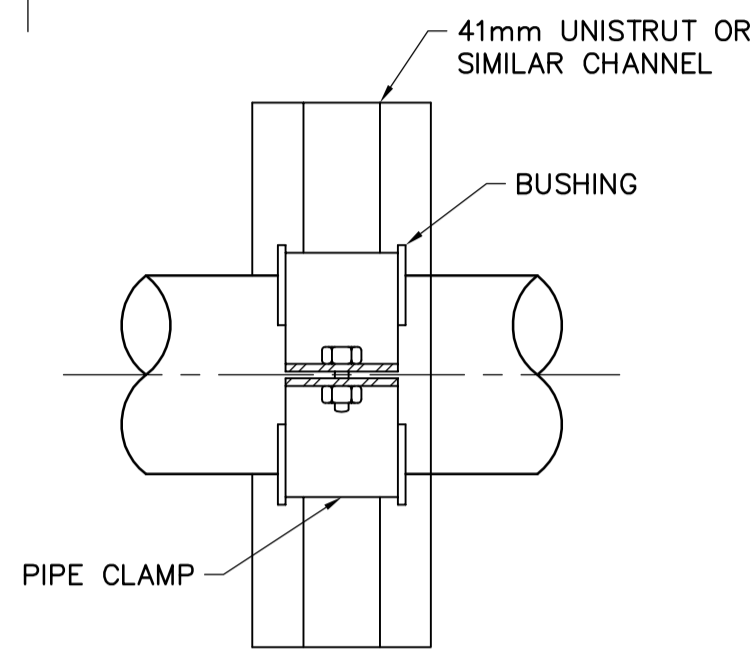
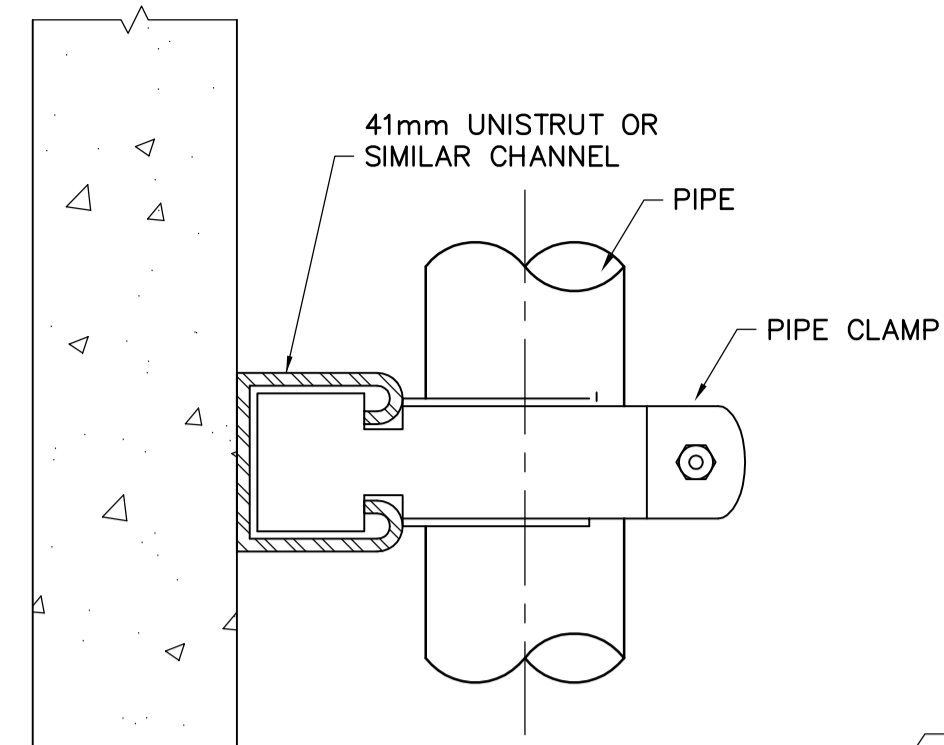


