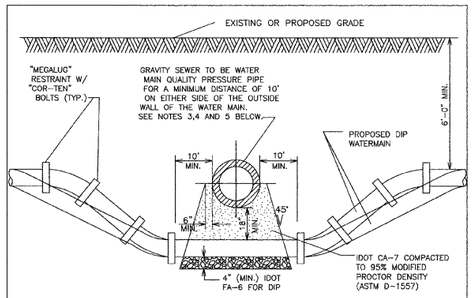


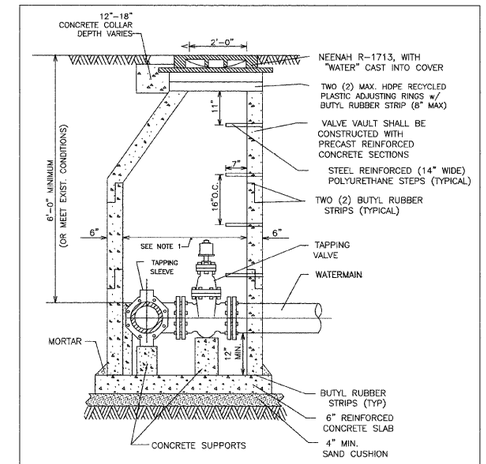

NOTES:

1. HORIZONTAL AND VERTICAL SEPARATION BETWEEN WATERMAINS AND SEWERS SHALL COMPLY WITH APPLICABLE SECTIONS OF THE VILLAGE OF DEERFIELD ENGINEERING GUIDE OR IEPA REQUIREMENTS, WHICHEVER IS MORE STRINGENT.
2. CONTRACTOR MAY BEND WATER MAIN PIPE UNIFORMLY UNDER SEWERS WITHOUT USING FITTINGS, PROVIDED THAT JOINT DEFLECTION DOES NOT EXCEED 5 DEGREES PER JOINT FOR PIPE UNDER 14" IN DIAMETER AND 3 DEGREES PER JOINT FOR PIPE 14" AND OVER IN DIAMETER. IF FITTINGS ARE USED, CONTINUOUS STRAPPING WITH RODS, STRAPS, NUTS AND BOLTS BELOW NORMAL WATERMAIN DEPTH ARE REQUIRED, OR RETAINER GLANDS MAY BE USED IN LIEU OF STRAPPING. RETAINER GLANDS TO BE CLOW No. F-1058 OR APPROVED EQUAL.
3. ALL SANITARY SEWER (INCLUDING SERVICE) CROSSINGS WHERE THE WATER MAINS OR WATER SERVICES ARE LESS THAN 18" VERTICALLY ABOVE THE SEWER SHALL BE POLYVINYL CHLORIDE PRESSURE PIPE (SDR 26-160 PSI) AND SHALL CONFORM WITH THE LATEST REVISION OF ASTM D- 2241. JOINTS SHALL CONFORM TO ASTM D-3139 AND ELASTOMERIC GASKETS SHALL CONFORM TO ASTM F-477. THE SAME PIPE AND JOINT MATERIALS SHALL BE USED WHENEVER WATER MAIN CROSSES BELOW THE SEWER.
4. ALL STORM SEWER (INCLUDING SERVICE) CROSSINGS WHERE THE WATER MAINS ARE LESS THAN 18" VERTICALLY ABOVE THE SEWER SHALL BE REINFORCED CONCRETE PIPE, ASTM C-361, CLASS D-25,WITH BELL AND SPIGOT JOINTS AND RUBBER GASKETS, OR PVC SDR 26 AS SPECIFIED IN NOTE 3 ABOVE. THE SAME PIPE AND JOINT MATERIAL SHALL BE USED WHENEVER WATER MAIN CROSSES BELOW THE SEWER.
5. FOR NEW SEWER INSTALLATIONS CROSSING OVER WATER MAINS, THE ENTIRE RUN OF NEW SEWER SHALL BE WATER MAIN QUALITY PIPE, EXTENDING FROM STRUCTURE TO STRUCTURE ON EACH SIDE OF THE CROSSING.

NOT TO SCALE

REVISED 11-04-04

## WATER MAIN CROSSING DETAIL



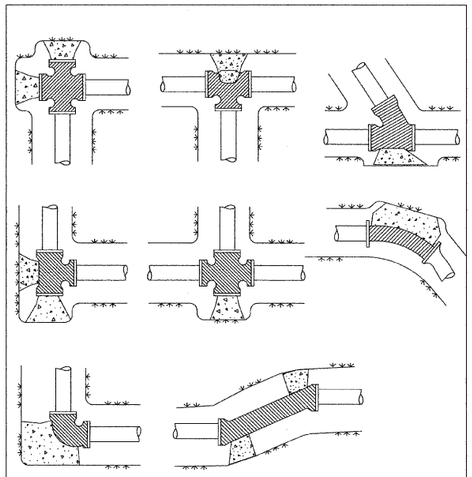

NOTES:

1. 60" (MIN) INSIDE DIA. FOR ALL PRESSURE CONNECTION VAULTS.
2. BACKFILL MATERIAL SHALL BE IDOT CA-7 CRUSHED LIMESTONE
3. a) MECHANICAL JOINT BOLTS & NUTS SHALL BE COMPOSED OF CORE-TEN.
   b) ALL OTHER HEXAGONAL BOLTS & NUTS SHALL BE COMPOSED OF STAINLESS STEEL.
4. USE ECCENTRIC CONE ONLY.
5. VALVE VAULT MUST CONFORM TO ASTM C-478.
6. ALL SECTIONS TO BE TONGUE AND GROOVED.
7. SMITH BLAIR 665 TAPPING SLEEVE.

