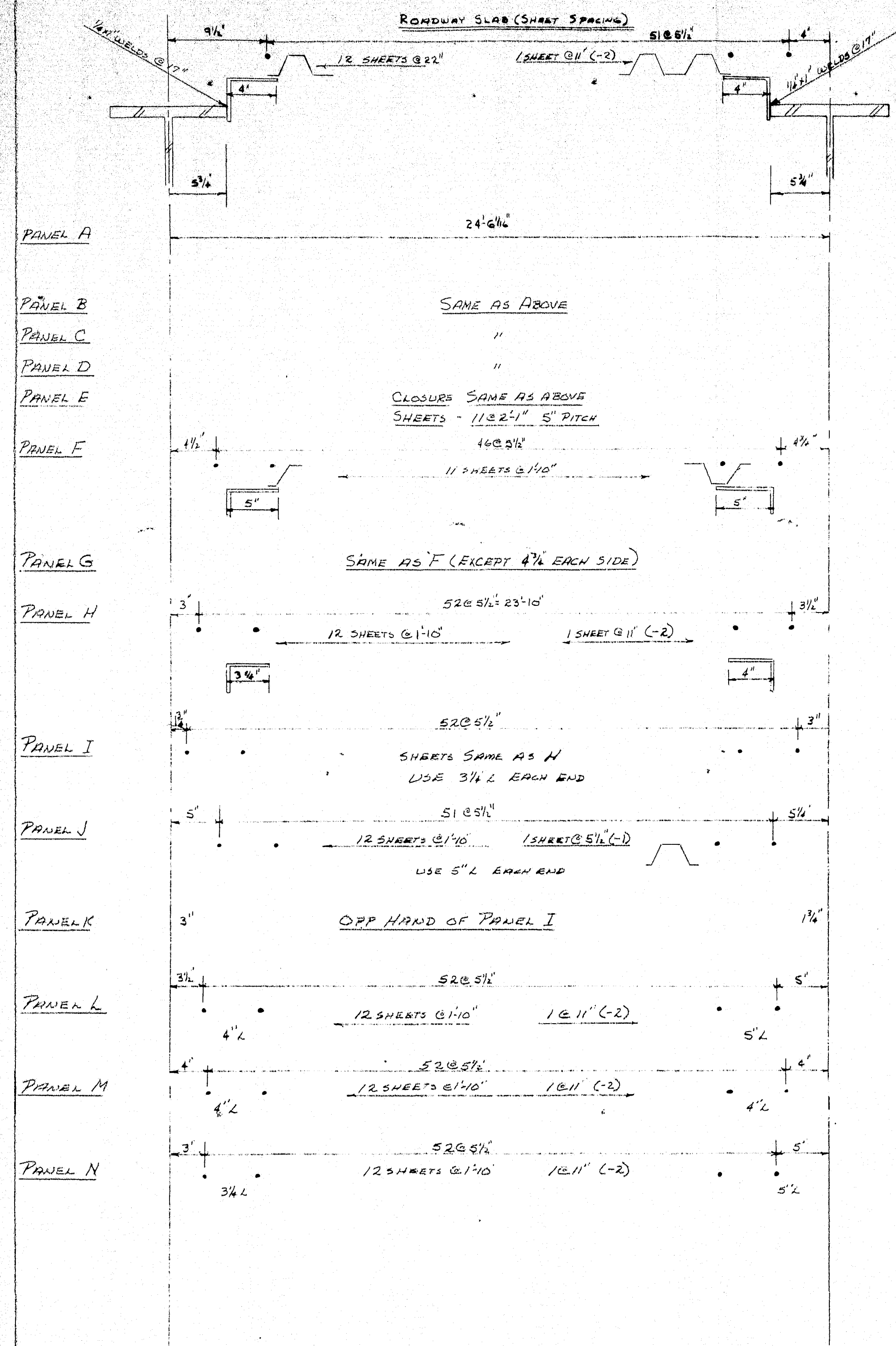
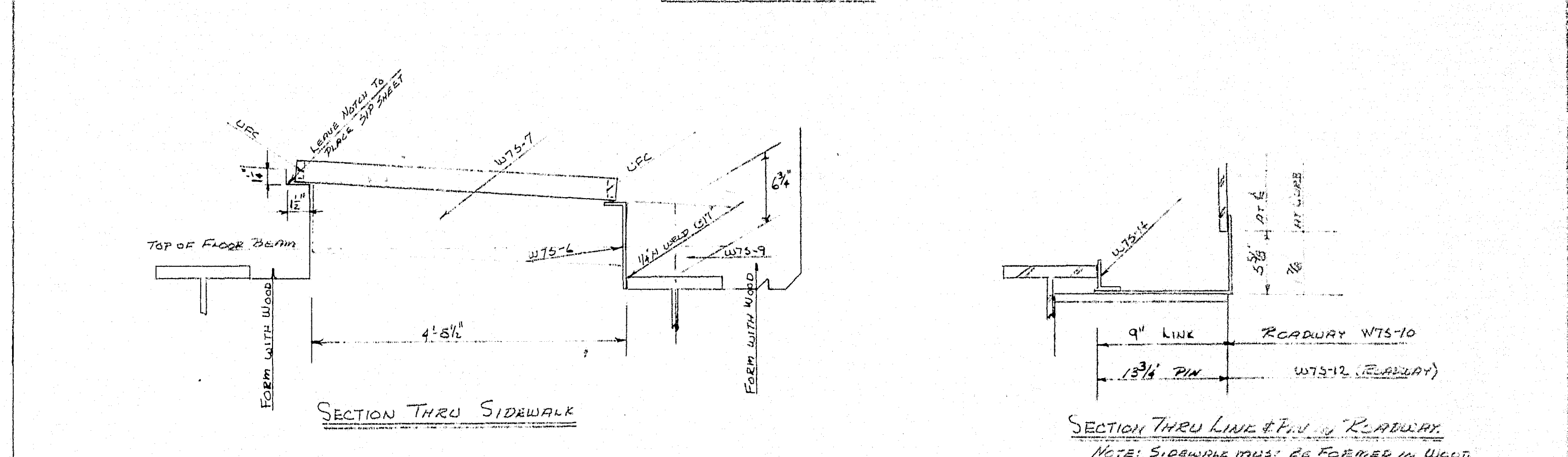
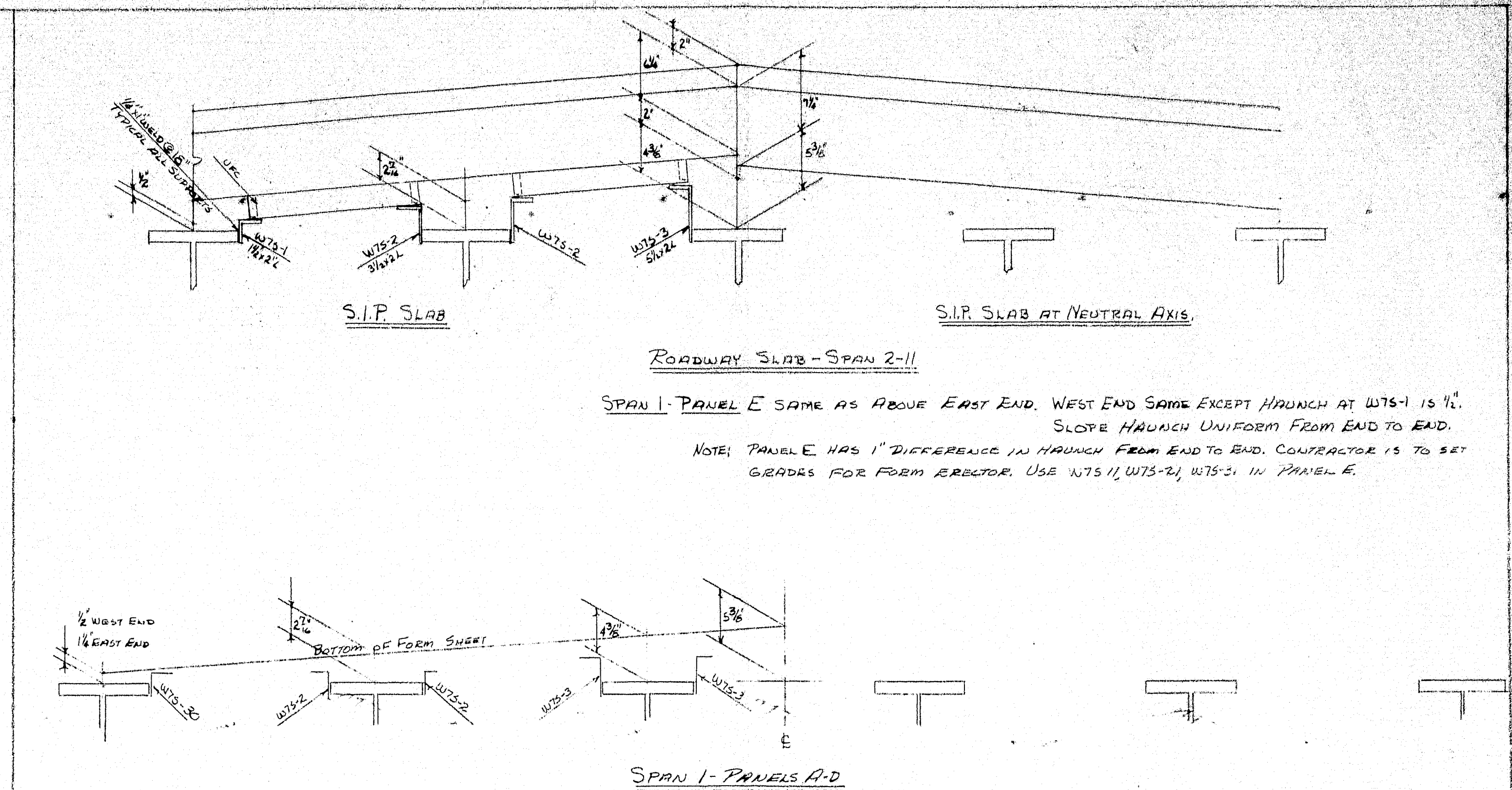


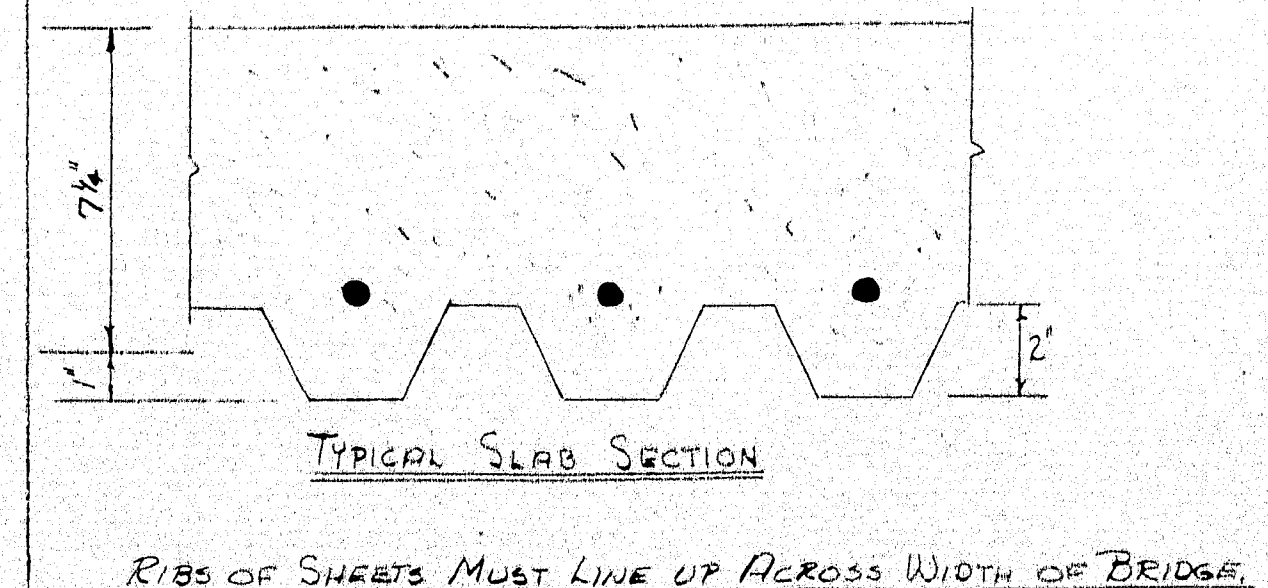


SIDEWALK SLAB (SHEET SPACING)				
PANEL A	4'	41 @ 7" 9 SHEETS @ 2' 4" 1 @ 1' 4"	5'	3"
PANEL B	7'	40 @ 7" 10 SHEETS @ 2' 4"	5'	4"
PANEL C		SAME AS B		
PANEL D		SAME AS B		
PANEL E		SAME AS B		
PANEL F	5 1/4"	36 @ 7" 9 SHEETS @ 2' 4"	5 1/4"	5 1/4"
PANEL G		SAME AS F		
PANEL H	2 1/2"	41 @ 7" 9 @ 2' 4" 1 @ 1' 4"	5'	3"
PANEL I	1 1/4"	40 @ 7" 9 @ 2' 4" 1 @ 1' 4"	4 1/2"	9"
PANEL J	5'	40 @ 7" 10 SHEETS @ 2' 4"	5 1/4"	1"
PANEL K	8'	40 @ 7" 9 SHEETS @ 2' 4" 1 @ 1' 4"	5'	2 1/2"
PANEL L	4 1/2"	41 @ 7" 10 SHEETS @ 2' 4"	5'	3"
PANEL M	3 1/2"	41 @ 7" 9 @ 2' 4" 1 @ 1' 4"	5'	3 1/2"
PANEL N	5 1/4"	41 @ 7" 10 @ 2' 4"	5'	1 1/2"



WELDING NOTES:

- USE LOW HYDROGEN RODS.
- WELD ALL 10, 12, 14 GA MATERIAL TO STRUCTURAL STEEL WITH 1" WELDS 2/16"
- WELD SHEETS TO SUPPORTS AT EVERY OTHER RIB WELD THRU SHEET AND UNDERFORM CLOSURE.
- WELD 22 GA CLOSURE MATERIAL ONLY ENOUGH TO HOLD IN PLACE.



PASSAGASSAWAUKEGA RIVER BRIDGE

BELFAST
WALDO COUNTY
MAINE
BU-C26-2(1)

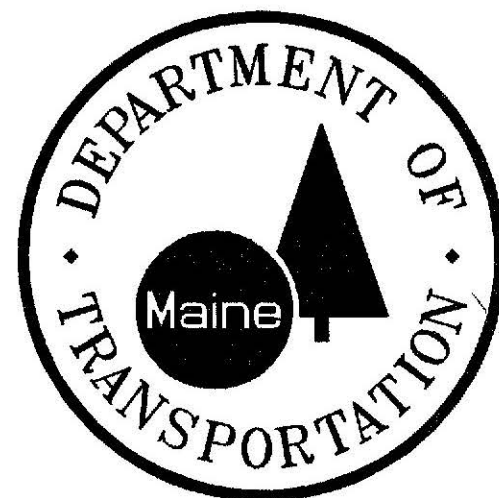
REV 5-4-62
REV 1-9-66

3-20-62

SHEET 3 OF 3

STATE OF MAINE

DEPARTMENT OF TRANSPORTATION



DECK REPLACEMENT ON

VETERANS MEMORIAL BRIDGE

OVER

PASSAGASSAWAUKEAG RIVER

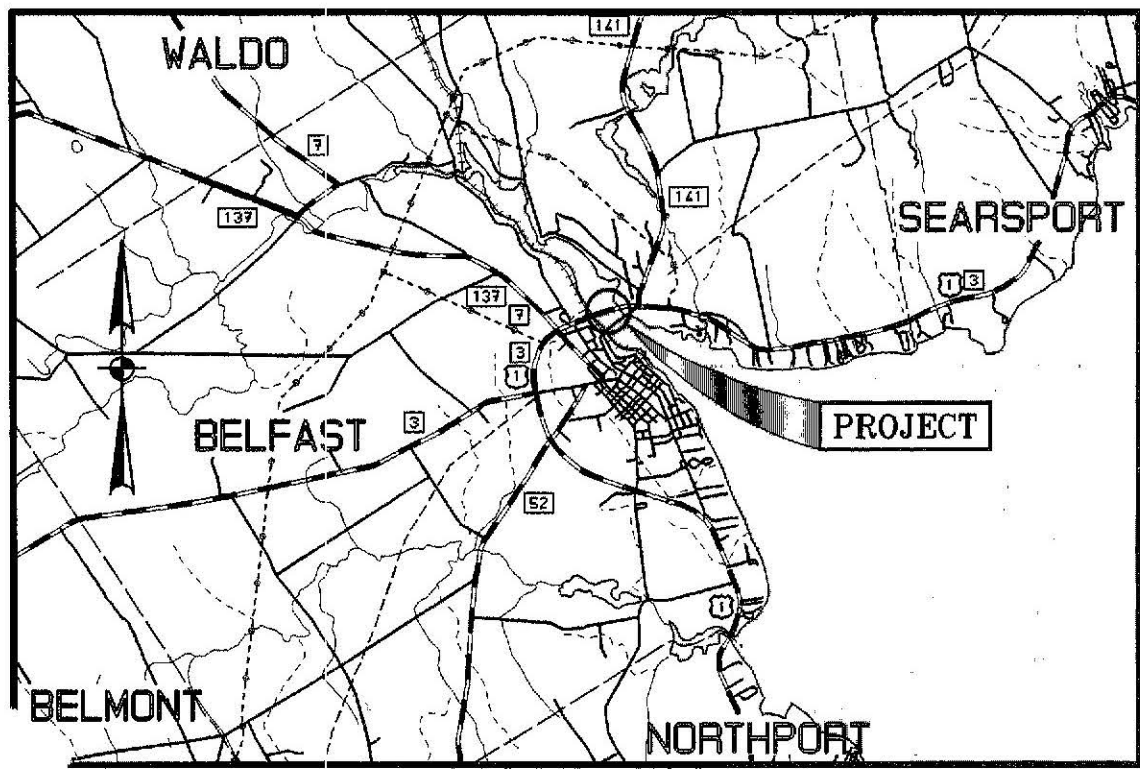
IN THE CITY OF

BELFAST

WALDO COUNTY

PROJECT NO. NH-4218(20)

PROJECT LENGTH: 0.577 KM



LOCATION MAP

1 0 1

Scale of Kilometers

INDEX OF SHEETS

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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) and supplementals thereto, except as modified on the plans and in the Special Provisions.

SPECIFICATIONS

DESIGN: Load Factor Design per AASHTO Standard Specifications for Highway Bridges 1996 and interim specifications thru 1998.

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

Average Annual Daily Traffic (1997)	18 560
Average Annual Daily Traffic (2017)	30 810
Design Hourly Volume	3697
Heavy Trucks (% AADT)	5
Directional Distribution (% DHV)	55
80 kN Equivalent P2.0	657
80 kN Equivalent P2.0	689
Design Speed	70 km/h

MATERIALS

Concrete:

Precast Class "P"

Barriers, curb & sidewalk Class "LP"

All other concrete Class "A"

Reinforcing Steel ASTM A615/A615M, Grade 420

Structural Steel ASTM A709/A709M, Grade 345

High Strength Bolts ASTM A325M

BASIC DESIGN STRESSES

Concrete:

Class "P" $f'c = 35$ MPa

Class "LP" $f'c = 35$ MPa

Class "A" $f'c = 30$ MPa

Reinforcing Steel $f_y = 420$ MPa

ASTM A709/A709M, Grade 345 $F_y = 345$ MPa

ASTM A325M $F_y = 170$ MPa

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
APPROVED:
COMMISSIONER
DATE 5/11/99
CHIEF ENGINEER
DATE 5/11/99

STATE OF MAINE
JOHN E. KELLY
REGISTERED PROFESSIONAL ENGINEER
1999

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. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(20)	2	36

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
202.10	REMOV. EXIST. SUPERSTRUCTURE (PROP. OF CONTRACTOR) (1510 m³)	1	LUMP SUM
202.203	PAVEMENT BUTT JOINTS	905	SQ. METER
203.20	COMMON EXCAVATION	225	CU. METER
203.24	COMMON BORROW	32	CU. METER
203.25	GRANULAR BORROW	16	CU. METER
206.082	STRUCTURAL EARTH EXCAVATION - MAJOR STRUCTURES	20	CU. METER
304.10	AGGREGATE SUBBASE COURSE-GRAVEL	250	CU. METER
403.210	SUPERPAVE HOT MIX ASPHALT, 9.5 mm NOMINAL MAXIMUM SIZE	1000	MEGAGRAM
502.21	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	27	CU. METER
502.48	STRUCT. CONC. ROWY. AND SOWK. SLABS ON STEEL BRIDGES (455 m³)	1	LUMP SUM
503.12	REINFORCING STEEL, FABRICATED AND DELIVERED	12 000	KILOGRAM
503.13	REINFORCING STEEL, PLACING	12 000	KILOGRAM
504.70	STRUCTURAL STEEL FABRICATED AND DELIVERED (13 500 kg)	1	LUMP SUM
504.71	STRUCTURAL STEEL ERECTION (13 500 kg)	1	LUMP SUM
505.08	SHEAR CONNECTORS (43 800 EACH)	1	LUMP SUM
506.144	FIELD PAINTING OF NEW AND EXISTING STRUCTURAL STEEL (12 500 kg)	1	LS
506.17	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL (6 000 kg)	1	LS
506.1703	SHOP SURFACE PREPARATION OF NEW STRUCTURAL STEEL (6 500 kg)	1	LS
506.18	CONTAINMENT AND POLLUTION CONTROL (6 000 kg)	1	LS
506.191	DISPOSAL OF SPEC. WASTE OR HAZARDOUS WASTE MATERIAL (6 000 kg)	1	LS
507.0811	STEEL BRIDGE RAILING, 2 BAR (MODIFIED WITH RUB RAILS) (505 m)	1	LUMP SUM
507.0831	STEEL BRIDGE RAILING, 4 BAR (505 m)	1	LUMP SUM
507.0961	ALUMINUM BRIDGE RAILING, PEDESTRIAN, WITH PALES (505 m)	1	LUMP SUM
508.13	MEMBRANE WATERPROOFING (5300 m²)	1	LUMP SUM
514.06	CURING BOX FOR CONCRETE CYLINDERS	1	EACH
515.21	PROTECTIVE COATING FOR CONCRETE SURFACES (2200 m²)	1	LUMP SUM
520.23	EXPANSION DEVICE - FINGER JOINT	2	EACH
521.31	FABRIC TROUGH FOR FINGER JOINT	2	EACH
526.301	TEMPORARY CONCRETE BARRIER, TYPE I (500 m)	1	LS
526.34	PERMANENT CONCRETE TRANSITION BARRIER	6	EACH
527.34	WORK ZONE CRASH CUSHION	2	EACH
530.02	PREFABRICATED DECK PANELS	6680	SQ. METER
604.18	ADJUSTING MANHOLE OR CATCH BASIN TO GRADE	3	EACH

* UNDETERMINED LOCATION

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
606.1721	BRIDGE TRANSITION - TYPE 1	6	EACH
606.24	GUARDRAIL TYPE 3d - SINGLE RAIL	54	METER
606.263	TWISTED END SECTION - GUARDRAIL TYPE 3b	1	EACH
606.35	GUARDRAIL DELINEATOR POST	4	EACH
606.364	GUARDRAIL REMOVE, MODIFY AND RESET, TYPE 3b	100	METER
606.367	REPLACE UNUSABLE EXISTING GUARDRAIL POSTS	8	EACH
606.79	GUARDRAIL 350 FLARED TERMINAL	1	EACH
609.38	RESET CURB TYPE 1	136	METER
609.40	RESET CURB TYPE 5	66	METER
610.09	HAND LAID RIPRAP	20	CU. METER
613.329	EXTENDED USE EROSION CONTROL BLANKETS	400	SQ. METER
615.07	LOAM	25	CU. METER
616.141	SEEDING METHOD NUMBER 3	5	UNIT
618.12	MULCH	5	UNIT
626.22	NON-METALLIC CONDUIT	105	METER
626.33	750 mm FOUNDATION	1	EACH
627.71	100 mm WHITE PAVEMENT MARKING LINE	1155	METER
627.73	100 mm YELLOW PAVEMENT MARKING LINE	1155	METER
634.16	HIGHWAY LIGHTING	1	LUMP SUM
634.21	CONVENTIONAL LIGHT STANDARD	9	EACH
635.10	CONCRETE BIN TYPE RETAINING WALL, CLOSED FACE	39	SQ. METER
638.01	EMBEDDED WORK IN STRUCTURES	1	LUMP SUM
639.18	FIELD OFFICE TYPE A	1	EACH
643.72	TEMPORARY TRAFFIC SIGNAL	1	LS
652.31	TYPE I BARRICADE	8	EACH
652.312	TYPE III BARRICADE	8	EACH
652.33	DRUM	15	EACH
652.34	CONE	12	EACH
652.35	CONSTRUCTION SIGNS	15	SQ. METER
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES (180 CD)	1	LUMP SUM
652.38	FLAGGER	1200	MAN HOUR
656.50	BALED HAY, IN PLACE	20	EACH
656.51	SANDBAG, IN PLACE	10	EACH
656.60	TEMPORARY BERMS	100	METER
656.632	750 mm TEMPORARY SILT FENCE	200	METER
659.10	MOBILIZATION	1	LUMP SUM
660.21	ON-THE-JOB TRAINING (BID)	2000	MAN HOUR

** NON-BID ITEM

GENERAL CONSTRUCTION NOTES

1. All utility facilities shall be adjusted by the respective utilities unless noted.
2. Stationing and quantities of erosion control items are for estimating purposes only. Actual locations and quantities will be determined in the field by the Engineer based on specific site conditions.
3. The quantity of reinforcing steel given in the schedule of items is an estimate based on the details shown in the plans. The Contractor shall be responsible for developing a reinforcing steel schedule for submission to the Engineer. Maximum practical bar lengths shall be used in order to avoid unnecessary splicing. Payment for reinforcing steel will be based on the actual quantity used and accepted on the project.

BAR SPLICE TABLE

Bar Size	Min. Lap Splice
#16	550 mm
#19	675 mm

4. Place 50 mm loam on all new sideslopes and on other disturbed areas as directed by the Engineer. Place Seeding Method No. 3 and Mulch as directed.
5. Removal of existing guardrail which is not reused will not be paid for directly but will be considered incidental to related contract items.

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. Folsom	5/29
CHECKED	D. Dammen	
REVISIONS		
FIELD CHANGES		
PLANS		

19MAY99 0100:40
ESTIMATE

Bridge No. 5750

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

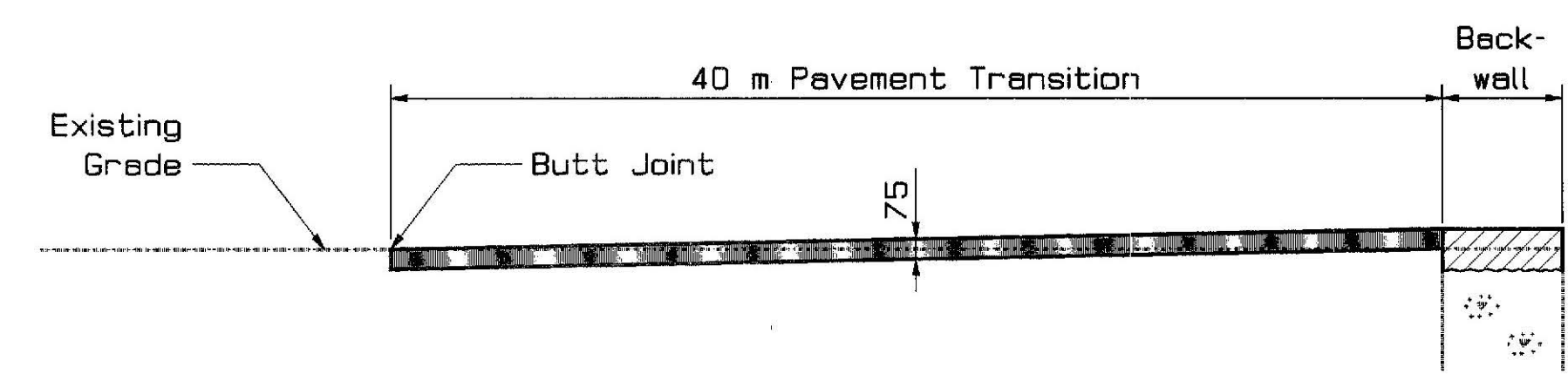
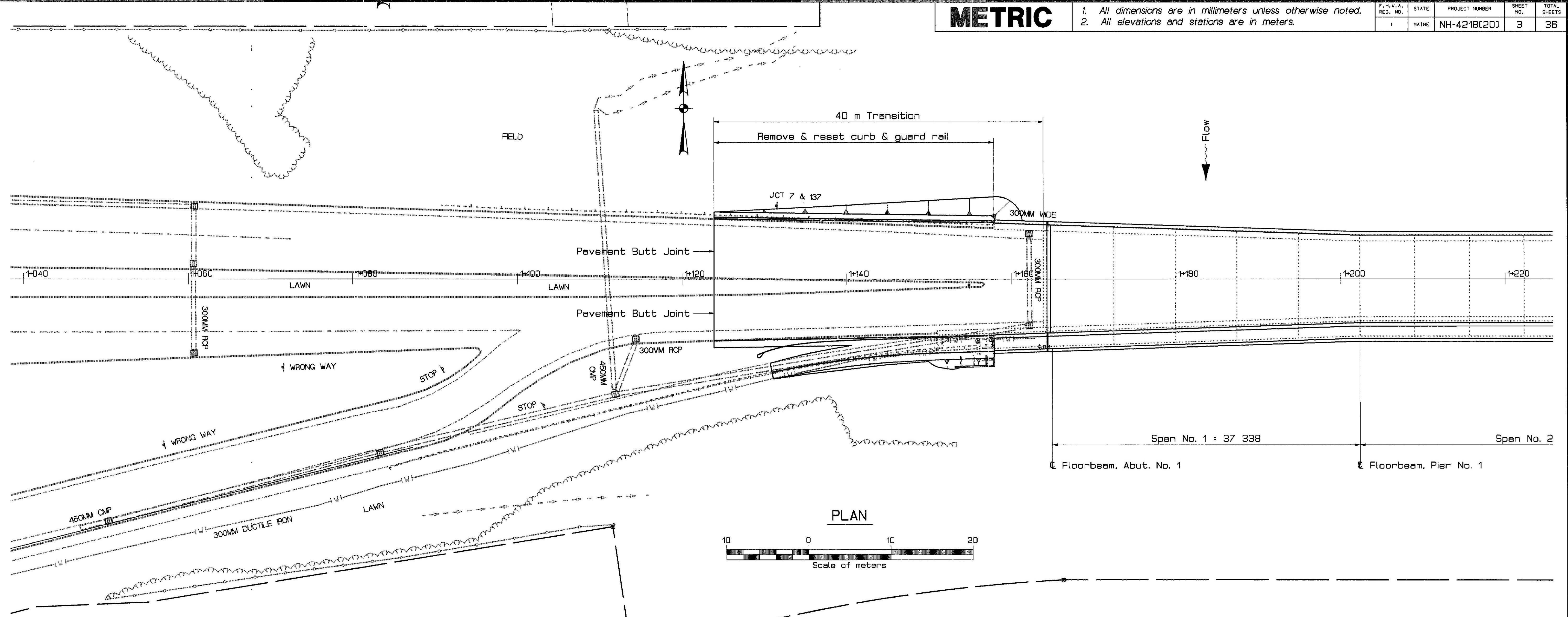
DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY

ESTIMATED QUANTITIES & NOTES

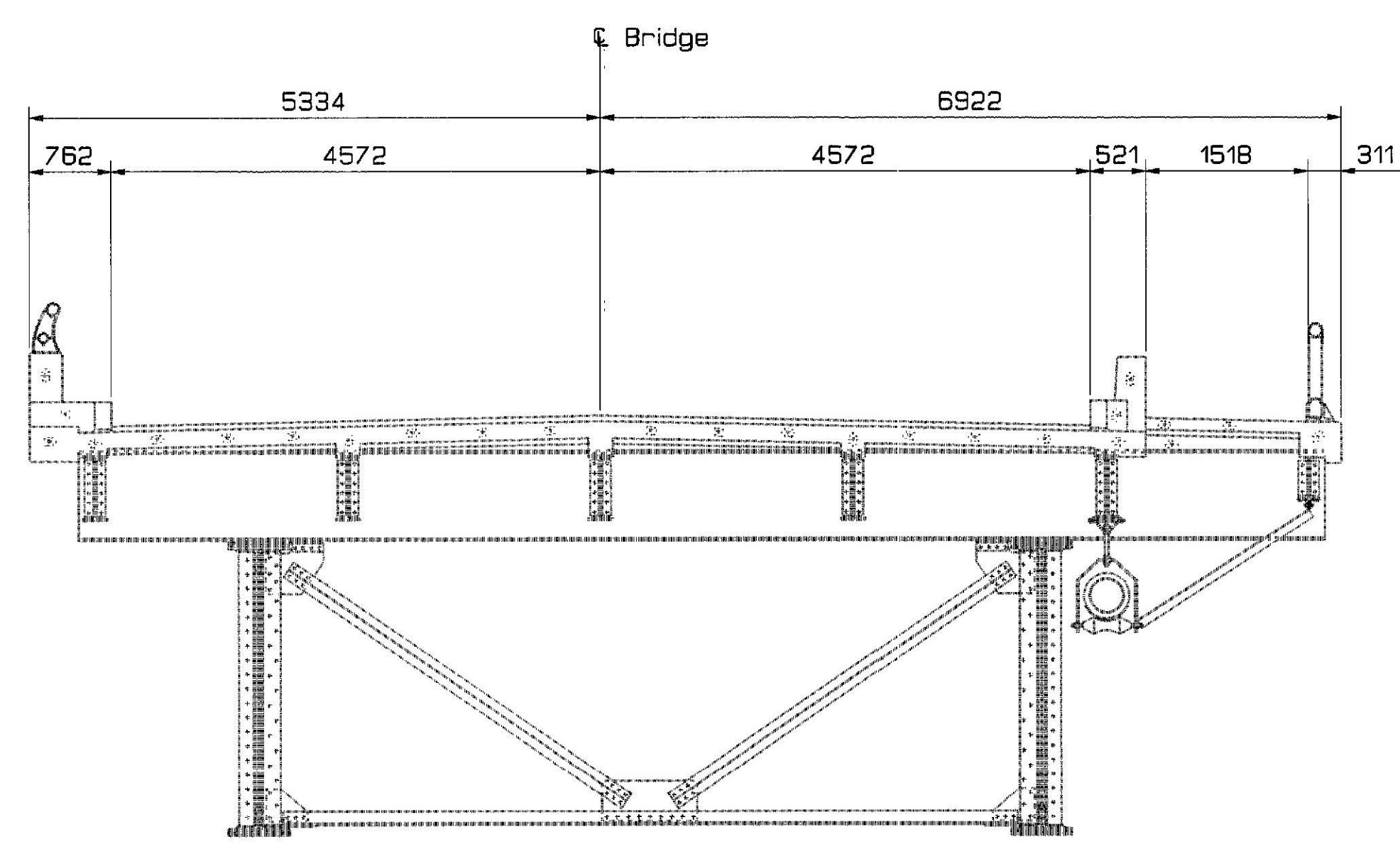
METRIC

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

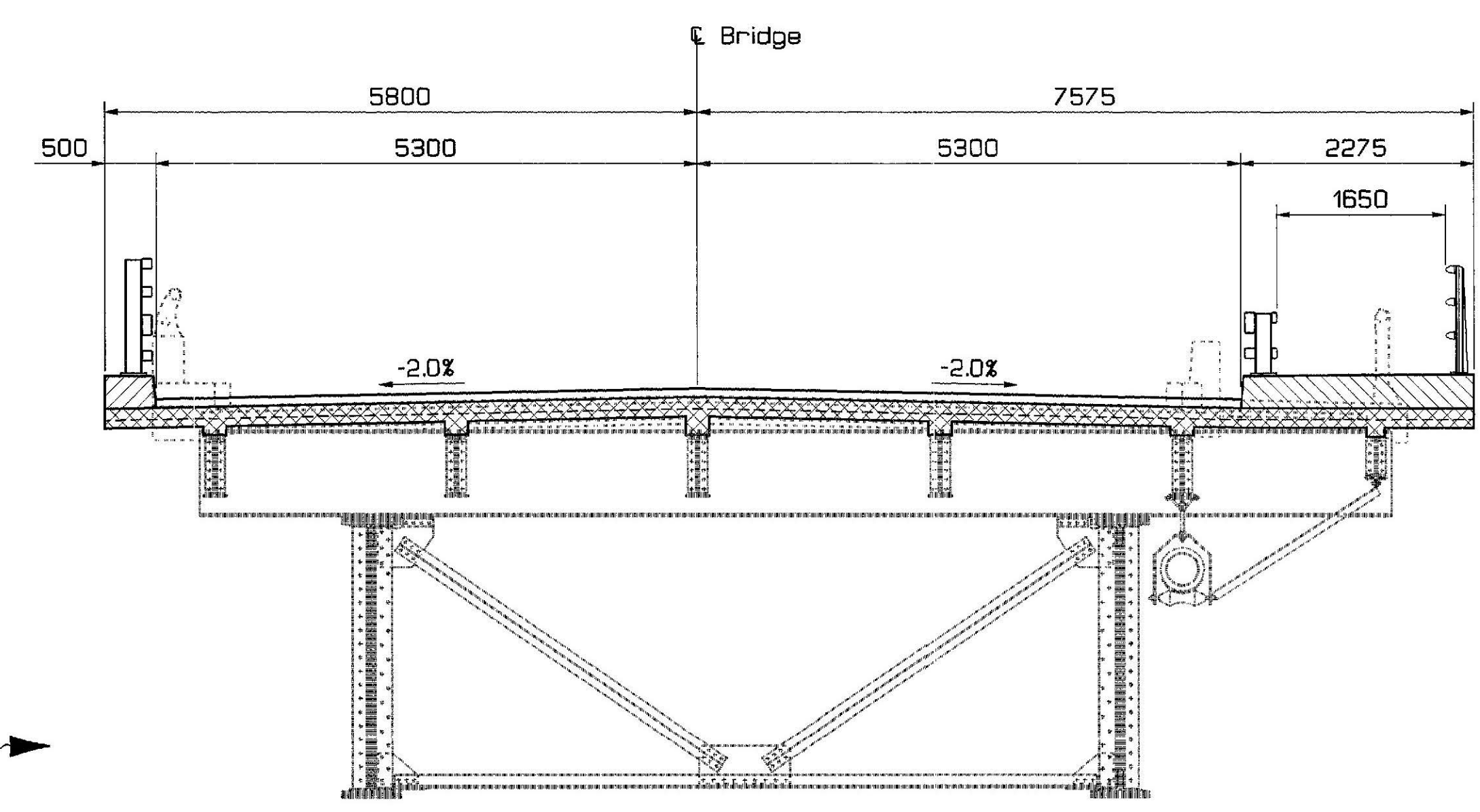
PIN 004218.20				
P.H.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(20)	3	36



PAVEMENT TRANSITION DETAIL



EXISTING BRIDGE SECTION

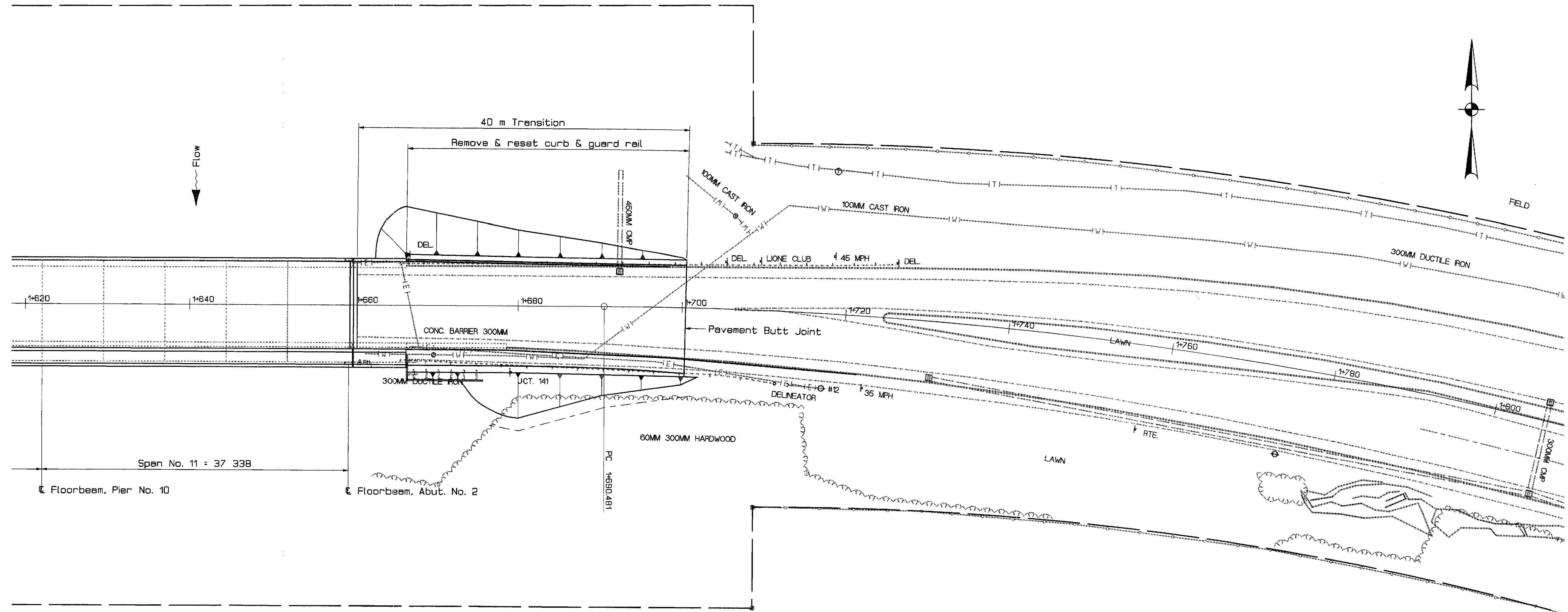


PROPOSED BRIDGE SECTION

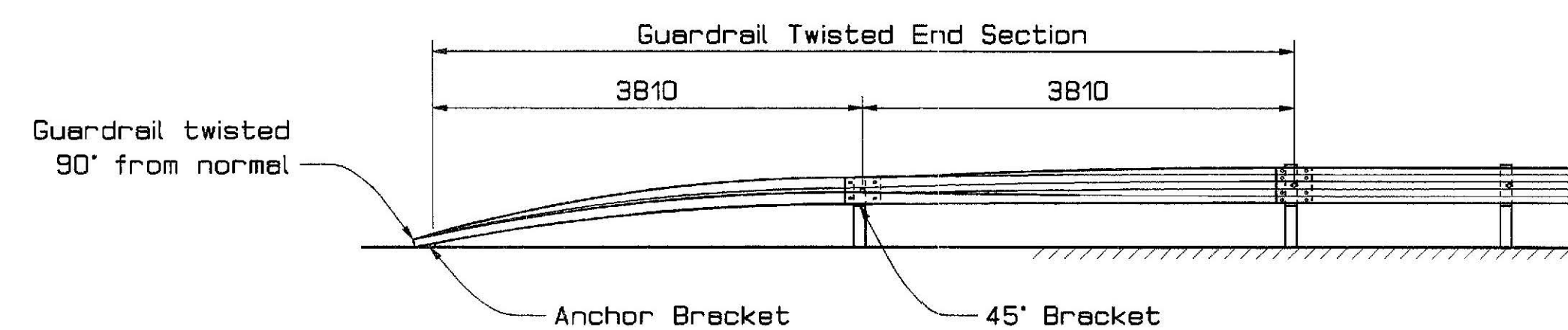
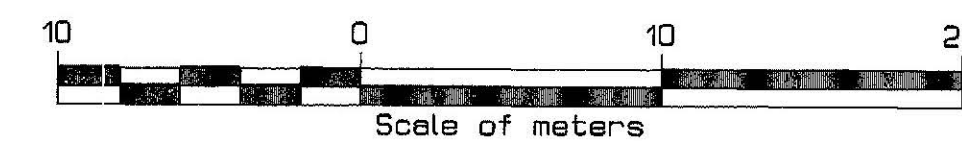
Bridge No. 5750
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY
GENERAL PLAN

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. Falsom	5/99
CHECKED	MF/DD/BW	
REVISIONS		
FIELD CHANGES		

04MAY99-0107.D0
PLAN1



PLAN



GUARDRAIL TWISTED END SECTION
(Elevation)

SCOPE OF WORK

Replace existing concrete deck with steel exodermic deck or half filled steel grid deck. Retrofit pin and link hangers with bolted field splices. Match into existing sidewalks with limited work on approaches.

CONSTRUCTION SCHEDULE

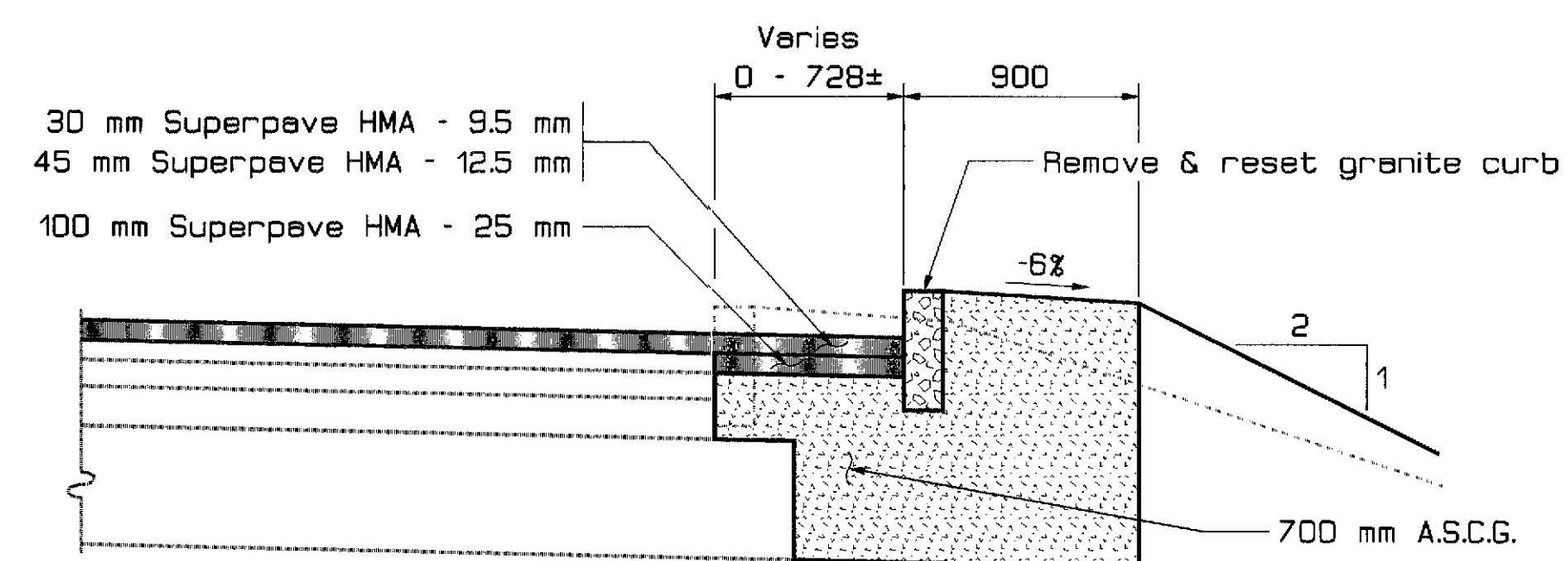
Begin construction after Labor Day 1999.
Construction to be completed by July 2000.

MAINTENANCE OF TRAFFIC

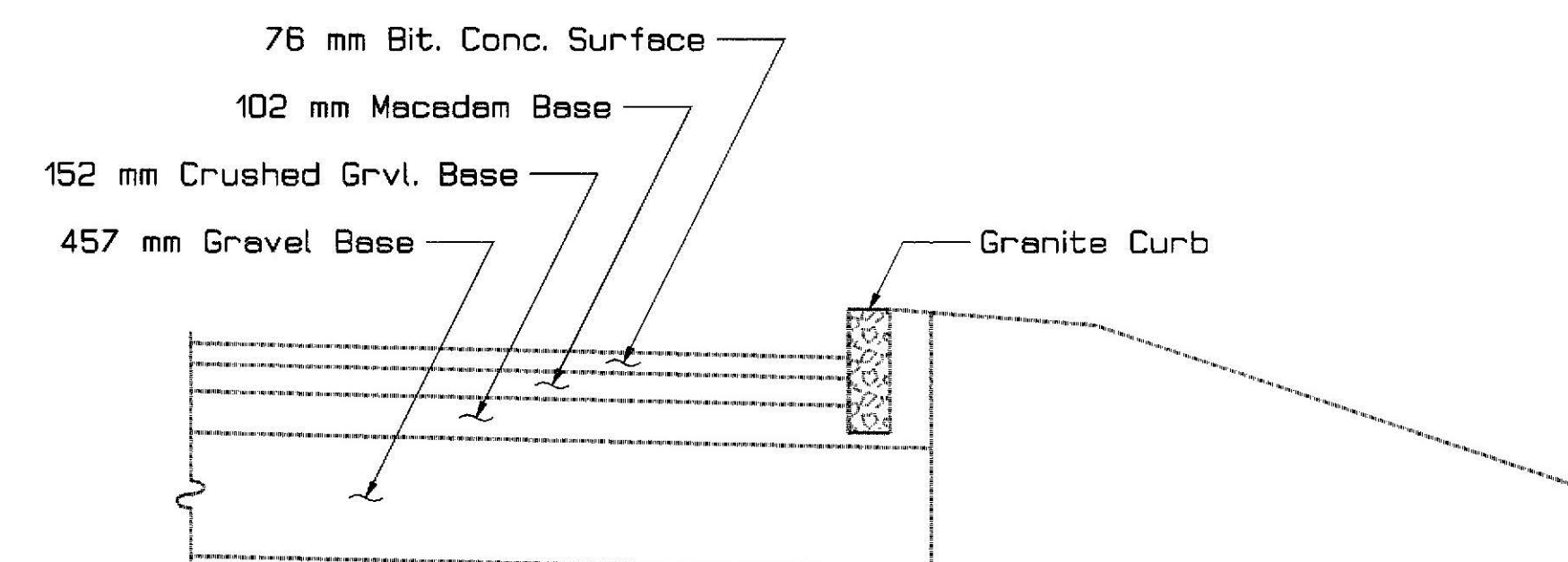
One lane of alternating traffic 7 PM to 6 AM.
Unimpeded two - way traffic 6 AM to 7 PM.

UTILITIES

Belfast Water District
Belfast & Moosehead Lake Railroad



PROPOSED ROADWAY DETAIL



EXISTING ROADWAY DETAIL

CURVE DATA

PI Sta. 1+781.926
 $\Delta = 20^\circ 43' 42.6''$
T = 91.445 m
L = 180.890 m
R = 500

Bridge No. 5750

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

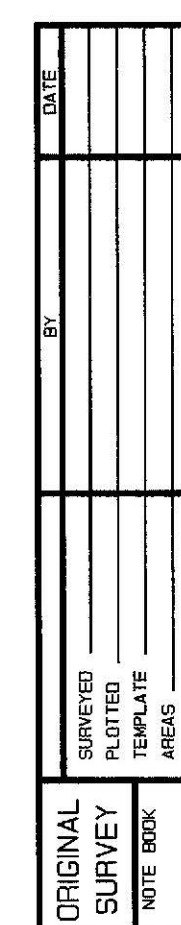
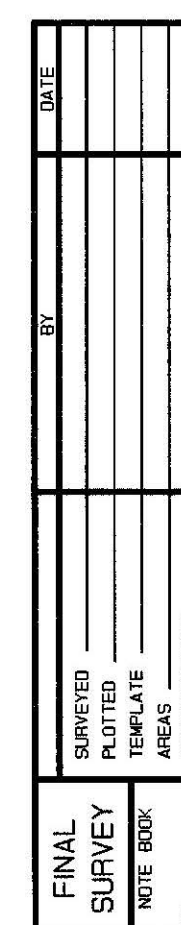
DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY

GENERAL PLAN

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. Folsom	MF/00/BW
CHECKED		
REVISIONS		
FIELD CHANGES		

04MAY99-0107.00
PLAN2

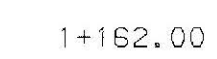
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEET:
1	MAINE	NH-4218(20)	5	36



Sta. 1+123.890
BEGIN TRANSITION
(MATCH PAVEMENT BUTT JOINT)

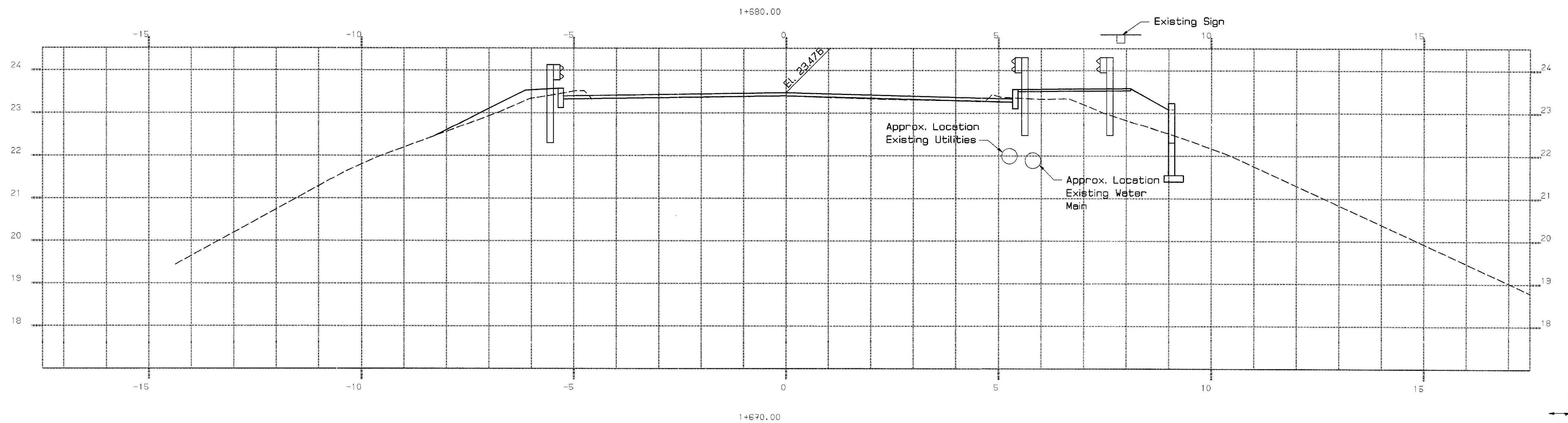
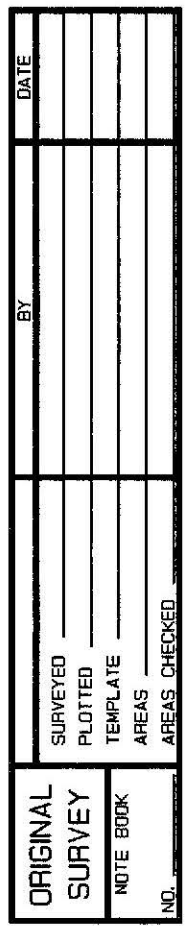


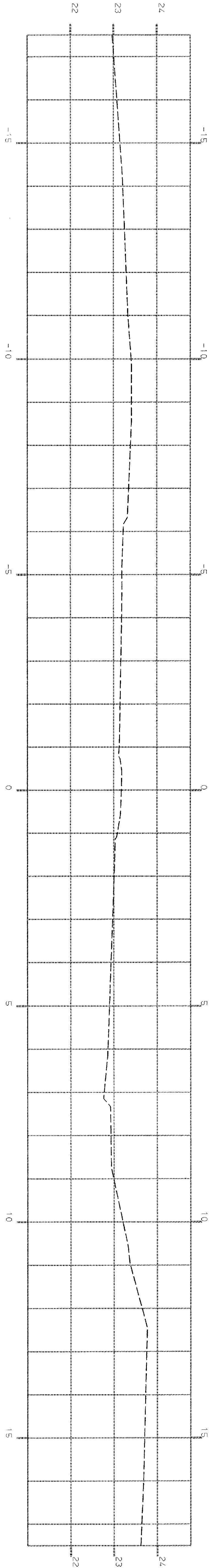
Install Bridge Transition
Type 1 Rt.
Sta. 1+665.698± to Sta. 1+671.892±



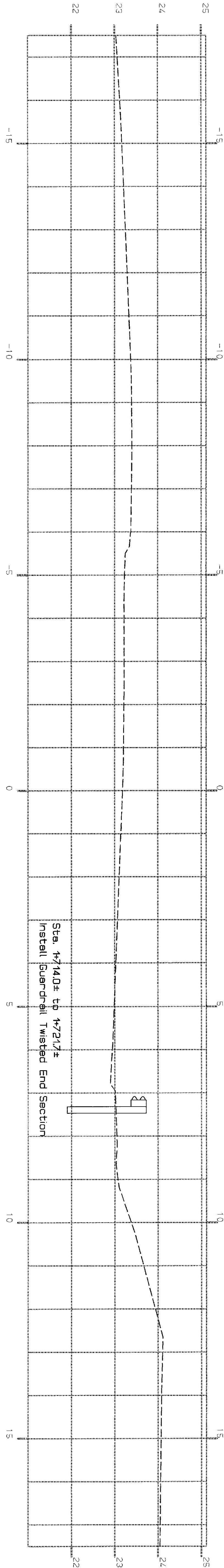
Adjust Catch Basin Rt.
To Grade Sta. 1+162.0±

FINAL SURVEY	NO.	NOTE BOOK	SURVEYED	BY	DATE
			PLOTTED		
			TEMPLATE		
			AREAS		
			AREAS CHECKED		



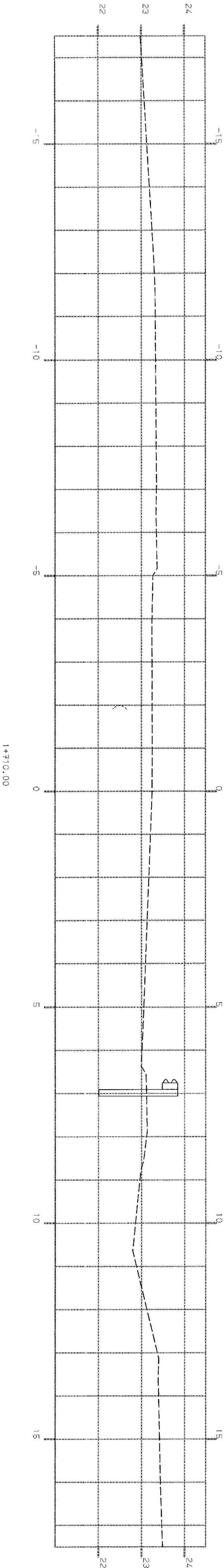


1+730.00

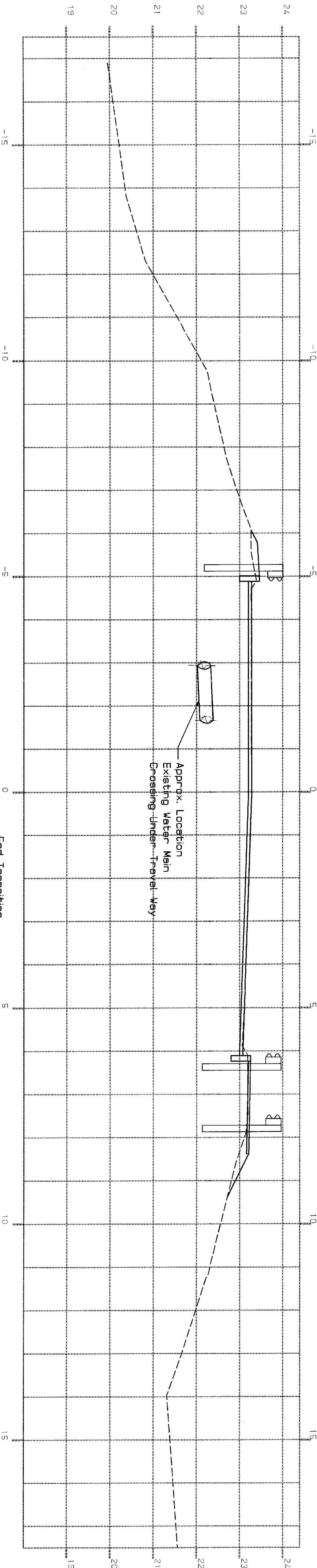


Sta. 4+714.0± to 4+721.7±
Install Guardrail Twisted End Section

1+720.00



1+710.00



1+700.00

End Transition
Sta. 4+700.410±

FINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		
NO.			

