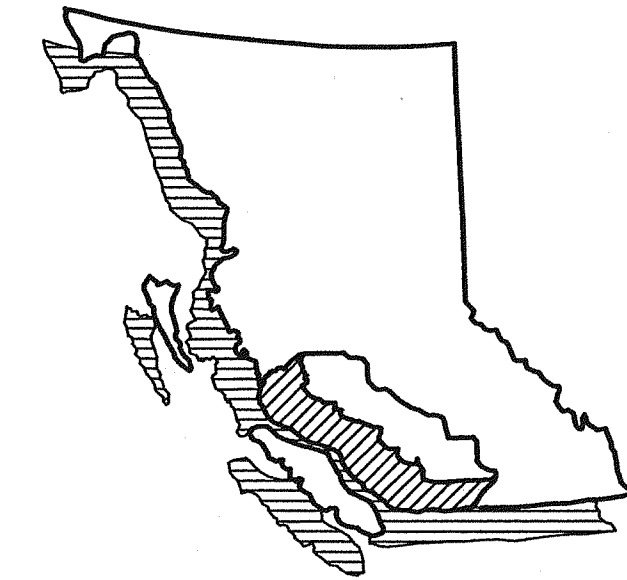


# City of Abbotsford

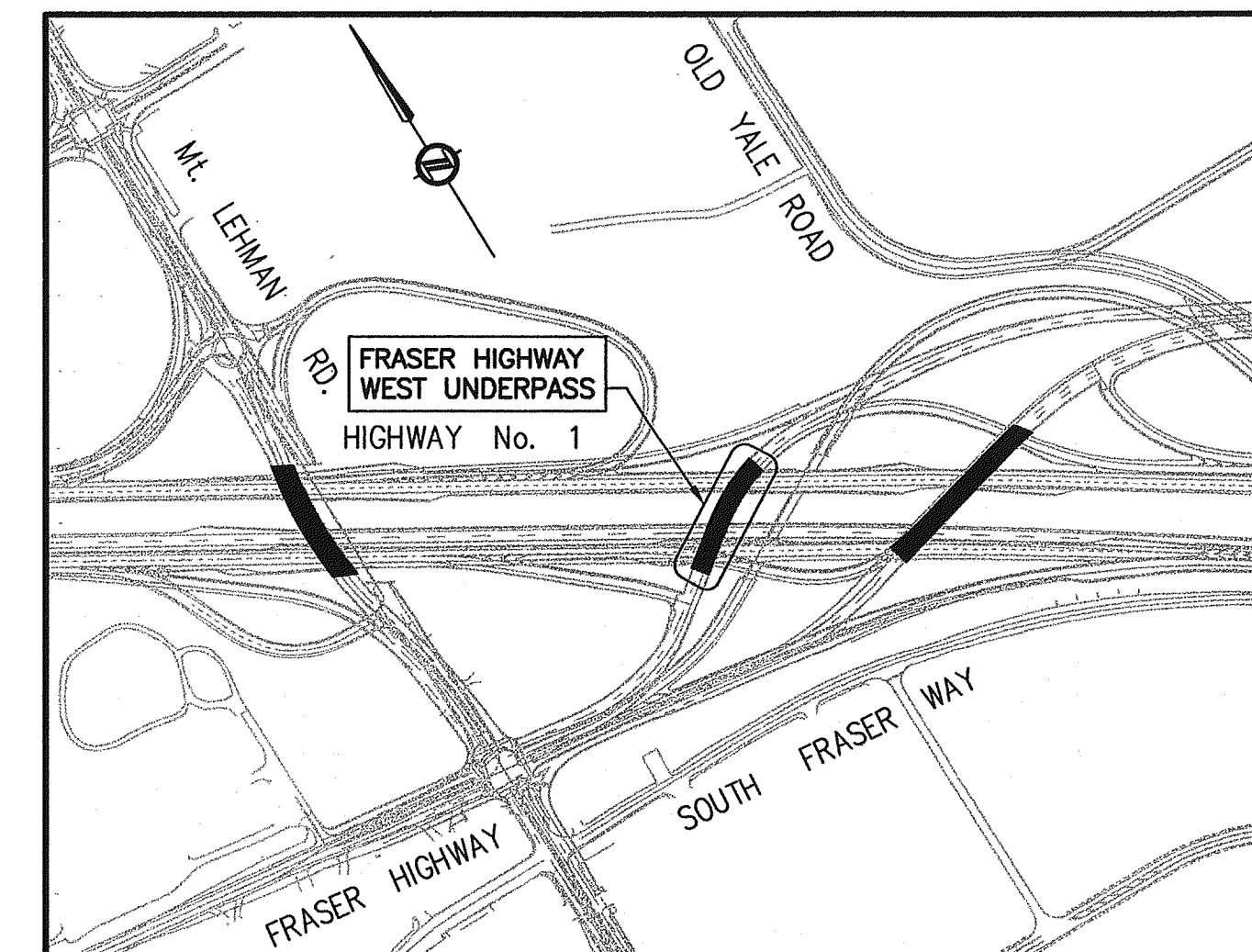
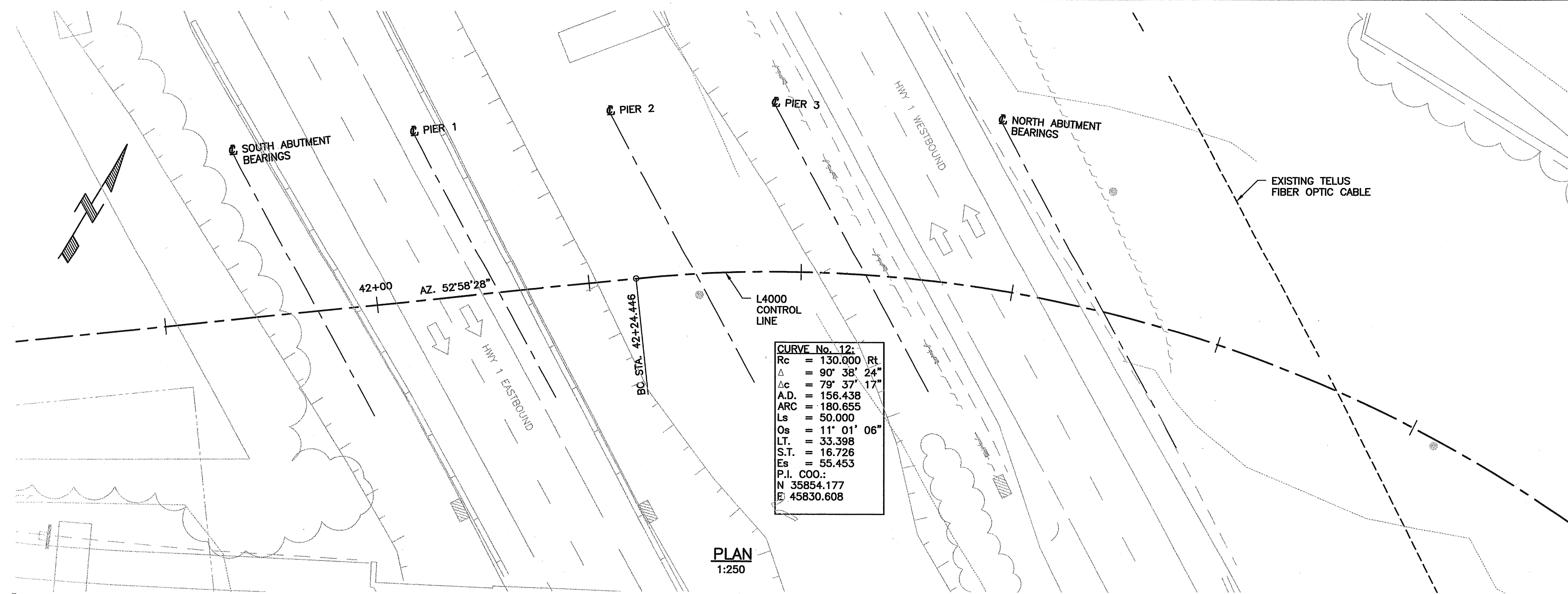


MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION



**CONTRACT NO. 04-29**

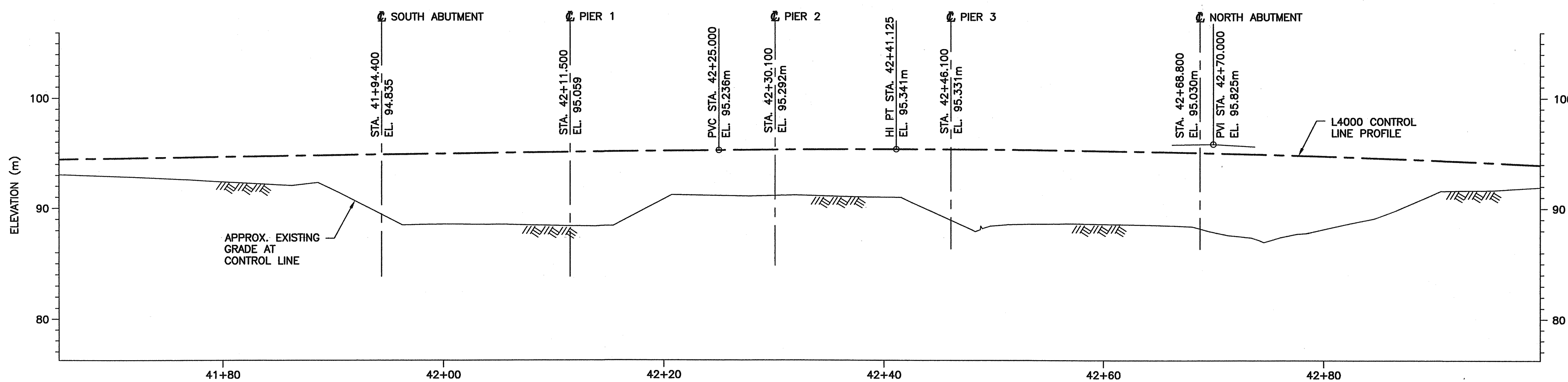
**FRASER HIGHWAY WEST UNDERPASS  
BRIDGE No. 1554W**



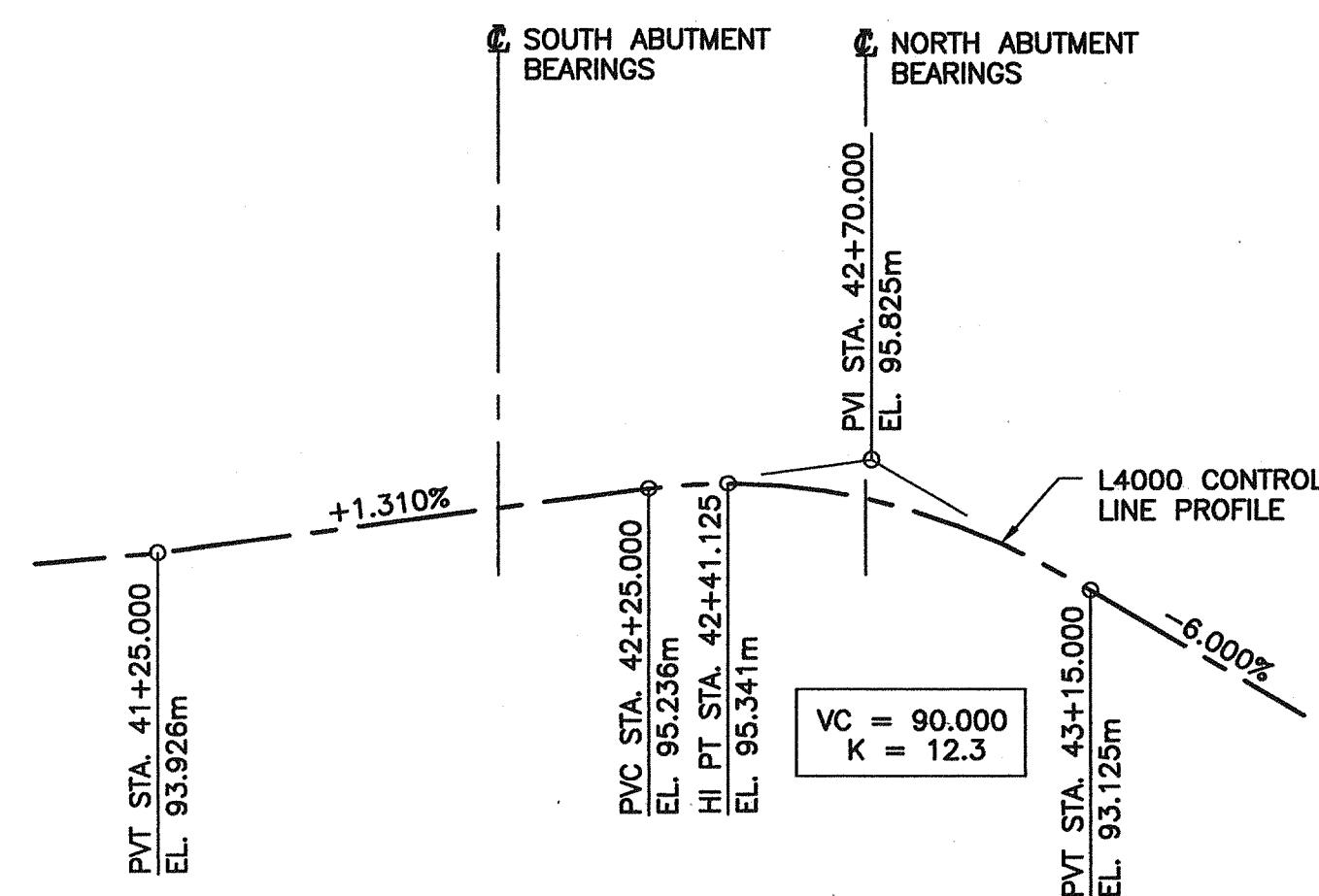
**KEY PLAN**

N.T.S.  
**DRAWING LIST:**

DRAWING No.	TITLE
1554W-101A	SITE PLAN
1554W-102A	GENERAL ARRANGEMENT
1554W-103B	FOUNDATION LAYOUT
1554W-104A	FOUNDATION REINFORCEMENT
1554W-105A	SOUTH ABUTMENT
1554W-106A	NORTH ABUTMENT
1554W-107A	ABUTMENT - REINFORCEMENT
1554W-108A	PIERS
1554W-109A	PIER REINFORCEMENT
1554W-110A	PRECAST STRINGER LAYOUT
1554W-111A	CONCRETE BOX STRINGERS MK1
1554W-112B	CONCRETE BOX STRINGERS MK2
1554W-113A	CONCRETE BOX STRINGERS MK3
1554W-114A	CONCRETE BOX STRINGERS MK4
1554W-115A	DECK
1554W-116A	DECK REINFORCEMENT
1554W-117B	MSE WALLS
1554W-118A	DECK DRAINAGE



**PROFILE ALONG L4000 CONTROL LINE**  
1:250



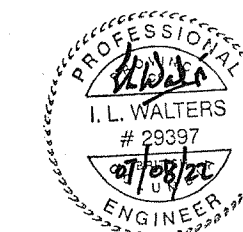
**L4000 VERTICAL ALIGNMENT**  
N.T.S.

**NOTES:**

- FOR GENERAL NOTES SEE DRAWING 1554W-102.
- SURVEY BY: BC MINISTRY OF HIGHWAYS.
- DATUM: GEODETIC.
- ALL STATIONS AND ELEVATIONS IN METRES.

**LEGEND:**

- TH TESTHOLE  
SEE MOT TESTHOLE LOGS (REF: FACTUAL GEOTECHNICAL REPORT, SEPT. 5, 2000, APPENDIX C)
- TP TEST PIT  
SEE TEST PIT LOGS BY TROW ASSOCIATES INK.



**REFERENCE DRAWINGS:**

DRAWING No.	REV.	TITLE
2784-1	Q	STANDARD BRIDGE PARAPET - 810mm HIGH
SP941-03.04.01, 02		STANDARD BRIDGE PARAPET - 810mm HIGH TRANSITION
2785-2	B	STANDARD BRIDGE PARAPET STEEL RAILING (1995)
SP941-02.01.05-07		PRECAST CONCRETE PIER BARRIER - 810mm CPB

Rev	Date	Description	Initial	SCALE
J				DESIGNED: GAN DATE: 04/09/30
I				CHECKED: ILW DATE: 04/09/30
H				DRAWN: CTL DATE: 04/09/30
G				AS SHOWN
F				
E				
D				
C				
B				
A	07/08/22	RECORD DRAWINGS	ILW	04/06/22
				04/12/23
				04/12/14
				04/11/03
				04/09/30
				04/08/26
				04/06/22
				04/06/22
				04/06/22

**City of Abbotsford**

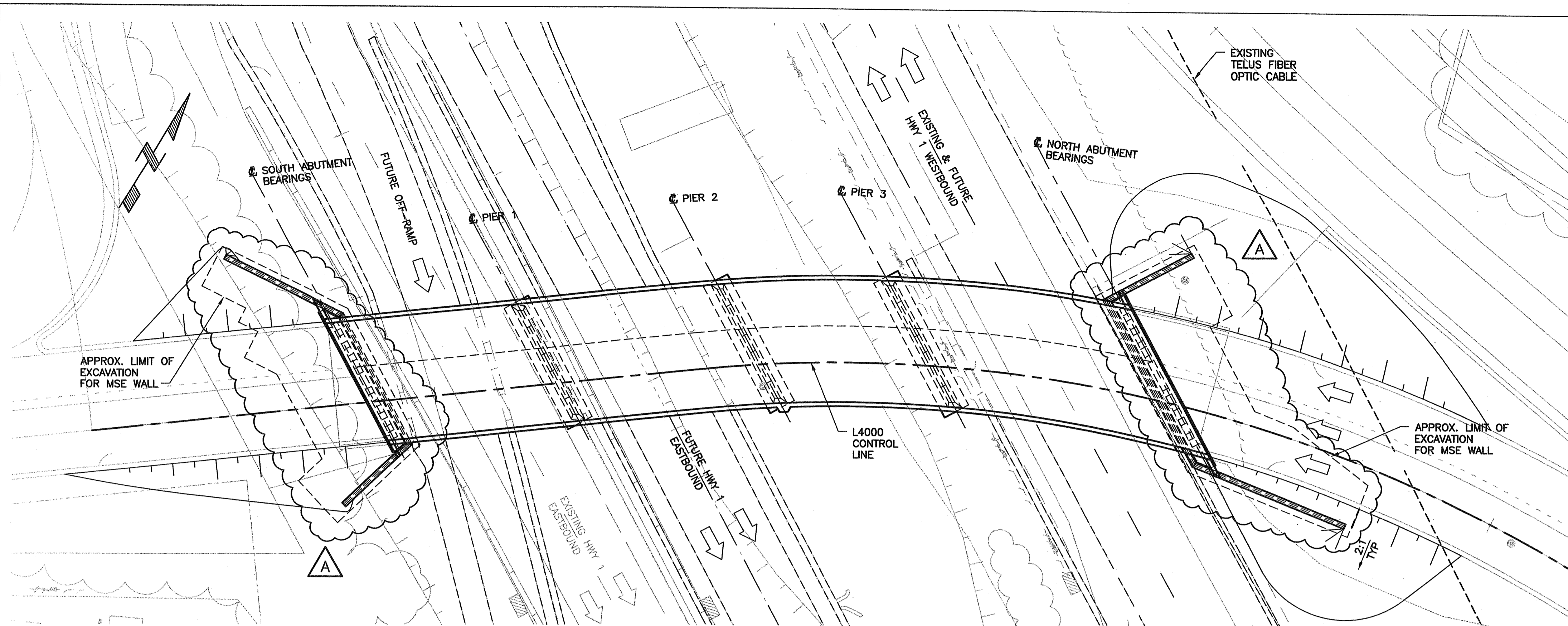
**MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION**

**1554W FRASER HIGHWAY WEST UNDERPASS  
SITE PLAN**

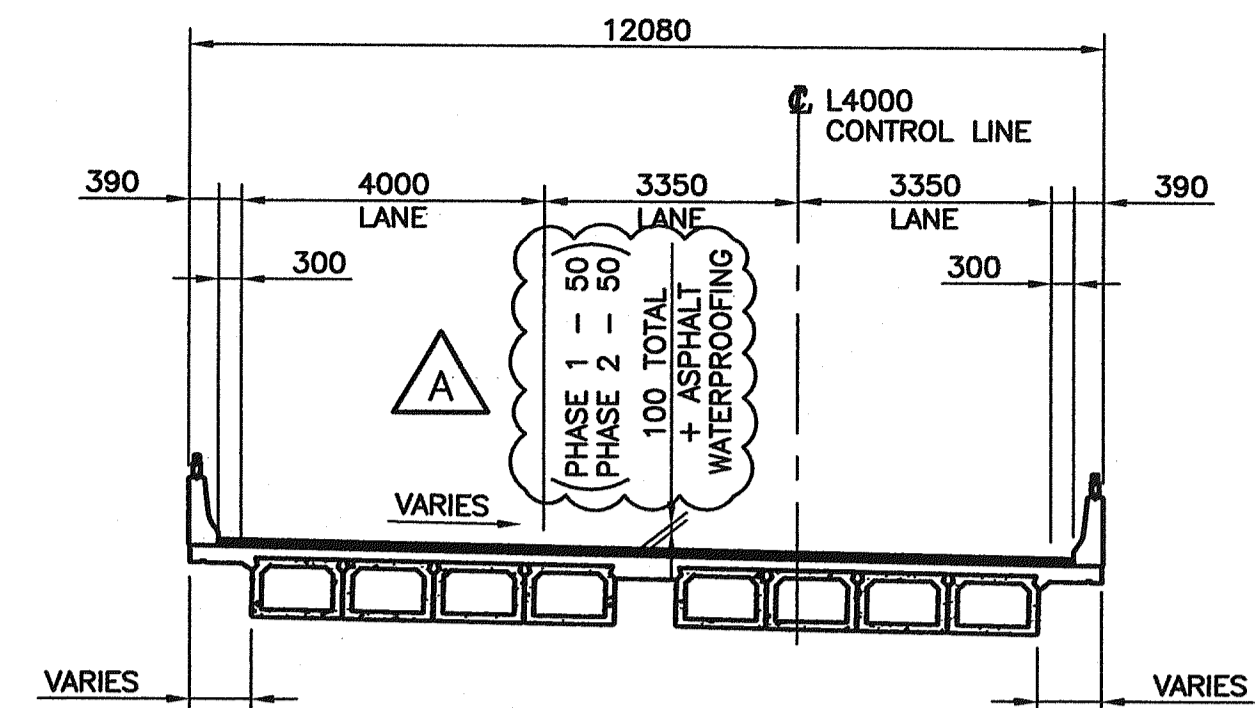
601816

FILE No. **BUCKLAND & TAYLOR** REGION **1** DRAWING No. **1554W-101**

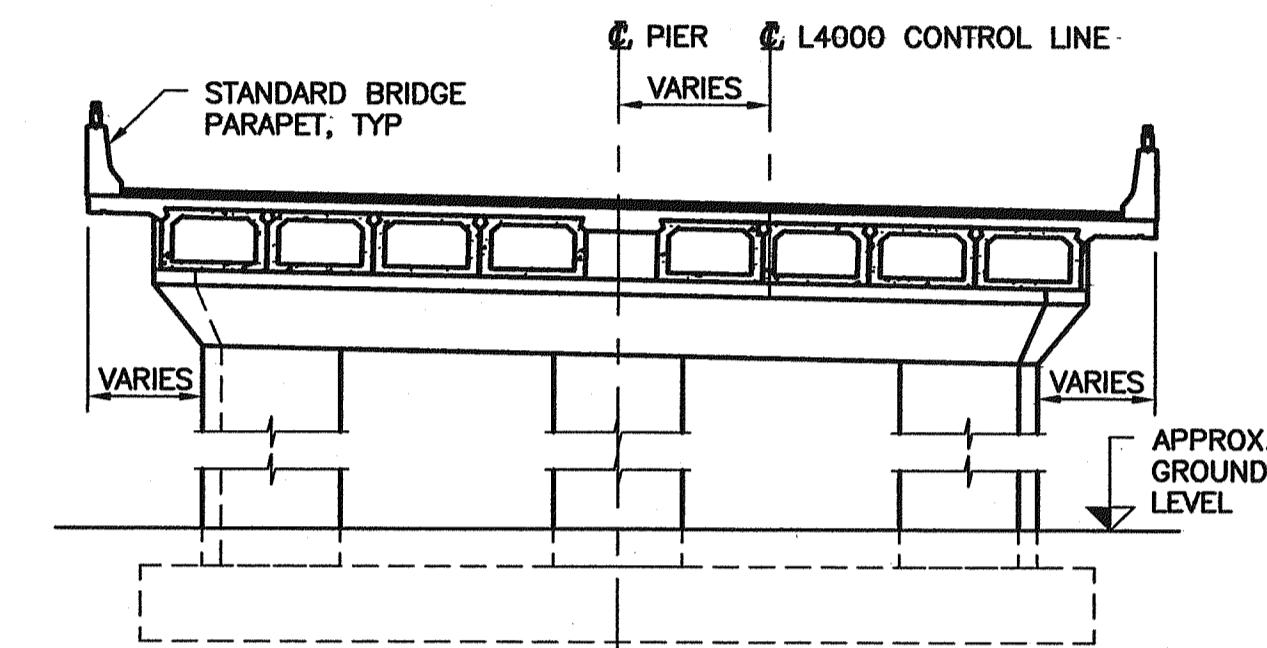




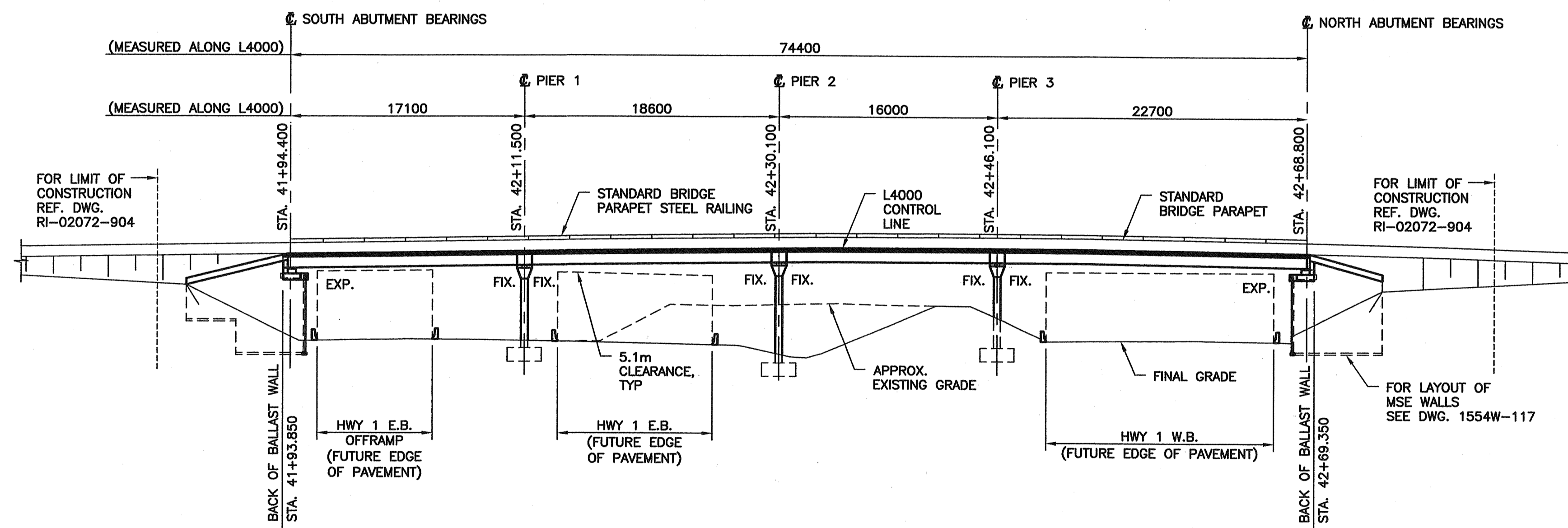
PLAN  
1:250



TYPICAL CROSS SECTION  
1:100



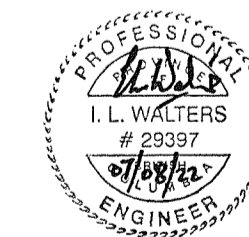
TYPICAL CROSS SECTION AT PIERS  
1:100



ELEVATION  
1:250

**GENERAL NOTES:**

- DESIGN SPECIFICATION: CSA STANDARD CAN/CSA-S6-00.
- SEISMIC DESIGN SPECIFICATIONS:  
BRIDGE:  
CSA STANDARD CAN/CSA-S6-00  
MSE WALLS:  
PER AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 16th ED., 1996.
- DESIGN LOADS:  
(a) LIVE LOAD: CS-625  
(b) WIND LOAD:  
10 YEAR RETURN: 0.415 kPa  
30 YEAR RETURN: 0.550 kPa  
100 YEAR RETURN: 0.710 kPa  
(c) SEISMIC:  
ACCELERATION COEFFICIENT A: 0.20  
(10% PROBABILITY OF EXCEEDANCE IN 50 YEARS)  
SOIL AMPLIFICATION A: 1.2  
SEISMIC PERFORMANCE CATEGORY D
- CLIMATIC:  
(a) MAXIMUM DAILY MEAN TEMPERATURE: +28° C  
(b) MINIMUM DAILY MEAN TEMPERATURE: -14° C  
(c) DESIGN RAINFALL: 10mm IN 15 MINUTES
- DIMENSIONS AND ELEVATIONS SHOWN ON DRAWINGS ARE FOR A REFERENCE TEMPERATURE OF 15° C.



Rev	Date	Description	Initial	SCALE	DESIGNED	CHECKED	DRAWN
J				AS SHOWN	GAN	ILW	CTL
I							
H							
G							
F							
E							
D							
C							
B							
A	07/08/22	RECORD DRAWINGS	ILW				
REVISIONS				Date	ISSUE RECORD	Initial	

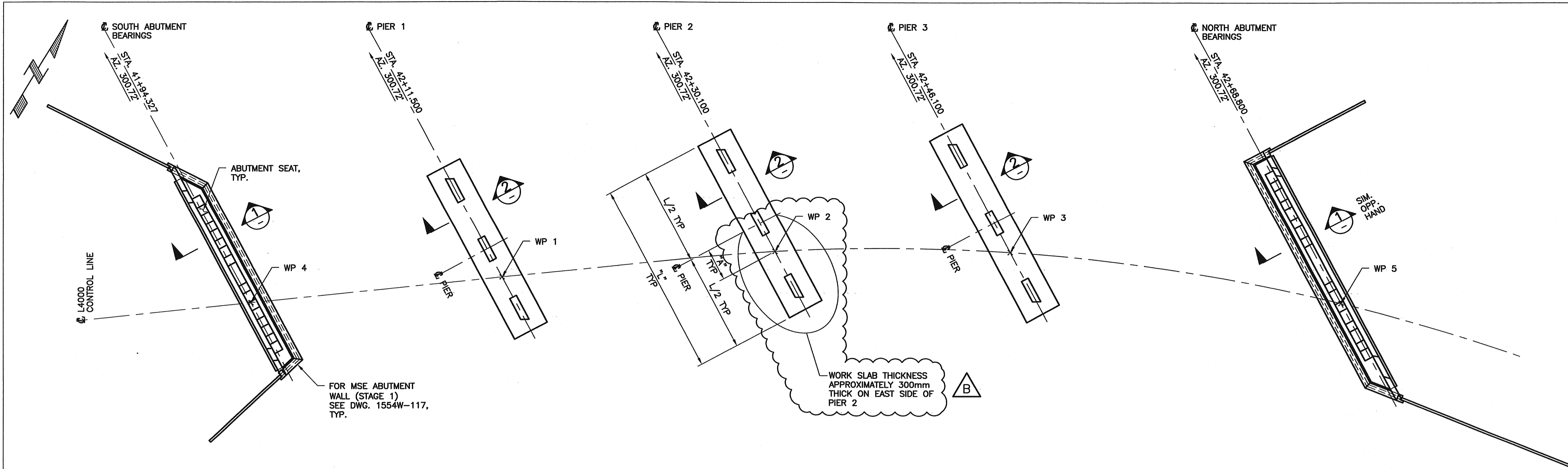
City of Abbotsford

MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION

1554W FRASER HIGHWAY WEST UNDERPASS  
GENERAL ARRANGEMENT

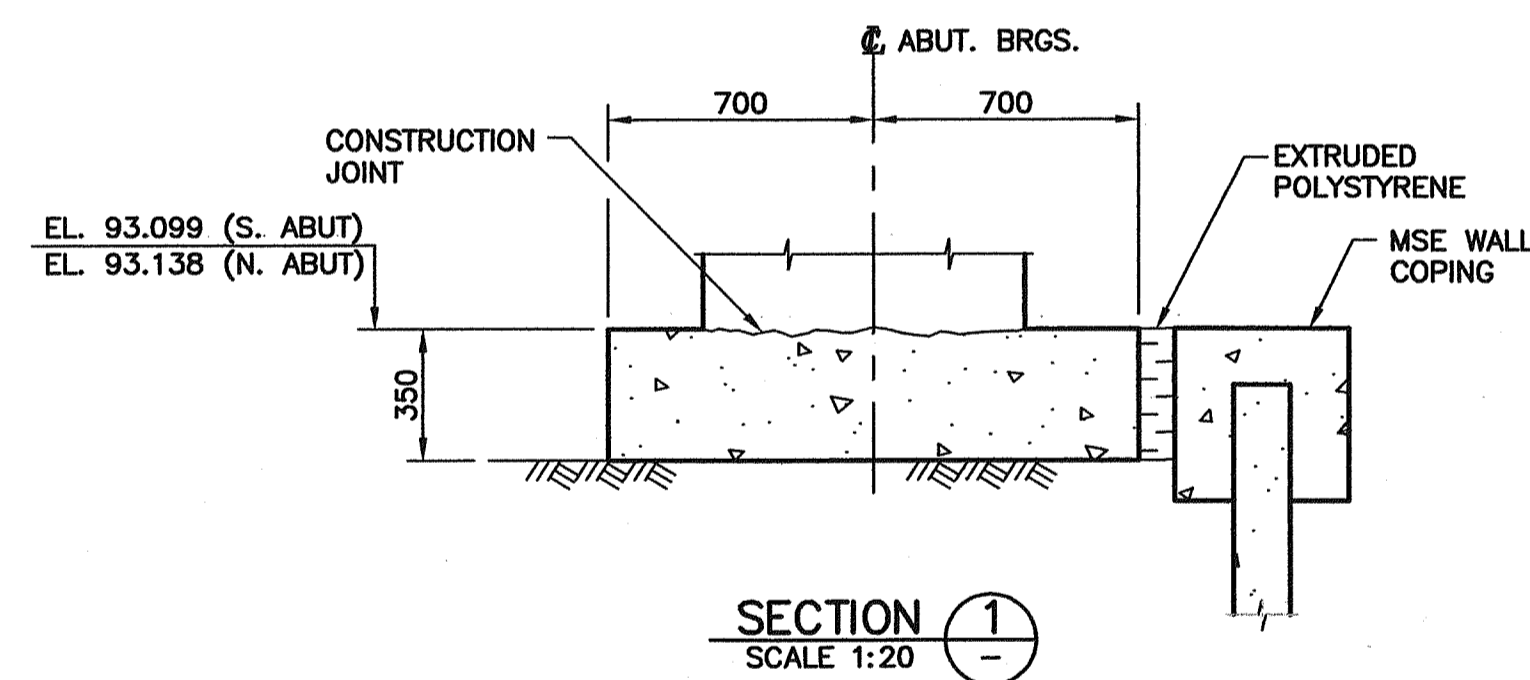
601817

FILE No. 1 DRAWING No. 1554W-102

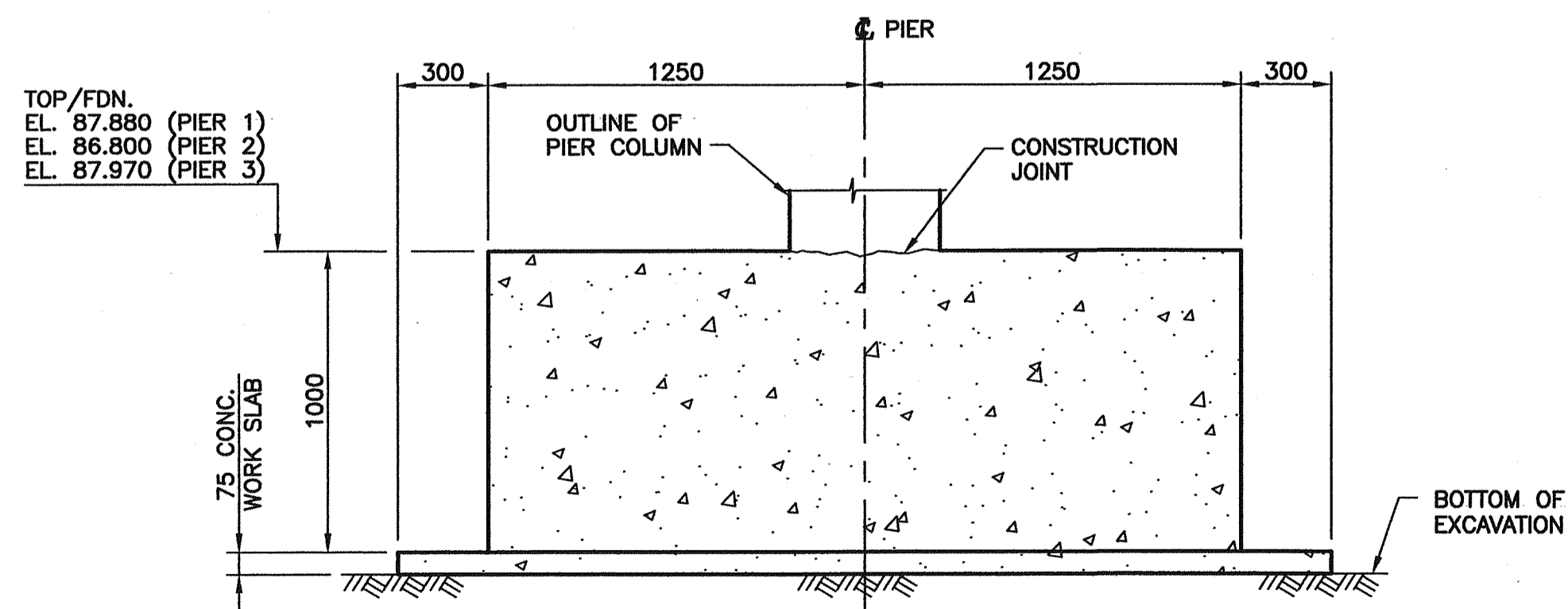


**PLAN**

1:150



**SECTION 1**  
SCALE 1:20



**SECTION 2**  
SCALE 1:20

PIER	"A"	"L"
1	2161	12600
2	2167	13200
3	2286	14000

WP	STATION	COORDINATES	
		NORTHING	EASTING
1	42+11.500	35766.738	45714.680
2	42+30.100	35777.839	45729.602
3	42+46.100	35786.077	45743.307
4	41+94.327	35756.441	45701.028
5	42+68.800	35794.745	45764.255

**NOTES:**

1. FOR GENERAL NOTES SEE DRAWING 1554W-102.

**SUBSTRUCTURE NOTES:**

1. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS FOLLOWS:

SUBSTRUCTURE CONCRETE: 30 MPa  
WORK SLAB: 20 MPa

2. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 20mm UNLESS NOTED OTHERWISE.

3. FOOTINGS AND WORK SLABS SHALL BE AT DEPTH SHOWN OR TO LOWER ELEVATIONS AS MAY BE ORDERED BY THE OWNER'S REPRESENTATIVE.

4. ALL REINFORCING STEEL SHALL CONFORM TO CAN/CSA G30.18-M GRADE 400R. MAXIMUM YIELD STRENGTH 525 MPa.

5. CLEAR COVER TO REINFORCING STEEL:

CAST AGAINST SOIL: 100mm  
ELSEWHERE: 70mm

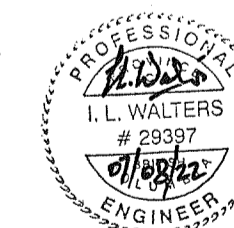
6. BARS DENOTED "ME" SHALL BE EPOXY COATED.

7. ALL LAPS OF REINFORCING BARS FOR SPLICES SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE:

BAR SIZE	UNCOATED	EPOXY COATED (B*)	EPOXY COATED (T**)
10M	400	500	600
15M	500	700	850
20M	700	800	1050
25M	1100	1300	1700
30M	1300	1550	2000

(B\*) DENOTES VERTICAL BARS WITH LESS THAN 300mm CONCRETE BELOW BARS

(T\*\*) DENOTES HORIZONTAL BARS WITH MORE THAN 300mm OF CONCRETE BELOW BARS.



