

PLAN VIEW W/GROUND SHOTS

- 3/4" IRON PIN FOUND
- TELEPHONE FEDESTAL
- UTILITY MANHOLE
- WOOD POST
- CATCH BASIN
- GAS METER
- GAS VALVE
- UTILITY POLE
- ◆ FIRE HYDRANT
- WATER GATE VALVE
- CONCRETE AREA
- SAN — SANITARY SEWER LINE
- GAS — GAS LINE
- E — ELECTRIC LINE
- T — TELEPHONE LINE
- CM — TELECOM LINE
- SM — STORM SEWER LINE
- W — WOVEN WIRE FENCE



PLAN VIEW

MUELLER TAPPING MATERIALS AND SPECIALTY VALVES

Mueller Co. 12.1

Rev. 5-08

MUELLER® Tapping Sleeves and Crosses

- Full range of Tapping Sleeves and Crosses to fit most types of pipe including cast iron, ductile iron, A-C, and cast iron O.D. PVC—Also outlet sealed Tapping Sleeves for steel pipe size O.D. PVC plastic pipe, steel pipe and all class of pipe through Class D pit cast gray iron.
- Sizes range from 4"x4" to 24"x24".
- All sleeves have outlet flange with dimensions and drilling that comply with ANSI B16.1, class 125 and with MSS SP-60.
- Available with optional MUELLER HP® Epoxy Coating—A-C sleeves are coated with orange primer. T-28 sleeve has epoxy coating as standard.
- Maximum working pressures: see product listings.



MUELLER Tapping Valves

- Choice of Resilient Wedge or IBBM types.
- Sizes 4" through 24" Resilient Wedge 14" through 24" IBBM.
- One end flanged with alignment lip* to attach to Tapping Sleeve, other end available with a variety of end connections with a special flange to permit attachment of Drilling Machine and Adapter.
- Meets all applicable parts of ANSIAWWA C500 and C509 Standards.
- Non-rising stem (NRS).
- RWGV: maximum working pressure 250 psig (1723 kPa)—test pressure 500 psig (3447 kPa)
- IBBM: maximum working pressure 14"-24" 150 psig (1034 kPa)— test pressure 300 psig (2068 kPa).



* Except 14" and larger Resilient Wedge Valves

MUELLER Stainless Steel Tapping Sleeves

- Sizes to fit iron pipe size PVC, C900 cast iron O.D. PVC, A-C, cast iron and ductile iron pipe.
- Sizes range from 4"x4" through 24"x12".
- Test plug standard.
- Fully passivated.
- Choice of outlet flange materials include stainless steel, carbon steel or ductile iron, all with dimensions and drilling that comply with ANSI B16.1, class 125 and with MSS SP-60.
- "Waffle" 360° gasket with integral gap bridge.
- Maximum working pressures: see product listings.



MUELLER® Split Repair Sleeves

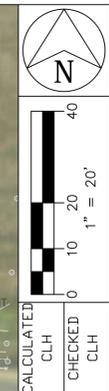
- Heavy cast iron construction.
- Long length for support and rigidity.
- 4" thru 24" sizes.
- 4" - 12" sizes—200 psig (1379 kPa) maximum working pressure.
- 14" - 24" sizes—200 psig (1379 kPa) maximum working pressure.



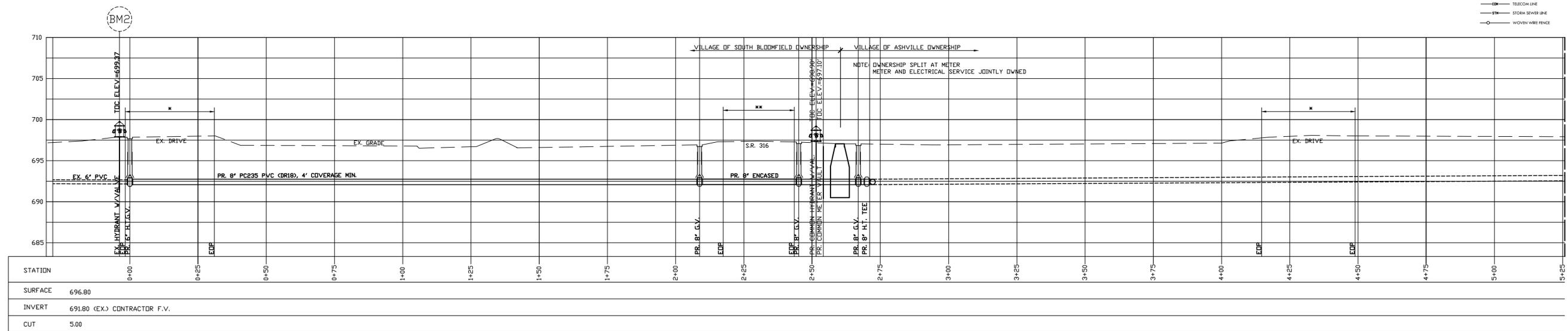
MUELLER Cut-In Sleeve and Valve

- MUELLER Cut-In Sleeve and Valve are used to install a gate valve in an existing cast iron, ductile iron or cast iron O.D. PVC plastic pipe main when water interruption is permissible.
- Cut-In Sleeves are marked with length of pipe that is to be cut from main.
- Mechanical joint ends speed installation.





PLAN VIEW PROPOSED INTERCONNECTION



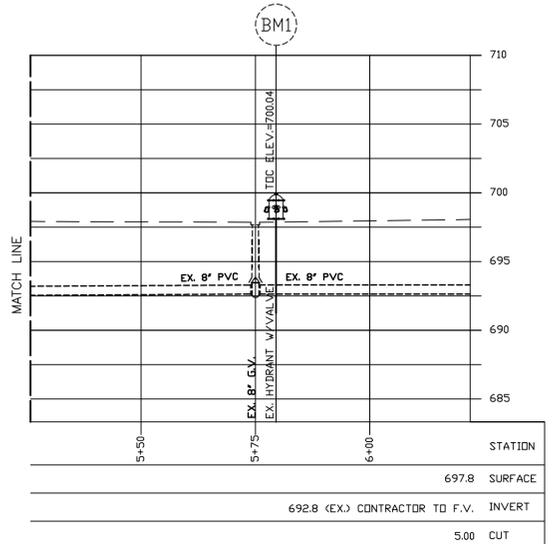
- * USE ODDT TYPE 1, ITEM 613 BACKFILL
- ** BORE HDPE 8" SDR 1 w/ENCASEMENT

HORIZONTAL STRUCTURE LOCATIONS (OHIO SOUTH ZONE)*			
POINT	DESCRIPTION	NORTHING	EASTING
HYDRANT	PR. COMMON	624600.94	1835690.97
CENTROID	MANHOLE	624607.74	1835690.14

* HORIZONTAL REF. DATUM = NAD83(1986 ADJ.)

