

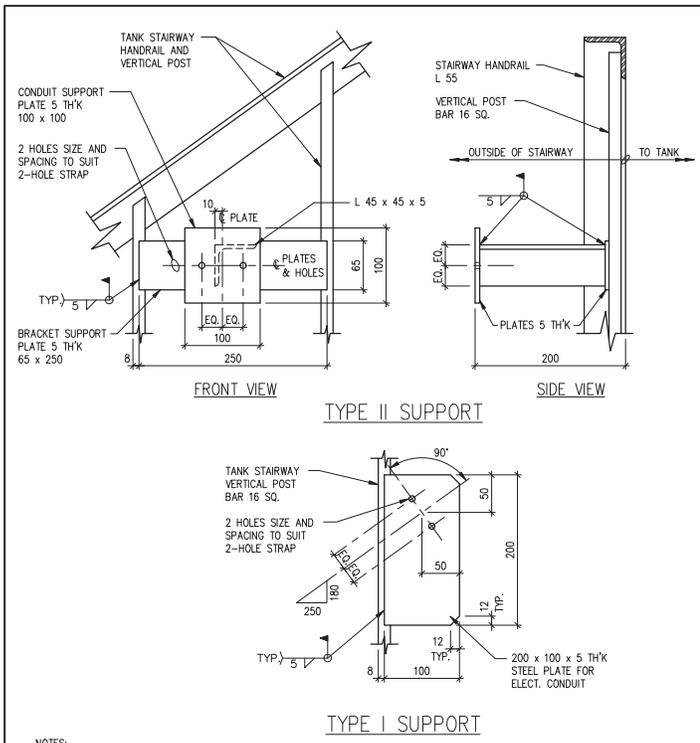
- NOTES:**
- 1- FOR TANK AND CATWALK ARRANGEMENT REFER TO PARTICULAR PROJECT DRAWINGS.
 - 2- FOR FINISH GRADE ELEVATIONS SEE PARTICULAR PROJECT DRAWINGS.
 - 3- PROVIDE SHOP DRAWINGS OF CATWALK AND STAIRWAY AS PER SPECIFICATIONS, DIVISION 1, SECTION 01340.
 - 4- FOR MATERIAL FOR CATWALK & STAIRWAY, GRATING & STEPS REFER TO SPECIFICATIONS, DIVISION 5, SECTION 05500.
 - 5- FOR ELECTRICAL REFER TO ELECTRICAL DRAWINGS AND SPECIFICATIONS, DIVISION 16, SECTION 16010.

- LEGEND:**
- T.O.H. = TOP OF HANDRAIL
 - T.O.F.B. = TOP OF FLAT BAR
 - T.O.K.P. = TOP OF KICK PLATE
 - T.O.G. = TOP OF GRATING



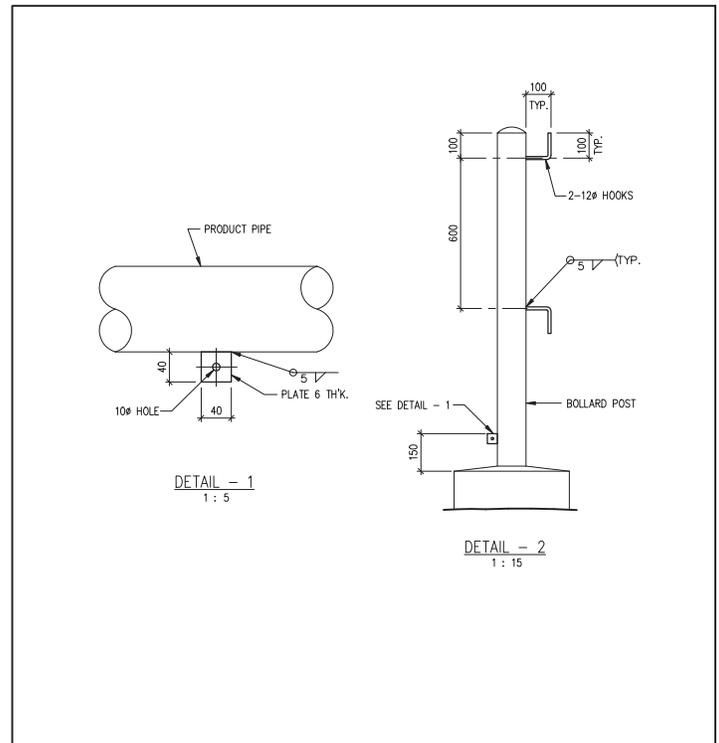
Drawing Title
CATWALKS & STAIRWAY FOR HORIZONTAL TANKS MISCELLANEOUS DETAILS

| | | |
|------------------------|-----------------------|------------------|
| Design EDZ | Ver. EDZ | Scale 1 : 20 |
| Drawn KJ | Appr. REE | Date 94/04/29 |
| Revised By REE | Drawing No. NT-S47 | |
| Revised On 04/09/07 | | |



NOTES:

- 1- TYPE I SUPPORT PLATE IS SIZED TO SUPPORT TWO CONDUITS. WHEN ONLY ONE CONDUIT IS REQUIRED, SAME IS INSTALLED AT THE UPPER HALF OF SUPPORT PLATE.
- 2- FOR POSITION OF PLATES REFER TO DWG. NT-E04 OR NT-E05 OR NT-E06 AND TO PARTICULAR PROJECT DRAWINGS.
- 3- FOR MATERIALS REFER TO SPECIFICATIONS, DIVISION 5, SECTION 05500.

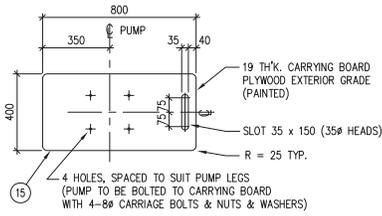


NOTE:

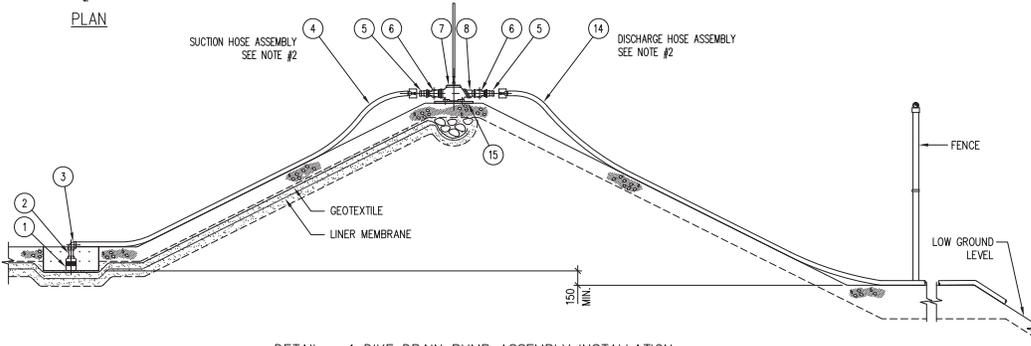
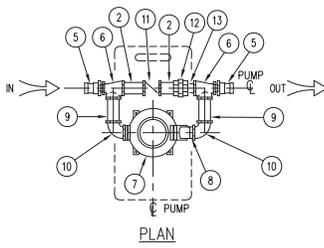
- 1- FOR MATERIAL REFER TO SPECIFICATIONS, DIVISION 5, SECTION 05500.

| | | | | |
|---|-------------|------------------|------------------------|-----------------------|
| Drawing Title TYPE I AND TYPE II SUPPORTS FOR ELECTRICAL CONDUITS AT VERTICAL TANK STAIRWAY DETAILS | | | | |
| Design EDZ | Ver. EDZ | Scale 1 : 5 | Revised By REE | Drawing No. NT-S48 |
| Drawn KJ | Appr. | Date 94/04/29 | Revised On 04/09/07 | |

| | | | | |
|---|-------------|-------------------|------------------------|-----------------------|
| Drawing Title GROUND LUG PLATE & HOOKS AT BOLLARD AT TRUCK UNLOADING POINT DETAIL | | | | |
| Design EDZ | Ver. EDZ | Scale AS SHOWN | Revised By REE | Drawing No. NT-S49 |
| Drawn KJ | Appr. | Date 94/04/29 | Revised On 04/09/07 | |



DETAIL - 2 PUMP CARRYING BOARD



DETAIL - 1 DIKE DRAIN PUMP ASSEMBLY INSTALLATION

LIST OF MATERIAL FOR DIKE DRAIN PUMP ASSEMBLY *

| ITEM | SIZE (S.I.) | DESCRIPTION |
|------|-----------------|--|
| ① | 50# | SUCTION STUB STRAINER. |
| ② | 50# x 100 LG. | GALVANIZED STEEL PIPE NIPPLE, THREADED ENDS. |
| ③ | 50# | ELBOW 90', M. I. GALVANIZED, THREADED |
| ④ | | SUCTION HOSE ASSEMBLY (SEE NOTE 2) & SPECIFICATIONS |
| ⑤ | | OPW KAMLOK #633-F ADAPTER. |
| ⑥ | 50# x 38# x 50# | THREADED TEE, MALLABLE IRON, GALV'D |
| ⑦ | 38# x 38# | DIAPHRAGM PUMP, GORMAN RUPP, MODEL 4790-97 (SEE SPECIFICATIONS). |
| ⑧ | 38# x 100 Lg. | GALVANIZED STEEL PIPE NIPPLE, THREADED ENDS. |
| ⑨ | 38# x 200 LG. | GALVANIZED STEEL PIPE NIPPLE, THREADED ENDS. |
| ⑩ | 38# | ELBOW 90', MALLABLE IRON THREADED, GALVANIZED |
| ⑪ | 50# | CHECK VALVE, BRONZE, THREADED ENDS, FEMALE NPT |
| ⑫ | 50# | UNION, MALLABLE IRON, CLASS 300 THREADED. GALVANIZED |
| ⑬ | 50# x TO SUIT | PIPE, ERW, GALVANIZED, THREADED |
| ⑭ | 50# | DISCHARGE HOSE ASSEMBLY (SEE NOTE 2) & SPECIFICATIONS. |
| ⑮ | - | PUMP CARRYING BOARD, SEE DETAIL-2 |

* FOR DESCRIPTION OF ITEMS SEE SPECIFICATIONS, DIV. 15, SECTION 15010.

NOTES:

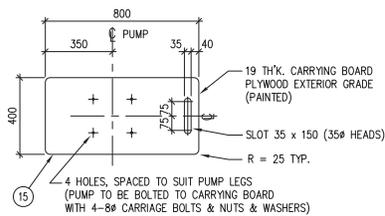
- 1- UNLESS OTHERWISE INDICATED ONE DIKE DRAIN PUMP ASSEMBLY TO BE PROVIDED FOR EACH SITE.
- 2- FOR LENGTH OF SUCTION & DISCHARGE HOSES REFER TO PARTICULAR PROJECT DRAWINGS. DISCHARGE HOSE SHALL EXTEND TO LOW GROUND LEVEL OUTSIDE OF FENCE.
- 3- FOR MATERIALS REFER TO SPECIFICATIONS, DIVISION 15, SECTION 15010.
- 4- PUMP & HOSES TO BE STORED INDOORS WHEN NOT USED.



Northwest Territories Public Works & Services

Drawing Title
DIKE DRAIN PUMP ASSEMBLY
PLAN & DETAILS

| | | |
|------------------------|-----------------------|------------------|
| Design EDZ | Ver. EDZ | Scale 1 : 40 |
| Drawn KJ | Appr. | Date 95/02/28 |
| Revised By REE | Drawing No. NT-P01 | |
| Revised On 04/09/07 | | |



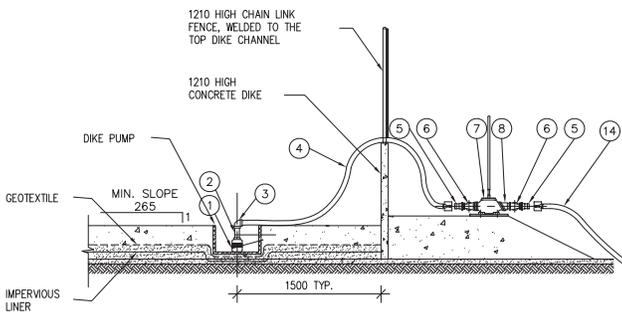
DETAIL - 2 PUMP CARRYING BOARD

| LIST OF MATERIAL FOR DIKE DRAIN PUMP ASSEMBLY * | | |
|---|-----------------|--|
| ITEM | SIZE (S.I.) | DESCRIPTION |
| 1 | 50# | SUCTION STUB STRAINER. |
| 2 | 50# x 100 LG. | GALVANIZED STEEL PIPE NIPPLE, THREADED ENDS. |
| 3 | 50# | ELBOW 90', M. I. GALVANIZED, THREADED |
| 4 | | SUCTION HOSE ASSEMBLY (SEE NOTE 2) & SPECIFICATIONS |
| 5 | | OPW KAMLOK #633-F ADAPTER. |
| 6 | 50# x 38# x 50# | THREADED TEE, MALLABLE IRON, GALV'D |
| 7 | 38# x 38# | DIAPHRAGM PUMP, GORMAN RUPP, MODEL 4790-97 (SEE SPECIFICATIONS). |
| 8 | 38# x 100 Lg. | GALVANIZED STEEL PIPE NIPPLE, THREADED ENDS. |
| 9 | 38# x 200 LG. | GALVANIZED STEEL PIPE NIPPLE, THREADED ENDS. |
| 10 | 38# | ELBOW 90', MALLABLE IRON THREADED, GALVANIZED |
| 11 | 50# | CHECK VALVE, BRONZE, THREADED ENDS, FEMALE NPT |
| 12 | 50# | UNION, MALLABLE IRON, CLASS 300 THREADED. GALVANIZED |
| 13 | 50# x TO SUIT | PIPE, ERW, GALVANIZED, THREADED |
| 14 | 50# | DISCHARGE HOSE ASSEMBLY (SEE NOTE 2) & SPECIFICATIONS. |
| 15 | - | PUMP CARRYING BOARD, SEE DETAIL-2 |

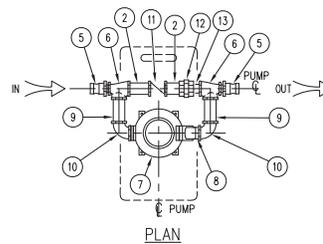
* FOR DESCRIPTION OF ITEMS SEE SPECIFICATIONS, DIV. 15, SECTION 15010.

NOTES:

- UNLESS OTHERWISE INDICATED ONE DIKE DRAIN PUMP ASSEMBLY TO BE PROVIDED FOR EACH SITE.
- FOR LENGTH OF SUCTION & DISCHARGE HOSES REFER TO PARTICULAR PROJECT DRAWINGS. DISCHARGE HOSE SHALL EXTEND TO LOW GROUND LEVEL OUTSIDE OF FENCE.
- FOR MATERIALS REFER TO SPECIFICATIONS, DIV. 15, SECTION 15010.
- PUMP & HOSES TO BE DRAINED AND STORED INDOORS WHEN NOT USED.
- FOR CONCRETE DIKES THE PUMP WILL BE LOCATED OUTSIDE THE DIKE AND THE SUCTION HOSE WILL BE RUN OVER THE DIKE AND UNDER THE FENCE.

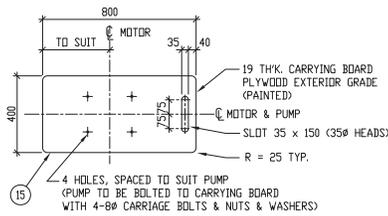


DETAIL - 1 DIKE DRAIN PUMP ASSEMBLY INSTALLATION

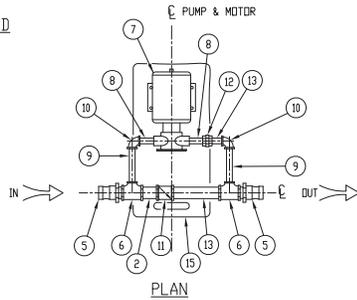


Drawing Title
DIKE DRAIN PUMP ASSEMBLY
FOR CONCRETE DIKE
PLAN & DETAILS

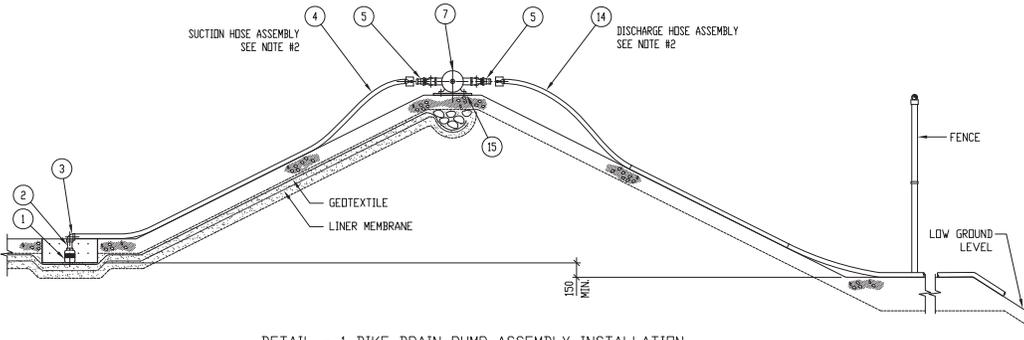
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|------------------------|------------------------|------------------|
| Design EDZ | Ver. EDZ | Scale 1 : 40 |
| Drawn KJ | Appr. REE | Date 95/02/28 |
| Revised By REE | Drawing No. NT-P01A | |
| Revised On 04/09/07 | | |



DETAIL - 2 PUMP CARRYING BOARD



PLAN



DETAIL - 1 DIKE DRAIN PUMP ASSEMBLY INSTALLATION

| LIST OF MATERIAL FOR DIKE DRAIN PUMP ASSEMBLY * | | |
|---|-----------------|--|
| ITEM | SIZE (S.I.) | DESCRIPTION |
| 1 | 50Ø | SUCTION STUB STRAINER. |
| 2 | 50Ø x 100 L.G. | GALVANIZED STEEL PIPE NIPPLE, THREADED ENDS. |
| 3 | 50Ø | ELBOW 90°, MALLABLE IRON, GALVANIZED, THREADED. |
| 4 | | SUCTION HOSE ASSEMBLY (SEE NOTE #2.) & SPEC'S. |
| 5 | | DPW KAMLOK #633-F ADAPTER. |
| 6 | 50Ø x 25Ø x 50Ø | THREADED TEE, MALLABLE IRON, GALVANIZED. |
| 7 | 25Ø x 25Ø | 3/4 HP DIRECT DRIVE ELECTRIC PUMP, JABSCO, MODEL 6050-0013 |
| 8 | 25Ø x 100 L.G. | GALVANIZED STEEL PIPE NIPPLE, THREADED ENDS. |
| 9 | 25Ø x 200 L.G. | GALVANIZED STEEL PIPE NIPPLE, THREADED ENDS. |
| 10 | 25Ø | ELBOW 90°, MALLABLE IRON, GALVANIZED, THREADED. |
| 11 | 50Ø | CHECK VALVE, BRONZE, THREADED ENDS, FEMALE NPT. |
| 12 | 25Ø | UNION, M. I., CLASS 300 THREADED, GALVANIZED. |
| 13 | 50Ø x TO SUIT | PIPE, ERW, THREADED, GALVANIZED. |
| 14 | 38Ø | DISCHARGE HOSE ASSEMBLY (SEE NOTE #2.) & SPEC'S. |
| 15 | - | PUMP CARRYING BOARD, SEE DETAIL-2. |

* FOR DESCRIPTION OF ITEMS SEE SPECIFICATIONS, DIV. 15, SECTION 15010.

NOTES:

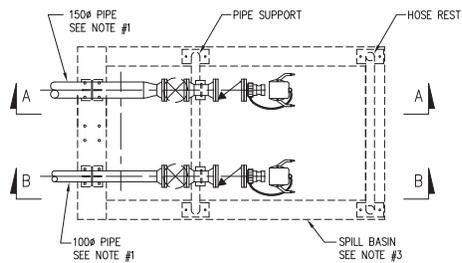
- UNLESS OTHERWISE INDICATED ONE DIKE DRAIN PUMP ASSEMBLY TO BE PROVIDED FOR EACH SITE.
- FOR LENGTH OF SUCTION & DISCHARGE HOSES REFER TO PARTICULAR PROJECT DRAWINGS. DISCHARGE HOSE SHALL EXTEND TO LOW GROUND LEVEL OUTSIDE OF FENCE.
- FOR MATERIALS REFER TO SPECIFICATIONS, DIVISION 15, SECTION 15010.
- PUMP & HOSES TO BE DRAINED AND STORED INDOORS WHEN NOT USED.

NOTE: THIS IS A WATER PUMP AND SHALL NOT BE USED FOR GASOLINE OR DIESEL FUEL.

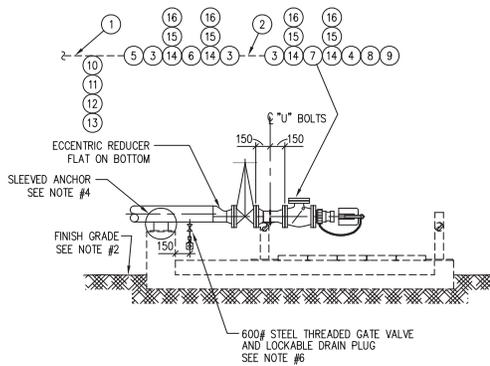


Drawing Title
ELECTRIC DIKE DRAIN PUMP ASSEMBLY
PLAN & DETAILS

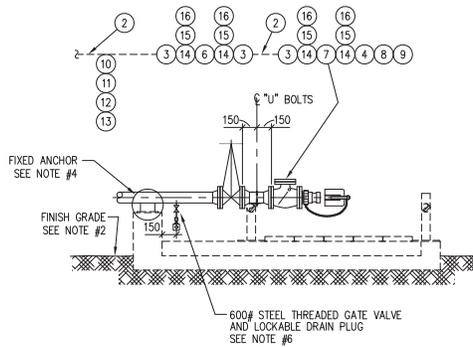
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| Design EDZ | Ver. EDZ | Scale 1 : 40 |
| Drawn KJ | Appr. REE | Date 95/02/28 |
| Revised By REE | Drawing No. NT-P01B | |
| Revised On 04/09/07 | | |



PLAN VIEW
(ONLY 1-150# & 1-100# PIPES SHOWN MAX 3 LINES SEE NOTE #1)



SECTION A-A
(TYPICAL ARRANGEMENT FOR 1-150# PIPE)



SECTION B-B
(TYPICAL ARRANGEMENT FOR 1-100# PIPE)

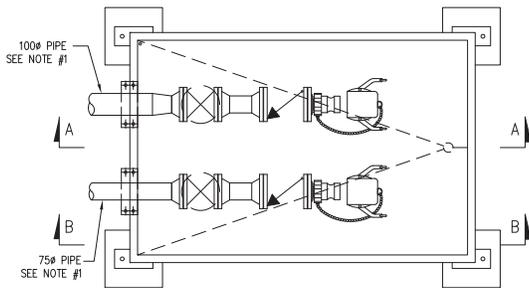
| LIST OF MATERIAL | | |
|------------------|--------------|--|
| ITEM | SIZE (S.I.) | DESCRIPTION |
| 1 | 150# | CARBON STEEL PIPE, ERW, SCH. 40, A53 GR. B |
| 2 | 100# | CARBON STEEL PIPE, ERW, SCH. 40, A53 GR. B |
| 3 | | WELD NECK FLANGE, SCH. 40, A350, A350 GR. LF2 |
| 4 | | THREADED FLANGE, 150#, A350 GR LF2 |
| 5 | 150# x 100# | ECCENTRIC REDUCER, A234 GR. B |
| 6 | 100# | GATE VALVE, FLANGED, 150# A352 GR. LCB |
| 7 | | CHECK VALVE, FLANGED, 150# A352 GR. LCB |
| 8 | | KAMLOK ADAPTOR, OPW No. 633-F, STAINLESS STEEL |
| 9 | | KAMLOK CAP, LOCKABLE TYPE, OPW # 634-BK, ALUM. |
| 10 | 25# | HALF COUPLING, THREADED, A350 GR. LF2 |
| 11 | | PIPE NIPPLE, TBE, SCH. 80, 100 LONG, A53 SMLS |
| 12 | | 600# STEEL THREADED GATE VALVE, 600#, A105N |
| 13 | | LOCKABLE PLUG, SEE NOTE #6 (STEEL) |
| 14 | 100# | GASKET, JOHN CRANE STYLE 2160, NON-ASBESTUS |
| 15 | 16# x 89 Lg. | STUD BOLTS, A320 GR. L7 |
| 16 | 16# | NUTS, A194 GR. 4 |

