

SHRIMPTON CREEK BRIDGE

NEW BRIDGE - 2021

DESIGN STANDARD: AS 5100: 2017 SERIES BRIDGE DESIGN

ROAD TRAFFIC LOADING: SM1600

NUMBER OF DESIGN LANES: 2
DESIGN TRAFFIC SPEED: 60km/h

TRAFFIC BARRIER PERFORMANCE LEVEL: MEDIUM

WIND LOADING

WIND TERRAIN CATEGORY: 2
WIND REGION: A2
WIND VELOCITY ULS: 48m/s
WIND VELOCITY SLS: 37m/s
AVERAGE RECURRENCE INTERVAL (ARI) ULS = 2000 YEARS
AVERAGE RECURRENCE INTERVAL (ARI) SLS = 20 YEARS

EARTHQUAKE LOADING: AS 5100.2

DESIGN CATEGORY: BEDC-2
DESIGN PERFORMANCE LEVEL: DAMAGE CONTROL
ANNUAL PROBABILITY OF EXCEEDANCE: $P = 1:500$
PROBABILITY FACTOR: $K_p = 1.0$
SEISMIC HAZARD FACTOR: $Z = 0.08$
SITE SUBSOIL CLASS: B_e/C_e - ROCK OR SHALLOW SOIL
DESIGN DUCTILITY FACTOR - HORIZONTAL (LONGITUDINAL): $\mu = 4.0$
DESIGN DUCTILITY FACTOR - HORIZONTAL (TRANSVERSE): $\mu = 4.0$

FLOOD DATA

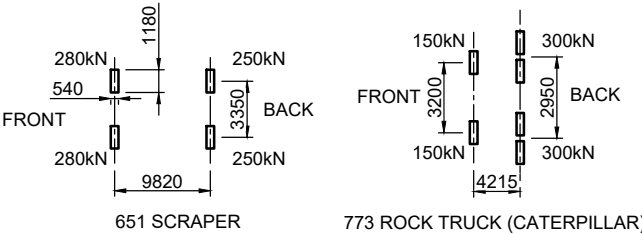
ARI	100 years	2000 years
DESIGN FLOWRATE (m³/s)	93	123
FLOOD VELOCITY (m/s)	2.3	2.5
FLOOD LEVEL (mAHD)	44.7	45.2

SCOUR DEPTH	100 years ARI	2000 years ARI
ABUTMENT A	3.3	5.0
PIER 1	3.2	3.5
PIER 2	3.2	3.5
ABUTMENT B	N.A	N.A

DIFFERENTIAL SETTLEMENT

5mm TOTAL BETWEEN BRIDGE SUPPORTS

CONSTRUCTION LOADING



LOADS REPRESENT MAX WORKING WHEEL LOADS.
DESIGN DYNAMIC LOAD ALLOWANCE NOT INCLUDED IN THESE LOADS.
THE DESIGN ADOPTS A DYNAMIC LOAD ALLOWANCE OF 0.1 AND AN ULTIMATE LIMIT STATE LOAD FACTOR OF 1.5.
VEHICLE SPEED IS RESTRICTED TO 10km/h ON THE BRIDGE.
LOAD IS TO BE RESTRICTED TO ONE VEHICLE AT ANY TIME RUNNING WITHIN THE CENTRAL 5m OF DECK WITH NO CO-EXISTING LOADING.
FOR THE 773 VEHICLE, THE WHEEL CONTACT AREA IS ASSUMED TO BE 750mm (TRANSVERSE) x 250mm (LONGITUDINAL).

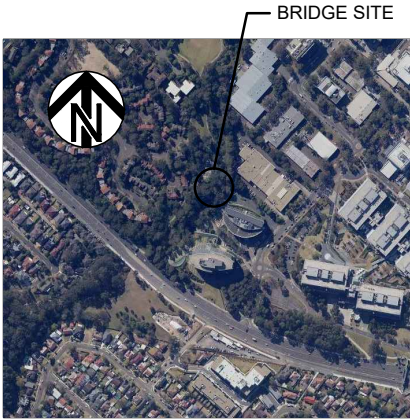
JACKING OF BRIDGE DECK FOR BEARING REPLACEMENT

FOR INFORMATION ONLY
THE DESIGN INCLUDES THE FOLLOWING REQUIREMENTS:

- COVER PLATE AND RAILING ON APPROACH ARE TO BE REMOVED PRIOR TO JACKING.
- NO TRAFFIC SHALL BE OVER THE BRIDGE DURING JACKING.
- DYNAMIC LOAD ALLOWANCE OF $\alpha = 0.1$ HAS BEEN INCLUDED IN THE DESIGN.
- REFER DRAWING No 115 AND 116 FOR JACKING LOCATIONS AND JACKING LOADS.
- ALL JACKS AT EACH LIFT POINT SHALL BE HYDRAULICALLY LINKED AND HAVE A CONTROL MECHANISM TO ENSURE THAT THE SAME VERTICAL DISPLACEMENTS OCCUR AT EACH LIFT POINT AT ALL TIMES DURING THE JACKING OPERATION.
- BRIDGE BEARINGS ARE DESIGNED TO BE REPLACED USING LIFTS OF NOT GREATER THAN 5mm.
- STEEL PLATES SHALL BE PLACED BETWEEN CONCRETE BEARING SURFACE AND HYDRAULIC JACK.
- MAXIMUM ALLOWABLE CONTACT PRESSURE BETWEEN CONCRETE SURFACE AND STEEL PLATES SHALL BE 25MPa.
- HORIZONTAL RESTRAINTS TO BE MAINTAINED TO RESIST A FORCE OF 500kN AT EACH ABUTMENT AND PIER.

LIST OF SPECIFICATIONS (BUT NOT LIMITED TO)

No.	SPECIFICATIONS FOR BRIDGE WORKS
TNSW QA R53	CONCRETE (FOR GENRAL USE), MORTAR AND GROUT
TNSW QA R63	GEOTEXTILES (SEPARATION AND FILTRATION)
TNSW QA R132	SAFETY BARRIER SYSTEMS
TNSW QA B30	EXCAVATION AND BACKFILL FOR BRIDGE WORKS
TNSW QA B58	BORED CAST-IN-PLACE REINFORCED CONCRETE PILES (WITH PERMANENT CASING)
TNSW QA B59	BORED CAST-IN-PLACE REINFORCED CONCRETE PILES (WITHOUT PERMANENT CASING)
TNSW QA B80	CONCRETE WORK FOR BRIDGES
TNSW QA B170	SUPPLY AND INSTALLATION OF VOID FORMERS
TNSW QA B201	STEEL WORK FOR BRIDGES
TNSW QA 220	PROTECTIVE TREATMENT OF BRIDGE STEEL WORK
TNSW QA 240	STEEL FASTENERS
TNSW QA 261	ERECTION OF STRUCTURAL ALUMINIUM
TNSW QA 280	PLAN ELSTOMERIC BEARING PADS AND STRIPS
TNSW QA 284	INSTALLATION OF BRIDGE BEARINGS
TNSW QA 312	COLD APPLIED SEALED JOINTS
TNSW QA 315	ELASTOMERIC STRIP SEAL EXPANSION JOINTS
TNSW QA 344	SPRAYED BITUMINOUS WATERPROOFING MEMBRANES
TNSW QA 345	SUPPLY OF BRIDGE NAME PLATES



LOCALITY PLAN

150 mm ON ORIGINAL
A1
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-100.dwg				14 Oct 2021		00:03:14	
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	MWR No.	APPROVAL	TITLE	NAME
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	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU

LDC Land Development Certificates
www.LDC.com.au

These plans are referred to in certificate no. **16746** approved by:
Eric Hausfeld
Registered Certifier

Registration No: BDC 2416
Categories: Certifier – Subdivision
Certifier – Strata
Certifier – Stormwater
Certifier – Road & Drainage
Certifier – Hydraulic (stormwater)

SMEC
Member of the Surbana Jurong Group
© ABN 47 065 475 149
LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

FRASERS PROPERTY

PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
COVER SHEET			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-100	03

SCHEDULE OF DRAWINGS

100	COVER SHEET	181	ON STRUCTURE BARRIER DETAILS SHEET A
101	DRAWING SCHEDULE	182	ON STRUCTURE BARRIER DETAILS SHEET B
		183	ON STRUCTURE BARRIER DETAILS SHEET C
105	GENERAL ARRANGEMENT SHEET A	184	ON STRUCTURE BARRIER DETAILS SHEET D
106	GENERAL ARRANGEMENT SHEET B	185	ON STRUCTURE BARRIER DETAILS SHEET E
107	GENERAL ARRANGEMENT SHEET C		
		186	RETAINING WALL CONCRETE DETAILS
111	PILING LAYOUT	187	RETAINING WALL REINFORCEMENT DETAILS
112	PILE DETAILS		
		188	OFF STRUCTURE BARRIER DETAILS SHEET A
115	ABUTMENT CONCRETE SHEET A	189	OFF STRUCTURE BARRIER DETAILS SHEET B
116	ABUTMENT CONCRETE SHEET B		
117	ABUTMENT CONCRETE SHEET C	190	OFF STRUCTURE BARRIER CYCLE RAIL AND HAND RAIL TERMINATION DETAIL
121	ABUTMENT REINFORCEMENT SHEET A	191	APPROACH SLAB CONCRETE SHEET A
122	ABUTMENT REINFORCEMENT SHEET B	192	APPROACH SLAB CONCRETE SHEET B
123	ABUTMENT REINFORCEMENT SHEET C		
124	ABUTMENT REINFORCEMENT SHEET D	195	APPROACH SLAB REINFORCEMENT SHEET A
		196	APPROACH SLAB REINFORCEMENT SHEET B
131	PIER DETAILS SHEET A		
132	PIER DETAILS SHEET B	201	EXPANSION JOINT DETAILS SHEET A
133	PIER DETAILS SHEET C	202	EXPANSION JOINT DETAILS SHEET B
135	PIER REINFORCEMENT DETAILS SHEET A	205	COVER PLATE DETAILS SHEET A
136	PIER REINFORCEMENT DETAILS SHEET B	206	COVER PLATE DETAILS SHEET B
141	BEARINGS	211	SCOUR PROTECTION DETAILS SHEET A
		212	SCOUR PROTECTION DETAILS SHEET B
151	DECK SETTING OUT	213	MAINTENANCE ACCESS
152	DECK CONCRETE SHEET A		
153	DECK CONCRETE SHEET B	215	BAR SHAPES DIAGRAMS
161	DECK POST TENSIONING SHEET A	221	CLADDING DETAILS SHEET A
162	DECK POST TENSIONING SHEET B	222	CLADDING DETAILS SHEET B
163	DECK POST TENSIONING SHEET C	223	CLADDING DETAILS SHEET C
171	DECK REINFORCEMENT SHEET A	230	BRIDGE AND APPROACH SLAB PAVEMENT DETAILS
172	DECK REINFORCEMENT SHEET B		
173	DECK REINFORCEMENT SHEET C	235	RAIL SPLICE DETAILS AT CURVE LOCATION
174	DECK REINFORCEMENT SHEET D		



These plans are referred to in
certificate no. **16746** approved by:

Eric Hausfeld
Registered Certifier

Registration No: BDC 2418
Categories: Certifier – Subdivision
Certifier – Strata
Certifier – Stormwater
Certifier – Road & Drainage
Certifier – Hydraulic (stormwater)

Land Development Certificates
www.LDC.com.au

150 mm ON ORIGINAL

A1

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	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU
SCALES AT A1 SIZE DRAWING				DESIGNER			
				 SMC Member of the Surbana Jurong Group © ABN 47 065 475 149 LEVEL 5, 20 BERRY STREET NORTH SYDNEY NSW 2060 SMC PROJECT No 30013046			
				CLIENT			
				 FRASERS PROPERTY			
PROJECT TITLE				SHRIMPTON CREEK BRIDGE			
				DRAWING SCHEDULE			
SCALE		PHASE		PROJECT / DRAWING No.		REVISION	
AS NOTED		TENDER		30013046-101		02	

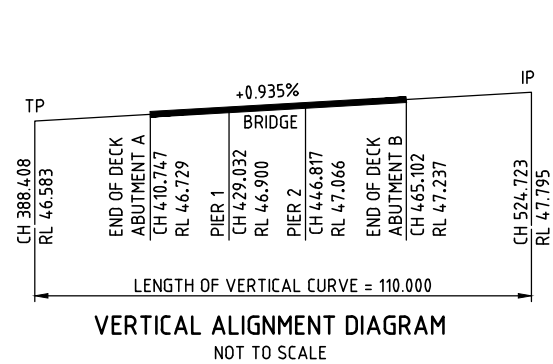
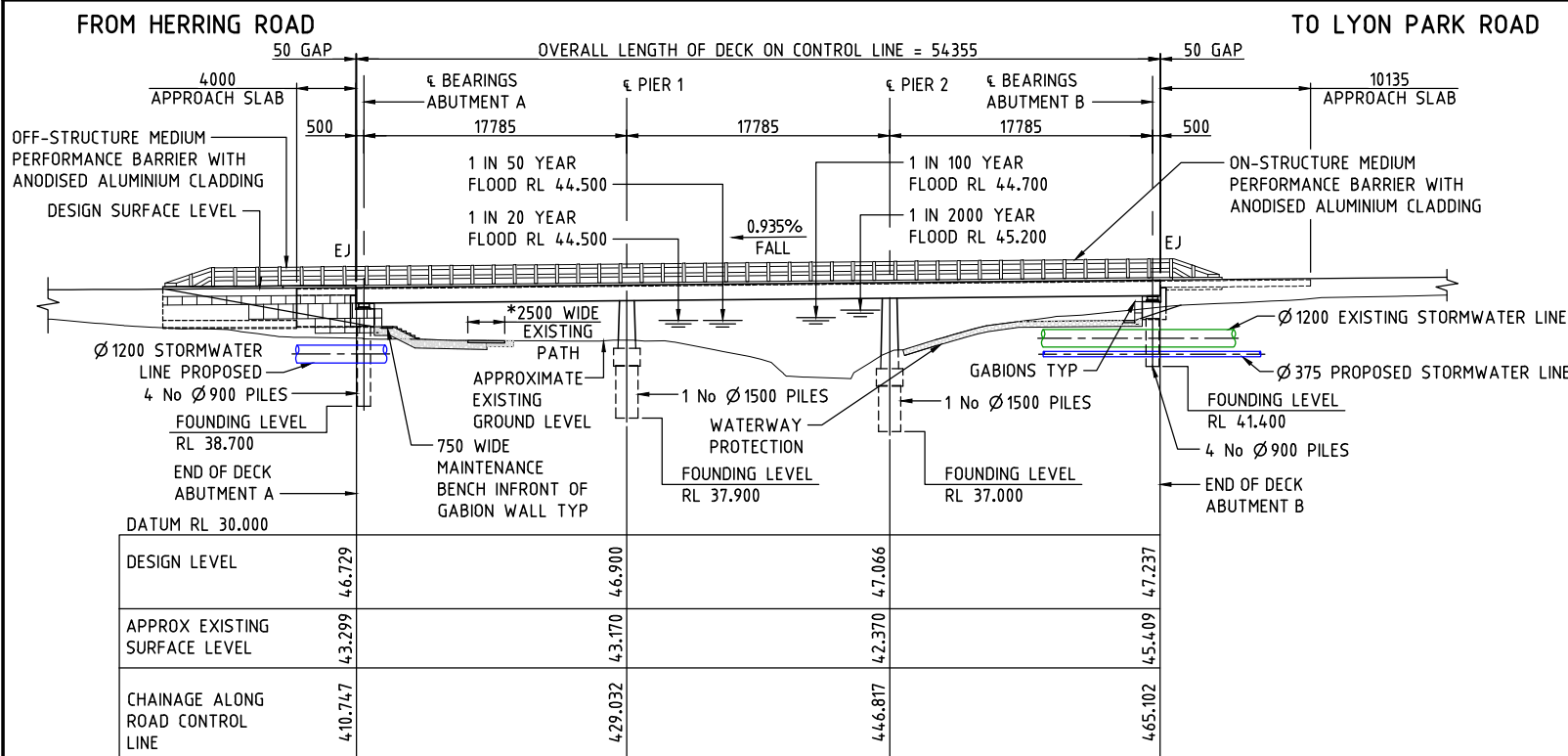
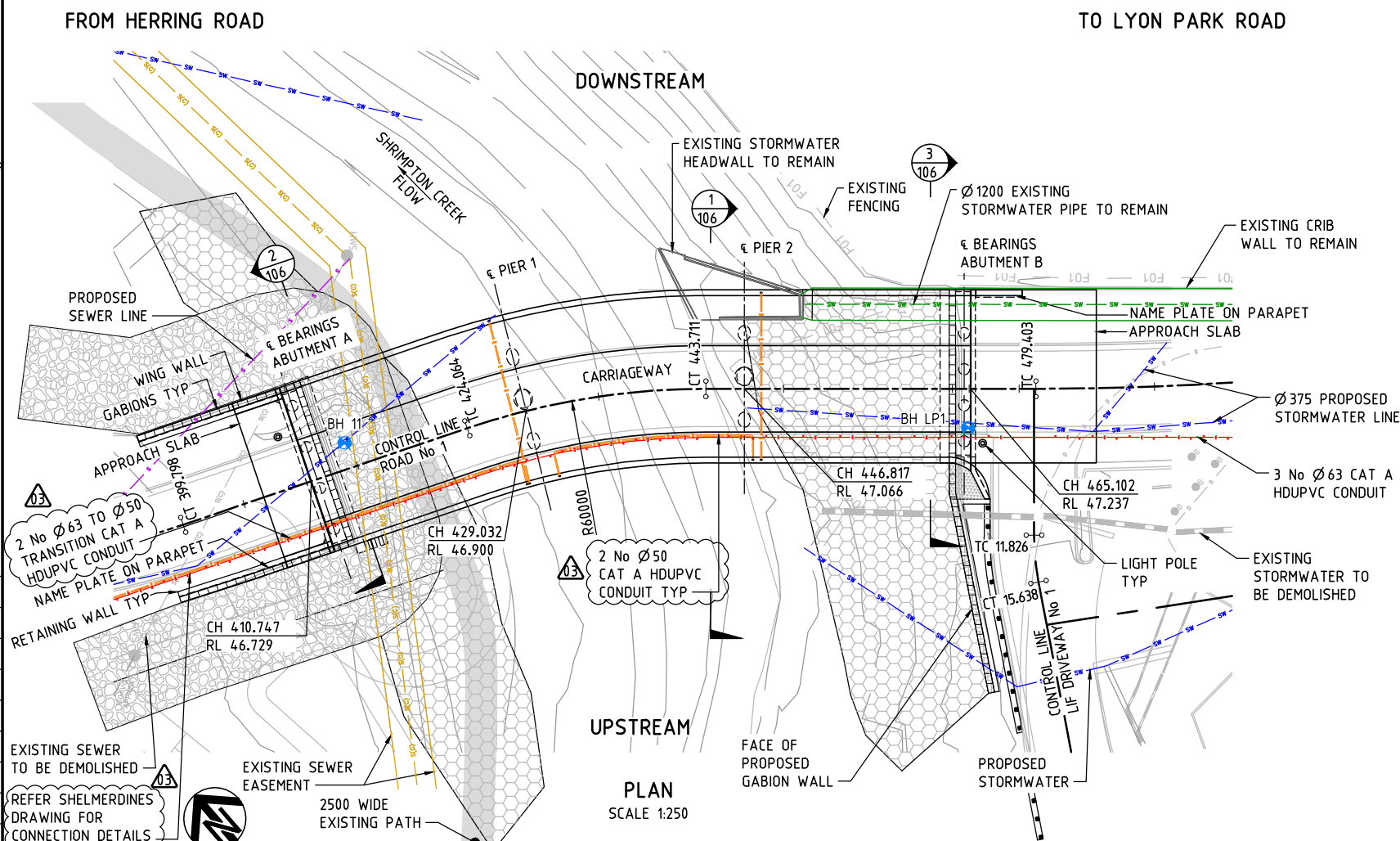
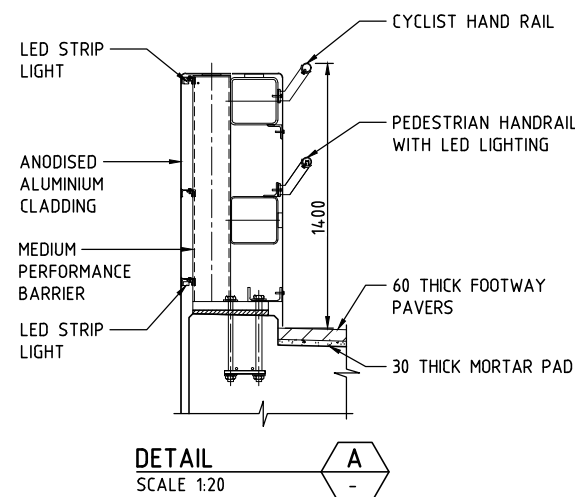
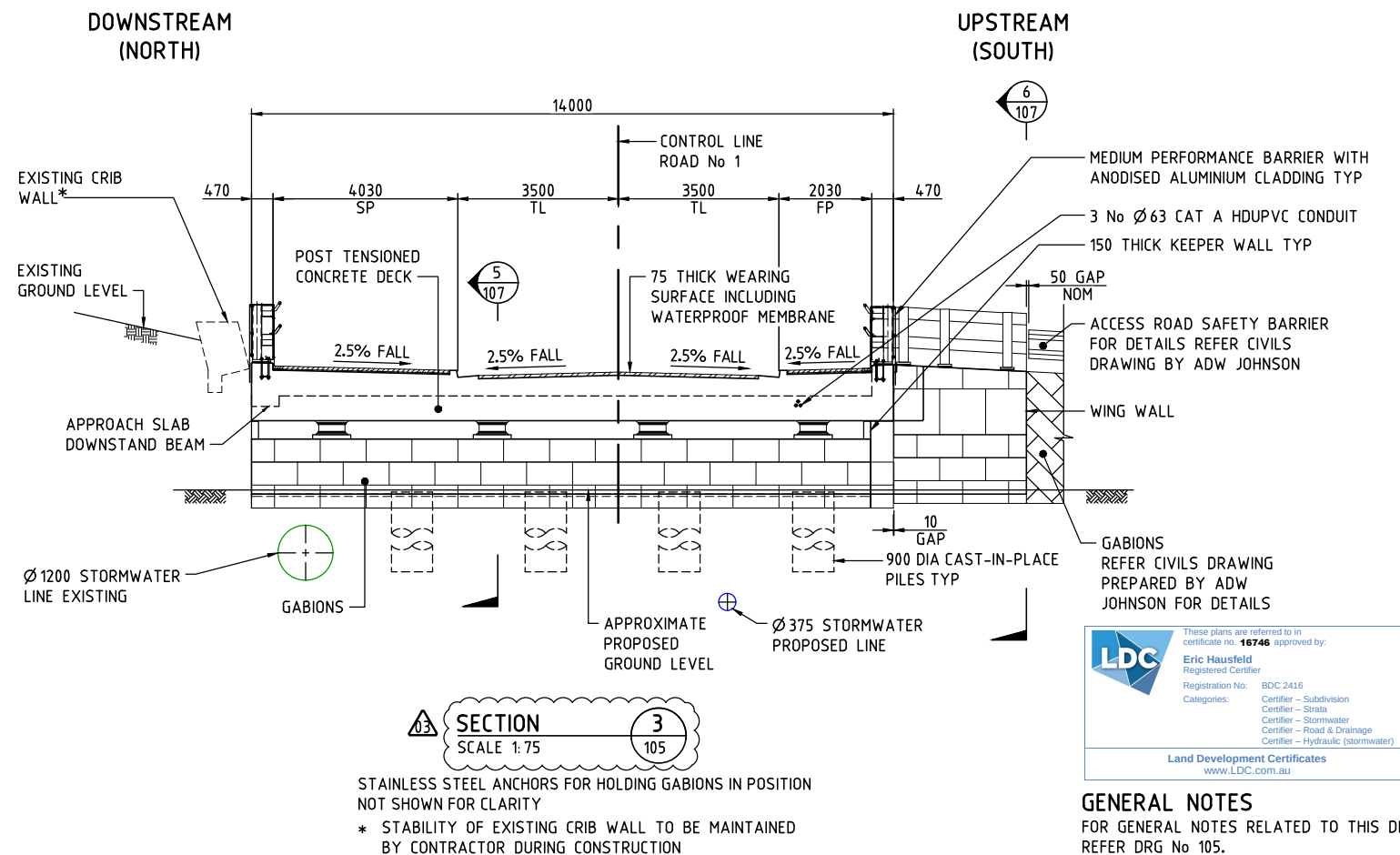
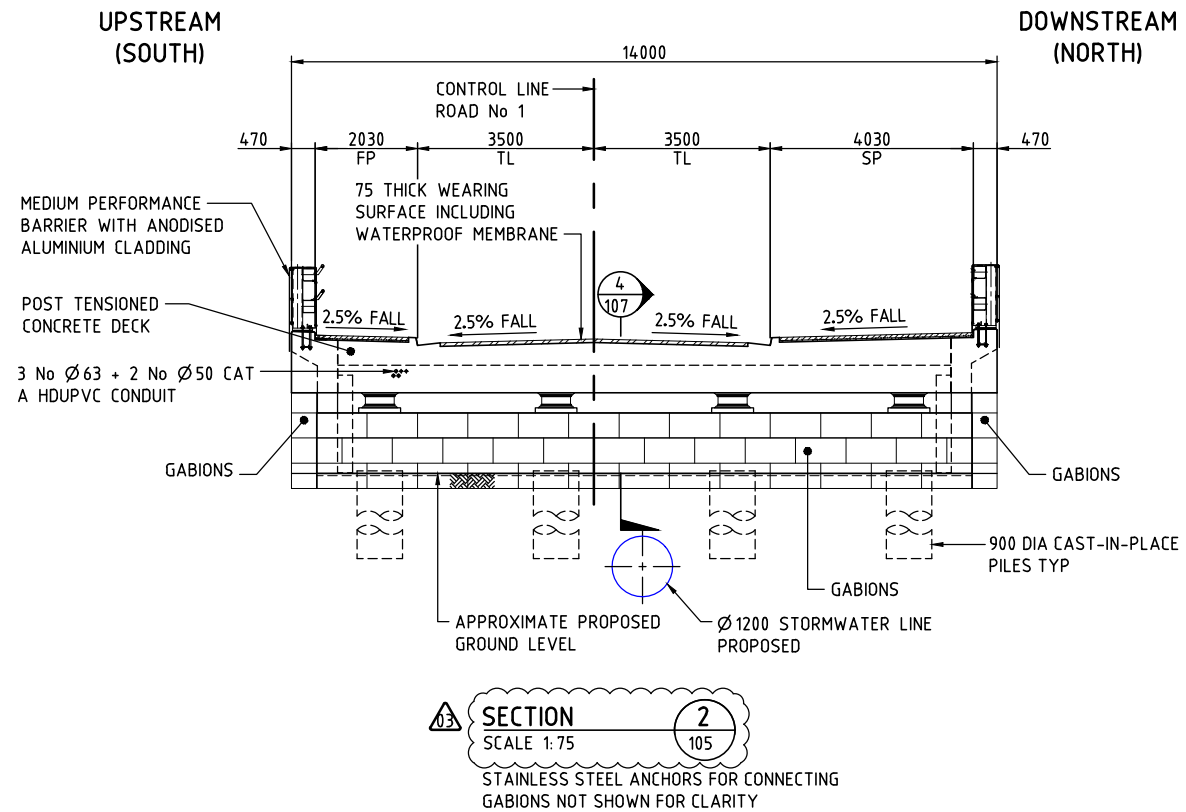
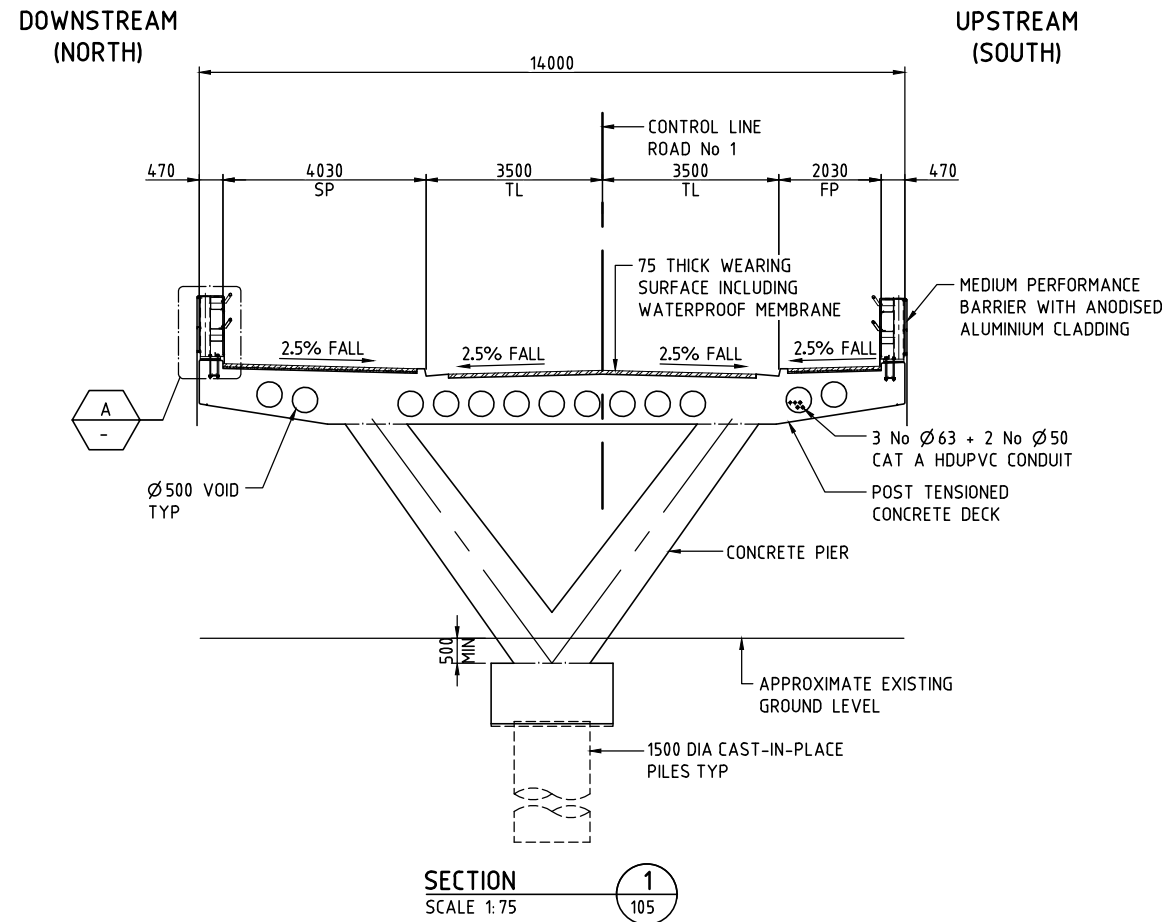


TABLE 1 - HORIZONTAL ALIGNMENT DATA - M010

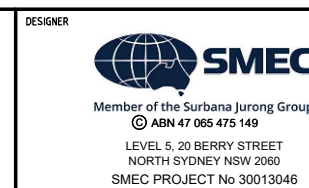
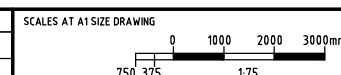
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HCEN	CENTRE OF CIRCLE	325753.827	6260275.793	-	-
HTP1	CH 399.798	325753.791	6260340.515	111°59'16"	-
HTP2	CH 424.064	325776.292	6260331.429	-	-
HTP3	CH 443.711	325792.992	6260321.248	-	-
HTP4	CH 470.403	325813.213	6260303.825	-	130°44'56"



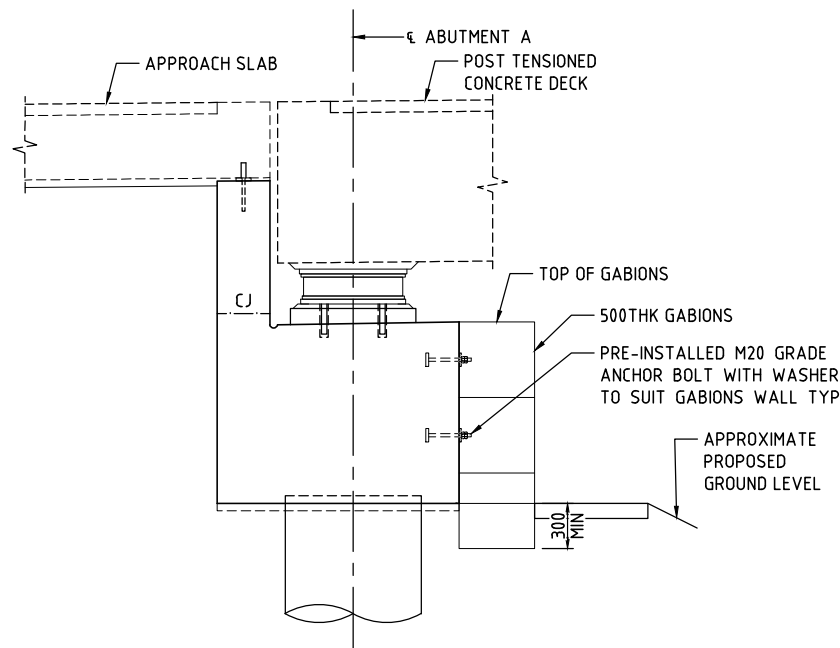


GENERAL NOTES
FOR GENERAL NOTES RELATED TO THIS DRAWING, REFER DRG No 105.

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	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



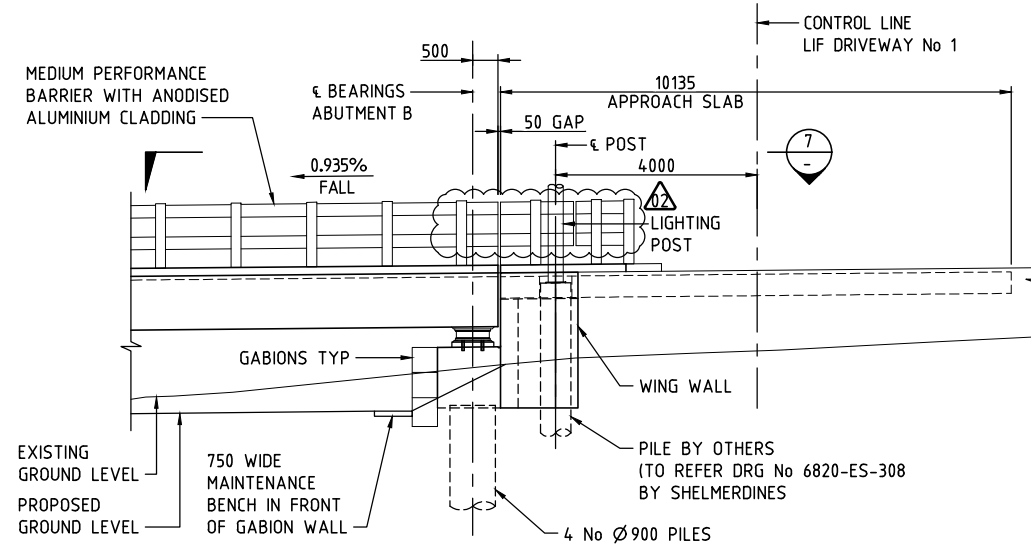
PROJECT TITLE SHRIMPION CREEK BRIDGE			
GENERAL ARRANGEMENT SHEET B			
SCALE AS NOTED	PHASE TENDER	PROJECT / DRAWING No. 30013046-106	REVISION 03



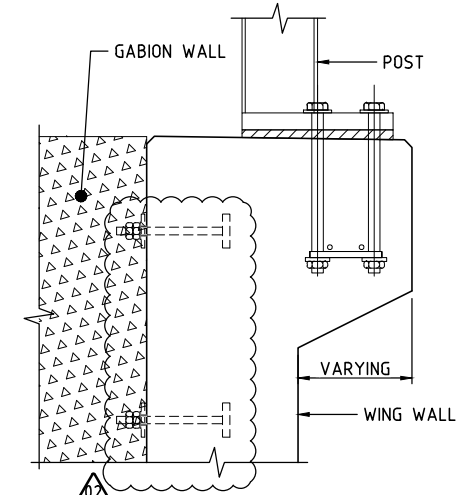
SECTION 4
SCALE 1:25

FROM HERRING ROAD

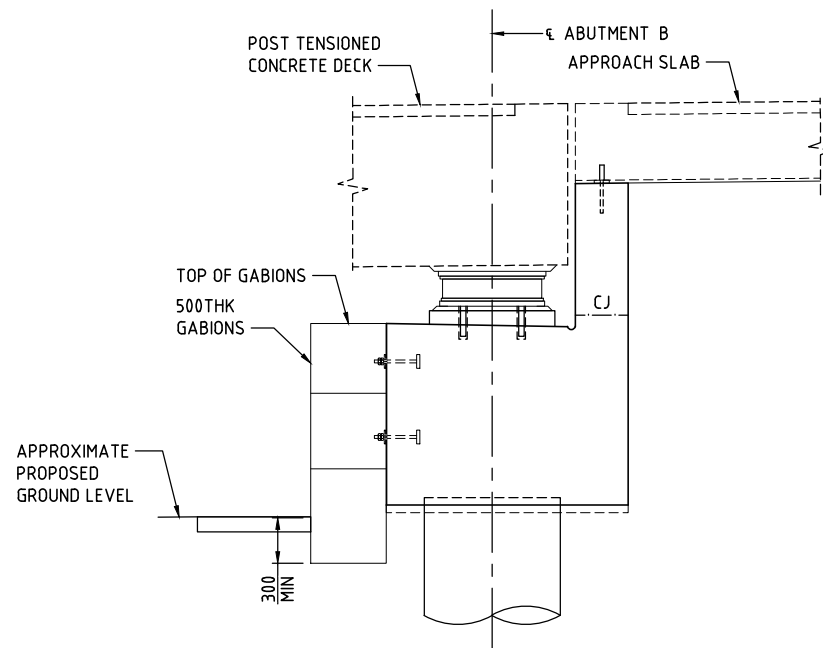
TO LYON PARK ROAD



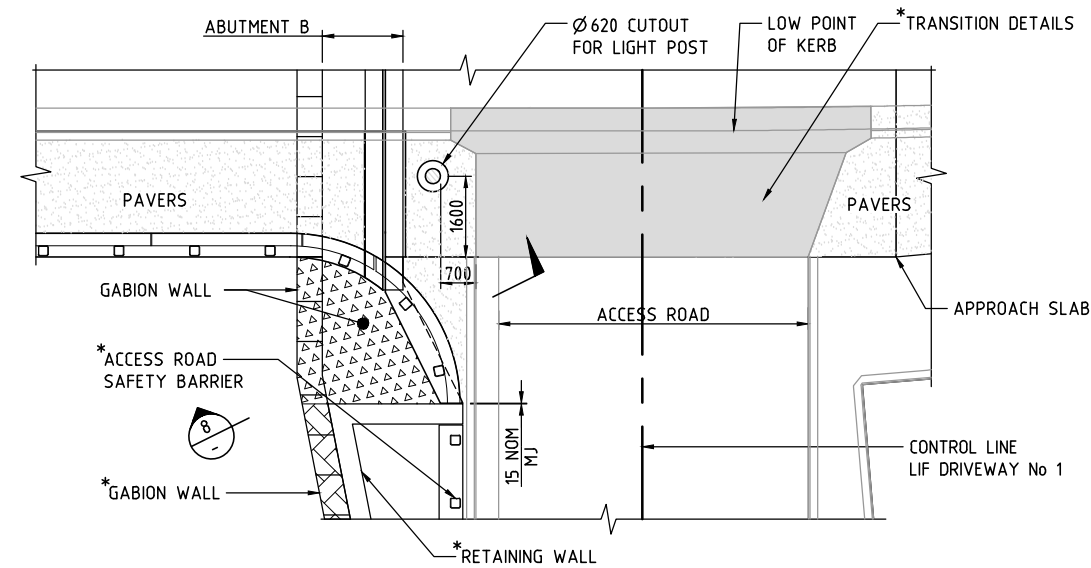
SECTION 6
SCALE 1:75



SECTION 8
SCALE 1:10



SECTION 5
SCALE 1:25



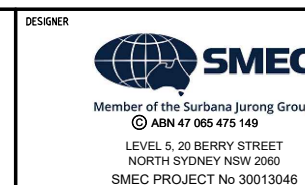
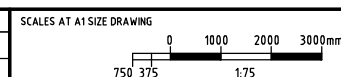
VIEW 7
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*FOR DETAILS REFER CIVILS DRAWINGS
PREPARED BY ADW JOHNSON



GENERAL NOTES
FOR GENERAL NOTES RELATED TO THIS DRAWING,
REFER DRG No 105.

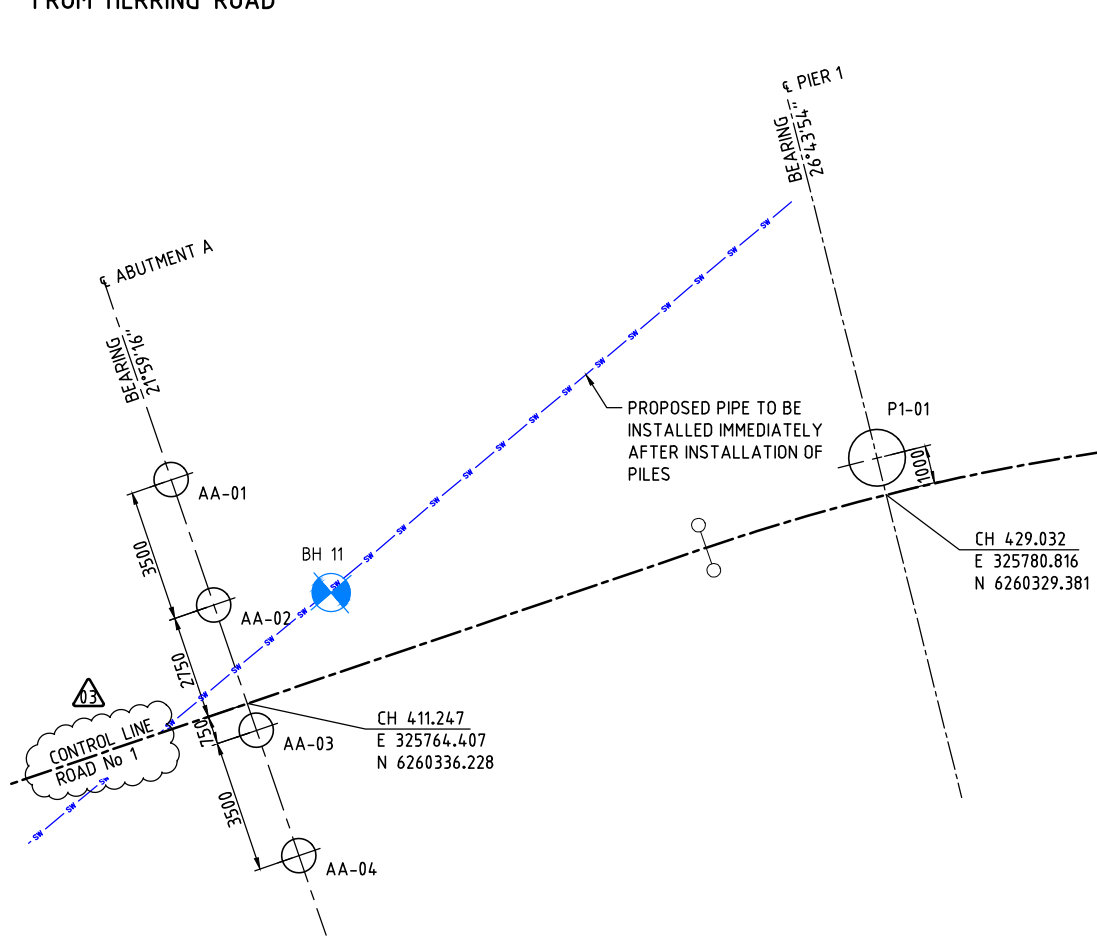
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						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



PROJECT TITLE			
SHRIMPION CREEK BRIDGE			
GENERAL ARRANGEMENT SHEET C			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-107	02

150 mm ON ORIGINAL

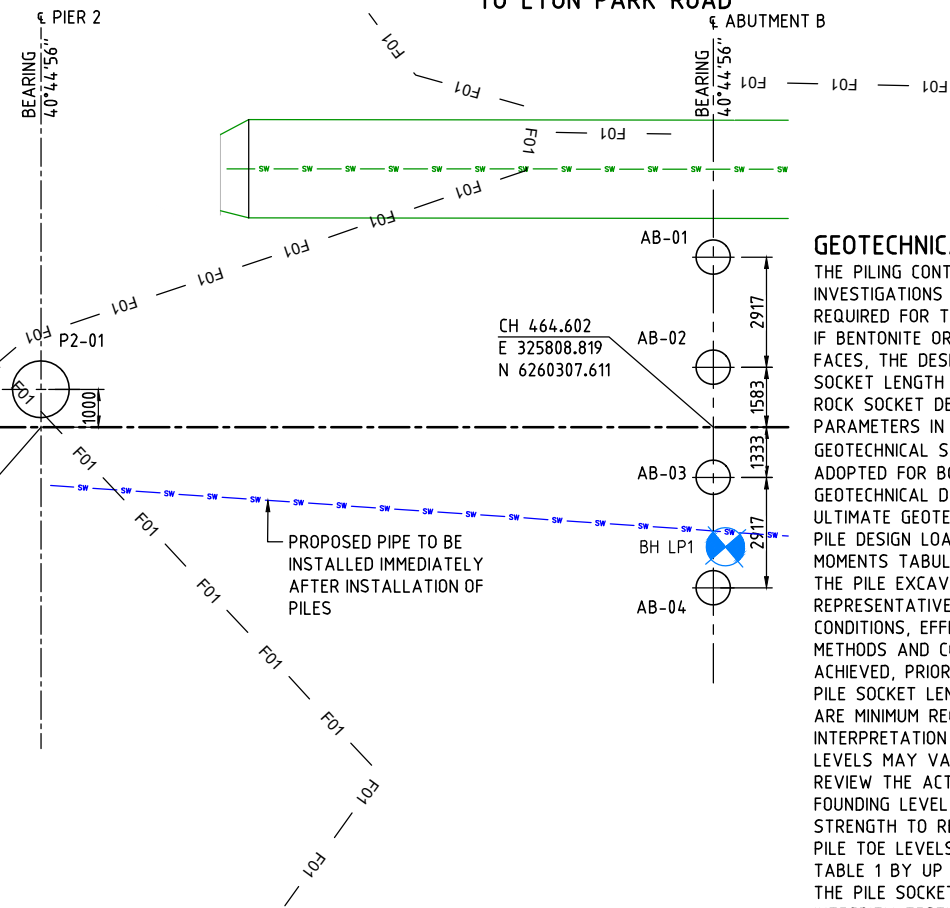
FROM HERRING ROAD



PILE LAYOUT
SCALE 1:100



TO LYON PARK ROAD



GEOTECHNICAL NOTES FOR CAST-IN-PLACE PILES

THE PILING CONTRACTOR SHALL REVIEW AVAILABLE GEOTECHNICAL INVESTIGATIONS AND DETERMINE WHETHER A TEMPORARY CASING IS REQUIRED FOR THE CONSTRUCTION OF THE CAST-IN-PLACE PILES. IF BENTONITE OR OTHER AGENCY IS USED TO SUPPORT PILE OR SOCKET FACES, THE DESIGNER SHALL BE INFORMED AND CONSIDER THE EFFECTS ON SOCKET LENGTH REQUIREMENTS. ROCK SOCKET DESIGNS ARE BASED ON THE GEOTECHNICAL DESIGN PARAMETERS IN TABLE 2. GEOTECHNICAL STRENGTH REDUCTION FACTOR ϕ_g OF 0.48 HAS BEEN ADOPTED FOR BORED PILES AND SHALL BE APPLIED TO THE ULTIMATE GEOTECHNICAL DESIGN PARAMETERS IN TABLE 2 TO DERIVE THE DESIGN ULTIMATE GEOTECHNICAL CAPACITY. PILE DESIGN LOADS ARE PRESENTED IN TABLE 1. THE AXIAL LOADS AND MOMENTS TABULATED ARE NOT CONCURRENT BUT ARE MAXIMUM VALUES. THE PILE EXCAVATION SHALL BE INSPECTED BY THE GEOTECHNICAL DESIGN REPRESENTATIVE (GDR) IN ORDER TO VALIDATE THE ASSUMED GROUND CONDITIONS, EFFECTIVENESS OF THE PILE TOE AND SOCKET CLEANING METHODS AND CONFIRM THAT THE MINIMUM ROCK SOCKET LENGTH HAS BEEN ACHIEVED, PRIOR TO CASTING OF CONCRETE. PILE SOCKET LENGTH, SOCKET AND BASE MATERIAL CLASSES IN TABLE 1 ARE MINIMUM REQUIREMENTS. PILE TOE LEVELS SHOWN ARE BASED ON INTERPRETATION OF AVAILABLE SITE INVESTIGATION. THE ACTUAL PILE TOE LEVELS MAY VARY DEPENDING ON ACTUAL CONDITION. THE GDR SHALL REVIEW THE ACTUAL PROFILE OF THE ROCK SOCKET AND ADJUST THE FOUNDING LEVEL REQUIRED TO ACHIEVE THE DESIGN GEOTECHNICAL STRENGTH TO RESIST THE APPLIED STRUCTURAL LOADING. PILE TOE LEVELS RL 'A' CAN BE VARIED FROM THE GIVEN VALUES IN TABLE 1 BY UP TO 1.0m AT THE DIRECTION OF THE GDR, PROVIDED THAT THE PILE SOCKET REQUIREMENTS IN TABLE 1 ARE ACHIEVED. INTEGRITY TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS2159 AND TfNSW BRIDGE TECHNICAL DIRECTION BTD 2011/08 USING LOW STRAIN HEAD IMPACT METHODS, IE. IMPULSE RESPONSE (IR) OR PULSE ECHO (PE). THE MINIMUM NUMBER OF PILES TO BE TESTED IS 5. PILE DESIGN ASSUMES THAT CLASS III SANDSTONE (HIGH STRENGTH SANDSTONE) WILL NOT BE SCOURD DURING FLOODING EVENTS.

GENERAL NOTES

CONCRETE EXPOSURE CLASSIFICATION: B1
MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 40MPa.
THE PLACING OF CONCRETE IN THE PILES SHALL BE CARRIED OUT IN ONE CONTINUOUS OPERATION UNLESS OTHERWISE SPECIFIED.
ALL SETTING OUT INFORMATION SHALL BE CHECKED BY THE CONTRACTOR ON SITE PRIOR TO CONSTRUCTION.

REINFORCEMENT NOTES

NOMINAL COVER TO REINFORCEMENT NEAREST TO THE CONCRETE SURFACE OF BORED PILE SHALL BE 75mm UNLESS NOTED OTHERWISE. UNLESS NOTED OTHERWISE THE MINIMUM LAP LENGTHS OF BARS SHALL BE AS FOLLOWS:

BAR SIZE:	N12	N16	N20	N24	N28	N32	N36
a) HORIZONTAL BARS WITH >300mm OF CONCRETE CAST BELOW THE BAR	650	900	1150	1430	1730	2060	2410
b) OTHER BARS	500	690	890	1100	1330	1590	1860

CLEAR DISTANCE BETWEEN LAPPED BARS SHALL NOT EXCEED 3 x THE SMALLEST BAR DIAMETER.
REINFORCEMENT MAY BE DISPLACED SLIGHTLY WHERE NECESSARY TO CLEAR DOWELS, ANCHORS, LIFTING ANCHORS, DUCTS, DRAINAGE LINES AND GENERAL FITMENTS.
REINFORCING BARS IN PILES SHALL BE ELECTRICALLY CONNECTED. ELECTRICAL CONNECTIVITY OF REINFORCEMENT AND FITMENTS SHALL BE DEMONSTRATED IN ACCORDANCE WITH AS2832.5.
REINFORCING BARS AND STARTER BARS IN PILES MAY BE LAPPED ON THE INSIDE USING CRANKED BARS.
FOR REINFORCEMENT NOTES REFER DRG No 112.

TABLE 1 - BORED CAST-IN-PLACE PILES

LOCATION	PILE No	TOE OF PILE RL 'A'	TOP OF PILE RL 'B'	LENGTH OF PILE 'L' (m)	MINIMUM TOTAL SOCKET LENGTH 'Ls'(m)	SOCKET MATERIAL 'S'/ LAYER THICKNESS (m)	FOUNDING MATERIAL 'R'	DESIGN AXIAL COMPRESSION		DESIGN MAXIMUM BENDING MOMENT (ULS) (kNm)	DESIGN MAXIMUM SHEAR (ULS) (kN)	REINFORCEMENT	
								SLS (kN)	ULS (kN)			'x'	'y'
ABUTMENT A	AA-01	38.700	44.129	5.429	1.700	CLASS III SANDSTONE (1.7m)	CLASS III SANDSTONE	1650	2400	900	450	3	23
	AA-02*											4	24
	AA-03											5	25
	AA-04*											6	26
PIER 1	P1-01*	37.900	41.466	3.566	2.500	CLASS III SANDSTONE (2.5m)		9100	12600	3700	1350	7	27
PIER 2	P2-01*	37.000	40.102	3.102	2.500	CLASS III SANDSTONE (2.5m)						8	28
ABUTMENT B	AB-01	41.400	44.628	3.228	2.400	CLASS V SANDSTONE (1.3m) CLASS III SANDSTONE (1.1m)		1750	2200	400	325	9	29
	AB-02*											10	30
	AB-03											11	31
	AB-04											12	32

1. TABULATED DESIGN LOADS ARE MAXIMUM OF EACH ABUTMENT AND PIER AND ARE NOT CONCURRENT.

* INDICATES PILES NOMINATED FOR INTEGRITY TESTING.

TABLE 2 - SANDSTONE CLASSIFICATION AND DESIGN PARAMETERS

CLASS	SANDSTONE CLASSIFICATION			DESIGN PARAMETERS		
	UCS (MPa)	DEFECT SPACING	ALLOWABLE SEAMS	ULTIMATE END BEARING (MPa)	SERVICEABILITY END BEARING (MPa)	ULTIMATE SHAFT ADHESION (kPa)
CLASS V SANDSTONE	>1	N.A	N.A	3	0.8	150
CLASS III SANDSTONE	>7	>200	<5%	20	3.5	800
CLASS II SANDSTONE	>12	>200	<3%	60	6.0	1500

- UCS DENOTES UNCONFINED COMPRESSIVE STRENGTH.
- UCS CAN BE CORRELATED TO POINT LOAD STRENGTH INDEX $I_{s(50)}$ USING A CORRELATION OF UCS = 20 $I_{s(50)}$.
- # DESIGN PARAMETERS HAVE BEEN REVIEWED AND AMENDED TO REFLECT SITE SPECIFIC CONDITIONS.



