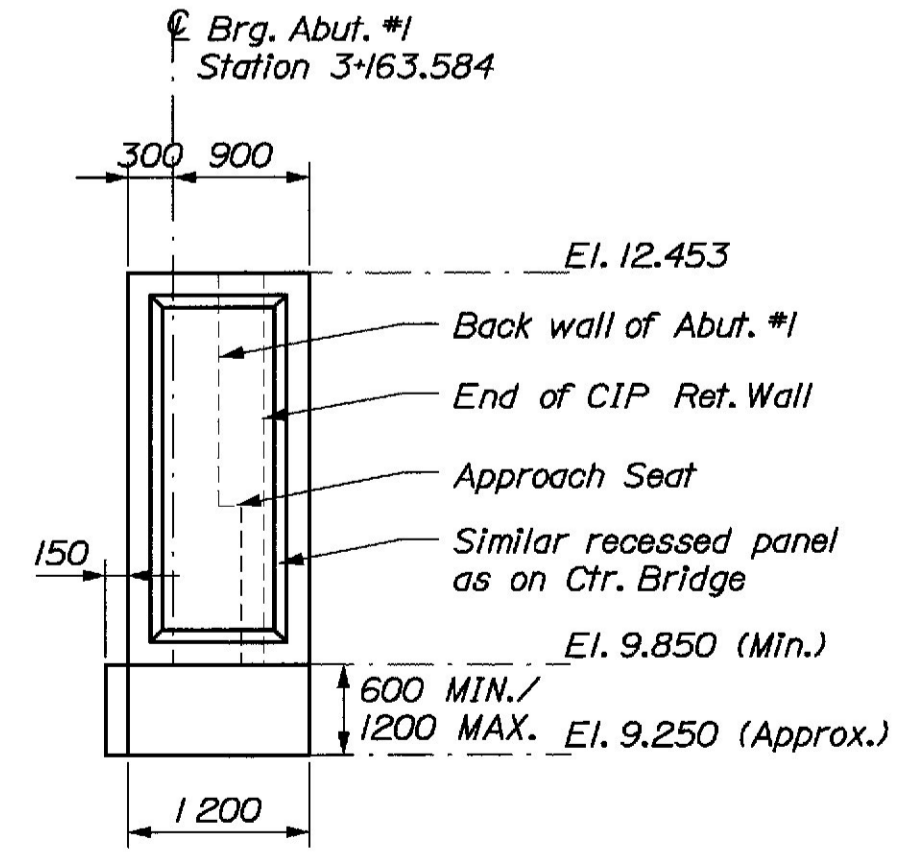
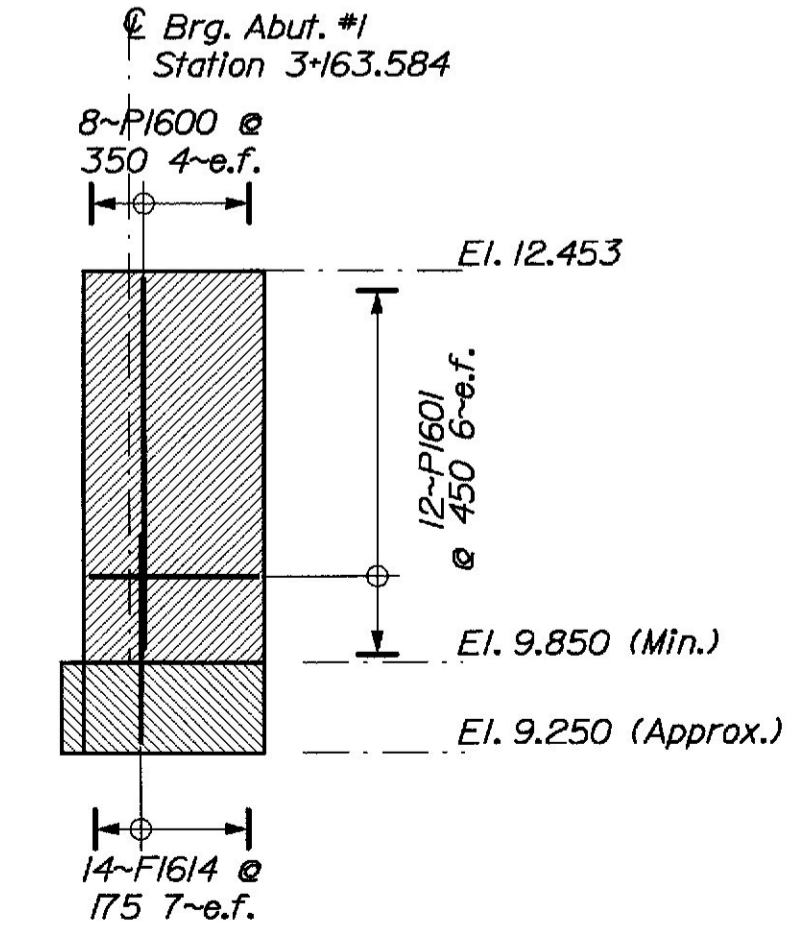


Abutment Notes:

- Reinforcing steel shall have 50 mm cover unless otherwise indicated.
- Cover expansion joints on the back with two layers of heavy roofing.
- Protective coating for concrete surfaces shall be applied to the following areas:
 Top of concrete curbs.
 Top of abutment backwalls and 300 mm below top of backwalls on the back side.
 All exposed surfaces of Concrete End Posts.
- Structural Earth Excavation, Abutments and Retaining Walls, required below Elevation 8.95 for Abutment #1 will be paid of at 1/2 times the contract unit price for Item 206.081.
- Place 100 mm diameter drains in breastwall and wings at 4800 mm maximum spacing. Exact location to be determined by the Engineer in the field.
- Maximum calculated footing pressure is 16.5 kPa.
- Footing may be raised to accommodate higher than anticipated ledge elevations. Should ledge elevations be below 9.000 m, unreinforced concrete fill shall be placed with a 1 horiz:2 vert slope from the neat line of the proposed footing down to ledge. Payment shall be made under item # 502.56 Concrete Fill.



Elevation H-H Dimensions



Section H-H Rebar Layout

Legend
 n.f. - Near Face
 f.f. - Far Face
 e.f. - Each Face

Bridge No. 1469

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

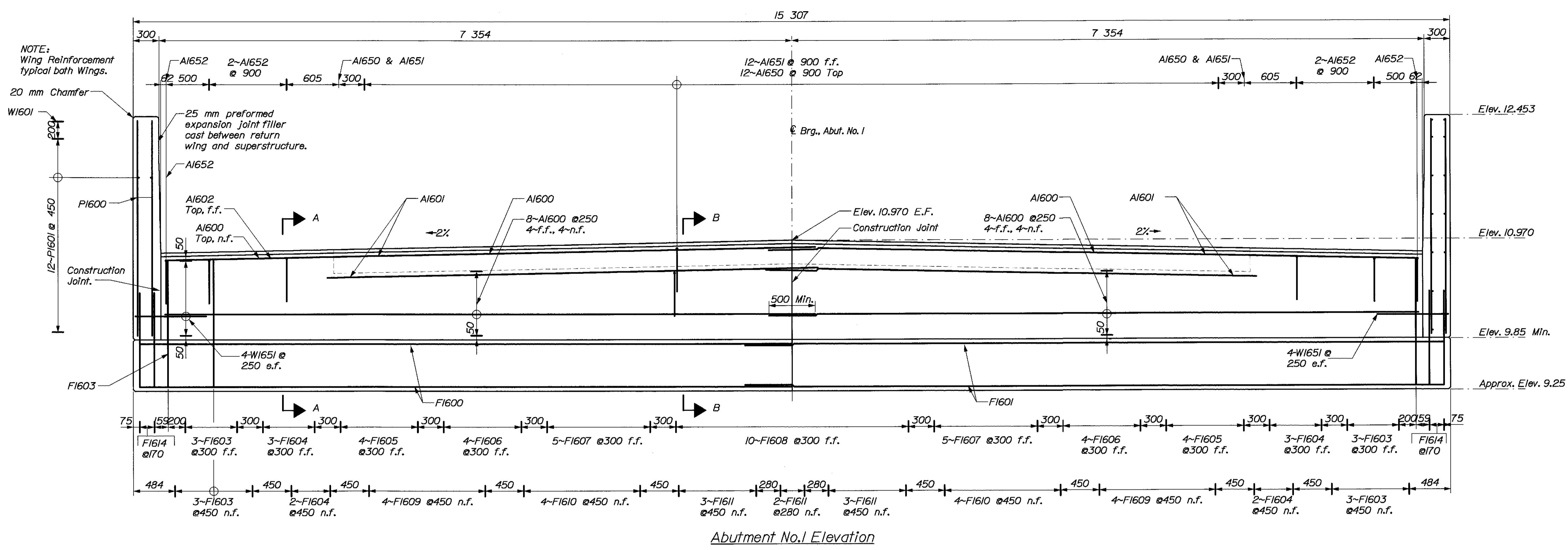
Covered Center Bridge
 OVER
 Machias River
 IN THE TOWN OF
 Machias
 Washington County
Abutment # 1 Plan

PROJECT DESIGN ENGINEER: XXX
 DESIGN-DETAILED: ETC
 CHECKED: XXX
 REVISIONS: XXX
 FIELD CHANGES: XXX

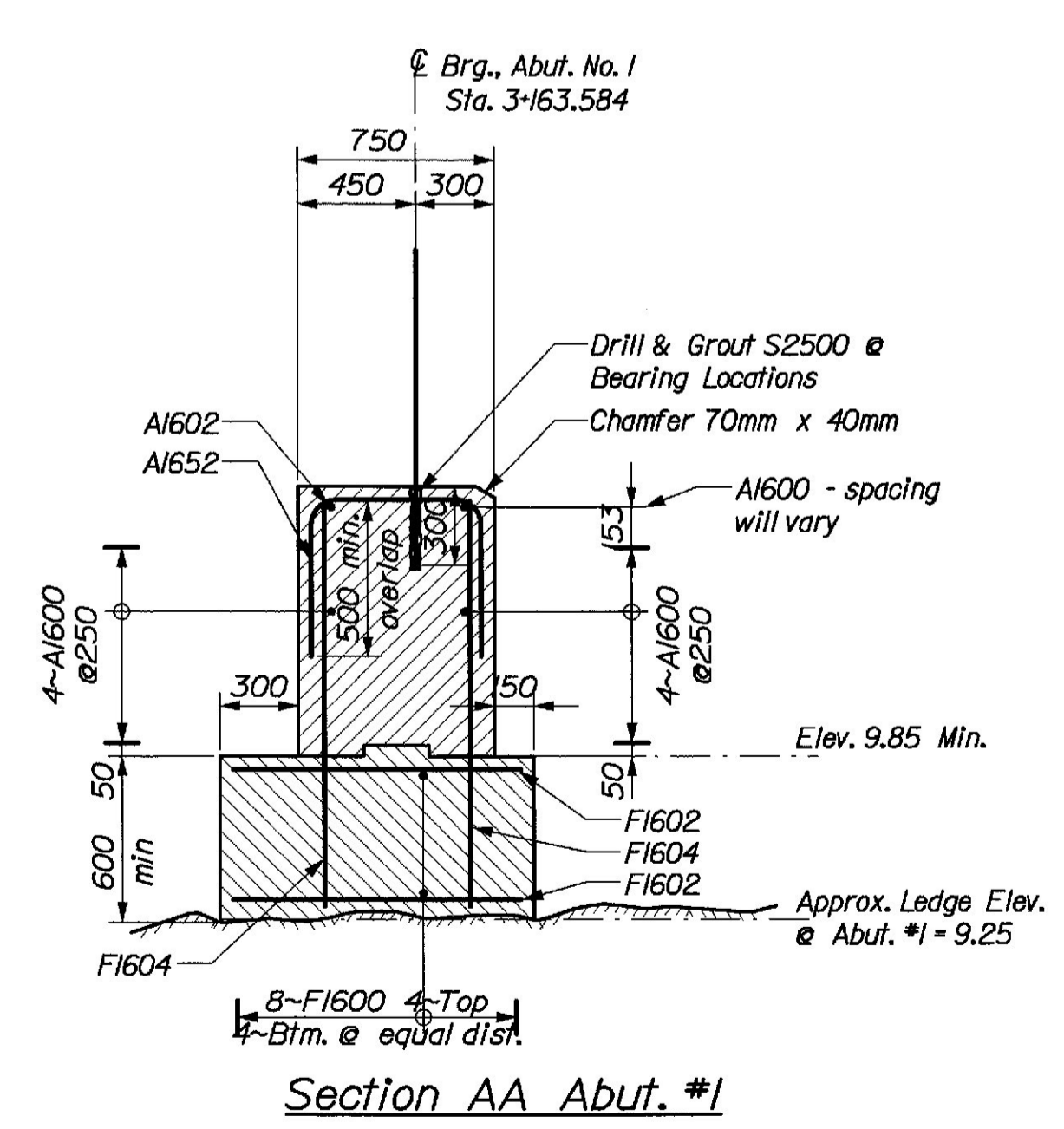
DATE: XXX
 DMS: XXX
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PLANS

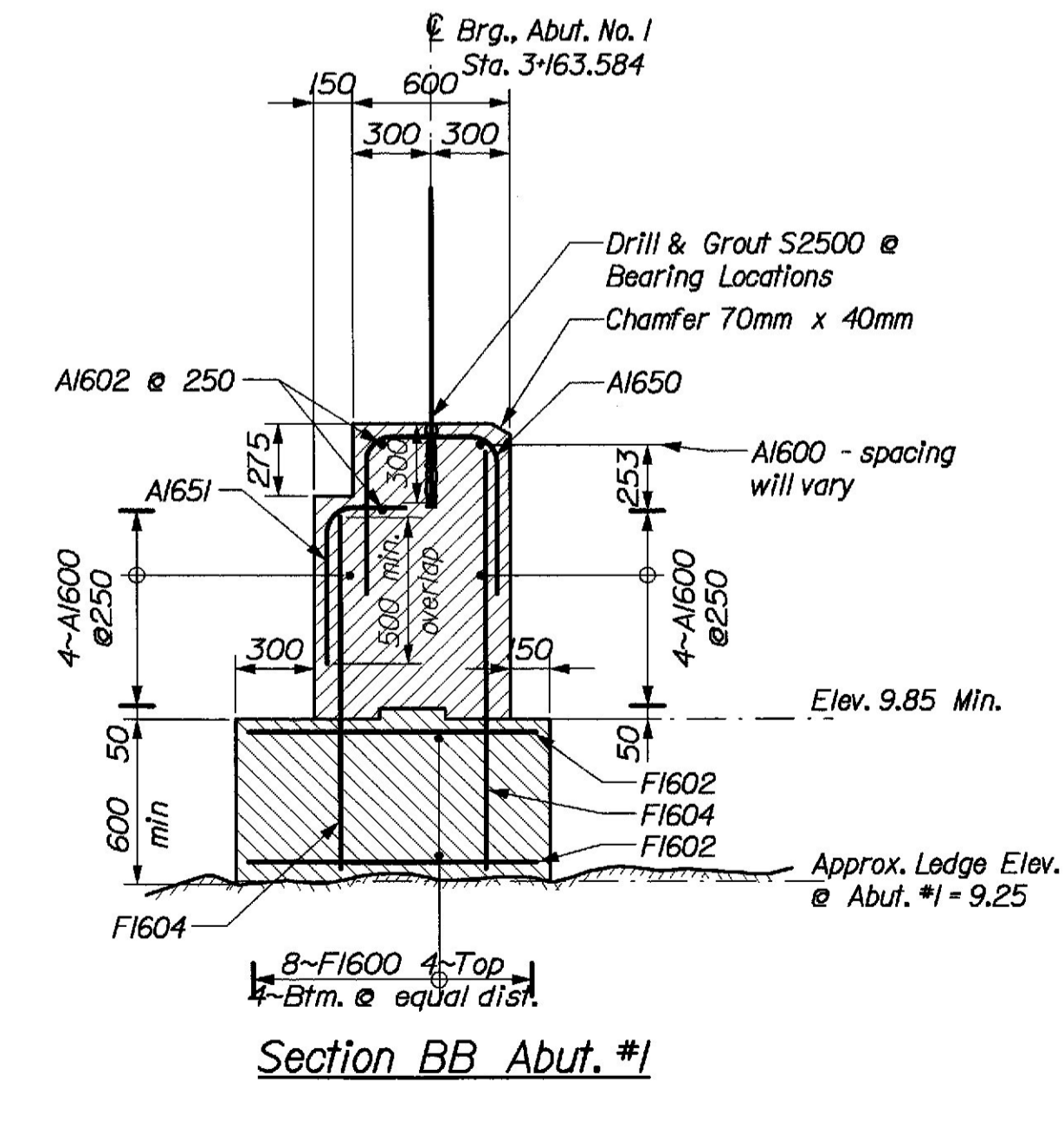
Username: Brian Nichols Date: 14 MAR 2002
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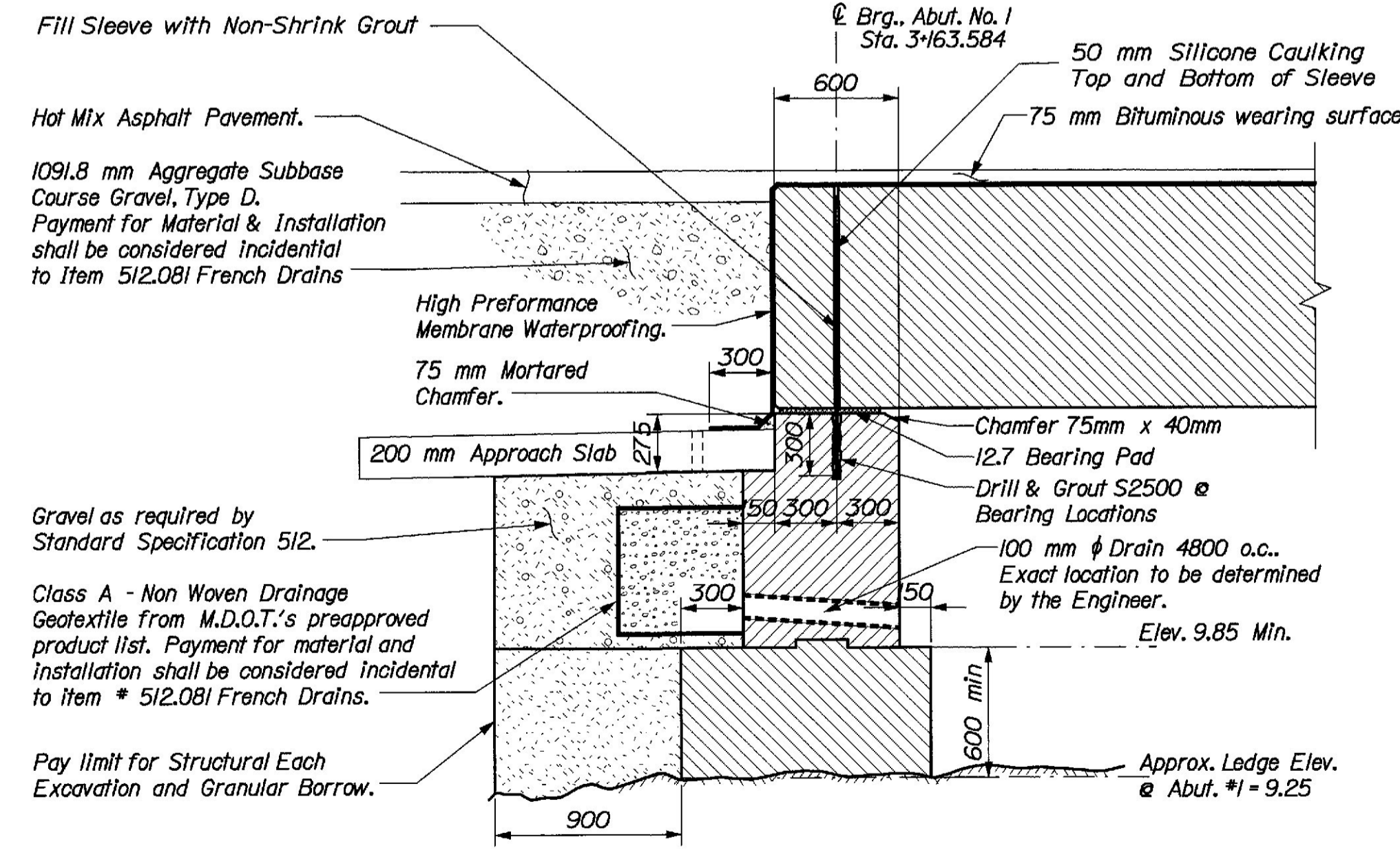
Abutment No. 1 Elevation



Section AA Abut. #1



Section BB Abut. #1



Typical Abutment #1 Section

Legend
 n.f. = Near Face
 f.f. = Far Face
 e.f. = Each Face

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION

Covered Center Bridge
 OVER
Machias River
 IN THE TOWN OF
Machias
 Washington County
Abutment # 1 Details

Username: Brian Nichols Date: 14 MAR 2002
 Filename: ...0322_abutdetail.dwg Division: BRDCE

PROJECT DESIGN ENGINEER	BY	DATE
XXX	DMS	XXX
DESIGN-DETAILED	ETC	XXX
CHECKED	XXX	XXX
REVISIONS	XXX	XXX
FIELD CHANGES	XXX	XXX