- NOTES:
- 1- FOR NUMBER, SIZE & ARRANGEMENT OF PRODUCT PIPES SEE PARTICULAR PROJECT DRAWINGS.
 - 2- FOR FINISH ELEVATIONS SEE PARTICULAR PROJECT DRAWINGS.
 - 3- FOR SPILL BASIN SEE DWG. NT-S11
 - 4- FOR SLEEVED ANCHOR SEE DWG. NT-S16.
 - 5- FOR PIPING, VALVES & FITTING MATERIALS DETAILS SEE SPECIFICATIONS, DIV.15, SEC. 15010.
 - 6- FOR LOCKABLE DRAIN PLUG SEE DWG. NT-P07

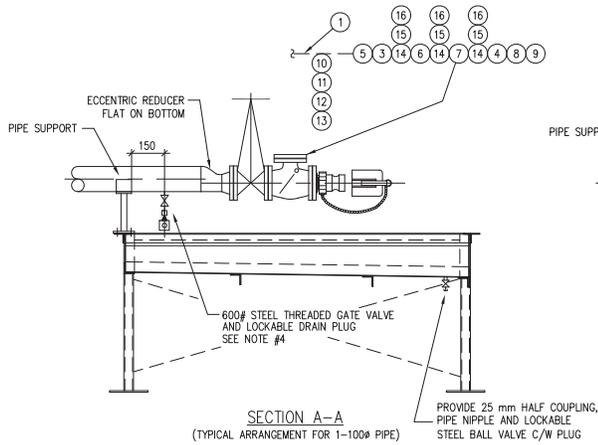


Drawing Title
SEA HOSE CONNECTION PIPING
AT SPILL BASIN
PLAN, SECTIONS

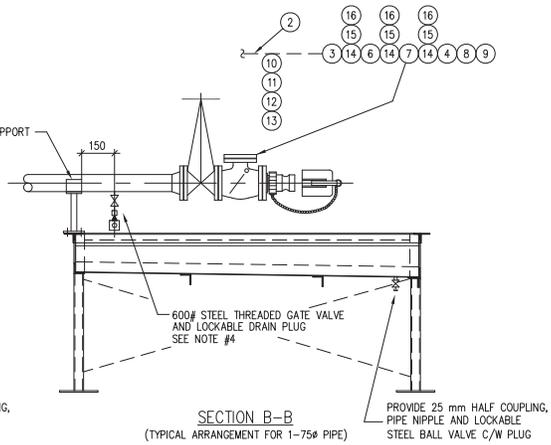
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| Design RWM/LR | Ver. EDZ | Scale 1 : 40 |
| Drawn KJ | Appr. REE | Date 95/02/28 |
| Revised By REE | Drawing No. NT-P02 | |
| Revised On 04/09/07 | | |



PLAN VIEW
(ONLY 1-100# & 1-75# PIPES SHOWN MAX 2 LINES SEE NOTE #1)



SECTION A-A
(TYPICAL ARRANGEMENT FOR 1-100# PIPE)



SECTION B-B
(TYPICAL ARRANGEMENT FOR 1-75# PIPE)

| LIST OF MATERIAL | | |
|------------------|--------------|--|
| ITEM | SIZE (S.I.) | DESCRIPTION |
| 1 | 100# | CARBON STEEL PIPE, ERW, SCH. 80, A53 GR. B |
| 2 | 75# | CARBON STEEL PIPE, ERW, SCH. 80, A53 GR. B |
| 3 | | WELD NECK FLANGE, SCH. 40, A350, A350 GR. LF2 |
| 4 | | THREADED FLANGE, 150#, A350 GR LF2 |
| 5 | 1000# x 75# | ECCENTRIC REDUCER, A234 GR. B |
| 6 | 75# | GATE VALVE, FLANGED, 150# A352 GR. LCB |
| 7 | | CHECK VALVE, FLANGED, 150# A352 GR. LCB |
| 8 | | KAMLOK ADAPTOR, OPW No. 633-F, STAINLESS STEEL |
| 9 | | KAMLOK CAP, LOCKABLE TYPE, OPW # 634-BK, ALUM. |
| 10 | 25# | HALF COUPLING, THREADED, A350 GR. LF2 |
| 11 | | PIPE NIPLER, TBE, SCH. 80, 100 LONG, A53 SMLS |
| 12 | | 600# STEEL THREADED GATE VALVE, 600#, A105N |
| 13 | 25# | LOCKABLE PLUG, SEE NOTE #6 (STEEL) |
| 14 | 75# | GASKET, JOHN CRANE STYLE 2160, NON-ASBESTUS |
| 15 | 16# x 89 Lg. | STUD BOLTS, A320 GR. L7 |
| 16 | 16# | NUTS, A194 GR. 4 |

- NOTES:
- FOR NUMBER, SIZE & ARRANGEMENT OF PRODUCT PIPES SEE PARTICULAR PROJECT DRAWINGS.
 - FOR SPILL BASIN SEE DWG. NT-S11
 - FOR PIPING, VALVES & FITTING MATERIALS DETAILS SEE SPECIFICATIONS, DIV.15, SEC. 15010.
 - FOR LOCKABLE DRAIN PLUG SEE DWG. NT-P07

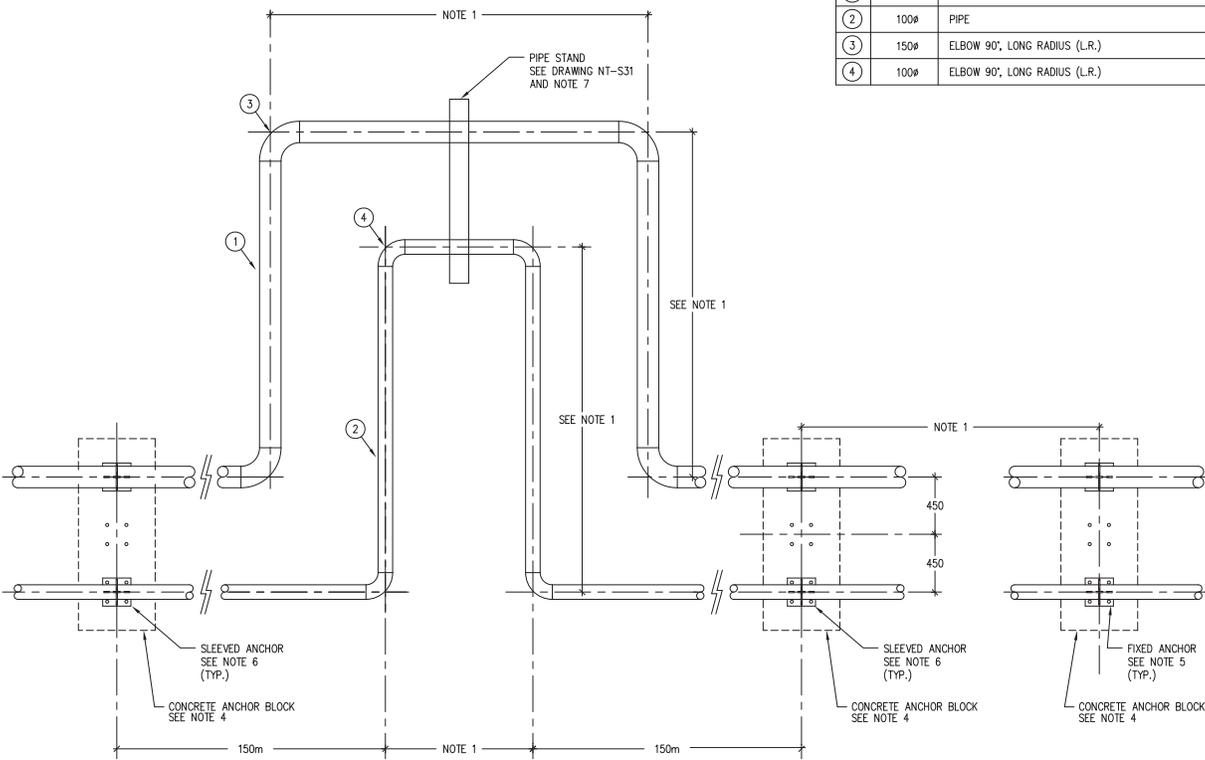


Design Title
FUEL TRUCK CONNECTION PIPING
AT SPILL BASIN
PLAN, SECTIONS

| | | |
|------------------------|------------------------|------------------|
| Design RM/LR | Ver. EDZ | Scale 1 : 20 |
| Drawn KJ | Appr. REE | Date 95/02/28 |
| Revised By REE | Drawing No. NT-P02A | |
| Revised On 04/08/31 | | |

| LIST OF MATERIAL | | |
|------------------|-------------|-------------------------------|
| ITEM | SIZE (S.I.) | DESCRIPTION |
| ① | 150Ø | PIPE |
| ② | 100Ø | PIPE |
| ③ | 150Ø | ELBOW 90°, LONG RADIUS (L.R.) |
| ④ | 100Ø | ELBOW 90°, LONG RADIUS (L.R.) |

- NOTES:**
- 1- NUMBER, TYPE, LOCATION & SPACING OF EXPANSION LOOPS AND MANNER OF INSTALLATION SHALL BE AS INDICATED ON PARTICULAR PROJECT DRAWINGS AND SPECIFICATIONS. ASSUME SUMMER INSTALLATION AND PROVIDE FOR MAXIMUM OFFSET MOTION OCCURING DURING LOCAL LOW WINTER TEMPERATURE AT THE TIME OF INSTALLATION.
 - 2- FOR NUMBER, SIZE & ARRANGEMENT OF PRODUCT PIPES SEE PARTICULAR PROJECT DRAWINGS.
 - 3- FOR FINISH ELEVATIONS SEE PARTICULAR PROJECT DRAWINGS.
 - 4- FOR LOCATION OF ANCHOR BLOCKS SEE PARTICULAR PROJECT DRAWINGS AND FOR CONCRETE ANCHOR BLOCK DETAIL SEE DWG. NT-S14.
 - 5- FOR FIXED ANCHOR SEE DWG. NT-S15.
 - 6- FOR SLEEVED ANCHOR SEE DWG. NT-S16.
 - 7- LOCATION OF PIPE STANDS TO BE AS SHOWN IN PARTICULAR PROJECT DRAWINGS.
 - 8- THIS DETAIL IS FOR GENERAL INFORMATION ONLY. EXPANSION LOOP DESIGN IS SITE SPECIFIC AND IS TO BE DESIGNED AND APPROVED BY THE ENGINEER FOR THE PARTICULAR INSTALLATION IN WHICH IT IS BEING USED.



PLAN VIEW

ONLY 1-150Ø & 1-100Ø PIPE ARE SHOWN (MAX. 3 LINES SEE NOTE 1)

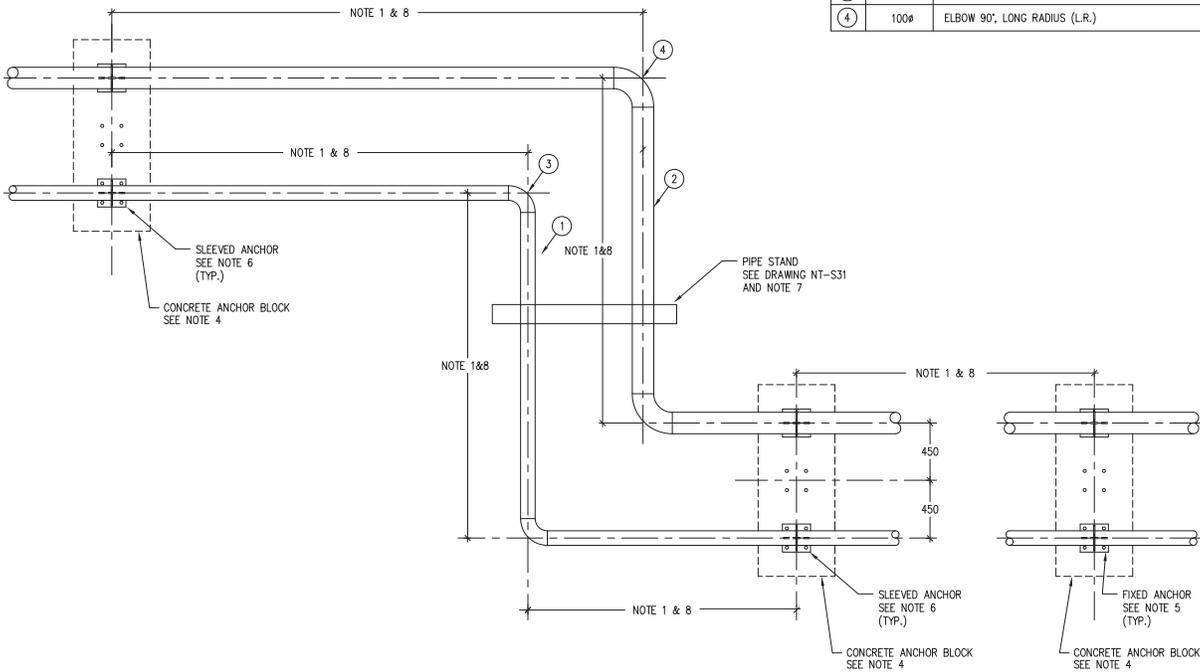


Drawing Title
**PIPELINE EXPANSION LOOP
 TYPE 1 DETAIL**

| | | |
|------------------------|-----------------------|------------------|
| Design RVM | Ver. EDZ | Scale N.T.S. |
| Drawn KJ | Appr. REE | Date 95/02/28 |
| Revised By REE | Drawing No. NT-P03 | |
| Revised On 04/05/16 | | |

| LIST OF MATERIAL | | |
|------------------|-------------|-------------------------------|
| ITEM | SIZE (S.I.) | DESCRIPTION |
| ① | 150Ø | PIPE |
| ② | 100Ø | PIPE |
| ③ | 150Ø | ELBOW 90°, LONG RADIUS (L.R.) |
| ④ | 100Ø | ELBOW 90°, LONG RADIUS (L.R.) |

- NOTES:**
- 1- NUMBER, TYPE, LOCATION & SPACING OF EXPANSION LOOPS AND MANNER OF INSTALLATION SHALL BE AS INDICATED ON PARTICULAR PROJECT DRAWINGS AND SPECIFICATIONS. ASSUME SUMMER INSTALLATION AND PROVIDE FOR MAXIMUM OFFSET MOTION OCCURING DURING LOCAL LOW WINTER TEMPERATURE AT THE TIME OF INSTALLATION.
 - 2- FOR NUMBER, SIZE & ARRANGEMENT OF PRODUCT PIPES SEE PARTICULAR PROJECT DRAWINGS.
 - 3- FOR FINISH ELEVATIONS SEE PARTICULAR PROJECT DRAWINGS.
 - 4- FOR CONCRETE ANCHOR BLOCK SEE DWG. NT-S14
 - 5- FOR FIXED ANCHOR SEE DWG. NT-S15
 - 6- FOR SLEEVED ANCHOR SEE DWG. NT-S16
 - 7- LOCATION OF PIPE STANDS TO BE AS SHOWN IN PARTICULAR PROJECT DRAWINGS.
 - 8- THIS DETAIL IS FOR GENERAL INFORMATION ONLY. EXPANSION LOOP DESIGN IS SITE SPECIFIC AND IS TO BE DESIGNED AND APPROVED BY THE ENGINEER FOR THE PARTICULAR INSTALLATION IN WHICH IT IS BEING USED.

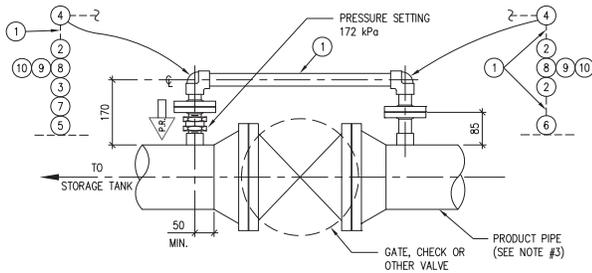


PLAN VIEW
 ONLY 1-150Ø & 1-100Ø PIPES SHOWN (MAX. 3 LINES SEE NOTE 1)



Drawing Title
 PIPELINE EXPANSION LOOP
 TYPE 2 DETAIL

| | | |
|------------------------|-----------------------|------------------|
| Design RVM | Ver. EDZ | Scale N.T.S. |
| Drawn KJ | Appr. | Date 95/02/28 |
| Revised By REE | Drawing No. NT-P04 | |
| Revised On 04/05/16 | | |



PLAN VIEW
(BASIC ARRANGEMENT, RIGHT HAND SHOWN, LEFT HAND ON OPPOSITE SIDE)

| LIST OF MATERIAL | | |
|------------------|--------------|--|
| ITEM | SIZE (S.I.) | DESCRIPTION |
| 1 | 25# | PIPE |
| 2 | | SLIP-ON FLANGE |
| 3 | | THREADED FLANGE |
| 4 | | ELBOW 90°, SOCKET WELD |
| 5 | | HALF COUPLING, THREADED |
| 6 | | HALF COUPLING, SOCKET WELD |
| 7 | | THERMAL PRESSURE RELIEF VALVE (SEE NOTES #1, 2, & 3) |
| 8 | | GASKET |
| 9 | 12# x 65 LG. | STUD BOLT |
| 10 | 12# | NUT (2 EACH BOLT) |

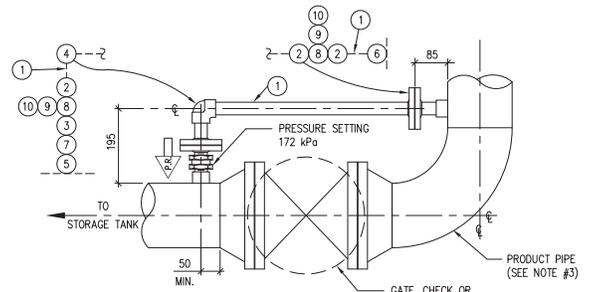
NOTES:

- 1- IN-LINE TYPE PRESSURE RELIEF VALVE WITH ENGRAVED ARROW ON ONE SIDE OF VALVE (TO INDICATE DIRECTION IN WHICH PRESSURE IS TO BE RELIEVED)
- 2- ENSURE THAT NAMEPLATE IS NOT DAMAGED OR PAINTED OVER.
- 3- BASIC ARRANGEMENT SHOWN IS APPLICABLE TO PRODUCT PIPE 50 mm THRU 150 mm DIAMETER.
- 4- HOLES AT FLANGES TO BE STRADDLED ABOUT HORIZONTAL & VERTICAL AXIS OF PIPE.
- 5- FOR MORE DESCRIPTION OF ITEMS REFER TO SPECIFICATIONS, DIVISION 15, SECTION 15010.
- 6- SEE SPECIFICATIONS, DIVISION 15, SECTION 15010, FOR ALTERNATIVE INSTALLATION ON VALVE BODY.



Drawing Title
TYPICAL INSTALLATION OF TYPE 1 PRESSURE RELIEF BY-PASS
(ACROSS VALVES AT EXTERIOR PIPING)

| | | | | |
|---------------|-------------|------------------|------------------------|-------------|
| Design RVM | Ver. EDZ | Scale 1 : 10 | Revised By REE | Drawing No. |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/05/16 | NT-P05 |



PLAN VIEW
(BASIC ARRANGEMENT, RIGHT HAND SHOWN, LEFT HAND ON OPPOSITE SIDE)

| LIST OF MATERIAL | | |
|------------------|--------------|--|
| ITEM | SIZE (S.I.) | DESCRIPTION |
| 1 | 25# | PIPE |
| 2 | | SLIP-ON FLANGE |
| 3 | | THREADED FLANGE |
| 4 | | ELBOW 90°, SOCKET WELD |
| 5 | | HALF COUPLING, THREADED |
| 6 | | HALF COUPLING, SOCKET WELD |
| 7 | | THERMAL PRESSURE RELIEF VALVE (SEE NOTES #1, 2, & 3) |
| 8 | | GASKET |
| 9 | 12# x 65 LG. | STUD BOLT |
| 10 | 12# | NUT (2 EACH BOLT) |

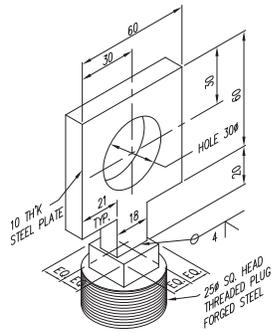
NOTES:

- 1- IN-LINE TYPE PRESSURE RELIEF VALVE WITH ENGRAVED ARROW ON ONE SIDE OF VALVE (TO INDICATE DIRECTION IN WHICH PRESSURE IS TO BE RELIEVED)
- 2- ENSURE THAT NAMEPLATE IS NOT DAMAGED OR PAINTED OVER.
- 3- BASIC ARRANGEMENT SHOWN IS APPLICABLE TO PRODUCT PIPE 50 mm THRU 150 mm DIAMETER.
- 4- HOLES AT FLANGES TO BE STRADDLED ABOUT HORIZONTAL & VERTICAL AXIS OF PIPE.
- 5- FOR MORE DESCRIPTION OF ITEMS REFER TO SPECIFICATIONS, DIVISION 15, SECTION 15010.
- 6- SEE SPECIFICATIONS, DIVISION 15, SECTION 15010, FOR ALTERNATIVE INSTALLATION ON VALVE BODY.

