PRELIMINARY ENGINEERING REPORT

FOR

WATER SYSTEM IMPROVEMENTS

FOR

GERMAN TOWNSHIP WATER DISTRICT, INC.

VANDERBURGH AND POSEY COUNTIES, IN

MEI PROJECT #2020077-03

SEPTEMBER, 2020

Midwestern Engineers Inc.
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JOHN W. WETZEL, P.E.
R. DERICK WIGGINS, P.E.
MARK M. SULLIVAN, P.E.
ALAN F. BURCH, P.E.
CLINT W. ROOS, P.E.
NATHAN J. WALKER, P.L.S.
BRANDON A. PARKER, P.L.S.

802 W. BROADWAY ST. • P.O. BOX 295 • LOOGOOTEE, IN 47553 • P: 812-295-2800
6809 CORPORATE DRIVE • INDIANAPOLIS, IN 46278 • P: 317-334-0262
meinc@midwesterneng.com • www.midwesterneng.com

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of Indiana

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VANDERBURGH AND POSEY COUNTIES, INDIANA

SEPTEMBER, 2020

ENGINEER

MIDWESTERN ENGINEERS, INC.

Loogootee, Indiana

SEPTEMBER, 2020

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PRELIMINARY ENGINEERING REPORT

FOR

WATER SYSTEM IMPROVEMENTS

FOR

GERMAN TOWNSHIP WATER DISTRICT, INC.

VANDERBURGH AND POSEY COUNTIES, INDIANA

A. INTRODUCTION/BACKGROUND

German Township Water District, Inc. (GTWD) is a not-for-profit water utility that serves customers in Vanderburg and Posey Counties. The service area generally borders the west side of the City of Evansville in Vanderburgh County and continues westward into Posey County. The southwest corner of the service territory ends slightly east of the City of Mount Vernon, just north of the Ohio River. The northwest corner of the service territory extends to just northwest of the Community of Stewartsville. GTWD serves approximately 4,800 residential, commercial, and industrial customers within its service territory.

GTWD's system was conceived in the early 1970's, with operations commencing in 1976. At that time a connection was made to the City of Evansville, just west of the Community of Darmstadt near the intersection of Boonville/New Harmony Road and St. Joseph Avenue. The connection floats off the City of Evansville's 1,000,000-gallon elevated water storage tank (overflow elevation of 620 feet) at the same location. A booster station, also located at the same location, pumped water from the City into Water Storage Tank No. 1 (overflow elevation of 700 feet). located approximately four miles southwest of the booster station. Transmission/distribution mains installed at that time served approximately 850 customers. A large expansion to the south and west was completed in 1993. This expansion included construction of Water Storage Tank No. 2 (Overflow elevation of 650 feet) and transmission/distribution mains. Water Storage Tank No. 2 is filled, via an altitude valve, from Water Storage Tank No. 1. Extensions to expand service to unserved customers are completed on an "as-requested" basis. These extensions have led to the steady growth of customers, increasing the service territory and number of customers to current levels.

Currently, GTWD purchases all water from the City of Evansville. The distribution system consists of approximately 300 miles of main, ranging in size from 2-inch to 16-inch diameter; along with two (2) water storage tanks as follows:

Tank	Capacity – Year Constructed	Overflow	Diameter	Height
Tank No.1	500,000 Gallon Elevated – 1975	700 feet (msl)	50 feet	128 feet
Tank No.2	400,000 Gallon Elevated - 1993	650 feet (msl)	50 feet	110 feet

The original system components are approximately 45 years old. GTWD has a history of pipe breaks/leaks along both Boonville/New Harmony Road and Bromm Road. The existing main along Boonville/New Harmony Road is the primary transmission main/artery that brings water from the City of Evansville into the GTWD system. If this main is out of service, no water can be brought into the system. This is a critical component. With the age of these facilities, these breaks/leaks will likely continue unless pipe replacements are completed.

Water Storage Tank No. 1 is approximately 45 years old. Although it has useful life remaining, it needs rehabilitation and repainting. Water Storage Tank No. 2 is over 25 years old. As with Water Storage Tank No. 1, it has useful life remaining, but needs rehabilitation and repainting.

Improvements are necessary. The proposed improvements include:

1. Replacement of the water main and services along Boonville/New Harmony Road from just west of the point of connection with Evansville westward to State Highway 65.
2. Replacement of the water main and services along Bromm Road from its intersection with Boonville/New Harmony Road southward to its intersection with Orchard Road.
3. Make improvements to Water Storage Tank No. 1, including a complete blast/repaint of both the interior and exterior paint coat system.
4. Make improvements to Water Storage Tank No. 2, including a complete blast/repaint of both the interior and exterior paint coat system.

B. DESCRIPTION OF PROJECT COMPONENTS

Boonville/New Harmony Road Water Main Replacement:

The existing main along Boonville/New Harmony Road from the point of connection with the City of Evansville to State Highway 65 was installed as part of the original system in the mid 1970's. This is the primary artery that brings water from the City of Evansville into the GTWD system. Several breaks/leaks have occurred in this section of main. When this main is taken out of service, GTWD is unable to fill Water Storage Tank No. 1.

