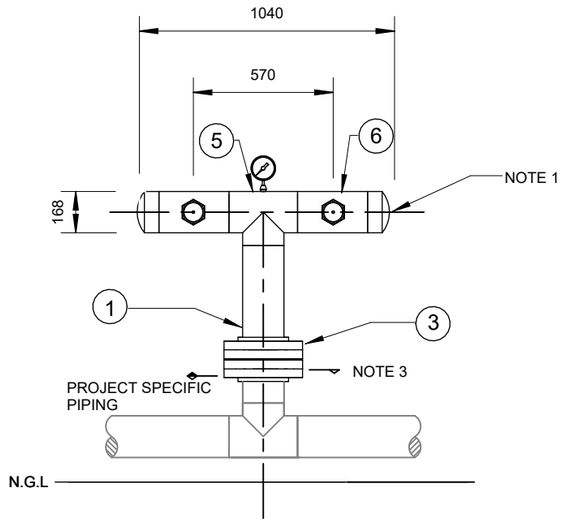
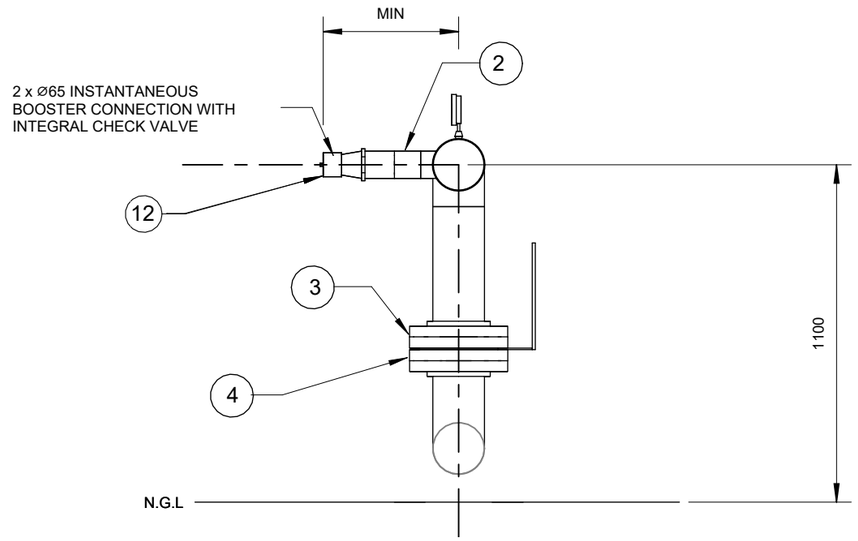


FRONT VIEW

SCALE: N.T.S



SIDE VIEW

SCALE: N.T.S

DRAWING NOTES

1 DRILL AND TAP END CAP TO SUIT 100NB PLUG. SUPPLY AND INSTALL PLUG USING HEMP AND STAG.

2 CONTRACTOR TO DESIGN FIRE WATER TANK REFILL CONECTION TO SUIT PIPING CHANGE. FIRE WATER TANK REFILL CONNECTION TO MAINTAIN THE STANDARD HEIGHT.

3 REFER TO ISOMETRIC FOR CONTINUATION DETAILS.

4 CONTRACTOR TO DETERMINE DURING DETAILED DESIGN.

PL SPECIFICATIONS

PL 898 BUTTERFLY VALVE SPECIFICATION

PL 909 PRESSURE GAUGE SPECIFICATION

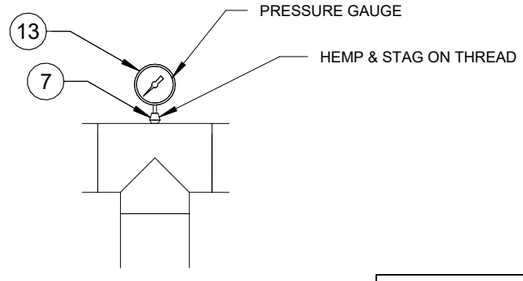
PL 910 FIRE DEPARTMENT INTERFACE EQUIPMENT SPECIFICATION

PL 912 PIPING SPECIFICATION PIPING SUPPLY AND INSTALLATION SPECIFICATION

PROCESS DATA	
PROCESS FLUID	WATER
DESIGN PRESSURE	NOTE 4 - REFER PL 912
TEST PRESSURE	NOTE 4 - REFER PL 912
DESIGN TEMP	NOTE 4 - REFER PL 912
FLUID GROUP	NOTE 4
SANS 347 CAT	NOTE 4
CORROSION PROTECTION SYSTEM	REFER PL 912

BILL OF MATERIALS

ITEM	MATERIAL	DESCRIPTION
1	IN ACCORDANCE WITH PL 912	100NB CARBON STEEL PIPE
2	IN ACCORDANCE WITH PL 912	80NB CARBON STEEL PIPE
3	IN ACCORDANCE WITH PL 912	100NB SLIP-ON RAISED FACE FLANGE
4	IN ACCORDANCE WITH PL 898	100NB BUTTERFLY VALVE
5	IN ACCORDANCE WITH PL 912	100NB EQUAL TEE
6	IN ACCORDANCE WITH PL 912	100x80NB REDUCING TEE
7	IN ACCORDANCE WITH PL 912	100x15 THREDOLET
8	IN ACCORDANCE WITH PL 912	100NB GASKET 3mm THICK
9	IN ACCORDANCE WITH PL 912	100NB END CAP
10	IN ACCORDANCE WITH PL 912	COMPLETE BOLTS, NUTS AND WASHERS SET TO SUIT 150NB FLANGE
11	IN ACCORDANCE WITH PL 912	COMPLETE BOLTS, NUTS AND WASHERS SET TO SUIT 80NB FLANGE
12	IN ACCORDANCE WITH PL 910	BOOSTER CONNECTION
13	IN ACCORDANCE WITH PL 909	PRESSURE GAUGE



PRESSURE GAUGE DETAIL

SCALE: N.T.S

DESIGNER			
RESP. ENG			
PROJ. MANAGER			
CLIENT			
ROLE	NAME	SIGN	DATE

DRAWING APPROVAL STATUS

PROJECT:
TRANSNET PIPELINES
HW FIRE

A3

TITLE:
FIRE RING MAIN BOOSTER CONNECTION ALTERNATIVE DRAWING

SCALE: As indicated

CHECKED: BJ

APPROVED: BJ

CAD FILE: HO1436-TPL_2024_09_0008_77334_RFP-FAT-0001

DESIGN-DRAWN: HS - HS

DATE: 2025-07-14

PROJECT No: 11364

DRAWING No: 11364-A1166

REV: A

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(031) 816 9386

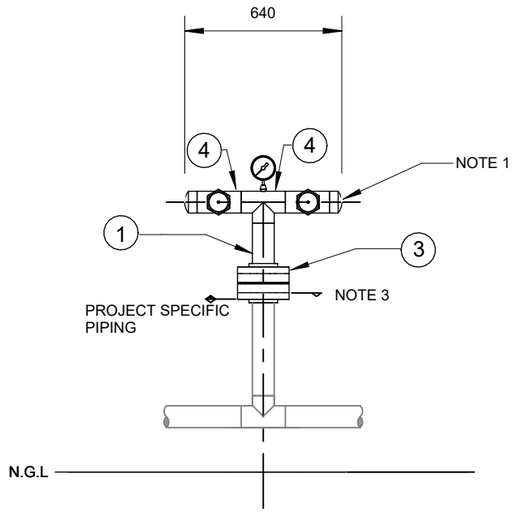
REVISIONS

REV	DATE	BY	CHK	DESCRIPTION
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TRANSNET pipelines

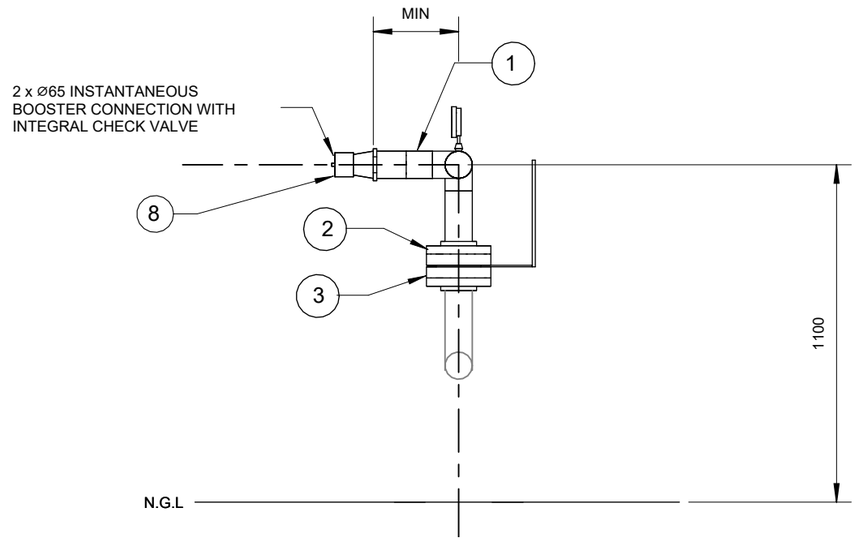
PROJECT NAME
HW FIRE

DRAWN		REF.	
TRACED		DATE	
CHECKED		APPROVED	
SCALE			
TPL DRAWING No. HO1436-TYP-FP-DE-0003			REV



FRONT VIEW

SCALE: N.T.S



SIDE VIEW

SCALE: N.T.S

DRAWING NOTES

1 DRILL AND TAP END CAP TO SUIT 150NB PLUG. SUPPLY AND INSTALL PLUG USING HEMP AND STAG.
2 CONTRACTOR TO DESIGN FIRE WATER TANK REFILL CONECTION TO SUIT PIPING CHANGE. FIRE WATER TANK REFILL CONNECTION TO MAINTAIN THE STANDARD HEIGHT.
3 REFER TO ISOMETRIC FOR CONTINUATION DETAILS.
4 CONTRACTOR TO DETERMINE DURING DETAILED DESIGN.

