500 - GENERAL

UTILITIES AGENTS

CITY OF PIQUA - WATER DEPT.
9300 NORTH ST. RT. 66
PIQUA, OHIO 45356
1-937-778-2090

CITY OF PIQUA - STREET DEPT.
859 SOUTH MAIN STREET
PIQUA, OHIO 45356
1-937-778-2095

CITY OF PIQUA - WASTEWATER PLANT
121 BRIDGE STREET
PIQUA, OHIO 45356
1-937-778-2088

CITY OF PIQUA - ELECTRIC DEPT.
123 BRIDGE STREET
PIQUA, OHIO 45356
1-937-778-2077

PIONEER RURAL ELECTRIC - POWER SERVICE
344 WEST U.S. RT. 36
PIQUA, OHIO 45356
JIM RUDD: 773-2523

DPL - POWER SERVICE
2385 CAMPBELL ROAD
SIDNEY, OHIO 45365
DAVE MILLER: 937-331-3692

VECTREN - GAS SERVICE
1300 EXPERIMENT FARM ROAD
TROY, OHIO 45373
BRENT VAN SKIVER: 440-1966

TIME WARNER CABLE - CABLE SERVICE
3691 TURNER ROAD
DAYTON, OHIO 45415
937-425-8858

SBC - PHONE SERVICE
3233 WOODMAN DR., ROOM 225
DAYTON, OHIO 45420
JUDY THOMPSON: 937-296-3542

OHIO UTILITIES PROTECTION SERVICE
3 WORKING DAYS BEFORE YOU DIG
TOLL FREE 1-800-362-2764

SEEDING

A. ALL AREAS DESIGNATED FOR SEEDING SHALL HAVE A MINIMUM OF 6" OF TOPSOIL OVER THE ENTIRE AREAS. THE AREA SHALL BE RAKED, ROLLED, AND DRESSED READY FOR SEEDING. NO STONE OVER 1" IN SIZE PERMITTED.

DRAINS

A. ALL FIELD OR STORM DRAINS WHICH ARE ENCOUNTERED DURING CONSTRUCTION SHALL BE REPAIRED AND PROVIDED WITH UNOBSTRUCTED OUTLETS AS APPROVED AND DIRECTED BY THE CITY AND MARKED ON THE RECORD DRAWINGS.

CONNECTIONS TO EXISTING PIPE

A. WHERE THE PLANS PROVIDE FOR PROPOSED CONDUIT TO BE CONNECTED TO, OR TO CROSS EITHER OVER OR UNDER AN EXISTING SEWER, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE EXISTING PIPE BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

UTILITY SEPARATION

A. ANY UNDERGROUND UTILITIES SUCH AS GAS, ELECTRIC, CABLE TV, TELEPHONE, ETC., SHALL HAVE 10' SEPARATION FROM ANY CITY UTILITY UNLESS OTHERWISE APPROVED.

UTILITIES

A. THE MAXIMUM LENGTH OF ANY UTILITY TRENCH TO BE OPEN AT ANY TIME SHALL BE 250' UNLESS OTHERWISE APPROVED.

COMPACTION METHODS

A. FLOODING SHALL NOT BE PERMITTED.

B. MECHANICAL DEVICES, HAND DEVICES, VIBRATING PLATES OR OTHER EQUIPMENT APPROVED BY THE CITY IS ACCEPTABLE 1' ABOVE PIPE IN UNIFORM LIFTS OF 12" (LOOSE DEPTH) OF EXISTING NATIVE MATERIAL AND 6" OF GRANULAR BACKFILL. THE HEIGHT OF LIFTS WILL DEPEND UPON THE TYPE OF MECHANICAL EQUIPMENT BEING USED. THE HEIGHT WILL BE 6" FOR HAND OPERATED TOOLS AND UP TO 12" ON EQUIPMENT MOUNTED TOOLS. THE COMPACTION EQUIPMENT SHALL BE CAPABLE OF COMPACTING THE MATERIAL UNDER THE HAUNCH OF THE PIPE.

C. DENSITY FOR THE ABOVE METHODS SHALL BE NO LESS THAN THAT OF THE SURROUNDING GROUND UNLESS OTHERWISE SPECIFIED.

DISPOSAL OF SURPLUS MATERIAL

A. THE CITY MAY AT THEIR DISCRETION REQUIRE THAT SURPLUS MATERIAL BE DEPOSITED AT A LOCATION DESIGNATED WITHIN A TWO-MILE RADIUS OF THE WORK SITE.