IN EXISTING CONCRETE

**STD 220** PUMP ANCHOR BOLT



**STD 223** WALL MOUNTED PIPE SUPPORT

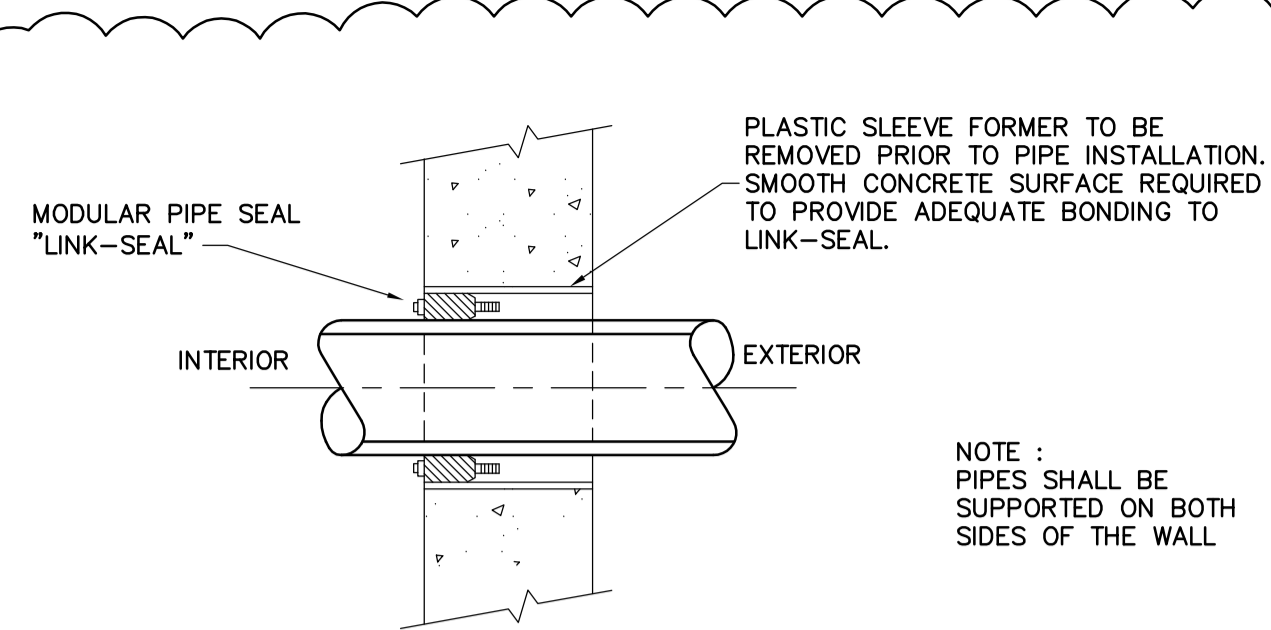


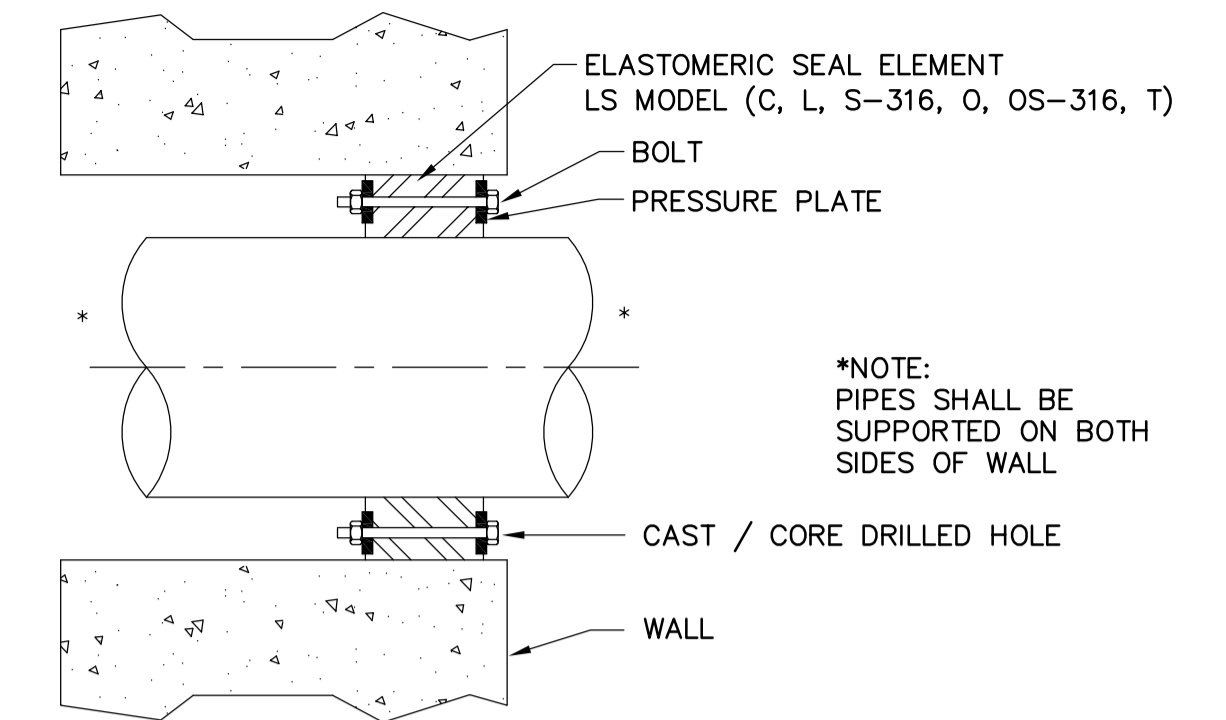
TABLE OF "LINK-SEAL" SERIES FOR STEEL PIPE (FOR OTHER SIZES SEE SUPPLIER'S TABLES)

| STEEL PIPE |               |                    |                       | STEEL PIPE |      |               |                    |                       |           |
|------------|---------------|--------------------|-----------------------|------------|------|---------------|--------------------|-----------------------|-----------|
| SIZE       | ACTUAL O.D.mm | WALL SLEEVE I.D.mm | LINK-SEAL LINKS/ SEAL | MODEL NO.  | SIZE | ACTUAL O.D.mm | WALL SLEEVE I.D.mm | LINK-SEAL LINKS/ SEAL | MODEL NO. |
| 13         | 21.3          | 52.5               | 4                     | LS-200-C   | 250  | 273.1         | 336.6              | 10                    | LS-425-C  |
| 20         | 26.7          | 62.7               | 5                     | LS-275-C   | 300  | 323.9         | 387.4              | 12                    | LS-425-C  |
| 25         | 33.4          | 62.7               | 5                     | LS-200-C   | 350  | 355.6         | 438.2              | 13                    | LS-400-C  |
| 32         | 42.2          | 77.9               | 7                     | LS-275-C   | 400  | 406.4         | 489.0              | 15                    | LS-400-C  |