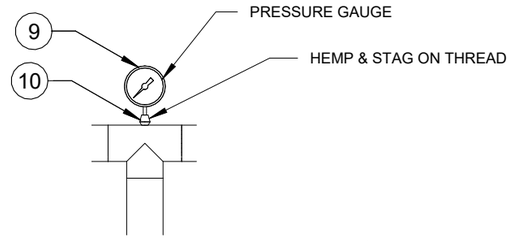
PL SPECIFICATIONS

PL 898 BUTTERFLY VALVE SPECIFICATION
PL 909 PRESSURE GAUGE SPECIFICATION
PL 910 FIRE DEPARTMENT INTERFACE EQUIPMENT SPECIFICATION
PL 912 PIPING SPECIFICATION PIPING SUPPLY AND INSTALLATION SPECIFICATION

PROCESS DATA	
PROCESS FLUID	WATER
DESIGN PRESSURE	NOTE 4 - REFER PL 912
TEST PRESSURE	NOTE 4 - REFER PL 912
DESIGN TEMP	NOTE 4 - REFER PL 912
FLUID GROUP	NOTE 4
SANS 347 CAT	NOTE 4
CORROSION PROTECTION SYSTEM	REFER PL 912

BILL OF MATERIAL

ITEM	MATERIAL	DESCRIPTION
1	PIPE, PE, ASTM A106 Gr B, SMLS, SCH STD	80NB CARBON STEEL PIPE
2	FLANGE, SO, 150 LB, RF, ANSI B16.5, ASTM A105	80NB SLIP-ON RAISED FACE FLANGE
3	AS PER PROJECT SPECIFICATION	80NB BUTTERFLY VALVE
4	TEE, BW, ASTM A234 Gr WPB, SMLS, SCH STD	80NB EQUAL TEE
5	AS PER PROJECT SPECIFICATION	80NB GASKET 3mm THICK
6	CAP, BW, ASTM A234 Gr WPB, SMLS, SCH STD	80NB END CAP
7	AS PER PROJECT SPECIFICATION	COMPLETE BOLTS, NUTS AND WASHERS SET TO SUIT 80NB FLANGE
8	AS PER PROJECT SPECIFICATION	BOOSTER CONNECTION
9	AS PER PROJECT SPECIFICATION	PRESSURE GAUGE
10	THREDOLET, BW, ASTM A105, SCH STD	80x15 THREDOLET



PRESSURE GAUGE DETAIL

SCALE: N.T.S

DESIGNER			
RESP. ENG			
PROJ. MANAGER			
CLIENT			
ROLE	NAME	SIGN	DATE

DRAWING APPROVAL STATUS

PROJECT:
TRANSNET PIPELINES
HW FIRE

A3

TITLE:
FIRE WATER TANK REFILL CONNECTION ALTERNATIVE DRAWING

SCALE	CHECKED:	APPROVED:
As indicated	BJ	BJ
CAD FILE: HO1436-TPL_2024_09_0008_77334_RFP-FAT-0001	DESIGN-DRAWN: HS - HS	DATE: 2025-07-14
PROJECT No: 11364	DRAWING No: 11364-A1233	REV: A

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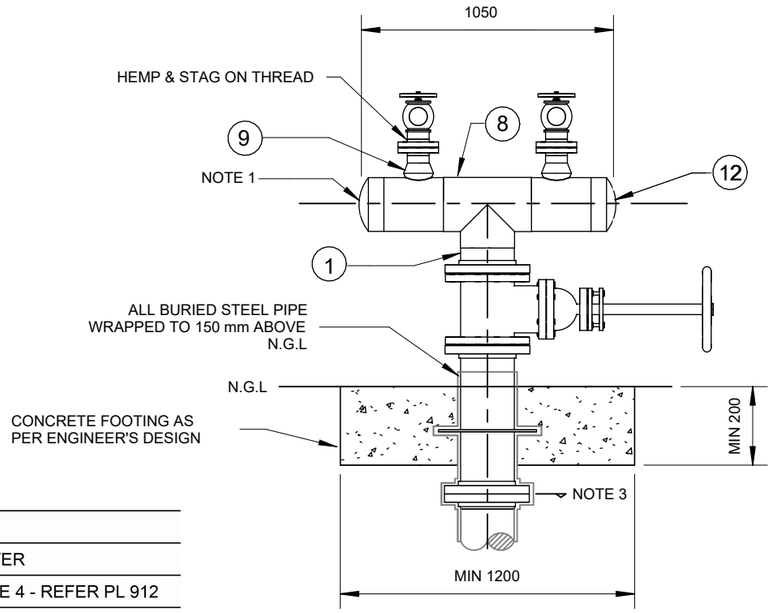
REVISIONS

REV	DATE	BY	CHK	DESCRIPTION
A	2026-01-12	HS	BJ	ISSUED FOR ACCEPTANCE

TRANSNET pipelines

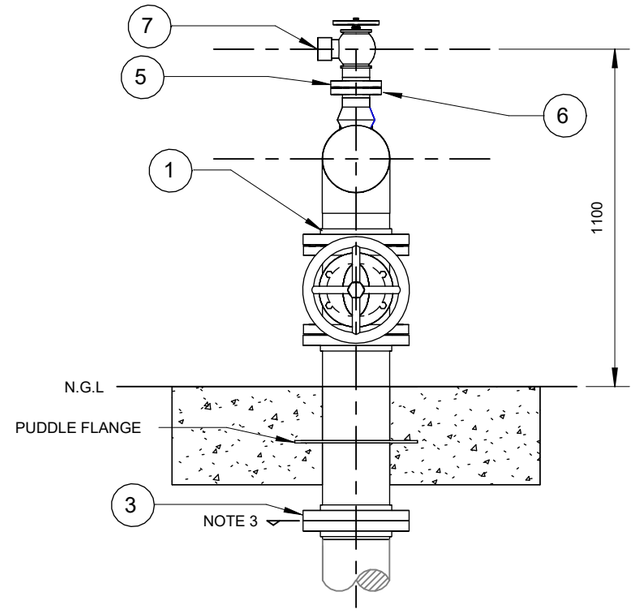
PROJECT NAME
HW FIRE

DRAWN		REF.	
TRACED		DATE	
CHECKED		APPROVED	
SCALE			
TPL DRAWING No. HO1436-TYP-FP-DE-0003			REV



FRONT VIEW

SCALE: N.T.S



SIDE VIEW

SCALE: N.T.S

DRAWING NOTES

1. DRILL AND TAP END CAP TO SUIT 150NB PLUG. SUPPLY AND INSTALL PLUG USING HEMP AND STAG.
2. CONTRACTOR TO DESIGN PUDDLE FLANGE DETAIL AND SUBMIT FOR ACCEPTANCE. PUDDLE FLANGE TO BE CENTERED IN CONCRETE FOOTING.
3. REFER TO ISOMETRIC FOR CONTINUATION DETAILS.
4. CONTRACTOR TO DETERMINE DURING DETAILED DESIGN.

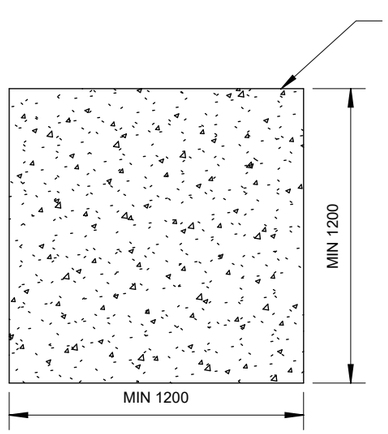
PL SPECIFICATIONS

PL 900	GATE VALVE SPECIFICATION
PL 910	FIRE DEPARTMENT INTERFACE EQUIPMENT SPECIFICATION
PL 912	PIPING SUPPLY AND INSTALLATION SPECIFICATION

PROCESS DATA	
PROCESS FLUID	WATER
DESIGN PRESSURE	NOTE 4 - REFER PL 912
TEST PRESSURE	NOTE 4 - REFER PL 912
DESIGN TEMP	NOTE 4 - REFER PL 912
FLUID GROUP	NOTE 4
SANS 347 CAT	NOTE 4
CORROSION PROTECTION SYSTEM	REFER PL 912

BILL OF MATERIALS

ITEM	MATERIAL	DESCRIPTION
1	IN ACCORDANCE WITH PL 912	200NB CARBON STEEL PIPE
2	IN ACCORDANCE WITH PL 912	80NB CARBON STEEL PIPE
3	IN ACCORDANCE WITH PL 912	200NB SLIP-ON RAISED FACE FLANGE
4	IN ACCORDANCE WITH PL 900	200NB GATE VALVE
5	IN ACCORDANCE WITH PL 912	80NB SLIP-ON RAISED FACE FLANGE
6	IN ACCORDANCE WITH PL 912	80NB THREADED RAISED FACE FLANGE
7	IN ACCORDANCE WITH PL 910	HYDRANT VALVE
8	IN ACCORDANCE WITH PL 912	200NB EQUAL TEE
9	IN ACCORDANCE WITH PL 912	200x80 WELDOLET
10	IN ACCORDANCE WITH PL 912	200NB GASKET 3mm THICK
11	IN ACCORDANCE WITH PL 912	80NB GASKET 3mm THICK
12	IN ACCORDANCE WITH PL 912	200NB END CAP
13	IN ACCORDANCE WITH PL 912	COMPLETE NUTS, BOLTS AND WASHERS SETS TO SUIT 80NB FLANGE
14	IN ACCORDANCE WITH PL 912	COMPLETE NUTS, BOLTS AND WASHERS SETS TO SUIT 200NB FLANGE