Replacement of the existing main will begin near the point of connection with the City of Evansville and continue westward towards State Highway 65. This replacement will be done in "phases" to avoid a huge upfront capital expenditure. It is anticipated that approximately 3,000 to 3,500 L.F. of main will be replaced annually through 2024. Prior to construction the necessary permits will be obtained. These include a Notice of Intent to Construct a Water Main Extension with IDEM, a Vanderburgh County Right-of-Way Permit and any necessary IDEM, DNR or Corp. of Engineer notifications/permits for waterway crossings.

The new main will be installed adjacent to the existing main, via open-cut placement. If topography dictates, installation via trenchless technology may be used. Private easements will be obtained, where possible, for the installation. Once the new main is installed, it will be filled, flushed, pressure-tested and disinfected. After placing the new main into service, existing customer service lines/meter pits will be replaced and connected to the new main.

Bromm Road Water Main Replacement:

The existing main along Bromm Road from the intersection with Boonville/New Harmony Road to the intersection with Orchard Road was installed as part of the original system in the mid 1970's. Several breaks/leaks have occurred in this section of main.

Replacement of the existing main will begin at the intersection with Boonville/New Harmony Road and continue southward towards Orchard Road. This replacement will be done in "phases" to avoid a huge upfront capital expenditure. It is anticipated that approximately 2,000 to 2,500 L.F. of main will be replaced annually from 2025 to 2029. Prior to construction the necessary permits will be obtained. These include a Notice of Intent to Construct a Water Main Extension with IDEM, a Vanderburgh County Right-of-Way Permit and any necessary IDEM, DNR or Corp. of Engineer notifications/permits for waterway crossings.

The new main will be installed adjacent to the existing main, via open-cut placement. If topography dictates, installation via trenchless technology may be used. Private easements will be obtained, where possible, for the installation. Once the new main is installed, it will be filled, flushed, pressure-tested and disinfected. After placing the new main into service, existing customer service lines/meter pits will be replaced and connected to the new main.

Water Storage Tank No. 1 Improvements:

The existing Water Storage Tank No. 1 is a multi-legged, welded steel, elevated water storage tank constructed in the mid 1970's. The tank has a capacity of 500,000 gallons, with an overflow elevation of 700. Although the tank is approximately 45 years old, it has useful life remaining. The tank will soon need to be rehabilitated. This rehabilitation would include a complete abrasive blast cleaning to bare metal on both the interior and exterior of the tank. To prevent fugitive dust from leaving the site, a containment system (shroud) would be installed around the exterior of the tank during the blasting/painting process. The spent abrasives/removed paint would be disposed of in accordance with all local, state and federal requirements.

Upon removal of the existing paint coat system, the new paint coat system will likely be a three-coat system (interior and exterior) consisting of an epoxy system on the interior and a urethane system on the exterior. Upon curing of the paint system, the tank will be filled, disinfected and placed into service. An anniversary inspection would be conducted approximately 12 months after completion of the work and any imperfections (rust spots, delamination, etc.) would be corrected.

Water Storage Tank No. 2 Improvements:

The existing Water Storage Tank No. 2 is a multi-legged, welded steel, elevated water storage tank constructed in the early to mid 1990's. The tank has a capacity of 400,000 gallons, with an overflow elevation of 650. The tank is nearly 30 years old and has useful life remaining. However, the tank will soon need to be rehabilitated. This rehabilitation would include a complete abrasive blast cleaning to bare metal on both the interior and exterior of the tank. To prevent fugitive dust from leaving the site, a containment system (shroud) would be installed around the exterior of the tank during the blasting/painting process. The spent abrasives/removed paint would be disposed of in accordance with all local, state and federal requirements.

Upon removal of the existing paint coat system, the new paint coat system will likely be a three-coat system (interior and exterior) consisting of an epoxy system on the interior and a urethane system on the exterior. Upon curing of the paint system, the tank will be filled, disinfected and placed into service. An anniversary inspection would be conducted approximately 12 months after completion of the work and any imperfections (rust spots, delamination, etc.) would be corrected.