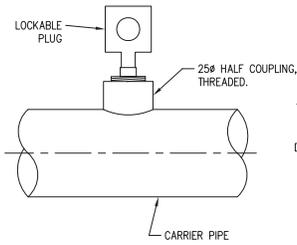


Drawing Title
TYPICAL INSTALLATION OF TYPE 2 PRESSURE RELIEF BY-PASS
(ACROSS VALVES AT EXTERIOR PIPING)

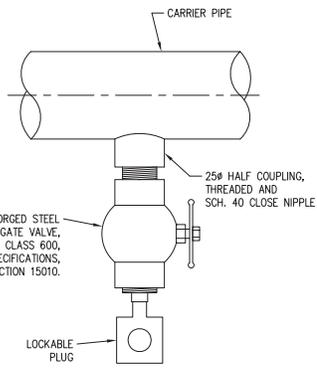
| | | | | |
|---------------|-------------|------------------|------------------------|-------------|
| Design RVM | Ver. EDZ | Scale 1 : 10 | Revised By REE | Drawing No. |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/05/16 | NT-P06 |



LOCKABLE PLUG DETAIL
SCALE: 1 : 2



VENT DETAIL
SCALE: 1 : 5

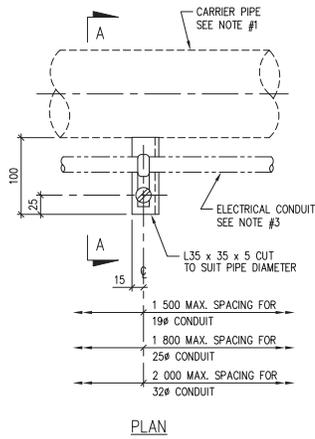


DRAIN VALVE DETAIL
SCALE: 1 : 5

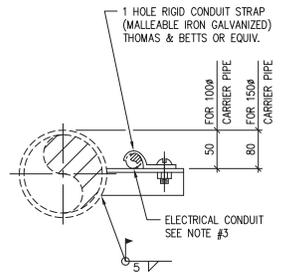
NOTES:

- 1- FOR LOCATION OF LOCKABLE PLUGS REFER TO PARTICULAR PROJECT DRAWINGS.
- 2- FOR MATERIAL REFER TO SPECIFICATIONS, DIV. 15, SECTION 15010.

| | | | | |
|---|-------------|-------------------|------------------------|-----------------------|
| Drawing Title PIPE DRAIN VALVE, VENT AND LOCKABLE PLUG DETAILS | | | | |
| Design EDZ | Ver. EDZ | Scale AS SHOWN | Revised By REE | Drawing No. NT-P07 |
| Drawn KJ | Appr. | Date 94/04/29 | Revised On 04/05/16 | |



PLAN

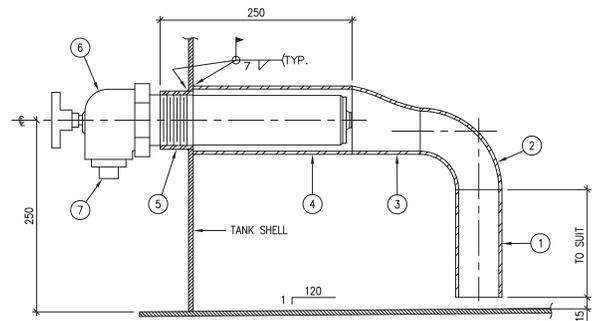


SECTION A-A

NOTES:

- 1- WELDING OF STEEL ANGLE TO PIPE ONLY TO BE DONE ON GAS FREE PIPE, SAFE FOR HOTWORK.
- 2- FOR SIZE OF CARRIER PIPE REFER TO PARTICULAR PROJECT DRAWINGS.
- 3- FOR SIZE OF RIGID CONDUIT REFER TO ELECTRICAL DRAWINGS FOR PARTICULAR PROJECT.

| | | | | |
|---|-------------|------------------|------------------------|-----------------------|
| Drawing Title BRACKET, TYPE "PB1" FOR ELECTRICAL CONDUITS DETAIL | | | | |
| Design EDZ | Ver. EDZ | Scale 1 : 5 | Revised By REE | Drawing No. NT-P08 |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/05/16 | |



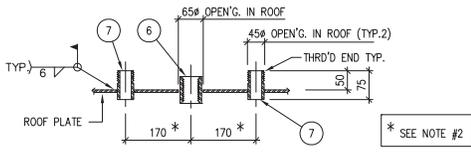
| LIST OF MATERIAL | | |
|------------------|-------------|---|
| ITEM | SIZE (S.I.) | DESCRIPTION |
| ① | 50ø | PIPE, A53, GR. B. |
| ② | 50ø | ELBOW 90°, L.R., A234, GR. B. |
| ③ | 75ø x 50ø | ECCENTRIC REDUCER, FLAT ON BOTTOM, A234, GR. B. |
| ④ | 75ø | PIPE, A53, GR. B. |
| ⑤ | 50ø | HALF COUPLING, THREADED, A350, GR. LF2, CLASS 3000. |
| ⑥ | 50ø | WATER DRAIN VALVE (LOCKABLE) S&J MODEL 96181. |
| ⑦ | 38ø | PLUG, THREADED, SQUARE HEAD, STEEL. |

NOTES:

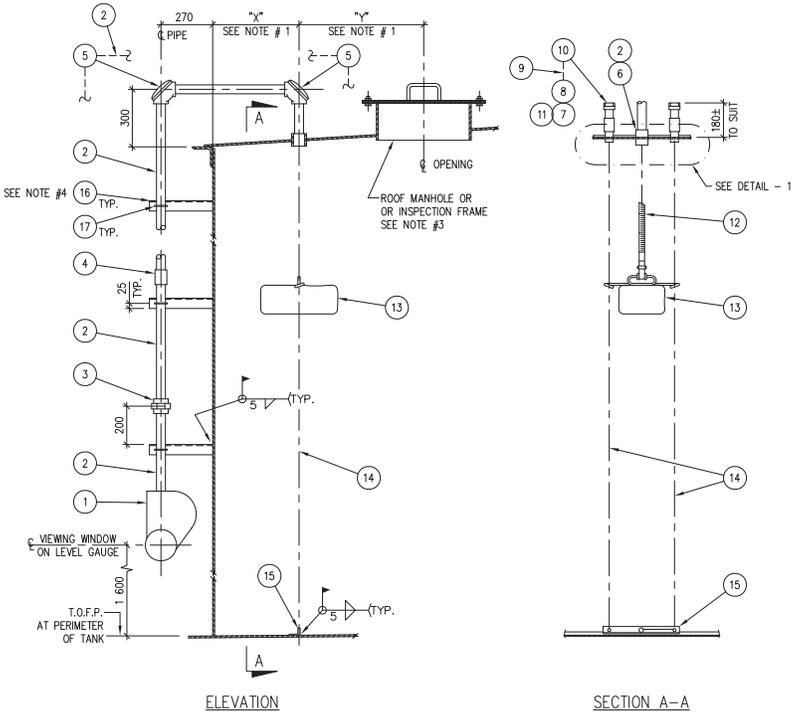
- 1- FOR LOCATION OF "SN3" SEE DWG. NT-P09
- 2- FOR MATERIAL SEE SPECIFICATIONS, DIV. 15, SECTION 15010.



| | | | | |
|---|-------------|------------------|------------------------|-------------|
| Drawing Title WATER DRAIN VALVE CONNECTION "SN3" & INTERNAL PIPING AT VERTICAL TANKS DETAIL | | | | |
| Design RVM | Ver. EDZ | Scale 1 : 5 | Revised By REE | Drawing No. |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/05/16 | NT-P10 |



DETAIL-1 : ROOF NOZZLE "RN3"



ELEVATION

SECTION A-A

LIST OF MATERIAL

| No. | DESCRIPTION | SIZE OR REMARKS |
|-----|--|-----------------|
| 1 | AUTOMATIC LEVEL GAUGE HEAD | SEE NOTE #2 |
| 2 | PIPE, GALVANIZED | 38# |
| 3 | UNION, MALLEABLE IRON, 300#, GALVANIZED | |
| 4 | COUPLING, MALLEABLE IRON, 150#, GALVANIZED | 38# |
| 5 | 90° PULLEY ASSEMBLY | SEE NOTE #2 |
| 6 | COUPLING, THREADED | 38# |
| 7 | PIPE NIPPLE, THREADED ONE END | 32# |
| 8 | COUPLING, THREADED | |
| 9 | PIPE | |
| 10 | CAP, MALLEABLE IRON, THREADED, 150# | |
| 11 | GUIDE WIRE SPRING ASSEMBLY | SEE NOTE #2 |
| 12 | READING TAPE | |
| 13 | FLOAT | |
| 14 | GUIDE WIRES | |
| 15 | ANCHOR BAR | |
| 16 | PIPE BRACKET "SB1" | SEE NOTE #4 |
| 17 | STANDARD "U" BOLT, GALVANIZED STEEL, 10# ROD | 38# |

NOTES:

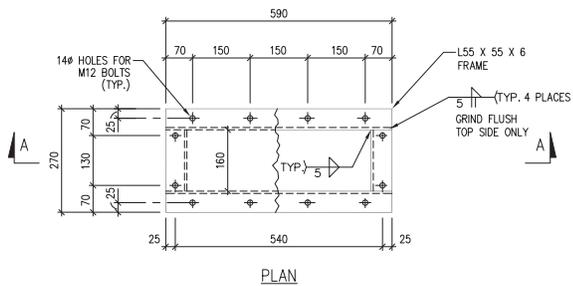
- FOR DIMENSIONS "X" AND "Y" REFER TO DWG. NT-P09.
- DIMENSIONS SHOWN REFER TO SHAND & JURS TYPE AUTOMATIC LEVEL GAUGE. DIMENSIONS MAY VARY FOR OTHER MAKES OF LEVEL GAUGE. REFER TO SPECIFICATIONS AND MANUFACTURER'S DATA FOR ACTUAL DIMENSIONS & INSTALLATIONS.
- REFER TO PARTICULAR PROJECT DRAWINGS FOR ACTUAL ROOF OPENING REQUIRED.
- FOR NUMBER AND LOCATION OF SHELL BRACKETS "SB1" REFER TO DWG. NT-P09.
- FOR MATERIALS REFER TO SPECIFICATIONS, DIV. 15, SECTION 15010.

LEGEND:
T.O.F.P. = TOP OF FLOOR PLATE

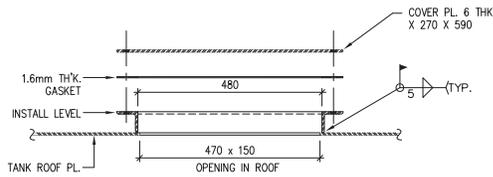


Drawing Title
INSTALLATION OF TANK
AUTOMATIC LEVEL GAUGE
ROOF NOZZLE "RN3" &
SHELL BRACKET "SB1"
AT VERTICAL TANKS DETAIL

| | | | | | |
|------------|----------|-------|-----|-------------|----------|
| Design | RVM | Ver. | EDZ | Scale | 1 : 20 |
| Drawn | KJ | Appr. | | Date | 95/02/28 |
| Revised By | REE | | | Drawing No. | NT-P11 |
| Revised On | 04/05/16 | | | | |



PLAN



SECTION A-A

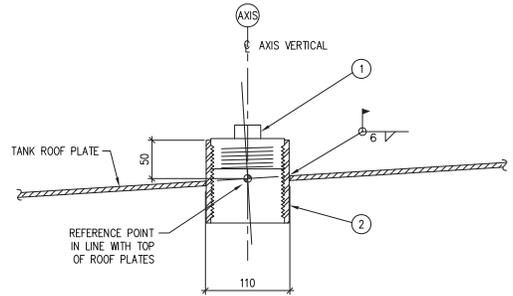
NOTES:

- 1- FOR LOCATION OF "RIF" ON TANK ROOF REFER TO PARTICULAR PROJECT DRAWINGS.
- 2- GRIND ALL SHARP EDGES SMOOTH.
- 3- FOR MATERIAL AND OTHER NOTES REFER TO SPECIFICATIONS, DIV 15, SECTION 15010.
- 4- "RIF" IS NOT REQUIRED IF ROOF MANHOLE IS PROVIDED.



Drawing Title
ROOF INSPECTION FRAME "RIF"
FOR AUTOMATIC LEVEL GAUGE AT VERTICAL TANKS DETAIL

| | | | | |
|---------------|--------------|------------------|------------------------|-------------|
| Design RVM | Ver. | Scale 1 : 10 | Revised By REE | Drawing No. |
| Drawn KJ | Appr. EDZ | Date 94/04/29 | Revised On 04/09/07 | NT-P12 |



SECTION THROUGH "RNS"

LIST OF MATERIAL

| ITEM | SIZE (S.I.) | DESCRIPTION |
|------|-------------|---|
| ① | 75# | PLUG, THREADED, SQUARE HEAD, STEEL |
| ② | | COUPLING, THREADED, A350, GR. LF2, CLASS 3000 |

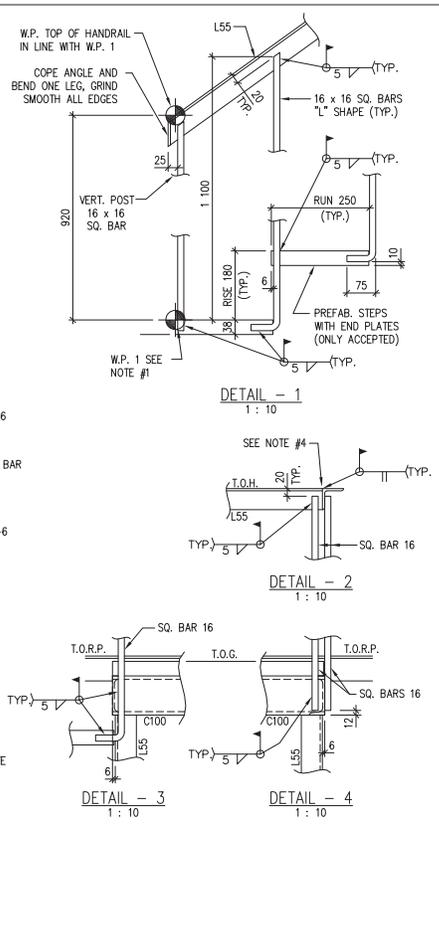
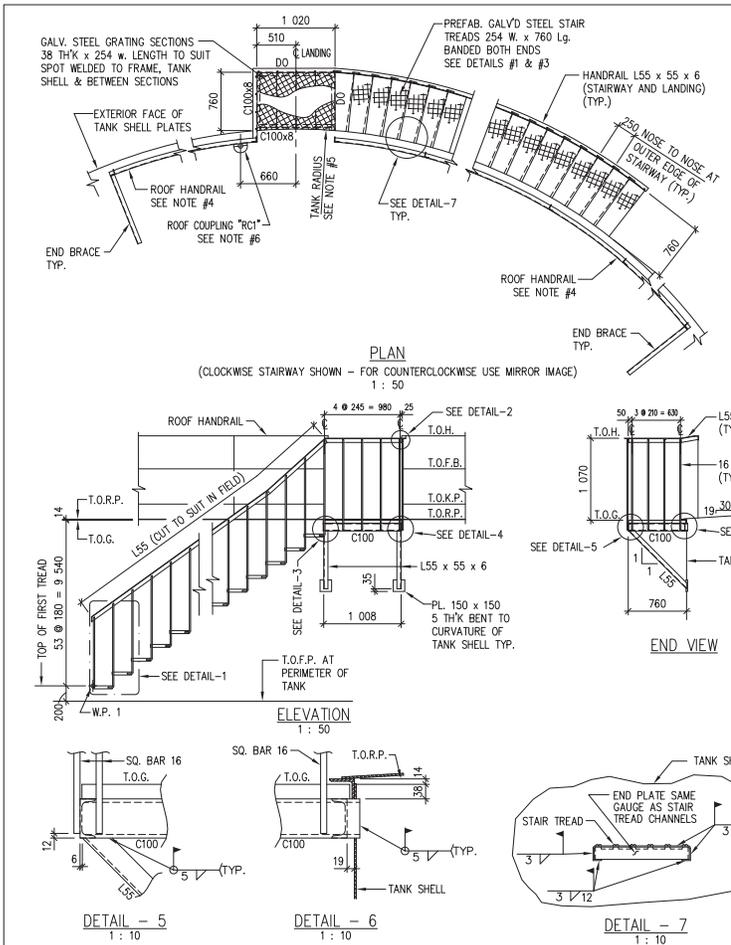
NOTES:

- 1- FOR LOCATION OF "RNS" ON TANK ROOF REFER TO DWG. NT-P09 AND PARTICULAR PROJECT DRAWINGS.
- 2- FOR MATERIAL AND NOTES REFER TO SPECIFICATIONS, DIV 15, SECTION 15010.



Drawing Title
ROOF NOZZLE "RNS"
FOR FUTURE LEVEL GAUGE AT VERTICAL TANKS DETAIL

| | | | | |
|---------------|-------------|------------------|------------------------|-------------|
| Design RVM | Ver. EDZ | Scale 1 : 5 | Revised By REE | Drawing No. |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/09/07 | NT-P13 |



NOTES:

- 1- "W.P.1" IS THE START OF THE STAIRWAY AT TOP OF FIRST TREAD IN LINE WITH FRONT NOSING OF STAIR.
- 2- GRIND WELD FLUSH AT TOP & SIDE FACES OF HANDRAIL ANGLES. GRIND SMOOTH ALL EDGES AND SHARP CORNERS.
- 3- FOR DESCRIPTION OF STAIR TREADS AND LANDING GRATING REFER TO SPECIFICATIONS, DIVISION 5, SECTION 05500.
- 4- FOR DETAILS OF ROOF HANDRAILS "RH" SEE DWG. NT-P15. FOR DEVELOPED LENGTHS OF ROOF HANDRAILS REFER TO PARTICULAR PROJECT DRAWINGS.
- 5- FOR TANK RADIUS AND LOCATION OF TANK APPURTENANCES REFER TO PARTICULAR PROJECT DRAWINGS.
- 6- FOR DETAILS OF ROOF COUPLING "RC1" FOR LIGHT FIXTURE POST SEE DWG. NT-P18.
- 7- FOR WELDING, PAINTING & OTHER NOTES REFER TO SPECIFICATIONS, DIVISION 15, SECTION 15060 AND DIVISION 9.
- 8- CONTRACTOR TO PROVIDE PROPER SHOP DRAWINGS OF TANK APPURTENANCES, STAIRWAY AND LANDING FOR APPROVAL PRIOR TO FABRICATION AS PER SPECIFICATIONS, DIVISION 1, SECTION 01340.

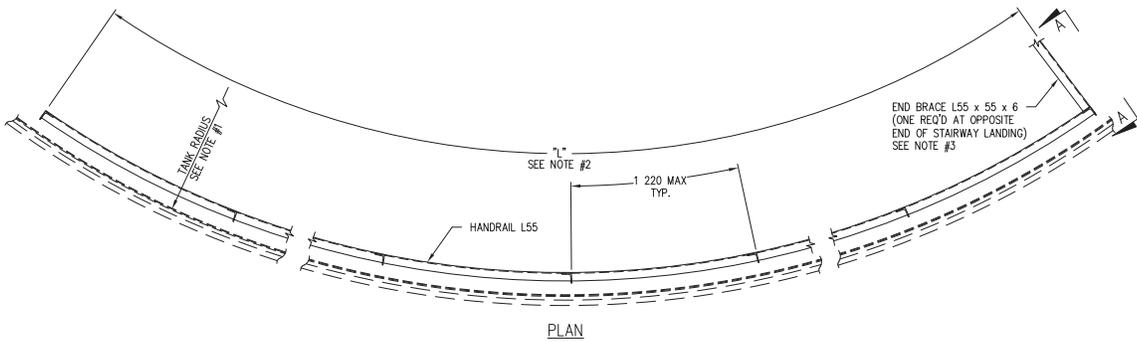
LEGEND:

T.O.H. = TOP OF HANDRAIL
T.O.F.B. = TOP OF FLAT BAR
T.O.K.P. = TOP OF KICK PLATE
T.O.G. = TOP OF GRATING
T.O.R.P. = TOP OF ROOF PLATE
T.O.F.P. = TOP OF FLOOR PLATE

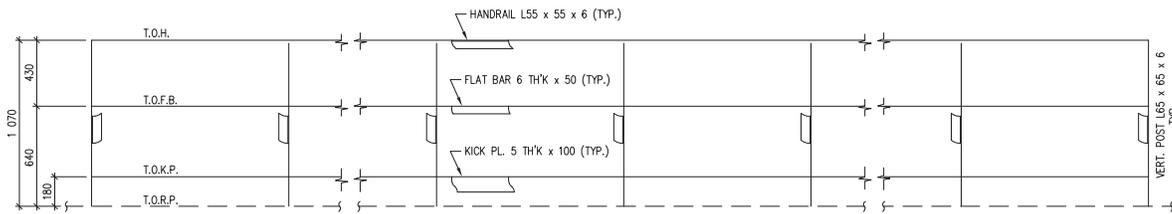
Northwest Territories Public Works & Services

Drawing Title
STAIRWAY & LANDING AT 9 754 HIGH VERTICAL TANKS DETAILS

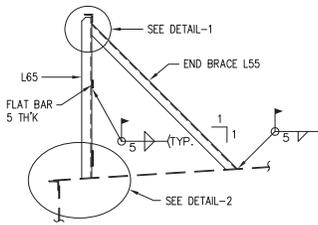
| | | | | | |
|------------|----------|-------------|-----|--------|----------|
| Design | RVM | Ver. | EDZ | Scale | AS SHOWN |
| Drawn | CAD/SL | Appr. | | Date | 95/02/28 |
| Revised By | REE | Drawing No. | | NT-P14 | |
| Revised On | 04/09/07 | | | | |



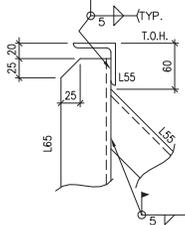
PLAN



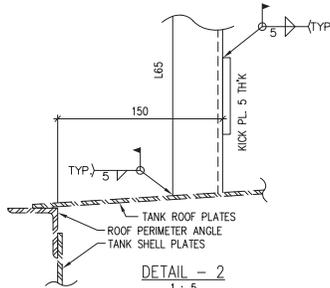
ELEVATION
1 : 25



SECTION A-A
1 : 25



DETAIL - 1
1 : 5



DETAIL - 2
1 : 5

NOTES:

- 1- FOR TANK RADIUS REFER TO PARTICULAR PROJECT DRAWINGS.
- 2- FOR DIMENSION "L" REFER TO PARTICULAR PROJECT DRAWINGS.
- 3- LOCATION OF END BRACE SHALL BE 1 000 BEYOND LAST ROOF FITTING.
- 4- GRIND ALL SHARP EDGES SMOOTH.
- 5- FOR MATERIAL AND OTHER NOTES REFER TO SPECIFICATIONS, DIVISION 5, SECTION 05500.

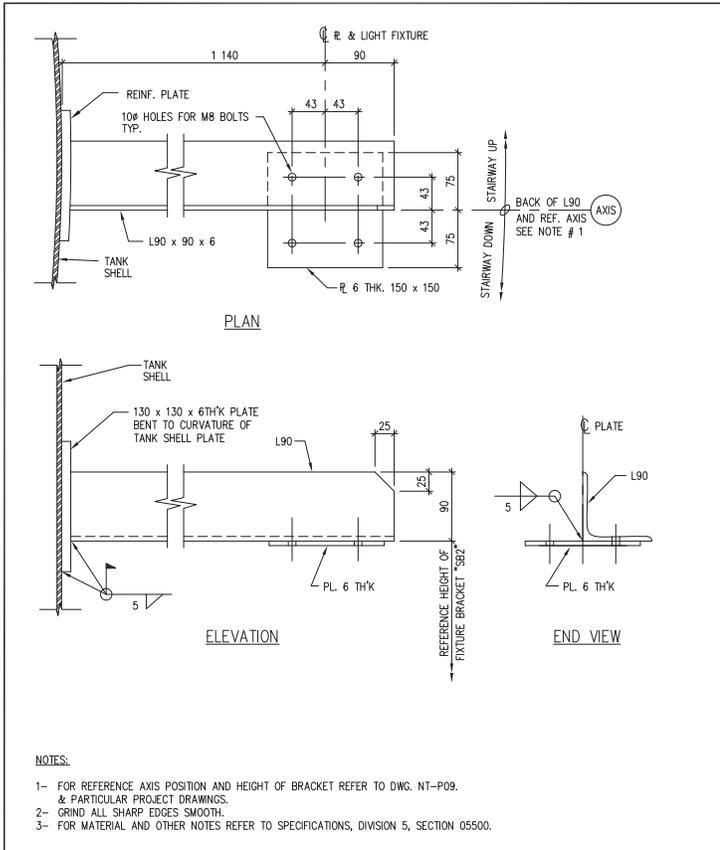
LEGEND:

- T.O.H. = TOP OF HANDRAIL
 T.O.F.B. = TOP OF FLAT BAR
 T.O.K.P. = TOP OF KICK PLATE
 T.O.R.P. = TOP OF ROOF PLATE

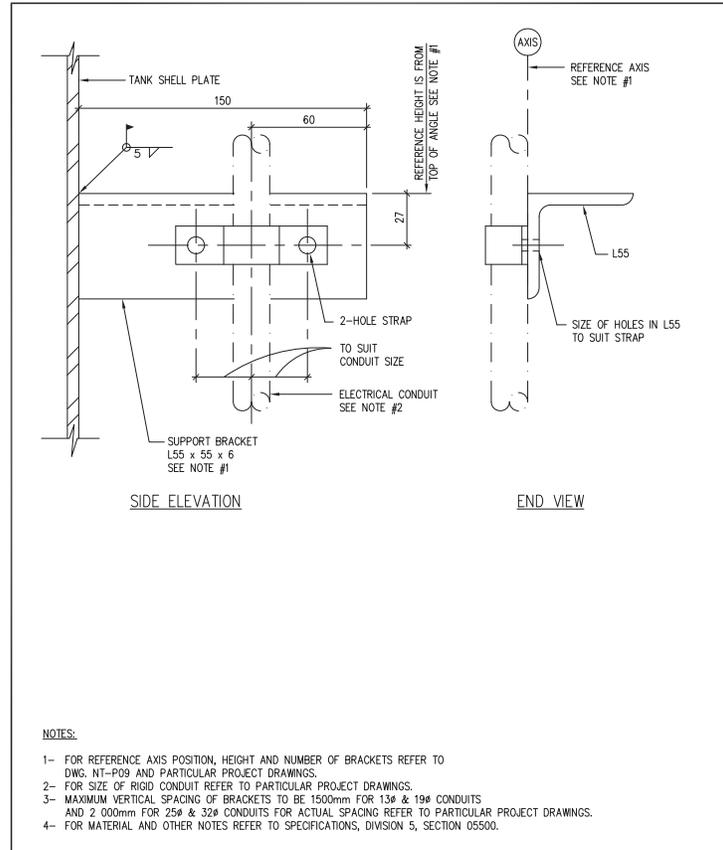


Drawing Title
**ROOF HANDRAIL "RH"
 AT VERTICAL TANKS DETAIL**

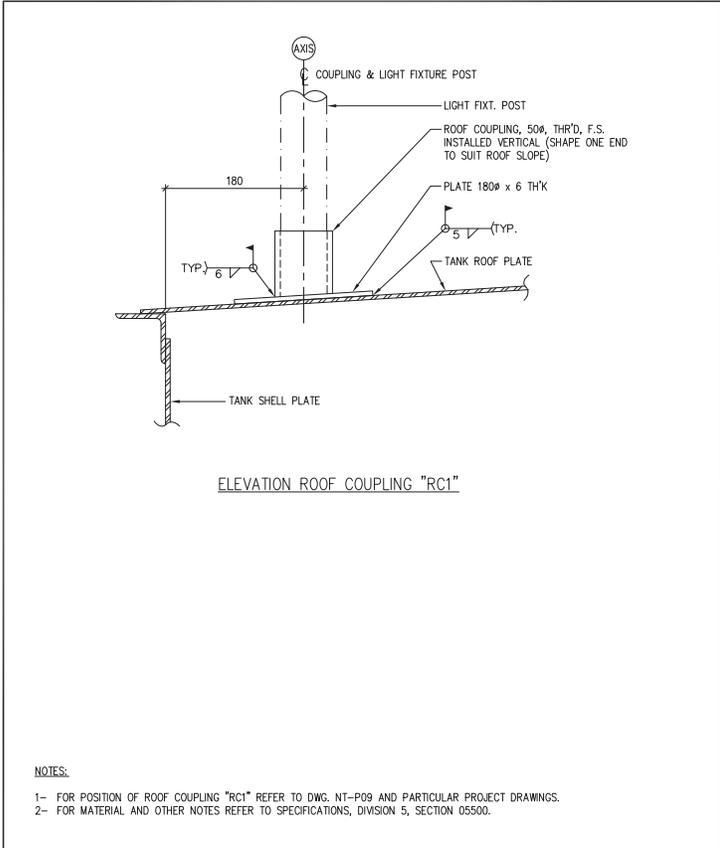
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| Drawn CAD/SL | Appr. REE | Date 94/04/29 |
| Revised By REE | Drawing No. NT-P15 | |
| Revised On 04/09/07 | | |



