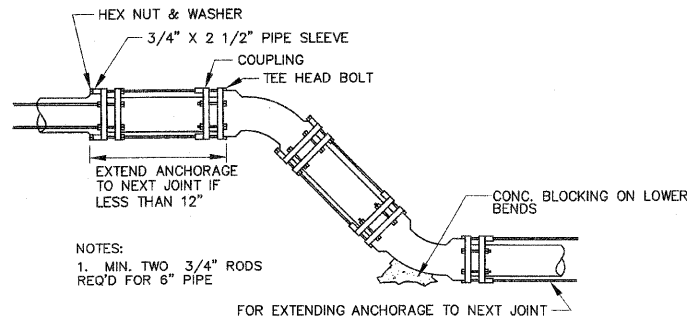
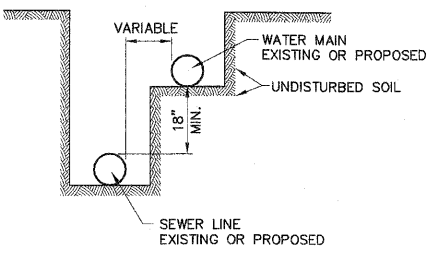


SECTION
THRUST BLOCK
FOR TEES

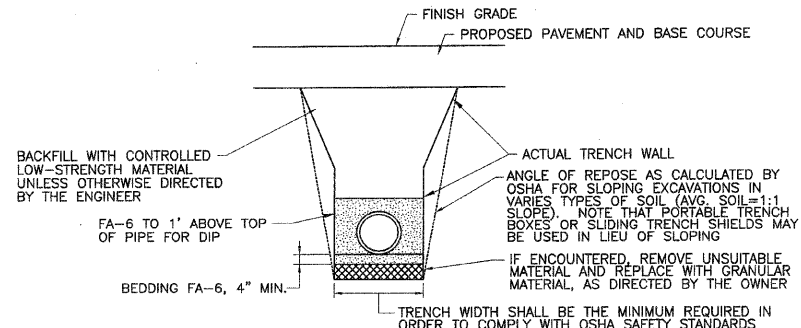
SECTION
THRUST BLOCK FOR
VERTICAL ELBOW



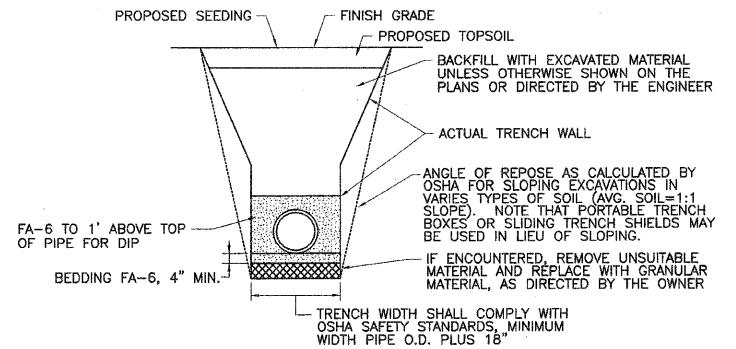
ANCHORAGE OF FITTINGS
IN A VERTICAL PLANE



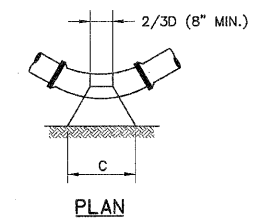
SEWER/WATER SEPARATION DETAIL



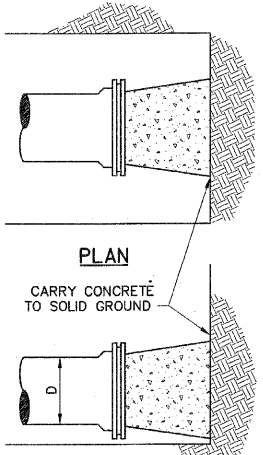
PAVED AREA TRENCH SECTION



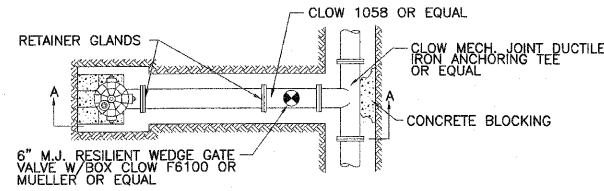
GRASS AREA TRENCH SECTION



SECTION
THRUST BLOCK
FOR HORIZ. BEND

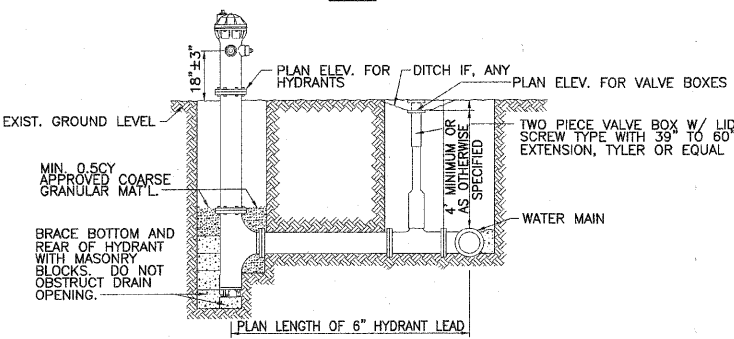


SECTION
THRUST BLOCK
FOR CAPS



FIRE HYDRANTS SHALL BE: WATEROUS PACER, CLOW MEDALLION, OR MUELLER MODERN CENTURION. A STANDARD HYDRANT SHALL HAVE A MINIMUM 4 1/2" INTERNAL VALVE AND TWO 2 1/2" HOSE NOZZLES WITH NATIONAL STANDARD THREADS. A STEAMER HYDRANT SHALL HAVE A MINIMUM 5 1/4" INTERNAL VALVE, TWO 2 1/2" HOSE NOZZLES WITH NATIONAL STANDARD THREADS, AND ONE 4" PUMPER NOZZLE WITH TOWN OF NORMAL STANDARD THREADS [7 THREADS PER 1", 0.247" DEEP]. FOR ALL HYDRANTS, ALL BOLTS BELOW GROUND LEVEL SHALL BE STAINLESS STEEL. FIRE HYDRANTS SHALL BE PAINTED RED.

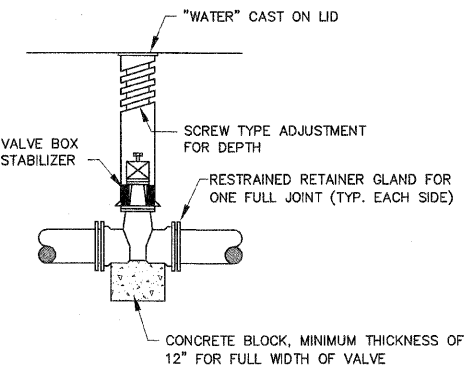
PLAN



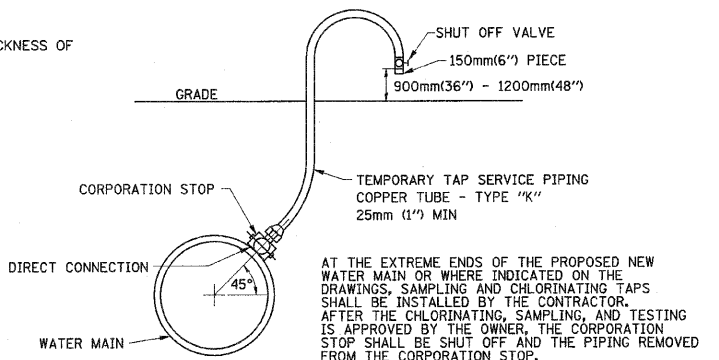
SECTION A-A

- NOTES:**
- THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS SHALL APPLY TO THIS WORK.
 - ALL WATER MAIN MATERIALS SHALL BE MANUFACTURED IN COUNTRIES SIGNATORY TO THE NORTH AMERICAN FREE TRADE AGREEMENT AND SHALL MEET OR EXCEED AWWA SPECIFICATIONS.