C. EXHIBITS SHOWING THE GENERAL LAYOUT AND LOCATION OF PROJECT COMPONENTS

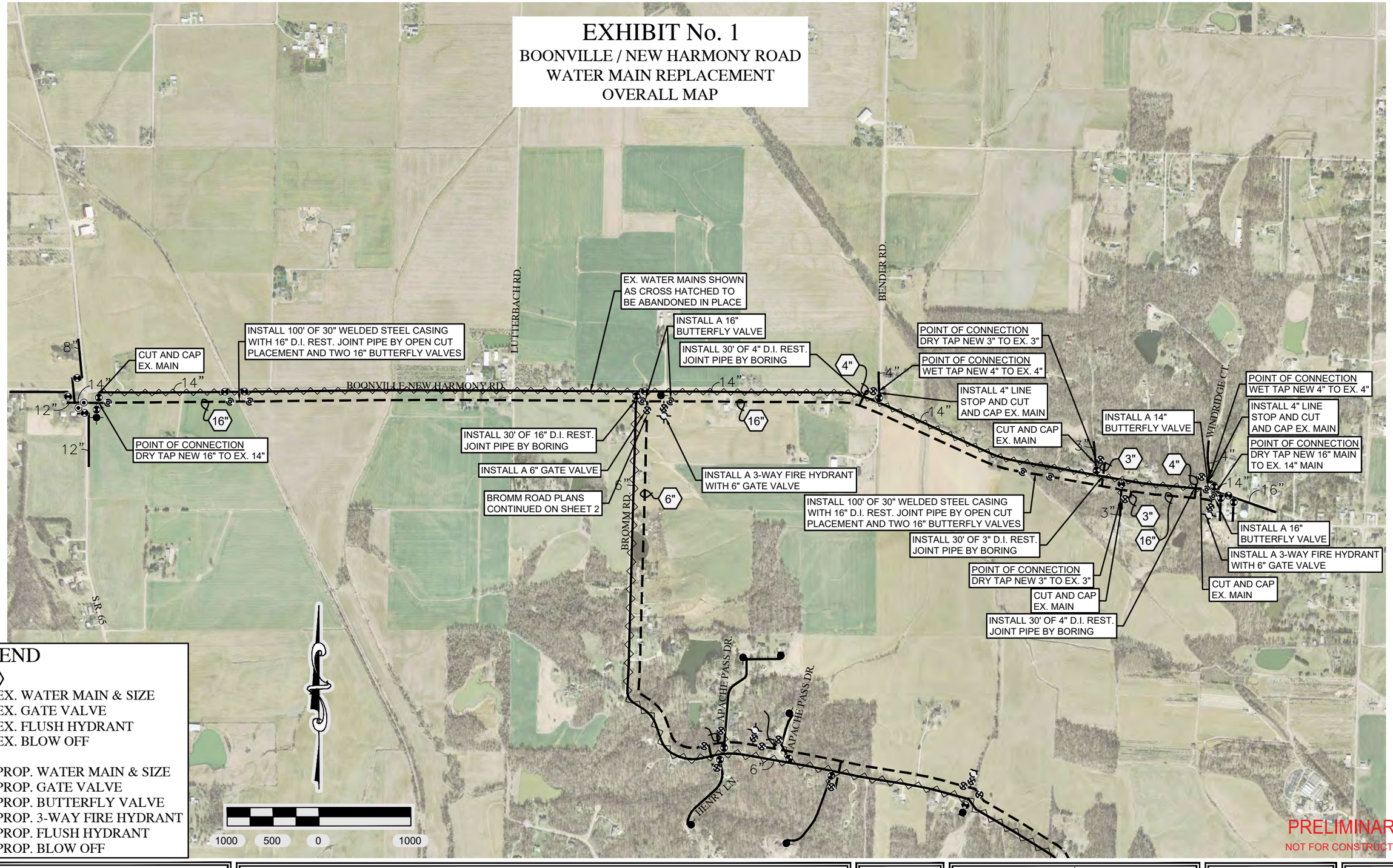
Exhibits 1 and 2 (presented on Pages 5 and 6 respectively) show the proposed location and project components of the water main replacement projects. Exhibit 3 (presented on Page 7) shows the location of each of the proposed water storage tanks.

D. PROBABLE PROJECT COSTS FOR EACH OF THE PROJECT COMPONENTS

Probable project costs for each of the improvements are presented on Pages 8 through 13.

EXHIBIT No. 1

BOONVILLE / NEW HARMONY ROAD
WATER MAIN REPLACEMENT
OVERALL MAP



LEGEND

- 6" — EX. WATER MAIN & SIZE
- EX. GATE VALVE
- EX. FLUSH HYDRANT
- EX. BLOW OFF
- 6" — PROP. WATER MAIN & SIZE
- PROP. GATE VALVE
- PROP. BUTTERFLY VALVE
- PROP. 3-WAY FIRE HYDRANT
- PROP. FLUSH HYDRANT
- PROP. BLOW OFF

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6809 Corporate Drive, Indianapolis, IN 46278 Ph: 317-334-0262