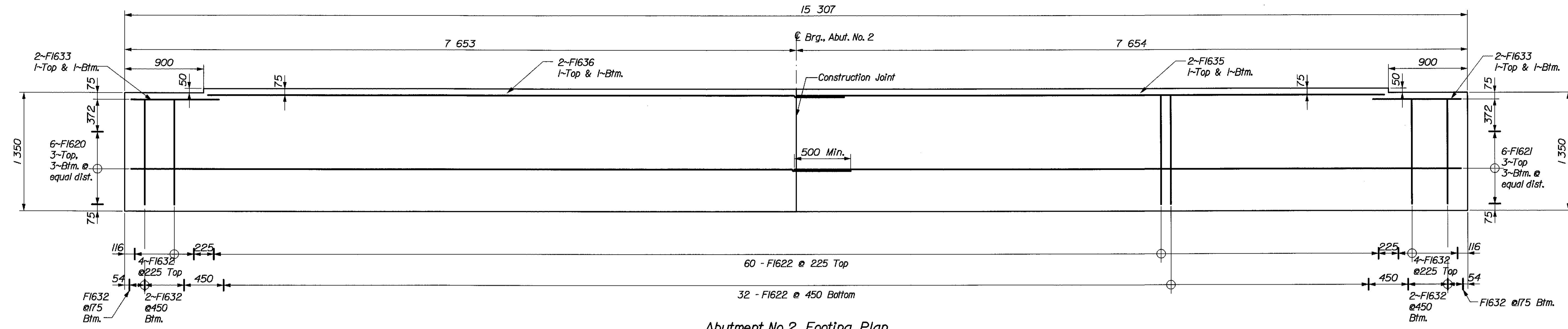
PLANS

METRIC

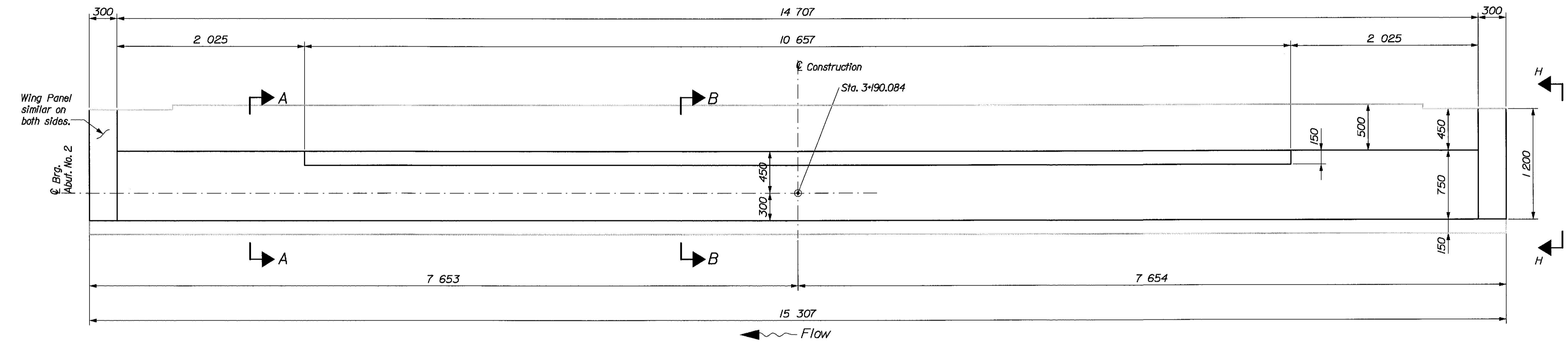
1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
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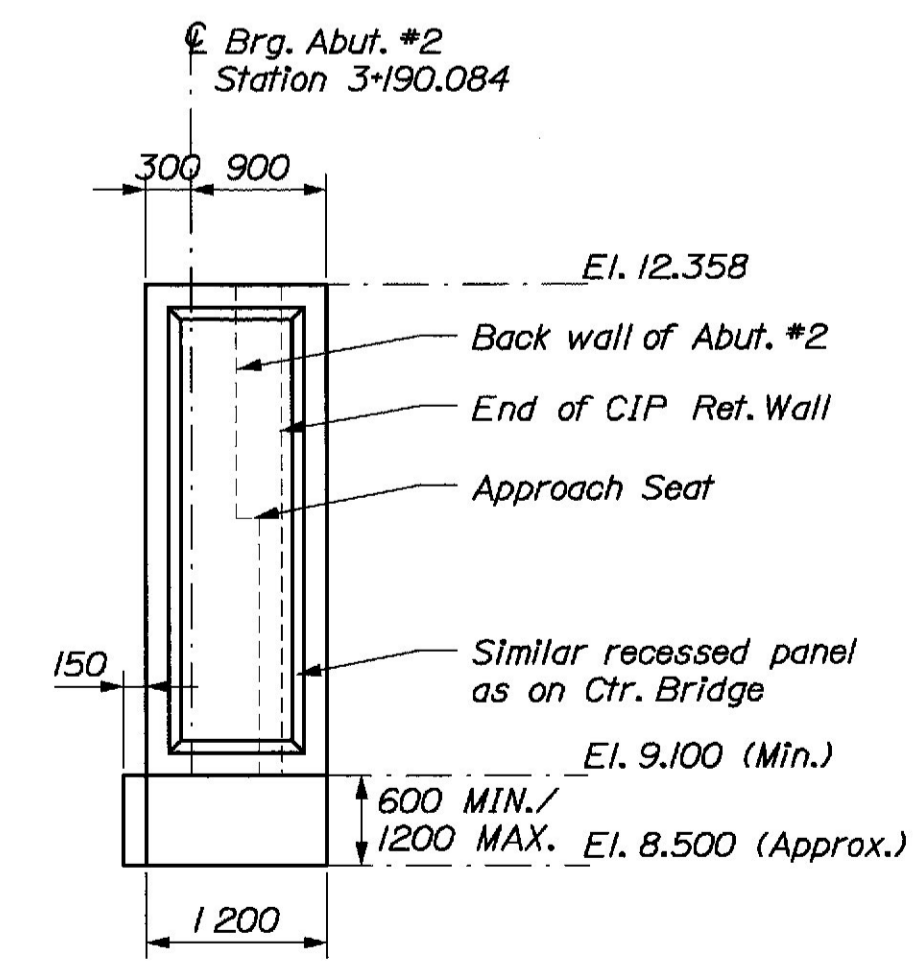
007679.00



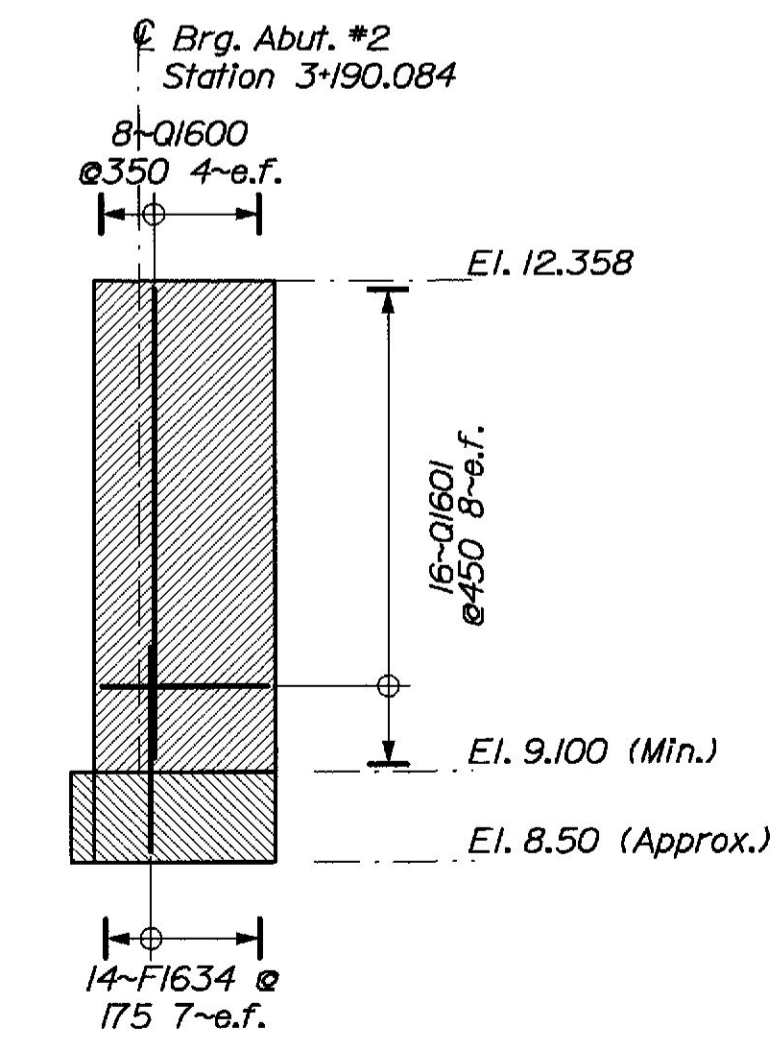
Abutment No. 2 Footing Plan



Abutment No. 2 Plan



Elevation H-H Dimensions



Section H-H Rebar Layout

Abutment Notes:

- Reinforcing steel shall have 50 mm cover unless otherwise indicated.
- Cover expansion joints on the back with two layers of heavy roofing.
- Protective coating for concrete surfaces shall be applied to the following areas:
Top of concrete curbs.
Top of abutment backwalls and 300 mm below top of backwalls on the back side.
All exposed surfaces of Concrete End Posts.
- Structural Earth Excavation, Abutments and Retaining Walls, required below Elevation 8.20 for Abutment #2 will be paid at 1 1/2 times the contract unit price for Item 206.081.
- Place 100 mm diameter drains in breastwall and wings at 4800 mm maximum spacing. Exact location to be determined by the Engineer in the field.
- Maximum calculated footing pressure is 10.6 kPa.
- Footing may be raised to accommodate higher than anticipated ledge elevations. Should ledge elevations be below 8.250 m, unreinforced concrete fill shall be placed with a 1 horiz: 2 vert slope from the neat line of the proposed footing down to ledge. Payment shall be made under Item# 502.56

Legend

n.f. = Near Face
f.f. = Far Face
e.f. = Each Face

Bridge No. 1469

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

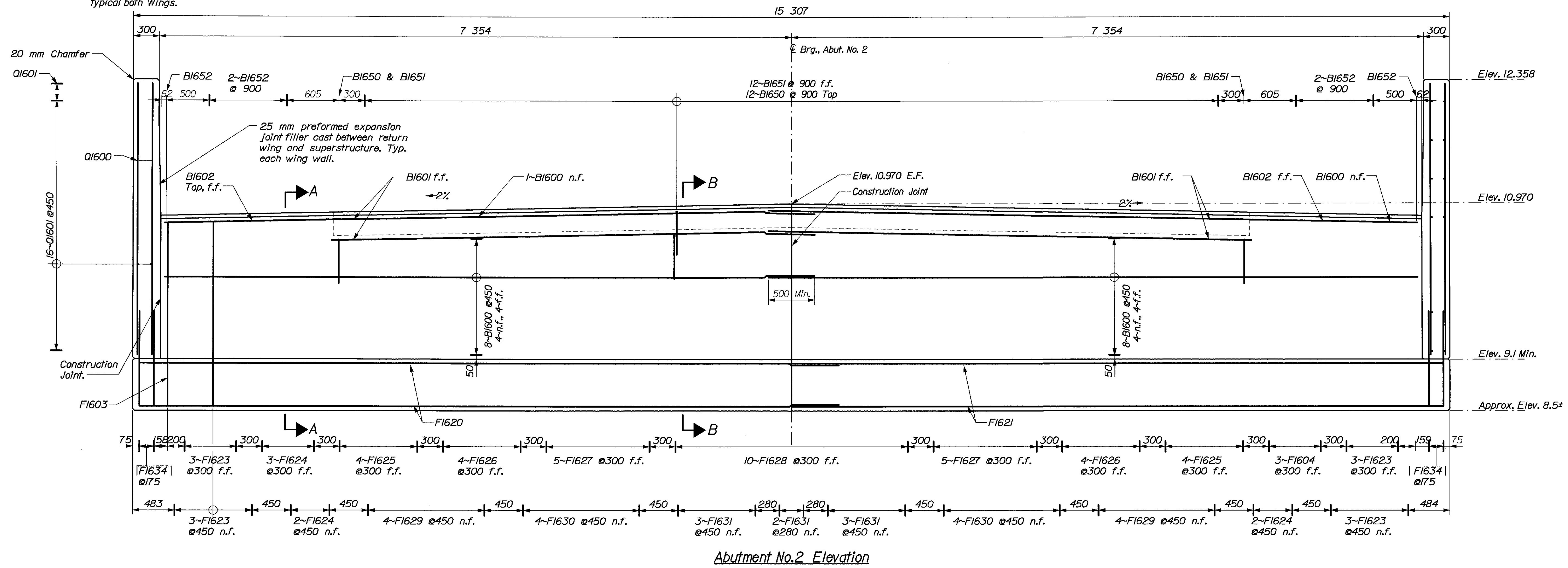
Covered Center Bridge
OVER
Machias River
IN THE TOWN OF
Machias
Washington County
Abutment # 2 Plan

PROJECT DESIGN ENGINEER	XXX	BY	DATE
DESIGN-DETAILED	ETC	DMS	XXX
CHECKED	XXX	XXX	XXX
REVISIONS	XXX	XXX	XXX
FIELD CHANGES	XXX	XXX	XXX

PLANS

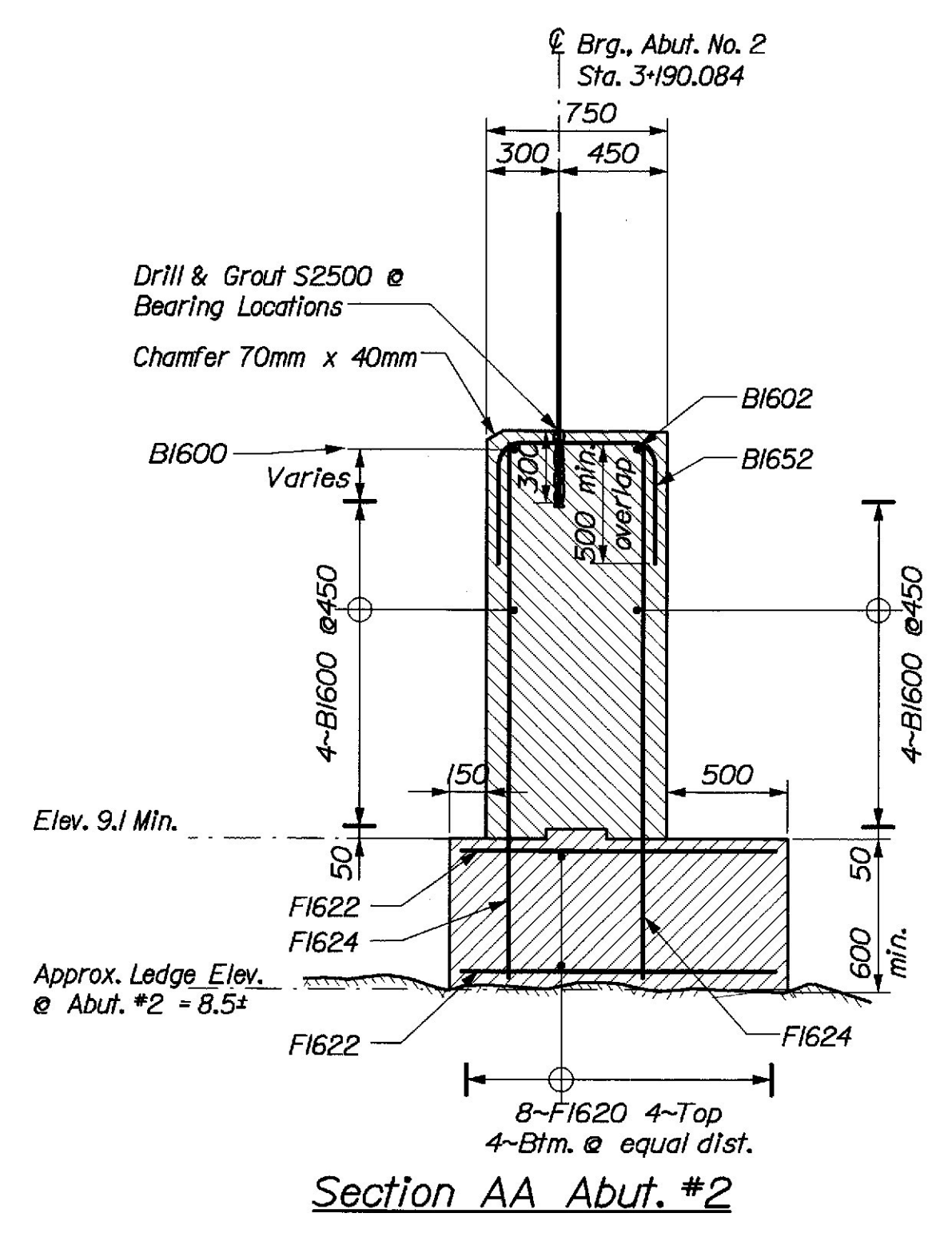
Filename: ..._033_abut2plan.dgn Division: BRIDGE
User Name: Brian Nichols
Date: 14 MAR 2002

NOTE:
Wing Reinforcement
typical both Wings.

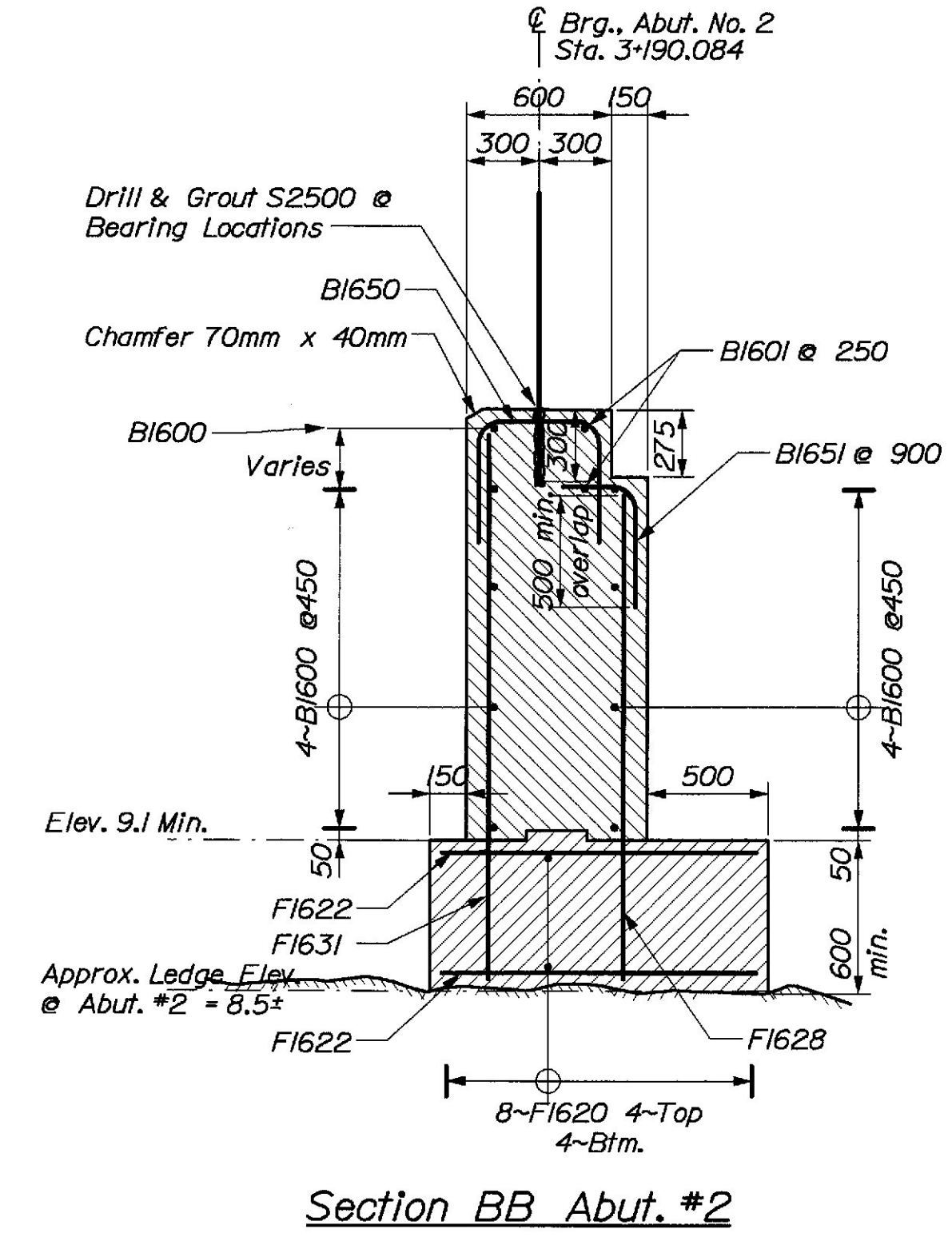


Abutment No. 2 Elevation

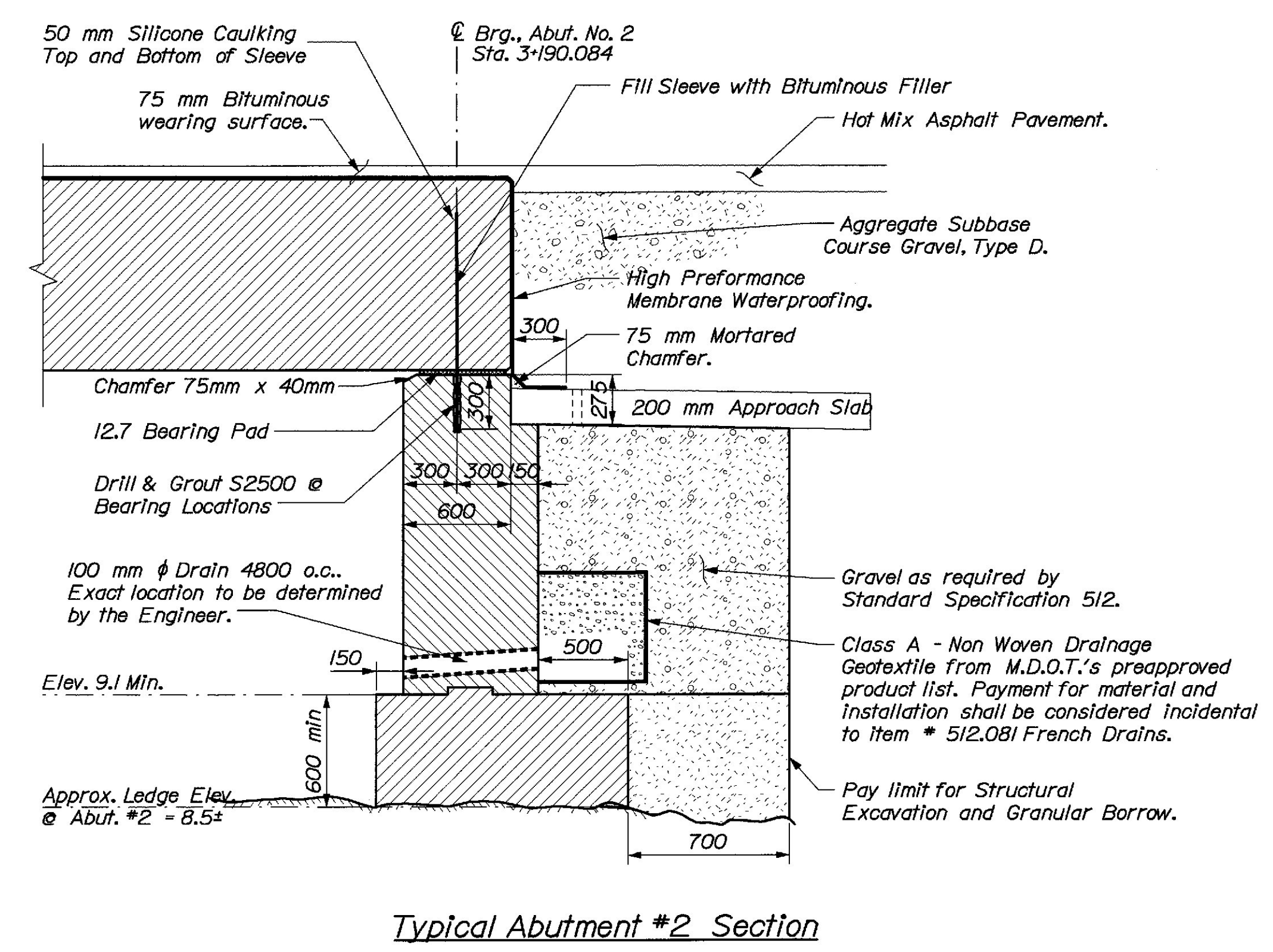
PROJECT DESIGN ENGINEER	XXX	DATE	XXX
DESIGN-DRAWN	XXX	DATE	XXX
CHECKED	XXX	DATE	XXX
REVISIONS	XXX	DATE	XXX
FIELD CHANGES	XXX	DATE	XXX



Section AA Abut. #2



Section BB Abut. #2



Typical Abutment #2 Section

Legend
 n.f. = Near Face
 f.f. = Far Face
 e.f. = Each Face

Bridge No. 1469
 STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
Covered Center Bridge
 OVER
Machias River
 IN THE TOWN OF
Machias
 Washington County
Abut. # 2 Details

