MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

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REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	RR	
B	MAR 28, 2017	ISSUED FOR APPROVAL	RR	DA
A	MAR 23, 2017	PRELIMINARY	RR	PK

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PROJECT: MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE: COVER PAGE

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
	RON RIEMENS	7472	000-E-01	0

REFERENCE DRAWINGS:

- BC MINISTRY OF FORESTS DRAWINGS.
  STD-EC-000-01, STD-EC-010-02, STD-EC-050-03, 04, 06 & 07.

DESIGN SPECIFICATIONS:

- DESIGN CODE: CAN/CSA-S6-06, MODIFIED IN ACCORDANCE WITH THE BC MINISTRY OF FORESTS BRIDGE DESIGN & CONSTRUCTION MANUAL.
- DEAD LOAD INCLUDES ALLOWANCE FOR 50mm THICK ASPHALT WEARING SURFACE.
- LIVE LOAD: L100

ERECTION LOADING: (NON-COMPOSITE CONSTRUCTION LOAD CAPACITY)

- SELF WEIGHT OF THE STRUCTURE, SUPPORTED AT THE BEARINGS, INCLUDING ALL THE DECK PANELS IN POSITION BUT UNGROUTED.
- A LIVE LOAD OF 445 kN (40 TON EQUIPMENT + 10 TON PANEL) DISTRIBUTED OVER A LENGTH OF 4M, POSITIONED ON THE BRIDGE TO PRODUCE THE MAXIMUM EFFECT: ECCENTRICITY = 100mm
- LOAD FACTORS IN ACCORDANCE WITH CAN/CSA-S6-06
- MIN DLA = 10% (ASSUMED DESIGN SPEED = 10KM/HR)

ASSEMBLY & INSTALLATION:

- IN ACCORDANCE WITH CAN/CSA-S6-06.
- BACKFILL BEHIND BALLAST WALLS SHALL BE FREE-DRAINING GRANULAR MATERIAL

STEEL SPECIFICATIONS:

- ALL STEEL PLATE SHALL COMPLY TO CSA-G40.21-13 GRADE 350AT CAT 3.
- ALL STEEL ANGLES SHALL COMPLY TO GRADE 350A OR A588.
- PIPE PILING SHALL CONFORM TO ASTM A252 GR2.
- ALL WELDING IN ACCORDANCE WITH C.S.A. W-59. WELD METAL SHALL MEET THE CVN TOUGHNESS REQUIREMENTS OF TABLE 10.14 OF CAN/CSA-S6-06 FOR A MINIMUM SERVICE TEMPERATURE OF < -40° C.
- UNLESS OTHERWISE SPECIFIED ALL BOLTS FOR STEEL WORK SHALL BE ASTM GRADE A325 TYPE 3.
- NELSON STUDS TO CONFORM TO A.S.T.M. A108 GRADE 1015, 1018 OR 1020. AND SHALL MEET APPENDIX H OF CSA W59 FOR TYPE B STUDS.
- BEARING STIFFENERS SHALL BE FIT TO BEAR AGAINST THE BOTTOM FLANGE. ALL OTHER DIAPHRAGM STIFFENERS SHALL HAVE A A TIGHT FIT AGAINST BOTH FLANGES. INTERMEDIATE TRANSVERSE STIFFENERS SHALL HAVE A TIGHT FIT AGAINST THE TOP FLANGE.
- TERMINATE FILLET WELDS 10mm FROM STIFFENER AND GUSSET CORNERS.

ELASTOMERIC BEARING SPECIFICATIONS:

- BEARINGS SHALL CONFORM TO TABLE 11.5 OF CAN/CSA-S6-06
  NATURAL RUBBER

GROUT SPECIFICATIONS:

- GROUT SHALL BE NON-SHRINK, PORTLAND CEMENT BASED INSTALLED IN ACCORANCE WITH THE MANUFACTURERS INSTRUCTIONS, MINIMUM COMPRESSIVE STRENGTH SHALL BE 35 MPa. @ 28 DAYS.

HARDWARE SPECIFICATIONS:

- FASTENERS SHALL CONFORM TO ASTM A307 GALVANIZED IN ACCORDANCE WITH ASTM A123/123M

NOTES:

- UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE IN mm.
- UNLESS OTHERWISE SPECIFIED ALL HOLES TO BE 24mm DIA.

PRECAST CAN/CSA CONCRETE SPECIFICATIONS:

CONCRETE: IN ACCORDANCE WITH CAN/CSA-A23.1

MIX DESIGN	108.0
COMPRESSIVE STRENGTH @ 28 DAYS	35 MPa
STRIPPING STRENGTH	20 MPa
ENTRAINED AIR	5% TO 8%
SLUMP	180±40 mm
EXPOSURE CLASS	C1
CONCRETE TEMPERATURE AT POUR	10°C TO 30°C

REBAR: CSA G30.18M GRADE 400W
FINISH: TOP SURFACE OF DECK PANELS - TRANSVERSE BROOM.
OTHER TOP SURFACES - SMOOTH FLOAT
FORMED SURFACES - SMOOTH FORM
TOLERANCE: IN ACCORDANCE WITH CSA A23.4
MANUFACTURE: IN ACCORDANCE WITH CSA A23.4

NOTICE:

- THESE DRAWINGS ARE FOR THE BRIDGE COMPONENTS DETAILED HEREIN ONLY. RAPID-SPAN IS NOT RESPONSIBLE FOR THE OVERALL BRIDGE DESIGN. THE ENGINEER OF RECORD SHALL VERIFY THE INFORMATION PRESENTED IN THESE DRAWINGS IS COMPATIBLE WITH THE OVERALL DESIGN CONCEPT AND THAT HYDROLOGICAL, ROADWAY ALIGNMENT, TRAFFIC CONTAINMENT, GEOTECHNICAL AND ALL OTHER DESIGN CONSIDERATIONS ARE SATISFIED AND ARE CONSISTENT WITH REQUIREMENTS OF THE REGULATORY AUTHORITY.

- RAPID-SPAN'S SCOPE OF WORK DOES NOT INCLUDE FIELD INSPECTION SERVICES. THE ENGINEER OF RECORD SHALL VERIFY THE SUPPLIED COMPONENTS ARE INSTALLED IN ACCORDANCE WITH THESE DRAWINGS.

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0	APR 20, 2017	ISSUED FOR CONSTRUCTION	RR	
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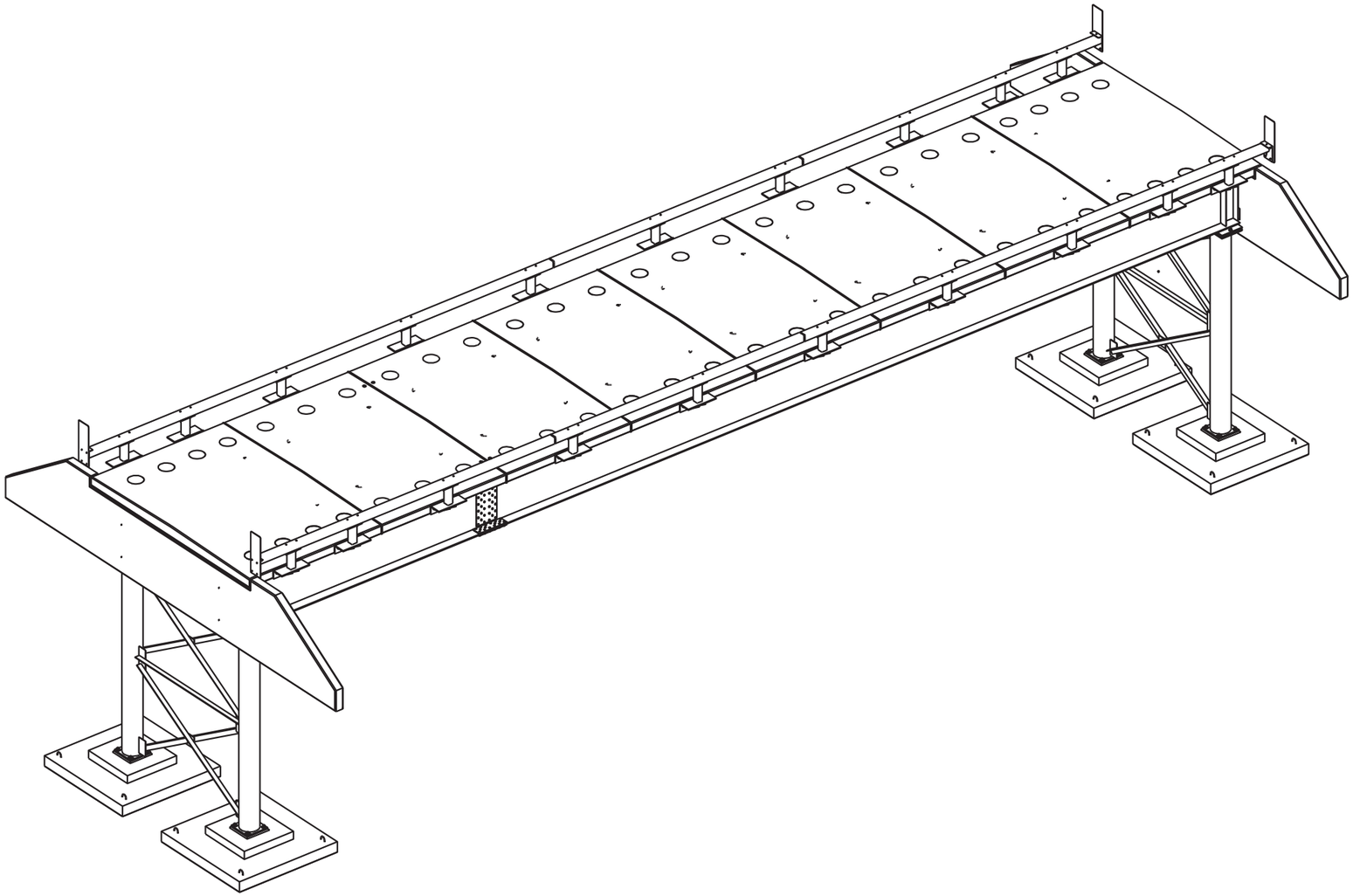
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. J. KING
May. 01, 2017

PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
GENERAL NOTES

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	RON RIEMENS	7472	010-E-01	0



GENERAL ARRANGEMENT - 3D
1:100

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION OR NAME	SIZE	WEIGHT
GA1	1	GIRDER	440 x 1276 x 6443	3939.2
GA2	1	GIRDER	440 x 1375 x 18301	10422.3
GB1	1	GIRDER	440 x 1276 x 6443	3944.0
GB2	1	GIRDER	440 x 1375 x 18301	10417.5
954P1	20	RAIL POST WELDMENT	269 x 583 x 680	2761.3
954R2	2	RAIL WELDMENT	152 x 152 x 6356	1081.0
954R3	2	RAIL WELDMENT	152 x 152 x 11638	1975.0
EBA1	2	EXPANSION BEARING ASSEMBLY	76 x 500 x 700	658.5
EDSW1	2	END DIAPHRAGM STRUT WELDMENT	115 x 225 x 3556	282.1
FBA1	2	FIXED BEARING ASSEMBLY	76 x 500 x 700	658.5
IDSW1	3	INT. DIAPHRAGM STRUT WELDMENT	112 x 225 x 3556	402.6
SBCW1	4	STEEL BENT COLUMN WELDMENT	500 x 500 x 4525	3193.4
A	2	END DECK PANEL	4876 x 250 x 3230	37794.9
B	4	INTERMEDIATE DECK PANEL	4876 x 250 x 3028	70788.5
BW	2	BALLAST WALL	1719 x 10173 x 200	30491.5
C	2	INTERIOR DECK PANEL	4876 x 250 x 3028	35309.9
F	4	TYPE S3 FOOTING	2400 x 2400 x 425	36656.4
P0000393	77	TARGET COARSE TRAFFIC PATCH	55 LB BAG	4235
P0000394	28	TARGET FINE TRAFFIC PATCH	55 LB BAG	1540
954M1	4	DELINEATOR MOUNT	9.5 x 250 x 431	72.4
954R1	2	RAIL	HSS152x152x9.5x7310	1237.3
EV1	2	EVAZOTE	25.0 x 200 x 4926	1.6
EV2	4	EVAZOTE	25.0 x 200 x 175	0.1
L1	7	LATERAL BRACE DIAGONAL	L127x127x7.9x4753	1140.1
L2	10	DIAPHRAGM DIAGONAL	L102x102x9.5x1824	583.9
L3	8	STRUT	L102x102x9.5x3556	1480.1
L4	4	STEEL BENT STRUT	L102x102x9.5x3164	405.2
L5	8	STEEL BENT DIAGONAL	L102x102x9.5x3640	932.4
P0000029	2	LEFT HAND DELINEATOR	1'-0" x 3'-0"	7.0
P0000030	2	RIGHT HAND DELINEATOR	1'-0" x 3'-0"	7.0
P0000033	2	NARROW BRIDGE SIGN	762 x 762	14.0
P0000042	1	XYMAX MONOGUARD 5 GAL	5 GALLON PAIL	50.0
PL13	8	STEEL BENT GUSSET	9.5 x 200 x 350	92.1
PL14	4	STEEL BENT GUSSET	9.5 x 200 x 500	65.8
PL15	4	STEEL BENT SPACER	9.5 x 200 x 200	26.3
TSPF1	2	CCA TREATED SIGN POST	4" x 4" x 10'-0"	58.8
78F214	92	ASTM A325-3 BOLT ASSEMBLY	7/8" DIA. x 2 1/4" LONG	83.2
78F234	92	ASTM A325-3 BOLT ASSEMBLY	7/8" DIA. x 2 3/4" LONG	91.3
78F2	28	ASTM A325-3 BOLT ASSEMBLY	7/8" DIA. x 2" LONG	24.1
78F312	96	ASTM A325-3 BOLT ASSEMBLY	7/8" DIA. x 3 1/2" LONG	105.8
34F9	44	ASTM A307A-BUTTONHEAD HDG BOLT	3/4" DIA. x 9" LONG	57.2
	44	ASTM A563A-HDG HEX NUT	3/4" DIA.	2.6
	44	ASTM F844-HDG STANDARD FW	3/4" DIA.	2.6
38F3	4	ASTM A307A-HDG LAG BOLT	3/8" DIA. x 3" LONG	0.2
	4	ASTM F844-HDG STANDARD FW	3/8" DIA.	0.0
1F214	60	ASTM A307A-HEX HEAD HDG BOLT	1" DIA. x 2 1/4" LONG	46.3
	60	ASTM F844-HDG STANDARD FW	1" DIA.	7.9
58F112	16	ASTM A307A-HEX HEAD HDG BOLT	5/8" DIA. x 1 1/2" LONG	4.2
	16	ASTM A563A-HDG HEX NUT	5/8" DIA.	0.3
	16	ASTM F844-HDG STANDARD FW	5/8" DIA.	0.4

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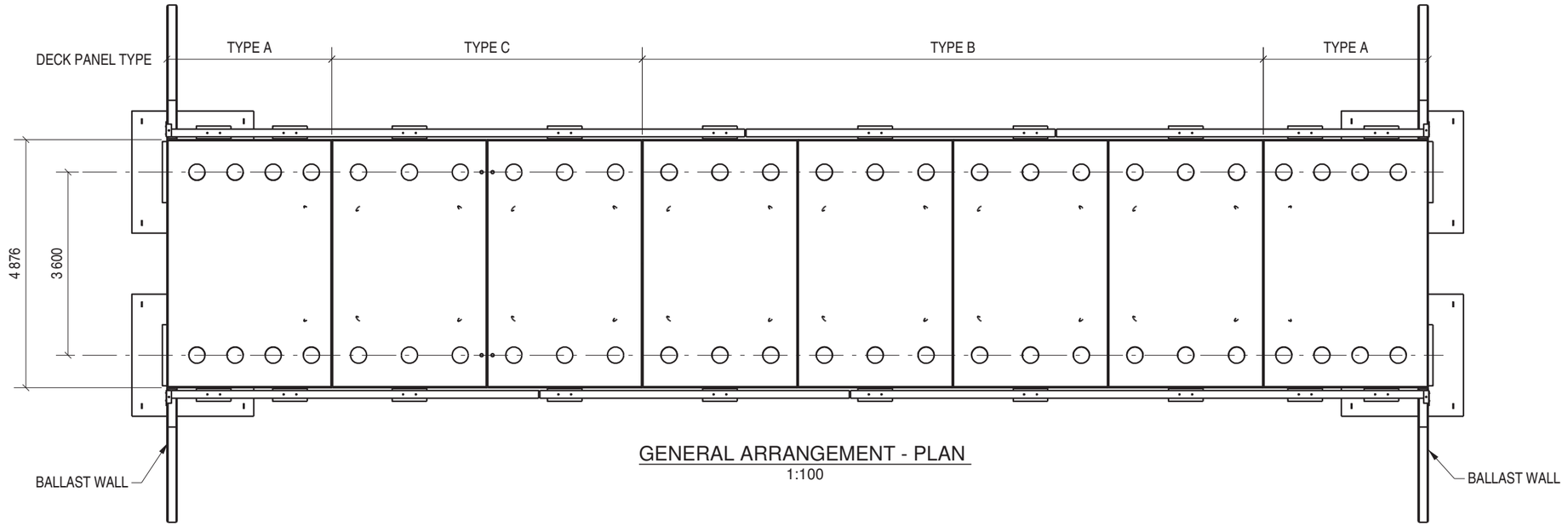
PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
3D GA AND SHIPPING BOM

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
	RON RIEMENS	7472	020-E-01	0



GENERAL ARRANGEMENT - PLAN
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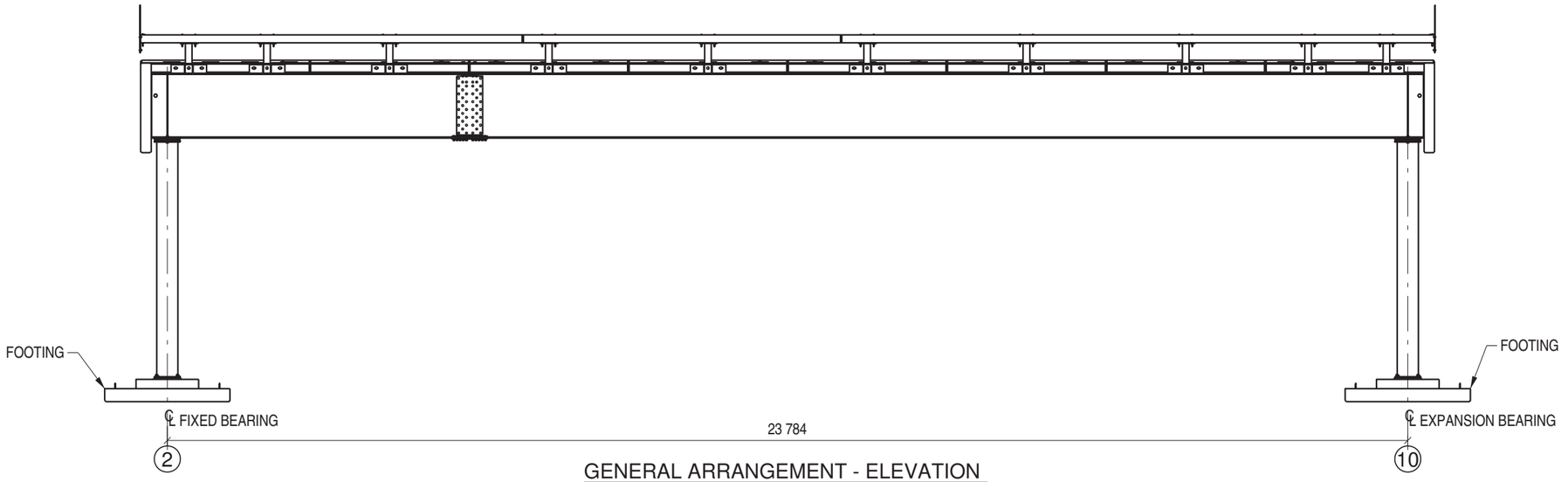