802 West Broadway St., P.O. Box 295 Loogootee, IN 47553 Ph: 812-295-2800

Website: midwesterneng.com Fax: 812-295-2801 Email: mcine@midwesterneng.com

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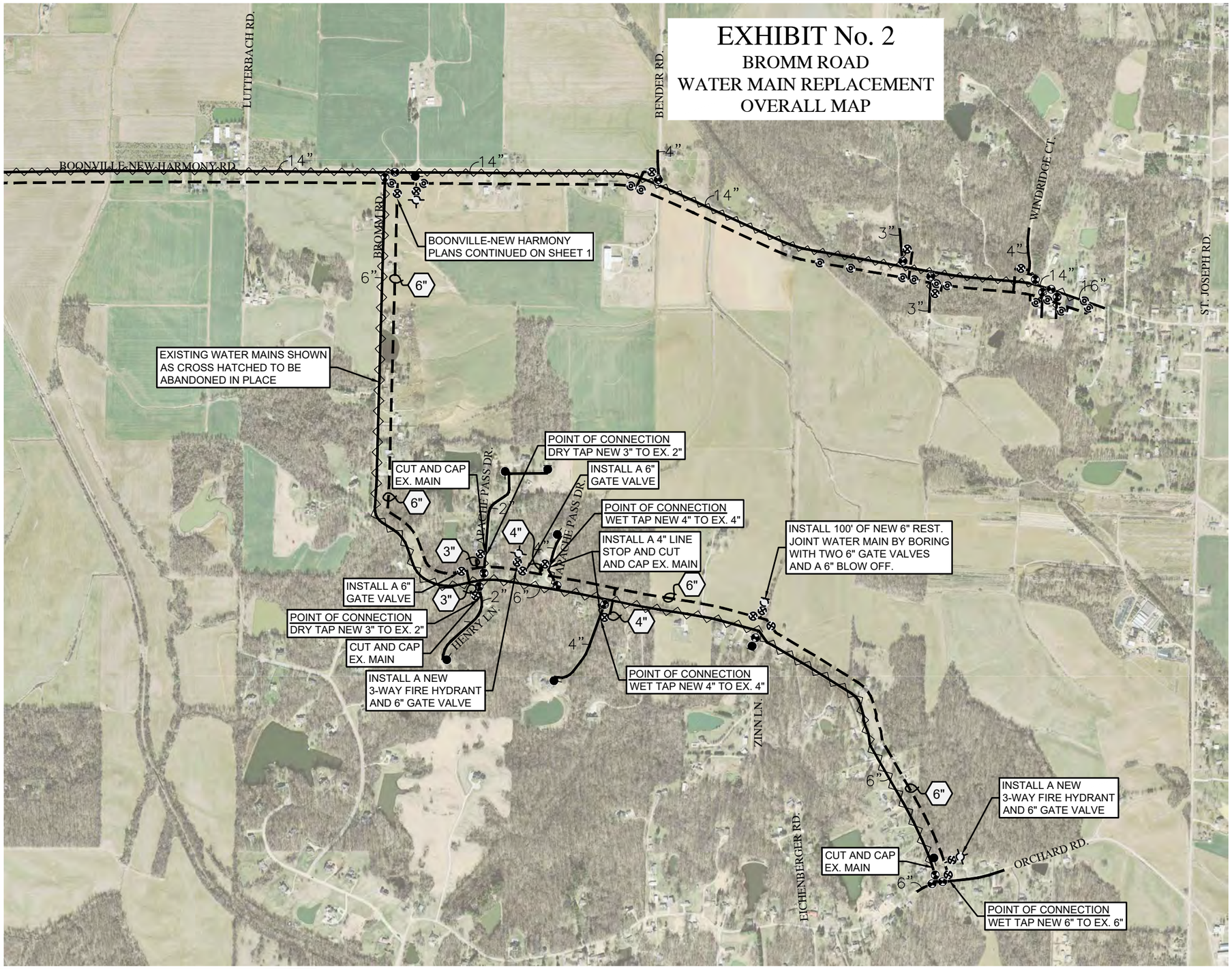
WATER SYSTEM IMPROVEMENTS
GERMAN TOWNSHIP WATER DISTRICT, INC.
VANDERBURGH COUNTY, INDIANA

REVISIONS

DATE: AUGUST 2020	Q.C. CHECK:
DESIGN: BMV	PROJECT NUMBER: 2020077-03
DRAWN: DRK	FILE NUMBER:

EXHIBIT No. 2
BROMM ROAD
WATER MAIN REPLACEMENT
OVERALL MAP



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LEGEND

- EX. WATER MAIN & SIZE
- EX. GATE VALVE
- EX. FLUSH HYDRANT
- EX. BLOW OFF
- PROP. WATER MAIN & SIZE
- PROP. GATE VALVE
- PROP. BUTTERFLY VALVE
- PROP. 3-WAY FIRE HYDRANT
- PROP. FLUSH HYDRANT
- PROP. BLOW OFF

