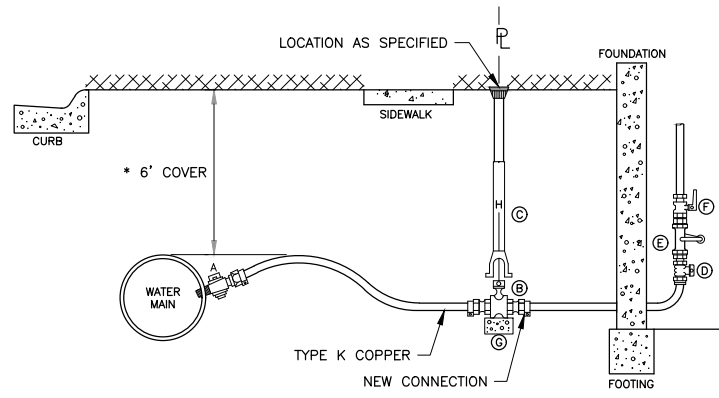


NOTE:
ANY EXISTING LEAD WATER SERVICES SHALL HAVE 18" OF WATER MAIN QUALITY HDPE PIPE OF THE DESIGNATED SERVICE SIZE CONNECTED BETWEEN THE END OF THE PUBLIC AND PRIVATE SERVICE LINES.

ITEM	DESCRIPTION	SIZE
A	CORPORATION STOP	3/4"-2"
B	CURB STOP	3/4"-2"
C	CURB BOX	EXTENDABLE
D	METER STOP	3/4"-2"
E	METER SPREAD	3/4"-2"
F	METER STOP HOUSE SIDE	3/4"-2"
G	BRICK	CEMENT
H	ROD	3/6"

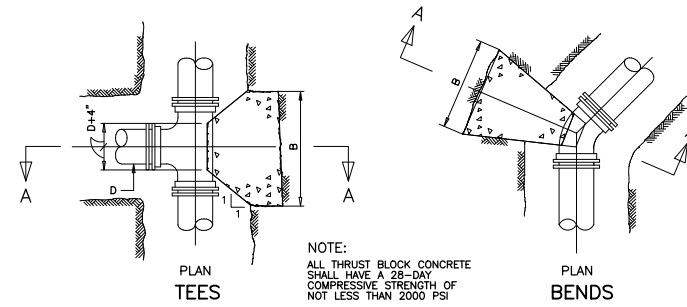


* UNLESS OTHERWISE INDICATED ON PLANS

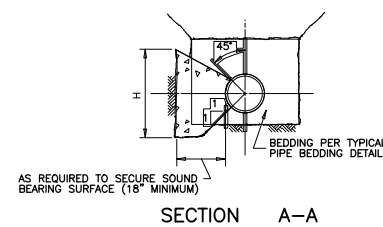
CITY OF ROCKFORD
WATER SERVICE DETAIL
N.T.S.

DTL-WSER

2017



NOTE:
ALL THRUST BLOCK CONCRETE SHALL HAVE A 28-DAY COMPRESSIVE STRENGTH OF NOT LESS THAN 2000 PSI



BENDS AND TEES

PIPE SIZE	90° BENDS		45° BENDS		22 1/2° BLS		11 1/4° BLS		TEES	
	D	H	B	H	B	H	B	H	B	H
6"	12	24	9	18	7	14	11	22		
8"	16	32	12	24	9	18	14	28		
10"	20	40	15	30	11	22	17	34		
12"	24	48	18	36	13	26	21	42		
16"	32	64	24	48	17	34	28	56		

* DIMENSIONS SHOWN ARE MINIMUM * DIMENSIONS SHOWN ARE INCHES

CITY OF ROCKFORD
THRUST BLOCK DETAILS
N.T.S.