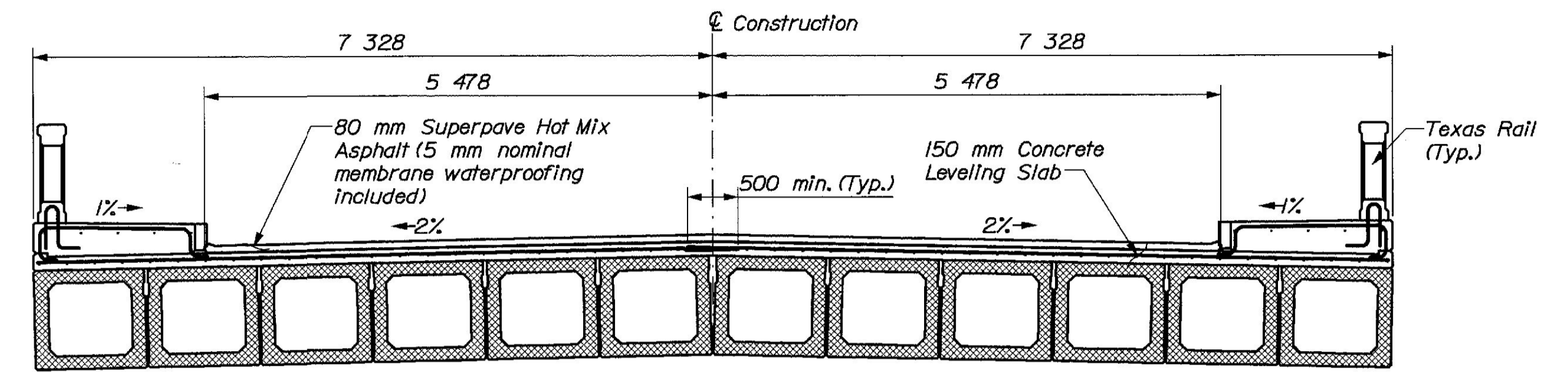
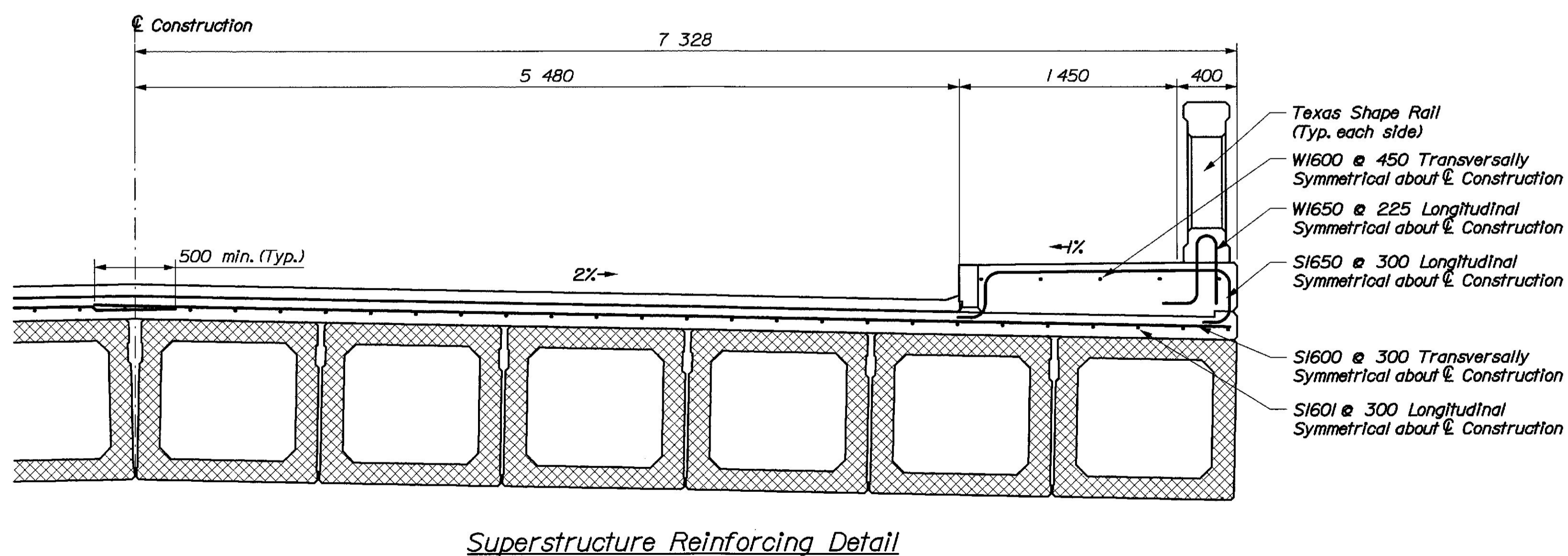
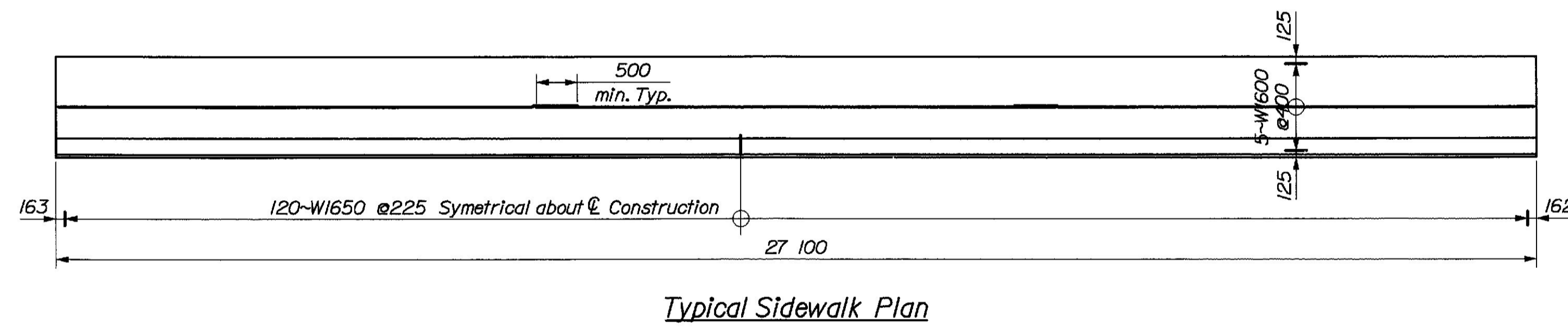
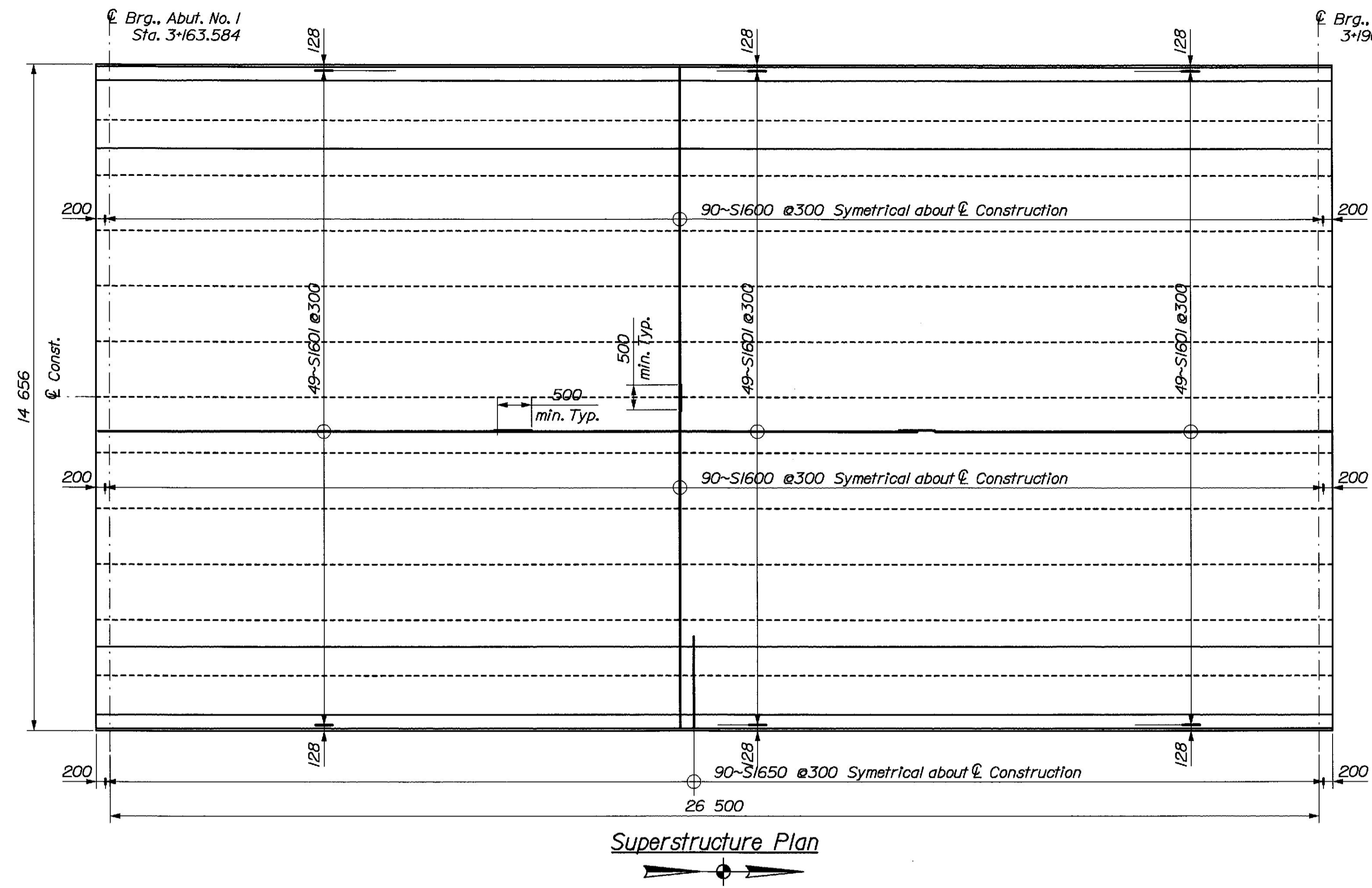
Filename: ...034-abut2details.dwg User: Brian Nichols Date: 14 MAR 2002

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-7679(00)X	35	45

007679.00



Transverse Section

NOTES:

- See Standard Details 526(44)-528(50) for details and reinforcement of the Texas Classic Rail.
- W1650 Reinforcing Steel will be paid for under Item 503.12 & 503.13, and all other Reinforcing Steel required for construction of the Texas Classic Rail shall be considered incidental to item *526.323 Texas Classic Rail; No separate payment shall be made.
- For additional Superstructure Notes Refer to the Box Beam Detail Sheet.

Bridge No. 1469

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Covered Center Bridge
OVER
Machias River
IN THE TOWN OF
Machias
Washington County
Superstructure

SHEET OF AUGUSTA, MAINE

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

Date: 14 MAR 2002

Username: Brian Nichols

Filename: ... \035_superstructure\design\BRIDGE

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-7679(00)X	36	45

007679.00

STRAIGHT BARS				
MARK	QTY.	LENGTH	LOCATION	
PC1300	48	940	Vertical	

BENT BARS														
MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION
PC1350	48	3030	SC	970	1090	970	*	*	*	*	*	*	*	Vertical
PC1351	48	2815	SC	1000	815	1000	*	*	*	*	*	*	*	Vertical

REINFORCING STEEL NOTES

- All dimensions are out-to-out of bar.
- Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318.
- Reinforcing Bar: ASTM A615/A615M, Grade 420.

POST TENSIONING NOTES

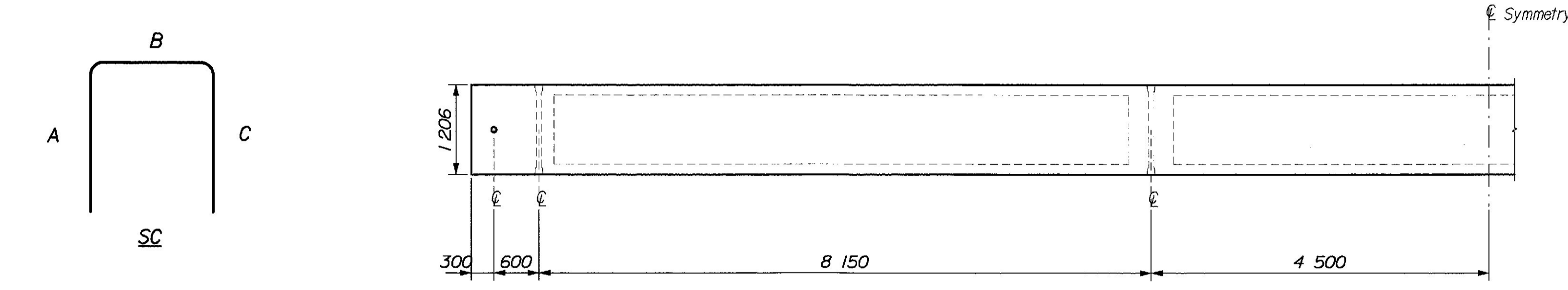
- Post tensioning strands shall be covered by a seamless polypropylene sheath for the fulllength of the strand except at the anchorage location. There shall be a corrosion inhibiting grease between the strand and sheath.
- The grout used for the exterior pockets shall be of the same color and texture as the Precast Box Beam concrete.

PRESTRESSED SLAB NOTES

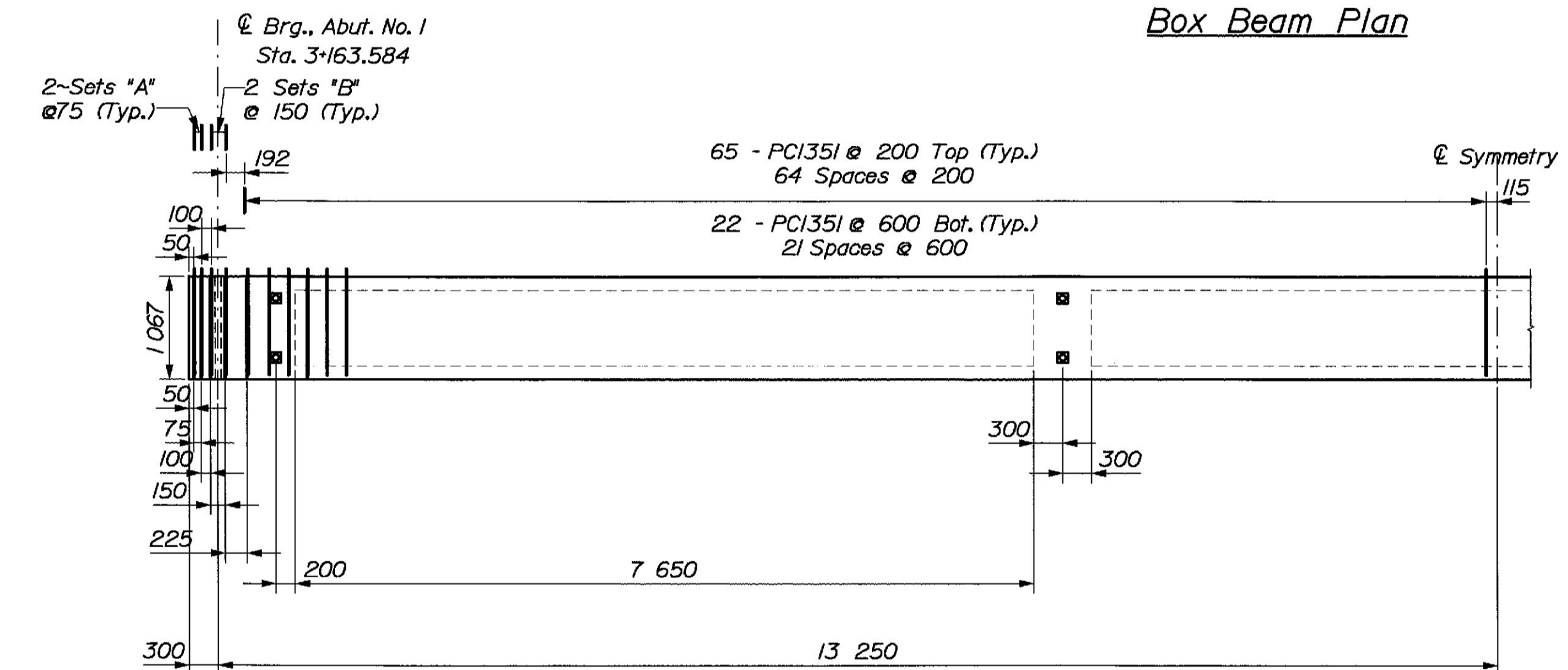
- Reinforcing steel shall have 50 mm minimum cover unless otherwise indicated.
- Install a 25 mm diameter non-metallic drain at each end of the Box Beam voids.
- Longitudinal slab panel dimensions are horizontal.
- Tensioning of prestressing strands shall be done in accordance with Standard and Supplemental Specifications Section 535. The jacking force applied to the prestressing strands shall be 138 kN.
- The top surface of the Precast Box Beam shall be intentionally roughened with a raked finish (5 mm max. depth).
- All prestressing strands shall be ASTM A416 Grade 1862 Mpa 12.7 mm diameter Low Relaxation Strand.
- Precast Concrete : f'_c (Final) = 48 MPa
 f'_c (release) = 30 MPa

SUPERSTRUCTURE NOTES

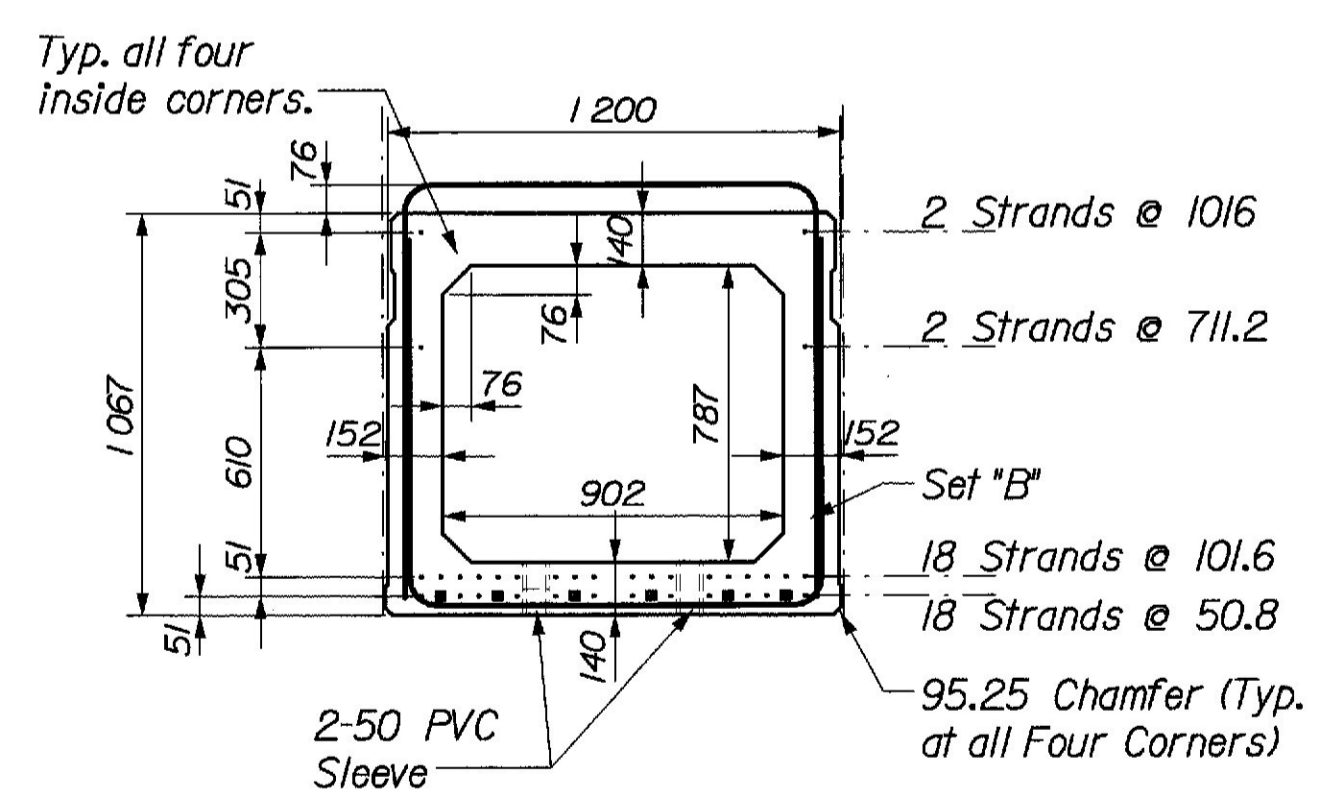
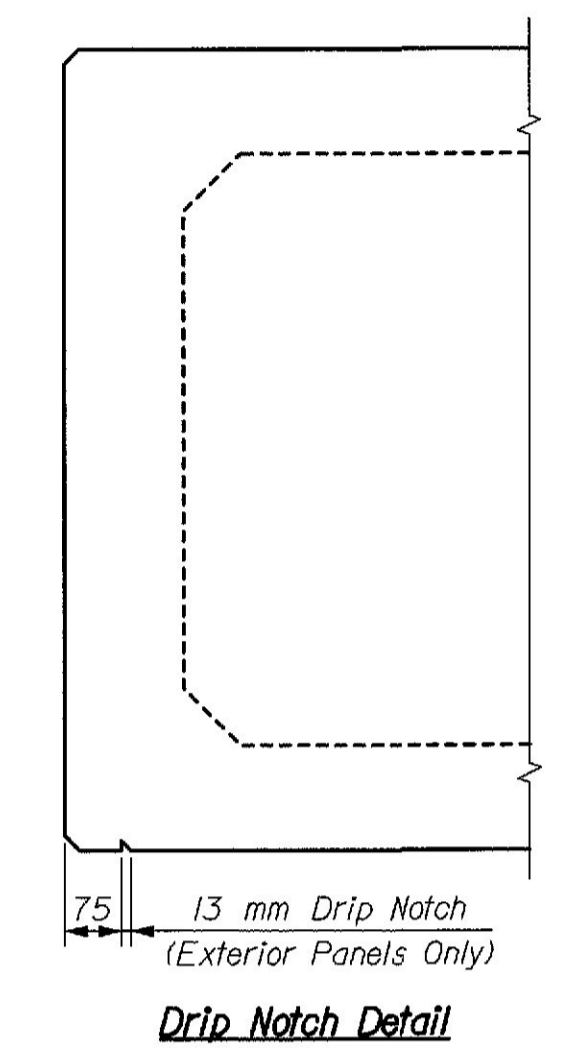
- Unless otherwise noted, reinforcing steel not embedded or anchored in precast concrete Box Beams will be paid for under the appropriate reinforcing steel pay items.
- Form a 30 mm V-groove on the fascias at the horizontal joint between the sidewalk slab and cast in place concrete slab; and between the cast in place concrete slab and precast box beams.
- The surface of the precast concrete box beams and the face of the concrete sidewalk shall be cleaned and bonding grout applied prior to placement of the concrete slab in accordance with subsection 502.11(g) of the Standard Specifications. Payment will be considered incidental to contract items.
- Protective coating for concrete surfaces shall be applied to all exposed areas of sidewalk and fascia down to the drip notch.
- The concrete slab shall be paid for under item 502.25, Structural Concrete Superstructure Slab.
- After the precast box beams have been placed and post tensioned, drill for and anchor dowels into the bridge seat using a prequalified anchoring material. Fill sleeves at Abutment No. 1 with the same material used to anchor the dowels to within 50 mm of the top of the precast unit. At Abutment No. 2, fill the bottom 75 mm of the sleeves with an approved self leveling caulk using an approved device capable of delivering the caulk to the lowest portion of the hole. Then fill the hole to within 50 mm of the top with asphalt material meeting the requirements of Subsection 702.09 and cap with an approved self leveling caulk. The sleeves at Abutment No. 2 shall be filled full depth with an approved self leveling caulk.
- Neoprene pads shall be either polychloroprene or natural polyisoprene of 50+/-5 shore A durometer hardness and shall conform to the requirements of Division 2, section 18.2 of AASHTO Standard Specifications for Highway Bridges. Neoprene pads shall cover the entire surface of the slab bearing area. Payment will be considered incidental to contract items.
- The sidewalks shall be constructed of Low Permeability Concrete. The sidewalks shall be paid for under item 502.49, Structural Concrete Curbs and Sidewalks
- Screed Rails should be set according to the profile sheet and Vertical Bridge Curb should be set according to the curb profile sheet. Anticipate thickness of slab to vary.
- Lateral post-tensioning shall be in accordance with section 535 of the special provisions.