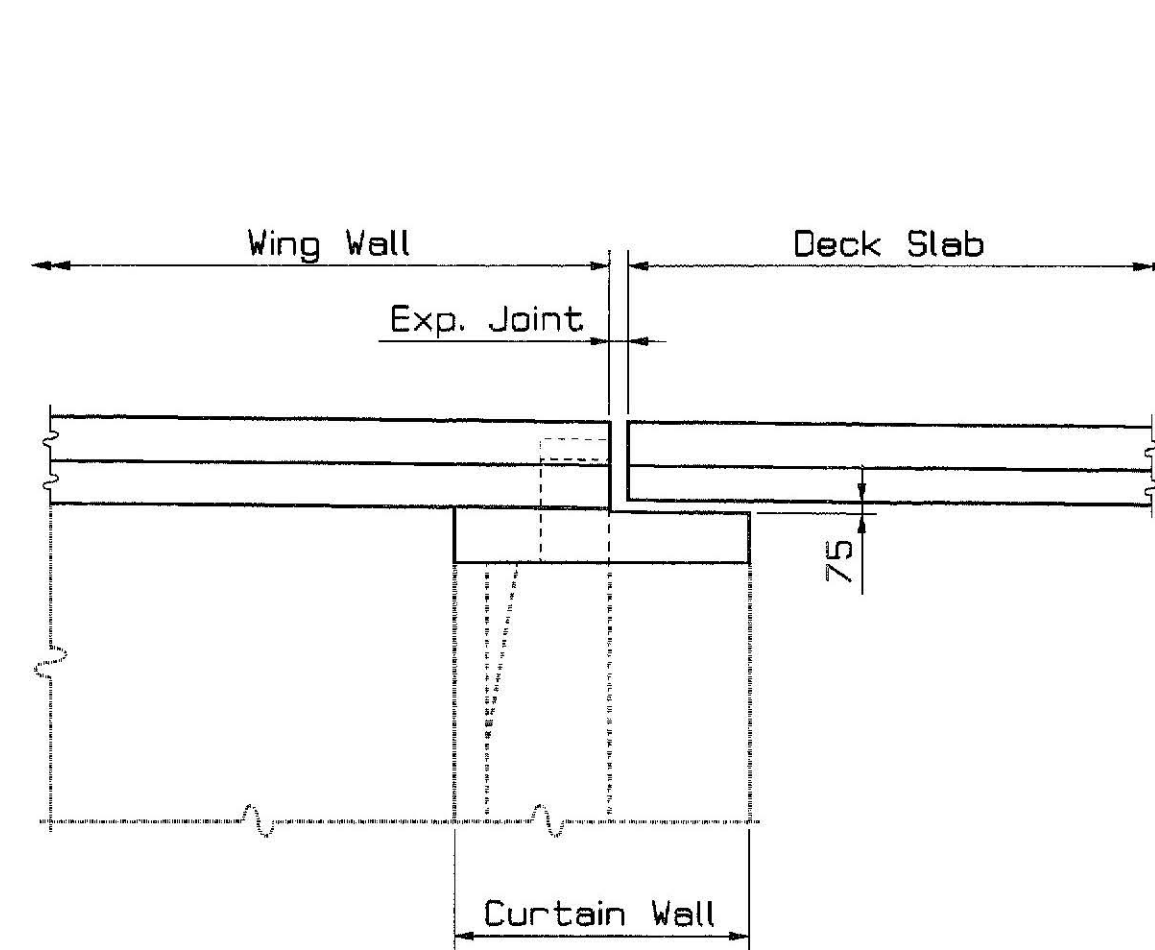
ORIGINAL SURVEY	SURVEYED	BY	DATE
	PLOTTED		
	TEMPLATE		
	AREAS CHECKED		
NO.			

X5
05MAY99-01.00.20

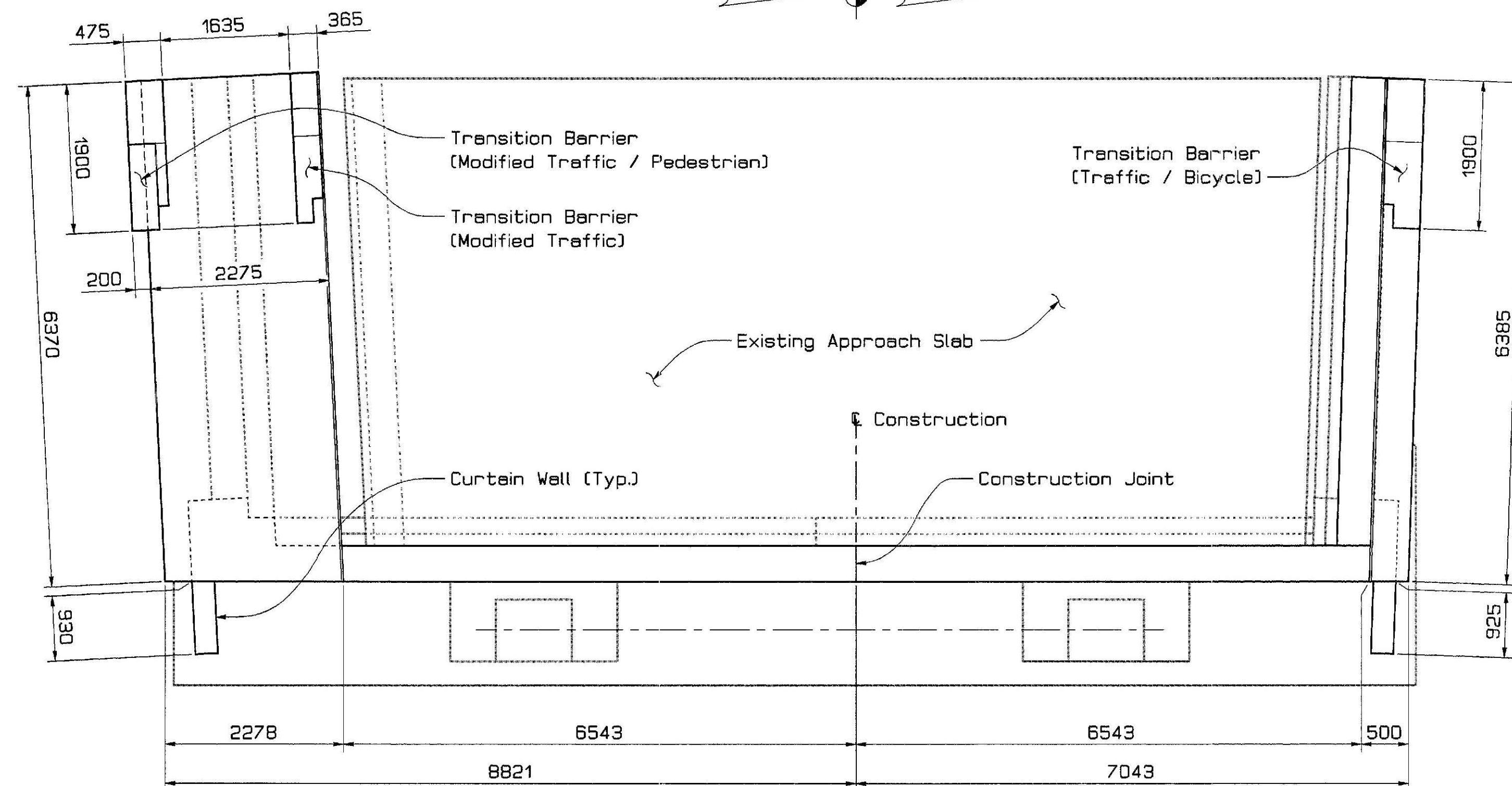
METRIC

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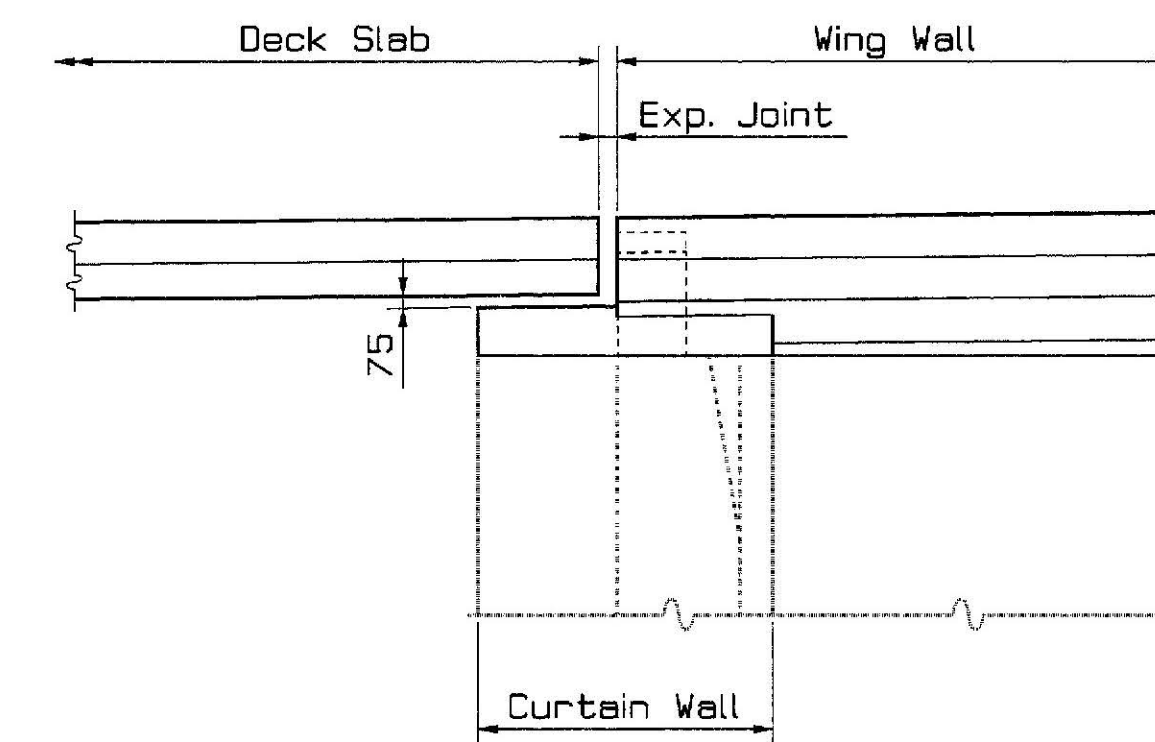
F.P.U.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(00)E	9	36



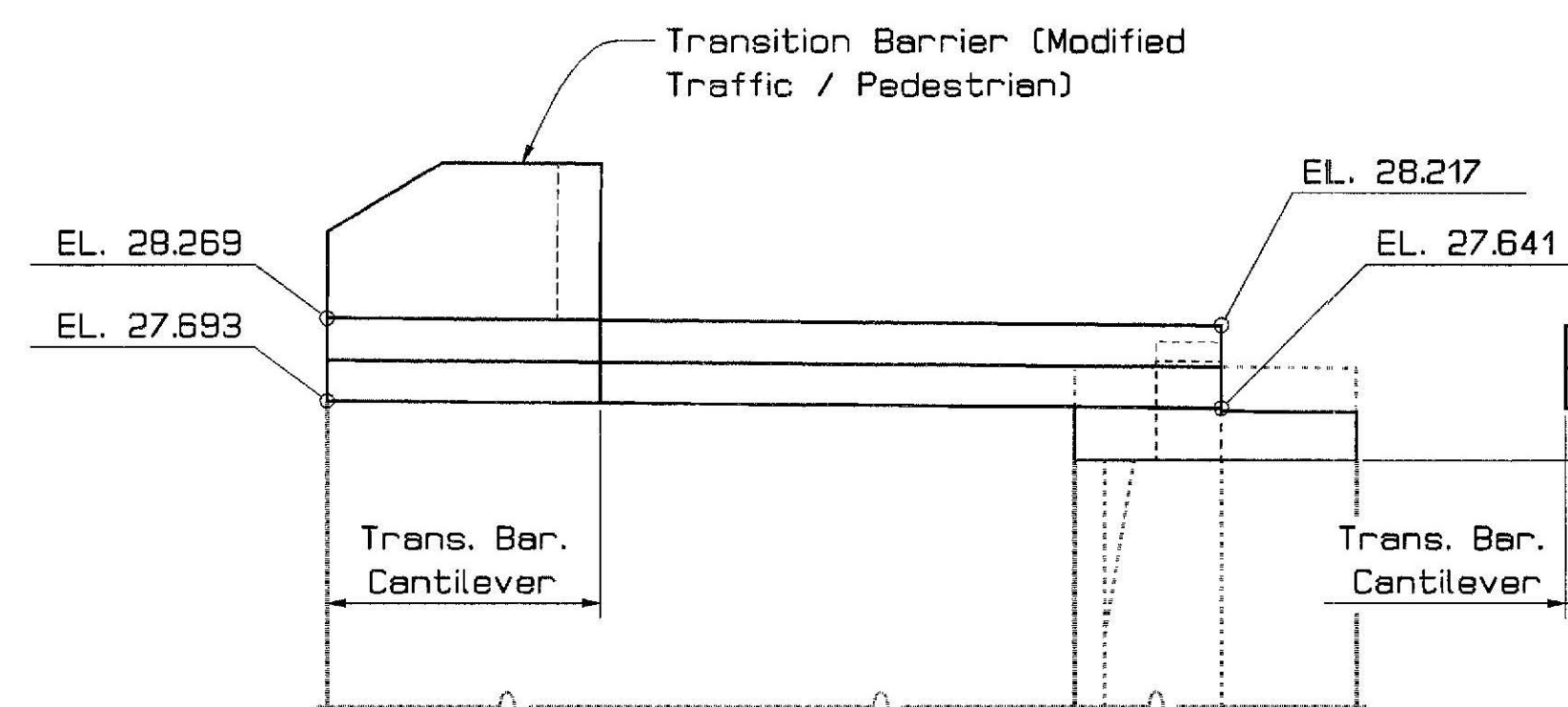
RIGHT CURTAIN WALL ELEVATION



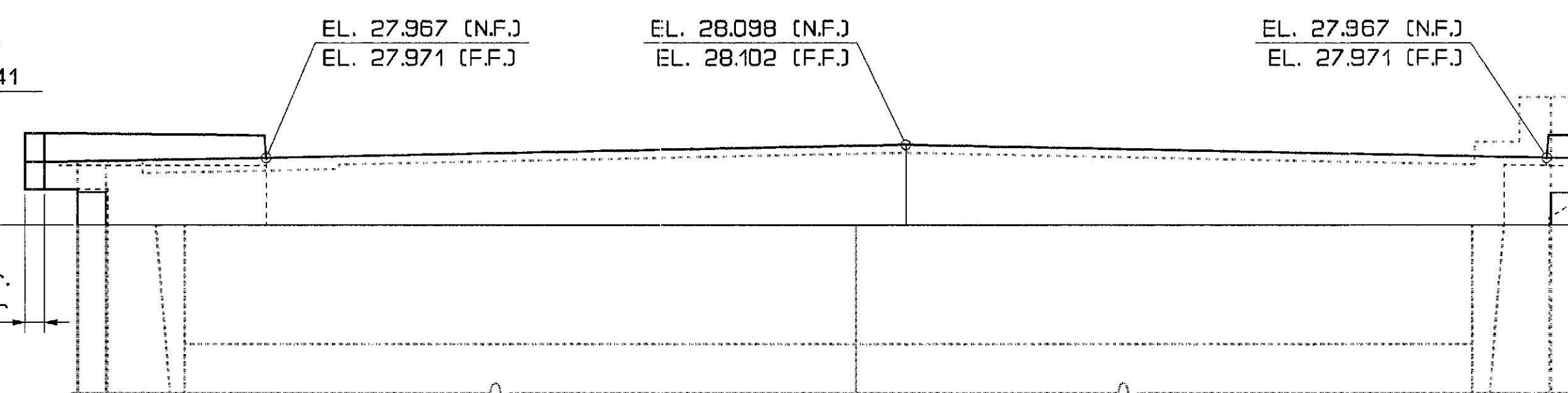
ABUTMENT NO. 1 PLAN



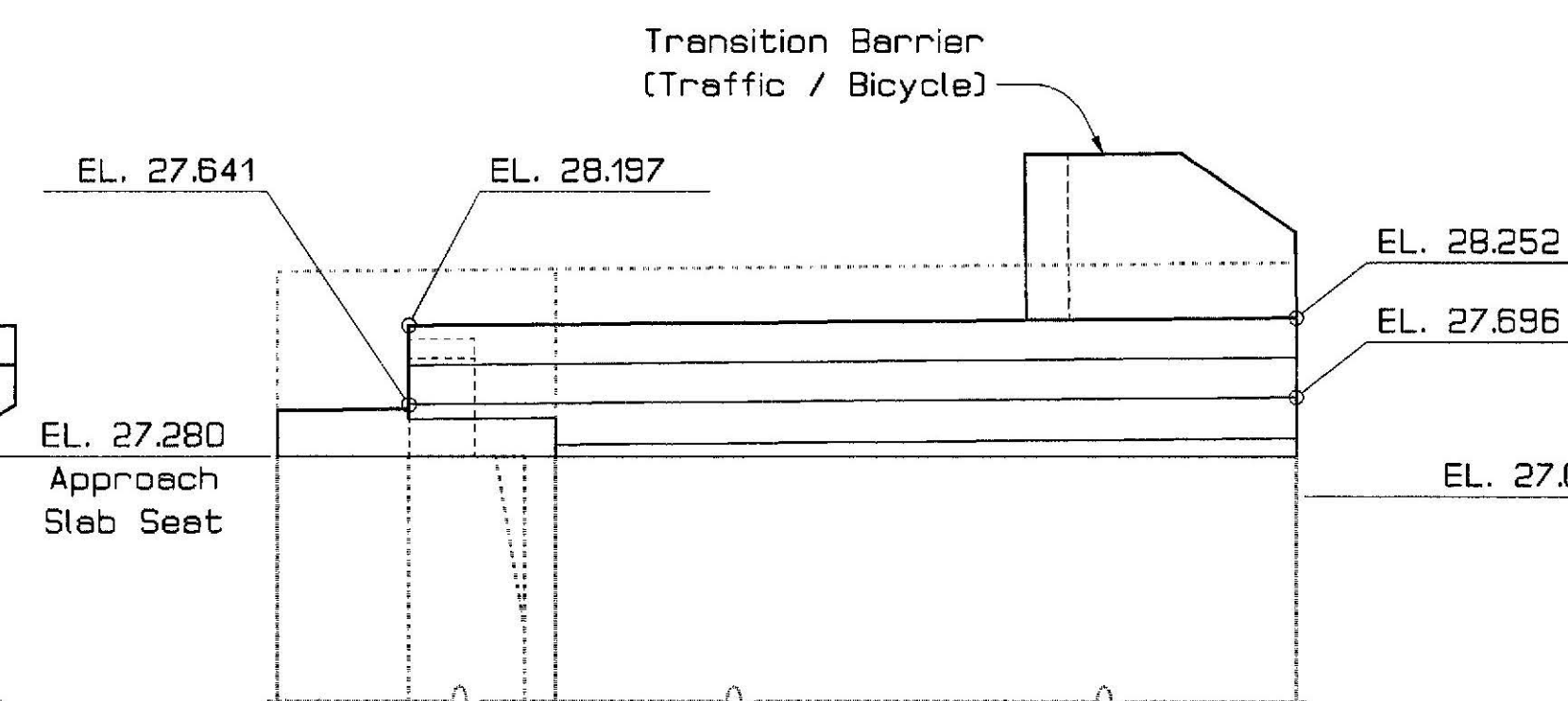
LEFT CURTAIN WALL ELEVATION



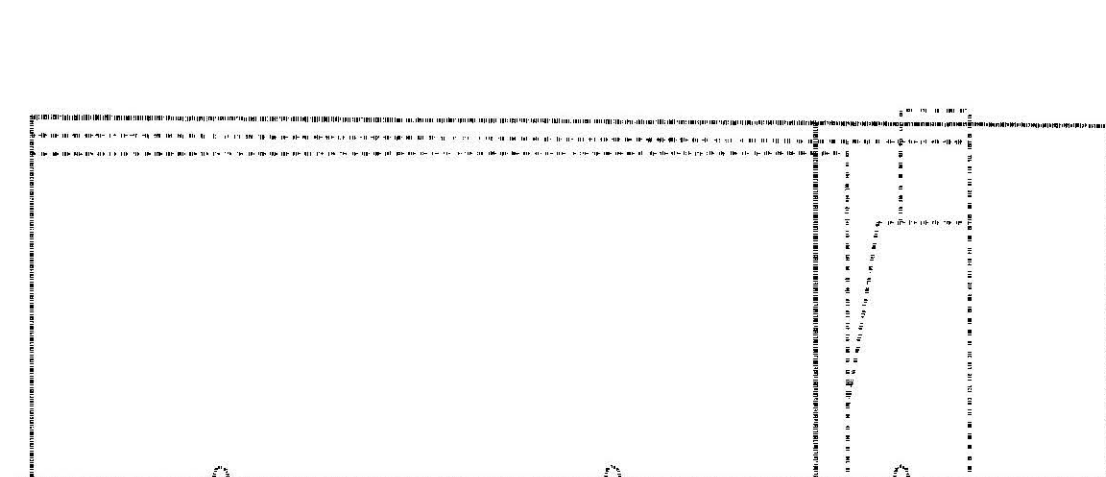
-- PROPOSED RIGHT WING ELEVATION --



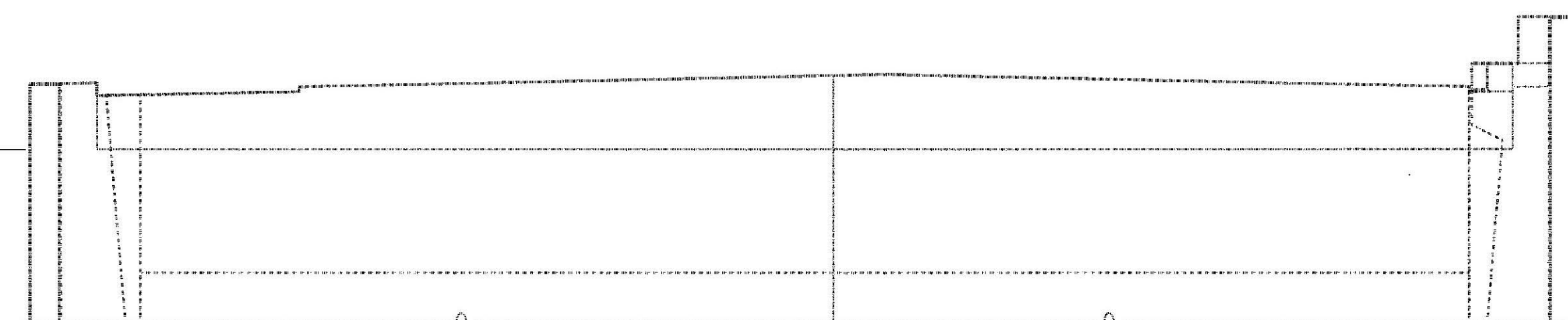
-- PROPOSED FRONT ELEVATION --



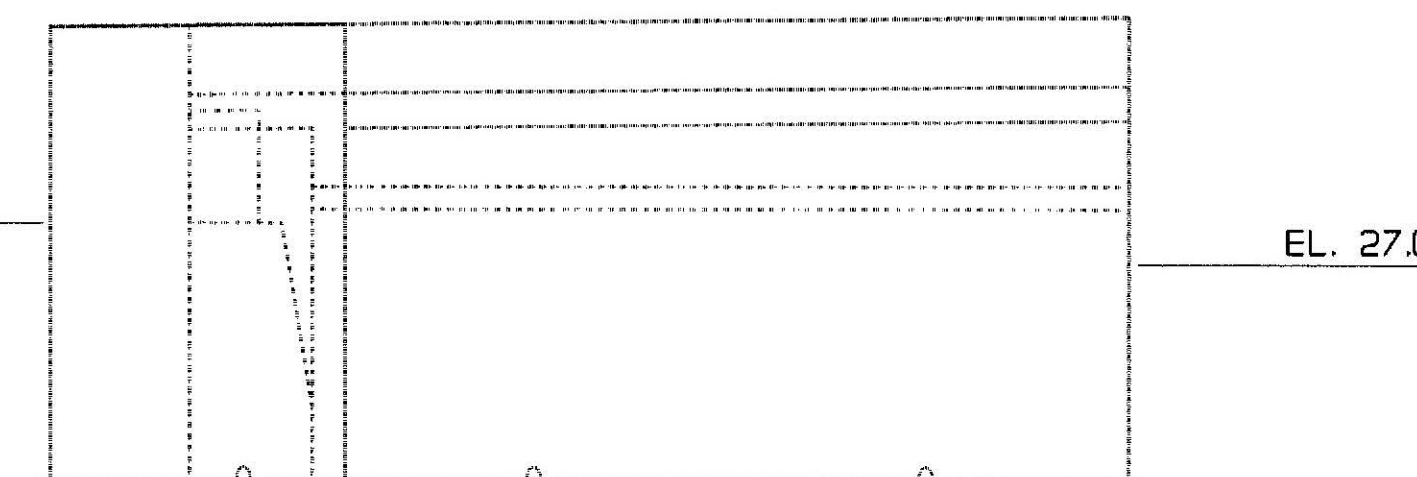
-- PROPOSED LEFT WING ELEVATION --



-- EXISTING RIGHT WING ELEVATION --



-- EXISTING FRONT ELEVATION --



-- EXISTING LEFT WING ELEVATION --

ABUTMENT NO. 1 ELEVATION

PROJECT DESIGN	ENGINEER	BY	DATE
DESIGN-DETAILED	J. Folsom	D. Demmen	5/99
CHECKED			
REVISIONS			
FIELD CHANGES			

DAMAY99-01.07.00
ABT1

LEGEND

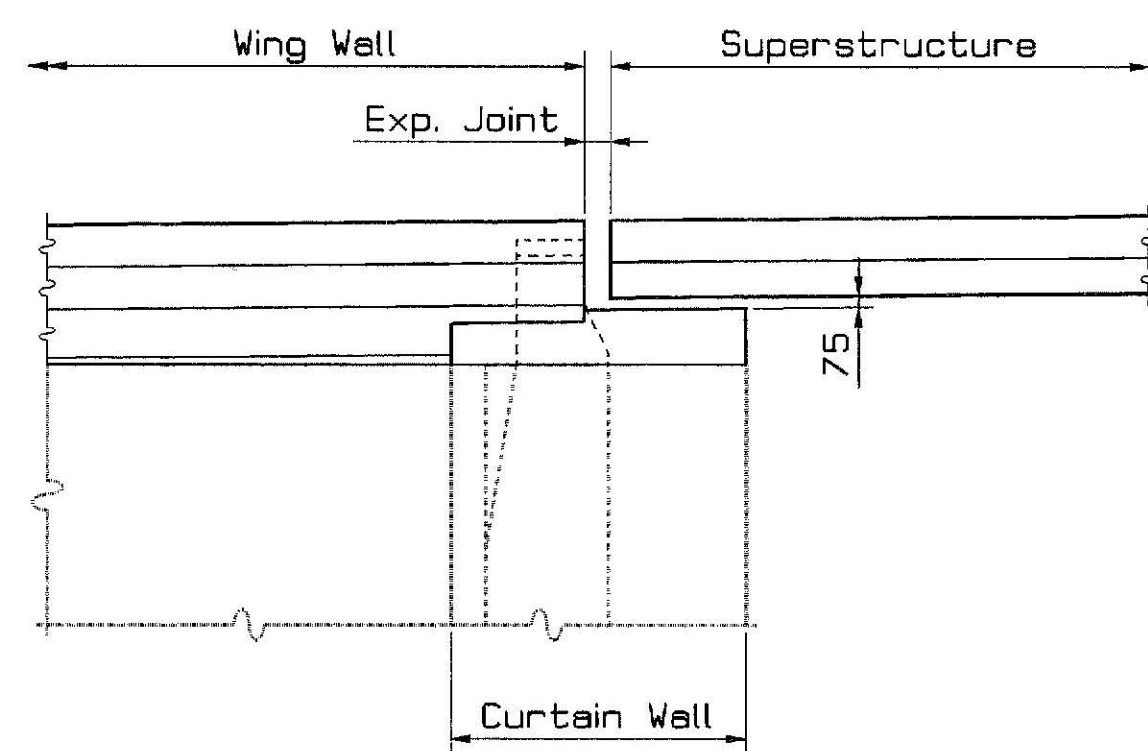
N.F. = Near Face
F.F. = Far Face

Bridge No. 5750
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY
ABUTMENT NO. 1

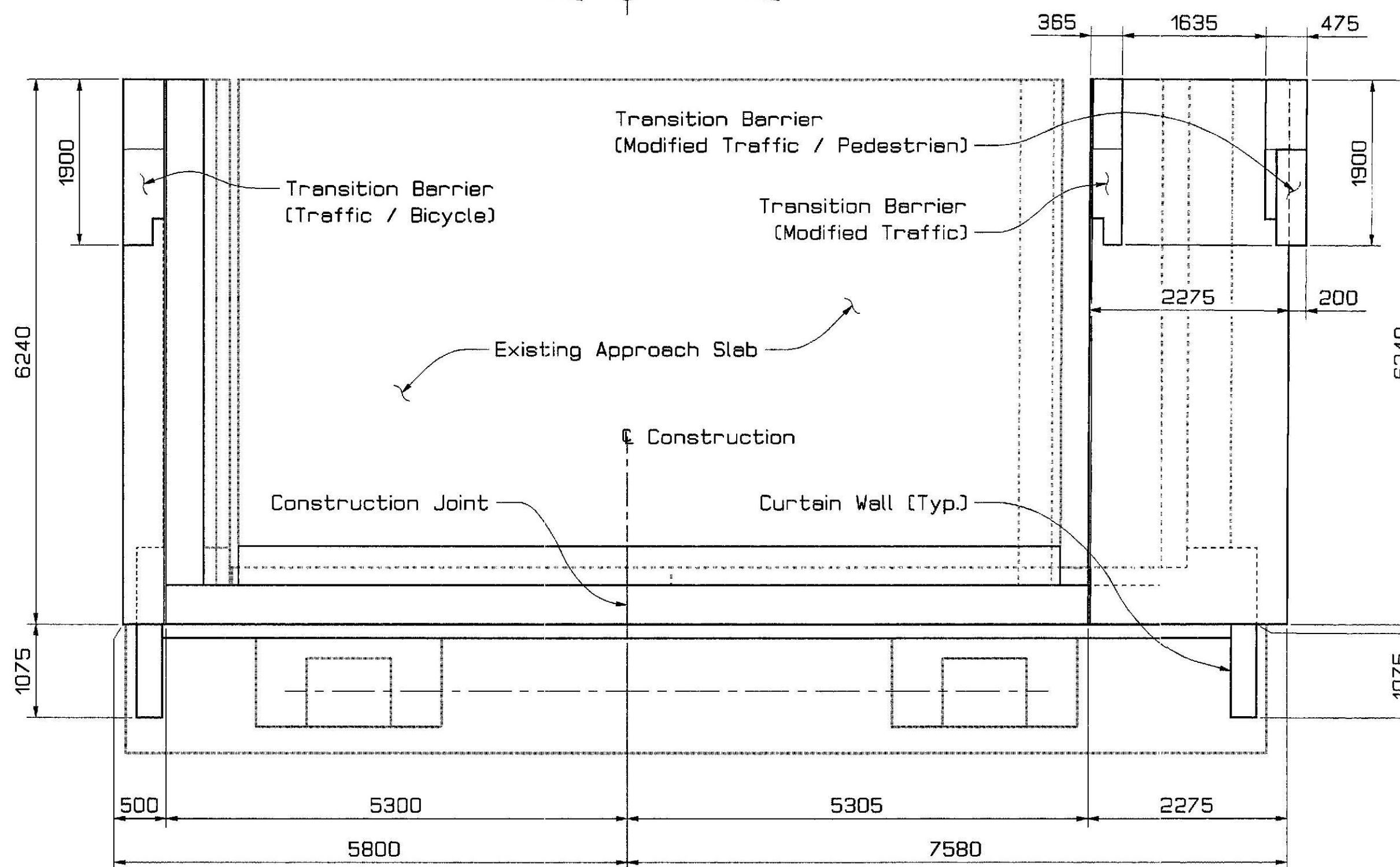
METRIC

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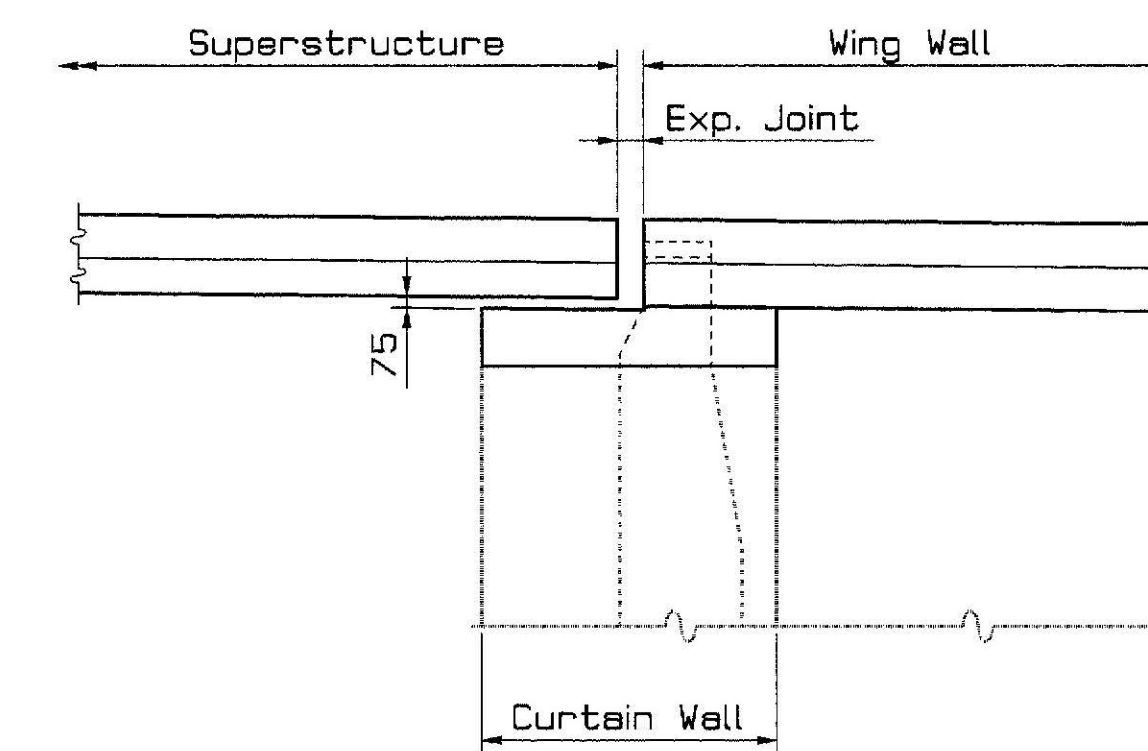
F.R.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(00)E	10	36



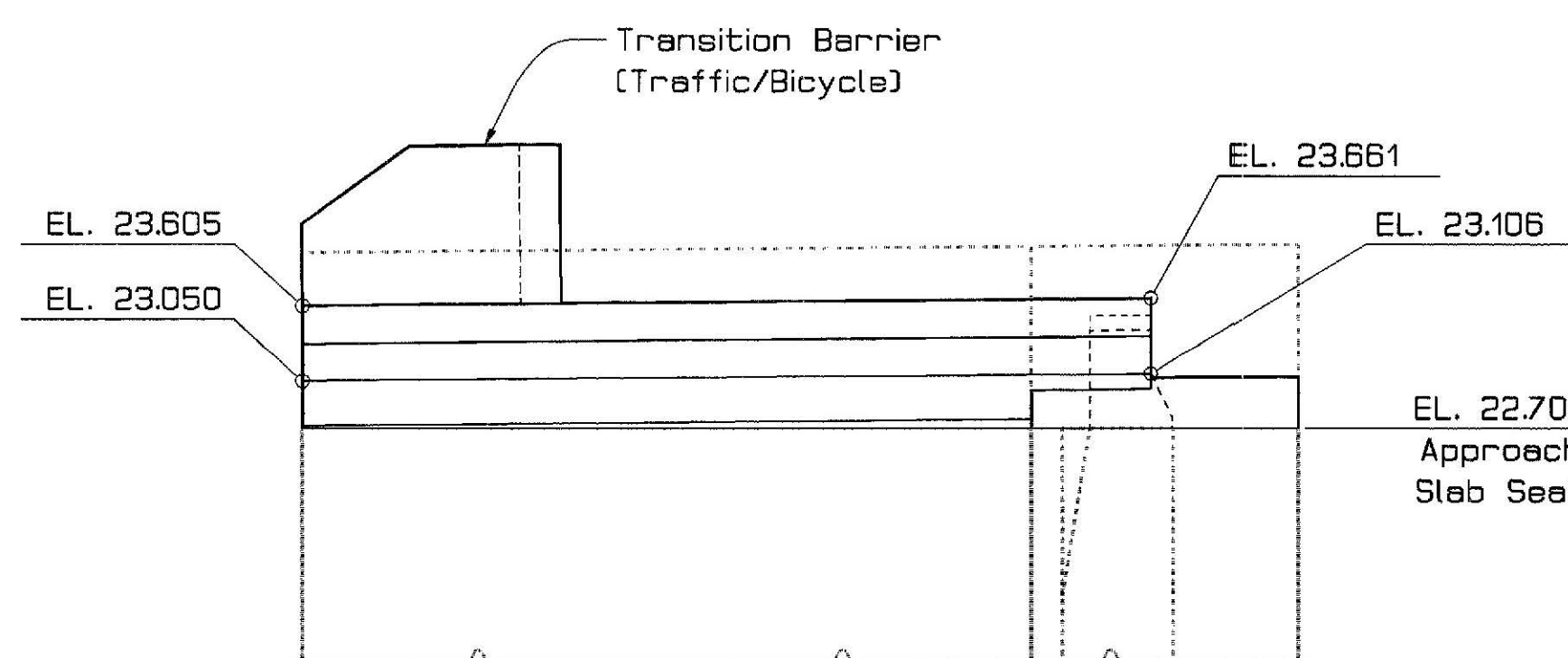
LEFT CURTAIN WALL ELEVATION



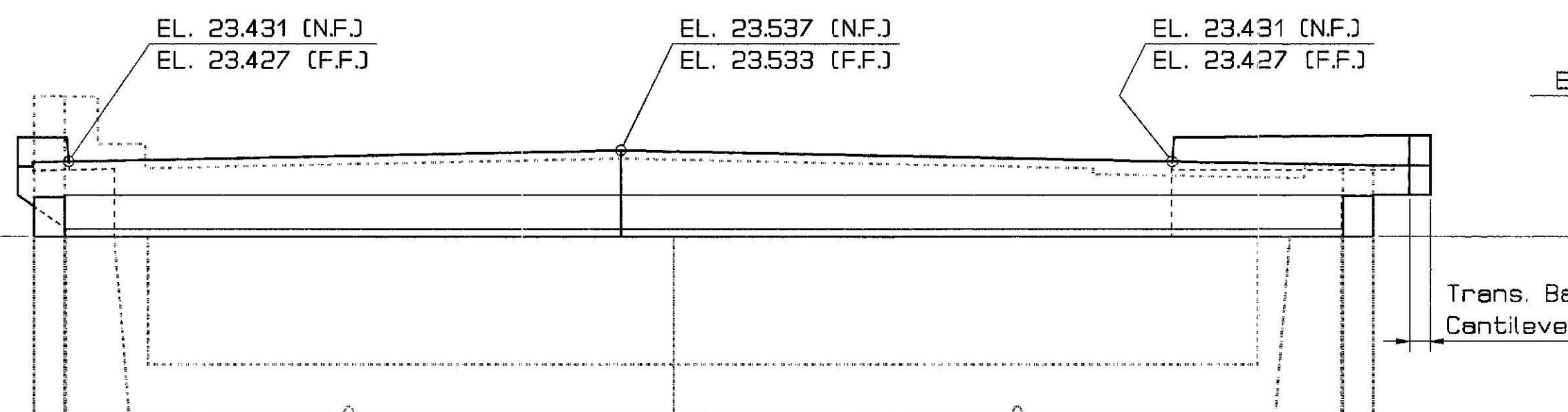
ABUTMENT NO. 2 PLAN



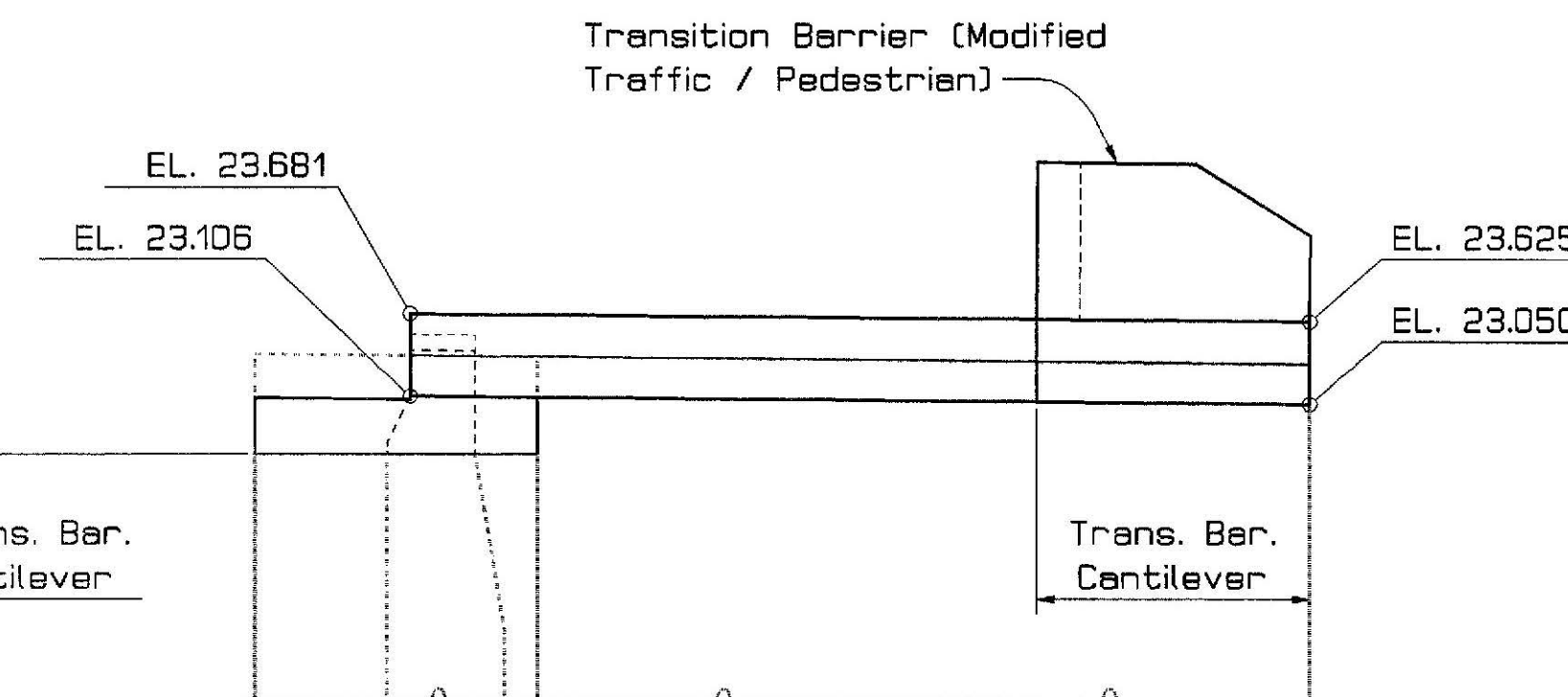
RIGHT CURTAIN WALL ELEVATION



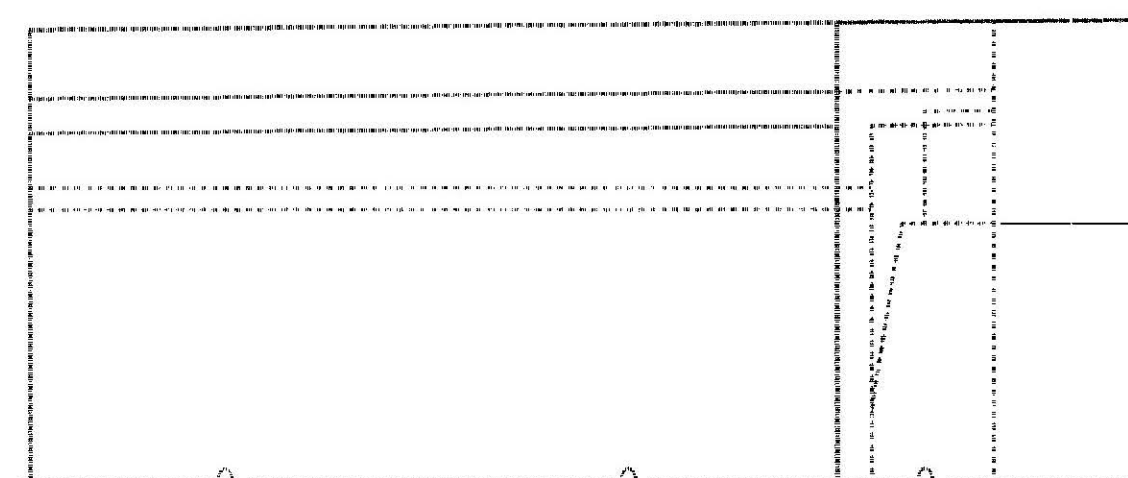
-- PROPOSED LEFT WING ELEVATION --



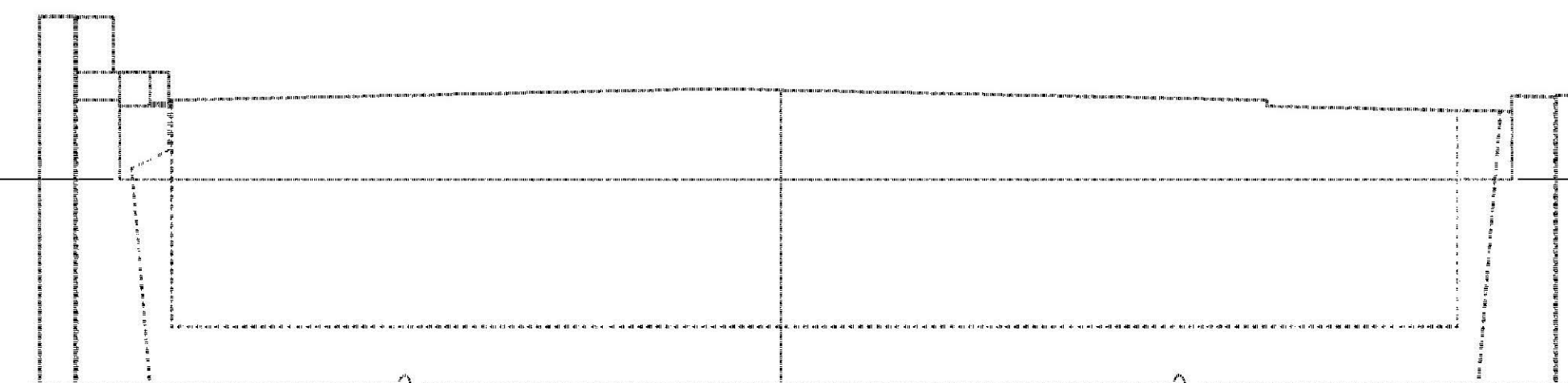
-- PROPOSED FRONT ELEVATION --



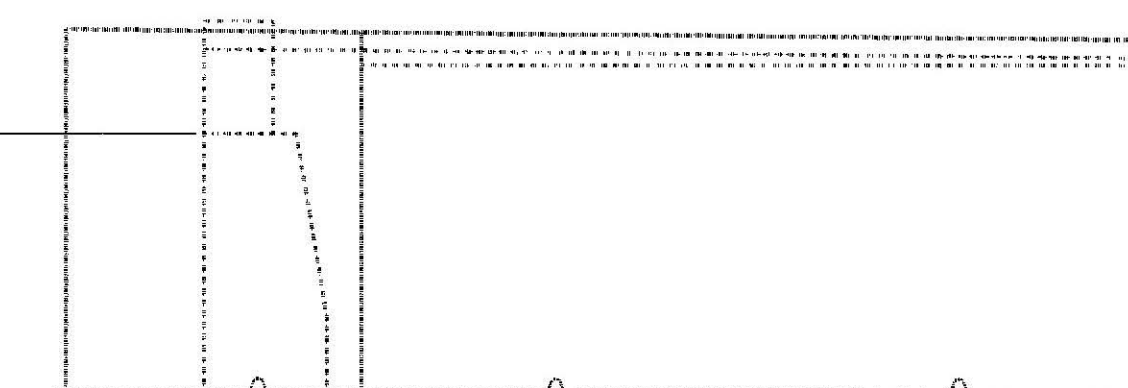
-- PROPOSED RIGHT WING ELEVATION --



-- EXISTING LEFT WING ELEVATION --



-- EXISTING FRONT ELEVATION --



-- EXISTING RIGHT WING ELEVATION --

ABUTMENT NO. 2 ELEVATIONS

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	5/99
CHECKED	
REVISIONS	
FIELD CHANGES	

04MAY99-0107.00
ABT2

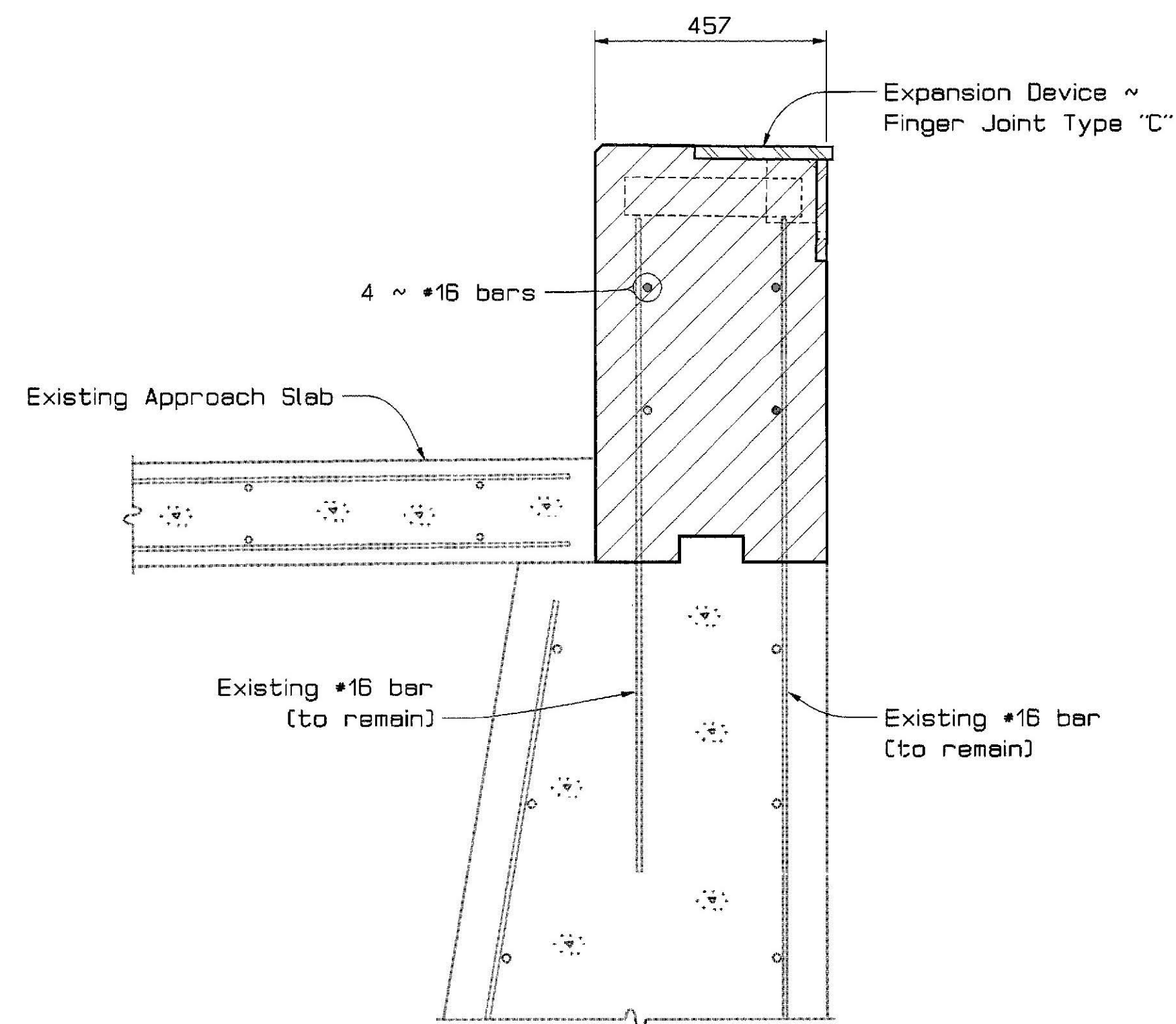
LEGEND

N.F. = Near Face
F.F. = Far Face

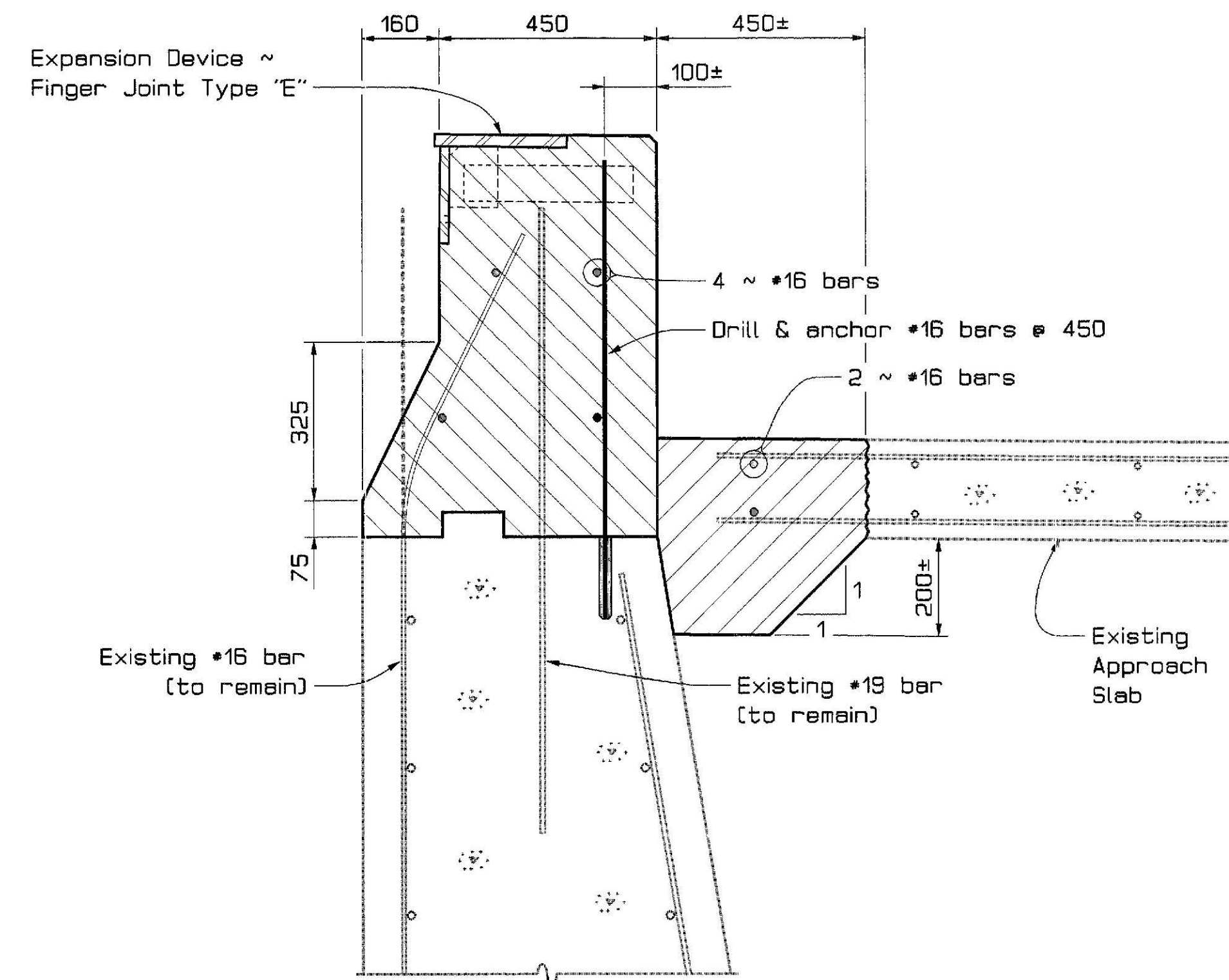
Bridge No. 5750
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY
ABUTMENT NO. 2

ABUTMENT NOTES

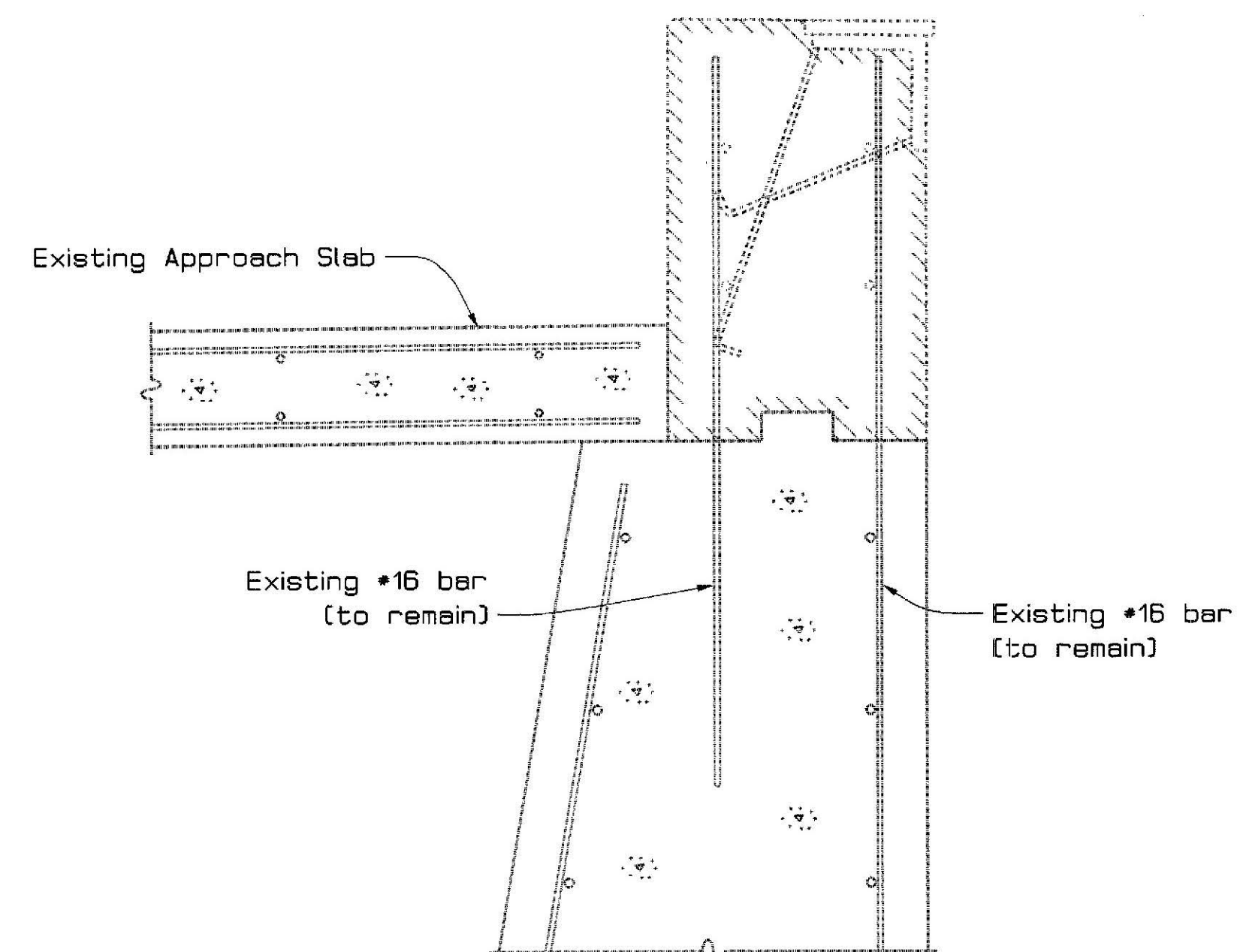
- Payment for removal of existing concrete on the abutments and wings will be made under Item No. 202.10, Removing Existing Superstructure [Property of Contractor].
- Existing reinforcing steel to remain in place shall be cleaned as directed by the Engineer prior to placing new concrete. Payment will be considered incidental to the reinforcing steel pay items.
- Reinforcing steel shall have 50 mm minimum cover unless otherwise indicated.
- The tops of the existing curtain walls shall be adjusted as shown to clear the new deck slab. Vertical reinforcing steel shall remain in place and shall be cut to length as necessary. Horizontal steel shall be replaced with #16 bars where necessary. Payment will be made under the appropriate contract items.
- Form a 30 mm V - groove along the wing walls to match the V - groove on the superstructure.
- Reinforcing steel anchoring the transition barriers to the curb and sidewalk will be paid for with the main reinforcing steel and is not part of the transition barrier pay items. These bars must be supplied and installed prior to placing the concrete in those areas.
- Apply Protective Coating for Concrete Surfaces to all exposed areas of new concrete and to 300 mm below grade on buried areas, including all surfaces of the Concrete Transition Barriers.



