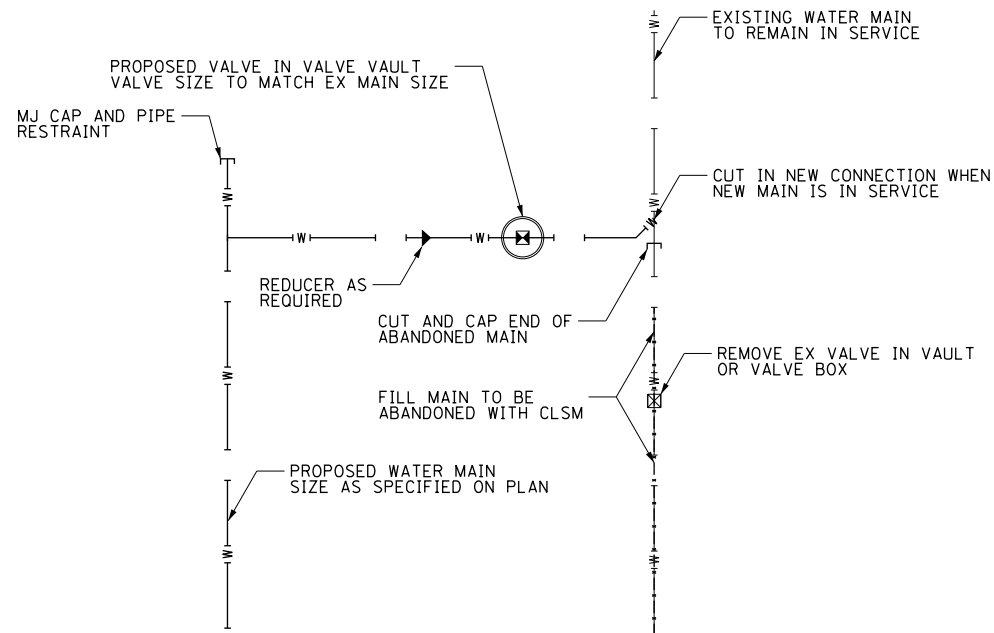
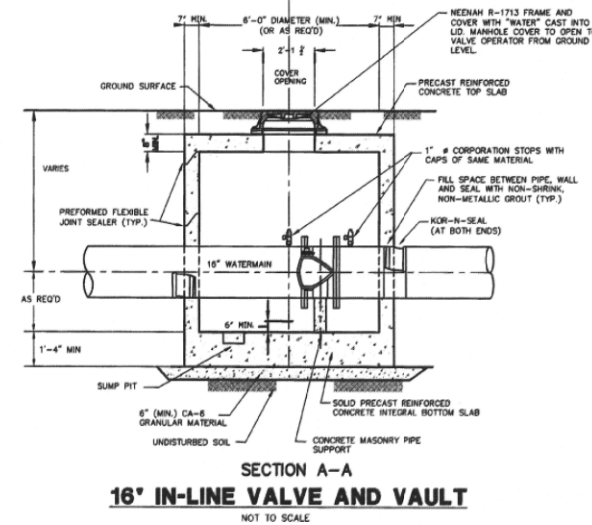
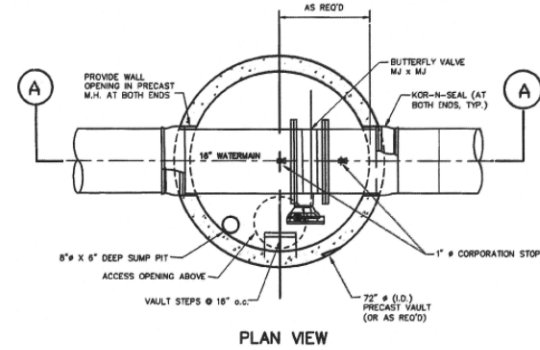