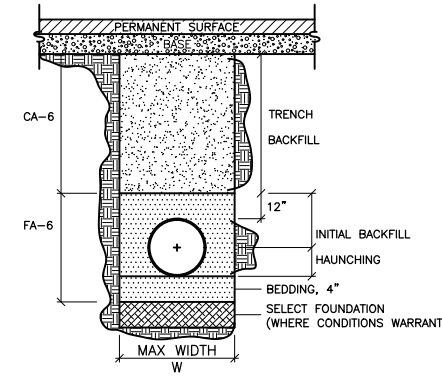
DTL-THRUST

2017

NOTES:

1. THE CONTRACTOR SHALL INSURE THAT ALL TRENCHING OPERATIONS CONFORM TO THE LATEST OSHA REGULATIONS.
2. PIPE BEDDING MATERIAL AND GRANULAR BACKFILL MATERIAL SHALL BE THE SAME AS TRENCH BACKFILL MATERIAL.
3. GRANULAR BACKFILL AND BEDDING MATERIAL SHALL BE INCIDENTAL TO THE CONTRACT.
4. TRENCH BACKFILL MATERIAL SHALL BE COMPACTED AT A MAXIMUM OF 12" INCREMENTS TO 95% STANDARD PROCTOR OPTIMUM DENSITY.
5. APPROVED EXCAVATED MATERIAL SHALL MEET THE REQUIREMENTS OF ARTICLE 1003.04 OF THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. NO COMPENSATION WILL BE ALLOWED AS TRENCH BACKFILL FOR THE PORTION OF THE TRENCH BACKFILLED WITH EXCAVATED MATERIAL.
6. AG-LIME (FA20/FA21) WILL NOT BE ALLOWED FOR TRENCH BACKFILL MATERIAL.
7. BEDDING, HAUNCHING, AND INITIAL BACKFILL SHALL BE SAND. TRENCH BACKFILL SHALL BE CA-6.

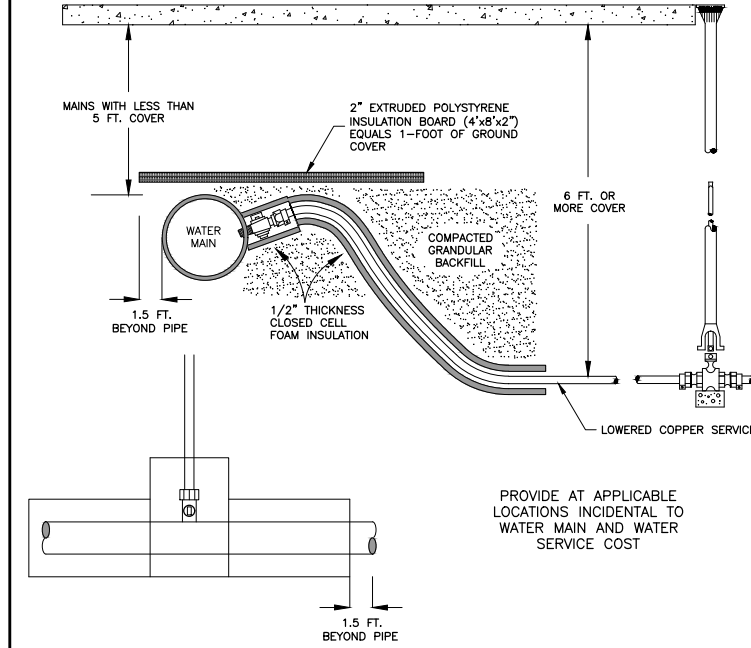
NOTE:
THESE ITEMS WILL BE INCIDENTAL ON WATER SERVICES.
TRENCH BACKFILL SHALL BE MECHANICALLY COMPACTED TO 95% STANDARD PROCTOR OPTIMUM DENSITY.



CITY OF ROCKFORD
TRENCH BACKFILL AND SELECT FOUNDATION
MATERIAL PAY LIMIT SCHEDULE
N.T.S.

