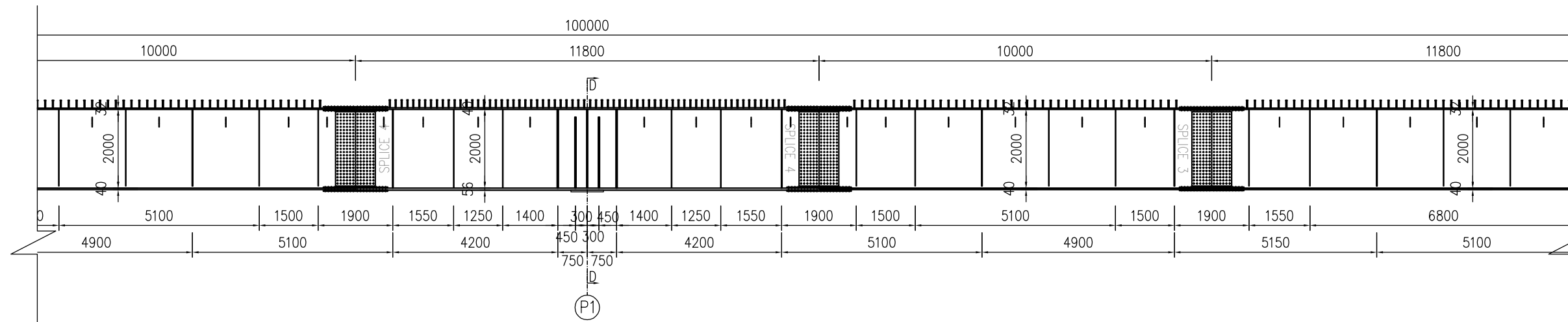
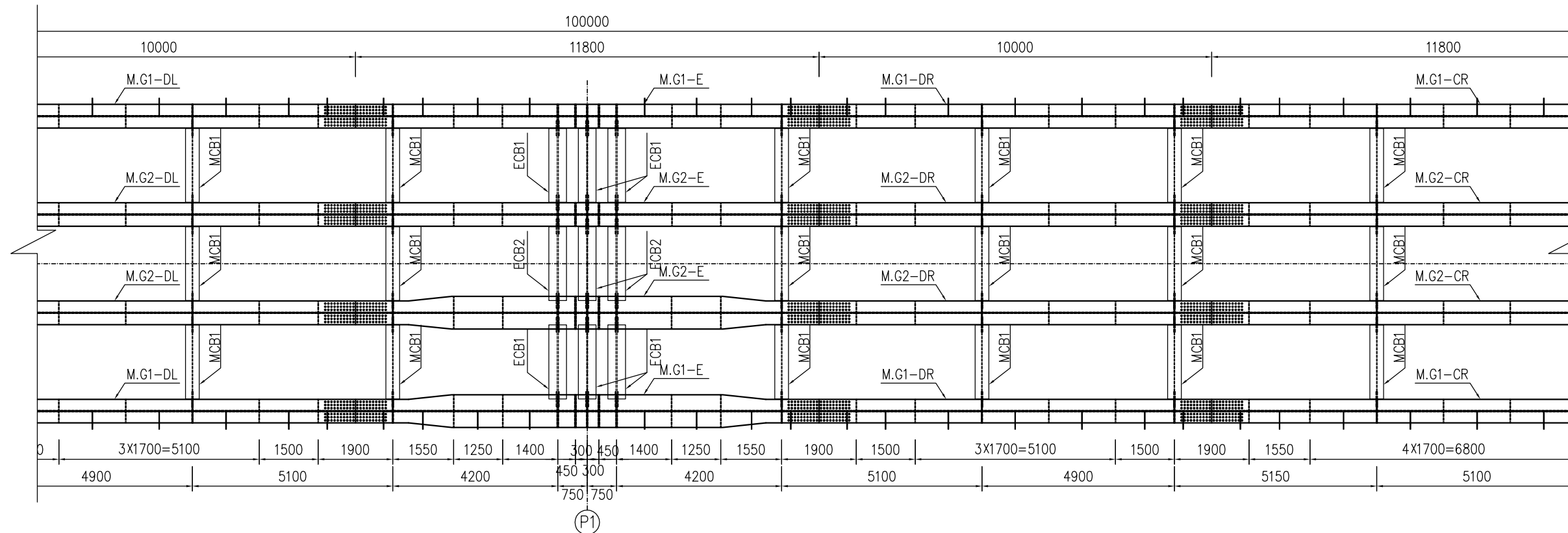


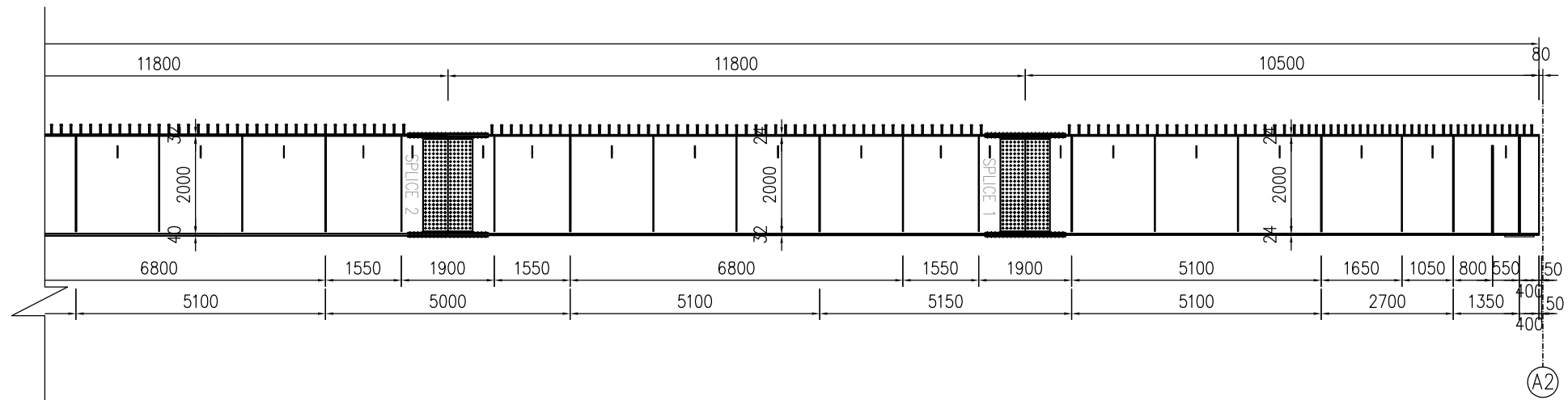
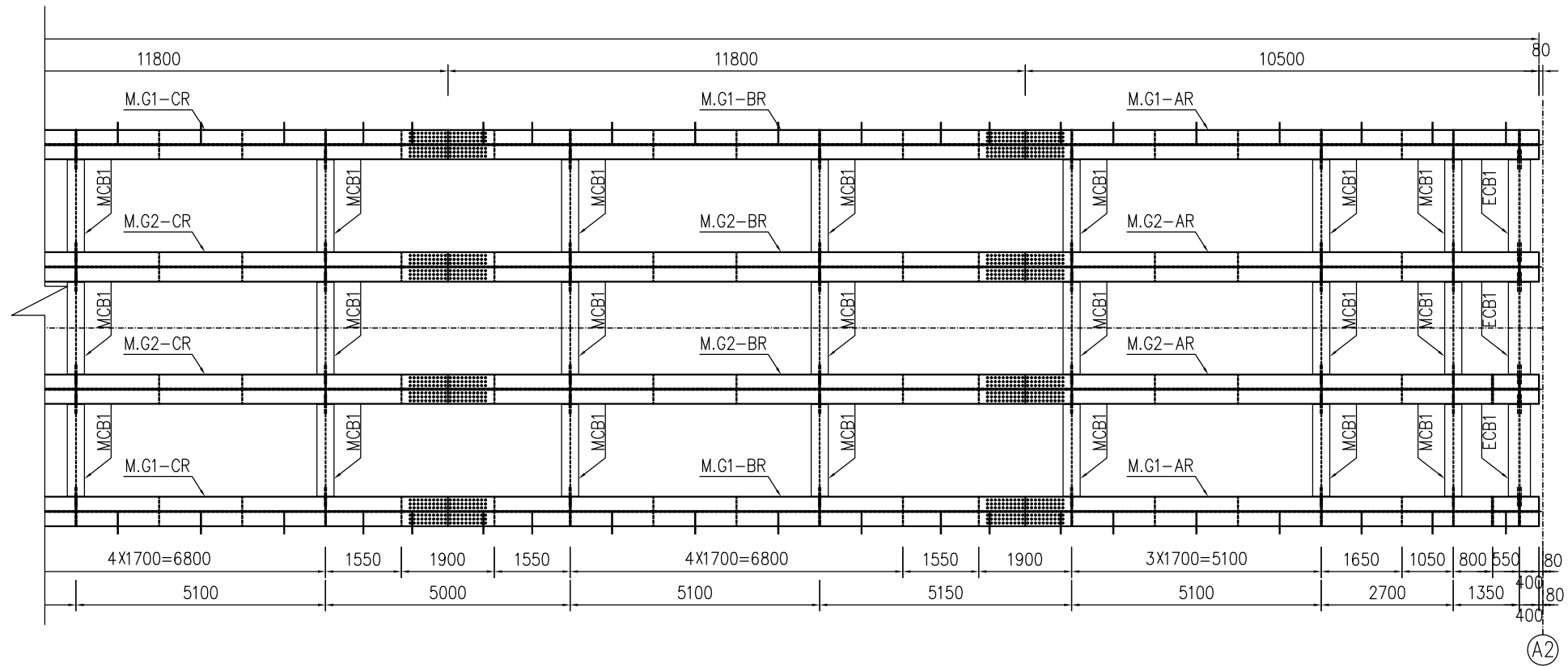
SEGMENT	M.G1-AL/M.G2-AL	M.G1-BL/M.G2-BL	M.G1-CL/M.G2-CL	M.G1-DL/M.G2-DL
UPP.FLANGE	600×24×10495	600×24×11790	600×32×11790	600×32×9990
WEB	2000×24×10495	2000×24×11790	2000×24×11790	2000×24×9990
LOW.FLANGE	600×24×10495	600×32×11790	600×40×11790	600×40×9990

Notes
 1. All dimensions are in millimeters unless otherwise noted.
 2. The left girder is symmetric with the right girder when they are named the same type.



M.G1-DL/M.G2-DL	M.G1-E/M.G2-E	M.G1-DR/M.G2-DR	M.G1-CR/M.G2-CR
600 × 32 × 9990	600 × 40 × 11790	600 × 32 × 9990	600 × 32 × 11790
2000 × 24 × 9990	2000 × 24 × 11790	2000 × 24 × 9990	2000 × 24 × 11790
600 × 40 × 9990	830 × 56 × 11790	600 × 40 × 9990	600 × 40 × 11790

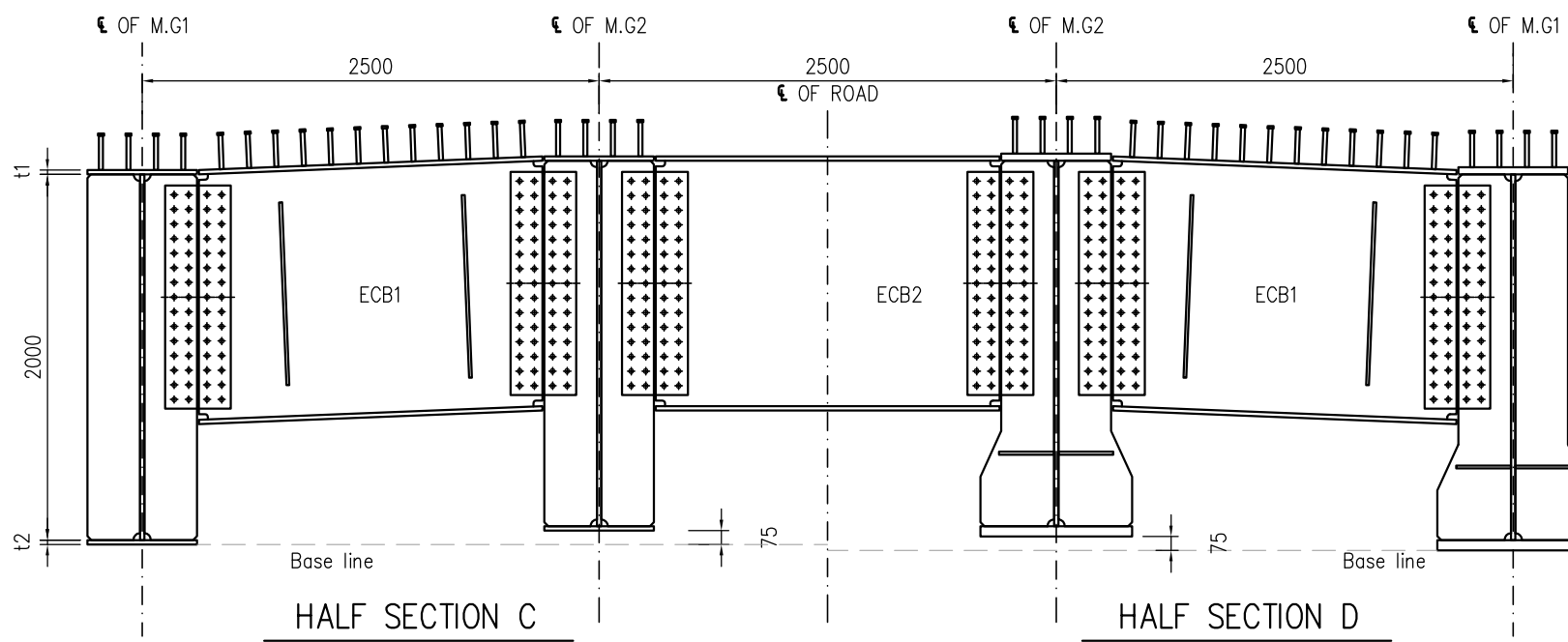
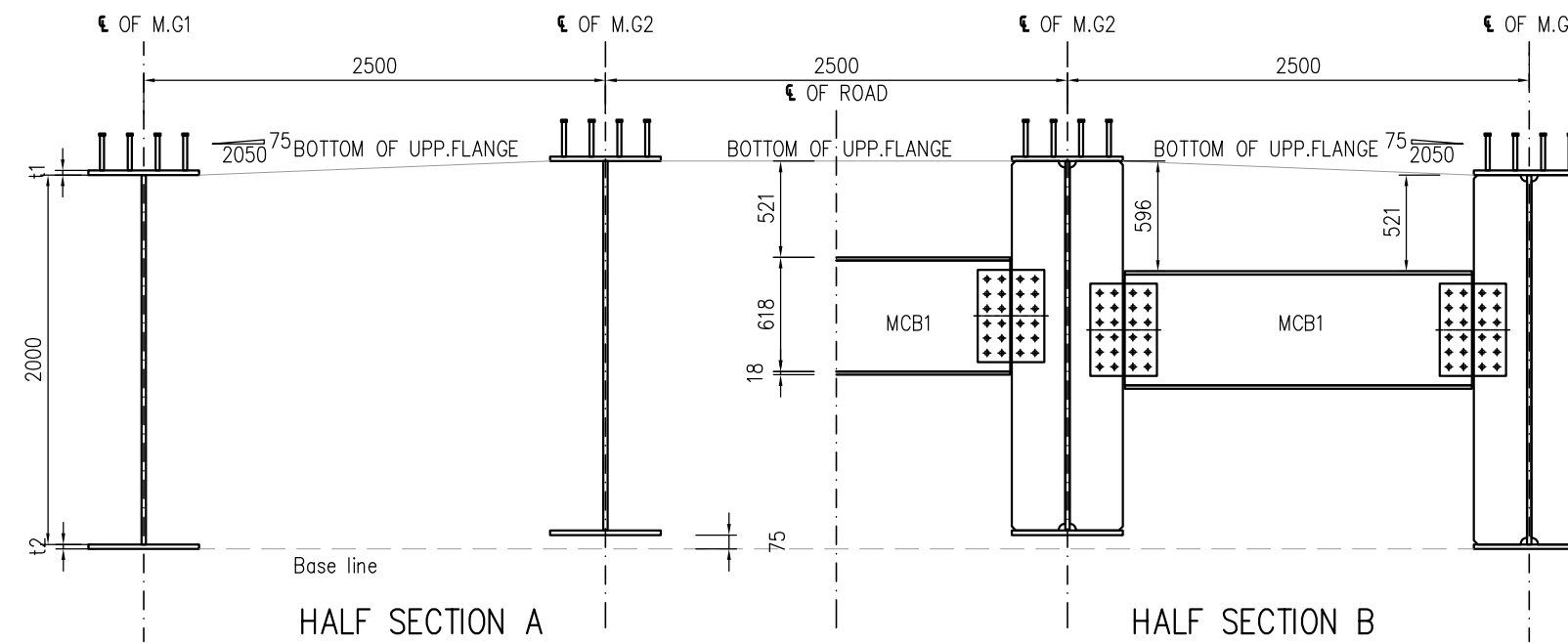
Notes
 1. All dimensions are in millimeters unless otherwise noted.
 2. The left girder is symmetric with the right girder when they are named the same type.



M.G1-CR/M.G2-CR	M.G1-BR/M.G2-BR	M.G1-AR/M.G2-AR
600×32×11790	600×24×11790	600×24×10495
2000×24×11790	2000×24×11790	2000×24×10495
600×40×11790	600×32×11790	600×24×10495

Notes

1. All dimensions are in millimeters unless otherwise noted.
2. The left girder is symmetric with the right girder when they are named the same type.



MEMBER QUANTITY

MEMBER	QTY	MEMBER	QTY
M.G1-AL	2	M.G2-AL	2
M.G1-AR	2	M.G2-AR	2
M.G1-BL	2	M.G2-BL	2
M.G1-BR	2	M.G2-BR	2
M.G1-CL	2	M.G2-CL	2
M.G1-CR	2	M.G2-CR	2
M.G1-DL	2	M.G2-DL	2
M.G1-DR	2	M.G2-DR	2
M.G1-E	2	M.G2-E	2
M.G1-E	2	M.G2-E	2
SPLICE 1	8	MCB1	60
SPLICE 2	8	ECB1	10
SPLICE 3	8	ECB2	5
SPLICE 4	8		

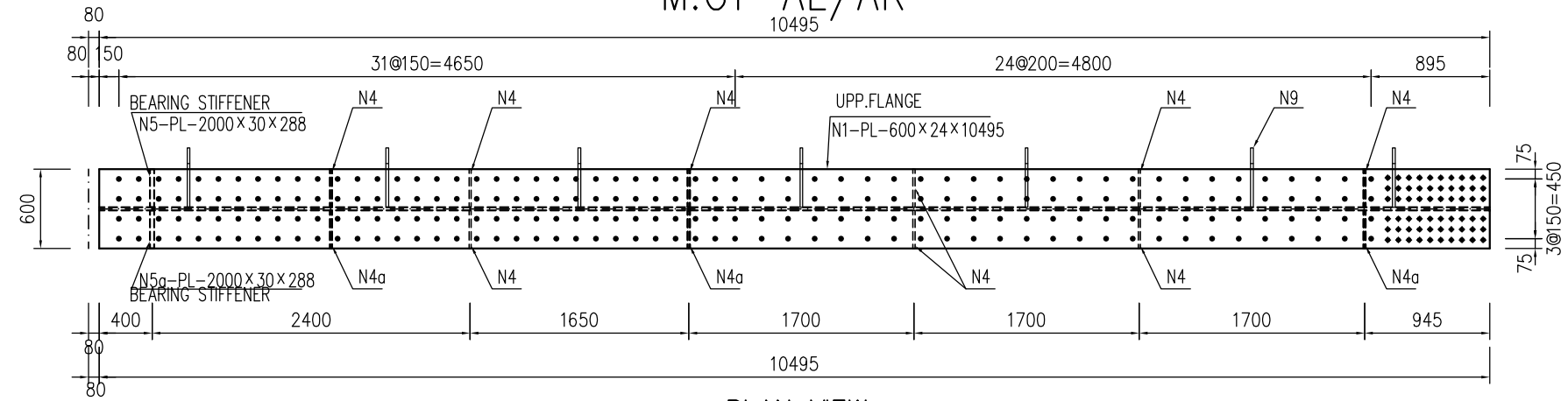
Notes

- All dimensions are in millimeters unless otherwise noted.
- M.G1-A=NO.1 MAIN GIRDER-TYPE A
M.G2-BL=NO.2 MAIN GIRDER-TYPE B LEFT
ECB=END CROSS BEAM.
MCB=MID CROSS BEAM

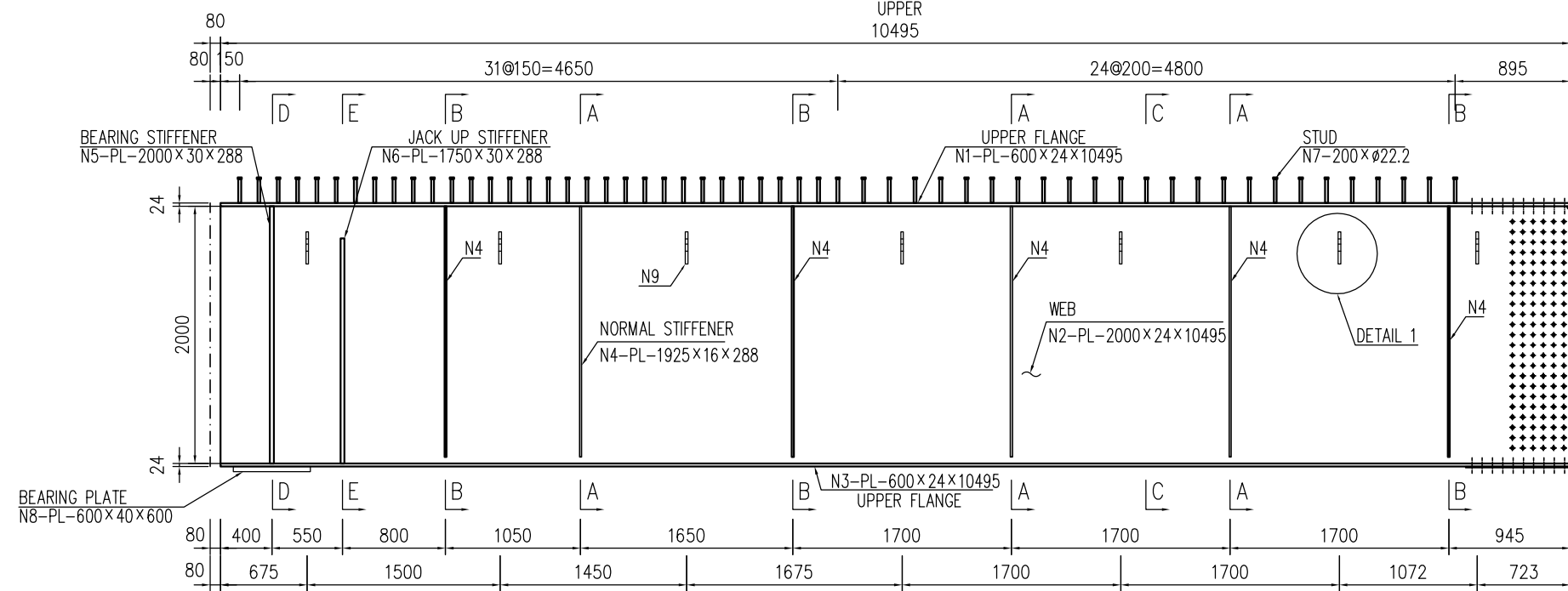
SHHIP-2 BCW2 BRIDGE
NO.42 MASUMA RIVER BRIDGE

DATE 2026.04

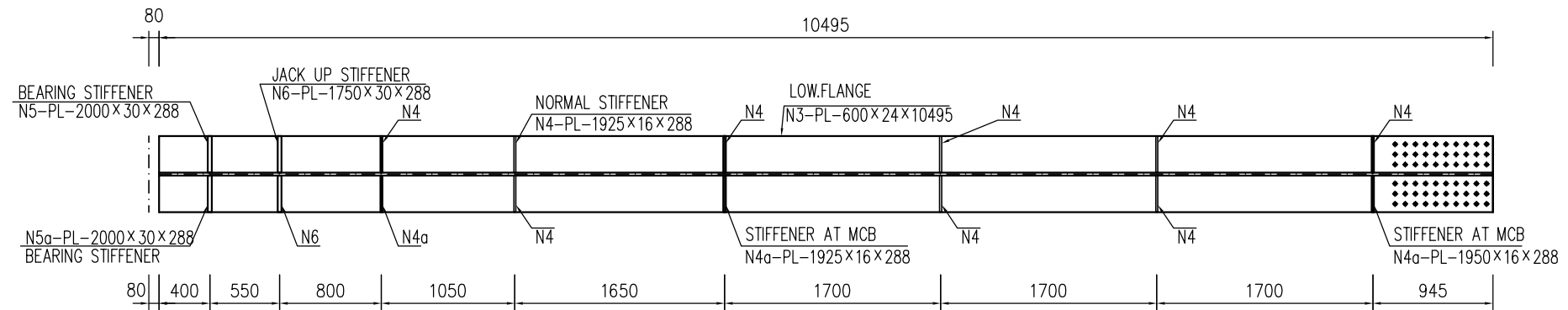
M.G1-AL/AR



PLAN VIEW



ELEVATION



PLAN VIEW

LOWER

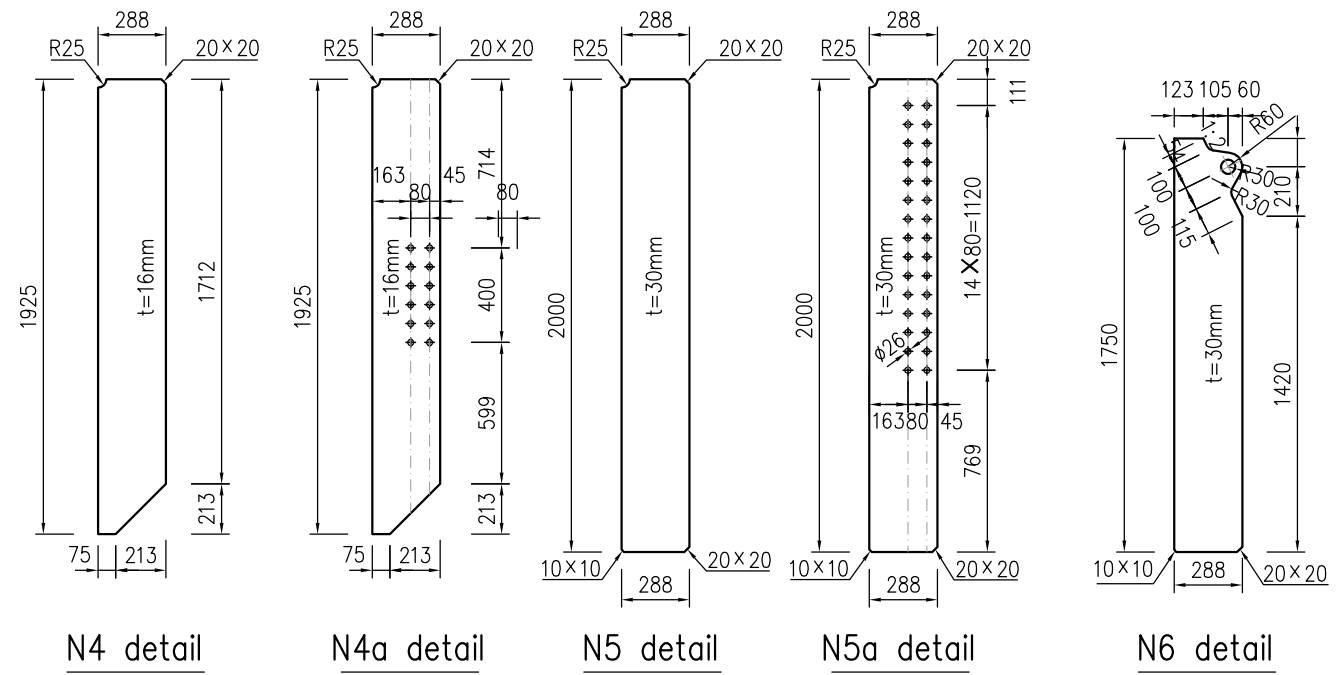
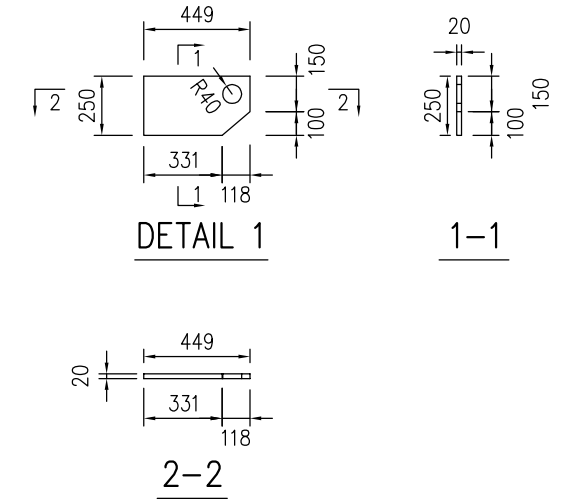
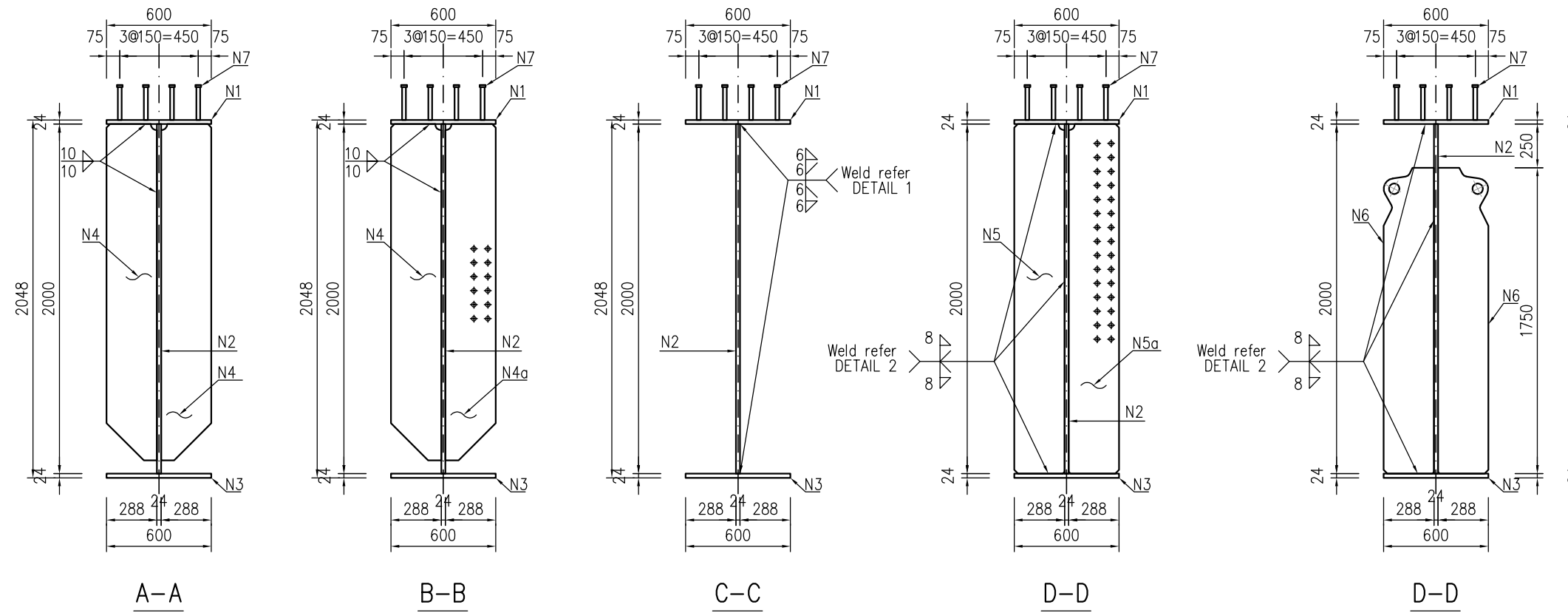
Notes

