Petitioner's Exhibit 9

NORTHWEST JASPER REGIONAL WATER DISTRICT
Drinking Water System Improvements
DeMotte, IN

Preliminary Engineering Report
IFA: State Revolving Fund Loan Program

NORWEJ Board of Directors:

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Chapter 1 – Project Location

The project is located within the United States Geological Survey (USGS) DeMotte and Wheatfield Quadrangles. Future 20-yr expansion is also located within the USGS Shelby Quadrangle. USGS Topographic Maps showing the proposed project area, the existing service area, and the future 20-year service area are provided in Appendix A.

The Quadrangle Map, Section, Township, and Range for each project element is provided in Table 1:

Table 1: Project Location

Project Element	Quadrangle Map	Section	Township	Range	Civil Township
Kersey Well Field and Treatment Plant	DeMotte Quad	30	32N	6W	Wheatfield
SR 10 Water Main Extension	DeMotte Quad	30	32N	6W	Wheatfield
SR 10 Water Main Extension	DeMotte Quad	31	32N	6W	Keener
SR 10 Water Main Extension	DeMotte Quad	25	32N	7W	Keener
SR 10 Water Main Extension	DeMotte Quad	36	32N	7W	Keener
SR 10 Water Main Extension	DeMotte Quad	35	32N	7W	Keener
SR 10 Water Main Extension	DeMotte Quad	26	32N	7W	Keener
KVHS Water Main Extension	DeMotte Quad	30	32N	6W	Wheatfield
KVHS Water Main Extension	DeMotte Quad	29	32N	6W	Wheatfield
KVHS Water Main Extension	Wheatfield Quad	29	32	6W	Wheatfield
KVHS Water Main Extension	Wheatfield Quad	28	32N	6W	Wheatfield
KVHS Water Main Extension	Wheatfield Quad	33	32N	6W	Wheatfield

The Phase I: State Road 10 Water Main Extension project will be located within easements parallel with SR 10. Easements are being negotiated with the Indiana Department of Transportation (INDOT) and property owners. Within the DeMotte Industrial Park, the proposed water main will be located within the existing right-of-way.

The Northwest Jasper Regional Water District (NORWEJ) has purchased the property that will be used for second phase of the project, Phase II: Kersey well field and treatment plant. The property was purchased from a willing seller. A letter from the Town of DeMotte's attorney will be provided from the town's attorney stating that the acquisition complies with 49 CFR Part 24 is provided in Appendix A.

Phase III of the project, the Kankakee Valley High School Water Main Extension project, will be located within easements parallel with SR 10. Easements will be negotiated with property owners and INDOT. Within the DeMotte Industrial Park, proposed water main will be located within the existing right-of-way. Water main will also be located within easements parallel with CR N. 575 W.

Chapter 2 – Current Needs

Existing System

Distribution System

The existing distribution system, constructed in 2012, contains 23 miles of PVC C900 and PVC SDR 21 water main. Pipe diameters range from 6-inches to 10-inches. The anticipated useful life of the water main is 80-years. No part of the distribution system has yet reached the end of its useful life.

The system has been routed and sized to provide 1000-gpm at 50-psi to 60-psi. No operational problems have been reported. According to the Indiana Department of Environmental Management's (IDEM) Monthly Reports of Operations (MROs), daily flows range from 100,000-gpd (69-gpm) to 452,000-gpd (314-gpm).

Dead ends were intended to be limited during design of the system. The proposed SR 10 Water Main Extension project will attach to an existing dead end located about 500-feet west of the intersection of Orchid Street SE (CR N. 700 W.) and SR 10. The proposed Kankakee Valley High School Water Main Extension Project will connect to the SR 10 Water Main Extension Project at the intersection of Work Street and CR N. 575 W. and extend east, parallel with SR 10. While the proposed extension will enable the DeMotte Industrial Park, a 121-acre light industrial park, and several businesses and residences within the SR 10 to connect to the water system, no agreements are as of yet in place.

A map showing the existing water main locations and sizes is available in Appendix A. MRO data, from which the existing flow information was derived, is available in Appendix C.

Supply

The system was originally constructed with three wells, located within the NORWEJ system's North well field: Well 1, Well 2, and Well 3. Well 1 was never put into service because of bacterial issues. Well 3, which supplies 250-gpm, was taken offline in October 2018 because of high ammonia levels, but is still able to be used if necessary. Well 2 is currently in use and supplies 400-gpm. Well logs from the Indiana Department of Natural Resources (IDNR) are provided in Appendix C.

The North well field is locate southeast of the intersection of CR N. 700 W. and CR W. 1450 N.

Figure 1 illustrates the wells' locations, current status, and corresponding well logs.

Figure 1: North Well Field

The anticipated life of the wells was expected to be 80-years. While no supply facilities are near the end of their useful life, elevated ammonia levels within the wells have limited the long term viability of the North well field and the usefulness of improving the existing treatment system. Data provided by the water system operator indicating the rise in ammonia levels is provided in Table 2:

Table 2: Ammonia Levels
March 2014 – August 2019

Date	Well #2* (ppm)	Well #3** (ppm)
3/21/2014	0.070	0.047
8/17/2015	0.105	0.816
5/6/2016	0.067	0.924
6/16/2016	0.079	1.11
2/6/2017	0.054	0.751
6/9/2017	0.111	1.20
7/10/2018	0.114	1.21
9/28/2018	0.117	1.33
4/8/2019	0.227	1.96
6/1/2019	0.339	-
8/25/2019	0.455	-

***Note: Well #1 was never put into service**
****Note: Well #3 was taken offline in October 2018 due to elevated ammonia levels**

The design capacity of the system is 650-gpm. The average water usage is approximately 98-gpm, but the peak maximum water use is recorded as 314-gpm. Well 2, capable of providing 400-gpm, is capable of meeting current peak demands. However, since Well 3 was taken offline, there is no pumping redundancy within the system. While Well 3 could be put back online in an emergency situation, maintaining adequate chlorine residuals would become a significant challenge. With Well 3 offline, NORWEJ is able to maintain a sufficient chlorine residual.

Installing a new well field and treatment plant will allow NORWEJ to reliably meet system demands, remove the water quality issues and difficulties in maintaining adequate chlorine residuals associated with the elevated ammonia levels, and add water supply redundancy to the water system. Since its formation, NORWEJ has planned to have a second water source, in addition to the North well field.

See Appendix A for exhibits that illustrate the existing system.

Storage

Water is stored within the DeMotte water tower, an elevated storage tank located adjacent to Spencer Park. The elevated storage tank holds 500,000-gallons and has a high water elevation of 160-feet above ground.

The elevated storage tank has an anticipated useful life of 80-years, with painting required every 15-years. No part of the storage facility is at the end of its useful life.

The storage facility is currently adequate for the system's needs. There are no known operational issues with the elevated storage tank.

See Appendix A for an exhibit showing the DeMotte water tower's location.

Treatment

Water treatment occurs within a split face block building approximately 43' x 32' in size.

As raw water enters the building, it passes through an aerator and is stored in a detention tank. The detention tank has two 6,500-gallon departments and a 7,750-gallon pump chamber, for a total of 20,750-gallons of storage. The raw water is pumped by two high service pumps from the detention tanks through four (4) pressure filters together capable of treating up to 650-gpm at a rate of 3.2-gpm/sft for iron and manganese. The filtered water is then treated with chlorine and orthophosphates and enters the distribution system.

The pressure filters are backwashed periodically. Backwash water is stored in a tank that is the same size as the detention tank and then combined with well water and recycled through the treatment system. Recycled backwash water comprises less than 10-percent of the total flow.

Below is a list of the useful life cycle for different components of the treatment plant:

- Chemical Feed Pumps 5 years
- Backwash Reclaim Pumps 7 years
- Submersible Well Pumps 10 years
- Aerator 50 years
- Service Pumps 25 years
- Roof on treatment building 20 years
- Pressure Filters 40 years
- Backwash Holding Tanks 40 years

The chemical feed pumps and backwash reclaim pumps are nearing the end of their useful life cycle; however, they are not planned to be replaced as part of this project. The system is currently adequately sized and there are no known operational problems with the treatment facility.

See Exhibit A-2 for a process schematic.

Documents:

There have not been any documented agency mandated corrective actions.

Area Population

According to the US Census Bureau 2010 Demographic Profile, the population of the Town of DeMotte is 3,814. The system was originally designed for an estimated population of 5,000 people in 20-years.

Existing Consumption

The following tables describe the existing water usage as obtained from the NORWEJ water operator and billing department.

Table 3: Water Pumped vs. Water Sold
January 2018 – January 2019
Source: Water Operator

Month, Year	Water Pumped (gallons)	Water Sold (gallons)
January, 2018	4,289,000	3,954,465
February, 2018	3,737,000	4,004,080
March, 2018	4,080,000	3,902,458
April, 2018	4,682,000	4,053,471
May, 2018	4,981,000	4,459,572
June, 2018	4,726,000	4,930,006
July, 2018	5,221,000	4,528,197
August, 2018	5,023,000	5,062,327
September, 2018	4,624,000	4,335,521
October, 2018	4,699,000	4,009,923
November, 2018	3,962,000	3,957,295
December, 2018	4,210,000	3,950,109

Table 4: Estimated Public Water Use
January 2018 – January 2019
Source: Water Operator

User Type	Consumption (gallons)
Government	18,067,000
Public Fire	1,335,000
Total	**19,402,000**

Table 5: Percent Water Loss
January 2018 – January 2019
Source: Water Operator

Usage	Consumption (gallons)
Pumped - Sold	54,234,000 – 51,147,424
	= 3,086,576
Public Fire	- 1,335,000
Total Not Billed or Accounted for	**1,751,576**
Water Loss Percent	**3.22%**

Table 6: Consumption by User Type
January 2018 – January 2019
Source: Billing Department

User Type	Consumption (gallons)	Percentage of Use
Domestic	37,581,662	73%
Institutional/Commercial	11,303,789	22%
Industrial	0	0%
Public	2,261,973	5%
Total	**51,147,424**	**100%**

Table 7: Design Flows for Existing System
See Exhibit A-2: Process Schematic

Type	Flow	Notes
Average Design Flow	370,080 gpd	Exhibit A-2
Max Peak Design Flow	650 gpm	Exhibit A-2
Max Peak Daily Flow	936,000 gpd	650-gpm * 1440 min/day
Max One-Hour Peak Flow	39,000 gph	650-gpm * 60 min/hr

WTP and Backwash Flows

s

Plant backwash water is recycled and reused. Recycled water comprises less than 10% of the total flow. See Exhibit A-2 for a plant process schematic.

Significant Water Users

Water use is predominately domestic. The existing system services 450 single family homes, two apartment buildings, one mobile home park containing 81 units, two elementary schools totaling 943 students and staff, one high school of 130 students and staff, and 91 general commercial businesses including retail stores, restaurants, gas stations, and churches. These figures encompass approximately 40% of DeMotte's population and create a total average daily demand of 141,146-gpd, or 98-gpm, according to the system's MROs.

An expected water usage study was conducted in 2011. Table 8 lists prominent significant users according to this study. For purposes of this table a "significant user" was defined as a user above 500-gpd.

Table 8: NORWEJ Significant Users

Name	Address	Anticipated Flow (gpd)
Porter Hospital, LLC	404 10th St. SW	755
Stamac Management, LLC	410 15th St. SE	4,800
DeMotte American Legion Post	1011 15th St. SE	900
Roman Catholic Diocese / St. Cecelia Catholic Church	332 15th St. SW	1,000
DeMotte Christian School	611 15th St. SW	3,250
First Christian Reformed Church of DeMotte	703 15th St. SW	1000
Faith Lutheran Church, Corp.	1700 S. Halleck St.	600
Kingma, Roy E ½ & (MD)	520 8th Ave. NW	1,020
Beverly J Nannenga	810 8th Pl. SW	800
Vanvuren, Jacob J & Donna M	1660 Almond St. SW	800
Gouwens, Roy & Deborah R	200 Begonia St. NE	2,000
DeMotte Christian School, INC	12223 Begonia St. SE	4,800
Myers Construction Co	1202 & 1210 Begonia St. SE	1,600
Maple Lake Development, LLC	303 Carnation St. NE	800
Pines Apartments of DeMotte	621 Carnation St. SE	4,800
Indiana Property Management, INC	685 Carnation St. SE	800
Country Place Apartments XLI	157 Division St. E	4,800
Oak Grove Christian Retirement	221 Division St. W	8,000
Walgreens	226 Halleck St. N	1,060
DeMotte Methodist Church	227 Halleck St. N	1,500
Hamstra Builders, INC	227, 305, 500, 313, 334 Halleck St. N	13,560
McDonald's Corporation	338 Halleck St. N	1,750
Half Dozen, INC (Dairy Queen)	341 Halleck St. N	1,400
Hamstra Group (Pizza Hut)	421 Halleck St. N	2,625
Grube, R. Arlene Revocable (Subway)	437 Halleck St. N	2,160
Vanbaren, Garry W & Walita A	507 Halleck St. N	915
Schultz, Helen	539 Halleck St. N	1,270
M&T Investments LLC	603 Halleck St. N	1,160
Community Bible Church	814 Halleck St. N	1,000
DeMotte State Bank	210, 228, 305 Halleck St. S	800
Bethel Christian Church	521 Halleck St. S	1,000
Kallorda Group LLC	516 Halleck St. S	600
Veronica A. O'Neal	900 Halleck St. S	600
Kooy, Wilmer R &	901 Halleck St. S	600
American Reformed Church	1021 Halleck St. S	1,900
Kankakee Valley School Corporation (DeMotte Elementary School)	1000 Halleck St. S	9,345
First Christian Church	1633 Halleck St. S	800

A summary of the NORWEJ's MROs and flows from the 2011 expected water usage study are included in Appendix C.

See Appendix A for exhibits showing the existing system.

Chapter 3 – Future Needs

20-year Population Projection

According to the U.S. Census information from the Indiana Business Research Center, the population of DeMotte was 3,814 people in the 2010 census and was projected to increase to 4,082 people in 2018, showing a growth rate of 6.5% and placing DeMotte as the 64th fastest growing city or town in the state for this period.

The project will extend the NORWEJ system beyond the Town of DeMotte's borders; consequently, Jasper County projections were also researched for this report. According to the Indiana Business Research Center, the population of Jasper County is projected to be 33,879 people in 2020 and 37,906 people in 2040. According to these projections, the population of Jasper County is projected to grow by approximately 11.9% within the next 20-years.

Population projections are documented in Appendix B.

Beyond population projections, it is important to note that a majority of the Town of DeMotte is not currently connected to the NORWEJ system. Based on an analysis of the number of properties within 800-feet of a fire hydrant, there are 1023 potential connections. These connections consist of both businesses and residences. As their private wells fail, these residences and businesses are expected to connect to the NORWEJ system. Documentation from the Town Manager is provided in Appendix B.

Kankakee Valley High School (KVHS), Kankakee Valley Middle School, and Kankakee Valley Intermediate School are all located east of DeMotte along SR 10. Kankakee Valley School Corporation has been presented with the option to connect to the water system and has expressed interest in connecting. Additionally, KVHS is expanding and one of their proposed buildings will overlap with their current wells sanitary radius. Based on this situation, IDEM has expressed a desire for the KVHS to connect to the water system. This situation has been documented in Appendix B.

School board minutes documenting the presentation of the water system to KVHS and NORWEJ Board Minutes stating that agreements are in progress are provided in Appendix B.

A commercial development, an industrial park, several residential developments, churches, and undeveloped land are also present along this corridor. Although no formal agreements are in progress yet, the proposed expansion will enable service to these facilities. These facilities already exist and no other future developments are currently platted.

Because the NORWEJ system is the closest water provider to the Exit 230 interchange at I-65 and SR 10, Phase IV of NORWEJ's expansion plan proposes to extend service to the future development, existing businesses, and INDOT's rest stop within this area. Discussion is ongoing, but no written agreements are available yet. These agreements are in progress and the fact that they are in progress is document in NORWEJ Board Minutes available in Appendix B. This expansion is not going to be funded with the Drinking Water State Revolving Fund (DWSRF) loan

obtained following this PER, but since the expansion is planned, flow values were included in calculating the 20-year Design Flow.

20-year Design Flow

The existing system services approximately 40% of DeMotte's population and satisfies a total average daily demand of 141,146-gallons per day. 20-year design flow calculations were based on known information about expansion to the areas outlined above and were calculated according to 327 IAC 8-3.3-2. The following 20-year flows are anticipated:

Table 9: 20-yr Design Flows

Additional 20 Yr Design Treatment Plant Flows	Flow (gpd)	Notes
Domestic (D)	183,100	
Commercial/Institutional (C)	100,240	
Industrial (I)	0	While the SR 10 Extension will pass through the DeMotte Industrial Park, no agreements for industrial connections are in place.
Total D,C,I	283,340	Avg. Additional Flow
Average Design Flow	424,486	Avg. Additional Flow + Current Avg. Flow
Peak D,C,I	1,083,860	Peak Additional Flow
Peaking Factor	3.19	
Peak Design Flow	1,255,860	Peak Additional Flow + Current Max Flow

Calculations for the 20-yr Design Flows are provided in Appendix C.

20-Year System Needs

System expansion is planned in four phases:

Phase I: State Road 10 Water Main Extension Project
Phase II: Kersey Well Field and Treatment Plant Project
Phase III: Kankakee Valley High School Water Main Extension Project
Phase IV: I-65 Extension Project

Phases I-III are planned to be funded through the DWSRF loan program and are included in this PER. Phase IV will be funded through another source and consequently is not discussed within this PER.

Distribution System

In Phase I and Phase III of NORWEJ's planned expansion, distribution main will need to be constructed in the following areas:

Table 10: Distribution System Needs

Phase	Project Name	Description of Water Main Construction	Approximate Length of Water Main Construction
Phase I	State Road 10 Water Main Extension Project	Connect to existing system about 500 feet west of the intersection of Orchid Street and SR 10. Continue east and north, parallel with SR 10, Industry Drive, Work Street, CR 575 W, and Commercial Drive to the Kersey Well Field	9,150-lft
Phase III	Kankakee Valley High School Water Main Extension Project	Connect to SR 10 Ext. Project at the intersection of Work Street and CR 575 W. Continue south and west, parallel with CR 575 W and SR 10 to KVHS.	11,400-lft

Supply

In Phase II of NORWEJ's planned expansion, a new treatment plant and well field will be constructed. This field will be called the Kersey Well Field and will be located southeast of DeMotte. Three production wells (PW-1, PW-2, and PW-3) have been constructed in the Kersey well field. Table 11 summarizes the supply needs:

Table 11: Supply Needs

Phase	Project Name	Description of Supply Project
Phase II	Kersey Well Field and Treatment Plant Project	Construct well-houses and relevant site design and install pumping equipment for production wells within the Kersey well field

Based on production tests, the Kersey well field has a firm capacity of 450-gpm.

Production well pump tests and water analyses are available in Appendix D.

Storage

Additional elevated tanks will likely be required for pressure regulation and for supplying fire protection as the system expands. However, no designs or estimates regarding elevated tanks have been completed at this time. Consequently, additional storage is not being funded through the DWSRF loan program with this PER.

Treatment

According to projected water use calculations, after expansion, in 20-years, the system will have an average use of 316-gpm, and a peak use of 872-gpm. The proposed capacity of the Kersey treatment plant is 450-gpm. On the occasional occurrences where demand exceeds the plant capacity, additional flow will come from treated water stored within the DeMotte water tower. The 500,000 gallon water tower is capable of providing 556-gpm, the difference between projected peak and average flow values, for up to 12-hours. Additional flow may also come from the Well 2 at the existing North well field, which can produce 400-gpm.

Chapter 4 – Evaluation of Alternatives

Several alternatives were considered in addressing the system's issues of high ammonia levels and lack of water supply redundancy. Alternatives concentrating on addressing water supply include: 1) No Action; 2) Optimum Operation of Existing Facility: New Wells near Existing Plant; 3) Optimum Operation of Existing Facility: Rehabilitate the Existing System with Reverse Osmosis; 4) Expand/Upgrade: Purchase Kankakee Valley Intermediate School's System; 5) Expand/Upgrade: Partner with Kankakee Valley Intermediate School; 6) Expand/Upgrade: New Well Field and Treatment Plant near Kankakee Valley Middle School.

1. No Action

The No Action alternative does not address the project needs for an improved water supply due to elevated ammonia levels in water from the North well field. Additionally, it does not fit within NORWEJ's plan for expanded service to Kankakee Valley High School, nor allow any future connections within the SR 10 corridor, nor does it provide water supply redundancy for the NORWEJ system.

2. Optimum Operation of Existing Facility: New Wells near Existing Plant

This alternative proposes to drill new wells near the existing plant at the North well field and pipe the raw water to be treated at the existing plant. The existing wells in the North well field would then be abandoned. Depending on the type of wells that would be constructed, this option is expected to cost $1,150,000 - $1,568,780, including contingency and engineering.

Since the new wells would be drawing from the same aquifer as the existing wells, they are likely to have the same ammonia issues as the existing wells. Furthermore, this option does not add water supply redundancy. Therefore, this option was not chosen.

3. Optimum Operation of Existing Facility: Rehabilitate the Existing System with Reverse Osmosis System

This alternative proposes to add additional treatment measures to the existing system in order to treat water from the North well field for ammonia through reverse osmosis. Because of the distance between the North well field and the existing sanitary sewer system, the costs to connect the existing plant to the sanitary system are prohibitive. Additionally, this option incurs the costs of an RO system and additional sanitary sewer without the additional benefit of water supply redundancy that would come with investing these funds into a new well field and treatment plant.

4. *Expand/Upgrade: Purchase Kankakee Valley Intermediate School's System*

This alternative proposes to purchase an existing well and treatment system owned by Kankakee Valley Intermediate School. This option was estimated to cost $2,375,540, including contingency and engineering. This option would add redundancy and increase the system's capacity from 650-gpm to 950-gpm. However, Kankakee Valley Intermediate School currently uses their well system for both the school's needs and for irrigation. Consequently, the school was unwilling to sell their land and wells.

5. *Expand/Upgrade: Partner with the Kankakee Valley Intermediate School*

This alternative proposes to partner with the Kankakee Valley School System by constructing a new well field, but using the school's existing treatment plant. The new well field would be located to the north of the school, and the school would be able to keep their well for irrigation. The approximate cost for this option was $3,598,320, including contingency and engineering. However, the school was unwilling to agree to this option; consequently, this option was not chosen.

6. *Expand/Upgrade: New Well Field and Treatment Plant near Kankakee Valley Intermediate School*

This alternative proposes to construct three new wells within the Kersey well field, located between Work Street and Commercial Drive and west of CR N. 575 W. This property is located south east of the Town of DeMotte and just west of Kankakee Valley Intermediate School.

A new treatment plant will be constructed on site to treat the raw water. Potable water will be piped from the Kersey well field and connected into the existing system.

Selection of the Alternate

The selected alternative comprises Phase II of NORWEJ's planned expansion: Kersey Well Field and Treatment Plant Project. Installing the well field and treatment plant in the DeMotte Industrial Park east of the Town limits was selected because this option fits within hydraulic and geographic constraints, will be constructed on property obtained from a willing seller, provides the NORWEJ system with water supply redundancy, and removes the ammonia issues present with the current well field. The well field will also allow water to be produced closer to users, which may reduce long-term overall pumping costs and improve the fire protection of the system.

This alternative is complemented by Phase I: State Road 10 Water Main Extension Project, which will connect the new well field to the existing system and Phase III: Kankakee Valley High School Water Main Extension Project. Phase III will enable Kankakee Valley High School to connect to the system, allowing the school to expand their facilities without encroaching on their current wells' sanitary setback radii.

After the construction of these phases is complete, other businesses and residences in the area will also be able to connect to the system, although no other agreements are as of yet in place.

Table 12 lists the alternates and reasons why they were not selected:

Table 12: Alternate Selection

Alternate No.	Description	Reason for Rejection
1	No Action	Does not address elevated ammonia levels or provide water supply redundancy.
2	Optimum Operation of Existing Facility: New Wells near Existing Plant	Potential for the continued presence of elevated ammonia levels because water will be drawn from the same aquifer. Does not provide water supply redundancy.
3	Optimum Operation of Existing Facility: Rehabilitate Existing System with RO Treatment	Does not provide water supply redundancy.
4	Expand/Upgrade: Purchase Kankakee Valley Middle School's System	KV Intermediate School did not agree
5	Expand/Upgrade: Partner with Kankakee Valley Middle School	KV Intermediate School did not agree
6	Expand/Upgrade: New Well Field and Treatment Plant near Kankakee Valley Middle School	Selected

Chapter 5 – Evaluation of Environmental Impacts

Environmental Coordination with the SRF, the USFWS, the IDNR, and the SHPO is recorded in Appendix I.

Disturbed and Undisturbed Land

This site for the proposed well field and treatment plant is farmland. This land is considered undisturbed land for this report and may be subject to archaeological investigation. Borrow soil will also come from this area of farmland.

In Phase I: State Road 10 Water Main Extension Project, the proposed water main will be parallel with SR 10, Work Street, CR N. 575 W., and Commercial Drive within the platted right-of-way, or located outside of the right-of-way within easements. In Phase III: Kankakee Valley High School Water Main Extension Project, the proposed water main will be parallel with CR N. 575 W. and SR 10, within the right-of-way or within easements located outside of the right-of-way. These proposed routes traverse agricultural fields which would be considered undisturbed land and may be subject to archaeological investigation. The proposed water main route also travels through an industrial park. This land has recently been excavated for construction within the industrial park and therefore would be considered disturbed land.

See Appendix E for an exhibit showing the proposed improvements with an aerial photograph.

Historical and Architectural Resources

According to the Jasper County Interim report, this project is not located on or near any Historic Districts or historic or architecturally significant sites.

NORWEJ has contracted with Ball State University to conduct a Phase 1a Archaeological Reconnaissance report for the properties on which Phase II: Kersey Well Field and Treatment Plant will be constructed. The fieldwork was completed on October 26th, 2019. The report is included in Appendix H.

See Appendix A for maps showing the project location the Indiana Department of Natural Resources (IDNR) Buildings, Bridges, and Cemeteries Maps.

Wetlands

In Phase I: State Road 10 Water Main Extension Project, the proposed water main extension will be directionally drilled under Bradbury Ditch, a Canal/Ditch Classified Flowline. In Phase III: Kankakee Valley High School Water Main Extension Project, the proposed water main will be directionally drilled under Hobbs Ditch, Wesner Ditch, an unnamed ditch, and Schatzley Ditch. Mitigation measures to lessen and compensate for wetland impacts cited in comment letters about the project from the Indiana Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented.

There are no Wetland Inventory Points, Wetland Inventory Lines, or Managed Lands located within or near the project area. There is one freshwater pond located adjacent to the project area; the pond serves as detention for a nearby asphalt plant. Measures will be taken to reduce potential impacts to this pond.

See Appendix A for a map showing wetland locations.

Hydrology

Surface Waters

The proposed route will require crossing the following perennial streams: Bradbury Ditch, Hobbs Ditch, Wesner Ditch, an unnamed ditch, and Schatzley Ditch. These ditches are perennial streams and will be crossed by directional drilling.

Groundwater

Installing new wells has the potential to affect ground water levels. As part of the design of the system, an aquifer draw down test is will be completed to determine the impact of pumping on aquifer levels. Pumping rates and well field capacity will be adjusted based on the results of the testing.

100-Year Floodplains and Floodways

No part of the project is located within the 100-year floodplain. The project was mapped on Federal Emergency Management Agency (FEMA) Panels 18073C0083C, 18073C0085C, 18073C0105C, 18073C0115C, and 18073C0095C.

FEMA maps showing the proposed project area are included in Appendix A.

Plants and Animals

The project will be implemented to minimize impact to non-endangered species and their habitat. Mitigation measures cited in comment letters from the Indiana Department of Natural Resources (IDNR) and the U.S. Fish and Wildlife Service (USFWS) will be implemented. No negative effects to plants and animals or wooded or scrub/shrub habitats are anticipated to result from this project.

Prime Farmland and Geology

The National Resource Conservation Service (NRCS) in Jasper County has been sent a copy of Form AD-1006, a soils map, and an exhibit showing the proposed improvements.

The State Conservationist has determined that this project will not cause a conversion of prime farmland.

A copy of the form, the NRCS's response, and a soil map are all provided in Appendix F.

Air Quality

Jasper County is currently in compliance with National Ambient Air Quality (NAAQ) standards. No part of this project is expected to contribute regulated pollutants to the environment; consequently, this project is not expected to affect the compliance of Jasper County. Construction vehicles will be required to adhere to state emission regulations. While dust will be present during construction, it will be temporary and cease when construction is complete. Dust inhibitors and watering will be used during construction.

During construction, construction vehicles and machinery will create some noise pollution, and residents may be adversely affected by the noise. Special provisions for reducing construction noise, such as restricting work hours and maintaining equipment mufflers, will be implemented to reduce noise.

Open Space and Recreational Opportunities

The proposed project's construction and operation will neither create nor destroy open space and recreational opportunities.

Lake Michigan Coastal Program

The proposed project will not affect the Lake Michigan Coastal Zone.

National Natural Landmarks

The construction and operation of the proposed project will not affect National Natural Landmarks.

Secondary Impacts

The Town of DeMotte, through the authority of the Town Council appointed NORWEJ Board, will ensure that future development, as well as future supply, storage, distribution, or treatment works projects connecting to SRF-funded facilities will not adversely affect wetlands, wooded areas, steep slopes, archaeological/historical/structural resources or other sensitive environmental resources. The Town will require new development and treatment works projects to be constructed within the guidelines of the U.S. Fish and Wildlife Service, IDNR, IDEM, and other environmental review authorities.

Mitigation Measures

Since more than 1-acre of land will be disturbed, a Stormwater Pollution Prevention Plan (SWPPP/SWP3) will be made and Indiana Rule 5 will be adhered to. Best Management Practices (BMPs) will be installed to reduce surface runoff.

Chapter 6 – Proposed Project

Project Components

The system improvements project to be funded with the Drinking Water State Revolving Fund (DWSRF) loan consists of the following three phases:

Phase I: State Road 10 Water Main Extension Project
Phase II: Kersey Well Field and Treatment Plant Project
Phase III: Kankakee Valley High School Water Main Extension Project

Phase I: State Road 10 Water Main Extension Project

The State Road 10 Water Main Extension Project will consist of approximately 9,150 lineal feet of C900 PVC water main and all appropriate fittings. This project will connect the Kersey well field and treatment plant to the existing system.

The proposed extension will connect to the existing system about 500-feet west of the intersection of Orchid Street and SR 10. Then, the water main will continue east and north, parallel with SR 10, Industry Drive, Work Street, CR 575 W, and Commercial Drive to the Kersey well field.

This project will allow the needs of the project to be met by connecting the new water source to the system, thereby removing the current issues regarding high ammonia levels and adding water supply redundancy to the system.

An exhibit showing the proposed improvements and a cost estimate are provided in Appendix E.

Phase II: Kersey Well Field and Treatment Plant Project

The Kersey production wells, PW-1, PW-2, and PW-3 have been drilled in a well field that is comprised of the following addresses:

1. 5931 Commercial Drive, DeMotte, IN 46310
2. 5853 Commercial Drive, DeMotte, IN 46310
3. 5781 Commercial Drive, DeMotte, IN 46310

The production well raw water analyses indicate levels above the Method Detection Limit (MDL) levels for the following tests:

Table 13: Tests above MDL

Well	Tests above MDL
PW-1	Heterotrophic Plate Count, Iron, Potassium, Magnesium, Turbidity, Chloride, Calcium, Carbon Dioxide, DO, Odor, Conductivity, Silica, Sulfate, Calcium Hardness, Dissolved Solids, Alkalinity, Alkalinity bicarbonate, Barium, Sodium, Fluoride
PW-2	Total Coliform, Heterotrophic Plate Count, Barium, Nickel, Sodium, Fluoride, Potassium, Magnesium, Turbidity, Chloride, Nitrogen/Ammonia, Calcium, Carbon Dioxide, DO, Odor, Conductivity, Silica, Sulfide, Sulfate, Calcium Hardness, Dissolved Solids, Alkalinity
PW-3	Heterotrophic Plate Count, Barium, Nickel, Sodium, Fluoride, Iron, Potassium, Magnesium, Turbidity, Chloride, Nitrogen, ammonia, Calcium, Carbon Dioxide, DO, Odor, Conductivity, Silica, Sulfate, Calcium Hardness, Dissolved Solids, Alkalinity, Alkalinity Bicarbonate

Raw water analyses are included in Appendix D.

Field tests will be conducted to confirm levels of hydrogen sulfide and determine whether or not treatment is necessary.

The type of treatment has not yet been chosen.

The following options are being considered:

Table 14: Water Treatment Options

Option	Manufacturer	Treatment Type	Total Cost	Notes
Treatment Option #1	AOP	Reverse Osmosis	$1,975,000 + Opt. $175,000	Option is for Concentrate Recycling System Filters 50% of 450-gpm flow
Treatment Option #2	AOP	Ion Exchange/Softening	$1,700,000	Filters 50% of 450-gpm flow
Treatment Option #3	AOP	Filter King (Single Unit Combined Softening and Aeration System)	$1,550,000	Filters 100% of 450-gpm flow
Note: Another option being considered is to use ion exchange resin that specifically filters ammonia, instead of iron and manganese. No cost estimates or manufacturer quotes have yet been obtained for this option.				

Treatment design will be finalized after the field tests for hydrogen sulfide have been completed. Final design will be contingent on whether or not treatment for hydrogen sulfide is required. If the raw water must be treated for hydrogen sulfide, Option #3 will be chosen and the hydrogen sulfide will be removed with aeration. If hydrogen sulfide does not need to be removed, Option #1 will be chosen, because it requires less maintenance than Option #2: Ion Exchange and also treats for ammonia. For the purposes of the cost estimates provided later in this report, Option #1 was chosen.

The Kersey well field and treatment project will also include the site design for the wellfield and treatment plant. This portion of the project includes well houses, access roads, and parking and storm water management at the treatment facility. Sanitary sewer required to connect the new plant to the existing sanitary sewer system is also proposed to be funded with this project.

Cost estimates for treatment options are included in Appendix A.

The Kersey well field and treatment project will enable the NORWEJ system to remove the current issues with water quality and provide water supply redundancy.

A Wastewater Treatment Plant Capacity certification letter will be provided after treatment design is finalized.

An exhibit showing the proposed improvements and a cost estimate are provided in Appendix E.

Phase III: Kankakee Valley High School Water Main Extension Project

The Kankakee Valley High School Water Main Extension Project will consist of approximately 11,400 lineal feet of C900 PVC water main and all appropriate fittings. This project will extend water main from the Kersey well field to Kankakee Valley High School.

The proposed extension will connect to the system at the intersection of CR 575 W and Work Street. Then, the water main will continue south and east, parallel with CR 575 W and SR 10 to Kankakee Valley High School.

This project will allow NORWEJ to service Kankakee Valley Schools, a future user with a documented interest in purchasing water.

Hydraulic Model

A hydraulic model of the existing system has been created using Bentley OpenFlows WaterGEMS. The model was used in sizing the water main for Phase I: State Road 10 Water Main Extension project and will be used in the future design for sizing Phase III: Kankakee Valley High School Water Main Extension Project.

Preliminary Design Summary

The Preliminary Design Summary, Attachment 4, is provided in Appendix H.

Project Layout

A layout of the proposed project is provided in Appendix D.

Project Component Costs

The following tables outline the costs of each component of the proposed project.

Table 15: Construction Costs

Type	Construction Project Cost	Contingencies	Total Costs
Phase I: SR 10 / US 231 Water Main Extension	$1,121,710.00	$112,171.00	$1,233,881.00
Phase II: Kersey Well Field and Treatment Plant	$2,531,040.00	$253,104.00	$2,784,144.00
Phase III: Kankakee Valley High School Water Main Extension	$1,411,850.00	$141,185.00	$1,553,035.00
TOTAL CONSTRUCTION	$5,064,600.00	$506,460.00	$5,571,060.00

Table 16: Total Project Costs

Type	Project Cost
Administrative and Legal	$250,000.00
Land and Right of Way Acquisition	$151,500.00
Relocation	$0.00
Engineering Fees	$506,460.00
Construction	$5,571,060.00
Project Inspection	$506,460.00
Total Project Cost	$6,985,480.00

Itemized preliminary construction cost opinions are included in Appendix E.

Project Schedule

The system improvements have been divided into four phases. Phases I-III are to be funded with the DWSRF loan and are discussed within this PER.

Anticipated schedules for the projects are below:

Table 17: Phase I – State Road 10 Water Main Extension Project

Milestone	Completion Date
Plans and Specifications	May 29, 2020
Land and Easement Acquisition	June 30, 2020
Bid Advertisement	July 2, 2020
Loan Closing	July 1, 2021
Contract Award	July 27, 2020
Initiation of Construction	August 17, 2020
Substantial Completion of Construction	December 7, 2020
Initiation of Operation	**January 7, 2021**

Table 18: Phase II – Kersey Well Field and Treatment Plant Project

Milestone	Completion Date
Plans and Specifications	June 26, 2020
Land and Easement Acquisition	June 30, 2020
Bid Advertisement	July 2, 2020
Loan Closing	July 1, 2021
Contract Award	July 27, 2020
Initiation of Construction	August 24, 2020
Substantial Completion of Construction	February 22, 2021
Initiation of Operation	**March 22, 2021**

Table 19: Phase III – Kankakee Valley High School Water Main Extension Project

Milestone	Completion Date
Plans and Specifications	July 30, 2020
Land and Easement Acquisition	July 31, 2020
Bid Advertisement	August 6, 2020
Loan Closing	July 1, 2021
Contract Award	August 24, 2020
Initiation of Construction	September 14, 2020
Substantial Completion of Construction	January 4, 2021
Initiation of Operation	**February 4, 2021**

Phasing:

The portion of NORWEJ's expansion to be funded through the DWSRF loan will be constructed in three phases: Phase I – State Road 10 Water Main Extension Project, Phase II – Kersey Wellfield and Treatment Plant, and Phase III – Kankakee Valley High School Water Main Extension Project. Each phase will be constructed according to the schedules above. Phases are expected to be constructed concurrently.

Green Project Reserve (GPR) Sustainability Incentive:

The Green Project Reserve (GPR) Sustainability Incentive will not be pursued for this project.

Chapter 7 – Legal, Financial, and Managerial Capabilities

SRF Forms

See Appendix H for the Signatory Authorization and PER Acceptance Resolution.

See Appendix H for the SRF Financial Information Form.

Asset Management Program

The Town will develop an Asset Management Program that meets the requirements defined by the State Revolving Fund's Asset Management Program Guidelines pursuant to Indiana Code 5-1.2-10-16. An AMP Certification Form is provided in Appendix H.

Prior to SRF Loan Closing, NORWEJ will submit proof that all needed land and easements have been secured and signed agreements with significant users.

Chapter 8 – Public Participation

A public hearing has been held regarding this project. The notice was published in the Rensselaer Republican 10-days prior to the hearing and include the notice in Appendix G. The project was discussed. The PER was available for public review at the DeMotte Town Hall 10 days prior to the public hearing. Written comments were accepted at the hearing and for eight days

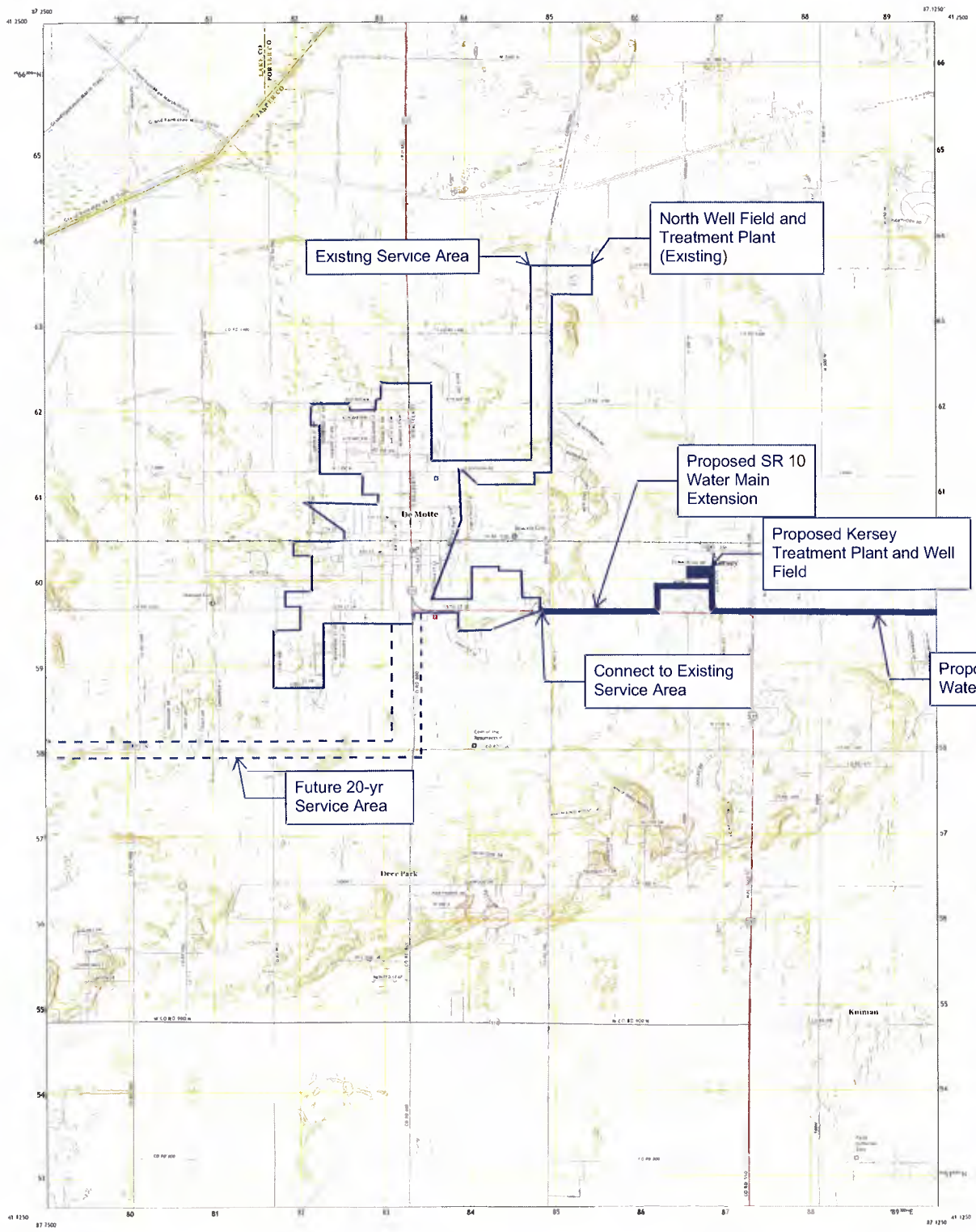
after the hearing; written comments were sent to the DeMotte Town Hall, 112 Carnation Street SE, DeMotte, IN 46310.

A copy of the Public Hearing notice is available in Appendix G.

A sign in sheet, copy of the minutes, written comments, and self-sticking mailing labels to attendees, interested parties, and local media outlets will be provided after the hearing is held.

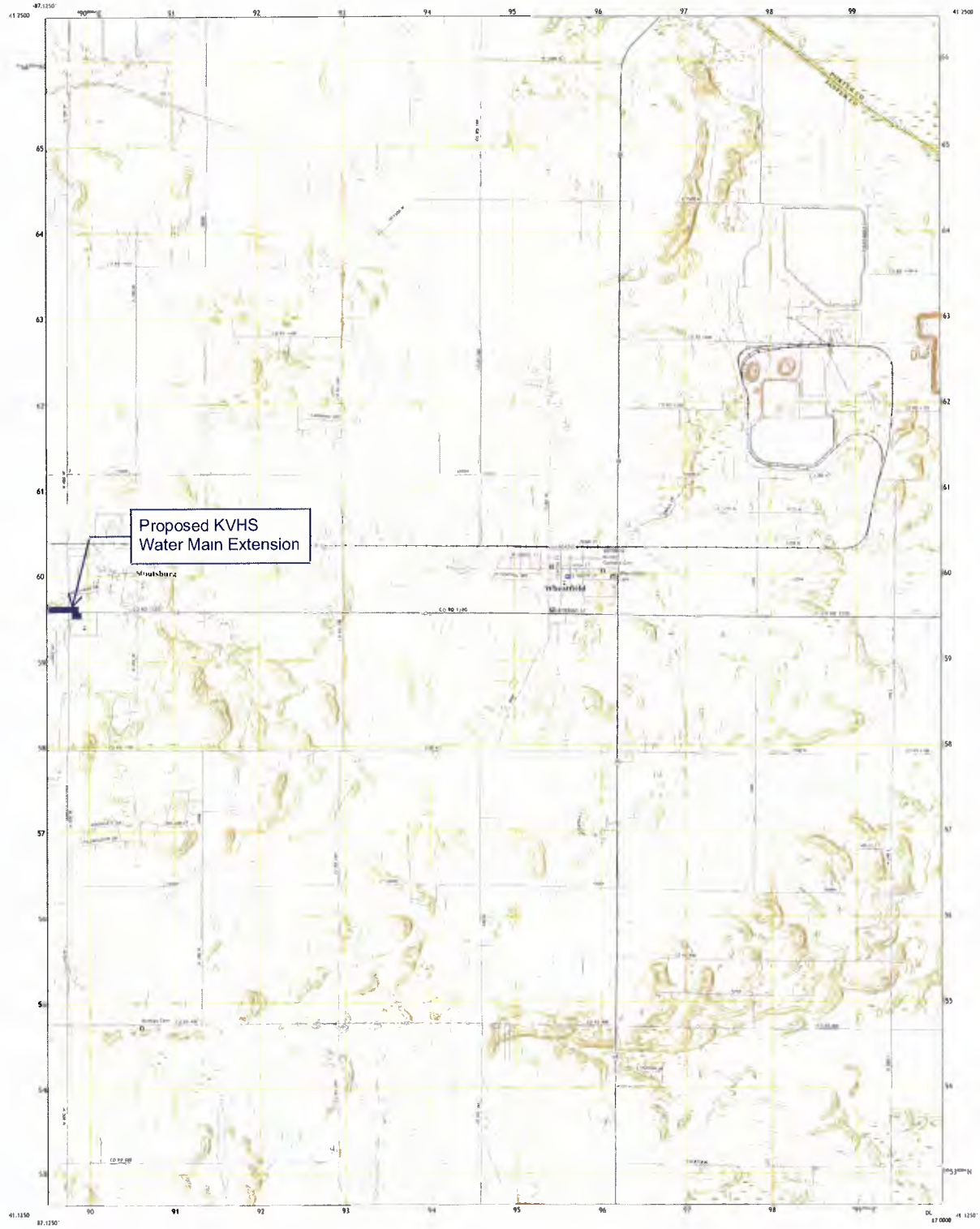
Appendix A
Exhibits

EXHIBIT A-1
USGS DeMotte Quad Map



DEMOTTE, IN
2019

EXHIBIT A-1
USGS Wheatfield Quad Map



Produced by the United States Geological Survey

SCALE 1:24 000

CONTOUR INTERVAL 5 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

This map was produced to conform with the
National Geospatial Program US Topo Product Standard, 2011.
A metadata file associated with this product is draft version 0.6.15

WHEATFIELD, IN
2019

EXHIBIT A-1
USGS Shelby Quad Map

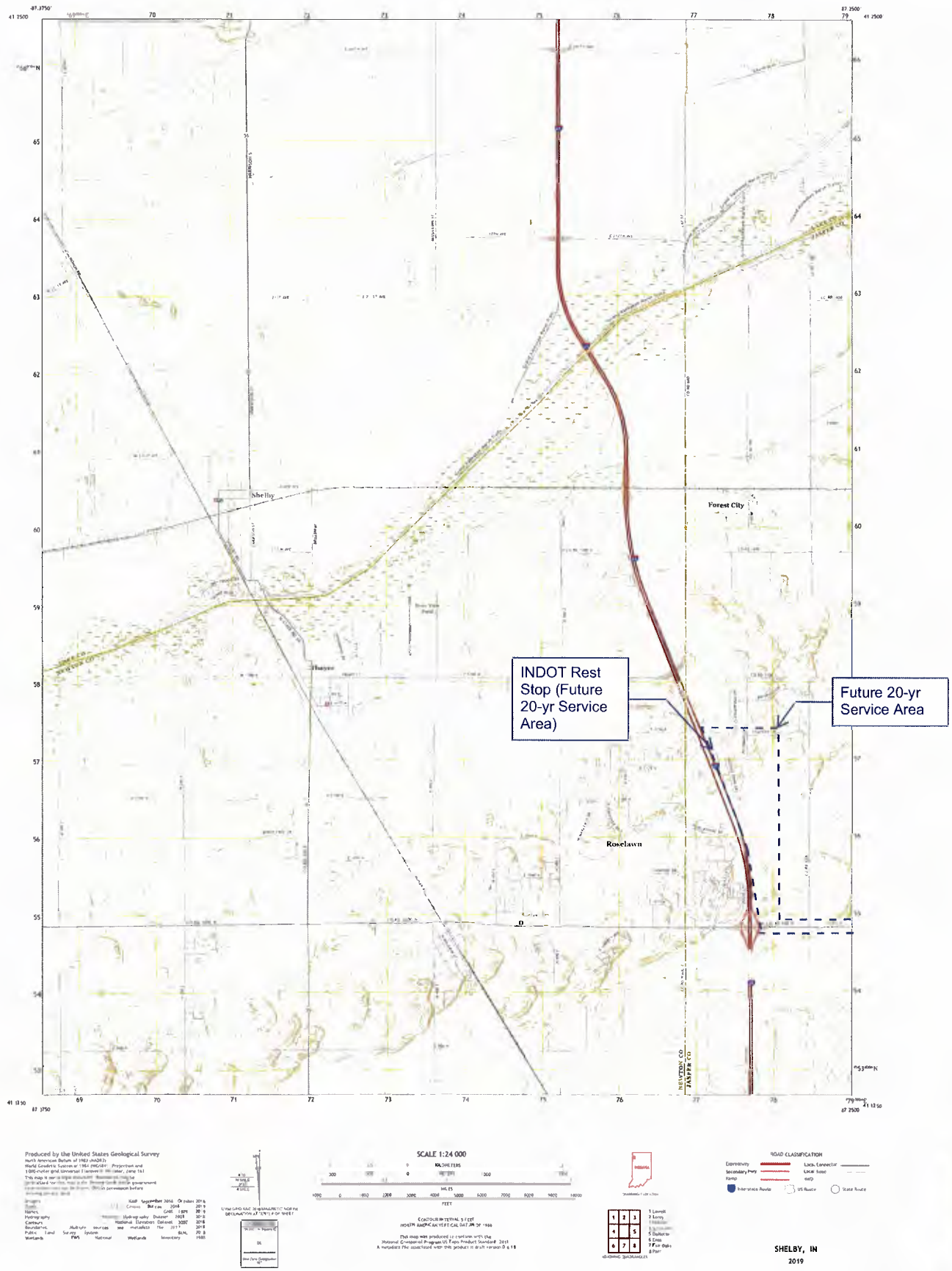
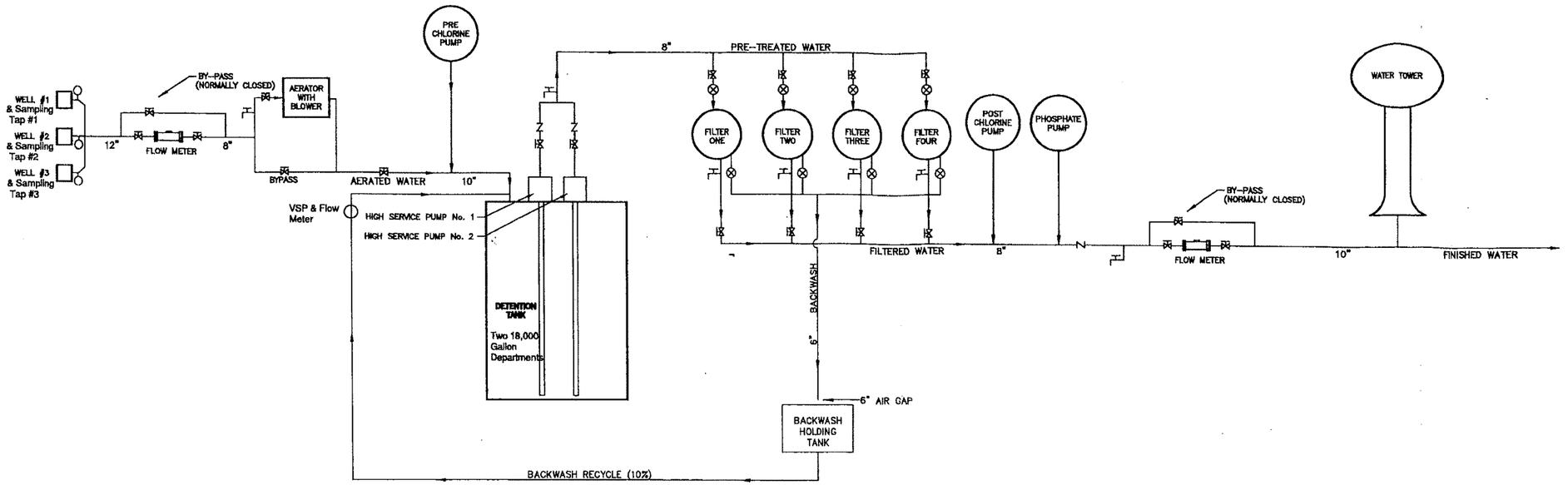


EXHIBIT A-2

Existing Process Schematic



DESIGN CRITERIA

FLOWS
- EXISTING AVERAGE DAILY FLOW ____ 370,080 GPD
- EXISTING POPULATION ____ ?
- DESIGN FLOW ____ 650 GPM

RAW WATER SUPPLY
- WELL #1 ____ 400 GPM
- WELL #2 ____ 400 GPM
- WELL #3 ____ 250 GPM

AERATION
- QUANTITY ____ 1
- AREA/AERATOR ____ 400 SQ FT
- AREA TOTAL ____ 400 SQ FT
- FLOW RATE @ 1.625 GPM/SQ FT ____ 650 GPM

DETENTION TANK
- DETENTION TANK #1 ____ 18,000 GALLONS ~ WATER DEPTH = 7.5'
- DETENTION TANK #2 ____ 18,000 GALLONS ~ WATER DEPTH = 7.5'
- TOTAL ____ 36,000 GALLONS ~ WATER DEPTH = 7.5'

HIGH SERVICE PUMPS
- QUANTITY ____ 2
- PUMPING RATE ____ 650 GPM
- TDH ____ 200'
- MANUFACTURER ____ AMERICAN MARSH
- MODEL ____ 12IS/VERTICAL TURBINE

PRESSURE FILTERS
- QUANTITY ____ 4 @ 8'ø
- AREA/FILTER ____ 50.27 SQ FT
- AREA TOTAL ____ 201.08 SQ FT
- FLOW RATE @ 650 GPM ____ 3.23 GPM/SQ FT

STORAGE FACILITIES (OVERHEAD)
- QUANTITY ____ 1
- GALLONS ____ 400,000

CHEMICAL DOSING RATES
- CHLORINE SOLUTION ____ 1.0 mg/L
- CHLORINE DOSING RATE ____ .30 gal/hr
- PHOSPHATE SOLUTION ____ ? mg/L
- PHOSPHATE DOSING RATE ____ ? gal/hr

LEGEND

- BUTTERFLY VALVE
- ISOLATION VALVE
- CHECK VALVE
- AUTOMATIC DIAPHRAGM VALVE W/FLOW CONTROL
- FIELD ADJUSTABLE ORIFICE FLOW CONTROL
- SMOOTH NOSE TEST SPIGOT
- RPZ BACKFLOW PREVENTER 3/4" WATTS MODEL #909-QT

NOTES:
1. ALL MATERIALS COMING IN CONTACT WITH POTABLE WATER SHALL MEET NSF STANDARD 60 OR 61.
2. ALL PLANT PIPING SHALL BE ASTM D-1785, NSF APPROVED, SCH-80 PVC UNLESS OTHERWISE NOTED
3. THE WATER TREATMENT FACILITIES SHALL BE DISINFECTED ACCORDING TO AWWA STANDARDS C653, C652, C651.