Rev	Date	Description	Initial	SCALE	DESIGNED	DATE
J				AS SHOWN	GAN	04/09/30
I					ILW	04/09/30
H					CTL	04/09/30
G						
F						
E						
D				04/11/03		ISSUED FOR TENDER
C				04/09/30		100% ISSUE FOR REVIEW
B	07/08/22	RECORD DRAWINGS	ILW	04/08/26		90% ISSUE FOR REVIEW
A	04/12/14	WORK POINT 5 AND ISSUED FOR CONSTRUCTION	ILW	04/06/22		50% ISSUE FOR REVIEW
REVISIONS				Date	ISSUE RECORD	Initial

City of Abbotsford

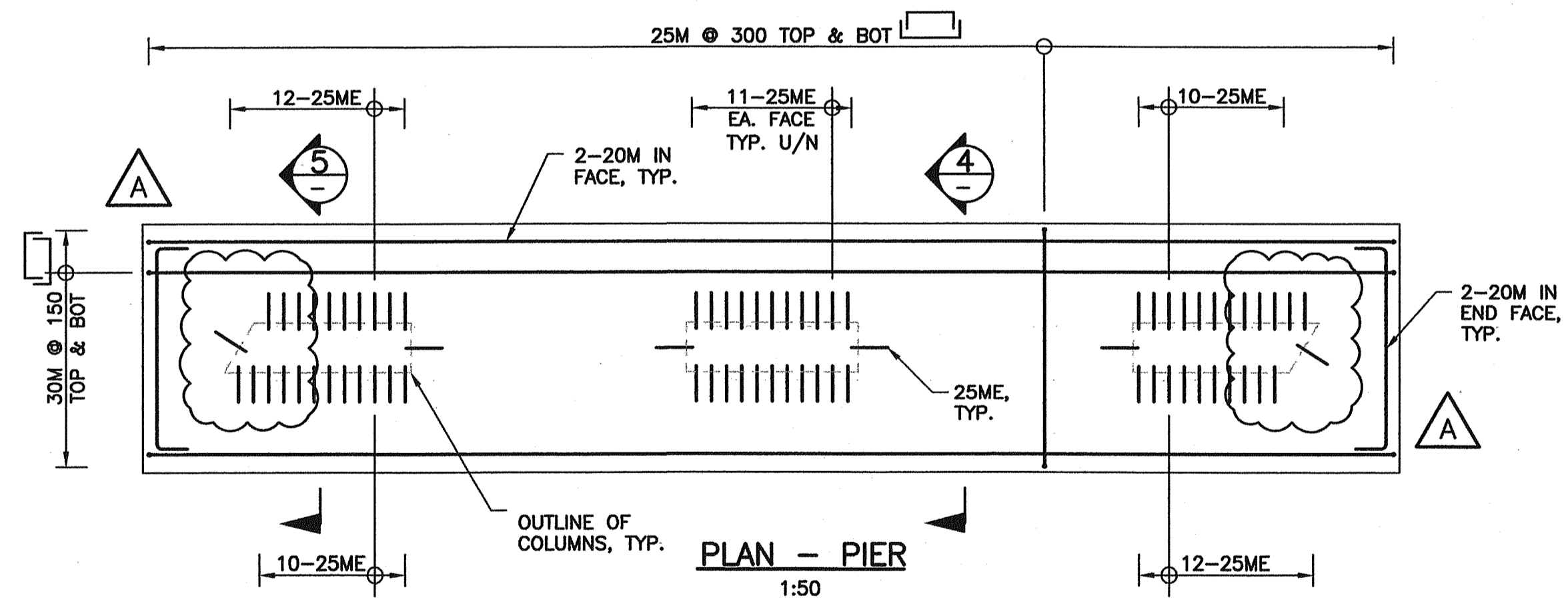
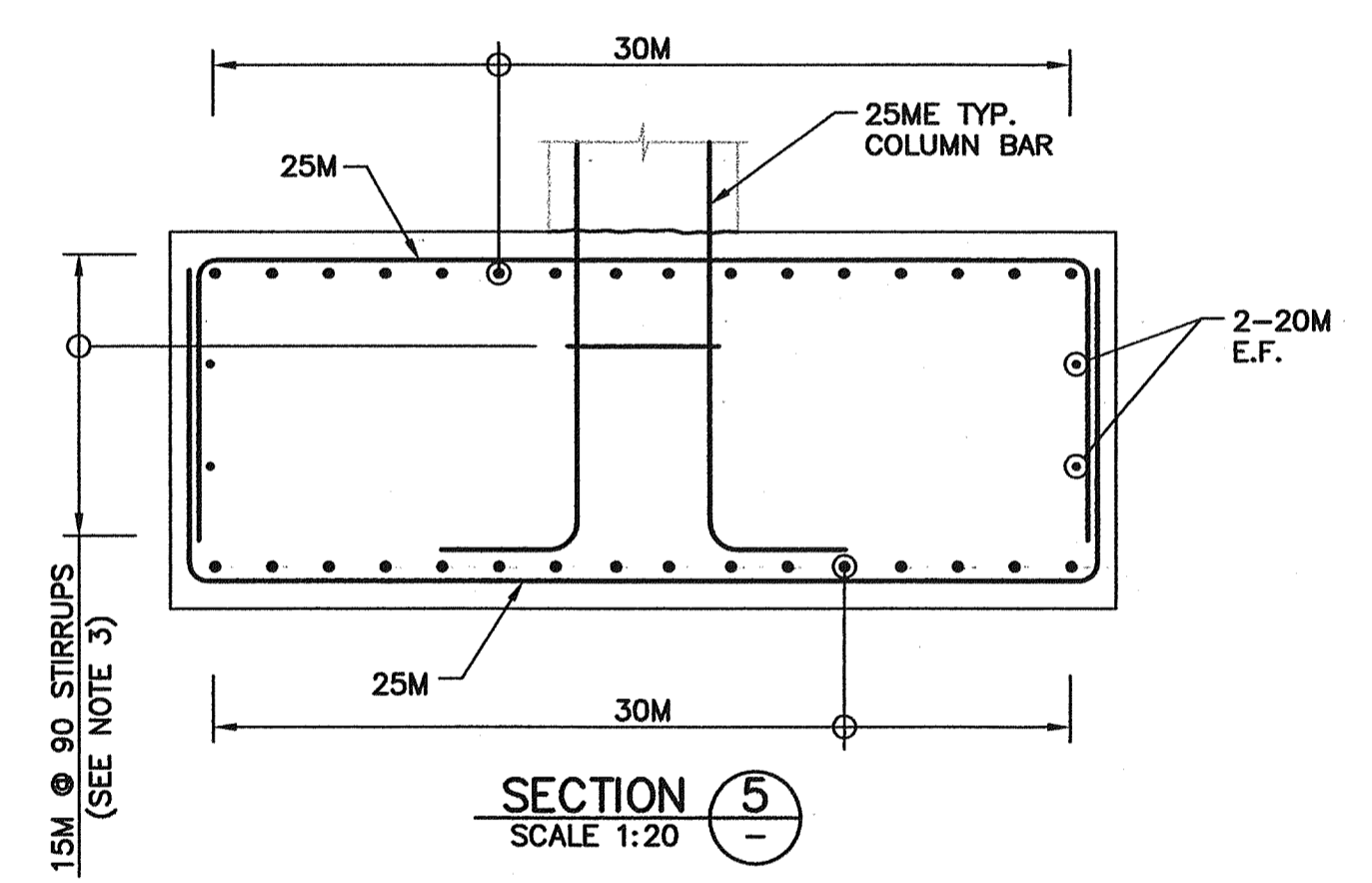
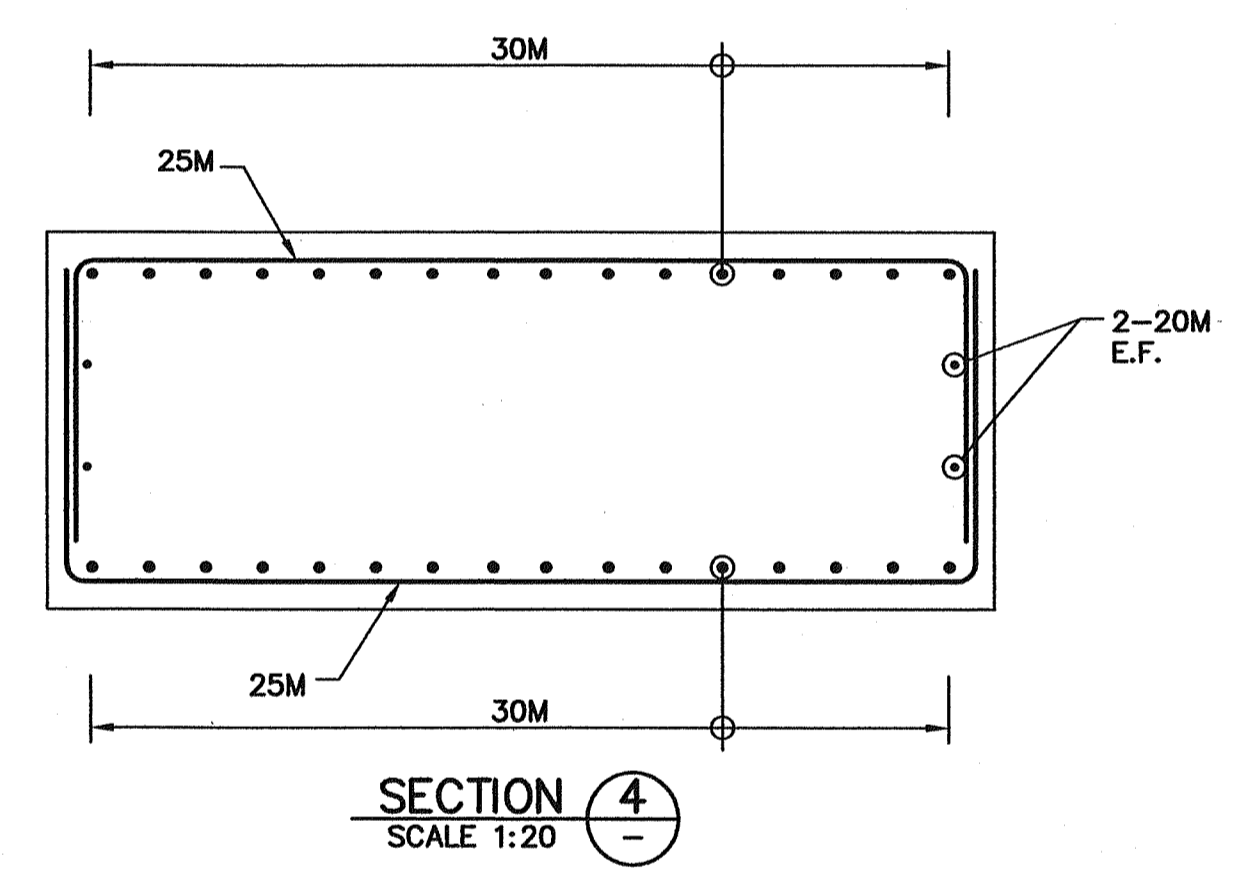
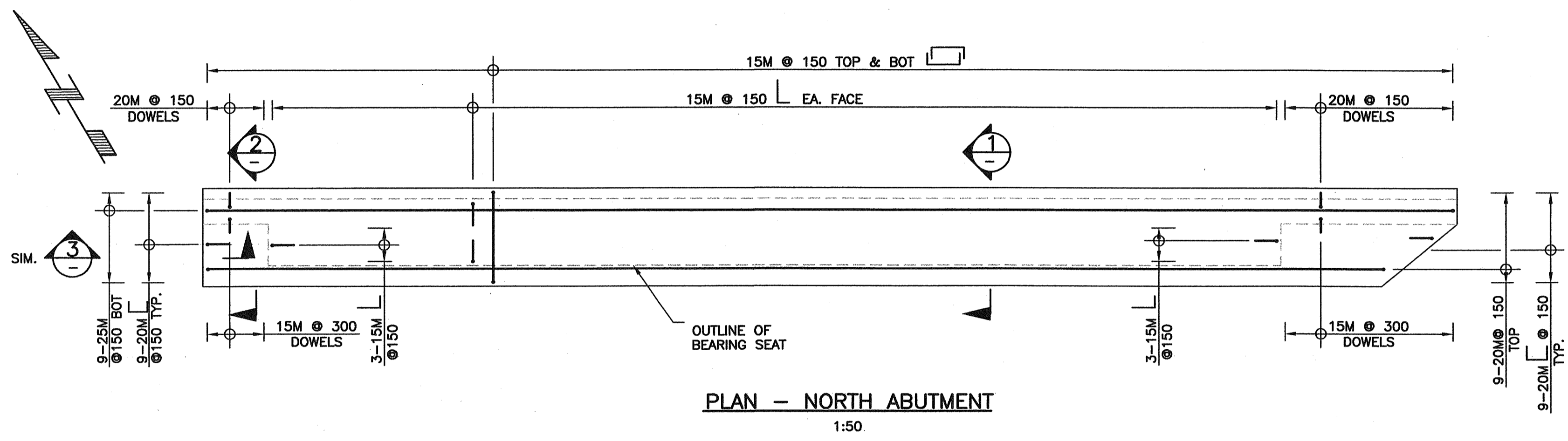
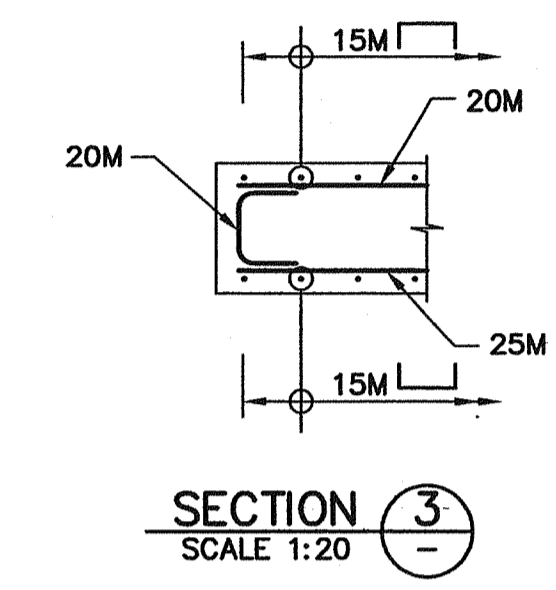
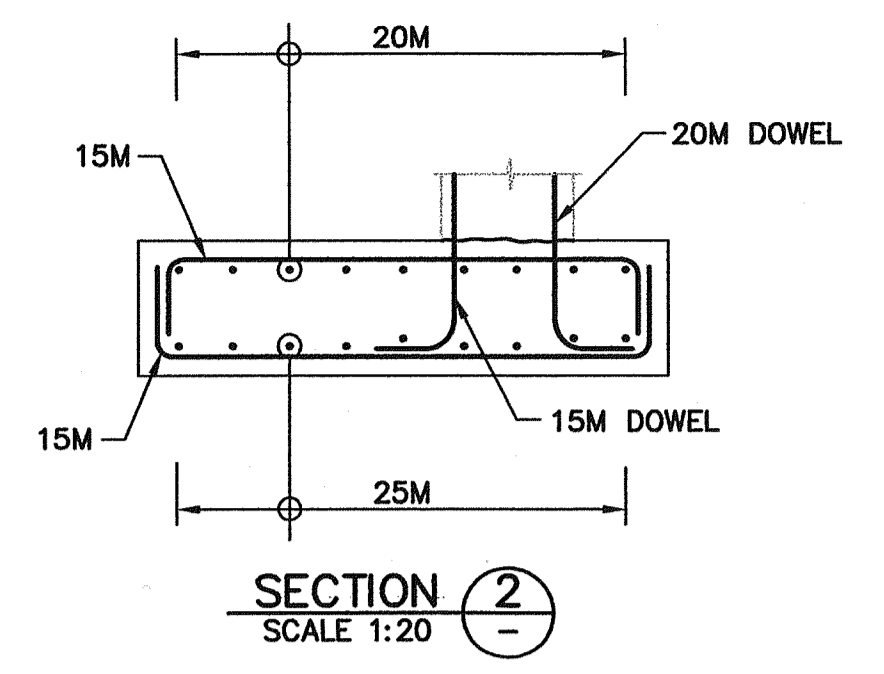
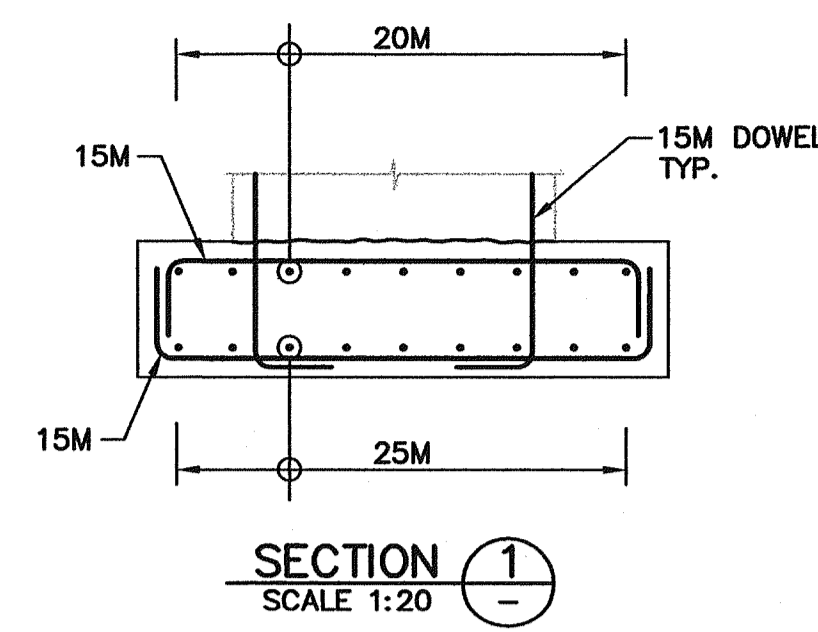
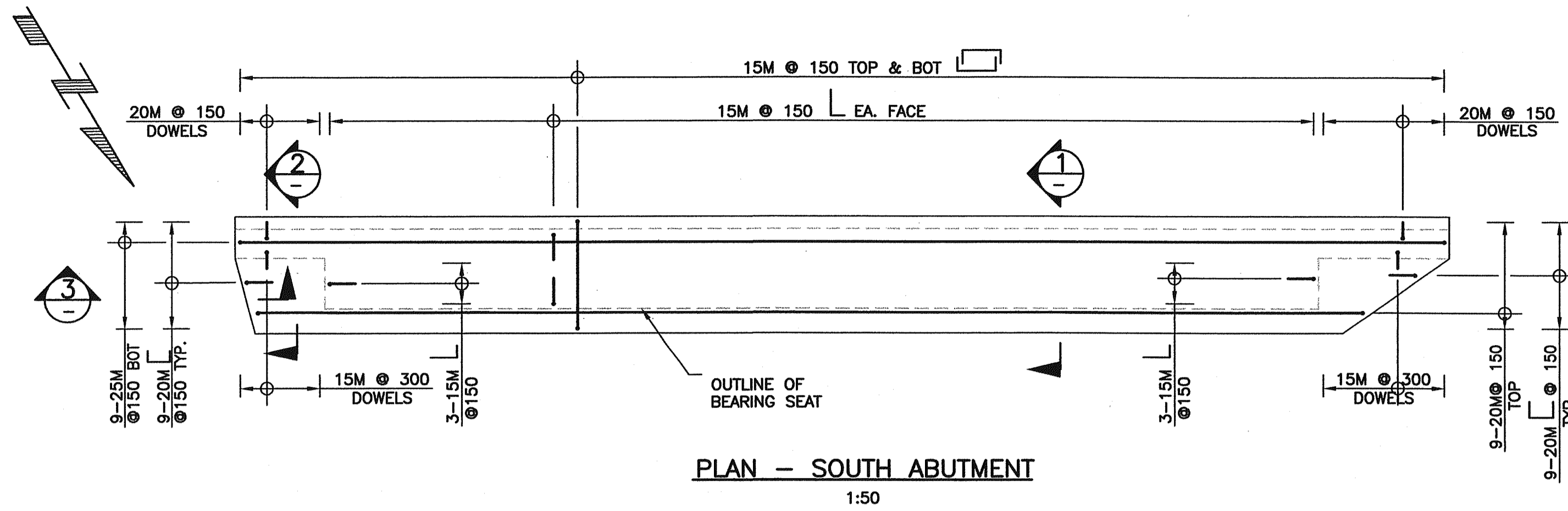
MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION

**1554W FRASER HIGHWAY WEST UNDERPASS**  
FOUNDATION LAYOUT

601818

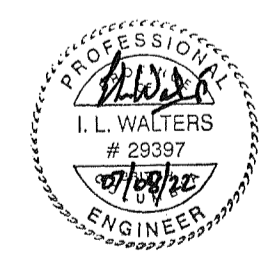
FILE No. REGION 1 DRAWING No. 1554W-103





**NOTES:**

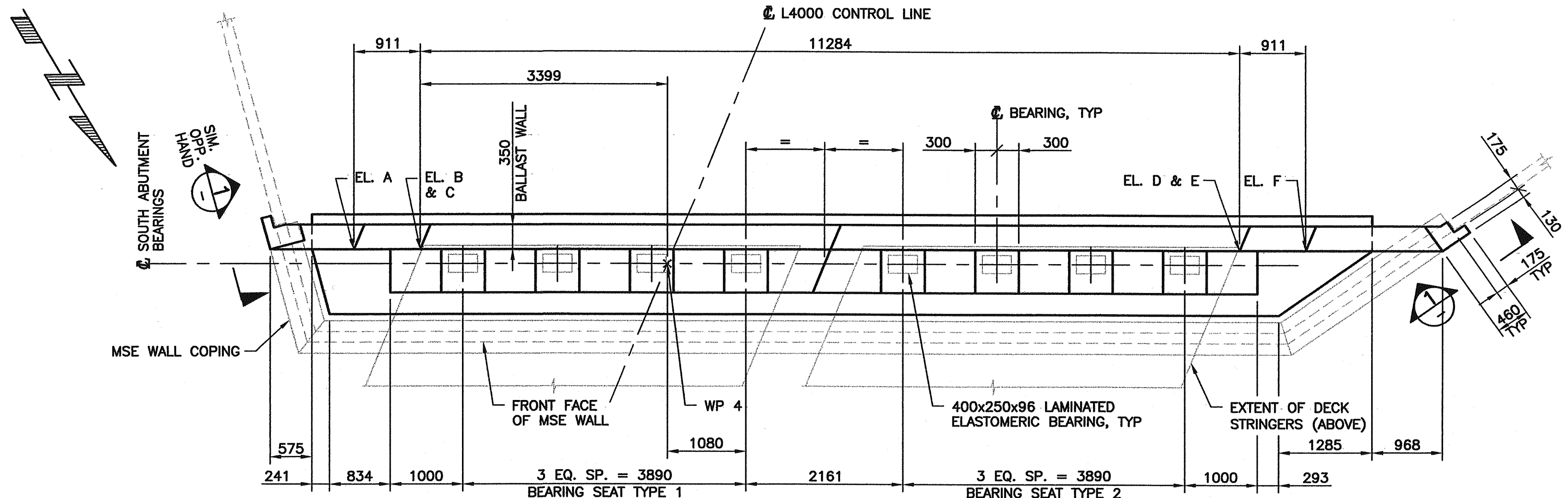
1. FOR GENERAL NOTES SEE DRAWING 1554W-102.
2. SEE DRAWING 1554W-103 FOR SUBSTRUCTURE NOTES.
3. SEE DRAWING 1554W-109 FOR COLUMN STIRRUP DETAILS.



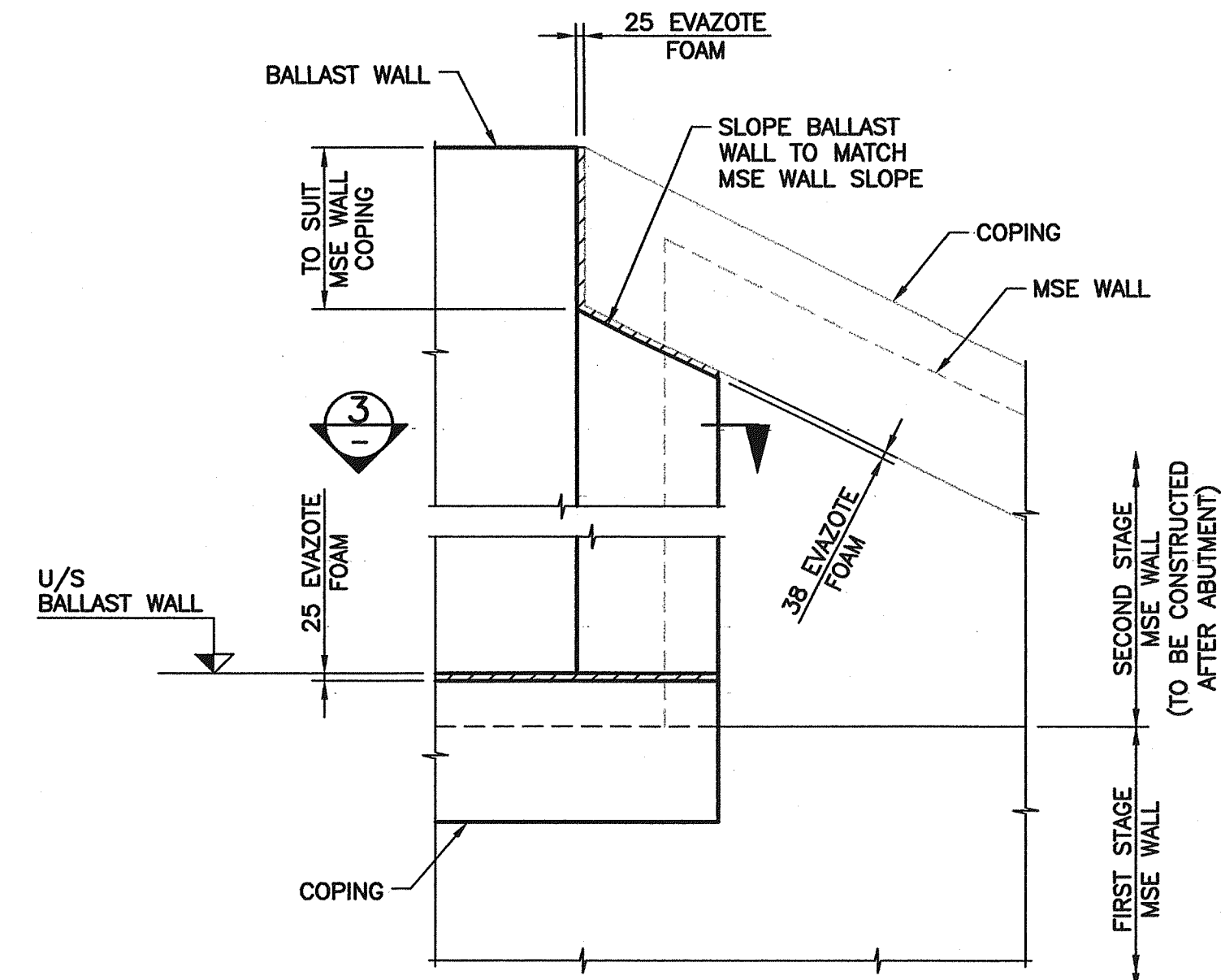
Rev	Date	Description	Initial	SCALE	DESIGNED	DATE	CHECKED	DATE	DRAWN	DATE
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I										
H										
G										
F										
E										
D										
C										
B										
A	07/08/22	RECORD DRAWINGS	ILW							
				Date	ISSUE RECORD		Initial			

City of Abbotsford  
 MINISTRY OF TRANSPORTATION  
 SOUTH COAST REGION  
**1554W FRASER HIGHWAY WEST UNDERPASS**  
**FOUNDATION REINFORCEMENT**  
 601819  
 FILE No. REGION 1 DRAWING No. 1554W-104  
CHECK POINTS BEARING DOUBLE LETTER

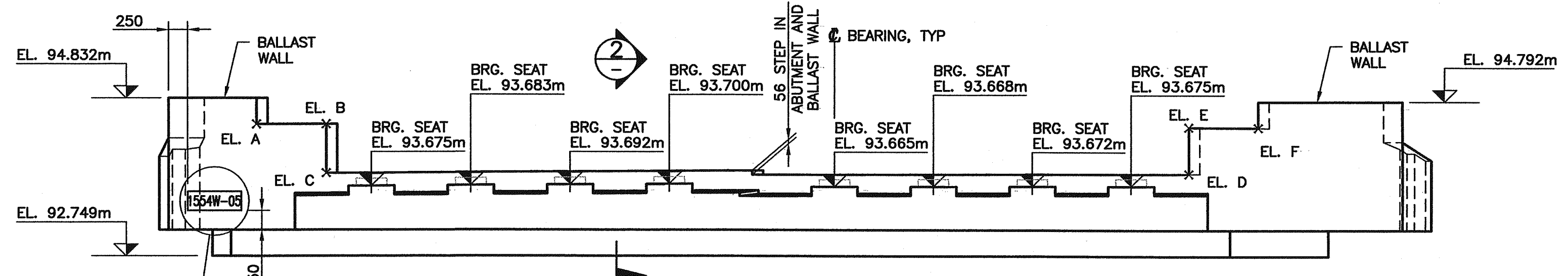
Plotted: August 22, 2007 13:01:02  
 Filename: G:\1954\Drawings\1554W-104.dwg\1554W-104.dwg\1554W-104.dwg\1554W-104.dwg\1554W-104.dwg



**PLAN**  
1:50

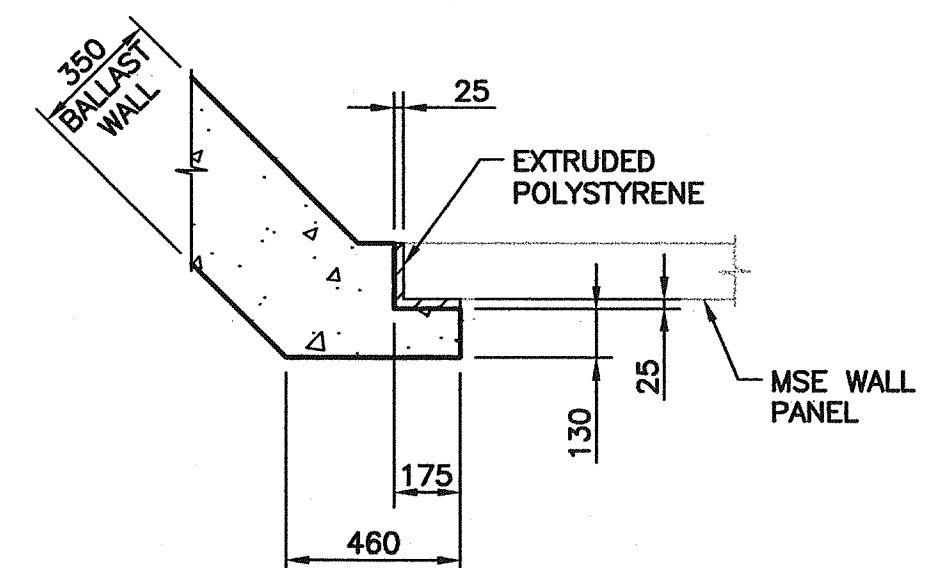


**VIEW**  
SCALE 1:20

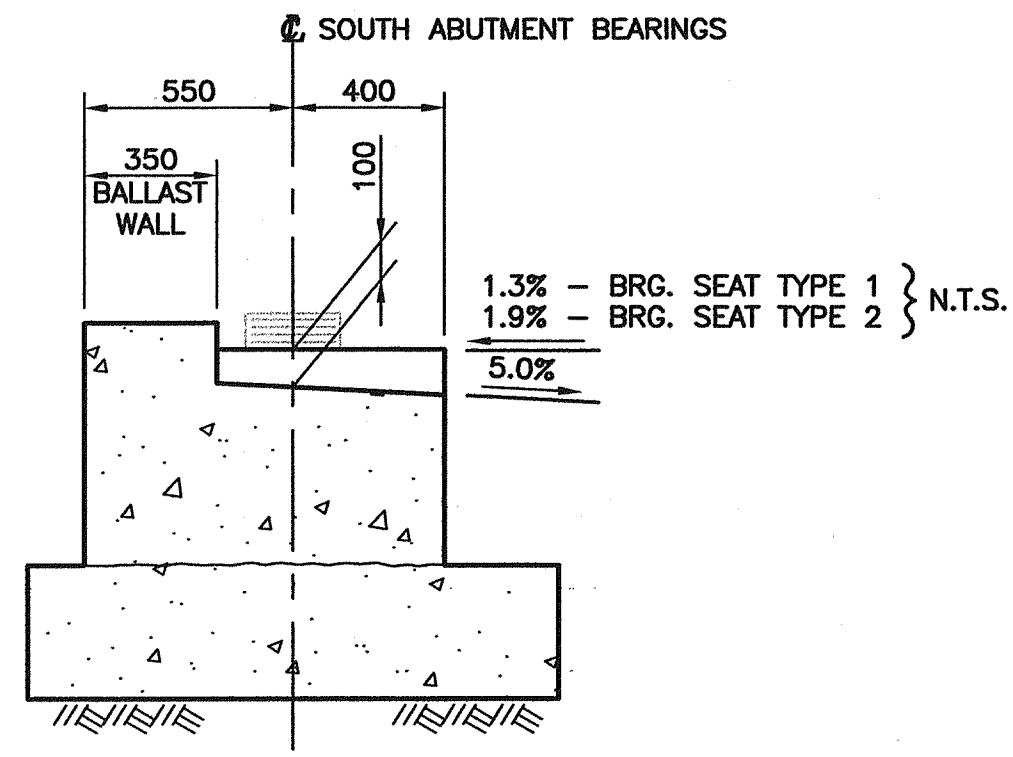


**ELEVATION**  
1:50

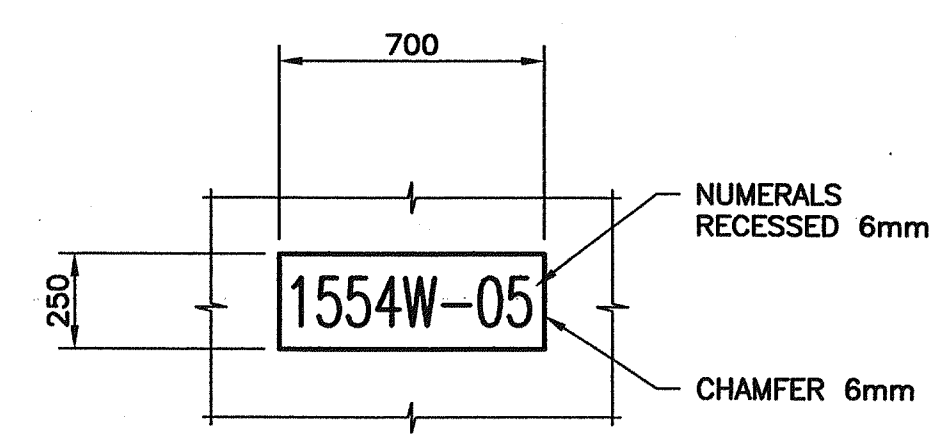
NOTE: MSE WALL NOT SHOWN FOR CLARITY.



**SECTION**  
SCALE 1:20



**SECTION**  
SCALE 1:20



**DETAIL**  
SCALE 1:20

BRIDGE NUMBER AND YEAR OF CONSTRUCTION SHALL BE CAST IN 125mm HIGH NUMERALS AS SHOWN.

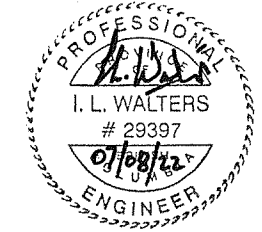
**ABUTMENT ELEVATIONS**

T/O BALLAST WALL WORKPOINT	ELEVATION (m)
A	94.392
B	94.393
C	93.719
D	93.713
E	94.359
F	94.352

**BEARING DATA**

	SLS (kN)			ULS (kN)			SHEAR RATE (kN/mm)	MOVEMENT (mm)
	DL	LL	TL	DL	LL	TL		
MAX.	310	170	480	370	310	680	1.45	±40
MIN.	270	-20	250	280	-30	250		

- NOTES:**
- FOR GENERAL NOTES SEE DRAWING 1562-102.
  - FOR SUBSTRUCTURE NOTES SEE DRAWING 1562-103.
  - ELEVATIONS ON DRAWINGS DO NOT ACCOUNT FOR FOUNDATION SETTLEMENTS. ELEVATIONS TO BE ADJUSTED FOR SETTLEMENT PREDICTIONS RESULTING FROM CONSTRUCTION MONITORING.



Rev	Date	Description	Initial	SCALE	DESIGNED	DATE	CHECKED	DATE	DRAWN	DATE
J				AS SHOWN	GAN	04/09/30	ILW	04/09/30	CTL	04/09/30
I										
H										
G										
F										
E										
D										
C										
B										
A	07/08/22	RECORD DRAWINGS	ILW							

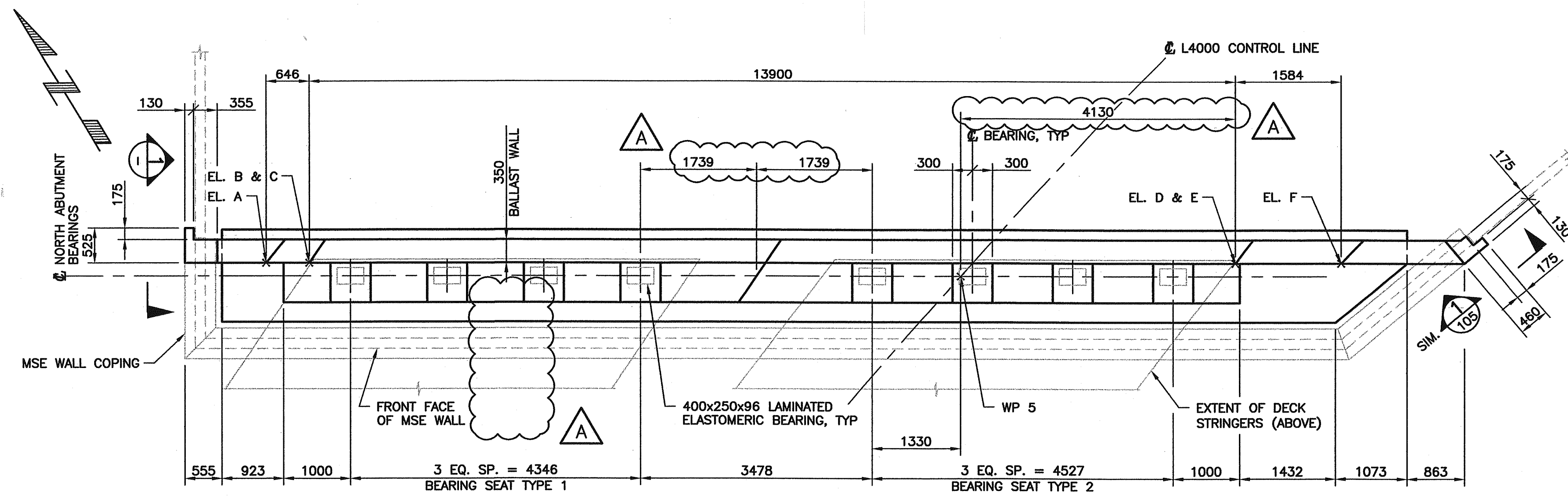
**City of Abbotsford**

**MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION**

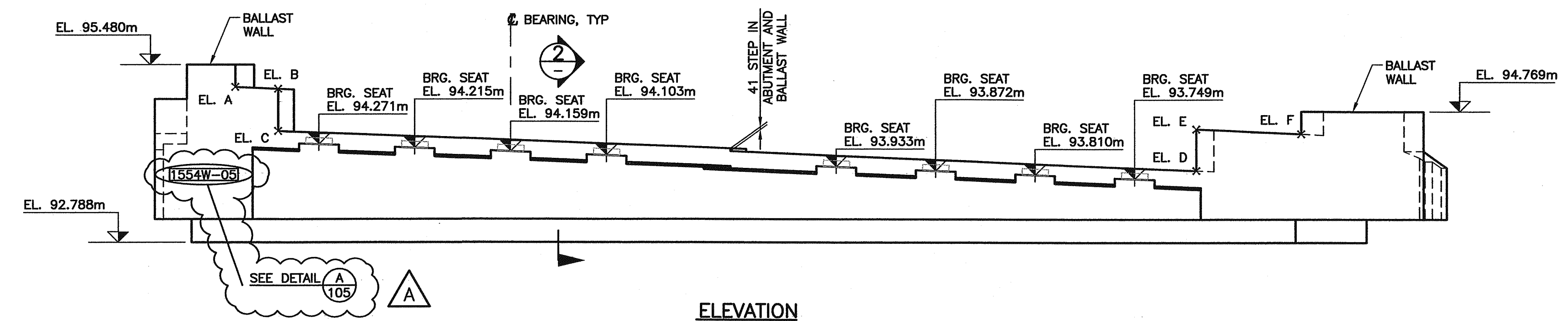
**1554W FRASER HIGHWAY WEST UNDERPASS  
SOUTH ABUTMENT**

601820

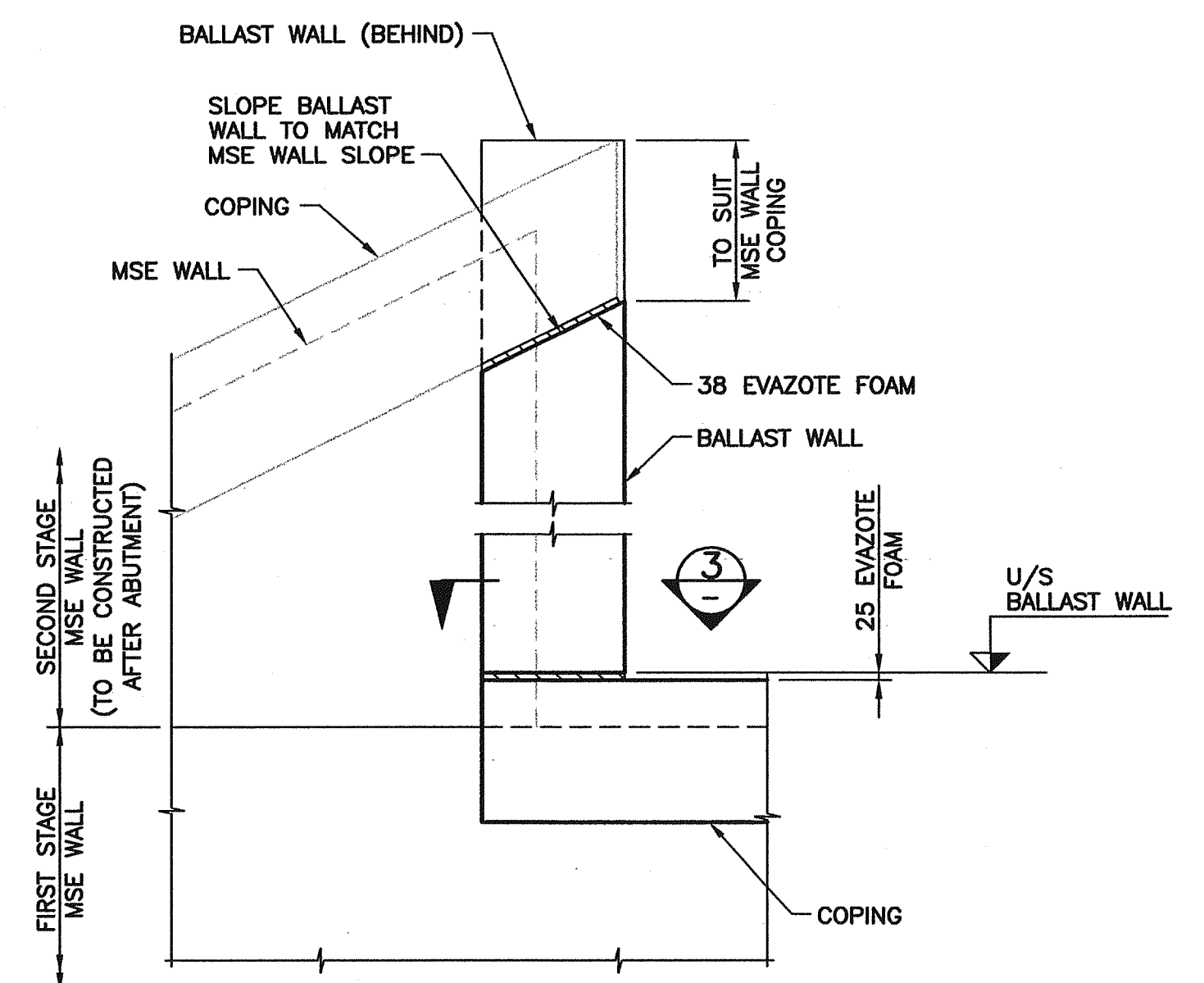
FILE No. **BUNLAND & TAYLOR** REGION **1** DRAWING No. **1554W-105**



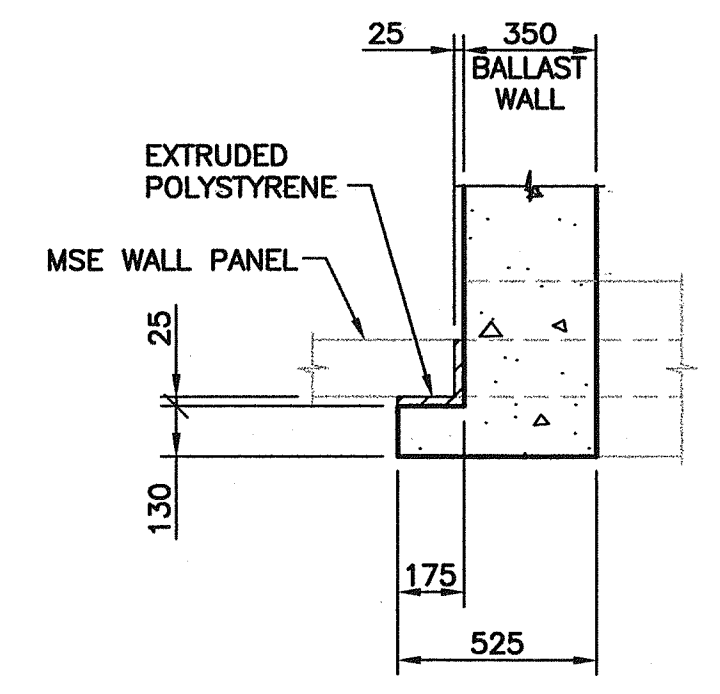
PLAN  
1:50



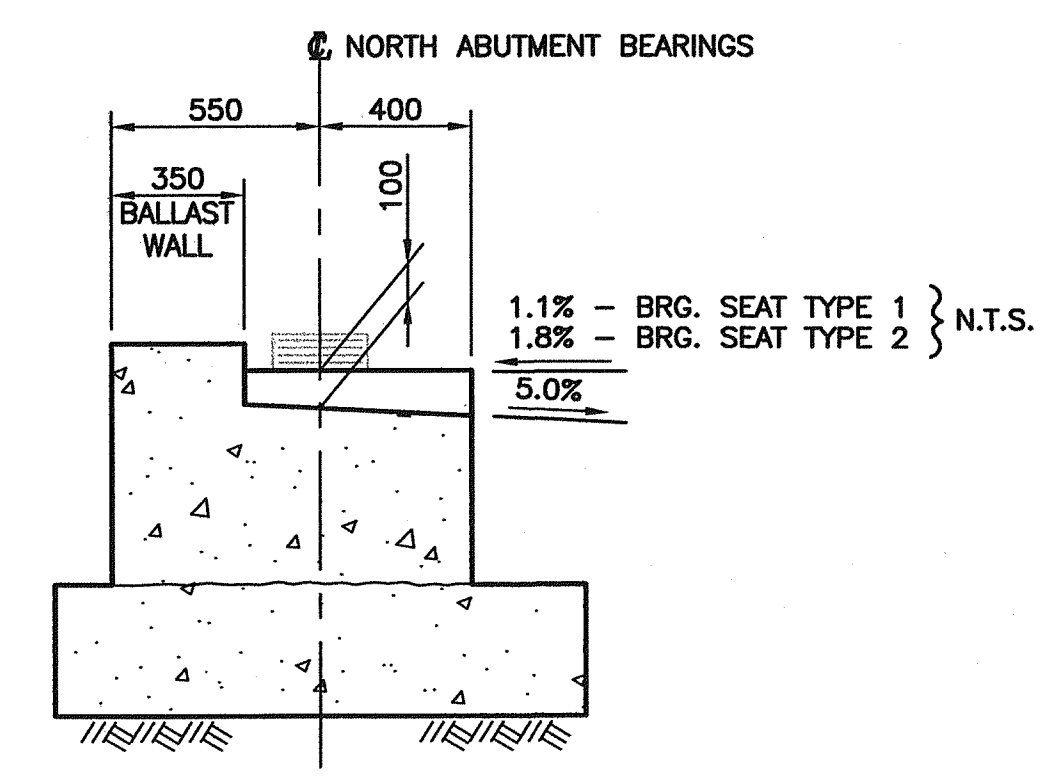
ELEVATION  
1:50



VIEW 1  
SCALE 1:20



SECTION 3  
SCALE 1:20



SECTION 2  
SCALE 1:20

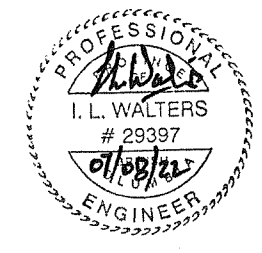
**ABUTMENT ELEVATIONS**

T/O BALLAST WALL WORKPOINT	ELEVATION (m)
A	95.040
B	95.013
C	94.345
D	93.753
E	94.403
F	94.329

**BEARING DATA**

	SLS (kN)			ULS (kN)			SHEAR RATE (kN/mm)	MOVEMENT (mm)
	DL	LL	TL	DL	LL	TL		
MAX.	310	170	480	370	310	680	1.45	±40
MIN.	270	-20	250	280	-30	250		

- NOTES:**
- FOR GENERAL NOTES SEE DRAWING 1562-102.
  - FOR SUBSTRUCTURE NOTES SEE DRAWING 1562-103.
  - ELEVATIONS ON DRAWINGS DO NOT ACCOUNT FOR FOUNDATION SETTLEMENTS. ELEVATIONS TO BE ADJUSTED FOR SETTLEMENT PREDICTIONS RESULTING FROM CONSTRUCTION MONITORING.