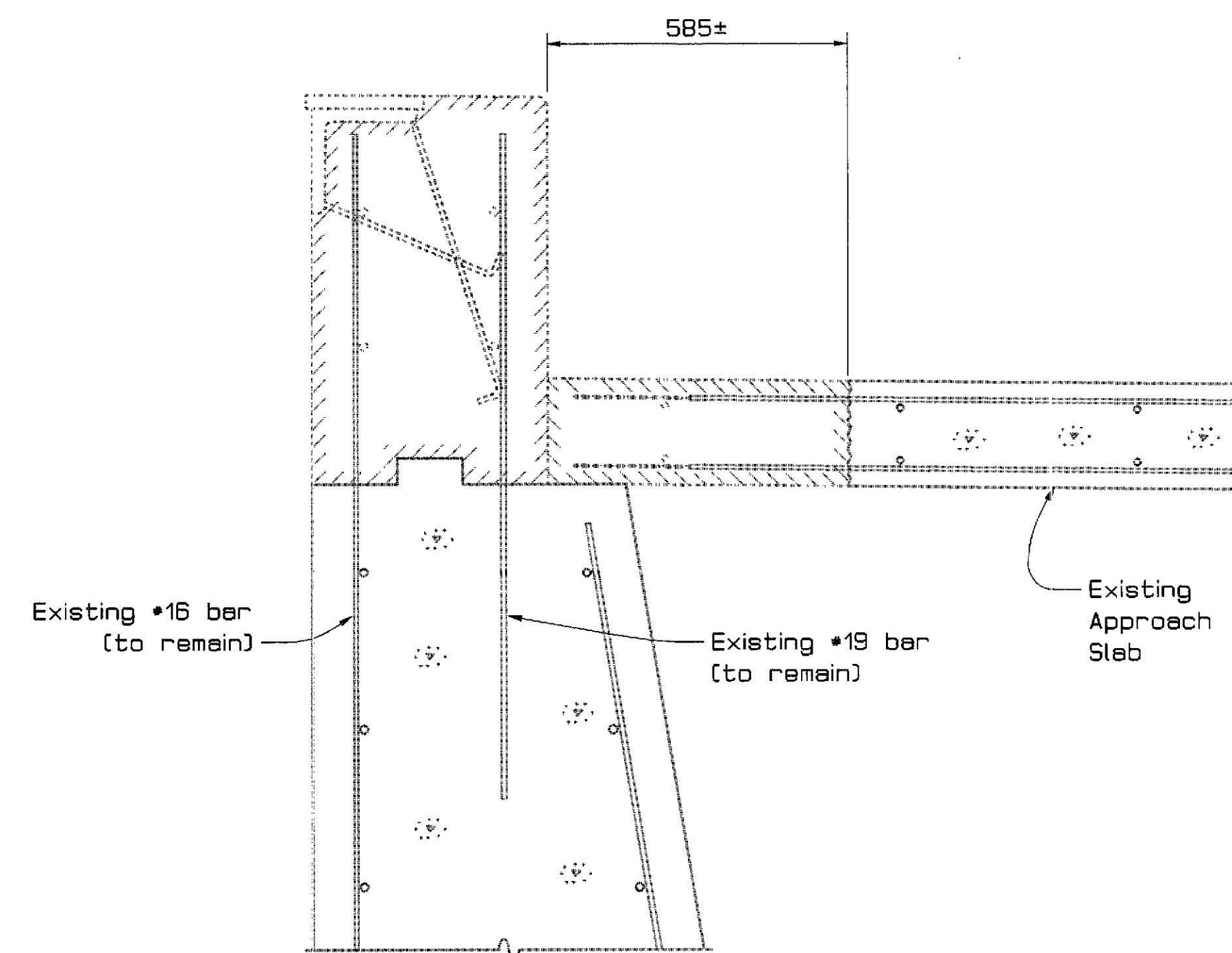
PROPOSED SECTION THRU ABUTMENT NO. 1 BACKWALL



PROPOSED SECTION THRU ABUTMENT NO. 2 BACKWALL



EXISTING SECTION THRU ABUTMENT NO. 1 BACKWALL



EXISTING SECTION THRU ABUTMENT NO. 2 BACKWALL

SYMBOLS

	New Concrete (Cast in place)
	Existing Concrete (To be removed)
	Existing Concrete (To remain)

Bridge No. 5750

STATE OF MAINE
DEPARTMENT OF TRANSPORTATIONDECK REPLACEMENT ON
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OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY

ABUTMENT DETAILS

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	5/99
CHECKED	
REVISIONS	
FIELD CHANGES	

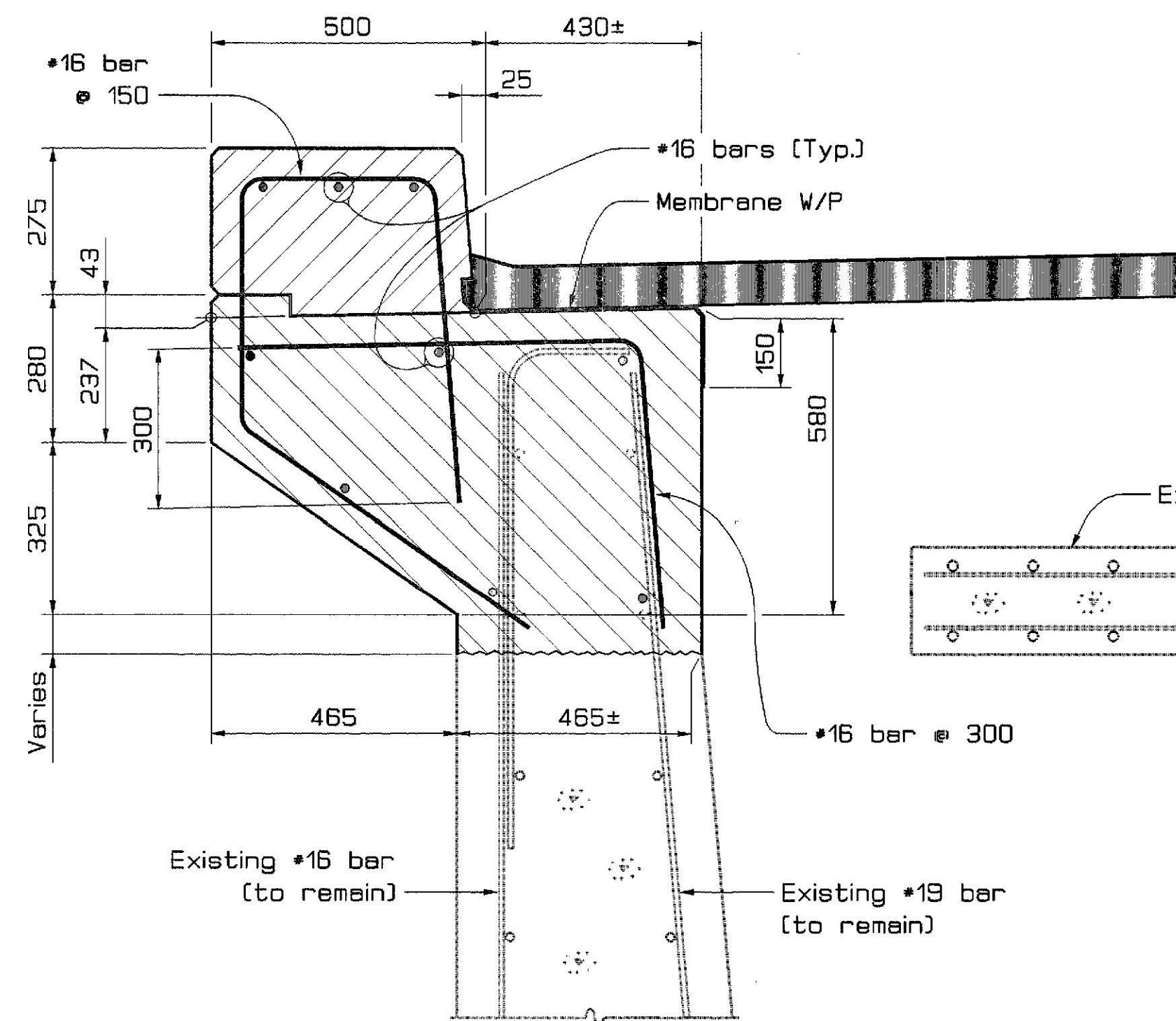
PLANS

04MAY99-0107.D0
ABTDTLS1

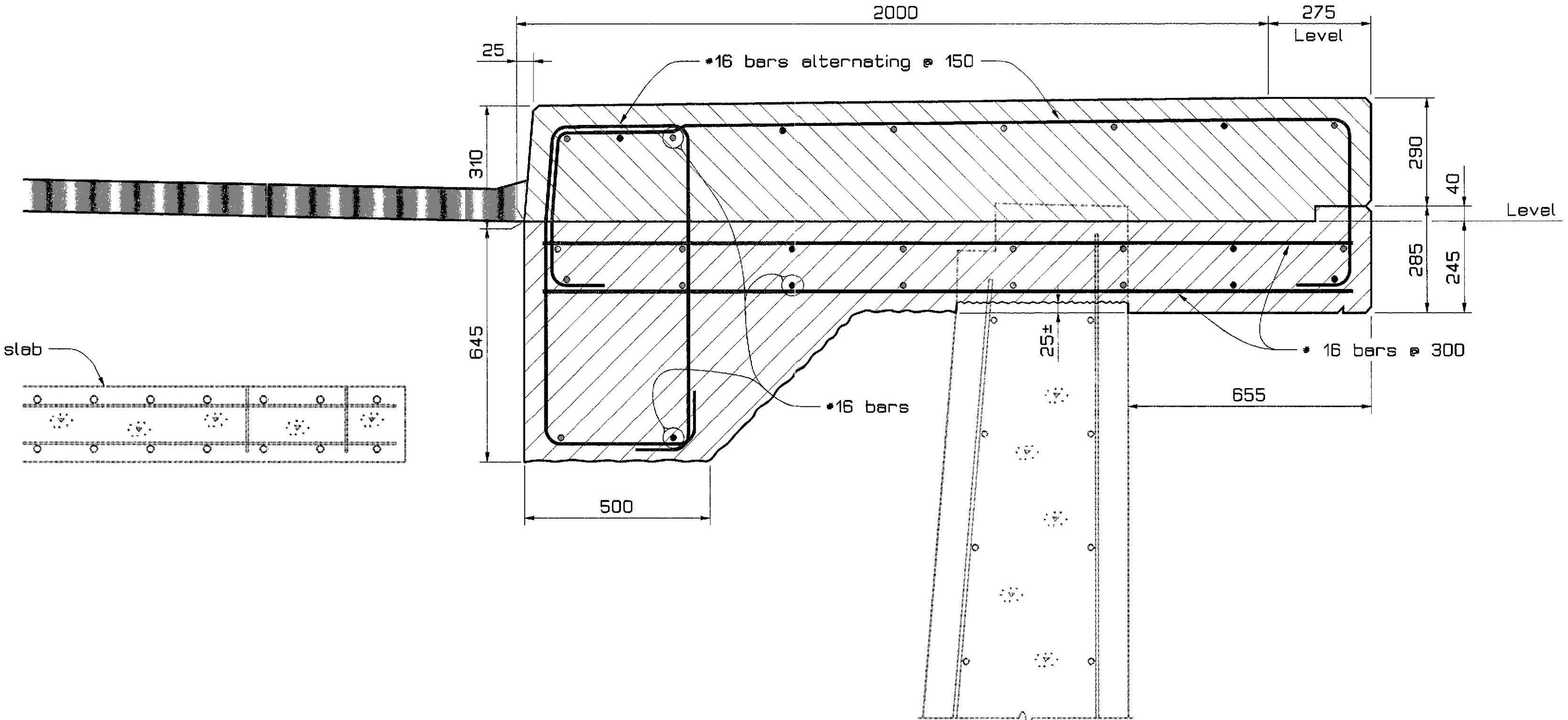
METRIC

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

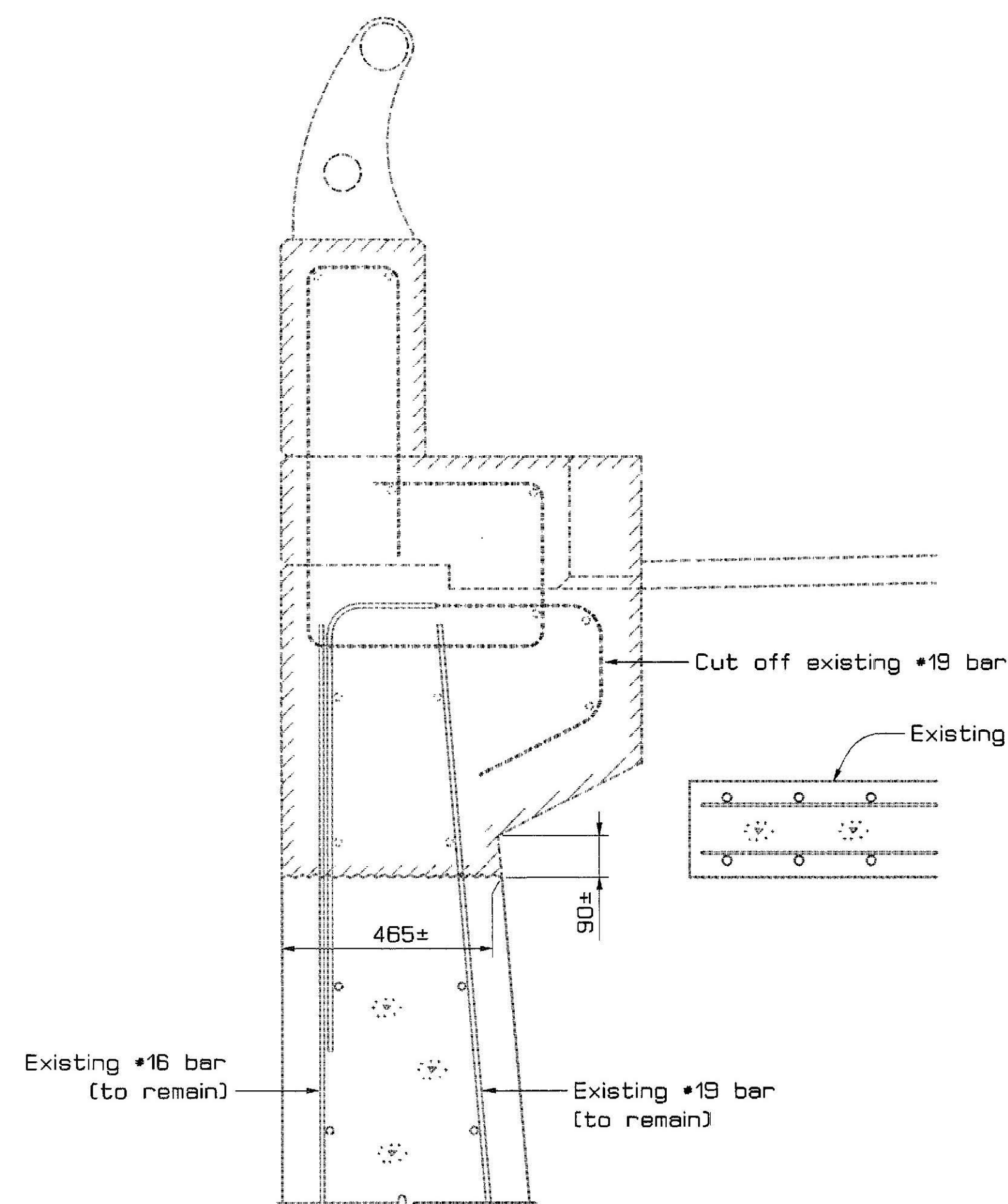
PIN 004218.20				
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(00)E	12	34



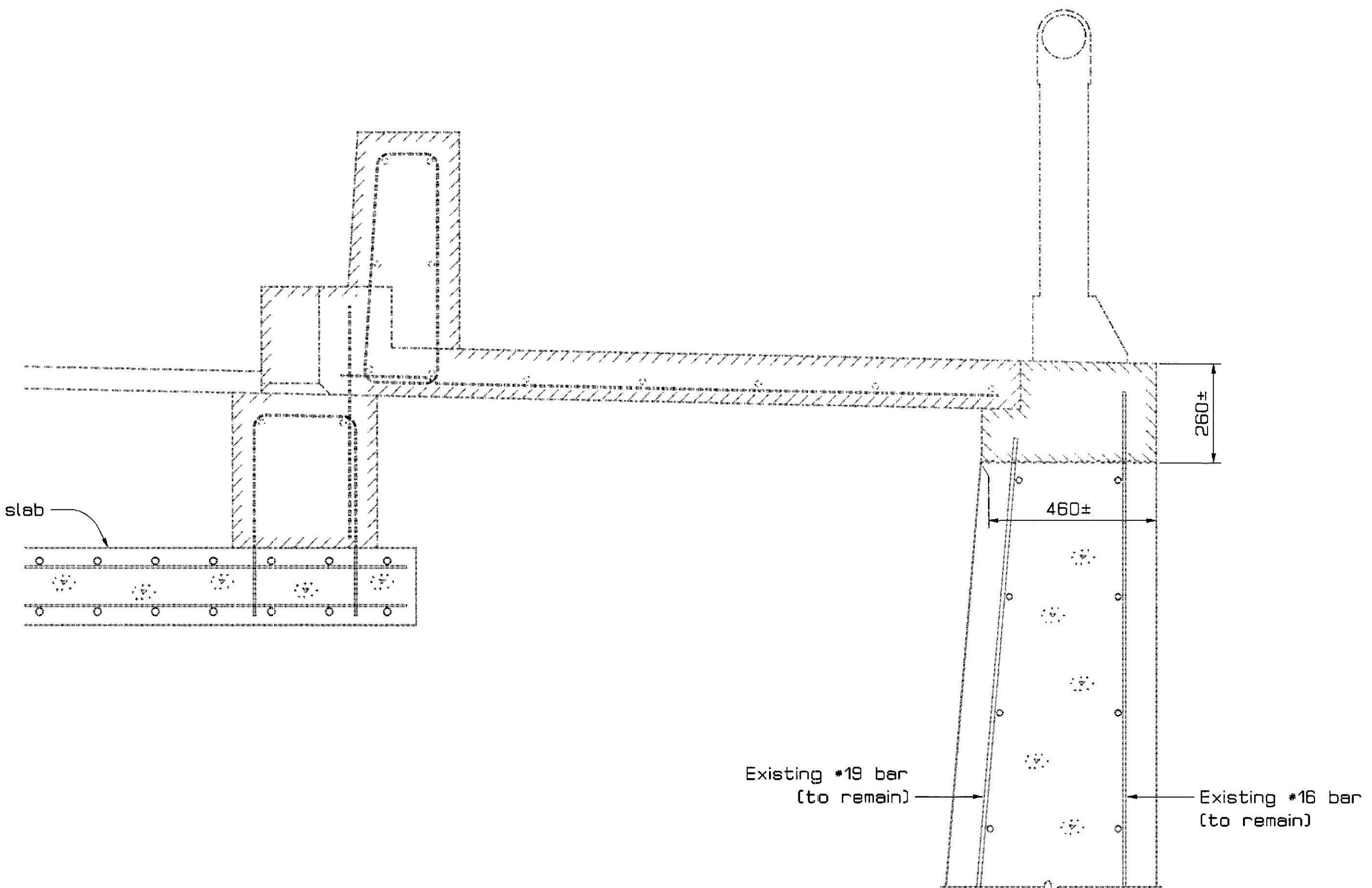
PROPOSED SECTION THRU LEFT (NORTHERLY) WING WALLS



PROPOSED SECTION THRU RIGHT (SOUTHERLY) WING WALLS



EXISTING SECTION THRU LEFT (NORTHERLY) WING WALLS



EXISTING SECTION THRU RIGHT (SOUTHERLY) WING WALLS

SYMBOLS

- New Concrete (Cast in place)
- Existing Concrete (To be removed)
- Existing Concrete (To remain)

Bridge No. 5750

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY

ABUTMENT DETAILS

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. Folsom	4/99
CHECKED		
REVISIONS		
FIELD CHANGES		

29APR99-010020
ABDTLS2

T-WALL #1

T-WALL #2

- 1) The Contractor shall provide a prefabricated modular reinforced concrete gravity wall in accordance with Special Provision 635. Plan details are shown for estimating purposes only.
- 2) The precast units shall be manufactured by the following, or equal:

"T-Wall", as manufactured by Superior Concrete Co., Inc. of Auburn, Maine.

"Doublewel" as manufactured by a licensee of Doublewel Corporation
Plainville, Connecticut.
- 3) A 300 mm wide drainage geotextile fabric shall be secured to the back of the units, at all horizontal joints up to the highest expected water level. Payment for the fabric, and installation, will be considered incidental to contract items.

Elevation T-WALL #1

View A-A
T-WALL #1

View A-A
T-WALL #2

Elevation T-WALL #2

Retaining Wall Section

Top View First Row

13 mm Cork
in vertical joint

PLAN

1220 Stem Length with 152 or 305 Curb

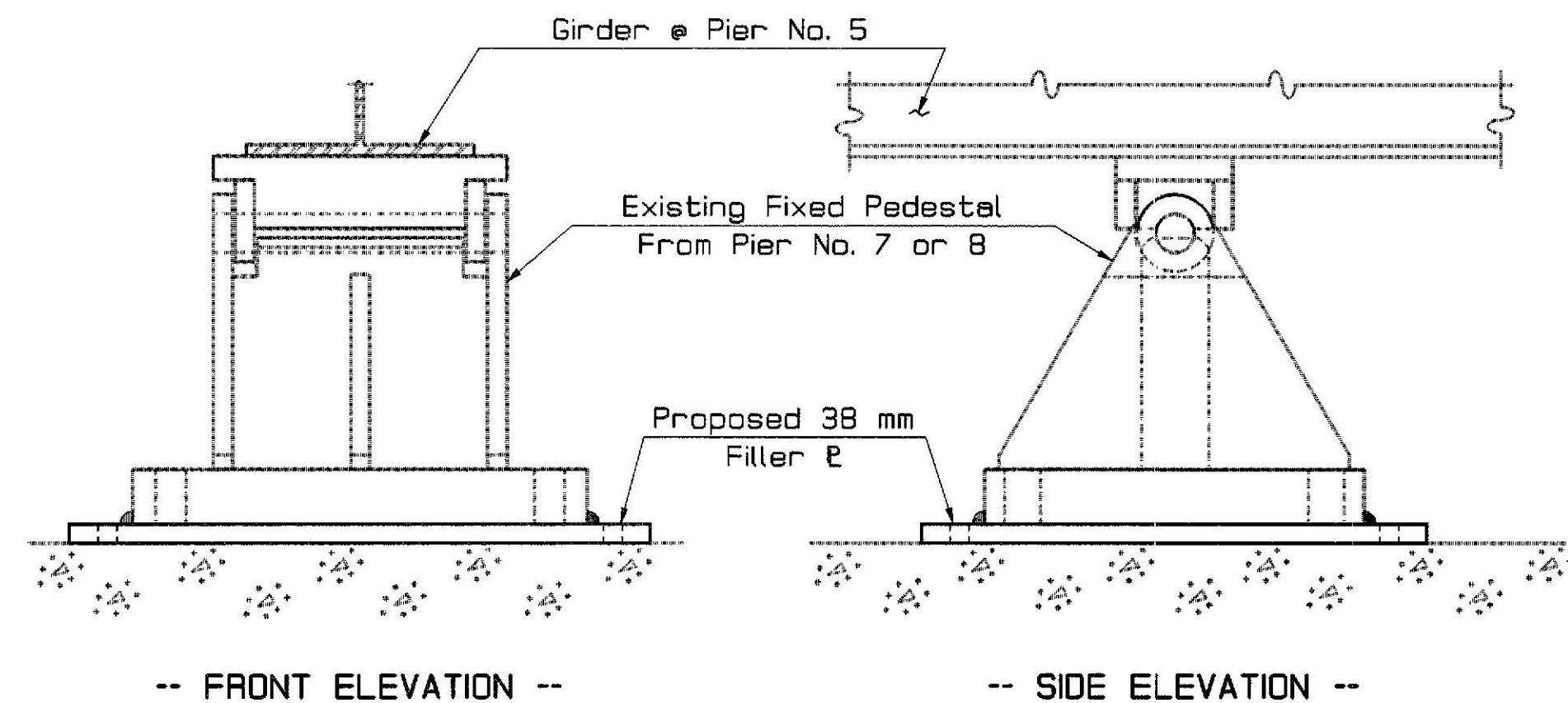
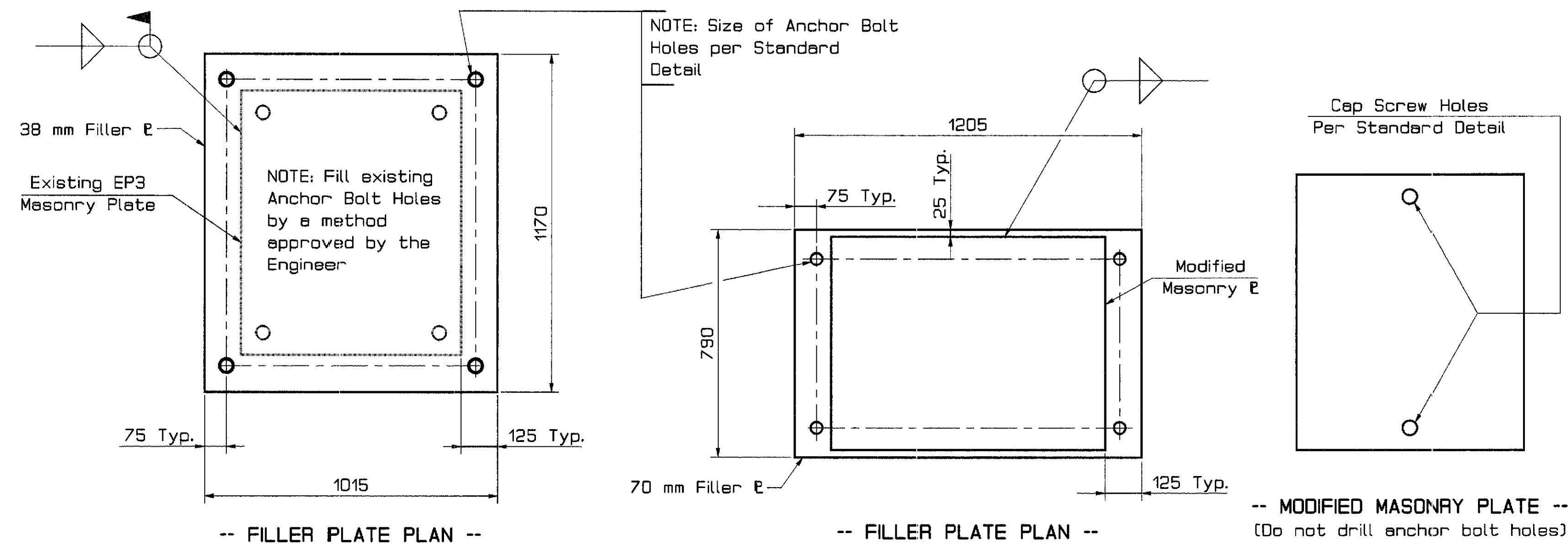
Variable Length Stem with no Curb

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. Folsom	4/99
CHECKED		
REVIEWS		

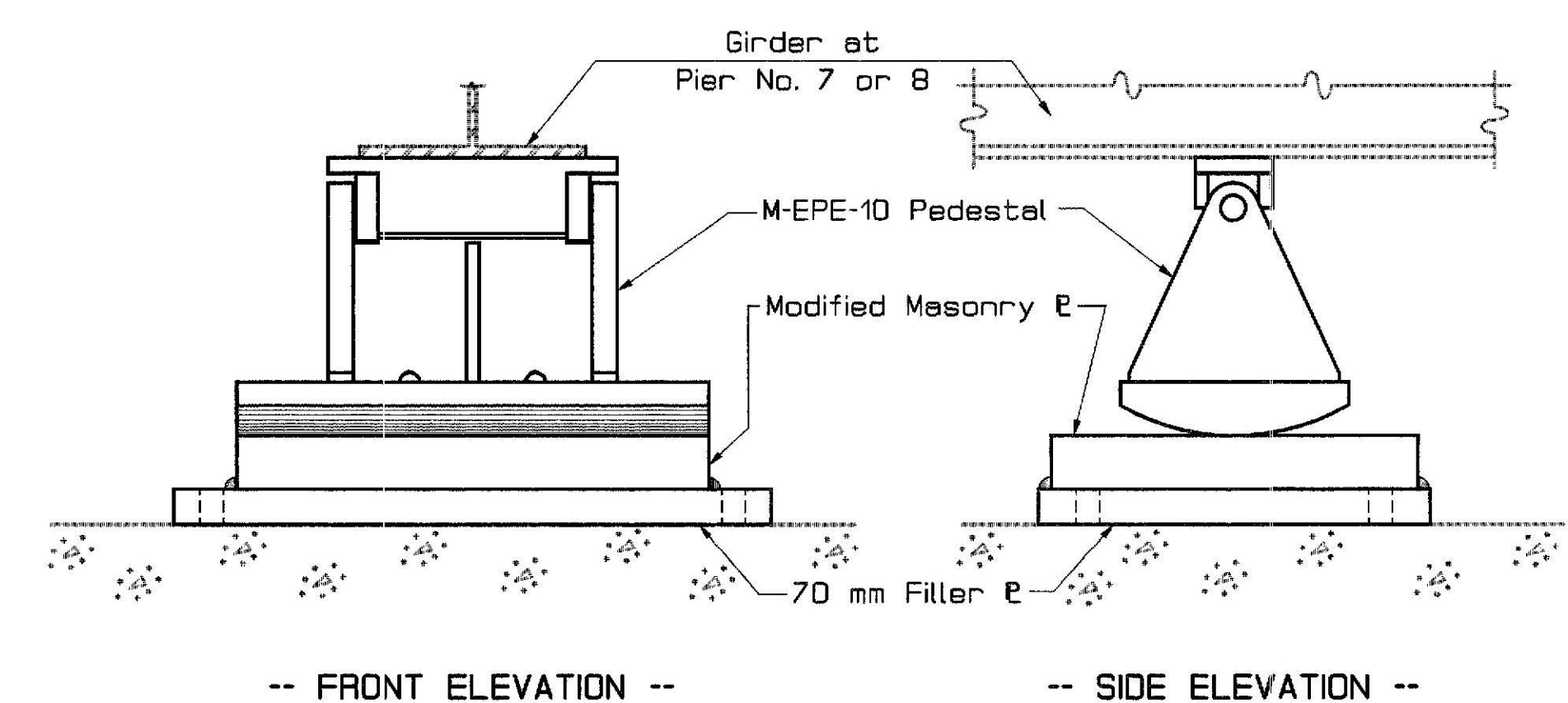
04MAY99-01.07.00
TWALL

NOTES

- Any damage caused to the existing bearing pedestals designated to be reused shall be repaired at the Contractor's expense.
- Payment for the removal and modification of the existing bearing pedestals will be considered incidental to Item No. 504.71, Structural Steel Erection.



PIER No. 5 BEARING PEDESTAL MODIFICATION



MODIFIED EXPANSION PEDESTAL M-EPE-10
4 Required (2 at Pier No. 7 & 2 at Pier No. 8)

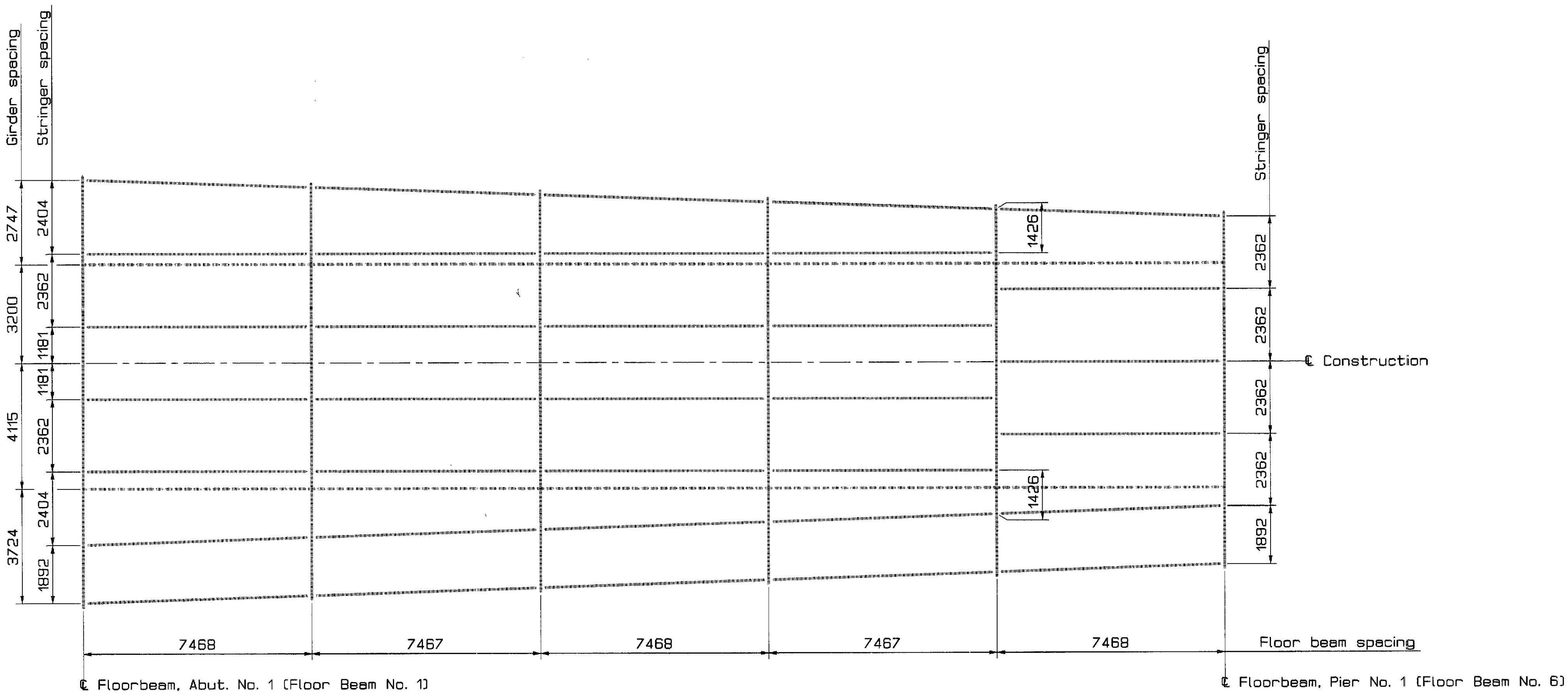
PROJECT DESIGN ENGINEER	CHECKED	REVISIONS	FIELD CHANGES
PLANS			
BY	J. Folsom	RCBooth	DATE
			11/98

04MAY99-0107.00
BEARING1

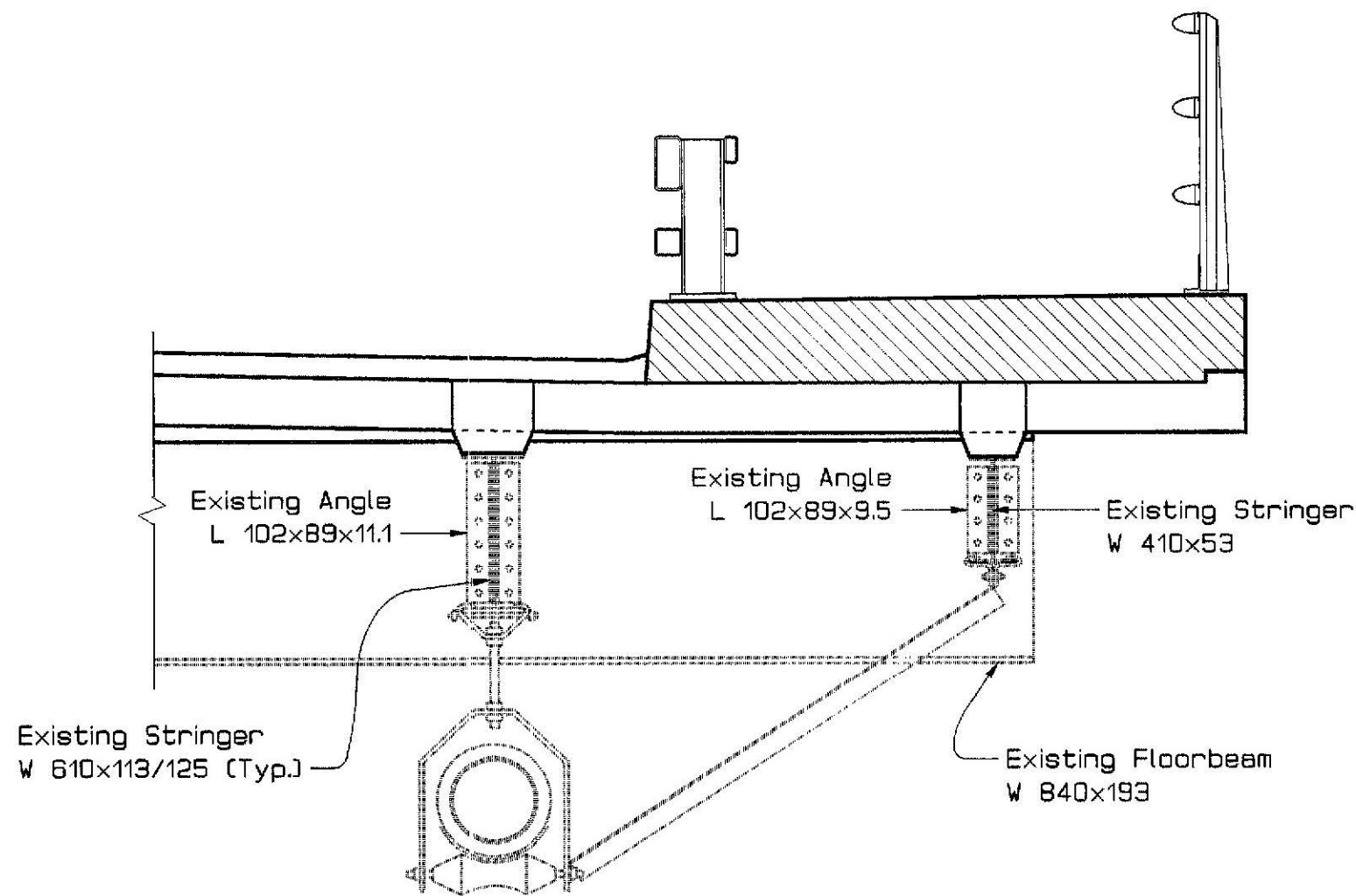
METRIC

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	NH-4218(20)	15	36



SPAN NO. 1 FRAMING PLAN



CONNECTION ANGLE REPLACEMENT DETAIL

1. Connection angles that are cracked shall be replaced with new angles of the same size as directed by the Engineer. Material shall be A709/A709M Grade 345, $F_y = 345$ MPa.
2. The existing rivets on the angles to be replaced shall be replaced with M22 ASTM A325 High Strength Bolts.
3. Approximately 4 angles need to be replaced in Span No. 1.
4. Angles shall be pre-bent to conform to the geometry of the structure prior to installation by a method approved by the Engineer.

SHEAR CONNECTOR TABLE		
Location	Stud Size	Layout
W 840x193 Floor Beams	M22	Double Studs @ 150 mm
W 610x113/125 Stringers	M22	Double Studs @ 203± mm
W 410x53 Stringers	M22	Single Studs @ 203± mm

Bridge No. 5750

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY

STRUCTURAL STEEL

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. Falsom	3/99
CHECKED	6. B. L.	
REVISIONS		
FIELD CHANGES		

04MAY99-0107.D0
STRSTL1

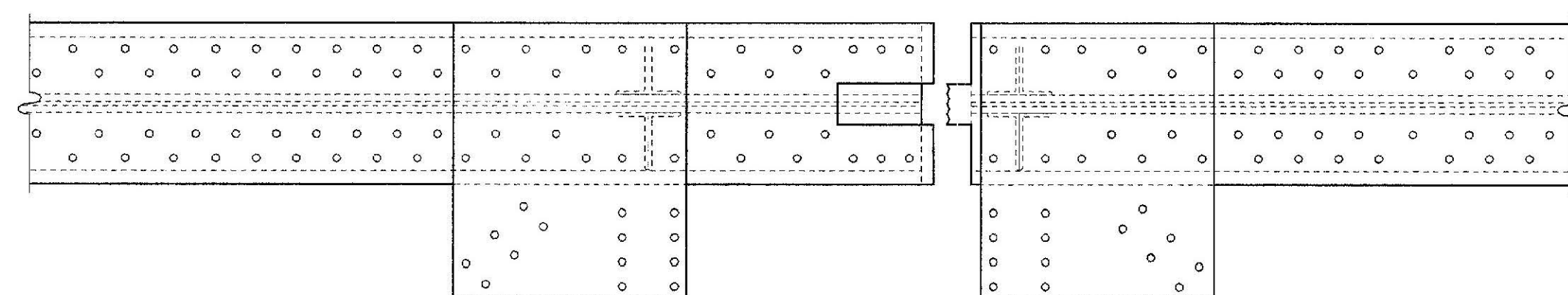
METRIC

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

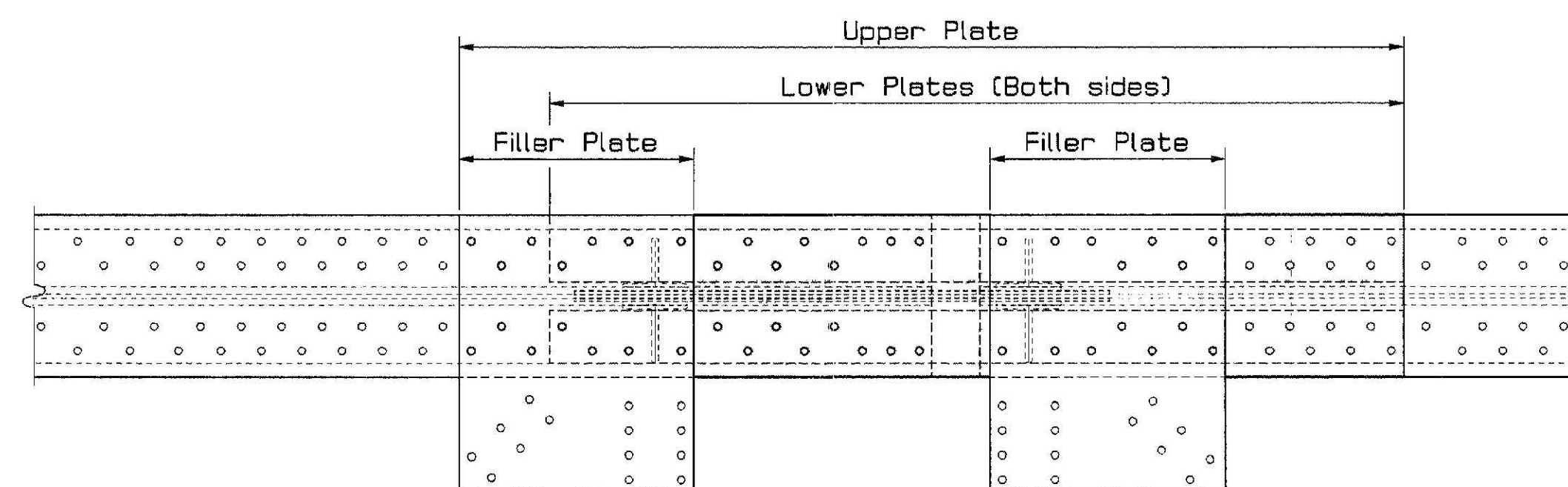
F.U.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(00)E	16	36

SYMBOLS

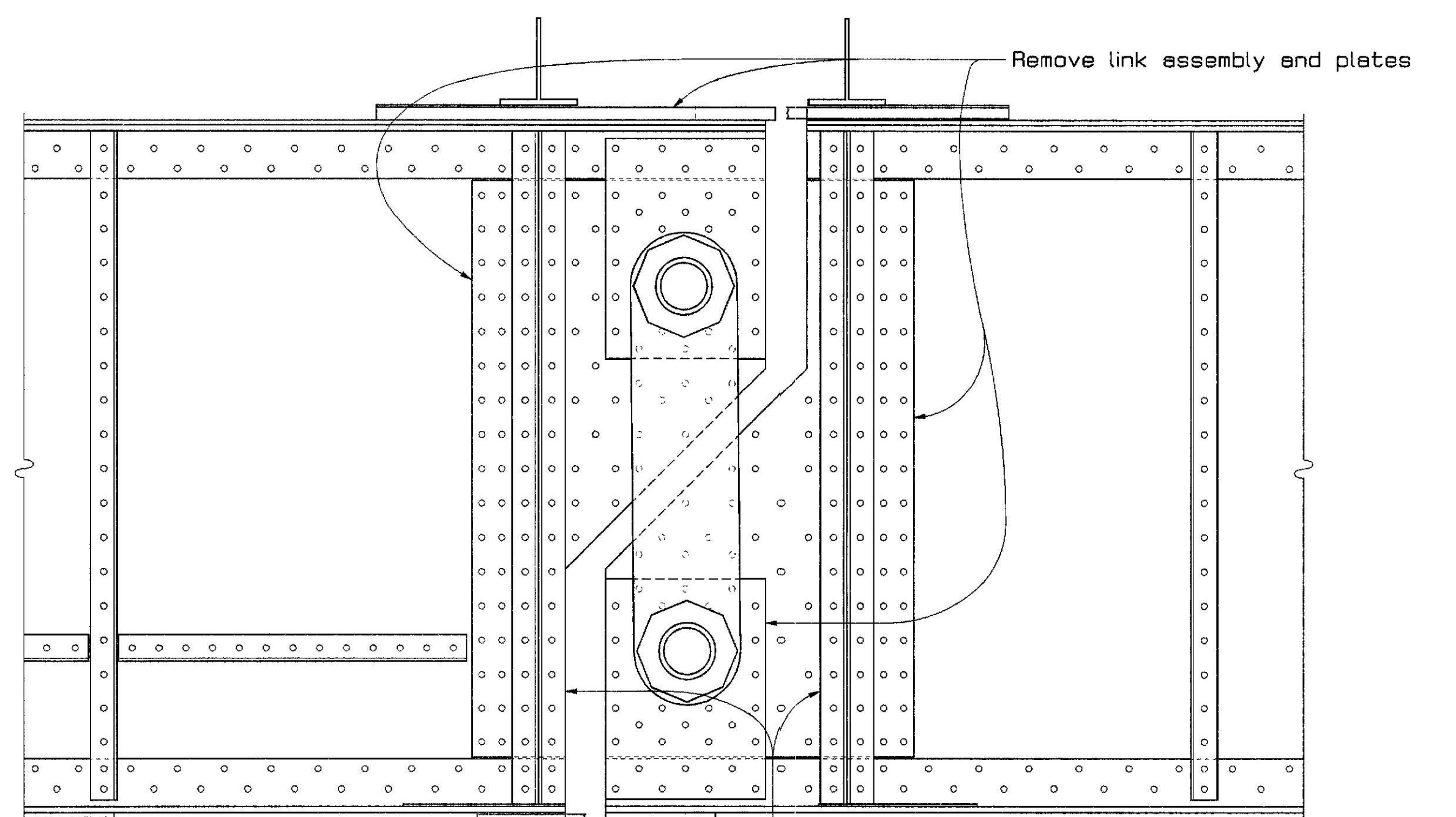
- = Field match drill new plate to match existing rivet hole
- = Field match drill new plate and new hole in existing steel



-- TOP FLANGE (Looking down) --



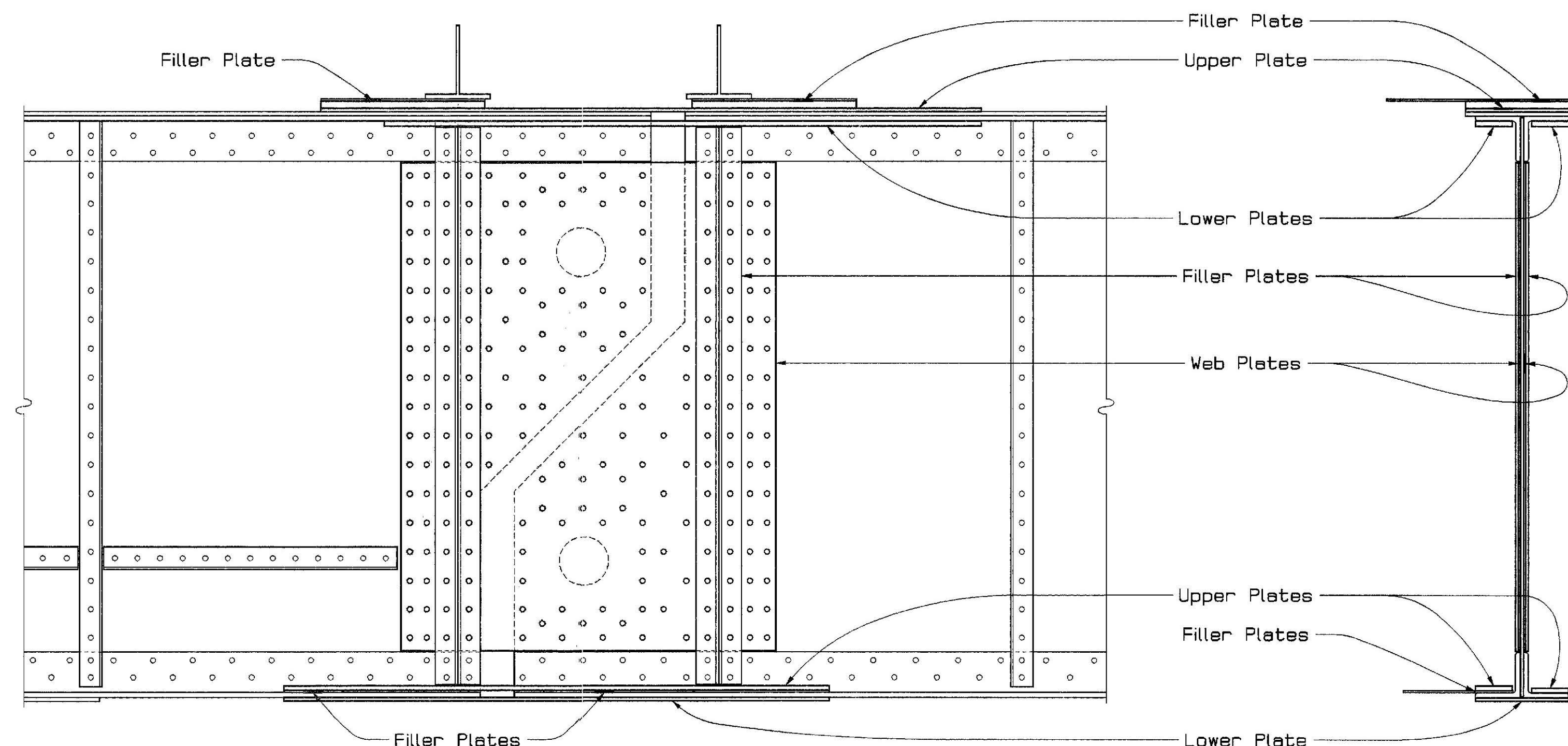
-- TOP FLANGE (Looking down) --



Remove link assembly and plates

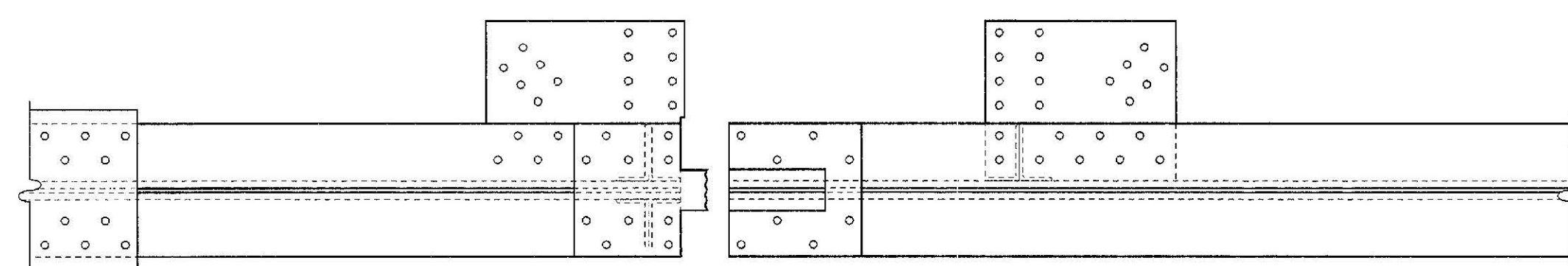
Remove stiffener angles, cut to length and reuse

-- INTERIOR ELEVATION --



-- INTERIOR ELEVATION --

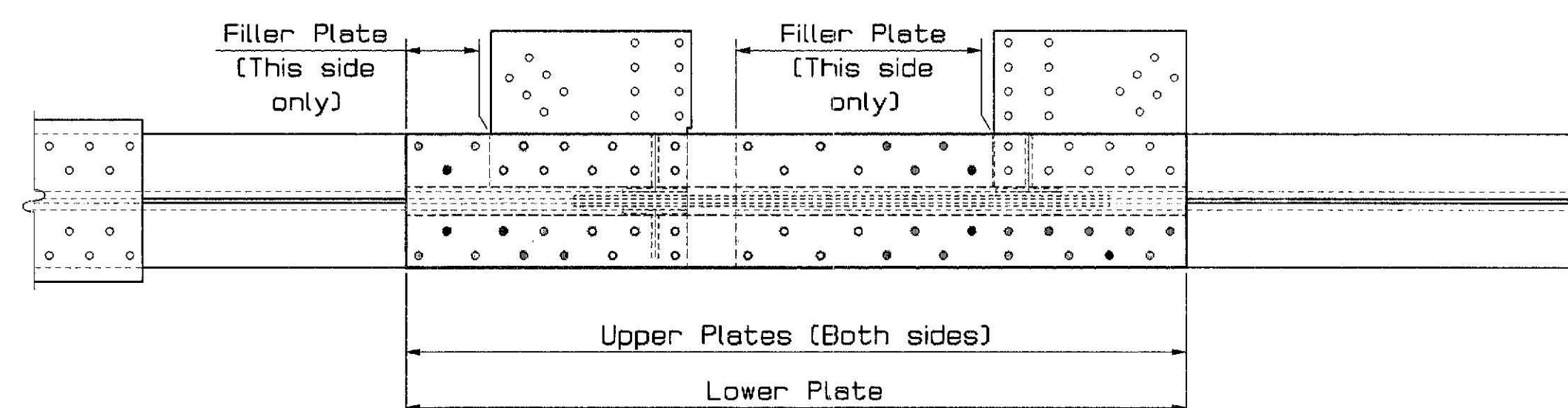
-- SECTION --



-- BOTTOM FLANGE (Looking up) --

EXISTING UPSTREAM GIRDER AT LINK

NOTE: The downstream girder is opposite hand from the details shown.



