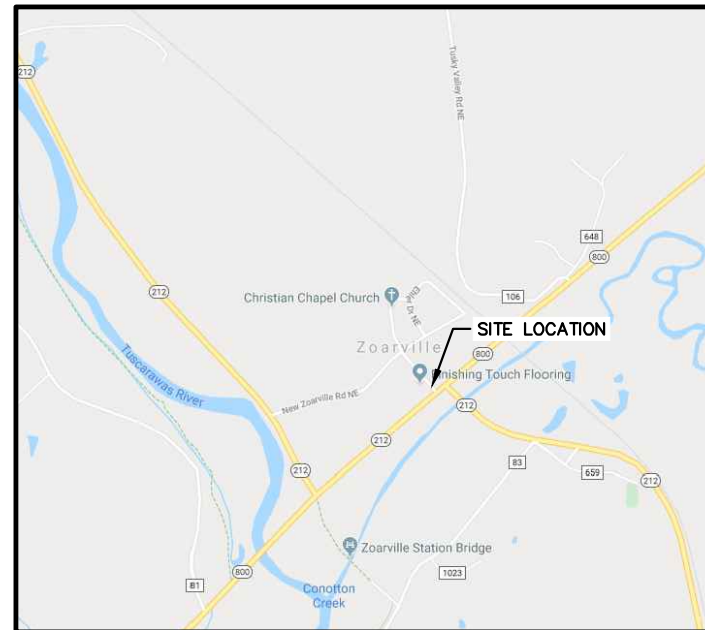


TUSCARAWAS COUNTY METROPOLITAN SEWER DISTRICT NEW ZOARVILLE ROAD WATERLINE EXTENSION

WATERLINE GENERAL NOTES

1. All materials that will be in contact with potable water shall be NSF 61 certified.
2. All main line valves shall be operated by Tuscarawas County Metropolitan Sewer District (TCMSD) personnel.
3. HPDE pipe 4" and larger shall be DIPS PE4710 conforming to the latest edition of AWWA C906 and NSF 61; PE4710 compound shall conform to ASTM D3350 min. cell classification PE445574C-CC3; Butt fusion joints (Contractor shall submit Fusion Technician qualifications) with directional drilled installation.
4. Water Main to be installed and tested in accordance with AWWA C605 and AWWA Manual M23. Disinfection of the water main shall be in accordance with AWWA C651.
5. Bedding, haunching and initial backfill shall be #8 gravel. In areas under pavement or within the pavement influence line, use premium backfill, compacted in maximum 6 inch lifts.
6. Maintain a minimum 18 inch vertical (above) and 10 foot horizontal clearance from outside of pipe to outside of pipe between proposed waterline and sanitary sewers and/or storm sewers.
7. A minimum of 35 psi shall be maintained to the curb stop during normal operating conditions.
8. Booster pumps are not permitted on service connections.
9. Depth of bury - 48 inch minimum cover, maintain cover within any drainage ditches or swales.
10. Main line valves shall be resilient wedge gate valves conforming to AWWA C509; Mueller Model #2360, East Jordan Iron Works, AFC, or approved equal. Valve boxes shall be 3 piece, cast iron with a lid marked "WATER", screw type. Contractor shall seal openings at bottom of valve box with approved resilient material.
11. Provide hydrants that meet AWWA C502 and are UL/FM approved. Hydrants shall be Mueller Super Centurion Model A-423 with 5.25 inch main valve, 2 hose nozzles and 1 pumper nozzle. The nozzle threads shall be approved by the fire department in the area to be served. A gate valve, valve box and cover shall be installed on every hydrant lead. Hydrants shall be installed and tested in accordance with AWWA M17.
12. Service lines shall be PE pipe conforming to AWWA C901, blue color conforming to AWWA C800. Connections for service line shall be made using CTS compression fittings.
13. Tracer wire shall be installed on the top center of all water main and service lines. Wire shall be fastened to the top of the pipe with duct tape at 5 foot centers. Tracer wire shall be a #10 AWG HS-CCS high-strength copper clad steel conductor (HS-CCS), insulated with a 30 mil, high-density, high molecular weight polyethylene (HDPE) insulation, and rated for direct burial use at 30 volts. HS-CCS conductor must be a 21% conductivity for locating purposes, Break load 600# minimum. HDPE insulation shall be RoHS compliant and utilize virgin grade material. Insulation color shall meet the APWA color code standard for identification of buried utilities. Tracer wire shall be Copperhead HS-CCS, HDPE 30 mil insulation or approved equal. Tracer wires shall in valve boxes as shown on the Drawings.
14. Warning tape shall be installed in the center of the trench along the entire length of the waterline. The warning tape shall be blue in color and have the following legend: "CAUTION BURIED WATER MAIN BELOW".