PLAN ON CONCRETE FOOTING

SCALE: N.T.S

DESIGNER			
RESP. ENG			
PROJ. MANAGER			
CLIENT			
ROLE	NAME	SIGN	DATE

DRAWING APPROVAL STATUS

PROJECT:
TRANSNET PIPELINES
HW FIRE

A3

TITLE:
FIRE SERVICE SUCTION TYPICAL DRAWING

SCALE: As indicated	CHECKED: BJ	APPROVED: BJ	
CAD FILE: HO1436-TPL_2024_09_0008_77334_RFP-FAT-0001	DESIGN-DRAWN: HS - HS	DATE: 2025-07-14	
PROJECT No: 11364	DRAWING No: 11364-A1076		REV: B

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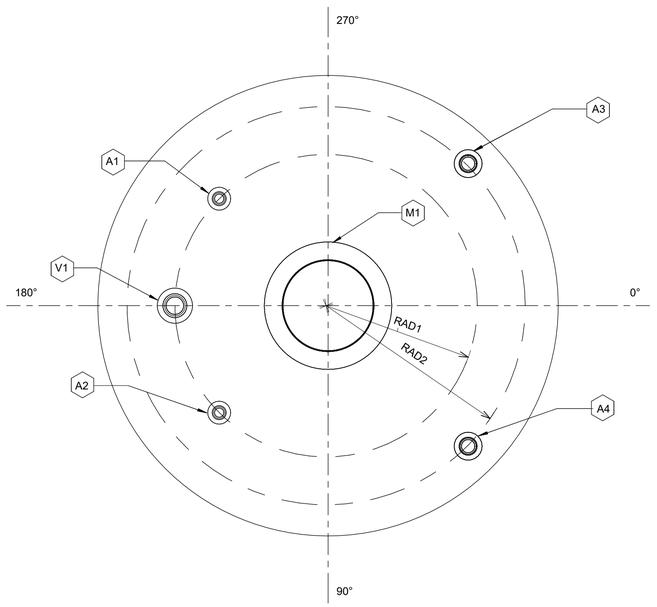
REVISIONS

REV	DATE	BY	CHK	DESCRIPTION
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B	2025-09-10	HS	BJ	ISSUED AFTER PJ COMMENTS

TRANSNET pipelines

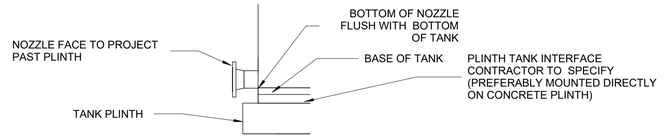
PROJECT NAME
HW FIRE

DRAWN		REF.	
TRACED		DATE	
CHECKED		APPROVED	
SCALE			
TPL DRAWING No. HO1436-TYP-FP-DE-0002			REV



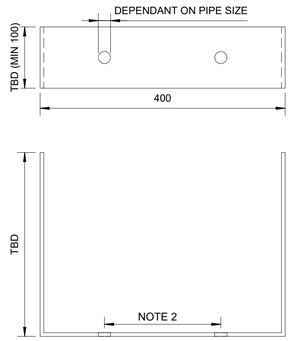
PLAN ON ROOF OF TANK

SCALE: N.T.S



DETAIL A

SCALE: N.T.S



DETAIL FOR PIPE SUPPORT

SCALE: N.T.S

NOZZLE SCHEDULE

NOZZLE			ANSI FLANGE		DESCRIPTION	POSITION				
MARK	DN	SCH	CLASS	TYPE		POSITION	ORIENTATION	ELEVATION	RADIUS	PROJECTION
A1	50	10S	150	WNRF	FOAM FILLING INLET NOZZLE	TBD	TBD	TANK ROOF	TBD	TBD
A2	TBD	10S	150	WNRF	PROCESS INLET	TBD	TBD	TANK ROOF	TBD	TBD
A3	TBD	10S	150	WNRF	PROCESS INLET	TBD	TBD	TANK ROOF	TBD	TBD
V1	TBD	10S	150	WNRF	VENT NOZZLE	TBD	TBD	TANK ROOF	TBD	TBD
A4	TBD	10S	150	WNRF	PROCESS INLET	TBD	TBD	TANK ROOF	TBD	TBD
M1	600	-	-	-	ROOF MANWAY NOZZLE	TBD	TBD	TANK ROOF	TBD	TBD
B1	TBD	10S	150	WNRF	PROCESS OUTLET	TBD	TBD	TBD	TANK SIDE WALL	TBD
D1	TBD	10S	150	WNRF	DRAIN NOZZLE	TBD	TBD	TBD	TANK SIDE WALL	TBD
G1	25	40S	150	WNRF	LEVEL GAUGE NOZZLE	TBD	TBD	TBD	TANK SIDE WALL	TBD
B2	50	40S	150	WNRF	LEVEL GAUGE NOZZLE	TBD	TBD	TBD	TANK SIDE WALL	TBD
S1	15	10S	150	WNRF	SAMPLE NOZZLE	TBD	TBD	TBD	TANK SIDE WALL	TBD
M2	600	-	-	-	SHELL MANWAY NOZZLE	TBD	TBD	TBD	TANK SIDE WALL	TBD

LIST OF VARIABLES

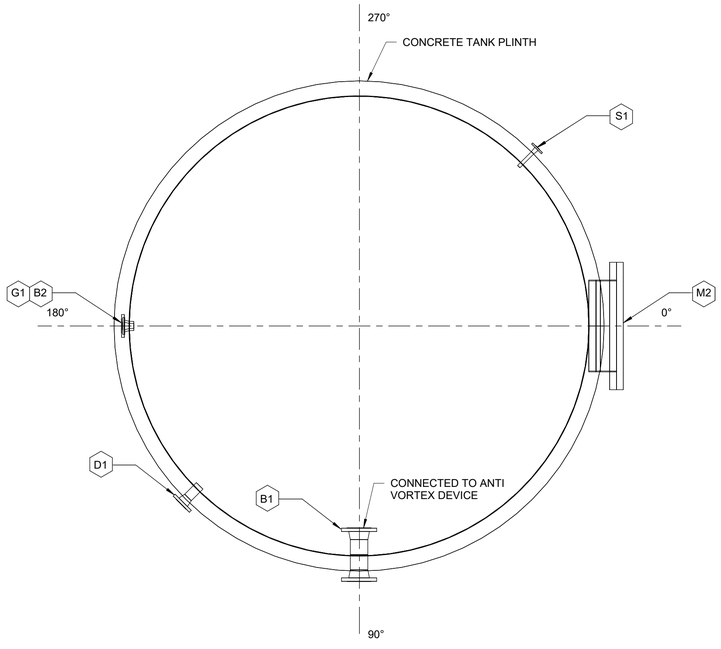
VARIABLE	MEASUREMENT	UNITS	NOTES
H	TBD	mm	HEIGHT OF TANK
D	TBD	mm	INTERNAL DIAMETER OF TANK
DH	TBD	mm	MAX PERMISSIBLE HEIGHT OF DOME
PH	TBD	mm	PLINTH HEIGHT
RAD1	TBD	mm	POSITION (RADIUS) OF NOZZLES FROM CENTRE OF ROOF
RAD2	TBD	mm	POSITION (RADIUS) OF NOZZLES FROM CENTRE OF ROOF

DRAWING NOTES

1. POSITION OF NOZZLES ARE FOR INDICATION PURPOSES ONLY. CONTRACTOR TO DETERMINE EXACT NOZZLE POSITIONS AND PROJECTIONS.
2. DEPENDANT ON PIPE SIZE. PIPE TO MATCH TANK FLANGE.
3. DROP TUBE SUPPORT TO STOP PIPES FROM SWAYING. MADE FROM GRP / STAINLESS STEEL AND MOUNTED TO SIDE OF TANK. SHALL BE DRILLED TO ALLOW THE USE OF A U-BOLT.
4. DROP TUBES TO BE STAINLESS STEEL, SCHEDULE 10S, CLASS 150 PIPE. DROP TUBES TO MATCH NOZZLE SIZE.
5. STAINLESS STEEL 304 6mm PLATE SUPPORTS. TO BE DRILLED ON SITE TO SUIT U-BOLT FOR SUPPORTED PIPE.
6. G1 AND B2 TO SUPPORT LEVEL INDICATOR LOAD.
7. TANK DESIGN AND MATERIAL SPECIFICATION AS PER PL 911.
8. WHERE INCOMPATIBLE METALS ARE IN CONTACT, SUITABLE INSULATION MATERIALS SHALL BE USED, IE. TEFLON PADS, TOP HAT WASHERS, ETC.
9. ONLY THE USE OF STAINLESS STEEL AND GRP PERMITTED.
10. CONTRACTOR TO DESIGN SUITABLE LIFTING LUGS.