TYPICAL NOTES - ALL SUBDIVISION CONSTRUCTION DRAWINGS

A. ALL CONSTRUCTION METHODS AND MATERIALS SHALL COMPLY WITH THE CITY ENGINEERING STANDARDS OR ODOT WHICHEVER IS MORE RESTRICTIVE.

B. ALL COMPACTION SHALL MEET THE CITY REQUIREMENTS. IF TESTING OF COMPACTED AREAS IS REQUESTED BY THE CITY, SAID TESTING SHALL BE PERFORMED AT THE EXPENSE OF THE DEVELOPER.

C. THE CITY WILL LOCATE AREAS IN NEED OF UNDERCUTTING UNLESS THE DEVELOPER CHOOSES TO HAVE AT HIS EXPENSE AN INDEPENDENT APPROVED TESTING COMPANY TO DETERMINE UNSUITABLE MATERIAL AREAS THAT NEED UNDERCUTTING.

D. ALL EMBANKMENT AREAS SHALL BE COMPACTED TO A MINIMUM OF 95% OF ASTM D698 STANDARD PROCTOR CURVE AND TESTED TO REPRESENT A DEPTH OF 12" UNLESS OTHERWISE SPECIFIED BY THE CITY.

E. ALL UNPAVED AREAS WITHIN THE STREET RIGHT-OF-WAY SHALL BE SEEDED WITHIN 48 HOURS AFTER THE CURB IS BACKFILLED. STAKED STRAW BALES MAY BE REQUIRED IN ADDITION TO SEEDING TO CONTROL EROSION IF REQUESTED BY THE CITY.

F. STORM WATER POLLUTION PREVENTION SHOULD BE A HIGH PRIORITY ON ALL CONSTRUCTION PROJECTS. ON ALL PROJECTS WHICH DISTURB AT LEAST 1 ACRE OF SOIL, A NPDES PERMIT IS REQUIRED FROM OEPA AND A COPY OF THE PERMIT MUST BE ON FILE AT THE CITY OFFICE BEFORE CONSTRUCTION BEGINS.

BORING/JACKING

A. MATERIALS.

CASING PIPE SHALL BE WELDED STEEL PIPE CONFORMING TO AWWA C-202.

B. INSTALLATION (CASING PIPE).

1. FURNISH PROCEDURE METHODS TO THE CITY FOR APPROVAL.
2. ALL METHODS AND PROCEDURES SHALL BE APPROVED BY THE CITY PRIOR TO CONSTRUCTION.
3. ADEQUATELY SUPPORT ALL TRENCHES AND BORING/JACKING PITS.
4. INSTALL TO LINE AND GRADE SHOWN.

C. INSTALLATION (CARRIER PIPE).

1. PLACE CONDUITS IN CASING PIPE TO SAME RELATIVE POSITIONS AS ADJACENT DUCT BY USE OF SPACERS.
2. FILL THE SPACE BETWEEN CONDUITS INSIDE THE CASING PIPE WITH CLEAN SAND OR OTHER APPROVED MATERIALS AS PROVED BY THE CITY.