DTL-TRENCH & FOUNDATION

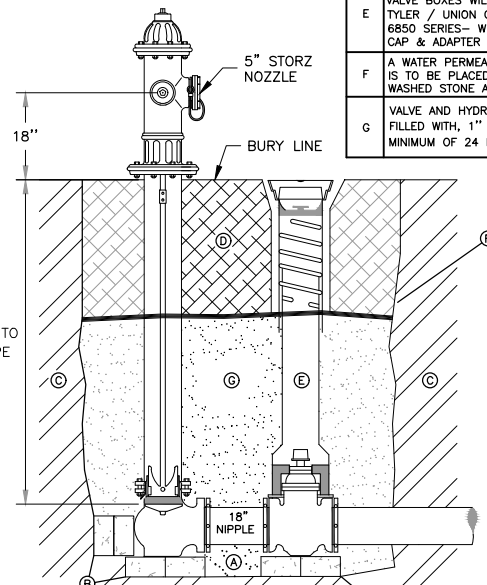
2017



CITY OF ROCKFORD
WATER SERVICE FREEZE PROTECTION INSTALLATION DETAIL
N.T.S.

2022

ALL HYDRANTS TO BE INSTALLED WITH LOCKING COLLARS



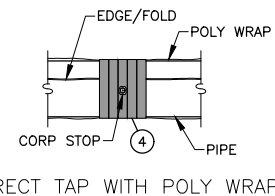
* UNLESS OTHERWISE INDICATED ON PLANS

CITY OF ROCKFORD
FIRE HYDRANT COMPLETE
N.T.S.

DTL-FH

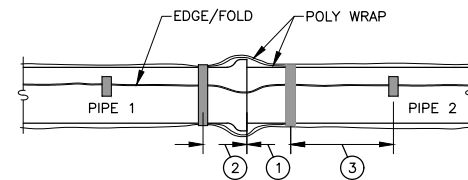
2017

ITEM	DESCRIPTION
A	APPROVED BEDDING MATERIAL
B	8"x 4"x 4" CONCRETE BLOCKING 3500 PSI STRENGTH TYPE
C	UNDISTURBED SOIL
D	APPROVED GRANULAR, TRENCH BACKFILL MATERIAL
E	VALVE BOXES WILL BE THE TYLER / UNION CAST IRON 6850 SERIES- WITH DEBRIS CAP & ADAPTER II INSTALLED
F	A WATER PERMEABLE GEOTEXTILE IS TO BE PLACED BETWEEN 1" WASHED STONE AND BACKFILL
G	VALVE AND HYDRANT TO BE BACK FILLED WITH, 1" WASHED STONE MINIMUM OF 24 INCHES IN DEPTH



DIRECT TAP WITH POLY WRAP

PIPE DIA. (IN.)	MINIMUM POLY WRAP WIDTH (IN.)	
	FLAT TUBE	SHEET
4	14	28
6	16	32
8	20	40
10	24	48
12	27	54
14	30	60
16	34	68