 - ALL FIRE HYDRANTS, VALVES, AND FITTINGS SHALL BE RESTRAINED.

TYPICAL HYDRANT INSTALLATION



VALVE BOX INSTALLATION



TEMPORARY SAMPLING & CHLORINATION
SERVICE PIPING TAP

THRUST BLOCK DIMENSIONS

D	A	B	C	E	F	G	H	I	J	K
4"	4 3/4"	1'-3"	1'-3"	8"	11"	11"	6 1/2"	3'-0"	2'-6"	2'-6"
6"	5 1/4"	1'-5"	1'-3"	8"	1'-0"	1'-1"	8"	3'-0"	2'-6"	2'-6"
8"	9"	1'-7"	1'-8"	8"	1'-1"	1'-2"	9"	4'-0"	3'-0"	2'-9"
10"	11"	1'-10"	2'-1"	10"	1'-2"	1'-3"	11"	4'-6"	4'-0"	3'-0"
12"	1'-0"	2'-0"	2'-6"	1'-0"	1'-3"	1'-6"	1'-0"	4'-9"	4'-6"	3'-6"

NOTE:
THRUST BLOCKING TO PREVENT MOVEMENT OF LINES UNDER PRESSURE AT BENDS, TEES, CAPS, VALVES, HYDRANTS, AND AT POINTS SPECIFIED BY THE OWNER. BLOCKS SHALL BE CLASS "X" CONCRETE A MINIMUM OF 12" THICK PLACED BETWEEN SOLID GROUND AND FITTINGS, AND SHALL BE ANCHORED IN SUCH A MANNER THAT PIPE AND FITTINGS WILL BE ACCESSIBLE FOR REPAIRS. THRUST BLOCK SHALL BE PLACED AT BENDS OF 11 1/4" OR MORE.

FILE NAME = p:\n0240062\p\lans\sheets\16water.dgn	DESIGNED - RLV	REVISED -
PLOT DATE = 6/5/2010 5:00:48 PM	DRAWN - JAJ	REVISED -
	CHECKED - RLV	REVISED -
	DATE - 06/2010	REVISED -

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	
SCALE : NONE	SHEET NO. 26 OF 64 SHEETS
STA. 41+00.00	TO STA. 42+52.00

WATER MAIN DETAILS		F.A.U. RTE. 6354	SECTION 06-00230-00-BR	COUNTY MCLEAN	TOTAL SHEETS 64	SHEET NO. 26
TOWN OF NORMAL		SECTION NO. 06-00230-00-BR		MCLEAN COUNTY		CONTRACT NO. 91430
FED. ROAD DIST. NO. 5		ILLINOIS		FED. AID PROJECT		