1. All dimensions are in millimeters unless otherwise noted.

SHHIP-2 BCW2 BRIDGE
NO.42 MASUMA RIVER BRIDGE

DATE

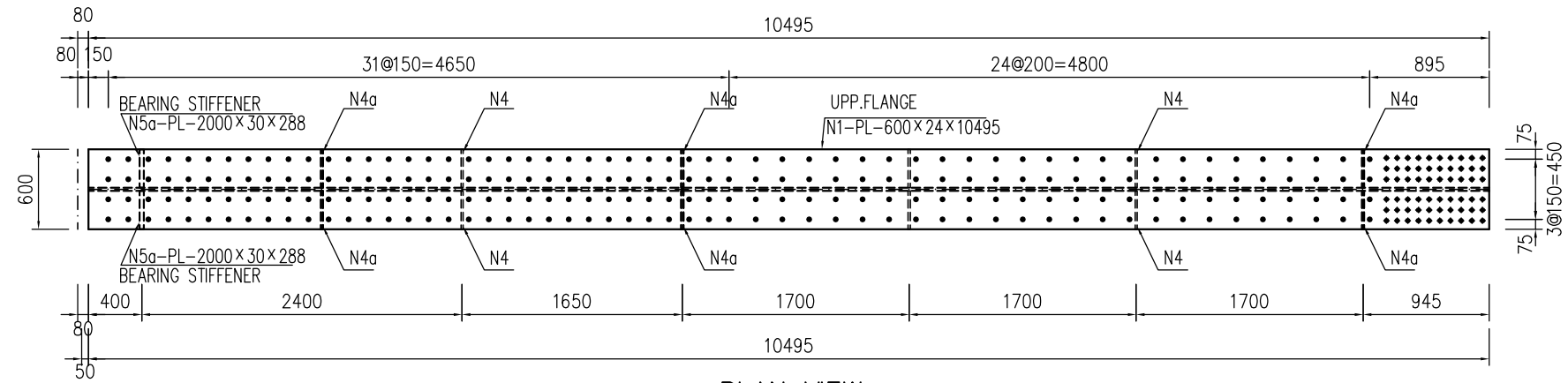
2026.04



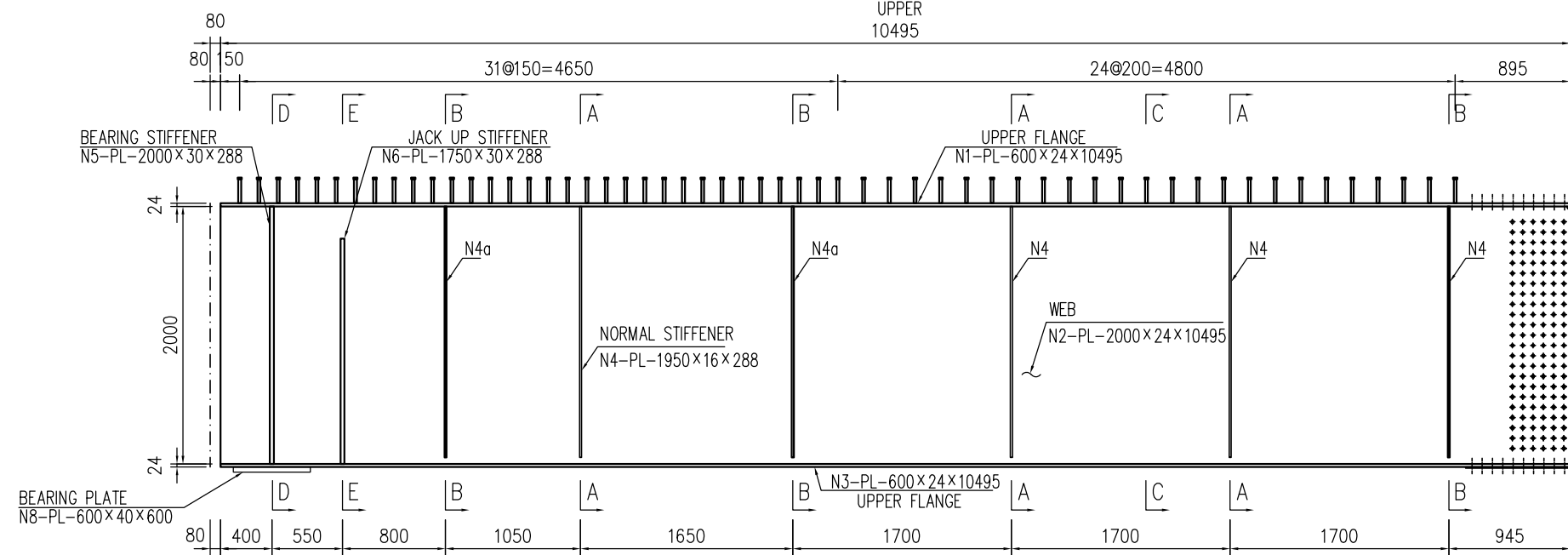
ELEMENT	MARK	GRADE	TYPE	SIZE	QTY	NOTE
MG1-AL/AR	N1	400	PLATE	600×24×10495	1	UPP.FLANGE
	N2	400	PLATE	2000×24×10495	1	WEB
	N3	400	PLATE	600×24×10495	1	LOW FLANGE
	N4	400	PLATE	288×16×1925	9	OUTSIDE STIFFENER
	N4a	400	PLATE	288×16×1925	3	INSIDE STIFFENER AT MCB
	N5	400	PLATE	288×30×2000	1	OUTSIDE BEARING STIFFENER
	N5a	400	PLATE	288×30×2000	1	INSIDE BEARING STIFFENER
	N6	400	PLATE	288×30×1750	2	JACKUP STIFFENER
	N7	10M16	PLATE	200×φ22.2	224	STUD
	N8	400	PLATE	600×40×600	1	BEARING PLATE
N9	400	PLATE	449×20×250	7	OUTSIDE SUPPORTING STIFFENER	

Notes
 1. All dimensions are in millimeters unless otherwise noted.

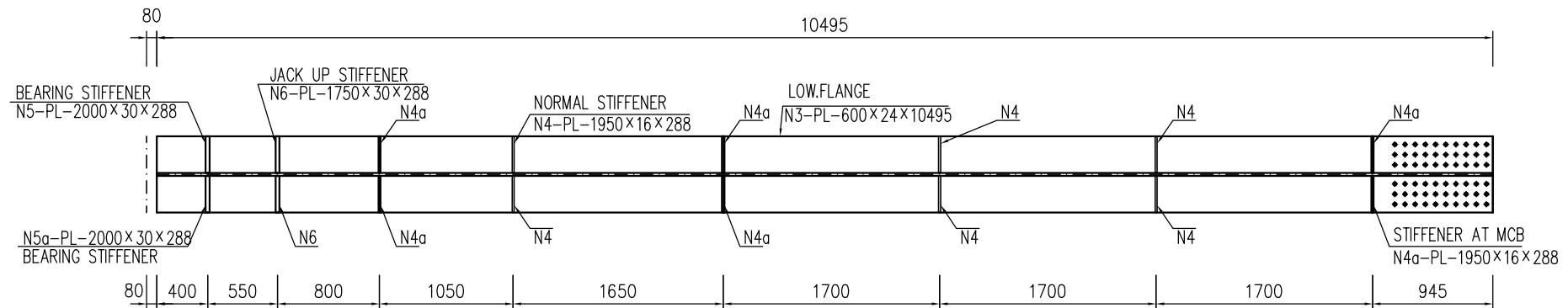
M.G2-AL/AR



PLAN VIEW



ELEVATION



PLAN VIEW

LOWER

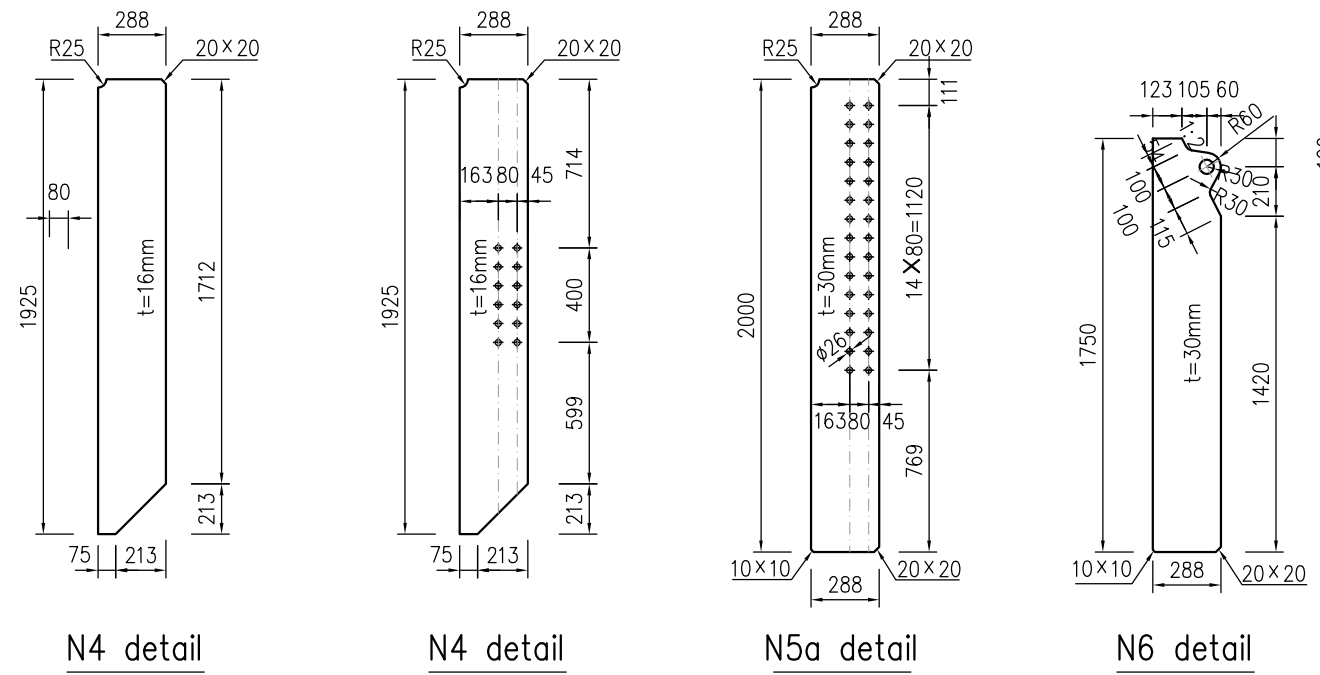
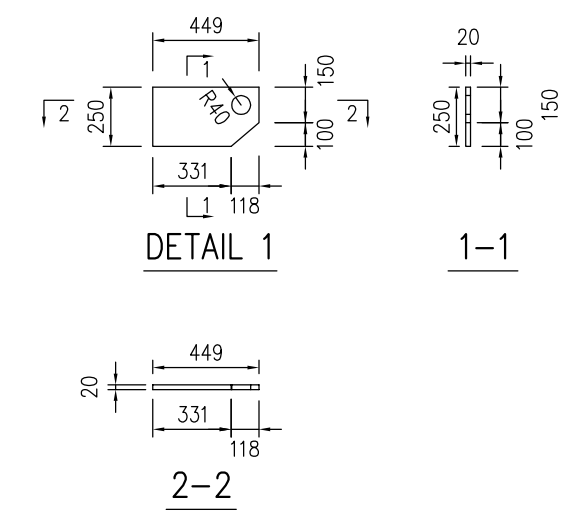
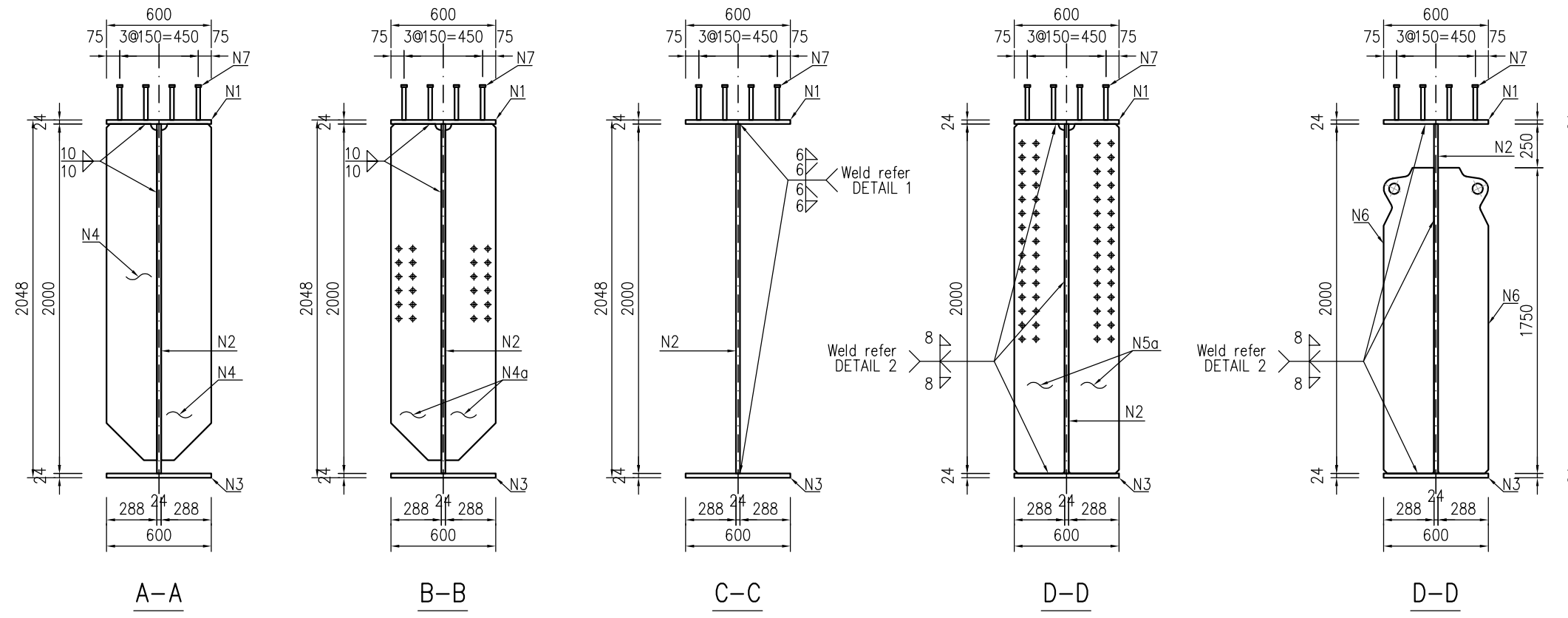
Notes

1. All dimensions are in millimeters unless otherwise noted.

SHHIP-2 BCW2 BRIDGE
NO.42 MASUMA RIVER BRIDGE

DATE

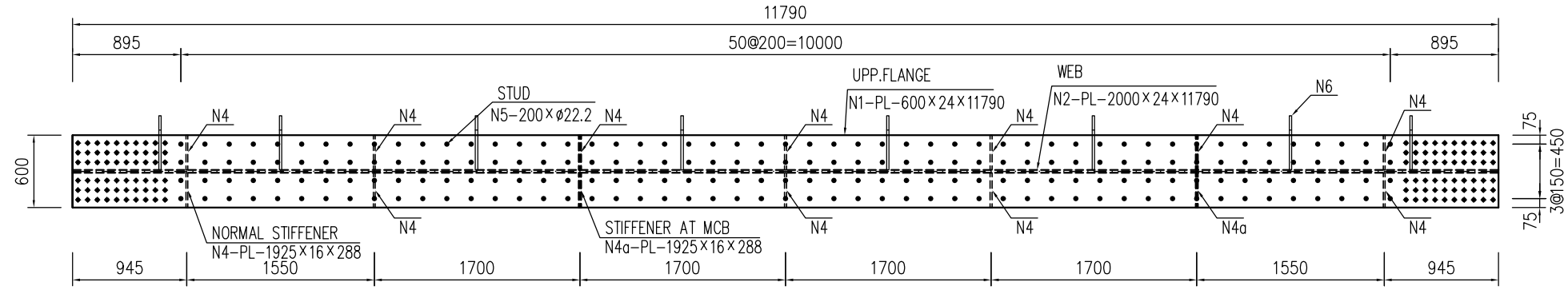
2026.04



ELEMENT	MARK	GRADE	TYPE	SIZE	QTY	NOTE
MG2-AL/AR	N1	400	PLATE	600×24×10495	1	UPP.FLANGE
	N2	400	PLATE	2000×24×10495	1	WEB
	N3	400	PLATE	600×24×10495	1	LOW FLANGE
	N4	400	PLATE	288×16×1925	6	OUTSIDE STIFFENER
	N4a	400	PLATE	288×16×1925	6	INSIDE STIFFENER AT MCB
	N5a	400	PLATE	288×30×2000	2	INSIDE BEARING STIFFENER
	N6	400	PLATE	288×30×1750	2	JACKUP STIFFENER
	N7	10M16	PLATE	200×φ22.2	224	STUD
N8	400	PLATE	600×40×600	1	BEARING PLATE	

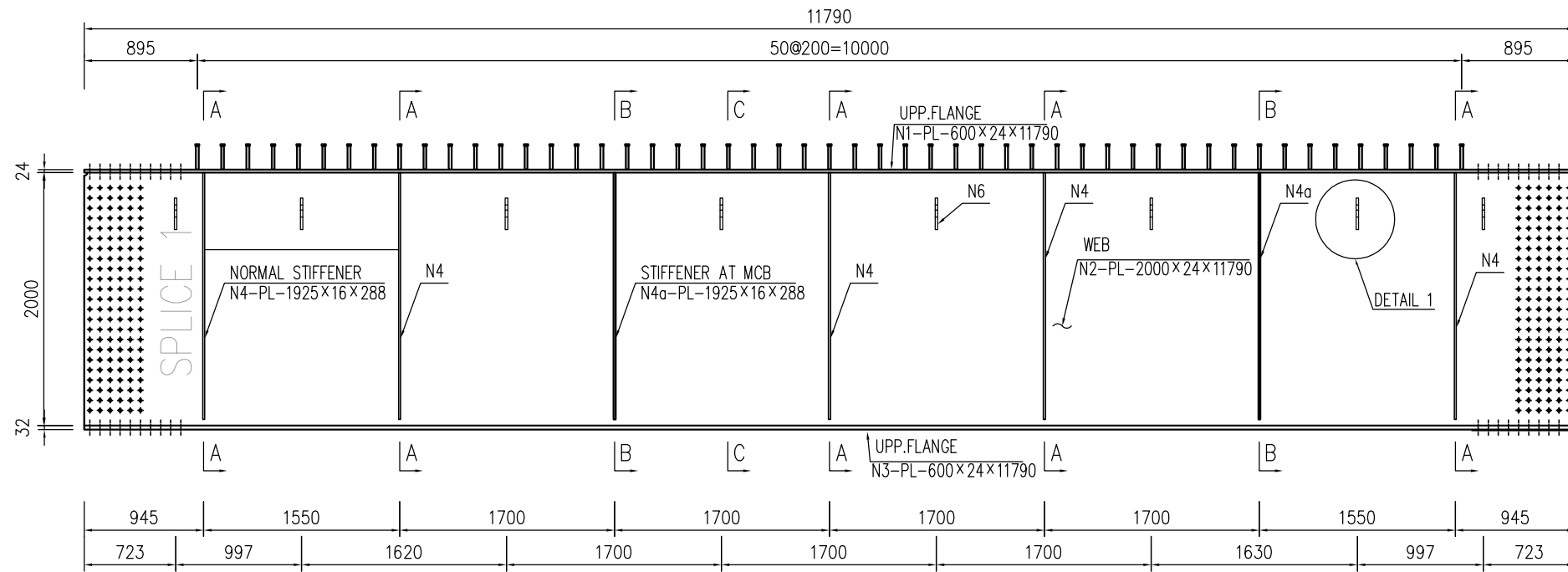
Notes
 1. All dimensions are in millimeters unless otherwise noted.

M.G1-BL/BR

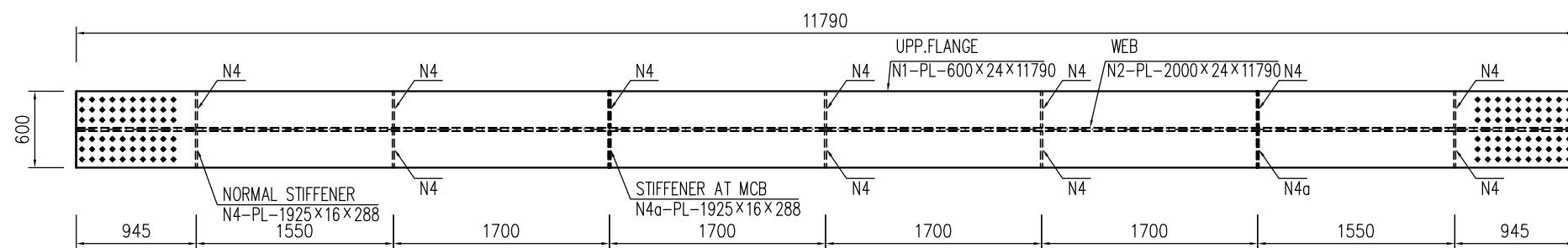


PLAN VIEW

UPPER



ELEVATION



PLAN VIEW

LOWER

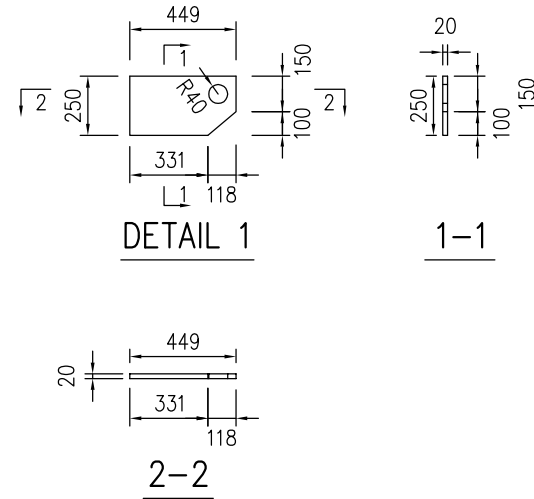
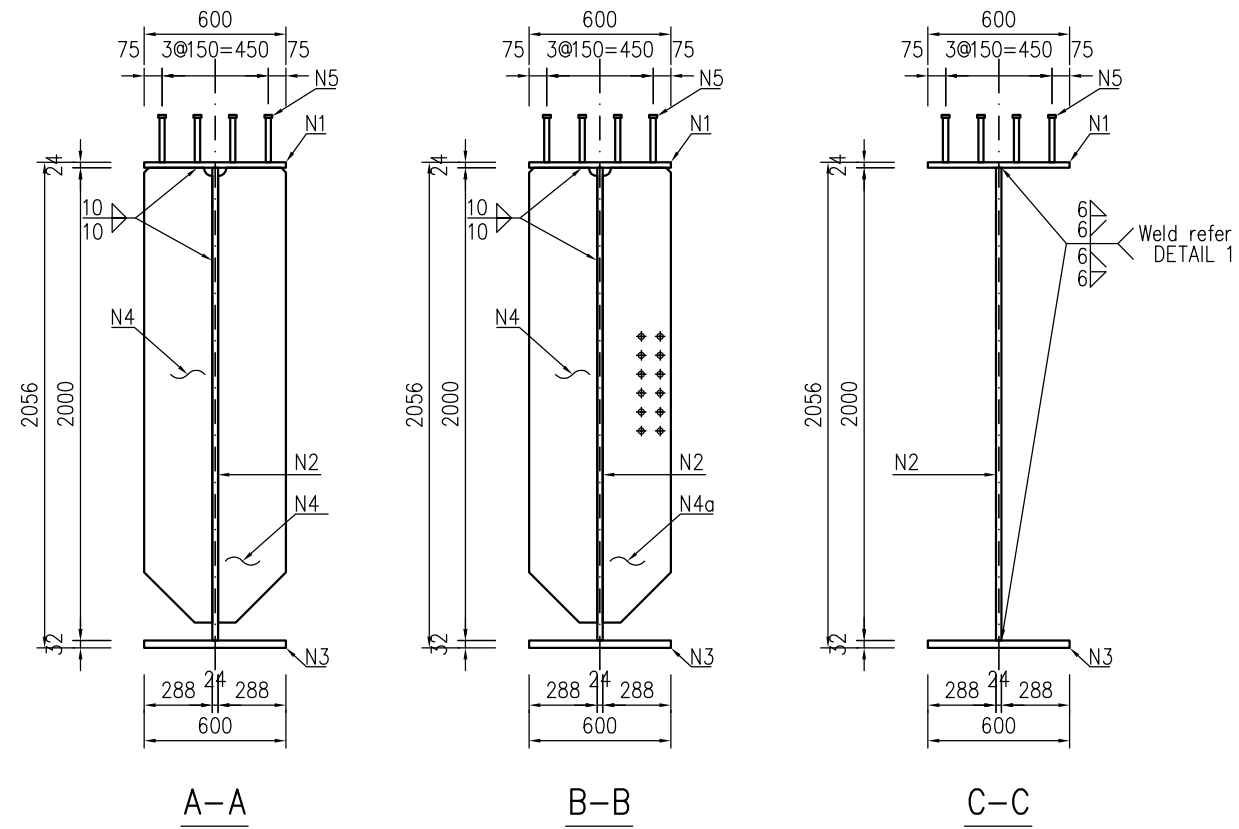
Notes

1. All dimensions are in millimeters unless otherwise noted.

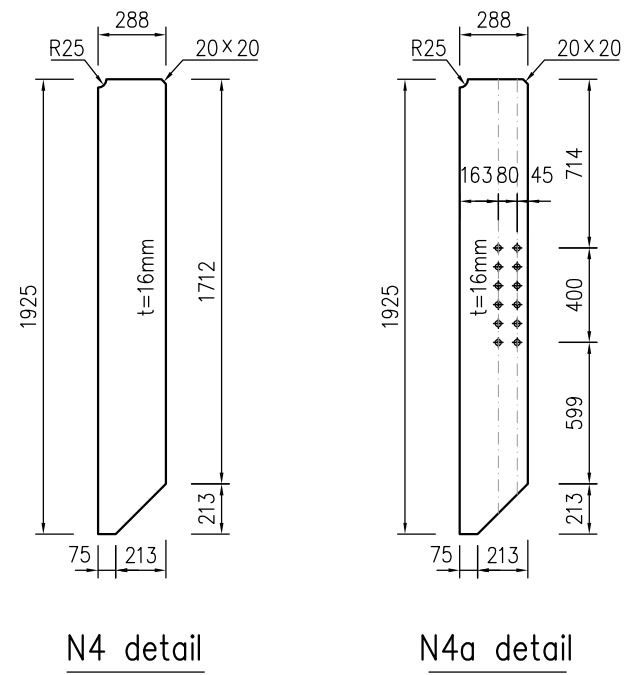
SHHIP-2 BCW2 BRIDGE
NO.42 MASUMA RIVER BRIDGE

DATE

2026.04



ELEMENT	MARK	GRADE	TYPE	SIZE	QTY	NOTE
MG2-AL/AR	N1	400	PLATE	600×24×11790	1	UPP.FLANGE
	N2	400	PLATE	2000×24×11790	1	WEB
	N3	400	PLATE	600×32×11790	1	LOW FLANGE
	N4	400	PLATE	288×16×1925	6	OUTSIDE STIFFENER
	N4a	400	PLATE	288×16×1925	6	INSIDE STIFFENER AT MCB
	N5	10M16	STUD	200×φ22.2	204	STUD
	N6	400	PLATE	449×20×250	8	OUTSIDE SUPPORTING STIFFENER



Notes

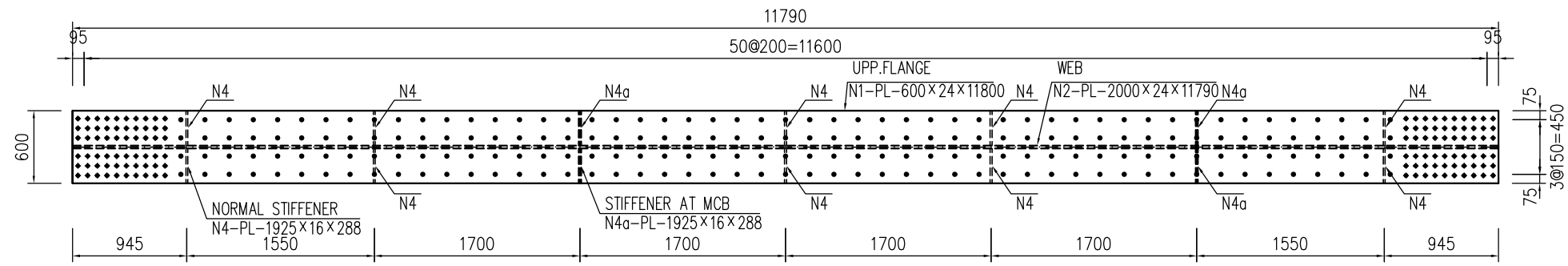
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SHHIP-2 BCW2 BRIDGE
NO.42 MASUMA RIVER BRIDGE

DATE

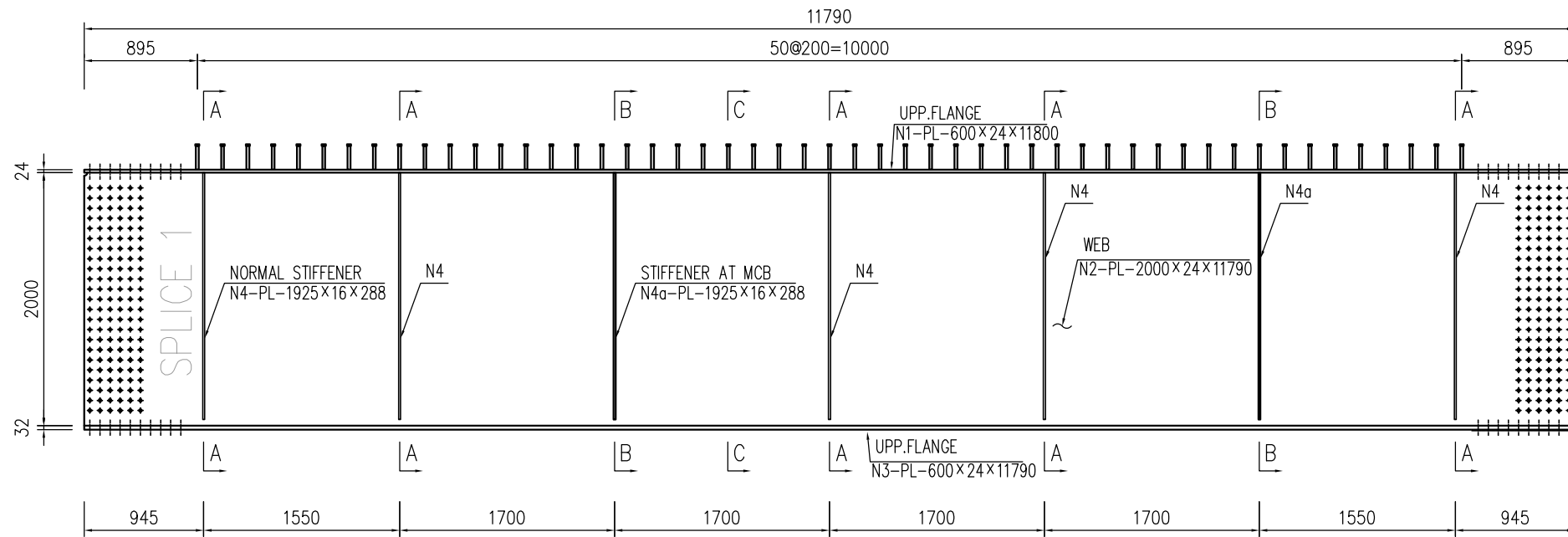
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M.G2-BL/BR

