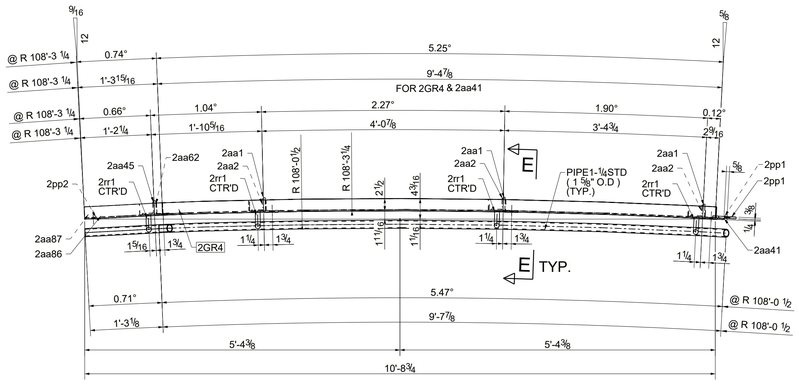
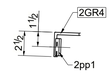


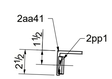
A - A

PLAN VIEW

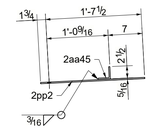
SHOP NOTES:
1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. ALL ASSEMBLY PARTS ARE CENTERED UNLESS NOTED/SHOWN OTHERWISE.
8. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
9. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE GATHER SHEETS/ SINGLE PART SHEETS.
10. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
11. SHOP CLOSE ALL GAPS.
12. ALL JOINTS TO BE SEAL WELDED WITH CONT. 1/8" FILLET OR BUTT WELD AS REQ'D
13. PROVIDE VENT HOLES AS REQ'D FOR GALV.
14. PLUG VENT HOLES AFTER GALV.



C - C

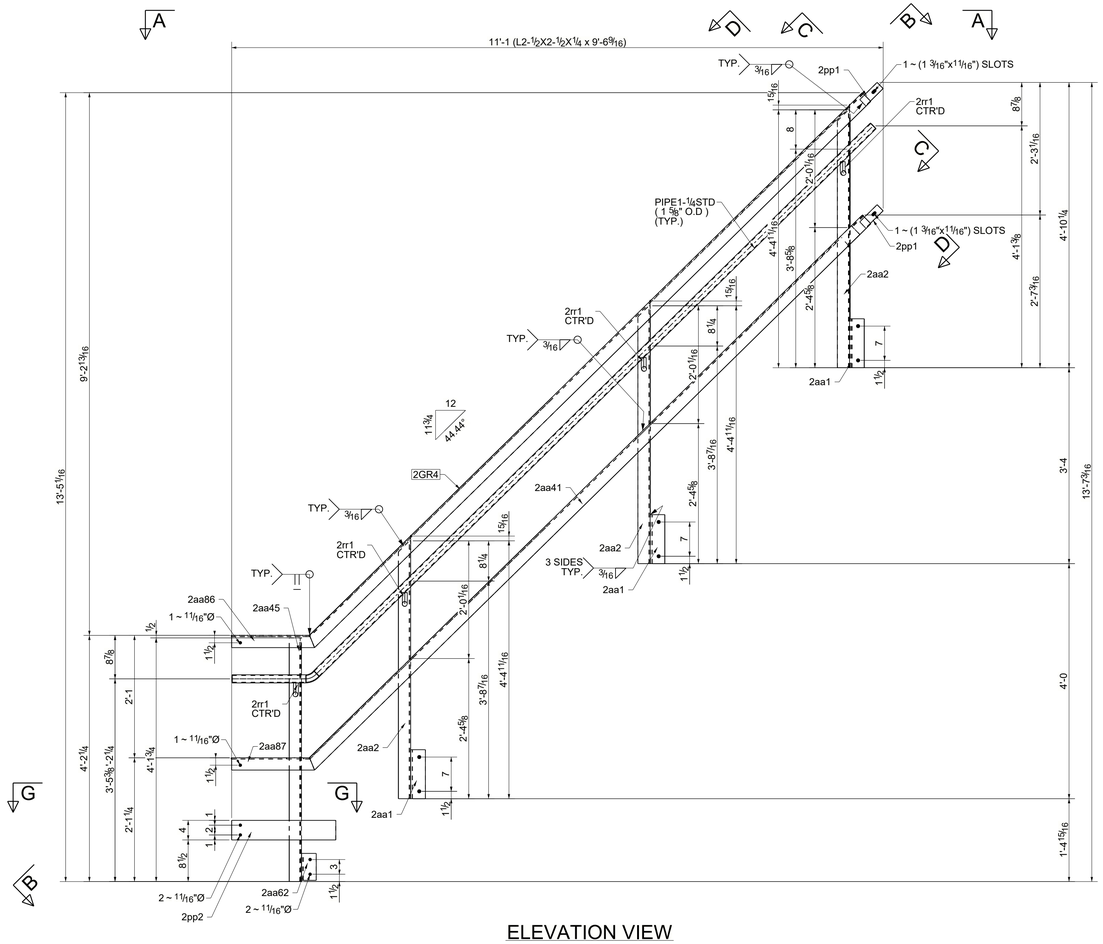


D - D

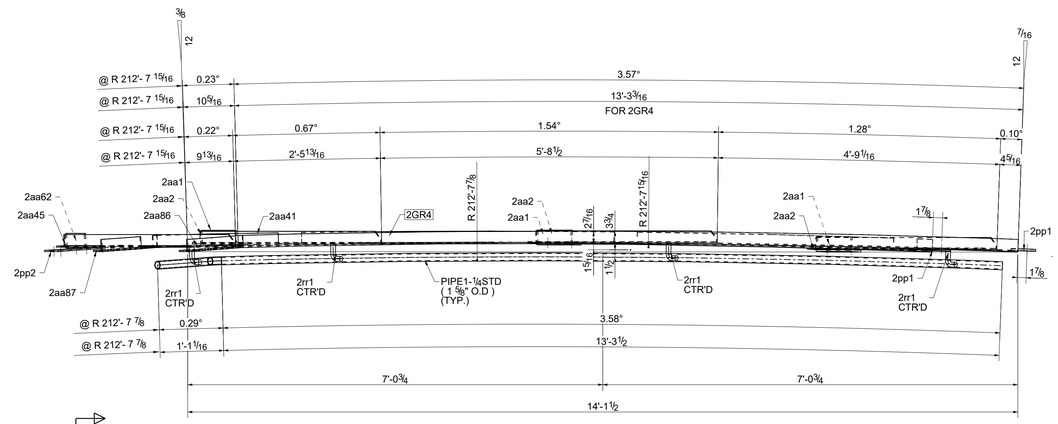


G - G

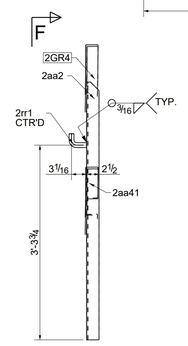
BILL OF MATERIAL					
MARK	QTY	DESCRIPTION	LENGTH	GRADE	REMARKS
2GR4	1	GUARDRAIL		A572-50	
2GR4	1	L2-1/2X2-1/2X1/4	13'-3 3/16"	A572-50	
		PIPE1-1/4STD	14'-10"	A53-GR.B	Total Length
2aa1	3	L3X3X3/8	0'-10"	A572-50	
2aa62	1	L3X3X3/8	0'-5 1/2"	A572-50	
2aa2	3	L2-1/2X2-1/2X1/4	4'-4 11/16"	A572-50	
2aa41	1	L2-1/2X2-1/2X1/4	13'-3 1/4"	A572-50	
2aa45	1	L2-1/2X2-1/2X1/4	4'-1 3/4"	A572-50	
2aa86	1	L2-1/2X2-1/2X1/4	1'-4 15/16"	A572-50	
2aa87	1	L2-1/2X2-1/2X1/4	1'-4 15/16"	A572-50	
2rr1	4	ROD1"	0'-5"	A572-50	
2pp1	2	PL3/8"X1 3/4"	0'-5"	A572-50	
2pp2	1	PL1/4"X4"	1'-9 1/4"	A572-50	
2aa1	3	L3X3X3/8	0'-10"	A572-50	
2aa62	1	L3X3X3/8	0'-5 1/2"	A572-50	
2aa2	3	L2-1/2X2-1/2X1/4	4'-4 11/16"	A572-50	
2aa41	1	L2-1/2X2-1/2X1/4	13'-3 1/4"	A572-50	
2aa45	1	L2-1/2X2-1/2X1/4	4'-1 3/4"	A572-50	
2aa86	1	L2-1/2X2-1/2X1/4	1'-4 15/16"	A572-50	
2aa87	1	L2-1/2X2-1/2X1/4	1'-4 15/16"	A572-50	
			TOTAL WEIGHT (lbf)		311.6



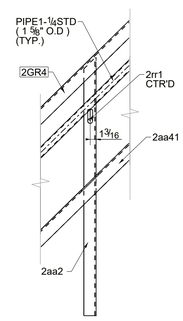
ELEVATION VIEW



B - B



E - E

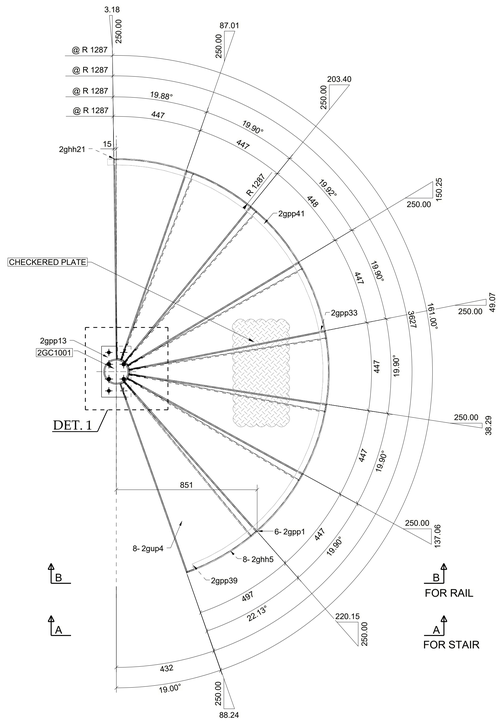


F - F

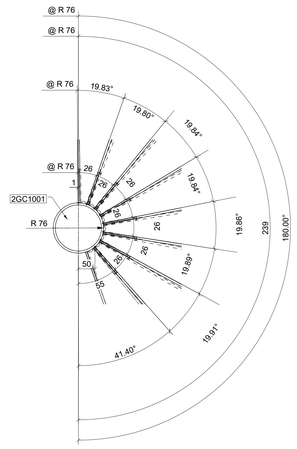
ONE - GUARDRAIL - 2GR4

REF. E202

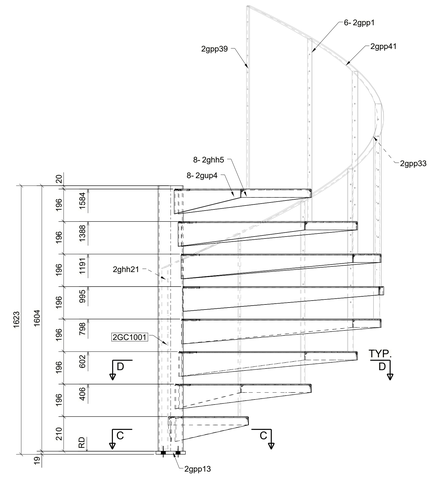
FOR FABRICATION : 07/20/2022



KEY PLAN



DETAIL- 1



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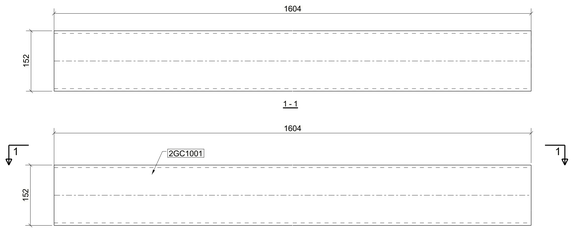
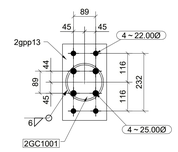


1 - 1

DETAIL OF 2GC1001



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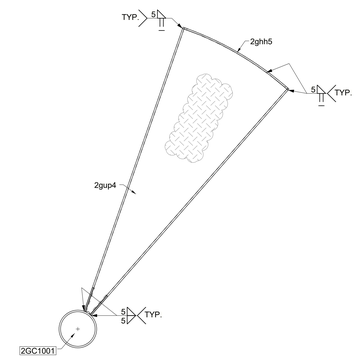
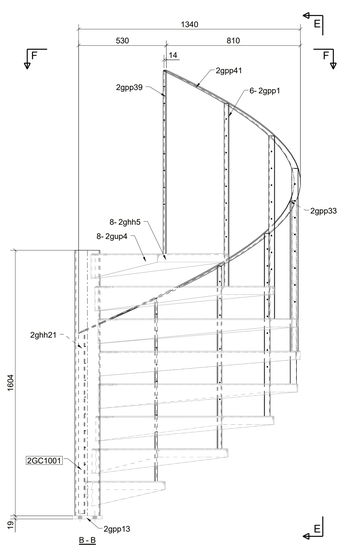
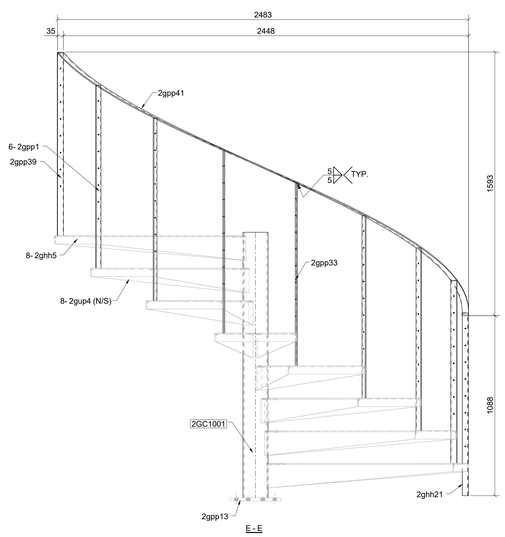


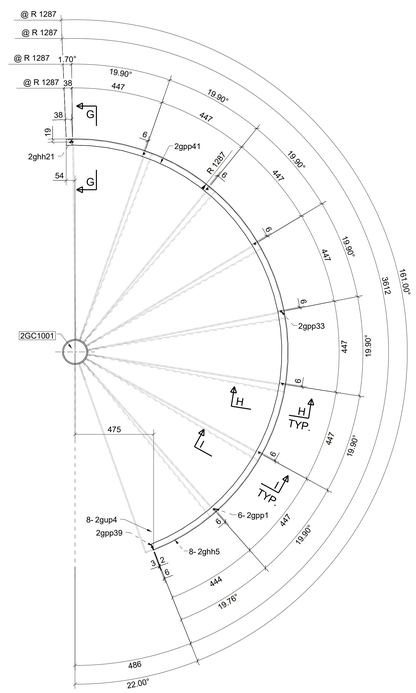
D - D



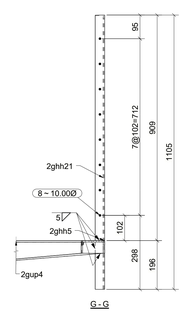
B - B



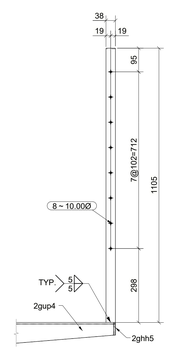
E - E



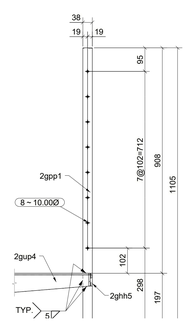
F - F



G - G



H - H



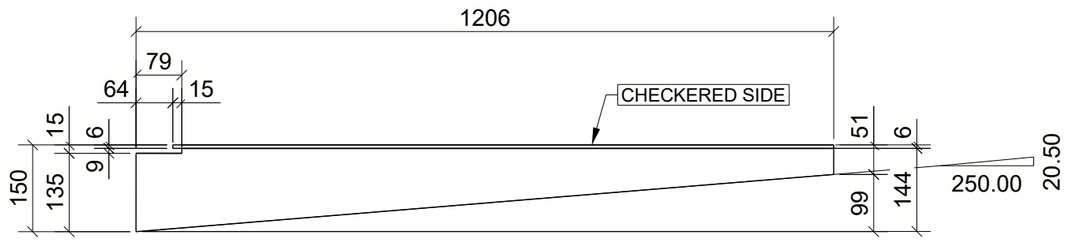
UN - COLONNE - 2GC1001 - GALV.

BILL OF MATERIAL

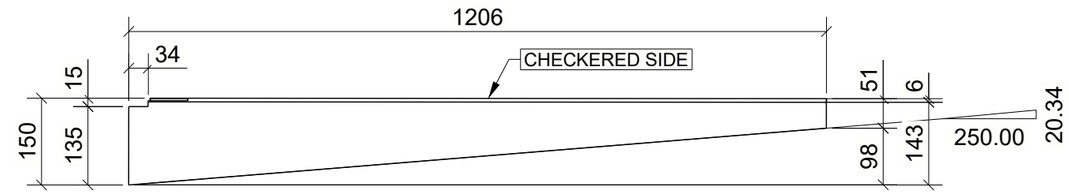
Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
	1	2GC1001	COLONNE					
1	1		HSS152.4X6.4	1604	34	SQ-2 GALV.		A500-GR.C
8	8	2ghh5	PL6X51	497	9	GALV.		300W
1	1	2ghh21	PL5X66	1105	3	GALV.		300W_PLIEE
6	6	2gpp1	PL6X38	1105	12	GALV.		300W
1	1	2gpp13	PL19X178	308	8	GALV.		300W
1	1	2gpp33	PL6X38	1105	2	GALV.		300W
1	1	2gpp39	PL6X38	1105	2	GALV.		300W
1	1	2gpp41	PL6X38	3898	7	GALV.		300W
8	8	2gup4	PL6X565	1252	204	GALV.		300W_PLIEE

RAYON	14	SIC
GRADE ACIER	300W	SIC
ELECTRODES	E70XX	SIC
SOUDURES	6mm	SIC
TROUS	22Ø	SIC
BOULONS	A325N	SIC
PEINTURE	1-73/A PRIMER	SIC

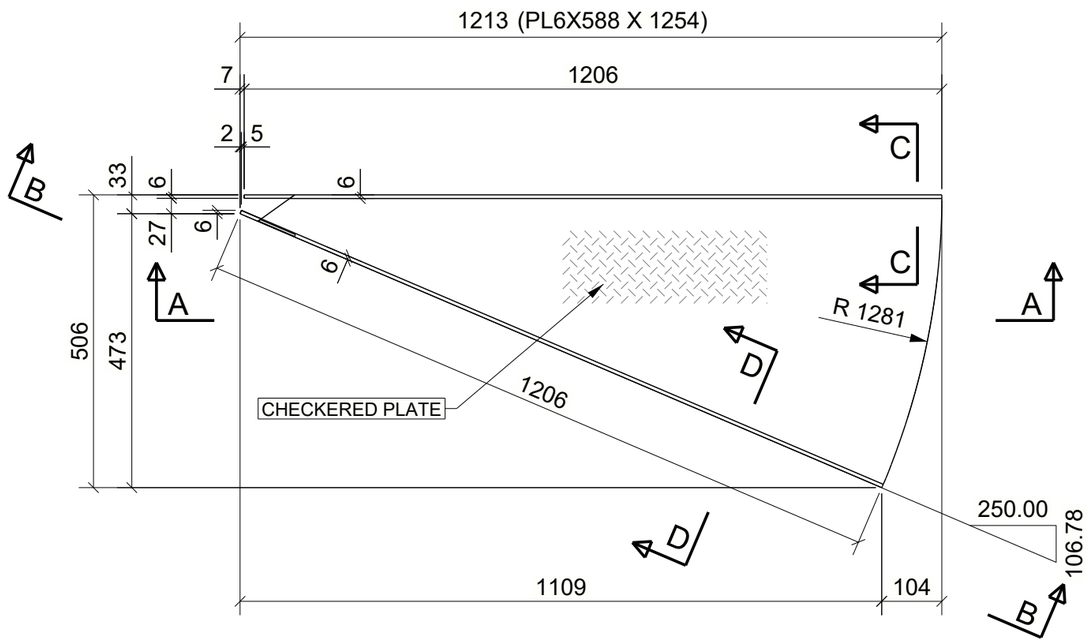
Tools Structures

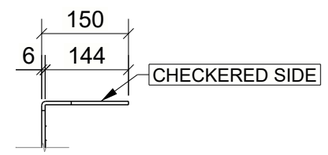


A - A

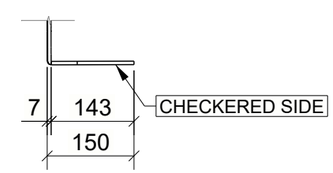


B - B





C - C

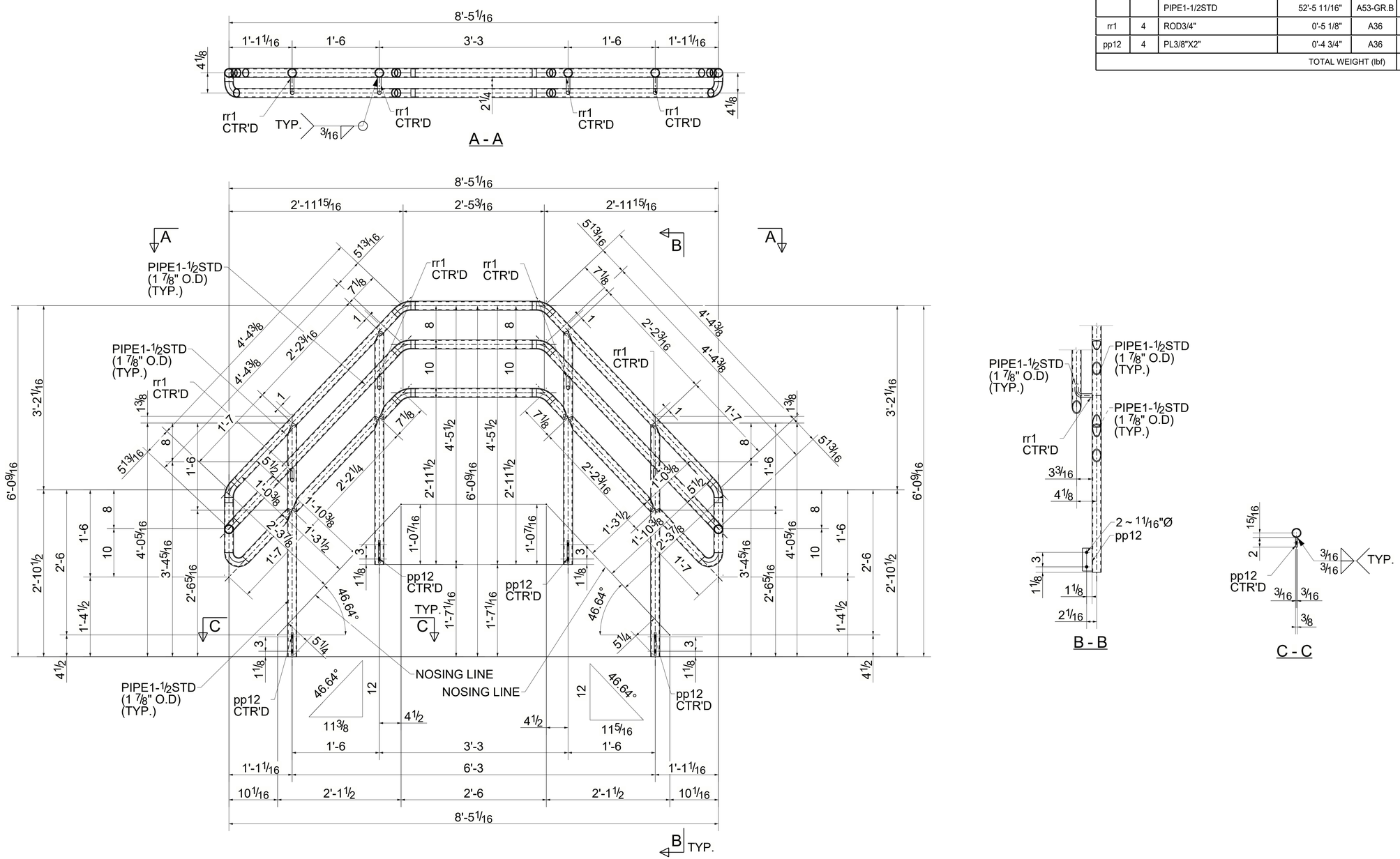


D - D

REFER WRAP AROUND SHEETS
FOR MORE DETAILS

Tekla Structures

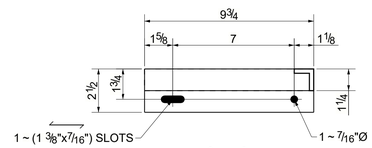
BILL OF MATERIAL					
MARK	QTY	DESCRIPTION	LENGTH	GRADE	REMARKS
GR5	1	GUARD RAIL		A53-GR.B	
		PIPE1-1/2STD	52'-5 11/16"	A53-GR.B	Total Length
rr1	4	ROD3/4"	0'-5 1/8"	A36	
pp12	4	PL3/8"X2"	0'-4 3/4"	A36	
			TOTAL WEIGHT (lbf)		134.7



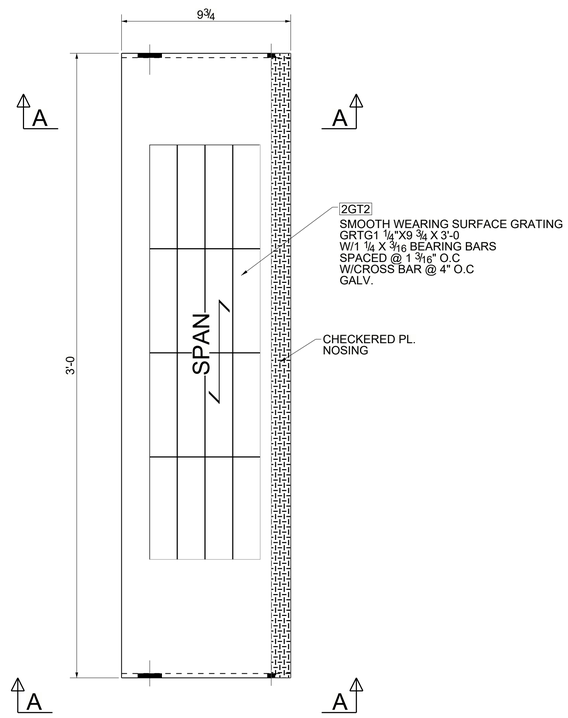
ONE - GUARD RAIL - GR5

SHOP NOTES:

1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. ALL ASSEMBLY PARTS ARE CENTERED UNLESS NOTED/SHOWN OTHERWISE.
8. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
9. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE GATHER SHEETS/ SINGLE PART SHEETS.
10. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
11. SHOP CLOSE ALL GAPS.
12. ALL JOINTS TO BE SEAL WELDED WITH CONT. 1/8" FILLET OR BUTT WELD AS REQ'D
13. PROVIDE VENT HOLES AS REQ'D FOR GALV.
14. PLUG VENT HOLES AFTER GALV.



A - A

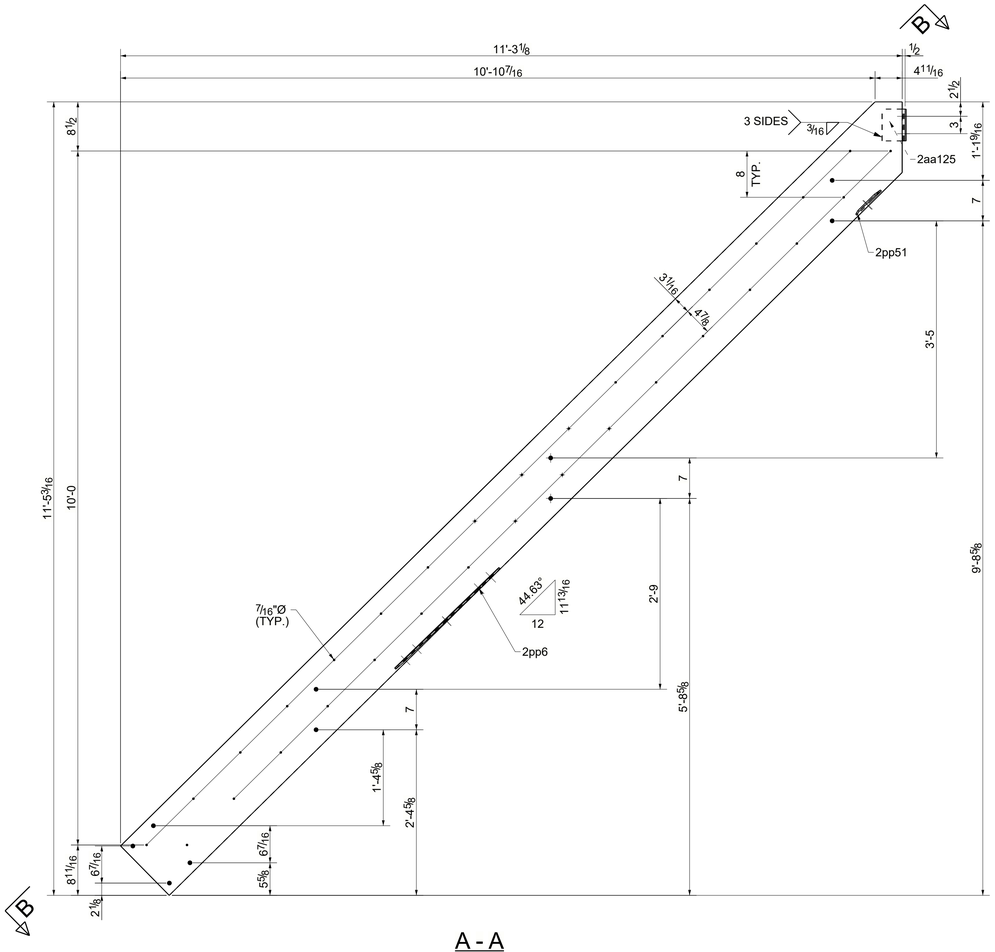


BILL OF MATERIAL					
SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	REMARKS
2GT2		127	GRTG1 1/4"X9 3/4"	3'-0"	SQ-2 A572-50

127 - GRATING TREADS - 2GT2

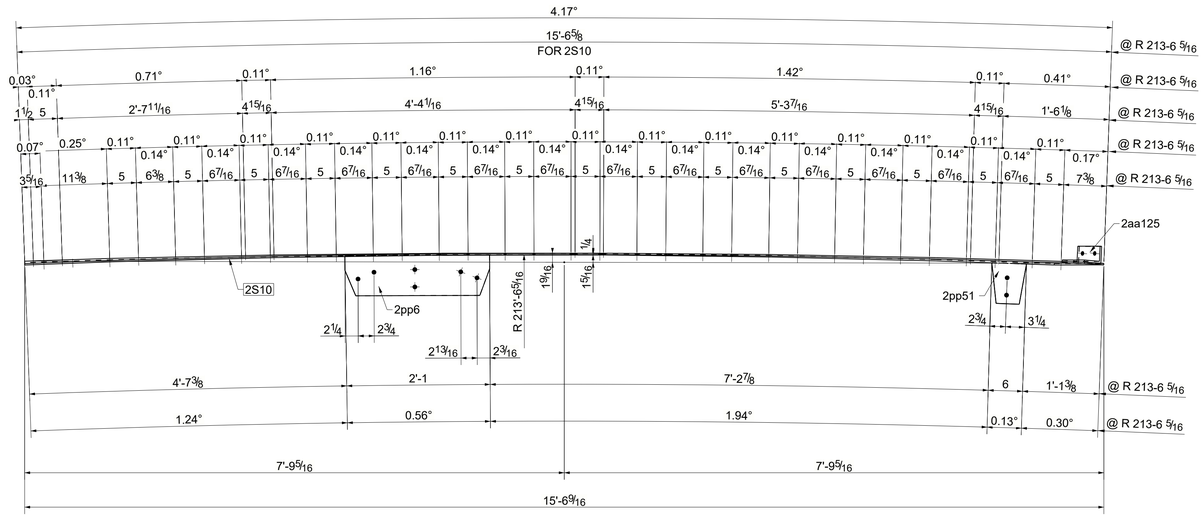
REF.E202,E203

FOR FABRICATION : 07/20/2022

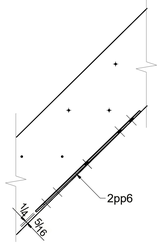


A - A

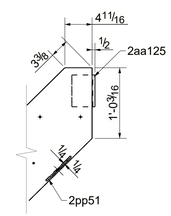
ELEVATION VIEW



B - B



D - D



E - E

SHOP NOTES:

1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
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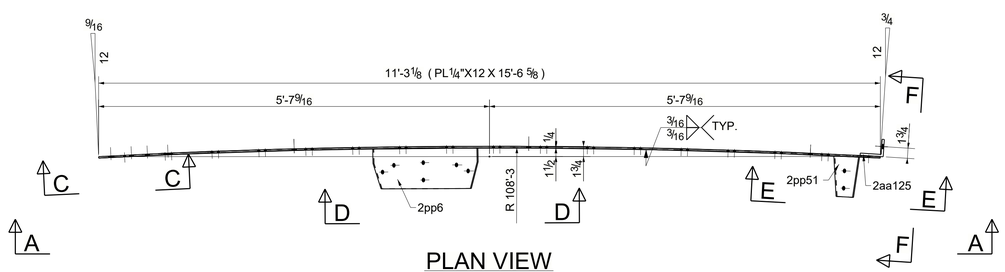
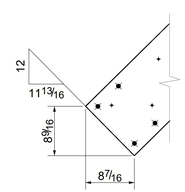
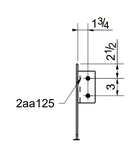
8. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
9. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE GATHER SHEETS/ SINGLE PART SHEETS.
10. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
11. SHOP CLOSE ALL GAPS.
12. ALL JOINTS TO BE SEAL WELDED WITH CONT. 1/8" FILLET OR BUTT WELD AS REQ'D
13. PROVIDE VENT HOLES AS REQ'D FOR GALV.
14. PLUG VENT HOLES AFTER GALV.



PLAN VIEW



C - C



F - F

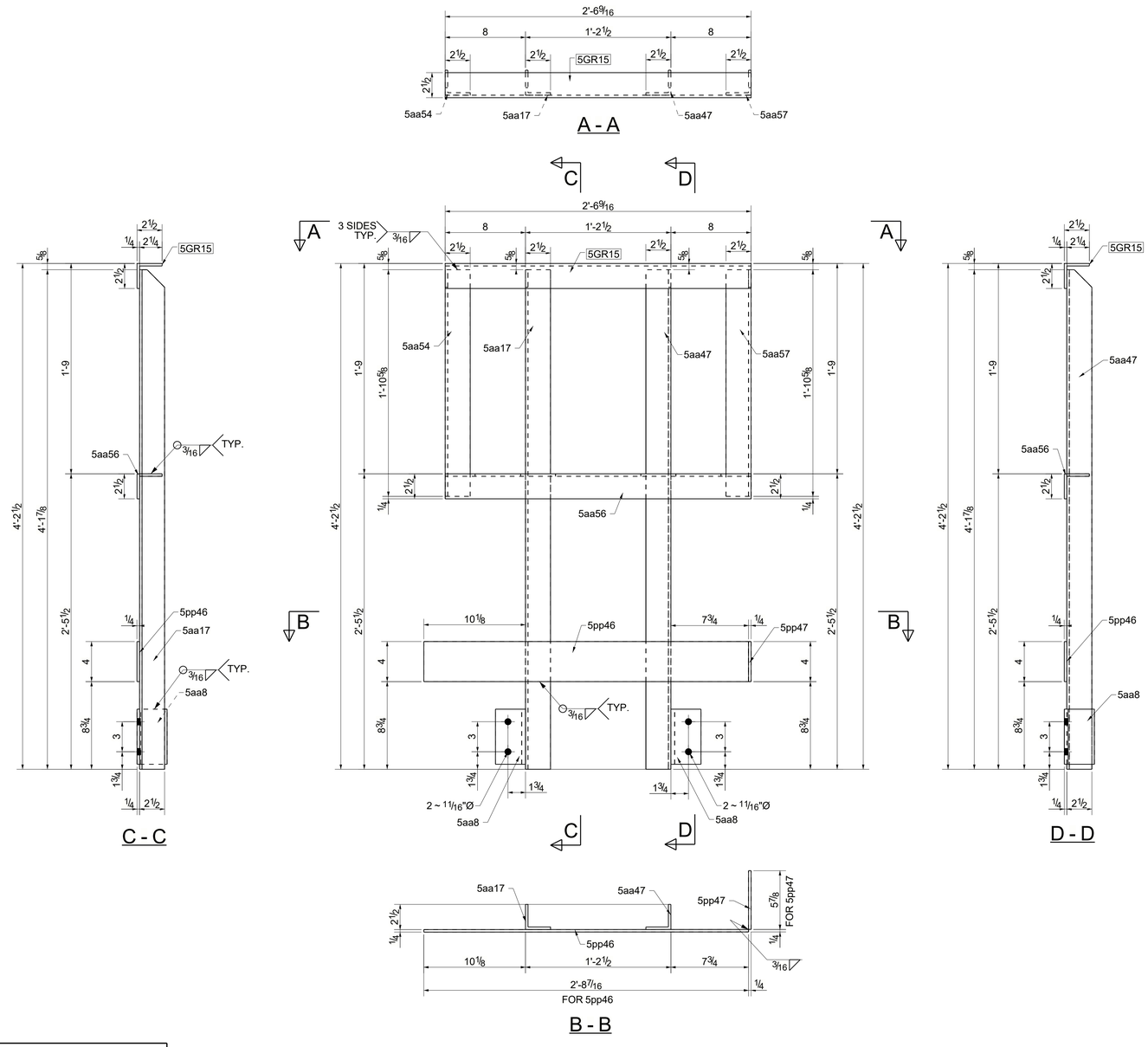
BILL OF MATERIAL

SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	REMARKS
2S10		1	PL1/4"X12"	15'-6 5/8"	SQ-2 A572-50
	2aa125	1	L4X3X3/8	0'-5 1/2"	A572-50
	2pp6	1	PL1/4"X7"	2'-1"	A572-50
	2pp51	1	PL1/4"X5 15/16"	0'-7 5/8"	A572-50

ONE - SPIRAL STRINGER - 2S10

REF. E203

FOR FABRICATION : 07/20/2022



SHOP NOTES:

1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. ALL ASSEMBLY PARTS ARE CENTERED UNLESS NOTED/SHOWN OTHERWISE.
8. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
9. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC., SEE GATHER SHEETS/ SINGLE PART SHEETS.
10. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
11. SHOP CLOSE ALL GAPS.
12. ALL JOINTS TO BE SEAL WELDED WITH CONT. 1/8" FILLET OR BUTT WELD AS REQ'D
13. PROVIDE VENT HOLES AS REQ'D FOR GALV.
14. PLUG VENT HOLES AFTER GALV.