LEGEND

- BOREHOLE (REFER DOUGLAS PARTNERS REPORT No 86043.01 DEC 2017)
- F01 FENCE 01

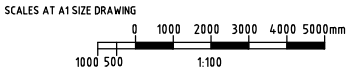
PROPOSED UTILITIES

- SW PROPOSED STORMWATER

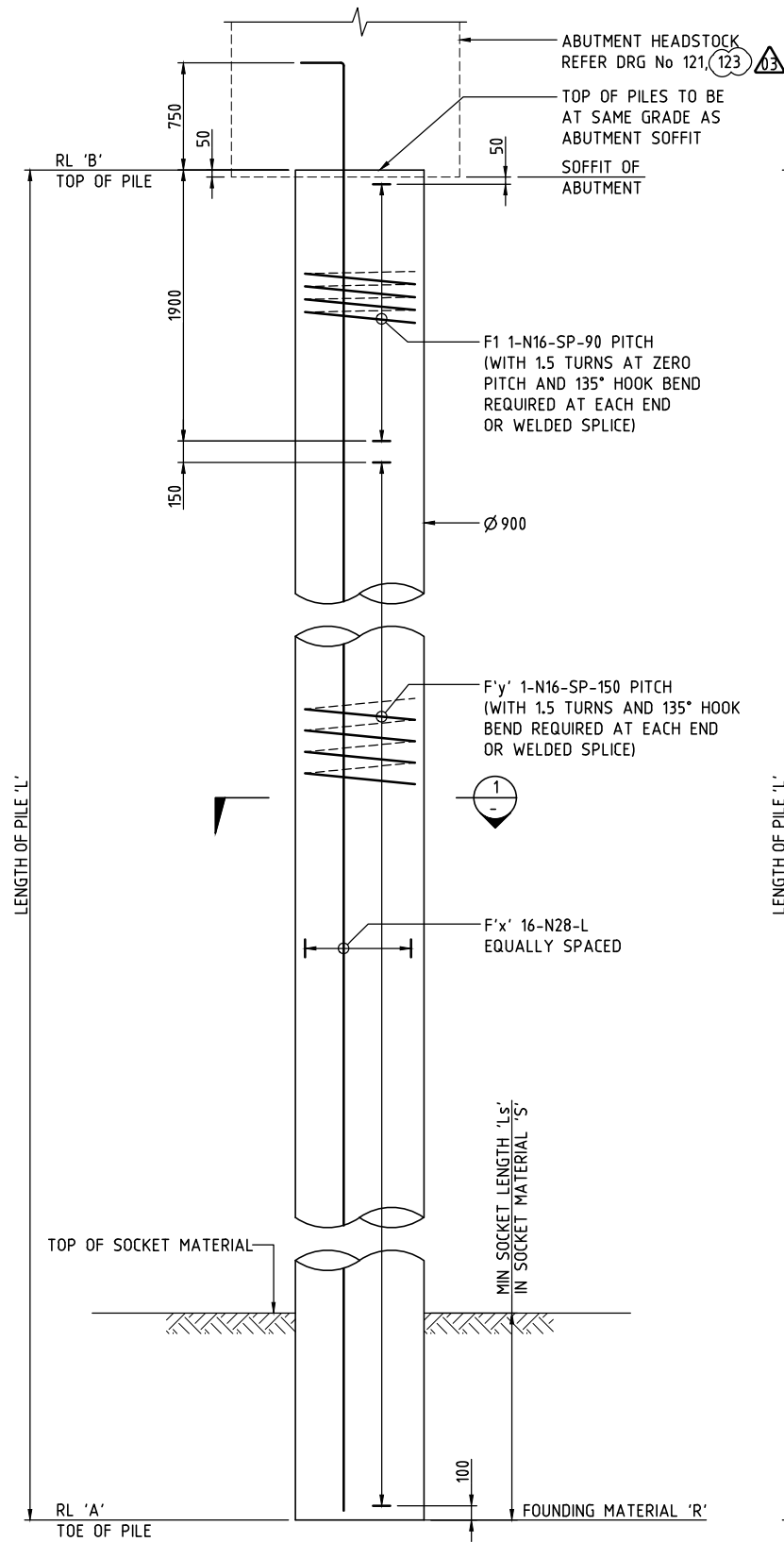
EXISTING SERVICES TO REMAIN

- SW UNDERGROUND STORMWATER PIPE (QL D)

DRAWING FILE LOCATION / NAME								PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-111.dwg								14 Oct 2021		00:02:29	
EXTERNAL REFERENCE FILES				REV	DATE	AMENDMENT / REVISION DESCRIPTION		MWR No.	APPROVAL	TITLE	
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	02	20.08.2021	ISSUED FOR TENDER		001	JD	DRAFTING CHECK				
	03	14.10.2021	ISSUED FOR TENDER		002	JD	DESIGNER				
							DESIGN CHECK				
							PROJECT MANAGER				
							PROJECT DIRECTOR				



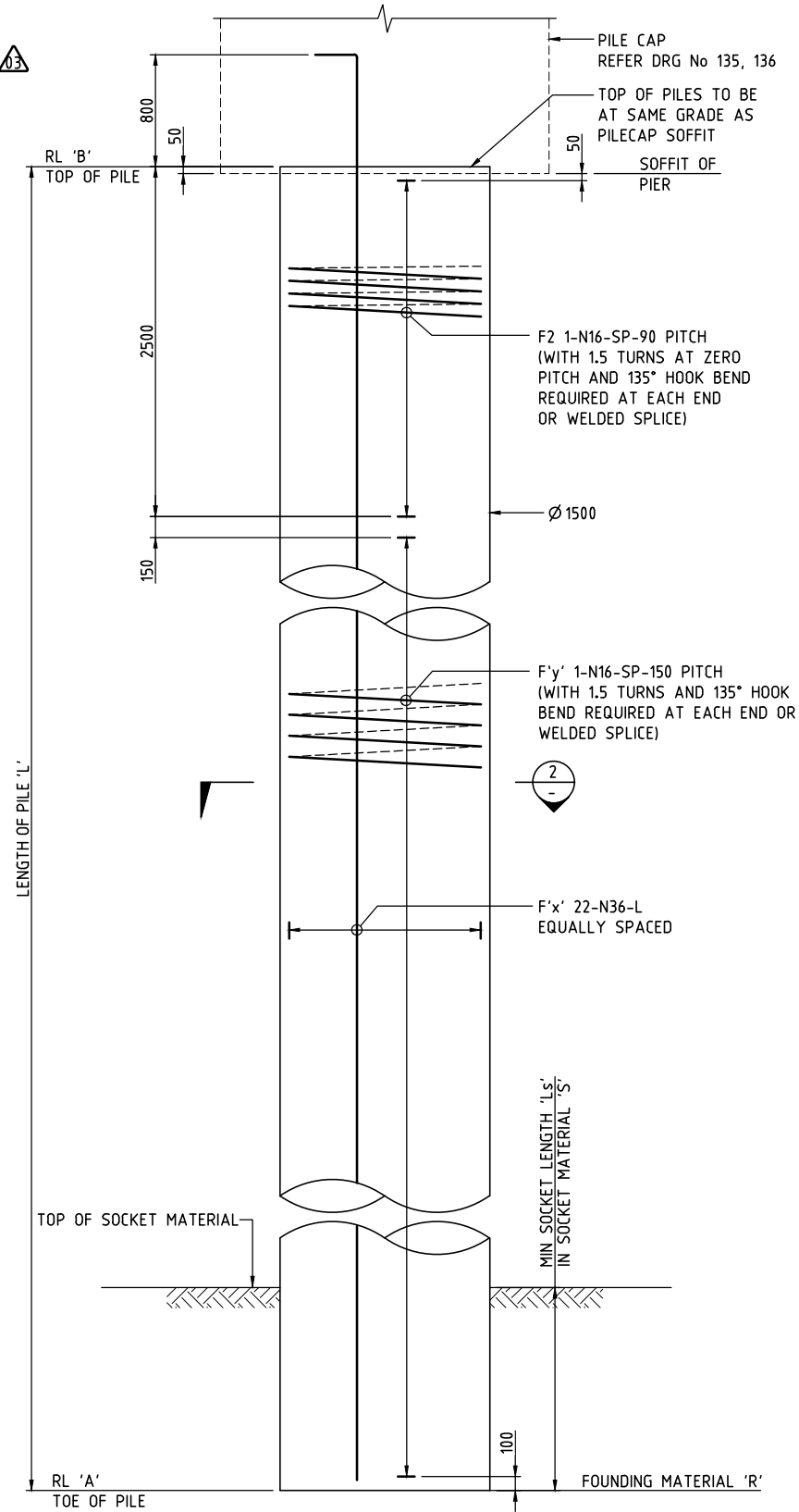
PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
PILING LAYOUT			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-111	03



ELEVATION
SCALE 1:25

FOR VALUES OF RL 'A', RL 'B', 'L', 'Ls', 'R', 'S', 'x' AND 'y',
REFER TABLE 1 ON DRG No 111

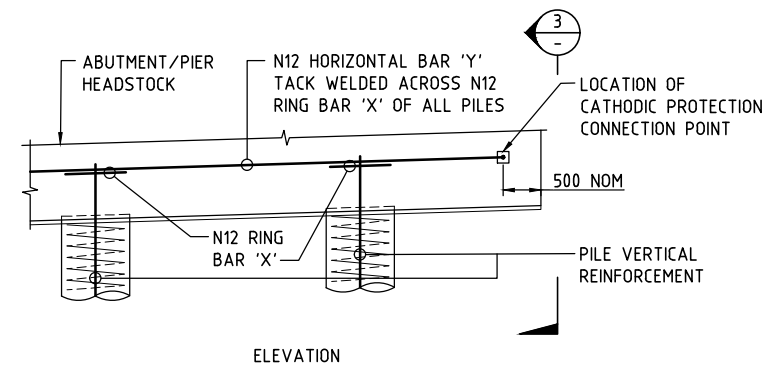
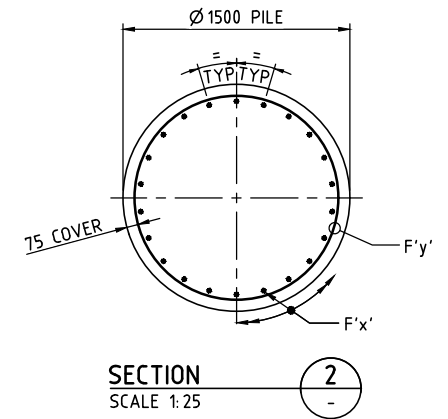
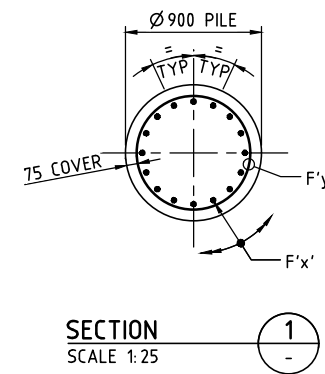
PILE AT ABUTMENTS



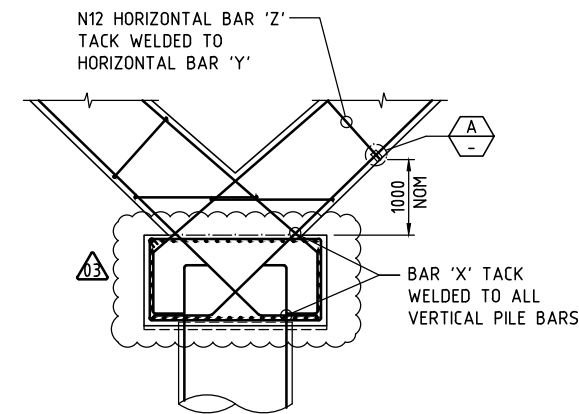
ELEVATION
SCALE 1:25

FOR VALUES RL 'A', RL 'B', 'L', 'Ls', 'R', 'S', 'x' AND 'y',
REFER TABLE 1 ON DRG No 111

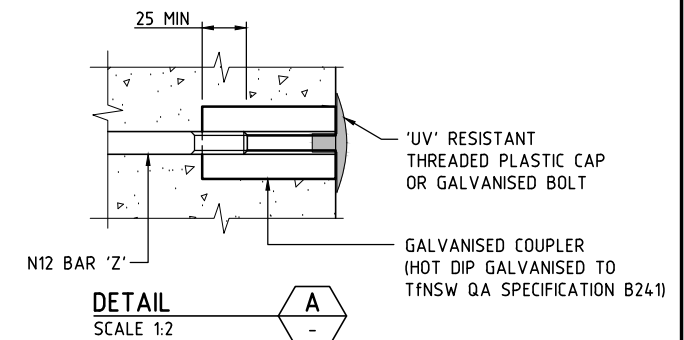
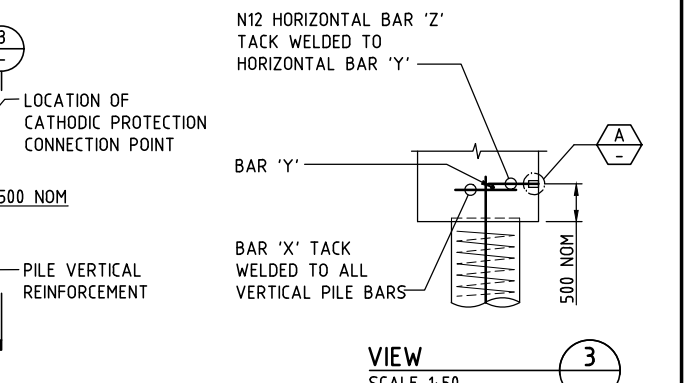
PILE AT PIERS



DETAILS OF CATHODIC PROTECTION AT ABUTMENT PILES
NOT TO SCALE



DETAILS OF CATHODIC PROTECTION AT PIER PILES
NOT TO SCALE



GENERAL NOTES

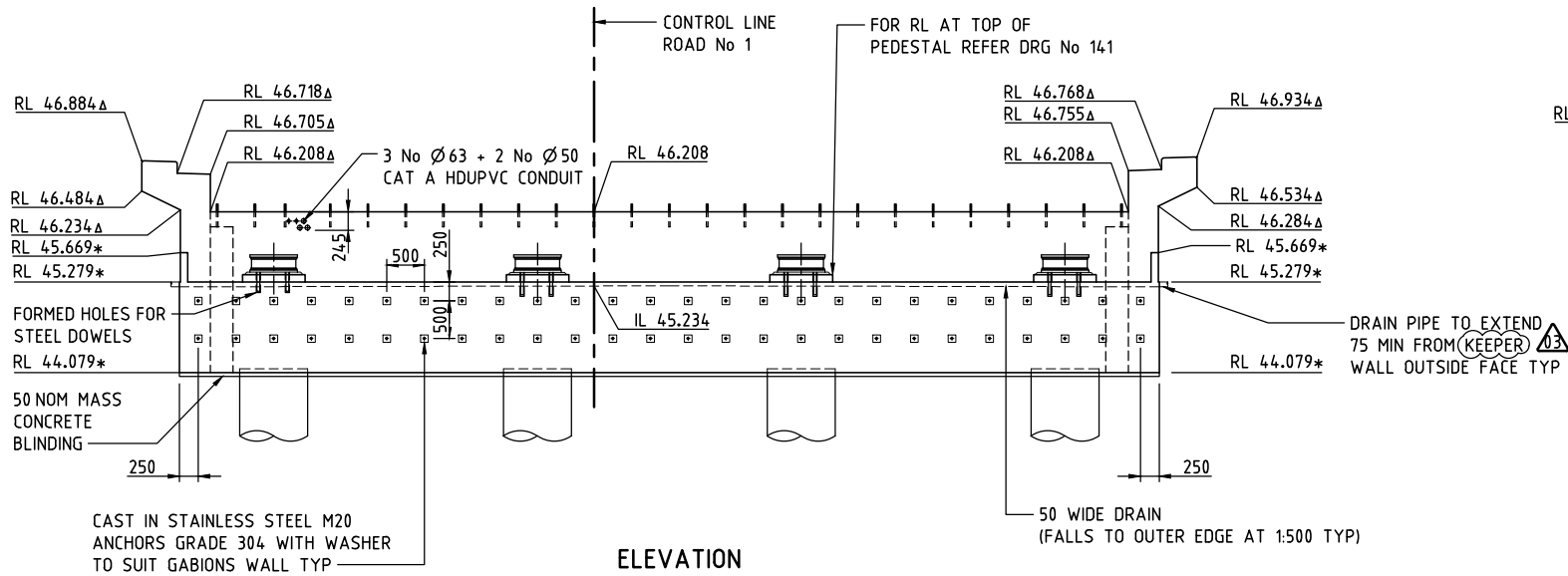
FOR GENERAL NOTES RELATING TO THIS DRAWING,
REFER DRG No 111.



PROJECT TITLE
SHRIMPION CREEK BRIDGE

PILE DETAILS

SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-112	03



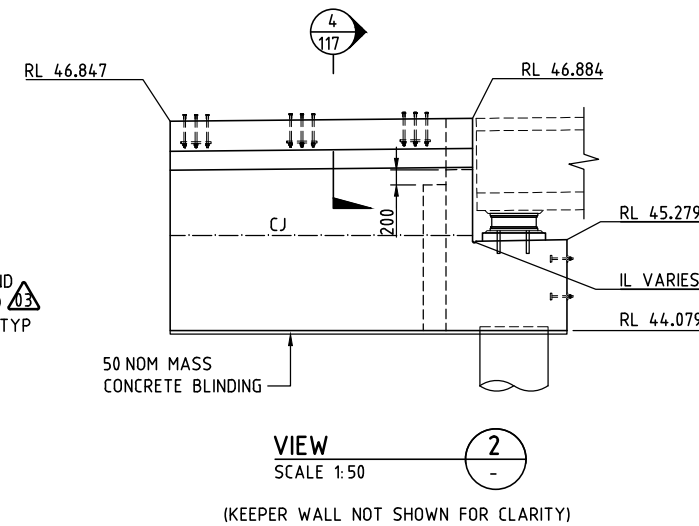
ELEVATION

SCALE 1:50

BARRIER NOT SHOWN FOR CLARITY.

* DENOTES RL OF FRONT FACE OF HEADSTOCK.

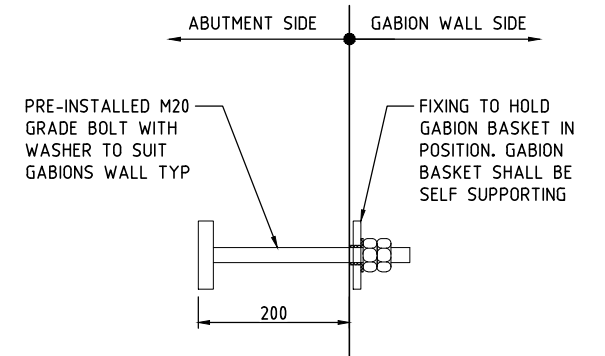
Δ DENOTES RL OF FRONT FACE OF CURTAIN WALL.



VIEW

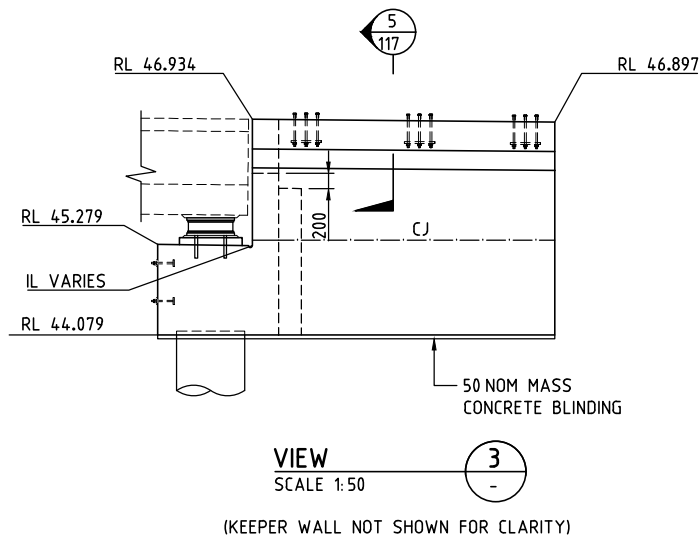
SCALE 1:50

(KEEPER WALL NOT SHOWN FOR CLARITY)



TYPICAL PRE-INSTALLED ANCHOR BOLT DETAILS

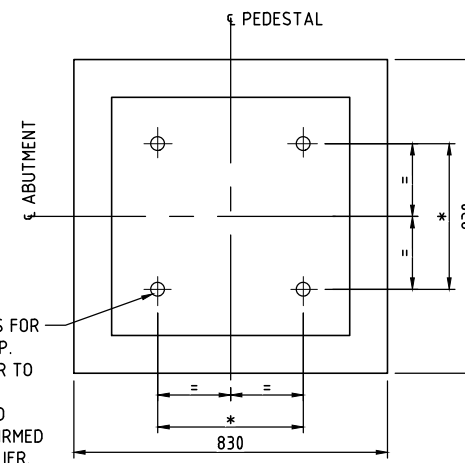
SCALE 1:5



VIEW

SCALE 1:50

(KEEPER WALL NOT SHOWN FOR CLARITY)



DETAIL

SCALE 1:10

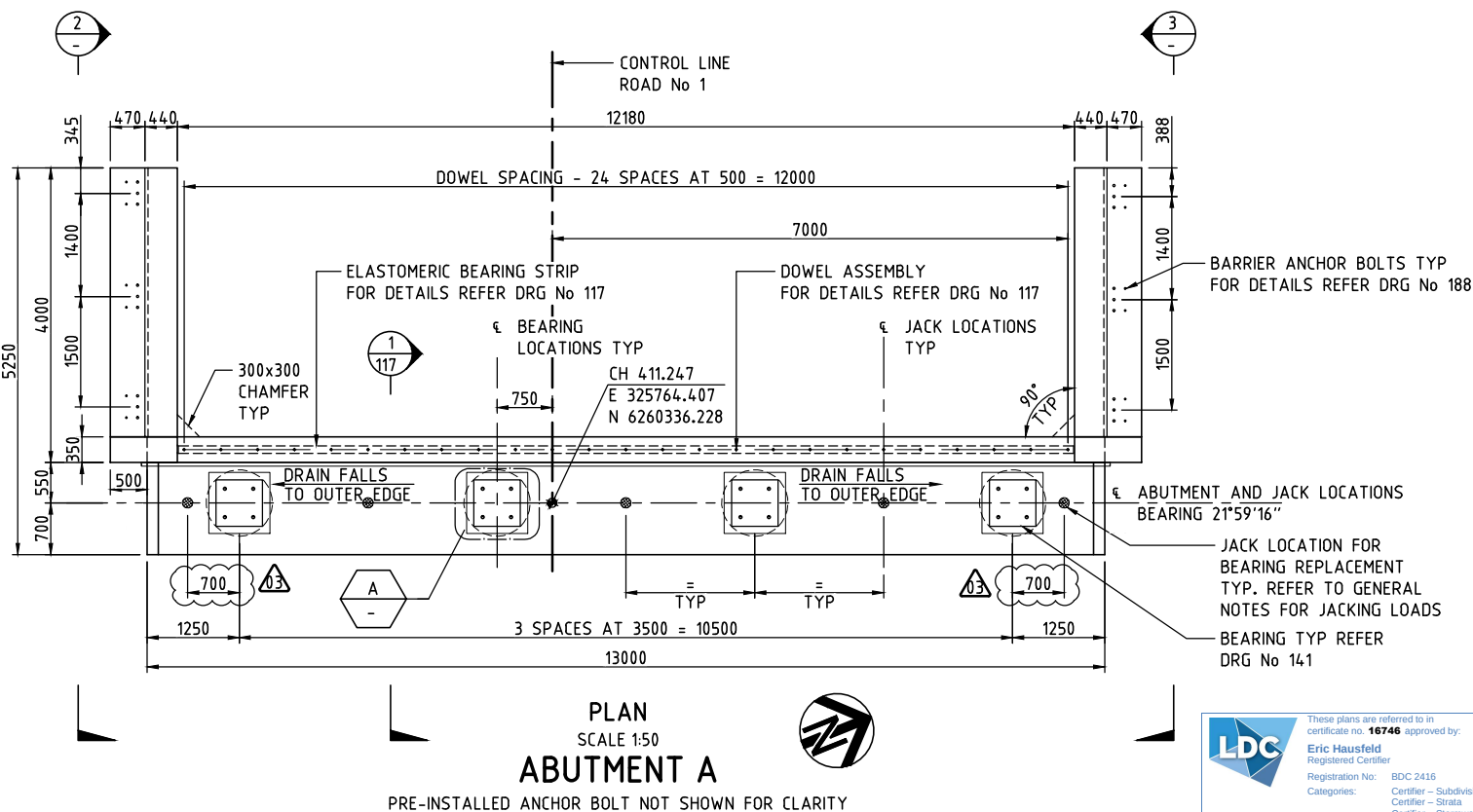
* DENOTES DISTANCE BETWEEN THE DOWELS REFER DRG No 141 FOR DETAILS

GENERAL NOTES

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
CONCRETE EXPOSURE CLASSIFICATION: B1.
MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 40 MPa.
MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF MASS CONCRETE SHALL BE 20 MPa.
EDGES SHALL BE CHAMFERED 20 x 20 AND RE-ENTRANT ANGLES FILLETED 20 x 20 UNO.
CJ DENOTES CONSTRUCTION JOINT.
● DENOTES JACKING POINT FOR BEARING REPLACEMENT.
MAXIMUM JACKING LOADS PER JACK SHALL BE:
SLS = 1250 kN
ULS = 1850 kN
EXPOSED CONCRETE SURFACE TO HAVE SMOOTH FINISH.
FOR STAINLESS STEEL ANCHOR NOTES REFER DRAWING No 223.
DOWELS IN THE ABUTMENT CONCRETE MAY BE DISPLACED SLIGHTLY WHERE NECESSARY TO CLEAR ELECTRICAL DUCTS.

DURABILITY NOTES

MAXIMUM TOTAL BINDER CONTENT SHALL BE KEPT AT 430kg/m³ WITH TYPE GB CEMENT WITH 65.5% GROUND GRANULAR BLAST-FURNACE SLAG.
USE 36mm THICK PLYWOOD FORMWORK OR PROVIDE INSULATION TO FORMWORK CONSTRUCTED WITH OTHER MATERIALS TO ACHIEVE AN OVERALL SURFACE CONDUCTANCE LESS THAN 3.0W/m² °C.
MAXIMUM CONCRETE PLACEMENT TEMPERATURE SHALL NOT EXCEED 27°C.
TOP SURFACE OF THE ABUTMENT HEADSTOCKS SHALL BE COVERED WITH 20mm THICK POLYSTYRENE FOAM OR EQUIVALENT AFTER CASTING. THE INSULATION SHALL BE REMOVED AT THE SAME TIME AS THE FORMWORK.
FORMWORK SHALL BE REMOVED NOT EARLIER THAN 216 HOURS.
THERMOCOUPLES SHOULD BE LOCATED WITHIN THE CONCRETE MEMBER BEING CONSTRUCTED. (ONE AT CENTRE AND ONE BELOW SURFACE WITH THE LAST DIMENSION).

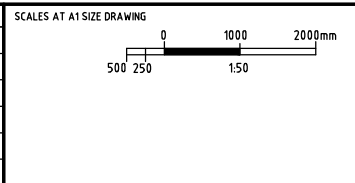


PLAN
SCALE 1:50
ABUTMENT A

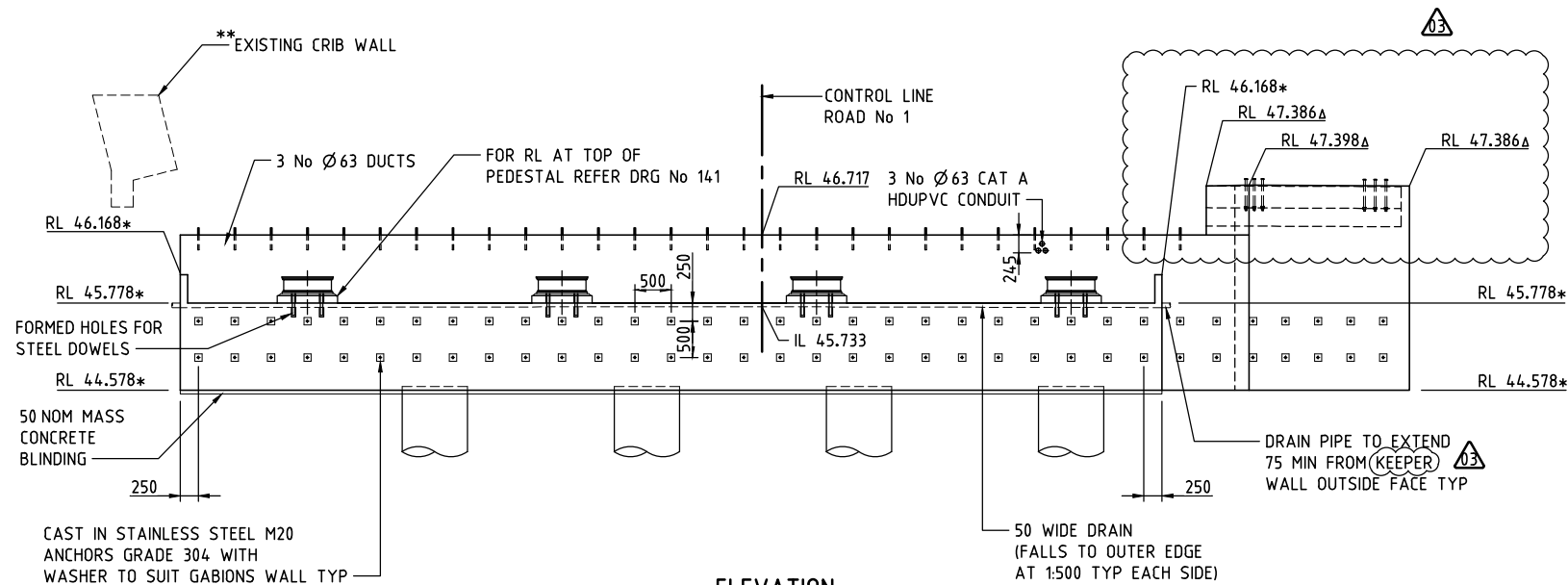
PRE-INSTALLED ANCHOR BOLT NOT SHOWN FOR CLARITY



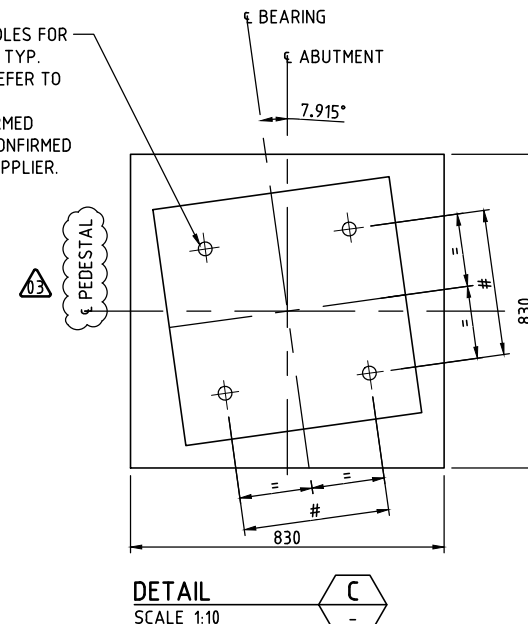
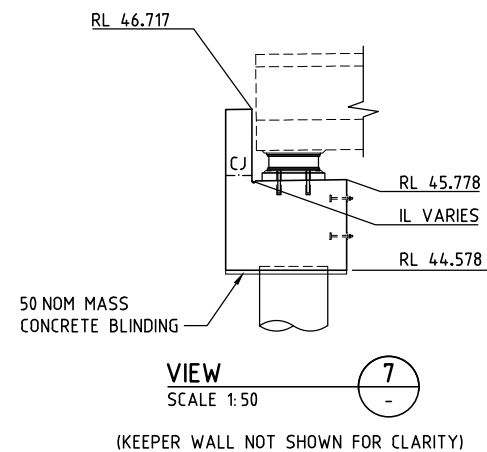
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V:_Vault\Projects\300130046\110_CADD\CAD\DWG\30013046-115.dwg				14 Oct 2021		00:02:11	
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X:\30013046_SHEC_A1 X_BRC_PLAN	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



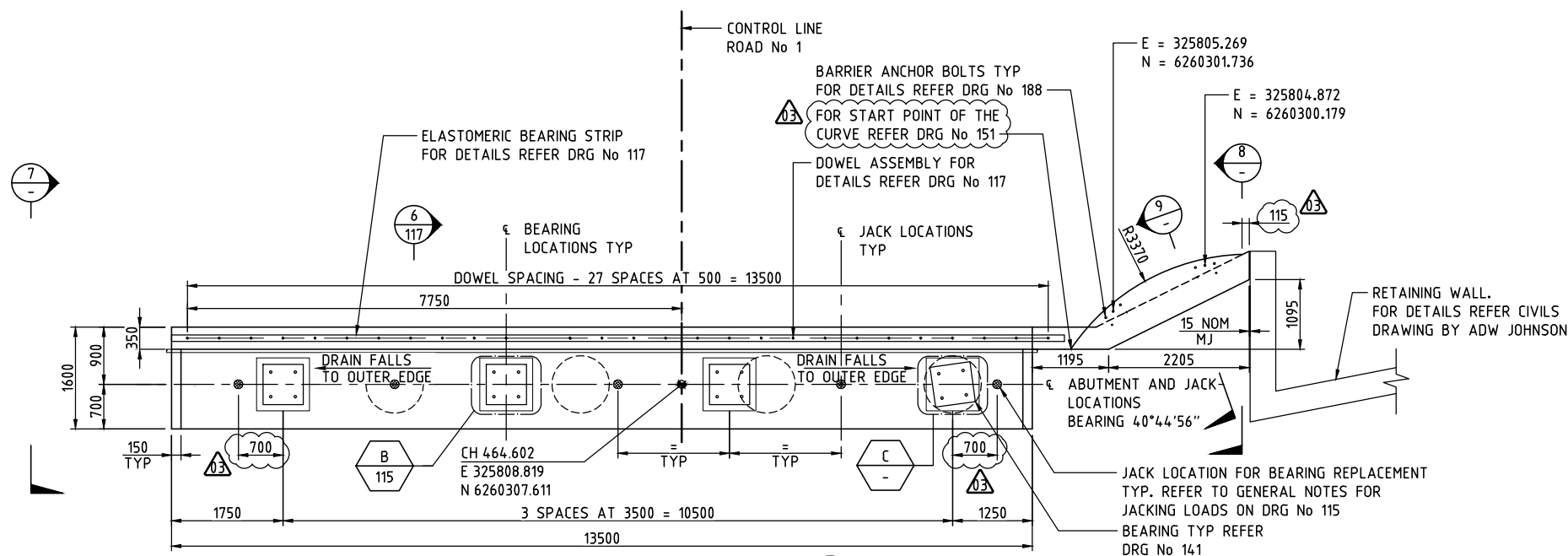
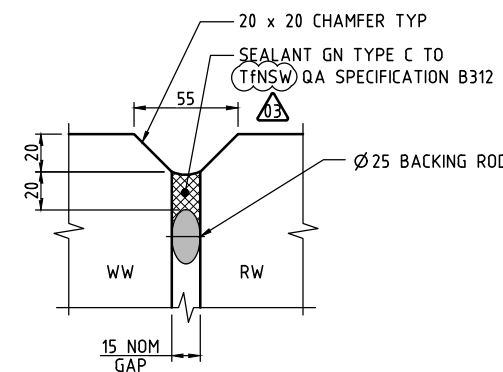
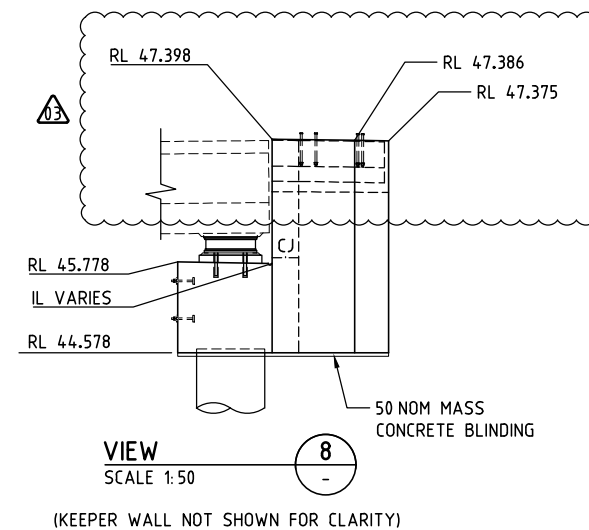
PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
ABUTMENT CONCRETE SHEET A			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-115	03



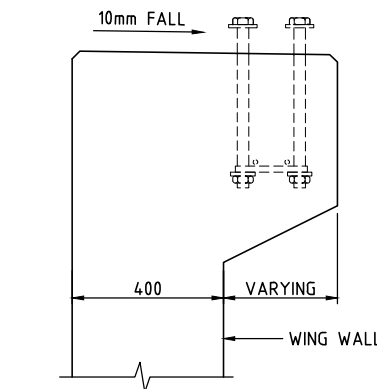
ELEVATION
SCALE 1:50
BARRIER NOT SHOWN FOR CLARITY.
* DENOTES RL OF FRONT FACE OF HEADSTOCK.
** STABILITY OF EXISTING CRIB WALL TO BE MAINTAINED BY CONTRACTOR DURING CONSTRUCTION.
Δ DENOTES RL OF FRONT FACE OF CURTAIN WALL.



DENOTES DISTANCE BETWEEN THE DOWELS REFER DRG NO 141 FOR DETAILS



PLAN
SCALE 1:50
ABUTMENT B
PRE-INSTALLED ANCHOR BOLT NOT SHOWN FOR CLARITY

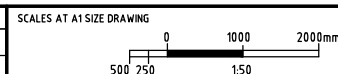


SECTION
SCALE 1:10

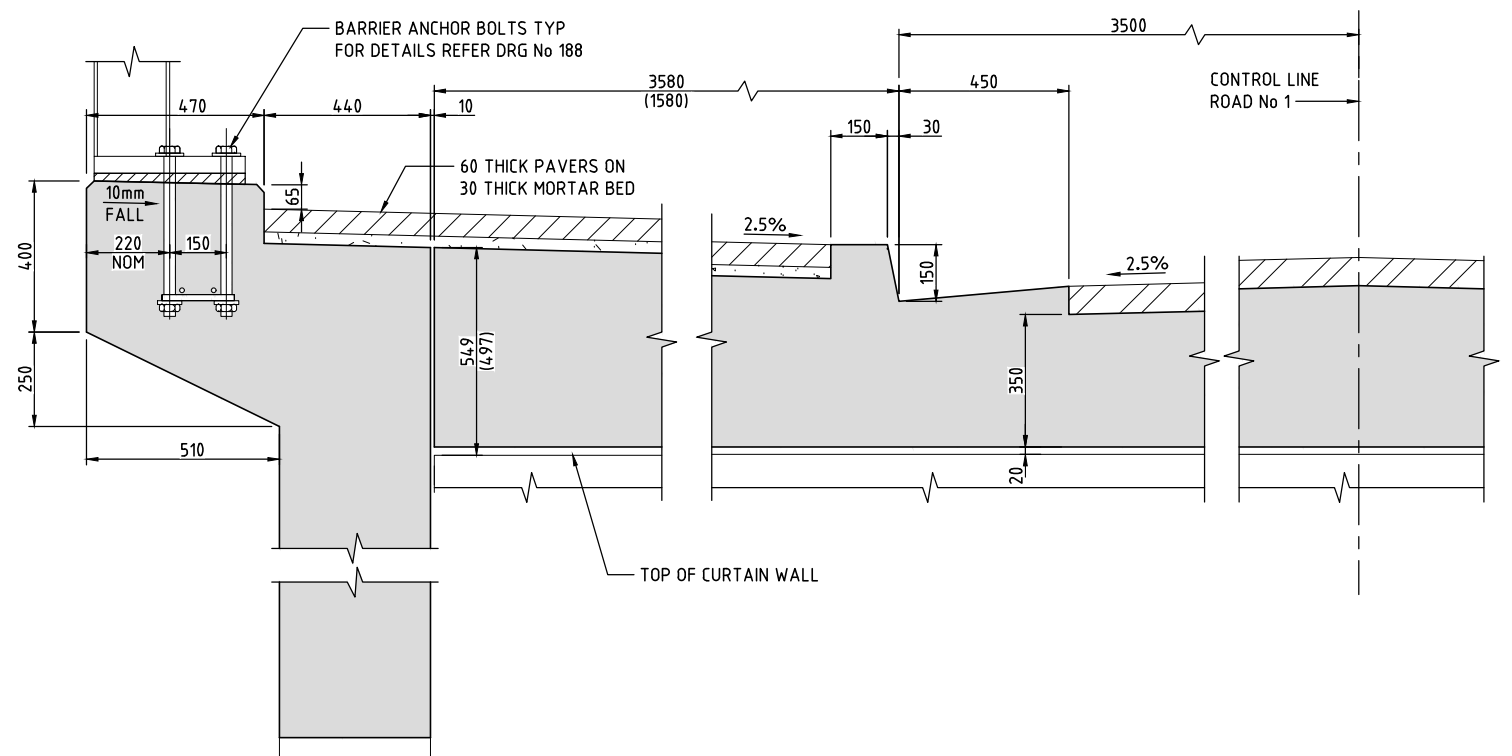
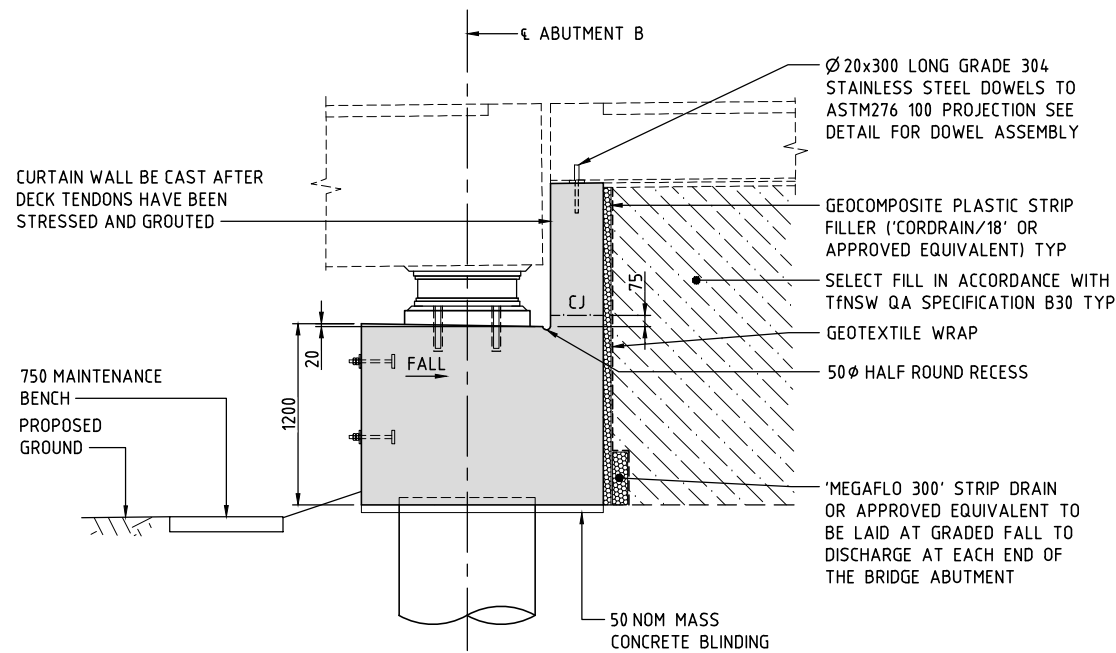
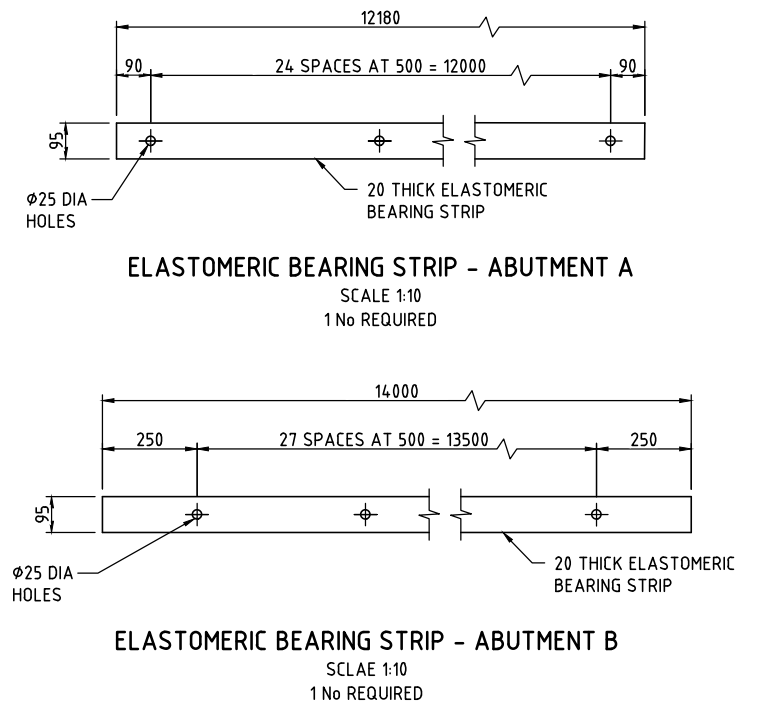
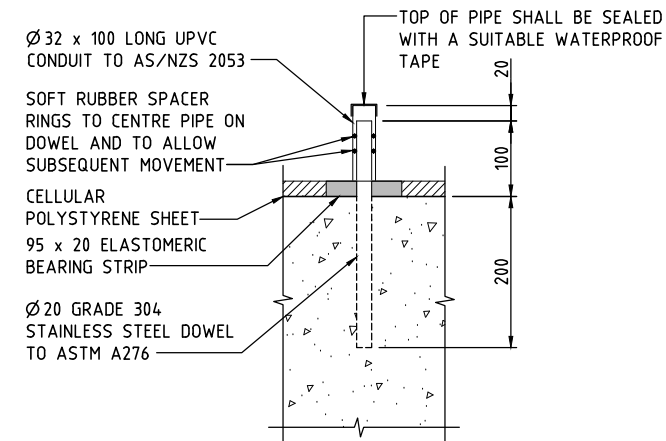
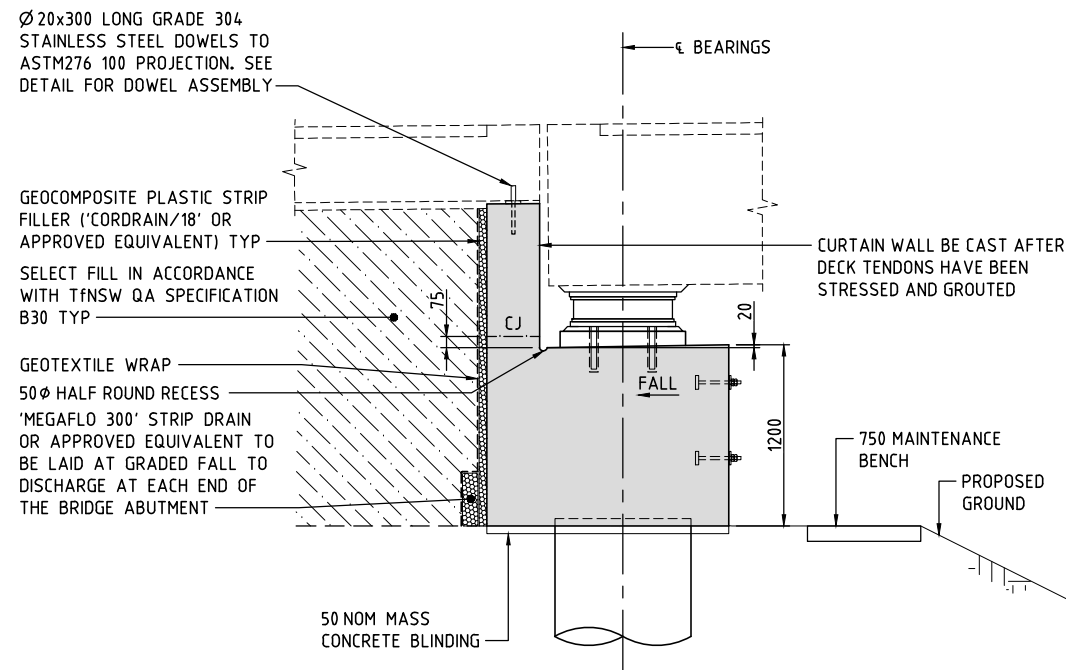


GENERAL NOTES
FOR GENERAL NOTES RELATED TO THIS DRAWING, REFER DRG No 115.
MJ DENOTES MOVEMENT JOINT.
WW DENOTES WING WALL.
RW DENOTES RETAINING WALL.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-116.dwg				13 Oct 2021		21:57:33	
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	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU

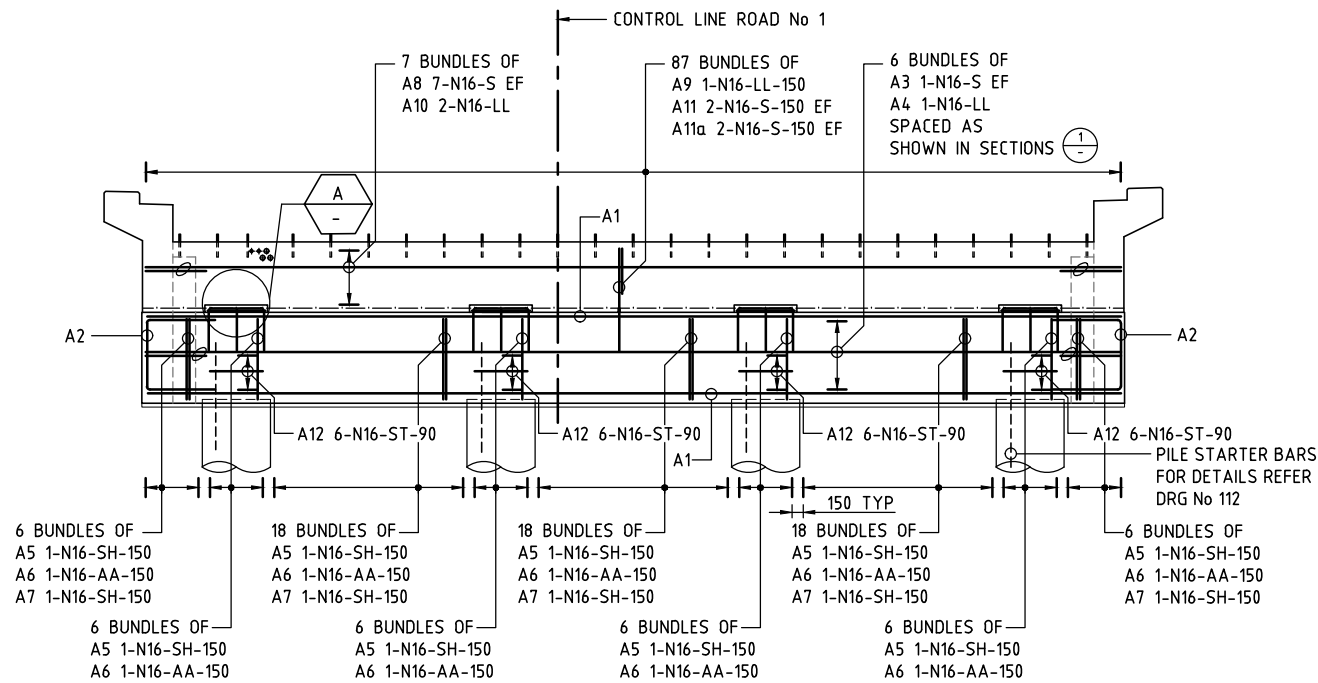


PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
ABUTMENT CONCRETE SHEET B			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-116	03

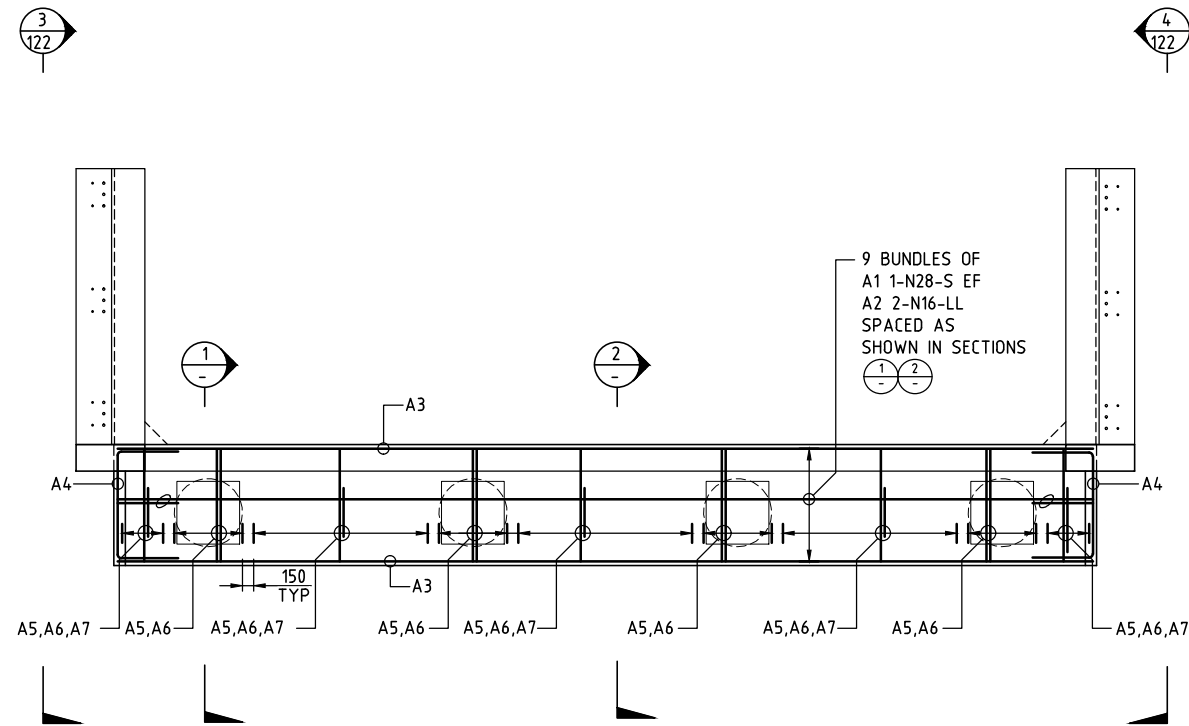


GENERAL NOTES
FOR GENERAL NOTES RELATED TO THIS DRAWING, REFER DRG No 115.

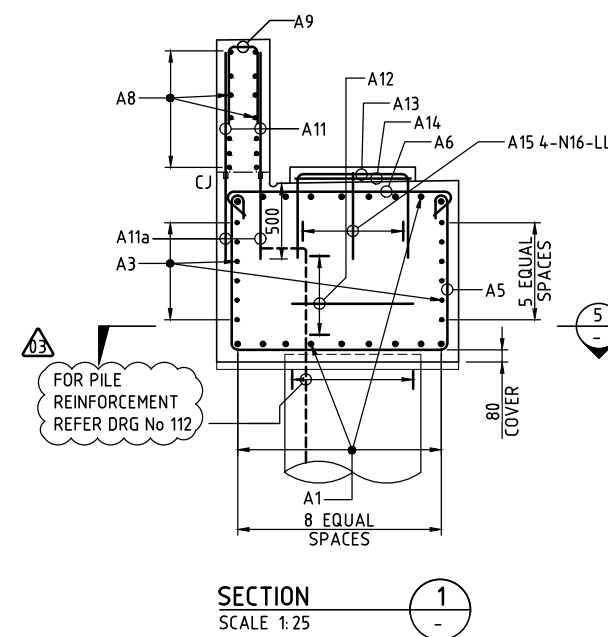
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	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU
SCALES AT A1 SIZE DRAWING							
DESIGNER				Member of the Surlana Jurong Group © ABN 47 065 475 149 LEVEL 5, 20 BERRY STREET NORTH SYDNEY NSW 2060 SMEC PROJECT No 30013046			
CLIENT							
PROJECT TITLE				SHRIMPTON CREEK BRIDGE			
				ABUTMENT CONCRETE SHEET C			
SCALE	PHASE	PROJECT / DRAWING No.		REVISION			
AS NOTED	TENDER	30013046-117		02			



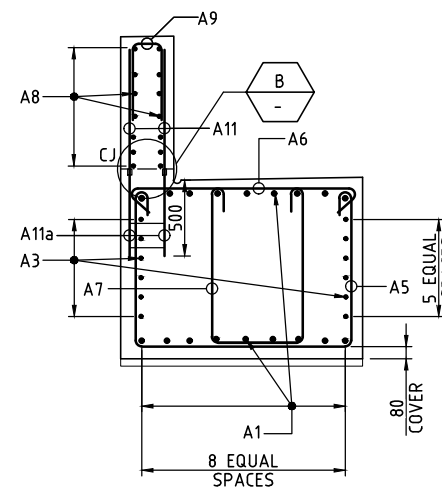
ELEVATION
SCALE 1:50



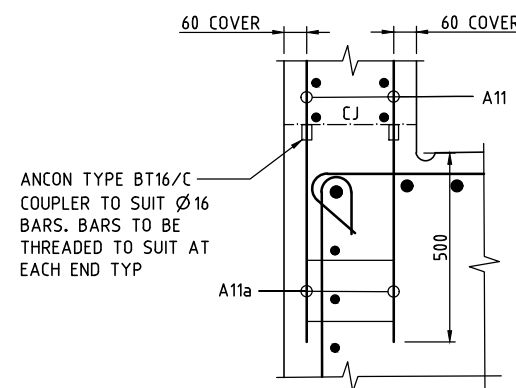
PLAN
SCALE 1:50
RETURN WALL REINFORCEMENT NOT SHOWN FOR CLARITY
ABUTMENT A



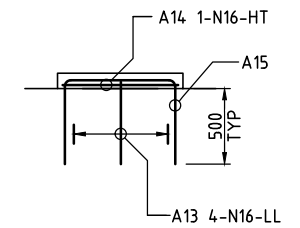
SECTION
SCALE 1:25



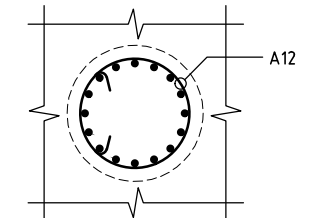
SECTION
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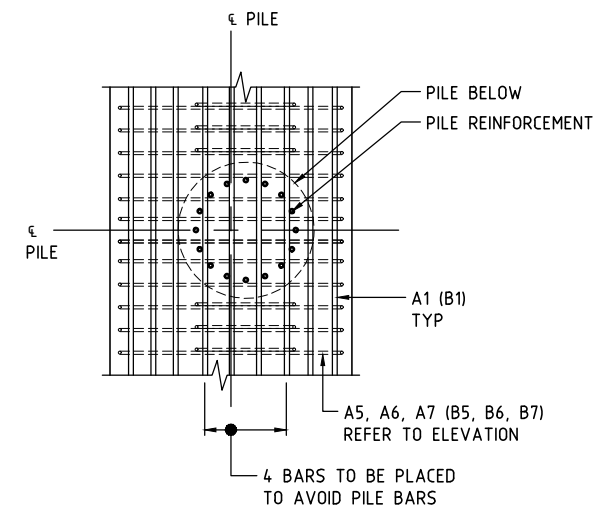
DETAIL
SCALE 1:10



DETAIL
SCALE 1:25



SECTION
SCALE 1:25



REINFORCEMENT ARRANGEMENT AT
PILES/ABUTMENT

SCALE 1:25
ABUTMENT A SHOWN, ABUTMENT B SIMILAR
VALUES IN BRACKETS REFER TO ABUTMENT B

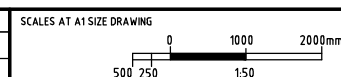
GENERAL NOTES

NOMINAL COVER TO REINFORCEMENT NEAREST TO THE CONCRETE SURFACE SHALL BE 45mm UNLESS NOTED OTHERWISE. UNLESS NOTED OTHERWISE THE MINIMUM LAP LENGTHS OF BARS SHALL BE AS FOLLOWS:

BAR SIZE:	N12	N16	N20	N24	N28	N32	N36
a) HORIZONTAL BARS WITH >300mm OF CONCRETE CAST BELOW THE BAR	650	900	1150	1430	1730	2060	2410
b) OTHER BARS	500	690	890	1100	1330	1590	1860

CLEAR DISTANCE BETWEEN LAPPED BARS SHALL NOT EXCEED 3 x THE BAR DIAMETER. REINFORCEMENT MAY BE DISPLACED SLIGHTLY WHERE NECESSARY TO CLEAR DOWELS, ANCHORS, LIFTING DEVICES, DUCTS, DRAINAGE LINES AND GENERAL FITMENTS. THE HEADSTOCK LONGITUDINAL REINFORCEMENT BARS SHALL NOT BE LAPPED AT THE PILE LOCATIONS. FOR REINFORCEMENT NOTES REFER DRG No 215.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\30013046\110_CADD\CAD\DWG\30013046-121.dwg				13 Oct 2021		21:57:23	
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X:\30013046_SHEC_A1 X_BRC_PLAN	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUV



DESIGNER
SMEC
Member of the Surbana Jurong Group
© ABN 47 065 475 149
LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

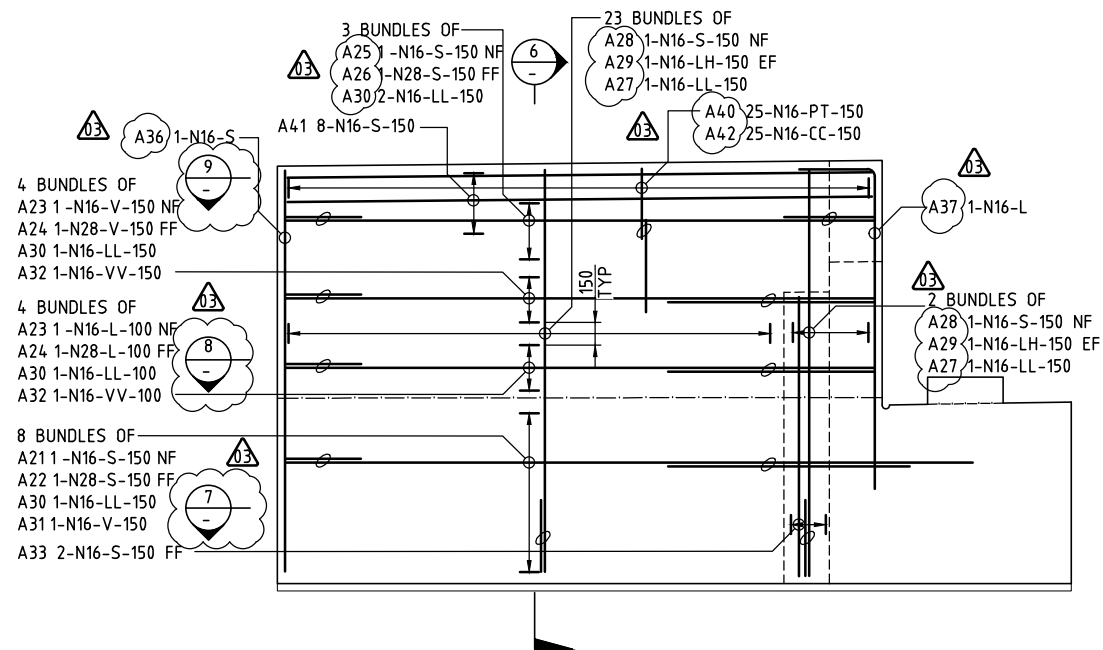
These plans are referred to in certificate no. 16746 approved by:
Eric Hausfeld
Registered Certifier
Registration No: BDC 2416
Categories: Certifier - Subdivision
Certifier - Strata
Certifier - Stormwater
Certifier - Road & Drainage
Certifier - Hydraulic (stormwater)
Land Development Certificates
www.LDC.com.au

CLIENT
FRASERS PROPERTY

PROJECT TITLE			
SHRIMPION CREEK BRIDGE			
ABUTMENT REINFORCEMENT SHEET A			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-121	03

