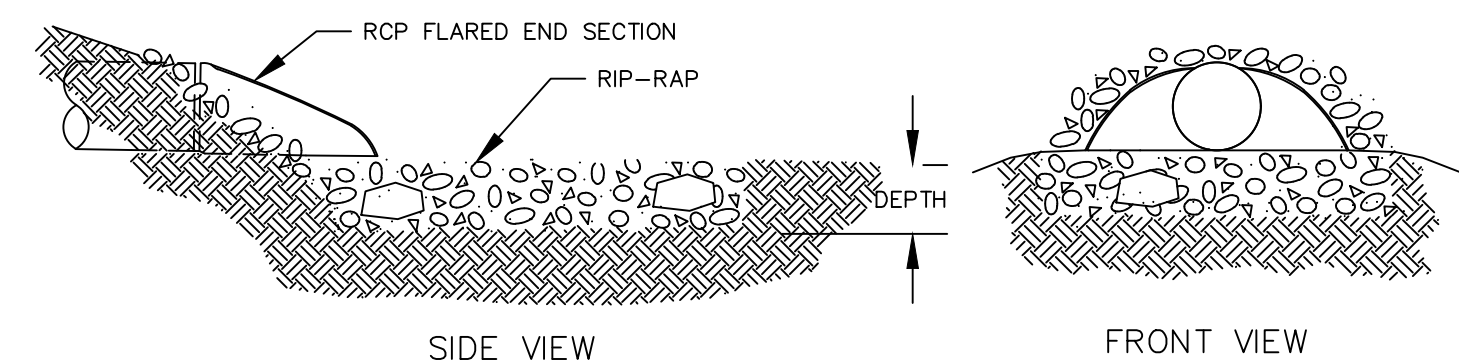
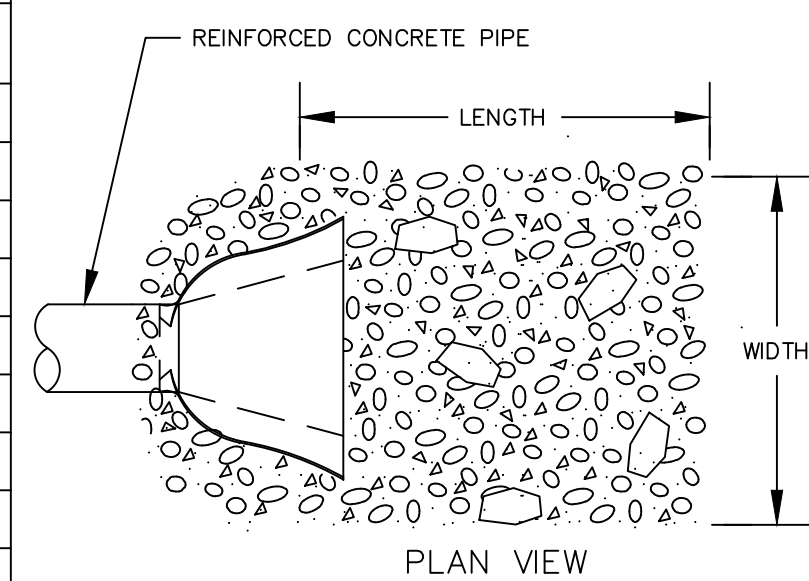
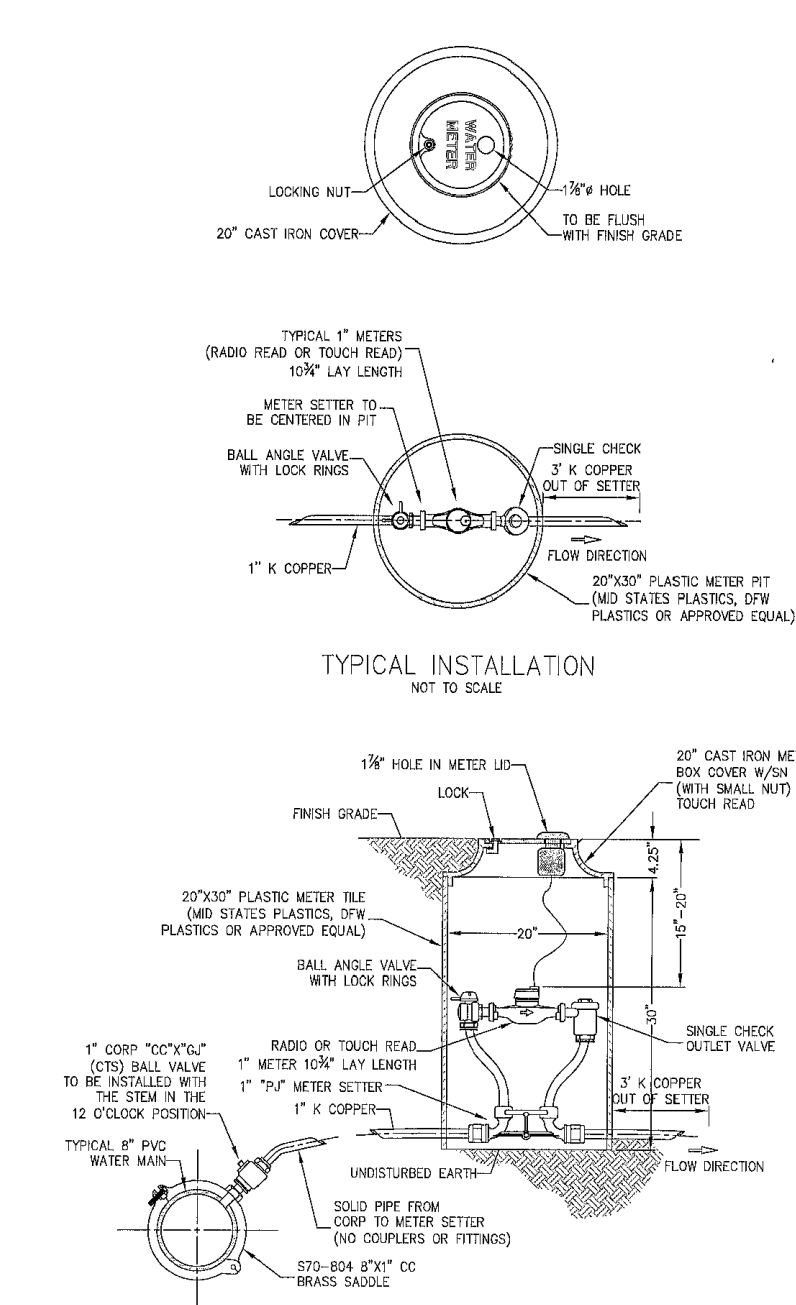


