

RE: Pandora Village  
Report  
Lead Mapping  
Drinking Water Program  
Putnam County  
PWS ID: OH6900912

# Village of Pandora, Ohio

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John Schlumbohm  
Mayor  
Kimberly D. Reese  
Fiscal Officer  
Rick Morrison  
Administrator  
Jeremy Liechty  
Council President

Council Members:  
Paul Burkholder  
Rolland Eisenbach  
Jeremy Liechty  
Steve Tadena  
Diana Braidic  
Dean Klingler

April 10, 2017

Ohio EPA

Dear Sirs:

The Lead Mapping for the distribution system in Pandora was determined by looking through historic records, blue prints and maps throughout the years for Pandora. The distribution system was established beginning in 1947 and the original bidders, specifications and contract proposal for that system was found in our records. I have included several pages from that 1947 proposal which provides the specifications that were to be used and starting in section E-5.03 and proceeding on in proposal it gives the specifics of what material shall be used on all service lines which was Type "K" copper.

Buildings in Ohio built prior to 1998 or that use plumbing material or solder manufactured before 1998 may have materials with greater than 8% lead and are at a higher risk of contributing lead to the drinking water than materials manufactured after 1998. In addition, buildings built and plumbing materials manufactured after 2014 were required to have less than 0.25% lead by weight and have the lowest risk for contributing lead to the drinking water. It should be noted however that, although prohibited, some use of leaded solder or leaded components may have occurred after the prohibitions became effective.

We feel very confident that the village distribution system has no lead service lines present. Talking with past village employees and myself being here for 11 years, we have never found a lead service line in our system. We also installed new water meters in the village starting at the end of 2015 and finished in early 2016 and during that project we found no lead service lines.

Sincerely,



Rick A. Morrison  
Village Administrator



## VERIFICATION FORM FOR COMMUNITY PUBLIC WATER SYSTEMS CLAIMING NO LEAD SERVICE LINES

The owner or operator of all community public water systems must identify and map areas of their distribution system that are known or are likely to contain lead service lines. Systems must submit a copy of the applicable map to the Ohio Department of Health and the Ohio Department of Job and Family Services. Systems must also submit a report to the director containing at least both of the following: (1) The applicable map with narrative, and (2) A list of sampling locations used to collect samples as required by Ohio Revised Code (ORC) Section 6109.121 and any rules adopted thereunder, including contact information for the owner and occupant of each sampling site.

Should a water system determine no lead service lines exist in their distribution system, they must provide information stating they reviewed, at the minimum, historical permit records and local ordinances, distribution maintenance records and information pertaining to installation dates or materials for all services lines. This information must be verified below.

I HEREBY CERTIFY THAT THE FOLLOWING METHOD(S) WERE USED TO DETERMINE NO LEAD SERVICE LINES EXIST IN THIS WATER SYSTEM'S DISTRIBUTION SYSTEM, AS REQUIRED BY ORC 6109.121(F):

LEAD SERVICE LINE VERIFICATION	
<b>This PWS states they have no lead service lines and has reviewed the following information (select one or more of the following):</b>	
<input checked="" type="checkbox"/>	Historical permit records and/or local ordinances
<input checked="" type="checkbox"/>	Distribution maintenance records (i.e. meter replacement, waterline break repairs)
<input type="checkbox"/>	Information pertaining to installation dates for all service lines (i.e. after 1986 when lead services lines were banned)
<input type="checkbox"/>	Service line material of all service lines is known (i.e. all service lines are known to be PVC)

*Rick Morrison*                      3-8-17  
Signature of Responsible Person                      Date  
Rick Morrison Village Administrator  
Printed Name and Title of Responsible Person

PWS NAME: Village of Pandora  
PWS ID:    OH 6900912  
COUNTY: Putnam

<b>For Ohio EPA use only:</b> Date Verification Rec'd: _____
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Lead Mapping Verification Form Revised 2/14/17

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ADVERTISEMENT \*\*\*\*\* INSTRUCTIONS TO BIDDERS  
\*\*\*\*\* SPECIFICATIONS \*\*\*\*\* PROPOSAL \*\*\*\*\* CONTRACT \*\*\*\*\*