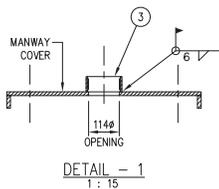
| | | | | | |
|--|--|-------------|------------------|------------------------|-----------------------|
| | Drawing Title LIGHT FIXTURE BRACKET "SB2" AT STAIRWAYS OF VERTICAL TANKS DETAIL | | | | |
| | Design EDZ | Ver. EDZ | Scale 1 : 5 | Revised By REE | Drawing No. NT-P16 |
| | Drawn KJ | Appr. | Date 94/04/29 | Revised On 04/09/07 | |



| | | | | | |
|--|---|-------------|------------------|------------------------|-----------------------|
| | Drawing Title SHELL BRACKET "SB3" FOR ELECTRICAL CONDUITS AT VERTICAL TANKS DETAIL | | | | |
| | Design RVM | Ver. EDZ | Scale 1 : 2 | Revised By REE | Drawing No. NT-P17 |
| | Drawn KJ | Appr. | Date 94/04/29 | Revised On 04/09/07 | |



| | | | | | |
|--|--|-------------------------|-------------------------------|--------------------------|------------------------------|
|  | Drawing Title ROOF COUPLING "RC1" FOR LIGHT FIXTURE POST AT VERTICAL TANKS DETAIL | | | | Drawing No. NT-P18 |
| | Design RVM | Ver. EDZ | Scale 1 : 5 | Revised By REE | |
| Drawn KJ | Appr. | Date 94/04/29 | Revised On 04/09/07 | | |

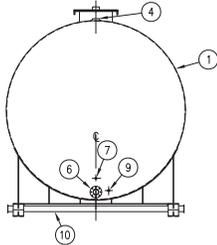


LIST OF MATERIAL

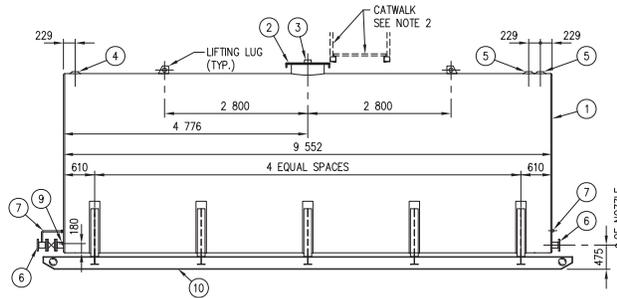
| No. | SERVICE | SIZE (S.I.) | SIZE (IMP.) | DESCRIPTION | REMARKS |
|-----|-------------------------|-------------|-------------|---|--|
| 1 | FUEL STORAGE TANK | 91,000 L | 20,000 gal. | 91 cu. m. NOMINAL CAPACITY ABOVEGROUND HORIZONTAL TANK, STEEL | TO CAN4-S601-M SPEC. |
| 2 | MANWAY | 610# | 24" ϕ | ULC MANHOLE DESIGN FIG. 9, COMPLETE WITH EMERGENCY VENT COVER PLATE | TO CAN4-S601-M SPEC. SEE DETAIL 1 |
| 3 | GAUGE HATCH | 100# | 4" ϕ | FORGED STEEL HALF COUPLING | SEE DETAIL-1 & NOTE 2 |
| 4 | PRESSURE / VACUUM VENT | 100# | 4" ϕ | FORGED STEEL THREADED FLANGE WITH PILOT | TO CAN4-S601-M SPEC. |
| 5 | SPARE | 100# | 4" ϕ | FORGED STEEL THREADED FLANGE WITH PILOT | TO CAN4-S601-M SPEC. & NOTE 3, C/W PLUG |
| 6 | INLET / OUTLET | 100# | 4" ϕ | 1035 kPa FLANGED NOZZLE, C/W VALVE AND PRESSURE RELIEF | TO CAN4-S601-M SPEC., SEE DRAWING NT-P06 |
| 7 | PRESSURE RELIEF BY-PASS | 25# | 1" ϕ | HALF-COUPLING, THREADED FORGED STEEL | TO CAN4-S601-M SPEC., SEE DWG NT-P06. |
| 8 | | | | | |
| 9 | WATER DRAW-OFF | 25# | 1" ϕ | HALF-COUPLING, THREADED FORGED STEEL | TO CAN4-S601-M SPEC. & NOTE 4 |
| 10 | TANK SKID | | | TANK SKID ASSEMBLY | SEE NOTE 5 |

NOTES:

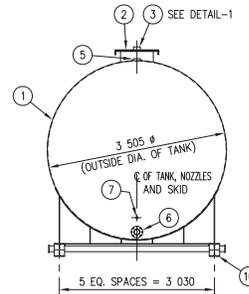
- FOR LOCATION OF CATWALK REFER TO PARTICULAR PROJECT DRAWINGS.
- LOCATE GAUGE HATCH IN CENTRE OF EMERGENCY COVER PLATE.
- PROVIDE PLUG, THREADED, SQUARE HEAD, F.S. AT ALL NON-USED OPENINGS. PLUG TO BE SAME SIZE AS OPENING.
- REFER TO DWG. NT-P23 FOR WATER DRAW-OFF VALVE AND INTERNAL PIPING AT WATER DRAW-OFF VALVE.
- REFER TO DWG. NT-P20 FOR SKID ASSEMBLY DETAILS.
- FOR MATERIAL REFER TO SPECIFICATIONS, DIVISION 15, SECTION 15060.
- PROVIDE SHOP DRAWINGS OF TANK, APPURTENANCES AND SKID ASSEMBLY FOR APPROVAL PRIOR TO FABRICATION AS PER SPECIFICATIONS, DIVISION 1, SECTION 01340.



LEFT SIDE ELEVATION
1:75



SIDE ELEVATION
1:75

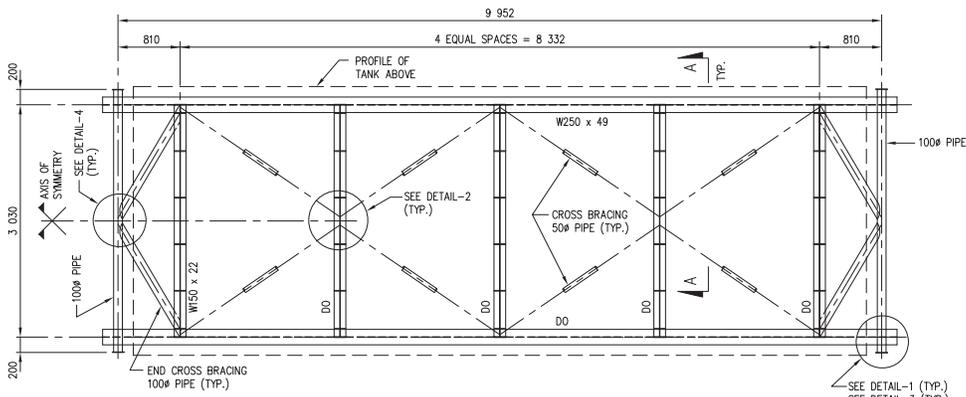


RIGHT SIDE ELEVATION
1:75



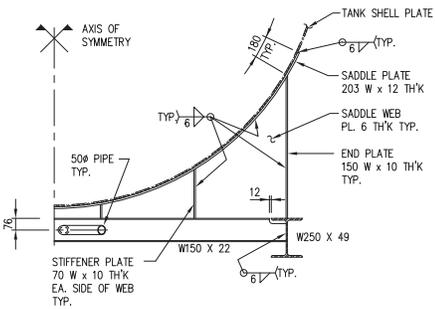
Drawing Title
HORIZONTAL ABOVEGROUND TANK
91 cu. m. NOMINAL CAPACITY
ELEVATIONS AND DETAIL

| | | |
|------------------------|-----------------------|-------------------|
| Design RVM | Ver. EDZ | Scale AS SHOWN |
| Drawn KJ | Appr. REE | Date 94/04/29 |
| Revised By REE | Drawing No. NT-P19 | |
| Revised On 04/09/07 | | |



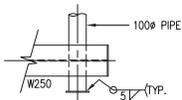
PLAN VIEW OF SKID ASSEMBLY

1 : 50



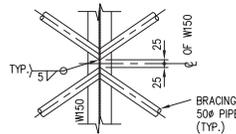
SECTION A-A

1 : 25



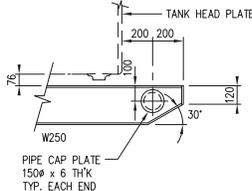
DETAIL - 1

1 : 25



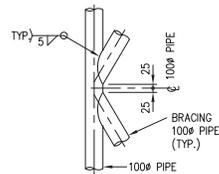
DETAIL - 2

1 : 25



DETAIL - 3

1 : 25



DETAIL - 4

1 : 25

NOTES:

- 1- FOR MATERIAL REFER TO SPECIFICATIONS, DIVISION 15, SECTION 15060.
- 2- PROVIDE PROPER SHOP DRAWINGS OF SKID ASSEMBLY FOR APPROVAL PRIOR TO FABRICATION AS PER SPECIFICATIONS, DIVISION 1, SECTION 01340.



Drawing Title
TANK SKID FOR 91 cu. m.
HORIZONTAL TANKS
PLAN, SECTION & DETAILS

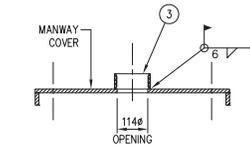
| | | |
|------------------------|-----------------------|-------------------|
| Design EDZ | Ver. EDZ | Scale AS SHOWN |
| Drawn KJ | Appr. REE | Date 94/04/29 |
| Revised By REE | Drawing No. NT-P20 | |
| Revised On 04/09/07 | | |

LIST OF MATERIAL

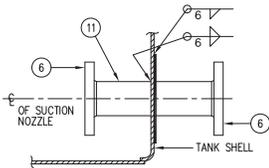
| No. | SERVICE | SIZE (S.I.) | SIZE (IMP.) | DESCRIPTION | REMARKS |
|-----|---|-------------|-------------|---|--|
| ① | FUEL STORAGE TANK | 23 000 L | 5 000 lgal | 23 cu. m. NOMINAL CAPACITY ABOVEGROUND HORIZONTAL TANK, STEEL | TO CAN4-5601-M SPEC. |
| ② | MANWAY | 610ø | 24" ø | ULC MANHOLE DESIGN FIG. 9, COMPLETE WITH EMERGENCY VENT COVER | TO CAN4-5601-M SPEC. SEE DETAILS |
| ③ | GAUGE HATCH | 100ø | 4" ø | FORGED STEEL SCREWED WELDING FLANGE | ON MANWAY COVER SEE DETAIL-1 & NOTE 2 |
| ④ | VENT | 75ø | 3" ø | SCRWD WELDING FLANGE WITH PILOT | TO CAN4-5601-M SPEC. |
| ⑤ | SPARE | 100ø | 4" ø | SCRWD WELDING FLANGE WITH PILOT | TO CAN4-5601-M SPEC. & NOTE 3 |
| ⑥ | OUTLET VALVE ASSEMBLY C/W FLOATING SUCTION | 75 ø | 3" ø | ASA 1035 kPa (150ø) FS RAISED FACE FLANGE C/W INTERNAL ASA 1035 kPa FS FLAT FACE FLANGE, VALVE AND PRESSURE BY-PASS | STD SPEC. SEC. 15010 CLAUSE 2.5.1 (STD DWG. NT-P06) FLOATING SUCTION, GAMMON, MODEL GTP-1644-3H |
| ⑦ | INLET VALVE ASSEMBLY | 75 ø | 3" ø | ASA 1035 kPa (150ø) FS RAISED FACE FLANGE C/W VALVE AND PRESSURE BY-PASS | STD SPEC. SEC. 15010 CLAUSE 2.5.1 (STANDARD DRAWING NT-P06) |
| ⑧ | PRESSURE RELIEF BY-PASS | 25ø | 1" ø | HALF-COUPLING, THREADED FORGED STEEL | TO CAN4-5601-M SPEC. |
| ⑨ | | | | | |
| ⑩ | WATER DRAW-OFF | 25ø | 1" ø | HALF-COUPLING, THREADED FORGED STEEL | TO CAN4-5601-M SPEC. & NOTE 4 |
| ⑪ | PIPE | 75ø | 3" ø | PIPE | SEE NOTE 6 |
| ⑫ | TANK SKID | | | TANK SKID ASSEMBLY | SEE NOTE 5 |

NOTES:

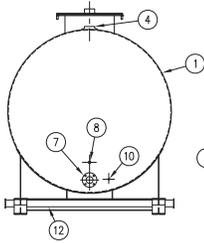
- FOR LOCATION OF CATWALK REFER TO PARTICULAR PROJECT DRAWINGS.
- LOCATE LOCKABLE GAUGE HATCH IN CENTER OF EMERGENCY MANWAY COVER PLATE.
- PROVIDE PLUG, THREADED, SQUARE HEAD, F.S. AT ALL NON-USED OPENINGS. PLUG TO BE SAME SIZE AS OPENING.
- REFER TO DWG. NT-P23 FOR WATER DRAW-OFF AND INTERNAL PIPING AT WATER DRAW-OFF.
- REFER TO DWG. NT-P22 FOR SKID ASSEMBLY DETAILS.
- FOR MATERIAL REFER TO SPECIFICATIONS, DIVISION 15, SECTION 15060.
- PROVIDE SHOP DRAWINGS OF TANK, APPURTENANCES AND SKID ASSEMBLY FOR APPROVAL PRIOR TO FABRICATION AS PER SPECIFICATIONS, DIVISION 1, SECTION 01340.
- ALL INTERIOR SURFACES TO BE LINED WITH EPOXY AS PER SECTION 9.0, PAINTING, OF THE SPECIFICATIONS.
- TANK EXTERIOR TO BE GRIT BLASTED AND SHOP PAINTED AS PER SECTION 9.0, PAINTING.
- ONE METER STRIP ALONG TOP OF TANK TO BE PAINTED WITH NON-SKID PAINT.
- TANK SHALL BE FABRICATED CERTIFIED AND LABELED IN ACCORDANCE WITH ULC STANDARD CSA CAN4-5601.



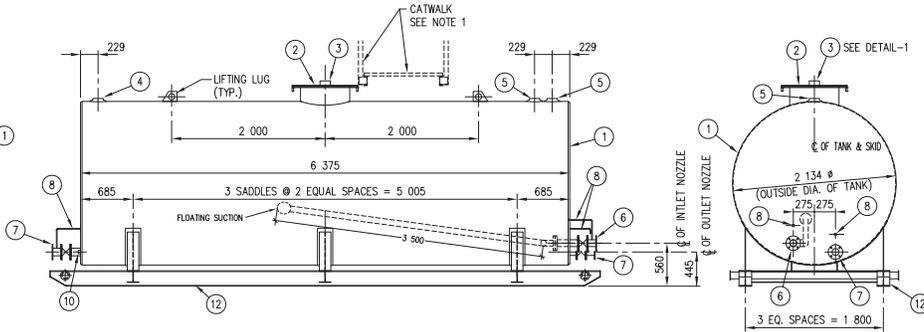
DETAIL - 1
1 : 10



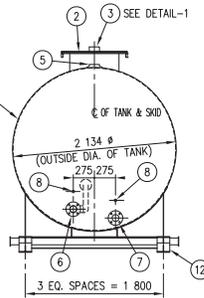
DETAIL - 2
1 : 10



LEFT SIDE ELEVATION
1 : 50



FRONT ELEVATION
1 : 50

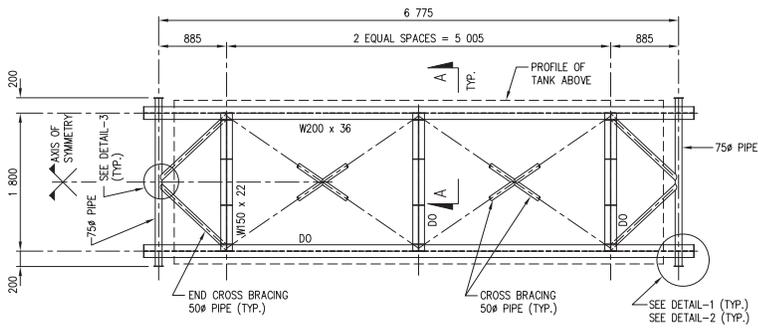


RIGHT SIDE ELEVATION
1 : 50



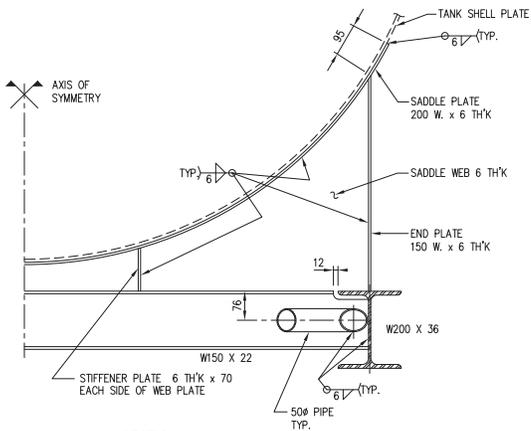
Drawing Title
HORIZONTAL, EPOXY LINED,
ABOVEGROUND TANK
23 cu. m. NOMINAL CAPACITY
ELEVATIONS AND DETAIL

| | | |
|------------------------|-----------------------|-------------------|
| Design EDZ | Ver. EDZ | Scale AS SHOWN |
| Drawn KJ | Appr. REE | Date 94/04/29 |
| Revised By REE | Drawing No. NT-P21 | |
| Revised On 04/09/07 | | |



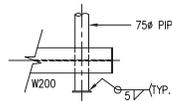
PLAN VIEW OF SKID ASSEMBLY

1 : 50



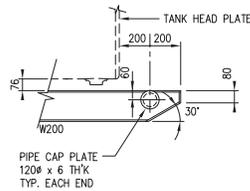
SECTION A-A

1 : 25



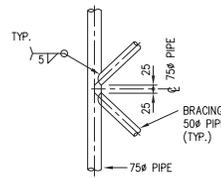
DETAIL - 1

1 : 25



DETAIL - 2

1 : 25



DETAIL - 3

1 : 25

NOTES:

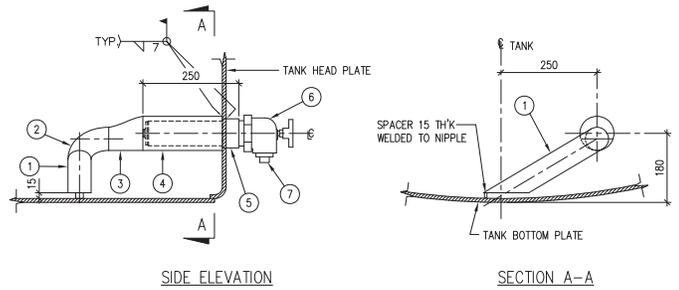
- 1- FOR MATERIAL REFER TO SPECIFICATIONS, DIVISION 15, SECTION 15060.
- 2- PROVIDE PROPER SHOP DRAWINGS OF TANK AND SKID ASSEMBLY FOR APPROVAL PRIOR TO FABRICATION AS PER SPECIFICATIONS, DIVISION 1, SECTION 01340.



Northwest Territories Public Works & Services

Drawing Title
TANK SKID FOR 23 cu. m.
HORIZONTAL TANKS
PLAN, SECTION & DETAILS

| Design | Ver. | Scale |
|------------|-------------|----------|
| EDZ | EDZ | AS SHOWN |
| Drawn | Appr. | Date |
| KJ | | 94/04/29 |
| Revised By | Drawing No. | |
| REE | NT-P22 | |
| Revised On | | |
| 04/09/07 | | |



SIDE ELEVATION

SECTION A-A

LIST OF MATERIAL

| ITEM | SIZE (S.I.) | DESCRIPTION |
|------|-------------|---|
| ① | 50# | PIPE, A53, GR. B. |
| ② | 50# | ELBOW 90°, L.R., A234, GR. B. |
| ③ | 75# x 50# | ECCENTRIC REDUCER, FLAT ON BOTTOM, A234, GR. B. |
| ④ | 75# | PIPE, A53, GR. B. |
| ⑤ | 50# | HALF COUPLING, THREADED, A350, GR. LF2, CLASS 3000. |
| ⑥ | 50# | WATER DRAIN VALVE (LOCKABLE) S&J MODEL 96181. |
| ⑦ | 3# | PLUG, THREADED, SQUARE HEAD, STEEL. |

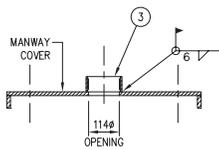
NOTES:

- 1- FOR LOCATION OF WATER DRAW-OFF VALVE REFER TO DWG. NT-P19, NT-P21, NT-P24 OR NT-P25.
- 2- FOR MATERIAL REFER TO SPECIFICATIONS, DIV. 15, SECT. 15010.