Revisions

Date	Description

50 Industrial Drive, P.O. Box 247
Pioneer, Ohio 43554
(419) 737-2263 FAX: (419) 737-2364

Date: 10-6-2009 | Scale: NONE | Job No:
Designed By: D. BERTKE
Drawn By: D. BERTKE

ARTESIAN OF PIONEER

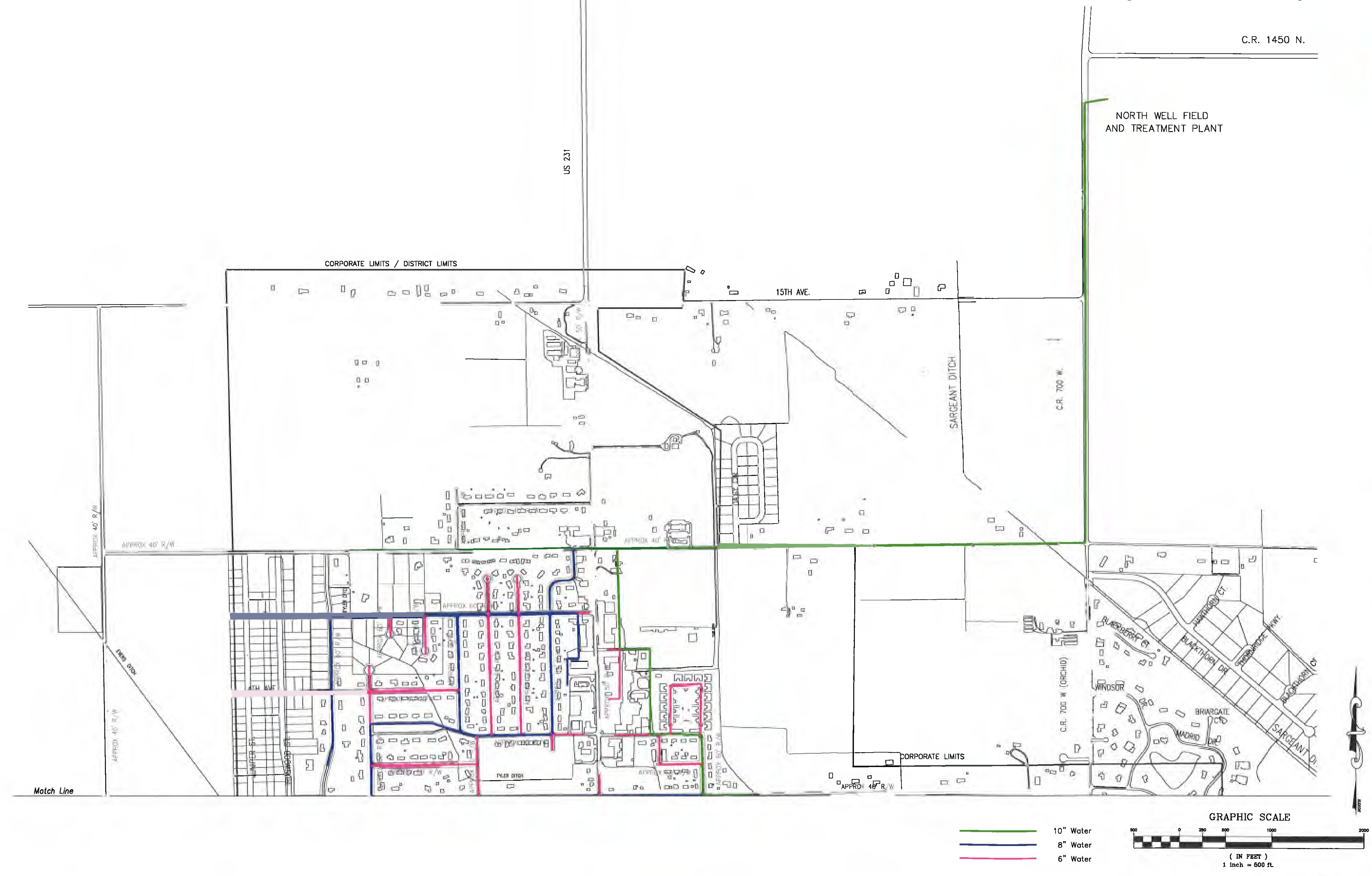
Project/Client: PROPOSED WATER TREATMENT FACILITY
TOWN OF DEMOTTE, INDIANA

Sheet Description: PROCESS SCHEMATIC
.864 MGD

P1.1

EXHIBIT A-3

Existing Distribution System



ABONMARCHE

17 N. Washington Street
Valparaiso, IN 46383
T 219.850.4624
F 219.850.4625
abonmarche.com

Battle Creek, Benton Harbor, Lafayette, South Haven, Goshen, Hobart, South Bend, Valparaiso

Engineering · Architecture · Land Surveying

PROJECT:

NORWEJ Water District
Town of DeMotte
System Expansion

SHEET TITLE:

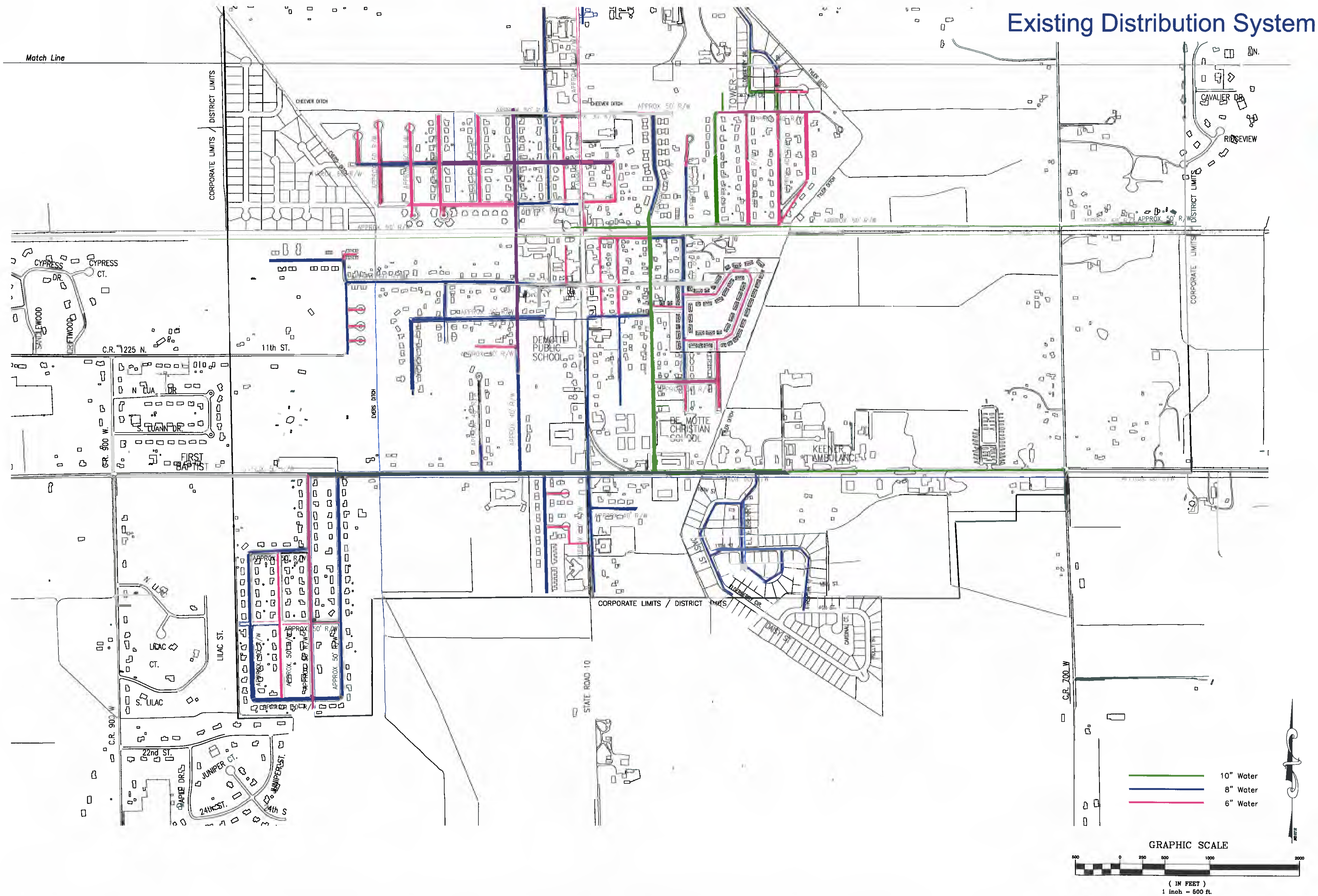
EXISTING SYSTEM
PIPE DIAMETERS
SOUTH

DRAWN BY:	AAA
DESIGNED BY:	
PM REVIEW:	
QA/QC REVIEW:	
DATE:	1/2/2020
SEAL:	
SIGNATURE:	
DATE:	
SCALE:	HORZ: 1" = 500' VERT:
ACI JOB #	19-0001
SHEET NO.	1 of 2

RNUM	RDESC	RBY	RDATE

EXHIBIT A-3

Existing Distribution System



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T 219.850.4624
F 219.850.4625
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Battle Creek, Benton Harbor, Lafayette, South Haven, Goshen, Hobart, South Bend, Valparaiso

Engineering · Architecture · Land Surveying

PROJECT: NORWEJ Water District, Town of DeMotte, System Expansion

SHEET TITLE: EXISTING SYSTEM PIPE DIAMETERS NORTH

DRAWN BY: AAA

DESIGNED BY:

PM REVIEW:

QA/QC REVIEW:

DATE: 1/2/2020

SEAL:

SIGNATURE:

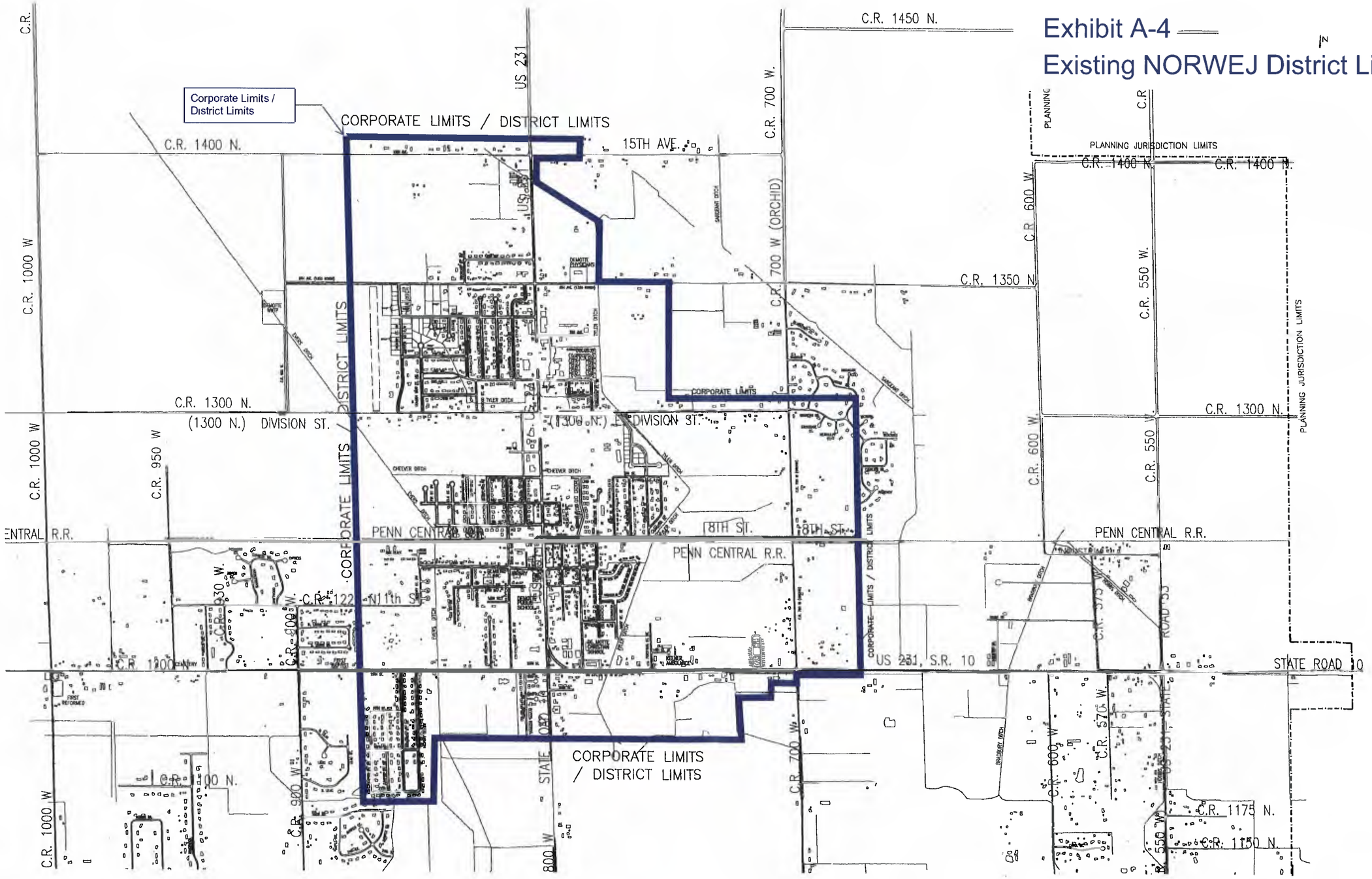
DATE:

SCALE:
HORZ: 1" = 500'
VERT:

ACI JOB #: 19-0001

SHEET NO. 2 of 2

Exhibit A-4
Existing NORWEJ District Limits



LOCATIONS SHOWN FOR EXISTING UTILITIES ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY ALL LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES AFFECTING THE CONTRACTOR'S WORK PRIOR TO CONSTRUCTION.

DRAWINGS BY:

ABONMARCHE CONSULTANTS, L.L.C.
750 Lincoln Way East, South Bend, Indiana 46601
(574) 232-8700 FAX: (574) 251-4440
341 Airport N. Office Park, Fort Wayne, Indiana 46825
(260) 497-8823 FAX: (260) 497-8555
ARCHITECTURE / ENGINEERING / LAND SURVEYING / PLANNING
NATURAL RESOURCES / CONSTRUCTION SERVICES

WATER DISTRICT LIMITS	EXHIBIT A1
JOB #: M3-1158 / DRAWN BY: dsk	NORWEJ WATER DISTRICT DEMOTTE, INDIANA
APPROVED: / DATE: 10/20/04	HORIZONTAL SCALE: 1" = 2000' / VERTICAL SCALE: N/A / SHEETS: 1 OF 1

EXHIBIT A-5
Proposed Improvements Overall Layout

OVERALL IMPROVEMENTS

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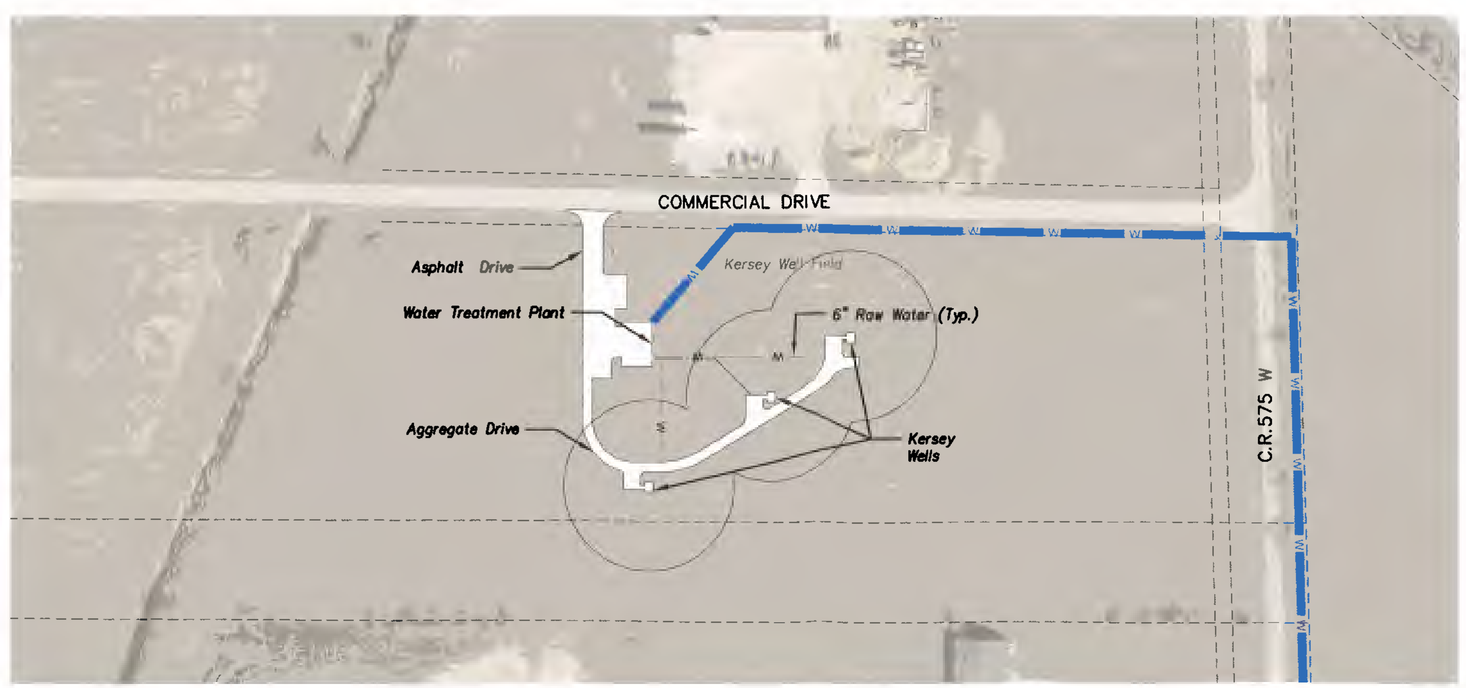
(IN FEET)
1 inch = 300 ft.



PLANT AND WELL SITE IMPROVEMENTS

GRAPHIC SCALE
100 0 50 100 200
(IN FEET)
1 inch = 100 ft.

NO.	REVISION DESCRIPTION	BY	DATE

ABONMARCHE

NORWEJ Water District
Town of Demotte
Drinking Water
System Improvements

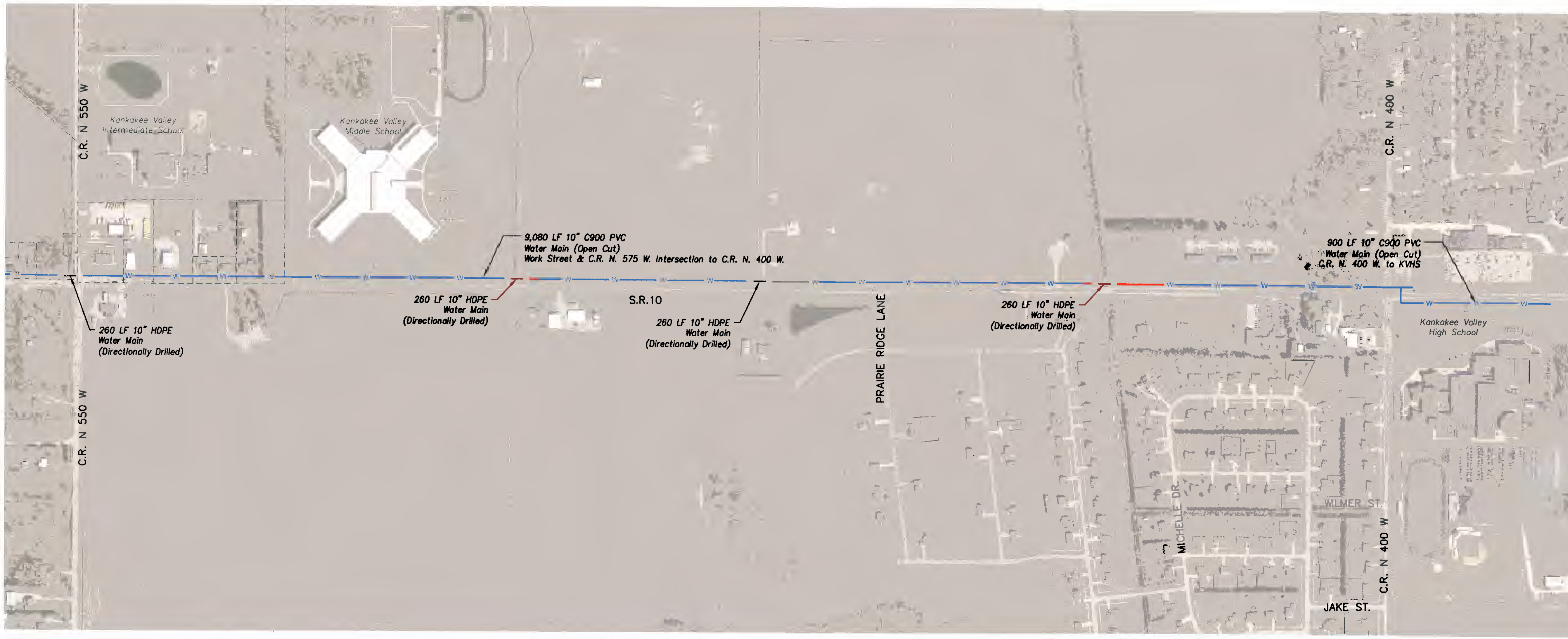
SHEET TITLE: Proposed Improvements Overall Exhibit

DRAWN BY: AAA
DESIGNED BY: AAA
PM REVIEW: DSK
QA/QC REVIEW: DSK/RSP
DATE: 1/2/2020
SEAL:
SIGNATURE:
DATE:

HARD COPY IS INTENDED TO BE 24" X 36" WHEN PLOTTED. SCALE(S) INDICATED AND GRAPHIC QUALITY MAY NOT BE ACCURATE FOR ANY OTHER SIZES

SCALE:
HORZ: Varies
VERT:
ACI JOB #: 19-0001
SHEET NO.

EXHIBIT A-5
Proposed Improvements Overall Layout



OVERALL IMPROVEMENTS

GRAPHIC SCALE
(IN FEET)
1 inch = 300 ft.

ABONMARCHE

NORWEJ Water District
Town of Demotte
Drinking Water
System Improvements

Proposed Improvements
Overall Exhibit

DRAWN BY: AAA
DESIGNED BY: AAA
PM REVIEW: DSK
QA/QC REVIEW: DSK/RSP
DATE: 1/2/2020
SEAL:
SIGNATURE:
DATE:

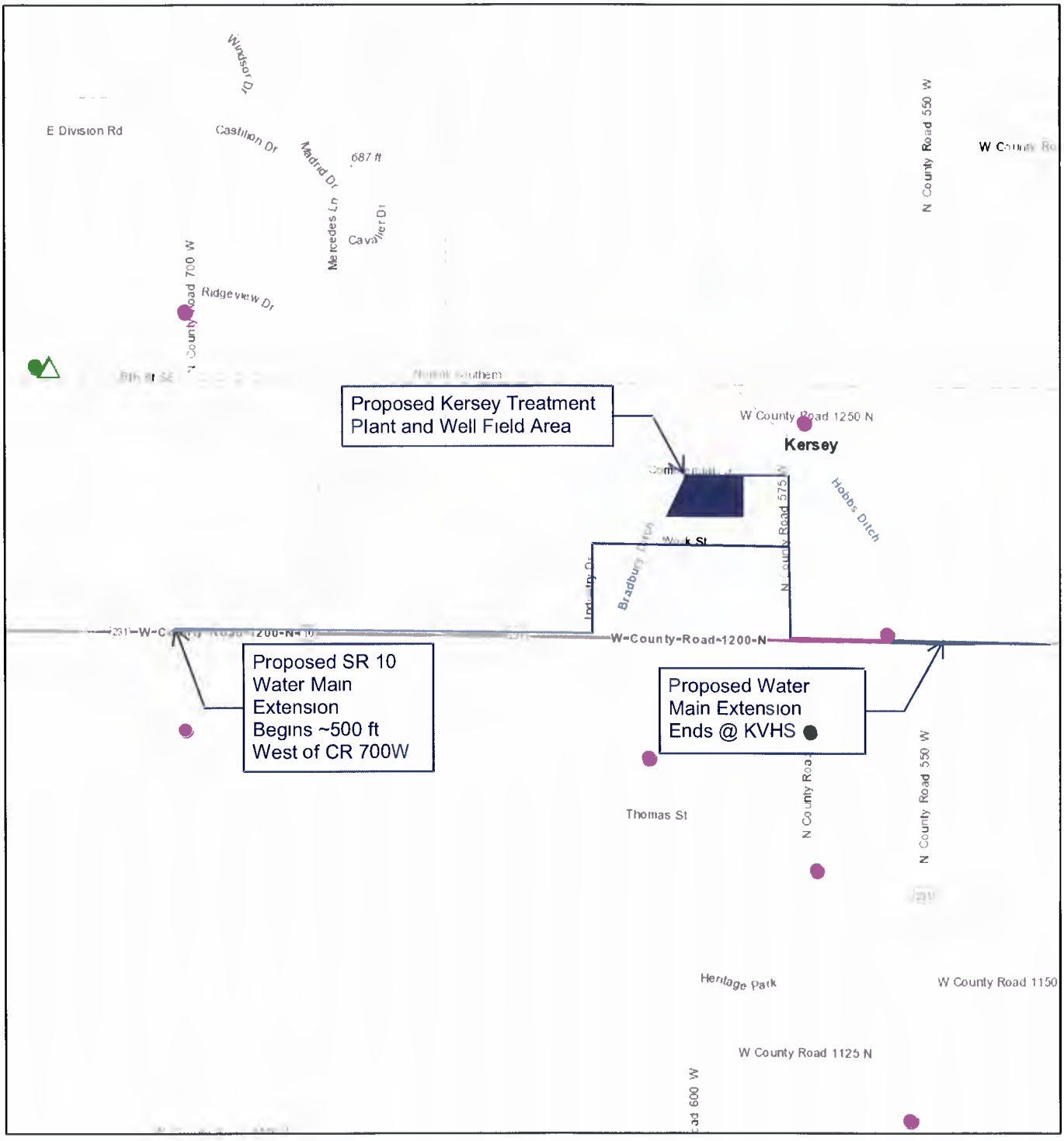
HARD COPY IS INTENDED TO BE 24" X 36" WHEN PLOTTED. SCALE(S) INDICATED AND GRAPHIC QUALITY MAY NOT BE ACCURATE FOR ANY OTHER SIZES

SCALE:
HORZ: Varies
VERT:
ACI JOB #
19-0001
SHEET NO.

NO	REVISION DESCRIPTION	BY	DATE

EXHIBIT A-6

Historic Buildings, Bridges, and Cemeteries Map



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1:24,075

0 0.2 0.4 0.8 mi

0 0.325 0.65 1.3 km

△ Cemeteries

County Survey Sites

Notable

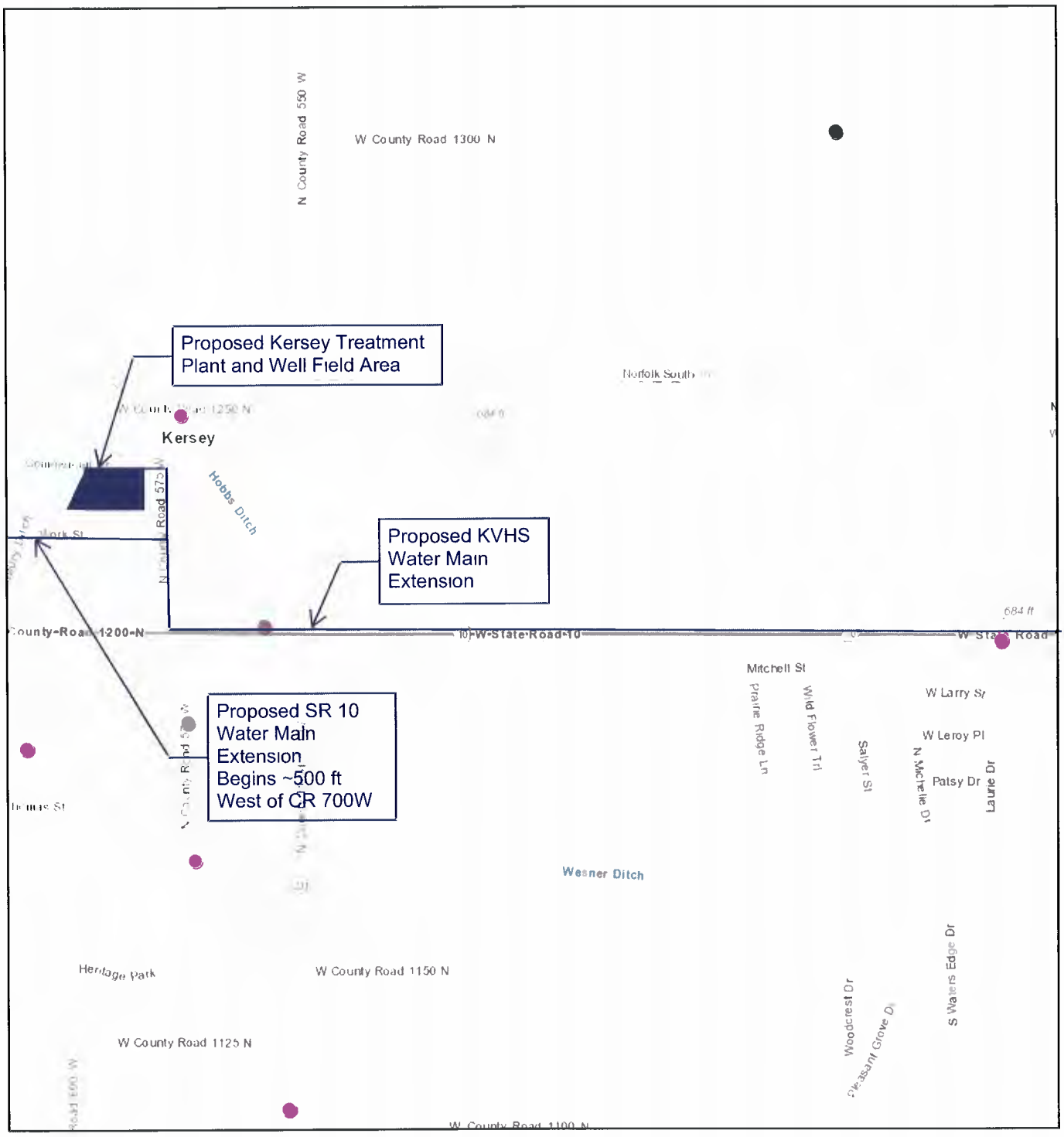
Contributing

Demolished

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

EXHIBIT A-6

Historic Buildings, Bridges, and Cemeteries Map



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0 0.2 0.4 0.8 mi

0 0.325 0.65 1.3 km

County Survey Sites

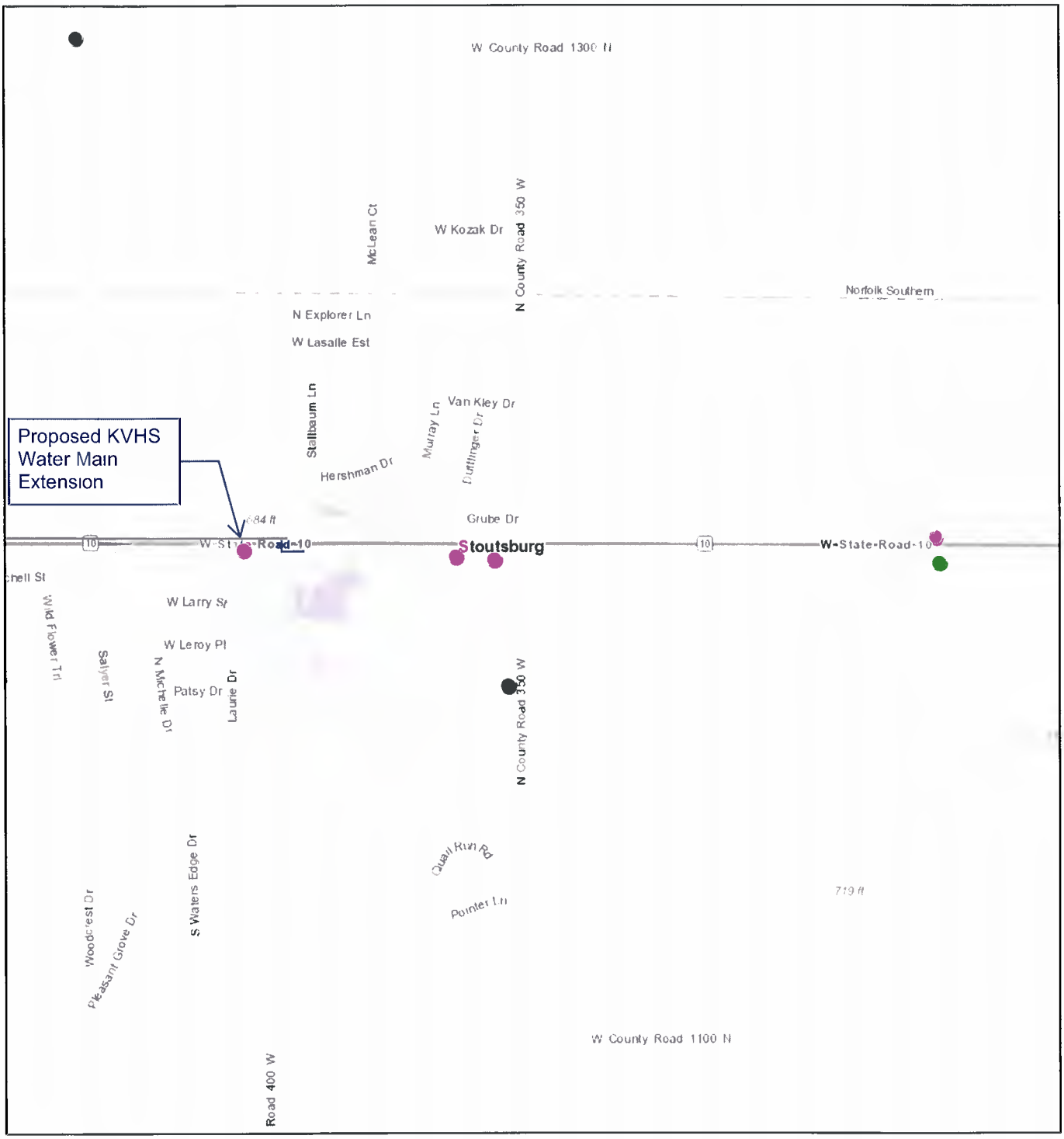
- Contributing
- Demolished

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Indiana DNR DHPA

EXHIBIT A-6

Historic Buildings, Bridges, and Cemeteries Map



1/8/2020, 10:52:16 AM

1:24,075

0 0.2 0.4 0.8 mi

0 0.325 0.65 1.3 km

County Survey Sites

- Notable
- Contributing
- Demolished

Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

Indiana DNR DHPA
2019 Indiana Dept. of Natural Resources, DHPA

Wetlands Map

EXHIBIT A-7

Wetlands Map

EXHIBIT A-7

Surface Waters Map

EXHIBIT A-8

Surface Waters Map

EXHIBIT A-8

EXHIBIT A-9
FEMA Maps

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) Report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS Report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study Report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection used in the preparation** of this map was Indiana State Plane West Zone (FIPS zone 1302). The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the **same vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NINGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current **elevation, description, and/or location information for bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713- 3242**, or visit its website at http://www.ngs.noaa.gov

Base map information shown on this FIRM was derived from the 2013 Indiana Orthophotography (IndianaMap Framework Data www.indianamap.org). This information was photogrammetrically compiled at a scale of 1:2400 from aerial photography dated spring 2013.

The profile baselines depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have **questions about this map**, how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at **1-877-FEMA-MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X	Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D	Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% Annual Chance Floodplain Boundary
- 0.2% Annual Chance Floodplain Boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- (A) — (A) — Cross section line
- (23) — (23) — Transect line
- Culvert
- Bridge
- 45° 02' 08", 93° 02' 12" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
- 3100000 FT — 5000-foot ticks: Indiana State Plane West Zone (FIPS Zone 1302), Transverse Mercator projection
- 9990000 N — 1000-meter Universal Transverse Mercator grid values, zone 16
- DX5510 × — Bench mark (see explanation in notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
December 21, 2018

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET
150 0 150 300 METERS

PANEL 0083C

FIRM
FLOOD INSURANCE RATE MAP
JASPER COUNTY, INDIANA AND INCORPORATED AREAS

PANEL 83 OF 525
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
DEMOTTE, TOWN OF	180100	0083	C
JASPER COUNTY	180438	0083	C

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
18073C0083C
EFFECTIVE DATE
DECEMBER 21, 2018

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

EXHIBIT A-9
FEMA Maps

NOTES TO USERS

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Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Indiana State Plane West Zone (FIPS zone 1302). The horizontal datum was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

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NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.noaa.gov.

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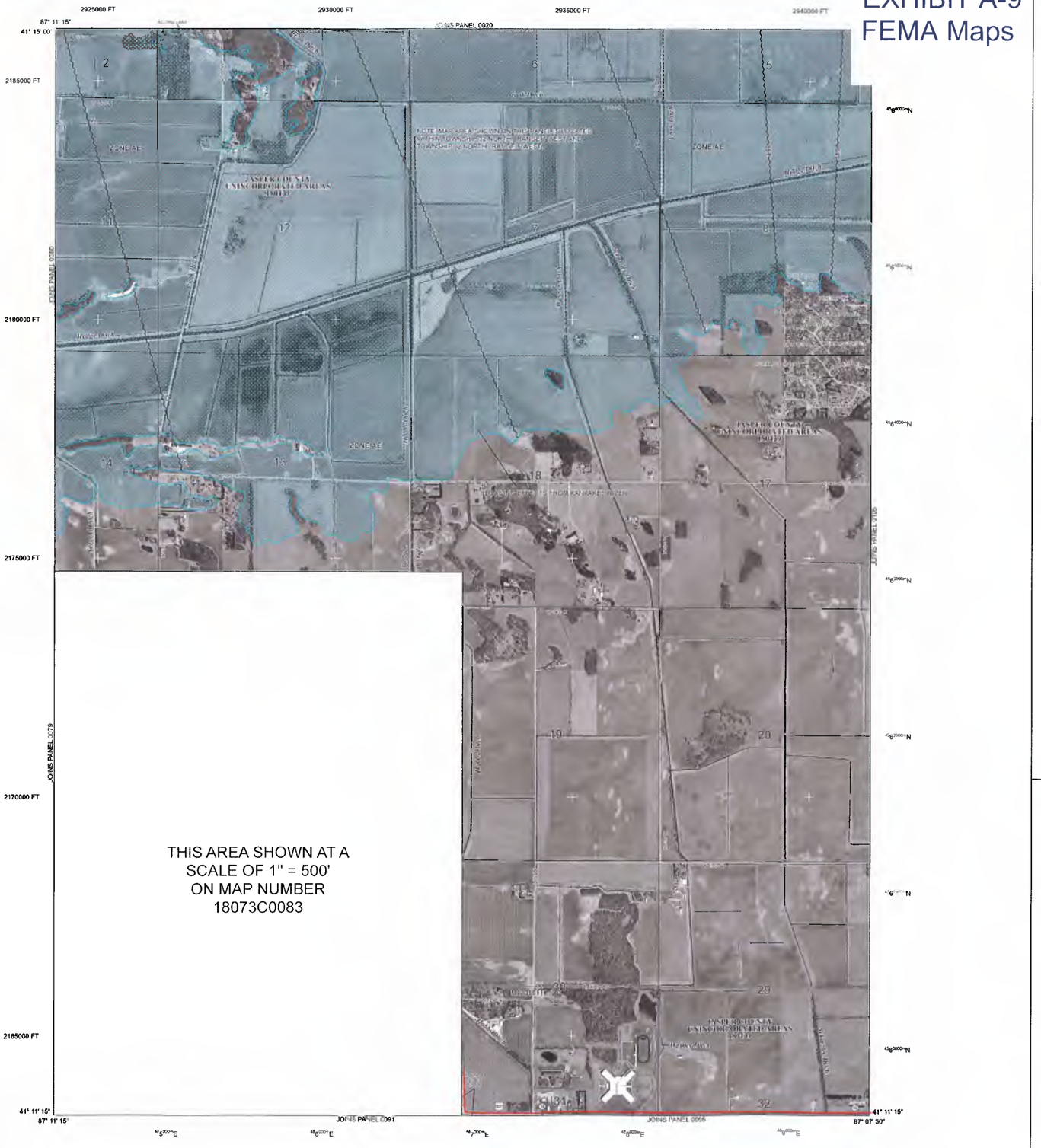

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

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- **ZONE A** — No Base Flood Elevations determined
- **ZONE AE** — Base Flood Elevations determined
- **ZONE AH** — Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined
- **ZONE AO** — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** — Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined
- **ZONE VE** — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- **ZONE X** — Areas determined to be outside the 0.2% annual chance floodplain.
- **ZONE D** — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% Annual Chance Floodplain Boundary
- 0.2% Annual Chance Floodplain Boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A — Cross section line
- 23 — 23 — Transect line
- Culvert
- Bridge
- 45° 02' 08", 93° 02' 12" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
- 3100000 FT — 5000-foot ticks: Indiana State Plane West Zone (FIPS Zone 1302), Transverse Mercator projection
- 4°30'00" N — 1000-meter Universal Transverse Mercator grid values, zone 16
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
December 21, 2018

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'

300 0 1000 2000 FEET
300 0 300 600 METERS

PANEL 0085C

FIRM

FLOOD INSURANCE RATE MAP

JASPER COUNTY, INDIANA AND INCORPORATED AREAS

PANEL 85 OF 525

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

COMMUNITY	NUMBER	PANEL	SUFFIX
JASPER COUNTY	180430	0085	C

Notice to User The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

MAP NUMBER
18073C0085C
EFFECTIVE DATE
DECEMBER 21, 2018

Federal Emergency Management Agency

NATIONAL FLOOD INSURANCE PROGRAM

EXHIBIT A-9
FEMA Maps

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Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

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LEGEND

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ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

1% Annual Chance Floodplain Boundary
0.2% Annual Chance Floodplain Boundary
Floodway boundary
Zone D boundary
CBRS and OPA boundary
Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.

~~ 513 ~~~	Base Flood Elevation line and value; elevation in feet*
(EL 987)	Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

(A)———(A)	Cross section line
(23)- - - - -(23)	Transect line
	Culvert
	Bridge
45° 02' 08", 93° 02' 12"	Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
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MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
December 21, 2018

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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MAP SCALE 1" = 1000'

500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP

PANEL 0105C

FIRM
FLOOD INSURANCE RATE MAP
JASPER COUNTY, INDIANA AND INCORPORATED AREAS

PANEL 105 OF 525
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
JASPER COUNTY	180439	0105	C

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
18073C0105C
EFFECTIVE DATE
DECEMBER 21, 2018

Federal Emergency Management Agency

EXHIBIT A-9
FEMA Maps

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Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study Report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study Report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Indiana State Plane West Zone (FIPS zone 1302). The **horizontal datum** was NAD 83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum**. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NINGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, Maryland 20910-3282
(301) 713-3242

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713- 3242, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from the 2013 Indiana Orthophotography (IndianaMap Framework Data www.indianamap.org). This information was photogrammetrically compiled at a scale of 1:2400 from aerial photography dated spring 2013.

The **profile baselines** depicted on this map represent the hydraulic modeling baselines that match the flood profiles in the FIS report. As a result of improved topographic data, the **profile baseline**, in some cases, may deviate significantly from the channel centerline or appear outside the SFHA.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

For information on available products associated with this FIRM visit the **Map Service Center (MSC)** website at http://msc.fema.gov. Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the MSC website.

If you have questions about this map, how to order products, or the National Flood Insurance Program in general, please call the **FEMA Map Information eXchange (FMIX)** at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/business/nfip.

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equalled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood.

- **ZONE A** No Base Flood Elevations determined.
- **ZONE AE** Base Flood Elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** Special Flood Hazard Areas formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- **ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile, and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- **ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- **ZONE D** Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% Annual Chance Floodplain Boundary
- 0.2% Annual Chance Floodplain Boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Area Zones and boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths, or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- (A) — (A) Cross section line
- (23) — (23) Transect line
- Culvert
- Bridge
- 45° 02' 08", 93° 02' 12" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83) Western Hemisphere
- 3100000 FT — 5000-foot ticks: Indiana State Plane West Zone (FIPS Zone 1302), Transverse Mercator projection
- 1000-meter Universal Transverse Mercator grid values, zone 16
- DX5540 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
December 21, 2018

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 1000'
500 0 1000 2000 FEET
300 0 300 600 METERS

NFIP NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0115C

FIRM

FLOOD INSURANCE RATE MAP

JASPER COUNTY, INDIANA AND INCORPORATED AREAS

PANEL 115 OF 525
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
JASPER COUNTY	180439	0115	C

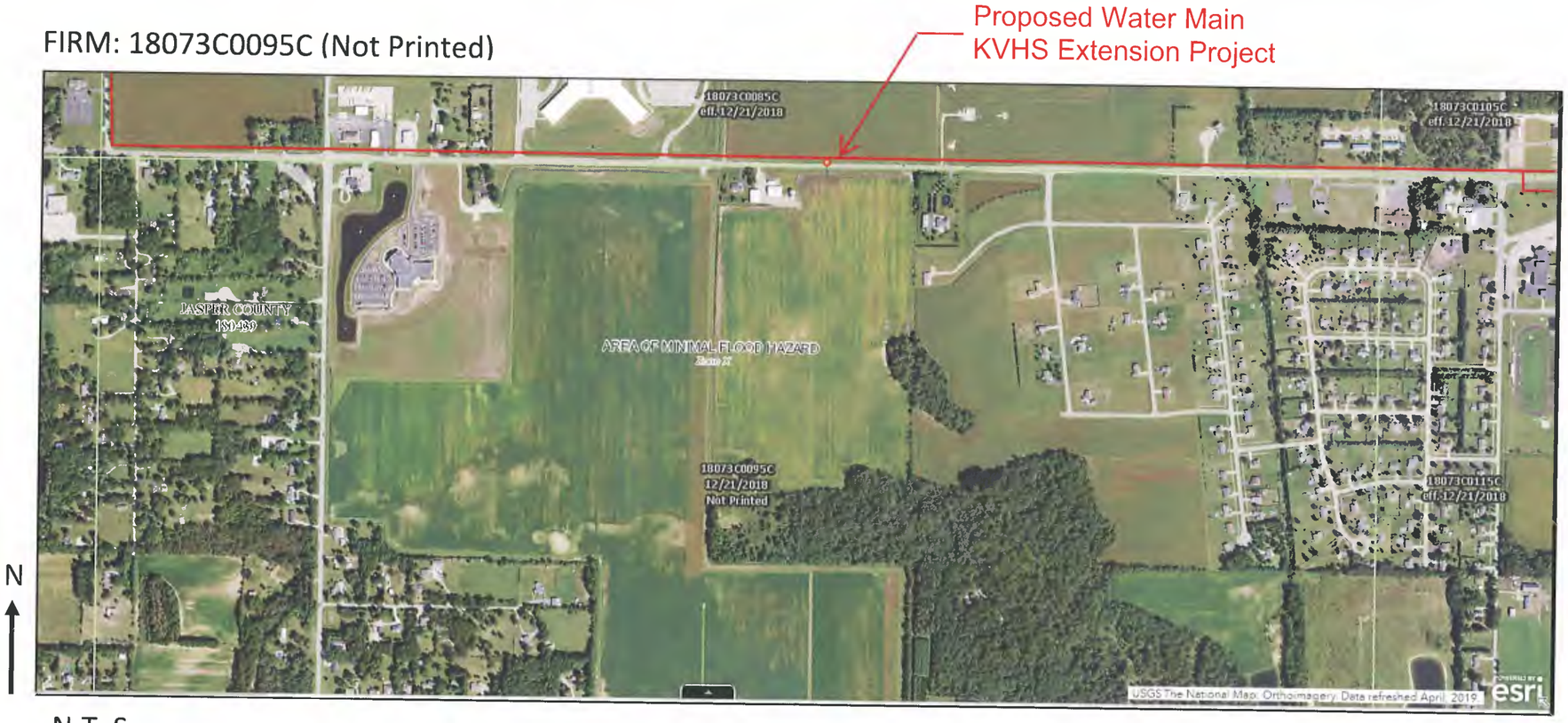
Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
18073C0115C
EFFECTIVE DATE
DECEMBER 21, 2018

Federal Emergency Management Agency

EXHIBIT A-9
FEMA Maps

FIRM: 18073C0095C (Not Printed)



N

N.T. S.

EXHIBIT A-9
FEMA Maps

FIRM: 18073C0083C (Zoomed In)

EXHIBIT A-9
FEMA Maps

FIRM: 18073C0085C (Zoomed In)

N.T. S.

Proposed Water Main
KVHS Extension Project

EXHIBIT A-9
FEMA Maps

FIRM: 18073C0105C (Zoomed In)

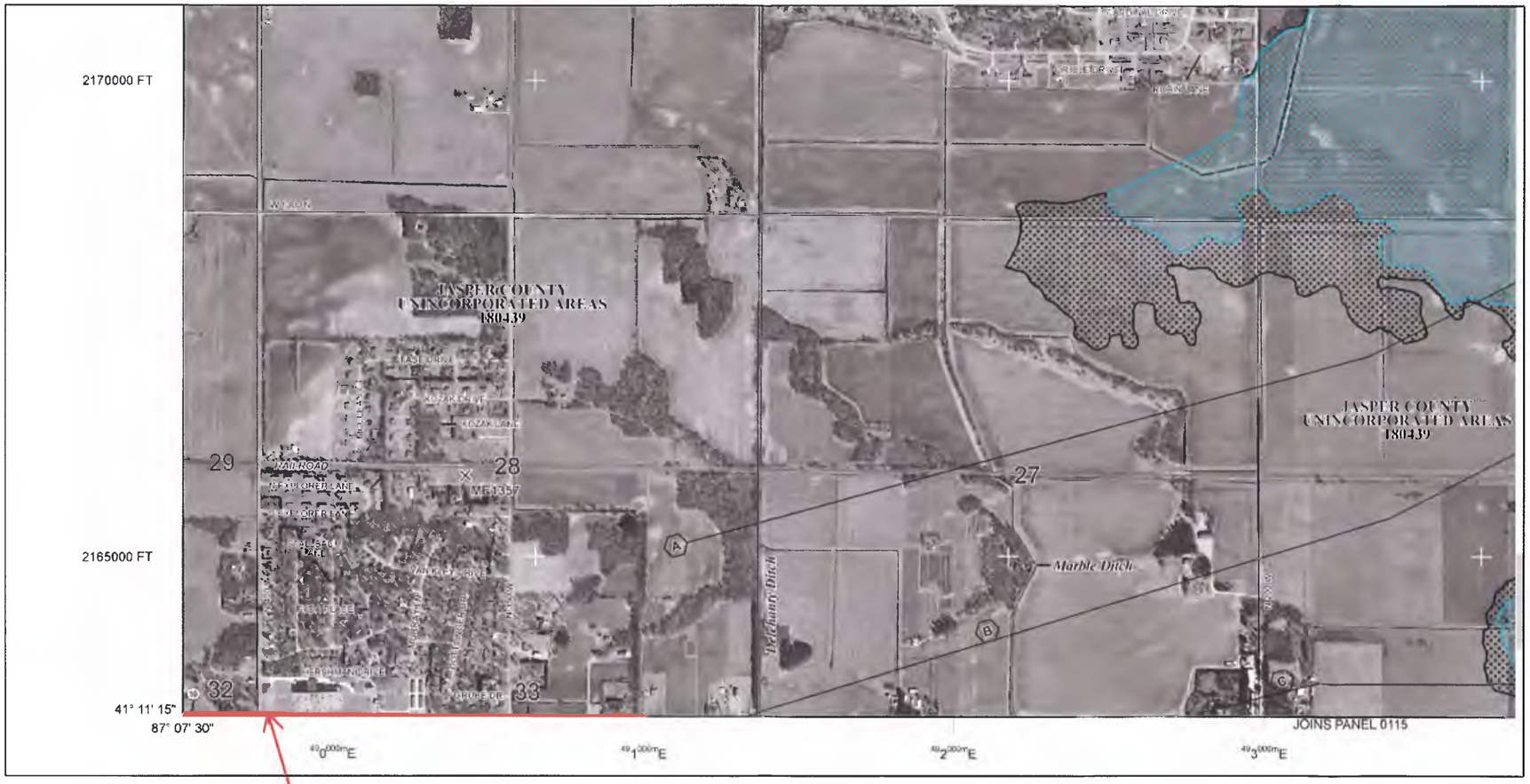
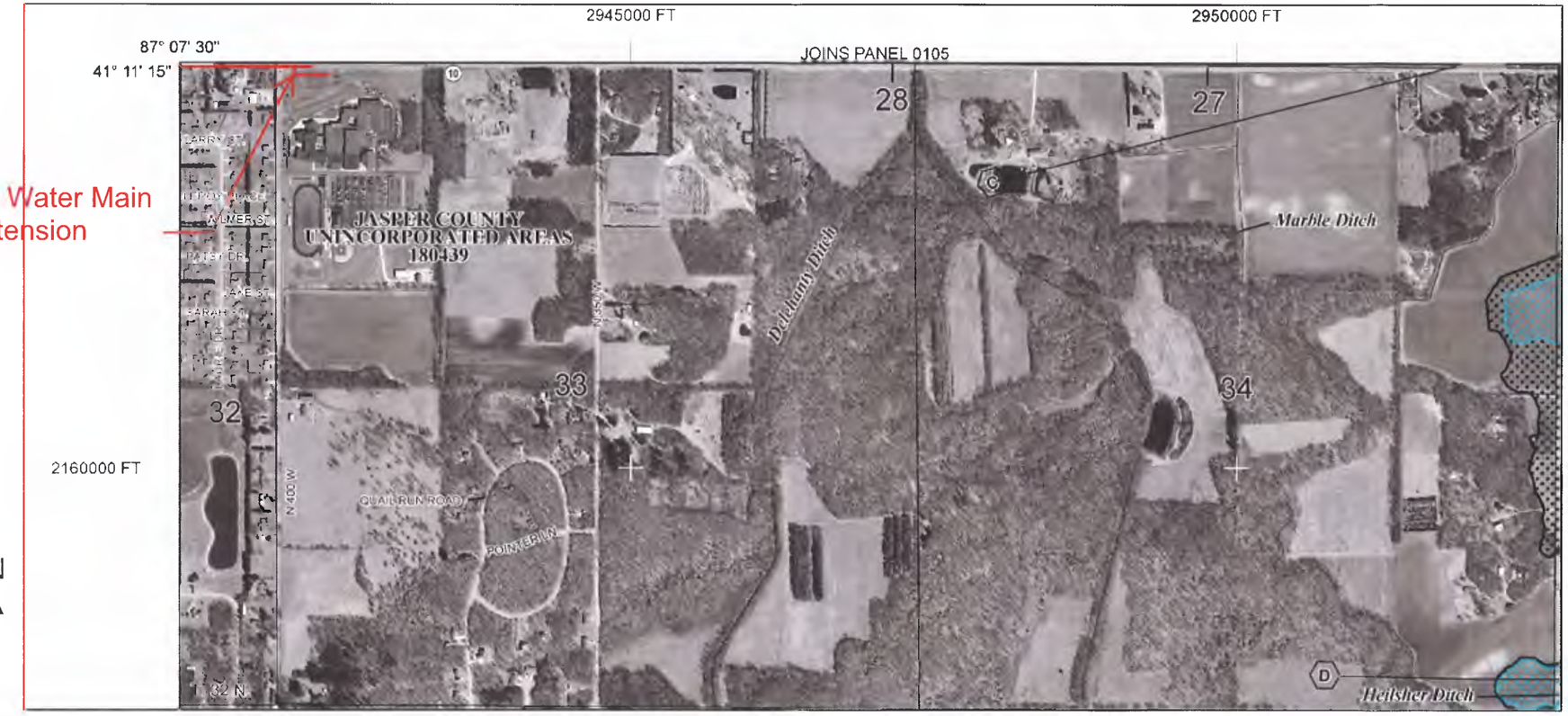


EXHIBIT A-9
FEMA Maps

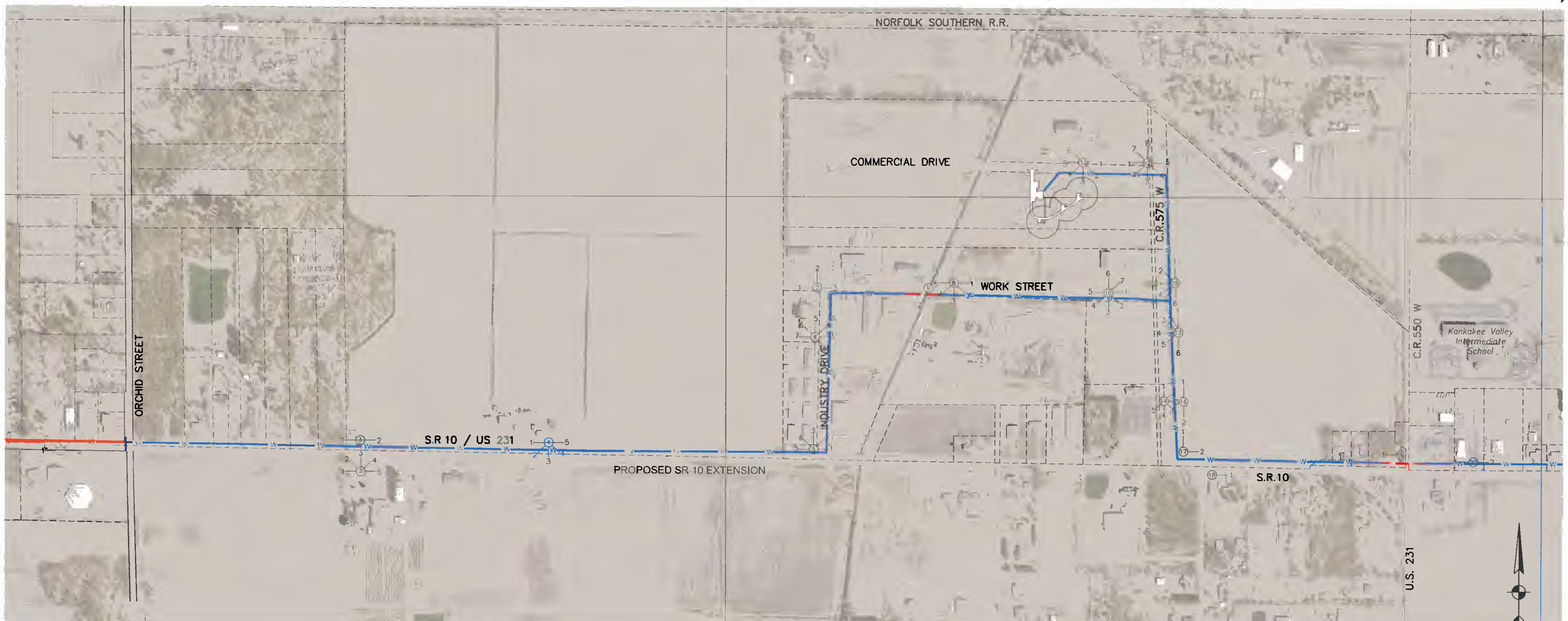
FIRM: 18073C0115C (Zoomed In)



Proposed Water Main
KVHS Extension
Project

N.T. S.

EXHIBIT A-10
Photographs



PHOTOGRAPH LOCATIONS

GRAPHIC SCALE
(IN FEET)
1 inch = 300 ft.

ABONMARCHE

PROJECT: NORWEJ Water District Town of Demotte Drinking Water System Improvements

SHEET TITLE: Proposed Improvements Photo Location Exhibit

DRAWN BY: AAA
DESIGNED BY:
PM REVIEW:
QA/QC REVIEW:
DATE:
SEAL:
SIGNATURE:
DATE:

HARD COPY IS INTENDED TO BE 24" X 36" WHEN PLOTTED. SCALE(S) INDICATED AND GRAPHIC QUALITY MAY NOT BE ACCURATE FOR ANY OTHER SIZES

SCALE:
HORZ: Varies
VERT:

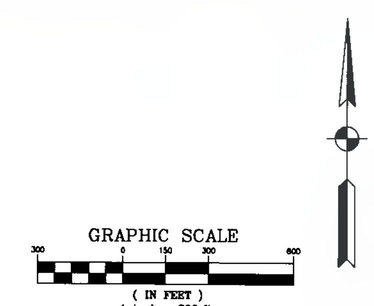
ACI JOB #: 19-0001

SHEET NO

NO	REVISION DESCRIPTION	BY	DATE

EXHIBIT A-10
Photographs

PHOTOGRAPH LOCATIONS



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PROJECT:
NORWEJ Water District
Town of Demotte
Drinking Water
System Improvements

SHEET TITLE:
Proposed Improvements
Photo Location Exhibit

DRAWN BY:	AAA
DESIGNED BY:	
PM REVIEW:	
QA/QC REVIEW:	
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SCALE:
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19-0001

SHEET NO.

NO.	REVISION DESCRIPTION	BY	DATE

EXHIBIT A-10
Photographs

1-1

1-2

1-3

1-4

1-5

PHOTOGRAPHS - SET 1

ABONMARCHE

PROJECT: NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE: PHOTO LOG
PAGE 1

DRAWN BY: MRR
DESIGNED BY:
PM REVIEW:
QA/QC REVIEW:
DATE: 01/07/2019
SEAL:
SIGNATURE:
DATE:
SCALE: HORZ: N/A VERT: N/A
ACI JOB #: 19-0001
SHEET NO. 1 of 14

EXHIBIT A-10
Photographs

2-1

2-2

2-3

2-4

2-5

PHOTOGRAPHS - SET 2

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PROJECT:
NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE:
PHOTO LOG
PAGE 2

DRAWN BY: MRR
DESIGNED BY:
PM REVIEW:
QA/QC REVIEW:
DATE: 01/07/2019
SEAL:

SIGNATURE:
DATE:
SCALE:
HORZ: N/A
VERT: N/A
ACI JOB #
19-0001
SHEET NO.