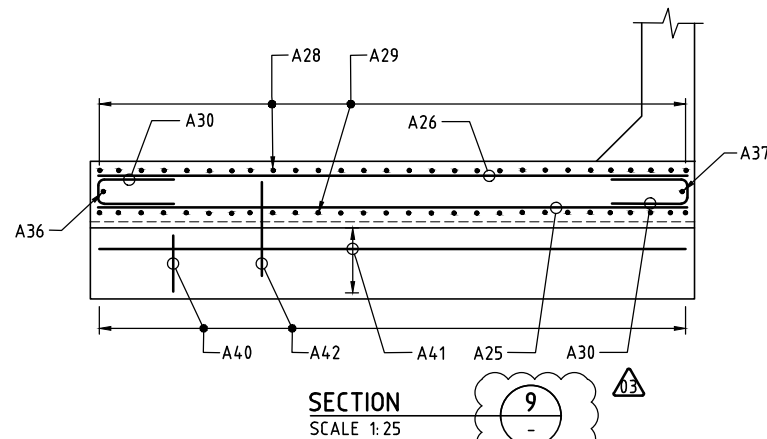
150 mm ON ORIGINAL

A1



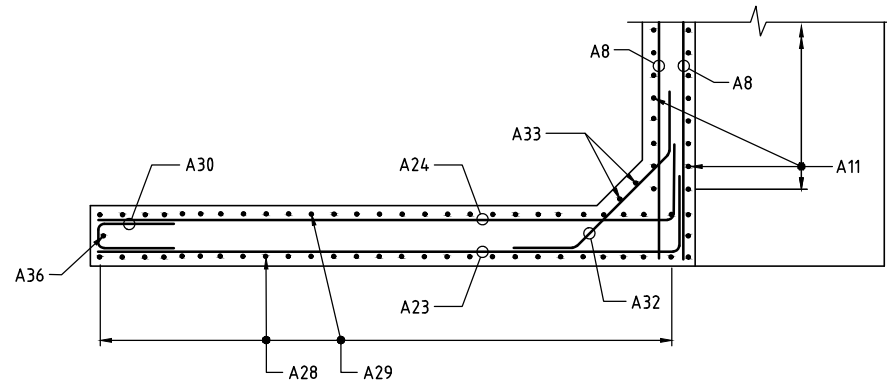
VIEW
SCALE 1:25

3 4
121 121
SIMILAR BUT
OPPOSITE HAND



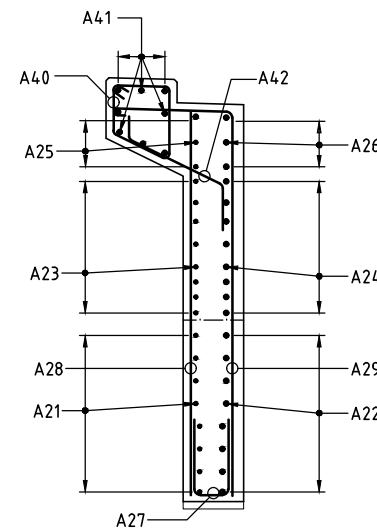
SECTION
SCALE 1:25

9
-



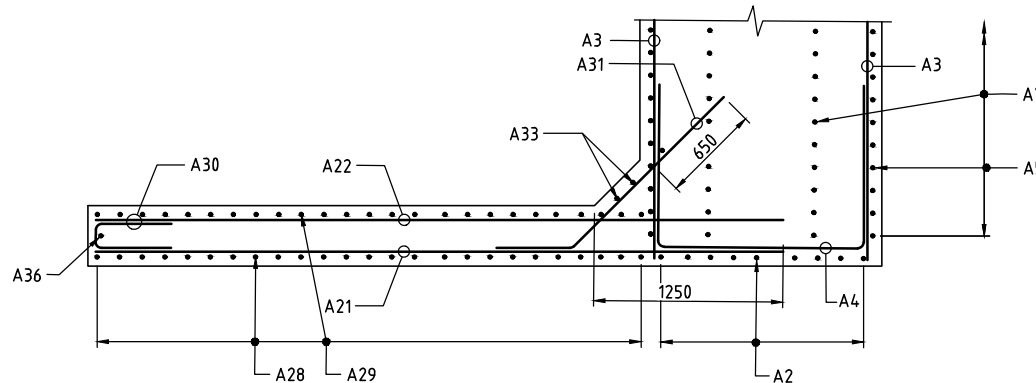
SECTION
SCALE 1:25

8
-



SECTION
SCALE 1:25

6
-



SECTION
SCALE 1:25

7
-

These plans are referred to in certificate no. **16746** approved by:

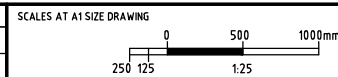
LDC Eric Hausfeld
Registered Certifier

Registration No: BDC 2416
Categories: Certifier - Subdivision
Certifier - Strata
Certifier - Stormwater
Certifier - Road & Drainage
Certifier - Hydraulic (stormwater)

Land Development Certificates
www.LDC.com.au

GENERAL NOTES
FOR GENERAL NOTES RELATING TO THIS DRAWING,
REFER DRG No 121.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\30013046\110_CADD\CAD\DWG\30013046-122.dwg				14 Oct 2021		00:01:46	
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X_30013046_SHEC_A1	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUV



DESIGNER

SMEC

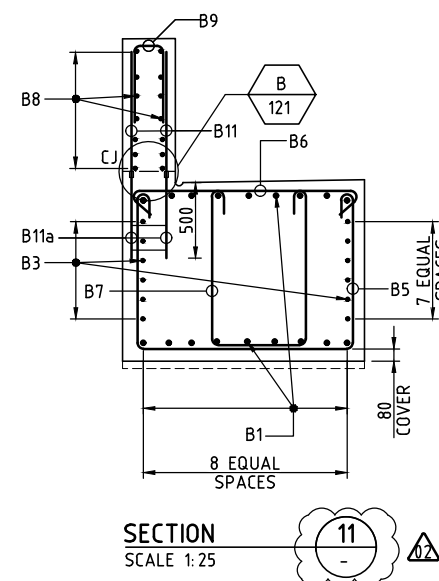
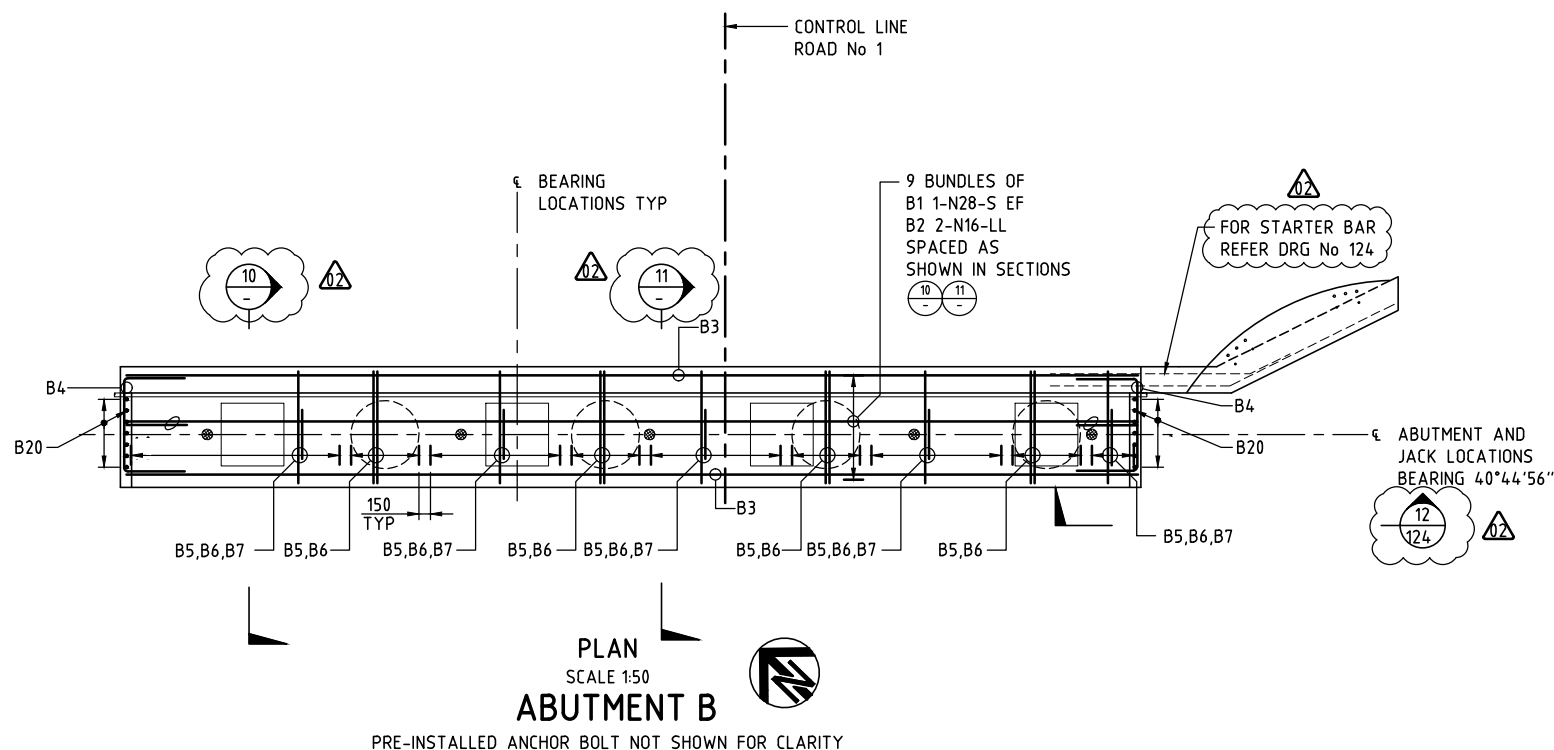
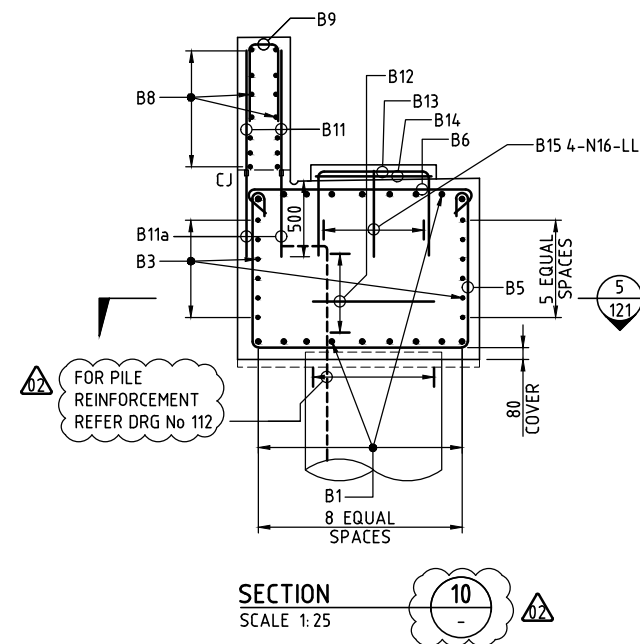
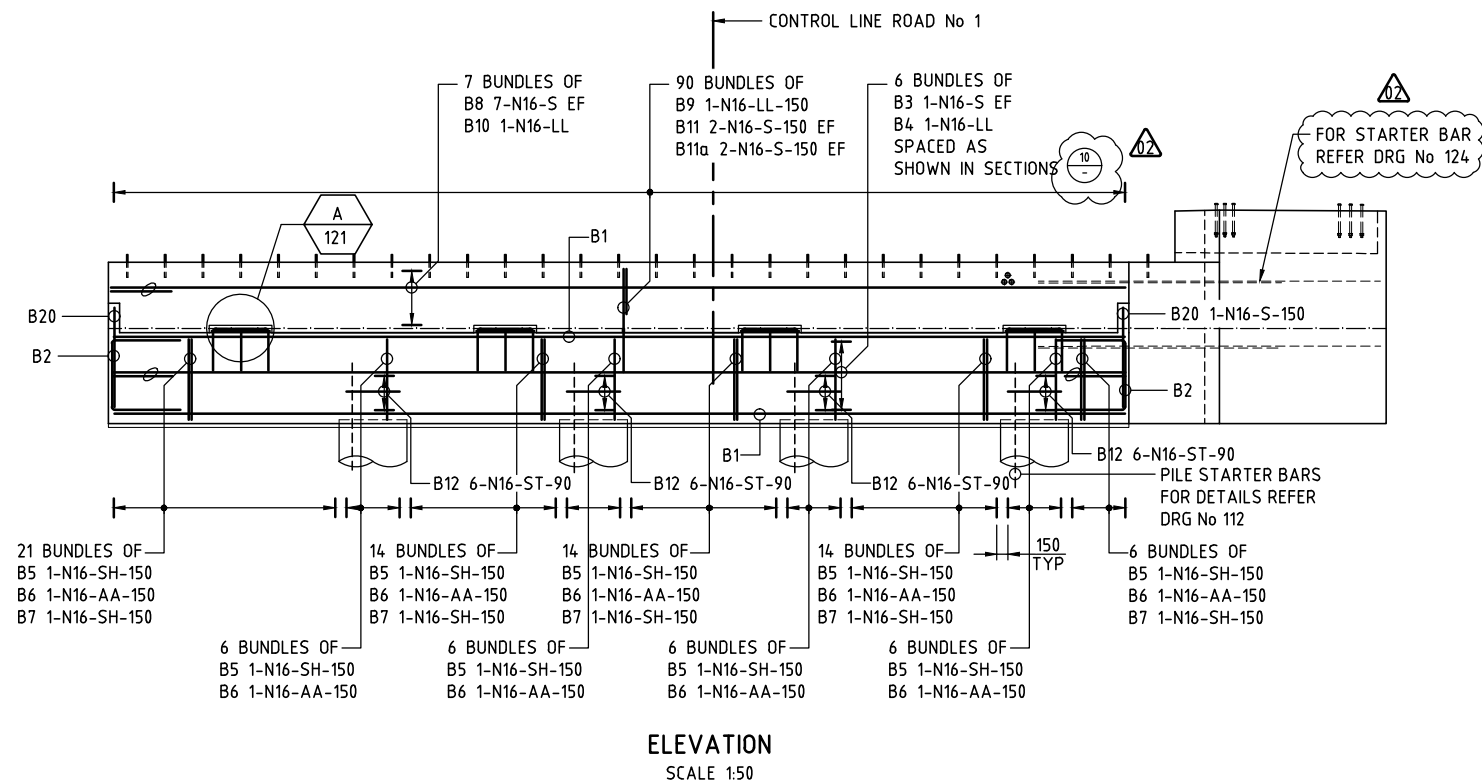
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LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

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PROPERTY**

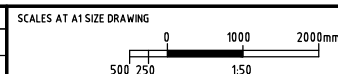
PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
ABUTMENT REINFORCEMENT SHEET B			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-122	03



These plans are referred to in
certificate no. 16746 approved by:
Eric Hausfeld
Registered Certifier
Registration No: BDC 2416
Categories: Certifier - Subdivision
Certifier - Strata
Certifier - Stormwater
Certifier - Road & Drainage
Certifier - Hydraulic (stormwater)
Land Development Certificates
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GENERAL NOTES
FOR GENERAL NOTES RELATED TO THIS DRAWING,
REFER DRG No 121.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-123.dwg				13 Oct 2021		21:57:09	
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	02	14.10.2021	ISSUED FOR TENDER	002	JD	DRAFTING CHECK	V.S.KODURU
						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUV



DESIGNER

SMEC

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© ABN 47 065 475 149

LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

CLIENT

**FRASERS
PROPERTY**

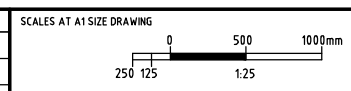
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SHRIMPION CREEK BRIDGE			
ABUTMENT REINFORCEMENT SHEET C			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-123	02

150 mm ON ORIGINAL

A1

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	02	14.10.2021	ISSUED FOR TENDER	002	JD	DRAFTING CHECK	V.S.KODURU
						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



DESIGNER

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© ABN 47 065 475 149
LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMC PROJECT No 30013046

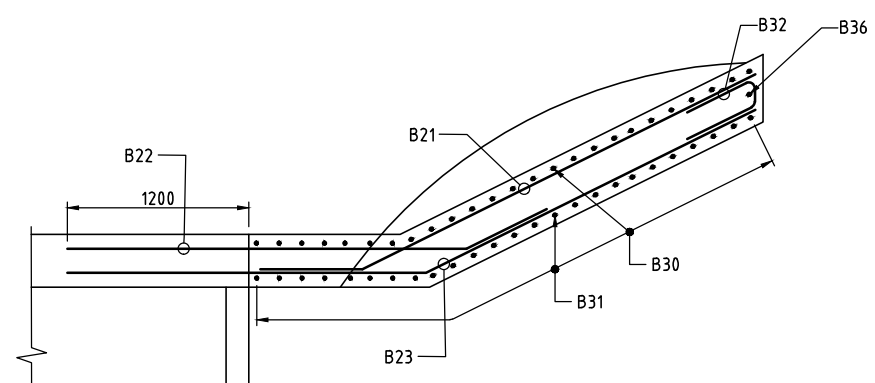
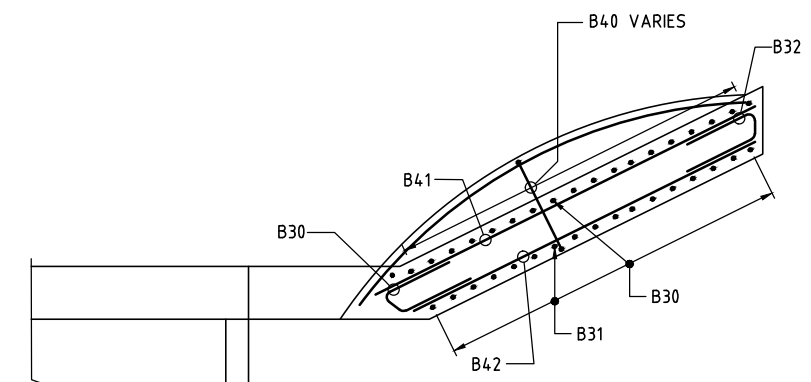
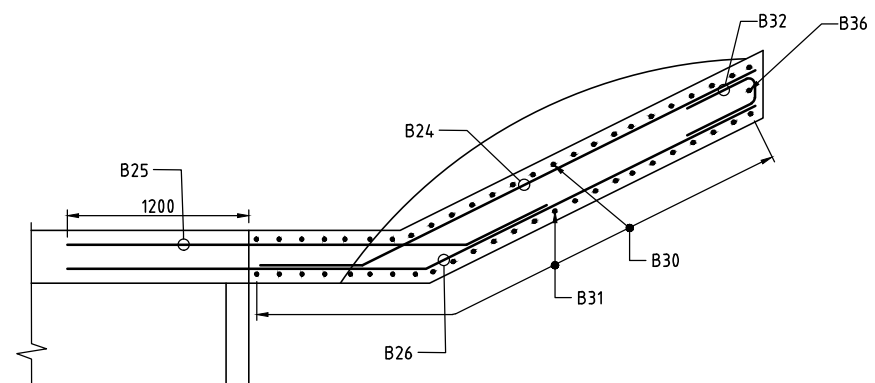
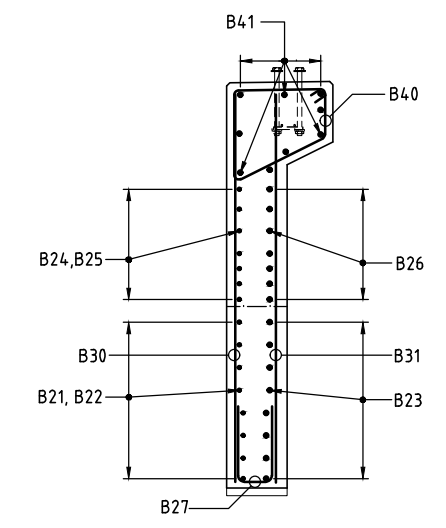
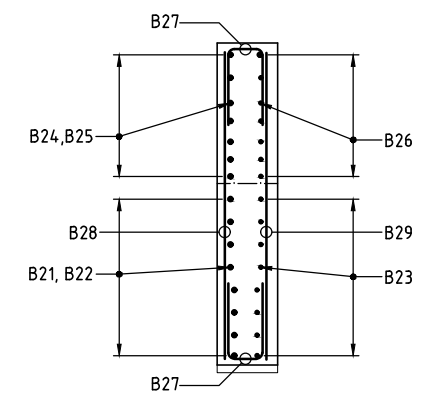
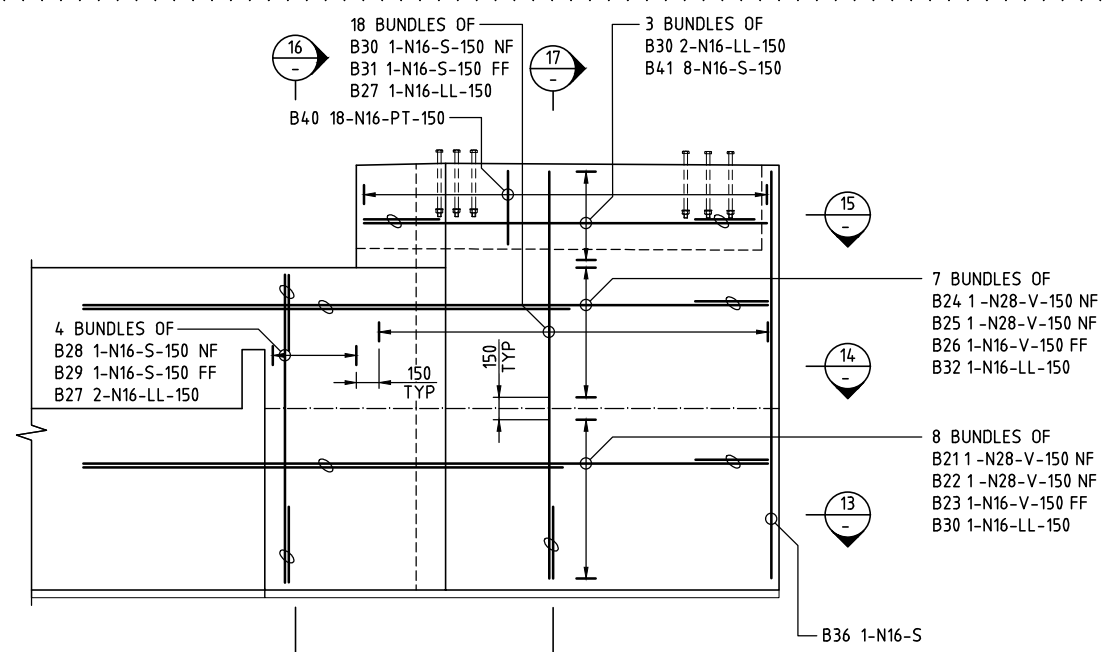
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PROJECT TITLE SHRIMPION CREEK BRIDGE			
ABUTMENT REINFORCEMENT SHEET D			
SCALE AS NOTED	PHASE TENDER	PROJECT / DRAWING No. 30013046-124	REVISION 02

LDC

These plans are referred to in certificate no. 16746 approved by:
Eric Hausfeld
Registered Certifier
Registration No: BDC 2416
Categories: Certifier - Subdivision
Certifier - Strata
Certifier - Stormwater
Certifier - Road & Drainage
Certifier - Hydraulic (stormwater)
Land Development Certificates
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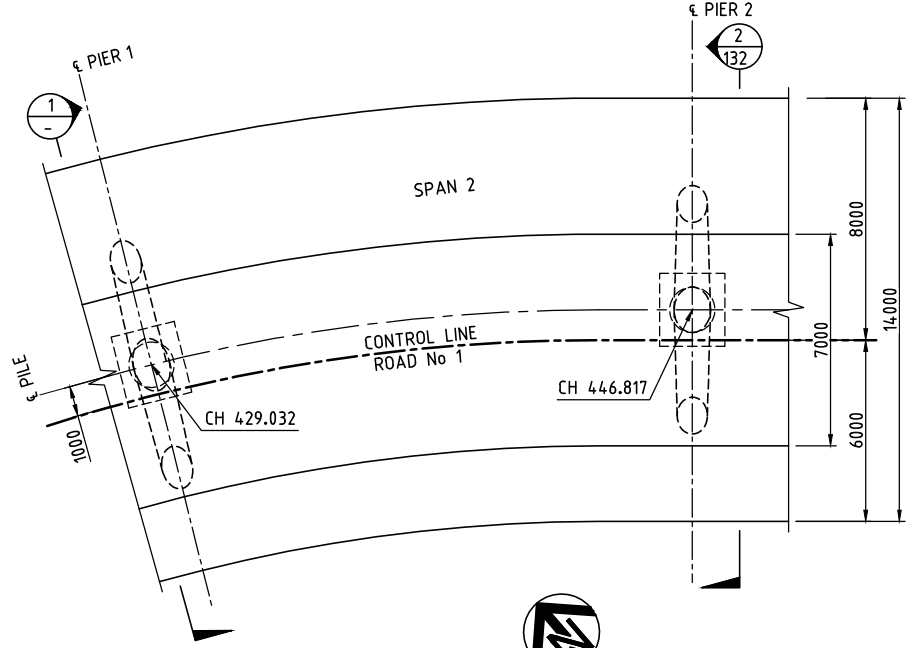
GENERAL NOTES
FOR GENERAL NOTES RELATING TO THIS DRAWING, REFER DRG No 121.



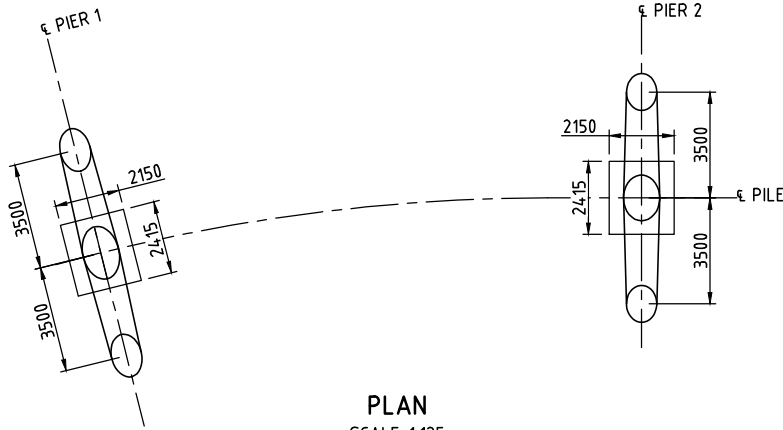
SECTION 15
SCALE 1:25

FROM HERRING ROAD

TO LYON PARK ROAD



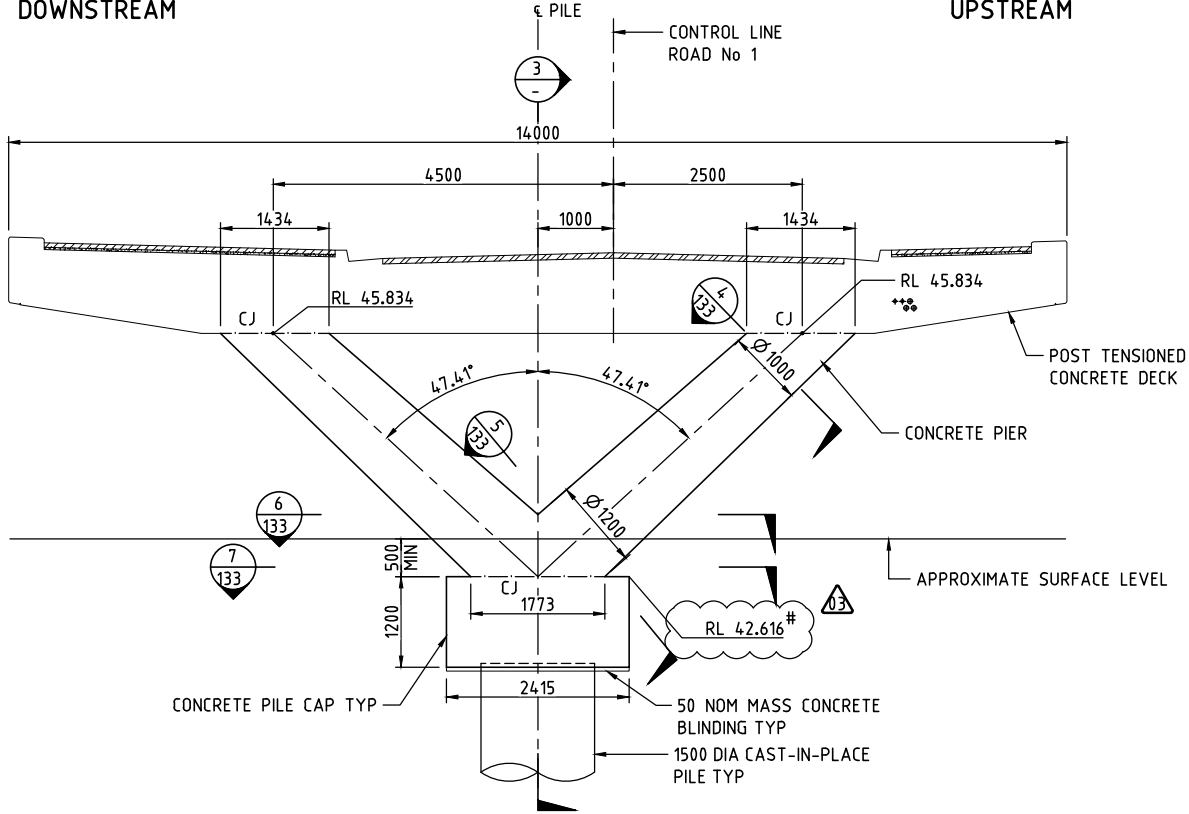
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SCALE 1:125



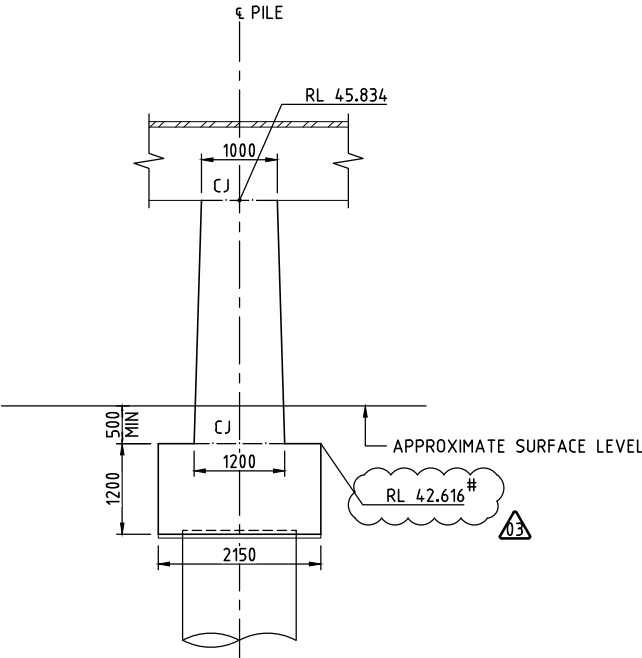
PLAN
SCALE 1:125
PIER LAYOUT

DOWNSTREAM

UPSTREAM



SECTION
SCALE 1:50



SECTION
SCALE 1:50

GENERAL NOTES

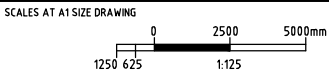
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
CONCRETE EXPOSURE CLASSIFICATION: B1.
MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 40 MPa.
MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF MASS CONCRETE SHALL BE 20 MPa.
CONSTRUCTION JOINT ONLY AT THE LOCATIONS NOMINATED ON THE DRAWINGS.
EXPOSED CONCRETE SURFACE TO HAVE SMOOTH FINISH.
DENOTES PROVIDED RL NEED TO BE CONFIRMED ON SITE.

DURABILITY NOTES

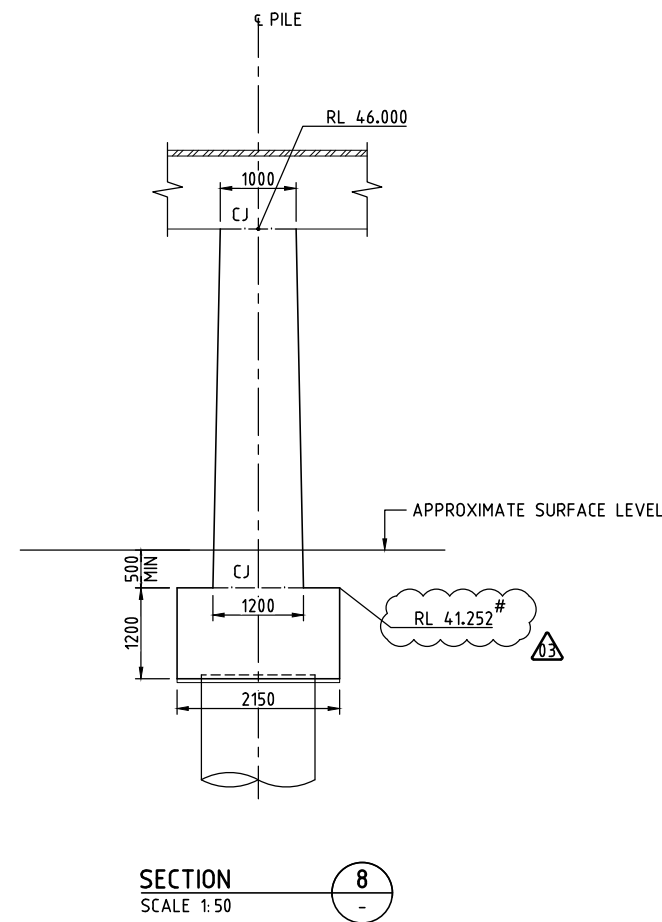
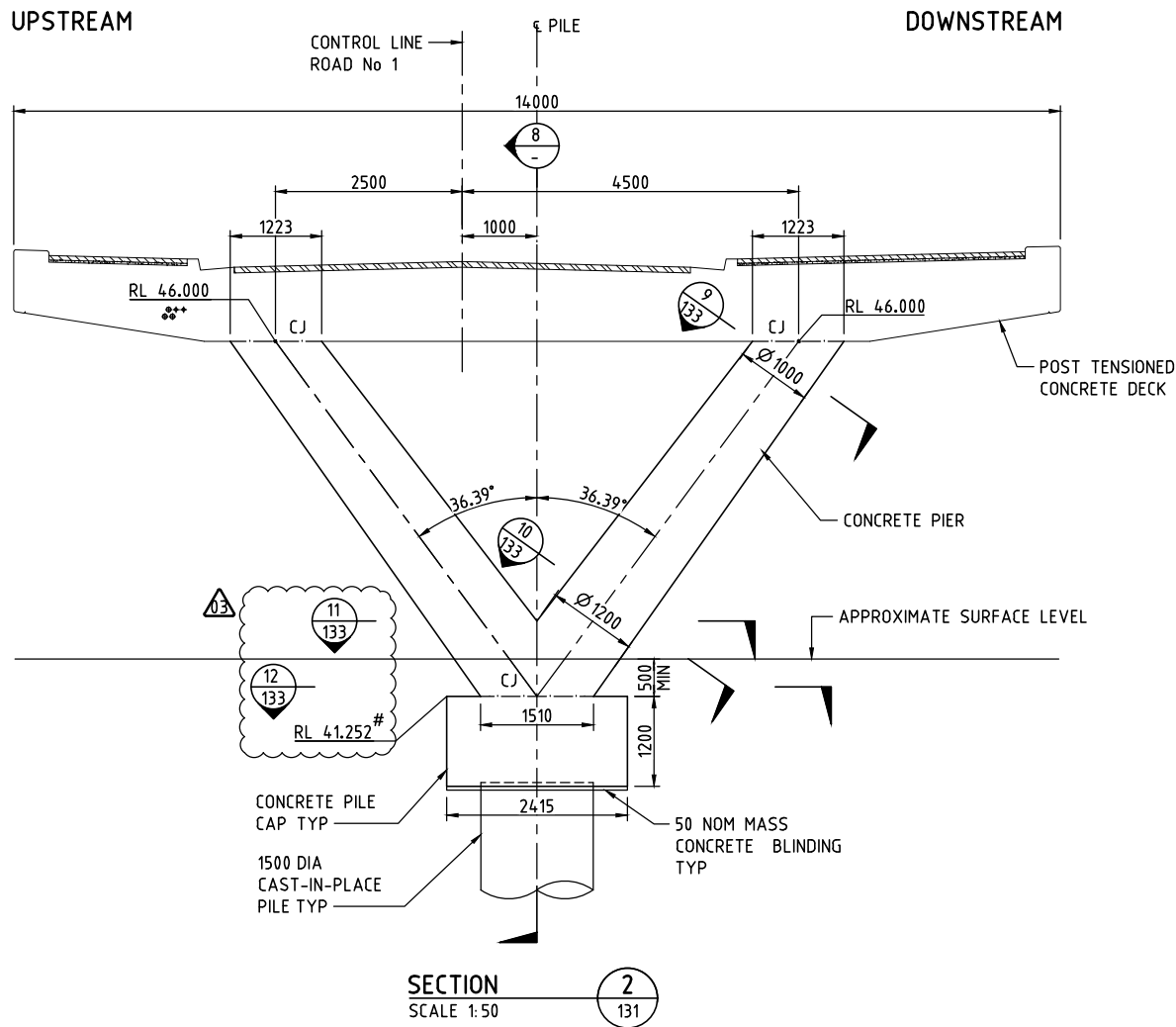
MAXIMUM TOTAL BINDER CONTENT SHALL BE KEPT AT 430kg/m³ WITH TYPE GB CEMENT WITH 65.5% GROUND GRANULAR BLAST-FURNACE SLAG.
USE 36mm THICK PLYWOOD FORMWORK OR PROVIDE INSULATION TO FORMWORK CONSTRUCTED WITH OTHER MATERIALS TO ACHIEVE AN OVERALL SURFACE CONDUCTANCE LESS THAN 3.0W/m² °C.
MAXIMUM CONCRETE PLACEMENT TEMPERATURE SHALL NOT EXCEED 27°C.
TOP SURFACE OF THE PIER SHALL BE COVERED WITH 20mm THICK POLYSTYRENE FOAM OR EQUIVALENT AFTER CASTING. THE INSULATION SHALL BE REMOVED AT THE SAME TIME AS THE FORMWORK.
FORMWORK SHALL BE REMOVED NOT EARLIER THAN 216 HOURS.
THERMOCOUPLES SHOULD BE LOCATED WITHIN THE CONCRETE MEMBER BEING CONSTRUCTED. (ONE AT CENTRE AND ONE BELOW SURFACE WITH THE LAST DIMENSION).



DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\30013046\110_CADD\CAD\DWG\30013046-131.dwg				13 Oct 2021		21:56:47	
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X:\30013046_SHEC_A1 X:\BRO PLAN X:\DES MAIN X:\BRG SEC	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUV



PROJECT TITLE			
SHRIMPION CREEK BRIDGE			
PIER DETAILS SHEET A			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-131	03



LDC

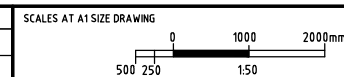
These plans are referred to in certificate no. **16746** approved by:

Eric Hausfeld
Registered Certifier
Registration No: BDC 2416
Categories: Certifier – Subdivision
Certifier – Strata
Certifier – Stormwater
Certifier – Road & Drainage
Certifier – Hydraulic (stormwater)

Land Development Certificates
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GENERAL NOTES
FOR GENERAL NOTES RELATING TO THIS DRAWING,
REFER DRG No 131.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-132.dwg				13 Oct 2021		21:56:33	
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	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



DESIGNER

SMEC

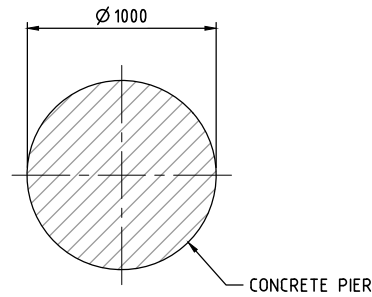
Member of the Surbana Jurong Group
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LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

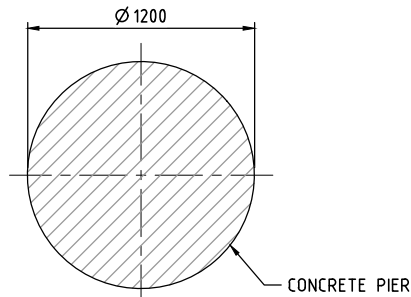
CLIENT

**FRASERS
PROPERTY**

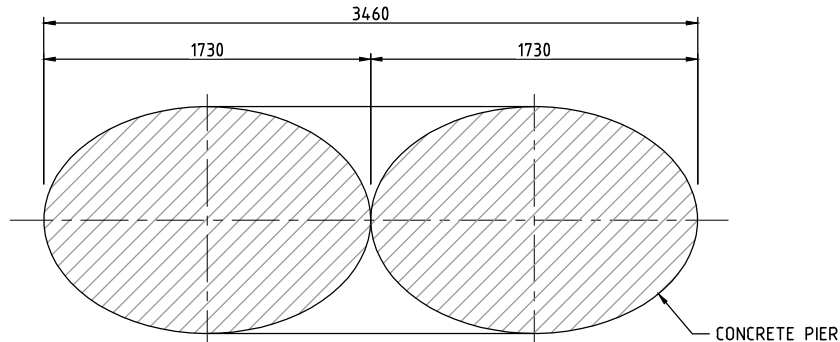
PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
PIER DETAILS SHEET B			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-132	03



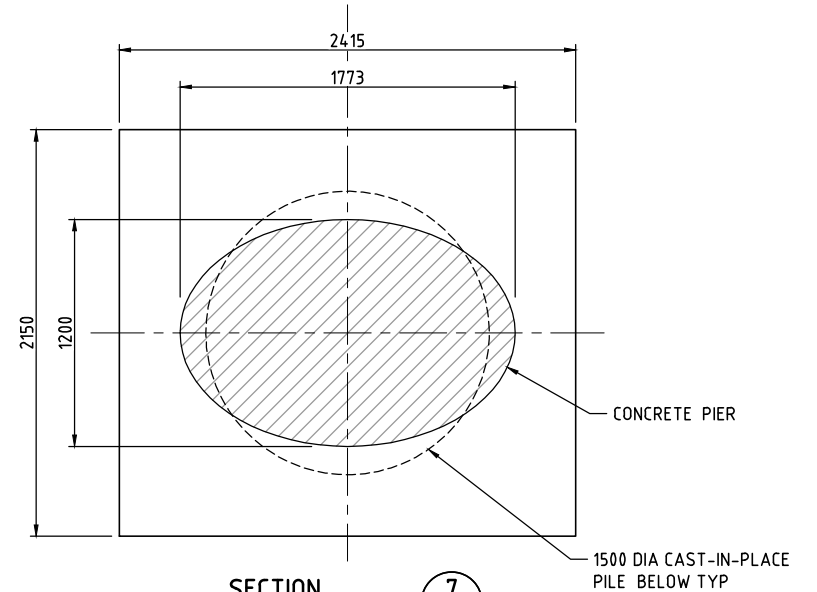
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SCALE 1:20



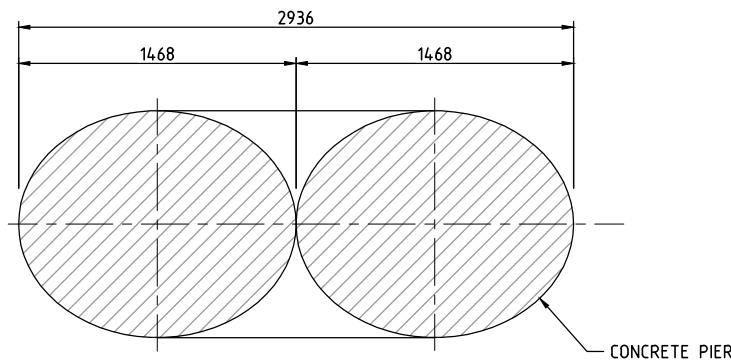
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SCALE 1:20



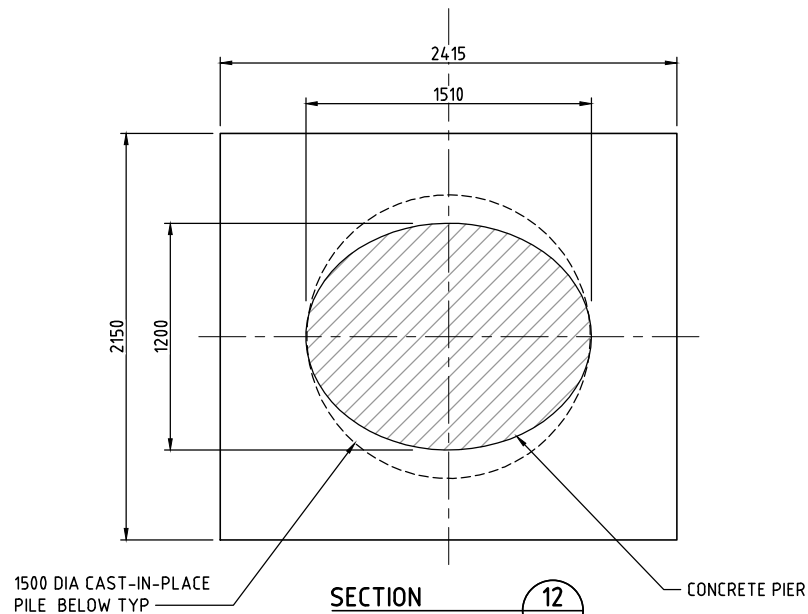
SECTION 6
SCALE 1:20



SECTION 7
SCALE 1:20



SECTION 11
SCALE 1:20



SECTION 12
SCALE 1:20

LDC Land Development Certificates
These plans are referred to in certificate no. **16746** approved by:
Eric Hausfeld
Registered Certifier
Registration No: BDC 2418
Categories: Certifier - Subdivision
Certifier - Strata
Certifier - Stormwater
Certifier - Road & Drainage
Certifier - Hydraulic (stormwater)
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GENERAL NOTES
FOR GENERAL NOTES RELATING TO THIS DRAWING,
REFER DRG No 131.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
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	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



DESIGNER

SMEC
Member of the Surlana Jurong Group
© ABN 47 065 475 149
LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

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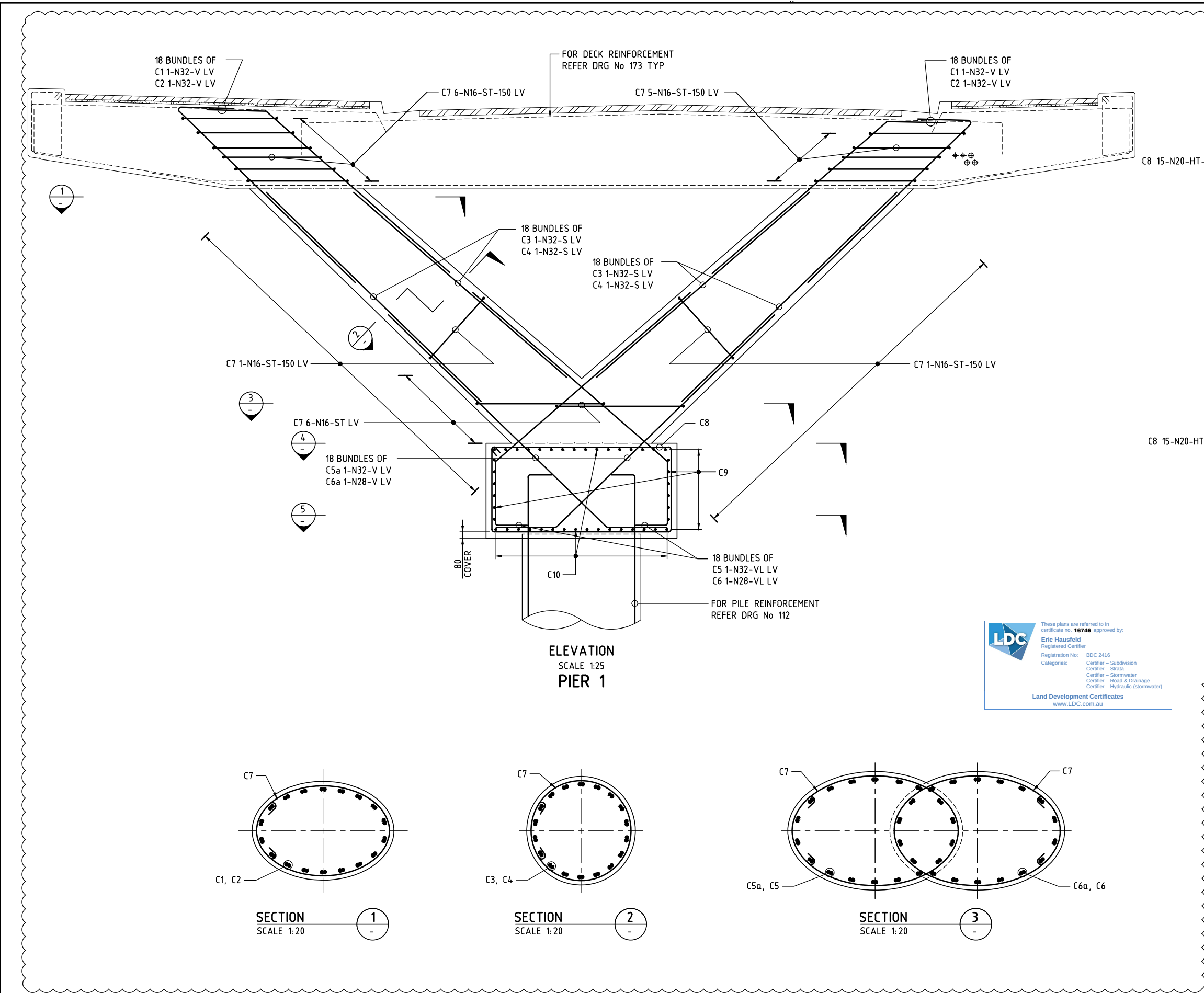
PROJECT TITLE			
SHRIMPION CREEK BRIDGE			
PIER DETAILS SHEET C			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-133	02

150 mm ON ORIGINAL

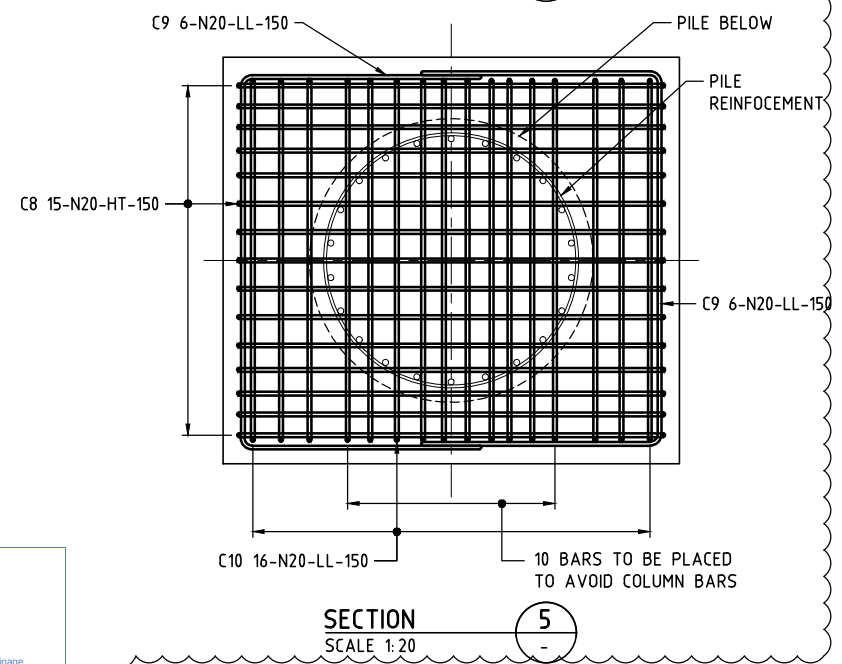
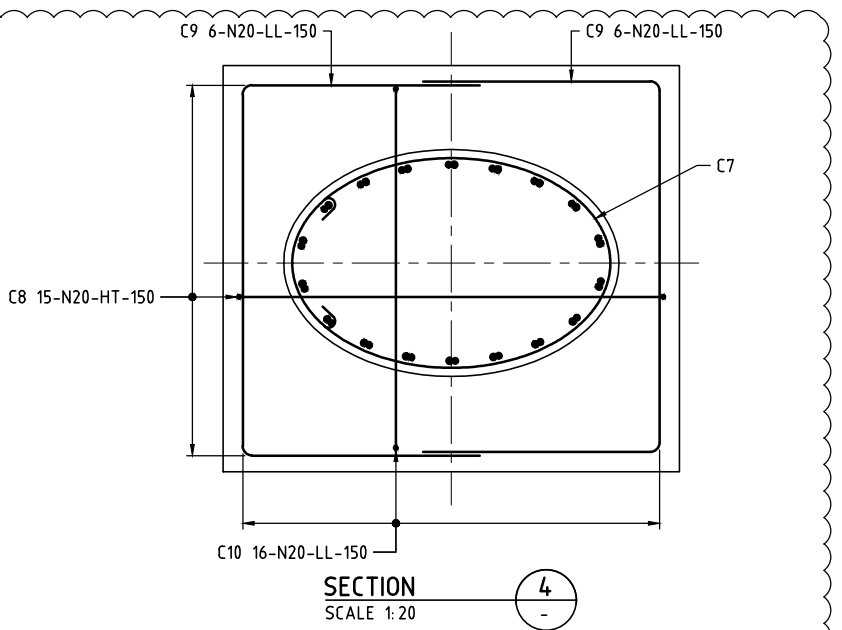
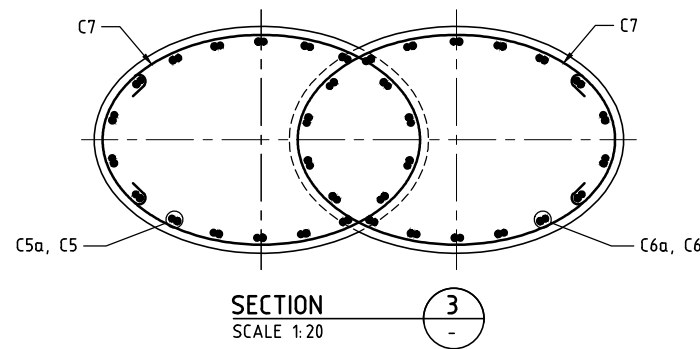
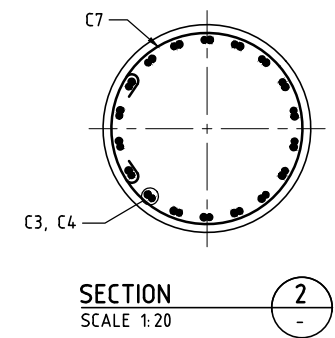
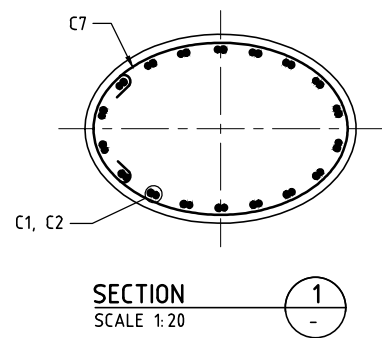
A1

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

X:\30013046\X_BROG_SHEC_A1



ELEVATION
SCALE 1:25
PIER 1



GENERAL NOTES
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
REINFORCEMENT GRADE SHALL BE D500N TO AS/NZS UNLESS NOTED OTHERWISE.
NOMINAL COVER TO REINFORCEMENT NEAREST TO THE CONCRETE SURFACE SHALL BE 45mm UNLESS NOTED OTHERWISE.
UNLESS NOTED OTHERWISE THE MINIMUM LAP LENGTHS OF BARS SHALL BE AS FOLLOWS:

BAR SIZE:	N12	N16	N20	N24	N28	N32	N36
a) HORIZONTAL BARS WITH >300mm OF CONCRETE CAST BELOW THE BAR	650	900	1150	1430	1730	2060	2410
b) OTHER BARS	500	690	890	1100	1330	1590	1860

ON CURVE REGION TRANSVERSE BARS TO BE PLACED RADIALLY AND THE BAR SPACING TO BE MAINTAINED ON THE OUTER CURVE CLEAR DISTANCE BETWEEN LAPPED BARS SHALL NOT EXCEED 3 x THE BAR DIAMETER.
REINFORCEMENT MAY BE DISPLACED SLIGHTLY WHERE NECESSARY TO CLEAR DOWELS, ANCHORS, DUCTS, DRAINAGE LINES AND GENERAL FITMENTS.
CURING OF THE CONCRETE SHALL NOT INCLUDE CURING COMPOUNDS AND SHALL COMMENCE IMMEDIATELY AFTER FINISHING OPERATIONS HAVE BEEN COMPLETED ON THE CONCRETE BEING PLACED.
FOR BAR SHAPES DIAGRAM REFER DRG No 216.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\300130013046\110_CADD\CAD\DWG\30013046-135.dwg				13 Oct 2021		21:56:56	
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	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



DESIGNER

SMEC

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© ABN 47 065 475 149

LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

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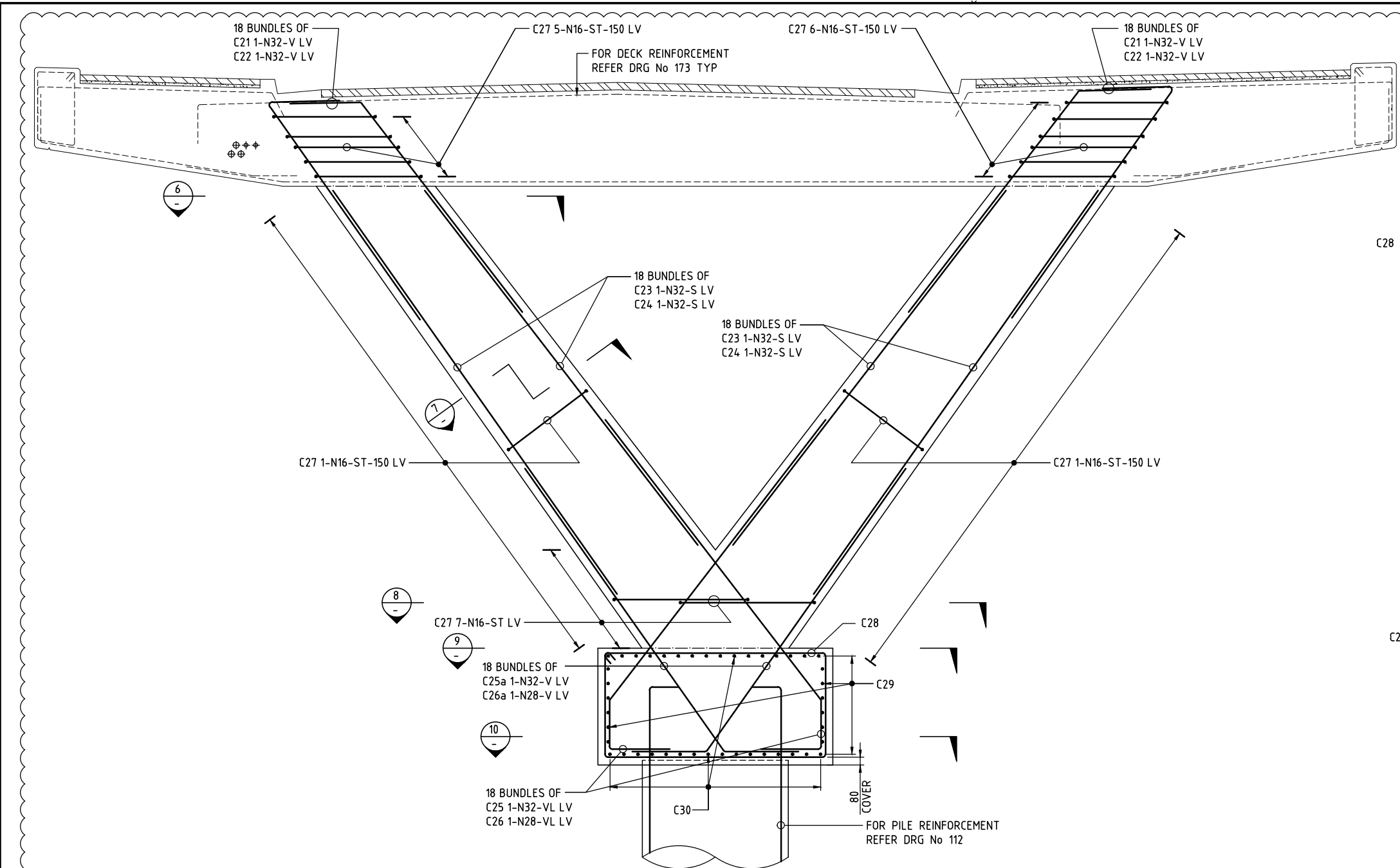
PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
PIER REINFORCEMENT DETAILS SHEET A			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-135	03