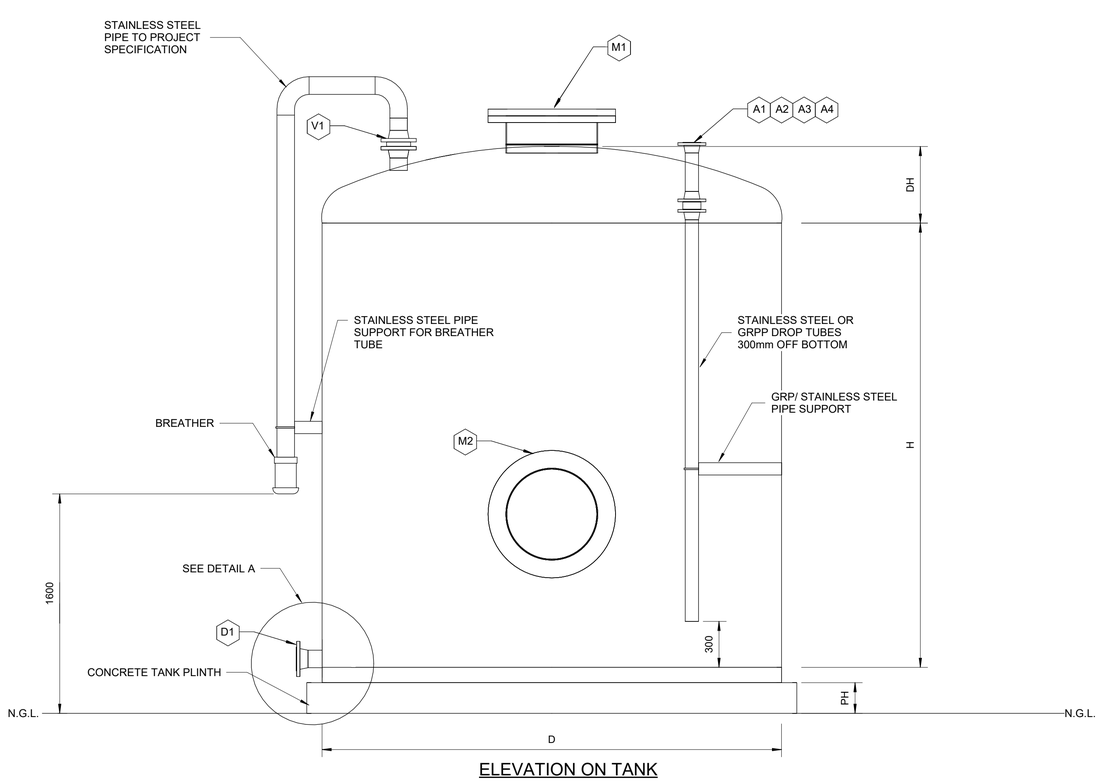
PL SPECIFICATIONS

PL 911 FOAM CONCENTRATE TANK SPECIFICATION



PLAN ON BOTTOM OF TANK

SCALE: N.T.S



ELEVATION ON TANK

SCALE: N.T.S

DESIGNER			
RESP. ENG			
PROJ. MANAGER			
CLIENT			
ROLE	NAME	SIGN	DATE
DRAWING APPROVAL STATUS			

A1

PROJECT: TRANSNET PIPELINES
HW FIRE
TITLE: FOAM CONCENTRATE TANK TYPICAL DRAWING

SCALE	CHECKED:	APPROVED:
As indicated	BJ	BJ
CAD FILE: HO1436-TPL_2024_09_0008_77334_RFP-FAT-0001	DESIGN-DRAWN: HS - HS	DATE: 2025-08-08
PROJECT No: 11364	DRAWING No: 11364-A1078	REV: B

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REFERENCES

DWG NUMBER	DESCRIPTION
-	-
-	-
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-	-
-	-
-	-
-	-

REVISIONS

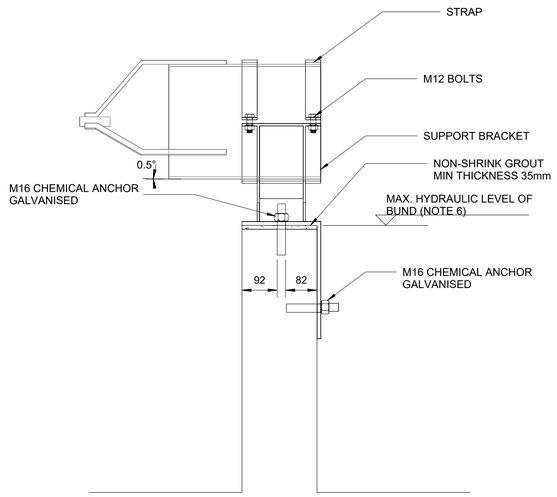
REV	DATE	BY	CHK	DESCRIPTION
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B	2025-09-10	HS	BJ	ISSUED AFTER PJ COMMENTS

TRANSNET pipelines

PROJECT NAME: HW FIRE

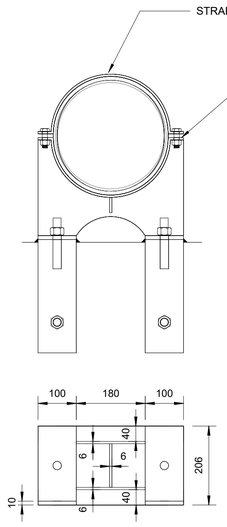
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SCALE			

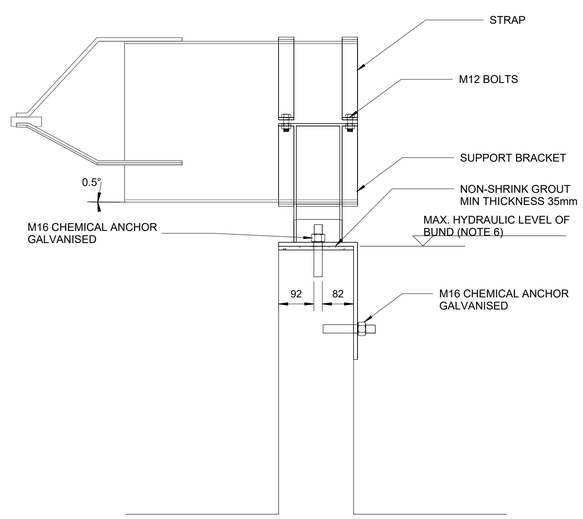
TPL DRAWING No.: HO1436-TYP-FP-DE-0004 REV



BUND POURER MEX 600 TYPICAL INSTALLATION

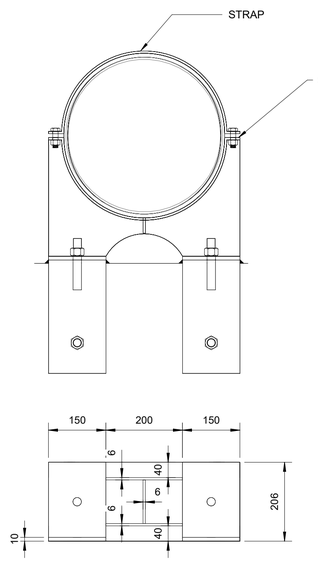
SCALE: N.T.S





BUND POURER MEX 1200 TYPICAL INSTALLATION

SCALE: N.T.S

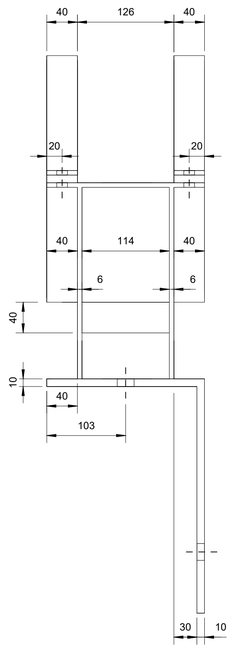


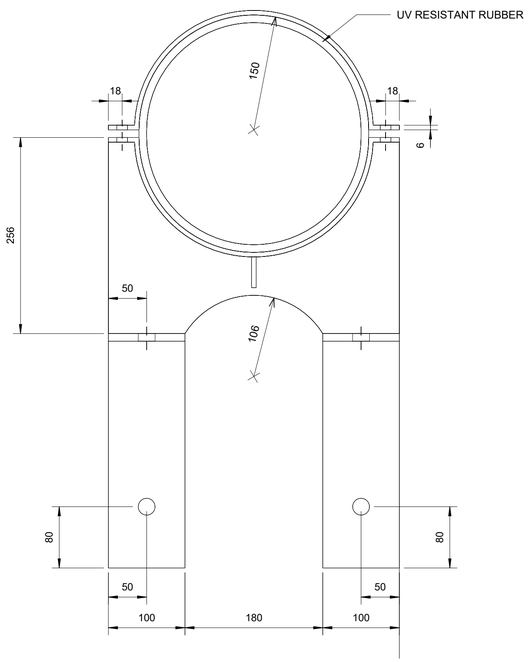
DRAWING NOTES

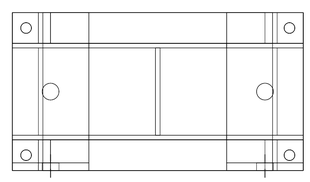
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. THERE SHALL BE NO SHARP EDGES.
3. ALL ROLLED PLATE SHALL HAVE A CONTINUOUS RADIUS AND SHALL MATE FULLY WITH THE MATING PLATE.
4. THE POURER BRACKETS SHALL BE MOUNTED AND THE POURER INSTALLED BEFORE THE PIPING TO THE POURER IS COMPLETED. THE PIPING SHALL BE ADJUSTED AS REQUIRED IN ORDER TO SUIT THE INSTALLED POSITION.
5. THE POURER BRACKET SHALL NOT STRADDLE ANY JOINTS IN BUND WALLS. SHOULD AN INDICATED LOCATION REQUIRE THIS, THE EMPLOYER SHALL BE ADVISED AND WILL ADVISE HOW TO RESOLVE THE MATTER.
6. THIS DOES NOT CORRESPOND TO INTERMEDIATE BUND WALL HYDRAULIC LEVEL.