NOT TO SCALE

REVISED 05-25-05

## PRESSURE CONNECTION DETAIL



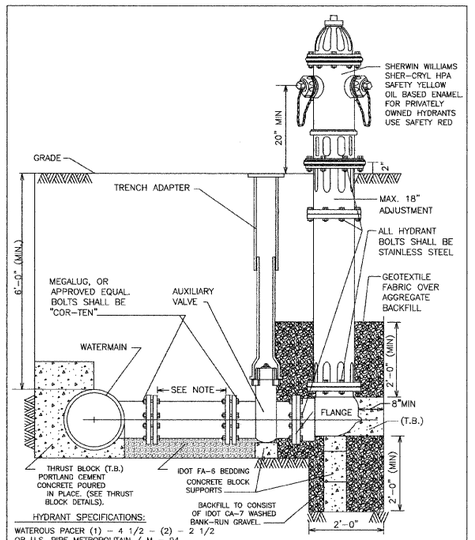
NOTE:

1. ALL BENDS OF 22 1/2 AND LARGER SHALL BE BLOCKED WITH AT LEAST 10" THICK POURED IN PLACE CONCRETE BLOCKS AGAINST UNDISTURBED VERTICAL EARTH FACE.
2. ALL CONCRETE TO BE MIN. 3,000 PSI.
3. IN ADDITION TO THE ABOVE THRUST BLOCKING: ALL MECHANICAL JOINTS, BENDS OVER 10 AND FIRE HYDRANTS SHALL HAVE A "MEGALUG" RESTRAINT, OR AS APPROVED BY THE ENGINEERING DIVISION. BOLTS SHALL BE "COR-TEN".

NOT TO SCALE

REVISED 9-15-04

## THRUST BLOCK INSTALLATION DETAILS



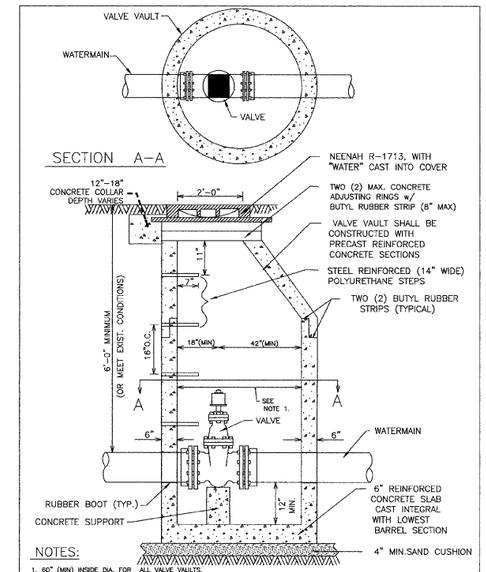

HYDRANT SPECIFICATIONS:

WATEROUS PACER (1) - 4 1/2 - (2) - 2 1/2
OR U.S. PIPE METROPOLITAIN / M - 94
FLANGED SHOE WITH 6" RESILIENT WEDGE AUXILIARY VALVE.
MAIN VALVE OPENING SHALL BE 5 1/4 ".
ONLY AUXILIARY BOX EXTENSIONS ARE PERMITTED.
AUXILIARY BOX ADAPTERS OR RISERS ARE NOT PERMITTED.
HYDRANT BARREL SHALL BE ONE PIECE DUCTILE IRON PIPE.
POLY-WRAPPED (AS WATER MAIN) TO HYDRANT BASE.
HYDRANT LEADS TO BE 6" DIAMETER UP TO 25' LONG AND 8" DIAMETER IF GREATER THAN 25'.
ALL PARTS OF AUXILIARY BOX INCLUDING THE COVER SHALL BE MADE OF CAST IRON.

NOT TO SCALE

REVISED 05-25-05

## HYDRANT INSTALLATION




NOTES:

1. 60" (MIN) INSIDE DIA. FOR ALL VALVE VAULTS.
2. VALVE VAULT MUST CONFORM TO ASTM C-478.
3. USE ECCENTRIC CONE ONLY.
4. VAULT SECTIONS TO BE TONGUE AND GROOVED.
5. NON-PRECAST PIPE OPENINGS TO BE CORED AND RUBBER BOOTS INSTALLED.
6. BACKFILL MATERIAL SHALL BE IDOT CA-7 VIRGIN CRUSHED LIMESTONE.
7. a) MECHANICAL JOINT BOLTS & NUTS SHALL BE COMPOSED OF CORE-TEN.
   b) ALL OTHER HEXAGONAL BOLTS & NUTS SHALL BE COMPOSED OF STAINLESS STEEL.

NOT TO SCALE

REVISED 05-25-05

## VALVE VAULT DETAIL

| | | | |
|---|---|---|---|
| FILE NAME = n:\proj\3328\phase1\design\Details\3328-Detail-02.dgn | USER NAME = cgutowski | DESIGNED - EPS | REVISED - |
| | PLOT SCALE = 0.9800 ' / IN. | DRAWN - AL | REVISED - |
| | PLOT DATE = 1/30/2009 | CHECKED - CLG | REVISED - |
| | | DATE - 1-30-2009 | REVISED - |

**VILLAGE OF DEERFIELD**
**WILMOT ROAD (GORDON TERRACE TO DEERFIELD ROAD)**

**DETAILS**

SCALE: | SHEET NO. 39 OF 55 SHEETS | STA. | TO STA.

| F.A.U. RTE. | SECTION | COUNTY | TOTAL SHEETS | SHEET NO. |
|---|---|---|---|---|
| 2718 | 07-00080-00-WR | LAKE | 55 | 35 |

CONTRACT NO. 63124

FED. ROAD DIST. NO. | ILLINOIS | FED. AID PROJECT