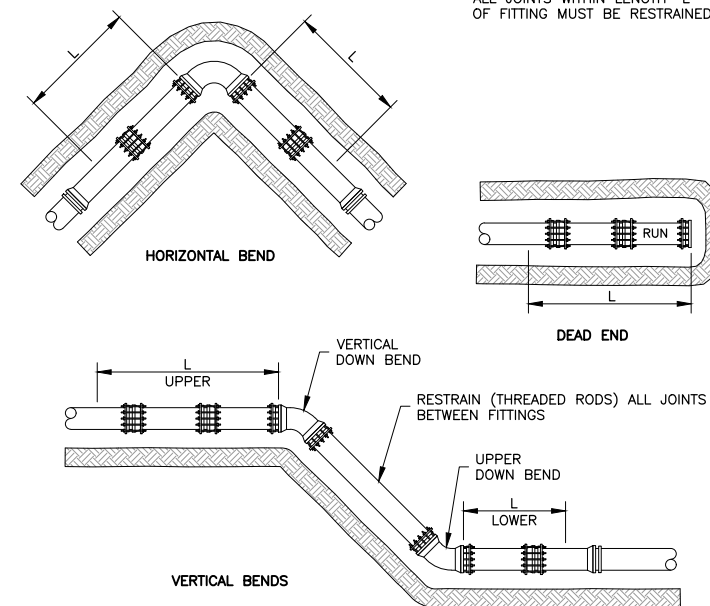


1. EXTEND POLY WRAP FOR PIPE 1 A MINIMUM OF 12" BEYOND BELL ONTO PIPE 2. SECURE TO PIPE 2 WITH TAPE OR PLASTIC TIE STRAPS.
2. EXTEND POLY WRAP FOR PIPE 2 ONTO PIPE 1 A MINIMUM OF 12" BEYOND THE PIPE 1 BELL. INSTALL OVER THE PIPE 1 POLY WRAP AND SECURE THE END WITH TAPE OR PLASTIC TIE STRAPS.
3. SECURE THE CUT EDGE ON POLY SHEETS EVERY 3'-0". SECURE THE FOLD ON POLY TUBES EVERY 4'-0". IF INSTALLED BELOW THE WATER TABLE, SECURE EVERY 2'-0".
4. INSTALL 2 TO 3 WRAPS OF POLYETHYLENE ADHESIVE TAPE COMPLETELY AROUND THE PIPE AND POLY WRAP AT TAPPING LOCATION. MOUNT TAPPING MACHINE OVER THE TAPE AND INSTALL CORPORATION THROUGH THE TAPE AND POLY WRAP. REPAIR ANY DAMAGE TO POLY WRAP IF NEEDED.
5. POLY WRAP SHALL BE A MINIMUM OF 8 MILS THICK AND SHALL BE FURNISHED IN TUBE FORM.
6. POLY WRAP SHALL BE V-BIO OR APPROVED EQUAL.

CITY OF ROCKFORD
WATER MAIN FREEZE PROTECTION INSTALLATION DETAIL
N.T.S.

2022

ALL JOINTS WITHIN LENGTH "L" OF FITTING MUST BE RESTRAINED



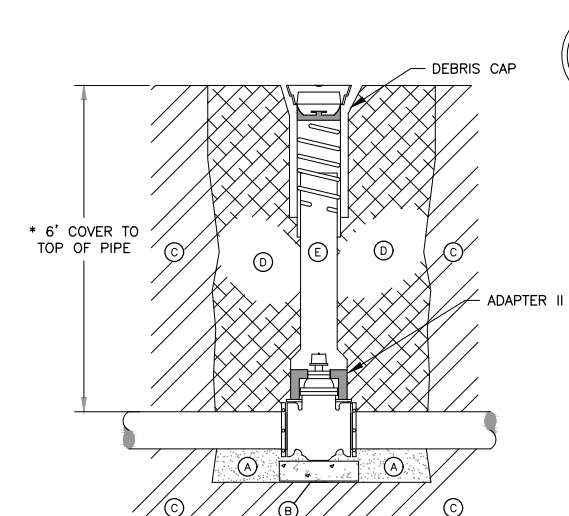
DIP diameter (inches)	L (feet)					
	Horizontal bends			Vertical Down Bends	Vertical Up Bends	Dead Ends
4 to 8	11.25'	22.5'	45'	90'	45'	35'
10 to 12	1	3	6	14	6	35
14 to 16	2	4	8	20	8	51
18 to 20	3	5	11	25	11	66
24	4	6	13	31	13	80
			7	15	39	94

CITY OF ROCKFORD
RESTRAINING GLAND RESTRAINT
N.T.S.