| 38         | 48.3          | 90.1               | 5                     | LS-300-C   | 450  | 457.2         | 590.6              | 16                    | LS-500-C  |
| 50         | 60.3          | 102.3              | 6                     | LS-300-C   | 500  | 508.0         | 590.6              | 18                    | LS-400-C  |
| 75         | 89.0          | 128.2              | 8                     | LS-300-C   | 600  | 609.6         | 743.0              | 21                    | LS-500-C  |
| 100        | 114.3         | 154.1              | 10                    | LS-300-C   | 750  | 762.0         | 895.0              | 26                    | LS-500-C  |
| 125        | 141.3         | 202.7              | 6                     | LS-425-C   | 900  | 914.4         | 1048.0             | 30                    | LS-500-C  |
| 150        | 168.3         | 254.5              | 9                     | LS-400-C   | 1050 | 1066.8        | 1200.0             | 36                    | LS-500-C  |
| 200        | 219.1         | 304.8              | 12                    | LS-475-C   | 1200 | 1219.2        | 1353.0             | 41                    | LS-500-C  |

- APPLICATION NOTES
- CONCRETE WALL
  - STEEL, STAINLESS STEEL, DUCTILE IRON, PVC OR FRP PIPE; NON-INSULATED.
  - CONDITION:
    - DRY TO DRY
    - INTERIOR TO UNDERGROUND

