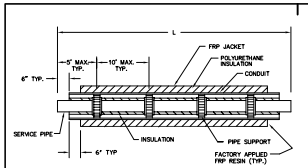
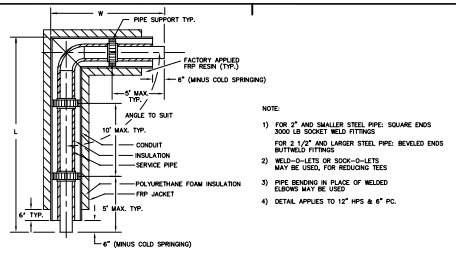


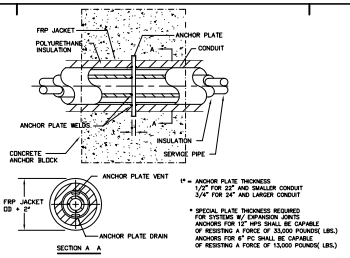
NOTES:
1. FOR 2" AND SMALLER STEEL PIPE: SQUARE ENDS FOR 2 1/2" AND LARGER STEEL PIPE: BEVELED ENDS
2. DETAIL APPLIES TO STEAM AND CONDENSATE (12" HPS & 6" PC)

1 UNDERGROUND CONDUIT PIPE SYSTEM DETAIL
STRAIGHT ASSEMBLY
SCALE: NTS

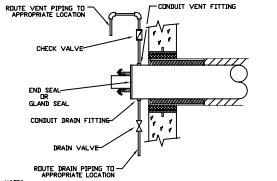


NOTE:
1) FOR 2" AND SMALLER STEEL PIPE: SQUARE ENDS 3000 LB SOCKET WELD FITTINGS
FOR 2 1/2" AND LARGER STEEL PIPE: BEVELED ENDS BUTTWELD FITTINGS
2) WELD-O-LETS OR SOCK-O-LETS MAY BE USED, FOR REDUCING TEES
3) PIPE BENDING IN PLACE OF WELDED ELBOWS MAY BE USED
4) DETAIL APPLIES TO 12" HPS & 6" PC.

2 UNDERGROUND CONDUIT PIPE SYSTEM DETAIL
ELBOW ASSEMBLY
SCALE: NTS

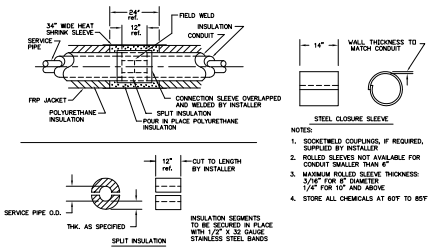


3 UNDERGROUND CONDUIT PIPE SYSTEM DETAIL
ROUND ANCHOR ASSEMBLY
SCALE: NTS



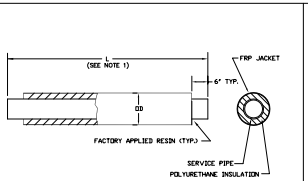
NOTES:
1. VENT AND DRAIN PIPING, FITTINGS AND VALVES SUPPLIED AND INSTALLED BY OTHERS
2. KEEP DRAIN VALVE IN THE CLOSED POSITION TO PREVENT WATER AND MOISTURE FROM ENTERING THE CONDUIT. ONLY OPEN DRAIN VALVE TO DRAIN LIQUID FROM THE CONDUIT
3). DETAIL APPLIES TO 12" HPS AND 6" PD.