STEEL CASING PIPE

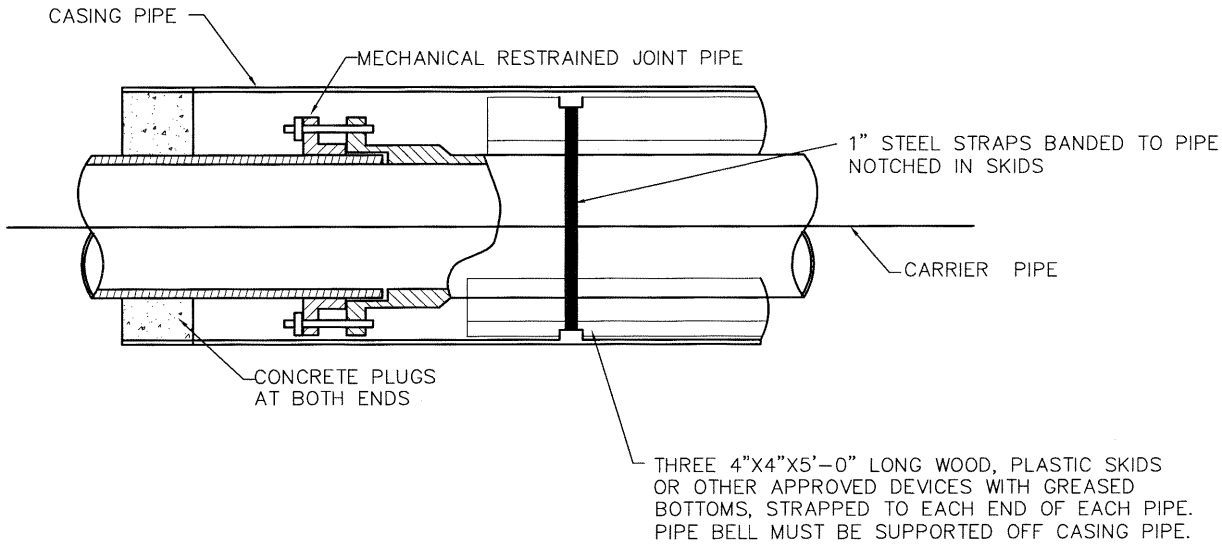
A. STEEL PIPE SHALL HAVE A MINIMUM YIELD STRENGTH OF 35,000 PSI.

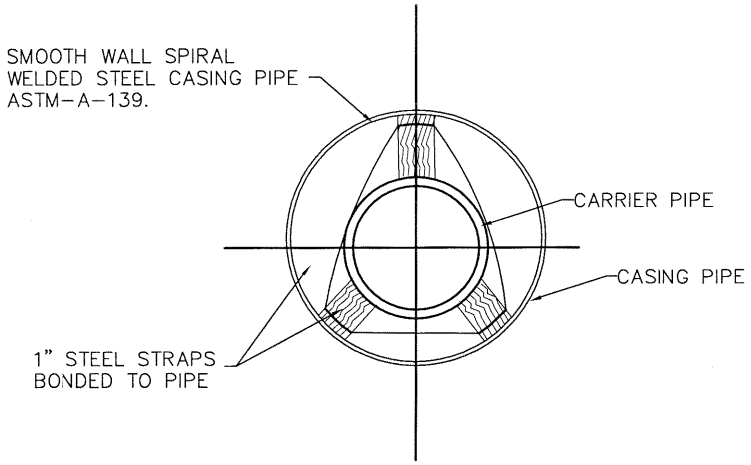
B. JOINTS BETWEEN THE SECTIONS OF PIPE SHALL BE FULLY WELDED AROUND THE COMPLETE CIRCUMFERENCE OF THE PIPE.

C. SIZE-A MINIMUM OF 4" GREATER THAN THE LARGEST OUTSIDE DIAMETER OF THE CARRIER PIPE.

D. A STEEL CASING PIPE WILL BE REQUIRED FOR STORM SEWER, WATERMAIN, AND SANITARY SEWER.

DIAMETER NOMINAL (INCHES)	NOMINAL THICKNESS (INCHES)
10 AND UNDER	0.188
12 & 14	0.250
16	0.281
18	0.312
20 & 22	0.344
24	0.375
26	0.406
28	0.438
30	0.469
32	0.500
34 & 36	0.532
38	0.562
40	0.594
42	0.625
44 & 46	0.657
48	0.688
50	0.719
52	0.750
54	0.781
56 & 58	0.812
60	0.844
62	0.875
64	0.906
66 & 68	0.938
70	0.969
72	1.000





CITY OF PIQUA CHOICE ONE ENGINEERING	# CASING PIPE DETAIL	REVISIONS:	DATE APPROVED: AUG. 2008 PAGE No. 500-3

NOTES

LISTED BELOW ARE CONSTRUCTION REGULATIONS GOVERNING CONSTRUCTION ACTIVITIES IN THE VICINITY OF TREES. THE FOLLOWING REGULATIONS APPLY TO ALL TYPES OF CONSTRUCTION ACTIVITY, BEING PERFORMED WITHIN OR IN CLOSE PROXIMITY TO PUBLIC RIGHT-OF-WAY AND EASEMENTS.