GENERAL ARRANGEMENT - ELEVATION
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MINISTRY OF FORESTS
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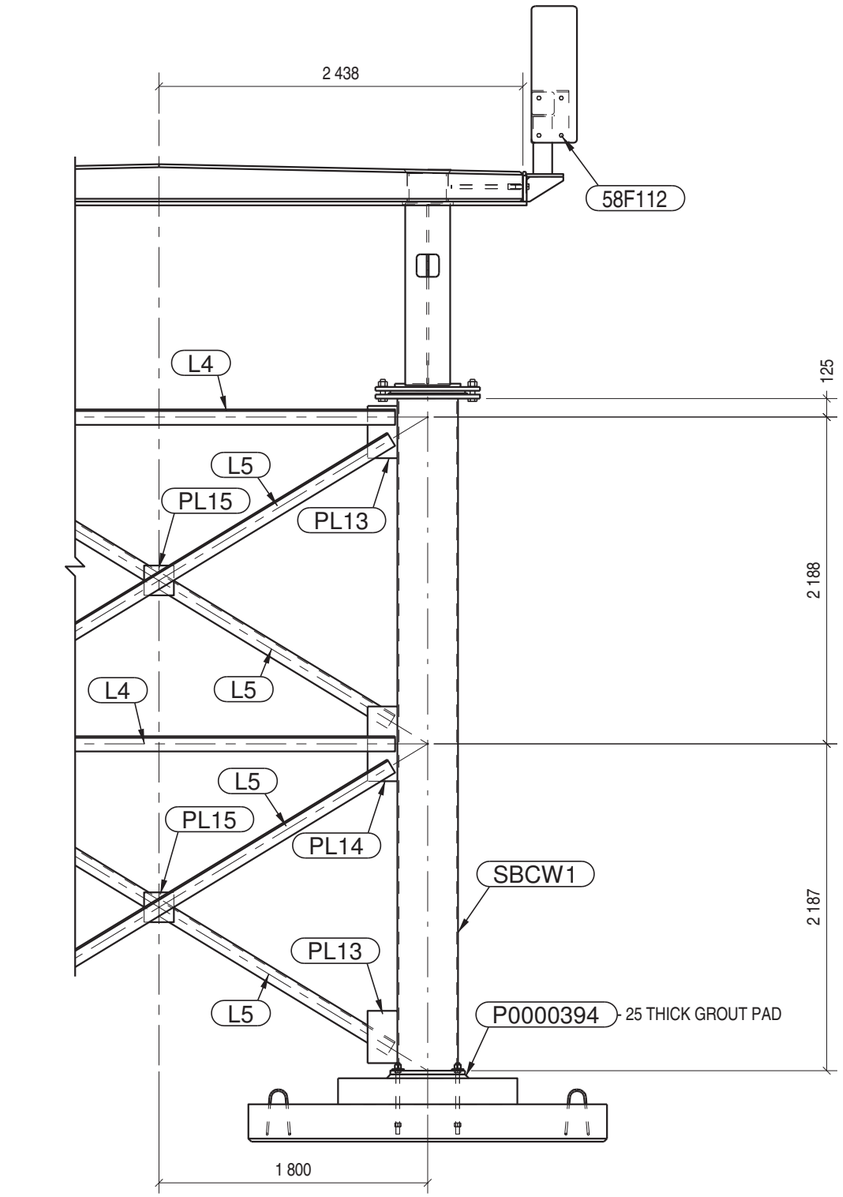
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
GENERAL ARRANGEMENT

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
	RON RIEMENS	7472	020-E-02	0



TYPICAL ABUTMENT ELEVATION
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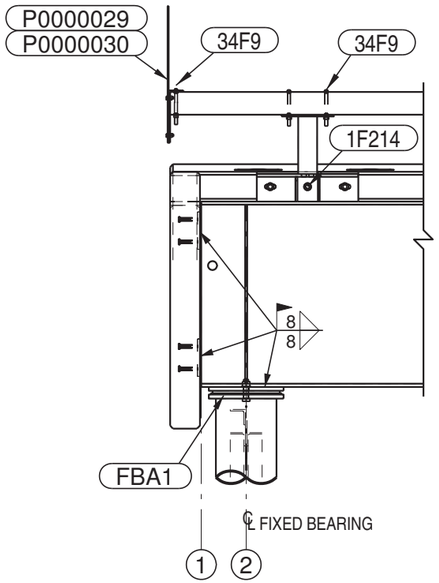

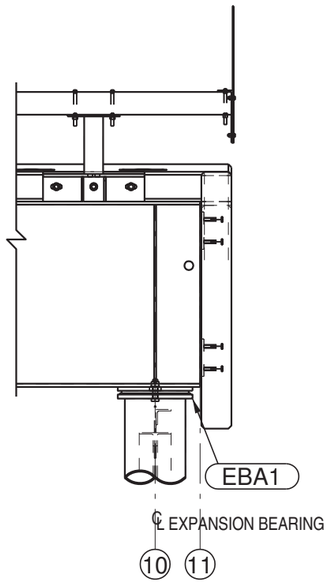

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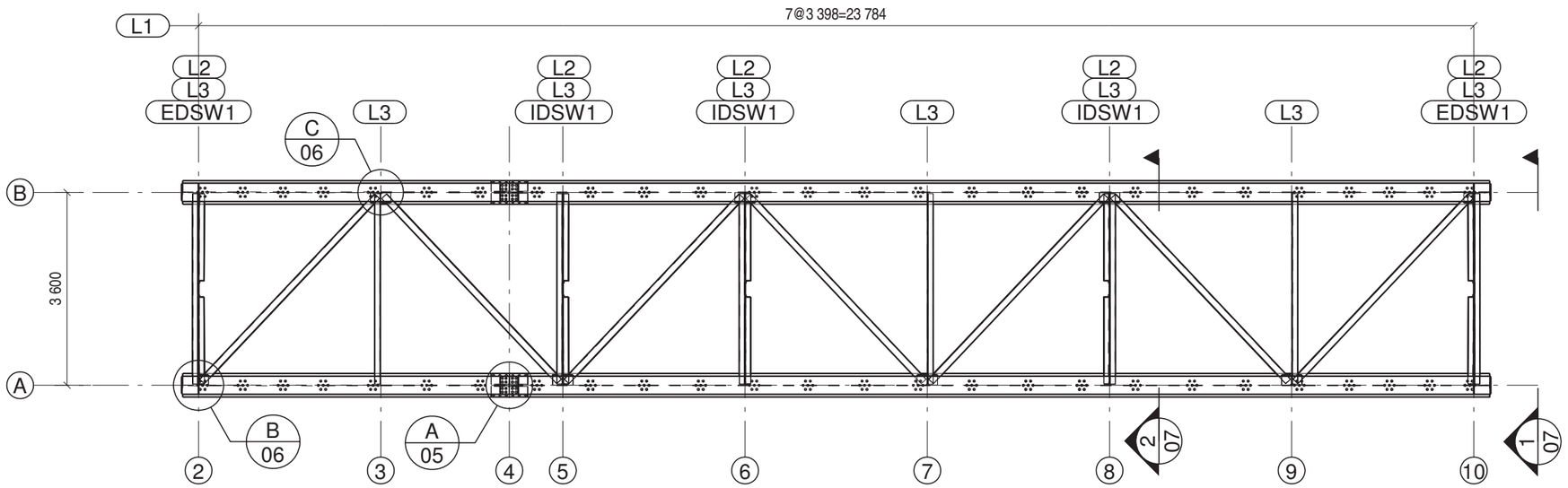
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
ABUTMENT AND CURB DETAILS

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
	RON RIEMENS	7472	020-E-03	0



GENERAL ARRANGEMENT - PLAN
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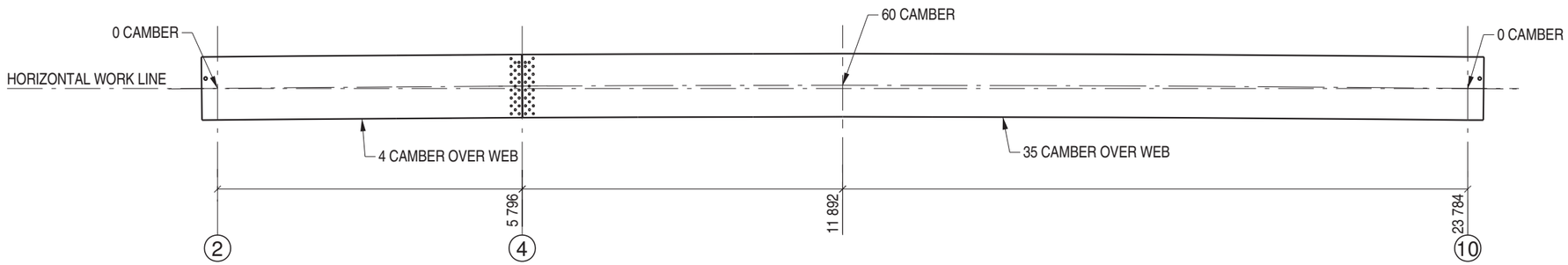

CAMBER DIAGRAM
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PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. J. KING
May. 01, 2017

PROJECT:
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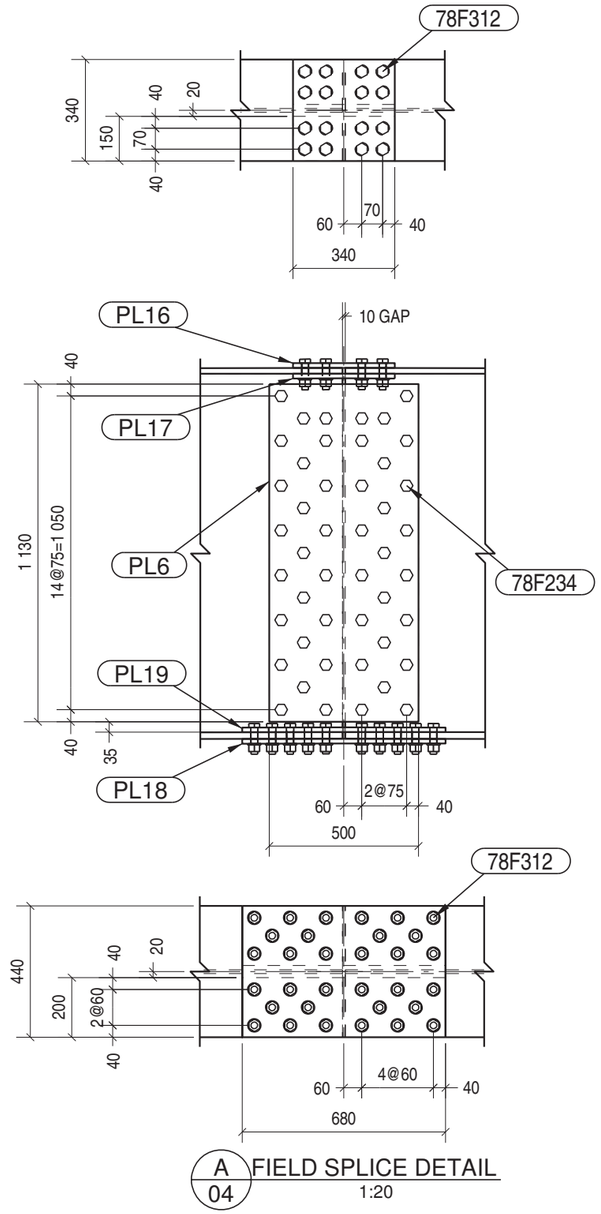
TITLE:
STEEL SUPERSTRUCTURE LAYOUT

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	RON RIEMENS	7472	020-E-04	0



A 04 FIELD SPLICE DETAIL
1:20

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PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — P. J. KING

May. 01, 2017

PROJECT:
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STRUCTURE NUMBER N2-224A
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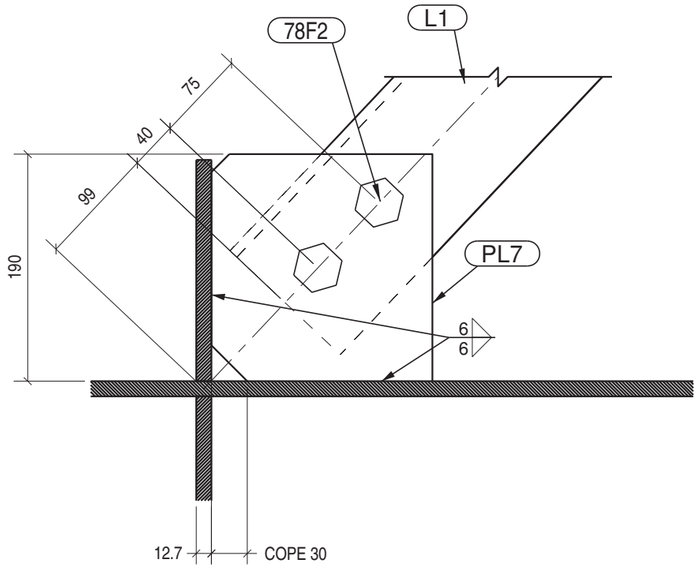
TITLE:
GIRDER FIELD SPLICE DETAIL

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	RON RIEMENS	7472	020-E-05	0



B 04 LATERAL BRACE DETAIL
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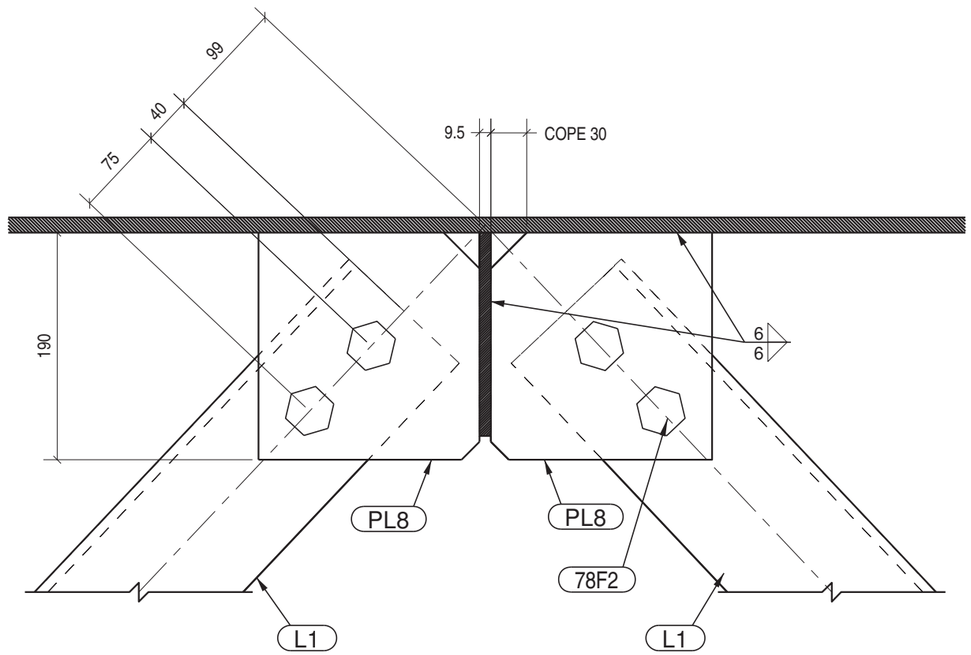

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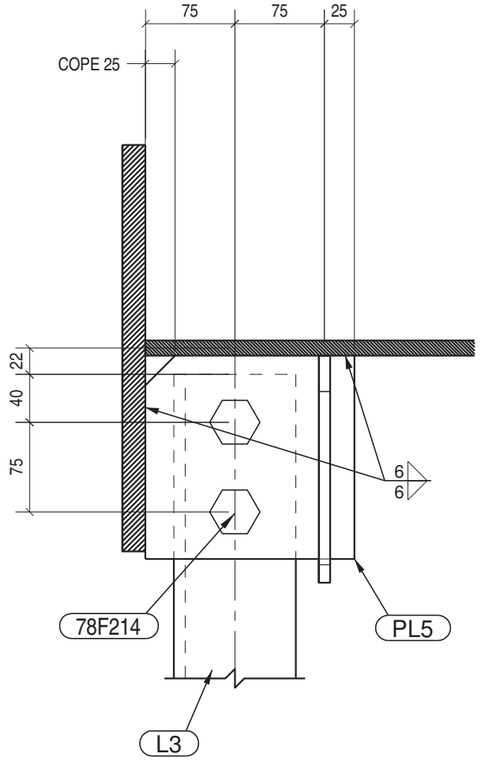

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	RR	
B	MAR 28, 2017	ISSUED FOR APPROVAL	RR	DA
A	MAR 23, 2017	PRELIMINARY	RR	PK

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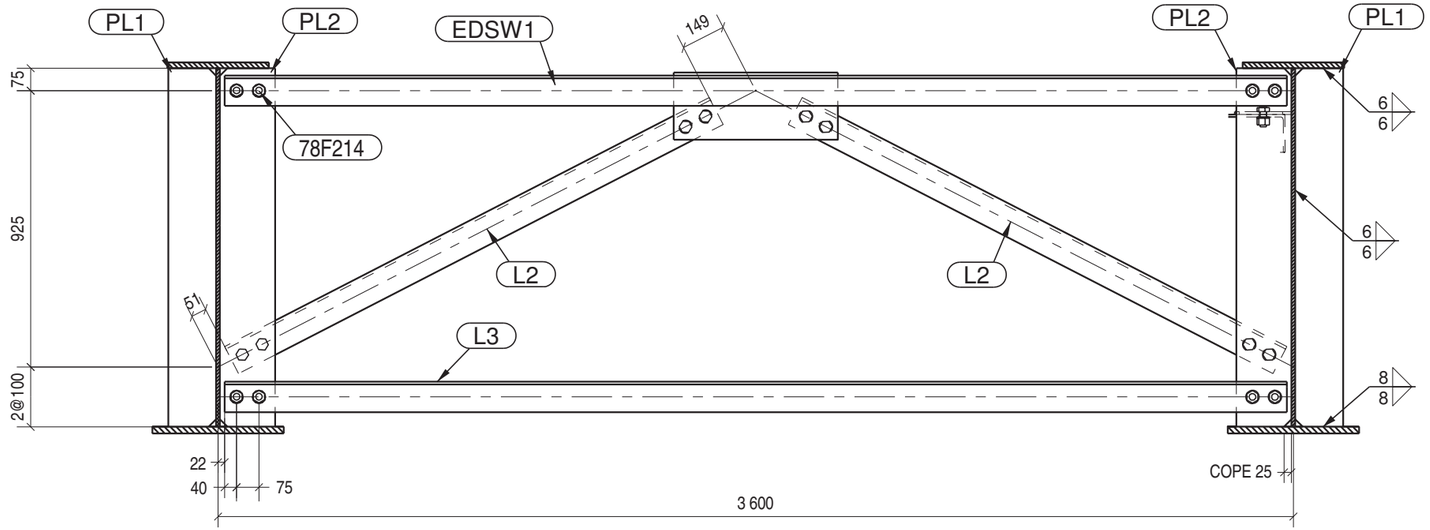
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. J. KING

May. 01, 2017

PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
LATERAL BRACE DETAILS

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	RON RIEMENS	7472	020-E-06	0