150 mm ON ORIGINAL

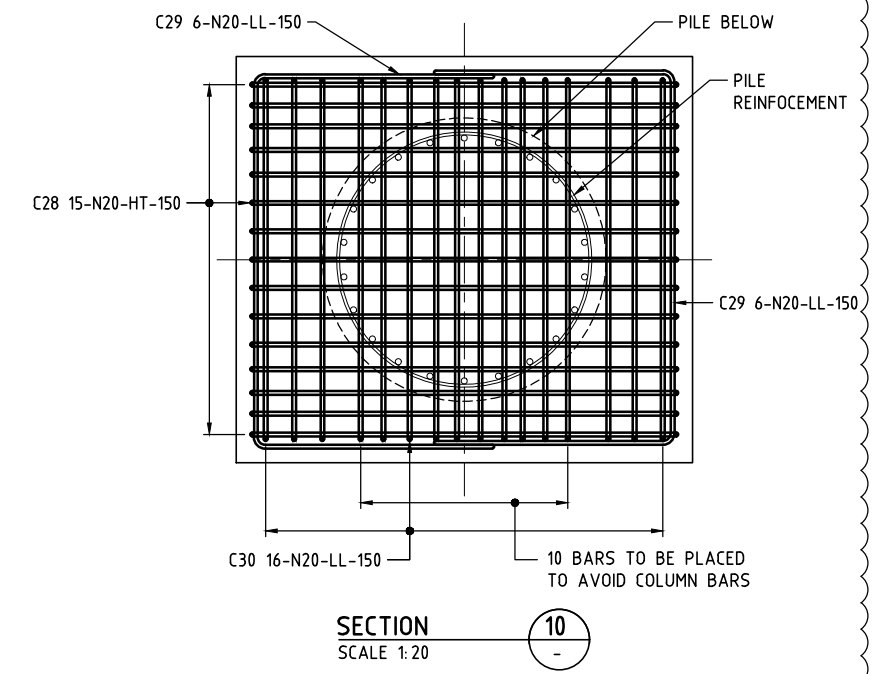
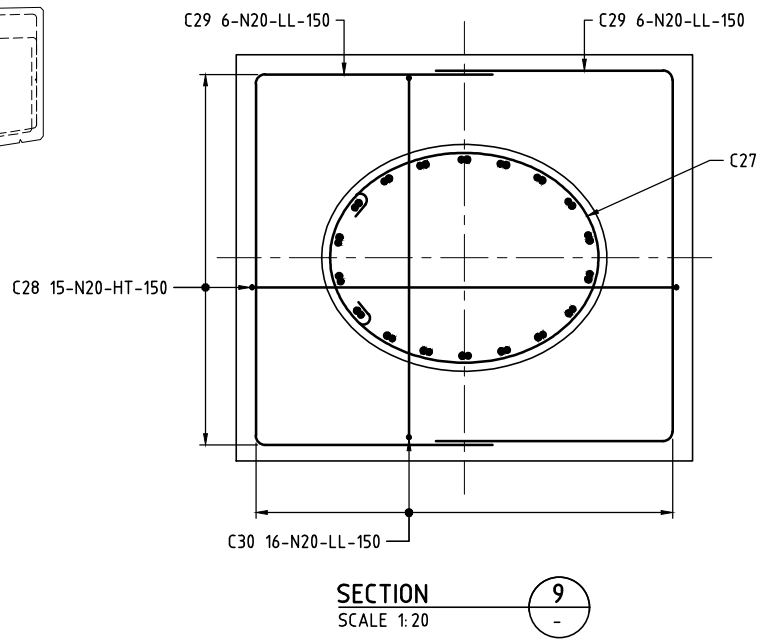
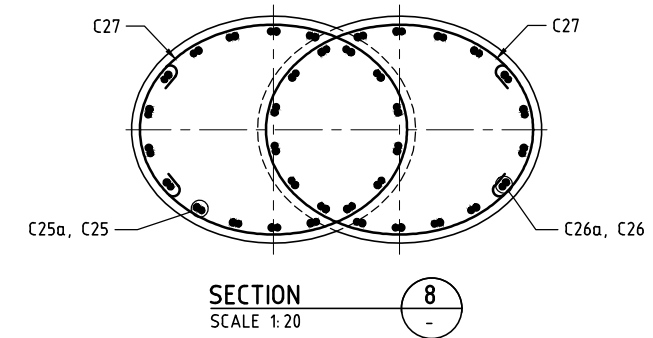
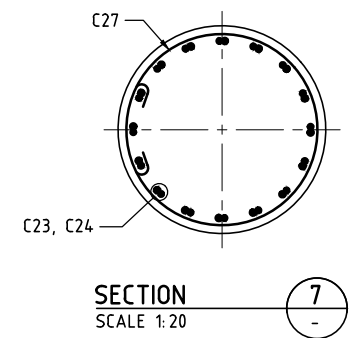
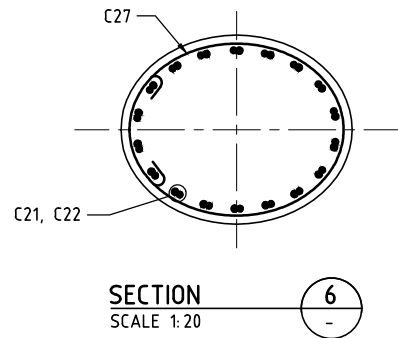
A1

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X:\30013046\X_BROG_SHEC_A1



ELEVATION
SCALE 1:25
PIER 2



These plans are referred to in certificate no. **16746** approved by:

Eric Hausfeld
Registered Certifier

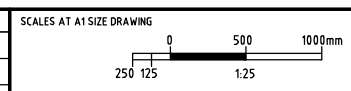
Registration No: BDC 2416

Categories: Certifier - Subdivision
Certifier - Strata
Certifier - Stormwater
Certifier - Road & Drainage
Certifier - Hydraulic (stormwater)

Land Development Certificates
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GENERAL NOTES
FOR OTHER GENERAL NOTES RELATED TO THIS DRAWING,
REFER TO DRG No 135.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\30013046\110_CADD\CAD\DWG\30013046-136.dwg				13 Oct 2021		21:56:23	
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	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



DESIGNER

SMC

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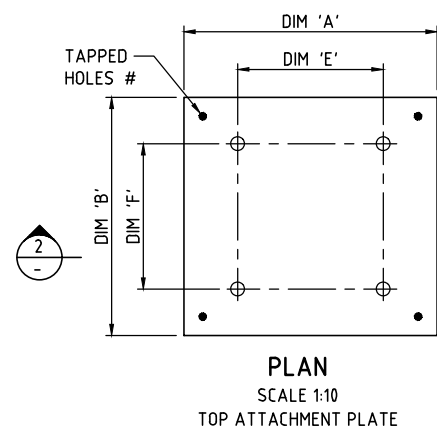
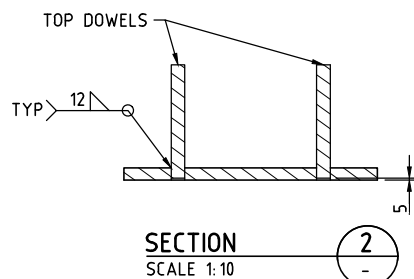
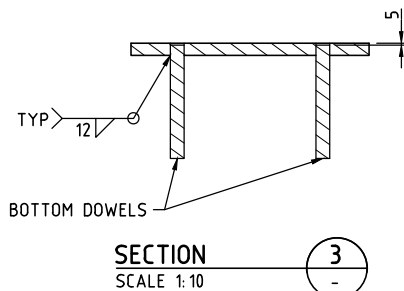
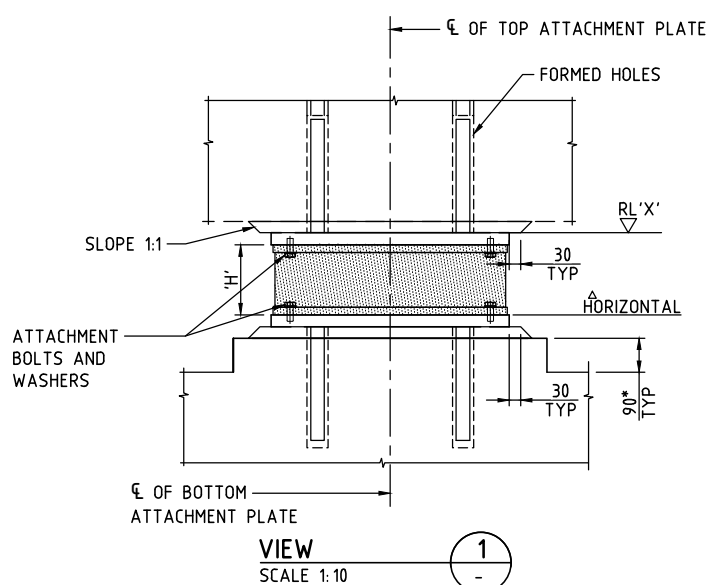
LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMC PROJECT No 30013046

CLIENT

**FRASERS
PROPERTY**

PROJECT TITLE			
SHRIMPION CREEK BRIDGE			
PIER REINFORCEMENT DETAILS SHEET B			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-136	03

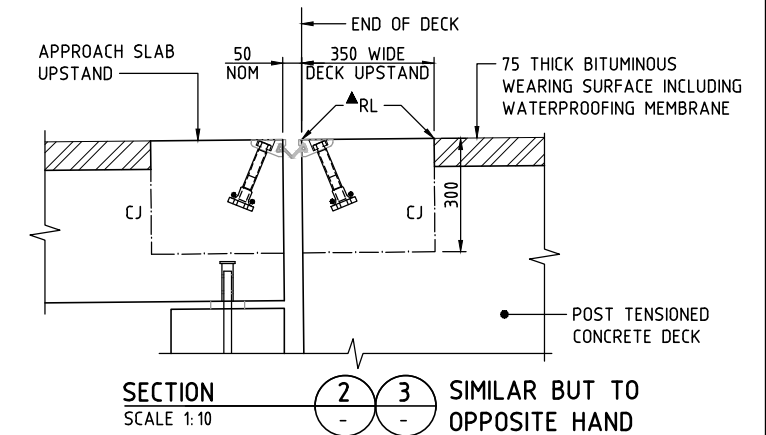
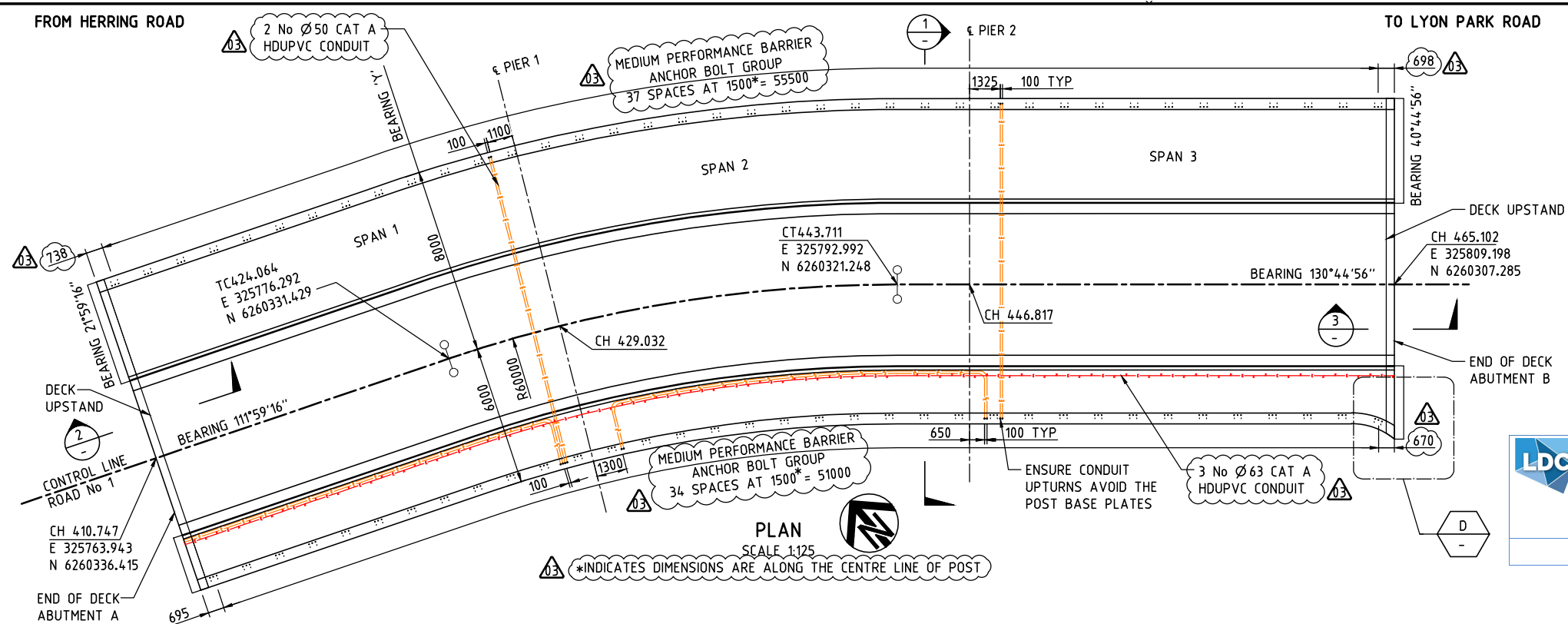
TO LYON PARK ROAD



- | | |
|---|---|
|  | FREE SLIDING POT BEARING - FREE TO MOVE IN ALL DIRECTIONS |
|  | GUIDED SLIDING POT BEARING - FREE TO MOVE LONGITUDINALLY |
|  | GUIDED SLIDING POT BEARING - FREE TO MOVE TRANSVERSELY |
|  | FIXED POT BEARING |

WELDING CATEGORY SHALL BE SP TO AS1554 PT1.
WELDING SYMBOLS TO AS 1101 PT3.

SCALE AS NOTED	PHASE TENDER	PROJECT / DRAWING No. 30013046-141	REVISION 03
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FOR ▲ RL'S REFER TABLES 1
FOR EXPANSION JOINT DETAILS, REFER DRG No 201, 202, 03

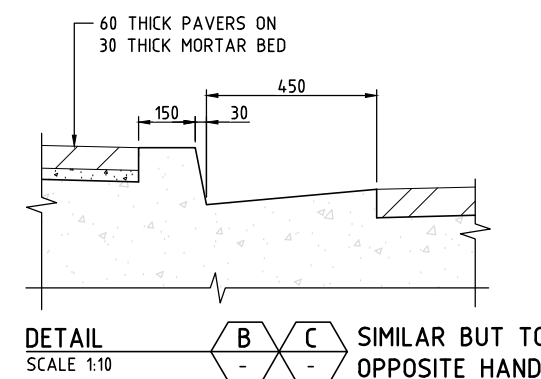
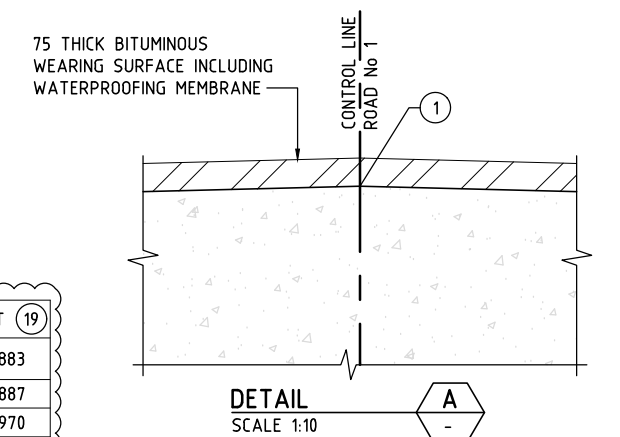
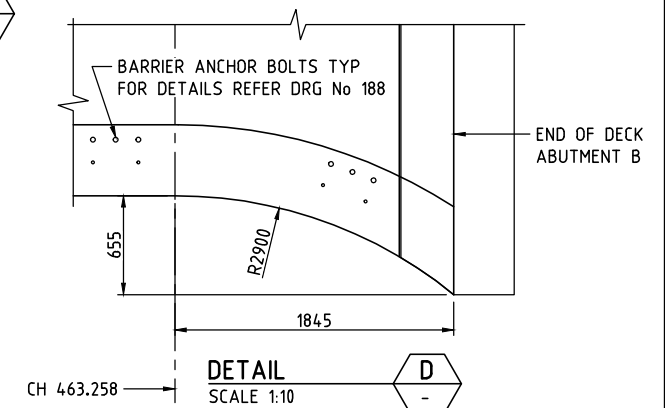
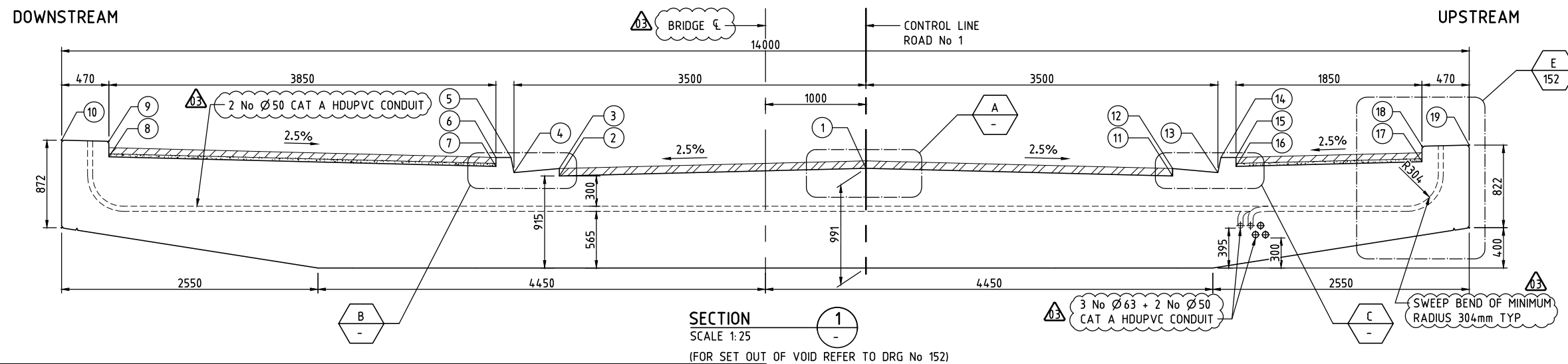


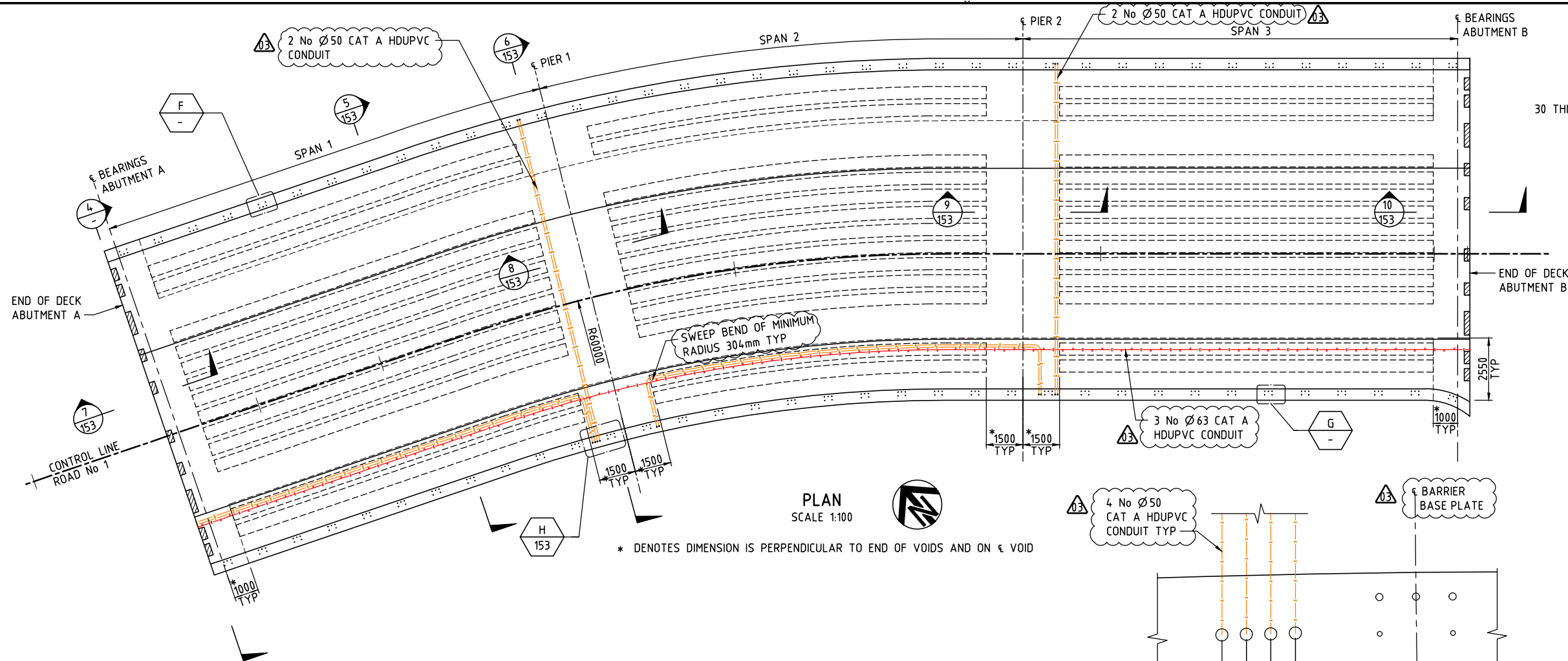
TABLE 1 - DECK SETTING OUT																			25			25		
LOCATION	STATION	BEARING 'Y'	POINT (1)	POINT (2)	POINT (3)	POINT (4)	POINT (5)	POINT (6)	POINT (7)	POINT (8)	POINT (9)	POINT (10)	POINT (11)	POINT (12)	POINT (13)	POINT (14)	POINT (15)	POINT (16)	POINT (17)	POINT (18)	POINT (19)			
END OF DECK AT ABUTMENT A UPSTAND	410.747	21°59'16"	▲ 46.729	▲ 46.653	▲ 46.653	▲ 46.613	▲ 46.763	▲ 46.762	▲ 46.762	▲ 46.858	▲ 46.923	▲ 46.933	▲ 46.653	▲ 46.653	▲ 46.613	▲ 46.763	▲ 46.762	▲ 46.762	▲ 46.808	▲ 46.873	▲ 46.883			
	411.097	21°59'16"	▲ 46.732	▲ 46.656	▲ 46.656	▲ 46.616	▲ 46.766	▲ 46.766	▲ 46.766	▲ 46.862	▲ 46.927	▲ 46.937	▲ 46.656	▲ 46.656	▲ 46.616	▲ 46.766	▲ 46.766	▲ 46.766	▲ 46.812	▲ 46.877	▲ 46.887			
SPAN 1	420.000	21°59'16"	46.741	46.664	46.739	46.699	46.849	46.849	46.759	46.855	47.010	47.020	46.664	46.739	46.699	46.849	46.849	46.759	46.805	46.960	46.970			
	424.064	21°59'16"	46.779	46.702	46.777	46.737	46.887	46.887	46.797	46.893	47.048	47.058	46.702	46.777	46.737	46.887	46.887	46.797	46.842	46.998	47.008			
ε PIER 1	429.032	26°43'54"	46.825	46.749	46.824	46.784	46.934	46.933	46.843	46.939	47.094	47.104	46.749	46.824	46.784	46.934	46.933	46.843	46.889	47.044	47.054			
SPAN 2	440.000	37°12'19"	46.928	46.851	46.926	46.886	47.036	47.036	46.946	47.042	47.197	47.207	46.851	46.926	46.886	47.036	47.036	46.946	46.992	47.147	47.157			
	443.711	40°44'56"	46.962	46.886	46.961	46.921	47.071	47.070	46.980	47.076	47.231	47.241	46.886	46.961	46.921	47.071	47.070	46.980	47.026	47.181	47.191			
ε PIER 2	446.817	40°44'56"	46.991	46.915	46.990	46.950	47.100	47.100	47.010	47.106	47.261	47.271	46.915	46.990	46.950	47.100	47.100	47.010	47.056	47.211	47.221			
SPAN 3	450.000	40°44'56"	47.021	46.945	47.020	46.980	47.130	47.129	47.039	47.135	47.290	47.300	46.945	47.020	46.980	47.130	47.129	47.039	47.085	47.240	47.250			
	460.000	40°44'56"	47.115	47.038	47.113	47.073	47.223	47.223	47.133	47.229	47.384	47.394	47.038	47.113	47.073	47.223	47.223	47.133	47.179	47.334	47.344			
	463.258	40°44'56"	47.145	47.068	47.143	47.103	47.253	47.253	47.163	47.255	47.410	47.420	47.068	47.143	47.103	47.253	47.253	47.163	47.205	47.360	47.370			
UPSTAND	464.752	40°44'56"	▲ 47.234	▲ 47.158	▲ 47.158	▲ 47.118	▲ 47.268	▲ 47.267	▲ 47.267	▲ 47.363	▲ 47.428	▲ 47.438	▲ 47.158	▲ 47.158	▲ 47.118	▲ 47.268	▲ 47.267	▲ 47.267	▲ 47.321	▲ 47.386	▲ 47.398			
	465.102	40°44'56"	▲ 47.237	▲ 47.161	▲ 47.161	▲ 47.121	▲ 47.271	▲ 47.270	▲ 47.270	▲ 47.366	▲ 47.431	▲ 47.441	▲ 47.161	▲ 47.161	▲ 47.121	▲ 47.271	▲ 47.270	▲ 47.270	▲ 47.329	▲ 47.394	▲ 47.407			

▲ DENOTES RL'S AT END OF DECK AND UPSTAND AS SHOWN IN SECTION 2 AND 3.
END OF DECK AND UPSTAND RL'S SHOWN MAKE NO ALLOWANCE FOR COVER PLATE RECESSES WHERE APPLICABLE.

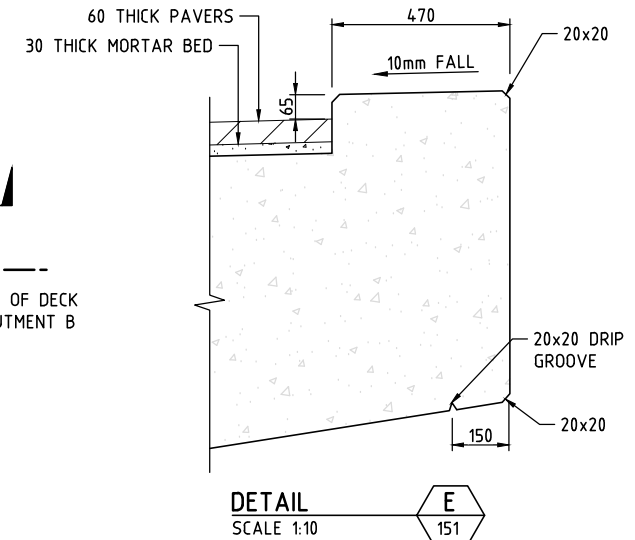


GENERAL NOTES
FOR GENERAL NOTES RELATING TO THIS DRAWING,
REFER DRG No 152.

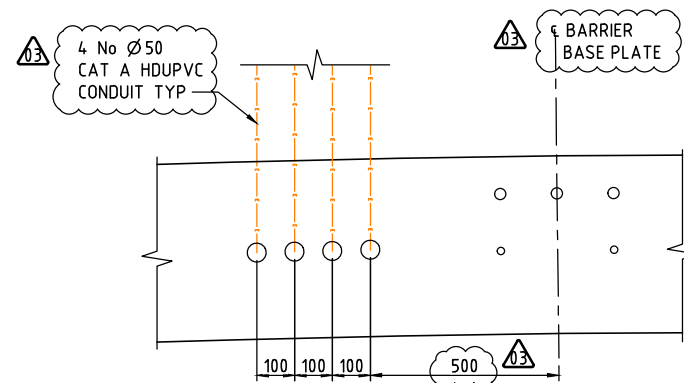
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EXTERNAL REFERENCE FILES										REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	TITLE	NAME	SCALES AT A1 SIZE DRAWING 				DESIGNER  Member of the Surbana Jurong Group © ABN 47 065 475 149 LEVEL 5, 20 BERRY STREET NORTH SYDNEY NSW 2060 SMEC PROJECT No 30013046				CLIENT 				PROJECT TITLE SHRIMPTON CREEK BRIDGE DECK SETTING OUT			
										01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI																
										02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU																
										03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU																
															DESIGN CHECK	V.BALAKRISHNAN																
															PROJECT MANAGER	J.DICKERSON																
															PROJECT DIRECTOR	K.LIU																
K_X_BROG_A1_SMEC_A1 K_X_BROG_PLAN K_X_DES_MAIN K_X_DES_SEC K_X_BROG_SEC																	SCALE				PHASE				PROJECT / DRAWING No. 30013046-151				REVISION 03			



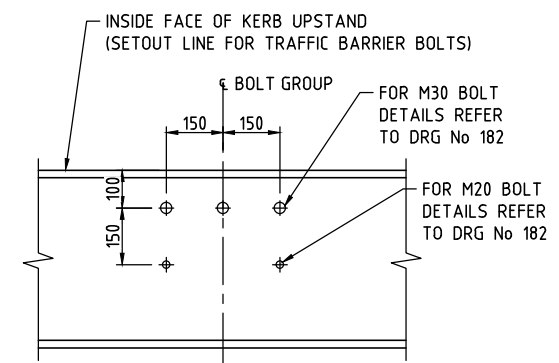
PLAN
SCALE 1:100



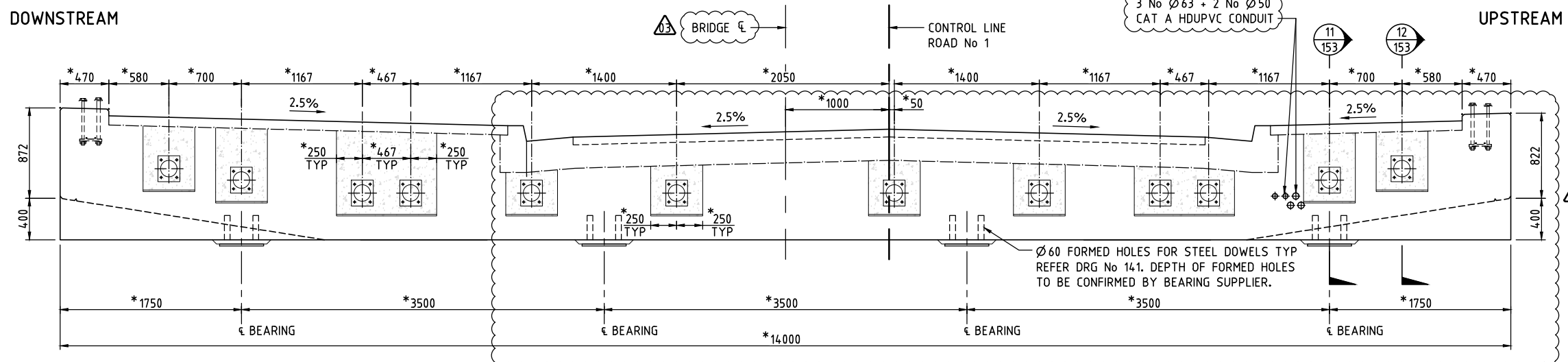
DETAIL
SCALE 1:10



DETAIL (Ø50) ELECTRICAL DUCT
SCALE 1:10



DETAIL
SCALE 1:10



SECTION
SCALE 1:25

FOR POST TENSION LAYOUT REFER TO DRG No 161.
* DENOTES DIMENSION ARE OFFSETS ALONG ABUTMENT CENTERLINES.

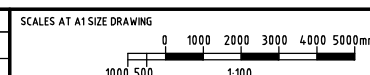
GENERAL NOTES

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
CONCRETE EXPOSURE CLASSIFICATION: B1
MINIMUM 28 DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 40 MPa
EDGES SHALL BE CHAMFERED 20 x 20 AND RE-ENTRANT ANGLES FILLETED 20 x 20 UNLESS NOTED OTHERWISE.
CONSTRUCTION JOINT ONLY AT THE LOCATIONS NOMINATED ON THE DRAWINGS.
REFER TO TABLE 1 FOR SETTING OUT DETAILS.
ALL REDUCE LEVELS SHOWN ARE TO DESIGN FINISHED CONCRETE LEVELS.
THE CONTRACTOR SHALL ALLOW FOR SETTLEMENT OF FALSEWORK DURING CONSTRUCTION.
EXPOSED CONCRETE SURFACE TO HAVE SMOOTH FINISH.

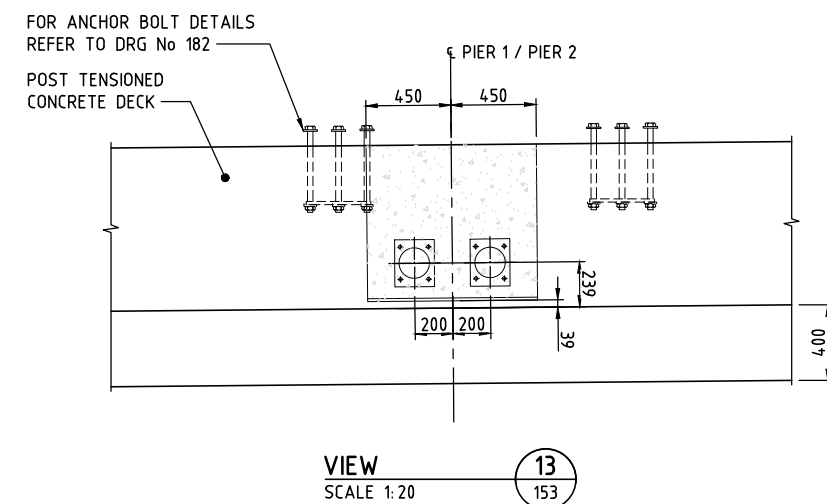
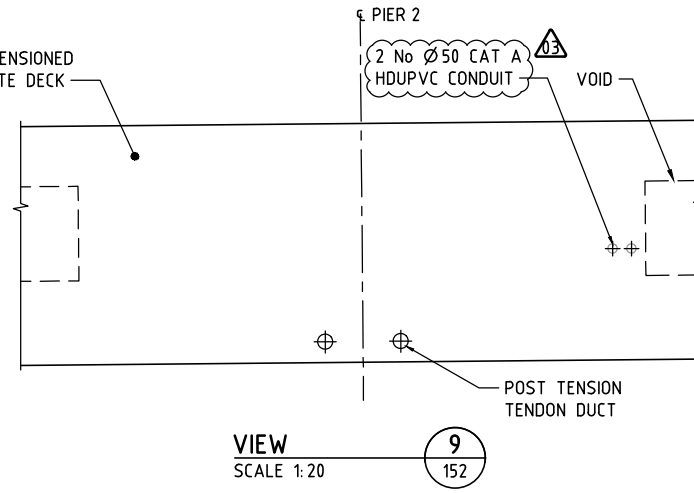
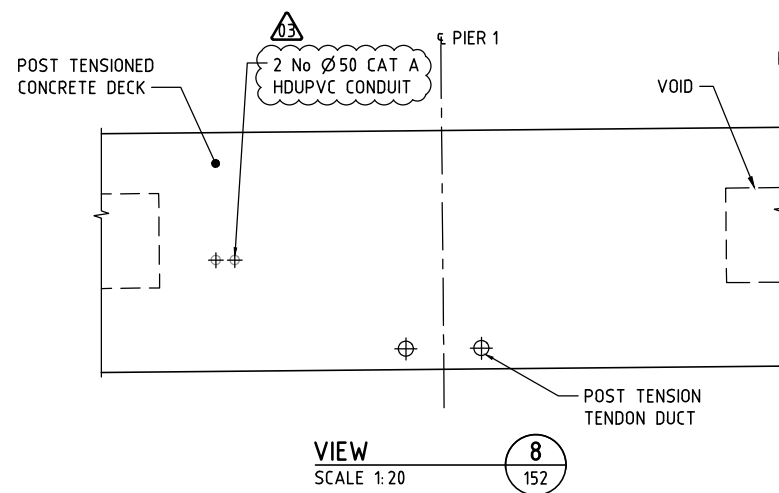
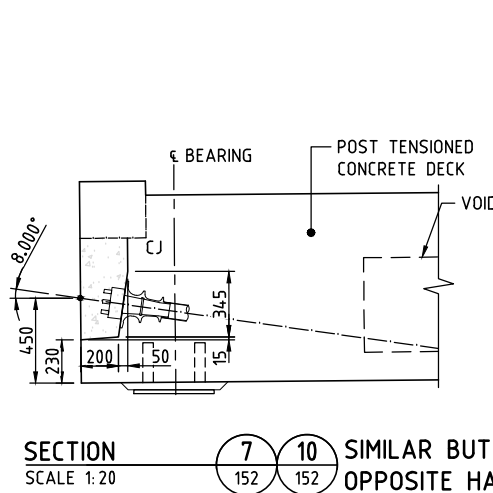
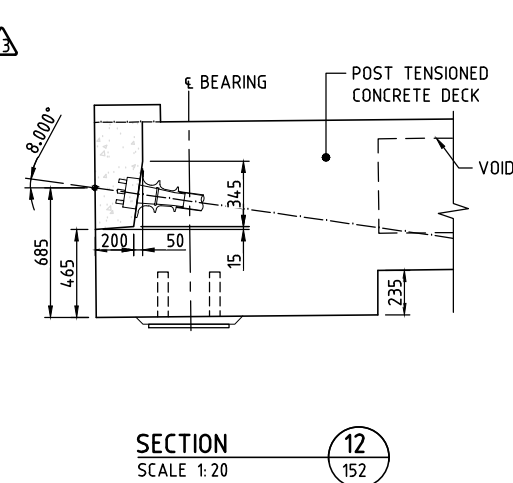
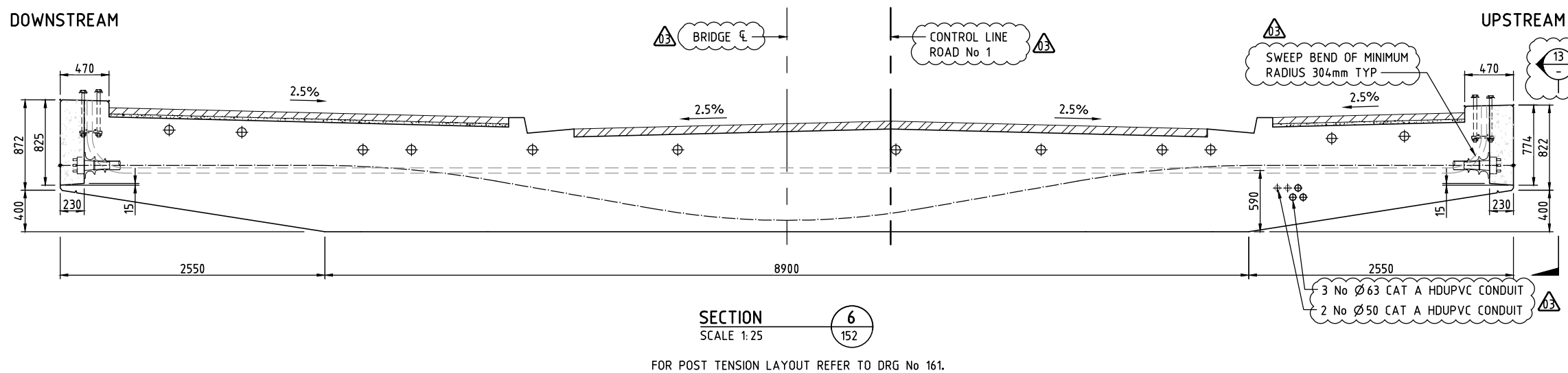
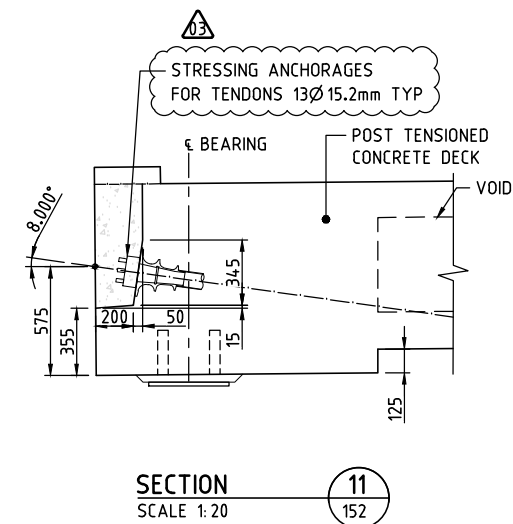
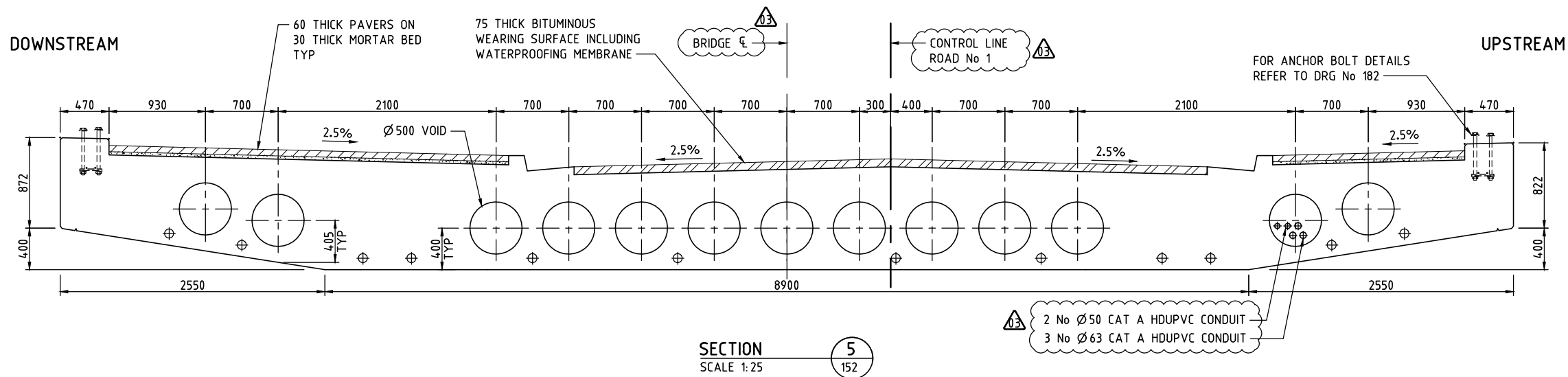


'-' DENOTES STRAIGHT LINE

DRAWING FILE LOCATION / NAME			PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-152.dwg			13 Oct 2021		21:56:02	
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	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER
						DESIGN CHECK
						PROJECT MANAGER
						PROJECT DIRECTOR



PROJECT TITLE			
SHRIMPION CREEK BRIDGE			
DECK CONCRETE SHEET A			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-152	03



LDC

These plans are referred to in certificate no. 16746 approved by:

Eric Hausfeld
Registered Certifier

Registration No: BDC 2416

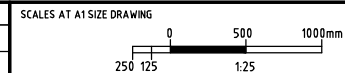
Categories: Certifier - Subdivision
Certifier - Strata
Certifier - Stormwater
Certifier - Road & Drainage
Certifier - Hydraulic (stormwater)

Land Development Certificates
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GENERAL NOTES

FOR GENERAL NOTES RELATING TO THIS DRAWING, REFER DRG No 152.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\300130046\110_CADD\CAD\DWG\30013046-153.dwg				14 Oct 2021		00:00:28	
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	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



DESIGNER

SMC

Member of the Surlana Jurong Group

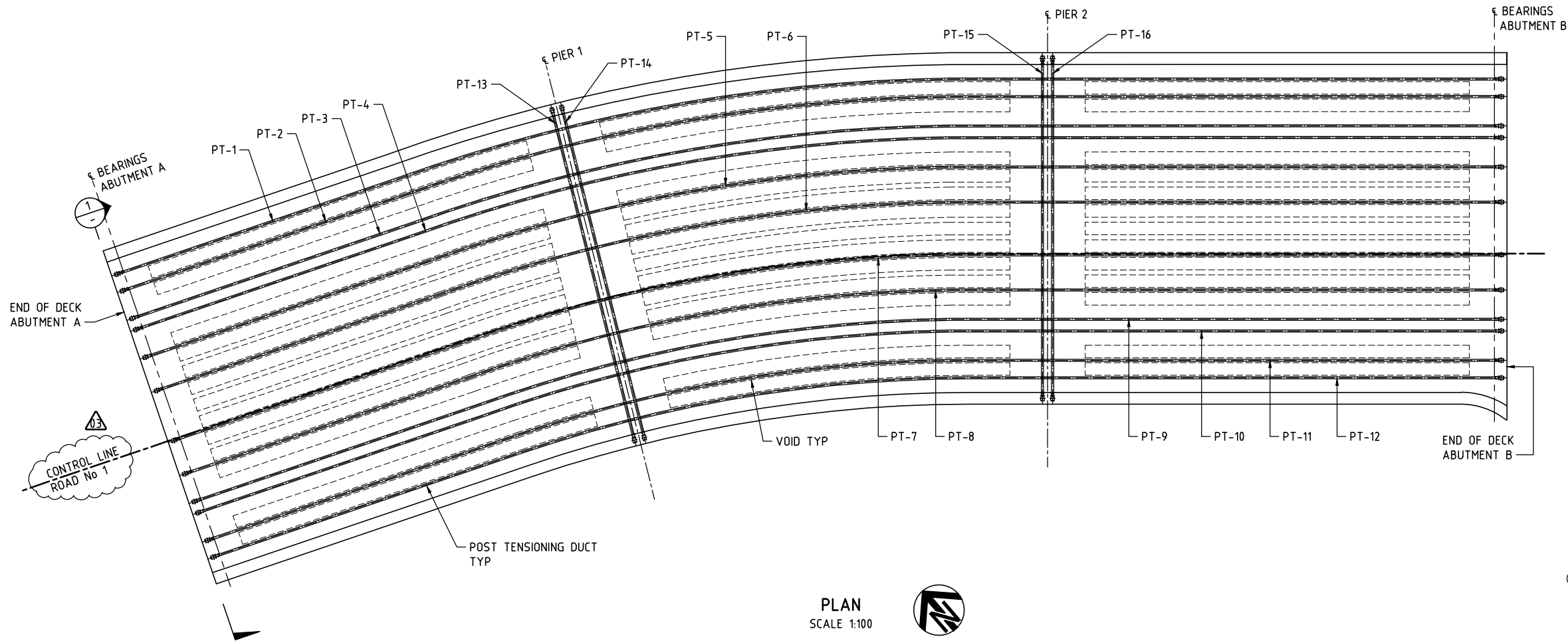
© ABN 47 065 475 149

LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060

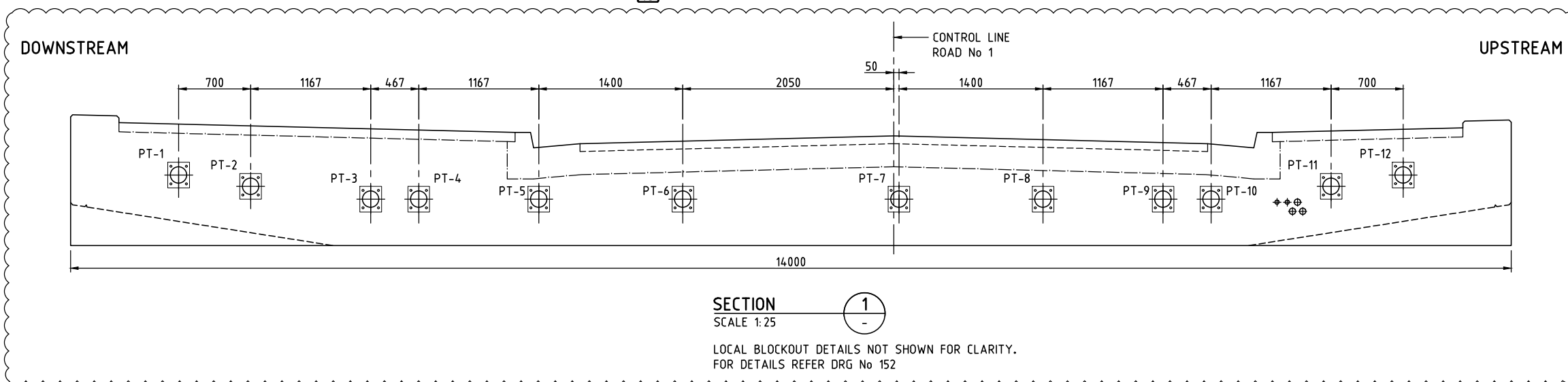
SMC PROJECT No 30013046



PROJECT TITLE			
SHRIMPION CREEK BRIDGE			
DECK CONCRETE SHEET B			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-153	03



PLAN
SCALE 1:100



SECTION
SCALE 1:25

1

LOCAL BLOCKOUT DETAILS NOT SHOWN FOR CLARITY.
FOR DETAILS REFER DRG No 152

GENERAL NOTES

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

CONCRETE NOTES

MINIMUM COMPRESSIVE STRENGTH CONCRETE AT TRANSFER SHALL BE 40Mpa. FORMWORK/FALSEWORK SUPPORTING THE DECK SHALL NOT BE RELEASED UNTIL STRESSING OF ALL TENDONS IS COMPLETED. EXPOSED CONCRETE SURFACE TO HAVE SMOOTH FINISH.

POST-TENSIONING

THE DESIGN HAS BEEN BASED ON THE FREYSSINET C RANGE SYSTEM OF STRESSING ANCHORAGE. AN EQUIVALENT SYSTEM SHALL BE A PROPRIETARY POST-TENSIONING SYSTEM IN ACCORDANCE WITH TfNSW BRIDGE TECHNICAL DIRECTION 2008/11.

TENDON SHALL CONSIST OF 13 No. (15.2mm) DIAMETER LOW RELAXATION, STRESS RELIEVED, SUPERGRADE 7 WIRE STRANDS TO AS/NZS 4672.1 (MINIMUM BREAKING LOAD OF 262KN). DUCTS FOR TENDONS SHALL BE FORMED WITH GALVANISHED SEMI-RIGID STEEL SHEATHING.

DUCT INSIDE DIAMETER IS 80mm. DUCTS SHALL BE RIGIDLY SUPPORTED DURING CONCRETING AND FIXED TO A SMOOTH PROFILE OF THE SPECIFIED POINTS SHOWN ON THE VERTICAL DUCT PROFILE USING A METHOD APPROVED BY THE DESIGN ENGINEER.

OVERALL LENGTHS OF EACH TENDON VARIES. GROUT VENTS SHALL BE PROVIDED AT ALL ANCHORAGES AND AT CROWN AND SAG POINTS OF ALL DUCT. FIXING OF DUCTS, GROUTING AND PROTECTION OF ANCHORAGES SHALL COMPLY WITH TfNSW SPECIFICATION B113.

ALL TENDON LOCATIONS ARE MEASURED FROM THE CENTERLINE OF THE DUCT TO THE SOFFIT VERTICALLY.

THE TENDONS SHALL BE STRESSED FROM BOTH ENDS. THE ORDER OF STRESSING SHALL BE PT6, PT7, PT5, PT8, PT4, PT9, PT3, PT10, PT2, PT11, PT1, PT12, PT13, PT14, PT15 AND PT16.

ALL STRANDS IN EACH TENDON SHALL BE STRESSED SIMULTANEOUSLY.

CALCULATION OF FRICTION AND DRAW IN LOSSES HAS BEEN BASED ON THE FOLLOWING ASSUMPTIONS:

FRICTION CURVATURE COEFFICIENT $\mu = 0.17$

WOBBLE COEFFICIENT $\beta = 0.007 \text{ rad/m}$

ELASTIC MODULUS OF TENDONS $E_s = 195000 \text{ Mpa}$

DRAW IN AT LOCK OFF = 6mm

TENDON DUCTS SHALL BE GROUTED AS SOON AS POSSIBLE AFTER STRESSING.

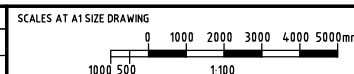
CALCULATED HOG/DEFLECTIONS OF DECKS ARE:

HOG OF DECK	HOG/DEFLECTION (mm)	ELASTIC MODULUS (Mpa)
AT TRANSFER	3	32800
AT 60 DAYS	4	34800

THEORETICAL TOTAL ELONGATION OF TENDONS (mm)		
TENDON	JACKING FROM ABUTMENT A / PIER 1 END	JACKING FROM ABUTMENT B / PIER 2 END
1	177	177
2	172	172
3	167	167
4	167	167
5	170	170
6	167	167
7	166	166
8	163	163
9	162	162
10	160	160
11	163	163
12	167	167
13	48	48
14	48	48
15	48	48
16	48	48

JACKING FORCE = 75% UTS

DRAWING FILE LOCATION / NAME					PLOT DATE	TIME
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-161.dwg					13 Oct 2021	23:54:57
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	TITLE
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	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER
						DESIGN CHECK
						PROJECT MANAGER
						PROJECT DIRECTOR



DESIGNER



CLIENT



PROJECT TITLE			
SHRIMPION CREEK BRIDGE			
DECK POST TENSIONING SHEET A			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-161	03

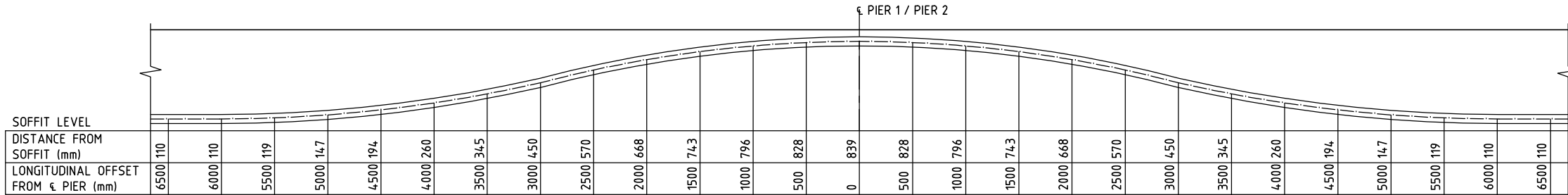
150 mm ON ORIGINAL

A1

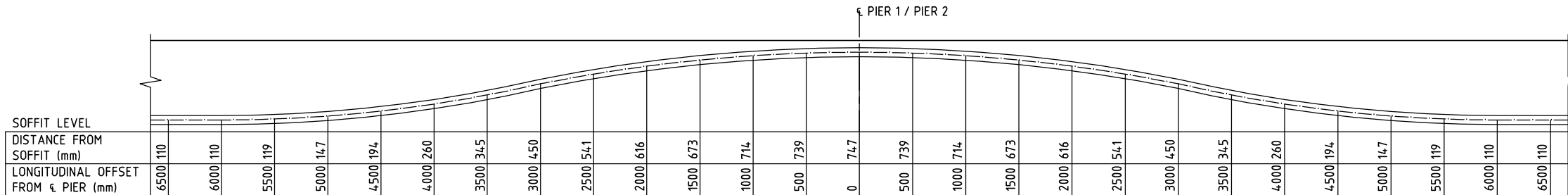
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DRAWING FILE LOCATION / NAME V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-162.dwg					PLOT DATE 13 Oct 2021		TIME 21:55:39											
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					02		20.08.2021		ISSUED FOR TENDER		001		JD		DRAFTING CHECK			
					03		14.10.2021		ISSUED FOR TENDER		002		JD		DESIGNER			
																	DESIGN CHECK	
																	PROJECT MANAGER	
																	PROJECT DIRECTOR	

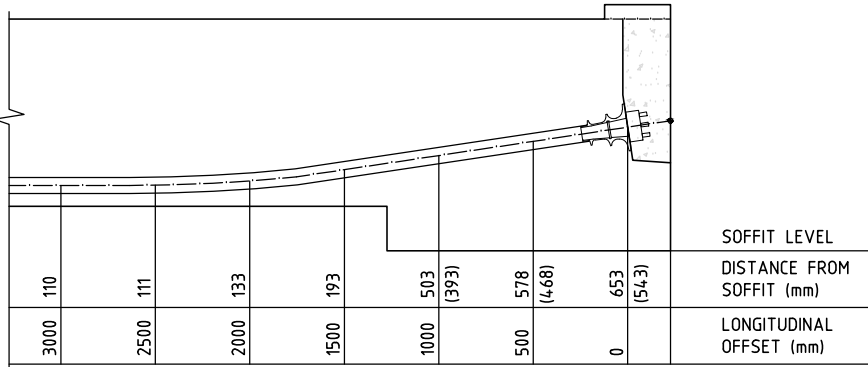
POST-TENSIONING TENDON DUCT LAYOUT AT PIER-TYPICAL
ELEVATION FOR PT2
SCALE 1:25



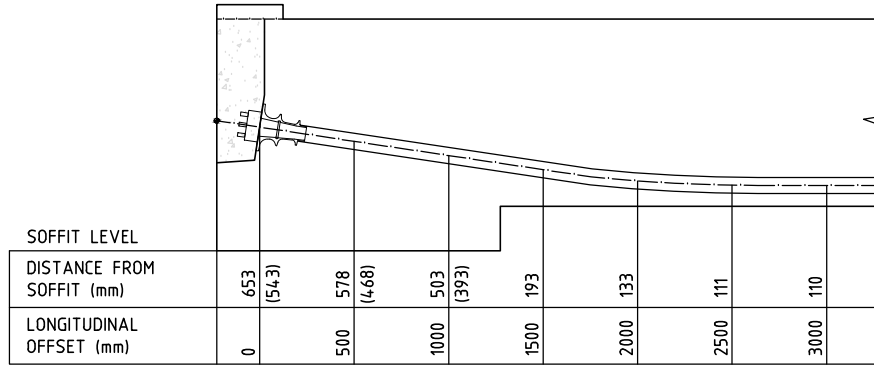
POST-TENSIONING TENDON DUCT LAYOUT AT PIER-TYPICAL
ELEVATION FOR PT1
SCALE 1:25



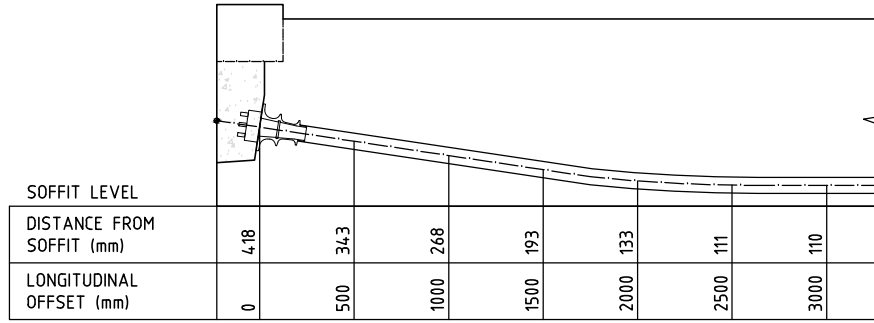
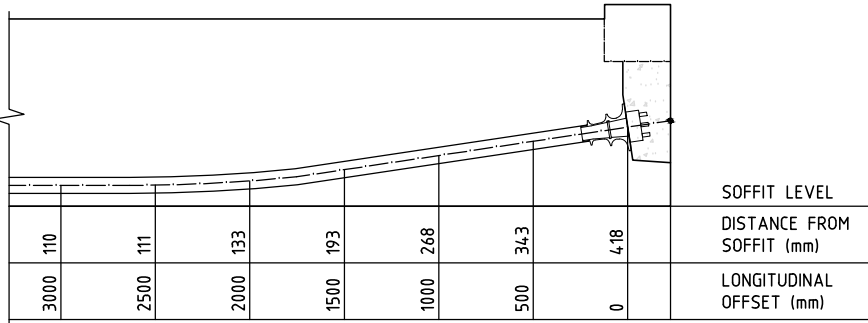
ABUTMENT B END POST-TENSIONING TENDON DUCT
ELEVATION FOR PT1 AND PT12 (PT2 AND PT11)
SCALE 1:20
VALUES IN BRACKET ARE FOR PT2 AND PT11



ABUTMENT A END POST-TENSIONING TENDON DUCT
ELEVATION FOR PT3 TO PT10
SCALE 1:20



ABUTMENT B END POST-TENSIONING TENDON DUCT
ELEVATION FOR PT3 TO PT10
SCALE 1:20



GENERAL NOTES
THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRG No 161.
ALL TENDON LOCATIONS ARE NOTED TO CENTERLINE OF DUCT FROM THE SOFFIT OF THE BEAM.
FOR OTHER GENERAL NOTES REFER TO DRG No 161.