RNUM	RDESC	RBY	RDATE

EXHIBIT A-10
Photographs

3-1

3-2

PHOTOGRAPHS - SET 3

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PROJECT:
NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE:
PHOTO LOG
PAGE 3

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DESIGNED BY:
PM REVIEW:
QA/QC REVIEW:
DATE: 01/07/2019
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SCALE:
HORZ: N/A
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ACI JOB #
19-0001

SHEET NO.
3 of 14

RNUM	RDESC	RBY	RDATE

EXHIBIT A-10
Photographs

4-1

4-2

4-3

4-4

4-5

PHOTOGRAPHS - SET 4

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PROJECT:
NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE:
PHOTO LOG
PAGE 4

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DESIGNED BY:
PM REVIEW:
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DATE: 01/07/2019
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SCALE:
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VERT: N/A

ACI JOB #
19-0001

SHEET NO.
4 of 14

RNUM	RDESC	RBY	RDATE

EXHIBIT A-10
Photographs

5-1

5-2

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PHOTOGRAPHS - SET 5

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PROJECT:
NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE:
PHOTO LOG
PAGE 5

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VERT: N/A
ACI JOB #
19-0001
SHEET NO.
5 of 14

RNUM	RDESC	RBY	RDATE

6-1

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6-7

PHOTOGRAPHS - SET 6

EXHIBIT A-10
Photographs

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PROJECT:
NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE:
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SCALE:
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VERT: N/A
ACI JOB # 19-0001
SHEET NO. 6 of 14

7-1

7-2

7-3

PHOTOGRAPHS - SET 7

EXHIBIT A-10
Photographs

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PROJECT: NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE: PHOTO LOG
PAGE 7

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QA/QC REVIEW:
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SCALE: HORZ: N/A VERT: N/A
ACI JOB # 19-0001
SHEET NO. 7 of 14

RNUM | RDESC | RBY | RDATE

8-1

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PHOTOGRAPHS - SET 8

EXHIBIT A-10
Photographs

RNUM	RDESC	RBY	RDATE

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PROJECT:
NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE:
PHOTO LOG
PAGE 8

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QA/QC REVIEW:
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SCALE:
HORZ: N/A
VERT: N/A

ACI JOB #
19-0001

SHEET NO.
8 of 14

EXHIBIT A-10
Photographs

9-1

9-2

PHOTOGRAPHS - SET 9

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PROJECT: NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE: PHOTO LOG
PAGE 9

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QA/QC REVIEW:
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SCALE:
HORZ: N/A
VERT: N/A
ACI JOB #: 19-0001
SHEET NO. 9 of 14

RNUM	RDESC	RBY	RDATE

10-1

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PHOTOGRAPHS - SET 10

EXHIBIT A-10
Photographs

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PROJECT:
NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE:
PHOTO LOG
PAGE 10

DRAWN BY: MRR
DESIGNED BY:
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QA/QC REVIEW:
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SCALE:
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ACI JOB #: 19-0001
SHEET NO.
10 of 14

RNUM	RDESC	RBY	RDATE

11-1

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11-3

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PHOTOGRAPHS - SET 11

EXHIBIT A-10
Photographs

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PROJECT: NORWEJ WATER DISTRICT TOWN OF DEMOTTE SYSTEM EXPANSION

SHEET TITLE: PHOTO LOG PAGE 11

DRAWN BY:	MRR
DESIGNED BY:	
PM REVIEW:	
QA/QC REVIEW:	
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SEAL:	
SIGNATURE:	
DATE:	
SCALE:	HORZ: N/A VERT: N/A
ACI JOB #	19-0001
SHEET NO.	11 of 14

RNUM	RDESC	RBY	RDATE

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PHOTOGRAPHS - SET 12

EXHIBIT A-10
Photographs

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PROJECT:
NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE:
PHOTO LOG
PAGE 12

DRAWN BY: MRR
DESIGNED BY:
PM REVIEW:
QA/QC REVIEW:
DATE: 01/07/2019
SEAL:
SIGNATURE:
DATE:
SCALE:
HORZ: N/A
VERT: N/A
ACI JOB #
19-0001
SHEET NO.
12 of 14

RNUM	RDESC	RBY	RDATE

EXHIBIT A-10
Photographs

13-1

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PHOTOGRAPHS - SET 13

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PROJECT:
NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE:
PHOTO LOG
PAGE 13

DRAWN BY: AAA
DESIGNED BY:
PM REVIEW:
QA/QC REVIEW:
DATE: 01/07/2019
SEAL:
SIGNATURE:
DATE:
SCALE:
HORZ: N/A
VERT: N/A
ACI JOB #
19-0001
SHEET NO.
13 of 14

RNUM	RDESC	RBY	RDATE

14-1

14-2

14-3

14-4

14-5

14-6

PHOTOGRAPHS - SET 14

EXHIBIT A-10
Photographs

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PROJECT: NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE: PHOTO LOG
PAGE 14

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DESIGNED BY:	
PM REVIEW:	
QA/QC REVIEW:	
DATE:	01/07/2019
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SCALE:	HORZ: N/A VERT: N/A
ACI JOB #	19-0001
SHEET NO.	14 of 14

RNUM	RDESC	RBY	RDATE

EXHIBIT A-10
Photographs

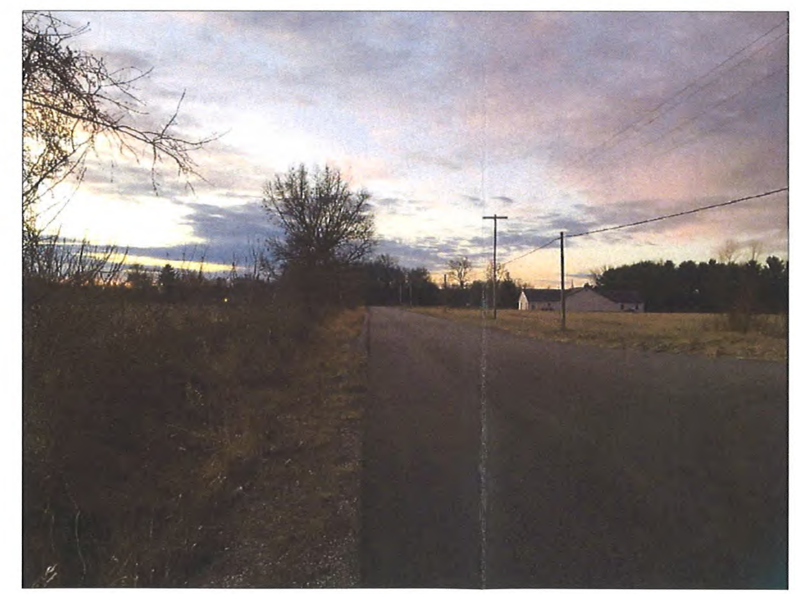
15-1

15-2

15-3

15-4

15-5



15-6

PHOTOGRAPHS - SET 15

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PROJECT: NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE: PHOTO LOG
PAGE 15

DRAWN BY:	AAA
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PM REVIEW:	
QA/QC REVIEW:	
DATE:	01/07/2019
SEAL:	
SIGNATURE:	
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SCALE:	HORZ: N/A VERT: N/A
ACI JOB #	19-0001
SHEET NO.	15 of 14

RNUM	RDESC	RBY	RDATE

EXHIBIT A-10
Photographs

16-1

16-2

PHOTOGRAPHS - SET 16

RNUM	RDESC	RBY	RDATE

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CONSULTANTS ABONMARCHE CONSULTANTS, INC

PROJECT:
NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE:
PHOTO LOG
PAGE 16

DRAWN BY: AAA
DESIGNED BY:
PM REVIEW:
QA/QC REVIEW:
DATE: 01/07/2019
SEAL:

SIGNATURE:
DATE:

SCALE:
HORZ: N/A
VERT: N/A

ACI JOB #
19-0001

SHEET NO.
16 of 14

EXHIBIT A-10
Photographs

17-1

17-2

18-1

PHOTOGRAPHS - SET 17 & 18

ABONMARCHE
17 N. Washington Street
Valparaiso, IN 46383
T 219.850.4624
F 219.850.4625
abonmarche.com

Battle Creek, Benton Harbor, Lafayette, South Haven, Goshen, Hobart, South Bend, Valparaiso

Engineering · Architecture · Land Surveying

PROJECT: NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE: PHOTO LOG
PAGE 17

DRAWN BY: AAA
DESIGNED BY:
PM REVIEW:
QA/QC REVIEW:
DATE: 01/07/2019
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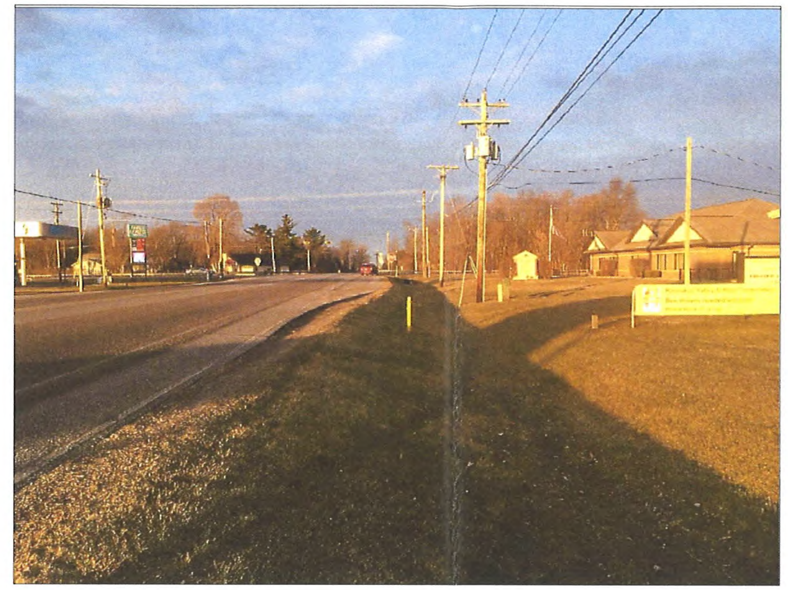
SCALE:
HORZ: N/A
VERT: N/A
ACI JOB # 19-0001
SHEET NO. 17 of 14

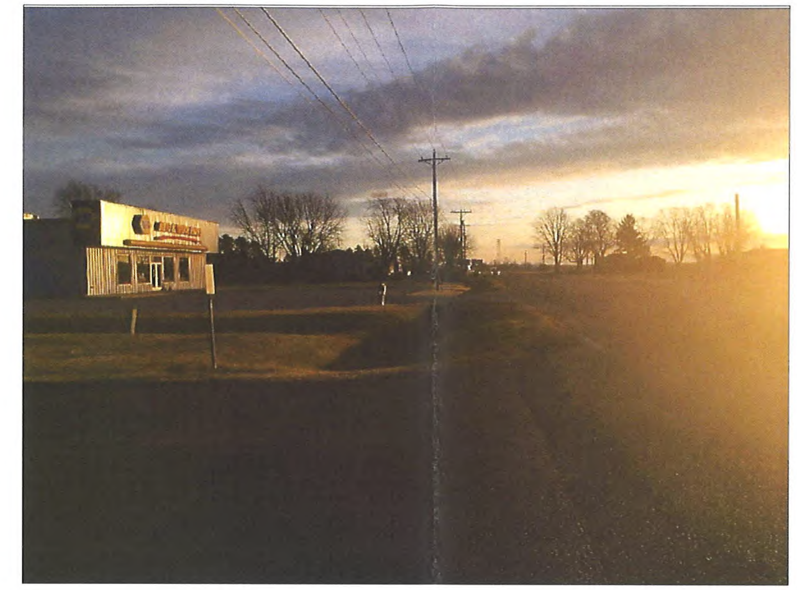
RNUM	RDESC	RBY	RDATE

EXHIBIT A-10
Photographs

19-1



20-1



20-2

PHOTOGRAPHS - SET 19, 20

ABONMARCHE
17 N. Washington Street
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Battle Creek, Benton Harbor, Lafayette, South Haven, Goshen, Hobart, South Bend, Valparaiso
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PROJECT: NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE: PHOTO LOG
PAGE 18

DRAWN BY: AAA
DESIGNED BY:
PM REVIEW:
QA/QC REVIEW:
DATE: 01/07/2019
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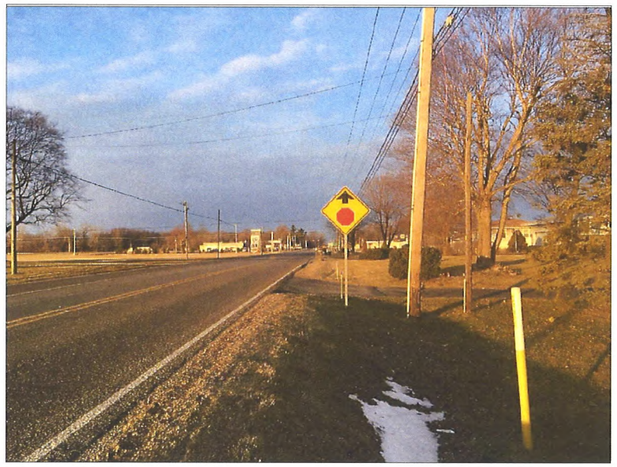
SIGNATURE:
DATE:
SCALE:
HORZ: N/A
VERT: N/A
ACI JOB # 19-0001
SHEET NO. 18 of 14

RNUM	RDESC	RBY	RDATE

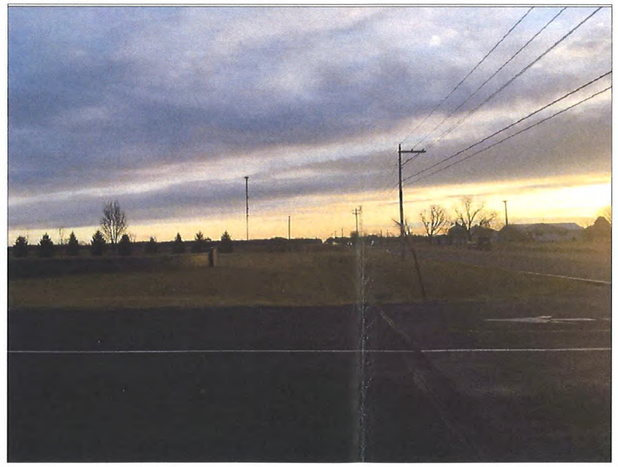
EXHIBIT A-10
Photographs



21-1

21-1

22-1



22-2

PHOTOGRAPHS - SET 21 & 22

ABONMARCHE
17 N. Washington Street
Plymouth, IN 46563
T 219.850.4625
F 219.850.4625
abonmarche.com
Bartle Creek
Benton Harbor
Kalamazoo
South Haven
Goshen
Indianapolis
Mishawaka
Valparaiso
Engineering Architecture Land Surveying

PROJECT:
NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE:
PHOTO LOG
PAGE 19

DRAWN BY: AAA
DESIGNED BY:
PM REVIEW:
QA/QC REVIEW:
DATE: 01/07/2019
SEAL:

SIGNATURE:
DATE:

SCALE:
HORZ: N/A
VERT: N/A

ACI JOB #
19-0001

SHEET NO.
19 of 14

RNUM	RDESC	RBY	RDATE

EXHIBIT A-10
Photographs

23-1

23-2

24-1

24-2

PHOTOGRAPHS - SET 23 & 24

RNUM	RDESC	RBY	RDATE

ABONMARCHE
17 N. Washington Street
Valparaiso, IN 46383
T 219.850.4624
F 219.850.4625
abonmarche.com
Battle Creek Benton Harbor Lafayette South Haven Goshen Hobart South Bend Valparaiso
Engineering · Architecture · Land Surveying

PROJECT:
NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE:
PHOTO LOG
PAGE 20

DRAWN BY: AAA
DESIGNED BY:
PM REVIEW:
QA/QC REVIEW:
DATE: 01/07/2019
SEAL:
SIGNATURE:
DATE:
SCALE:
HORZ: N/A
VERT: N/A
ACI JOB #
19-0001
SHEET NO.
20 of 14

EXHIBIT A-10
Photographs

25-1

25-2

PHOTOGRAPHS - SET 25

ABONMARCHE
17 N. Washington Street
Valparaiso, IN 46383
T 219.850.4624
F 219.850.4625
abonmarche.com
Battle Creek, Benton Harbor, Lafayette, South Haven, Goshen, Hobart, South Bend, Valparaiso
Engineering · Architecture · Land Surveying

PROJECT: NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE: PHOTO LOG
PAGE 21

DRAWN BY: AAA
DESIGNED BY:
PM REVIEW:
QA/QC REVIEW:
DATE: 01/07/2019
SEAL:
SIGNATURE:
DATE:
SCALE: HORZ: N/A VERT: N/A
ACI JOB #: 19-0001
SHEET NO. 21 of 14

EXHIBIT A-10
Photographs

26-1

26-2

26-3

26-4

26-5

PHOTOGRAPHS - SET 26

ABONMARCHE
17 N. Washington Street
Valparaiso, IN 46383
P 219.352.4424
F 219.352.4425
abonmarche.com
Battle Creek
Benton Harbor
Lafayette
Saint Marion
Goshen
Hobart
South Bend
Valparaiso
Engineering Architecture Land Surveying

PROJECT
NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

SHEET TITLE
PHOTO LOG
PAGE 22

DRAWN BY: AAA
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PM REVIEW:
QA/QC REVIEW:
DATE: 01/07/2019
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SIGNATURE:
DATE:

SCALE:
HORZ: N/A
VERT: N/A

ACI JOB #
19-0001

SHEET NO.
22 of 14

RNUM | RDESC | RBY | RDATE

EXHIBIT A-10
Photographs

27-1

27-2

27-3

27-4

27-5

PHOTOGRAPHS - SET 27

ABONMARCHE

NORWEJ WATER DISTRICT
TOWN OF DEMOTTE
SYSTEM EXPANSION

PHOTO LOG
PAGE 23

DRAWN BY: AAA
DESIGNED BY:
PM REVIEW:
QA/QC REVIEW:
DATE: 01/07/2019
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SIGNATURE:
DATE:
SCALE:
HORZ: N/A
VERT: N/A
ACI JOB # 19-0001
SHEET NO. 23 of 14

EXHIBIT A-11
Water Treatment Options

ARTESIAN OF PIONEER
Water Treatment Systems

Phone 419.737.2352
Fax 419.737.2364
P.O. Box 247
Pioneer, OH 43554

To: Abonmarche **Quote No.** NW-110819-BP2

Subject: NORWEJ Water Treatment Plant Reverse Osmosis Option **Date:** November 11, 2019

BUDGET PROPOSAL

Artesian proposes to supply the following turn key 450 GPM Water Plant for NORWEJ. (Demotte, IN)

(1) 1536 Sq. Foot Split face Block Building
-Split Faced Block
- Metal Roof
- (2) Man Doors
- Automatic Overhead Door
- Lab/Office
- Unit Heaters
- Dehumidification

(LS) Building Electrical Package
- Natural Gas Auxiliary Generator
- Automatic Transfer Switch
- Motor Control Center
- VFDs for HS Pumps
- Building Lighting, Branch and Distribution

(2) 225 GPM Reverse Osmosis Skids
- Each Unit is rated for 700 GPM Permeate
- Powder Coated Steel Frame Skid
- 75% Projected Recovery
- Adjustable Recycle Stream w/ Flow Meter
- High Pressure Booster Pumps
- Shelco Cartridge Filters
- FRP Pressure Vessels
- Dow Filmtec Membranes
- Interconnecting PVC Face Pipe and Fittings for the Plant
- Complete with Pressure Gauges, Valves and Appurtenances

(1) PLC Control Panel
- 15.6" HMI Touch Screen

- Programmable Logic Controller w/ Software
- Telemetry and Remote SCADA for Existing Water Tower
- Air Compressor and Solenoid Panels
- Independent Magnetic Flow Meters for each Softener
- Pneumatic Diaphragm Valves for Full Automation
- Plant Effluent Magnetic Flow Meter
- (2) Well Magnetic Flow Meters
- Hach CL17 Online-Chlorine Analyzer
- Tank Level Transducer

(1) Anti-Scalant Feed System
- (2) Peristaltic Chemical Feed Pumps
- Chemical Containment Skids
- Tubing and Fittings

(1) Chlorination Feed System
- (2) Peristaltic Chemical Feed Pumps
- (1) 50-gallon Day Tanks
- (1) 300-Gallon Bulk Tank
- Chemical Containment Skids
- Tubing and Fittings

(1) Caustic Soda Feed System
- (2) Peristaltic Chemical Feed Pumps
- Chemical Containment Skids
- Tubing and Fittings

(1) Orthophosphate Feed System
- (2) Peristaltic Chemical Feed Pumps
- Chemical Containment Skids
- Tubing and Fittings

(1) 50,000 Gallon Concrete Detention Tank
- Two chambers with baffle walls

(2) Vertical Turbine High Service Pumps
- Pumps rated for 450 gpm
- Variable Frequency Drives

5 Year Equipment Warranty
Turn Key Installation by AOP Personnel
Start-up & training of city personnel by AOP

EXHIBIT A-11
Water Treatment Options

TOTAL EQUIPMENT PACKAGE: $ 1,975,000

OPTIONAL CONCENTRATE RECYLCING SYSTEM: $ 175,000

- Reduces Reject from 20% of flow down to 5% or less
- Wastewater savings of 22 Million Gallons Per Year (at maximum flow rate)
- Reject Recycle Pump and EQ Tank
- Annual Operating Costs of $15,000

Specifically Included:

- **5 Year Warranty on ALL Equipment**
- **Submittal Drawings**
- **Start up and Training**
- **Operation and Maintenance Manuals**

Specifically, NOT Included:

- **Anything not specifically mentioned above**
- **Well Pumps or Well Work**
- **Site Utilities- Electrical/ Underground Piping outside building walls**
- **Waste Facilities to Dispose of Brine Waste Discharge**

Notes to Consider:

- **AOP can provide complete drawings and specifications, upon your request.**
- **Above system professionally installed by AOP factory personnel.**
- **System is designed to soften 50% of the 450 GPM Plant Flow with 100% Redundancy.**
- **Feed Water Required: 506 GPM**
- **Above equipment & pricing is for a totally automated water treatment plant.**

Thank you for the opportunity. We look forward to answering any questions or discussing this project further.

Best Regards,

Ryan Burt

EXHIBIT A-11
Water Treatment Options

ARTESIAN OF PIONEER
Water Treatment Systems

Phone 419.737.2352
Fax 419.737.2364
P.O. Box 247
Pioneer, OH 43554

To: Abonmarche **Quote No.** NW-110819-BP

Subject: NORWEJ Water Treatment Plant Ion Exchange Option **Date:** November 11, 2019

BUDGET PROPOSAL

Artesian proposes to supply the following turn key 450 GPM Water Plant for NORWEJ. (Demotte, IN)

(1) 1536 Sq. Foot Split face Block Building
-Split Faced Block
- Metal Roof
- (2) Man Doors
- Automatic Overhead Door
- Lab/Office
- Unit Heaters
- Dehumidification

(LS) Building Electrical Package
- Natural Gas Auxiliary Generator
- Automatic Transfer Switch
- Motor Control Center
- VFDs for HS Pumps
- Building Lighting, Branch and Distribution

(3) AOP Softeners
- Each softener is 5' in Diameter
- ASME Code Pressure Vessel
- Manhole Access including above and below Baffle Plate
- NSF Tnemec lining inside and out including below baffle plate
- 1" Thick Baffle Plate
- AOP Municipal Distributors
- 16" of Support Gravel per Softener
- High Capacity Ion Exchange Resin- 48" Depth
- Influent & Effluent Manual Butterfly Valves for Isolation
- Flow Controls for Backwashing and Slow Rinse
- Interconnecting PVC Face Pipe and Fittings between Softeners

(1) PLC Control Panel

- 15.6" HMI Touch Screen
- Programmable Logic Controller w/ Software
- Telemetry and Remote SCADA for Existing Water Tower
- Air Compressor and Solenoid Panels
- Independent Magnetic Flow Meters for each Softener
- Pneumatic Diaphragm Valves for Full Automation
- Plant Effluent Magnetic Flow Meter
- (2) Well Magnetic Flow Meters
- Hach CL17 Online-Chlorine Analyzer
- Tank Level Transducer

(1) 30 Ton Fiberglass Salt Briner (For Pneumatic Delivery)
- Brine Well with Submersible Pump
- Transducer for Salt Briner
- Independent Brine Distribution

(1) 50,000 Gallon Concrete Detention Tank
- Two chambers with baffle walls

(1) Chlorination Feed System
- (2) Peristaltic Chemical Feed Pumps
- (1) 50-gallon Day Tanks
- (1) 300-Gallon Bulk Tank
- Chemical Containment Skids
- Tubing and Fittings

(1) Orthophosphate Feed System
- (2) Peristaltic Chemical Feed Pumps
- Chemical Containment Skids
- Tubing and Fittings

(2) Vertical Turbine High Service Pumps
- Pumps rated for 450 gpm
- Variable Frequency Drives

5 Year Equipment Warranty
Turn Key Installation by AOP Personnel
Start-up & training of city personnel by AOP

TOTAL EQUIPMENT PACKAGE: $1,700,000

EXHIBIT A-11
Water Treatment Options

Specifically Included:

- **5 Year Warranty on ALL Equipment**
- **Submittal Drawings**
- **Start up and Training**
- **Operation and Maintenance Manuals**

Specifically <u>NOT</u> Included:

- **Anything not specifically mentioned above**
- **Well Pumps or Well Work**
- **Site Utilities- Electrical/ Underground Piping outside building walls**
- **Waste Facilities to Dispose of Brine Waste Discharge**

Notes to Consider:

- **AOP can provide complete drawings and specifications, upon your request.**
- **Above system professionally installed by AOP factory personnel.**
- **System is designed to soften 50% of the 450 GPM Plant Flow.**
- **Above equipment & pricing is for a totally automated water treatment plant.**

Thank you for the opportunity. We look forward to answering any questions or discussing this project further.

Best Regards,

Ryan Burt

EXHIBIT A-11
Water Treatment Options

ARTESIAN OF PIONEER
Water Treatment Systems
Phone 419.737.2352
Fax 419.737.2364
P.O. Box 247
Pioneer, OH 43554

To: Abonmarche
Chip Thompson

Quote No. NW-121319-BP

Subject: NORWEJ Water Treatment Plant
FilterKing Option

Date: December 13, 2019

BUDGET PROPOSAL

Artesian proposes to supply the following turn key 450 GPM Water Plant for NORWEJ. (Demotte, IN)

(1) 1536 Sq. Foot Split face Block Building
-Split Faced Block
- Metal Roof
- (2) Man Doors
- Automatic Overhead Door
- Lab/Office
- Unit Heaters
- Dehumidification

(LS) Building Electrical Package
- Natural Gas Auxiliary Generator
- Automatic Transfer Switch
- Motor Control Center
- VFDs for HS Pumps
- Building Lighting, Branch and Distribution

(1) AOP FilterKing
- Filter Section 12' x 12' Sqaure
- Minimum 13,500 Gallon Detention Tank
-450 GPM Induced Draft Aerator
- NSF Tnemec lining inside and out including below baffle plate
- 1" Thick Baffle Plate
- AOP Municipal Distributors
- 16" of Support Gravel per Filter Cell
- Award Winning MARIS Media
- Influent & Effluent Manual Butterfly Valves for Isolation
- Automatic Flow Controls for Backwashing
- Steel Face Pipe and Fittings

EXHIBIT A-11
Water Treatment Options

(1) PLC Control Panel
- 15.6" HMI Touch Screen
- Programmable Logic Controller w/ Software
- Telemetry and Remote SCADA for Existing Water Tower
- Air Compressor and Solenoid Panels
- Independent Magnetic Flow Meters for each Softener
- Plant Effluent Magnetic Flow Meter
- (2) Well Magnetic Flow Meters
- Hach CL17 Online-Chlorine Analyzer
- Tank Level Transducer

(1) 50,000 Gallon Concrete Detention Tank
- Two chambers with baffle walls

(1) Chlorination Feed System
- (2) Peristaltic Chemical Feed Pumps
- (1) 50-gallon Day Tanks
- (1) 300-Gallon Bulk Tank
- Chemical Containment Skids
- Tubing and Fittings

(1) Orthophosphate Feed System
- (2) Peristaltic Chemical Feed Pumps
- Chemical Containment Skids
- Tubing and Fittings

(2) Vertical Turbine High Service Pumps
- Pumps rated for 450 gpm
- Variable Frequency Drives

5 Year Equipment Warranty
Turn Key Installation by AOP Personnel
Start-up & training of city personnel by AOP

TOTAL EQUIPMENT PACKAGE: $1,550,000

Specifically Included:

- **5 Year Warranty on ALL Equipment**
- **Submittal Drawings**
- **Start up and Training**
- **Operation and Maintenance Manuals**

EXHIBIT A-11
Water Treatment Options

Specifically <u>NOT</u> Included:

- **Anything not specifically mentioned above**
- **Well Pumps or Well Work**
- **Site Utilities- Electrical/ Underground Piping outside building walls**
- **Waste Facilities to Dispose of Backwash water**

Notes to Consider:

- **AOP can provide complete drawings and specifications, upon your request.**
- **Above system professionally installed by AOP factory personnel.**
- **System is designed to filter 100% of the 450 GPM Plant Flow.**
- **Above equipment & pricing is for a totally automated water treatment plant.**

Thank you for the opportunity. We look forward to answering any questions or discussing this project further.

Best Regards,

Ryan Burt

EXHIBIT A-12
49 CFR Part 24 Letter

Waddle & Vallejo

Attorneys at Law
524 S. Halleck * P.O. Box 548
DeMotte, Indiana 46310
(219) 987-6200 and (219) 987-5200
(219) 987-6331 facsimile

Emily S. Waddle
Attorney

Luis E. Vallejo
Attorney

Glenn D. Burkhart
(1958-2005)

January 6, 2020

Heather Tokarz
Town Manager
Town of DeMotte
112 North Carnation
DeMotte, Indiana 46310

Dear Ms. Tokarz

Please be advised that the property that is being purchased from Kersey Development, Inc. for NORWEJ'S new well field site complies with 49 CFR Part 24. We anticipate that the closing for the completion of this sale will take place the end of February 2020.

If you require anything further, please do not hesitate to contact my office.

Very truly yours,

Emily S. Waddle

Hablamos Español

Appendix B
Future Connections

STATS INDIANA
Indiana's Public Data Utility

EXHIBIT B-1
DeMotte Population Estimate

Population Estimates for Indiana's Incorporated Places, 2010-2018

View analysis of these estimates from the IBRC »

Interactive Graphics: *Explore Indiana City/Town Population Change* | **Map:** 20 Fastest-Growing Cities and Towns

Download these data with FIPS codes

Geographic Area	Population Estimates (as of July 1)									April 1, 2010 Estimates Base	April 1, 2010 Census	Change July 1, 2010 to July 1, 2018		Rank: Pop Change July 1, 2010 to July 1, 2018	
	2018	2017	2016	2015	2014	2013	2012	2011	2010			Number	Percent	Number	Percent
Advance town	514	512	506	508	509	514	514	513	481	477	477	33	6.9%	122	49
Akron town	1,110	1,107	1,112	1,125	1,136	1,132	1,145	1,148	1,155	1,157	1,167	-45	-3.9%	441	450
Alamo town	66	65	65	65	65	65	65	65	65	65	66	1	1.5%	198	150
Albany town	2,151	2,166	2,178	2,191	2,204	2,221	2,231	2,249	2,252	2,252	2,165	-101	-4.5%	493	485
Albion town	2,338	2,318	2,318	2,324	2,304	2,306	2,328	2,290	2,350	2,351	2,349	-12	-0.5%	311	235
Alexandria city	4,997	5,010	5,017	5,027	5,055	5,070	5,068	5,103	5,135	5,137	5,145	-138	-2.7%	512	371
Alfordsville town	105	105	105	104	104	103	102	102	101	101	101	4	4.0%	175	109
Alton town	54	54	54	54	55	54	55	55	55	55	55	-1	-1.8%	214	312
Altona town	197	195	195	195	194	194	195	195	195	195	197	2	1.0%	190	170
Ambia town	222	219	220	221	222	225	227	227	228	227	239	-6	-2.6%	270	366
Amboy town	369	372	375	374	374	375	378	382	383	384	384	-14	-3.7%	329	430
Amo town	420	422	418	414	414	412	409	409	401	401	401	19	4.7%	144	91
Anderson city	55,037	55,033	55,082	55,121	55,358	55,561	55,532	55,883	56,151	56,169	56,129	-1,114	-2.0%	557	326
Andrews town	1,128	1,127	1,128	1,136	1,136	1,144	1,148	1,155	1,155	1,155	1,149	-27	-2.3%	385	346
Angola city	8,702	8,642	8,604	8,634	8,645	8,626	8,589	8,586	8,599	8,607	8,612	103	1.2%	84	160
Arcadia town	1,664	1,663	1,660	1,671	1,692	1,714	1,698	1,689	1,670	1,666	1,666	-6	-0.4%	271	227
Argos town	1,625	1,636	1,641	1,648	1,654	1,664	1,669	1,678	1,687	1,690	1,691	-62	-3.7%	466	433
Ashley town	980	977	976	975	976	976	971	973	973	973	983	7	0.7%	165	182
Atlanta town	745	747	742	739	746	755	743	733	727	725	725	18	2.5%	145	134
Attica city	3,183	3,127	3,075	3,092	3,126	3,164	3,211	3,221	3,247	3,242	3,245	-64	-2.0%	469	325
Auburn city	13,391	13,161	13,012	12,937	12,897	12,858	12,844	12,892	12,820	12,794	12,731	571	4.5%	41	99
Aurora city	3,687	3,693	3,682	3,689	3,686	3,712	3,713	3,735	3,746	3,743	3,750	-59	-1.6%	460	298
Austin city	4,114	4,130	4,112	4,123	4,128	4,163	4,169	4,214	4,276	4,281	4,295	-162	-3.8%	523	444
Avilla town	2,451	2,419	2,396	2,404	2,401	2,392	2,389	2,390	2,395	2,398	2,401	56	2.3%	109	137
Avon town	18,343	17,567	17,134	16,599	16,137	14,999	14,627	14,268	13,855	13,749	12,446	4,488	32.4%	11	7
Bainbridge town	748	744	735	733	737	735	742	743	745	746	746	3	0.4%	182	196

EXHIBIT B-1
DeMotte Population Estimate

Delphi city	2,891	2,882	2,870	2,858	2,868	2,891	2,891	2,882	2,903	2,897	2,893	-12	-0.4%	313	231
De Motte town	4,082	4,054	4,020	4,005	3,979	3,942	3,904	3,862	3,833	3,818	3,814	249	6.5%	64	52
Denver town	465	468	473	472	473	475	479								
Dillsboro town	1,401	1,399	1,396	1,398	1,396	1,405	1,404								
Dublin town	747	753	760	767	775	781	786								
Dugger town	884	889	888	895	900	905	911								
Dune Acres town	182	181	182	184	185	184	183								
Dunkirk city	2,289	2,309	2,326	2,339	2,342	2,358	2,368	2,369	2,353	2,362	2,362	-64	-2.7%	470	375
Dunreith town	171	171	171	172	173	173	174	176	177	177	177	-6	-3.4%	273	409
Dupont town	325	324	326	324	325	327	325	324	326	327	339	-1	-0.3%	218	223
Dyer town	15,987	15,918	15,933	16,016	16,155	16,235	16,330	16,375	16,378	16,369	16,390	-391	-2.4%	543	351
Earl Park town	337	336	336	340	340	341	345	349	349	348	348	-12	-3.4%	314	413
East Chicago city	27,930	28,168	28,429	28,690	29,019	29,225	29,451	29,522	29,694	29,698	29,698	-1,764	-5.9%	563	543
East Germantown town	350	352	356	358	361	363	365	367	372	372	410	-22	-5.9%	363	540
Eaton town	1,734	1,739	1,752	1,756	1,770	1,783	1,791	1,803	1,807	1,807	1,805	-73	-4.0%	482	454
Economy town	175	176	178	179	181	181	182	183	185	185	187	-10	-5.4%	303	523
Edgewood town	1,857	1,858	1,863	1,865	1,876	1,885	1,885	1,897	1,910	1,910	1,913	-53	-2.8%	455	378
Edinburgh town	4,577	4,585	4,569	4,533	4,523	4,527	4,502	4,483	4,477	4,476	4,480	100	2.2%	86	139
Edwardsport town	297	298	298	300	301	301	301	304	304	304	303	-7	-2.3%	279	344
Elberfeld town	652	649	641	637	629	627	621	620	614	613	625	38	6.2%	118	57
Elizabeth town	207	204	204	202	201	201	202	201	203	203	162	4	2.0%	176	144
Elizabethtown town	527	528	531	528	525	522	521	516	512	512	504	15	2.9%	150	125
Elkhart city	52,367	52,415	52,487	52,532	52,315	52,182	52,004	51,929	51,865	51,932	50,949	502	1.0%	44	175
Ellettsville town	6,676	6,667	6,616	6,539	6,498	6,430	6,400	6,335	6,251	6,221	6,378	425	6.8%	47	50
Elnora town	661	661	659	657	653	645	644	643	639	638	640	22	3.4%	137	118
Elwood city	8,403	8,424	8,422	8,432	8,472	8,507	8,509	8,547	8,596	8,601	8,614	-193	-2.2%	527	340
English town	627	627	631	629	637	637	640	637	645	645	645	-18	-2.8%	350	380
Etna Green town	591	590	587	589	589	586	585	583	585	586	586	6	1.0%	170	171
Evansville city	117,963	118,288	118,915	119,442	120,154	120,296	120,263	120,207	120,095	120,075	117,429	-2,132	-1.8%	565	309
Fairland town	579	579	578	581	582	582	582	583	584	585	315	-5	-0.9%	258	252
Fairmount town	2,775	2,788	2,805	2,841	2,877	2,897	2,910	2,929	2,947	2,954	2,954	-172	-5.8%	526	538
Fairview Park town	1,309	1,310	1,318	1,318	1,324	1,352	1,358	1,371	1,372	1,380	1,386	-63	-4.6%	467	488
Farmersburg town	1,079	1,083	1,086	1,095	1,099	1,108	1,112	1,112	1,120	1,123	1,118	-41	-3.7%	433	431
Farmland town	1,257	1,263	1,271	1,272	1,283	1,297	1,309	1,318	1,328	1,327	1,333	-71	-5.3%	478	521

EXHIBIT B-2
Jasper County
Population Estimate

STATSINDIANA Indiana Population Projections

Select General Area	Select Year	Projections	Help Custom Region
Indiana Counties	2020	Total, Functional Groups	Group Counties
Select Geography: Jasper		Show % of Total	
		Get Data / Print	

Indiana Population Projections - Jasper County, Total: 2020

Total	Preschool 0-4	School Age 5-19	College Age 20-24	Young Adult 25-44	Older Adult 45-64	Seniors 65+
33,879	1,998	6,778	2,193	7,834	8,913	6,163

Notes: 2010 data are census counts from the U.S. Census Bureau. 2015 data are U.S. Census Bureau population estimates (Vintage 2016).
Metro areas that show (pt) include only projections for the Indiana counties in that area.

Source: STATS Indiana, using data from the Indiana Business Research Center, IU Kelley School of Business
Produced on 1/8/2020 8:11:13 AM

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EXHIBIT B-2
Jasper County
Population Estimate

STATSINDIANA Indiana Population Projections

Select General Area	Select Year	Projections	Help Custom Region
Indiana Counties	2040	Total, Functional Groups	Group Counties
Select Geography		Show % of Total	
Jasper		Get Data Print	

Indiana Population Projections - Jasper County, Total: 2040

Total	Preschool 0-4	School Age 5-19	College Age 20-24	Young Adult 25-44	Older Adult 45-64	Seniors 65+
37,906	2,287	7,915	2,019	8,101	8,573	9,011

Notes: 2010 data are census counts from the U.S. Census Bureau. 2015 data are U.S. Census Bureau population estimates (Vintage 2016).
Metro areas that show (pt) include only projections for the Indiana counties in that area.

Source: STATS Indiana, using data from the Indiana Business Research Center, IU Kelley School of Business
Produced on 1/8/2020 8:11:43 AM

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EXHIBIT B-3
Potential DeMotte Connections

Allison Atkinson

From: Daryl Knip
Sent: Tuesday, October 1, 2019 8:09 AM
To: Charles Thompson; Allison Atkinson
Subject: FW: NORWEJ Potential accounts

Chip & Allison,
The information below is from Heather for the future flow connections. This is based on a GIS map of all homes within 800' of a hydrant currently. Some of this extends outs past the Town limits, but I think that is ok.

Daryl Knip, P.E.
Vice President
Abonmarche
D 574.314.1020
C 574.220.4512
O 574.232.8700
www.abonmarche.com

40 YEARS
ABONMARCHE

From: Heather Tokarz <htokarz@gmail.com>
Sent: Monday, September 30, 2019 1:29 PM
To: Daryl Knip <dknip@abonmarche.com>; Donna Shear <dshear3831@gmail.com>
Subject: NORWEJ Potential accounts

Daryl,

We have a total of 2059 properties that are 800 feet from a hydrant. 961 of them are connected to the public water supply. 75 more are signed up and are not connected. So the potential water connections are 1023. You can use that number as you see fit. I would be conservative since we are talking 800 feet from the hydrant.

Does that make sense?

Heather Tokarz
Town Manager
Town of DeMotte
112 Carnation St SE
DeMotte, IN 46310
Email: htokarz@gmail.com
Phone: 219-987-3831
Fax: 219-987-3836

EXHIBIT B-4
KVHS Connection

Allison Atkinson

From:	Allison Atkinson
Sent:	Monday, December 2, 2019 8:56 AM
To:	LMELVIN@idem.IN.gov
Cc:	lternied@idem.IN.gov
Subject:	RE: Question regarding Well & New Building Proximity
Attachments:	12-2-2019 KVHS Floor and Site Plan.pdf

Good morning Liz,

Thank you to you and Lucio for your responses and for working with us on this.

I've attached a site plan and an interior plumbing plan which provides more detail regarding the situation. The project is a new halftime building for Kankakee Valley High School, located in DeMotte, IN.

The building area that will overlap into the sanitary radius contains one toilet and two floor drains within the overlap, all of which will be routed south, away from the well. Proposed sanitary lines are shown on both sheets. We have transferred your information about testing below to the school and they are amenable to completing more frequent and additional testing.

It should also be noted that this situation is temporary – the school's plan is to replace the well at a later date. Currently, KVHS is in conversation with the Town of DeMotte about connecting to municipal water.

Please let me know if you have any other questions or if I can further clarify the situation. My number is 317-682-7977 if you would like to speak about this.

Thank you,
Allison

Allison Atkinson
Staff Civil Engineer, EI

C 317.682.7977
O 219.850.4624

W www.abonmarche.com

40 YEARS
ABONMARCHE

From: MELVIN, LIZ <LMELVIN@idem.IN.gov>
Sent: Wednesday, November 13, 2019 6:36 PM
To: Allison Atkinson <aatkinson@abonmarche.com>

EXHIBIT B-4
KVHS Connection

Cc: TERNIEDEN, LUCIO <LTERNIED@idem.IN.gov>
Subject: FW: Question regarding Well & New Building Proximity

You have spoken with Lucio already, but I might add more. If that well was drilled as a public water system well they would have had to control at least a 100 foot setback from all sources of contamination. If the building is that close they will be in violation of rule by encroaching into the setback area. If it was not a public water system well, it would be better to abandon it and drill a new well that meets the current standards. The well to current standards would have to have a minimum 5 inch diameter casing and have casing installed to at least 50 feet. This shallow well is in danger of being ground water under the direct influence of surface water. if it is found to be under the influence of surface water, a great deal of treatment would have to be installed to render it suitable for drinking water purposes.

As Lucio noted, we need to see more of the site. Drawings with all utilities, pipes, storm water lines, and any other sources of contamination within the 100 foot radius of the well. You may consider pulling some samples before you move on much more. At the very least you should check for bacteria and nitrate.

We would be happy to speak with you about this

Liz Melvin, Section Chief
IDEM
Drinking Water Branch
Capacity, Certification, & Permits Section
100 N Senate Ave MC66-34
Indianapolis, IN 46204
317.234.7418

From: Allison Atkinson [mailto:aatkinson@abonmarche.com]
Sent: Wednesday, November 06, 2019 3:11 PM
To: DWBMGR <DWBMGR@idem.IN.gov>
Subject: Question regarding Well & New Building Proximity

Good afternoon,

I am a Civil Engineering consultant working with an institutional client that is planning on constructing a new building approximately 85 feet from an existing well. The well is shallow, about 30 +/- feet deep.

The client is generally asking "is the building proximity okay", but more specifically, would there be any additional or more frequent testing requirements?

Thank you,
Allison

Allison Atkinson
Staff Civil Engineer, EI

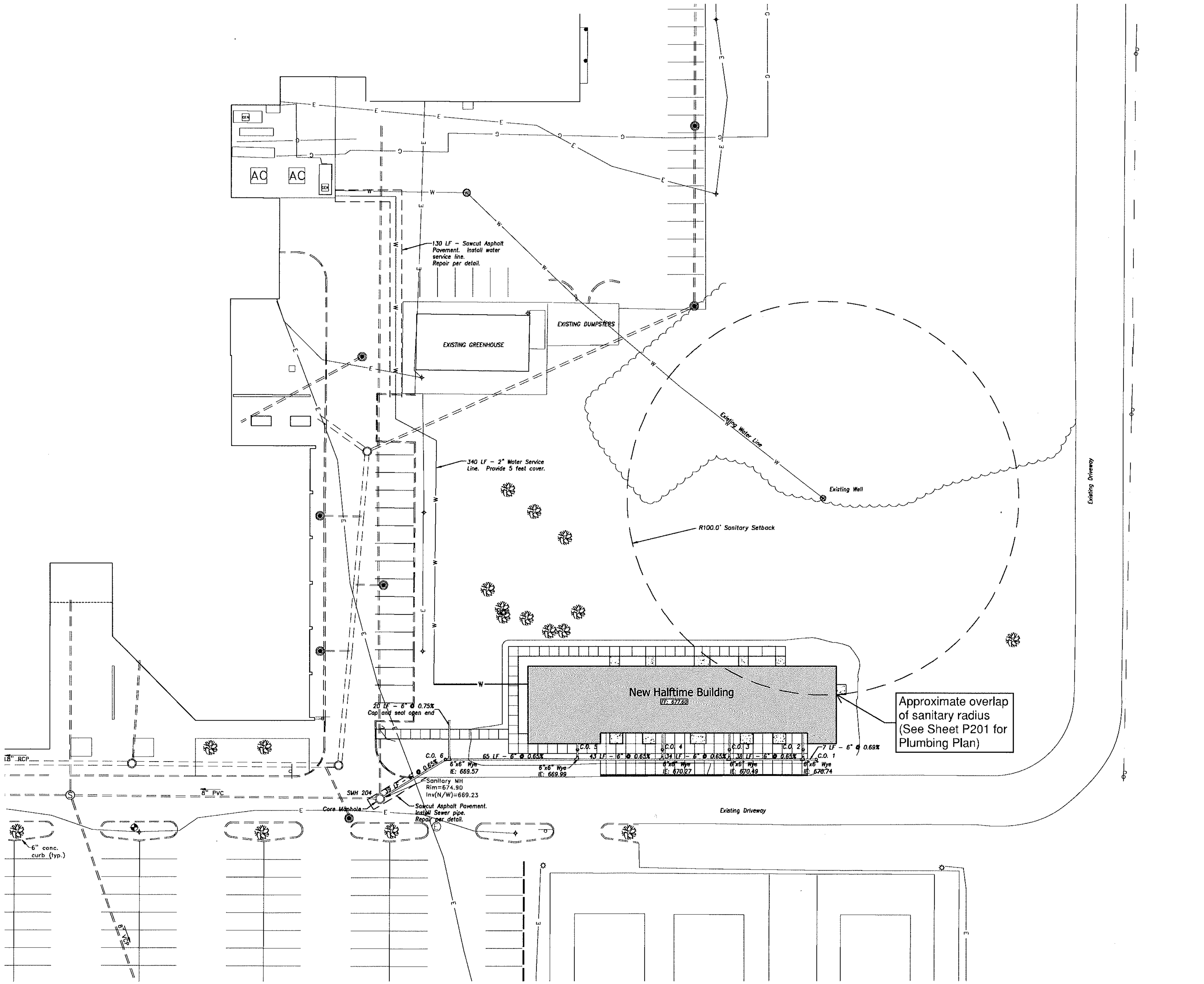
C 317.682.7977

EXHIBIT B-4
KVHS Connection

O 219.850.4624

W www.abonmarche.com

EXHIBIT B-4
KVHS Connection



Plan Notes

1. Field verify all existing pipe location, depth and materials. Any discrepancy shall be report to the C.M. or Engineer
2. Water line lengths are for hydraulic purposes. Contractor shall provide exact pipe lengths and stubs between fittings.
3. All water main shall have 5-feet of cover
4. Provide a minimum of 18-inches of vertical clearance between all water main and storm/sanitary sewer crossings
5. Water main distribution pipe shall be C-900 PVC Pressure Pipe conforming to cell classification of 12454 as defined in ASTM D-1784. The pipe shall meets the requirements of the AWWA C-900 standard specifications for polyvinyl chloride water distribution pipe. The integral bell joint system shall meet the requirements of ASTM D-3139 and utilize an elastomeric seal meeting the specifcations defined in ASTM F-477.
6. Gasketed joints shall conform to ASTM D-3139 and ASTM F-477.
7. Water service line shall be Copper Type K, or approved equal.

Proposed Sanitary Sewer Structure Table

Structure Number	Rim Elevation	Invert Elevations	Type and Casting
1	675.06	INV. W = 670.78 6" PVC	Clean Out
2	677.51	INV. N = 670.78 6" PVC INV. S = 670.78 6" PVC	Clean Out
3	677.51	INV. N = 670.54 6" PVC INV. S = 670.54 6" PVC	Clean Out
4	677.51	INV. N = 670.32 6" PVC INV. S = 670.32 6" PVC	Clean Out
5	677.50	INV. N = 670.05 6" PVC INV. S = 670.05 6" PVC	Clean Out
6	676.01	INV. E = 669.55 6" PVC INV. SW = 669.55 6" PVC	Clean Out
204	674.90	INV. NE = 669.30 6" PVC INV. N = 669.23 8" PVC INV. W = 669.23 8" PVC	Existing Manhole Core manhole for new 6" pipe
W2	705.40	INV. E = 670.74 6" PVC INV. N = 670.74 6" PVC INV. W = 670.74 6" PVC	6"x6" Wye
W3	705.40	INV. E = 670.49 6" PVC INV. N = 670.49 6" PVC INV. W = 670.49 6" PVC	6"x6" Wye
W4	705.40	INV. E = 670.27 6" PVC INV. N = 670.27 6" PVC INV. W = 670.27 6" PVC	6"x6" Wye
W5	671.23	INV. E = 669.99 6" PVC INV. N = 669.99 6" PVC INV. W = 669.99 6" PVC	6"x6" Wye
W6	670.55	INV. E = 669.57 6" PVC INV. N = 669.57 6" PVC INV. W = 669.57 6" PVC	6"x6" Wye

GRAPHIC SCALE
(IN FEET)
1 inch = 20 ft.

ABONMARCHE

PROJECT: NEW HALFTIME BUILDING
KANKAKEE VALLEY SCHOOL CORPORATION
3923 STATE ROAD 10, WHEATFIELD, INDIANA

SHEET TITLE: UTILITY PLAN

MODELED BY: AAA
DESIGNED BY: RSP
PM REVIEW: RSP
QA/QC REVIEW: RSP
DATE: 11/21/19

HARD COPY IS INTENDED TO BE 24" x 36" WHEN PLOTTED. SCALE(S) INDICATED AND GRAPHIC QUALITY MAY NOT BE ACCURATE FOR ANY OTHER SIZES

SCALE: 1" = 20'
Unless Noted Otherwise

ACI JOB #: 18-1331

SHEET NO. C400

PLUMBING SYMBOL SCHEDULE

Symbol	Description	Symbol	Description
	BALL VALVE	——SAN——	SANITARY DRAIN ABOVE FLOOR
	BUTTERFLY VALVE	— —SAN— —	SANITARY DRAIN BELOW FLOOR
	PRESSURE REDUCING VALVE	——ST——	STORM DRAIN ABOVE FLOOR
	TEMPERATURE MIXING VALVE	— — ST — —	STORM DRAIN BELOW FLOOR
	GAS COCK	——G——	GAS
	CHECK VALVE	------------	VENT
	IN LINE PUMP	—— — ——	COLD WATER
	STRAINER	——RAW——	DOMESTIC WATER (RAW)
	AUTOMATIC FLOW VALVE	—— — — ——	HOT WATER
	UNION	—— — — — ——	HOT WATER RECIRC
	ACTUATOR	CO-	CLEANOUT
	METER	ET-	EXPANSION TANK
	PIPING DROP	EWC-	ELECTRIC WATER COOLER
	INLINE PIPING DROP	EWH-	ELECTRIC WATER HEATER
	PIPING RISE	FD-	FLOOR DRAIN
	PIPE CAP	GWH-	GAS WATER HEATER
	PIPE BREAK	L-	LAVATORY
	WALL CLEANOUT/ END FERRULE CLEANOUT	MB-	MOP BASIN
	TIE-IN	RD-	ROOF DRAIN
	THERMOMETER	S-	SINK
	WATER HAMMER ARRESTOR TAG (SHOCK ABSORBER)	SH-	SHOWER
	SHOCK ABSORBER	TD-	TRENCH DRAIN
	CLEAN OUT	TMV-	TEMPERATURE MIXING VALVE
	FLOOR DRAIN	U-	URINAL
	FLOOR SINK	VTR-	VENT THROUGH ROOF
	ROOF DRAIN	WC-	WATER CLOSET
	VENT THROUGH ROOF	WH-	WALL HYDRANT
	WALL HYDRANT/ HOSE BIBB	YH-	YARD HYDRANT
	SHOWER HEAD	"H"	SUFFIX INDICATES HANDICAP ACCESSIBLE
	REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTER	A.F.F.	ABOVE FINISHED FLOOR

WATER HAMMER ARRESTOR SCHEDULE

MARK	MANUFACTURE	MODEL #	MAX. FIXTURE UNIT CAPACITY	CONNECTION SIZE	REMARKS
A	SIOUX CHIEF	652-A	1 TO 11	1/2"	1
B	SIOUX CHIEF	653-B	12 TO 32	3/4"	1
C	SIOUX CHIEF	654-C	33 TO 60	1"	1
D	SIOUX CHIEF	655-D	61 TO 113	1 1/4"	1
E	SIOUX CHIEF	656-E	114 TO 154	1 1/2"	1
F	SIOUX CHIEF	657-F	155 TO 330	2"	1

1. PLUMBING CONTRACTOR SHALL INSTALL SHOCK ABSORBER AT EACH WATER LINE SERVING A BANK OF PLUMBING FIXTURE DOWNSTREAM OF MAIN SHUT-OFF VALVE PER ABOVE SCHEDULE OR AS SHOWN ON DESIGN DRAWINGS.

TEMPERATURE MIXING VALVE SCHEDULE

TAG	MANUFACTURE	MODEL	MIN. / MAX FLOW (GPM)	DESIGN FLOW (GPM)	DESIGN PRESS. DROP (PSI)	OUTLET TEMP. (DEG. F)	SERVICE	REMARKS
TMV-1	LAWLER	801	17/65	45	10	115	GWH-1	1

REMARKS:
1. EXPOSED ASSEMBLY.

DOMESTIC EXPANSION TANK SCHEDULE

TAG	MANUFACTURER	MODEL	TANK VOL. (GAL)	ACCEPTANCE (GAL)	MOUNTING	INLET SIZE	TYPE	REMARKS
DET-1	AMTROL	ST-12C	6.4	3.2	INLINE	3/4"	DIAPHRAGM	1, 2, 3, 4

REMARKS:
1. TANK SHALL BE ASME LABELED FOR 150 PSIG WORKING PRESSURE, 200 DEGREES F MAXIMUM OPERATING TEMPERATURE.
2. TANK SHALL BE SPECIFICALLY DESIGNED FOR POTABLE HOT WATER SYSTEMS.
3. PRE CHARGE TANK TO COLD WATER STATIC PRESSURE AT POINT OF CONNECTION PRIOR TO PLACING EXPANSION TANK INTO OPERATION.
4. PROVIDE SAFETY RELIEF VALVE SIZED FOR THIS TANK.

RECIRCULATION PUMP SCHEDULE

TAG	MANUFACTURE	MODEL	SIZE	FLOW (GPM)	HEAD (FT)	RPM	HP	ELECTRICAL (V / PH)	SERVICE	REMARKS
HWRP-1	BELL & GOSSETT	ECO XL	36-45	6	20	VARIES	43471	120/1	DOMESTIC HOT WATER	1, 2

REMARKS:
1. PUMPS ARE TO BE ALL BRONZE CONSTRUCTION.
2. PROVIDE AND INSTALL PUMP WITH AQUASTAT AND ALL CONTROLS FOR CONTROL OF PUMP. (IF DDC ON JOB, CONTROL WITH DDC SYSTEM.) COORDINATE INSTALLATION WITH ELECTRICAL CONTRACTOR.

PLUMBING FIXTURE SCHEDULE

FIXTURE	MFGR	FIXTURE MODEL	TRIM MFGR	MODEL	TYPE	PIPE CONNECTIONS W	V	HW	CW	COLOR	REMARKS
WC-1	KOHLER	K-4325	ZURN	Z6000	FLUSH VALVE	4"	2"	--	1"	WHITE	1, 3, 6
WC-1H	KOHLER	K-4325	ZURN	Z6000	FLUSH VALVE	4"	2"	--	1"	WHITE	1, 3, 4, 6
U-1	KOHLER	K-4991-ET	ZURN	REGAL 186	FLUSH VALVE	2"	1 1/2"	--	3/4"	WHITE	5
U-1H	KOHLER	K-4991-ET	ZURN	REGAL 186	FLUSH VALVE	2"	1 1/2"	--	3/4"	WHITE	5, 28
L-1	KOHLER	K-2205	ZURN	Z81104-XL	LEVER HANDLE	1 1/2"	1 1/2"	1/2"	1/2"	WHITE	8, 9, 11
L-1H	KOHLER	K-2205	ZURN	Z81104-XL	LEVER HANDLE	1 1/2"	1 1/2"	----	----	WHITE	8, 9, 10, 11
SH-1	SYMMONS	TEMPTROL	SYMMONS	S-9601-P	LEVER HANDLE	----	----	----	----	CHROME	12
SH-1H	SYMMONS	TEMPTROL	SYMMONS	S-9601-P	LEVER HANDLE	----	----	----	----	CHROME	12, 13
							1 1/2"	3/4"	3/4"		
CO-1	JOSAM	55000-2-22	----	----	----	----	----	----	----	----	2, 15, 16, 17
CO-2	JOSAM	58600-COT	----	----	----	----	----	----	----	----	2, 29
FD-1	JOSAM	30000-A	----	----	----	----	----	----	----	----	2, 18, 18, 19, 20
MB-1	FIAT	MSB2424	CHICAGO	897	FAUCET	3"	1 1/2"	1/2"	1/2"	WHITE	30
RD-1	JOSAM	22500-AE-22	----	----	----	----	----	----	----	----	14, 21, 26
TD-1	POLYDRAIN	4" CHANNEL	----	----	----	----	----	----	----	----	23, 27
RH-1	WOODFORD	SRH	----	----	----	----	----	----	3/4"	CHROME	7
WH-1	WOODFORD	B65	----	----	----	----	----	----	3/4"	CHROME	22
EWC-1H	OASIS	PG8AC	----	----	----	2"	1 1/2"	----	1/2"	BRONZE	14, 24

REMARKS:
1 PROVIDE HEAVY DUTY ELONGATED WHITE OPEN FRONT PLASTIC SEAT WITH CHECK HINGE KOHLER MODEL K-4666-C OR EQUIVALENT.
2 CLEANOUT SHALL BE SIZED PER PLANS.
3 PROVIDE AND INSTALL JOSAM SERIES 12000 FLOOR MOUNTED CHAIR CARRIER.
4 MOUNT RIM AT 17" A.F.F.
5 PROVIDE AND INSTALL JOSAM SERIES 17000 SERIES FLOOR MOUNTED CONCEALED ARM CARRIER
6 INSTALL TRIP LEVER ON THE WIDE SIDE OF THE STALL.
7 PROVIDE NON-FREEZE, AUTOMATIC DRAIN TYPE HYDRANT WITH HOSE CONNECTION BACKFLOW PREVENTER AND COMPLETE MOUNTING SYSTEM.
8 PROVIDE AND INSTALL WITH 17 GAUGE OFFSET P-TRAP, ANGLE STOPS WITH LOOSE KEY HANDLES, AND VANDAL PROOF GRID STRAINER.
9 PROVIDE AND INSTALL UNIT WITH PIPE WRAP KIT EQUAL TO TRUBRO OR PLUMBEREX PRO.
10 MOUNT RIM AT 29" A.F.F. TO BOTTOM OF APRON.
11 PROVIDE AND INSTALL WITH 0.5 GPM VANDAL-RESISTANT PRESSURE COMPENSATING AERATOR.
12 VALVE SHALL BE PRESSURE BALANCING, WITH VOLUME CONTROL, WITH CHOME PLATED METAL ESCUTCEON, SHOWER HEAD.
13 PROVIDE WITH A 36 INCH SLIDE BAR, WITH ADA HAND SHOWER, 5 FT METAL HOSE, DUAL CHECKS
14 PROVIDE AND INSTALL DEEP SEAL TRAP AND ALL REQUIRED HANGING DEVICES.
15 PROVIDE AND INSTALL UNIT FOR FINISHED FLOOR, ROUND TOP.
16 PROVIDE AND INSTALL UNIT WITH BRONZE TOP.
17 PROVIDE AND INSTALL UNIT WITH TAPER THREAD BRONZE PLUG
18 FLOOR DRAINS SHALL BE SIZED PER PLANS.
19 PROVIDE AND INSTALL UNIT WITH DEEP SEAL TRAP.
20 PROVIDE AND INSTALL UNIT WITH SURESEAL TRAP SEAL.
21 ROOF DRAINS SHALL BE SIZED PER PLANS.
22 UNIT TO BE NON-FREEZE, AUTOMATIC DRAIN TYPE WITH LOOSE KEY STOPS AND VACUUM BREAKER.
23 CHANNEL SLOPE IS TO BE 0.6% SIZE OUTLET PER DRAWINGS. PROVIDE WITH CENTER OUTLET.
24 MOUNT AT 33" TO BUBBLER OUTLET.
25 NOT USED
26 PROVIDE AND INSTALL CAST IRON DOME AND SECURE WITH TAMPER PROOF FASTENERS.
27 PROVIDE WITH STAINLESS STEEL PERFORATED GRATE WITH A MINIMUM OF CLASS A RATING. ALL FASTENERS ARE TO BE VANDAL PROOF.
28 MOUNT AT 24" TO RIM.
29 PROVIDE WITH HALF GRATE.
30 PROVIDE WITH 3" DRAIN AND STAINER, 832AA HOSE AND BRACKET, 889CC MOP HANGER BRACKET.
31 NOT USED

GAS WATER HEATER SCHEDULE

TAG	MFG	MODEL	STORAGE (GALLONS)	HEATING INPUT (MBH)	GPH RECOVERY AT 90 DEG TEMP RISE	ELECTRICAL	EFFICIENCY	REMARKS
GWH-1	LOCHINVAR	SNR-126-65	65	125	145	120/1	96	1, 2, 3, 6, 8
GWH-1A	LOCHINVAR	AWN801PM	NA	800	931	120/1	96	4, 5, 6, 7, 8

REMARKS:
1. PROVIDE CONCENTRIC TERMINATION FOR ROOF PENETRATION AND PT VALVE. SET AT 140 DEG.
2. USE PVC VENT AND COMBUSTION AIR, SEALED COMBUSTION, PROVIDE CONCENTRIC VENT FOR ROOF PENETRATION.
3. PROVIDE REGULATORS AS REQUIRED IN ADDITION TO THOSE NOTED ON PLAN.
4. PROVIDE UNIT WITH ASME TEMPERATURE AND PRESSURE RELIEF VALVE SIZED FOR STORAGE TANK, 3/4 HP CIRC PUMP - 120/1 PHASE, AND BACNET CARD.
5. SET TO MAINTAIN 140 DEG WATER.
6. PROVIDE WITH CONCENTRIC VENTING SYSTEM. PROVIDE AND INSTALL ALL FLUE FLUE AND INTAKE PIPING PER MANUFACTURERS RECOMMENDATION.
7. PROVIDE WITH (1) LOCHINVAR RGA0752 STORAGE TANK.
8. GWH-1 SHALL BE BASE BID AND GWH-1A SHALL BE PRICED AS AN ALTERNATE.

PLUMBING SPECIFICATIONS

ALL WORK SHALL COMPLY WITH ALL STATE, LOCAL, AND NATIONAL CODES.

ALL MATERIALS, EQUIPMENT AND INSTALLATIONS SHALL MEET OR EXCEED THE REQUIREMENTS OF THE STATE ENERGY CODE (ASHRAE STANDARD 90.1 2007).

ALL MATERIAL AND EQUIPMENT SHALL BE NEW. EQUIPMENT, MATERIAL, AND WOKMANSHIP SHALL BE WARRANTED FOR ONE YEAR MINIMUM FROM DATE OF SUBSTANTIAL COMPLETION.

THIS CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND INSPECTIONS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION.

CONTRACTOR SHALL COORDINATE ALL ASPECTS WORK OF OTHER TRADES PRIOR TO AND DURING CONSTRUTION AND INSTALLATION.

VERIFY ALL DIMENSIONS FROM ARCHITECTURAL PLANS AND OR STRUCTURAL PLANS.

ALL PLUMBING AND HVAC EQUIPMENT SHALL BE LISTED FOR ITS USE AND MOUNTED OR HUNG PER MANUFACTURER'S RECOMMENDATIONS AND LISTING.

WHEN A CONFLICT OCCURS BETWEEN PLANS AND NOTES, THE ENGINEER SHALL DETERMINE WHICH GOVERNS. GENERALLY, THE MOST RESTRICTIVE AND COSTLY ALTERNATIVE SHALL TAKE PRECEDENCE.

THIS CONTRACTOR SHALL COORDINATE WITH ALL OTHER TRADES AND PAY FOR ALL CUTTING AND PATCHING FOR HIS WORK AS REQUIRED.

LOCATIONS OF ALL PIPING, DUCTWORK, FIXTURES, AND EQUIPMENT ARE APPROXIMATE ONLY AND MAY BE CHANGED TO MEET ARCHITECTURAL AND STRUCTURAL CONDITIONS AS REQUIRED AND AS APPROVED BY THE ARCHITECT/ ENGINEER. PROVIDE ALL OFFSETS AS REQUIRED TO MEET ACTUAL FIELD CONDITIONS.

ALL PLUMBING AND HVAC EQUIPMENT SHALL BE LISTED FOR ITS USE AND MOUNTED OR HUNG PER MANUFACTURER'S RECOMMENDATIONS AND LISTING.

PROVIDE PIPE AND EQUIPMENT IDENTIFICATION. EQUIPMENT PLASTIC LABELS, MINIMUM 1/16-INCH THICK AND FASTEN WITH RIVETS. PIPE LABELS SHALL BE PRECOILED, SEMI-RIGID PLASTIC FORMED TO COVER FULL CIRCUMFERENCE OF PIPE TO BE ATTACHED TO PIPE WITHOUT FASTENERS OR ADHESIVES. LABEL PIPING EVERY 30-FEET MAXIMUM, DIRECTIONAL CHANGE OR TEE, WHICHEVER IS LEAST.

UNIONS AND VALVES SHALL BE PROVIDED AT CONNECTIONS TO ALL EQUIPMENT.

ALL POTABLE HOT WATER AND COLD WATER LINES AND REFRIGERANT SUCTION LINES SHALL BE COVERED WITH 1/2-INCH CLOSED CELL ELASTOMERIC INSULATION.

ALL POTABLE WATER LINES ABOVE FLOOR SHALL BE TYPE L HARD COPPER WITH WROUGHT FITTINGS WITH "STAYSAFE" SOLDER OR PRESS FIT SYSTEM.

ALL POTABLE WATER PIPING BELOW SLAB SHALL BE TYPE K SOFT COPPER OR PEX. NO FITTINGS WILL BE ALLOWED BELOW SLAB.

ALL ABOVE GRADE NATURAL GAS PIPING SHALL BE BLACK STEEL WITH MALLEABLE FITTING AND SHALL BE GRADED TO DRAIN TO ACCESSIBLE CONDENSATE LEGS.