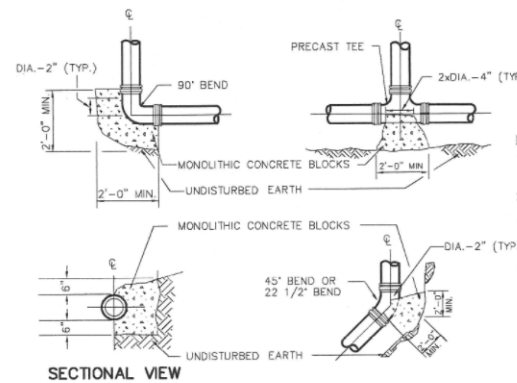
TYPICAL SIDE STREET CONNECTION  
NOT TO SCALE



NOTE:  
MECHANICAL JOINT RESTRAINTS, MEGALUG SERIES 1100 MANUFACTURED BY EBAA IRON (OR APPROVED EQUAL) SHALL BE PROVIDED AT ALL ELBOWS, TEES AND ANY FITTINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. RESTRAINED LENGTH SHALL BE AS PER MANUFACTURER'S SPECIFICATIONS.



SECTION A-A  
16' IN-LINE VALVE AND VAULT  
NOT TO SCALE

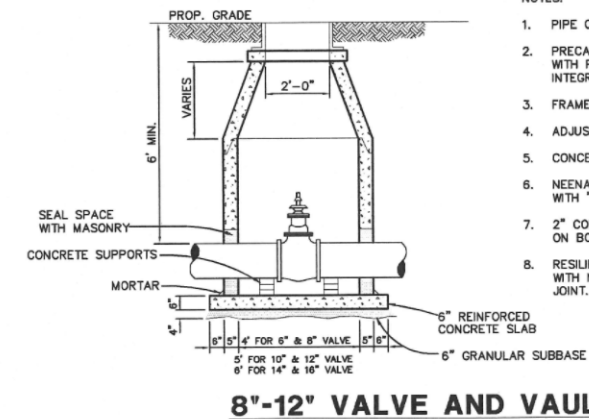


- NOTES:
- BLOCKING SHALL BE APPLIED FOR ALL TEES, PLUGS, CAPS, & 22 1/2° OR MORE BENDS.
  - THRUST BLOCKS TO BE CLASS "X" CONCRETE.
  - BEARING AREAS OF UNDISTURBED EARTH SHALL HAVE A MINIMUM ALLOWABLE BEARING CAPACITY OF 2000 P.S.F.
  - BEARING AREA OF SOIL BASED ON 65 P.S.I. WATERMAIN PRESSURE.

TYPE OF FITTING	RESTRAINED METHOD	RESTRAINED LENGTH - EACH WAY			
		8"	10"	12"	24"
DEAD END/TEE		17'-0"	21'-0"	25'-0"	45'-0"
90° BEND		13'-0"	16'-0"	19'-0"	35'-0"
45° BEND		6'-0"	7'-0"	8'-0"	15'-0"
22 1/2° BEND		3'-0"	4'-0"	4'-0"	7'-0"
11 1/4° BEND		2'-0"	2'-0"	2'-0"	4'-0"
VERTICAL OFFSET UPPER/LOWER		9/4	11/5	20/6	35/10
FIRE HYDRANT		ALL JOINTS RESTRAINED FROM MAIN TO MJ SHOE.			

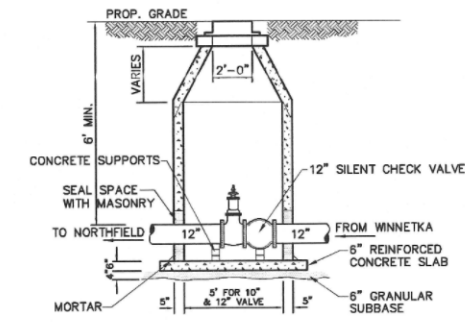
NOTES:  
JOINT RESTRAINT FOR FITTINGS/CONFIGURATIONS NOT SHOWN SHALL BE PER MANUFACTURER'S RECOMMENDATIONS.  
ALL BENDS, TEES, ELBOWS, REDUCERS, ETC. SHALL BE MJ WITH RETAINING GLANDS AND USING MEGALUG SERIES 1100 RESTRAINT SYSTEM AS MANUFACTURED BY EBAA IRON.