1/04 END DIAPHRAGM CROSS SECTION
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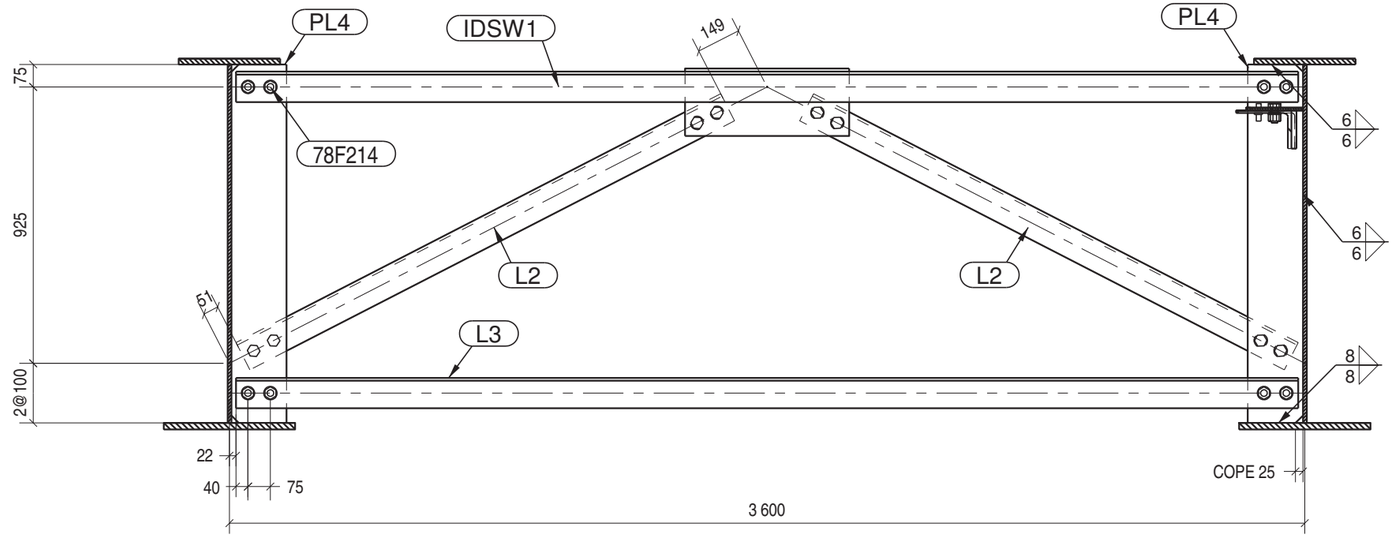

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REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	RR	
B	MAR 28, 2017	ISSUED FOR APPROVAL	RR	DA
A	MAR 23, 2017	PRELIMINARY	RR	PK

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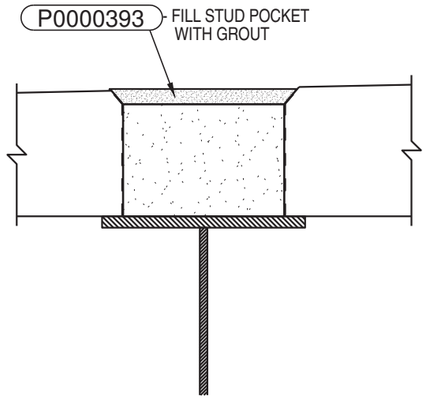
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — P. J. KING

May. 01, 2017

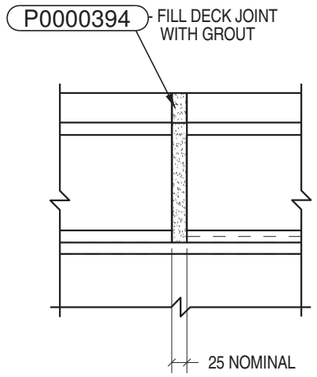
PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
DIAPHRAGM DETAILS

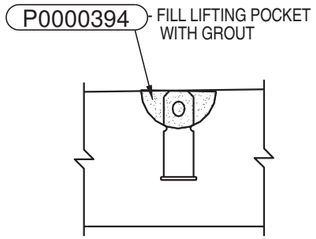
ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	RON RIEMENS	7472	020-E-07	0



TYPICAL STUD POCKET DETAIL
1:10



TYPICAL DECK JOINT DETAIL
1:10



LIFTING POCKET DETAIL
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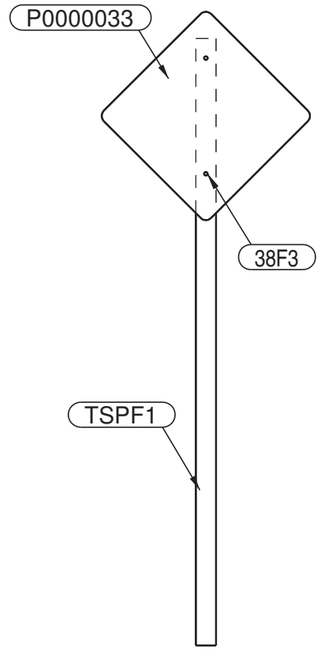
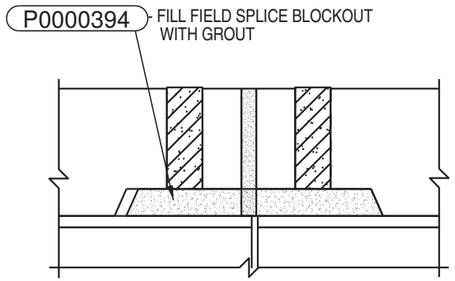
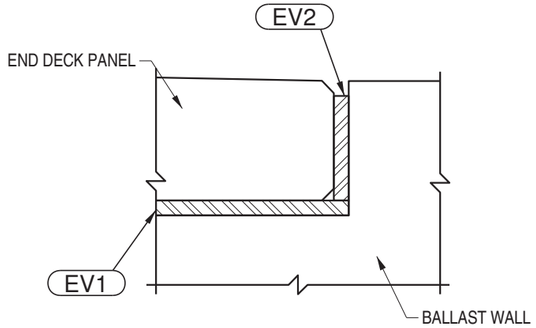


NARROW BRIDGE SIGN ASSEMBLY
1:30



FIELD SPLICE BLOCKOUT DETAIL
1:10



BALLAST WALL / DECK JOINT DETAIL
1:10

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	RR	
B	MAR 28, 2017	ISSUED FOR APPROVAL	RR	DA
A	MAR 23, 2017	PRELIMINARY	RR	PK

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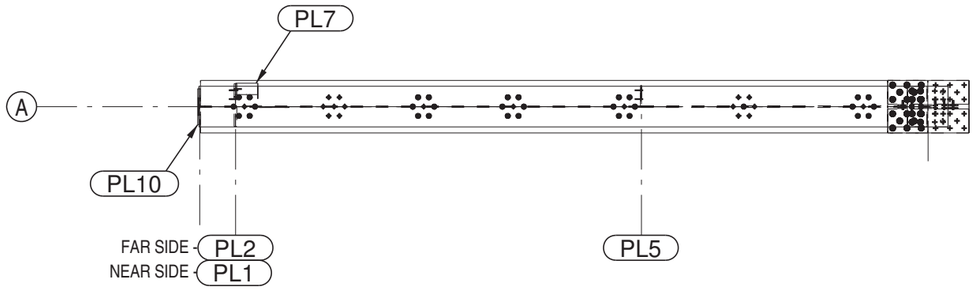
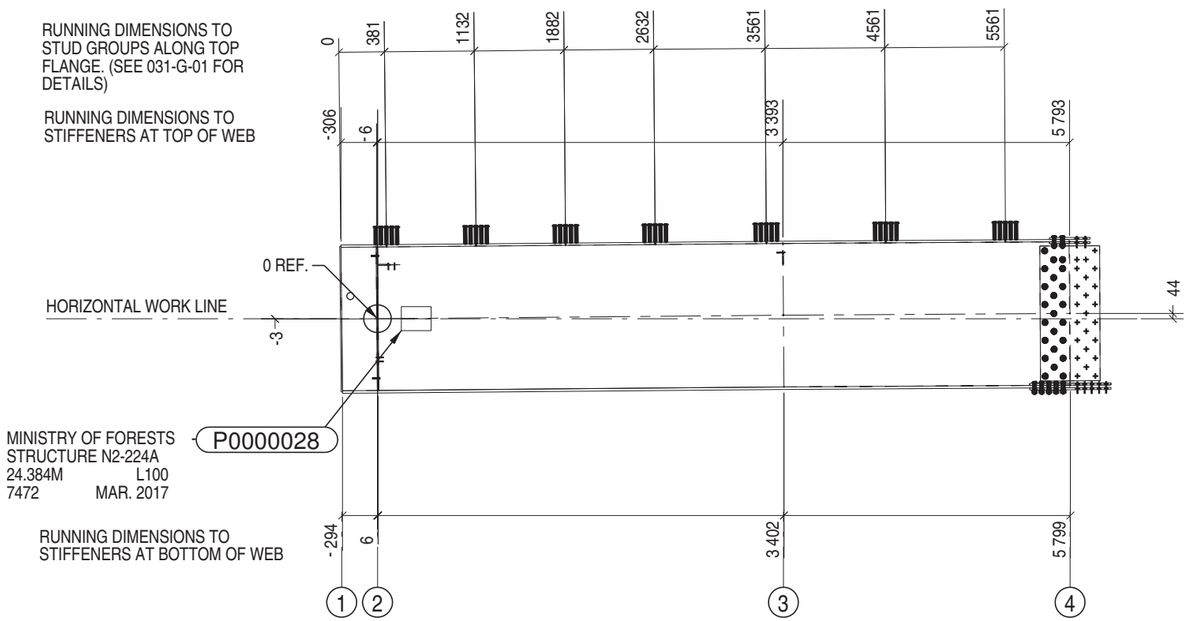
PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
DECK AND MISCELLANEOUS DETAILS

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
	RON RIEMENS	7472	020-E-08	0



GIRDER A1 PLAN
1:50



GIRDER A1 ELEVATION
1:50

RUNNING DIMENSIONS AT SPLICE
IS TO THE CENTER OF FIELD SPLICE

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION OR NAME	SIZE	WT.LBS. TOTAL
GA1	1	GIRDER	440 x 1276 x 6443	3939.2
BFA1-1	1	BOTTOM FLANGE PLATE	22.2 x 440 x 6088	1029.2
TFA1-1	1	TOP FLANGE PLATE	19.1 x 340 x 6094	684.9
WA1-1	1	CAMBERED WEB PLATE	12.7 x 1200 x 6140	1606.4
P0000028	1	IDENTIFICATION PLAQUE	200 x 250	0.9
PL1	1	BEARING STIFFENER	12.7 x 160 x 1200	42.1
PL2	1	END DIAPHRAGM STIFFENER	12.7 x 185 x 1200	48.7
PL5	1	LATERAL BRACE STRUT STIFFENER	9.5 x 170 x 175	4.8
PL6	2	WEB SPLICE PLATE	9.5 x 500 x 1130	185.8
PL7	1	LATERAL BRACE GUSSET	9.5 x 185 x 190	5.7
PL10	1	END PLATE	9.5 x 300 x 1220	56.6
PL16	1	TOP O/S FLANGE SPLICE PLATE	15.9 x 340 x 340	31.8
PL17	2	TOP I/S FLANGE SPLICE PLATE	15.9 x 150 x 340	28.1
PL18	1	BOTTOM O/S FLANGE SPLICE PLATE	15.9 x 440 x 680	82.3
PL19	2	BOTTOM I/S FLANGE SPLICE PLATE	15.9 x 200 x 680	74.8
78S6	49	ASTM A108 STUD	7/8" DIA. x 6" LONG	57.3

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	RR	
B	MAR 28, 2017	ISSUED FOR APPROVAL	RR	DA
A	MAR 23, 2017	PRELIMINARY	RR	PK

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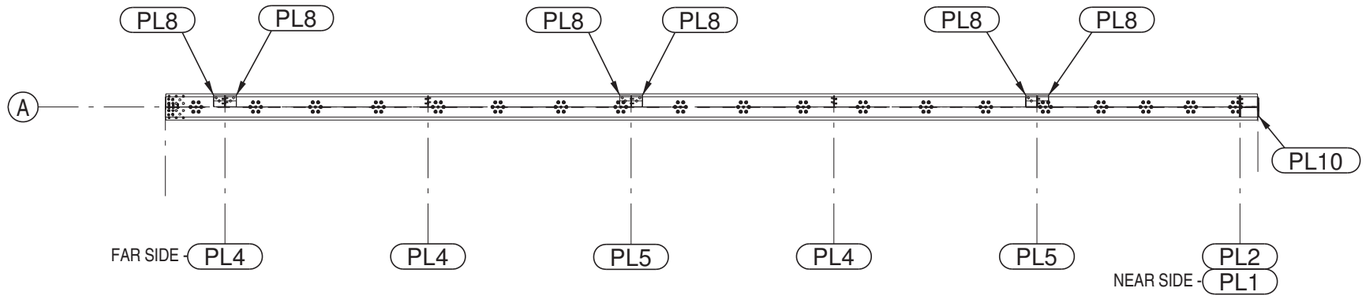
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. J. KING
May. 01, 2017

PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
GIRDER A1 LAYOUT

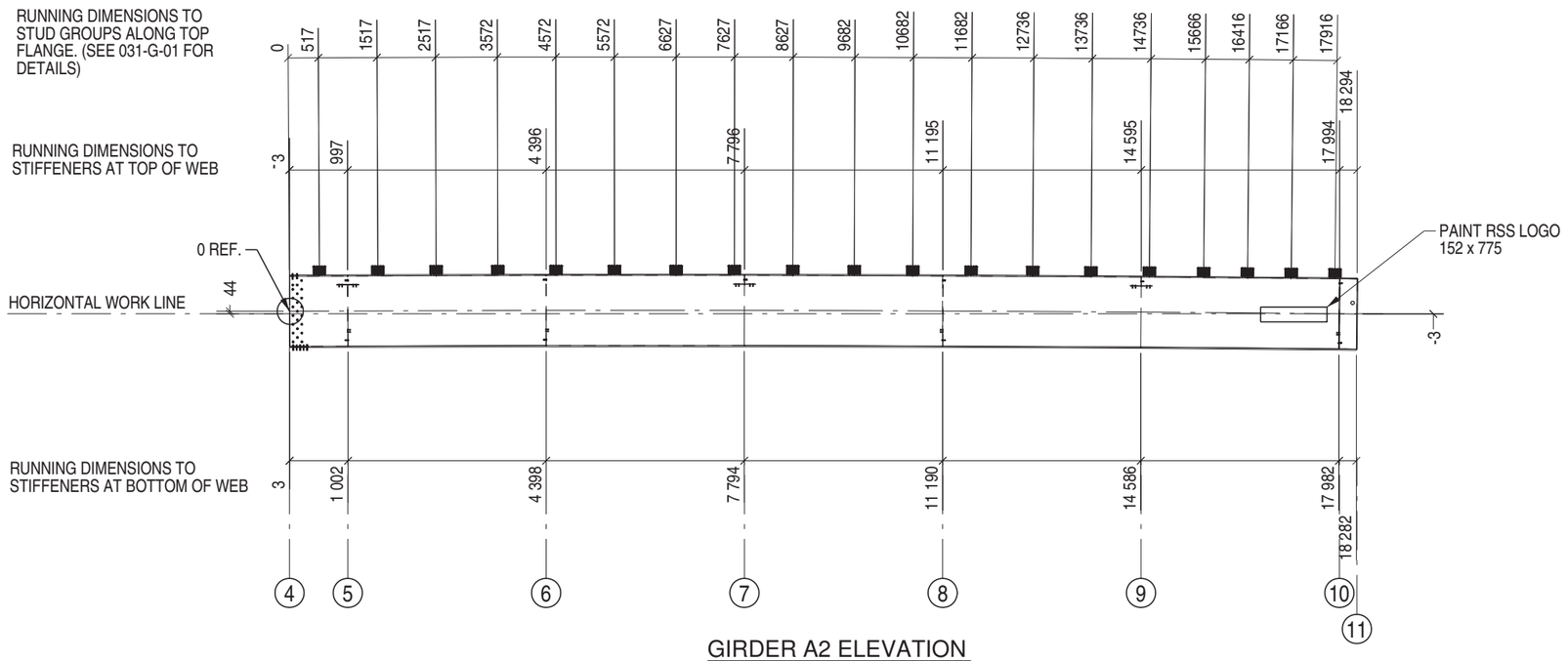
ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	RON RIEMENS	7472	030-GA1-01	0



GIRDER A2 PLAN
1:100

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION OR NAME	SIZE	WT.LBS. TOTAL
GA2	1	GIRDER	440 x 1375 x 18301	10422.3
BFA2-1	1	BOTTOM FLANGE PLATE	22.2 x 440 x 18274	3089.1
TFA2-1	1	TOP FLANGE PLATE	19.1 x 340 x 18293	2055.9
WA2-1	1	CAMBERED WEB PLATE	12.7 x 1200 x 18241	4821.6
PL1	1	BEARING STIFFENER	12.7 x 160 x 1200	42.1
PL2	1	END DIAPHRAGM STIFFENER	12.7 x 185 x 1200	48.7
PL4	3	INTERMEDIATE DIAPHRAGM STIFFENER	9.5 x 185 x 1200	109.2
PL5	2	LATERAL BRACE STRUT STIFFENER	9.5 x 170 x 175	9.7
PL8	6	LATERAL BRACE GUSSET	9.5 x 185 x 190	34.1
PL10	1	END PLATE	9.5 x 300 x 1220	56.6
78S6	133	ASTM A108 STUD	7/8" DIA. x 6" LONG	155.4



GIRDER A2 ELEVATION
1:100

RUNNING DIMENSIONS AT SPLICE
IS TO THE CENTER OF FIELD SPLICE

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	RR	
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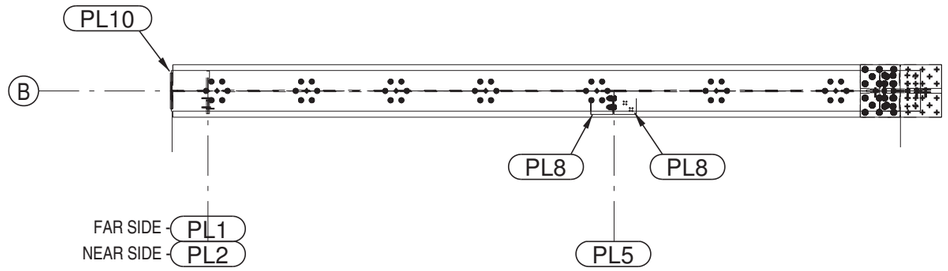
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. J. KING
May. 01, 2017

PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
GIRDER A2 LAYOUT

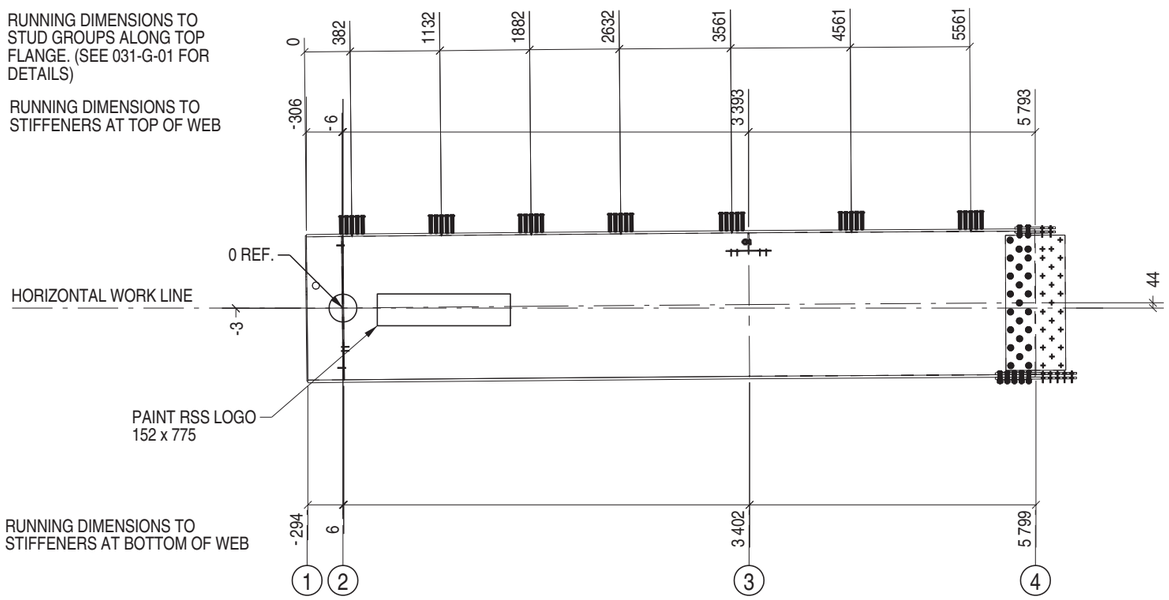
ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	RON RIEMENS	7472	030-GA2-01	0



GIRDER B1 PLAN
1:50

RUNNING DIMENSIONS TO STUD GROUPS ALONG TOP FLANGE. (SEE 031-G-01 FOR DETAILS)