DTL-GLAND

2017

ITEM	DESCRIPTION
A	APPROVED BEDDING MATERIAL
B	16"x8"x4" CONCRETE BLOCKING
C	UNDISTURBED SOIL
D	APPROVED GRANULAR, TRENCH BACKFILL MATERIAL
E	VALVE BOXES WILL BE THE TYLER/UNION CAST IRON 6850 SERIES-WITH DEBRIS CAP & ADAPTER II INSTALLED

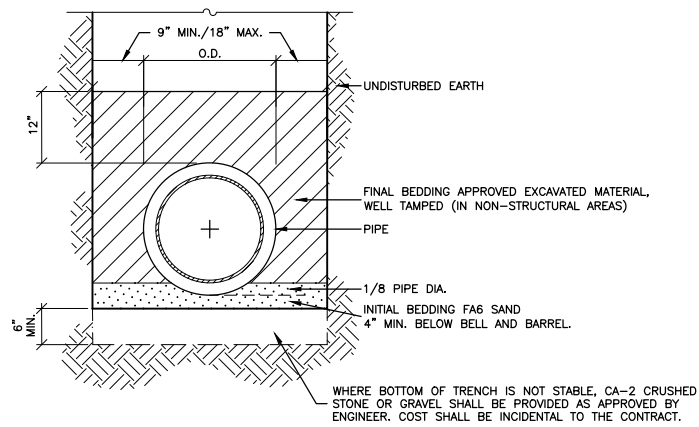


* UNLESS OTHERWISE INDICATED ON PLANS

CITY OF ROCKFORD
VALVE & VALVE BOX DETAIL
N.T.S.

DTL-VB

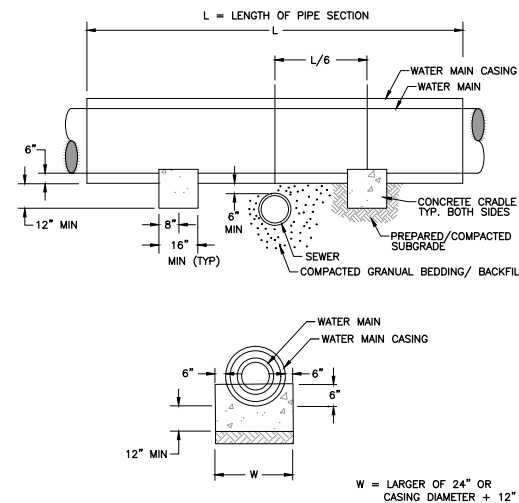
2017



- NOTES:
- SEE TRENCH BACKFILL DETAIL FOR FINAL BEDDING IN STRUCTURAL AREAS
 - INITIAL BEDDING SHALL BE INCIDENTAL TO THE CONTRACT.

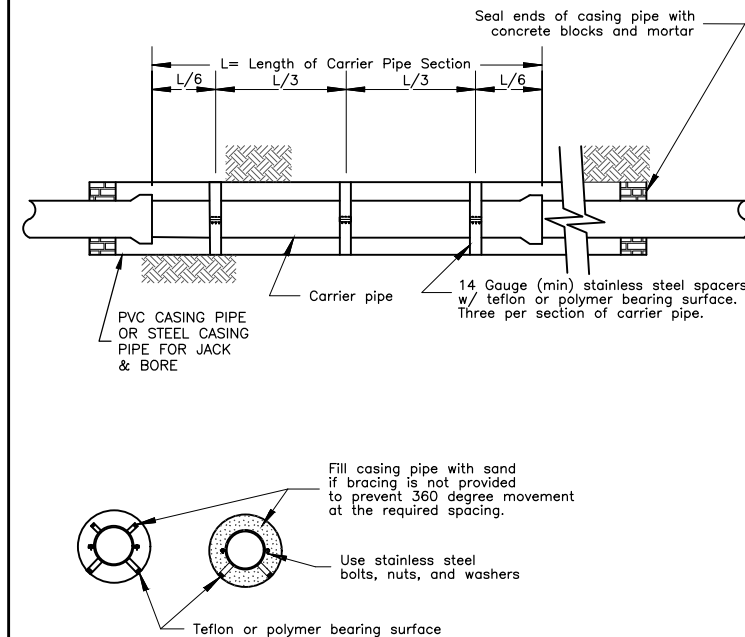
CITY OF ROCKFORD
WATER MAIN PIPE BEDDING DETAIL
N.T.S.