PL SPECIFICATIONS

PL 904	FOAM GENERATING EQUIPMENT SPECIFICATION

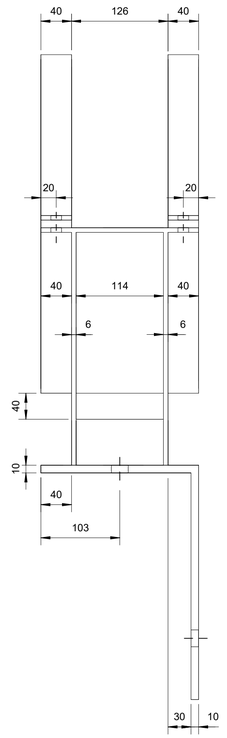


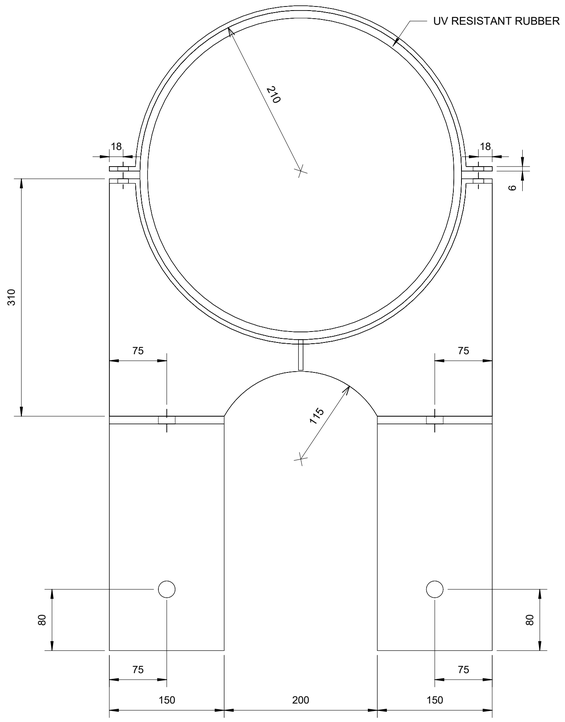


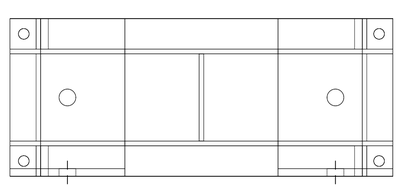


MEX 600 POURER BRACKET

SCALE: N.T.S







MEX 1200 POURER BRACKET

SCALE: N.T.S

DESIGNER			
RESP. ENG			
PROJ. MANAGER			
CLIENT			
ROLE	NAME	SIGN	DATE
DRAWING APPROVAL STATUS			

A1

PROJECT: TRANSNET PIPELINES
HW FIRE

TITLE: BUND POURERS TO BUND WALL STANDARD INSTALLATION TYPICAL DRAWING

SCALE	CHECKED:	APPROVED:
As indicated	BJ	BJ
CAD FILE: HO1436-TPL_2024_09_0008_77334_RFP-FAT-0001	DESIGN-DRAWN: HS - HS	DATE: 2025-08-08
PROJECT No: 11364	DRAWING No: 11364-A1080	REV: B

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REFERENCES

DWG NUMBER	DESCRIPTION
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REVISIONS

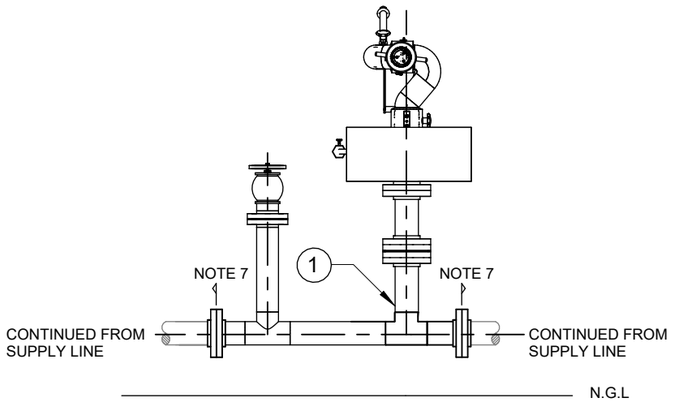
REV	DATE	BY	CHK	DESCRIPTION
A	2025-07-18	HS	BJ	ISSUED FOR ACCEPTANCE
B	2025-09-10	HS	BJ	ISSUED AFTER PJ COMMENTS

TRANSNET pipelines

PROJECT NAME: HW FIRE

DRAWN		REF.	
TRACED		DATE	
CHECKED		APPROVED	
SCALE			

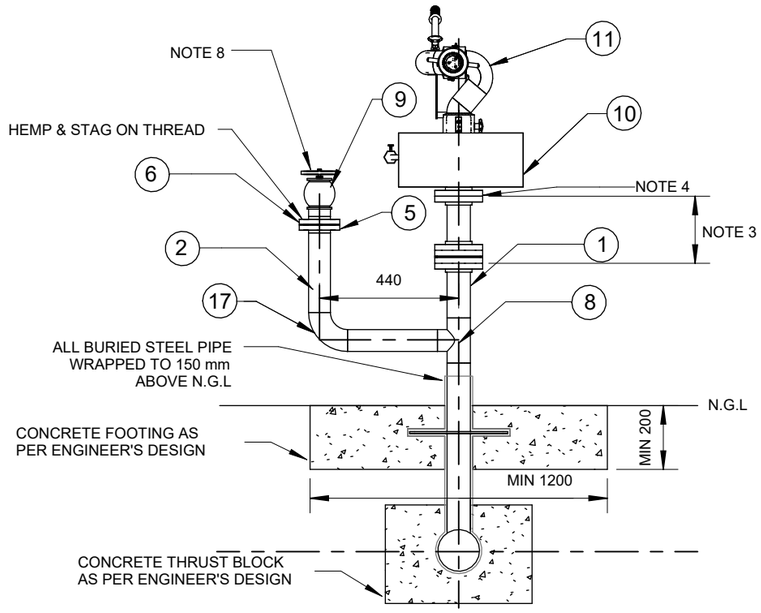
TPL DRAWING No.: HO1436-TYP-FP-DE-0007 REV



FRONT VIEW (OPTION 1)

ABOVE GROUND SUPPLY OPTION TEE CONNECTION

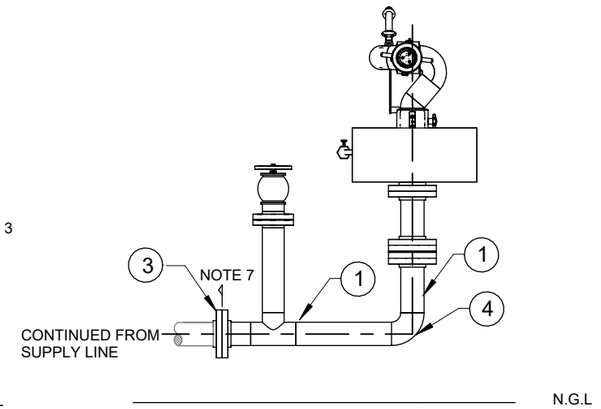
SCALE: N.T.S



FRONT VIEW (OPTION 2)

BELOW GROUND SUPPLY OPTION

SCALE: N.T.S



FRONT VIEW (OPTION 3)

ABOVE GROUND SUPPLY OPTION END OF LINE

SCALE: N.T.S

DRAWING NOTES

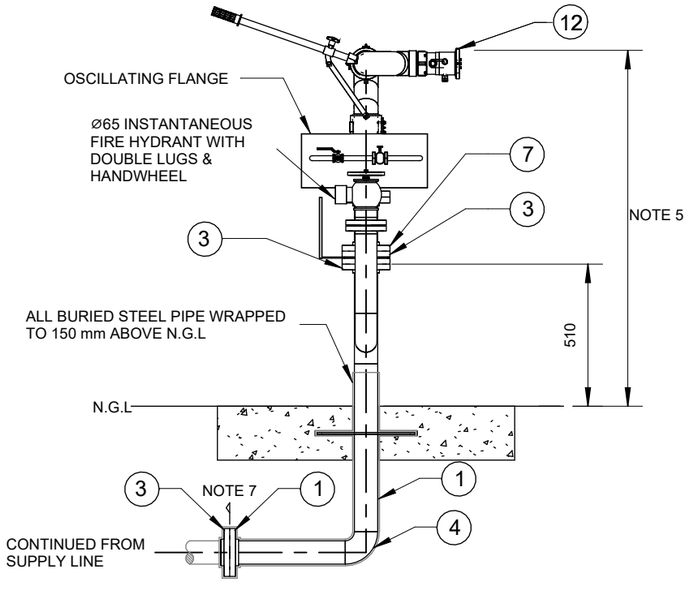
1. DIRECTION OF MONITOR NOZZLE AND HYDRANT VALVE MAY VARY FROM THE INDICATED TO SUIT REQUIREMENTS. THE EMPLOYER SHALL BE INVITED TO INSPECT ORIENTANTIONS.
2. DIMENSIONS MAY VARY DEPENDING ON SPECIFICATION OF MONITOR AND OSCILLATING FLANGE USED.
3. CONNECTION SHALL BE ADJUSTED TO FACILITATE REQUIRED HEIGHTS.
4. CONTRACTOR TO SUPPLY CARBON STEEL FLANGE (AND REDUCER IF REQUIRED) TO MATCH FLANGE SPECIFICATION OF MONITOR.
5. PROVIDE 1500mm CLEARANCE TO HANDLE CONNECTION.
6. ALL DIMENSIONS ARE IN MILLIMETRES.
7. REFER TO ISOMETRIC FOR CONTINUATION DETAILS.
8. SOME MONITORS SHALL NOT BE SUPPLIED FROM BELOW GROUND. PREFERRED SUPPLY TO BE ABOVE GROUND.
9. HYDRANTS TO BE POSITIONED ON THE SAME SIDE.