ALL UNDERGROUND NATURAL GAS PIPING SHALL BE PLASTIC AND SHALL MEET ASTM 25-13 AND 19 STANDARDS AND BE APPROVED FOR NATURAL GAS USE BY LOCAL GAS UTILITY. JOINTS SHALL BE MADE WITH FUSION BUTT WELDS PER DOT STANDARDS OR APPROVED COMPRESSION COUPLINGS. MAINTAIN MINIMUM 30-INCH DEPTH AND INSTALL #12 GAUGE COATED TRACER WIRE. PLASTIC PIPING SHALL NOT BE INSTALLED ABOVE GROUND. PROVIDE AND INSTALL VENTS ABOVE GAS MAIN WERE MAIN IS INSTALLED BELOW CONCRETE. VERIFY TYPE AND QUANTITY WITH GAS UTILITY.

PROVIDE GAS COCK AT EACH PIECE OF EQUIPMENT USING GAS.

CONTRACTOR SHALL PAY FOR ALL CHARGES BY GAS COMPANY TO PROVIDE COMPLETE SERVICE AS SHOWN ON DRAWINGS.

ALL VALVES SHALL BE FULL PORT BALL VALVES. ALL SHUT OFF VALVES SHALL BE EASILY SEEN AND ACCESSIBLE FROM FLOOR OR LADDER. WHERE VALVES MUST BE INSTALLED WITHIN A WALL OR CHASE, CONTRACTOR SHALL PROVIDE AND INSTALL 8-INCH X 8-INCH MINIMUM ACCESS DOOR.

ALL CONNECTIONS BETWEEN DISSIMILAR PIPE MATERIALS SHALL BE MADE WITH EPCO FITTINGS TO PREVENT GALVANIC ACTION.

CHROME PLATED ESCUTCHEONS SHALL BE PROVIDED AT ALL PIPING PENETRATING FLOORS AND WALLS.

ALL EXPOSED PIPING LOCATED BELOW FIXTURES SHALL BE CHROME PLATED.
PROVIDE AND INSTALL SHOCK ABSORBERS AT COLD AND HOT WATER CONNECTION TO EQUIPMENT AND FIXTURE WITH QUICK CLOSING VALVES AND AT EACH RETSROOM GROUP. SIZE AND INSTALL SHOCK ARRESTORS PER FIXTURE GROUP AS RECOMMENDED BY PDI INSTITUTE AND MANUFACTURER.

ALL HORIZONTAL STORM AND SANITARY DRAINS SHALL BE GIVEN A GRADE OF 1/4-INCH PER FOOT WHERE POSSIBLE BUT NOT LESS THAN 1/8-INCH PER FOOT. COORDINATE WITH SITE CONTRACTOR AS REQUIRED TO MATCH PIPE INVERTS EXTENDING FROM BUILDING.

ALL INSULATED PIPING SHALL HAVE SADDLES AND UL LISTED HANGERS.

ALL POTABLE WATER LINES SHALL BE TESTED AND DISINFECTED.

HANGING OF PIPING SHALL BE ON NOT MORE THAN 10-FOOT CENTERS WITH 3/8-INCH RODS.

ALL WASTE AND VENT PIPING BELOW SLAB SHALL BE DWV PVC PIPING AND FITTINGS. ALL WASTE AND VENT PIPING ABOVE SLAB AND LOCATED IN AN AIR PLENUM SHALL BE HUBLESS CAST IRON COMPLYING WITH CISPI 301-99.

PAINT ALL EXTERIOR GAS PIPING WITH GRAY RUST INHIBITIVE PAINT.

EXISTING UTILITIES

THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITIES FOR ALL EXISTING GAS, STORM, AND SANITARY SEWER LINES WITHIN HIS SITE LIMITS.

BEFORE WORKING WITH OR AROUND THE EXISTING UTILITIES, ANY APPLICABLE UTILITY SHALL BE CONTACTED.

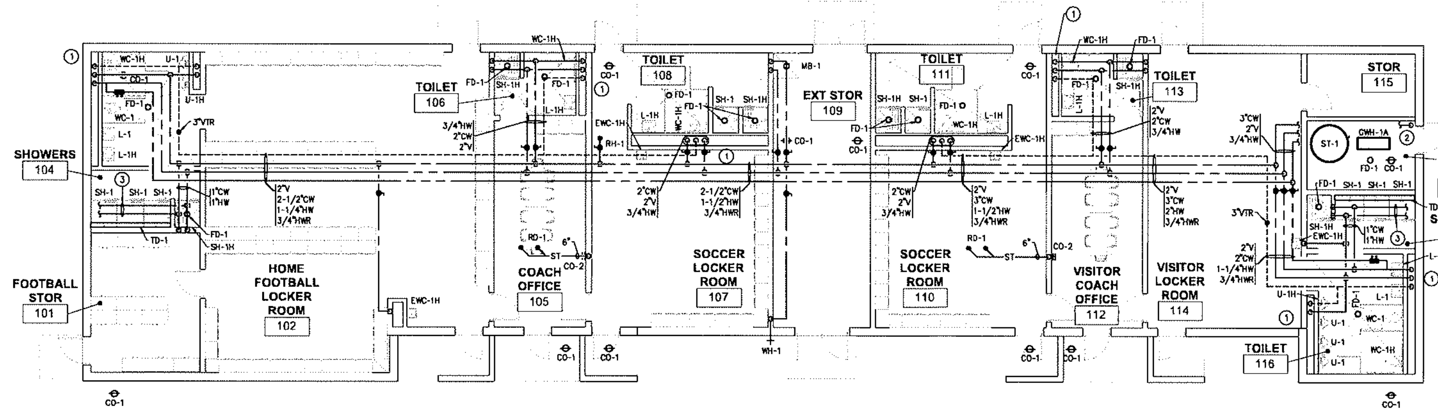
ALL EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION SHALL BE THE CONTRACTORS RESPONSIBILITY TO MAINTAIN IN SERVICE. ANY UTILITY THAT CAN BE REMOVED WITHOUT UNDUE INTERRUPTION OF SERVICE MAY BE REMOVED AND REPLACED BY THE CONTRACTOR WITH PERMISSION OF THE OWNER AND THE UTILITY.

THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH THE AREA AND NO EXTRA COMPENSATION CONNECTED WITH THE UTILITIES WILL BE ALLOWED.

PLUMBING CONTRACTOR FOR BUILDING WILL EXTEND SANITARY, STORM, AND WATER OUT 5-FEET FROM BUILDING.

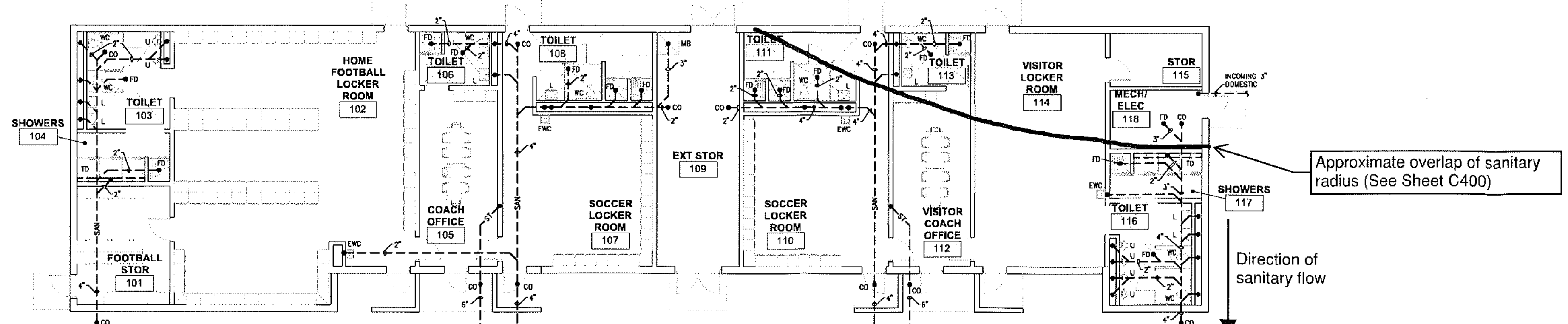
PLUMBING PLAN NOTES

1. ROUTE PIPING FULL SIZE WITHIN CHASE. TAP HEADER AS REQUIRED TO SERVE FIXTURE. SEE PLUMBING FIXTURES SCHEDULE FOR PIPE CONNECTION SIZES.
2. REFER TO HOT WATER FLOW DIAGRAMS ON SHEET MP401 FOR CONTINUATION.
3. FULL SIZE HEADER. ROUTE BRANCH PIPING DOWN WITHIN BLOCK CORE TO SERVE SHOWER VALVES. SEE PLUMBING FIXTURE SCHEDULE FOR PIPE CONNECTION SIZES.



PLUMBING PLAN - HALFTIME BUILDING

SCALE 2' 4' 8' 16' 32'



UNDERGROUND PLUMBING PLAN - HALFTIME BUILDING

SCALE 2' 4' 8' 16' 32'

EXHIBIT B-4
KVHS Connection

Odle McGuire Shook
Architecture
www.omscorp.net
317.842.0000
429 North Pennsylvania Street
Suite 202
Indianapolis, Indiana 46204
317.842.0000
Fax 317.917.0616
oms@omscorp.net

LARSON DANIELSON
Construction Company, Inc.
QUALITY CONSTRUCTION SINCE 1908

SCO ENGINEERING, LLC

CERTIFIED

No.	Description	Date

REVISIONS

HALFTIME BUILDING
KANKAKEE VALLEY SCHOOL CORPORATION

Project number 18010(182310)
Date NOVEMBER 21, 2019
Drawn by RHH
Checked by WRS
Designed by

P201
Plumbing Plans and Schedules

EXHIBIT B-4
KVHS Connection

Allison Atkinson

From: Allison Atkinson
Sent: Tuesday, December 3, 2019 11:19 AM
To: Randell S. Peterson
Cc: LMELVIN@idem.IN.gov; lternied@idem.IN.gov
Subject: 18-1331 KVHS Wells - IDEM Follow Up

Randy,

I spoke with Liz Melvin with IDEM (cc'd on this email) this morning on the phone. She stated that the encroachment is fine, but the sanitary lines must be water grade within the area of the encroachment.

This decision was made because the encroachment is small and the lines are going away from the building. She also stated that IDEM would like to see the school connect to NORWEJ soon as this would definitively solve the problem.

Thanks,
Allison

Allison Atkinson
Staff Civil Engineer, EI

C 317.682.7977
O 219.850.4624

W www.abonmarche.com

EXHIBIT B-5
KVHS School Board Minutes

KANKAKEE VALLEY SCHOOL CORPORATION
BOARD MINUTES
OCTOBER 14, 2019

Board President, Mrs. Jill Duttlinger, called the meeting to order at 7:00 PM with all members present.

Ms. Lana Olson read the Kankakee Valley School Corporation (KVSC) Mission Statement.

Mr. Tim Helton presented the following Students of the Month for October:

Business/Family and Consumer Science	Brayden Pigg
Fine Arts	Emily Koontz
Foreign Language	Savannah Hansen
Health/Physical Education	Skyla Swigon
Language Arts	Madisyn DeKock
Mathematics	Mika Goin
Science	Aiden Sneed
Social Studies	Kaylee Miller
Technology/Career and Technical Education	Tyler Martin

Public Participation at Board Meetings

- Patrons must be recognized by the presiding officer and will be requested to preface their comments by an announcement of their name.
- Each statement will be limited to three (3) minutes in duration.
- All statements shall be directed to the presiding officer; no person may address or question Board members individually or speak about specific personnel.

Patrons
KVSC student, Ryan Armstrong, apologized to the School Board. He had mislead his step-father regarding classroom incidents. This resulted in his step-father speaking at the previous School Board meeting to (unknowingly) register false concerns about a Kankakee Valley High School (KVHS) teacher. A meeting was held at the school and Ryan was assured that help is available if he needs it.

Approved the minutes of the regular meeting of September 23, 2019.
Motion: Mr. Jeff DeYoung Second: Ms. Lana Olson Vote: 7-0

Approved the Corporation Claims in the amount of $1,787,196.00 and the Cafeteria Claims in the amount of $82,031.72.
Motion: Mr. Jeff Groen Second: Dr. Edward Habrowski Vote: 7-0

DeMotte Town Manager, Heather Tokarz, spoke to the Board regarding expanding the water system. The town is running water to the industrial park and installing three (3) new wells. She requested the Board to consider if KVSC would like to join the water extension.

Approved to accept the following resignations:

1. Kankakee Valley Middle School (KVMS) Art Club Sponsor, Kelly Jurkowski, effective September 12, 2019.
2. KVHS Dance Team Coach, Wendy Dunham, effective October 7, 2019.

Motion: Mr. Jeff DeYoung Second: Mrs. Kristy Stowers Vote: 7-0

Approved the following certified recommendation:

1. Judith McKean as a long-term substitute for the position of DeMotte Elementary School (DES) Third Grade Teacher, effective November 5, 2019 through February 18, 2020. Ms. McKean is currently a substitute teacher and will be filling a vacancy the result of a maternity leave.

Motion: Ms. Lana Olson Second: Mr. Jeff Groen Vote: 7-0

Approved the following classified recommendation:

1. Olga Ortiz as DES Instructional Aide, effective for the 2019-2020 school year, pending receipt of additional paperwork. Ms. Ortiz will be filling a vacancy the result of a transfer.

Motion: Ms. Lana Olson Second: Dr. Edward Habrowski Vote: 7-0

Approved the following extracurricular recommendations:

1. Coaches for the 2019-2020 school year:

Brian Lilley	Volunteer Fourth Grade Boys' Intramural Basketball Coach Fifth Grade Boys' Intramural Basketball Coach
Barb Law	Fourth Grade Boys' Intramural Basketball Coach Volunteer Fifth Grade Boys' Intramural Basketball Coach
Brian Flynn	Volunteer Fourth Grade Girls' Intramural Basketball Coach Fifth Grade Girls' Intramural Basketball Coach
Sheri Sanders	Fourth Grade Girls' Intramural Basketball Coach Volunteer Fifth Grade Girls' Intramural Basketball Coach
Jeremy Rozhon	Winter Weight Room Supervisor

2. Aaron Webster as Volunteer Eighth Grade Boys' Basketball Coach for the 2019-2020 school year.
3. Sarah Kennedy-Ketchem, as KVMS Art Club Sponsor for the 2019-2020 school year.

Motion: Mr. Jeff DeYoung Second: Mrs. Kristy Stowers Vote: 7-0

Approved the following leaves:

1. A one (1) day reduction in contract for Wheatfield Elementary School (WES) Social Worker, Kaye Workman, effective October 8, 2019.
2. An extended medical leave for Kankakee Valley Intermediate School (KVIS) Fourth Grade Teacher, Tanya Bessler-Roach, effective October 7-25, 2019.
3. A five (5) day reduction in contract for KVMS Seventh Grade Social Studies Teacher, Will Oates, effective November 11-15, 2019.

Motion: Mr. Jeff Groen Second: Mr. Tim Helton Vote: 7-0

EXHIBIT B-5
KVHS School Board Minutes

Approved the amendments to the Student Resource Officer (SRO) Agreement, as per the attachment.
Motion: Dr. Edward Habrowski Second: Mrs. Kristy Stowers Vote: 7-0

Approved Resolution 2019-10, allowing the Superintendent and/or the Chief Financial Officer to authorize the appropriate adjustments in order to achieve a balanced budget for 2020.
Motion: Dr. Edward Habrowski Second: Mr. Jeff Groen Vote: 7-0

Approved Resolution 2019-11, allowing the Board of Trustees to adopt the "2020 Capital Project Plan."
Motion: Ms. Lana Olson Second: Dr. Edward Habrowski Vote: 7-0

Approved Resolution 2019-12, allowing the Board of Trustees to adopt the "Bus Replacement Plan."
Motion: Mr. Jeff DeYoung Second: Dr. Edward Habrowski Vote: 7-0

Approved Resolution 2019-14, Resolution for Appropriations, Tax Levy, and Tax Rates.
Motion: Ms. Lana Olson Second: Mr. Tim Helton Vote: 7-0

Approved a delay of the E-Building remodel, which had previously been approved to begin in Fall 2019.
Motion: Mr. Jeff DeYoung Second: Mr. Jeff Groen Vote: 7-0

Approved the proceeding redistribution for the KVHS cafeteria remodel during the summer following the 2019-2020 school year: the cost is not to exceed $1,800,000.00 (one million, eight hundred thousand dollars) and will be funded through the Operations Fund and Rainy Day Fund.
Motion: Dr. Edward Habrowski Second: Mr. Jeff DeYoung Vote: 7-0

Approved to award the Contract for Progressive Design-Build Services for the 2019-2020 Building Improvements Design-Build Building Project to **Larson-Danielson Construction CO, INC,** as the Design-Builder and Best Value Proposal, and to grant them authorization to begin Phase 1-Progressive Design-Build services.
Motion: Mr. Jeff Groen Second: Mr. Jeff DeYoung Vote: 7-0

Approved the following Field Trips:

1. KVHS Future Farmers of America (FFA) – State Soil Judging Contest
   Adams Central High School - Monroe, IN
   October 17-19, 2019
   Garrett Bitterling, sponsor.
2. KVHS FFA – National FFA Convention and Expo
   Lebanon and Indianapolis, IN
   October 31-November 1, 2019
   Garrett Bitterling, sponsor.

EXHIBIT B-5
KVHS School Board Minutes

BOARD MINUTES – FOURTH PAGE
OCTOBER 14, 2019

Approved the following Field Trips (CONT):

3. KVHS Student Council – Annual State Convention
   Gibson Southern High School - Fort Branch, IN
   November 1-3, 2019
   Jennifer Gilger, sponsor.

Motion: Ms. Lana Olson Second: Mr. Jeff Groen Vote: 7-0

Approved the following Use of School Facilities:

1. Wheatfield Lions Club – Annual Halloween Parade/Costume Contest
   WES – PA system
   6:30-8:30 PM; Thursday; October 31, 2019
   Thomas Strain, sponsor.

Motion: Ms. Lana Olson Second: Mrs. Kristy Stowers Vote: 7-0

Approved the following Professional Leaves:

1. Ellyn Hindle and Mitchell Aubuchon
   Indiana Foreign Language Teachers' Association Conference
   Indianapolis, IN
   November 1-2, 2019.
2. Staci Beckrich, Matt Bristol, Robin Dietrich, Chelsey Dunleavy, Shannon Scheurich, and Jodi Tobias
   Hoosier Educational Computer Coordinators (HECC) Conference
   Indianapolis, IN
   November 5-8, 2019.
3. Sheryl Sako and Wanda Dougherty
   Art Education Association of Indiana Annual Conference
   Vincennes, IN
   November 8-9, 2019.
4. Amy Chapleau
   Indiana School Safety Specialist Academy Basic Training
   Indianapolis, IN
   November 11-12, 2019.
5. Kaitlyn Faust
   Indiana Learning Evaluation Assessment Readiness Network (ILEARN) Alignment Study Meeting for High School Biology
   Indianapolis, IN
   November 11-12, 2019.
6. Kelly Jurkowski and Helena Jancosek
   Response to Intervention (RTI) at Work
   Grand Rapids, MI
   November 13-14, 2019.

EXHIBIT B-5
KVHS School Board Minutes

Approved the following Professional Leaves (CONT):

7. Danielle DeFries, Meghan Moriarty, Erica Plotner, and Christina Gulbrandsen
   National Science Teaching Association (NSTA) Regional Conference
   Cincinnati, OH
   November 14-16, 2019.
8. Bill Mueller
   National Athletic Directors Conference
   Washington, DC
   December 13-16, 2019.

Motion: Dr. Edward Habrowski Second: Mrs. Kristy Stowers Vote: 7-0

Communications
JCPL Community Connection - October 2019

Adjournment: 7:36 PM
Motion: Dr. Edward Habrowski Second: Mrs. Kristy Stowers Vote: 7-0

Jill Duttlinger
Mrs. Jill Duttlinger
Board President

Edward J. Habrowski
Dr. Edward Habrowski
Secretary

EXHIBIT B-6
NORWEJ Board Minutes

Northwest Jasper Regional District (NORWEJ) November 25, 2019
Minutes of Meeting: Board of Trustees

The Board of Trustees of Northwest Jasper Regional District met in DeMotte Town Hall, 112 Carnation ST SE, DeMotte, IN on November 25, 2019 at 6:00 PM in regular meeting pursuant to call in accordance with the rules of the board.

Present		**Absent**
Andy Andree	Don Goetz	
Peggy Michelin	Jeff Cambe	
John Price	Mark Boer	
Kent Bierma		

Andy Andree, who presided, called the meeting to order.

Minutes
Don Goetz motioned to approve the October 28, 2019 minutes. Peggy Michelin seconded and motion carried.

Financial Report:
Don Goetz reported on the financial report. All accounts have been reconciled and approved. Operating account balances as of October 31, 2019 were $277,876.54 and the Bond and Interest Account is $594,861.33. A fund report was given to the board members to show the current balances. Kent Bierma motioned to accept the financial report. Mark Boer seconded. Motion carried.

New Business:
There was no new business to report

Old Business:

Water Department Report
Bob Barton asked for approval to purchase one piece of test equipment. The water plant currently has this piece of test equipment, but he would like the new one for a spare and so that they will have one for the new water plant. The cost of the test equipment is $1,200. Don Goetz made a motion to approve the purchase of the new piece of test equipment in the amount of $1,200. Kent Bierma seconded the motion. Motion carried.

Bob Barton stated that he would like to have permission to get bids for a valve exerciser. This would make opening valves easier and take less time. The board asked Bob to get at least two bids and come back next month. They also asked Bob to research what other water companies do to open valves.

Bob Barton asked the board on how to proceed with the resident at 1101 Begonia St SE who will not claim her Warning Letter advising that the b-box is buried and needs to be uncovered. The board recommended having the police deliver the letter to the homeowner.

Engineer Report
Daryl Knip was unable to attend the meeting. Allison Atkinson from Abonmarche attended in his place.

Allison Atkinson gave an update on the SRF loan. Allison said the paperwork has been submitted and is currently under review.

Allison Atkinson stated that the archeology review is completed and that there were no findings. Everything is all good there.

Allison Atkinson said that she will review the well fields in December and January. Daryl will send over information regarding the I-65 agreements to Emily Waddle's office for review.

Office Report

Heather Tokarz reported that an agreement is needed with KV School Corporation in regards to connecting to the water. Heather would like permission to proceed with getting more people involved with setting the terms for the agreement. Heather said she will check with BakerTilly and have them review Daryl Knip's numbers. The board asked Heather to proceed with working on setting the terms of the agreement with KV School Corporation.

Heather Tokarz informed the board in regards to the water account for the DeMotte Little League. They have a two inch meter for their water service, which has two radio read identification numbers for reading the meter. One is for the high usage and the other is for the lower volume of usage. When this information was entered into the billing system, the numbers were reversed causing their usage to show higher than what was actually used. This was found when the Little League questioned their most recent bill. After a thorough review of the account, it was discovered that they are owed a refund of approximately $3,200.

Heather Tokarz stated that Donna Shear had processed and filed water liens on thirteen accounts. These are accounts that were signed up for water but never connected, and are being billed monthly per the water agreement they signed. Letters will go out to these property owners tomorrow advising them of the lien.

Heather Tokarz stated that Donna Shear submitted the 2020 Budget paperwork that is required by Rural Development. The deadline is December 1st and the paperwork was sent to them today.

Motion to adjourn by Kent Bierma and seconded by Peggy Michelin. Motion carried.

President: Andy Andree

Office Manager, Donna Shear

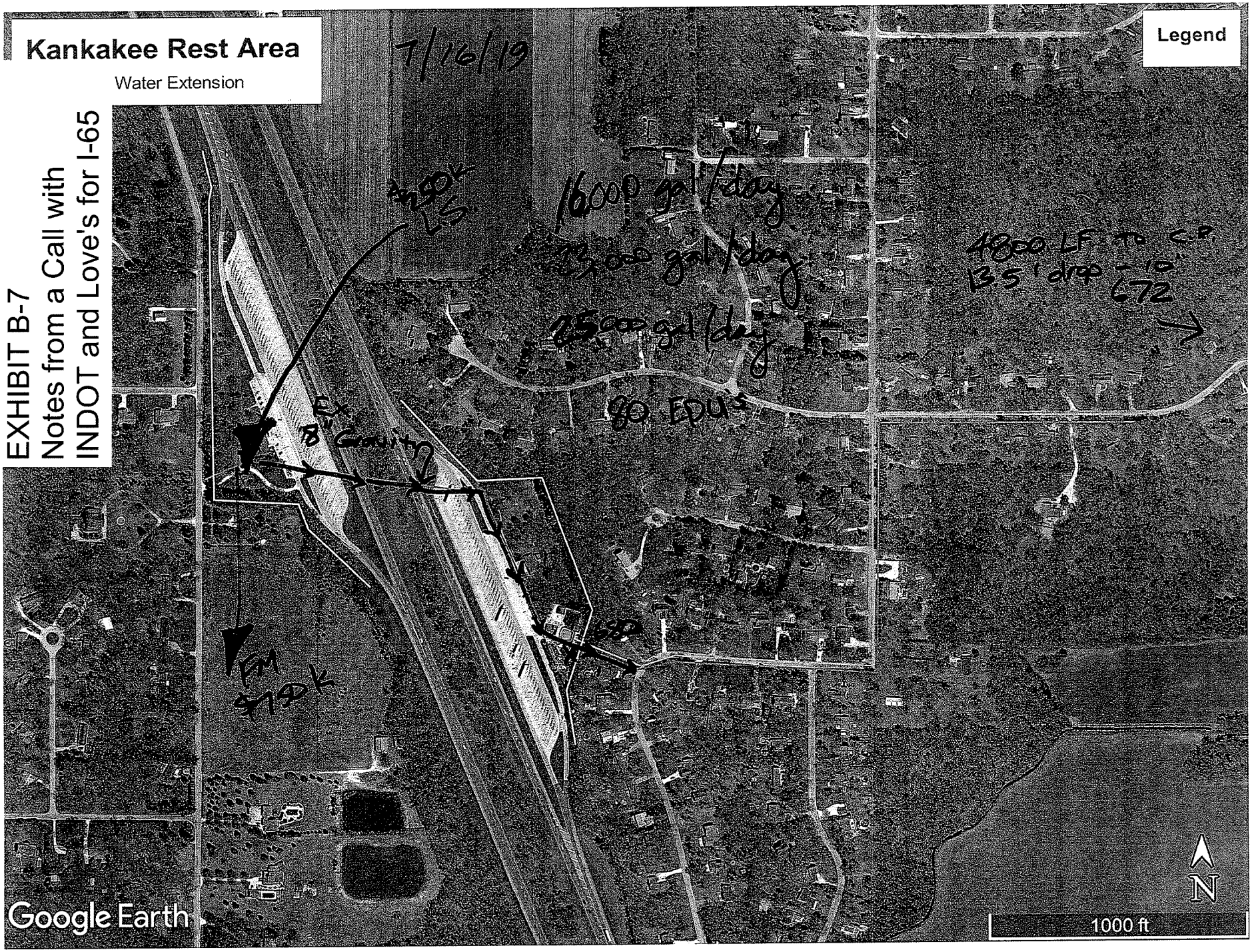


EXHIBIT B-7
Notes from a Call with
INDOT and Love's for I-65

EXHIBIT B-7
Notes from a Call with
INDOT and Love's for I-65

7/16/19

4800 - 10" Pipe = 13.5 feet of drop
+ Manholes

loves	10,000 gpd	$500,000
T.A		250,000
INDOT	20,000 gpd	$1,000,000

INDOT - $800-900k test. agreement
- Salt Cone on sewer too.

Utility Schedule - Live by spring...

EXHIBIT B-7
Notes from a Call with
INDOT and Love's for I-65

Appendix C
Flow Calculations

ABONMARCHE

17 North Washington Street
Valparaiso, IN 46383
T 219.850.4624
www.abonmarche.com

EXHIBIT C-1
Existing Water Use

Existing Water Use from MROs

NORTHWEST JASPER REGIONAL WATER DISTRICT

Reference: 327 IAC 8-3.3-2

Prepared By:	AAA	Date Prepared:	1/8/2020
Reviewed By:	CWT	Date Reviewed:	
Project. No.	19-0001	Client Project No.:	n/a

Existing System: Peak Daily Demand Factor

327 IAC 8-3.3-2, Section 2 (2)

Note: NORWEJ has not been in operation for more than 10-years. Consequently, all MROs available on IDEM's VFC were used to determine the ADCD10, MDD10, and 10YADD. See Page 2.

$$PF = MDD10 \div 10YADD$$

MDD10	10YADD	PF
452,000	141,146	3.20

MDD10 = The maximum single day demand as reported on the MROs over the previous ten (10) year period
10YDD = The ten (10) year average daily demand as calculated from the previous ten (10) year period
PF = Peak daily demand factor

Existing System: Max Average

327 IAC 8-3.3-2, Section 2 (2)

$$Max\ Average = (ADCD10) \div (SC10)$$

ADCD10 (gpd)	*SC10	Max Average (gpd)
172,000	961	178.98

Max Average = Maximum average daily consumer demand in gallons per residential service connection per day
ADCD 10 = The highest average daily demand as reported on the MROs over the previous ten (10) year period
SC10 = The number of service connections at ADCD10

*Note: 961 is the number of service connections indicated in Appendix B describing homes within 800-ft of a hydrant.

ABONMARCHE

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Valparaiso, IN 46383
T 219.850.4624
www.abonmarche.com

EXHIBIT C-1
Existing Water Use

MRO Data

Month	Year	Avg. Gal. Treated	Max Gal. Treated
October	2013	100,000	259,000
July	2014	110,000	203,000
January	2015	140,000	199,000
February	2015	116,000	155,000
May	2015	128,000	314,000
June	2015	130,000	294,000
August	2015	138,000	278,000
September	2015	172,000	260,000
October	2015	127,000	171,000
November	2015	148,000	429,000
December	2015	118,000	194,000
January	2016	125,000	256,000
February	2016	123,000	197,000
May	2016	138,000	220,000
March	2016	121,000	129,000
April	2016	160,000	394,000
June	2016	155,000	253,000
August	2016	141,000	245,000
October	2016	134,000	210,000
July	2016	154,000	238,000
September	2016	144,000	223,000
November	2016	153,000	452,000
December	2016	128,000	233,000
May	2017	140,000	238,000
July	2017	148,000	298,000
September	2017	147,000	225,000
August	2017	147,000	185,000
October	2017	153,000	382,000
November	2017	125,000	182,000
December	2017	135,000	202,000
February	2018	133,000	154,000
March	2018	132,000	138,000
April	2018	156,000	396,000
June	2018	158,000	196,000
August	2018	168,000	373,000
September	2018	154,000	238,000
October	2018	151,000	429,000
December	2018	136,000	192,000
January	2019	134,000	188,000
February	2019	150,000	278,000
March	2019	144,000	199,000
May	2019	136,000	237,000
June	2019	156,000	312,000
April	2019	149,000	430,000
July	2019	156,000	243,000
August	2019	158,000	245,000
October	2019	146,000	356,000
September	2019	160,000	417,000
	Average =	141,146	261,229
	Max =	172,000	452,000
	Min =	100,000	129,000

$$Average\ System\ Demand = Average\ from\ MRO \div 1440\ min/day$$
$$Maximum\ Peak\ System\ Demand = Max\ Peak\ from\ MRO \div 1440\ min/day$$
$$Minimum\ System\ Demand = Min.\ Avg\ from\ MRO \div 1440\ min/day$$

Average System Demand:	98 gpm
Maximum Peak System Demand:	314 gpm
Minimum System Demand	69 gpm

ABONMARCHE

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Valparaiso, IN 46383
T 219.850.4624
www.abonmarche.com

EXHIBIT C-2
Projected Water Use

20-yr Water Use Projection

NORTHWEST JASPER REGIONAL WATER DISTRICT

Reference: 327 IAC 8-3.3-2

Prepared By: AAA Date Prepared: 1/8/2020
Reviewed By: CWT Date Reviewed:
Project. No. 19-0001 Client Project No.: n/a

Projected Increase in Demand

327 IAC 8-3.3-2, Table 2-1

$$Addt'l\ ADCD = DCF * PSC$$

Addt'l ADCD = Average daily consumer demand in gallons per service connection per day
DCF = Demand calculation factors as contained in Table 2-1 in subsection (b)
PSC = Proposed number of service connections

Customer	Category	DCF	PSC	ADCD (gpd)	Notes
Residential Service	Domestic	178.98	1,023	183,100	ADCD = Max Avg. from MRO page * PRSC. See Sheet 2
Service Station (INDOT Rest Stop)	Commercial	-		20,000	Value from INDOT
Service Station (Love's Travel Stop)	Commercial	-		10,000	Value from Love's
Service Station (TA Travel Stop) Food Service Operations	Commercial	400	10	4,000	TA Travel stop contains approximately 10 total stalls and six showers
Restaurant, not open 24 hours (TA/Country Pride)	Commercial	35	100	3,500	
School Secondary (KVHS)	Educational	25	1,100	27,500	
School Secondary (KVIS)	Educational	25	900	22,500	
School Secondary (KVMS)	Educational	25	500	12,500	
Office Building (KVSC)	Educational	20	12	240	
		Total Addt'l ADCD:		283,340	

Church w/ Kitchen (?)
Commercial (?)
Industrial (?)
Restaurants (?)
Homes (?)
Multifamily (?)

$$Addt'l\ PDCD = (Addt'l\ ADCD * PF) + FF$$

PDCD = Peak daily consumer demand in gallons per service connection per day
ADCD = Average daily consumer demand in gallons per service connection per day
PF = Peak daily consumer demand factor of two and one-half (2.5)
FF = Fire flow demand value equal to the fire protection flow rate provided by the public water system or zero (0) if the public water system is not providing fire protection

Addt'l ADCD (gpd)	*PF	**FF (gpd)	Addt'l PDCD (gpd)
283,340	3.19	180,000	1083854.6
			1,083,860

*PF Peak Factor is taken from the Existing System Daily Demand Peak Factor
**Note: FF calculated as 1500-gpm for two hours for one day. (1500-gpm * 60-m/h * 2-h = 180,000-gal)

Projected 20-yr Water Use

$$Q_{2038} = ADCD10 + Addt'l\ ADCD$$

Q_{2038} = Water Usage, Year 20 (2038)
ADCD10 = The highest average daily demand as reported on the MROs over the previous ten (10) year period
Addt'l ADCD = Added average daily consumer demand in gallons per service connection per day

ADCD10 (gpd)	Addt'l ADCD (gpd)	Q_{2038} (gpd)
172,000	283,340	455,340
		316 gpm

$$PQ_{2038} = ADCD10 + Addt'l\ PDCD$$

PQ_{2038} = Peak Water Usage, Year 20 (2038)
ADCD10 = The highest average daily demand as reported on the MROs over the previous ten (10) year period
PDCD = Peak daily consumer demand in gallons per service connection per day

ACDC10 (gpd)	Addt'l PDCD (gpd)	PQ_{2038} (gpd)
172,000	1,083,860	1,255,860
		872 gpm

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows						Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
ANDO DEVELOPMENT LLC	716	10TH PL SW	2	1	2		600					
ANDO DEVELOPMENT LLC	722	10TH PL SW	2	2	2		600					
A&E ENTERPRISES LLC	723	10TH PL SW	2	3	2		600					
DOLNICS, DOROTHY C	212	10TH ST SE	1	4	1	500						
TILLGER, JAMES & JANELL	217	10TH ST SE		5								
SCHULTZ, ROBERT & MAUREEN	223	10TH ST SE	1	6	1	500						
SCHULTZ, DEBRA KAY	226	10TH ST SE	1	7	1	500						
HUBERS, DAVID	200	10TH ST SW		8								
DEVRIES, JEFFERY & KATHRYN L	224	10TH ST SW	1	9	1	500						
STATON, JAMES M & CARLA K	228	10TH ST SW		10								
CUMMINS, ELLA FAE	317	10TH ST SW		11								
KLIP, CAROL J	334	10TH ST SW		12								
BARKER, MARGARET	401	10TH ST SW	1	13	1	500						
PORTER HOSPITAL LLC	404	10TH ST SW	1	14	1				755			9 DRs & nurses + 4 staff
ANDERSON, EDWIN E &	409	10TH ST SW		15								
TOWNER, ROBERT & WENDY	413	10TH ST SW		16								
BARKER, NORMA J	421	10TH ST SW		17								
KOOISTRA, MICHAEL & NELVINA R	424	10TH ST SW	1	18	1	500						
ROSE, RICHARD W & CRYSTAL L	516	10TH ST SW		19								
LISS, WILLIAM L & KATHLEEN A	524	10TH ST SW		20								
BURKHART, GLENN D & DEBRA M	610	10TH ST SW	1	21	1	500						
STAPLES, ANDY M & LA DONNA D	612	10TH ST SW	1	22	1	500						
A&E ENTERPRISES LLC	719	10TH ST SW	2	23	2		600					
BARKER, MARGARET		10TH ST SW		24								
DEVRIES, JEFFERY & KATHRYN L		10TH ST SW		25								
KLIP, CAROL J		10TH ST SW		26								
JASPER COUNTY PUBLIC LIBRARY		10TH ST SW		27								
KANKAKEE VALLEY SCHOOL CORP		10TH ST SW		28								
MILLER, RICHARD T II	305	11TH CIR SE	1	29	1	500						
STELLINGWERF, SHERRY A	307	11TH CIR SE	1	30	1	500						
SAIN, DONNA D	309	11TH CIR SE	1	31	1	500						
RIETVELD, ELAINE	326	11TH CIR SE	1	32	1	500						
MARTIN, DIANA B	326	11TH CIR SE	1	33	1	500						
KOSLOW, MARLENE	330	11TH CIR SE	1	34	1	500						
WALSTRA, TEENIE	401	11TH CIR SE	1	35	1	500						
FLASSIG, MARY JANE TRUST	403	11TH CIR SE	1	36	1	500						
DELBUSTO, JOSEPH & ROSEMARY	410	11TH CIR SE		37								
EVANS, KENNETH A & BERNICE A	412	11TH CIR SE	1	38	1	500						
BELSTRA, CASPER TRUST	413	11TH CIR SE	1	39	1	500						
WHITE, LINDA K	414	11TH CIR SE	1	40	1	500						
FRIELING, BETTY J REVOCABLE	415	11TH CIR SE	1	41	1	500						
JABAAY, HAROLD & ARLENE J	416	11TH CIR SE	1	42	1	500						
DEBOER, CARYL	417	11TH CIR SE	1	43	1	500						
REISZ, MARK J	418	11TH CIR SE	1	44	1	500						
KAMPENGA, WILLIAM & ANGELINE	422	11TH CIR SE	1	45	1	500						
MCNEIL, THOMAS K & BARBARA M	423	11TH CIR SE	1	46	1	500						
GASTONGUAY, EDWARD R &	424	11TH CIR SE	1	47	1	500						
JOLINK, ADELINE	425	11TH CIR SE	1	48	1	500						
LOUDERMILK, BILL & MARY ANN	426	11TH CIR SE	1	49	1	500						
BRUGOS, DANIEL P & SHARI A	427	11TH CIR SE	1	50	1	500						
KNAPP, CLAIR W III & KAROLYN S	429	11TH CIR SE	1	51	1	500						
ABBOTT, TOM LEE & ALICE JANE	431	11TH CIR SE	1	52	1	500						
LAUERMAN, CHARLES IV & BONNIE L	500	11TH CIR SE	1	53	1	500						
RITCHIE BUILDERS INC	312	11TH CIR SE		54								
RITCHIE BUILDERS INC	408	11TH CIR SE		55								
CANNON, CHARLES E & BETTYMAE E	428	11TH CIR SE	1	56	1	500						
LOVELY, MARY ANN	430	11TH CIR SE	1	57	1	500						
POLLETTA, EDWARD W SR	432	11TH CIR SE		58								
ANDO DEVELOPMENT LLC	719	11TH PL SW	2	59	2		600					
ANDO DEVELOPMENT LLC	723	11TH PL SW		60	2							
ANDO DEVELOPMENT LLC	716	11TH PL SW	2	61	2		600					
ANDO DEVELOPMENT LLC	722	11TH PL SW	2	62	2		600					
ANDO DEVELOPMENT LLC	723-725	11TH PL SW		63								
DARNER, DANIEL E JR &	300	11TH ST SE		64								
KIKKERT, LARRY W & ANN F	318	11TH ST SW		65								
BARCELLI, JOSEPH A & CAROLYN J	321	11TH ST SW		66								
NAGEL, ELOISE ETAL	326	11TH ST SW	1	67	1	500						

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows: Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	Comments
ANTHONY, DAVID L & PAMELA	405	11TH ST SW	1	68	1	500						
MILLER, KENNETH E & DELORES V	407	11TH ST SW		69								
CAMBE, JEFFREY K & SHERRY A	824	11TH ST SW	1	70	1	500						
ZEA, ROBERT D & MILDRED L	920	11TH ST SW		71								
MCGUIRE, PATRICK B &	1102	11TH ST SW		72								
BARCELLI, JOSEPH A & CAROLYN J		11TH ST SW		73								
KLIP, CAROL J		11TH ST SW		74								
A&E ENTERPRISES LLC	719	12TH PL SW	2	75	2		600					
A&E ENTERPRISES LLC	722	12TH PL SW	2	76	2		600					
A&E ENTERPRISES LLC	723	12TH PL SW	2	77	2		600					
SCHULTZ, ROBERT & MAUREEN	324	12TH ST SE	2	78	2			400				
ODLE, TERRENCE B & JEANNETTE E	327	12TH ST SE	1	79	1	500						
ODLE, TERRENCE B & JEANNETTE E		12TH ST SE		80								
SCHULTZ, JEFFREY D TERENCE D	304	12TH ST SE	2	81	2			400				
A&E ENTERPRISES LLC	718	12TH ST SW	2	82	2		600					
TOPPEN, MELVIN J & RITA J	702	14TH ST SE	1	83	1	500						
BOSGRAAF, DAVID S & JOYCE M	704	14TH ST SE	8	84	5			1200				
MAK, WILLIAM C & CAROL	120	15TH AVE NW		85								
DIRCKS, GEORGE SR. &	121	15TH AVE NW		86								
BLOUNT, PAUL A	228	15TH AVE NW	1	87	1	500						
MAK, LEONARD ROBERT &	236	15TH AVE NW		88								
SMIEJEK, DAVID & NANCY	304	15TH AVE NW		89								
BOZELL, EDWARD E & LUCILLE E	317	15TH AVE NW		90								
PTACEK, ARTHUR V	320	15TH AVE NW		91								
BELSTRA MILLING CO INC	424	15TH AVE NW		92								
PTACEK, TODD & TERESA J	430	15TH AVE NW		93								
STARKEY, JAMES J & HOLLY J	436	15TH AVE NW		94								
DYKE, JOHN W & TINA M	516	15TH AVE NW		95								
HART, DAVID N TRUSTEE	536	15TH AVE NW		96								
KENESON, LYNN K	600	15TH AVE NW		97								
DEBOER, JACK & SHIELA	713	15TH AVE NW		98								
BUSH, LEWIS LEE	716	15TH AVE NW		99								
MUSCH, RONALD A & DEBRA	730	15TH AVE NW		100								
MUSCH, RONALD A & DEBRA	730	15TH AVE NW		101								
MUSCH, RONALD ARTHUR	824	15TH AVE NW		102								
MAK, RANDALL L & SANDRA M	828	15TH AVE NW		103								
MAK, CHARMAINE L	928	15TH AVE NW		104								
ANDERSON, ROBERT J	932	15TH AVE NW		105								
GORDON, DANIEL B SR &	1000	15TH AVE NW	1	106	1	500						
SHEBESH, MARK E & SANDRA A	1020	15TH AVE NW		107								
WELCH, NEIL V & DIXIE G	1032	15TH AVE NW		108								
MUSCH, RONALD A & DEBRA		15TH AVE NW		109								
WILSON, JUDITH H		15TH AVE NW		110								
MAK, SALLY R		15TH AVE NW		111								
HART, DAVID & LINDA S		15TH AVE NW		112								
MUSCH, HILDA		15TH AVE NW		113								
KINGMA, SONIA P REV TRUST	129	15TH PL SW	2	114	2			400				
TOPPEN, JAMES H & EILEEN	122,126	15TH PL SW		115								
WIESMAYER, MARGARETE &	130	15TH PL SW	2	118	2			400				
KAPER_S BUILDING MATERIALS INC	308	15TH ST SE		117								
KAPER_S BUILDING MATERIALS INC	308	15TH ST SE		118	1							
HAMSTRA, DOROTHY R TRUSTEE	104	15TH ST SE		119								
TOPPEN, ROBERT L & CAROL A	205	15TH ST SE	1	120	1	500						
TOPPEN, MELVIN J & RITA J	208	15TH ST SE	1	121	1	500						
TOPPEN, MELVIN J & RITA JO	210	15TH ST SE	1	122	1	500						
MELVIN TOPPEN	217	15TH ST SE	2	123	2			400				
GLASS, LILLIAN TRUSTEE	223	15TH ST SE	1	124	1	500						
KEENER TOWNSHIP OF	321	15TH ST SE	1	125	1	500						
SCHULTZ, ROBERT & MAUREEN	400	15TH ST SE	1	126	1	500						
SWUTCH LLC	408	15TH ST SE	1	127	1	500						
STAMAC MANAGEMENT II LLC	410	15TH ST SE	1	128	1			4800				
BELSTRA MILLING CO INC	424	15TH ST SE	1	129	1				200			10 employees @ 20gpd each
SCHULTZ, ROBERT & MAUREEN	472	15TH ST SE		130								
JONKMAN, MARILYN	530	15TH ST SE	1	131	1	500						
SCHULTZ, MAUREEN	608	15TH ST SE	2	132	2			400				
KENNING, RALPH H & ELLEN G	618	15TH ST SE	1	133	1				200			
LAGEVEEN, NATHAN & TRACY	713	15TH ST SE		134								

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows: Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	Comments
WILLIAMS, MICHAEL D &	713	15TH ST SE		135								
WAY, ROY ALLEN & LISA JEAN	801	15TH ST SE		136								
SCHULTZ, ROBERT L & MAUREEN J	802	15TH ST SE		137								
KAPERS BUILDING MATERIAL INC	809	15TH ST SE		138								
KAPER_S BUILDING MATERIALS INC	817	15TH ST SE	1	139	1				400			20 employees @ 20gpd each
WALSTRA, JOHN A	832	15TH ST SE	1	140	1				200			10 employees @ 20gpd each
KAMMINGA, HARVEY L & NORMA J	832 1/2	15TH ST SE		141								
WALSTRA, PETER J INC	853	15TH ST SE		142								
DEMOTTE AMERICAN LEGION POST	1011	15TH ST SE	1	143	1				900			300 seats @ 3 gpd each
VANKEPPEL, BERNARD	1316	15TH ST SE		144								
PEREGRINE, BARBARA 1/2 &	1612	15TH ST SE		145								
SOLOMEY, MICHAEL S & BECKY A	1632	15TH ST SE		146								
SOLOMEY, MICHAEL S & BECKY A	1632	15TH ST SE		147								
COUGHLIN, WILLIAM	1707	15TH ST SE		148								
WILLIAMS, BOBBY W &	1706	15TH ST SE		149								
TOPPEN, MELVIN J & RITA J	217, 223	15TH ST SE		150								
VANKORP CORPORATION		15TH ST SE		151								
KLIP, CAROL J		15TH ST SE		152								
BELSTRA MILLING CO INC		15TH ST SE		153								
JONKMAN, MARILYN		15TH ST SE		154								
VANKORP CORPORATION		15TH ST SE		155								
RUISARD, MARY A		15TH ST SE		156								
SCHULTZ, ROBERT & MAUREEN		15TH ST SE		157								
SCHULTZ, ROBERT L & MAUREEN J		15TH ST SE		158								
SOLOMEY, MICHAEL & MARY		15TH ST SE		159								
STATE OF INDIANA HWY 231		15TH ST SE		160								
HENNING, ADAM P		15TH ST SE		161								
STATE OF INDIANA HWY 231		15TH ST SE		162								
ZELDENRUST, MARY		15TH ST SE		163								
STATE OF INDIANA HWY 231		15TH ST SE		164								
STATE OF INDIANA HWY 231		15TH ST SE		165								
KEENER TOWNSHIP	708	15TH ST SE	1	168	1				200			
SCHULTZ, ROBERT L & MAUREEN J	1009	15TH ST SE		167								
WALSTRA, RICHARD P	322	15TH ST SW	1	168	1	500						
ROMAN CATHOLIC DIOCESE OF	334	15TH ST SW	1	169	1				1000			250 seats w/ warming kitchen
CUNNINGHAM, RICHARD I & JOANN	408	15TH ST SW	1	170	1	500						
HALL, DAVE A & DOROTHY A	409	15TH ST SW		171								
VANDERMOLEN, FRANCES	500	15TH ST SW		172								
DEMOTTE CHRISTIAN SCHOOL	611	15TH ST SW	1	173	1					3250		130 Students & Staff
VANDERMOLEN, T MARVIN	612	15TH ST SW		174								
BROUWER, JASPER ARIE &	700	15TH ST SW		175								
BIGBIE, JOHN F & BETTY L	701	15TH ST SW		176								
CHURCH, FIRST CHRISTIAN REFORMED OF DEM	703	15TH ST SW	1	177	1				1000			250 seats w/ warming kitchen
KAPER, MARILYN WIERS	721	15TH ST SW		178								
TOWN OF DEMOTTE	FOD - SOCCER	15TH ST SW	1	179	1				450			450 players & specs @ 1 gpd each
TOWN OF DEMOTTE	FOD- LITTLE LEAGUE	15TH ST SW	1	180	1				500			500 players & specs @ 1 gpd each
VANDERMOLEN, T MARVIN &		15TH ST SW		181								
VANDERMOLEN, T MARVIN		15TH ST SW		182								
VANDERMOLEN, T MARVIN		15TH ST SW		183								
CHURCH, THE CHRISTIAN INC	703	15TH ST SW		184								
SCHULTZ, TIMOTHY M & REBECCA A	121,125	15TH ST SW		185								
CHURCH, FAITH LUTHERAN CORP	121	16TH PL SW	1	186	1				800			150 seats w/ warming kitchen
SCHULTZ, ROBERT JR	125 A, B	16TH PL SW		187								
DEKOCK, JOHN A & RUTH A		16TH PL SW		188								
HOWARD, THOMAS M & JENNIFER L	113	16TH ST SE		189								
HENNIN, ROBERT D & BARBARA L	120	16TH ST SE	1	190	1	500						
LUEDTKE, JOSHUA J & SHERI L	125	16TH ST SE		191								
NANNENGA, GILBERT H & BETTY J	200	16TH ST SE	1	192	1	500						
TOPPEN, MELVIN J & RITA J	205	16TH ST SE	1	193	1	500						
SHELBOURNE, RONALD G &	206	16TH ST SE	1	194	1	500						
VANKORP CORPORATION	408	16TH ST SE		195								
VANKORP CORPORATION	412	16TH ST SE		196								
VANKORP CORPORATION	416	16TH ST SE		197								
TOPPEN, MELVIN J & RITA J		16TH ST SE		198								
GROSS, FRANK B SR	104	16TH ST SE	1	199	1	500						
VANKORP CORPORATION	414	17TH ST SE		200								
GRAND INNOVATIONS INC/ALEXANDER KELLY M	501	17TH ST SE	1	201	1	500						

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows						Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
HATCH, JASON	505	17TH ST SE		202								
VANKORP CORPORATION	506	17TH ST SE		203								
SESSIONS, RYAN & ASHLEY L SYMANSKI	509	17TH ST SE		204								
SIMMONS, JASON A & LEANNE	510	17TH ST SE	1	205	1	500						
VANDERWALL, TRACY R	513	17TH ST SE		206								
RISNER, ANTHONY D	514	17TH ST SE		207								
HOLTZ, ELIZABETH J	516	17TH ST SE		208								
SCHWEITZER, TYLER	520	17TH ST SE	1	209	1	500						
VANKORP CORPORATION	524	17TH ST SE		210								
VANKORP CORPORATION	526	17TH ST SE		211								
MARZYNSKI, LOUIS L & DIANE L	924	17TH ST SW		212								
COPPOTELLI, MICHAEL E &	1004	17TH ST SW		213								
BOER, MARK WILLIAM & KAREN G	1014	17TH ST SW	1	214	1	500						
KUCHARIK, MARY	801	21ST ST SW	1	215	1	500						
DELVECCHIO, CHARLES A	807	21ST ST SW	1	216	1	500						
VANSCHEPEN, WILLIAM J &	825	21ST ST SW		217								
KAMMINGA, DONALD ETAL	909	21ST ST SW		218								
MINDERHOUD, ANTHONY P &	921	21ST ST SW		219								
SCHALLMO, EARL J & PAULINE J	1003	21ST ST SW	1	220	1	500						
KUNZMAN, ALAN E & SARAH E	1005	21ST ST SW		221								
HOWARD JACK C & LAURI L	1010	21ST ST SW	1	222	1	500						
LAPKOVITCH, STEVEN & ROSE	1021	21ST ST SW	X	223	X							
BRIZENDINE, MYRON P & LOUISE R	1033	21ST ST SW		224								
KAMMINGA, DONALD ETAL		21ST ST SW		225								
VANSCHEPEN, WILLIAM J &		21ST ST SW		226								
SCHULTZ, ROBERT L & MAUREEN		21ST ST SW		227								
SCHULTZ, ROBERT L & MAUREEN		21ST ST SW		228								
HOWARD, JACK C & LAURI L		21ST ST SW		229								
GROVER, MARK D & MELVINE	207	2ND AVE NE	1	230	1	500						
WATKINS, JOY D & RAMONA MAE	212	2ND AVE NE		231								
TURNER, LINDA S	304	2ND AVE NE	1	232	1	500						
WALSTRA, DEIRDRE L	309	2ND AVE NE	1	233	1	500						
FERGUSON, CHARLES R &	317	2ND AVE NE		234								
DODD, TODD I & ELIZABETH D	500	2ND AVE NW		235								
FORDEN, JOHN J SR	522	2ND AVE NW		238								
HUBBARD, JOSEPH JR & TRACY J	526	2ND AVE NW		237								
OSBORN, GREG A & REBECCA	614	2ND AVE NW	1	238	1	500						
HARDER, JOHN & GENEVA	620	2ND AVE NW		239								
JAMIESON, JILL R	623	2ND AVE NW		240								
BROWN, RAYMOND E & PATRICIA M	626	2ND AVE NW	1	241	1	500						
JOHNSON, BRYAN P	631	2ND AVE NW	1	242	1	500						
STEFFEL, JEFFREY P & JANET S	632	2ND AVE NW	1	243	1	500						
KOOY, RANDY & DIANA		2ND AVE NW		244								
VANKEPPEL, GERRIT		2ND AVE NW		245								
JELSMA, DANIEL & RENEE	704	2ND AVE NW	1	246	1	500						
WINTER, HORACE H & MARGARET E	705	2ND AVE NW		247								
CAPPS, SHAWN L & KATHERINE E	314	2ND ST NE		248								
CHURCH, DEMOTTE METHODIST	205	3RD AVE NE	1	249	1	500						
FASE, BRUCE	206	3RD AVE NE		250								
HAZLETT, DOROTHY E	217	3RD AVE NE		251								
HANFORD, GENE & SUE TRUSTEES	231	3RD AVE NE	1	252	1	500						
BABJAK, STEVEN J	305	3RD AVE NE		253								
RALSTON, ETHEL M	317	3RD AVE NE	1	254	1	500						
SWART, LEONARD JR & SHIRLEY	325	3RD AVE NE	1	255	1	500						
DEVRIES, GERRIT H & DIANNE S	221	3RD AVE NW		256								
NELMS, JAMES	308	3RD AVE NW		257								
GEHEB, MARK D	309	3RD AVE NW	2	258	1			400				
ZOPPETTI, DEBRA E	320	3RD AVE NW		259								
SCHULTZ, ROBERT & MAUREEN	323	3RD AVE NW	2	260	1			400				
SCHULTZE, RICHARD K JR	425	3RD AVE NW	1	261	1	500						
SMART, RICHARD A & JENNIFER L	480	3RD AVE NW		262								
CLARK, COLLEEN L	512	3RD AVE NW		263								
LEE, LOVELL D TRUSTEE LE LOVELL D LEE	519	3RD AVE NW	1	264	1	500						
KOZUBAL, EDWARD PHILLIP &	528	3RD AVE NW		265								
MIJARES, MARCIANO	529	3RD AVE NW		266								
DELINSKY, ROBERT A & JOYCE A	609	3RD AVE NW		267								
ARENDS, GERTRUDE N & GRACE E	610	3RD AVE NW		268								

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows					Total	Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools		
PEWITT, CLAY & DAWN	620	3RD AVE NW		269								
PRICE, JOHN T & PATRICIA A	621	3RD AVE NW	1	270	1	500						
STONE, MARILYN R	628	3RD AVE NW	1	271	1	500						
MEISS, LELAND G & ELSIE M	629	3RD AVE NW	1	272	1	500						
WALL, RICHARD LEON & TONI MARI	712	3RD AVE NW		273								
ERWIN, ROBERT R JR & MARION	715	3RD AVE NW	1	274	1	500						
DEVRIES, GERRIT H & DIANNE S	301, 303	3RD AVE NW		275								
SCHULTZ, ROBERT L JR &	401, 403	3RD AVE NW		278								
CLARK, COLLEEN L		3RD AVE NW		277								
JACKSON FUNERAL SERVICE INC	200	3RD ST SW	1	278	1				60			3 employees @ 20gpd each
MYERS, DONALD E	225	4TH AVE NE	1	279	1	500						
MYERS, DONALD E	227	4TH AVE NE	1	280	1	500						
BLB MANAGEMENT GROUP LLC	228	4TH AVE NE		281								
BLB MANAGEMENT GROUP LLC	230	4TH AVE NE		282								
SZCZUDLO, GLORIA	233	4TH AVE NE	1	283	1	500						
MAPLE LAKE DEVELOPMENT LLC	235	4TH AVE NE	1	284	1	500						
NELSON, GEORGE L & SHARON	229	4TH AVE NE		285								
WIERS, BRIAN J & AMY K	231	4TH AVE NE	1	288	1	500						
KENNEDY, STEPHEN ANDREW	501	4TH AVE NW	1	287	1	500						
ELLCH, GARY A & DEBRA	511	4TH AVE NW		286								
NORWINE, PAUL E & JILL C	516	4TH AVE NW		269								
ENGELS, WILLIAM & KATHY	601	4TH AVE NW	1	290	1	500						
ROGYOM, MITCHELL J	606	4TH AVE NW		291								
KARPEN, MAGDALEN & MELISSA R SEITZINGER	611	4TH AVE NW	1	292	1	500						
WOOLWINE, PATSY D	618	4TH AVE NW	1	293	1	500						
BOWMAN, DAWN C	621	4TH AVE NW	1	294	1	500						
VINSON, DARRELL J	628	4TH AVE NW		295								
GREGOLUNAS, JOHN & CAROL J	631	4TH AVE NW	1	296	1	500						
RYSKA, WAYNE F & RITA M	712	4TH AVE NW	1	297	1	500						
SEITZINGER, RICHARD M	715	4TH AVE NW	1	298	1	500						
PARCEL, CECIL D & MICHELLE D	808	4TH AVE NW	1	299	1	500						
ACCENT HOMES INC	924	4TH AVE NW		300								
ACCENT HOMES INC	925	4TH AVE NW		301								
ACCENT HOMES INC	930	4TH AVE NW		302								
ACCENT HOMES INC	931	4TH AVE NW		303								
ROGYOM, MITCHELL J		4TH AVE NW		304								
VANKEPPEL, GERRIT		4TH AVE NW		305								
DEMOTTE CHRISTIAN SCHOOL INC	505	4TH CT SE		306								
SCHULTZ, ROBERT L JR &	515	4TH CT SE	1	307	1	500						
SCHULTZ, ROBERT L JR &	525	4TH CT SE		308								
HEDRICK, LLOYD R & PATRICIA L	535	4TH CT SE		309								
PARKER, KIMBERLY J	605	4TH CT SE	1	500	1	500						
SULLIVAN, TIMOTHY P & REBECCA A	615	4TH CT SE		311								
SWART, NEAL J & CLARA L	625	4TH CT SE		312								
SWART, NEAL J & CLARA L	635	4TH CT SE		313								
VANKEPPEL, GERRIT DAVID &	200	5TH AVE NE	1	314	1	500						
GRUBE, ALLEN W REVOCABLE	201	5TH AVE NE		315								
VANKEPPEL, GERRIT DAVID &	324	5TH AVE NE		316								
ABBRING, DONALD T & JO ANN	815	5TH ST SE		317								
JEREMIAH, THOMAS H & PAULINE	513 B	5TH ST SE	1	318	1	500						
O_MARA, LAURENCE &	513 C	5TH ST SE	1	319	1	500						
DREKSLER, MARION J	513 A	5TH ST SE	1	320	1	500						
TRPESKI, ZORAN & KARRIE	125	6TH AVE NW		321								
POSTMA, ROBERT B	220	6TH AVE NW		322								
FARRELL, EDWARD W	404	6TH AVE NW	1	323	1	500						
DESIMINI, DAVID & FRANCINE	500	6TH AVE NW		324								
SPRADLIN, DONALD R & BETTY J	508	6TH AVE NW		325								
CRUES, MARY R	509	6TH AVE NW	1	326	1	500						
BOLTON, KRISTOPHER P &	516	6TH AVE NW		327								
VANDERBOK, MICHAEL & RHEA	600	6TH AVE NW		328								
SPIEGLA, JOHN C	601	6TH AVE NW		329								
ENGLISH, JESSICA L	809	6TH AVE NW		330								
SODERSTROM, EARLINE	617	6TH AVE NW		331								
MARTIN, DIANE R REV TRUST	820	6TH AVE NW	1	332	1	500						
HUDSON, CHARLES T	621	6TH AVE NW		333								
PRAIRIE LANDING LLC	925	6TH AVE NW		334								
PRAIRIE LANDING LLC	931	8TH AVE NW		335								