Box Beam Plan

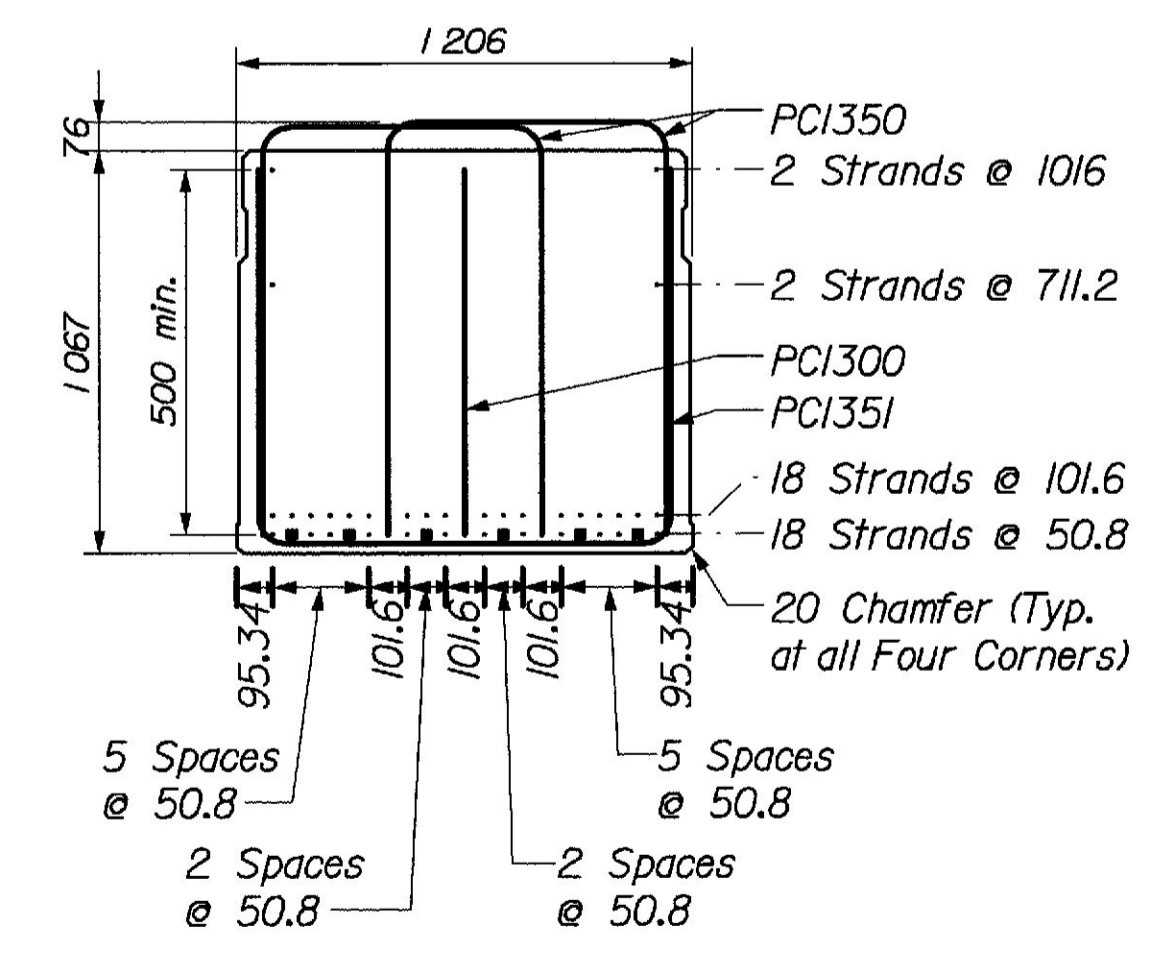


Box Beam Elevation



Precast Box Beam Typical Section

- 12.7 ϕ Low Relaxation Strand Fixed
- 12.7 ϕ Low Relaxation Strand Debonded 2.0062 m



Precast Box Beam End Detail

- 12.7 ϕ Low Relaxation Strand Fixed
- 12.7 ϕ Low Relaxation Strand Debonded 2.0062 m

Set	Description
A	2 - PC1350, 1 - PC1351, 1 - PC1300
B	2 - PC1350

Reinforcing Steel Sets

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

PLANS

Filename: ...036_boxbeam.dwg Division: BRIDGE
 Username: Brian Nichols Date: 14 MAR 2002

Bridge No. 1469
 STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
Covered Center Bridge
 OVER
Machias River
 IN THE TOWN OF
Machias
 Washington County
Box Beam Details

REINFORCING STEEL SCHEDULE

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

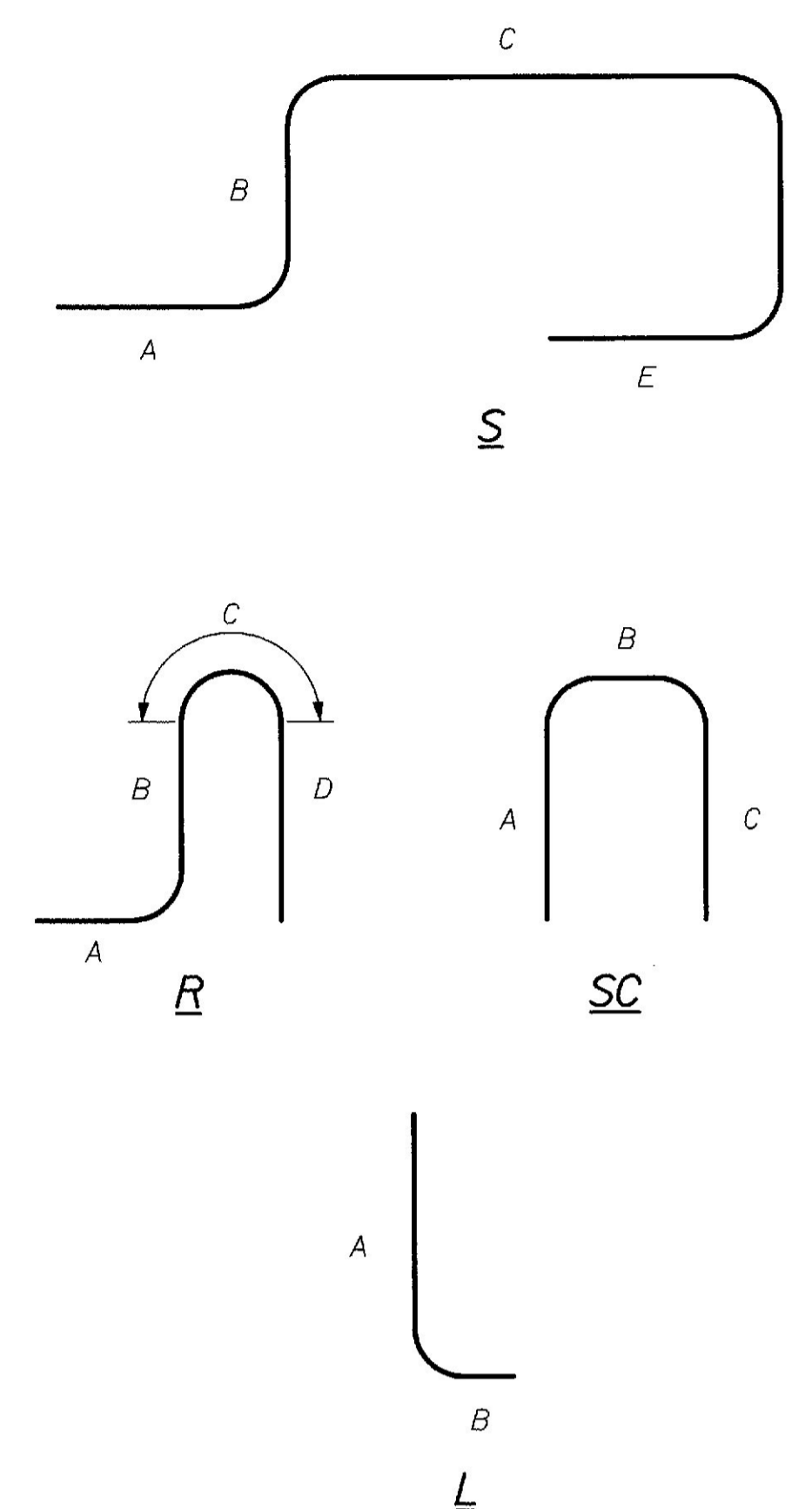
FHWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-7679(00)X	37	45

007679.00

Straight Bars				Mark	Quantity	Length (m)	Location
Abutment #1 Footing							
F 1600	8	7.600	Transverse				
F 1601	8	8.200	Transverse				
F 1602	90	1.050	Longitudinal				
F 1603	12	1.475	Vertical, n.f. f.f.				
F 1604	10	1.500	Vertical, n.f. f.f.				
F 1605	8	1.250	Vertical, f.f.				
F 1606	8	1.275	Vertical, f.f.				
F 1607	10	1.300	Vertical, f.f.				
F 1608	10	1.330	Vertical, f.f.				
F 1609	8	1.525	Vertical, n.f.				
F 1610	8	1.560	Vertical, n.f.				
F 1611	8	1.600	Vertical, n.f.				
F 1612	14	1.225	Longitudinal				
F 1613	4	0.775	Transverse				
F 1614	28	1.350	Vertical				
Abutment #1							
A 1600	18	7.550	Transverse				
A 1601	4	5.700	Transverse				
A 1602	2	1.900	Transverse				
Abutment #1 End Panels							
P 1600	16	2.500	Vertical				
P 1601	24	1.100	Longitudinal				
Abutment #2 Footing							
F 1620	6	7.600	Transverse				
F 1621	6	8.200	Transverse				
F 1622	90	1.250	Longitudinal				
F 1623	12	2.170	Vertical, n.f. f.f.				
F 1624	10	2.190	Vertical, n.f. f.f.				
F 1625	8	2.210	Vertical, f.f.				
F 1626	8	1.960	Vertical, f.f.				
F 1627	10	2.255	Vertical, f.f.				
F 1628	10	2.010	Vertical, f.f.				
F 1629	8	2.215	Vertical, n.f.				
F 1630	8	1.975	Vertical, n.f.				
F 1631	8	2.290	Vertical, n.f.				
F 1632	14	1.200	Longitudinal				
F 1633	4	1.000	Transverse				
F 1634	2	6.700	Transverse f.f. (Short Side)				
F 1635	2	7.250	Transverse f.f. (Overlapping)				
Abutment #2							
B 1600	18	7.550	Transverse				
B 1601	4	5.620	Transverse				
B 1602	2	1.900	Transverse				
Abutment #2 End Panels							
Q 1600	16	3.110	Vertical				
Q 1601	32	1.100	Longitudinal				
Superstructure							
S 1600	180	7.550	Transverse				
S 1601	216	9.500	Longitudinal				
Approach Slab							
AS 1900	16	4.600	Transverse				
AS 1600	32	5.700	Longitudinal				
Retaining Wall Section "A" Footing Center							
J 1600	6	8.500	Top & Btm. Long.				
J 1601	40	1.050	Top & Btm. Transverse				
J 1602	20	2.500	Vertical				
Retaining Wall Section "A" Wall Center							
K 1600	11	8.500	Longitudinal				
Retaining Wall Section "B" Footing Center							
J 1600	90	8.960	Top & Btm. Long.				
J 1602	145	2.500	Vertical				
J 1603	145	1.950	Btm. Transverse				
Retaining Wall Section "B" Wall Center							
K 1600	131	8.960	Longitudinal				
K 1601	147	3.000	Vertical				
K 2200	223	3.000	Vertical				
K 2200	223	3.000	Vertical				

Bent Bars													Mark	Quantity	Length	Type	A	B	C	D	E	F	G	H	O	R	Location
Abutment #1																											
A 1650	14	1.700	SC	0.600	0.500	0.600									Vertical/ Longitudinal												
A 1651	14	0.900	L	0.600	0.300										Vertical/ Longitudinal												
A 1652	6	1.850	SC	0.600	0.650	0.600									Vertical/ Longitudinal												
Abutment #2																											
B 1650	14	1.700	SC	0.600	0.500	0.600									Vertical/ Longitudinal												
B 1651	14	0.900	L	0.600	0.300										Vertical/ Longitudinal												
B 1652	6	1.850	SC	0.600	0.650	0.600									Vertical/ Longitudinal												
Superstructure																											
S 1650	180	3.100	S	0.350	0.350	1.675	0.375	0.350							Longitudinal												
Sidewalk																											
W 1650	180	1.200	R	0.225	0.385	0.205	0.385								Longitudinal												
Retaining Wall Section "A" Footing Center																											
J 2250	29	2.800	L	2.400	0.400										Vertical												
Retaining Wall Section "B" Footing Center																											
J 2250	418	2.900	L	2.500	0.400										Vertical												
J 2251	211	2.400	L	2.000	0.400										Top Transverse												

TYPE - BENDING DIAGRAMS



All dimensions are out-to-out of bar.
Bending details and hooks shall conform to the recommendations of the current revision of ACI Standard 318.
Reinforcing Bar: ASTM A615/A615M, Grade 420

GENERAL NOTES

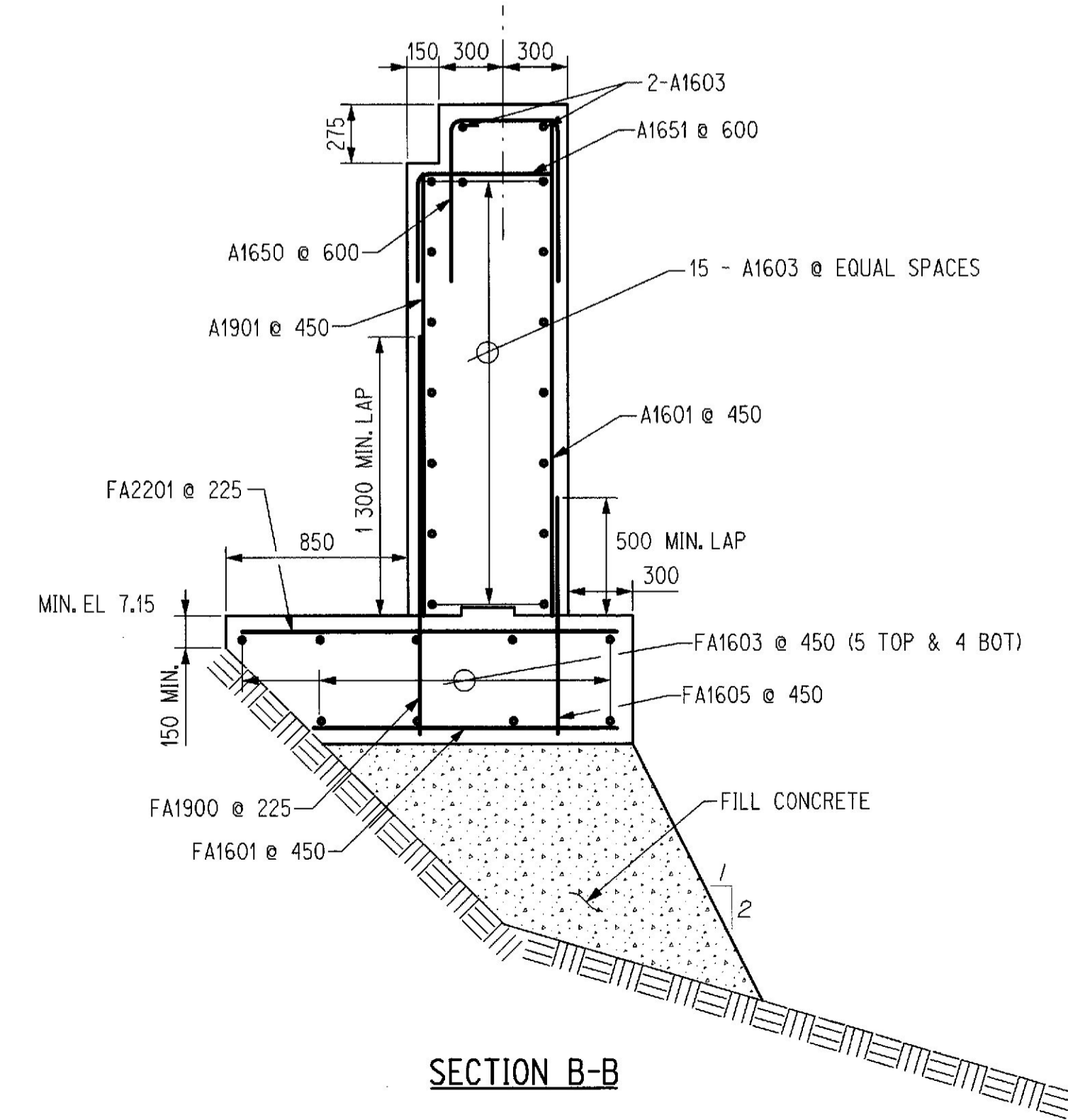
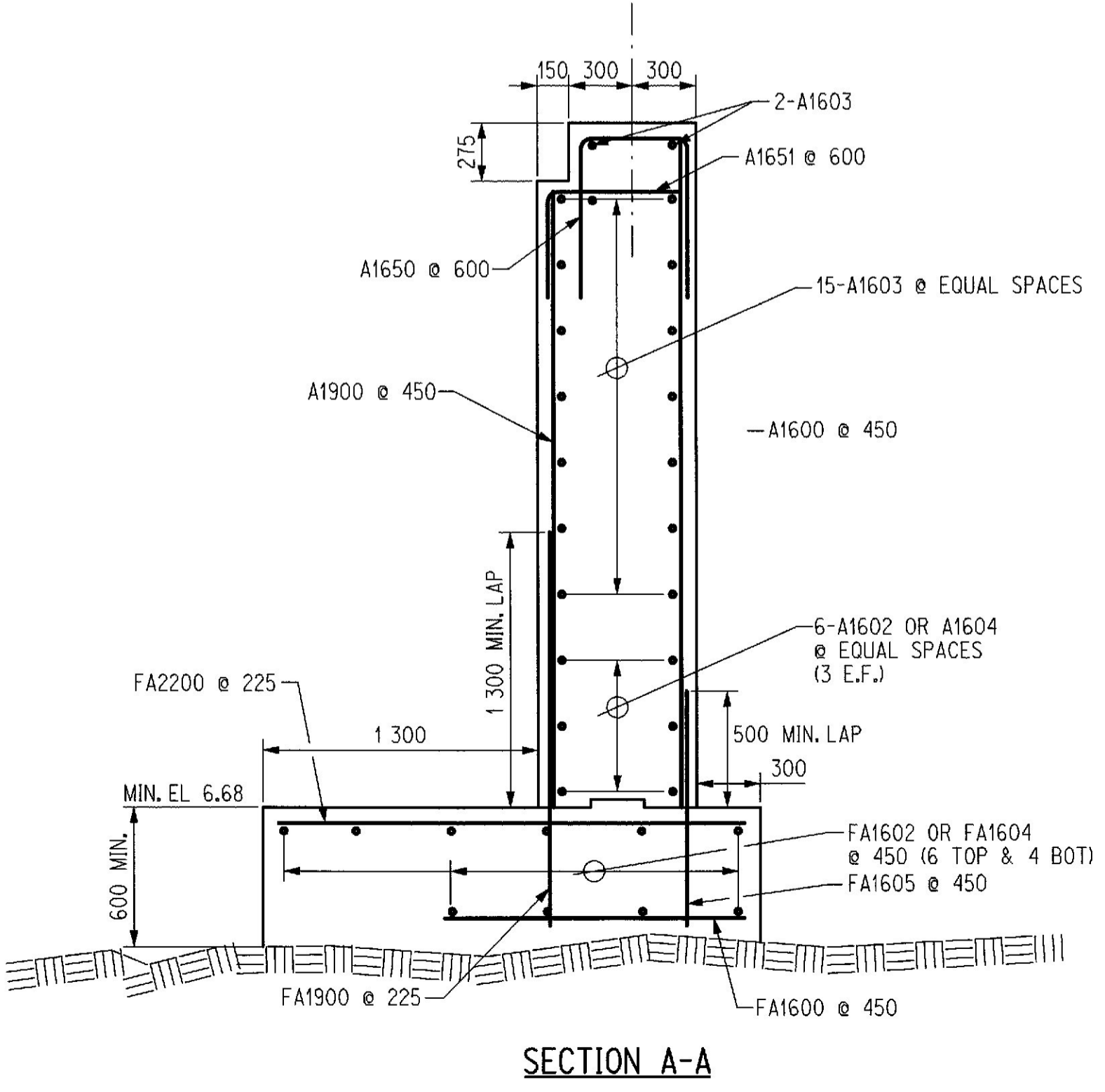
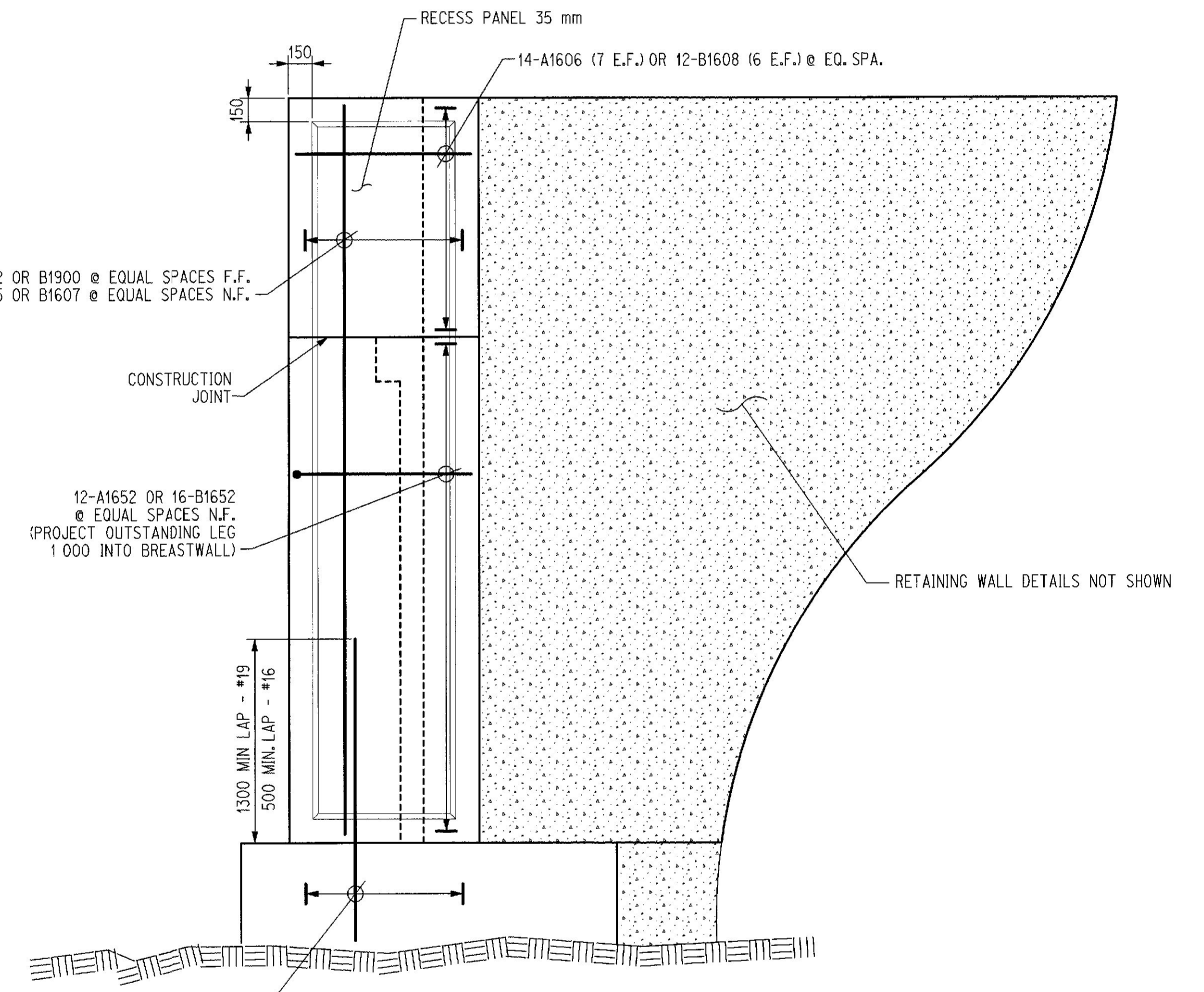
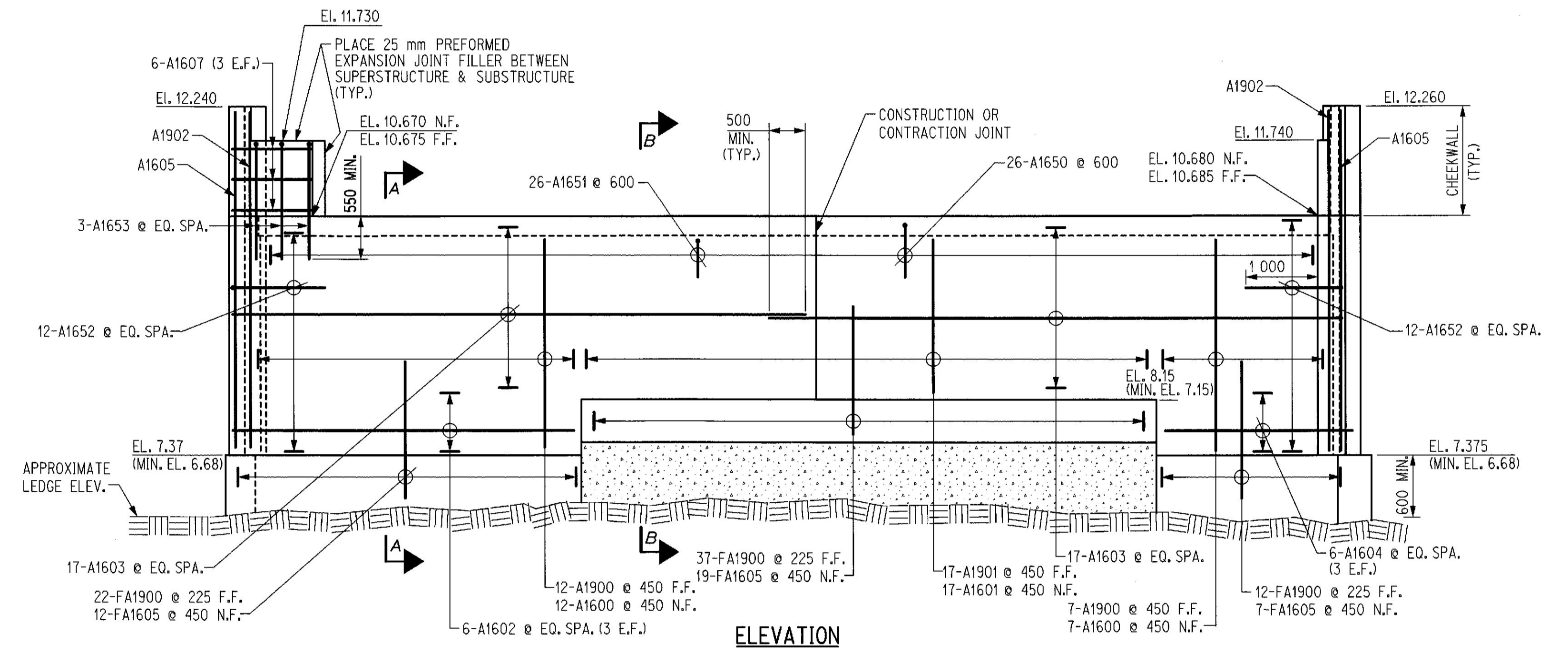
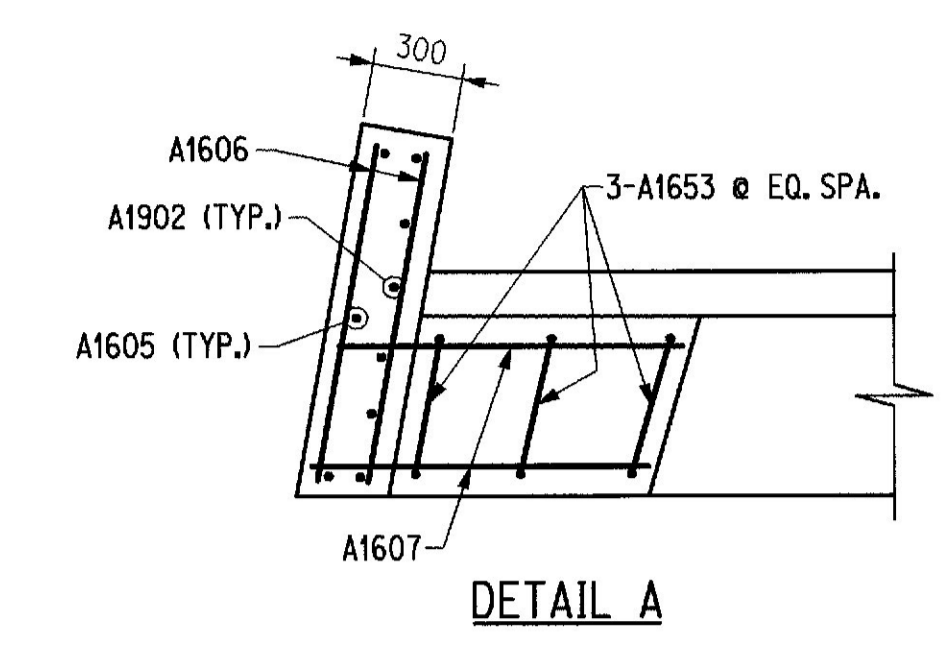
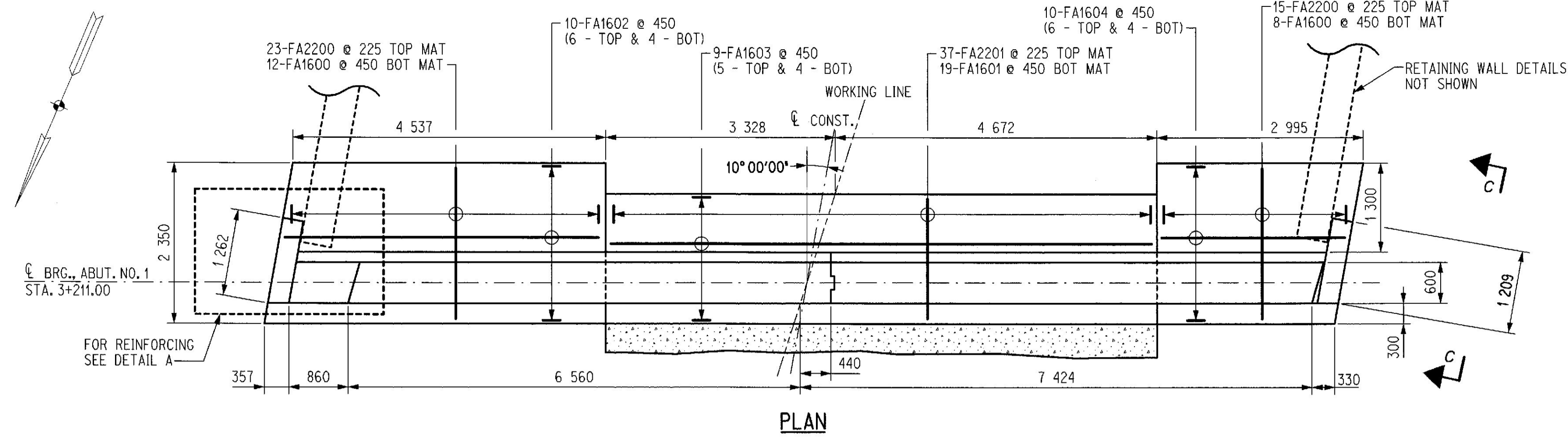
- The first two digits following the letter(s) of the mark indicate the size of the bar:
Mark "A1602" = bar size #16
Mark "P2501" = bar size #25
Mark "S1950" = bar size #19
- Each crank bar, Type B, may be replaced by two (2) straight bars (one top and one bottom) of the same bar size as the crank bar. Payment in either case shall be based on crank bars as schedule on the plans.