-- BOTTOM FLANGE (Looking up) --

PROPOSED UPSTREAM GIRDER AT LINK
(Showing new splice plates)

Note: New plates shown shaded

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STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY
LINK SPLICE DETAILS

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. Folsom	2/99
CHECKED	D. Dammen	
REVISIONS	C. Burt	
FIELD CHANGES		

29APR99-010020
SPLINK

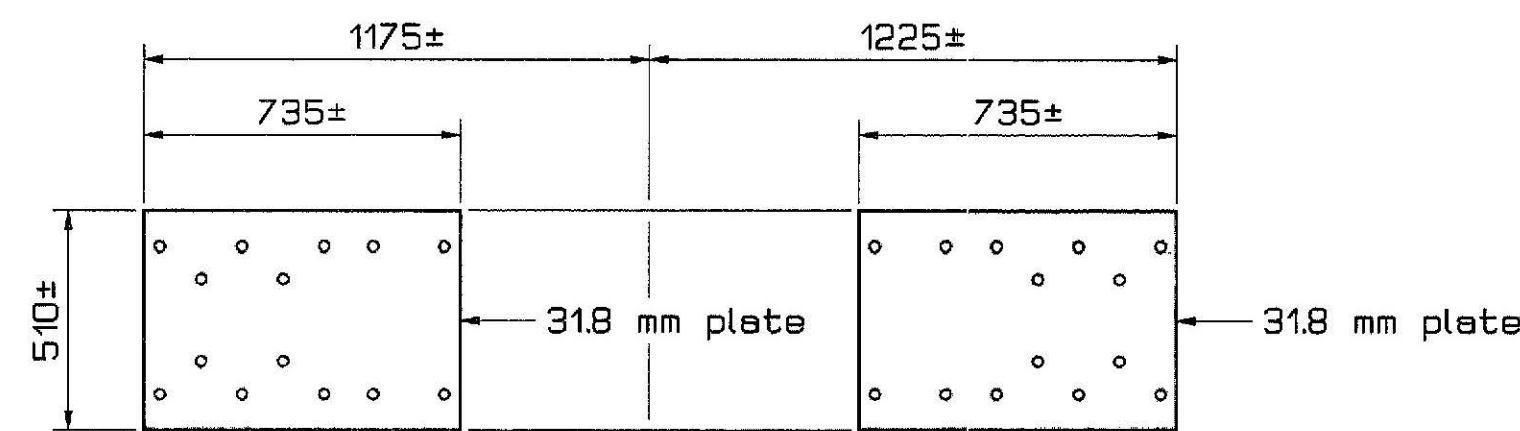
METRIC

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

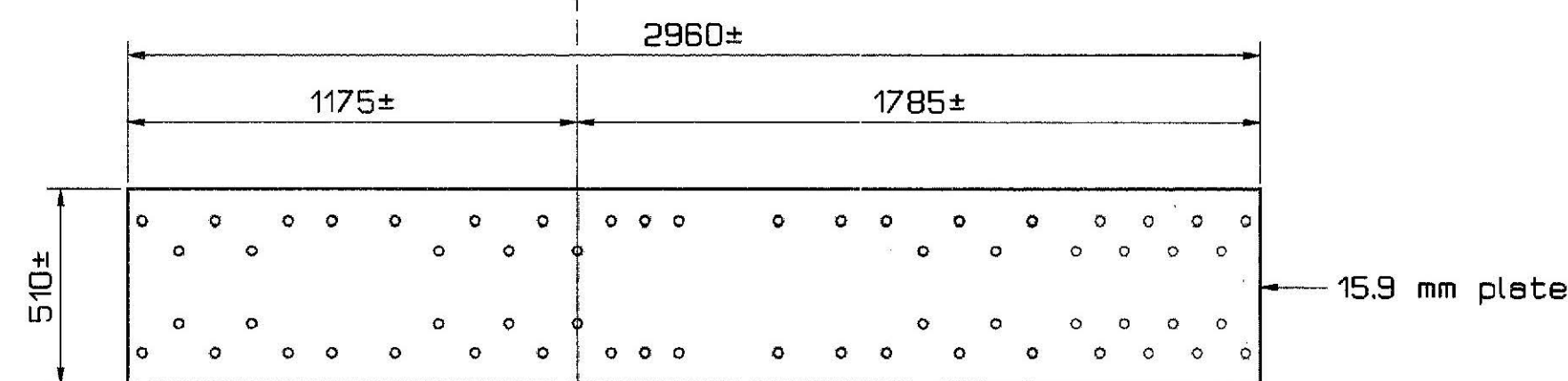
F.W.V.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(00)E	17	36

NOTES

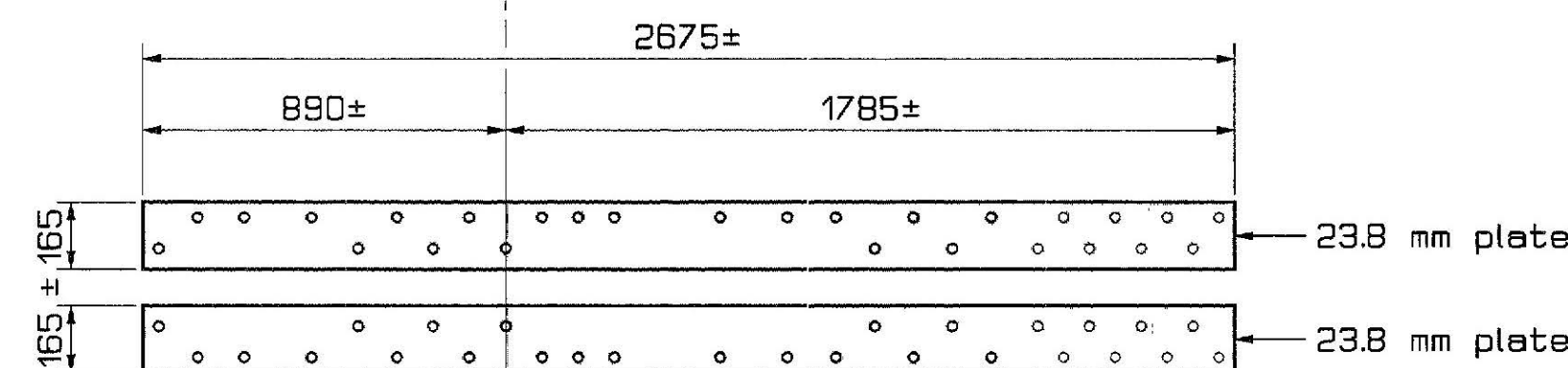
- Splice connections shall be made with M22 H.S. bolts. Hole diameter shall be 24 mm.
- Holes in splice plates shall have a minimum edge distance of 38 mm.
- Prior to the fabrication of any components, the Contractor shall verify the dimensions shown on these plans. The fit of all components shall be the responsibility of the Contractor.
- All holes in new plates which are to be matched to existing holes shall be drilled in the field.
- Once drilling begins in a splice assembly, the joint shall be held rigid so as to assure the proper alignment of the drilled holes.
- Payment for any alterations of existing or new components, required for proper assembly of the field splices, will be considered incidental to related contract items. This work will include, but not be limited to, the shortening of the existing transverse stiffener angles and the notching of the cross-frame gusset plates.
- Plate quantities shown are for one splice. There are two splices of each type to be retrofitted.



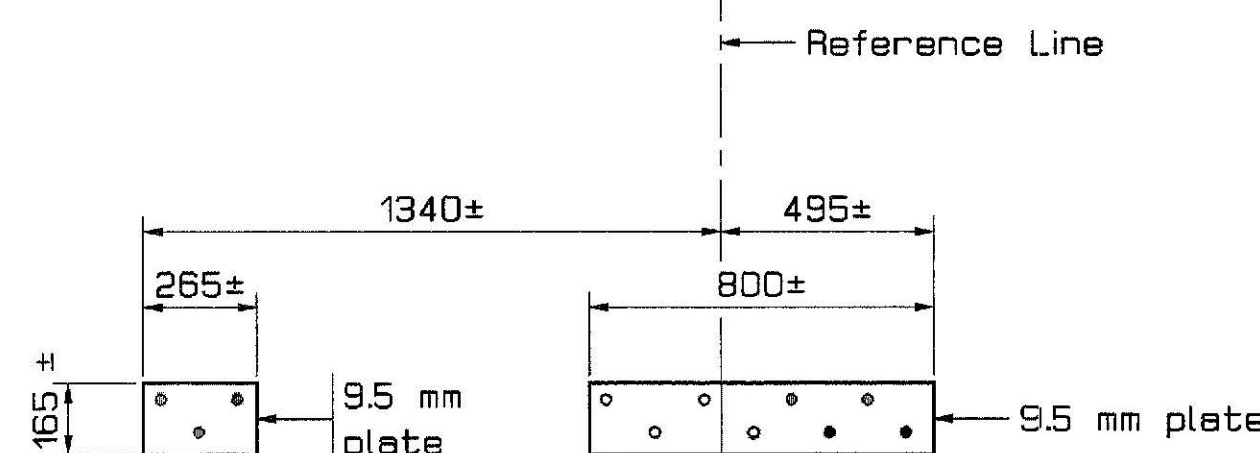
-- TOP FLANGE FILLER PLATES --



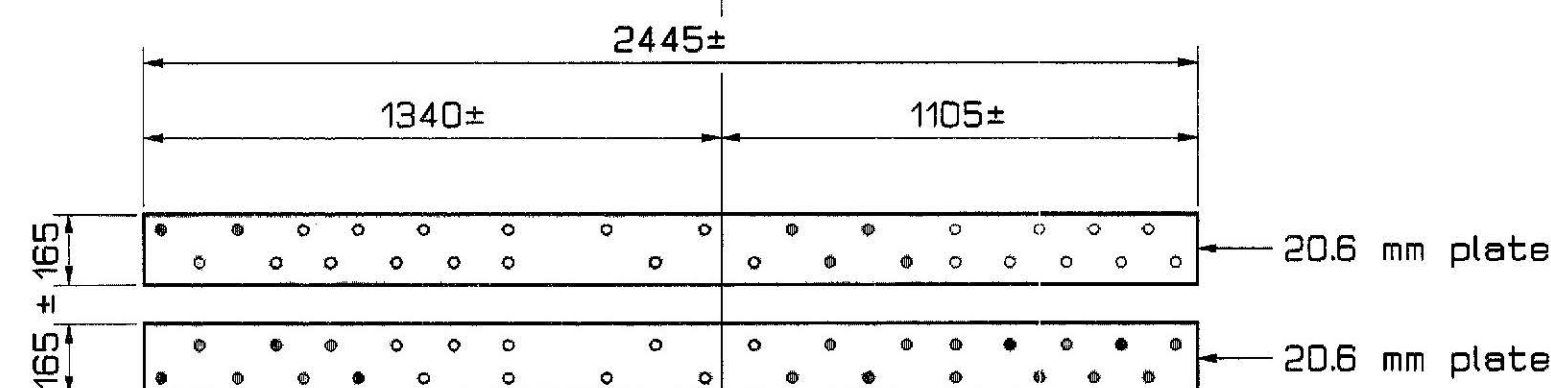
-- TOP FLANGE UPPER SPLICE PLATE --



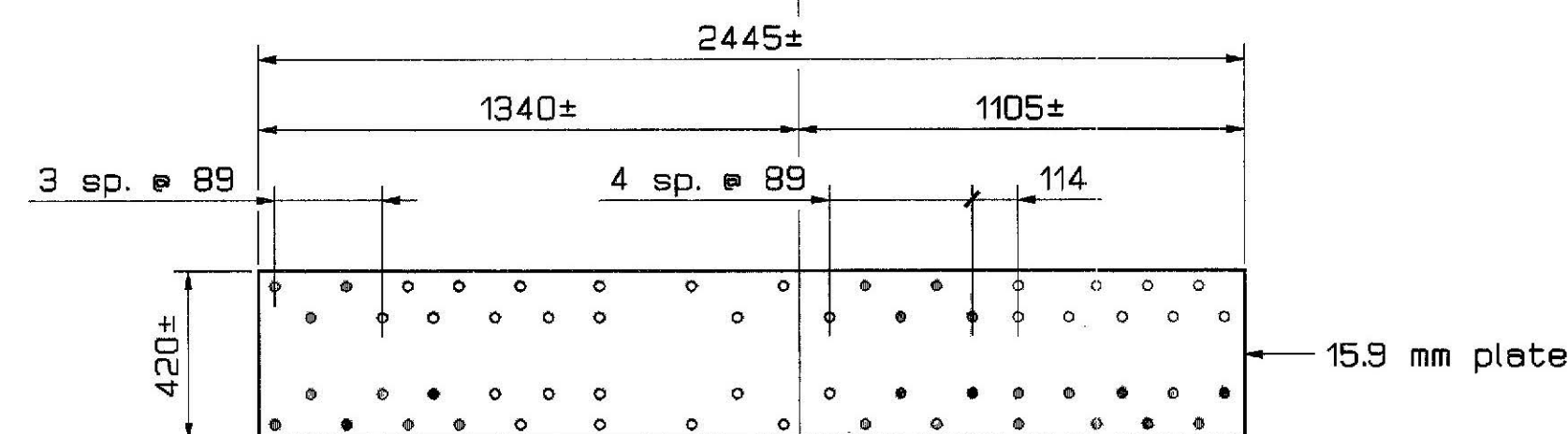
-- TOP FLANGE LOWER SPLICE PLATES --



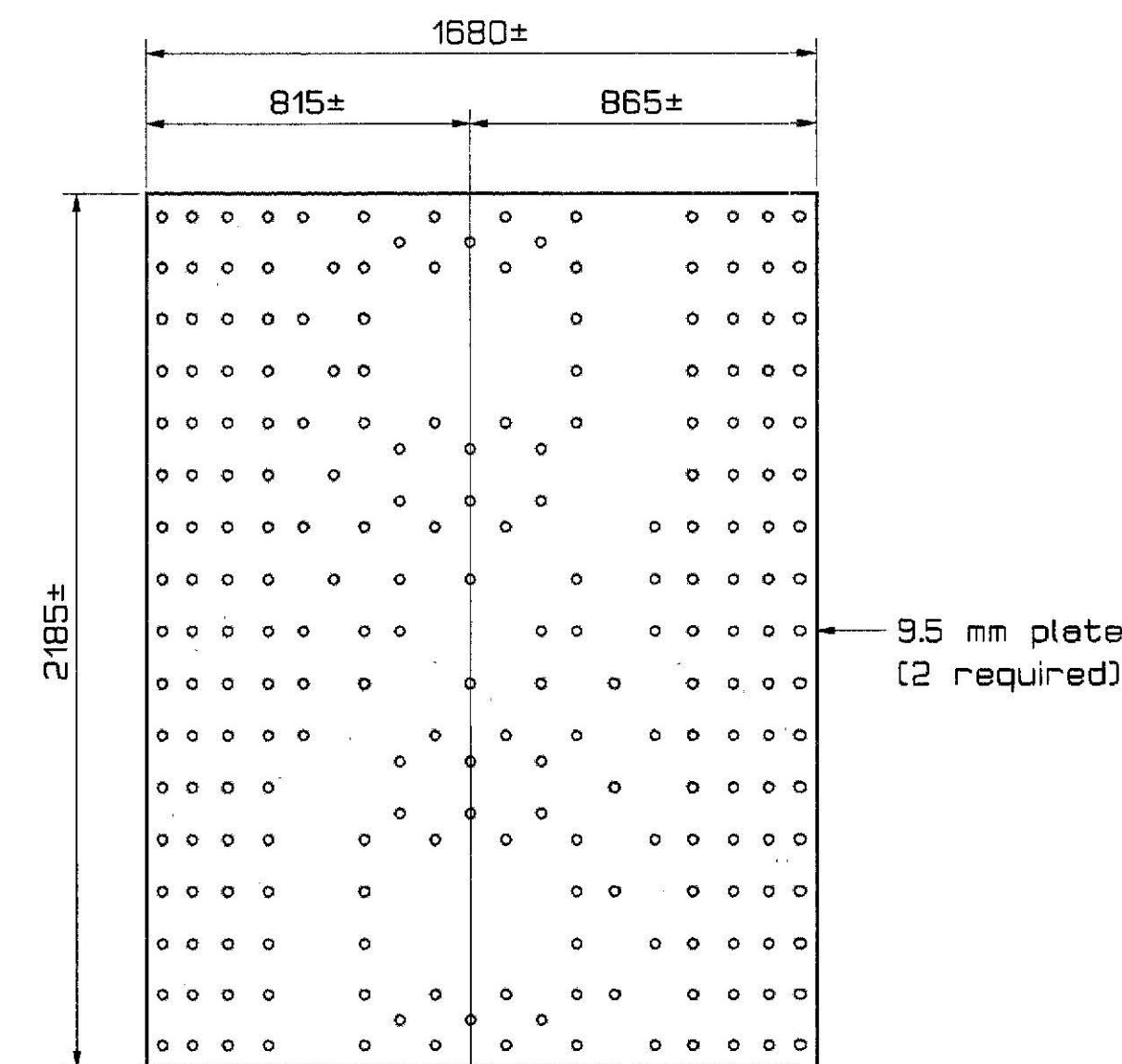
-- BOTTOM FLANGE FILLER PLATES --



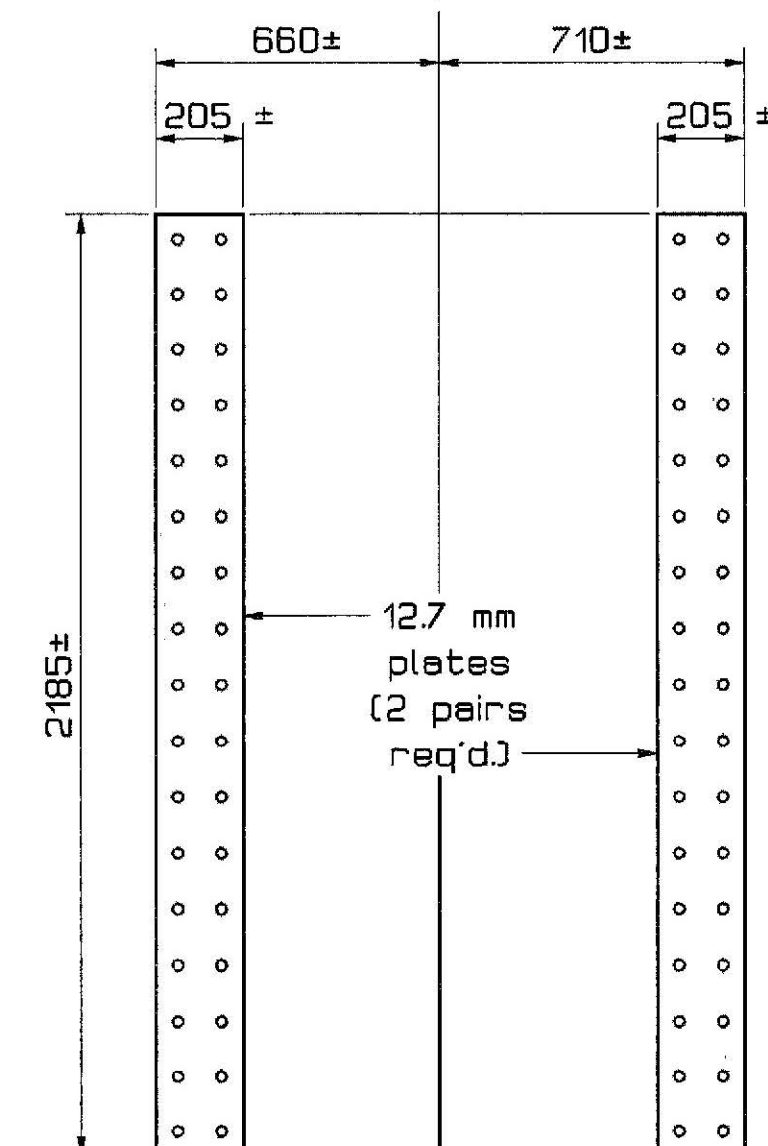
-- BOTTOM FLANGE UPPER SPLICE PLATES --



-- BOTTOM FLANGE LOWER SPLICE PLATE --



-- WEB SPLICE PLATES --



-- WEB FILLER PLATES --

SYMBOLS

- = Field match drill new plate to match existing rivet hole
- = Field match drill new plate and new hole in existing steel

Bridge No. 5750

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY

LINK SPLICE PLATES

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. Folsom	2/99
CHECKED	D. Dammen	
REVISIONS	G. Decker	
FIELD CHANGES		

29APR99-0100.20
LINKPLAT

LINK SPLICE PLATES

Plates shown are for one girder.
There are two link splices to be rebuilt.

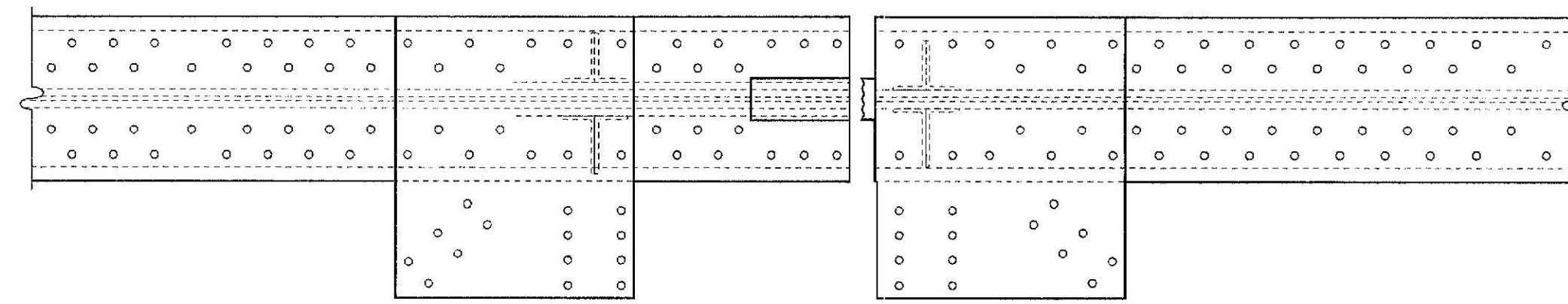
METRIC

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

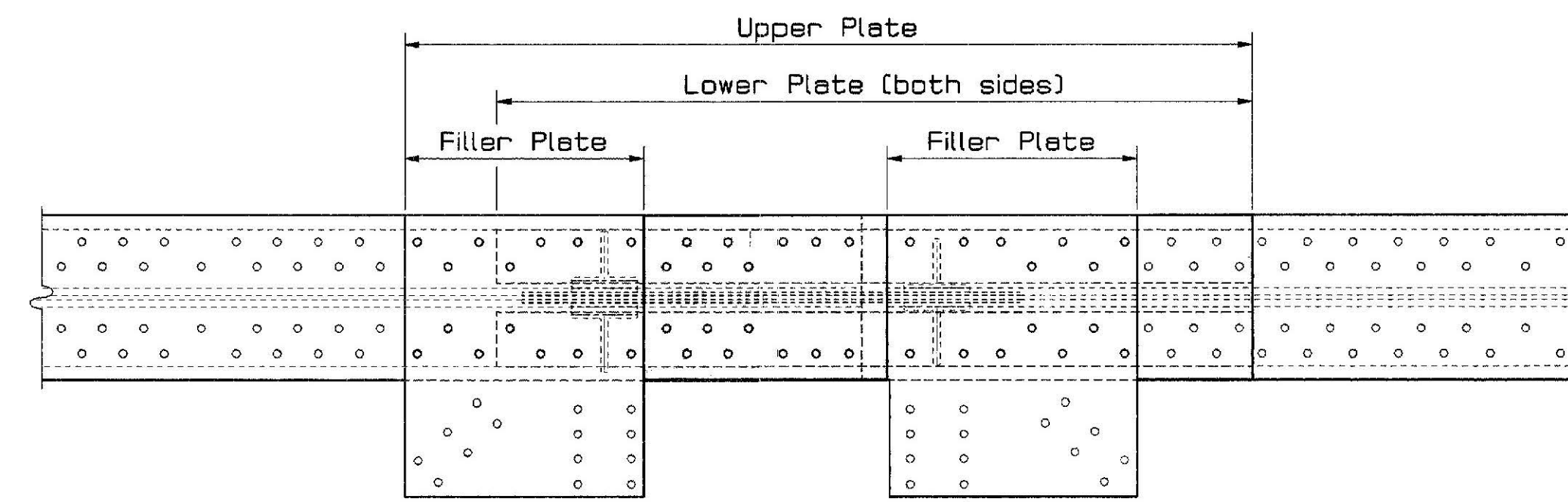
F.H.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(00)E	18	36

SYMBOLS

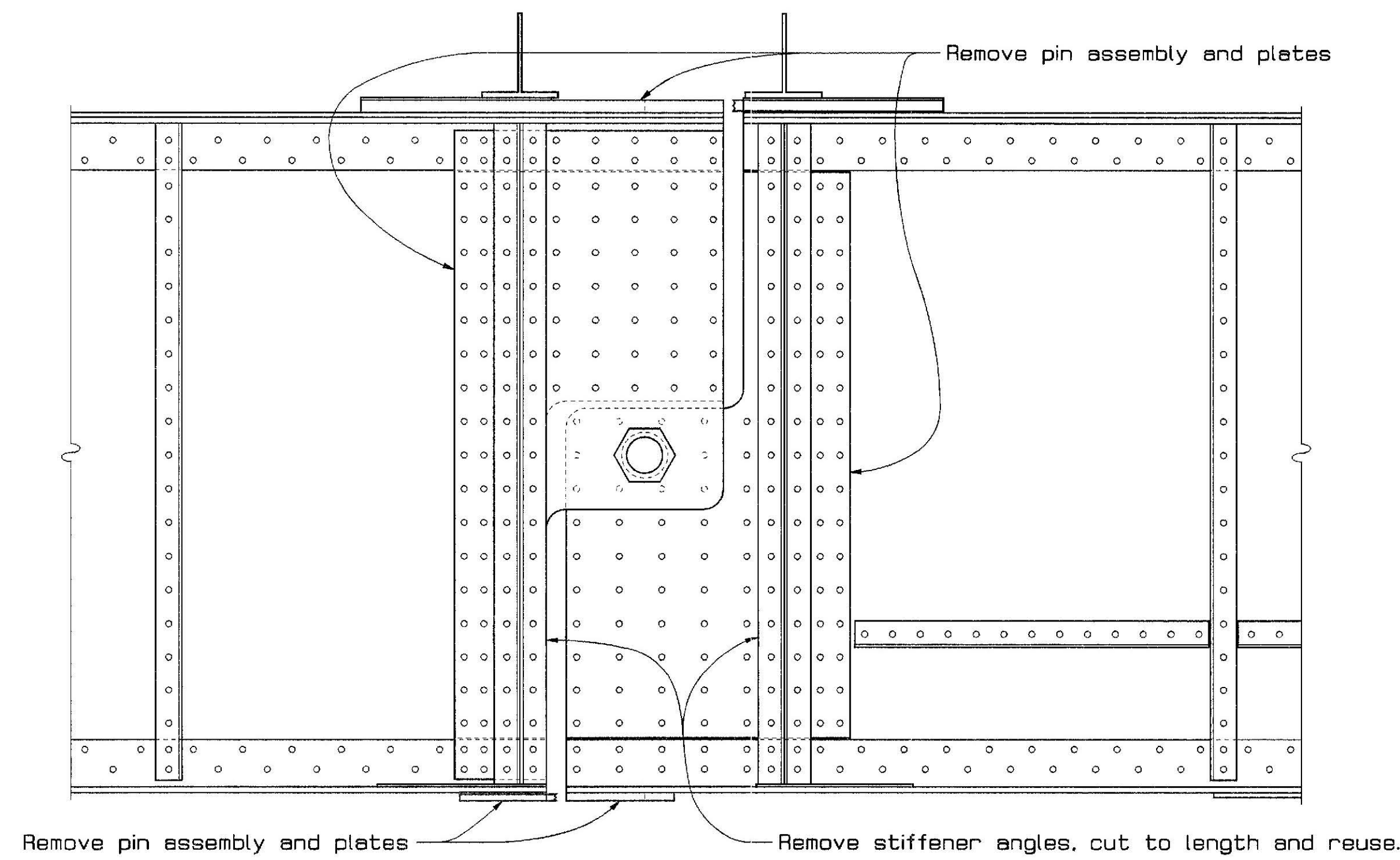
- = Field match drill new plate to match existing rivet hole
- = Field match drill new plate and new hole in existing steel



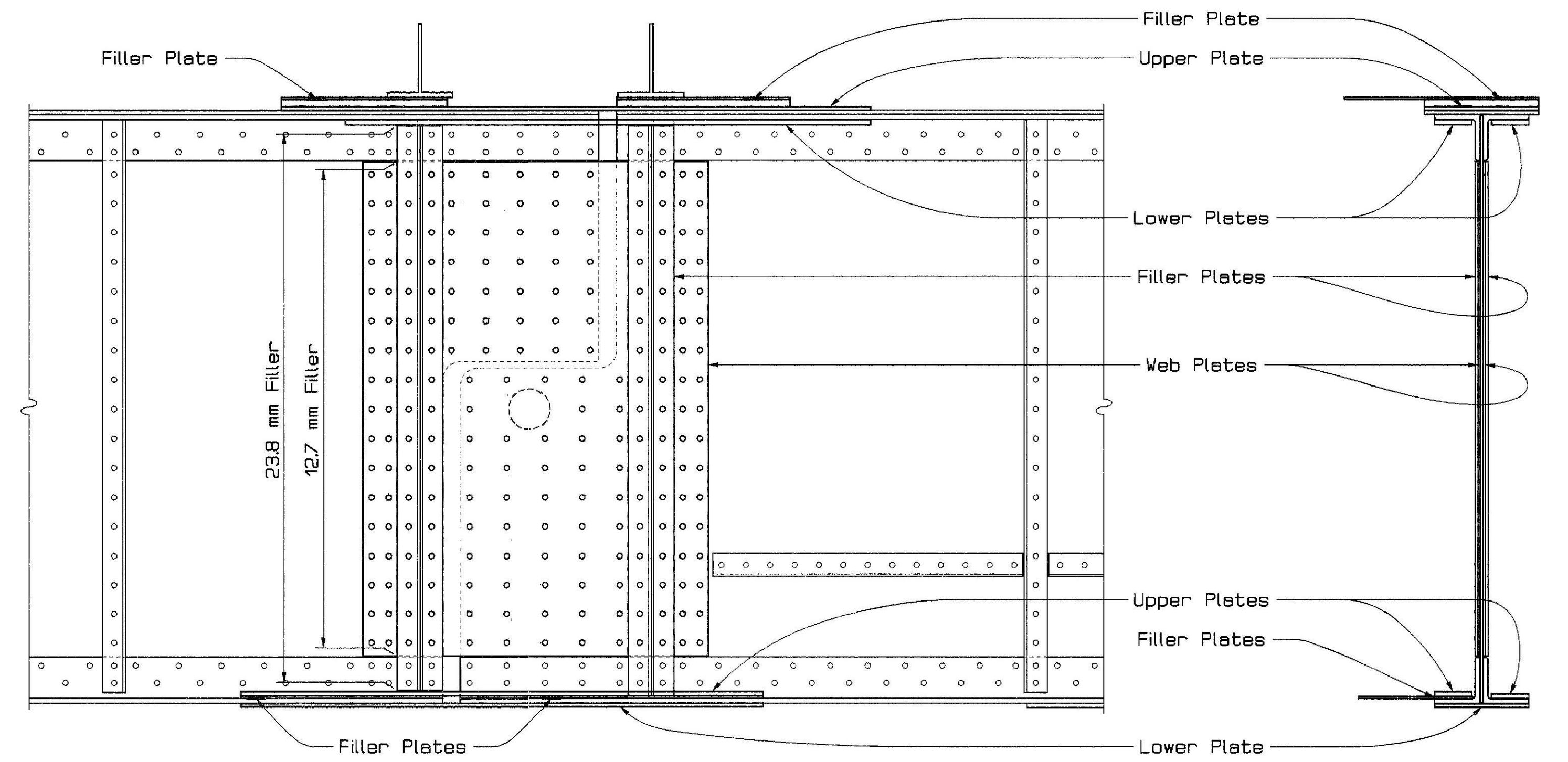
-- TOP FLANGE (Looking down) --



-- TOP FLANGE (Looking down) --

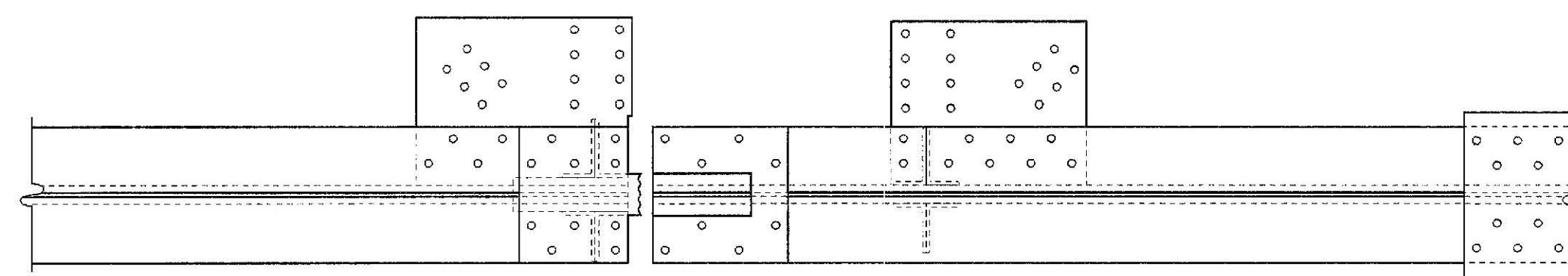


-- INTERIOR ELEVATION --

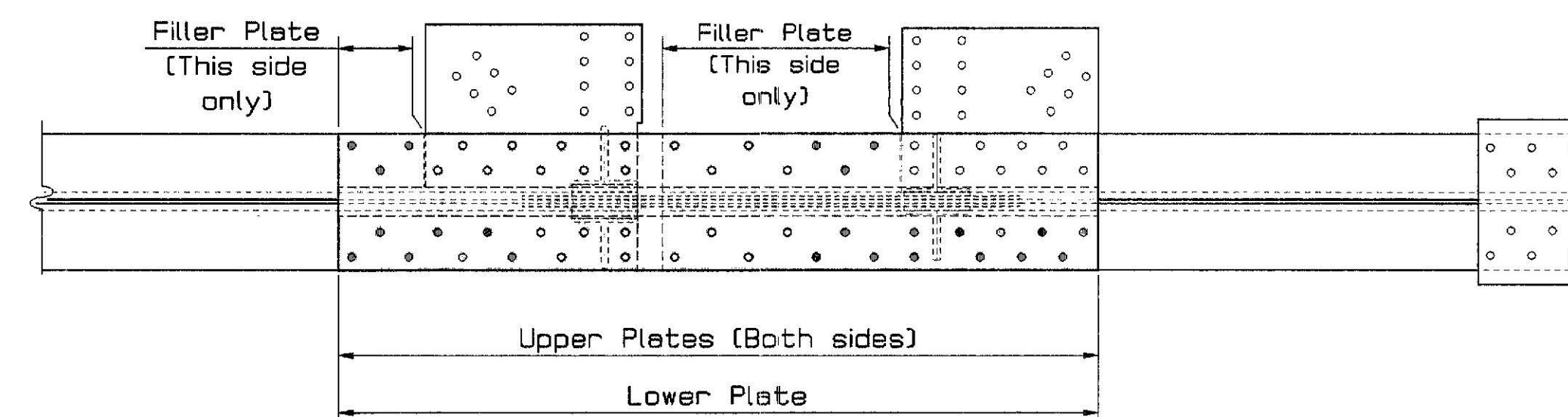


-- INTERIOR ELEVATION --

-- SECTION --



-- BOTTOM FLANGE (Looking up) --



-- BOTTOM FLANGE (Looking up) --

EXISTING UPSTREAM GIRDER AT PIN

PROPOSED UPSTREAM GIRDER AT PIN
(Showing new splice plates)

NOTE: The downstream girder is opposite hand from the details shown.

PROJECT DESIGN NUMBER	DATE
DESIGN-DETAILED	2/99
CHECKED	
REVISIONS	
FIELD CHANGES	

29APR99-0100.20
SPLIPIN

Bridge No. 5750

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY

PIN SPLICE DETAILS

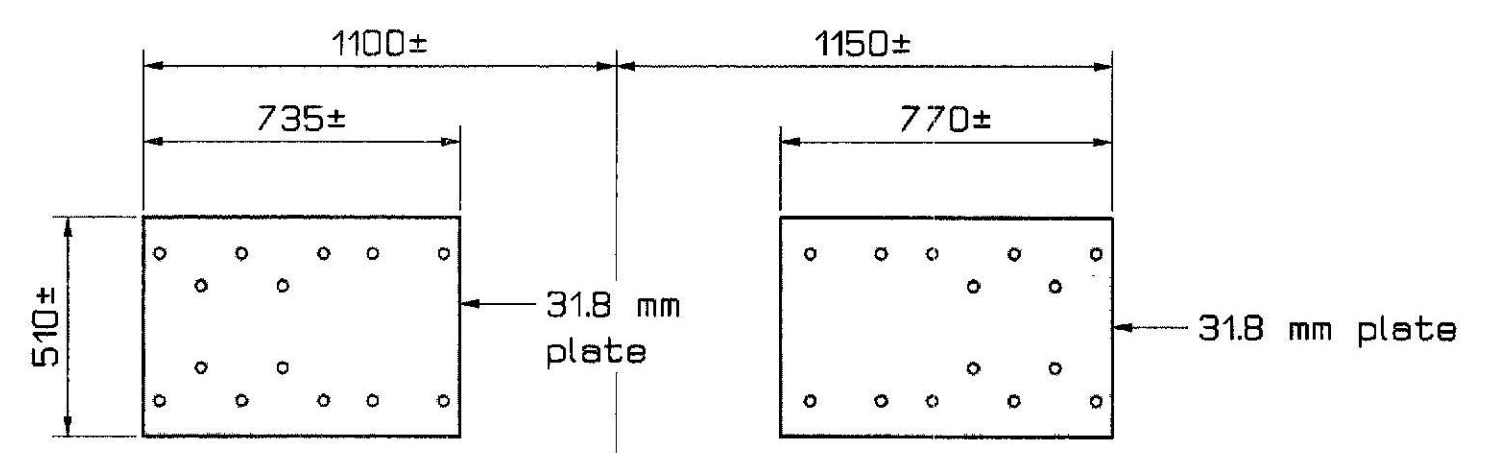
METRIC

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

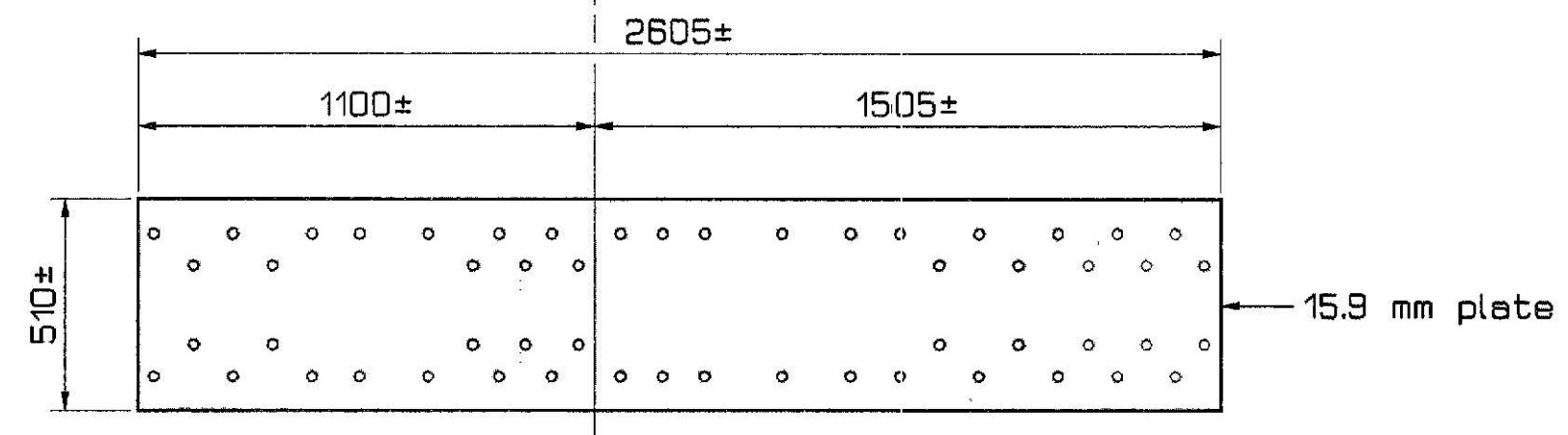
F.H.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(00)E	19	36

NOTES

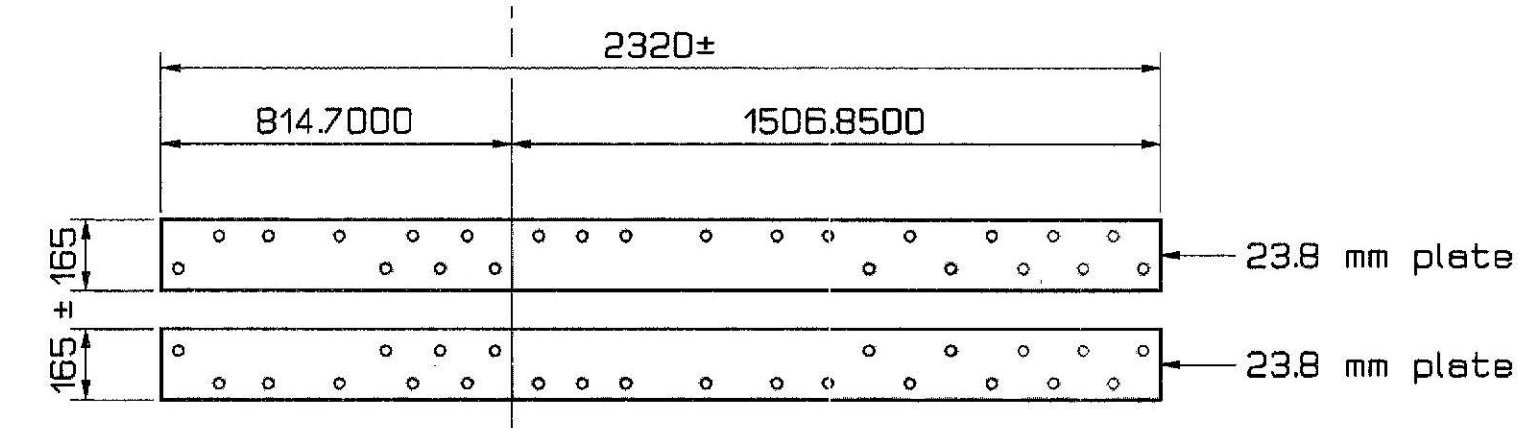
- Splice connections shall be made with M22 H.S. bolts. Hole diameter shall be 24 mm.
- Holes in splice plates shall have a minimum edge distance of 38 mm.
- Prior to the fabrication of any components, the Contractor shall verify the dimensions shown on these plans. The fit of all components shall be the responsibility of the Contractor.
- All holes in new plates which are to be matched to existing holes shall be drilled in the field.
- Once drilling begins in a splice assembly, the joint shall be held rigid so as to assure the proper alignment of the drilled holes.
- Payment for any alterations of existing or new components, required for proper assembly of the field splices, will be considered incidental to related contract items. This work will include, but not be limited to, the shortening of the existing transverse stiffener angles and the notching of the cross-frame gusset plates.
- Plate quantities shown are for one splice. There are two splices of each type to be retrofitted.



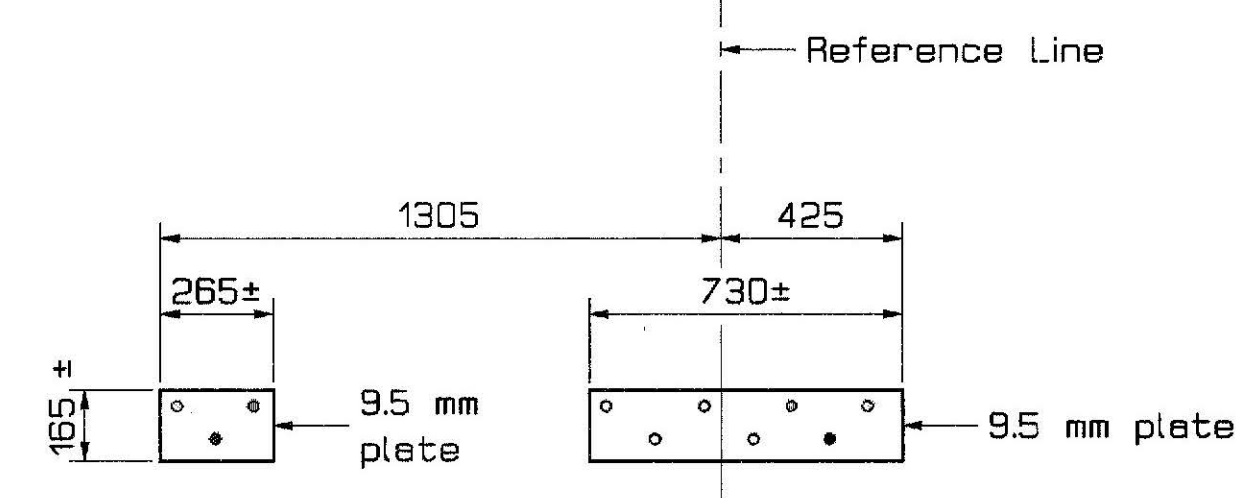
-- TOP FLANGE FILLER PLATES --



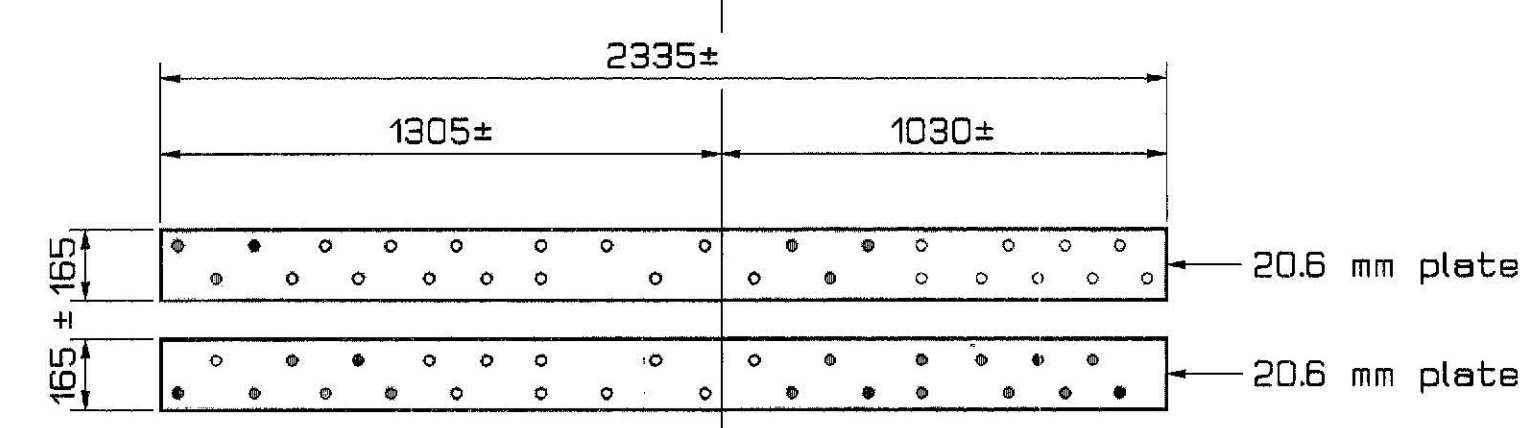
-- TOP FLANGE UPPER SPLICE PLATE --



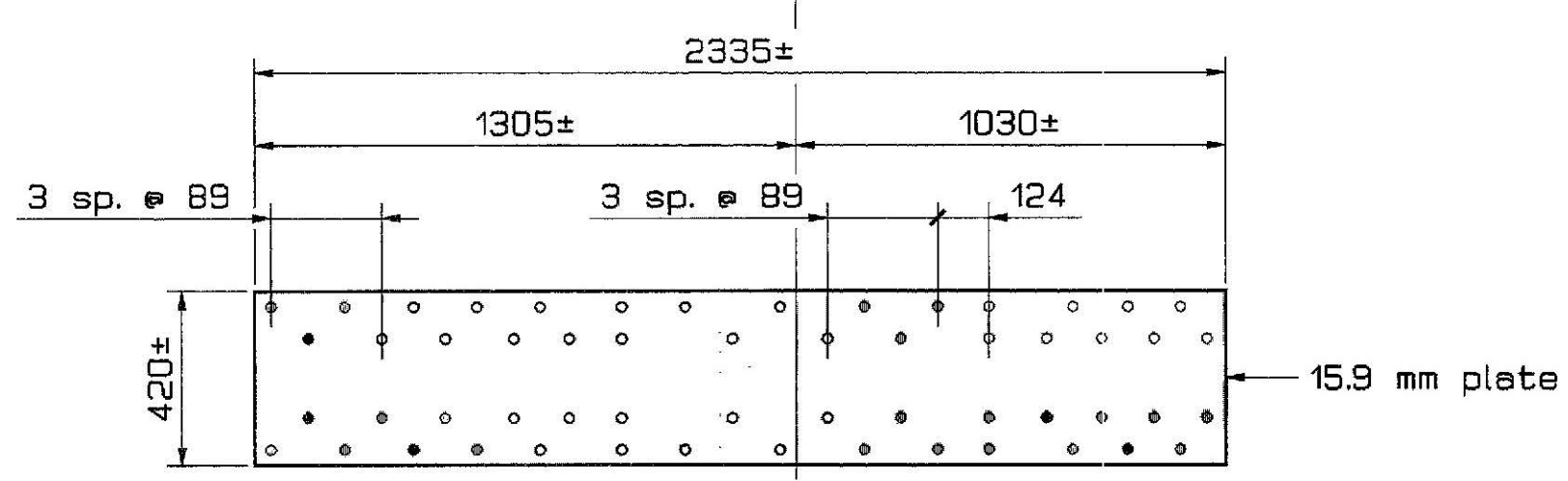
-- TOP FLANGE LOWER SPLICE PLATES --



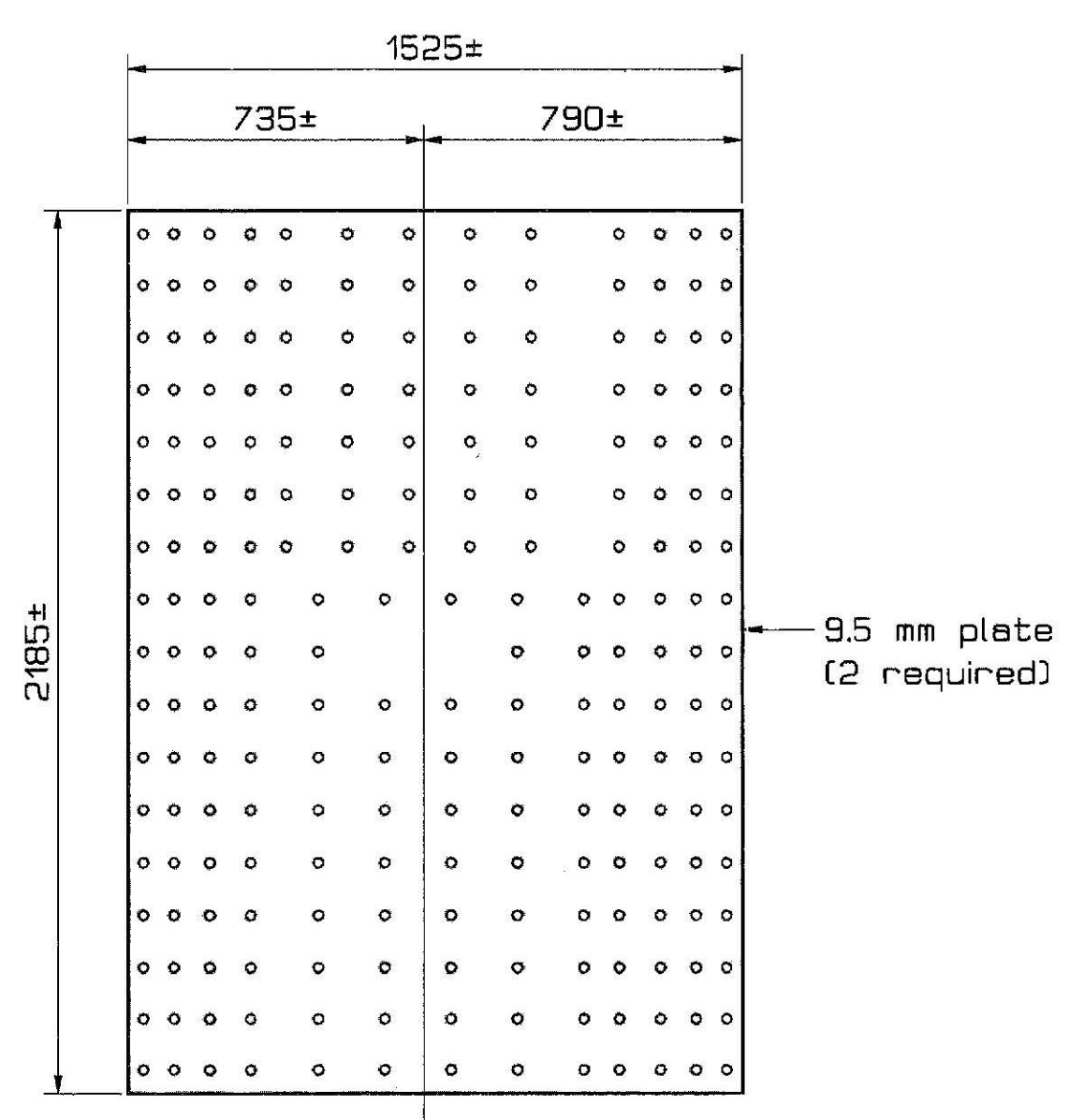
-- BOTTOM FLANGE FILLER PLATES --



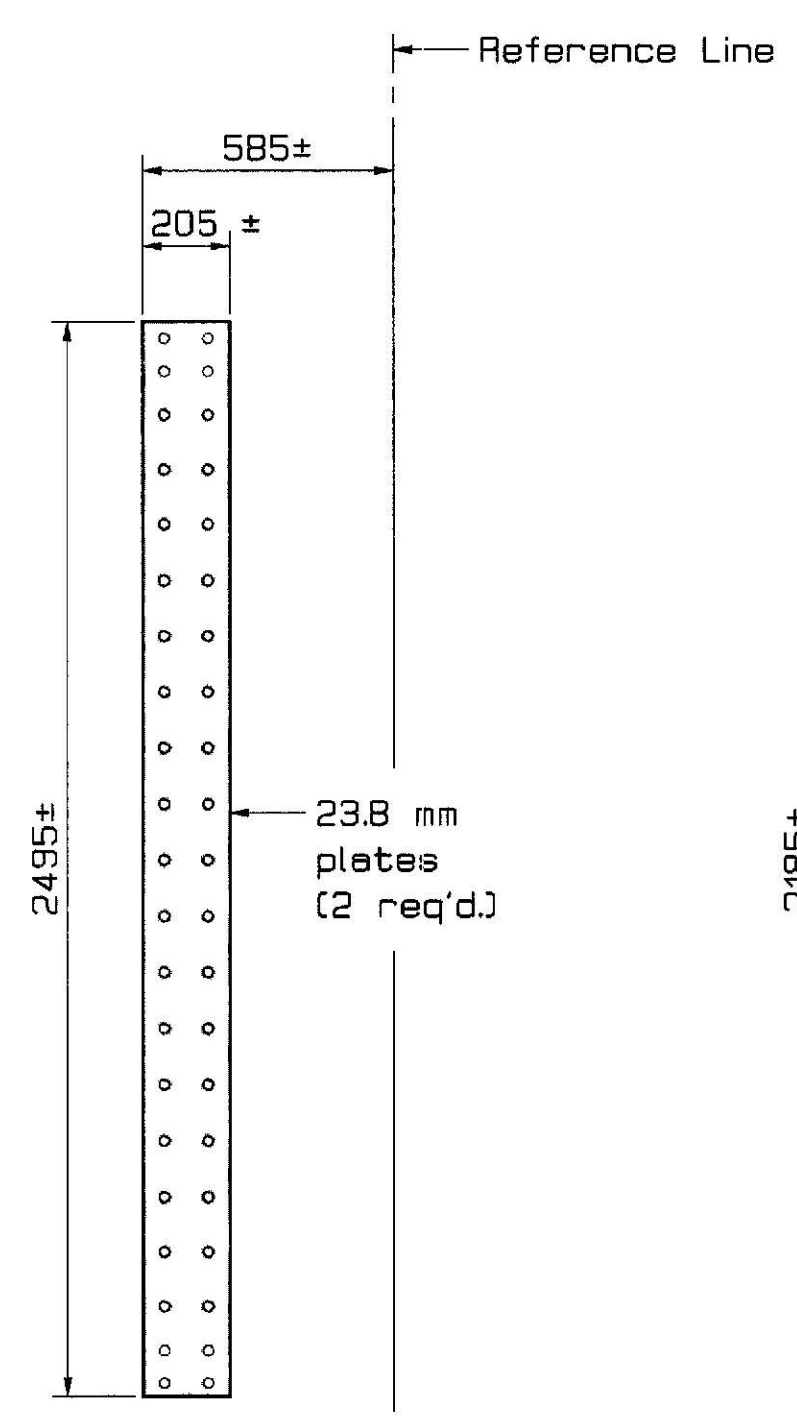
-- BOTTOM FLANGE UPPER SPLICE PLATES --



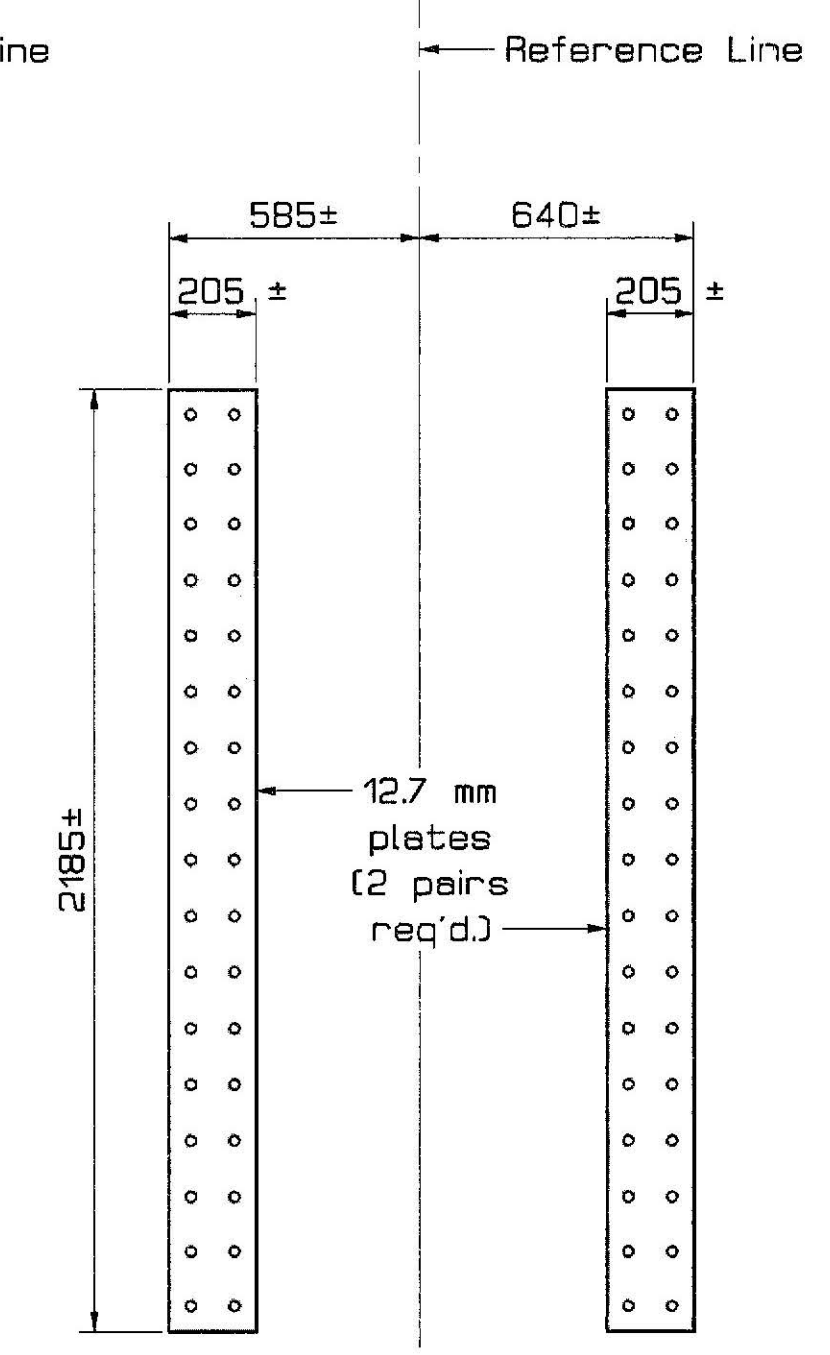
-- BOTTOM FLANGE LOWER SPLICE PLATE --



-- WEB SPLICE PLATES --



-- WEB OUTER FILLER PLATES --



-- WEB FILLER PLATES --

SYMBOLS

- = Field match drill new plate to match existing rivet hole
- = Field match drill new plate and new hole in existing steel

Bridge No. 5750
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY
PIN SPLICE PLATES

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. Folsom	2/99
CHECKED	D. Dorman	
REVISIONS		
FIELD CHANGES		

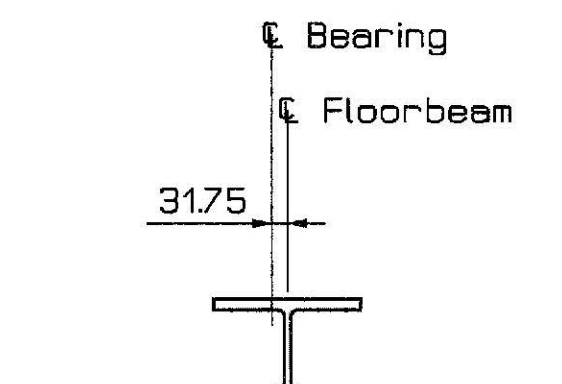
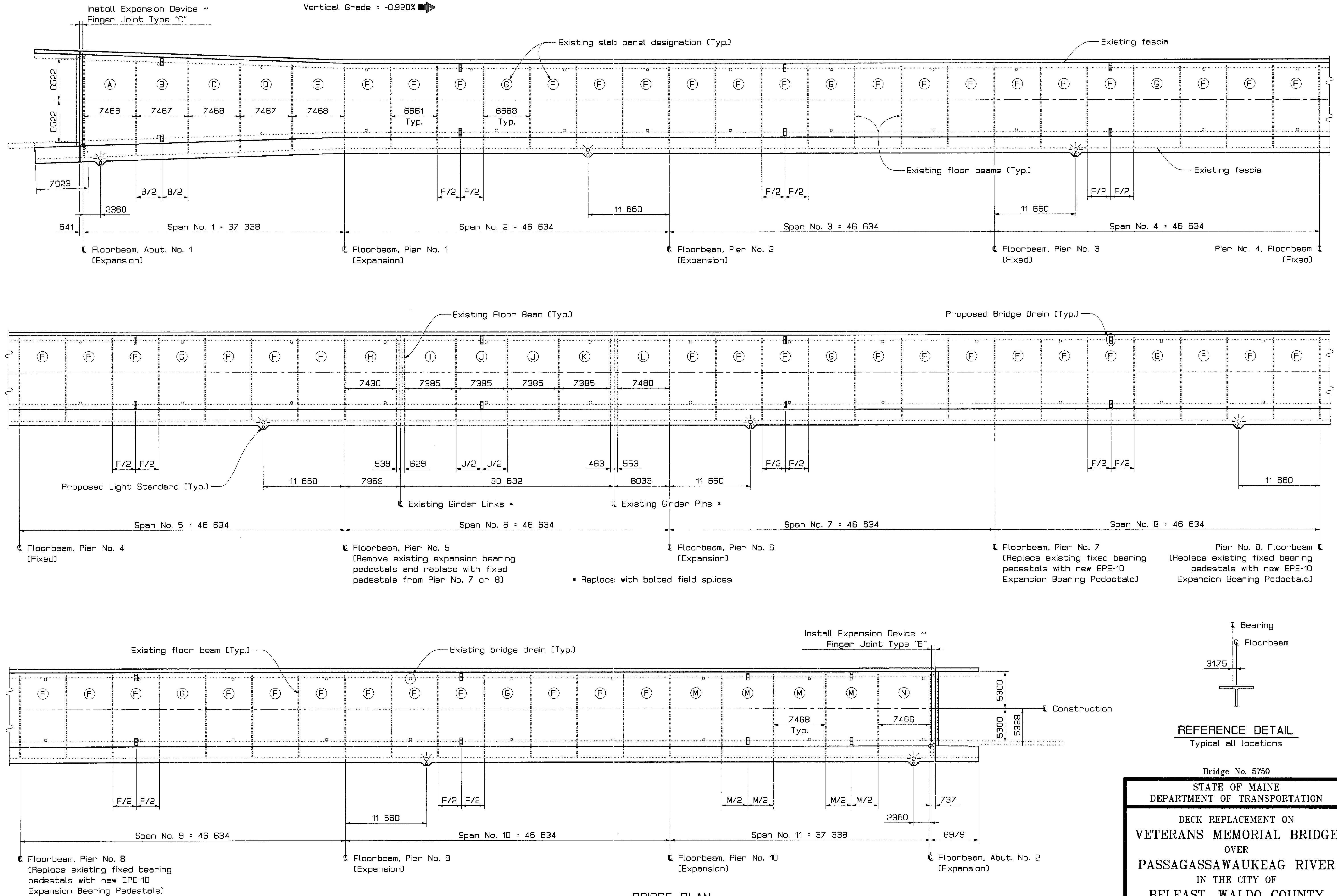
29APR99-010020
PINPLAT

PIN SPLICE PLATES
Plates shown are for one girder.
There are two pin splices to be rebuilt.