ELEVATION VIEW PROPOSED INTERCONNECTION

HOR. SCALE: 1"=20'; VERT. SCALE: 1"=5' (24X36)



- UTILITY NOTES**
- UNDERGROUND FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE SURVEYS AND RECORDS; THEREFORE, THEIR LOCATION LOCATIONS MUST BE CONSIDERED APPROXIMATE ONLY. THERE MAY BE ADDITIONAL OF WHICH THEIR EXISTENCE IS NOT PRESENTLY KNOWN.
 - THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE OHIO UTILITIES PROTECTION SERVICE 24 HOURS AT 811 PRIOR TO DIGGING TO ASSURE THAT UTILITIES WITHIN THEIR SERVICE ARE PROPERLY MARKED.
- TRAFFIC CONTROL NOTES**
- LANE CLOSURES SHALL NOT BEGIN UNTIL CONTRACTOR HAS RECEIVED WRITTEN APPROVAL FROM OHIO DEPARTMENT OF TRANSPORTATION.
 - ALL SIGNAGE AND TRAFFIC CONTROL DEVICES MUST COMPLY WITH THE CURRENT OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD)

- EASEMENT NOTES**
- ODOT RECORDS INDICATE SR 316 ROW WIDTH IS 40', 20' FROM CENTERLINE IN THE AREA OF CONCERN FOR THE ROADWAY.
 - ADDITIONAL TEMPORARY EASEMENT WILL BE NEEDED FOR DIRECTIONAL OR JACK AND BORE EQUIPMENT. BORING CONTRACTOR SHOULD DETERMINE THE FOOT PRINT OF AREA REQUIRED FOR TEMPORARY EASEMENT NEEDED FOR CONSTRUCTION SERVICES AND RELAY INFORMATION TO OWNER SO THAT APPROPRIATE TEMPORARY EASEMENT CAN BE OBTAINED PRIOR TO INITIATION OF CONSTRUCTION.

- WATER MAIN NOTES**
- PROVIDE WARNING TAPE AT 18" DEPTH CENTERED OVER PIPE.
 - EXISTING STUB MAINS ARE ASSUMED, CONTRACTOR TO CONFIRM LOCATION, SIZE, AND CONDITION AND REPORT TO ENGINEER AND VILLAGE OFFICIALS.
 - WATER MAIN SHALL PASS OVER SEWERS PERPENDICULAR WITH 18" MIN. VERTICAL CLEARANCE.
 - MAINTAIN 10' MIN. HORIZONTAL SEPARATION BETWEEN NEW WATER MAIN AND EXISTING SEWERS.
 - WATER MAINS SHALL HAVE 48" MIN. COVER UNLESS OTHERWISE NOTED OR DETAILED ON THE DRAWINGS.
 - RESTORE ALL DITCH LINES DISTURBED DURING CONSTRUCTION TO ORIGINAL STATE INCLUDING FINAL FILL OF SETTLED SOIL.
 - ALL VALVES, FITTINGS, AND CONNECTIONS OF DIS-SIMILAR PIPE MATERIALS SHALL BE RESTRAINED W/MEGALUG RESTRAINING MECHANICAL JOINTS AND/OR CONCRETE (SEE THRUST BLOCK DETAIL).
 - CONTRACTOR SHALL BE RESPONSIBLE FOR

- REMOVAL AND REINSTALL OF MAIL/NEWSPAPER BOXES AND SIGNS AND UTILITY APPURTENANCES WHICH INTERFERE WITH THE WATER UTILITY CONSTRUCTION. RE-INSTALLATION SHALL BE COMPLETED BEFORE CONCLUSION OF THE WORK DAY.
- WATER LINE SHALL BE DIVERTED AROUND OR UNDER CULVERTS UNLESS OTHERWISE NOTED.
- MAXIMUM ALLOWABLE OFFSET FOR 20' LENGTH OF 8" C900 PVC IS 12.01" WITH MINIMUM RADIUS OF 200' FOR ARCS.
- THE MAXIMUM ALLOWABLE ANGLE OF DEFLECTION OF 8" C900 DR18 PVC IS 1 DEGREE LIMITING DEFLECTION FORCE TO 135.79 POUNDS.
- PVC PIPE (PC235 DR18) SHALL CONFORM TO AWWA C900 SPECIFICATION
- POLYETHYLENE PIPE SHALL CONFORM TO ANSI/AWWA STANDARD C906-90 (OR MOST RECENT EDITION) AND NSF 61. THE PIPE SHALL BE PE 3408 WITH AN SDR OF 11 AS DIRECTED BY THE OWNER AND BE RATED FOR A PRESSURE OF 200 P.S.I. MIN., RESPECTIVELY.
- INDIVIDUAL BOOSTER PUMPS WILL NOT BE ALLOWED FOR ANY INDIVIDUAL SERVICE (OHIO ADMINISTRATIVE CODE RULE 3745 95 07(A)).
- ALL MATERIALS INCLUDING PIPE, FITTINGS, VALVES AND HYDRANTS MUST BE SPECIFICALLY AWWA APPROVED (2007 RECOMMENDED STANDARDS FOR WATER WORKS, STANDARDS AND MATERIAL SELECTION, SECTION 8.1.1).
- THE NORMAL WORKING PRESSURE IN THE WATERLINES WILL NOT BE LESS THAN 35 PSI (2007 RECOMMENDED STANDARDS FOR WATER WORKS, PRESSURE, SECTION 8.2.1).
- CONTRACTOR IS RESPONSIBLE FOR PRESSURE TESTING AND DISINFECTING THE NEWLY CONSTRUCTED WATER MAINS AND THE RESPONSIBILITY FOR APPROVAL OF TESTS WITH THE OHIO EPA.
- PRESSURE TESTING WILL BE IN ACCORDANCE WITH AWWA C-600 FOR DI OR C-605 FOR PVC PIPES (2007 RECOMMENDED STANDARDS FOR WATER WORKS, SECTION 8.7.6).
- DISINFECTATION WILL BE IN ACCORDANCE WITH