PL SPECIFICATIONS

- PL 898 BUTTERFLY VALVE SPECIFICATION
- PL 904 FOAM GENERATING EQUIPMENT SPECIFICATION
- PL 910 FIRE DEPARTMENT INTERFACE EQUIPMENT SPECIFICATION
- PL 912 PIPING SUPPLY AND INSTALLATION SPECIFICATION

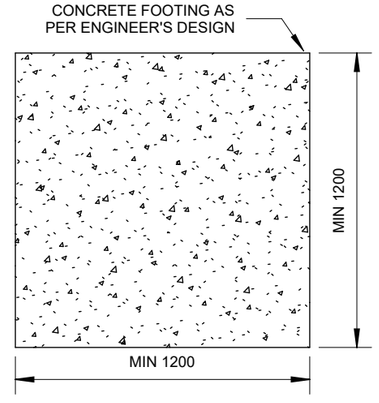
BILL OF MATERIALS

ITEM	MATERIAL	DESCRIPTION
1	IN ACCORDANCE WITH PL 912	100NB CARBON STEEL PIPE
2	IN ACCORDANCE WITH PL 912	80NB CARBON STEEL PIPE
3	IN ACCORDANCE WITH PL 912	100NB SLIP-ON RAISED FACE FLANGE
4	IN ACCORDANCE WITH PL 912	100NB ELBOW
5	IN ACCORDANCE WITH PL 912	80NB SLIP-ON RAISED FACE FLANGE
6	IN ACCORDANCE WITH PL 912	80NB THREADED RAISED FACE FLANGE
7	IN ACCORDANCE WITH PL 898	100NB BUTTERFLY VALVE
8	IN ACCORDANCE WITH PL 912	100x80 REDUCING TEE
9	IN ACCORDANCE WITH PL 910	HYDRANT VALVE
10	IN ACCORDANCE WITH PL 904	OSCILLATING FLANGE
11	IN ACCORDANCE WITH PL 904	FOAM MONITOR
12	IN ACCORDANCE WITH PL 904	FOAM MONITOR NOZZLE
13	IN ACCORDANCE WITH PL 912	100NB GASKET 3mm THICK
14	IN ACCORDANCE WITH PL 912	80NB GASKET 3mm THICK
15	IN ACCORDANCE WITH PL 912	COMPLETE BOLTS, NUTS AND WASHERS SET TO SUIT 100NB FLANGE
16	IN ACCORDANCE WITH PL 912	COMPLETE BOLTS, NUTS AND WASHERS SET TO SUIT 80NB FLANGE
17	IN ACCORDANCE WITH PL 912	80NB ELBOW



SIDE VIEW

SCALE: N.T.S



PLAN ON CONCRETE FOOTING

SCALE: N.T.S

DESIGNER			
RESP. ENG			
PROJ. MANAGER			
CLIENT			
ROLE	NAME	SIGN	DATE

DRAWING APPROVAL STATUS

PROJECT: TRANSNET PIPELINES
HW FIRE

A3

TITLE: FOAM MONITOR TYPICAL DRAWING

SCALE	CHECKED:	APPROVED:
As indicated	BJ	BJ
CAD FILE: HO1436-TPL_2024_09_0008_77334_RFP-FAT-0001	DESIGN-DRAWN: HS - HS	DATE: 2025-07-14
PROJECT No: 11364	DRAWING No: 11364-A1083	REV: B

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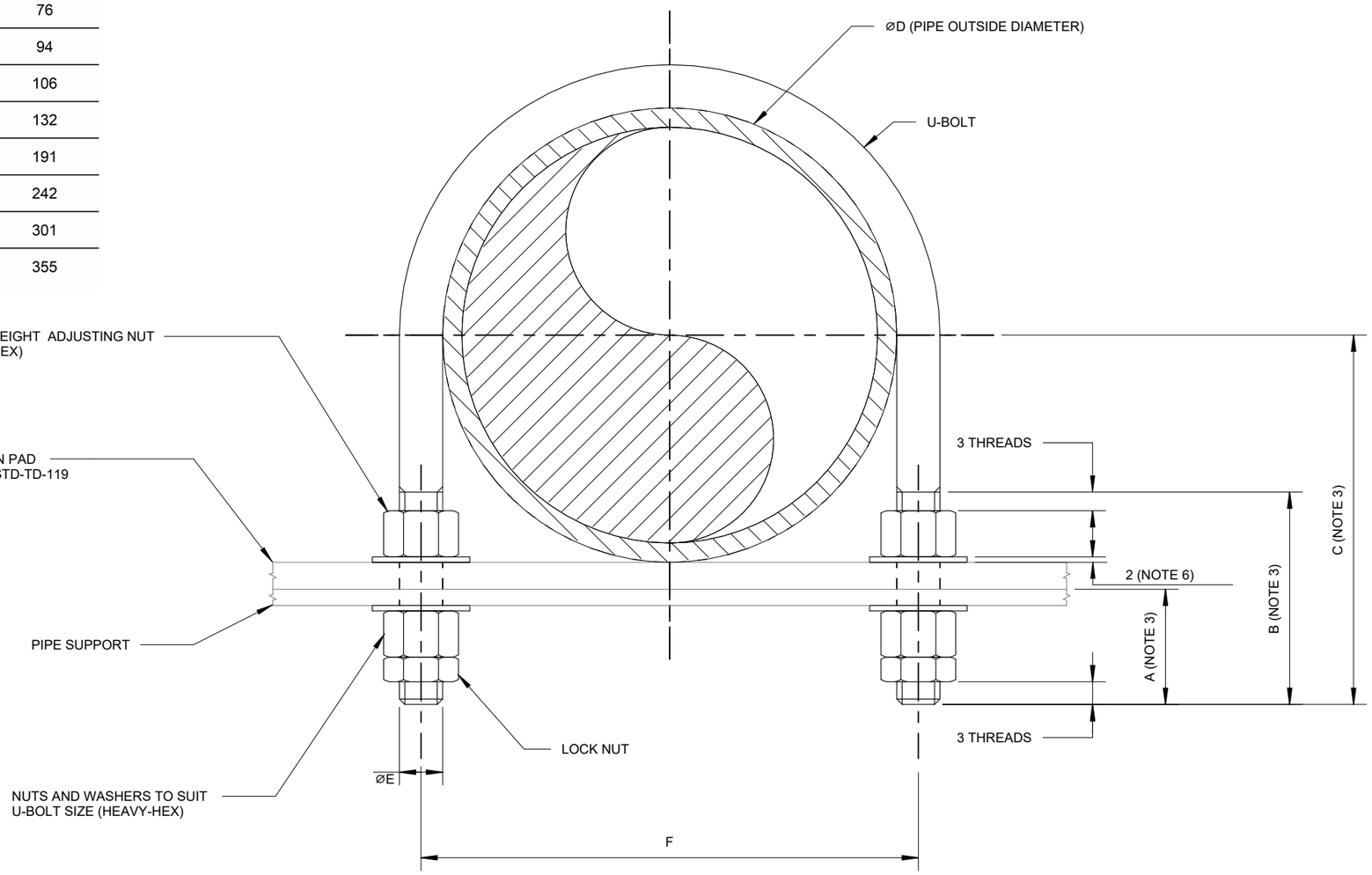
REV	DATE	BY	CHK	DESCRIPTION
A	2025-07-18	HS	BJ	ISSUED FOR ACCEPTANCE
B	2025-09-10	HS	BJ	ISSUE AFTER PJ COMMENTS

TRANSNET pipelines

PROJECT NAME
HW FIRE

DRAWN		REF.	
TRACED		DATE	
CHECKED		APPROVED	
SCALE			
TPL DRAWING No. HO1436-TYP-FP-DE-0010			REV

U-BOLT DIMENSIONS				
PIPE SIZE	ØD	ØE	F(ANCHOR)	F(GUIDE)
15NB	21.3	M6	30	34
20NB	26.7	M6	34	38
25NB	33.4	M6	41	45
40NB	48.3	M10	60	64
50NB	60.3	M10	72	76
65NB	73	M12	90	94
80NB	88.9	M12	102	106
100NB	114.3	M12	128	132
150NB	168.3	M16	187	191
200NB	219.1	M16	238	242
250NB	273	M20	297	301
300NB	323.9	M24	351	355



DRAWING NOTES

1 FOR CARBON STEEL AND GALVANISED PIPELINES, HOT-DIPPED GALVANISED CARBON STELL U-BOLTS, NUTS AND SHALL BE USED.

2 FOR STAINLESS STEEL PIPELINES, 316 STAINLESS U-BOLTS, NUTS AND WASHERS SHALL BE USED.

3 DIMESIONS A, B AND C TO BE DETERMINED BY THE CONTRACTOR. THE DIMENSIONS SHALL ALLOW ENOUGH THREAD FOR A 2mm GAP BETWEEN PIPE O.D. AND INTERNAL RADIUS OF U-BOLT.

4 U-BOLTS USED AS GUIDES TO HAVE 2mm GAP BETWEEN PIPE O.D. AND INTERNAL RADIUS OF U-BOLT. U-BOLTS USED AS ANCHORS TO BE FLUSH WITH PIPE O.D.

5 A MINIMUM OF THREE (3) THREAD LENGTHS AND A MAXIMUM OF FIVE (5) THREAD LENGHTS SHALL PROJECT THROUGH NUTS AT ALL TIMES.

6 DIMENSION FOR WASHERS SHOWN ARE MINIMUM.

7 DIMENSIONS SHOWN ARE IN MILLIMETRES.

8 ALL U-BOLTS SHALL COMPLY WITH SANS 1700.

9 PTFE PAD TO BE SECURED TO TOP OF SUPPORT ON BOTH SIDES OF U-BOLT, AND IN ACCORDANCE WITH PROJECT SPECIFICATION, WITH COUNTERSUNK BOLTS WITH NUTS AND WASHERS TO SUIT.