2009



- NOTES:
- CONCRETE CRADLES ARE REQUIRED WHEN WATER MAIN CROSSES OVER SEWER PIPES WITH A VERTICAL CLEARANCE OF LESS THAN 18".
 - CRADLES TO BE BUILT ON UNDISTURBED EARTH PREPARED/COMPACTED TO THE SATISFACTION OF THE ENGINEER.
 - CONCRETE TO BE CLASS SI PER IDOT SECTION 1020.04.
 - COST OF CONCRETE CRADLES TO BE CONSIDERED INCIDENTAL TO CONTRACT.

CITY OF ROCKFORD
CONCRETE CRADLE DETAIL
N.T.S.

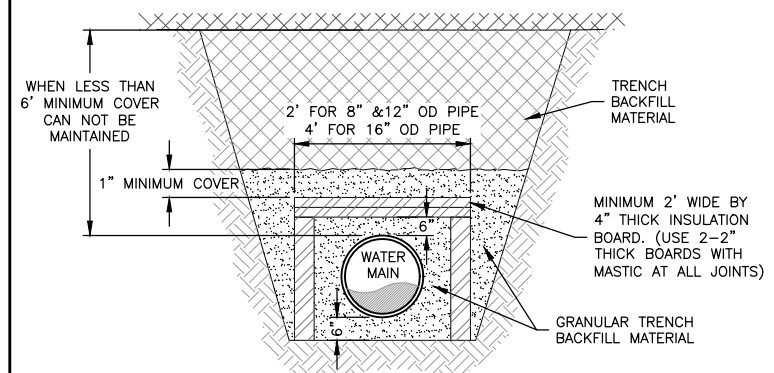


- NOTES:
- THIS DETAIL IS APPLICABLE TO BORE AND JACK CASING PIPE INSTALLATIONS
STEEL SPACERS NOT REQUIRED FOR PVC ENCASMENT

CITY OF ROCKFORD
WATER MAIN CASING DETAIL
N.T.S.

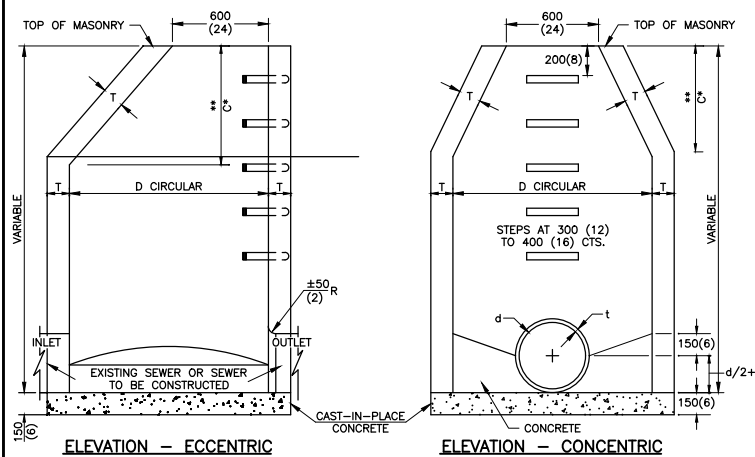
DTL-WMCAS

2017



- NOTES:
- INSULATION BOARD TO BE CLOSED CELL, EXTRUDED POLYSTYRENE FOAM MEETING ASTM 578.
- ALL JOINTS SHALL OVERLAP AND INSULATION BOARDS SHALL BE 8' MINIMUM LENGTH.
- USE OF WATER MAIN INSULATION TO BE APPROVED BY OWNER AND ENGINEER PRIOR TO INSTALLATION.
- COST OF WATER MAIN INSULATION SHALL BE CONSIDERED INCIDENTAL TO CONTRACT.

CITY OF ROCKFORD
WATER MAIN INSULATION DETAIL
N.T.S.



