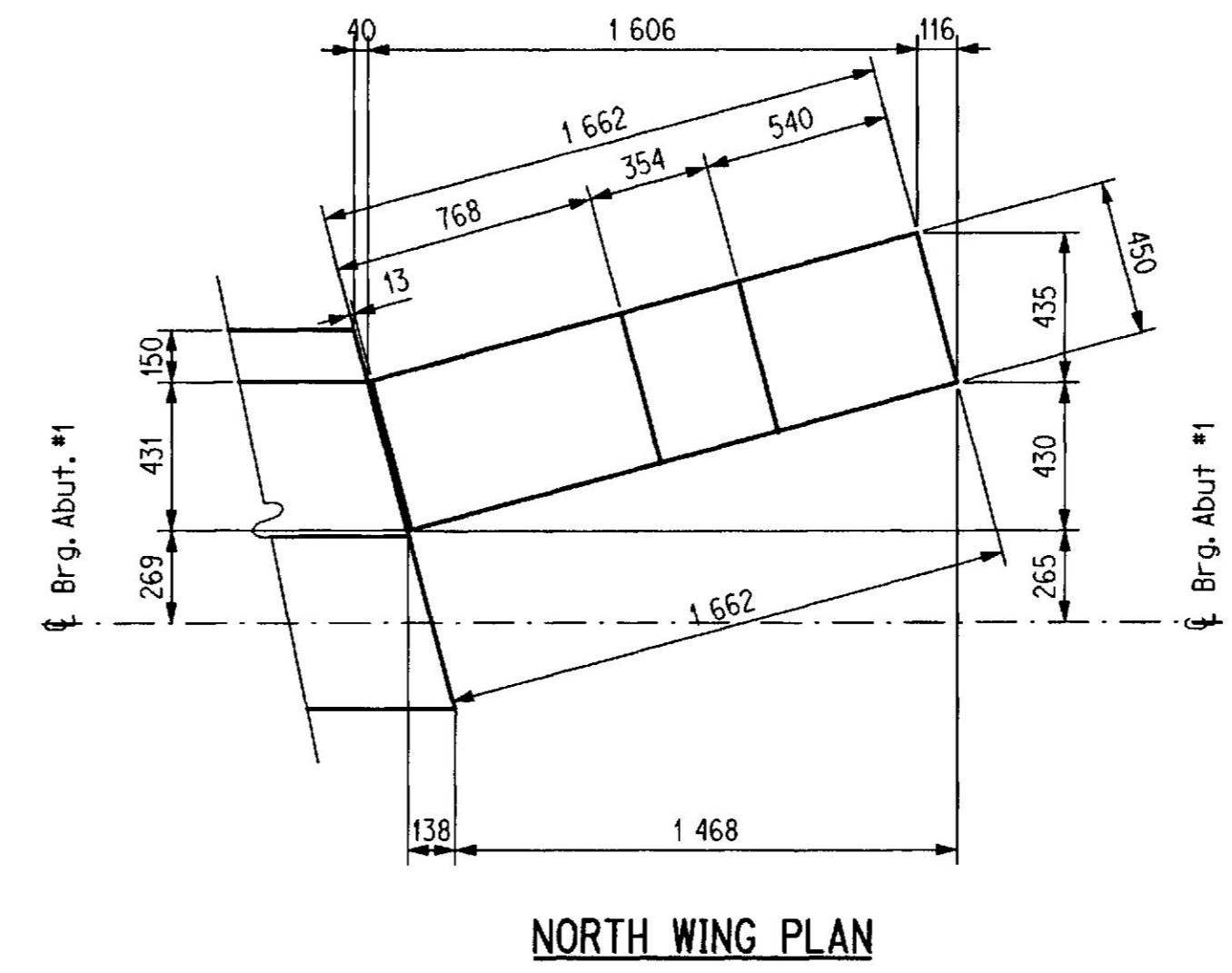
METRIC 1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-795600XX	15	51