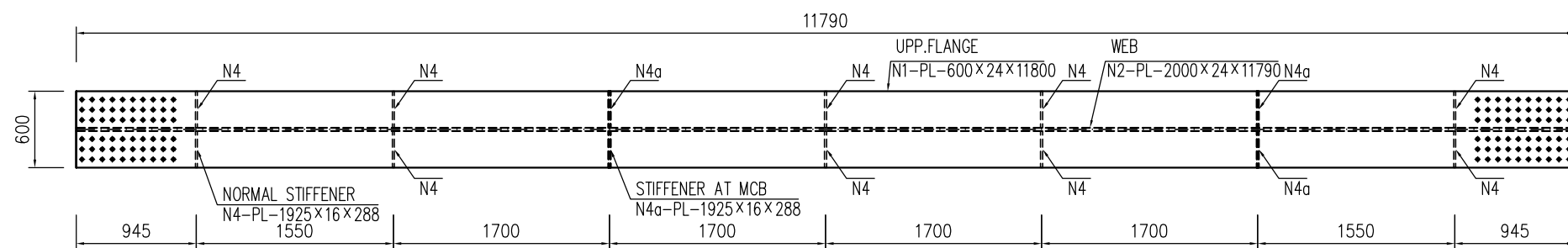


PLAN VIEW

UPPER



ELEVATION



PLAN VIEW

LOWER

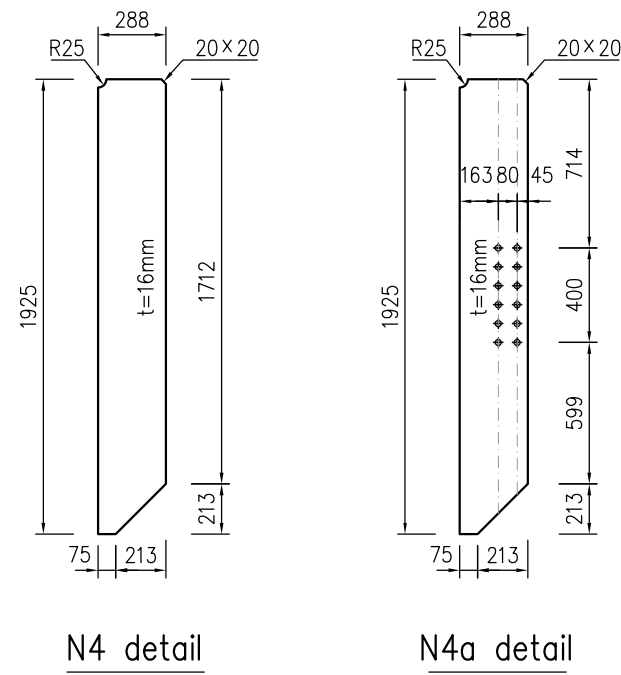
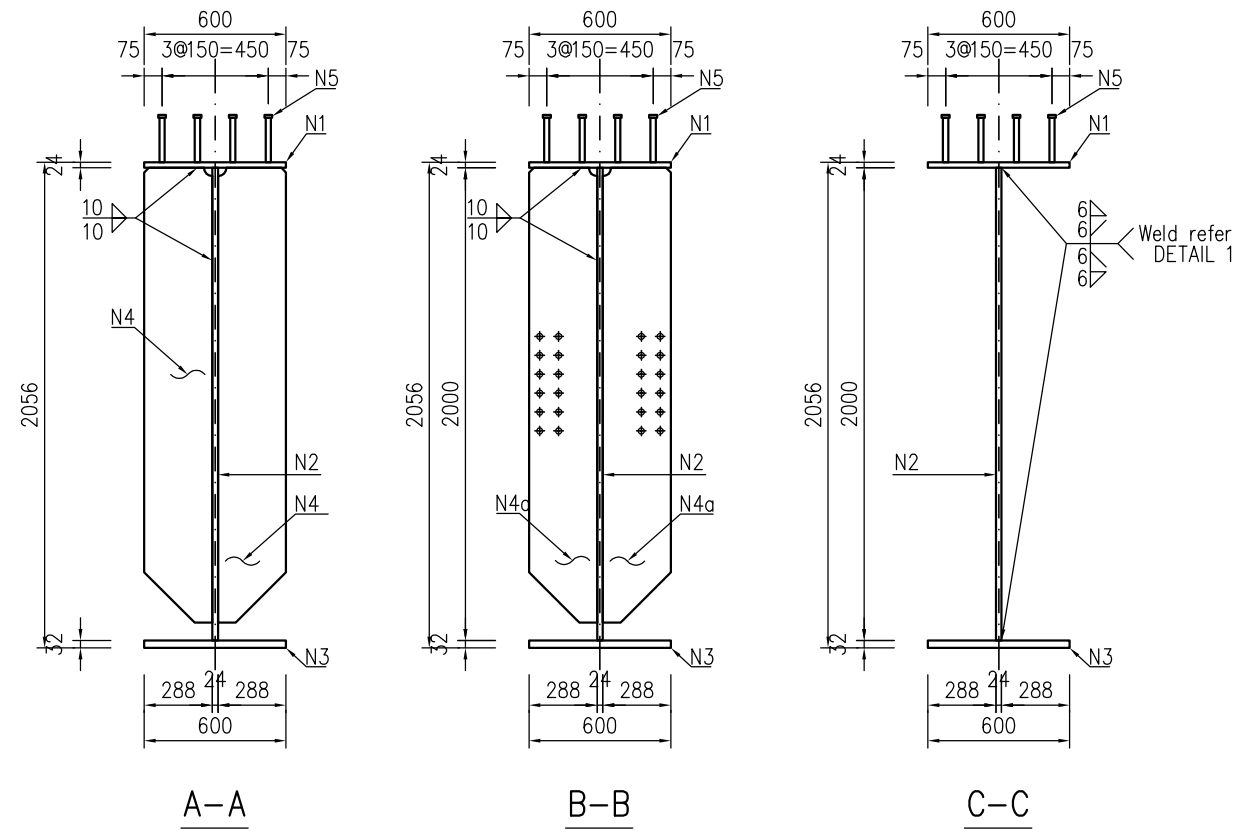
Notes

1. All dimensions are in millimeters unless otherwise noted.

SHHIP-2 BCW2 BRIDGE
NO.42 MASUMA RIVER BRIDGE

DATE

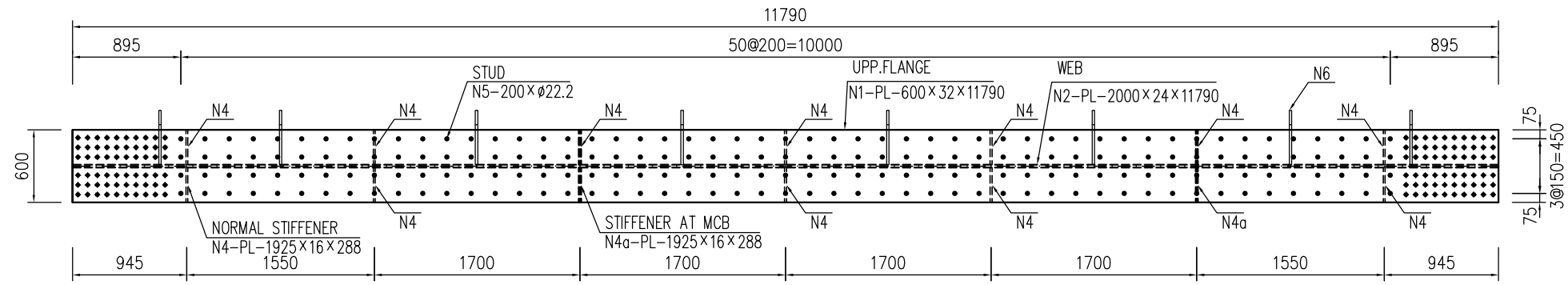
2026.04



ELEMENT	MARK	GRADE	TYPE	SIZE	QTY	NOTE
MG2-BL/BR	N1	400	PLATE	600×24×11790	1	UPP.FLANGE
	N2	400	PLATE	2000×24×11790	1	WEB
	N3	400	PLATE	600×32×11790	1	LOW FLANGE
	N4	400	PLATE	288×16×1925	10	OUTSIDE STIFFENER
	N4a	400	PLATE	288×16×1925	4	INSIDE STIFFENER AT MCB
	N5	10M16	STUD	200××φ22.2	204	STUD

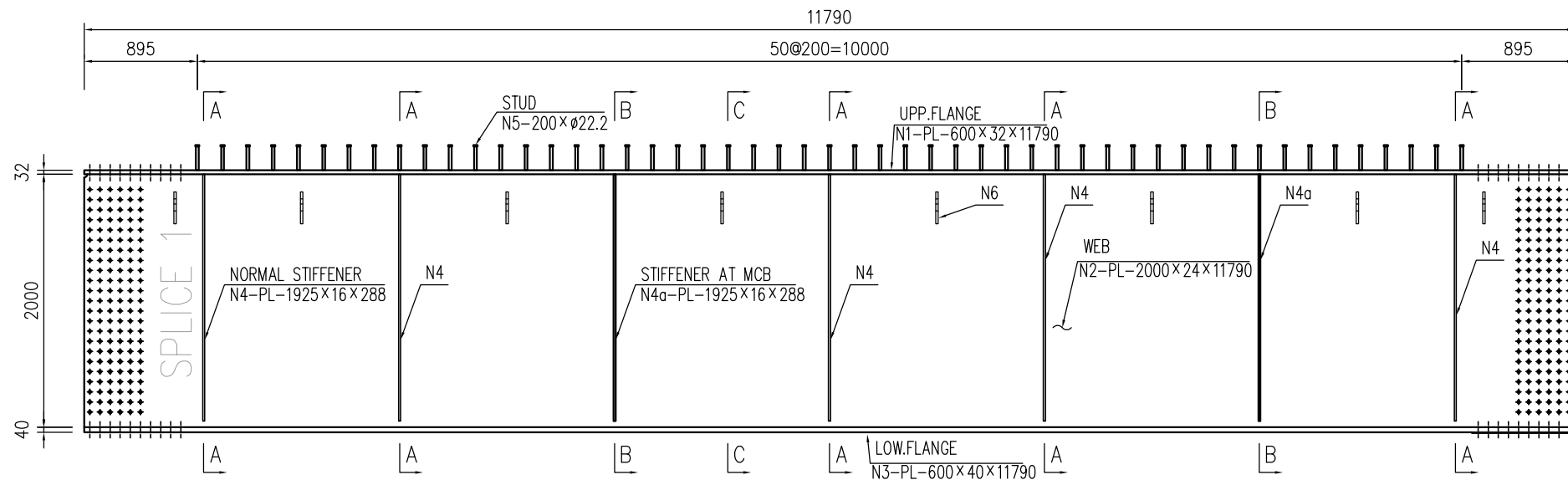
Notes
 1. All dimensions are in millimeters unless otherwise noted.

M.G1-CL/CR

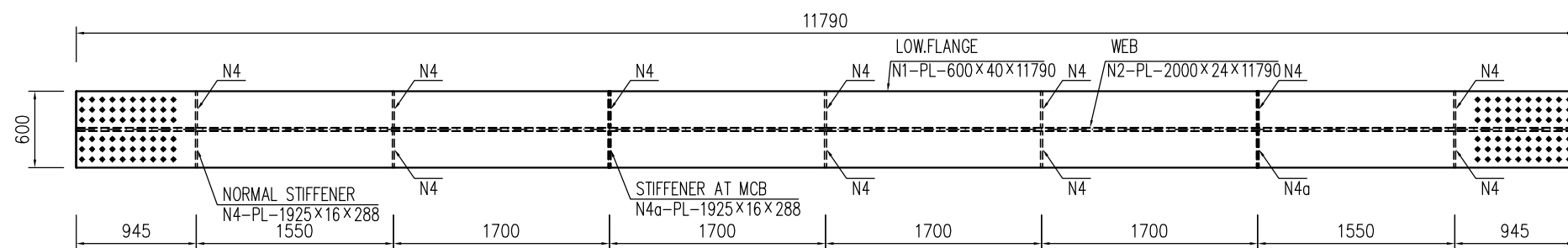


PLAN VIEW

UPPER



ELEVATION



PLAN VIEW

LOWER

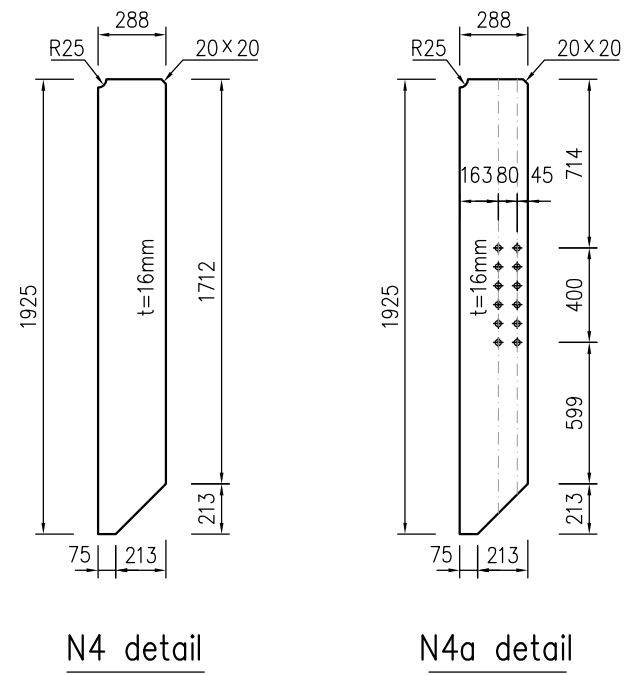
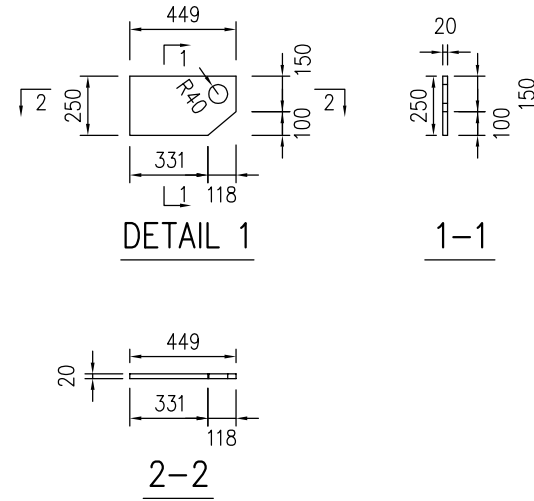
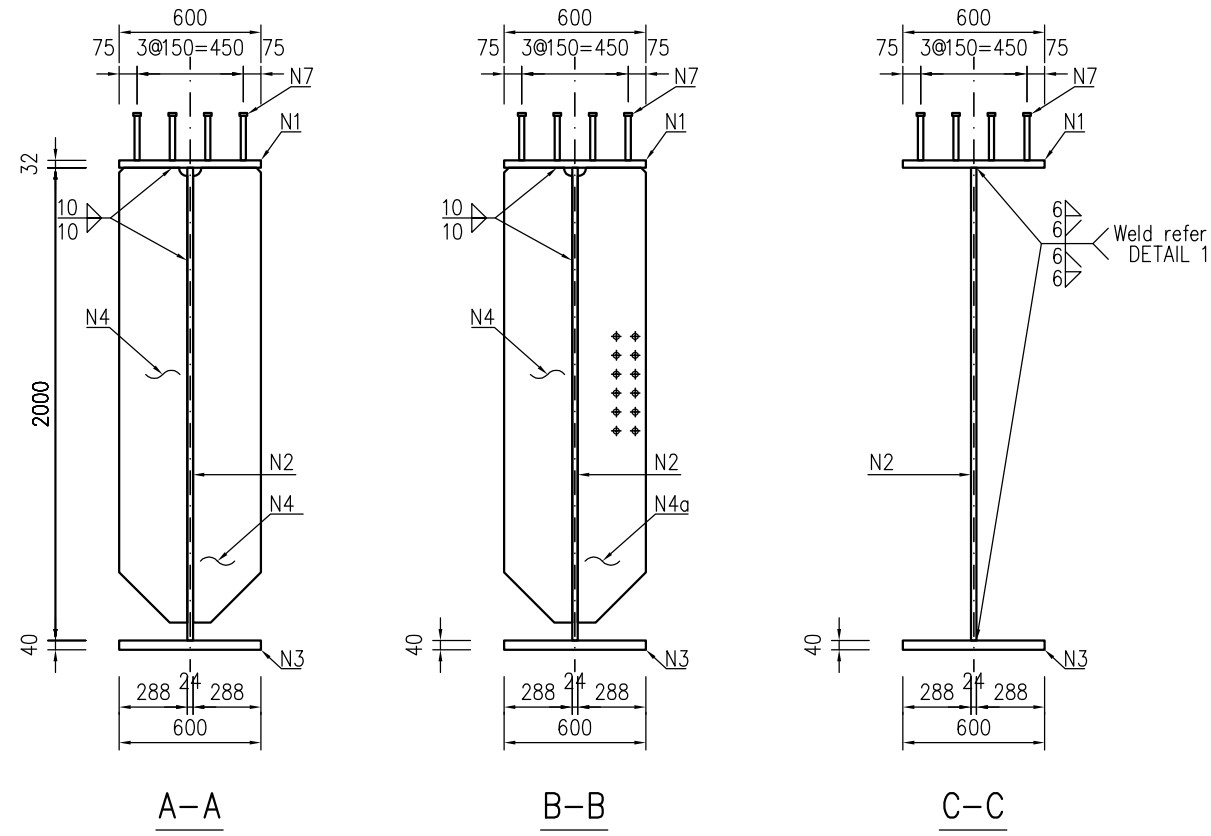
Notes

1. All dimensions are in millimeters unless otherwise noted.

SHHIP-2 BCW2 BRIDGE
NO.42 MASUMA RIVER BRIDGE

DATE

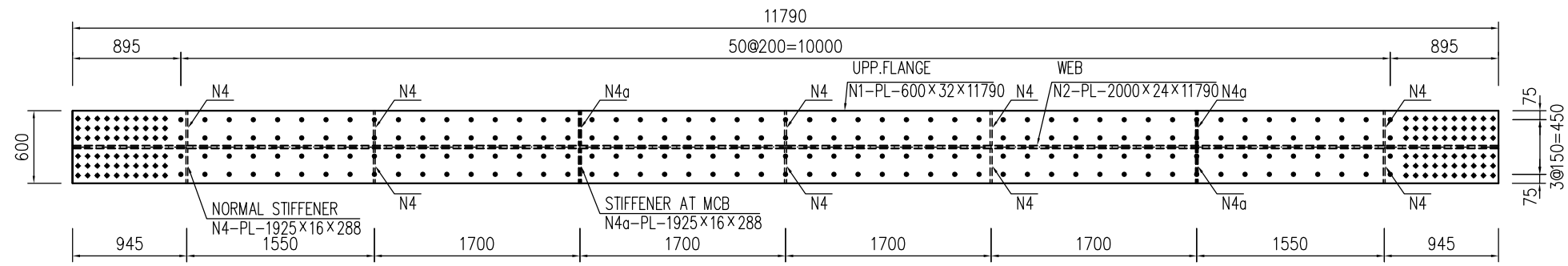
2026.04



ELEMENT	MARK	GRADE	TYPE	SIZE	QTY	NOTE
MG1-CL/CR	N1	400	PLATE	600×32×11790	1	UPP.FLANGE
	N2	400	PLATE	2000×24×11790	1	WEB
	N3	400	PLATE	600×40×11790	1	LOW FLANGE
	N4	400	PLATE	288×16×1925	12	OUTSIDE STIFFENER
	N4a	400	PLATE	288×16×1925	2	INSIDE STIFFENER AT MCB
	N5	10M16	STUD	200××φ22.2	204	STUD
	N6	400	PLATE	449×20×250	8	OUTSIDE SUPPORTING STIFFENER

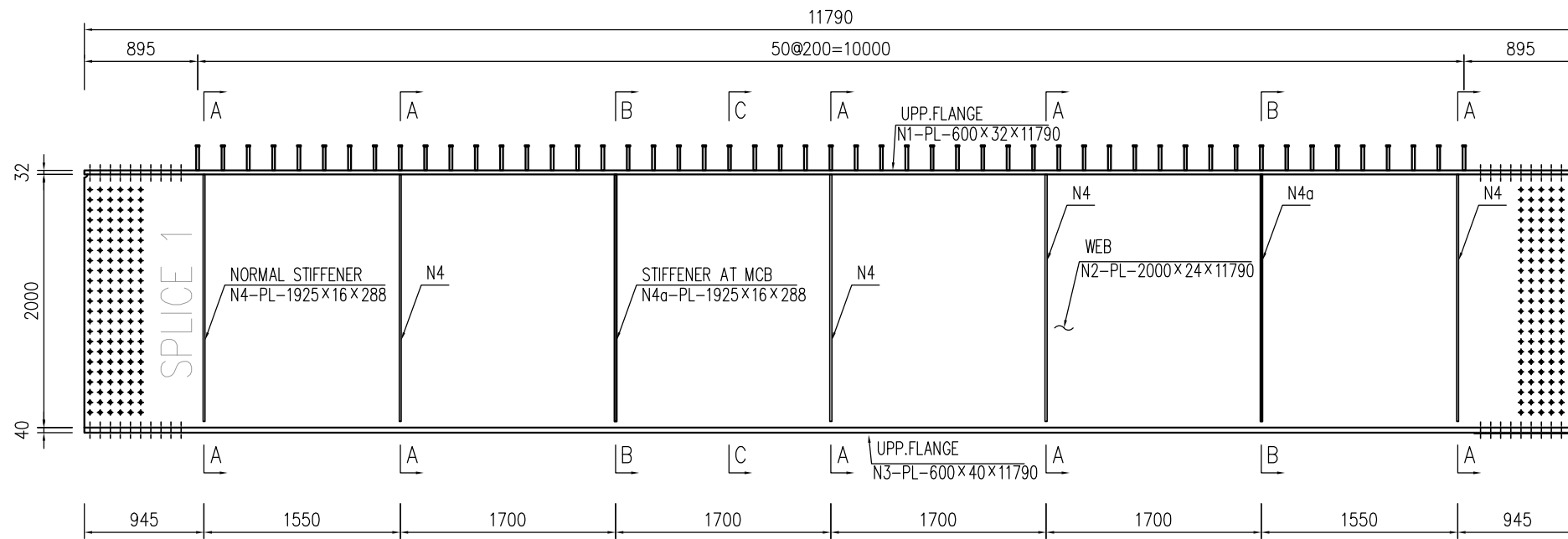
Notes
 1. All dimensions are in millimeters unless otherwise noted.

M.G2-CL/CR

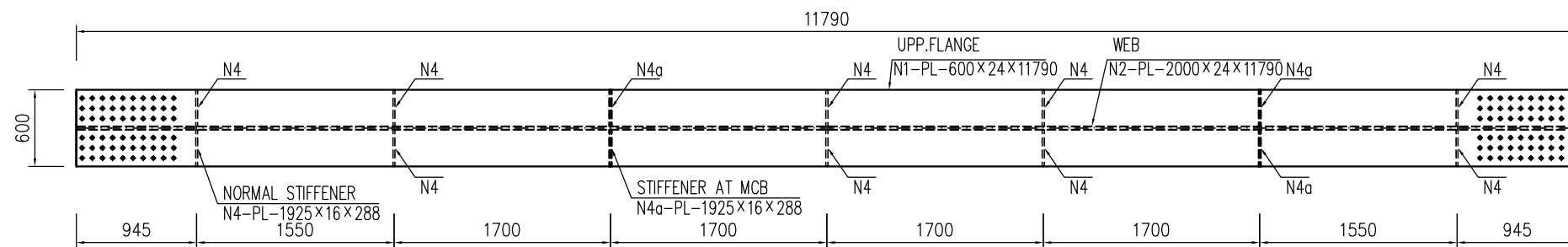


PLAN VIEW

UPPER



ELEVATION



PLAN VIEW

LOWER

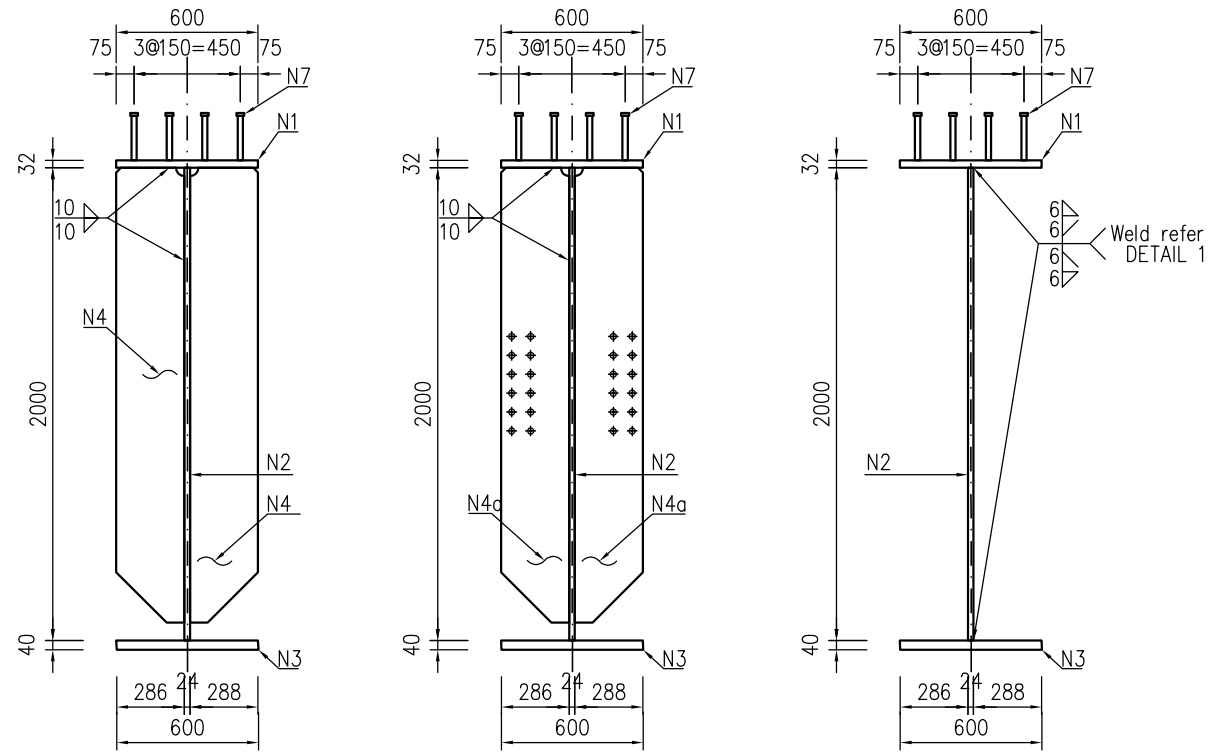
Notes

1. All dimensions are in millimeters unless otherwise noted.

SHHIP-2 BCW2 BRIDGE
NO.42 MASUMA RIVER BRIDGE

DATE

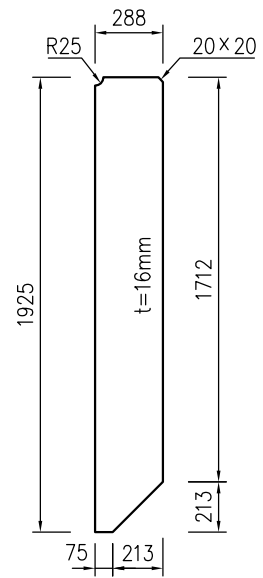
2026.04



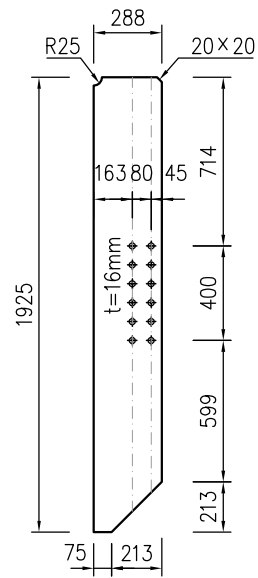
A-A

B-B

C-C



N4 detail



N4a detail

ELEMENT	MARK	GRADE	TYPE	SIZE	QTY	NOTE
MG2-CL/CR	N1	400	PLATE	600×32×11790	1	UPP.FLANGE
	N2	400	PLATE	2000×24×11790	1	WEB
	N3	400	PLATE	600×40×11790	1	LOW FLANGE
	N4	400	PLATE	288×16×1925	10	OUTSIDE STIFFENER
	N4a	400	PLATE	288×16×1925	4	INSIDE STIFFENER AT MCB
	N5	10M16	STUD	200××φ22.2	204	STUD

Notes

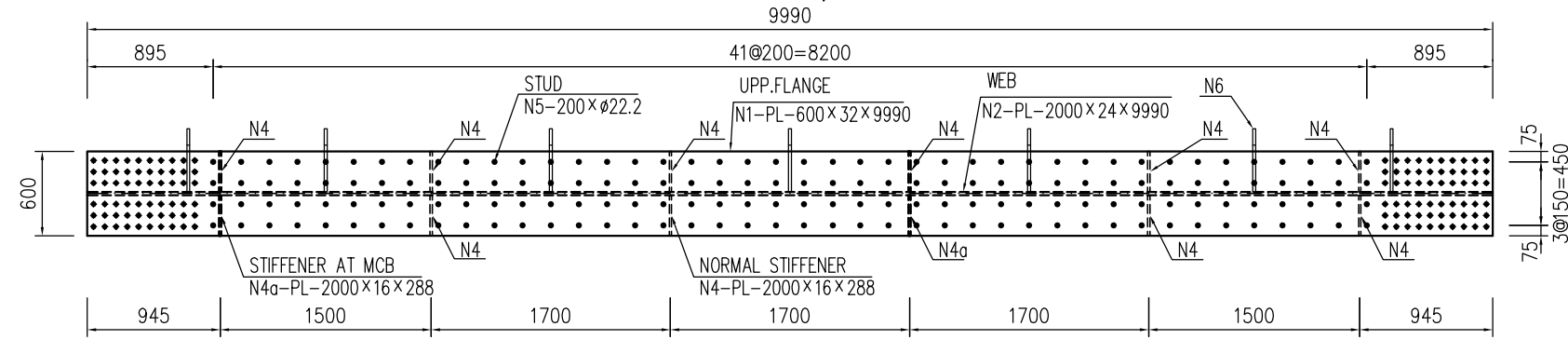
1. All dimensions are in millimeters unless otherwise noted.