PROPOSAL NO. 1 CONTRACT NO. 2

FOR THE CONSTRUCTION OF

WATERWORKS

LETTING February 5, 1947

MAYOR	W. D. NISWANDER
CLERK	GLENN SCHUMACHER
TREASURER	G. J. THOMPSON
BOARD OF PUBLIC AFFAIRS	FRANCIS KEMP
BOARD OF PUBLIC AFFAIRS	EDWIN CUPP
BOARD OF PUBLIC AFFAIRS	ELMER BURRY
MEMBER OF COUNCIL	C. A. BASINGER
MEMBER OF COUNCIL	H. E. CAHILL
MEMBER OF COUNCIL	JOHN H. CULP
MEMBER OF COUNCIL	MILFORD HAAS
MEMBER OF COUNCIL	ELDON R. HILTY
MEMBER OF COUNCIL	HARRY SCHUMACHER
CONSULTING ENGINEERS	EMERSON D. WERTZ & ASSOCIATES

SUBMITTED BY NAPOLEON CONSTRUCTION CO.

ADDRESS NAPOLEON OHIO



Fine clay or loam shall be thrown around the pipe until the depth of cover is not less than 6" above the top of the pipe. No stones or other debris shall be placed in the trench around or near the pipe. The contractor will be required to flush or puddle all trenches in a manner satisfactory to the Engineer except where tamping is required. Sufficient water shall be used to completely settle the backfill which shall be kept saturated during the backfilling. Water for this purpose will be furnished by the Village at actual cost, and the flooding of the trench is to be considered as part of the work included in the unit price bid per foot of water pipe. Special care must be taken to have the earth carefully compacted and to allow the water to seep away before trenches are top dressed.

Tamping for the full depth when required by the Engineer in writing shall be done in six inch layers and in no case shall the number of rammers be less than twice the number of shovelers.

E-1.15. REPAVING. The contractor shall backfill all trenches in compliance to Item E-1.14, to the elevating deemed necessary by the Engineer, to allow all pavements, gravel, or cinder crossings to be restored to their original condition.

All macadam gravel, bituminous pavement or cinder crossings disturbed during the work shall be replaced and maintained by the Village, and no additional charge to the contractor will be made for restoring of said surfaces.

E-1.16. CLASS GRADE "WORKMANSHIP." All material used throughout the work shall be of the class and grade required for the purpose and entirely suitable for the work, and where the quality is not stated, it shall be understood that the best quality is to be furnished, especially adapted for the required service. The workmanship fitting and finish, shall be equal to that of the best modern practice.

E-1.17. PAYMENT. The unit price stipulated per foot for pipe shall include the furnishing, placing, jointing, testing, backfilling, and the furnishing of all labor, materials, tools, and appliances necessary to complete the work as specified or as shown.

E-1.18. CORRUGATED IRON PIPE. The contractor's attention is called to the fact that the Item bid per lin. ft. of 15" - 14 ga. Corrugated Iron Pipe shall include furnishing, placing, backfilling, and the furnishing of all labor, materials, tools, and appliances necessary to install the Corrugated Iron Pipe over the water main that cross under the Railroad, at the location and grades shown on the detailed sheet for each crossing. The work to be performed in accordance with the Agreement between the Village and the Railroad, in a manner approved by the Railroad Companies Chief Engineer.

This Item shall include the furnishing of approved back-fill material, and the wages plus 10 percent for the flagman that will be necessary to be on duty at the site of each crossing from the time that the trench is open until it is backfilled. This flagman will receive the standard rate of pay for the position that he occupies, and the contractor will be billed for his wages plus 10 percent.

The contractor shall assume all risks and save harmless the Village, any liability or damage in connection with this installation.

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**E-2.02 GATE VALVES.** All gate valves shall be bronze mounted of the double disc type, parallel seat, bronze tapered wedging device, having straight and true tracks to guide the gate and seat. All valves shall conform to the American Water Works Association Specifications for water valves or better.

All valves shall be of a construction equal to those indicated herein, subject to the Engineer's approval, and shall have the name of the manufacturer and the size of the valve cast upon the body or bonnet in raised letters, and shall be nut operated.

**E-2.03 GENERAL FEATURES.** All gate valves shall be of the iron body bronze mounted type and shall have non-rising bronze stems, shall open by turning to the left, and shall be operated as indicated above, as specified or as shown. All gland bolts for iron body valves shall be of bronze and fitted with brass nuts.