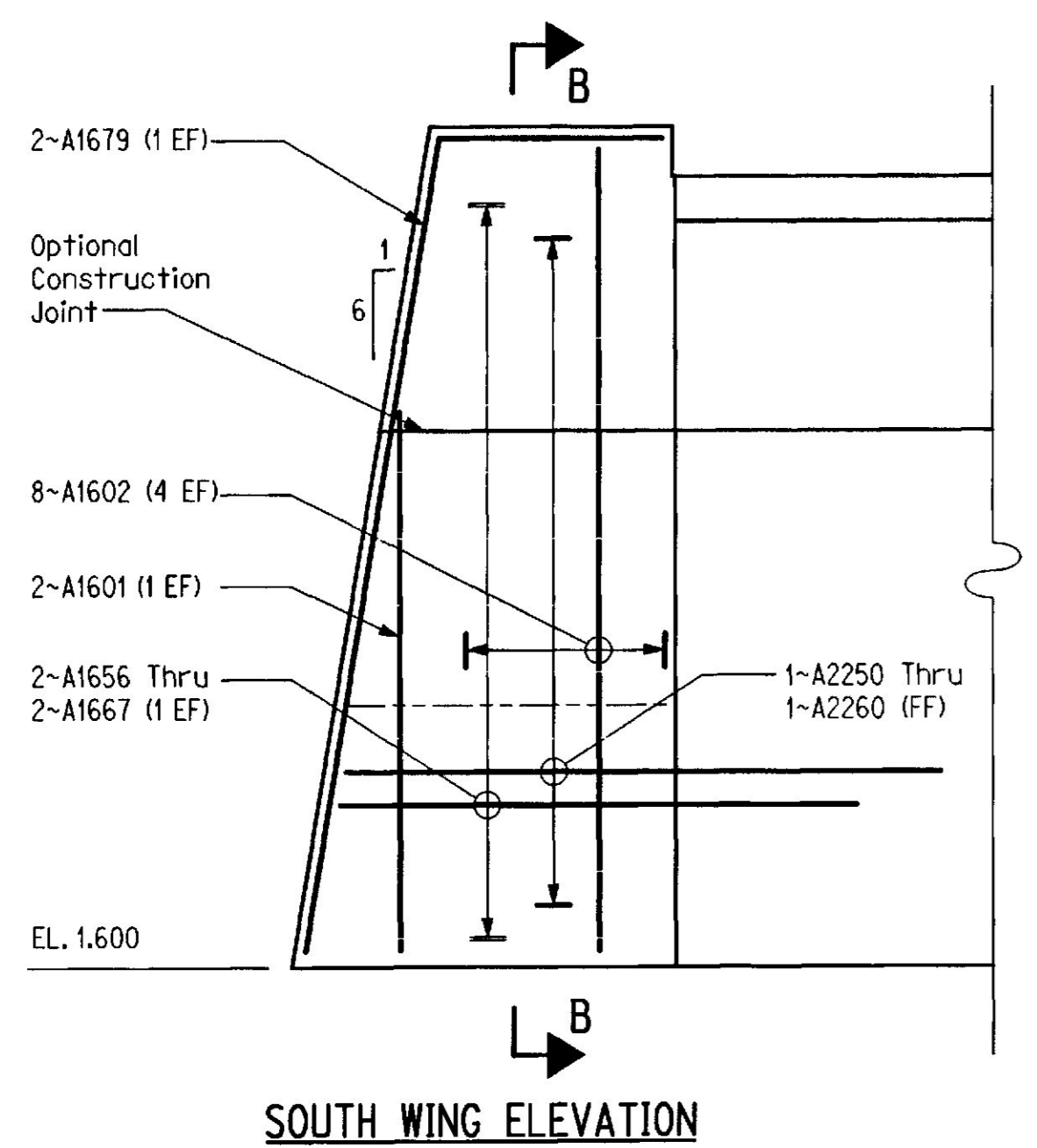
007956.00



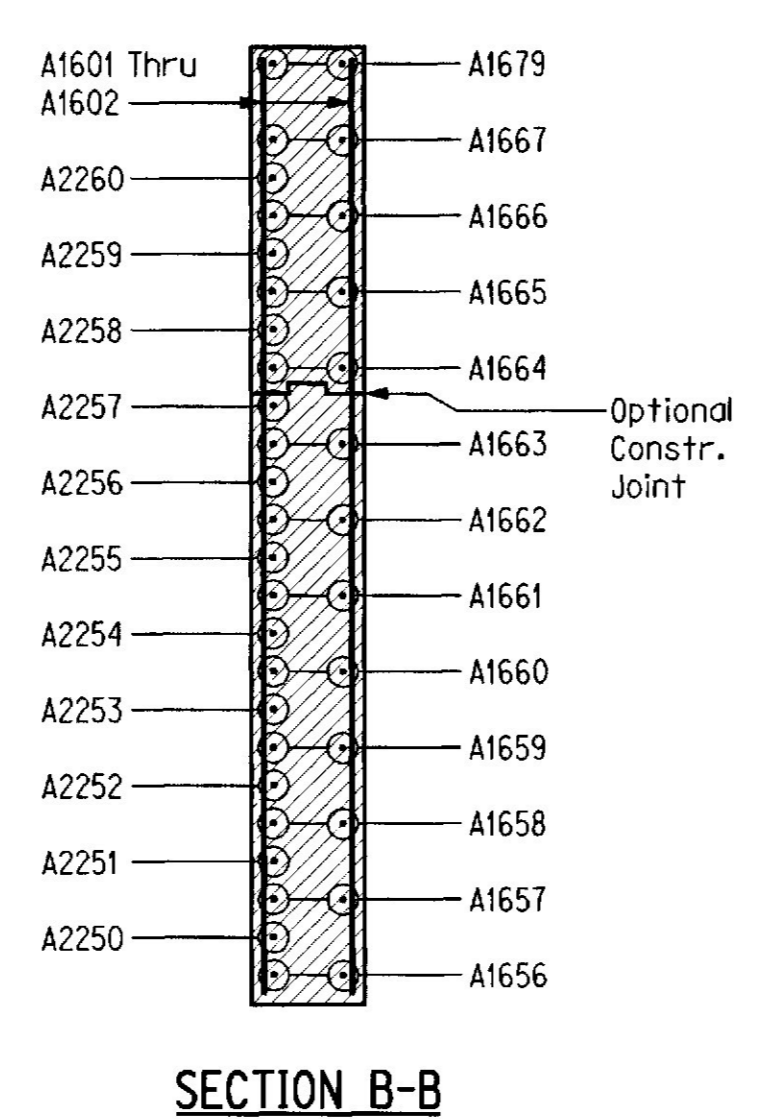
SOUTH WING PLAN



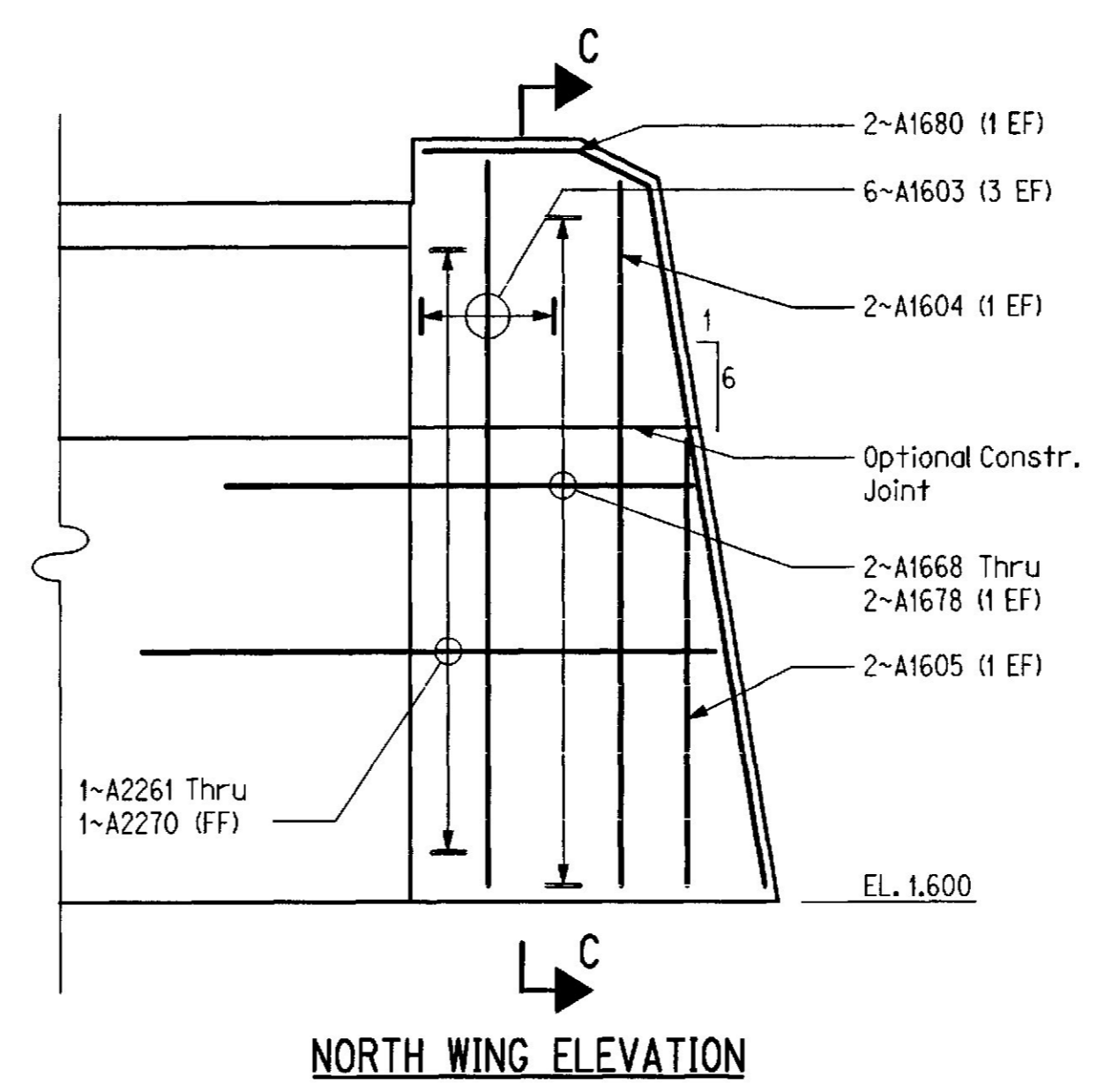
NORTH WING PLAN



