RE: PANDORA VILLAGE
Report
Drinking Water Program
Putnam County
PWS ID: OH6900912

Village of Pandora, Ohio

P.O. Box 193
Pandora, Ohio 45877
(419) 384-3112
Fax: 419-384-3110
Website:villageofpandora.com

February 20, 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.

We feel very confident that the village distribution system has no lead services 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 Morrison

Rick A. Morrison
Village Administrator

VILLAGE OF PANDORA
PUTNAM COUNTY
OHIO

* * * * * * * * * * * * * * * * * *

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	C. 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

Fire 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.

proper completion of the work inclined under this contract.

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.

[illegible] METALS. All composition metals to be of

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.

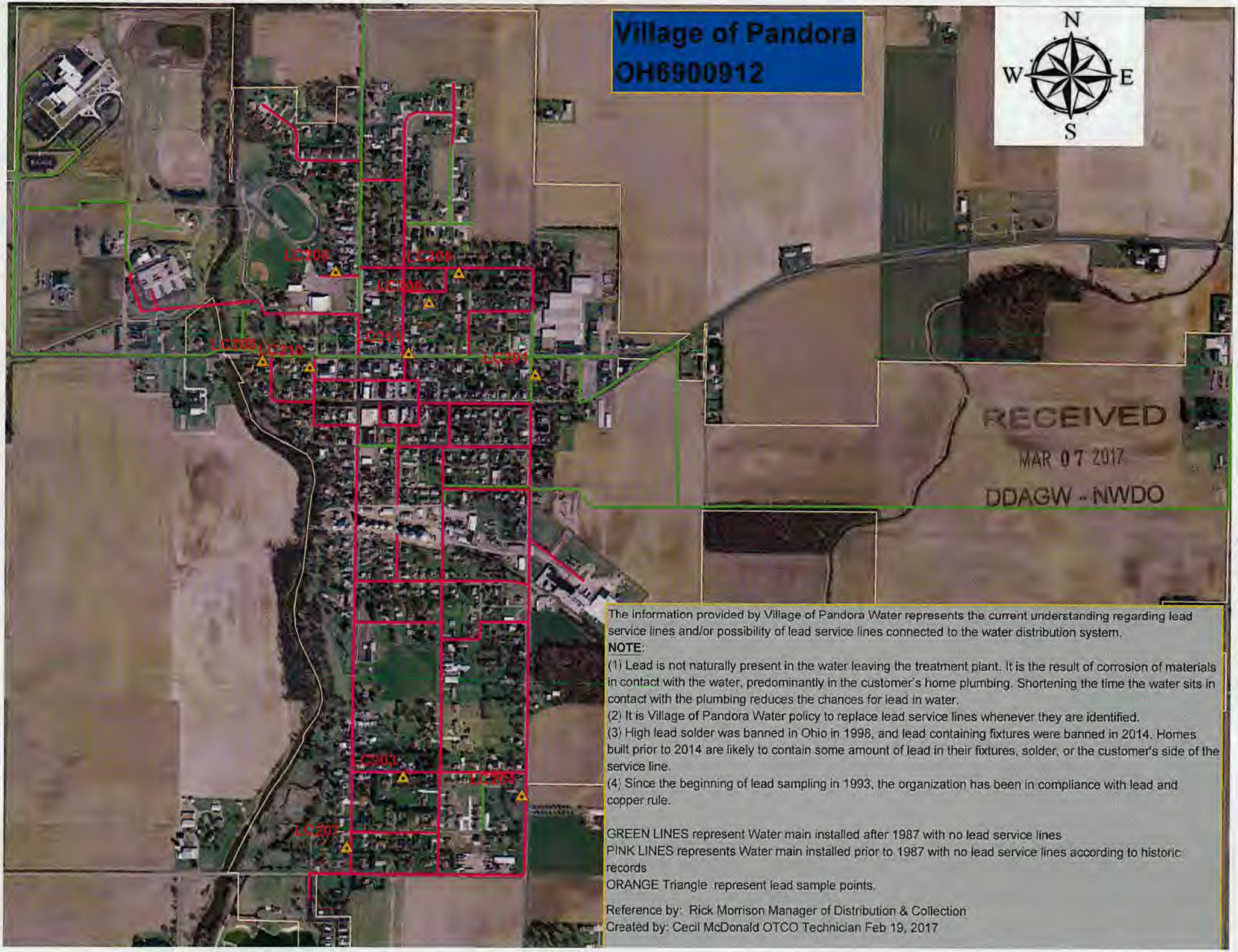
CORPORATION STOPS. Corporation stops shall be of such design as to be inserted with Standard Water Works Tapping Machine and shall be manufactured for use with Government Type "K" service pipe and shall have Inlet Water Works Standard Thread (Mueller). Outlet Copper pipe direct connection.

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

ITEM NO.	SPEC. NO.	DESCRIPTION	APPROX. QUAN.	UNIT LABOR	UNIT MATL.	UNIT TOTAL	TOTAL BID
	E	Class 150, Fed. Specs. WNP-421 Pipe; Cast-iron B&S	L.F.				
1	1	8" Water Mains & Fittings	72	0.55 ~~0.45~~	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)					33,685.92 ✓
~~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	684.95
~~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 ~~102.00~~	130.00	1560.00
		WWT - 799 Type "K" Copper					
11	5	1" Water Tube .3547	1000	0.50	0.39	0.89	890.00
12	5	3/4" Water Tube .2509	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 (Mueller H-15360) 12.50 Hanis	20	3.00	3.97	6.97	139.40
16	5	Moter Yoke - Mueller H-10842 with jumper 7.35 - 40%	180	1.25	4.97	6.22	1119.60
17	5	5/8" x 3/4" Service Meter 16.50 - 40%	10	4.00	14.79	18.79	187.90
18	5	2" Service Meter 102.00 - 40%	1	4.00	98.01	102.01	102.01



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