RUNNING DIMENSIONS TO STIFFENERS AT TOP OF WEB



GIRDER B1 ELEVATION
1:50

RUNNING DIMENSIONS AT SPLICE IS TO THE CENTER OF FIELD SPLICE

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION OR NAME	SIZE	WT.LBS. TOTAL
GB1	1	GIRDER	440 x 1276 x 6443	3944.0
BFB1-1	1	BOTTOM FLANGE PLATE	22.2 x 440 x 6088	1029.2
TFB1-1	1	TOP FLANGE PLATE	19.1 x 340 x 6094	684.9
WB1-1	1	CAMBERED WEB PLATE	12.7 x 1200 x 6140	1606.4
PL1	1	BEARING STIFFENER	12.7 x 160 x 1200	42.1
PL2	1	END DIAPHRAGM STIFFENER	12.7 x 185 x 1200	48.7
PL5	1	LATERAL BRACE STRUT STIFFENER	9.5 x 170 x 175	4.8
PL6	2	WEB SPLICE PLATE	9.5 x 500 x 1130	185.8
PL8	2	LATERAL BRACE GUSSET	9.5 x 185 x 190	11.4
PL10	1	END PLATE	9.5 x 300 x 1220	56.6
PL16	1	TOP O/S FLANGE SPLICE PLATE	15.9 x 340 x 340	31.8
PL17	2	TOP I/S FLANGE SPLICE PLATE	15.9 x 150 x 340	28.1
PL18	1	BOTTOM O/S FLANGE SPLICE PLATE	15.9 x 440 x 680	82.3
PL19	2	BOTTOM I/S FLANGE SPLICE PLATE	15.9 x 200 x 680	74.8
78S6	49	ASTM A108 STUD	7/8" DIA. x 6" LONG	57.3

REV	DATE	DESCRIPTION	DRAWN	CHK
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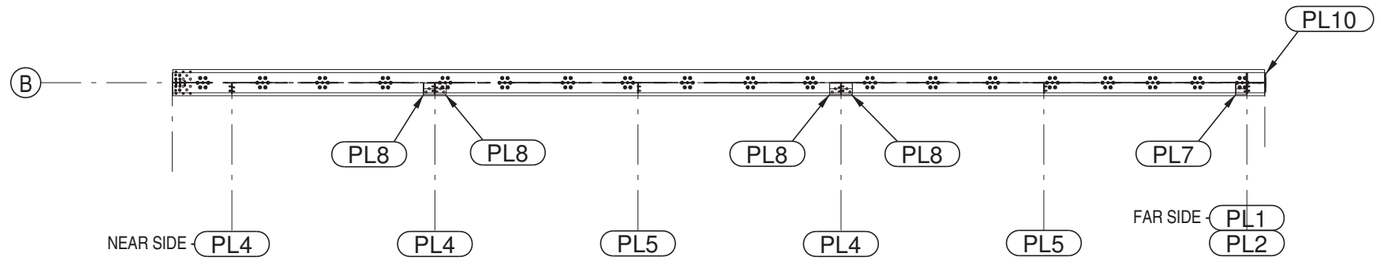
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — P. J. KING

May. 01, 2017

PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
GIRDER B1 LAYOUT

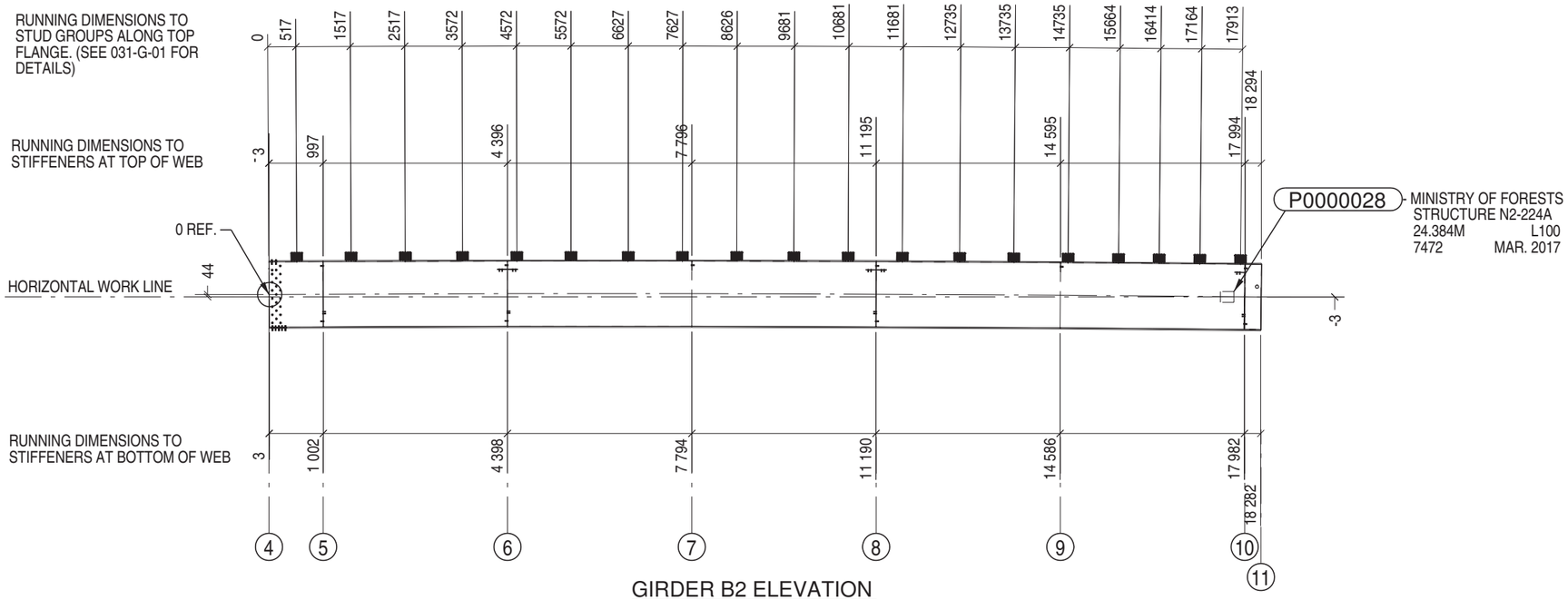
ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	RON RIEMENS	7472	030-GB1-01	0



GIRDER B2 PLAN
1:100

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION OR NAME	SIZE	WT.LBS. TOTAL
GB2	1	GIRDER	440 x 1375 x 18301	10417.5
BFB2-1	1	BOTTOM FLANGE PLATE	22.2 x 440 x 18274	3089.1
TFB2-1	1	TOP FLANGE PLATE	19.1 x 340 x 18293	2055.9
WB2-1	1	CAMBERED WEB PLATE	12.7 x 1200 x 18241	4821.6
P0000028	1	IDENTIFICATION PLAQUE	200 x 250	0.9
PL1	1	BEARING STIFFENER	12.7 x 160 x 1200	42.1
PL2	1	END DIAPHRAGM STIFFENER	12.7 x 185 x 1200	48.7
PL4	3	INTERMEDIATE DIAPHRAGM STIFFENER	9.5 x 185 x 1200	109.2
PL5	2	LATERAL BRACE STRUT STIFFENER	9.5 x 170 x 175	9.7
PL7	1	LATERAL BRACE GUSSET	9.5 x 185 x 190	5.7
PL8	4	LATERAL BRACE GUSSET	9.5 x 185 x 190	22.7
PL10	1	END PLATE	9.5 x 300 x 1220	56.6
78S6	133	ASTM A108 STUD	7/8" DIA. x 6" LONG	155.4



GIRDER B2 ELEVATION
1:100

RUNNING DIMENSIONS AT SPLICE
IS TO THE CENTER OF FIELD SPLICE

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	RR	
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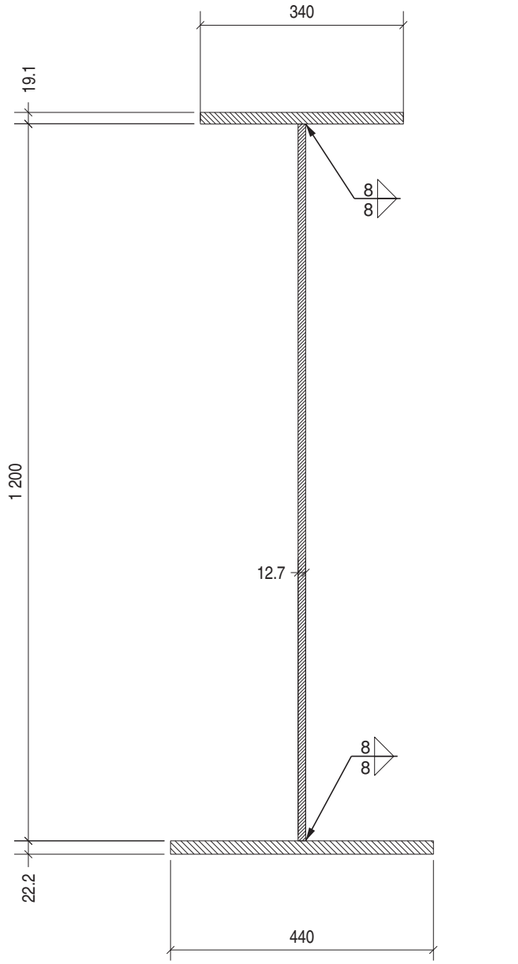
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. J. KING
May. 01, 2017

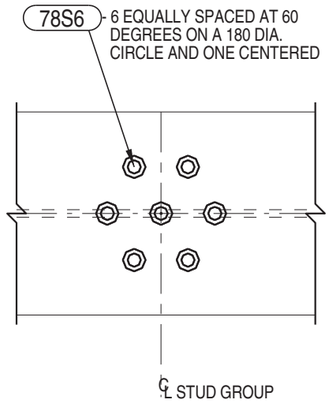
PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
GIRDER B2 LAYOUT

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	RON RIEMENS	7472	030-GB2-01	0



TYPICAL GIRDER CROSS SECTION
1:10



STUD GROUP DETAIL D
1:10

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	RR	
B	MAR 28, 2017	ISSUED FOR APPROVAL	RR	DA
A	MAR 23, 2017	PRELIMINARY	RR	PK

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PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — P. J. KING

May. 01, 2017

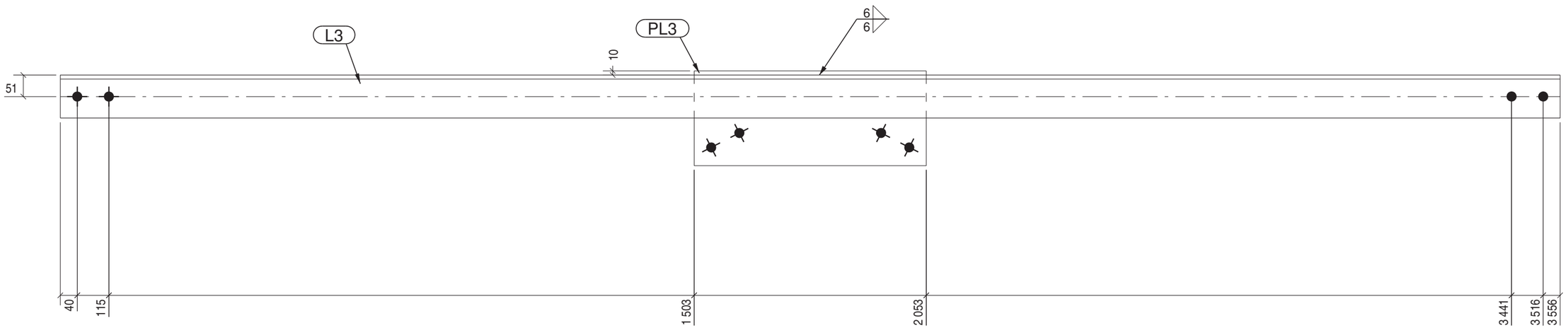
PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
GIRDER DETAILS

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	RON RIEMENS	7472	031-G-01	0

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION OR NAME	SIZE	WT.LBS. TOTAL
EDSW1	2	END DIAPHRAGM STRUT WELDMENT	115 x 225 x 3556	282.1
L3	2	STRUT	L102x102x9.5x3556	227.7
PL3	2	END DIAPHRAGM GUSSET	12.7 x 225 x 550	54.4



END DIAPHRAGM STRUT WELDMENT DETAIL
1:10

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	RR	
B	MAR 28, 2017	ISSUED FOR APPROVAL	RR	DA
A	MAR 23, 2017	PRELIMINARY	RR	PK

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PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — P. J. KING

May. 01, 2017

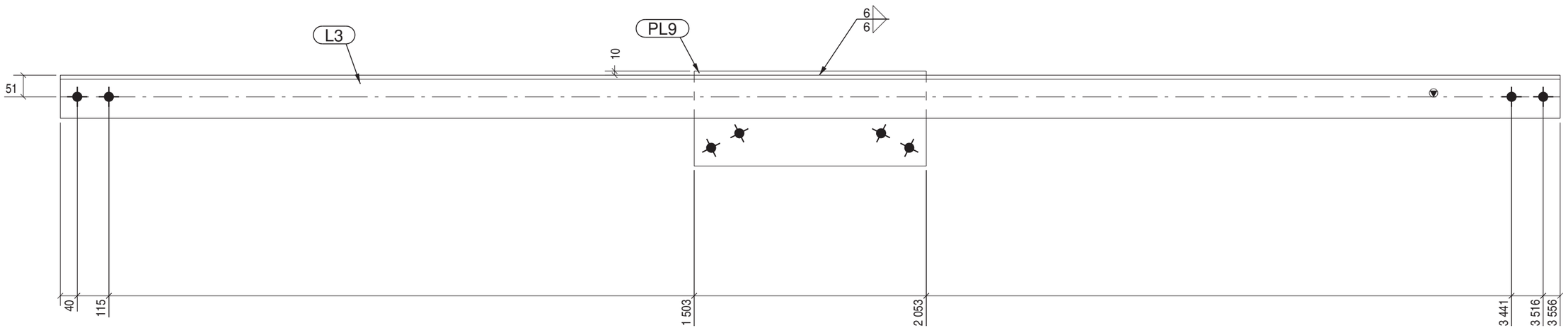
PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
END DIAPHRAGM STRUT WELDMENT DETAIL

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	RON RIEMENS	7472	032-EDSW1-01	0

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION OR NAME	SIZE	WT.LBS. TOTAL
IDSW1	3	INT. DIAPHRAGM STRUT WELDMENT	112 x 225 x 3556	402.6
L3	3	STRUT	L102x102x9.5x3556	341.6
PL9	3	INTERMEDIATE DIAPHRAGM GUSSET	9.5 x 225 x 550	61.0



INTERMEDIATE DIAPHRAGM STRUT WELDMENT DETAIL
1:10

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	RR	
B	MAR 28, 2017	ISSUED FOR APPROVAL	RR	DA
A	MAR 23, 2017	PRELIMINARY	RR	PK

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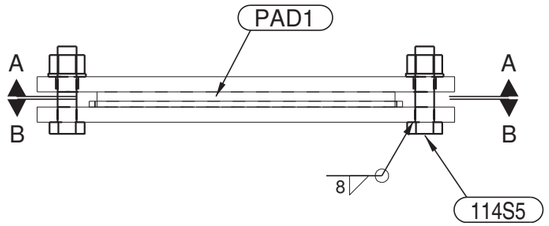
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — P. J. KING

May. 01, 2017

PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
INT. DIAPHRAGM STRUT WELDMENT DETAIL

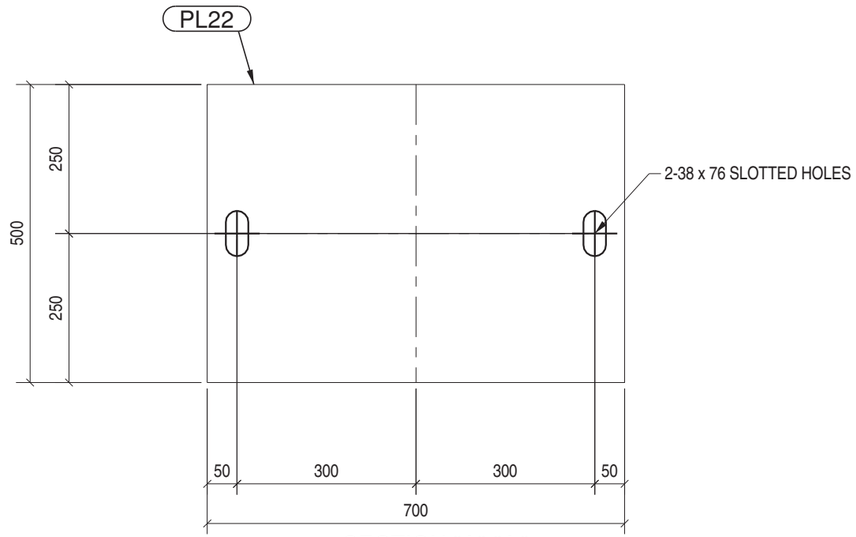
ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	RON RIEMENS	7472	032-IDSW1-01	0



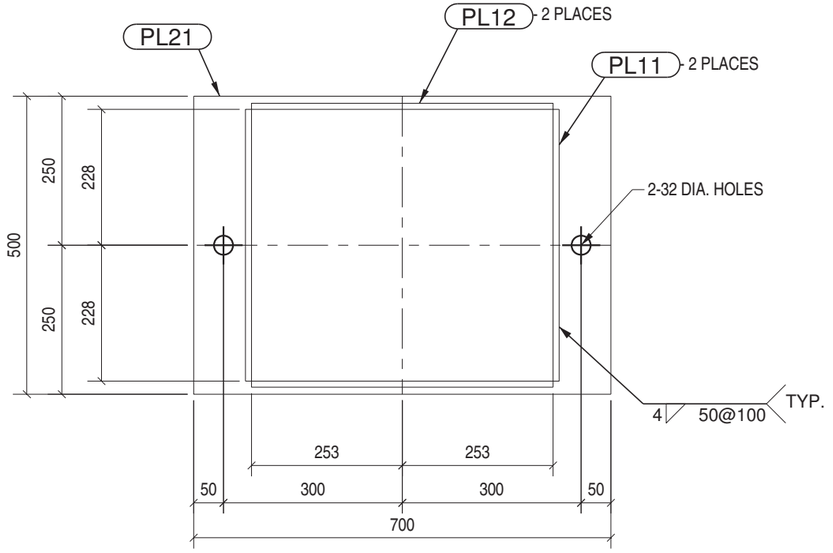
EXPANSION BEARING ASSEMBLY
1:10

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION OR NAME	SIZE	WT.LBS. TOTAL
EBA1	2	EXPANSION BEARING ASSEMBLY	76 x 500 x 700	658.5
PAD1	2	RUBBER BEARING PAD	25.4 x 450 x 500	27.7
PL11	4	KEEPER BAR	9.5 x 10 x 456	3.0
PL12	4	KEEPER BAR	9.5 x 10 x 506	3.3
PL21	2	SOLE PLATE	25.4 x 500 x 700	307.7
PL22	2	BASE PLATE	25.4 x 500 x 700	307.7
114S5	4	ASTM A325-1 BOLT ASSEMBLY	1 1/4" DIA. x 5" LONG	9.0



SECTION "A"-"A"
1:10



SECTION "B"-"B"
1:10

REV	DATE	DESCRIPTION	DRAWN	CHK
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B	MAR 28, 2017	ISSUED FOR APPROVAL	RR	DA
A	MAR 23, 2017	PRELIMINARY	RR	PK

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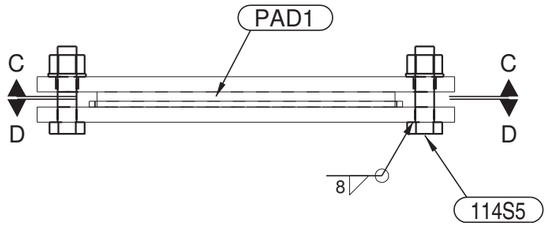
PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
EXPANSION BEARING ASSEMBLY