NOTES: -  
FOR 1500 DIAMETER PIPE PENETRATION REFER TO MANUFACTURER FOR SPECIFIC DETAILS.  
ALL LINK SEAL FITTINGS TO BE STAINLESS STEEL

**STD 305** LINK-SEAL WALL PENETRATION

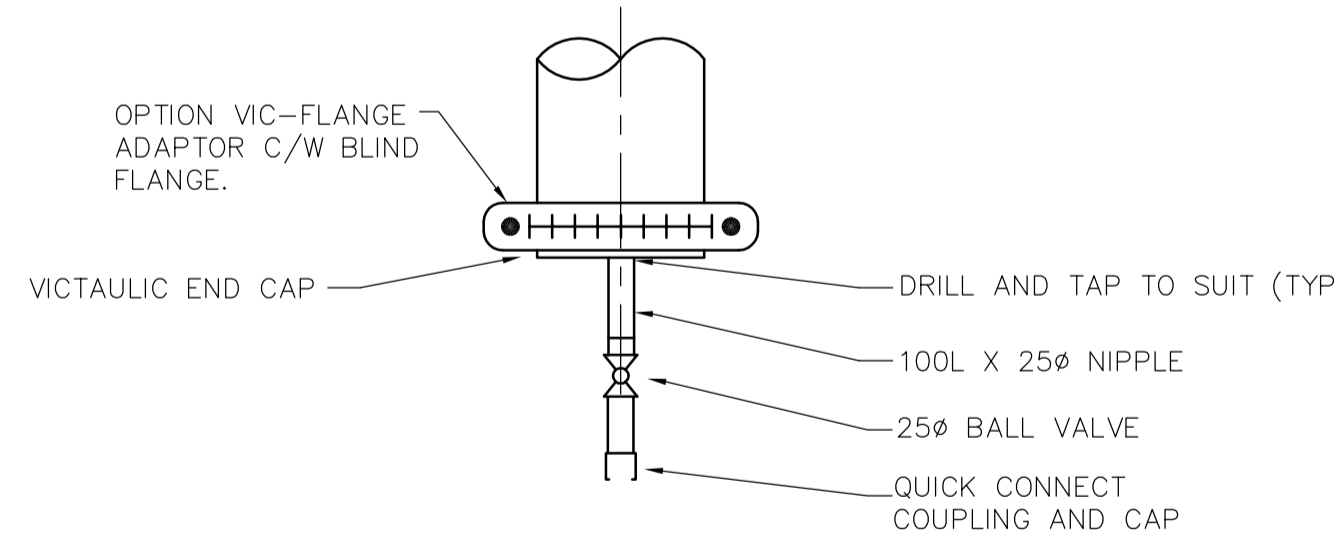
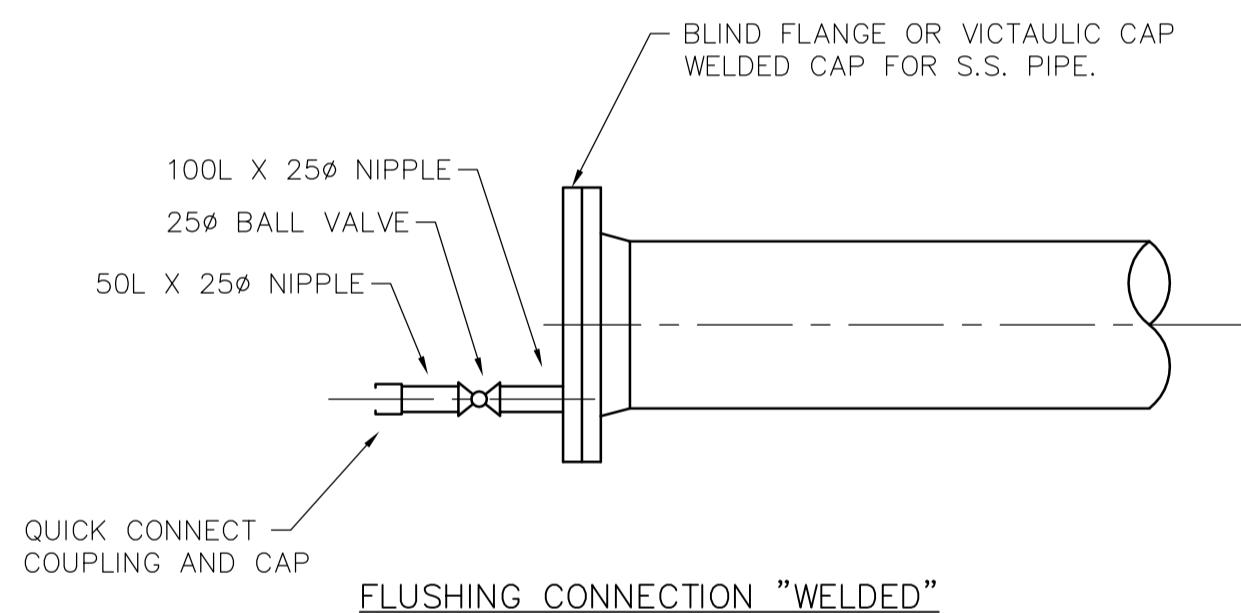