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	NH-4218(20)	20	36



REFERENCE DETAIL
Typical all locations

Bridge No. 5750
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY
SUPERSTRUCTURE PLAN

PROJECT DESIGN ENGINEER	BY	DATE
J. Folsom	J. Folsom	2/99
DESIGN-DETAILED		
CHECKED		
REVISIONS		
FIELD CHANGES		

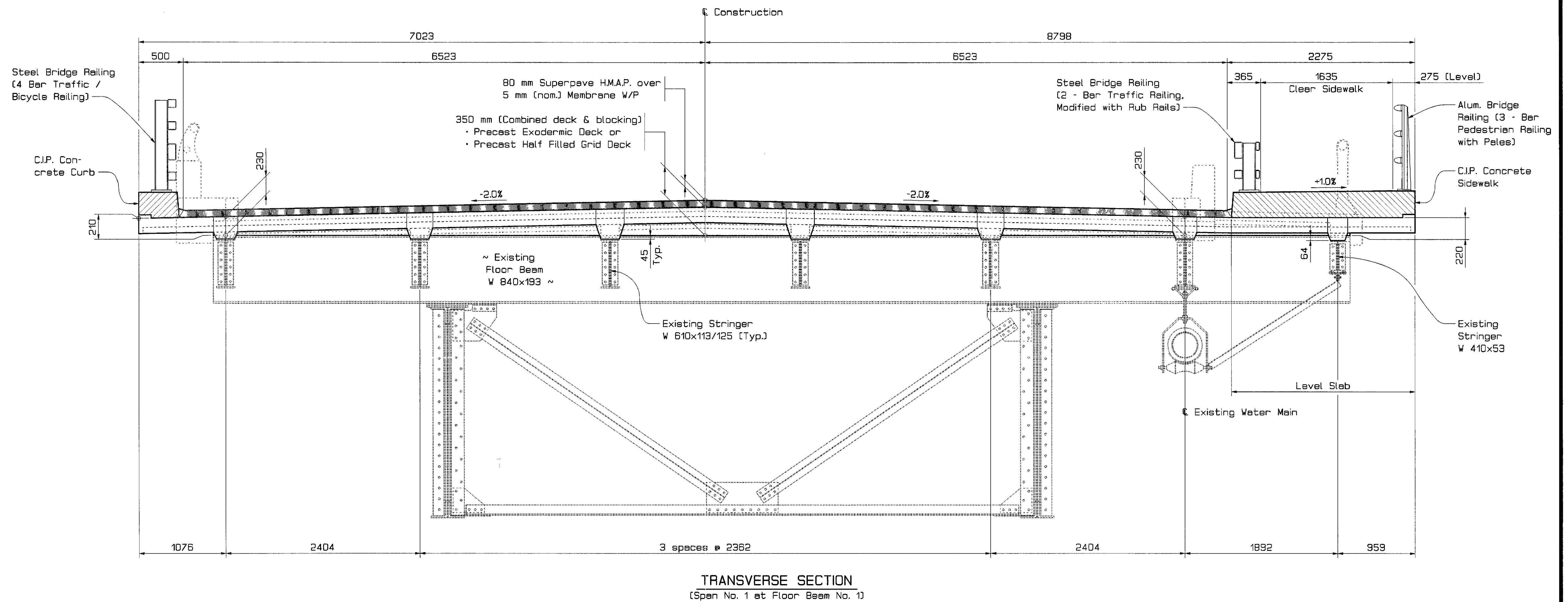
04MAY99-0107.00
SPRPLAN

BRIDGE PLAN
Dimensions are horizontal

METRIC

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

F.H.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(20)	21	36



PROJECT DESIGN ENGINEER	DATE
J. Folsom	3/99
C. Davis	
CHECKED	
REVISIONS	
FIELD CHANGES	

PLANS

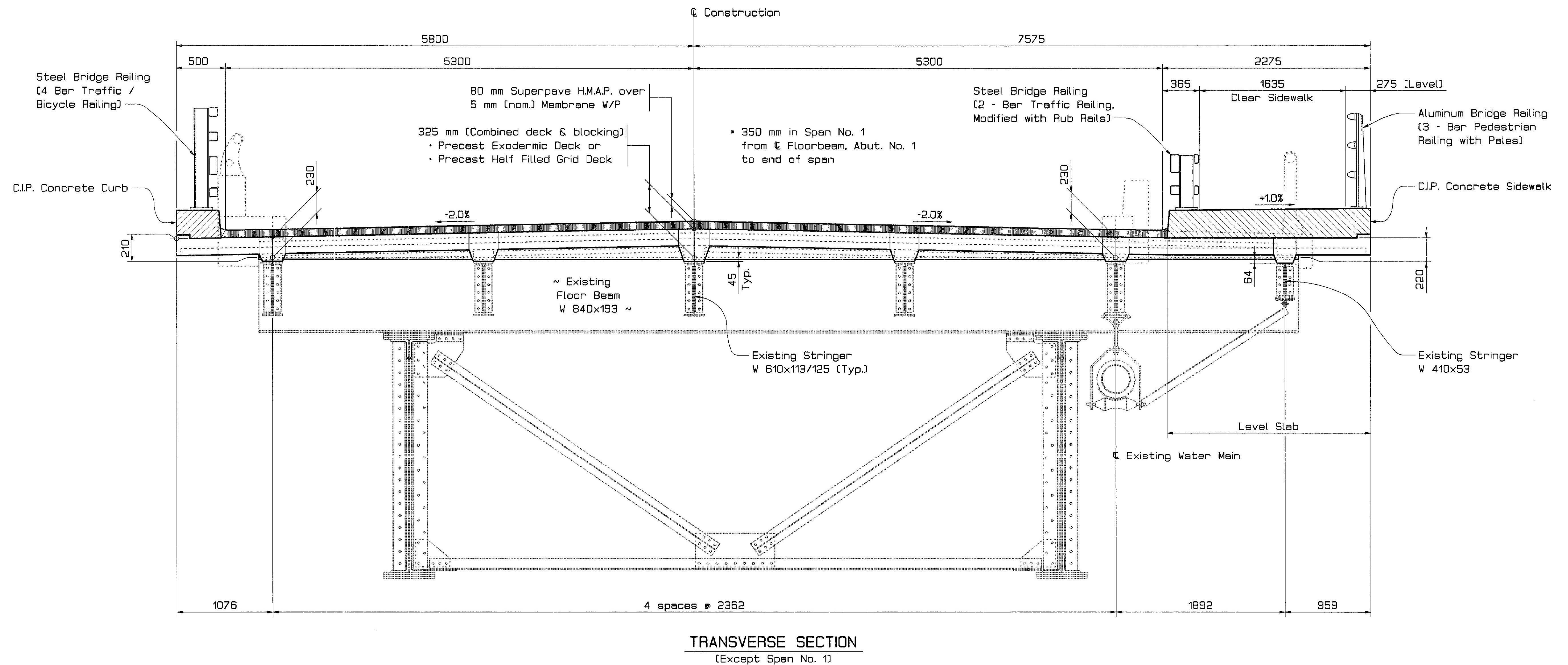
29APR99-0100.20
TRANSCT1

Bridge No. 5750
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY
SPAN NO. 1 TRANSVERSE SECTION

METRIC

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

F.M.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(20)	22	36



PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. Folsom	3/99
CHECKED	D. Dammen	
REVISED	G. Poirier	
FIELD CHANGES		

PLANS

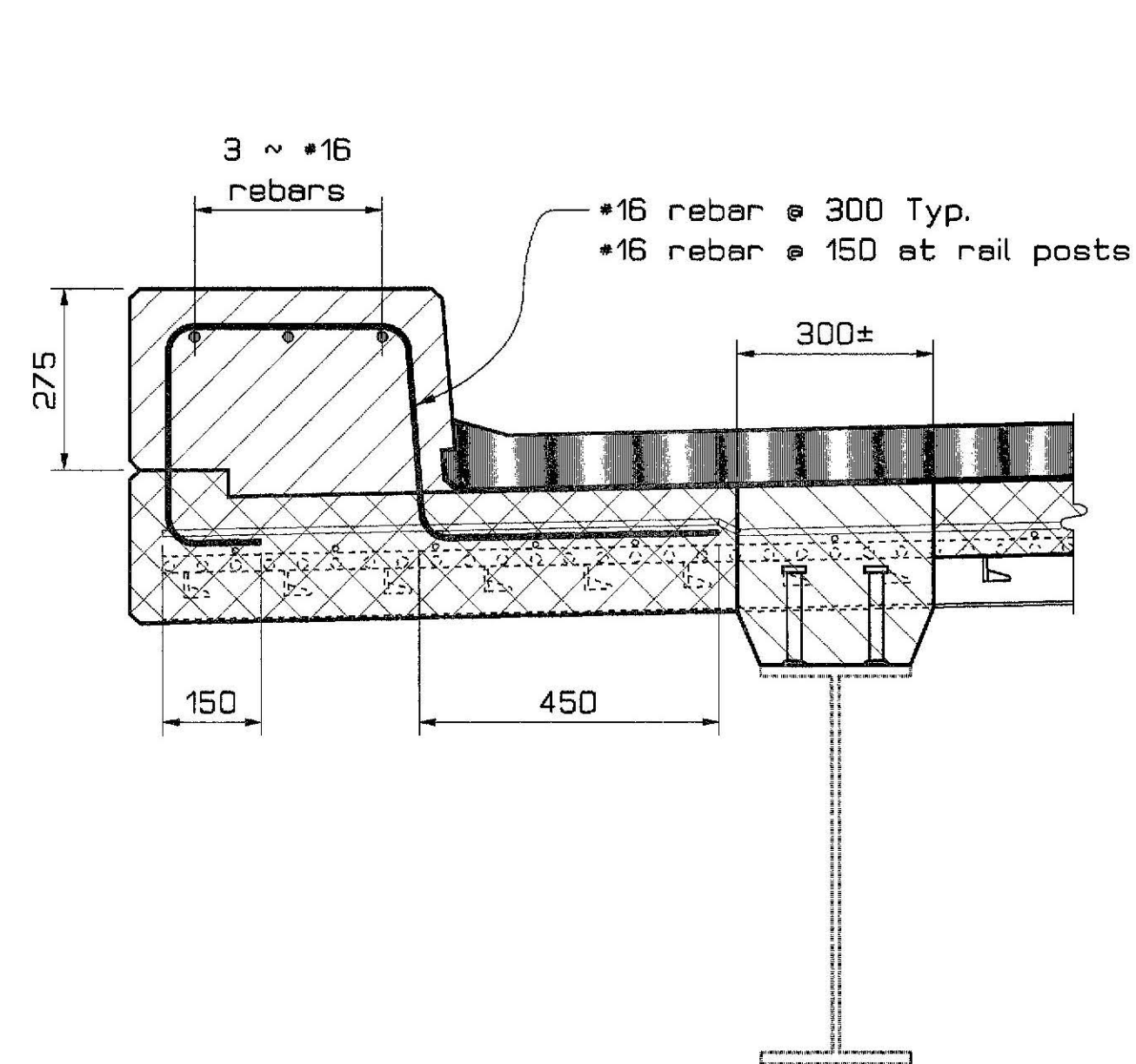
25APR99-010020
TRANSECT

Bridge No. 5750
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY
TYPICAL TRANSVERSE SECTION

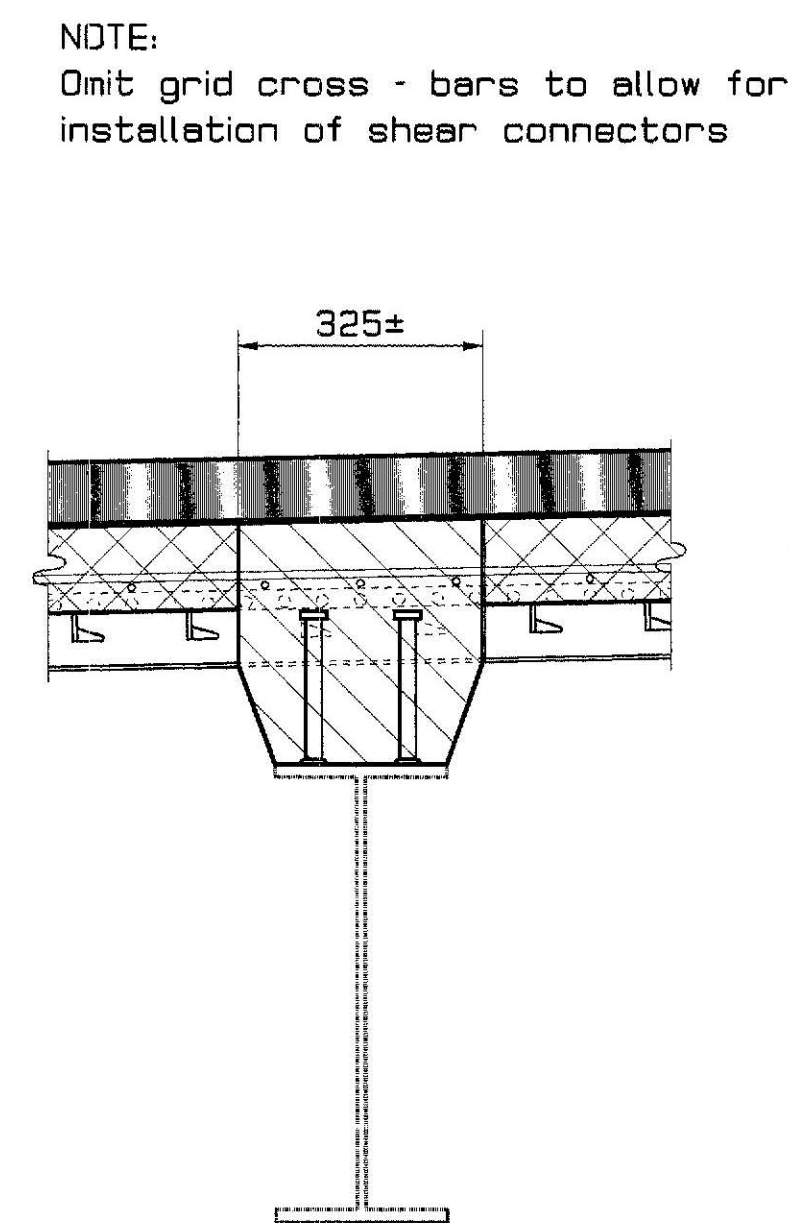
METRIC

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

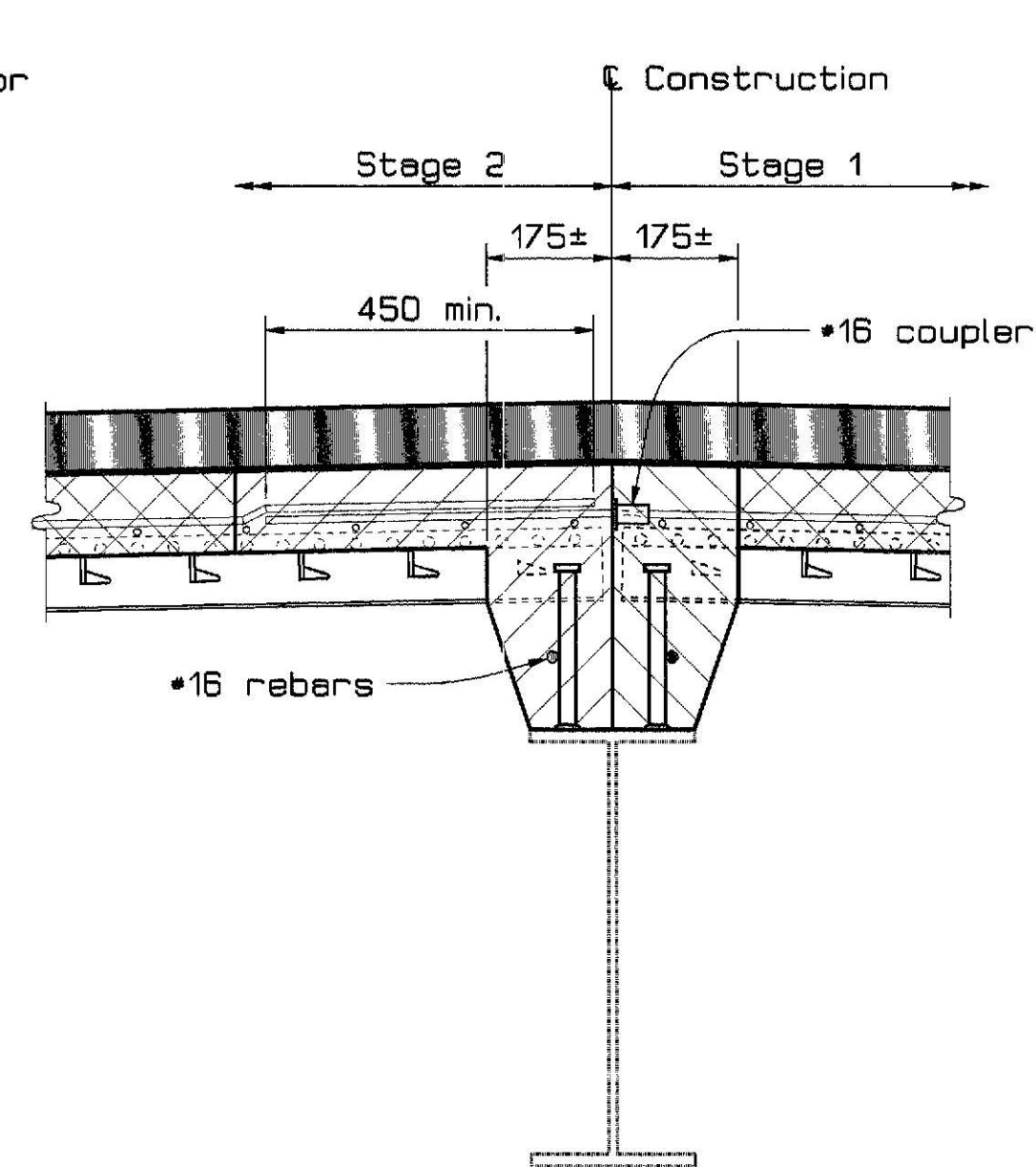
F.H.W.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(20)	23	36



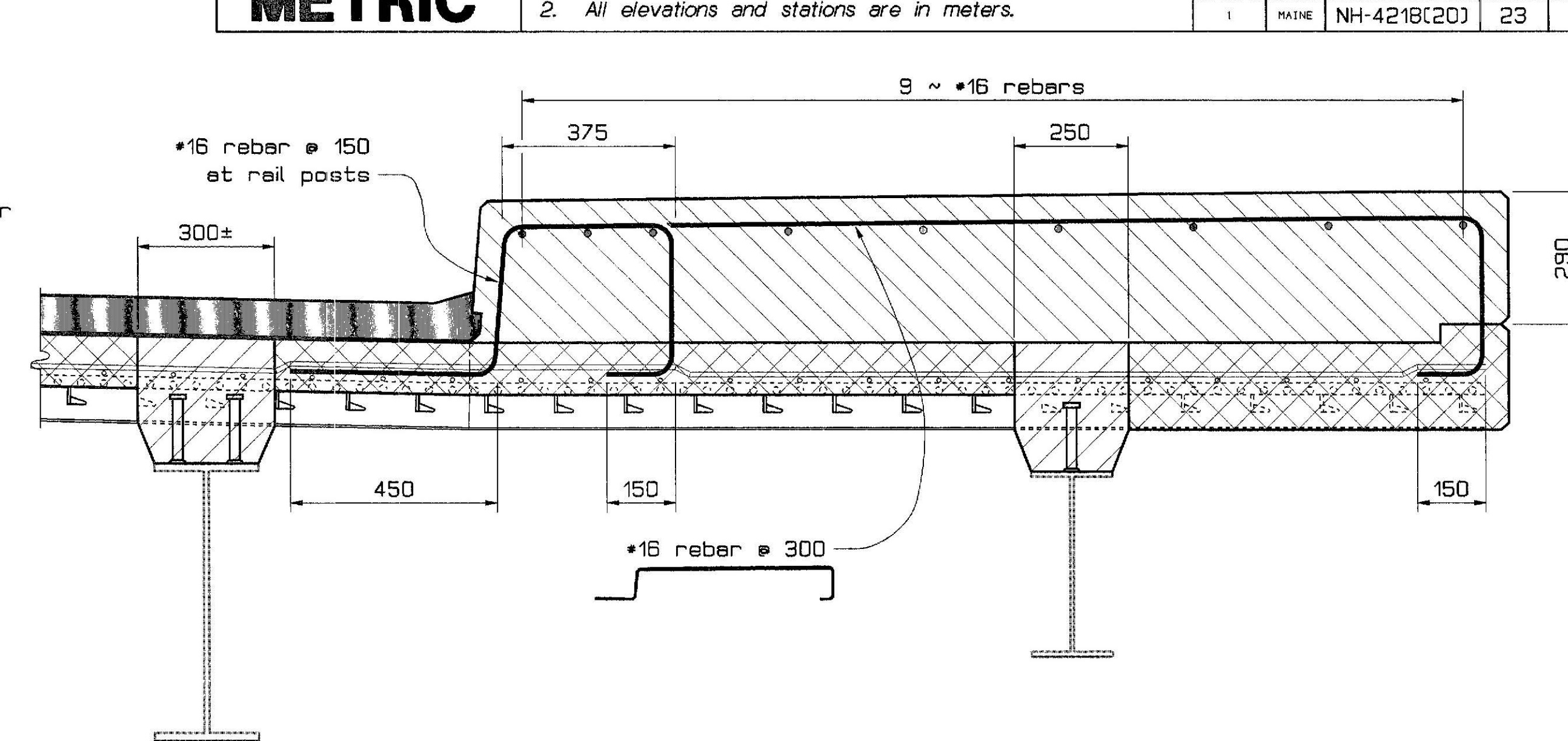
-- EXTERIOR STRINGER AND CURB --
22 Ø x 150 studs



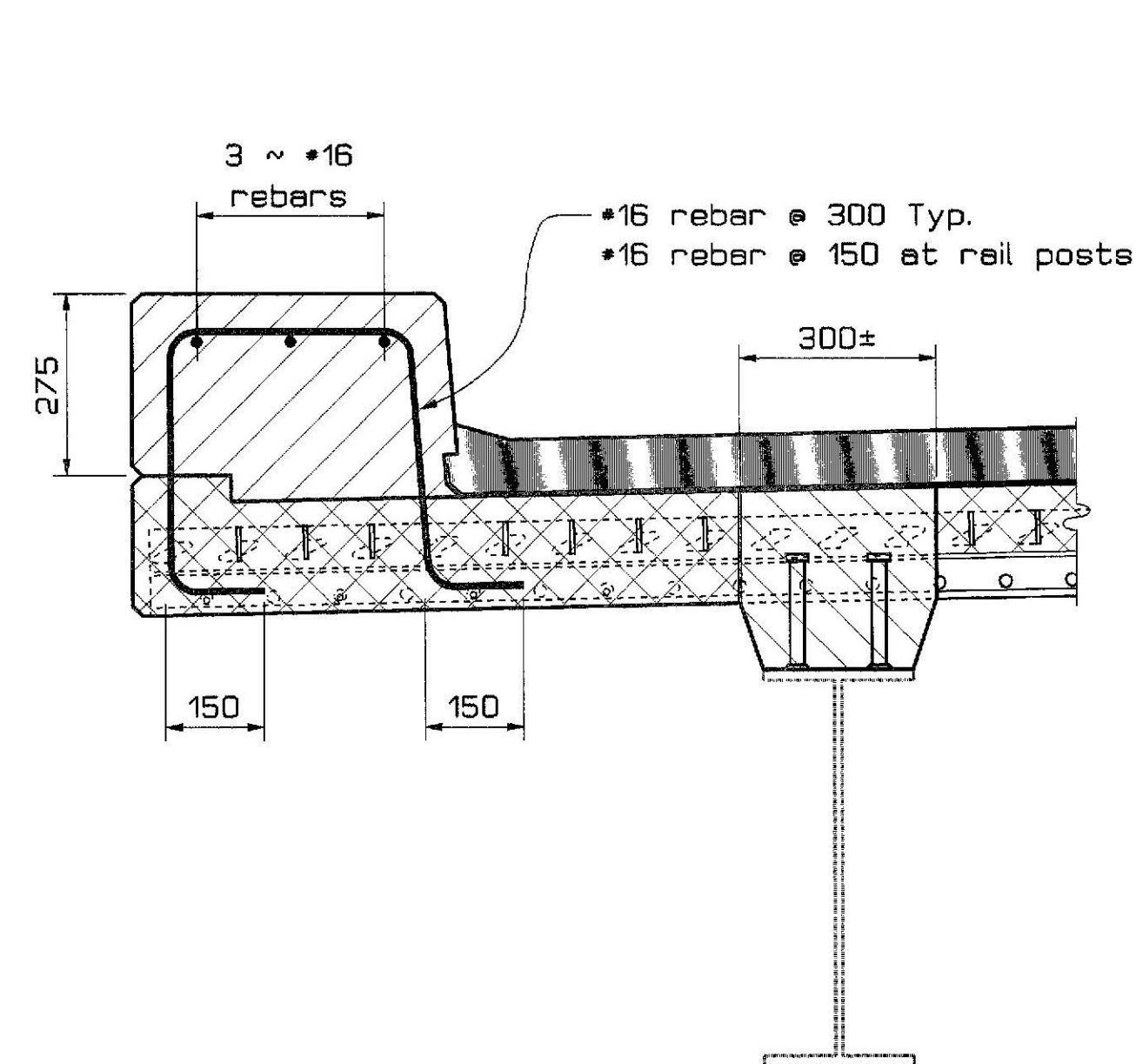
-- INTERMEDIATE STRINGERS --
22 Ø x 200 studs



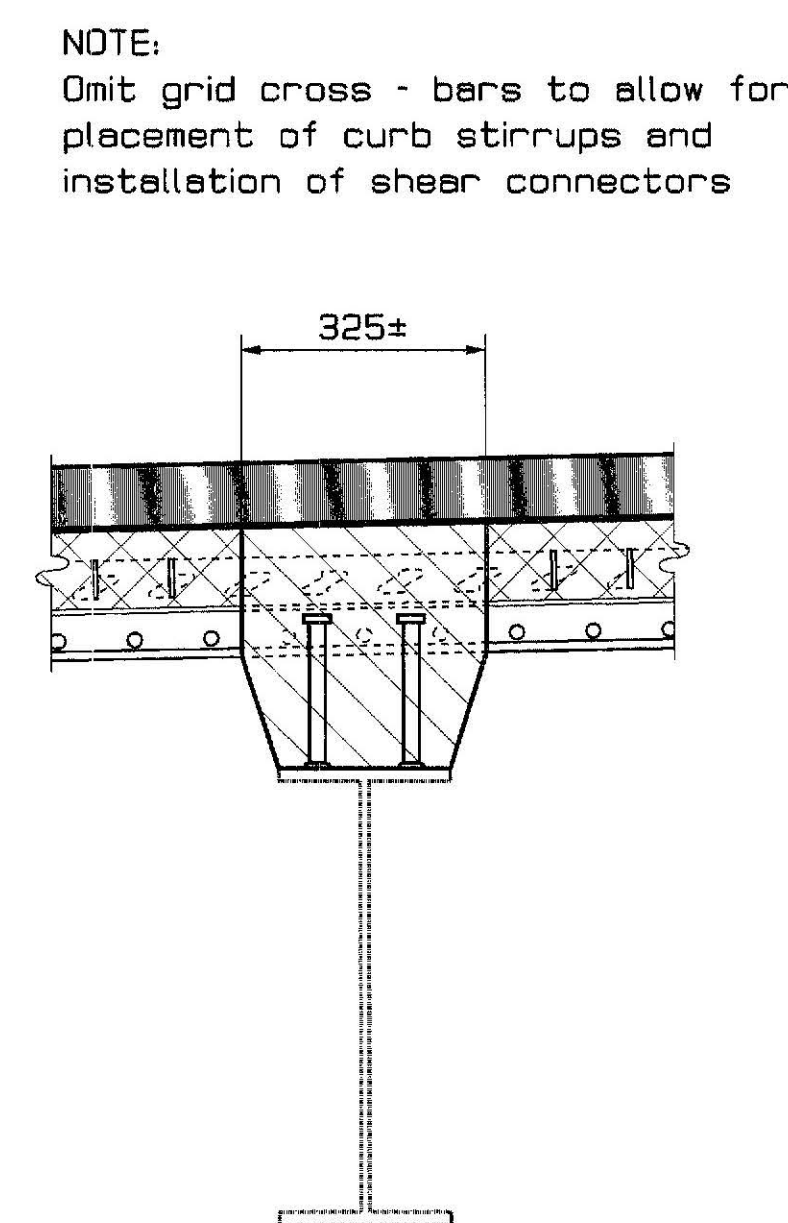
-- CENTER STRINGER --
22 Ø x 225 studs



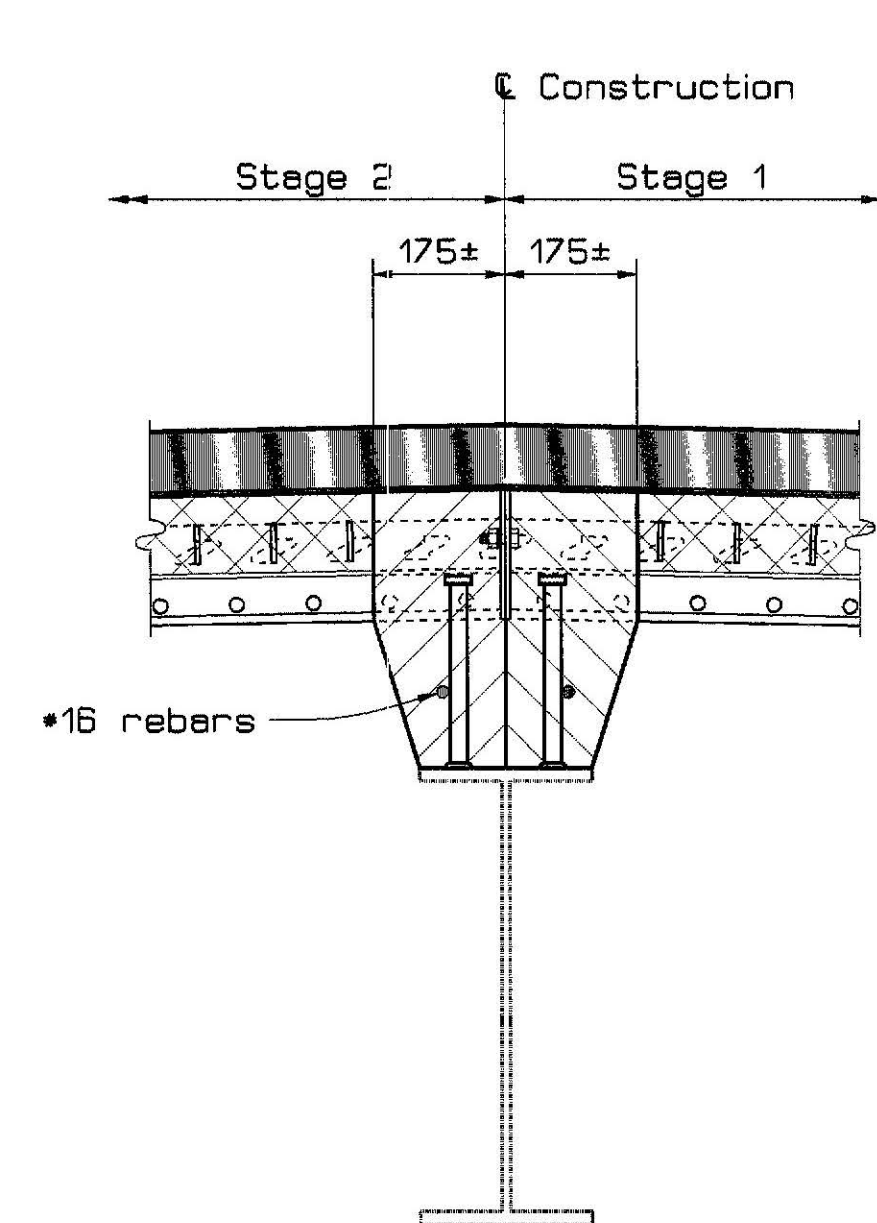
-- EXTERIOR STRINGERS AND SIDEWALK --
22 Ø x 150 studs

EXODERMIC DECK SYSTEM

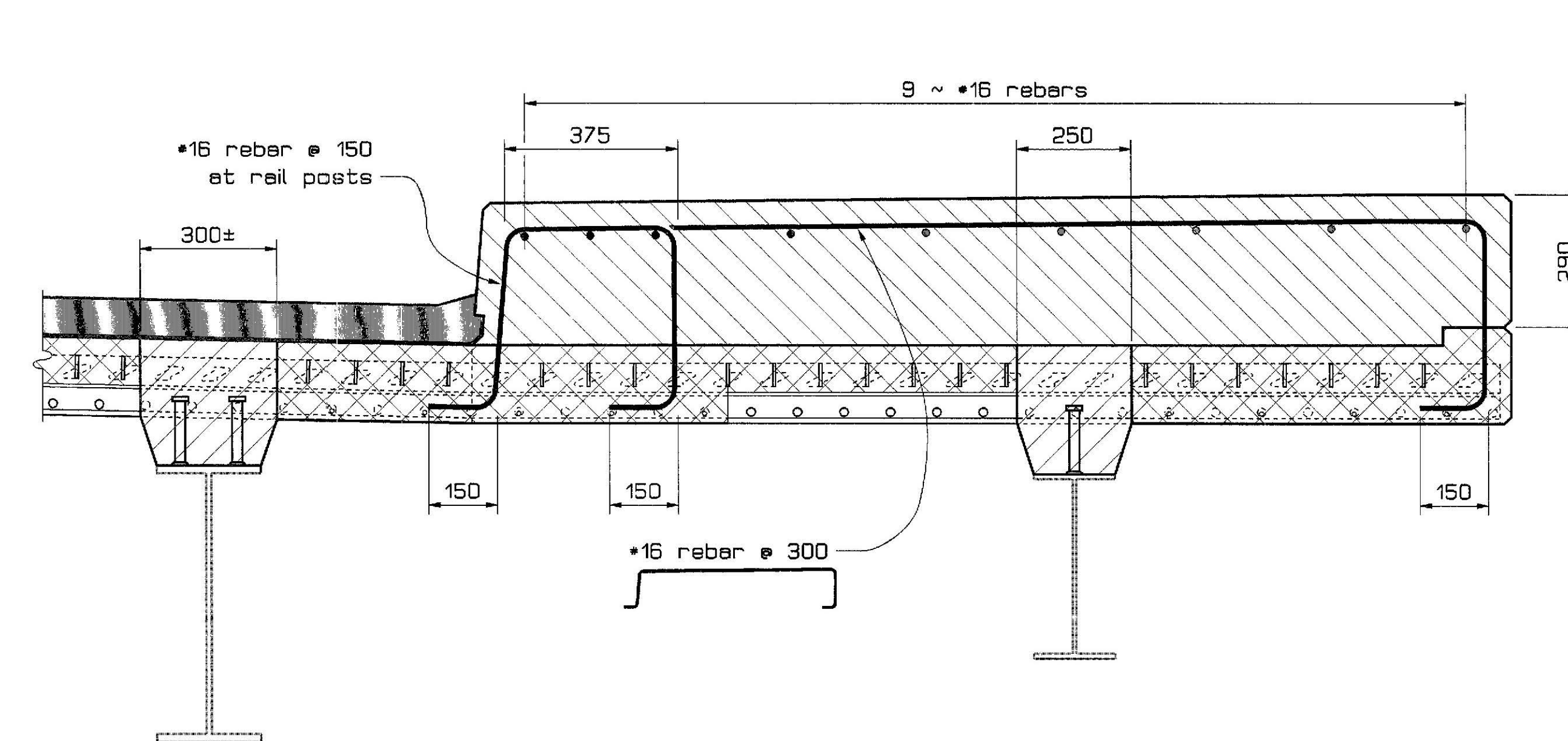
-- EXTERIOR STRINGER AND CURB --
22 Ø x 175 studs



-- INTERMEDIATE STRINGERS --
22 Ø x 200 studs



-- CENTER STRINGER --
22 Ø x 250 studs



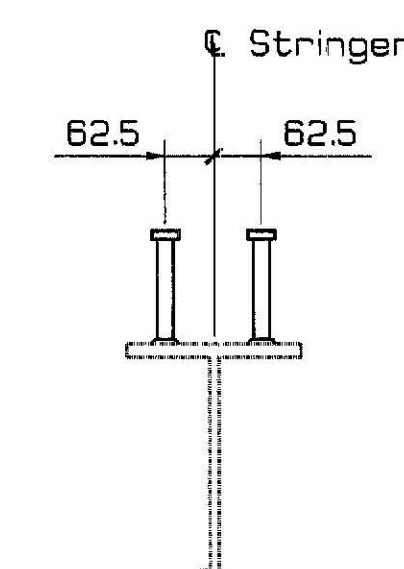
-- EXTERIOR STRINGERS AND SIDEWALK --
22 Ø x 150 studs

HALF FILLED GRID DECK SYSTEM**NOTES**

- Form a 30 mm V - groove on the fascias at the horizontal joint between the curb / sidewalk and slab.
- Reinforcing steel shall have a minimum cover of 50 mm unless otherwise indicated.
- Form a transverse construction joint in the curb and sidewalk at the floorbeam over each pier. Extend the longitudinal reinforcing steel through the joint. Seal the joint by a method approved by the Engineer.
- Concrete for the curbs and sidewalks will be paid for under Item No. 502.48, Structural Concrete Roadway and Sidewalk Slabs on Steel Bridges.

- Payment for curb and sidewalk reinforcing bars which are embedded into the deck slab will be considered incidental to Item No. 530.02, Prefabricated Deck Panels.

- Apply Protective Coating for Concrete Surfaces to the face and top of the curb and sidewalk, fascias down to the exterior stringers and areas of the deck slab adjacent to the expansion joints.

**DOUBLE STUD DETAIL****SYMBOLS**

- New Concrete (Cast in place)
 New Concrete (Precast)

Bridge No. 5750

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY
SUPERSTRUCTURE DETAILS

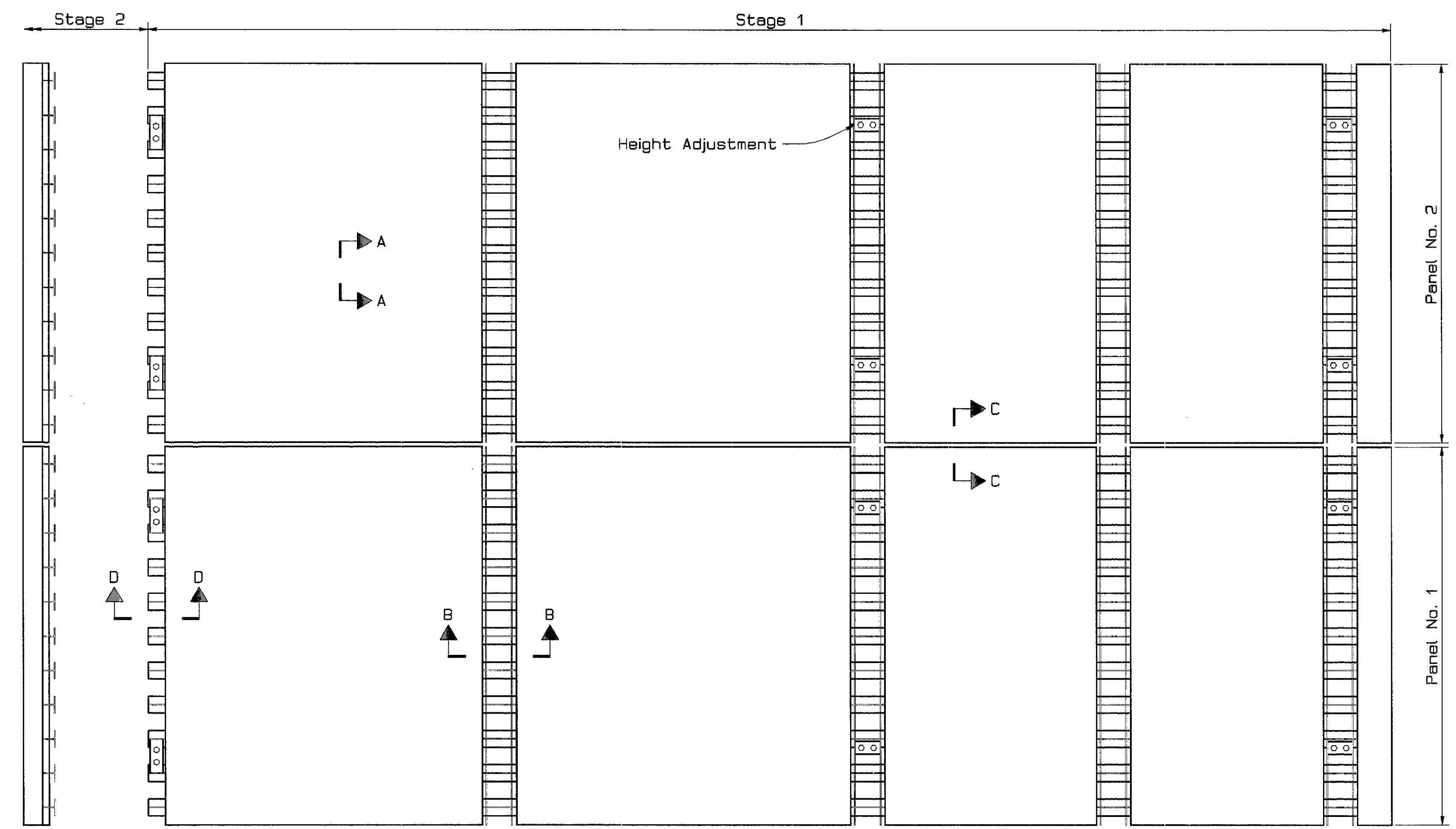
PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	5/99
CHECKED	
REVISIONS	
FIELD CHANGES	

18MAY99-0100.10
SPRDTLSI

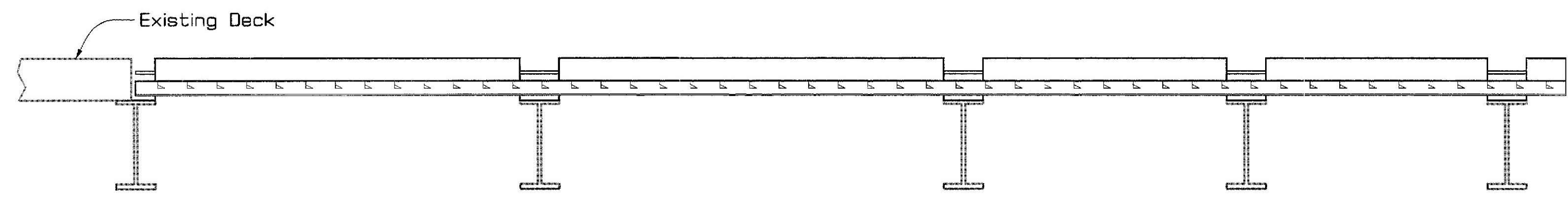
METRIC

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

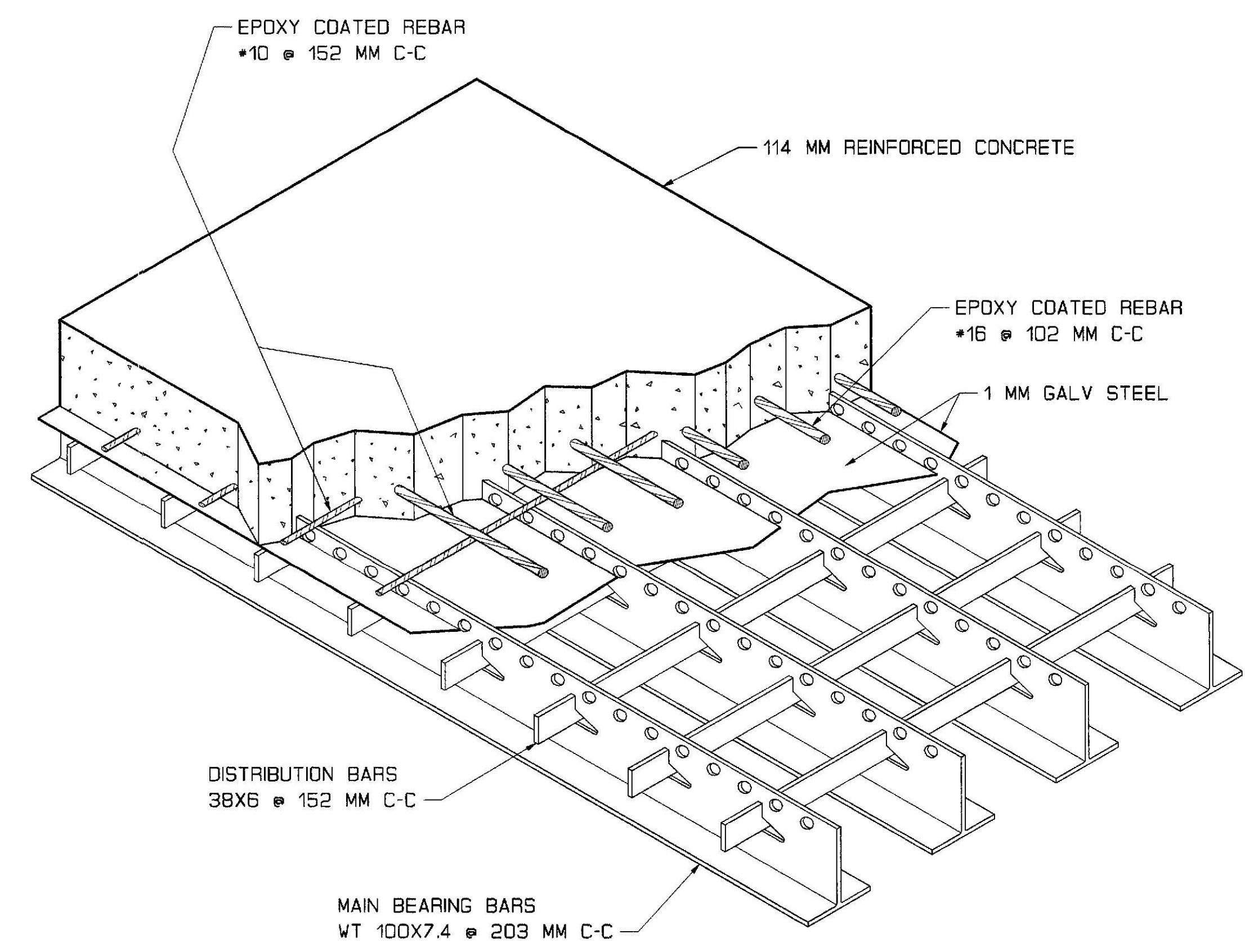
F.H.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(20)	24	36



EXODERMIC DECK PLAN



TYPICAL PRECAST EXODERMIC PANEL



EXODERMIC DECK SYSTEM
REVISED DESIGN

PROJECT DESIGN ENGINEER	DESIGN-DETAILED	CHECKED	REVISIONS	FIELD CHANGES
J. Folsom	D. Damron	G. Bueck		
PLANS				

29APR99-010020
EXODECK1

Bridge No. 5750
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY
EXODERMIC DECK DETAILS

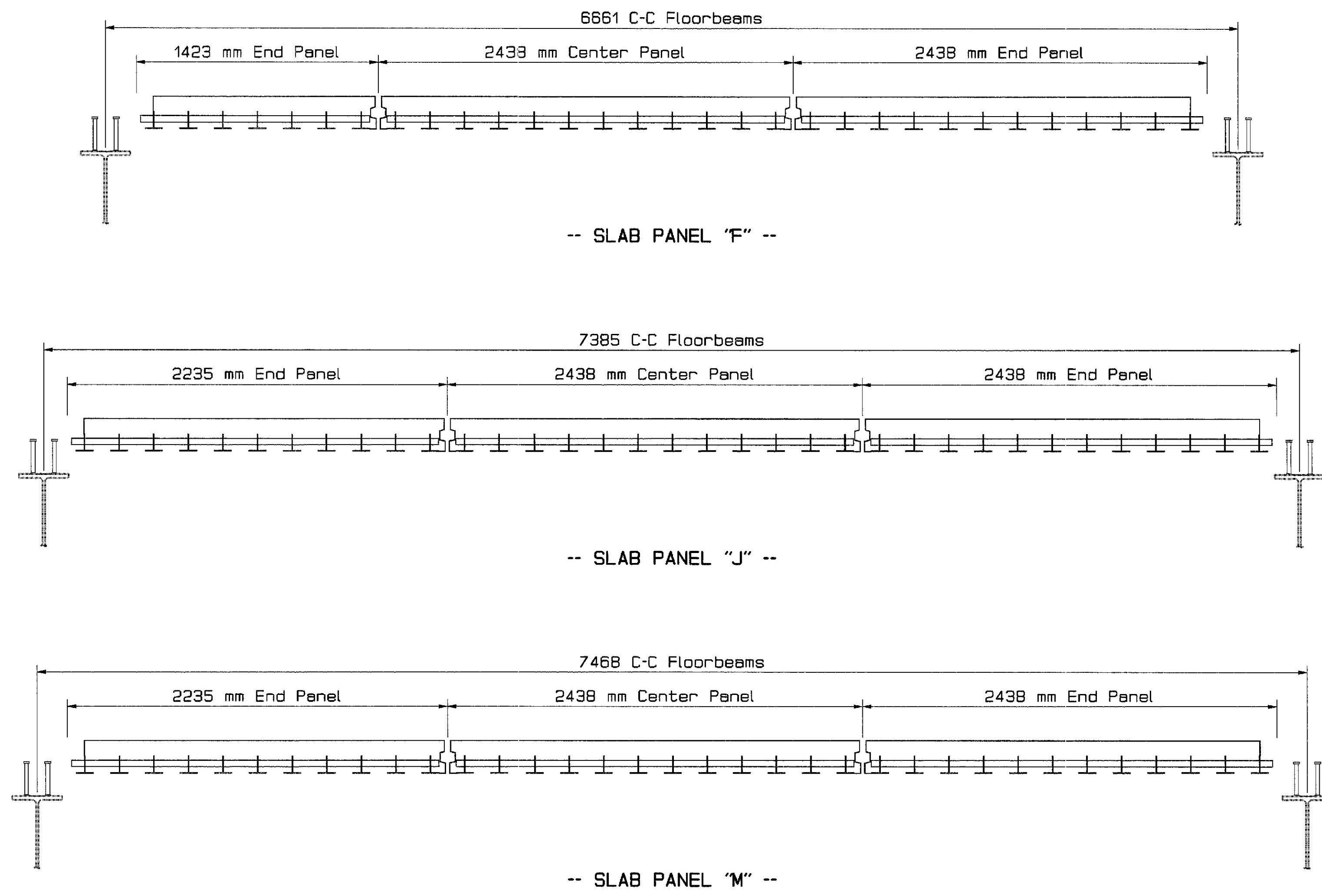
METRIC

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

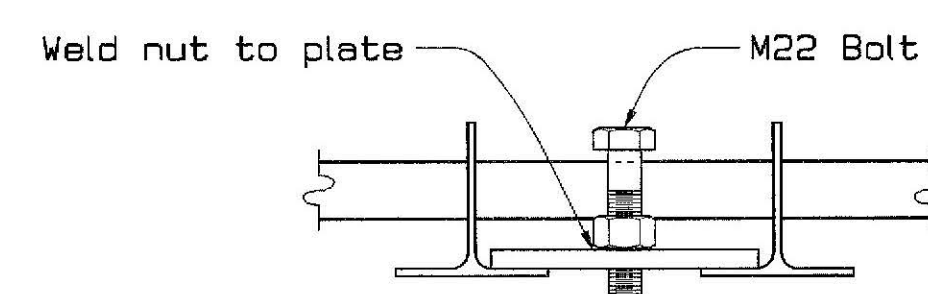
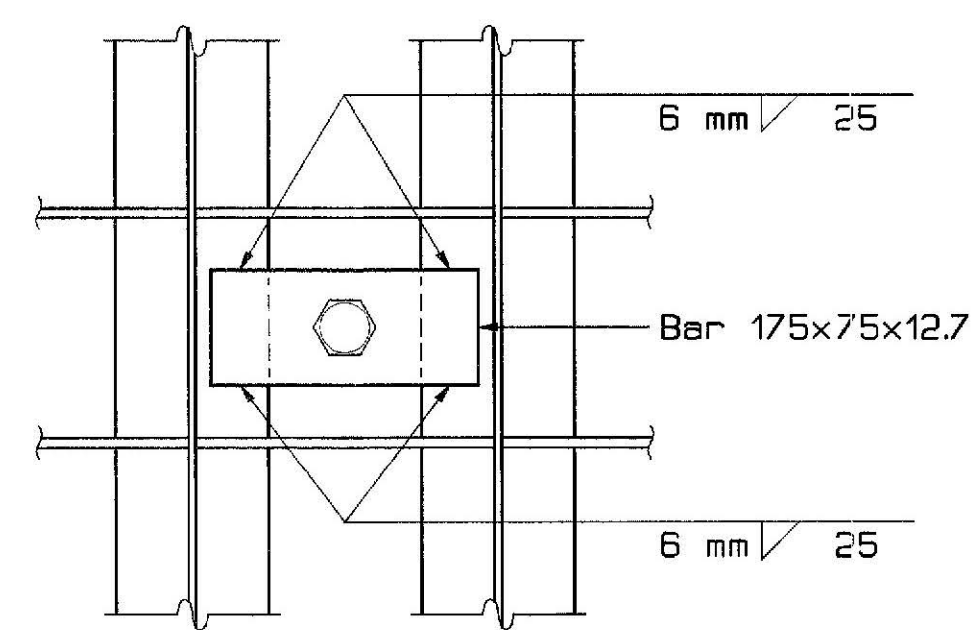
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(20)	25	36

NOTES

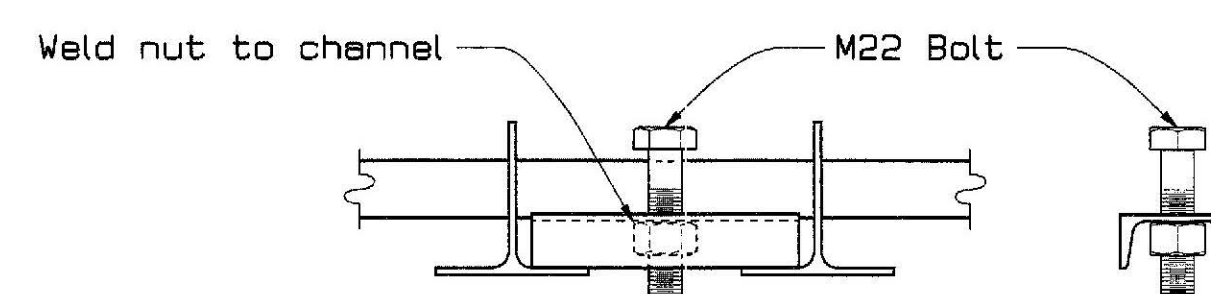
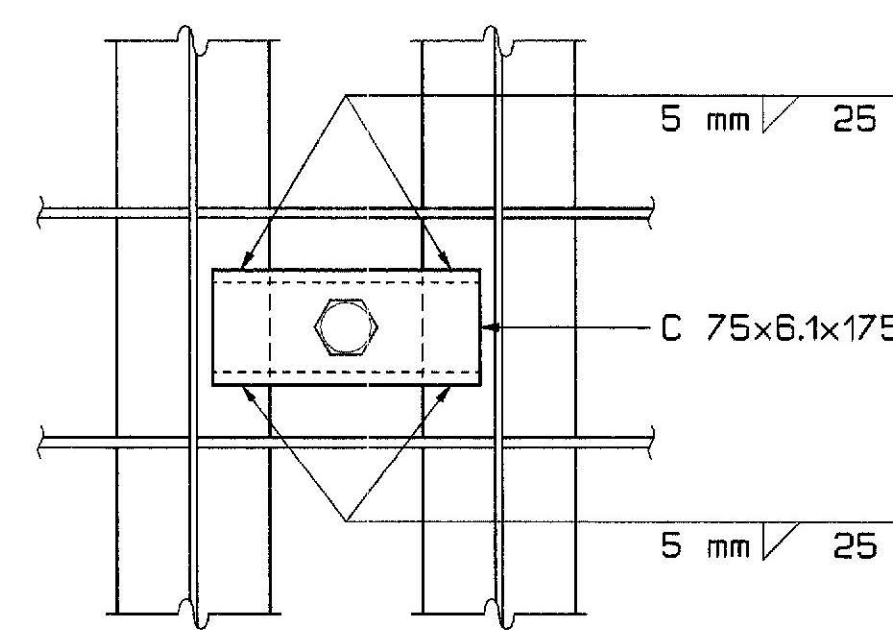
1. Slab panel designations 'F', 'J' and 'M' refer to the existing panel layouts as shown on the Superstructure Plan sheet.