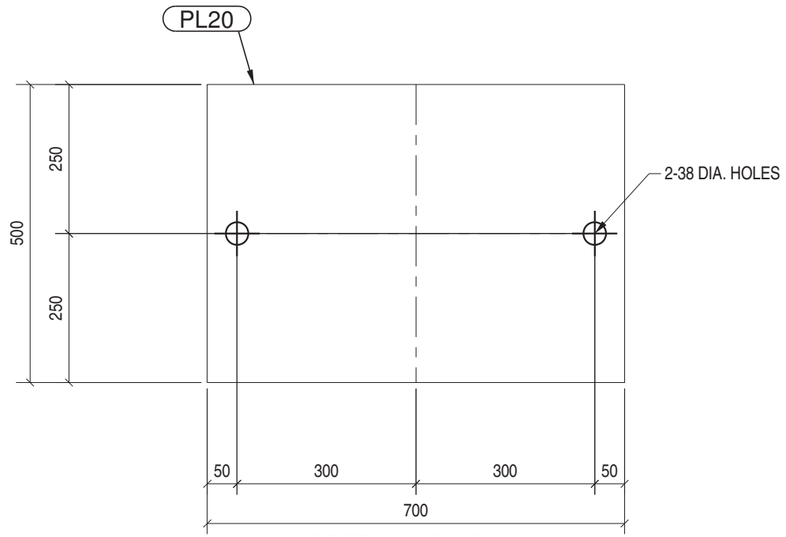
ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
	RON RIEMENS	7472	042-EBA1-01	0



FIXED BEARING ASSEMBLY
1:10

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION OR NAME	SIZE	WT.LBS. TOTAL
FBA1	2	FIXED BEARING ASSEMBLY	76 x 500 x 700	658.5
PAD1	2	RUBBER BEARING PAD	25.4 x 450 x 500	27.7
PL11	4	KEEPER BAR	9.5 x 10 x 456	3.0
PL12	4	KEEPER BAR	9.5 x 10 x 506	3.3
PL20	2	BASE PLATE	25.4 x 500 x 700	307.7
PL21	2	SOLE PLATE	25.4 x 500 x 700	307.7
114S5	4	ASTM A325-1 BOLT ASSEMBLY	1 1/4" DIA. x 5" LONG	9.0



SECTION "C"-"C"
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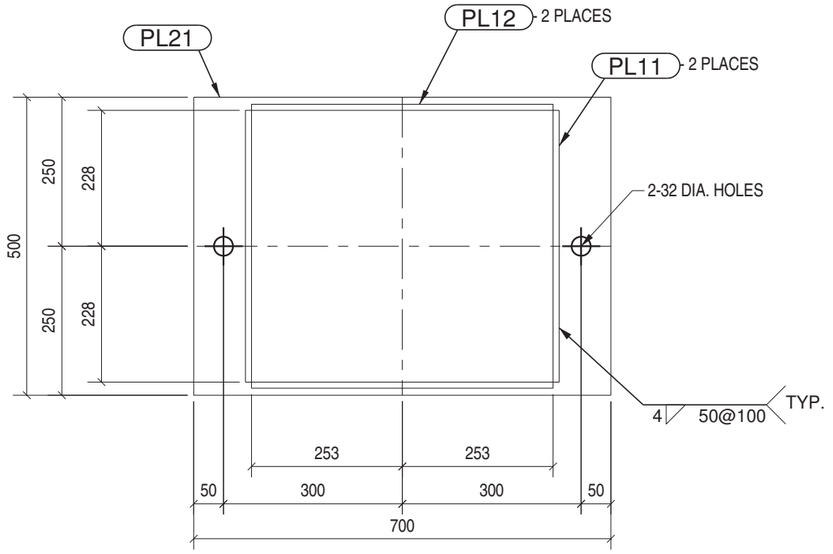

SECTION "D"-"D"
1:10

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	RR	
B	MAR 28, 2017	ISSUED FOR APPROVAL	RR	DA
A	MAR 23, 2017	PRELIMINARY	RR	PK

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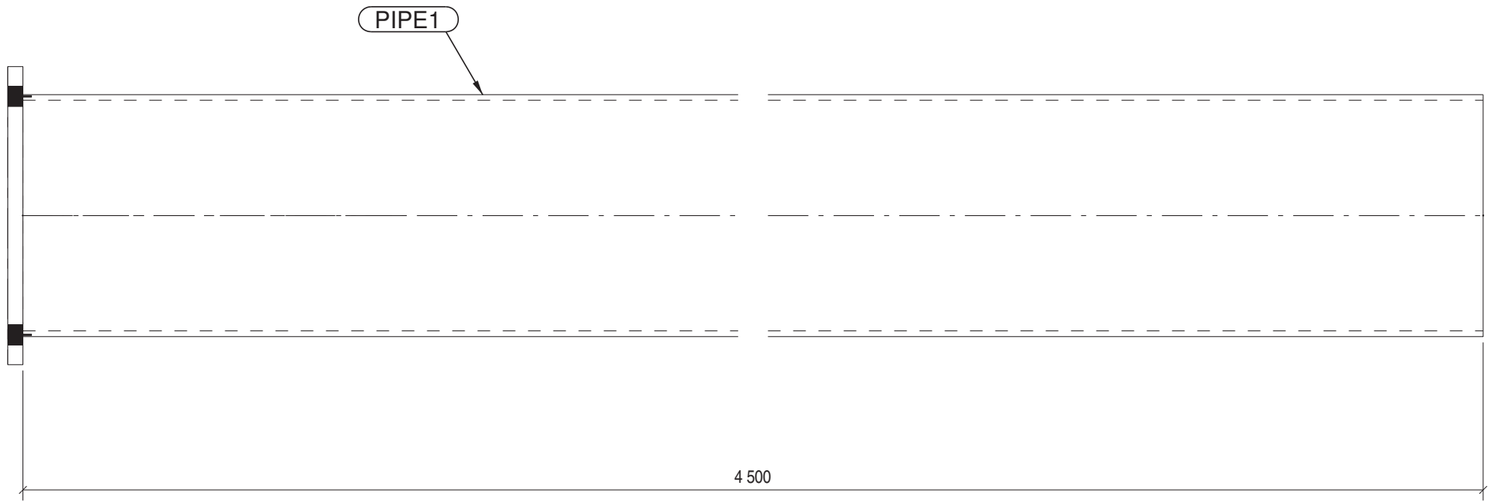
PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
FIXED BEARING ASSEMBLY

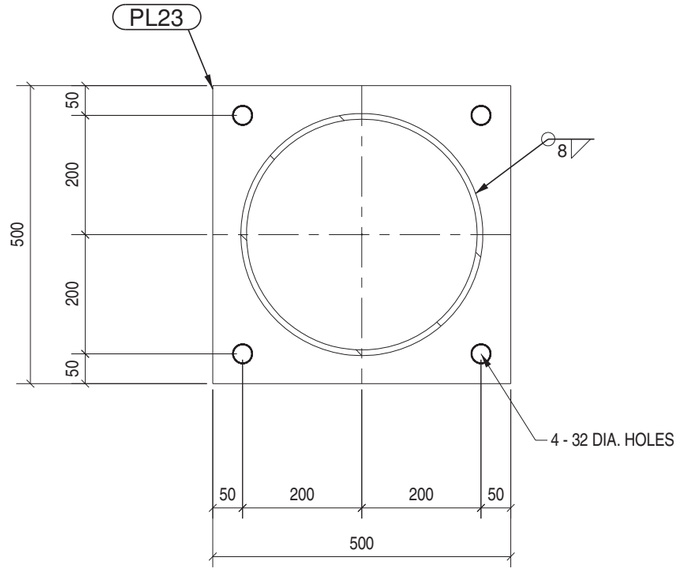
ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
	RON RIEMENS	7472	042-FBA1-01	0

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION OR NAME	SIZE	WT.LBS. TOTAL
SBCW1	4	STEEL BENT COLUMN WELDMENT	500 x 500 x 4525	3193.4
PIPE1	4	STEEL BENT COLUMN	PIPE406 O.D. x 9.5 x 4500	2753.8
PL23	4	STEEL BENT BASE PLATE	25.4 x 500 x 500	439.6



STEEL BENT COLUMN WELDMENT DETAIL
1:10



REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	RR	
B	MAR 28, 2017	ISSUED FOR APPROVAL	RR	DA
A	MAR 23, 2017	PRELIMINARY	RR	PK

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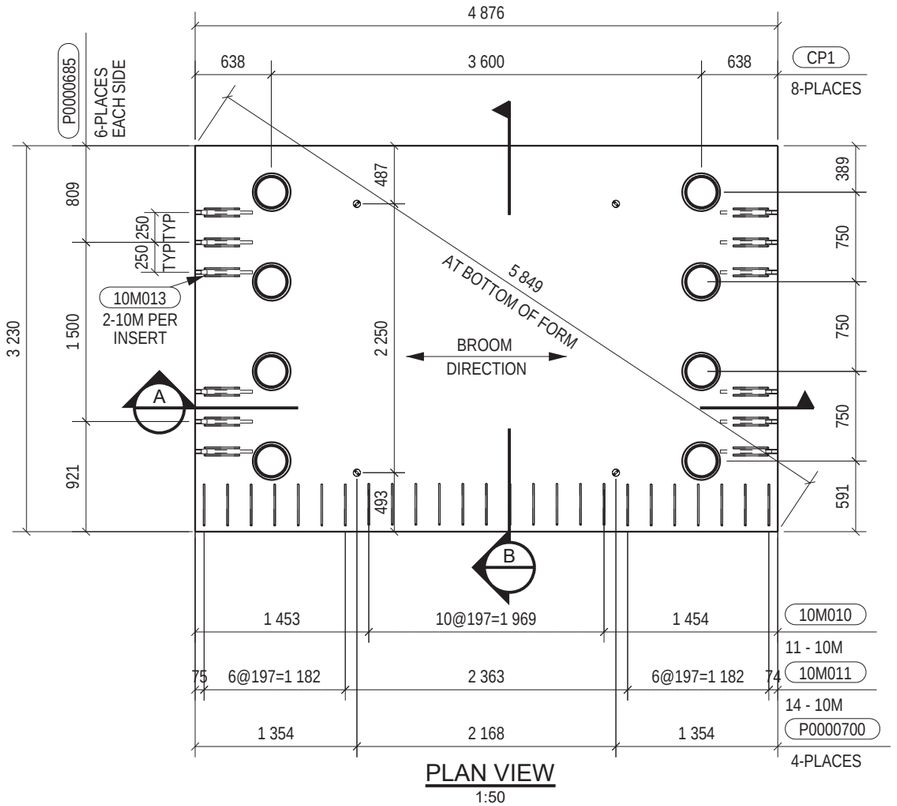
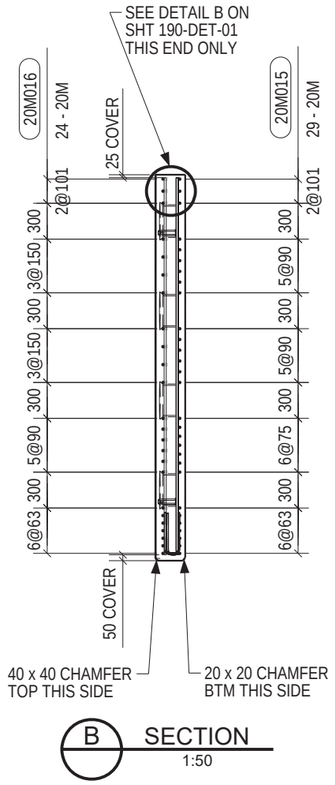
PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
STEEL BENT COLUMN WELDMENT

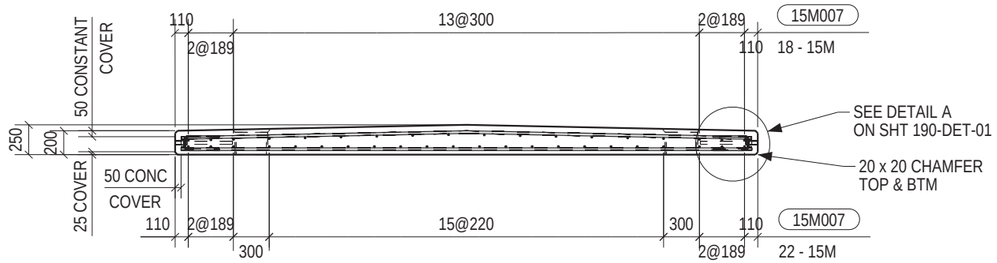
ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
	RON RIEMENS	7472	043-SBCW1-01	0



PLAN VIEW
1:50



B SECTION
1:50



A SECTION
1:50

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION	SIZE	MIX	VOL. CU. M.	WT LBS EA
A	2	END DECK PANEL	4876 x 250 x 3230	108.0	3.47 EA.	18897

ITEM	QTY ONE	QTY ALL	DESCRIPTION	SIZE	LENGTH	WT LBS ONE
10M010	11	22	FORMED REBAR - SEE DETAIL	10M	772	14.7
10M011	14	28	FORMED REBAR - SEE DETAIL	10M	751	18.2
10M012	4	8	REBAR	10M	3155	21.8
10M013	24	48	FORMED REBAR - SEE DETAIL	10M	672	27.9
15M007	40	80	REBAR	15M	3155	436.8
20M015	29	58	REBAR	20M	4776	719.1
20M016	24	48	FORMED REBAR - SEE DETAIL	20M	4775	594.9

ITEM	QTY ONE	QTY ALL	DESCRIPTION	SIZE	WT LBS ONE
CP1	8	16	CORRUGATED PIPE POCKET 10" GALV	10"Ø x 188 LONG	192.6
P0000685	12	24	COUPLER 1" HDG C/W 25M x 430 LG REBAR	1"Ø x 19" LONG	53.4
P0000700	4	8	DAYTON LIFTING ANCHOR FL509 HDG	SEE DETAIL	8.8

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	JK	
B	MAR 28, 2017	ISSUED FOR APPROVAL	JK	DA
A	MAR 23, 2017	PRELIMINARY	JK	PK

RAPID-SPAN

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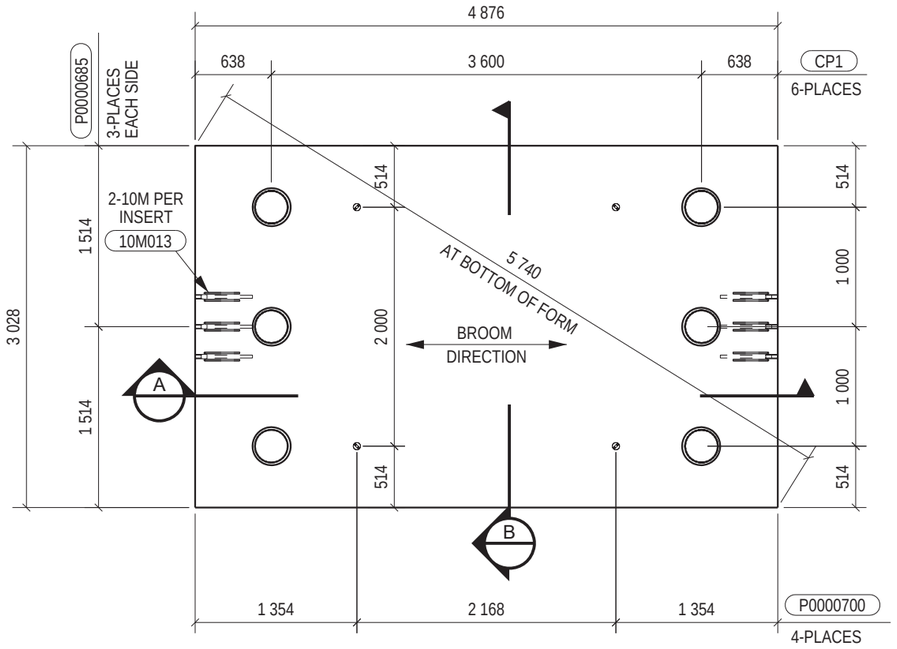
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — P. J. KING

May. 01, 2017

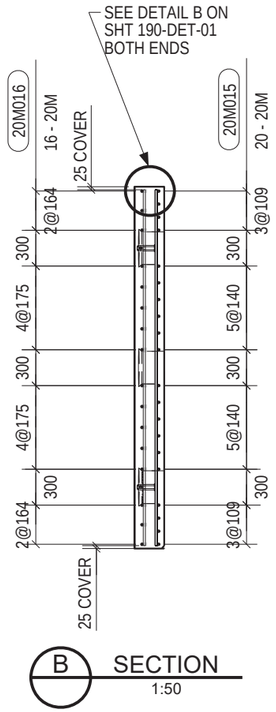
PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
END DECK PANEL A

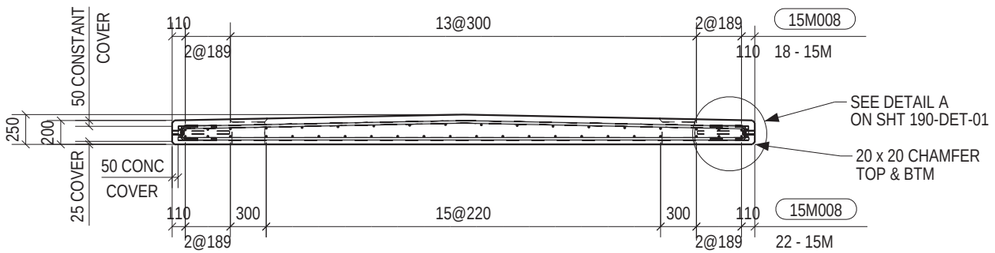
ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	J KASHUBA	7472	100-A-01	0



PLAN VIEW
1:50



B SECTION
1:50



A SECTION
1:50

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION	SIZE	MIX	VOL. CU. M.	WT LBS EA
B	4	INTERMEDIATE DECK PANEL	4876 x 250 x 3028	108.0	3.25 EA.	17697

ITEM	QTY ONE	QTY ALL	DESCRIPTION	SIZE	LENGTH	WT LBS ONE
10M013	12	48	FORMED REBAR - SEE DETAIL	10M	672	14.0
10M014	4	16	REBAR	10M	2978	20.6
15M008	40	160	REBAR	15M	2978	412.3
20M015	20	80	REBAR	20M	4776	495.9
20M016	16	64	FORMED REBAR - SEE DETAIL	20M	4775	396.6

ITEM	QTY ONE	QTY ALL	DESCRIPTION	SIZE	WT LBS ONE
CP1	6	24	CORRUGATED PIPE POCKET 10" GALV	10"Ø x 188 LONG	144.5
P0000685	6	24	COUPLER 1" HDG C/W 25M x 430 LG REBAR	1"Ø x 19" LONG	26.7
P0000700	4	16	DAYTON LIFTING ANCHOR FL509 HDG	SEE DETAIL	8.8

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	JK	
B	MAR 28, 2017	ISSUED FOR APPROVAL	JK	DA
A	MAR 23, 2017	PRELIMINARY	JK	PK

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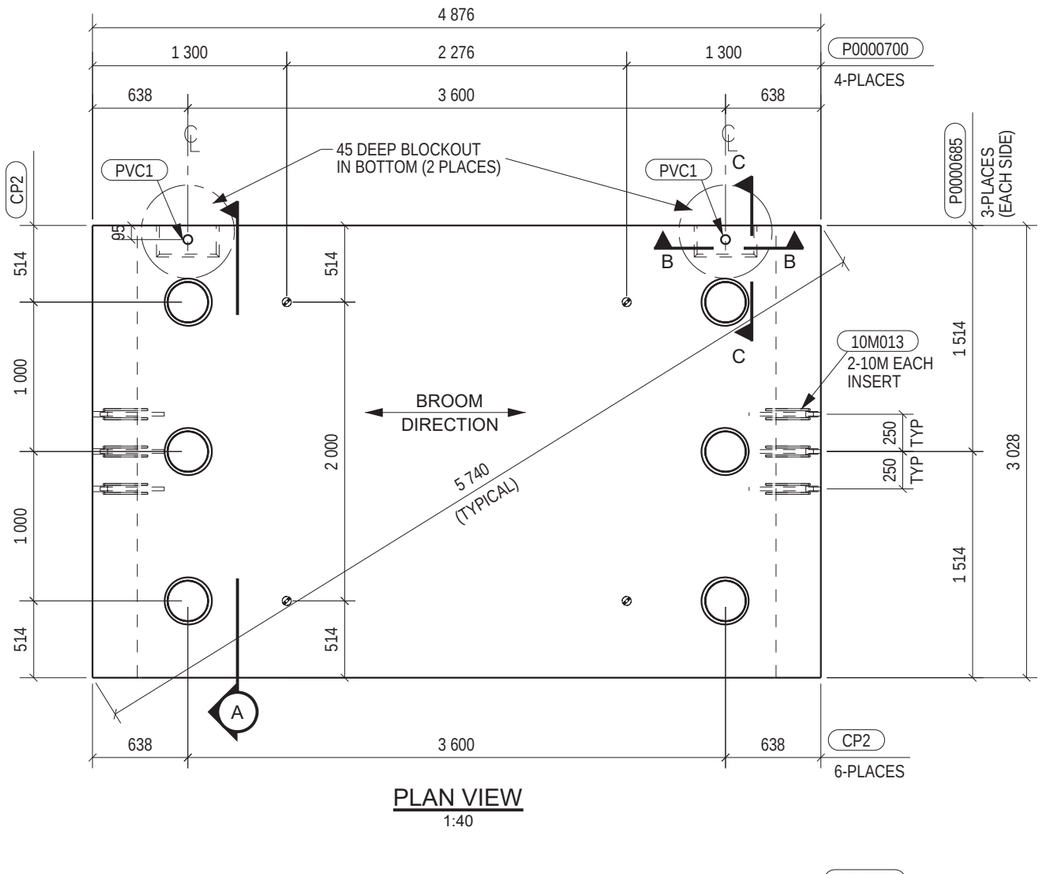
PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — P. J. KING