PL SPECIFICATIONS

PL 912 PIPING SUPPLY AND INSTALLATION SPECIFICATION

TYPICAL U-BOLT DETAIL

SCALE: N.T.S

DESIGNER			
RESP. ENG			
PROJ. MANAGER			
CLIENT			
ROLE	NAME	SIGN	DATE

DRAWING APPROVAL STATUS

PROJECT: TRANSET PIPELINE
HW FIRE

A3 TITLE: U-BOLT DETAIL TYPICAL DRAWING

SCALE: As indicated
CAD FILE: HO1436-TPL_2024_09_0008_77334_RFP-FAT-0001
PROJECT No: 11364

CHECKED: BJ
DESIGN-DRAWN: HS - HS
DRAWING No: 11364-1085

APPROVED: BJ
DATE: 2025-08-18
REV: B

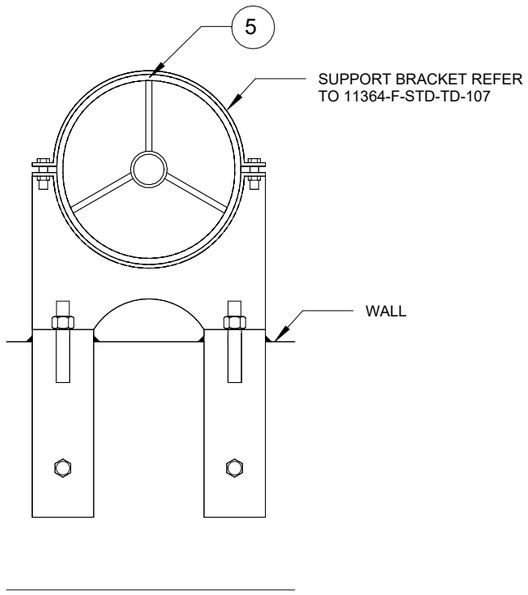
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REVISIONS				
REV	DATE	BY	CHK	DESCRIPTION
A	2025-08-22	HS	BJ	ISSUED FOR ACCEPTANCE
B	2025-09-10	HS	BJ	ISSUED AFTER PJ COMMENTS

TRANSNET pipelines

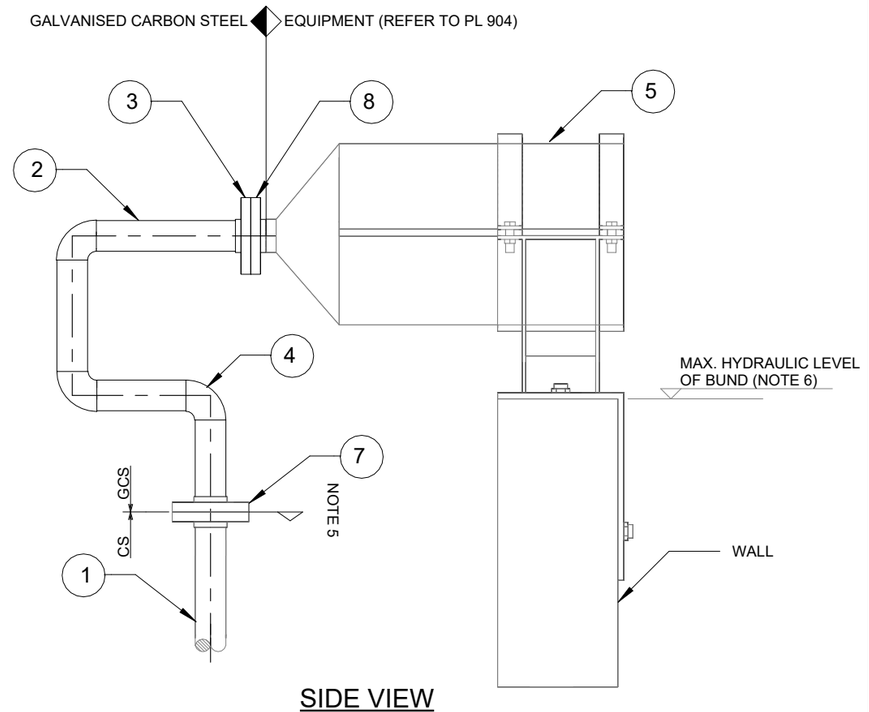
PROJECT NAME
HW FIRE

DRAWN		REF.	
TRACED		DATE	
CHECKED		APPROVED	
SCALE			
TPL DRAWING No. HO1436-TYP-FP-DE-0018			REV



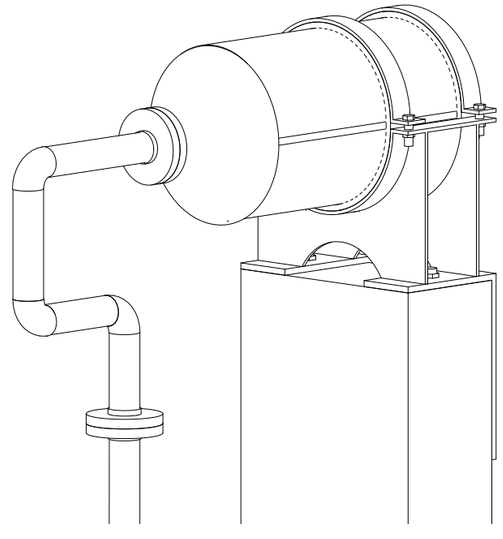
FRONT VIEW

SCALE: N.T.S



SIDE VIEW

SCALE: N.T.S



VIEW SHOWING BUND POURER CONNECTION

SCALE: N.T.S

DRAWING NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. THERE SHALL BE NO SHARP EDGES.
3. ALL ROLLED PLATE SHALL HAVE A CONTINUOUS RADIUS AND SHALL MATE FULLY WITH MATING PLATE.
4. THE POURER BRACKETS SHALL BE MOUNTED AND THE POURER INSTALLED BEFORE THE PIPING TO THE POURER IS COMPLETED. THE PIPING SHALL BE ADJUSTED AS REQUIRED IN ORDER TO SUIT THE INSTALLED POSITION.
5. REFER TO ISOMETRIC FOR CONTINUATION DETAILS.
6. THIS DOES NOT CORRESPOND TO INTERMEDIATE BUND WALL HYDRAULIC LEVEL.

PL SPECIFICATIONS

PL 904	FOAM GENERATING EQUIPMENT SPECIFICATION
PL 912	FIRE DEPARTMENT INTERFACE EQUIPMENT SPECIFICATION

BILL OF MATERIALS

ITEM	MATERIAL	DESCRIPTION
1	IN ACCORDANCE WITH PL 912	CARBON STEEL PIPE (SIZE TO MATCH BUND POURER)
2	IN ACCORDANCE WITH PL 912	GALVANISED CARBON STEEL PIPE (SIZE TO MATCH BUND POURER)
3	IN ACCORDANCE WITH PL 912	SLIP-ON RAISED FACE FLANGE (SIZE TO MATCH PIPE SIZE)
4	IN ACCORDANCE WITH PL 912	ELBOW (SIZE TO MATCH PIPE SIZE)
5	IN ACCORDANCE WITH PL 904	BUND POURER
6	IN ACCORDANCE WITH PL 912	COMPLETE BOLTS, NUTS AND WASHERS SET TO SUIT FLANGES
7	IN ACCORDANCE WITH PL 912	ORIFICE PLATE
8	IN ACCORDANCE WITH PL 912	BSP TAPER FEMALE THREADED FLANGE OR TO SUIT EQUIPMENT(SIZE TO MATCH BUND POURER)

DESIGNER			
RESP. ENG			
PROJ. MANAGER			
CLIENT			
ROLE	NAME	SIGN	DATE

DRAWING APPROVAL STATUS

PROJECT: TRANSNET PIPELINES
HW FIRE

A3

TITLE: BUND POURER CONNECTION TYPICAL DRAWING

SCALE: As indicated	CHECKED: BJ	APPROVED: BJ	
CAD FILE: HO1436-TPL_2024_09_0008_77334_RFP-FAT-0001	DESIGN-DRAWN: HS - HS	DATE: 2025-07-14	
PROJECT No: 11364	DRAWING No: 11364-A1087		REV: A

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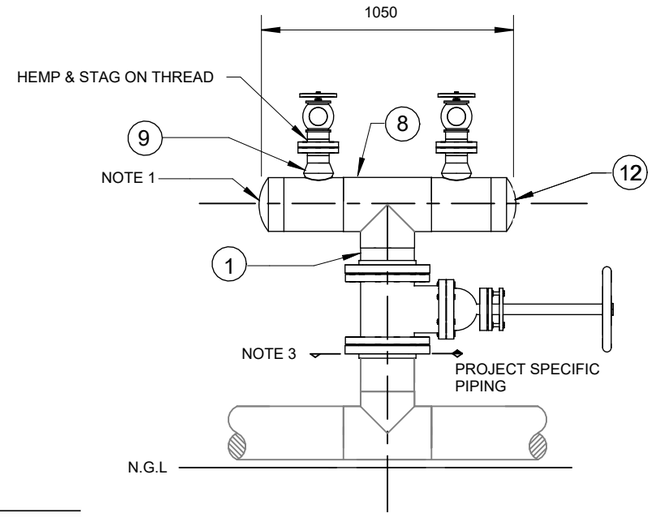
REVISIONS

REV	DATE	BY	CHK	DESCRIPTION
A	2025-07-18	HS	BJ	ISSUED FOR ACCEPTANCE

TRANSNET pipelines

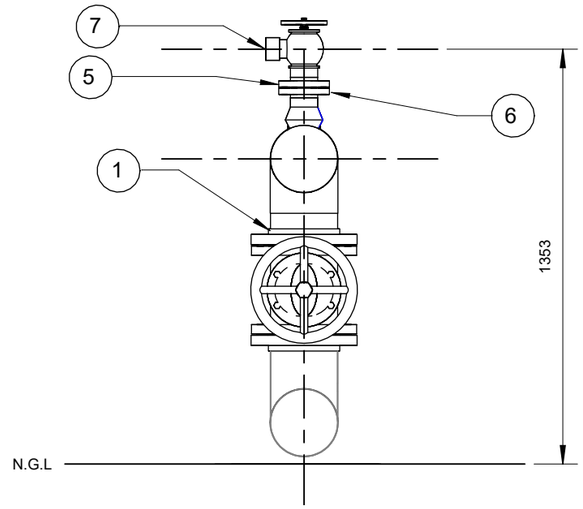
PROJECT NAME
HW FIRE

DRAWN		REF.	
TRACED		DATE	
CHECKED		APPROVED	
SCALE			
TPL DRAWING No. HO1436-TYP-FP-DE-0020			REV



FRONT VIEW

SCALE: N.T.S



SIDE VIEW

SCALE: N.T.S

DRAWING NOTES

1 DRILL AND TAP END CAP TO SUIT 150NB PLUG. SUPPLY AND INSTALL PLUG USING HEMP AND STAG.

2 CONTRACTOR TO DESIGN FIRE SERVICE SUCTION CONNECTION TO SUIT PIPING CHANGE. FIRE SERVICE SUCTION CONNECTION TO MAINTAIN THE STANDARD HEIGHT.