Bridge No. 1469

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Covered Center Bridge
OVER
Machias River
IN THE TOWN OF
Machias
Washington County
Reinforcing Steel Schedule

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

PLANS



- NOTES:
- LEDGE ELEVATIONS SHOWN ARE APPROXIMATE. LOCATIONS & HEIGHTS OF STEPS IN FOOTING MAY BE ADJUSTED TO ACCOMMODATE ACTUAL CONDITIONS AS APPROVED BY THE ENGINEER. FOOTING THICKNESS SHALL BE MAINTAINED BETWEEN 600 AND 1 200.
 - NUMBER AND LENGTH OF REINFORCEMENT BARS ARE BASED ON ANTICIPATED BOTTOM OF FOOTING & FOOTING STEP LOCATIONS. REINFORCEMENT MAY BE ADJUSTED TO ACCOMMODATE ACTUAL CONDITIONS AS APPROVED BY THE ENGINEER.
 - NO LAP SPLICE IS REQUIRED BETWEEN HORIZONTAL FOOTING REINFORCEMENT @ FOOTING STEP LOCATIONS.
 - CHEEKWALL SHALL BE PLACED AFTER PRECAST BOX BEAMS HAVE BEEN ERECTED.
 - AT THE DESCRETION OF THE ENGINEER, UNREINFORCED FILL CONCRETE MAYBE PLACED BELOW THE FOOTING TO A THICKNESS NOT TO EXCEED 1 200mm.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Covered East Bridge
OVER
Machias River
IN THE TOWN OF
Machias
Washington County
Abutment #1 Plan

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

PLANS

Date: _____

Username: _____

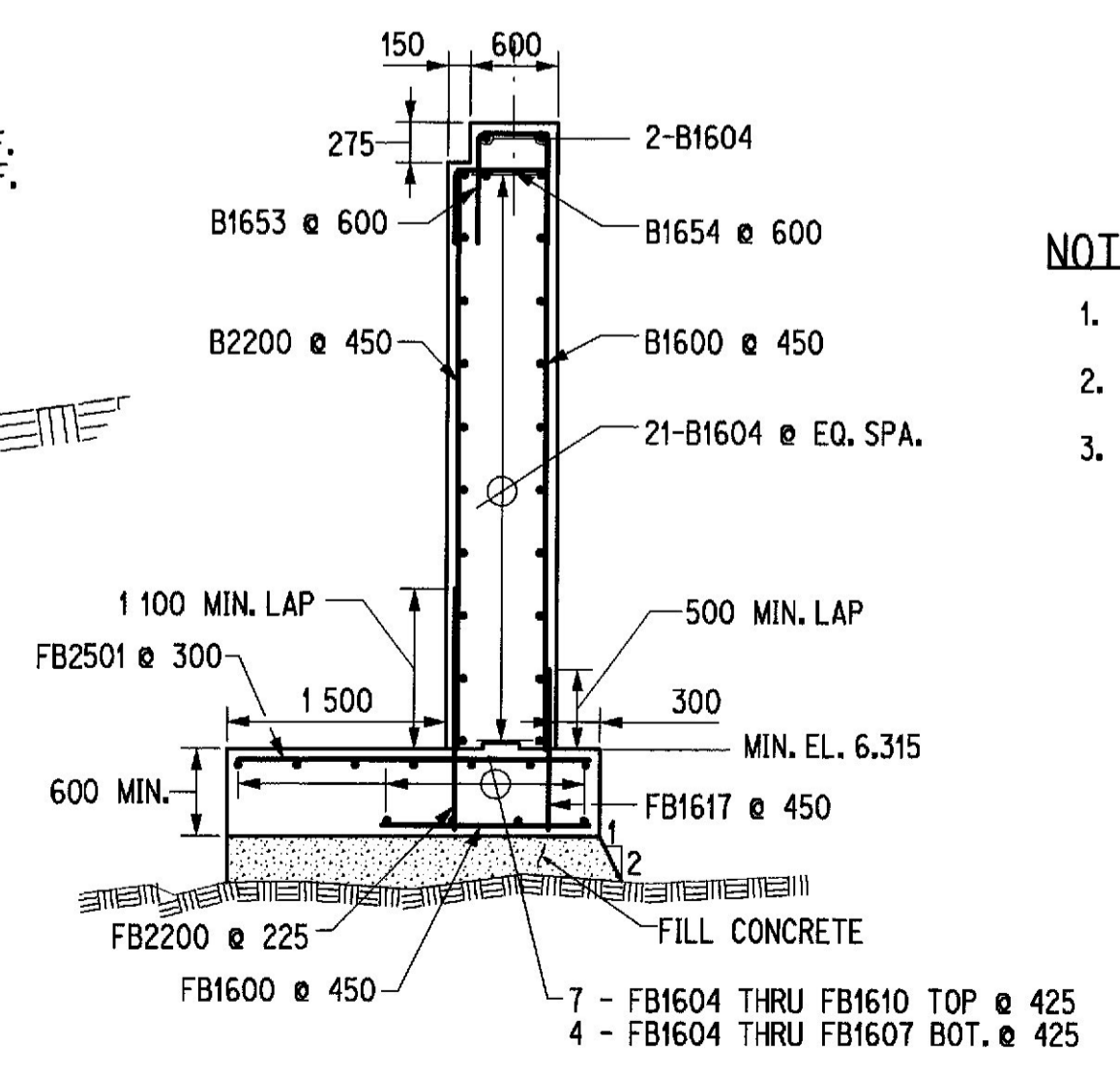
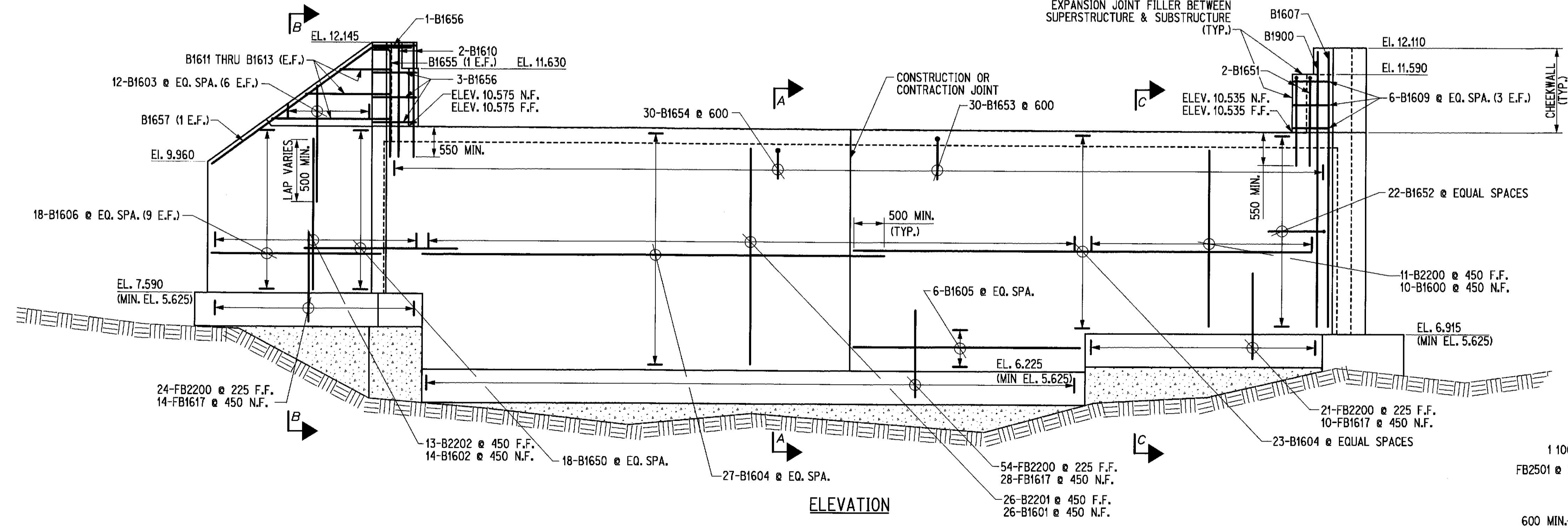
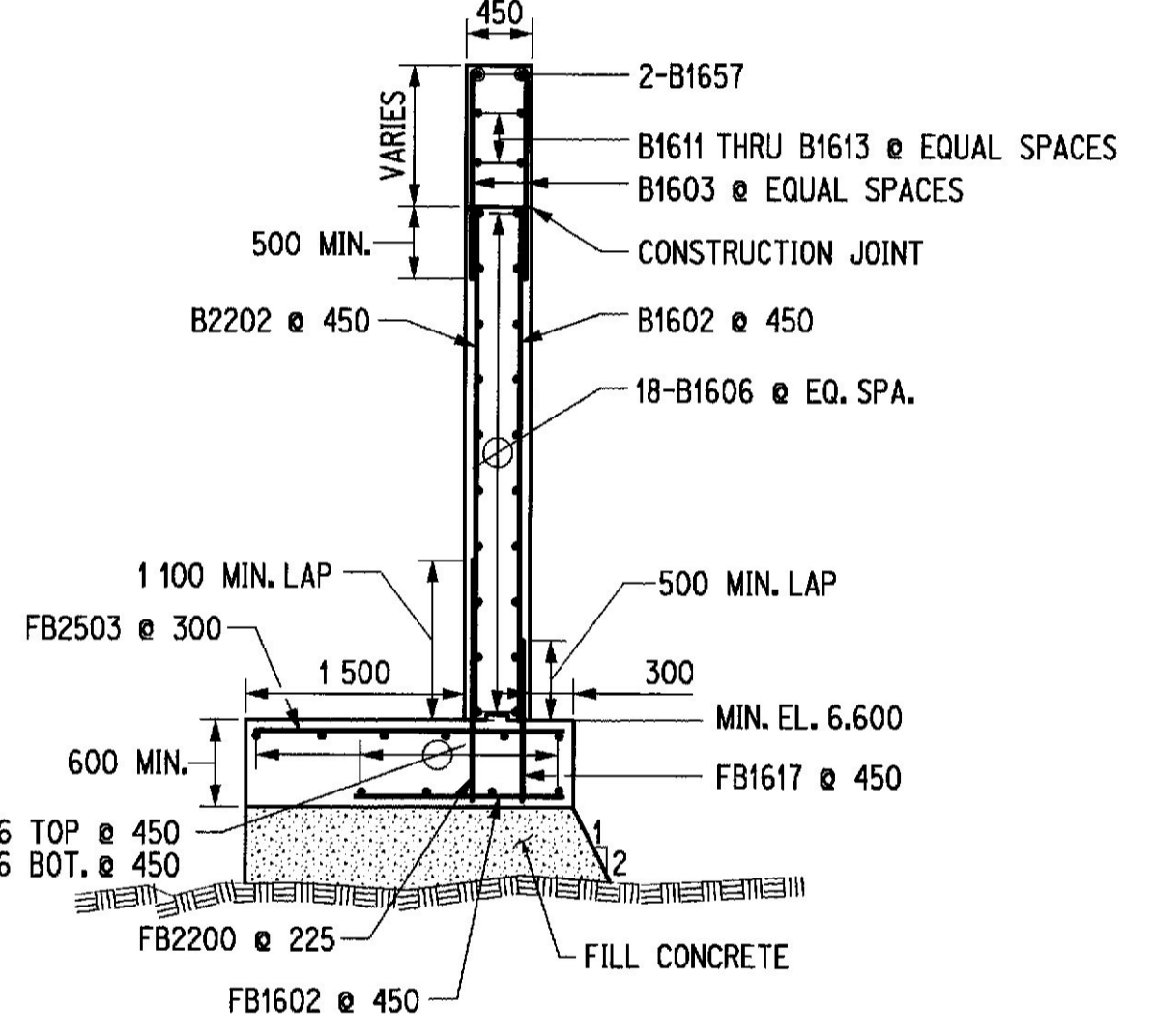
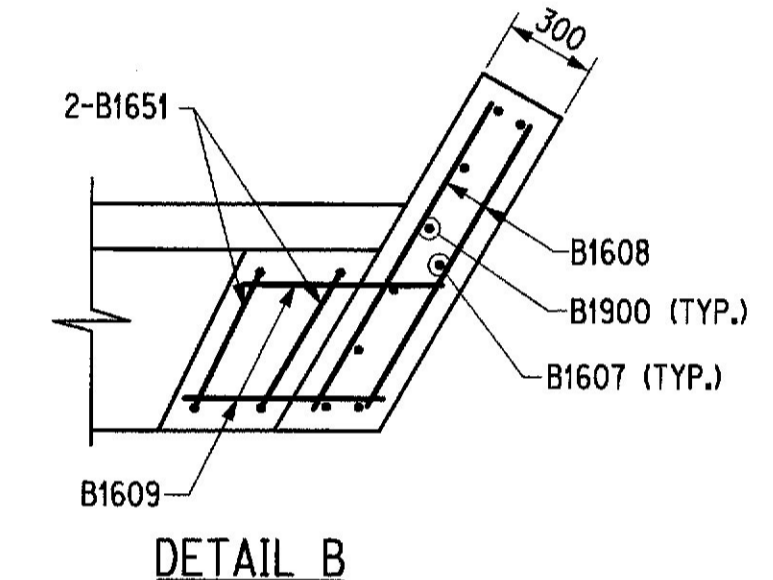
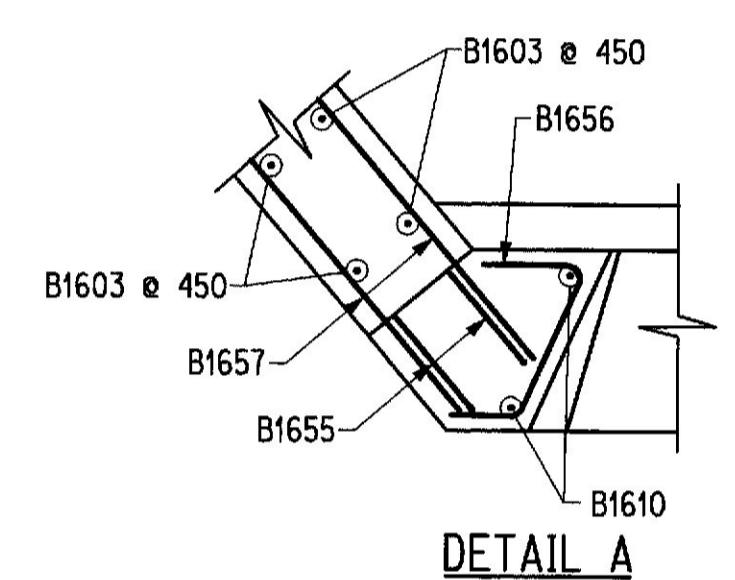
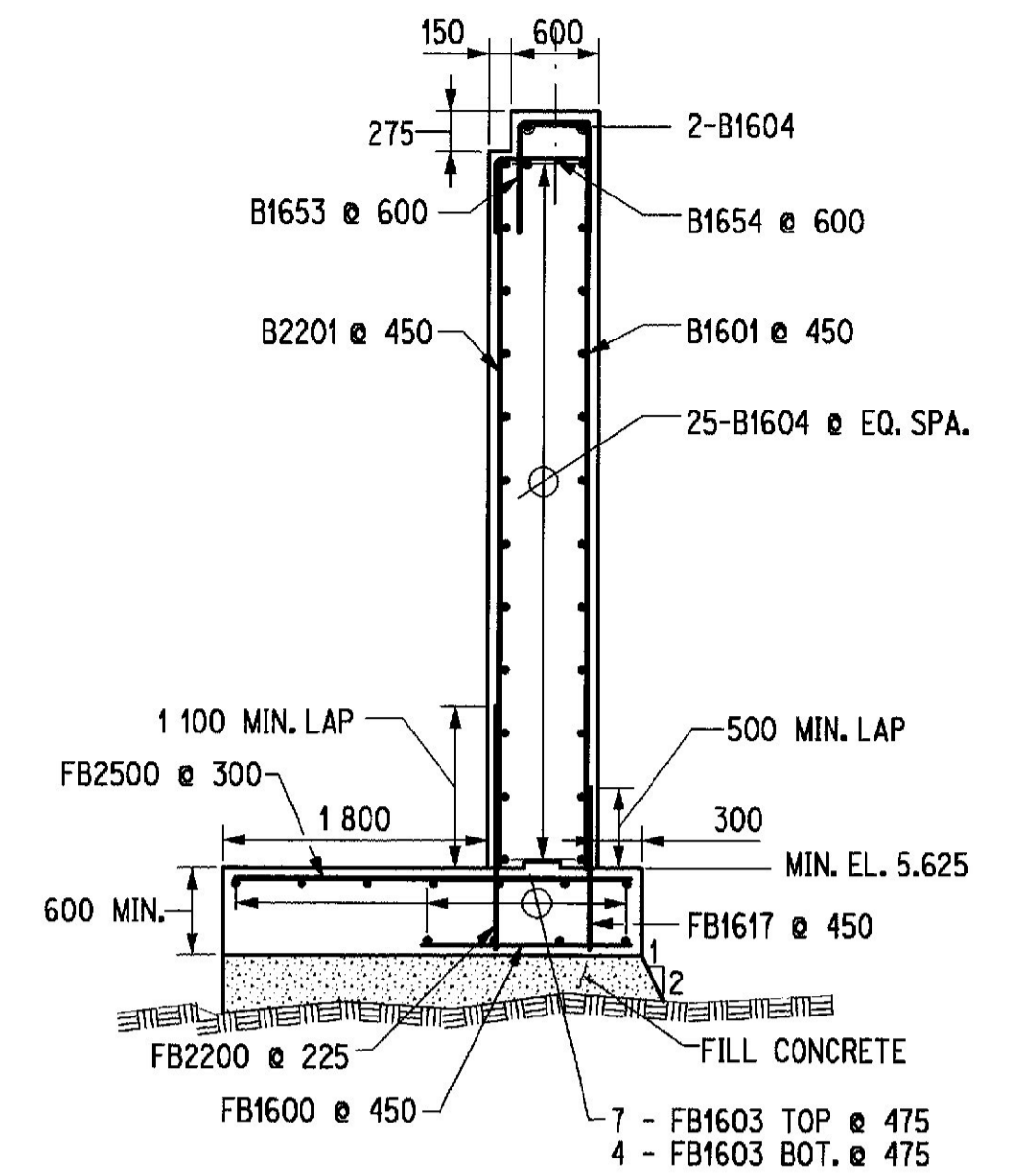
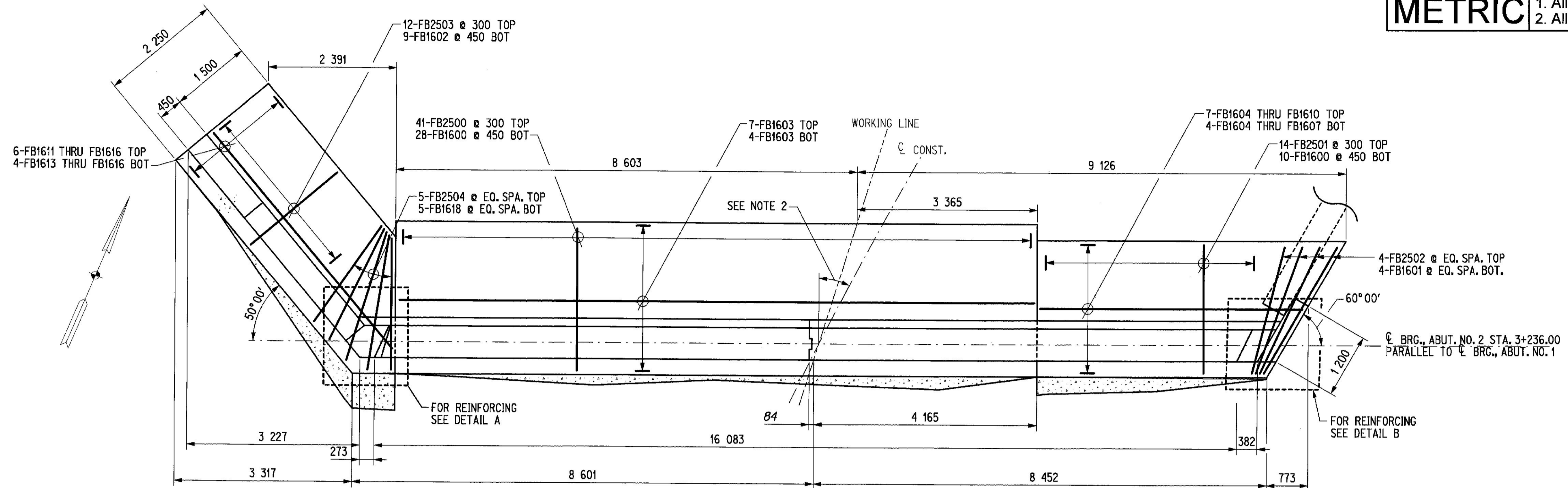
Division: _____