RIP-RAP SCHEDULE (MINIMUMS)				
PIPE DIA. (IN.)	DEPTH (IN.)	WIDTH (FT.)	LENGTH (FT.)	MIN. TO MAX. SIZE RIP-RAP (IN.)
12	12	4	10	4-12
15	12	4	11	4-12
18	12	4	12	6-12
24	18	6	14	6-12
30	18	7	16	6-12
36	18	12	20	6-12
48	24	20	20	6-18
60	24	25	25	6-18

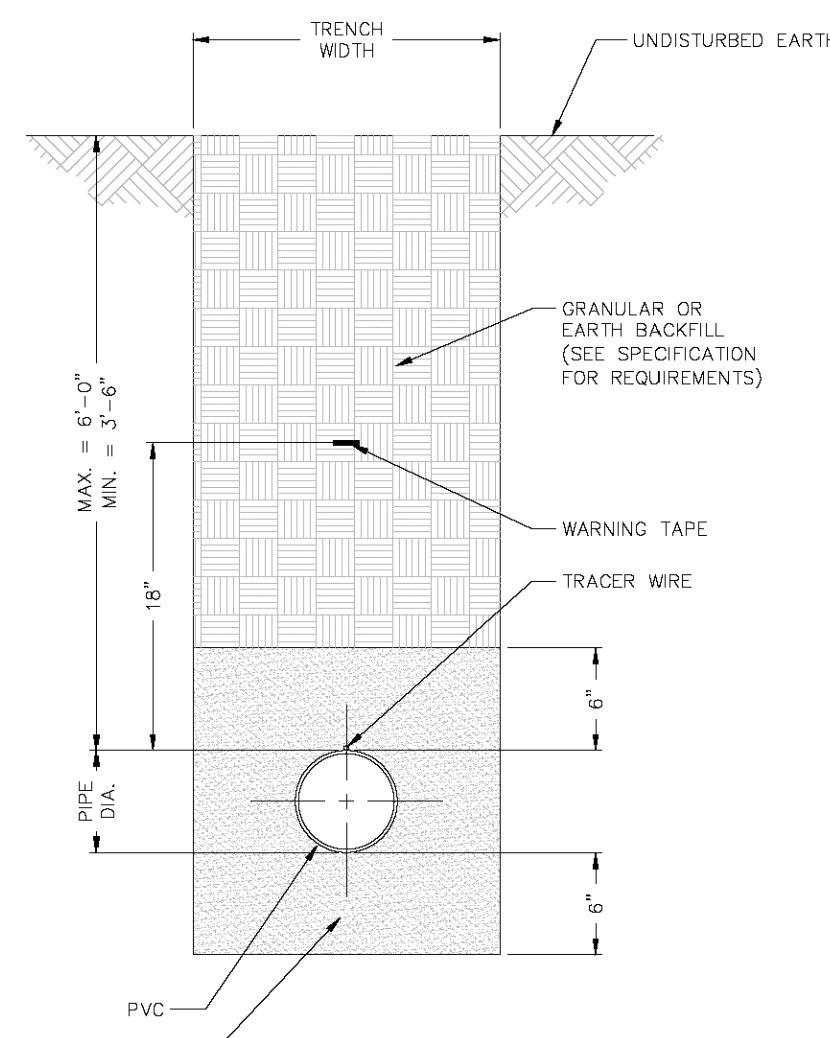


END SECTION AND RIP-RAP DETAIL  