SUGGESTED EXODERMIC DECK LAYOUTS



HEIGHT ADJUSTMENT OPTION "A"



HEIGHT ADJUSTMENT OPTION "B"

SYMBOLS

- New Concrete
(Cast in place)
- New Concrete
(Precast)
- Existing Concrete
(To be removed)
- Existing Concrete
(To remain)

Bridge No. 5750

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY

EXODERMIC DECK DETAILS

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. Folsom	4/99
CHECKED	D. Dammen	
REVISIONS	6.2.4.4	
FIELD CHANGES		

29APR99-0100.20
EXODECK2

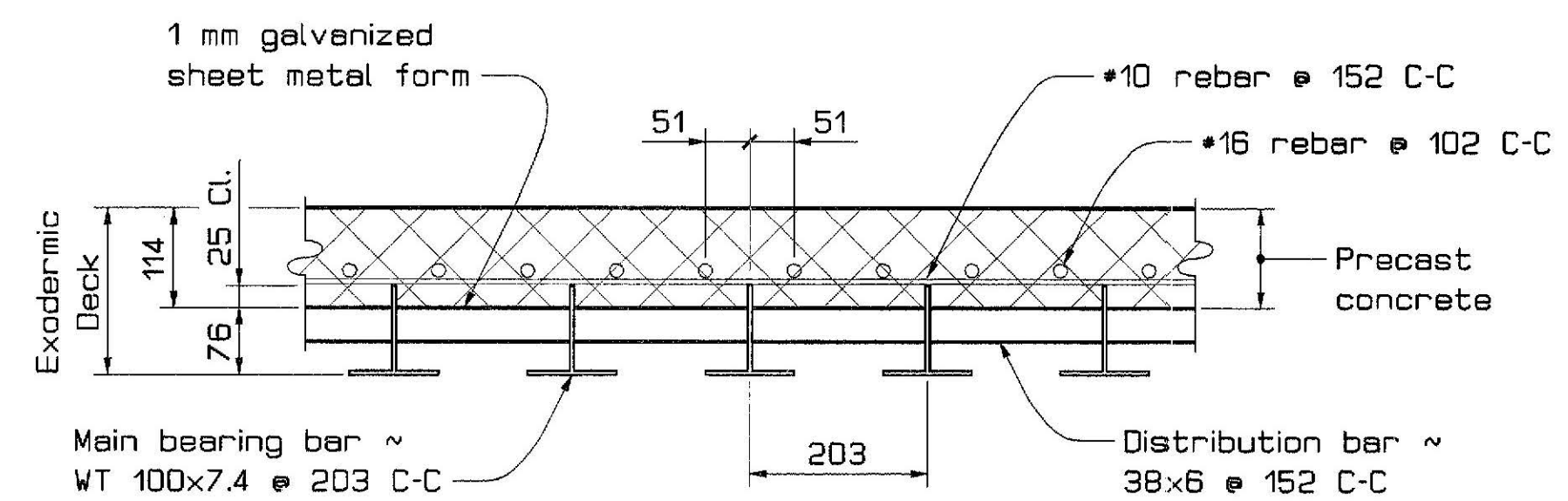
METRIC

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

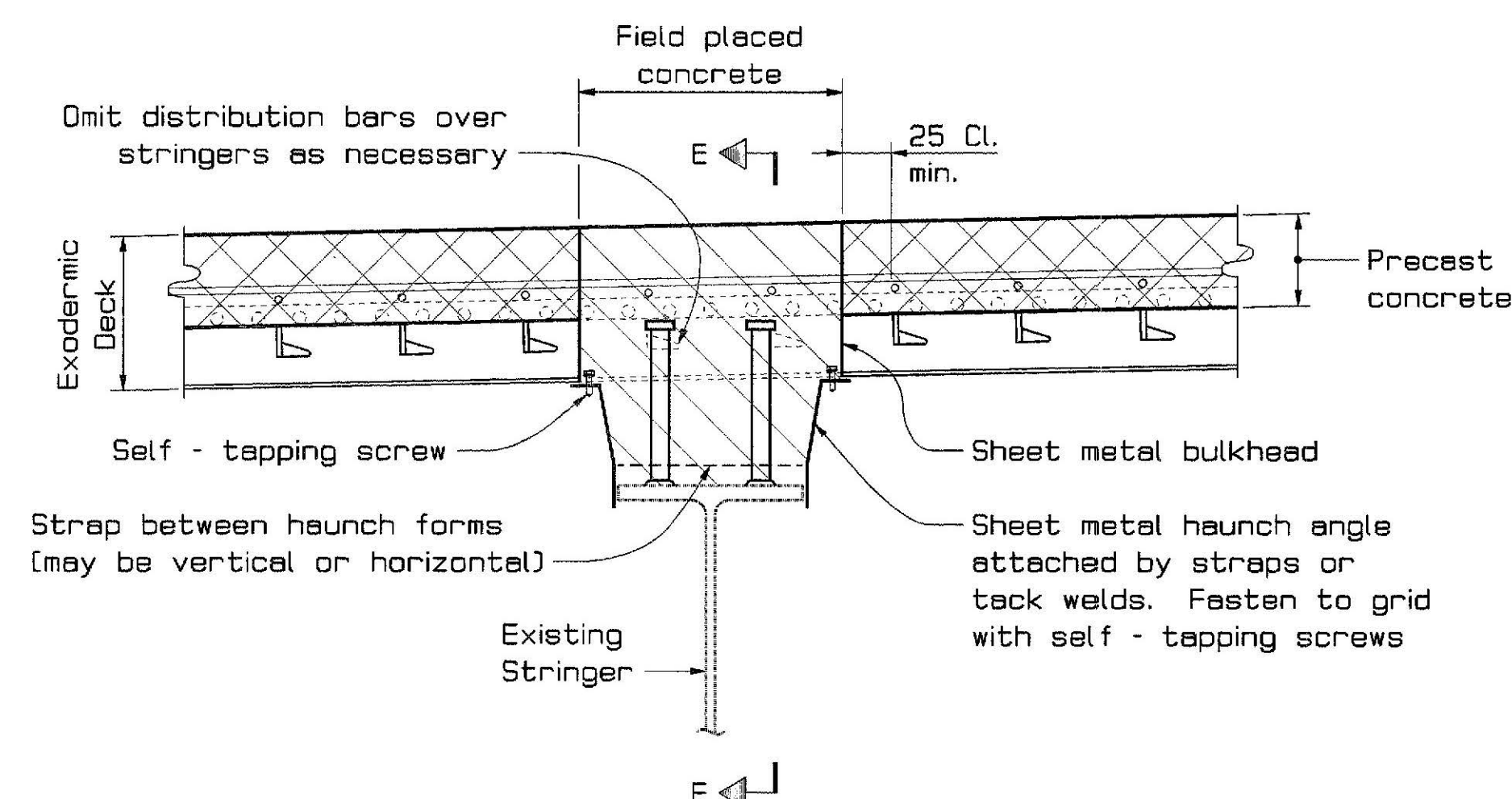
P.H.N.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(20)	26	36

NOTES

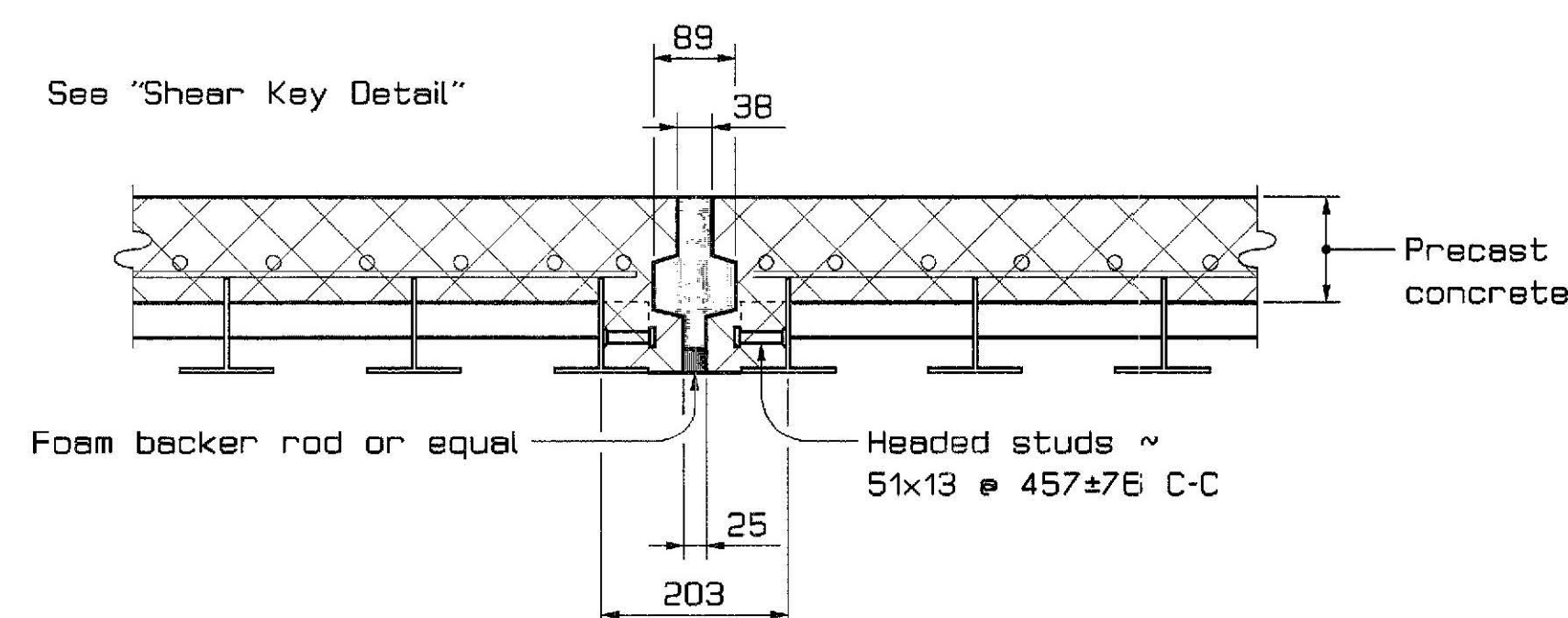
1. Main bars may overlap the edges of the floorbeams provided that sufficient space is allowed for installation of shear connectors.
2. Omit distribution bars where necessary to provide clearance for leveling bolts and shear connectors.
3. Distribution bars spaced at 127 mm C-C are acceptable.
4. The rebar layout shall be as shown in order to allow the maximum amount of space for attachment of shear studs to stringers and for adjustment of leveling bolts. Maintain spacing of main reinforcing as closely as possible across shear keys. All rebar is to be epoxy coated.
5. The threaded rebar connector shall be as manufactured by Williams, Berspice, Richmond or approved equal.
6. Other haunch forming options are possible and shall be approved by the Engineer.



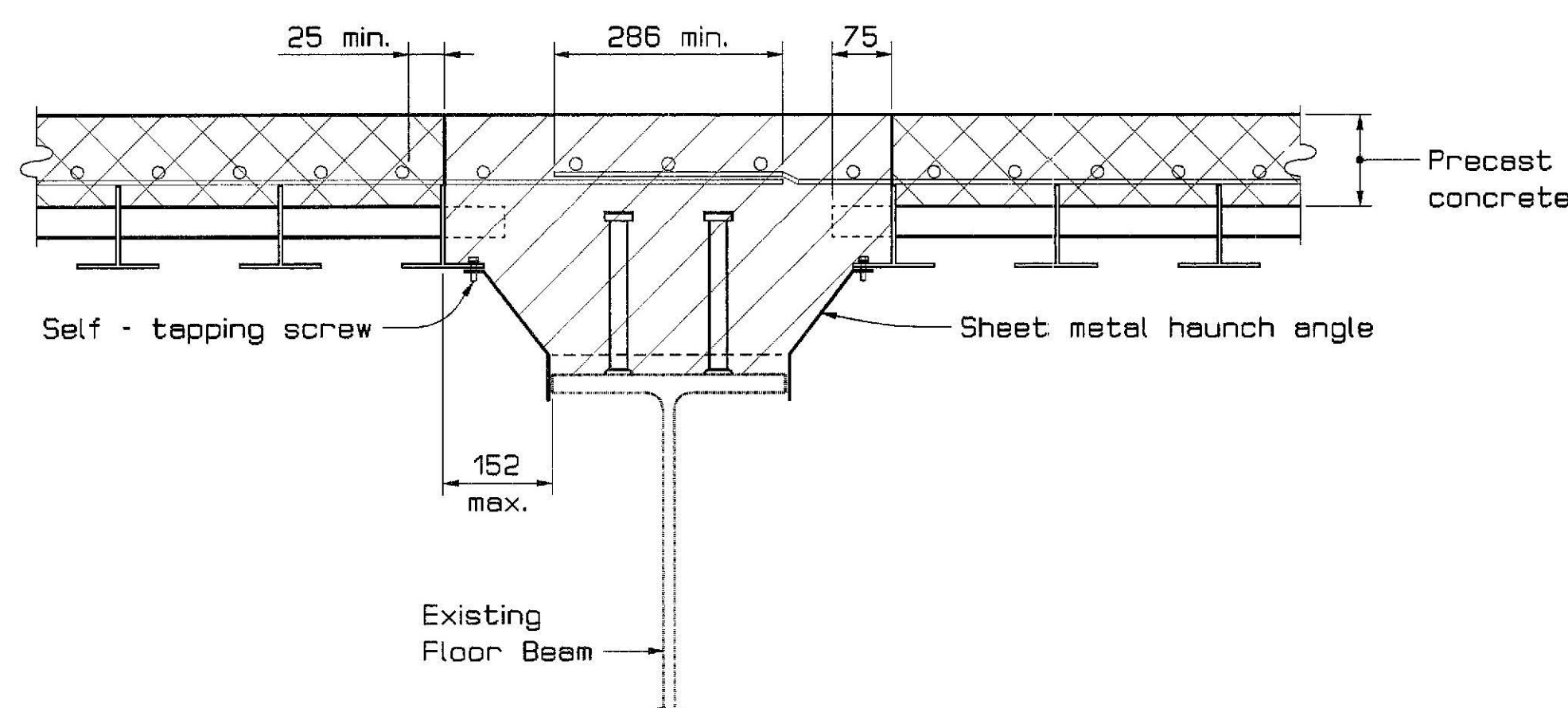
SECTION A-A



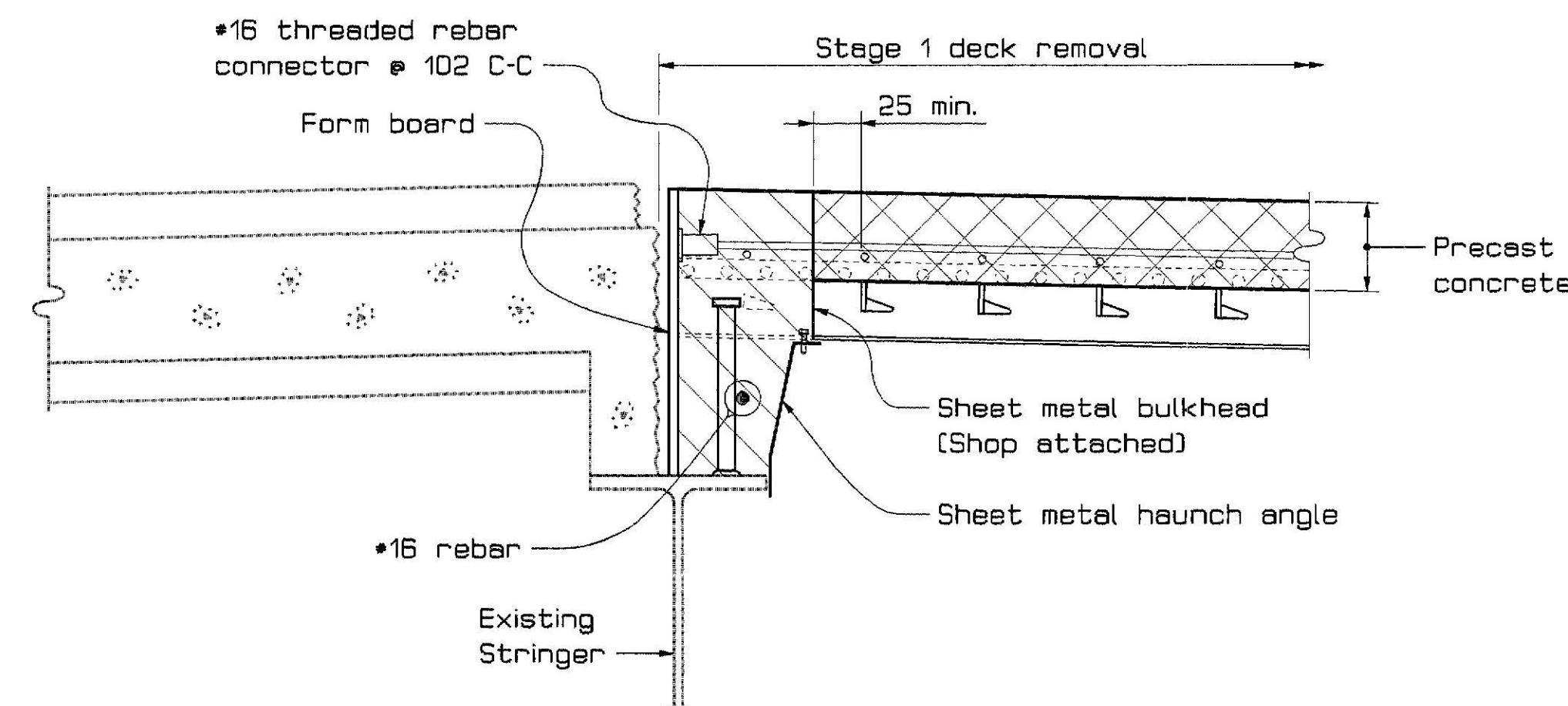
SECTION B-B



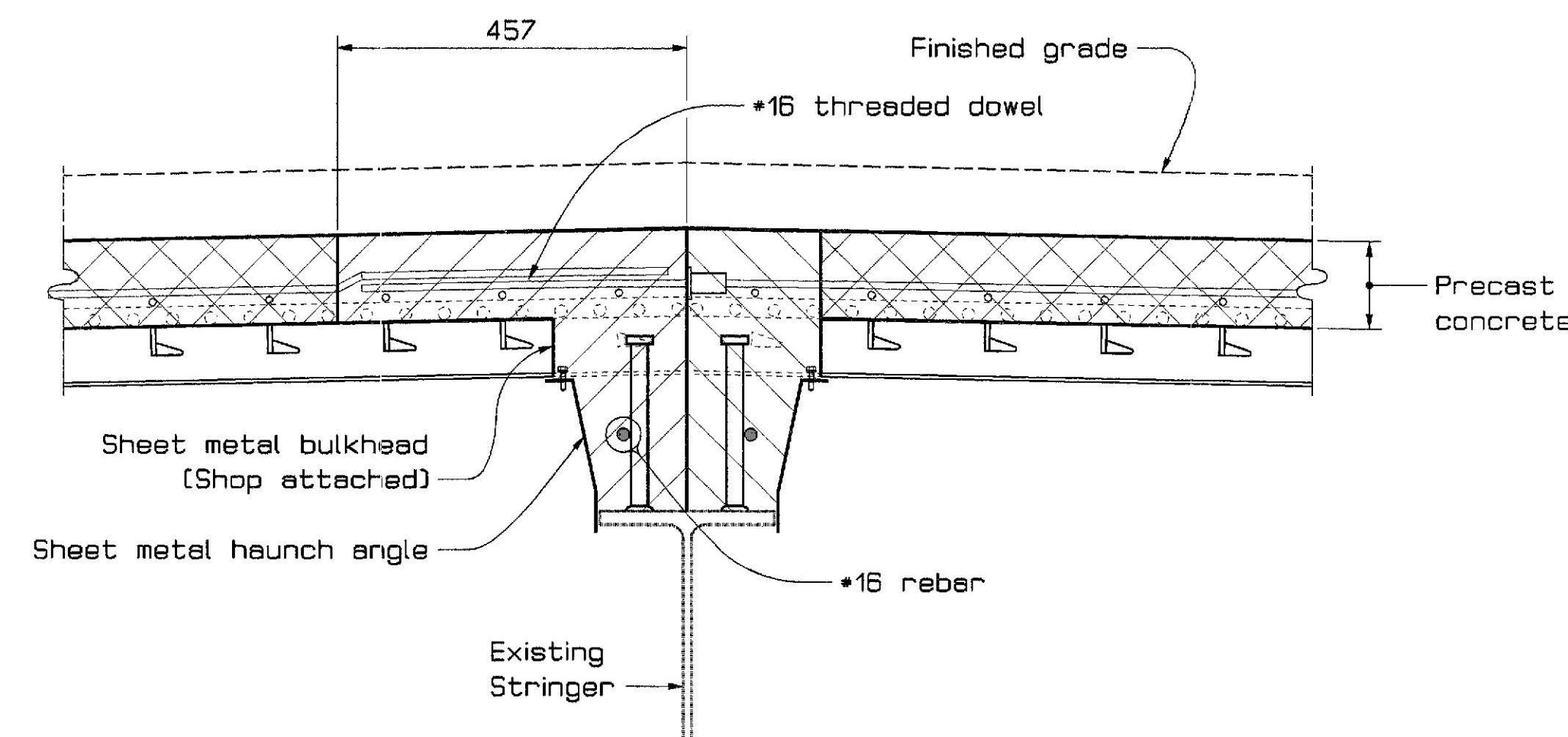
SECTION C-C
Typical



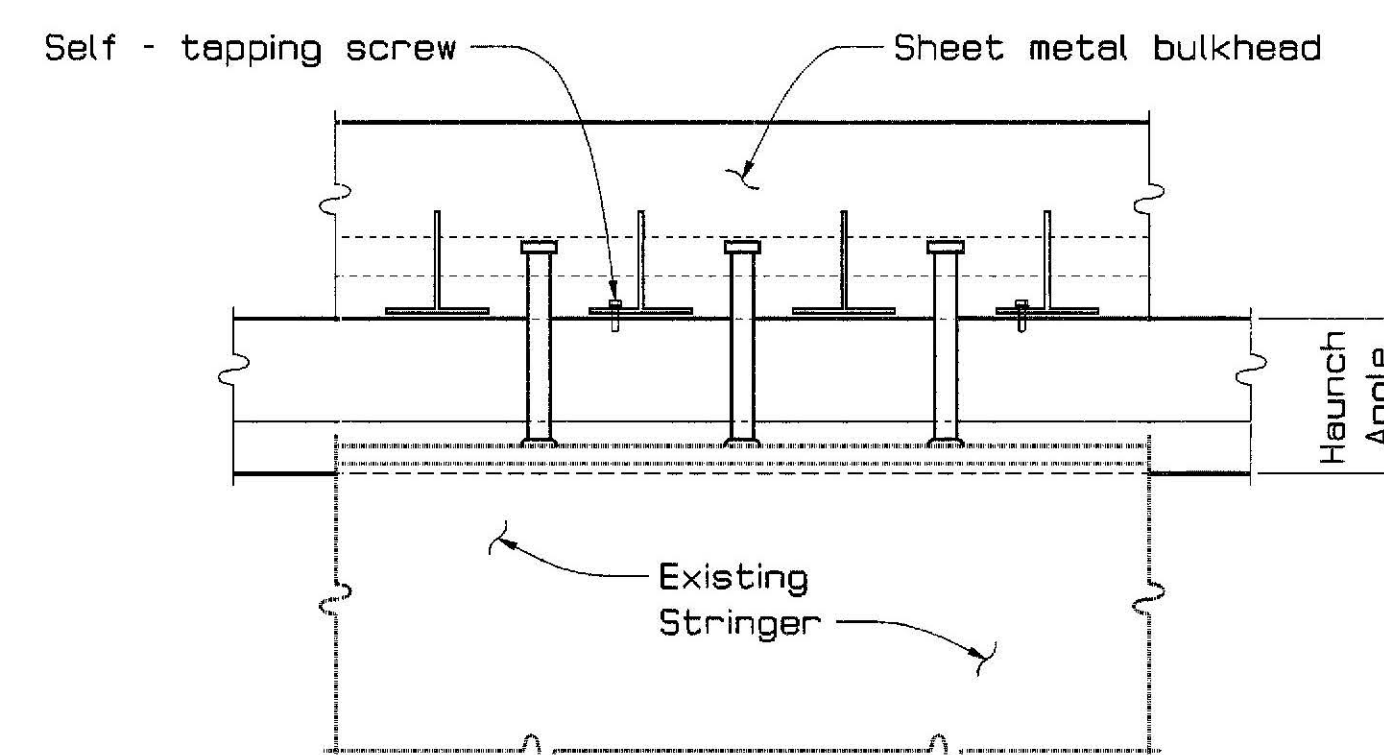
SECTION C-C
At Floor Beams



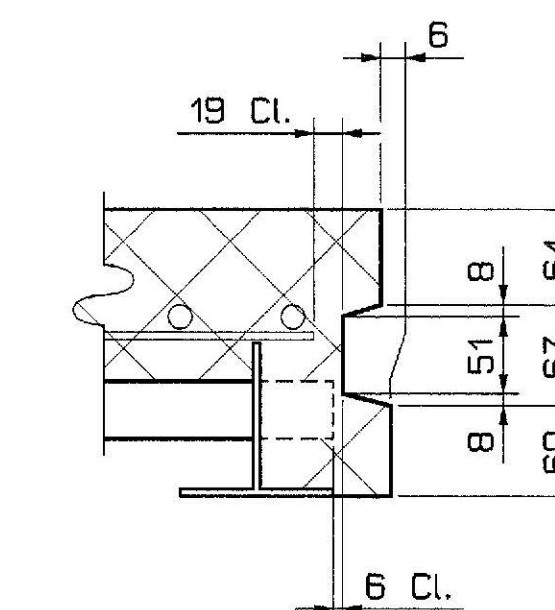
SECTION D-D
Stage 1



SECTION D-D
Stage 2



SECTION E-E



SHEAR KEY DETAIL

SYMBOLS

- New Concrete (Cast in place)
- New Concrete (Precast)
- Existing Concrete (To be removed)
- Existing Concrete (To remain)

PROJECT DESIGN ENGINEER	DATE
J. Falsom	5/99
DESIGN-Detailed	BY
C. Falsom	D. Demmen
CHECKED	REVISIONS
PLANS	FIELD CHANGES

04MAY99-0107.00
EXODERMIC

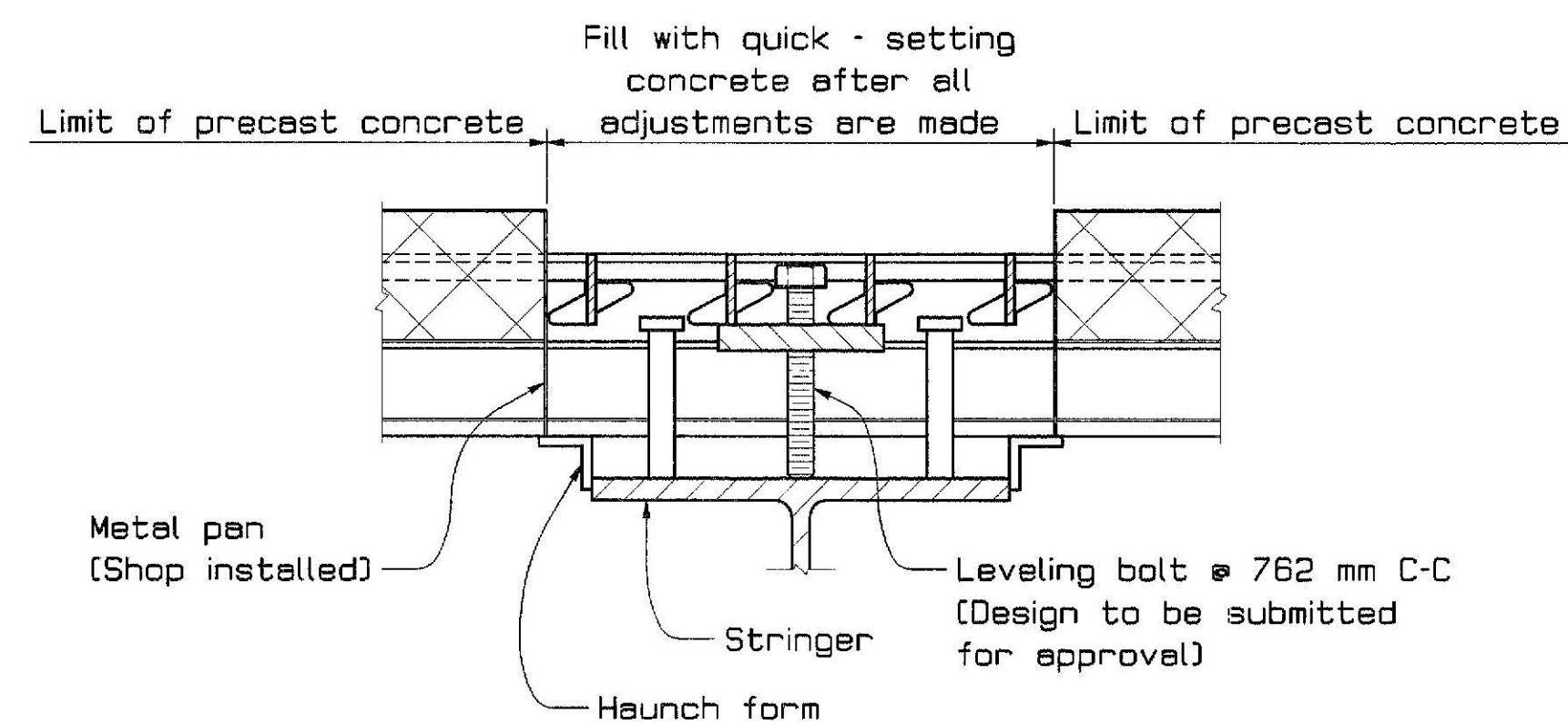
Bridge No. 5750
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY
EXODERMIC DECK DETAILS

METRIC

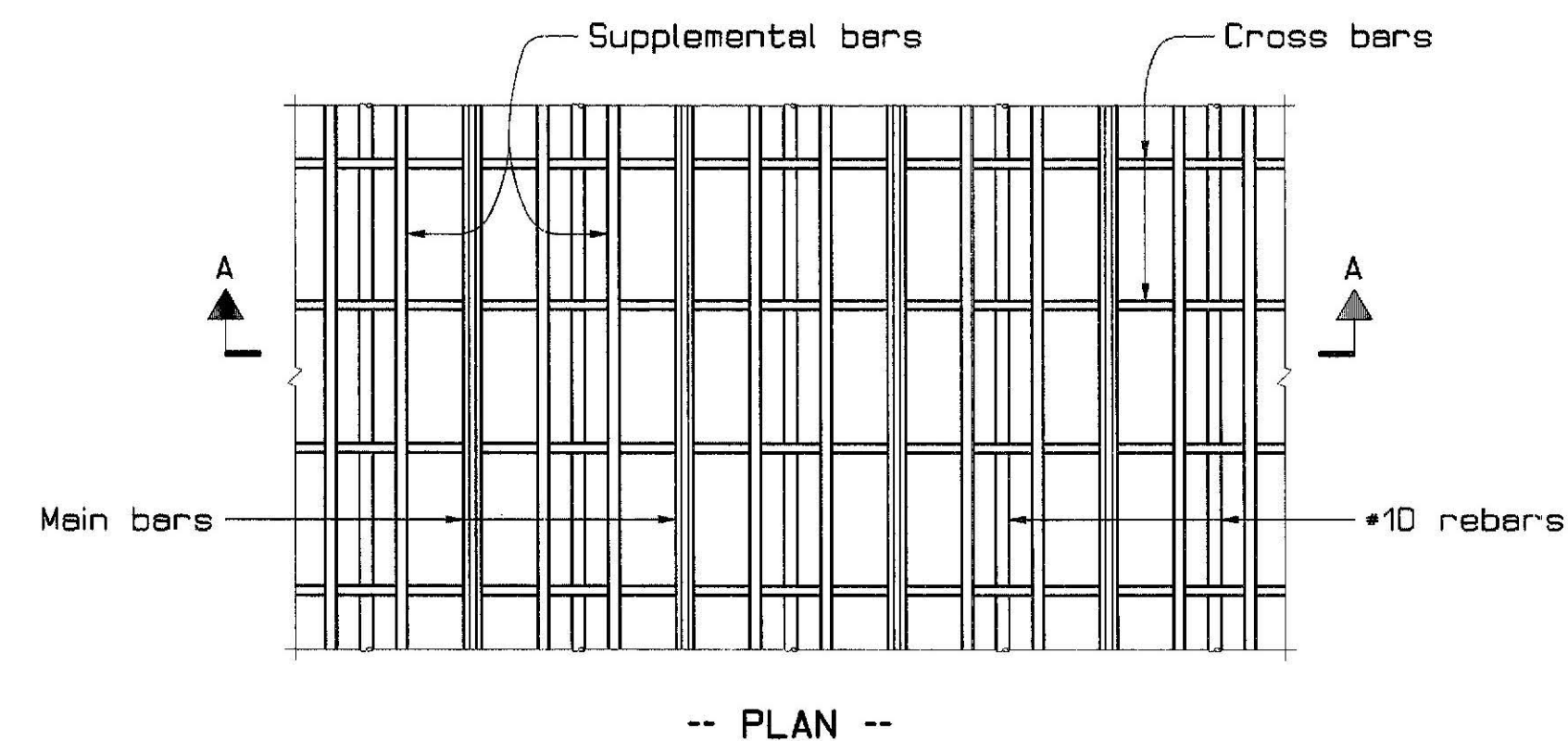
1. All dimensions are in millimeters unless otherwise noted.
2. All elevations and stations are in meters.

F.H.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-421B(20)	27	36

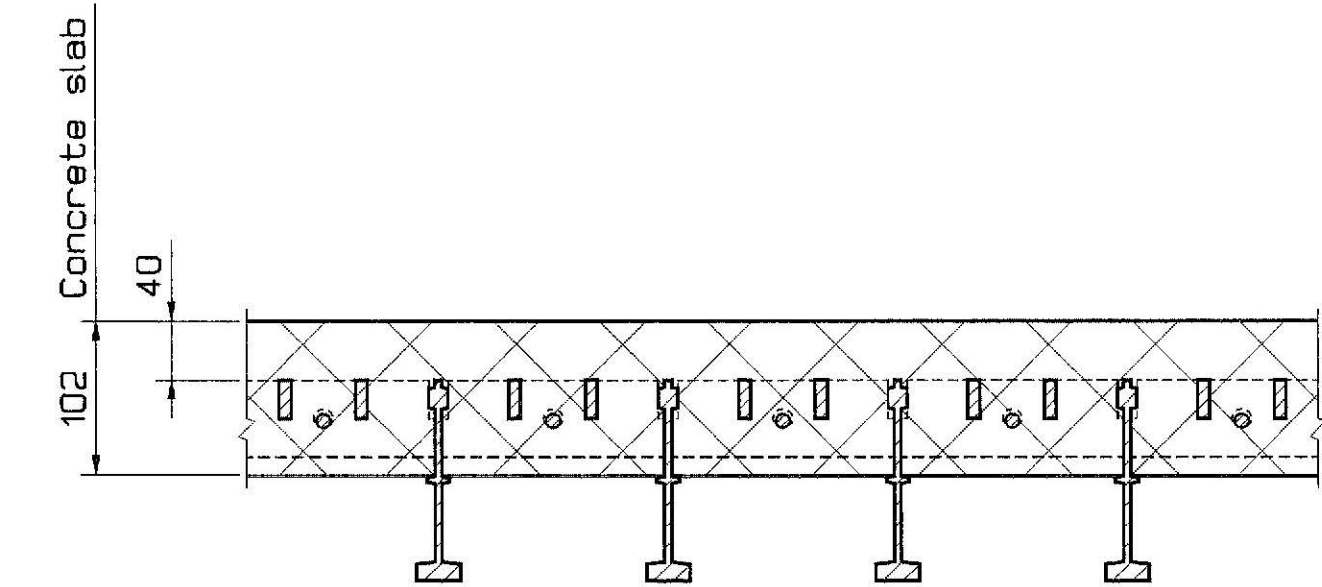
PIN 004218.20



GRID REINFORCED DECK OVER STRINGER

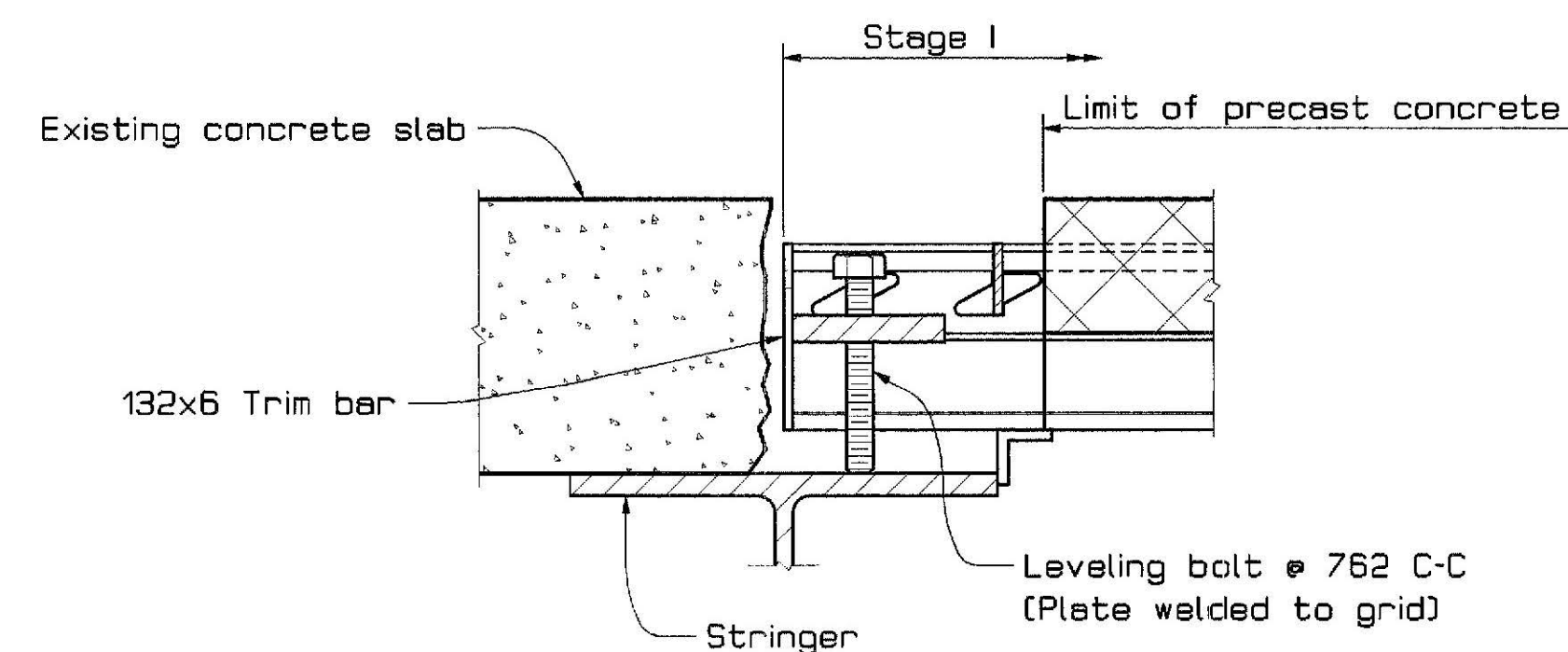


-- PLAN --

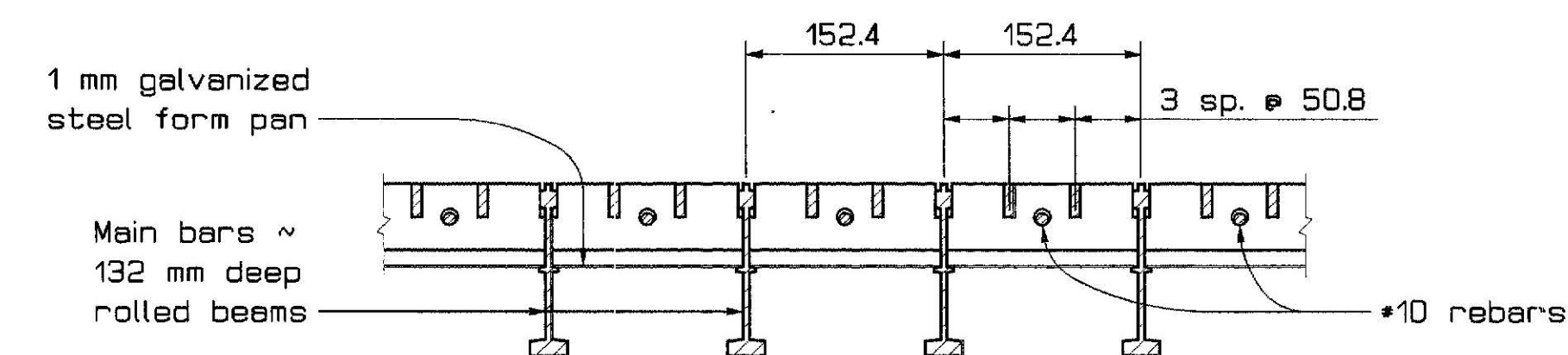


-- SECTION A-A --

HALF FILLED GRID DETAIL



-- STAGE I --

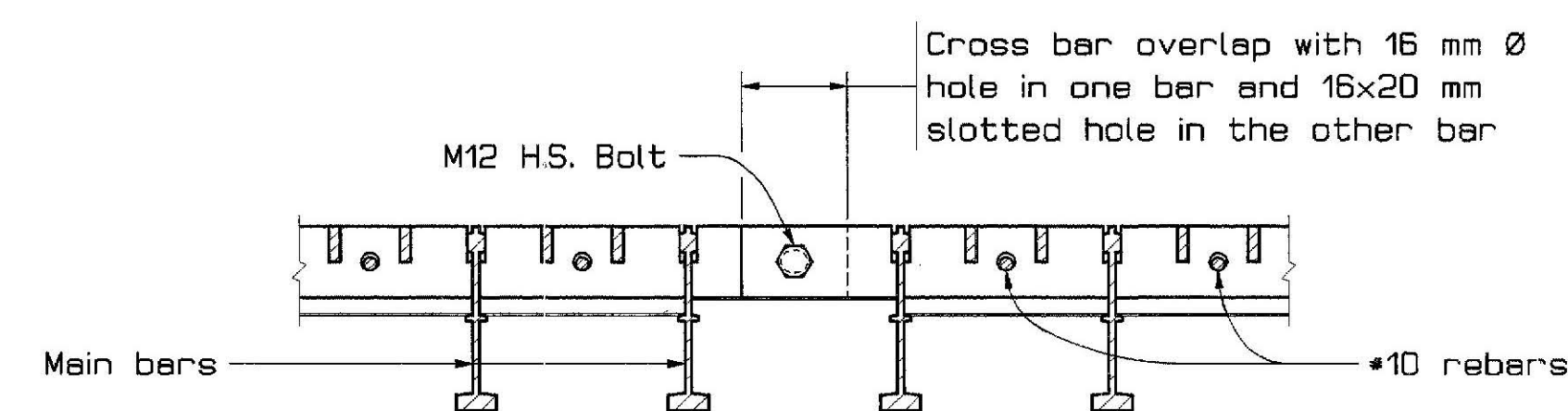


-- SECTION A-A --

STEEL GRID DETAIL

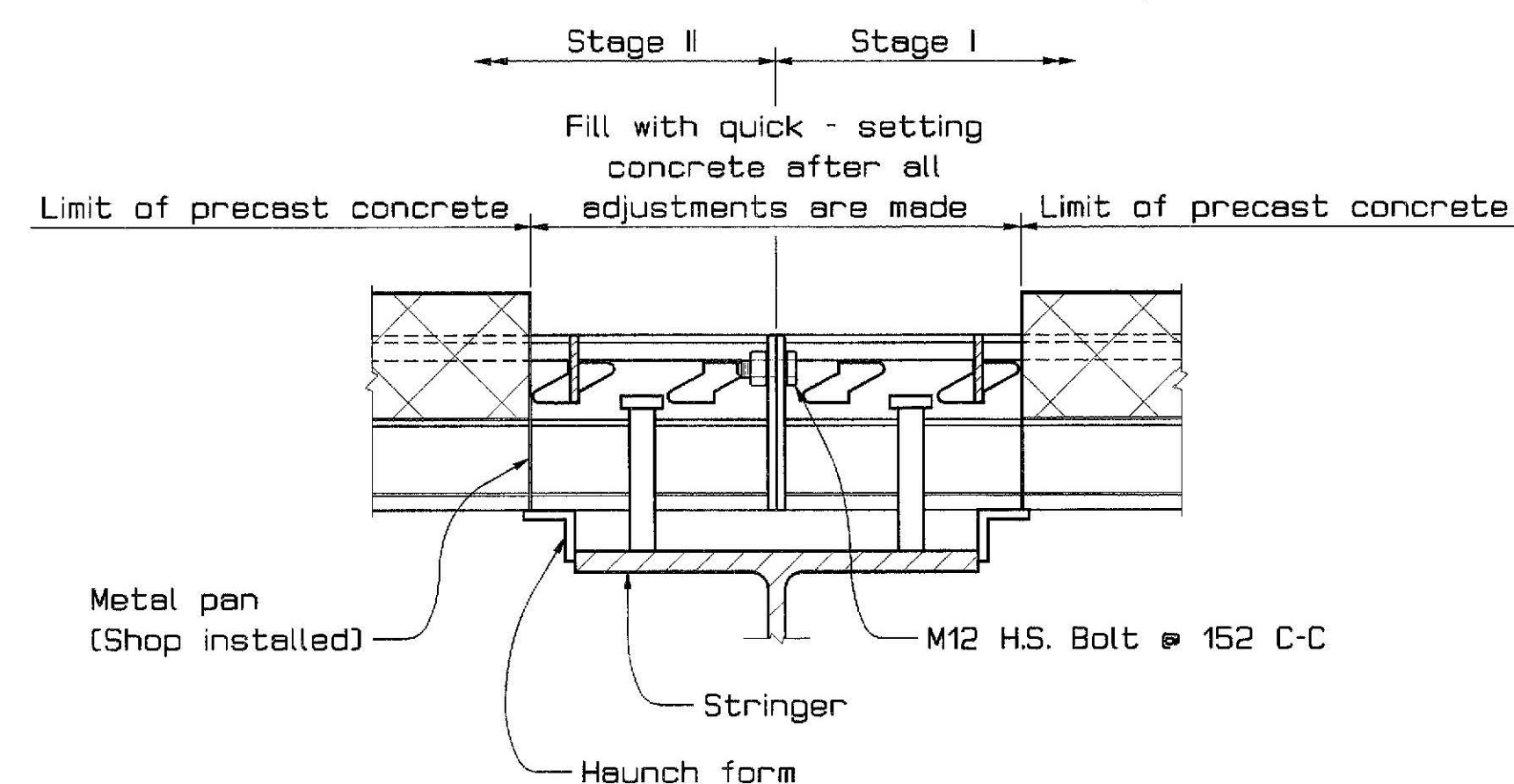


-- PLAN --



-- SECTION C-C --

CROSS BAR SPLICE DETAIL



-- STAGE II --

GRID REINFORCED DECK LONGITUDINAL SPLICE

Field to omit 10 rebar and cross bar as necessary for ease of bolting

NOTES

1. These details are generic in nature and may not reflect the actual conditions of this project. The exact details regarding deck cross - slope, variable blocking thickness and other installation details will be the responsibility of the supplier and the Contractor. All such details will be submitted to the Engineer for approval in accordance with the provisions of this contract.