Drawing Title
WATER DRAW-OFF VALVE
FOR HORIZONTAL TANKS DETAIL

| | | | | |
|---------------|-------------|------------------|------------------------|-------------|
| Design RVM | Ver. EDZ | Scale 1:10 | Revised By REE | Drawing No. |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/09/07 | NT-P23 |



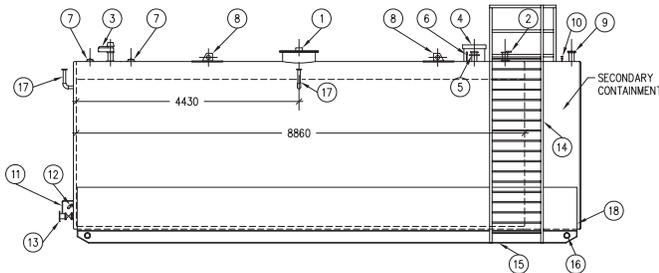
DETAIL - 1
1 : 15

LIST OF MATERIAL

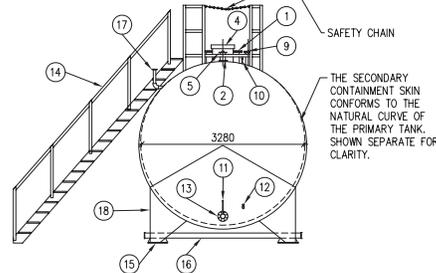
| No. | SERVICE | SIZE (S.I.) | SIZE (IMP.) | DESCRIPTION | EQUIPMENT |
|-----|-------------------------------|-------------|-------------|--|---|
| 1 | Manway | 610 Ø | 24" Ø | ULC Manhole Design Fig. 9 | ULC EMERGENCY VENT FIG. 8 |
| 2 | Gauge Hatch | 100 Ø | 4" Ø | Forged Steel Scrw'd Welding Flange c/w pilot fitting | OCECO, MODEL F-1 (St'd Spec. Sec. 15010 Clause 2.11) |
| 3 | Vent | 100 Ø | 4" Ø | ASA 1035 kPa (150#) FS Flat Face Flange | Shand & Jurs Model 94020 P/V Vent (St'd Spec. Sec. 15010 Clause 2.12) |
| 4 | Spill Containment | 407Ø | 16" Ø | Pipe Section c/w Lockable Cover | ULC/ORD-C142.2, Clause 3.2.2 |
| 5 | Overfill Protection Valve | 100 Ø | 4" Ø | Forged Steel Scrw'd Welding Flange c/w pilot fitting | OPW 61F Stop Overfill Protection Valve c/w Bottom Fill Pipe Extension |
| 6 | Spill Drain Valve | | | | |
| 7 | Spare Fittings | 100 Ø | 4" Ø | Forged Steel Scrw'd Welding Flange c/w Pilot fitting | c/w Plug |
| 8 | Lifting Lug | | | Lifting Lug c/w Reinforcing Plate | ULC Lifting Lug Figure 2, Type II |
| 9 | Interstice Vent | 100 Ø | 4" Ø | Inspection/Emergency Vent Fitting | Vacuum/Vent Cap |
| 10 | Vacuum Gauge | 12 Ø | 1/2" Ø | Half-coupling, Threaded Forged Steel | Vacuum Monitor Gauge |
| 11 | Pressure Relief By-pass | 25 Ø | 1" Ø | Half-coupling, Threaded Forged Steel | St'd Spec. Sec. 15010 Clause 2.6 (Standard Drawing, NT-P06) |
| 12 | Water Draw-off Valve Assembly | 50 Ø | 2" Ø | Half-coupling, Threaded Forged Steel | Shand & Jurs, Model 96181, Water Drain Valve |
| 13 | Inlet/Outlet Valve Assembly | 100 Ø | 4" Ø | ASA 1035 kPa (150#) FS Raised Face Flange c/w Valve and Pressure By-pass | St'd Spec. Sec. 15010 Clause 2.5.1 (Standard Drawing, NT-P06) |
| 14 | Stair & Platform Assembly | | | Access Stairs and Platform to Gauge Hatch | |
| 15 | Skid Base Plate | 12 Thick | 1/2" Thick | 1/2" Thick x 300mm wide steel plate | Full Length |
| 16 | Pull Bar | 100 Ø | 4" Ø | Schedule 80 Pipe c/w cross bracing | c/w 10mm x 120mm Ø end plates |
| 17 | Interstice Vent | 50 Ø | 2" Ø | Emergency Vent Fitting | Vacuum/Vent Cap |
| 18 | Fabricated Skids | 6 Thick | 1/4" plate | Formed Skid Assembly | |

NOTES:

- PRIMARY INTERNAL STORAGE TANK SHALL BE FABRICATED, CERTIFIED AND LABELLED IN STRICT ACCORDANCE WITH ULC STANDARD CAN-5601-M LATEST EDITION, STANDARD FOR SHOP FABRICATED STEEL ABOVEGROUND HORIZONTAL TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS.
- DOUBLE WALL, VACUUM MONITORED SECONDARY CONTAINMENT SHALL BE DESIGNED, FABRICATED AND LABELLED IN ACCORDANCE WITH ULC/ORD C142.3, LATEST EDITION, CONTAINED STEEL ABOVEGROUND TANK ASSEMBLIES FOR FLAMMABLE LIQUIDS.
- ALL WELDING SHALL BE BY A WELDER WITH A VALID ARC-WELDING CERTIFICATE FOR THE TYPE OF WORK PERFORMED AND HOLDING A MINIMUM OF A VALID NWT CLASS B PRESSURE WELDERS CERTIFICATE.
- BOLT HOLES SHALL STRADDLE CENTRELINES.
- MINIMUM WALL THICKNESS OF THE PRIMARY TANK SHALL BE 6mm AND MINIMUM SECONDARY CONTAINMENT SHELL THICKNESS SHALL BE 4.75mm.
- STRAPPING AND CALIBRATION OF THE TANK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 15060, CLAUSE 3.9, PRIOR TO SHIPPING.
- HEADS SHALL BE FLAT FLANGED WITH A MINIMUM THICKNESS OF 6mm.
- SECONDARY CONTAINMENT SHALL BE PROVIDED WITH A POSITIVE VACUUM LEAK DETECTION SYSTEM.
- REMOVABLE PLATFORM AND STAIRS SHALL BE FABRICATED FOR ACCESS TO THE GAUGE HATCH.
- GAUGE HATCHES SHALL BE LOCKABLE.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
- TANK EXTERIOR TO BE GRIT BLASTED AND SHOP PAINTED AS PER SECTION 9.0, PAINTING.
- ONE METRE WIDE STRIP ALONG TOP OF TANK TO BE PAINTED WITH NON-SKID PAINT.



HORIZONTAL TANK - SIDE VIEW
SCALE:N.T.S.



HORIZONTAL TANK - END VIEW
SCALE:N.T.S.



Northwest Territories Public Works & Services

Drawing Title
75 m3 FUEL STORAGE TANK
HORIZONTAL, DOUBLE WALL,
VACUUM MONITORED, SKID MOUNTED
TANK DETAILS

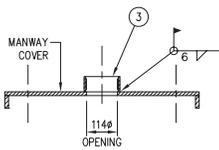
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| Drawn KJ | Appr. Date 97/04/22 | |
| Revised By REE | Drawing No. NT-P24 | |
| Revised On 04/09/07 | | |

LIST OF MATERIAL

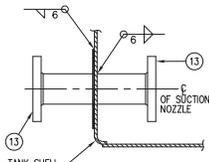
| No. | SERVICE | SIZE (SI.) | SIZE (MP.) | DESCRIPTION | EQUIPMENT |
|-----|--|------------|-------------|---|--|
| 1 | Manway | 610 ϕ | 24" ϕ | ULC Manhole Design Fig. 9 | ULC EMERGENCY VENT FIG. 8 |
| 2 | Gauge Hatch | 150 ϕ | 6" ϕ | Forged Steel Scrw'd Welding Flange c/w pilot | OCECO, MODEL F-1 (St'd Spec. Sec. 15010 Clause 2.11) |
| 3 | Vent | 100 ϕ | 4" ϕ | ASA 1035 kPa (150#) FS Flat Face Flange | Shand & Jurs Model 94020 P/V Vent (St'd Spec. Sec. 15010 Clause 2.12) |
| 4 | Spill Containment | 407 ϕ | 16" ϕ | Pipe Section c/w Lockable Cover | ULC/ORD-C142.2, Clause 3.2.2 |
| 5 | Overfill Protection Valve | 100 ϕ | 4" ϕ | Forged Steel Scrw'd Welding Flange c/w pilot | OPW 61F Stop Overfill Protection Valve c/w Bottom Fill Pipe Extension |
| 6 | Spill Drain Valve | | | | |
| 7 | Spare Fittings | 100 ϕ | 4" ϕ | Forged Steel Scrw'd Welding Flange c/w Pilot | c/w Plug |
| 8 | Lifting Lug | | | Lifting Lug c/w Reinforcing Plate | ULC Lifting Lug Figure 2, Type II |
| 9 | Interstice Vent | 100 ϕ | 4" ϕ | Inspection/Emergency Vent Fitting | Vacuum/Vent Cap |
| 10 | Vacuum Gauge | 12 ϕ | 1/2" ϕ | Half-coupling, Threaded Forged Steel | Vacuum Monitor Gauge |
| 11 | Pressure Relief By-pass | 25 ϕ | 1" ϕ | Half-coupling, Threaded Forged Steel | St'd Spec. Sec. 15010 Clause 2.6 (Standard Drawing, NT-P06) |
| 12 | Water Draw-off Valve Assembly | 50 ϕ | 2" ϕ | Half-coupling, Threaded Forged Steel | Shand & Jurs, Model 96180, Water Drain Valve |
| 13 | Outlet Valve Assembly c/w Floating Suction | 75 ϕ | 3" ϕ | ASA 1035 kPa (150#) FS Raised Face Flange c/w Internal ASA 1035 kPa FS Flat Face Flange, Valve and Pressure By-pass | St'd Spec. Sec. 15010 Clause 2.5.1 (Standard Drawing, NT-P06) Floating Suction, Gammon, Model GTP-1644-3H |
| 14 | Stair & Platform Assembly | | | Access Stairs and Platform to Gauge Hatch | |
| 15 | Skid Base Plate | 12 Thick | 1/2" Thick | 1/2" Thick x 300mm wide steel plate | Full Length |
| 16 | Pull Bar | 100 ϕ | 4" ϕ | Schedule 80 Pipe c/w cross bracing | c/w 10mm x 120mm ϕ end plates |
| 17 | Interstice Vent | 50 ϕ | 2" ϕ | Emergency Vent Fitting | Vacuum/Vent Cap |
| 18 | Fabricated Skids | 6 Thick | 1/4" plate | Formed Skid Assembly | |
| 19 | Inlet Valve Assembly | 75 ϕ | 3" ϕ | ASA 1035 kPa (150#) FS Raised Face Flange c/w Valve and Pressure By-pass | St'd Spec. Sec. 15010 Clause 2.5.1 (Standard Drawing, NT-P06) |

NOTES:

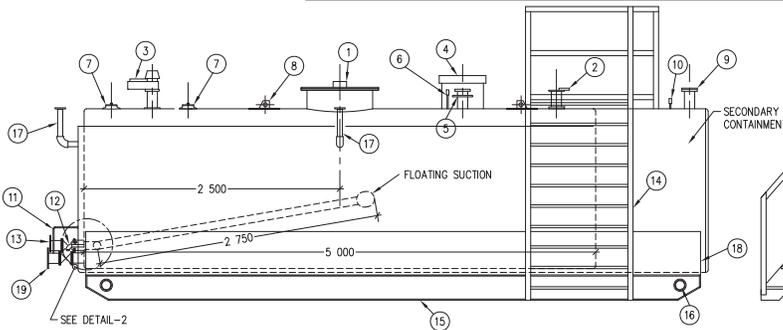
- PRIMARY INTERNAL STORAGE TANK SHALL BE FABRICATED, CERTIFIED AND LABELLED IN STRICT ACCORDANCE WITH ULC STANDARD CANA-5001-M LATEST EDITION, STANDARD FOR SHOP FABRICATED STEEL ABOVEGROUND HORIZONTAL TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS.
- DOUBLE WALL, VACUUM MONITORED SECONDARY CONTAINMENT SHALL BE DESIGNED, FABRICATED AND LABELLED IN ACCORDANCE WITH ULC/ORD C142.3, LATEST EDITION, CONTAINED STEEL ABOVEGROUND TANK ASSEMBLIES FOR FLAMMABLE LIQUIDS.
- ALL WELDING SHALL BE BY A WELDER WITH A VALID ARC-WELDING CERTIFICATE FOR THE TYPE OF WORK PERFORMED AND HOLDING A MINIMUM OF A VALID NWT CLASS B PRESSURE WELDERS CERTIFICATE.
- BOLT HOLES SHALL STRADDLE CENTRELINES.
- MINIMUM WALL THICKNESS OF THE PRIMARY TANK SHALL BE 6mm AND MINIMUM SECONDARY CONTAINMENT SHELL THICKNESS SHALL BE 4.75mm.
- STRAPPING AND CALIBRATION OF THE TANK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 15060, CLAUSE 3.9, PRIOR TO SHIPPING.
- HEADS SHALL BE FLAT FLANGED WITH A MINIMUM THICKNESS OF 6mm.
- SECONDARY CONTAINMENT SHALL BE PROVIDED WITH A POSITIVE VACUUM LEAK DETECTION SYSTEM.
- REMOVABLE PLATFORM AND STAIRS SHALL BE FABRICATED FOR ACCESS TO THE GAUGE HATCH.
- GAUGE HATCHES SHALL BE LOCKABLE.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
- ONE METRE WIDE STRIP ALONG TOP OF TANK TO BE PAINTED WITH NON-SKID PAINT.
- ALL INTERIOR SURFACES TO BE LINED WITH EPOXY AS PER SECTION 9.0, PAINTING OF THE SPECIFICATIONS.



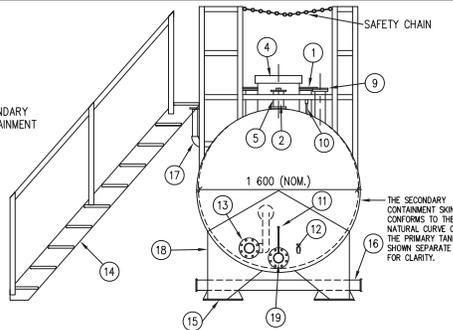
DETAIL - 1
1 : 15



DETAIL - 2
1 : 15



HORIZONTAL TANK - SIDE VIEW
SCALE:N.T.S.

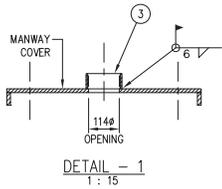


HORIZONTAL TANK - END VIEW
SCALE:N.T.S.



Drawing Title
94 m³ EPOXY LINED FUEL STORAGE TANK
HORIZONTAL, DOUBLE WALL,
VACUUM MONITORED, SKID MOUNTED
TANK DETAILS

| | | | | | |
|------------|----------|-------------|------|-------|----------|
| Design | LAJR | Ver. | LAJR | Scale | AS SHOWN |
| Drawn | KJ | Appr. | RE | Date | 97/04/22 |
| Revised By | RE | Drawing No. | | | |
| Revised On | 04/09/07 | NT-P24A | | | |

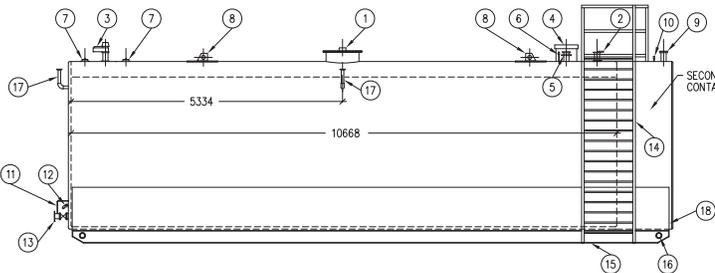


LIST OF MATERIAL

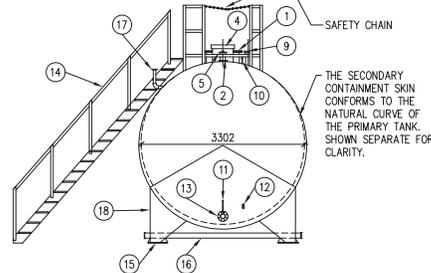
| No. | SERVICE | SIZE (S.I.) | SIZE (IMP.) | DESCRIPTION | EQUIPMENT |
|-----|-------------------------------|-------------|-------------|--|---|
| 1 | Manway | 610 Ø | 24" Ø | ULC Manhole Design Fig. 9 | ULC EMERGENCY VENT FIG. 8 |
| 2 | Gauge Hatch | 150 Ø | 6" Ø | Forged Steel Scrw'd Welding Flange c/w pilot fitting | OCECO, MODEL F-1 (St'd Spec. Sec. 15010 Clause 2.11) |
| 3 | Vent | 100 Ø | 4" Ø | ASA 1035 kPa (150#) FS Flat Face Flange | Shand & Jurs Model 94020 P/V Vent (St'd Spec. Sec. 15010 Clause 2.12) |
| 4 | Spill Containment | 407Ø | 16" Ø | Pipe Section c/w Lockable Cover | ULC/ORD-C142.2, Clause 3.2.2 |
| 5 | Overfill Protection Valve | 100 Ø | 4" Ø | Forged Steel Scrw'd Welding Flange c/w pilot fitting | OPW 61F Stop Overfill Protection Valve c/w Bottom Fill Pipe Extension |
| 6 | Spill Drain Valve | | | | |
| 7 | Spare Fittings | 100 Ø | 4" Ø | Forged Steel Scrw'd Welding Flange c/w Pilot fitting | c/w Plug |
| 8 | Lifting Lug | | | Lifting Lug c/w Reinforcing Plate | ULC Lifting Lug Figure 2, Type II |
| 9 | Interstice Vent | 100 Ø | 4" Ø | Inspection/Emergency Vent Fitting | Vacuum/Vent Cap |
| 10 | Vacuum Gauge | 12 Ø | 1/2" Ø | Half-coupling, Threaded Forged Steel | Vacuum Monitor Gauge |
| 11 | Pressure Relief By-pass | 25 Ø | 1" Ø | Half-coupling, Threaded Forged Steel | St'd Spec. Sec. 15010 Clause 2.6 (Standard Drawing, NT-P06) |
| 12 | Water Draw-off Valve Assembly | 50 Ø | 2" Ø | Half-coupling, Threaded Forged Steel | Shand & Jurs, Model 96180, Water Drain Valve |
| 13 | Inlet/Outlet Valve Assembly | 100 Ø | 4" Ø | ASA 1035 kPa (150#) FS Raised Face Flange c/w Valve and Pressure By-pass | St'd Spec. Sec. 15010 Clause 2.5.1 (Standard Drawing, NT-P06) |
| 14 | Stair & Platform Assembly | | | Access Stairs and Platform to Gauge Hatch | |
| 15 | Skid Base Plate | 12 Thick | 1/2" Thick | 1/2" Thick x 300mm wide steel plate | Full Length |
| 16 | Pull Bar | 100 Ø | 4" Ø | Schedule 80 Pipe c/w cross bracing | c/w 10mm x 120mm Ø end plates |
| 17 | Interstice Vent | 50 Ø | 2" Ø | Emergency Vent Fitting | Vacuum/Vent Cap |
| 18 | Fabricated Skids | 6 Thick | 1/4" plate | Formed Skid Assembly | |

NOTES:

- PRIMARY INTERNAL STORAGE TANK SHALL BE FABRICATED, CERTIFIED AND LABELLED IN STRICT ACCORDANCE WITH ULC STANDARD CAN4-S601-M LATEST EDITION, STANDARD FOR SHOP FABRICATED STEEL ABOVEGROUND HORIZONTAL TANKS FOR FLAMMABLE AND COMBUSTIBLE LIQUIDS.
- DOUBLE WALL, VACUUM MONITORED SECONDARY CONTAINMENT SHALL BE DESIGNED, FABRICATED AND LABELLED IN ACCORDANCE WITH ULC/ORD C142.3, LATEST EDITION, CONTAINED STEEL ABOVEGROUND TANK ASSEMBLIES FOR FLAMMABLE LIQUIDS.
- ALL WELDING SHALL BE BY A WELDER WITH A VALID ARC-WELDING CERTIFICATE FOR THE TYPE OF WORK PERFORMED AND HOLDING A MINIMUM OF A VALID NWT CLASS B PRESSURE WELDERS CERTIFICATE.
- BOLT HOLES SHALL STRADDLE CENTRELINES.
- MINIMUM WALL THICKNESS OF THE PRIMARY TANK SHALL BE 6mm AND MINIMUM SECONDARY CONTAINMENT SHELL THICKNESS SHALL BE 4.75mm.
- STRAPPING AND CALIBRATION OF THE TANK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 15060, CLAUSE 3.9, PRIOR TO SHIPPING.
- HEADS SHALL BE FLAT FLANGED WITH A MINIMUM THICKNESS OF 6mm.
- SECONDARY CONTAINMENT SHALL BE PROVIDED WITH A POSITIVE VACUUM LEAK DETECTION SYSTEM.
- REMOVABLE PLATFORM AND STAIRS SHALL BE FABRICATED FOR ACCESS TO THE GAUGE HATCH.
- GAUGE HATCHES SHALL BE LOCKABLE.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS STATED OTHERWISE.
- TANK EXTERIOR TO BE GRIT BLASTED AND SHOP PAINTED AS PER SECTION 9.0, PAINTING.
- ONE METRE WIDE STRIP ALONG TOP OF TANK TO BE PAINTED WITH NON-SKID PAINT.



HORIZONTAL TANK - SIDE VIEW
SCALE:N.T.S.



HORIZONTAL TANK - END VIEW
SCALE:N.T.S.

Northwest Territories Public Works & Services

Drawing Title
94 m³ FUEL STORAGE TANK
HORIZONTAL, DOUBLE WALL,
VACUUM MONITORED, SKID MOUNTED
TANK DETAILS

| | | |
|------------------------|-----------------------|-------------------|
| Design LAJR | Ver. LAJR | Scale AS SHOWN |
| Drawn KJ | Appr. REE | Date 97/04/22 |
| Revised By REE | Drawing No. NT-P25 | |
| Revised On 04/09/07 | | |

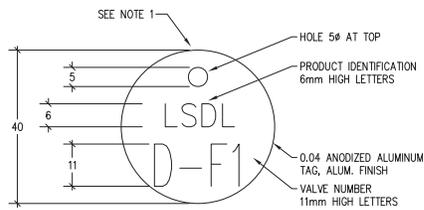


FIG. 1 - VALVE TAGS FOR DIESEL FUEL SYSTEM

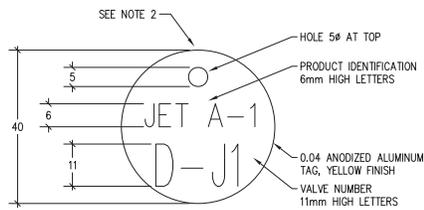


FIG. 2 - VALVE TAGS FOR JET A-1 AVIATION FUEL SYSTEM

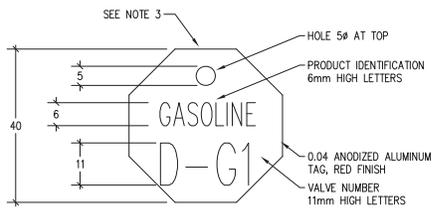


FIG. 3 - VALVE TAGS FOR GASOLINE SYSTEM

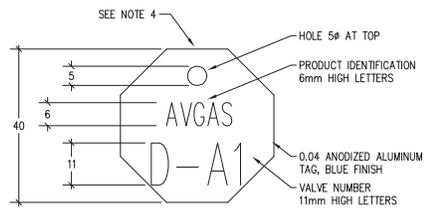


FIG. 3 - VALVE TAGS FOR AVGAS SYSTEM

NOTES:

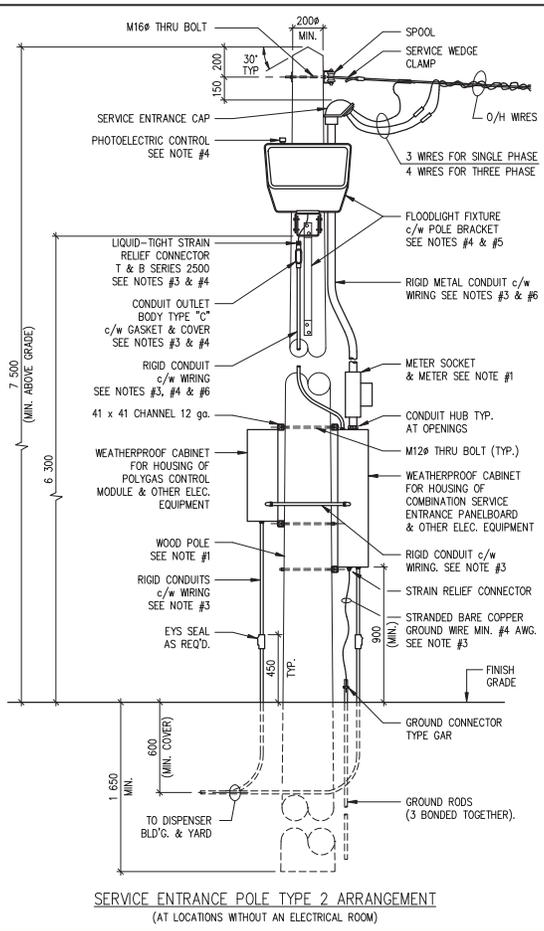
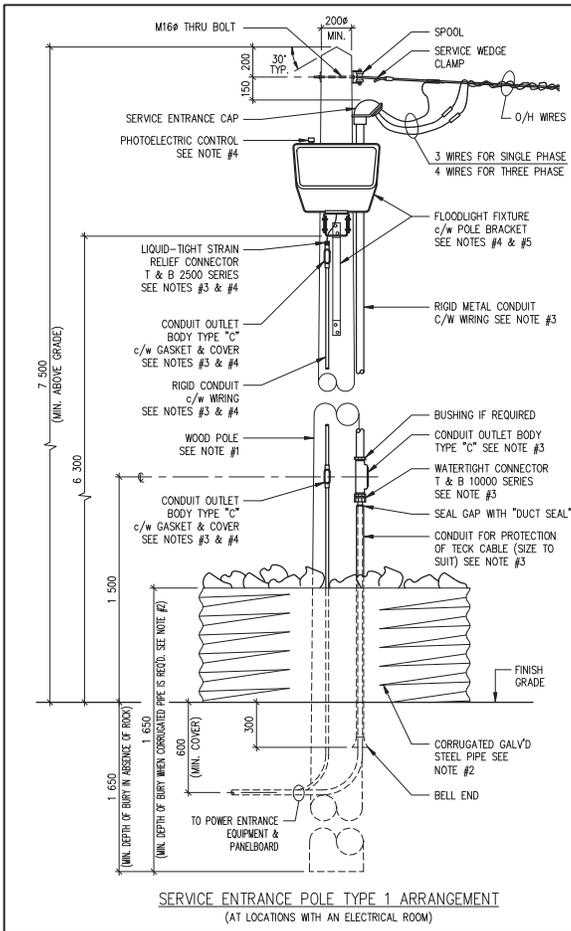
- 1- VALVE TAGS ON THE DIESEL FUEL SYSTEM TO BE BRADY #49904 OR APPROVED EQUIVALENT.
- 2- VALVE TAGS ON THE JET A-1 AVIATION FUEL SYSTEM TO BE BRADY #49900 OR APPROVED EQUIVALENT.
- 3- VALVE TAGS ON THE GASOLINE SYSTEM TO BE BRADY #49901 OR APPROVED EQUIVALENT.
- 4- VALVE TAGS ON THE AVGAS SYSTEM TO BE BRADY #49901 OR APPROVED EQUIVALENT.
- 5- SEE SPECIFICATIONS SECTION 01080 FOR DETAILS.