- AWWA-651 (2003 RECOMMENDED STANDARDS FOR WATER WORKS, SECTION 8.7.7).
- WATER MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED GRAVITY SEWER, SEPTIC TANK, OR SUBSOIL TREATMENT SYSTEM.
- THE DISTANCE SHALL BE MEASURED EDGE TO EDGE. PLEASE NOTE THAT THE MEANING OF "SEWER" IN THIS SECTION INCLUDES BOTH SANITARY AND STORM SEWERS. (2003 RECOMMENDED STANDARDS FOR WATER WORKS, SECTION 8.8.2).
- A STATEMENT RELATING TO THE MINIMUM 18-INCH VERTICAL SEPARATION BETWEEN THE WATER LINES AND THE GRAVITY SEWER (SANITARY OR STORM) WHEN CROSSING. AT CROSSINGS, ONE FULL LENGTH OF THE WATER PIPE SHALL BE LOCATED SO THAT BOTH JOINTS WILL BE AS FAR AWAY FROM THE SEWER JOINTS AS POSSIBLE. (2003 RECOMMENDED STANDARDS FOR WATER WORKS, SECTION 8.8.3).

PLAN AND ELEVATION

STATE ROUTE 316
FROM A POINT 3960' ± WEST OF US23
TO A POINT 4524' ± WEST OF US23

SOUTH CENTRAL POWER COMPANY
Minimum Requirements: RESIDENTIAL METER LOCATION – METER PEDESTAL INSTALLATION - Underground
Single phase, 120/240 Volts, 3 wire service, 100 Amp. Minimum

GENERAL:

The consumer will supply and install a meter base sized appropriately for the electric service. The Company will supply and install underground service wire into meter pedestal and service attachments at Company underground facilities. All material supplied by the Company remains property of the Company.

All service equipment to be supplied and installed by Consumer, including (3") conduit from meter base to 12" below ground level. Conduit shall be rigid galvanized steel or rigid non-metallic (Schedule 40 PVC). It shall be of proper size as indicated on reverse side and securely fastened to side of meter by suitable clamps. Consumer shall install an adequate structure to support the meter pedestal installation. Structure must be (2) pressure treated timbers with a minimum of 2" x 8" x 8" (2" x 6" boards joined together are not acceptable). Back support shall be of pressure treated 3" x 2" x 8" x 4" or equivalent. Structure shall be set in the ground a minimum of three feet and the backfill shall be thoroughly tamped.

Meter pedestal installations must be provided with a UL approved main weatherproof disconnect switch box of proper size and must be within two feet after the Consumer's wire leaves the meter base.

GROUNDING:

Ground wire must be one continuous length without splice or joint from main switch to grounding electrode.
Driven ground rod shall be 5/8" x 8' copper clad or 5/8" x 8' solid galvanized steel, in undisturbed soil.
Ground rod clamp shall connect ground wire securely to the ground rod.

NOTES:

- All installation's to be made according to this sketch.
- All materials to be approved by the Underwriters Laboratories or equivalent.
- All wiring to be in accordance with the National Electrical Code.
- Always have a qualified electrician take care of your wiring needs.
- Consumers not following these minimum specifications will be refused service connection.
- Service connections and/or meter removal shall be done only by authorized company personnel.
- Ground fault circuit protection shall be used where required by local inspection authority, in accordance with Article 305-6, 1999 NEC.
- Reduced neutral may be allowed.

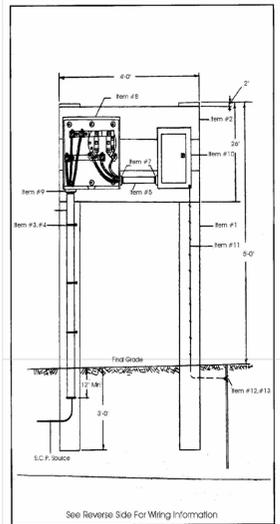
TRENCHING:

The trench specifications of 4" width and 36" depth are specified as minimum's and must be maintained at all times. The trench width specified are minimum and shall be increased as necessary to obtain the required depth in loose soil. Trenches are to be dug from within 2' or 3' of Company equipment and shall follow a straight line between staked points as close as possible. The trench shall be dug so that the bottom has a level grade and shall be relatively smooth with undisturbed earth, tamped earth or sand. Consumer shall remove all rocks, stones and gravel from the bottom and sides of the trench. Where this cannot be done, conduit (Schedule 40 PVC) minimum 8" or a three inch layer of clean masonry sand shall be placed in the bottom of the trench and clean soil used for proper backfill. TRENCH SHALL NOT BE BACKFILLED WITH EXCESS CONSTRUCTION MATERIALS SUCH AS CONCRETE BLOCK, LUMBER, DRYWALL, ETC.

Construction shall be coordinated with the Company's Service Department so that trenches will be left open for the shortest practicable time to avoid creating a hazard to the public and to minimize the likelihood of trench collapse due to other construction activity, rain, accumulation of water in the trench, etc. All trenches parallel to the building foundation shall be no closer than four (4) feet. The trench shall be backfilled as described as soon as possible after the placing of the cable. The top twelve inches of such backfill shall be well tamped while backfilling and shall be tamped over the top of the ditch to provide for setting of the backfill. Conduit shall be installed under landscaping, driveways, patios or other paved areas. Conduit may be either galvanized steel or Schedule 40 PVC. If patio, deck or similar structure may be built in the future and said construction is within 3 feet of the Company's service facilities, the Company will require the same be installed in conduit (Schedule 40 PVC). The minimum size allowed shall be 3" and installed with a pull rope. ONLY COMPANY service cable permitted in conduit. Customer cable, water mains, gas mains and sewage pipes shall not be installed in a trench containing cables owned, installed and maintained by the Company.