Bridge No. 5750

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY

HALF FILLED GRID DETAILS

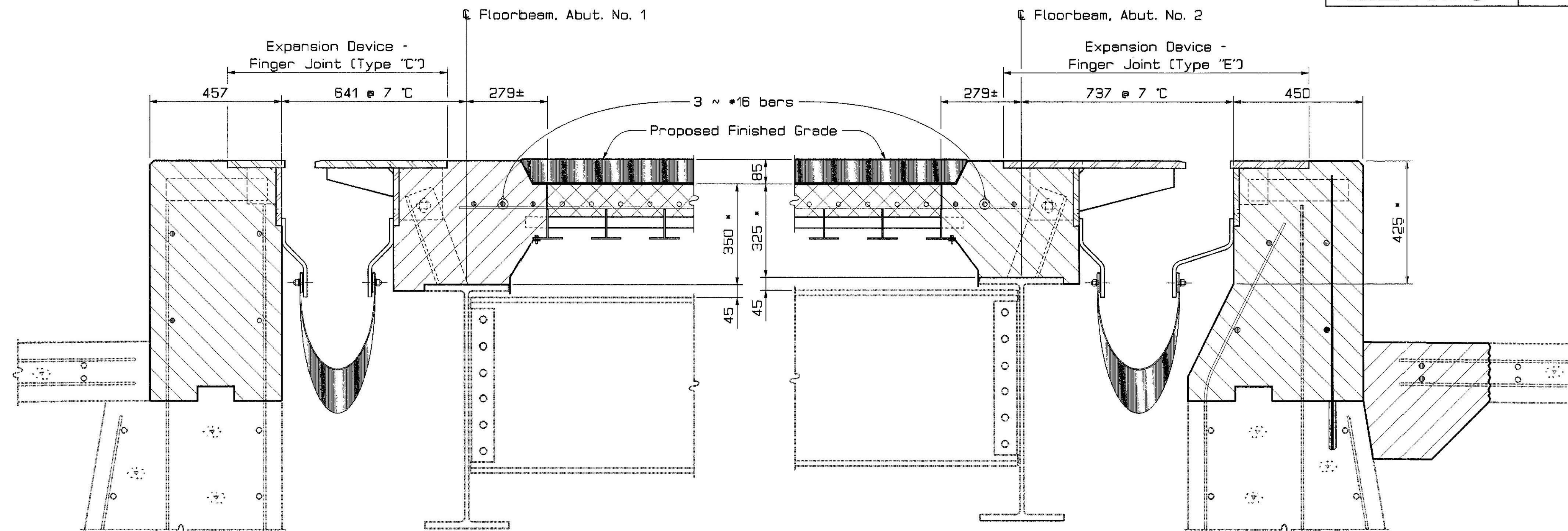
PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. Folsom	2/99
CHECKED	D. Demmen	
REVISIONS		
FIELD CHANGES		

29APR99-010020
HALFGRD1

METRIC

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

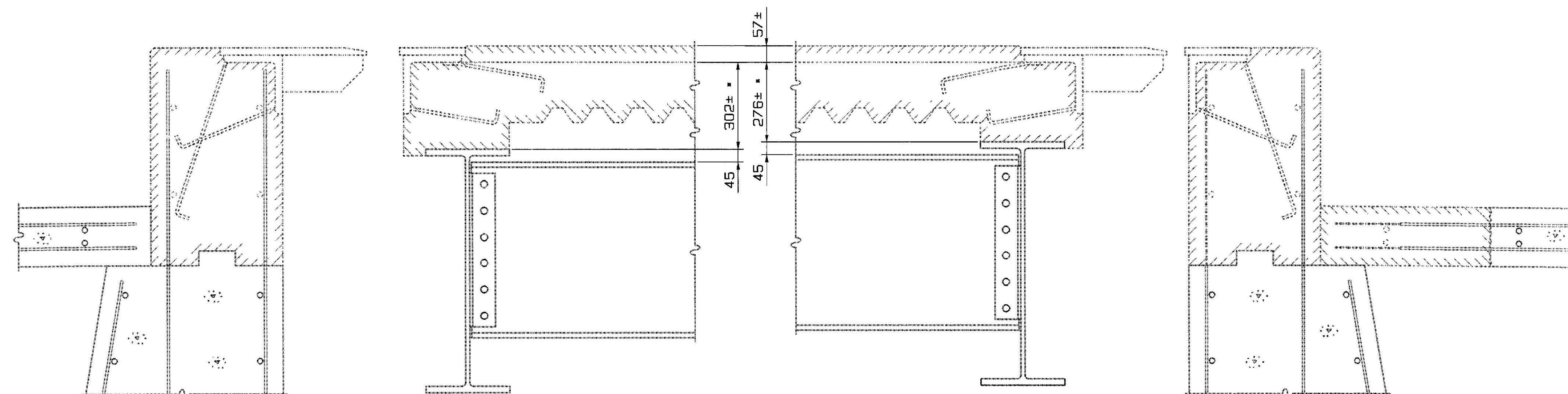
PIN 004218.20				
F.H.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(00)E	28	36



PROPOSED SECTION AT ABUTMENT NO. 1

PROPOSED SECTION AT ABUTMENT NO. 2

* Varies (Dimension shown
is at Construction)



EXISTING SECTION AT ABUTMENT NO. 1

EXISTING SECTION AT ABUTMENT NO. 2

SYMBOLS

	New Concrete (Cast in place)
	New Concrete (Precast)
	Existing Concrete (To be removed)
	Existing Concrete (To remain)

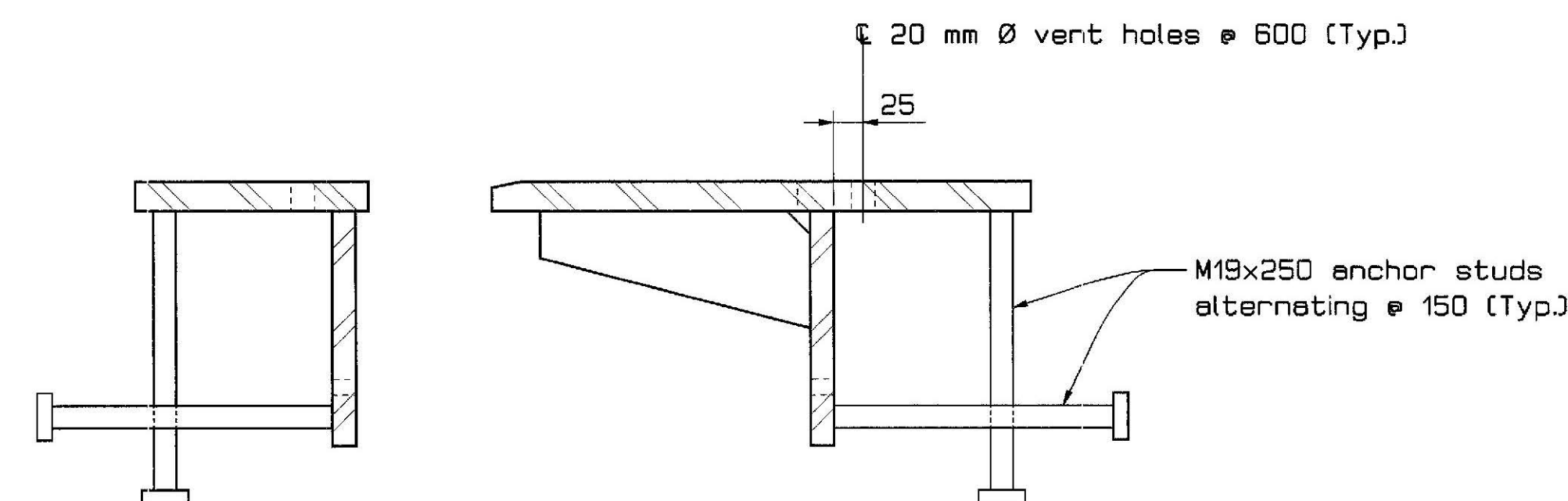
Bridge No. 5750

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY
SUPERSTRUCTURE EXPANSION JOINTS

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	4/99
CHECKED	
REVISIONS	
FIELD CHANGES	

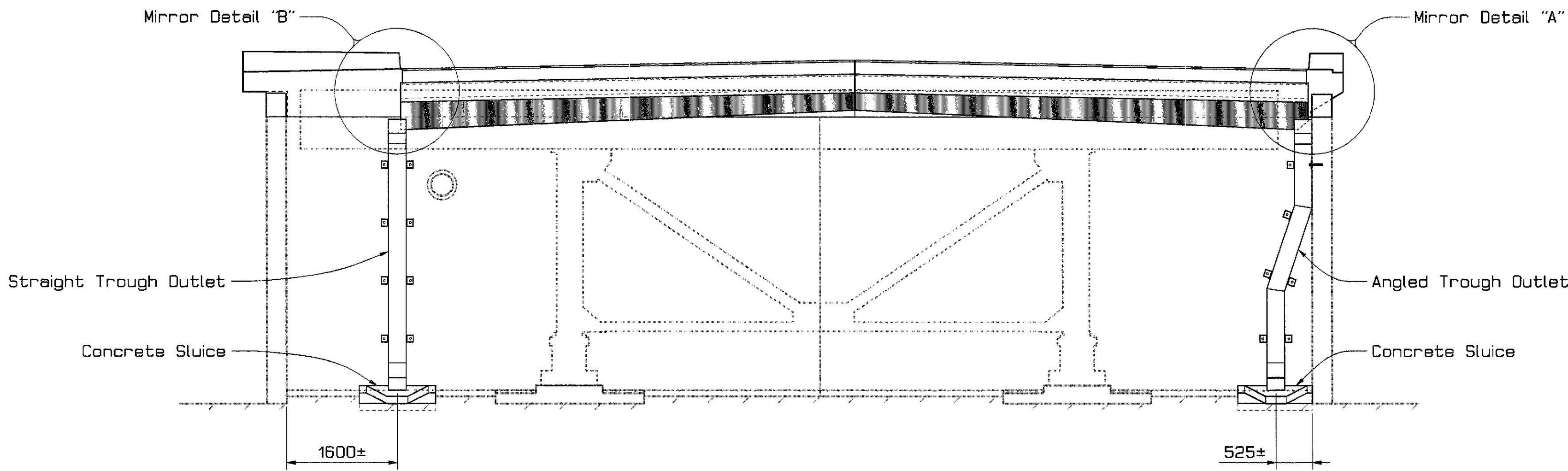
29APR99-010020
EXPJNT1



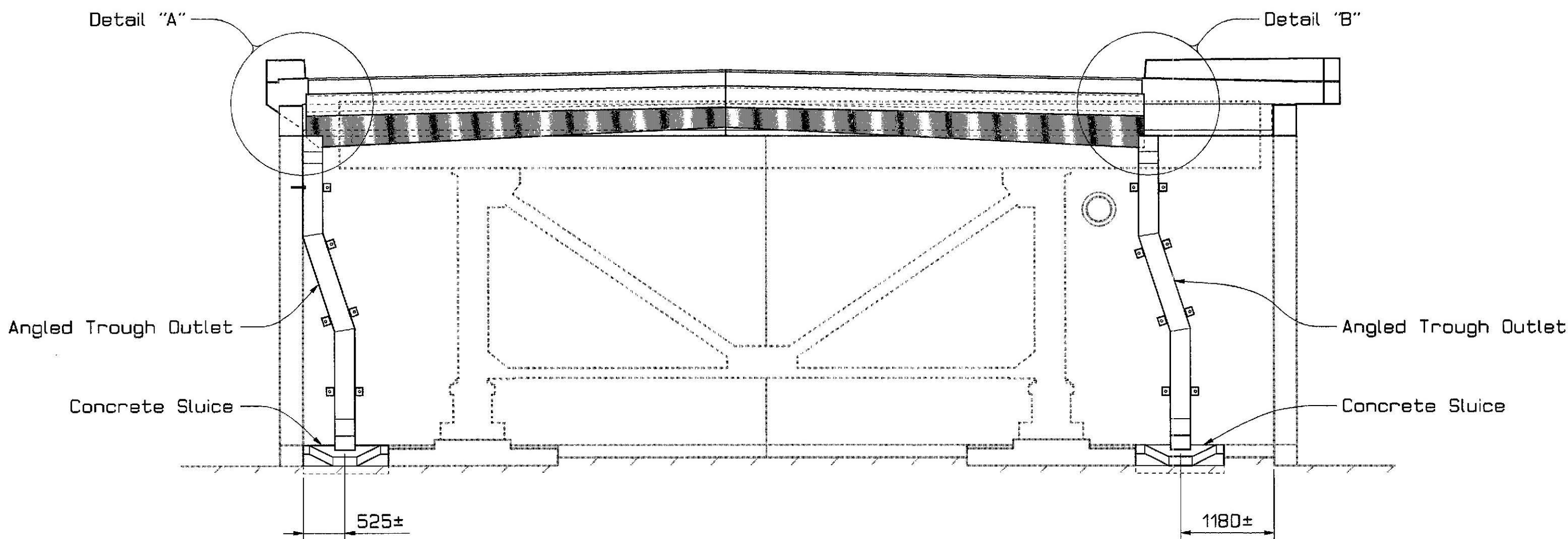
EXPANSION DEVICE MODIFICATIONS
Typical for joints at both abutments

NOTES

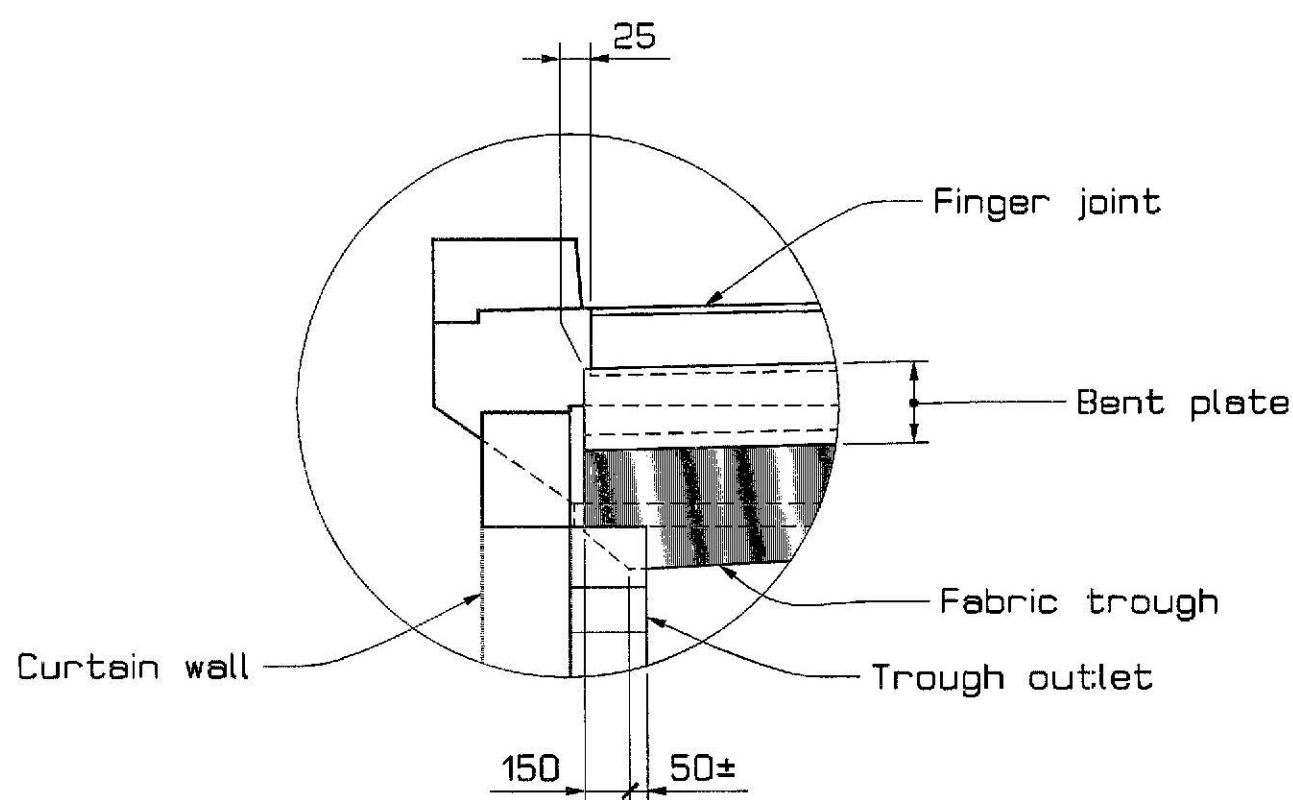
1. Concrete for the sluices shall be Class "A". The exact configuration of the sluices may be adjusted to suit actual field conditions. Payment will be considered incidental to Item 521.32, Fabric Trough for Finger Joint.
2. A hand - laid riprap downspout shall be constructed at the end of each sluice if so directed by the Engineer. Payment will be made under Item 610.09, Hand Laid Riprap.



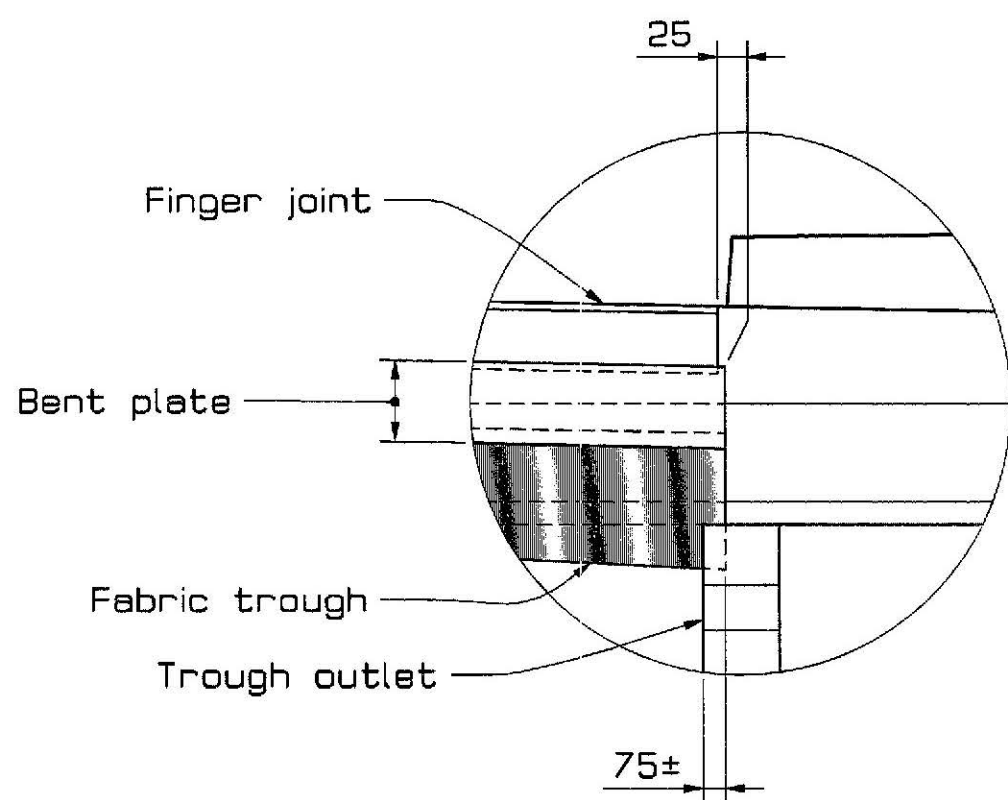
ABUTMENT NO. 1 TROUGH ELEVATION



ABUTMENT NO. 2 TROUGH ELEVATION



DETAIL "A"



DETAIL "B"

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	4/99
CHECKED	
REVISIONS	
FIELD CHANGES	

PLANS

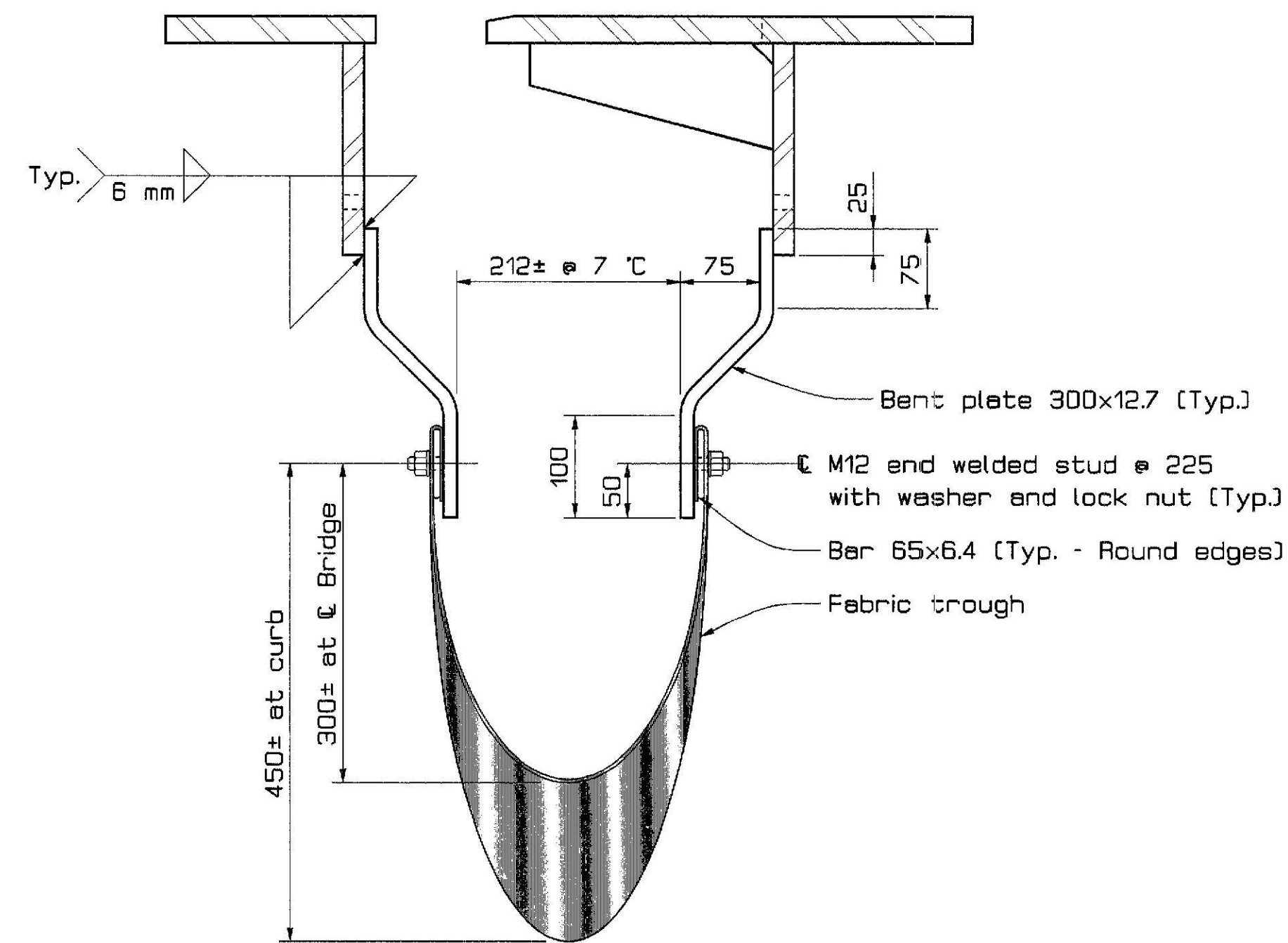
29APR99-0100.20
TROUGH1

Bridge No. 5750
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY
TROUGH DETAILS

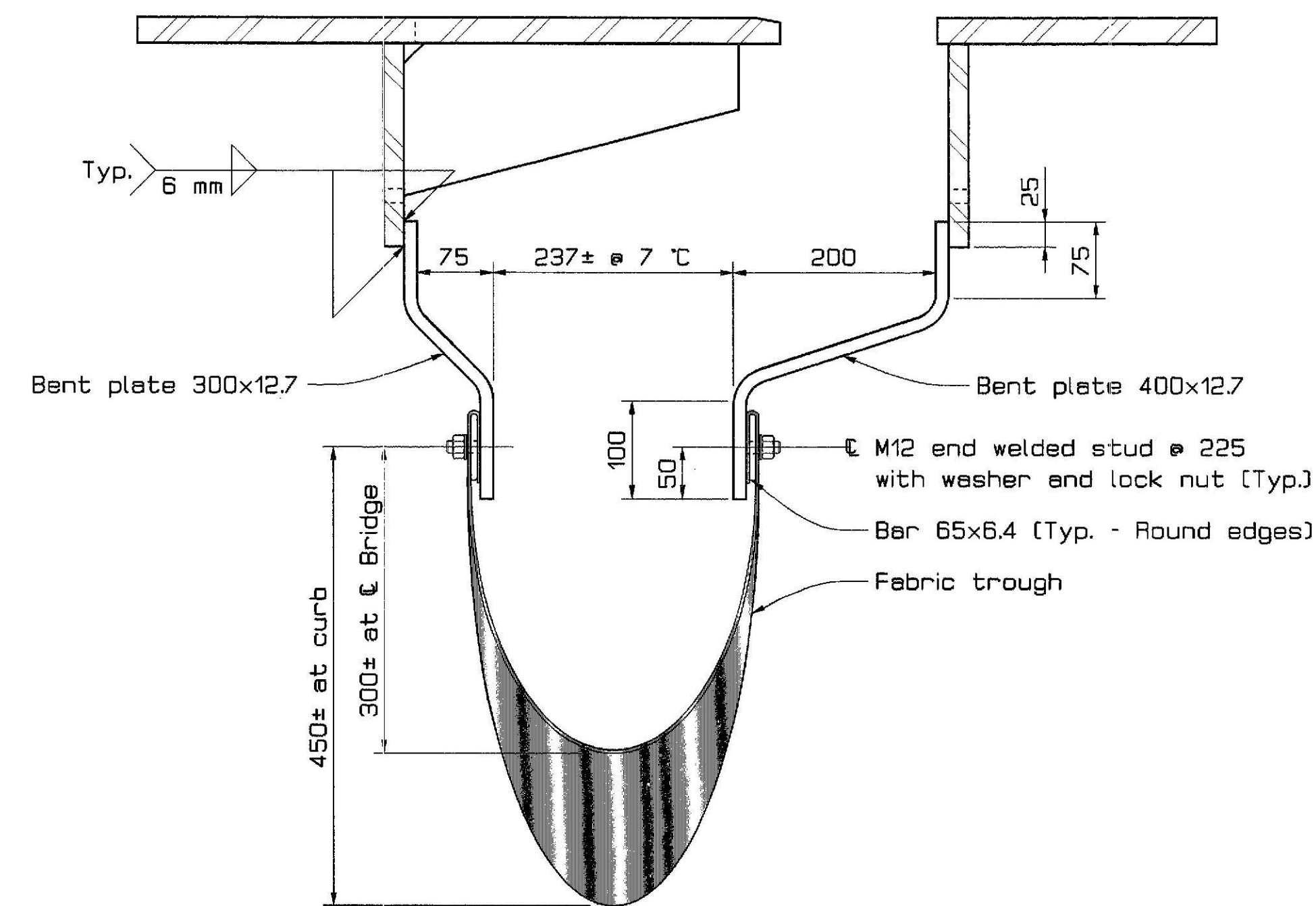
METRIC

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

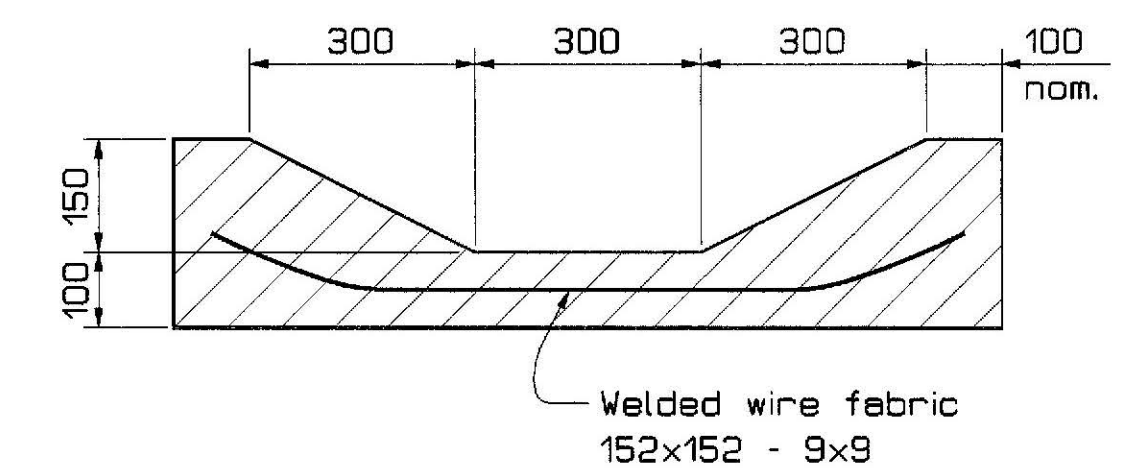
F.H.W.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(00)E	30	36



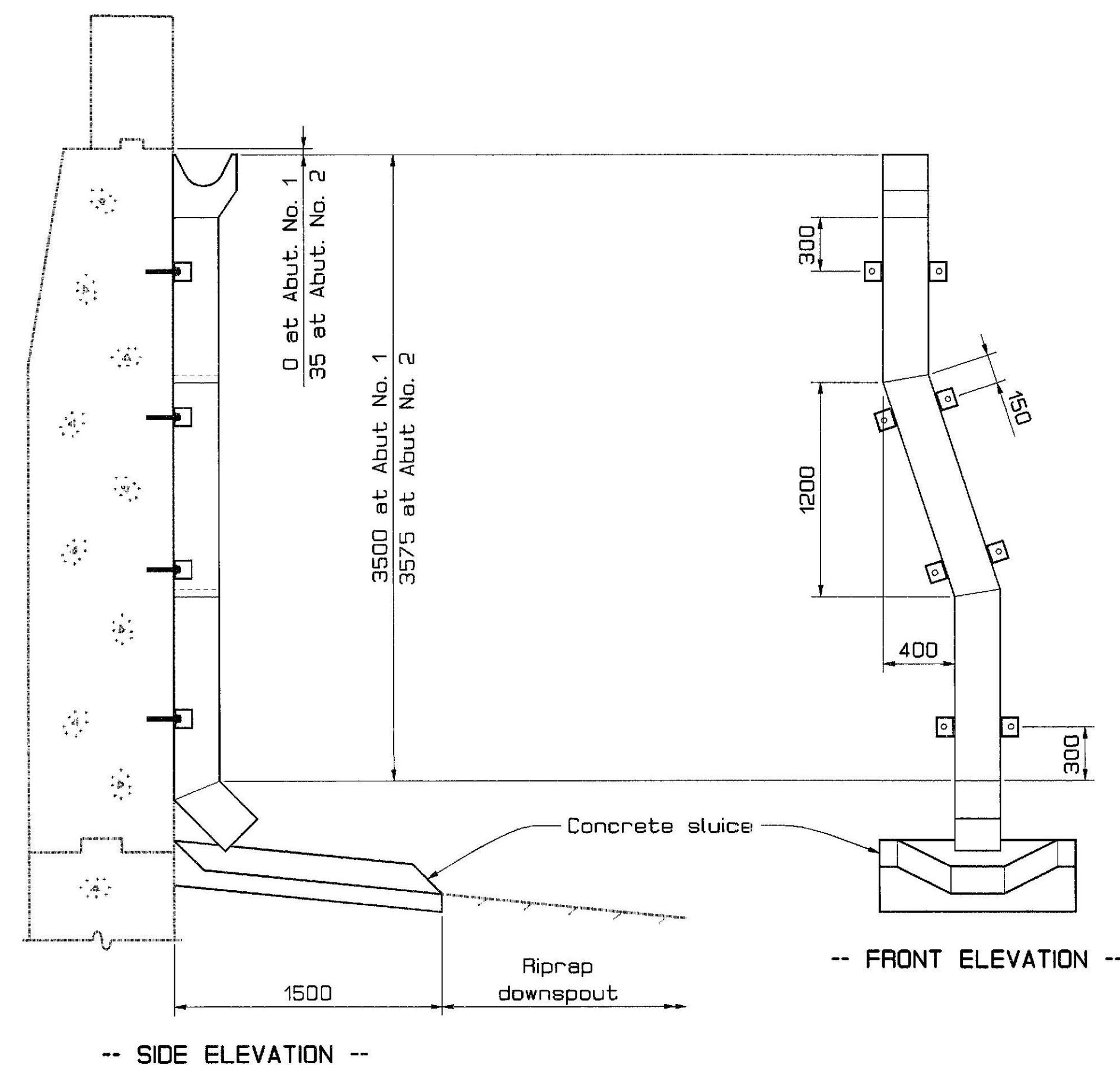
TROUGH SECTION AT ABUTMENT NO. 1



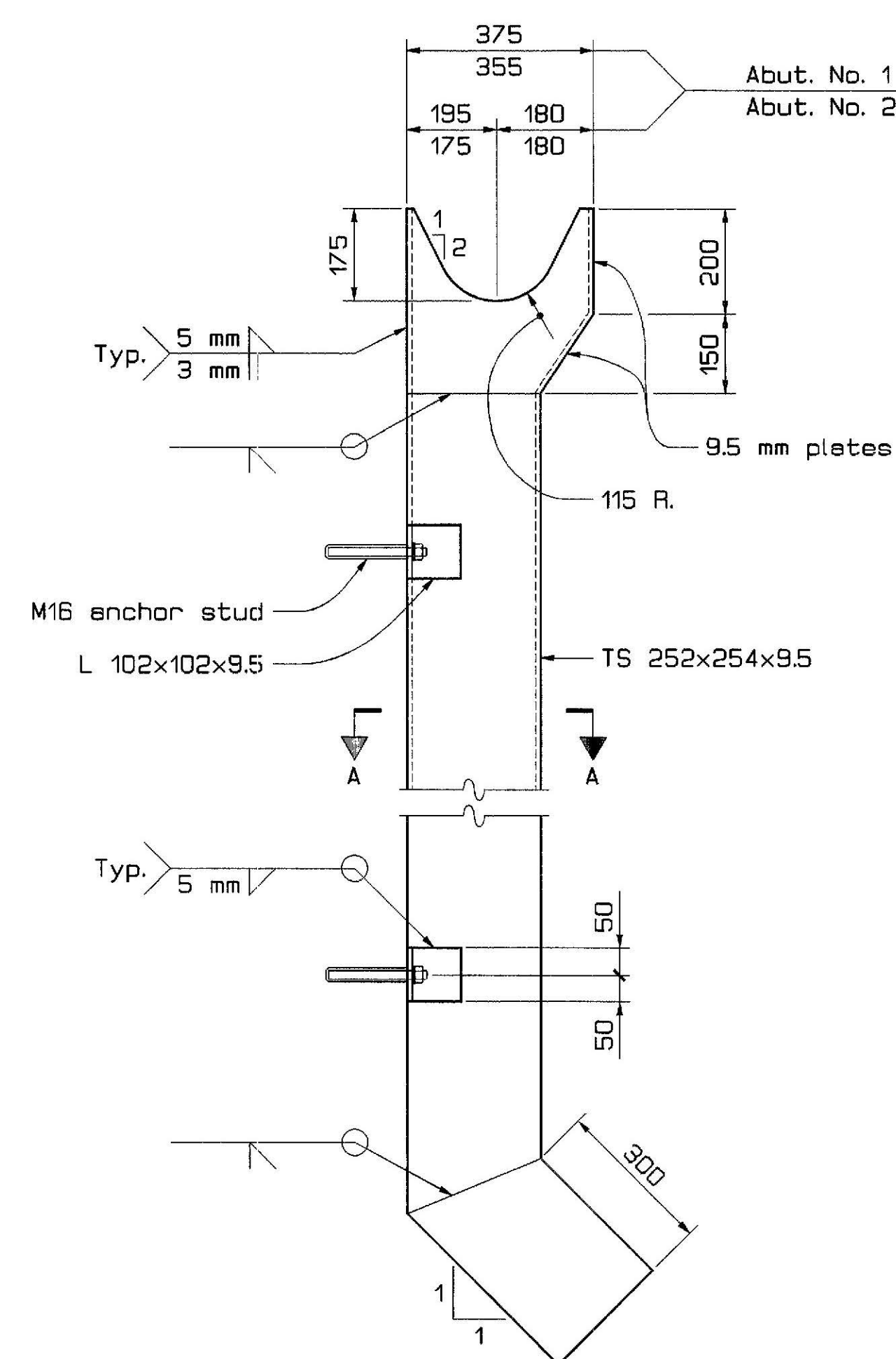
TROUGH SECTION AT ABUTMENT NO. 2



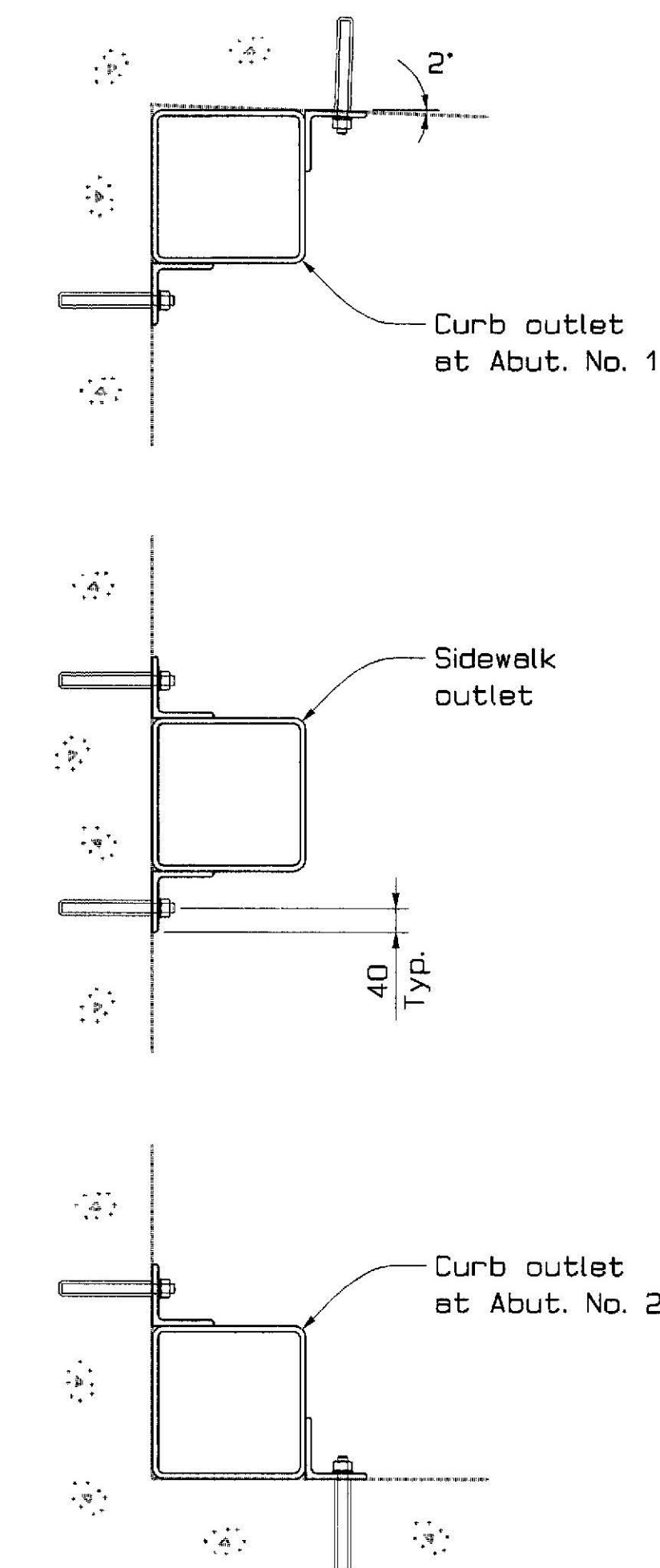
SLUICE SECTION



TROUGH OUTLET ELEVATIONS



TROUGH OUTLET DETAIL



SECTION A-A

SYMBOLS

	New Concrete (Cast in place)
	New Concrete (Precast)
	Existing Concrete (To be removed)
	Existing Concrete (To remain)

Bridge No. 5750

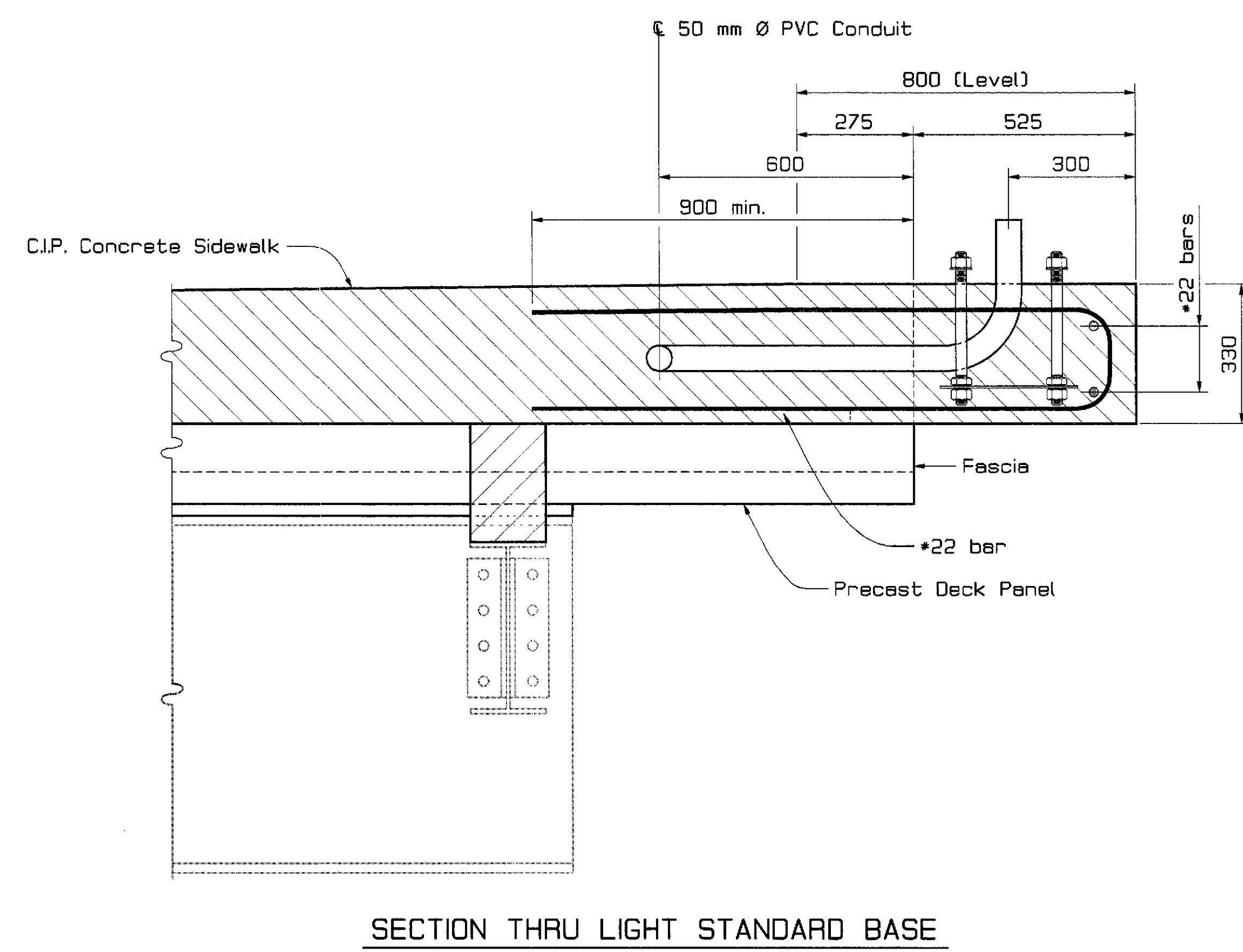
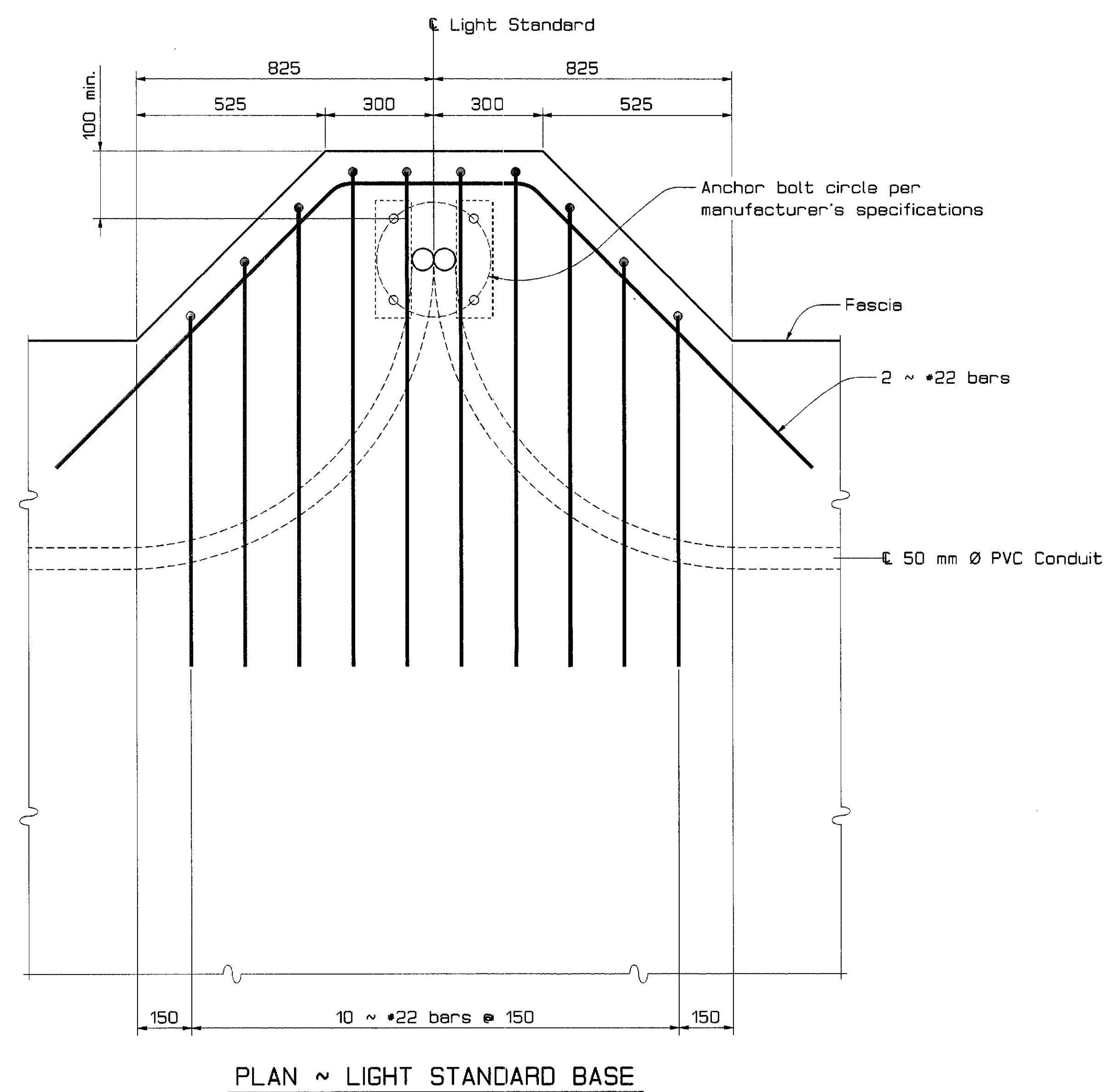
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY

TROUGH DETAILS



29APR99-01.00.20
DRAIN



NOTES

1. Lighting shall be provided using 12.2 meter galvanized steel poles at locations shown on the plans.
2. Luminares shall be Holophane "Mongoose" 250 watt high pressure sodium, narrow road, clear drop glass, IES Type II medium cutoff light distribution, Catalog No. MC25HP48NCOG1 or approved equal. The luminaire described here mounts directly at the top of the pole.
3. A new lighting service and control cabinet shall be provided at the location of the existing service. The new service shall be 240/480 volts. Wire size shall be 3C*8THW stranded copper. Wire in the poles shall be 3C*12 stranded copper.
4. All conduit shall be 50 mm diameter Schedule 40 PVC, except that conduit under pavement shall be Schedule 80. Provide a waterproof expansion coupling every 3 meters in conduit embedded in concrete and appropriate expansion couplings at expansion joints at the ends of the bridge deck.
5. Provision shall be made to drain the conduit system in a manner approved by the Engineer.
6. Existing poles and luminaires shall remain the property of the Department. The poles and luminaires shall be carefully removed and delivered to a location designated by the Engineer.
7. Payment for lighting conduit within the limits of the bridge will be made under Item No. 638.01, Embedded Work in Structures.

Bridge No. 5750

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY

BRIDGE LIGHTING

PROJECT DESIGN ENGINEER	DATE
DESIGN-DETAILED	1/99
CHECKED	J. Folsom
REVISIONS	D. Demmer
FIELD CHANGES	

PLANS

29APR99-0100.20
LIGHT1



Technical drawing of a cross-section of a concrete slab with reinforcement. The drawing shows a slab with a total width of 180 units and a height of 75 units. The reinforcement consists of 5 horizontal bars (Type 'H', #19 @ 150) and 8 vertical bars (2 ea. ~ TB1601 thru TB1605, 1 of each E.F.). The bars are bent in the field. The drawing also shows a cross-section of the slab with a 100 unit wide section and a 150 unit wide section. The reinforcement is shown as circles with dots, and the concrete is shown as a hatched area.

Labels and dimensions:

- 5 ~ MB1650
- 4 eq. sp.
- 75
- 180
- 2 ea. ~ TB1601 thru TB1605 (1 of each E.F.)
- Bend in field
- 8 ~ TB1600
- 5 ~ Type 'H' #19 @ 150
- 6 spaces @ 150
- 100
- 150

MODIFIED TRANSITION BARRIER ELEVATION
(Modified 2 - Bar Traffic Railing Barrier)

(M) 5 ~ MB1650 replace 5 ~ TB1650 on Standard Details
4 ~ #19 straight bars replace 2 ~ Type "H" bent bars

1. Reinforcing steel anchoring the transition barriers to the sidewalk is not paid for under the transition barrier pay items and must be included with the main reinforcing steel schedule.



MODIFIED TRAFFIC RAIL AND TRANSITION BARRIER DETAILS
See Standard Details Book Sections 507 and 526 for details not shown

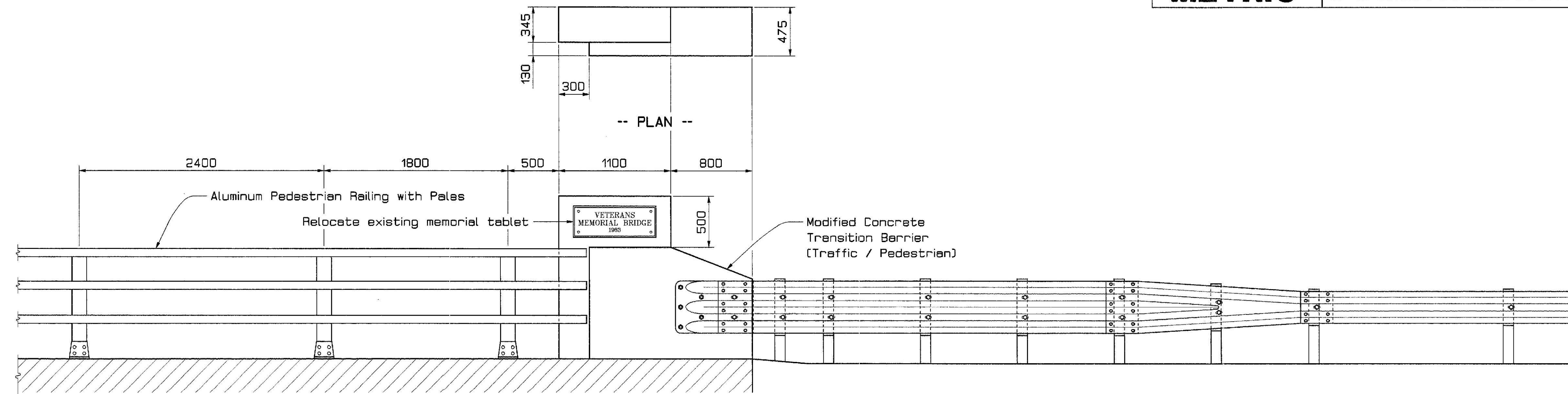
RAIL1
29APR99-01.00.20

BRIDGE RAILING

METRIC

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

F.H.V.A. REG. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(00)E	34	36

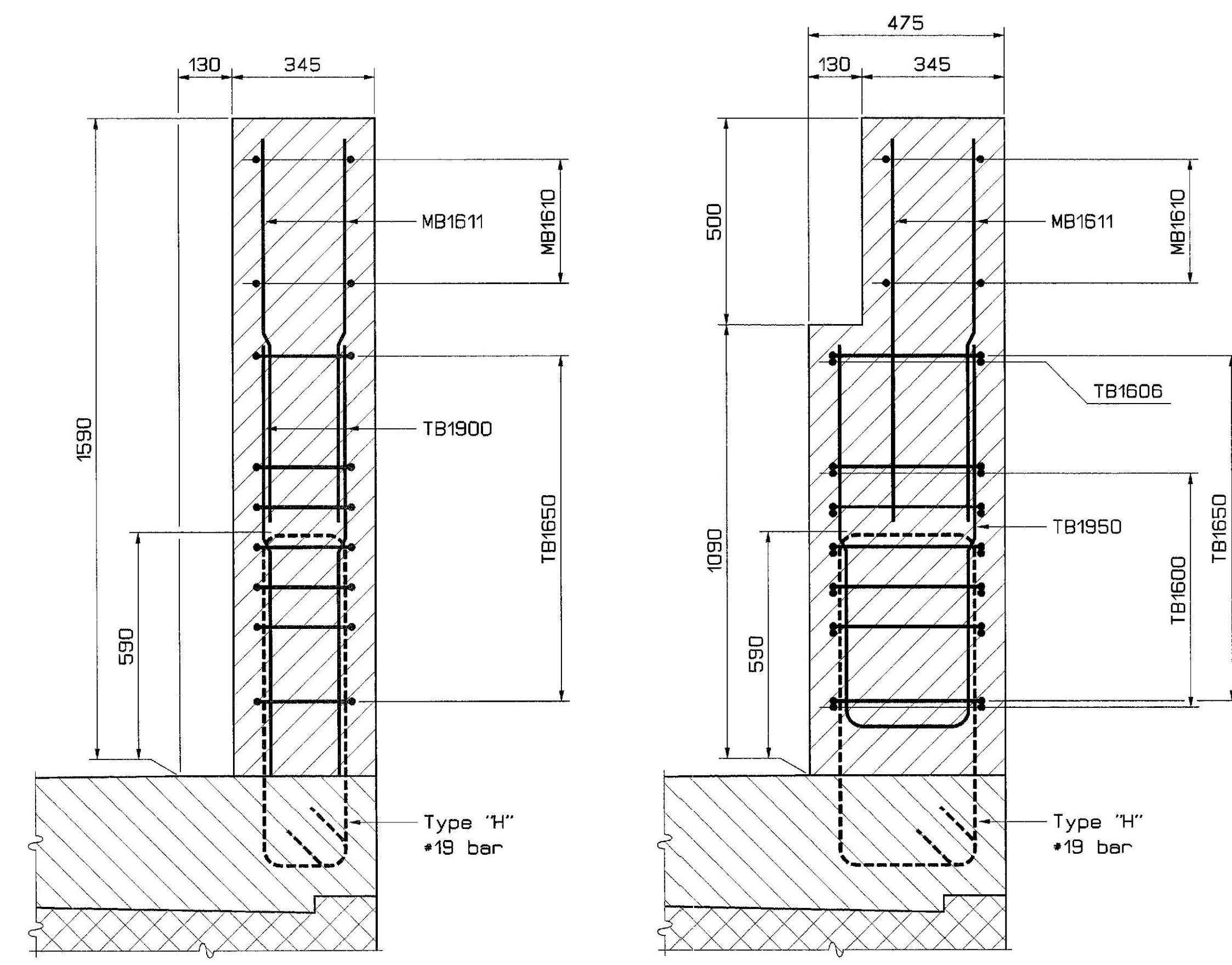


ALUMINUM BRIDGE RAILING AND MODIFIED TRANSITION BARRIER ELEVATION

ADDITIONS TO REINFORCING STEEL SCHEDULE		
Bar Mark	Quantity	Length
MB1610	4	1000
MB1611	8	925

NOTES

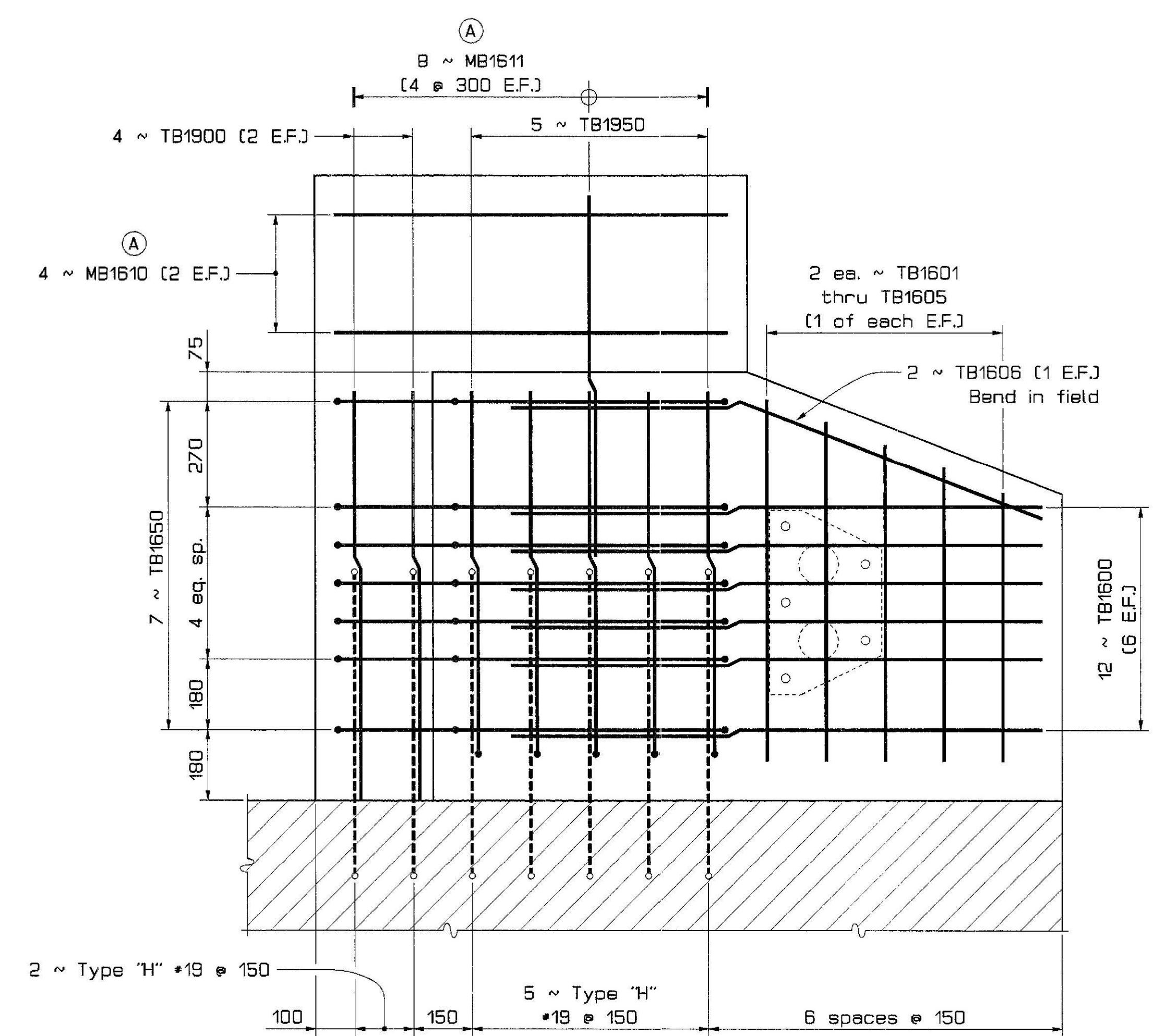
1. Reinforcing steel anchoring the transition barriers to the sidewalk is not paid for under the transition barrier pay items and must be included with the main reinforcing steel schedule.