SHHIP-2 BCW2 BRIDGE
NO.42 MASUMA RIVER BRIDGE

DATE

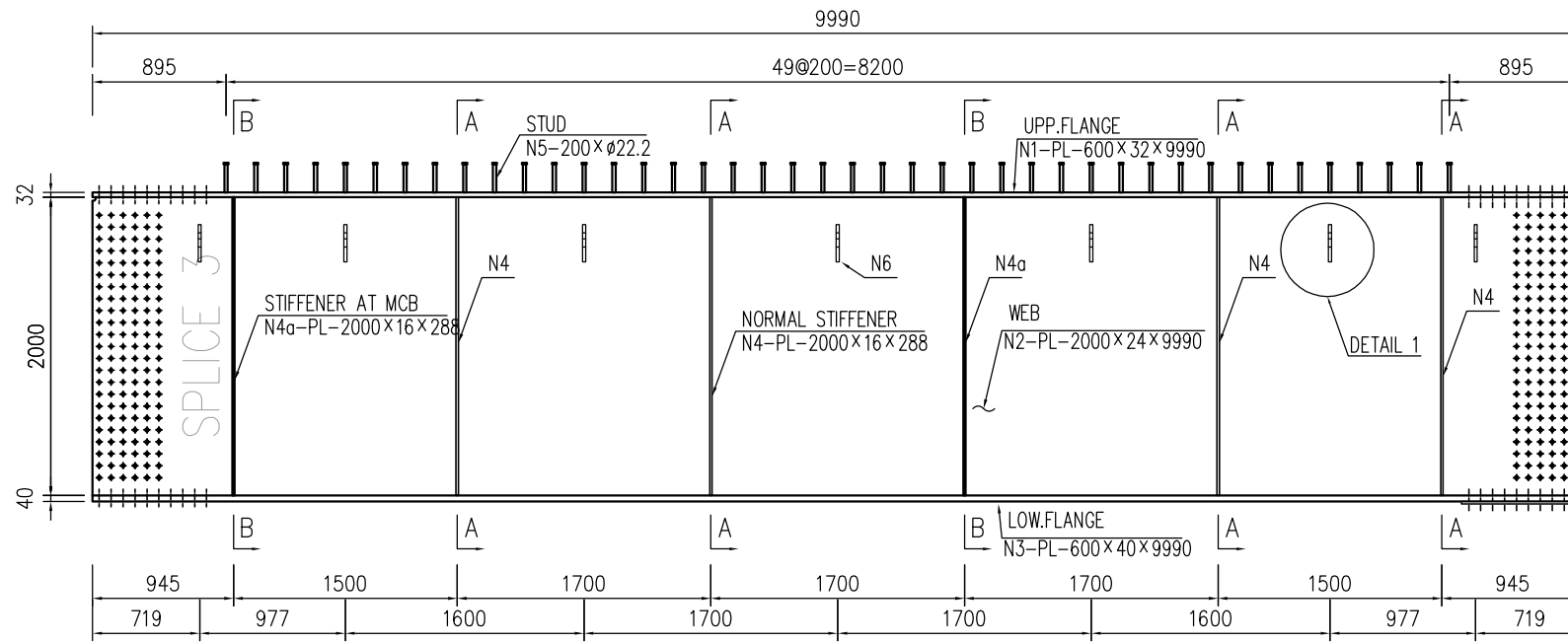
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M.G1-DL/DR

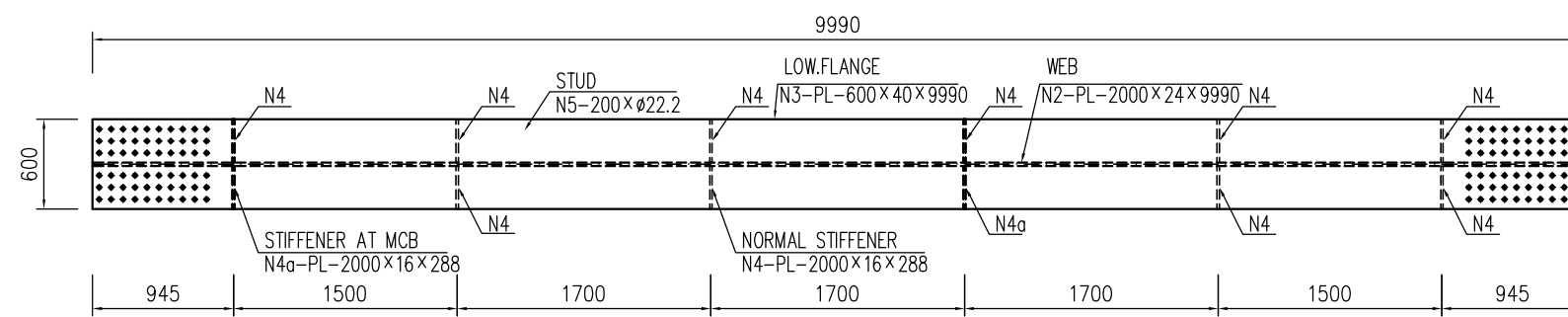


PLAN VIEW

UPPER



ELEVATION



PLAN VIEW

LOWER

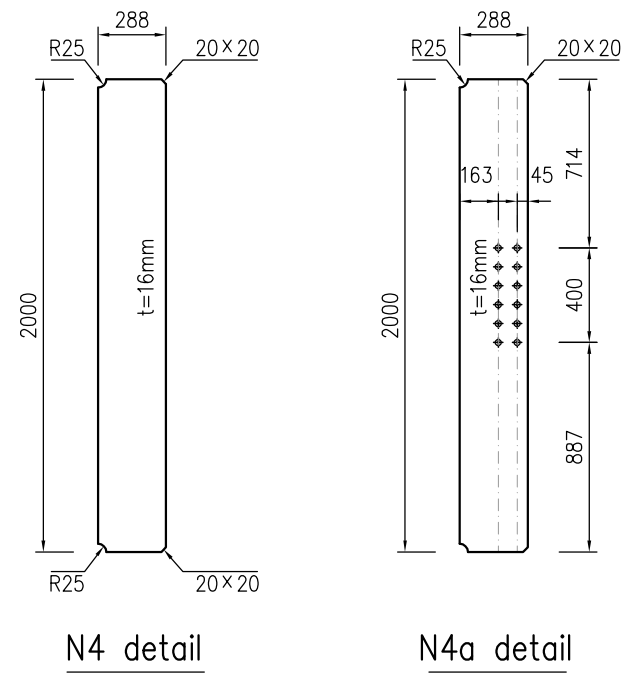
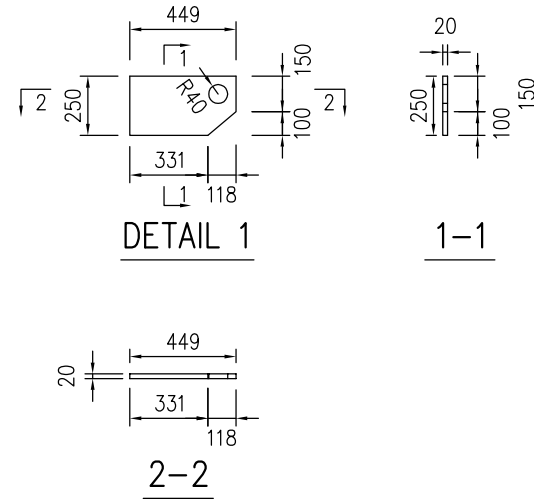
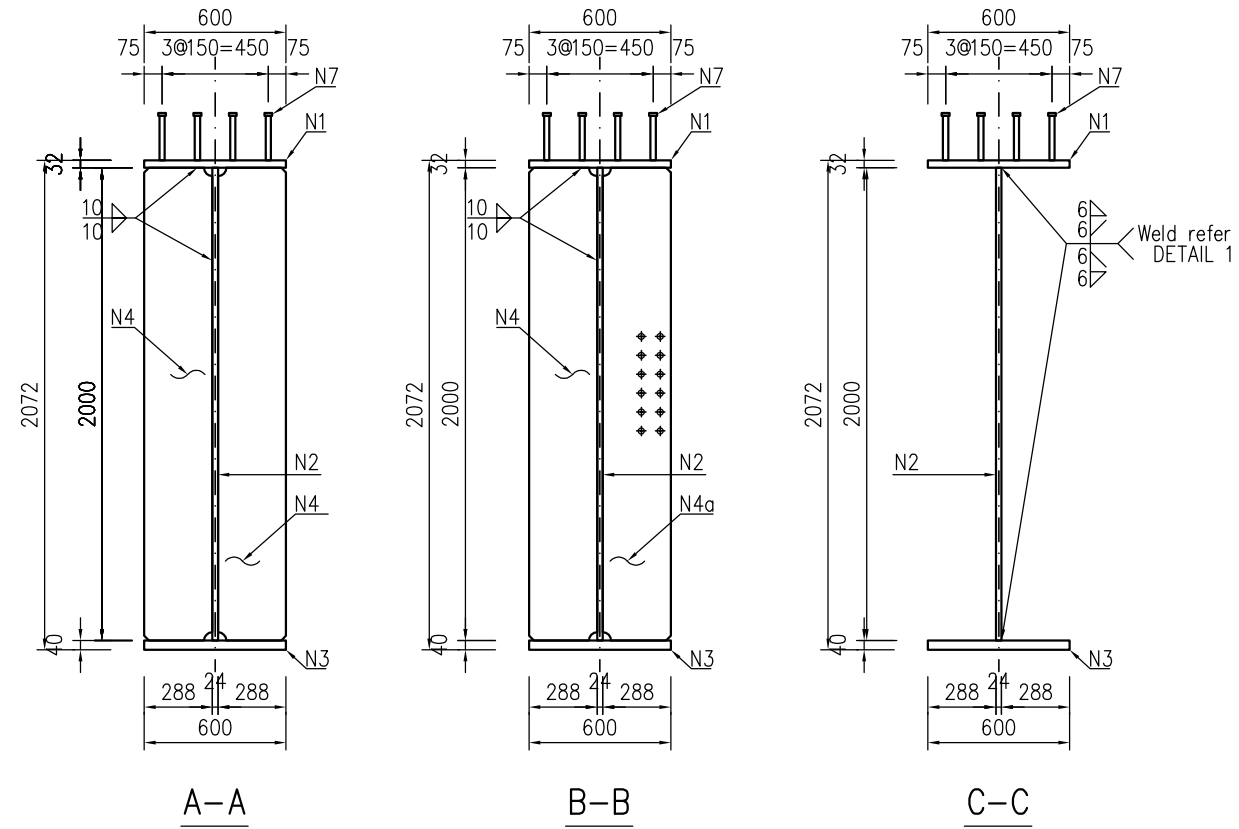
Notes

1. All dimensions are in millimeters unless otherwise noted.

SHHIP-2 BCW2 BRIDGE
NO.42 MASUMA RIVER BRIDGE

DATE

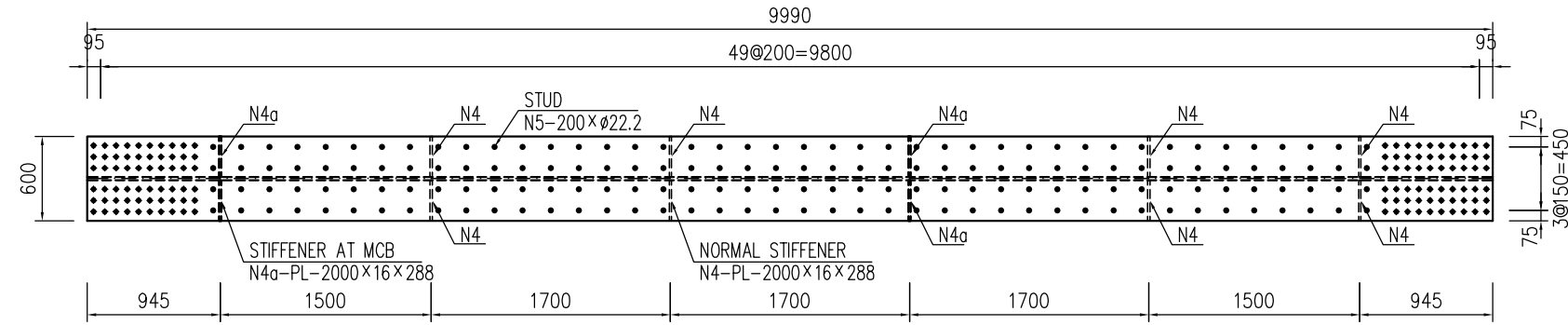
2026.04



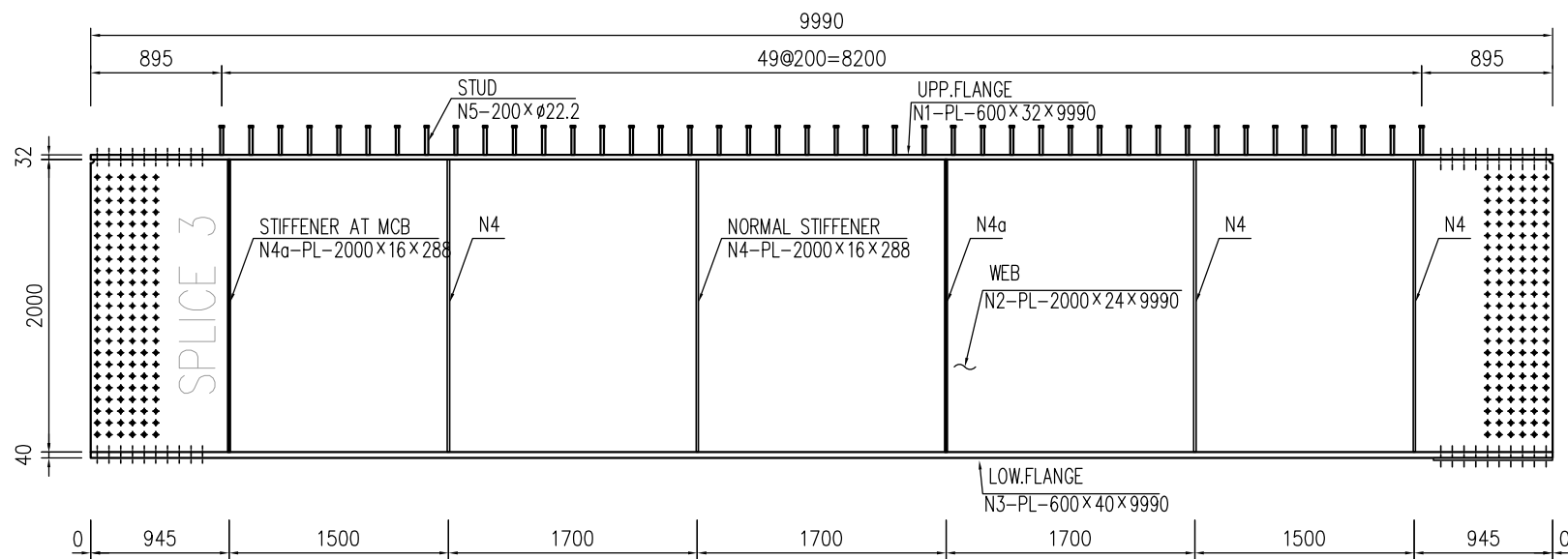
ELEMENT	MARK	GRADE	TYPE	SIZE	QTY	NOTE
MG1-DL/DR	N1	400	PLATE	600×32×9990	1	UPP.FLANGE
	N2	400	PLATE	2000×24×9990	1	WEB
	N3	400	PLATE	600×40×9990	1	LOW FLANGE
	N4	400	PLATE	288×16×2000	10	OUTSIDE STIFFENER
	N4a	400	PLATE	288×16×2000	2	INSIDE STIFFENER AT MCB
	N5	10M16	STUD	200××φ22.2	168	STUD
	N6	400	PLATE	449×20×250	7	OUTSIDE SUPPORTING STIFFENER

Notes
 1. All dimensions are in millimeters unless otherwise noted.

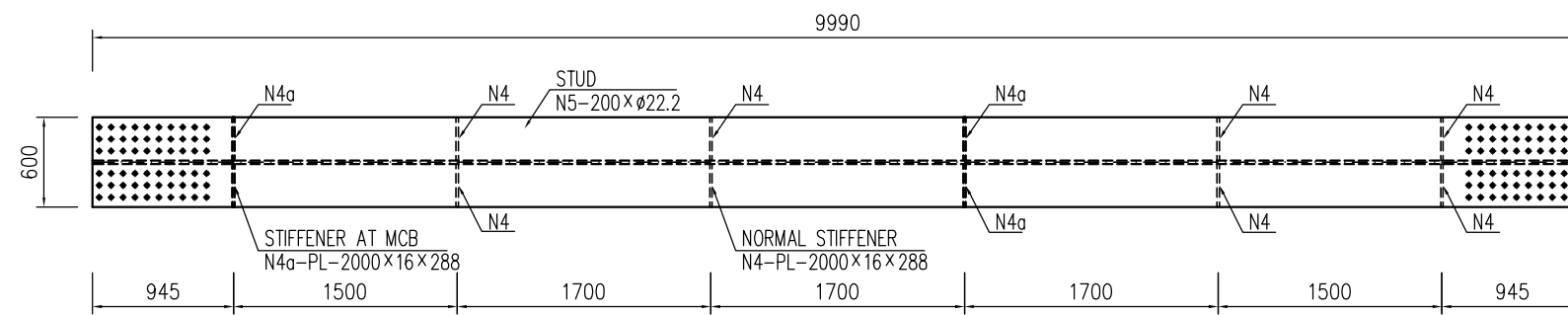
M.G2-DL/DR



PLAN VIEW
UPPER



ELEVATION



PLAN VIEW
LOWER

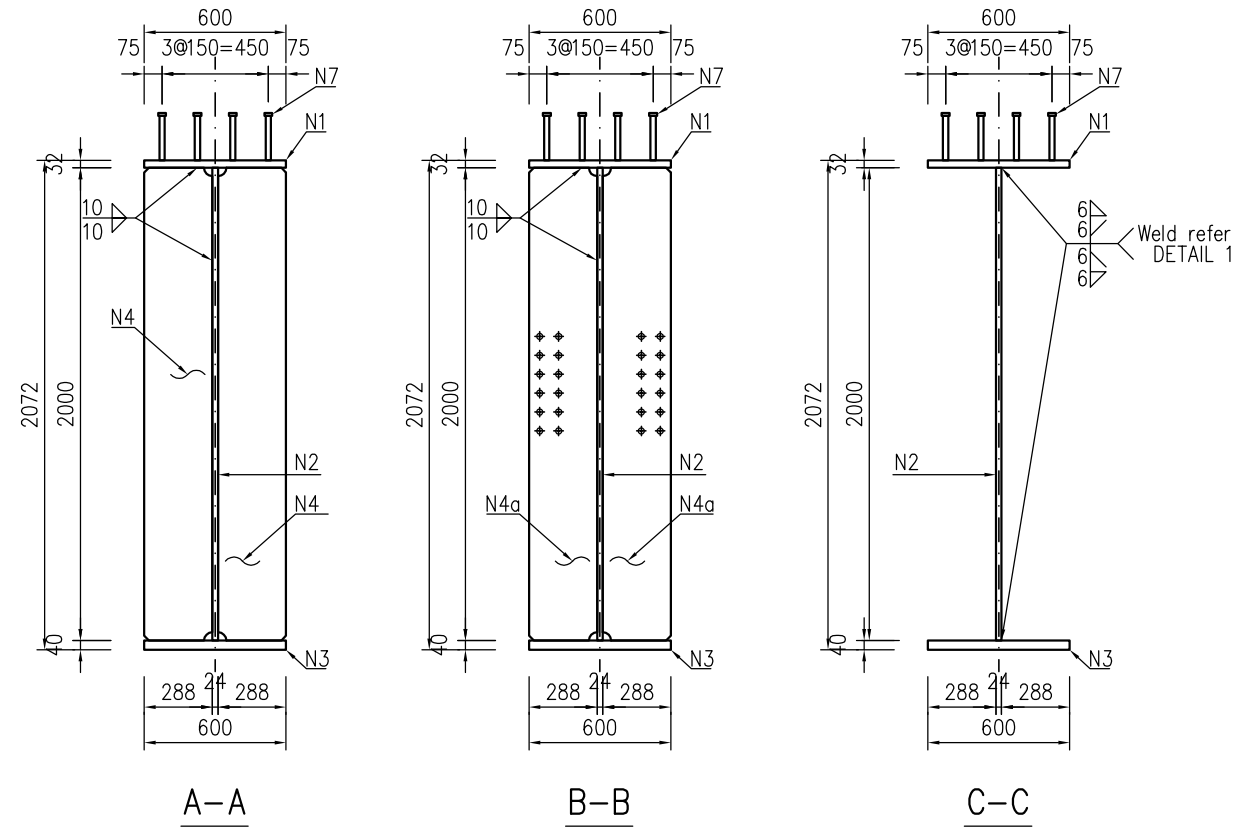
Notes

1. All dimensions are in millimeters unless otherwise noted.

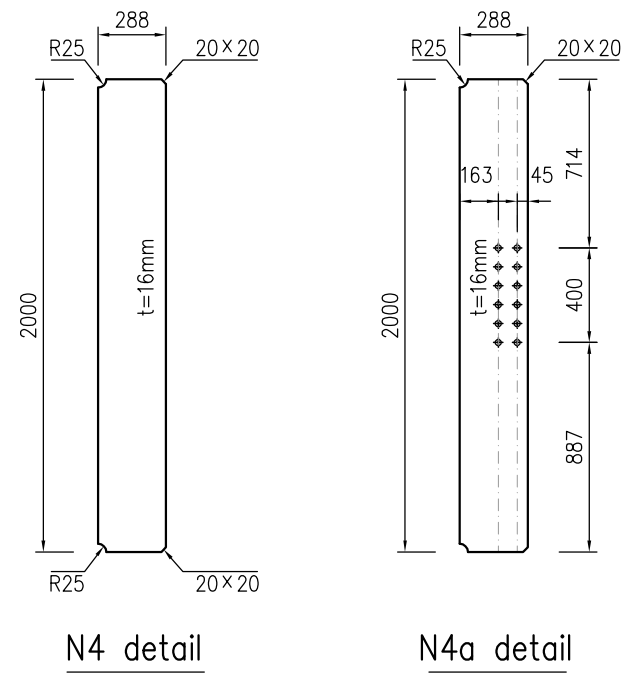
SHHIP-2 BCW2 BRIDGE
NO.42 MASUMA RIVER BRIDGE

DATE

2026.04

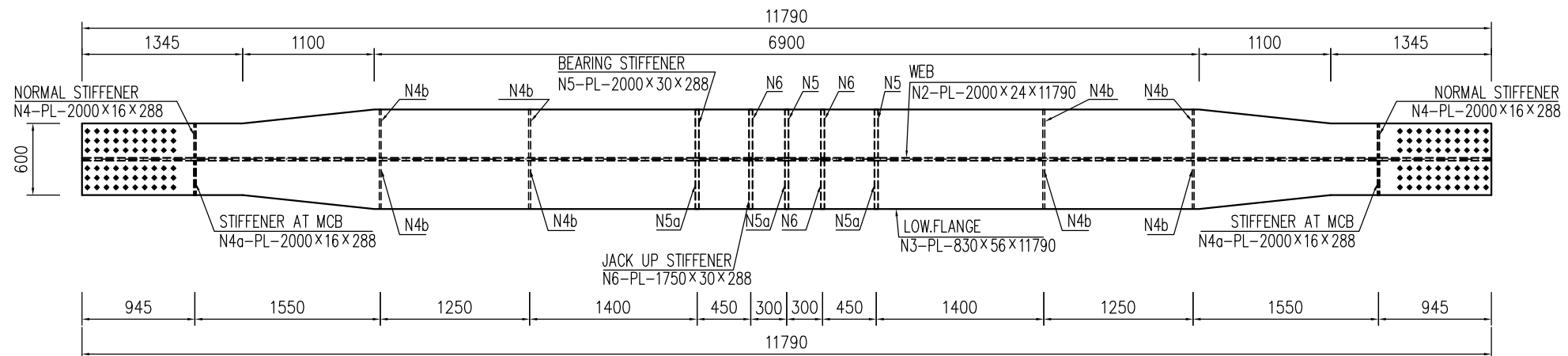
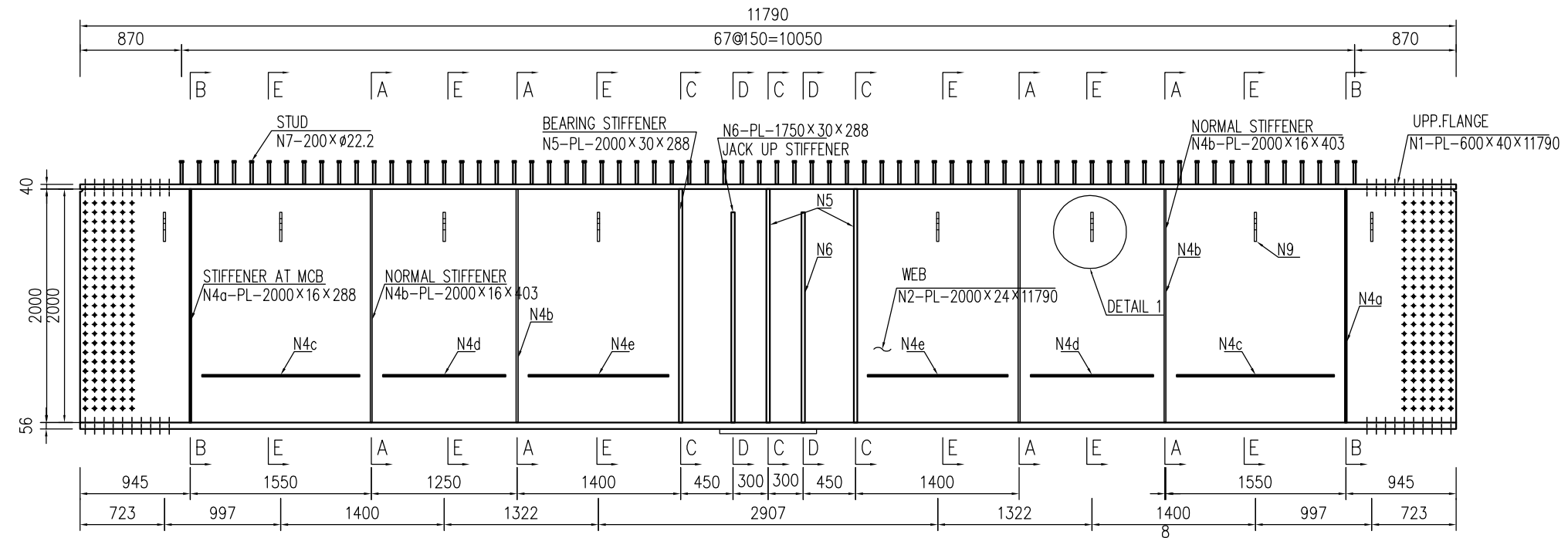
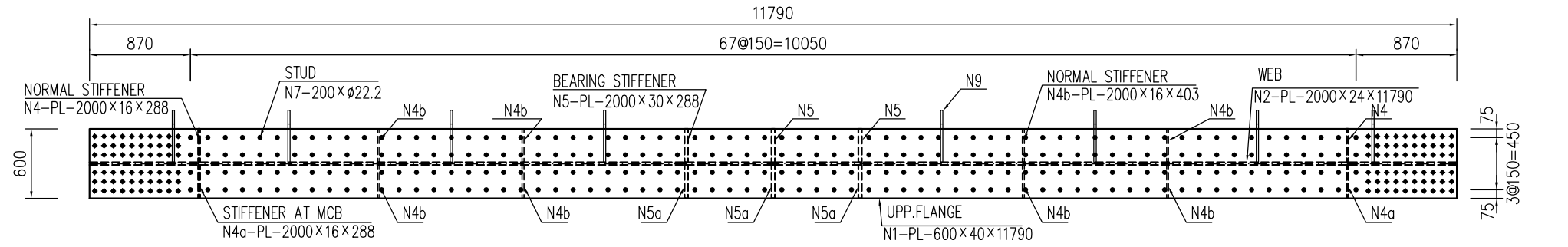


ELEMENT	MARK	GRADE	TYPE	SIZE	QTY	NOTE
MG2-DL/DR	N1	400	PLATE	600×32×9990	1	UPP.FLANGE
	N2	400	PLATE	2000×24×9990	1	WEB
	N3	400	PLATE	600×40×9990	1	LOW FLANGE
	N4	400	PLATE	288×16×2000	8	OUTSIDE STIFFENER
	N4a	400	PLATE	288×16×2000	4	INSIDE STIFFENER AT MCB
	N5	10M16	STUD	200× × φ22.2	168	STUD



Notes
 1. All dimensions are in millimeters unless otherwise noted.