***** BEFORE ANY DIGGING FOR SAFETY'S SAKE CALL OUPS (1-800-362-2764) *****

FORM 3-79-NEP- Revised 7-03



See Reverse Side For Wiring Information

WIRING DIAGRAM MATERIAL SPECIFICATIONS:

100 Amp Underground Meter Pedestal Installation

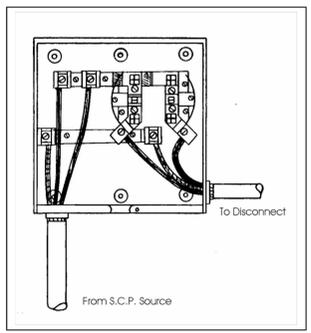
ITEM	MATERIAL	100 AMP SERVICE
1	2'-4" x 8" x 8" Timber (Pressure Treated)	
2	3'-2" x 8" x 4" (Pressure Treated) or equivalent	#4
3	Service entrance cable, Type SE - (Copper)	#2
3	Service entrance cable, Type SE - (Aluminum)	#2/0
3	COPPER WIRE, Type THHN/THWN - installed in conduit	#4
3	ALUMINUM WIRE, Type THHN/THWN - installed in conduit	#2
4	Conduit - PVC or Galvanized - Minimum size for Company service cable/conductors as required	3"
5	Conduit - PVC or Galvanized - Minimum size for Consumer service entrance cable/conductors - if required	2"
6	Cable or conduit clamp - spaced 18" maximum	
7	Waterlight connector - (for cable or conduit)	
8	Water base - must be supplied by the consumer and approved by the Company	
9	Non-waterlight connector - (for cable or conduit)	
10	Waterproof disconnect switch box - as required	100 AMP
11	Continuous ground wire from main disconnect switch box to ground rod	#4
11	Continuous ground wire from main disconnect switch box to ground rod	Bare Copper
12	Ground Rod: 5/8" x 8' copper clad or 5/8" x 8' galvanized steel	
13	Ground Rod Clamp	

When ready for service connection, please call the Area Service Department at:
Lancaster: 1-800-262-5064
Canal Winchester: 1-800-424-0802
Circleville: 1-800-206-0745
Hillsboro: 1-800-207-0020
Barnesville: 1-800-468-4717

BEFORE ANY DIGGING FOR SAFETY'S SAKE CALL OUPS (1-800-362-2764)

150 Amp Underground Meter Pedestal Installation

ITEM	MATERIAL	150 AMP SERVICE
1	2'-4" x 8" x 8" Timber (Pressure Treated)	
2	3'-2" x 8" x 4" (Pressure Treated) or equivalent	#1
3	Service entrance cable, Type SE - (Copper)	#2/0
3	Service entrance cable, Type SE - (Aluminum)	#2/0
3	COPPER WIRE, Type THHN/THWN - installed in conduit	#1
3	ALUMINUM WIRE, Type THHN/THWN - installed in conduit	#2/0
4	Conduit - PVC or Galvanized - Minimum size for Company service cable/conductors as required	3"
5	Conduit - PVC or Galvanized - Minimum size for Consumer service entrance cable/conductors - if required	2"
6	Cable or conduit clamp - spaced 18" maximum	
7	Waterlight connector - (for cable or conduit)	
8	Water base - must be supplied by the consumer and approved by the Company	
9	Non-waterlight connector - (for cable or conduit)	
10	Waterproof disconnect switch box - as required	150 AMP
11	Continuous ground wire from main disconnect switch box to ground rod	#4
11	Continuous ground wire from main disconnect switch box to ground rod	Bare Copper
12	Ground Rod: 5/8" x 8' copper clad or 5/8" x 8' galvanized steel	
13	Ground Rod Clamp	



200 Amp Underground Meter Pedestal Installation

ITEM	MATERIAL	200 AMP SERVICE
1	2'-4" x 8" x 8" Timber (Pressure Treated)	
2	3'-2" x 8" x 4" (Pressure Treated) or equivalent	#2/0
3	Service entrance cable, Type SE - (Copper)	#4/0
3	Service entrance cable, Type SE - (Aluminum)	#4/0
3	COPPER WIRE, Type THHN/THWN - installed in conduit	#2/0
3	ALUMINUM WIRE, Type THHN/THWN - installed in conduit	#4/0
4	Conduit - PVC or Galvanized - Minimum size for Company service cable/conductors as required	3"
5	Conduit - PVC or Galvanized - Minimum size for Consumer service entrance cable/conductors - if required	2"
6	Cable or conduit clamp - spaced 18" maximum	
7	Waterlight connector - (for cable or conduit)	
8	Water base - must be supplied by the consumer and approved by the Company	
9	Non-waterlight connector - (for cable or conduit)	
10	Waterproof disconnect switch box - as required	200 AMP
11	Continuous ground wire from main disconnect switch box to ground rod	#4
11	Continuous ground wire from main disconnect switch box to ground rod	Bare Copper
12	Ground Rod: 5/8" x 8' copper clad or 5/8" x 8' galvanized steel	
13	Ground Rod Clamp	

FORM 3-79-NEP- Revised 7-03

NOTE: STANCHIONS FOR ELECTRICAL SERVICE TO BE WIDENED FROM ABOVE DRAWING AND NEMA 4X BOX INSTALLED BESIDE SHUT OFF FOR W.P. ENCLOSURE TO HOUSE CONTROLS AND REMOTE READOUT FOR MAG METER. W.P. 100 AMP D.P. MUST ALSO BE INSTALLED BESIDE CONTROL PANEL.

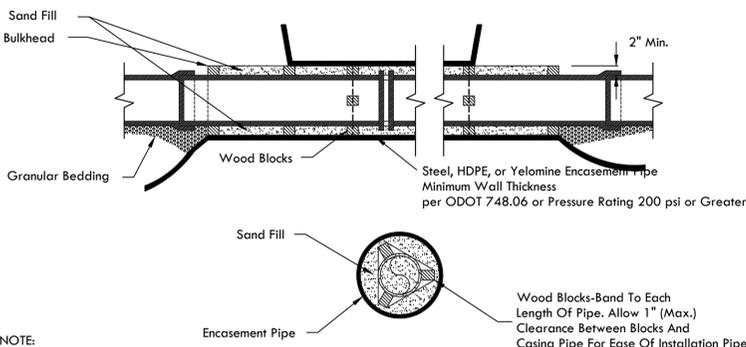
ELECTRICAL SERVICE

NOTE: ELECTRICAL SERVICE MUST BE APPROVED BY SPCP OHIO AND INSTALLED PER SPCP SPECIFICATIONS AND GUIDELINES AND THE STANDARDS LISTED IN THE LATEST VERSION OF THE N.E.C.