-- MODIFIED TRANSITION BARRIER --
(Section thru recess)

-- MODIFIED TRANSITION BARRIER --
(Section thru stem)

MODIFIED TRAFFIC / PEDESTRIAN TRANSITION BARRIER DETAILS
See Standard Details Book Section 526 for details not shown



MODIFIED TRANSITION BARRIER ELEVATION
(Modified Traffic / Pedestrian Railing Barrier)

(A) Bars additional to Standard Details

PROJECT DESIGN ENGINEER	BY	DATE
DESIGN-DETAILED	J. Folsom	4/99
CHECKED		
REVISIONS		
FIELD CHANGES		

29APR99-010020
RAIL2

Bridge No. 5750

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

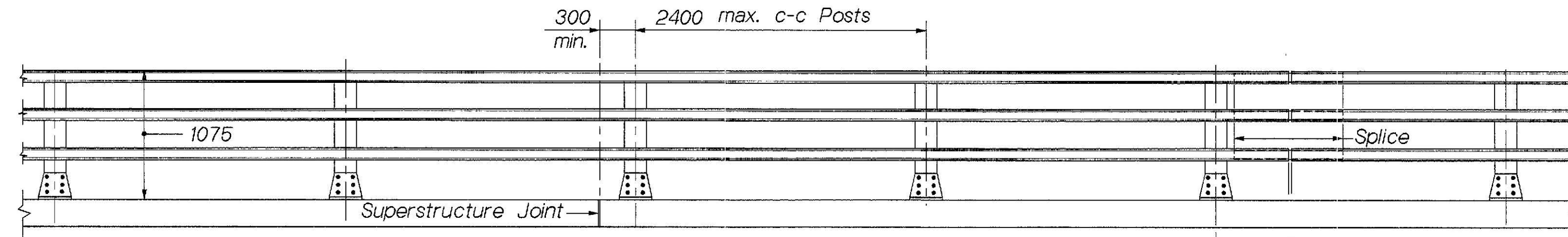
DECK REPLACEMENT ON
VETERANS MEMORIAL BRIDGE
OVER
PASSAGASSAWAUKEAG RIVER
IN THE CITY OF
BELFAST, WALDO COUNTY

BRIDGE RAILING

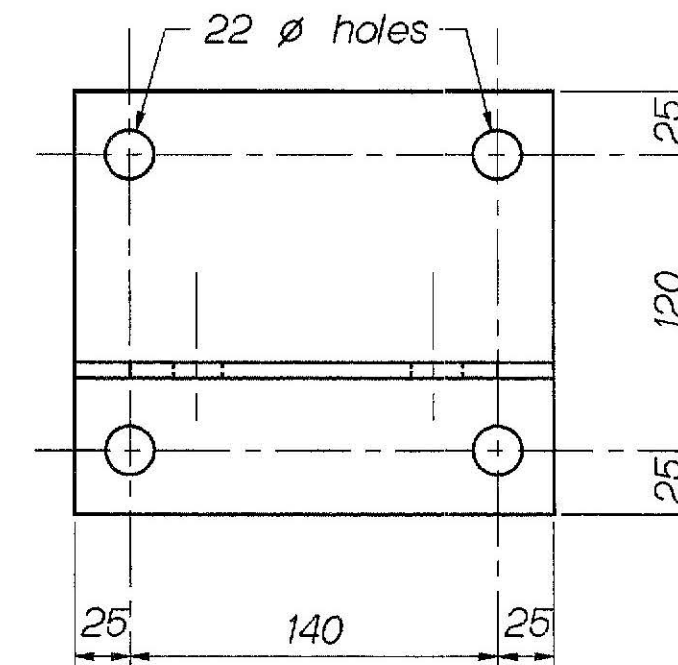
METRIC

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

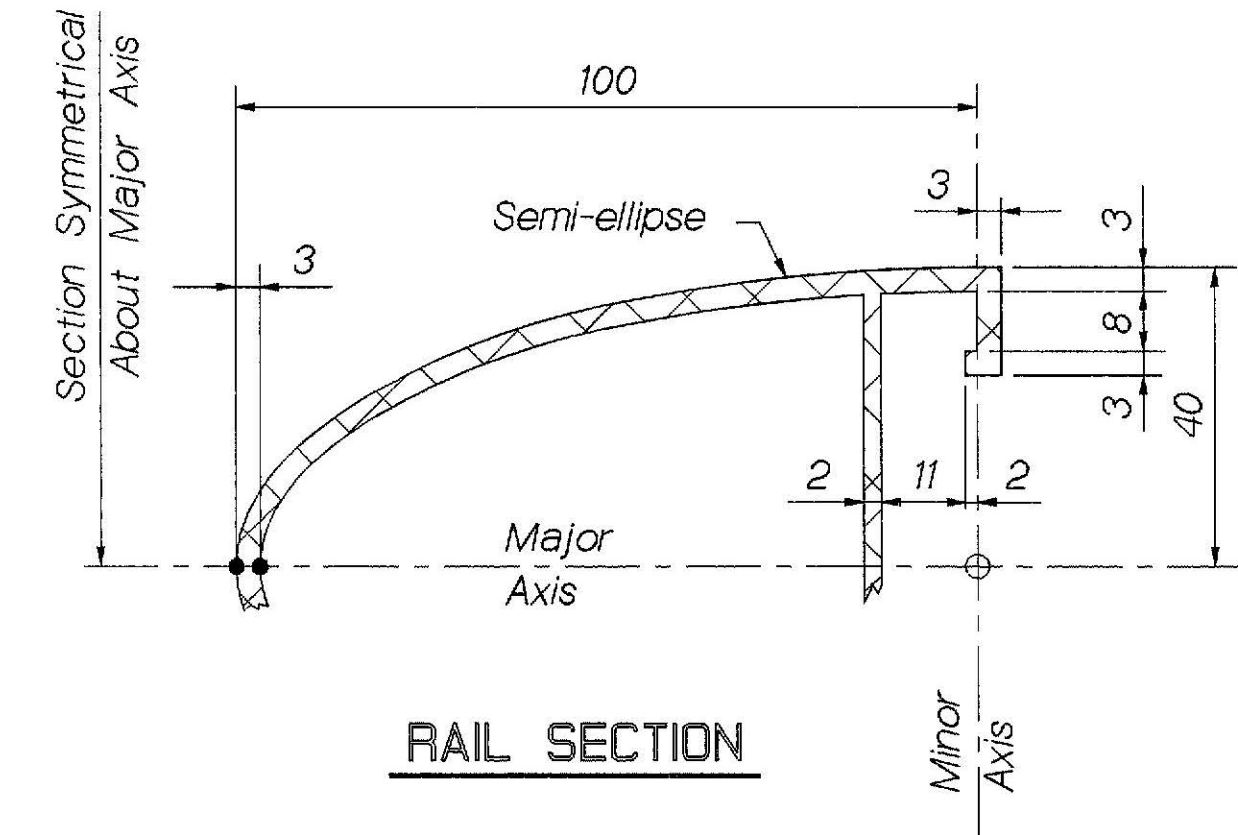
F.M.W.A. RES. NO.	STATE	PROJECT NUMBER	SHEET NO.	TOTAL SHEETS
1	MAINE	NH-4218(00)E	35	36



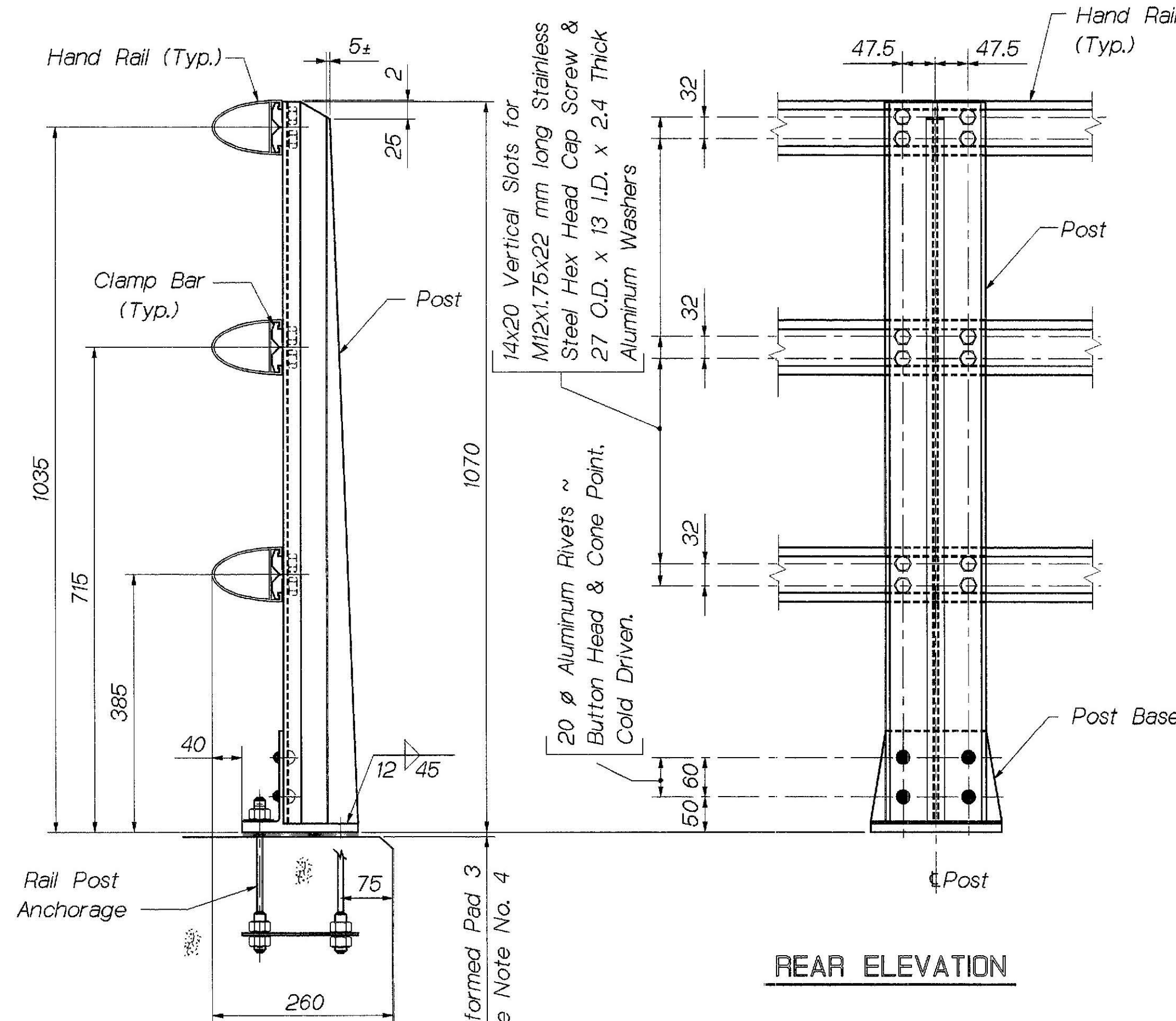
RAILING - ELEVATION



PLAN

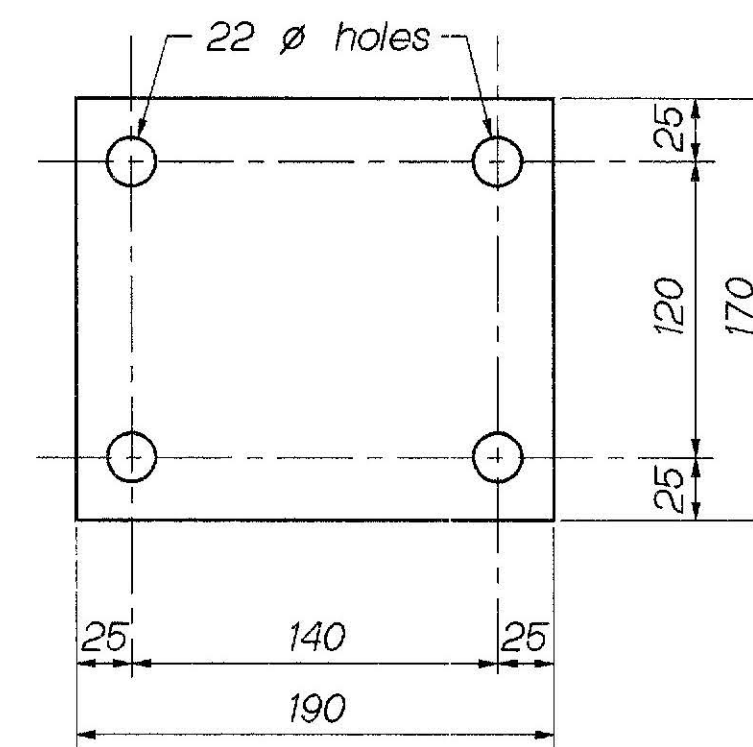


RAIL SECTION

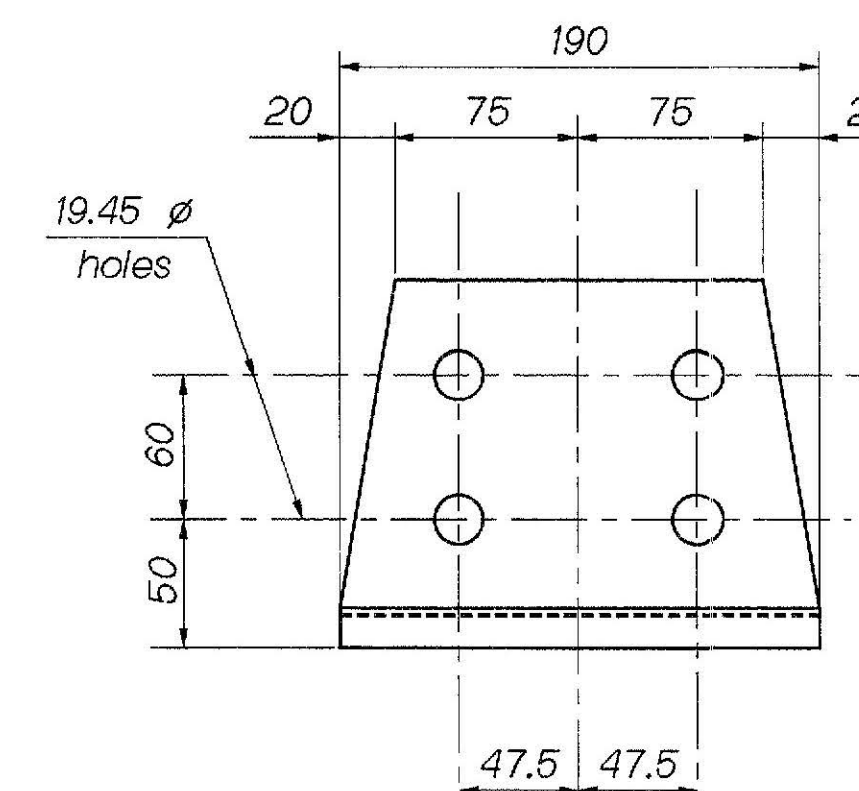


REAR ELEVATION

600±
Exp. Joints
Typ. Joints 20
50 @ 21 °C at Bridge Exp. Joints unless otherwise noted, on Design Drawings.

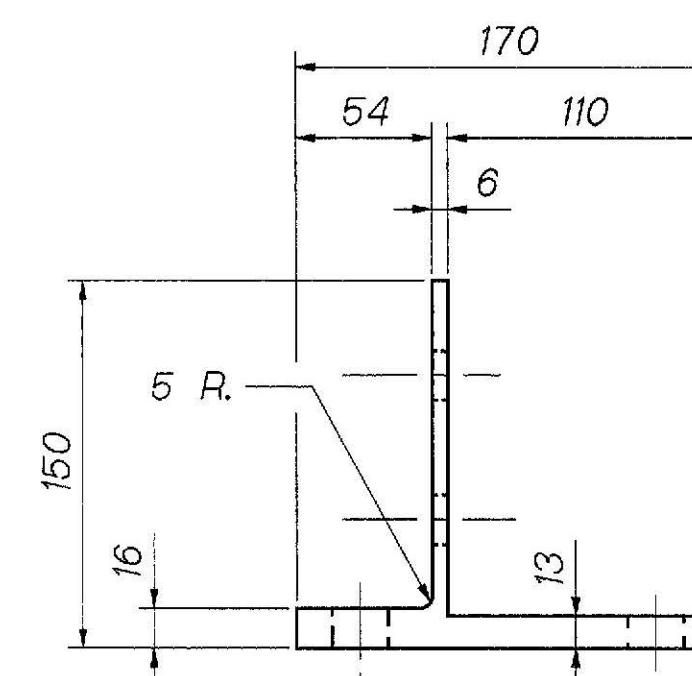


PREFORMED PAD

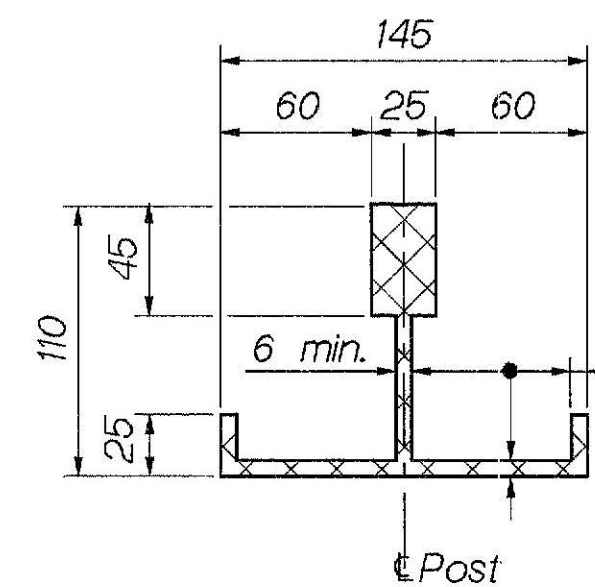


FRONT

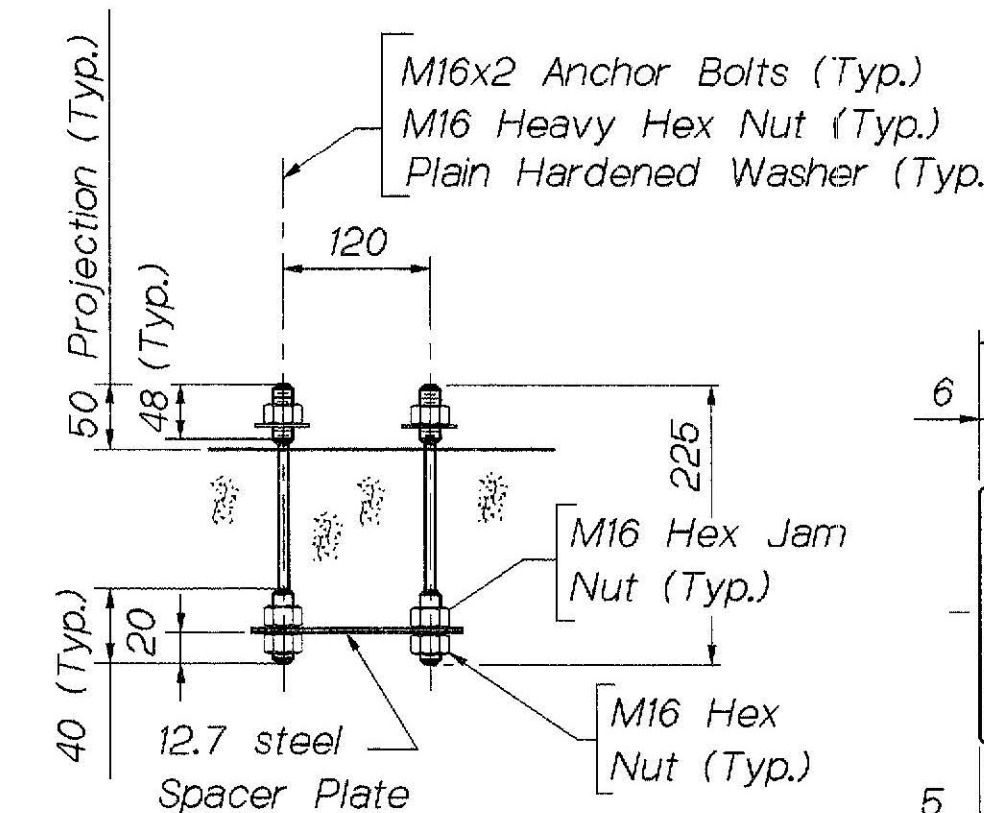
POST BASE DETAILS



SIDE

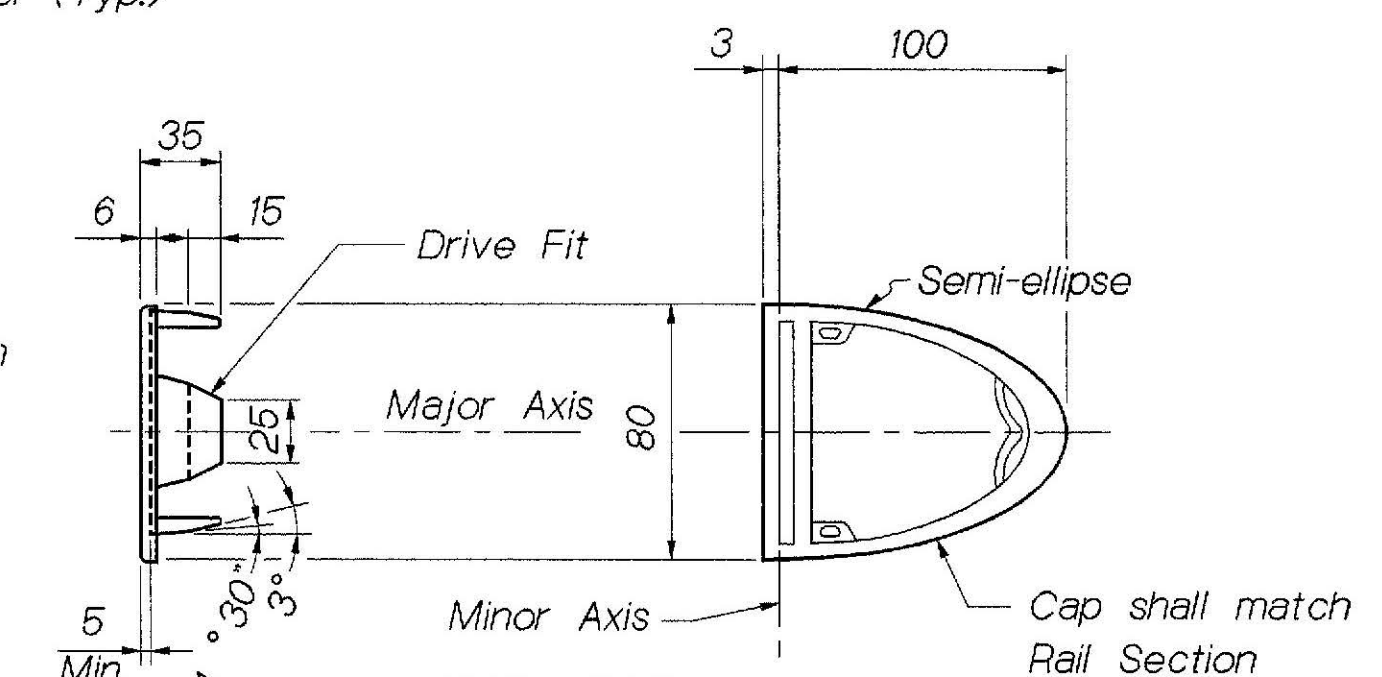


POST SECTION



RAIL POST ANCHORAGE

See Note No. 5



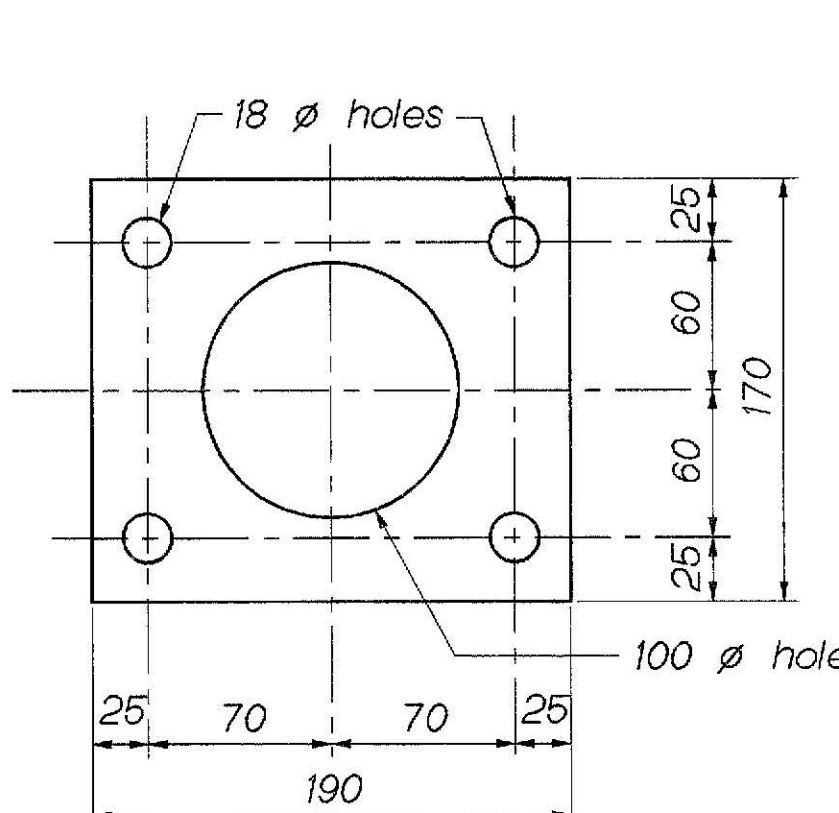
RAIL CAP

NOTES

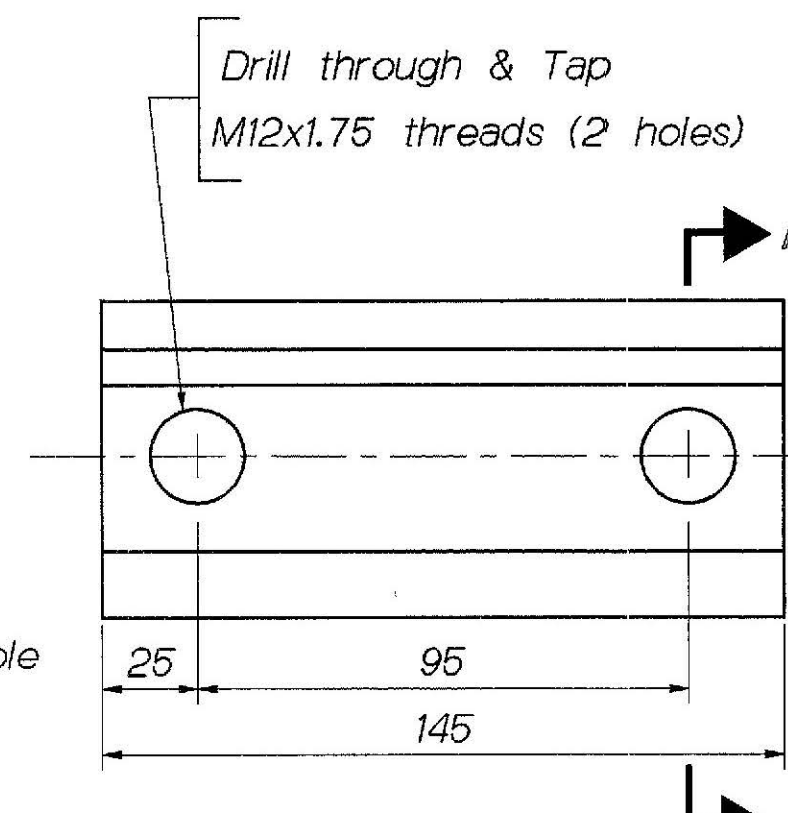
1. Ends of rail bars and top edges of posts shall be rounded and free of burrs.
2. Wherever possible, lengths of rail bar shall be attached to at least four (4) rail posts, but never to less than two (2). Rail posts shall be set normal to grade.
3. Drill 2 ~ 8 mm ϕ holes in the splice bar and install 2 ~ M10x25 Type F Hex Washer Head Tapping Screws (Stainless).
4. Preformed pads shall be 3± mm thick after compression. At least one pad shall be installed under each rail post base.
5. If anchor bolts are to have cut threads, the body diameter shall be not less than the nominal diameter. If rolled threads are used, the body diameter shall be not less than the pitch diameter of the threads.

PROJECT DESIGN PARTNER	DATE
DESIGN-DETAILED	
CHECKED	
REVISIONS	
FIELD CHANGES	

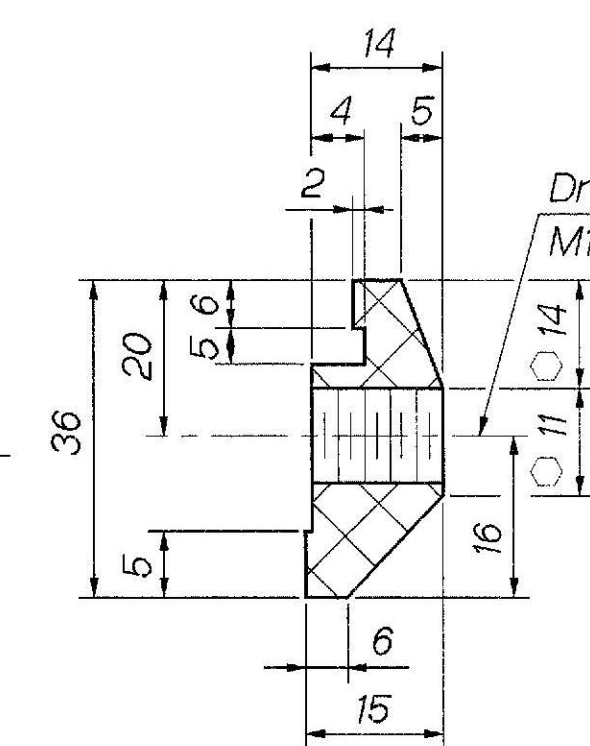
29APR99-0100.20
ALUMRAIL



STEEL SPACER PLATE

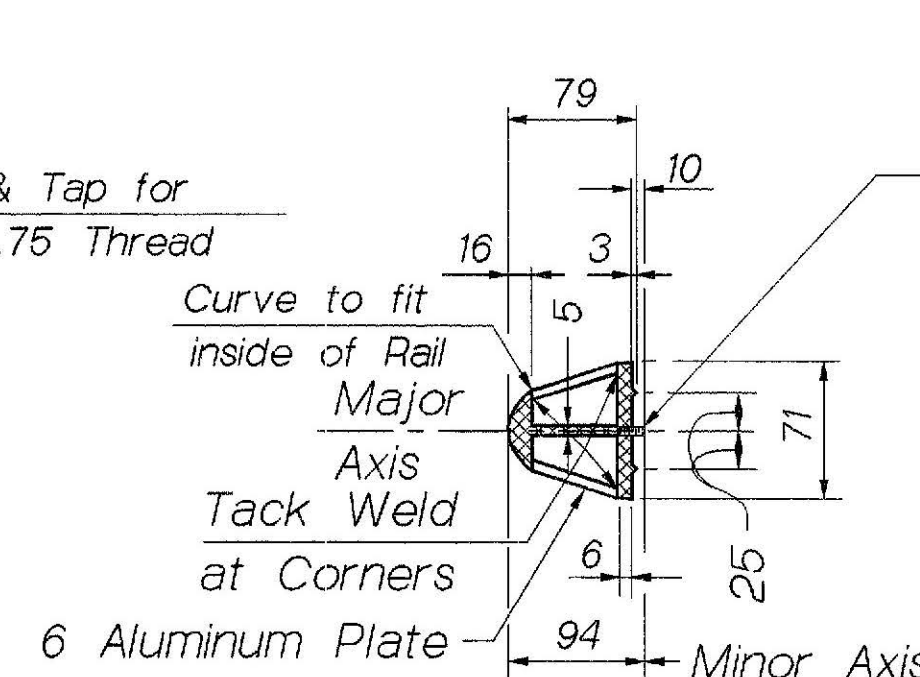


CLAMP BAR

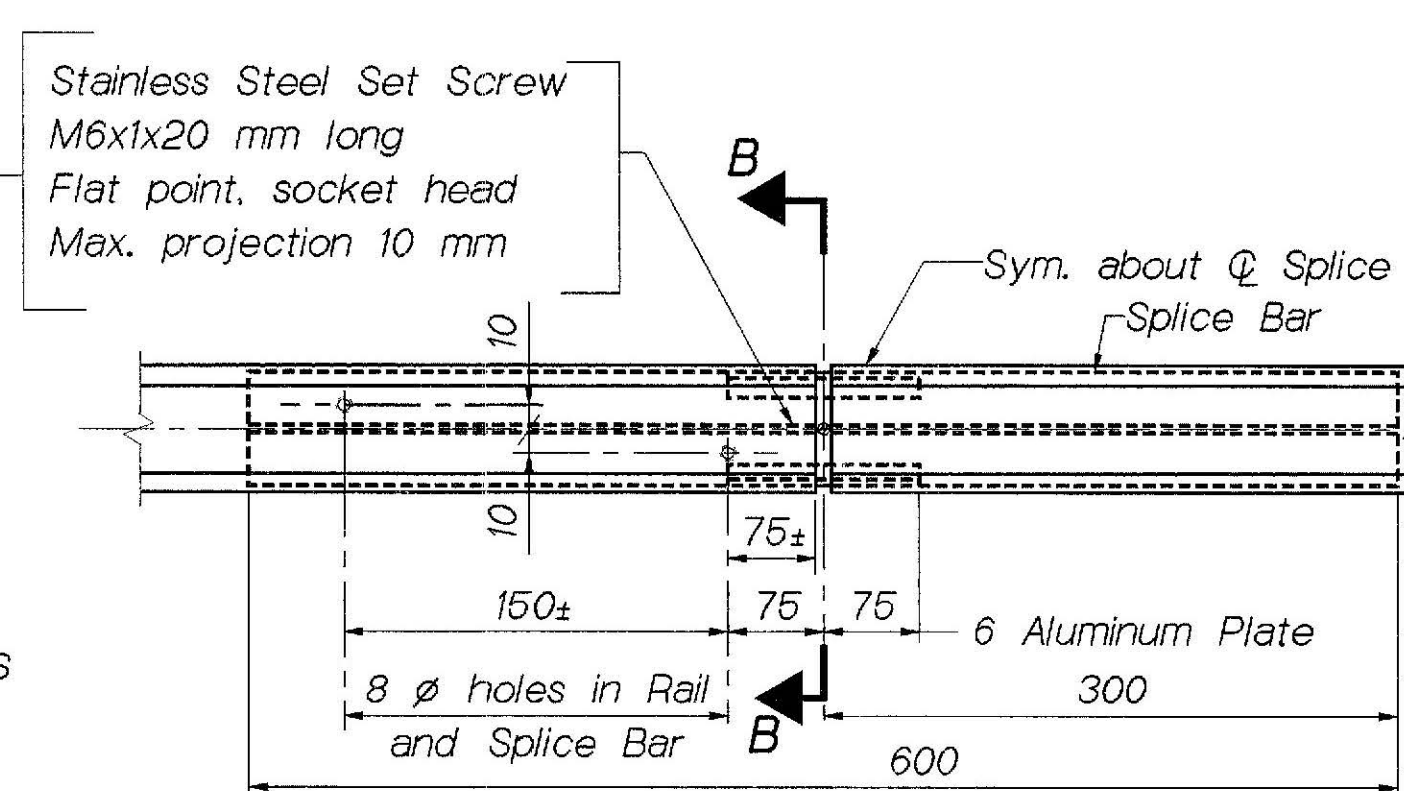


SECTION A-A

○ Alternate dimensions may be used if approved by the Engineer.



SECTION B-B



SPLICE BAR DETAIL

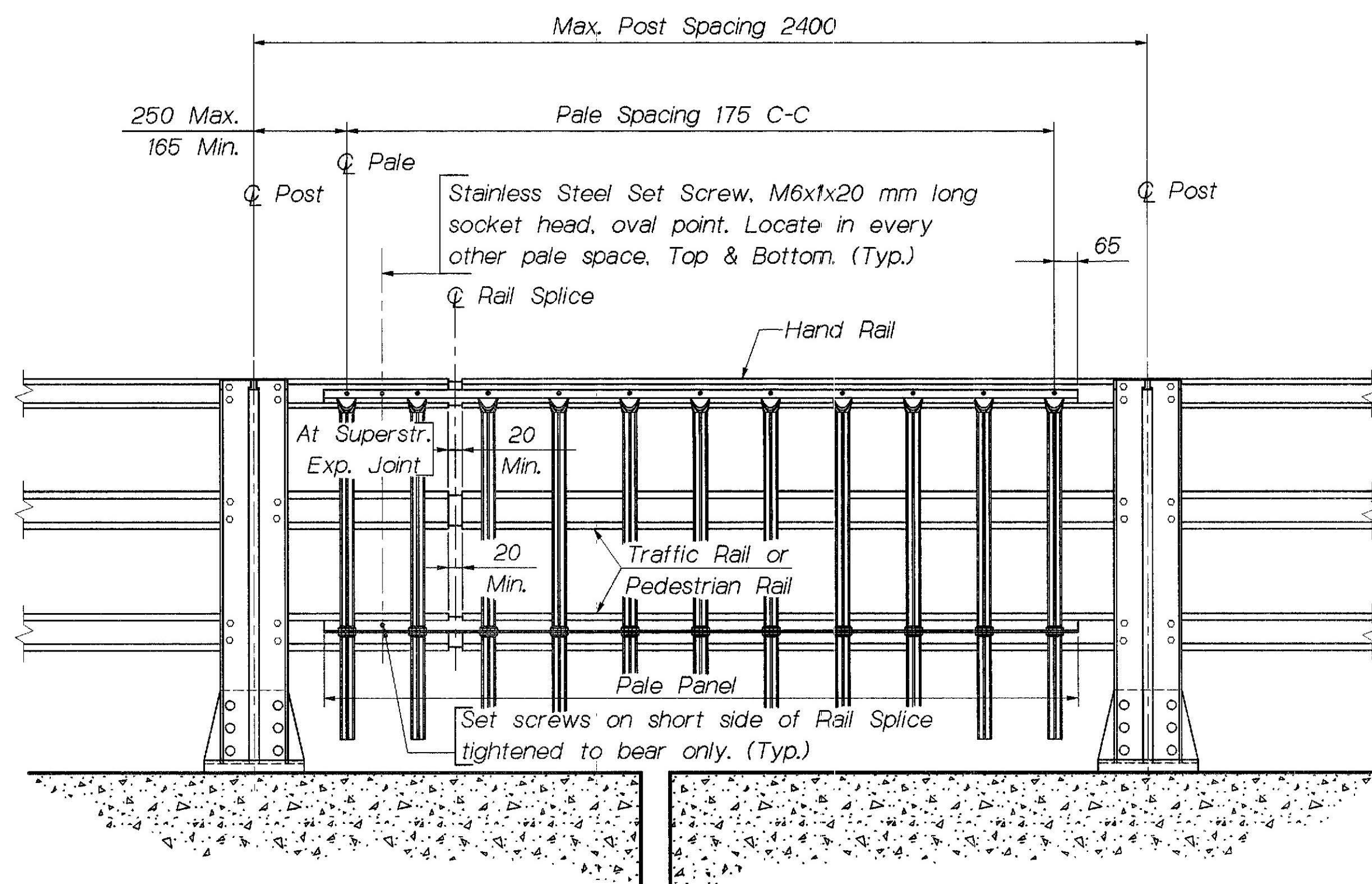
See Note No. 3

Bridge No. 5750

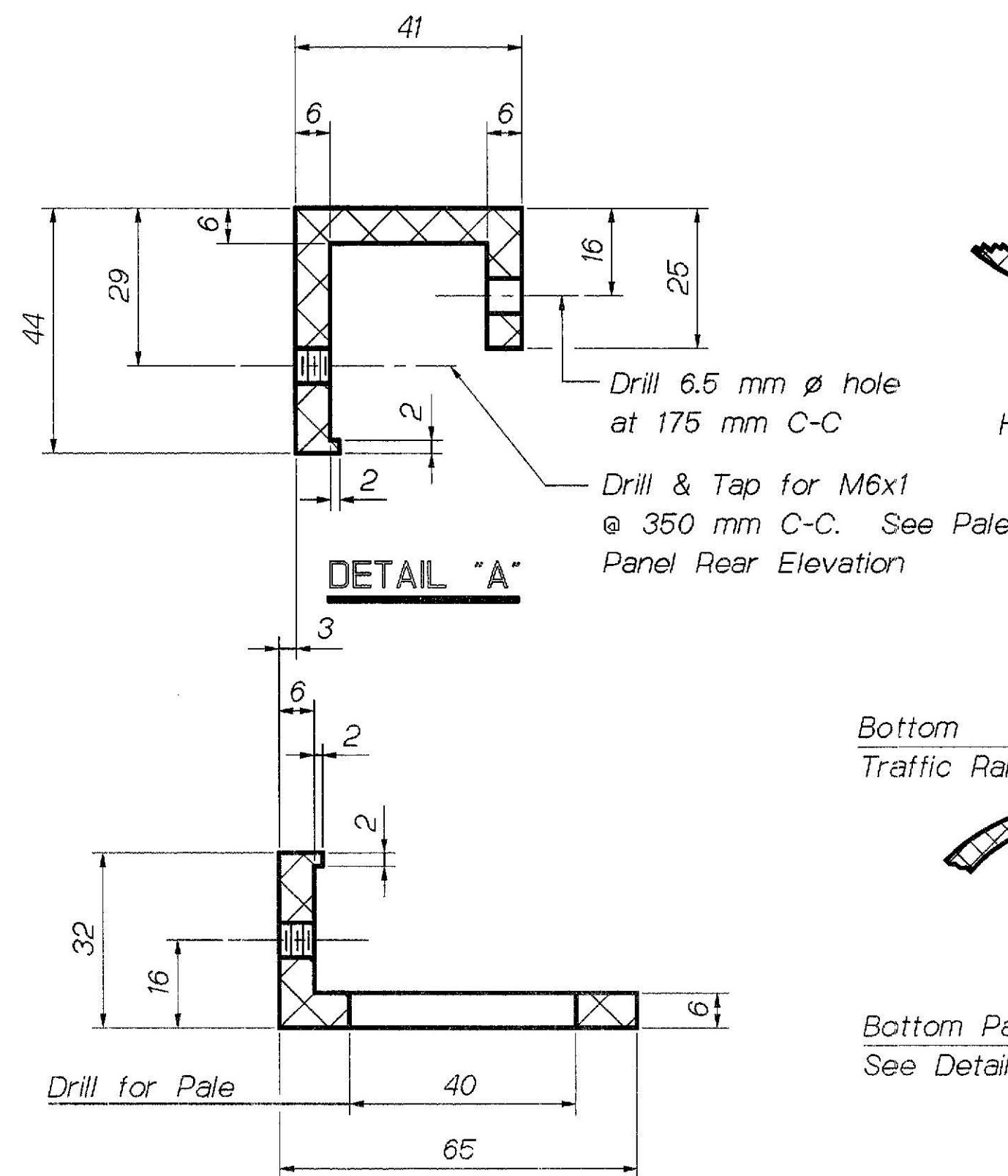
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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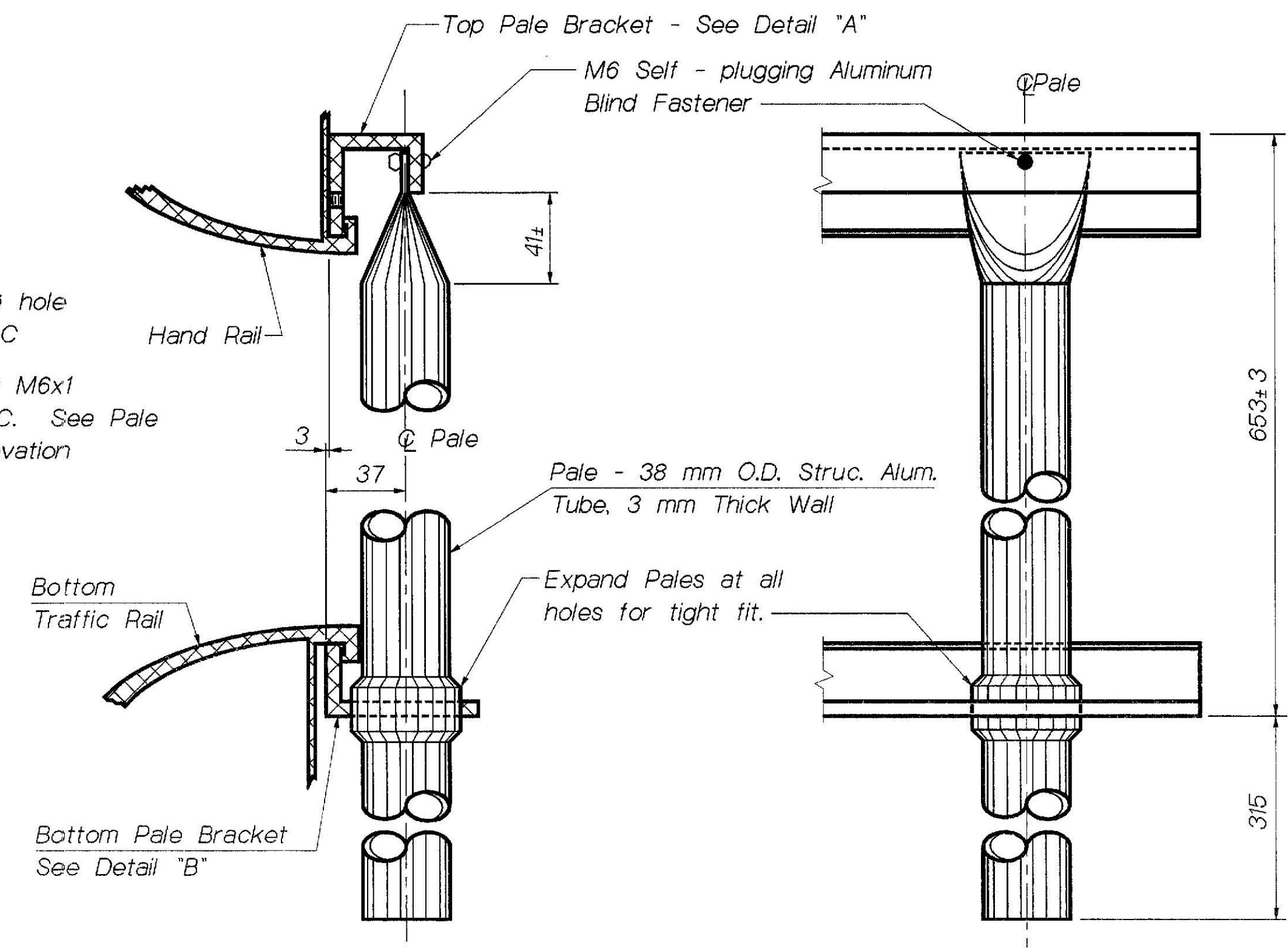
ALUMINUM PEDESTRIAN RAILING



PALE PANEL REAR ELEVATION



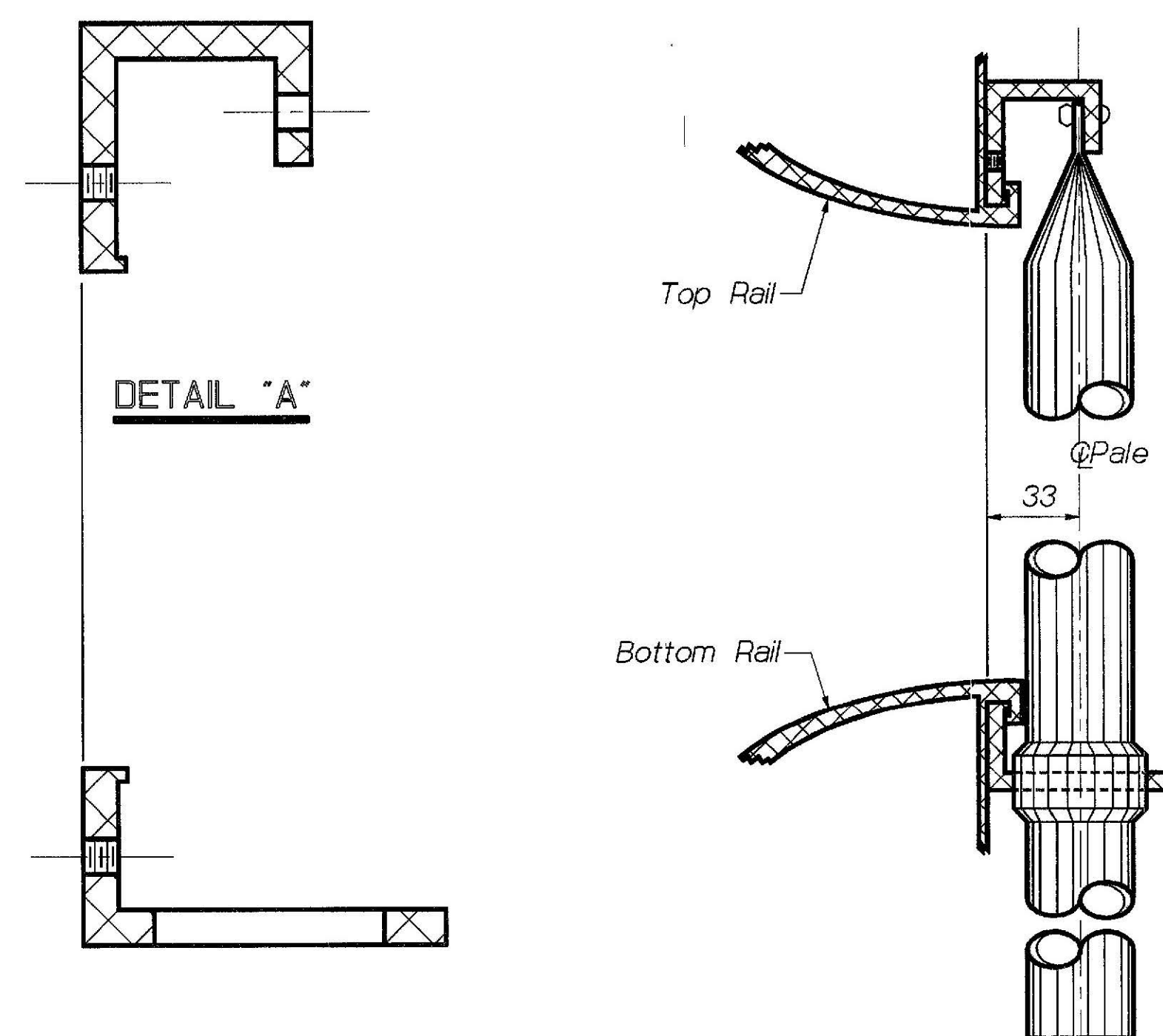
DETAIL "A"



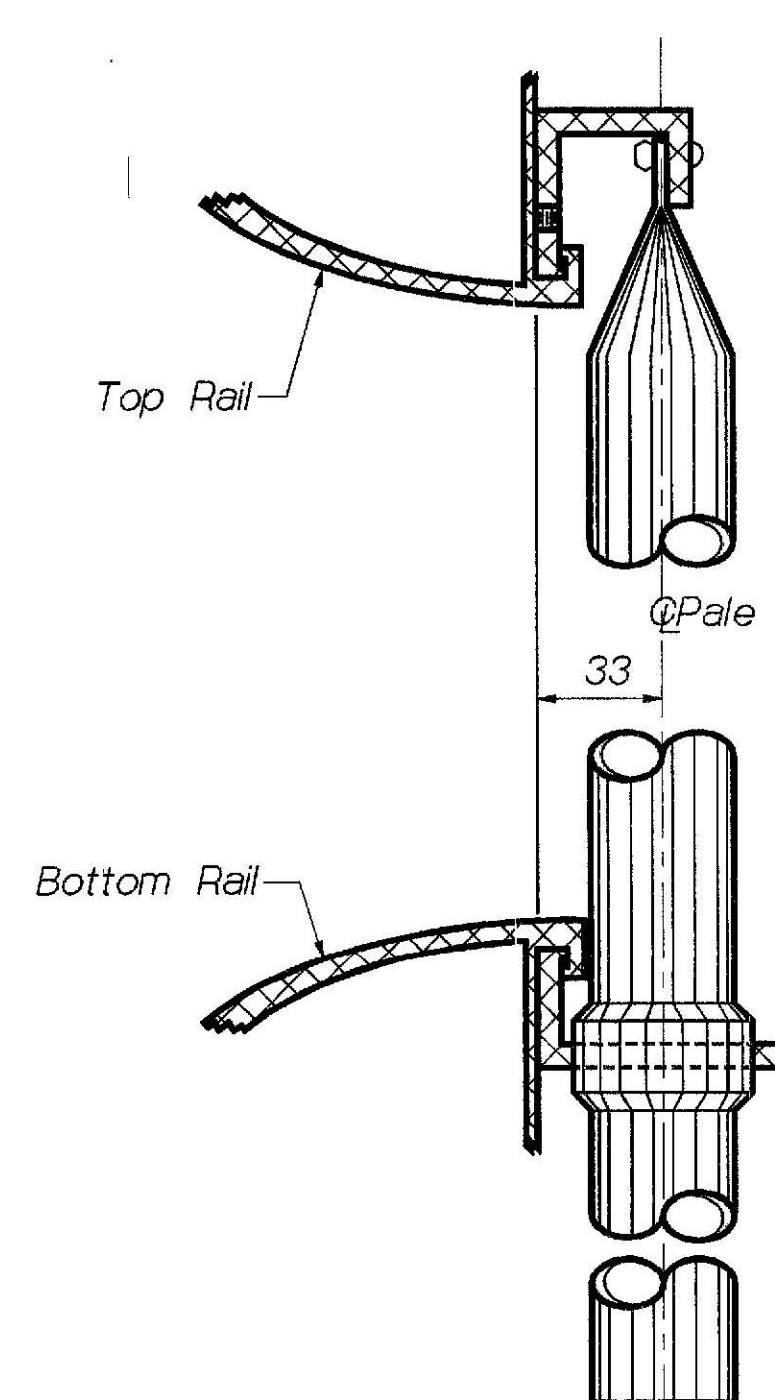
PALE PANEL DETAILS

NOTE 1. Remove vertical leg and horizontal leg of pale panel extrusions to a depth of 10 mm at all splice bar locations.
(Typical for 3-Bar Traffic and 3-Bar Pedestrian Rails.)

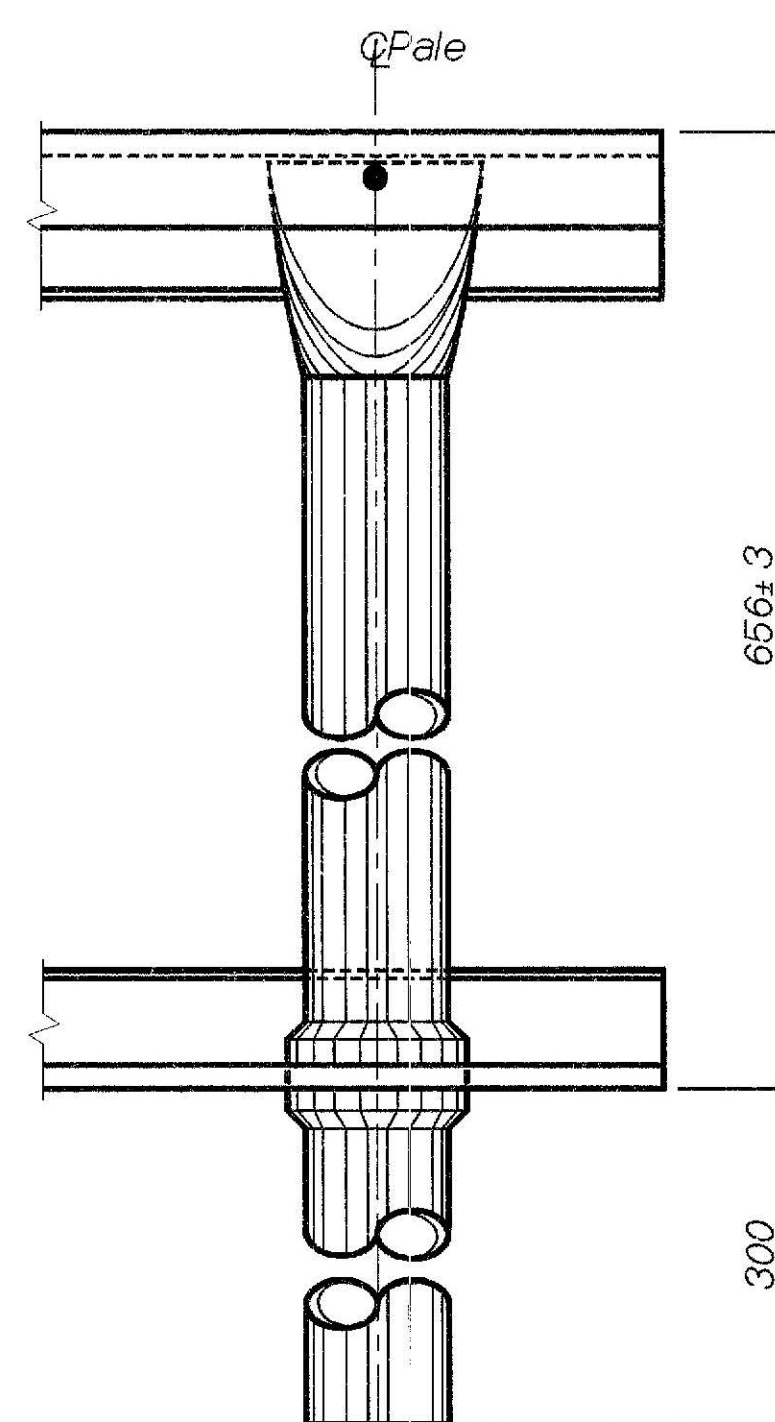
PALE PANEL (3 - BAR TRAFFIC RAIL)



DETAIL "A"



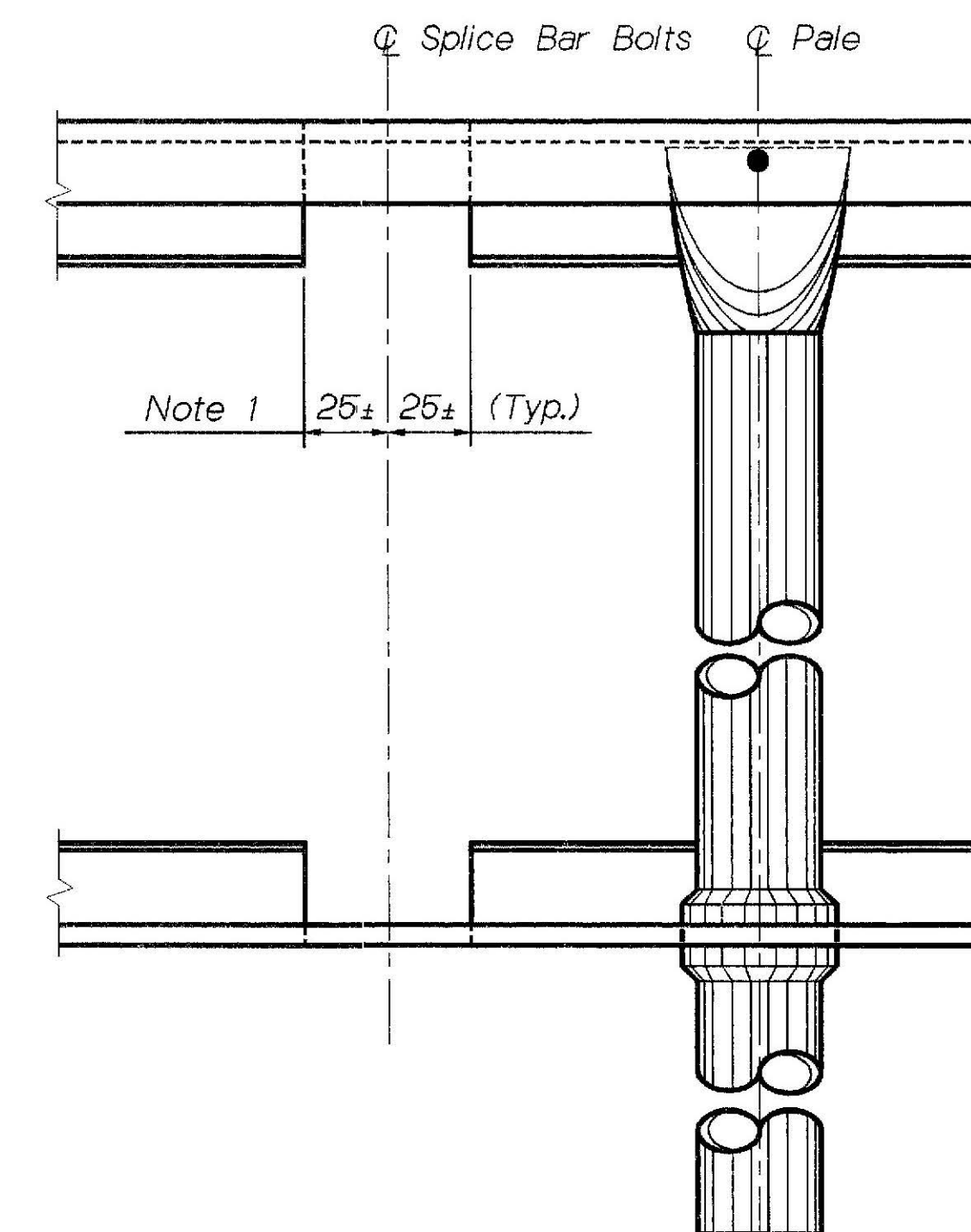
DETAIL "B"



PALE PANEL DETAILS

PALE PANEL (3 - BAR PEDESTRIAN RAIL)

NOTE :
For dimensions not shown see
Pale Panel 3 - Bar Traffic Rail.



SPlice BAR BOLT CUTOUT DETAIL

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

29APR99-010020
ALUMPALE