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Mep #	Meter	Anticipated Flows						Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
PRAIRIE LANDING LLC	1028	6TH AVE NW		338								
TRPESKI, ZORAN & KARRIE		6TH AVE NW		337								
FARRELL, EDWARD W	404	6TH AVE NW		338								
RUSSELL, JUSTIN L & ANDREA	124	6TH ST NW		339								
KRUEGER, SCOTT E	405	6TH ST NW	1	340	1	500						
KAMMINGA, PAUL H & KAREN K	124	6TH ST SE		341								
DEXTER, CAROL F	208	6TH ST SE		342								
FRITTS, STEPHEN CARL & SHARON	229	6TH ST SE	1	343	1	500						
FIGG, WILLIAM J & LAURETTA	321	6TH ST SW		344								
WOODS, RACHAEL M & JOSEPH R	710	6TH ST SW		345								
HOLLANDALE INVESTMENTS INC	115	7TH ST SE	1	346	1				330			2500sft + 4 employees
LIVENGOOD, RANDE S &	117	7TH ST SE		347								
EPLEY, PAUL J & CAROL A	119	7TH ST SE		348								
ZYLSTRA, RUDOLPH N JR		7TH ST SE		349								
GRACE, CLIFFORD J & TRACY L	121	7TH ST SW		350								
HENNING, JILL D	124	7TH ST SW		351								
ZELDENRUST, MARY	303	7TH ST SW	2	352	2			400				
BRUBAKER, DAVID L & JOY L	710	7TH ST SW	2	353	1			400				
VIS, ARLEN J & VIRGINIA L	716	7TH ST SW	2	354	2			400				
AXTELL, DAVID W & SUSAN L		7TH ST SW		355								
ARNOLD, BRENDA J	311	7TH ST SW	2	356	1			400				
HOLMES, HOWARD H & DIANE J	319	7TH ST SW	2	357	1			400				
WOODS, MARGARET	327	7TH ST SW	2	358	2			400				
ARNOLD, BRENDA J	335	7TH ST SW	2	359	1			400				
RECKER, WILLIAM J & CORRINE	117	8TH AVE NE		360								
CASHDOLLAR, SUZANNE & CYNTHIA	200	8TH AVE NE		361								
KINGMA, ROY E 1/2 &	520	8TH AVE NE	4	362	4				1020			12 DRs & nurses + 6 staff
CHRISTOPHER, JOHN M & SUSAN M	829	8TH AVE NE		363								
BADER, FRANK J & CATHERINE M	705	8TH AVE NE		364								
MEEKS, JEFFERY S & ANNETTA	201	8TH AVE NW		365								
BANK OF NEW YORK	205	8TH AVE NW		368								
DEXTER, JAMES A & THERESA K	215	8TH AVE NW		387								
ALLEN, MICHAEL D & LINDA S	223	8TH AVE NW	1	388	1	500						
FAGENBAUM, DAVID L & WANDA D	302	8TH AVE NW		369								
JACOBSEN ENTERPRISES LLC	316	8TH AVE NW		370								
J&J LLC	335	8TH AVE NW		371								
THOMAS, RANDALL F SR	338	8TH AVE NW		372								
DAHN, DAVID T	400	8TH AVE NW		373								
HILL, GORDON C & MELISSA A	429	8TH AVE NW		374								
MUFFETT, PATRICIA A & DENNIS M	505	8TH AVE NW		375								
SCHULTZ, TIMOTHY M & REBECCA A	516	8TH AVE NW		378								
VANKEPPEL, GERRIT DAVID & MICHELLE C TRUS	805	8TH AVE NW		377								
OKELEY, JAMES M & STACY L	613	8TH AVE NW	1	378	1	500						
MCLEAN, CHARLES E & JOYCE	704	8TH AVE NW		379								
DEWES, ANNE VAN KEPPEL	715	8TH AVE NW		380								
TAGUE, RUSSELL M III &	720	8TH AVE NW		381								
J&J LLC	323 B	8TH AVE NW		382								
SCHROEDER, JACK E	323 D	8TH AVE NW		383								
DEXTER, JAMES A & THERESA K		8TH AVE NW		384								
ALLEN, MICHAEL D & LINDA S		8TH AVE NW		385								
SCHULTZ, ROBERT L & MAUREEN J	327	8TH PL SE	2	386	2			400				
NANNENGA, BEVERLY J	810	8TH PL SW	4	387	4			800				
CRANE, JODI J	820	8TH PL SW	1	388	1	500						
ENGELHART, LEO M III	828	8TH PL SW		389								
EVOLGA, CARRIE M	830	8TH PL SW		390								
FASE, ALVIN & JILL	833	8TH PL SW	2	391	1			400				
HICKORY COURT LLC	717, 721	8TH PL SW		392								
NANNENGA, EDWARD	809, 811	8TH PL SW		393								
KOPANDA, JOSEPH E JR & JOAN T	824 C	8TH PL SW		394								
ROBINSON, CAROLLAINE	828 C	8TH PL SW		395								
SIBINCIC, JERRY J & CYNTHIA I	832 A	8TH PL SW		396								
FENTRESS, BRENDA ANN	834 A	8TH PL SW		397								
HOLLAND PROPERTIES LLC 3/4 &		8TH PL SW		398								
HOLLANDALE INVESTMENTS INC		8TH PL SW		399								
ZEL INC	822	8TH PL SW	1	400	1			200				
VAN KEPPEL, GERRIT		6TH ST		401								
MOOLENAAR, LORRAINE SUE		8TH ST		402								

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows						Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
MOOLENAAR, LORRAINE SUE		8TH ST		403								
BOEZEMAN, LARRY J & TERRI K		8TH ST		404								
BOEZEMAN, LARRY J & TERRI K		8TH ST		405								
RUBIO, CRUZ H & CINDY S		8TH ST		406								
J&J LLC	235, 309	8TH ST		407								
ZAK, ROBERT & DIANE	308	8TH ST NE		408								
BRYAN, ROBERT A & ROBIN R	116	8TH ST SE	1	409	1	500						
BRYAN, ROBERT A & ROBIN R	118	8TH ST SE	1	410	1	500						
THOMAS, RANDALL F	119	8TH ST SE		411								
TOPPEN, BRUCE M & DAWN R	200	8TH ST SE	2	412	2			400				
SCHULTZ, ROBERT & MAUREEN	204	8TH ST SE	1	413	1	500						
CRANE, LEWIS W & HAZEL I	208	8TH ST SE	1	414	1	500						
WIREMAN, CHAMBER A & RACHEL L	212	8TH ST SE		415								
WIERS, CORNELIUS & RUTH E	216	8TH ST SE	2	416	2			400				
WIERS, CORNELIUS & RUTH E	218	8TH ST SE	2	417	2			400				
FRITTS, EUGENE C & DELLA M	500	8TH ST SE	1	418	1	500						
DEMOTTE OIL COMPANY	404	8TH ST SE		419								
CLICK, EARL R JR	408	8TH ST SE	1	420	1	500						
J&J LLC	415	8TH ST SE		421								
COFFER, KEITH D & CORNELIA M	502	8TH ST SE		422								
SCHURMAN, MARK E & TERRI R	816	8TH ST SE		423								
SCHULTZ, ROBERT & MAUREEN	820	8TH ST SE	1	424	1	500						
DAVIS, REX A & JOYCE L	1520	8TH ST SE		426								
ZANDSTRA, DAVID	1528	8TH ST SE		427								
HARDY, MILISSA JEAN A/K/A	1616	8TH ST SE	1	428	1	500						
DAVIS, REX A & JOYCE L	1632	8TH ST SE		429								
PETERSON, DREW A & ROSE A	1700	8TH ST SE	1	430	1	500						
LAWLEY, RAYMOND A JR	1720	8TH ST SE		431								
RAY, FRANCES	1728	8TH ST SE	1	432	1	500						
STILLEY, LENDON R & THELMA L	1788	8TH ST SE		433								
STILLEY, LENDON R & THELMA L	1788	8TH ST SE		434								
STILLEY, LENDON R & THELMA L	1808	8TH ST SE	1	435	1	500						
MERICSKO, GENEVIEVE A	500 A	8TH ST SE		436								
DARNER, DANIEL E SR &	500 C	8TH ST SE		437								
CARUSO, PHILLIP J		8TH ST SE		438								
HARDY, MILISSA J		8TH ST SE		439								
HARDY, MILISSA JEAN A/K/A		8TH ST SE		440								
JAR FAMILY LIMITED PARTNERSHIP, HOPE L & JA	728	8TH ST SE		441								
PETERSON, MARVIN R & RUTH ANN	905	8TH ST SW		442								
HICKORY COURT LLC	725, 731	8TH ST SW		443								
HICKORY COURT LLC	726, 732	8TH ST SW		444								
PETERSON, DAVID A & PAMELA J	817, 819	8TH ST SW		445								
HENNING, JILL	825, 827	8TH ST SW		448								
SHULTZ, ANDREW C & JENNIFER S	931, 935	8TH ST SW		447								
HICKORY COURT LLC	717	8TH ST SW		448								
HILL, GORDON C & MELISSA A	1004	8TH ST SW		449								
HOLZHAUER, VERNON C & JOAN R	120	9TH AVE NW		450								
EICH, CHRISTOPHER &	125	9TH AVE NW		451								
HUGHES, ROBERT J JR	204	9TH AVE NW		452								
STOEL, JAMES D & ESTHER M	209	9TH AVE NW		453								
THACKERSON, CLARENCE L & DEBORAH A	219	9TH AVE NW		454								
BELSTRA, ROBERT & PHYLLIS	220	9TH AVE NW		455								
SMOLEK, DEREK H & JENNIFER D	228	9TH AVE NW		456								
SCOTT, MAX C & IDA M	229	9TH AVE NW		457								
FUGETT, JOSHUA	300	9TH AVE NW		458								
HODGETT, DONOVAN D & JO A	305	9TH AVE NW		459								
SHIELDS, TERRENCE F & LEIGH C	315	9TH AVE NW		460								
WIDULE, MELODY A	317	9TH AVE NW		481								
BARRETT, WAYNE P	318	9TH AVE NW		462								
DUNTON, JULIA B	328	9TH AVE NW		463								
HARDIN, MICHAEL R & BARBARA J	328	9TH AVE NW		464								
JOHNSON, RICKY G & KRISTINE L	329	9TH AVE NW	1	465	1	500						
HUBERS, SYLVAN & BERNICE	400	9TH AVE NW		466								
MCCOY, MARK A & JACKIE L	404	9TH AVE NW		467								
FOX, VIRGINIA L	424	9TH AVE NW	1	468	1	500						
MURRAY, JOHN G & JULIA	311	9TH CIR SE	1	469	1	500						
VANDERMEER, RINK & LOUISE	313	9TH CIR SE	1	470	1	500						

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows						Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
SCHILL, CHARLES M & GERALDINE	314	9TH CIR SE	1	471	1	500						
VERKADE, GERRIT & CORRINE	315	9TH CIR SE	1	472	1	500						
DONNELLY, CON	316	9TH CIR SE	1	473	1	500						
TAMMINGA, RUSSELL J & GRACE J	317	9TH CIR SE	1	474	1	500						
BULT, SHERRY & CHARLENE EVERS	318	9TH CIR SE	1	475	1	500						
PEISNER, ROBERT & LORRAINE	320	9TH CIR SE	1	476	1	500						
ALVIANI, ANTHONY R	322	9TH CIR SE	1	477	1	500						
JAROSAK, LINDA S	324	9TH CIR SE		478								
GIRHAM	324	9TH CIR SE	1	479	1	500						
PEDONE, FRANK J & SANDRA	327	9TH CIR SE		480								
O_ROURKE, SUZAN M	404	9TH CIR SE		481								
POLLETTA, EDWARO W JR &	420	9TH CIR SE	1	482	1	500						
RAMUSCAK, JOHN L & RUTH ANN	405	9TH CIR SE	1	483	1	500						
SCHULTZ, ROBERT	127	9TH ST SE	1	484	1	500						
WETSELAAR, THOMAS D &	207	9TH ST SE	1	485	1	500						
KLOPP, MEROLYNNE K & ROBERT LAPSLEY III	219	9TH ST SE	1	486	1	500						
KLOPP, MEROLYNNE K & ROBERT LAPSLEY III	227	9TH ST SE	1	487	1	500						
WARGIN, WILLIAM J	303	9TH ST SE	1	488	1	500						
RACE, FRANK L JR	102	9TH ST SW		489								
FAGAN, VINCENT R	109	9TH ST SW		490								
EPLEY, JOEL D	118	9TH ST SW		491								
HOWARD, MICHAEL & KAREN L	122	9TH ST SW		492								
MUSSMAN, ROBERT G	212	9TH ST SW	1	493	1	500						
FITZPATRICK, BARBARA	305	9TH ST SW	1	494	1	500						
HOWARD, JB JR	308	9TH ST SW		495								
FOLEY, CAREY L & SHERRY L	309	9TH ST SW		496								
OSBURN, DALE M JR & MICHELLE L	314	9TH ST SW		497								
SEKEMA, DENNIS E & JAMIE M	321	9TH ST SW		498								
SPURGEON, JOHN A & JOAN K	326	9TH ST SW		499								
SPURGEON, JOHN A & JOAN K	326	9TH ST SW	1	500	1	500						
JEFFERSON, CINOY M	327	9TH ST SW		501								
OOERR, KATHERINE S	401	9TH ST SW	1	502	1	500						
SIKMA, CORNELIUS & CAROL	402	9TH ST SW		503								
WENGLARZ, DONNA K	404	9TH ST SW		504								
FRACKOWIAK, JULIE	409	9TH ST SW		505								
HILTON, ROSCO M & PATRICIA J	420	9TH ST SW		506								
GREGORY, JANICE L	421	9TH ST SW		507								
DEHAAN, CLARENCE & JUOY	429	9TH ST SW	1	508	1	500						
HILDEBRAND, TIMOTHY A II	432	9TH ST SW		509								
TILLGER, JEREMY M	500	9TH ST SW		510								
KALCIC, BARBARA J	508	9TH ST SW		511								
KLIP, CAROL J	517	9TH ST SW		512								
HEPWORTH, RICK A	525	9TH ST SW		513								
SCHULTZ, ROBERT	532	9TH ST SW		514								
SEMON, KERRY L & KRISTEN D DEAN	533	9TH ST SW		515								
WALSTRA, KENNETH LEE	604	9TH ST SW		518								
HAZLETT, NEIL I & NANCY K	605	9TH ST SW	1	517	1	500						
STEFANAK, PETER	612	9TH ST SW	1	518	1	500						
DEKOCK, BILLY J	617	9TH ST SW	1	519	1	500						
ERWIN, LOIS M	620	9TH ST SW		520								
JENKINS, DAWN M	625	9TH ST SW	2	521	2			400				
HART, MICHAEL D & MARILYN SUE	628	9TH ST SW		522								
KIMBERLING, RONALD &	632	9TH ST SW		523								
GREER, JUSTIN	700	9TH ST SW		524								
A&E ENTERPRISES LLC	719	9TH ST SW	2	525	2			400				
DANIELS, MARVIN D	720	9TH ST SW	1	526	1	500						
ANDO DEVELOPMENT LLC	723	9TH ST SW	2	527	2			400				
SMITH, ELWOOD C JR & KATHY B	728	9TH ST SW		526								
JASPER COUNTY PUBLIC LIBRARY		9TH ST SW		529								
JASPER COUNTY PUBLIC LIBRARY		9TH ST SW		530								
KLIP, CAROL J		9TH ST SW		531								
SULLIVAN, WILLIAM R		9TH ST SW		532								
DANIELS, MARVIN O		9TH ST SW		533								
HILTON, ROSCO M & PATRICIA J		9TH ST SW		534								
SPURGEON, JOHN A & JOAN K		9TH ST SW		535								
LISS, WILLIAM L & KATHLEEN A		9TH ST SW		536								
SCHULTZ, ROBERT LEON JR		9TH ST SW		537								

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows						Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
MUSSMAN, ROBERT G		9TH ST SW		538								
GRUBE, R ARLENE REVOCABLE		9TH ST SW		539								
WISNESKI, BRYAN A & CHERYL L	708	9TH ST SW		540								
REED, DAVID C JR &	234	9TH SW NW		541								
BRYAN, BENJAMIN L	128	9TH SW SE		542								
SCHULTZ, ROBERT LEON JR		ALMOND ST		543								
CHURCH OF CHRIST OF DEMOTTE	706	ALMOND ST SW		544								
WAILEA VK LLC	221	ALMOND ST NW	2	545	2			400				
MUCHA, LORETTA	304	ALMOND ST NW		546								
KRUEGER, JOE A & CATHERINE	305	ALMOND ST NW	1	547	1	500						
MUSCH, RAYMOND G & JANET L	312	ALMOND ST NW		548								
EICKELBERGER, CATHERINE	313	ALMOND ST NW		549								
VANBRUGGEN, WESLEY & JUDITH L	324	ALMOND ST NW		550								
WALLACE, JASON E & BROOKE A	325	ALMOND ST NW	1	551	1	500						
VANKEPPEL, JOHN	340	ALMOND ST NW		552								
ALBERTS, DAVID W & KATHLEEN C	341	ALMOND ST NW		553								
ZYLSTRA, RUDOLPH N JR	401	ALMOND ST NW	1	554	1	500						
SEBBEN, ARTHUR J & ROBERTA J	414	ALMOND ST NW	1	555	1	500						
LEWIS, ROBERT G & LEA GAYLE	424	ALMOND ST NW		558								
DREW, CHARLES M	425	ALMOND ST NW		557								
KOTUR, NICK & PATRICIA A	433	ALMOND ST NW	1	558	1	500						
LIEBBE, ELMER & DORIS	436	ALMOND ST NW	1	559	1	500						
EVANS, EDWARD A & MARGARET V	501	ALMOND ST NW		560								
KENNING, JOHN R & DELORES K	504	ALMOND ST NW		561								
SCHIESSER, THOMAS J &	509	ALMOND ST NW	1	562	1	500						
COCHRAN, SANDRA L & ROBERT W	513	ALMOND ST NW	1	563	1	500						
BER, SHIRLEY C TRUSTEE	514	ALMOND ST NW		564								
PATTON, ERIC A & PENELOPE B	524	ALMOND ST NW		565								
LONG, CARL R & ELEANOR REVOC LIV TRUST	532	ALMOND ST NW	1	568	1	500						
LOCKHART, CURTIS JR & ANITA C	533	ALMOND ST NW	1	567	1	500						
ZIMMERMAN, RICHARD & CHARITY	604	ALMOND ST NW		568								
KOSCHAL, ROBERT S &	609	ALMOND ST NW	1	569	1	500						
COLLINS, GLENDON M	612	ALMOND ST NW		570								
CZAPLA, STEPHAN T & TAMMY M	621	ALMOND ST NW		571								
WISZ, THOMAS & HAZEL	628	ALMOND ST NW		572								
SULT, RICHARD A	632	ALMOND ST NW	1	573	1	500						
KOZLIK, MICHAEL & TRACY E	638	ALMOND ST NW	1	574	1	500						
RAYNER, JEREMY C JENNIFER L	708	ALMOND ST NW	1	575	1	500						
ZELDENRUST, MARY	720	ALMOND ST NW	1	576	1	500						
KOSCHAL, ROBERT S &		ALMOND ST NW		577								
LIEBBE, ELMER & DORIS		ALMOND ST NW		578								
RAYNER, JEREMY C JENNIFER L		ALMOND ST NW		579								
GRACE, CLIFFORD J & TRACY L		ALMOND ST NW		580								
VANKEPPEL, GERRIT		ALMOND ST NW		581								
VANKEPPEL, JOHN & BARBARA		ALMOND ST NW		582								
VANKEPPEL, JOHN H & BARBARA S		ALMOND ST NW		583								
J&J LLC	133	ALMOND ST SW		584								
DEMOTTE STATE BANK	227	ALMOND ST SW	1	585	1	500						
PENNANDER LLC	325	ALMOND ST SW	1	588	1	500						
DEHAAN, CLARENCE R & JUDITH A	504	ALMOND ST SW	1	587	1	500						
YOCUM, BRIAN E & KRISTEN M	505	ALMOND ST SW		588								
BRUNTON, PHILLIP & RACHEL	512	ALMOND ST SW		589								
HUNTER, WILLIAM R JR &	513	ALMOND ST SW	1	590	1	500						
SCHULTZ, JEFFREY D	521	ALMOND ST SW		591								
CRAAYBEEK, GEOFFREY A &	522	ALMOND ST SW		592								
JONES, CHARLES LON JR & KAREN	525	ALMOND ST SW		593								
MCCUNE, MARILYN J	535	ALMOND ST SW	1	594	1	500						
FELEKI, JAMES M & JOLENE A	538	ALMOND ST SW		595								
CLARK, ANTOINETTE J	801	ALMOND ST SW		596								
DEKOCK, HENRY A & PATRICIA L	604	ALMOND ST SW		597								
DANIELS, BARBARA J	809	ALMOND ST SW	1	598	1	500						
ENGELHART, LEO M & PAMELA J	612	ALMOND ST SW	1	599	1	500						
TOGNARELLI, THOMAS N & JODI	620	ALMOND ST SW	1	800	1	500						
SCHULTZ, JEFFREY K & ROBERT	621	ALMOND ST SW		601								
BRISTOL, MATHEW & EVELYN	628	ALMOND ST SW	1	602	1	500						
SMITH, H MARGARET &	829	ALMOND ST SW	1	603	1	500						
HOLLANDALE INVESTMENTS INC	715	ALMOND ST SW	2	604	2				860			5000 sft + 8 employees

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows						Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
BOONSTRA, RANDALL J & SHARON F	601	ALMOND ST SW		605								
HUPPENTHAL, DAVID M & CHRISTY/ SCHMIDT	1506	ALMOND ST SW	2	606	2			400				
SCHULTZ, TIMOTHY M &REBECCA A	1507	ALMOND ST SW		607								
ARNDT, KATHLEEN OLGA	1517	ALMOND ST SW	2	608	1			400				
FRITTS, GARY T & LISA G	1530	ALMOND ST SW	2	609	2			400				
HUBERS, DAVID & KIMBERLY SUE	1617	ALMOND ST SW		610								
RAMAGE, DORIS & BROCK	1621	ALMOND ST SW		611								
SOUTH POINT TERRACE GARDEN	1621	ALMOND ST SW	1	612	1			200				
ZELDENRUST, MARY	1622	ALMOND ST SW	2	613	2			400				
KIKKERT, MARCELLA	1625	ALMOND ST SW	1	614	1			200				
DAVIS, BEVERLY L	1629	ALMOND ST SW	1	615	1			200				
ONEY, MARY ANN	1633	ALMOND ST SW	1	616	1			200				
BERTIG, FAMILY LIVING TRUST	1635	ALMOND ST SW	1	617	1			200				
WALSTRA, LUCILLE	1654	ALMOND ST SW	2	618	2			400				
VANVUREN, JACOB J & DONNA M	1660	ALMOND ST SW	4	619	4			600				
FRANCIS, VIRGINIA D. 1/2 ETAL	1701	ALMOND ST SW	1	620	1			200				
PEO, LINDA S	1705	ALMOND ST SW	1	621	1			200				
MARKO, JERRY A & LINDA	1709	ALMOND ST SW	1	622	1			200				
BULT, BESS	1713	ALMOND ST SW	1	623	1			200				
KUNTARICH, ROBERT L & RADMILA	1717	ALMOND ST SW	1	624	1			200				
NIEHOF, CORNELIUS & ELAINE	1721	ALMOND ST SW	1	625	1			200				
HUBERS, SYLVAN & BERNICE A	1512, 1516	ALMOND ST SW		626								
ZORNIGER FAMILY TRUST	1520, 1524	ALMOND ST SW		627								
KONOVSKY, GEORGE	613	AZALEA ST SE	1	628	1	500						
HOLLEMAN, GERRIT & ELAINE	614	AZALEA ST SE		629								
WINEINGER, DEBORAH	619	AZALEA ST SE		630								
ORR, SANDRA V	621	AZALEA ST SE		631								
POSTMA, LARRY A & TERESA	622	AZALEA ST SE		632								
AXTELL, DAVID W & SUSAN L	629	AZALEA ST SE		633								
THOMAS, CHRISTOPHER R	801	AZALEA ST SE		634								
DEVRIES, GERRIT H & DIANNE S	804	AZALEA ST SE	1	635	1	500						
HANSEN, MARSHA R	805	AZALEA ST SE	1	636	1	500						
FAGENBAUM, WANDA D	809	AZALEA ST SE		637								
DEVRIES, JEFFERY & KATHRYN L	817	AZALEA ST SE	1	638	1	500						
ENGLAND, WALTER R & KAY L	822	AZALEA ST SE		639								
VANDERMOLEN, RUSSELL J &	825	AZALEA ST SE	1	640	1	500						
JUNG, PAUL III & AMBER	829	AZALEA ST SE		641								
WILLIAMSON, BRUCE D	830	AZALEA ST SE	1	642	1	500						
CHURCH, IMMANUEL REFORMED	831	AZALEA ST SE	1	643	1				300			100 seats w/o kitchen
SCHULTZ, ROBERT L & MAUREEN J	906	AZALEA ST SE	1	644	1	500						
NEES, DONALD I REV LT	916	AZALEA ST SE		645								
NEES, DONALD I REV LT	916	AZALEA ST SE	1	646	1	500						
NEES, DONALD I REV LT	922	AZALEA ST SE		647								
SCHULTZ, MAUREEN J	1013	AZALEA ST SE	1	648	1	500						
WILSON, RICHARD K & MELVIN	1021	AZALEA ST SE	1	649	1	500						
LLOYD, BRYAN C	1101	AZALEA ST SE		650								
CHURCH, AMERICAN REFORMED	1106	AZALEA ST SE		651								
RHOADES, ANDREW D & KIM R	1204	AZALEA ST SE	1	652	1	500						
MYERS CONSTRUCTION CO	1201	AZALEA ST SE	4	653	4			800				
MYERS CONSTRUCTION CO	1209	AZALEA ST SE	4	654	4			800				
TOWN & COUNTRY PROPERTIES LLC	1210	AZALEA ST SE	1	655	1			800				
ORSBURN, MARK & DENISE	626, 630	AZALEA ST SE		656								
FAGEN, GERALD A &		AZALEA ST SE		657								
ENGLAND, WALTER R & KAY L		AZALEA ST SE		658								
ENGLAND, WALTER R & KAY L		AZALEA ST SE		659								
KLOPP, MEROLYNNE K & ROBERT LAPSLEY III		AZALEA ST SE		660								
SCHULTZ, ROBERT & MAUREEN		AZALEA ST SE		661								
WILLIAMSON, BRUCE D		AZALEA ST SE		662								
MULTI-STATE CAR WASH LIM PARTN		AZALEA ST SE		663								
ZYLSTRA, RUDOLPH N JR		AZALEA ST SE		664								
ADCOCK, JASON A & MELISSA K	601	AZALEA ST SW		665								
STEIN, LARRY R & LOTTIE M	606	AZALEA ST SW		666								
GOUWENS, ROY & DEBORAH R	200	BEGONIA ST NE	10	667	10			2000				
GOUWENS, ROY &	211, 219	BEGONIA ST NE		668								
FRITTS, TOM	122	BEGONIA ST SE		669								
BULT, CORA	516	BEGONIA ST SE	1	670				200				
BROWN, SHIRLEY &	516	BEGONIA ST SE	1	671	1			200				

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows						Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
ROORDA, JOE CHARLES &	516	BEGONIA ST SE	1	672	1			200				
BOER, HARRY & BEATRICE	525	BEGDNIA ST SE	1	673	1			200				
TERPSTRA, CORNELIA	525	BEGONIA ST SE	1	674	1			200				
WIERS, ANDREW & REBA L	525	BEGONIA ST SE	1	675	1			200				
WOOLEVER, STEVE & GAIL TRUST	533	BEGDNIA ST SE	1	676	1			200				
BLACK, MARJORIE E	533	BEGDNIA ST SE	1	677	1			200				
KATS, DOROTHY	533	BEGONIA ST SE	1	678	1			200				
VANDERBILT, ANDREW & BETTY JANE REVOC L	536	BEGDNIA ST SE	1	679	1			200				
KINGMA, SAM J & ANNA H	536	BEGONIA ST SE	1	860	1			200				
AGEE, PENNY J	539	BEGONIA ST SE	1	681	1			200				
SCHURMAN, CLARENCE & CHRISTINE	540	BEGONIA ST SE	1	882	1			200				
GAILLARD, NORMAN R & PHYLLIS R	545	BEGONIA ST SE	1	683	1			200				
STANTON, JOYCE	545	BEGONIA ST SE	1	684	1			200				
OLEJNIK, RICHARD E & BARBARA J	810	BEGONIA ST SE	1	685	1			200				
KOPANDA, PATRICIA A	626	BEGONIA ST SE	1	686	1			200				
SCHULTZ, ROBERT L & MAUREEN J	801	BEGONIA ST SE		687								
KRUEGER, MICHAEL A & MARY L	802	BEGDNIA ST SE		688								
SCHULTZ, ROBERT & MAUREEN	805	BEGONIA ST SE		889								
MIRANDA, ROLAND & PENNY	806	BEGONIA ST SE	1	890	1	500						
JEFFERSON, ROBERT JR & VANESSA	809	BEGONIA ST SE		891								
SCHULTZ, TERRY D	810	BEGONIA ST SE		692								
FENTRESS, THOMAS L	625	BEGDNIA ST SE		693								
HACHLICA, DAVID J & BRENDA J	826	BEGONIA ST SE	1	894	1	500						
KIMBERLING, RONALD M & KATHLEEN F	833	BEGONIA ST SE		695								
HINES, DOUG	834	BEGONIA ST SE		896								
CALDWELL, STEVEN E & VALERIE J	909	BEGONIA ST SE		697								
DAVIDSON, CAROLYN	910	BEGDNIA ST SE	1	698	1	500						
DEYOUNG, SCOTT	914	BEGONIA ST SE	1	699	1	500						
HEIDLER, LORETTA	1001	BEGONIA ST SE		700								
GLESSNER, GERALD	1013	BEGDNIA ST SE	1	701	1	500						
SCHULTZ, ROBERT L & MAUREEN J	1016	BEGDNIA ST SE	1	702	1	500						
BURKE, BRYAN A C	1024	BEGDNIA ST SE	1	703	1	500						
MOES, CAROL G	1034	BEGONIA ST SE	1	704	1	500						
SCHOONVELD, ROBERT & KATHLEEN	1101	BEGONIA ST SE		705								
SCHULTZ, TERRY D	1102	BEGONIA ST SE		706								
GATES, RICHARD L	1110	BEGONIA ST SE		707								
THOMAS INVESTMENTS INC	1110	BEGONIA ST SE		708								
CRDFT, MICHAEL D	1113	BEGONIA ST SE	1	709	1	500						
DEKOCK, ELIZABETH A	1121	BEGONIA ST SE	1	710	1	500						
SCHULTZ, ROBERT L & MAUREEN J	1125	BEGONIA ST SE	1	711	1	500						
KOSKY, KENNETH F	1201	BEGONIA ST SE		712								
BRYCZEK, CHRISTOPHER P & ERICA G	1209	BEGONIA ST SE		713								
DEMOTTE CHRISTIAN SCHOOL INC	1220	BEGONIA ST SE		714								
DEMOTTE CHRISTIAN SCHOOL INC	12223	BEGONIA ST SE	1	715	1					4800		320 Students & Staff
JOHNSON, FLOYD E & HELEN A	539 B	BEGONIA ST SE		716								
SPICER, WILLIAM E	840 B	BEGDNIA ST SE		717								
MYERS CONSTRUCTION CO	1202	BEGDNIA ST SE	4	718	4			800				
MYERS CONSTRUCTION CO	1210	BEGONIA ST SE	4	719	4			800				
FASE FAMILY TRUST	526 A	BEGONIA ST SE		720								
FASE, TANNEKE	526 B	BEGONIA ST SE		721								
DEYOUNG, AGNES TRUSTEE	526 C	BEGONIA ST SE		722								
CHRISTOPHER, DDRDTHY M TRUST	536 A	BEGONIA ST SE		723								
LAGEVEEN, DDNNA F TRUSTEE	539 C	BEGDNIA ST SE		724								
SEKEMA, KENNETH & MARTHA	540 A	BEGONIA ST SE		725								
GROSS, FRANK B	540 B	BEGONIA ST SE		726								
WERNER, JOAN B TRUSTEE	545 A	BEGONIA ST SE		727								
KAMMINGA, SHIRLEY TRUSTEE	805 A	BEGONIA ST SE		728								
KARR, RAYMOND & LILLIAN	805 B	BEGONIA ST SE		729								
PATRICK, MARIE TRUSTEE	810 B	BEGONIA ST SE		730								
KRAMER, DORIS L	828 A	BEGONIA ST SE		731								
MAIN, ALICE R	829 A	BEGONIA ST SE		732								
DEKOCK, HELEN	629 B	BEGONIA ST SE		733								
HIELEMA, DOLORES J TRUST	840 A	BEGDNIA ST SE		734								
GOETZ, CHERYL A ETAL	841 A	BEGONIA ST SE		735								
MCCARTHY, THOMAS J &	841 B	BEGONIA ST SE		738								
VORWALD, HENRY C & MARY C	841 C	BEGONIA ST SE		737								
GREMBOWICZ, RAYMOND	841 D	BEGONIA ST SE		738								

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows					Total	Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools		
BOER, MARK W & KAREN G		BEGONIA ST SE		739								
SCHULTZ, ROBERT LEON		BEGONIA ST SE		740								
JASPER COUNTY PUBLIC LIBRARY		BIRCH ST		741								
FIELDHOUSE, DAVID L & CONNIE		BIRCH ST		742								
PETERSON BROS INC		BIRCH ST		743								
RAWLINS, ROBERT L &	305	BIRCH ST NW		744								
EENIGENBURG, DALE A & MARIE G	312	BIRCH ST NW		745								
CANTWELL, ROBERT K II &	324	BIRCH ST NW		746								
RANSFORD, CHARLES L &	329	BIRCH ST NW	1	747	1	500						
WARRAN, MICHAEL D	344	BIRCH ST NW		748								
MCCOMB, RUSSELL KENNETH &	345	BIRCH ST NW	1	749	1	500						
GRANTER, WILLIAM C	404	BIRCH ST NW		750								
CROFFORO, TONY R & KAREN M	405	BIRCH ST NW		751								
ELSNER, GAIL F	413	BIRCH ST NW		752								
SHERMAN, ROBERT E & BARBARA J	414	BIRCH ST NW		753								
SHERMAN, ROBERT E & BARBARA J	414	BIRCH ST NW		754								
DANIELS, VINCENT &	425	BIRCH ST NW		755								
NANNENGA, JASON & JESSICA	436	BIRCH ST NW		756								
VANKEPPEL, JOHN & NORMA J	437	BIRCH ST NW		757								
STEFFEL, LAWRENCE J JR &	500	BIRCH ST NW		758								
BARR, THOMAS A & PAMELA L	507	BIRCH ST NW	1	759	1	500						
RECTOR, KEVIN M & APRIL L	517	BIRCH ST NW		760								
STEPANEK, JOHN M	520	BIRCH ST NW		761								
THOMPSON, SIDNEY & ANITA	527	BIRCH ST NW		762								
LUSBY, THOMAS A & LINDA L	532	BIRCH ST NW		763								
FEIT, DAVID A & JENNIFER A	804	BIRCH ST NW		784								
KUIKEN, DALE M & LAURA J	805	BIRCH ST NW	1	785	1	500						
ZEA, RODNEY M	618	BIRCH ST NW		766								
SPANGLE, DAVID E	617	BIRCH ST NW		767								
HENSEL, CHRIS B & BARBARA A	628	BIRCH ST NW		768								
LABASH, GEORGE A & VINCENT A	629	BIRCH ST NW		769								
T A P S FAMILY LIMITED	638	BIRCH ST NW		770								
LEWANDOWSKI, ROBERT J &	708	BIRCH ST NW		771								
COLBERT, LINDA S	709	BIRCH ST NW	1	772	1	500						
RANSFORD, CHARLES L& CYNTHIA I		BIRCH ST NW		773								
GRANTER, WILLIAM H & DANA L		BIRCH ST NW		774								
BARTON, LARRY E & SHARI	504	BIRCH ST SW		775								
STONE, ROBERT W III	505	BIRCH ST SW		776								
TURNER, LOUISE A	513	BIRCH ST SW		777								
BOON, CHRISTOPHER R &	514	BIRCH ST SW		778								
SHERIDAN, AUBRA R & LAVERNE E	521	BIRCH ST SW		779								
LANE, BERNARD N JR & FRANKIE J	522	BIRCH ST SW	1	780	1	500						
SWANSON, LARRY WAYNE REVOC LIV TR	529	BIRCH ST SW	1	781	1	500						
NANNENGA, ROBERT E & MILDRED	530	BIRCH ST SW		782								
TORRENGA, DAVID A & RUTH	538	BIRCH ST SW		783								
WANTLAND, DEAN J	604	BIRCH ST SW		784								
SCHULTZ, TERRANCE GENE	605	BIRCH ST SW	1	785	1	500						
GRANDCHAMP, KEITH & DIANE L	612	BIRCH ST SW		788								
EENIGENBURG, RICHARD J &	613	BIRCH ST SW	1	787	1	500						
KISTLER, STEPHEN M & JULEE A	621	BIRCH ST SW	1	788	1	500						
BYKERK, CYNTHIA B	622	BIRCH ST SW		789								
NANNENGA, RANDY A	637	BIRCH ST SW		790								
HOEKSTRA, THEODORE H & DONNA J	638	BIRCH ST SW	1	791	1	500						
PSK FAMILY LIMITED PARTNERSHIP	705	BIRCH ST SW		792								
ZELDENRUST, MARY	734	BIRCH ST SW	2	793	2			400				
JASPER COUNTY PUBLIC LIBRARY	901	BIRCH ST SW	1	794	1				800			
BARKER, VIRGIL & HELEN	924	BIRCH ST SW	1	795	1	500						
JASPER COUNTY PUBLIC LIBRARY		BIRCH ST SW		796								
SPURGEON, JEFFREY A	600	BIRCH ST SW		797								
PEREZ, ARIE & MELANIE J CZAPLA	1004	BIRCH ST SW		798								
COFFER, B EVELYN	1010	BIRCH ST SW		799								
COFFER, EVELYN	1020	BIRCH ST SW		800								
YANKAUSKAS, RACHEL R	1305	BIRCH ST SW		801								
FIELDHOUSE, DONALD J &	1317	BIRCH ST SW	1	802	1	500						
RDF LLC	1325	BIRCH ST SW	1	803	1	500						
FIELDHOUSE, DAVID L & CONNIE S	1401	BIRCH ST SW	1	804	1	500						
JASPER COUNTY PUBLIC LIBRARY		BIRCH ST SW		805								

EXHIBIT C-3 2011 Design Flows

						Anticipated Flows						
Tax Owner name	House Number	Property Address	User	Map #	Meter	Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	Comments
TRIPLETT., P WM	8811	BLACKTHORN DR	1	806	1	500						
CHMIELEWSKI, DAVID A	309	CARNATION AVE NE	1	807	1	500						
MYERS, DONALD E	302	CARNATION AVE NE		808								
PRICE, RICHARD W	304	CARNATION AVE NE	1	809	1	500						
MCDERMOTT, CHARLES M & ROSE M	305	CARNATION AVE NE	1	810	1	500						
THORPE, ANNABELLE R & DIANA L	306	CARNATION AVE NE	1	811	1	500						
WU, KE MING & JIA ZHEN	308	CARNATION AVE NE		812								
MYERS, DONALD E	500	CARNATION AVE NE	1	813	1	500						
PFLUGHOEFT, MARK E & CAROL S	311	CARNATION AVE NE	1	814	1	500						
HOPPER, CHARLES C	312	CARNATION AVE NE	1	815	1	500						
MYERS, DONALD E	313	CARNATION AVE NE	1	818	1	500						
NEWBERRY FARMS LLC	314	CARNATION AVE NE	1	817	1	500						
MYERS, DONALD E	315	CARNATION AVE NE	1	818	1	500						
MYERS, DONALD E	318	CARNATION AVE NE	1	819	1	500						
PLIKUHN, DAVID M & LAURA J	317	CARNATION AVE NE		820								
BARTOCK, CLYDE E & ELIZABETH PARKS	318	CARNATION AVE NE	1	821	1	500						
MYERS, GERALDINE	319	CARNATION AVE NE		822								
NEWBERRY FARMS LLC	320	CARNATION AVE NE	1	823	1	500						
GOIN, DEBORAH L	112	CARNATION ST NE	1	824	1	500						
TUINSTRA, JAMES R & JENNIFER N	113	CARNATION ST NE	1	825	1	500						
CULBRETH, KENNETH M	129	CARNATION ST NE	1	826	1	500						
BIRKETT, ANDREW T & SHERYL L	203	CARNATION ST NE	1	827	1	500						
KLOSS, RAYMOND C & CRAIG PAUL	211	CARNATION ST NE	1	828	1	500						
THORNTON, RICHARD M & DEBRA A	219	CARNATION ST NE	1	829	1	500						
HAMSTRA, ALVIN L & NANCY J	231	CARNATION ST NE	1	830	1	500						
NELSON, RUTH E	301	CARNATION ST NE	1	831	1	500						
EQUIHUA, SALVADOR & DELORES	302	CARNATION ST NE	1	832	1	500						
PATRICK, JILLIAN A	304	CARNATION ST NE		833								
GOLENIA, LEAH R	305	CARNATION ST NE	1	834	1	500						
VANDERLUGT, LEONARD &	306	CARNATION ST NE	1	835	1	500						
LUEDTKE, DARRELL & CHRISTINE	307	CARNATION ST NE		836								
MULHERN, MARK W & CECILIA C	308	CARNATION ST NE	1	837	1	500						
BRONISZEWSKI, DOROTHY A & ROBERT J TRUS	500	CARNATION ST NE		838								
BLB MANAGEMENT GROUP LLC	321	CARNATION ST NE		839								
BLB MANAGEMENT GROUP LLC	323	CARNATION ST NE		840								
MAPLE LAKE DEVELOPMENT LLC	303	CARNATION ST NE	4	841	4			800				
HARRISON, RICHARD & JACQUELINE	311	CARNATION ST NE	1	842	1	500						
MAPLE LAKE DEVELOPMENT LLC	315	CARNATION ST NE	1	843	1	500						
ARNOLD, BRENDA J & DEBORAH LYNN MOTT	316	CARNATION ST NE	1	844	1	500						
MORSE, BRYAN A	319	CARNATION ST NE		845								
DEMOTTE TOWN OF - SPENCER PARK	112	CARNATION ST SE	1	846	1							
DEMOTTE TOWN OF - SPENCER PARK	112	CARNATION ST SE	1	847	1							
RETZLAFF, GENE & BETTYE J	126	CARNATION ST SE	1	848	1	500						
DEBSHAW, RAYMOND J	540	CARNATION ST SE	1	849	1	500						
PINES APARTMENTS OF DEMOTTE	621	CARNATION ST SE	1	850				4800				
SCHULTZ, DEBORAH H	628	CARNATION ST SE	2	851	2			400				
INDIANA PROPERTY MANAGEMENT, INC	885	CARNATION ST SE	4	852	4			800				
WAMPLER, ROGER	701	CARNATION ST SE		853								
KAPER, ROBERT S JR & TARA LYNN	803	CARNATION ST SE		854								
HARRIS, PEGGY ANN	813	CARNATION ST SE	1	855	1	500						
HUBERS, AMBER D	814	CARNATION ST SE		856								
MESSMAKER, KEVIN & DEBORAH	822	CARNATION ST SE		857								
CHITTENDEN, PAUL W JR &	825	CARNATION ST SE		858								
TIEDE, TAMMY A	830	CARNATION ST SE		859								
STELLINGWERF, MARILYN I	833	CARNATION ST SE	1	860	1	500						
MARSHALL, HOWARD L	841	CARNATION ST SE	1	861	1	500						
KELSON, WILLIAM A & AUDREY M	901	CARNATION ST SE	1	862	1	500						
HAAN, EFFIE	904	CARNATION ST SE	1	863	1	500						
FRANTZ, LORRAINE J	904	CARNATION ST SE	1	864	1	500						
DEMSKE, LEONARD F & ALICE	1003	CARNATION ST SE	1	865	1	500						
PILARSKI, GLORIA & STEPHEN	1004	CARNATION ST SE	1	868	1	500						
KUSTRON, BERNICE	1005	CARNATION ST SE	1	867	1	500						
GKC FAMILY PARTNERSHIP OF	1005	CARNATION ST SE	1	868	1	500						
MILLER, RICHARD THOMAS SR REVOC TRUST	1006	CARNATION ST SE	1	869	1	500						
ROOP, PAT L	1007	CARNATION ST SE	1	870	1	500						
OZIMEC, THOMAS P & SHIRLEY J	1008	CARNATION ST SE	1	871	1	500						
REID, HELEN M	1010	CARNATION ST SE	1	872	1	500						

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows: Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	Comments
ALEXANDER, LORA P	1010	CARNATION ST SE	1	873	1	500						
HACK, KEITH	1105	CARNATION ST SE		874								
MAKI, RANDY L & LORI ANN	1106	CARNATION ST SE		875								
HENNING, ADAM	1113	CARNATION ST SE		876								
SALATAS, THOMAS A	1114	CARNATION ST SE		877								
HEMPHILL, NORMAN GEORGE JR &	1117	CARNATION ST SE		878								
DYKE, JOHN A & MARK A DYKE	1125	CARNATION ST SE	1	879	1	500						
VANSCHEPAN, SEDNEY & ANN	1221	CARNATION ST SE	1	880	1	500						
SCHULTZ, TERRY D	1223	CARNATION ST SE		881								
BAUMAN, PAUL STEPHEN		CARNATION ST SE		882								
KAPER, ROBERT S JR & TARA LYNN		CARNATION ST SE		883								
BAUMAN, PAUL STEPHEN		CARNATION ST SE		884								
DEBSHAW, RAYMOND J &		CARNATION ST SE		885								
SCHULTZ, TERRY D		CARNATION ST SE		886								
DEBSHAW, RAYMOND J &		CARNATION ST SE		887								
GROVES, ROBERT W & DORIS J	1001	CARNATION ST SE	1	888	1	500						
JOHLER, RALPH L & LOIS	1001	CARNATION ST SE	1	889	1	500						
SWANSON, ROBERT A ETAL	1002	CARNATION ST SE	1	890	1	500						
HOLLEY, KENNETH E & METHA M	1002	CARNATION ST SE	1	891	1	500						
JOHLER, RALPH L & LOIS	1001 B	CARNATION ST SE		892								
SANDERS, RUSSELL	6942	CASTILIAN ST		893								
LEISGE, JOHN S & DELORES E	6973	CASTILIAN ST		894								
PERSELLO, ALFRED A & ANN A	6977	CASTILIAN ST		895								
PINT, JAMES J & LINDA M	6976	CASTILIAN ST		896								
ZORNIGER FAMILY TRUST	6979	CASTILIAN ST		897								
FALLON, JOHN R JR & EDYTHE L	6981	CASTILIAN ST		898								
DODSON, MICHAEL R & TONI L	6994	CASTILIAN ST		899								
SCHRINER, ROBERT D	313	CEDAR ST NW		900								
RAYMOND, WILLIAM JAMES	316	CEDAR ST NW		901								
SALTARSKI, JUSTIN R & STACI M	324	CEDAR ST NW		902								
JENKINS, JAMES J & CHRISTIE C	325	CEDAR ST NW		903								
BUHRING, DANIEL D & SUSAN M	340	CEDAR ST NW		904								
DEVRIES, ROBERT & BEVERLY	341	CEDAR ST NW		905								
CROSS, HUBERT J & MARY J	362	CEDAR ST NW	1	906	1	500						
PATTERSON, ELIZABETH	404	CEDAR ST NW		907								
PELDO, GARY E & MARCIA A	405	CEDAR ST NW		908								
BELSTRA, ZACHARY C & SAMANTHA	416	CEDAR ST NW	1	909	1	500						
HOUSER, SHARON	417	CEDAR ST NW	1	910	1	500						
BURNS, TONI L	419	CEDAR ST NW	1	911	1	500						
RETZLAFF, SCOTT A & KAREN	424	CEDAR ST NW		912								
KNUDSEN, GENE S	425	CEDAR ST NW		913								
FLAMME, ROBERT & VERNELL	436	CEDAR ST NW	1	914	1	500						
BEEDLE, DUSTY R & MARLENE A	437	CEDAR ST NW		915								
KALUF, KEVIN J	500	CEDAR ST NW		916								
VELASQUEZ, TONY & NORA J	501	CEDAR ST NW		917								
CREGO, DOLE S SR & KAREN D	504	CEDAR ST NW		918								
FORDHAM, GREG & MARY JO	520	CEDAR ST NW		919								
WILLIAMS, FRANK J & DEBRA M	521	CEDAR ST NW		920								
DICOSOLA, MICHAEL & JANE	535	CEDAR ST NW		921								
KESSINGER, MARTEN L & ESTHER J	536	CEDAR ST NW		922								
PAPENFUS, CRAIG & RUTH	804	CEDAR ST NW		923								
HOMANS, ROBERT & MINNIE	805	CEDAR ST NW		924								
DEVRIES, GERRIT H & DIANE S	817	CEDAR ST NW	1	925	1	500						
HOLM, RICHARD A & GLENDYNE J	616	CEDAR ST NW		926								
UTERMARK, DAVID A & CAROLE H	628	CEDAR ST NW	1	927	1	500						
FASE, JOHN R & PATRICIA A	712	CEDAR ST NW	1	928	1	500						
GARDINER, CHARLENE L TRUSTEE	715	CEDAR ST NW		929								
GARDINER, CHARLENE L TRUSTEE		CEDAR ST NW		930								
VANKEPPEL, GERRIT		CEDAR ST NW		931								
DEVRIES, GERRIT H & DIANNE S		CEDAR ST NW		932								
GOUWENS, JAMES T & PHYLLIS J	505	CEDAR ST SW	1	933	1	500						
GOOCH, JERRY C & MARY E	513	CEDAR ST SW	1	934	1	500						
BEUKEMA, WALTER V & NANCY D	514	CEDAR ST SW		935								
LAMKA, WALTER T & CYNTHIA C	521	CEDAR ST SW	1	936	1	500						
VIRUS, JOHN & ADELINE C	524	CEDAR ST SW		937								
MCKIM, MATTHEW W & DARLA K	526	CEDAR ST SW	1	938	1	500						
INGRAM, CHRISTOPHER A &	529	CEDAR ST SW	1	939	1	500						

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows						Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
MUSCH, HILDA	535	CEDAR ST SW		940								
LAMP, MICHAEL L	538	CEDAR ST SW		941								
HUBERS, SYLVAN & BERNICE	800	CEDAR ST SW		942								
VANKEPPEL, ELIZABETH	809	CEDAR ST SW		943								
GABLE STEVEN R	810	CEDAR ST SW	1	944	1	500						
COOLEY, CHARLES J & THELMA	815	CEDAR ST SW		945								
DEFRIES, KEVIN J & CAROL A	820	CEDAR ST SW		946								
GORNIAK, RONALD E & SYLVIA	833	CEDAR ST SW		947								
HIGGINS, GARY WILLIAM &	838	CEDAR ST SW		948								
LOTT, MARILYN	1122	CEDAR ST SW		949								
SCHULTZ, BRANDON W	1129	CEDAR ST SW		950								
COWLES, ROBERT C & LINDA A	1130	CEDAR ST SW		951								
STRONG, ALAN L & TRUDY A	1209	CEDAR ST SW		952								
BOLING, STEVEN K & VICKIE S	1210	CEDAR ST SW		953								
HOEHN, STEWART A & JENNIFER K	1230	CEDAR ST SW		954								
GINKEL, BURLEIGH F & DONNA M	1269	CEDAR ST SW		955								
BURTON, ERNESTINE L	1312	CEDAR ST SW		956								
DEERBERG, DIANE L	1325	CEDAR ST SW		957								
WEBSTER, VERONICA L	1326	CEDAR ST SW		958								
SPENDER, CALVIN G & NANCY	1409	CEDAR ST SW		959								
GUERRERO, MICHAEL A & LORI R	1418	CEDAR ST SW	1	960	1	500						
BURROUGHS, KENNETH L & SUSAN P	1425	CEDAR ST SW	1	961	1	500						
BARCELLI, JOSEPH A & CAROLYN J		CEDAR ST SW		962								
JANSMA ENTERPRISE LLC	801	DAISY CIR NE		963								
STONE, COLLEEN E	811	DAISY CIR NE		964								
BAILEY, JASON & LOIS R	813	DAISY CIR NE	1	965	1	500						
RIPLEY, TERRY F & CONSTANCE L	823	DAISY CIR NE		966								
LAKE COUNTY TRUST CO TRUSTEE	825	DAISY CIR NE	1	967	1	500						
STANLEY, JEREMY E	841	DAISY CIR NE		968								
EENIGENBURG BUILDERS INC	842	DAISY CIR NE		969								
POREMSKI, SYLVIA F	844	DAISY CIR NE	1	970	1	500						
JANSMA ENTERPRISE LLC	802	DAISY CIR NE		971								
JANSMA ENTERPRISE LLC	803,805	DAISY CIR NE		972								
JANSMA ENTERPRISE LLC	804	DAISY CIR NE		973								
JANSMA ENTERPRISE LLC	806	DAISY CIR NE		974								
JANSMA ENTERPRISE LLC	807,809	DAISY CIR NE		975								
ZELDENRUST, JOHN JR & ANNA M	808	DAISY CIR NE		976								
KLEPSER, WILLIAM D & SHEILA A	810	DAISY CIR NE		977								
EENIGENBURG BUILDERS INC	812	DAISY CIR NE		978								
TAYLOR, RYAN C & KRISTIN L	818	DAISY CIR NE	1	981		500						
HANSEN, AMANDA L	817	DAISY CIR NE		982								
BYRNE, JAMES J	818	DAISY CIR NE		983								
BEASLEY, LARRY A & LYNN F	820	DAISY CIR NE		984								
JANSMA ENTERPRISE LLC	822	DAISY CIR NE		985								
JANSMA ENTERPRISE LLC	824	DAISY CIR NE		988								
LHOTKA, GAIL	827	DAISY CIR NE		987								
JANSMA ENTERPRISE LLC	830,832	DAISY CIR NE		988								
ACHOR, HARLAND E & GEORGIA C	831	DAISY CIR NE		989								
BERG, ROBERT E & BETTY J	833	DAISY CIR NE		990								
MARTINEZ, JERROLD J	834, 836	DAISY CIR NE		991								
FOSTER, HOWARD & KATHY	834, 838	DAISY CIR NE		992								
JANSMA ENTERPRISE LLC	835	DAISY CIR NE		993								
BAILEY, CLIFFORD A & SHANNON L	837	DAISY CIR NE		994								
EENIGENBURG BUILDERS INC	838,840	DAISY CIR NE		995								
BILLY, MICHAEL A	839	DAISY CIR NE		998								
YOUNG, DEREK & TRACY BLANKINSHIP	843	DAISY CIR NE		997								
JANSMA ENTERPRISE LLC	845	DAISY CIR NE		998								
EENIGENBURG BUILDERS INC	846,848	DAISY CIR NE		999								
JANSMA ENTERPRISE LLC	847	DAISY CIR NE		1000								
JANSMA ENTERPRISE LLC	850,852	DAISY CIR NE		1001								
BACH, ILENE C	851	DAISY CIR NE		1002								
JANSMA ENTERPRISE LLC	853	DAISY CIR NE		1003								
JANSMA ENTERPRISE LLC	854,858	DAISY CIR NE		1004								
ANDERSON, PAMELA J	505	DAISY ST SE		1005								
KAPPES, RAYMOND D	506	DAISY ST SE	1	1006	1	500						
STARKEY, KIM	513	DAISY ST SE		1007								
GUSTAFSON, STEVEN W & NANCY A	518	DAISY ST SE	1	1008	1	500						

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	Ueer	Map #	Meter	Anticipated Flows						Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
STEFEL, SARAH E	521	DAISY ST SE		1009								
NEIGHBOR, EVELYN H	530	DAISY ST SE	1	1010	1	500						
DYKSHORN, PETER J & KELLY	535	DAISY ST SE		1011								
NABORS, RONALD E & WILLETTA	538	DAISY ST SE	1	1012	1	500						
PLOPPER, JOHN A & HENDRIKA M C	545	DAISY ST SE	1	1013	1	500						
LAGESTEE, BRYAN L & RACHELLE L	550	DAISY ST SE	1	1014	1	500						
WINTER, PAUL E	605	DAISY ST SE		1015								
FRICKE, KEVIN	606	DAISY ST SE	1	1016	1	500						
THOMASSON, ROMIE B III &	613	DAISY ST SE		1017								
SCHULTZ, JEFFREY D TERENCE D	614	DAISY ST SE		1018								
ALEXANDER, FRANK L & DORIS E	621	DAISY ST SE	1	1019	1	500						
BAIRD, MICHAEL LEE	633	DAISY ST SE		1020								
DOOGE, CHARLES R & CYNTHIA	634	DAISY ST SE		1021								
HOFFMAN, BRYAN D	701	DAISY ST SE		1022								
SMITH, ERIN M	709	DAISY ST SE		1023								
BAUMAN, PAUL STEPHEN & ALANA K	830	DAISY ST SE		1024								
NIKOLAS, SCOTT & DIANE L 1/2 &	1106	DAISY ST SE	2	1025	2			400				
DYKSTRA, GLEN E TR & CONNIE J TRUSTEE	1121	DAISY ST SE	2	1026	2			400				
ZELDENRUST, MARY	1122	DAISY ST SE	2	1027	2			400				
FRANTAL, JAMES JR RAMONA	1202	DAISY ST SE	2	1028	2			400				
TIEMENS, JAMES E & SANDRA L	1210	DAISY ST SE	2	1029	2			400				
PATRICK, AMY E	1217	DAISY ST SE		1030								
FRENCH, RAE ANN	1216	DAISY ST SE	1	1031	1	500						
VANKORP CORPORATION	1604	DAISY ST SE		1032								
VANKORP CORPORATION	1608	DAISY ST SE		1033								
VANKORP CORPORATION	1611	DAISY ST SE		1034								
VANKORP CORPORATION	1612	DAISY ST SE		1035								
VANKORP CORPORATION	1615	DAISY ST SE		1036								
VANKORP CORPORATION	1616	DAISY ST SE		1037								
VANKORP CORPORATION	1620	DAISY ST SE		1038								
VANKORP CORPORATION	1621	DAISY ST SE		1039								
RITCHIE INVESTMENTS LLC	1624	DAISY ST SE		1040								
VANKORP CORPORATION	1625	DAISY ST SE		1041								
HAMSTRA INVESTMENTS LLC	1628	DAISY ST SE		1042								
VANKORP CORPORATION	1702	DAISY ST SE		1043								
KERNS, ARTHUR & JULIE	1705	DAISY ST SE		1044								
VANKORP CORPORATION	1711	DAISY ST SE		1045								
GRBET LLC	1713	DAISY ST SE	2	1046	2			400				
CHAMNESS, JASON	1805	DAISY ST SE		1047								
CHAMNESS, JASON	1809	DAISY ST SE		1048								
CHAMNESS, JASON	1813	DAISY ST SE		1049								
MILDE, GEORGE R JR	1113, 1117	DAISY ST SE		1050								
HEMPHILL, NORMAN GEORGE JR &	1114-1116	DAISY ST SE		1051								
VANSCHEPEN, JOHN & WILMINA	1114-1116	DAISY ST SE		1052								
RSK GROUP LLC	1207	DAISY ST SE	2	1053	2			400				
VANKORP CORPORATION	1710, 1712	DAISY ST SE		1054								
RITCHIE INVESTMENTS LLC	1714,1716	DAISY ST SE		1055								
HAMSTRA INVESTMENTS LLC	1602	DAISY ST SE		1056								
BARNETT, DENNIS G & KATHLEEN J	1806	DAISY ST SE	2	1057	2			400				
VANKORP CORPORATION	1610	DAISY ST SE		1058								
PALERMO, JOHN A & ROBIN CIMOCH	1814	DAISY ST SE		1059								
TOPPEN PROPERTIES LLC		DAISY ST SE		1060								
HUGHES, ROBERT J JR		DeMotte 46500		1061								
KEENER TOWNSHIP OF JASPER CO IN		DEMOTTE 46500		1082								
TOPPEN, MELVIN J & RITA J		DEMOTTE 46500		1083								
EENIGENBURG BUILDERS INC		DEMOTTE 46500		1064								
EENIGENBURG BUILDERS INC		DEMOTTE 46500		1065								
NANNENGA, DAVID E	417	DIVISION ST E		1088								
YENCHUS, RAYMOND J &	419	DIVISION ST E		1067								
SCHULTZ, JEFFREY D & DEBRA K	420	DIVISION ST E	2	1068	2			400				
SCHULTZ, JEFFREY D	428	DIVISION ST E	2	1069	2			400				
GOEMAAT, LAURA MAY &	501	DIVISION ST E		1070								
KOVECSI, JAMES J JR & SHERRI	529	DIVISION ST E	1	1071	1	500						
MORRIS, ROBERT E & CONNIE S	720	DIVISION ST E		1072								
KRUCHOWSKI, TIMOTHY L &	818	DIVISION ST E	1	1073	1	500						
VANSCHEPEN, JOHN & WILMINA V	921	DIVISION ST E		1074								
RAYNER, JAMES E JR &	1001	DIVISION ST E		1075								