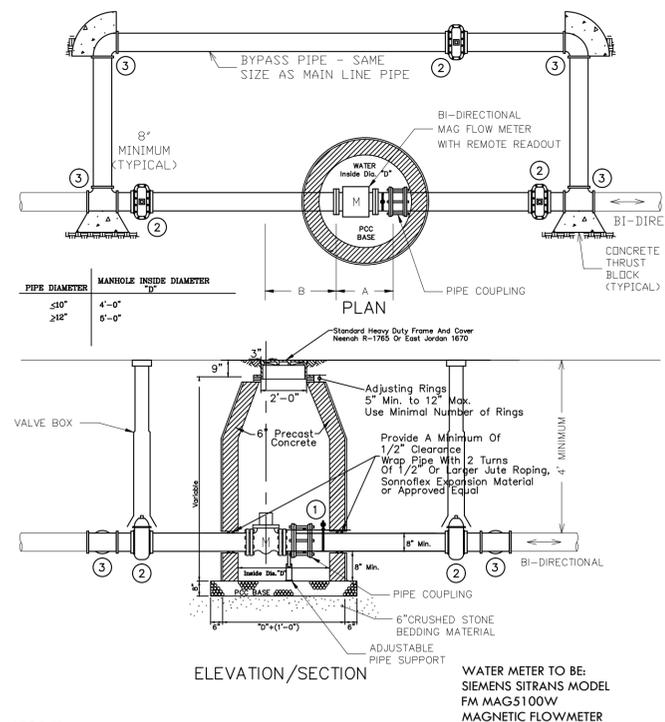
BORING:

WHERE REQUIRED WATER SUPPLY LINE SHALL BE INSTALLED WITHIN STEEL, HDPE, OR YELOMINE PVC ENCASUREMENT PIPE MEETING ASTM A139, D2239, OR D2241, RESPECTIVELY. THE ENCASUREMENT PIPE SHALL BE WELDED, WITHOUT JOINT OR OTHERWISE RESTRAINED PER MANUFACTURE'S RECOMMENDATION. IF STEEL IS UTILIZED, THE ENCASUREMENT PIPE SHALL HAVE A MINIMUM TENSILE STRENGTH OF 60,000 PSI AND A MINIMUM YIELD STRENGTH OF 35,000 PSI. MAXIMUM WALL THICKNESS SHALL BE PER ODOT ITEM 748.06 OR FOR PLASTIC PIPE HAVE A PRESSURE RATING OF 200 PSI OR GREATER. THE MINIMUM INSIDE DIAMETER OF ENCASUREMENT PIPE SHALL BE THE OUTSIDE DIAMETER OF THE BELL PLUS (+) FOUR (4) INCHES.

THE ENCASUREMENT PIPE SHALL BE INSTALLED BY BORING AND JACKING AND IN SUCH A MANNER SO AS TO ALLOW THE PIPE TO BE LAID AT THE PROPER GRADE. WHEN POSSIBLE, THIS OPERATION SHALL BE CONTINUOUS (AROUND THE CLOCK UNTIL COMPLETE) AND CONDUCTED SO AS NOT TO INTERFERE WITH, INTERRUPT OR ENDANGER THE OPERATION OF TRAFFIC NOR DAMAGE, DESTROY, OR ENDANGER THE INTEGRITY OF THE ROADWAY/ RAILROAD FACILITIES.



WATER LINE BORING DETAIL
NOT TO SCALE



LEGEND:

- 3/4" INCH TAPPING SADDLE w/FT OUTLET THREADS AND 3/4" INCH CURB STOP w/MPT ENDS, PADLOCK WINGS AND THREADED CAP ON OUTLET
- NON-RISING STEM MECHANICAL JOINT GATE VALVE (OPEN RIGHT) w/MECHANICAL JOINT RESTRAINT
- MECHANICAL JOINT FITTING w/MECHANICAL JOINT RESTRAINT

METER PLUMBING PLAN & SECTION

CONSUMER PROCEDURES FOR OBTAINING SERVICE

RE: Work Order # _____ Document # _____

Initial Phase

- During the engineer phase, cost estimates and construction drawings are prepared. The engineer will gather information about existing facilities, service routes and site conditions. If needed the engineer will apply for easements and government permits.
- Consumers should allow 5 working days from the time they meet with the engineer in the field until paperwork is completed. At this time if aid to construction is required, a letter will be sent to the consumer.
- If easement needs obtained, government permits or aid to construction cost is required, paperwork will be held in the engineering department until completion of these items. Otherwise all paperwork will be released to Operations.

Consumer Responsibilities

- Tree Trim/Cut Required
- If required, aid to construction costs must be paid, there may be additional consumer responsibilities to be completed as well (i.e. tree trimming, easements, installation of septic**), before construction of electric facilities can be scheduled.
 - Wiring for overhead service must be completed as per specification sheet. Underground service specifications include mounting a meter base and opening a trench.
 - Once all requirements are satisfied, paperwork is released for construction to the Operations Department. Please contact your local Area Supervisor for schedule of construction.
 - All tree trimming must follow tree cutting specification sheet.
 - Meter location is determined to be at: _____

Trenching

- Required (see trenching specification sheet)
- Contact your Area Supervisor, a minimum of 2 business days, prior to trenching to verify and coordinate job.
 - If trenching to an existing pole or padmount, trench must go all the way to pole or padmount.
 - If trenching to a new pole, pole must be set prior to trenching.
 - Make sure you have current trenching specifications.
 - Contact OUPS 48 hours prior to any digging.