Rev	Date	Description	Initial	SCALE	DESIGNED	DATE	CHECKED	DATE	DRAWN	DATE
J				AS SHOWN	GAN	04/09/30	ILW	04/09/30	CTL	04/09/30
I										
H										
G										
F										
E										
D										
C										
B										
A	07/08/22	RECORD DRAWINGS	ILW							
<b>REVISIONS</b>				<b>Date</b>	<b>ISSUE RECORD</b>	<b>Initial</b>				

City of Abbotsford

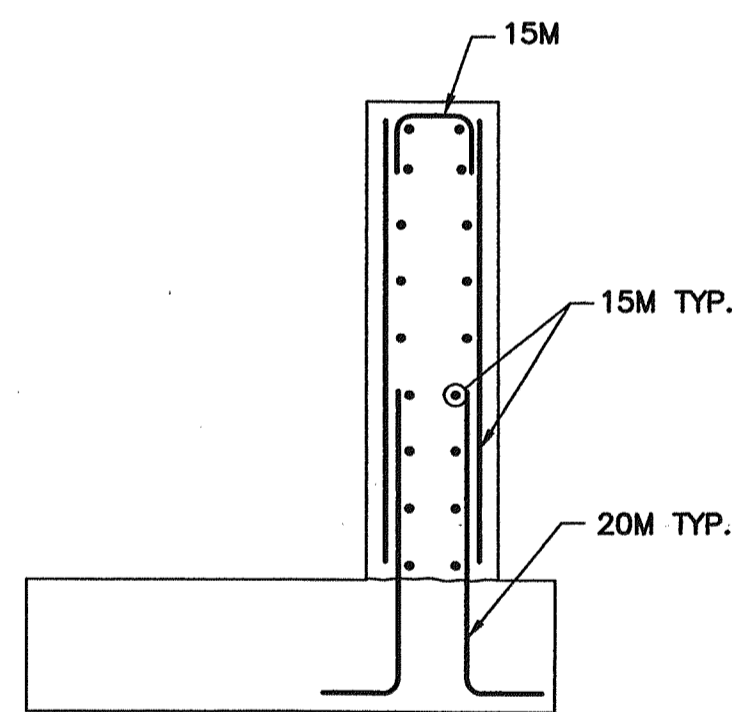
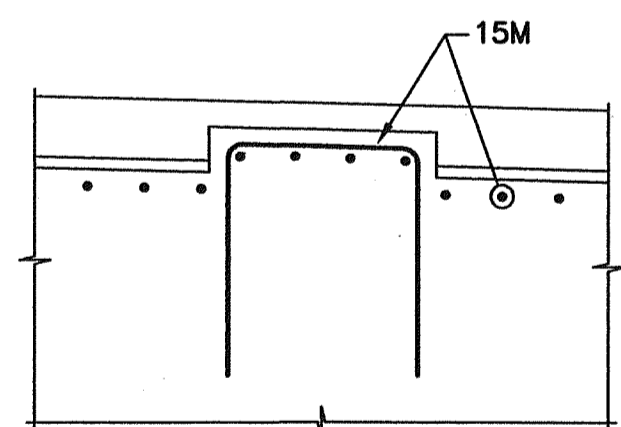
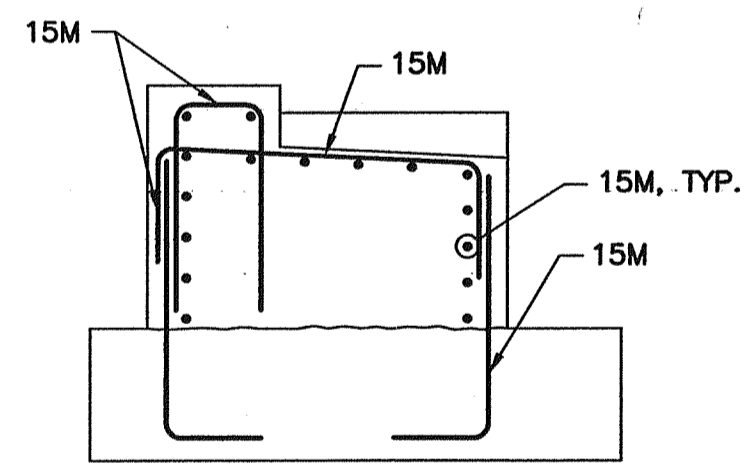
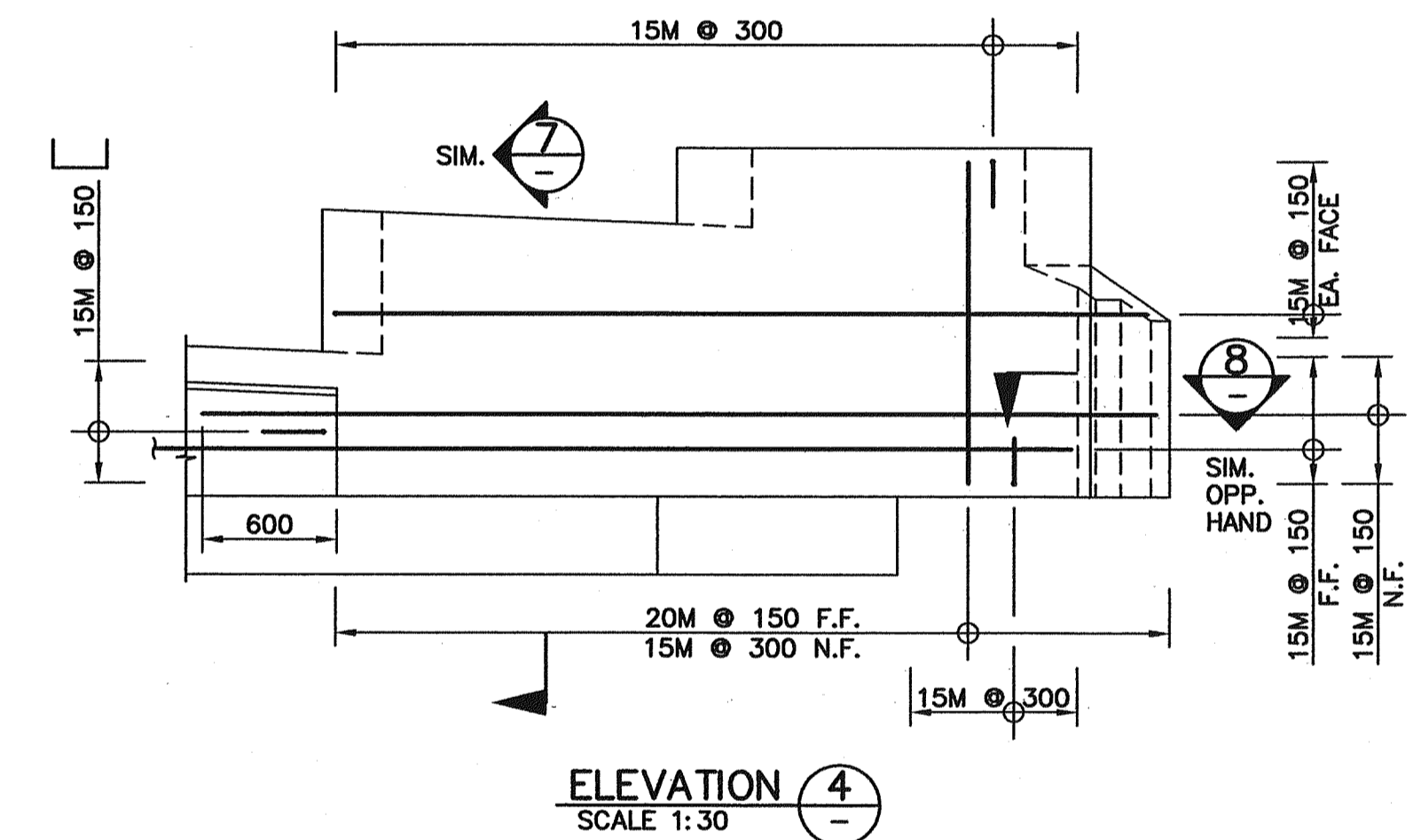
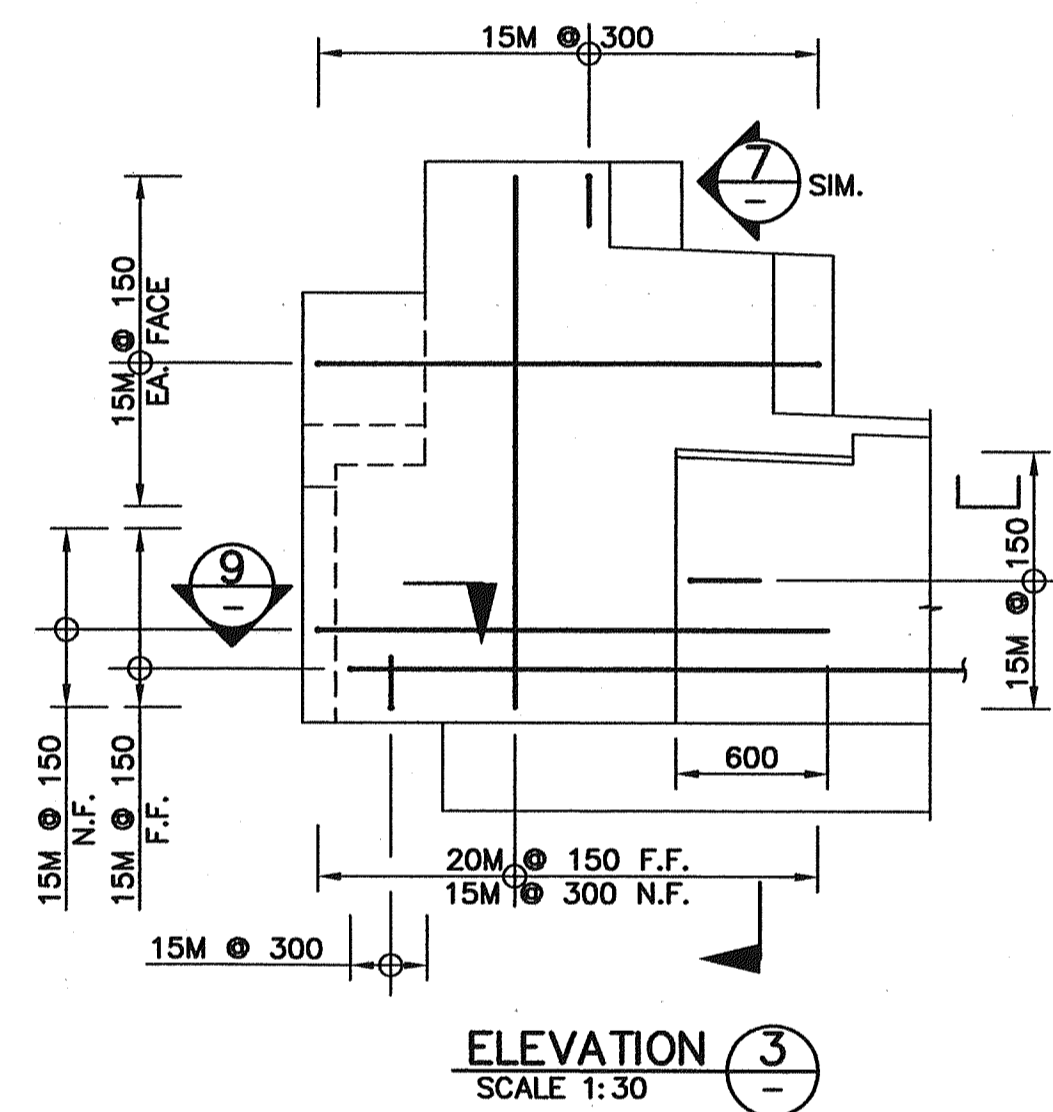
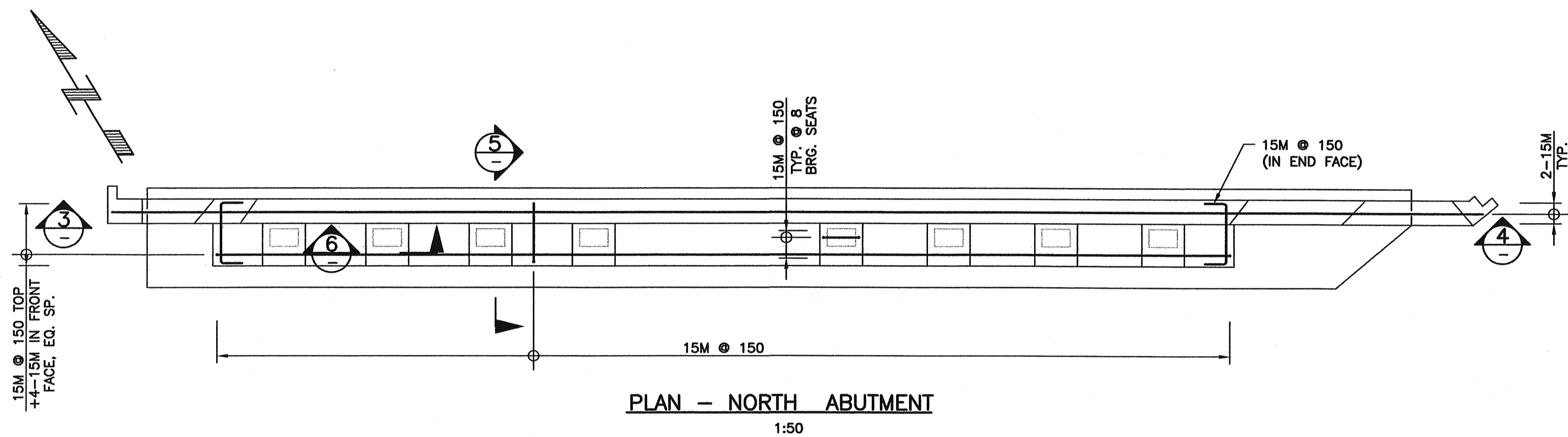
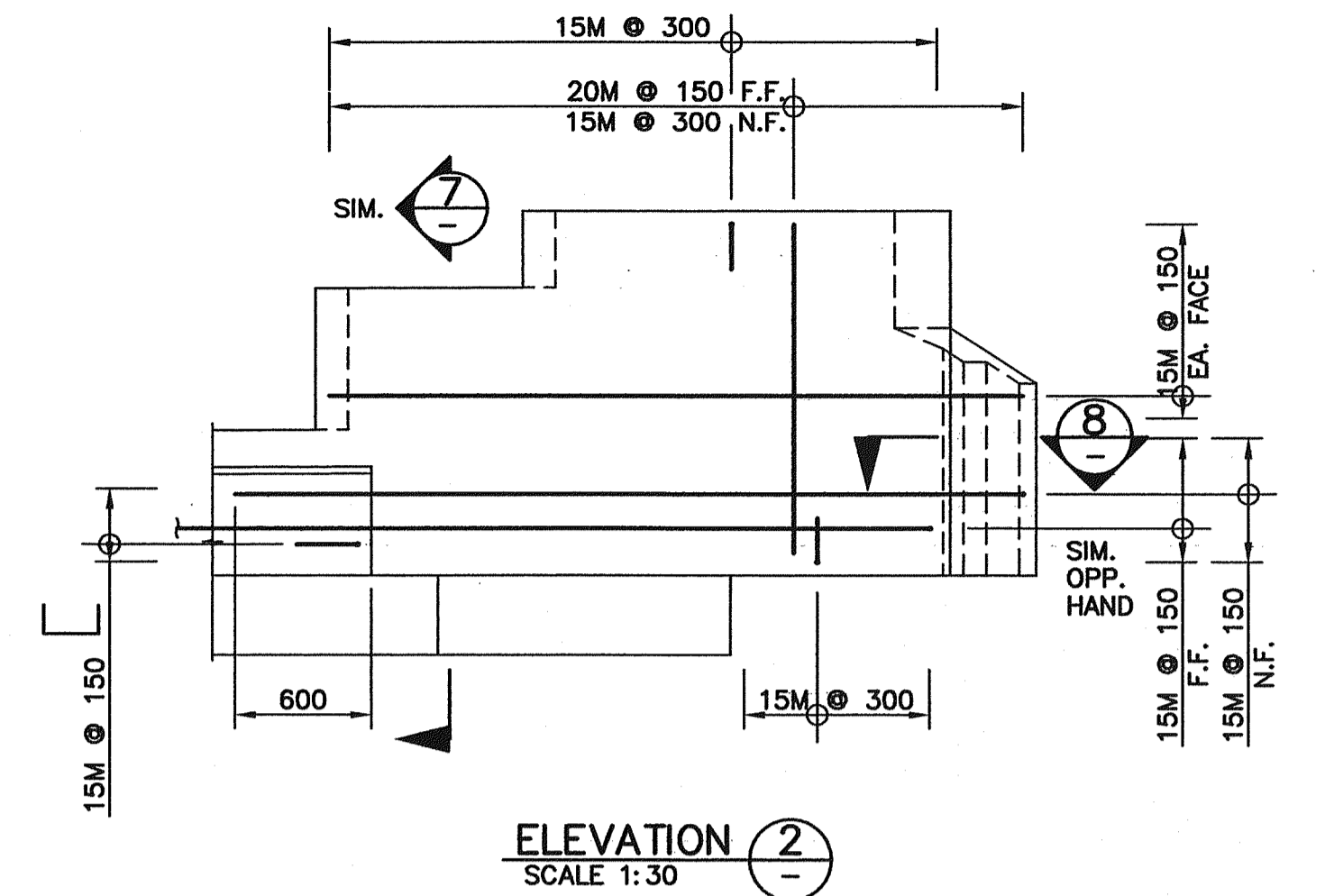
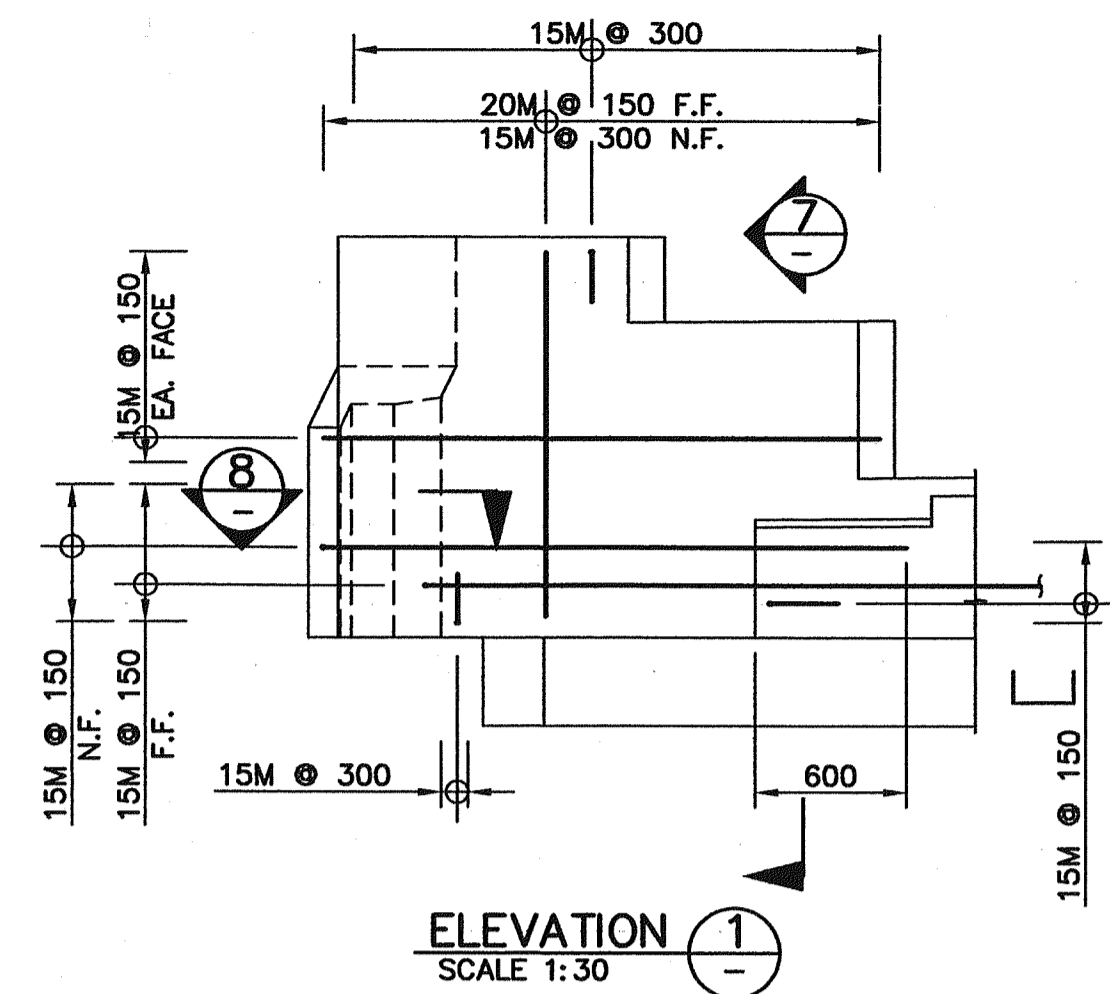
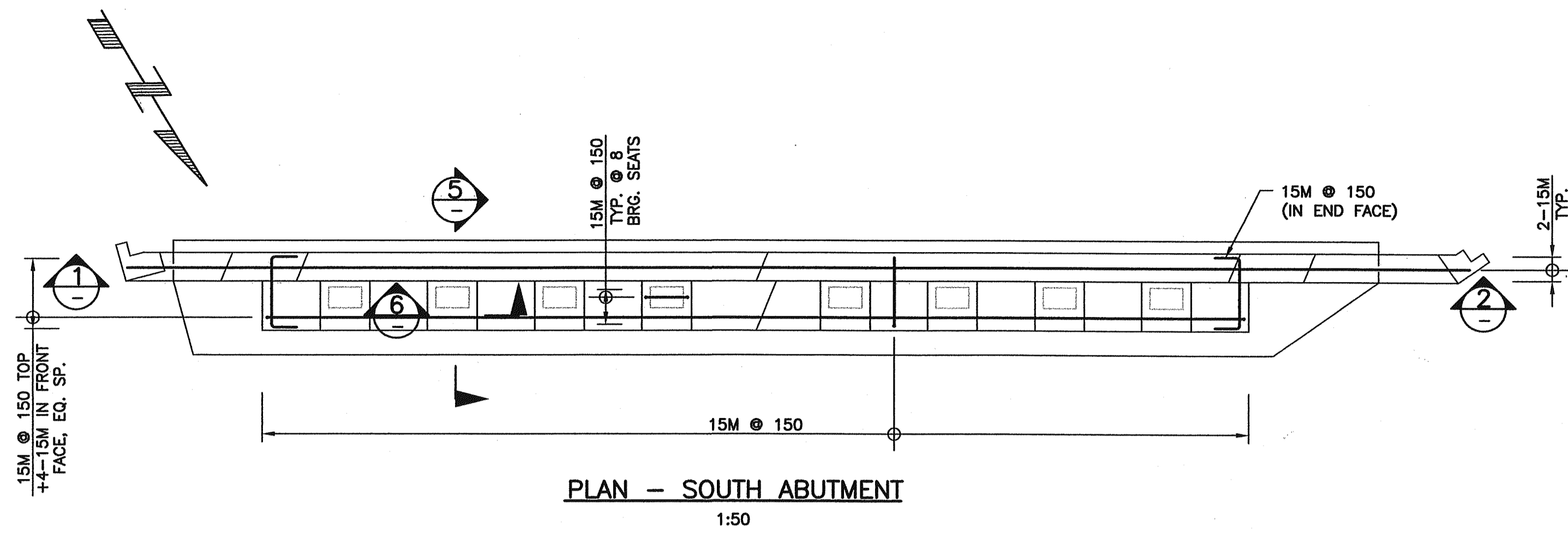
MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION

1554W FRASER HIGHWAY WEST UNDERPASS  
NORTH ABUTMENT

601821

FILE No. BUCKLAND & TAYLOR REGION 1 DRAWING No. 1554W-106

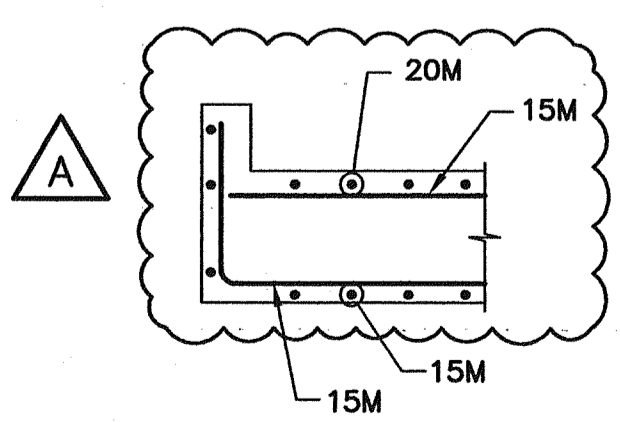
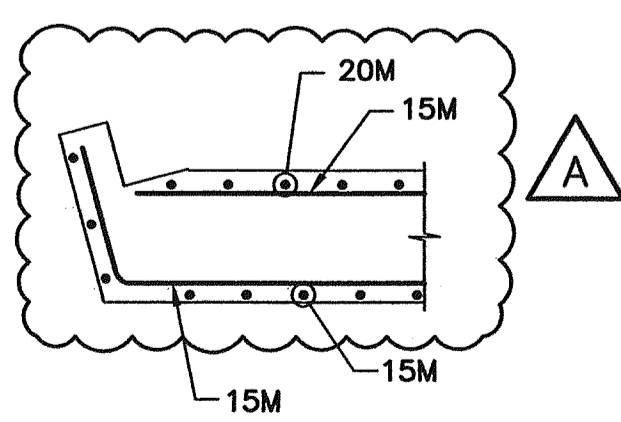




SECTION 5  
SCALE 1:20

SECTION 6  
SCALE 1:20

SECTION 7  
SCALE 1:20

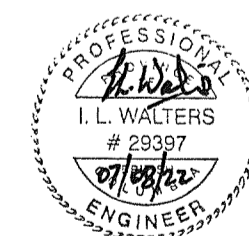


SECTION 8  
SCALE 1:20

SECTION 9  
SCALE 1:20

**NOTES:**

- FOR GENERAL NOTES SEE DRAWING 1554W-102.
- FOR SUBSTRUCTURE NOTES SEE DRAWING 1554W-103.
- FOR FOUNDATION REINFORCEMENT SEE DRAWING 1554W-104.



Rev	Date	Description	Initial	SCALE	DESIGNED	DATE	CHECKED	DATE	DRAWN	DATE
J				AS SHOWN	G.M.	04/09/30	ILW	04/09/30	L.M.B.	04/09/30
I										
H										
G										
F										
E										
D										
C										
B										
A	07/08/22	RECORD DRAWINGS	ILW							
<b>REVISIONS</b>				<b>Date</b>	<b>ISSUE RECORD</b>		<b>Initial</b>			



City of Abbotsford



MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION



**1554W FRASER HIGHWAY WEST UNDERPASS  
ABUTMENT REINFORCEMENT**

601822

FILE No.

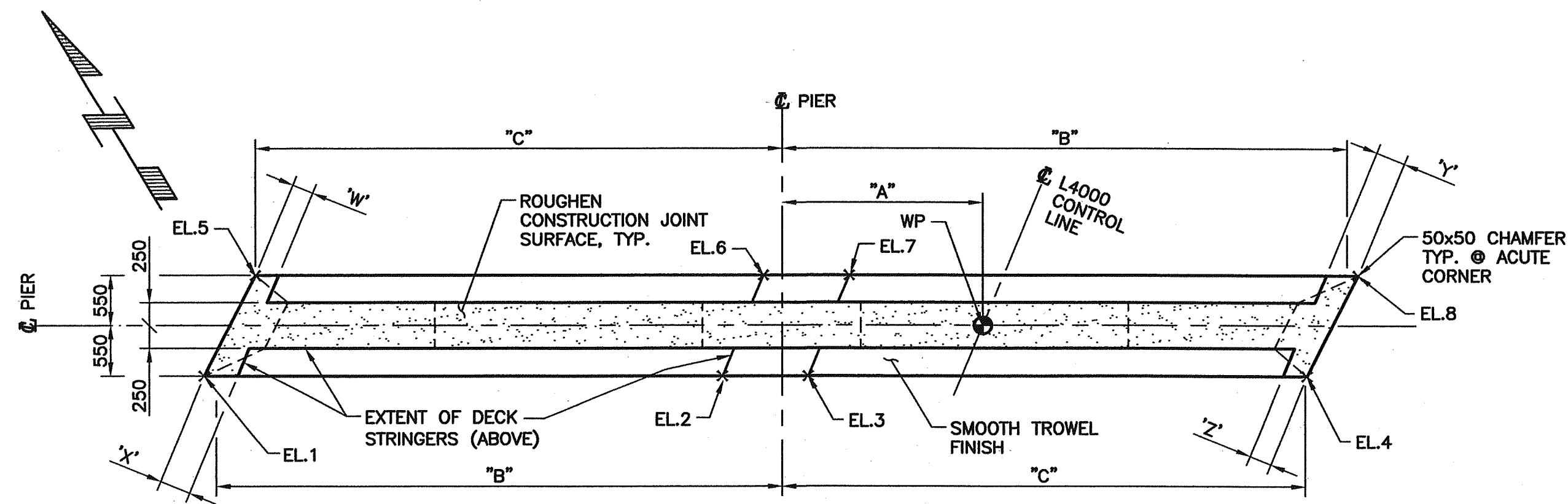


REGION  
1

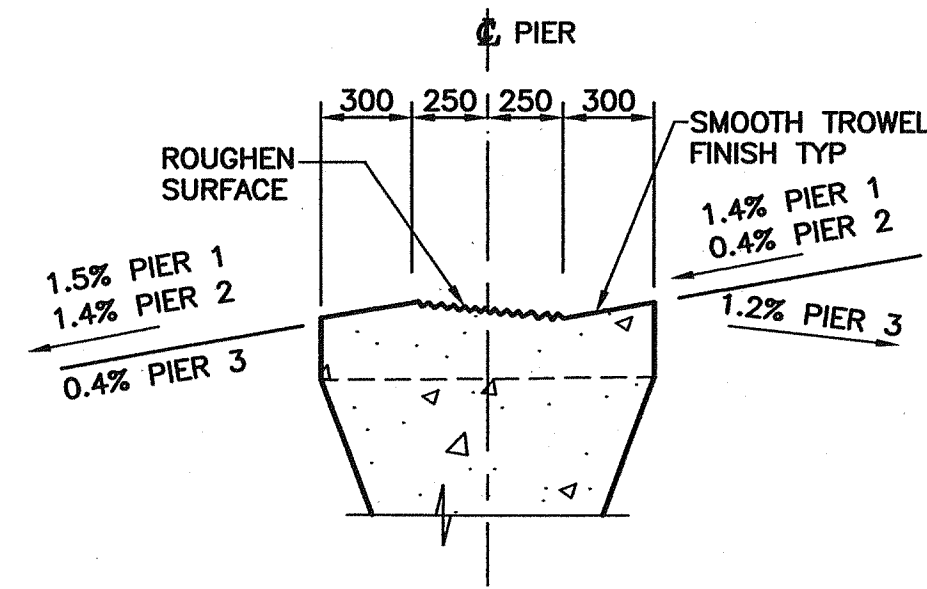
DRAWING No.  
1554W-107

1

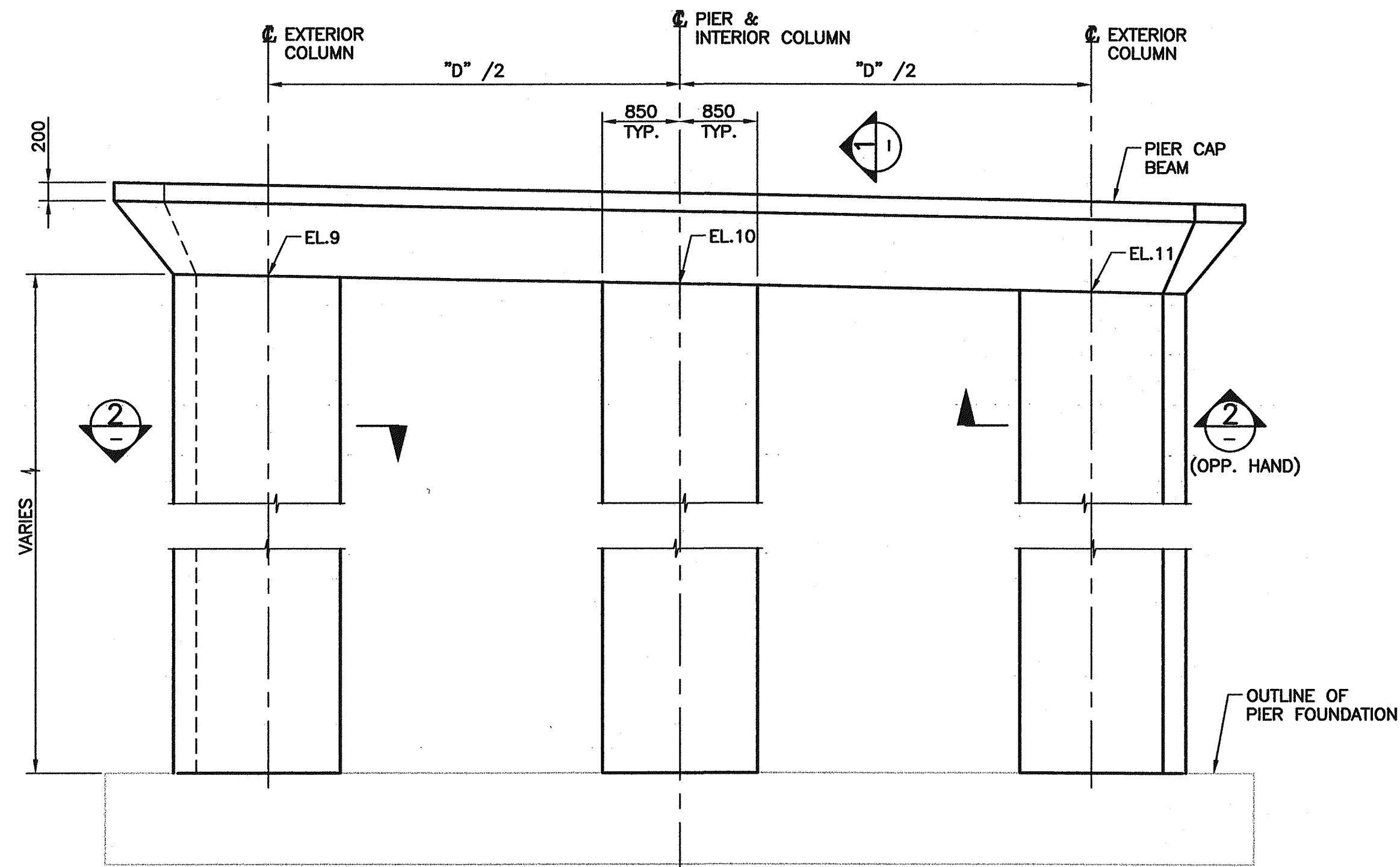




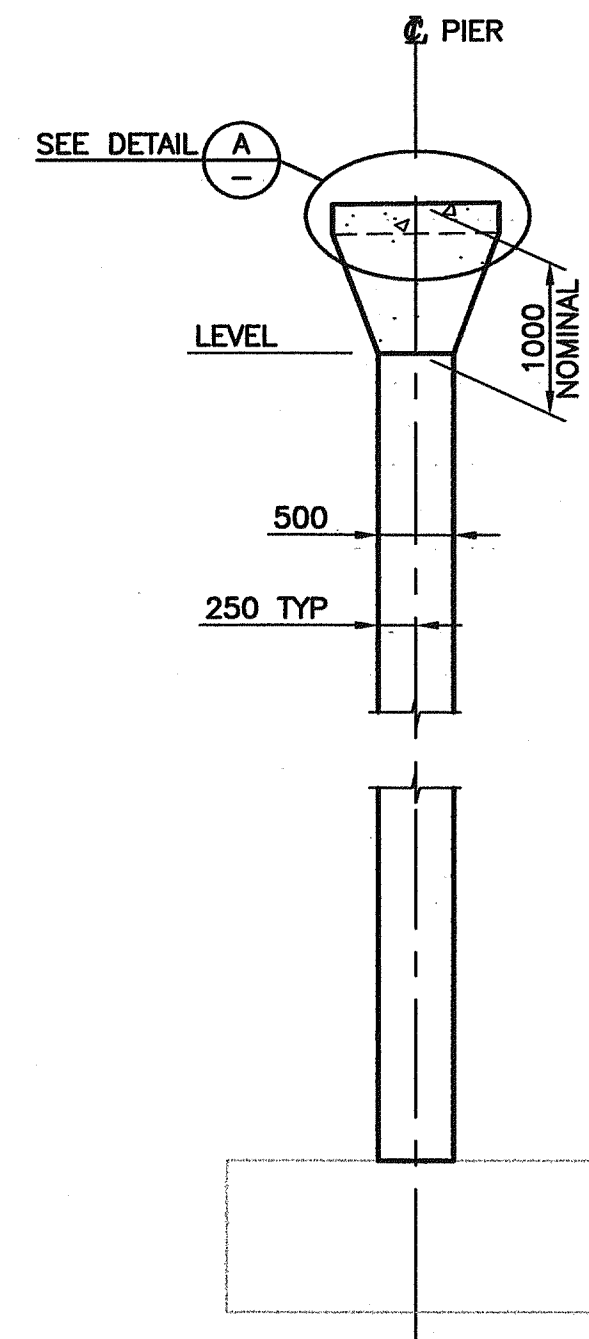
PLAN  
SCALE 1:50



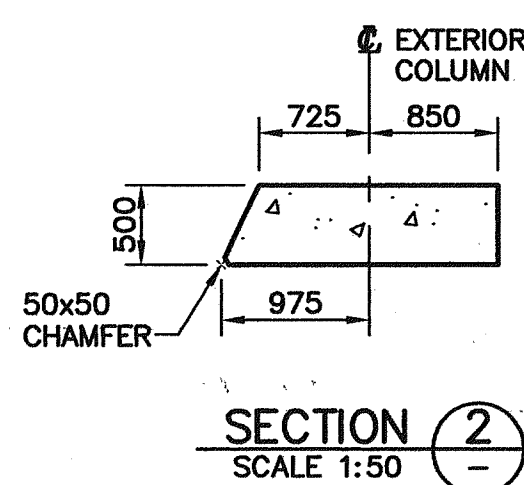
DETAIL A  
SCALE 1:25



ELEVATION  
SCALE 1:50



SECTION 1  
SCALE 1:50



SECTION 2  
SCALE 1:50

ELEVATIONS

PIER	NO.	ELEVATION
1	1	93.989
	2	93.974
	3	93.930
	4	93.896
	5	94.051
	6	93.956
	7	93.984
	8	93.865
	9	92.998
	10	92.942
	11	92.895
2	1	94.354
	2	94.250
	3	94.189
	4	94.066
	5	94.406
	6	94.233
	7	94.226
	8	94.037
	9	93.344
	10	93.216
	11	93.085
3	1	94.500
	2	94.314
	3	94.262
	4	94.060
	5	94.530
	6	94.290
	7	94.294
	8	94.030
	9	93.467
	10	93.280
	11	93.093

PIER GEOMETRY

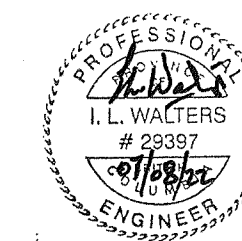
PIER	"A"	"B"	"C"	"D"
1	2161	6200	5650	9150
2	2167	6465	5915	9680
3	2286	6850	6300	10450

PIER	"W"	"X"	"Y"	"Z"
1	223	322	305	232
2	292	542	263	460
3	348	607	408	636

NOTES:

- FOR GENERAL NOTES SEE DRAWING 1554W-102.
- SEE DRAWING 1554W-103 FOR SUBSTRUCTURE NOTES.
- ELEVATIONS ARE BASED ON 75mm THICK TEMPORARY SUPPORTS FOR DECK STRINGERS.
- ELEVATIONS ON DRAWINGS DO NOT ACCOUNT FOR FOUNDATION SETTLEMENTS. ELEVATIONS TO BE ADJUSTED FOR SETTLEMENT PREDICTIONS RESULTING FROM CONSTRUCTION MONITORING.



Rev	Date	Description	Initial	SCALE	DESIGNED	DATE	CHECKED	DATE	DRAWN	DATE
J				AS SHOWN	GAN	04/09/30	ILW	04/09/30	CTL	04/09/30
I										
H										
G										
F										
E										
D										
C										
B										
A	07/08/22	RECORD DRAWINGS	ILW							

REVISIONS	Date	ISSUE RECORD	Initial



City of Abbotsford



MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION



1554W FRASER HIGHWAY WEST UNDERPASS  
PIERS

601823

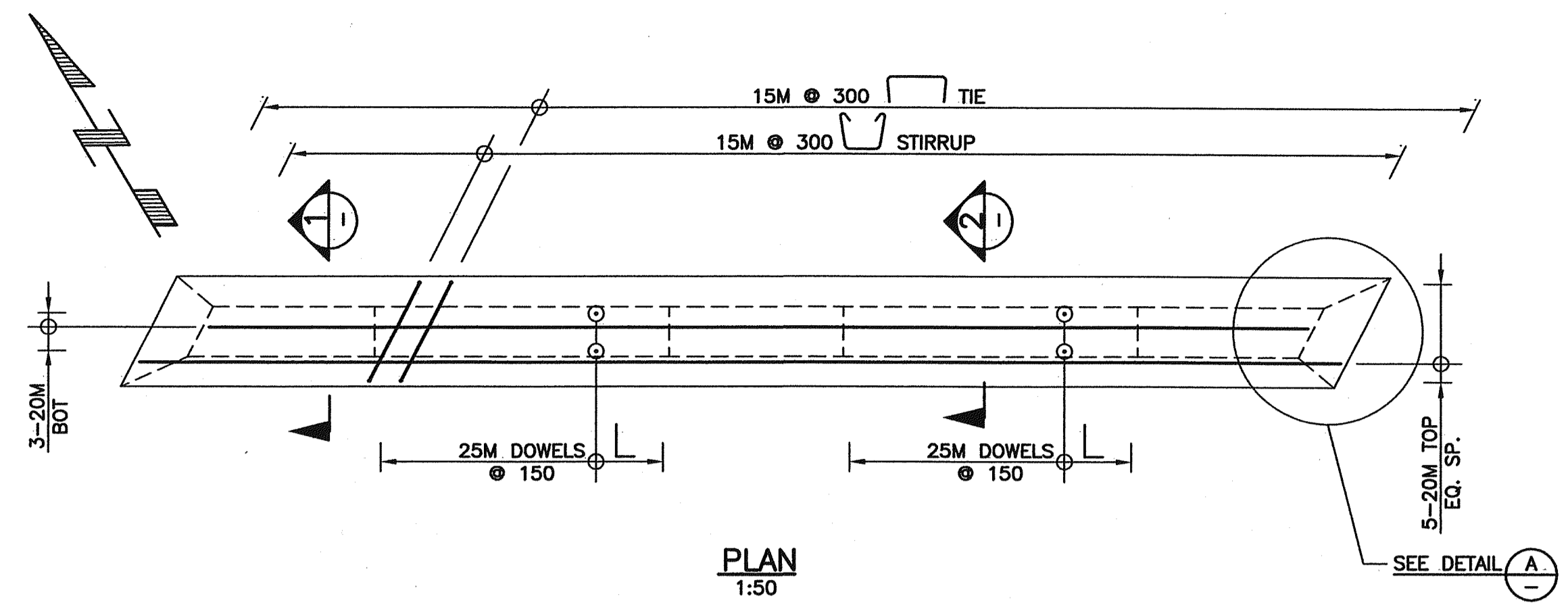
FILE No.