NO SCALE



TYPICAL 1" RESIDENTIAL WATER SERVICE DETAIL "C"  
NOT TO SCALE  
PUBLIC WATER SUPPLY DISTRICT #2 OF SAINT CHARLES COUNTY

NOTE: THIS DETAIL IS FROM PWS#2

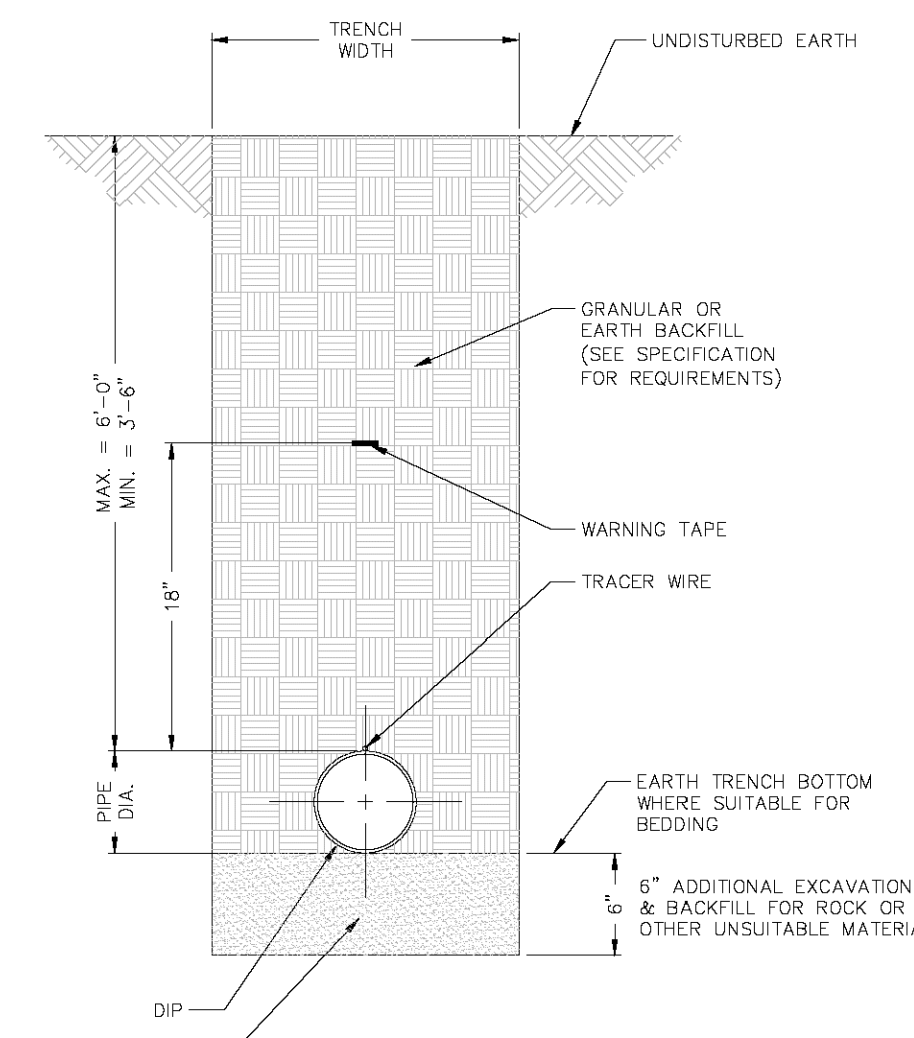


**NOTES**

- 1) SEE SPECIFICATIONS FOR ADDITIONAL DETAILS FOR BEDDING AND BACKFILL.