Filename: _____

METRIC

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

FWWA REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	BR-768000X STP-768000X	39	45

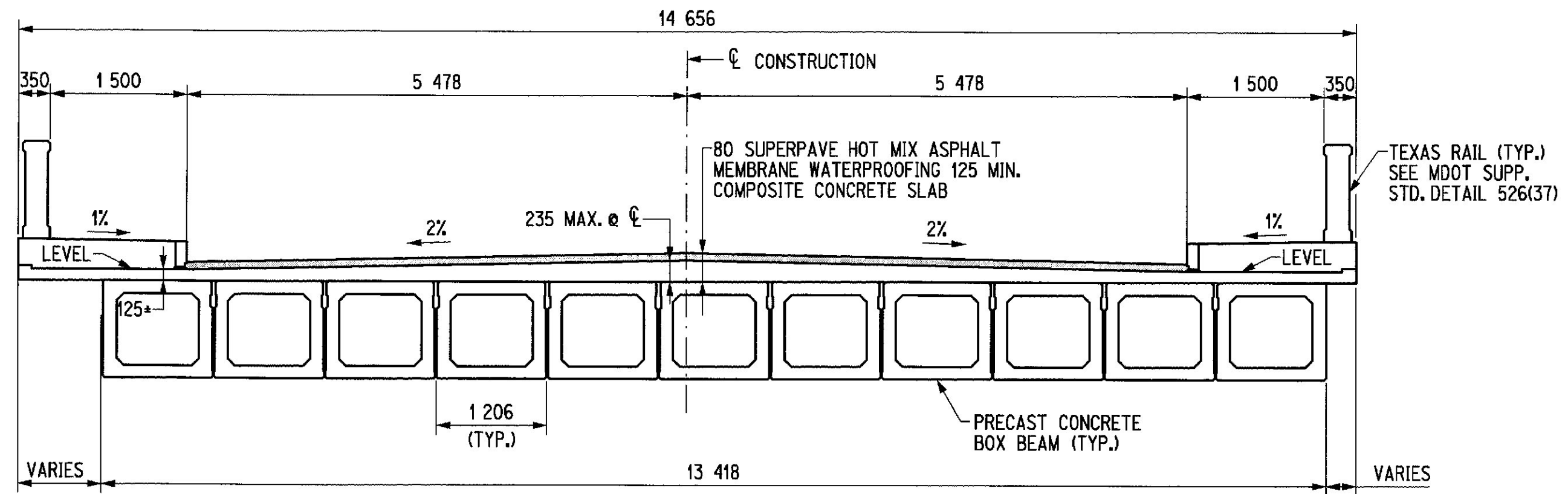


- NOTES:
1. ABUTMENT 2 SHALL BE BUILT PARALLEL TO ABUTMENT 1.
 2. FOR TYPICAL CHEEKWALL ELEVATION SEE ABUTMENT 1 DRAWING.
 3. FOR ADDITIONAL NOTES SEE ABUTMENT 1 DRAWING.

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

PLANS

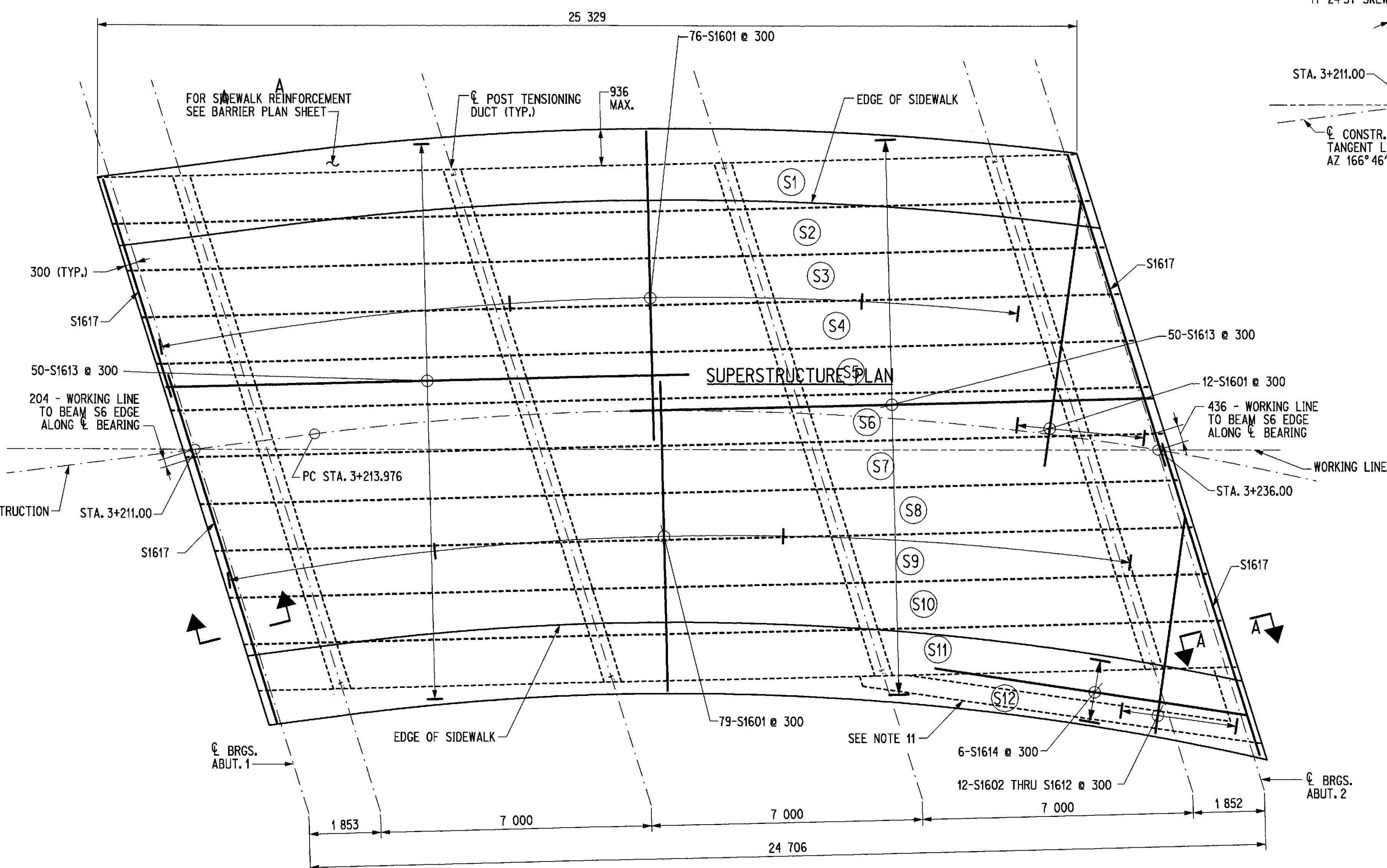
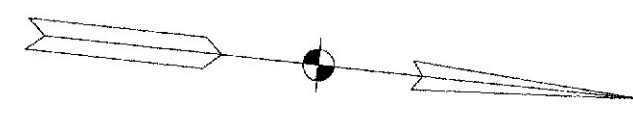
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Covered East Bridge
OVER
Machias River
IN THE TOWN OF
Machias
Washington County
Abutment #2 Plan



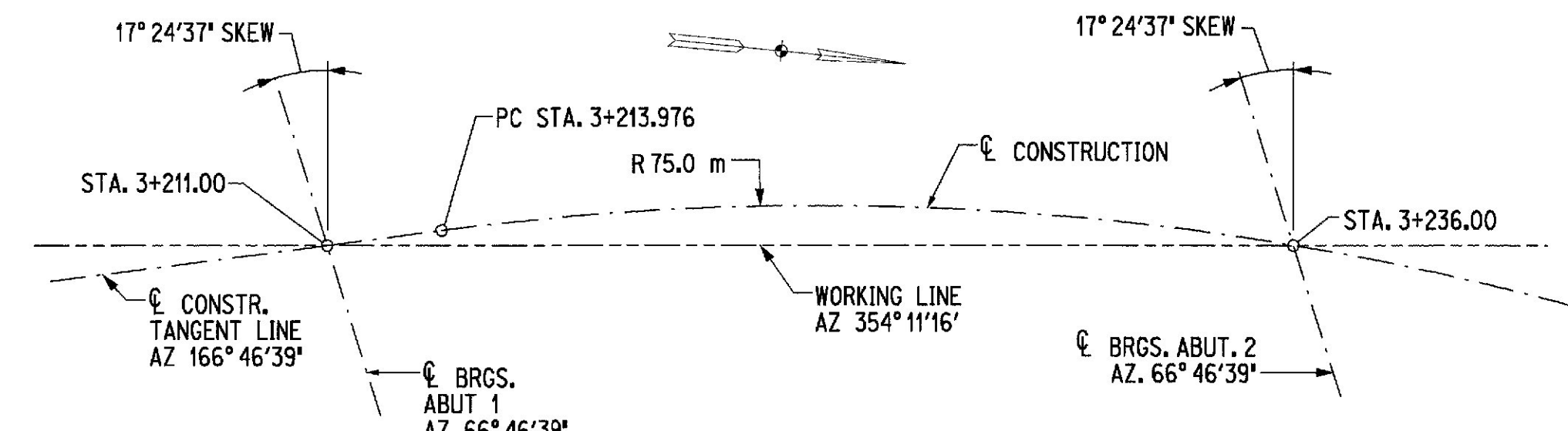
TRANSVERSE SECTION

SUPERSTRUCTURE NOTES

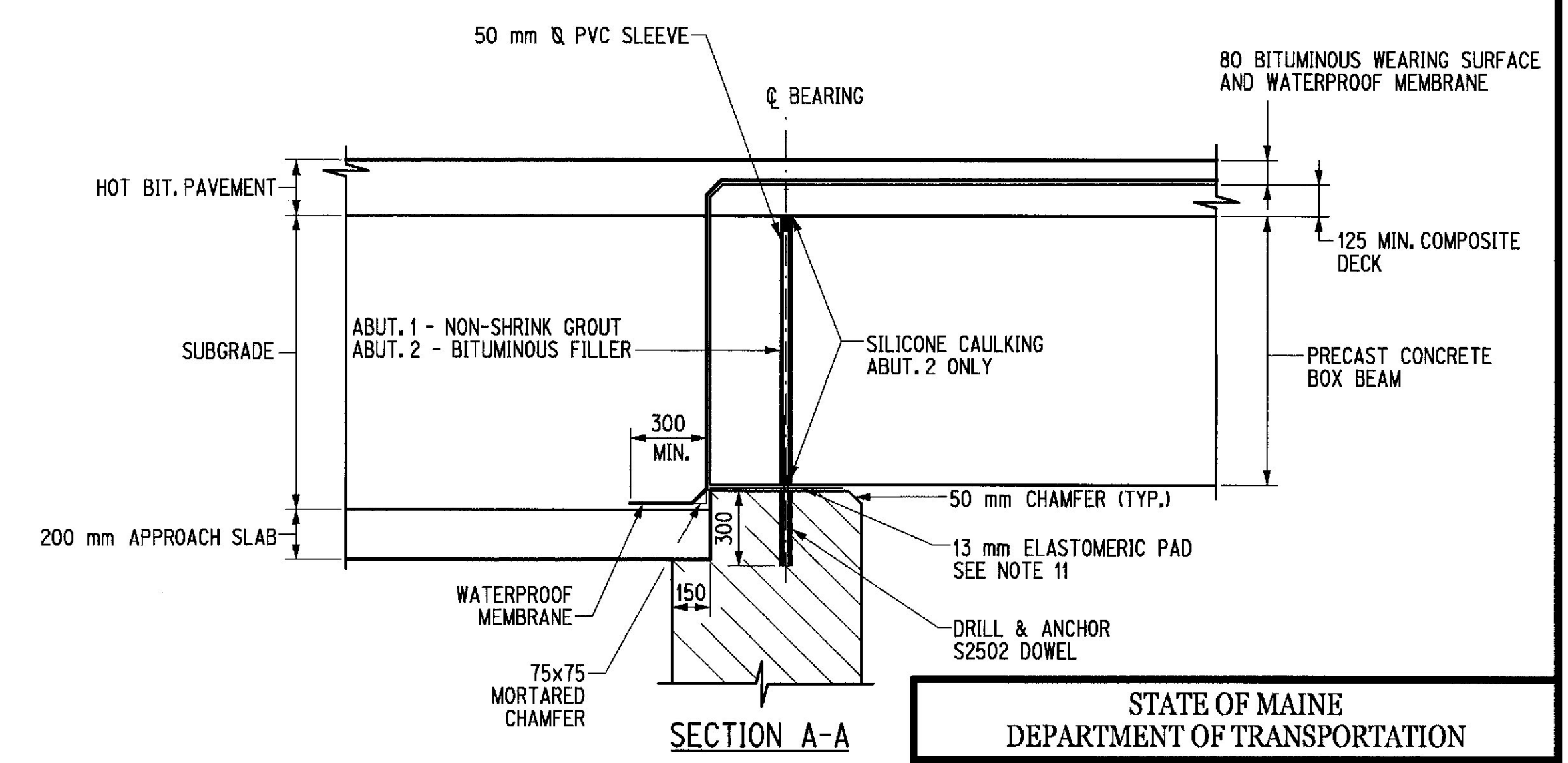
1. REINFORCING STEEL SHALL HAVE 50 mm MINIMUM COVER UNLESS OTHERWISE NOTED.
2. UNLESS OTHERWISE NOTED, REINFORCING STEEL NOT EMBEDDED OR ANCHORED IN PRECAST CONCRETE SLABS WILL BE PAID FOR UNDER THE APPROPRIATE REINFORCING STEEL PAY ITEMS.
3. THE SURFACE OF THE PRECAST BOX SHALL BE CLEANED PRIOR TO THE PLACEMENT OF THE CAST-IN-PLACE CONCRETE SLAB IN ACCORDANCE WITH SUBSECTION 502.11(G) OF THE STANDARD SPECIFICATIONS. PAYMENT WILL BE CONSIDERED TO BE INCIDENTAL TO CONTRACT ITEMS.
4. PROTECTIVE COATING FOR CONCRETE SURFACES SHALL BE APPLIED TO ALL EXPOSED AREAS OF SIDEWALK, RAIL, SLAB AND FASCIA DOWN TO THE DRIP NOTCH.
5. THE CAST-IN-PLACE CONCRETE SLAB SHALL BE PAID FOR UNDER ITEM 502.41 STRUCTURAL CONCRETE SUPERSTRUCTURE SLAB.
6. AFTER THE PRECAST BOXES HAVE BEEN PLACED AND POST TENSIONED, DRILL FOR AND ANCHOR DOWELS S250X INTO THE ABUTMENT USING NON-SHRINK GROUT MATERIAL APPROVED BY THE ENGINEER. FOR ABUT. 1 - FILL SLEEVES IN THE PRECAST BOX ENTIRELY WITH NON-SHRINK GROUT. FOR ABUT. 2 - FILL SLEEVES AT THE ENDS OF THE PRECAST BOX 50 mm DEEP WITH CAULKING. FILL SLEEVES UP TO WITHIN 50 mm OF THE TOP OF THE PRECAST BOX WITH NON-SHRINK GROUT. ALL WORK MATERIALS WILL BE CONSIDERED INCIDENTAL TO RELATED CONTRACT ITEMS.
7. NEOPRENE PADS SHALL BE EITHER POLYCHLOROPRENE OR NATURAL POLYISOPRENE OF 50+/5 SHORE A DUROMETER HARDNESS AND SHALL CONFORM TO THE REQUIREMENTS OF DIVISION 2, SECTION 18.2 OF AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. NEOPRENE PADS SHALL BE PLACED AS SHOWN IN THE PLANS. PAYMENT WILL BE CONSIDERED INCIDENTAL TO CONTRACT ITEMS.
8. LATERAL POSTENSIONING SHALL BE IN ACCORDANCE WITH SECTION 535 OF THE SPECIAL PROVISIONS.
9. THE GROUT MATERIAL USED IN THE SHEAR KEY SHALL MEET OR EXCEED THE REQUIREMENTS OF SUBSECTION 535 OF THE SPECIAL PROVISIONS.
10. THE ELASTOMERIC PAD THICKNESS SHALL BE 13 mm. THE PAD SHALL BE ONE PIECE 450 mm WIDE CENTERED ABOUT THE C BEARING. ENDS OF INDIVIDUAL PADS SHALL BE WITHIN 75 mm AND PARALLEL TO THE EDGE OF THE PRECAST UNIT. AS AN OPTION, THE PAD MAY COVER THE ENTIRE LENGTH OF THE BRIDGE SEAT.
11. S12 IS A CAST-IN-PLACE CONCRETE BEAM. FOR GEOMETRY AND REINFORCING, SEE S12 DETAILS SHEET.
12. SCREED RAILS SHOULD BE SET ACCORDING TO THE PROFILE SHEET AND VERTICAL BRIDGE CURB SHOULD BE SET ACCORDING TO THE CURB PROFILE SHEET. ANTICIPATE THICKNESS OF SLAB TO VARY WITH A MINIMUM THICKNESS OF 125 mm



SUPERSTRUCTURE PLAN



KEY PLAN

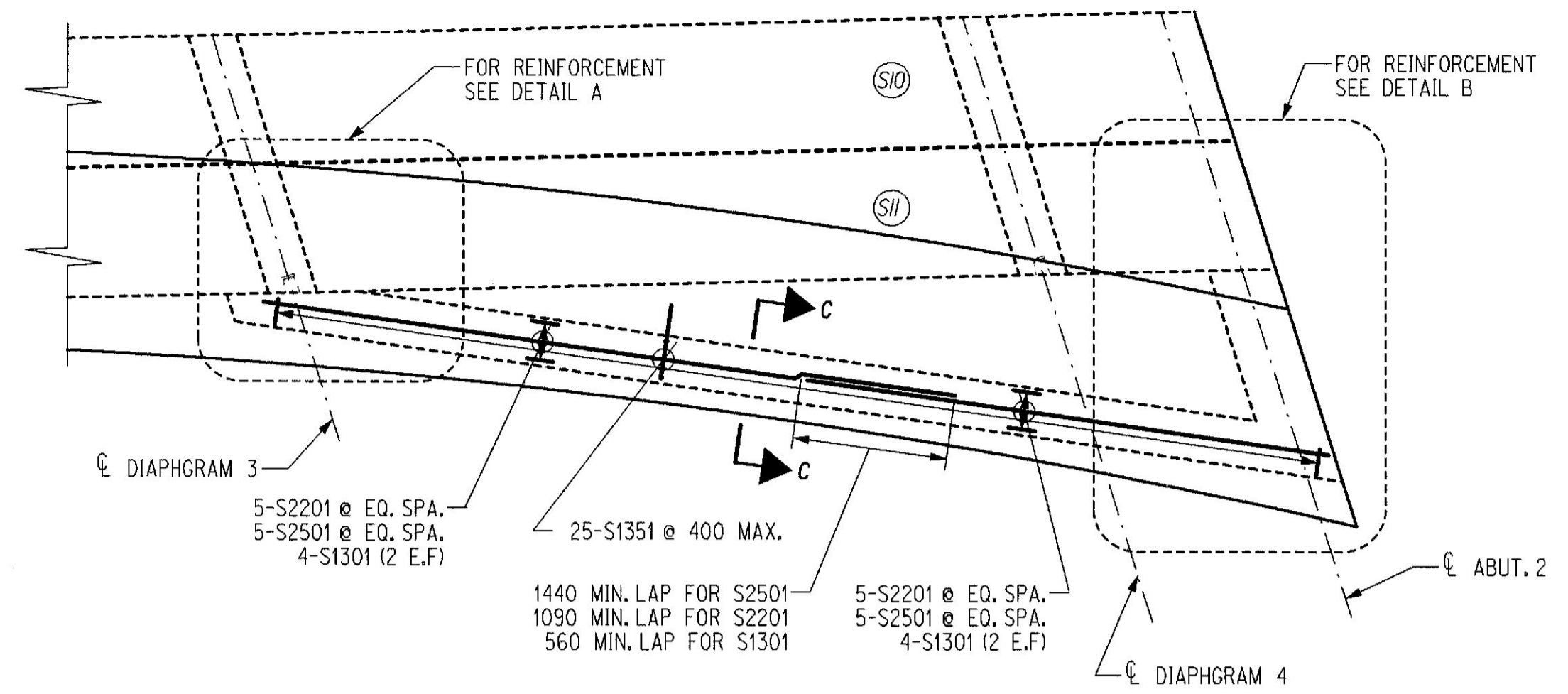


SECTION A-A

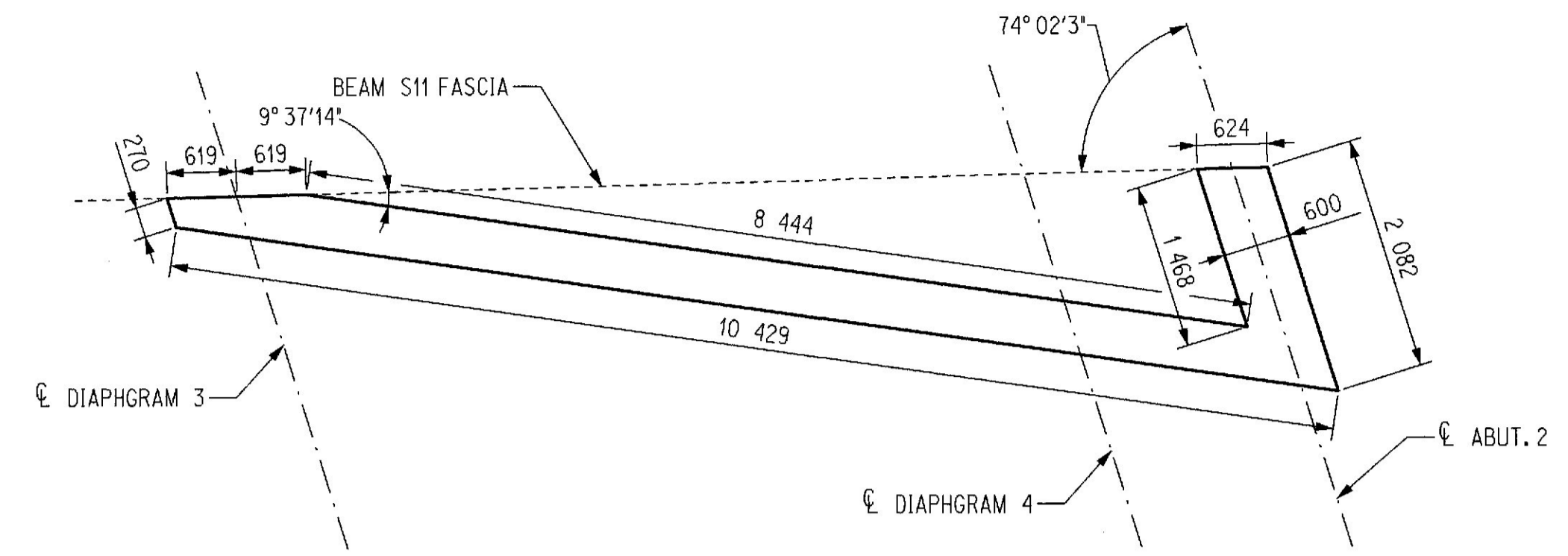
PROJECT DESIGN ENGINEER	X	DATE	X
DESIGN-DETAILED	X		X
CHECKED	X		X
REVISIONS	X		X
FIELD CHANGES	X		X