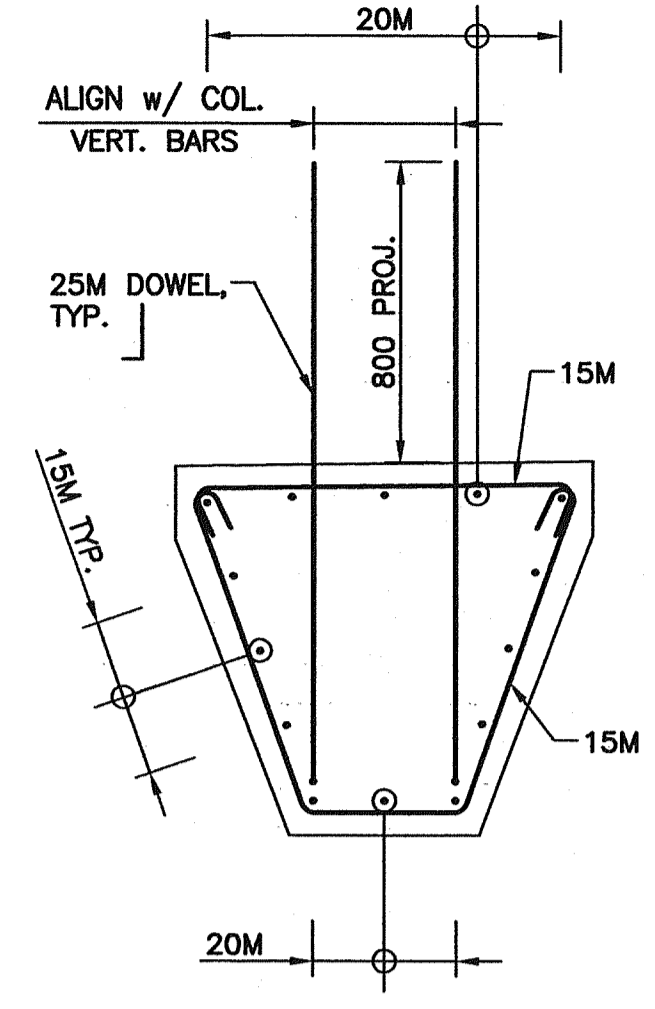
REGION  
1

DRAWING No.  
1554W-108

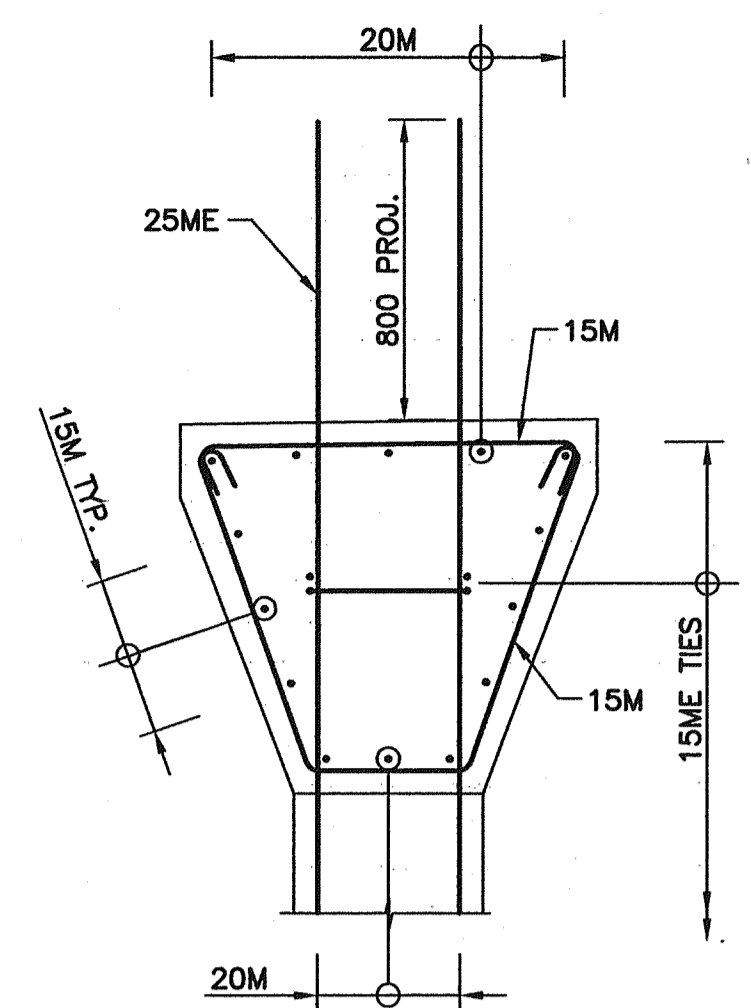
CANCEL PRINTS BEARING EARLIER LETTER



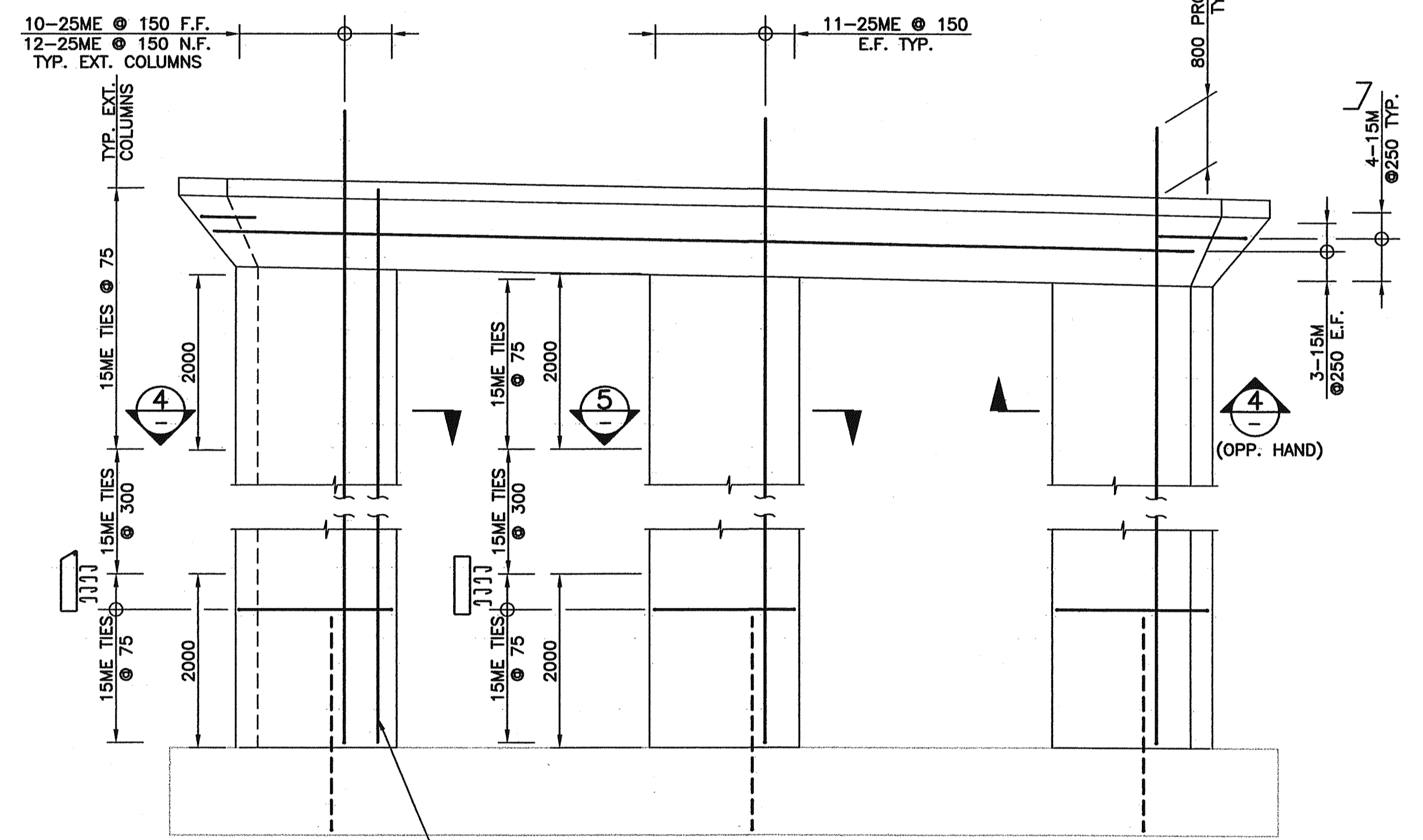
PLAN  
SCALE 1:50



SECTION 2  
SCALE 1:20

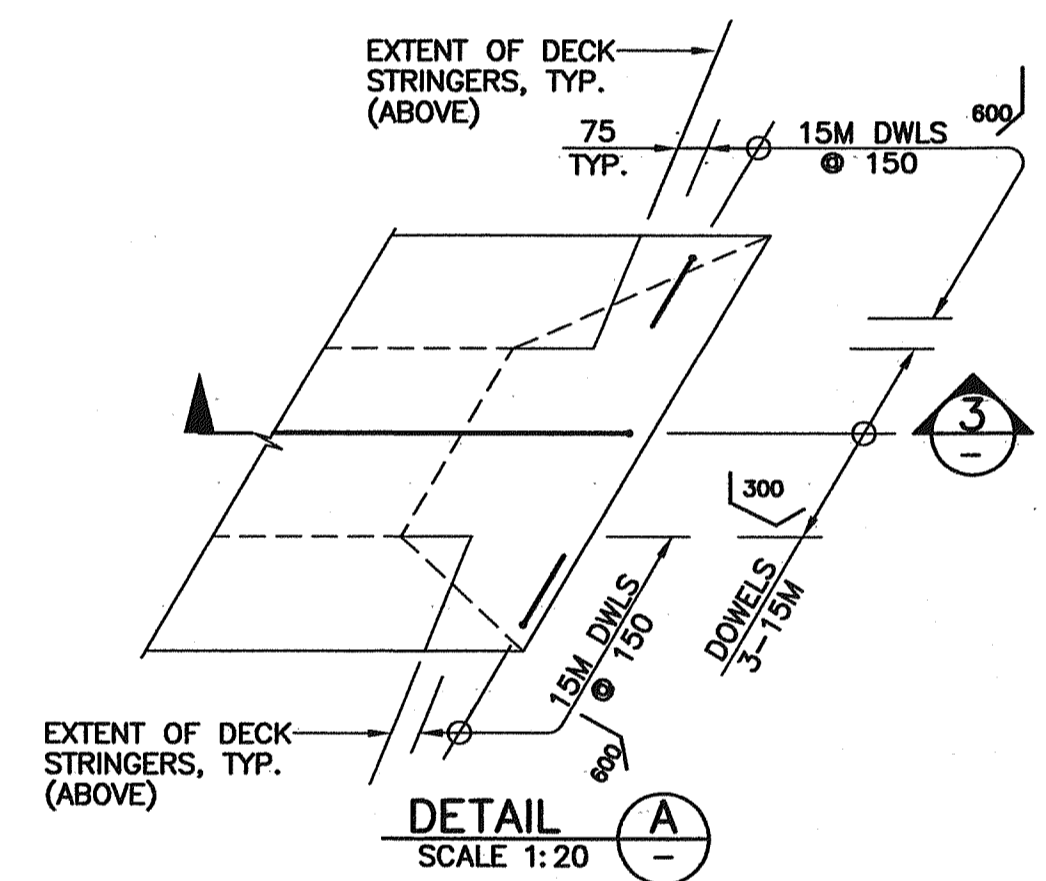


SECTION 1  
SCALE 1:20

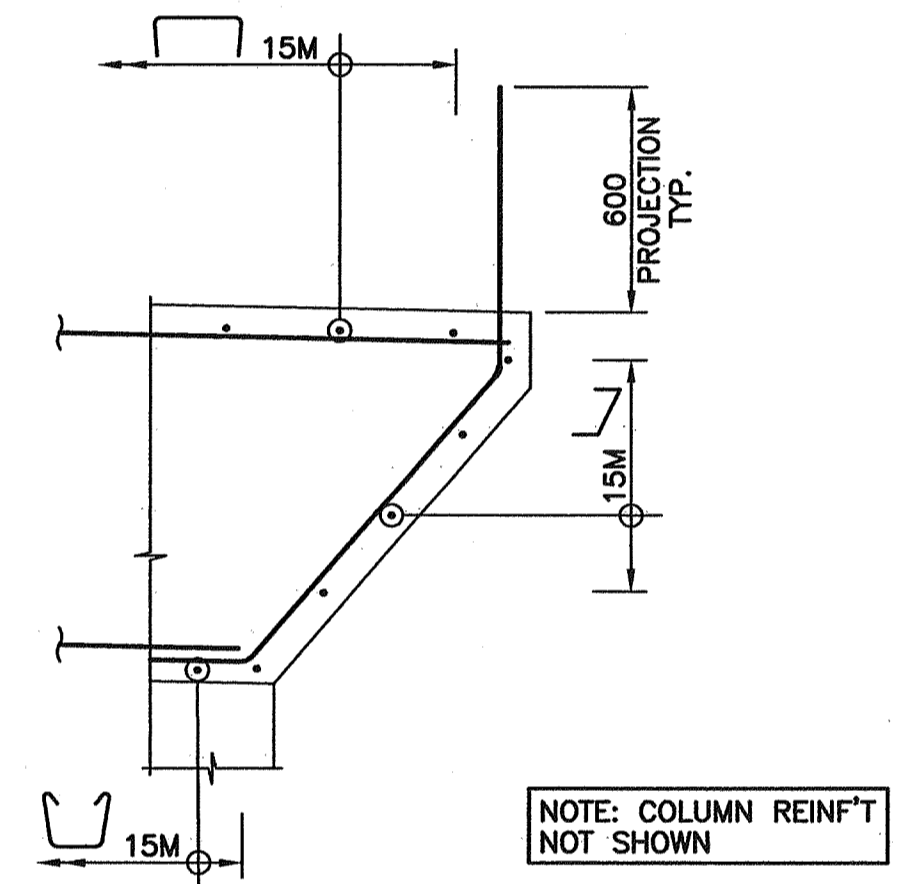


ELEVATION  
SCALE 1:50

NOTE: PIER CAP BEAM STIRRUPS, TIES AND DOWELS NOT SHOWN

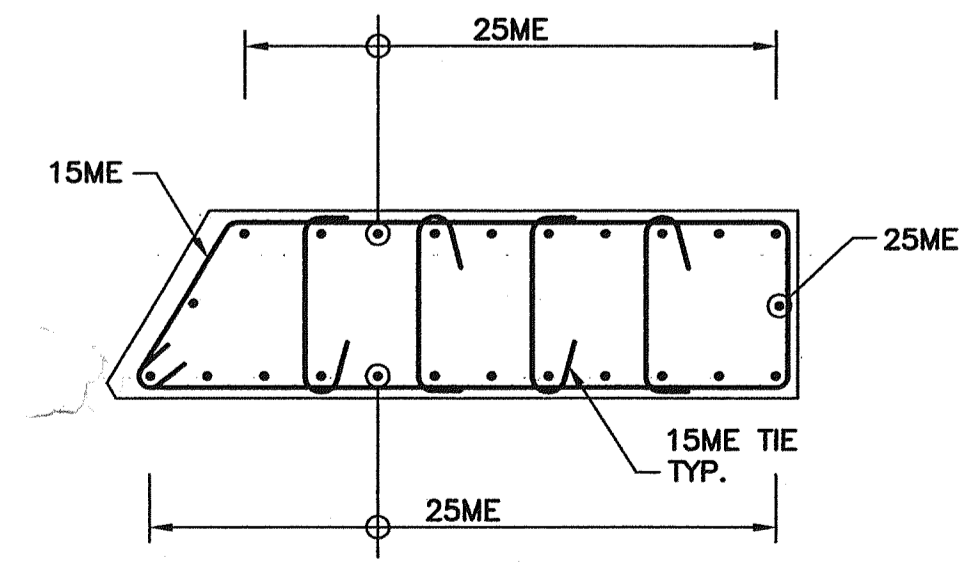


DETAIL  
SCALE 1:20

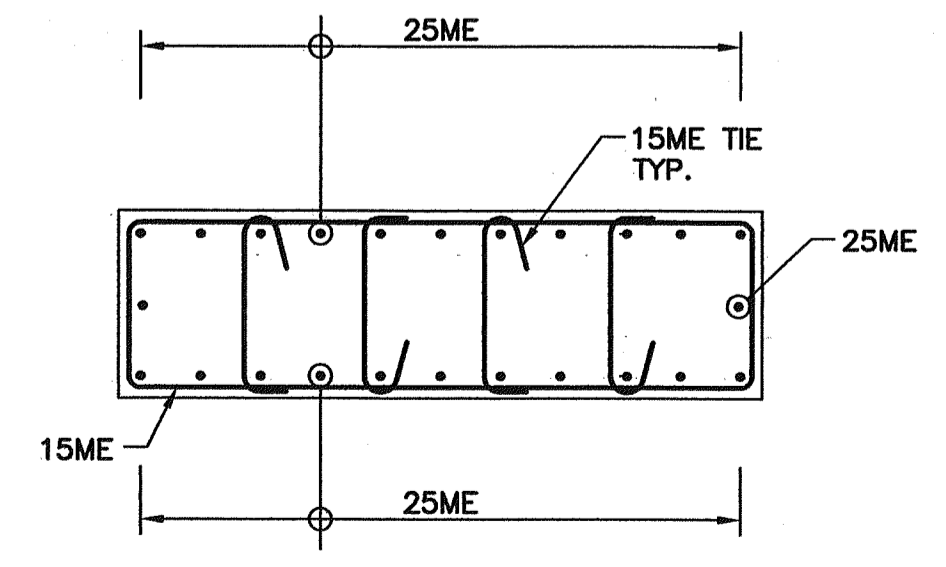


SECTION 3  
SCALE 1:20

NOTE: COLUMN REINF'T NOT SHOWN



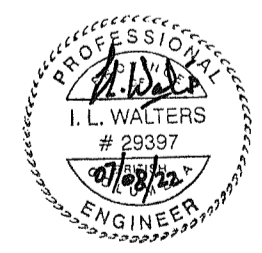
SECTION 4  
SCALE 1:20



SECTION 5  
SCALE 1:20

NOTES:

- FOR GENERAL NOTES SEE DRAWING 1554W-102.
- SEE DRAWING 1554W-103 FOR SUBSTRUCTURE NOTES.
- FOR FOUNDATION REINFORCEMENT SEE DRAWING 1554W-104.



Rev	Date	Description	Initial	SCALE	DESIGNED	DATE	CHECKED	DATE	DRAWN	DATE
J				AS SHOWN	GAN	04/09/30	ILW	04/09/30	LMR	04/09/30
I										
H										
G										
F										
E										
D										
C										
B										
A	07/08/22	RECORD DRAWINGS	ILW							
REVISIONS				Date	ISSUE RECORD		Initial			

City of Abbotsford

MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION

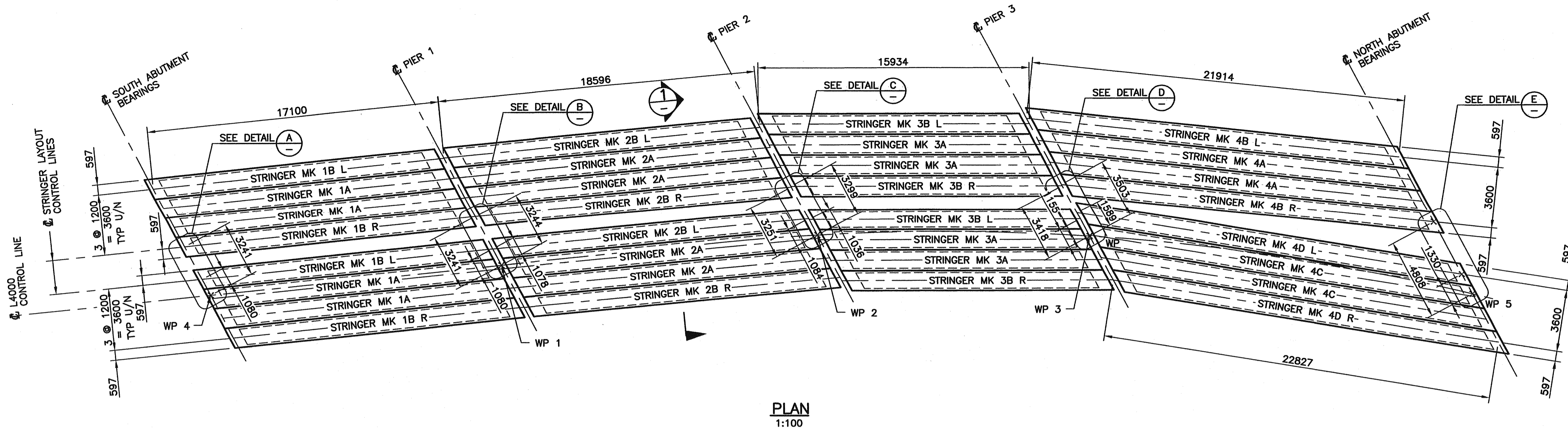
1554W FRASER HIGHWAY WEST UNDERPASS  
PIER REINFORCEMENT  
601824

FILE No. BRITISH COLUMBIA REGION 1 DRAWING No. 1554W-109

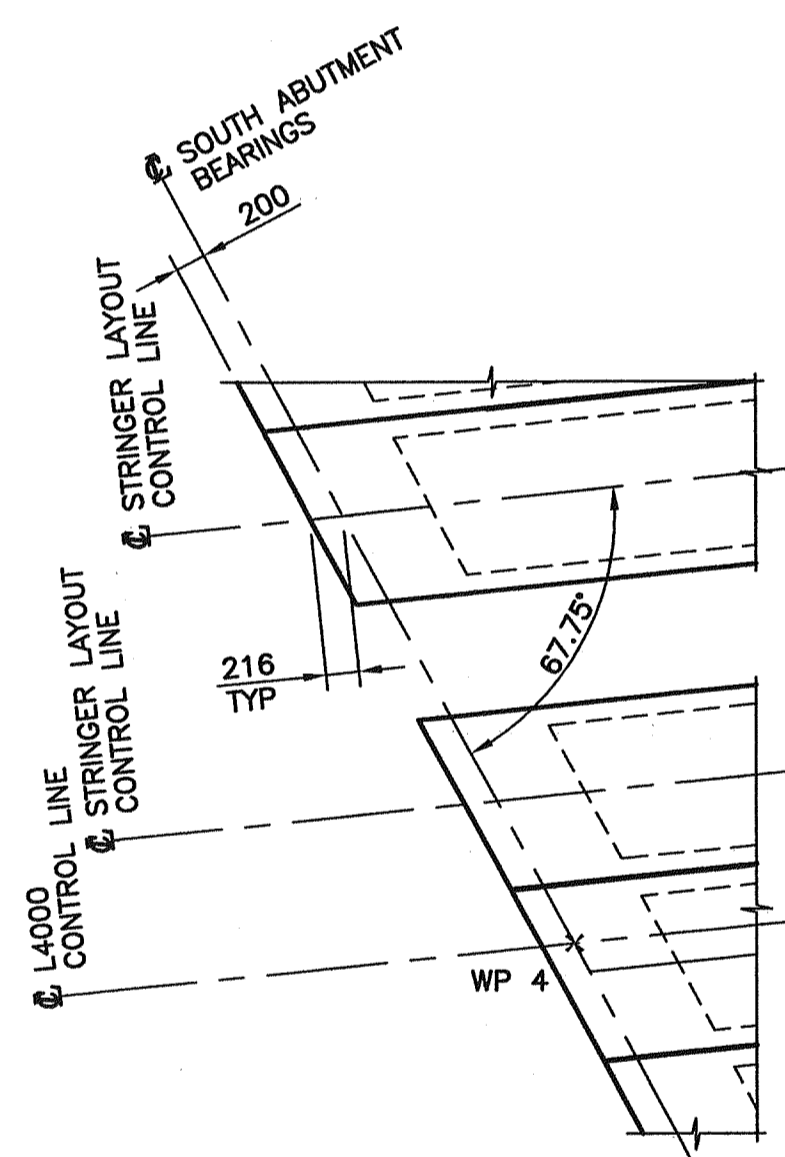


**BOX STRINGER NOTES:**

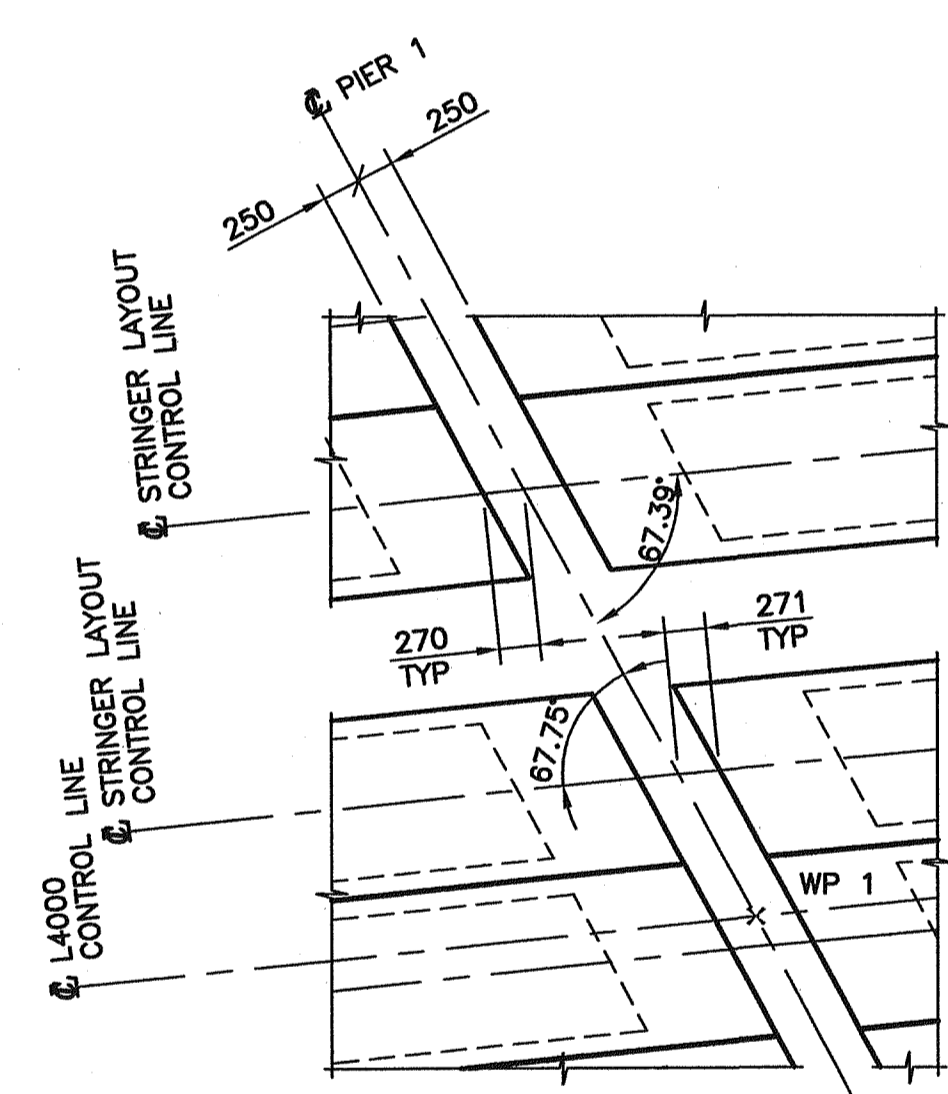
1. PRESTRESSING STRANDS SHALL BE 13 DIA. 7 WIRE. UNCOATED LOW RELAXATION STRANDS CONFORMING TO CSA G279, GRADE 1860 MPa. MINIMUM TENSILE FORCE IMMEDIATELY BEFORE RELEASE OF STRANDS SHALL BE 138 KN.
2. CONCRETE SHALL HAVE A 35 MPa MINIMUM COMPRESSIVE STRENGTH AT TIME OF RELEASE. MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS SHALL BE 45MPa.
3. REINFORCING STEEL SHALL BE IN ACCORDANCE WITH CSA G30.18M GRADE 400W MPa.
4. REINFORCING STEEL SHALL HAVE 35 MINIMUM COVER UNLESS NOTED OTHERWISE. PRESTRESSING STRANDS SHALL HAVE 45 MINIMUM COVER UNLESS NOTED OTHERWISE.
5. LAP OF BARS FOR SPLICES TO BE 40 x BAR DIAMETER UNLESS NOTED OTHERWISE. SPLICES TO BE STAGGERED SO THAT NOT MORE THAN EVERY SECOND BAR IS SPLICED AT ANY CROSS SECTION.
6. TOP SURFACE OF ALL STRINGERS SHALL BE SANDBLASTED TO EXPOSE AGGREGATE AND PROVIDE 6mm AMPLITUDE. OUTER SURFACES OF EXTERIOR STRINGERS SHALL RECEIVE A CLASS 2 RUBBED FINISH. ALL OTHER SURFACES SHALL BE SMOOTH FORM FINISH.
7. LIFTING DEVICES BY OTHERS SHALL BE LOCATED ONLY OVER BEARINGS. ONLY VERTICAL LIFTS SHALL BE PERMITTED. SUDDEN IMPACT LOADS ON THE STRINGER SHALL BE PREVENTED.
8. STRINGERS SHALL BE TEMPORARILY SUPPORTED ONLY AT BEARING LOCATIONS.
9. ALL PLAN DIMENSIONS ARE HORIZONTAL. ALLOWANCE SHALL BE MADE FOR ELASTIC SHORTENING, SHRINKAGE, CREEP AND SLOPE. ENDS OF STRINGERS SHALL BE SET VERTICAL DURING CASTING.
10. ELEVATION OF STRINGERS TO BE SURVEYED BY THE CONTRACTOR AT 2m INTERVALS AFTER STRINGER ERECTION. DECK THICKNESS SHALL BE ADJUSTED TO ACCOUNT FOR STRINGER DEFLECTION AND CAMBER.
11. INTERIOR FORMWORK SHALL ALLOW FREE MOVEMENT OF WATER TO THE DRAIN HOLES.
12. UNLESS NOTED OTHERWISE, BOTTOM EDGES OF STRINGERS SHALL BE CHAMFERED 20mm.
13. ALL STRINGERS TO BE CAST A MINIMUM OF 30 DAYS PRIOR TO ERECTION OR AT AN EARLY STAGE SUBJECT TO APPROVAL BY THE ENGINEER.



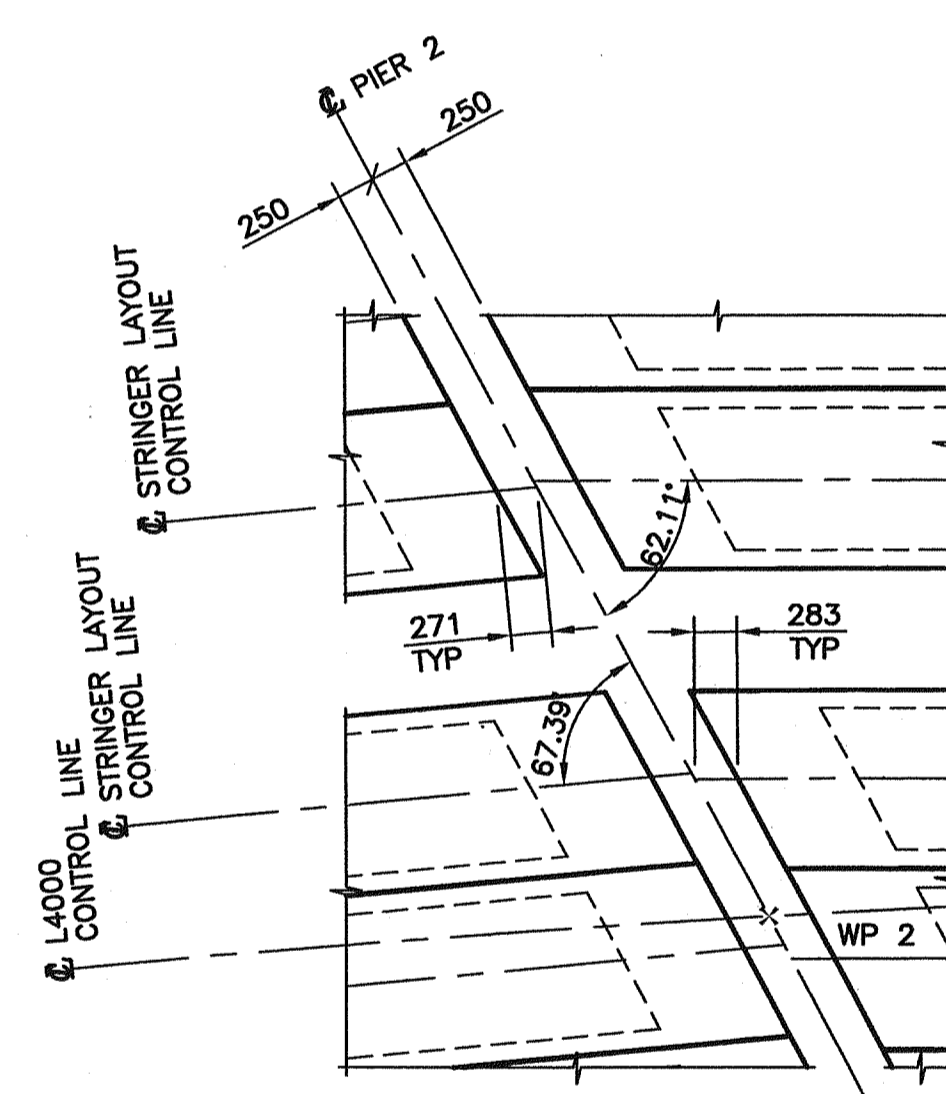
**PLAN**  
1:100



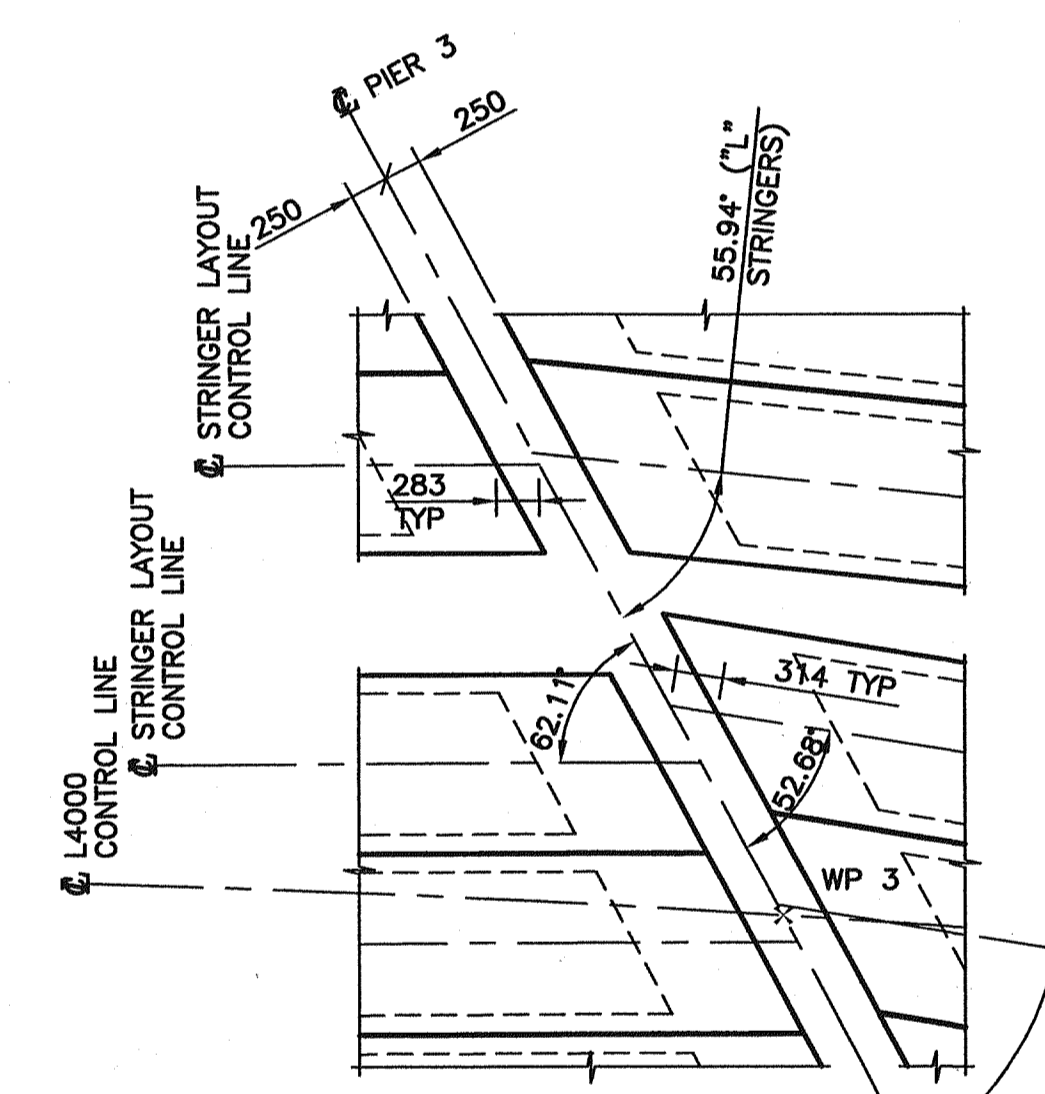
**DETAIL A**  
SCALE 1:50



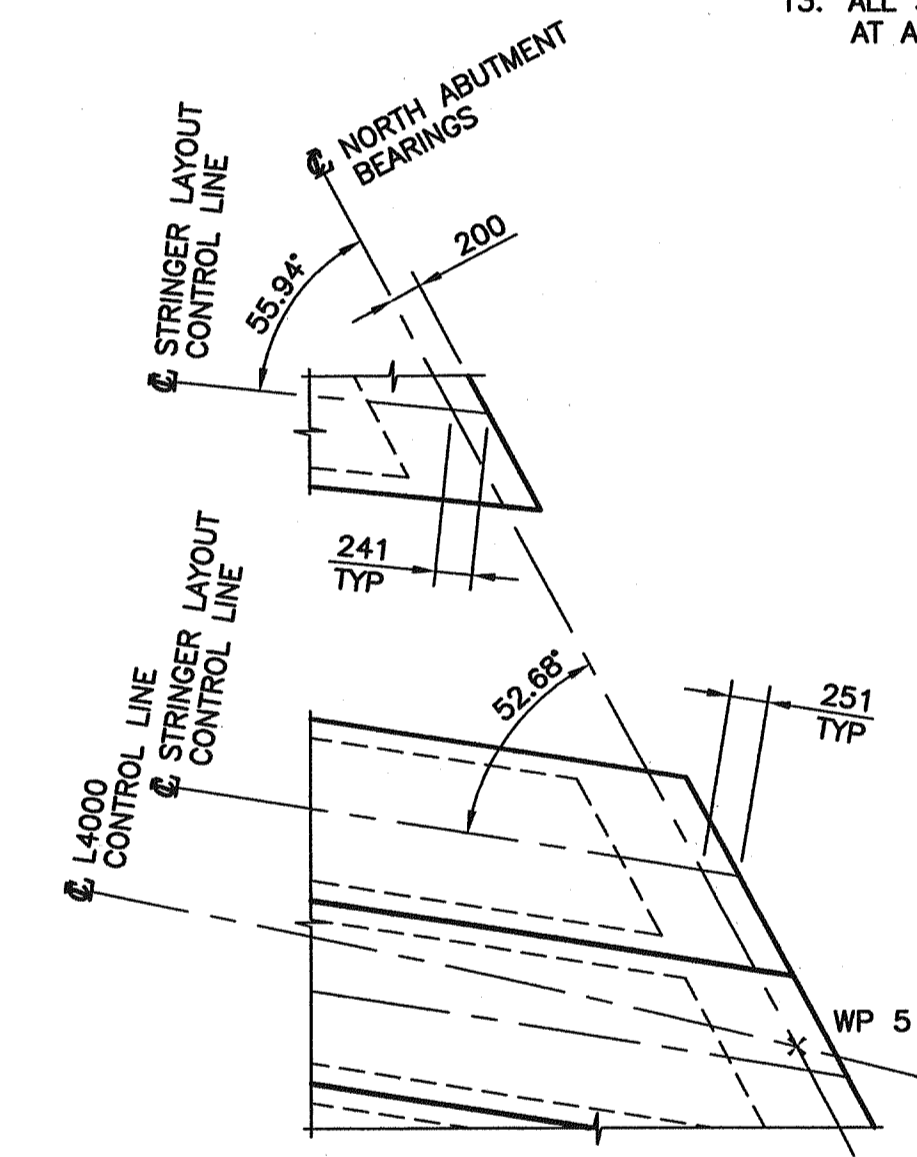
**DETAIL B**  
SCALE 1:50



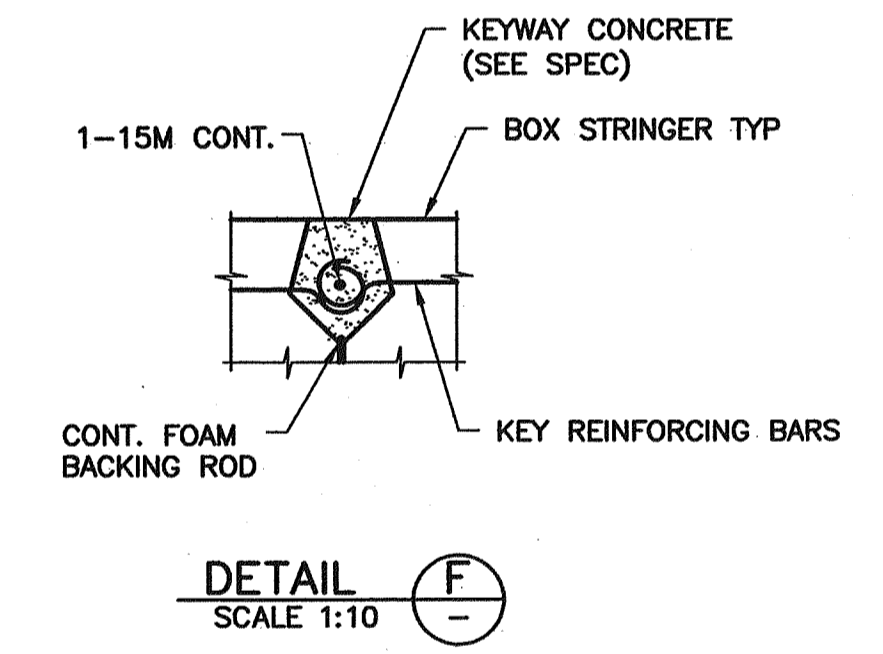
**DETAIL C**  
SCALE 1:50



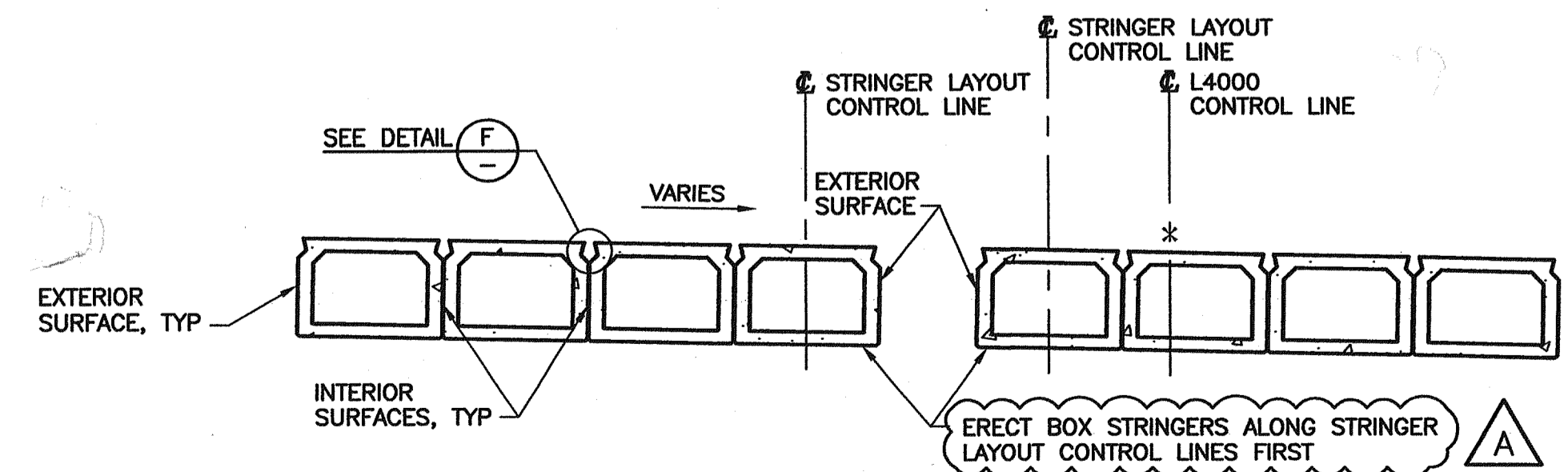
**DETAIL D**  
SCALE 1:50



**DETAIL E**  
SCALE 1:50



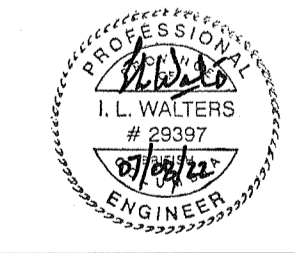
**DETAIL F**  
SCALE 1:10



**SECTION 1**  
SCALE 1:50

**NOTES:**

1. FOR GENERAL NOTES SEE DRAWING 1554W-102.
2. FOR BOX STRINGER DETAILS SEE DRAWINGS 1554W-111, 112, 113 & 114.



Rev	Date	Description	Initial	SCALE	DESIGNED	DATE	CHECKED	DATE	DRAWN	DATE
J				AS SHOWN	MAS	04/09/30	ILW	04/09/30	CTL	04/09/30
I										
H										
G										
F										
E										
D				04/12/14	ISSUED FOR CONSTRUCTION		ILW			
C				04/11/03	ISSUED FOR TENDER		ILW			
B				04/09/30	100% ISSUE FOR REVIEW		ILW			
A	07/08/22	RECORD DRAWINGS	ILW	04/08/26	90% ISSUE FOR REVIEW		ILW			
<b>REVISIONS</b>				<b>Date</b>	<b>ISSUE RECORD</b>	<b>Initial</b>				