These plans are referred to in certificate no. **16746** approved by:
Eric Hausfeld
Registered Certifier
Registration No: BDC 2416
Categories: Certifier – Subdivision
Certifier – Strata
Certifier – Stormwater
Certifier – Road & Drainage
Certifier – Hydraulic (stormwater)

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Member of the Surbana Jurong Group
© ABN 47 065 475 149
LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMC PROJECT No 30013046

DESIGNER

CLIENT

PROJECT TITLE

SHRIMPTON CREEK BRIDGE

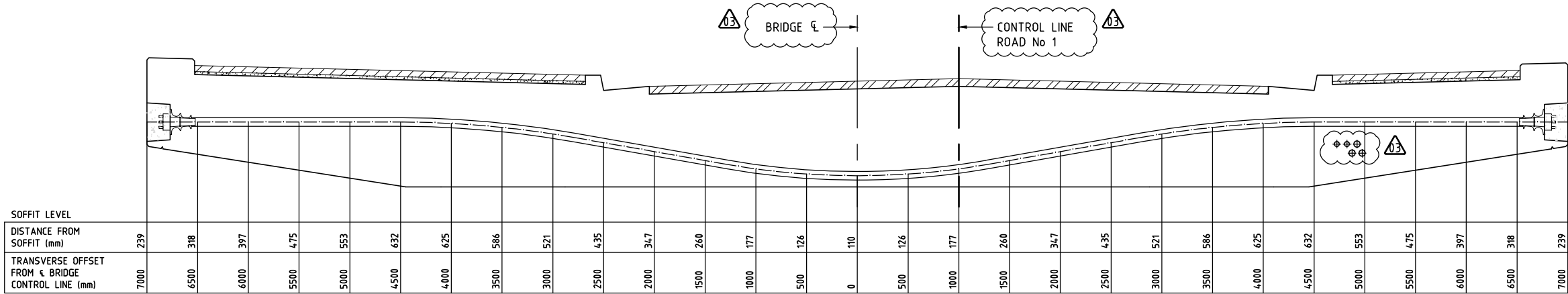
DECK POST TENSIONING SHEET B

SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-162	03

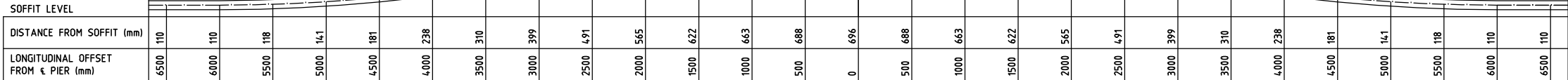
150 mm ON ORIGINAL

A1

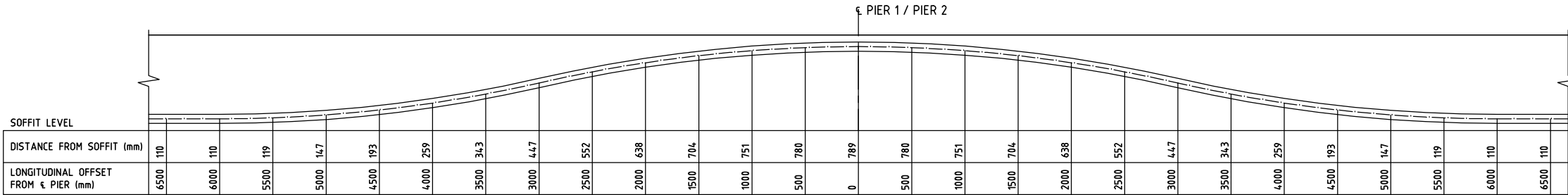
DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-163.dwg				14 Oct 2021		00:05:42	
EXTERNAL REFERENCE FILES				WVR No.	APPROVAL	TITLE	NAME
				001	JD	DRAFTER	T.SABAPATHI
				001	JD	DRAFTING CHECK	V.S.KODURU
				002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU
REV	DATE	AMENDMENT / REVISION DESCRIPTION					
01	10.07.2021	ISSUED FOR TENDER					
02	20.08.2021	ISSUED FOR TENDER					
03	14.10.2021	ISSUED FOR TENDER					



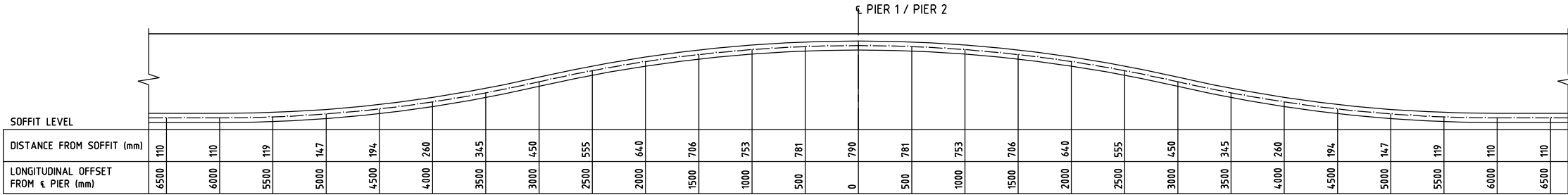
TRANSVERSE POST-TENSIONING TENDON DUCT LAYOUT AT PIER-TYPICAL ELEVATION FOR PT13 TO PT16



POST-TENSIONING TENDON DUCT LAYOUT AT PIER-TYPICAL ELEVATION FOR PT12



POST-TENSIONING TENDON DUCT LAYOUT AT PIER-TYPICAL ELEVATION FOR PT11



POST-TENSIONING TENDON DUCT LAYOUT AT PIER-TYPICAL ELEVATION FOR PT3 TO PT10

LDC These plans are referred to in certificate no. **16748** approved by:
Eric Hausfeld
Registered Certifier
Registration No: BDC 2416
Categories: Certifier – Subdivision
Certifier – Strata
Certifier – Stormwater
Certifier – Road & Drainage
Certifier – Hydraulic (stormwater)
Land Development Certificates
www.LDC.com.au

GENERAL NOTES
THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRG No 161.
ALL TENDON LOCATIONS ARE NOTED TO CENTERLINE OF DUCT FROM THE SOFFIT OF THE BEAM.
FOR OTHER GENERAL NOTES REFER TO DRG No 161.

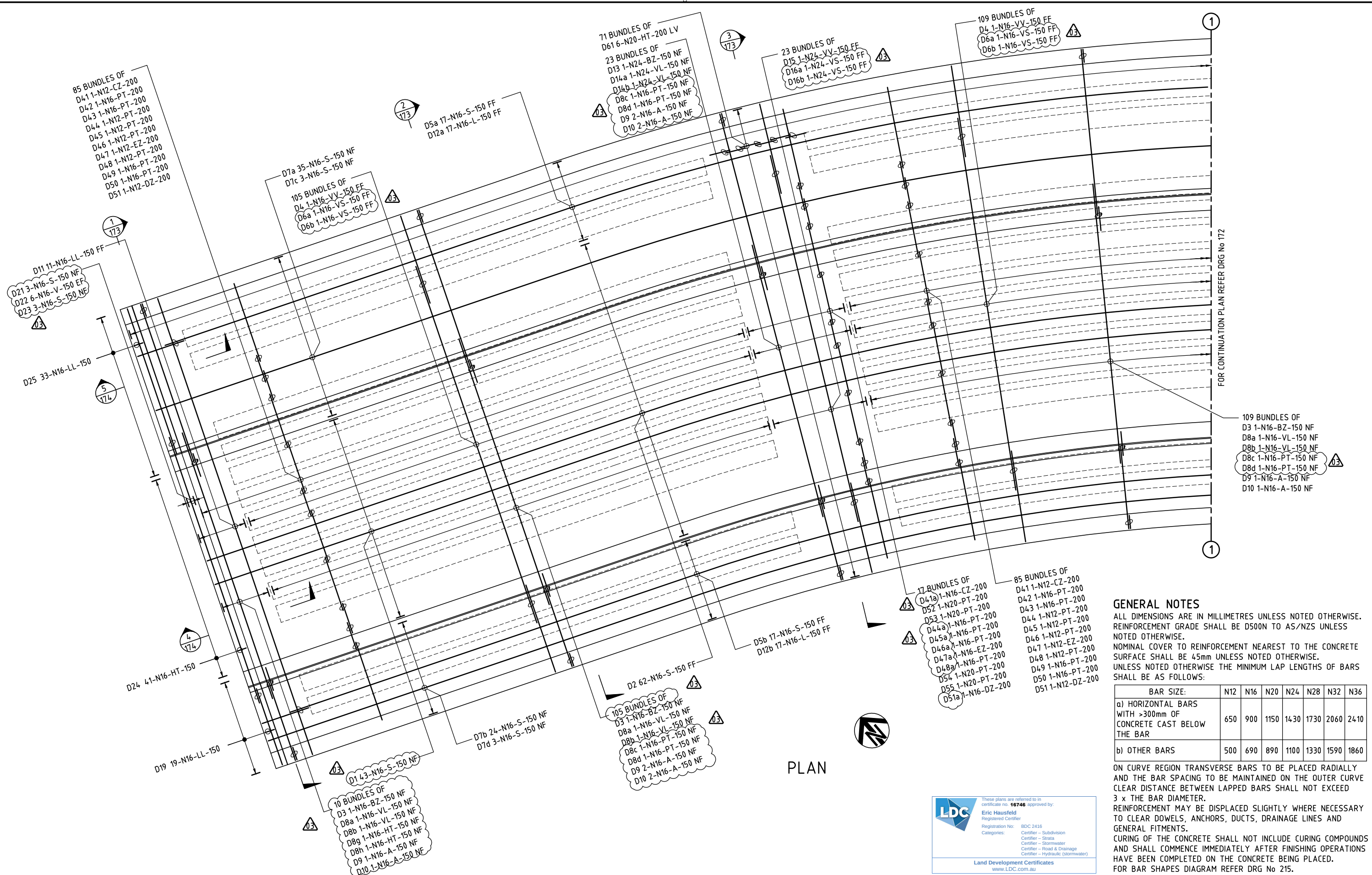
PROJECT TITLE			
SHRIMPION CREEK BRIDGE			
DECK POST TENSIONING SHEET C			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-163	03

DESIGNER

SMEC
Member of the Surbana Jurong Group
© ABN 47 065 475 149
LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

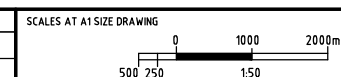
CLIENT

FRASERS PROPERTY



BAR SIZE:	N12	N16	N20	N24	N28	N32	N36
a) HORIZONTAL BARS WITH >300mm OF CONCRETE CAST BELOW THE BAR	650	900	1150	1430	1730	2060	2410
b) OTHER BARS	500	690	890	1100	1330	1590	1860

DRAWING FILE LOCATION / NAME V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-171.dwg						PLOT DATE 13 Oct 2021		TIME 23:48:42	
K_30013046_SHEC_A1 K_BRC_PLAN K_DES_MAIN	EXTERNAL REFERENCE FILES		REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	TITLE	NAME
	01	10.07.2021		ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI	
	02	20.08.2021		ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU	
	03	14.10.2021		ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU	
							DESIGN CHECK	V.BALAKRISHNAN	
							PROJECT MANAGER	J.DICKERSON	
							PROJECT DIRECTOR	K.LUI	



DESIGNER

 **SMEC**

Member of the Surbana Jurong Group
© ABN 47 065 475 149

LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046



These plans are referred to in certificate no. **16746** approved by:

Eric Hausfeld
Registered Certifier

Registration No: BDC 2416

Categories:

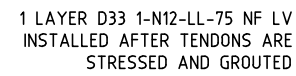
Certifier – Subdivision
Certifier – Strata
Certifier – Stormwater
Certifier – Road & Drainage
Certifier – Hydraulic (stormwater)

Land Development Certificates
www.LDC.com.au

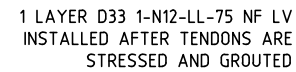
	CLIENT
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PROJECT TITLE		SHRIMPTON CREEK BRIDGE	
		DECK REINFORCEMENT SHEET A	
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-171	03



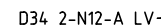
SCALE 1:10
SHEAR STIRRUPS NOT
SHOWN FOR CLARITY



SCALE 1:10
SHEAR STIRRUPS NOT
SHOWN FOR CLARITY



6
17



7
173

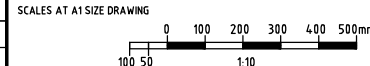


8

FOR OTHER GENERAL NOTES RELATED TO THIS DRAWING, REFER TO
DRG No 171.

PLOT DATE	TIME
13 Oct 2021	23:45:54

APPROVAL	TITLE	NAME
JD	DRAFTER	T.SABAPATHI
JD	DRAFTING CHECK	V.S.KODURU
JD	DESIGNER	V.S.KODURU
	DESIGN CHECK	V.BALAKRISHNAN
	PROJECT MANAGER	J.DICKERSON
	PROJECT DIRECTOR	K.LIU



 **SMEC**
Member of the Surbana Jurong Group
© ABN 47 065 475 149
LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

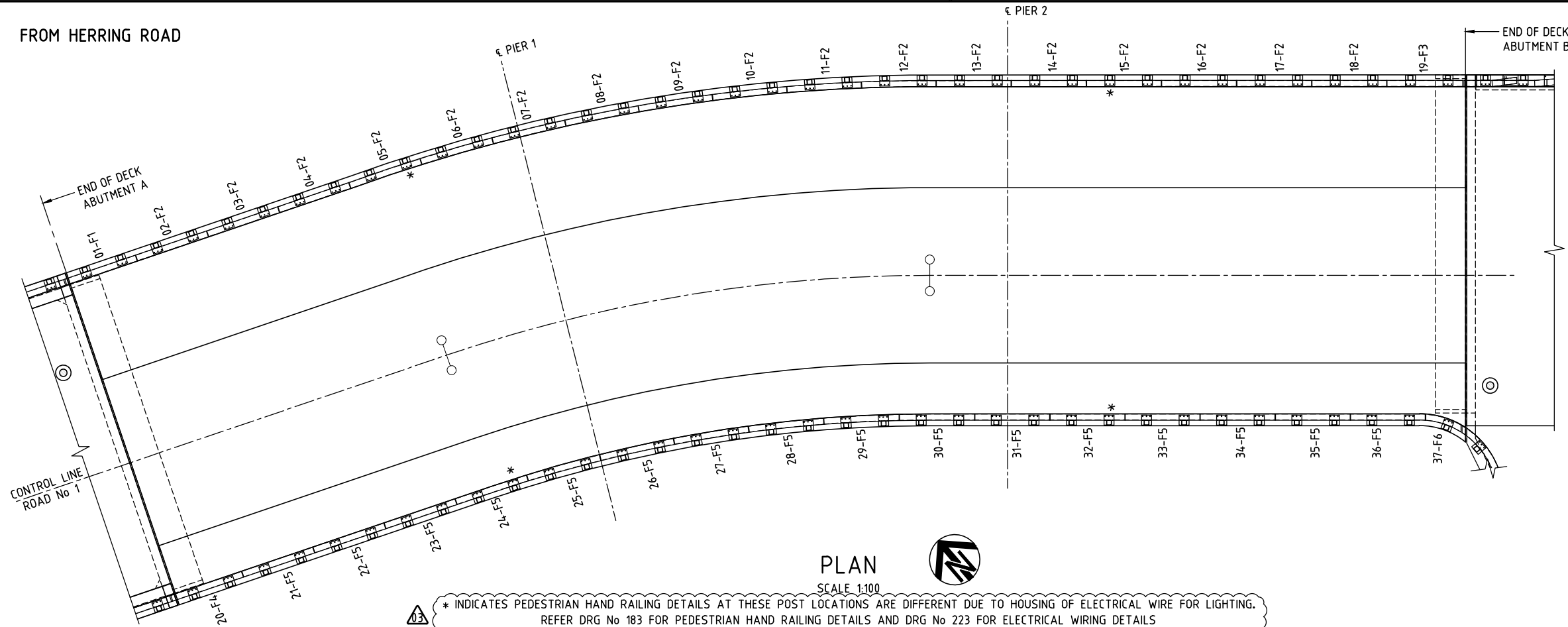


DECK REINFORCEMENT
SHEET D

SCALE AS NOTED	PHASE TENDER	PROJECT / DRAWING No. 30013046-174	REVISION 03
-------------------	-----------------	---------------------------------------	----------------

FROM HERRING ROAD

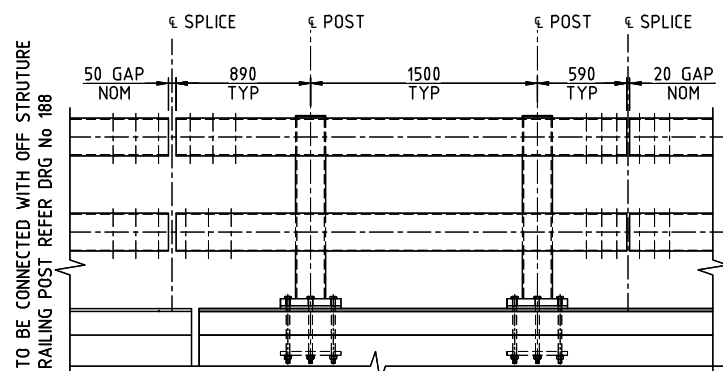
TO LYON PARK ROAD



PLAN

SCALE 1:100

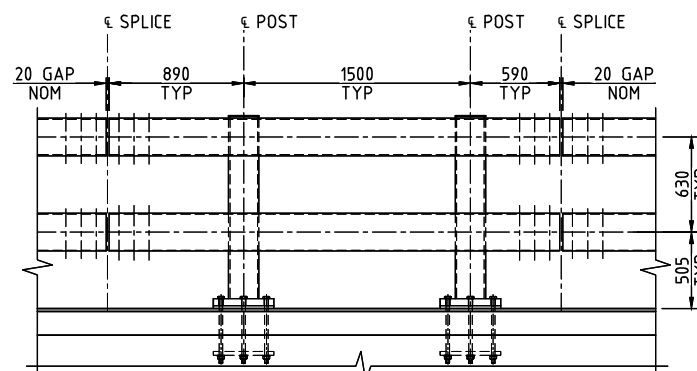
* INDICATES PEDESTRIAN HAND RAILING DETAILS AT THESE POST LOCATIONS ARE DIFFERENT DUE TO HOUSING OF ELECTRICAL WIRE FOR LIGHTING. REFER DRG No 183 FOR PEDESTRIAN HAND RAILING DETAILS AND DRG No 223 FOR ELECTRICAL WIRING DETAILS



INSIDE ELEVATION
PANEL F1 (F4)

SCALE 1:25

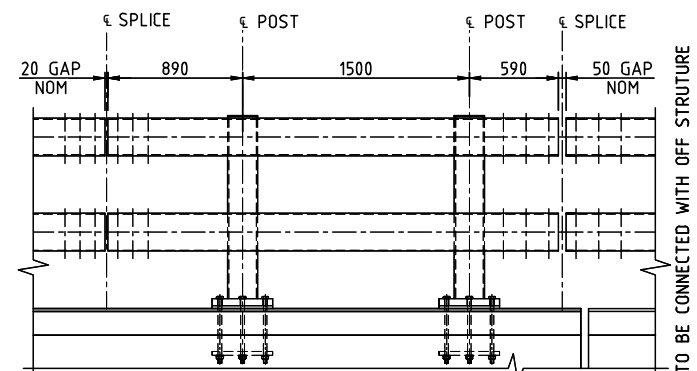
(CYCLIST/PEDESTRIAN RAILS NOT SHOWN)



INSIDE ELEVATION
PANEL F2 (F5 SIMILAR)

SCALE 1:25

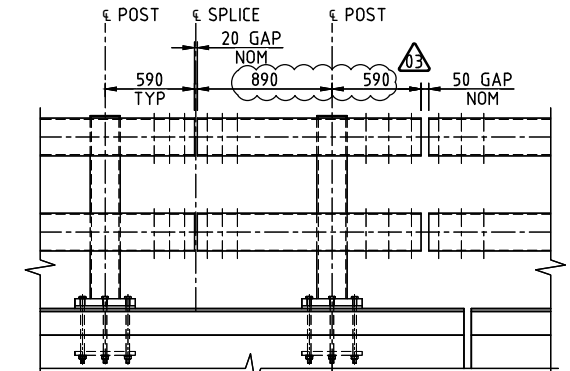
(CYCLIST/PEDESTRIAN RAILS NOT SHOWN)



INSIDE ELEVATION
PANEL F3

SCALE 1:25

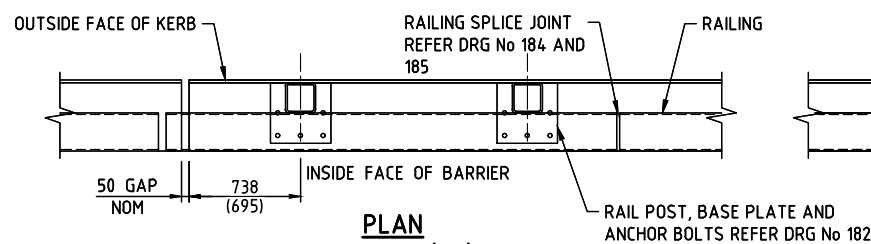
(CYCLIST/PEDESTRIAN RAILS NOT SHOWN)



INSIDE ELEVATION
PANEL F6

SCALE 1:25

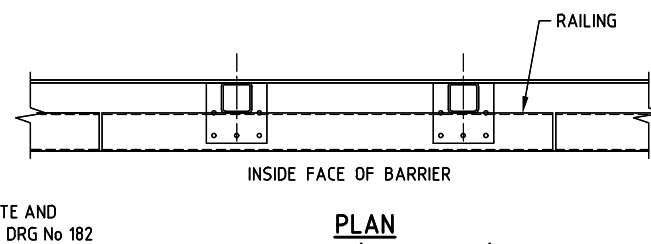
(CYCLIST/PEDESTRIAN RAILS NOT SHOWN)



PLAN
PANEL F1 (F4)

SCALE 1:25

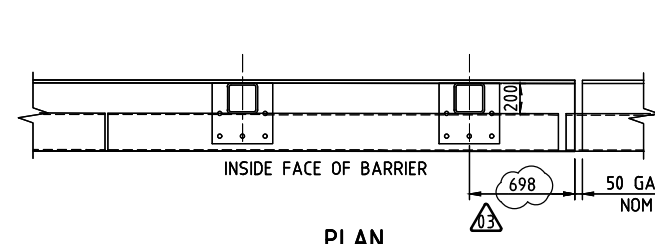
(F1-1 No REQUIRED)
(F4-1 No REQUIRED)



PLAN
PANEL F2 (F5 SIMILAR)

SCALE 1:25

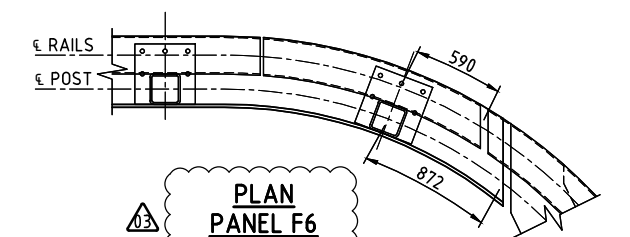
(F2-17 No REQUIRED)
(F5-16 No REQUIRED)



PLAN
PANEL F3

SCALE 1:25

(F3-1 No REQUIRED)



PLAN
PANEL F6

SCALE 1:25

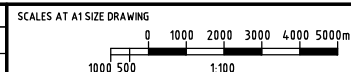
(F6-1 No REQUIRED)

GENERAL NOTES

FOR GENERAL NOTES RELATED TO THIS SHEET, REFER DRG No 182.

ELEVATIONS DRAWN ARE ALONG THE LENGTH.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-181.dwg				14 Oct 2021		00:24:53	
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	MWR No.	APPROVAL	TITLE	NAME
X:\30013046_SHEC_A1 X:\DESIGN X:\BRG_PLAN	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



DESIGNER

SMEC

Member of the Surlana Jurong Group
© ABN 47 065 475 149

LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

These plans are referred to in certificate no. 16746 approved by:

Eric Hausfeld
Registered Certifier

Registration No: BDC 2416

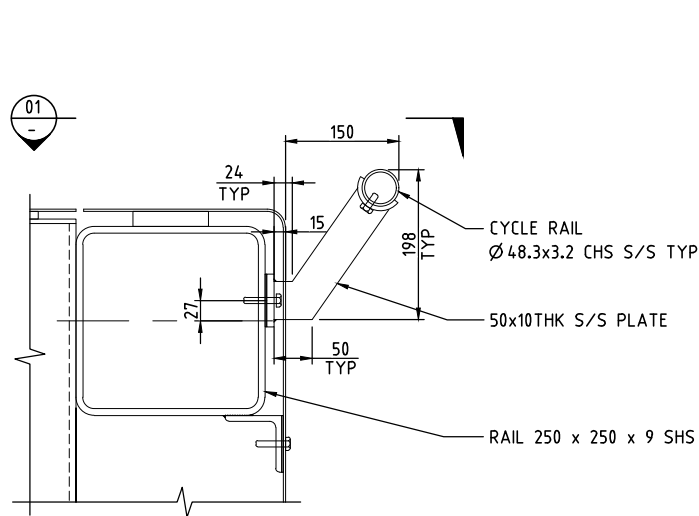
Categories: Certifier - Subdivision
Certifier - Strata
Certifier - Stormwater
Certifier - Road & Drainage
Certifier - Hydraulic (stormwater)

Land Development Certificates
www.LDC.com.au

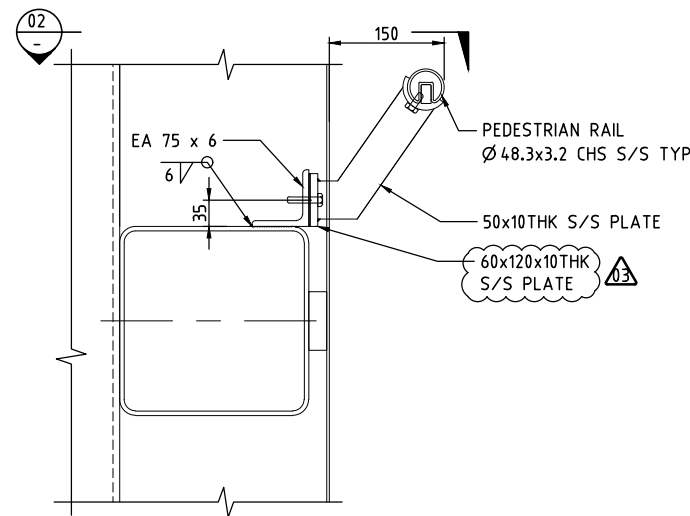
CLIENT

**FRASERS
PROPERTY**

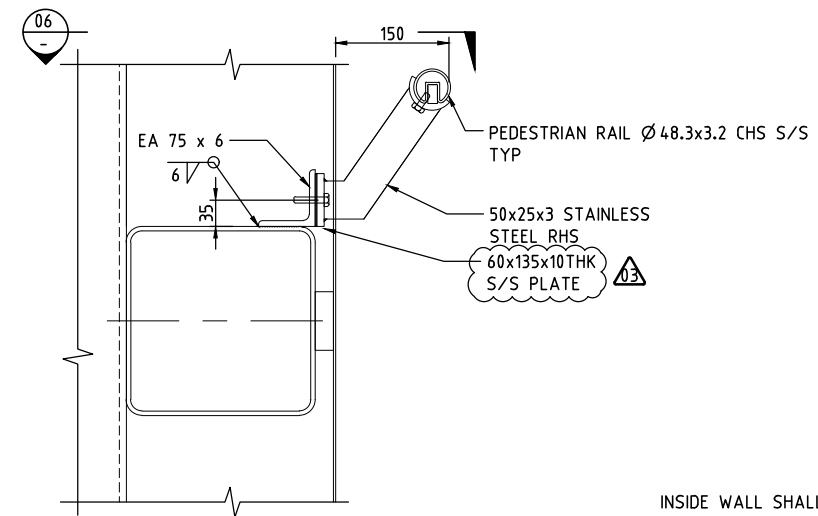
PROJECT TITLE			
SHRIMPION CREEK BRIDGE			
ON STRUCTURE BARRIER DETAILS SHEET A			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-181	03



DETAIL
SCALE 1:5



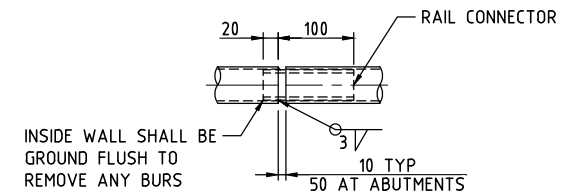
DETAIL
SCALE 1:5



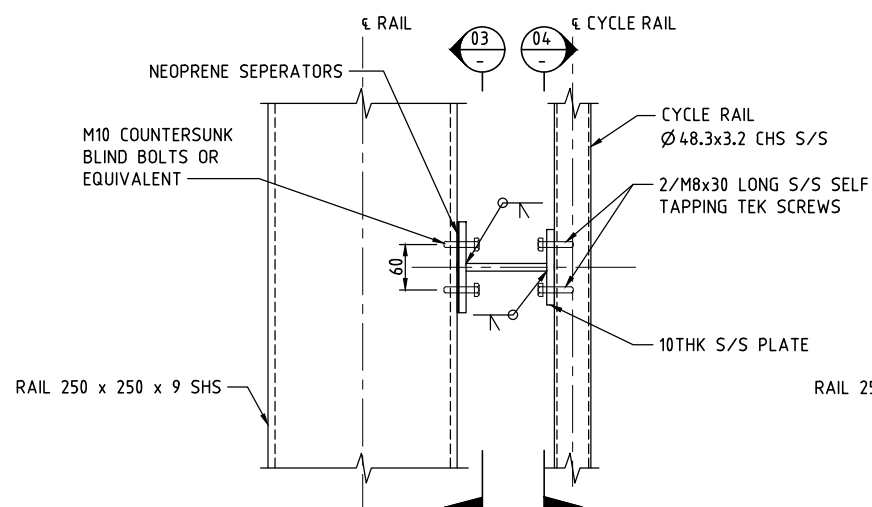
PEDESTRIAN HAND RAIL DETAILS FOR
POST INDICATED WITH * IN DWG NO 181
SCALE 1:5

40 OD NOM x 4
FABRICATED CHS

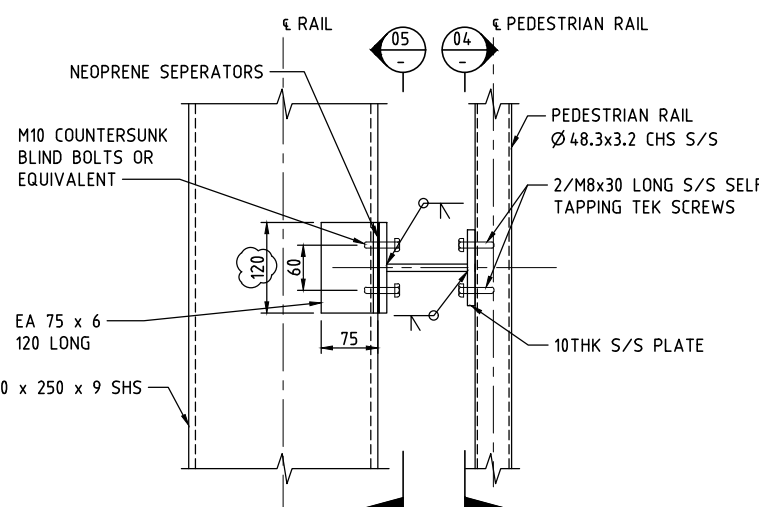
RAIL CONNECTOR
SCALE 1:5



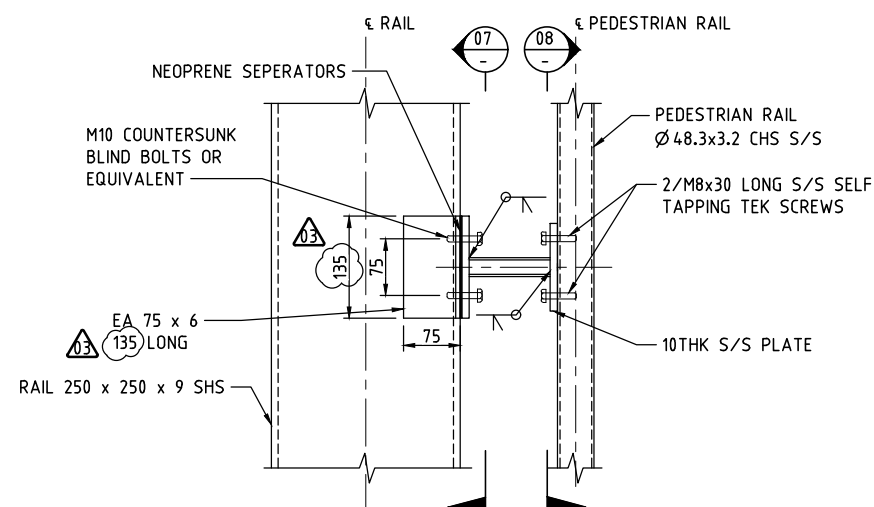
RAIL CONNECTOR ASSEMBLY
SCALE 1:5



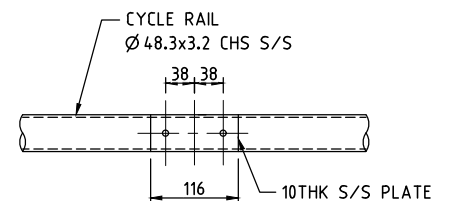
VIEW
SCALE 1:5



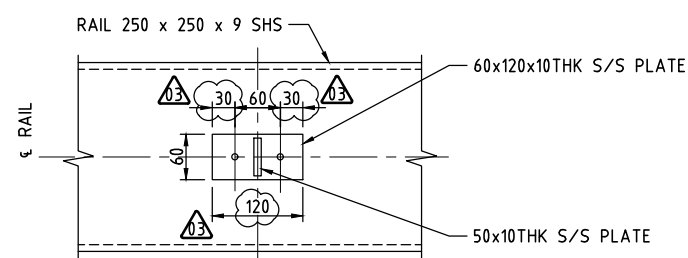
VIEW
SCALE 1:5



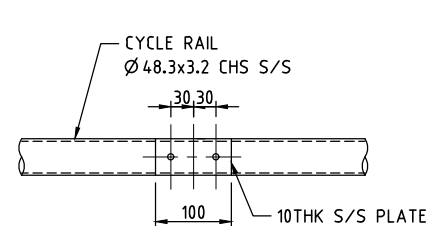
VIEW
SCALE 1:5



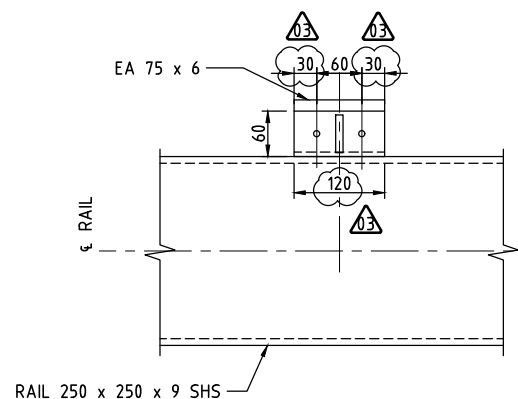
SECTION
SCALE 1:5



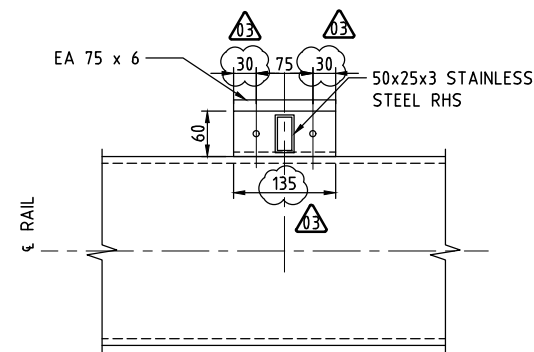
SECTION
SCALE 1:5



SECTION
SCALE 1:5



SECTION
SCALE 1:5

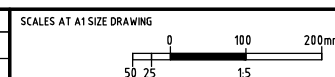


SECTION
SCALE 1:5



GENERAL NOTES
FOR GENERAL NOTES RELATED TO THIS DRAWING, REFER DRG No 182.
S/S INDICATES STAINLESS STEEL.
CONTRACTOR TO PROPOSE THE PEDESTRIAN RAIL SPLICING DETAILS.

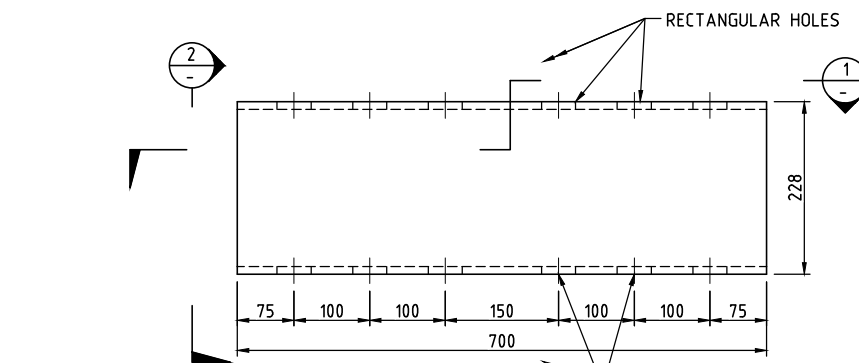
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EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	MWR No.	APPROVAL	TITLE	NAME
	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUV



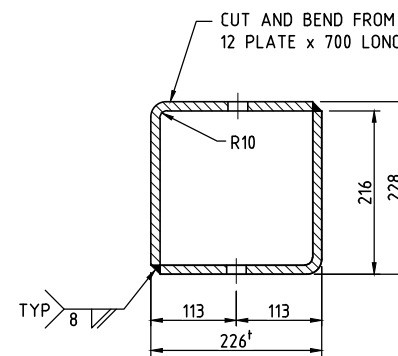
DESIGNER
SMEC
Member of the Surbana Jurong Group
© ABN 47 065 475 149
LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

CLIENT
FRASERS PROPERTY

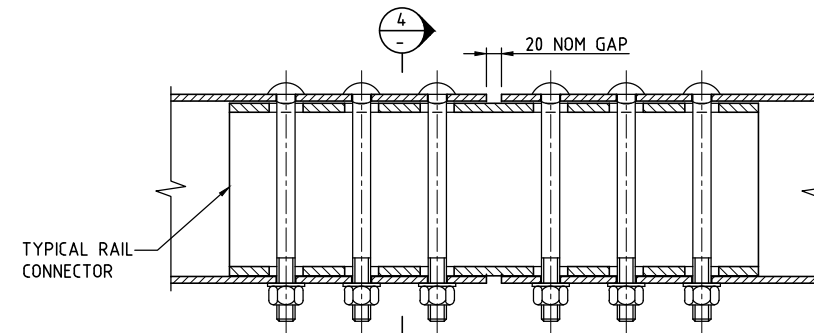
PROJECT TITLE SHRIMPION CREEK BRIDGE ON STRUCTURE BARRIER DETAILS SHEET C			
SCALE AS NOTED	PHASE TENDER	PROJECT / DRAWING No. 30013046-183	REVISION 03



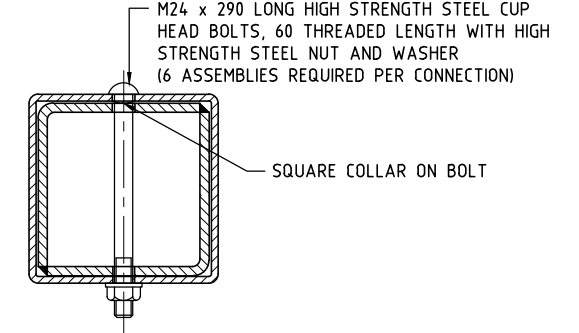
ELEVATION
SCALE 1:5



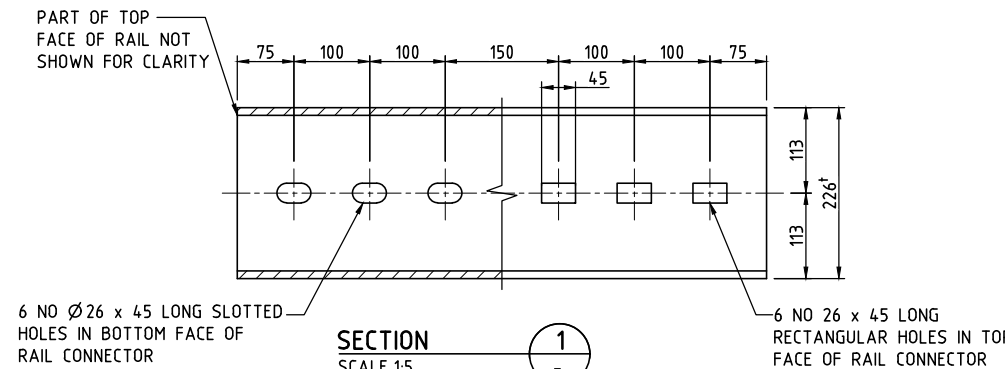
VIEW
SCALE 1:5



SECTION
SCALE 1:5

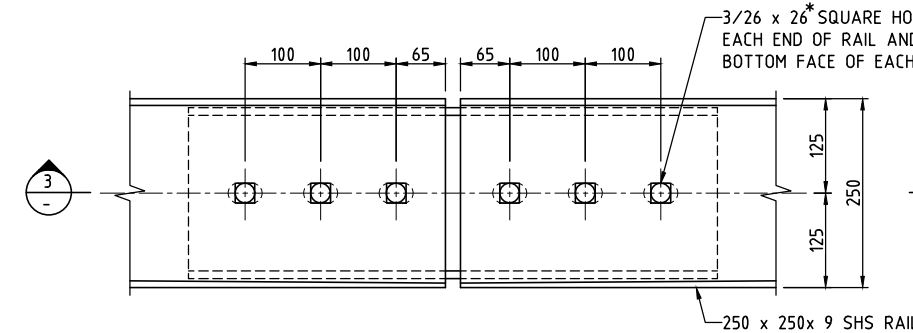


SECTION
SCALE 1:5



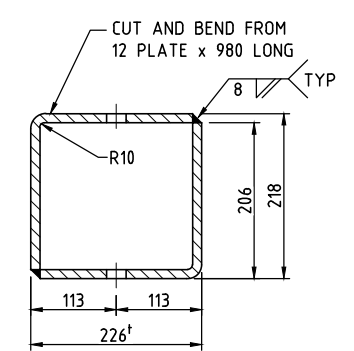
SECTION
SCALE 1:5

TYPICAL RAIL CONNECTOR



PLAN
SCALE 1:5

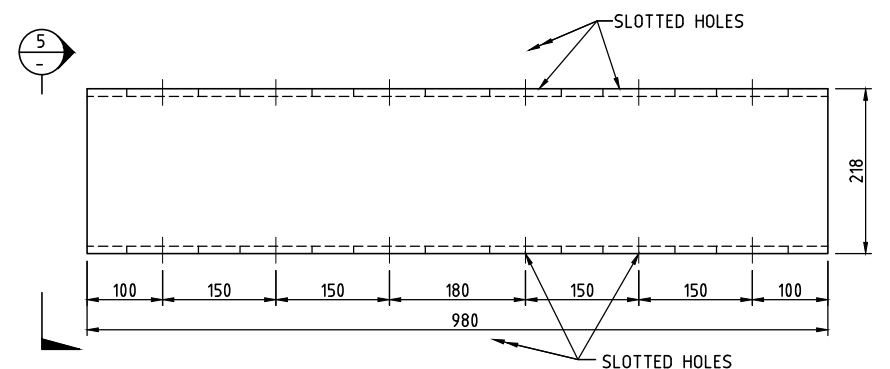
ASSEMBLY OF TYPICAL RAIL CONNECTION



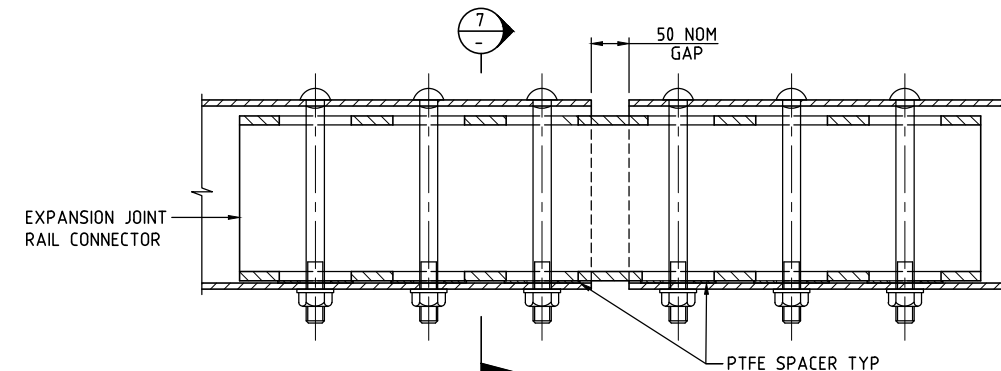
VIEW
SCALE 1:5

DETAIL AT TYPICAL CONNECTION

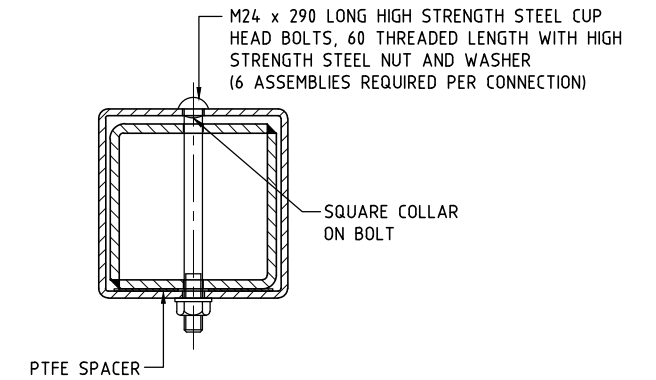
(FOR 250 x 250 x 9 SHS RAIL)



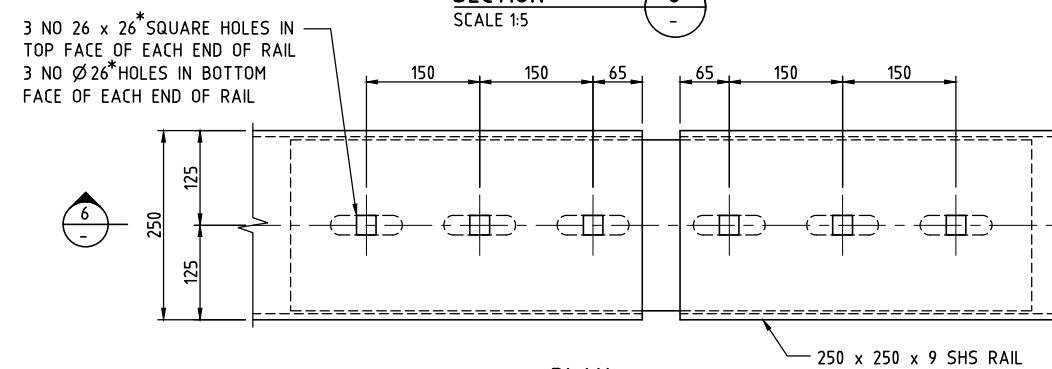
ELEVATION
SCALE 1:5



SECTION
SCALE 1:5

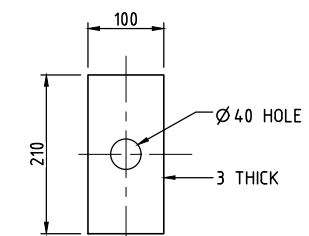


SECTION
SCALE 1:5



PLAN
SCALE 1:5

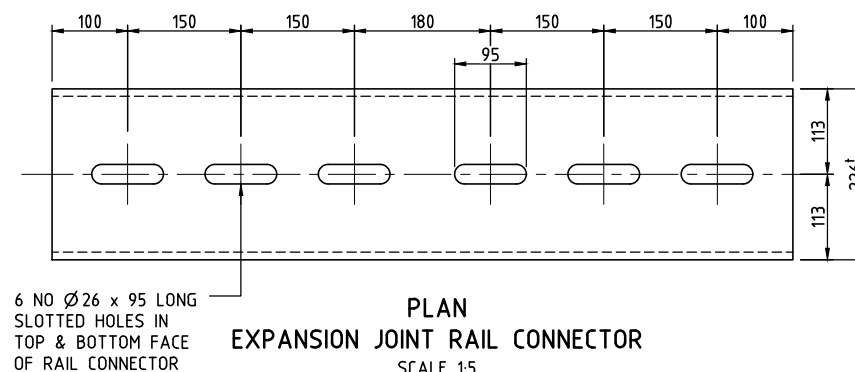
ASSEMBLY AT EXPANSION JOINT RAIL CONNECTION



SCALE 1:5

DETAIL AT EXPANSION JOINT CONNECTION

(FOR 250 x 250 x 9 SHS RAIL)



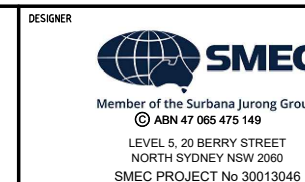
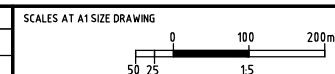
PLAN
SCALE 1:5

EXPANSION JOINT RAIL CONNECTOR

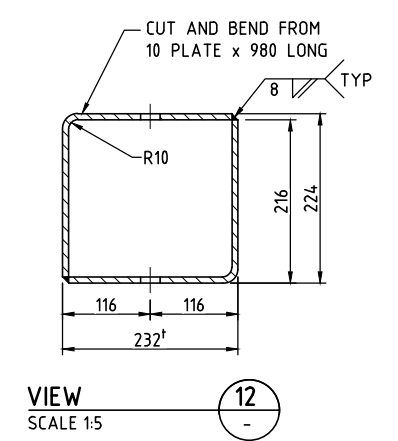
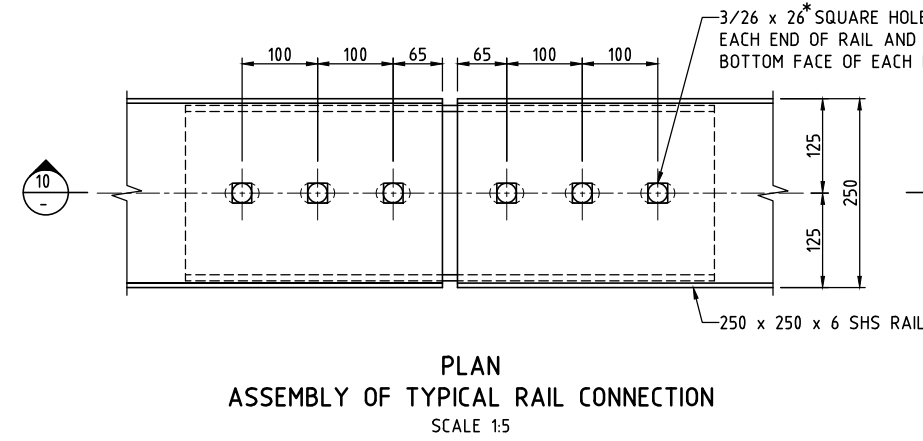
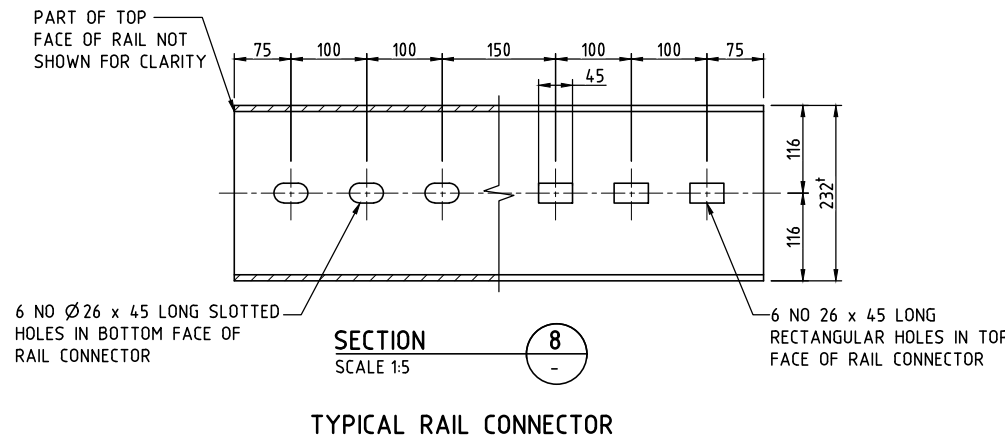
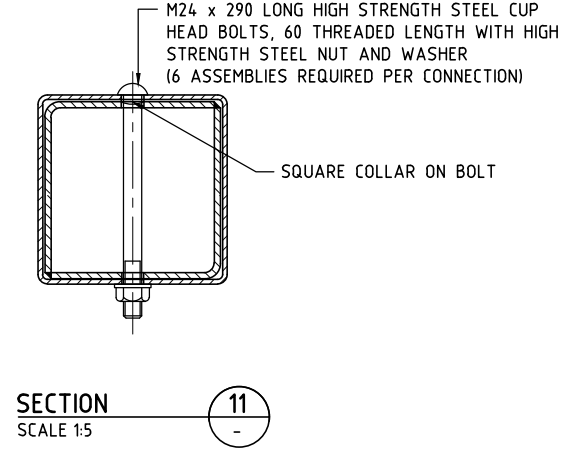
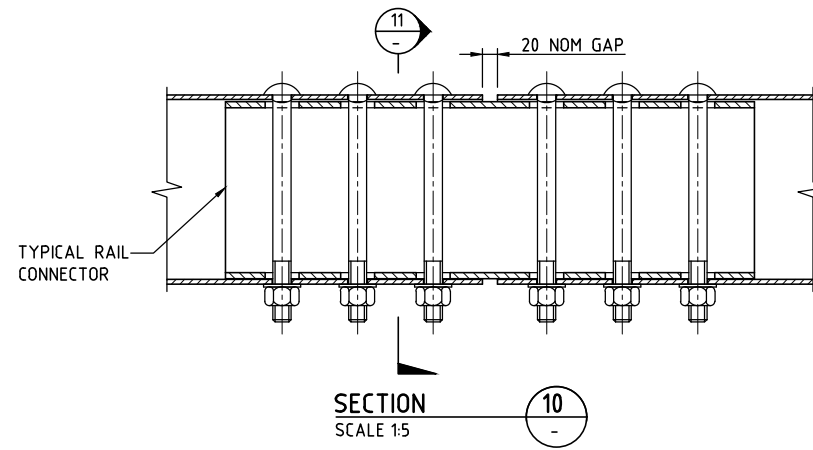
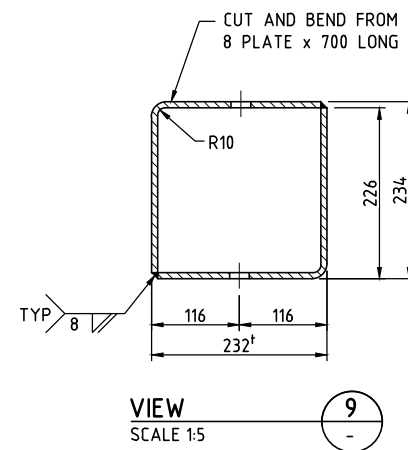
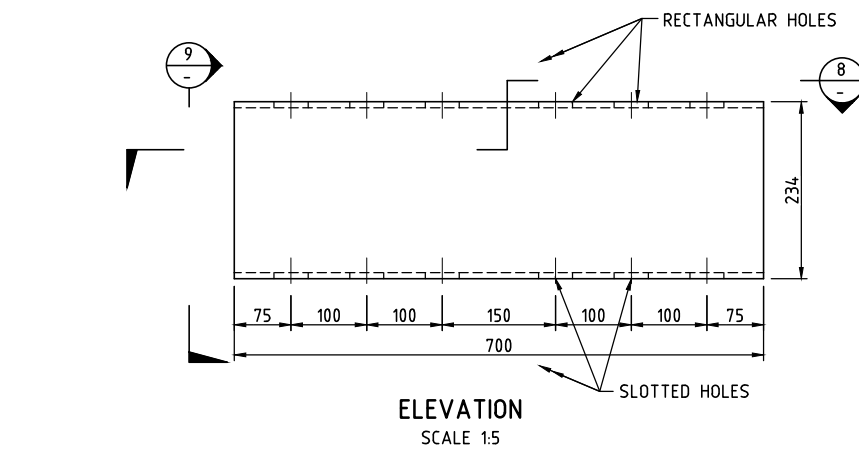


GENERAL NOTES
FOR GENERAL NOTES RELATED TO THIS DRAWING, REFER DRG No 182.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-184.dwg				14 Oct 2021		00:22:47	
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	MWR No.	APPROVAL	TITLE	NAME
X_30013046_SHEC_A1	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUV

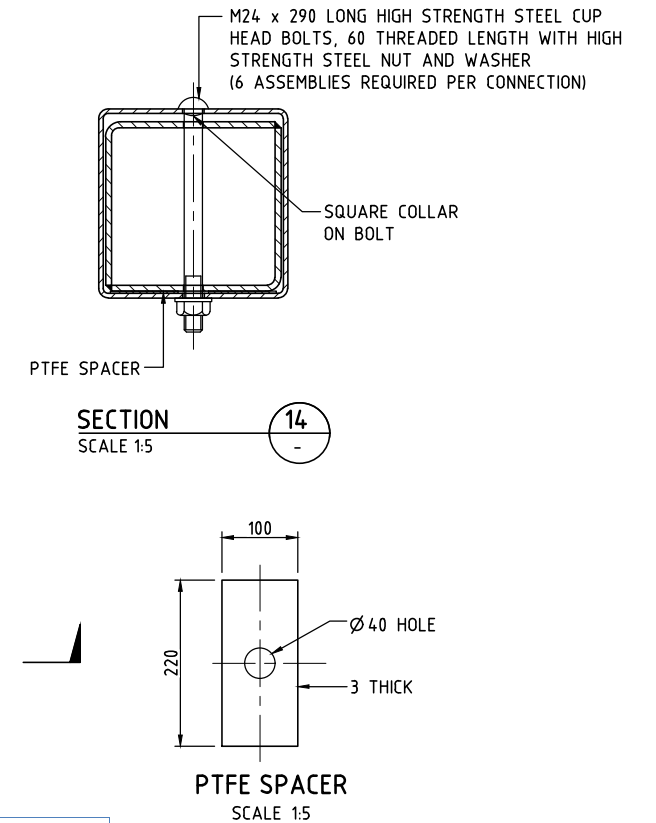
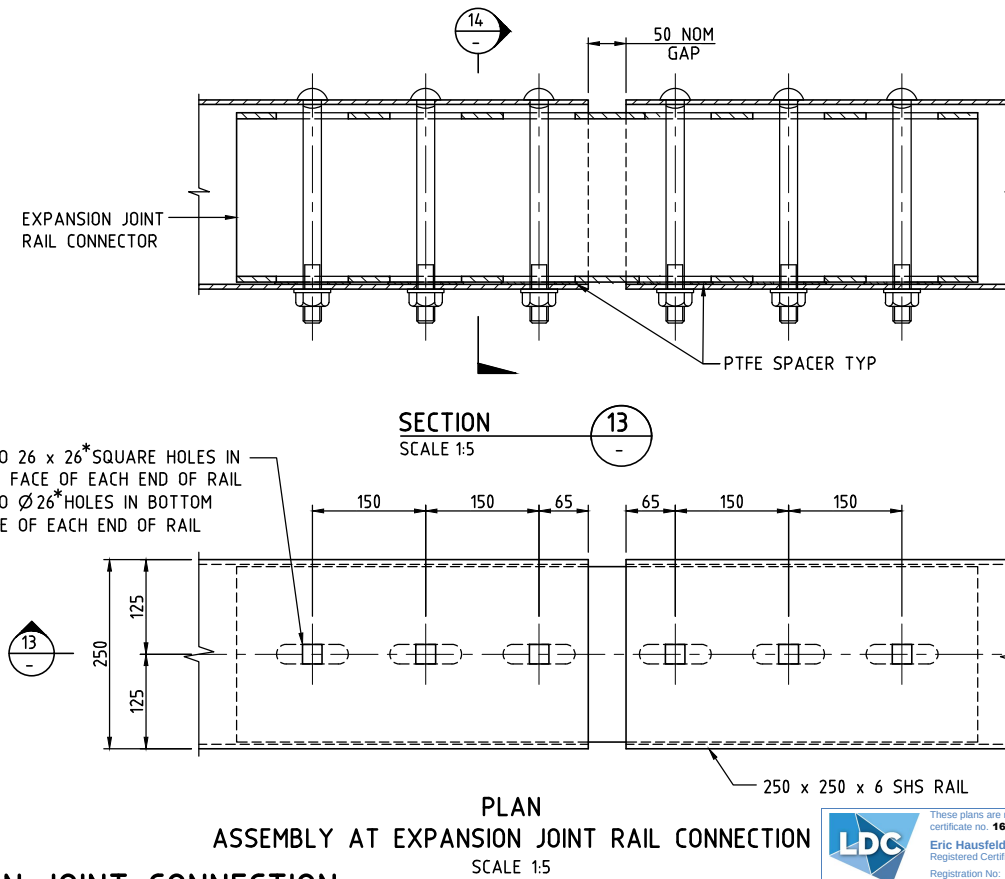
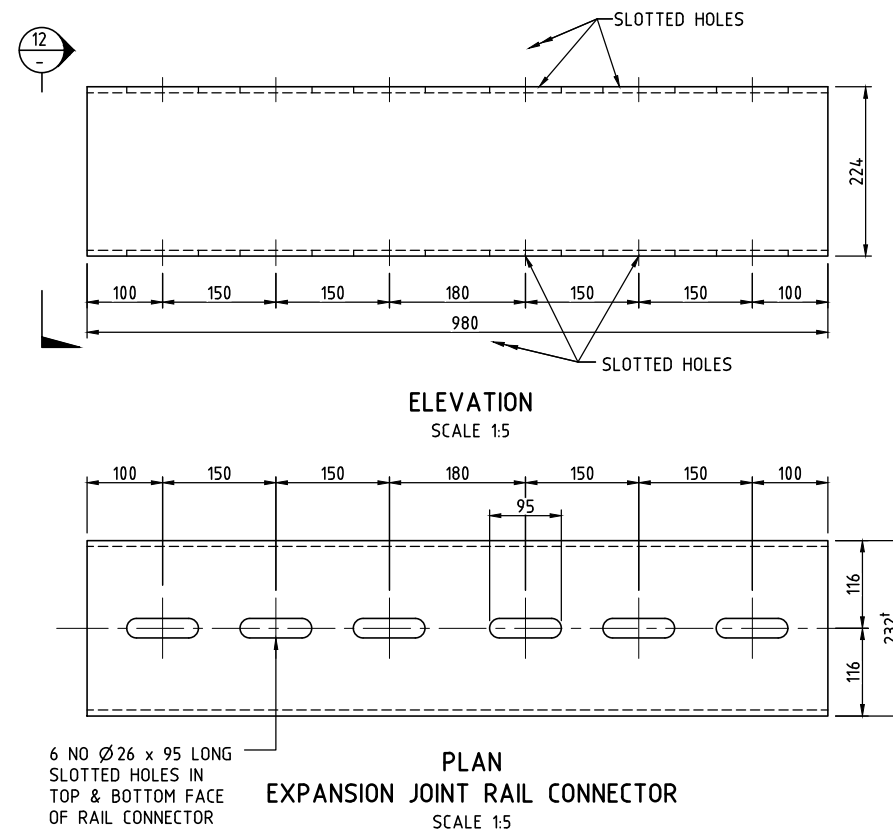


PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
ON STRUCTURE BARRIER DETAILS SHEET D			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-184	02



DETAIL AT TYPICAL CONNECTION

(FOR 250 x 250 x 6 SHS RAIL)



DETAIL AT EXPANSION JOINT CONNECTION

(FOR 250 x 250 x 6 SHS RAIL)

PLAN

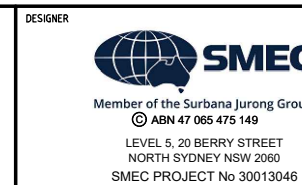
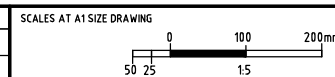
ASSEMBLY AT EXPANSION JOINT RAIL CONNECTION

SCALE 1:5



GENERAL NOTES
FOR GENERAL NOTES RELATED TO THIS DRAWING, REFER DRG No 182.