EXHIBIT C-3 2011 Design Flows

						Anticipated Flows						
Tax Owner name	House Number	Property Address	User	Map #	Meter	Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	Comments
MOOLENAAR, ANNA J	1028	DIVISION ST E		1078								
HENNING, ADAM 1/2 &		DIVISION ST E		1077								
DEMOTTE, TOWN OF		DIVISION ST E		1078								
BROOKER, RANDY P		DIVISION ST E		1079								
ANDERSON, GLEN THOMAS &		DIVISION ST E		1080								
PINE CREST ESTATES LLC		DIVISION ST E		1081								
DEMOTTE, TOWN OF		DIVISION ST E		1082								
VANVUREN, JACOB J & DONNA M		DIVISION ST E		1083								
GARTON, HERBERT		DIVISION ST E		1084								
CHAPPELL, NORMAN P &		DIVISION ST E		1085								
COUNTRY PLACE APARTMENTS XLI	157	DIVISION ST E	1	1086	1			4800				
BEWLEY, THEODORE A & TARA L	228	DIVISION ST E		1087								
KAIN, RYAN A &	238	DIVISION ST E		1088								
BROOKER, RANDY P	305	DIVISION ST E		1089								
MARTIN JEFFREY & DONNA	318	DIVISION ST E	1	1090	1	500						
HUHN, HAROLD WAYNE &	1017	DIVISION ST E		1091								
STEINMETZ, ANTHONY W & DORIS	1021	DIVISION ST E		1092								
MOOLENAAR, PHILIP D & GLORIA J	1032	DIVISION ST E		1093								
VANVUREN, JACOB JOHN &	1113	DIVISION ST E		1094								
VANVUREN, JACOB J & DONNA M	1201	DIVISION ST E		1095								
COLVIN, FRANK & ROSEMARY REV	1209	DIVISION ST E		1096								
LINS, DENNIS P & LORI R	1223	DIVISION ST E		1097								
ANDERSON, GLEN THOMAS &	1229	DIVISION ST E	1	1098	1	500						
MCDANIEL, JEFFERY A &	1500	DIVISION ST E		1099								
KEETON, JONATHAN R &	1318	DIVISION ST E		1100								
MEYER, WILLIAM W & NANCI J	1404	DIVISION ST E		1101								
WALKER, BRUCE W & LINDA L	1409	DIVISION ST E		1102								
CARFELLO, DAVID & JOAN H	200	DIVISION ST W	1	1103	1	500						
OAK GROVE CHRISTIAN RETIREMENT	221	DIVISION ST W	1	1104	1				8000			80 beds
HAMSTRA, FREDERICK H ET AL	312	DIVISION ST W	1	1105	1	500						
TAULBEE, HOMER V JR &	409	DIVISION ST W		1106								
SCHULTZ, JEFFREY D TERENCE D	424	DIVISION ST W	1	1107	1	500						
GRIFFIN, MARK A & JAMELYN S	425	DIVISION ST W	1	1108	1	500						
SCHULTZ, ROBERT & MAUREEN	501	DIVISION ST W	1	1109	1	500						
MYERS, MARILYN L	502	DIVISION ST W	1	1110	1	500						
GILLESPIE, RONALD D &	508	DIVISION ST W		1111								
KOOY, RANDY L & DIANA S	524	DIVISION ST W		1112								
MUSCH, GREG A & JOLENE	801	DIVISION ST W	1	1113	1	500						
TRAVERS, ANTHONY	623	DIVISION ST W		1114								
OPOLSKI, MARK & DIANE	708	DIVISION ST W	1	1115	1	500						
GRAND PROPERTY GROUP LLC	709	DIVISION ST W		1118								
OPOLSKI, ANDREW T	713	DIVISION ST W	1	1117	1	500						
SCHULTZ, JEFFREY D & TERRY D	716	DIVISION ST W	1	1118	1	500						
LAMP, MICHAEL L	717	DIVISION ST W		1119								
NORTHERN IN PUBLIC SERVICE CO	718	DIVISION ST W		1120								
FLORY, PATRICIA B	723	DIVISION ST W	1	1121	1	500						
DEVRIES FAMILY TRUST	730	DIVISION ST W		1122								
TIEMENS, DAVID & TRACEY	813	DIVISION ST W	1	1123	1	500						
JABAAY, NELSON & ANN E	815	DIVISION ST W		1124								
SCHOON, CYNTHIA LYNN	828	DIVISION ST W	1	1125	1	500						
JABAAY, NELSON & ANN E	833	DIVISION ST W		1126								
BOGNER, KIMBERLY ANN KRAMER	921	DIVISION ST W	1	1127	1	500						
DONNELLY, PATRICK W & MARY E	1006	DIVISION ST W		1128								
SABOL, DAVID J & ANITA J	1025	DIVISION ST W		1129								
SCHLARP, ROBERT L & SHIRLEY J	1109	DIVISION ST W		1130								
PETERSON BROS INC		DIVISION ST W		1131								
KOOY, RANDY L & DIANA S		DIVISION ST W		1132								
PETERSON BROS INC		DIVISION ST W		1133								
SCHULTZ, ROBERT L & MAUREEN J		DIVISION ST W		1134								
SCHULTZ, ROBERT L & MAUREEN J		DIVISION ST W		1135								
KOOY, RANDY & DIANA		DIVISION ST W		1136								
KUIPERS, KRISTIN JOY	701	DOGWOOD CT SW		1137								
STUBBLEFIELD, ROBERT & CAROL	703	DOGWOOD CT SW	1	1138	1	500						
WILLIAMS, SHIRLEY J	705	DOGWOOD CT SW	1	1139	1	500						
BAHR, SARA TRUST	707	DOGWOOD CT SW	1	1140	1	500						
SEARS, RICHARD ALLEN	708	DOGWOOD CT SW	1	1141	1	500						
STERK, DOROTHY	710	DOGWOOD CT SW	1	1142	1	500						

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows						Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
DEVRIES, EILEEN F	712	DOGWOOD CT SW	1	1143	1	500						
KINGMA, HENRIETTA T TRUST	714	DOGWOOD CT SW	1	1144	1	500						
SECRETARY OF VETERANS AFFAIRS	132	DOGWOOD ST NW		1145								
KRETZ, WILLIAM & PHYLLIS	220	DOGWOOD ST NW	1	1146	1	500						
SEBELLA, MICHELLE A &	309	DOGWOOD ST NW		1147								
JAMROSE, DAVID A	319	DOGWOOD ST NW		1148								
MEZZACAPO, WILLIAM P & ELLEN M	329	DOGWOOD ST NW	1	1149	1	500						
WALLACE, JAMES K & TRUDY D	345	DOGWOOD ST NW		1150								
SHIELDS, M JAMES & EILEEN	404	DOGWOOD ST NW		1151								
LISS, HENRY & JEAN J	405	DOGWOOD ST NW		1152								
WILBOURNE, THOMAS K JR	412	DOGWOOD ST NW		1153								
AUWERDA, HENRY J & JUDY A	440	DOGWOOD ST NW	1	1154	1	500						
STRUBLE, IRENE ROSE TRUSTEE	441	DOGWOOD ST NW		1155								
SWIM, JERRY L & ELLAREE ANN	500	DOGWOOD ST NW		1158								
HANCOCK, GILBERT V & ROSEMARY	501	DOGWOOD ST NW		1157								
SCHLIEMANN, ROBERT W &	520	DOGWOOD ST NW		1156								
KINNE, SETH T	521	DOGWOOD ST NW		1159								
JANSEN, BILLY L & MIRIAM L	532	DOGWOOD ST NW		1160								
TYSEN, BERNARD & EVELYN	533	DOGWOOD ST NW		1161								
SCHULTZE, RONALD E & LINDA P	805	DOGWOOD ST NW	1	1162	1	500						
VANKLEY, ARTHUR G & VICKI S	717	DOGWOOD ST NW		1163								
BEDNARZ, THOMAS J	808	DOGWOOD ST NW		1164								
WARREN, STEVEN M & PATRICIA S	809	DOGWOOD ST NW		1165								
SUTHERLAND, ARLA D	618	DOGWOOD ST NW	1	1188	1	500						
GIBSON, EDWARD G & LINDA R	821	DOGWOOD ST NW		1167								
KAMANO, BRADLEY A & LISA K SCHEFFER	832	DOGWOOD ST NW	1	1168	1	500						
NULL, GLORIA J	835	DOGWOOD ST NW		1169								
BOONSTRA, RANDALL J & SHARON F	884	DOGWOOD ST NW		1170								
KAISER, MARK S & JENNIFER L	916	DOGWOOD ST NW		1171								
DS DEXTER RENTALS LLC	1009	DOGWOOD ST NW	2	1172	2			400				
TOWN & COUNTRY PROPERTIES LLC/TONI BURN	604	DOGWOOD ST NW	1	1173	1			200				
VANKEPPEL, GERRIT	617	DOGWOOD ST NW		1174								
SCHULTZ, MITCHELL S	618	DOGWOOD ST NW		1175								
SCHULATZ, LAURENCE & CATHY L	621	DOGWOOD ST NW		1176								
LISS, HENRY & JEAN		DOGWOOD ST NW		1177								
SCHULTZ, JEFFREY D TERENCE D		DOGWOOD ST NW		1178								
HATOS, JAMES D & JULIE J NYTKO	501	DOGWOOD ST SW	1	1179	1	500						
WILLINGHAM, MARSHALL T &	502	DOGWOOD ST SW		1180								
BOYER, DEL REY & PAULA	505	DOGWOOD ST SW	1	1181	1	500						
KOSELKE, DANIEL J & JENNIFER L	506	DOGWOOD ST SW	1	1182	1	500						
WARSING, CARL D	509	DOGWOOD ST SW	1	1183	1	500						
BOWRON, CAROL A	510	DOGWOOD ST SW	1	1184	1	500						
ROBERTS, MICHAEL J	513	DOGWOOD ST SW	1	1185	1	500						
FRANZ, THOMAS A	514	DOGWOOD ST SW		1186								
ADAMS, WANDA C	517	DOGWOOD ST SW	1	1187	1	500						
BARNES, BARBARA J	518	DOGWOOD ST SW	1	1188	1	500						
CANNON, JAMES W & HELGA J	601	DOGWOOD ST SW	1	1189	1	500						
EVANS, FRED & RUTH	602	DOGWOOD ST SW	1	1190	1	500						
HOLLEY, WALTER C &	605	DOGWOOD ST SW		1191								
SOBOLESKI, DEBORAH L	606	DOGWOOD ST SW	1	1192	1	500						
JABAAY, RAYMOND & GERALDINE R	609	DOGWOOD ST SW	1	1193	1	500						
DEVRIES, JACKSON L & PATRICIA A	610	DOGWOOD ST SW	1	1194	1	500						
HOEKSTRA, DREWES R & EVELYN G	613	DOGWOOD ST SW	1	1195	1	500						
UHRHAMMER, PETE & DOROTHY L	614	DOGWOOD ST SW	1	1196	1	500						
SCHULTZ, JEFFREY D TERENCE D	909	DOGWOOD ST SW		1197								
MELTON, JODY & MAUREEN	910	DOGWOOD ST SW	1	1198	1	500						
BROWN, FRIEDA M	913	DOGWOOD ST SW		1199								
CULLINGS, DAWN R	914	DOGWOOD ST SW		1200								
HOWARD, BERT A JR	926	DOGWOOD ST SW		1201								
LELOIS, VERNON A & MARY F	1008	DOGWOOD ST SW	2	1202	2			400				
STUBBLEFIELD, STEVEN L &	1001-1005	DOGWOOD ST SW		1203								
WOODS, JOSEPH R	1002-1006	DOGWOOD ST SW		1204								
MOOLENAAR, LORRAINE SUE		DOGWOOD ST SW		1205								
SCHULTZ, JEFFREY D TERENCE D		DOGWOOD ST SW		1206								
KOSANOVICH, LARRY M		DOGWOOD ST SW		1207								
MELTON, JODY & MAUREEN		DOGWOOD ST SW		1208								
CHEEVER, STANLEY		DOGWOOD ST SW		1209								

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows						Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
VANKORP CORPORATION	1704	ELDERBERRY CIR SE		1210								
VANKORP CORPORATION	1710	ELDERBERRY CIR SE		1211								
VANKORP CORPORATION	1714	ELDERBERRY CIR SE		1212								
KOCH, CARL/RAGLAN, CARLA	1716	ELDERBERRY CIR SE	1	1213	1	500						
BENAGE, DUANE L & NORMA J	1719	ELDERBERRY CIR SE		1214								
VANKORP CORPORATION	1726	ELDERBERRY CIR SE		1215								
KOCH, DALE	1726	ELDERBERRY CIR SE		1216								
VANKORP CORPORATION	1730	ELDERBERRY CIR SE		1217								
TMT BUILDERS INC/ MICHAEL & AMY RAE	1734	ELDERBERRY CIR SE	1	1218	1	500						
VANKORP CORPORATION	1735	ELDERBERRY CIR SE		1219								
VANKORP CORPORATION	1738	ELDERBERRY CIR SE		1220								
RISNER, DAVID L	1742	ELDERBERRY CIR SE		1221								
GRAND INNOVATIONS INC	1746	ELDERBERRY CIR SE		1222								
BRACICH, ROBERT P & GERALDINE	1750	ELDERBERRY CIR SE		1223								
BADOWSKI, CYNTHIA J	334	ELDERBERRY ST SE	1	1224	1	500						
RAINWATER, THOMAS E & HOPE L	502	ELDERBERRY ST SE		1225								
SEGALLY, VICTOR V & BETTE L	505	ELDERBERRY ST SE	1	1226	1	500						
BEOUGHER, CARL E & PAMELA S	509	ELDERBERRY ST SE	1	1227	1	500						
SAMPSON, MICHAEL H & KATHERINE	514	ELDERBERRY ST SE	1	1228	1	500						
RICKER, DEBORAH A	526	ELDERBERRY ST SE		1229								
JURS, ADAM J	529	ELDERBERRY ST SE		1230								
ABBRING, GENEVIEVE P	534	ELDERBERRY ST SE		1231								
LONGFELLOW, SANDRA JO	537	ELDERBERRY ST SE	1	1232	1	500						
MACKALL, JOEL S	602	ELDERBERRY ST SE		1233								
MYERS, STEVEN M & ANN M	605	ELDERBERRY ST SE		1234								
POISEL, ROGER D & YVONNE R	610	ELDERBERRY ST SE		1235								
MIDDLETON, LARRY & MARILYN A	614	ELDERBERRY ST SE		1236								
CARR, HELEN	617	ELDERBERRY ST SE	1	1237	1	500						
FASE, MARVIN HENRY & MARJORIE	626	ELDERBERRY ST SE	1	1236	1	500						
GURNEY, CHARLES E & IVA F	629	ELDERBERRY ST SE		1239								
JACOBSEN ENTERPRISES LLC	634	ELDERBERRY ST SE		1240								
FREDERICK, ROBERT HAROLD &	716	ELDERBERRY ST SE		1241								
POST, KEVIN L & VALARIE S	721	ELDERBERRY ST SE	1	1242	1	500						
CARUSO, PHILLIP J	722	ELDERBERRY ST SE		1243								
VANKORP CORPORATION	1601	ELDERBERRY ST SE		1244								
VANKORP CORPORATION	1605	ELDERBERRY ST SE		1245								
VANKORP CORPORATION	1610	ELDERBERRY ST SE		1248								
VANKORP CORPORATION	1611	ELDERBERRY ST SE		1247								
VANKORP CORPORATION	1614	ELDERBERRY ST SE		1248								
VANKORP CORPORATION	1615	ELDERBERRY ST SE		1249								
VANKORP CORPORATION	1620	ELDERBERRY ST SE		1250								
VANKORP CORPORATION	1621	ELDERBERRY ST SE		1251								
VANKORP CORPORATION	1624	ELDERBERRY ST SE		1252								
VANKORP CORPORATION	1625	ELDERBERRY ST SE		1253								
COFFING, H EUGENE	204	ELDERBERRY ST SE		1254								
BER, SHIRLEY C REVOC TRUST	214	ELDERBERRY ST SE		1255								
GANN, RICHARD M & PATTY A	224	ELDERBERRY ST SE		1256								
KNOERZER, KEVIN M & MEGGIN A CRIM	234	ELDERBERRY ST SE		1257								
VANDERWALL, DONALD L	304	ELDERBERRY ST SE		1258								
HOWARD, MICHAEL & KAREN L	314	ELDERBERRY ST SE		1259								
SCHULTZ, ROBERT L JR &	324	ELDERBERRY ST SE		1260								
PRATT ENTERPRISES LLC	335	ELDERBERRY ST SE		1261								
SCHULTZ, ROBERT L JR &	344	ELDERBERRY ST SE		1262								
BISHOP, ROBERT L & NICOLE J	641	ELDERBERRY ST SE		1263								
LONGFELLOW, SANDRA J		ELDERBERRY ST SE		1264								
ORSINI, FRANK W & KATHY I	440	ELM CT NW	1	1265	1	500						
MOORE, KAYLA	441	ELM CT NW		1266								
LENGYEL, ATTILA & SUSAN	448	ELM CT NW	1	1267	1	500						
BACCINO, JIM & SHERRY L	449	ELM CT NW	1	1268	1	500						
KENDALL, FRANCES L	500	ELM CT NW	1	1269	1	500						
CSANYI, GERALD & PAMELA	501	ELM CT NW	1	1270	1	500						
GRAUN, EDWIN J & EDNA M	508	ELM CT NW	1	1271	1	500						
MEHAY, WILLIAM R & KIMBERLY	509	ELM CT NW	1	1272	1	500						
VANDERMEER, ALAN	705	ELM CT SW	1	1273	1	500						
OAKS, LINDA	501	ELM ST SW		1274								
PRESTE, LOUIS & VIRGINIA	502	ELM ST SW		1275								
BISTO, ANITA L	505	ELM ST SW		1276								

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows						Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
GRAY, JOHN C III & DIANE D	506	ELM ST SW	1	1277	1	500						
WALKER, PATRICK & JACQUELINE K	509	ELM ST SW		1278								
HILDEBRAND, TIMOTHY	510	ELM ST SW		1279								
VENEMA, JOSEPH P & RACHAEL R	513	ELM ST SW	1	1280	1	500						
GARLICH, WILBUR DEAN REVOC	514	ELM ST SW		1281								
SPANIOL, DIANNE J	517	ELM ST SW	1	1282	1	500						
SCHURMAN, ROBERT L & BONNIE J	518	ELM ST SW		1283								
POLUS, RICHARD A & BARBARA S	601	ELM ST SW		1284								
SHEEHY, JACOB V & MARY E	602	ELM ST SW		1285								
NEAL, GALE L & LINDA L	605	ELM ST SW		1286								
MALINOWSKI, LEONARD M &	606	ELM ST SW		1287								
LERNER, EUGENE J &	609	ELM ST SW	1	1288	1	500						
MIKOVETZ, MICHAEL C & AUDREY J	610	ELM ST SW		1289								
NUSS, JEAN A	613	ELM ST SW	1	1290	1	500						
BLETH, RAYMOND J JR &	614	ELM ST SW	1	1291	1	500						
SANOW, BONNIE	701	ELM ST SW		1292								
CLARK, ROSELLEN C & BRIAN M	703	ELM ST SW		1293								
MALOTT, PAUL & MARY	708	ELM ST SW		1294								
TERPSTRA, JOYCE	710	ELM ST SW		1295								
CLEGHORN, MARY	712	ELM ST SW		1296								
MICHALAK, DARLENE	714	ELM ST SW		1297								
ORESIK, RON PAUL & NAN SHERYLL	1001	ELM ST SW	1	1298	1	500						
RECKER, MARY LOUISE	1013	ELM ST SW	1	1299	1	500						
AURELIA, MICHAEL J & DONNA	1014	ELM ST SW		1300								
DAGGETT, ANDREW JOSEPH &	1017	ELM ST SW	1	1301	1	500						
WACHS, RAYMOND W JR & KATHY A	1018	ELM ST SW	1	1302	1	500						
BOVENKERK, PAUL D & SHARON	1025	ELM ST SW	1	1303	1	500						
JENSEN, KEITH G	1026	ELM ST SW	1	1304	1	500						
SCHULTZ, DONALD W &	1105	ELM ST SW	1	1305	1	500						
HARE, SARA J	1106	ELM ST SW		1306								
HARRINGTON, EDWARD J & TINA M	1113	ELM ST SW		1307								
MCLELLAN, STANLEY H & SANDRA L	1121	ELM ST SW		1308		500						
OMAN, MIRRIAM & SHARON ROORDA	1122	ELM ST SW	1	1309	1	500						
RIOS, JOSEPHINE M TRUSTEE	1127	ELM ST SW		1500								
VANOORT, LESTER V & JANE	707	ELM ST SW		1311								
HENDRIX, FRANK H & DIANE M	1002	ELM ST SW		1312								
VANKEPPEL, GERRIT	440	FIR CT NW	1	1313	1	500						
WICINSKI, THOMAS M	500	FIR CT NW		1314								
CHICKI, JEFFERY M & HALLIE M	501	FIR CT NW		1315								
HALE, MARCUS F & ANGELA M	508	FIR CT NW	1	1316	1	500						
MCCRACKEN, DAVID M &	509	FIR CT NW	1	1317	1	500						
VANKEPPEL, GERRIT	440	FIR ST NW		1318								
KLUG, SHAUN D & JENNIFER	501	FIR ST SW		1319								
NYHOF, SHARON J	502	FIR ST SW	1	1320	1	500						
KETUROSKEY, JACQUELINE	505	FIR ST SW		1321								
ALLEN, MICHAEL D & LINDA	506	FIR ST SW	1	1322	1	500						
DICKSON, LARRY J & JOAN	509	FIR ST SW	1	1323	1	500						
HAMSTRA, ROSE	510	FIR ST SW	1	1324	1	500						
BERG, ROBERT E & BETTY J	513	FIR ST SW	1	1325	1	500						
KNIGHT, THOMAS E &	514	FIR ST SW		1326								
VANDEWATER, MARVIN L &	517	FIR ST SW	1	1327	1	500						
JOHNSON, CYNTHIA	518	FIR ST SW	1	1328	1	500						
FRITZ, CHRISTOPHER T	601	FIR ST SW		1329								
WHITE, CRAIG & PATRICIA A	602	FIR ST SW		1330								
CASTILLO, MIGUEL S	605	FIR ST SW		1331								
DANCER, CHARLES E & BETH	609	FIR ST SW		1332								
LATHAM, MARK S	613	FIR ST SW		1333								
STEPHENS, PAUL K & JODI	614	FIR ST SW		1334								
METZ, WILLIAM, COSTAS, BONNIE	610	FIR ST SW	1	1335	1	500						
ST CYR, MICHELLE L	324	FORSYTHIA ST SE		1336								
KOCH, CARL W & FRANCES M	334	FORSYTHIA ST SE	1	1337	1	500						
NOWAK, RONALD L & DOROTHY S	335	FORSYTHIA ST SE		1338								
WARGIN, HAROLD J & GERI R	502	FORSYTHIA ST SE	1	1339	1	500						
BARLOG, DANIEL J & HEATHER A	505	FORSYTHIA ST SE		1340								
ORTMAN, MARY L	514	FORSYTHIA ST SE		1341								
EHRHARDT, JACOB A	522	FORSYTHIA ST SE		1342								
KACHLIC, DONALD W & PAMELA R	525	FORSYTHIA ST SE	1	1343	1	500						

EXHIBIT C-3 2011 Design Flows

						Anticipated Flows						
Tax Owner name	House Number	Property Address	User	Map #	Meter	Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	Comments
CLIFTON, KAREN	545	FORSYTHIA ST SE		1344								
SCHOONVELD, JOAN L	596	FORSYTHIA ST SE		1345								
MISCH, CLARENCE E & SHIRLEY A	602	FORSYTHIA ST SE		1346								
KURDELAK, ANNA &	613	FORSYTHIA ST SE	1	1347	1	500						
HAMSTRA, BRIAN & SARAH J	614	FORSYTHIA ST SE	1	1348	1	500						
KEISER, BRIANNE N &	629	FORSYTHIA ST SE		1349								
HOLLANDALE INVESTMENTS INC	630	FORSYTHIA ST SE		1350								
CHRISTIANSEN, BARBARA WICKWIRE	638	FORSYTHIA ST SE		1351								
MCINTIRE, GERALD A & JOAN	717	FORSYTHIA ST SE	1	1352	1	500						
MAGDOS, RONALD J & EVELYN J	716	FORSYTHIA ST SE	1	1353	1	500						
ILLIANA DISPOSAL SERVICE INC	1201	FORSYTHIA ST SE		1354								
ONE TWO ONE FOUR FORSYTHIA	1214	FORSYTHIA ST SE	1	1355	1	500						
DEMOTTE U LOCK LLC	1413	FORSYTHIA ST SE		1356								
CLARK, BRADLEY	1701	FORSYTHIA ST SE		1357								
VANKORP CORPORATION	1704	FORSYTHIA ST SE		1358								
VANKORP CORPORATION	1705	FORSYTHIA ST SE		1359								
VANKORP CORPORATION	1709	FORSYTHIA ST SE		1360								
R VISION HOMES LLC	1713	FORSYTHIA ST SE		1361								
THOMAS, NICHOLAS R & KRISTEN M	305	FORSYTHIA ST SE		1362								
SCHULTZ, ROBERT L JR &	314 (?)	FORSYTHIA ST SE		1383								
NOFIRE, ROBERT J & ANDERIA K	315	FORSYTHIA ST SE		1364								
BLACK, KEVIN	321	FORSYTHIA ST SE	1	1365	1	500						
CASKO, MARK A & DEBORAH J	325	FORSYTHIA ST SE		1366								
THIELE, CARL R	325	FORSYTHIA ST SE		1367								
KOCH, DARRYL	330	FORSYTHIA ST SE		1368								
CHAPMAN, MURRAY S & MELISSA K	702	FORSYTHIA ST SE		1369								
RODRIGUEZ, ROBERTA A & CLAUDIA RHUBACK	505	GARDENIA ST SE	1	1370	1	500						
DUNN, WILLIAM E & MYRNA J	506	GARDENIA ST SE	1	1371	1	500						
FRIEND, JAMES I & ANNE	526	GARDENIA ST SE	1	1372	1	500						
KOSCHAL, ROBERT S JR	545	GARDENIA ST SE	1	1373	1	500						
JENKINS, DANE W	546	GARDENIA ST SE		1374								
KOPKA, STEVEN M & BRENDA K	613	GARDENIA ST SE		1375								
KORDYS, JOSEPH & JENNIE	614	GARDENIA ST SE		1376								
REYNOLDS, BARRY J	633	GARDENIA ST SE		1377								
HOLLEMAN, GERRIT & ELAINE	701	GARDENIA ST SE	1	1378	1	500						
RODRIGUEZ, ROBERTA A & ARNIE & CLAUDIA RHUBACK		GARDENIA ST SE		1379								
KAMPENGA, MARK A & BRENDA	705	GARDENIA ST SE		1380								
HINKLE, SANDRA L &	400	GOLDEN RAIN CT NW	1	1381	1	500						
SUTTON, TRACI L	401	GOLDEN RAIN CT NW	1	1382	1	500						
GIFFORD, LAWRENCE JR & DEBORAH	406	GOLDEN RAIN CT NW		1383								
MAXWELL, HUGH & GRACE	409	GOLDEN RAIN CT NW	1	1384	1	500						
WALSTRA, SHANNON L	509	GOLDEN RAIN CT NW	1	1385	1	500						
MATSON, DONALD & JANIS	208	GOLDEN RAIN ST NW		1388								
SIMPSON, NATHAN & GLORIA	209	GOLDEN RAIN ST NW		1387								
KROOSWYK, JASON A & JENNIFER L	226	GOLDEN RAIN ST NW		1386								
OLIS, RALPH T & OLGA E TRUSTE	306	GOLDEN RAIN ST NW		1389								
LENZ, FLOYD L & DOROTHY J	320	GOLDEN RAIN ST NW		1390								
STIMPLE, GEORGE H & LOIS J	342	GOLDEN RAIN ST NW	1	1391	1	500						
BAUMAN, PAUL L & MARGARET		GOLDEN RAIN ST NW		1392								
HOEKEMA, DONALD & DOLORES	513	GOLDEN RAIN ST SW		1393								
PETERSON, MARVIN & RUTH	514	GOLDEN RAIN ST SW		1394								
BUCHANAN, MICHAEL W	517	GOLDEN RAIN ST SW		1395								
PRZYBYLSKI, BRUCE & JILL M	518	GOLDEN RAIN ST SW		1396								
RUISARD, C HERBERT & ANNA MAE	104	GOLDENRAIN ST NW		1397								
BAUMAN, PAUL L & MARGARET	110	GOLDENRAIN ST NW		1398								
OBRENSKI, JAMES C & WENDY R	121	GOLDENRAIN ST NW	1	1399	1	500						
VANKEPPEL, GERRIT		GOLDENRAIN ST NW		1400								
BER, SHIRLEY C TRUSTEE		HALLECK ST		1401								
BOEZEMAN, JOHN A		HALLECK ST		1402								
VANKEPPEL, GERRIT DAVID &		HALLECK ST		1403								
FIELDHOUSE, DONALD J &		HALLECK ST		1404								
HAMSTRA BUILDERS INC		HALLECK ST		1405								
DEYOUNG, JOHANNA TRUST		HALLECK ST		1408								
KOOY, RANDY CAROL ZYLSTRA	104	HALLECK ST N		1407								
BER, SHIRLEY C TRUSTEE	105	HALLECK ST N		1408								
PIERSON, RICHARD C & JOYCE M	116	HALLECK ST N		1409								
FIFTH THIRD BANK	126	HALLECK ST N		1410								

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flowe						Comments
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
KOOISTRA, MICHAEL & NELVINA	214	HALLECK ST N	1	1411								No longer exists
JAY PETROLEUM, INC	228	HALLECK ST N	1	1412	1				1060			Now Walgreens 10,000sft + 3 emp
CHURCH, DEMOTTE METHODIST	227	HALLECK ST N	1	1413	1				1500			300 seats w/ full kitchen
HAMSTRA BUILDERS INC	305	HALLECK ST N	1	1414	1				8400			Tysens Shop Ctr - 74,000sft + 50 emp
HAMSTRA BUILDERS INC	500	HALLECK ST N	1	1415	1				1060			CVS 10000 sft + 3emp
HAMSTRA BUILDERS INC	313	HALLECK ST N	1	1416	0							(part of 305 Halleck)
HAMSTRA BUILDERS INC	333	HALLECK ST N		1417								
GREGOLUNAS, JOHN	333	HALLECK ST N		1418								
HAMSTRA BUILDERS INC	334	HALLECK ST N	1	1419	1				2600			ALCO 25,000sft + 5 emp.
MCDONALD S CORPORATION	338	HALLECK ST N	1	1420	1				1750			McDonakis 50 seats @35gpd each
HALF DOZEN INC	341	HALLECK ST N	1	1421	1				1400			Dairy Queen 40 seats @ 35 gpd each
HAMSTRA BUILDERS INC	415	HALLECK ST N	1	1422	0							(part of 305 Halleck)
FERRELLGAS LP	419	HALLECK ST N		1423								
HAMSTRA GROUP	421	HALLECK ST N	1	1424	1				2625			Pizza Hut 75 seats @ 35gpd each
VAN KEPPEL, ANNE L	432	HALLECK ST N		1425								
GRUBE, R ARLENE REVOCABLE	437	HALLECK ST N	1	1426	1				2180			Subway + 6700sft retail
LAFAYETTE BANK & TRUST COMPANY	437	HALLECK ST N	1	1427	1				300			Bank 15 emp @ 20 gpd each
DREES, WALTER G 1/2	504	HALLECK ST N		1428								
LAKE COUNTY TRUST CO P-5324	504	HALLECK ST N		1429								
VANBAREN, GARRY W & WALITA A	507	HALLECK ST N	1	1430	1				915			8500 sft + 3 emp
BRODNER, JULIE	517	HALLECK ST N		1431								
LEESTMA, ERIC J & BARBARA	519	HALLECK ST N	1	1432	1				190			2 DRs & Nurses + 2 staff
TIEMENS & HUBERS INVESTMENT	527	HALLECK ST N	3	1433	3				440			2800 sft + 8 emp
PAMPEL, LARRY W	534	HALLECK ST N	1	1434	1				380			4 DRs & Nurses + 4 staff
SCHULTZ, HELEN	539	HALLECK ST N	1	1435	1				1270			11,500sft + 6 emp
M&T INVESTMENTS LLC	803	HALLECK ST N	3	1436	3				1180			10,000sft + 8 emp
LEESTMA, RUTH E & MARC S	610	HALLECK ST N	1	1437	1				280			2,000sft + 4 emp
COFFER, DELORES	620	HALLECK ST N		1438								
BIERMA, RAYMOND J & SELMA	621	HALLECK ST N		1439								
DEMOTTE PROPERTY MGMNT LLC	634	HALLECK ST N		1440								
ESTIA PARTNERSHIP	700	HALLECK ST N		1441								
SNYDER, LARRY D & BEVERLY C	726	HALLECK ST N		1442								
RECKER, WILLIAM G & DEBRA K	805	HALLECK ST N		1443								
CHURCH, COMMUNITY BIBLE	814	HALLECK ST N	1	1444	1				1000			250 seats w/ werming kitchen
EIGHT ONE SEVEN NORTH HALLECK STREET LL	817	HALLECK ST N	1	1445	1				180			1,200sft + 3 emp
M&T INVESTMENTS LLC	825	HALLECK ST N		1446								
BOVENKERK, NANCY K TRUSTEE	838	HALLECK ST N	1	1447	1							outside service area
ASH, JAMES EDWARD TRUSTEE	1006	HALLECK ST N		1448								
FEDOR, GENE V & LEDA	1025	HALLECK ST N		1449								
FEDOR, GENE V & LEDA	1028	HALLECK ST N		1450								
SCHULTZ, CHRISTOPHER P &	1112	HALLECK ST N	1	1451	1							outside service area
CARR, DAVID D & RENEE	1118	HALLECK ST N	1	1452	1							outside service area
KINGMA, GLEN W & PATRICIA A	1308	HALLECK ST N	1	1453	1							outside service area
HAMSTRA BUILDERS INC	325	HALLECK ST N	6	1454	0							(part of 305 Halleck)
FERRELLGAS LP	417 (4237)	HALLECK ST N		1455								
HAMSTRA BUILDERS INC	4217), 327,329,411,41	HALLECK ST N		1456								
LAKE COUNTY TRUST CO P-5324	520, 524	HALLECK ST N		1457								
BIERMA, RAYMOND J & SELMA		HALLECK ST N		1458								
BIERMA, RAYMOND J & SELMA		HALLECK ST N		1459								
FERRELLGAS LP		HALLECK ST N		1460								
VANKEPPEL, GERRIT		HALLECK ST N		1461								
SNYDER, LARRY & BEVERLY	101	HALLECK ST S	1	1462	1				80			3 employees
DEMOTTE STATE BANK	102	HALLECK ST S		1463								
GABRIELSE, ROBERT J & ARLA R	109	HALLECK ST S	1	1464	1				80			4 employees
BOEZEMAN, JOHN A	125	HALLECK ST S		1465								
DEMOTTE TOWN OF	125	HALLECK ST S		1466								
DEMOTTE STATE BANK	210	HALLECK ST S	1	1467	1				800			40 employees
DEMOTTE STATE BANK	228	HALLECK ST S		1468								
DEMOTTE STATE BANK	305	HALLECK ST S		1469								
SCHULTZ, ROBERT L JR	318	HALLECK ST S		1470								
WIERS REAL ESTATE LLC	332	HALLECK ST S		1471								(part of 305 Halleck)
HAMSTRA BUILDERS INC	405	HALLECK ST S	1	1472								25 employees
WIERS CHEVROLET PONTIAC	416	HALLECK ST S	1	1473	1				500			(part of 305 Halleck)
HAMSTRA BUILDERS INC	417	HALLECK ST S	1	1474								30 employees
KALLORDA GROUP LLC	518	HALLECK ST S	5	1475	1				600			250 seats w/ werm kitchen & residence
CHURCH, BETHEL CHRISTIAN	521	HALLECK ST S	2	1476	2	500			1000			
CHEEVER, ROBERT A	535	HALLECK ST S		1477								

EXHIBIT C-3 2011 Design Flows

Tax Ownar name	Housa Number	Property Address	Usar	Mep #	Meter	Anticipated Flows						Comments
						Singla Family Residenca	2 Badroom Unit	1 Bedroom Unit	Commercial	Schools	Total	
CHEEVER, ROBERT A	535	HALLECK ST S		1478								
HERMA, RICHARD C & LISA M	536	HALLECK ST S	1	1479	1	500						
DAVIS, GRACE	600	HALLECK ST S		1480								
GRAND PROPERTY GROUP LLC	601	HALLECK ST S		1481								
BOISSY, JOHN	803	HALLECK ST S		1482								
ZYLSTRA, EARL L & SHIRLEY J	808	HALLECK ST S		1483								
LONG, DAVE & BRENDA	812	HALLECK ST S	1	1484	1				100			5 employees
BOISSY, JOHN & JENNIFER L	813	HALLECK ST S		1485								
WALSTRA, DANIEL E & LAURA J	816	HALLECK ST S	1	1486	1				80			3 employees
MEISS, LELAND G & ELSIE M	817	HALLECK ST S	1	1487	1				80			4 employees
FAMILY SERVICE GROUP OF	821	HALLECK ST S		1488								
FAMILY SERVICE GROUP OF	821	HALLECK ST S		1489								
SCHULTZ, ROBERT L & MAUREEN J	701	HALLECK ST S	1	1490	1	500						
R&S RENTALS INC	709	HALLECK ST S		1491								
BARKER, MARGARET	713	HALLECK ST S		1492								
BER, SHIRLEY C TRUSTEE,DOUGLAS	718	HALLECK ST S		1493								
BER, SHIRLEY C TRUSTEE,DOUGLAS	718	HALLECK ST S		1494								
SCHULTZ, JEFFREY DEAN	800	HALLECK ST S		1495								
HOLLEY, THANALEEN P	804	HALLECK ST S		1498								
PADOL, CHARLES A & PATRICIA L	805	HALLECK ST S	1	1497	1				80			4 employees
VANBAREN, GARRY & WALITA	806	HALLECK ST S	1	1498	1				80			4 employees
DEVRIES, GERRITT H & DIANNE S	809	HALLECK ST S		1499								
THURBER, WENDELL S JR	809	HALLECK ST S	1	1500	1				80			4 employees
VANBAREN, GARRY W & WALITA A	810	HALLECK ST S	1	1501	1				80			4 employees
DREES, WALTER G & STANLEY T	813	HALLECK ST S	2	1502	2				200			10 employees
BPD INVESTMENT GROUP LLC	814	HALLECK ST S		1503								
WALTON, EARL D	817	HALLECK ST S	1	1504	1				80			4 employees
HAMSTRA, MARILYNE	820	HALLECK ST S		1505								
LAGEVEEN, NATHAN & TRACY	821	HALLECK ST S		1506								
SMITH, MICHAEL D	824	HALLECK ST S	1	1507	1				80			4 employees
TERPSTRA, JOHN JR & DIANE	825	HALLECK ST S		1508								
KANKAKEE VALLEY PUBLISHING	827	HALLECK ST S	1	1509	1				120			6 employees
SCHULTZ, MAUREEN J	833	HALLECK ST S		1510								
KLIP, CAROL J	834	HALLECK ST S		1511								
O_NEAL, VERONICA A	900	HALLECK ST S	1	1512	1				800			1 restroom
SCHULTZ, ROBERT L & MAUREEN	901	HALLECK ST S		1513								
KOOY, WILMER R &	901	HALLECK ST S	1	1514	1				600			1 restroom
FAGEN, GERALD A & VIVIAN V	915	HALLECK ST S		1515								
FAGEN, GERALD A & VIVIAN V	917	HALLECK ST S		1516								
FAGEN, JOHN G & CHARLOTTE L	921	HALLECK ST S	1	1517	1				80			4 employees
KANKAKEE VALLEY SCHOOL	1000	HALLECK ST S	1	1518	1					9345		623 Students & Staff @ 1gpd each
CHURCH, AMERICAN REFORMED	1021	HALLECK ST S	1	1519	1	500			1400			350 seats w/ warming kitchen (4gpd each) & residence
DANDY CANDY LLC	1114	HALLECK ST S	1	1520	1				80			4 employees
KANKAKEE VALLEY SCHOOL CORP	1118	HALLECK ST S		1521								
FAGEN, JOHN G &	1117	HALLECK ST S		1522								
FAGEN, JOHN G &	1117	HALLECK ST S	1	1523	1				80			4 employees
MAK, CHARMAINE L	1118	HALLECK ST S		1524								
CHURCH, AMERICAN REFORMED OF	1125	HALLECK ST S		1525								
ANGELICA, LLC	1205	HALLECK ST S		1526								
ANGELICA, LLC	1205	HALLECK ST S	1	1527	1				80			4 employees
HAMSTRA, SCOTT	1206	HALLECK ST S	1	1528	1	500						
MULTI-STATE CAR WASH LIM PARTN	1213	HALLECK ST S		1529								
FRITTS, THOMAS E	1214	HALLECK ST S		1530								
ROORDA, JOE F	1221	HALLECK ST S	1	1531	1	500						
NUSS, PATRICIA A ETAL	1222	HALLECK ST S	1	1532	1				80			4 employees
FIELDHOUSE, RONALD L &RHONDA S	1229	HALLECK ST S		1533								
SMITH, KIRK A & TERESA L	1230	HALLECK ST S	1	1534	1				80			4 employees
FIELDHOUSE, DONALD J &	1305	HALLECK ST S	1	1535	1				280			2,000sft + 4 emp
RDF LLC	1306	HALLECK ST S		1536								
HUBERS, SYLVAN & BERNICE	1317	HALLECK ST S		1537								
KAPER_S BUILDING MATERIALS INC	1317	HALLECK ST S		1538								
RRDC LLC	1400	HALLECK ST S	1	1539	1				400			20 employees
MUSCH, RONALD A & DEBRA	1401	HALLECK ST S		1540								
VANSCHOWEN, BRUCE	1502	HALLECK ST S		1541								
DEKOCK, JOHN A & RUTH A	1608	HALLECK ST S	1	1542	1	500						
THOMASON, DANIEL L	1809	HALLECK ST S	1	1543	1	500						
CHAPMAN, KYLE	1616	HALLECK ST S		1544								

EXHIBIT C-3 2011 Design Flows

						Anticipated Flows						
Tax Owner name	House Number	Property Address	User	Map #	Meter	Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	Comments
CHURCH, THE FIRST CHRISTIAN	1621	HALLECK ST S	1	1545	1	500						
CHURCH, FIRST CHRISTIAN	1633	HALLECK ST S	1	1546	1				800			200 seats w/ warming kitchen (4gpd each)
CHURCH, FAITH LUTHERAN CORP	1700	HALLECK ST S	1	1547	1				1000			250 seats w/ warming kitchen (4gpd each)
LONSBERRY, RONALD W &	1701	HALLECK ST S	1	1548	1	500						
CLARK, RAYMOND	1705	HALLECK ST S	1	1549	1	500						
HENNING, ADAM P	1711	HALLECK ST S		1550								
HENNING, ADAM P	1715	HALLECK ST S		1551								
CHURCH, AMERICAN REFORMED OF	1005 S	HALLECK ST S		1552								
KALLORDA GROUP LLC	500, 512	HALLECK ST S		1553								
DEMOTTE STATE BANK		HALLECK ST S		1554								
DEMOTTE STATE BANK		HALLECK ST S		1555								
MAK, CHARMAINE L		HALLECK ST S		1556								
DEMOTTE, TOWN OF - GARDEN PARK		HALLECK ST S		1557								
HAMSTRA BUILDERS INC		HALLECK ST S		1558								
HAMSTRA BUILDERS INC		HALLECK ST S		1559								
HENNING, ADAM P		HALLECK ST S		1560								
SCHULTZ, MAUREEN		HALLECK ST S		1561								
WALSTRA, ALLEN GEORGE &	6934	HEATHCLIFF ST		1562								
MEYER, JON P & CYNTHIA L	6944	HEATHCLIFF ST		1563								
SCHULTZ, JEFFREY D TERENCE D	120	HICKORY ST NW		1564								
VANKEPPEL, CYNTHIA A	223	HICKORY ST NW		1565								
DAVIS, STANLEY E & MARY E	224	HICKORY ST NW		1566								
MARSH, DAVID ALAN & JANE	301	HICKORY ST NW		1567								
EWEN, JAMES M & DEANNE M	316	HICKORY ST NW		1568								
VORDERER, GREGORY C&PATRICIA L	324	HICKORY ST NW		1569								
SMITH, MATTHEW	332	HICKORY ST NW	1	1570	1	500						
MITCHELL, WILBUR P & NANCY	340	HICKORY ST NW	1	1571	1	500						
CLINE, LELAND L & PHYLLIS H	341	HICKORY ST NW	1	1572	1	500						
HORVATH, EUGENE G JR	405	HICKORY ST NW		1573								
GETHING, FREDRICK H & RENEE M	408	HICKORY ST NW		1574								
FELDPAUSCH, JAMES E	416	HICKORY ST NW		1575								
BOONSTRA, ROGER O & JANET H	417	HICKORY ST NW		1576								
OLOVICH, RICHARD & BRENDA	424	HICKORY ST NW		1577								
FINLON, JOHN	425	HICKORY ST NW	1	1578	1	500						
WOJTOWICZ, HELENA	432	HICKORY ST NW		1579								
HUNT, TIMOTHY M	440	HICKORY ST NW		1580								
GARCIA, RICK	501	HICKORY ST NW		1581								
WIGGS, DONALD KEVIN	508	HICKORY ST NW		1582								
WILDEMAN, KEITH W	509	HICKORY ST NW	1	1583	1	500						
TORBESON, ADAM J & TRISTA M	516	HICKORY ST NW		1584								
BRUSCEMI, SALVATORE A & RENEE M	600	HICKORY ST NW		1585								
POLCZYNSKI, PHYLLIS	608	HICKORY ST NW	1	1586	1	500						
BUCHHOLZ LIVING TRUST	609	HICKORY ST NW	2	1587	2			400				
ROMANIAK, CHRISTINA K & ERIC D	706	HICKORY ST NW		1588								
BOEZEMAN, LARRY J & TERRI K	725	HICKORY ST NW		1589								
WIGGS, KEVIN	500	HICKORY ST NW		1590								
BUCHHOLZ LIVING TRUST	611	HICKORY ST NW		1591								
VANKEPPEL, GERRIT	616	HICKORY ST NW		1592								
FISHER HOMES LLC	700	HICKORY ST NW		1593								
VANKEPPEL, GERRIT	716	HICKORY ST NW		1594								
BAUMAN, PAUL L & MARGARET L		HICKORY ST NW		1595								
KINGMA, ROY & SONYA P		HICKORY ST NW		1596								
MATSON, DONALD & JANIS		HICKORY ST NW		1597								
PRAIRIE LANDING LLC		HICKORY ST NW		1598								
VANKEPPEL, CYNTHIA ANN		HICKORY ST NW		1599								
PRAIRIE LANDING LLC		HICKORY ST NW		1600								
DEFRIES, JOHN HERBERT &	922	HICKORY ST SW		1601								
COLEE, LARRY G SR & SHARON M	1505	HICKORY ST SW	1	1602	1	500						
GRAHAM, DAVID M & CYNTHIA R	1516	HICKORY ST SW	1	1603	1	500						
DEYOUNG, GLENN A & ANGELA M	1517	HICKORY ST SW	1	1604	1	500						
MORRIS, WESTON D & SANDRA L	1528	HICKORY ST SW	1	1605	1	500						
VANDERMEER, MATTHEW B	1529	HICKORY ST SW	1	1606	1	500						
DEKOCK, DAVID J & LYNN D	1604	HICKORY ST SW		1607								
SMITH, MAURICE C	1605	HICKORY ST SW	1	1608	1	500						
HANSEN, MARVIN A & DOLORES A	1616	HICKORY ST SW		1609								
BUTLER, PETER & STACY	1617	HICKORY ST SW		1610								
CHAVEZ, JORGE A & VERONICA	1629	HICKORY ST SW		1611								

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows: Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	Comments
BOISE, ERIC J & JANIS A	1630	HICKORY ST SW		1812								
KLICEK, GRANT N & JOSEPHINE M	1700	HICKORY ST SW		1813								
SKIMAHORN, CHERYL L &	1701	HICKORY ST SW		1814								
WRIGHT, JAMES J & ALYSE M	1712	HICKORY ST SW		1815								
MUSCH, GLEN A & CYNTHIA F	1713	HICKORY ST SW	1	1816	1	500						
BULLA, DWAYNE C & PAULA J	1717	HICKORY ST SW		1817								
PHILLIPS, DAVID L & CHERYL L	1724	HICKORY ST SW	1	1818	1	500						
NICK, MARGARET R	1737	HICKORY ST SW	1	1819	1	500						
DODD, STEVEN R & TIFFANY	1804	HICKORY ST SW	1	1620	1	500						
MOREZ, DANNY R & ROBIN L	1605	HICKORY ST SW		1621								
LOWE, ROBERT E JR & MARY L	1816	HICKORY ST SW		1622								
PETERSON, MARVIN R &	1817	HICKORY ST SW		1623								
SWART, LAURA MAE	1832	HICKORY ST SW		1624								
JAKUBOWICZ, VICTORIA F TRUSTEE	1833	HICKORY ST SW		1625								
KARLOWSKY, ALLAN J & MARIE M	1908	HICKORY ST SW		1628								
HERZ, MICHAEL W &	1919	HICKORY ST SW		1827								
NAGEL, RAYMOND & NORMA	1920	HICKORY ST SW	1	1626	1	500						
ZELLON, JOSEPH A & KATHLEEN E	1921	HICKORY ST SW		1629								
SCOTT, PATRICK G	2005	HICKORY ST SW	1	1630	1	500						
BOER, MARK A & APRIL L	2021	HICKORY ST SW		1631								
HALE, MICHAEL & KELLI J	2033	HICKORY ST SW		1632								
KNIP, ROGER G & DONNA MARIE	2041	HICKORY ST SW	1	1633	1	500						
GRAHAM, DAVID M & CYNTHIA R		HICKORY ST SW		1634								
GRUBE, R ARLENE REVOC LIV TR	910	HICKORY ST SW		1635								
ZELLON, JOSEPH A & KATHLEEN E		HICKORY ST SW		1636								
PRAIRIE LANDING LLC	104	IRONWOOD ST NW		1637								
SHINDLE, MARK	112	IRONWOOD ST NW		1638								
FISHER, RICHARD P	120	IRONWOOD ST NW	1	1639	1	500						
TOWNER, ROBERT & WENDY	128	IRONWOOD ST NW		1640								
ACCENT HOMES INC	204	IRONWOOD ST NW		1641								
SCHULTZ, MAUREEN J	219	IRONWOOD ST NW		1642								
CREW BUILDERS INC	220	IRONWOOD ST NW		1643								
SZYMCZAK, NATHAN	227	IRONWOOD ST NW		1644								
ACCENT HOMES INC	228	IRONWOOD ST NW		1645								
RITCHIE BUILDERS INC	304	IRONWOOD ST NW		1646								
PRAIRIE LANDING LLC	309	IRONWOOD ST NW		1647								
PRAIRIE LANDING LLC	311	IRONWOOD ST NW		1648								
ACCENT HOMES INC	312	IRONWOOD ST NW		1649								
PRAIRIE LANDING LLC	319	IRONWOOD ST NW		1650								
HOLLANDALE INVESTMENTS INC	320	IRONWOOD ST NW		1651								
BREWSTER, MICHAEL L	327	IRONWOOD ST NW		1652								
ACCENT HOMES INC	328	IRONWOOD ST NW		1653								
HOLLANDALE INVESTMENTS INC	335	IRONWOOD ST NW		1654								
HANICQ, GERALD S & BARBARA J	336	IRONWOOD ST NW		1655								
SIPKEMA, SIMON L & KATHY	403	IRONWOOD ST NW		1656								
FISHER HOMES LLC	404	IRONWOOD ST NW		1657								
PRAIRIE LANDING LLC	412	IRONWOOD ST NW		1658								
PRAIRIE LANDING LLC	415	IRONWOOD ST NW		1659								
PRAIRIE LANDING LLC	420	IRONWOOD ST NW		1660								
PRAIRIE LANDING LLC	423	IRONWOOD ST NW		1661								
PRAIRIE LANDING LLC	426	IRONWOOD ST NW		1662								
PRAIRIE LANDING LLC	431	IRONWOOD ST NW		1663								
PRAIRIE LANDING LLC	504	IRONWOOD ST NW		1664								
PRAIRIE LANDING LLC	509	IRONWOOD ST NW		1665								
PRAIRIE LANDING LLC	512	IRONWOOD ST NW		1666								
PRAIRIE LANDING LLC	517	IRONWOOD ST NW		1667								
PRAIRIE LANDING LLC	520	IRONWOOD ST NW		1668								
PRAIRIE LANDING LLC	525	IRONWOOD ST NW		1669								
PRAIRIE LANDING LLC	528	IRONWOOD ST NW		1670								
PRAIRIE LANDING LLC	533	IRONWOOD ST NW		1671								
PRAIRIE LANDING LLC	536	IRONWOOD ST NW		1672								
PRAIRIE LANDING LLC	603	IRONWOOD ST NW		1673								
PRAIRIE LANDING LLC	604	IRONWOOD ST NW		1674								
PRAIRIE LANDING LLC	611	IRONWOOD ST NW		1675								
PRAIRIE LANDING LLC	612	IRONWOOD ST NW		1676								
PRAIRIE LANDING LLC	619	IRONWOOD ST NW		1677								
PRAIRIE LANDING LLC	713	IRONWOOD ST NW		1678								

EXHIBIT C-3 2011 Design Flows

						Anticipated Flows						
Tax Owner name	House Number	Property Address	User	Map #	Meter	Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	Comments
PRAIRIE LANDING LLC	721	IRONWOOD ST NW		1679								
SCHULTZ, ROBERT JR	120 A, B	IRONWOOD ST NW		1660								
DIENER, BARRETT E & STACY L	201	IRONWOOD ST SW		1661								
LAVELLE, DONALD M & MARIAN L	202	IRONWOOD ST SW	1	1682	1	500						
MOSCA, JOHN	208	IRONWOOD ST SW		1683								
COFFER, LARRY A & LORIE L	209	IRONWOOD ST SW	1	1684	1	500						
RENTSCHLER, CHAD A & APRIL D	210	IRONWOOD ST SW	1	1685		500						
ORSBURN, MARK W & DENISE L	301	IRONWOOD ST SW		1686								
DEARDORFF, DAVID A & REBECCA A	1504	IRONWOOD ST SW		1687								
KRAWCZYK, JOHN N & GERALDINE P	1505	IRONWOOD ST SW	1	1688	1	500						
LAZORIK, JOHN	1513	IRONWOOD ST SW		1689								
GETZ, KEVIN M	1516	IRONWOOD ST SW	1		1	500						
TALAREK, JOSEPH	1517	IRONWOOD ST SW	1	1691	1	500						
MOORE, LESTER T	1529	IRONWOOD ST SW	1	1692	1	500						
BROCKUS, WILLIAM F REV LIVING	1532	IRONWOOD ST SW	1	1693	1	500						
NANNENGA, DEREK R	1600	IRONWOOD ST SW		1694								
PAUL, DAVID N	1616	IRONWOOD ST SW	1	1695	1	500						
SPURGEON, JERRY J & KAY B	1617	IRONWOOD ST SW	1	1696	1	500						
RAMEY, KATRINA N	1629	IRONWOOD ST SW		1697								
LISTON, EUGENE & DOLORES	1632	IRONWOOD ST SW	1	1698	1	500						
HENRICHS, DOUGLAS & LINDA KLEMP	1701	IRONWOOD ST SW		1699								
MONTELLA, JOHN J & JOYCE A	1712	IRONWOOD ST SW		1700								
HENRICHS, PAUL D & LORRAINE	1715	IRONWOOD ST SW		1701								
PHILLIPS, DAVID & SUSAN	1720	IRONWOOD ST SW	1	1702	1	500						
SCHNEIDER, MICHAEL	1725	IRONWOOD ST SW	1	1703	1	500						
DUNN, WILLIAM H &	1736	IRONWOOD ST SW		1704								
GGR LLC	1737	IRONWOOD ST SW	1	1705	1	500						
STAN, RANDY K & DEBBIE J	1804	IRONWOOD ST SW	1	1706	1	500						
PODGORNY, RAYMOND J	1805	IRONWOOD ST SW	1	1707	1	500						
WADDELL, LARRY & MARY J	1816	IRONWOOD ST SW	1	1708	1	500						
PARTIN, MICHELENE D	1817	IRONWOOD ST SW	1	1709	1	500						
REED, GARY D & DEBORAH K	1828	IRONWOOD ST SW	1	1710	1	500						
PETERSON, DAWN R	1829	IRONWOOD ST SW		1711								
BORDEN, MARY JANET	1904	IRONWOOD ST SW		1712								
GRAHAM, HAROLD L & NANCY L	1917	IRONWOOD ST SW		1713								
SCHIAVONE, SUSAN K	1920	IRONWOOD ST SW	1	1714	1	500						
LASKI, RICHARD A & DONNA M	1928	IRONWOOD ST SW	1	1715	1	500						
SCHULTZ, MAUREEN J	2005	IRONWOOD ST SW		1716								
SCHULTZ, ROBERT LEON & MAUREEN	2005	IRONWOOD ST SW		1717								
BARTHOLOMEW, THOMAS H & HOLLY	2006	IRONWOOD ST SW	1	1716	1	500						
SCHNEIDER, JOHN H & KATHRYN E	2012	IRONWOOD ST SW		1719								
WIREMAN, MATTHEW E & JILL M	2024	IRONWOOD ST SW		1720								
PETERSON BROS INC	106	IRONWOOD ST SW		1721								
PETERSON BROS INC	109	IRONWOOD ST SW		1722								
PETERSON BROS INC	110	IRONWOOD ST SW		1723								
KIERES, KEVIN R & STEPHANIE L	205	IRONWOOD ST SW		1724								
SCHULTZ, ROBERT LEON & MAUREEN		IRONWOOD ST SW		1725								
SCHULTZ, ROBERT LEON & MAUREEN		IRONWOOD ST SW		1728								
KARLOWSKY, ALLAN J & MARIE M		IRONWOOD ST SW		1727								
PRAIRIE LANDING LLC	103	JUNIPER ST NW		1726								
PRAIRIE LANDING LLC	104	JUNIPER ST NW		1729								
PRAIRIE LANDING LLC	111	JUNIPER ST NW		1730								
PRAIRIE LANDING LLC	112	JUNIPER ST NW		1731								
WIREMAN, DUSTIN K	119	JUNIPER ST NW		1732								
HOLLANDALE INVESTMENTS INC	120	JUNIPER ST NW		1733								
PRAIRIE LANDING LLC	127	JUNIPER ST NW		1734								
VANDERMOLEN, SCOTT A	128	JUNIPER ST NW		1735								
DUDLEY, ROBERT J & CYNTHIA A	203	JUNIPER ST NW	1	1736	1	500						
NEIL, WILLIAM S & LINDA L CRNJAK-NEIL	204	JUNIPER ST NW		1737								
CREW BUILDERS INC	219	JUNIPER ST NW		1738								
JACKSON, MATTHEW S & HOLLI C	220	JUNIPER ST NW		1739								
ACCENT HOMES INC	227	JUNIPER ST NW		1740								
MIKELS, RYAN R & SHALA A	228	JUNIPER ST NW	1	1741	1	500						
DIXON, ANTHONY J & BREANNA L	303	JUNIPER ST NW		1742								
ABBRING, CARRIE	304	JUNIPER ST NW	1	1743	1	500						
ACCENT HOMES INC	311	JUNIPER ST NW		1744								
BRISENO, JESUS JR	312	JUNIPER ST NW		1745								

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows						
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	Comments
MICKEY, ERIC J & JAMIE A EHRHARDT	319	JUNIPER ST NW		1746								
PRAIRIE LANDING LLC	320	JUNIPER ST NW		1747								
ACCENT HOMES INC	327	JUNIPER ST NW		1748								
SHEWMAKER, SHARON & DEMETRESS WADE	328	JUNIPER ST NW		1749								
HOLLANDALE INVESTMENTS INC	335	JUNIPER ST NW		1750								
PRAIRIE LANDING LLC	336	JUNIPER ST NW		1751								
REESE, FRANK & JUDY/KRITLOW, RICHARD	403	JUNIPER ST NW	1	1752	1	500						
REESE, DONALD	404	JUNIPER ST NW		1753								
PRAIRIE LANDING LLC	412	JUNIPER ST NW		1754								
PRAIRIE LANDING LLC	413	JUNIPER ST NW		1755								
PRAIRIE LANDING LLC	419	JUNIPER ST NW		1756								
PRAIRIE LANDING LLC	420	JUNIPER ST NW		1757								
PRAIRIE LANDING LLC	427	JUNIPER ST NW		1758								
PRAIRIE LANDING LLC	426	JUNIPER ST NW		1759								
PRAIRIE LANDING LLC	503	JUNIPER ST NW		1760								
PRAIRIE LANDING LLC	504	JUNIPER ST NW		1761								
PRAIRIE LANDING LLC	511	JUNIPER ST NW		1762								
PRAIRIE LANDING LLC	512	JUNIPER ST NW		1763								
PRAIRIE LANDING LLC	519	JUNIPER ST NW		1764								
PRAIRIE LANDING LLC	520	JUNIPER ST NW		1765								
PRAIRIE LANDING LLC	527	JUNIPER ST NW		1766								
PRAIRIE LANDING LLC	528	JUNIPER ST NW		1767								
PRAIRIE LANDING LLC	535	JUNIPER ST NW		1768								
PRAIRIE LANDING LLC	536	JUNIPER ST NW		1769								
PRAIRIE LANDING LLC	603	JUNIPER ST NW		1770								
PRAIRIE LANDING LLC	604	JUNIPER ST NW		1771								
PRAIRIE LANDING LLC	611	JUNIPER ST NW		1772								
PRAIRIE LANDING LLC	612	JUNIPER ST NW		1773								
PRAIRIE LANDING LLC	620	JUNIPER ST NW		1774								
PRAIRIE LANDING LLC	704	JUNIPER ST NW		1775								
PRAIRIE LANDING LLC	712	JUNIPER ST NW		1776								
PRAIRIE LANDING LLC	720	JUNIPER ST NW		1777								
PRAIRIE LANDING LLC		JUNIPER ST NW		1778								
SCOTT, MARK & SANDRA	1714	JUNIPER ST SW		1779								
KUZEMKA, GEORGE & NORMA	1715	JUNIPER ST SW		1780								
TAZELAAR, KENNETH P &	1725	JUNIPER ST SW	1	1781	1	500						
SCHAAFSMA, RYAN & MELISSA	1726	JUNIPER ST SW	1	1782	1	500						
FUTRELL, JOHN LEE & LILLIAN N	1741	JUNIPER ST SW		1783								
DRISCOLL, MARY K	1742	JUNIPER ST SW	1	1784	1	500						
VANDERNOORD, EDWARD &	1805	JUNIPER ST SW	1	1785	1	500						
ANDERSON, ROBERT W & LISA N	1806	JUNIPER ST SW		1786								
JAMES, PAUL E & PAULINE L	1817	JUNIPER ST SW		1787								
GALLAGHER, JOHN F & GRACE	1818	JUNIPER ST SW		1788								
HUHN, KENNETH W	1828	JUNIPER ST SW		1789								
ZIEMLO, ANDREW & LAURIE	1829	JUNIPER ST SW	1	1790	1	500						
MERACLE, RICKY D & LINDA L	1904	JUNIPER ST SW		1791								
COFFER, DELORES	1905	JUNIPER ST SW		1792								
DUTTLINGER REVOCABLE LITRUST	1916	JUNIPER ST SW		1793								
ABRELL, EUGENE A & MICHELE M	1917	JUNIPER ST SW		1794								
EDMONDS, PETER J & KATHERINE M SULLIVAN	1928	JUNIPER ST SW		1795								
GIFFORD, LAWRENCE D &	2004	JUNIPER ST SW		1796								
CRAIG, MARK A	2017	JUNIPER ST SW		1797								
FRANZEN, ROGER G & LISA M	2029	JUNIPER ST SW		1798								
LASKI, RICHARD A & DONNA M		JUNIPER ST SW		1799								
LASKI, RICHARD A & DONNA M		JUNIPER ST SW		1800								
REDAR, ROY P, THERESA DEMSKI, THADDEUS R	1816	KAPOK ST SW		1801								
CHLEBOWSKI, EUGENE A JR &	1632	KAPOK ST SW	1	1802	1	500						
TORP, CARL JR & ROSEMARY R	1712	KAPOK ST SW		1803								
GREENLEE, DOUGLAS A & DENISE M	1713	KAPOK ST SW	1	1804	1	500						
ZEA, RODNEY M	1724	KAPOK ST SW		1805								
PATTERSON, SARA L	1725	KAPOK ST SW	1	1806	1	500						
SEEGER, RICHARD J & EDITH J	1738	KAPOK ST SW		1807								
DONNOWITZ, GEORGE A & MARGARET	1737	KAPOK ST SW		1808								
HILL, RORY	1804	KAPOK ST SW		1809								
SCHULTZ, CHARLES J III & DIANE K	1805	KAPOK ST SW	1	1810	1	500						
TOKARZ, ANTHONY J & YVETTE	1815	KAPOK ST SW		1811								
JANICKOVIC, RICHARD J &	1627	KAPOK ST SW		1812								