VICINITY MAP

SHEET INDEX

Title Sheet	1
Plan & Profile Sheet	2
Standard Details	3

ESTIMATED QUANTITIES

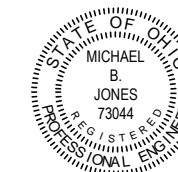
ITEM	DESCRIPTION	QUANTITY	UNIT
1	3/4" PE CTS SERVICE LINE	180	LIN. FT.
2	6" HDPE, DR11 WATER LINE	715	LIN. FT.
3	6" GATE VALVE	1	EACH
4	6"X6" TAPPING SLEEVE, TAPPING VALVE AND VALVE BOX	1	EACH
5	FIRE HYDRANT WITH 6" GATE VALVE & VALVE BOX	1	EACH
6	SEEDING, MULCHING, RESTORATION	1	EACH
7	TRAFFIC CONTROL	1	EACH
8	METER PIT ASSY WITH 5/8" X 3/4" METER	2	EACH

ALL ITEMS NOT INCLUDED IN THE ESTIMATED QUANTITIES ARE CONSIDERED INCIDENT TO THE WORK AND THE COST FOR INCIDENTAL ITEMS SHALL BE INCLUDED IN THE ITEMS LISTED ABOVE.



APPROVED BY:

Michael Jones, P.E.
Director/Sanitary Engineer



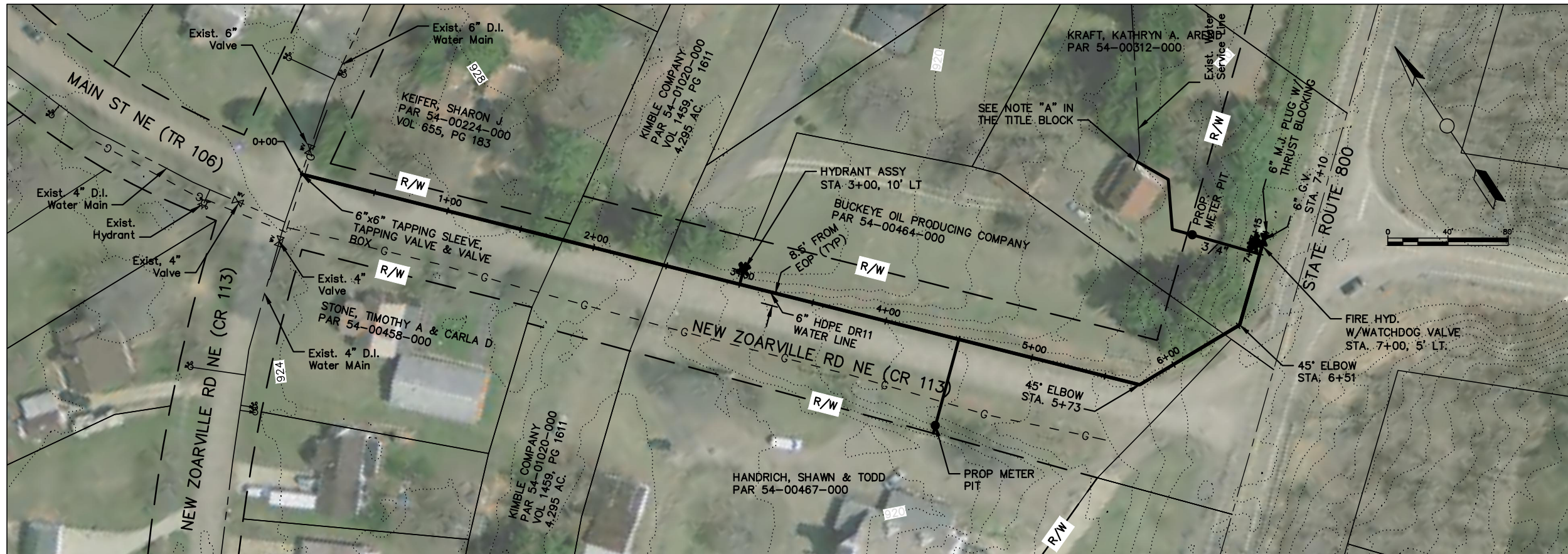