Northwest Territories Public Works & Services

Drawing Title
VALVE TAG DETAILS

| | | | | | |
|------------|----------|-------------|-----|-------|----------|
| Design | BFG | Ver. | BFG | Scale | 1 : 1 |
| Drawn | KJ | Appr. | | Date | 99.03.19 |
| Revised By | REE | Drawing No. | | | |
| Revised On | 04/09/07 | NT-P26 | | | |



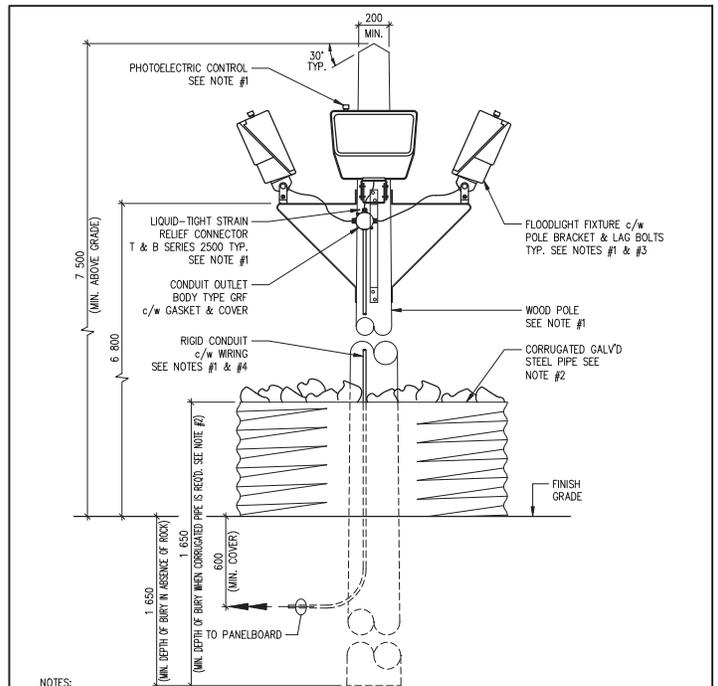
NOTES:

- SERVICE ENTRANCE POLE AND ELECTRICAL INSTALLATIONS AT POLE TO BE AS PER UTILITY COMPANY REQUIREMENTS.
- CORRUGATED PIPE REQUIRED WHERE DEPTH OF BURY CANNOT BE OBTAINED DUE TO PRESENCE OF ROCK OR OTHER REASON. PIPE TO BE FILLED COMPLETELY ALL AROUND POLE WITH STONES (SIZE 300# MAX.) AND WELL COMPACTED COARSE & FINE GRAVEL.
- FOR SIZES OF CONDUITS AND SIZE, NUMBER AND TYPE OF WIRING REFER TO PARTICULAR PROJECT DRAWINGS AND SPECIFICATIONS, DIVISION 16, SECTION 16010.
- FLOODLIGHT, PHOTOELECTRIC CONTROL AND BRACKET, CONDUIT AND WIRING ARE REQ'D. ONLY IF CALLED FOR BY PARTICULAR PROJECT DRAWINGS. FOR DESCRIPTION REFER TO SPECIFICATIONS, DIVISION 16, SECTION 16010.
- POLE BRACKET TO BE FASTENED TO POLE WITH ONE M16 THRU BOLT AT TOP HOLE & THREE 12# x 100 Lg. LAG BOLTS AT OTHER HOLES.
- CONDUITS TO BE FASTENED TO POLE WITH 2 HOLE GALV'D. STEEL STRAPS & LAG BOLTS, SIZES & NUMBER TO SUIT.
- FOR OTHER NOTES REFER TO PARTICULAR PROJECT DRAWINGS AND SPECIFICATIONS, DIVISION 16, SECTION 16010.

Northwest Territories Public Works & Services

Drawing Title
SERVICE ENTRANCE POLE TYPE 1 AND TYPE 2 ARRANGEMENTS

| | | |
|----------------------|--------------------|----------------|
| Design: RVM | Ver.: EDZ | Scale: 1 : 25 |
| Drawn: KJ | Appr.: [Signature] | Date: 94/04/29 |
| Revised By: REE | Drawing No. NT-E01 | |
| Revised On: 04/09/30 | | |

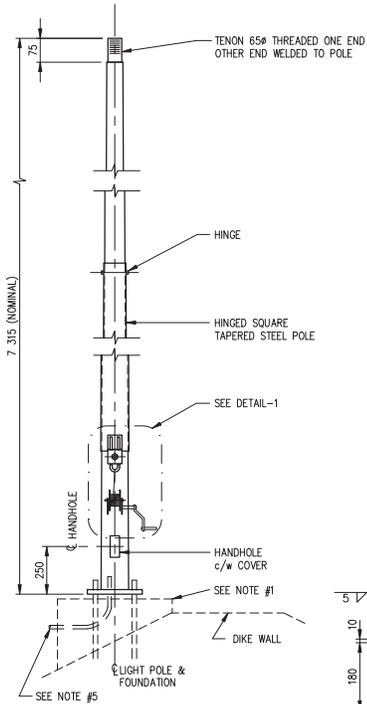


NOTES:

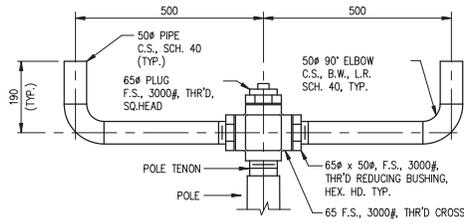
- 1- FOR NUMBER AND LOCATION OF FLOODLIGHT POLES, NUMBER AND TYPE OF LIGHTING FIXTURES, PHOTOELECTRIC CONTROL, CONNECTORS, SIZE OF CONDUITS AND SIZE, NUMBER AND TYPE OF WIRING REFER TO PARTICULAR PROJECT DRAWINGS & SPECIFICATIONS, DIVISION 16, SECTION 16010.
- 2- CORRUGATED PIPE REQUIRED WHERE DEPTH OF BURY CANNOT BE OBTAINED DUE TO PRESENCE OF BEDROCK OR OTHER REASON. PIPE TO BE FILLED COMPLETELY ALL AROUND POLE WITH STONES (SIZE 300 ϕ MAX.) & WELL COMPACTED COARSE AND FINE GRAVEL.
- 3- POLE BRACKETS TO BE FASTENED TO POLE WITH ONE M16 ϕ THRU BOLT AT TOP HOLE AND 12 ϕ x 100 Lg. LAG BOLTS AT OTHER HOLES.
- 4- CONDUIT TO BE FASTENED TO POLE WITH 2-HOLE GAL'D. STEEL STAPS & LAG BOLTS, SIZE & NUMBER TO SUIT.
- 5- FOR OTHER NOTES REFER TO PARTICULAR PROJECT DRAWINGS AND SPECIFICATIONS, DIVISION 16, SECTION 16010.



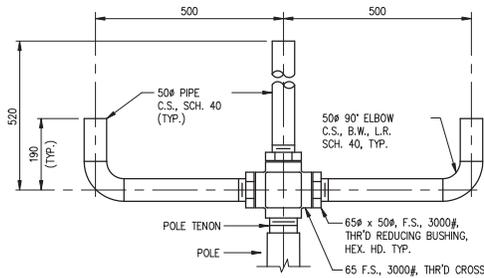
| | | | | |
|--|-------------|------------------|------------------------|------------------------------|
| Drawing Title WOOD FLOODLIGHT POLE FOR YARD AREA LIGHTING DETAIL | | | | Drawing No. NT-E02 |
| Design RVM | Ver. EDZ | Scale 1 : 25 | Revised By REE | |
| Drawn KJ | Appr. KJ | Date 94/04/29 | Revised On 04/09/30 | |



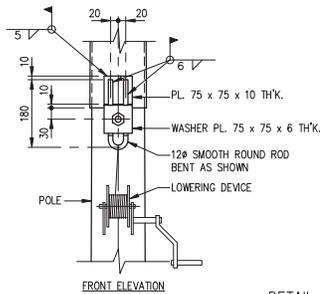
ELEVATION
1 : 20



DETAIL - 2 BRACKET FOR 2 FLOODLIGHTS
1 : 10

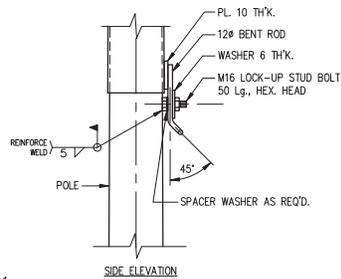


DETAIL - 3 BRACKET FOR 3 FLOODLIGHTS
1 : 10



FRONT ELEVATION

DETAIL - 1
1 : 10



SIDE ELEVATION

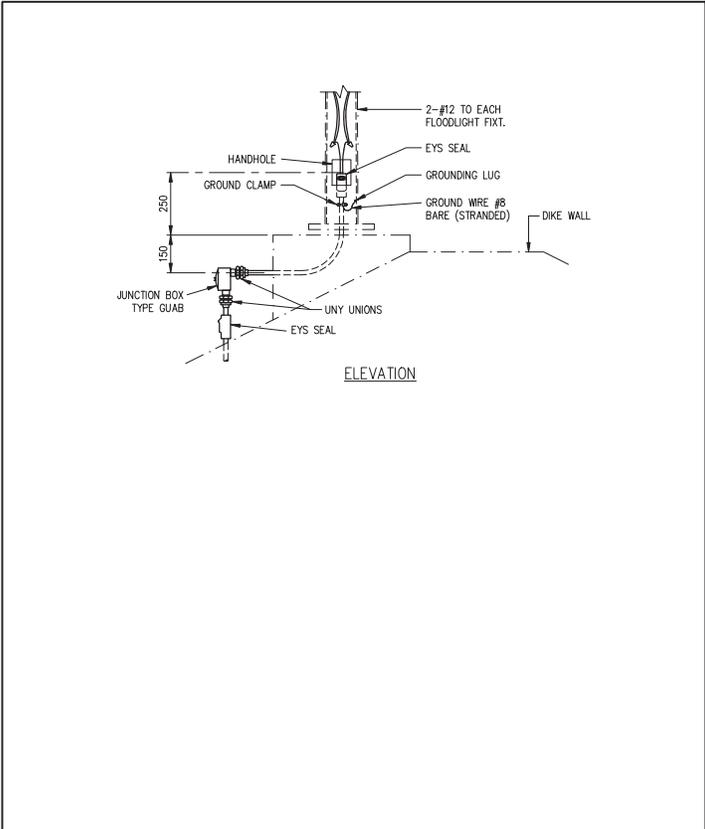
NOTES:

- 1- FOR DETAILS OF CONCRETE FOUNDATION & ANCHOR BOLTS REFER TO DWG. NT-S20.
- 2- LOWERING DEVICE TO BE INSTALLED SUCH THAT HINGED PORTION OF POLE IS LOWERED PARALLEL TO THE DIKE WALL.
- 3- POLE & BRACKETS TO BE PAINTED AS PER SPECIFICATIONS, DIVISION 9, SECTION 09900.
- 4- FOR MATERIAL REFER TO SPECIFICATIONS, DIVISION 16, SECTION 16010.
- 5- FOR DETAIL OF ELECTRICAL INSTALLATION SEE DWG. NT-E04



Drawing Title
**HINGED FLOODLIGHT POLE
& BRACKETS FOR
DIKE AREA LIGHTING DETAILS**

| | | |
|------------------------|------------------------------|-------------------|
| Design EDZ | Ver. EDZ | Scale AS SHOWN |
| Drawn KJ | Appr. | Date 95/02/28 |
| Revised By REE | Drawing No. NT-E03 | |
| Revised On 04/09/30 | | |



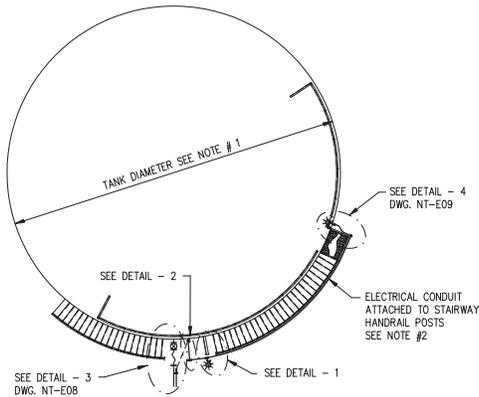
ELEVATION



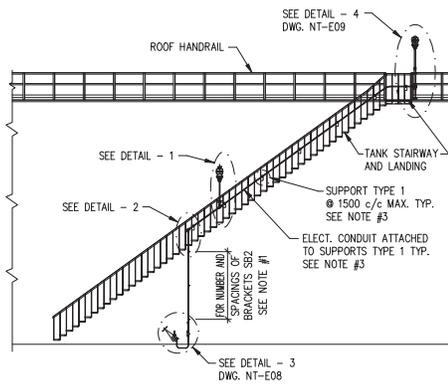
Public Works & Services

Drawing Title
ELECTRICAL & GROUNDING INSTALLATION
AT BASE OF FLOODLIGHT POLE

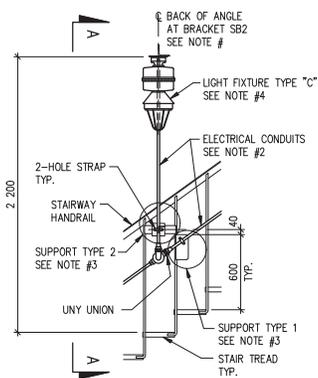
| | | | | |
|---------------|-------------|------------------|------------------------|-----------------------|
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | Drawing No. NT-E04 |
| Drawn KJ | Appr. | Date 94/04/29 | Revised On 04/06/18 | |



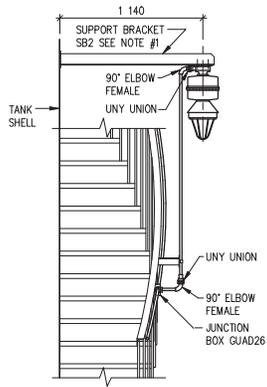
PLAN
1 : 150



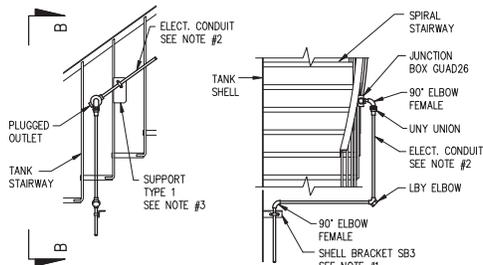
ELEVATION (DEVELOPED)
1 : 150



DETAIL - 1
1 : 30



SECTION A-A
1 : 30



DETAIL - 2
1 : 30

SECTION B-B
1 : 30

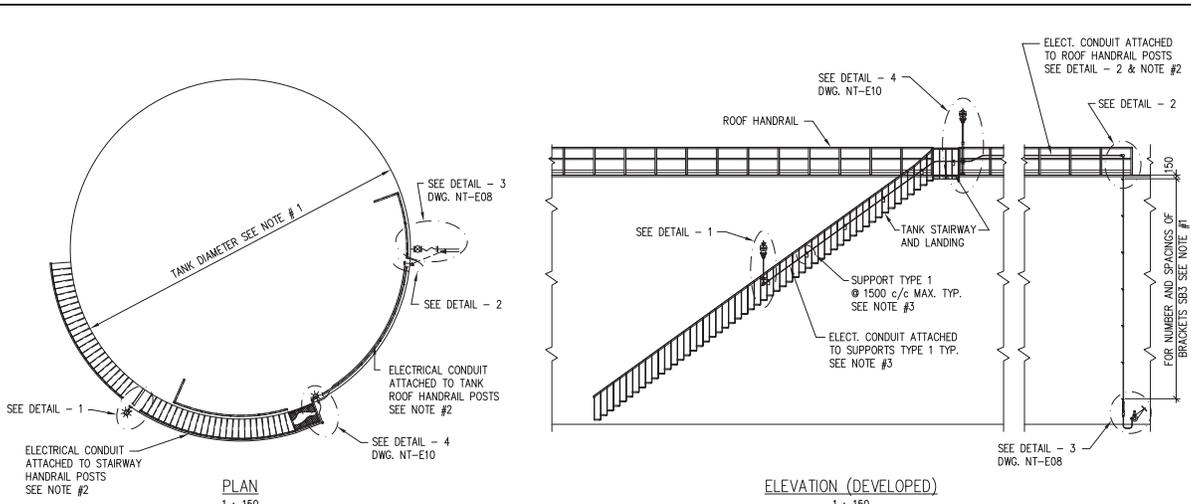
NOTES:

- 1- FOR SIZE OF TANK, ORIENTATION, NUMBER AND LOCATION OF BRACKETS SB2 AND SB3 REFER TO PARTICULAR PROJECT DRAWINGS.
- 2- ALL CONDUITS TO BE RIGID METAL 19Ø WITH 2-#12 WIRES, UNLESS OTHERWISE SPECIFIED ON PARTICULAR PROJECT DRAWINGS.
- 3- FOR DETAILS OF SUPPORTS TYPE 1 AND TYPE 11 REFER TO DWG. NT-548.
- 4- FOR MATERIALS REFER TO SPECIFICATIONS, DIVISION 16, SECTION 16010.

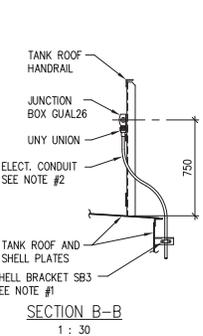
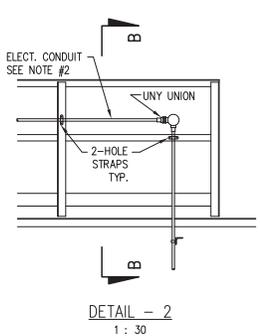
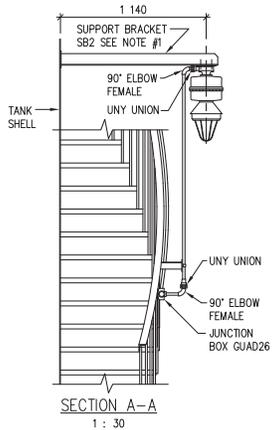
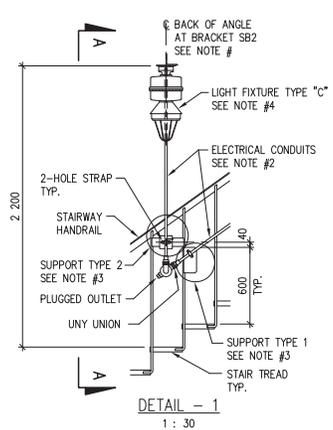


Drawing Title
TYPICAL LIGHTING ARRANGEMENT
AT VERTICAL TANKS
ALTERNATIVE 1
PLAN, DEVELOPED ELEVATION
SECTIONS AND DETAILS

| | | | | | |
|------------|----------|-------|-----|-------------|----------|
| Design | RVM | Ver. | EDZ | Scale | AS SHOWN |
| Drawn | KJ | Appr. | | Date | 95/02/28 |
| Revised By | REC | | | Drawing No. | |
| Revised On | 04/09/30 | | | NT-E05 | |

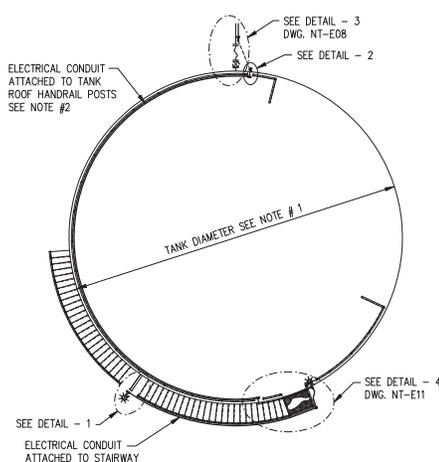


- NOTES:**
- 1- FOR SIZE OF TANK, ORIENTATION, NUMBER AND LOCATION OF BRACKETS SB2 AND SB3 REFER TO PARTICULAR PROJECT DRAWINGS.
 - 2- ALL CONDUITS TO BE RIGID METAL 19# WITH 2-#12 WIRES, UNLESS OTHERWISE SPECIFIED ON PARTICULAR PROJECT DRAWINGS.
 - 3- FOR DETAILS OF SUPPORTS TYPE 1 AND TYPE 11 REFER TO DWG. NT-S48.
 - 4- FOR MATERIALS REFER TO SPECIFICATIONS, DIVISION 16, SECTION 16010.

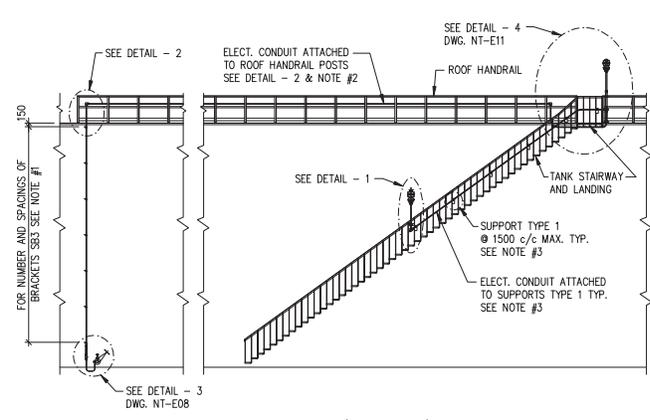


Drawing Title
TYPICAL LIGHTING ARRANGEMENT AT VERTICAL TANKS ALTERNATIVE 2
 PLAN, DEVELOPED ELEVATION, SECTIONS AND DETAILS

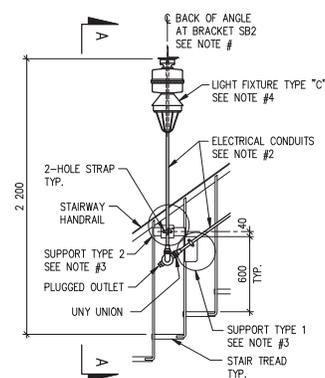
| | | | | | |
|------------|----------|-------------|-----|-------|----------|
| Design | RVM | Ver. | EDZ | Scale | AS SHOWN |
| Drawn | KJ | Appr. | | Date | 99/02/26 |
| Revised By | REE | Drawing No. | | | |
| Revised On | 04/09/30 | NT-E06 | | | |



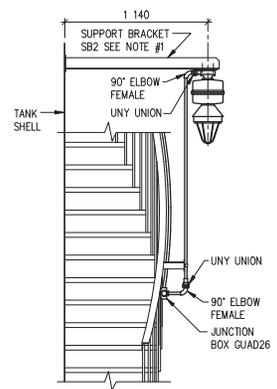
PLAN
1 : 150



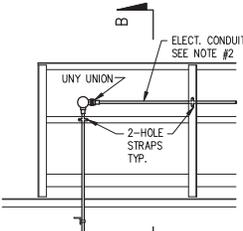
ELEVATION (DEVELOPED)
1 : 150



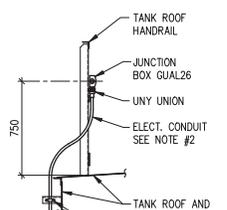
DETAIL - 1
1 : 30



SECTION A-A
1 : 30



DETAIL - 2
1 : 30



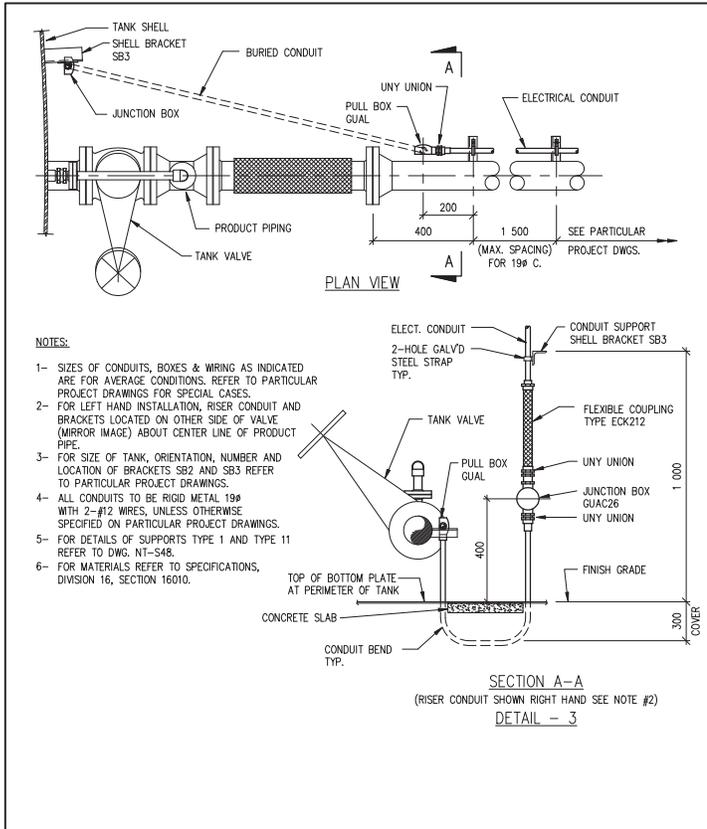
SECTION B-B
1 : 30

- NOTES:**
- 1- FOR SIZE OF TANK, ORIENTATION, NUMBER AND LOCATION OF BRACKETS SB2 AND SB3 REFER TO PARTICULAR PROJECT DRAWINGS.
 - 2- ALL CONDUITS TO BE RIGID METAL 19# WITH 2-#12 WIRES, UNLESS OTHERWISE SPECIFIED ON PARTICULAR PROJECT DRAWINGS.
 - 3- FOR DETAILS OF SUPPORTS TYPE 1 AND TYPE 11 REFER TO DWG. NT-548.
 - 4- FOR MATERIALS REFER TO SPECIFICATIONS, DIVISION 16, SECTION 16010.