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows: Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	Comments
VORST, JEFFREY J & AMY S	1828	KAPOK ST SW		1813								
KRZYSTON, EDWARD A & PAMELA J	1905	KAPOK ST SW		1814								
NICHOLS, PHILIP E & JEANETTE M	1906	KAPOK ST SW	1	1815	1	500						
BALCERAK, GARY G & NORENE L	1916	KAPOK ST SW	1	1816	1	500						
MATTINGLY, MICHAEL L & GAY A	1917	KAPOK ST SW	1	1817	1	500						
CAMERINO, FRANK J & ESTHER E	1928	KAPOK ST SW	1	1818	1	500						
NUTTALL, DENISE R	1929	KAPOK ST SW	1	1819	1	500						
INFANTE, JOANN G	2004	KAPOK ST SW	1	1820	1	500						
STEIDLE, KENNETH L & DOROTHY S	2005	KAPOK ST SW	1	1821	1	500						
POPP, THOMAS W	2016	KAPOK ST SW		1822								
MITCHELL, JONATHON D &	2017	KAPOK ST SW	1	1823	1	500						
NIEHOF, TIMOTHY S & KRISTIN G	2032	KAPOK ST SW	1	1824	1	500						
PRIMEAU, STEVEN L & DEBORAH S	2033	KAPOK ST SW	1	1825	1	500						
CURTIS, CHARLES A	2044	KAPOK ST SW		1826								
BOON, DALE M & SHANNON M	8914	MADRID ST		1827								
SCHULTZ, KIMBERLY K	8946	MADRID ST		1828								
SMITH, RONALD M &	8974	MADRID ST		1829								
NORLIN, ALFRED H & JULIE M		MADRID ST		1830								
PROSSER, RONALD	11841	N 900 W	1	1831	1	500						
JACKSON, WILLIAM	11861	N 900 W	1	1832	1	500						
EMMERSON, JAMES & MELINDA	11901	N 900 W	1	1833	1	500						
BER, SHIRLEY C	105	ORCHID ST SE		1834								
DONNELLY, CON J & LISA K	204	ORCHID ST SE		1835								
KAPERS BUILDING MATERIAL INC	404	ORCHID ST SE		1838								
VEISBERGS, NATALIE F &	425	ORCHID ST SE		1837								
CASPER, THOMAS J	505	ORCHID ST SE		1838								
SCHULTZ, JEFFERY D	551	ORCHID ST SE		1839								
SCHULTZ, JEFFREY D & DEBRA K	617	ORCHID ST SE		1840								
STOTT, JEFFREY W	713	ORCHID ST SE		1841								
BARKER, WARREN & MARY	725	ORCHID ST SE		1842								
TOWNER, ROBERT R	901	ORCHID ST SE		1843								
HOFFMAN, MARVIN	1230	ORCHID ST SE		1844								
MAGERS, DAVID E & GLENDA JEAN	1236	ORCHID ST SE		1845								
WIREMAN, DONNA L MAGERS	1308	ORCHID ST SE		1846								
MAGERS, DERALD E	1500	ORCHID ST SE		1847								
SCAMIHORN, PAUL EMERSON &	1322	ORCHID ST SE		1848								
JONAS, PETER LLC	1330	ORCHID ST SE		1849								
WEIDEMAN, JEFFREY B &	1410	ORCHID ST SE	1	1850	1	500						
BER, SHIRLEY C TRUSTEE		ORCHID ST SE		1851								
KAPERS BUILDING MATERIAL INC		ORCHID ST SE		1852								
WALSTRA, PETER J INC		ORCHID ST SE		1853								
SCHULTZ, ROBERT L & MAUREEN J		ORCHID ST SE		1854								
HOFFMAN, BEN FARM INC		ORCHID ST SE		1855								
MCCLOSKEY, MICHAEL & SUZANNE		ORCHID ST SE		1856								
MCCLOSKEY, MICHAEL & SUZANNE		ORCHID ST SE		1857								
KAPER, ROBERT S JR & TARA LYNN		ORCHID ST SE		1858								
RADTKE, DONALD W JR & TERRI		ORCHID ST SE		1859								
HICKEY, THOMAS B & DARLENE		ORCHID ST SE		1860								
RADTKE, DONALD W JR &		ORCHID ST SE		1861								
SCHULTZ, JEFFREY D & DEBRA K		ORCHID ST SE		1862								
WALSTRA, PETER J INC		ORCHID ST SE		1863								
SCHULTZ, JEFFREY D & DEBRA KAY	6818	RIDGEVIEW		1864								
GROEN, MARY S & ROBERT A		ST RD 53		1885								
MIRACLE GROUP LLC THE		US 231		1868								
DIRCKS, GEORGE SR &		US 231		1867								
PINE CREST ESTATES LLC	7591	W 1350 N		1869								
PINE CREST ESTATES LLC	7591	W 1350 N		1870								
EENIGENBURG, RICHARD J &		W 1350N		1871								
DEBOER, JACK & SHIELA		W 1350N		1872								
MAK, WILLIAM CHARLES & BRIAN		W 1400 N		1873								
NORTHERN IN PUBLIC SERVICE CO		W 1400 N		1874								
MIRACLE GROUP LLC THE	700	W ST RD 10		1875								
TOPPEN, JAMES H & EILEEN		W ST RD 10		1876								
CALVARY ASSEMBLY	7121	W ST RD 53		1877								
FREDERICH, THOMAS J & LISABETH	6984	WINDSOR		1878								
ROMANCHUK, JANTINA H	6985	WINDSOR		1879								

EXHIBIT C-3 2011 Design Flows

EXHIBIT C-3 2011 Design Flows

Tax Owner name	House Number	Property Address	User	Map #	Meter	Anticipated Flows						
						Single Family Residence	2 Bedroom Unit	1 Bedroom Unit	Commercial	Schools	Total	Comments
					751							
					Flow	242,000.00	8,600.00	48,400.00	55,685.00	17,395.00	370,080	GPD
					EDU	484.0	13.2	96.8	111.4	34.8	740.2	EDUs

Appendix D
Production Well Data

EXHIBIT D-1
Existing Well Log, Well 1

Record of Water Well
Indiana Department of Natural Resources

Reference Number	Driving Direction to Well	Date Completed
380565	1100' E OF 700 W & 650' S OF 1450N' ; TW 03A	10/30/2003

Owner-Contractor	Name	Address	Telephone
Owner	TOWN OF DEMOTTE	13390 N 900 W DEMOTTE IN	Not available
Driller	PEERLESS MIDWEST INC	55860 RUSSELL INDUSTRIAL PKWY MISHAWAKA IN	(574)254-9050
Operator	AL MARTINDALE COOK DRILLING OC	License: 976	

Construction Details

Well	**Use:** Test	**Drilling Method:** HOLLOW STEM	**Pump Type:** Not available
	Depth: 48.0	**Pump Setting Depth:** Not available	**Water Quality:** Not available
Casing	**Length:** 45.0	**Material:** PVC	**Diameter:** 4.0
Screen	**Length:** 5.0 **Slot Size:** .010	**Material:** PVC	**Diameter:** 4.0

Well Capacity Test

Type of Test: Not available	**Test Rate:** Not available	**Bail Test Rate:** Not available
Drawdown: Not available	**Static Water Level:** 6.6 ft.	**Bailer Drawdown:** Not available

Grouting Information

Material: BENTONITE	**Depth:** From 0.0 To 40.0
Installation Method: TREMIE	**Number of Bags Used:** 1.5

Well Abandonment

Sealing Material: Not available	**Depth:** From (not available) To (not available)
Installation Method: Not available	**Number of Bags Used:** Not available

Administrative

County: JASPER
Range: 7W
Topo Map: DEMOTTE
Field Located By: DRILLER
Courthouse Location By: Not available
Location Accepted w/o Verification By: Not available
Subdivision Name: Not available
Ft W of EL: Not available
Ft E of WL: 1,250.0
Ground Elevation: 650.0
Bedrock Elevation: Not available
UTM Easting: 485308

Township: 32N
Section: NE of the NW of the SW of Section 13
Grant: Not available
Field Located On: 7/14/2004
Courthouse Location On: Not available
Location Accepted w/o Verification On: Not available
Lot Number: Not available
Ft N of SL: Not available
Ft S of NL: 3,100.0
Depth of Bedrock: Not available
Aquifer Elevation: 599.0
UTM Northing: 4563270

Well Log

Top	Bottom	Formation
0.0	1.0	TOPSOIL
1.0	5.0	FN TO MED BR SAND W/SILT
5.0	26.0	FN MED GRAY SAND SOME VERY FN
26.0	34.0	MED FN GRAY SAND
34.0	39.0	MED CS SAND & FN GRAVEL SM FN
39.0	48.0	MED CS SAND W/FN SAND
48.0	51.0	GRAY CLAY

Comments
MC 602

EXHIBIT D-1
Existing Well Log, Well 2

Record of Water Well
Indiana Department of Natural Resources

Reference Number	Driving Direction to Well	Date Completed
380570	750' E OF 700W & 750' S OF 1450N; TW 03B	10/31/2003

Owner-Contractor	Name	Address	Telephone
Owner	TOWN OF DEMOTTE	13390 N 900 W DEMOTTE IN	Not available
Driller	PEERLESS MIDWEST INC	55860 RUSSELL INDUSTRIAL PKWY MISHAWAKA IN	(574)254-9050
Operator	AL MARTINDALE COOK DRILLING CO	License: 976	

Construction Details

Well	**Use:** Test	**Drilling Method:** HOLLOW STEM	**Pump Type:** Not available
	Depth: 43.0	**Pump Setting Depth:** Not available	**Water Quality:** Not available
Casing	**Length:** 40.0	**Material:** PVC	**Diameter:** 4.0
Screen	**Length:** 5.0 **Slot Size:** .010	**Material:** PVC	**Diameter:** 4.0

Well Capacity Test

Type of Test: Pumping | **Test Rate:** 13.0 gpm for 8.0 hrs. | **Bail Test Rate:** Not available
Drawdown: 1.4 ft. | **Static Water Level:** 6.9 ft. | **Bailer Drawdown:** Not available

Grouting Information

Material: BENTONITE | **Depth:** From 0.0 To 32.0
Installation Method: TREMIE | **Number of Bags Used:** 1.0

Well Abandonment

Sealing Material: Not available | **Depth:** From (not available) To (not available)
Installation Method: Not available | **Number of Bags Used:** Not available

Administrative

County: JASPER
Range: 7W
Topo Map: DEMOTTE
Field Located By: DRILLER
Courthouse Location By: Not available
Location Accepted w/o Verification By: Not available
Subdivision Name: Not available
Ft W of EL: Not available
Ft E of WL: 1,925.0
Ground Elevation: 650.0
Bedrock Elevation: Not available
UTM Easting: 485169

Township: 32N
Section: NE of the NW of the SW of Section 13
Grant: Not available
Field Located On: 7/14/2004
Courthouse Location On: Not available
Location Accepted w/o Verification On: Not available
Lot Number: Not available
Ft N of SL: Not available
Ft S of NL: 750.0
Depth of Bedrock: Not available
Aquifer Elevation: 605.0
UTM Northing: 4563250

Well Log

Top	Bottom	Formation
0.0	1.5	TOPSOIL
1.5	3.0	BR SANDY CLAY
3.0	5.0	BR SITLY SAND
5.0	28.0	GRAY FN SAND W/F\VERY FN SAND
28.0	31.0	MED SAND W/FN & CS SAND
31.0	35.0	MED SAND W/VERY FN FN & CS SAN
35.0	37.0	FN SAND & MED SAND
37.0	40.0	MED CS SAND W/FN S&G
40.0	42.5	FN SAND TRACE SILT

42.5	45.0	GRAY SILTY CLAY

Comments
MC 607

EXHIBIT D-1
Existing Well Log, Well 3

Record of Water Well
Indiana Department of Natural Resources

Reference Number	Driving Direction to Well	Date Completed
382069	1080 FT E OF 700W & 650 FT S OF 1450N	3/17/2004

Owner-Contractor	Name	Address	Telephone
Owner	TOWN OF DEMOTTE	13390 N 900W DEMOTTE IN	(547)850-8221
Driller	PEERLESS MIDWEST INC	55860 RUSSELL INDUSTRIAL PKWY MISHAWAKA IN	(574)254-9050
Operator	JOHN BLATZ	License: 214	

Construction Details

Well	**Use:** Home	**Drilling Method:** Cable Tool	**Pump Type:** Submersible
	Depth: 48.0	**Pump Setting Depth:** 31.0	**Water Quality:** Not available
Casing	**Length:** 34.5	**Material:** STEEL	**Diameter:** 12.0
Screen	**Length:** 15.0	**Material:** SSWW	**Diameter:** 12.0
	Slot Size: .035		

Well Capacity Test

Type of Test: Pumping
Test Rate: 503.0 gpm for 72.0 hrs.
Bail Test Rate: Not available
Drawdown: 24.5 ft.
Static Water Level: 6.5 ft.
Bailer Drawdown: Not available

Grouting Information

Material: BENSEAL
Depth: From 0.0 To 25.0
Installation Method: TREMMIE
Number of Bags Used: 34.0

Well Abandonment

Sealing Material: Not available
Depth: From (not available) To (not available)
Installation Method: Not available
Number of Bags Used: Not available

Administrative

County: JASPER
Township: 32N
Range: 7W
Section: NE of the NW of the SW of Section 13
Topo Map: DEMOTTE
Grant: Not available
Field Located By: DRILLER
Field Located On: 9/14/2004
Courthouse Location By: Not available
Courthouse Location On: Not available
Location Accepted w/o Verification By: Not available
Location Accepted w/o Verification On: Not available
Subdivision Name: Not available
Lot Number: Not available
Ft W of EL: Not available
Ft N of SL: 1,950.0
Ft E of WL: 1,200.0
Ft S of NL: Not available
Ground Elevation: 650.0
Depth of Bedrock: Not available
Bedrock Elevation: Not available
Aquifer Elevation: 602.0
UTM Easting: 485309
UTM Northing: 4563260

Well Log

Top	Bottom	Formation
0.0	1.0	TOPSOIL
1.0	26.0	MED TO FN SAND
26.0	35.0	MED SAND
35.0	46.0	CRS SAND SOME GRAVEL
46.0	48.0	CRS GRAVEL AND SAND
48.0		CLAY

Comments
SEE MAP; FC ONLY; CASING LENGTH 1.5' ABOVE

ORTMAN
Drilling & Water Services
Research - Design - Construction - Maintenance
241 N. 300 W. • Kokomo, IN 46901 • 765-459-4125 FAX 765-459-8750

EXHIBIT D-2
Pumping Test

October 28, 2019

Report IV # DO19014

Robert Barton
Town of DeMotte
13390 N 900 W
DeMotte, IN 46310
Ph: 219-987-5350
Em: rbarton@netnitco.net

Re: Long-Term Pump Tests for (3) Production Wells near Kersey

Ortman Drilling and Water Services would like to thank you for the opportunity to work together on the long-term pump tests performed on the (3) 10" production wells drilled near Kersey.

Due to the wells being under an artesian effect, the technicians allowed for the water level to return to the top of the casing of each well before turning on the 24-hour pump tests for each of the production wells. Please see the map and well logs for the (3) production wells at the end of this document. Additionally, down-hole probes were installed in the production well being tested, the other (2) production wells, and (2) test wells to better understand the interaction between the (3) production wells. Each production well was tested at different rates in an attempt to prevent the pumping water level from dropping below the casing of the well.

The first 24-hour pump test was performed on PW2. At this point, we were unsure how quickly the pumping water level would drop overnight. From the initial long-term pump test performed on the test well near by PW2, it was anticipated the pumping water level would drop a few feet over night. At a rate of 328 gpm, the water level in the well dropped a few feet. At the beginning of the test, the water level was near 36' and dropped to 38' – 39' at the end of the 24-hour period. Approximately 10' of drawdown was still available. The pumping rate set for PW2 did have an effect on the other two production wells (PW1 = 8' below grade and PW3 = 12.5' below grade). It is difficult to determine the full effect as we are still unsure of the true static water level above grade. Please see pump test data at the end of this document.

PW3 was the second production well to be tested. After it was determined that the well could produce 174 gpm near 45' below grade, the 24-hour pump test was set for this rate. From the data retrieved by down-hole probe and the manual readings by the pump technician, the pumping water level began to rise over the 24-hour period. By the end of the test, the pumping water level was nearing 41'. During the test, the pumping rate had a limited amount of influence on the other (4) wells. Please see pump test data at the end of this document.

PW1 was the last production well to be tested. Since we did not over-stress the first two wells (PW2 and PW3) during the 24-hour pump tests, it was decided to be slightly more aggressive with the pumping rate on PW1. For this well, a pumping rate of 596 gpm was set. Initially, the pumping water level was near 41' in depth but dropped just below 50' by the end of the 24-hour period. This pumping rate placed on PW1 did have a consistent effect on the other (4) wells with down-hole probes. The effect was similar with both PW2 and PW3, which was approximately 17' to 18' for each. Please see the pump test data at the end of the document.

At the end of each 24-hour pump test and before the temporary pump was shut down, an extensive amount of water samples was obtained and delivered to a state certified lab for testing. Please see results for water testing at the end of the document.

Based off of the 24-hour pump tests performed on the (3) production wells, if the Town of DeMotte is still planning on pumping (2) wells at a rate of 300 gpm and (1) well at a rate of 150 gpm, the (3) new production wells could sustain these rates on a long-term basis.

Note: The long-term pump test did not take into account seasonal stresses on the aquifer, such as irrigation wells during the summer months, and the impact these seasonal stresses may have on the available water production and drawdown.

We hope that you find the enclosed information in order and complete. We would like to thank you for giving us the opportunity to be of service to you. If you have any questions or concerns, please do not hesitate to contact me immediately at 765-412-0697.

Respectfully,

Deanna B Ortman

Deanna Ortman
Ortman Drilling & Water Services
765-412-0697
dortman@ortmandrilling.com

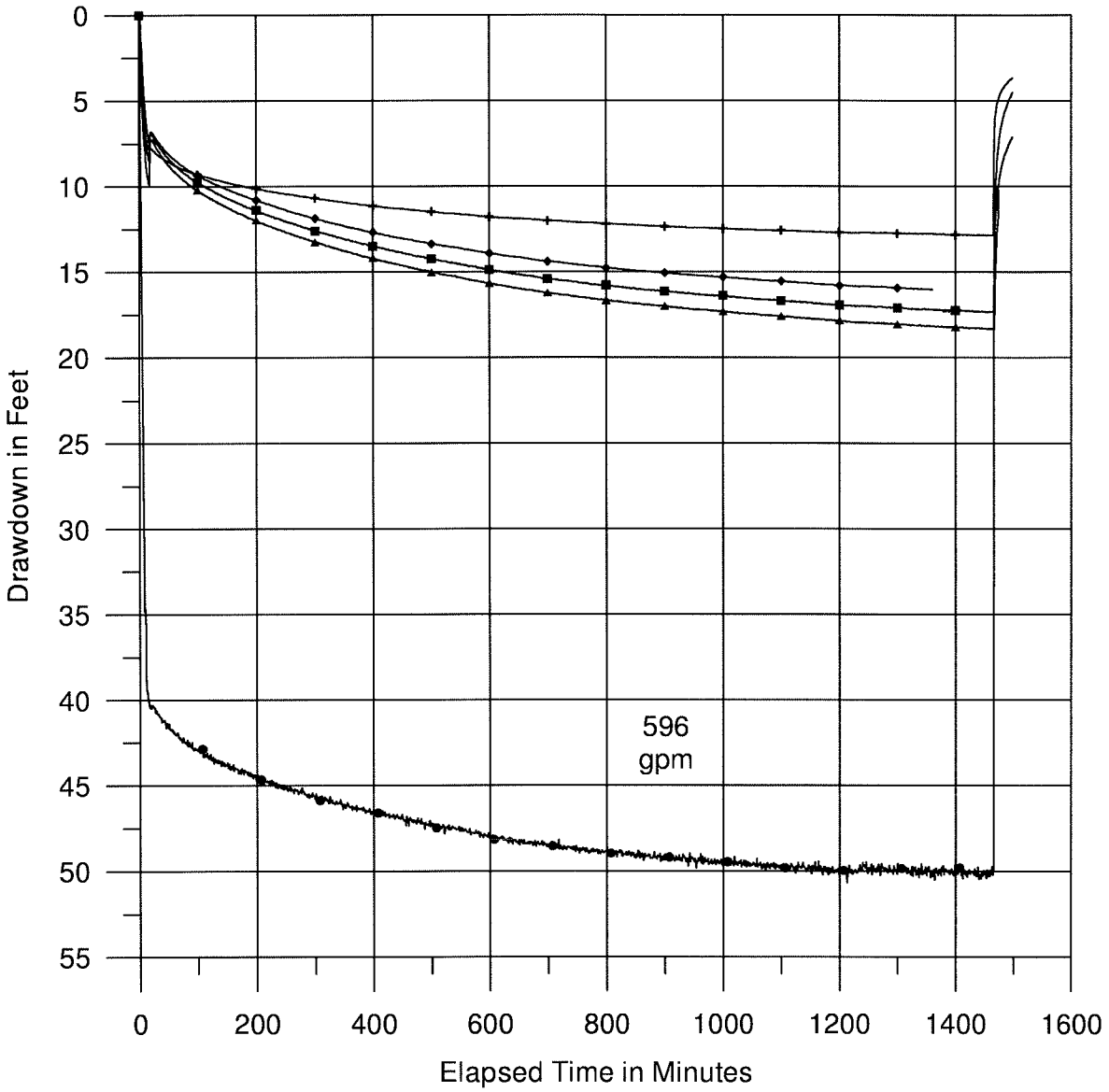
ORTMAN

EXHIBIT D-2 Pumping Test

EXHIBIT D-2
Pumping Test, PW-1

ORTMAN
Drilling & Water Services
Research - Design - Construction - Maintenance
241 N. 300 W. • Kokomo, IN 46901 • 765-459-4125 FAX 765-459-8750

Demotte, Indiana - Kersey Well Field
Well PW1 (SW)
Pumping Test

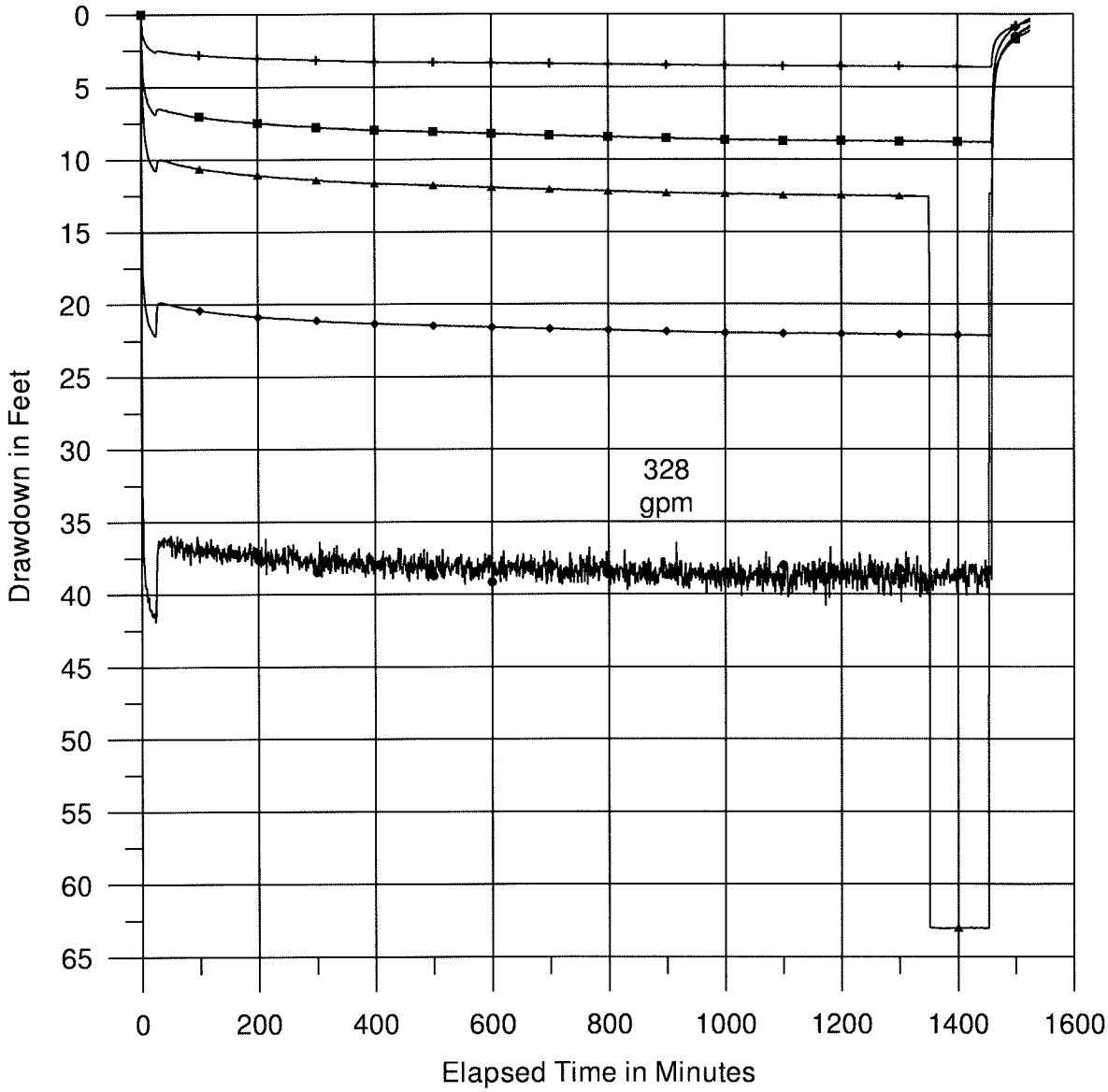


Test Start Date: 08/27/19
PW1 (SW) Pretest WL: 4.25 ft Above Grade
PW1 (SW) End of Test SC: 11.91 gpm/ft

PW1 (SW) •
PW2 (Mid) ■
PW3 (NE) ▲
TW1 (Mid) ◆
TW2 (SW) +

ORTMAN
Drilling & Water Services
Research - Design - Construction - Maintenance
241 N. 300 W. • Kokomo, IN 46901 • 765-459-4125 FAX 765-459-8750

Demotte, Indiana - Kersey Well Field
Well PW2 (Mid)
Pumping Test

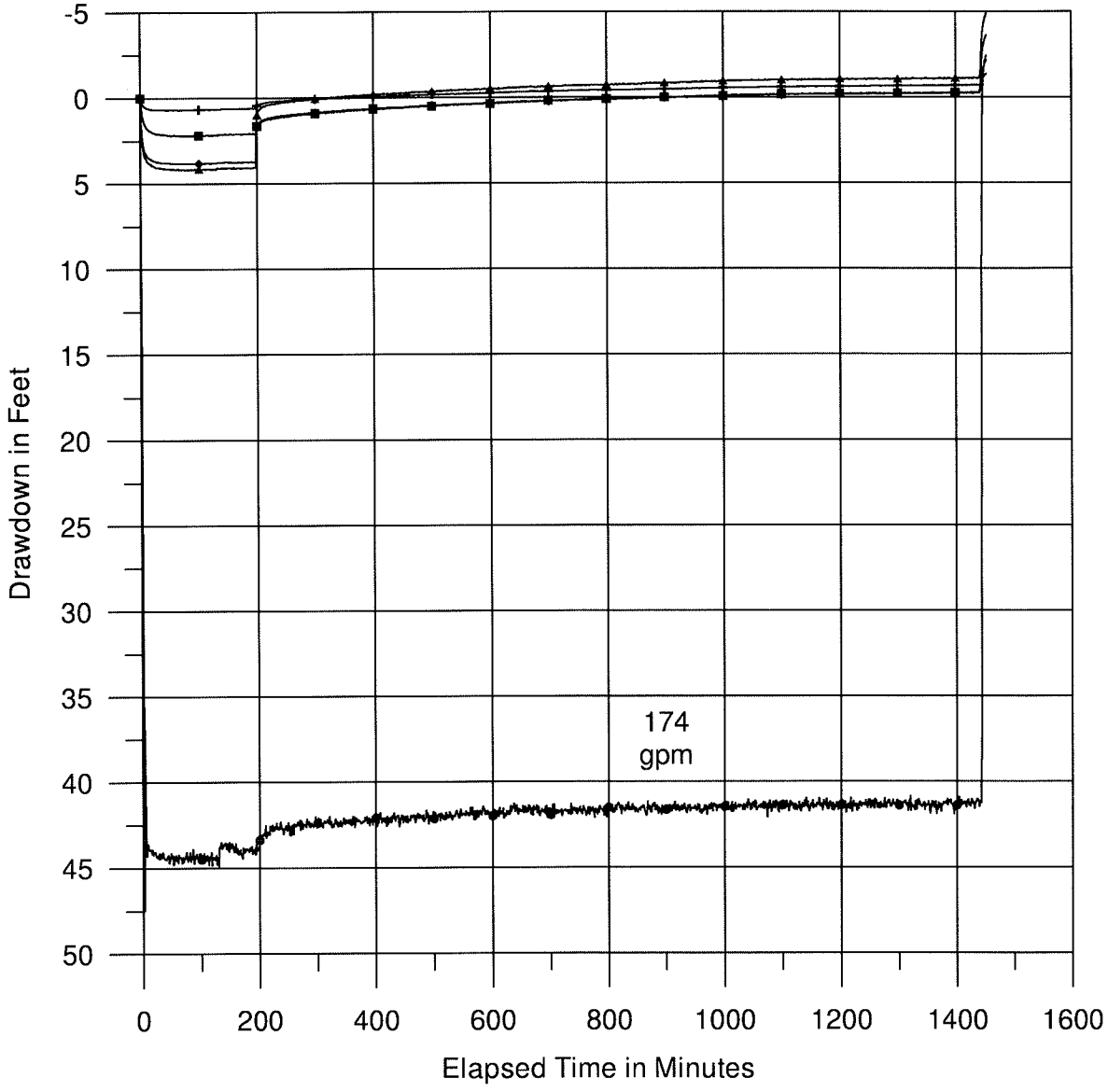


Test Start Date: 08/21/19
PW2 (Mid) Pretest WL: 3.58 ft Above Grade
PW2 (Mid) End of Test SC: 8.41 gpm/ft

PW2 (Mid) •
PW1 (SW) ■
PW3 (NE) ▲
TW1 (Mid) ◆
TW2 (SW) +

ORTMAN
Drilling & Water Services
Research - Design - Construction - Maintenance
241 N. 300 W. • Kokomo, IN 46901 • 765-459-4125 FAX 765-459-8750

Demotte, Indiana - Kersey Well Field
Well PW3 (NE)
Pumping Test



Test Start Date: 08/26/19
PW3 (NE) Pretest WL: 3.33 ft Above Grade
PW3 (NE) End of Test SC: 4.22 gpm/ft

PW3 (NE) •
PW1 (SW) ■
PW2 (Mid) ▲
TW1 (Mid) ◆
TW2 (SW) +

EXHIBIT D-3
Raw Water Analysis, PW-1

HOOSIER MICROBIOLOGICAL
HML™
LABORATORY

Testing • Research • Consulting

Multiple Analysis Report

Sample: 380652

October 1, 2019

Mr. Thomas S. Berquist
Ortman Drilling, Inc.
241 N. CR 300 W.
Kokomo, IN 46901

RE: PWS ID#: Unavailable
PW1
Sample Tap
Unavailable
Unavailable

Dear Mr. Berquist:

The following are the result(s) of the test(s) performed on the sample(s) received at HML, Inc. at 9:27 AM, 08/29/2019, and collected at 10:30 AM, 08/28/2019:

TEST - METHOD	RESULT	MDL*	Date Complete
Heterotrophic Plate Count-SM9215	3 cfu/mL	1 cfu/mL	08/31/2019

*Minimum Detection Level

This testing was completed by T.K. Please feel free to contact us if we can be of further service to you.

Sincerely,

Donald A. Hendrickson, Ph.D.
President - Microbiologist
Chemistry Lab #C-18-01
Microbiological Lab #M-18-03

DAH/skp

EXHIBIT D-3
Raw Water Analysis, PW-1

HOOSIER MICROBIOLOGICAL
HML
LABORATORY

Testing • Research • Consulting

Multiple Analysis Report

Sample: 380653
October 1, 2019

Mr. Thomas S. Berquist
Ortman Drilling, Inc.
241 N. CR 300 W.
Kokomo, IN 46901

RE: PWS ID#: Unavailable
PW1
Sample Tap
Unavailable
Unavailable

Dear Mr. Berquist:

The following are the result(s) of the test(s) performed on the sample(s) received at HML, Inc. at 9:27 AM, 08/29/2019, and collected at 10:30 AM, 08/28/2019:

TEST - METHOD	RESULT	MDL*	Date Complete
Alachlor-525.2	<0.2 ug/L	0.2 ug/L	09/27/2019
Atrazine-525.2	<0.5 ug/L	0.5 ug/L	09/27/2019
Benzo(a)pyrene-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Carbofuran-531.1	<0.9 ug/L	0.9 ug/L	09/11/2019
Chlordane-525.2	<0.2 ug/L	0.2 ug/L	09/27/2019
2,4-D-515.4	<1 ug/L	1 ug/L	09/24/2019
Dalapon-515.4	<5 ug/L	5 ug/L	09/24/2019
DBCP (1,2-Dibromo-3-chloropropane)-504.1	<0.02 ug/L	0.02 ug/L	09/12/2019
Diquat (HPLC)-549.2	<2 ug/L	2 ug/L	09/13/2019
Dinoseb-515.4	<1 ug/L	1 ug/L	09/24/2019
Di(2-ethylhexyl)adipate-525.2	<0.6 ug/L	0.6 ug/L	09/27/2019
Di(2-ethylhexyl)phthalate-525.2	<0.6 ug/L	0.6 ug/L	09/27/2019
Ethylene Dibromide-504.1	<0.01 ug/L	0.01 ug/L	09/12/2019
Endothall-548.1	<9 ug/L	9 ug/L	09/06/2019
Endrin-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Glyphosate-547	<30 ug/L	30 ug/L	09/20/2019
Heptachlor-525.2	<0.2 ug/L	0.2 ug/L	09/27/2019
Heptachlor epoxide-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Hexachlorobenzene-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Hexachlorocyclopentadiene-525.2	<0.5 ug/L	0.5 ug/L	09/27/2019
Lindane-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Methoxychlor-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019

EXHIBIT D-3
Raw Water Analysis, PW-1

TEST - METHOD	RESULT	MDL*	Date Complete
Oxamyl-531.1	<2 ug/L	2 ug/L	09/11/2019
Pentachlorophenol-515.4	<0.4 ug/L	0.4 ug/L	09/24/2019
Picloram-515.4	<1 ug/L	1 ug/L	09/24/2019
Simazine-525.2	<0.35 ug/L	0.35 ug/L	09/27/2019
2,4,5-TP (Silvex)-515.4	<1 ug/L	1 ug/L	09/24/2019
Toxaphene-505	<1 ug/L	1 ug/L	09/11/2019
Carbon Tetrachloride-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Chlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1,2-Trichloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1,1-Trichloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Cis-1,2-Dichloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Trans-1,2 dichloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Ethylbenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2,4-Trichlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Dichloromethane (methylene chloride)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Tetrachloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Styrene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Toluene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Benzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2-Dichloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,4-Dichlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Trichloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Vinyl Chloride (chloroethylene)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Xylene (total)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2 Dichloropropane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1-Dichloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2-Dichlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Bromobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Bromodichloromethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Bromoform-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Chloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Chloroform-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Chloromethane (methyl chloride)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
2-Chlorotoluene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
4-Chlorotoluene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Dibromochloromethane - Chlorodibromomethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Dibromomethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,3-Dichlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1-Dichloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,3-Dichloropropane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
2,2-Dichloropropane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1-Dichloropropene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
cis-1,3-Dichloropropene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
trans-1,3-Dichloropropene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1,1,2-Tetrachloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1,2,2-Tetrachloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2,3-Trichloropropane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019

EXHIBIT D-3
Raw Water Analysis, PW-1

TEST - METHOD	RESULT	MDL*	Date Complete
Bromomethane (methyl bromide)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
PCB-608	<0.0005 mg/L	0.0005 mg/L	09/10/2019
Iron-200.7	0.02 mg/L	0.01 mg/L	09/16/2019
Manganese-200.7	<0.01 mg/L	0.01 mg/L	09/16/2019
Potassium-200.7	1.6 mg/L	0.6 mg/L	09/03/2019
Lead-200.9	< 1.0 ug/L	1.0 ug/L	09/10/2019
Copper-200.7	<0.01 mg/L	0.01 mg/L	09/11/2019
Phosphate-200.7	<0.15 mg/L	0.15 mg/L	09/03/2019
Aluminum-200.7	< 0.05 mg/L	0.05 mg/L	09/24/2019
Silver-200.7	< 0.01 mg/L	0.01 mg/L	08/30/2019
Magnesium-200.7	17.3 mg/L	1.0 mg/L	09/10/2019
Turbidity-EPA180.1	0.10 NTU	0.02 NTU	08/29/2019
Zinc-200.7	<0.01 mg/L	0.01 mg/L	09/11/2019
Nitrogen, Nitrite-SM 4500 NO2-B	< 0.01 mg/L	0.01 mg/L	08/29/2019
Chloride-SM 4500 Cl-B	12 mg/L	1.0 mg/L	09/03/2019
Nitrogen, ammonia-350.1	< 0.10 mg/L	0.10 mg/L	08/29/2019
Calcium-200.7	53.3 mg/L	1.0 mg/L	09/10/2019
Carbon Dioxide-SM4500 co2 C	58.8 mg/L	1.0 mg/L	08/29/2019
Color-EPA110.3	<7.0 PtCo units	7.0 PtCo units	08/29/2019
Dissolved Oxygen-EPA360.1	7.97 mg/L	0.01 mg/L	08/30/2019
Surfactants-SM5540C	<0.1 mg/L	0.1 mg/L	09/25/2019
Odor-SM2150	Threshold No. 1.4	Threshold	08/29/2019
Conductivity-SM2510B	408 uS/cm	0.01 uS/cm	08/29/2019
Silica-SM4500Si-D	14.6 mg/L	1.0 mg/L	09/23/2019
Sulfide-SM4500S2-D	<0.01 mg/L	0.01 mg/L	09/03/2019
Sulfate-SM4500SO4(2-) E	3.7 mg/L	1.1 mg/L	08/30/2019
Temperature-170.1	54 F		08/28/2019
Langelier Index-Calculation	0.13		09/04/2019
Calcium Hardness-SM 2340C	184 mg/L	1.0 mg/L	09/03/2019
Solids, dissolved-SM 2540C	274 mg/L	1.0 mg/L	08/29/2019
Alkalinity-SM 2320 B	226 mg/L	1.0 mg/L	09/04/2019
Solids, suspended-SM 2540D	< 5.0 mg/L	5.0 mg/L	09/05/2019
Alkalinity phenophalein-SM 2320 B	< 1.0 mg/L	1.0 mg/L	09/04/2019
Alkalinity carbonate-SM 2320 B	< 1.0 mg/L	1.0 mg/L	09/04/2019
Alkalinity bicarbonate-SM 2320 B	226 mg/L	1.0 mg/L	09/04/2019
Cadmium-200.7	<0.001 mg/L	0.001 mg/L	09/04/2019
Barium-200.7	0.04 mg/L	0.01 mg/L	09/17/2019
Antimony-200.9	< 0.0010 mg/L	0.0010 mg/L	09/13/2019
Arsenic-200.9	< 0.0010 mg/L	0.0010 mg/L	09/09/2019
Chromium-200.7	<0.005 mg/L	0.005 mg/L	09/04/2019
Mercury-245.1	<0.0002 mg/L	0.0002 mg/L	09/04/2019
Nickel-200.7	<0.01 mg/L	0.01 mg/L	09/20/2019
Selenium-200.9	< 0.0010 mg/L	0.0010 mg/L	09/16/2019
Sodium-200.7	8.5 mg/L	1.0 mg/L	09/10/2019
Beryllium-200.7	<0.001 mg/L	0.001 mg/L	09/20/2019
Thallium-200.9	< 0.0010 mg/L	0.0010 mg/L	09/17/2019
Cyanide, Total-SM 4500 CN-E	< 0.01 mg/L	0.01 mg/L	09/03/2019

EXHIBIT D-3
Raw Water Analysis, PW-1

Ortman Drilling, Inc. *Sample 380653 Sample Tap*

TEST - METHOD	RESULT	MDL*	Date Complete
Fluoride-HACH 10225	0.52 mg/L	0.1 mg/L	09/23/2019
Nitrogen, nitrate-HACH 10206	< 1.0 mg/L	1.0 mg/L	09/20/2019
pH (lab)-150.1	7.43		08/30/2019

*Minimum Detection Level

This testing was completed by M.E. and K.L. and C.U. Please feel free to contact us if we can be of further service to you.

Sincerely,

Donald A. Hendrickson, Ph.D.
President - Microbiologist
Chemistry Lab #C-18-01
Microbiological Lab #M-18-03

DAH/skp

EXHIBIT D-3
Raw Water Analysis, PW-1

HOOSIER MICROBIOLOGICAL LABORATORY
912 W. MCGALLIARD RD.
MUNCIE, IN 47303
(765) 288-1124

Bacteriological Examination of Private Water

Certified by the Indiana State Board of Health
Certified Lab ID# M-18-03

Date/Time Received: 08/29/2019 at 09:27 AM

Bottle Number: 380651

Name: Ortman Drilling, Inc.

Address: 241 N. CR 300 W.

City/St/Zip: Kokomo, IN 46901

Telephone: (765) 459-4125

Started: 08/29/2019 @ 03:15 PM by Teresa

Read: 08/30/2019 @ 03:30 PM by Teresa

County: Jasper

Organization: PW1

Address: Unavailable

City/St/Zip: Demotte, IN

Collected By: T. Berquist

Place Collected: Sample Tap

Date Collected: 08/28/2019

Time Collected: 10:30 AM

REPORT OF SAMPLE

TEST - METHOD		RESULT
Total Coliform-Colilert(quantitation)		<1 MPN/100 mL
[X] Total Coliform	[ ] Present	[X] Absent
[X] Fecal Coliform	[ ] Present	[X] Absent

[X] SATISFACTORY. At examination time this water was bacteriologically safe based on USEPA standards.

[ ] UNSATISFACTORY. At examination time this water was bacteriologically unsafe.

[ ] PLEASE SUBMIT ANOTHER SAMPLE; TEST NOT VALID BECAUSE:
- [ ] TOO LONG A TIME BETWEEN COLLECTION AND RECEIPT OF SAMPLE.
- [ ] INVALID OR NO COLLECTION DATE AND/OR TIME.
- [ ] SAMPLE LEAKED OR BROKEN IN SHIPMENT, INSUFFICIENT VOLUME
- [ ] RESIDUAL CHLORINE PRESENT.
- [ ] HIGH BACKGROUND COUNT.
- [ ] INCORRECT SAMPLE CONTAINER.
- [ ] NONCONFORMANCE WITH TEMPERATURE REQUIREMENTS > 4°C.

*MF - Membrane Filtration method

Signed: Donald A. Hendrickson

EXHIBIT D-3
Raw Water Analysis, PW-1

EMSL Analytical, Inc.
200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID: 041925599
Customer ID: HOOS54
Customer PO:
Project ID:

Attn: Michelle Brant
Hoosier Microbiological Laboratory (HML)
912 West McGalliard
Muncie, IN 47303

Phone: (765) 288-1124
Fax: (765) 288-8378
Received: 08/30/2019
Analyzed: 09/12/2019

Proj:

Test Report: Determination of Asbestos Structures ≥ 0.5 µm & > 10µm in Drinking Water Performed by the 100.2 Method (EPA 600/R-94/134)

Sample ID Client / EMSL	Sample Filtration Date/Time	Original Sample Vol. Filtered (ml)	Effective Filter Area (mm²)	Area Analyzed (mm²)	ASBESTOS	Asbestos Types	Fibers Detected	Analytical Sensitivity	Concentration	Confidence Limits
								MFL (million fibers per liter)		
380444 041925599-0001	9/3/2019 02:30 PM	100	1360	0.0774	≥ 0.5 µm	None Detected	ND	0.18	<0.18	0.00 - 0.65
					> 10 µm only	None Detected	ND	0.18	<0.18	0.00 - 0.65
Collection Date/Time:	*08/26/2019*									
Sample ozonated prior to analysis due to lab receipt time exceeding 48hr method hold time.										
380541 041925599-0002	9/3/2019 02:30 PM	50	1360	0.1419	≥ 0.5 µm	None Detected	ND	0.19	<0.19	0.00 - 0.71
					> 10 µm only	None Detected	ND	0.19	<0.19	0.00 - 0.71
Collection Date/Time:	*08/26/2019*									
Sample ozonated prior to analysis due to lab receipt time exceeding 48hr method hold time.										
380653 041925599-0003	9/3/2019 02:30 PM	100	1360	0.0774	≥ 0.5 µm	None Detected	ND	0.18	<0.18	0.00 - 0.65
					> 10 µm only	None Detected	ND	0.18	<0.18	0.00 - 0.65
Collection Date/Time:	*08/26/2019*									
Sample ozonated prior to analysis due to lab receipt time exceeding 48hr method hold time.										

Analyst(s)
Patrick Carr (3)

Benjamin Ellis, Laboratory Manager
or Other Approved Signatory

Any questions please contact Benjamin Ellis.

Initial report from: 09/12/2019 20:46:35

EXHIBIT D-3
Raw Water Analysis, PW-1

Pace Analytical™
PaceAnalyticalServices,LLC.
1700ElmStreet
Minneapolis,MN,55414
Tel612-607-1700
Fax612-607-6444

Drinking Water Analysis Results
2,3,7,8-TCDD -- USEPA Method 1613B

Sample ID.....380653
Client..... Hoosier Microbiological Lab
Lab Sample ID..... 10490762003

Date Collected.....08/28/2019
Date Received.....09/06/2019
Date Extracted.....09/11/2019

	Sample 380653	Method Blank	Lab Spike	Lab Spike Dup
[2,3,7,8-TCDD]	**ND**	ND	--	--
LOQ	5.0 pg/L	5.0 pg/L	--	--
2,3,7,8-TCDD Recovery	--	--	89%	84%
Spike Recovery Limit	--	--	73-146%	73-146%
RPD			6.7%	
IS Recovery	**77%**	71%	73%	77%
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	**83%**	79%	78%	85%
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename	E190912B_11	E190912B_05	E190912B_03	E190912B_04
Analysis Date	09/12/2019	09/12/2019	09/12/2019	09/12/2019
Analysis Time	17:30	14:48	13:55	14:22
Analyst	JRH	JRH	JRH	JRH
Volume	1.016L	1.007L	1.002L	1.010L
Dilution	NA	NA	NA	NA
ICAL Date	12/15/2018	12/15/2018	12/15/2018	12/15/2018
CCAL Filename	E190912B_02	E190912B_02	E190912B_02	E190912B_02

! = Outside the Control Limits
ND = Not Detected
LOQ = Limit of Quantitation
Limits = Control Limits from Method 1613 (10/94 Revision), Tables 6A and 7A
RPD = Relative Percent Difference of Lab Spike Recoveries
IS = Internal Standard [2,3,7,8-TCDD- $^{13}C_{12}$]
CS = Cleanup Standard [2,3,7,8-TCDD- $^{37}Cl_4$]

Analyst: Jessica Hoskins

Project No.....10490762

EXHIBIT D-3
Raw Water Analysis, PW-1

Client Name: Hoosier Microbiological Laboratories

Report #: 463770

Sampling Point: 380653 Sample Tap

PWS ID: Not Supplied

General Chemistry

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
—	Total Organic Carbon (TOC) $	5310 C	—	0.500	**2.48**	mg/L	—	09/17/19 00:17	4405250

Radionuclides

Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
—	Gross Alpha	7110 B	15 *	1.6	3.0	**3.6 ± 2.0**	pCi/L	09/06/19 14:50	09/18/19 12:00	4405249
—	Gross Beta	7110 B	—	1.6	4.0	**4.4 ± 1.7**	pCi/L	09/06/19 14:50	09/19/19 18:28	4405249
13982-63-3	Radium-226	7500-Ra B	—	0.19	1.0	**0.94 ± 0.46**	pCi/L	09/06/19 13:00	09/16/19 14:10	4405248
15262-20-1	Radium-228	7500-Ra D	—	0.52	1.0	**0.89 ± 0.54**	pCi/L	09/06/19 13:00	09/16/19 18:47	4405248
—	Combined Radium	calc.	5 *	0.52	1.0	**1.83 ± 0.71**	pCi/L	09/06/19 13:00	09/16/19 18:47	4405248

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

$ The state of origin does not offer certification for this parameter.

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

EXHIBIT D-3
Raw Water Analysis, PW-2

HOOSIER MICROBIOLOGICAL LABORATORY
912 W. MCGALLIARD RD.
MUNCIE, IN 47303
(765) 288-1124

Bacteriological Examination of Private Water

Certified by the Indiana State Board of Health
Certified Lab ID# M-18-03

Date/Time Received: 08/27/2019 at 11:43 AM

Bottle Number: 380442

Name: Ortman Drilling, Inc.

Address: 241 N. CR 300 W.

City/St/Zip: Kokomo, IN 46901

Telephone: (765) 459-4125

Started: 08/27/2019 @ 04:55 PM by Betsy

Read: 08/28/2019 @ 03:55 PM by Betsy

County: Unavailable

Organization: PW2

Address: Unavailable

City/St/Zip: Unavailable

Collected By: Thomas Berquist

Place Collected: Sample Tap

Date Collected: 08/26/2019

Time Collected: 02:00 PM

REPORT OF SAMPLE

TEST - METHOD		RESULT
Total Coliform-Colilert(quantitation)		3 MPN/100 mL
[X] Total Coliform	[X] Present	[ ] Absent
[X] Fecal Coliform	[ ] Present	[X] Absent

[ ] SATISFACTORY. At examination time this water was bacteriologically safe based on USEPA standards.

[X] UNSATISFACTORY. At examination time this water was bacteriologically unsafe.

[ ] PLEASE SUBMIT ANOTHER SAMPLE; TEST NOT VALID BECAUSE:
- [ ] TOO LONG A TIME BETWEEN COLLECTION AND RECEIPT OF SAMPLE.
- [ ] INVALID OR NO COLLECTION DATE AND/OR TIME.
- [ ] SAMPLE LEAKED OR BROKEN IN SHIPMENT, INSUFFICIENT VOLUME
- [ ] RESIDUAL CHLORINE PRESENT.
- [ ] HIGH BACKGROUND COUNT.
- [ ] INCORRECT SAMPLE CONTAINER.
- [ ] NONCONFORMANCE WITH TEMPERATURE REQUIREMENTS > 4°C.

*MF - Membrane Filtration method

Signed: Donald A. Hendrickson

EXHIBIT D-3
Raw Water Analysis, PW-2

HOOSIER MICROBIOLOGICAL
HML
LABORATORY

Testing • Research • Consulting

Multiple Analysis Report

Sample: 380443
October 1, 2019

Mr. Thomas S. Berquist
Ortman Drilling, Inc.
241 N. CR 300 W.
Kokomo, IN 46901

RE: PWS ID#: Unavailable
PW2
Sample Tap
Unavailable
Unavailable

Dear Mr. Berquist:

The following are the result(s) of the test(s) performed on the sample(s) received at HML, Inc. at 11:44 AM, 08/27/2019, and collected at 2:00 PM, 08/26/2019:

TEST - METHOD	RESULT	MDL*	Date Complete
Heterotrophic Plate Count-SM9215	8 cfu/mL	1 cfu/mL	08/29/2019

*Minimum Detection Level

This testing was completed by T.K. Please feel free to contact us if we can be of further service to you.

Sincerely,

Donald A. Hendrickson, Ph.D.
President - Microbiologist
Chemistry Lab #C-18-01
Microbiological Lab #M-18-03

DAH/skp

EXHIBIT D-3
Raw Water Analysis, PW-2

HOOSIER MICROBIOLOGICAL
HML
LABORATORY

Testing • Research • Consulting

Multiple Analysis Report

Sample: 380444
October 1, 2019

Mr. Thomas S. Berquist
Ortman Drilling, Inc.
241 N. CR 300 W.
Kokomo, IN 46901

RE: PWS ID#: Unavailable
PW2
Sample Tap
Unavailable
Unavailable

Dear Mr. Berquist:

The following are the result(s) of the test(s) performed on the sample(s) received at HML, Inc. at 11:44 AM, 08/27/2019, and collected at 2:00 PM, 08/26/2019:

TEST - METHOD	RESULT	MDL*	Date Complete
Alachlor-525.2	<0.2 ug/L	0.2 ug/L	09/27/2019
Atrazine-525.2	<0.5 ug/L	0.5 ug/L	09/27/2019
Benzo(a)pyrene-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Carbofuran-531.1	<0.9 ug/L	0.9 ug/L	09/11/2019
Chlordane-525.2	<0.2 ug/L	0.2 ug/L	09/27/2019
2,4-D-515.4	<1 ug/L	1 ug/L	09/24/2019
Dalapon-515.4	<5 ug/L	5 ug/L	09/24/2019
DBCP (1,2-Dibromo-3-chloropropane)-504.1	<0.02 ug/L	0.02 ug/L	08/29/2019
Diquat (HPLC)-549.2	<2 ug/L	2 ug/L	09/13/2019
Dinoseb-515.4	<1 ug/L	1 ug/L	09/24/2019
Di(2-ethylhexyl)adipate-525.2	<0.6 ug/L	0.6 ug/L	09/27/2019
Di(2-ethylhexyl)phthalate-525.2	<0.6 ug/L	0.6 ug/L	09/27/2019
Ethylene Dibromide-504.1	<0.01 ug/L	0.01 ug/L	08/29/2019
Endothall-548.1	<9 ug/L	9 ug/L	09/06/2019
Endrin-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Glyphosate-547	<30 ug/L	30 ug/L	09/20/2019
Heptachlor-525.2	<0.2 ug/L	0.2 ug/L	09/27/2019
Heptachlor epoxide-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Hexachlorobenzene-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Hexachlorocyclopentadiene-525.2	<0.5 ug/L	0.5 ug/L	09/27/2019
Lindane-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Methoxychlor-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019

EXHIBIT D-3
Raw Water Analysis, PW-2

Ortman Drilling, Inc. *Sample 380444 Sample Tap*

TEST - METHOD	RESULT	MDL*	Date Complete
Oxamyl-531.1	<2 ug/L	2 ug/L	09/11/2019
Pentachlorophenol-515.4	<0.4 ug/L	0.4 ug/L	09/24/2019
Picloram-515.4	<1 ug/L	1 ug/L	09/24/2019
Simazine-525.2	<0.35 ug/L	0.35 ug/L	09/27/2019
2,4,5-TP (Silvex)-515.4	<1 ug/L	1 ug/L	09/24/2019
Toxaphene-505	<1 ug/L	1 ug/L	08/28/2019
Cadmium-200.7	<0.001 mg/L	0.001 mg/L	09/04/2019
Barium-200.7	0.04 mg/L	0.01 mg/L	09/17/2019
Antimony-200.9	< 0.0010 mg/L	0.0010 mg/L	09/13/2019
Arsenic-200.9	< 0.0010 mg/L	0.0010 mg/L	09/09/2019
Chromium-200.7	<0.005 mg/L	0.005 mg/L	09/04/2019
Mercury-245.1	<0.0002 mg/L	0.0002 mg/L	09/04/2019
Nickel-200.7	0.01 mg/L	0.01 mg/L	09/20/2019
Selenium-200.9	< 0.0010 mg/L	0.0010 mg/L	09/16/2019
Sodium-200.7	8.5 mg/L	1.0 mg/L	09/10/2019
Beryllium-200.7	<0.001 mg/L	0.001 mg/L	09/20/2019
Thallium-200.9	< 0.0010 mg/L	0.0010 mg/L	09/17/2019
Cyanide, Total-SM 4500 CN-E	< 0.01 mg/L	0.01 mg/L	09/03/2019
Fluoride-HACH 10225	0.59 mg/L	0.1 mg/L	09/23/2019
Nitrogen, nitrate-HACH 10206	< 1.0 mg/L	1.0 mg/L	08/30/2019
Carbon Tetrachloride-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Chlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1,2-Trichloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1,1-Trichloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Cis-1,2-Dichloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Trans-1,2 dichloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Ethylbenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2,4-Trichlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Dichloromethane (methylene chloride)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Tetrachloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Styrene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Toluene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Benzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2-Dichloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,4-Dichlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Trichloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Vinyl Chloride (chloroethylene)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Xylene (total)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2 Dichloropropane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1-Dichloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2-Dichlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Bromobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Bromodichloromethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Bromoform-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Chloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Chloroform-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Chloromethane (methyl chloride)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019

EXHIBIT D-3
Raw Water Analysis, PW-2

TEST - METHOD	RESULT	MDL*	Date Complete
2-Chlorotoluene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
4-Chlorotoluene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Dibromochloromethane - Chlorodibromomethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Dibromomethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,3-Dichlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1-Dichloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,3-Dichloropropane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
2,2-Dichloropropane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1-Dichloropropene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
cis-1,3-Dichloropropene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
trans-1,3-Dichloropropene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1,1,2-Tetrachloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1,2,2-Tetrachloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2,3-Trichloropropane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Bromomethane (methyl bromide)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
PCB-608	<0.0005 mg/L	0.0005 mg/L	09/10/2019
Iron-200.7	<0.01 mg/L	0.01 mg/L	08/28/2019
Manganese-200.7	<0.01 mg/L	0.01 mg/L	08/28/2019
Potassium-200.7	1.8 mg/L	0.6 mg/L	09/03/2019
Lead-200.9	< 1.0 ug/L	1.0 ug/L	08/29/2019
Copper-200.7	<0.01 mg/L	0.01 mg/L	09/11/2019
Phosphate-200.7	<0.15 mg/L	0.15 mg/L	09/03/2019
Aluminum-200.7	< 0.05 mg/L	0.05 mg/L	09/24/2019
Silver-200.7	< 0.01 mg/L	0.01 mg/L	08/30/2019
Magnesium-200.7	17.5 mg/L	1.0 mg/L	09/10/2019
Turbidity-EPA180.1	0.36 NTU	0.02 NTU	08/28/2019
Zinc-200.7	<0.01 mg/L	0.01 mg/L	09/11/2019
Nitrogen, Nitrite-SM 4500 NO2-B	< 0.01 mg/L	0.01 mg/L	08/28/2019
Chloride-SM 4500 Cl-B	20 mg/L	1.0 mg/L	09/04/2019
Nitrogen, ammonia-350.1	0.35 mg/L	0.10 mg/L	08/29/2019
Calcium-200.7	53.0 mg/L	1.0 mg/L	09/10/2019
Carbon Dioxide-SM4500 co2 C	56.3 mg/L	1.0 mg/L	08/27/2019
Color-EPA110.3	< 7.0 PtCo units	7.0 PtCo units	08/27/2019
Dissolved Oxygen-EPA360.1	7.56 mg/L	0.01 mg/L	08/28/2019
Surfactants-SM5540C	<0.1 mg/L	0.1 mg/L	09/25/2019
Odor-SM2150	1.4 Threshold No.	Threshold	08/27/2019
Conductivity-SM2510B	404 uS/cm	0.01 uS/cm	08/27/2019
Silica-SM4500Si-D	14.6 mg/L	1.0 mg/L	09/23/2019
Sulfide-SM4500S2-D	0.02 mg/L	0.01 mg/L	09/03/2019
Sulfate-SM4500SO4(2-) E	2.1 mg/L	1.1 mg/L	08/27/2019
Langelier Index-Calculation	-0.2		09/04/2019
Calcium Hardness-SM 2340C	152 mg/L	1.0 mg/L	09/03/2019
Solids, dissolved-SM 2540C	270 mg/L	1.0 mg/L	08/27/2019
Alkalinity-SM 2320 B	226 mg/L	1.0 mg/L	09/04/2019
Alkalinity phenolphthalein-SM 2320 B	< 1.0 mg/L	1.0 mg/L	09/04/2019
Alkalinity Carbonate-SM 2320 B	< 1.0 mg/L	1.0 mg/L	09/04/2019
Alkalinity Biocarbonate-SM 2320 B	226 mg/L		09/04/2019

EXHIBIT D-3
Raw Water Analysis, PW-2

Ortman Drilling, Inc. *Sample 380444 Sample Tap*

TEST - METHOD	RESULT	MDL*	Date Complete
Solids, suspended-SM 2540D	< 5.0 mg/L	5.0 mg/L	08/29/2019
Temperature-170.1	53F		08/27/2019
pH (lab)-150.1	7.19		08/30/2019

*Minimum Detection Level

This testing was completed by M.E. and K.L. and C.U. Please feel free to contact us if we can be of further service to you.

Sincerely,

Donald A. Hendrickson, Ph.D.
President - Microbiologist
Chemistry Lab #C-18-01
Microbiological Lab #M-18-03

DAH/skp

EXHIBIT D-3
Raw Water Analysis, PW-2

HOOSIER MICROBIOLOGICAL
HML
LABORATORY

Note: PW-2 underwent additional testing because of high bacteria levels in the initial test.