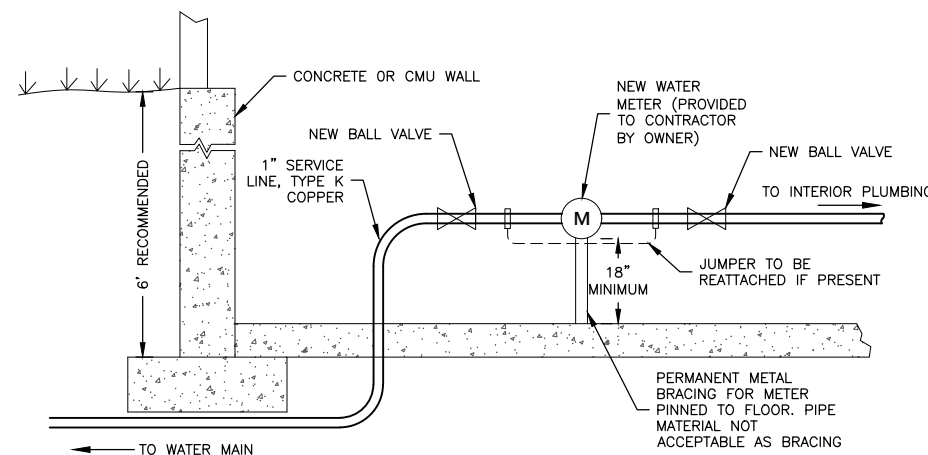
ALTERNATE MATERIALS FOR WALLS	D	C	T (MIN.)
CONCRETE MASONRY UNIT	1.2m (4'-0")	750 (30)	125 (5)
	1.5m (5'-0")	1.15m (3'-9")	125 (5)
BRICK MASONRY	1.2m (4'-0")	750 (30)	200 (8)
	1.5m (5'-0")	1.15m (3'-9")	200 (8)
PRECAST REINFORCED CONCRETE SECTION	1.2m (4'-0")	750 (30)	100 (4)
	1.5m (5'-0")	1.15m (3'-9")	125 (5)
CAST-IN-PLACE CONCRETE	1.2m (4'-0")	750 (30)	150 (6)
	1.5m (5'-0")	1.15m (3'-9")	150 (6)

- GENERAL NOTES
- SEE STANDARD 2447 FOR DETAILS OF STEPS.
- DIMENSION "C" FOR PRECAST REINFORCED CONCRETE SECTIONS MAY VARY FROM THE DIMENSION GIVEN TO PLUS 150mm (6").
- SEE STANDARD 802801 FOR OPTIONAL PRECAST REINFORCED CONCRETE FLAT SLAB TOP.
- ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.

CITY OF ROCKFORD
MANHOLE TYPE A
N.T.S.