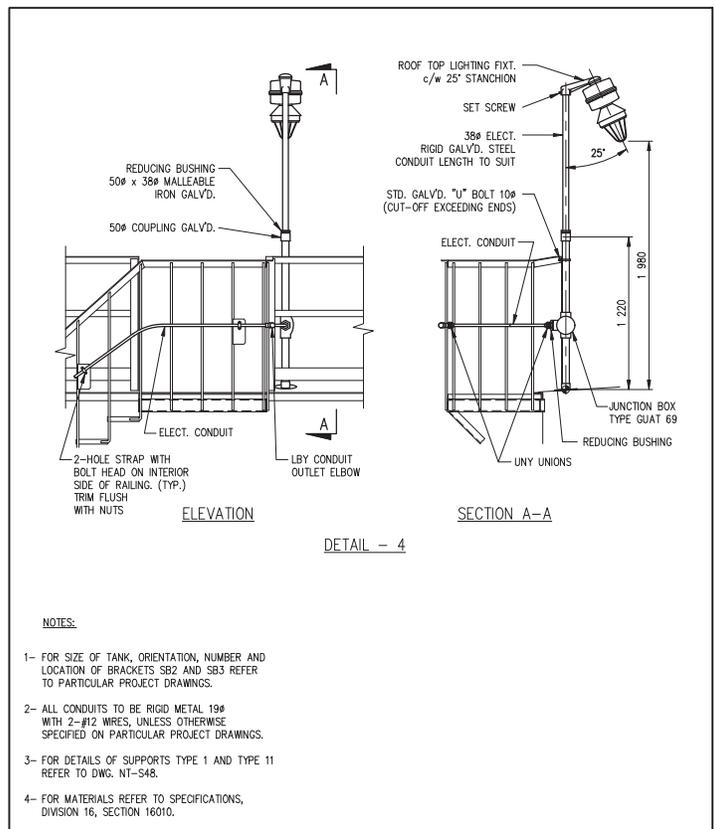


Drawing Title
TYPICAL LIGHTING ARRANGEMENT AT VERTICAL TANKS ALTERNATIVE 3
 PLAN, DEVELOPED ELEVATION, SECTIONS AND DETAILS

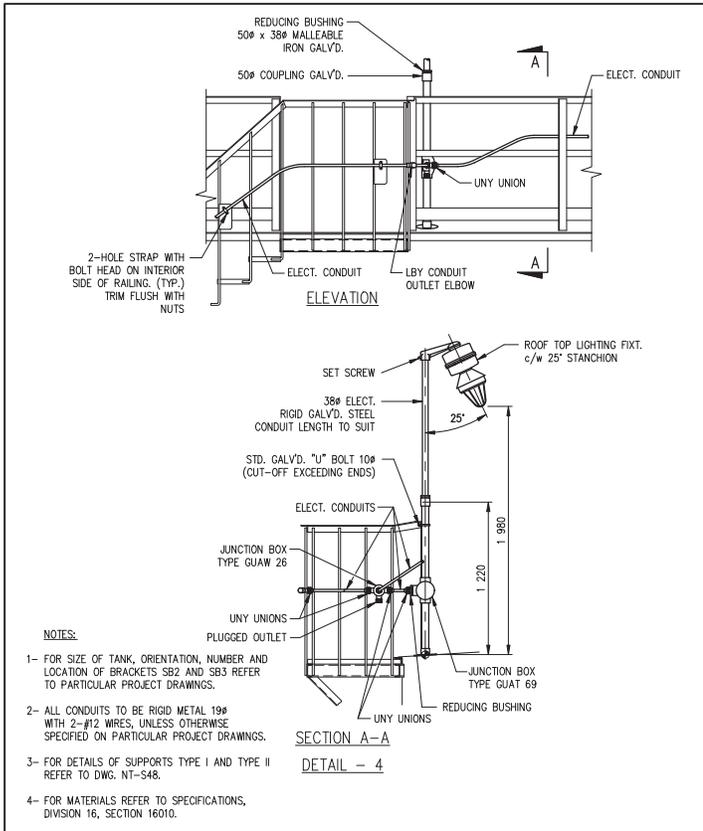
| | | | | | |
|------------|----------|-------|-----|-------------|----------|
| Design | RVM | Ver. | EDZ | Scale | AS SHOWN |
| Drawn | KJ | Appr. | | Date | 99/02/26 |
| Revised By | REE | | | Drawing No. | |
| Revised On | 04/09/30 | | | NT-E07 | |



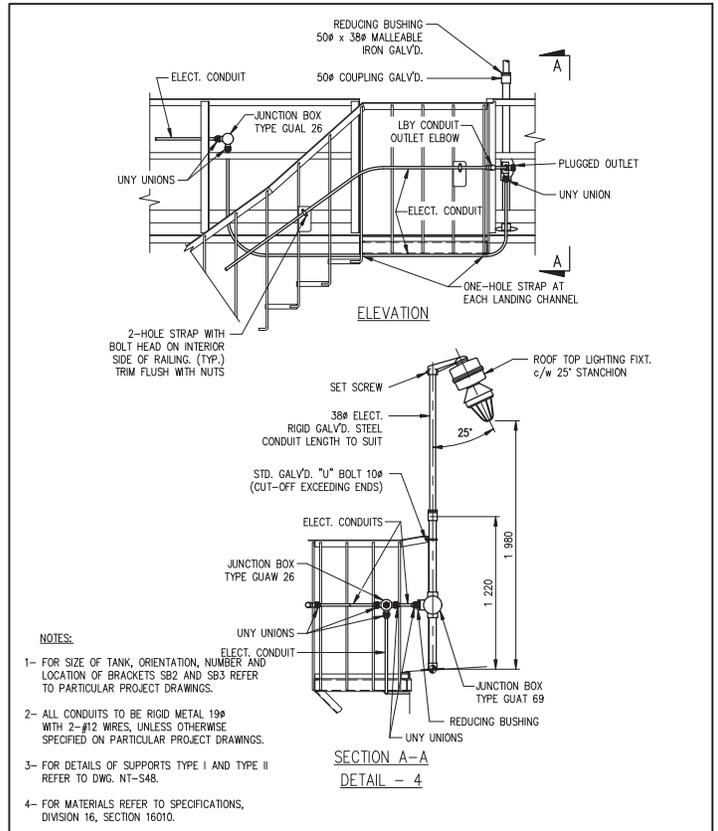
| | | | | | |
|--|--|------------|------------------|------------------------|------------------------------|
| | Drawing Title TYPICAL ELECTRICAL CONDUIT ARRANGEMENT AT VERTICAL TANK VALVES DETAIL-3 (ALTERNATIVES 1, 2, & 3) | | | | Drawing No. NT-E08 |
| | Design BC | Ver. LR | Scale 1:15 | Revised By REE | |
| | Drawn KJ | Appr. | Date 95/02/26 | Revised On 04/09/30 | |



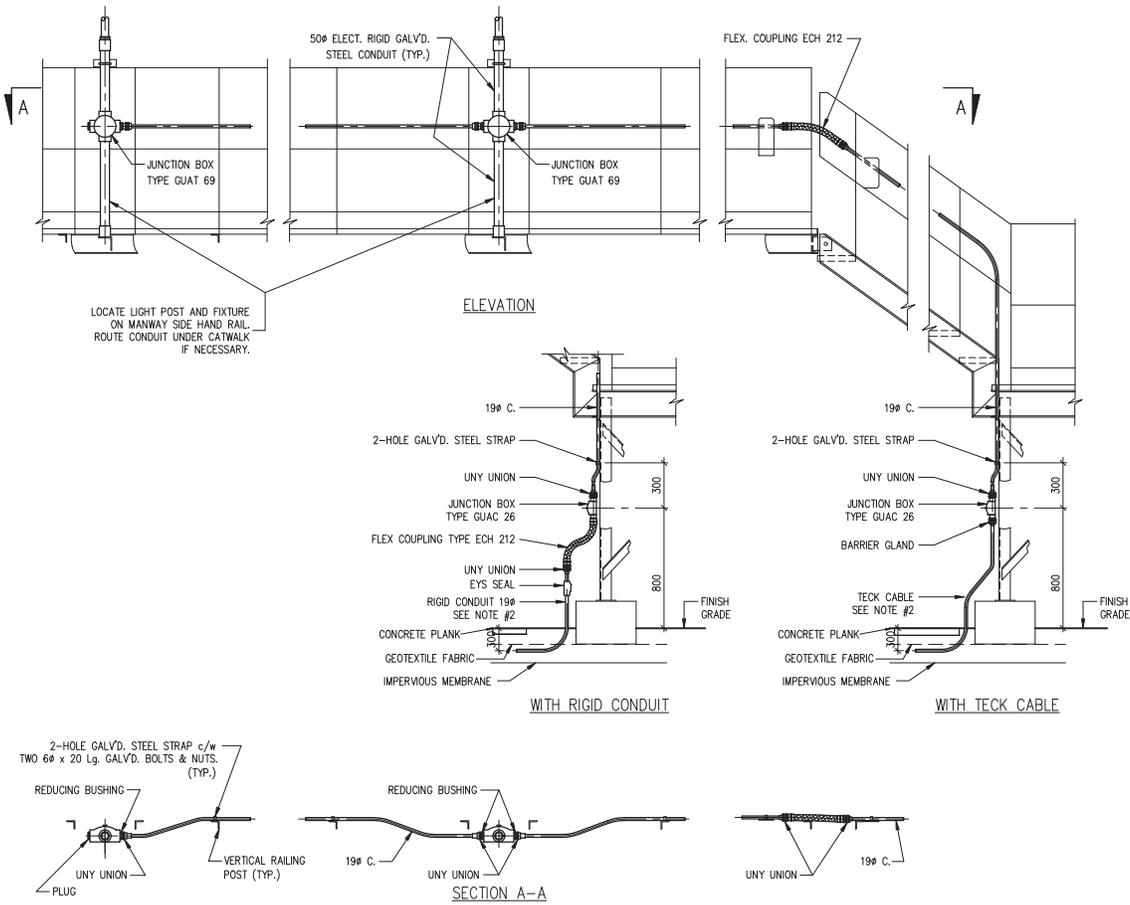
| | | | | | |
|--|---|-------------|------------------|------------------------|------------------------------|
| | Drawing Title TYPICAL LIGHTING AND CONDUIT ARRANGEMENT AT ROOF OF VERTICAL TANKS DETAIL-4 (ALTERNATIVE 1) | | | | Drawing No. NT-E09 |
| | Design RVM | Ver. EDZ | Scale 1:30 | Revised By REE | |
| | Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/09/30 | |



| | | | | | | |
|--|---|----------|----------------|----------------------|--|------------------------------|
| | Drawing Title TYPICAL LIGHTING & CONDUIT ARRANGEMENT AT ROOF OF VERTICAL TANKS DETAIL-4 (ALTERNATIVE 2) | | | | | Drawing No. NT-E10 |
| | Design: RVM | Ver: EDZ | Scale: 1:30 | Revised By: REE | | |
| | Drawn: KJ | Appr: | Date: 94/04/29 | Revised On: 04/09/30 | | |



| | | | | | | |
|--|---|----------|----------------|----------------------|--|------------------------------|
| | Drawing Title TYPICAL LIGHTING AND CONDUIT ARRANGEMENT AT ROOF OF VERTICAL TANKS DETAIL-4 (ALTERNATIVE 3) | | | | | Drawing No. NT-E11 |
| | Design: RVM | Ver: EDZ | Scale: 1:30 | Revised By: REE | | |
| | Drawn: KJ | Appr: | Date: 94/04/29 | Revised On: 04/09/30 | | |

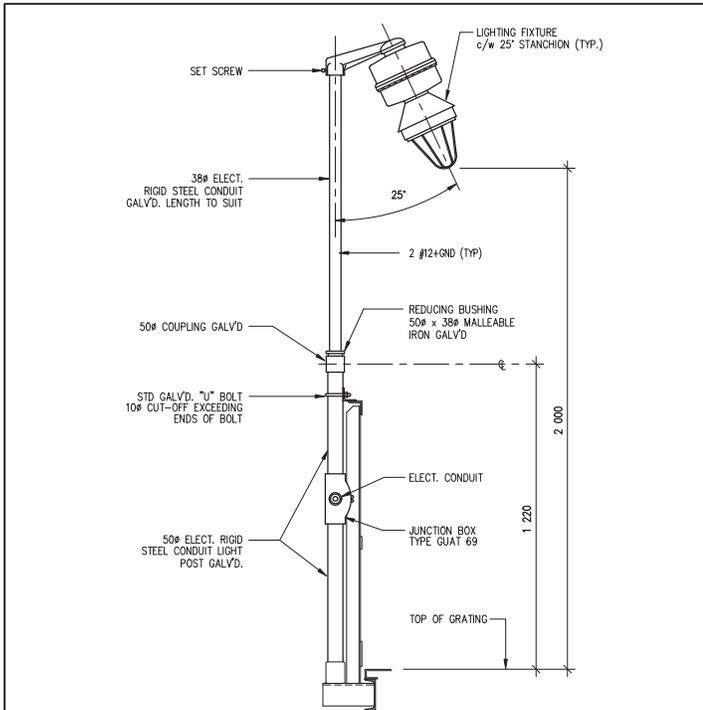


- NOTES:**
- 1- ALL CONDUITS TO BE RIGID METAL GALV'D. WITH 2 #12 WIRES, UNLESS OTHERWISE SPECIFIED ON PARTICULAR PROJECT DRAWINGS.
 - 2- CONTRACTOR TO REFER TO PARTICULAR PROJECT DRAWING FOR INDICATION OF CONDUIT OR TECK CABLE INSTALLATION.
 - 3- FOR MATERIALS REFER TO SPECIFICATIONS, DIVISION 16, SECTION 16010.



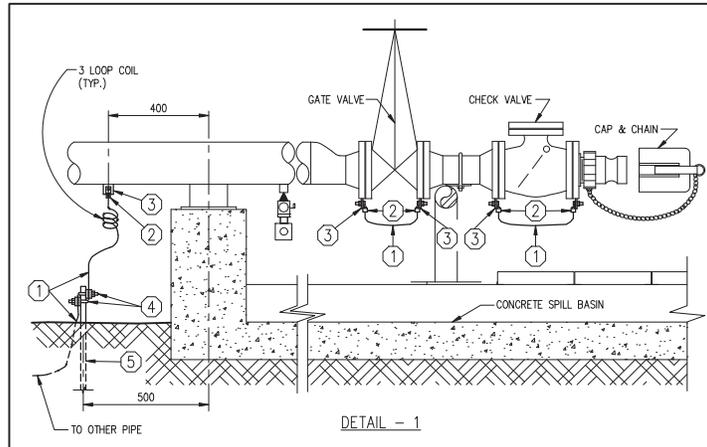
Design Title
**LIGHTING AT HORIZONTAL TANKS
 AT HANDRAIL OF CATWALK & STAIRWAY
 PLAN AND DETAILS**

| | | | | | |
|------------|----------|-------------|----|--------|----------|
| Design | BC | Ver. | LR | Scale | 1:25 |
| Drawn | KJ | Appr. | | Date | 95/02/28 |
| Revised By | REE | Drawing No. | | NT-E12 | |
| Revised On | 04/09/30 | | | | |



- NOTES:
- 1- FOR NUMBER AND LOCATION OF LIGHT POSTS SEE PARTICULAR PROJECT DRAWINGS.
 - 2- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.
 - 3- LOCATE LIGHT POST AND FIXTURE BETWEEN MANWAYS ON THE MANWAY SIDE HANDRAIL.

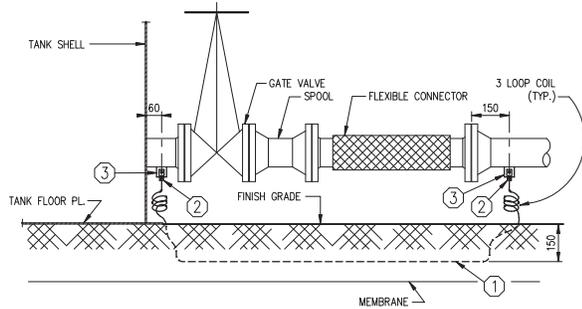
| | | | | | |
|-------|--|----------|------------|------------|------------------------------|
| | Drawing Title LIGHTING AT HORIZONTAL TANKS LIGHT POST & FIXTURE AT CATWALK DETAIL | | | | Drawing No. NT-E13 |
| | Design | Ver. | Scale | Revised By | |
| | RWM | EDZ | 1:15 | REE | |
| Drawn | Appr. | Date | Revised On | | |
| KJ | | 95/02/28 | 04/09/30 | | |



| ITEM | DESCRIPTION |
|------|--|
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | BURNDY CONNECTOR SCROLLUGS TYPE KPA c/w BRASS BOLT & NUTS |
| ③ | GROUND LUG PLATE 40 x 40 x 6 THK. SEE DETAIL-1 DWG. NT-S49 |
| ④ | BURNDY GROUND CONNECTOR TYPE GAR |
| ⑤ | GROUND ROD 19# x 3 050 Lg. BLACKBURN #7510 COPPER-CLAD STEEL |

- NOTE:
- 1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.

| | | | | | |
|-------|--|----------|------------|------------|------------------------------|
| | Drawing Title STATIC ELECTRICITY GROUNDING CONNECTIONS AT SPILL BASIN AT SEA HOSE CONNECTION POINTS | | | | Drawing No. NT-E14 |
| | Design | Ver. | Scale | Revised By | |
| | RWM | EDZ | 1:15 | REE | |
| Drawn | Appr. | Date | Revised On | | |
| KJ | | 95/02/28 | 04/09/30 | | |

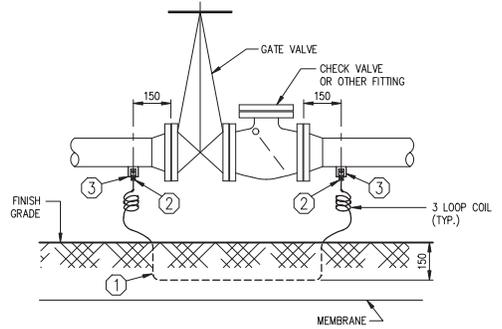


DETAIL - 2

| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | BURNDY CONNECTOR SCRULLUGS TYPE KPA c/w BRASS BOLT & NUTS |
| ③ | GROUND LUG PLATE 40 x 40 x 6 THK. SEE DETAIL-1 DWG. NT-549 |

NOTE:

1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



DETAIL - 3

| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | BURNDY CONNECTOR SCRULLUGS TYPE KPA c/w BRASS BOLT & NUTS |
| ③ | GROUND LUG PLATE 40 x 40 x 6 THK. SEE DETAIL-1 DWG. NT-549 |

NOTE:

1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



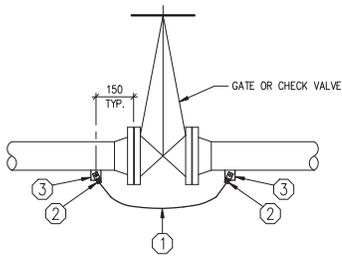
Drawing Title
 STATIC ELECTRICITY GROUNDING CONNECTIONS
 ACROSS TANK VALVES, SPOOL PIECES & FLEXIBLE CONNECTORS

| | | | | |
|---------------|-------------|------------------|------------------------|-----------------------|
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | Drawing No. NT-E15 |
| Drawn KJ | Appr. | Date 94/04/29 | Revised On 04/09/30 | |



Drawing Title
 STATIC ELECTRICITY GROUNDING CONNECTIONS
 ACROSS GATE AND CHECK VALVES

| | | | | |
|---------------|-------------|------------------|------------------------|-----------------------|
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | Drawing No. NT-E16 |
| Drawn KJ | Appr. | Date 94/04/29 | Revised On 04/09/30 | |

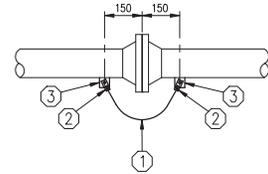


DETAIL - 4

| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | BURNDY CONNECTOR SCROLLUGS TYPE KPA c/w BRASS BOLT & NUTS |
| ③ | GROUND LUG PLATE 40 x 40 x 6 THK. SEE DETAIL-1 DWG. NT-549 |

NOTE:

1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



DETAIL - 5

| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | BURNDY CONNECTOR SCROLLUGS TYPE KPA c/w BRASS BOLT & NUTS |
| ③ | GROUND LUG PLATE 40 x 40 x 6 THK. SEE DETAIL-1 DWG. NT-549 |

NOTE:

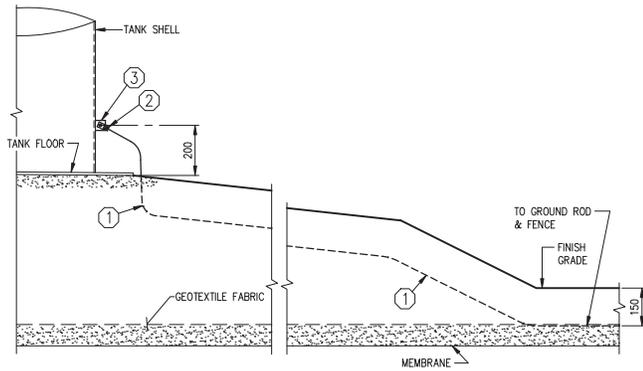
1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



| | | | | | |
|--|-------------|------------------|------------------------|--|------------------------------|
| Drawing Title STATIC ELECTRICITY GROUNDING CONNECTIONS ACROSS GATE OR CHECK VALVES | | | | | Drawing No. NT-E17 |
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | | |
| Drawn KJ | Appr. | Date 94/04/29 | Revised On 04/09/30 | | |



| | | | | | |
|---|-------------|------------------|------------------------|--|------------------------------|
| Drawing Title STATIC ELECTRICITY GROUNDING CONNECTIONS AT FLANGED CONNECTIONS | | | | | Drawing No. NT-E18 |
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | | |
| Drawn KJ | Appr. | Date 94/04/29 | Revised On 04/09/30 | | |



DETAIL - 6

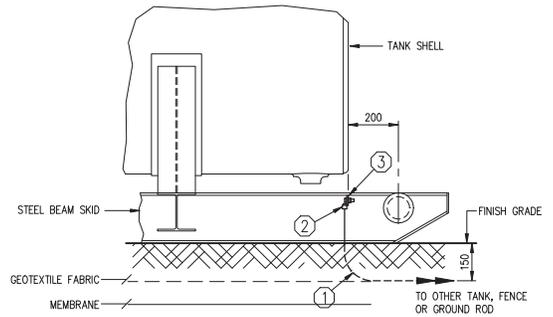
| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | BURNDY CONNECTOR SCRULLUGS TYPE KPA c/w BRASS BOLT & NUTS |
| ③ | GROUND LUG PLATE 40 x 40 x 6 THK. SEE DETAIL-1 DWG. NT-549 |

NOTE:

1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



| | | | | | |
|--|-------------|------------------|------------------------|--|------------------------------|
| Drawing Title STATIC ELECTRICITY GROUNDING CONNECTIONS AT VERTICAL TANKS | | | | | Drawing No. NT-E19 |
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | | |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/09/30 | | |