M.G1-E



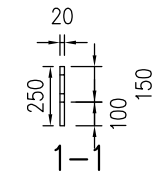
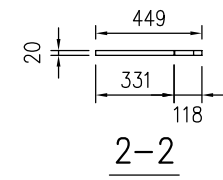
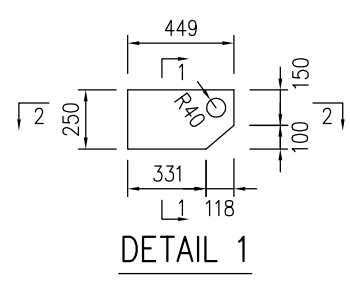
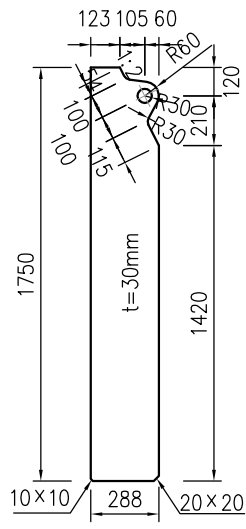
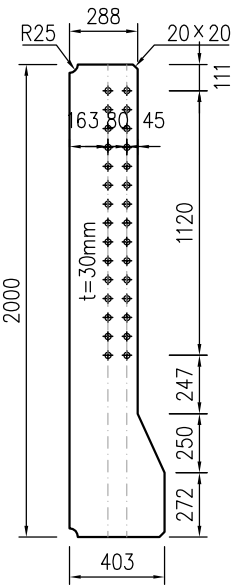
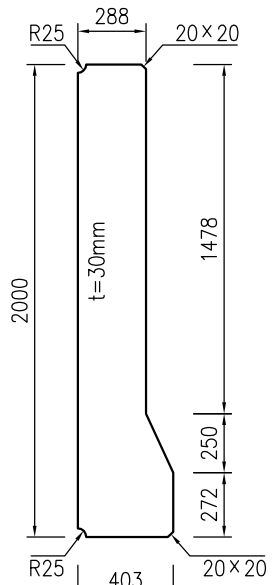
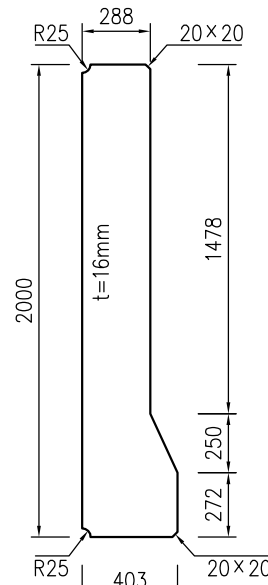
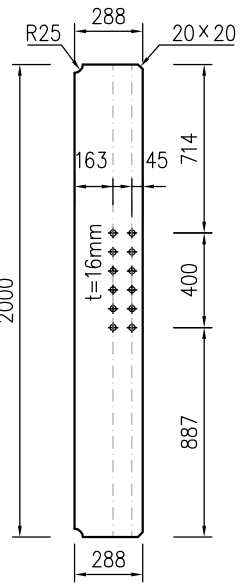
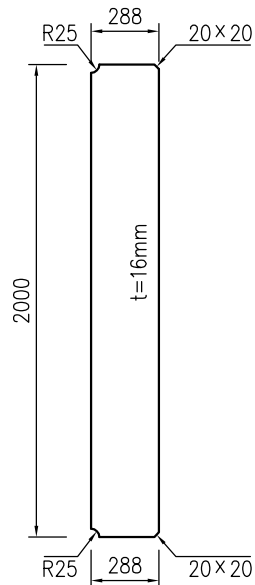
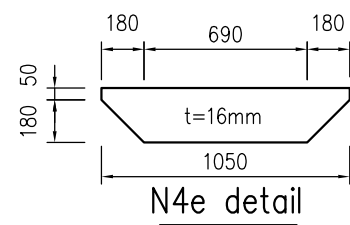
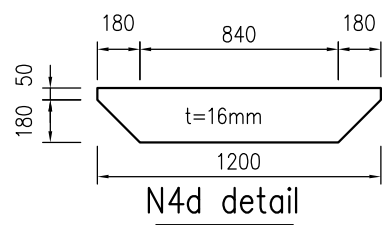
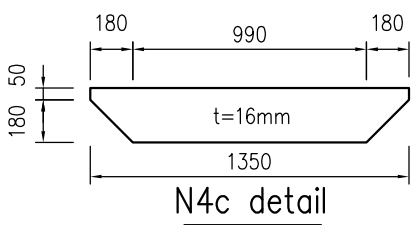
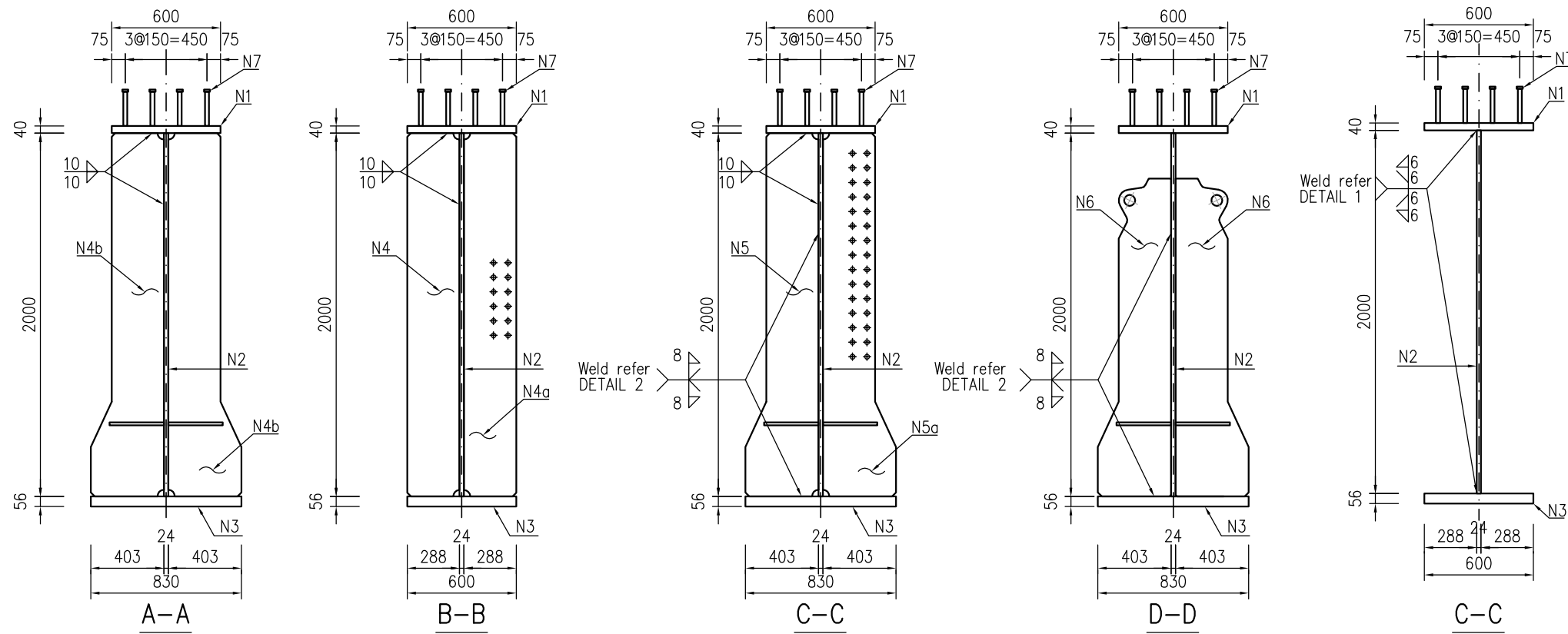
Notes

1. All dimensions are in millimeters unless otherwise noted.

SHHIP-2 BCW2 BRIDGE
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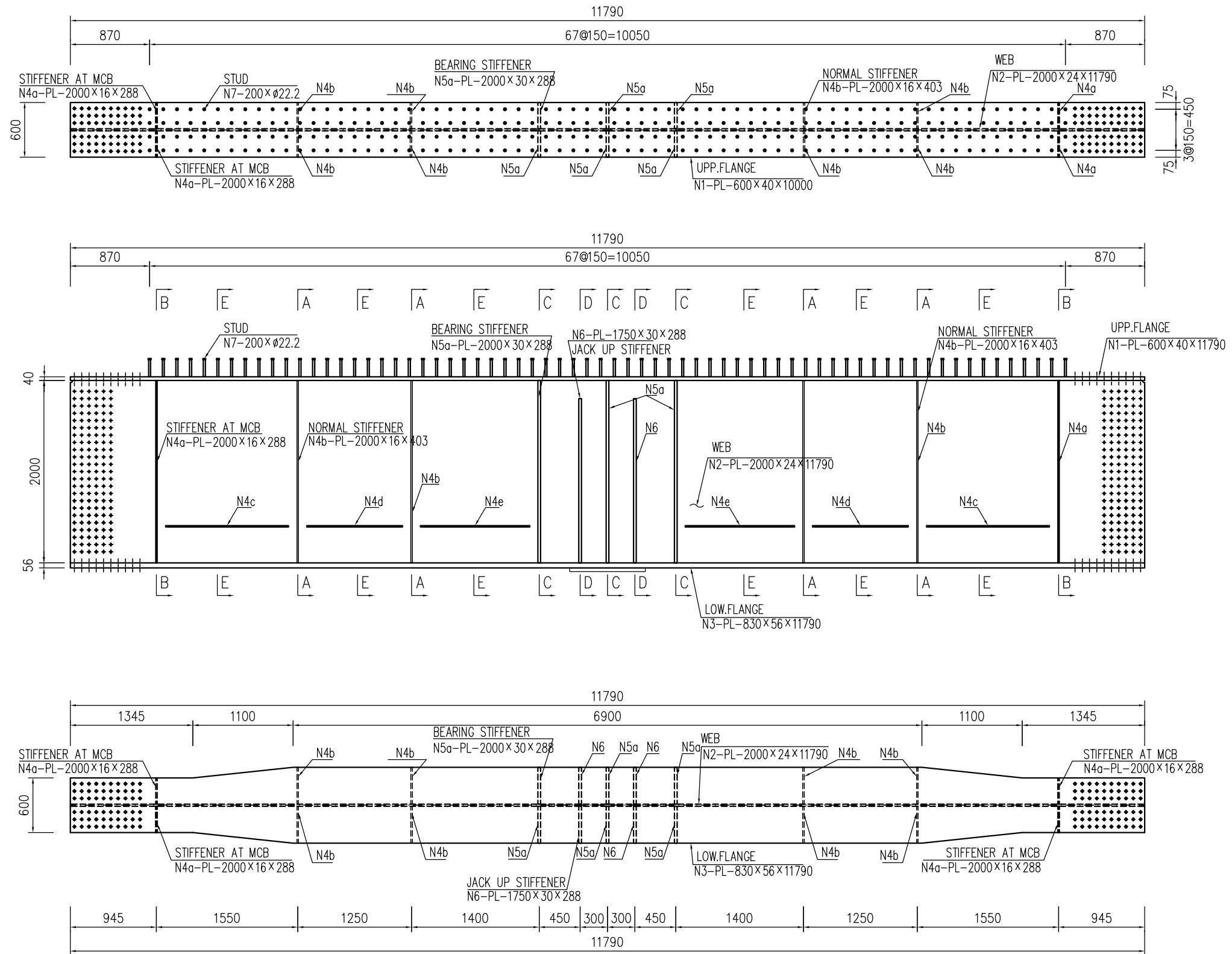


Notes

1. All dimensions are in millimeters unless otherwise noted.

ELEMENT	MARK	GRADE	TYPE	SIZE	QTY	NOTE
MG1-E	N1	400	PLATE	600 X 40 X 11790	1	UPP.FLANGE
	N2	400	PLATE	2000 X 24 X 11790	1	WEB
	N3	400	PLATE	830 X 56 X 11790	1	LOW FLANGE
	N4	400	PLATE	288 X 16 X 2000	2	OUTSIDE STIFFENER
	N4a	400	PLATE	288 X 16 X 2000	2	INSIDE STIFFENER AT MCB
	N4b	400	PLATE	403 X 16 X 2000	8	INSIDE STIFFENER AT MCB
	N4c	400	PLATE	230 X 16 X 1350	4	LONGITUDINAL STIFFENER
	N4d	400	PLATE	230 X 16 X 1200	4	LONGITUDINAL STIFFENER
	N4e	400	PLATE	230 X 16 X 1050	4	LONGITUDINAL STIFFENER
	N5	400	PLATE	403 X 30 X 2000	3	OUTSIDE BEARING STIFFENER
	N5a	400	PLATE	403 X 30 X 2000	3	INSIDE BEARING STIFFENER
	N6	400	PLATE	288 X 30 X 1750	4	JACKUP STIFFENER
	N7	10M16	STUD	200 X ϕ 22.2	272	STUD
	N8	400	PLATE	830 X 40 X 830	1	BEARING PALTE
	N9	400	PLATE	449 X 20 X 250	8	OUTSIDE SUPPORTING STIFFENER

M.G2-E



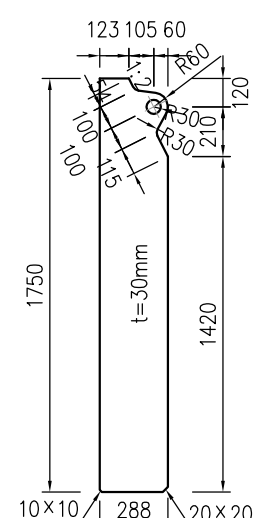
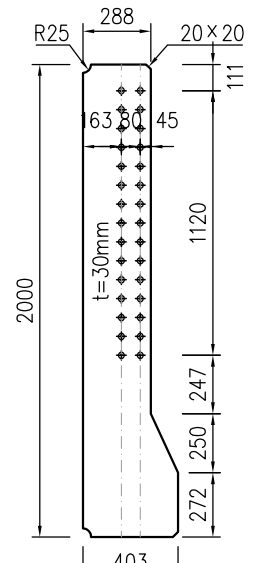
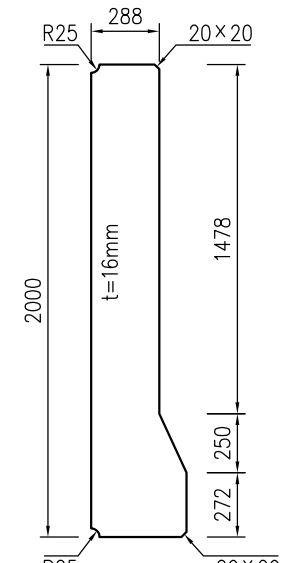
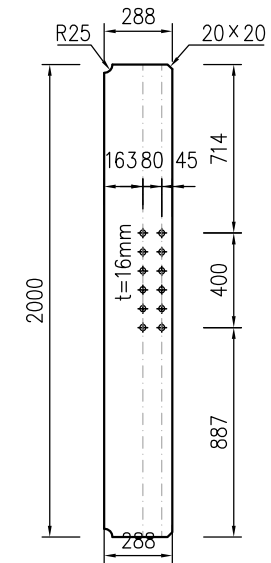
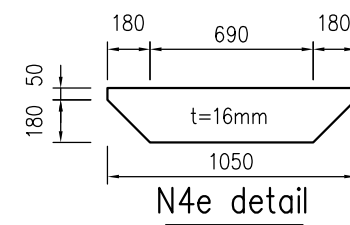
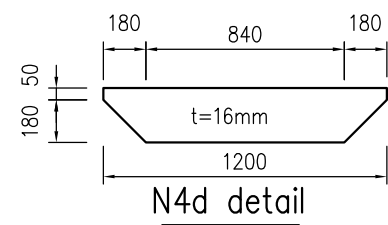
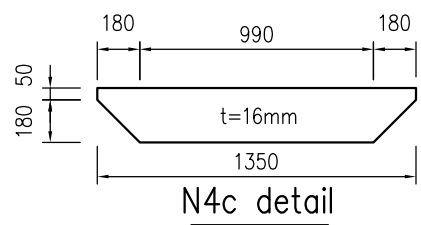
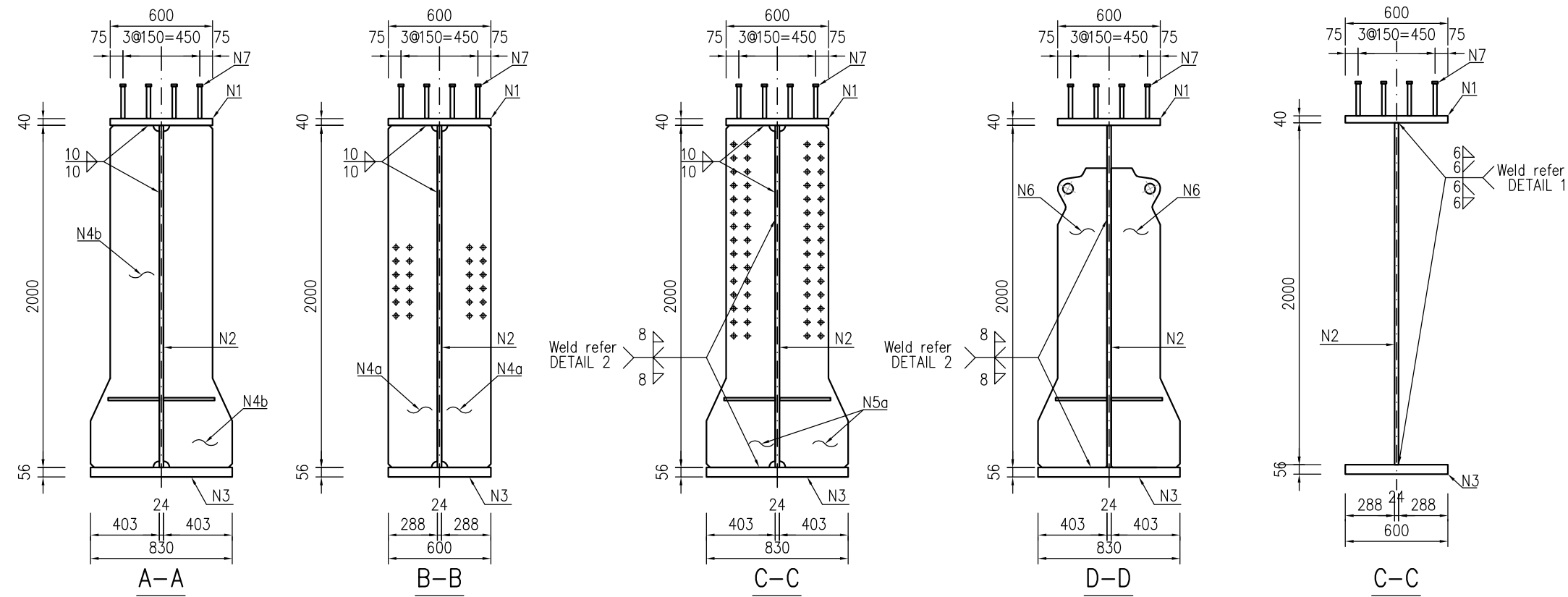
Notes

1. All dimensions are in millimeters unless otherwise noted.

SHHIP-2 BCW2 BRIDGE
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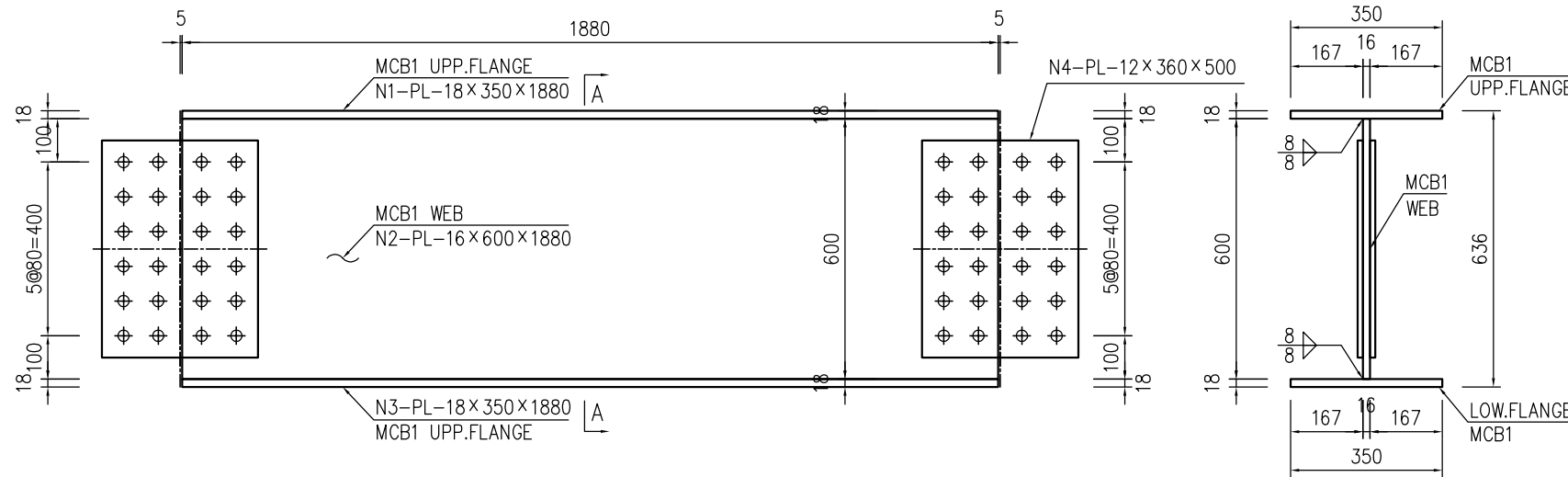
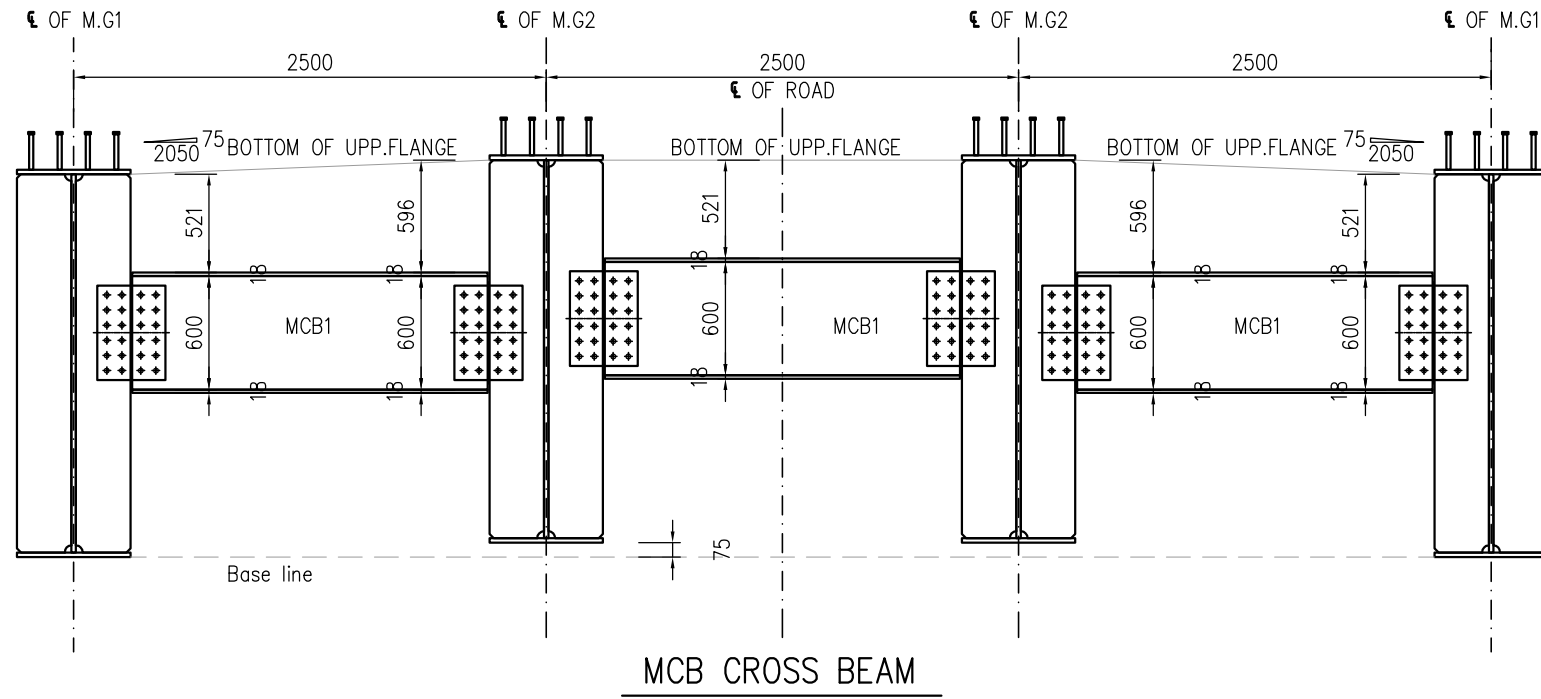


Notes
1. All dimensions are in millimeters unless otherwise noted.

ELEMENT	MARK	GRADE	TYPE	SIZE	QTY	NOTE
MG2-E	N1	400	PLATE	600 x 40 x 11790	1	UPP.FLANGE
	N2	400	PLATE	2000 x 24 x 11790	1	WEB
	N3	400	PLATE	830 x 56 x 11790	1	LOW FLANGE
	N4a	400	PLATE	288 x 16 x 2000	4	INSIDE STIFFENER AT MCB
	N4b	400	PLATE	403 x 16 x 2000	8	INSIDE STIFFENER AT MCB
	N4c	400	PLATE	230 x 16 x 1350	4	LONGITUDINAL STIFFENER
	N4d	400	PLATE	230 x 16 x 1200	4	LONGITUDINAL STIFFENER
	N4e	400	PLATE	230 x 16 x 1050	4	LONGITUDINAL STIFFENER
	N5a	400	PLATE	403 x 30 x 2000	6	INSIDE BEARING STIFFENER
	N6	400	PLATE	288 x 30 x 1750	4	JACKUP STIFFENER
	N7	10M16	STUD	200 x ϕ 22.2	272	STUD
	N8	400	PLATE	830 x 40 x 830	1	BEARING PALTE

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ELEMENT	MARK	GRADE	TYPE	SIZE	QTY	NOTE
MCB	N1	350	PLATE	350 X 18 X 1880	1	UPP.FLANGE
	N2	350	PLATE	600 X 16 X 1880	1	WEB
	N3	350	PLATE	350 X 18 X 1880	1	LOW FLANGE
	N4	350	PLATE	360 X 12 X 500	4	SPLICE PLATE
ECB1	N5	8.8TF	BOLT	M24 X 95	48	BOLT
	N1	350	PLATE	450 X 24 X 1901	1	UPP.FLANGE
	N2	350	PLATE	1880 X 30 X 1342	1	WEB
	N3	350	PLATE	450 X 24 X 1881	1	LOW FLANGE
	N4	10M16	STUD	200 X X ϕ 22.2	36	STUD
	N5	350	PLATE	360 X 18 X 1220	4	SPLICE PLATE
	N6	350	PLATE	150 X 16 X 1000	4	STIFFENER
ECB2	N7	8.8TF	BOLT	M24 X 120	60	BOLT
	N1	350	PLATE	450 X 24 X 1900	1	UPP.FLANGE
	N2	350	PLATE	1880 X 30 X 1342	1	WEB
	N3	350	PLATE	450 X 24 X 1880	1	LOW FLANGE
	N4	10M16	STUD	200 X X ϕ 22.2	36	STUD
	N5	350	PLATE	360 X 18 X 1220	4	SPLICE PLATE
	N6	350	PLATE	150 X 16 X 1000	4	STIFFENER

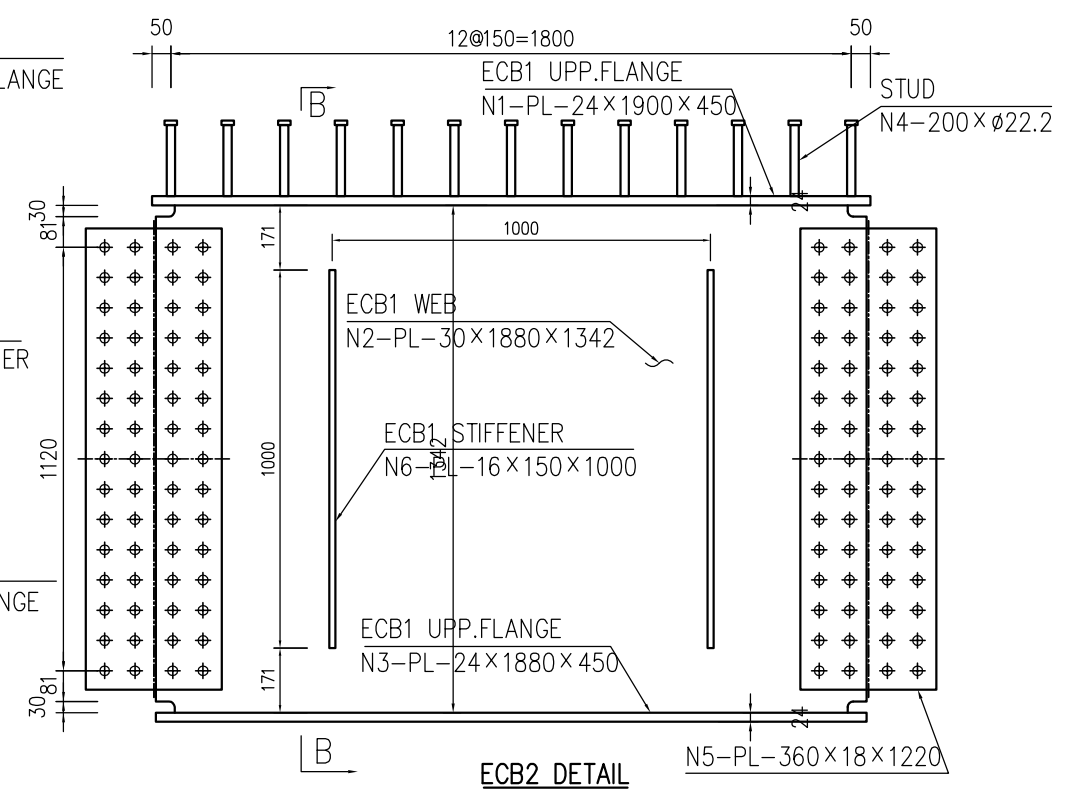
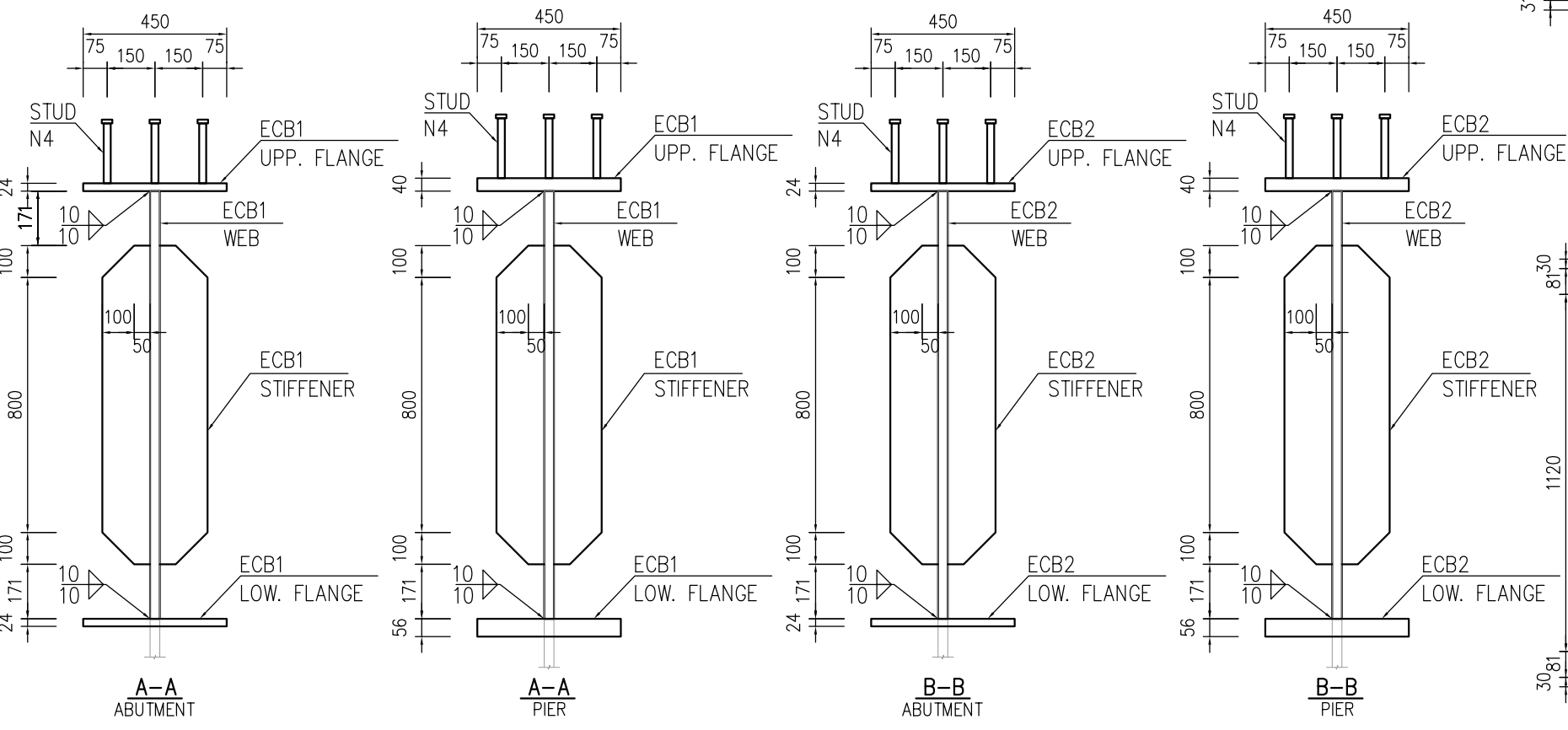
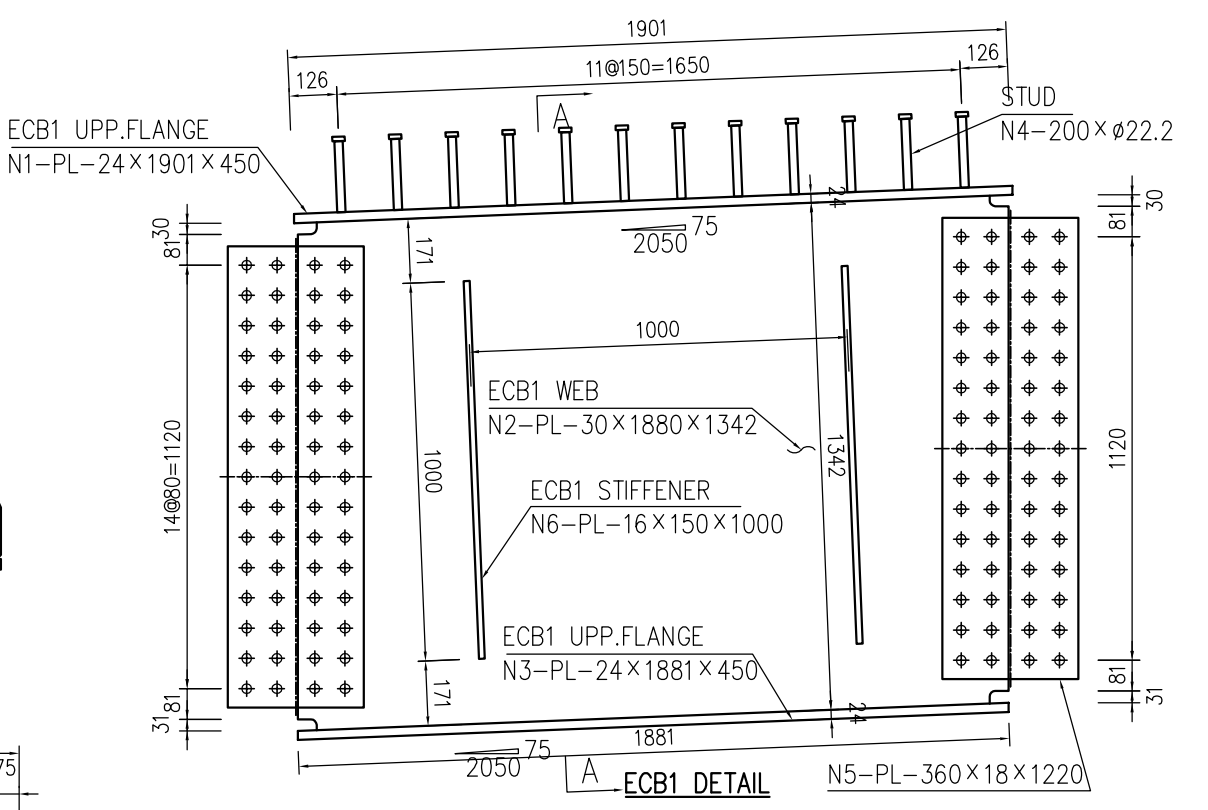
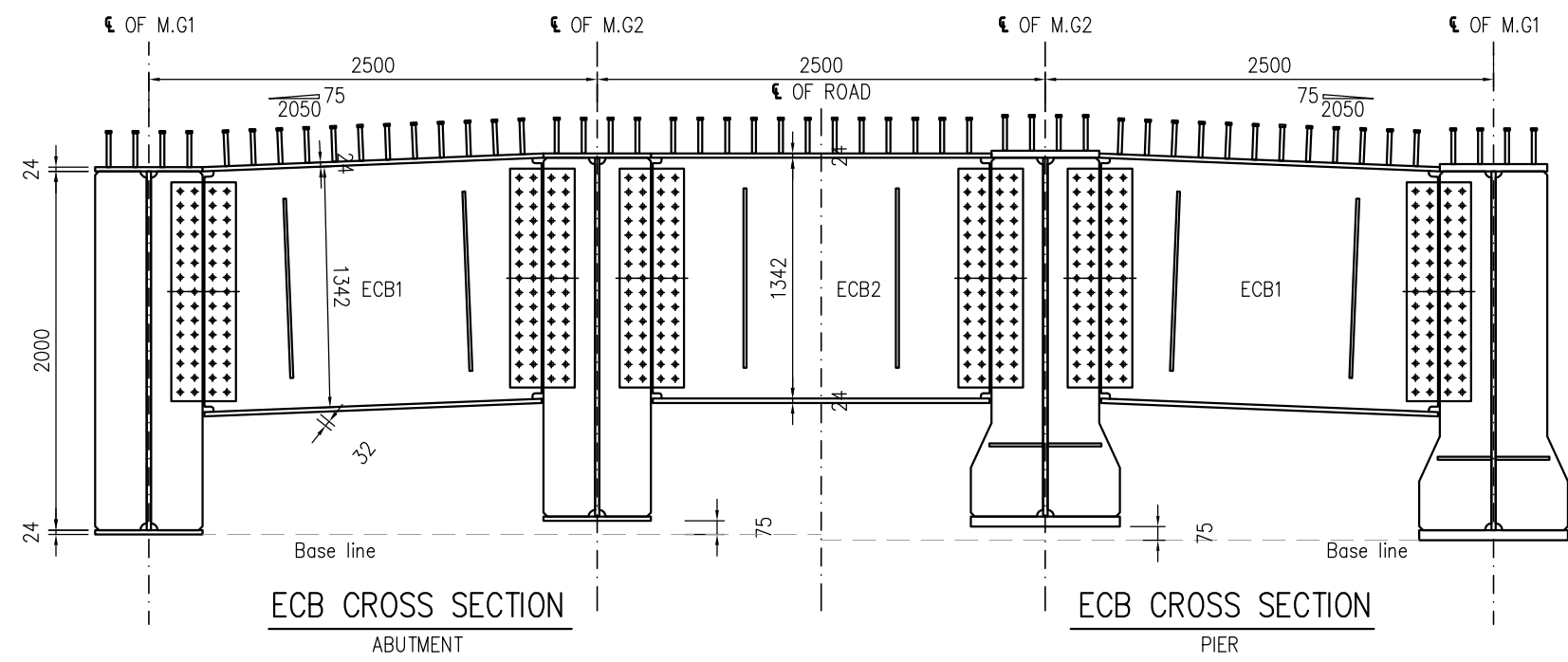
Notes