THRUST BLOCKING AND RESTRAINED LENGTH TABLE



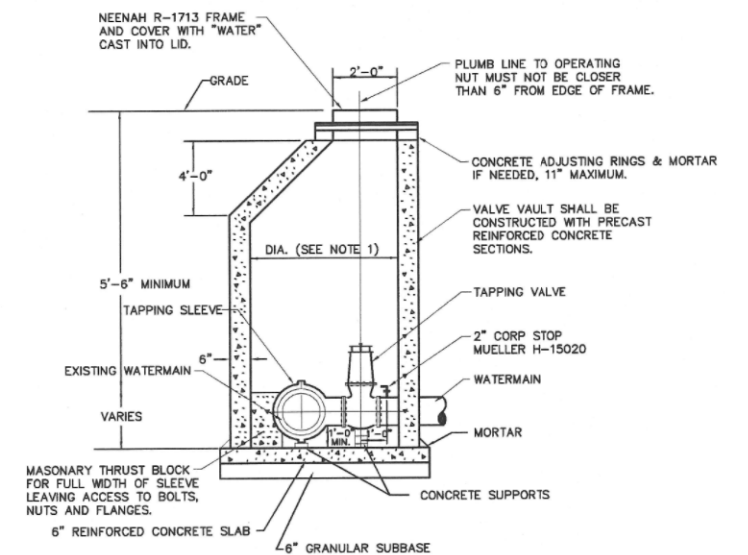
8'-12" VALVE AND VAULT

- NOTES:
- PIPE OPENINGS CAST INTO WALL.
  - PRECAST REINFORCED CONCRETE SECTIONS WITH PREFORMED BITUMINOUS JOINTS AND INTEGRAL PRECAST BOTTOMS.
  - FRAME TO BE LAID IN 3/4" MASTIC BED.
  - ADJUSTING RINGS NOT TO EXCEED 8".
  - CONCENTRIC CONE.
  - NEENAH R-1713 FRAME AND COVER WITH "WATER" IMPRINTED IN LID.
  - 2" CORPORATION STOP REQUIRED ON BOTH SIDES OF VALVE.
  - RESILIENT WEDGE GATE VALVE WITH NON RISING STEM AND MECHANICAL JOINT. (SIZE AS LABELED)



12' VALVE AND VAULT W/CHECK VALVE

- NOTES:
- PIPE OPENINGS CAST INTO WALL.
  - PRECAST REINFORCED CONCRETE SECTIONS WITH PREFORMED BITUMINOUS JOINTS AND INTEGRAL PRECAST BOTTOMS.
  - FRAME TO BE LAID IN 3/4" MASTIC BED.
  - ADJUSTING RINGS NOT TO EXCEED 8".
  - CONCENTRIC CONE.
  - NEENAH R-1713 FRAME AND COVER WITH "WATER" IMPRINTED IN LID.
  - 2" CORPORATION STOP REQUIRED ON NORTHFIELD SIDE OF VALVE.
  - RESILIENT WEDGE GATE VALVE WITH NON RISING STEM AND MECHANICAL JOINT. (SIZE AS LABELED)
  - CHECK VALVE PER PROJECT SPECIFICATIONS



- NOTES:
- 60" INSIDE DIA. FOR ALL PRESSURE CONNECTIONS.
  - PIPE OPENINGS TO BE CAST INTO WALLS.
  - BACKFILL MATERIAL SHALL BE TRENCH BACKFILL (TBF)
  - USE PRECAST ECCENTRIC MH CONE.

TAPPING VALVE AND VAULT

FILE NAME =	USER NAME = BAW:ort	DESIGNED - JLV	REVISED -
g:\ch11\0158\road\Sheets\0160T35-SHT-WM	STD-NORTHFIELD.dgn	DRAWN - KAL	REVISED -
	PLOT SCALE = 100.0000' / in.	CHECKED - RCB	REVISED -
	PLOT DATE = 11/1/2012	DATE - 10/31/2012	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

WATER MAIN DETAILS

SCALE: N.T.S. SHEET NO. 229 OF 919 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	(1920.01,1518,2022&1922,4BR	COOK	919	229
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60T35	