May. 01, 2017

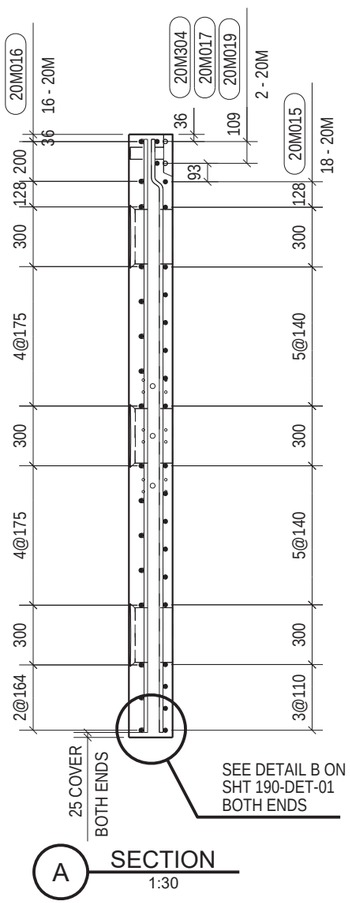
PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
INTERMEDIATE DECK PANEL B

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	J KASHUBA	7472	100-B-01	0



PLAN VIEW
1:40



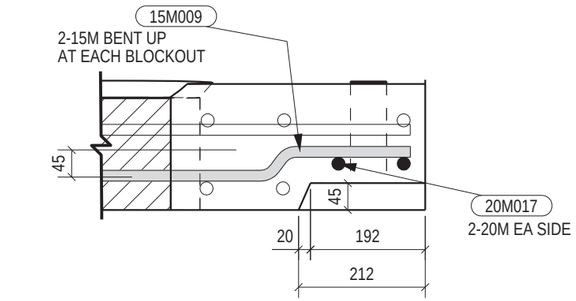
A SECTION
1:30

BILL OF MATERIALS - JOB # 7472

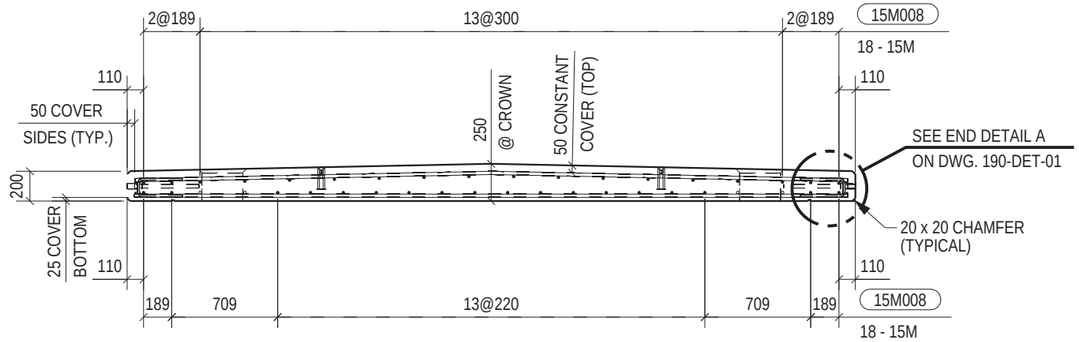
ITEM	QTY	DESCRIPTION	SIZE	MIX	VOL. CU. M.	WT LBS EA
C	2	INTERIOR DECK PANEL	4876 x 250 x 3028	108.0	3.25 EA.	17655

ITEM	QTY ONE	QTY ALL	DESCRIPTION	SIZE	LENGTH	WT LBS ONE
10M013	12	24	FORMED REBAR - SEE DETAIL	10M	671	13.9
10M014	4	8	REBAR	10M	2978	20.6
15M008	36	72	REBAR	15M	2978	371.0
15M009	4	8	FORMED REBAR - SEE DETAIL	15M	2994	41.4
20M015	18	36	REBAR	20M	4776	446.3
20M016	16	32	FORMED REBAR - SEE DETAIL	20M	4775	396.6
20M017	4	8	REBAR	20M	1700	35.3
20M018	2	4	REBAR	20M	302	3.1
20M019	2	4	REBAR	20M	3120	32.4
20M304	2	4	REBAR	20M	302	3.1

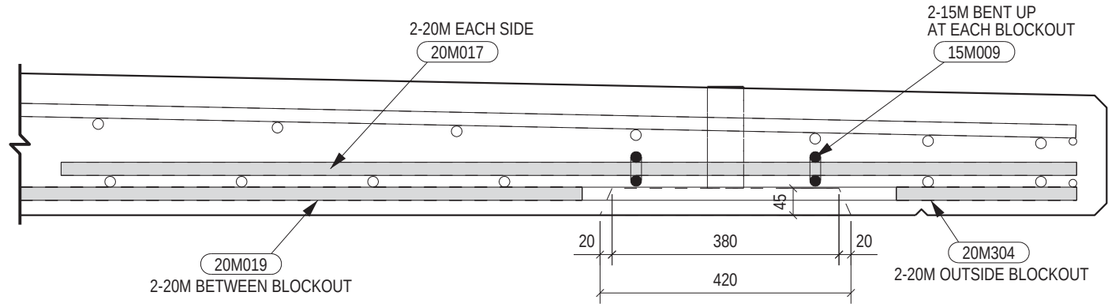
ITEM	QTY ONE	QTY ALL	DESCRIPTION	SIZE	WT LBS ONE
CP2	6	12	CORRUGATED PIPE GALV	10"Ø x 188 LONG	27.8
P0000685	6	12	COUPLER 1" HDG C/W 25M x 430 LG REBAR	1"Ø x 19" LONG	26.7
P0000700	4	8	DAYTON LIFTING ANCHOR FL509 HDG	SEE DETAIL	8.8
PVC1	2	4	PVC PIPE	53 ID x 170	3.9



SECTION C-C
1:10



ELEVATION
1:40



SECTION B-B
1:10

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	JK	
B	MAR 28, 2017	ISSUED FOR APPROVAL	JK	DA
A	MAR 23, 2017	PRELIMINARY	JK	PK

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PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
P. J. KING
May. 01, 2017

PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
INTERIOR DECK PANEL C

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
P.J. KING	J KASHUBA	7472	100-C-01	0

15M003 — 13

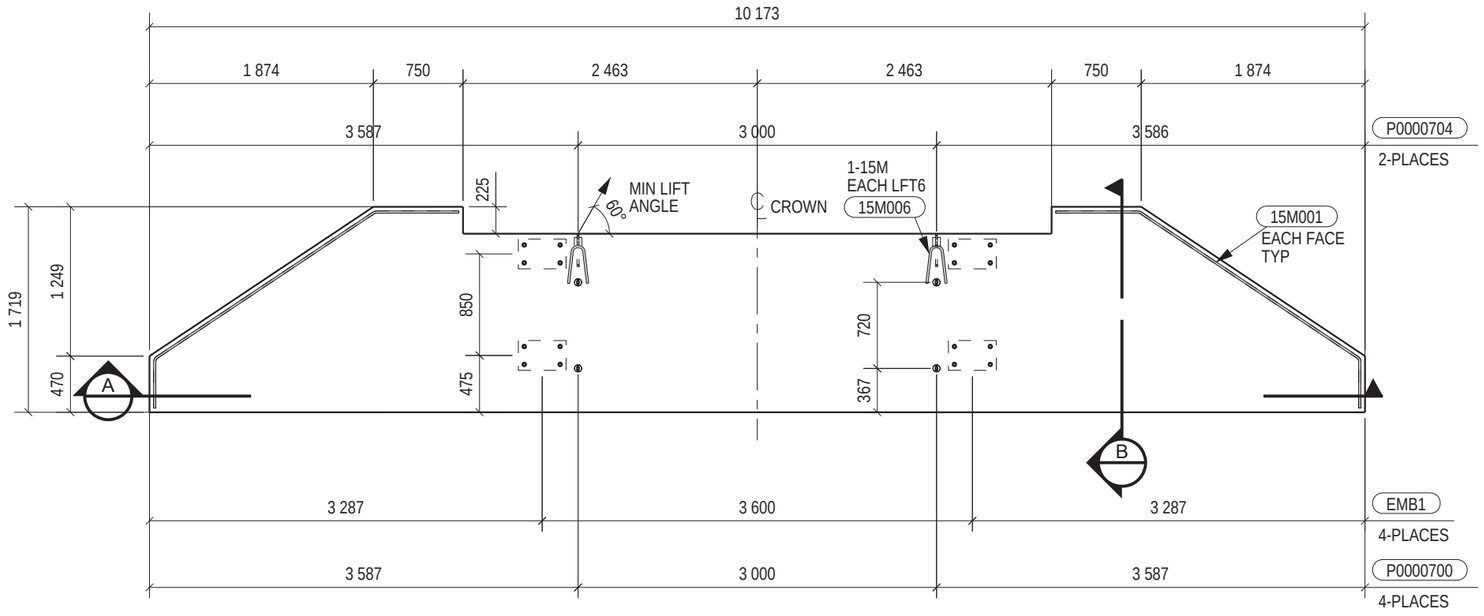
QTY ONE	QTY ALL	LENGTH
1	2	7073
1	2	7433
1	2	7783
1	2	8133
1	2	8483
1	2	8833
1	2	9193
1	2	9553
1	2	9893
4	8	10103

15M004 — 7

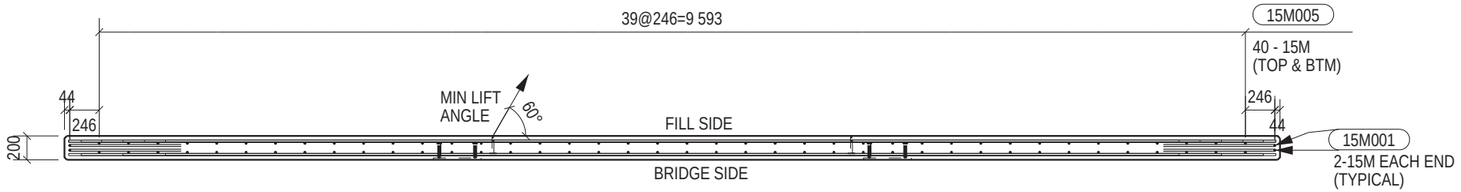
QTY ONE	QTY ALL	LENGTH
1	2	7073
1	2	7783
1	2	8483
1	2	9193
1	2	9893
2	4	10103

15M005 — 80

QTY ONE	QTY ALL	LENGTH
4	8	579
4	8	744
4	8	909
4	8	1069
4	8	1239
4	8	1399
40	80	1424
4	8	1564
12	24	1649



PLAN VIEW
1:50



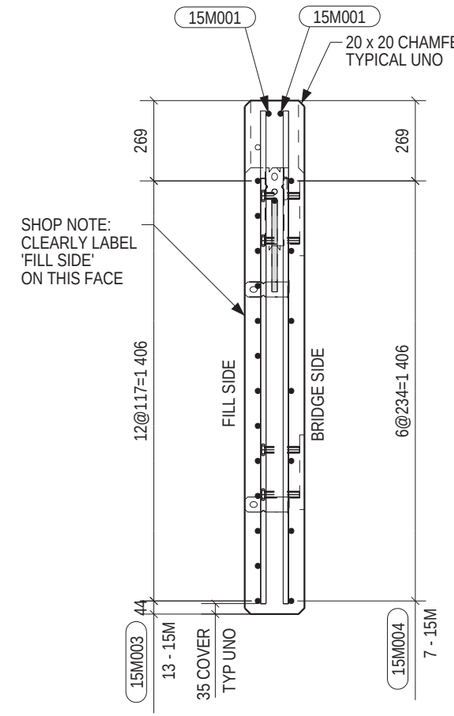
A SECTION
1:50

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION	SIZE	MIX	VOL. CU. M.	WT LBS EA
BW	2	BALLAST WALL	1719 x 10173 x 200	108.0	2.81 EA.	15246

ITEM	QTY ONE	QTY ALL	DESCRIPTION	SIZE	LENGTH	WT LBS ONE
15M001	4	8	FORMED REBAR - SEE DETAIL	15M	3324	46.0
15M002	2	4	REBAR	15M	874	6.0
15M003	13	26	REBAR - SEE TABLE	15M	VARIES	454.6
15M004	7	14	REBAR - SEE TABLE	15M	VARIES	244.8
15M005	80	160	REBAR - SEE TABLE	15M	VARIES	160.3
15M006	2	4	FORMED REBAR - SEE DETAIL	15M	678	4.7

ITEM	QTY ONE	QTY ALL	DESCRIPTION	SIZE	WT LBS ONE
EMB1	4	8	EMBEDDED PLATE	15.9 x 250 x 400	110.1
P0000700	4	8	DAYTON LIFTING ANCHOR FL509 HDG	SEE DETAIL	8.8
P0000704	2	4	FLEET LIFT ERECTION ANCHOR FL175L HDG	SEE DETAIL	6.6



B SECTION
1:20

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	JK	
B	MAR 28, 2017	ISSUED FOR APPROVAL	JK	DA
A	MAR 23, 2017	PRELIMINARY	JK	PK

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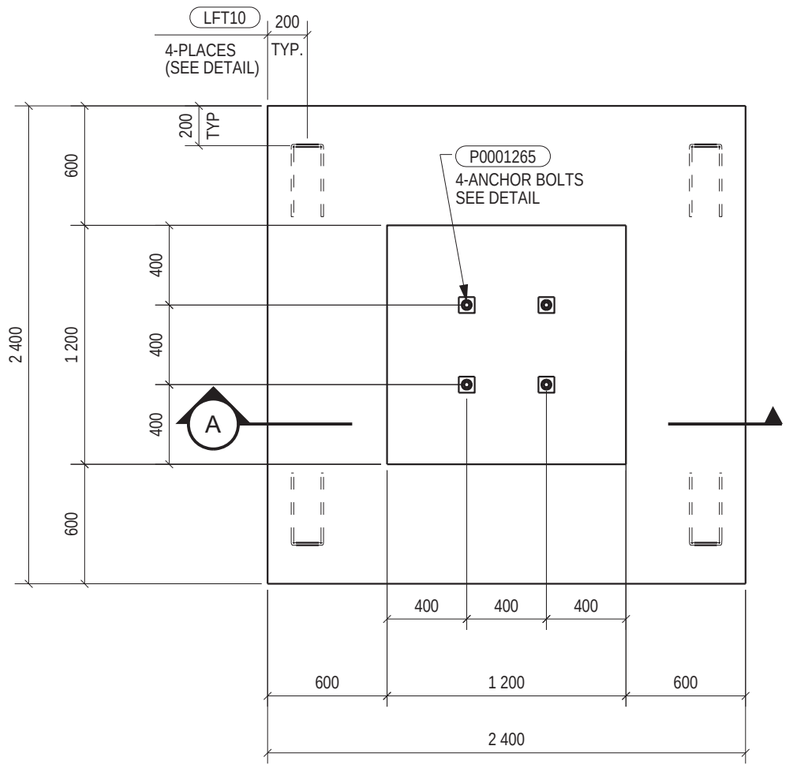
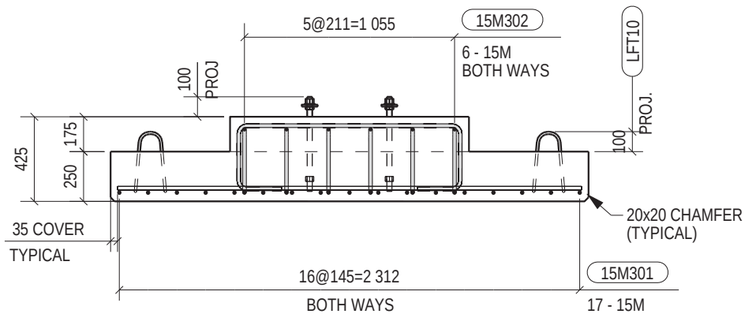
PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
BALLAST WALL

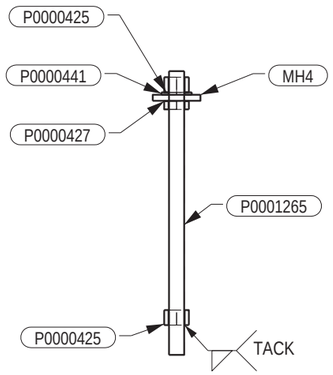
ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
	J KASHUBA	7472	150-BW-01	0



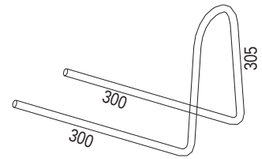
PLAN VIEW
1:30



A SECTION
1:30



ANCHOR DETAIL
1:10



STRAND LIFTING LOOP DETAIL
1:10

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION	SIZE	MIX	VOL. CU. M.	WT LBS EA
F	4	TYPE S3 FOOTING	2400 x 2400 x 425	108.0	1.69 EA.	9164

ITEM	QTY ONE	QTY ALL	DESCRIPTION	SIZE	LENGTH	WT LBS ONE
15M301	34	136	REBAR	15M	2330	274.2
15M302	12	48	FORMED REBAR - SEE DETAIL	15M	2108	87.5

ITEM	QTY ONE	QTY ALL	DESCRIPTION	SIZE	WT LBS ONE
LFT10	4	16	12.7 DIA. STRAND	13 DIA. x 1349	10.6
MH4	4	16	GR 300W WASHER PLATE	80.0 x 80 x 10	4.4
P0000425	8	32	ASTM A194-2H NUT	1"	3.2
P0000427	4	16	ASTM A194-2H JAM NUT	1"	0.9
P0000441	4	16	ASTM F436-1 FLAT WASHER	1"	0.4
P0001265	4	16	ASTM 193 TYPE B7 THREADED ROD	1" x 18 3/4" LONG	15.9

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	JK	
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A	MAR 23, 2017	PRELIMINARY	JK	PK

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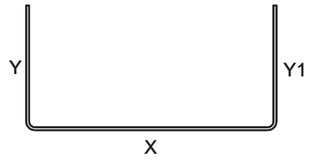
PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
FOOTING

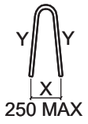
ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
	J KASHUBA	7472	170-F-01	0