A. FOR TREES MEASURING 38 INCH CIRCUMFERENCE (EQUIVALENT 12" DIAMETER) OR LESS, SOIL EXCAVATION WORK OR ROOT CUTTING SHALL NOT OCCUR CLOSER THAN 3 FEET FROM THE OUTER BARK OF THE TREE. THE CIRCUMFERENCE OF THE TREE HERE AND ELSEWHERE IN THESE REQUIREMENTS SHALL BE TAKEN 2 FEET ABOVE GROUND LEVEL. FOR MULTI-STEMMED TREES, THE CIRCUMFERENCE SHALL BE TAKEN AT THE NARROWEST POINT WITHIN THE FIRST 2 FEET ABOVE THE GROUND SURFACE.

B. FOR TREES MEASURING GREATER THAN 38 INCH CIRCUMFERENCE, SOIL EXCAVATION WORK OR ROOT CUTTING SHALL NOT OCCUR CLOSER THAN THE DISTANCE MEASURED BY THE CIRCUMFERENCE OF THE TREE, OR A MAXIMUM DISTANCE OF 6 FEET, WHICHEVER IS LESS.

C. SOIL EXCAVATION WORK IS PERMITTED CLOSER THAN THE DISTANCE PARAMETERS ESTABLISHED UNDER THE ABOVE TWO CATEGORIES, PROVIDED ALL EXCAVATION OF SOIL IS ACCOMPLISHED BY HAND SHOVEL OR AUGER, AND NO ROOTS GREATER THAN 2 INCH DIAMETER ARE SEVERED.

D. IF THERE IS AN INABILITY TO PERFORM THE REQUIREMENTS ESTABLISHED UNDER THE AFOREMENTIONED THREE SITUATIONS, A REPRESENTATIVE FROM THE CITY SHALL BE CALLED TO THE TREE SITE TO MAKE AN INSPECTION AND RECOMMENDATION PERTAINING TO THE NEED TO REMOVE THE TREE. UNLESS OTHER PROVISIONS ARE SPECIFIED; IN THE EVENT REMOVAL BECOMES NECESSARY, TREES REMOVED BY THE CITY FORCES OR CITY CONTRACT WILL BE REMOVED AND REPLACED BY THE CITY AT CITY COST. TREES REQUIRED TO BE REMOVED BY PRIVATE CONTRACTORS, INVESTOR-OWNED PUBLIC UTILITY COMPANIES, OR BY OTHERS WHO ARE PERMITTED TO PERFORM MAINTENANCE AND REPAIR WORK IN PUBLIC RIGHT-OF-WAY AND EASEMENT AREAS SHALL REMOVE SAID TREES AT THEIR COST AND EFFORT AND FURTHERMORE, SHALL REPLACE THAT TREE WITH A SUITABLE SIZE AND VARIETY PER THE REQUIREMENTS OF THE CITY.

E. IN THE EVENT REMOVAL OF THE TREE IS REQUIRED BY PRIVATE AND PUBLIC UTILITIES, CONTRACTORS AND OTHERS UNDER LIFE THREATENING OR RELATED EMERGENCY SITUATIONS, REMOVAL OF THE TREE(S) IS AUTHORIZED WITHOUT WRITTEN CITY AUTHORIZATION, PROVIDING PROPER FOLLOW-UP WRITTEN DOCUMENTATION IS PROVIDED IN ACCORDANCE WITH THE CITY PUBLIC RIGHT-OF-WAY OPENING AND EXCAVATION AND REPLACEMENT OF THE TREE(S) IS SCHEDULED TO THE SATISFACTION OF THE CITY.

F. CONSTRUCTION TECHNIQUES TO REPAIR OR REPLACE SIDEWALKS AND CURBS USUALLY INVOLVE CUTTING OR SEVERING TREE ROOTS, IN WHICH THE ABOVE CRITERIA MAY APPLY. HOWEVER, OTHER INNOVATIVE CONSTRUCTION TECHNIQUES TO REPAIR OR REPLACE SIDEWALKS AND CURBS, SUCH AS ASPHALT WEDGES, GRINDING, LANDSCAPE PAVERS, CONCRETE RAMPS, ETC. TO PROTECT TREE ROOTS TO AVOID THE REQUIREMENT OF TREE REMOVAL MAY BE APPROVED BY THE CITY AND WILL BE BASED ON EACH INDIVIDUAL REQUEST.

CITY OF PIQUA CHOICE ONE ENGINEERING	# CONSTRUCTION NEAR TREES	REVISIONS:	DATE APPROVED: AUG. 2008 PAGE No. 500-4