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802 West Broadway St., P.O. Box 295 Loogootee, IN 47553 Ph: 812-295-2800
Website: midwesternemg.com Fax: 812-295-2801 Email: mcinc@midwesternemg.com
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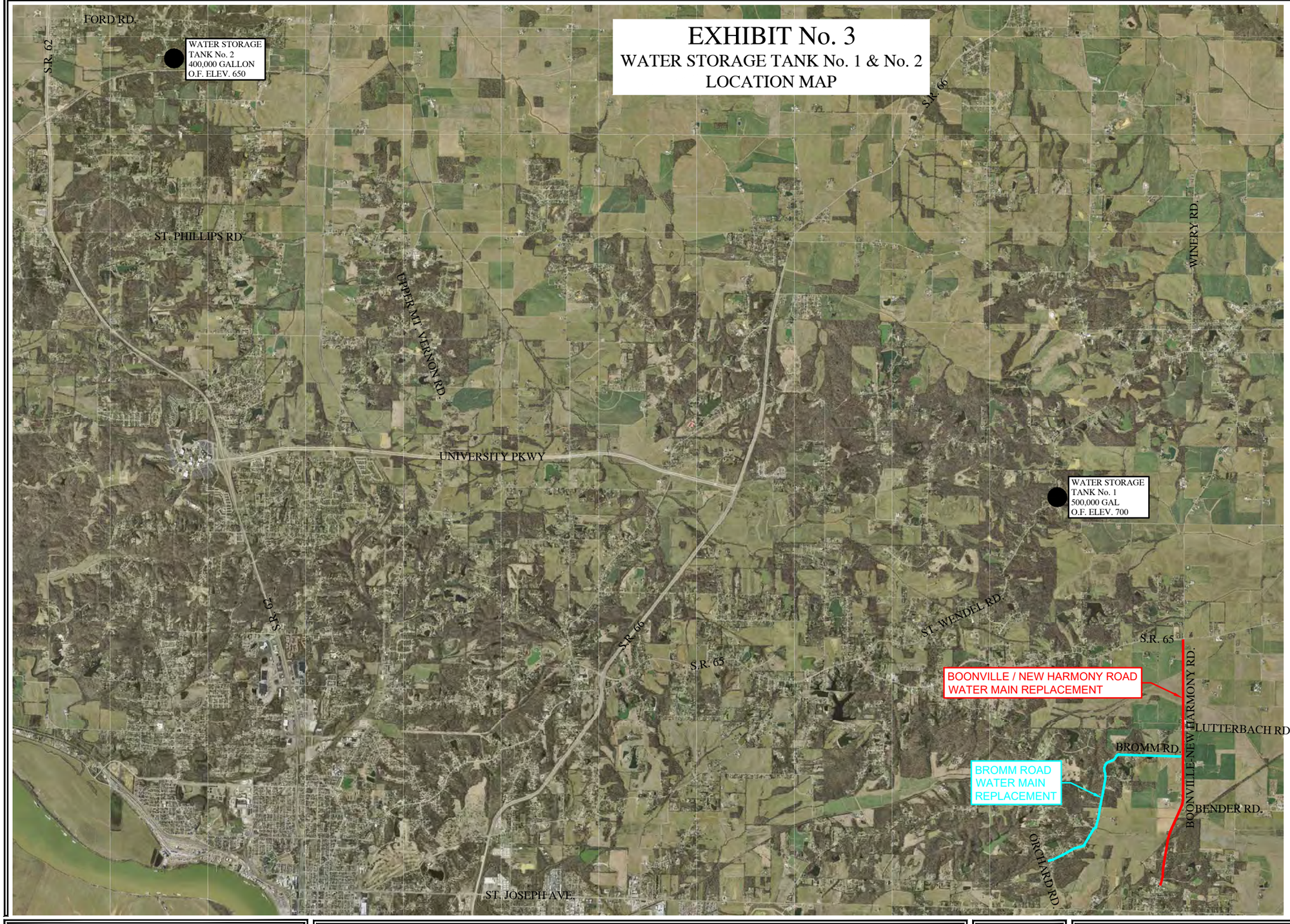
WATER SYSTEM IMPROVEMENTS
GERMAN TOWNSHIP WATER DISTRICT, INC.
VANDERBURGH COUNTY, INDIANA

REVISIONS

DATE	Q.C. CHECK
AUGUST 2020	
DESIGN	PROJECT NUMBER
BMV	2020077-03
DRAWN	FILE NUMBER
DRK	

EXHIBIT No. 3
WATER STORAGE TANK No. 1 & No. 2
LOCATION MAP



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Website: midwesterneng.com Fax: 812-295-2801 Email: mainc@midwesterneng.com

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WATER SYSTEM IMPROVEMENTS
GERMAN TOWNSHIP WATER DISTRICT, INC.
VANDERBURGH COUNTY, INDIANA