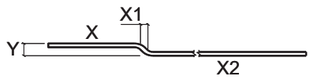
10M010 X=126 Y=350 Y1=350

10M011 X=106 Y=350 Y1=350

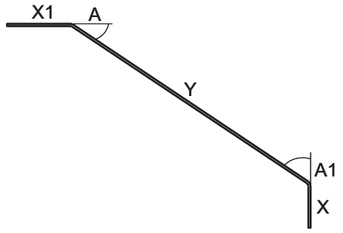
10M013 X=125 Y=300 Y1=300



15M006 X=160 Y=316

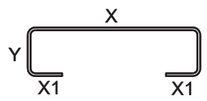


15M009 X=210 X1=21 X2=2746 Y=58

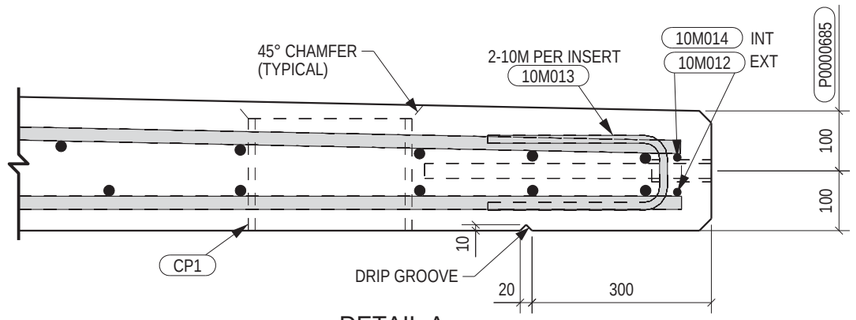


15M001 X=416 X1=704 Y=2222 A=56° A1=34°

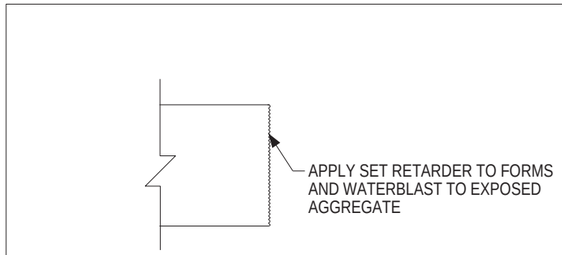
20M016 X=2387 X1=2387 A=2°



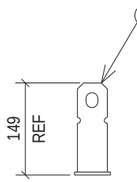
15M302 X=1130 X1=225 Y=335



DETAIL A
1:10



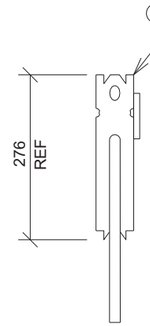
DETAIL B
1:10



LIFTING DEVICE RECESS PLUG
TO BE ORIENTATED TOWARDS
THE CENTROID

SAFE WORKING LOAD = 8250 LBS
GALVANIZED FINISH

DAYTON SUPERIOR FL509 DETAIL
1:10



ANCHOR TO BE INSTALLED
SO SHEAR PLATE IS OPPOSITE
THE DIRECTION OF THE LIFT

S.W.L WITH TENSION BAR=8,000 lbs.
GALVANIZED FINISH

DAYTON SUPERIOR FL175L DETAIL
1:10

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	JK	
B	MAR 28, 2017	ISSUED FOR APPROVAL	JK	DA
A	MAR 23, 2017	PRELIMINARY	JK	PK

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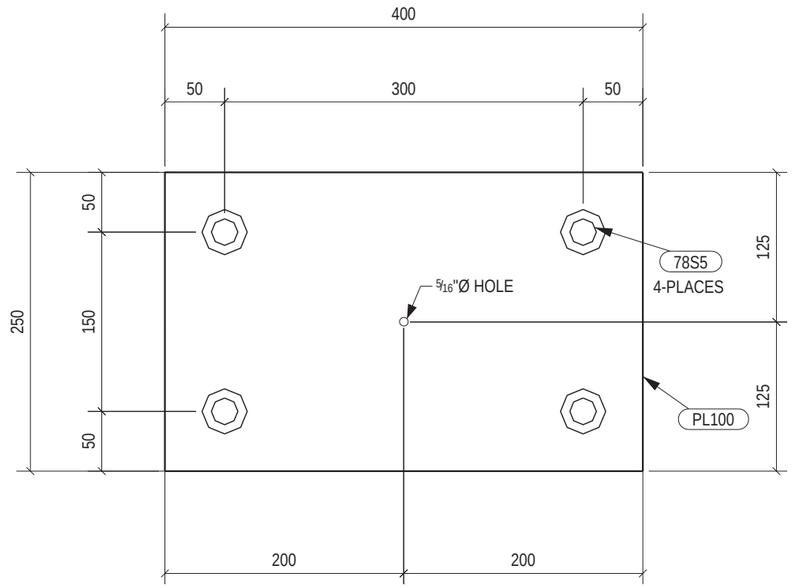
PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
FORMED REBAR & MISCELLANEOUS DETAILS

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
	J KASHUBA	7472	190-DET-01	0

BILL OF MATERIALS - JOB # 7472

ITEM	QTY	DESCRIPTION OR NAME	SIZE	WT.LBS. TOTAL
EMB1	8	EMBEDDED PLATE ASSEMBLY	143 x 250 x 400	247.6
PL100	8	PLATE	15.9 x 250 x 400	220.1
78S5	32	ASTM A108 STUD	7/8" DIA. x 5" LONG	27.5



PLAN VIEW
1:5

ELEVATION
1:5

REV	DATE	DESCRIPTION	DRAWN	CHK
0	APR 20, 2017	ISSUED FOR CONSTRUCTION	JK	
B	MAR 28, 2017	ISSUED FOR APPROVAL	JK	DA
A	MAR 23, 2017	PRELIMINARY	JK	PK

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PROJECT:
MINISTRY OF FORESTS
WHITE RIVER CROSSING
STRUCTURE NUMBER N2-224A
24.384 METER L100 COMPOSITE BRIDGE

TITLE:
BALLAST WALL EMBED

ENGINEERED BY:	DRAWN BY:	JOB No:	DRAWING No:	REV
	J KASHUBA	7472	190-RSS-01	0

GENERAL NOTES:

1. MATERIAL STRENGTH:
   - 1.1. ROLLED SECTIONS: GRADE 350W
   - 1.2. HSS – GRADE 350W and/or A500 GRADE C
   - 1.3. MISCELLANEOUS PLATE – GRADE 350W
2. WELDING STANDARD:
   - 2.1. WELDING TO CSA W59–M
3. MATERIAL FINISH:
   - 3.1. ALL POSTS (954P1 IN DWG#100–A–001) AND WASHER PLATE (954W1) ARE GALVANIZED AFTER FABRICATION, GALVANIZING TO BE IN ACCORDANCE WITH ASTM A123/A123M
   - 3.2. HSS RAILS (ALL ASSEMBLIES ON DWG#100–A–002) AND DELINEATOR PLATE (ASSEMBLY 954M1 ON DWG# 100–A–003) ARE POWDER COATED SAFETY YELLOW AFTER FABRICATION.
4. DO NOT SCALE PRINTS.

DRAWING INDEX

DRAWING NUMBER	DESCRIPTION	REVISION	REVISION DATE (DDMONYY)
100–G–001	MINISTRY OF FORESTRY BRIDGE GUARDRAIL GENERAL NOTES	0	20APR17
100–E–001	MINISTRY OF FORESTRY BRIDGE GUARDRAIL ERECTION	0	20APR17
100–E–002	MINISTRY OF FORESTRY BRIDGE GUARDRAIL END DETAIL	0	20APR17
100–A–001	MINISTRY OF FORESTRY BRIDGE GUARDRAIL ASSEMBLY SHEET 1 OF 3	0	20APR17
100–A–002	MINISTRY OF FORESTRY BRIDGE GUARDRAIL ASSEMBLY SHEET 2 OF 3	0	20APR17
100–A–003	MINISTRY OF FORESTRY BRIDGE GUARDRAIL ASSEMBLY SHEET 3 OF 3	0	20APR17
100–P–001	MINISTRY OF FORESTRY BRIDGE GUARDRAIL PARTS	0	20APR17

MARCON INTERNAL USE ONLY

ESTIMATED HOURS: _____

PROCESSING DUE DATE: _____

FINAL DUE DATE: _____

INSTALLATION (YES / NO): _____

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DWG. NO.	REFERENCE DRAWINGS
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SHOP ISSUE

REV. No.	DESCRIPTION	DATE	BY
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–	–	———	–
–	–	———	–
–	–	———	–
0	ISSUED FOR FABRICATION	20APR17	HT
A	ISSUED FOR APPROVAL	24MAR17	HT

DISCIPLINE:	STEEL	
PROJECT MANAGER:	AB	
SCALE:	NONE	DATE
DRAWN BY:	HT	23MAR17
CHECKED BY:	SK	24MAR17
APPROVED BY:	SB	20APR17

201 - 7156 Brown Street, Delta, British Columbia, Canada, V4G 1G8
Phone (604)940-0977 Fax (604)940-0978
www.marconmetalfab.com

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CUSTOMER NAME: Rapid–Span Structures

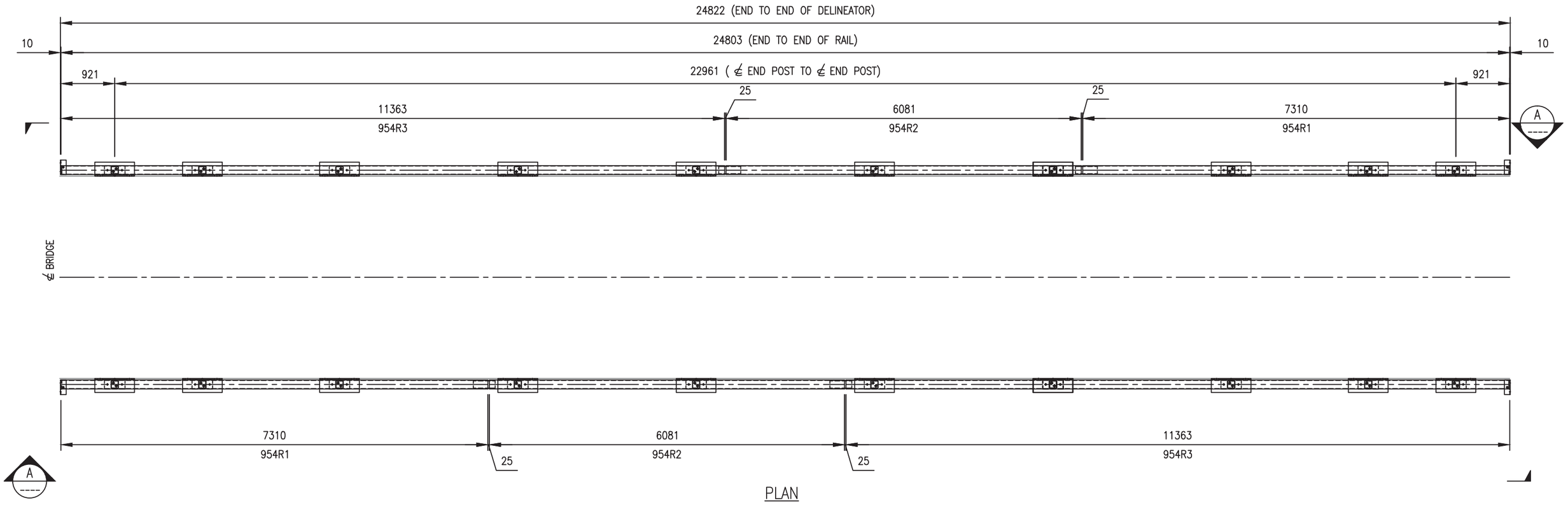
MOF BRIDGE RAILING N2-224A RS7472
MINISTRY OF FORESTRY
CL–2 BRIDGE GUARDRAIL
GENERAL NOTES

PROJECT NUMBER	DRAWING NUMBER	REV.
16954	100–G–001	0

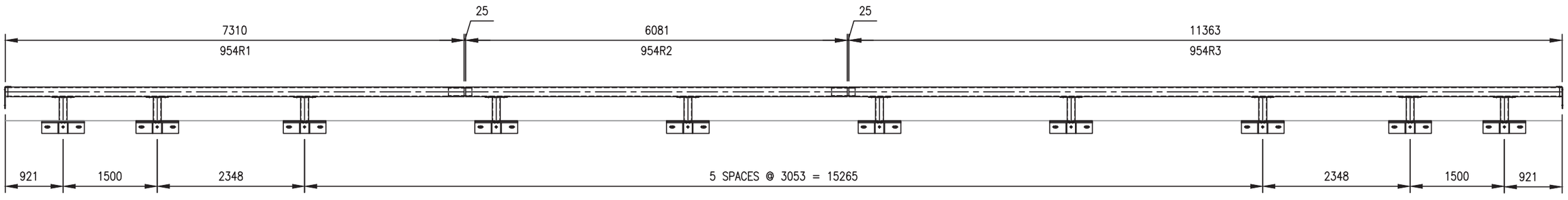
11 x 17

\\MARCON–SERVER2\MARCONDATA\DRAWINGS\JOBS\16900–16999\16954–RAPID–SPAN STRUCTURES–MOF BRIDGE N2–224A RS7472\100–MOF CL–2 GUARDRAIL.DWG

4/20/2017 8:50 AM



PLAN



SECTION A

NOTES:

1. SEE DWG #: 100-G-001 FOR GENERAL NOTES.

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DWG. NO.	REFERENCE DRAWINGS
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SHOP ISSUE

REV. No.	DESCRIPTION	DATE	BY
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–	–	–	–
–	–	–	–
–	–	–	–
–	–	–	–
0	ISSUED FOR FABRICATION	20APR17	HT
A	ISSUED FOR APPROVAL	24MAR17	HT

DISCIPLINE:	STEEL	
PROJECT MANAGER:	AB	
SCALE:	1:65	DATE
DRAWN BY:	HT	23MAR17
CHECKED BY:	SK	24MAR17
APPROVED BY:	SB	20APR17

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CUSTOMER NAME: Rapid-Span Structures

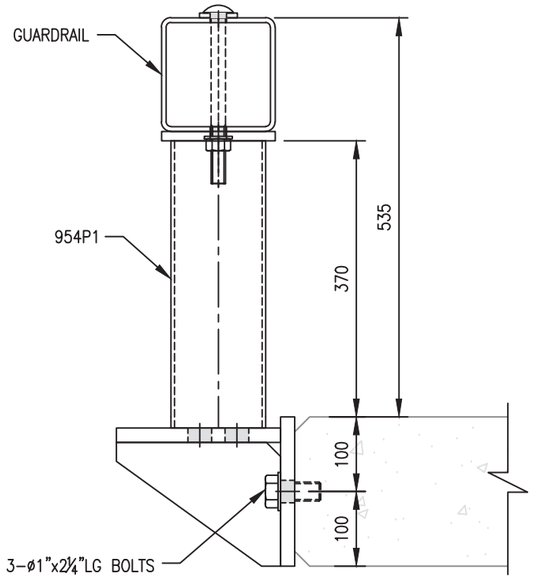
MOF BRIDGE RAILING N2-224A RS7472
MINISTRY OF FORESTRY
CL-2 BRIDGE GUARDRAIL
ERECTION

PROJECT NUMBER	DRAWING NUMBER	REV.
16954	100-E-001	0

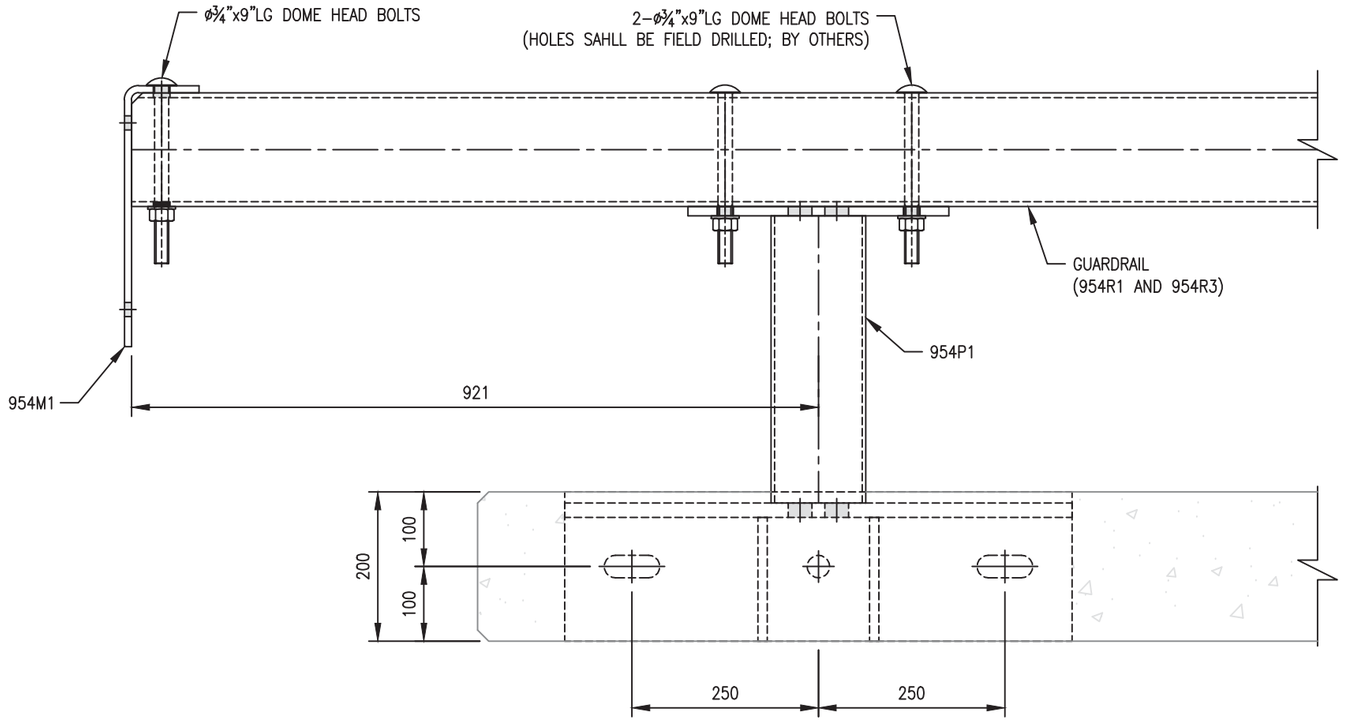
11 x 17

\\MARCON-SERVER2\MARCONDATA\DRAWINGS\JOBS\16900-16999\16954-RAPID-SPAN STRUCTURES-MOF BRIDGE N2-224A RS7472\100-MOF CL-2 GUARDRAIL.DWG

4/20/2017 8:50 AM



SIDE VIEW



DETAIL AT ENDS

NOTES:

1. SEE DWG #: 100–G–001 FOR GENERAL NOTES.

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DWG. NO.	REFERENCE DRAWINGS
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SHOP ISSUE

REV. No.	DESCRIPTION	DATE	BY
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–	–	——	–
0	ISSUED FOR FABRICATION	20APR17	HT
A	ISSUED FOR APPROVAL	24MAR17	HT

DISCIPLINE:	STEEL	
PROJECT MANAGER:	AB	
SCALE:	1:8	DATE
DRAWN BY:	HT	23MAR17
CHECKED BY:	SK	24MAR17
APPROVED BY:	SB	20APR17
CUSTOMER NAME:	Rapid–Span Structures	

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MOF BRIDGE RAILING N2-224A RS7472
MINISTRY OF FORESTRY
CL–2 BRIDGE GUARDRAIL
END DETAIL

PROJECT NUMBER	DRAWING NUMBER	REV.
16954	100–E–002	0

11 x 17

\\MARCON-SERVER2\MARCONDATA\DRAWINGS\JOBS\16900-16999\16954-RAPID-SPAN STRUCTURES-MOF BRIDGE N2-224A RS7472\100-MOF CL-2 GUARDRAIL.DWG