PLANS

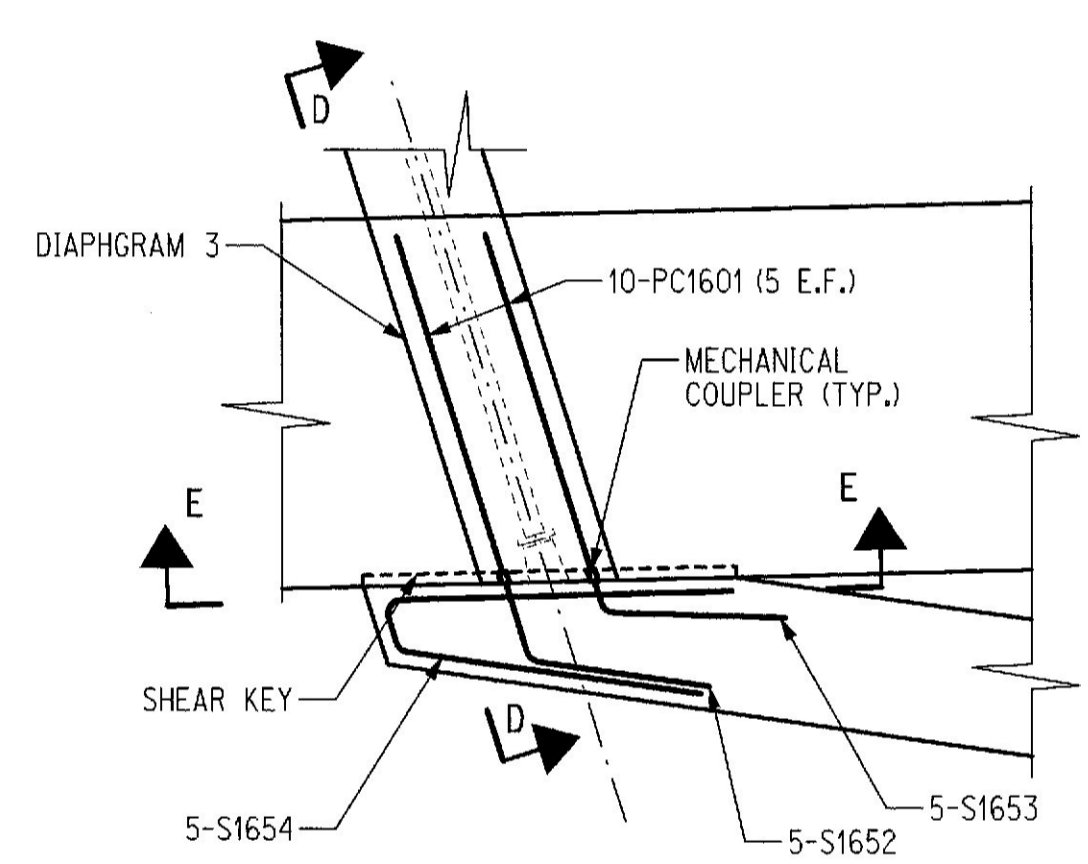
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Covered East Bridge
OVER
Machias River
IN THE TOWN OF
Machias
Washington County
Superstructure



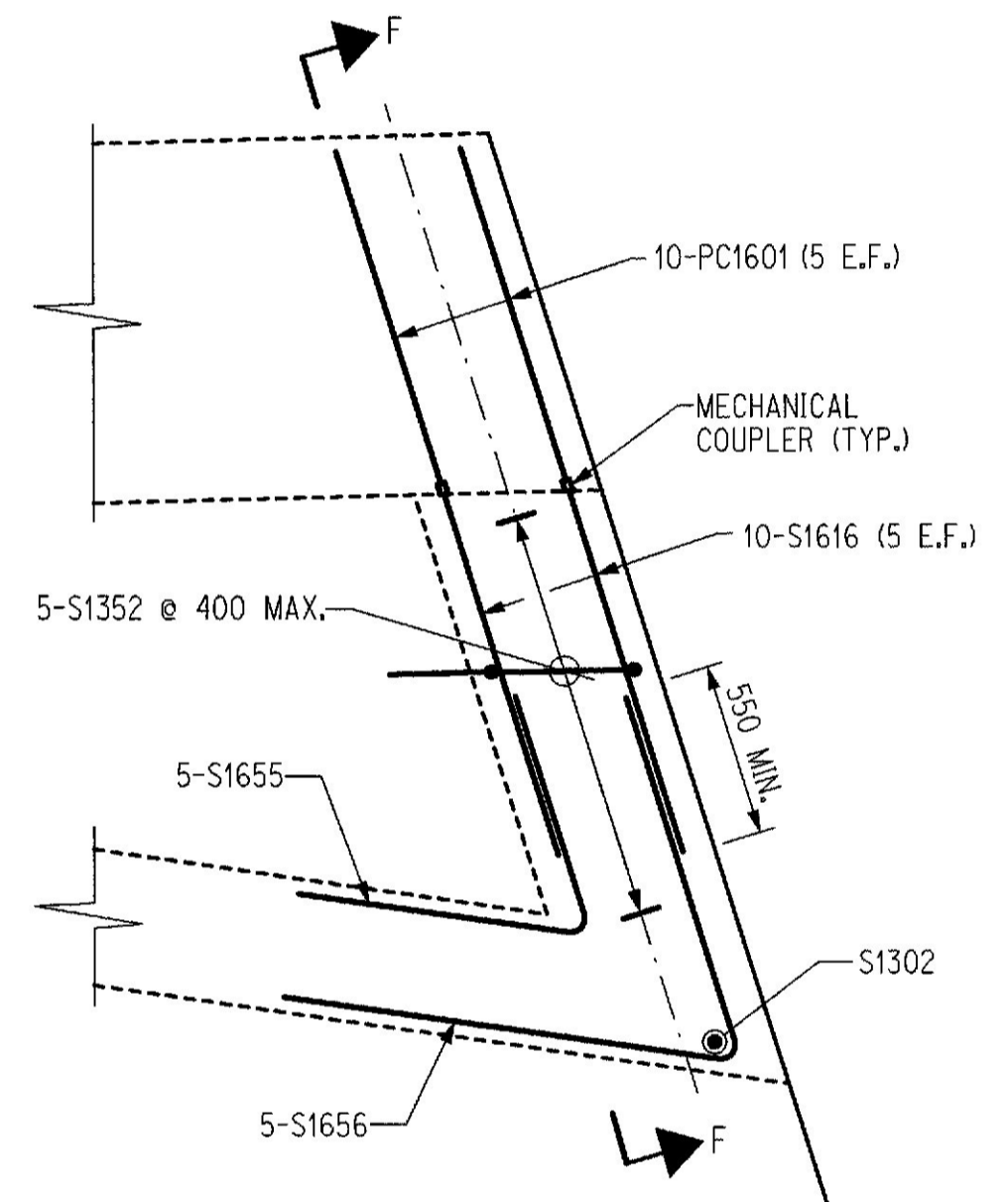
S12 PLAN



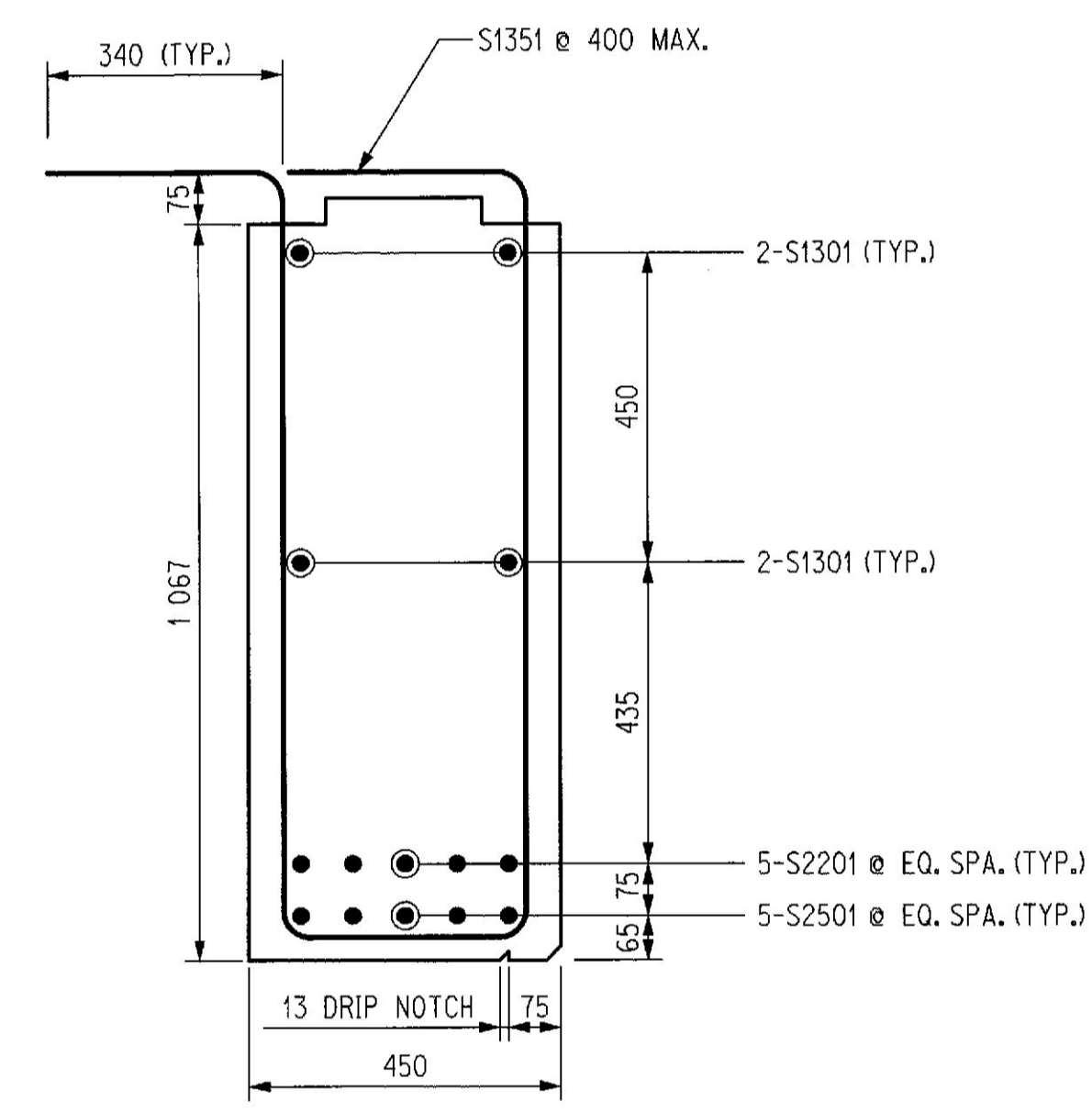
S12 GEOMETRY



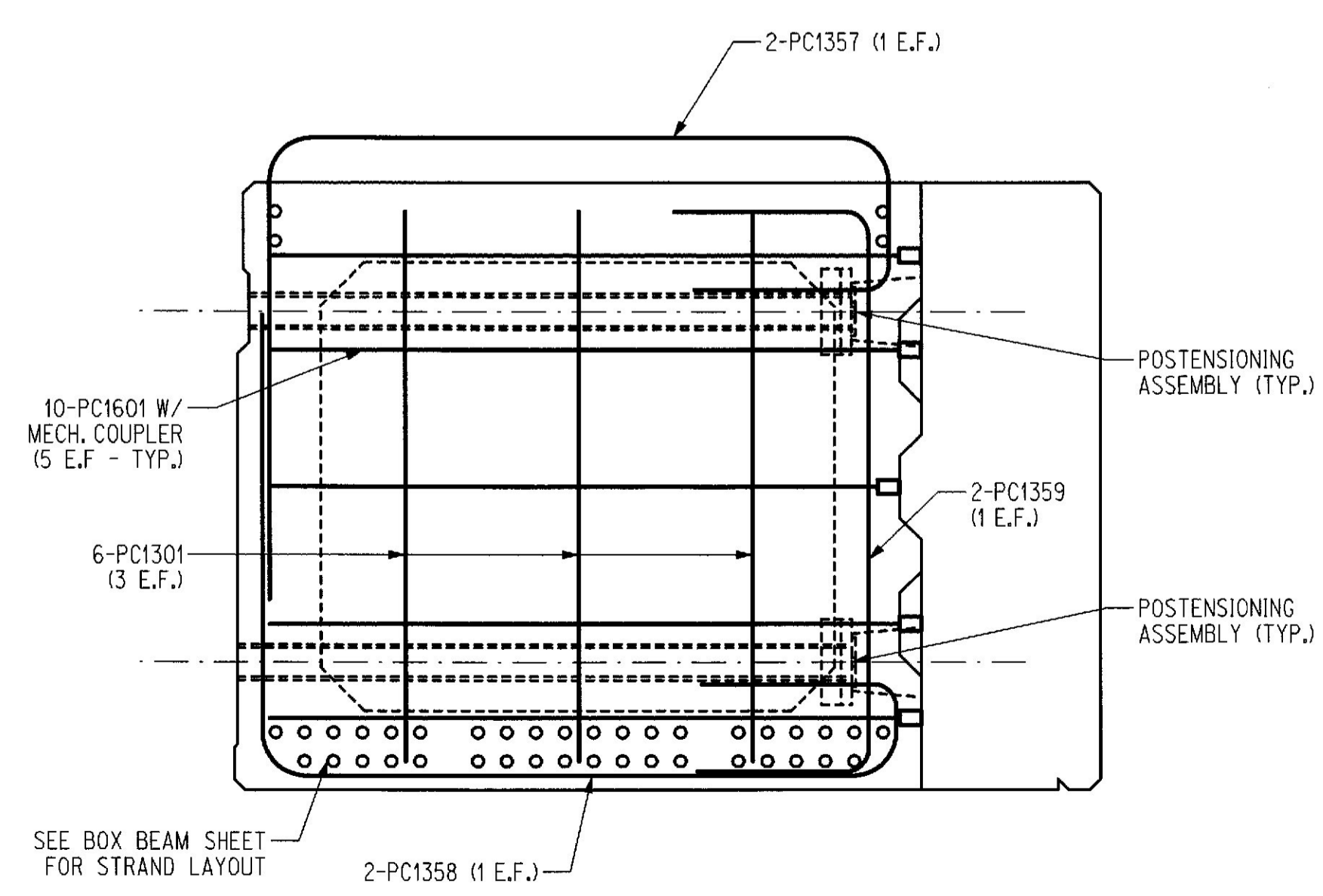
DETAIL A



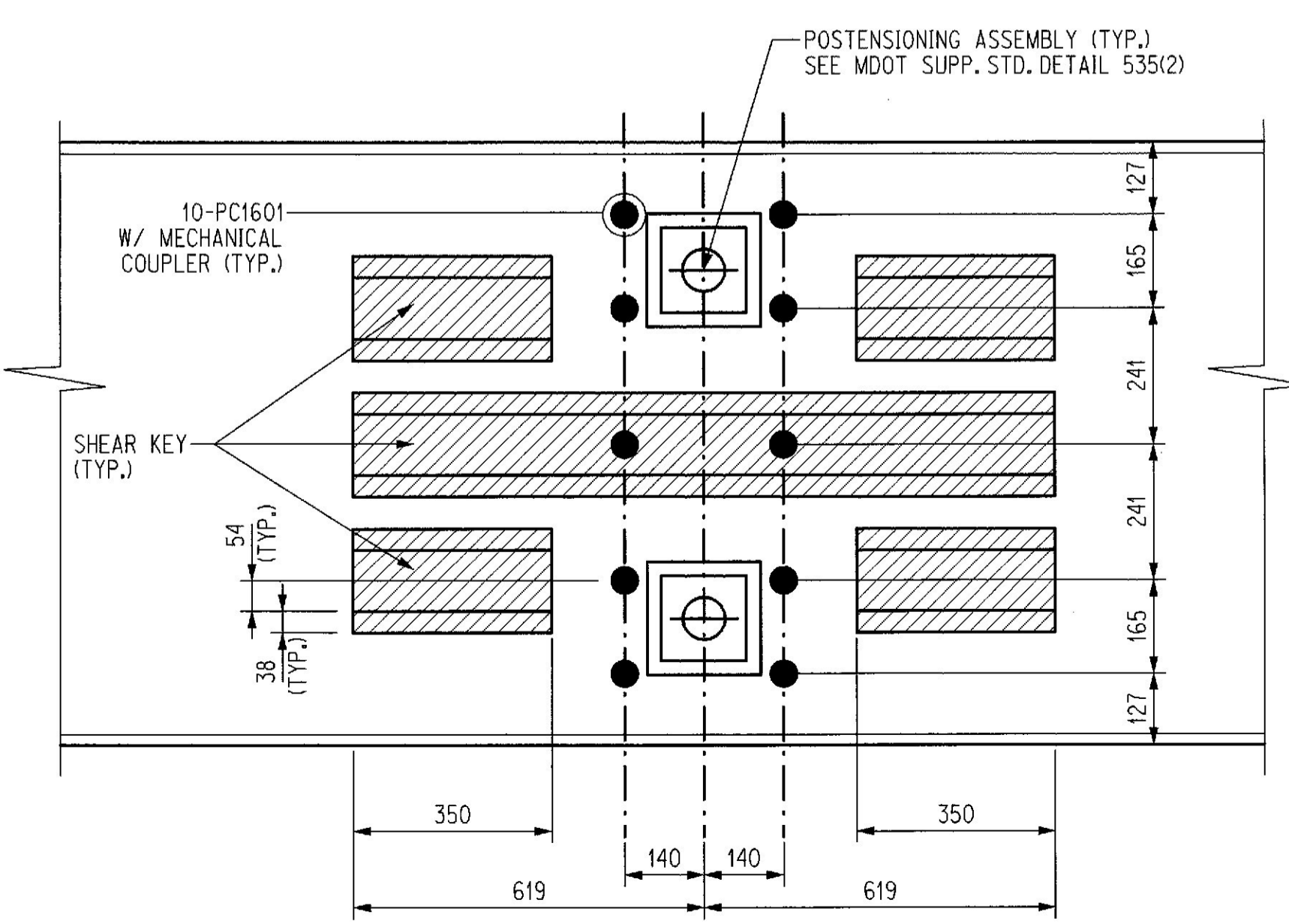
DETAIL B



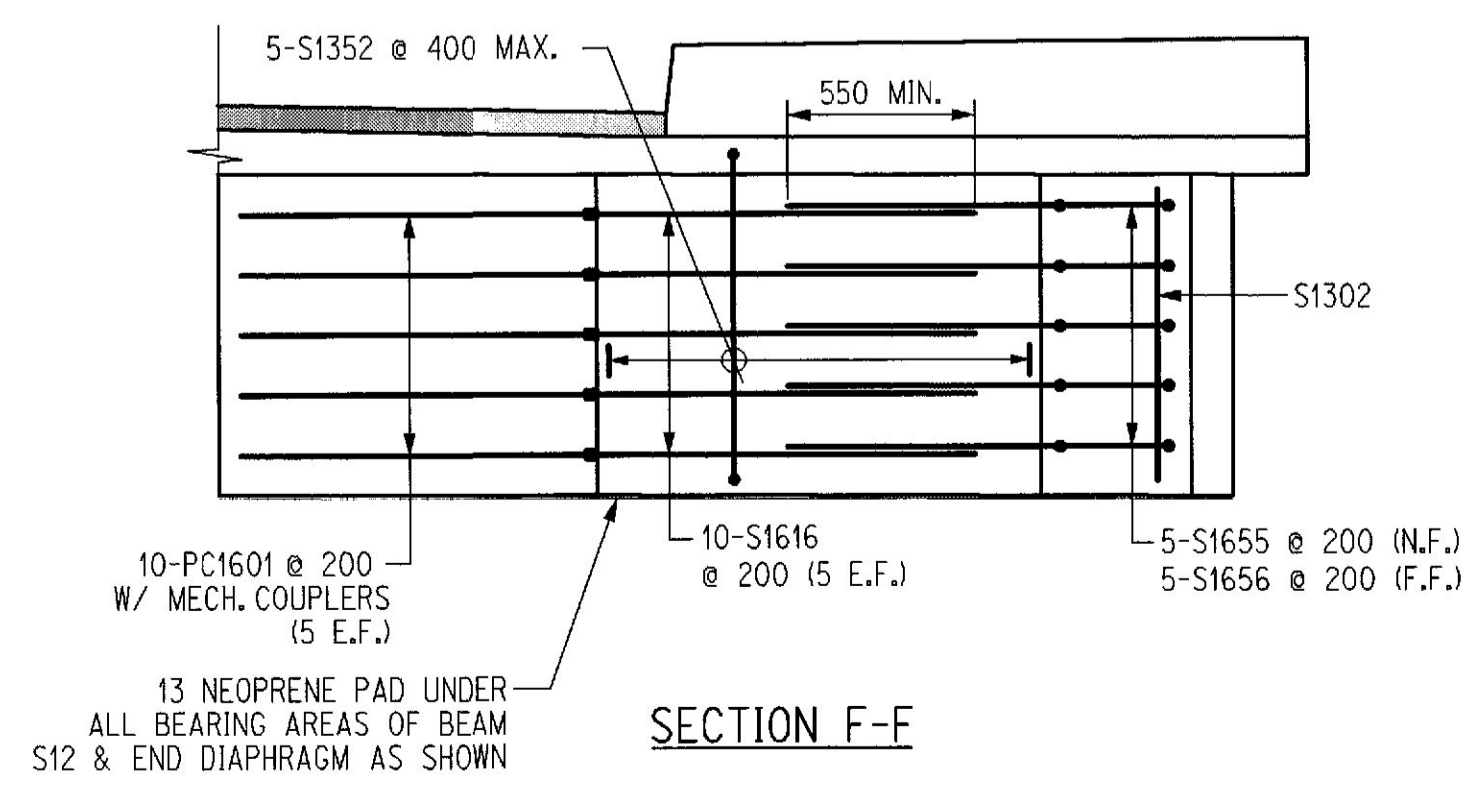
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F