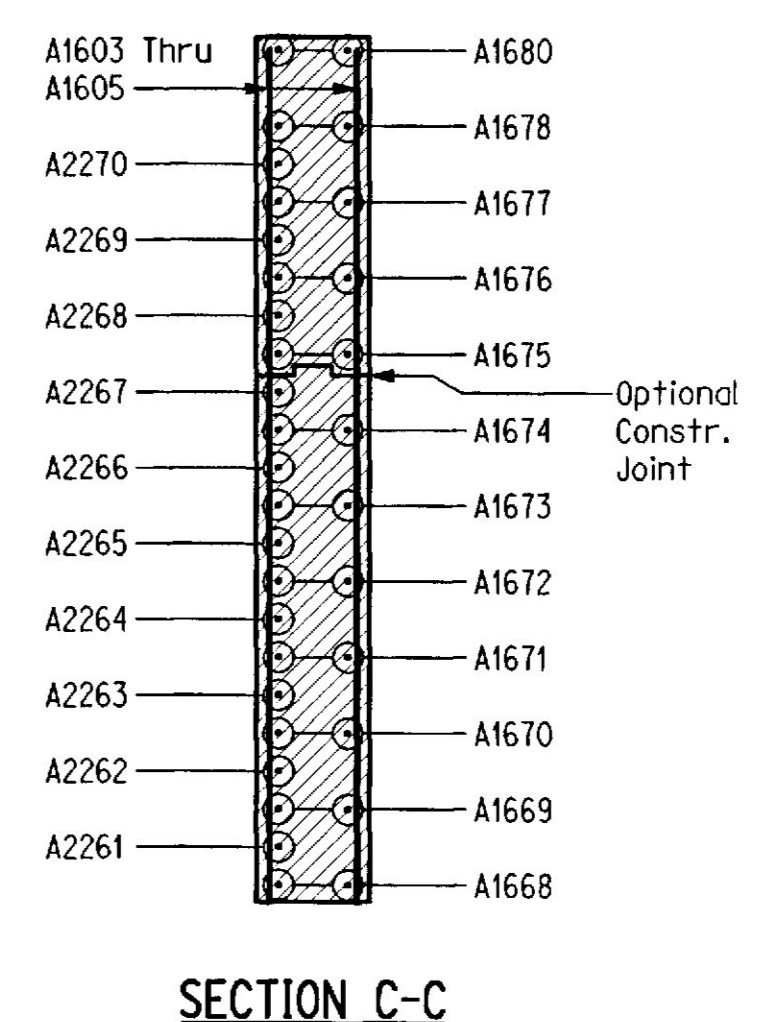
SOUTH WING ELEVATION



SECTION B-B



NORTH WING ELEVATION



SECTION C-C

PROJECT DESIGN ENGINEER	DATE
BY	5/00
DESIGN-DETAILED	5/00