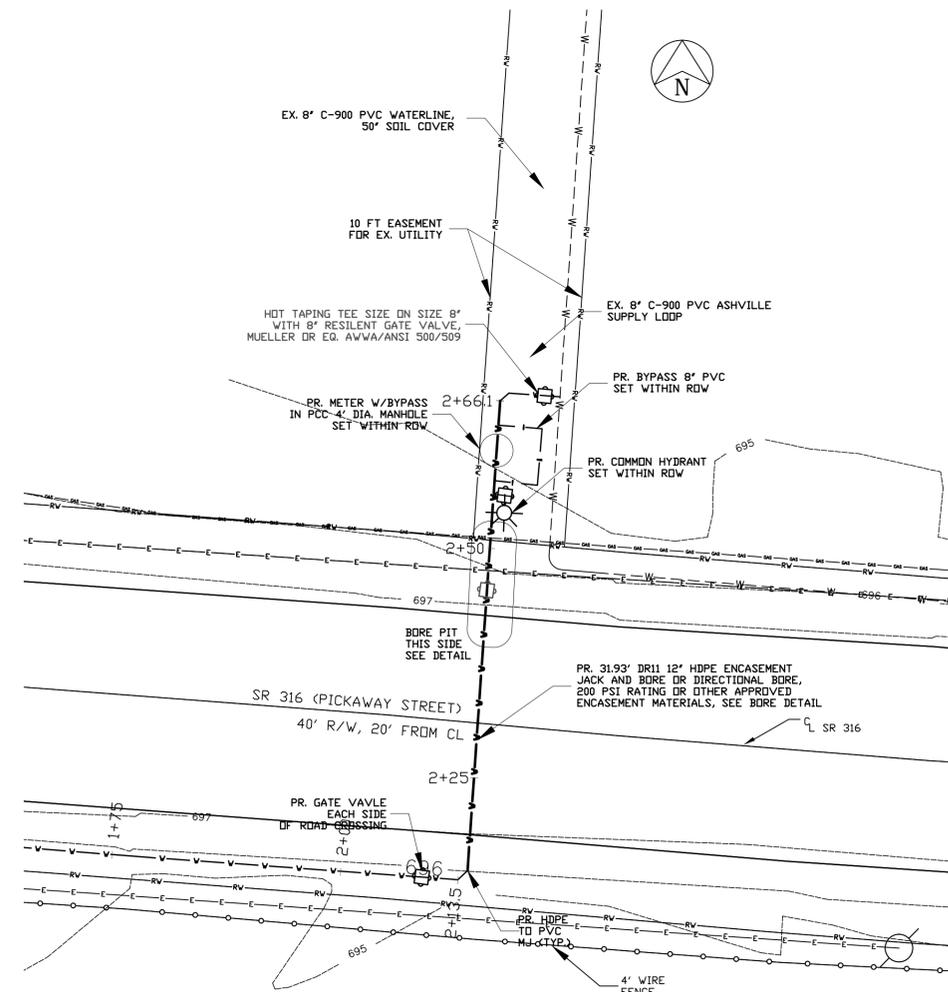
If you did not give a copy to the engineer at the time of initial visit, please send copy of the Deed, Plat, Well Permit and Septic Permit to: South Central Power c/o Engineering Department. Please reference WORK ORDER NUMBER listed above.

Additional charges may apply from not properly following the above procedures.

*If digging, call OUPS (Ohio Utility Protection Service) 1-800-362-2764
** Certain installations only

Lancaster Office (740) 653-4422 (800) 262-5064	Canal Winchester (614) 857-4351 (800) 524-0802	Circleville Office (614) 474-0045 (800) 206-0745	Hillsboro Office (937) 393-3421 (800) 307-0020
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Revised May 20, 2008



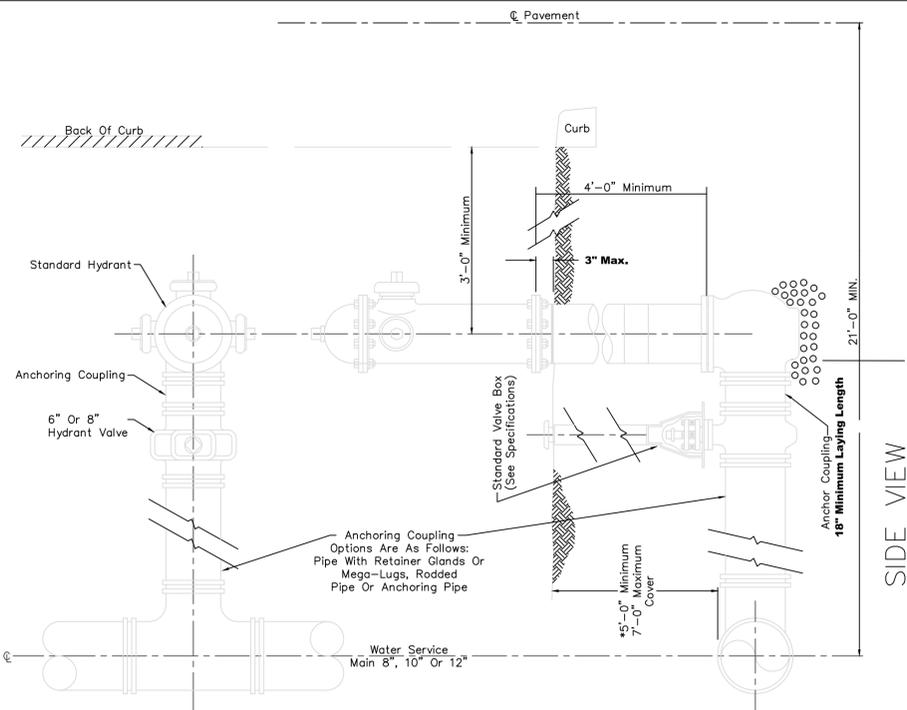
INTERCONNECTION LAYOUT
SCALE: 1" = 10'

CALCULATED
CLH
CHECKED
CLH

DETAILS AND NOTES

STATE ROUTE 316
FROM A POINT 3960' ± WEST OF EUS23
TO A POINT 4524' ± WEST OF EUS23

4
5



TOP VIEW

SIDE VIEW

* Hydrant Length = Ground Cover + 6"

Residential Application
8" x 6"
10" x 6"
12" x 6" Standard
Or Hydrant Tee

Industrial Application
8" x 8"
10" x 8"
12" x 8" Standard
Or Hydrant Tee

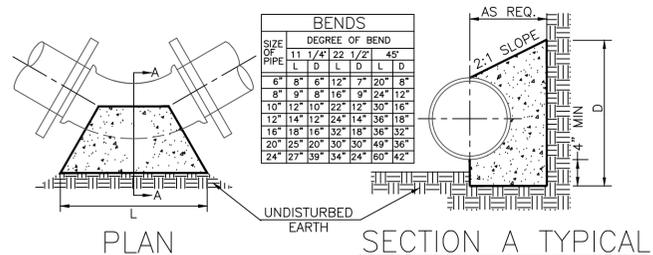
NOTE:
IF HYDRANT IS LOCATED WITHIN 10 FEET OF A SANITARY SEWER OR STORM SEWER, HYDRANT DRAIN HOLES SHALL BE PLUGGED. DRAINAGE PIT IS NOT REQUIRED.