DTL-MH

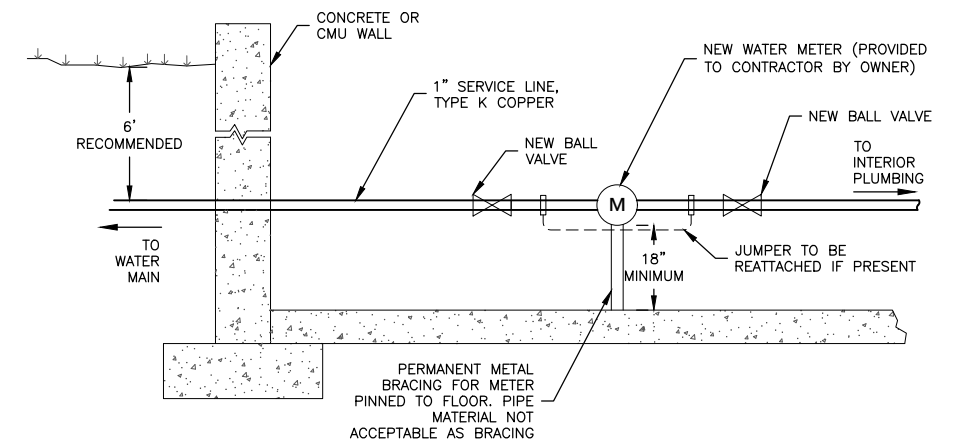
2009



- NOTE:
- EXISTING SERVICE LINE TO BE ABANDONED BY CUTTING AND CAPPING LINE BELOW FLOOR OR OUTSIDE OF WALL. ANY WORK REQUIRED TO SEAL FLOOR OR WALL SHALL BE INCIDENTAL.
 - ALL GROUND CLAMPS SHALL NOT BE CLAMPED TO METER OR METER COUPLINGS.
 - PENETRATION THROUGH FLOOR SHALL BE SEALED WATER TIGHT IF METER PIT NOT PRESENT.
 - REMOVAL & REPLACEMENT OF CONCRETE FLOOR FOR ACCESS CONSIDERED INCIDENTAL.
 - NO MORE THAN 2 FEET OF SERVICE LINE ALLOWED BETWEEN PENETRATION AND METER.
 - ADDITIONAL PIPE SUPPORT SHALL BE INSTALLED IF THERE IS A GAP OF MORE THAN 1-FOOT FROM WALL TO METER.

CITY OF ROCKFORD
FLOOR PENETRATION WATER METER CONNECTION DETAIL
N.T.S.

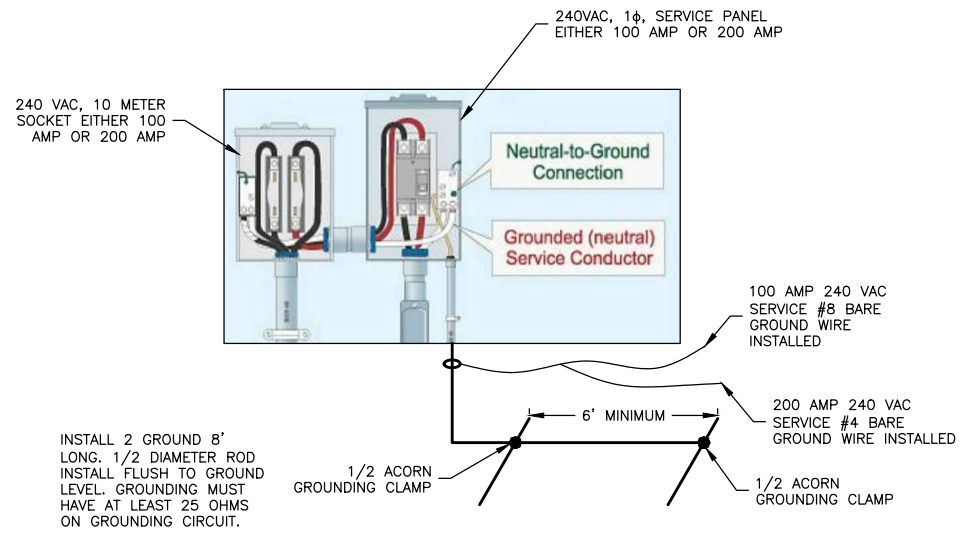
2022



- NOTE:
- EXISTING SERVICE LINE TO BE ABANDONED BY CUTTING AND CAPPING LINE BELOW FLOOR OR OUTSIDE OF WALL. ANY WORK REQUIRED TO SEAL FLOOR OR WALL SHALL BE INCIDENTAL.
 - ALL GROUND CLAMPS SHALL NOT BE CLAMPED TO METER OR METER COUPLINGS.
 - PENETRATION THROUGH FLOOR SHALL BE SEALED WATER TIGHT. NO SPRAY FOAM WILL BE ALLOWED FOR SEALING.
 - NO MORE THAN 2 FEET OF SERVICE LINE ALLOWED BETWEEN PENETRATION AND METER.
 - ADDITIONAL PIPE SUPPORT SHALL BE INSTALLED IF THERE IS A GAP OF MORE THAN 1-FOOT FROM WALL TO METER.

CITY OF ROCKFORD
WALL PENETRATION WATER METER CONNECTION DETAIL
N.T.S.

2022



CITY OF ROCKFORD
WATER SERVICE GROUNDING
 BONDING SERVICE EQUIPMENT TO GROUNDED CONDUCTOR
 SECTION 250.92(B)(1)

2022