General Notes

No.	Revision/Issue	Date

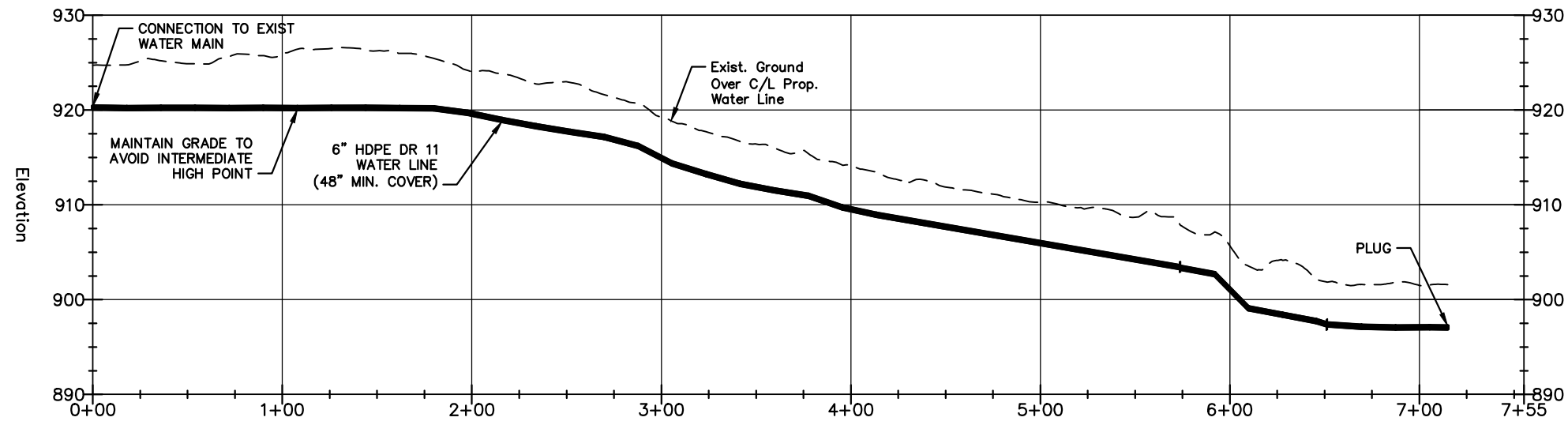
Firm Name and Address
Tuscarawas County
Sanitary Engineering Dept
9944 Wilshire Boulevard NE
Bolivar, OH 44612

Project Name and Address
New Zoarville Rd.
Water Line Extension

Project	2016-006	Sheet	1
Date	1/13/2020		
Scale	N/A		



WATER LINE PROFILE



General Notes

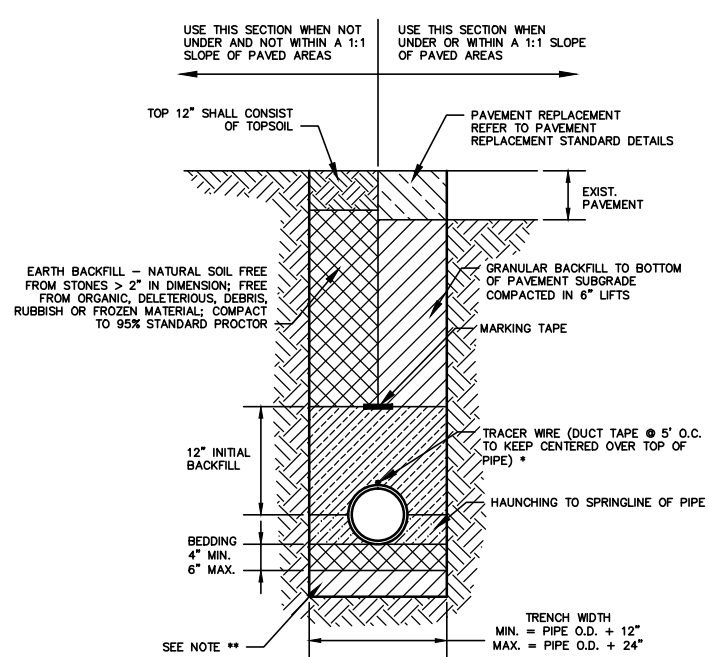
NOTE "A": CONTRACTOR SHALL RUN NEW SERVICE LINE INTO HOUSE AND CONNECT TO EXIST COPPER CTS PIPING IN THE HOUSE, REMOVE THE TEMPORARY "IN-HOUSE" METER AND INSTALL IN THE NEW METER PIT. PAYMENT SHALL BE MADE ONCE ALL WORK HAS BEEN COMPLETED AND PLUMBING WORK IN THE HOUSE HAS BEEN DEMONSTRATED TO BE "LEAK-FREE". CONTRACTOR SHALL LOCATE AND ABANDON THE EXISTING WATER SERVICE LINE AT THE PROPERTY LINE.