1. All dimensions are in millimeters unless otherwise noted.

SHHIP-2 BCW2 BRIDGE
NO.42 MASUMA RIVER BRIDGE

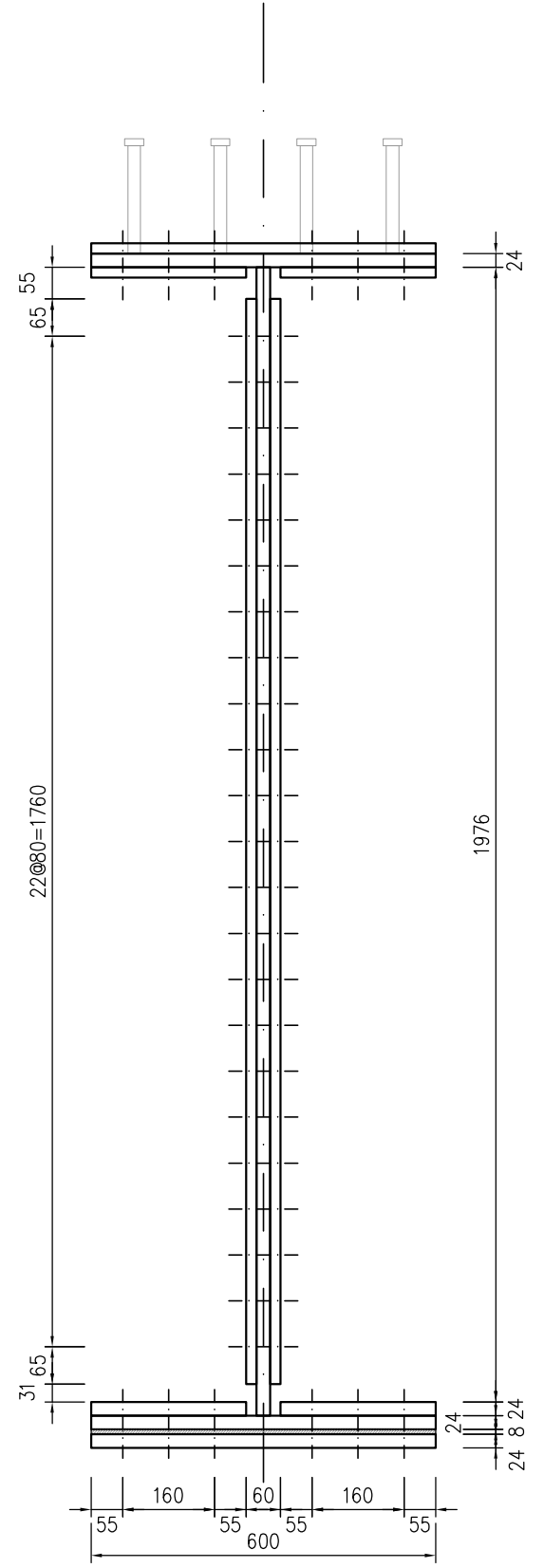
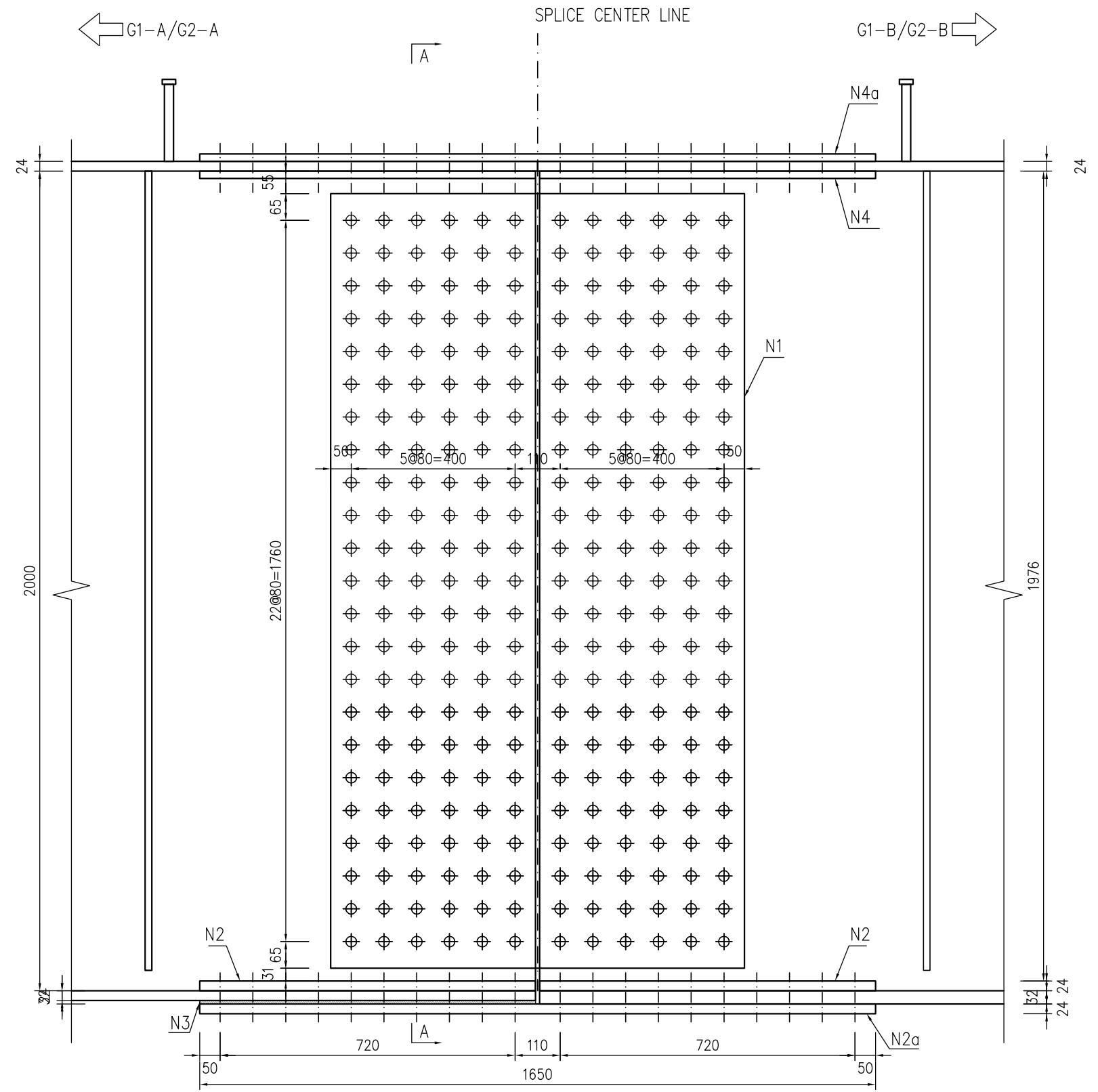
DATE

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Notes
 1. All dimensions are in millimeters unless otherwise noted.

SHHIP-2 BCW2 BRIDGE NO.42 MASUMA RIVER BRIDGE	
DATE	2026.04

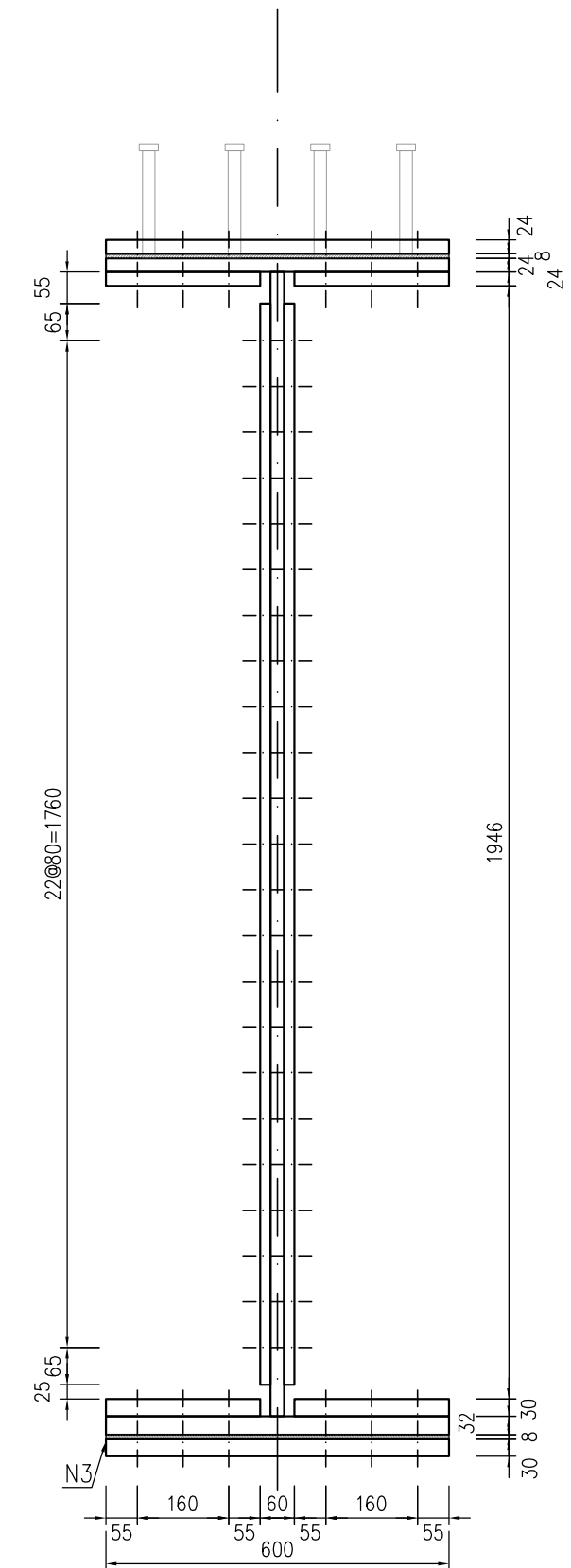
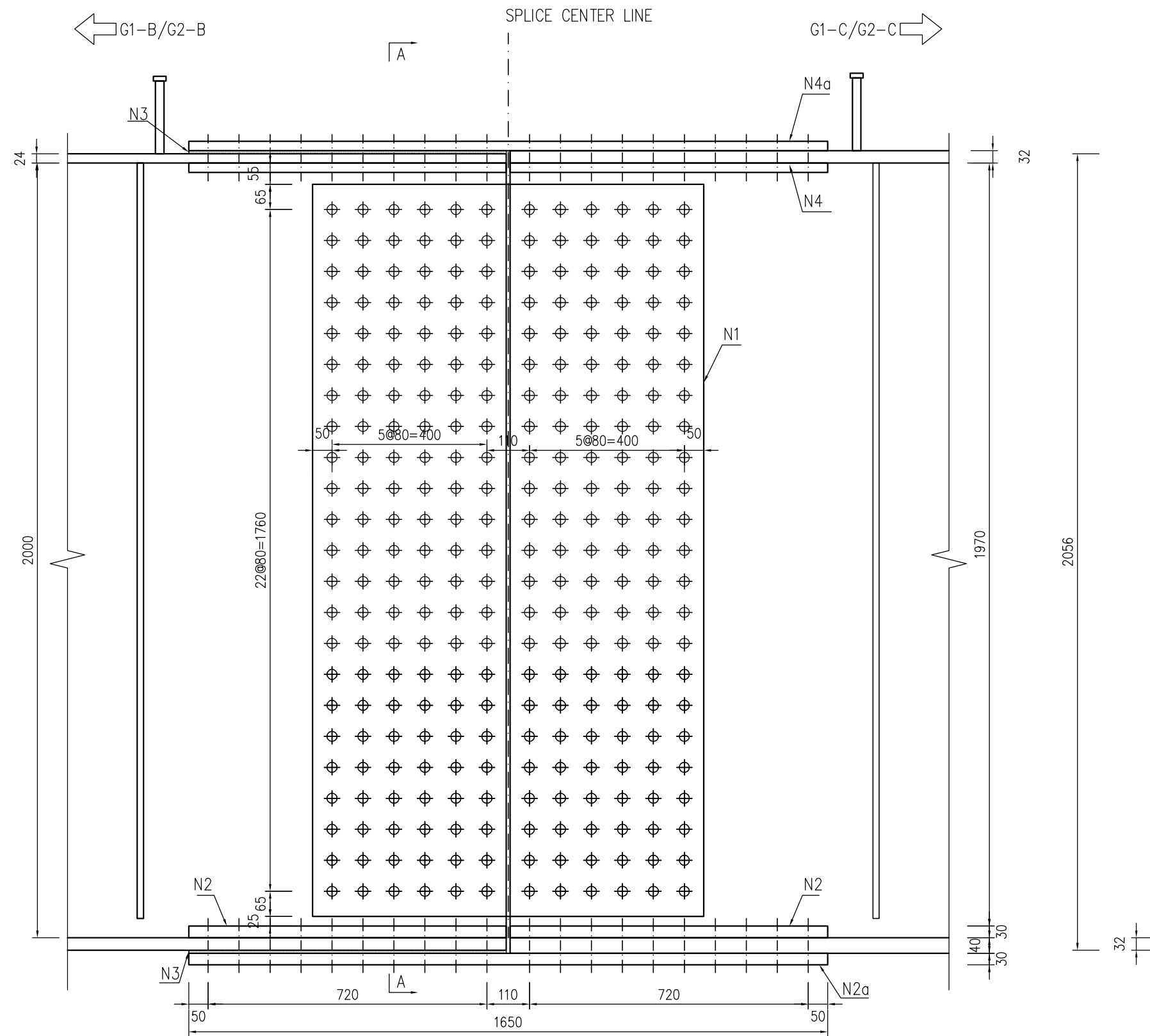


Notes
 1. All dimensions are in millimeters unless otherwise noted.

SPLICE1 DETAIL

A-A

SHHIP-2 BCW2 BRIDGE NO.42 MASUMA RIVER BRIDGE	
DATE	2026.04



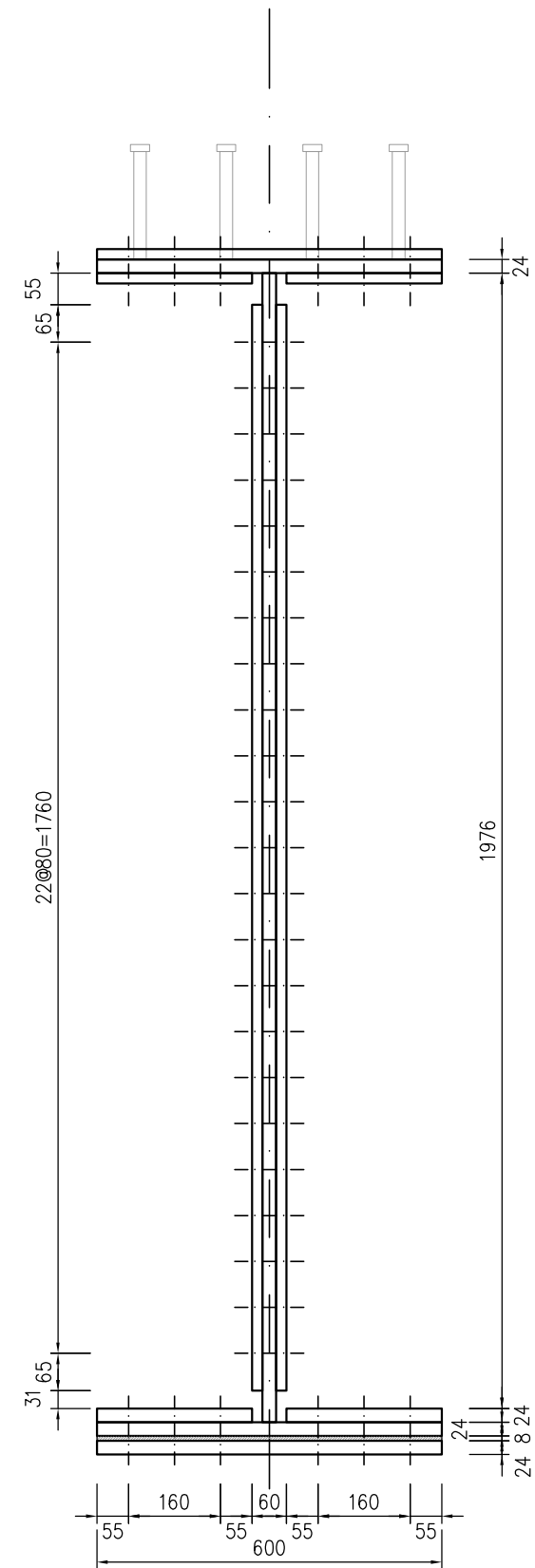
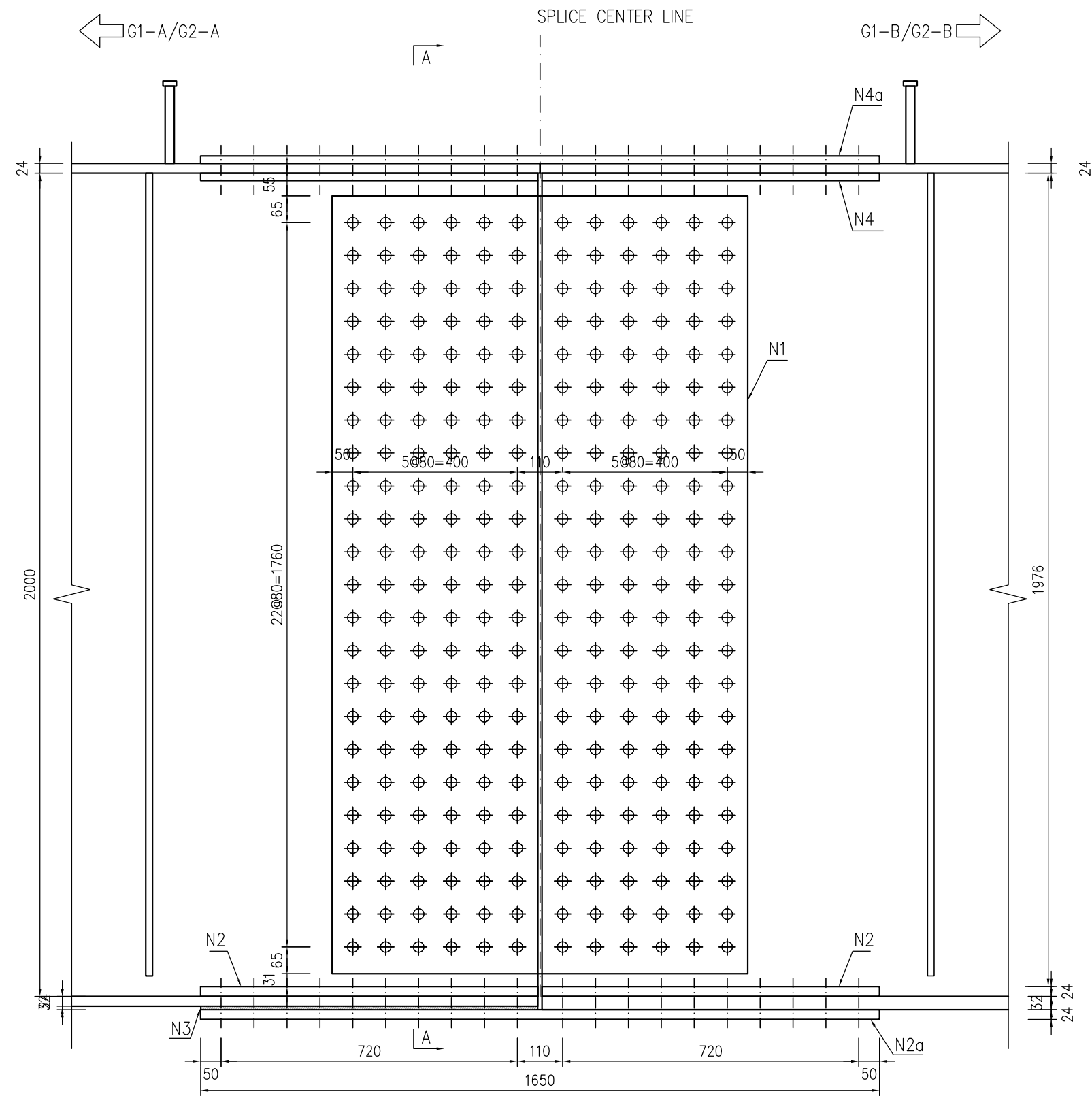
Notes
 1. All dimensions are in millimeters unless otherwise noted.

SPLICE2 DETAIL

A-A

SHHIP-2 BCW2 BRIDGE
 NO.42 MASUMA RIVER BRIDGE

DATE	2026.04
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SPLICE1 DETAIL

Notes

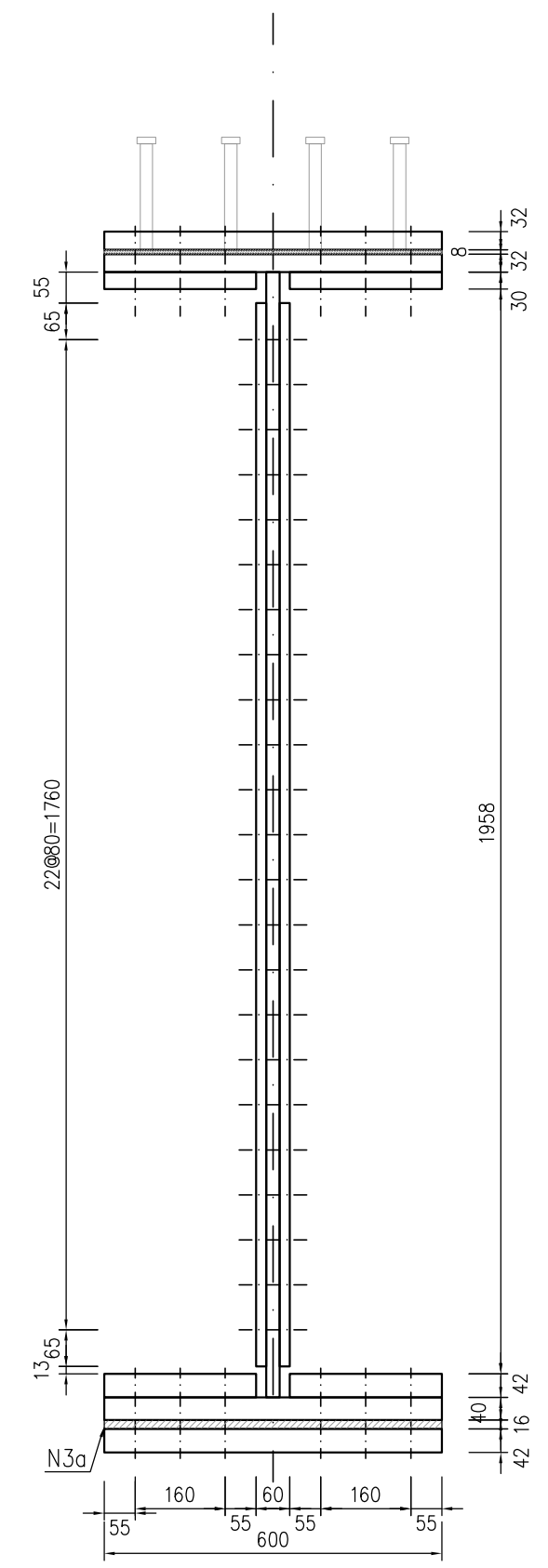
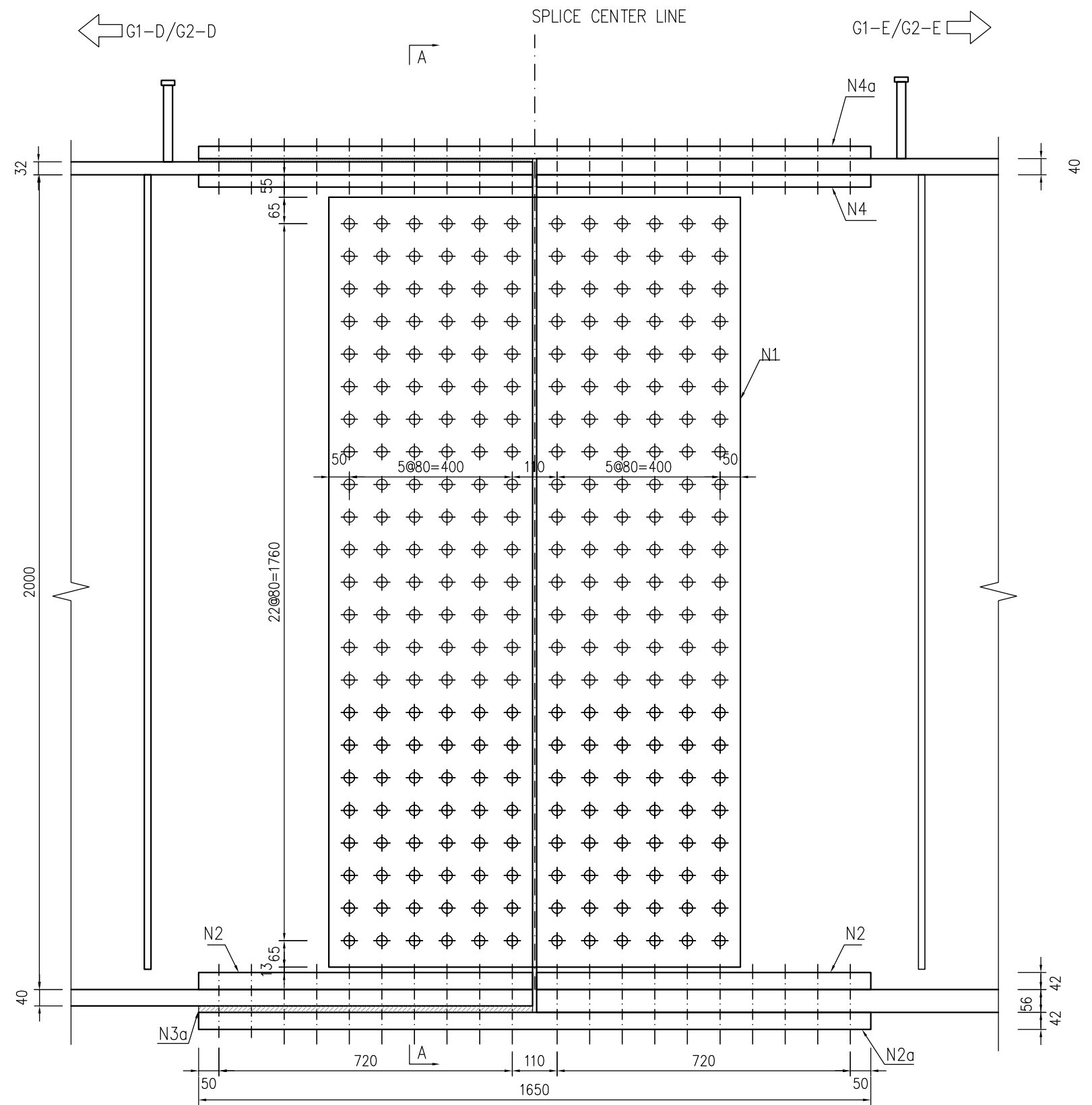
1. All dimensions are in millimeters unless otherwise noted.