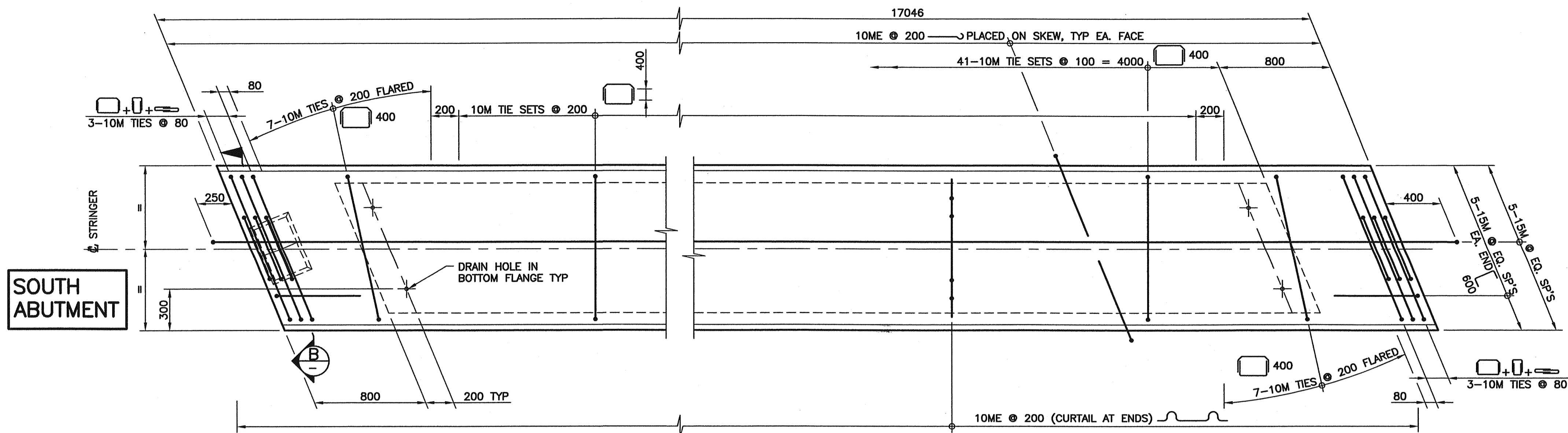
City of Abbotsford

MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION

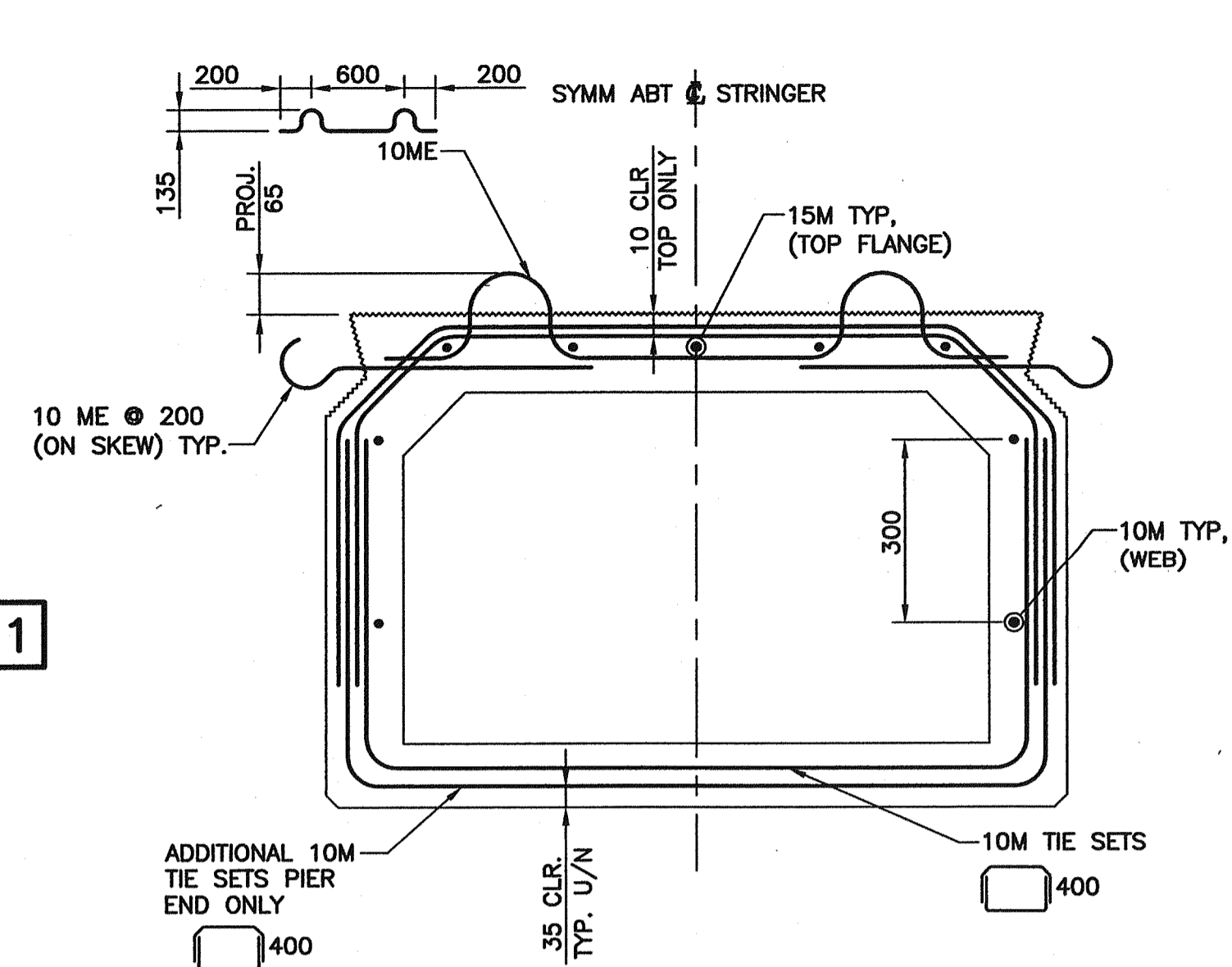
**1554W FRASER HIGHWAY WEST UNDERPASS**  
**PRECAST STRINGER LAYOUT**

601825

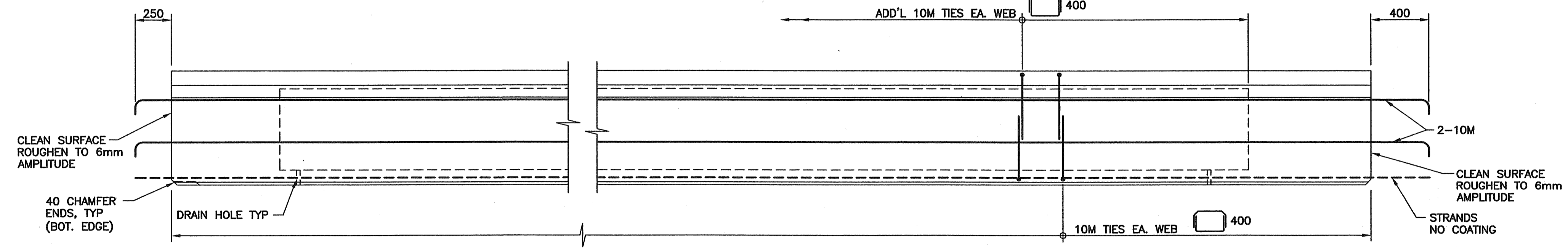
FILE No.	BUCKLAND & TAYLOR Design Engineering	REGION 1	DRAWING No. 1554W-110
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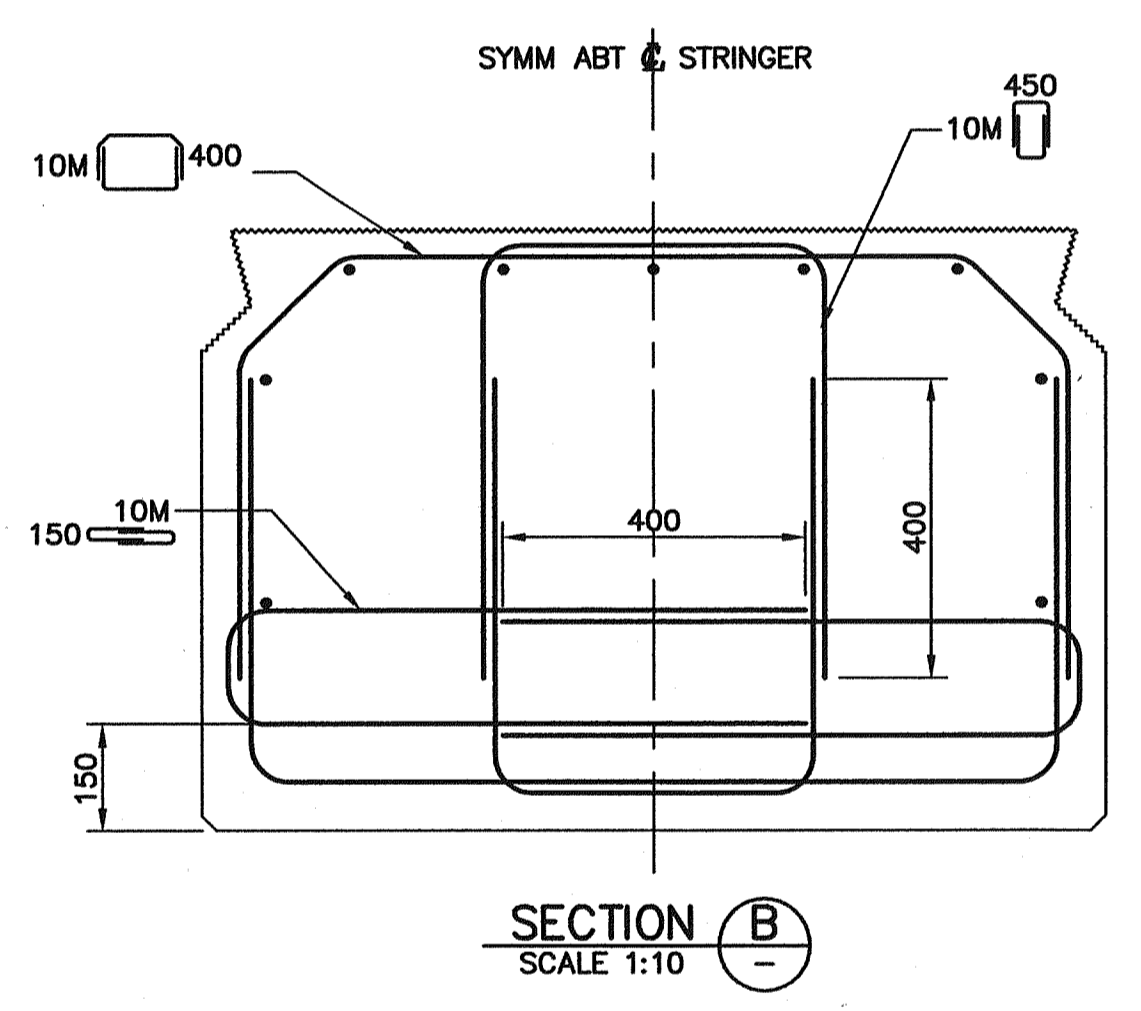
**PLAN**  
1:20



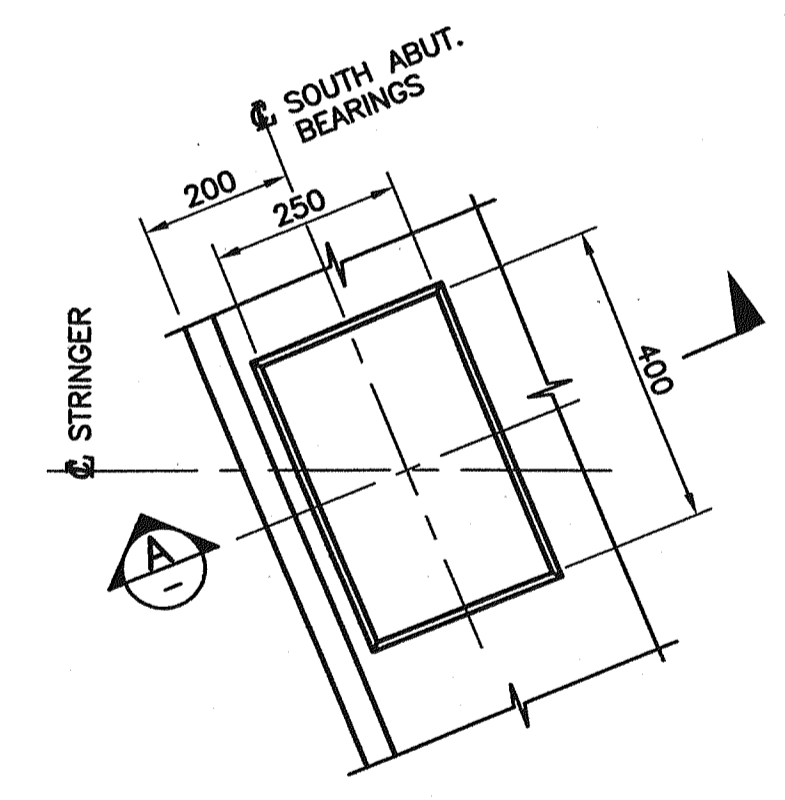
**TYPICAL REINFORCING**  
1:10



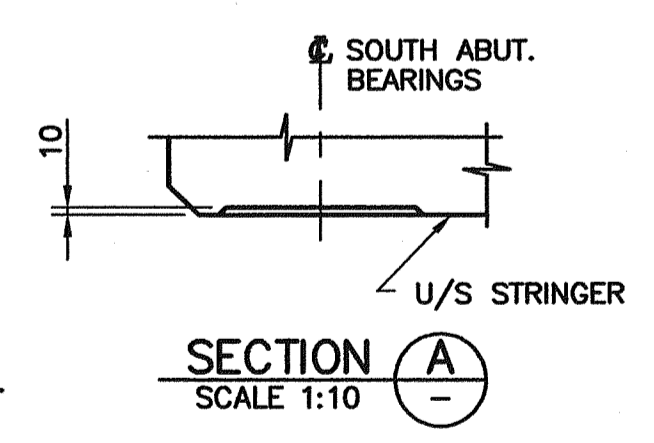
**ELEVATION**  
1:20



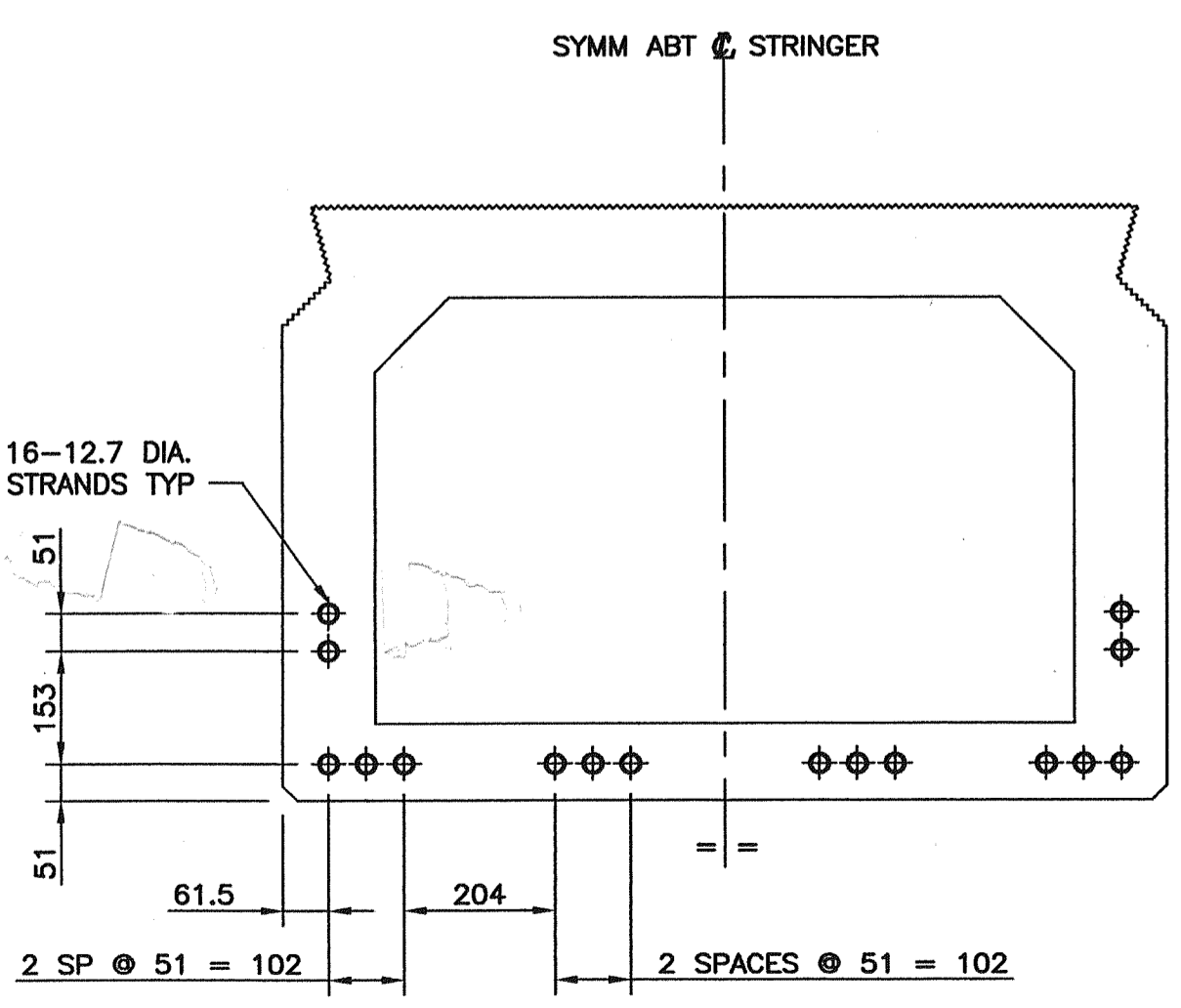
**SECTION B**  
SCALE 1:10



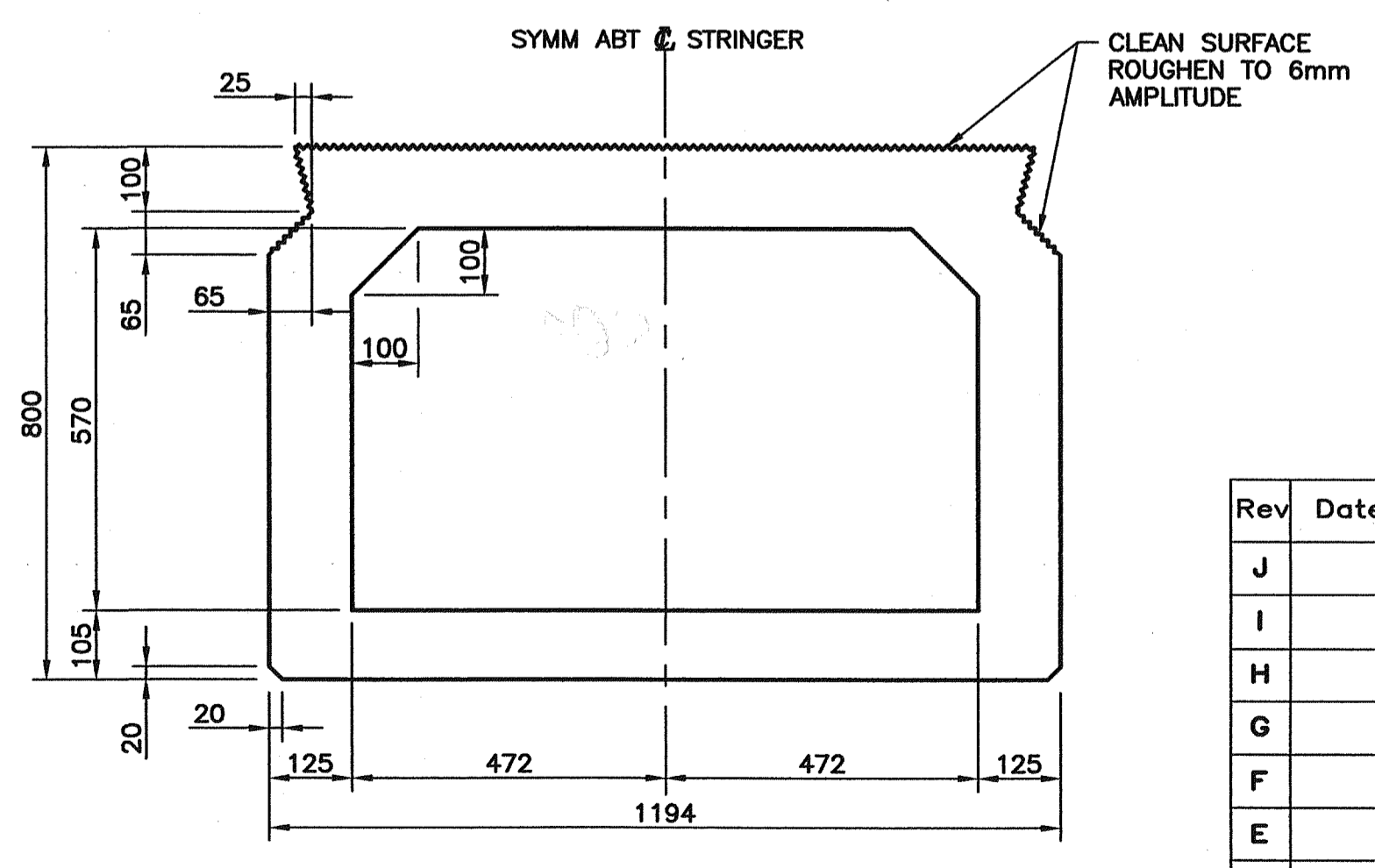
**REFLECTED PLAN (BRG RECESS)**  
1:10



**SECTION A**  
SCALE 1:10



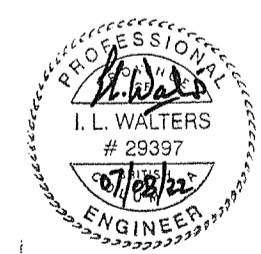
**PRESTRESSING STRAND LAYOUT**  
1:10



**TYPICAL CROSS SECTION**  
1:10

**NOTES:**

- FOR GENERAL NOTES SEE DRAWING 1562-101.
- FOR BOX STRINGER NOTES SEE DRAWING 1554W-110.



Rev	Date	Description	Initial	SCALE	DESIGNED	DATE	CHECKED	DATE	DRAWN	DATE
J				AS SHOWN	RC	04/09/30	ILW	04/09/30	JE	04/09/30
I										
H										
G										
F										
E										
D				04/12/14						
C				04/11/03						
B				04/09/30						
A	07/08/22	RECORD DRAWINGS	ILW	04/08/26						
<b>REVISIONS</b>				<b>Date</b>	<b>ISSUE RECORD</b>	<b>Initial</b>				

**City of Abbotsford**

**MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION**

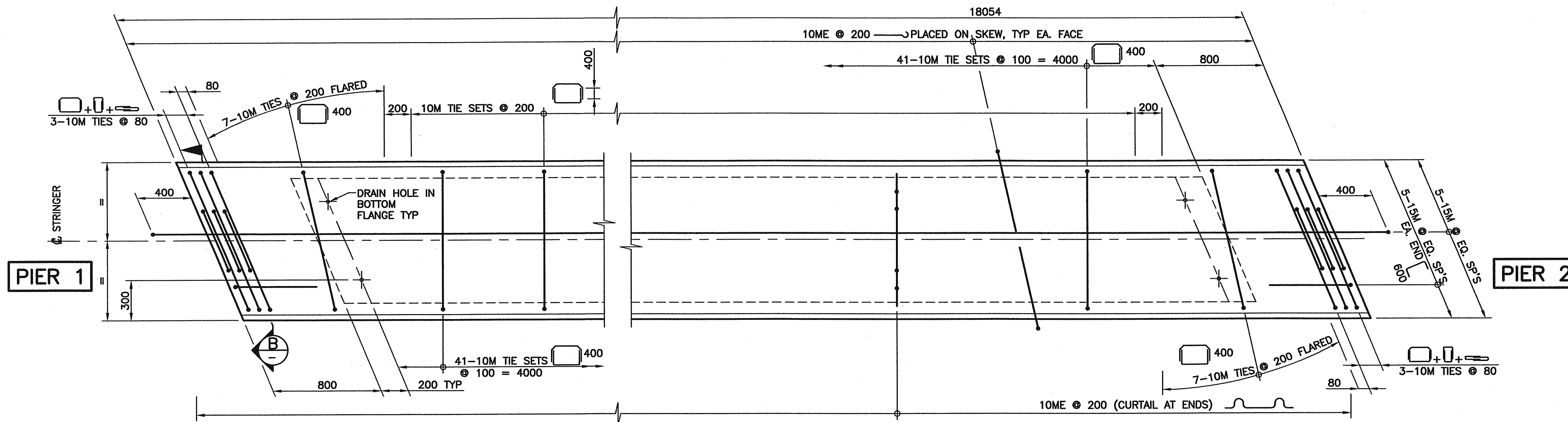
**1554W FRASER HIGHWAY WEST UNDERPASS  
CONCRETE BOX STRINGERS MK1**

601826

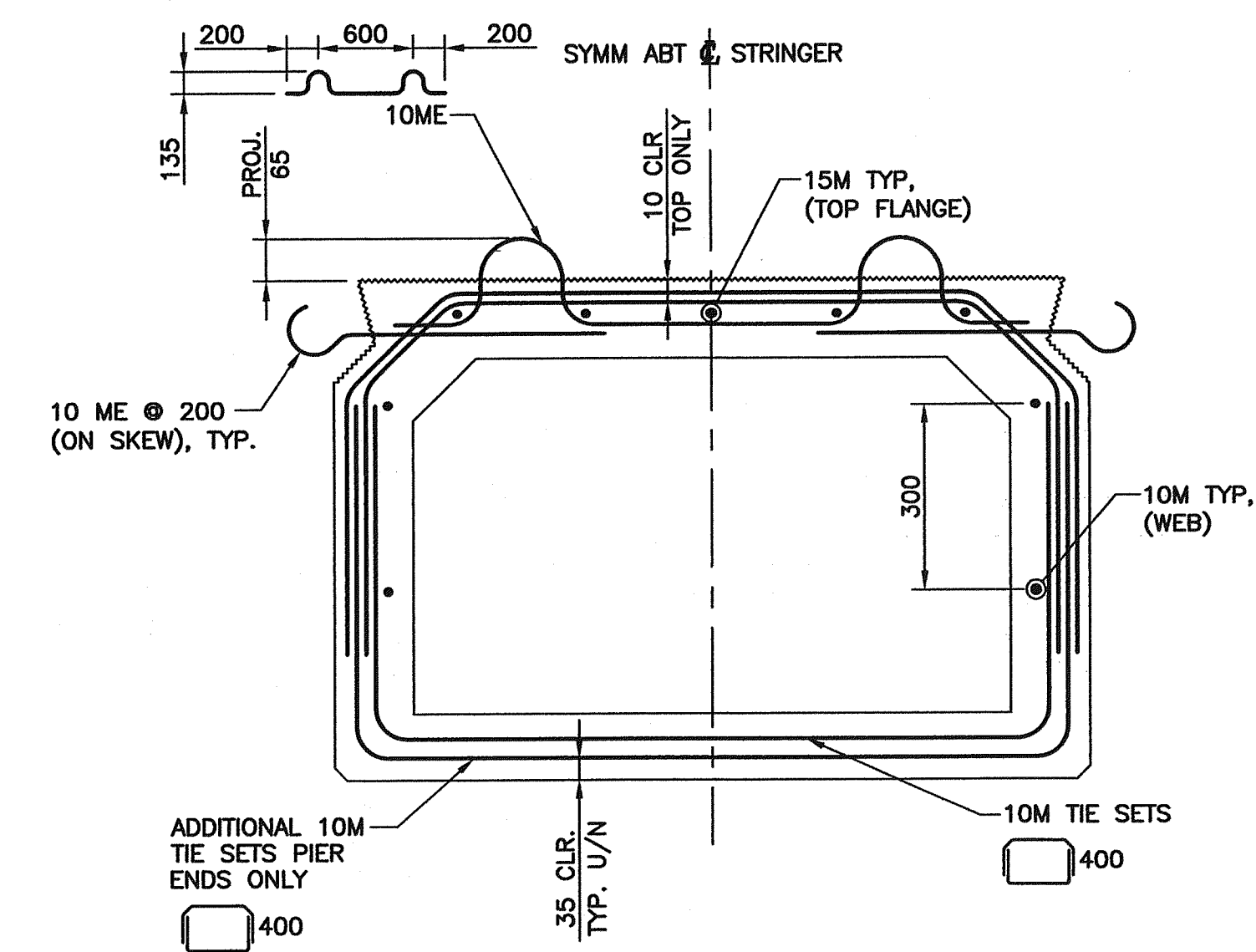
FILE No. **BURKLAND & TAYLOR** REGION **1** DRAWING No. **1554W-111**

Filename: G:\1694\Drawings\1554W-111.dwg  
 Plotted: August 22, 2007, 10:35:54

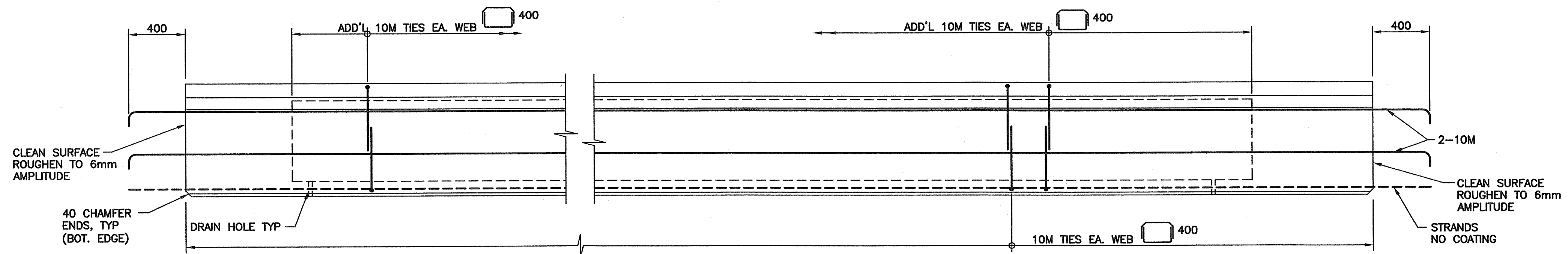




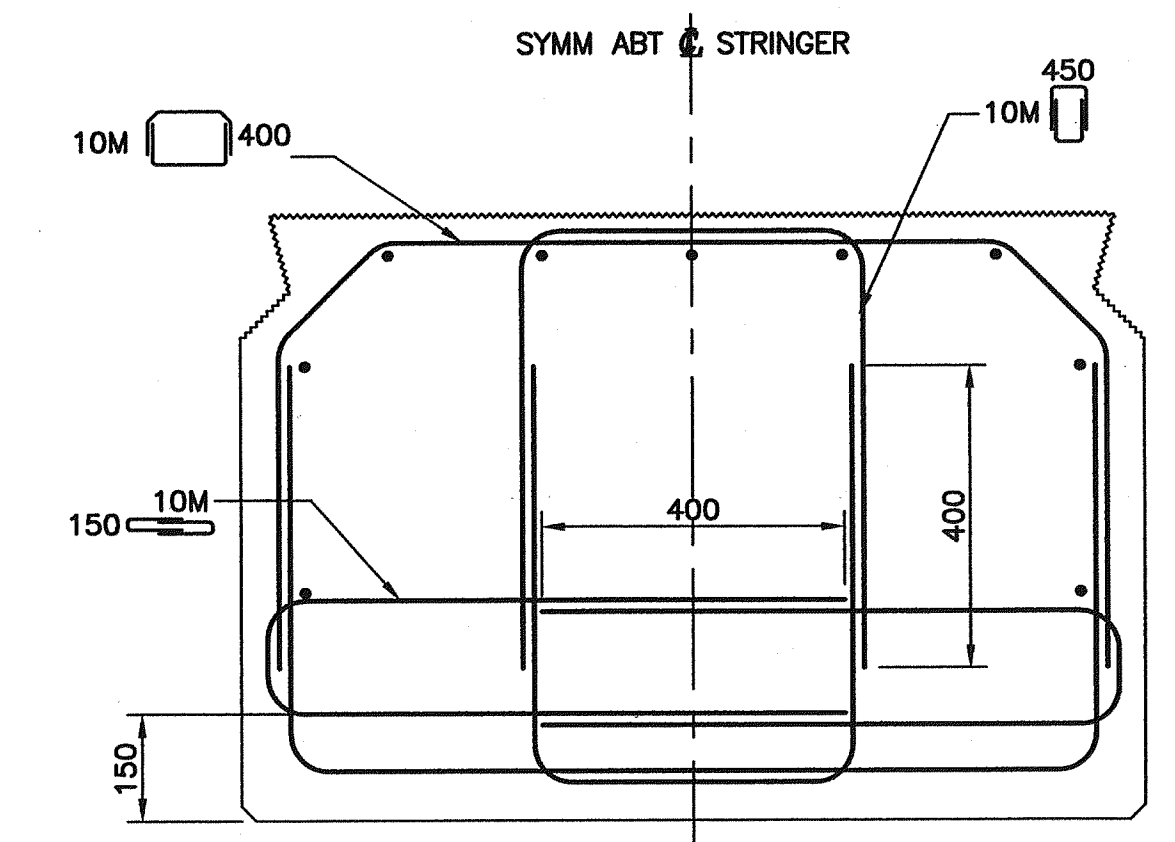
PLAN  
1:20



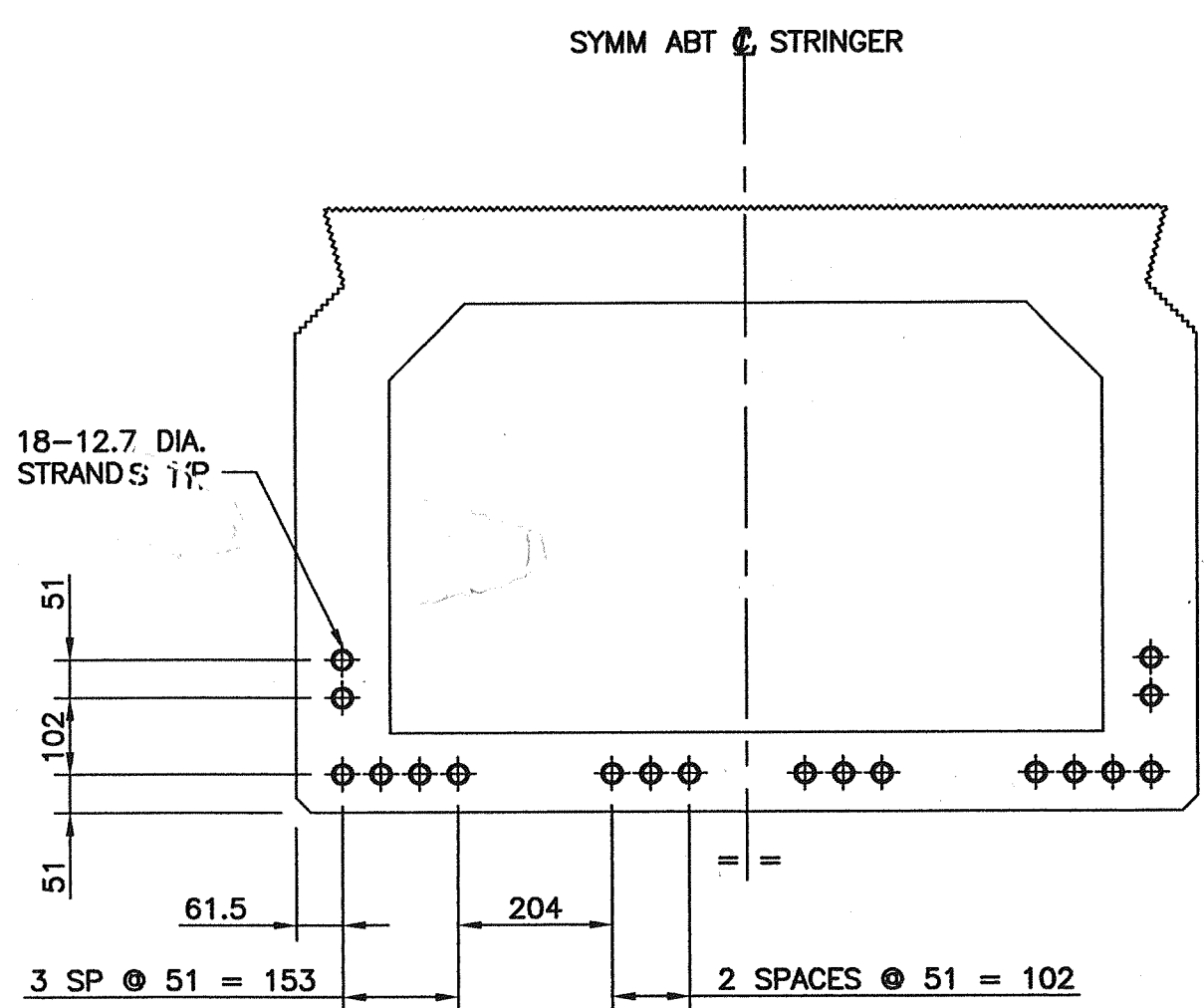
TYPICAL REINFORCING  
1:10



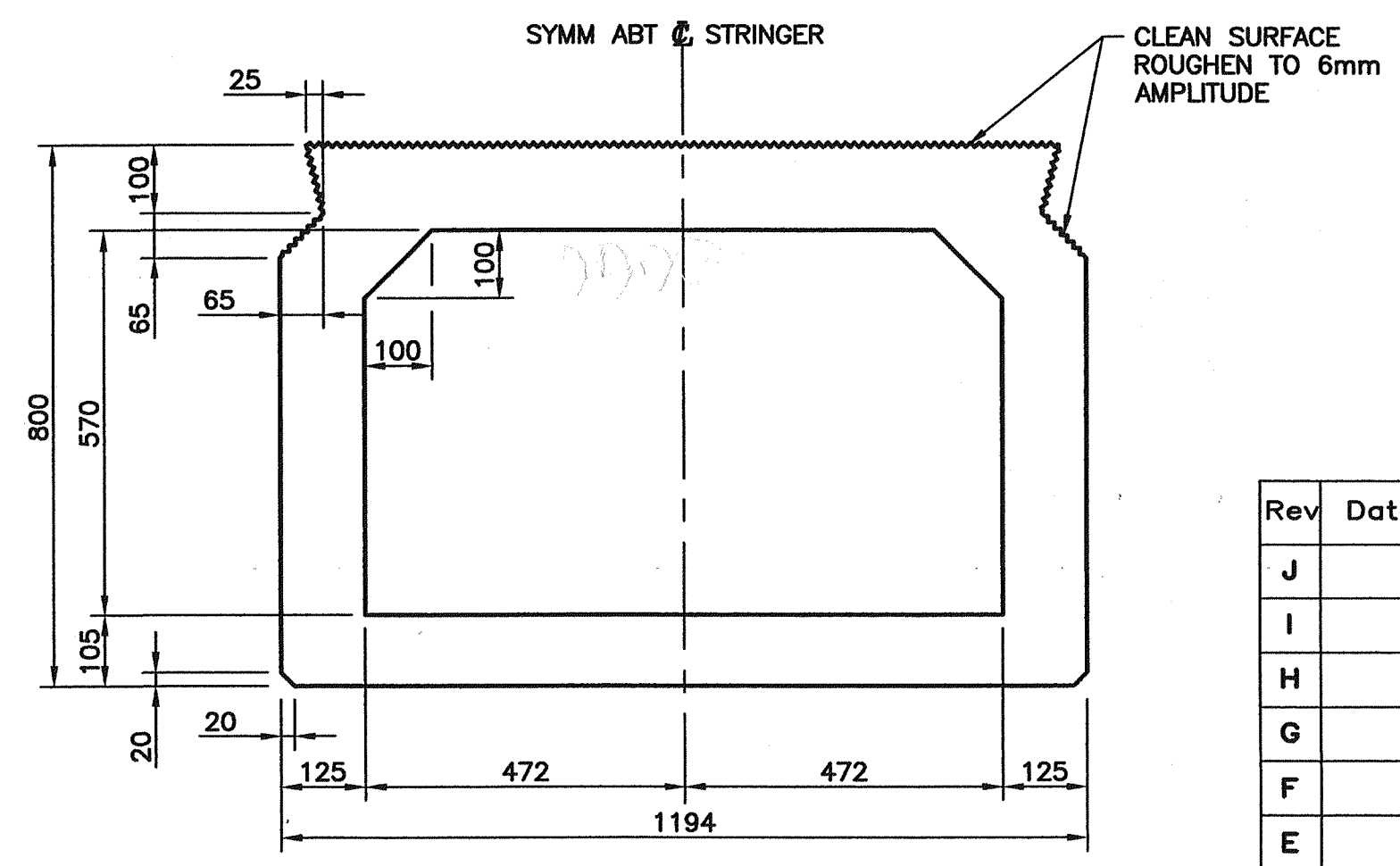
ELEVATION  
1:20



SECTION B  
SCALE 1:10



PRESTRESSING STRAND LAYOUT  
1:10



TYPICAL CROSS SECTION  
1:10

NOTES:

- FOR GENERAL NOTES SEE DRAWING 1562-101.
- FOR BOX STRINGER NOTES SEE DRAWING 1554W-110.