3 REFER TO ISOMETRIC FOR CONTINUATION DETAILS.

4 CONTRACTOR TO DETERMINE DURING DETAILED DESIGN.

PL SPECIFICATIONS

PL 900	GATE VALVE SPECIFICATION
PL 910	FIRE DEPARTMENT INTERFACE EQUIPMENT SPECIFICATION
PL 912	PIPING SUPPLY AND INSTALLATION SPECIFICATION

PROCESS DATA	
PROCESS FLUID	WATER
DESIGN PRESSURE	NOTE 4 - REFER PL 912
TEST PRESSURE	NOTE 4 - REFER PL 912
DESIGN TEMP	NOTE 4 - REFER PL 912
FLUID GROUP	NOTE 4
SANS 347 CAT	NOTE 4
CORROSION PROTECTION SYSTEM	REFER PL 912

BILL OF MATERIALS

ITEM	MATERIAL	DESCRIPTION
1	IN ACCORDANCE WITH PL 912	200NB CARBON STEEL PIPE
2	IN ACCORDANCE WITH PL 912	80NB CARBON STEEL PIPE
3	IN ACCORDANCE WITH PL 912	200NB SLIP-ON RAISED FACE FLANGE
4	IN ACCORDANCE WITH PL 900	200NB GATE VALVE
5	IN ACCORDANCE WITH PL 912	80NB SLIP-ON RAISED FACE FLANGE
6	IN ACCORDANCE WITH PL 912	80NB THREADED RAISED FACE FLANGE
7	IN ACCORDANCE WITH PL 910	HYDRANT VALVE
8	IN ACCORDANCE WITH PL 912	200NB EQUAL TEE
9	IN ACCORDANCE WITH PL 912	200x80 WELDOLET
10	IN ACCORDANCE WITH PL 912	200NB GASKET 3mm THICK
11	IN ACCORDANCE WITH PL 912	80NB GASKET 3mm THICK
12	IN ACCORDANCE WITH PL 912	200NB END CAP
13	IN ACCORDANCE WITH PL 912	COMPLETE NUTS, BOLTS AND WASHERS SETS TO SUIT 80NB FLANGE
14	IN ACCORDANCE WITH PL 912	COMPLETE NUTS, BOLTS AND WASHERS SETS TO SUIT 200NB FLANGE

ROLE	NAME	SIGN	DATE
DESIGNER			
RESP. ENG			
PROJ. MANAGER			
CLIENT			

DRAWING APPROVAL STATUS

PROJECT:
TRANSNET PIPELINES
HW FIRE

A3

TITLE:
FIRE SERVICE SUCTION ALTERNATIVE DRAWING

SCALE: As indicated

CHECKED: BJ

APPROVED: BJ

CAD FILE: HO1436-TPL_2024_09_0008_77334_RFP-FAT-0001

DESIGN-DRAWN: HS - HS

DATE: 2025-07-14

PROJECT No: 11364

DRAWING No: 11364-A1165

REV: A

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REVISIONS

REV	DATE	BY	CHK	DESCRIPTION
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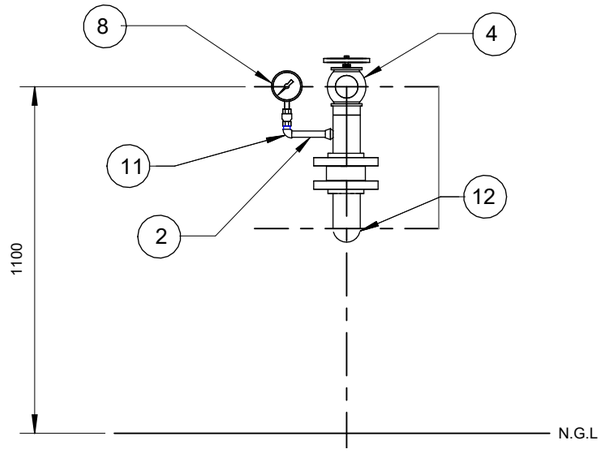
TRANSNET pipelines

PROJECT NAME
HW FIRE

DRAWN		REF.	
TRACED		DATE	
CHECKED		APPROVED	
SCALE			

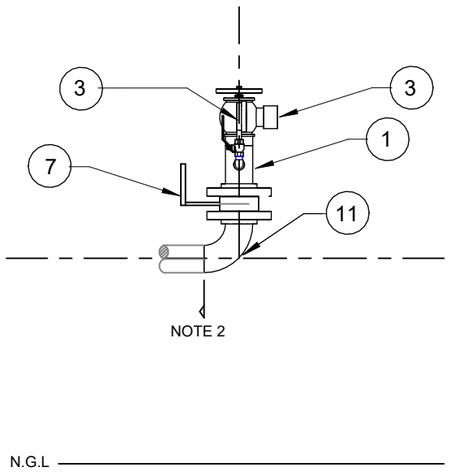
TPL DRAWING No. HO1436-TYP-FP-DE-0002

REV



FRONT VIEW

SCALE: N.T.S



SIDE VIEW

SCALE: N.T.S

DRAWING NOTES

1 CONTRACTOR TO DESIGN FIRE HYDRANT TO SUIT PIPING CHANGE. FIRE HYDRANT TO MAINTAIN THE STANDARD HEIGHT.
2 REFER TO ISOMETRIC FOR CONTINUATION DETAILS.
3 CONTRACTOR TO DETERMINE DURING DETAILED DESIGN.

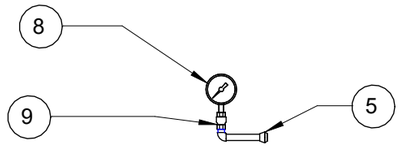
PL SPECIFICATIONS

PL 898 BUTTERFLY VALVE SPECIFICATION
PL 909 PRESSURE GAUGE SPECIFICATION
PL 910 FIRE DEPARTMENT INTERFACE EQUIPMENT SPECIFICATION
PL 912 PIPING SUPPLY AND INSTALLATION SPECIFICATION

PROCESS DATA	
PROCESS FLUID	WATER
DESIGN PRESSURE	NOTE 3 - REFER PL 912
TEST PRESSURE	NOTE 3 - REFER PL 912
DESIGN TEMP	NOTE 3 - REFER PL 912
FLUID GROUP	NOTE 3
SANS 347 CAT	NOTE 3
CORROSION PROTECTION SYSTEM	REFER PL 912

BILL OF MATERIALS

ITEM	MATERIAL	DESCRIPTION
1	IN ACCORDANCE WITH PL 912	80NB CARBON STEEL PIPE
2	IN ACCORDANCE WITH PL 912	80NB CARBON STEEL PIPE
3	IN ACCORDANCE WITH PL 912	80NB SLIP-ON RAISED FACE FLANGE
4	IN ACCORDANCE WITH PL 910	HYDRANT VALVE
5	IN ACCORDANCE WITH PL 912	80x15 WELDOLET
6	IN ACCORDANCE WITH PL 912	80NB GASKET 3mm THICK
7	IN ACCORDANCE WITH PL 912	COMPLETE NUTS, BOLTS AND WASHERS SETS TO SUIT 80NB FLANGE
8	IN ACCORDANCE WITH PL 909	PRESSURE GAUGE
9	IN ACCORDANCE WITH PL 898	15NB BUTTERFLY VALVE
10	IN ACCORDANCE WITH PL 898	80NB BUTTERFLY VALVE
11	IN ACCORDANCE WITH PL 912	15NB ELBOW
12	IN ACCORDANCE WITH PL 912	80NB ELBOW



PRESSURE GAUGE DETAIL

SCALE: N.T.S

DESIGNER			
RESP. ENG			
PROJ. MANAGER			
CLIENT			
ROLE	NAME	SIGN	DATE

DRAWING APPROVAL STATUS

PROJECT:
TRANSNET PIPELINES
HW FIRE

A3

TITLE:
FIRE HYDRANT SINGLE CONNECTION
TYPICAL DRAWING

SCALE
As indicated

CHECKED:
BJ

APPROVED:
BJ

CAD FILE:
HO1436-TPL_2024_09_0008
_77334_RFP-FAT-0001

DESIGN-DRAWN:
HS - HS

DATE:
2025-07-14

PROJECT No:
11364

DRAWING No:
11364-A1172

REV:
A

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REVISIONS

REV	DATE	BY	CHK	DESCRIPTION
A	2026-01-12	HS	BJ	ISSUED FOR ACCEPTANCE

TRANSNET pipelines

PROJECT NAME
HW FIRE

DRAWN		REF.	
TRACED		DATE	
CHECKED		APPROVED	
SCALE			

TPL DRAWING No.
HO1436-TYP-FP-DE-0009

REV