REVISIONS

DATE	Q.C. CHECK
AUGUST 2020	
DESIGN	PROJECT NUMBER
BMV	2020077-03
DRAWN	FILE NUMBER
DRK	

TABLE NO. 1
PROBABLE PROJECT COSTS
FOR
BOONVILLE/NEW HARMONY ROAD WATER MAIN REPLACEMENT

I. PROBABLE CONSTRUCTION COSTS

ITEM NO.	DESCRIPTION	PROBABLE QUANTITY		PROBABLE UNIT PRICE	PROBABLE TOTAL PRICE
1.	MOBILIZATION AND DEMOBILIZATION SAFETY AND ENVIRONMENTAL COMPLIANCE	1	L.S.	$20,000.00	$20,000.00
2.	30" x 0.50" WELDED STEEL CASING WITH 16" R.J. CLASS 250 PIPE WITH POLYETHYLENE ENCASEMENT AND TRACER WIRE BY OPEN-CUT PLACEMENT	60	L.F.	$200.00	$12,000.00
3.	16" R.J. CLASS 250 PIPE WITH POLYETHYLENE ENCASEMENT AND TRACER WIRE BY UNCASED BORE	60	L.F.	$150.00	$9,000.00
4.	4" PVC, SDR-21 CLASS 200 R.J. PIPE WITH POLYETHYLENE ENCASEMENT AND TRACER WIRE BY UNCASED BORE	60	L.F.	$120.00	$7,200.00
5.	3" PVC, SDR-17, CLASS 250 R.J. PIPE WITH POLYETHYLENE ENCASEMENT AND TRACER WIRE BY BORING	30	L.F.	$100.00	$3,000.00
6.	16" D.I. CLASS 250 PIPE WITH POLYETHYLENE ENCASEMENT AND TRACER WIRE OPEN-CUT PLACEMENT	12,640	L.F.	$80.00	$1,011,200.00
7.	6" PVC, SDR-21, CLASS 200 PIPE WITH POLYETHYLENE ENCASEMENT AND TRACER WIRE OPEN-CUT PLACEMENT	20	L.F.	$50.00	$1,000.00
8.	4" PVC, SDR-21, CLASS 200 PIPE WITH POLYETHYLENE ENCASEMENT AND TRACER WIRE OPEN-CUT PLACEMENT	140	L.F.	$40.00	$5,600.00
9.	3" PVC, SDR-21, CLASS 200 PIPE WITH POLYETHYLENE ENCASEMENT AND TRACER WIRE OPEN-CUT PLACEMENT	120	L.F.	$30.00	$3,600.00
10.	16" BUTTERFLY VALVE W/POLY ENCASEMENT	8	EA.	$7,500.00	$60,000.00
11.	14" BUTTERFLY VALVE W/POLY ENCASEMENT	1	EA.	$7,000.00	$7,000.00
12.	6" GATE VALVE W/POLY ENCASEMENT	1	EA.	$1,500.00	$1,500.00
13.	3" GATE VALVE W/POLY ENCASEMENT	2	EA.	$800.00	$1,600.00
14.	3-WAY FIRE HYDRANT ASSEMBLY W/ 6" GATE VALVE	2	EA.	$5,000.00	$10,000.00
15.	16" MEGALUG RESTRAINT	40	EA.	$550.00	$22,000.00
16.	14" MEGALUG RESTRAINT	10	EA.	$500.00	$5,000.00
17.	6" MEGALUG RESTRAINT	1	EA.	$400.00	$400.00
18.	LINE LOCATION MARKER	13	EA.	$100.00	$1,300.00
19.	DRY TAP NEW 16" MAIN TO EX. 14" MAIN	2	EA.	$6,000.00	$12,000.00
20.	WET TAP NEW 4" MAIN TO EX. 4" MAIN	2	EA.	$4,000.00	$8,000.00
21.	DRY TAP NEW 3" MAIN TO EX. 3" MAIN	2	EA.	$1,000.00	$2,000.00
22.	CUT & CAP EX. MAIN	6	EA.	$500.00	$3,000.00
23.	SEEDING AND STRAW	5,000	L.F.	$1.00	$5,000.00

24.	PRESSURE AND LEAKAGE TESTING OF WATER MAIN	13,130	L.F.	$1.00	$13,130.00
25.	DISINFECTION OF WATER MAIN	13,130	L.F.	$1.00	$13,130.00
26.	4" HYDRASTOP	2	EA.	$3,000.00	$6,000.00
27.	1" HDPE SDR-9 CTS SERVICE LINE	140	L.F.	$15.00	$2,100.00
28.	1" HDPE SDR-9 CTS SERVICE LINE BY UNCASED BORE	400	L.F.	$20.00	$8,000.00
29.	REMOVE EXISTING APPURTENANCES	5	L.S.	$500.00	$2,500.00
30.	CONNECT EXISTING SERVICE TO NEW MAIN	24	EA.	$500.00	$12,000.00
31.	GRADE "B" BORROW BACKFILL	830	TONS	$15.00	$12,450.00

SUB-TOTAL PROBABLE CONSTRUCTION COST	**$1,280,710.00**
CONSTRUCTION CONTINGENCY (10%)	$128,290.00
TOTAL PROBABLE CONSTRUCTION COST	**$1,409,000.00**

II. PROBABLE NON-CONSTRUCTION COSTS

1.	RIGHT OF WAY EASEMENT PREPARATION	$15,000.00
2.	RIGHT OF WAY ACQUISITION (12,600 L.F. X $5/L.F.)	$63,000.00
3.	LABOR FOR EASEMENT SIGNING	$10,000.00
4.	DESIGN ENGINEERING	$60,000.00
5.	BIDDING ASSISTANCE	$8,000.00
6.	CONSTRUCTION ENGINEERING	$17,000.00
7.	PROJECT INSPECTION	$51,000.00
8.	LEGAL FEES	$5,000.00
	TOTAL PROBABLE NON-CONSTRUCTION COST	**$229,000.00**