DETAIL - 7

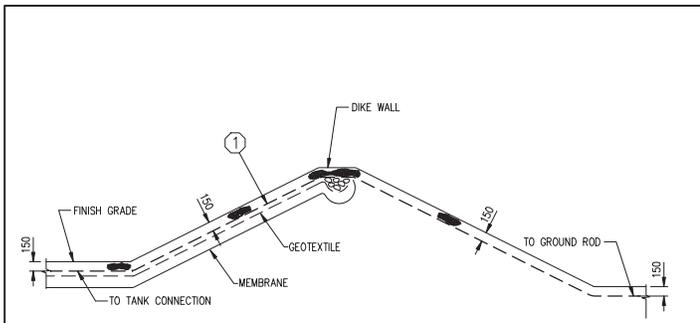
| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | BURNDY CONNECTOR SCRULLUGS TYPE KPA c/w BRASS BOLT & NUTS |
| ③ | GROUND LUG PLATE 40 x 40 x 6 THK. SEE DETAIL-1 DWG. NT-549 |

NOTE:

1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



| | | | | | |
|---|-------------|------------------|------------------------|--|------------------------------|
| Drawing Title STATIC ELECTRICITY GROUND WIRE CONNECTION AT HORIZONTAL TANKS | | | | | Drawing No. NT-E20 |
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | | |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/09/30 | | |



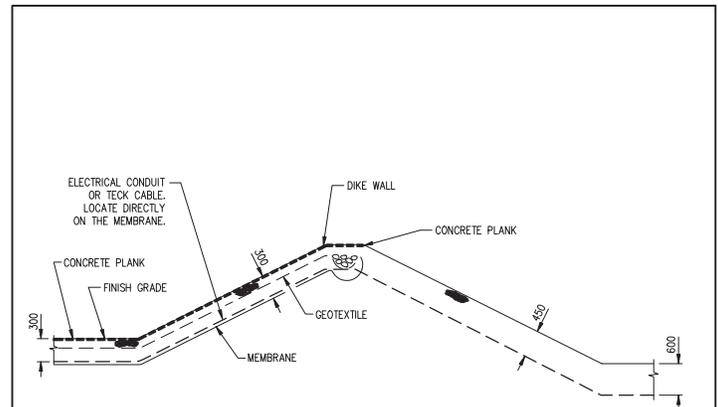
DETAIL - 8

| LIST OF MATERIAL | |
|------------------|-------------------------------------|
| ITEM | DESCRIPTION |
| 1 | #4 STRANDED BARE COPPER GROUND WIRE |

NOTE:

1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.

| | | | | | |
|---|-------------|------------------|------------------------|--|-----------------------|
| Drawing Title STATIC ELECTRICITY GROUND WIRE INSTALLATION OVER DIKE WALL | | | | | Drawing No. NT-E21 |
| Design RWM | Ver. EDZ | Scale N.T.S. | Revised By REE | | |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/09/30 | | |

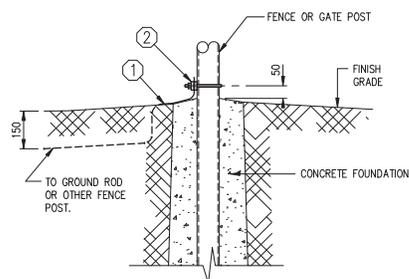


DETAIL - 9

NOTE:

- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.
- LOCATE THE TECK CABLE DIRECTLY ON THE MEMBRANE. CUT THROUGH THE GEOTEXTILE AND COVER THE SEAM WITH 300mm WIDE STRIP OF GEOTEXTILE AND YELLOW MARKING TAPE.
- COVER WITH A MINIMUM 300mm DEPTH OF GRAVEL WITH A CONCRETE SLAB FLUSH WITH GROUND SURFACE

| | | | | | |
|---|------------|------------------|------------------------|--|-----------------------|
| Drawing Title ELECTRICAL CONDUIT OR TECK CABLE INSTALLATION OVER DIKE WALL | | | | | Drawing No. NT-E22 |
| Design BC | Ver. LR | Scale N.T.S. | Revised By REE | | |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/09/30 | | |

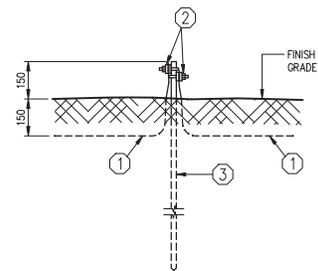


DETAIL - 10

| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | THOMAS & BETTS HEAVY DUTY GROUND CLAMP #3903 FOR FENCE POST, #3904 FOR GATE POST |

NOTE:

1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



DETAIL - 11

| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | BURNDY GROUND CONNECTOR TYPE GAR |
| ③ | GROUND ROD 19# x 3 050 Lg. BLACKBURN #7510 COPPER-CLAD STEEL |

NOTE:

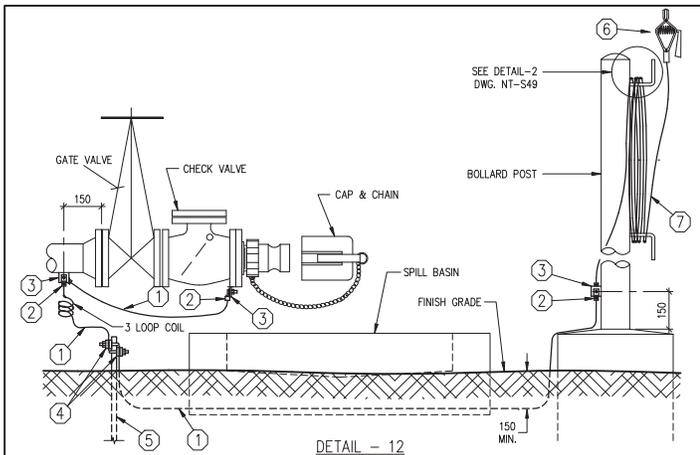
1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



| | | | | | |
|--|-------------|------------------|------------------------|--|------------------------------|
| Drawing Title STATIC ELECTRICITY GROUND WIRE CONNECTION AT FENCE OR GATE POSTS | | | | | Drawing No. NT-E23 |
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | | |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/09/30 | | |



| | | | | | |
|--|-------------|------------------|------------------------|--|------------------------------|
| Drawing Title STATIC ELECTRICITY GROUNDING CONNECTIONS AT GROUND ROD | | | | | Drawing No. NT-E24 |
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | | |
| Drawn KJ | Appr. | Date 94/04/29 | Revised On 04/09/30 | | |



DETAIL - 12

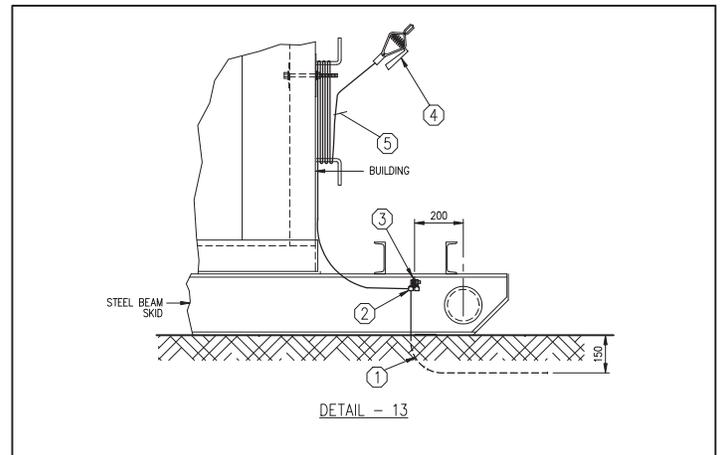
| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | BURNDY CONNECTOR SCROLLUGS TYPE KPA c/w BRASS BOLT & NUTS |
| ③ | GROUND LUG PLATE 40 x 40 x 6 THK. SEE DETAIL-1 DWG. NT-549 |
| ④ | BURNDY GROUND CONNECTOR TYPE GAR |
| ⑤ | GROUND ROD 19# x 3 050 Lg. BLACKBURN #7510 COPPER-CLAD STEEL |
| ⑥ | GAMMON GTP-1102-VUD-100, GROUNDING CLAMP. |
| ⑦ | GROUND CABLE, #4 STRANDED, SUPER VU-TRON II, JACKETED WELDING CABLE-EXTRA FLEXIBLE 600 V. (-50° C. TO +90° C.) 3 000 mm. Lg. |

NOTE:

1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



| | | | | | |
|---|-------------|------------------|------------------------|--|------------------------------|
| Drawing Title STATIC ELECTRICITY GROUNDING CONNECTIONS AT TRUCK UNLOADING POINT | | | | | Drawing No. NT-E25 |
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | | |
| Drawn KJ | Appr. | Date 94/04/29 | Revised On 04/09/30 | | |
| | | | | | |



DETAIL - 13

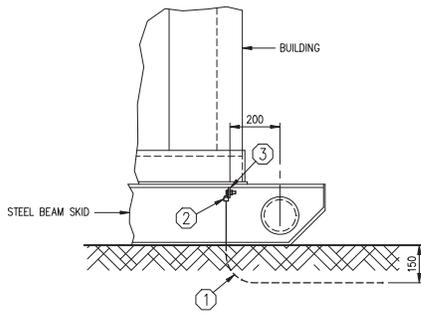
| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | BURNDY CONNECTOR SCROLLUGS TYPE KPA c/w BRASS BOLT & NUTS |
| ③ | GROUND LUG PLATE 40 x 40 x 6 THK. SEE DETAIL-1 DWG. NT-549 |
| ④ | GAMMON GTP-1102-VUD-100, GROUNDING CLAMP |
| ⑤ | GROUND CABLE, #4 STRANDED, SUPER VU-TRON II, JACKETED WELDING CABLE-EXTRA FLEXIBLE 600 V. (-50° C. TO +90° C.) 4 000 mm. Lg. |

NOTE:

1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



| | | | | | |
|--|-------------|------------------|------------------------|--|------------------------------|
| Drawing Title STATIC ELECTRICITY GROUNDING CONNECTIONS AT DISPENSER BUILDING FOR TRUCK GROUNDING CABLE | | | | | Drawing No. NT-E26 |
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | | |
| Drawn KJ | Appr. | Date 94/04/29 | Revised On 04/09/30 | | |
| | | | | | |



DETAIL - 14

| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | BURNDY CONNECTOR SCROLLUGS TYPE KPA c/w BRASS BOLT & NUTS |
| ③ | GROUND LUG PLATE 40 x 40 x 6 THK. SEE DETAIL-1 DWG. NT-549 |

NOTE:

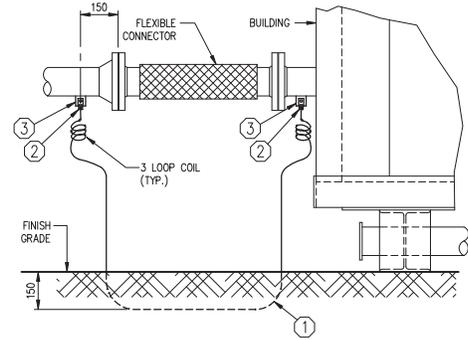
1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



Public Works & Services

Drawing Title
 STATIC ELECTRICITY GROUNDING CONNECTIONS
 OF GROUND LUG AND WIRE AT DISPENSER BUILDING

| | | | | |
|---------------|-------------|------------------|------------------------|-------------|
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | Drawing No. |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/09/30 | NT-E27 |



DETAIL - 15

| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | BURNDY CONNECTOR SCROLLUGS TYPE KPA c/w BRASS BOLT & NUTS |
| ③ | GROUND LUG PLATE 40 x 40 x 6 THK. SEE DETAIL-1 DWG. NT-549 |

NOTE:

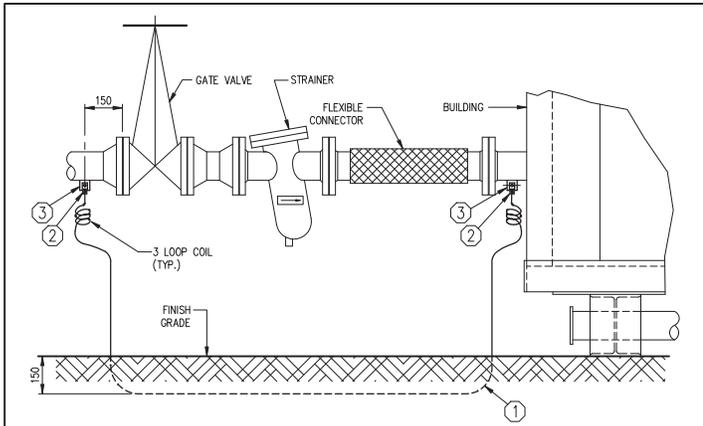
1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



Public Works & Services

Drawing Title
 STATIC ELECTRICITY GROUNDING CONNECTIONS
 ACROSS FLEXIBLE CONNECTOR AT DISPENSER BUILDING

| | | | | |
|---------------|-------------|------------------|------------------------|-------------|
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | Drawing No. |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/06/30 | NT-E28 |

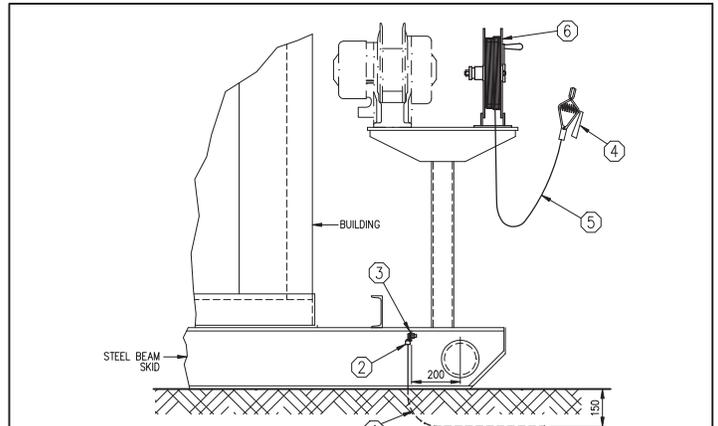


DETAIL - 16

| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | BURNDY CONNECTOR SCROLLUGS TYPE KPA c/w BRASS BOLT & NUTS |
| ③ | GROUND LUG PLATE 40 x 40 x 6 THK. SEE DETAIL-1 DWG. NT-549 |

NOTE:

1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



DETAIL - 17

| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | #4 STRANDED BARE COPPER GROUND WIRE |
| ② | BURNDY CONNECTOR SCROLLUGS TYPE KPA c/w BRASS BOLT & NUTS |
| ③ | GROUND LUG PLATE 40 x 40 x 6 THK. SEE DETAIL-1 DWG. NT-549 |
| ④ | GAMMON GTP-1102-VUD-100 |
| ⑤ | KINK RESISTANT STATIC GROUNDING CABLE, STAINLESS STEEL STRANDED (7 x7) 2.38 mm DIA. 30480 mm Lg. UNCOATED. |
| ⑥ | STATIC ELECTRICITY HAND REWIND GROUNDING REEL NORDIC MODEL No. 340405 OR GAMMON MODEL ML-3416-20 |

NOTE:

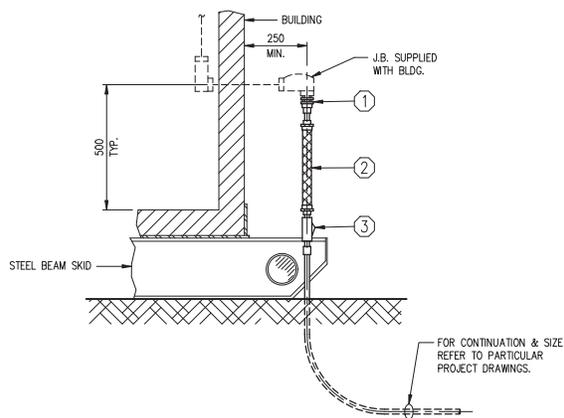
1- FOR MATERIAL SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.

Northwest Territories
Public Works & Services

| | | | | | |
|---|-------------|------------------|------------------------|--|------------------------------|
| Drawing Title STATIC ELECTRICITY GROUNDING CONNECTIONS ACROSS FLEXIBLE CONNECTOR, STRAINER & VALVE BEHIND DISPENSER BUILDING | | | | | Drawing No. NT-E29 |
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | | |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/09/30 | | |

Northwest Territories
Public Works & Services

| | | | | | |
|---|-------------|------------------|------------------------|--|------------------------------|
| Drawing Title STATIC ELECTRICITY GROUNDING REEL AT JET A-1 DISPENSER BUILDING | | | | | Drawing No. NT-E30 |
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | | |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/09/30 | | |



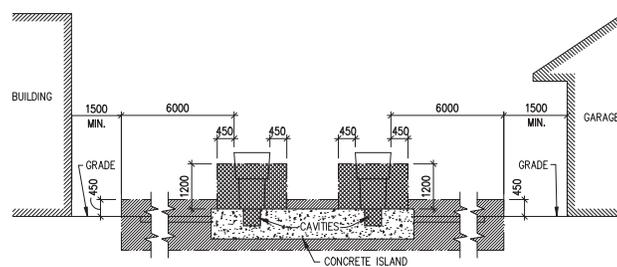
| LIST OF MATERIAL | |
|------------------|--|
| ITEM | DESCRIPTION |
| ① | UNION TYPE CROUSE-HINDS "UNY" SERIES, SIZE TO SUIT |
| ② | FLEXIBLE COUPLING 305 Lg. TYPE CROUSE-HINDS "ECH" SERIES, SIZE TO SUIT |
| ③ | SEAL TYPE CROUSE-HINDS "EYS" SERIES, SIZE TO SUIT |

NOTE:

- 1- APPLICABLE TO OPERATOR'S SHELTER & DISPENSER BUILDINGS.
- 2- FOR OTHER NOTES SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.

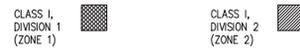


| | | | | | |
|---|-------------|------------------|------------------------|--|------------------------------|
| Drawing Title ELECTRICAL CONDUIT ARRANGEMENT AT ENTRY OF BUILDING | | | | | Drawing No. NT-E31 |
| Design RVM | Ver. EDZ | Scale 1:15 | Revised By REE | | |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/09/30 | | |



GASOLINE DISPENSING STATION
(SECTION 20-004 (1), (2), (4) & (6))

HAZARDOUS AREA CLASSIFICATION:

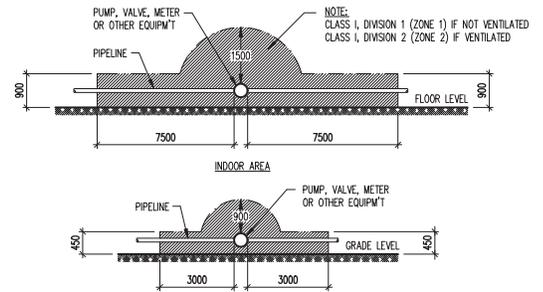


NOTE:

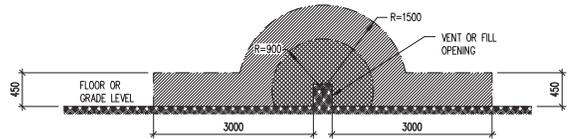
- 1- ALL DIMENSIONS ARE IN MILLIMETRES.
- 2- FOR OTHER NOTES SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



| | | | | | |
|---|-------------|------------------|------------------------|--|------------------------------|
| Drawing Title HAZARDOUS AREA CLASSIFICATIONS FOR ELECTRICAL INSTALLATIONS | | | | | Drawing No. NT-E32 |
| Design RVM | Ver. EDZ | Scale 1:100 | Revised By REE | | |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/09/30 | | |



BULK STORAGE
FLAMMABLE LIQUIDS AT BULK FUEL STORAGE FACILITIES
 (RULE: 20-302 (1) OF CANADIAN ELECTRICAL CODE)



TRANSFER OF FLAMMABLE LIQUIDS
 (OUTDOORS OR INDOORS WITH MECHANICAL VENTILATION)
 (RULE: 20-302 (2) (a) OF CANADIAN ELECTRICAL CODE)

HAZARDOUS AREA CLASSIFICATION:

CLASS I, DIVISION 1 (ZONE 1) CLASS I, DIVISION 2 (ZONE 2)

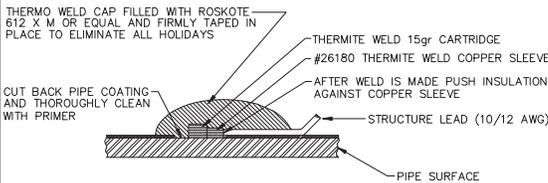
NOTE:

- 1- ALL DIMENSIONS ARE IN MILLIMETRES.
- 2- FOR OTHER NOTES SEE SPECIFICATIONS, DIVISION 16, SECTION 16010.



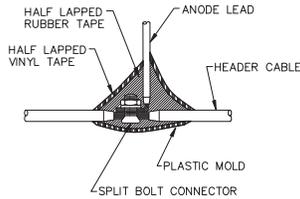
Drawing Title
**HAZARDOUS AREA CLASSIFICATIONS
 FOR ELECTRICAL INSTALLATIONS**

| | | | | |
|---------------|-------------|------------------|------------------------|------------------------------|
| Design RVM | Ver. EDZ | Scale 1:100 | Revised By REE | Drawing No. NT-E33 |
| Drawn KJ | Appr. | Date 95/02/28 | Revised On 04/09/30 | |

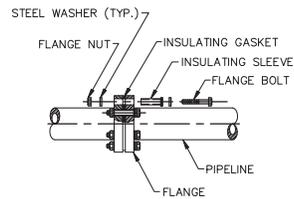


- NOTES:
1. METAL SURFACE TO BE DRY AND FREE OF ALL FOREIGN MATERIAL.
 2. CONNECTION AND EXPOSED METAL TO HAVE MIN. 12.7 mm INSULATION.

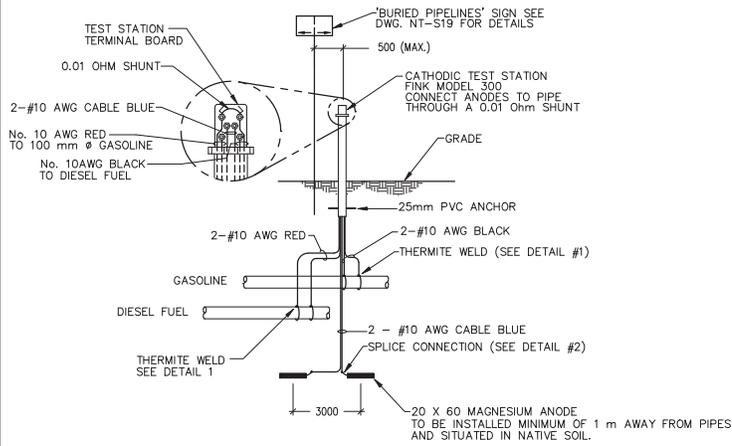
DETAIL 1: TYPICAL THERMITE WELD DETAIL



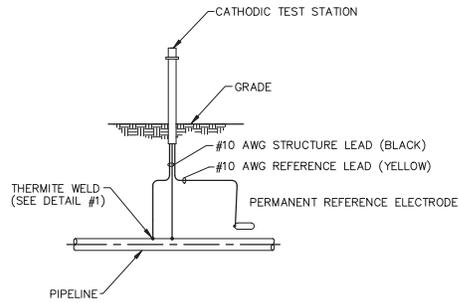
DETAIL 2: TYPICAL TWO TAPE CABLE SPLICE DETAIL



DETAIL 3: TYPICAL INSULATING FLANGE ASSEMBLY DETAIL



TYPICAL TEST/PROTECTION STATION AND ANODE INSTALLATION DETAIL



TYPICAL REFERENCE ELECTRODE INSTALLATION DETAIL

NOTES:

- 1- ALL CONDUITS TO BE RIGID METAL GALV. WITH 2 #12 WIRES, UNLESS OTHERWISE SPECIFIED ON PARTICULAR PROJECT DRAWINGS.
- 2- CONTRACTOR TO REFER TO PARTICULAR PROJECT DRAWING FOR INDICATION OF CONDUIT OR TECK CABLE INSTALLATION.
- 3- FOR MATERIALS REFER TO SPECIFICATIONS, DIVISION 16, SECTION 16010.



Northwest Territories Public Works & Services

Drawing Title
CATHODIC PROTECTION DETAILS

| | | |
|------------------------|---------------------------|-----------------|
| Design BFG | Ver. BFG | Scale N.T.S. |
| Drawn KJ | Appr. Date 99/03/20 | |
| Revised By REE | Drawing No. NT-E34 | |
| Revised On 04/10/05 | | |