All gate valves shall be designed to be placed upright, with the stem vertical. All gate valves shall be machined, single non-rising stems with lathe cut, (Acme Std.) threads. All valves shall have Hub or Bell ends, suitable for laying with Class B. - A.W.W.A, standard pipe. The gate ring shall be secure in suitable manner. Bodies and discs shall be machined for the rings, and the rings shall be furnished to a true surface. Stuffing boxes shall be bolted to the bonnets with U.S. standard bronze bolts and brass nuts, and packed with approved gaskets. Bolt holes shall be drilled to templet. Joints shall be faced true and shall be packed with approved gaskets.

**SUMMARY**

Ends -----	Hub or Bell
Operation -----	2" square nut
Direction of opening-----	Left (counter-clockwise)
Gears -----	Without
Position of valve -----	In horizontal pipe line stem in vertical position
By pass -----	Without
Bronze Mountings -----	Stem, Stem Nuts, Body seat rings, disc facing rings, wedges, gland bolts and nuts

**E-2.04 CASTINGS.** All castings, whether of bronze, iron, or steel shall be sound and smooth without swells, lumps, blisters, sand holes and other imperfections and shall be made in accordance with the best foundary practice. All iron castings shall be made from a superior quality of iron, remelted in cupola or air furnace, tough and of even grain and shall possess a tensil strength of 22,000 pounds per square inch. The castings shall be clean and perfect, without blow holes or sand holes or defects of any kind. No plugging or stopping of holes will be allowed.

**E-2.05 BRONZE.** Bronze, except for stems, shall be composed of approximately eighty-eight (88) parts copper, ten (10) parts of tin and two (2) parts zinc. It shall have a tensil strength of not less than thirty thousand (30,000) pounds per square inch. Bronze for stems shall have a tensil strength of not less than fifty thousand (50,000) pounds per square inch.

**E-2.06 WROUGHT IRON.** All wrought iron shall be of the best quality of refined iron, of a tensile strength of at least 45,000 pounds per square inch.



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ITEM E-5.00. The drawings and estimate sheets show approximately the amount of copper service pipe, corporation stops, meter boxes, meter setting assemblies, service meters, meter box covers, U branches, necessary connections, required under this Item.

E-5.01. WORK INCLUDED. The contractor shall furnish all material for and shall properly place and connect at the location shown on the drawings or as directed by the Engineer, all corporation stops, copper service pipe, U-branches, couplings, connections, meter setting assemblies, service meters, meter boxes, and meter box covers, etc., of the sizes and types specified or ordered which are necessary for the proper completion of the work included under this contract.

E-5.02. GENERAL FEATURES. All pipe and fittings included under this Item shall be placed carefully and accurately as directed and shall be placed four(4) feet below the surface of the street and shall be placed in a manner satisfactory to the Engineer. No tunneling will be permitted.

All service lines shall be tested in accordance with Item E-1.13. Backfilling to be done in accordance with Item E-1.14. Repaving to be done by the Village in accordance with Item E-1.15.

★ E-5.03. COPPER WATER TUBE. All service lines shall be 3/4" (three-fourths inch) - GOVERNMENT TYPE "K" (99.9% pure) soft temper cold drawn, seamless copper tube, or larger size as shown on the drawings, and same shall be completely deoxidized and possess a gun-barrel finish inside, free from flaws and blemishes. Each length shall be stamped type "K", as a means of identification and a guarantee of quality, and shall have a uniform wall thickness throughout and shall conform to the following specifications; 3/4" type "K" soft temper -O.D. .875", wall thickness of not less than .065", and weigh not less than .641 pounds per foot; other sizes shall conform to standard weight and dimensions of copper water tube.

E-5.04. FITTINGS. ALL FITTINGS shall conform to the requirements of the UNDERWRITERS LABORATORIES STANDARD OF CONSTRUCTION AND PERFORMANCE OF SEAMLESS DRAWN ANNEALED COPPER AND BRASS TUBING AND OF FITTINGS, dated October 1931.