III. PROBABLE PROJECT COSTS **$1,638,000.00**

TABLE NO. 2
PROBABLE PROJECT COSTS
FOR
BROMM ROAD WATER MAIN REPLACEMENT

I. PROBABLE CONSTRUCTION COSTS

ITEM NO.	DESCRIPTION	PROBABLE QUANTITY		PROBABLE UNIT PRICE	PROBABLE TOTAL PRICE
1.	MOBILIZATION AND DEMOBILIZATION SAFETY AND ENVIRONMENTAL COMPLIANCE	1	L.S.	$20,000.00	$20,000.00
2.	6" PVC, SDR-21 R.J. CLASS 200 PIPE WITH TRACER WIRE BY UNCASED BORE	325	L.F.	$55.00	$17,875.00
3.	4" PVC, SDR-21 R.J. CLASS 200 PIPE WITH TRACER WIRE BY UNCASED BORE	30	L.F.	$50.00	$1,500.00
4.	3" PVC, SDR-17, R.J. CLASS 250 PIPE WITH TRACER WIRE BY UNCASED BORE	30	L.F.	$45.00	$1,350.00
5.	6" PVC, SDR-21 CLASS 200 PIPE WITH TRACER WIRE OPEN-CUT PLACEMENT	10,400	L.F.	$30.00	$312,000.00
6.	4" PVC, SDR-21 CLASS 200 PIPE WITH TRACER WIRE OPEN-CUT PLACEMENT	120	L.F.	$28.00	$3,360.00
7.	3" PVC, SDR-21, CLASS 200 PIPE WITH TRACER WIRE OPEN-CUT PLACEMENT	120	L.F.	$25.00	$3,000.00
8.	WET TAP NEW 6" MAIN TO EX. 6" MAIN	1	EA.	$4,500.00	$4,500.00
9.	WET TAP NEW 4" MAIN TO EX. 4" MAIN	2	EA.	$4,000.00	$8,000.00
10.	DRY TAP NEW 3" MAIN TO EX. 2" MAIN	2	EA.	$800.00	$1,600.00
11.	6" GATE VALVE W/ POLY ENCASEMENT	4	EA.	$1,500.00	$6,000.00
12.	3" GATE VALVE W/ POLY ENCASEMENT	2	EA.	$800.00	$1,600.00
13.	3-WAY FIRE HYDRANT ASSEMBLY W/ 6" GATE VALVE	2	EA.	$4,500.00	$9,000.00
14.	6" BLOW OFF W/ 6" GATE VALVE	1	EA.	$1,500.00	$1,500.00
15.	6" MEGALUG RESTRAINT	36	EA.	$400.00	$14,400.00
16.	LINE LOCATION MARKER	11	EA.	$100.00	$1,100.00
17.	CUT & CAP EX. MAIN	6	EA.	$500.00	$3,000.00
18.	SEEDING AND STRAW	6,500	L.F.	$1.00	$6,500.00
19.	PRESSURE AND LEAKAGE TESTING OF WATER MAIN	11,025	L.F.	$1.00	$11,025.00
20.	DISINFECTION OF WATER MAIN	11,025	L.F.	$1.00	$11,025.00
21.	1" HDPE SDR-9 CTS SERVICE LINE	430	L.F.	$15.00	$6,450.00
22.	CONNECT EXISTING SERVICES TO NEW MAIN	43	EA.	$500.00	$21,500.00
23.	REMOVE EXISTING APPURTENANCES	2	L.S.	$500.00	$1,000.00
24.	GRADE "B" BORROW BACKFILL	900	TONS	$15.00	$13,500.00

	SUB-TOTAL PROBABLE CONSTRUCTION COST	**$480,785.00**
	CONSTRUCTION CONTINGENCY (10%)	$48,215.00
	TOTAL PROBABLE CONSTRUCTION COST	**$529,000.00**

II. PROBABLE NON-CONSTRUCTION COSTS

1.	RIGHT OF WAY EASEMENT PREPARATION	$14,000.00
2.	RIGHT OF WAY ACQUISITION (12,600 L.F. X $5/L.F.)	$55,000.00
3.	LABOR FOR EASEMENT SIGNING	$9,000.00
4.	DESIGN ENGINEERING	$36,000.00
5.	BIDDING ASSISTANCE	$5,000.00
6.	CONSTRUCTION ENGINEERING	$12,000.00
7.	PROJECT INSPECTION	$51,000.00
8.	LEGAL FEES	$5,000.00
	TOTAL PROBABLE NON-CONSTRUCTION COST	**$187,000.00**

III. PROBABLE PROJECT COSTS **$716,000.00**

TABLE NO. 3
PROBABLE PROJECT COSTS
FOR
WATER STORAGE NO. 1 IMPROVEMENTS

I. PROBABLE CONSTRUCTION COSTS

TANK NO. 1 500,000 GALLON ELEVATED, 128 FEET TO OVERFLOW - COMPLETE ABRASIVE BLAST TO BARE AND REPAINT - INTERIOR AND EXTERIOR