3 - GUARDRAILS - 5GR15

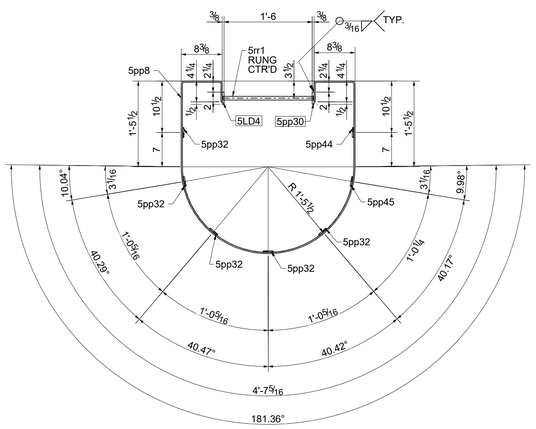
BILL OF MATERIAL

SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	REMARKS
5GR15		3	L2-1/2X2-1/2X1/4	2'-6 9/16"	SQ-2 A572-50
	5aa8	6	L3X3X3/8	0'-5 1/2"	A572-50
	5aa17	3	L2-1/2X2-1/2X1/4	4'-1 7/8"	A572-50
	5aa47	3	L2-1/2X2-1/2X1/4	4'-1 7/8"	A572-50
	5aa54	3	L2-1/2X2-1/2X1/4	1'-10 5/8"	A572-50
	5aa56	3	L2-1/2X2-1/2X1/4	2'-6 9/16"	A572-50
	5aa57	3	L2-1/2X2-1/2X1/4	1'-10 5/8"	A572-50
	5pp46	3	PL1/4"X4"	2'-8 7/16"	A572-50
	5pp47	3	PL1/4"X4"	0'-5 7/8"	A572-50

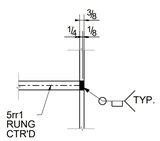
REF. E501, E502, E503
MK
FOR FABRICATION : 08/24/2022

GRID LOCATION	BOTTOM ELEVATION
A/.	1181'-9"1/4

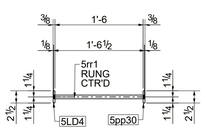
SHOP NOTES:
1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. ALL ASSEMBLY PARTS ARE CENTERED UNLESS NOTED/SHOWN OTHERWISE.
8. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
9. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC...SEE GATHER SHEETS/ SINGLE PART SHEETS.
10. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
11. SHOP CLOSE ALL GAPS.
12. ALL JOINTS TO BE SEAL WELDED WITH CONT. 1/8" FILLET OR BUTT WELD AS REQ'D
13. PROVIDE VENT HOLES AS REQ'D FOR GALV.
14. PLUG VENT HOLES AFTER GALV.



C - C



DETAIL 1



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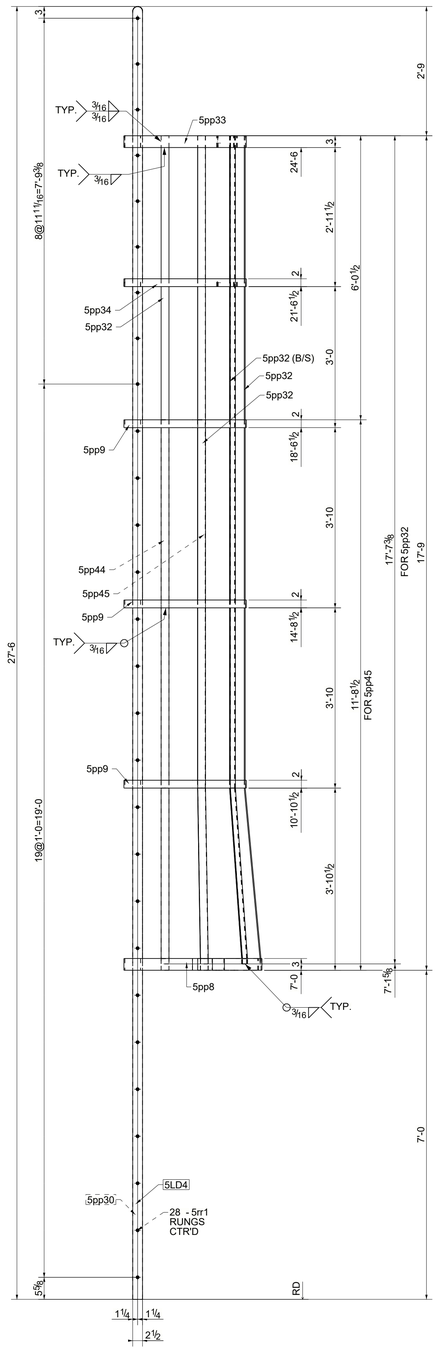

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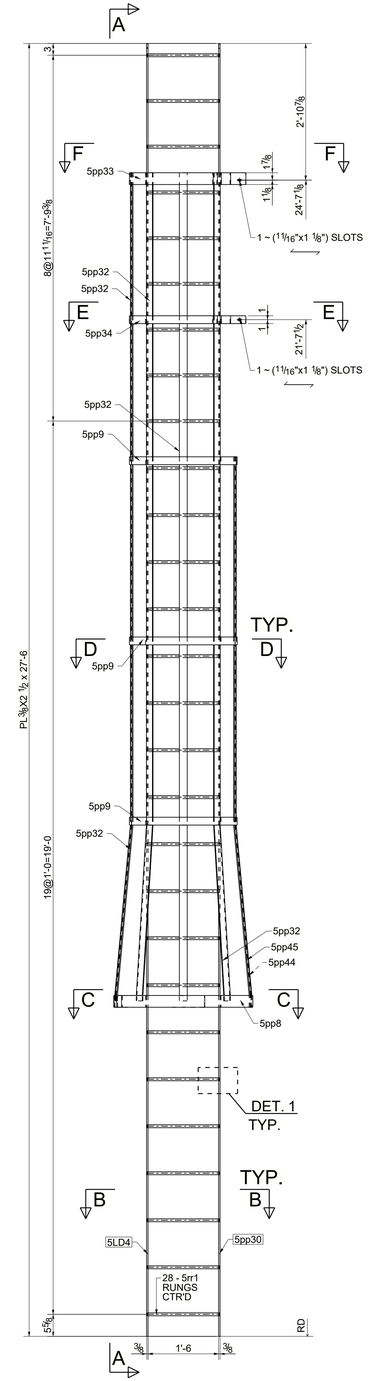

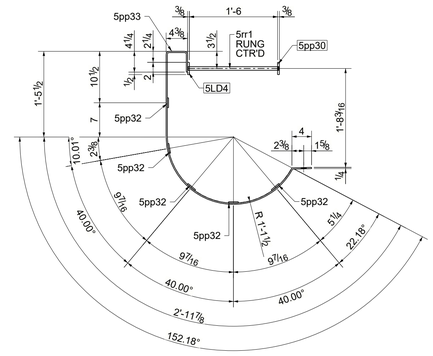

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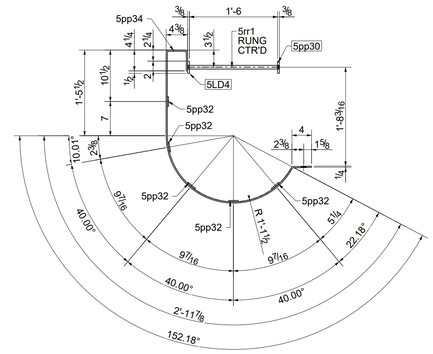

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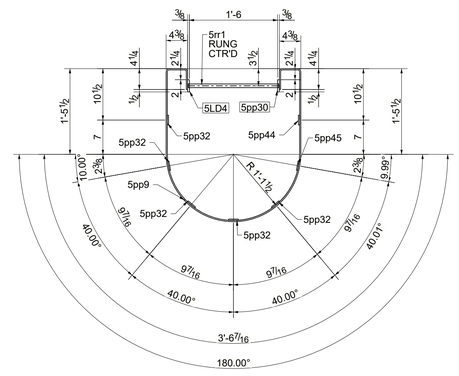

D - D

BILL OF MATERIAL

SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	REMARKS
5LD4		1	PL3/8"X2 1/2"	27'-6"	SQ-2 A572-50
	5pp8	1	PL1/4"X3"	9'-5 3/4"	A572-50
	5pp9	3	PL1/4"X2"	7'-9 3/16"	A572-50
	5pp30	1	PL3/8"X2 1/2"	27'-6"	A572-50
	5pp32	5	PL1/4"X2"	17'-7 9/16"	A572-50
	5pp33	1	PL1/4"X3"	5'-5 1/16"	A572-50
	5pp34	1	PL1/4"X2"	5'-5 1/16"	A572-50
	5pp44	1	PL1/4"X2"	11'-8 11/16"	A572-50
	5pp45	1	PL1/4"X2"	11'-8 11/16"	A572-50
	5rr1	28	#6 REBAR	1'-6 1/2"	A572-50

ONE - LADDER - 5LD4

REF. E501, E502, E503

FOR FABRICATION : 08/24/2022

BILL OF MATERIAL

MARK	QTY	DESCRIPTION	LENGTH	WEIGHT	REMARKS
11S2	1	STAIR			BEV-2
11S2	1	MC12X14.3	9'-8 1/8"	138	A36
11aa1	2	L1-1/4X1-1/4X3/16	0'-4 7/16"	1	A36
11aa2	14	L1-1/4X1-1/4X3/16	0'-3 1/2"	6	A36
11aa3	16	L1-1/4X1-1/4X3/16	0'-10"	20	A36
11aa4	2	L1-1/4X1-1/4X3/16	0'-2 1/2"	1	A36
11aa5	2	L1-1/4X1-1/4X3/16	0'-4 1/16"	1	A36
11aa16	2	L1-1/4X1-1/4X3/16	0'-6 13/16"	2	A36
11hh2	8	SHT14GAX21 5/8"	4'-3 1/2"	322	A36
11mm16	1	MC12X14.3	0'-8 3/16"	10	A36
11mm17	1	MC12X14.3	0'-8 7/16"	10	A36
11mm41	1	MC12X14.3	9'-8 1/8"	138	A36
11pp2	1	PL1/4"X2 1/8"	0'-5"	1	A36
11pp4	1	PL1/4"X2 1/8"	0'-6 15/16"	1	A36
11pp6	1	PL1/4"X1 15/16"	0'-2 1/8"	0	A36
		TOTAL WEIGHT THIS DRAWING		649	

SHOP NOTES:
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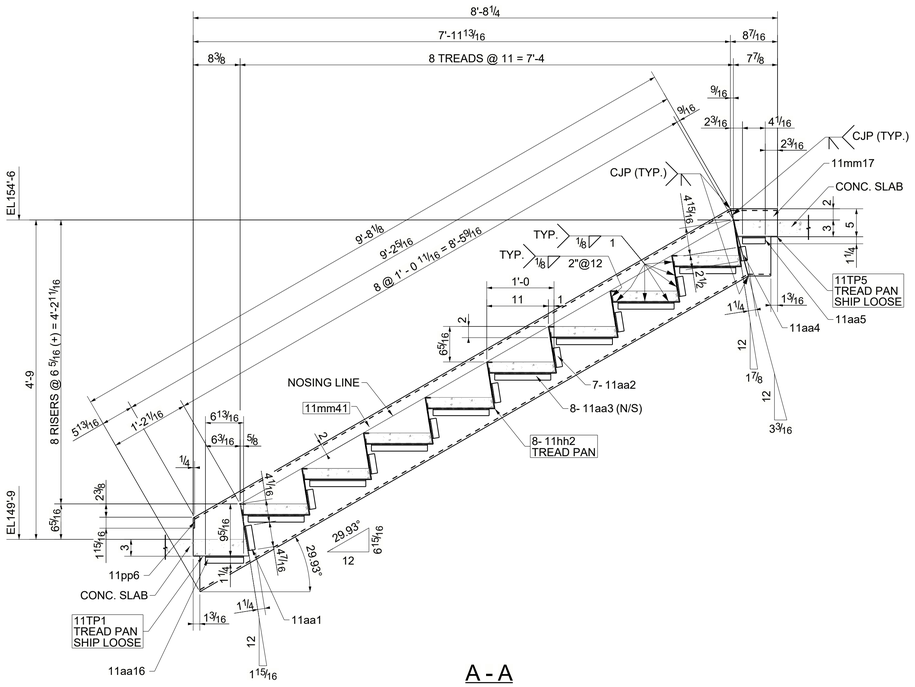
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE SINGLE PARTS DETAIL SHEETS.
8. B.T.S.DENOTES BOLT TO SHIP"SNUG TIGHT" WITH NOTED BOLTS. ASSEMBLE AFTER PAINTING/GALV.



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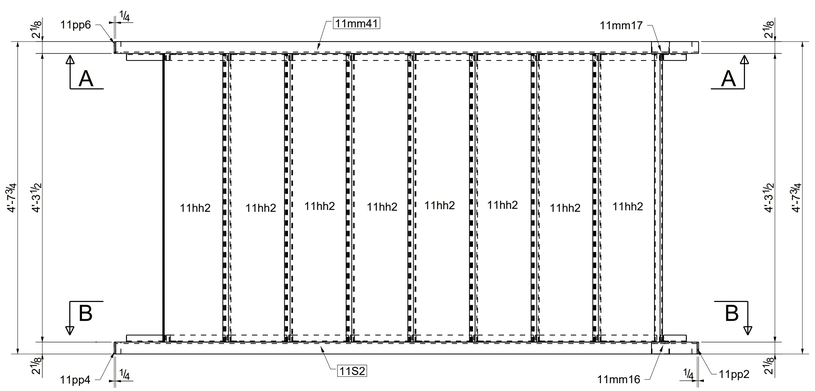
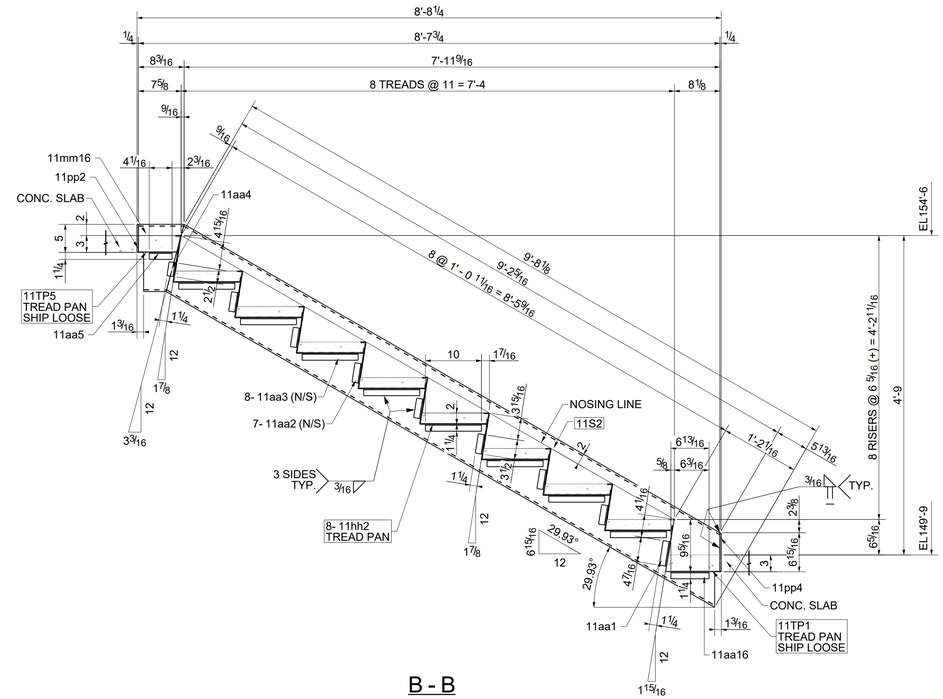


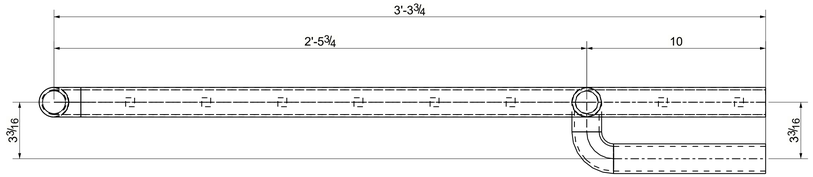
PLAN



B - B

ONE - STAIR - 11S2

BILL OF MATERIAL					
MARK	QTY	DESCRIPTION	LENGTH	REMARKS	GRADE
12GR1	1	GUARD RAIL			A53
		PIPE1-1/4SCH40	7'-8 15/16"	Total Length	A53
		PIPE1-1/4SCH80	6'-4 13/16"	Total Length	A53
		BAR1/2"X1/2"	22'-5 7/16"	Total Length	A36



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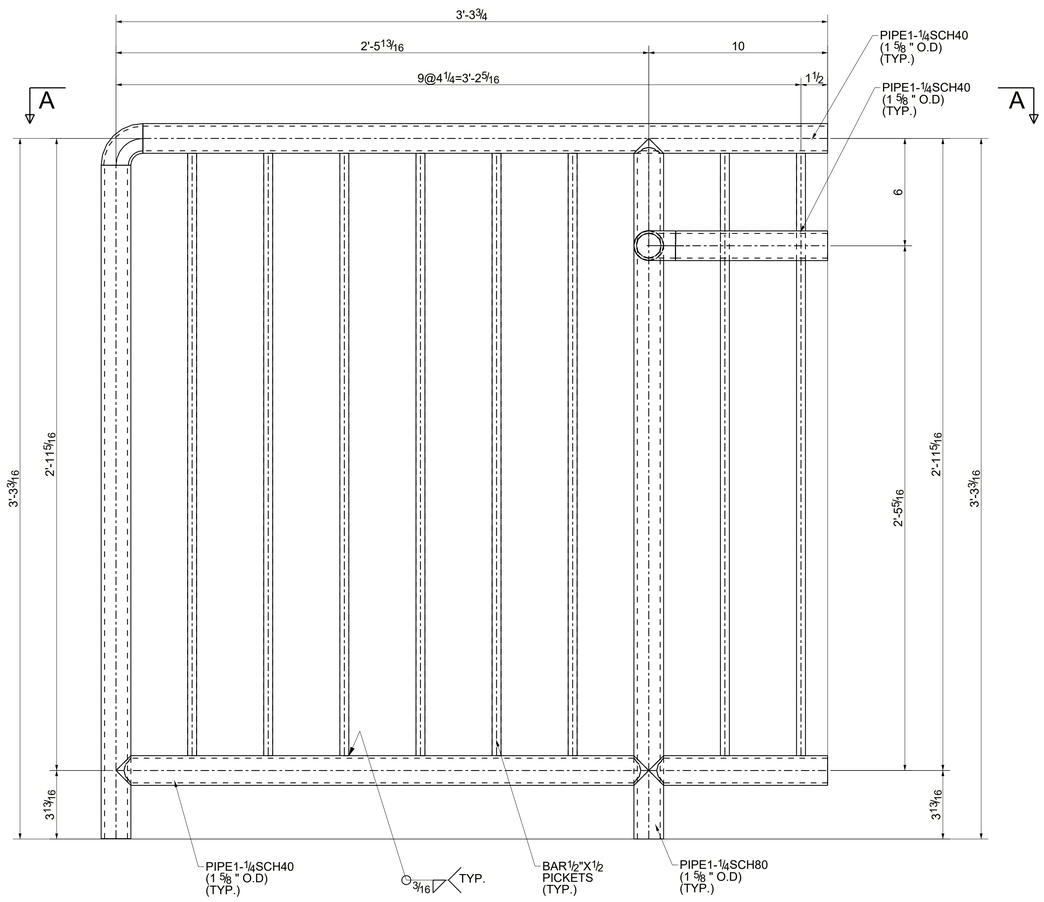

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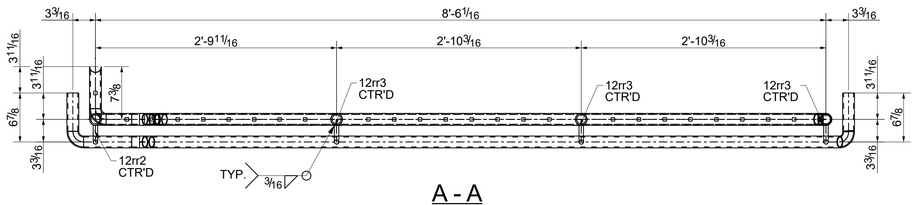
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE SINGLE PARTS DETAIL SHEETS.
8. B.T.S.DENOTES BOLT TO SHIP"SNUG TIGHT" WITH NOTED BOLTS. ASSEMBLE AFTER PAINTING/GALV.

ONE - GUARD RAIL - 12GR1



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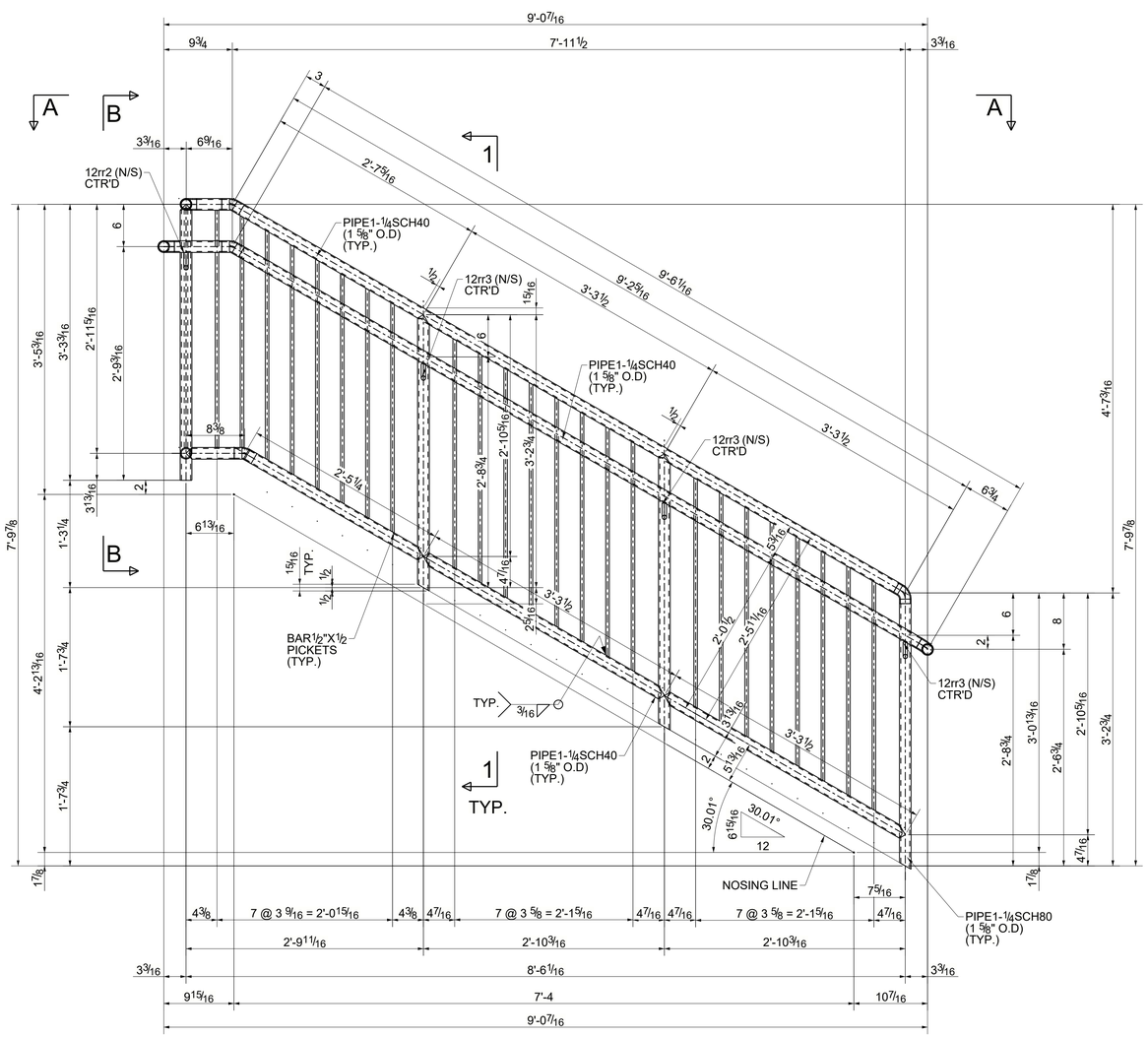
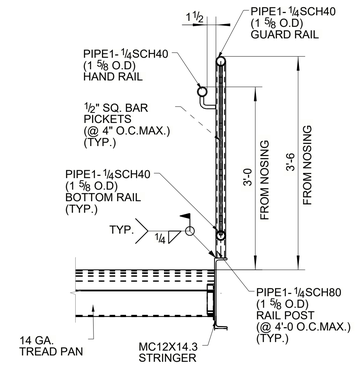
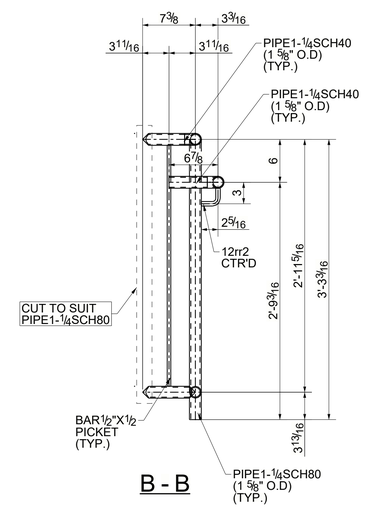




TYPICAL STRINGER RAIL DETAILS

1 -1



B - B

BILL OF MATERIAL

MARK	QTY	DESCRIPTION	LENGTH	REMARKS	GRADE
12GR2	1	GUARD RAIL			A53
		PIPE1-1/4SCH40	32'-5 15/16"	Total Length	A53
		PIPE1-1/4SCH80	12'-11 5/16"	Total Length	A53
		BAR1/2"X1/2"	68'-3 3/8"	Total Length	A36
12rr2	1	ROD5/8"	0'-4 3/16"		A36
12rr3	3	ROD5/8"	0'-4 1/16"		A36

SHOP NOTES:
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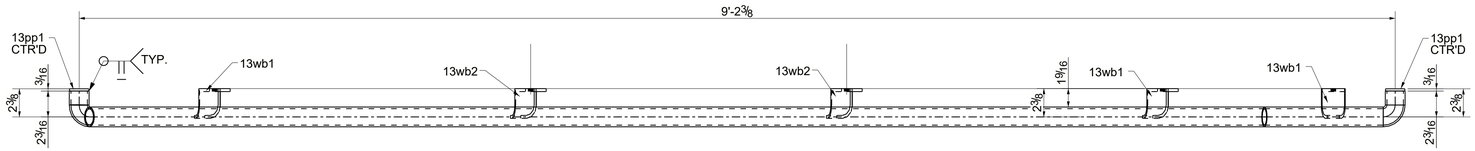
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE SINGLE PARTS DETAIL SHEETS.
8. B.T.S.DENOTES BOLT TO SHIP"SNUG TIGHT" WITH NOTED BOLTS. ASSEMBLE AFTER PAINTING/GALV.

ONE - GUARD RAIL - 12GR2

BILL OF MATERIAL					
MARK	QTY	DESCRIPTION	LENGTH	REMARKS	GRADE
13WR1	1	WALL RAIL			A53
		PIPE1-1/4SCH40	10'-9 9/16"	Total Length	A53
13pp1	2	PL3/16"X1 5/8"	0'-1 5/8"		A36
13wb1	3	JGB_1980ST		BOUGHTOUT	A36
13wb2	2	JGB_1980ST		BOUGHTOUT	A36



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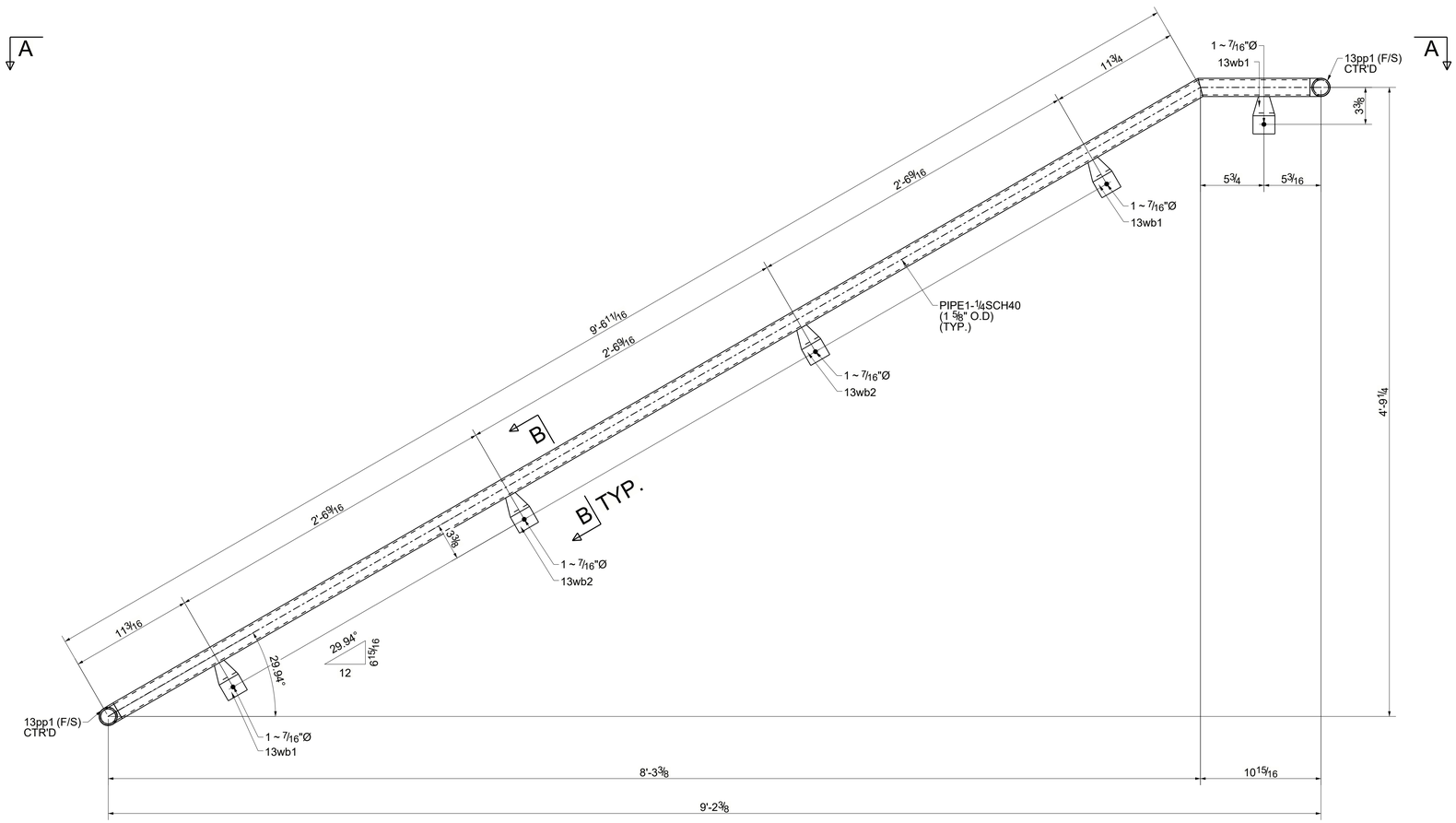

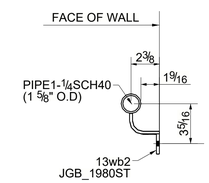

B - B

SHOP NOTES:
1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
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4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE SINGLE PARTS DETAIL SHEETS.
8. B.T.S.DENOTES BOLT TO SHIP"SNUG TIGHT" WITH NOTED BOLTS. ASSEMBLE AFTER PAINTING/GALV.

ONE - WALL RAIL - 13WR1

SHOP NOTES :

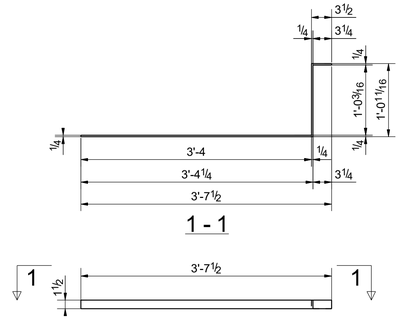
1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC.
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
7. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE SINGLE PART SHEET DETAILS.
8. ALL JOINTS TO BE SEAL WELDED WITH CONT. 1/8 FILLET OR BUTT WELD AS REQ'D.
9. ALL COPE CORNERS ARE 1/2" RADIUS U.N.O
10. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.