★ All copper service connections, curb stops, corporation stops, U-branches, etc., to be used in conjunction with copper service pipe, shall be of approved construction, having a metal mixture of 85% copper, 5% tin, 5% lead, and 5% spelter. Each piece shall be tested at the point of manufacture at not less than 200 pounds per square inch hydraulic pressure. All fittings shall be provided with an approved swedge seal.

CORPORATION STOPS. Corporation stops shall be of such design as to be inserted with Standard Water Works Tapping Machine and shall be manufactured for use with Government Type "K" service pipe and shall have Inlet Water Works Standard Thread (Mueller). Outlet Copper pipe direct connection.

COPPER SERVICE CONNECTIONS. All unions shall be two part copper to copper, and all couplings and fittings shall have an approved swedge seal.

"U" BRANCH CONNECTIONS, for use with copper service pipe shall be equal to "Mueller" H-15360 for 1" service pipe inlet and 3/4" service pipe outlets at 10" centers, direct connected, and providing an approved swedge seal.

E-5.05. METER SETTING ASSEMBLIES: Meter mountings shall be all brass and copper requiring two joints to install in connection with



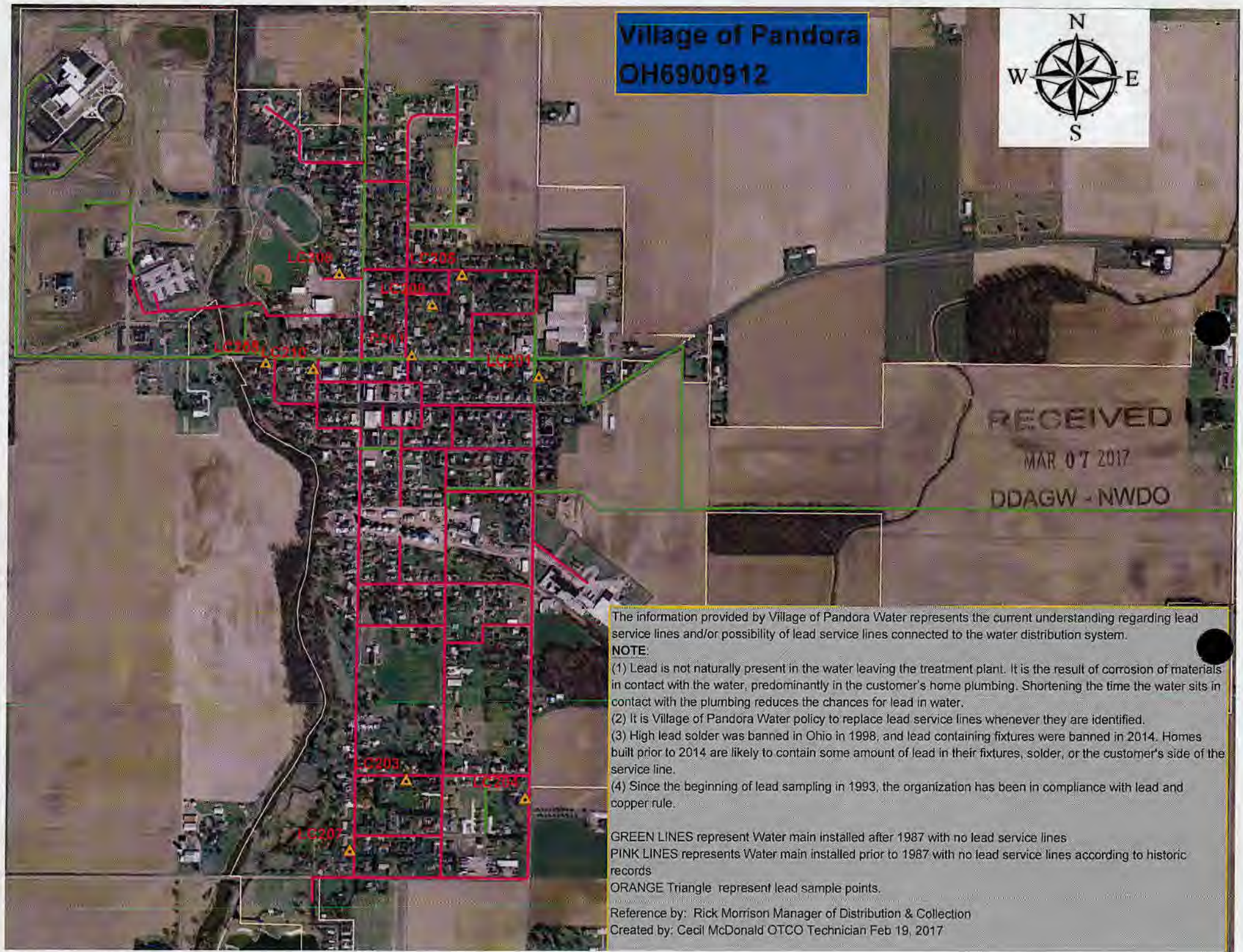
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ITEM NO.	SPEC. NO.	DESCRIPTION	APPROX. QUAN.	UNIT			TOTAL BID	
				LABOR	MATL.	TOTAL		
	E	Class 150, Fed. Specs. W.P.-421 Pipe; Cast-iron B&S	L.F.				DDAGW - NWDO	
1	2	8" Water Mains & Fittings	72	0.55 <del>0.45</del>	2.76	3.31 3.21	238.32	
2	1	6" Water Mains & Fittings	7884	0.55	1.47	2.02	15925.68	
3	1	4" Water Mains & Fittings	12168	0.45	0.99	1.44	17521.92	
		SUB-TOTAL (Items 1 to 3)						33685.92 ✓
4	1	2" Water Mains & Fittings	1188					
		AWWA SPEC. - B & S VALVES		Each				
5	2 & 3	8" Gate Valve & Box	1	3.00	66.15	69.15	69.15	
6	2 & 3	6" Gate Valve & Box	17	3.00	47.14	50.14	852.38	
7	2 & 3	4" Gate Valve & Box	19	3.00	33.05	36.05	684.15	
8	3	2" Gate Valve & Box	4					
		AWWA SPECS. - HYDRANTS						
9	4	4" x 4" x 5' Fire Hydrant	16	10.00	95.50	105.50	1688.00	