4 UNDERGROUND CONDUIT PIPE SYSTEM DETAIL
RECOMMENDED CONDUIT VENT & DRAIN PIPING
SCALE: NTS



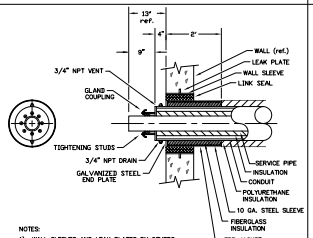
NOTES:
1. SOCKETWELD COUPLINGS, IF REQUIRED, SUPPLIED BY INSTALLER
2. ROLLED SLEEVES NOT AVAILABLE FOR CONDUIT SMALLER THAN 6"
3. MAXIMUM ROLLED SLEEVE THICKNESS: 1/16" FOR 8" DIAMETER 1/4" FOR 10" AND ABOVE
4. STORE ALL CHEMICALS AT 60°F TO 85°F

5 UNDERGROUND CONDUIT PIPE SYSTEM DETAIL
FIELD JOINT ASSEMBLY ROLLED SLEEVE & HEAT SHRINK SLEEVE
SCALE: NTS



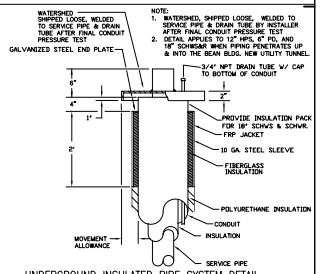
NOTES:
1. LENGTH L FOR 2 -1/2" & BELOW 20 FEET MAXIMUM. LENGTH L FOR 3" & ABOVE 40 FEET MAXIMUM.
2. FOR 2" AND SMALLER PIPE: SQUARE ENDS FOR 2 1/2" AND LARGER PIPE: BEVELED ENDS
3. DETAIL APPLIES TO 18" SCHMS & SCHMR.

6 UNDERGROUND INSULATED PIPE SYSTEM DETAIL
STEEL PIPE STRAIGHT LENGTH
SCALE: NTS



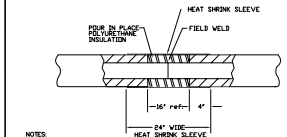
NOTES:
1) WALL SLEEVES AND LEAK PLATES BY OTHERS
2) LINK SEAL FURNISHED BY UNDERGROUND PIPING MANUFACTURER.
3). DETAIL APPLIES TO 12" HPS AND 6" PD.

7 UNDERGROUND INSULATED PIPE SYSTEM DETAIL
GLAND SEAL ASSEMBLY
SCALE: NTS



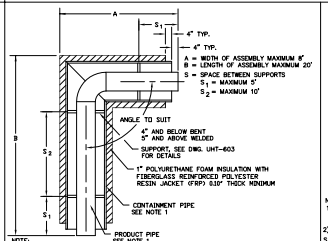
NOTE:
1. WATERSHED, SHIPPED LOOSE, WELDED TO SERVICE PIPE & DRAIN TUBE BY INSTALLER AFTER FINAL CONDUIT PRESSURE TEST
2. DETAIL APPLIES TO 12" HPS, 6" PD, AND 18" SCHWS&R WHEN PIPING PENETRATES UP & INTO THE BEAN BLDG. NEW UTILITY TUNNEL.

8 UNDERGROUND INSULATED PIPE SYSTEM DETAIL
WATERSHED ASSEMBLY
SCALE: NTS



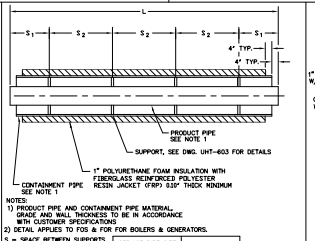
NOTES:
1. SOCKET WELD COUPLINGS, IF REQUIRED SUPPLIED BY INSTALLER
2. THE FOLLOWING FIELD JOINT MATERIAL SUPPLIED BY PERMA-PIPE
POUR IN PLACE POLYURETHANE INSULATION
MOLD FOR POUR IN PLACE
HEAT SHRINK SLEEVE
STORE ALL CHEMICALS AT 60°F TO 85°F
3. DETAIL APPLIES TO 18" SCHWS & SCHMR.