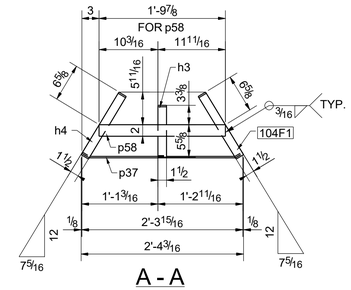
GENERAL SHOP NOTES:

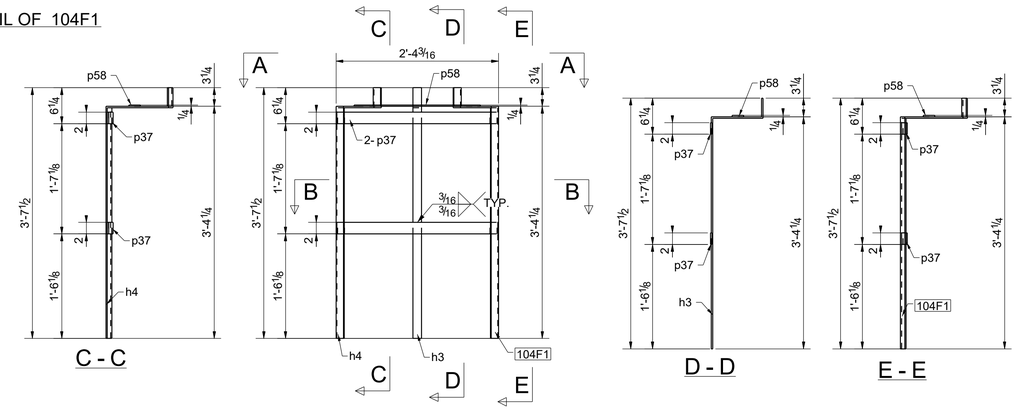
MATERIAL: HSS MATERIALS = A500 GRADE C
CHANNEL = A36
ANGLE = A529 GRADE 50
PLATE = A572 GRADE 50
STEEL PIPES = A53 GRADE B
ALL OTHER MATERIAL: A36
WELD: E70XX
SURFACE PREP: SSPC-SP3
PAINT : PRIME COAT OF SW MACROPOXY 646 AND FINISH COAT ACROLON 218 HS 4-6 DFT

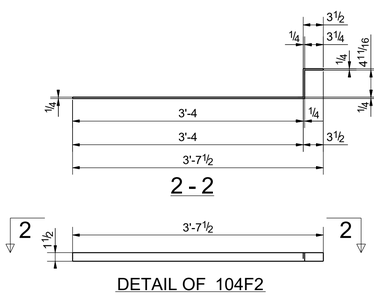
BILL OF MATERIAL

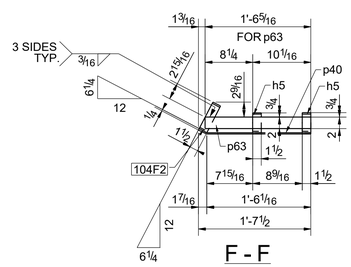
SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	REMARKS
104F1		3	PL1/4"X1 1/2"	4'-7 7/16"	SQ-2 A572-GR.50
	h3	3	PL1/4"X1 1/2"	4'-3 11/16"	A572-GR.50
	h4	3	PL1/4"X1 1/2"	4'-7 7/16"	A572-GR.50
	p37	6	PL1/4"X2"	2'-4 1/16"	A572-GR.50
	p58	3	PL1/4"X2"	1'-9 7/8"	A572-GR.50
104F2		1	PL1/4"X1 1/2"	3'-11 15/16"	SQ-2 A572-GR.50
	h5	2	PL1/4"X1 1/2"	3'-10 3/16"	A572-GR.50
	p40	2	PL1/4"X2"	1'-7 9/16"	A572-GR.50
	p63	1	PL1/4"X2"	1'-6 5/16"	A572-GR.50

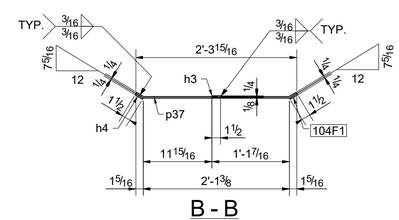




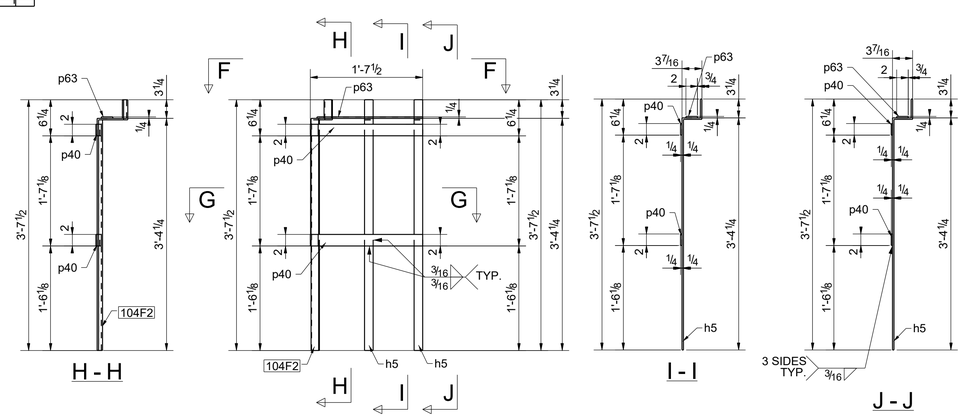


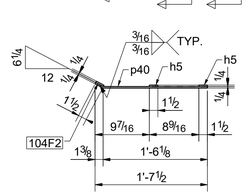






3 - FRAMES - 104F1

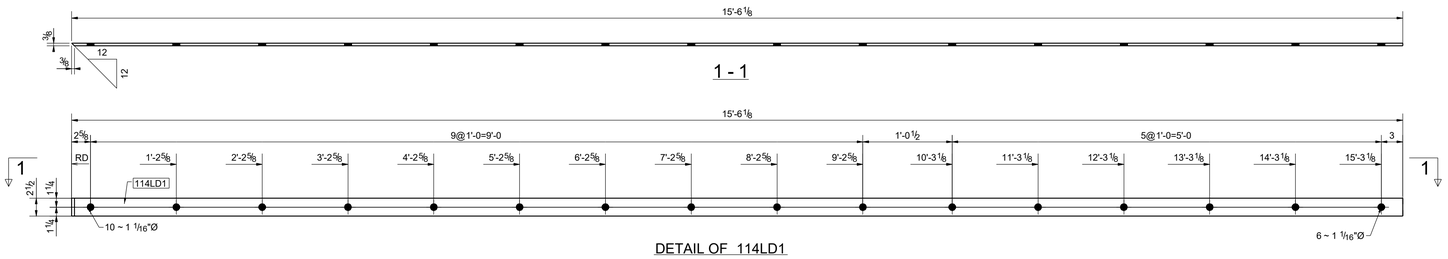




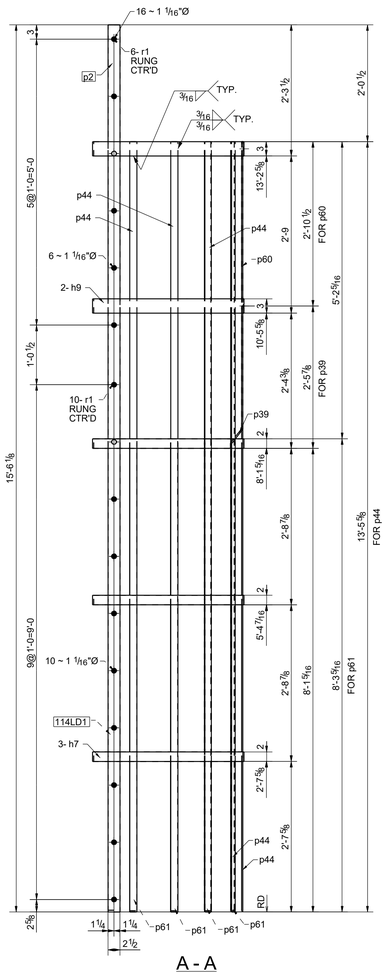
ONE - FRAME - 104F2

BILL OF MATERIAL

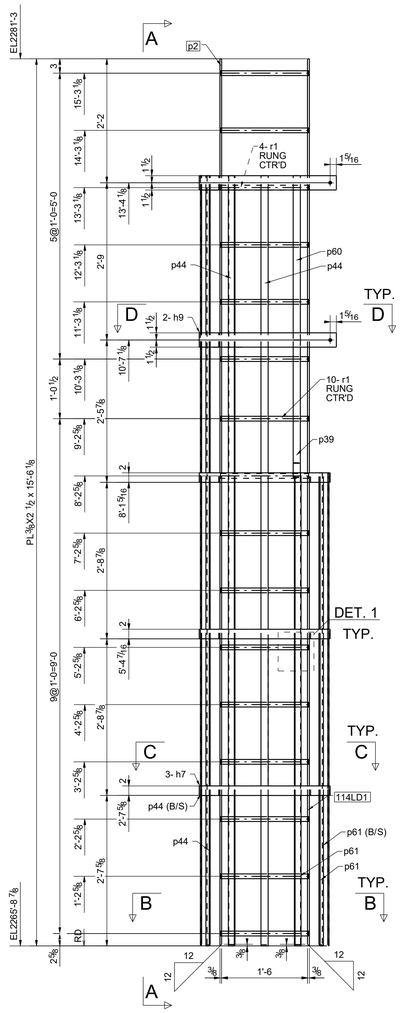
SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	REMARKS
114LD1		1	PL3/8"X2 1/2"	15'-6 1/8"	SQ-1/BEV-1 A572-GR.50
	r1	16	1"Ø REBAR	1'-6 1/2"	A36
	h7	3	PL1/4"X2"	7'-10 1/2"	A572-GR.50
	h9	2	PL1/4"X3"	5'-2 5/16"	A572-GR.50
	p2	1	PL3/8"X2 1/2"	15'-6 1/8"	A572-GR.50
	p39	1	PL1/4"X1 1/2"	2'-6 1/2"	A572-GR.50
	p44	5	PL1/4"X1 1/2"	13'-5 5/8"	A572-GR.50
	p60	1	PL1/4"X1 1/2"	2'-10 1/2"	A572-GR.50
	p61	4	PL1/4"X1 1/2"	8'-3 5/16"	A572-GR.50



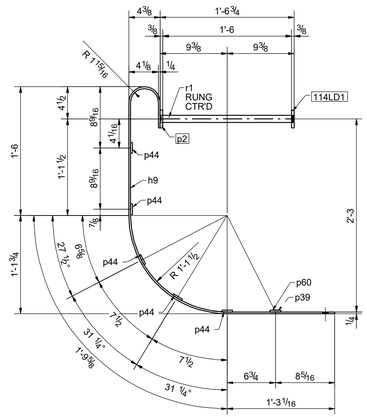
DETAIL OF 114LD1



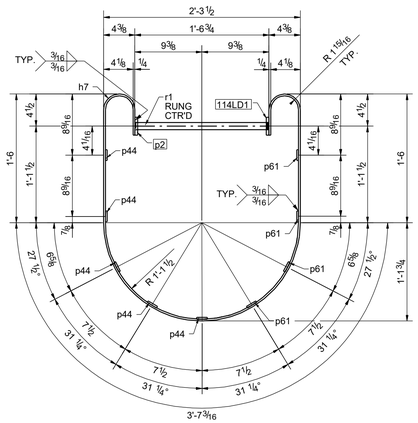
A - A



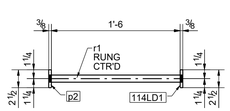
ONE - LADDER - 114LD1



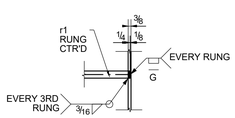
D - D



C - C



B - B



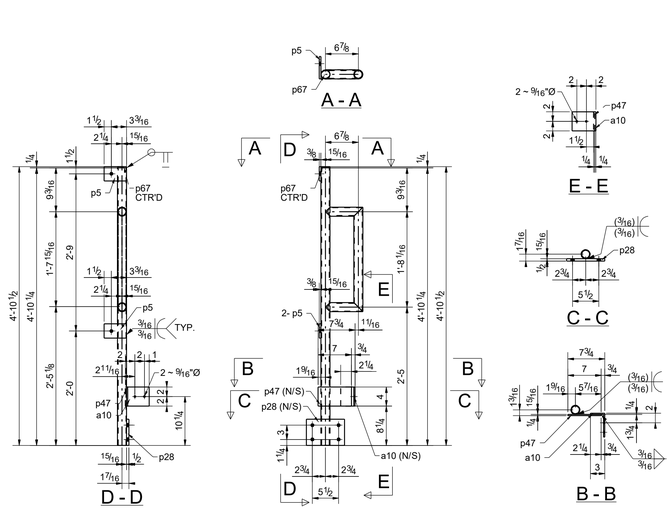
DETAIL 1

SHOP NOTES :

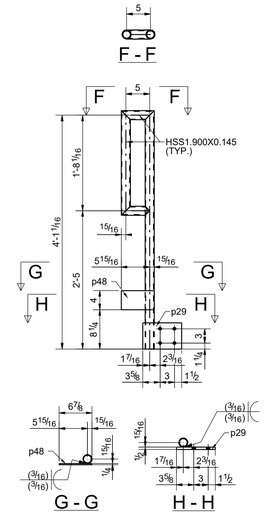
1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC.
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
7. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE SINGLE PART SHEET DETAILS.
8. ALL JOINTS TO BE SEAL WELDED WITH CONT. 1/8 FILLET OR BUTT WELD AS REQ'D.
9. ALL COPE CORNERS ARE 1/2" RADIUS U.N.O
10. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.

GENERAL SHOP NOTES:

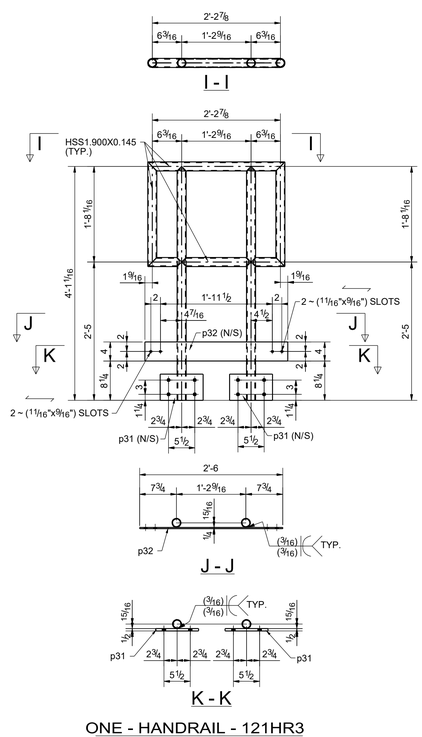
MATERIAL: HSS MATERIALS = A500 GRADE C
CHANNEL = A36
ANGLE = A529 GRADE 50
PLATE = A572 GRADE 50
STEEL PIPES = A53 GRADE B
ALL OTHER MATERIAL: A36
WELD: E70XX
SURFACE PREP: SSPC-SP3
PAINT : PRIME COAT OF SW MACROPOXY 646 AND FINISH COAT ACROLON 218 HS 4-6 DFT



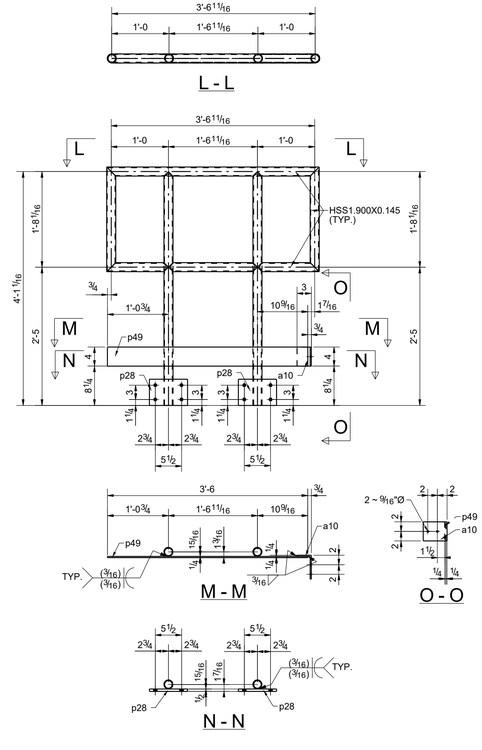
2 - HANDRAILS - 121HR1



2 - HANDRAILS - 121HR2



ONE - HANDRAIL - 121HR3



ONE - HANDRAIL - 121HR4

BILL OF MATERIAL

MARK	QTY	DESCRIPTION	LENGTH	REMARKS
121HR1	2	HANDRAIL		
		HSS1.900X0.145	15'-11 11/16"	Total Length
a10	2	L5X3X1/4	0'-4"	
p5	4	PL3/8"X3"	0'-4 11/16"	
p47	2	PL1/4"X4"	0'-7"	
p67	2	PL1/4"X1 7/8"	0'-1 7/8"	
p28	2	PL1/2"X5 1/2"	0'-8"	
121HR2	2	HANDRAIL		
		HSS1.900X0.145	14'-1 5/8"	Total Length
p48	2	PL1/4"X4"	0'-6 7/8"	
p29	2	PL1/2"X5 1/2"	0'-8 1/8"	
121HR3	1	HANDRAIL		
		HSS1.900X0.145	16'-7 5/8"	Total Length
p32	1	PL1/4"X4"	2'-6"	
p31	2	PL1/2"X5 1/2"	0'-9"	
121HR4	1	HANDRAIL		
		HSS1.900X0.145	19'-3 1/8"	Total Length
a10	1	L5X3X1/4	0'-4"	
p49	1	PL1/4"X4"	3'-6"	
p28	2	PL1/2"X5 1/2"	0'-8"	

SHOP NOTES :

1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC.
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
7. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE SINGLE PART SHEET DETAILS.
8. ALL JOINTS TO BE SEAL WELDED WITH CONT. 1/8 FILLET OR BUTT WELD AS REQ'D.
9. ALL COPE CORNERS ARE 1/2" RADIUS U.N.O
10. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.

GENERAL SHOP NOTES:

MATERIAL: HSS MATERIALS = A500 GRADE C
CHANNEL = A36
ANGLE = A529 GRADE 50
PLATE = A572 GRADE 50
STEEL PIPES = A53 GRADE B
ALL OTHER MATERIAL: A36
WELD: E70XX
SURFACE PREP: SSPC-SP3
PAINT : PRIME COAT OF SW MACROPOXY 646 AND FINISH COAT ACROLON 218 HS 4-6 DFT

BILL OF MATERIAL

SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	REMARKS
122M1		1	COTTERMAN LADDER GUARD BOI		SQ-2 A36
122M2		4	FABENCO XL71-24PC BOI		SQ-2 A36

COTTERMAN LADDER GUARD

BOUGHT OUT ITEM

ONE - COTTERMAN LADDER GURD - 122M1

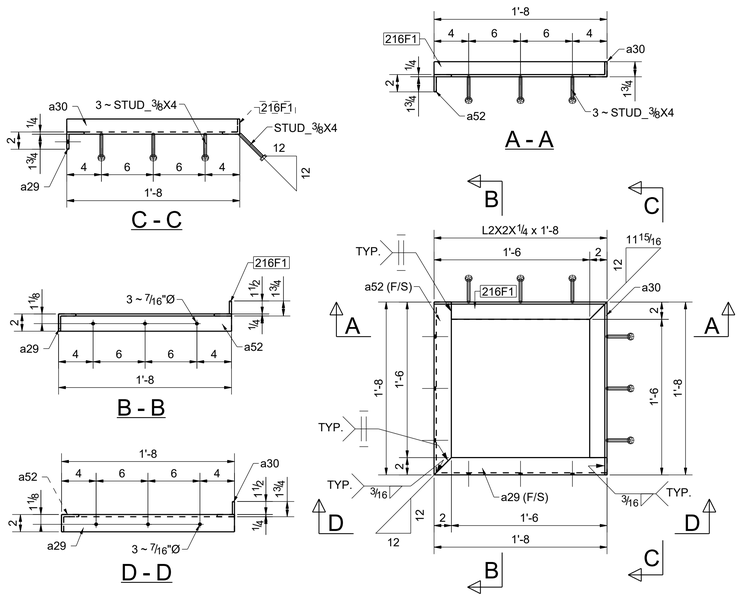
FABENCO XL71-24PC

BOUGHT OUT ITEM

4 - SELF CLOSING GATES - 122M2

BILL OF MATERIAL

SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	WEIGHT	REMARKS
216F1		1	L2X2X1/4	1'-8"	5	SQ-1BEV-1 A36 GALV.
	a29	1	L2X2X1/4	1'-8"	5	A36 GALV.
	a30	1	L2X2X1/4	1'-8"	5	A36 GALV.
	a52	1	L2X2X1/4	1'-8"	5	A36 GALV.
		3	STUD 3/8" DIA	0'-4"	0	
		3	STUD 3/8" DIA	0'-4"	0	

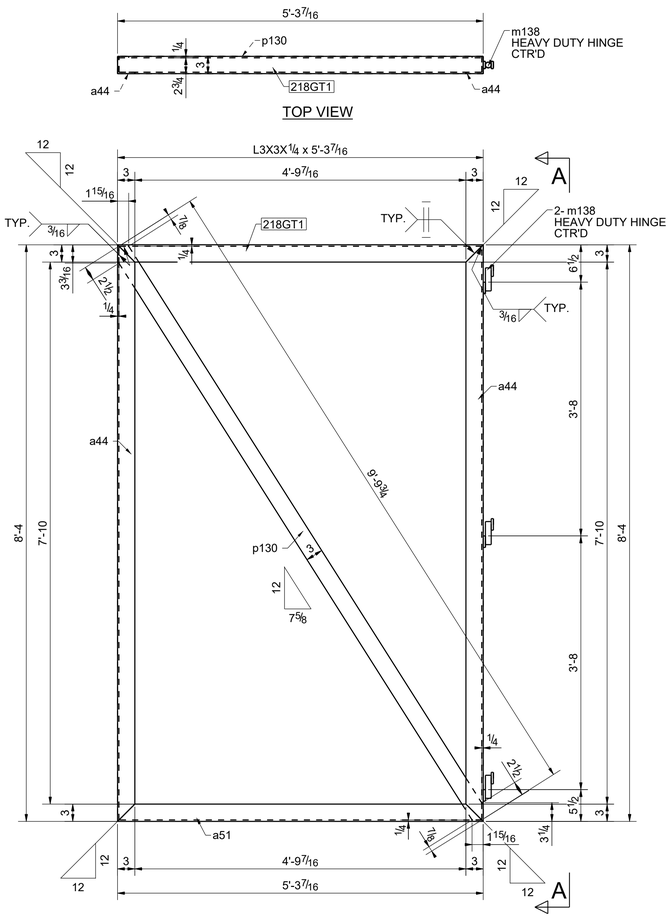


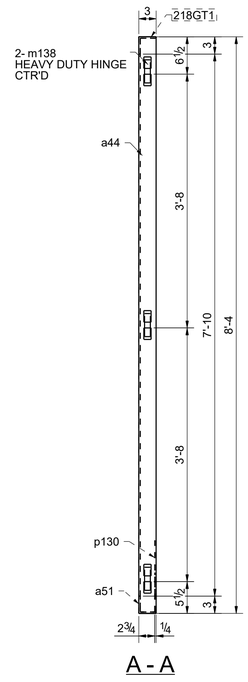
SHOP NOTES:

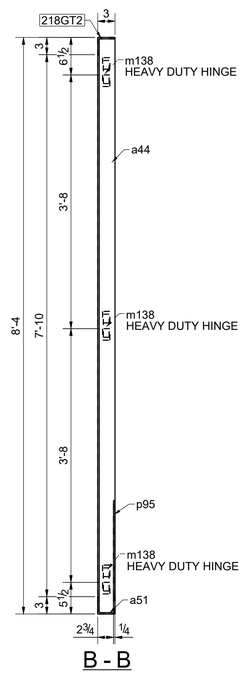
1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
8. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE GATHER SHEETS/ SINGLE PART SHEETS.
9. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
10. SHOP CLOSE ALL GAPS.
11. ALL JOINTS TO BE SEAL WELDED WITH CONT. 1/8" FILLET OR BUTT WELD AS REQ'D
12. PROVIDE VENT HOLES AS REQ'D FOR GALV.
13. PLUG VENT HOLES AFTER GALV.

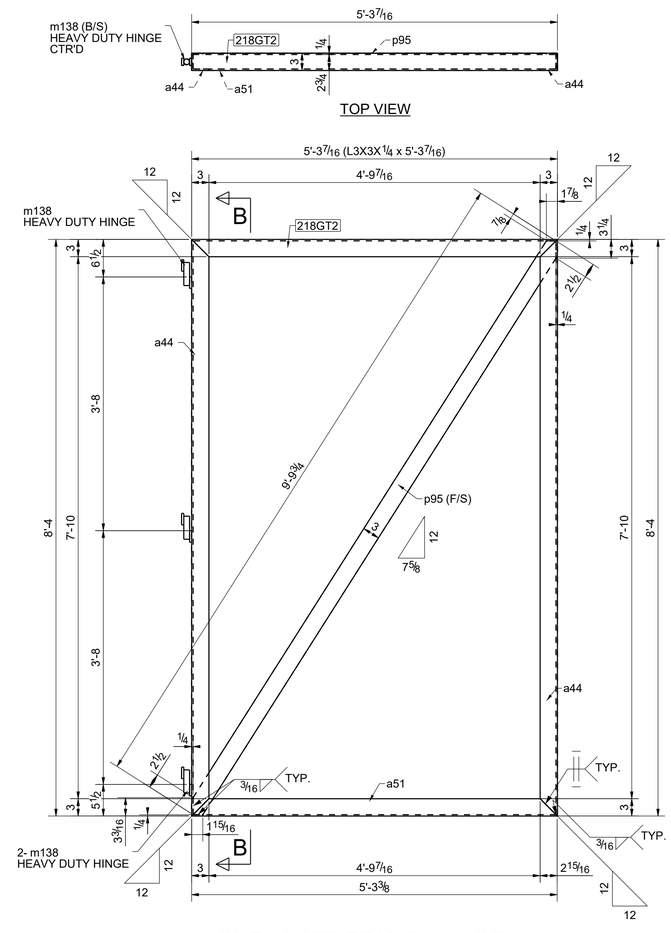
BILL OF MATERIAL

SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	WEIGHT	REMARKS
218GT1		1	L3X3X1/4	5'-3 7/16"	26	BEV-2 A36
	a44	2	L3X3X1/4	8'-4"	82	A36
	a51	1	L3X3X1/4	5'-3 7/16"	26	A36
	m138	3	HEAVY DUTY HINGE BOI		4	A36
	p130	1	PL1/4"X3"	9'-9 3/4"	25	A36
218GT2		1	L3X3X1/4	5'-3 7/16"	26	BEV-2 A36
	a44	2	L3X3X1/4	8'-4"	82	A36
	a51	1	L3X3X1/4	5'-3 7/16"	26	A36
	m138	3	HEAVY DUTY HINGE BOI		4	A36
	p95	1	PL1/4"X3"	9'-9 3/4"	25	A36



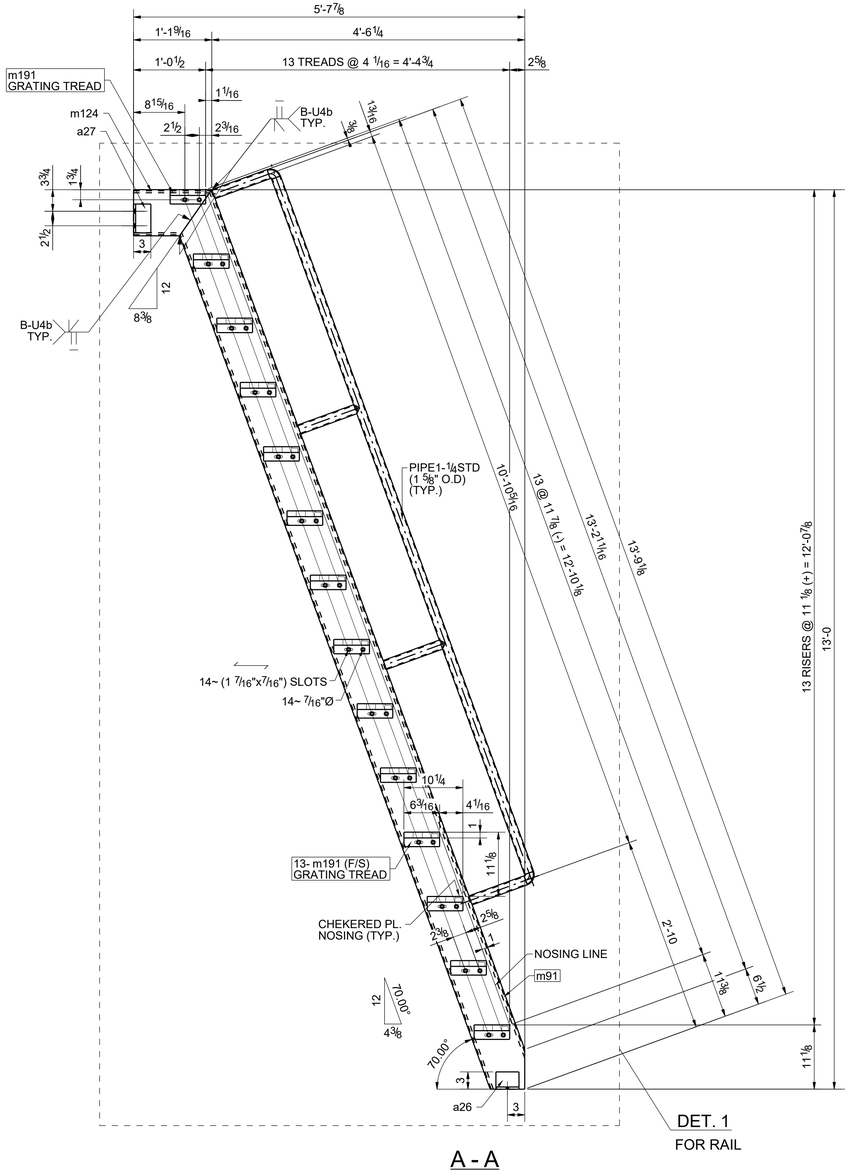




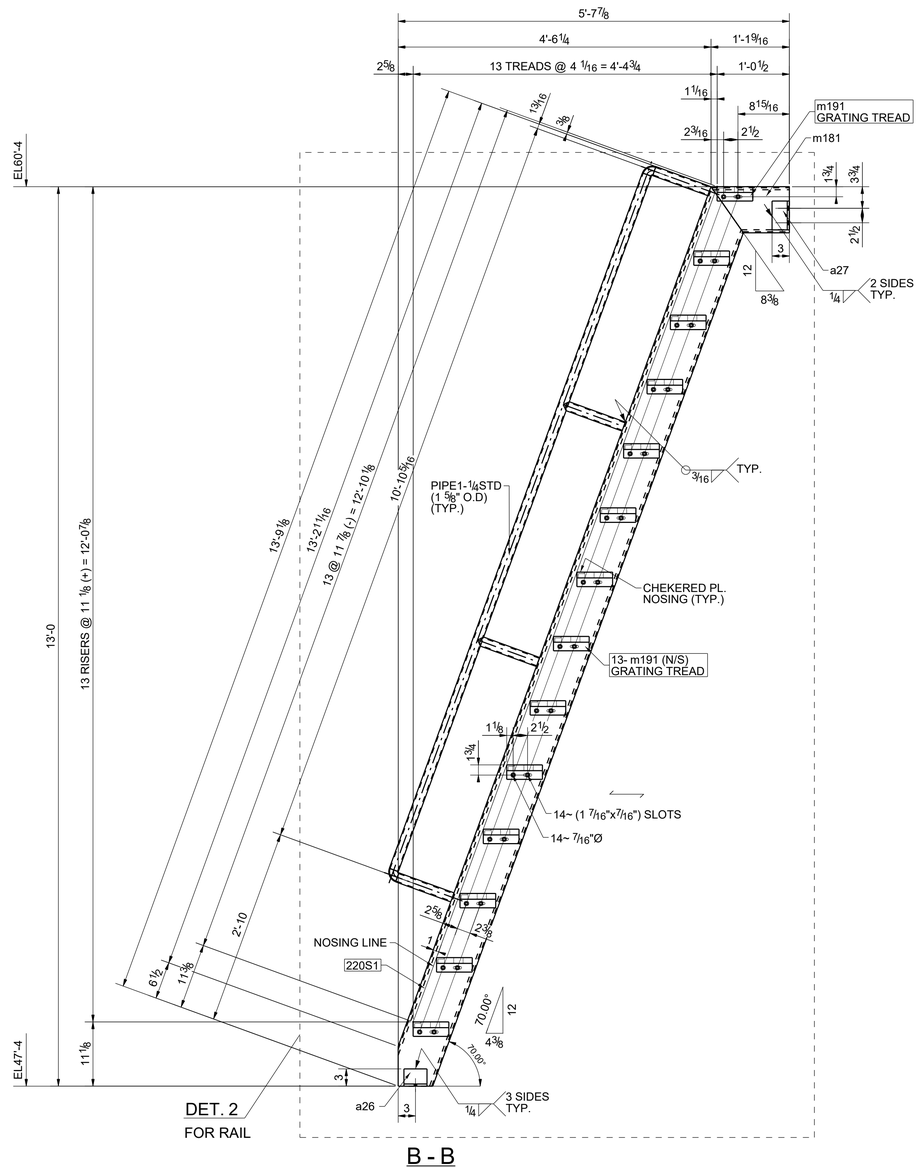


SHOP NOTES :

1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
8. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE GATHER SHEETS/ SINGLE PART SHEETS.
9. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
10. SHOP CLOSE ALL GAPS.



A - A



B - B

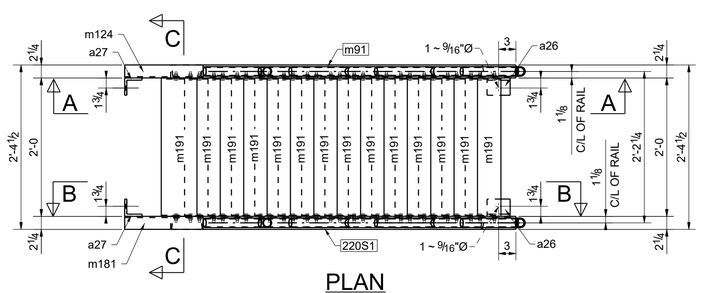
BILL OF MATERIAL

SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	WEIGHT	REMARKS
220S1		1	C8X11.5	13'-9 1/8"	158	BEV-2 A36
	a26	2	L3X3X3/8	0'-4"	5	A36
	a27	2	L3X3X3/8	0'-5"	6	A36
	m91	1	C8X11.5	13'-9 1/8"	158	A36
	m124	1	C8X11.5	1'-1 9/16"	13	A36
	m181	1	C8X11.5	1'-1 9/16"	13	A36
	m191	14	1"X1/8 GRTG BY OHIO GRATINGS BOI		603	A36
	mx1	4	PIPE1-1/4STD	0'-10 3/16"	7	A53-GR.B
	mx2	2	PIPE1-1/4STD	10'-8 5/16"	46	A53-GR.B
	mx3	4	PIPE1-1/4STD	0'-11 3/16"	8	A53-GR.B
	mx4	4	PIPE1-1/4STD	0'-1 9/16"	1	A53-GR.B
		56	3/8"Ø A307 BOLT	0'-1 1/4"	4	Workshop

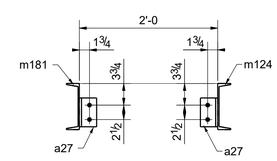
SHOP NOTES :

1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
8. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE GATHER SHEETS/ SINGLE PART SHEETS.
9. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
10. SHOP CLOSE ALL GAPS.

WORK THIS SHEET WITH 220a

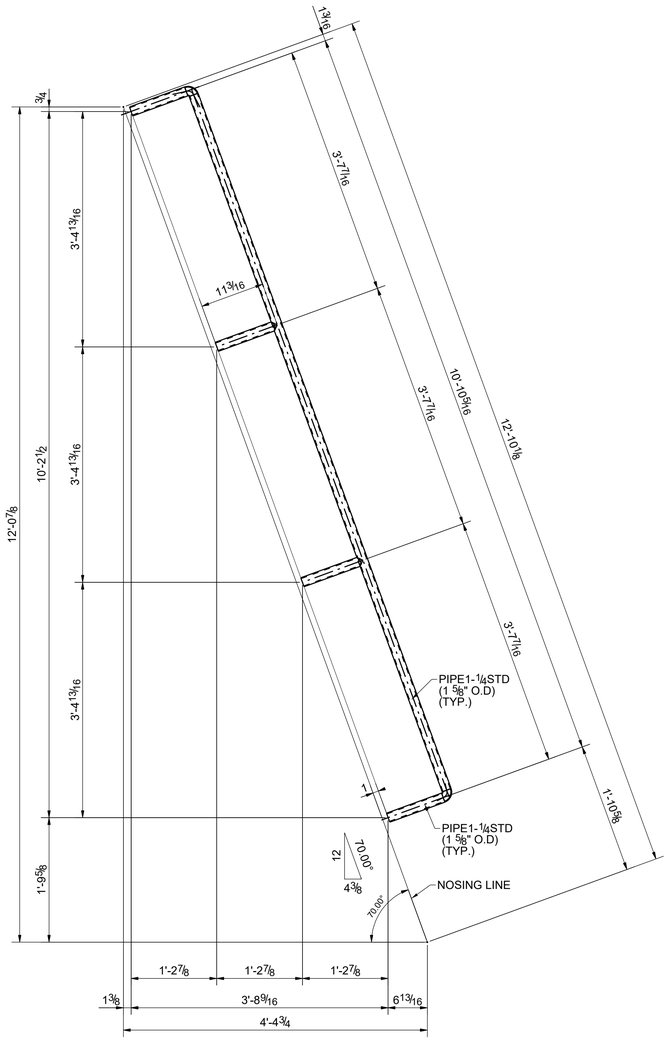


PLAN

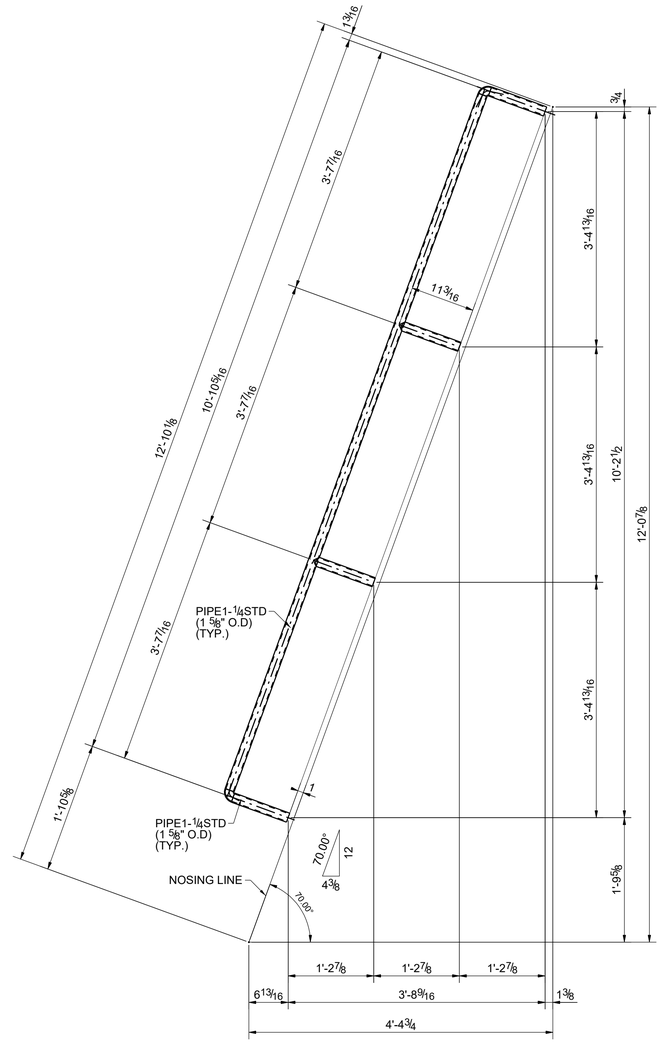


C - C

ONE - SHIP LADDER - 220S1



DETAIL 1



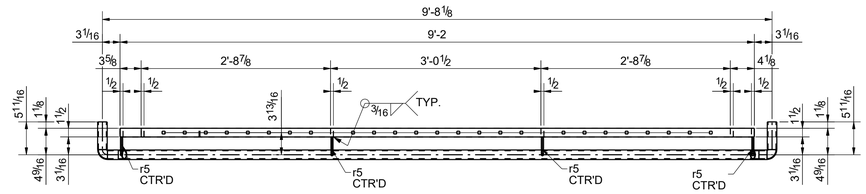
DETAIL 2

SHOP NOTES :

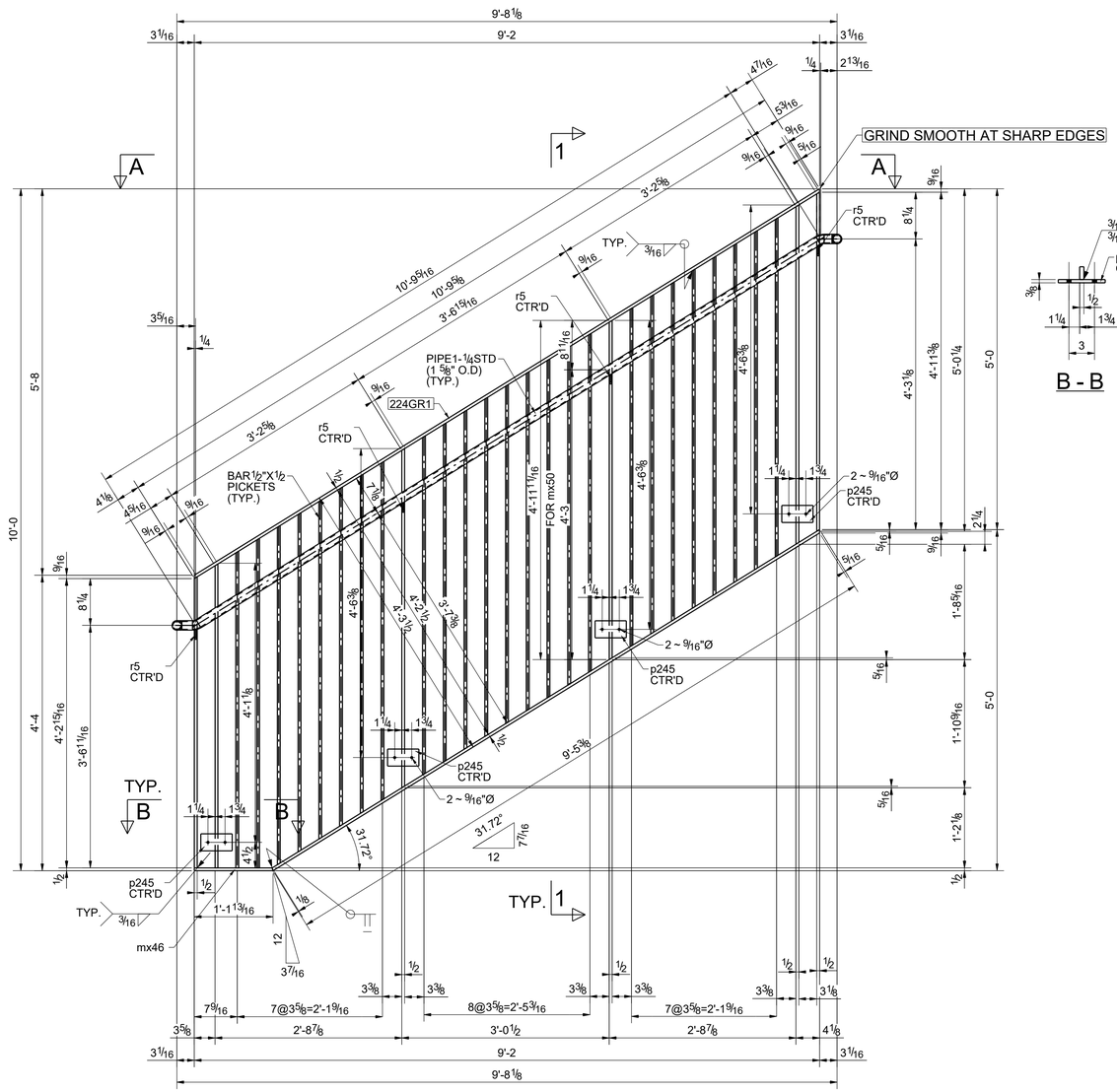
1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
8. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE GATHER SHEETS/ SINGLE PART SHEETS.
9. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
10. SHOP CLOSE ALL GAPS.