TYPICAL TRENCH SECTION FOR PVC PIPE  
NOT TO SCALE  
DETAIL "A"  
PAGE 1 OF 2

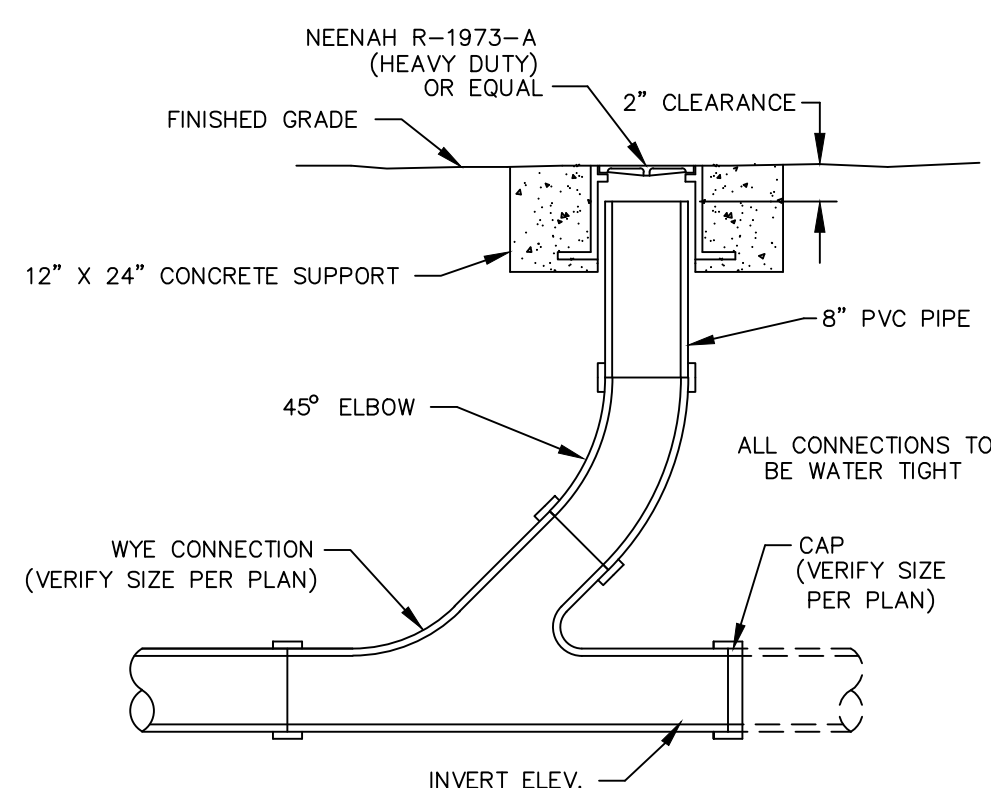
NOTE: THIS DETAIL IS FROM PWS#2



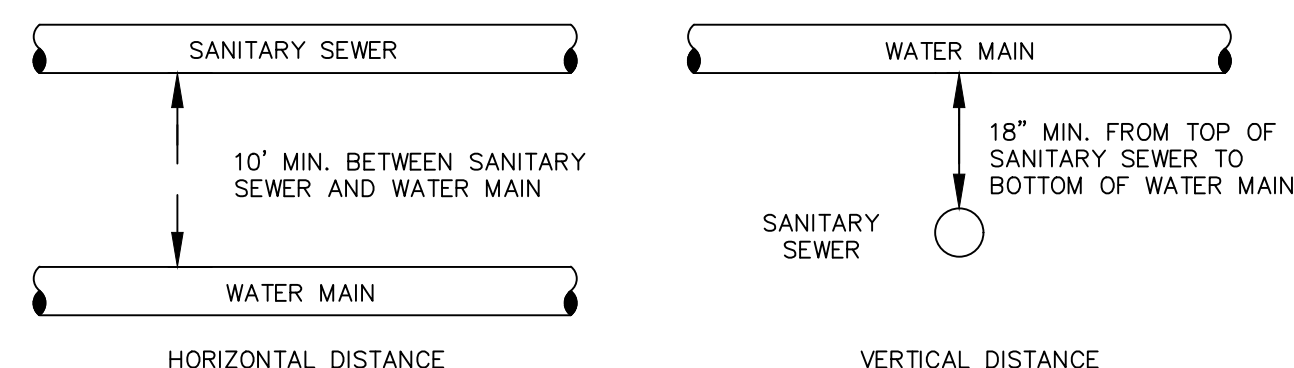
**NOTES**

- 1) POLYWRAP REQUIRED FOR DUCTILE IRON PIPE
- 2) SEE SPECIFICATIONS FOR ADDITIONAL DETAILS FOR BEDDING AND BACKFILL.

TYPICAL TRENCH SECTION FOR DUCTILE IRON PIPE  
NOT TO SCALE  