9 UNDERGROUND INSULATED PIPE SYSTEM DETAIL
FIELD JOINT, HEAT SHRINK SLEEVE
SCALE: NTS



NOTE:
1) PRODUCT PIPE AND CONTAINMENT PIPE MATERIAL, GRADE AND WALL THICKNESS TO BE IN ACCORDANCE WITH CUSTOMER SPECIFICATIONS

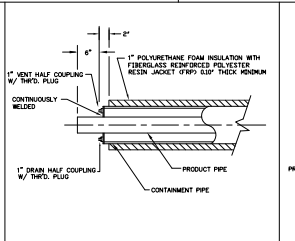
10 UNDERGROUND FUEL OIL PIPE SYSTEM DETAIL
ELBOW ASSEMBLY
SCALE: NTS



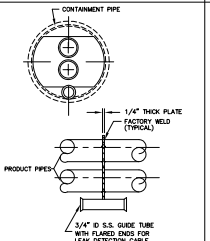
NOTES:
1) PRODUCT PIPE AND CONTAINMENT PIPE MATERIAL, GRADE AND WALL THICKNESS TO BE IN ACCORDANCE WITH CUSTOMER SPECIFICATIONS
2) DETAIL APPLIES TO FOS & FOR FOR BOILERS & GENERATORS.
S = SPACE BETWEEN SUPPORTS
S1 = MAXIMUM 5'
S2 = MAXIMUM 10'

SERVICE PIPE SIZE	L
2 1/2" TO 36"	39" MAXIMUM

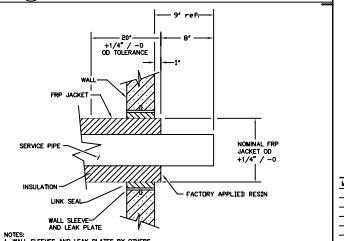
11 UNDERGROUND FUEL OIL PIPE SYSTEM DETAIL
STRAIGHT LENGHT
SCALE: NTS



12 UNDERGROUND FUEL OIL PIPE SYSTEM DETAIL
END SEAL
SCALE: NTS

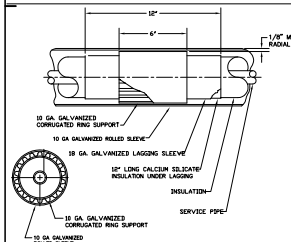


13 UNDERGROUND FUEL OIL PIPE SYSTEM DETAIL
SYSTEM SUPPORT DETAIL
SCALE: NTS



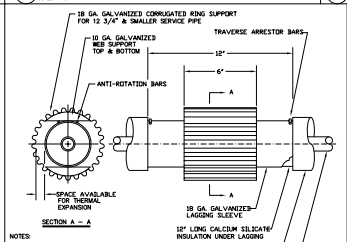
NOTES:
1. WALL SLEEVES AND LEAK PLATES BY OTHERS
2. LINK SEAL FURNISHED BY UNDERGROUND PIPING MANUFACTURER.
3. DETAIL APPLIES TO 18" SCHWS & SCHWR.

14 UNDERGROUND INSULATED PIPE SYSTEM DETAIL
RESIN END SEAL
SCALE: NTS



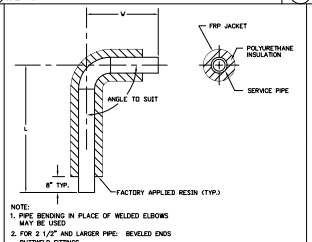
NOTES:
1. CORRUGATED RING, LAGGING SLEEVE AND ROLLED SLEEVE WELDED AT EACH CORRUGATION BOTH ENDS.
2. DETAIL APPLIES FOR 12" HPS & 6" PD.

15 UNDERGROUND INSULATED PIPE SYSTEM DETAIL
MOMENT GUIDE
SCALE: NTS



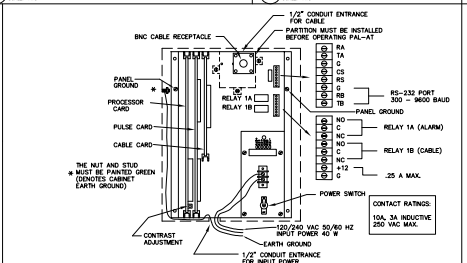
NOTES:
1. SUPPORT MANUFACTURED FROM GALVANIZED STEEL AND TACK WELDED CONSTRUCTION
2. DETAIL APPLIES TO 12" HPS & 6" PD.