WORK THIS SHEET WITH 220

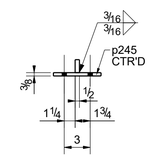
BILL OF MATERIAL				
MARK	QTY	DESCRIPTION	LENGTH	REMARKS
224GR1	4	RAIL		
		PIPE1-1/4STD	48'-8 5/16"	Total Length
		BAR1/2"X1 1/2"	200'-1 3/16"	Total Length
		BAR1/2"X1/2"	495'-6 3/8"	Total Length
r5	16	RB3/8"	0'-4 9/16"	
p245	16	PL3/8"X3"	0'-5 1/2"	



A - A



4 - RAILS - 224GR1



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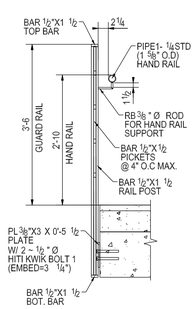


1 - 1

TYPICAL STAIR RAIL DETAIL

SHOP NOTES :

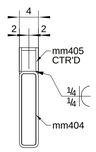
1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
8. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE GATHER SHEETS/ SINGLE PART SHEETS.
9. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
10. SHOP CLOSE ALL GAPS.

REF.E209, E210

FOR FABRICATION : 03/04/2022

BILL OF MATERIAL

MARK	QTY	DESCRIPTION	LENGTH	WEIGHT	REMARKS
12014S1	1	STRINGER			SQ-2
12014S1	1	HSS16X4X1/2	21'-1 5/16"	1064	A500-GR.B
aa9	20	L1-1/4X1-1/4X3/16	0'-9 5/8"	24	A36
aa51	20	L1-1/4X1-1/4X3/16	0'-4 9/16"	11	A36
aa122	1	L1-1/4X1-1/4X3/16	0'-1 7/16"	0	A36
mm404	1	HSS16X4X1/2	1'-8 3/4"	101	A500-GR.B
mm405	1	HSS16X4X1/2	1'-10 5/16"	109	A500-GR.B
pp333	1	PL1/4"X3 5/8"	0'-8 5/8"	2	A36
pp505	1	PL1/4"X3 5/8"	0'-7 1/8"	2	A36
pp1021	1	PL1/2"X3 5/8"	0'-6 5/8"	3	A36
pp1022	1	PL1/2"X3 5/8"	0'-9 1/2"	5	A36
pp1045	1	PL1/2"X3 5/8"	0'-4 1/2"	2	A36
		TOTAL WEIGHT THIS DRAWING		1324	



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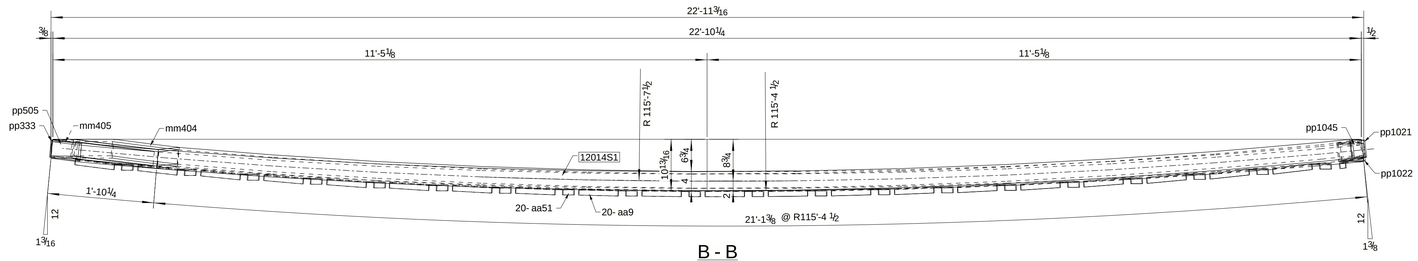
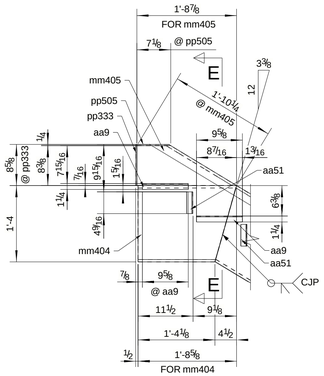
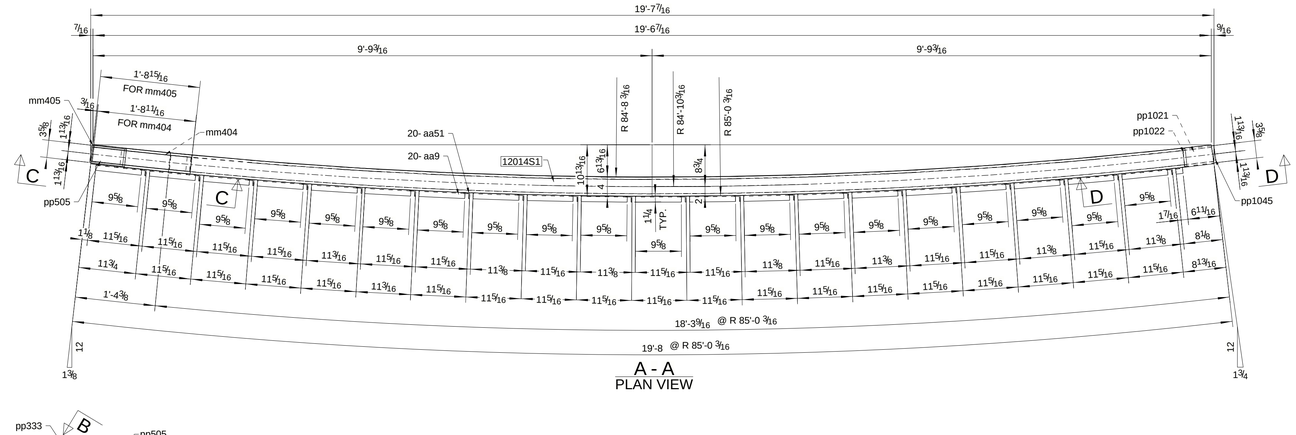


B - B



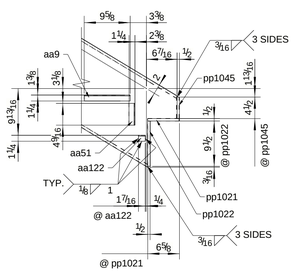
C - C



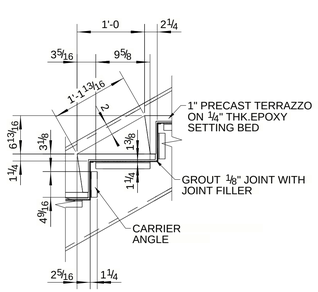
A - A
PLAN VIEW

SHOP NOTES :

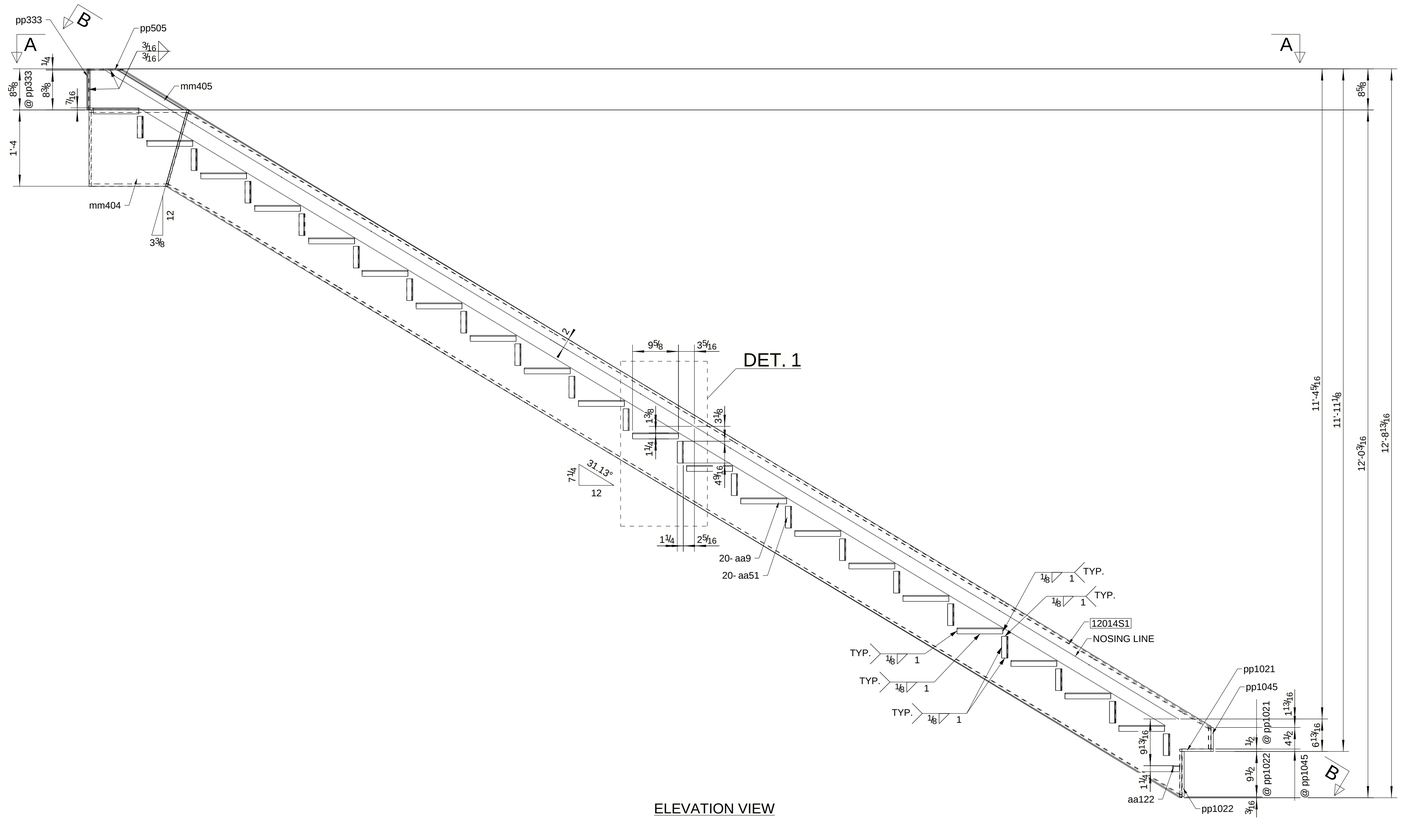
1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
8. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE GATHER SHEETS/ SINGLE PART SHEETS.
9. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
10. SHOP CLOSE ALL GAPS.
11. HOLE PATTERNS NOTED "A490SC_TC" ARE FOR SLIP CRITICAL BOLTS WITH TENSION CONTROL BOLTS. DO NOT ADD PAINT AT CONTACT SURFACES. CONTACT SURFACES ARE TO BE FREE OF BURRS AND ALL FOREIGN MATERIAL.



D - D



DETAIL 1



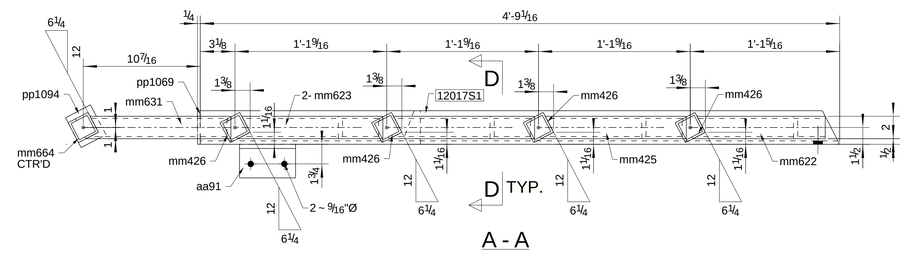
ELEVATION VIEW

ONE - STRINGER - 12014S1

PHASE	QTY.
COMMAND STAIR	1

BILL OF MATERIAL

MARK	QTY	DESCRIPTION	LENGTH	WEIGHT	REMARKS
12017S1	1	STRINGER			BEV-2
12017S1	1	C12X20.7	5'-5 7/16"	113	A36
aa91	1	L3X3X3/8	0'-5"	3	A36
mm425	1	HSS2X2X3/16	1'-0 15/16"	4	A500-GR.B
mm426	4	SHT10GAX2X3/16	0'-6 13/16"	9	A500-GR.B
mm622	1	HSS2X2X3/16	0'-11 13/16"	4	A500-GR.B
mm623	2	HSS2X2X3/16	1'-0 15/16"	9	A500-GR.B
mm631	1	HSS2X2X3/16	1'-0 15/16"	4	A500-GR.B
mm664	1	SHT10GAX2X3/16	0'-5 3/16"	2	A500-GR.B
pp1069	1	PL1/4"X3"	0'-3 9/16"	1	A36
pp1094	1	PL1/4"X2 1/2"	0'-3"	1	A36
		TOTAL WEIGHT THIS DRAWING		150	



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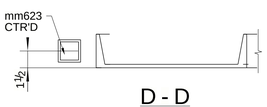
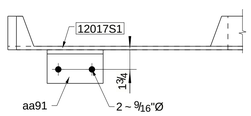
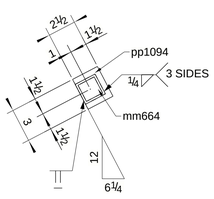


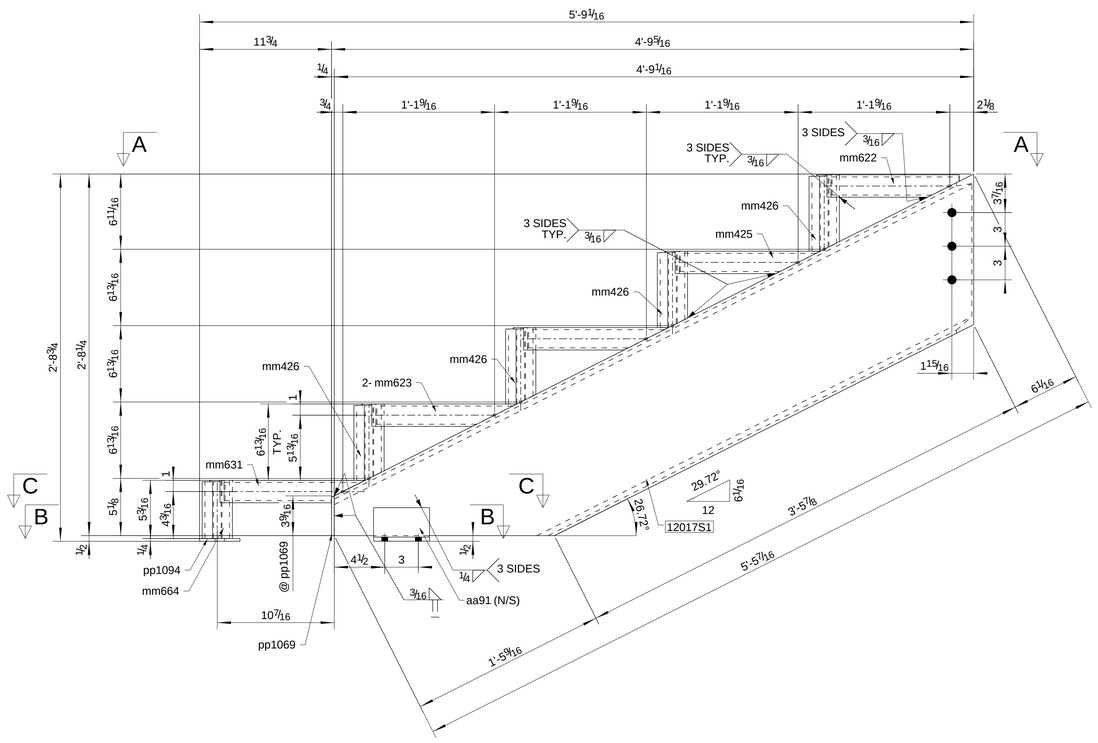
D - D



C - C



B - B

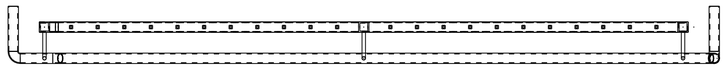


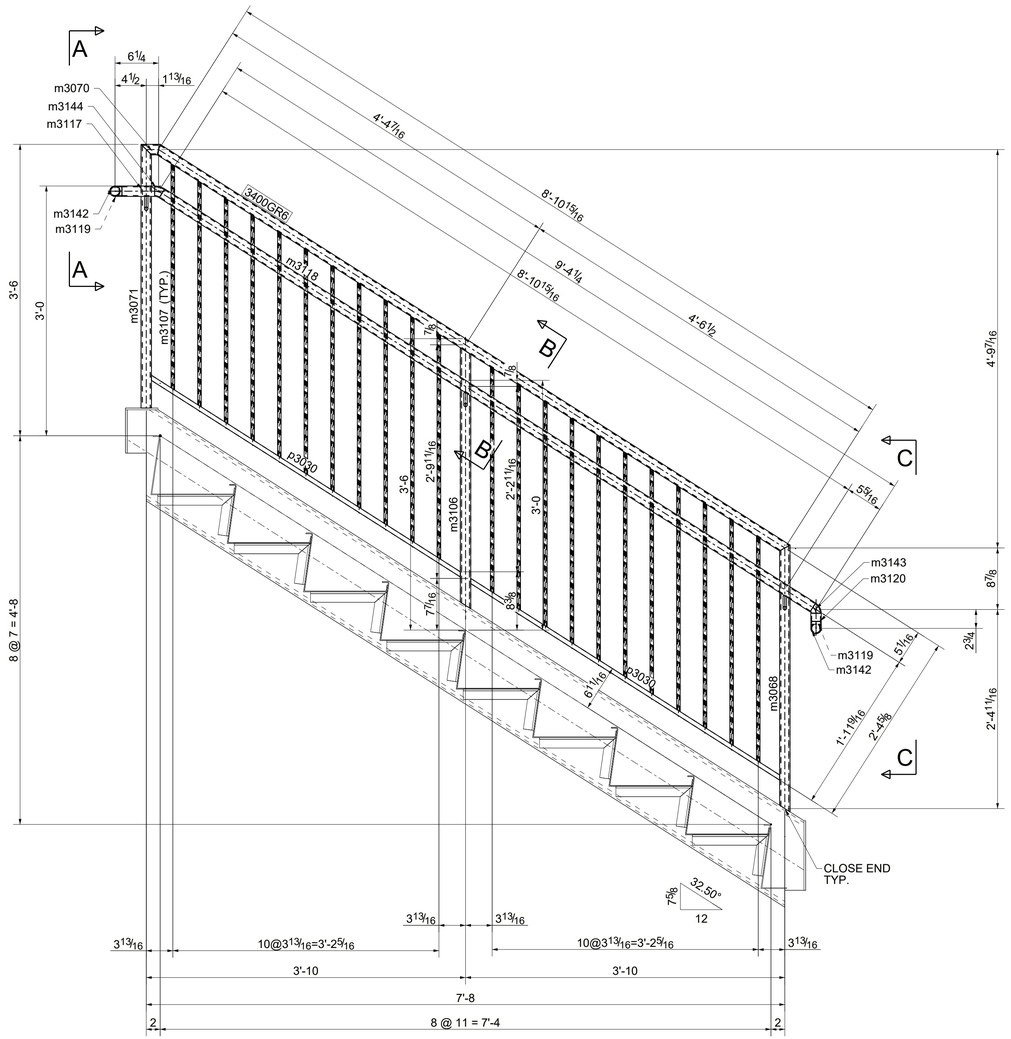
ONE - STRINGER - 12017S1

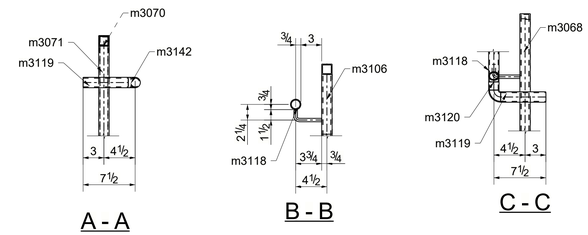
PHASE	QTY.
COMMAND STAIR	1

SHOP NOTES :

1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
8. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE GATHER SHEETS/ SINGLE PART SHEETS.
9. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
10. SHOP CLOSE ALL GAPS.
11. HOLE PATTERNS NOTED "A490SC_TC" ARE FOR SLIP CRITICAL BOLTS WITH TENSION CONTROL BOLTS. DO NOT ADD PAINT AT CONTACT SURFACES. CONTACT SURFACES ARE TO BE FREE OF BURRS AND ALL FOREIGN MATERIAL.







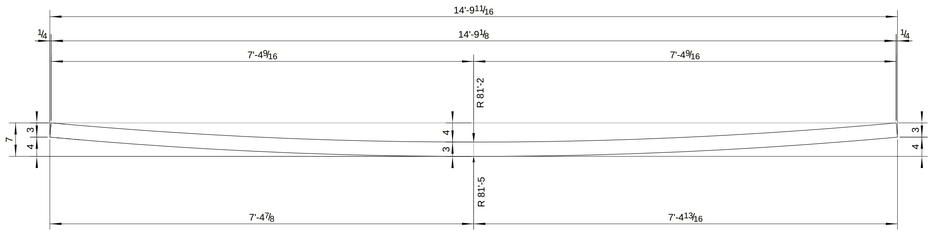
SHOP NOTES:

1. ALL PICKETS TO BE ON HSS CENTRELINE
2. ALL ROUND TUBE TO HAVE RADIUSED CORNERS AT 2 1/2" RADIUS ON CENTERLINE.
3. GRIND ALL CONTACT SURFACES SMOOTH TO TOUCH.

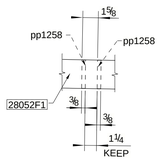
8 - GUARDRAILS - 3400GR6

BILL OF MATERIAL

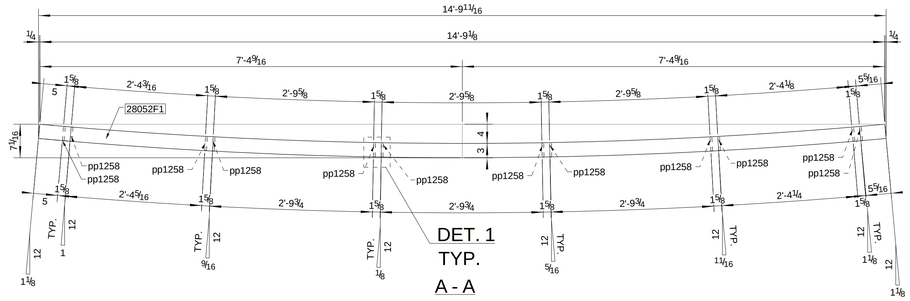
MARK	QTY	DESCRIPTION	LENGTH	WEIGHT	REMARKS	
28052F1	1	FRAME			SQ-2	
28052F1	1	PL3/8"X7"	14'-9 11/16"	57	SS	SS 304
hh722	19	PL3/8"X3 1/2"	0'-7 3/4"	55	SS	SS 304
pp1198	1	PL3/8"X4"	2'-9 3/8"	14	SS	SS 304
pp1258	12	PL3/8"X3"	3'-4 1/8"	153	SS	SS 304
pp1259	1	PL3/8"X3 1/2"	0'-3 15/16"	1	SS	SS 304
pp1260	2	PL3/8"X4"	2'-3 7/8"	22	SS	SS 304
pp1261	2	PL3/8"X4"	2'-9 3/8"	27	SS	SS 304
pp1264	12	BAR1 1/4"X2 1/2"	0'-3 1/2"	37	SS	SS 304
pp1267	1	PL3/8"X3 1/2"	0'-4"	1	SS	SS 304
pp1284	6	PL1/2"X4"	1'-3"	51	SS	SS 304
		TOTAL WEIGHT THIS DRAWING		419		

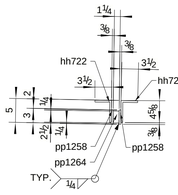


DETAIL OF 28052F1

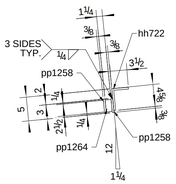


DETAIL 1

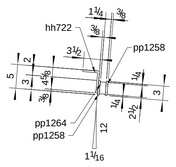




C - C



D - D



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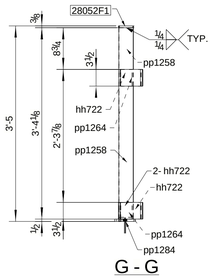
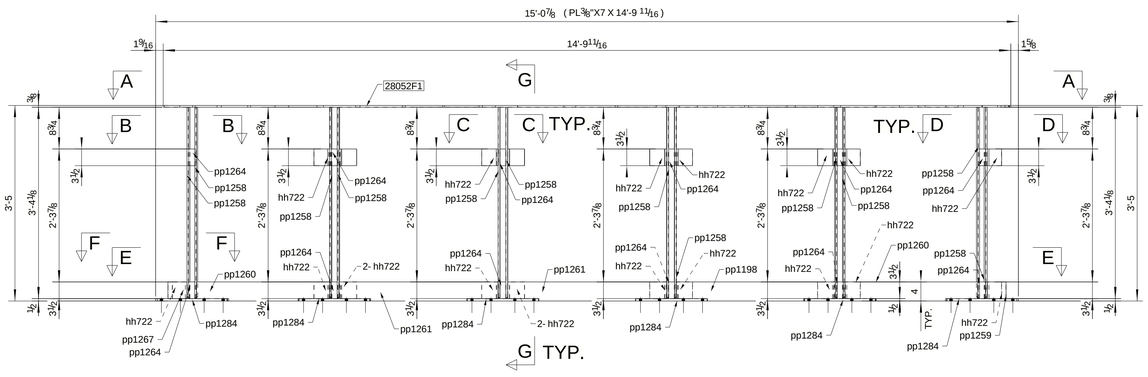
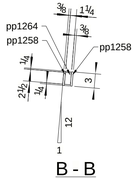
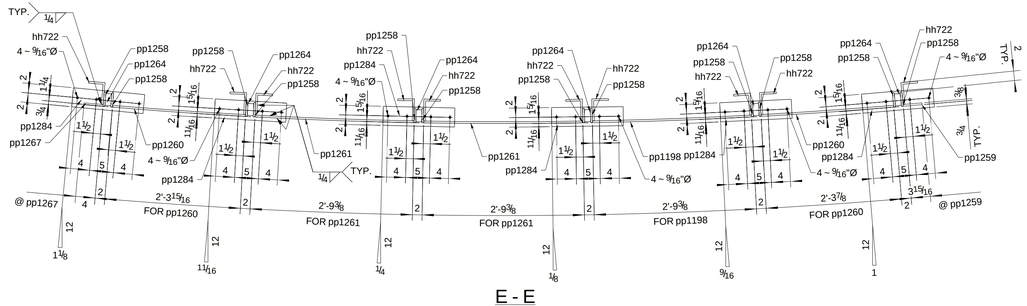


G - G





B - B



E - E

ONE - FRAME - 28052F1

PHASE	QTY.
GLASSRAIL SU***	1

SHOP NOTES :

1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
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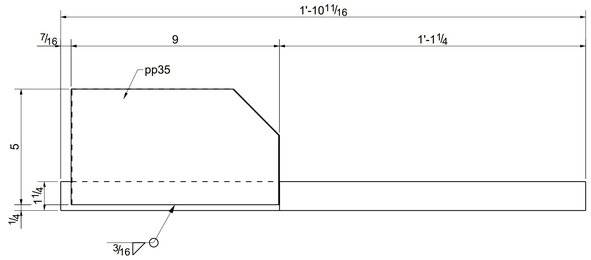
9. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
10. SHOP CLOSE ALL GAPS.
11. HOLE PATTERNS NOTED "A490SC_TC" ARE FOR SLIP CRITICAL BOLTS WITH TENSION CONTROL BOLTS. DO NOT ADD PAINT AT CONTACT SURFACES. CONTACT SURFACES ARE TO BE FREE OF BURRS AND ALL FOREIGN MATERIAL.

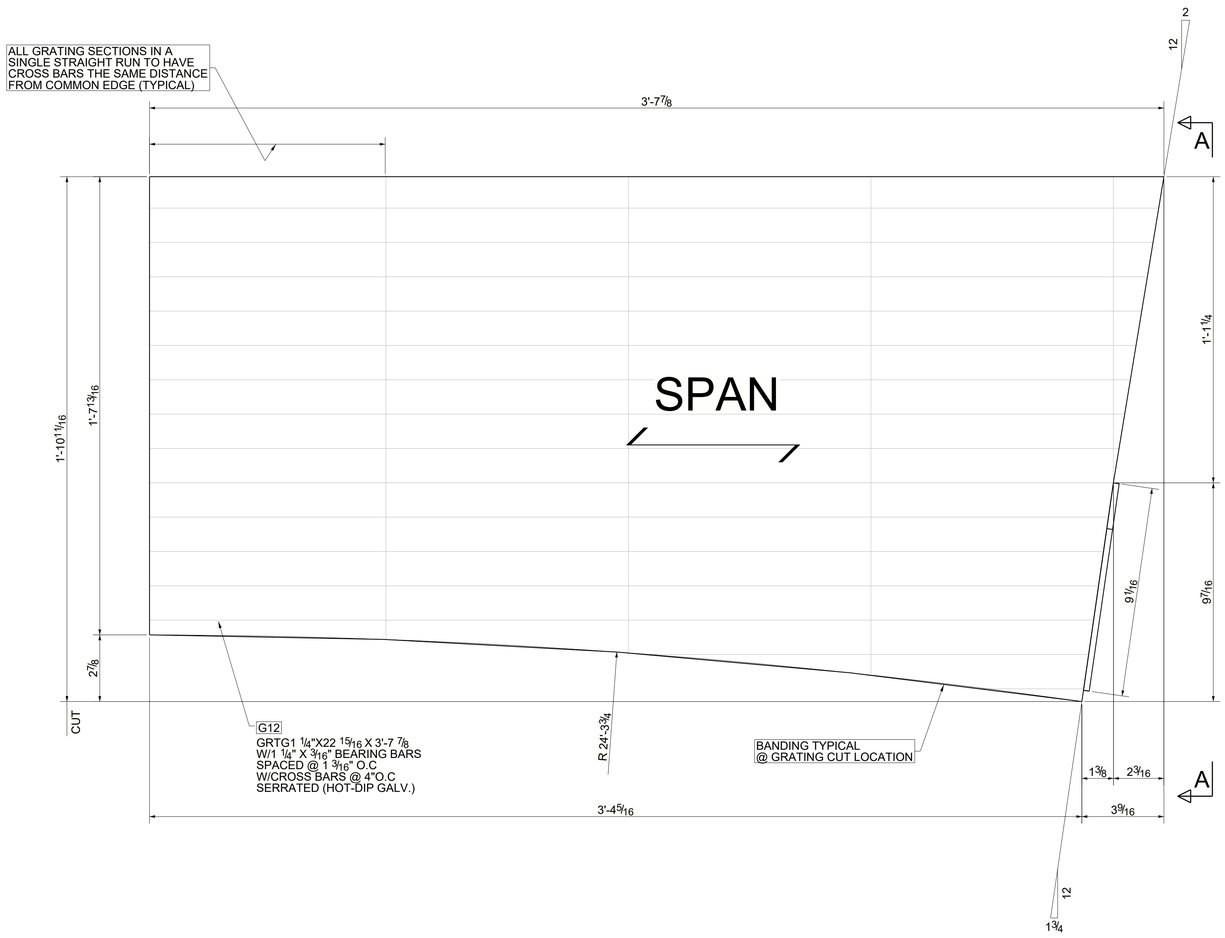
ALL STEELS IN THIS SHEET TO BE STAINLESS STEEL 304

BILL OF MATERIAL

MARK	QTY	DESCRIPTION	LENGTH	WEIGHT	REMARKS
G12	1	GRATING			SQ-1/BEV-1
G12	1	GRTG1 1/4"X22 15/16"	3'-7 7/8"	311	A36
pp35	1	PL1/4"X5"	0'-9 1/16"	3	A36
		TOTAL WEIGHT THIS DRAWING		314	



A - A



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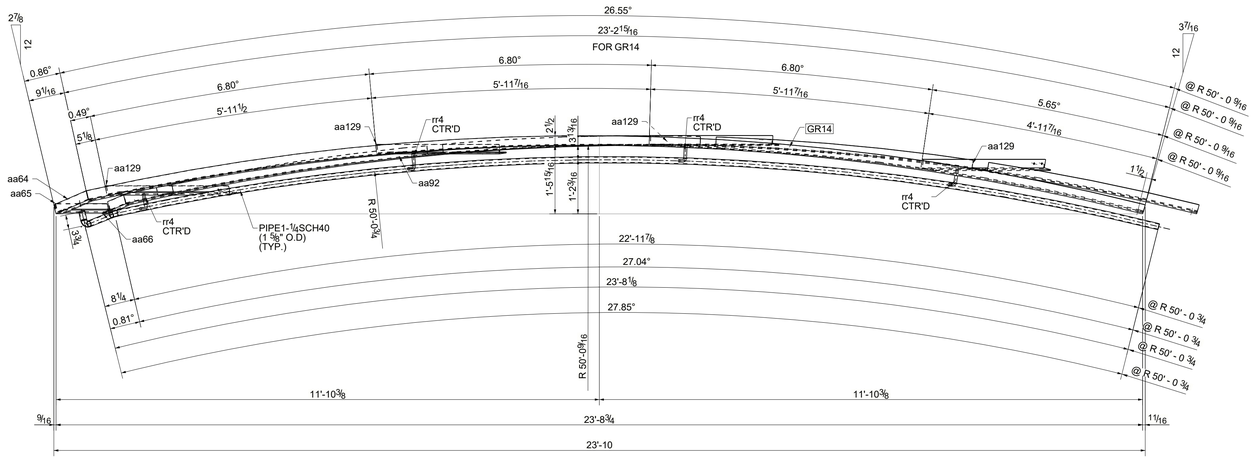
8. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE GATHER SHEETS/ SINGLE PART SHEETS.
9. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
10. SHOP CLOSE ALL GAPS.
11. ALL JOINTS TO BE SEAL WELDED WITH CONT. 1/8" FILLET OR BUTT WELD AS REQ'D
12. PROVIDE VENT HOLES AS REQ'D FOR GALV.
13. PLUG VENT HOLES AFTER GALV.