10	4	5" x 6" x 5' Fire Hydrant	12	10.00	120.00 <del>102.00</del>	130.00	1560.00	
		WWT - 799 Type "K" Copper						
11	5	1" Water Tube <sup>3547</sup>	1000	0.50	0.39	0.89	892.00	
12	5	3/4" Water Tube <sup>3509</sup>	5000	0.50	0.28	0.78	3900.00	
		AWWA SPECS. - SERVICES						
13	5	1" Corporation Stop	20	1.00	2.33	3.33	66.60	
14	5	3/4" Corporation Stop	160	1.00	1.47	2.47	395.20	
15	5	1" x 3/4" x 3/4" U-Branch <sup>1250 Hex</sup> (Mueller H-15360)	20	3.00	3.97	6.97	139.40	
16	5	Moter Yoke - Mueller <sup>9.25 - 40%</sup> H-10842 with jumper	180	1.25	4.97	6.22	1119.60	
17	5	5/8" x 3/4" Service Meter <sup>16.50 - 40%</sup>	10	4.00	14.79	18.79	187.90	
18	5	2" Service Meter <sup>102.00 - 40%</sup>	1	4.00	98.01	102.01	102.01	

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Village of Pandora  
OH6900912



The information provided by Village of Pandora Water represents the current understanding regarding lead service lines and/or possibility of lead service lines connected to the water distribution system.

**NOTE:**

- (1) Lead is not naturally present in the water leaving the treatment plant. It is the result of corrosion of materials in contact with the water, predominantly in the customer's home plumbing. Shortening the time the water sits in contact with the plumbing reduces the chances for lead in water.
- (2) It is Village of Pandora Water policy to replace lead service lines whenever they are identified.
- (3) High lead solder was banned in Ohio in 1998, and lead containing fixtures were banned in 2014. Homes built prior to 2014 are likely to contain some amount of lead in their fixtures, solder, or the customer's side of the service line.
- (4) Since the beginning of lead sampling in 1993, the organization has been in compliance with lead and copper rule.

GREEN LINES represent Water main installed after 1987 with no lead service lines  
PINK LINES represents Water main installed prior to 1987 with no lead service lines according to historic records  
ORANGE Triangle represent lead sample points.

Reference by: Rick Morrison Manager of Distribution & Collection  
Created by: Cecil McDonald OTCO Technician Feb 19, 2017