Provide Drainage Pit 2'-0" Diameter, 3'-0" Deep At Bottom of Hydrant. Per ODOT Item 638.14 Backfill Material Shall Be Clean #57 Material.

Current Application
8" x 6"

NOTE: CONTRACTOR TO ASSURE DRAIN HOLES ABOVE SEASONAL HIGH GROUNDWATER TABLE IS OPEN AND FREE DRAINING AND THOSE DRAIN HOLES BELOW SEASONAL HIGH GROUND WATER TABLE ARE SEALED. FOR THOSE HYDRANT INSTALLED TO DRAIN, CONTRACTOR TO ASSURE AT LEAST 6 CU FT. OF CLEAN #57 DRAINAGE GRAVEL IS AT BASE OF HYDRANT BELOW GRADE OF DRAIN HOLE FOR HYDRANT DRAINAGE.

TYPICAL HYDRANT DETAIL

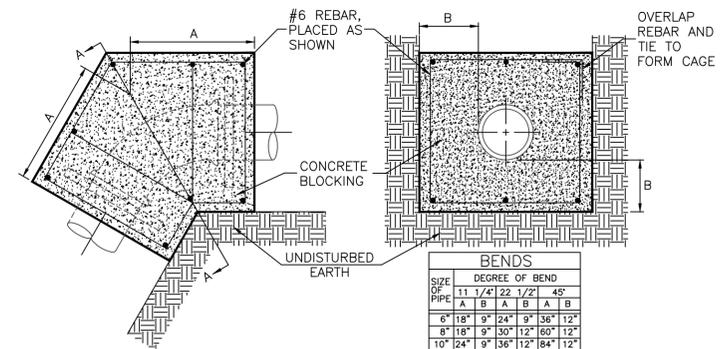


PLAN

SECTION A TYPICAL

BENDS 45° AND UNDER

N.T.S.



ELEVATION

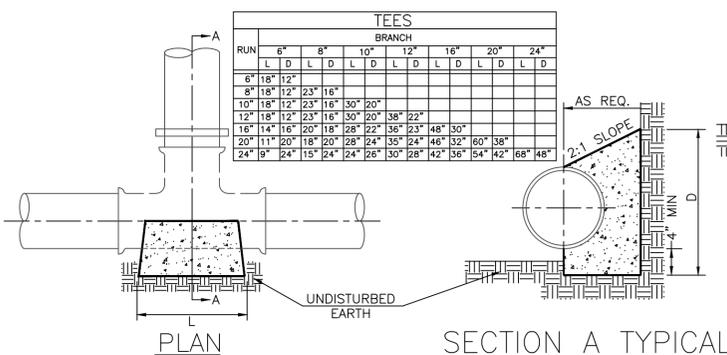
SECTION A TYPICAL

TOP VERTICAL BENDS

N.T.S.

BLOCKING NOTES:

1. BLOCKING SHALL BE CLASS "C" CONCRETE
2. BLOCKING REQUIRED AT ALL BENDS
3. FACE OF EACH BLOCK MUST BE PERPENDICULAR TO THE LINE OF THRUST
4. FITTINGS TO BE WRAPPED WITH 4 MIL PLASTIC TO PREVENT CONCRETE CONTACTING BOLTS, GLANDS, AND NUTS
5. CONCRETE TO BE POURED AGAINST UNDISTURBED EARTH ON THE THRUST SIDE
6. D.I. RETAINER GLANDS TO BE USED IN ADDITION TO CONCRETE THRUST BLOCKING
7. 3/4" REINFORCING BARS TO BE USED IN HIGH PRESSURE ZONES AS DIRECTED BY THE CCSD
8. RUDIMENTARY FORMS USED TO CONTAIN CONCRETE IN THRUST AREA

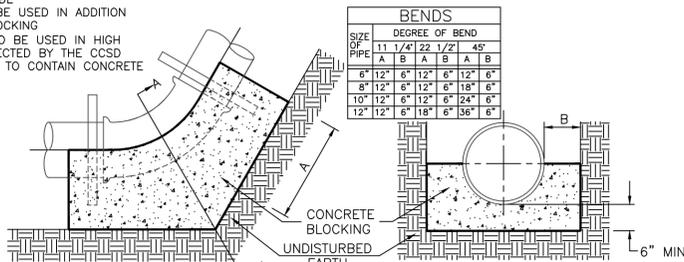


PLAN

SECTION A TYPICAL

TEES

N.T.S.



ELEVATION

SECTION A TYPICAL

BOTTOM VERTICAL BENDS

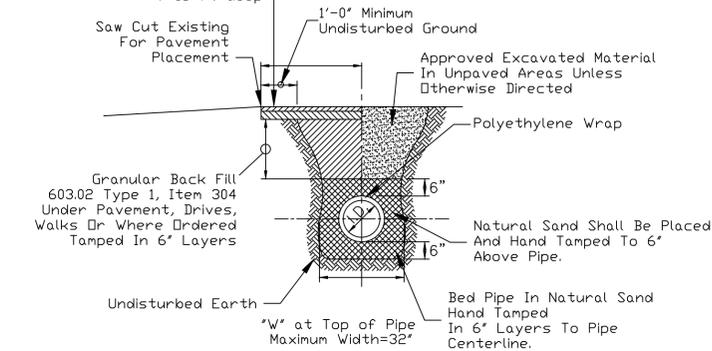
N.T.S.

HYDRANT AND VALVES NOTES:

1. RESILIENT-SEALED GATE VALVES 12-INCH AND SMALLER SHALL BE NON-RISING STEM VALVES LIMITED TO VALVES MADE BY AMERICAN, KENNEDY, MUELLER, US PIPE, EJIW, OR CLOW VALVE COMPANIES MEETING AWWA C509 OR C515. RESILIENT-SEALED GATE VALVES SHALL BE DESIGNED FOR 250 PSI WORKING PRESSURE AND TESTED AT 500 PSI HYDROSTATIC PRESSURE. VALVES ARE TO OPEN BY TURNING RIGHT, OR CLOCKWISE AND SHALL BE FURNISHED WITH A 2-INCH SQUARE OPERATING NUT WITH THE DIRECTION INDICATED BY A CLEARLY VISIBLE ARROW CAST INTO THE VALVE. VALVES SHALL BE SUPPLIED WITH O-RING SEALS AT ALL JOINTS. NO FLAT GASKETS WILL BE ACCEPTED. NUTS AND BOLTS SHALL BE 304 STAINLESS STEEL.
2. HYDRANTS SHALL BE LIMITED TO MUELLER SUPER CENTURION 250 (A-423) OR KENNEDY GUARDIAN K-81A MEETING AWWA C502, OR EQUIVALENT APPROVED BY OWNER. PUMPER NOZZLE SHALL BE 5 INCHES INTERNAL DIAMETER WITH STORZ