ONE - GRATING - G12

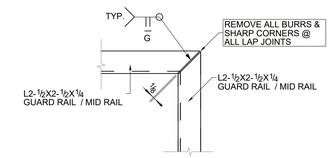
BILL OF MATERIAL

MARK	NO. PCS.	DESCRIPTION	LENGTH	WEIGHT	REMARKS
GR14	1	L2-1/2X2-1/2X1/4	23'-2 15/16"	94	A36
		PIPE1-1/4SCH40	24'-3 7/16"	52	TOTAL LENGTH A53-GR.B
rr4	4	ROD3/4"	0'-6 1/8"	3	A36
aa64	1	L2-1/2X2-1/2X1/4	1'-0"	4	A36
aa65	1	L2-1/2X2-1/2X1/4	1'-8"	7	A36
aa66	1	L2-1/2X2-1/2X1/4	0'-8 11/16"	2	A36
aa92	1	L2-1/2X2-1/2X1/4	23'-7 3/8"	93	A36
aa129	4	L2-1/2X2-1/2X1/4	3'-11 3/4"	63	A36



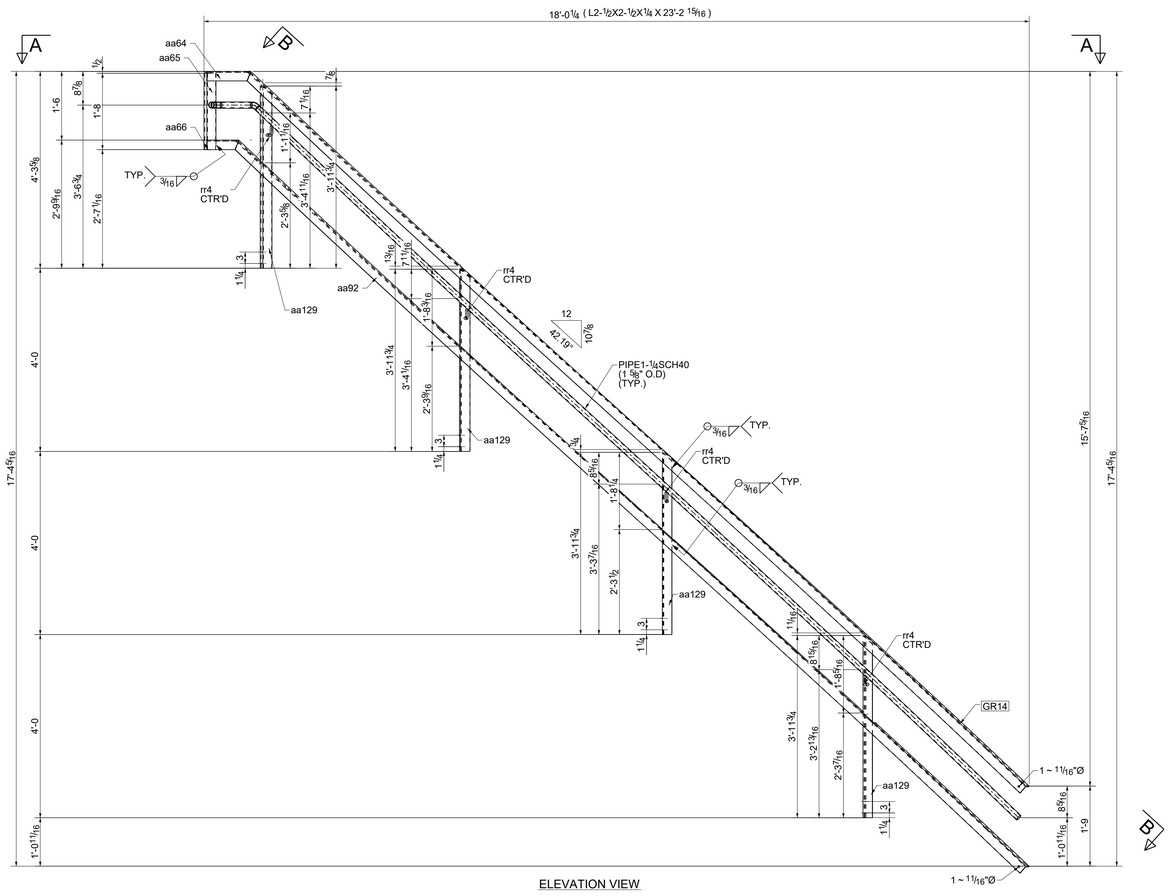
B - B

SHOP NOTES:
1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
2. TAG ALL MEMBERS IN A VERTICAL POSITION ON LEFT END AS DETAILED.
3. ALL SHARP EDGES SHALL BE GROUND SMOOTH AND CORNERS ROUNDED OFF.
4. ALL TAIL (RUNNING) DIMENSIONS SHALL BE MEASURED FROM END OF BEAM, COLUMN,..ETC. "RD" DENOTES RUNNING DIMENSION
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
8. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE GATHER SHEETS/ SINGLE PART SHEETS.
9. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
10. SHOP CLOSE ALL GAPS.
11. ALL JOINTS TO BE SEAL WELDED WITH CONT. 1/8" FILLET OR BUTT WELD AS REQ'D
12. PROVIDE VENT HOLES AS REQ'D FOR GALV.
13. PLUG VENT HOLES AFTER GALV.

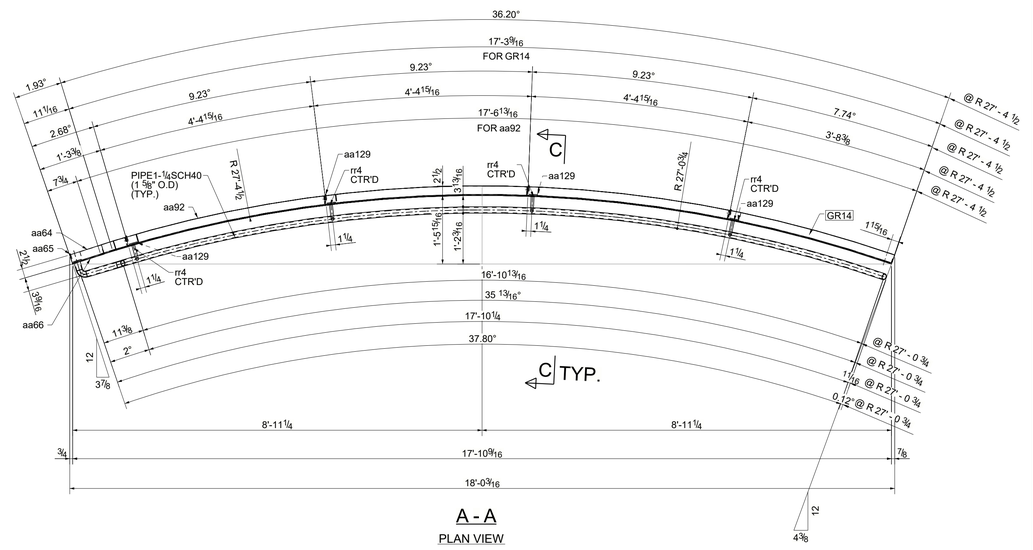


TYPICAL TOP & MID RAIL CORNER ARRANGEMENT

(REFER : SPLICE CONNECTIONS / S101)

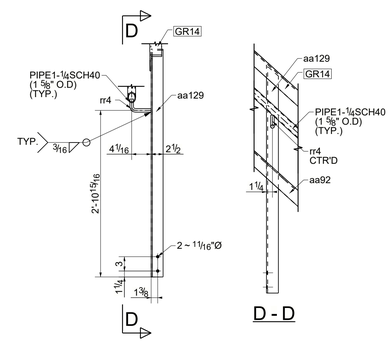


ELEVATION VIEW



A - A

PLAN VIEW



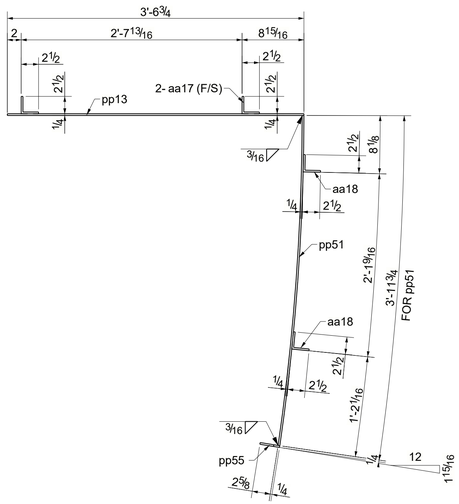
C - C

D - D

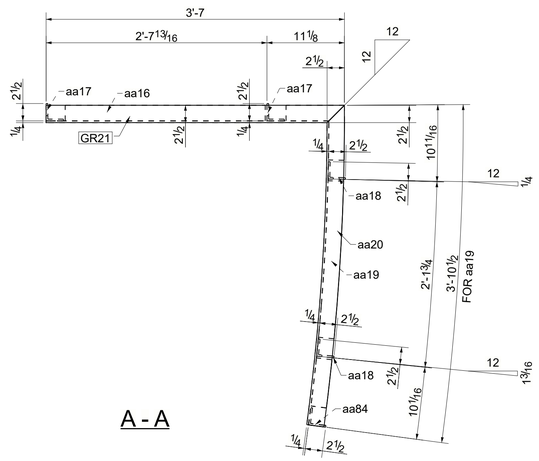
ONE - GUARDRAIL - GR14

BILL OF MATERIAL

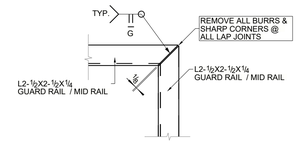
MARK	QTY	DESCRIPTION	LENGTH	WEIGHT	REMARKS
GR21	1	GUARDRAIL			SQ-1/BEV-1
GR21	1	L2-1/2X2-1/2X1/4	3'-7"	15	A36
aa16	1	L2-1/2X2-1/2X1/4	3'-7"	15	A36
aa17	2	L2-1/2X2-1/2X1/4	4'-2"	34	A36
aa18	2	L2-1/2X2-1/2X1/4	4'-2"	34	A36
aa19	1	L2-1/2X2-1/2X1/4	3'-10 1/2"	16	A36
aa20	1	L2-1/2X2-1/2X1/4	3'-10 1/2"	16	A36
aa84	1	L2-1/2X2-1/2X1/4	1'-8"	7	A36
pp13	1	PL1/4"X5"	3'-6 3/4"	15	A36
pp51	1	PL1/4"X5"	3'-11 3/4"	17	A36
pp55	1	PL1/4"X2 7/8"	0'-5"	1	A36
		TOTAL WEIGHT THIS DRAWING		168	



B - B

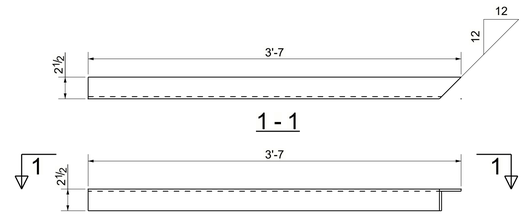


A - A



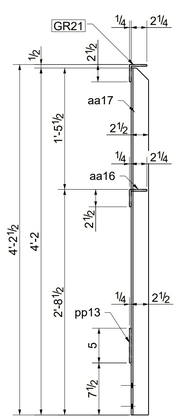
TYPICAL TOP & MID RAIL CORNER ARRANGEMENT

(REFER : SPLICE CONNECTIONS / S101)

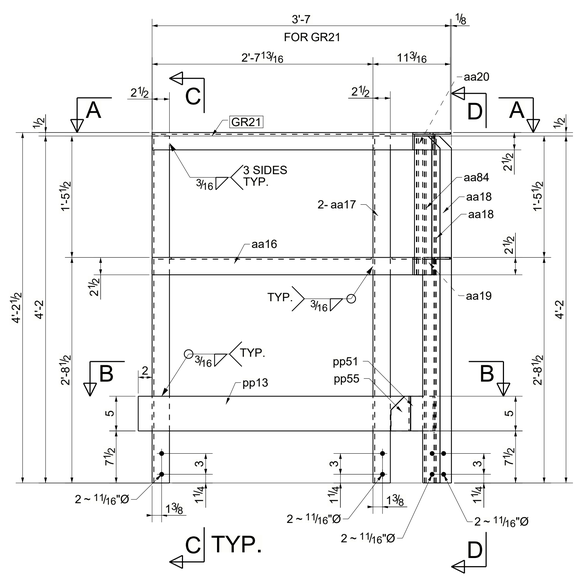


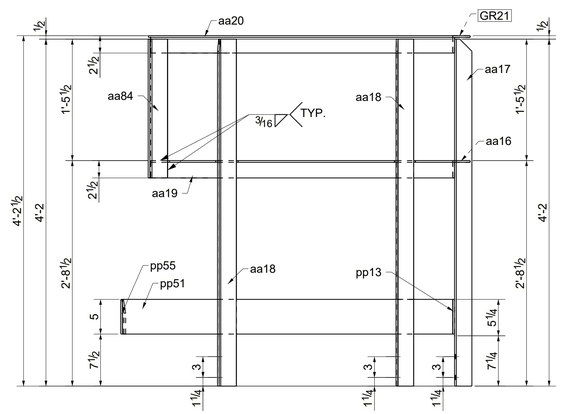
1 - 1

DETAIL OF GR21



C - C





D - D

SHOP NOTES:

1. ALL WELDS TO BE 3/16" ALL AROUND OR DOUBLE SIDED FILLET WELD UNLESS SHOWN OTHERWISE.
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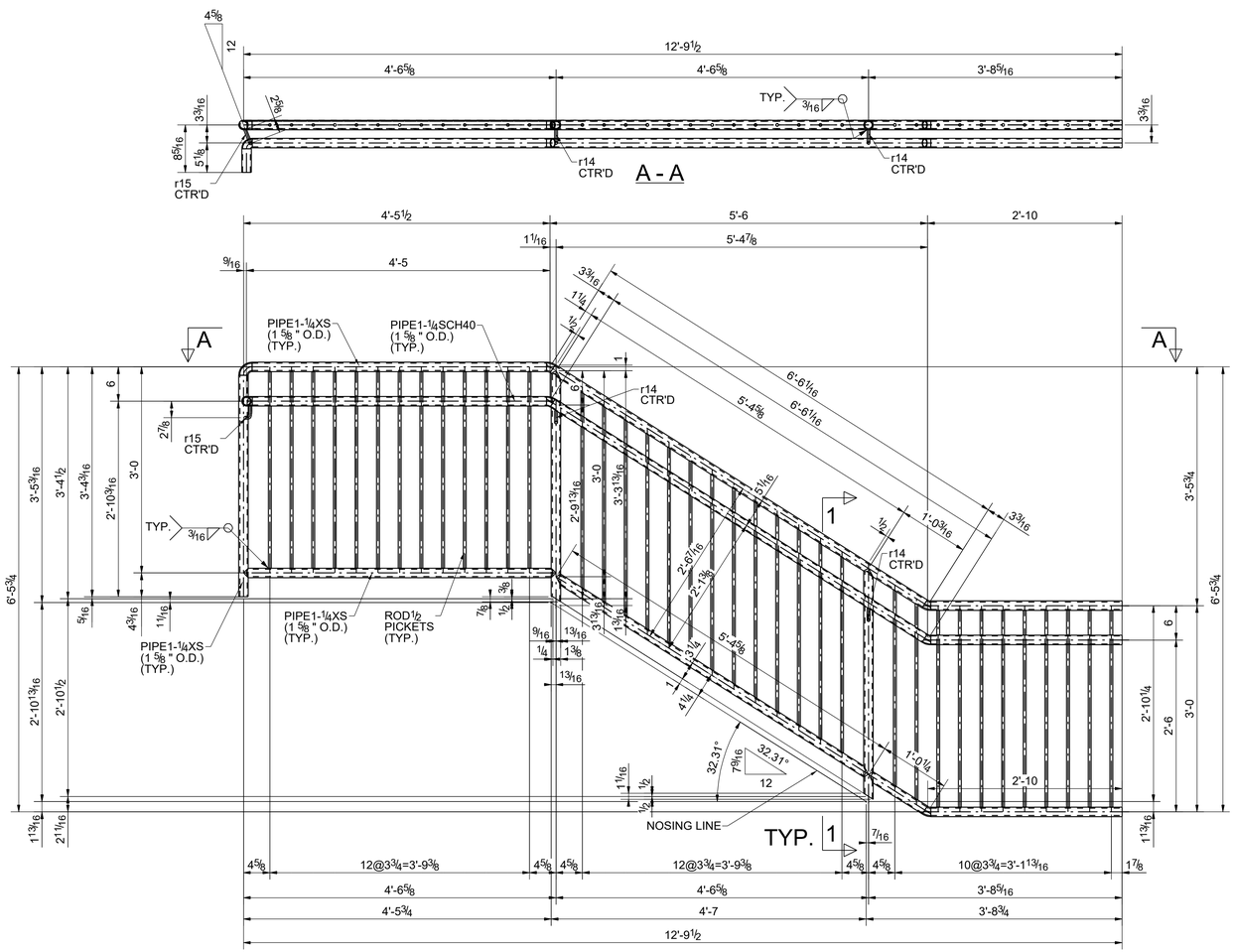
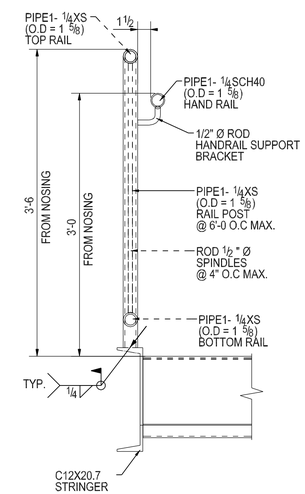
5. ALL COPES SHALL BE MEASURED FROM END OF BEAM.
6. ALL BEAM COPES TO BE CUT WITH 1/2" RADIUS U.N.O.
7. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
8. FOR INDIVIDUAL DETAILS OF PLATES, ANGLES, ETC.., SEE GATHER SHEETS/ SINGLE PART SHEETS.
9. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
10. SHOP CLOSE ALL GAPS.
11. ALL JOINTS TO BE SEAL WELDED WITH CONT. 1/8" FILLET OR BUTT WELD AS REQ'D
12. PROVIDE VENT HOLES AS REQ'D FOR GALV.
13. PLUG VENT HOLES AFTER GALV.

ONE - GUARDRAIL - GR21

BILL OF MATERIAL				
MARK	QTY	DESCRIPTION	LENGTH	REMARKS
M224GR1	1	GUARD RAIL		
		PIPE1-1/4SCH40	14'-1 11/16"	Total Length
		PIPE1-1/4XS	37'-7 1/8"	Total Length
		ROD1/2"	106'-2 3/16"	Total Length
r14	2	ROD1/2"	0'-3 9/16"	
r15	1	ROD1/2"	0'-3 7/8"	





TYPICAL STRINGER RAIL DETAIL

1-1

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7. ALL CLIP ANGLES SHALL BE ATTACHED TO BEAM WITH 3/16" FILLET WELD ON THREE SIDES UNLESS SHOWN OTHERWISE.
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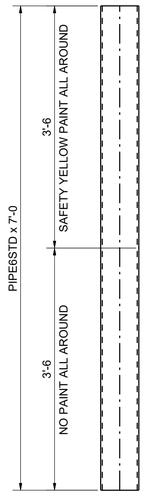
9. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
10. SHOP CLOSE ALL GAPS.

BILL OF MATERIAL					
SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	REMARKS
M240M1		25	PIPE6STD	7'-0"	SQ-2 A53-GR.B



25 - BOLLARDS - M240M1

SHOP NOTES :

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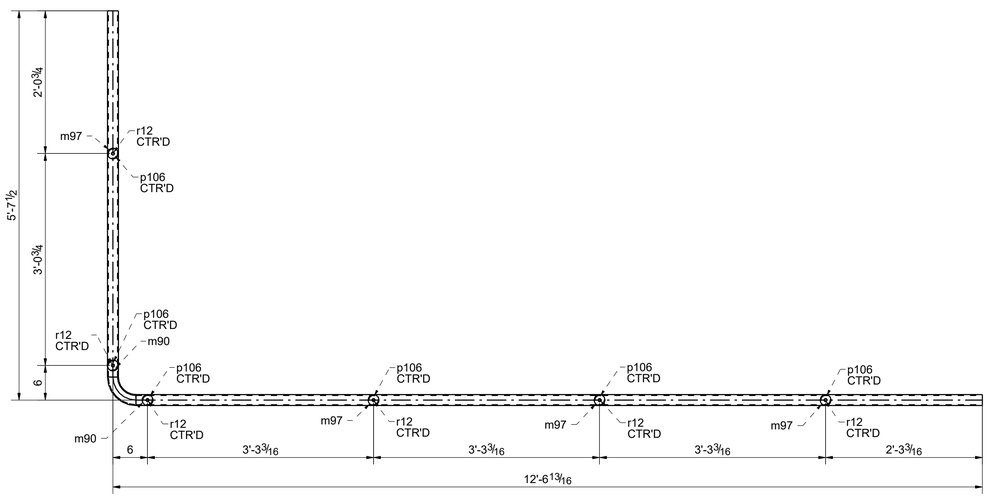
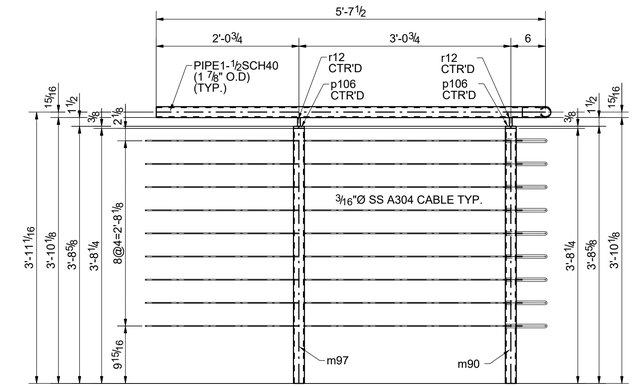
9. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
10. SHOP CLOSE ALL GAPS.

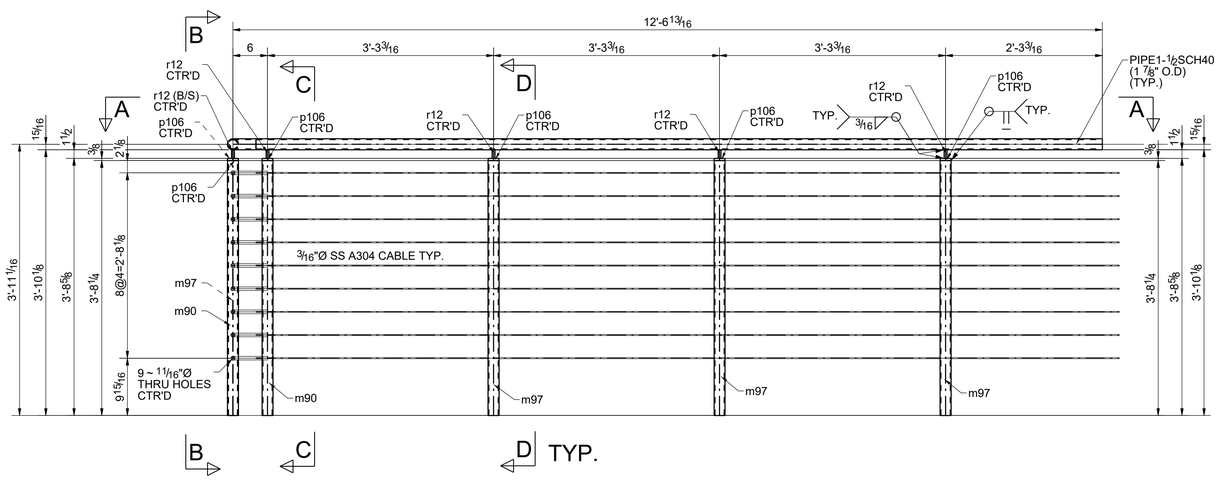
BILL OF MATERIAL				
MARK	QTY	DESCRIPTION	LENGTH	REMARKS
M242GR1	1	GUARD RAIL		
		PIPE1-1/2SCH40	40'-1 15/16"	Total Length
r12	6	R0D1/2"	0'-1 1/2"	
p106	6	PL3/8"X1 7/8"	0'-1 7/8"	



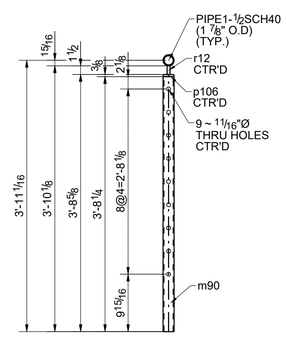
A - A



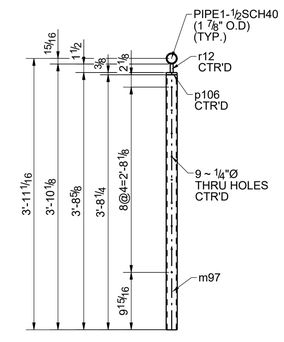
B - B



ONE - GUARD RAIL - M242GR1



C - C



D - D

SHOP NOTES :

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9. B.T.S. DENOTES BOLT TO SHIP WITH A307 BOLTS. ASSEMBLE AFTER PAINTING/GALV.
10. SHOP CLOSE ALL GAPS.

BILL OF MATERIAL

SHIP MARK	PIECE MARK	QTY	DESCRIPTION	LENGTH	REMARKS
M246M1		26	FASICA MOUNT BRACKET	0'	SQ-2
M246M2		1	LADDER UP SAFETY POST	0'	SQ-2
M246M3		36	90° CORNER TUBE	0'	SQ-2

FASICA MOUNT BRACKET CRL CR15FBBS

BOUGHT OUT ITEM

26 - FASICA MOUNT BRACKETS - M246M1

LADDER UP SAFETY POST "BILCO" MODEL 1

BOUGHT OUT ITEM

ONE - LADDER SAFETY POST - M246M2

90° CORNER TUBE - CR0114.4

BOUGHT OUT ITEM

36 - 90° CORNER TUBES - M246M3

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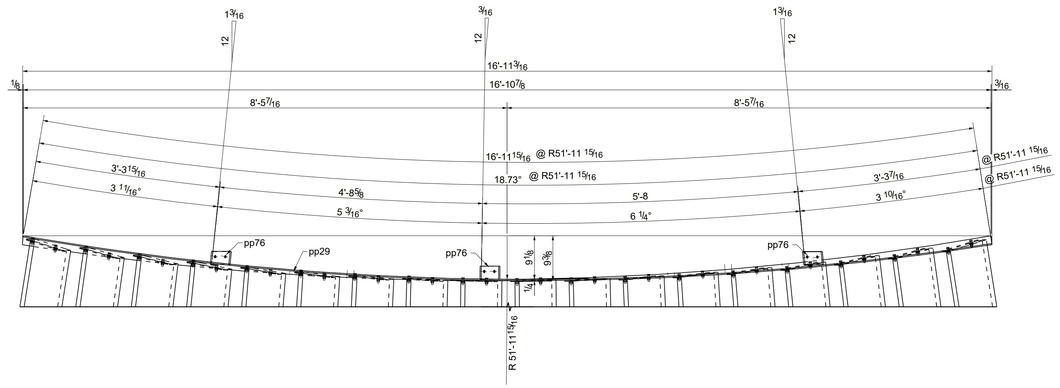
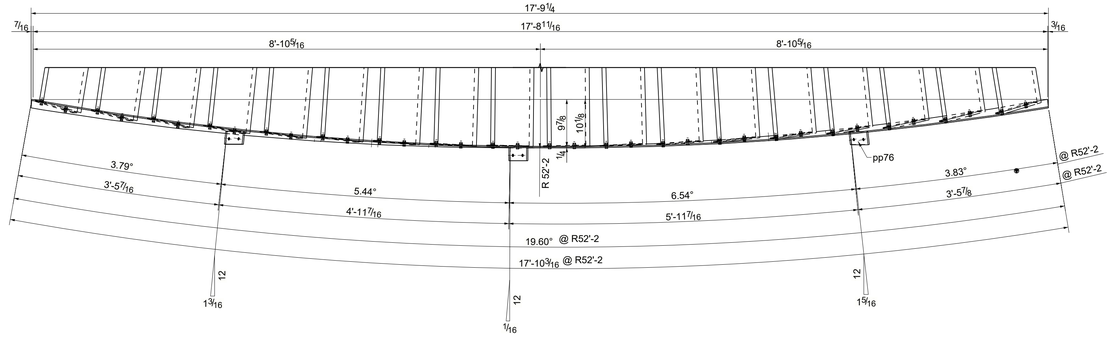


C - C



D - D

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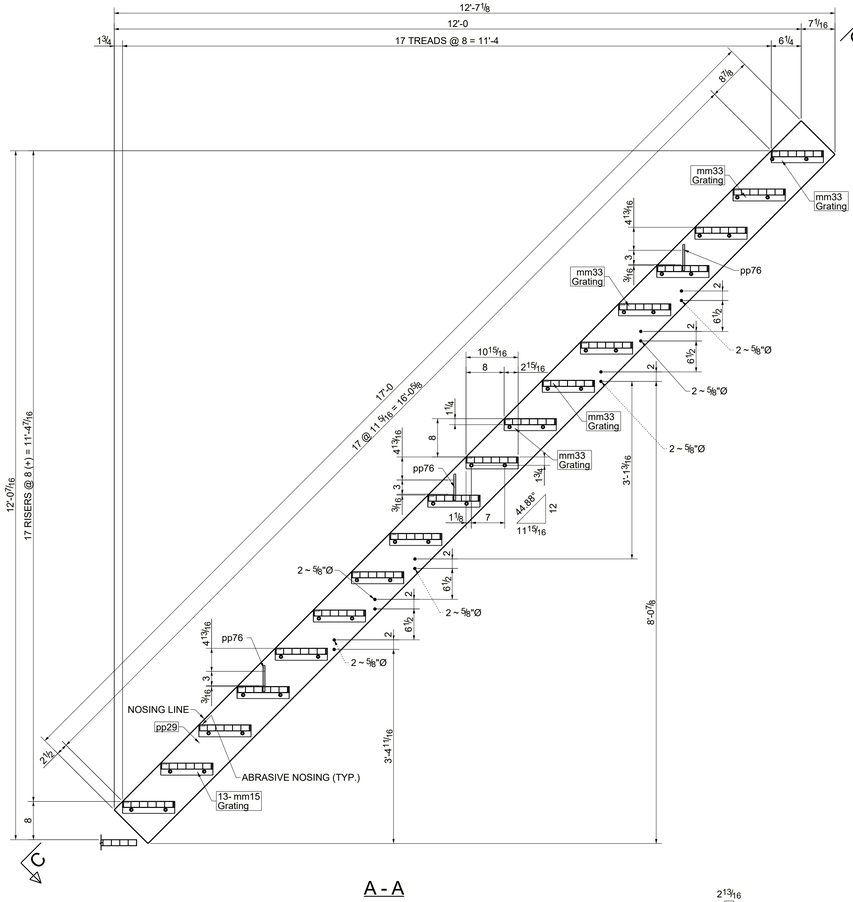
12. PROVIDE VENT HOLES AS REQ'D FOR GALV.
13. PLUG VENT HOLES AFTER GALV.

WORK THIS SHEET WITH S6

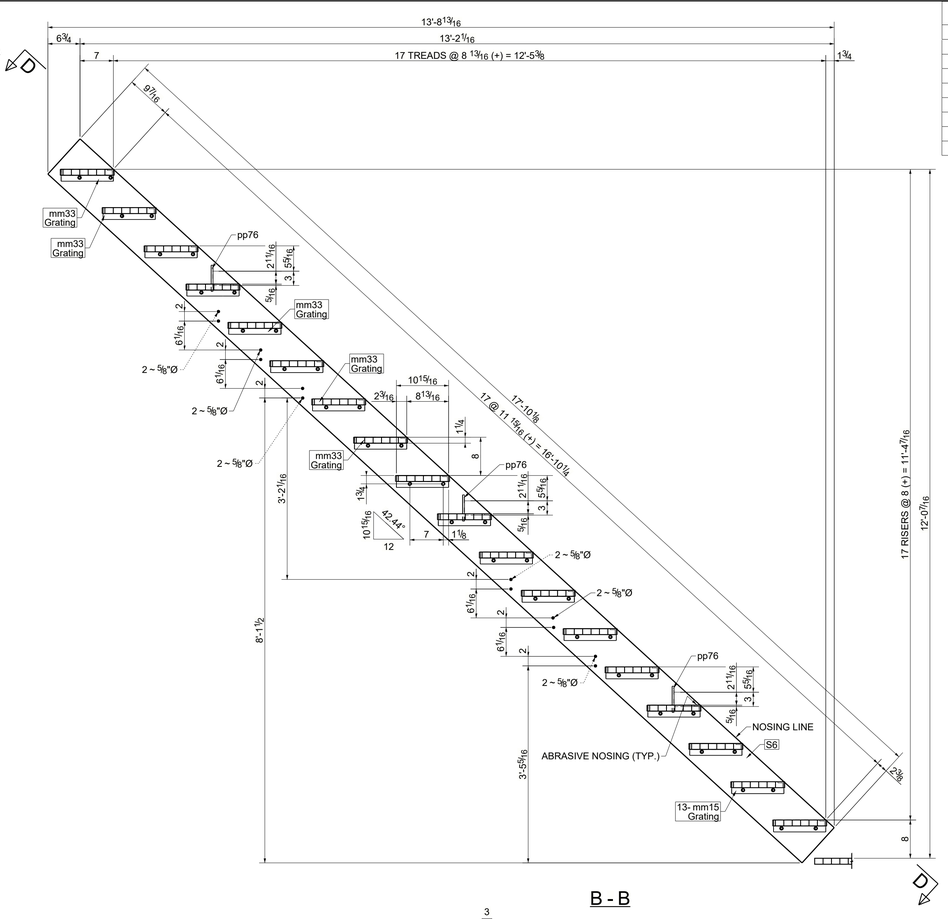
ONE - STAIR - S6

BILL OF MATERIAL

MARK	NO. PCS.	DESCRIPTION	LENGTH	WEIGHT	REMARKS
S6	1	PL1/4"X10"	17'-10 1/8"	162	A36
pp76	6	PL3/8"X2 3/4"	0'-5 1/2"	10	A36
pp29	1	PL1/4"X10"	17'-0"	155	A36
mm15	13	GRTG1 1/4"X10 15/16"	2'-5 5/8"	1531	A36
mm33	5	GRTG1 1/4"X10 15/16"	2'-5 5/8"	589	A36
	52	3/8"Ø A307 BOLT	0'-1 1/4"	4	52 PLAIN WASHER 52 HEX NUT
	20	3/8"Ø A307 BOLT	0'-1 1/4"	1	20 PLAIN WASHER 20 HEX NUT



A - A



B - B

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10. SHOP CLOSE ALL GAPS.
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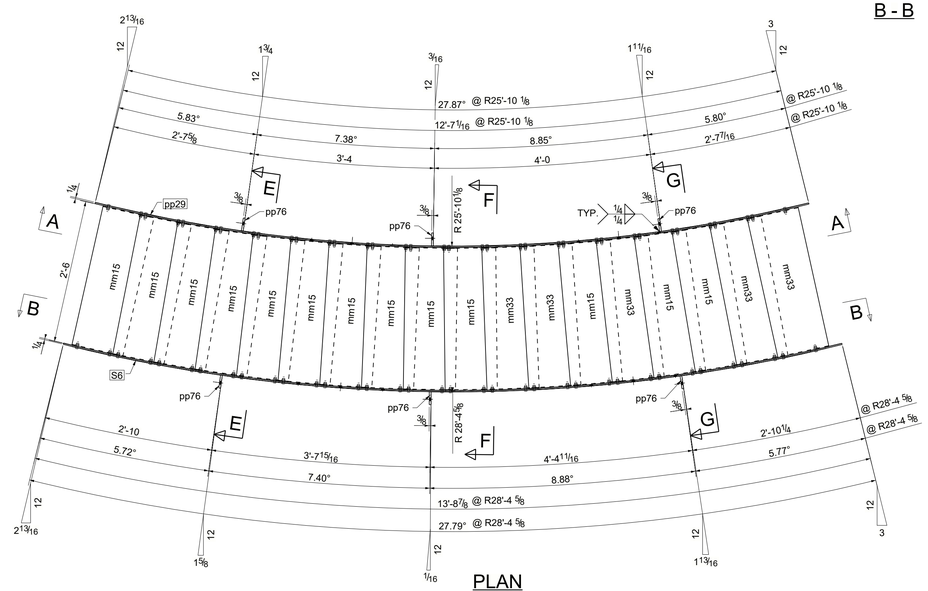
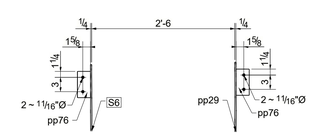
12. PROVIDE VENT HOLES AS REQ'D FOR GALV.
13. PLUG VENT HOLES AFTER GALV.