CHECKED	
REVISIONS	
FIELD CHANGES	

PLANS

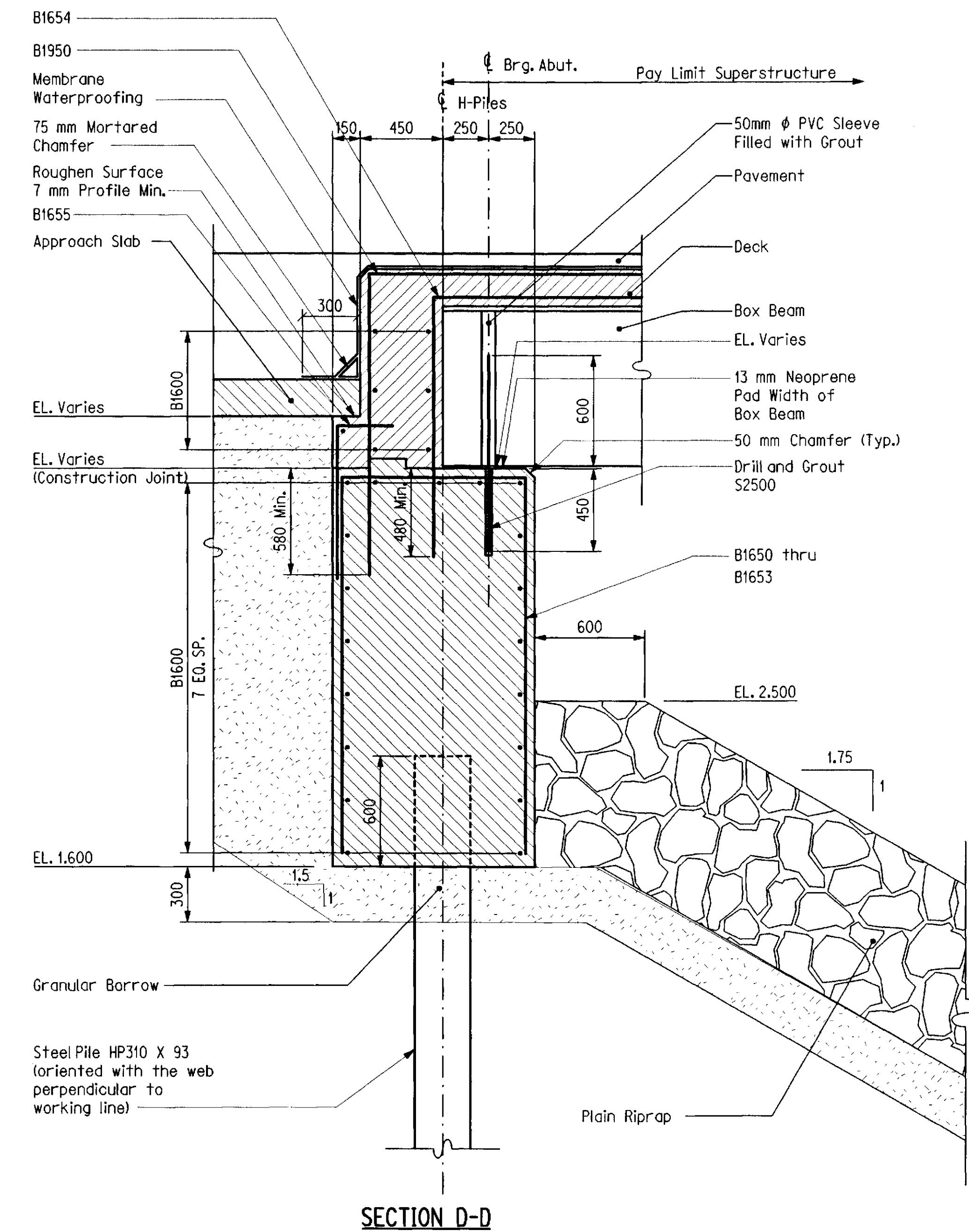
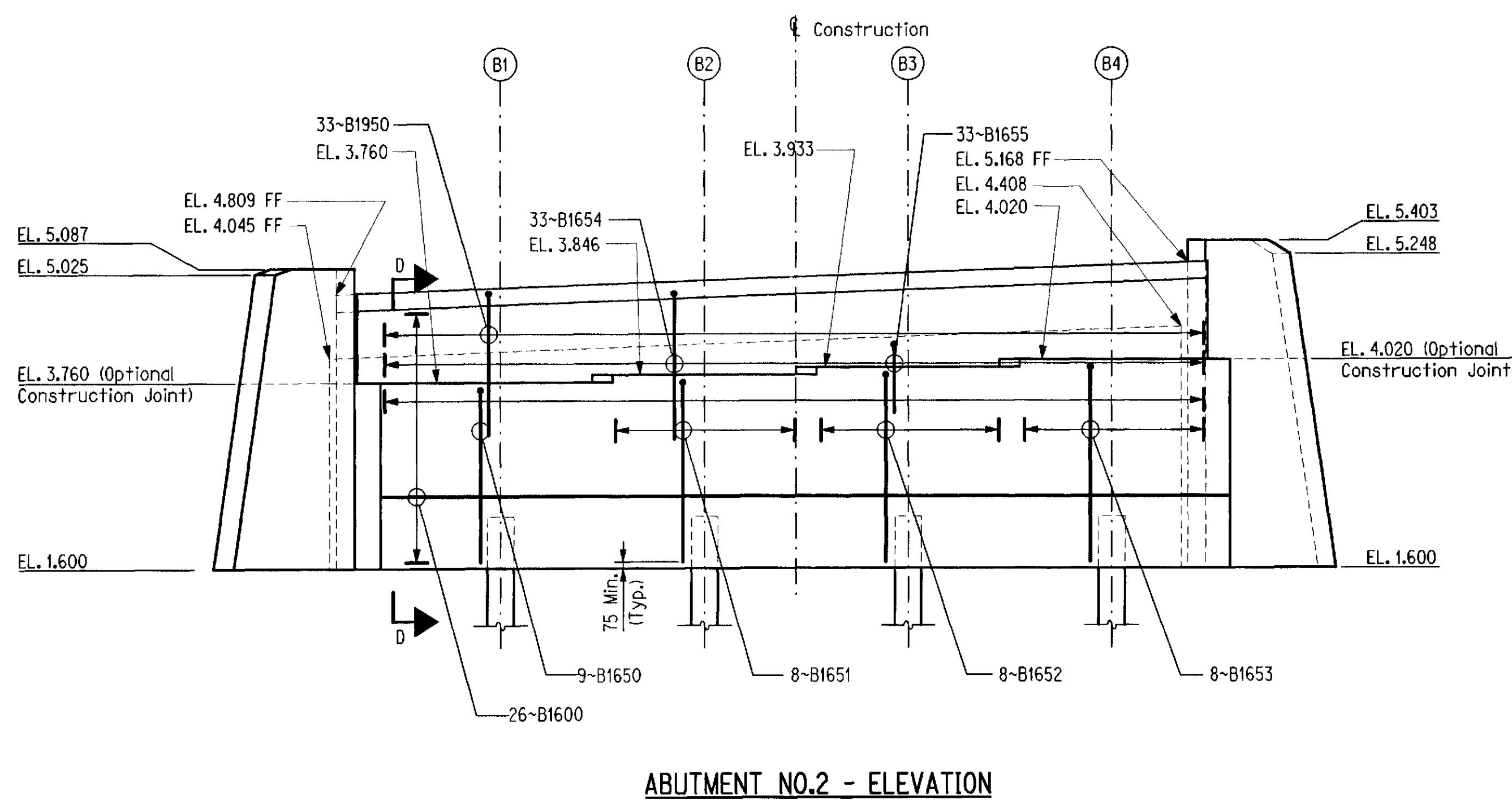
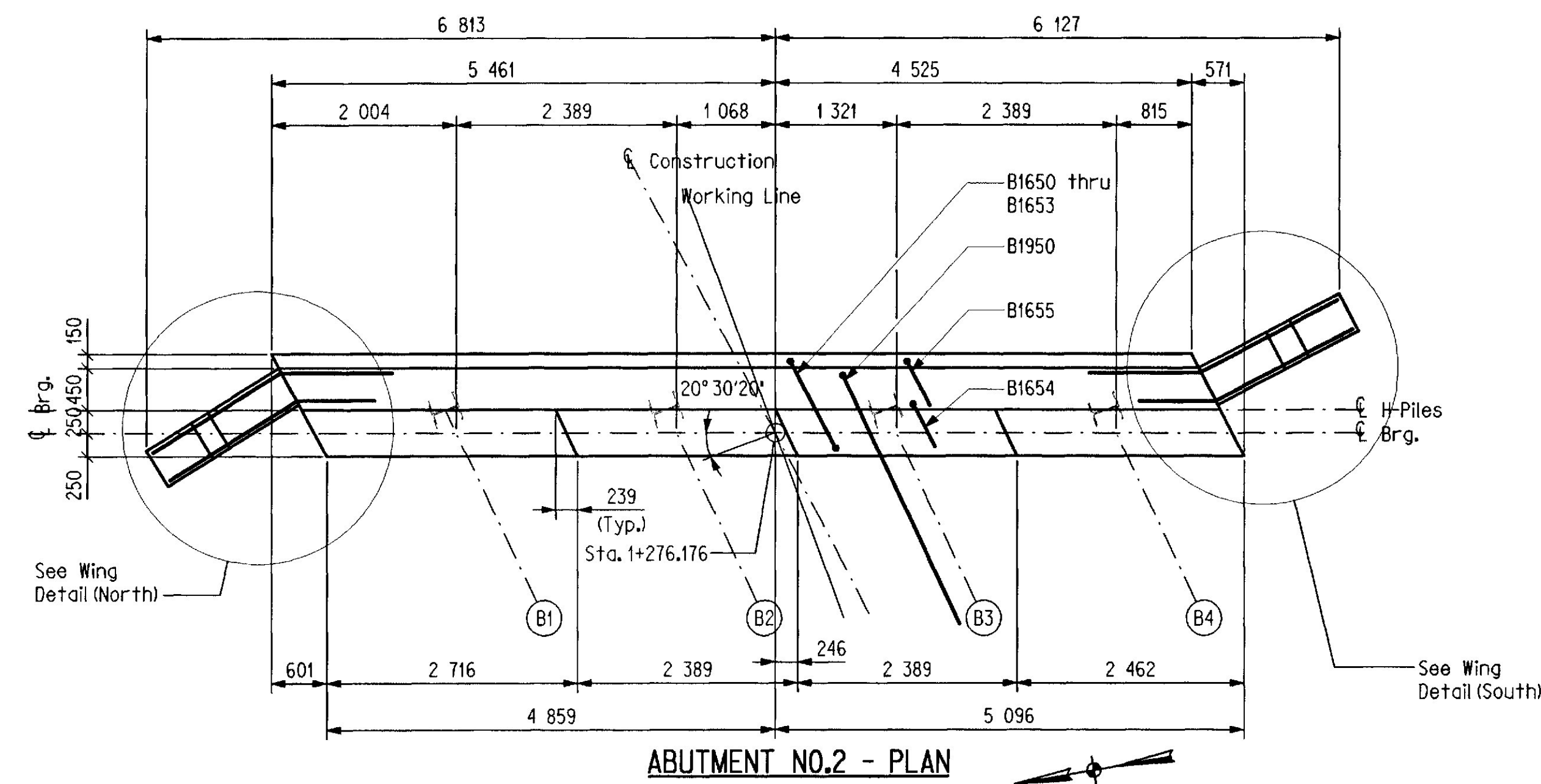
BRIDGE NO. 2927
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
WEST BRIDGE
OVER
ROBINHOOD COVE
IN THE TOWN OF
GEORGETOWN
SAGadahoc COUNTY
ABUT NO. 1 WINGS