No.	Revision/Issue	Date

Firm Name and Address
 Tuscarawas County
 Sanitary Engineering Dept
 9944 Wilshire Boulevard NE
 Bolivar, OH 44612

Project Name and Address
 New Zoarville Rd.
 Water Line Extension

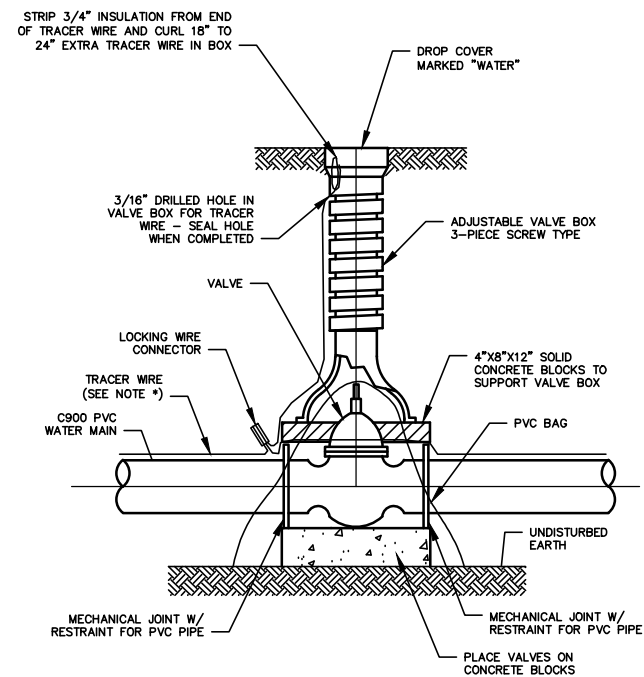
Project	2016-006	Sheet	2
Date	1/13/2020		
Scale	See Bar Scale		



* NOTE: TRACER WIRE NOT REQUIRED FOR GRAVITY SANITARY SEWER LINES

** NOTE: IF TRENCH HAS BEEN OVER EXCAVATED WHETHER DUE TO POOR FOUNDATION MATERIAL OR CONTRACTOR NEGLIGENCE, BRING TO PROPER GRADE WITH COMPACTED GRANULAR BACKFILL PRIOR TO PLACEMENT OF GRANULAR BEDDING.