CONNECTOR FROM HARRINGTON, INC. STORZ CONNECTOR SHALL BE AN INTEGRAL PART OF THE HYDRANT ASSEMBLY. NUTS AND BOLTS EXPOSED TO SOIL SHALL BE 304 STAINLESS STEEL HYDRANT EXTERIOR SHALL BE SHOP COATED USING PITTSBURGH PAINT BRILLIANT RED (SAFETY RED) 7-801 INDUSTRIAL ENAMEL WITH WHITE BONNET. AFTER THE HYDRANT IS INSTALLED, THE CONTRACTOR SHALL PAINT THE HYDRANT WITH ONE COAT OF PAINT APPROVED BY CLIENT. STORZ CONNECTOR AND CAP ARE NOT TO BE PAINTED.

Maximum Pavement Restoration Pay Limit (Curbs, Bases, and Flexible Pavement) When Pavement Restoration is a Separate Pay Item:
w/2+2 ft for trench depths < 16 ft deep
w/2+4 ft for trench depths > 16 ft deep

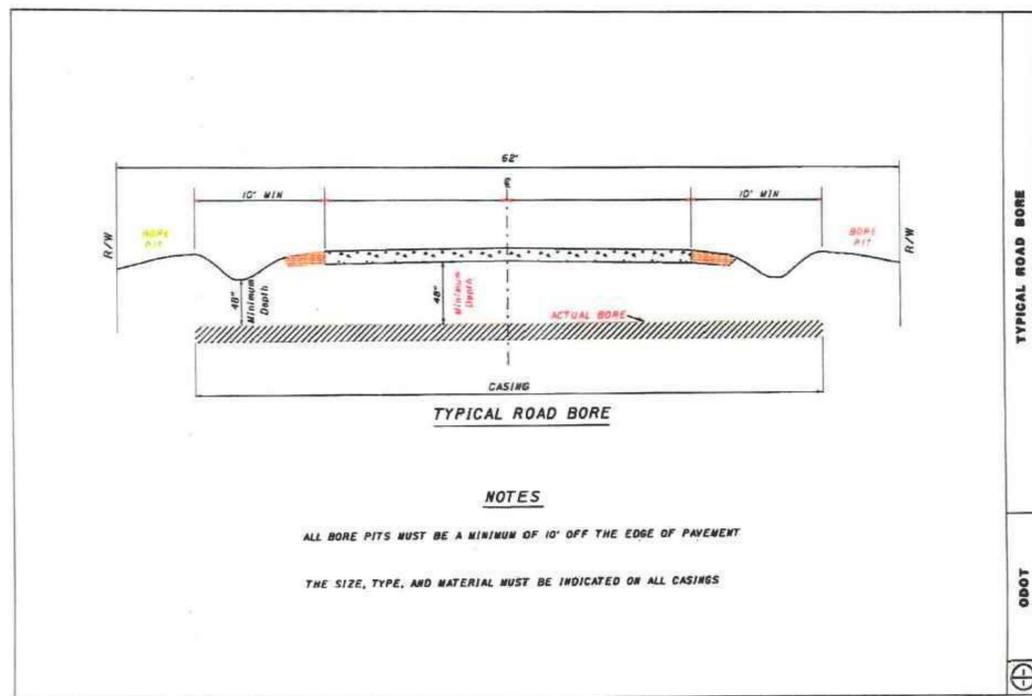


PVC PIPE TRENCH DETAIL

Road Bore

1. Staking is required for all bores, showing the exact location with stakes at each side of the roadway.
2. Type of bore, pipe size and type, depth under roadway and location of bore pits from edge of pavement must be included on all permits.
3. Encasement pipe shall be installed a minimum of 4ft below any highway or ditch bottom.
4. Bore pits / excavation areas shall be located as close to the right of way line as possible and shall be protected or closed when work is not being performed.
5. The length of the bore or push shall be the width of the right of way on each side of the roadway, unless otherwise noted on the permit.
6. The distance augered ahead of the casing shall be kept as short as possible and at no time shall the distance exceed 12". Under no circumstances will water jetting be permitted from excavation of material ahead of the casing or for the removal of spoil from the casing.
7. There will be no open cutting of any pavement.
8. All backfill shall be performed in accordance with the provisions set forth under Construction Specifications Item 602 and piling of earth over trench for future settlement will not be permitted.
9. The sides of all excavations shall be protected from caving by providing suitable sheeting and bracing. All sheeting and bracing shall be carefully removed as the backfilling of the trench progresses. Backfill shall follow completion of the work as closely as possible. After the backfilling has been completed, the contractor shall immediately remove all surplus material, dirt and rubbish from the site.
10. Stop signs shall not be disturbed, and if it becomes necessary to remove a stop sign, a portable stop sign shall be erected before the permanent sign is removed. The permanent sign shall be re-erected immediately after the installation is complete.
11. All Ohio Department of Transportation guide signs shall be re-erected the same day as removed or as directed by the State Inspector in accordance with the Manual of Uniform Traffic Control Devices.
12. The permittee shall be responsible for any utility relocation as a result of the proposed work.
13. All traffic shall be maintained as per the applicable sections of the Ohio Manual of Uniform Traffic Control Devices and Item 614 of the Construction and Materials Specifications Manual.
14. You must contact the ODOT transportation administrator or transportation manager 48 hours prior to starting any work and upon completion.
15. A copy of the permit and approved plans must be on site at all times while work is being performed within the state right-of-way.

ODOT ROADBORE NOTES



NOTES

ALL BORE PITS MUST BE A MINIMUM OF 10' OFF THE EDGE OF PAVEMENT

THE SIZE, TYPE, AND MATERIAL MUST BE INDICATED ON ALL CASINGS

CALCULATED
CLH
CHECKED
CLH

DETAILS AND NOTES (CONT.)

STATE ROUTE 316
FROM A POINT 3960' ± WEST OF €US23
TO A POINT 4524' ± WEST OF €US23

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