16 UNDERGROUND INSULATED PIPE SYSTEM DETAIL
PIPE SUPPORT
SCALE: NTS



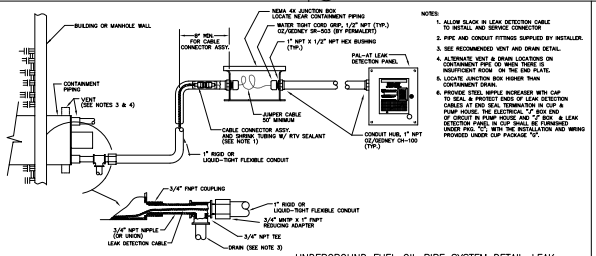
NOTE:
1. PIPE BENDING IN PLACE OF WELDED ELBOWS MAY BE USED
2. FOR 2 1/2" AND LARGER PIPE: BEVELED ENDS BUTTWELD FITTINGS
3. DETAIL APPLIES TO 18" SCHMS & SCHMR.

17 UNDERGROUND INSULATED PIPE SYSTEM DETAIL
ELBOW ASSEMBLY
SCALE: NTS



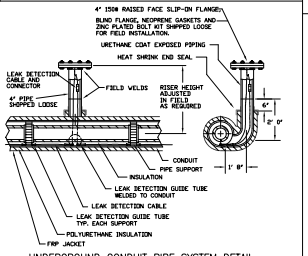
NOTE:
1. ELECTRICAL POWER WIRING OF THE LEAK DETECTION SYSTEM SHALL BE PROVIDED UNDER THE CENTRAL UTILITY PROJECT PACKAGE "U". THE LEAK DETECTION PANEL SHALL BE FURNISHED UNDER THIS PACKAGE "C" FOR INSTALLATION UNDER CUP PKG. "U".

18 UNDERGROUND FUEL OIL PIPE SYSTEM DETAIL—LEAK DETECTION SYSTEM WIRING DIAGRAM
SCALE: NTS



NOTES:
1. ALLOW SLACK IN LEAK DETECTION CABLE TO INSTALL AND SERVICE CONNECTOR
2. PIPE AND CONDUIT FITTINGS SUPPLIED BY INSTALLER.
3. SEE RECOMMENDED VENT AND DRAIN DETAIL.
4. ALTERNATE VENT & DRAIN LOCATIONS ON CONTAINMENT PIPE OR WHEN THERE IS INSUFFICIENT ROOM ON THE END PLATE.
5. LOCATE JUNCTION BOX HIGHER THAN CONTAINMENT DRAIN.
6. PROVIDE STEEL NIPPLE INCREASER WITH CAP TO SEAL & PROTECT ENDLINK LEAK DETECTION CABLE FOR SPARE CABLE. CABLE IS TO BE WIRED WITH THE ELECTRICAL "J" BOX END OF CIRCUIT IN PUMP HOUSE AND "J" BOX & LEAK DETECTION PANEL IN CUP SHALL BE FURNISHED UNDER PKG. "C", WITH THE INSTALLATION AND WIRING PROVIDED UNDER CUP PACKAGE "U".

19 UNDERGROUND FUEL OIL PIPE SYSTEM DETAIL—LEAK DETECTION SYSTEM CABLE CONNECTION START OF RUN
SCALE: NTS

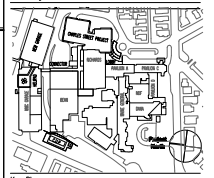


20 UNDERGROUND CONDUIT PIPE SYSTEM DETAIL
LEAK DETECTION STANDARD PULLPORT ASSEMBLY
SCALE: NTS

General Notes:

MARK	ISSUE DATE	DESCRIPTION
PERMIT	09/16/04	PERMIT SET
BID	08/31/04	BID SET

Issue Log


CHARLES STREET POLICE
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CONGRESS STREET
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