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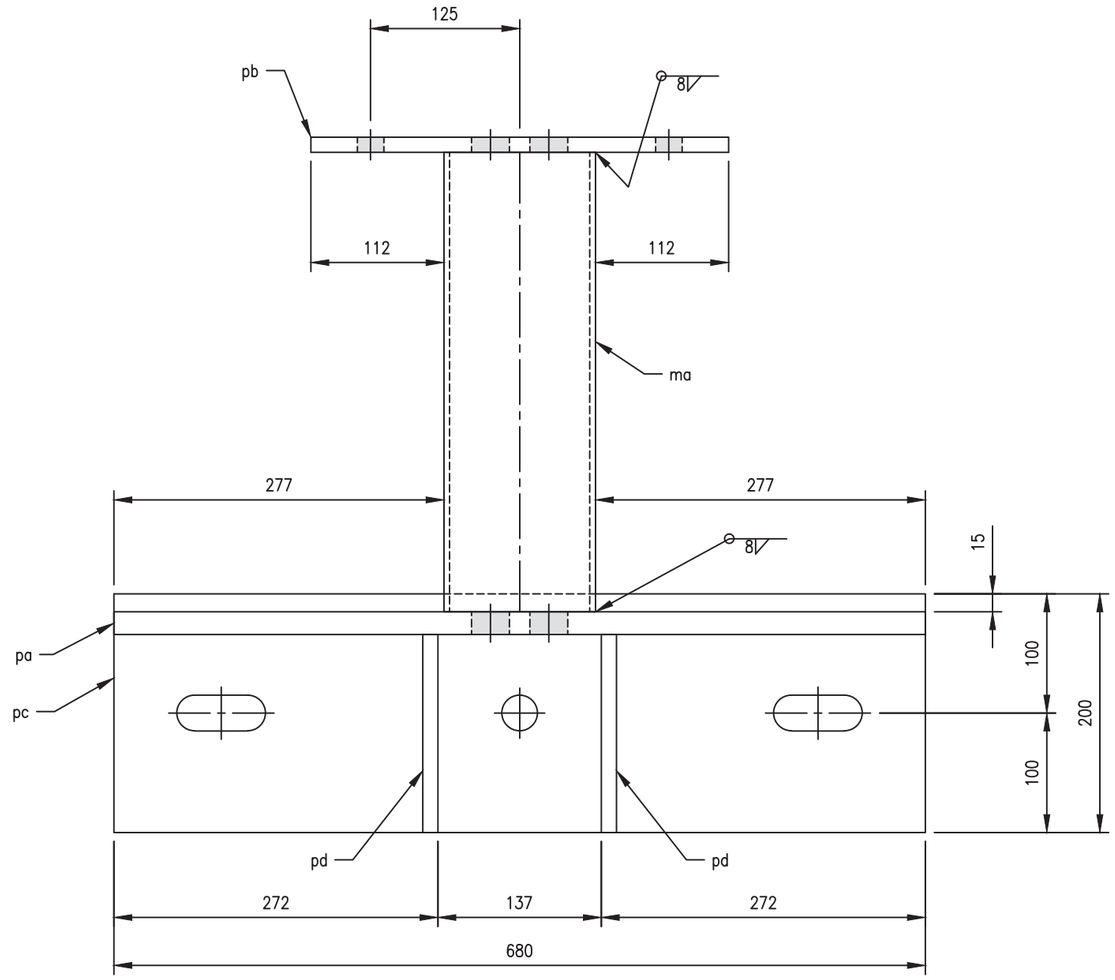

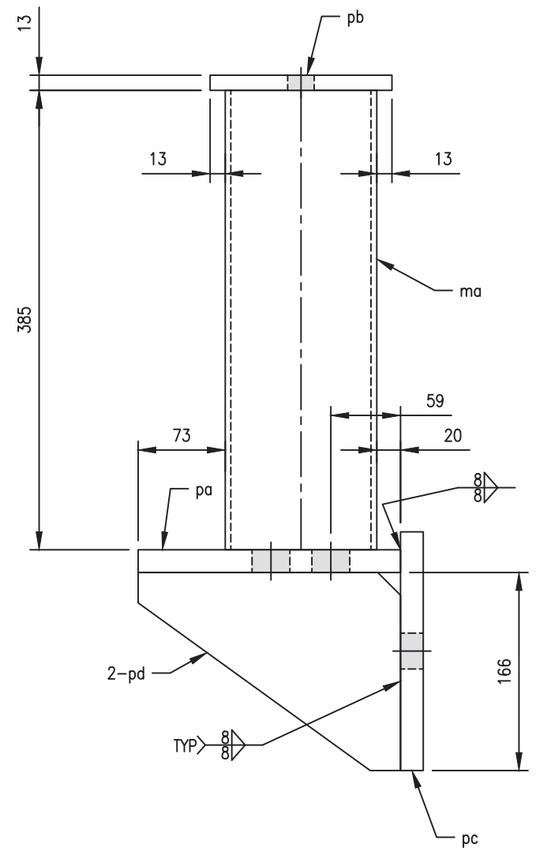

20-REQUIRED-954P1
ASSEMBLY

NOTES:

1. SEE DWG #: 100-G-001 FOR GENERAL NOTES.

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0	ISSUED FOR FABRICATION	20APR17	HT
A	ISSUED FOR APPROVAL	24MAR17	HT

DISCIPLINE:	STEEL	
PROJECT MANAGER:	AB	
SCALE:	1:5	DATE
DRAWN BY:	HT	23MAR17
CHECKED BY:	SK	24MAR17
APPROVED BY:	SB	20APR17

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CUSTOMER NAME: Rapid-Span Structures

MOF BRIDGE RAILING N2-224A RS7472
MINISTRY OF FORESTRY
CL-2 BRIDGE GUARDRAIL
ASSEMBLY
SHEET 1 OF 3

PROJECT NUMBER	DRAWING NUMBER	REV.
16954	100-A-001	0

11 x 17

\\MARCON-SERVER2\MARCONDATA\DRAWINGS\JOBS\16900-16999\16954-RAPID-SPAN STRUCTURES-MOF BRIDGE N2-224A RS7472\100-MOF CL-2 GUARDRAIL.DWG

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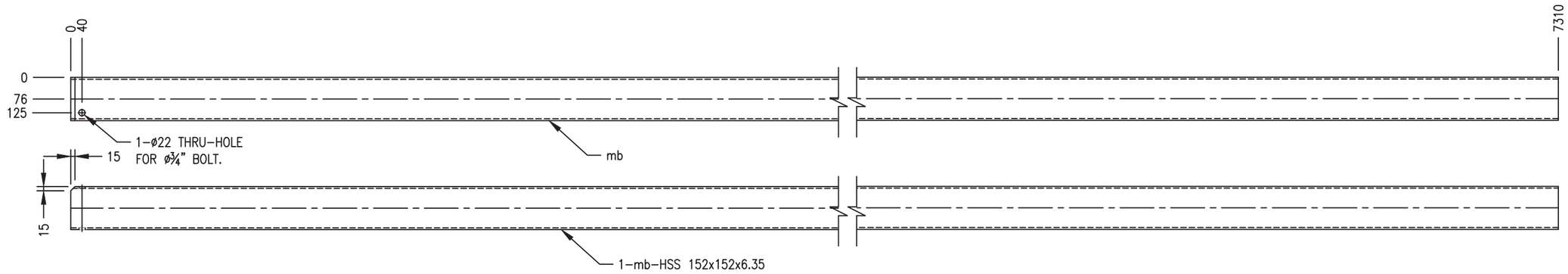
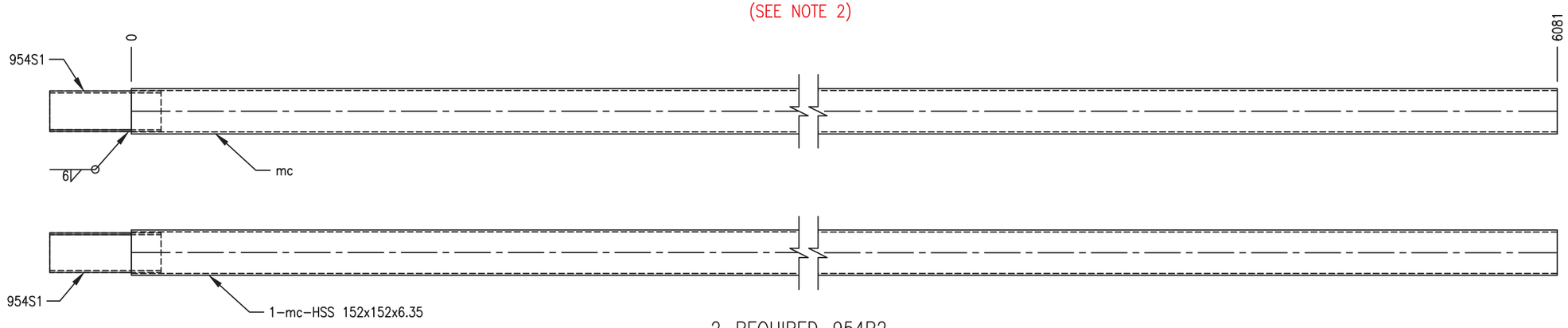


2-REQUIRED-954R1
ASSEMBLY
(SEE NOTE 2)



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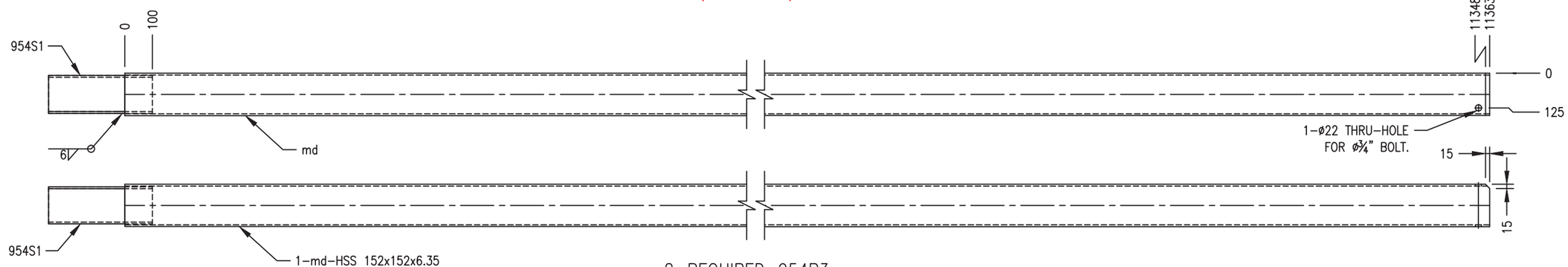
ASSEMBLY
(SEE NOTE 2)



2-REQUIRED-954R3
ASSEMBLY
(SEE NOTE 2)

NOTES:

1. SEE DWG #: 100-G-001 FOR GENERAL NOTES.
2. RAILS SHALL BE FIELD DRILLED (BY OTHERS)

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0	ISSUED FOR FABRICATION	20APR17	HT
A	ISSUED FOR APPROVAL	24MAR17	HT

DISCIPLINE:	STEEL	
PROJECT MANAGER:	AB	
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DRAWN BY:	HT	23MAR17
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ASSEMBLY
SHEET 2 OF 3

PROJECT NUMBER	DRAWING NUMBER	REV.
16954	100-A-002	0

11 x 17

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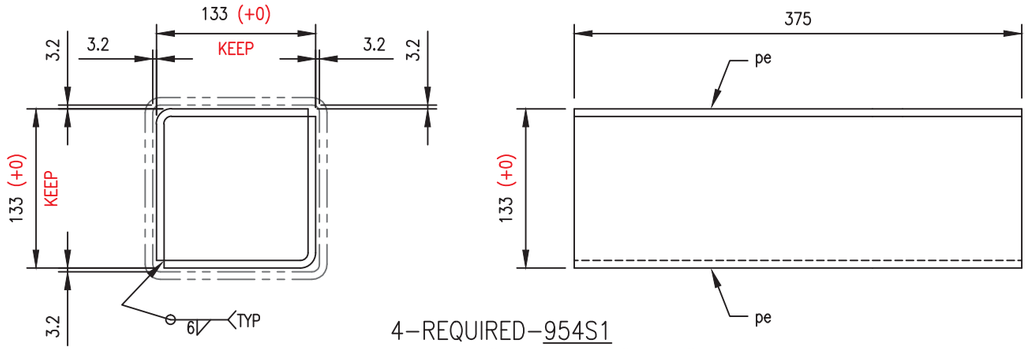

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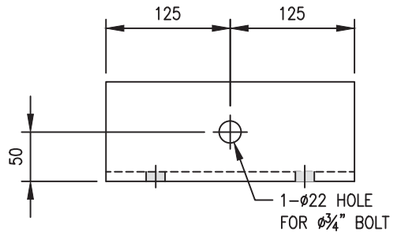
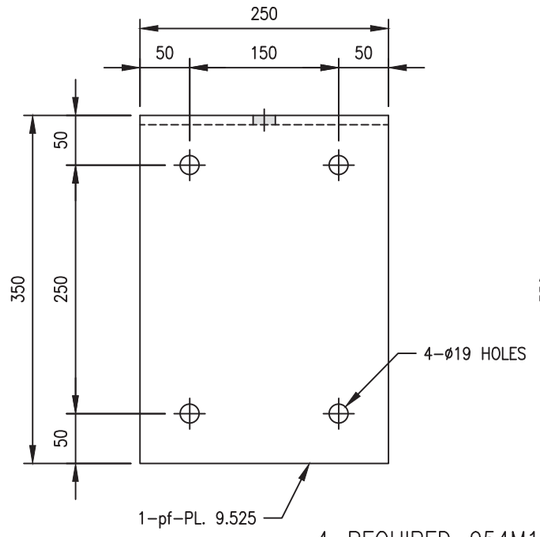
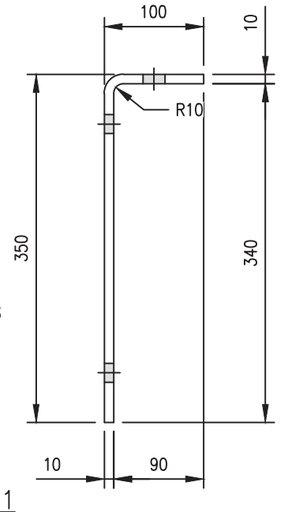
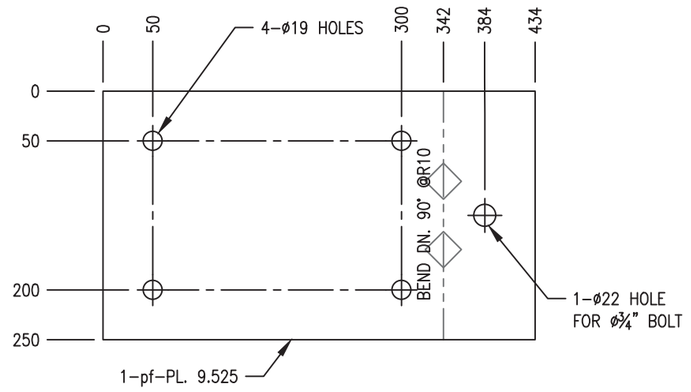
SUB–ASSEMBLY OF "954R2" AND "954R3"
SCALE: 1:5







4–REQUIRED–954M1
SHIP LOOSE
SCALE: 1:6



STRETCH–OUT OF "pf"

NOTES:

1. SEE DWG #: 100–G–001 FOR GENERAL NOTES.

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0	ISSUED FOR FABRICATION	20APR17	HT
A	ISSUED FOR APPROVAL	24MAR17	HT

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CUSTOMER NAME: Rapid–Span Structures

MOF BRIDGE RAILING N2-224A RS7472
MINISTRY OF FORESTRY
CL–2 BRIDGE GUARDRAIL
ASSEMBLY
SHEET 3 OF 3

PROJECT NUMBER	DRAWING NUMBER	REV.
16954	100–A–003	0

11 x 17

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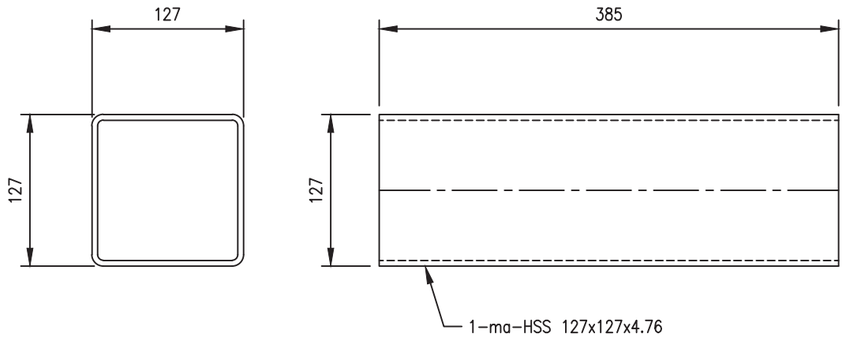
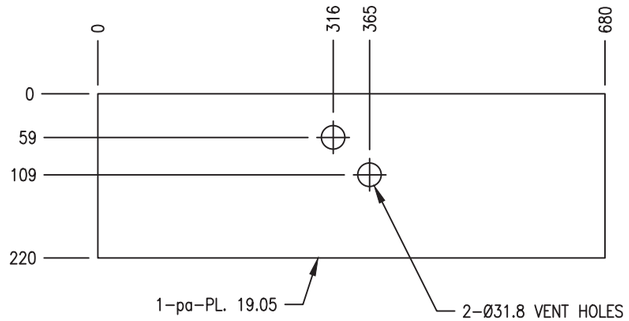


20-REQUIRED-ma
SUB-ASSEMBLY OF "954P1"
SCALE 1:5



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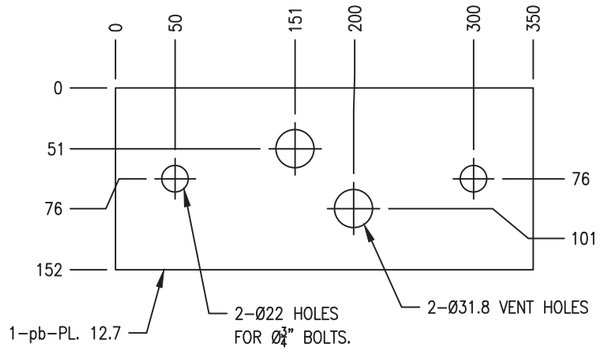
SUB-ASSEMBLY OF "954P1"
SCALE 1:8



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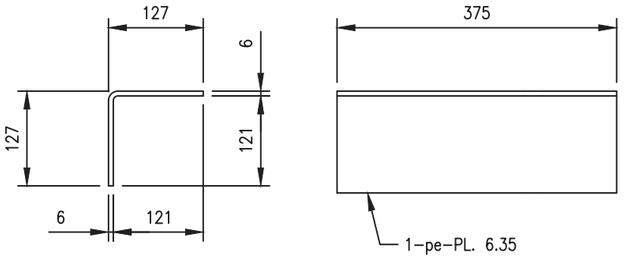

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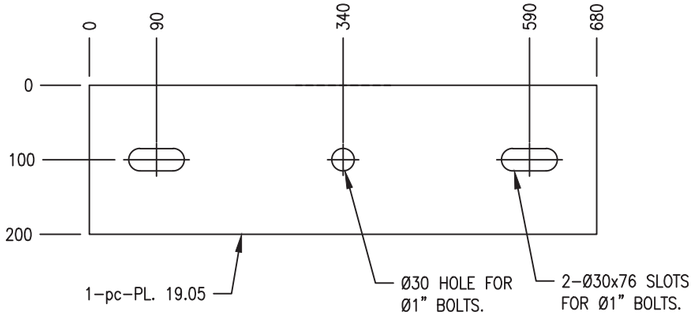
SCALE 1:8



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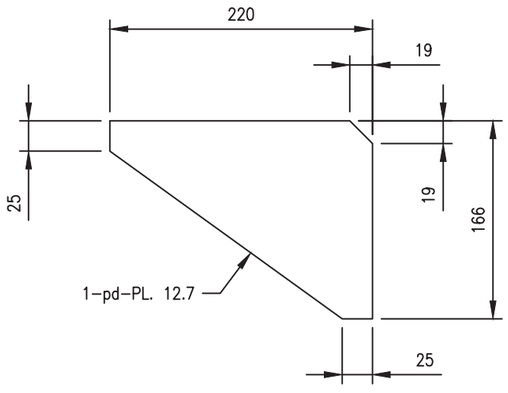
SCALE 1:8



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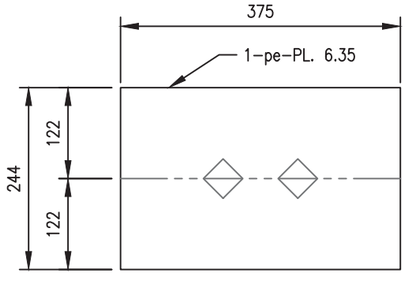
SCALE 1:5



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CUSTOMER NAME: Rapid-Span Structures

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PROJECT NUMBER	DRAWING NUMBER	REV.
16954	100-P-001	0

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