Username: Kevin McLoggan Date: 30 MAY 2000

METRIC 1. All dimensions are in millimeters unless otherwise noted.
 2. All elevations and stations are in meters.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-7956(00)X	16	51

007956.00



PROJECT DESIGN ENGINEER	DATE
BY	5/00
DESIGN-DETAILED	5/00
CHECKED	5/00
REVISIONS	
FIELD CHANGES	

BRIDGE NO. 2927

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

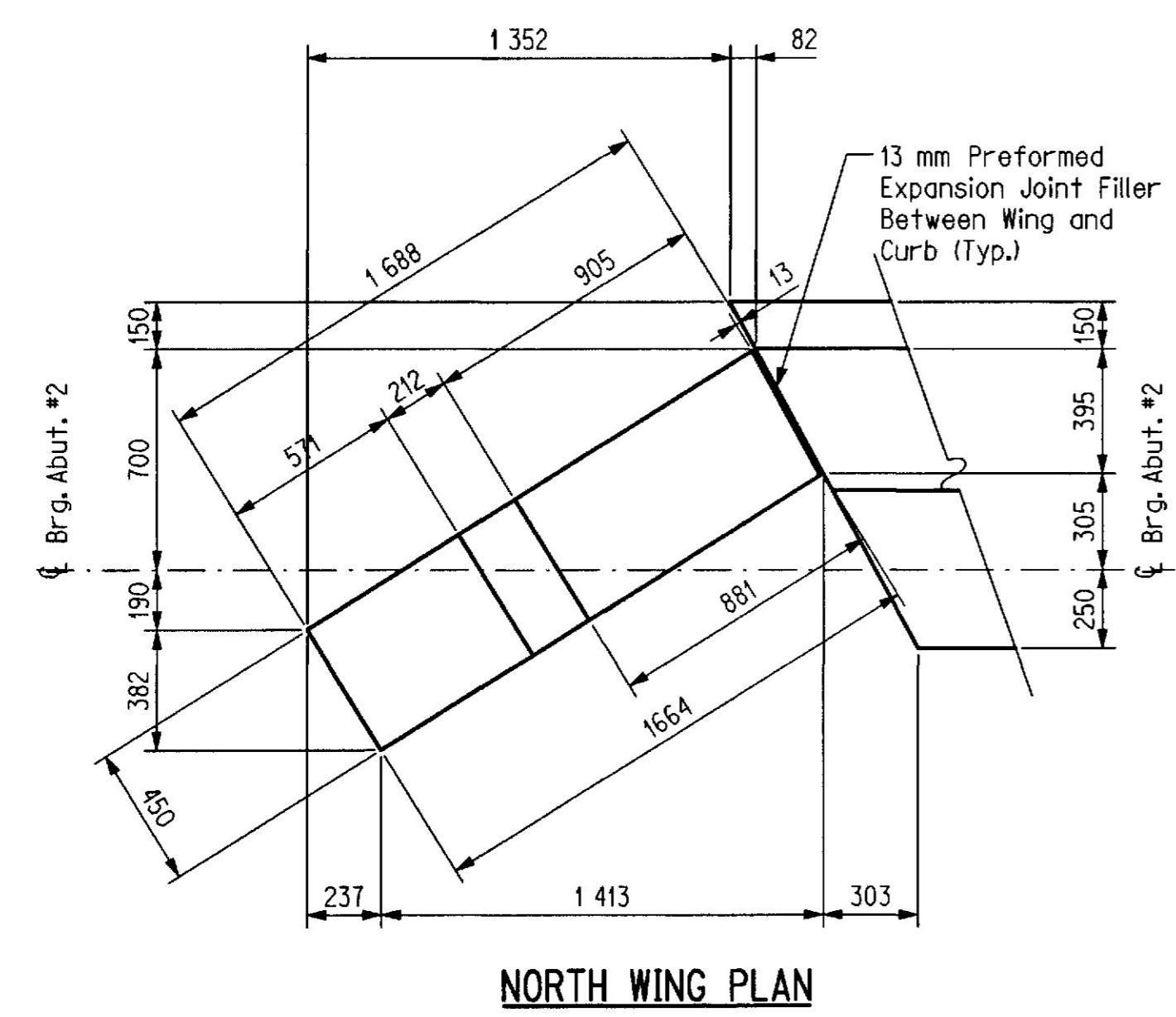
WEST BRIDGE
 OVER
ROBINHOOD COVE
 IN THE TOWN OF
GEORGETOWN
 SAGADAHOC COUNTY

ABUT NO. 2

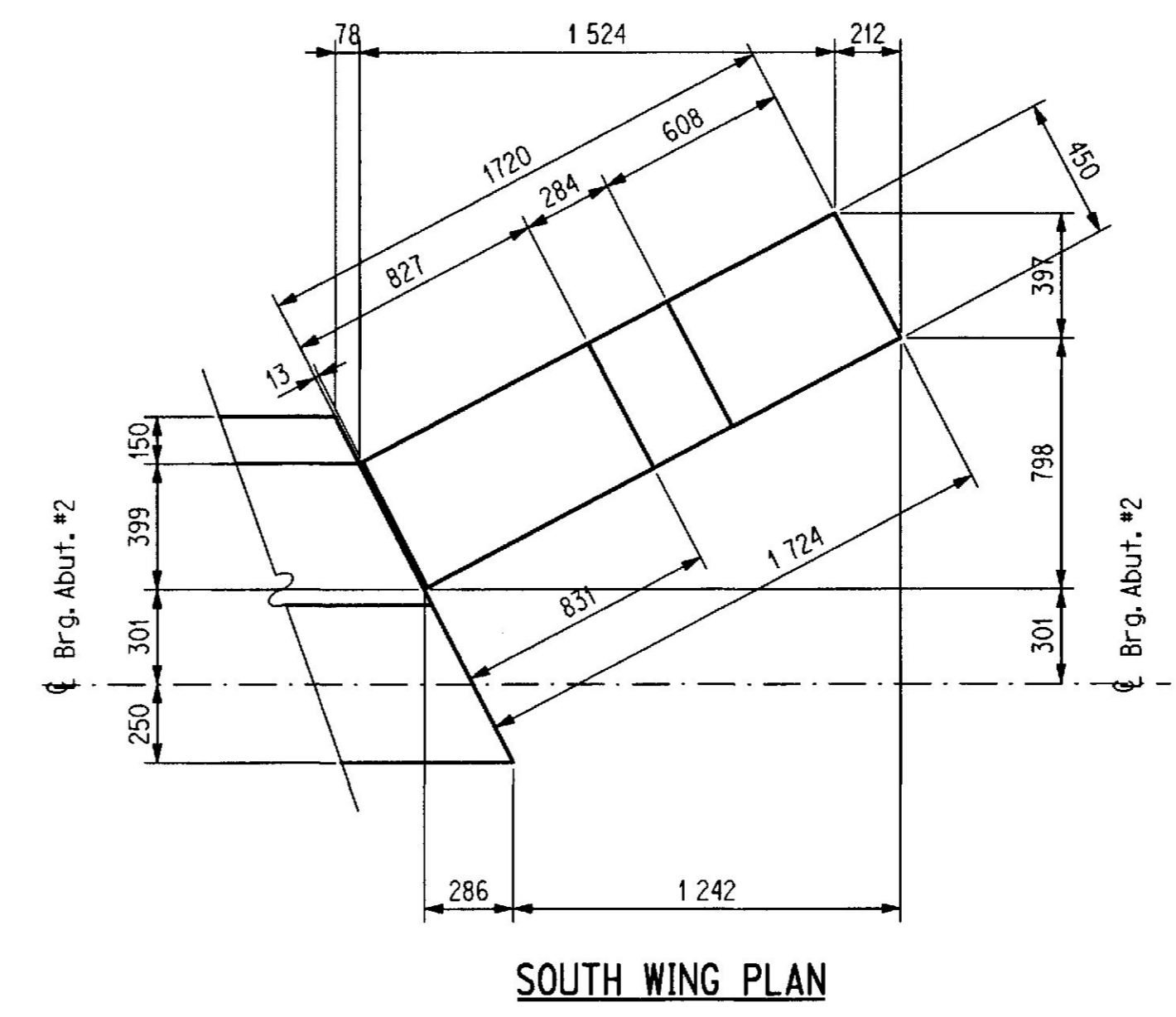
METRIC 1. All dimensions are in millimeters unless otherwise noted.
 2. All elevations and stations are in meters.

FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-795600IX	17	51

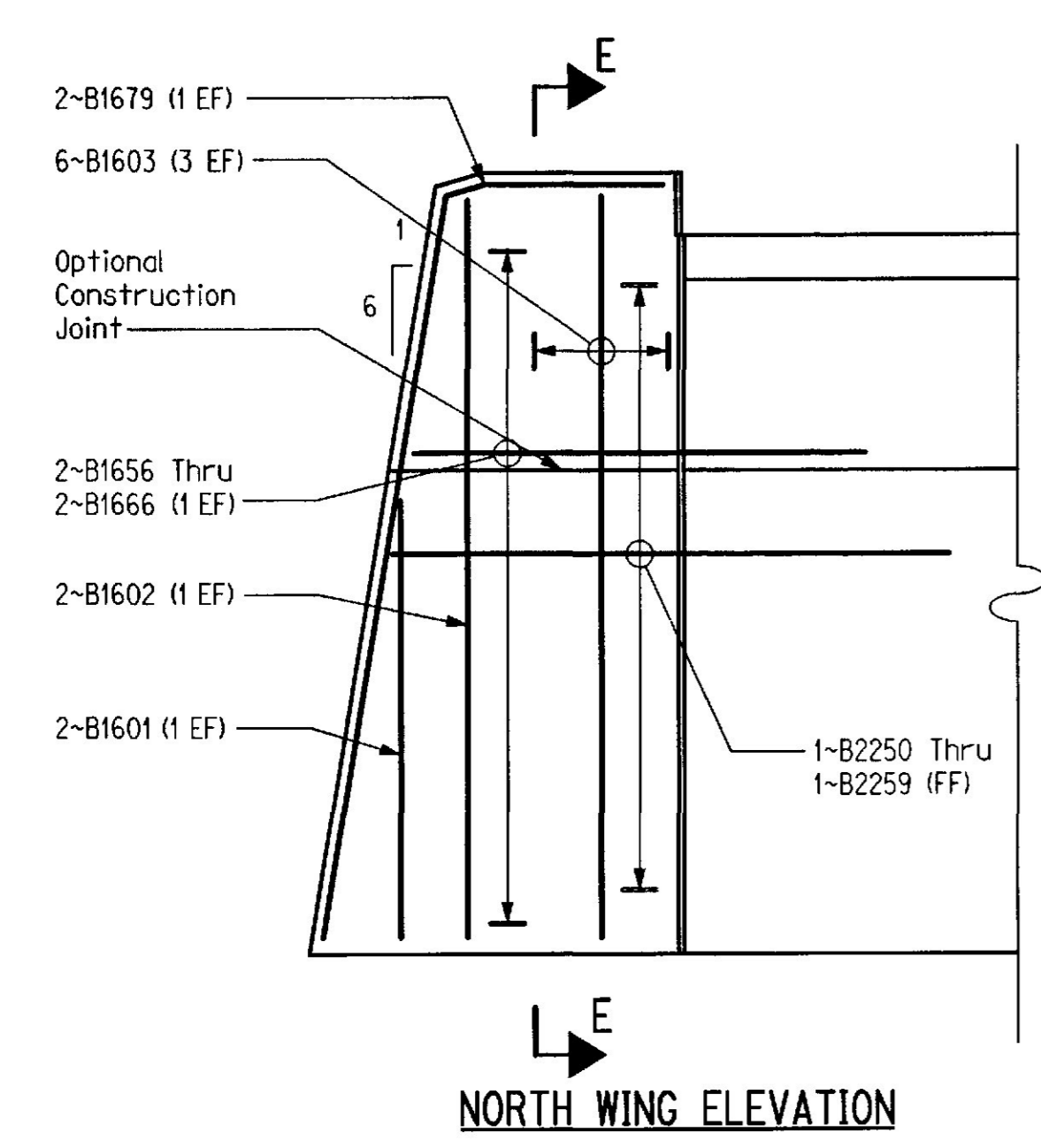
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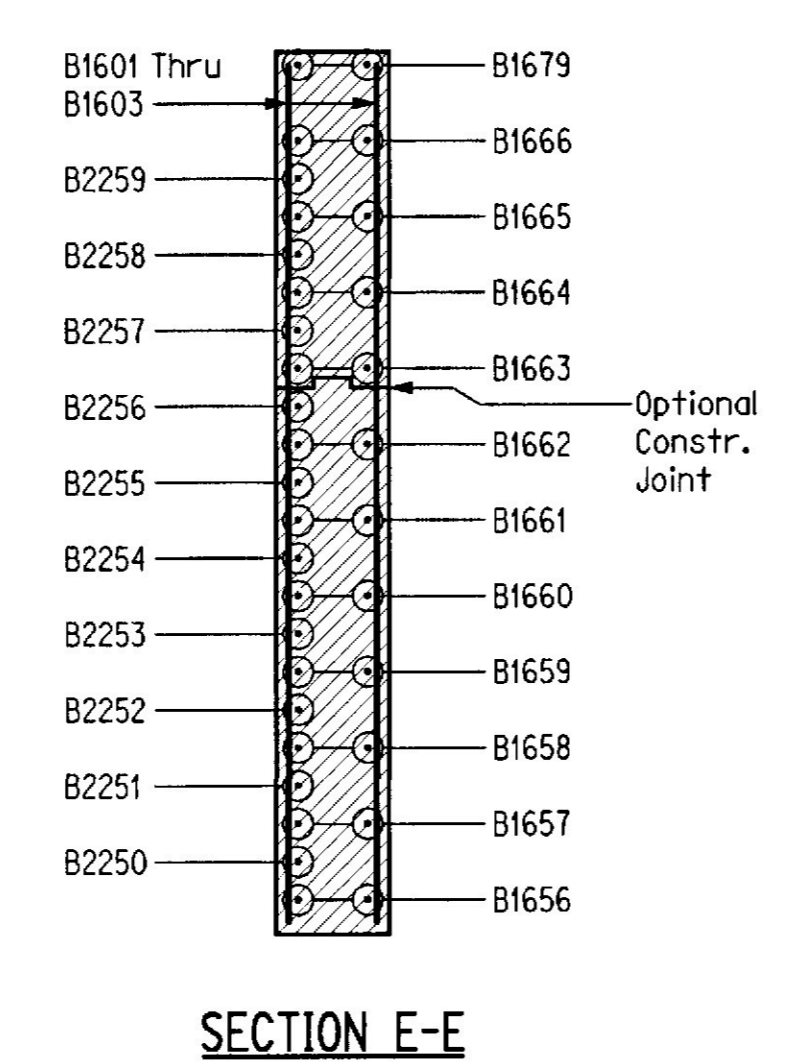
NORTH WING PLAN