- APPLICATION NOTES:
- CONCRETE WALL
  - PIPE MATERIAL: STEEL, STAINLESS STEEL, DUCTILE IRON, PVC OR FRP PIPE; NON-INSULATED.
  - CONDITION:
    - DRY TO DRY
    - WET TO DRY
    - HORIZONTAL OR VERTICAL
    - INTERIOR TO UNDERGROUND

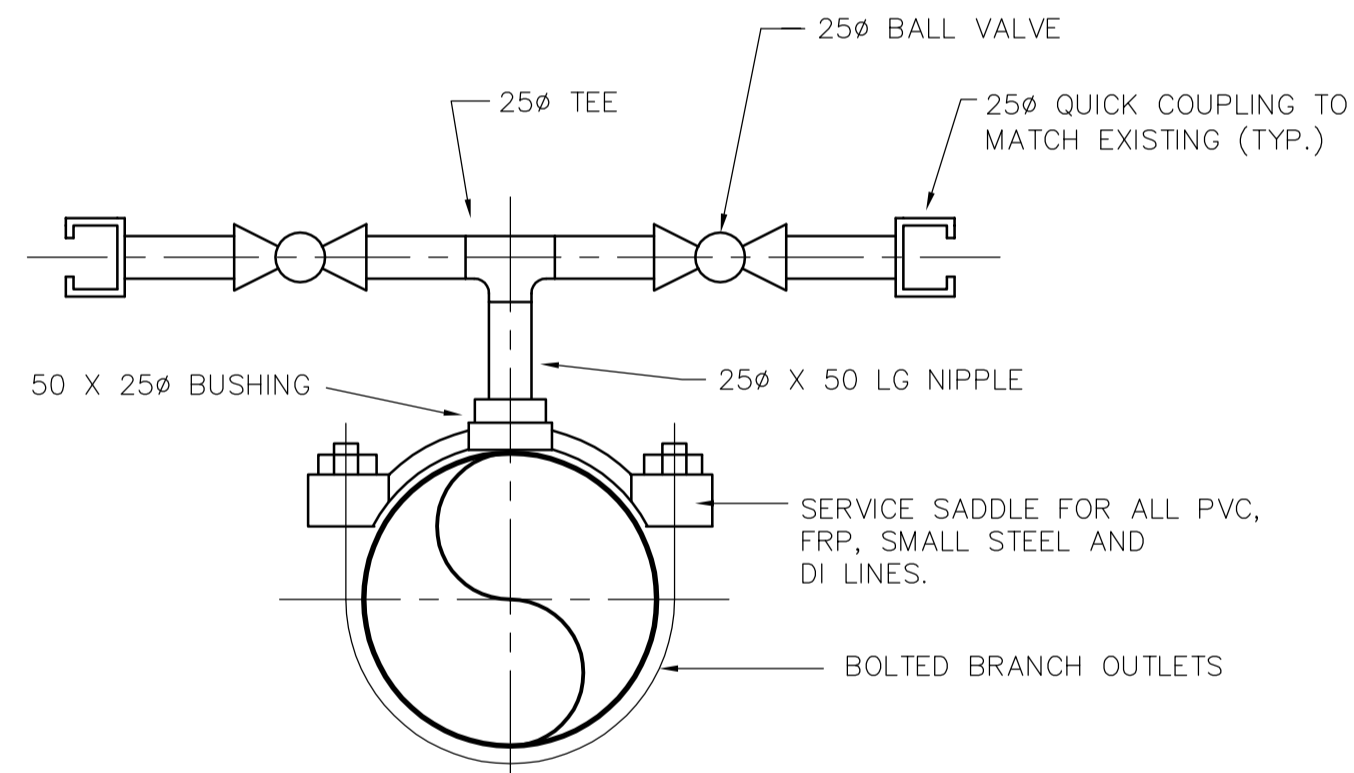
| LS Model                          | Seal Element | Bolts/Nuts                                       | Pressure Plate           |
|-----------------------------------|--------------|--|--------------------------|
| C                                 | EPDM (Black) | Zinc Dichromate/Organic Coated Carbon Steel Bolt | Reinforced Nylon Polymer |
| L                                 | EPDM (Blue)  | Zinc Dichromate/Organic Coated Carbon Steel Bolt | Reinforced Nylon Polymer |
| O                                 | Nitrile      | Zinc Dichromate/Organic Coated Carbon Steel Bolt | Reinforced Nylon Polymer |
| T                                 | Silicone     | Zinc Dichromate/Organic Coated Carbon Steel Bolt | Steel Zinc Dichromate    |
| (C,L,O)+S-316 (see model options) |              | 316 Stainless Steel                              | Reinforced Nylon Polymer |