Rev	Date	Description	Initial	SCALE	DESIGNED	DATE	CHECKED	DATE	DRAWN	DATE
J				AS SHOWN	RC	04/09/30	ILW	04/09/30	JE	04/09/30
I										
H										
G										
F										
E										
D										
C										
B	07/08/22	RECORD DRAWINGS	ILW			04/11/03				
A	04/12/14	STRANDS REVISED & ISSUED FOR CONSTRUCTION	ILW			04/09/30				
REVISIONS				Date	ISSUE RECORD	Initial				

City of Abbotsford

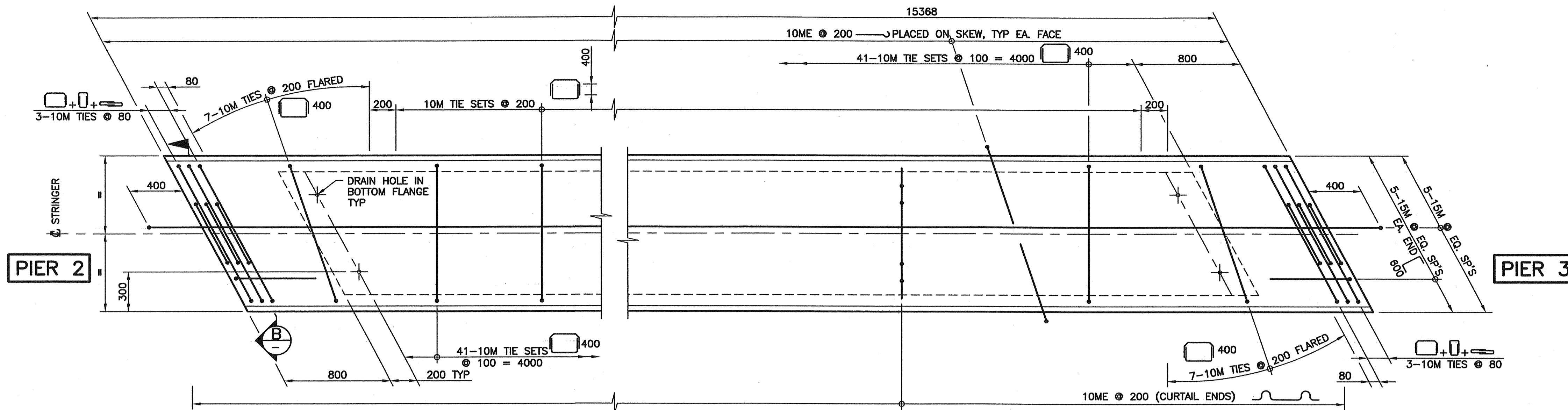
MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION

1554W FRASER HIGHWAY WEST UNDERPASS  
CONCRETE BOX STRINGERS MK2

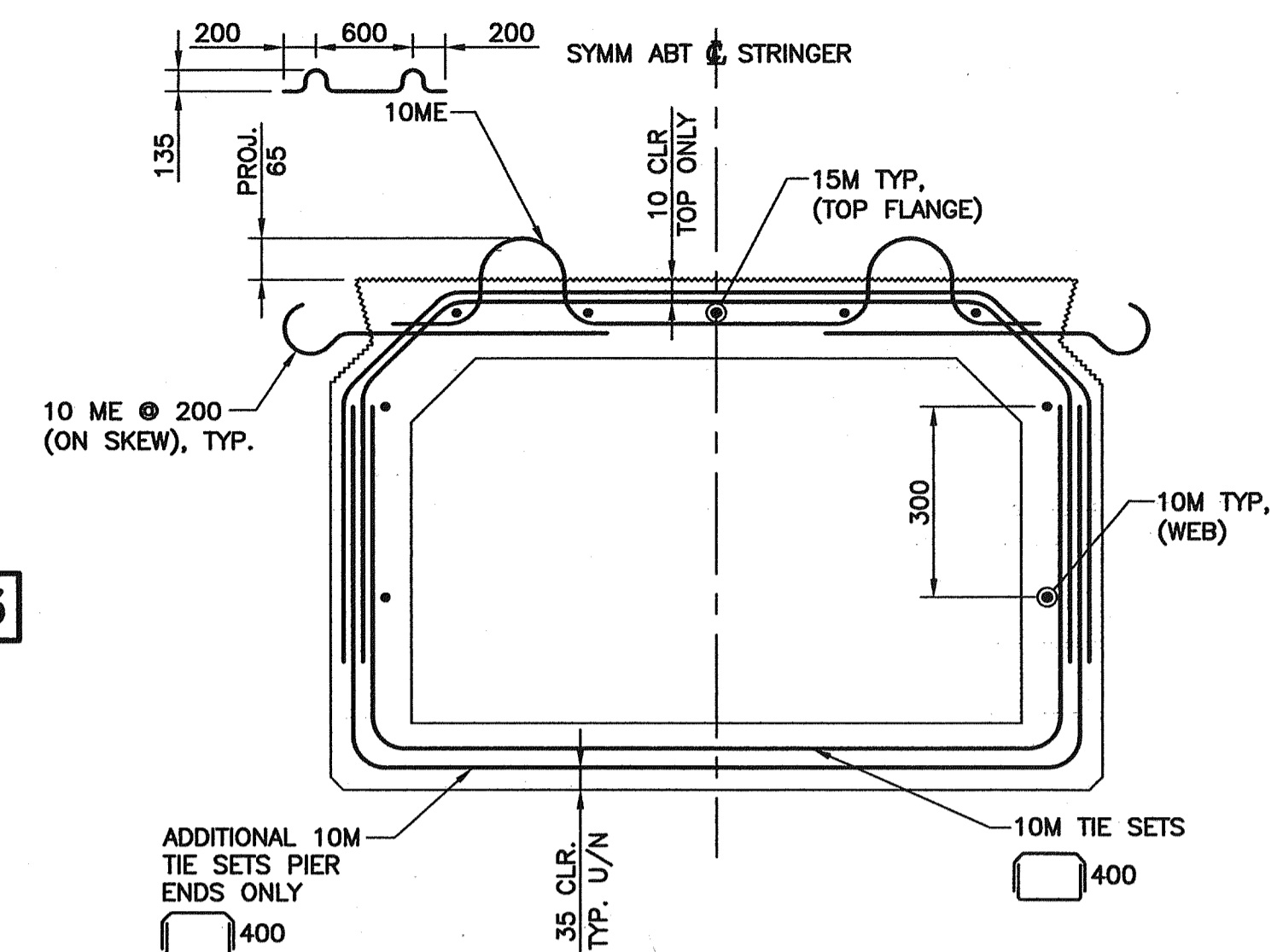
601827

FILE No. **BUCKLAND & TAYLOR** REGION **1** DRAWING No. **1554W-112** | B  
CANCELS PRINTS BEARING EARLIER LETTER

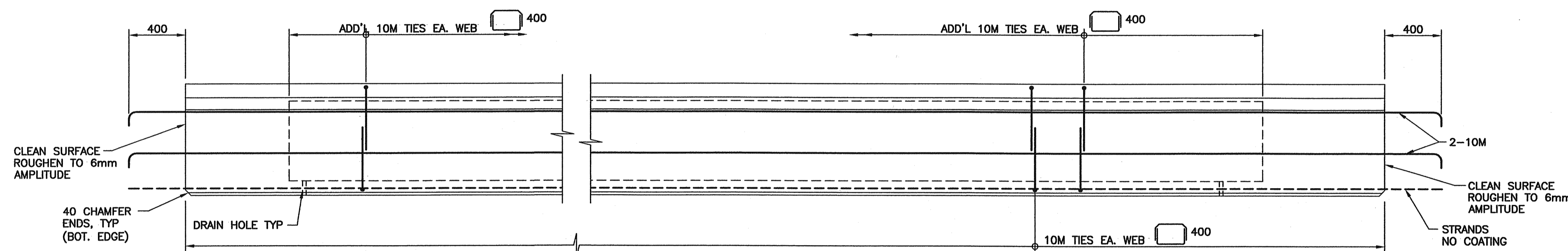
Filename: G:\1694\Drawings\1554W-112.dwg; 1:10; August 22, 2007, 1:30:22 PM



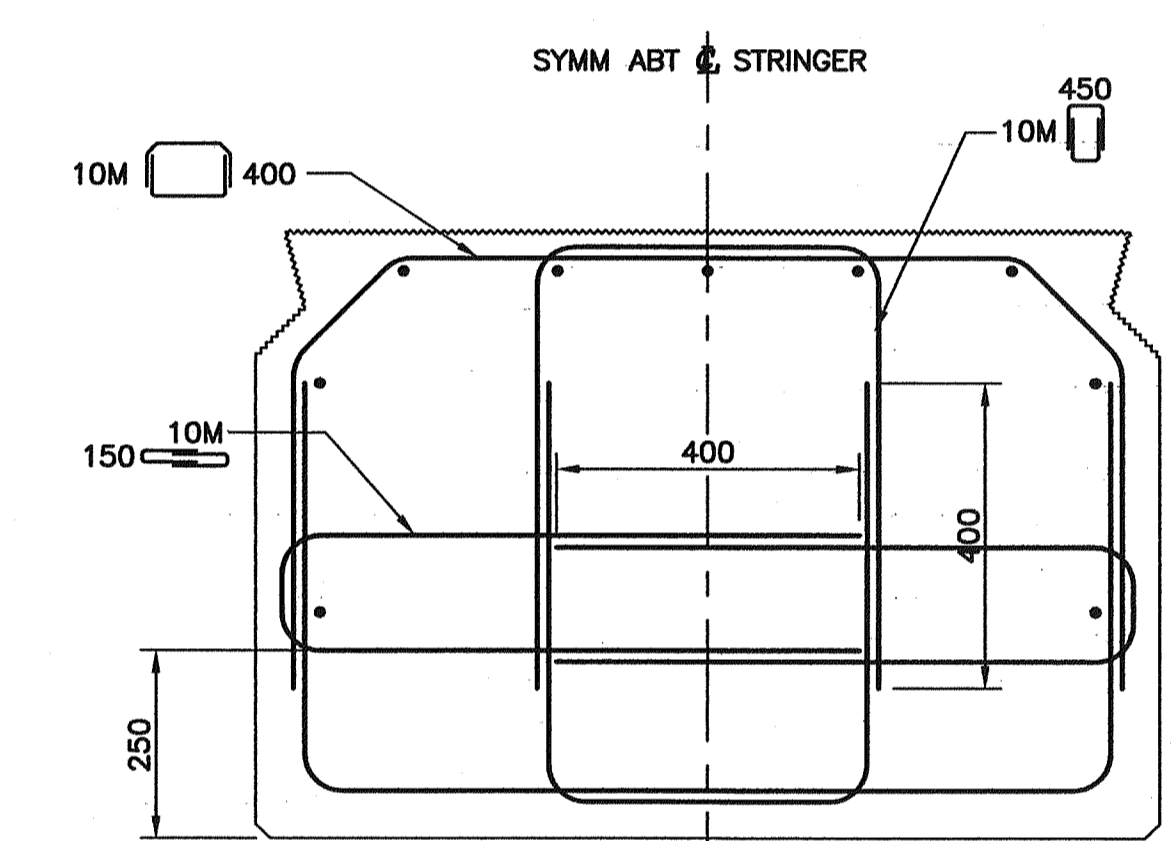
PLAN  
1:20



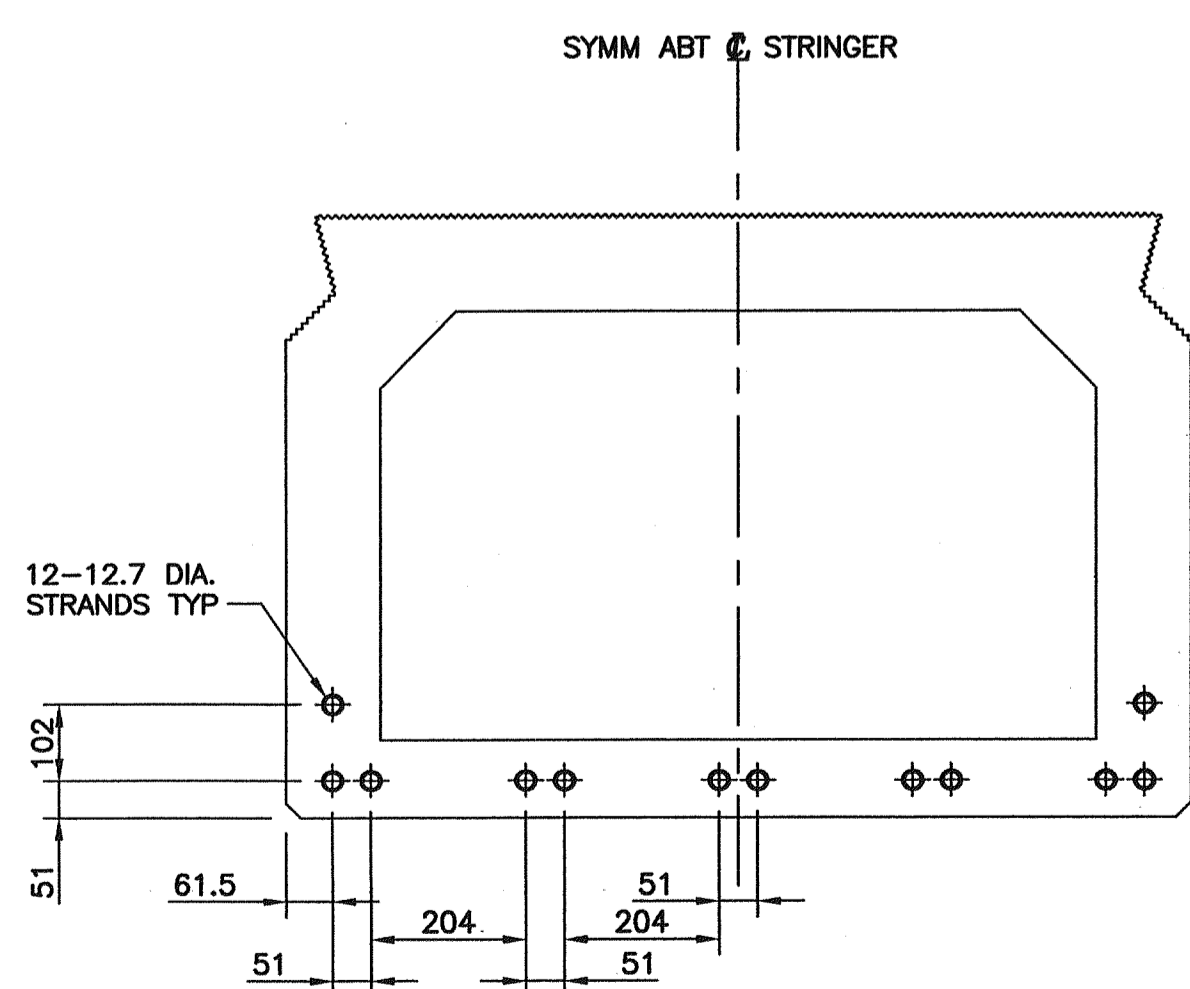
TYPICAL REINFORCING  
1:10



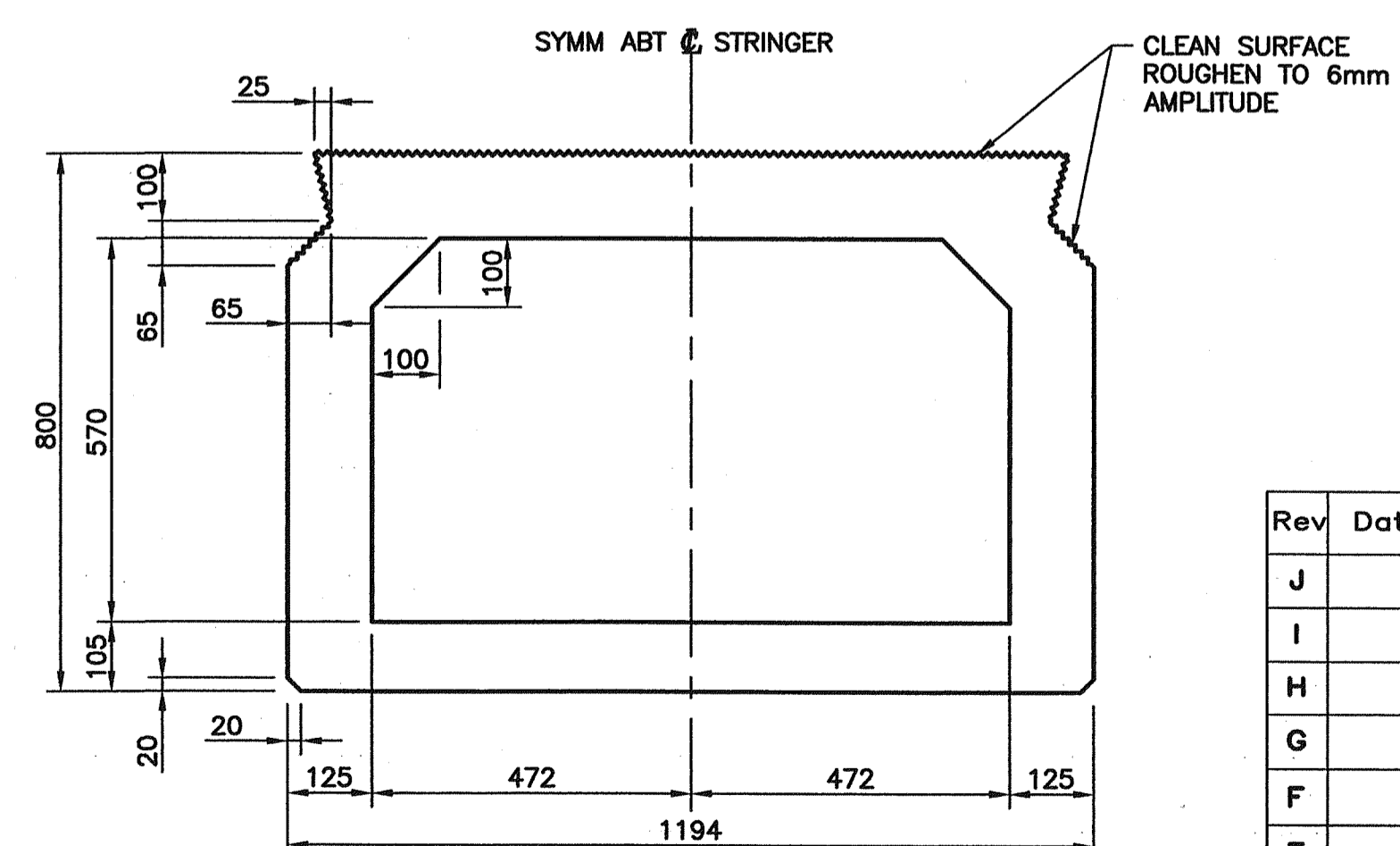
ELEVATION  
1:20



SECTION B  
SCALE 1:10

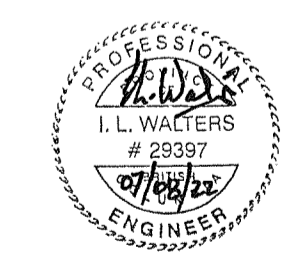


PRESTRESSING STRAND LAYOUT  
1:10



TYPICAL CROSS SECTION  
1:10

- NOTES:**
- FOR GENERAL NOTES SEE DRAWING 1562-101.
  - FOR BOX STRINGER NOTES SEE DRAWING 1554W-110.



Rev	Date	Description	Initial	SCALE	DESIGNED	DATE	CHECKED	DATE	DRAWN	DATE
J				AS SHOWN	RC	04/09/30	ILW	04/09/30	JE	04/09/30
I										
H										
G										
F										
E										
D										
C										
B										
A	07/08/22	RECORD DRAWINGS	ILW							
REVISIONS				Date	ISSUE RECORD	Initial				

City of Abbotsford

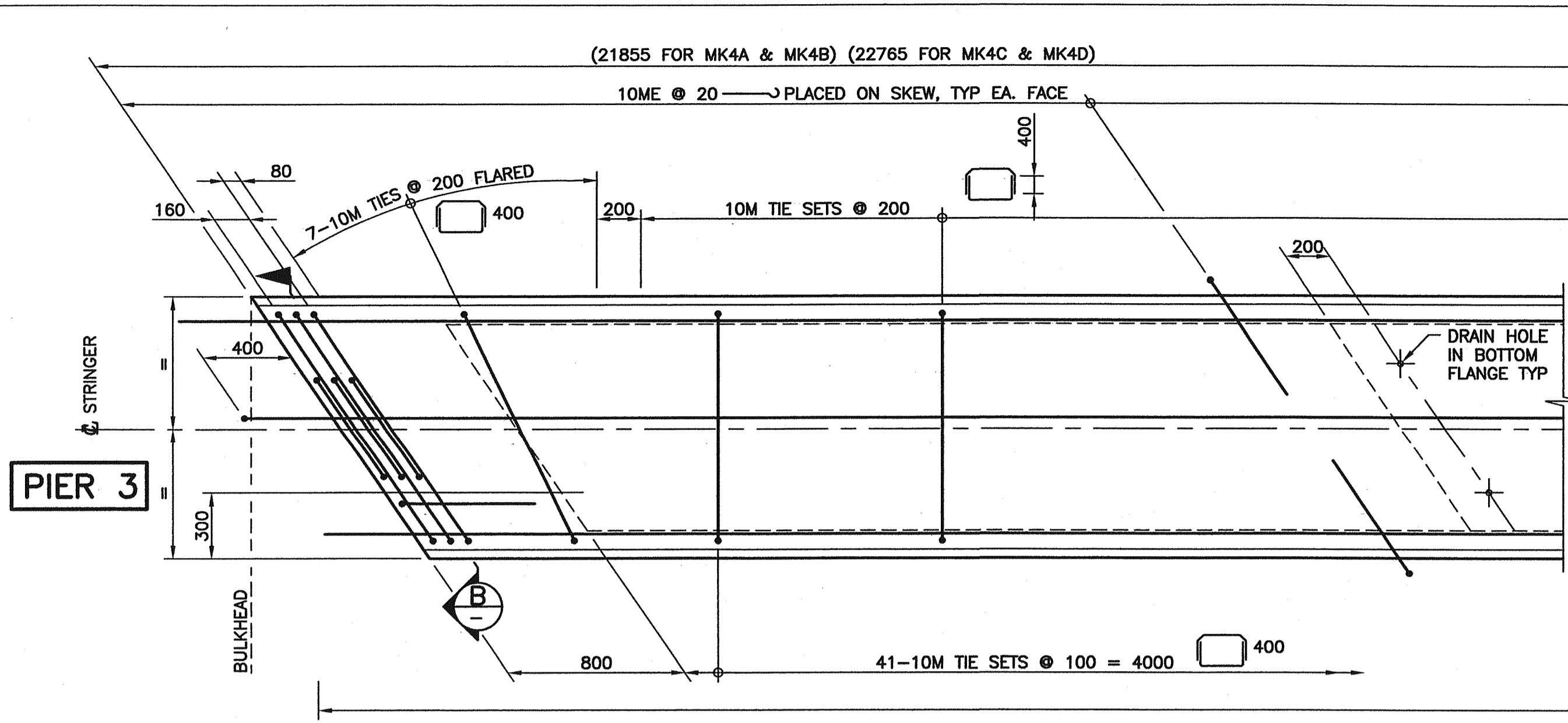
MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION

1554W FRASER HIGHWAY WEST UNDERPASS  
CONCRETE BOX STRINGERS MK3  
601828

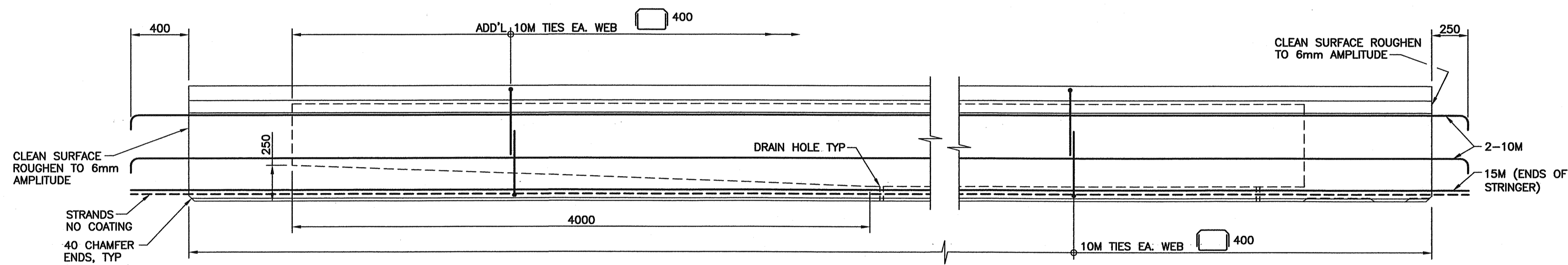
FILE No. 1 REGION 1 DRAWING No. 1554W-113

Plotted: August 22, 2007 13:06:57  
 Filename: G:\684\Drawings\1554W\113.dwg\113

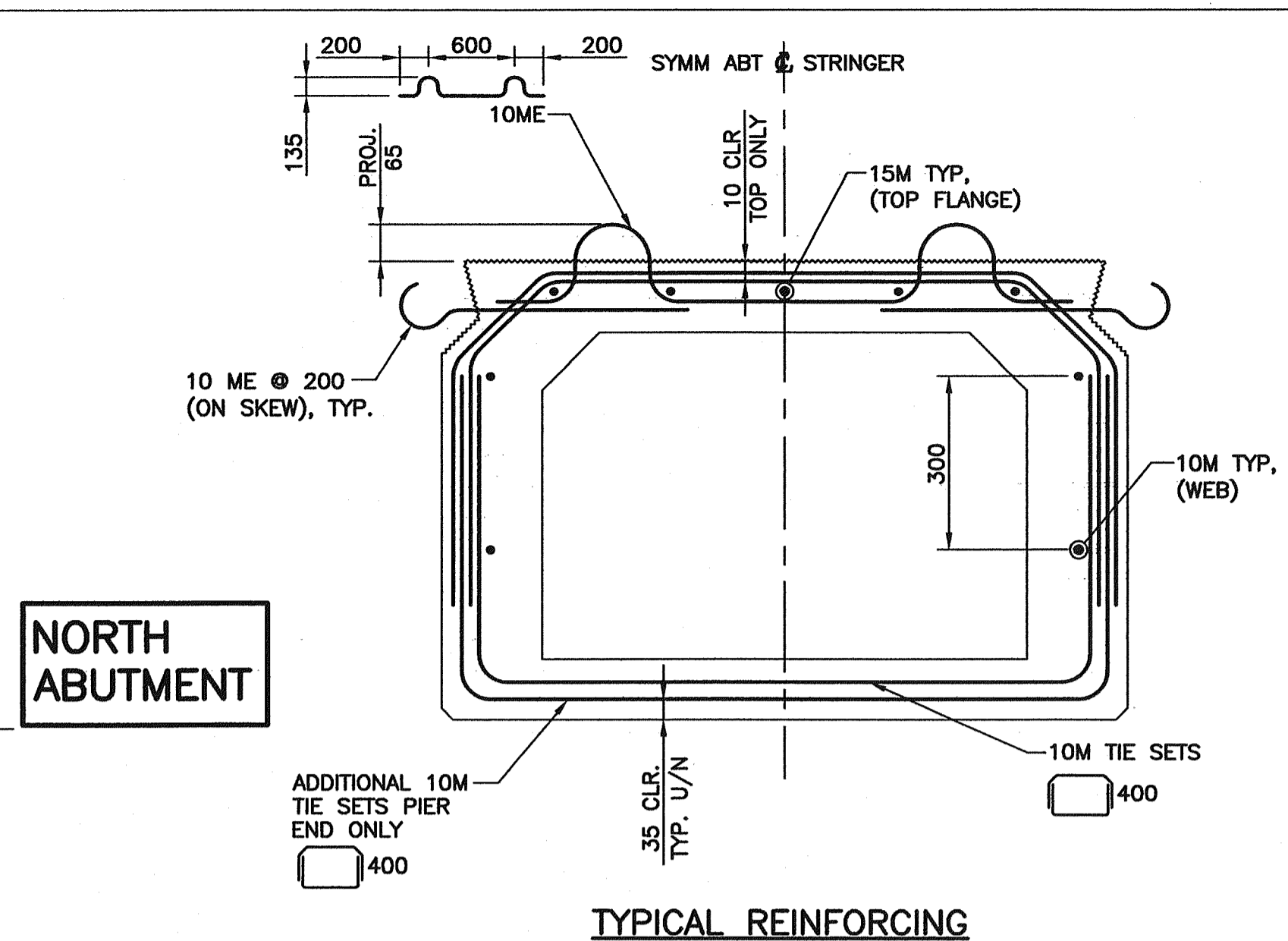




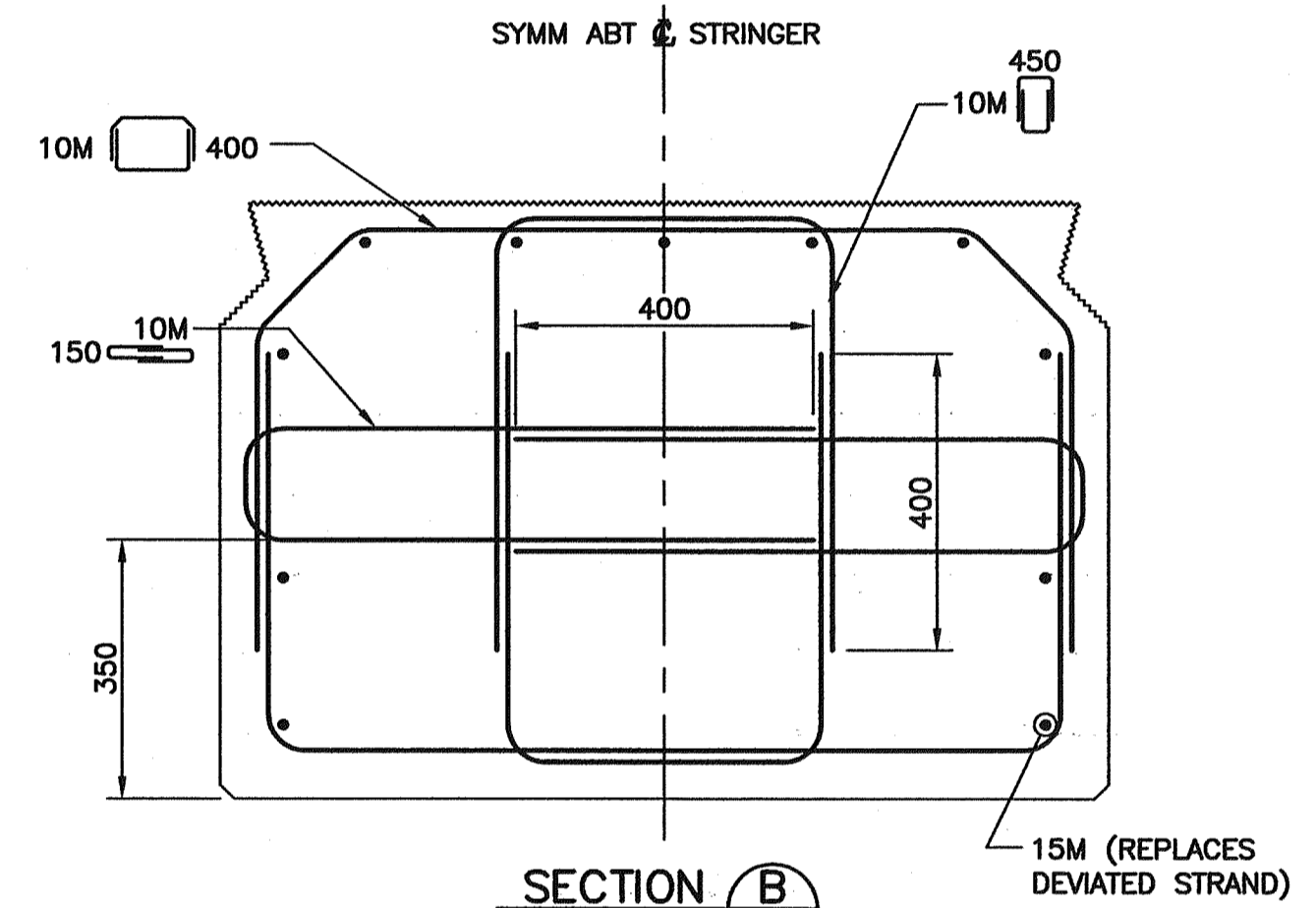
PLAN  
1:20



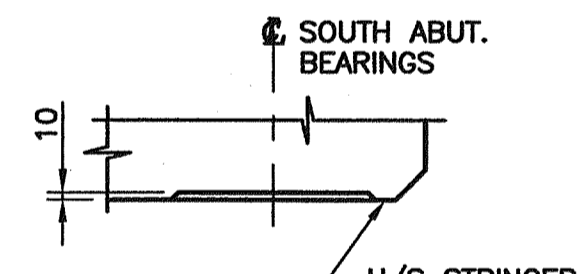
ELEVATION  
1:20



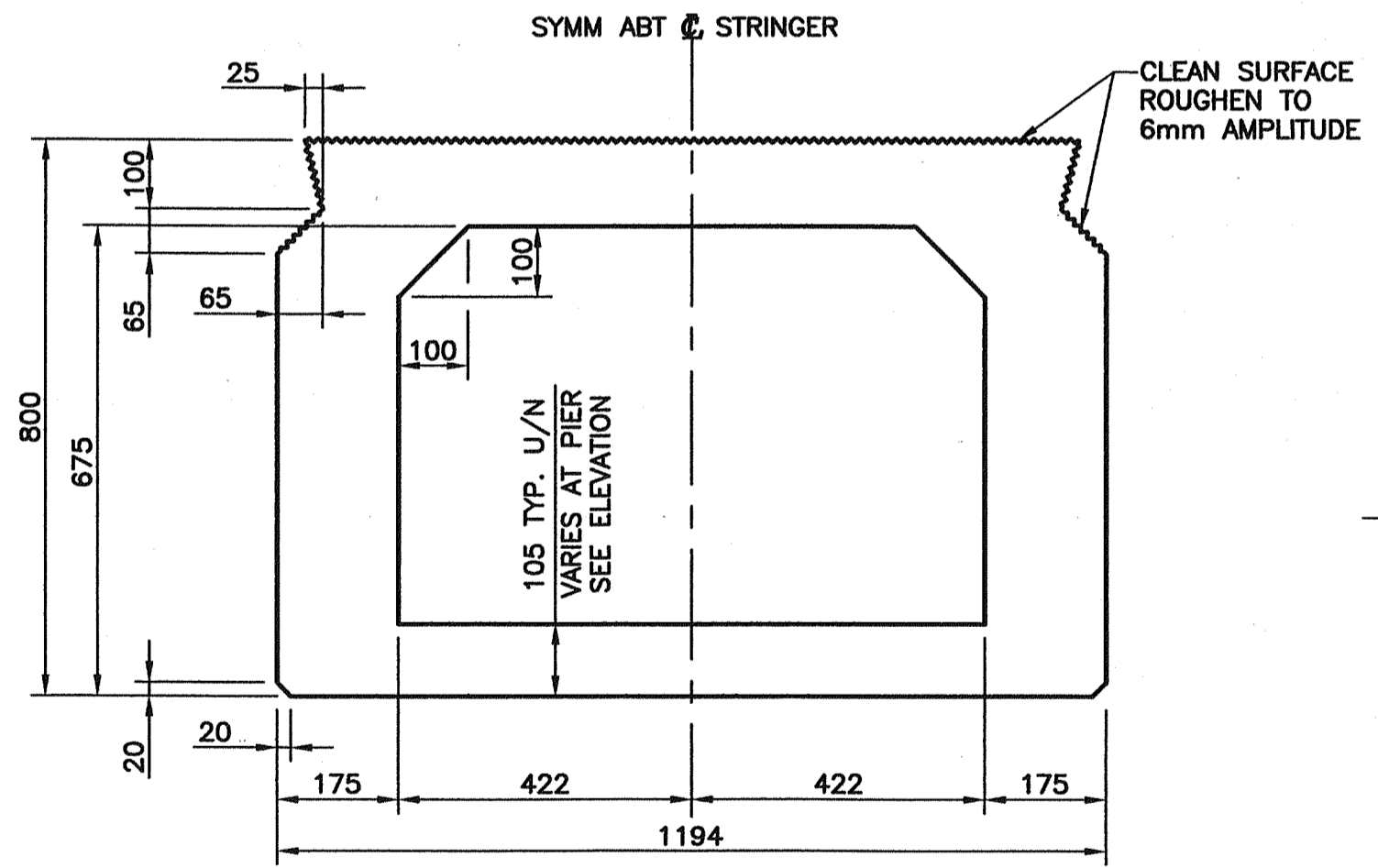
TYPICAL REINFORCING  
1:10



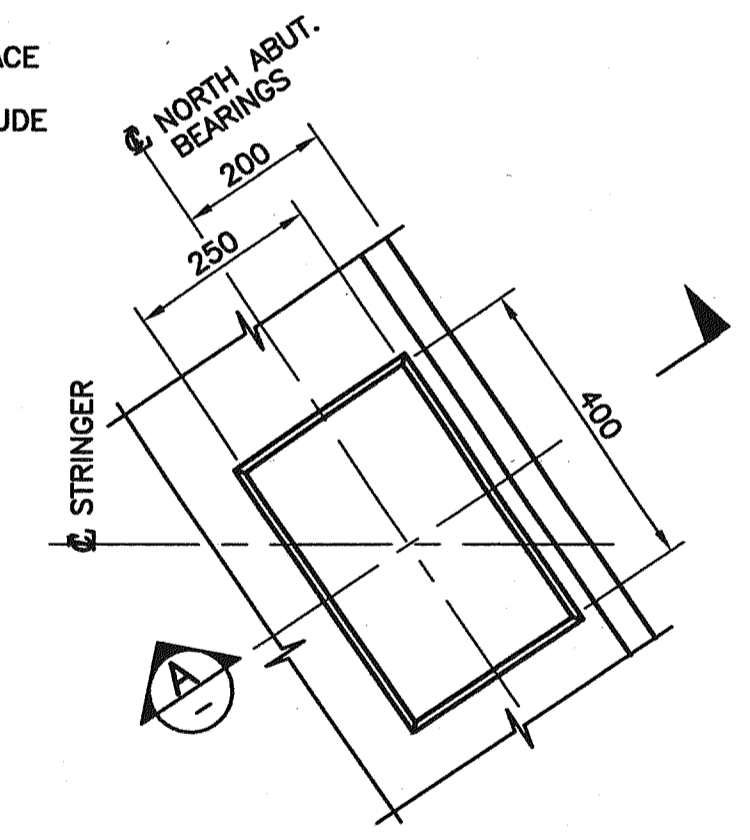
SECTION B  
SCALE 1:10



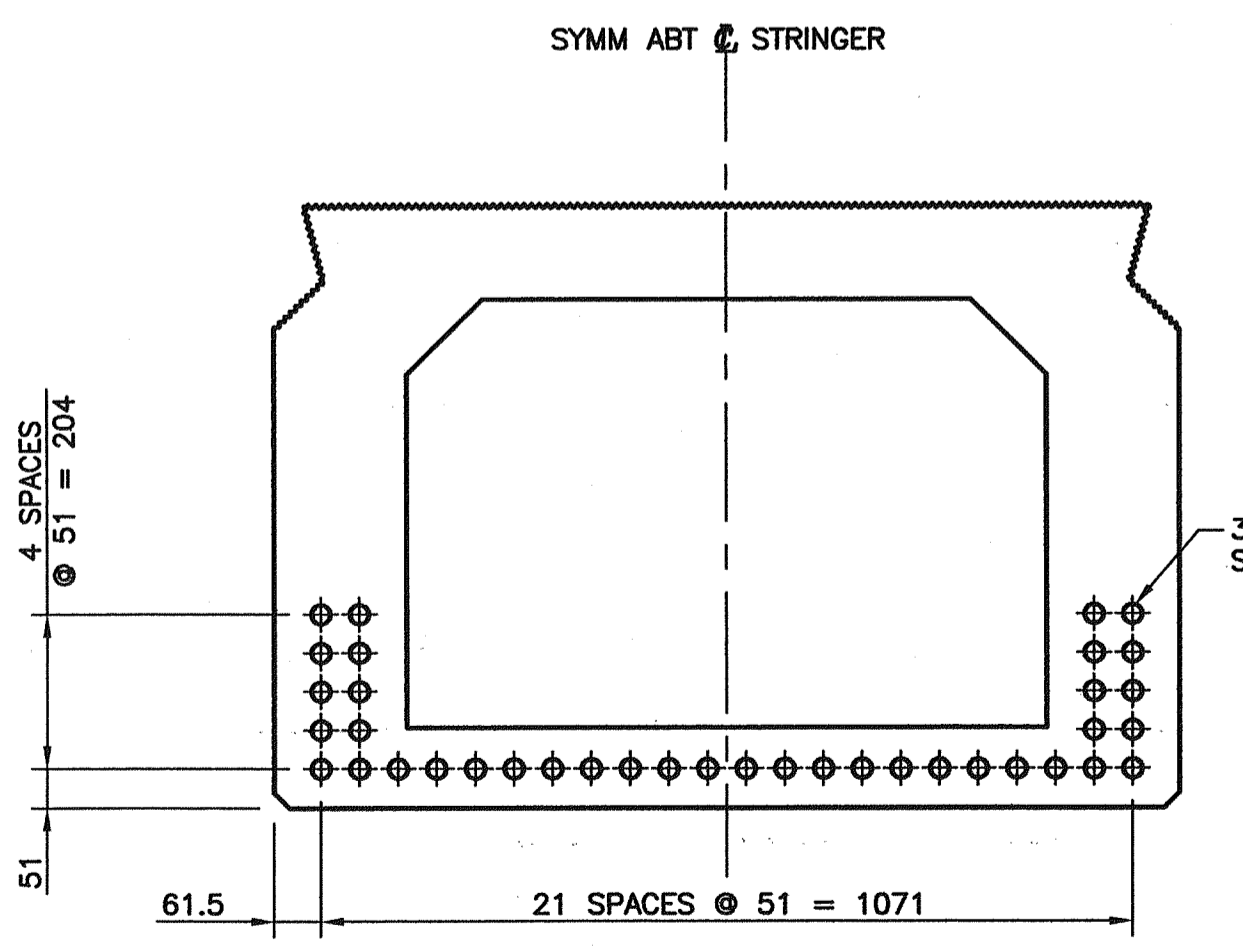
SECTION A  
SCALE 1:10



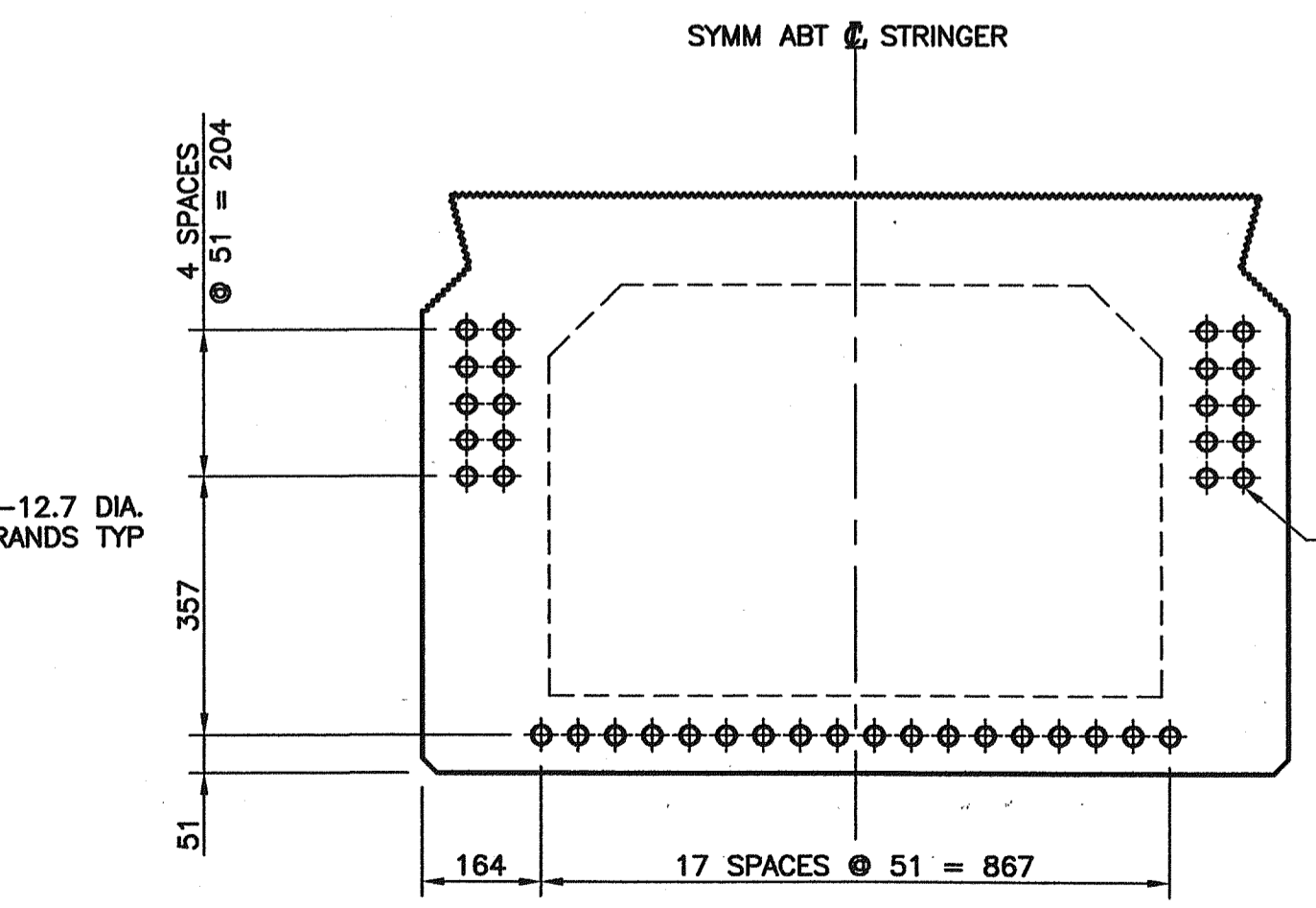
TYPICAL CROSS SECTION  
1:10



REFLECTED PLAN (BRG RECESS)  
1:10



PRESTRESSING STRAND LAYOUT @ MIDSPAN  
1:10



PRESTRESSING STRAND LAYOUT @ BULKHEADS  
1:10

NOTE: STRANDS SHALL BE DEVIATED AT THIRD POINTS

NOTES:

- FOR GENERAL NOTES SEE DRAWING 1562-101.
- FOR BOX STRINGER NOTES SEE DRAWING 1554W-110.



City of Abbotsford



MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION

1554W FRASER HIGHWAY WEST UNDERPASS  
CONCRETE BOX STRINGERS MK4

601829

Rev	Date	Description	Initial	SCALE	DESIGNED	RC	DATE	04/09/30
J				AS SHOWN	CHECKED	ILW	DATE	004/09/30
I					DRAWN	JE	DATE	04/09/30
H								
G								
F								
E								
D								
C								
B								
A	07/08/22	RECORD DRAWINGS	ILW					
REVISIONS				Date	ISSUE RECORD	Initial		

FILE No.