DETAIL "A"  
PAGE 2 OF 2



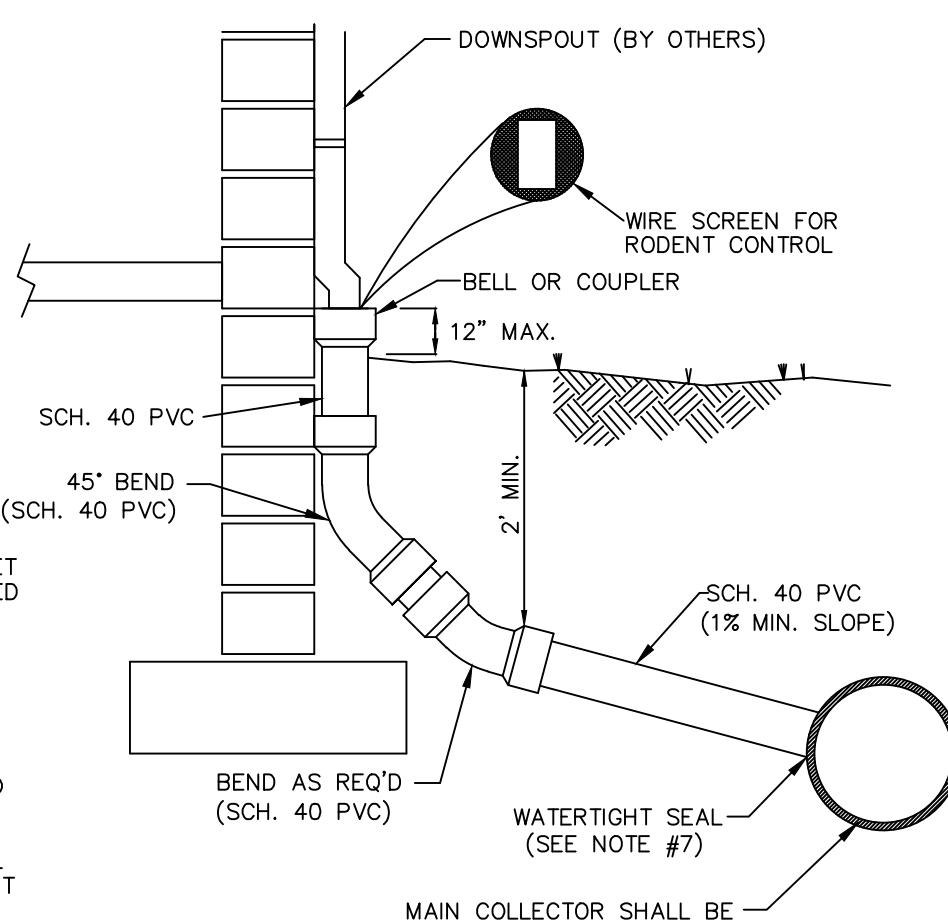
DOWNSPOUT CLEANOUT DETAIL  
NO SCALE



TYPICAL WATER AND SEWER SEPARATION  
NOT TO SCALE

Ductile Iron Pipe installation shall follow the Ductile Iron Research Association (DIPRA) guide line.  
The Installation of PVC Pipe shall follow the Uni-Bell PVC Pipe Association Handbook of PVC Design and Construction.