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

Date: _____
Username: _____
Division: _____
Filename: _____

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
Covered East Bridge
OVER
Machias River
IN THE TOWN OF
Machias
Washington County
T-Beam Details

REINFORCING STEEL SCHEDULE

METRIC

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

P.I.N. 7680		PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
FRWA REG. NO.	STATE	BR-7680(00)X	43	45
1	MAINE	STP-7680(00)X		

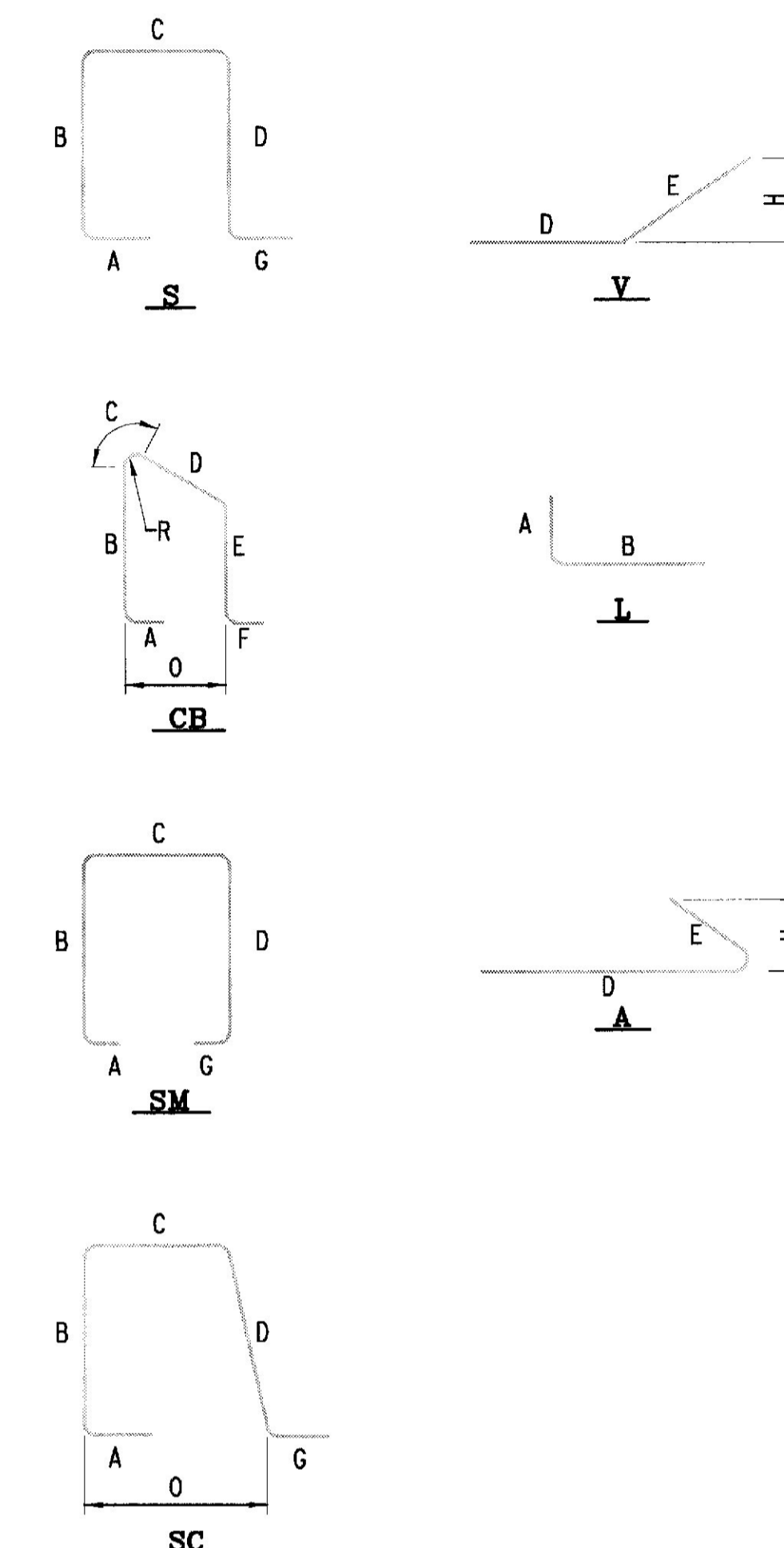
STRAIGHT BARS

MARK	QTY.	LENGTH	LOCATION	MARK	QTY.	LENGTH	LOCATION
SUPERSTRUCTURE							
S1301	4	5470	S12 LONGITUDINAL	AS1600	32	5560	TRANSVERSE
S1302	1	965	S12 CORNER VERTICAL	AS1601	32	6120	TRANSVERSE
S1601	167	7580	SLAB TRANSVERSE	AS1900	142	4600	LONGITUDINAL
S1602	1	7260	SLAB TRANSVERSE	RETAINING WALL SECTION 'B' FOOTING			
S1603	1	6620	SLAB TRANSVERSE	J1600	40	8 960	TOP & BTM. LONGITUDINAL
S1604	1	5980	SLAB TRANSVERSE	J1602	78	2 500	VERTICAL
S1605	1	5340	SLAB TRANSVERSE	J1603	78	1 950	BTM. TRANSVERSE
S1606	1	4700	SLAB TRANSVERSE	RETAINING WALL SECTION 'B' WALL			
S1607	1	4060	SLAB TRANSVERSE	K1600	58	8 960	LONGITUDINAL
S1608	1	3420	SLAB TRANSVERSE	K1601	78	3 000	VERTICAL
S1609	1	2780	SLAB TRANSVERSE	K2200	116	3 000	VERTICAL
S1610	1	2140	SLAB TRANSVERSE	RETAINING WALL SECTION 'C' FOOTING			
S1611	1	1500	SLAB TRANSVERSE	J1600	12	8 960	TOP & BTM. LONGITUDINAL
S1612	1	860	SLAB TRANSVERSE	J1602	22	2 500	VERTICAL
S1613	100	12915	SLAB LONGITUDINAL	J1604	22	2 450	BTM. TRANSVERSE
S1614	6	12	SLAB LONGITUDINAL	RETAINING WALL SECTION 'C' WALL			
S1615	7	9100	SIDEWALK LONG.	K1600	28	8 960	LONGITUDINAL
S1616	10	1265	S12 END DIAPHRAGM	K1601	22	3 000	VERTICAL
S1617	4	8500	SLAB END TRANS.	K1602	22	2 100	VERTICAL
S2201	5	5735	S12 LONGITUDINAL	K2200	61	3 000	VERTICAL
S2501	5	5910	S12 LONGITUDINAL	K2201	31	2 000	VERTICAL
S2502	44	1305	BOX BEAM DOWEL	EAST APPROACH RET. WALL FOOTING			
ABUTMENT 1							
FA1600	20	1375	FOOTING TRANSV.	J1602	9	8 960	VERTICAL
FA1601	19	1375	FOOTING TRANSV.	J1603	9	3 000	BTM. TRANSVERSE
FA1602	10	4850	FOOTING LONG.	J1605	12	2 100	LONGITUDINAL
FA1603	9	7900	FOOTING LONG.	EAST APPROACH RETAINING WALL			
FA1604	10	2895	FOOTING LONG.	K1603	16	3 820	LONGITUDINAL
FA1605	44	1100	FOOTING DOWELS	ABUTMENT 2			
FA1900	83	1900	FOOTING DOWELS	FB1600	38	1450	FOOTING TRANSV.
FA2200	38	2250	FOOTING TRANSV.	FB1601	4	1675	FOOTING TRANSV.
FA2201	37	1800	FOOTING TRANSV.	FB1602	9	1375	FOOTING TRANSV.
A1600	19	3235	STEM VERTICAL	FB1603	11	11865	FOOTING LONG.
A1601	17	2460	STEM VERTICAL	FB1604	2	4190	FOOTING LONG.
A1602	6	4665	STEM HORIZONTAL	FB1605	2	4425	FOOTING LONG.
A1603	34	8020	STEM HORIZONTAL	FB1606	2	4660	FOOTING LONG.
A1604	6	2535	STEM HORIZONTAL	FB1607	2	4895	FOOTING LONG.
A1605	6	4770	CHEEKWALL VERT.	FB1608	1	5130	FOOTING LONG.
A1606	28	1105	CHEEKWALL HORIZ.	FB1609	1	5365	FOOTING LONG.
A1607	6	1065	SLAB SEAT HORIZ.	FB1610	1	5600	FOOTING LONG.
A1900	19	2965	STEM VERTICAL	FB1611	1	3650	FOOTING LONG.
A1901	17	2190	STEM VERTICAL	FB1612	1	4125	FOOTING LONG.
A1902	12	4770	CHEEKWALL VERT.	FB1613	2	4660	FOOTING LONG.
ABUTMENT 2							
FB1600	38	1450	FOOTING TRANSV.	FB1614	2	5200	FOOTING LONG.
FB1601	4	1675	FOOTING TRANSV.	FB1615	2	5420	FOOTING LONG.
FB1602	9	1375	FOOTING TRANSV.	FB1616	2	5085	FOOTING LONG.
FB1603	11	11865	FOOTING LONG.	FB1617	55	1100	FOOTING DOWELS
FB1604	2	4190	FOOTING LONG.	FB1618	5	1525	FOOTING TRANSV.
FB1605	2	4425	FOOTING LONG.	FB1900	6	1900	FOOTING DOWELS
FB1606	2	4660	FOOTING LONG.	FB2200	99	1700	FOOTING DOWELS
FB1607	2	4895	FOOTING LONG.	FB2500	41	2750	FOOTING TRANSV.
FB1608	1	5130	FOOTING LONG.	FB2501	14	2450	FOOTING TRANSV.
FB1609	1	5365	FOOTING LONG.	FB2502	4	2840	FOOTING TRANSV.
FB1610	1	5600	FOOTING LONG.	FB2503	12	2150	FOOTING TRANSV.
FB1611	1	3650	FOOTING LONG.	FB2504	5	2535	FOOTING TRANSV.
FB1612	1	4125	FOOTING LONG.	B1600	10	3455	STEM VERTICAL
FB1613	2	4660	FOOTING LONG.	B1601	26	4175	STEM VERTICAL
FB1614	2	5200	FOOTING LONG.	B1602	14	2400	STEM VERTICAL
FB1615	2	5420	FOOTING LONG.	B1603	12	2305	WINGWALL VERTICAL
FB1616	2	5085	FOOTING LONG.	B1604	50	8510	STEM HORIZONTAL
FB1617	55	1100	FOOTING DOWELS	B1605	6	3910	STEM HORIZONTAL
FB1618	5	1525	FOOTING TRANSV.	B1606	18	3080	WINGWALL HORIZ.
FB1900	6	1900	FOOTING DOWELS	B1607	3	5000	CHEEKWALL VERT.
FB2200	99	1700	FOOTING DOWELS	B1608	12	1100	CHEEKWALL HORIZ.
FB2500	41	2750	FOOTING TRANSV.	B1609	6	625	SLAB SEAT HORIZ.
FB2501	14	2450	FOOTING TRANSV.	B1610	2	2100	SLAB SEAT VERT.
FB2502	4	2840	FOOTING TRANSV.	B1611	2	1345	WINGWALL HORIZ.
FB2503	12	2150	FOOTING TRANSV.	B1612	2	2300	WINGWALL HORIZ.
FB2504	5	2535	FOOTING TRANSV.	B1613	2	3250	WINGWALL HORIZ.
B1600	10	3455	STEM VERTICAL	B1900	6	5000	CHEEKWALL VERT.
B1601	26	4175	STEM VERTICAL	B2200	11	3180	STEM VERTICAL
B1602	14	2400	STEM VERTICAL	B2201	26	3900	STEM VERTICAL
B1603	12	2305	WINGWALL VERTICAL	B2202	13	2400	WINGWALL VERTICAL
B1604	50	8510	STEM HORIZONTAL				
B1605	6	3910	STEM HORIZONTAL				
B1606	18	3080	WINGWALL HORIZ.				
B1607	3	5000	CHEEKWALL VERT.				
B1608	12	1100	CHEEKWALL HORIZ.				
B1609	6	625	SLAB SEAT HORIZ.				
B1610	2	2100	SLAB SEAT VERT.				
B1611	2	1345	WINGWALL HORIZ.				
B1612	2	2300	WINGWALL HORIZ.				
B1613	2	3250	WINGWALL HORIZ.				
B1900	6	5000	CHEEKWALL VERT.				
B2200	11	3180	STEM VERTICAL				
B2201	26	3900	STEM VERTICAL				
B2202	13	2400	WINGWALL VERTICAL				

BENT BARS

MARK	QTY.	LENGTH	TYPE	A	B	C	D	E	F	G	H	O	R	LOCATION		
SUPERSTRUCTURE																
S1351	25	3205	S	340	1095	335	1095							S12 STIRRUP		
S1352	5	3360	S	340	1095	490	1095							S12 END STIRRUP		
S1651	232	2820	SC	300	310	1600	310							SIDEWALK TRANS.		
S1652	5	890	V				290	600						S12 DOWEL		
S1653	5	710	V				110	600						S12 DOWEL		
S1654	5	2334	CB	0	980	51	148	1155	0			352	47.5	S12 HORIZ. STIRRUP		
S1655	5	1825	A				840	985						S12 END DIAPHRAGM		
S1656	5	2820	A				1280	1540						S12 END DIAPHRAGM		
ABUTMENT 1																
A1650	26	2035	SM	0	775	485	775							STEM CAP		
A1651	26	1140	L	500	640									STEM CAP		
A1652	24	2100	V				1100	1000						CHEEKWALL HORIZ.		
A1653	3	4660	SM	0	2080	500								SLAB SEAT STIRRUP		
ABUTMENT 2																
B1650	18	3570	V				2345	1225						WINGWALL SPLICE		
B1651	2	3660	SM	0	1550	560	1550							SLAB SEAT STIRRUP		
B1652	22	2090	V				1090	1000						CHEEKWALL HORIZ.		
B1653	30	2035	SM	0	775	485	775							CHEEKWALL HORIZ.		
B1654	30	1140	L	500	640									STEM CAP		
B1655	2	2375	L	2025	350									STEM CAP		
B1656	4	1055	CB	0	265	95	475	220	0					SLAB SEAT HOOK		
B1657	2	5340	V				350	4990						SLAB SEAT STIRRUP		
TEXAS CLASSIC RAIL																
CR1660	228	1200	CB	0	425	236	425	0	175					150	75	SIDEWALK/BARRIER DOWEL
RETAINING WALL SECTION 'B' FOOTING																
J2250	231	2 900	L	2 500	400									VERTICAL		
J2251	117	2 400	L	2 000	400									TOP TRANSVERSE		
RETAINING WALL SECTION 'C' FOOTING																
J2950	61	2 900	L	2 500	400									VERTICAL		
J2951	31	2 900	L	2 500	400									TOP TRANSVERSE		
EAST APPROACH RETAINING WALL FOOTING																
J2251	13	3 310	L	2 500	400									VERTICAL		
J2252	26	3 350	L	2 500	400									TOP TRANSVERSE		
EAST APPROACH RETAINING WALL																
K1351	26	1 420	SM	0	560	300	560							VERTICAL		
														TOP TRANSVERSE		

TYPE - BENDING DIAGRAMS



ALL DIMENSIONS ARE OUT-TO-OUT OF BAR.
BENDING DETAILS AND HOOKS SHALL CONFORM TO THE RECOMMENDATIONS OF THE CURRENT REVISION OF ACI STANDARD 318.
REINFORCING BAR: ASTM A615/A615M, GRADE 420

CONSTRUCTION NOTES:

- THE FIRST TWO DIGITS FOLLOWING THE LETTER(S) OF THE MARK INDICATE THE SIZE OF THE BAR:
MARK 'A1602' = BAR SIZE 16
- FOR REINFORCING STEEL COMPLETELY EMBEDDED IN BRIDGE RAIL REFERENCE SUPPLEMENTAL STANDARD DETAIL 526(49).

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

Covered East Bridge
OVER
Machias River
IN THE TOWN OF
Machias
Washington County
Reinforcing Steel Schedule

Date: _____

Username: _____

Division: _____

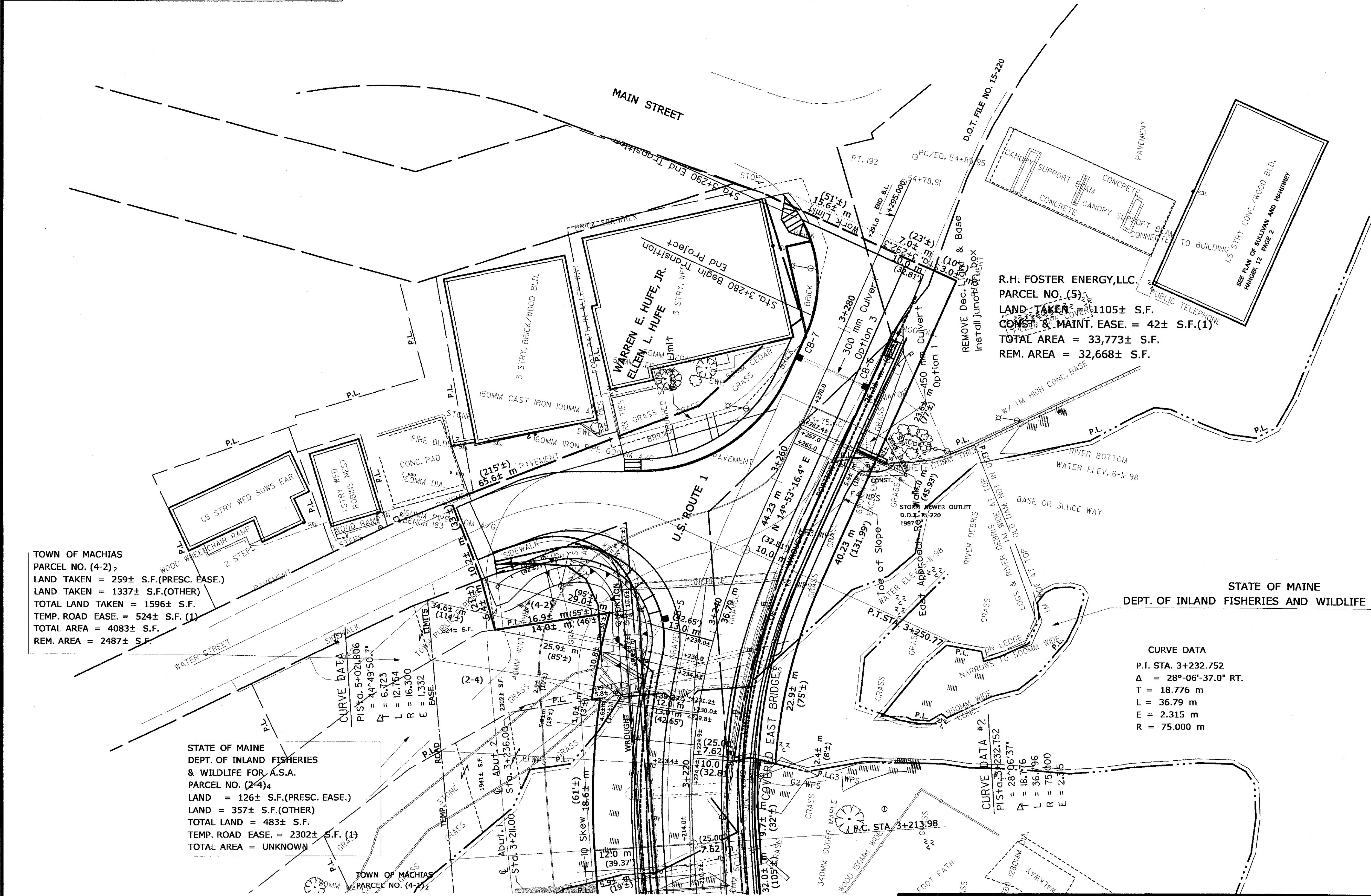
Filename: _____

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

PLANS

ITEM	TECH	CHECKED	REVISIONS		
			NO.	DATE	DESCRIPTION
BASE MAP	D.S.G.				
EXIST. R/W	D.S.G.				
PROP. LINES	G.L.L. & C.R.M.				
AREAS	D.S.G.	T.L.B.			

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED OR RELIED UPON TO ESTABLISH LEGAL BOUNDARIES BETWEEN ADJACENT PROPERTY OWNERS.



TOWN OF MACHIAS
 PARCEL NO. (4-2)
 LAND TAKEN = 259± S.F.(PRESC. EASE.)
 LAND TAKEN = 1337± S.F.(OTHER)
 TOTAL LAND TAKEN = 1596± S.F.
 TEMP. ROAD EASE. = 524± S.F.(1)
 TOTAL AREA = 4083± S.F.
 REM. AREA = 2487± S.F.

STATE OF MAINE
 DEPT. OF INLAND FISHERIES
 & WILDLIFE FOR A.S.A.
 PARCEL NO. (2-4)
 LAND = 126± S.F.(PRESC. EASE.)
 LAND = 357± S.F.(OTHER)
 TOTAL LAND = 483± S.F.
 TEMP. ROAD EASE. = 2302± S.F.(1)
 TOTAL AREA = UNKNOWN

R.H. FOSTER ENERGY, LLC.
 PARCEL NO. (5)
 LAND TAKEN = 1105± S.F.
 CONST. & MAINT. EASE. = 42± S.F.(1)
 TOTAL AREA = 33,773± S.F.
 REM. AREA = 32,668± S.F.

STATE OF MAINE
 DEPT. OF INLAND FISHERIES AND WILDLIFE FOR A.S.A.

CURVE DATA
 P.I. STA. 3+232.752
 Δ = 28°-06'-37.0" RT.
 T = 18.776 m
 L = 36.79 m
 E = 2.315 m
 R = 75.000 m

NOTE: PRESCRIPTIVE EASEMENT FOR HIGHWAY PURPOSES WITHIN LIMITS OF WROUGHT PORTION

AREA SURVEY PLANS FOUND IN BANGOR HYDRO FILES
 SKETCH MAP "SHOWING WATER PRIVILEGE"
 PLAN SHOWING "PROPERTY OF MAINE SEABOARD PAPER CO."
 MULLY PASTURE TO MIDDLE RIVER
 COMPLETED PLAN "LAND OWNED AT LOWER AND UPPER MILLSITES"

EXISTING R/W
 S.H.C. FILE NO. 15 - 14 (1932)
 D.O.T. FILE NO. 15 - 220 (1987)
 P.I.N. 007679.00 COVERED CENTER BRIDGE BRIDGE NO. 1469
 P.I.N. 007680.00 COVERED EAST BRIDGE BRIDGE NO. 2191
 P.I.N. 007681.00 COVERED WEST BRIDGE BRIDGE NO. 1470

PLAN FILED IN PLAN BOOK		PAGE	
NO.	GRANTOR	INSTRUMENT	DATE

STATION		NORTH		EAST	

STATE OF MAINE
 DEPARTMENT OF TRANSPORTATION
RIGHT OF WAY MAP
 STATE HIGHWAY "44" (U.S. 1)(DUBLIN STREET)
 MACHIAS WASHINGTON COUNTY
 FEDERAL AID PROJECT NOS. BR-7679(00)X BR-7680(00)X BR-7681(00)X
 DATE: JANUARY 2001
 SCALE: 1" = 250'
 SHEET NO. 2 OF 2 SHEETS
 D.O.T. FILE NO. 15 - 283

JOHN G. MELROSE
 COMMISSIONER

JOHN E. DORITY
 CHIEF ENGINEER