REGION  
1

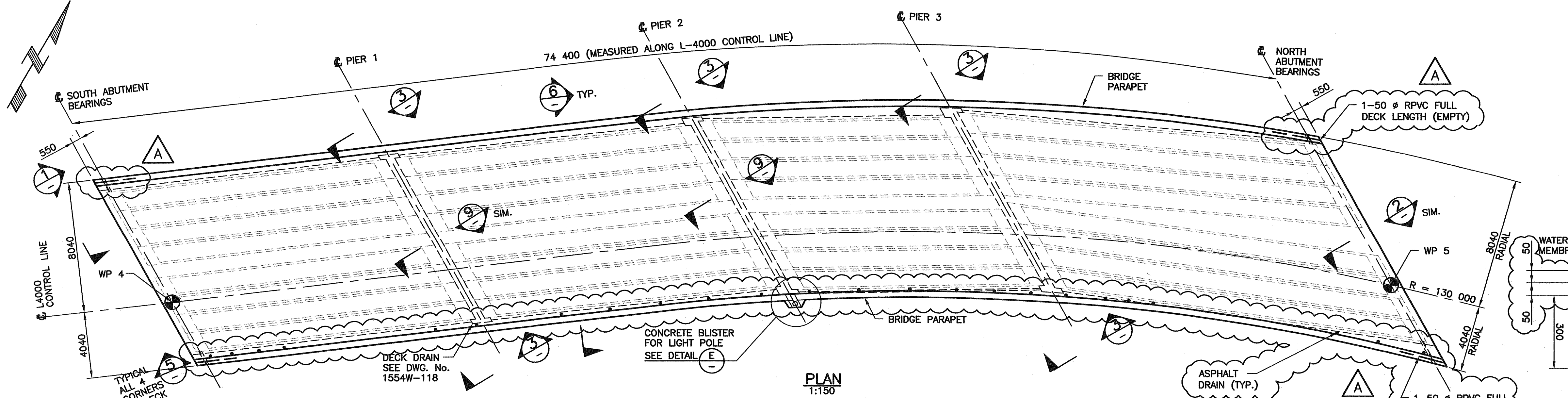
DRAWING No.  
1554W-114

1

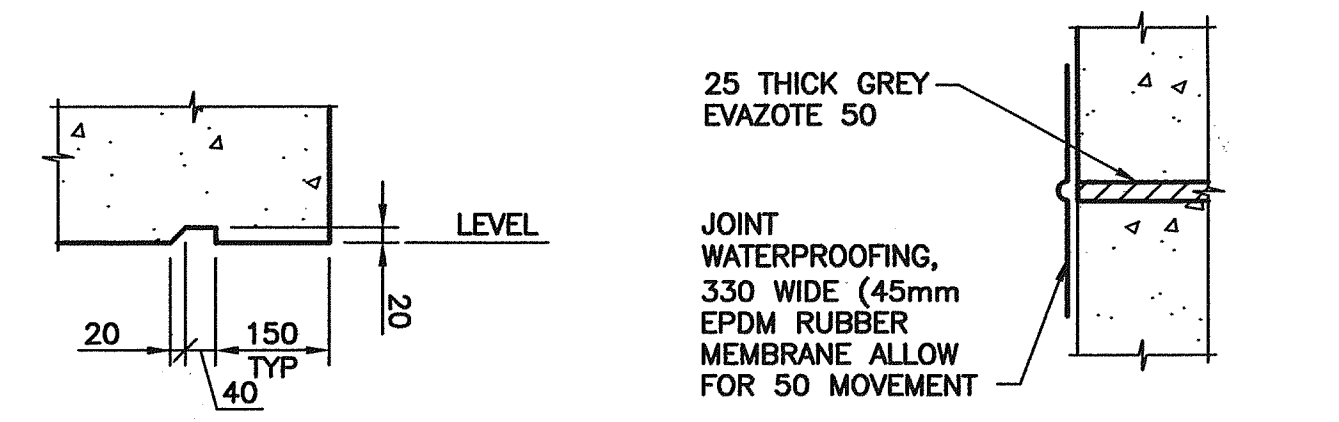
CONC. PRINTS BEARING EARLIER LETTERS

Plotted: August 22, 2007 13:07:33  
 Filename: G:\1684\Drawings\1554W-114.dwg\114



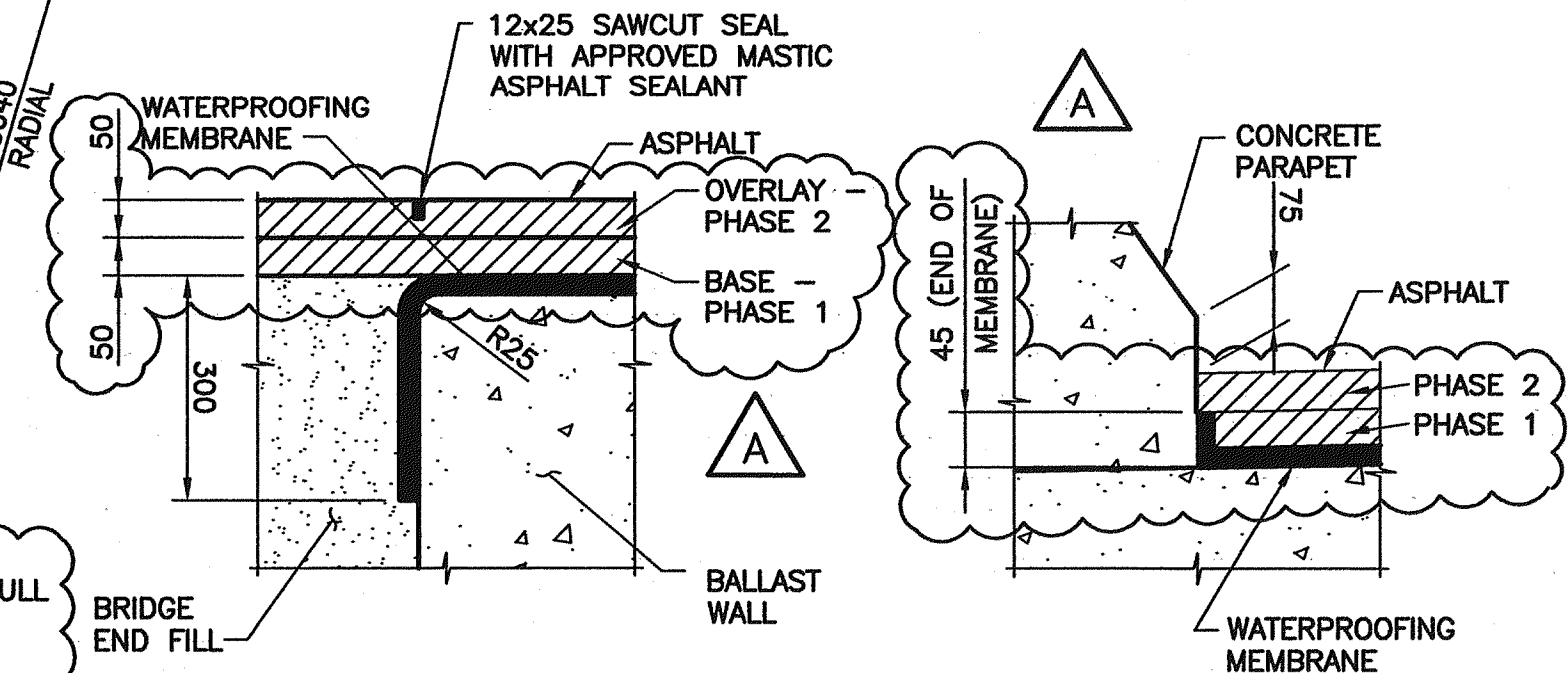


PLAN  
SCALE 1:150



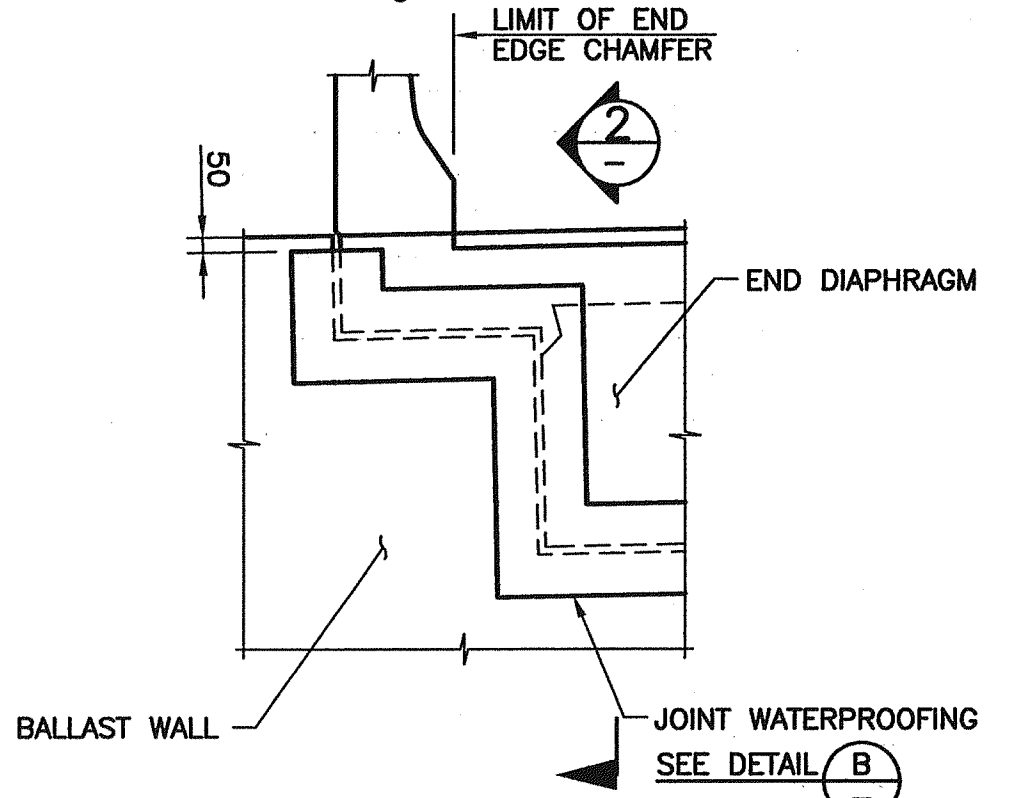
DETAIL A  
SCALE 1:10

DETAIL B  
SCALE 1:10

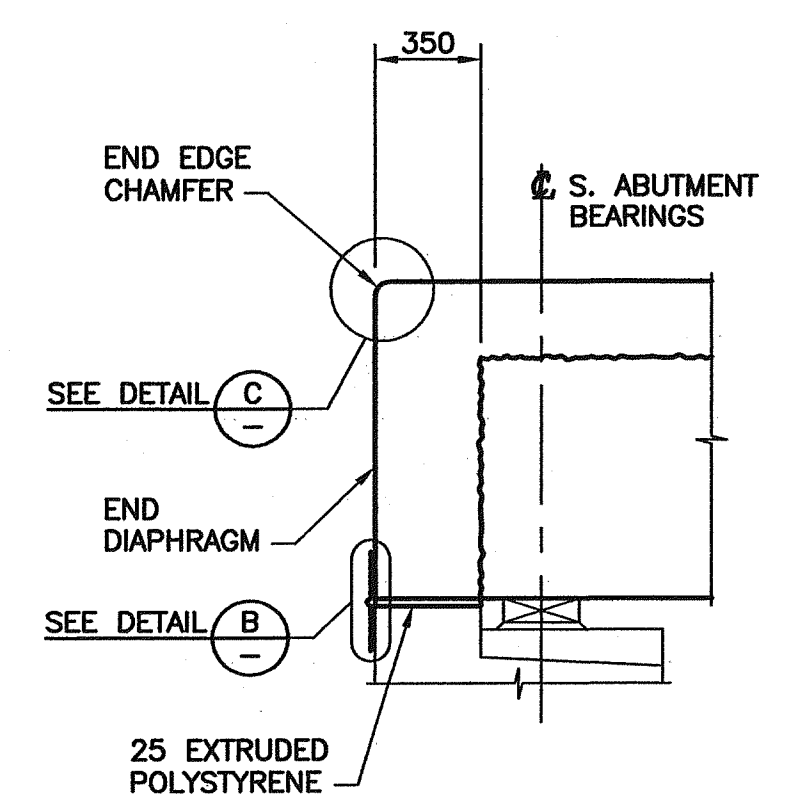


DETAIL C  
SCALE 1:10

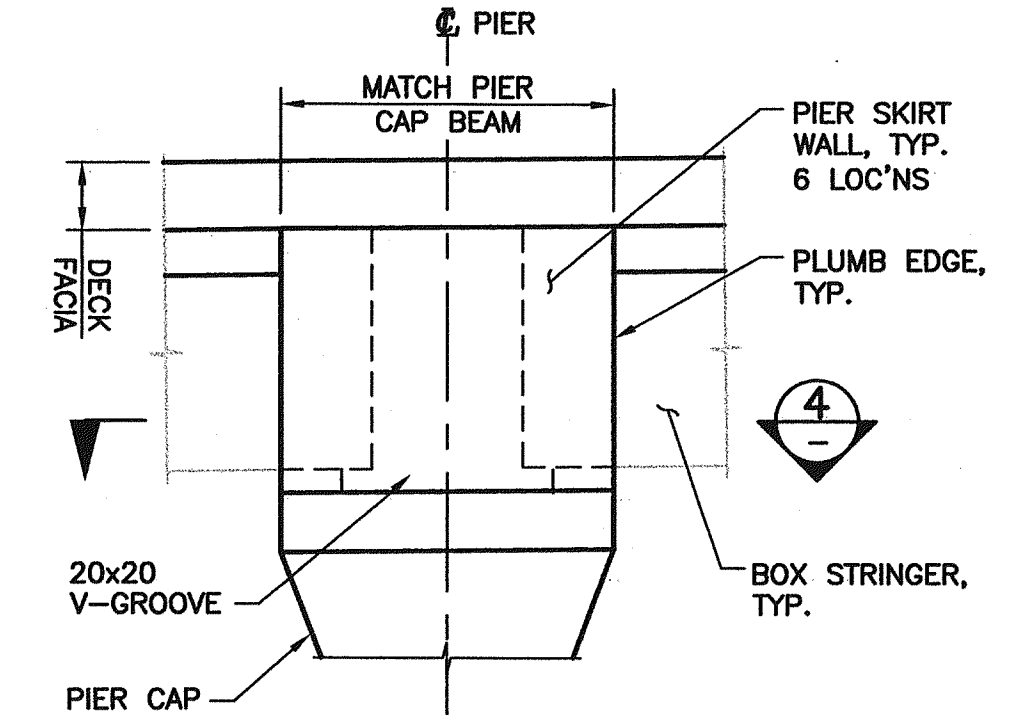
DETAIL D  
SCALE 1:10



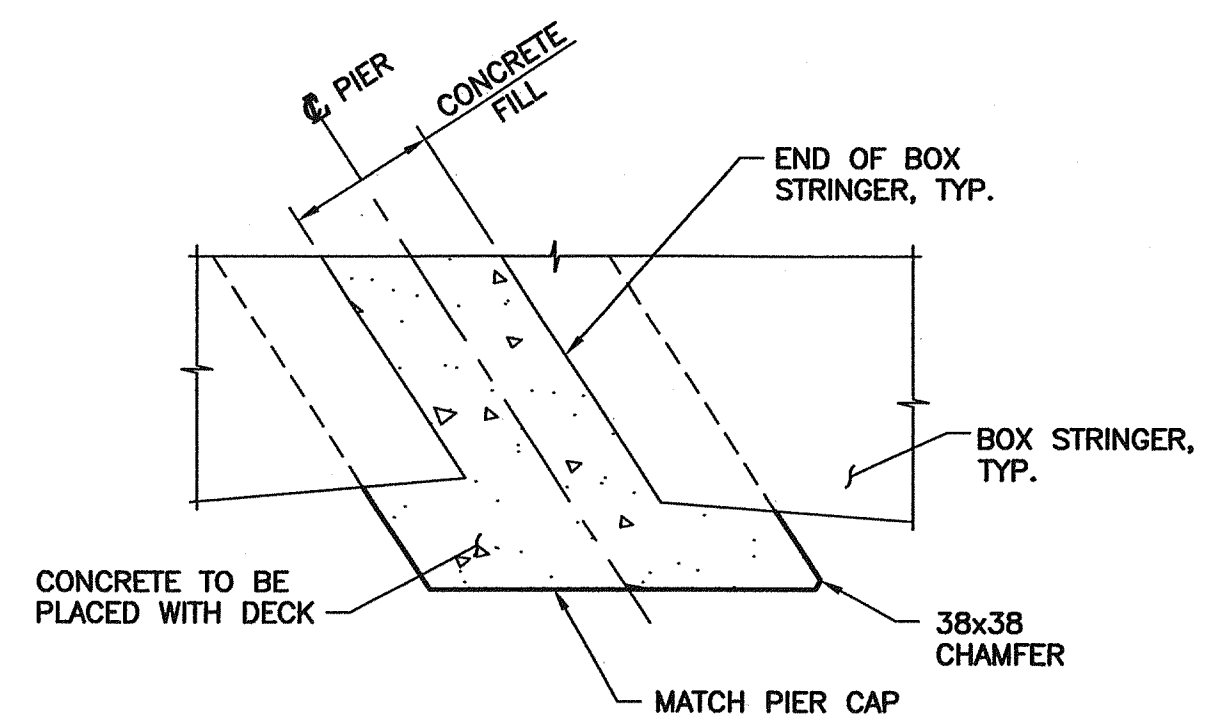
ELEVATION 1  
SCALE 1:25



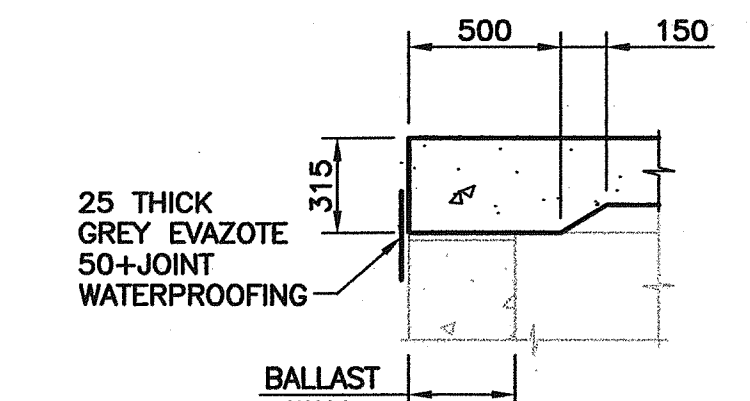
SECTION 2  
SCALE 1:25



ELEVATION 3  
SCALE 1:25



SECTION 4  
SCALE 1:25



SECTION 5  
SCALE 1:25

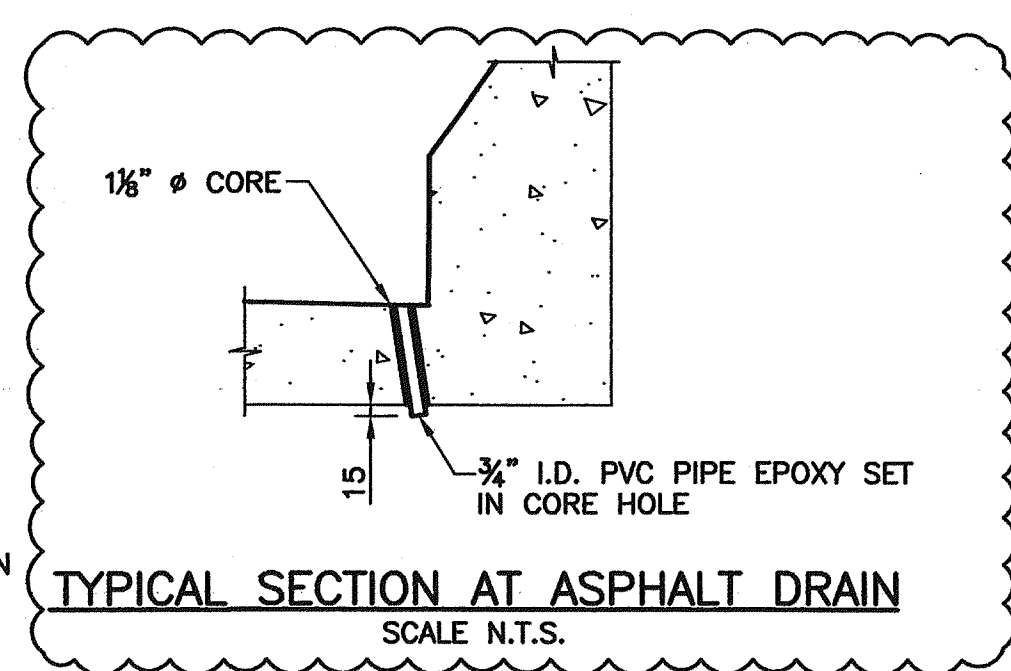
**SUPERSTRUCTURE NOTES:**

- CAST-IN-PLACE CONCRETE IN DECK AND PARAPETS SHALL BE HIGH PERFORMANCE CONCRETE (HPC) WITH MINIMUM COMPRESSIVE STRENGTH OF 35 MPa AT 28 DAYS.
- EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 20mm UNLESS NOTED OTHERWISE.
- REINFORCING STEEL SHALL CONFORM TO CAN/CSA G30.18-M GRADE 400R. MAXIMUM YIELD STRENGTH 525 MPa.
- CLEAR COVER TO REINFORCING STEEL:  
TOP/DECK (WATERPROOFED): 70mm  
BOTTOM/DECK: 50mm
- BAR DENOTED "ME" SHALL BE EPOXY COATED. TRANSVERSE BARS SHALL NOT BE SPLICED.
- LONGITUDINAL BAR SPLICES SHALL BE STAGGERED SO THAT NO MORE THAN 33% OF BARS ARE SPLICED AT ANY CROSS SECTION OF THE DECK.
- ALL LAPS OF REINFORCING BARS FOR SPLICES SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE.

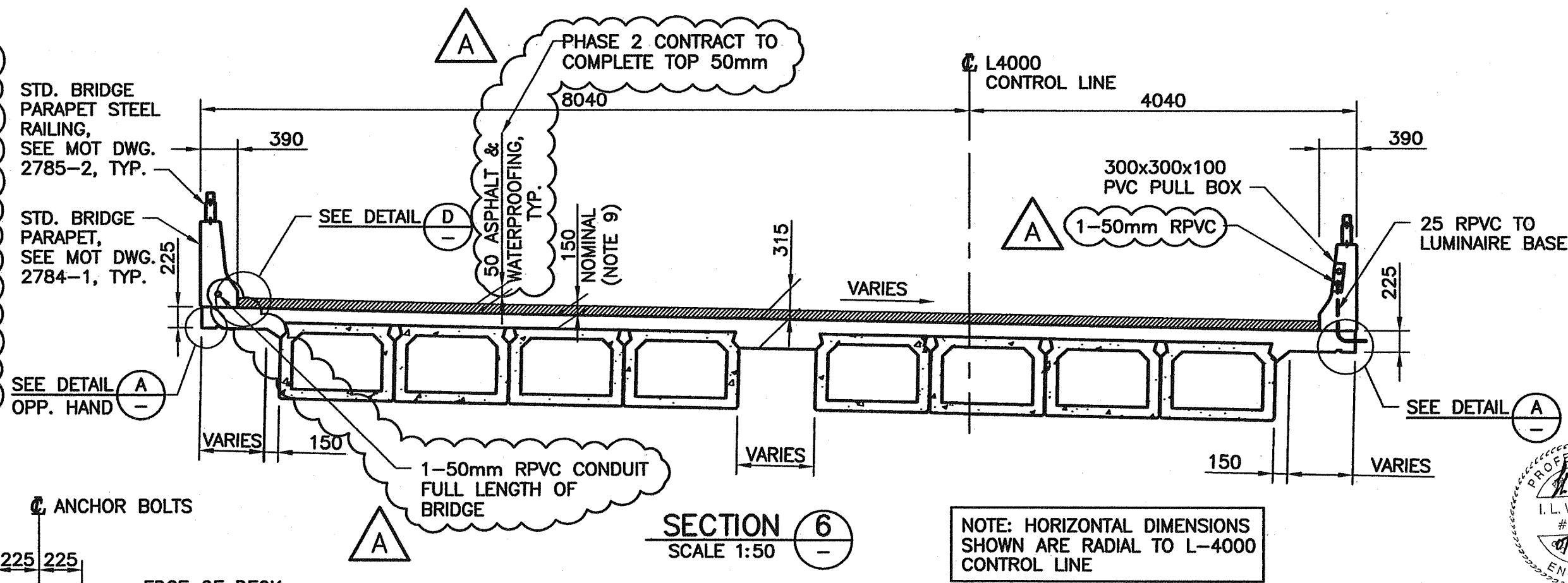
BAR SIZE	UNCOATED	EPOXY COATED (B*)	EPOXY COATED (T**)
10M	400	450	600
15M	550	650	800
20M	650	750	1000

\* "B" DENOTES VERTICAL BARS AND HORIZONTAL BARS WITH LESS THAN 300mm OF CONCRETE BELOW BARS.  
\*\* "T" DENOTES HORIZONTAL BARS WITH MORE THAN 300mm OF CONCRETE BELOW BARS.

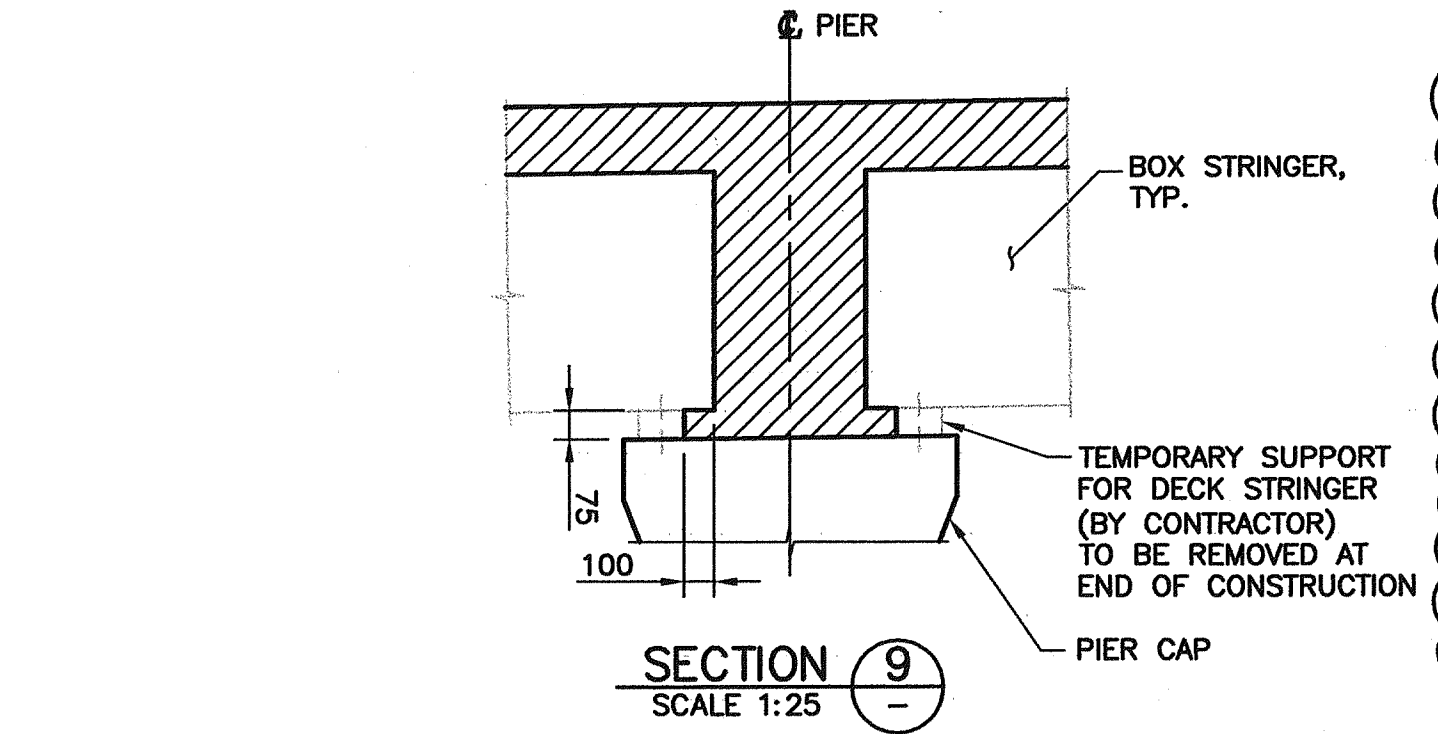
- PARAPET CONCRETE SHALL BE PLACED ONLY AFTER DECK CONCRETE HAS ATTAINED A MINIMUM COMPRESSIVE STRENGTH OF 20MPa.
- DEFLECTION AND CAMBER WILL BE ACCOMMODATED BY SCREED ELEVATIONS SUPPLIED BY THE OWNER'S REPRESENTATIVE. DECK THICKNESS WILL VARY ACCORDINGLY.



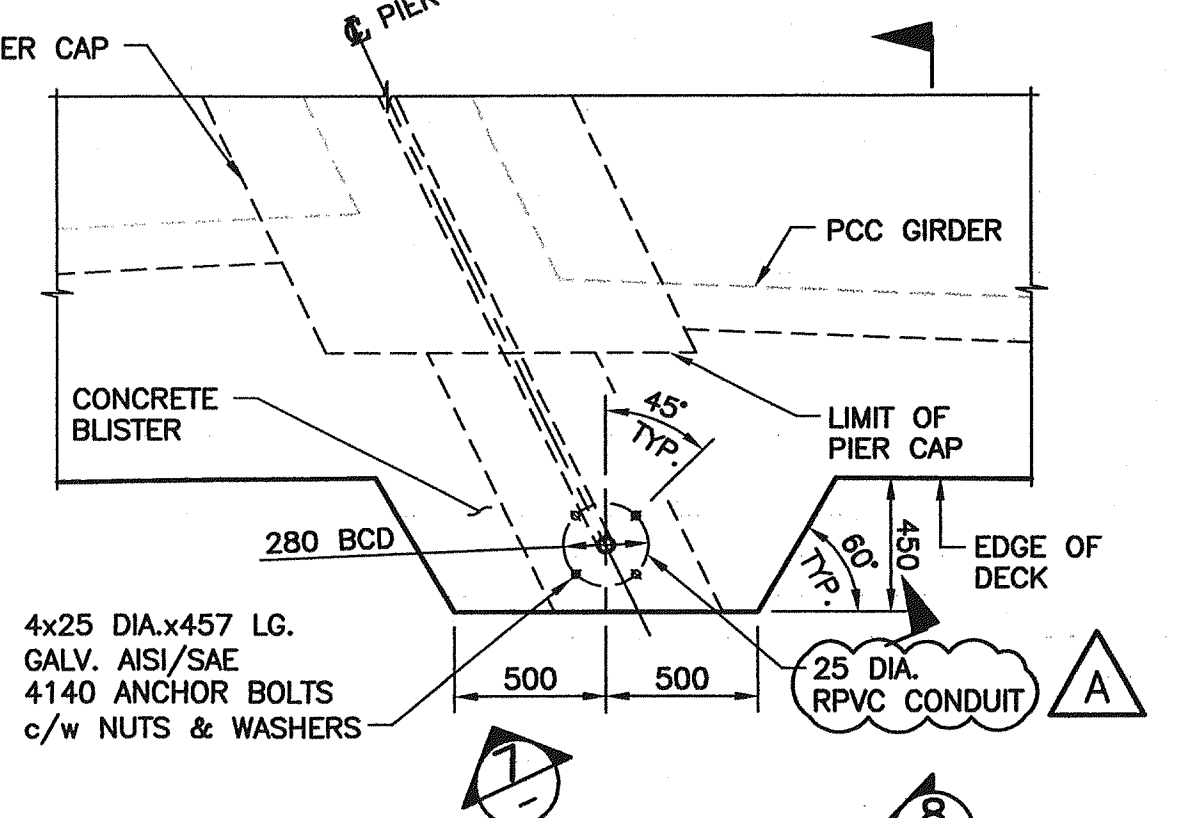
TYPICAL SECTION AT ASPHALT DRAIN  
SCALE N.T.S.



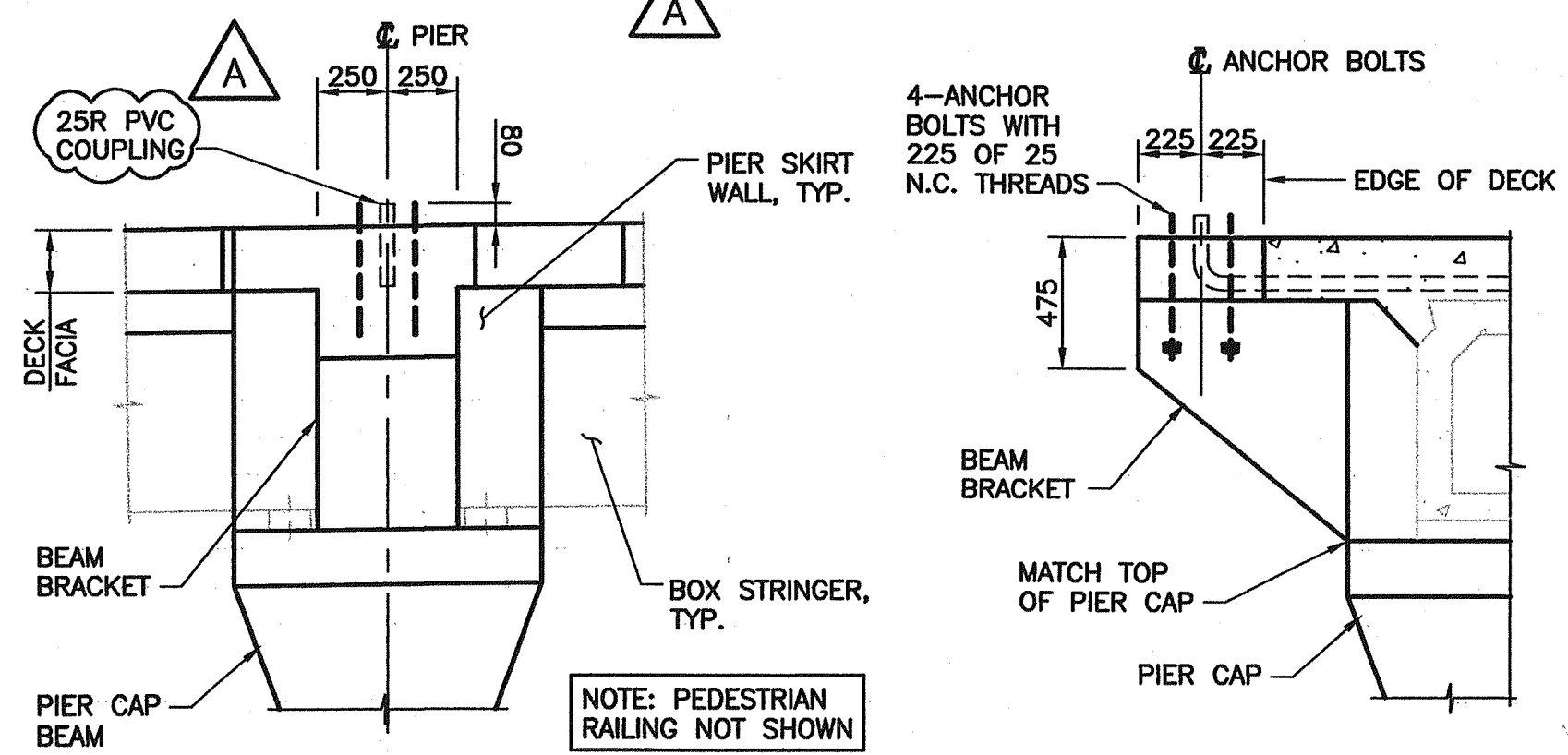
SECTION 6  
SCALE 1:50



SECTION 9  
SCALE 1:25



DETAIL E  
SCALE 1:25



ELEVATION 7  
SCALE 1:25

SECTION 8  
SCALE 1:25

Rev	Date	Description	Initial	SCALE
J				AS SHOWN
I				
H				
G				
F				
E	04/12/14	ISSUED FOR CONSTRUCTION	ILW	
D	04/11/03	ISSUED FOR TENDER	ILW	
C	04/09/30	100% ISSUE FOR REVIEW	ILW	
B	04/08/26	90% ISSUE FOR REVIEW	ILW	
A	07/08/22	RECORD DRAWINGS	ILW	04/06/22 50% ISSUE FOR REVIEW

City of Abbotsford

MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION

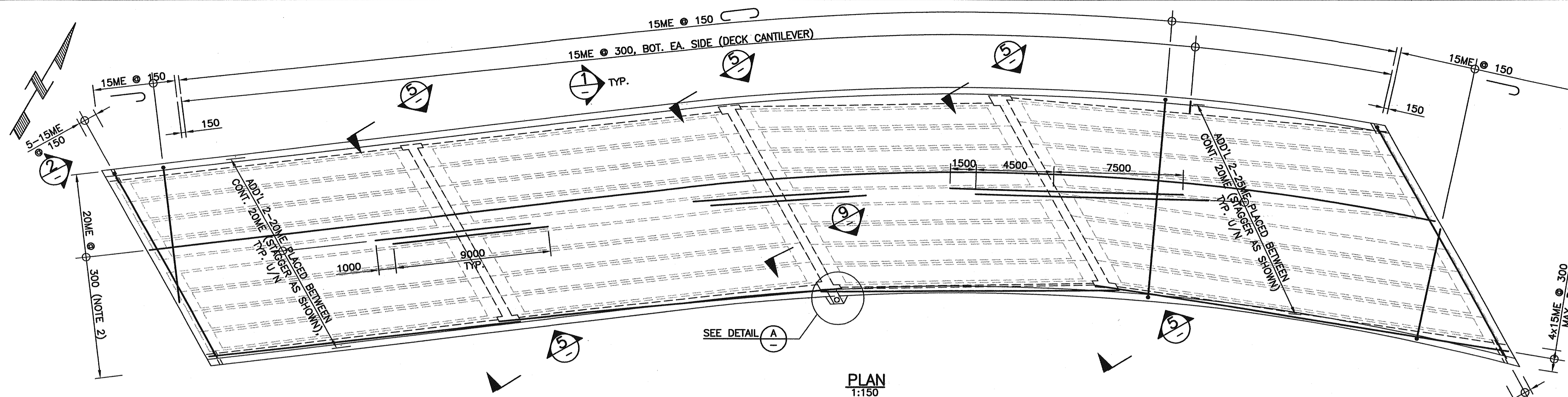
1554W FRASER HIGHWAY WEST UNDERPASS  
DECK

601830

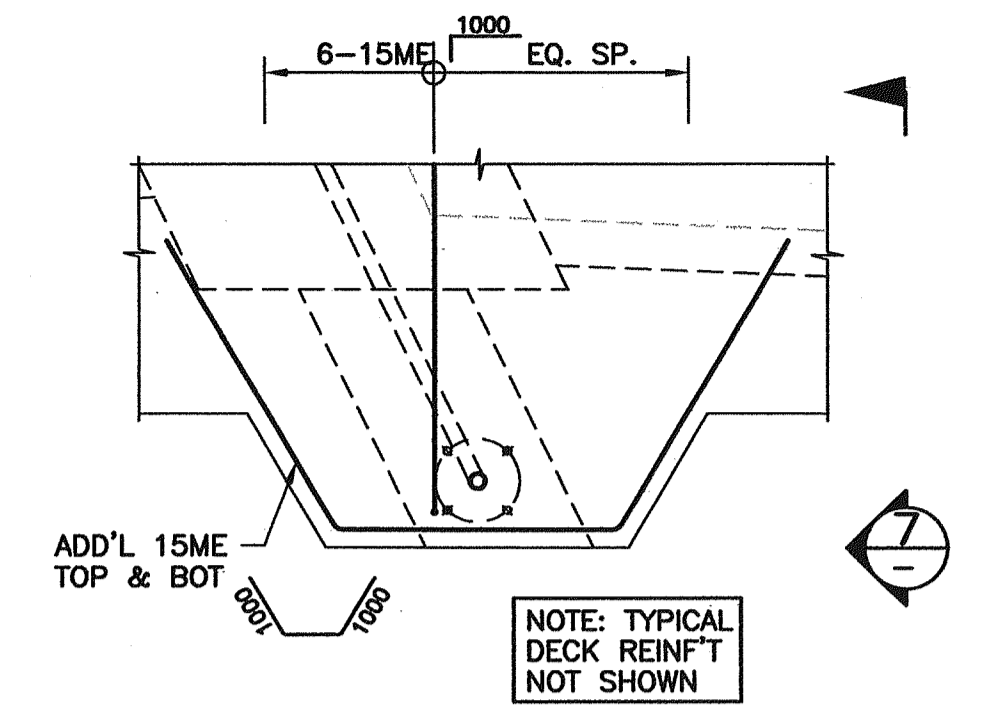
FILE No. **BUCKLAND & TAYLOR** REGION **1** DRAWING No. **1554W-115**

Filename: G:\1664\Drawings\1554W-115.dwg L:\4000 Layout  
 Plotdate: August 22, 2007 13:08:05