| Sleeve Model | Description         | Material |
|--------------|---------------------|----------|
| CS           | Century-Line Sleeve | HDPE     |
| WS           | Steel Wall Sleeve   | Steel    |

**STD 306** LINK-SEAL MODULAR SEAL CORED WALL PENETRATION

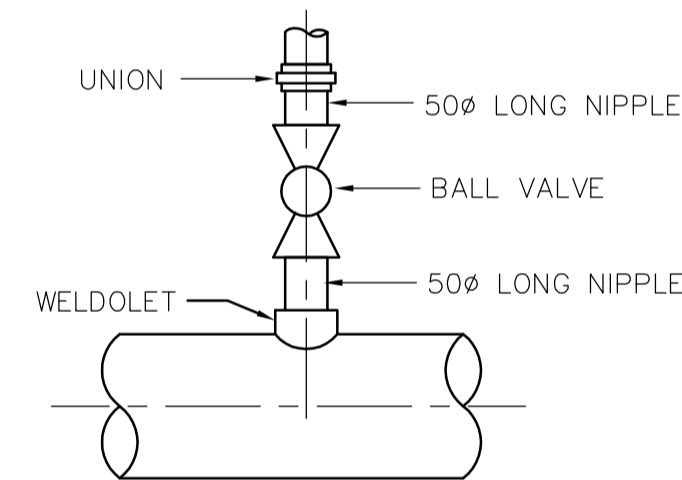


**STD 501** TYPE 1 FLUSHING CONNECTIONS

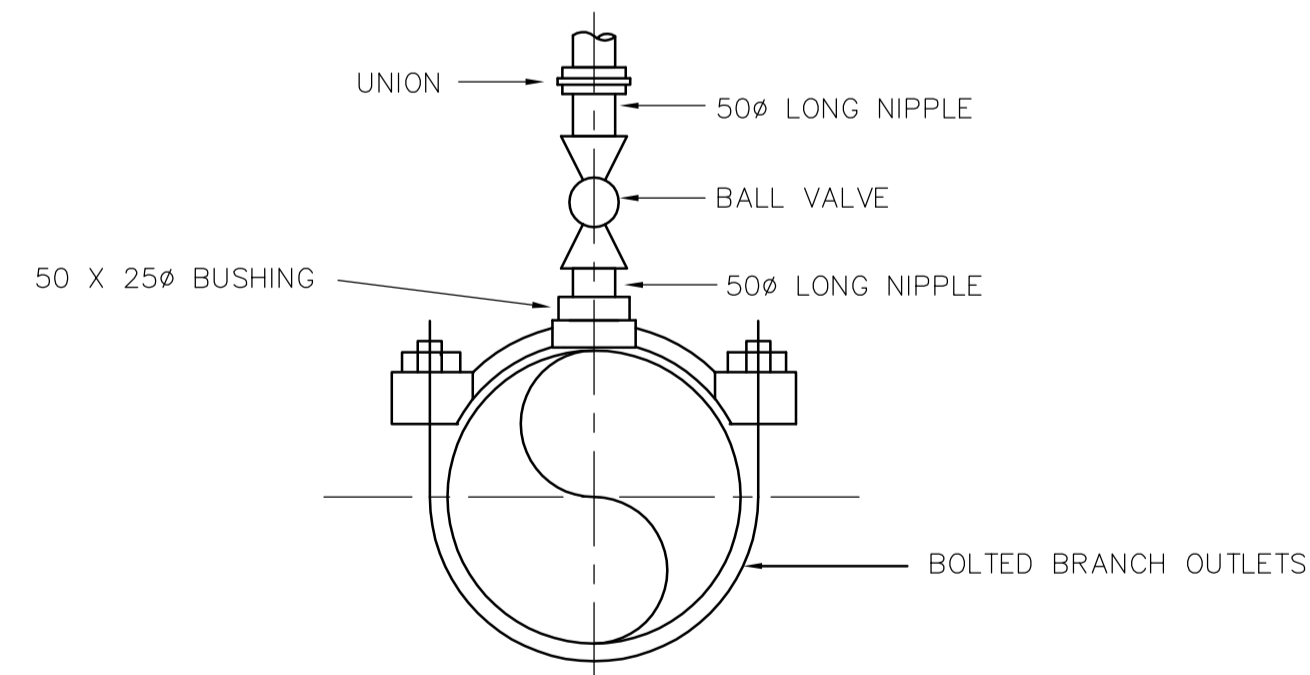


- NOTE:
- FOR STEEL LINES GREATER THAN 200ø, USE 50 SOCKOLET. LINE PIPE AFTER INSTALLATION.
  - FOR DI LINES GREATER THAN 200ø, THREAD PIPE FOR A 50ø CONNECTION.

**STD 502** TYPE 2 FLUSHING CONNECTIONS



TYPE 1 PIPING LARGER THAN 200ø EXCLUDING PVC, FRP, & DI



TYPE 2 SERVICE SADDLE FOR ALL PVC, S.S. FRP, DI & STEEL LINES 200ø AND LESS.

**STD 503** TYPE 1 AND 2 TAPPINGS



|                                    |                                       |                  |   |                               |  |
|------------------------------------|---------------------------------------|------------------|---|-------------------------------|--|
| B.M. ELEV.                         | <br>A Tyco International Ltd. Company |                  | ENGINEER'S SEAL                           |                               | <br>THE CITY OF WINNIPEG<br>WATER AND WASTE DEPARTMENT<br>ENGINEERING DIVISION |
|                                    |                                       |                  | DESIGNED BY: CL                           | CHECKED BY: KM                |  |
|                                    | DRAWN BY: PJY                         | APPROVED BY: JEH | 2006/04/26                                |                               | WEWPC<br>BIOLOGICAL NUTRIENT REMOVAL UPGRADE<br>CONTRACT 3                     |
| 01 21-2006 ADDENDUM 6 06/07/05 LAE | HOR. SCALE: NONE                      |                  | RELEASED FOR CONSTRUCTION BY: J. VEILLEUX |                               | CITY FILE NUMBER   |
| 00 ISSUED FOR TENDER 06/04/26 SRP  | VERTICAL SCALE: NONE                  |                  | DATE: 2005/10/06                          |                               | SHEET OF   |
| NO. REVISIONS                      | DATE                                  | BY               | DATE                                      | 2006/04/26                    | CITY DRAWING NUMBER  |
|                                    |                                       |                  |   | CONSULTANT DRAWING NO. LP2.03 | PROCESS<br>AREA L - GENERAL & SITWORKS<br>STANDARD DETAILS                     |