ITEM NO.	DESCRIPTION	PROBABLE TOTAL PRICE
1.	MOBILIZATION AND DEMOBILIZATION, SAFETY, HEALTH AND ENVIRONMENTAL COMPLIANCE	$10,000.00
2.	TCLP TESTING (2 REQUIRED ON BOTH INTERIOR & EXTERIOR)	$4,000.00
3.	COMPLETELY SANDBLAST AND REPAINT INTERIOR OF TANK	$80,000.00
4.	COMPLETELY SANDBLAST AND REPAINT EXTERIOR OF TANK	$150,000.00
5.	INSTALL AND MAINTAIN CONTAINMENT SYSTEM	$65,000.00
6.	COMPLETELY SANDBLAST AND REPAINT EXPOSED PORTIONS OF THE CONCRETE FOUNDATION	$3,000.00
7.	ALLOWANCE FOR MISCELLANEOUS REPAIRS	$10,000.00
8.	ONE (1) YEAR ANNIVERSARY INSPECTION	$1,500.00
	SUB-TOTAL PROBABLE CONSTRUCTION COST	**$323,500.00**
	CONSTRUCTION CONTINGENCY (10%)	$32,500.00
	TOTAL PROBABLE CONSTRUCTION COST	**$356,000.00**

II. PROBABLE NON-CONSTRUCTION COSTS

1.	ON-SITE INSPECTION AND PAINT SYSTEM EVALUATION	$3,500.00
2.	PREPARATION OF PLANS AND SPECIFICATIONS	$9,000.00
3.	BIDDING	$5,000.00
4.	INSPECTION/ CONSTRUCTION ENGINEERING	$38,500.00
	TOTAL PROBABLE NON-CONSTRUCTION COST	**$56,000.00**

III. PROBABLE PROJECT COSTS **$412,000.00**

TABLE NO. 4
PROBABLE PROJECT COSTS
FOR
WATER STORAGE TANK NO. 2 IMPROVEMENTS

I. PROBABLE CONSTRUCTION COSTS

TANK NO. 2 400,000 GALLON ELEVATED, 110 FEET TO OVERFLOW - COMPLETE ABRASIVE BLAST TO BARE AND REPAINT - INTERIOR AND EXTERIOR

ITEM NO.	DESCRIPTION	PROBABLE TOTAL PRICE
1.	MOBILIZATION AND DEMOBILIZATION, SAFETY, HEALTH AND ENVIRONMENTAL COMPLIANCE	$10,000.00
2.	TCLP TESTING (2 REQUIRED ON BOTH INTERIOR & EXTERIOR)	$4,000.00
3.	COMPLETELY SANDBLAST AND REPAINT INTERIOR OF TANK	$70,000.00
4.	COMPLETELY SANDBLAST AND REPAINT EXTERIOR OF TANK	$130,000.00
5.	INSTALL AND MAINTAIN CONTAINMENT SYSTEM	$55,000.00
6.	COMPLETELY SANDBLAST AND REPAINT EXPOSED PORTIONS OF THE CONCRETE FOUNDATION	$2,500.00
7.	ALLOWANCE FOR MISCELLANEOUS REPAIRS	$10,000.00
8.	ONE (1) YEAR ANNIVERSARY INSPECTION	$1,500.00
	SUB-TOTAL PROBABLE CONSTRUCTION COST	**$283,000.00**
	CONSTRUCTION CONTINGENCY (10%)	$28,000.00
	TOTAL PROBABLE CONSTRUCTION COST	**$311,000.00**

II. PROBABLE NON-CONSTRUCTION COSTS

1.	ON-SITE INSPECTION AND PAINT SYSTEM EVALUATION	$3,500.00
2.	PREPARATION OF PLANS AND SPECIFICATIONS	$9,000.00
3.	BIDDING	$5,000.00
4.	INSPECTION/ CONSTRUCTION ENGINEERING	$38,500.00
	TOTAL PROBABLE NON-CONSTRUCTION COST	**$56,000.00**

III. PROBABLE PROJECT COSTS **$367,000.00**

E. ESTIMATED PROJECT SCHEDULE

In order to avoid a major upfront capital expenditure, the Boonville/New Harmony Water Main Replacement project is proposed to be completed in phases over the next four years (2021 thru 2024). The first phase of the replacement (in 2021) will start on the east end near the intersection with Windridge Court and continue west approximately 3,000 to 3,500 L.F. Subsequent phases will continue the pipe replacement westward to the intersection with SR 65.

Once, the Boonville/New Harmony Road Water Main Replacement is complete, the Bromm Road Water Main Replacement will begin. Again, to avoid a major upfront capital expenditure, this replacement project is anticipated to be completed over a five-year period (2025 thru 2029). The first phase of the replacement (in 2025) will start on the north end near the intersection with Boonville/New Harmony Road and continue south approximately 2,000 L.F. Subsequent phases will continue the pipe replacement south/southeast to the intersection with Orchard Road.

The Water Storage Tank No. 1 Improvements are anticipated to be completed in 2024 and the Water Storage Tank No. 2 Improvements are anticipated to be completed in 2026.