DRAWING FILE LOCATION / NAME V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-185.dwg				PLOT DATE 14 Oct 2021		TIME 00:22:35	
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	MWR No.	APPROVAL	TITLE	NAME
	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUV



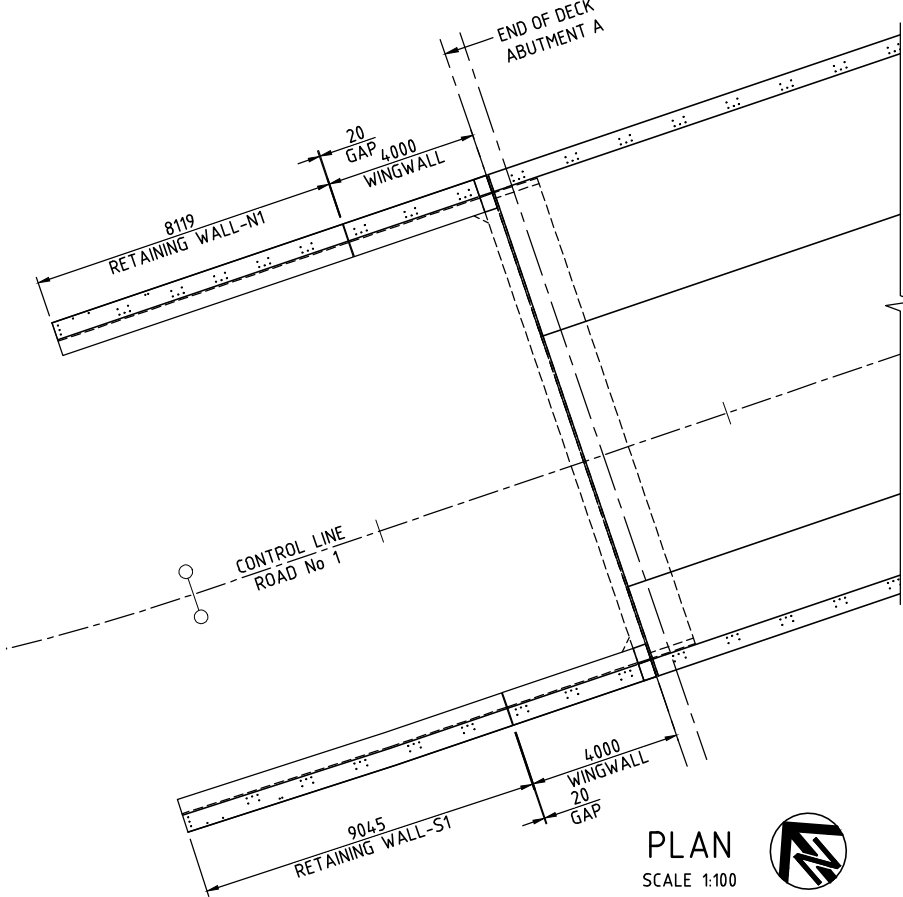
PROJECT TITLE SHRIMPION CREEK BRIDGE			
ON STRUCTURE BARRIER DETAILS SHEET E			
SCALE AS NOTED	PHASE TENDER	PROJECT / DRAWING No. 30013046-185	REVISION 02

150 mm ON ORIGINAL

A1

FROM HERRING ROAD

TO LYON PARK ROAD



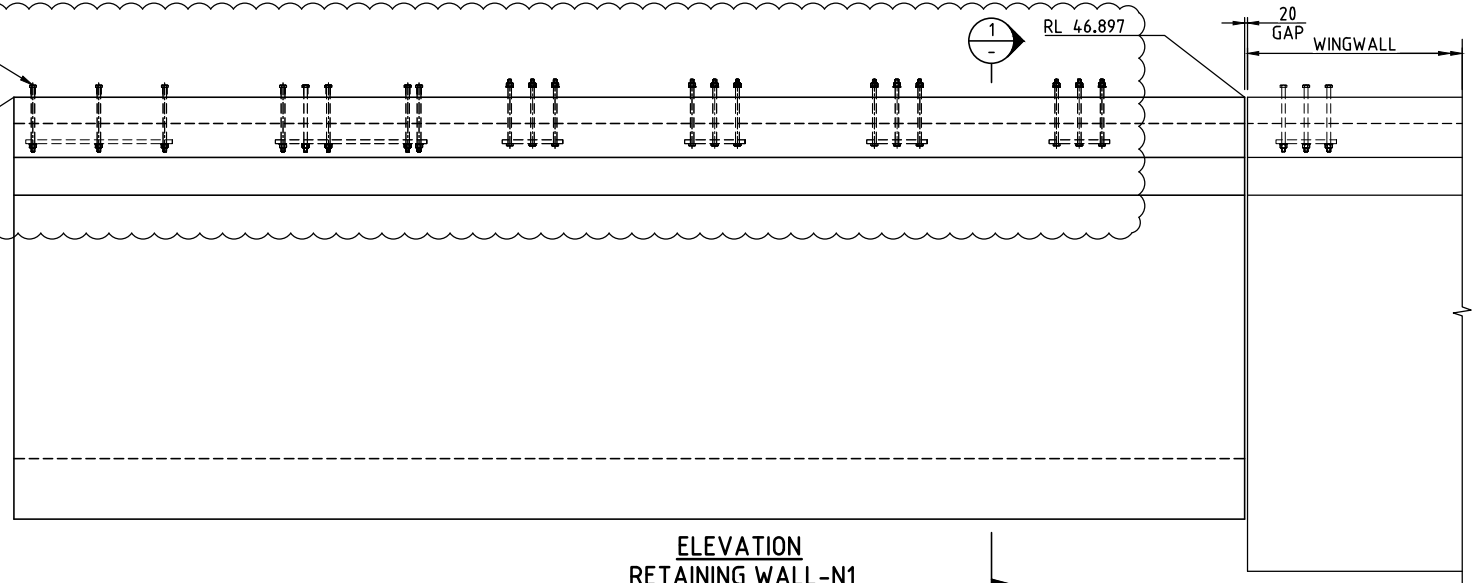
PLAN
SCALE 1:100



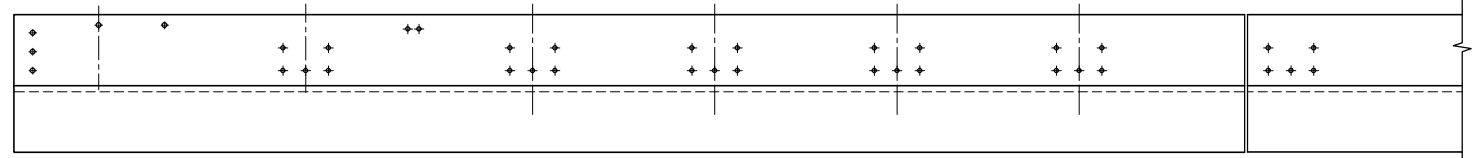
BARRIER ANCHOR BOLTS TYP
FOR DETAILS REFER DRG No 188

RL 46.821

RL 46.897

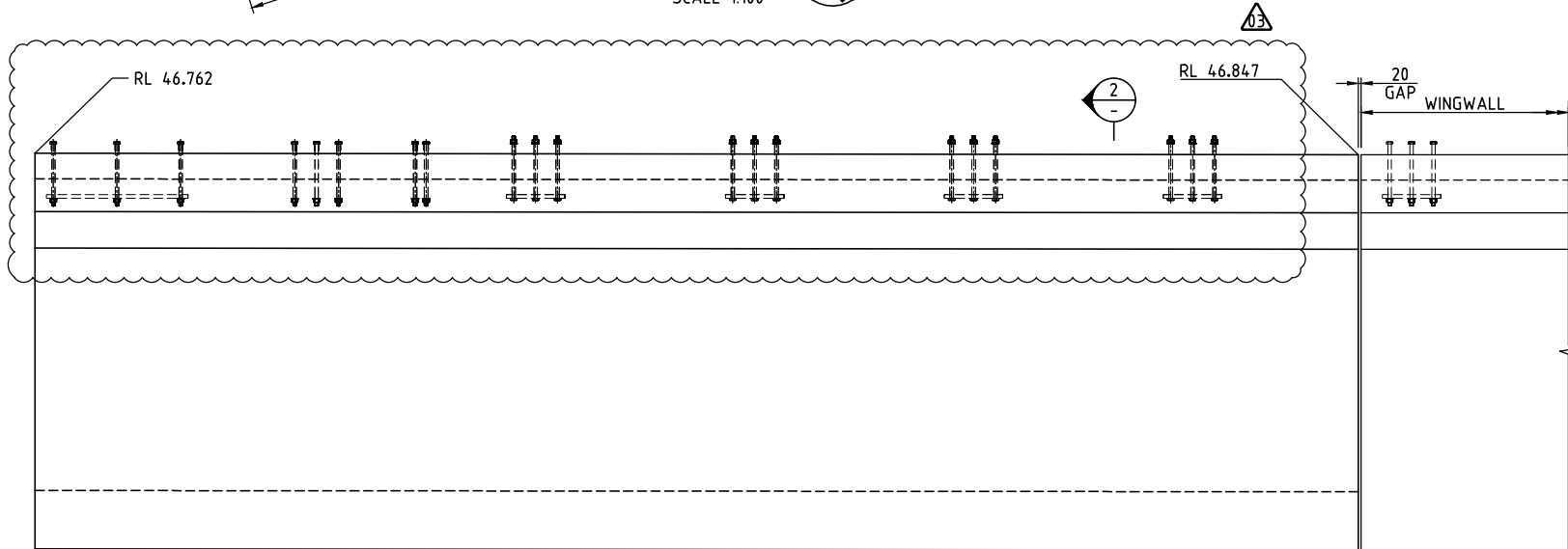


ELEVATION
RETAINING WALL-N1
SCALE 1:25

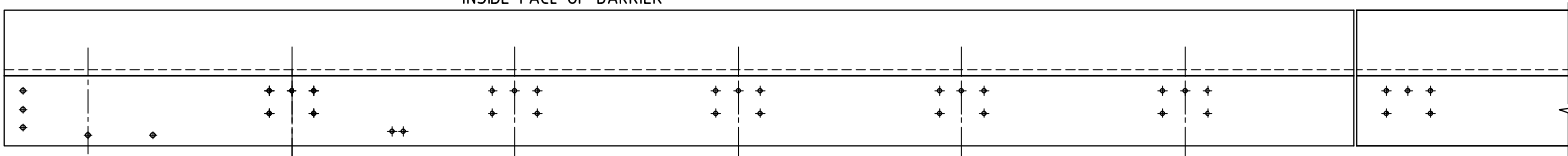


PLAN
RETAINING WALL-N1
SCALE 1:25

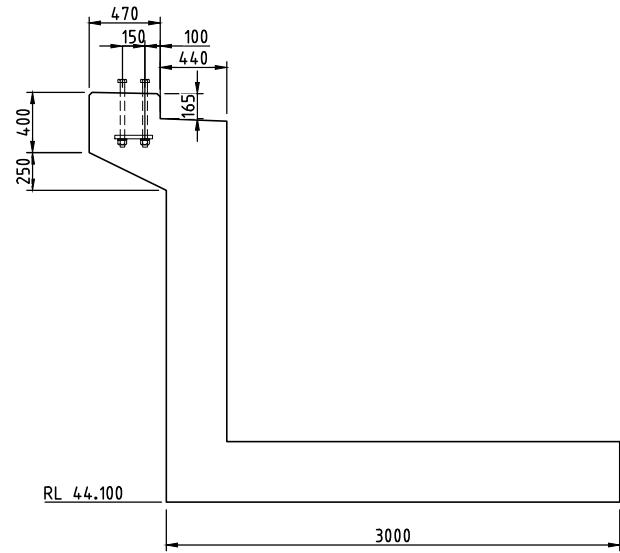
INSIDE FACE OF BARRIER



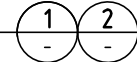
ELEVATION
RETAINING WALL-S1
SCALE 1:25



PLAN
RETAINING WALL-S1
SCALE 1:25



SECTION
SCALE 1:25



GENERAL NOTES

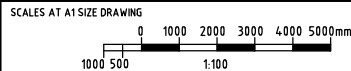
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
CONCRETE EXPOSURE CLASSIFICATION: B1.
MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 40 MPa.
MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF MASS CONCRETE SHALL BE 20 MPa.
CONSTRUCTION JOINT ONLY AT THE LOCATIONS NOMINATED ON THE DRAWINGS.
EXPOSED CONCRETE SURFACE TO HAVE SMOOTH FINISH.

DURABILITY NOTES

MAXIMUM TOTAL BINDER CONTENT SHALL BE KEPT AT 430kg/m³ WITH TYPE GB CEMENT WITH 65.5% GROUND GRANULAR BLAST-FURNACE SLAG.
USE 36mm THICK PLYWOOD FORMWORK OR PROVIDE INSULATION TO FORMWORK CONSTRUCTED WITH OTHER MATERIALS TO ACHIEVE AN OVERALL SURFACE CONDUCTANCE LESS THAN 3.0W/m² °C.
MAXIMUM CONCRETE PLACEMENT TEMPERATURE SHALL NOT EXCEED 27°C.
TOP SURFACE OF THE PIER SHALL BE COVERED WITH 20mm THICK POLYSTYRENE FOAM OR EQUIVALENT AFTER CASTING. THE INSULATION SHALL BE REMOVED AT THE SAME TIME AS THE FORMWORK.
FORMWORK SHALL BE REMOVED NOT EARLIER THAN 216 HOURS.
THERMOCOUPLES SHOULD BE LOCATED WITHIN THE CONCRETE MEMBER BEING CONSTRUCTED. (ONE AT CENTRE AND ONE BELOW SURFACE WITH THE LAST DIMENSION).



DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-186.dwg				13 Oct 2021		22:44:52	
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	MWR No.	APPROVAL	TITLE	NAME
X:\30013046_SHEC_A1 X:\DESIGN X:\BRC_PLAN	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



DESIGNER

SMC

Member of the Surbana Jurong Group
© ABN 47 065 475 149

LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMC PROJECT No 30013046

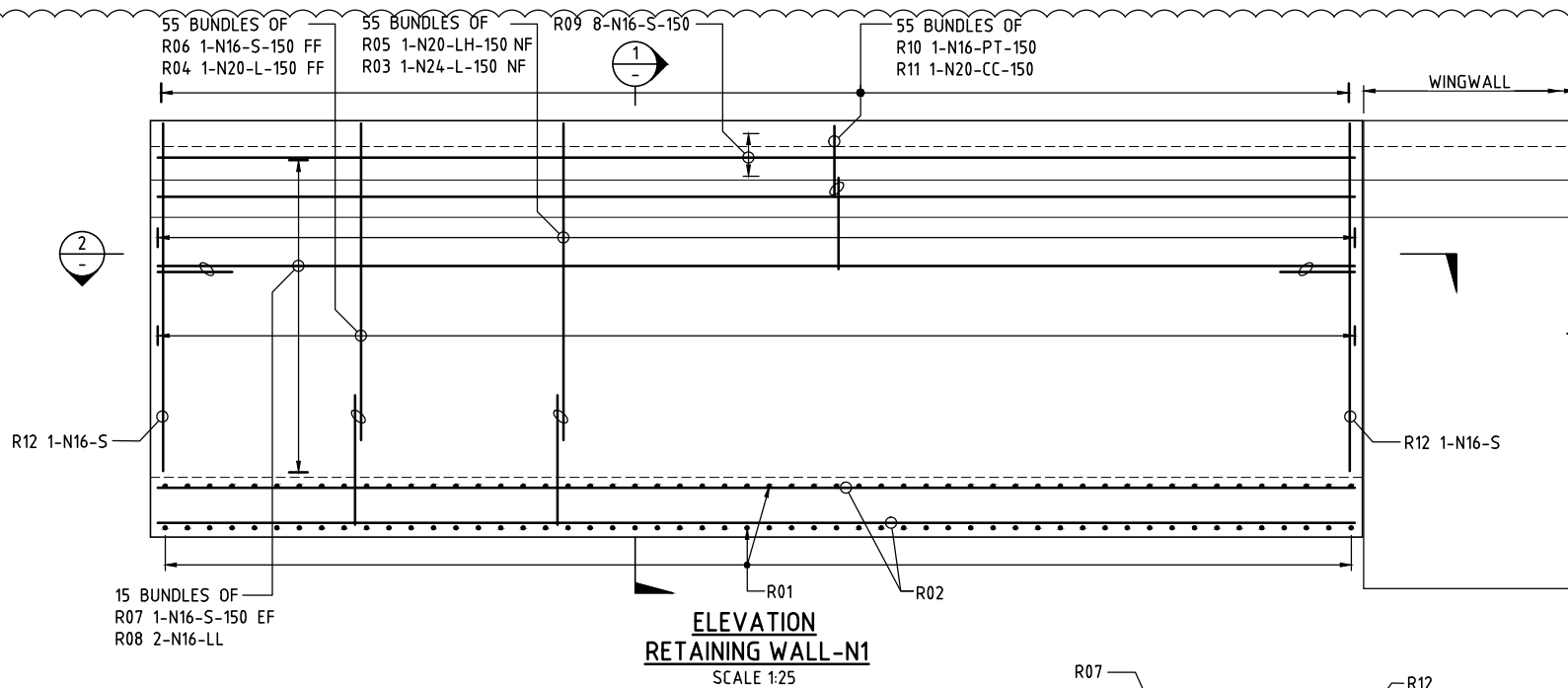
CLIENT

**FRASERS
PROPERTY**

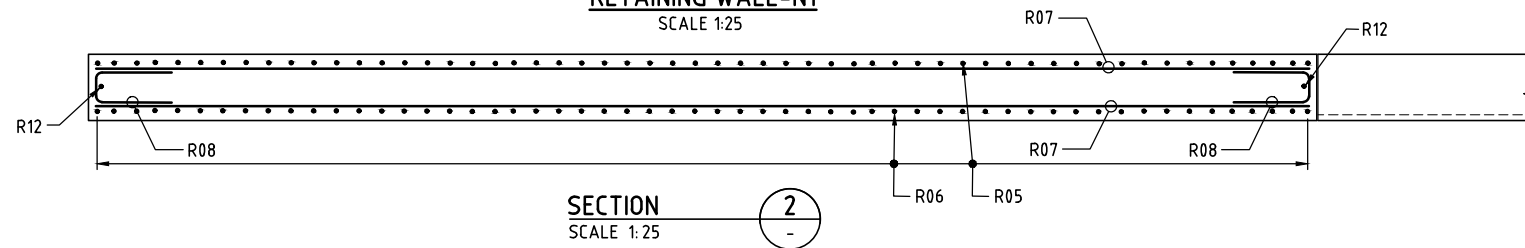
PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
RETAINING WALL CONCRETE DETAILS			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-186	03

150 mm ON ORIGINAL

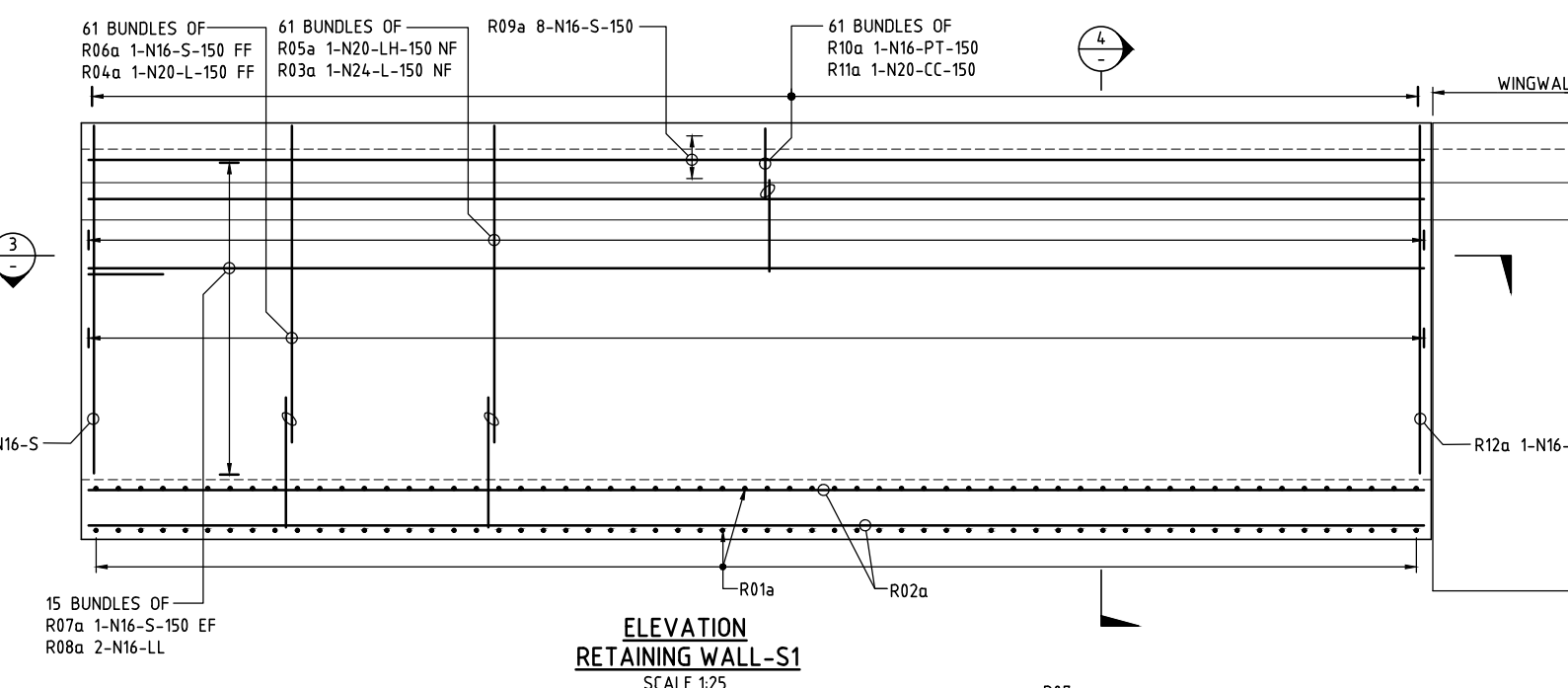
A1



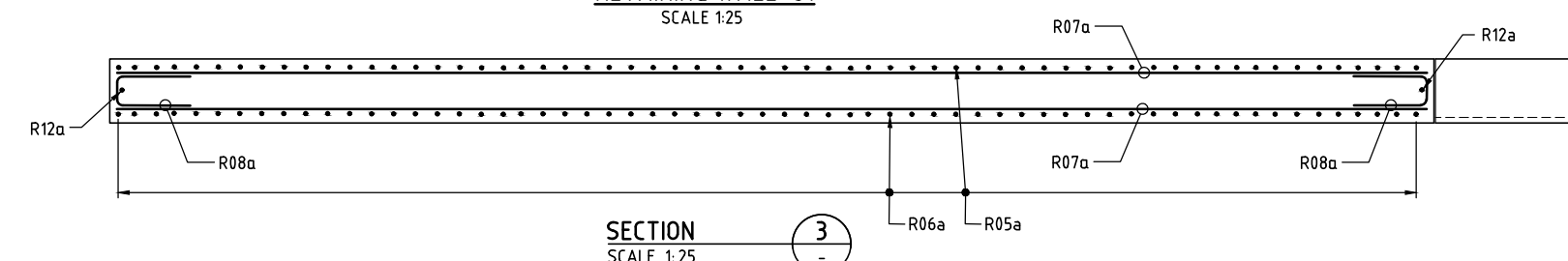
ELEVATION
RETAINING WALL-N1
SCALE 1:25



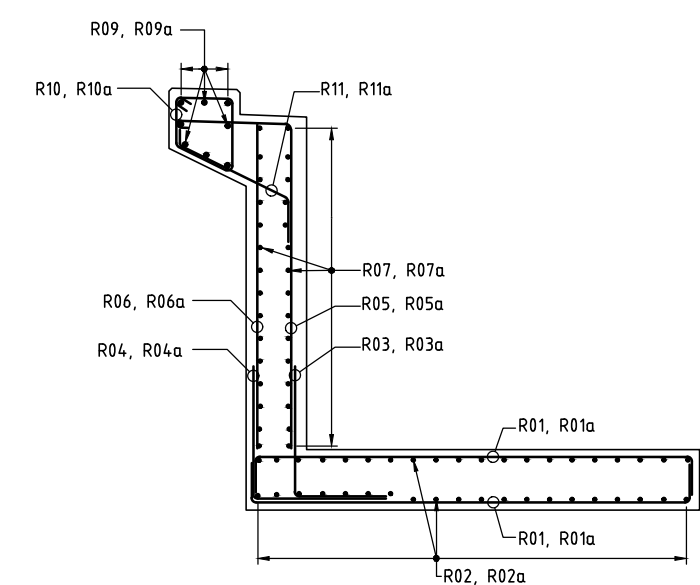
SECTION
SCALE 1:25



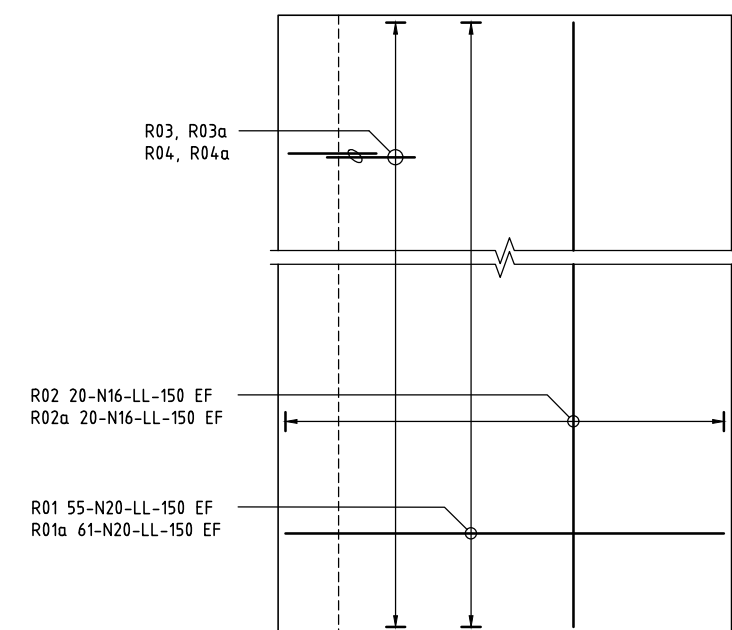
ELEVATION
RETAINING WALL-S1
SCALE 1:25



SECTION
SCALE 1:25



SECTION
SCALE 1:25



PLAN OF BASE SLAB
RETAINING WALL
SCALE 1:25

GENERAL NOTES

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.

CONCRETE EXPOSURE CLASSIFICATION: B1.

MINIMUM 28 DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 40MPA.

EDGES SHALL BE CHAMFERED 20 X 20 AND RE-ENTRANT ANGLES FILLETED 20 X 20 UNLESS SPECIFIED OTHERWISE.

NOMINAL COVER TO REINFORCEMENT NEAREST TO THE CONCRETE SURFACE SHALL BE 45mm UNLESS NOTED OTHERWISE.

UNLESS NOTED OTHERWISE, THE MINIMUM LAP LENGTHS OF BARS SHALL BE AS FOLLOWS:

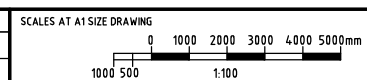
BAR SIZE	N12	N16	N20	N24	N28	N32
A) HORIZONTAL BARS WITH >300mm OF CONCRETE CAST BELOW THE BAR	650	900	1150	1430	1730	2060
B) OTHER BARS	500	690	890	1100	1330	1590

CLEAR DISTANCE BETWEEN LAPPED BARS SHALL NOT EXCEED 3 x THE BAR DIAMETER.

REINFORCEMENT MAY BE DISPLACED SLIGHTLY WHERE NECESSARY TO CLEAR DOWELS, ANCHORS, LIFTING DEVICES, DUCTS, DRAINAGE LINES AND GENERAL FITMENTS.

FOR REINFORCEMENT NOTES REFER DRG No 215.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:\Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-187.dwg				13 Oct 2021		22:45:04	
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	WVR No.	APPROVAL	TITLE	NAME
X_30013046_SHEC_A1	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUV



DESIGNER

SMC

Member of the Surbana Jurong Group

© ABN 47 065 475 149

LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMC PROJECT No 30013046

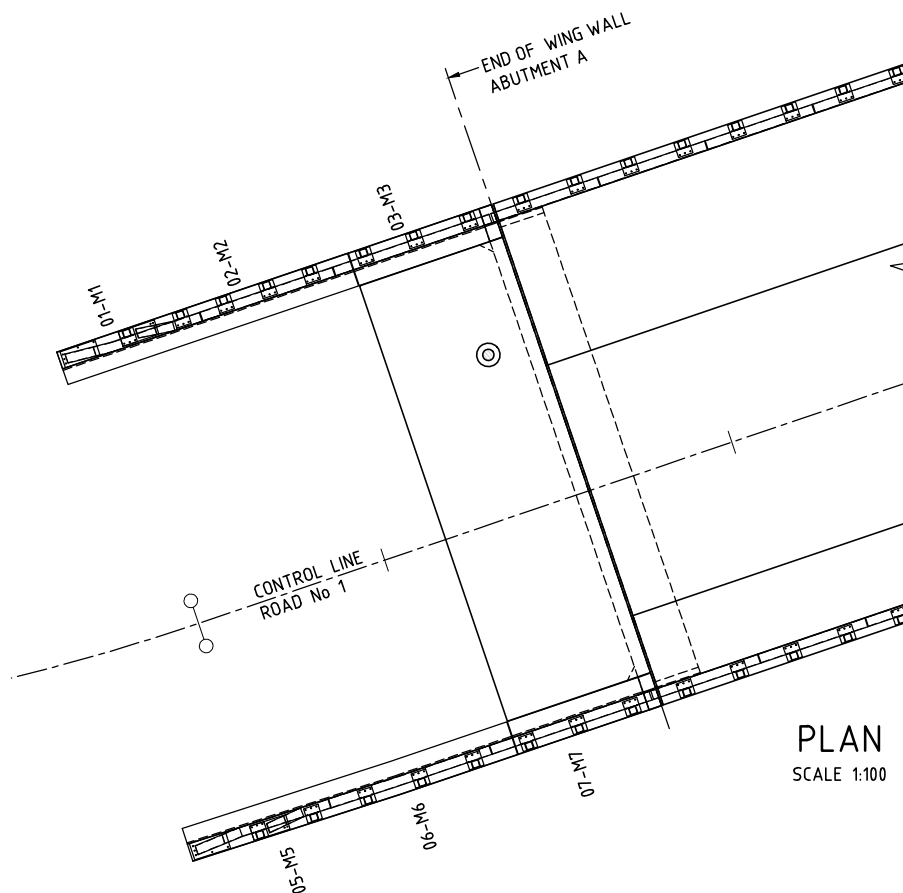
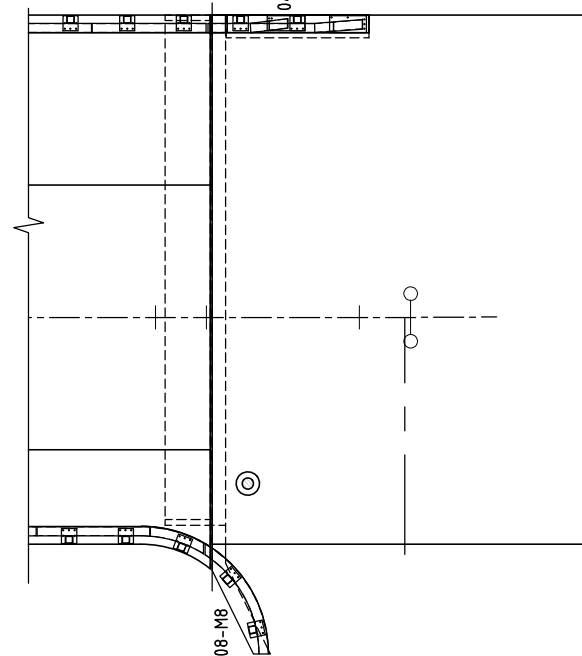
CLIENT

FRASERS PROPERTY

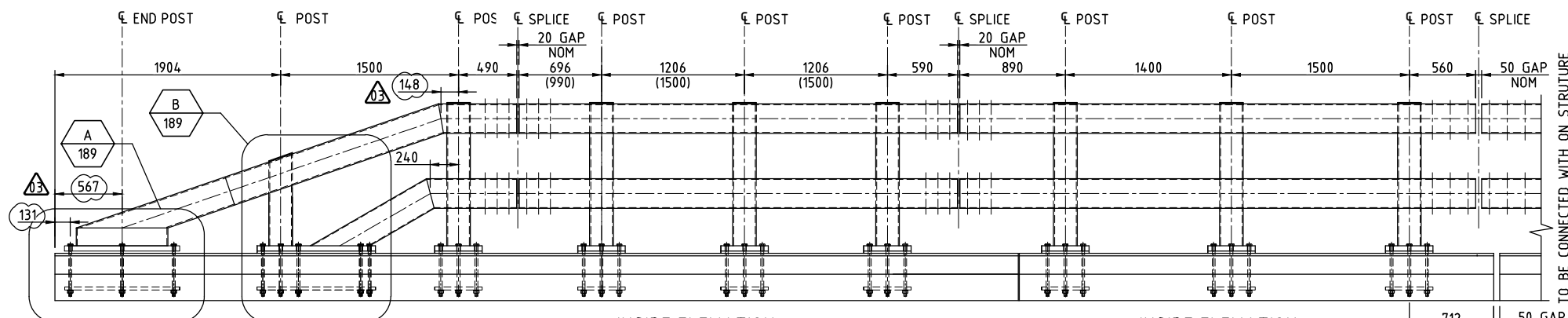
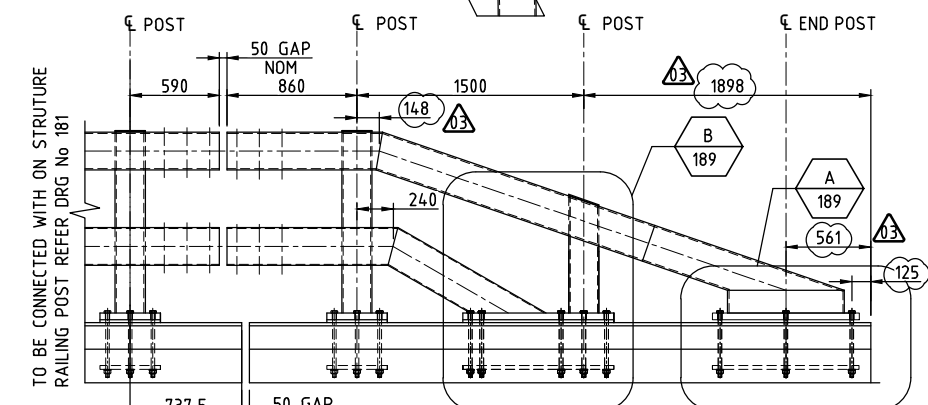
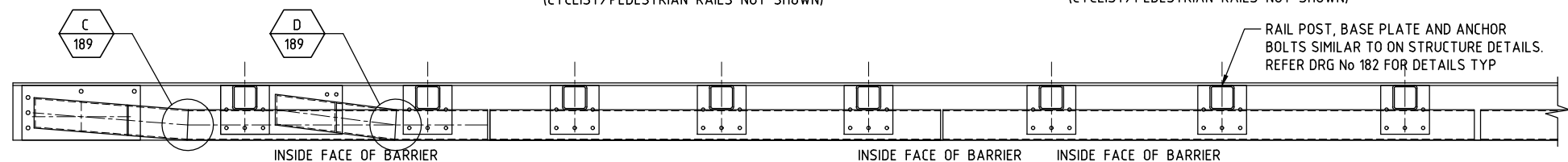
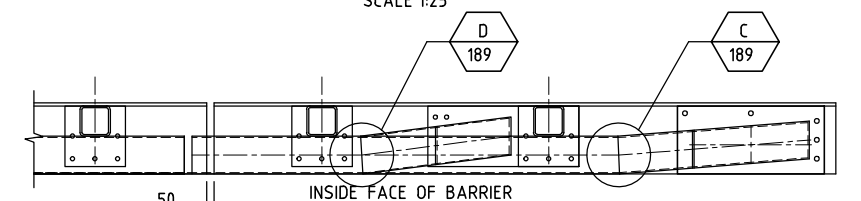
PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
RETAINING WALL REINFORCEMENT DETAILS			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-187	03

FROM HERRING ROAD

TO LYON PARK ROAD

PLAN
SCALE 1:100

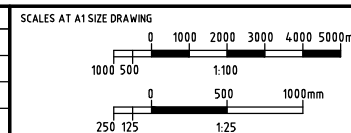
08-M8

INSIDE ELEVATION
PANEL M1 (M5 SIMILAR)
SCALE 1:25INSIDE ELEVATION
PANEL M2 (M6 SIMILAR)
SCALE 1:25
(CYCLIST/PEDESTRIAN RAILS NOT SHOWN)INSIDE ELEVATION
PANEL M3 (M7 SIMILAR)
SCALE 1:25
(CYCLIST/PEDESTRIAN RAILS NOT SHOWN)712
(755)50 GAP
NOMINSIDE ELEVATION
PANEL M4
SCALE 1:25PLAN
PANEL M1 (M5)
SCALE 1:25
(M1-1 No REQUIRED)
(M5-5 No REQUIRED)PLAN
PANEL M2 (M6 SIMILAR)
SCALE 1:25
(M2-1 No REQUIRED)
(M6-1 No REQUIRED)PLAN
PANEL M3 (M7 SIMILAR)
SCALE 1:25
(M3-1 No REQUIRED)
(M7-1 No REQUIRED)RAIL POST, BASE PLATE AND ANCHOR
BOLTS SIMILAR TO ON STRUCTURE DETAILS.
REFER DRG No 182 FOR DETAILS TYPPLAN
PANEL M4
SCALE 1:25
(M4-1 No REQUIRED)

GENERAL NOTES

FOR GENERAL NOTES RELATED TO THIS DRAWING, REFER DRG No 182.
ELEVATIONS DRAWN ARE ALONG THE LENGTH.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\30013046\110_CADD\CAD\DWG\30013046-188.dwg				14 Oct 2021		00:22:18	
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X:\30013046_SHEC_A1 X:\DESIGN X:\BRG_PLAN	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER (TITLE REVISED)	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



DESIGNER

SMEC

Member of the Surbana Jurong Group
© ABN 47 065 475 149

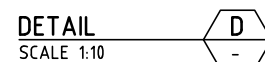
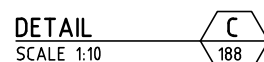
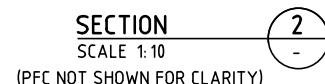
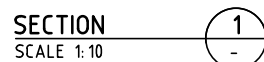
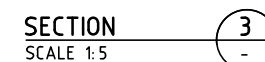
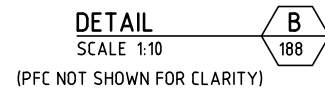
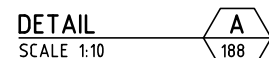
LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046



CLIENT

FRASERS PROPERTY

PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
OFF STRUCTURE BARRIER DETAILS SHEET A			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-188	03



 **SMEC**
Member of the Surbana Jurong Group
© ABN 47 065 475 149
LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

LDC

These plans are referred to in certificate no. **16746** approved by:

Eric Hausfeld
Registered Engineer

Registration No: **BDC 2416**

Categories:

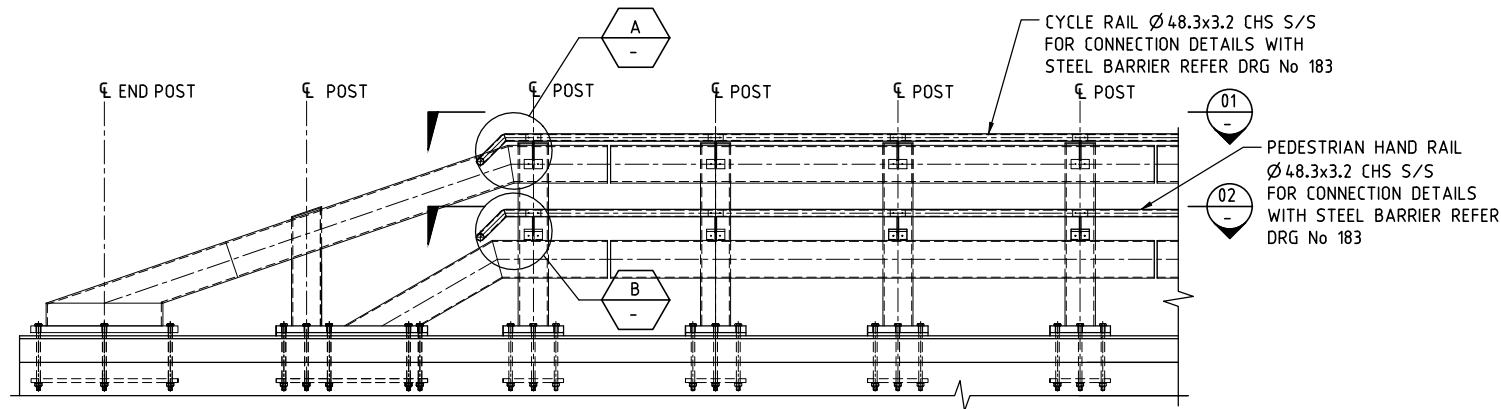
- Certifier – Subdivision
- Certifier – Strata
- Certifier – Stormwater
- Certifier – Road & Drainage
- Certifier – Hydraulic (stormwater)

Land Development Certificates
www.LDC.com.au

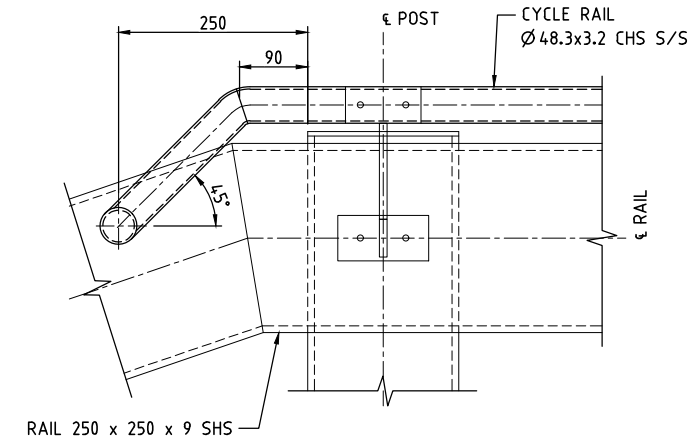
GENERAL NOTES
FOR GENERAL NOTES RELATED TO THIS DRAWING, REFER DRG No 182.



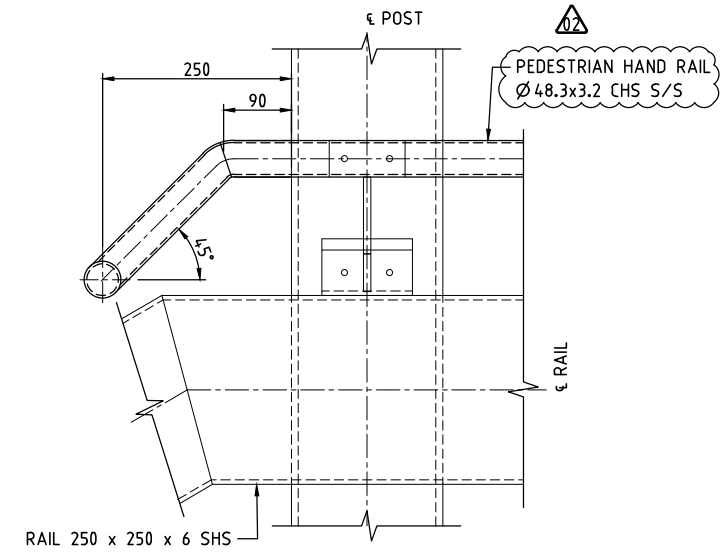
PROJECT TITLE				SHRIMPTON CREEK BRIDGE	
OFF STRUCTURE BARRIER DETAILS					
SHEET B					
SCALE	PHASE	PROJECT / DRAWING No.		REVISION	
AS NOTED	TENDER	30013046-189		03	



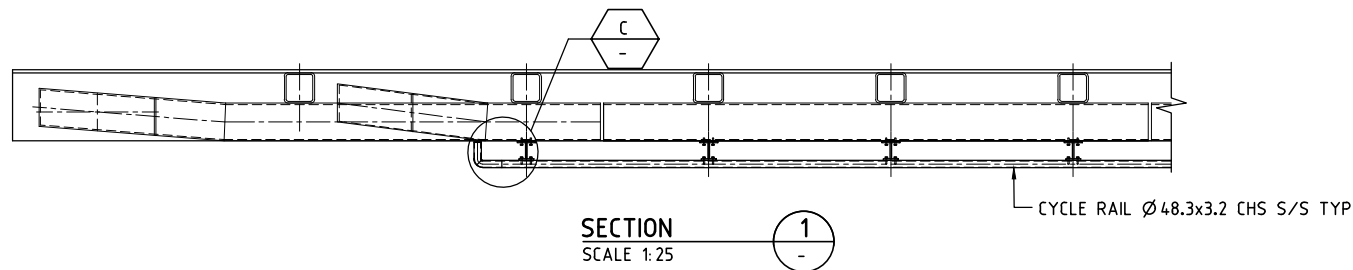
CYCLIST/PEDESTRIAN RAILS INSIDE ELEVATION
SCALE 1:25



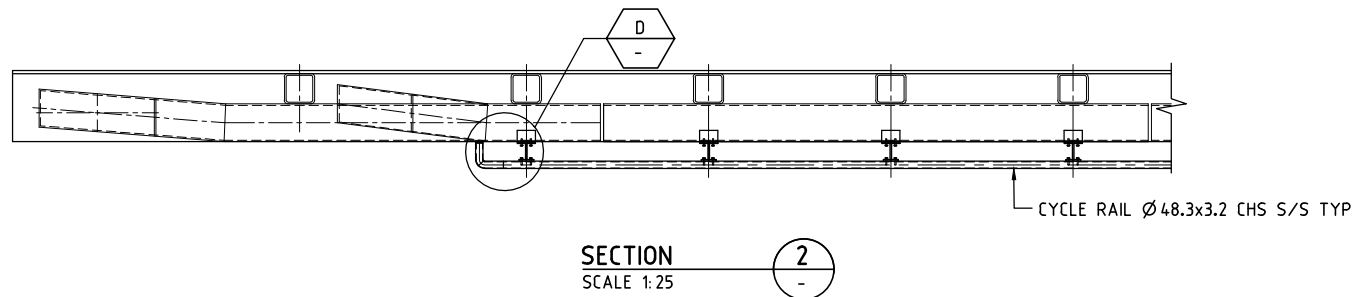
DETAIL A
SCALE 1:5



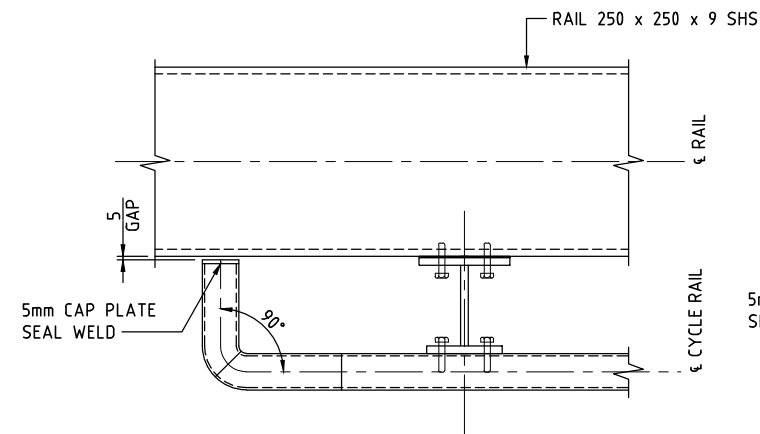
DETAIL B
SCALE 1:5



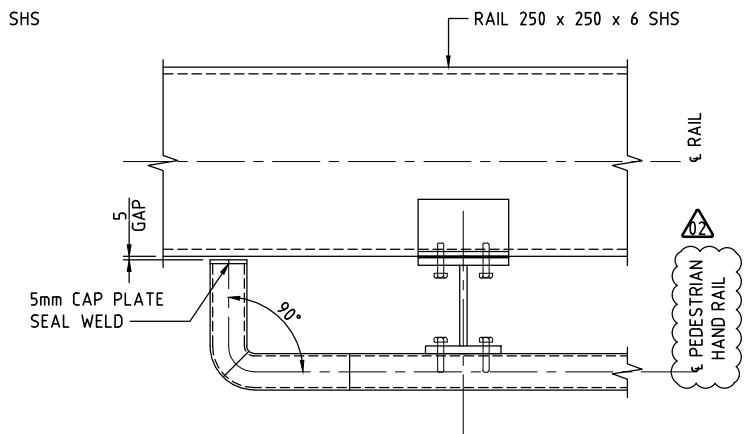
SECTION 1
SCALE 1:25



SECTION 2
SCALE 1:25



DETAIL C
SCALE 1:5

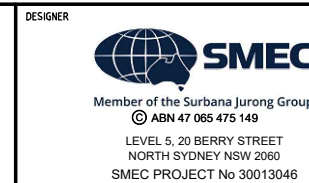
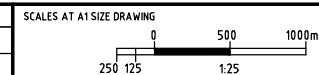


DETAIL D
SCALE 1:5

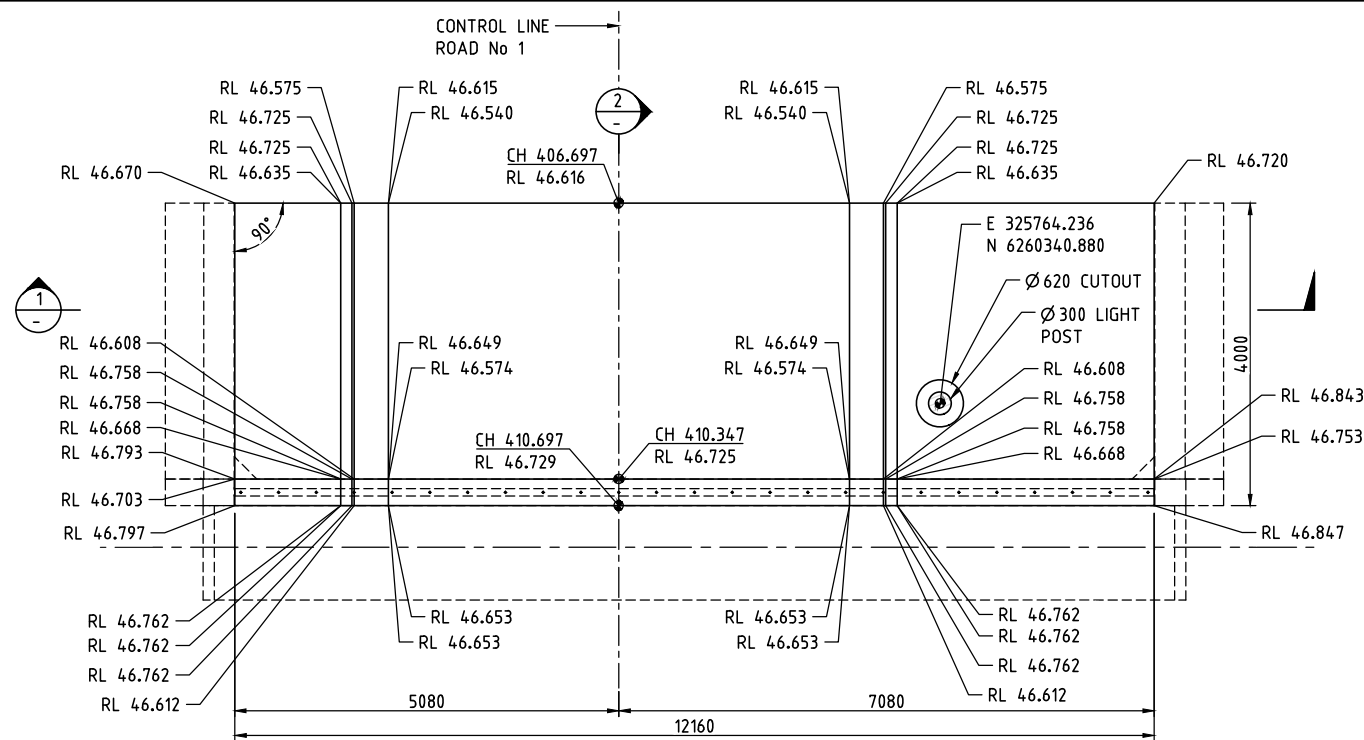


GENERAL NOTES
FOR GENERAL NOTES RELATED TO THIS DRAWING, REFER DRG No 182.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-190.dwg				14 Oct 2021		00:21:24	
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	02	14.10.2021	ISSUED FOR TENDER	002	JD	DRAFTING CHECK	V.S.KODURU
						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU

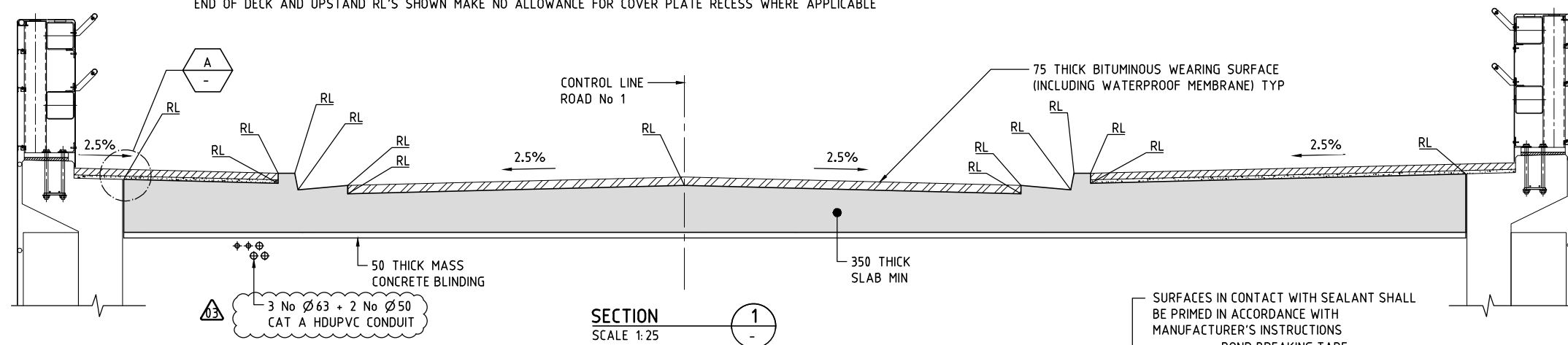


PROJECT TITLE			
SHRIMPION CREEK BRIDGE			
OFF STRUCTURE BARRIER CYCLE RAIL AND HAND RAIL TERMINATION DETAILS			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-190	02

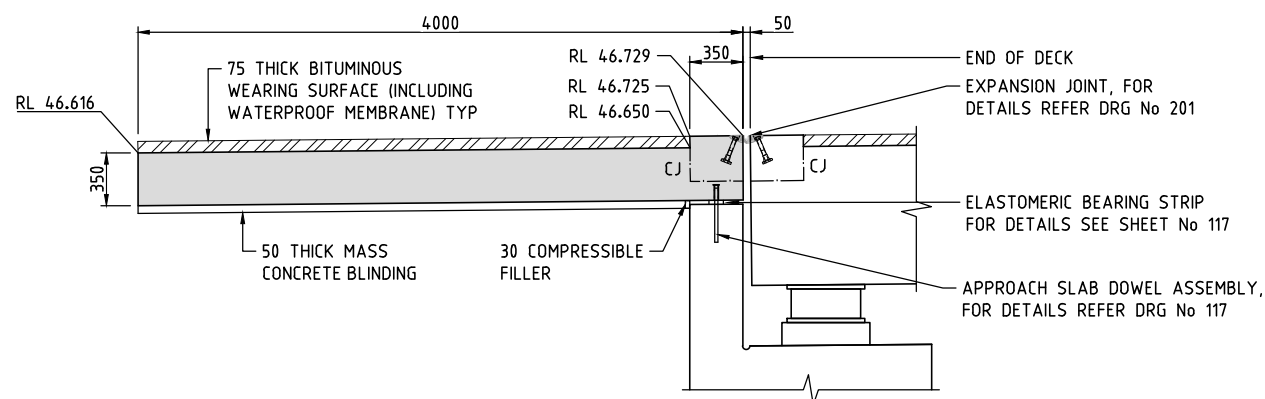


PLAN
SCALE 1:50
ABUTMENT A

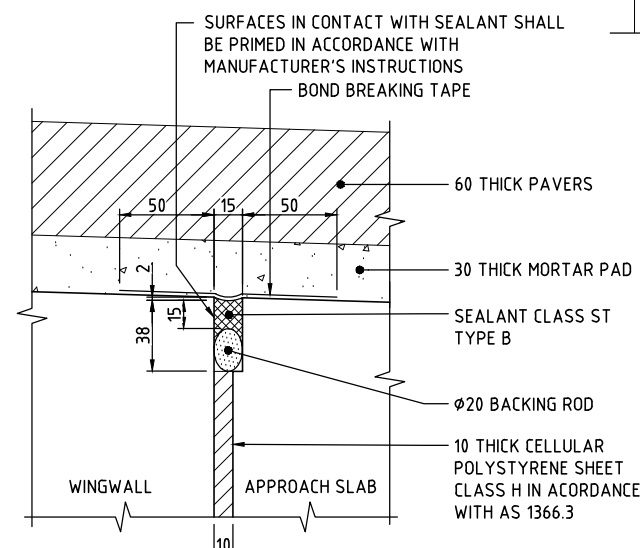
BARRIER NOT SHOWN FOR CLARITY
END OF DECK AND UPSTAND RL'S SHOWN MAKE NO ALLOWANCE FOR COVER PLATE RECESS WHERE APPLICABLE



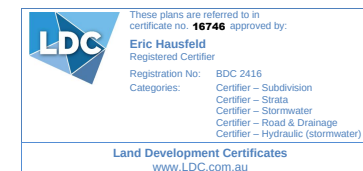
SECTION
SCALE 1:25
1



SECTION
SCALE 1:25
2

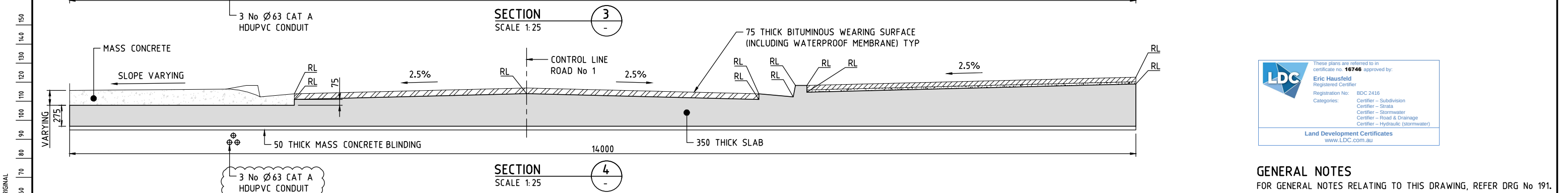
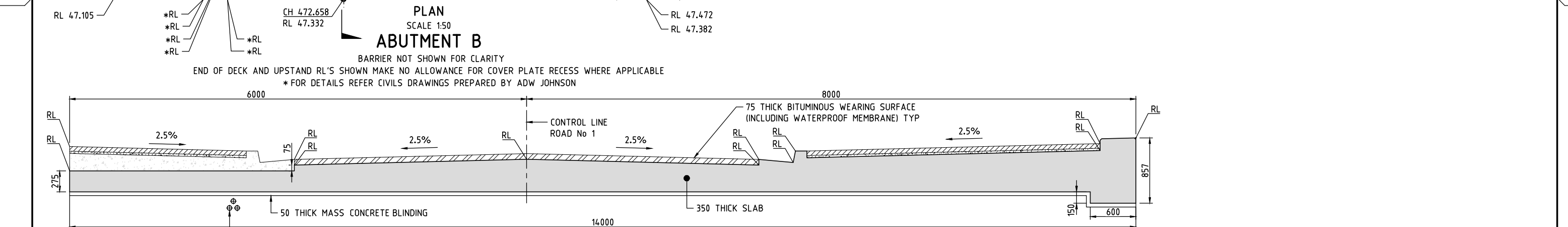
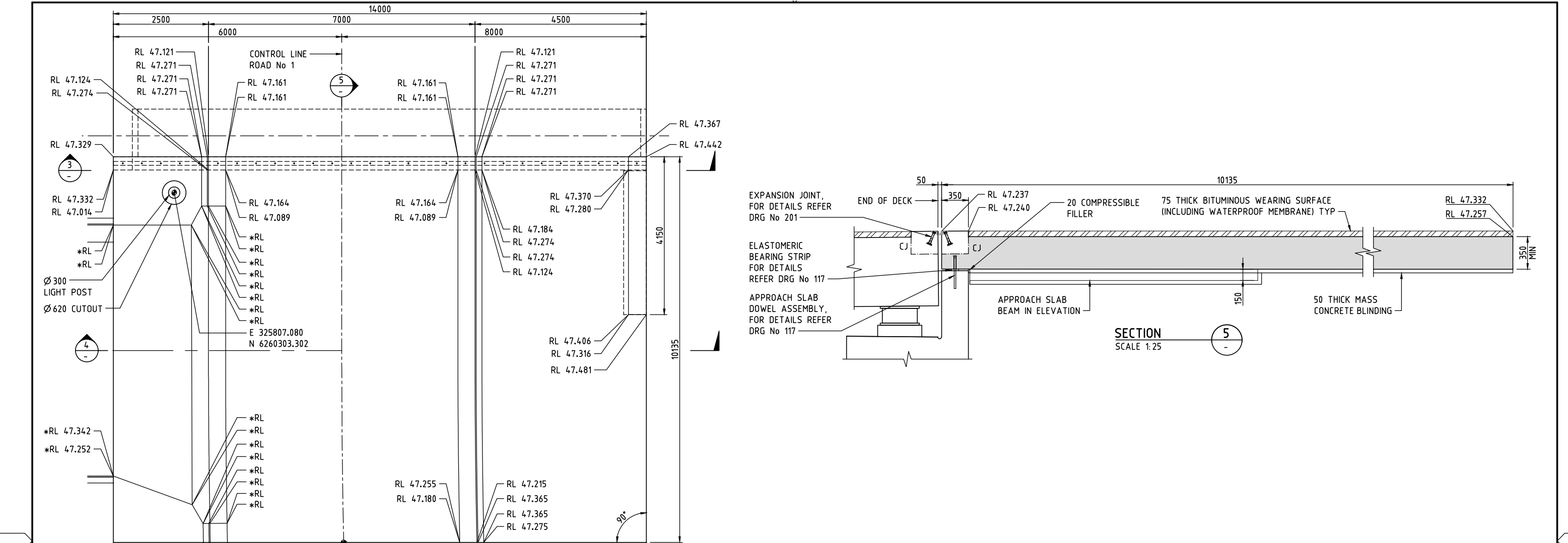


DETAIL
SCALE 1:10
A



GENERAL NOTES
ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
CONCRETE EXPOSURE CLASSIFICATION: B1.
MINIMUM 28 DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 40MPa.
EDGES SHALL BE CHAMFERED 20 x 20 AND RE-ENTRANT ANGLES FILLETED 20 x 20 UNLESS SPECIFIED OTHERWISE.