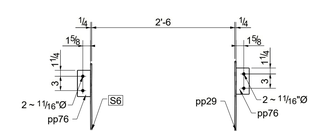
WORK THIS SHEET WITH S6-1



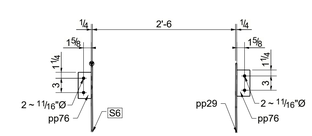
PLAN



E - E



F - F

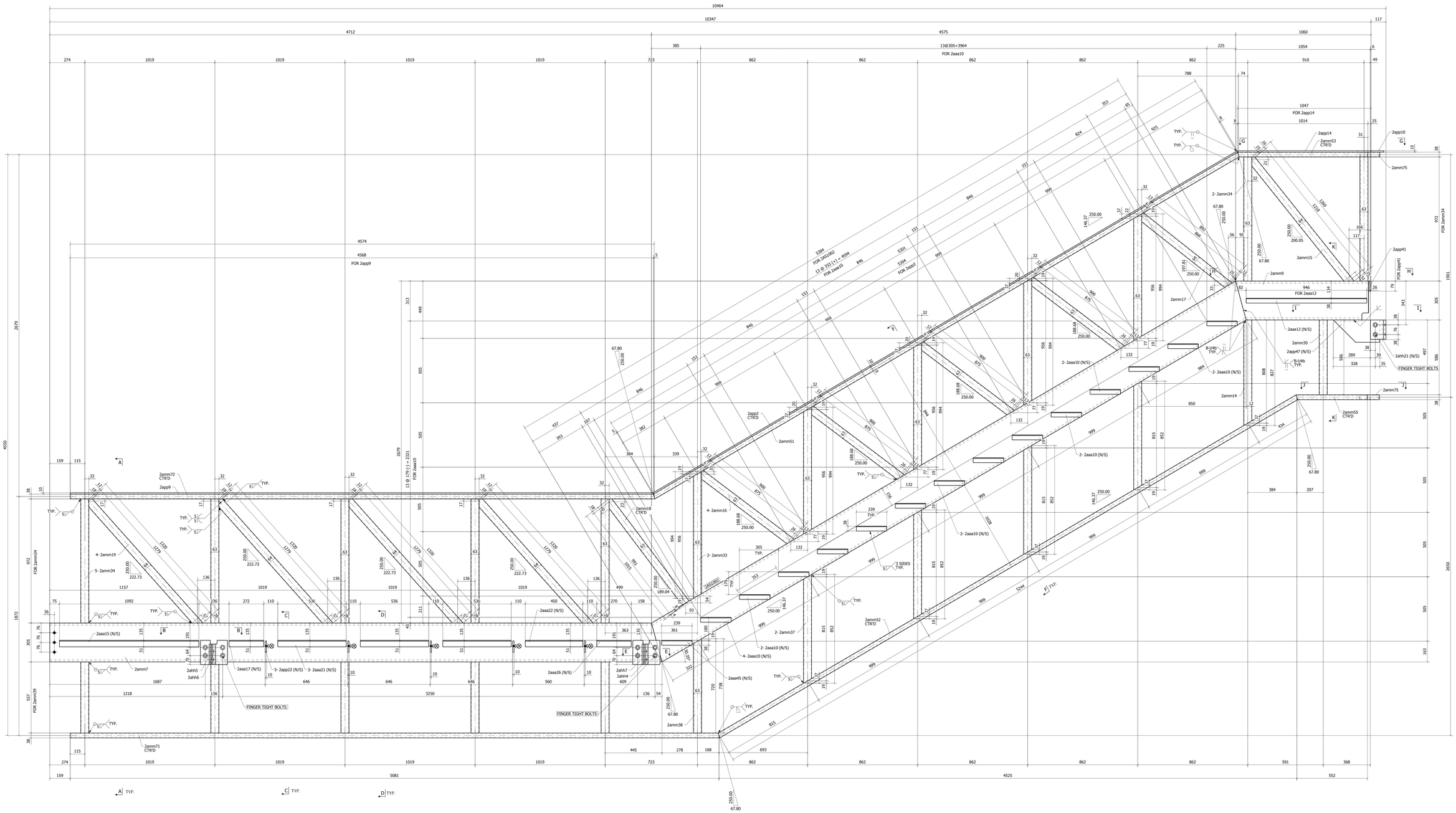


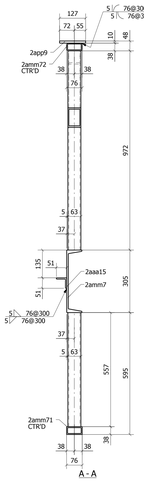
G - G

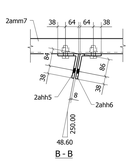
ONE - STAIR - S6

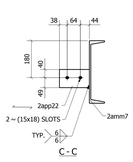
DIV	GRID LOC	LEVEL
1	R-S/12-12	+28.000

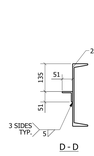
DIAM CODE	QTY	FIELD BOLTS	LENGTH
6	2	19'DIA BOLT- A325N	57

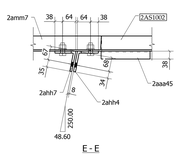


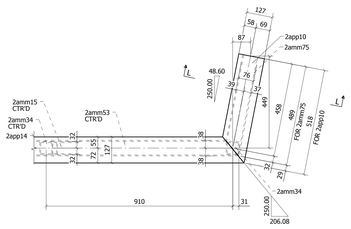


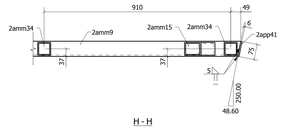


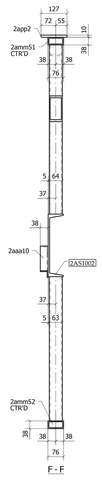


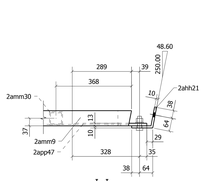


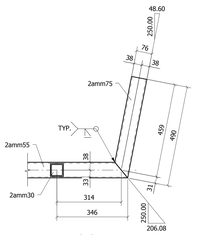


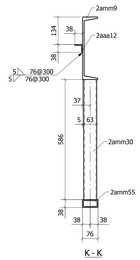












ONE - STRINGER - 2AS1002

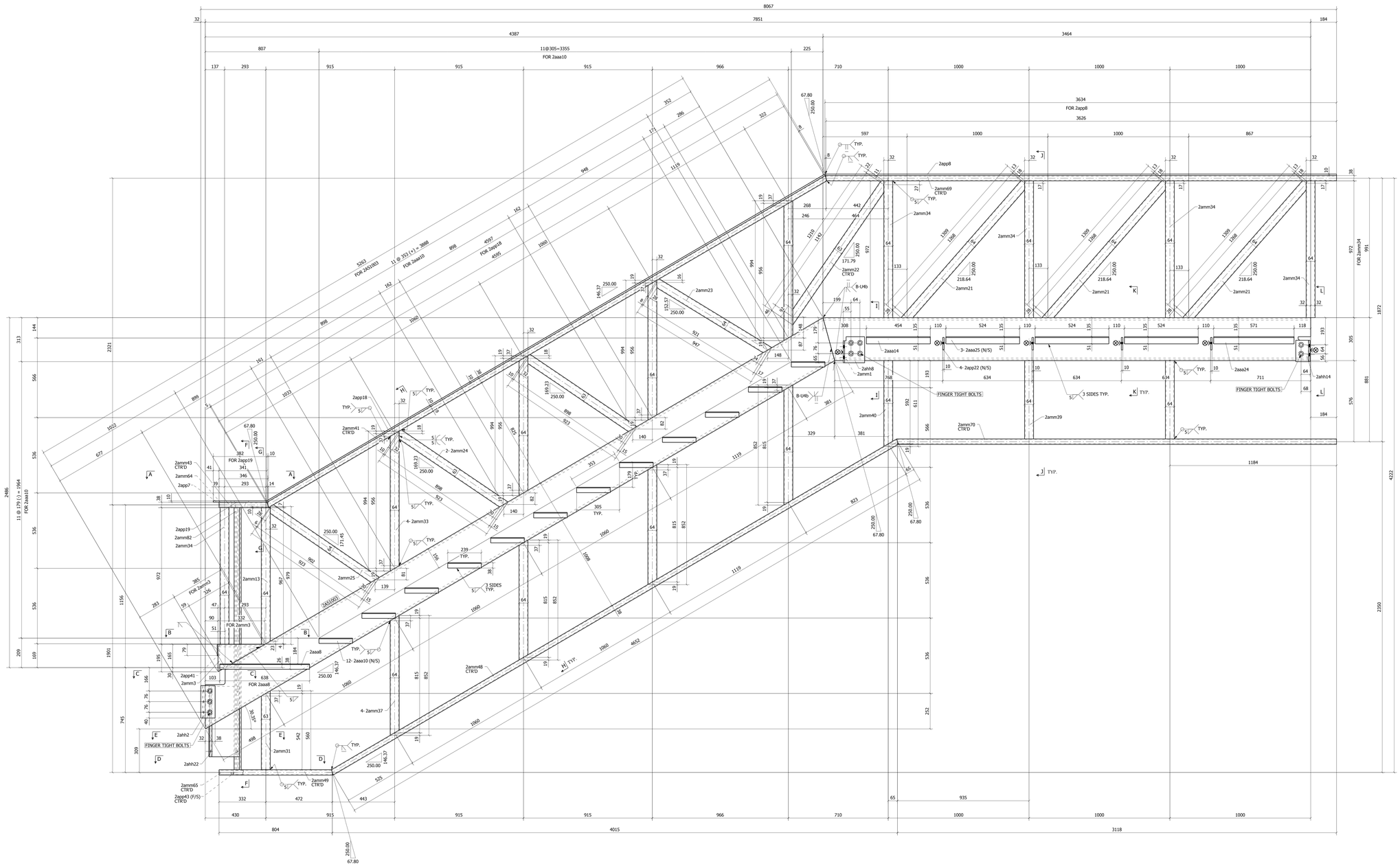
U - TYPE C12X20.7

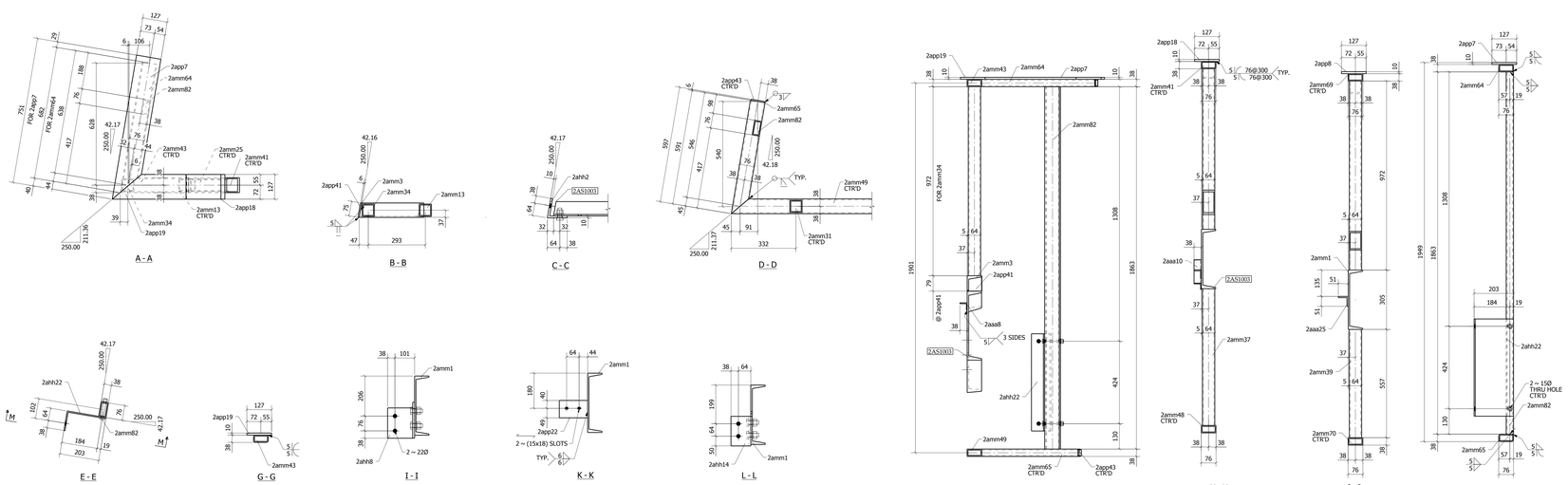
GENERAL NOTES: HOLES: 22mm Ø U.N.O. WELDS: E49XX U.N.O. MATERIAL: 300W U.N.O. BOLTS: A325 U.N.O. PAINT: 1-73/A SHOP PRIMER UNO. ORIENTATION MARK CONNECTING SIDE MARK

No.	Mark	Size	Grade	Length	Weight	Remarks
1	2AS1002					BEV-2
1	2AS1002	C310X31	300W	5384	166	
14	2aaa10	L38X38X4.8	300W	239	9	
1	2aaa12	L38X38X4.8	300W	945	3	
1	2aaa15	L51X51X6.4	300W	1092	5	
1	2aaa17	L51X51X6.4	300W	271	1	
3	2aaa21	L51X51X6.4	300W	535	8	
1	2aaa22	L51X51X6.4	300W	450	2	
1	2aaa26	L51X51X6.4	300W	269	1	
1	2aaa45	L38X38X4.8	300W	238	1	
1	2ahn4	PL10X190	300W	203	3	
1	2ahn5	PL10X190	300W	224	3	
1	2ahn6	PL10X190	300W	225	3	
1	2ahn7	PL10X180	300W	190	3	
1	2ahn21	PL10X152	300W	187	2	
1	2amm7	C310X31	300W	4794	148	
1	2amm9	C310X31	300W	1054	32	
1	2amm14	HSS64X64X4.8	A500-GR.C	826	7	
1	2amm15	HSS64X64X4.8	A500-GR.C	1259	10	
4	2amm16	HSS64X64X4.8	A500-GR.C	900	30	
1	2amm17	HSS64X64X4.8	A500-GR.C	891	7	
1	2amm18	HSS64X64X4.8	A500-GR.C	1015	8	
4	2amm19	HSS64X64X4.8	A500-GR.C	1320	44	
1	2amm30	HSS64X64X4.8	A500-GR.C	585	5	
5	2amm33	HSS64X64X4.8	A500-GR.C	993	41	
7	2amm34	HSS64X64X4.8	A500-GR.C	971	57	
4	2amm37	HSS64X64X4.8	A500-GR.C	852	28	
1	2amm38	HSS64X64X4.8	A500-GR.C	738	6	
5	2amm39	HSS64X64X4.8	A500-GR.C	556	23	
1	2amm51	HSS76X38X4.8	A500-GR.C	5311	44	
1	2amm52	HSS76X38X4.8	A500-GR.C	5254	44	
1	2amm53	HSS76X38X4.8	A500-GR.C	1019	8	
1	2amm55	HSS76X38X4.8	A500-GR.C	557	5	
1	2amm71	HSS76X38X4.8	A500-GR.C	5086	42	
1	2amm72	HSS76X38X4.8	A500-GR.C	4578	38	
2	2amm75	HSS76X38X4.8	A500-GR.C	489	8	
1	2app2	PL10X127	300W	5304	53	
1	2app9	PL10X127	300W	4568	46	
1	2app10	PL10X127	300W	517	5	
1	2app14	PL10X127	300W	1047	10	
5	2app22	PL10X89	300W	145	5	
1	2app41	PL6X76	300W	79	0	
1	2app47	PL13X175	300W	363	5	
2		3/4"Ø A325N BOLT		50	0	
2		3/4"Ø A325N BOLT		50	0	
2		3/4"Ø A325N BOLT		50	0	
2		3/4"Ø A325N BOLT		50	0	
2		3/4"Ø A325N BOLT		57	0	
		Area/Ass'y (m²): 27.94	Gross/Ass'y		969	

SH	DWG LOC	LEVEL
1	B-G/12-F-U	+25.315

TOTAL QTY	UNIT QTY	FIELD BOLTS	LENGTH
4	2	19'DIA BOLT- A325N	51
3	3	19'DIA BOLT- A325N	57





ONE - STRINGER - 2AS1003

U - TYPE C12X20.7

GENERAL NOTES: HOLES: 22mm Ø U.N.O. WELDS: E49XX U.N.O. MATERIAL: 300W U.N.O. BOLTS: A325 U.N.O. PAINT: 1-73/A SHOP PRIMER UNO

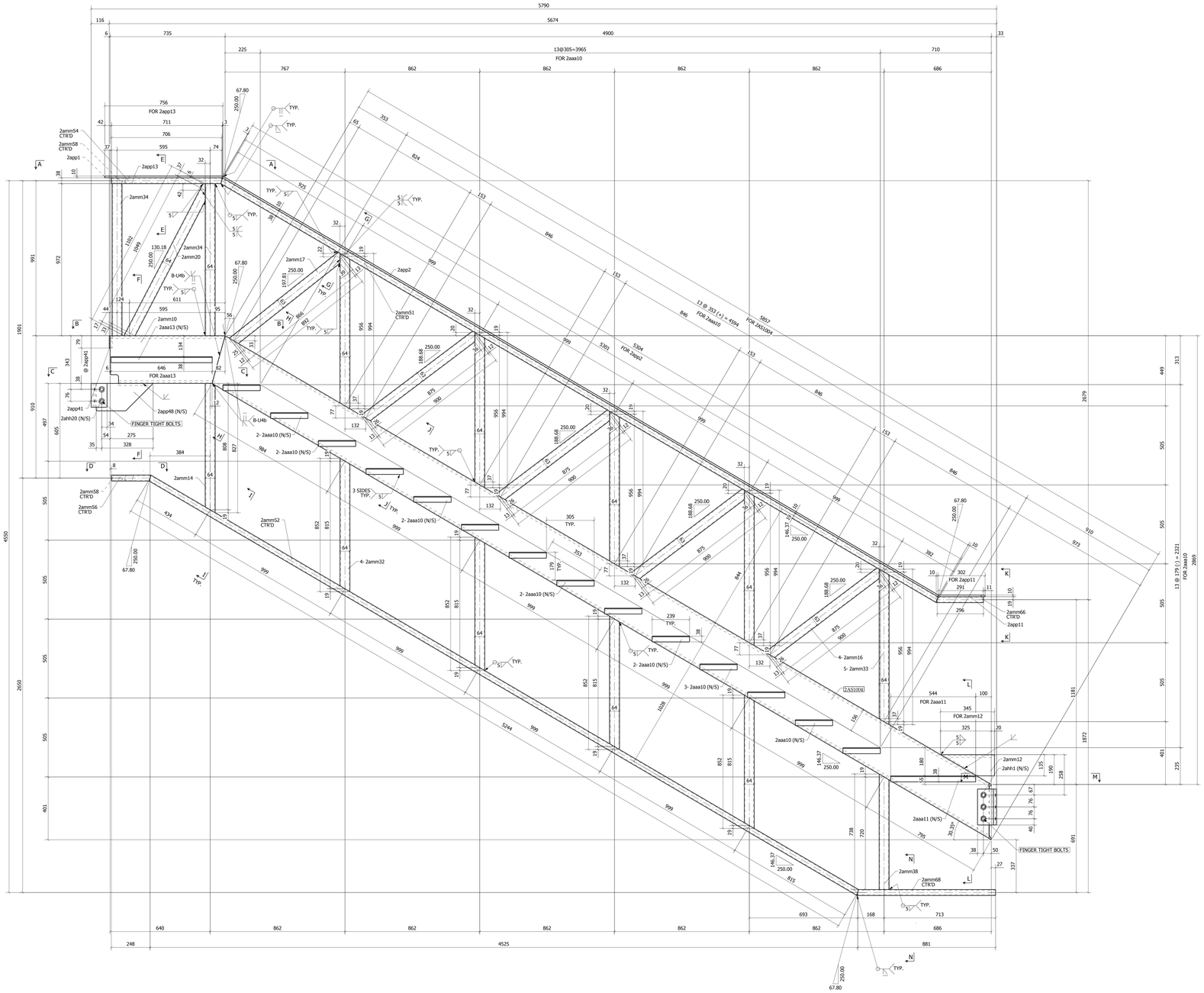
ORIENTATION MARK

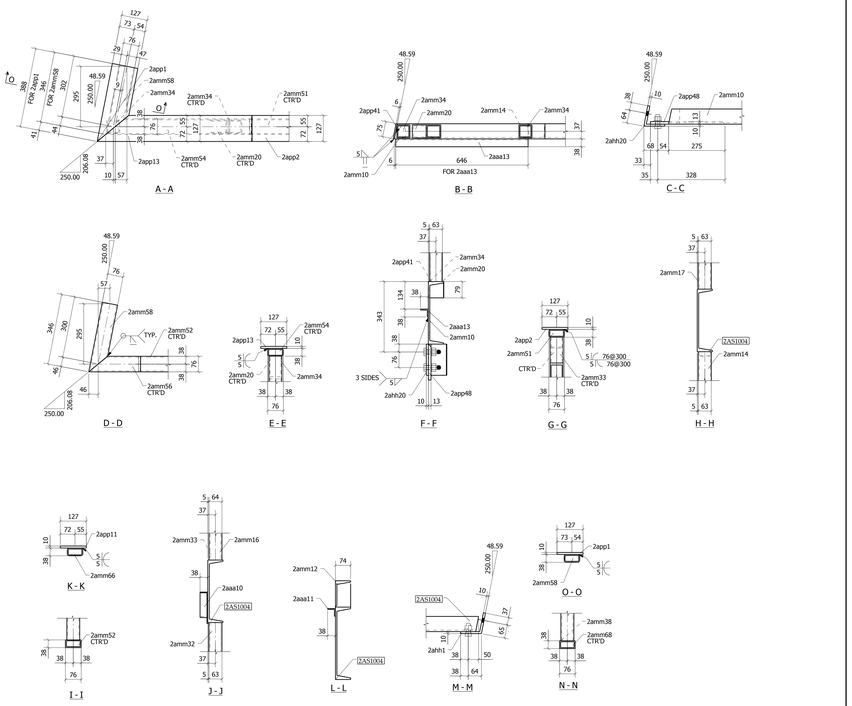
CONNECTING SIDE MARK

No.	Mark	Size	Grade	Length	Weight	Remarks
1	2AS1003					BEV-2
1	2AS1003	C310X31	300W	5262	162	
1	2aaa8	L38X38X4.8	300W	638	2	
12	2aaa10	L38X38X4.8	300W	239	8	
1	2aaa14	L51X51X6.4	300W	454	2	
1	2aaa24	L51X51X6.4	300W	570	3	
3	2aaa25	L51X51X6.4	300W	524	7	
1	2ahh2	PL10X180	300W	230	3	
1	2ahh8	PL10X185	300W	290	4	
1	2ahh14	PL10X152	300W	183	2	
1	2ahh22	PL6X292	300W	500	7	
1	2amm1	C310X31	300W	3463	107	
1	2amm3	C310X31	300W	332	10	
1	2amm13	HSS64X64X4.8	A500-GR.C	979	8	
3	2amm21	HSS64X64X4.8	A500-GR.C	1308	33	
1	2amm22	HSS64X64X4.8	A500-GR.C	1210	10	
1	2amm23	HSS64X64X4.8	A500-GR.C	946	8	
2	2amm24	HSS64X64X4.8	A500-GR.C	922	15	
1	2amm25	HSS64X64X4.8	A500-GR.C	923	8	
1	2amm31	HSS64X64X4.8	A500-GR.C	560	5	
4	2amm33	HSS64X64X4.8	A500-GR.C	993	33	
5	2amm34	HSS64X64X4.8	A500-GR.C	971	40	
4	2amm37	HSS64X64X4.8	A500-GR.C	852	28	
2	2amm39	HSS64X64X4.8	A500-GR.C	556	9	
1	2amm40	HSS64X64X4.8	A500-GR.C	610	5	
1	2amm41	HSS76X38X4.8	A500-GR.C	4604	38	
1	2amm43	HSS76X38X4.8	A500-GR.C	351	3	
1	2amm48	HSS76X38X4.8	A500-GR.C	4662	39	
1	2amm49	HSS76X38X4.8	A500-GR.C	809	7	
1	2amm64	HSS76X38X4.8	A500-GR.C	681	6	
1	2amm65	HSS76X38X4.8	A500-GR.C	591	5	
1	2amm69	HSS76X38X4.8	A500-GR.C	3631	30	
1	2amm70	HSS76X38X4.8	A500-GR.C	3123	26	
1	2amm82	HSS76X38X4.8	A500-GR.C	1862	16	
1	2app7	PL10X127	300W	751	7	
1	2app8	PL10X127	300W	3633	36	
1	2app18	PL10X127	300W	4597	46	
1	2app19	PL10X127	300W	382	3	
4	2app22	PL10X89	300W	146	4	
1	2app41	PL6X75	300W	79	0	
1	2app43	PL6X32	300W	70	0	
3		3/4"Ø A325N BOLT		50	0	
4		3/4"Ø A325N BOLT		50	0	
2		3/4"Ø A325N BOLT		50	0	
2		1/2"Ø A325N BOLT		101	0	
		Area/Ass'y (m²): 22.40	Gross/Ass'y		785	

REV	GRID LOC	LEVEL
1	R-5/12.8-12	+28.050

TOTAL QTY	REV	FIELD BOLTS	LENGTH
3	3	19/16 BOLT - A325N	51
2	2	19/16 BOLT - A325N	57





ONE - STRINGER - 2AS1004

U - TYPE C12X20.7

GENERAL NOTES:

HOLES: 22mm Ø U.N.O. WELDS: E49XX U.N.O
MATERIAL: 300W U.N.O. BOLTS: A325 U.N.O

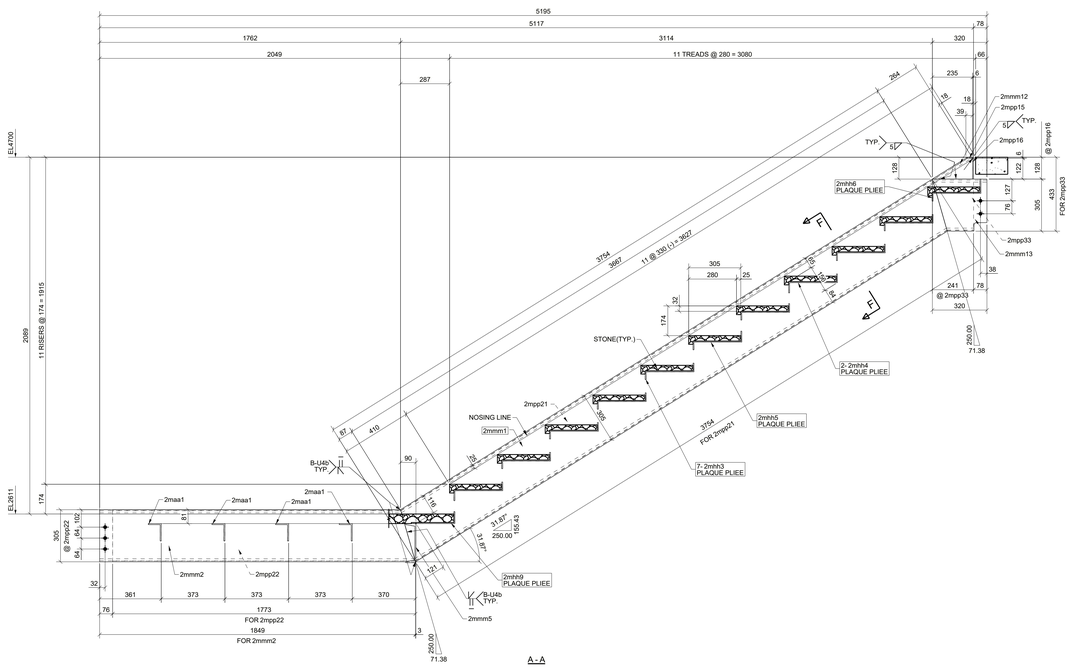
PAINT: 1-73/A SHOP PRIMER UNO.

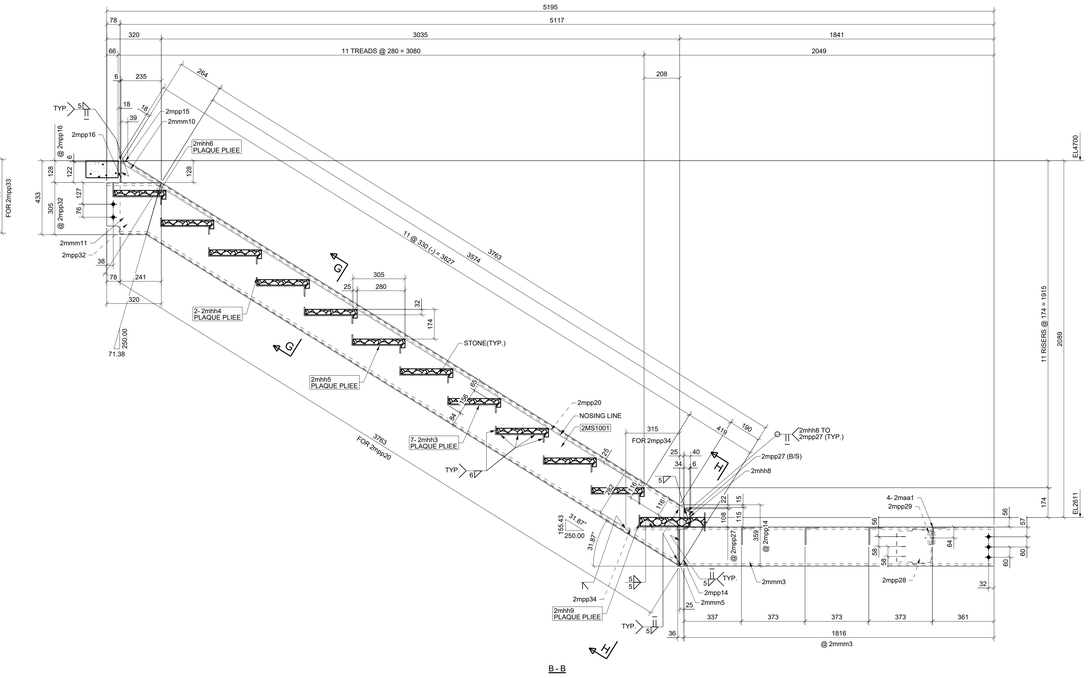
ORIENTATION MARK
CONNECTING SIDE MARK

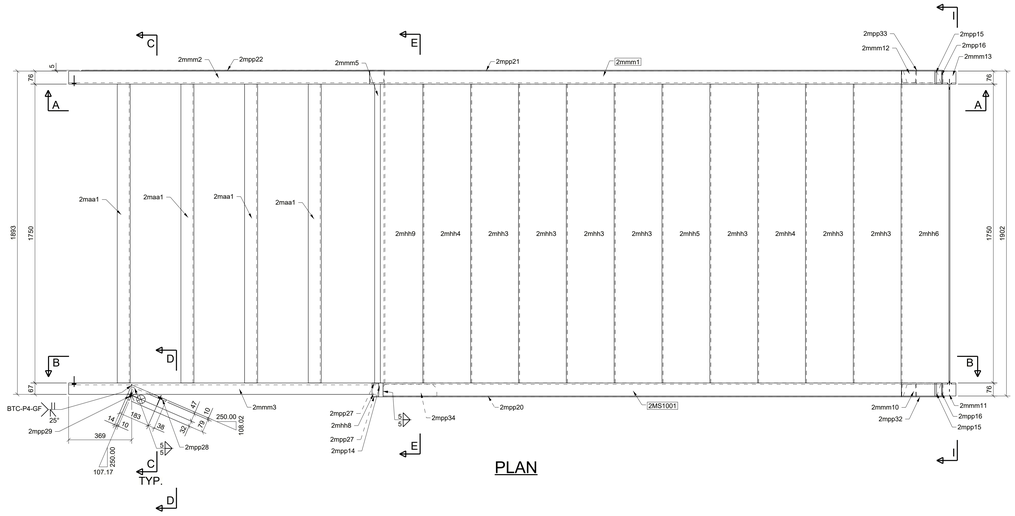
No.	Mark	Size	Grade	Length	Weight	Remarks
1	2AS1004					BEV-2
1	2AS1004	C310X31	300W	5856	180	
14	2aaa10	L38X38X4.8	300W	238	9	
1	2aaa11	L38X38X4.8	300W	543	1	
1	2aaa13	L38X38X4.8	300W	646	2	
1	2ahh1	PL10X188	300W	230	4	
1	2ahh20	PL10X152	300W	179	2	
1	2amm10	C310X31	300W	734	23	
1	2amm12	C310X31	300W	344	11	
1	2amm14	HSS64X64X4.8	A500-GR.C	826	7	
4	2amm16	HSS64X64X4.8	A500-GR.C	900	30	
1	2amm17	HSS64X64X4.8	A500-GR.C	891	7	
1	2amm20	HSS64X64X4.8	A500-GR.C	1102	9	
4	2amm32	HSS64X64X4.8	A500-GR.C	852	28	
5	2amm33	HSS64X64X4.8	A500-GR.C	993	41	
2	2amm34	HSS64X64X4.8	A500-GR.C	971	16	
1	2amm38	HSS64X64X4.8	A500-GR.C	738	6	
1	2amm51	HSS76X38X4.8	A500-GR.C	5311	44	
1	2amm52	HSS76X38X4.8	A500-GR.C	5254	44	
1	2amm54	HSS76X38X4.8	A500-GR.C	710	6	
1	2amm56	HSS76X38X4.8	A500-GR.C	252	2	
2	2amm58	HSS76X38X4.8	A500-GR.C	346	6	
1	2amm66	HSS76X38X4.8	A500-GR.C	301	3	
1	2amm68	HSS76X38X4.8	A500-GR.C	886	7	
1	2app1	PL10X127	300W	387	3	
1	2app2	PL10X127	300W	5304	53	
1	2app11	PL10X127	300W	301	3	
1	2app13	PL10X127	300W	755	7	
1	2app41	PL6X76	300W	79	0	
1	2app48	PL13X175	300W	363	5	
3		3/4"Ø A325N BOLT		50	0	
2		3/4"Ø A325N BOLT		57	0	
		Area/Ass'y (m²): 15.77		Gross/Ass'y	559	

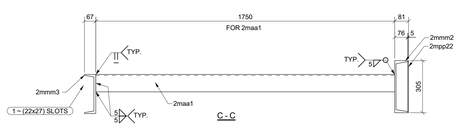
PLACER LA MARQUE DU MÊME CÔTÉ QUE LE SYMBOLE :

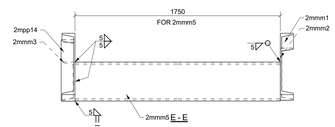
PHASE	QUANTITY
15	1

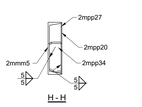


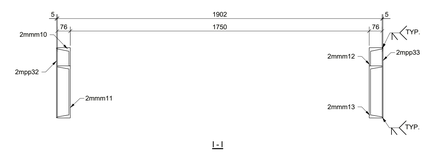


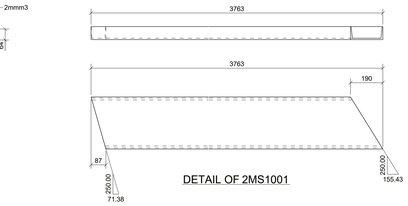












UN - STAIR - 2MS1001 - 1-73A SHOP PRIMER

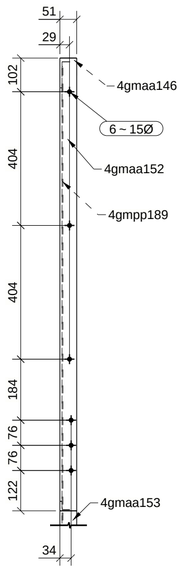
BILL OF MATERIAL

Qty Ea.	Qty Tot.	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
	1	2MS1001	STAIR					
1	1		C310X31	3763	116	BEV-2 1-73A SHOP PRIMER		300W
4	4	2maa1	L102X76X6.4	1750	60	1-73A SHOP PRIMER		300W
7	7	2mhh3	BPL6X364	1750	217	1-73A SHOP PRIMER		300W_PLIEE
2	2	2mhh4	BPL6X377	1750	64	1-73A SHOP PRIMER		300W_PLIEE
1	1	2mhh5	BPL6X377	1750	32	1-73A SHOP PRIMER		300W_PLIEE
1	1	2mhh6	BPL6X397	1750	34	1-73A SHOP PRIMER		300W_PLIEE
1	1	2mhh8	PL6X81	130	1	1-73A SHOP PRIMER		300W_PLIEE
1	1	2mhh9	BPL6X313	1774	26	1-73A SHOP PRIMER		300W_PLIEE
1	1	2mmm1	C310X31	3754	116	1-73A SHOP PRIMER		300W
1	1	2mmm2	C310X31	1849	57	1-73A SHOP PRIMER		300W
1	1	2mmm3	C230X30	1816	54	1-73A SHOP PRIMER		300W
1	1	2mmm5	C230X20	1750	35	1-73A SHOP PRIMER		300W
1	1	2mmm10	C310X31	264	8	1-73A SHOP PRIMER		300W
1	1	2mmm11	C310X31	320	10	1-73A SHOP PRIMER		300W
1	1	2mmm12	C310X31	264	8	1-73A SHOP PRIMER		300W
1	1	2mmm13	C310X31	320	10	1-73A SHOP PRIMER		300W
1	1	2mpp14	PL25X81	359	6	1-73A SHOP PRIMER		300W
2	2	2mpp15	PL6X38	76	0	1-73A SHOP PRIMER		300W
2	2	2mpp16	PL6X76	128	1	1-73A SHOP PRIMER		300W
1	1	2mpp20	PL5X305	3763	43	1-73A SHOP PRIMER		300W
1	1	2mpp21	PL5X305	3754	43	1-73A SHOP PRIMER		300W
1	1	2mpp22	PL5X305	1773	20	1-73A SHOP PRIMER		300W
2	2	2mpp27	PL5X34	108	0	1-73A SHOP PRIMER		300W
1	1	2mpp28	PL10X209	221	3	1-73A SHOP PRIMER		300W
1	1	2mpp29	PL10X76	79	0	1-73A SHOP PRIMER		300W
1	1	2mpp32	PL5X241	433	3	1-73A SHOP PRIMER		300W
1	1	2mpp33	PL5X241	433	3	1-73A SHOP PRIMER		300W
1	1	2mpp34	PL10X68	315	2	1-73A SHOP PRIMER		300W
			POIDS TOTAL (Kg)		971			