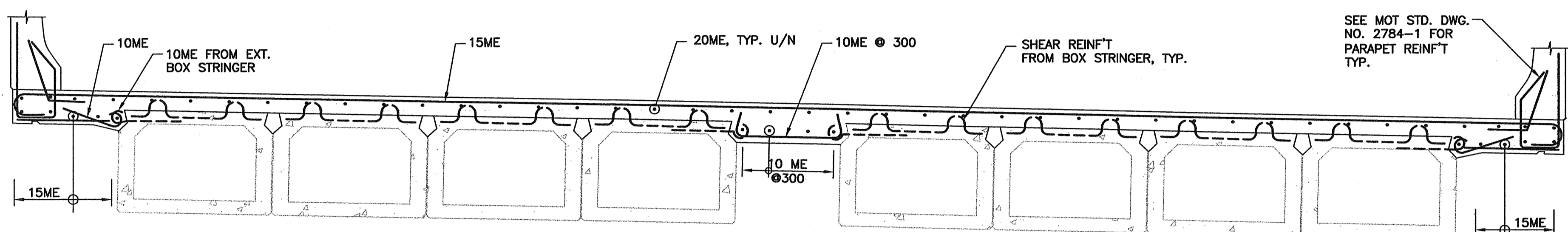




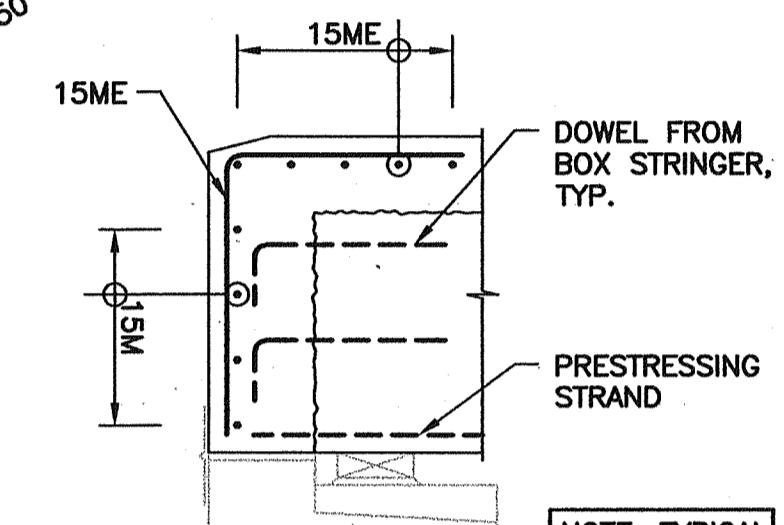
PLAN  
SCALE 1:150



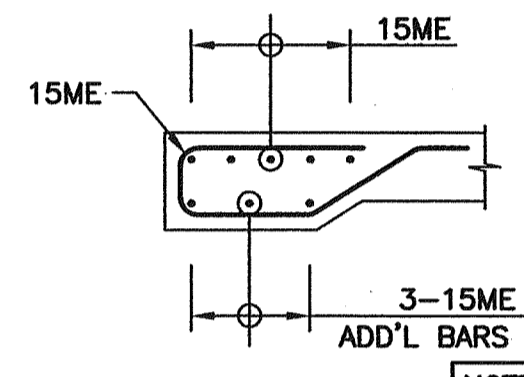
DETAIL A  
SCALE 1:25



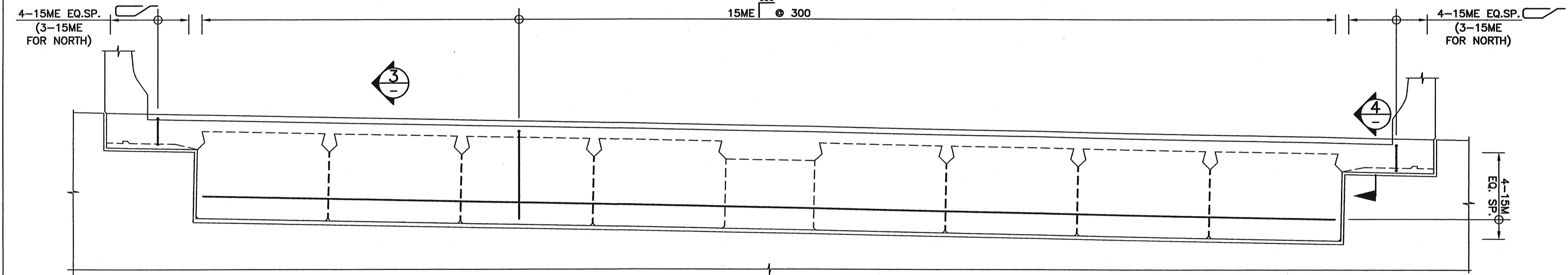
SECTION 1  
SCALE 1:25



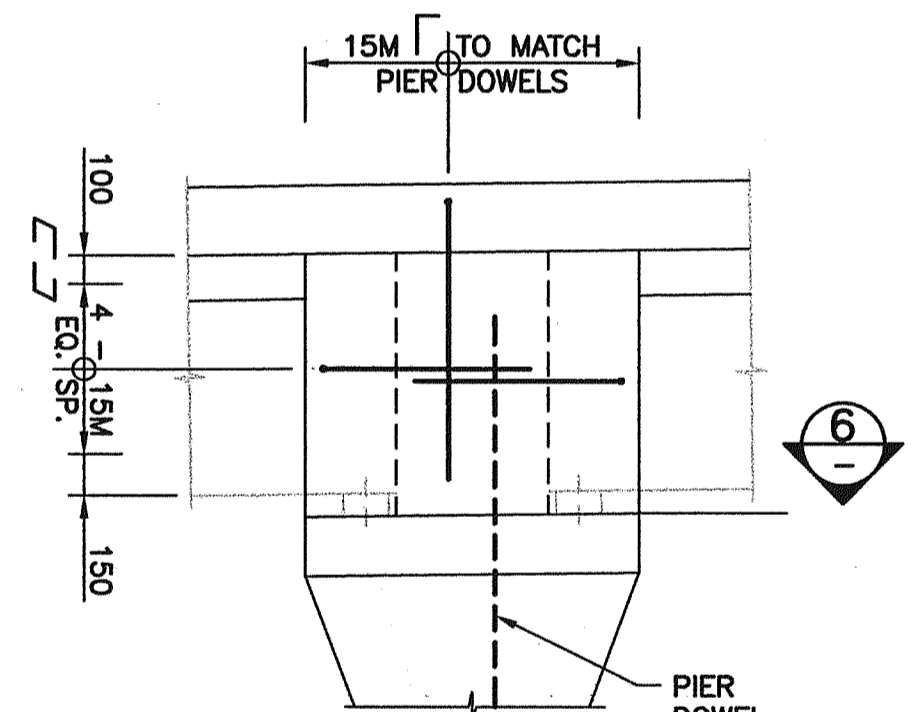
SECTION 3  
SCALE 1:25



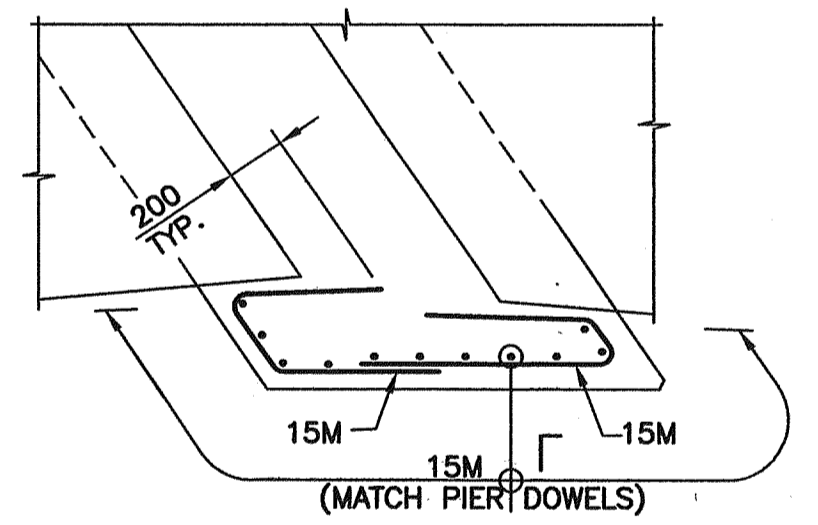
SECTION 4  
SCALE 1:25



ELEVATION 2 (SOUTH BALLAST WALL SHOWN, NORTH SIMILAR)  
SCALE 1:25



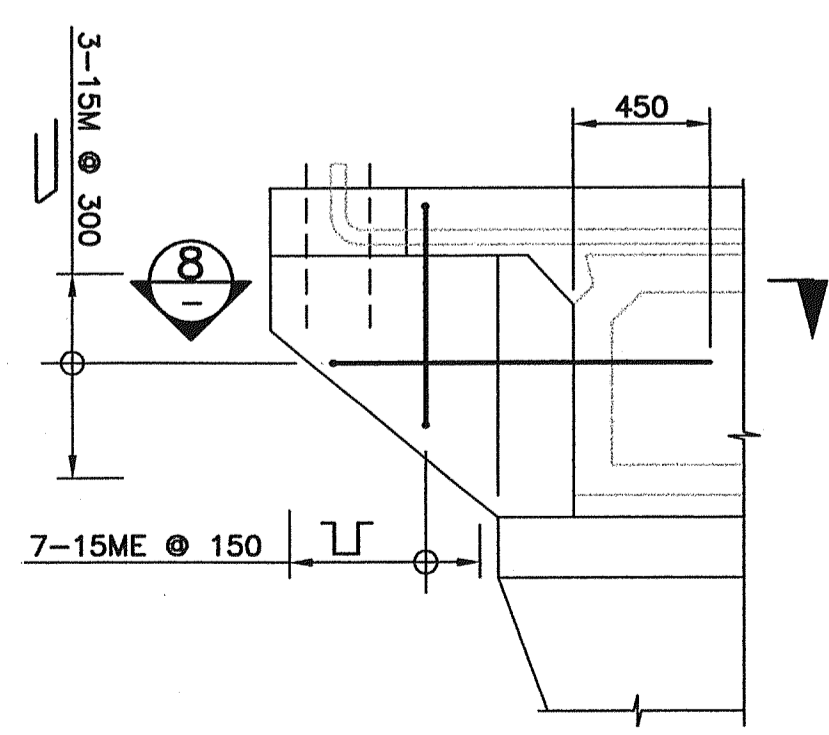
ELEVATION 5  
SCALE 1:25



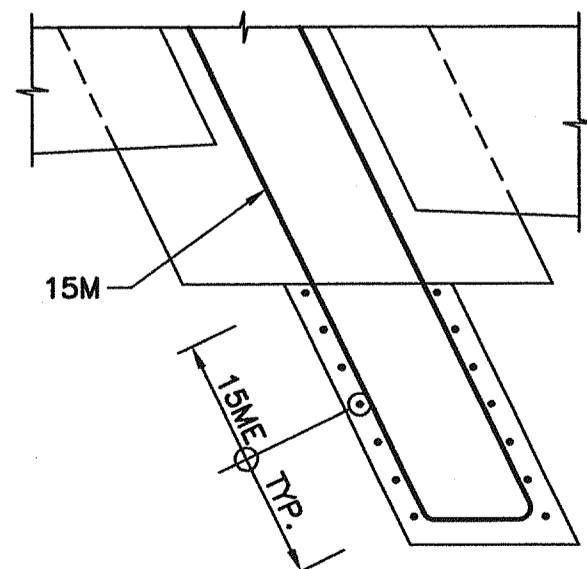
SECTION 6  
SCALE 1:25

**NOTES:**

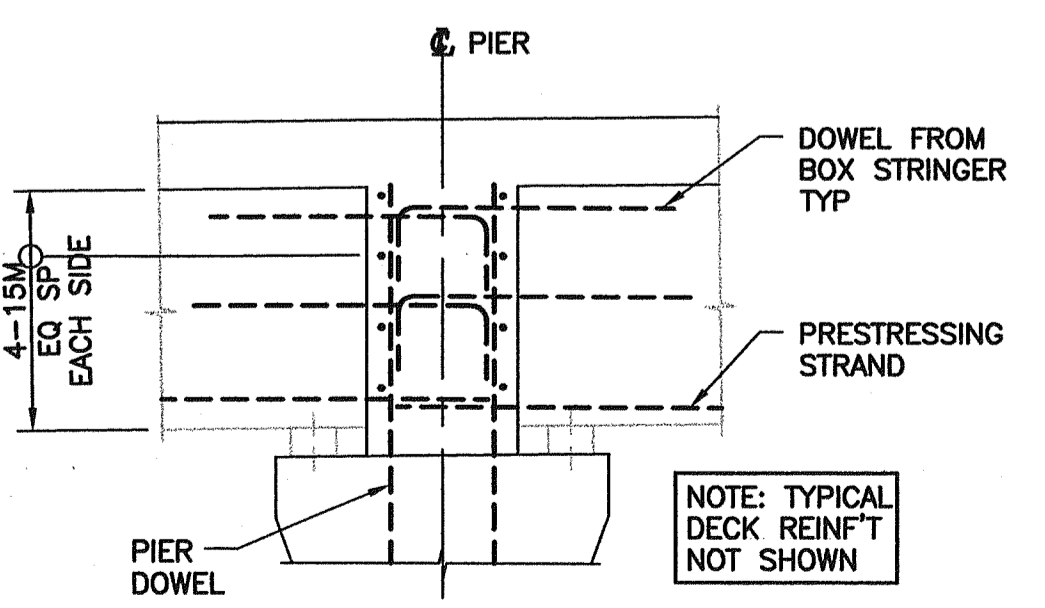
- FOR GENERAL NOTES SEE DRAWING 1554W-102.
- LAP LOCATIONS TO BE DETAILED BY CONTRACTOR. LAP LENGTHS AND SPLICES TO COMPLY WITH NOTES 6 AND 7 ON DWG 1554W-115.
- FOR SUPERSTRUCTURE NOTES SEE DRAWING 1554W-115.



SECTION 7  
SCALE 1:25



SECTION 8  
SCALE 1:25



SECTION 9  
SCALE 1:25

Rev	Date	Description	Initial	SCALE	DESIGNED: GAN DATE: 04/09/30	CHECKED: ILW DATE: 04/09/30	DRAWN: LMB DATE: 04/09/30
J				AS SHOWN			
I							
H							
G							
F							
E							
D							
C							
B							
A	07/08/22	RECORD DRAWINGS	ILW	04/06/22			
				<b>REVISIONS</b>	<b>Date</b>	<b>ISSUE RECORD</b>	<b>Initial</b>

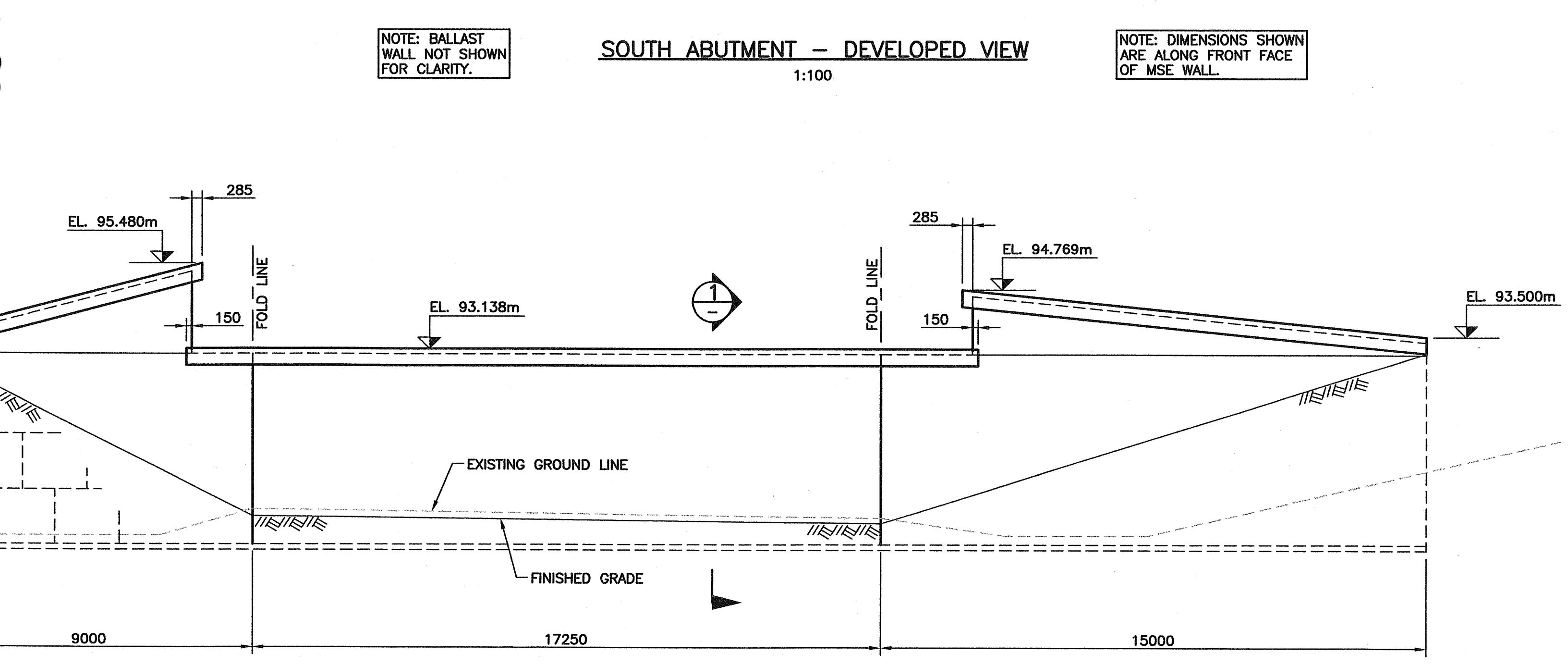
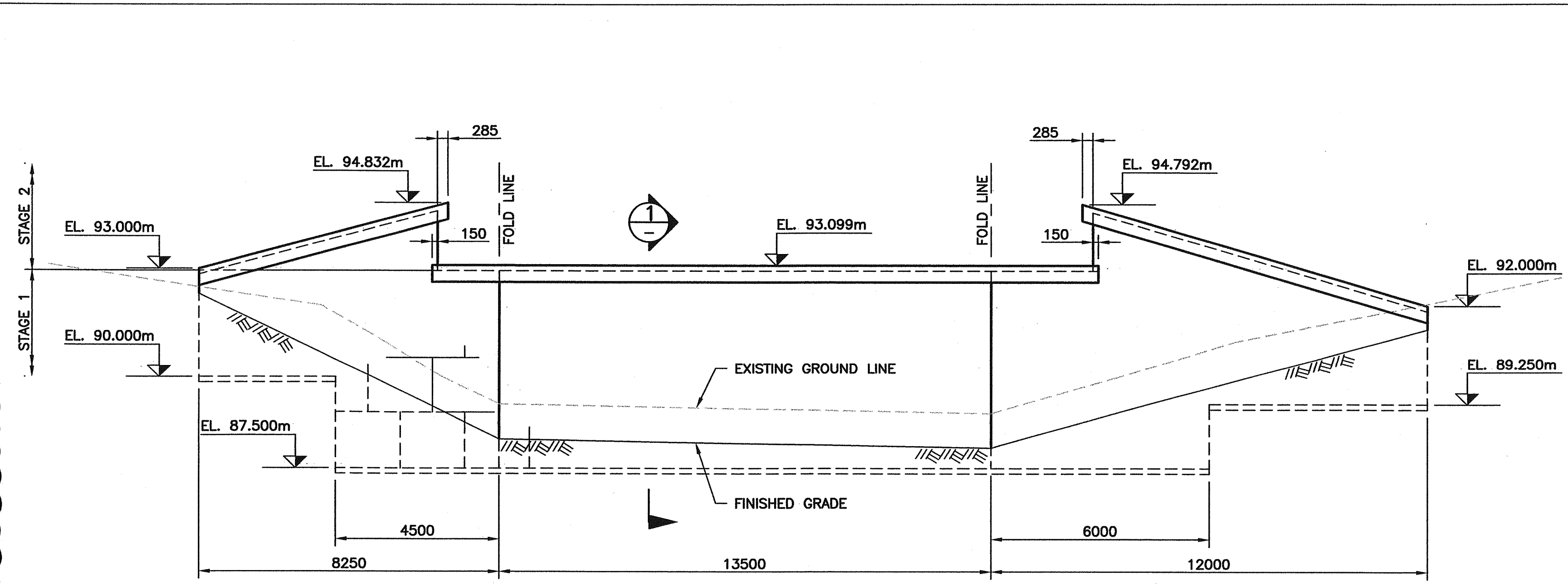
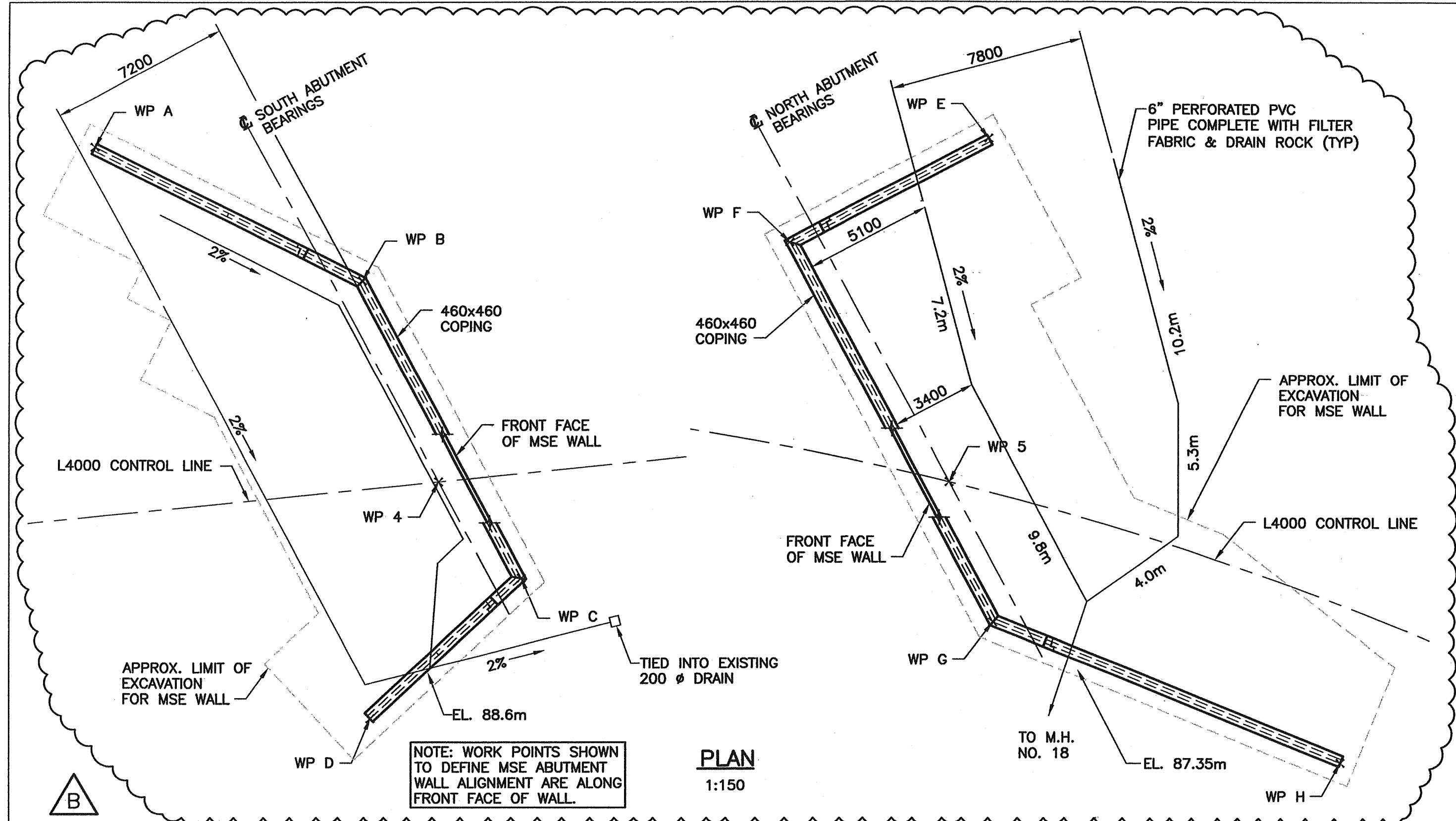
City of Abbotsford

MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION

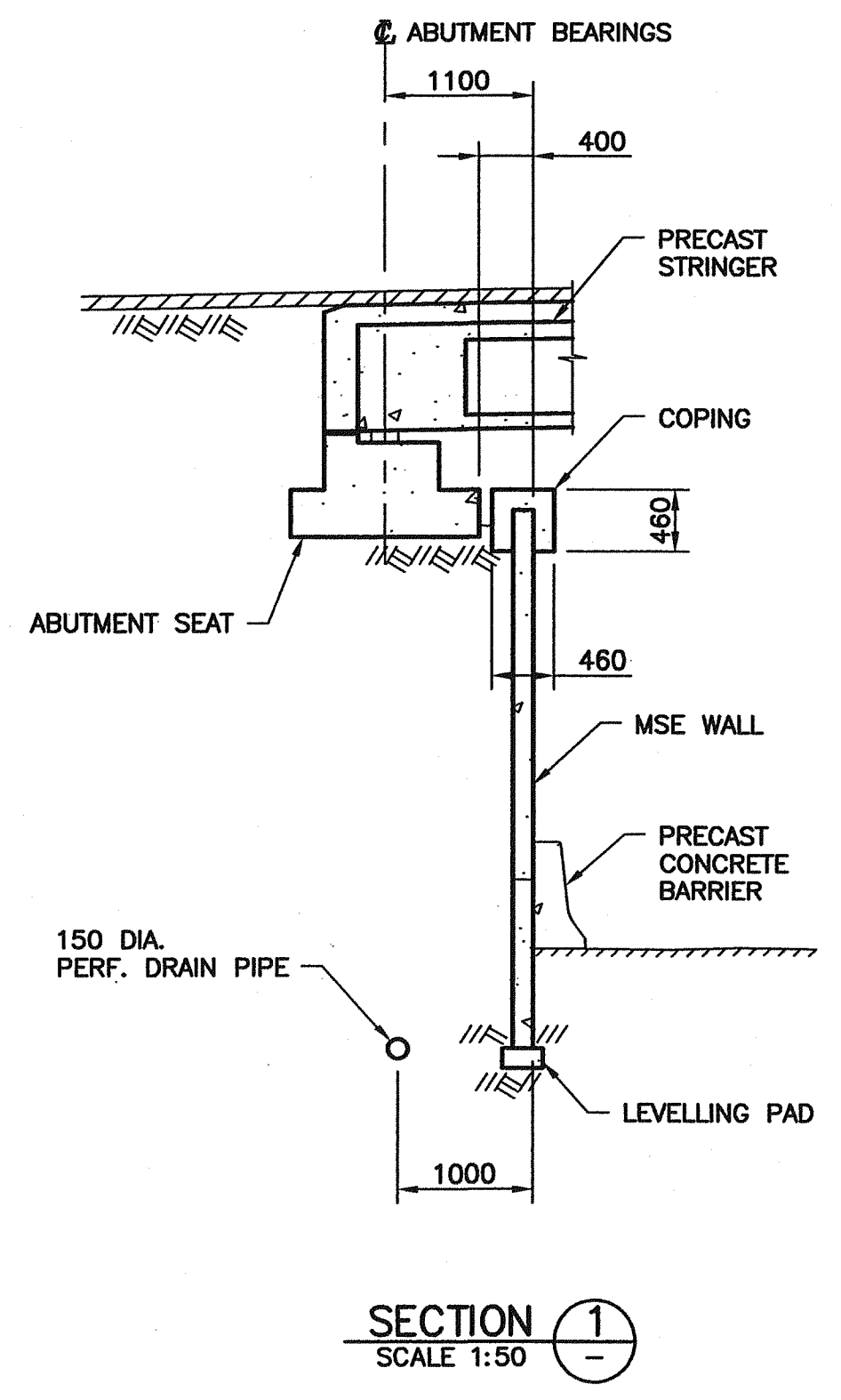
1554W FRASER HIGHWAY WEST UNDERPASS  
DECK REINFORCEMENT

601831

FILE No. **BUCKLAND & TAYLOR** REGION **1** DRAWING No. **1554W-116**



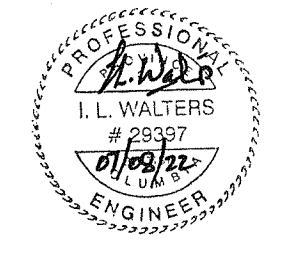
W.P.	NORTHING	EASTING
A	35760.860	45682.273
B	35761.755	45694.240
C	35754.858	45705.845
D	35746.916	45703.609
E	35807.400	45758.426
F	35799.663	45753.828
G	35790.850	45768.657
H	35793.267	45783.460



**MSE WALL DESIGN CRITERIA:**

- DESIGN CODE: CAN/CSA S6-00 AND AASHTO.
- BRIDGE LOADS AT U/S OF SEATING:  
 VERTICAL D.L. = 179 kN/m  
 VERTICAL L.L. = 117 kN/m  
 TRANSVERSE SEISMIC = 44 kN/m  
 LONGITUDINAL SEISMIC = 54 kN/m  
 HORIZONTAL BRAKING LOAD = 11 kN/m
- BACKFILL PROPERTIES:  
 $\phi = 35^\circ$   
 $\gamma = 21 \text{ kN/m}^3$
- CORROSION ALLOWANCE PER AASHTO (100 YEARS).
- ZONAL ACCELERATION RATIO (ABBOTSFORD) = 0.20
- FRONT FACE FINISH CLASS 3.

- NOTES:**
- FOR NOTES SEE DRAWING 1554W-102.
  - STAGE 2 WALLS SHALL BE CONSTRUCTED AFTER BALLAST WALLS AND APPROACH SLABS.
  - ELEVATIONS ON DRAWINGS DO NOT ACCOUNT FOR FOUNDATION SETTLEMENTS. ELEVATIONS TO BE ADJUSTED FOR SETTLEMENT PREDICTIONS RESULTING FROM CONSTRUCTION MONITORING.



Rev	Date	Description	Initial	SCALE	ISSUE RECORD
J				AS SHOWN	
I					
H					
G					
F					
E					
D				04/11/03	ISSUED FOR TENDER
C				04/09/30	100% ISSUE FOR REVIEW
B	07/08/22	RECORD DRAWINGS	ILW	04/08/26	90% ISSUE FOR REVIEW
A	04/12/14	APPROACH SLAB OMITTED, ISSUED FOR CONSTRUCTION	ILW	04/06/22	50% ISSUE FOR REVIEW

City of Abbotsford

MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION

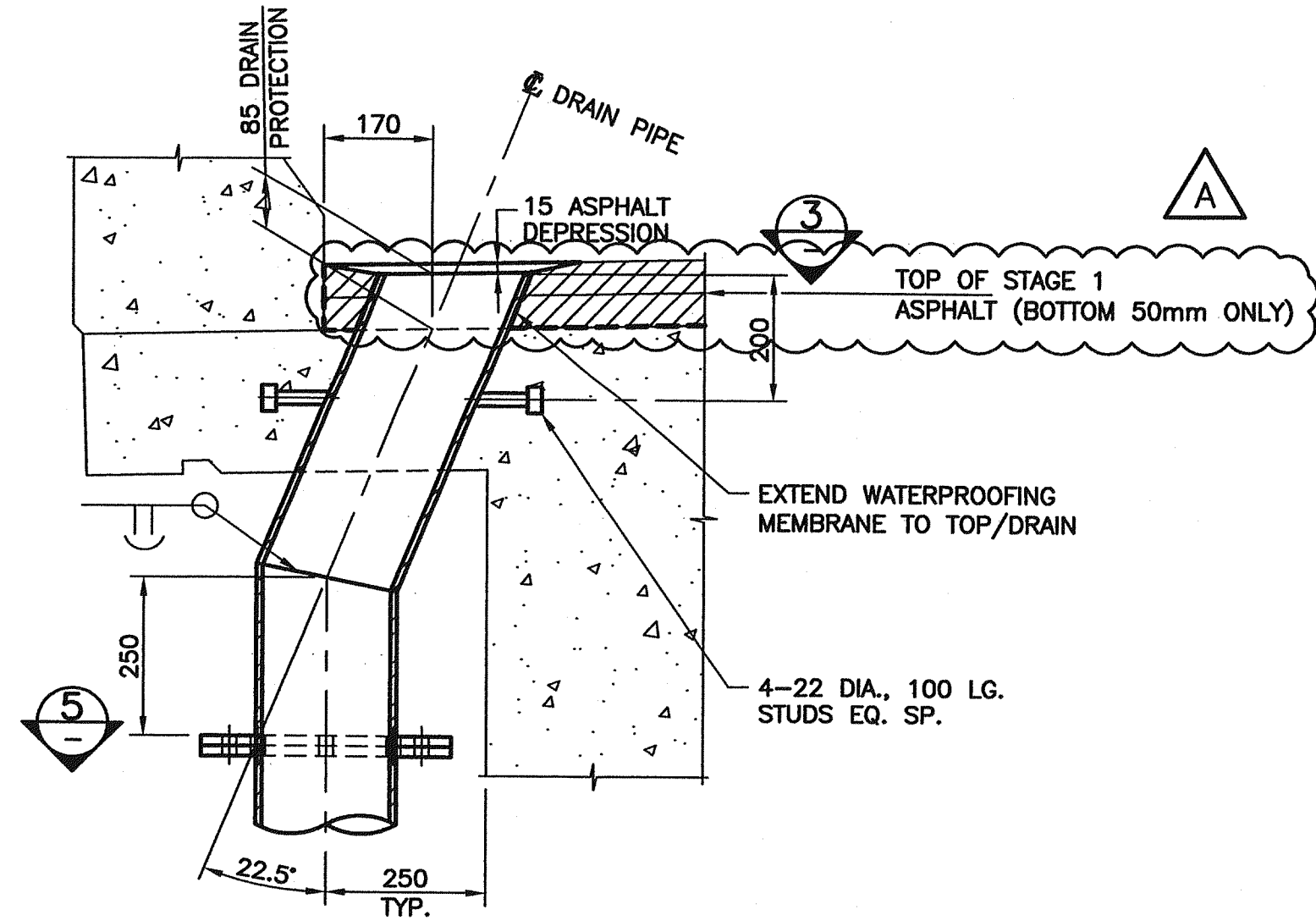
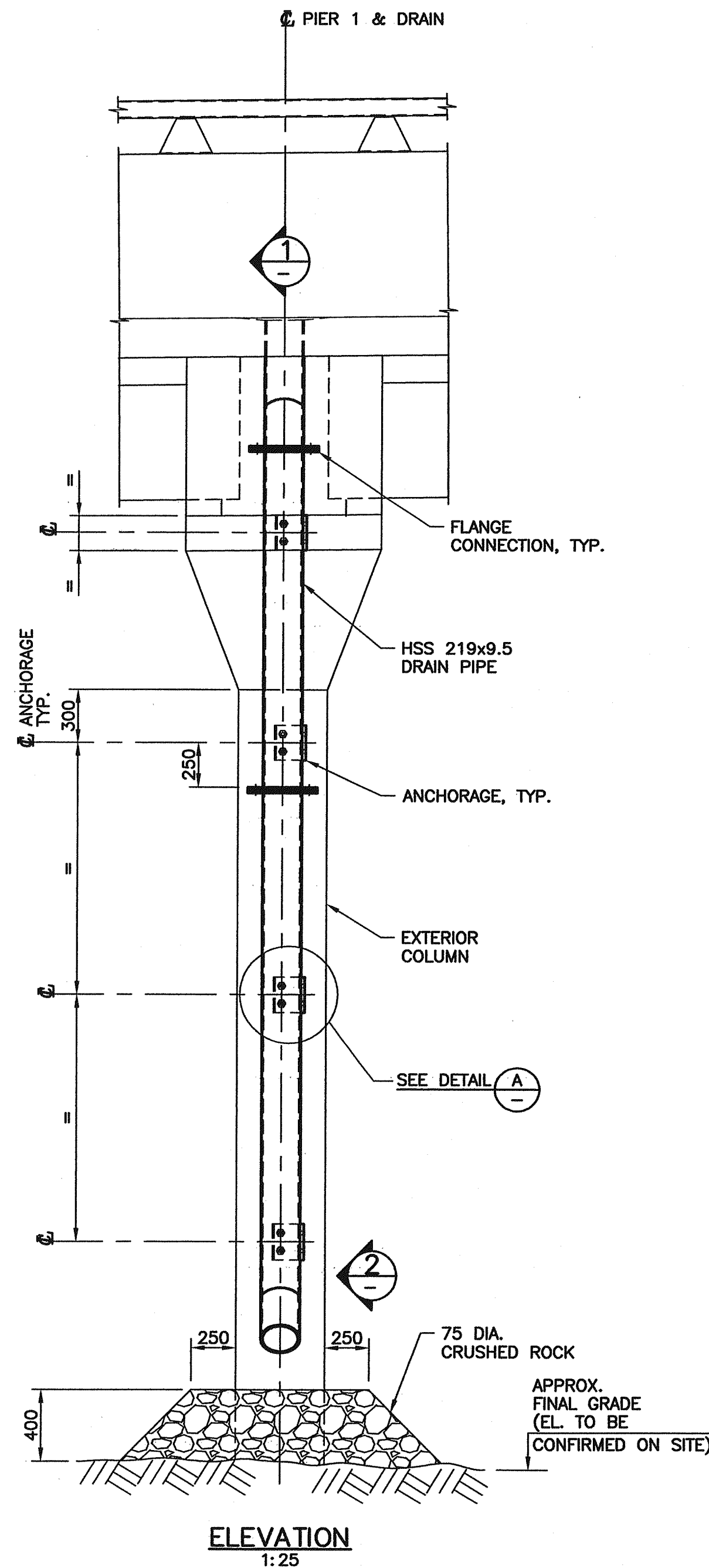
**1554W FRASER HIGHWAY WEST UNDERPASS  
MSE WALLS**

601832

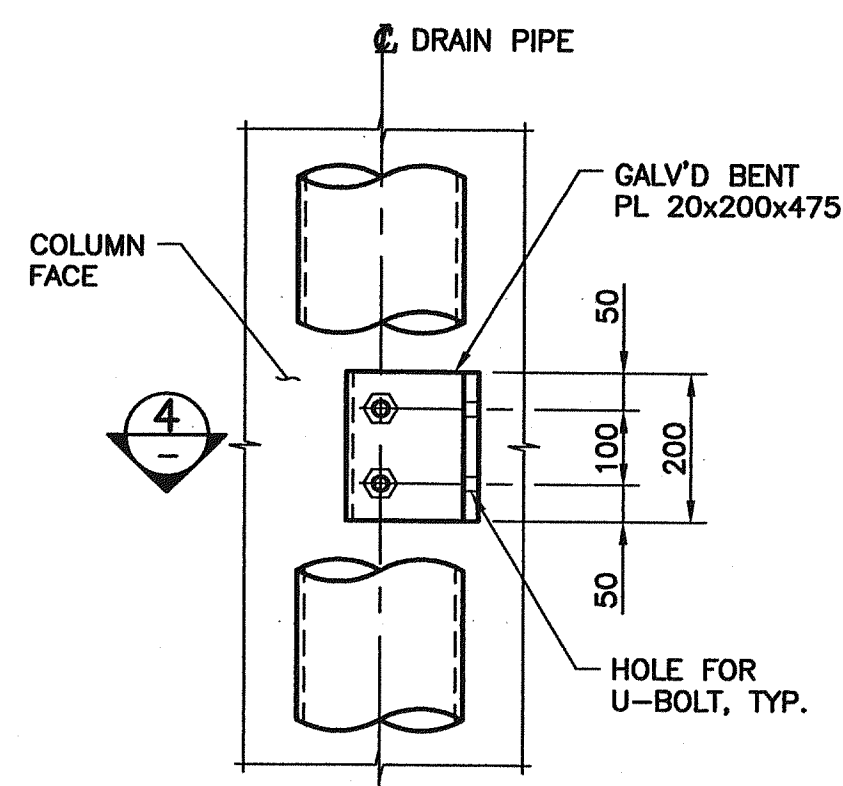
FILE No. **1** DRAWING No. **1554W-117**

Plot: August 22, 2007 13:08:55  
 Filename: G:\1890\Drawings\1554W-117.dwg\4000 Layout

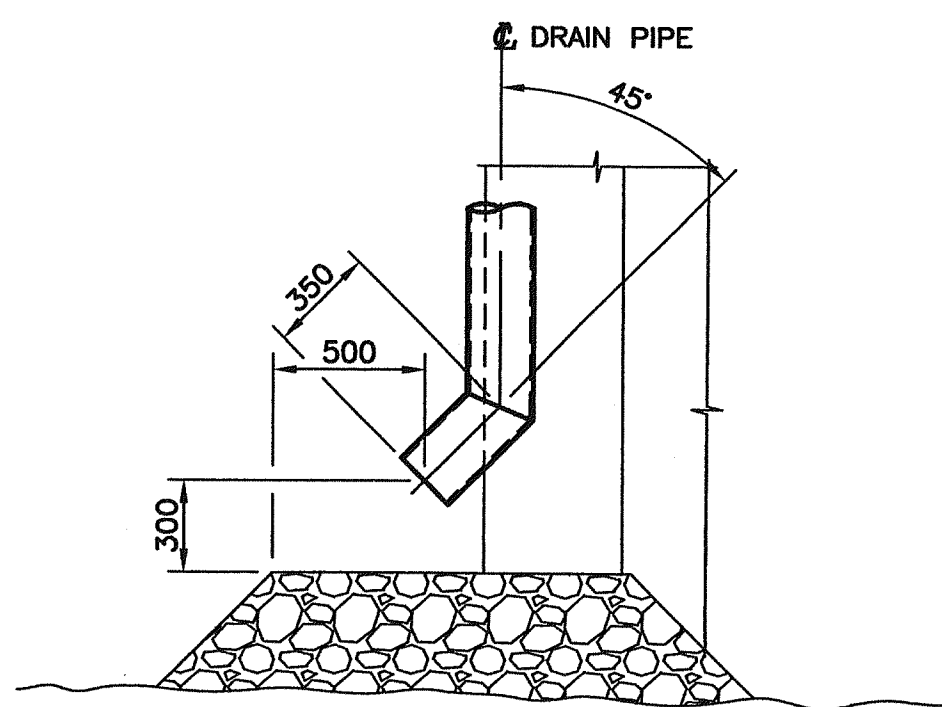




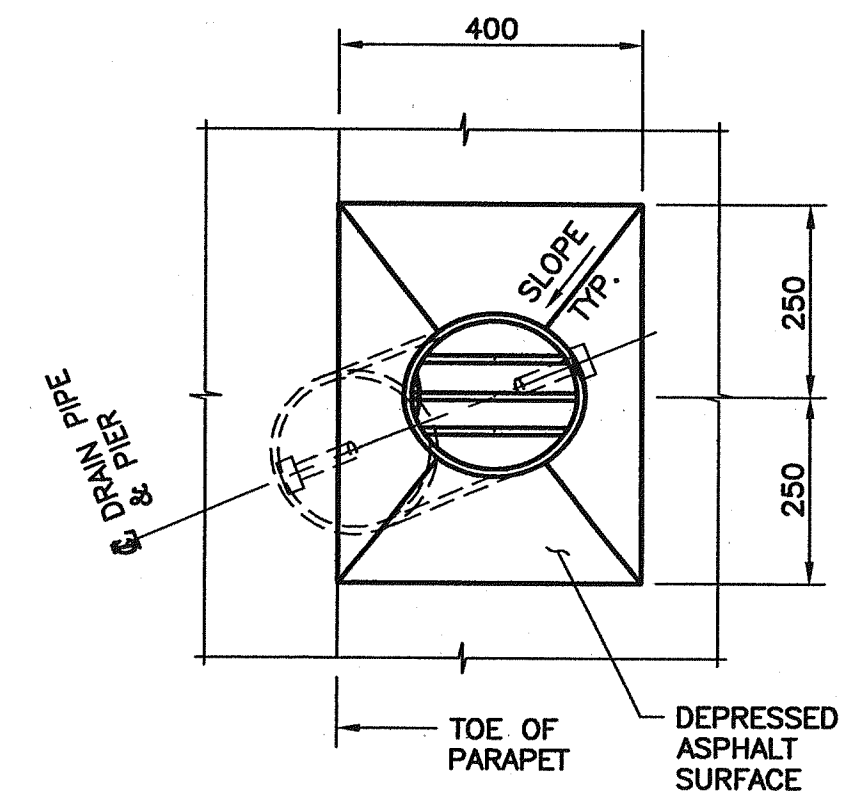
SECTION 1  
SCALE 1:10



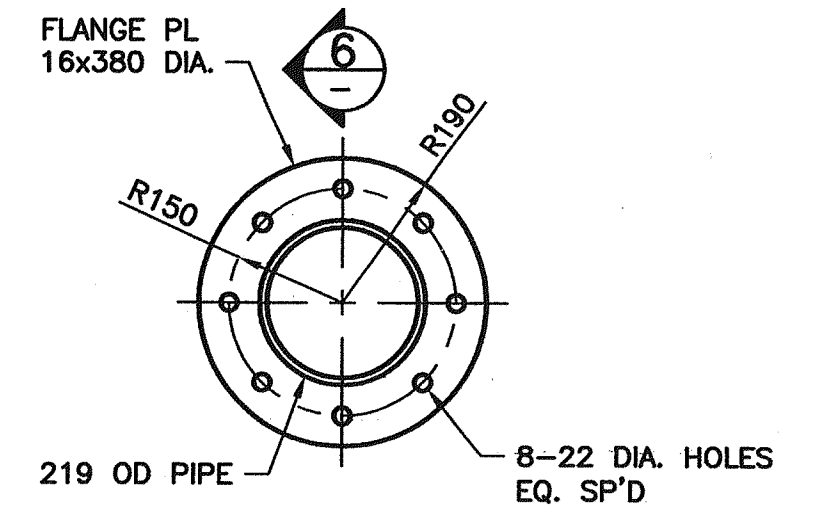
DETAIL A  
SCALE 1:10



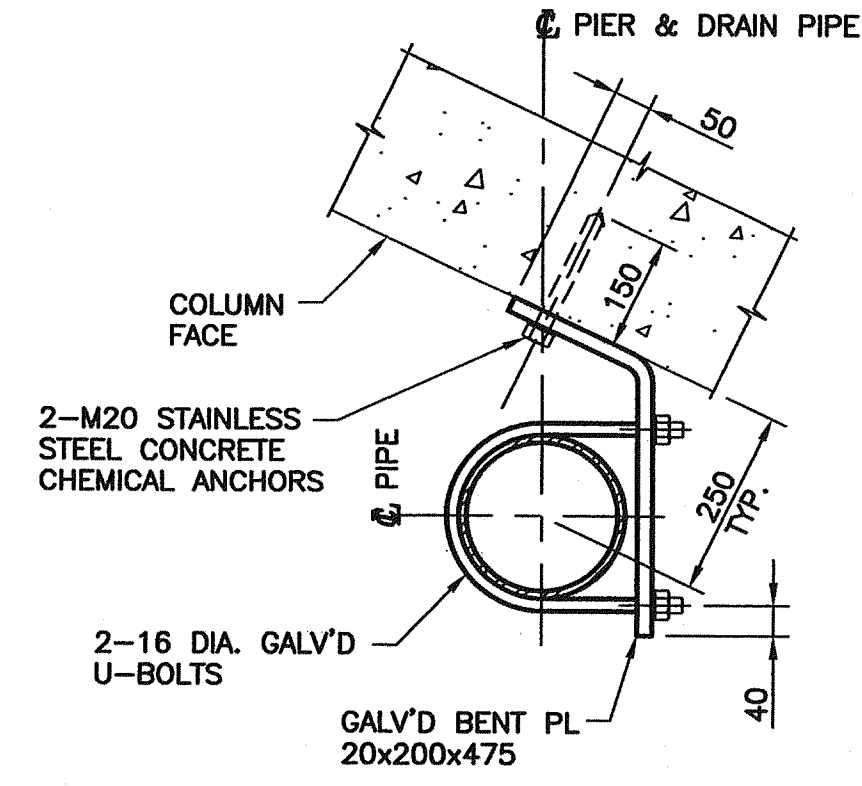
ELEVATION 2  
SCALE 1:25



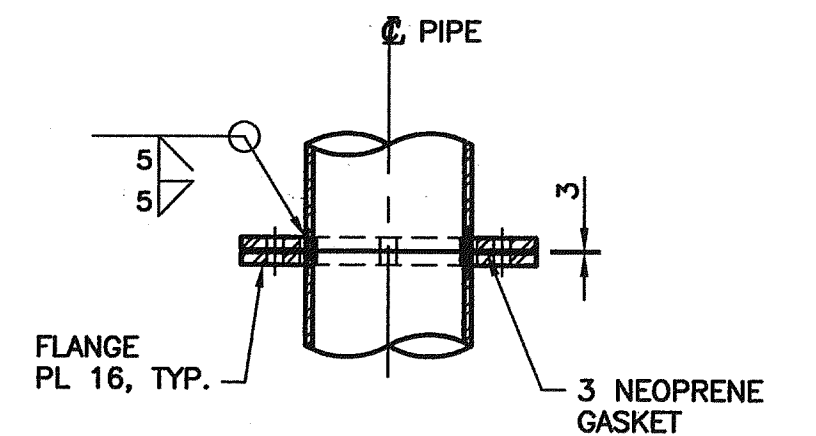
SECTION 3  
SCALE 1:10



SECTION 5  
SCALE 1:10



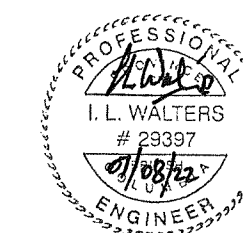
SECTION 4  
SCALE 1:10



SECTION 6  
SCALE 1:10

**NOTES:**

- FOR GENERAL NOTES SEE DRAWING 1554W-102.
- PIPE SHALL CONFORM TO CAN/CSA G40.20/21-M, GRADE 350W.
- ALL DECK DRAIN COMPONENTS SHALL BE HOT DIP GALVANIZED FOLLOWING FABRICATION.



Rev	Date	Description	Initial	SCALE	DESIGNED..... RC DATE 04/10/04
J				AS SHOWN	CHECKED..... ILW DATE 04/10/04
I					DRAWN..... LMR DATE 04/10/04
H					
G					
F					
E					
D					
C				04/12/14	ISSUED FOR CONSTRUCTION ILW
B				04/11/03	ISSUED FOR TENDER ILW
A	07/08/22	RECORD DRAWINGS	ILW	04/10/04	100% ISSUE FOR REVIEW ILW
REVISIONS				Date	ISSUE RECORD Initial

City of Abbotsford

MINISTRY OF TRANSPORTATION  
SOUTH COAST REGION

1554W FRASER HIGHWAY WEST UNDERPASS  
DECK DRAINAGE

601833

FILE No. REGION 1 DRAWING No. 1554W-118