TYPICAL TRENCH DETAIL

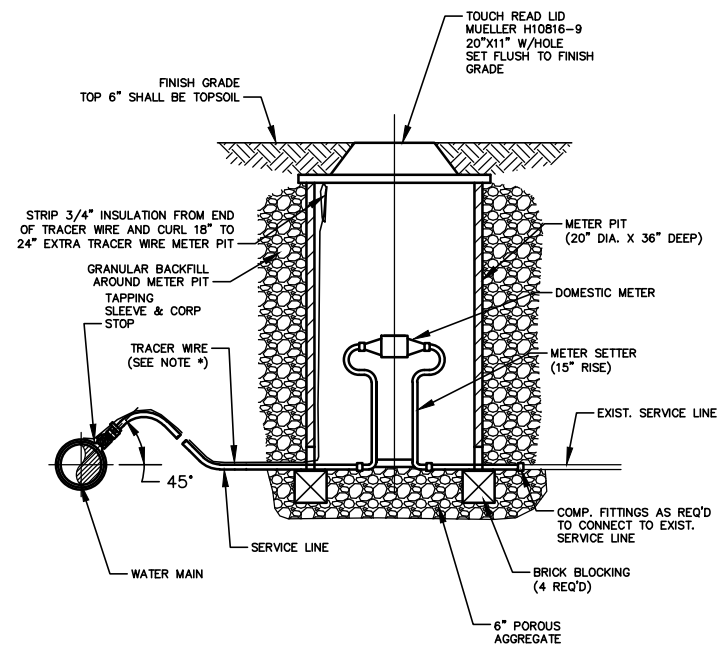


NOTE: RESTRAIN FIRST JOINT ON BOTH SIDES OF THE VALVE. USE MEGA-LUG SERIES 1600 RESTRAINT JOINT HARNESS FOR C900 PIPE IF FIRST JOINT IS A PVC PIPE.

* NOTE: TRACER WIRE FOR OPEN CUT INSTALLATIONS SHALL BE COPPERHEAD #12 AWG HS-1230 OR APPROVED EQUAL.

TRACER WIRE FOR BORING INSTALLATIONS SHALL BE COPPERHEAD #10 AWG 1045 EHS OR APPROVED EQUAL.

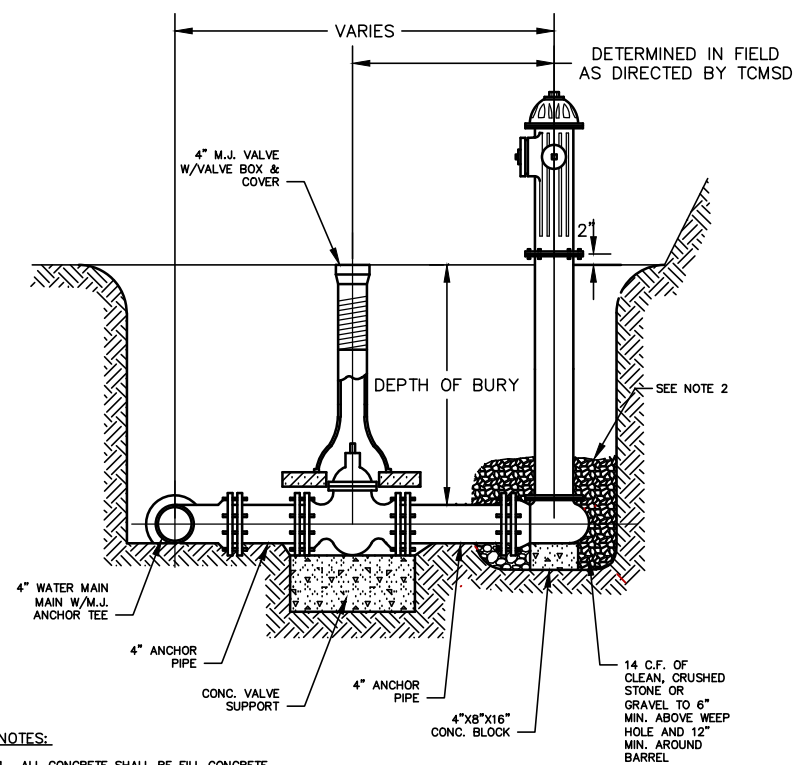
TYPICAL VALVE DETAIL



* NOTE: TRACER WIRE FOR OPEN CUT INSTALLATIONS SHALL BE COPPERHEAD #12 AWG HS-1230 OR APPROVED EQUAL.

TRACER WIRE FOR BORING INSTALLATIONS SHALL BE COPPERHEAD #10 AWG 1045 EHS OR APPROVED EQUAL.

TYPICAL DOMESTIC METER PIT DETAIL



NOTES:

1. ALL CONCRETE SHALL BE FILL CONCRETE
2. COVER STONE WITH 8-MIL POLYETHYLENE BEFORE BACKFILLING.
3. CONCRETE COLLAR SHALL BE FLUSH WITH GROUND IN RURAL AREAS AND 8" BELOW FINISH GRADE IN RESIDENTIAL AREAS.

FIRE HYDRANT ASSEMBLY

General Notes

No.	Revision/Issue	Date

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 Bolivar, OH 44612

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 New Zoarville Rd.
 Water Line Extension

Project 2016-006

Sheet

Date 1/13/2020

3

Scale N/A