A-A

SHHIP-2 BCW2 BRIDGE
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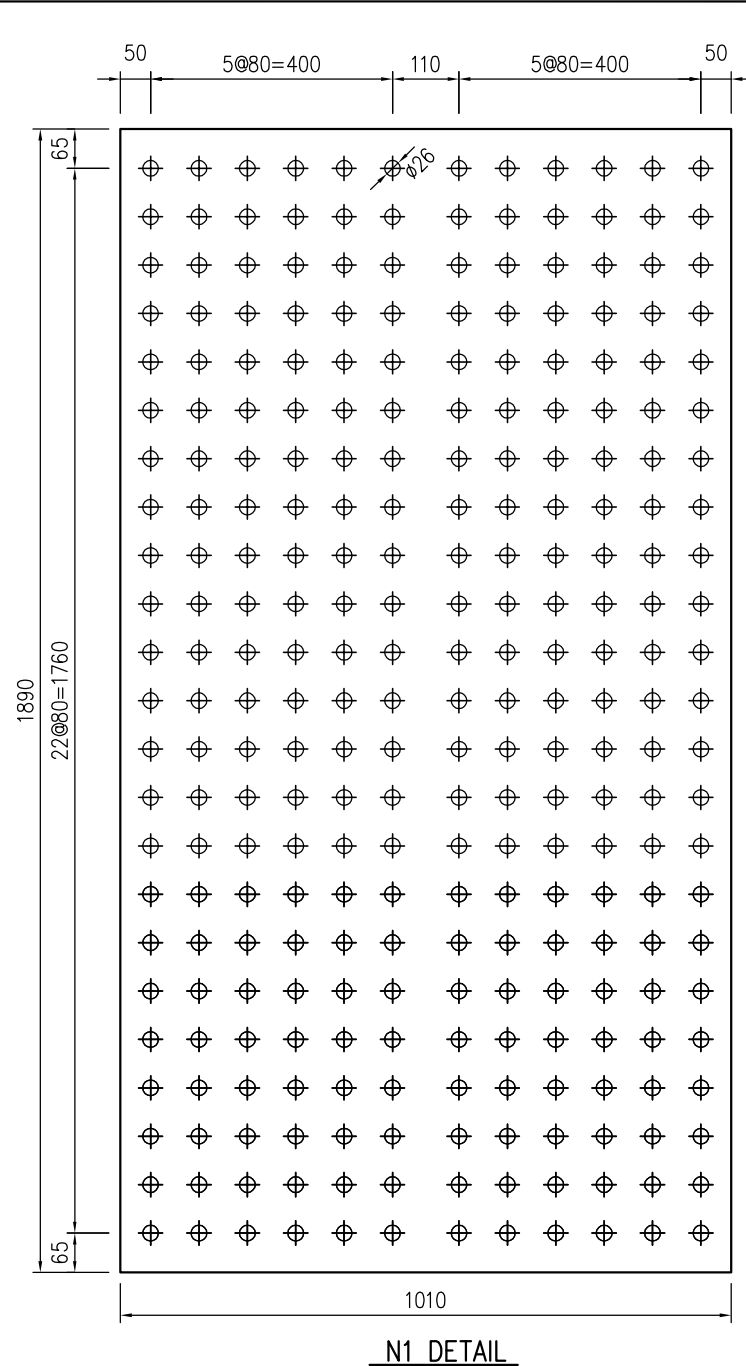


SPLICE4 DETAIL

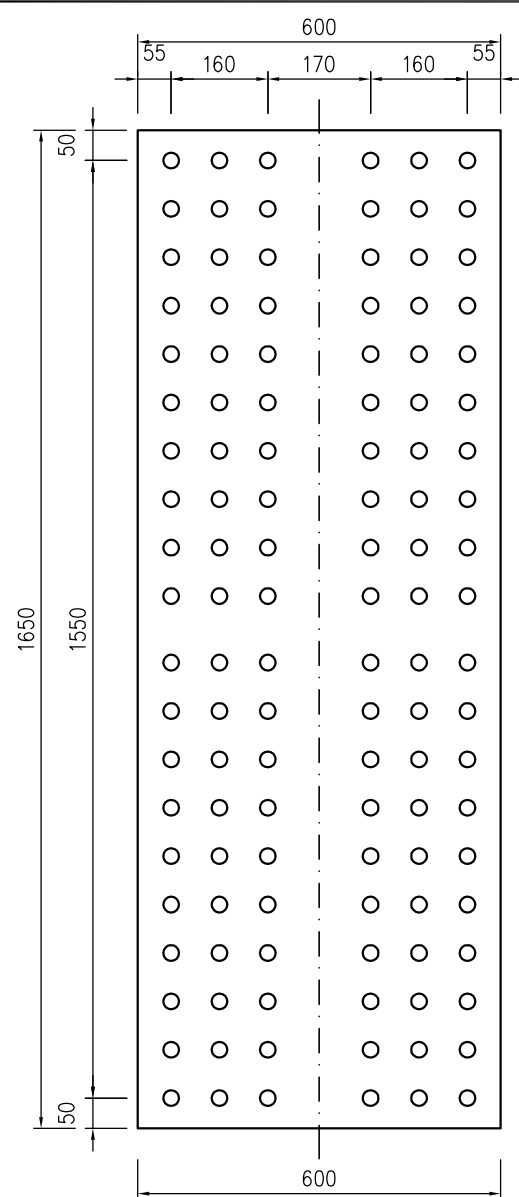
Notes
 1. All dimensions are in millimeters unless otherwise noted.

A-A

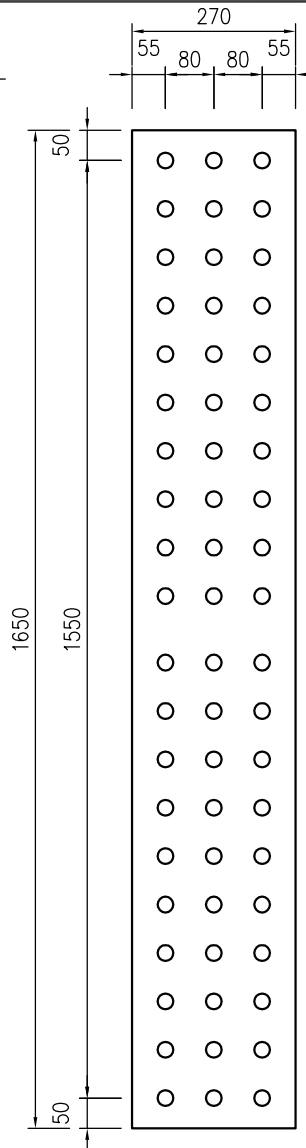
SHHIP-2 BCW2 BRIDGE NO.42 MASUMA RIVER BRIDGE	
DATE	2026.04



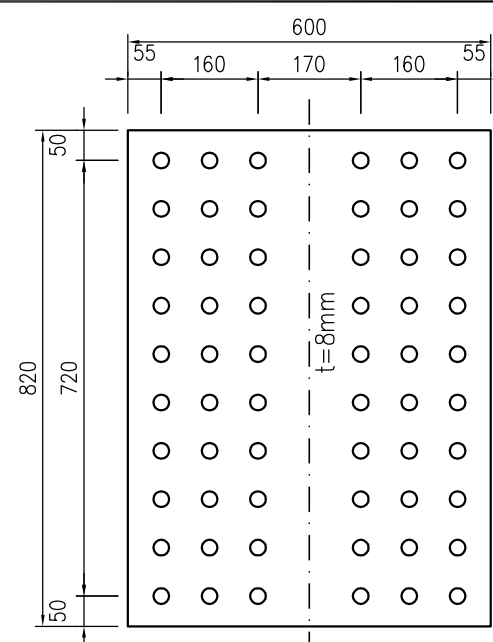
N1 DETAIL



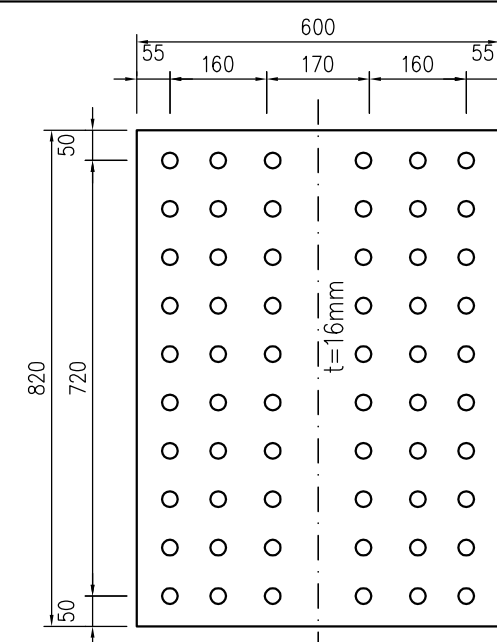
N2a/N4a DETAIL



N2/N4 DETAIL



N3 DETAIL



N3a DETAIL

Notes

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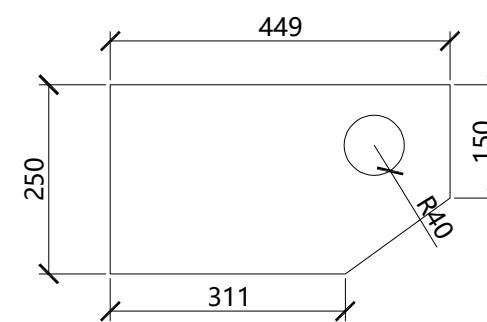
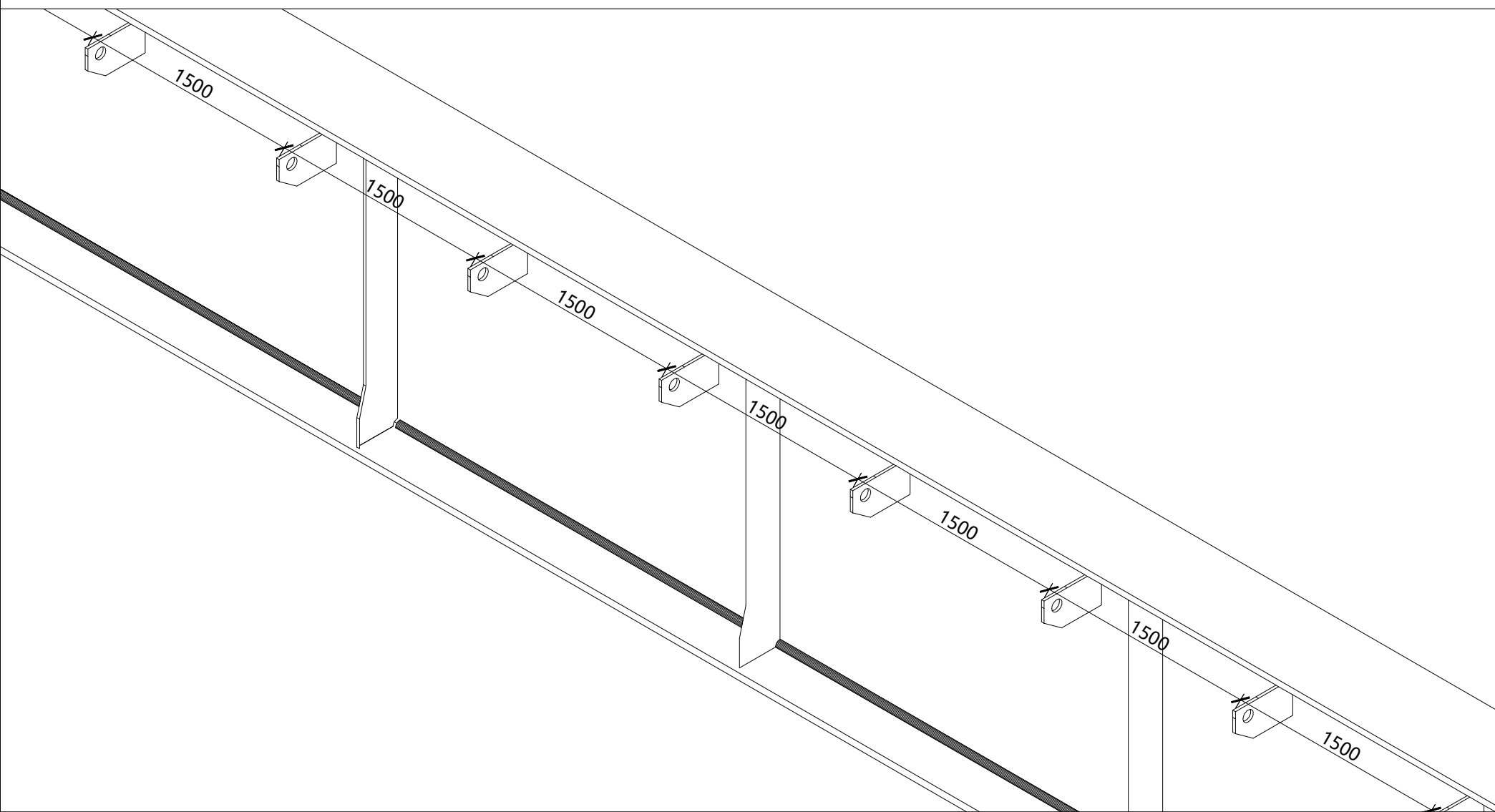
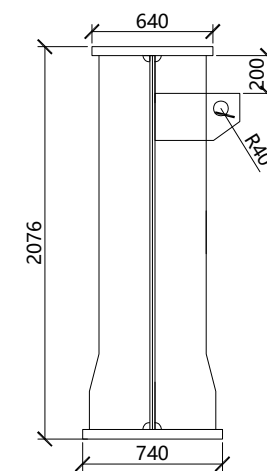
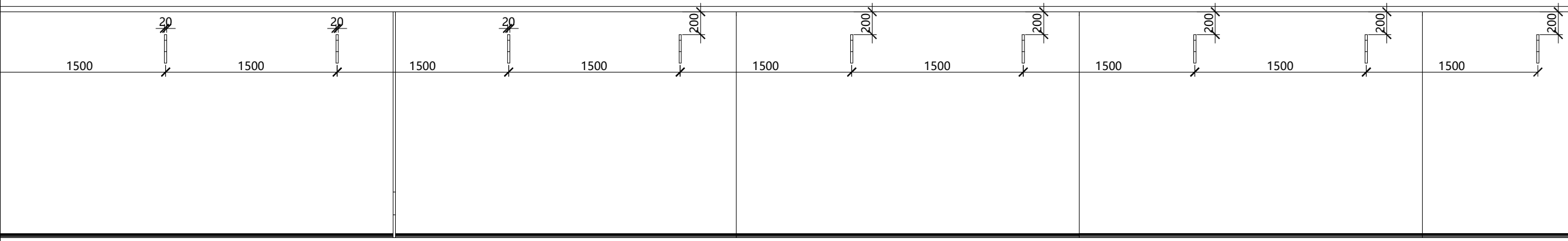
ELEMENT	MARK	GRADE	TYPE	SIZE	QTY	NOTE
SPLICE 1	N1	400	PLATE	1010×18×1890	2	WEB CONNECTION PLATE
	N2	400	PLATE	270×24×1650	2	LOW.FLANGE CONNECTED PLATE
	N2a	400	PLATE	600×24×1650	1	LOW.FLANGE CONNECTED PLATE
	N3	400	PLATE	600×8×820	1	FILLER PLATE
	N4	400	PLATE	270×18×1650	2	UPP.FLANGE CONNECTED PLATE
	N4a	400	PLATE	600×18×1650	1	UPP.FLANGE CONNECTED PLATE
	BOLT	8.8TF	BOLT	M24×110	276	WEB BOLT
	BOLT	10.9TF	BOLT	M24×130	120	LOW.FLANGE BOLT
	BOLT	10.9TF	BOLT	M24×110	120	UPP.FLANGE BOLT
SPLICE 2	N1	400	PLATE	1010×18×1890	2	WEB CONNECTION PLATE
	N2	400	PLATE	270×30×1650	2	LOW.FLANGE CONNECTED PLATE
	N2a	400	PLATE	600×30×1650	1	LOW.FLANGE CONNECTED PLATE
	N3	400	PLATE	600×8×820	2	FILLER PLATE
	N4	400	PLATE	270×24×1650	2	UPP.FLANGE CONNECTED PLATE
	N4a	400	PLATE	600×24×1650	1	UPP.FLANGE CONNECTED PLATE
	BOLT	8.8TF	BOLT	M24×110	276	WEB BOLT
	BOLT	10.9TF	BOLT	M24×150	120	LOW.FLANGE BOLT
	BOLT	10.9TF	BOLT	M24×130	120	UPP.FLANGE BOLT
SPLICE 3	N1	400	PLATE	1010×18×1890	2	WEB CONNECTION PLATE
	N2	400	PLATE	270×30×1650	2	LOW.FLANGE CONNECTED PLATE
	N2a	400	PLATE	600×30×1650	1	LOW.FLANGE CONNECTED PLATE
	N4	400	PLATE	270×24×1650	2	UPP.FLANGE CONNECTED PLATE
	N4a	400	PLATE	600×24×1650	1	UPP.FLANGE CONNECTED PLATE
	BOLT	8.8TF	BOLT	M24×110	276	WEB BOLT
BOLT	10.9TF	BOLT	M24×150	120	LOW.FLANGE BOLT	
BOLT	10.9TF	BOLT	M24×130	120	UPP.FLANGE BOLT	
SPLICE 4	N1	400	PLATE	1010×18×1890	2	WEB CONNECTION PLATE
	N2	400	PLATE	270×42×1650	2	LOW.FLANGE CONNECTED PLATE
	N2a	400	PLATE	600×42×1650	1	LOW.FLANGE CONNECTED PLATE
	N3	400	PLATE	600×8×820	1	FILLER PLATE
	N3a	400	PLATE	600×16×820	2	FILLER PLATE
	N4	400	PLATE	270×24×1650	2	UPP.FLANGE CONNECTED PLATE
	N4a	400	PLATE	600×24×1650	1	UPP.FLANGE CONNECTED PLATE
	BOLT	8.8TF	BOLT	M24×110	276	WEB BOLT
	BOLT	10.9TF	BOLT	M24×190	120	LOW.FLANGE BOLT
BOLT	10.9TF	BOLT	M24×150	120	UPP.FLANGE BOLT	

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DATE

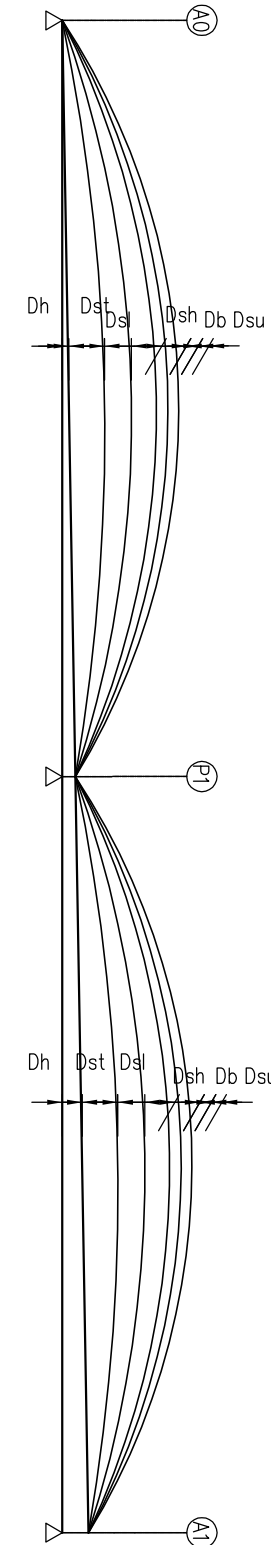
2026.04

增加固定钢管构件



G1	distance(m)	0.4	1	1.8	2.8	4.45	6.15	7.85	9.55	10.5	11.45	13	14.7	15.55	16.4	18.1	19.8	21.35	22.3	23.25	24.8	26.5
	Dst(mm)	0.0	1.4	3.4	5.8	9.8	13.7	17.4	20.9	22.8	24.5	27.0	29.2	30.1	30.9	32.0	32.6	32.6	32.4	32.1	31.4	30.1
	Dsl(mm)	0.0	2.0	5.0	8.6	14.4	20.3	26.1	31.8	34.8	37.7	42.0	45.8	47.5	48.9	51.0	52.2	52.6	52.4	52.0	50.9	48.9
	Dcs(mm)	0.0	0.3	0.6	0.9	1.4	1.9	2.5	3.2	3.6	4.0	4.5	4.9	5.1	5.2	5.4	5.4	5.4	5.3	5.3	5.1	4.9
	Db(mm)	0.0	0.3	0.7	1.2	2.0	2.8	3.6	4.2	4.6	4.9	5.3	5.7	5.9	6.0	6.3	6.4	6.4	6.4	6.4	6.2	6.0
	Dsu(mm)	0.0	0.1	0.3	0.5	0.8	1.1	1.4	1.7	1.8	1.9	2.1	2.3	2.4	2.4	2.5	2.6	2.6	2.6	2.5	2.5	2.4
D(mm)	0.0	4.1	9.9	17.0	28.4	39.9	51.0	61.8	67.5	73.0	80.9	88.0	90.9	93.4	97.1	99.2	99.6	99.2	98.3	96.0	92.4	
G2	distance(m)	0.4	1	1.8	2.8	4.45	6.15	7.85	9.55	10.5	11.45	13	14.7	15.55	16.4	18.1	19.8	21.35	22.3	23.25	24.8	26.5
	Dst(mm)	0.0	-1.4	-3.4	-5.8	-9.8	-13.7	-17.5	-21.0	-22.8	-24.6	-27.0	-29.3	-30.2	-30.9	-32.0	-32.6	-32.7	-32.5	-32.2	-31.4	-30.2
	Dsl(mm)	0.0	-3.4	-8.3	-14.4	-24.2	-34.1	-43.6	-52.7	-57.6	-62.3	-69.0	-75.1	-77.6	-79.7	-83.0	-84.8	-85.2	-84.9	-84.2	-82.2	-79.1
	Dcs(mm)	0.0	-0.3	-0.6	-0.9	-1.4	-1.9	-2.5	-3.2	-3.6	-3.9	-4.5	-4.9	-5.1	-5.2	-5.4	-5.4	-5.4	-5.3	-5.3	-5.1	-4.9
	Db(mm)	0.0	-0.3	-0.7	-1.2	-2.0	-2.8	-3.5	-4.1	-4.5	-4.8	-5.2	-5.6	-5.8	-6.0	-6.2	-6.3	-6.3	-6.3	-6.3	-6.1	-5.9
	Dsu(mm)	0.0	-0.1	-0.3	-0.5	-0.8	-1.1	-1.4	-1.7	-1.8	-1.9	-2.1	-2.3	-2.4	-2.4	-2.5	-2.6	-2.6	-2.6	-2.5	-2.5	-2.4
D(mm)	0.0	-5.5	-13.3	-22.8	-38.2	-53.6	-68.5	-82.7	-90.3	-97.5	-107.8	-117.1	-121.0	-124.2	-129.1	-131.7	-132.2	-131.6	-130.5	-127.4	-122.5	
G3	distance(m)	0.4	1	1.8	2.8	4.45	6.15	7.85	9.55	10.5	11.45	13	14.7	15.55	16.4	18.1	19.8	21.35	22.3	23.25	24.8	26.5
	Dst(mm)	0.0	-1.4	-3.4	-5.8	-9.8	-13.7	-17.5	-21.0	-22.8	-24.6	-27.0	-29.3	-30.2	-30.9	-32.0	-32.6	-32.7	-32.5	-32.2	-31.4	-30.2
	Dsl(mm)	0.0	-2.0	-5.0	-8.6	-14.4	-20.4	-26.1	-31.8	-34.8	-37.7	-41.9	-45.8	-47.4	-48.8	-51.0	-52.2	-52.5	-52.4	-52.0	-50.8	-48.9
	Dcs(mm)	0.0	-0.3	-0.6	-0.9	-1.4	-1.9	-2.5	-3.2	-3.6	-3.9	-4.5	-4.9	-5.1	-5.2	-5.4	-5.4	-5.4	-5.3	-5.3	-5.1	-4.9
	Db(mm)	0.0	-0.3	-0.7	-1.2	-2.0	-2.8	-3.5	-4.1	-4.5	-4.8	-5.2	-5.6	-5.8	-6.0	-6.2	-6.3	-6.3	-6.3	-6.3	-6.1	-5.9
	Dsu(mm)	0.0	-0.1	-0.3	-0.5	-0.8	-1.1	-1.4	-1.7	-1.8	-1.9	-2.1	-2.3	-2.4	-2.4	-2.5	-2.6	-2.6	-2.6	-2.5	-2.5	-2.4
D(mm)	0.0	-4.1	-9.9	-17.0	-28.4	-39.9	-51.0	-61.7	-67.5	-72.9	-80.8	-87.9	-90.8	-93.3	-97.1	-99.1	-99.5	-99.1	-98.3	-96.0	-92.3	
G4	distance(m)	0.4	1	1.8	2.8	4.45	6.15	7.85	9.55	10.5	11.45	13	14.7	15.55	16.4	18.1	19.8	21.35	22.3	23.25	24.8	26.5
	Dst(mm)	0.0	-1.4	-3.4	-5.8	-9.8	-13.7	-17.4	-20.9	-22.8	-24.5	-27.0	-29.2	-30.1	-30.9	-32.0	-32.6	-32.6	-32.4	-32.1	-31.4	-30.1
	Dsl(mm)	0.0	-2.0	-5.0	-8.6	-14.4	-20.3	-26.1	-31.8	-34.8	-37.7	-42.0	-45.8	-47.5	-48.9	-51.0	-52.2	-52.6	-52.4	-52.0	-50.9	-48.9
	Dcs(mm)	0.0	-0.3	-0.6	-0.9	-1.4	-1.9	-2.5	-3.2	-3.6	-4.0	-4.5	-4.9	-5.1	-5.2	-5.4	-5.4	-5.4	-5.3	-5.3	-5.1	-4.9
	Db(mm)	0.0	-0.3	-0.7	-1.2	-2.0	-2.8	-3.6	-4.2	-4.6	-4.9	-5.3	-5.7	-5.9	-6.1	-6.3	-6.4	-6.4	-6.4	-6.4	-6.2	-6.0
	Dsu(mm)	0.0	-0.1	-0.3	-0.5	-0.8	-1.1	-1.4	-1.7	-1.8	-1.9	-2.1	-2.3	-2.4	-2.4	-2.5	-2.6	-2.6	-2.6	-2.5	-2.5	-2.4
D(mm)	0.0	-4.1	-9.9	-17.0	-28.4	-39.9	-51.0	-61.8	-67.5	-73.0	-80.9	-88.0	-90.9	-93.4	-97.1	-99.2	-99.6	-99.2	-98.3	-96.0	-92.4	