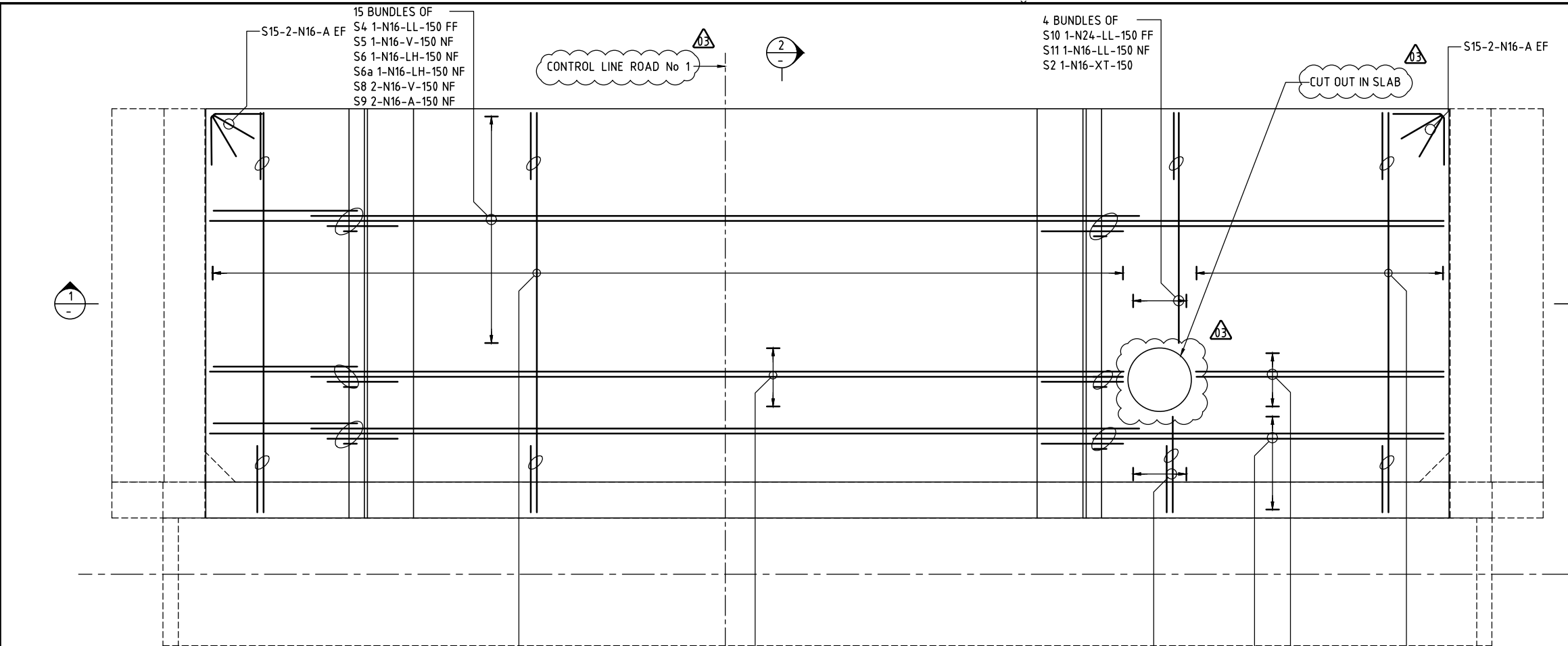
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03				14.10.2021		ISSUED FOR TENDER	
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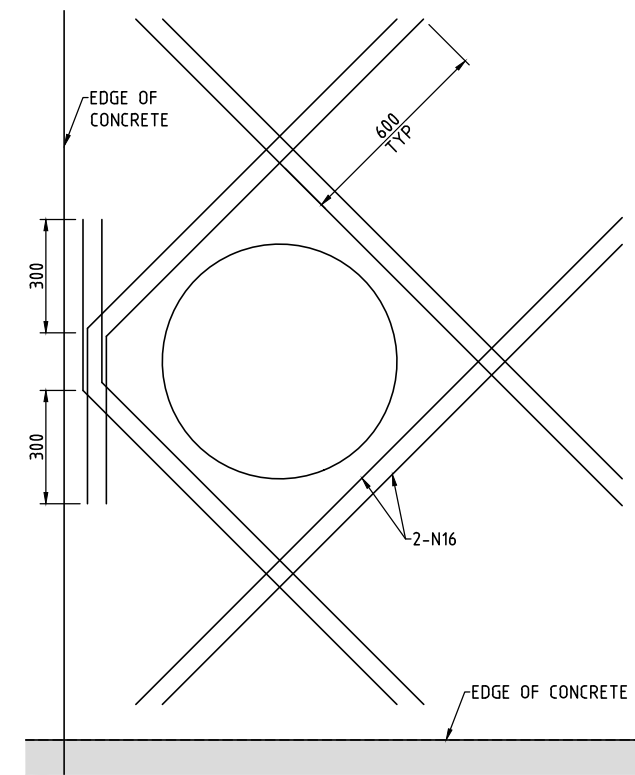
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	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU
				SCALES AT A1 SIZE DRAWING		DESIGNER	
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						Member of the Surlana Jurong Group © ABN 47 065 475 149 LEVEL 5, 20 BERRY STREET NORTH SYDNEY NSW 2060 SMC PROJECT No 30013046	
						CLIENT	
						FRASERS PROPERTY	
						PROJECT TITLE	
						SHRIMPION CREEK BRIDGE	
						APPROACH SLAB CONCRETE SHEET B	
SCALE		PHASE		PROJECT / DRAWING No.		REVISION	
AS NOTED		TENDER		30013046-192		03	

150 mm ON ORIGINAL

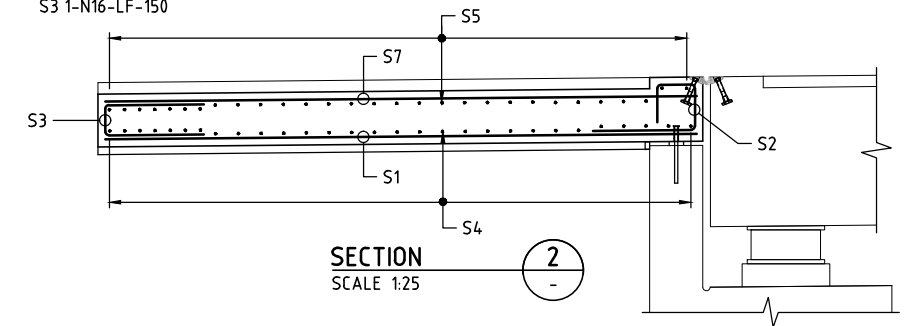
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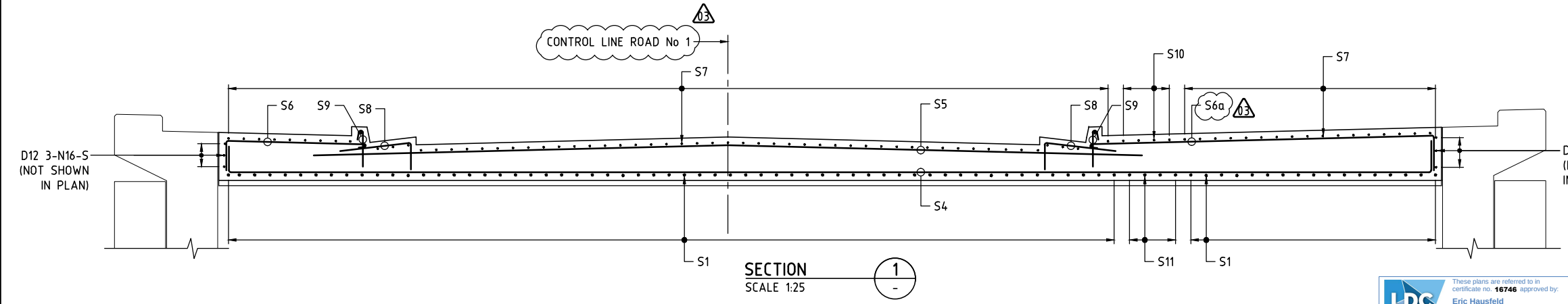
PLAN
SCALE 1:25
ABUTMENT A
BARRIER NOT SHOWN FOR CLARITY



ADDITIONAL REBAR AT CUTOUT LOCATION
SCALE 1:10



SECTION
SCALE 1:25



SECTION
SCALE 1:25

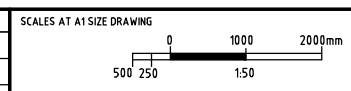
GENERAL NOTES
NOMINAL COVER TO REINFORCEMENT NEAREST TO THE CONCRETE SURFACE SHALL BE 45mm UNLESS NOTED OTHERWISE. UNLESS NOTED OTHERWISE, THE MINIMUM LAP LENGTHS OF BARS SHALL BE AS FOLLOWS:

BAR SIZE:	N12	N16	N20	N24	N28	N32	N36
a) HORIZONTAL BARS WITH >300mm OF CONCRETE CAST BELOW THE BAR	650	900	1150	1430	1730	2060	2410
b) OTHER BARS	500	690	890	1100	1330	1590	1860

CLEAR DISTANCE BETWEEN LAPPED BARS SHALL NOT EXCEED 3 x THE BAR DIAMETER. REINFORCEMENT MAY BE DISPLACED SLIGHTLY WHERE NECESSARY TO CLEAR DOWELS, ANCHORS, LIFTING DEVICES, DUCTS, DRAINAGE LINES AND GENERAL FITMENTS. FOR REINFORCEMENT NOTES REFER DRG No 215.

These plans are referred to in certificate no. 16746 approved by:
Eric Hausfeld
Registered Certifier
Registration No: BDC 2416
Categories: Certifier - Subdivision
Certifier - Strata
Certifier - Stormwater
Certifier - Road & Drainage
Certifier - Hydraulic (stormwater)
Land Development Certificates
www.LDC.com.au

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	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUV



DESIGNER
SMEC
Member of the Surlana Jurong Group
© ABN 47 065 475 149
LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

CLIENT
FRASERS PROPERTY

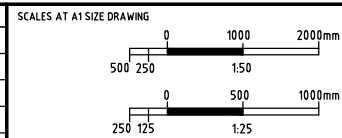
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APPROACH SLAB REINFORCEMENT SHEET A			
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AS NOTED	TENDER	30013046-195	03

150 mm ON ORIGINAL

A1

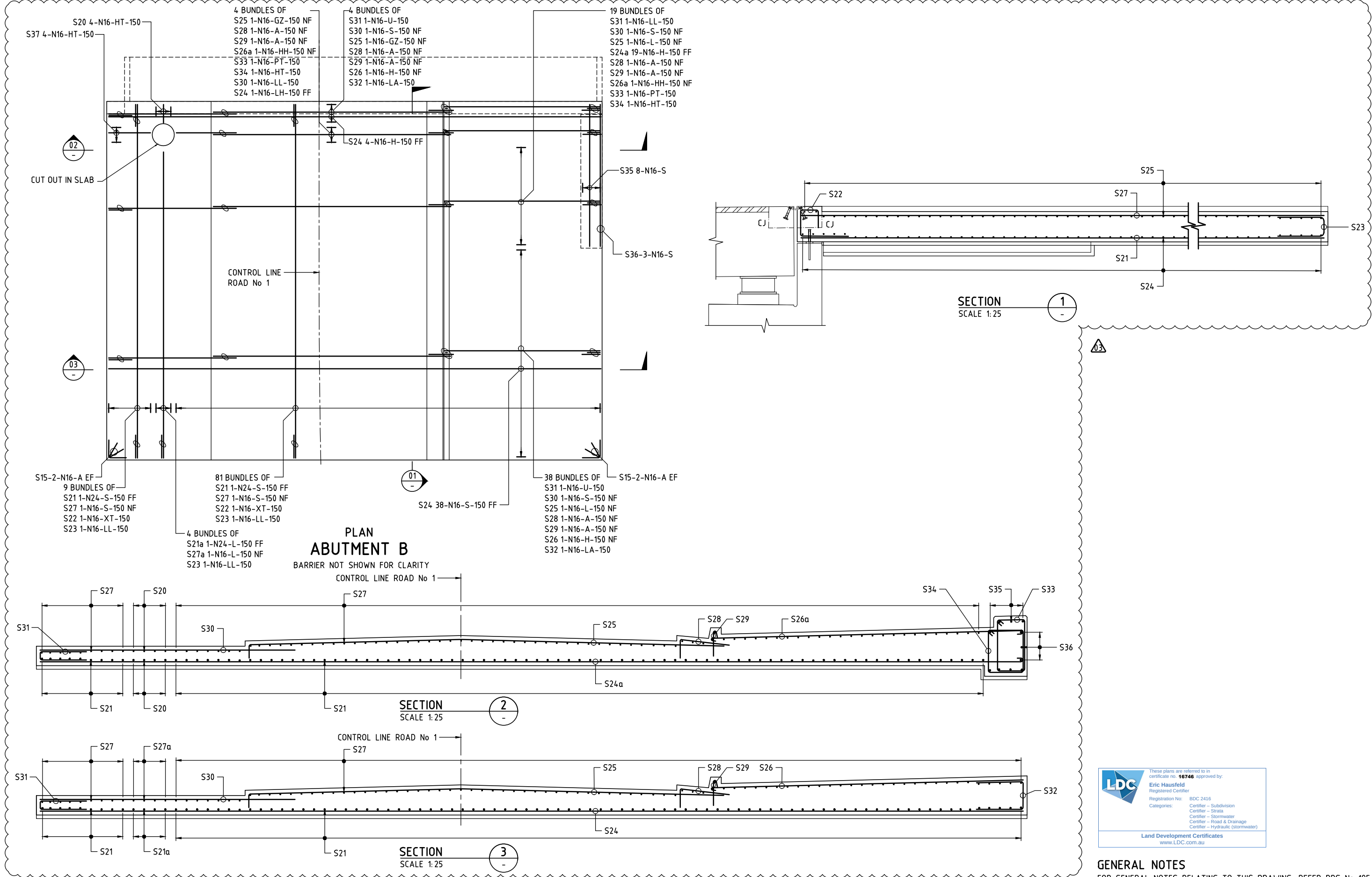
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	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



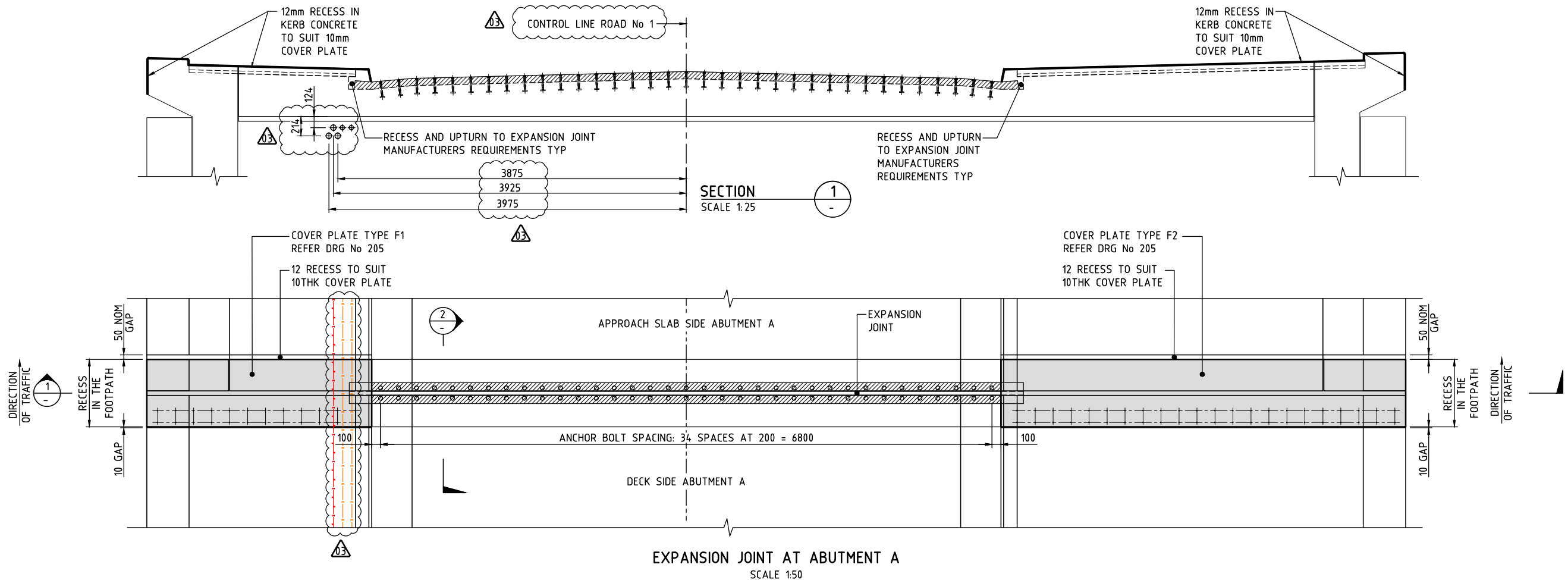
GENERAL NOTES
FOR GENERAL NOTES RELATING TO THIS DRAWING, REFER DRG No 195.

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APPROACH SLAB REINFORCEMENT SHEET B			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-196	03

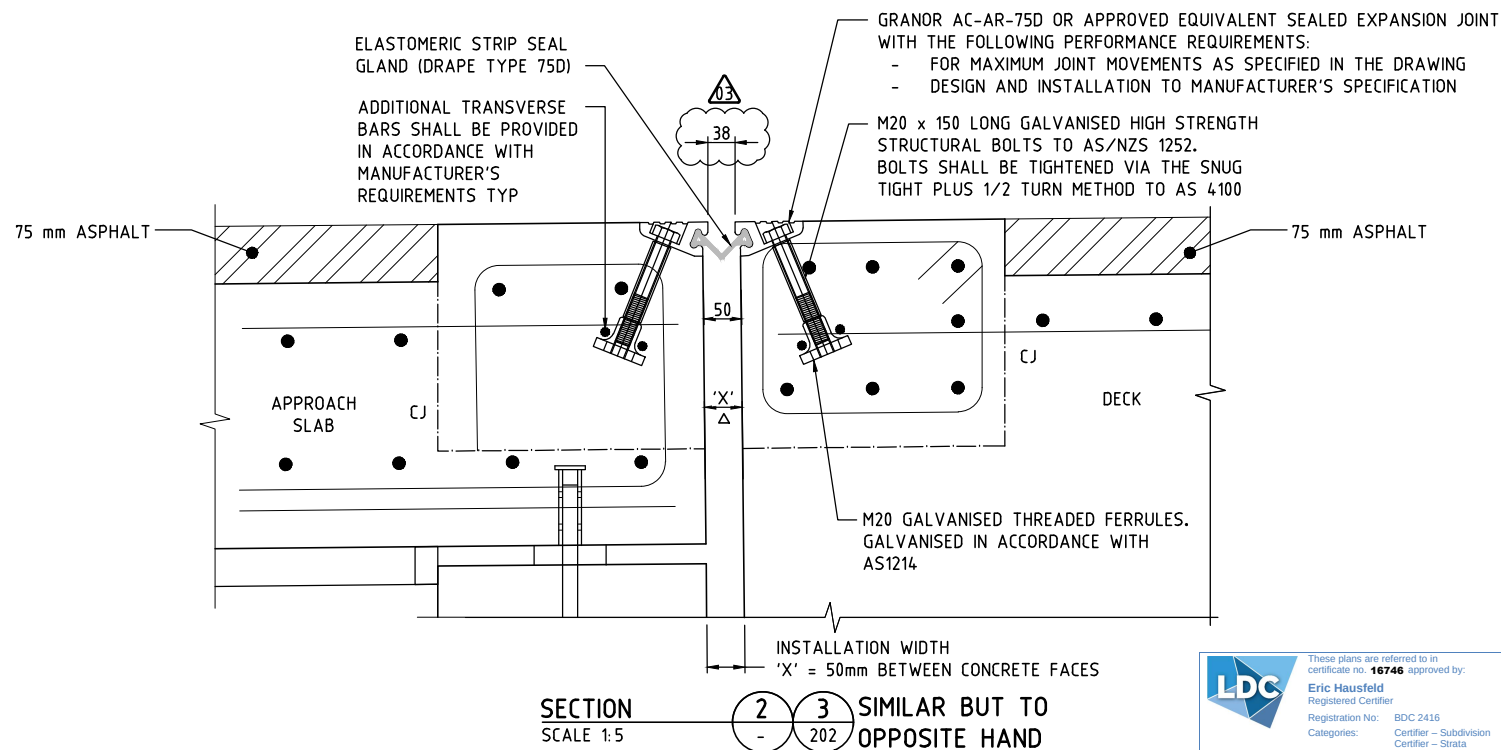


150 mm ON ORIGINAL

A1



EXPANSION JOINT AT ABUTMENT A
SCALE 1:50



SECTION 2
SCALE 1:5

3
202
SIMILAR BUT TO
OPPOSITE HAND



△ DENOTES DIMENSIONS AT SHADE AIR TEMPERATURE OF 20-22°C MEASURED NORMAL TO EDGE OF DECK. THE CALCULATED TEMPERATURE MOVEMENT IS APPROXIMATELY 1.05mm PER 1.0°C AT EXPANSION JOINT. JOINT MOVEMENT INCLUDES ALLOWANCE FOR POSSIBLE VARIATION IN COEFFICIENT OF THERMAL EXPANSION

STRIP SEAL EXPANSION JOINT ULTIMATE PERFORMANCE REQUIREMENTS

INSTALLATION GAP WIDTH SHADE AIR TEMPERATURE 20°C - 22°C	38mm
MAXIMUM ULS CLOSING MOVEMENT	20mm
MAXIMUM ULS OPENING MOVEMENT	25mm

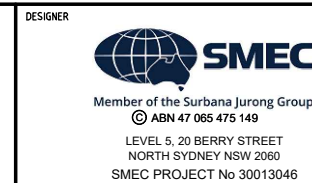
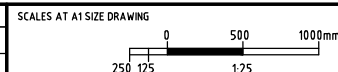
PROPOSED UTILITIES

— E — E — PROPOSED Ø50 ELECTRICAL LINE
— X — X — PROPOSED Ø63 ELECTRICAL LINE

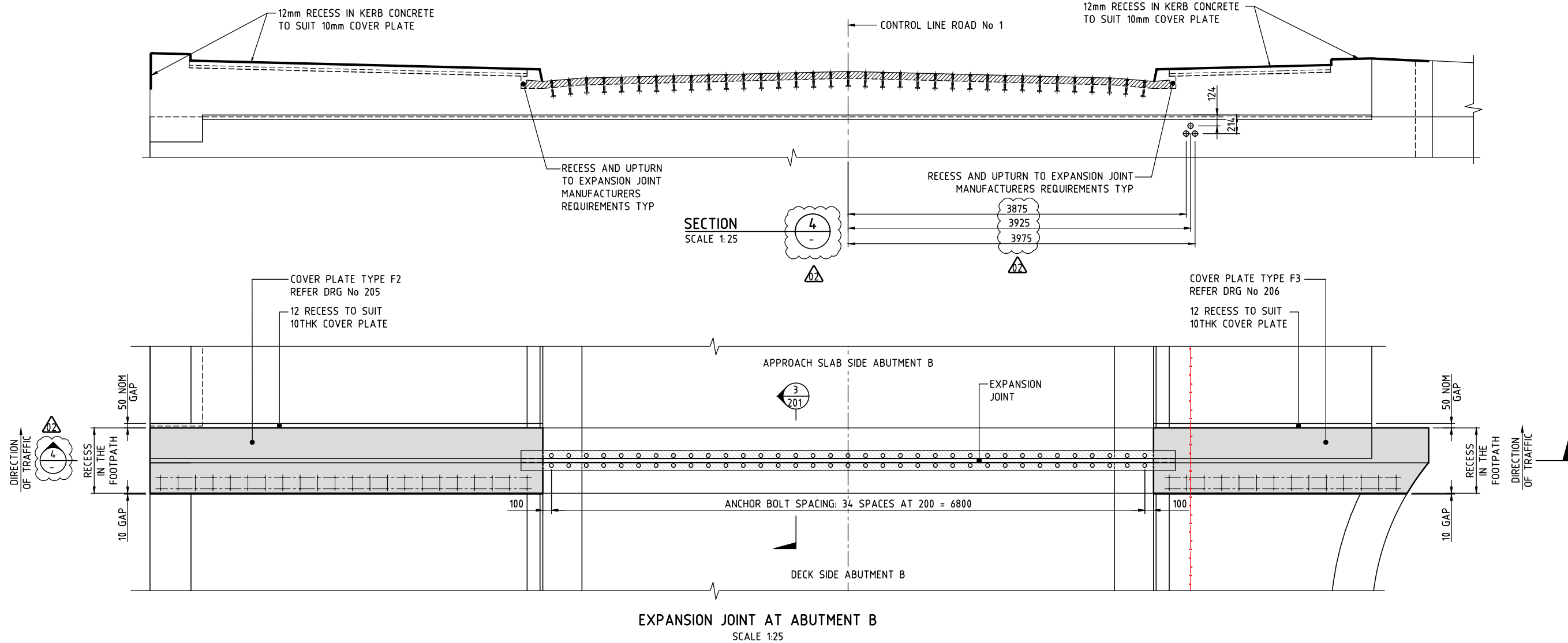
GENERAL NOTES

PERMANENT SEAL ELEMENT TO BE INSTALLED IN ONE LENGTH. STEEL PLATES SHALL BE GRADE 250 TO AS/NZS 3678.3. SLOTTED COUNTERSUNK HEAD SCREWS SHALL CONFORM TO AS/NZS 1427.4. ALL EXPOSED STEEL COMPONENTS EXCEPT STAINLESS STEEL SHALL BE HOT-DIP GALVANISED AFTER FABRICATION IN ACCORDANCE WITH RMS SPECIFICATION B241. EDGES TO BE PROTECTIVE TREATED SHALL BE ROUNDED TO A RADIUS 1.5mm UNLESS OTHERWISE SPECIFIED. ANCHORS FOR COVER PLATE TO BE SETOUT USING A SUITABLE TEMPLATE OR ACTUAL COVER PLATE. DECK JOINTS TO BE INSTALLED STRICTLY IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.

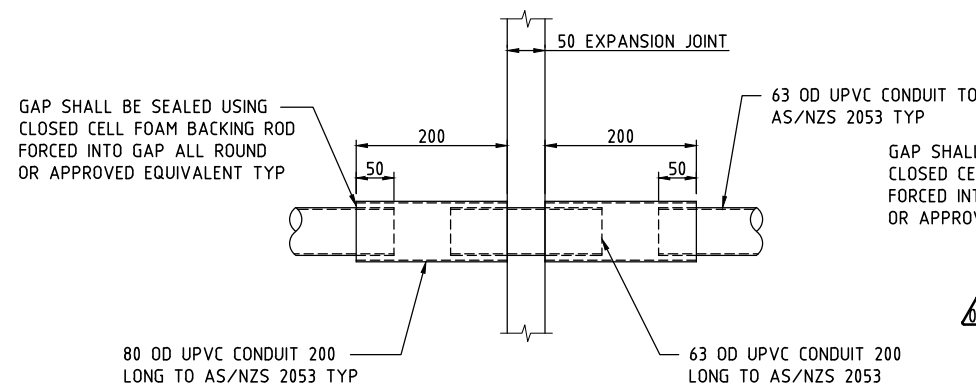
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	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



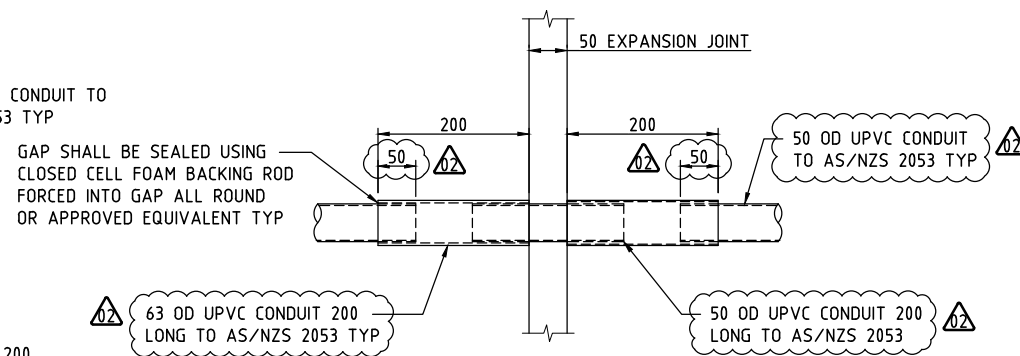
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SHRIMPION CREEK BRIDGE			
EXPANSION JOINT DETAILS SHEET A			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-201	03



EXPANSION JOINT AT ABUTMENT B
SCALE 1:25



EXPANSION JOINT FOR Ø63 CONDUIT
SCALE 1:5

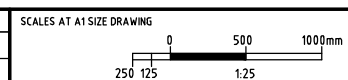


EXPANSION JOINT FOR Ø50 CONDUIT
SCALE 1:5



GENERAL NOTES
FOR GENERAL NOTES RELATING TO THIS DRAWING, REFER DRG No 201.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\300130046\110_CADD\CAD\DWG\30013046-202.dwg				14 Oct 2021		00:14:43	
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	MWR No.	APPROVAL	TITLE	NAME
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	02	14.10.2021	ISSUED FOR TENDER	002	JD	DRAFTING CHECK	V.S.KODURU
						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUV



DESIGNER

SMEC

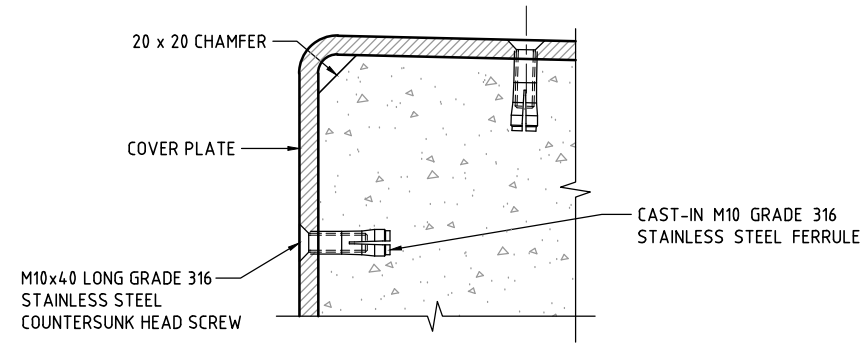
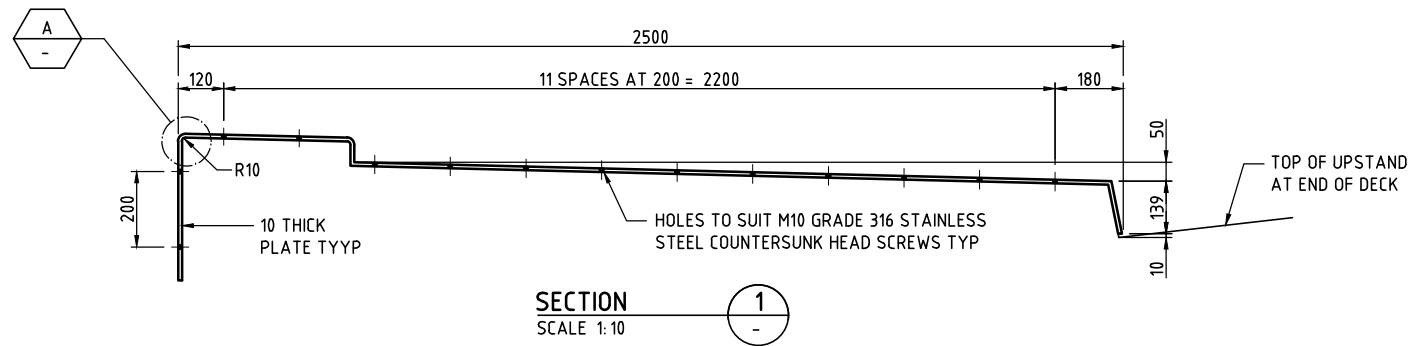
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© ABN 47 065 475 149

LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

CLIENT

FRASERS PROPERTY

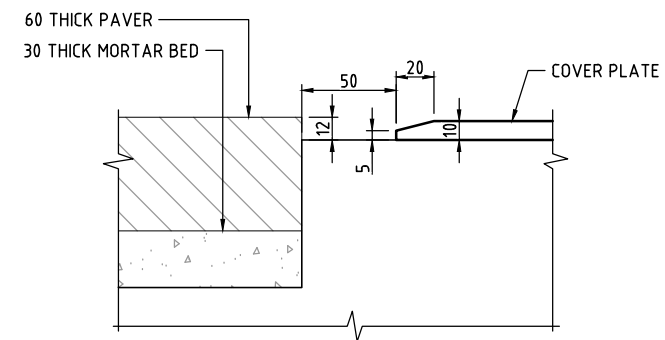
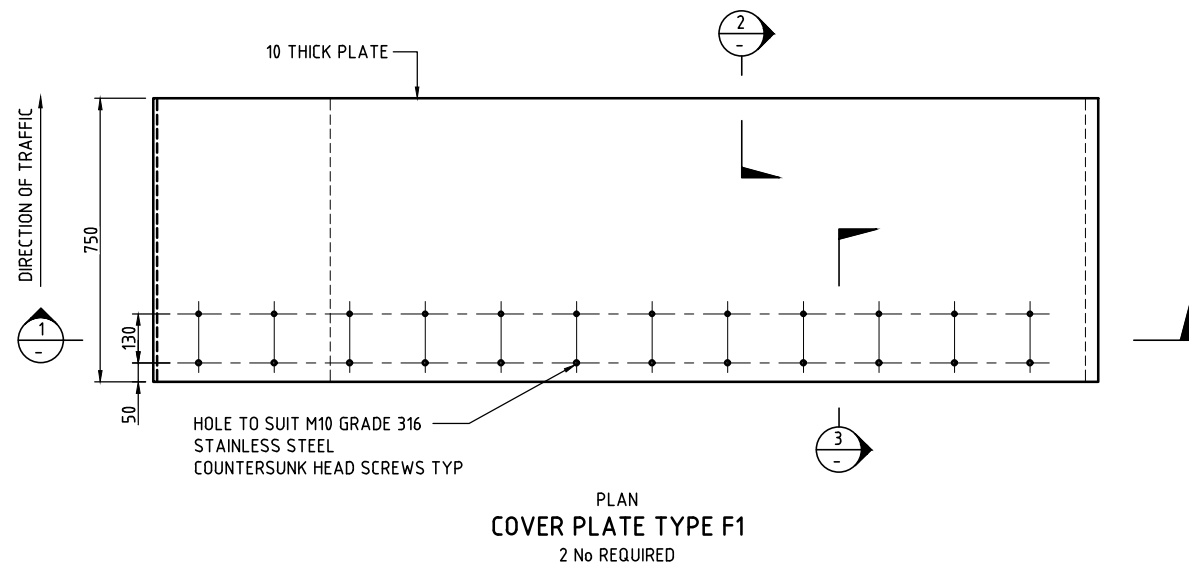
PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
EXPANSION JOINT DETAILS SHEET B			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-202	02



DETAIL
SCALE 1:2

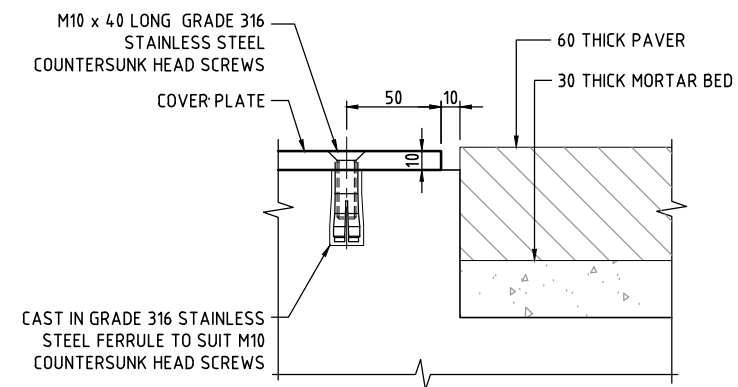
A
-
B
206

SIMILAR BUT TO
OPPOSITE HAND



SECTION
SCALE 1:10

2
-
5
206



SECTION
SCALE 1:10

3
-
6
206

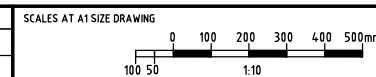
These plans are referred to in certificate no. **16746** approved by:

LDC
Eric Hausfeld
Registered Certifier
Registration No: BDC 2416
Categories: Certifier – Subdivision
Certifier – Strata
Certifier – Stormwater
Certifier – Road & Drainage
Certifier – Hydraulic (stormwater)

Land Development Certificates
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GENERAL NOTES
FOR GENERAL NOTES RELATED TO THIS DRAWING, REFER DRG No 201.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\30013046\110_CADD\CAD\DWG\30013046-205.dwg				14 Oct 2021		00:14:31	
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X_30013046_SHEC_A1	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



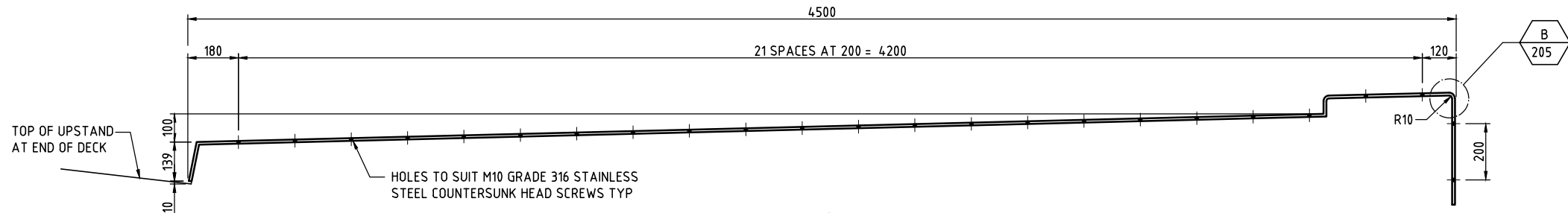
DESIGNER

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LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

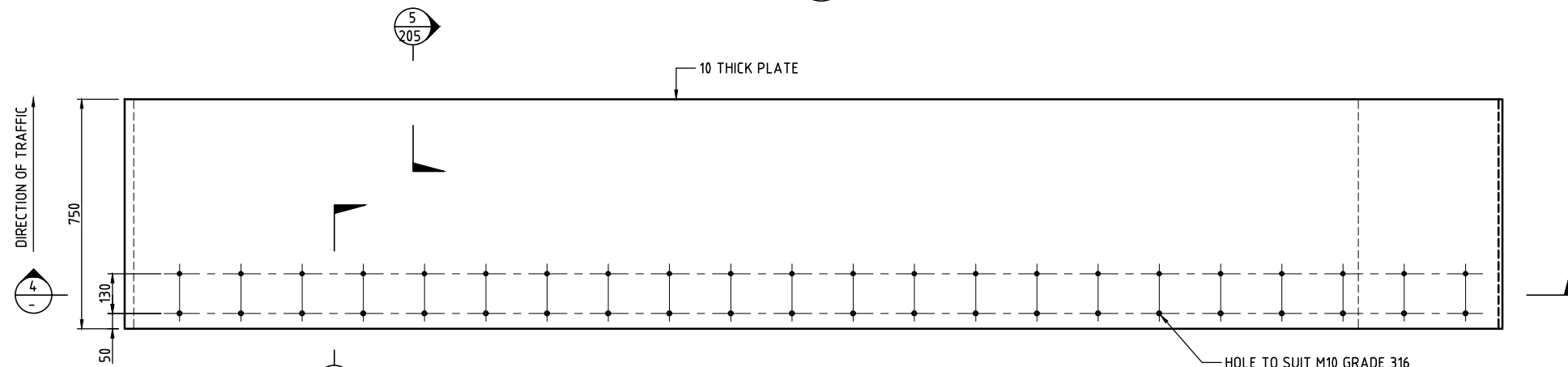
CLIENT

**FRASERS
PROPERTY**

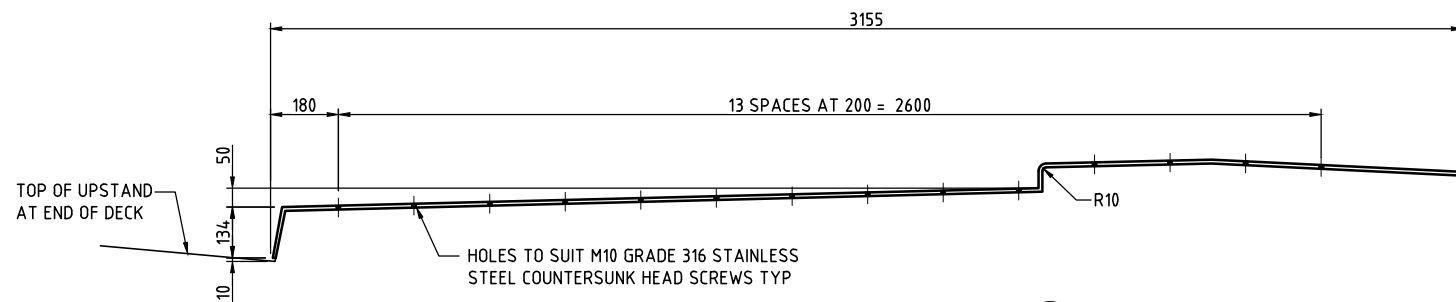
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SHRIMPTON CREEK BRIDGE			
COVER PLATE DETAILS SHEET A			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-205	02



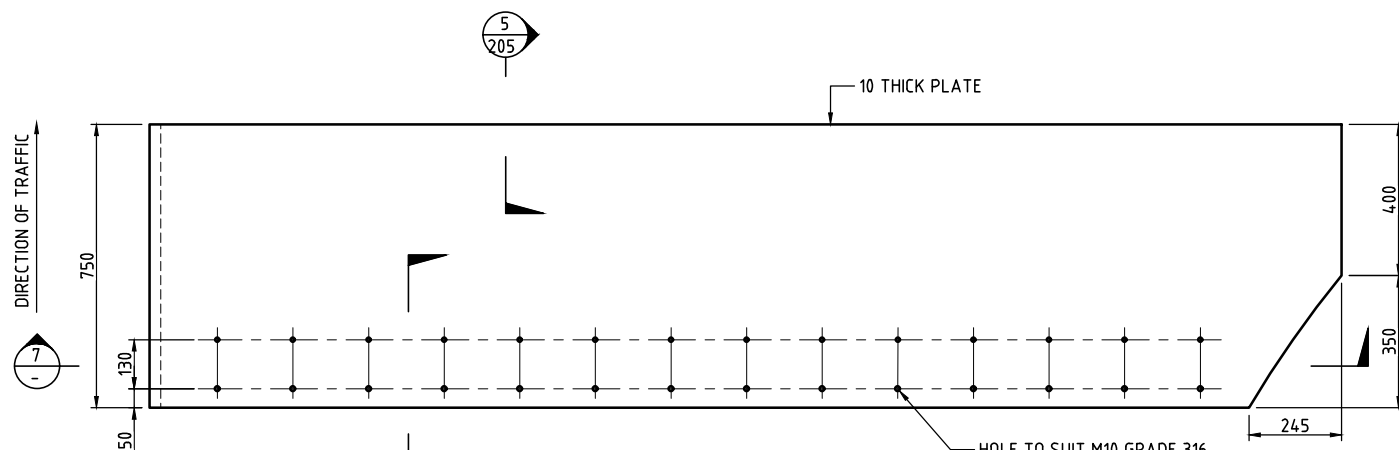
SECTION 4
SCALE 1:20



PLAN
COVER PLATE TYPE F2
2 No REQUIRED



SECTION 7
SCALE 1:20

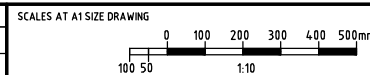


PLAN
COVER PLATE TYPE F3
2 No REQUIRED

These plans are referred to in certificate no. **16746** approved by:
Eric Hausfeld
Registered Certifier
Registration No: BDC 2416
Categories: Certifier – Subdivision
Certifier – Strata
Certifier – Stormwater
Certifier – Road & Drainage
Certifier – Hydraulic (stormwater)
Land Development Certificates
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GENERAL NOTES
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DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-206.dwg				14 Oct 2021		00:25:01	
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X_30013046_SHEC_A1	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



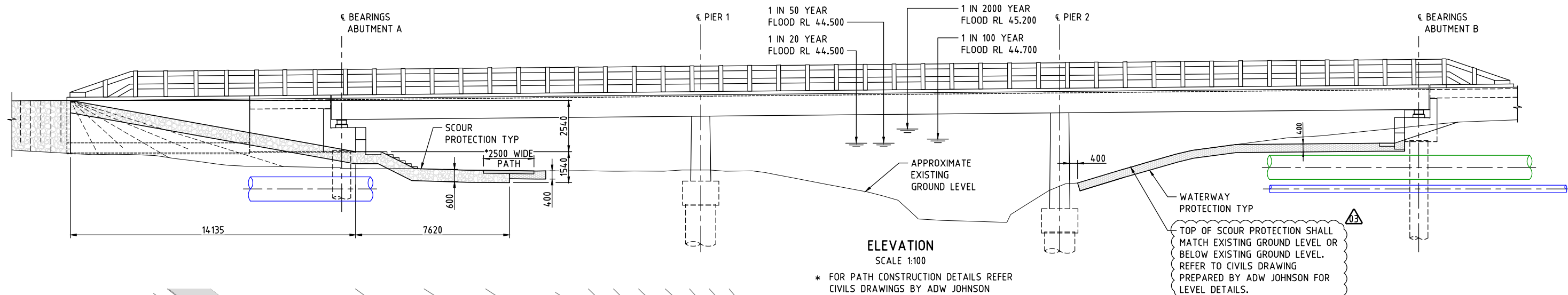
DESIGNER
SMEC
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© ABN 47 065 475 149
LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

CLIENT
FRASERS PROPERTY

PROJECT TITLE			
SHRIMPION CREEK BRIDGE			
COVER PLATE DETAILS SHEET B			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-206	02

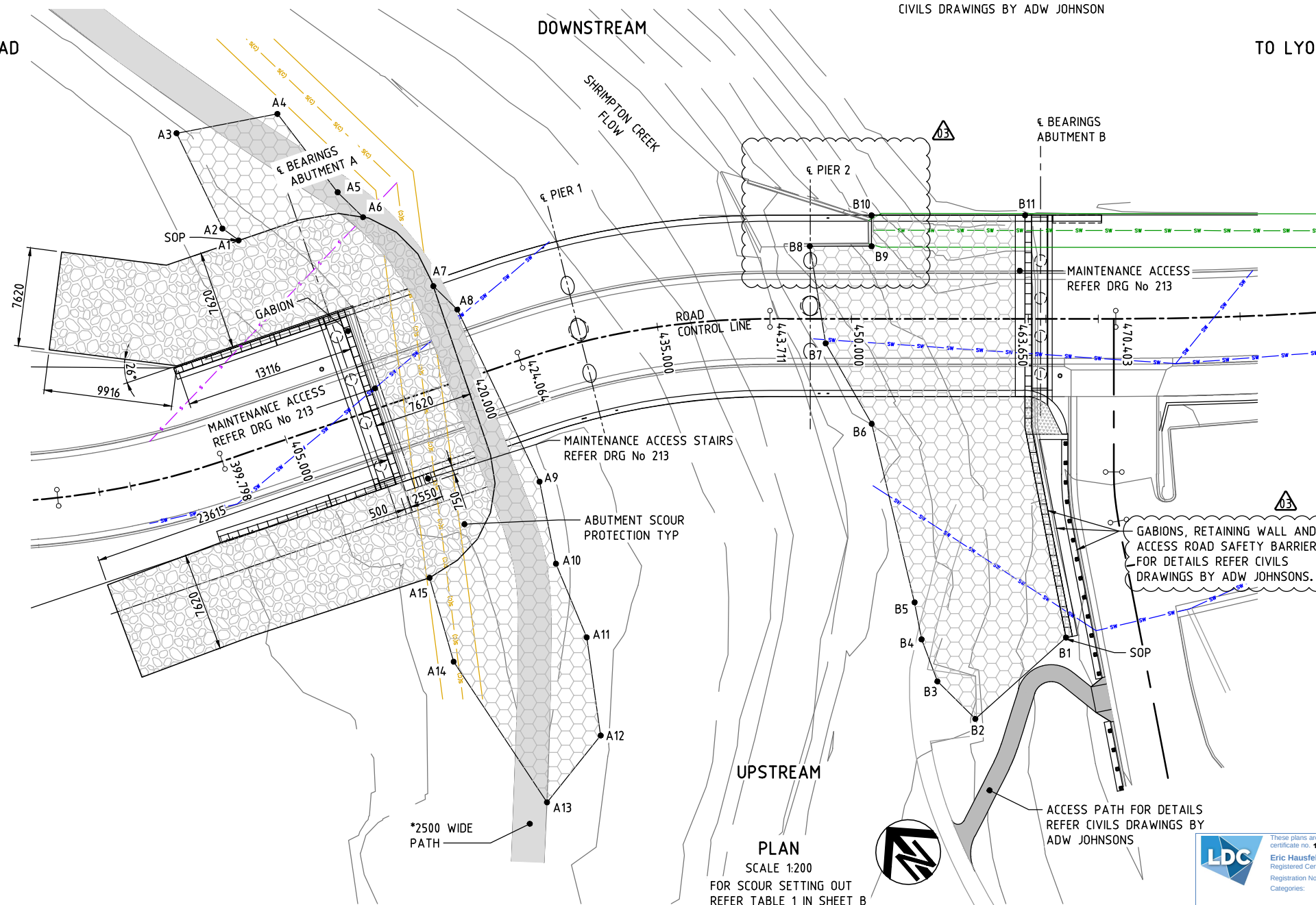
FROM HERRING ROAD

TO LYON PARK ROAD



FROM HERRING ROAD

TO LYON PARK ROAD



PLAN
SCALE 1:200
FOR SCOUR SETTING OUT
REFER TABLE 1 IN SHEET B



DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\30013046\110_CADD\CAD\DWG\30013046-211.dwg				14 Oct 2021		00:34:50	
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X:\30013046_SHEC_A1 X:\DESIGN\MAIN X:\SURV X:\BRC_PLAN X:\BRC_SECTION X:\PROP_SERVICES	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU

SCALES AT A1 SIZE DRAWING
SCALE 1:100

DESIGNER

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NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

CLIENT

**FRASERS
PROPERTY**

PROJECT TITLE

SHRIMPTON CREEK BRIDGE

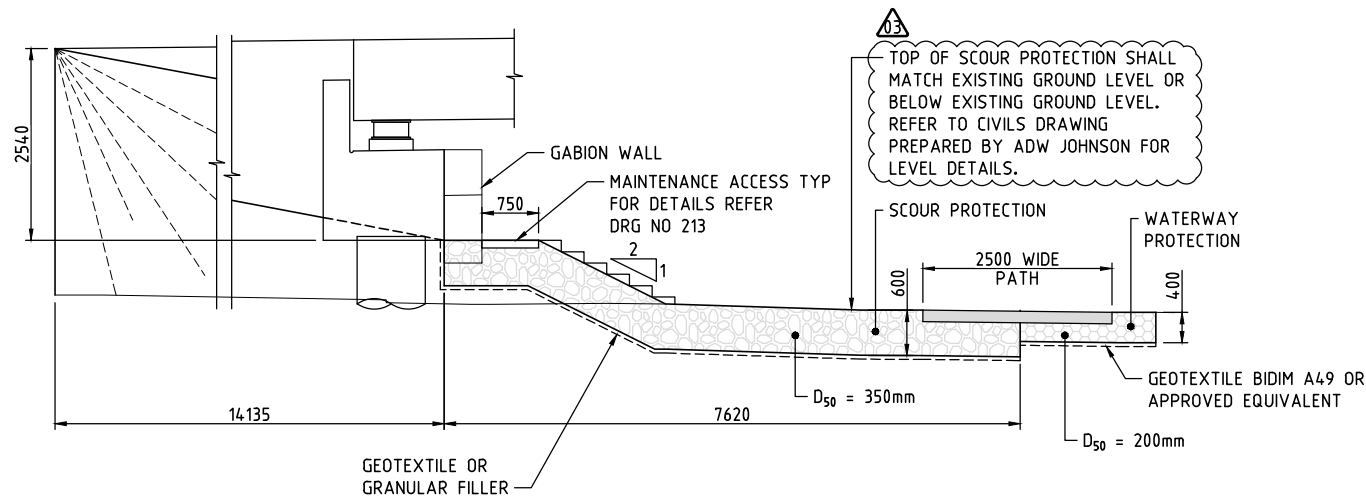
SCOUR PROTECTION DETAILS
SHEET A

SCALE AS NOTED

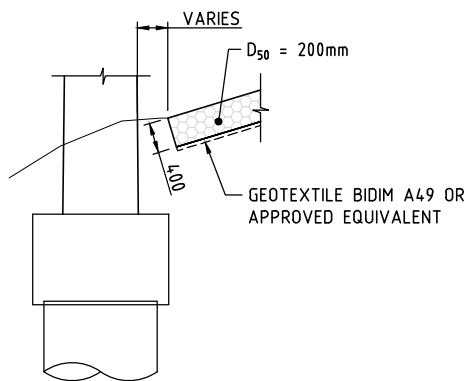
PHASE TENDER

PROJECT / DRAWING No. 30013046-211

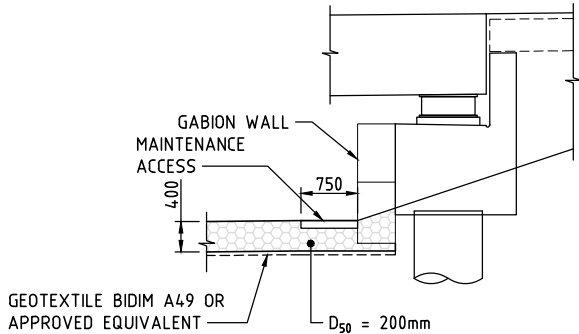
REVISION 03



ABUTMENT A SCOUR PROTECTION
SCALE 1:50



WATERWAY PROTECTION AT PIER 2
SCALE 1:50



WATERWAY PROTECTION AT ABUTMENT B
SCALE 1:50

TABLE 1 - SCOUR SETTING OUT

LOCATION	NORTHING	EASTING
A1	325765.888	6260352.589
A2	325765.533	6260354.104
A3	325767.644	6260362.002
A4	325774.521	6260358.053
A5	325774.092	6260350.435
A6	325774.321	6260347.700
A7	325774.955	6260340.130
A8	325775.172	6260337.537
A9	325771.305	6260323.330
A10	325768.130	6260317.712
A11	325766.217	6260311.843
A12	325762.086	6260305.404
A13	325755.580	6260304.194
A14	325757.213	6260317.132
A15	325760.033	6260323.247
B1	325794.236	6260287.686
B2	325784.836	6260287.498
B3	325784.506	6260291.597
B4	325785.702	6260294.856
B5	325787.153	6260297.376
B6	325793.651	6260309.983
B7	325795.020	6260317.012
B8	325798.980	6260323.488
B9	325802.593	6260320.383
B10	325804.152	6260322.192
B11	325813.131	6260314.454

LDC These plans are referred to in certificate no **16746** approved by:
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Registered Certifier
Registration No: BDC 2416
Categories: Certifier - Subdivision
Certifier - Strata
Certifier - Stormwater
Certifier - Road & Drainage
Certifier - Hydraulic (stormwater)
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GENERAL NOTES
FOR GENERAL NOTES RELATED TO THIS DRAWING,
REFER DRG No 211.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-212.dwg				13 Oct 2021		22:49:39	
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X_30013046_SHEC_A1	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	<i>T.SABAPATHI</i>
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	<i>V.S.KODURU</i>
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	<i>V.S.KODURU</i>
						DESIGN CHECK	<i>V.BALAKRISHNAN</i>
						PROJECT MANAGER	<i>J.DICKERSON</i>
						PROJECT DIRECTOR	<i>K.LUU</i>



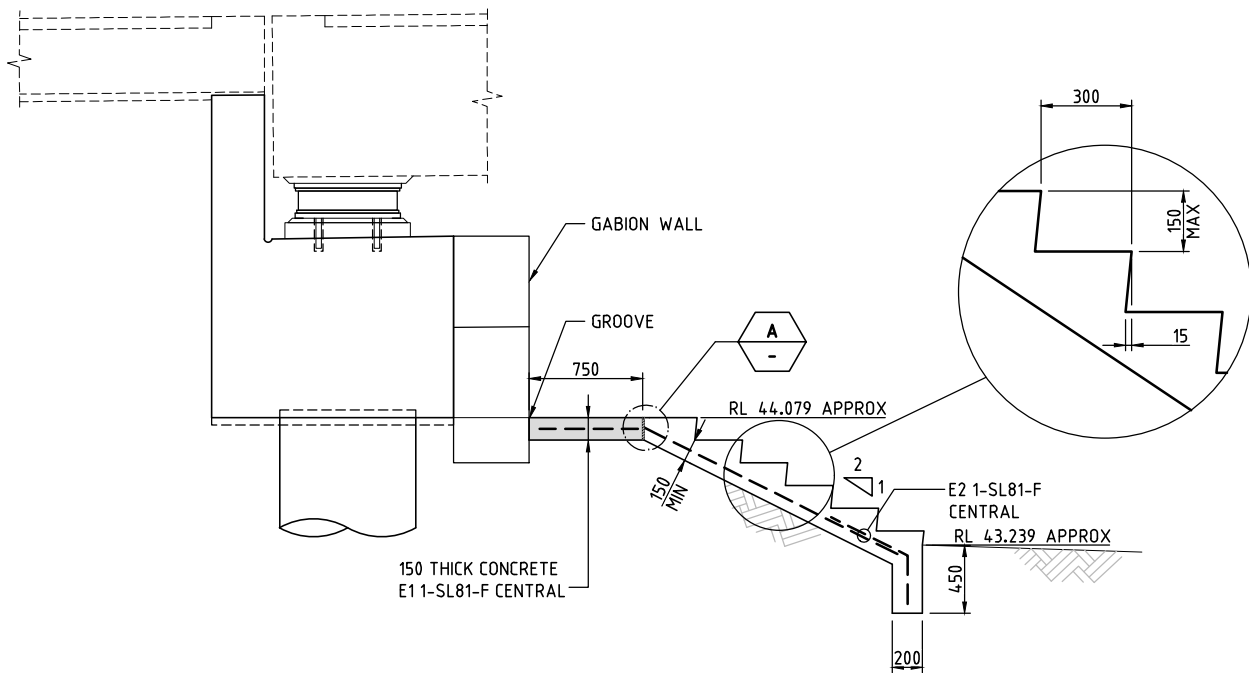
DESIGNER

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LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

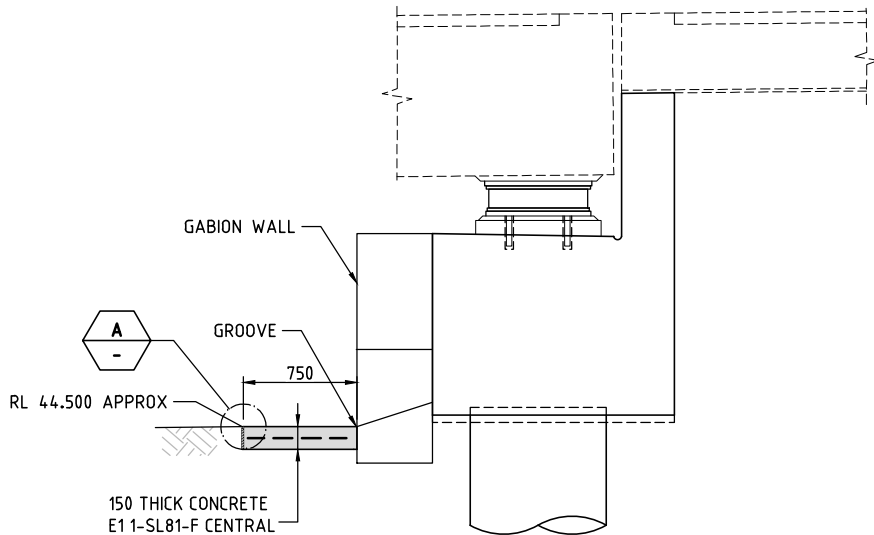
CLIENT

FRASERS PROPERTY

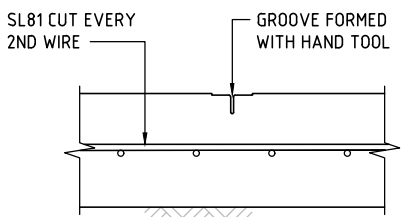
PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
SCOUR PROTECTION DETAILS SHEET B			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-212	03



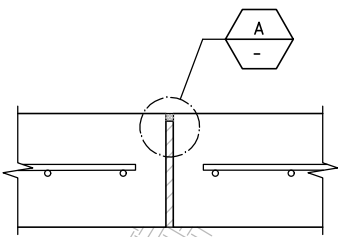
MAINTENANCE STAIRS AND ACCESS
PATH DETAIL AT ABUTMENT A
SCALE 1:25



MAINTENANCE ACCESS PATH DETAIL
AT ABUTMENT B
SCALE 1:25

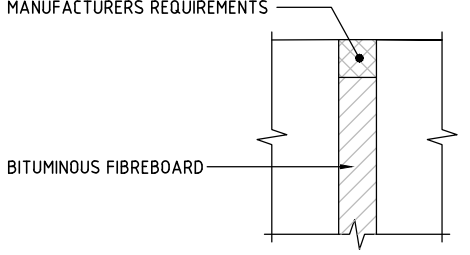


TOOLED JOINT(TJ)
AT MAX 2500 CENTRES IN
MAINTENANCE ACCESS WALKWAYS
SCALE 1:5



EXPANSION JOINT (EJ)
AT MAX 7500 CENTRES IN
MAINTENANCE ACCESS WALKWAYS
SCALE 1:5

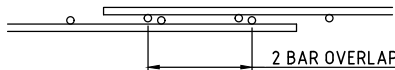
10x10 SEALANT ISN OR GN TYPE CI.
SURFACES IN CONTACT WITH SEALANT
SHALL BE PRIMED IN ACCORDANCE WITH
MANUFACTURERS REQUIREMENTS



DETAIL
SCALE 1:1

GENERAL NOTES

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
CONCRETE EXPOSURE CLASSIFICATION B1.
MINIMUM 28 DAY COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 32MPa.
MINIMUM 28 DAY COMPRESSIVE STRENGTH OF MASS CONCRETE SHALL BE 20MPa UNO.
NOMINAL COVER TO REINFORCEMENT NEAREST TO THE CONCRETE SURFACE SHALL BE 50mm OR 80mm IF CAST AGAINST GROUND UNLESS SPECIFIED OTHERWISE.
REINFORCEMENT FABRIC LAPPED SPLICE SHALL BE AS FOLLOWS :



MAINTENANCE ACCESS STEPS AND BENCH SHALL HAVE A ROUGHENED SURFACE AS PER SPECIFICATION .
ALL SEALANTS SHALL CONFORM TO TfNSW QA SPECIFICATION B312.
BACKING RODS SHALL BE NON-ABSORBENT, CLOSED CELL POLYSTYRENE OR NEOPRENE (PARBURY'S EXPANDFORM BACKER ROD OR APPROVED EQUIVALENT) INSTALLED WITH 25% COMPRESSION.
SEALANTS SHALL BE APPLIED AS PER MATERIAL SPECIFICATION REQUIREMENTS.
BLINDING CONCRETE CAN BE POURED TOGETHER WITH THE MAINTENANCE ACCESS BENCH AS LONG AS THE CONCRETE STRENGTH IS THE SAME AS THE MAINTENANCE ACCESS BENCH.



DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-213.dwg				14 Oct 2021		00:31:47	
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X_30013046_SHEC_A1	01	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
						DRAFTING CHECK	V.S.KODURU
						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
MAINTENANCE ACCESS			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-213	01

150 mm ON ORIGINAL

SHAPE CODE	AUSTRALIAN STANDARD SHAPE	SHAPE CODE	AUSTRALIAN STANDARD SHAPE	SHAPE CODE	AUSTRALIAN STANDARD SHAPE	SHAPE CODE	AUSTRALIAN STANDARD SHAPE
S		LL		VL		H	
SH		XT		HH		VV	
CT		V		J		HT	
L		JJ		R		LH	
SP		RC		U		F	
T		A		CC			

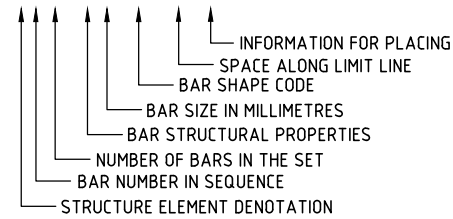
SHAPE CODE	ROADS AND MARITIME SERVICES STANDARD SHAPE	SHAPE CODE	ROADS AND MARITIME SERVICES STANDARD SHAPE	SHAPE CODE	ROADS AND MARITIME SERVICES STANDARD SHAPE	SHAPE CODE	ROADS AND MARITIME SERVICES STANDARD SHAPE
LF		AV		TT		XH	
LA		LG		PT		ST	
AA		KH		QT		VS	
KL		GT		KF		AF	

SHAPE CODE	NON STANDARD SHAPE	SHAPE CODE	NON STANDARD SHAPE
AZ		EZ	
BZ		FZ	
CZ		GZ	
DZ		LZ	

BAR MARKING LEGEND

THE METHOD USED TO DESCRIBE REINFORCEMENT ON THE DRAWINGS IS AS FOLLOWS:

A1 10-N16-S-300EF



WHERE THE BAR SPACING IS APPROXIMATE ONLY, THE FOLLOWING FORMAT SHALL BE USED:

A1 10-N16-S-300EF APPROX

GENERAL NOTES

STRUCTURE ELEMENT DENOTATION:

- A - FOR ABUTMENT A
- B - FOR ABUTMENT B
- C - FOR PIER COLUMNS
- D - FOR DECK
- E - FOR MAINTENANCE ACCESS
- F - FOR FOUNDATION
- G - FOR PRECAST GIRDERS
- R - FOR RETAINING WALL
- S - FOR APPROACH SLABS
- W - FOR DEFLECTION WALL

INFORMATION FOR PLACING:

- NF - NEAR FACE
- FF - FAR FACE
- LV - LENGTH VARIES
- EF - EACH FACE

REINFORCEMENT NOTES

AUSTRALIAN STANDARD BAR SHAPES ARE IN ACCORDANCE WITH AS 1100.501.
BAR SIZE IS THE NOMINAL DIAMETER IN MILLIMETRES, OR THE AS/NZS 4671 FABRIC NUMBER.
THE GRADE OF REINFORCEMENT, IF NOT STATED ON THE DRAWINGS, SHALL BE D500N TO AS/NZS 4671.
WHERE SHOWN ON THE DRAWINGS, "W" SHALL DENOTE PLAIN ROUND REINFORCING BARS EQUIVALENT TO GRADE R500L TO AS/NZS 4671.
WHERE SHOWN ON THE DRAWINGS, RL AND SL SHALL DENOTE WELDED REINFORCING FABRIC (RECTANGULAR AND SQUARE), RESPECTIVELY.
DIMENSIONS SHOWN ON BAR SHAPES DIAGRAMS ARE MEASURED FROM THE OUTSIDE FACES OF THE BARS AND ARE IN MILLIMETRES.
THE INCLUDED ANGLE OF ANY BEND SHALL BE A RIGHT ANGLE IF NO DIMENSION SHOWN.
BARS OF DIAMETER GREATER THAN 24mm SHALL NOT BE REBENT.
BAR BENDING AND HOOK DETAILS SHALL BE IN ACCORDANCE WITH SECTION 13 OF AS 5100.5.

These plans are referred to in certificate no. **16746** approved by:

LDC Eric Hausfeld
Registered Certifier
Registration No: BDC 2416
Categories: Certifier - Subdivision
Certifier - Strata
Certifier - Stormwater
Certifier - Road & Drainage
Certifier - Hydraulic (stormwater)

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DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-215.dwg				14 Oct 2021		00:31:40	
EXTERNAL REFERENCE FILES	REV	DATE	AMENDMENT / REVISION DESCRIPTION	MWR No.	APPROVAL	TITLE	NAME
	01	10.07.2021	ISSUED FOR TENDER	001	JD	DRAFTER	T.SABAPATHI
	02	20.08.2021	ISSUED FOR TENDER	001	JD	DRAFTING CHECK	V.S.KODURU
	03	14.10.2021	ISSUED FOR TENDER	002	JD	DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUV

SCALES AT A1 SIZE DRAWING

DESIGNER

SMEC
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LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060
SMEC PROJECT No 30013046

CLIENT

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PROJECT TITLE

SHRIMPTON CREEK BRIDGE

BAR SHAPES DIAGRAMS

SCALE

PHASE

AS NOTED

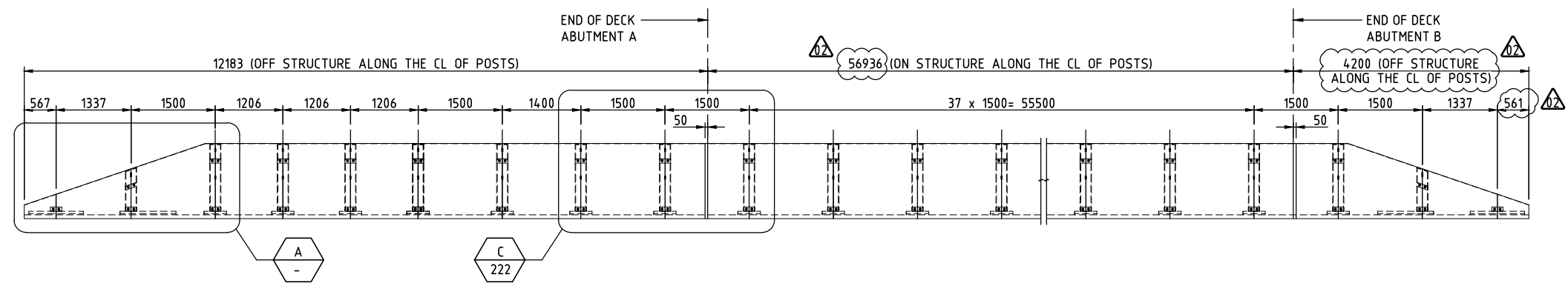
TENDER

PROJECT / DRAWING No.

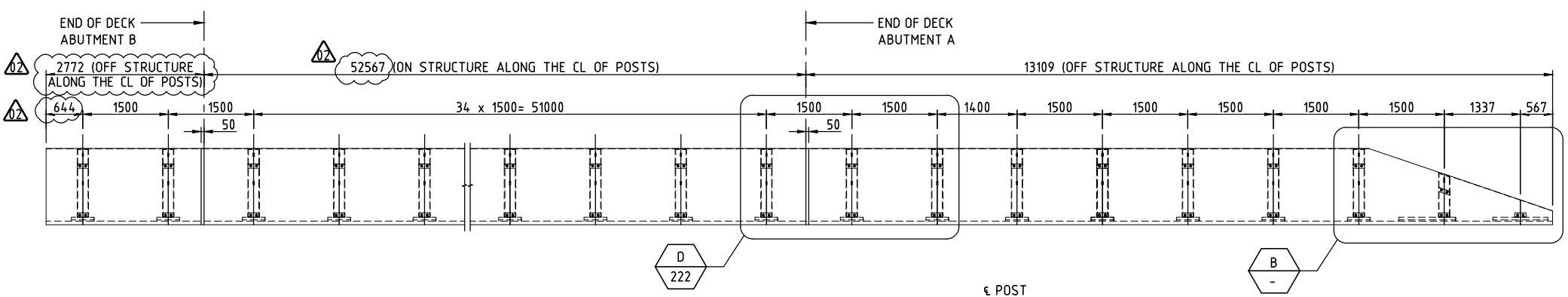
30013046-215

REVISION

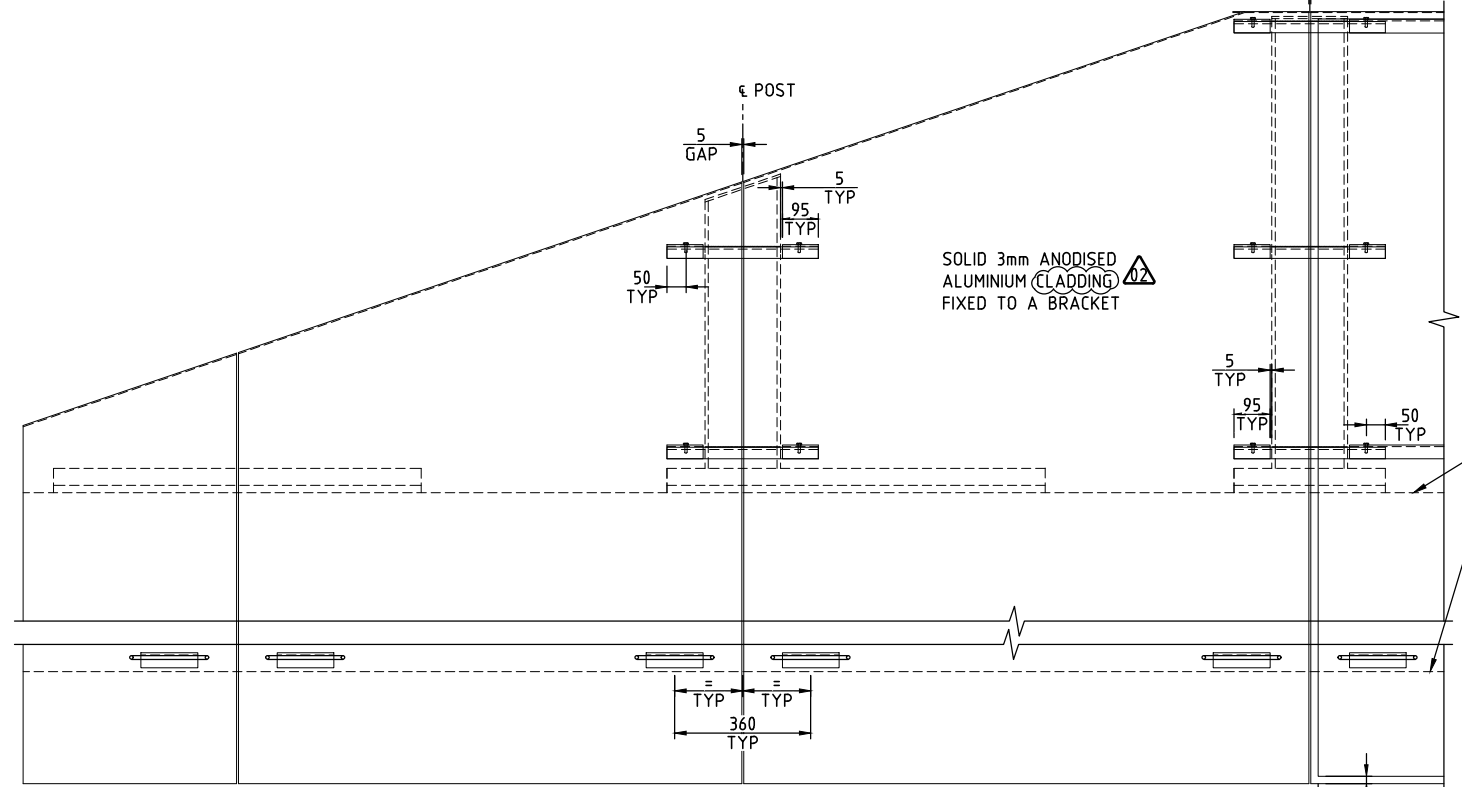
03



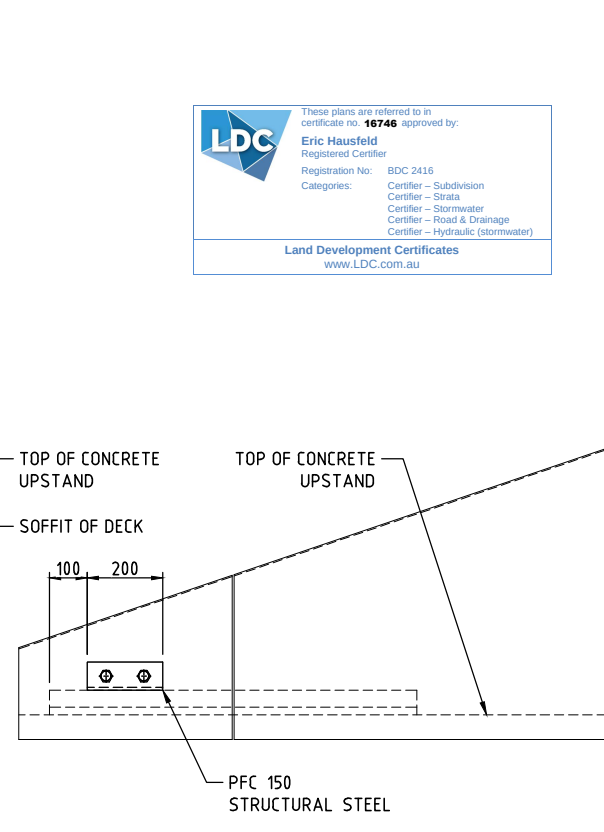
ELEVATION DOWNSTREAM SIDE (INSIDE)
SCALE 1:50



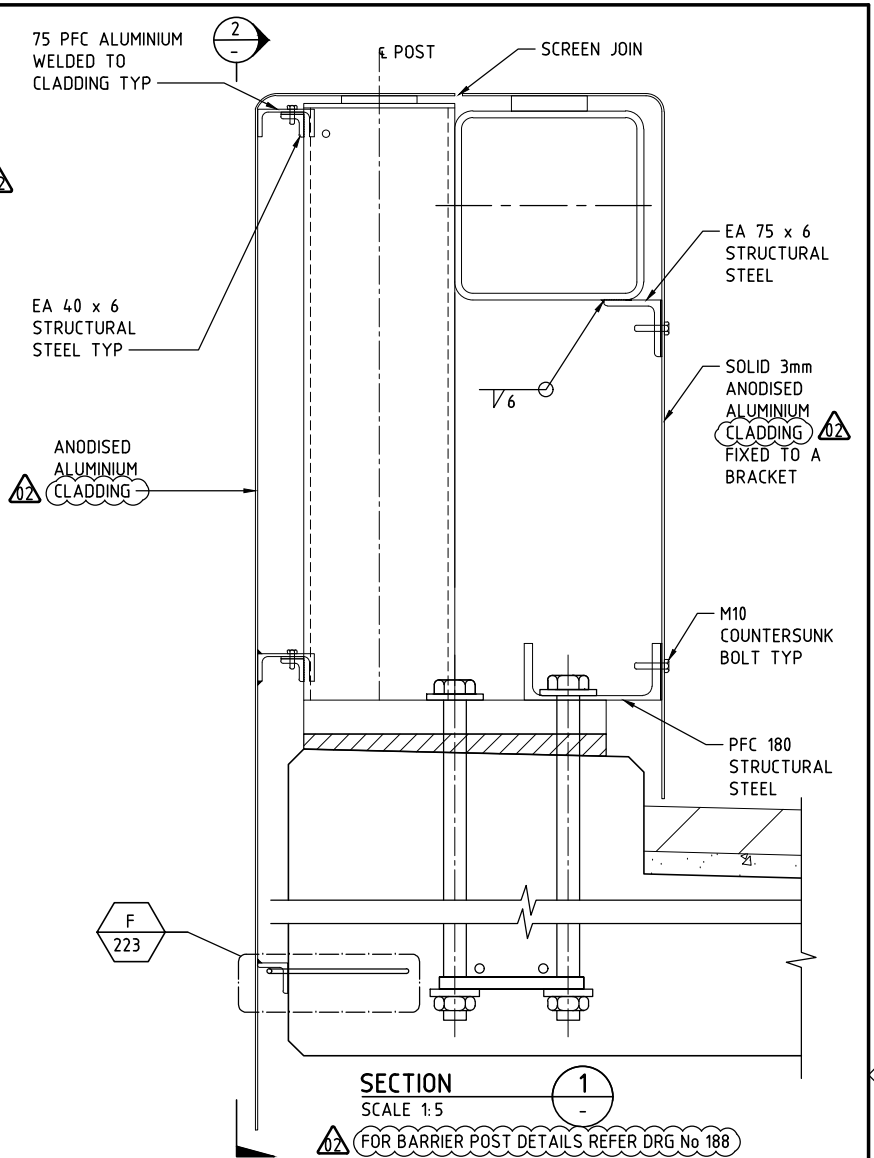
ELEVATION UPSTREAM SIDE (INSIDE)
SCALE 1:50



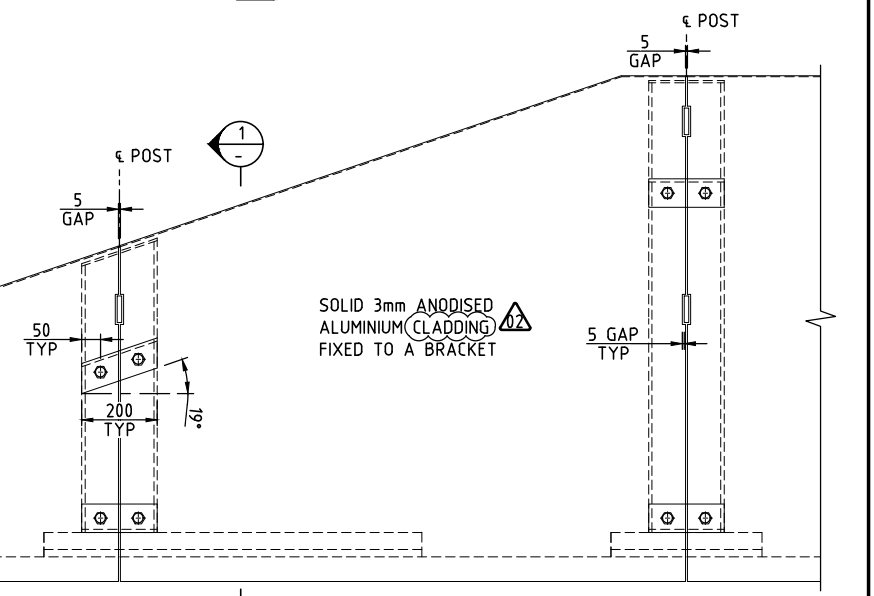
VIEW 2
SCALE 1:10



DETAIL 2
SCALE 1:10



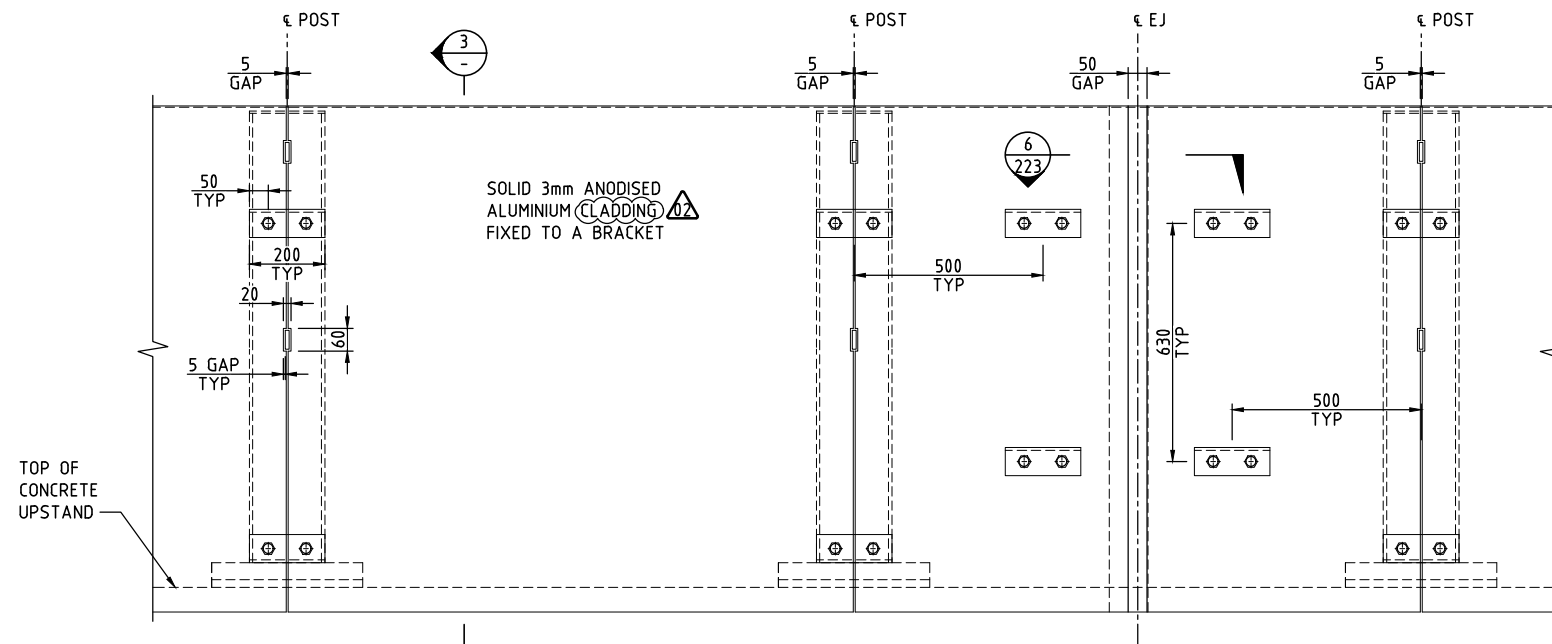
SECTION 1
SCALE 1:5
FOR BARRIER POST DETAILS REFER DRG No 188



DETAIL 1
SCALE 1:10
SIMILAR BUT TO OPPOSITE HAND
GENERAL NOTES
FOR ALL NOTES RELATED TO THIS DRAWING, REFER DRG No 223.

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These plans are referred to in certificate no. 16746 approved by:
Eric Hausfeld
Registered Certifier
Registration No: BOC 2416
Categories: Certifier - Subdivision
Certifier - Strata
Certifier - Stormwater
Certifier - Road & Drainage
Certifier - Hydraulic (stormwater)
Land Development Certificates
www.LDC.com.au

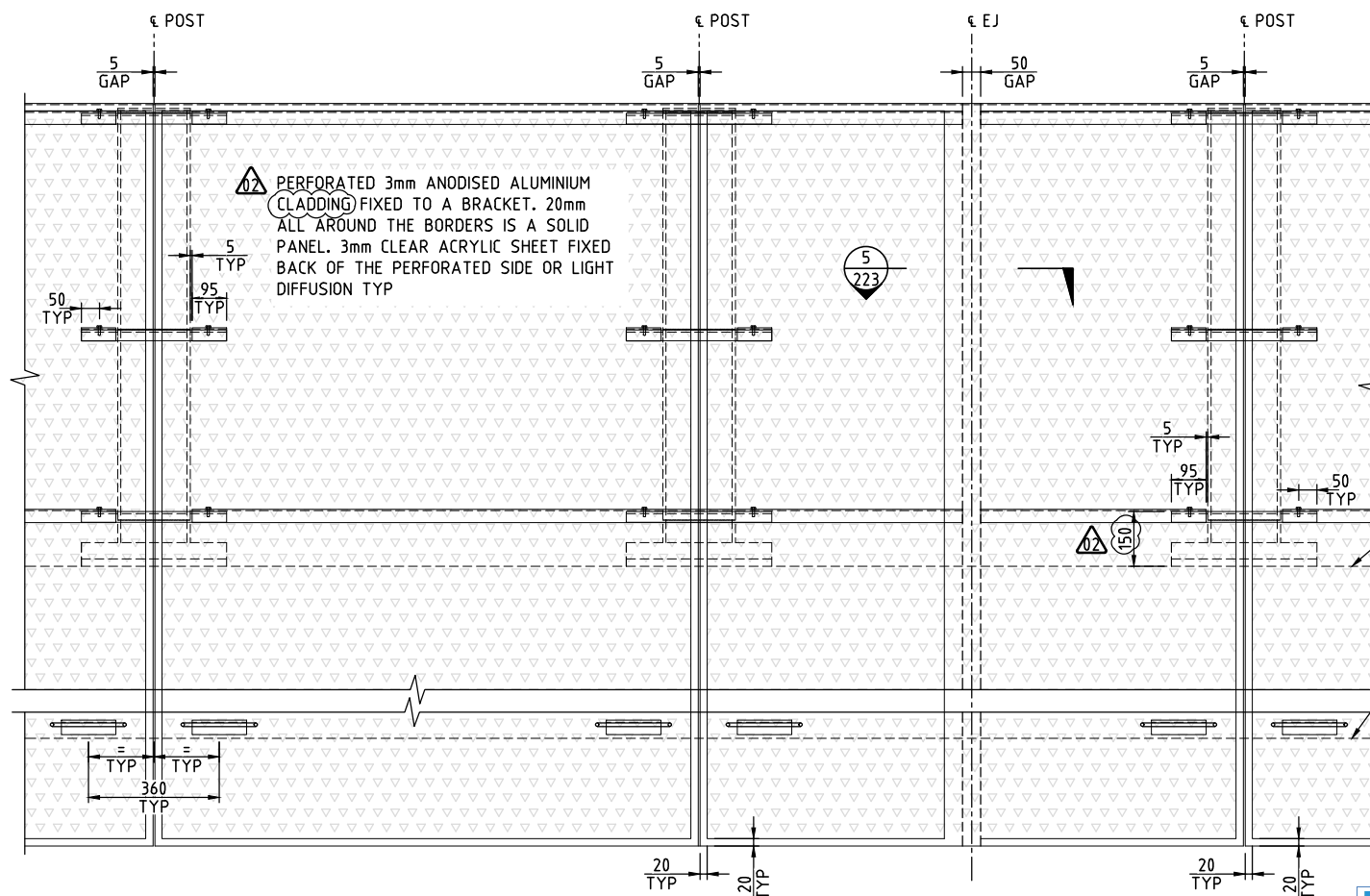
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EXTERNAL REFERENCE FILES				REV	DATE	AMENDMENT / REVISION DESCRIPTION		WVR No.	APPROVAL	TITLE	NAME	SCALES AT A1 SIZE DRAWING	DESIGNER SMEC Member of the Surbana Jurong Group © ABN 47 065 475 149 LEVEL 5, 20 BERRY STREET NORTH SYDNEY NSW 2060 SMEC PROJECT No 30013046	CLIENT FRASERS PROPERTY	PROJECT TITLE SHRIMPTON CREEK BRIDGE CLADDING DETAILS SHEET A	SCALE	PHASE	PROJECT / DRAWING No.	REVISION
				01	20.08.2021	ISSUED FOR TENDER		001	JD	DRAFTER	T.SABAPATHI					AS NOTED	TENDER	30013046-221	02
				02	14.10.2021	ISSUED FOR TENDER		002	JD	DRAFTING CHECK	V.S.KODURU								
										DESIGNER	V.S.KODURU								
										DESIGN CHECK	V.BALAKRISHNAN								
										PROJECT MANAGER	J.DICKERSON								
										PROJECT DIRECTOR	K.LUV								



DETAIL
SCALE 1:10

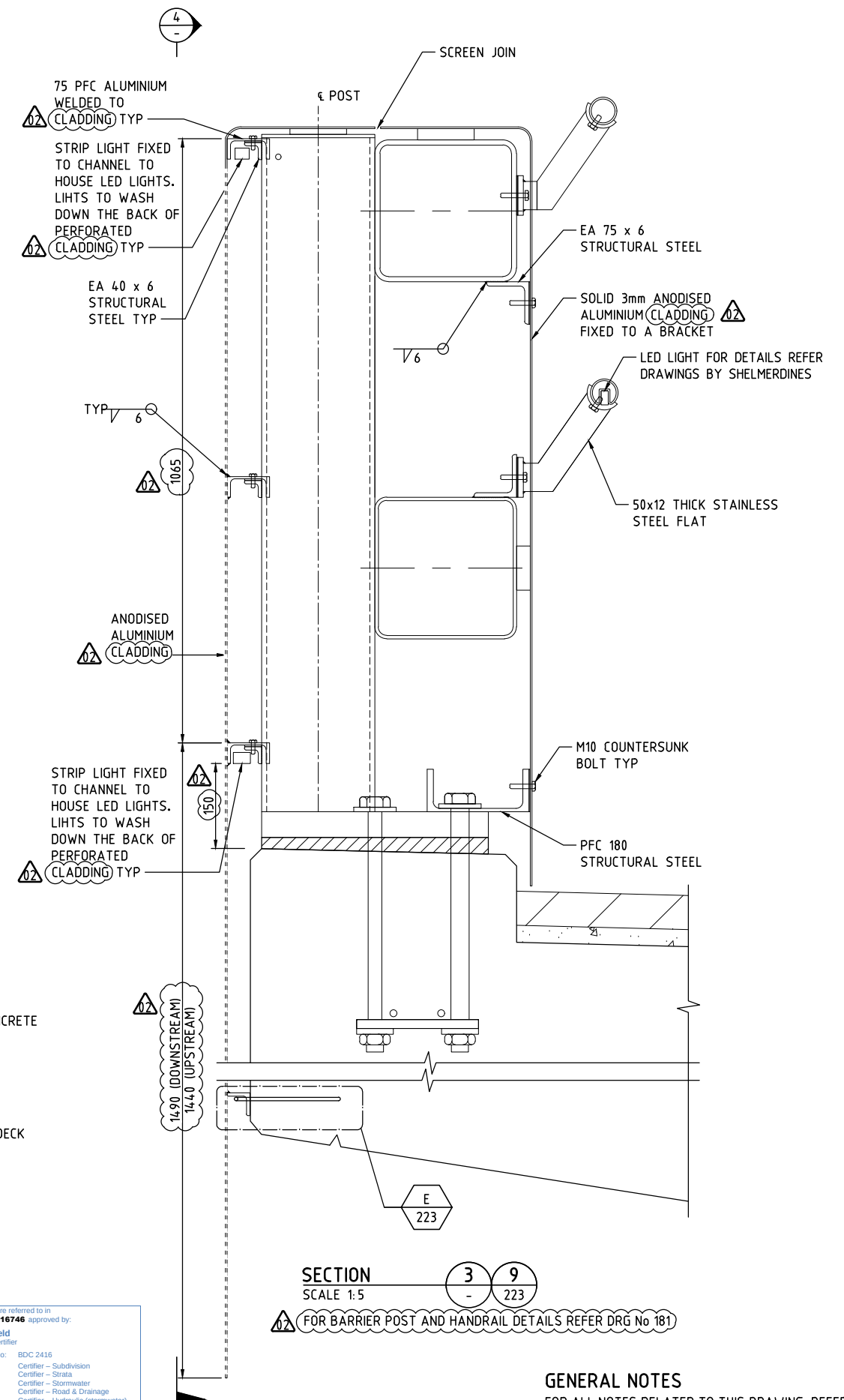
C 221 D 221

SIMILAR BUT TO
OPPOSITE HAND



VIEW
SCALE 1:10

4



SECTION
SCALE 1:5

3 9
- 223

FOR BARRIER POST AND HANDRAIL DETAILS REFER DRG No 181

GENERAL NOTES
FOR ALL NOTES RELATED TO THIS DRAWING, REFER DRG No 223.



DRAWING FILE LOCATION / NAME V:_Vault\Projects\3001\30013046\110_CADD\CADD\DWG\30013046-222.dwg				PLOT DATE 14 Oct 2021		TIME 00:31:22	
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	02	14.10.2021	ISSUED FOR TENDER	002	JD	DRAFTING CHECK	V.S.KODURU
						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUV
SCALES AT A1 SIZE DRAWING				DESIGNER			
				 Member of the Surbana Jurong Group © ABN 47 065 475 149 LEVEL 5, 20 BERRY STREET NORTH SYDNEY NSW 2060 SMC PROJECT No 30013046			
				CLIENT			
PROJECT TITLE				SHRIMPTON CREEK BRIDGE			
				CLADDING DETAILS SHEET B			
SCALE	PHASE	PROJECT / DRAWING No.		REVISION			
AS NOTED	TENDER	30013046-222		02			

150 mm ON ORIGINAL

A1

V:\30013046\X_BROG_SHEC_A1

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DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
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						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU
REV	DATE	AMENDMENT / REVISION DESCRIPTION					
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02	14.10.2021	ISSUED FOR TENDER					

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02	14.10.2021	ISSUED FOR TENDER					

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02	14.10.2021	ISSUED FOR TENDER					

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						PROJECT DIRECTOR	K.LUU
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02	14.10.2021	ISSUED FOR TENDER					

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						PROJECT DIRECTOR	K.LUU
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02	14.10.2021	ISSUED FOR TENDER					

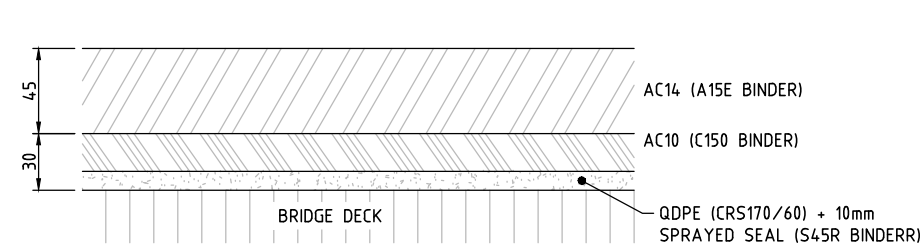
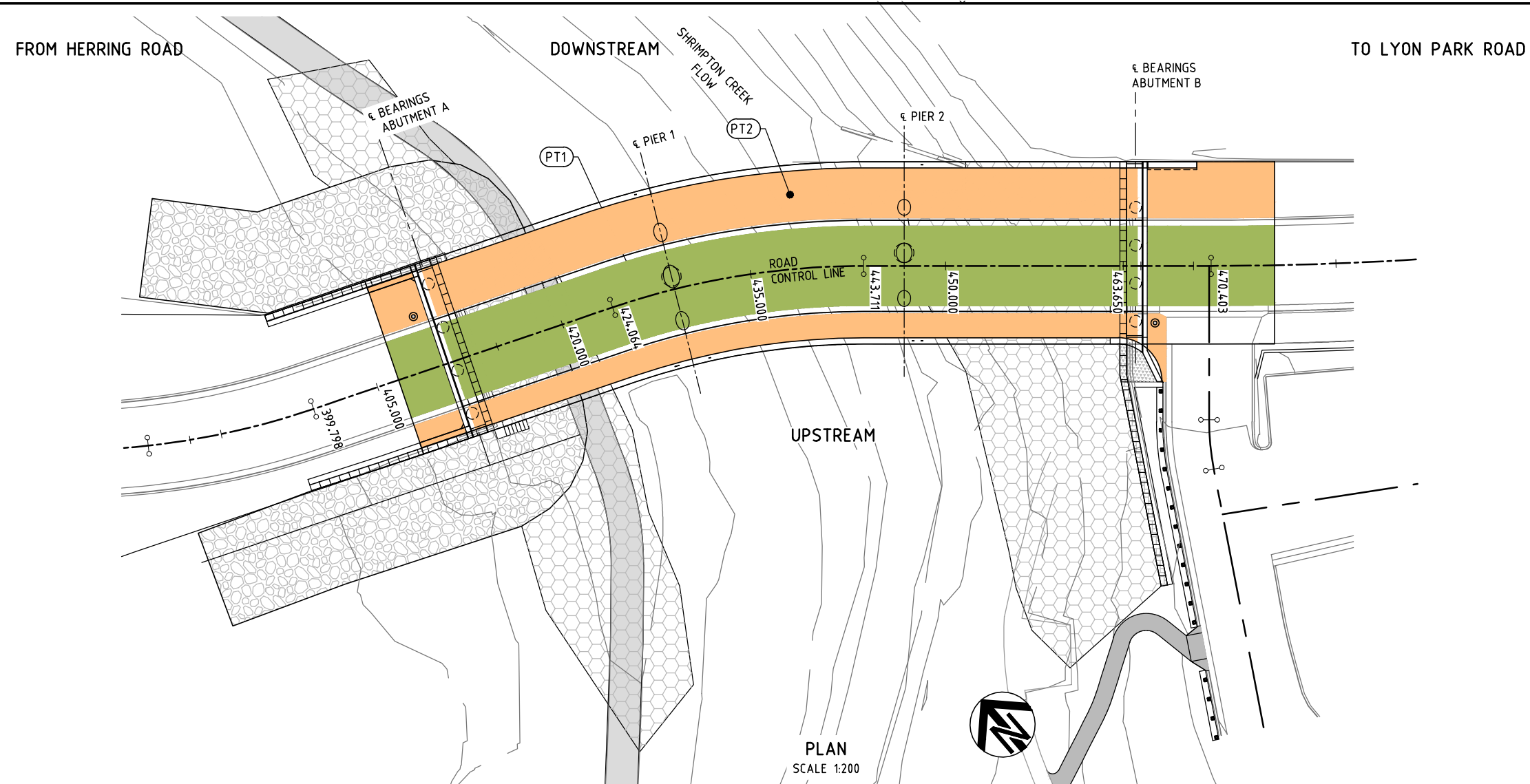
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						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU
REV	DATE	AMENDMENT / REVISION DESCRIPTION					
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						DESIGNER	V.S.KODURU
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						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU
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02	14.10.2021	ISSUED FOR TENDER					

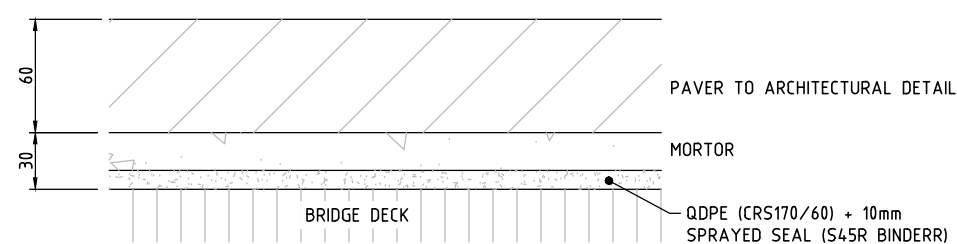
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						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU
REV	DATE	AMENDMENT / REVISION DESCRIPTION					
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						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU
REV	DATE	AMENDMENT / REVISION DESCRIPTION					
01	20.08.2021	ISSUED FOR TENDER					
02	14.10.2021	ISSUED FOR TENDER					

150 mm ON A1	50	DRAWING FILE LOCATION / NAME					PLOT DATE		TIME			
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	10					02	14.10.2021	ISSUED FOR TENDER				DRAFTING CHECK
	0											DESIGNER
								DESIGN CHECK				
								PROJECT MANAGER				
												PROJECT DIRECTOR



PAVEMENT TYPE - PT1
NOT TO SCLAE



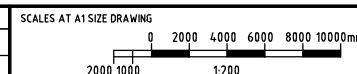
PAVEMENT TYPE - PT2
NOT TO SCLAE



GENERAL NOTES

ALL DIMENSIONS ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
TREATMENT OF CONCRETE SURFACE FOR APPROACH SLABS AND BRIDGE DECK
TO BE IN ACCORDANCE WITH TfNSW QA SPECIFICATION B312.

DRAWING FILE LOCATION / NAME V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-230.dwg							PLOT DATE 14 Oct 2021		TIME 00:30:28		
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									DRAFTING CHECK	V.S.KODURU	
									DESIGNER	V.S.KODURU	
									DESIGN CHECK	V.BALAKRISHNAN	
									PROJECT MANAGER	J.DICKERSON	
								PROJECT DIRECTOR	K.LUI		



DESIGNER

 **SMEC**

Member of the Surbana Jurong Group

© ABN 47 065 475 149

LEVEL 5, 20 BERRY STREET
NORTH SYDNEY NSW 2060

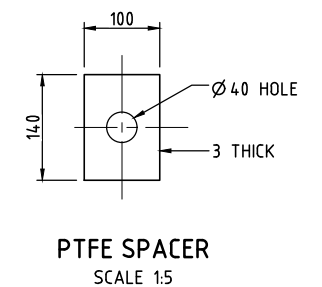
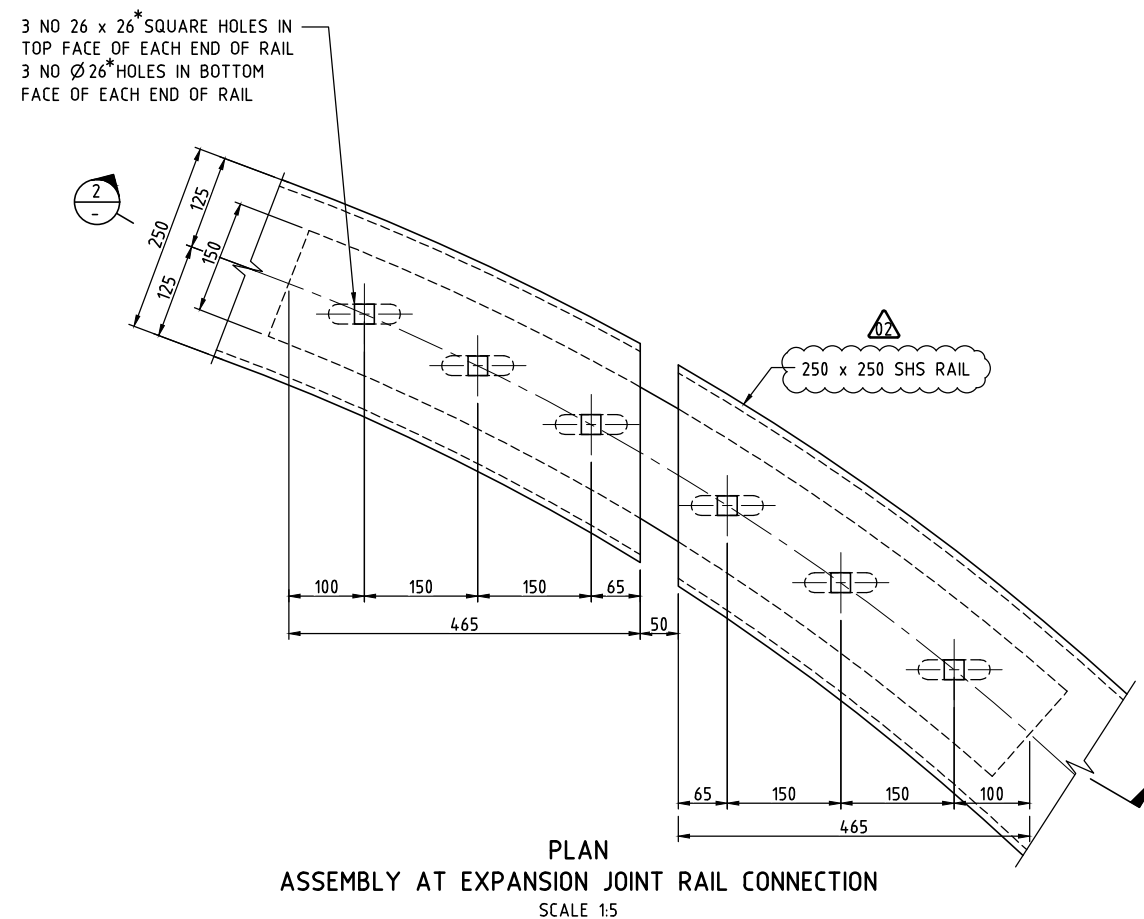
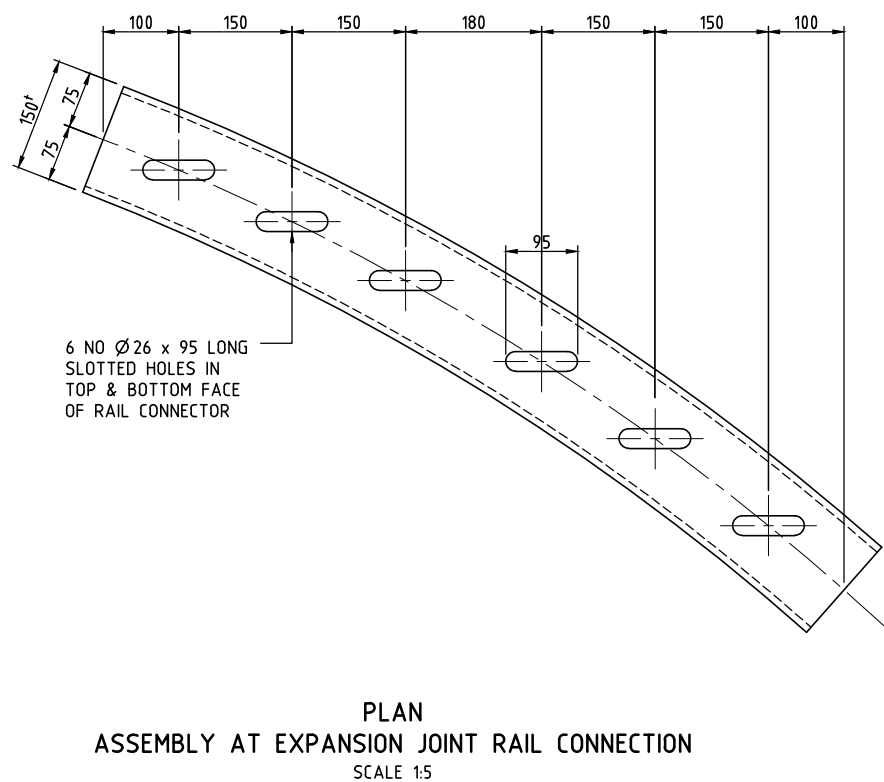
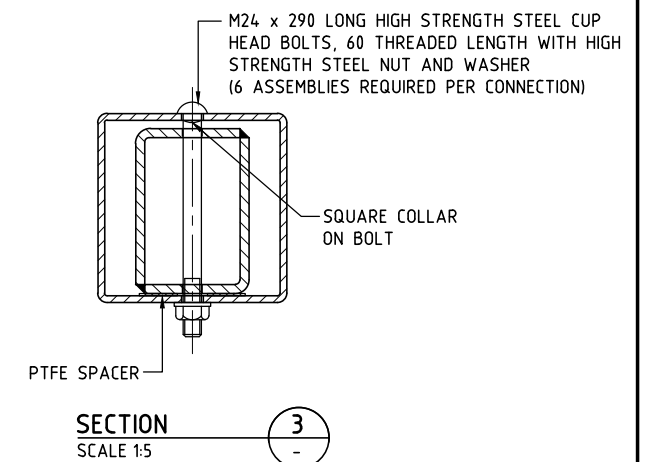
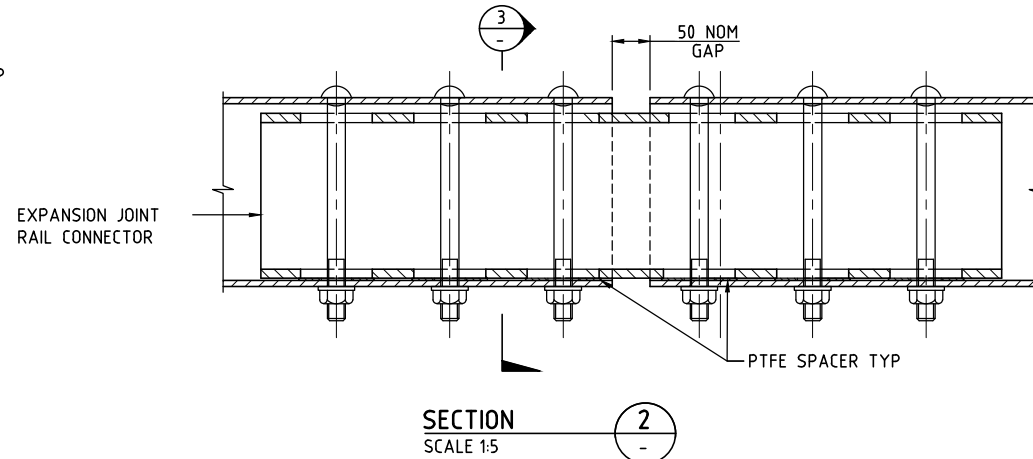
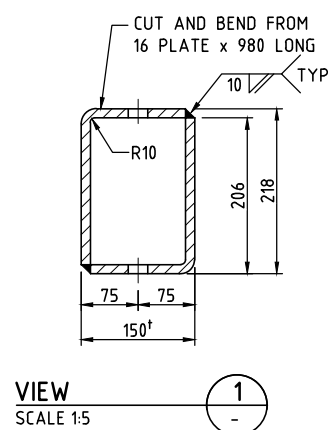
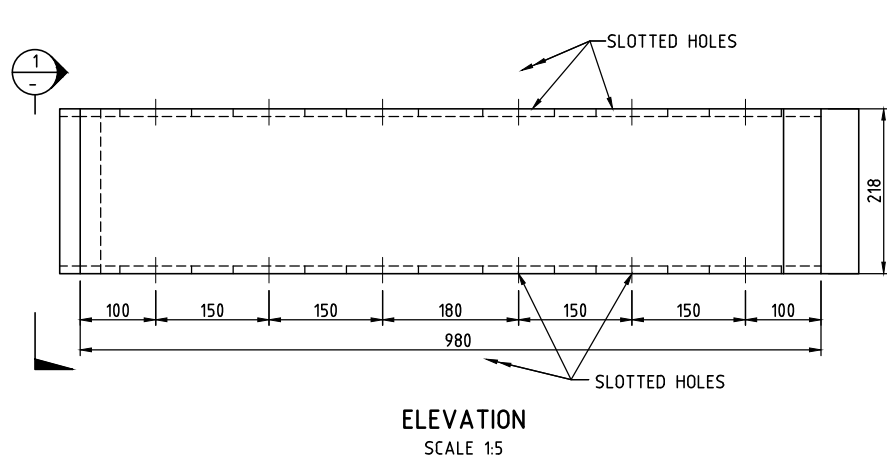
SMEC PROJECT NO 30013046

CLIENT

 **FRASERS**
PROPERTY

PROJECT TITLE	SHRIMPTON CREEK BRIDGE
	BRIDGE AND APPROACH SLAB PAVEMENT DETAILS

SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-230	01



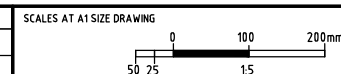
DETAIL AT EXPANSION JOINT CONNECTION

(FOR 250 x 250 SHS RAIL)



GENERAL NOTES
FOR GENERAL NOTES RELATED TO THIS DRAWING, REFER DRG No 182.

DRAWING FILE LOCATION / NAME				PLOT DATE		TIME	
V:_Vault\Projects\3001\30013046\110_CADD\CAD\DWG\30013046-235.dwg				14 Oct 2021		00:32:09	
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	02	14.10.2021	ISSUED FOR TENDER	002	JD	DRAFTING CHECK	V.S.KODURU
						DESIGNER	V.S.KODURU
						DESIGN CHECK	V.BALAKRISHNAN
						PROJECT MANAGER	J.DICKERSON
						PROJECT DIRECTOR	K.LUU



PROJECT TITLE			
SHRIMPTON CREEK BRIDGE			
RAIL SPLICE DETAILS AT CURVE LOCATION			
SCALE	PHASE	PROJECT / DRAWING No.	REVISION
AS NOTED	TENDER	30013046-235	02