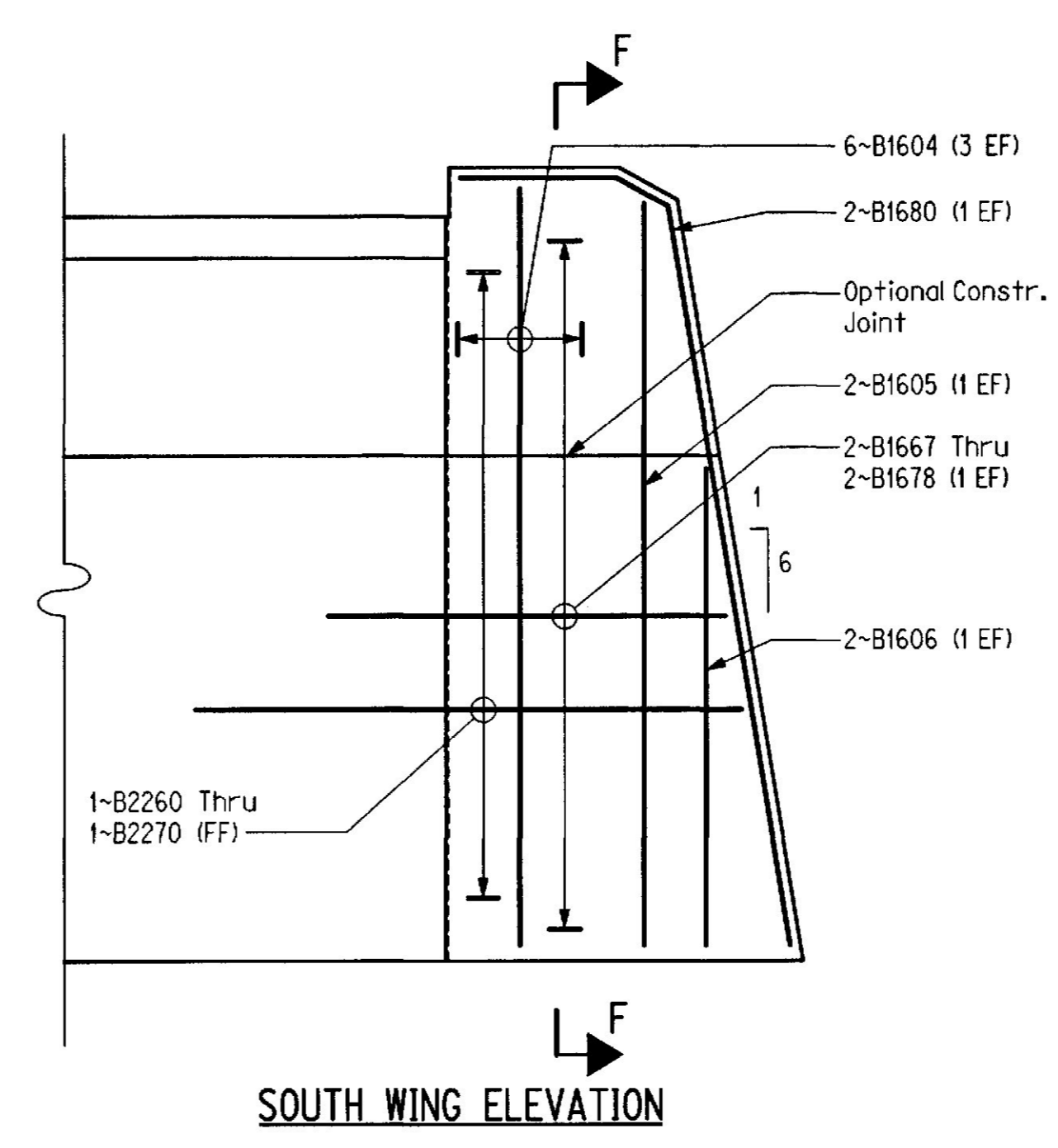
SOUTH WING PLAN



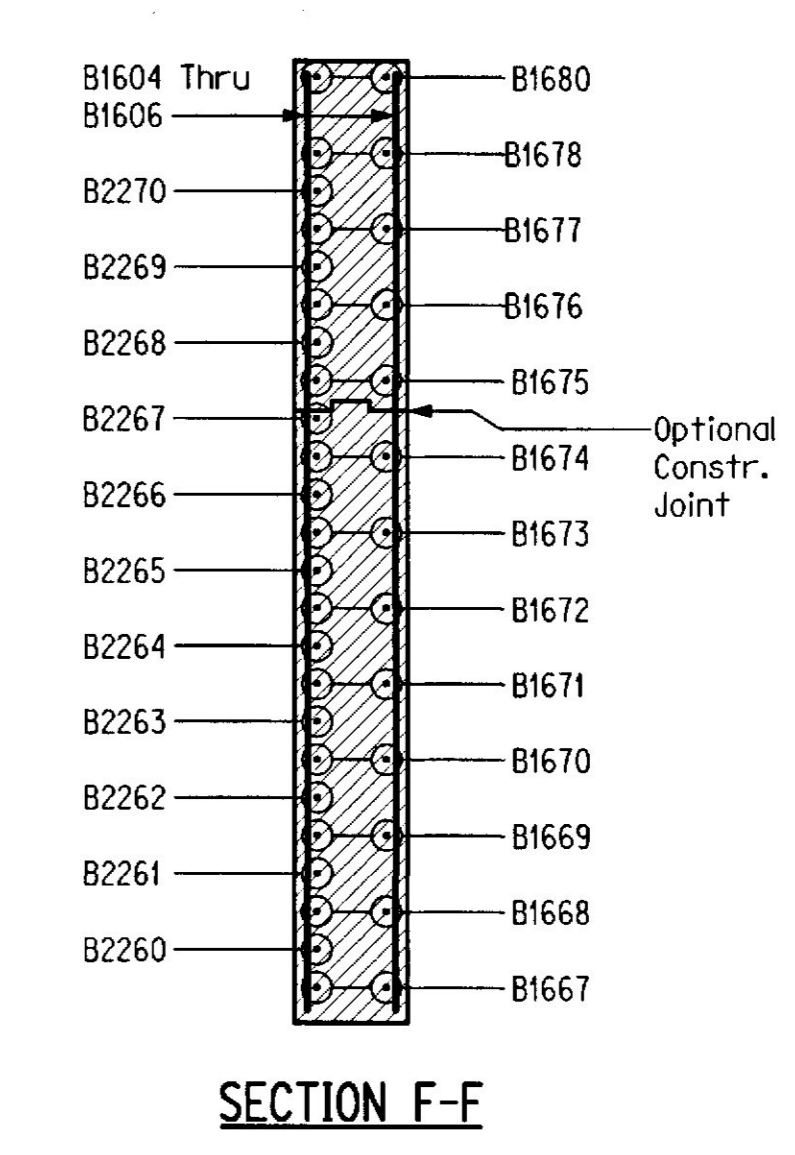
NORTH WING ELEVATION



SECTION E-E



SOUTH WING ELEVATION



SECTION F-F

PROJECT DESIGN ENGINEER	DATE
XXX	5/00
DESIGN-DETAILED	5/00
CHECKED	5/00
REVISIONS	
FIELD CHANGES	

PLANS

Username: Kevin McCoggin Date: 30 MAY 2000
 Filename: ... \017_abut2wing.dgn Division: BRIDGE

BRIDGE NO. 2927
 STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
WEST BRIDGE
 OVER
ROBINHOOD COVE
 IN THE TOWN OF
GEORGETOWN
SAGadahoc COUNTY
ABUT NO. 2 WINGS

SHEET OF AUGUSTA, MAINE