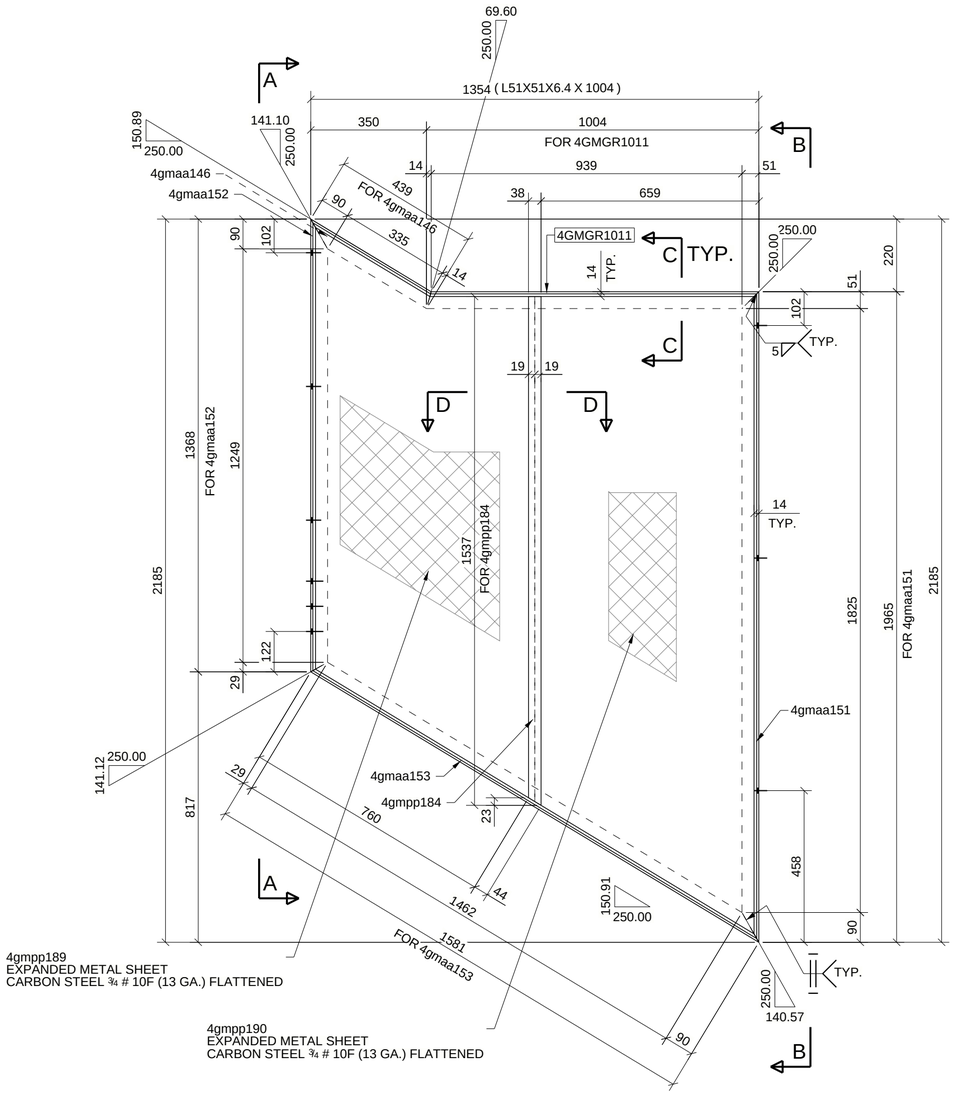
Tekla Structures

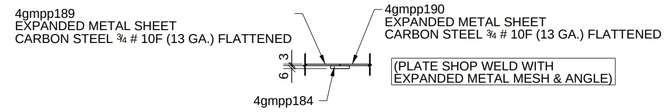
LOCALISATION	ELEV. DESSUS
B-B.8/6-5.5	+19.094

PLACER LA MARQUE DU MÊME CÔTÉ QUE LE SYMBOLE :

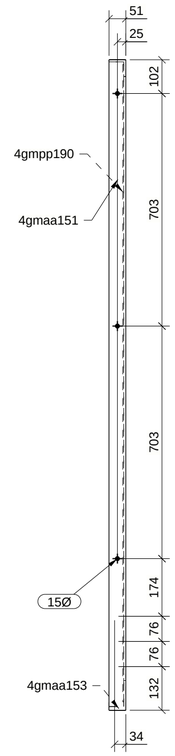


A - A

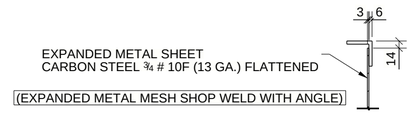




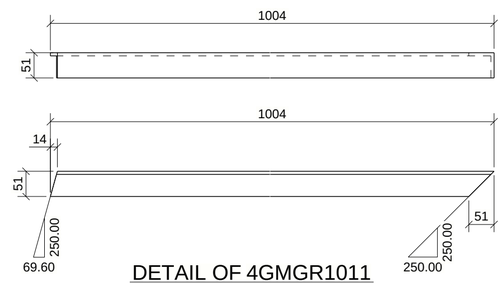
D - D



B - B



C - C



DETAIL OF 4GMGR1011

UN - GUARDRAIL - 4GMGR1011 - GALV

BILL OF MATERIAL

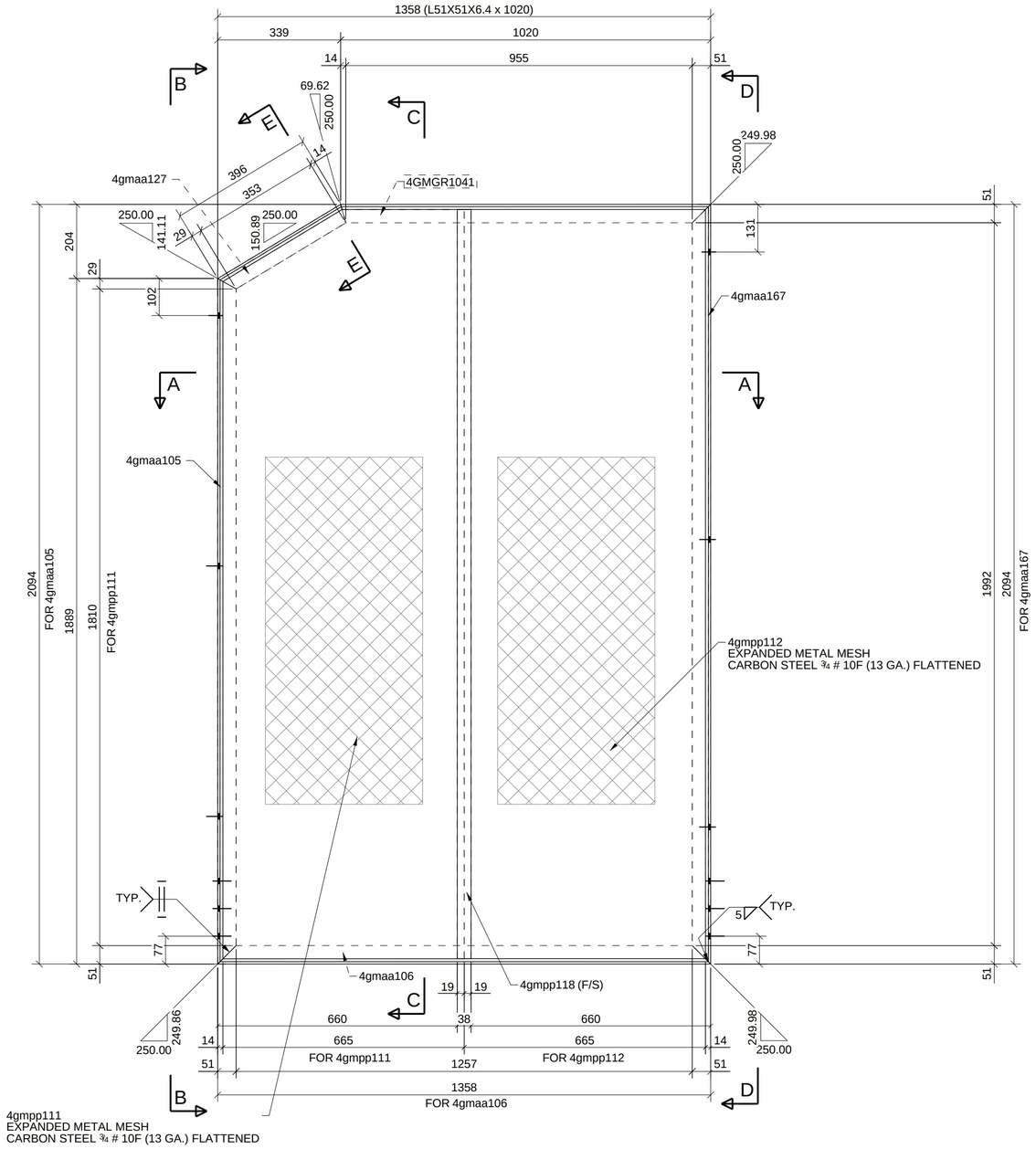
Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
	1	4GMGR1011	GUARDRAIL					
1	1		L51X51X6.4	1004	5	BEV-2 GALV		300W
1	1	4gmaa146	L51X51X6.4	439	2	GALV		300W
1	1	4gmaa151	L51X51X6.4	1965	9	GALV		300W
1	1	4gmaa152	L51X51X6.4	1368	7	GALV		300W
1	1	4gmaa153	L51X51X6.4	1581	8	GALV		300W
1	1	4gmpp184	PL6X38	1537	3	GALV		300W
1	1	4gmpp189	SHT13GAX662	1734	22	GALV		300W
1	1	4gmpp190	SHT13GAX662	1926	27	GALV		300W

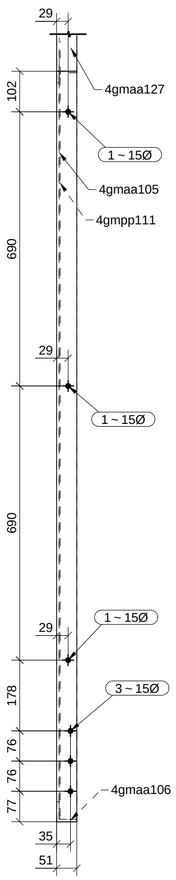
RAYON	14	SIC
GRADE ACIER	300W	SIC
ELECTRODES	E49XX	SIC
SOUDURES	6mm	SIC
TROUS	22Ø	SIC
BOULONS	A325N	SIC
PEINTURE	1-73/A PRIMER	SIC

Tekla Structures

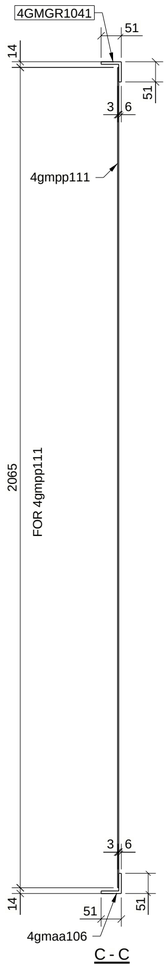
LOCALISATION	ELEV. DESSUS
D-E/6-5.5	+23.129

PLACER LA MARQUE DU MÊME CÔTÉ QUE LE SYMBOLE :

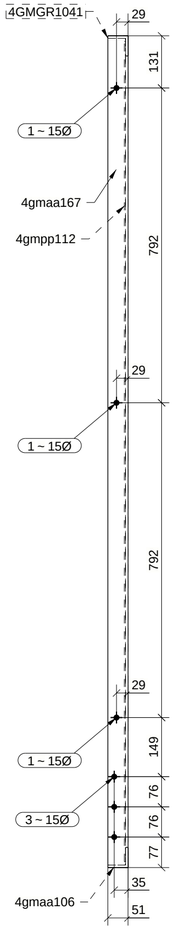




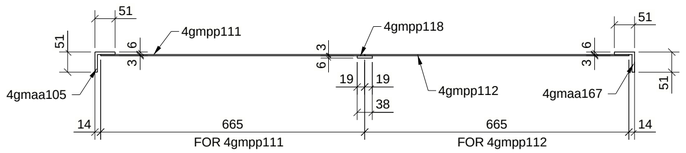
B - B



C - C



D - D

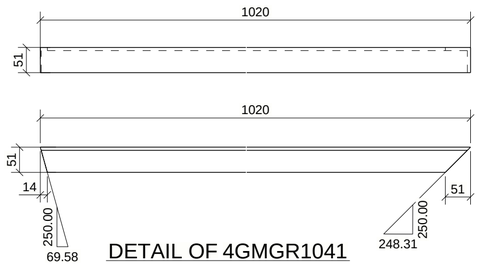


A - A

(PLATE SHOP WELD WITH EXPANDED METAL MESH AND ANGLE)

(EXPANDED METAL MESH SHOP WELD WITH ANGLE)

E - E



DETAIL OF 4GMGR1041

UN - GUARDRAIL - 4GMGR1041 - GALV

BILL OF MATERIAL

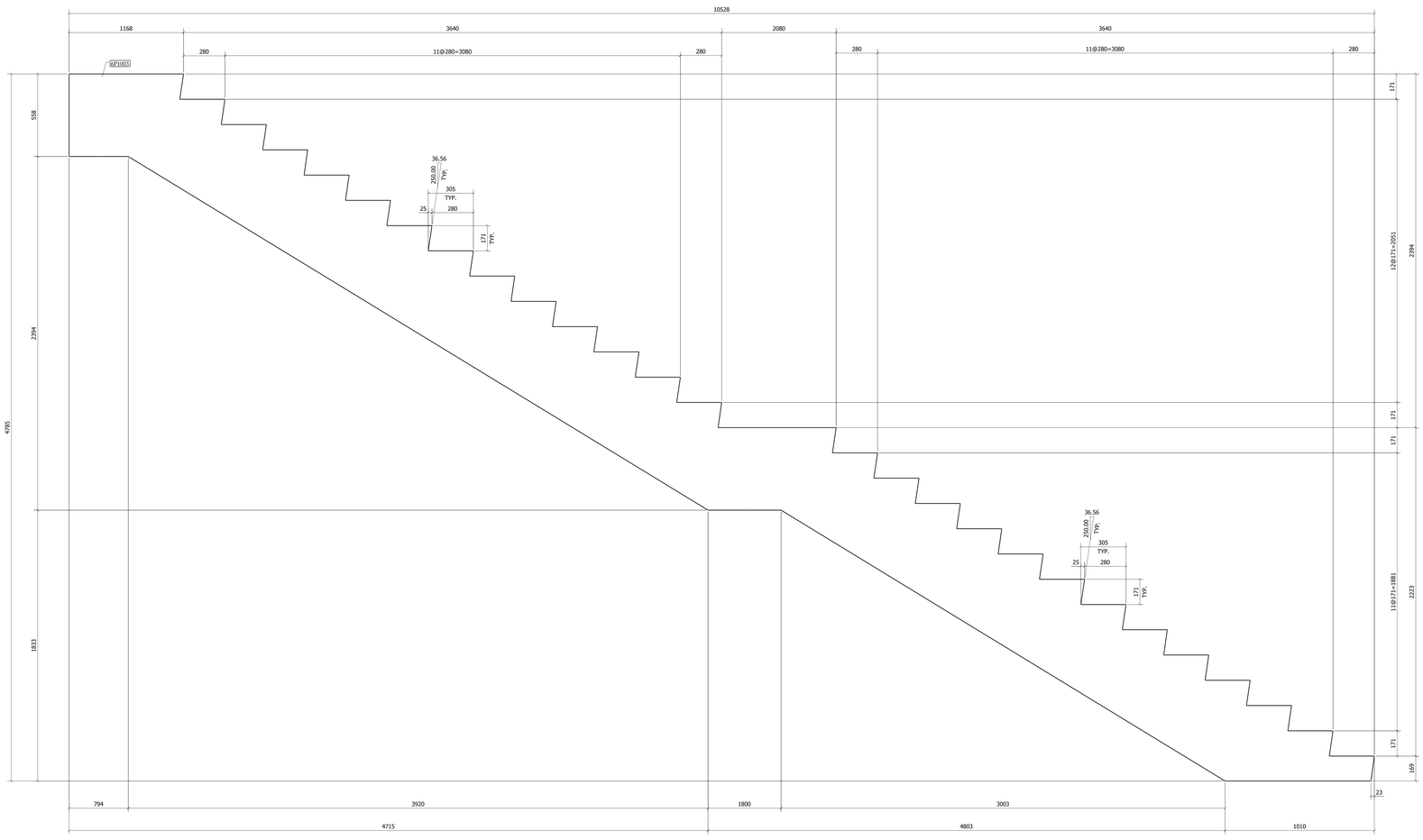
Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
	1	4GMGR1041	GUARDRAIL					
1	1		L51X51X6.4	1020	5	BEV-2 GALV		300W
1	1	4gmaa105	L51X51X6.4	1889	9	GALV		300W
1	1	4gmaa106	L51X51X6.4	1358	6	GALV		300W
1	1	4gmaa127	L51X51X6.4	396	2	GALV		300W
1	1	4gmaa167	L51X51X6.4	2094	10	GALV		300W
1	1	4gmpp111	SHT13GAX665	2065	32	GALV		300W
1	1	4gmpp112	SHT13GAX665	2065	32	GALV		300W
1	1	4gmpp118	PL6X38	2065	4	GALV		300W

RAYON	14	SIC
GRADE ACIER	300W	SIC
ELECTRODES	E49XX	SIC
SOUDURES	6mm	SIC
TROUS	22Ø	SIC
BOULONS	A325N	SIC
PEINTURE	1-73/A PRIMER	SIC

Tekla Structures

DIV	GRID LOC.	LEVEL
6	18-20/K-J	+19.148

TOTAL QTY	UNIT QTY	FIELD BOLTS	LENGTH



DETAIL OF 6P1003

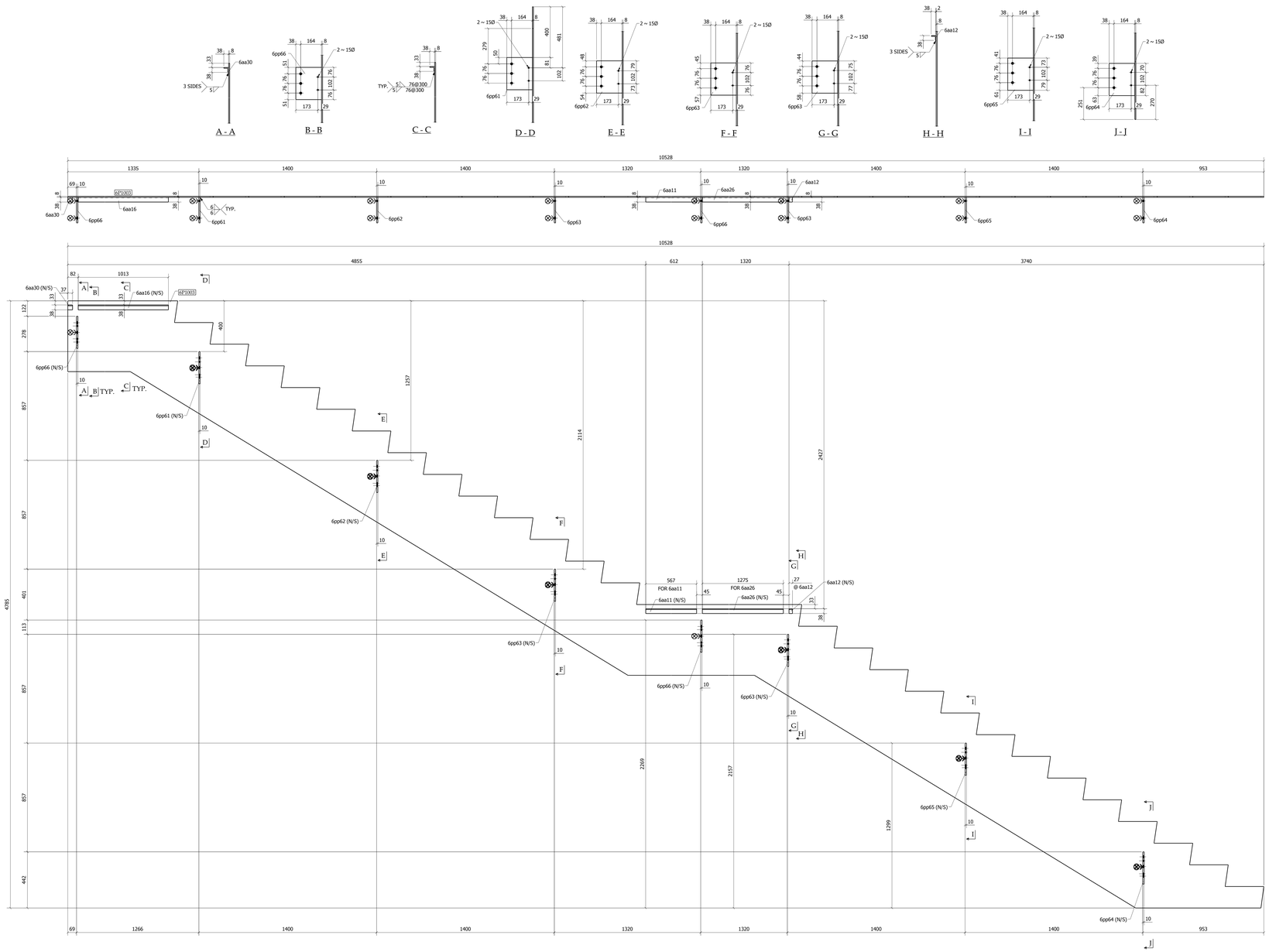
WORK THIS SHEET WITH 6P1003

ONE - PLATE - 6P1003

B - TYPE

DIV	GRID LOC.	LEVEL
6	18-20/K-J	+19.148

TOTAL QTY	UNIT QTY	FIELD BOLTS	LENGTH



WORK THIS SHEET WITH 6P1003-1

ONE - PLATE - 6P1003

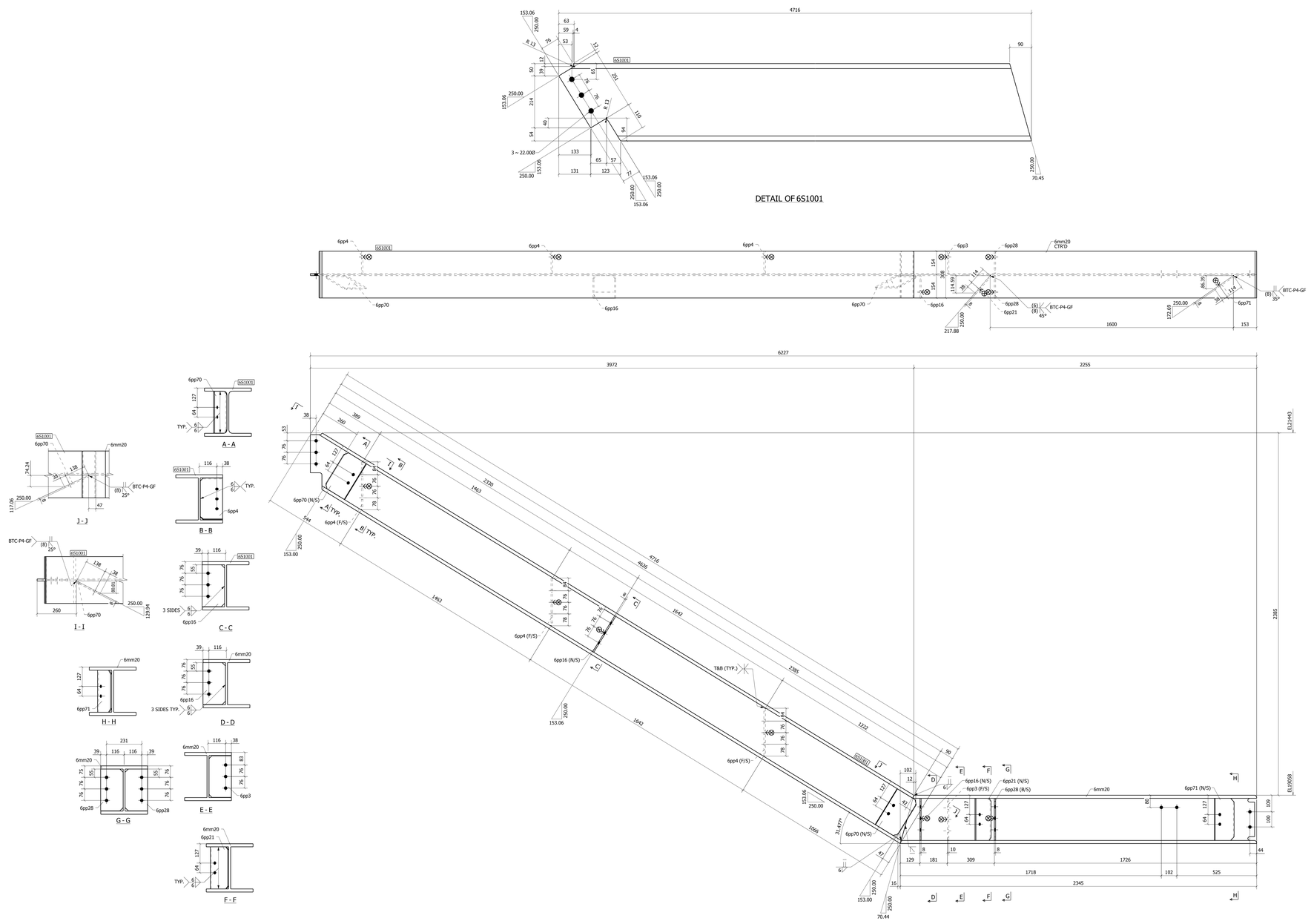
B - TYPE

GENERAL NOTES:	HOLES: 22Ø U.N.O.	WELDS: E70XX U.N.O	PAINT:	ORIENTATION MARK
	MATERIAL: 300W U.N.O.	BOLTS: A325 U.N.O	1-73/A SHOP PRIMER UNO	CONNECTING SIDE MARK

No.	Mark	Size	Grade	Length	Weight	Remarks
1	6P1003					SQ-2
1	6P1003	PL8X2023	300W	11459	416	
1	6aa11	L38X38X6.4	300W	567	2	
1	6aa12	L38X38X6.4	300W	27	0	
1	6aa16	L38X38X6.4	300W	1012	4	
1	6aa26	L38X38X6.4	300W	1275	4	
1	6aa30	L38X38X6.4	300W	37	0	
1	6pp61	PL10X202	300W	254	4	
1	6pp62	PL10X202	300W	254	4	
2	6pp63	PL10X202	300W	254	8	
1	6pp64	PL10X202	300W	254	4	
1	6pp65	PL10X202	300W	254	4	
2	6pp66	PL10X202	300W	254	8	
		Area/Ass'y (m²): 14.81	Gross/Ass'y		458	

DIV	GRID LOC.	LEVEL
6	18-19/K-J	+21.443

TOTAL QTY	UNIT QTY	FIELD BOLTS	LENGTH
14	3	19 DIA BOLT- A325N	51



ONE - STRINGER - 6S1001

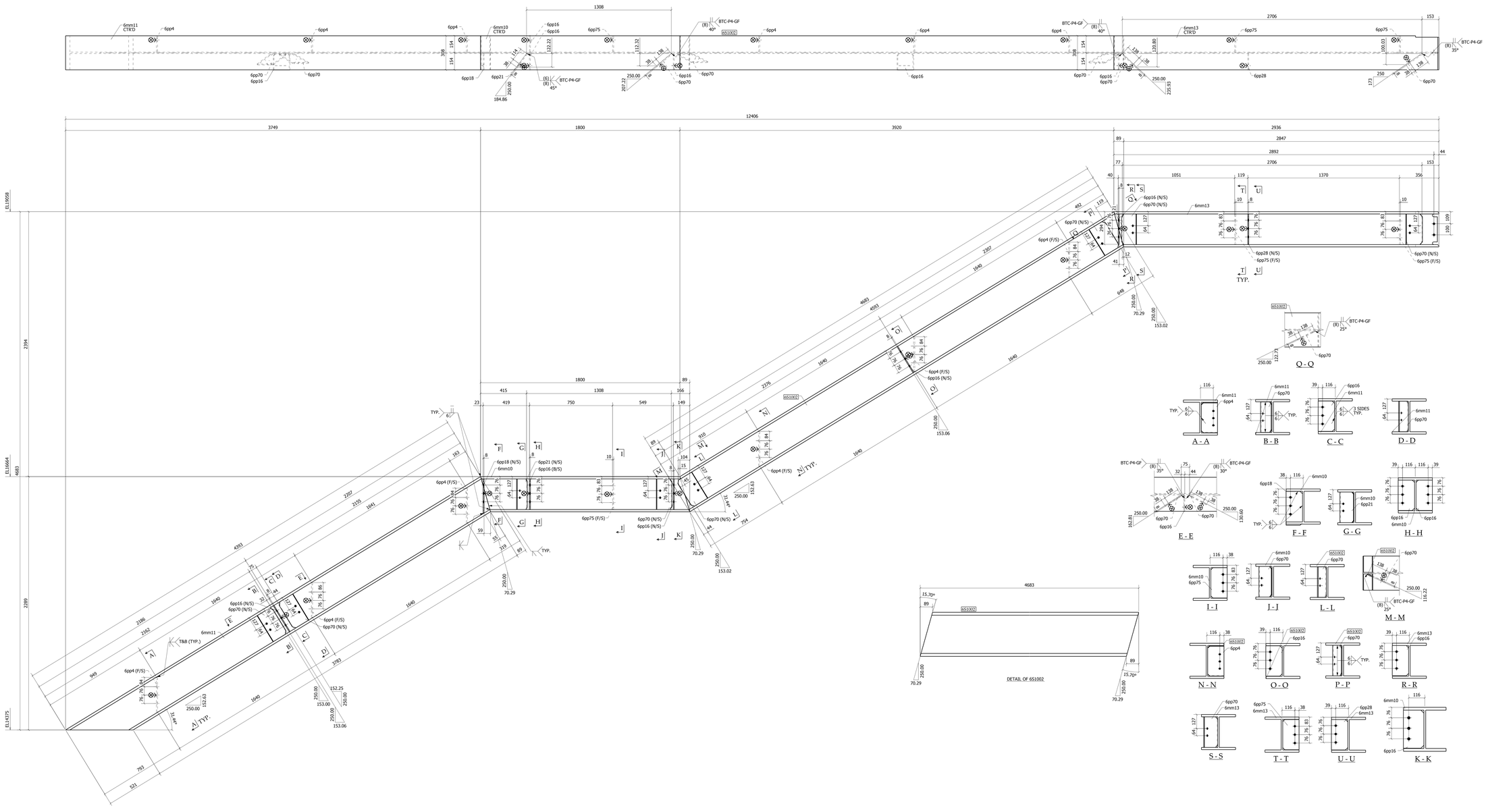
I - TYPE W12X87

GENERAL NOTES:	HOLES: 22Ø U.N.O.	WELDS: E70XX U.N.O	PAINT:	ORIENTATION MARK
	MATERIAL: 300W U.N.O.	BOLTS: A325 U.N.O	1-73/A SHOP PRIMER UNO	CONNECTING SIDE MARK

No.	Mark	Size	Grade	Length	Weight	Remarks
1	6S1001					BEV-2
1	6S1001	W310X129	A992	4715	611	
1	6mm20	W310X129	A992	2344	304	
1	6pp3	PL10X147	300W	273	3	
3	6pp4	PL10X147	300W	314	11	
2	6pp16	PL8X148	300W	275	5	
1	6pp21	PL8X152	300W	276	3	
2	6pp28	PL8X148	300W	275	5	
2	6pp70	PL8X176	300W	276	6	
1	6pp71	PL8X152	300W	276	3	
		Area/Ass'y (m²): 13.78	Gross/Ass'y		950	

DIV	GRID LOC.	LEVEL
6	18-19/K-J	+19.058

TOTAL QTY	UNIT QTY	FIELD BOLTS	LENGTH
2	2	19 DIA BOLT- A325N	51



ONE - STRINGER - 6S1002

I - TYPE W12X87

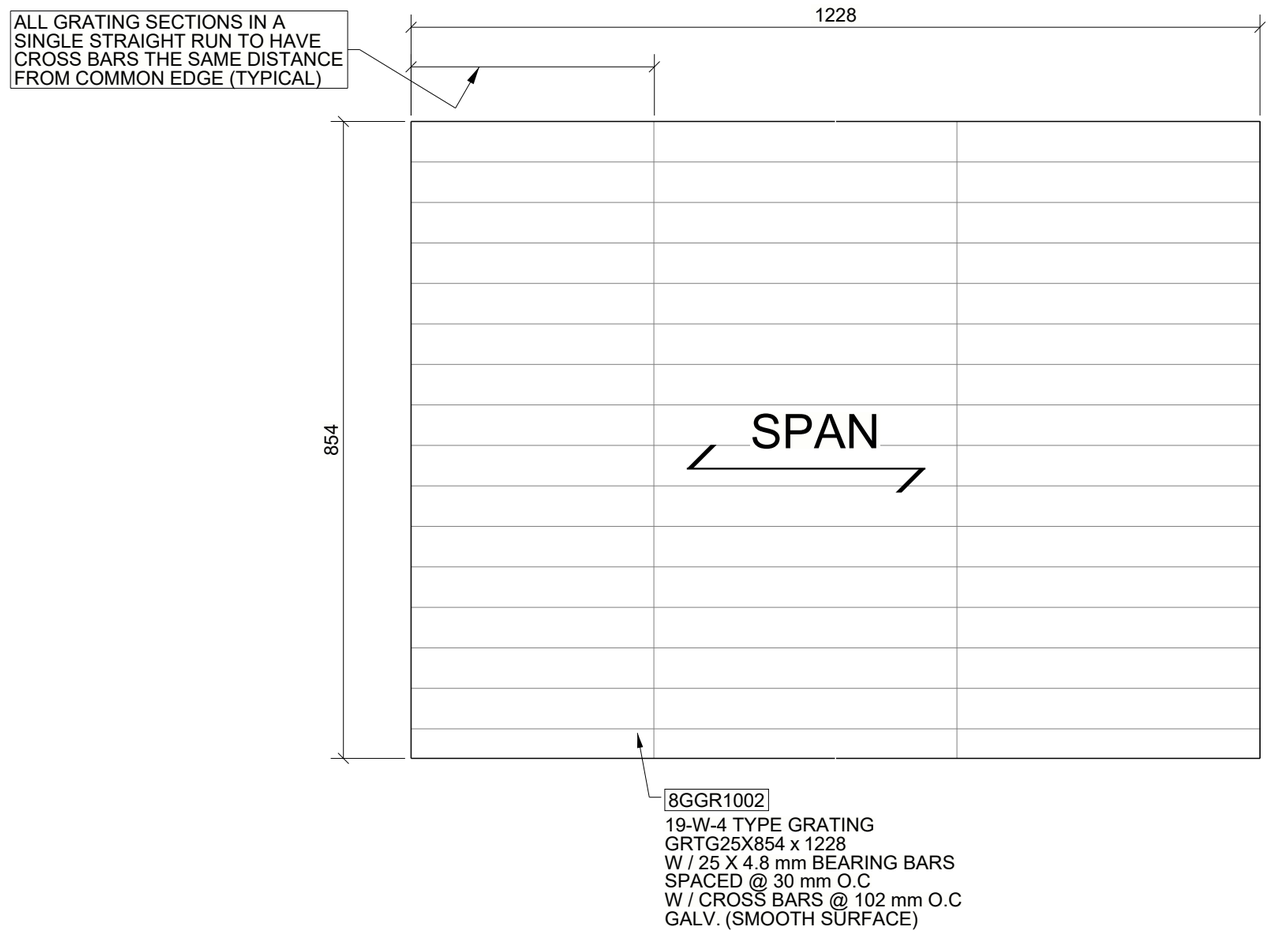
GENERAL NOTES:	HOLES: 22Ø U.N.O.	WELDS: E70XX U.N.O	PAINT:	▼ ORIENTATION MARK
	MATERIAL: 300W U.N.O.	BOLTS: A325 U.N.O	1-73/A SHOP PRIMER UNO	∨ CONNECTING SIDE MARK

No.	Mark	Size	Grade	Length	Weight	Remarks
1	6S1002					BEV-2
1	6S1002	W310X129	A992	4682	607	
1	6mm10	W310X129	A992	1889	245	
1	6mm11	W310X129	A992	4393	569	
1	6mm13	W310X129	A992	2936	380	
6	6pp4	PL10X147	300W	314	22	
6	6pp16	PL8X148	300W	273	15	
1	6pp18	PL8X148	300W	306	3	
1	6pp21	PL8X152	300W	276	3	
1	6pp28	PL8X148	300W	275	3	
7	6pp70	PL8X176	300W	276	21	
3	6pp75	PL10X147	300W	273	9	
		Area/Ass'y (m²): 27.14	Gross/Ass'y		1876	

LOCALISATION	ELEV. DESSUS
10-11/D.4-D	+74.140

PLACER LA MARQUE DU MÊME CÔTÉ QUE LE SYMBOLE :

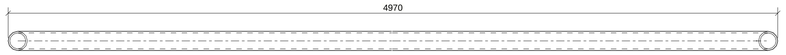
UN - GRATING - 8GGR1002 - GALV.