G1	distance(m)	28.2	29.9	31.6	33.15	34.1	35.05	36.55	38.25	39.95	41.65	43.15	44.1	45.05	46.6	47.85	48.55	49.25	49.7	50
	Dst(mm)	28.6	26.7	24.6	22.5	21.2	19.8	17.6	15.1	12.6	10.3	8.5	7.5	6.6	5.5	4.8	4.5	4.3	4.2	4.2
	Dsl(mm)	46.4	43.3	39.7	36.1	33.8	31.4	27.5	23.0	18.7	14.6	11.3	9.5	7.9	5.8	4.5	4.0	3.6	3.5	3.4
	Dcs(mm)	4.6	4.3	4.0	3.6	3.5	3.3	3.0	2.7	2.4	2.2	2.1	2.0	2.0	2.2	2.1	2.1	2.1	2.1	2.1
	Db(mm)	5.7	5.4	5.0	4.6	4.3	4.0	3.6	3.1	2.6	2.1	1.7	1.5	1.3	1.1	0.9	0.9	0.8	0.8	0.8
	Dsu(mm)	2.3	2.1	2.0	1.8	1.7	1.6	1.4	1.2	1.0	0.8	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3
D(mm)	87.6	81.8	75.3	68.7	64.4	60.1	53.1	45.1	37.3	30.1	24.4	21.2	18.4	14.9	12.7	11.8	11.2	10.9	10.7	
G2	distance(m)	28.2	29.9	31.6	33.15	34.1	35.05	36.55	38.25	39.95	41.65	43.15	44.1	45.05	46.6	47.85	48.55	49.25	49.7	50
	Dst(mm)	-28.7	-26.8	-24.7	-22.6	-21.2	-19.9	-17.6	-15.1	-12.7	-10.4	-8.6	-7.5	-6.7	-5.5	-4.8	-4.5	-4.3	-4.2	-4.2
	Dsl(mm)	-75.0	-70.1	-64.4	-58.7	-55.0	-51.2	-45.1	-38.1	-31.3	-24.9	-19.8	-17.0	-14.4	-11.2	-9.2	-8.4	-7.8	-7.6	-7.5
	Dcs(mm)	-4.6	-4.3	-4.0	-3.6	-3.5	-3.3	-3.0	-2.7	-2.4	-2.2	-2.1	-2.0	-2.0	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1
	Db(mm)	-5.6	-5.3	-4.9	-4.5	-4.2	-4.0	-3.5	-3.0	-2.5	-2.1	-1.7	-1.5	-1.3	-1.0	-0.9	-0.8	-0.8	-0.8	-0.7
	Dsu(mm)	-2.3	-2.2	-2.0	-1.8	-1.7	-1.6	-1.4	-1.2	-1.0	-0.8	-0.7	-0.6	-0.5	-0.4	-0.4	-0.3	-0.3	-0.3	-0.3
D(mm)	-116.2	-108.6	-99.9	-91.2	-85.6	-79.9	-70.7	-60.1	-49.9	-40.4	-32.8	-28.6	-24.9	-20.3	-17.4	-16.2	-15.3	-15.0	-14.8	
G3	distance(m)	28.2	29.9	31.6	33.15	34.1	35.05	36.55	38.25	39.95	41.65	43.15	44.1	45.05	46.6	47.85	48.55	49.25	49.7	50
	Dst(mm)	-28.7	-26.8	-24.7	-22.6	-21.2	-19.9	-17.6	-15.1	-12.7	-10.4	-8.6	-7.5	-6.7	-5.5	-4.8	-4.5	-4.3	-4.2	-4.2
	Dsl(mm)	-46.4	-43.3	-39.7	-36.1	-33.7	-31.3	-27.4	-23.0	-18.6	-14.5	-11.2	-9.4	-7.8	-5.7	-4.4	-3.9	-3.5	-3.4	-3.3
	Dcs(mm)	-4.6	-4.3	-4.0	-3.6	-3.5	-3.3	-3.0	-2.7	-2.4	-2.2	-2.1	-2.0	-2.0	-2.1	-2.1	-2.1	-2.1	-2.1	-2.1
	Db(mm)	-5.6	-5.3	-4.9	-4.5	-4.2	-4.0	-3.5	-3.0	-2.5	-2.1	-1.7	-1.5	-1.3	-1.0	-0.9	-0.8	-0.8	-0.8	-0.7
	Dsu(mm)	-2.3	-2.2	-2.0	-1.8	-1.7	-1.6	-1.4	-1.2	-1.0	-0.8	-0.7	-0.6	-0.5	-0.4	-0.4	-0.3	-0.3	-0.3	-0.3
D(mm)	-87.6	-81.8	-75.2	-68.6	-64.4	-60.0	-53.0	-45.0	-37.3	-30.0	-24.3	-21.1	-18.3	-14.8	-12.6	-11.7	-11.0	-10.8	-10.7	
G4	distance(m)	28.2	29.9	31.6	33.15	34.1	35.05	36.55	38.25	39.95	41.65	43.15	44.1	45.05	46.6	47.85	48.55	49.25	49.7	50
	Dst(mm)	-28.6	-26.7	-24.6	-22.5	-21.2	-19.8	-17.6	-15.1	-12.6	-10.3	-8.5	-7.5	-6.6	-5.5	-4.8	-4.5	-4.3	-4.2	-4.2
	Dsl(mm)	-46.4	-43.3	-39.7	-36.1	-33.8	-31.4	-27.5	-23.0	-18.7	-14.6	-11.3	-9.5	-7.9	-5.8	-4.5	-4.0	-3.6	-3.5	-3.4
	Dcs(mm)	-4.6	-4.3	-4.0	-3.6	-3.5	-3.3	-3.0	-2.7	-2.4	-2.2	-2.1	-2.0	-2.0	-2.2	-2.1	-2.1	-2.1	-2.1	-2.1
	Db(mm)	-5.7	-5.4	-5.0	-4.6	-4.3	-4.0	-3.6	-3.1	-2.6	-2.1	-1.7	-1.5	-1.3	-1.1	-0.9	-0.9	-0.8	-0.8	-0.8
	Dsu(mm)	-2.3	-2.1	-2.0	-1.8	-1.7	-1.6	-1.4	-1.2	-1.0	-0.8	-0.7	-0.6	-0.5	-0.4	-0.4	-0.3	-0.3	-0.3	-0.3
D(mm)	-87.6	-81.8	-75.3	-68.7	-64.4	-60.1	-53.1	-45.1	-37.3	-30.1	-24.4	-21.2	-18.4	-14.9	-12.7	-11.8	-11.2	-10.9	-10.8	



Dh - LONGITUDINAL SLOPE
 Dst - STEEL GIRDER WEIGHT
 Dsl - CONCRETE SLAB WEIGHT
 Dsh - DRY SHRINKAGE
 Db - WEIGHT OF BARRIER
 Dsu - WEIGHT OF SURFACING

NOTES:

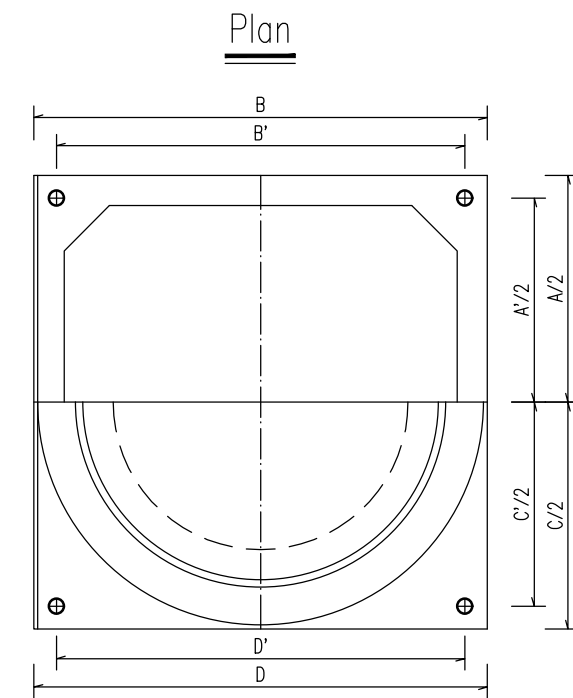
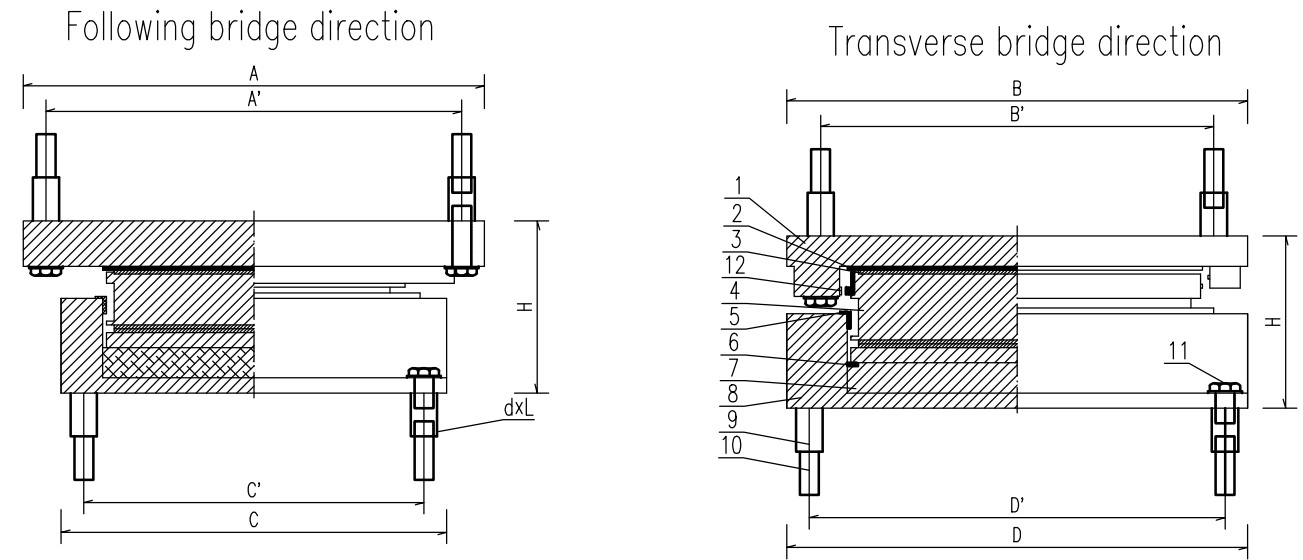
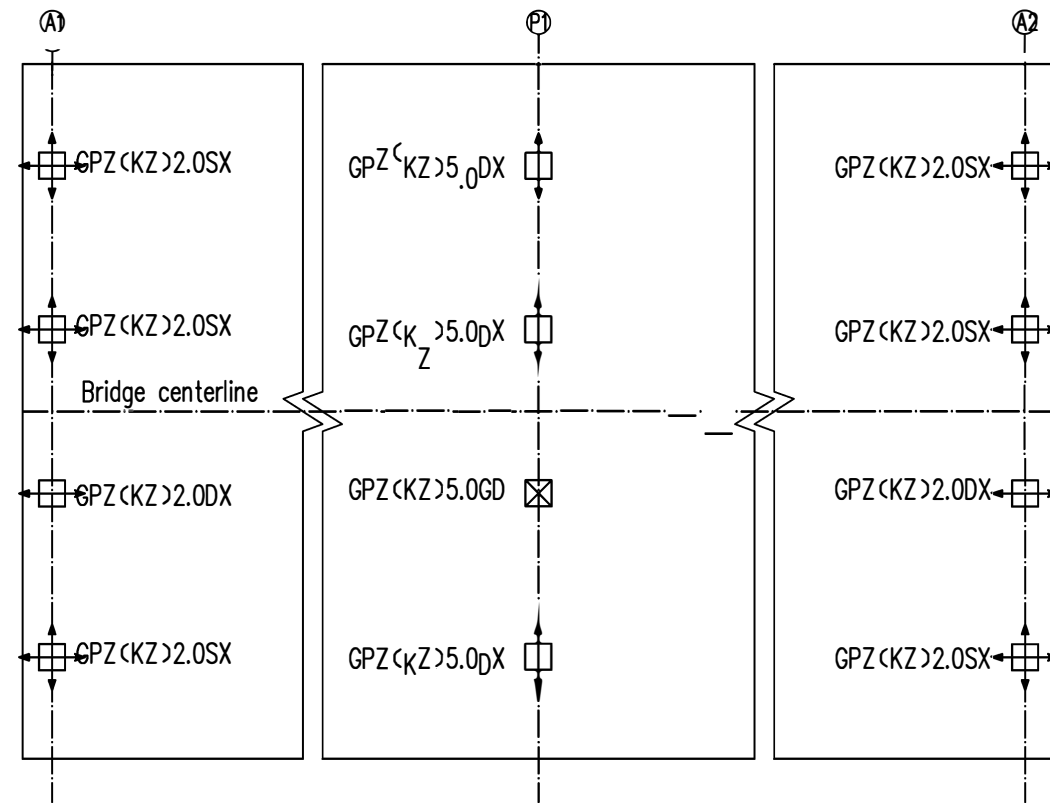
1. THE CAMBER SHOULD BE THE NEGATIVE VALUE OF DEFLECTION UNDER PERMANENT LOADS (LONGITUDINAL SLOPE, STEEL GIRDER WEIGHT, CONCRETE SLAB WEIGHT, DRY SHRINKAGE, CONCRETE BARRIER WEIGHT, SURFACING WEIGHT).
2. THIS DRAWING ONLY SHOW THE CAMBER OF HALF BRIDGE, ANOTHER HALF SHALL BE ARRANGED SYMMETRICALLY.
3. FOR THIS BRIDGE, dh=0.

SHHIP-2 BCW2 BRIDGE
NO.42 MASUMA RIVER BRIDGE

DATE

2026.04

BEARINGS LAYOUT PLAN



INDIVIDUAL MATERIAL LIST

NO.	NAME	QTY	MATERIAL
1	TOP BEARING PLATE	1	Q355
2	PLANE STAINLESS STEEL PLATE	2	S304
3	PLANE PTFE SHEET	2	UHMWPE
4	PISTON	1	Q355
5	RUBBER SEAL RING	1	EPDM
6	COPPER SEAL RING	2	CuZn37
7	ELASTOMERIC DISC	1	NATURAL RUBBER
8	BOTTOM BEARING PLATE (POT)	1	Q355/ZG270-500
9	SLEEVE	8	45#
10	ANCHOR BAR	8	45#
11	ANCHOR BOLT	8	40Cr
12	WEAR-RESISTANCE STRIP	2	SF-1

Notes:

- All dimensions in this drawing are in millimeters.
- The main displacement of the unidirectional bearings adjacent to the fixed bearings is in the transverse bridge direction, while the main displacement of all other unidirectional and bidirectional bearings is in the longitudinal bridge direction.
- The bearing parameters listed in the table are for reference only, and the manufacturer's approved products shall prevail during construction.
- When the beam is dropped, measures need to be taken to ensure the close adhesion between the upper and lower steel plates on the bearing, the steel beam, and the pad stone. The construction of the pad stone on the bearing needs to wait for the bearing to drop to the design elevation before conducting post grouting and compaction to ensure uniform stress on the bearing.

 EMPLOYER INDEPENDENT STATE OF PAPUA NEW GUINEA	 EMPLOYER REPRESENTATIVE DEPARTMENT OF WORKS AND HIGHWAYS AND IMPLEMENTATION	PROJECT PROJECT: ADB LOAN NO. 4094/4095 AND OPEF FUND LOAN NO. 14606P, CONTRACT NO. NPC 2020-51 (BCW2) - DETAILED DESIGN, REHABILITATION AND CONSTRUCTION OF BRIDGES (BRIDGE NO. 36-54) BETWEEN HENGANOFI AND MANGIRO, PAPUA NEW GUINEA	CONSULTANT  RENARDET CONSULTING ENGINEERS GENEVA - SWITZERLAND	CONTRACTOR  中国武夷实业股份有限公司 CHINA WU YI CO., LTD.	DESIGNED BY: CHECKED BY: APPROVED BY:	DRAWING SCHEDULE NEW BRIDGE: KAMALIKI BRIDGE	SHHIP-2 BCW2 KAMALIKI BRIDGE STRUCTURAL DRAWING OF BEARINGS	
							DATE	5.2026

DETAIL INSTALLATION PROCESS FOR BEARING

General rules

- ◆ When adopting the series bearing, the height difference of four top corners of the padstone is not greater than 2mm; in view of replacing the bearing conveniently when being installed and maintained, the height of the padstone is not lower than 100mm.
- ◆ The series bearing is connected with the main beam, pier and abutment by sleeve and anchor bolt. In order to ensure the accurate installation of the bearing and reduce the interference of top stressed rebar of the abutment, it suggests to reserve the anchor hole at the supporting padstone of pier and abutment tops; the size of the reserved hole sees the bearing installation figure (table) for details; and the position deviation of the centre of the reserved hole and the diagonal does not exceed 10mm.
- ◆ Four layers of steel mesh reinforcements must be increased in the pier adjacent to the bearing or top padstone concrete of abutment; and the arranging scope must be greater than the plane size of the lower connection steel plate of the bearing. The steel mesh reinforcement adopts $\Phi 12$ mm rebar; the gridding is 100mm \times 100mm; and the distance is 60mm–80mm. The steel mesh reinforcement of the reserved hole is disconnected; and the reinforced rebar with same diameter is increased at the hole side. The sketch map of the steel mesh reinforcement sees figure 3 and figure 4.

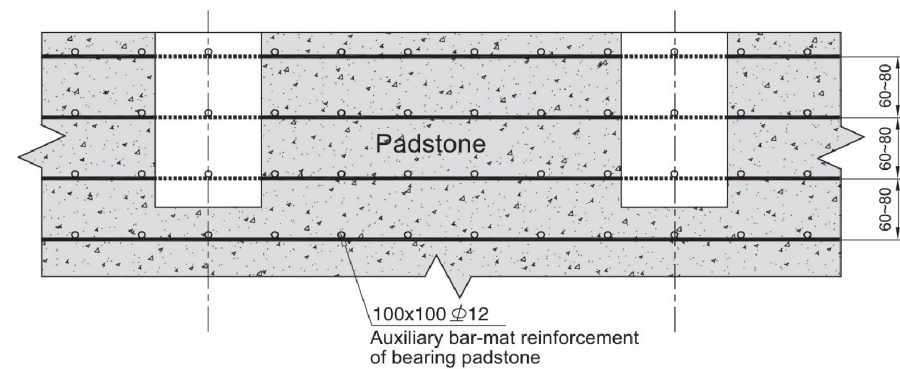


Figure 3 Sketch map of vertical surface layout of steel mesh reinforcement

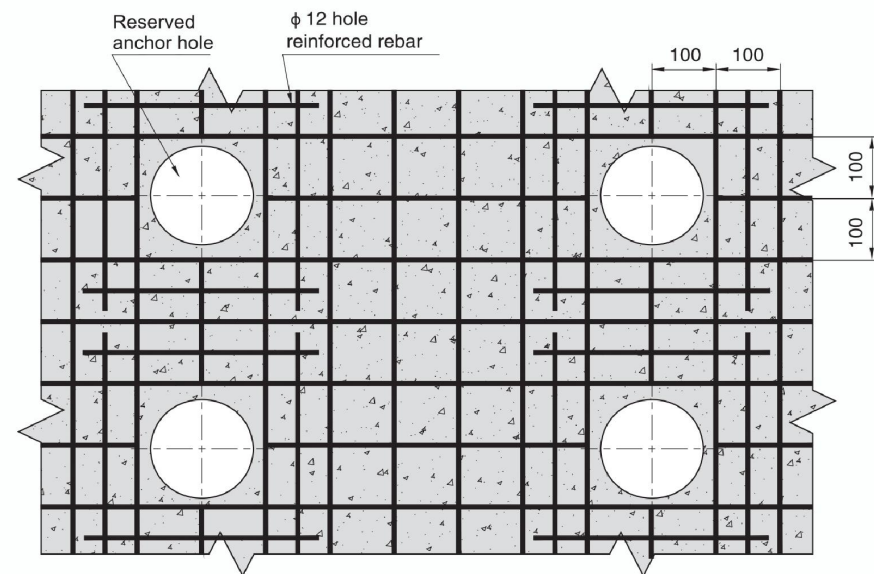


Figure 4 Sketch map of plane layout of steel mesh reinforcement diagram

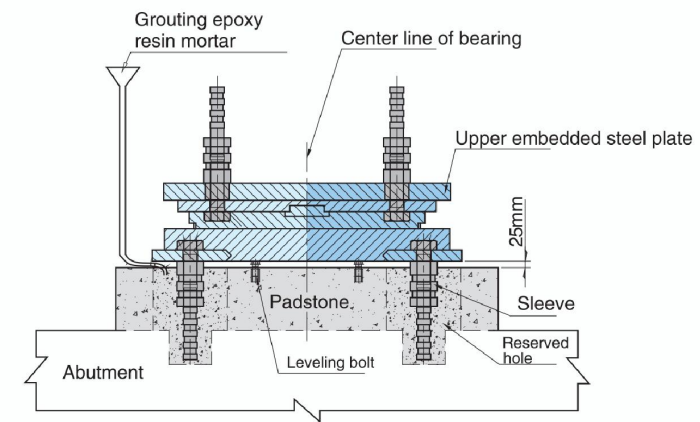


Figure 5 Reversed hole grouting (before sealing the template mold)

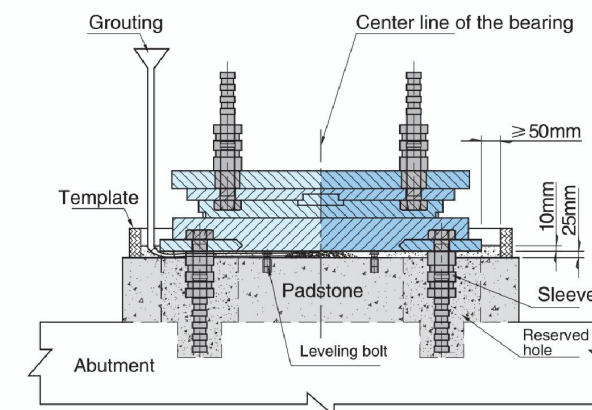
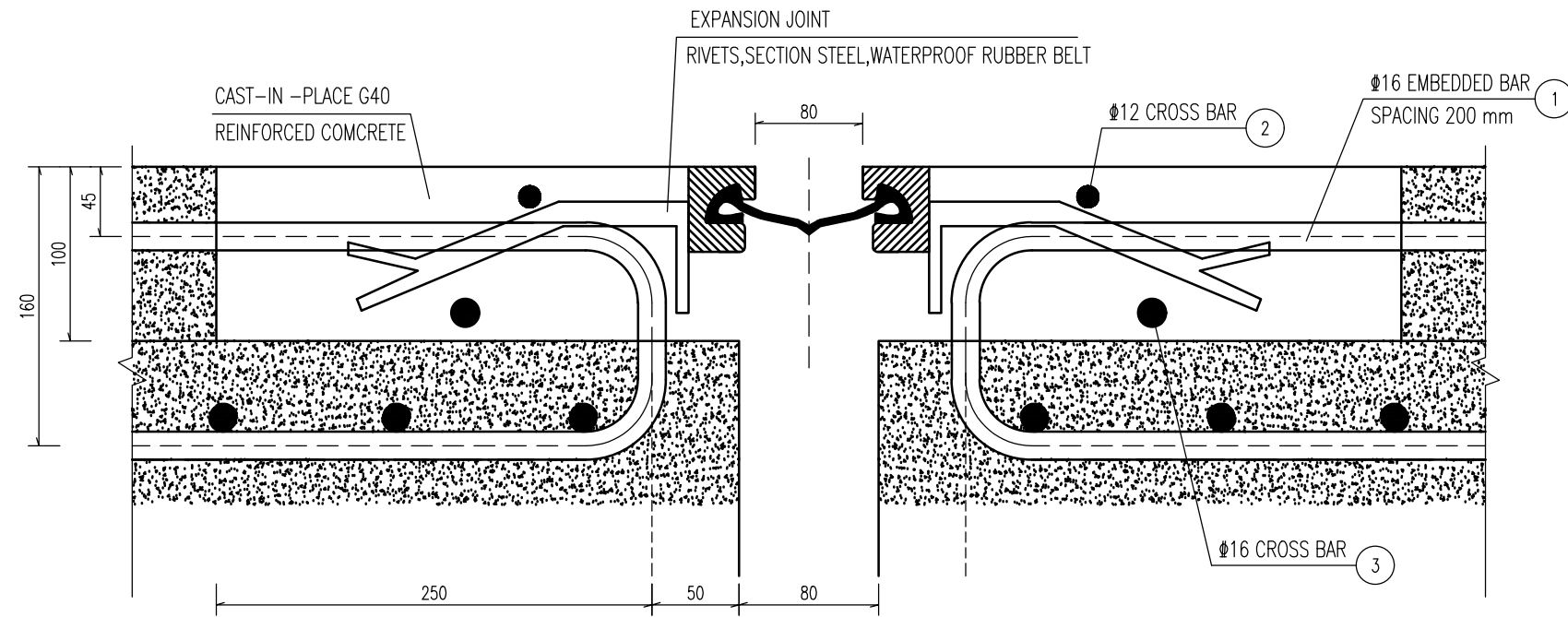


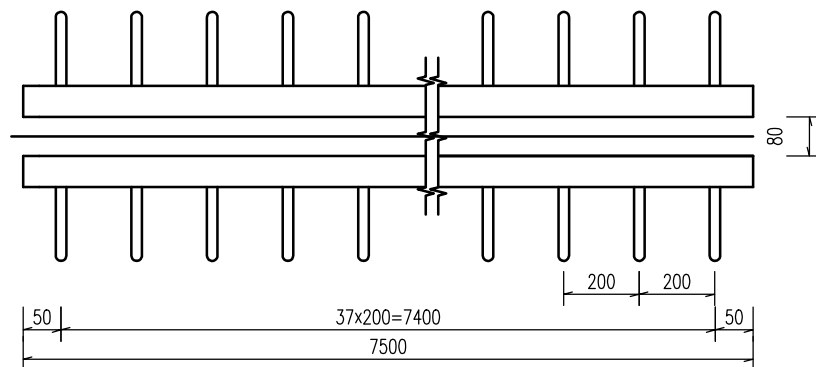
Figure 6 Grouting between padstone and the bearing

<p>EMPLOYER</p>  <p>INDEPENDENT STATE OF PAPUA NEW GUINEA</p>	<p>EMPLOYER REPRESENTATIVE</p>  <p>DEPARTMENT OF WORKS AND HIGHWAYS AND IMPLEMENTATION</p>	<p>PROJECT</p> <p>PROJECT: ADB LOAN NO. 4094/4095 AND OPEF FUND LOAN NO. 14606P, CONTRACT NO. NPC 2020-51 (BCW2) - DETAILED DESIGN, REHABILITATION AND CONSTRUCTION OF BRIDGES (BRIDGE NO. 36-54) BETWEEN HENGANOFI AND MANGIRO, PAPUA NEW GUINEA</p>	<p>CONSULTANT</p>  <p>RENARDET CONSULTING ENGINEERS GENEVA - SWITZERLAND</p>	<p>CONTRACTOR</p>  <p>中国武夷实业股份有限公司 CHINA WU YI CO., LTD.</p>	<p>DESIGNED BY:</p> <p>CHECKED BY:</p> <p>APPROVED BY:</p>	<p>DRAWING SCHEDULE</p> <p>NEW BRIDGE: KAMALIKI BRIDGE</p>	<p>SHHIP-2 BCW2 KAMALIKI BRIDGE STRUCTURAL DRAWING OF BEARINGS</p> <p>DATE</p> <p>5.2026</p>
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INSTALLATION DRAWING OF EXPANSION JOINTS FOR ROADWAY



EXPANSION PLAN 1:2



MATERIAL LIST

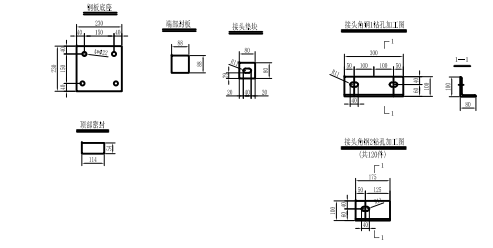
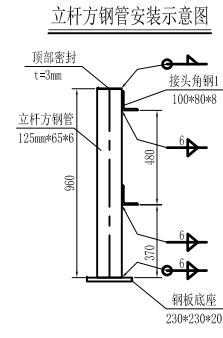
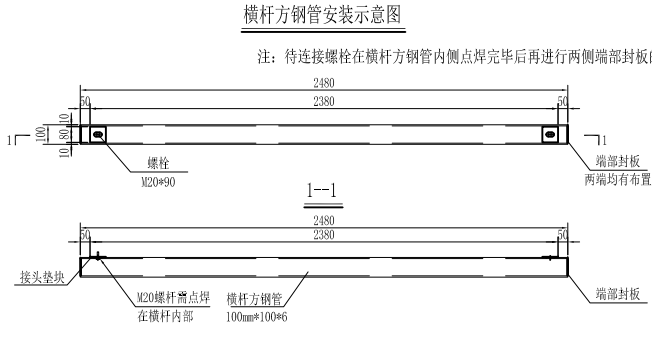
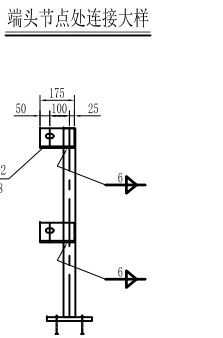
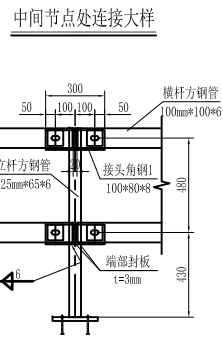
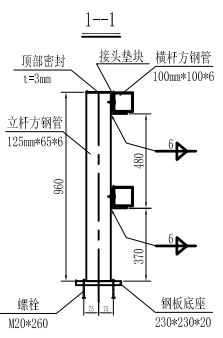
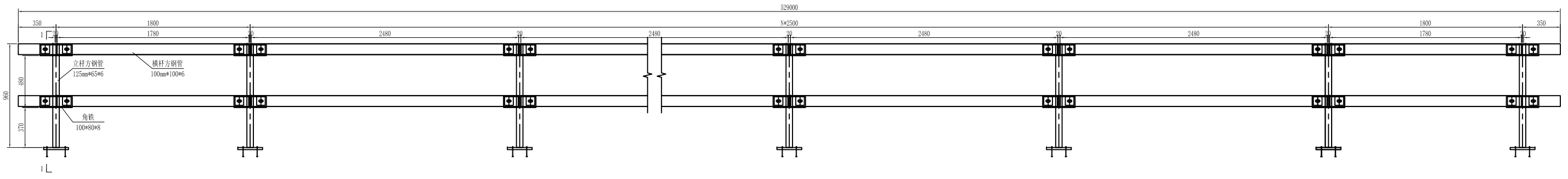
Item	Specification	Number Of One Bridge
Carriageway Expansion Joint	L=7.5m	2

Notes:

1.All dimensions in this drawing are in millimeters.

EMPLOYER INDEPENDENT STATE OF PAPUA NEW GUINEA	EMPLOYER REPRESENTATIVE DEPARTMENT OF WORKS AND HIGHWAYS AND IMPLEMENTATION	PROJECT PROJECT: ADB LOAN NO. 4094/4095 AND OPEF FUND LOAN NO. 14606P, CONTRACT NO. NPC 2020-51 (BCW2) - DETAILED DESIGN, REHABILITATION AND CONSTRUCTION OF BRIDGES (BRIDGE NO. 36-54) BETWEEN HENGANOFI AND MANGIRO, PAPUA NEW GUINEA	CONSULTANT RENARDET CONSULTING ENGINEERS GENEVA - SWITZERLAND	CONTRACTOR 中国武夷实业股份有限公司 CHINA WU YI CO., LTD.	DESIGNED BY: CHECKED BY: APPROVED BY:	DRAWING SCHEDULE NEW BRIDGE: KAMALIKI BRIDGE	SHHIP-2 BCW2 KAMALIKI BRIDGE ARRANGEMENT DRAWING OF EXPANSION JOINT DATE 5.2026
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BCW2桥梁项目新建桥护栏立面示意图



序号	名称	材质	规格 (mm)			数量		重量 (kg)		备注
			厚度	宽度	长度	单重	总重			
1	立杆方钢管	Q235B	125	65	6	960	489	16.1	7872.5	
2	横杆方钢管	Q235B	100	100	6	2480	920	43.9	40407.1	
3	钢板底座	Q235B	20	230	230	475	8.3	3945.0		
4	接头角钢1	Q235B	L	100	80	4	300	3.3	3041.1	
5	接头角钢2	Q235B	L	100	80	4	120	1.9	228.9	
6	连接螺栓1	4.6等级	M20		90	1900	0.35	665.0		每套螺栓含两个垫片
7	连接螺栓2	4.6等级	M20		260	1900	1.05	1995.0		
8	接头垫块	Q235B	3	80	80	1960	0.2	295.4		增补项
9	端部封板	Q235B	3	88	88	1840	0.2	335.6		增补项
10	顶部密封	Q235B	3	54	114	475	0.1	68.9		
11	防滑钢板	Q235B	10	1500	6000	5	706.5	3532.5		
12	普通钢板	Q235B	10	1500	6000	3	706.5	2119.5		
合计							11017		64506.5	

备注：普通钢板+环氧富锌漆一道；序号11防滑钢板/12普通钢板无需处理。

<p>EMPLOYER INDEPENDENT STATE OF PAPUA NEW GUINEA</p>	<p>EMPLOYER REPRESENTATIVE DEPARTMENT OF WORKS AND HIGHWAYS AND IMPLEMENTATION</p>	<p>PROJECT: ADB LOAN NO. 4094/4095 AND OPEF FUND LOAN NO. 14606P, CONTRACT NO. NPC 2020-51 (BCW2) - DETAILED DESIGN, REHABILITATION AND CONSTRUCTION OF BRIDGES (BRIDGE NO. 36-54) BETWEEN HENGANOFI AND MANGIRO, PAPUA NEW GUINEA</p>	<p>CONSULTANT</p>	<p>CONTRACTOR 中国武夷实业股份有限公司 CHINA WU YI CO., LTD.</p>	<p>DESIGNED BY:</p> <p>CHECKED BY:</p> <p>APPROVED BY:</p>	<p>DATE</p>
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