1. WELL GRADED, 1" MINUS, GRANULAR MATERIAL FROM 4" BELOW THE BOTTOM OF THE PIPE TO 1/2 THE DIAMETER OF THE PIPE COMPACTED TO 95% STANDARD PROCTOR DENSITY.
2. IN AREAS TO BE PAVED OVER, ENTIRE TRENCH TO BE BACKFILLED WITH WELL GRADED 1" MINUS GRANULAR MATERIAL & COMPACTED TO 90% OF THE MODIFIED PROCTOR DENSITY.
3. IN AREAS OF CLEAN DIRT CUTS OUTSIDE OF PAVED AREAS, TRENCH MAY BE BACKFILLED WITH SAME MATERIAL AND COMPACTED TO 90% OF THE MODIFIED PROCTOR DENSITY.
4. IN AREAS OF ROCK CUT, THE TRENCH SHALL BE BACKFILLED WITH WELL GRADED 1" MINUS GRANULAR MATERIAL TO 6" ABOVE TOP OF PIPE.
5. BACKFILL SHALL BE HOLLOWED OUT FOR PIPE JOINTS AND FITTINGS. PIPE JOINTS ARE TO BE UNSUPPORTED.
6. IN ALL CASES TRENCHING & BACKFILLING SHALL MEET OR EXCEED THE PIPE MANUFACTURER'S RECOMMENDED INSTALLATION METHODS.
7. WATERTIGHT CONNECTION SHALL BE MAINTAINED WITH ANY TRANSITION FROM SCHEDULE 40 PVC PIPE TO ANY OTHER PIPE TYPE.
8. THE DOWNSPOUT COLLECTOR DRAIN SHALL BE INSTALLED BEFORE THE DOWNSPOUTS ARE INSTALLED ON THE BUILDING. SITEWORK CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WORK TO AND INCLUDING THE RODENT SCREEN. BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONNECTION AT THE POINT OF THE RODENT SCREEN.



DOWNSPOUT COLLECTOR DETAIL  
NO SCALE

636-594-0540 (tel.)  
636-594-0512 (fax)  
mail@ochran.com

**UCHRAN**

630A E. Independence Dr.  
Union, Missouri 63084

• Civil Engineering  
• Land Surveying  
• Architecture  
• Site Development  
• General Consulting  
• Master Planning

Missouri State Certificate of Authority Numbers:  
Survey: 000380  
Engineering: 001655  
Architecture: 2002014240

Three working days prior to the start of any excavation call 1-800-UGC-RITE for utility location information.

All OSHA rules & regulations in effect shall be strictly followed. Plans shall be strictly followed (i.e. trenching, blasting, etc.)

STATE OF MISSOURI

TIMOTHY SCHOWE  
*Timothy Schowe*

NUMBER  
PE-201800268  
3-4-21

PROFESSIONAL ENGINEER

THE STREETS OF CALEDONIA  
POOL CLUBHOUSE  
O'FALLON, MISSOURI

DETAIL SHEET

DESIGNED BY:	JMM	APPROVED BY:	ERR
CHECKED BY:		DATE:	AUG. 04, 2021
DATE:	08-18-21	SCALE:	1" = 20'
PROJECT NO.:	17-6821		
DWG. NO.:	C7.04		

DWG NAME: F:\17-6821 - 260 Acre Tract along Hwy 40, O'Fallon, MO\AutoCAD Drawings\6821 - Plan Sheets\Construction Drawings\Pool & Clubhouse Plans\07\_Detail Sheet - Pool Clubhouse.dwg LAYOUT TAB: C7.04\_PLOTTED OK: Aug 19, 2021 - 8:22am PLOTTED BY: jfreyer