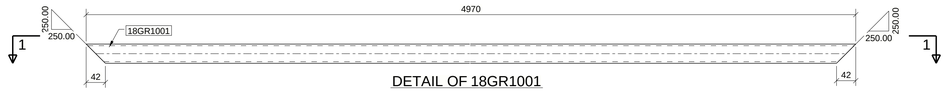
BILL OF MATERIAL

Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
	1	8GGR1002	GRATING					
1	1		GRTG25X854	1228	206	SQ-2 GALV.		350W
				POIDS TOTAL (Kg)	206			

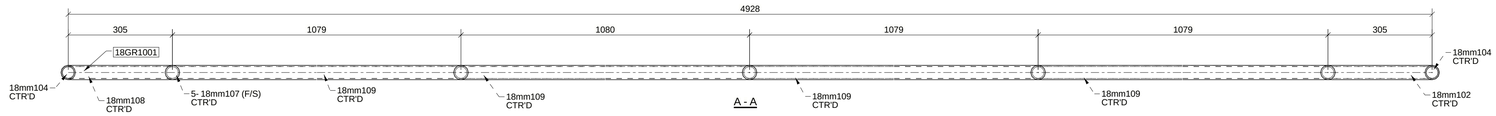
PLACER LA MARQUE DU MÊME CÔTÉ QUE LE SYMBOLE :



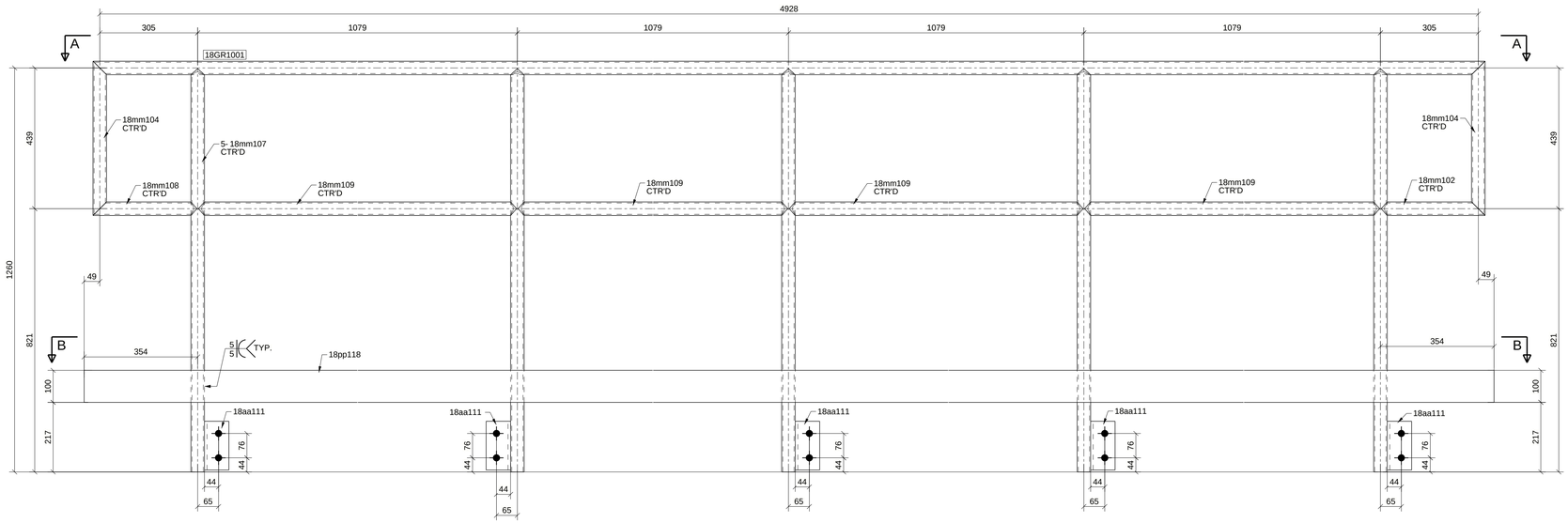
1 - 1

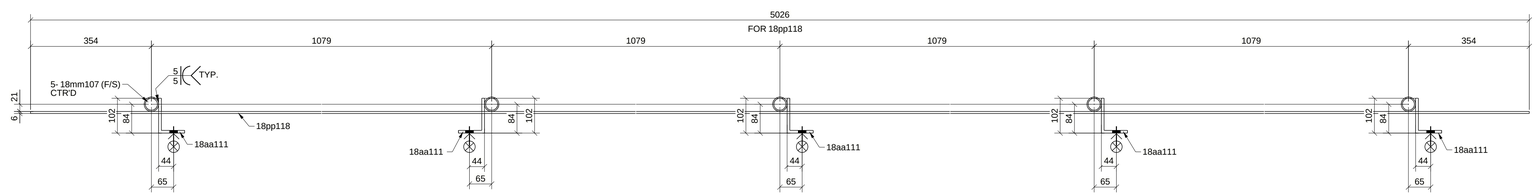


DETAIL OF 18GR1001



A - A





B - B

UN - GUARD RAIL - 18GR1001 - AMERCOAT 450

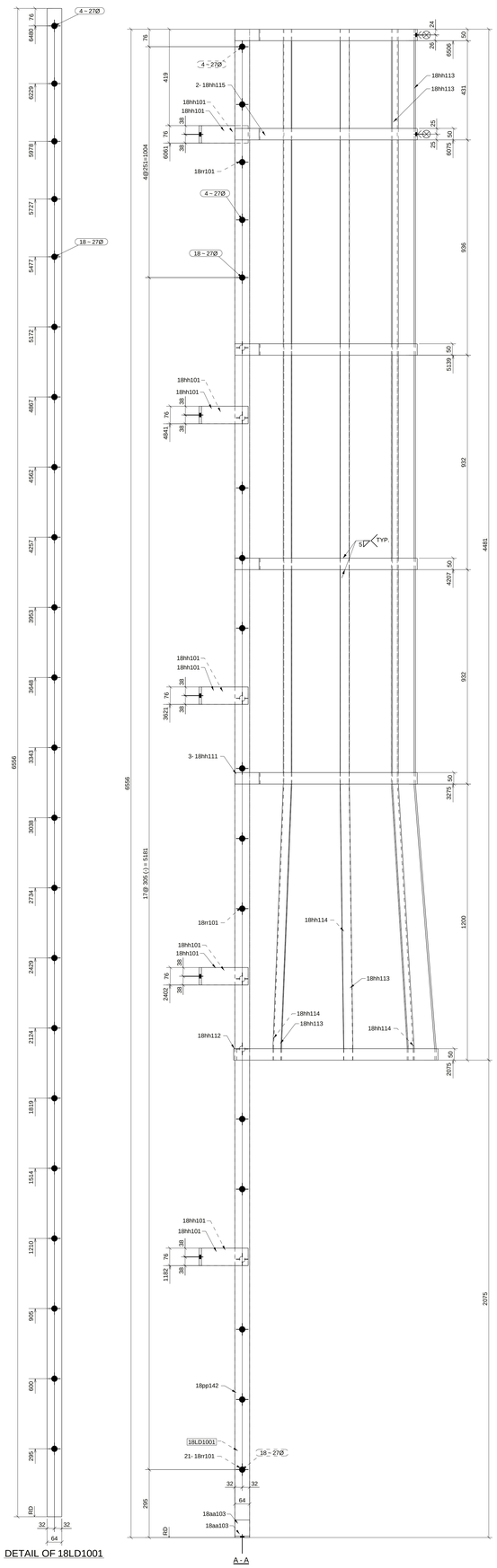
BILL OF MATERIAL

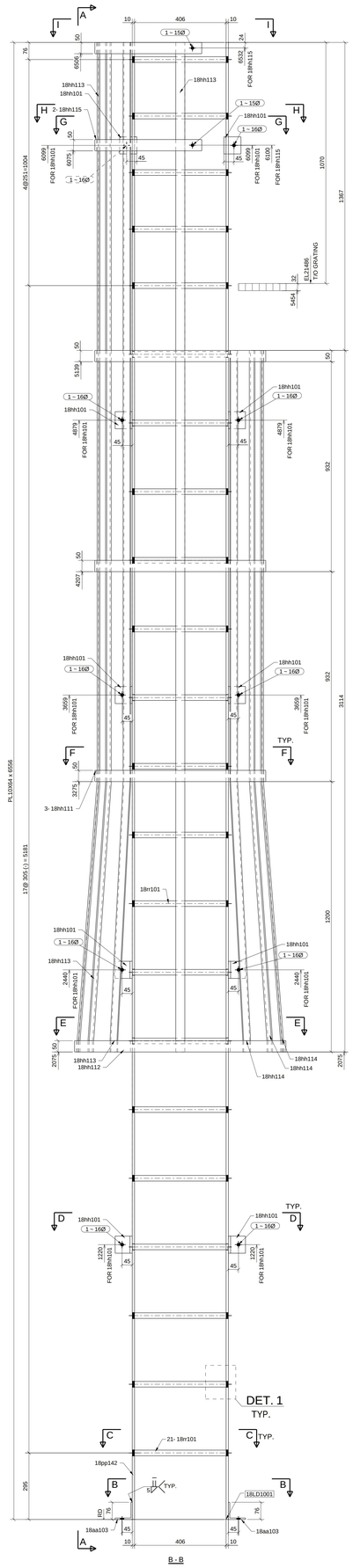
Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
	1	18GR1001	GUARD RAIL					
1	1		PIPE32STD	4970	16	BEV-2 AMERCOAT 450		A53
5	5	18aa111	L102X76X7.9	152	8	AMERCOAT 450		350W
1	1	18mm102	PIPE32STD	324	1	AMERCOAT 450		A53
2	2	18mm104	PIPE32STD	481	3	AMERCOAT 450		A53
5	5	18mm107	PIPE32STD	1258	20	AMERCOAT 450		A53
1	1	18mm108	PIPE32STD	324	1	AMERCOAT 450		A53
4	4	18mm109	PIPE32STD	1076	14	AMERCOAT 450		A53
1	1	18pp118	PL6X100	5026	24	AMERCOAT 450		300W

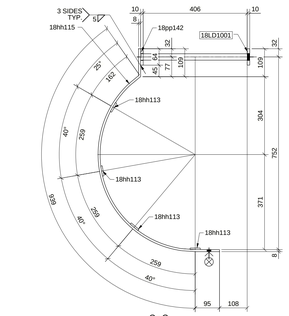
Tekla Structures

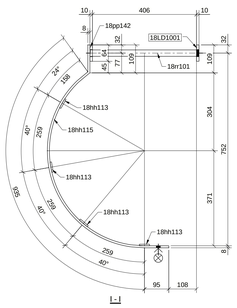
LOCALISATION	ELEV. DESSOUS
CV.e/40	+16.000

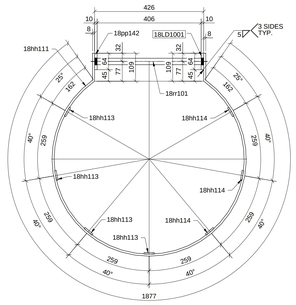
PLACER LA MARQUE DU MÊME CÔTÉ QUE LE SYMBOLE :

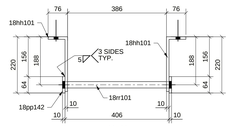


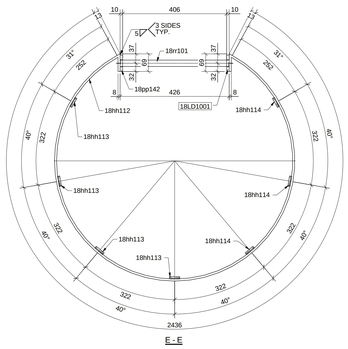


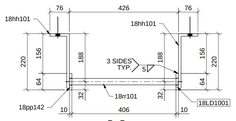


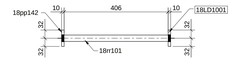


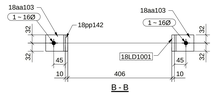












UN - LADDER - 18LD1001 - AMERCOAT 450

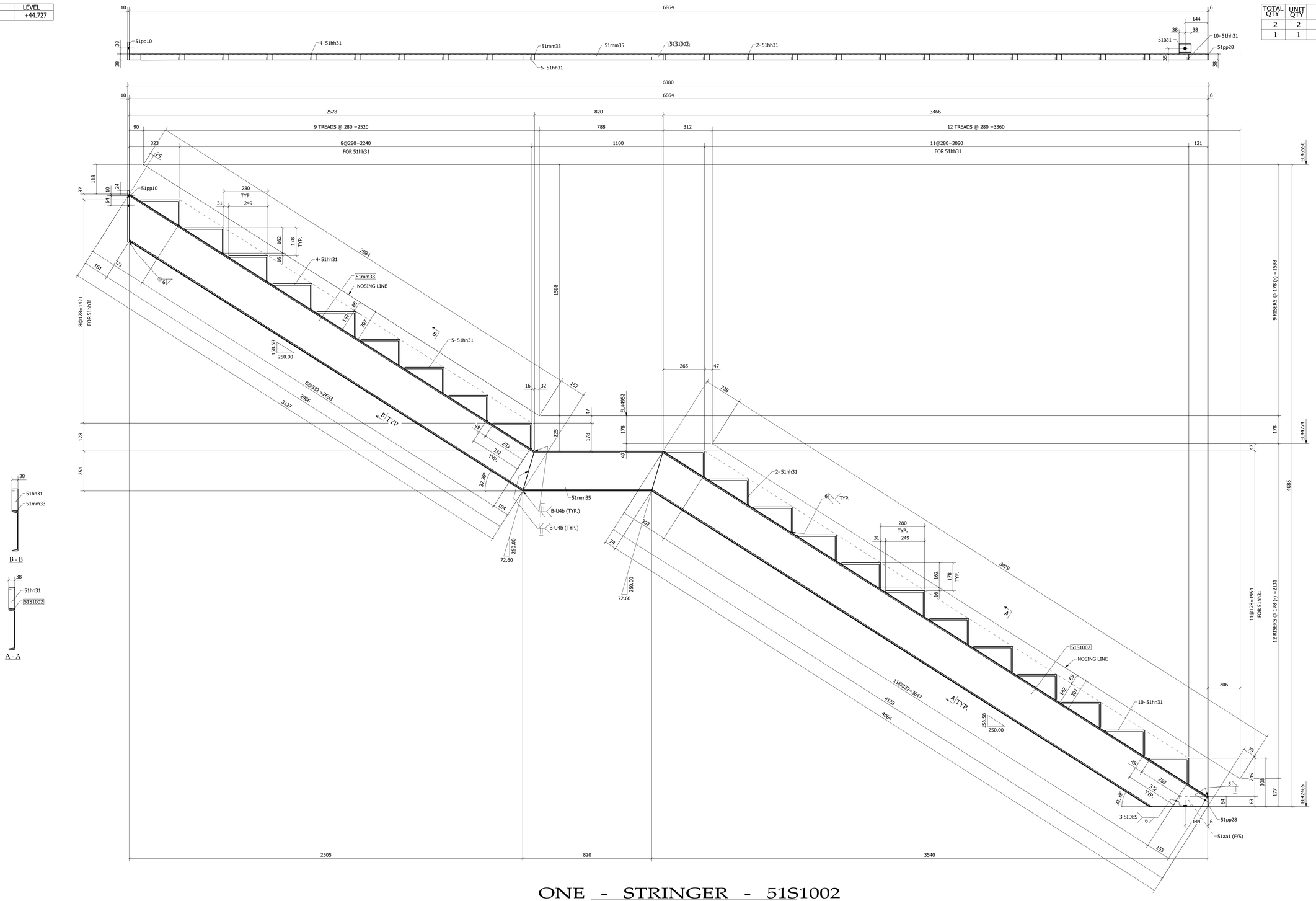
BILL OF MATERIAL

Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
	1	18LD1001	LADDER					
1	1		PL10X64	6556	33	SQ-2 AMERCOAT 450		300W
2	2	18aa103	L76X76X6.4	64	1	AMERCOAT 450		350W
10	10	18hh101	PL10X76	269	17	AMERCOAT 450		300W
3	3	18hh111	PL8X51	2100	20	AMERCOAT 450		300W
1	1	18hh112	PL8X51	2568	8	AMERCOAT 450		300W
4	4	18hh113	PL6X40	4484	34	AMERCOAT 450		300W
3	3	18hh114	PL6X40	3117	18	AMERCOAT 450		300W
2	2	18hh115	PL8X51	1145	7	AMERCOAT 450		300W
1	1	18pp142	PL10X64	6556	33	AMERCOAT 450		300W
22	22	18rr101	ROD25	420	34	AMERCOAT 450		300W

Tekla Structures

DIV	GRID LOC.	LEVEL
51	10/L.8-L.1	+44.727

TOTAL QTY	UNIT QTY	FIELD BOLTS	LENGTH
2	2	12 DIA BOLT- HILTI_KWIK	76
1	1	19 DIA BOLT- HILTI_KWIK	76



ONE - STRINGER - 51S1002

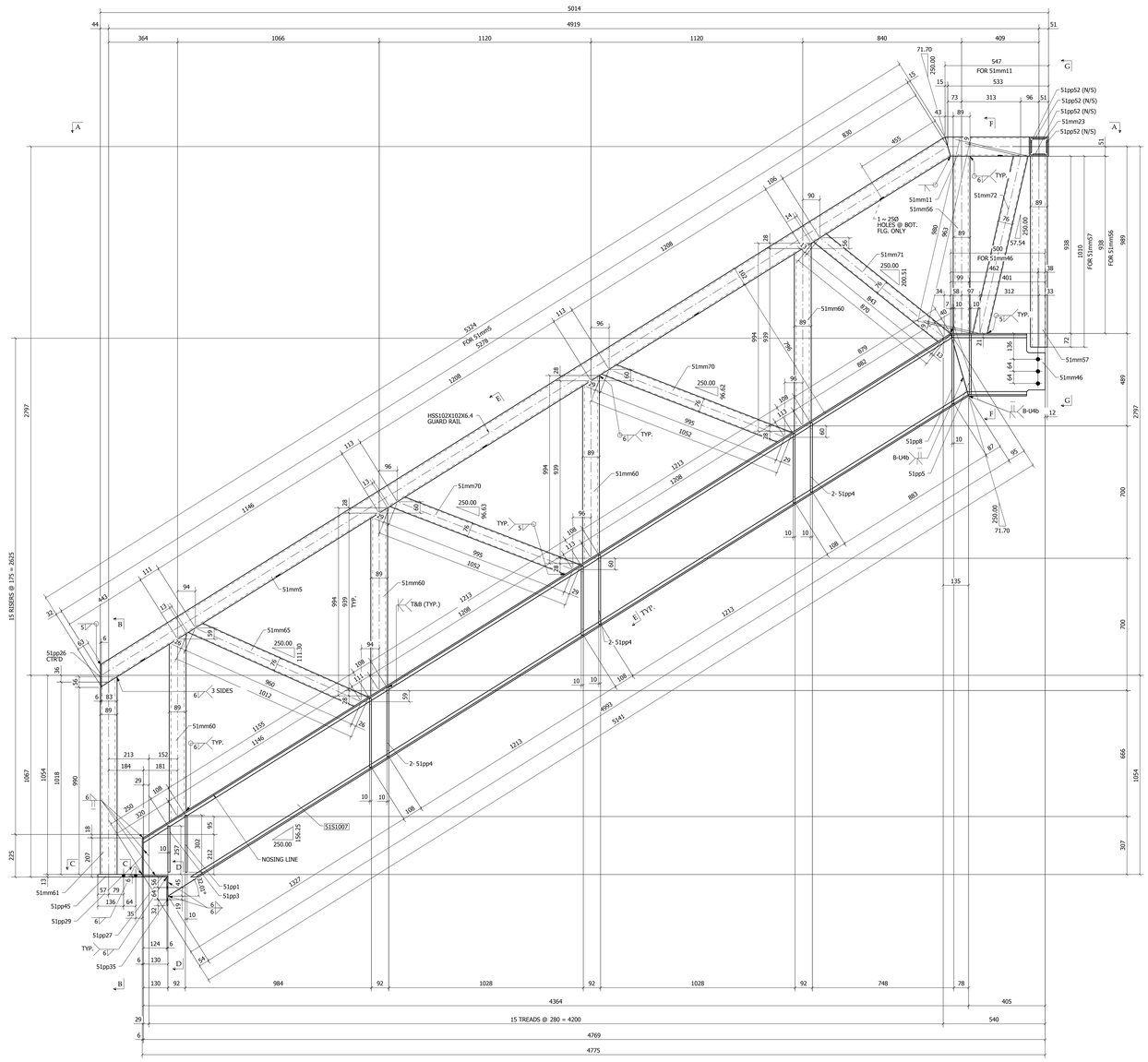
U - TYPE MC10X8.4

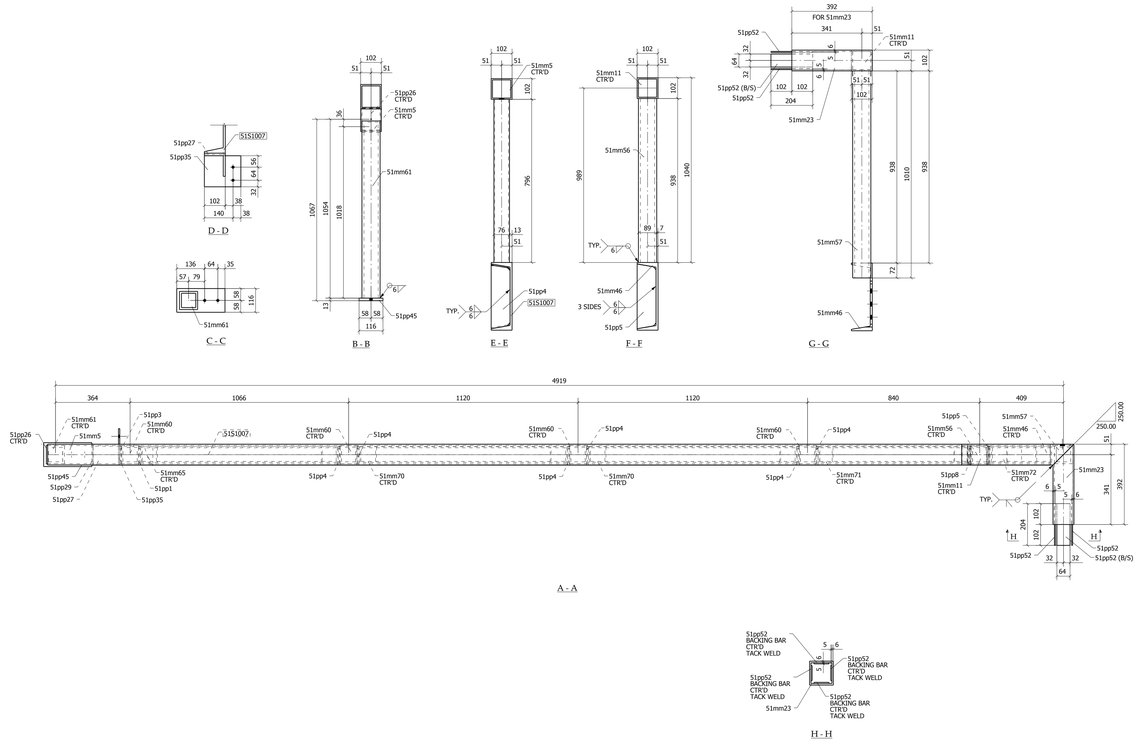
GENERAL NOTES:	HOLES: 21mmØ U.N.O.	WELDS: E49XX U.N.O	PAINT:	ORIENTATION MARK
	MATERIAL: 300W U.N.O.	BOLTS: A325 U.N.O	CPMA 1/73A U.N.O.	CONNECTING SIDE MARK

No.	Mark	Size	Grade	Length	Weight	Remarks
1	51S1002					BEV-2
1	51S1002	MC250X12.5	300W	4138	51	
1	51aa1	L64X64X9.5	300W	76	1	
21	51hh31	B_PL161.61X248.9X10	300W	38	25	
1	51mm33	MC250X12.5	300W	3127	39	
1	51mm35	MC250X12.5	300W	893	11	
1	51pp10	PL10X114	300W	330	3	
1	51pp28	PL6X38	300W	63	0	
		Area/Ass'y (m²): 5.94	Gross/Ass'y		130	

DIV	GRID LOC.	LEVEL
51	10.4/L6-K	+49.375

TOTAL QTY	UNIT QTY	FIELD BOLTS	LENGTH
4	2	12 DIA BOLT- HILTI_KWIK	76
3	3	19 DIA BOLT- A325N	51





ONE - STRINGER - 51S1007

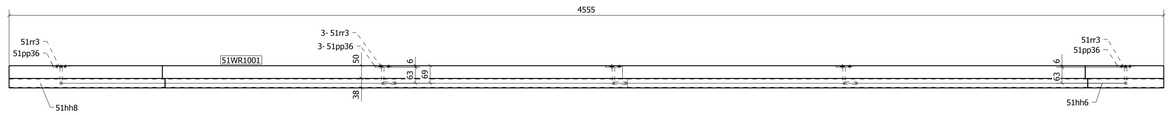
U - TYPE MC13X31.8

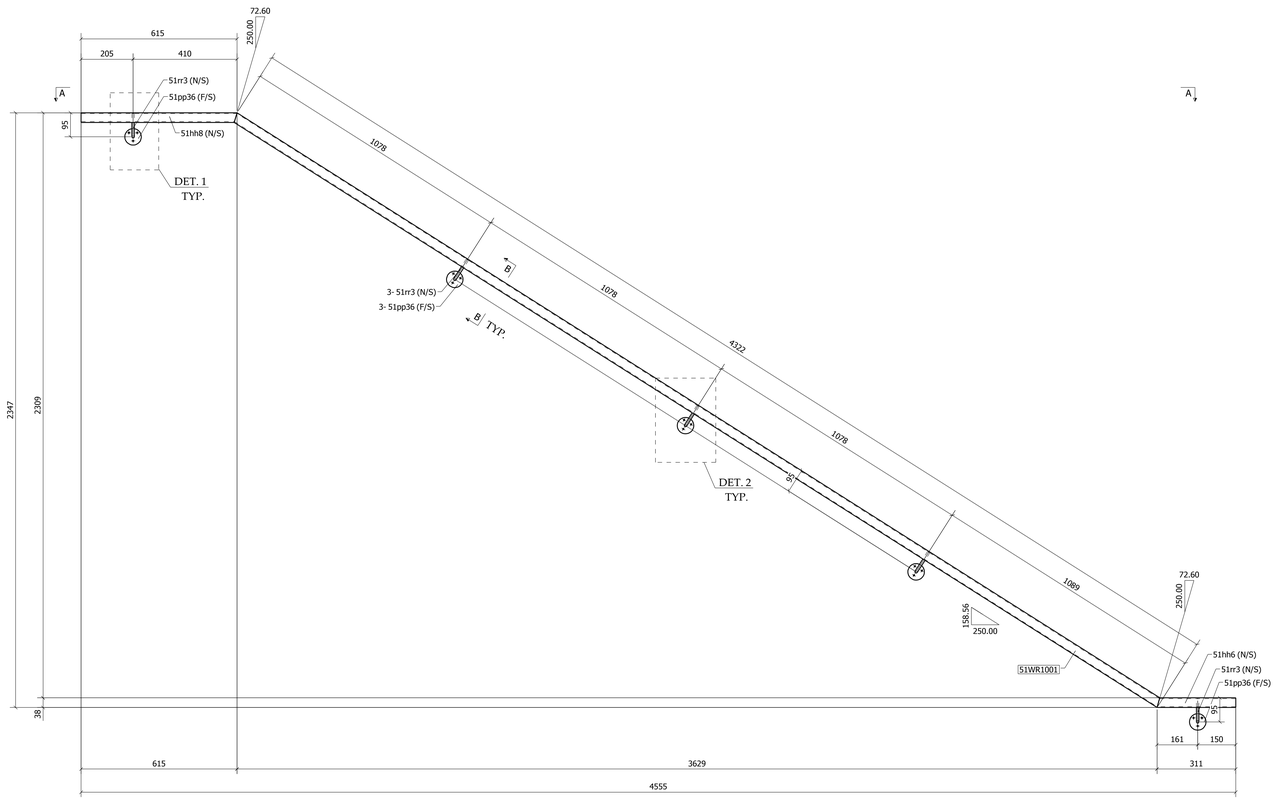
GENERAL NOTES:	HOLES: 21mmØ U.N.O.	WELDS: E49XX U.N.O	PAINT:	▼ ORIENTATION MARK
	MATERIAL: 300W U.N.O.	BOLTS: A325 U.N.O	CPMA 1/73A U.N.O.	∨ CONNECTING SIDE MARK

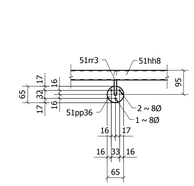
No.	Mark	Size	Grade	Length	Weight	Remarks
1	51S1007					SQ-1/BEV-1
1	51S1007	MC330X47.3	300W	5140	244	
1	51mm5	HSS102X102X6.4	A500-GR.C	5324	97	
1	51mm11	HSS102X102X6.4	A500-GR.C	547	10	
1	51mm23	HSS102X102X6.4	A500-GR.C	392	7	
1	51mm46	MC330X47.3	300W	499	24	
1	51mm56	HSS89X89X9.5	A500-GR.C	938	21	
1	51mm57	HSS89X89X9.5	A500-GR.C	1010	22	
4	51mm60	HSS89X89X9.5	A500-GR.C	994	87	
1	51mm61	HSS89X89X9.5	A500-GR.C	1045	23	
1	51mm65	HSS76X76X4.8	A500-GR.C	1011	10	
2	51mm70	HSS76X76X4.8	A500-GR.C	1052	22	
1	51mm71	HSS76X76X4.8	A500-GR.C	870	9	
1	51mm72	HSS76X76X4.8	A500-GR.C	980	10	
1	51pp1	PL10X92	300W	301	2	
1	51pp3	PL10X92	300W	244	2	
6	51pp4	PL10X92	300W	366	15	
1	51pp5	PL10X92	300W	315	2	
1	51pp8	PL10X89	300W	362	2	
1	51pp26	PL6X92	300W	109	0	
1	51pp27	PL6X102	300W	130	1	
1	51pp29	PL6X102	300W	207	1	
1	51pp35	PL6X152	300W	177	1	
1	51pp45	PL13X116	300W	235	3	
4	51pp52	PL5X64	300W	203	2	
		Area/Ass'y (m²): 12.91	Gross/Ass'y		617	

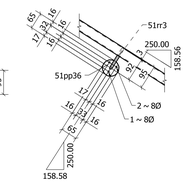
DIV	GRID LOC.	LEVEL
51	10-10.4/L.8-L.1	+45.694

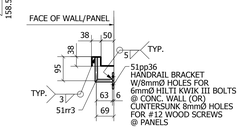
TOTAL QTY	UNIT QTY	FIELD BOLTS	LENGTH
15	2	6 DIA BOLT- WEDGE_ANC	19

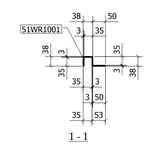


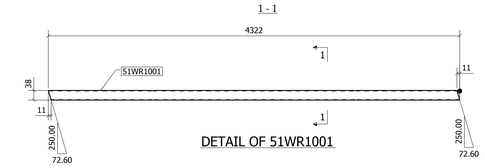












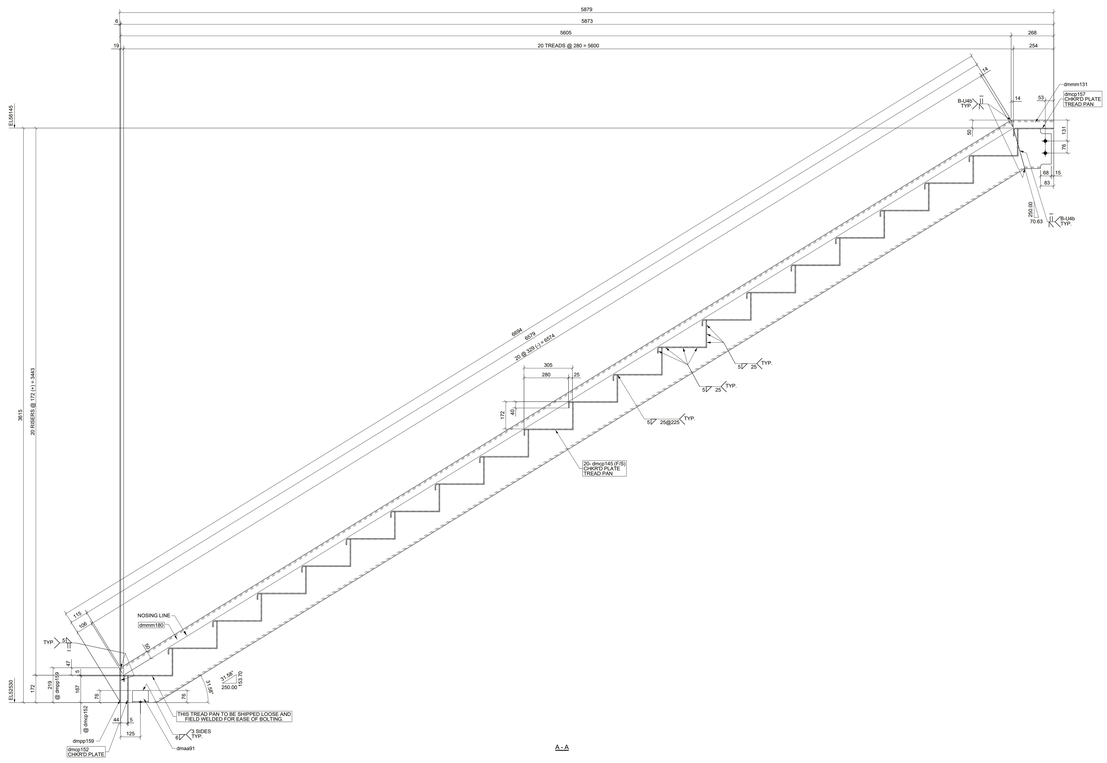
ONE - WALL RAIL - 51WR1001

B - TYPE

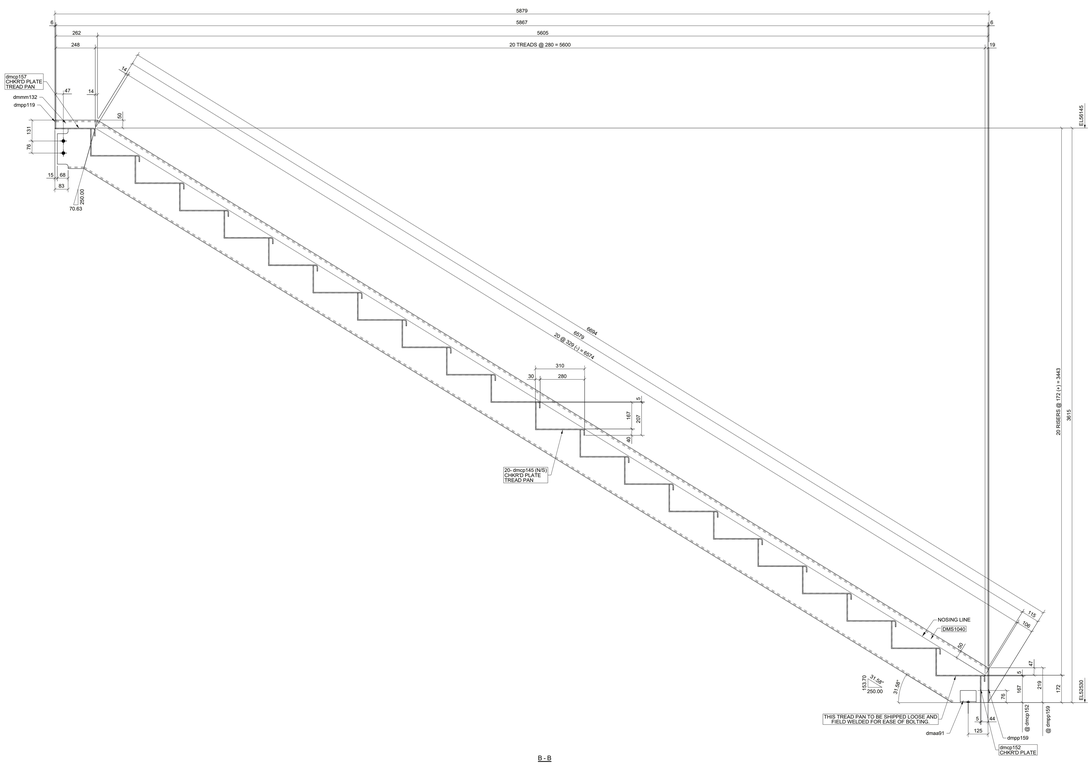
GENERAL NOTES:	HOLES: 21mmØ U.N.O.	WELDS: E49XX U.N.O	PAINT:	▼ ORIENTATION MARK
	MATERIAL: 300W U.N.O.	BOLTS: A325 U.N.O	CPMA 1/73A U.N.O.	∨ CONNECTING SIDE MARK

No.	Mark	Size	Grade	Length	Weight	Remarks
1	51WR1001					SQ-2
1	51WR1001	BPL3X149	300W	4330	16	STAINLESS STEEL
1	51hh6	BPL3X149	300W	320	1	STAINLESS STEEL
1	51hh8	BPL3X149	300W	615	2	STAINLESS STEEL
5	51pp36	PL6X65	300W	65	1	STAINLESS STEEL
5	51rr3	ROD10	300W	155	0	STAINLESS STEEL
		Area/Ass'y (m²): 1.75	Gross/Ass'y		21	

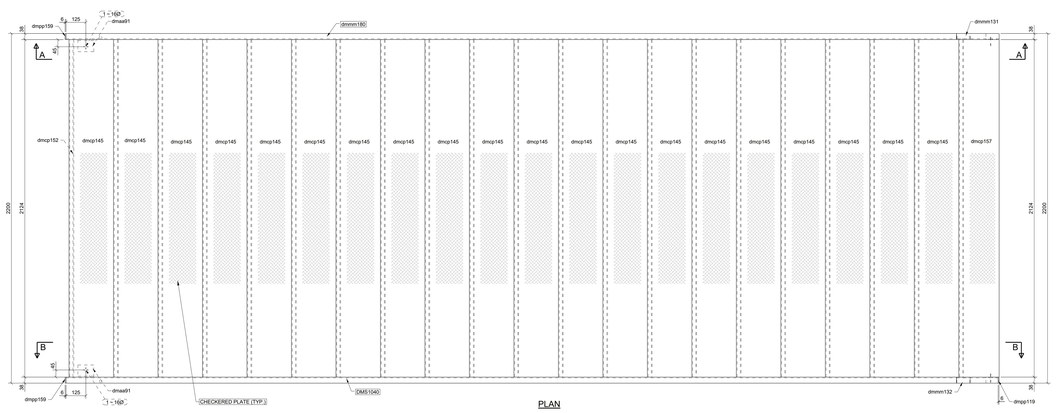
PLACER LA MARQUE DU MÊME CÔTÉ QUE LE SYMBOLE :



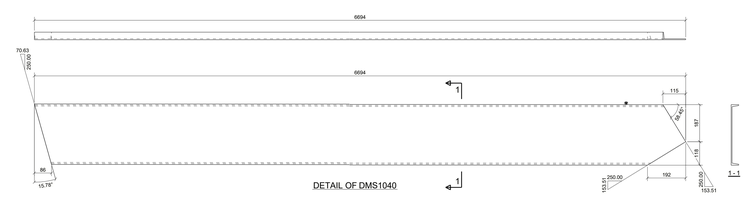
A - A



B - B



PLAN



DETAIL OF DMS1040

UN - STAIR - DMS1040 - 1-73A SHOP PRIMER

BILL OF MATERIAL

Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
	1	DMS1040	STAIR					
1	1		MC310X15.8	6694	105	BEV-2 1-73A SHOP PRIMER		300W
2	2	dmaa91	L76X76X6.4	100	1			300W
20	20	dmcp145	CHKD_PLT5X509	2124	845			300W_PLEE
1	1	dmcp152	CHKD_PLT5X167	2124	14			300W
1	1	dmcp157	CHKD_PLT5X291	2124	24			300W_PLEE
1	1	dmmm131	MC310X15.8	268	4			300W
1	1	dmmm132	MC310X15.8	262	4			300W
1	1	dmmm180	MC310X15.8	6694	105			300W
1	1	dmpp119	PL6X38	55	0			300W
2	2	dmpp159	PL6X38	219	1			300W
POIDS TOTAL (Kg)					1104			