Testing • Research • Consulting

Multiple Analysis Report

Sample: 388088
February 25, 2020

Mr. Thomas S. Berquist
Ortman Drilling, Inc.
241 N. CR 300 W.
Kokomo, IN 46901

RE: PWS ID#: Unavailable
DW-KPW2(Mid)
Unavailable
Unavailable
Unavailable

Dear Mr. Berquist.

The following are the result(s) of the test(s) performed on the sample(s) received at HML, Inc. at 9:06 AM, 02/14/2020, and collected at 1:30 PM, 02/13/2020:

TEST - METHOD	RESULT	MDL*	Date Complete
Manganese-200.7	<0.01 mg/L	0.01 mg/L	02/17/2020
Nitrogen, ammonia-350.1	0.44 mg/L	0.10 mg/L	02/20/2020
Nitrogen, nitrate-HACH 10206	< 1.0 mg/L	1.0 mg/L	02/14/2020
Sulfate-SM4500SO4(2-) E	3.2 mg/L	1.9 mg/L	02/25/2020
pH-SM 4500 H+B	7.15		02/14/2020
Langelier Index-Calculation	-0.34		02/17/2020
Hardness-SM 2340 C	202 mg/L	1.0 mg/L	02/17/2020
Hardness-Calcium-SM 2340 C	130 mg/L	1.0 mg/L	02/17/2020
Magnesium-Hardness-Calculation	72 mg/L	1.0 mg/L	02/17/2020
Solids, dissolved-SM 2540C	262 mg/L	1.0 mg/L	02/14/2020
Alkalinity-SM 2320 B	202 mg/L	1.0 mg/L	02/17/2020
Temperature-170.1	50 F		02/13/2020
Fluoride-HACH 10225	0.39 mg/L	0.1 mg/L	02/19/2020
Iron-200.7	0.01 mg/L	0.01 mg/L	02/17/2020

912 West McGalliard, Muncie, IN 47303-1702 Phone: (765) 288-1124 Fax:(765) 288-8378
E-mail: 102255.152@compuserve.com Web Site: http://www.hml.com

EXHIBIT D-3
Raw Water Analysis, PW-2

Ortman Drilling, Inc. *Sample 388088 Unavailable*

TEST - METHOD	RESULT	MDL*	Date Complete

*Minimum Detection Level

This testing was completed by M.E. and K.L. Please feel free to contact us if we can be of further service to you.

Sincerely,

Donald A. Hendrickson

Donald A. Hendrickson, Ph.D.
President - Microbiologist
Chemistry Lab #C-18-01
Microbiological Lab #M-18-03

DAH/skp

Note: PW-2 underwent additional testing because of high bacteria levels in the initial test.

EXHIBIT D-3
Raw Water Analysis, PW-2

HOOSIER MICROBIOLOGICAL LABORATORY
912 W. MCGALLIARD RD.
MUNCIE, IN 47303
(765) 288-1124

Bacteriological Examination of Private Water

Certified by the Indiana State Board of Health
Certified Lab ID# M-18-03

Note: PW-2 underwent additional testing because of high bacteria levels in the initial test.

Date/Time Received: 02/14/2020 at 09:07 AM

Bottle Number: 388089

Name: Ortman Drilling, Inc.

Address: 241 N. CR 300 W.

City/St/Zip: Kokomo, IN 46901

Telephone: (765) 459-4125

Started: 02/14/2020 @ 02:00 PM by Marie

Read: 02/15/2020 @ 02:30 PM by Marie

County: Unavailable

Organization: DW-KPW2(Mid)

Address: Unavailable

City/St/Zip: Unavailable

Collected By: Thomas Berquist

Place Collected: Unavailable

Date Collected: 02/13/2020

Time Collected: 01:30 PM

REPORT OF SAMPLE

TEST - METHOD		RESULT
Total Coliform-Colilert(quantitation)		<1 MPN/100 mL
[X] Total Coliform	[ ] Present	[X] Absent
[X] Fecal Coliform	[ ] Present	[X] Absent

[X] SATISFACTORY. At examination time this water was bacteriologically safe based on USEPA standards.

[ ] UNSATISFACTORY. At examination time this water was bacteriologically unsafe.

[ ] PLEASE SUBMIT ANOTHER SAMPLE, TEST NOT VALID BECAUSE:
- [ ] TOO LONG A TIME BETWEEN COLLECTION AND RECEIPT OF SAMPLE.
- [ ] INVALID OR NO COLLECTION DATE AND/OR TIME.
- [ ] SAMPLE LEAKED OR BROKEN IN SHIPMENT, INSUFFICIENT VOLUME
- [ ] RESIDUAL CHLORINE PRESENT.
- [ ] HIGH BACKGROUND COUNT.
- [ ] INCORRECT SAMPLE CONTAINER.
- [ ] NONCONFORMANCE WITH TEMPERATURE REQUIREMENTS > 4°C.

*MF - Membrane Filtration method

Signed: Donald A. Hendrickson

EMSL Analytical, Inc.
200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EXHIBIT D-3 Raw Water Analysis, PW-2

EMSL Order ID: 041925599
Customer ID: HOOS54
Customer PO:
Project ID:

Attn: Michelle Brant
Hoosier Microbiological Laboratory (HML)
912 West McGalliard
Muncie, IN 47303

Phone: (765) 288-1124
Fax: (765) 288-8378
Received: 08/30/2019
Analyzed: 09/12/2019

Proj:

Test Report: Determination of Asbestos Structures ≥ 0.5 µm & > 10µm in Drinking Water Performed by the 100.2 Method (EPA 600/R-94/134)

Sample ID Client / EMSL	Sample Filtration Date/Time	Original Sample Vol. Filtered (ml)	Effective Filter Area (mm²)	Area Analyzed (mm²)	ASBESTOS	Asbestos Types	Fibers Detected	Analytical Sensitivity	Concentration	Confidence Limits
								MFL (million fibers per liter)		
380444 041925599-0001	9/3/2019 02:30 PM	100	1360	0.0774	≥ 0.5 µm	None Detected	ND	0.18	<0.18	0.00 - 0.65
					> 10 µm only	None Detected	ND	0.18	<0.18	0.00 - 0.65
Collection Date/Time:	*08/26/2019*									
Sample ozonated prior to analysis due to lab receipt time exceeding 48hr method hold time.										
380541 041925599-0002	9/3/2019 02:30 PM	50	1360	0.1419	≥ 0.5 µm	None Detected	ND	0.19	<0.19	0.00 - 0.71
					> 10 µm only	None Detected	ND	0.19	<0.19	0.00 - 0.71
Collection Date/Time:	*08/26/2019*									
Sample ozonated prior to analysis due to lab receipt time exceeding 48hr method hold time.										
380653 041925599-0003	9/3/2019 02:30 PM	100	1360	0.0774	≥ 0.5 µm	None Detected	ND	0.18	<0.18	0.00 - 0.65
					> 10 µm only	None Detected	ND	0.18	<0.18	0.00 - 0.65
Collection Date/Time:	*08/26/2019*									
Sample ozonated prior to analysis due to lab receipt time exceeding 48hr method hold time.										

Analyst(s)
Patrick Carr (3)

Benjamin Ellis, Laboratory Manager
or Other Approved Signatory

Any questions please contact Benjamin Ellis.

Initial report from: 09/12/2019 20:46:35

EXHIBIT D-3
Raw Water Analysis, PW-2

Pace Analytical™
PaceAnalyticalServices,LLC.
1700ElmStreet
Minneapolis,MN,55414
Tel612-607-1700
Fax612-607-6444

Drinking Water Analysis Results
2,3,7,8-TCDD -- USEPA Method 1613B

Sample ID.....380444
Client..... Hoosier Microbiological Lab
Lab Sample ID..... 10490762001

Date Collected.....08/26/2019
Date Received.....09/06/2019
Date Extracted.....09/11/2019

	Sample 380444	Method Blank	Lab Spike	Lab Spike Dup
[2,3,7,8-TCDD]	**ND**	ND	--	--
LOQ	5.0 pg/L	5.0 pg/L	--	--
2,3,7,8-TCDD Recovery	--	--	89%	84%
Spike Recovery Limit	--	--	73-146%	73-146%
RPD			6.7%	
IS Recovery	**74%**	71%	73%	77%
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	**86%**	79%	78%	85%
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename	E190912B_09	E190912B_05	E190912B_03	E190912B_04
Analysis Date	09/12/2019	09/12/2019	09/12/2019	09/12/2019
Analysis Time	16:36	14:48	13:55	14:22
Analyst	JRH	JRH	JRH	JRH
Volume	1.003L	1.007L	1.002L	1.010L
Dilution	NA	NA	NA	NA
ICAL Date	12/15/2018	12/15/2018	12/15/2018	12/15/2018
CCAL Filename	E190912B_02	E190912B_02	E190912B_02	E190912B_02

! = Outside the Control Limits
ND = Not Detected
LOQ = Limit of Quantitation
Limits = Control Limits from Method 1613 (10/94 Revision), Tables 6A and 7A
RPD = Relative Percent Difference of Lab Spike Recoveries
IS = Internal Standard [2,3,7,8-TCDD- $^{13}C_{12}$]
CS = Cleanup Standard [2,3,7,8-TCDD- $^{37}Cl_4$]

Analyst: Jessica Hoehn

Project No.....10490762

Pace Analytical™

www.pacelabs.com

EXHIBIT D-3
Raw Water
Analysis, PW-2

Pace Analytical Services, LLC.
1700 Elm Street
Minneapolis, MN 55414
Phone: 612.607.1700
Fax: 612.607.6444

Report Prepared for:

Michelle Brant
Hoosier Microbiological Lab
912 West McGalliard
Muncie IN 473031702

REPORT OF LABORATORY ANALYSIS FOR 2,3,7,8-TCDD

Report Summary:

This report contains results of three drinking water samples analyzed to determine 2,3,7,8-TCDD content. These samples were analyzed according to Method 1613 by High Resolution Gas Chromatography/High Resolution Mass Spectrometry.

Report Prepared Date:

September 17, 2019

Report Information:

Pace Project#: 10490762
Sample Receipt Date: 09/06/2019
Client Project #: Drinking Water Dioxin
Client Sub PO #: N/A
State Cert #: C-MN-01

Invoicing & Reporting Options:

The report provided has been invoiced as a Level 2 Drinking Water Report. If an upgrade of this report package is requested, an additional charge may be applied.

Please review the attached invoice for accuracy and forward any questions to Scott Unze, your Pace Project Manager.

This report has been reviewed by:

September 17, 2019

Scott Unze, Project Manager
(612) 607-6383
(612) 607-6444 (fax)
scott.unze@pacelabs.com

NELAP ACCREDITED TNI LABORATORY

Report of Laboratory Analysis

Pace Analytical™
Pace Analytical Services, LLC
1700 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Minnesota Laboratory Certifications

Authority	Certificate #	Authority	Certificate #
A2LA	2926.01	Minnesota - Pet	1240
Alabama	40770	Mississippi	MN00064
Alaska - DW	MN00064	Missouri - DW	10100
Alaska - UST	17-009	Montana	CERT0092
Arizona	AZ0014	Nebraska	NE-OS-18-06
Arkansas - DW	MN00064	Nevada	MN00064
Arkansas - WW	88-0680	New Hampshire	2081
CNMI Saipan	MP0003	New Jersey (NE	MN002
California	2929	New York	11647
Colorado	MN00064	North Carolina	27700
Connecticut	PH-0256	North Carolina -	27700
EPA Region 8+	via MN 027-053	North Carolina -	530
Florida (NELAP	E87605	North Dakota	R-036
Georgia	959	Ohio - DW	41244
Guam	17-001r	Ohio - VAP	CL101
Hawaii	MN00064	Oklahoma	9507
Idaho	MN00064	Oregon - Primar	MN300001
Illinois	200011	Oregon - Secon	MN200001
Indiana	C-MN-01	Pennsylvania	68-00563
Iowa	368	Puerto Rico	MN00064
Kansas	E-10167	South Carolina	74003
Kentucky - DW	90062	South Dakota	NA
Kentucky - WW	90062	Tennessee	TN02818
Louisiana - DE	03086	Texas	T104704192
Louisiana - DW	MN00064	Utah (NELAP)	MN00064
Maine	MN00064	Virginia	460163
Maryland	322	Washington	C486
Massachusetts	M-MN064	West Virginia -	382
Michigan	9909	West Virginia -	9952C
Minnesota	027-053-137	Wisconsin	999407970
Minnesota - De	via MN 027-053	Wyoming - UST	2926.01

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
'00 Elm Street - Suite 200
Minneapolis, MN 55414

Tel: 612-607-1700
Fax: 612-607-6444

Reporting Flags

A = Reporting Limit based on signal to noise

B = Less than 10x higher than method blank level

C = Result obtained from confirmation analysis

D = Result obtained from analysis of diluted sample

E = Exceeds calibration range

I = Interferencepresent

J = Estimated value

L = Suppressive interference, analyte may be biased low

Nn = Value obtained from additional analysis

P = PCDEInterference

R = Recovery outside target range

S = Peak saturated

U = Analyte not detected

V = Result verified by confirmation analysis

X = %D Exceeds limits

Y = Calculated using average of daily RFs

* = SeeDiscussion

REPORT OF LABORATORY ANALYSIS

EXHIBIT D-3
Raw Water Analysis, PW-2

eurofins | Eaton Analytical

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

eurofins | Eaton Analytical

STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN00035	New Jersey*	IN598
Colorado Radiochemistry	IN00035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-18-12
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA014	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies

Revision date: 03/14/2019

EXHIBIT D-3
Raw Water Analysis, PW-2

eurofins | Eaton Analytical

110 South Hill Street
South Bend, IN 46617
Tel: (574) 233-4777
Fax: (574) 233-8207
1 800 332 4345

Laboratory Report

Client: Hoosier Microbiological Laboratories

Attn: Michelle Brant
912 W. McGalliard Rd.
Muncie, IN 47303

Report: 463770
Priority: Standard Written
Status: Final
PWS ID: Not Supplied

Sample Information

EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4405242	380444 Sample Tap	7500-Ra B	08/26/19 14:00	Client	08/30/19 10:00
4405242	380444 Sample Tap	7500-Ra D	08/26/19 14:00	Client	08/30/19 10:00
4405243	380444 Sample Tap	7110 B	08/26/19 14:00	Client	08/30/19 10:00
4405244	380444 Sample Tap	5310 C	08/26/19 14:00	Client	08/30/19 10:00
4405245	380541 Sample Tap	7500-Ra B	08/27/19 10:20	Client	08/30/19 10:00
4405245	380541 Sample Tap	7500-Ra D	08/27/19 10:20	Client	08/30/19 10:00
4405246	380541 Sample Tap	7110 B	08/27/19 10:20	Client	08/30/19 10:00
4405247	380541 Sample Tap	5310 C	08/27/19 10:20	Client	08/30/19 10:00
4405248	380653 Sample Tap	7500-Ra B	08/28/19 10:30	Client	08/30/19 10:00
4405248	380653 Sample Tap	7500-Ra D	08/28/19 10:30	Client	08/30/19 10:00
4405249	380653 Sample Tap	7110 B	08/28/19 10:30	Client	08/30/19 10:00
4405250	380653 Sample Tap	5310 C	08/28/19 10:30	Client	08/30/19 10:00

Report Summary

Note: Sample containers were provided by the client.

Note: The samples submitted for analysis were received at a temperature of 9.2°C.

Note: The samples submitted for Method 5310 C analysis were received at a pH of >2, which is outside of method requirements. The sample pH was adjusted by laboratory personnel prior to analysis.

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Jim Vernon at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.

Authorized Signature — Title — 09/21/2019 Date

Client Name: Hoosier Microbiological Laboratories
Report #: 463770

EXHIBIT D-3
Raw Water Analysis, PW-2

Client Name: Hoosier Microbiological Laboratories

Report #: 463770

Sampling Point: 380444 Sample Tap

PWS ID: Not Supplied

General Chemistry

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
—	Total Organic Carbon (TOC) $	5310 C	—	0.500	**2.43**	mg/L	—	09/16/19 23:38	4405244

Radionuclides

Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
—	Gross Alpha	7110 B	15 *	1.4	3.0	**4.9 ± 2.2**	pCi/L	09/06/19 14:30	09/16/19 11:16	4405243
—	Gross Beta	7110 B	—	2.8	4.0	**5.6 ± 3.1**	pCi/L	09/06/19 14:30	09/16/19 11:16	4405243
13982-63-3	Radium-226	7500-Ra B	—	0.23	1.0	**1.1 ± 0.4**	pCi/L	09/06/19 13:00	09/12/19 12:33	4405242
15262-20-1	Radium-228	7500-Ra D	—	0.50	1.0	**2.6 ± 0.6**	pCi/L	09/06/19 13:00	09/16/19 18:47	4405242
—	Combined Radium	calc.	5 *	0.50	1.0	**3.7 ± 0.7**	pCi/L	09/06/19 13:00	09/16/19 18:47	4405242

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

$ The state of origin does not offer certification for this parameter.

Sampling Point: 380541 Sample Tap

PWS ID: Not Supplied

General Chemistry

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
—	Total Organic Carbon (TOC) $	5310 C	—	0.500	**2.31**	mg/L	—	09/16/19 23:57	4405247

Radionuclides

Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
—	Gross Alpha	7110 B	15 *	1.7	3.0	**1.8 ± 1.8**	pCi/L	09/06/19 14:30	09/16/19 11:16	4405246
—	Gross Beta	7110 B	—	2.4	4.0	**6.0 ± 2.7**	pCi/L	09/06/19 14:30	09/16/19 11:16	4405246
13982-63-3	Radium-226	7500-Ra B	—	0.21	1.0	**0.93 ± 0.45**	pCi/L	09/06/19 13:00	09/16/19 14:10	4405245
15262-20-1	Radium-228	7500-Ra D	—	0.45	1.0	**2.4 ± 0.6**	pCi/L	09/06/19 13:00	09/16/19 18:47	4405245
—	Combined Radium	calc.	5 *	0.45	1.0	**3.33 ± 0.73**	pCi/L	09/06/19 13:00	09/16/19 18:47	4405245

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

$ The state of origin does not offer certification for this parameter.

Client Name: Hoosier Microbiological Laboratories Report #: 463770

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.

EXHIBIT D-3
Raw Water Analysis, PW-2

HOOSIER MICROBIOLOGICAL LABORATORY
912 W. MCGALLIARD RD.
MUNCIE, IN 47303
(765) 288-1124

Bacteriological Examination of Private Water

Certified by the Indiana State Board of Health
Certified Lab ID# M-18-03

Date/Time Received: 08/28/2019 at 10:29 AM

Bottle Number: 380539

Name: Ortman Drilling, Inc.

Address: 241 N. CR 300 W.

City/St/Zip: Kokomo, IN 46901

Telephone: (765) 459-4125

Started: 08/28/2019 @ 05:35 PM by Betsy

Read: 08/29/2019 @ 04:35 PM by Betsy

County: Unavailable

Organization: PW3

Address: Unavailable

City/St/Zip: Unavailable

Collected By: Thomas Berquist

Place Collected: Sample Tap

Date Collected: 08/27/2019

Time Collected: 10:20 AM

REPORT OF SAMPLE

TEST - METHOD		RESULT
Total Coliform-Colilert(quantitation)		<1 MPN/100 mL
[X] Total Coliform	[ ] Present	[X] Absent
[X] Fecal Coliform	[ ] Present	[X] Absent

[X] SATISFACTORY. At examination time this water was bacteriologically safe based on USEPA standards.

[ ] UNSATISFACTORY. At examination time this water was bacteriologically unsafe.

[ ] PLEASE SUBMIT ANOTHER SAMPLE; TEST NOT VALID BECAUSE:
- [ ] TOO LONG A TIME BETWEEN COLLECTION AND RECEIPT OF SAMPLE.
- [ ] INVALID OR NO COLLECTION DATE AND/OR TIME.
- [ ] SAMPLE LEAKED OR BROKEN IN SHIPMENT, INSUFFICIENT VOLUME
- [ ] RESIDUAL CHLORINE PRESENT.
- [ ] HIGH BACKGROUND COUNT.
- [ ] INCORRECT SAMPLE CONTAINER.
- [ ] NONCONFORMANCE WITH TEMPERATURE REQUIREMENTS > 4°C.

*MF - Membrane Filtration method

Signed: Donald A. Hendilson

EXHIBIT D-3
Raw Water Analysis, PW-3

HOOSIER MICROBIOLOGICAL
HML™
LABORATORY

Testing • Research • Consulting

Multiple Analysis Report

Sample: 380540
October 1, 2019

Mr. Thomas S. Berquist
Ortman Drilling, Inc.
241 N. CR 300 W.
Kokomo, IN 46901

RE: PWS ID#: Unavailable
PW3
Sample tap
Unavailable
Unavailable

Dear Mr. Berquist:

The following are the result(s) of the test(s) performed on the sample(s) received at HML, Inc. at 10:29 AM, 08/28/2019, and collected at 10:20 AM, 08/27/2019:

TEST - METHOD	RESULT	MDL*	Date Complete
Heterotrophic Plate Count-SM9215	50 cfu/mL	1 cfu/mL	08/30/2019

*Minimum Detection Level

This testing was completed by T.K. Please feel free to contact us if we can be of further service to you.

Sincerely,

Donald A. Hendrickson, Ph.D.
President - Microbiologist
Chemistry Lab #C-18-01
Microbiological Lab #M-18-03

DAH/skp

EXHIBIT D-3
Raw Water Analysis, PW-3

HOOSIER MICROBIOLOGICAL
HML
LABORATORY

Testing • Research • Consulting

Multiple Analysis Report

Sample: 380541
October 1, 2019

Mr. Thomas S. Berquist
Ortman Drilling, Inc.
241 N. CR 300 W.
Kokomo, IN 46901

RE: PWS ID#: Unavailable
PW3
Sample Tap
Unavailable
Unavailable

Dear Mr. Berquist:

The following are the result(s) of the test(s) performed on the sample(s) received at HML, Inc. at 10:29 AM, 08/28/2019, and collected at 10:20 AM, 08/27/2019:

TEST - METHOD	RESULT	MDL*	Date Complete
Alachlor-525.2	<0.2 ug/L	0.2 ug/L	09/27/2019
Atrazine-525.2	<0.5 ug/L	0.5 ug/L	09/27/2019
Benzo(a)pyrene-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Carbofuran-531.1	<0.9 ug/L	0.9 ug/L	09/11/2019
Chlordane-525.2	<0.2 ug/L	0.2 ug/L	09/27/2019
2,4-D-515.4	<1 ug/L	1 ug/L	09/24/2019
Dalapon-515.4	<5 ug/L	5 ug/L	09/24/2019
DBCP (1,2-Dibromo-3-chloropropane)-504.1	<0.02 ug/L	0.02 ug/L	08/29/2019
Diquat (HPLC)-549.2	<2 ug/L	2 ug/L	09/13/2019
Dinoseb-515.4	<1 ug/L	1 ug/L	09/24/2019
Di(2-ethylhexyl)adipate-525.2	<0.6 ug/L	0.6 ug/L	09/27/2019
Di(2-ethylhexyl)phthalate-525.2	<0.6 ug/L	0.6 ug/L	09/27/2019
Ethylene Dibromide-504.1	<0.01 ug/L	0.01 ug/L	08/29/2019
Endothall-548.1	<9 ug/L	9 ug/L	09/06/2019
Endrin-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Glyphosate-547	<30 ug/L	30 ug/L	09/20/2019
Heptachlor-525.2	<0.2 ug/L	0.2 ug/L	09/27/2019
Heptachlor epoxide-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Hexachlorobenzene-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Hexachlorocyclopentadiene-525.2	<0.5 ug/L	0.5 ug/L	09/27/2019
Lindane-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019
Methoxychlor-525.2	<0.1 ug/L	0.1 ug/L	09/27/2019

EXHIBIT D-3
Raw Water Analysis, PW-3

Ortman Drilling, Inc. *Sample 380541 Sample Tap*

TEST - METHOD	RESULT	MDL*	Date Complete
Oxamyl-531.1	<2 ug/L	2 ug/L	09/11/2019
Pentachlorophenol-515.4	<0.4 ug/L	0.4 ug/L	09/24/2019
Picloram-515.4	<1 ug/L	1 ug/L	09/24/2019
Simazine-525.2	<0.35 ug/L	0.35 ug/L	09/27/2019
2,4,5-TP (Silvex)-515.4	<1 ug/L	1 ug/L	09/24/2019
Toxaphene-505	<1 ug/L	1 ug/L	08/28/2019
Cadmium-200.7	<0.001 mg/L	0.001 mg/L	09/04/2019
Barium-200.7	0.04 mg/L	0.01 mg/L	09/17/2019
Antimony-200.9	< 0.0010 mg/L	0.0010 mg/L	09/13/2019
Arsenic-200.9	< 0.0010 mg/L	0.0010 mg/L	09/09/2019
Chromium-200.7	<0.005 mg/L	0.005 mg/L	09/04/2019
Mercury-245.1	<0.0002 mg/L	0.0002 mg/L	09/04/2019
Nickel-200.7	0.01 mg/L	0.01 mg/L	09/20/2019
Selenium-200.9	< 0.0010 mg/L	0.0010 mg/L	09/16/2019
Sodium-200.7	8.1 mg/L	1.0 mg/L	09/10/2019
Beryllium-200.7	<0.001 mg/L	0.001 mg/L	09/20/2019
Thallium-200.9	< 0.0010 mg/L	0.0010 mg/L	09/17/2019
Cyanide, Total-SM 4500 CN-E	< 0.01 mg/L	0.01 mg/L	09/03/2019
Fluoride-HACH 10225	0.57 mg/L	0.1 mg/L	09/23/2019
Nitrogen, nitrate-HACH 10206	< 1.0 mg/L	1.0 mg/L	08/30/2019
Carbon Tetrachloride-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Chlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1,2-Trichloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1,1-Trichloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Cis-1,2-Dichloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Trans-1,2 dichloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Ethylbenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2,4-Trichlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Dichloromethane (methylene chloride)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Tetrachloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Styrene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Toluene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Benzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2-Dichloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,4-Dichlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Trichloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Vinyl Chloride (chloroethylene)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Xylene (total)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2 Dichloropropane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1-Dichloroethylene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2-Dichlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Bromobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Bromodichloromethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Bromoform-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Chloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Chloroform-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Chloromethane (methyl chloride)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019

EXHIBIT D-3
Raw Water Analysis, PW-3

TEST - METHOD	RESULT	MDL*	Date Complete
2-Chlorotoluene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
4-Chlorotoluene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Dibromochloromethane - Chlorodibromomethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Dibromomethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,3-Dichlorobenzene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1-Dichloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,3-Dichloropropane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
2,2-Dichloropropane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1-Dichloropropene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
cis-1,3-Dichloropropene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
trans-1,3-Dichloropropene-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1,1,2-Tetrachloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,1,2,2-Tetrachloroethane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
1,2,3-Trichloropropane-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
Bromomethane (methyl bromide)-524.2	<0.0005 mg/L	0.0005 mg/L	09/04/2019
PCB-608	<0.0005 mg/L	0.0005 mg/L	09/10/2019
Iron-200.7	0.03 mg/L	0.01 mg/L	09/16/2019
Manganese-200.7	<0.01 mg/L	0.01 mg/L	09/16/2019
Potassium-200.7	1.6 mg/L	0.6 mg/L	09/03/2019
Lead-200.9	< 1.0 ug/L	1.0 ug/L	08/29/2019
Copper-200.7	<0.01 mg/L	0.01 mg/L	09/11/2019
Phosphate-200.7	<0.15 mg/L	0.15 mg/L	09/03/2019
Aluminum-200.7	< 0.05 mg/L	0.05 mg/L	09/24/2019
Silver-200.7	< 0.01 mg/L	0.01 mg/L	08/30/2019
Magnesium-200.7	17.7 mg/L	1.0 mg/L	09/10/2019
Turbidity-EPA180.1	0.12 NTU	0.02 NTU	08/29/2019
Zinc-200.7	<0.01 mg/L	0.01 mg/L	09/11/2019
Nitrogen, Nitrite-SM 4500 NO2-B	< 0.01 mg/L	0.01 mg/L	08/28/2019
Chloride-SM 4500 Cl-B	15 mg/L	1.0 mg/L	09/03/2019
Nitrogen, ammonia-350.1	0.21 mg/L	0.10 mg/L	08/29/2019
Calcium-200.7	54.4 mg/L	1.0 mg/L	09/10/2019
Carbon Dioxide-SM4500 co2 C	58.8 mg/L	1.0 mg/L	08/28/2019
Color-EPA110.3	<7.0 PtCo units	7.0 PtCo units	08/28/2019
Dissolved Oxygen-EPA360.1	8.16 mg/L	0.01 mg/L	08/28/2019
Surfactants-SM5540C	<0.1 mg/L	0.1 mg/L	09/25/2019
Odor-SM2150	Threshold No. 1.4	Threshold	08/28/2019
Conductivity-SM2510B	396 uS/cm	0.01 uS/cm	08/28/2019
Silica-SM4500Si-D	13.7 mg/L	1.0 mg/L	09/23/2019
Sulfide-SM4500S2-D	<0.01 mg/L	0.01 mg/L	09/03/2019
Sulfate-SM4500SO4(2-) E	2.2 mg/L	1.1 mg/L	08/30/2019
Temperature-170.1	54 F		08/27/2019
Langelier Index-Calculation	0.11		09/04/2019
Calcium Hardness-SM 2340C	164 mg/L	1.0 mg/L	09/03/2019
Solids, dissolved-SM 2540C	265 mg/L	1.0 mg/L	08/28/2019
Alkalinity-SM 2320 B	232 mg/L	1.0 mg/L	09/04/2019
Solids, suspended-SM 2540D	< 5.0 mg/L	5.0 mg/L	08/29/2019
Alkalinity phenophalein-SM 2320 B	< 1.0 mg/L	1.0 mg/L	09/04/2019

EXHIBIT D-3
Raw Water Analysis, PW-3

Ortman Drilling, Inc. *Sample 380541 Sample Tap*

TEST - METHOD	RESULT	MDL*	Date Complete
Alkalinity carbonate-SM 2320 B	< 1.0 mg/L	1.0 mg/L	09/04/2019
Alkalinity bicarbonate-SM 2320 B	232 mg/L	1.0 mg/L	09/04/2019
pH (lab)-150.1	7.45		08/30/2019

*Minimum Detection Level

This testing was completed by M.E. and K.L. and C.U. Please feel free to contact us if we can be of further service to you.

Sincerely,

Donald A. Hendrickson, Ph.D.
President - Microbiologist
Chemistry Lab #C-18-01
Microbiological Lab #M-18-03

DAH/skp

EXHIBIT D-3
Raw Water Analysis, PW-3

EMSL Analytical, Inc.
200 Route 130 North Cinnaminson, NJ 08077
Phone/Fax: (800) 220-3675 / (856) 786-5974
http://www.EMSL.com / cinnasblab@EMSL.com

EMSL Order ID: 041925599
Customer ID: HOOS54
Customer PO:
Project ID:

Attn: Michelle Brant
Hoosier Microbiological Laboratory (HML)
912 West McGalliard
Muncie, IN 47303

Phone: (765) 288-1124
Fax: (765) 288-8378
Received: 08/30/2019
Analyzed: 09/12/2019

Proj:

Test Report: Determination of Asbestos Structures ≥ 0.5 µm & > 10µm in Drinking Water Performed by the 100.2 Method (EPA 600/R-94/134)

Sample ID Client / EMSL	Sample Filtration Date/Time	Original Sample Vol. Filtered (ml)	Effective Filter Area (mm²)	Area Analyzed (mm²)	ASBESTOS					
						Asbestos Types	Fibers Detected	Analytical Sensitivity	Concentration	Confidence Limits
								MFL (million fibers per liter)		
380444 041925599-0001	9/3/2019 02:30 PM	100	1360	0.0774	≥ 0.5 µm	None Detected	ND	0.18	<0.18	0.00 - 0.65
					> 10 µm only	None Detected	ND	0.18	<0.18	0.00 - 0.65
Collection Date/Time: *08/26/2019*										
Sample ozonated prior to analysis due to lab receipt time exceeding 48hr method hold time.										
380541 041925599-0002	9/3/2019 02:30 PM	50	1360	0.1419	≥ 0.5 µm	None Detected	ND	0.19	<0.19	0.00 - 0.71
					> 10 µm only	None Detected	ND	0.19	<0.19	0.00 - 0.71
Collection Date/Time: *08/26/2019*										
Sample ozonated prior to analysis due to lab receipt time exceeding 48hr method hold time.										
380653 041925599-0003	9/3/2019 02:30 PM	100	1360	0.0774	≥ 0.5 µm	None Detected	ND	0.18	<0.18	0.00 - 0.65
					> 10 µm only	None Detected	ND	0.18	<0.18	0.00 - 0.65
Collection Date/Time: *08/26/2019*										
Sample ozonated prior to analysis due to lab receipt time exceeding 48hr method hold time.										

Analyst(s)
Patrick Carr (3)

Benjamin Ellis, Laboratory Manager
or Other Approved Signatory

Any questions please contact Benjamin Ellis.

Initial report from: 09/12/2019 20:46:35

EXHIBIT D-3
Raw Water Analysis, PW-3

Pace Analytical™

PaceAnalyticalServices,LLC.
1700ElmStreet
Minneapolis,MN,55414

Tel612-607-1700
Fax612-607-6444

Drinking Water Analysis Results
2,3,7,8-TCDD -- USEPA Method 1613B

Sample ID.....380541
Client..... Hoosier Microbiological Lab
Lab Sample ID..... 10490762002

Date Collected.....08/27/2019
Date Received.....09/06/2019
Date Extracted.....09/11/2019

	Sample 380541	Method Blank	Lab Spike	Lab Spike Dup
[2,3,7,8-TCDD]	**ND**	ND	--	--
LOQ	5.0 pg/L	5.0 pg/L	--	--
2,3,7,8-TCDD Recovery	--	--	89%	84%
Spike Recovery Limit	--	--	73-146%	73-146%
RPD			6.7%	
IS Recovery	**69%**	71%	73%	77%
IS Recovery Limits	31-137%	31-137%	25-141%	25-141%
CS Recovery	**82%**	79%	78%	85%
CS Recovery Limits	42-164%	42-164%	37-158%	37-158%
Filename	E190912B_10	E190912B_05	E190912B_03	E190912B_04
Analysis Date	09/12/2019	09/12/2019	09/12/2019	09/12/2019
Analysis Time	17:03	14:48	13:55	14:22
Analyst	JRH	JRH	JRH	JRH
Volume	1.010L	1.007L	1.002L	1.010L
Dilution	NA	NA	NA	NA
ICAL Date	12/15/2018	12/15/2018	12/15/2018	12/15/2018
CCAL Filename	E190912B_02	E190912B_02	E190912B_02	E190912B_02

! = Outside the Control Limits
ND = Not Detected
LOQ = Limit of Quantitation
Limits = Control Limits from Method 1613 (10/94 Revision), Tables 6A and 7A
RPD = Relative Percent Difference of Lab Spike Recoveries
IS = Internal Standard [2,3,7,8-TCDD-$^{13}C_{12}$]
CS = Cleanup Standard [2,3,7,8-TCDD-$^{37}Cl_4$]

Analyst: Jessica Heath

Project No.....10490762

EXHIBIT D-3
Raw Water Analysis, PW-3

Client Name: Hoosier Microbiological Laboratories

Report #: 463770

Sampling Point: 380444 Sample Tap

PWS ID: Not Supplied

General Chemistry

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
—	Total Organic Carbon (TOC) $	5310 C	—	0.500	2.43	mg/L	—	09/16/19 23:38	4405244

Radionuclides

Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
—	Gross Alpha	7110 B	15 *	1.4	3.0	4.9 ± 2.2	pCi/L	09/06/19 14:30	09/16/19 11:16	4405243
—	Gross Beta	7110 B	—	2.8	4.0	5.6 ± 3.1	pCi/L	09/06/19 14:30	09/16/19 11:16	4405243
13982-63-3	Radium-226	7500-Ra B	—	0.23	1.0	1.1 ± 0.4	pCi/L	09/06/19 13:00	09/12/19 12:33	4405242
15262-20-1	Radium-228	7500-Ra D	—	0.50	1.0	2.6 ± 0.6	pCi/L	09/06/19 13:00	09/16/19 18:47	4405242
—	Combined Radium	calc.	5 *	0.50	1.0	3.7 ± 0.7	pCi/L	09/06/19 13:00	09/16/19 18:47	4405242

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

$ The state of origin does not offer certification for this parameter.

Sampling Point: 380541 Sample Tap

PWS ID: Not Supplied

General Chemistry

Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
—	Total Organic Carbon (TOC) $	5310 C	—	0.500	2.31	mg/L	—	09/16/19 23:57	4405247

Radionuclides

Analyte ID #	Analyte	Method	Reg Limit	MDA 95**	MRL	Result	Units	Preparation Date	Analyzed	EEA ID #
—	Gross Alpha	7110 B	15 *	1.7	3.0	1.8 ± 1.8	pCi/L	09/06/19 14:30	09/16/19 11:16	4405246
—	Gross Beta	7110 B	—	2.4	4.0	6.0 ± 2.7	pCi/L	09/06/19 14:30	09/16/19 11:16	4405246
13982-63-3	Radium-226	7500-Ra B	—	0.21	1.0	0.93 ± 0.45	pCi/L	09/06/19 13:00	09/16/19 14:10	4405245
15262-20-1	Radium-228	7500-Ra D	—	0.45	1.0	2.4 ± 0.6	pCi/L	09/06/19 13:00	09/16/19 18:47	4405245
—	Combined Radium	calc.	5 *	0.45	1.0	3.33 ± 0.73	pCi/L	09/06/19 13:00	09/16/19 18:47	4405245

** Minimum Detectable Activity (MDA95) shall be that concentration which can be counted with a precision of plus or minus 100% at the 95 % confidence level.

$ The state of origin does not offer certification for this parameter.

EXHIBIT D-4
Kersey Well Log, PW-1

DO19014
PW # 1

RECORD OF WATER WELL
State Form 35680 (R5 / 9-04)

Driller--Mail complete record in 30 days to:
INDIANA DEPT. OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204-2641
(877) 928-3755 toll-free or (317) 232-4160

County Permit Number
DNR Variance Number
Include if applicable

Fill in completely

WELL LOCATION

County where drilled	Civil township name	Township number (N-S)	Range number (E-W)	Section
Jasper	Wheatfield	32n	6w	30

Driving direction to the welll location(includingtrip origin, street & roak names, indtersecting roads, and compass directions) Show well address and subdivision in box at lower right.
Southwest corner of Commercial Dr. and 575 W.

location address

UTM Northing 4559837
UTM Easting 486677
Datum **X NAD 27** ☐ NAD 83
GPS used
Subdivision name & lot number (if applicable)

If drilled for water supply, this well is: First well on property replacement well Additional well on property ☐ Dry hole

Owner-Town of Demotte PW # 1

Building contractor--name	Address *(number and street, city, state, ZIP code)*	Telephone Number

Drilling contractor--name	Address *(number and street, city, state, ZIP code)*	Telephone number
Ortman Drilling	241 N. 300 W. Kokomo, Indiana 46901	765-459-4125

Equipment operator-name	**License number**	**Date of well completion**
Brant Byrd- Mike Keller- Chris Erickson	2615	8/19/2019

CONSTRUCTION DETAILS

Use of well
Home
x Public supply
Industrial / commercial
Livestock
Irrigation
Monitoring / environ.
test hole
other

Drilling Method
x Rotary
☐ Reverse rotary
☐ Cable tool
☐ Jet
Bucket / bore
Auger(including HAS)
☐ Direct push
Other: _____

Type of pump
Submersible
☐ Shallow-well jet
☐ Deep-well jet
No pump installed
Other: _____

Pump depth setting (feet)

Total depth of well (feet) 180	**Borehole diameter** (in.) 16	**Gravel pack inserted**	Yes x No
Casing length (feet) 50+3' up	**Casing diameter** (in.) 10	**Casing material**	PVC x Steel
Screen length (feet) n/a	**Screen diameter** (in.) n/a	**Screen material** no screen	PVC Steel
Screen slot size n/a	**Water quality** (clear, odor, etc.) Clear		

WELL CAPACITY TEST

Test method	**Static level** below surface(ft.)	**Gallons per min.**	**Hours tested**	**Drawdown** (change in level)
x Air ☐ Bailing	Flowing	600	?	feet

GROUTING

Grout material	Grout depth	Installation Method	No. of bags used
Cement& benseal	from 50 to 0	pumped with tremie	3---15

Gravel Pack

Material	Depth filled from	to	installation method	quantity

WELL LOG

FORMATIONS: Type of material	From (feet)	To (feet)
mostly sand w/ streaks of clay	0	28
dark gray limestone	28	36
fractured gray limestone	36	47
fractured light gray limestone	47	64
blue gray limestone	64	66
fractured gray llimestone	66	180
used 9 7/8" bit in bedrock	50	180
1 ft. fracture @ 73 ft.		
used 13 bags drilling mud, 3 bags portland cement, and 15 bags benseal		

Additional space for well log and comments on reverse side

I hereby swear or affirm, under the penalties for perjury, that the information submitted herewith is, to the best of my knowledge and belief, true, accurate, and complete.

Signature of **drilling contractor** or authorized representative MUST BE SIGNED OR STAMPED: bob roberts

Date: 10/28/2018

EXHIBIT D-4
Kersey Well Log, PW-2

DO19014
PW #2

RECORD OF WATER WELL
State Form 35680 (R5 / 9-04)

Driller--Mail complete record in 30 days to:
INDIANA DEPT. OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204-2641
(877) 928-3755 toll-free or (317) 232-4160

County Permit Number
DNR Variance Number
Include if applicable

Fill in completely

WELL LOCATION

County where drilled	Civil township name	Township number (N-S)	Range number (E-W)	Section
Jasper	Wheatfield	32n	6w	30

Driving direction to the welll location(includingtrip origin, street & roak names, indtersecting roads, and compass directions) Show well address and subdivision in box at lower right.
Southwest corner of Commercial Dr. and 575 W.

location address

UTM Northing 4559837
UTM Easting 486677
Datum X **NAD 27** ☐ NAD 83
GPS used
Subdivision name & lot number (if applicable)

If drilled for water supply, this well is: First well on property | replacement well | x Additional well on property | ☐ Dry hole

Owner-Town of Demotte PW # 2

Building contractor--name	Address *(number and street, city, state, ZIP code)*	Telephone Number

Drilling contractor--name	Address *(number and street, city, state, ZIP code)*	Telephone number
Ortman Drilling	241 N. 300 W. Kokomo, Indiana 46901	765-459-4125

Equipment operator-name	**License number**	**Date of well completion**
Brant Byrd-Mike Keller- Chris Erickson	2615	8/19/2019

CONSTRUCTION DETAILS

Use of well
Home
x Public supply
Industrial / commercial
Livestock
Irrigation
Monitoring / environ.
test hole
other

Drilling Method
x Rotary
☐ Reverse rotary
☐ Cable tool
☐ Jet
Bucket / bore
Auger(including HAS)
☐ Direct push
Other: _____

Type of pump
Submersible
☐ Shallow-well jet
☐ Deep-well jet
No pump installed
Other: _____

Pump depth setting (feet)

Total depth of well (feet) 180	**Borehole diameter** (in.) 16	**Gravel pack inserted**	Yes / x No
Casing length (feet) 50+2' up	**Casing diameter** (in.) 10	**Casing material**	**PVC** / x Steel
Screen length (feet) n/a	**Screen diameter** (in.) n/a	**Screen material** no screen	PVC / Steel
Screen slot size n/a	**Water quality** (clear, odor, etc.) Clear		

WELL CAPACITY TEST

Test method	**Static level** below surface(ft.)	**Gallons per min.**	**Hours tested**	**Drawdown** (change in level)
x Air ☐ Bailing	flowing	400	?	feet

GROUTING

Grout material	Grout depth	Installation Method	No. of bags used
Cement -Benseal	from 50 to 0	Pumped with tremie	3----15

Gravel Pack

Material	Depth filled from	to	installation method	quantity

WELL LOG

FORMATIONS: Type of material	From (feet)	To (feet)
mostly sand with straks of clay	0	28
dark gray limestone	28	36
fractured gray limestone	36	47
fractured light gray limestone	47	64
blue gray limestone	64	66
gray limestone	66	180
had 1 ft fractures at 62 ft. and 73 ft.		
used 9 7/8" bit in bedrock	50	180
used 13 bags drilling mud, 1 shale trap and fuel.		

Additional space for well log and comments on reverse side

I hereby swear or affirm, under the penalties for perjury, that the information submitted herewith is, to the best of my knowledge and belief, true, accurate, and complete.

Signature of **drilling contractor** or authorized representative MUST BE SIGNED OR STAMPED
bob roberts

Date
10/28/2019

EXHIBIT D-4
Kersey Well Log, PW-3

DO19014

PW # 3

RECORD OF WATER WELL

State Form 35680 (R5 / 9-04)

Driller--Mail complete record in 30 days to:
INDIANA DEPT. OF NATURAL RESOURCES
Division of Water
402 W. Washington St., Rm. W264
Indianapolis, IN 46204-2641
(877) 928-3755 toll-free or (317) 232-4160

County Permit Number

DNR Variance Number

Fill in completely

Include if applicable

WELL LOCATION

County where drilled	Civil township name	Township number (N-S)	Range number (E-W)	Section
Jasper	Wheatfield	32n	6w	30

Driving direction to the welll location(includingtrip origin, street & roak names, indtersecting roads, and compass directions) Show well address and subdivision in box at lower right.

Southwest corner of Commercial Dr. and 575 W.

location address

UTM Northing	4559888
UTM Easting	486744
Datum	X NAD 27 ☐ NAD 83
GPS used	
Subdivision name & lot number (if applicable)	

If drilled for water supply, this well is: First well on property replacement well x Additional well on property ☐ Dry hole

Owner-Town of Demotte PW #3

Building contractor--name	Address *(number and street, city, state, ZIP code)*	Telephone Number

Drilling contractor--name	Address *(number and street, city, state, ZIP code)*	Telephone number
Ortman Drilling	241 N. 300 W. Kokomo, Indiana 46901	765-459-4125

Equipment operator-name	**License number**	**Date of well completion**
Brant Byrd-Mike Keller-Chris Erickson	2615	8/12/2019

CONSTRUCTION DETAILS

Use of well
Home
x Public supply
Industrial / commercial
Livestock
Irrigation
Monitoring / environ.
test hole
other

Drilling Method
x Rotary
☐ Reverse rotary
☐ Cable tool
☐ Jet
Bucket / bore
Auger(including HAS)
☐ Direct push
Other: _____

Type of pump
Submersible
☐ Shallow-well jet
☐ Deep-well jet
No pump installed
Other: _____

Pump depth setting (feet)

Total depth of well (feet)	240	**Borehole diameter** (in.)	16
Casing length (feet)	56+2' up	**Casing diameter** (in.)	10
Screen length (feet)	n/a	**Screen diameter** (in.)	n/a
Screen slot size	n/a	**Water quality** (clear, odor, etc.)	Clear

Gravel pack inserted Yes x No

Casing material PVC x Steel

Screen material PVC Steel
no screen

WELL CAPACITY TEST

Test method	**Static level** below surface(ft.)	**Gallons per min.**	**Hours tested**	**Drawdown** (change in level)
x Air ☐ Bailing	flowing	300	?	feet

GROUTING

Grout material	Grout depth	Installation Method	No. of bags used
cement & benseal	from 56 to 0	Pumped with tremie	3 & 15

Gravel Pack

Material	Depth filled from	to	installation method	quantity

WELL LOG

FORMATIONS: Type of material	From (feet)	To (feet)
sand and cobbles w/ straks of clay	0	28
mixed limestone	28	37
fractured gray limestone	37	180
fractured dark gray limestone	180	240
at 180 ft. only had 100 gpm		
used 9 7/8' bit in bedrock	56	240
used 17 bags drilling mud, 1 shale tap and fuel.		

Additional space for well log and comments on reverse side

I hereby swear or affirm, under the penalties for perjury, that the information submitted herewith is, to the best of my knowledge and belief, true, accurate, and complete.

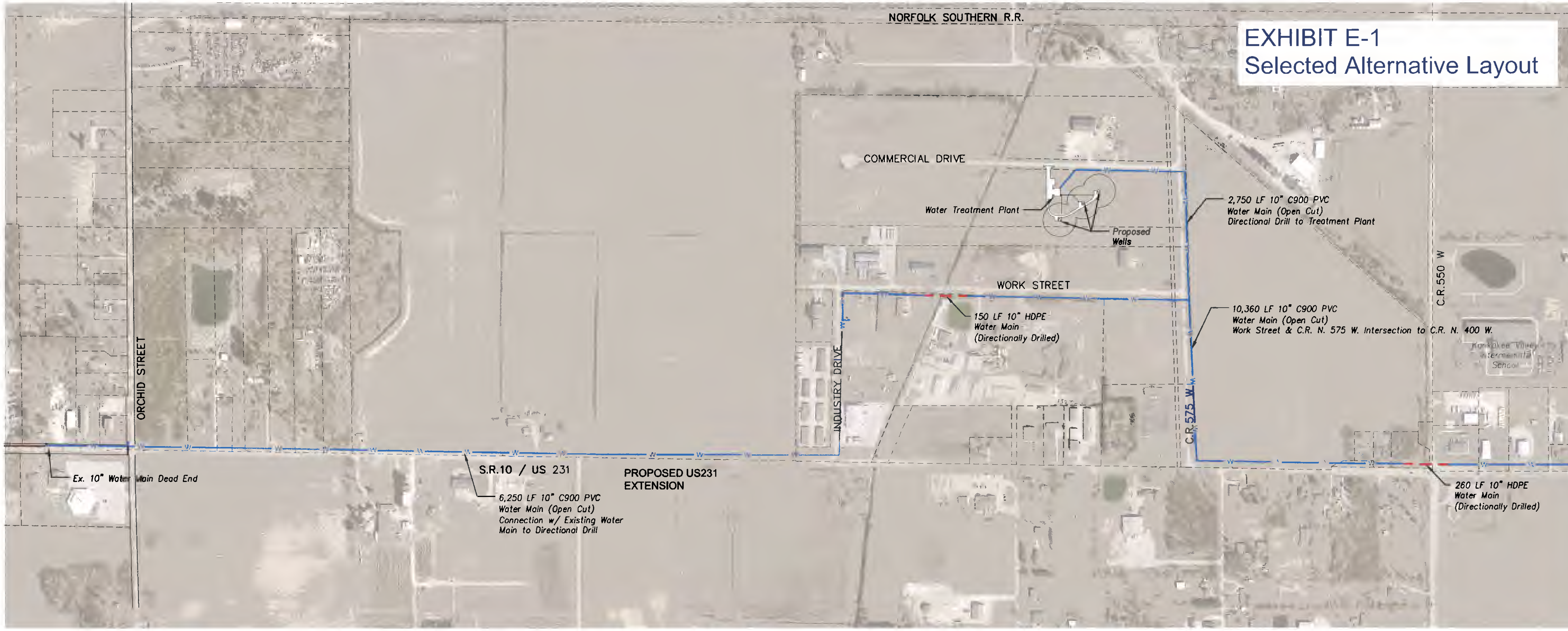
Signature of **drilling contractor** or authorized representative MUST BE SIGNED OR STAMPED

bob roberts

Date 10/28/2019

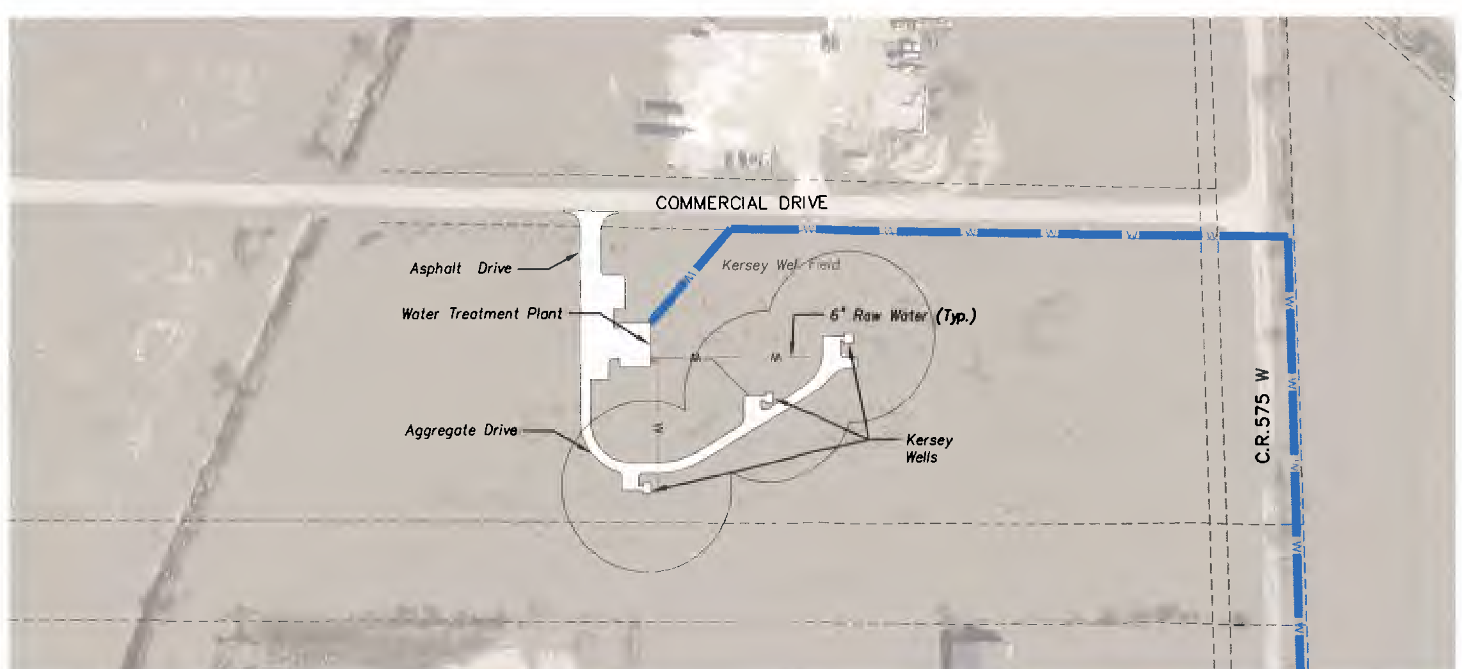
Appendix E
Selected Alternative Layout and Opinion of Cost

EXHIBIT E-1
Selected Alternative Layout



OVERALL IMPROVEMENTS

GRAPHIC SCALE (IN FEET) 1 inch = 300 ft.



PLANT AND WELL SITE IMPROVEMENTS

GRAPHIC SCALE (IN FEET) 1 inch = 100 ft.

ABONMARCHE

17 N. Washington St
Valparaiso, IN 46383
abonmarche.com

Engineering · Architecture · Land Surveying

Battle Creek, Benton Harbor, Manistee, South Haven, Goshen, Hobart, Lafayette, South Bend, Valparaiso

PROJECT:
NORWEJ Water District
Town of Demotte
Drinking Water
System Improvements

SHEET TITLE:
Proposed Improvements
Overall Exhibit

DRAWN BY: AAA
DESIGNED BY: AAA
PM REVIEW: DSK
QA/QC REVIEW: DSK/RSP
DATE: 1/2/2020
SEAL:

SIGNATURE:
DATE:

HARD COPY IS INTENDED TO BE 24" X 36" WHEN PLOTTED. SCALE(S) INDICATED AND GRAPHIC QUALITY MAY NOT BE ACCURATE FOR ANY OTHER SIZES

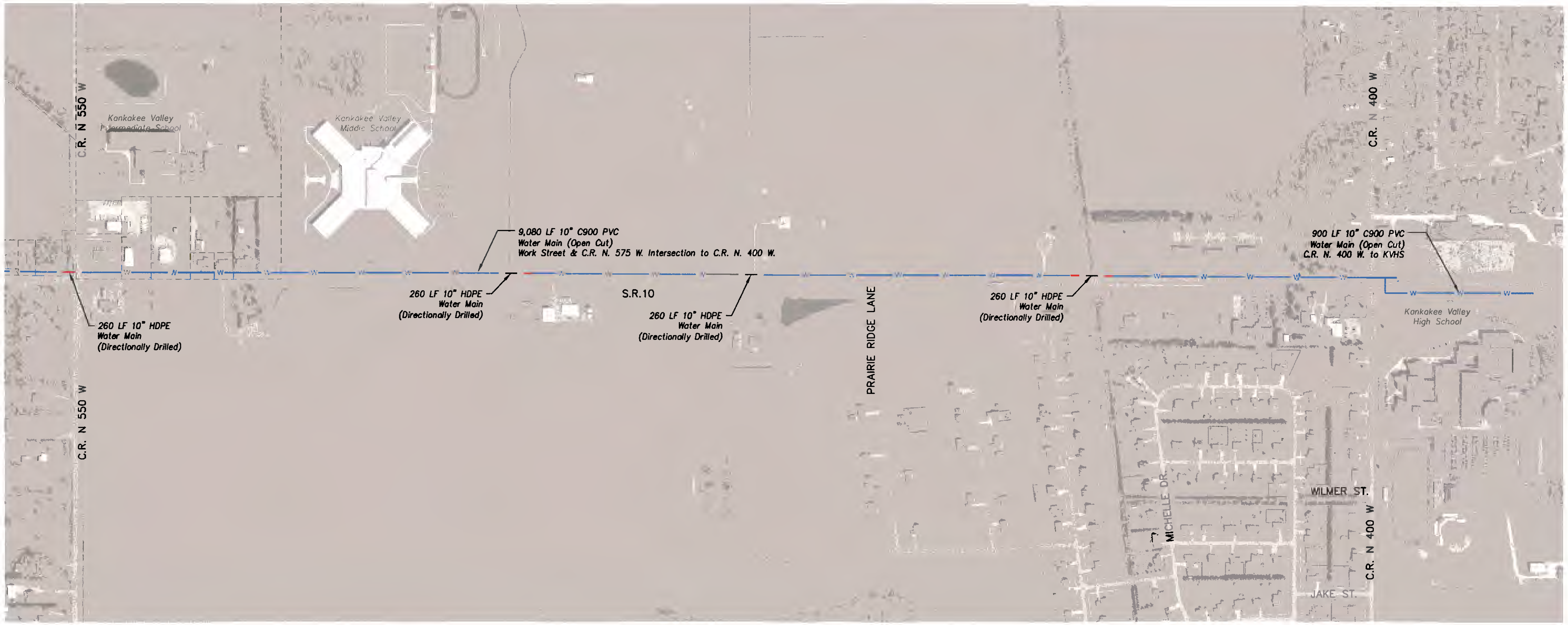
SCALE:
HORZ: Varies
VERT:

ACI JOB #
19-0001

SHEET NO.

NO.	REVISION DESCRIPTION	BY	DATE

EXHIBIT E-1
Selected Alternative Layout



OVERALL IMPROVEMENTS

GRAPHIC SCALE
(IN FEET)
1 inch = 300 ft.

ABONMARCHE

NORWEJ Water District
Town of Demotte
Drinking Water
System Improvements

Proposed Improvements
Overall Exhibit

DRAWN BY: AAA
DESIGNED BY: AAA
PM REVIEW: DSK
QA/QC REVIEW: DSK/RSP
DATE: 1/2/2020
SEAL:
SIGNATURE:
DATE:

HARD COPY IS INTENDED TO BE 24" X 36" WHEN PLOTTED. SCALE(S) INDICATED AND GRAPHIC QUALITY MAY NOT BE ACCURATE FOR ANY OTHER SIZES

SCALE:
HORZ: Varies
VERT:
ACI JOB #: 19-0001
SHEET NO.

ABONMARCHE

EXHIBIT E-2
Phase I Opinion of Cost

Engineering • Architecture • Land Surveying

NORWEJ WATER DISTRICT

System Expansion Project Cost Analysis

19-0001

Preliminary Opinion of Probable Cost

PHASE I: STATE ROAD 10 WATER MAIN EXTENSION PROJECT

March 9, 2020

Description	*Spec No*	*Quantity*	*Unit*	*Unit Price*	*Cost*
1. Construction Engineering		1	LS	1.0%	$11,110
2. Mobilization/Demobilization		1	LS	5.0%	$52,890
3. Maintenance of Traffic		1	LS	$25,000.00	$25,000
4. Erosion Control		1	LS	$5,000.00	$5,000
5. Clearing and Scrubbing		1	LS	$50,000.00	$50,000
6. Fire Hydrant Assembly		23	EA	$5,000.00	$115,000
7. Water Main Distribution Piping, 10 IN., PVC C-900		9,150	LFT	$70.00	$640,500
8. Water Main, Directionally Drilled, Fusible PVC, 10 IN.		180	LFT	$150.00	$27,000
9. Gate Valve, 10"		20	EA	$2,200.00	$44,000
10. Gate Valve, 6"		2	EA	$1,500.00	$3,000
11. Fittings		50	EA	$600.00	$30,000
12. Air Release Structures		5	EA	$5,000.00	$25,000
13. Water Service Set		4	EA	$1,500.00	$6,000
14. Water Service, HDPE, 1"		150	LFT	$15.00	$2,250
15. 12" HDPE Culvert Replacement (INDOT Type 3)		45	LFT	$45.00	$2,025
16. 15" CMP Culvert Replacement (INDOT Type 3)		25	LFT	$45.00	$1,125
17. 12" CMP Culvert Replacement (INDOT Type 3)		101	LFT	$45.00	$4,545
18. 12" RCP Culvert Replacement (INDOT Type 3)		173	LFT	$45.00	$7,785
19. 12" CMP End Section		6	EA	$50.00	$300
20. Compacted Aggregate, No. 53, Road Base		130	TON	$40.00	$5,183
21. Compacted Aggregate, No. 53, Drive		90	TON	$45.00	$4,050
22. Concrete Drive, 6"		330	SYS	$65.00	$21,450
23. HMA Pavement, Patching and Drives		90	TON	$150.00	$13,500
24. Surface Restoration		1	LS	$25,000.00	$25,000
Subtotal:					***$1,121,710***
Contingency				*15%*	*$168,260*
Engineering & Construction Administration				*15%*	*$168,260*
TOTAL:					**$1,458,230**

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Engineering • Architecture • Land Surveying

NORWEJ WATER DISTRICT

System Expansion Project Cost Analysis

19-0001

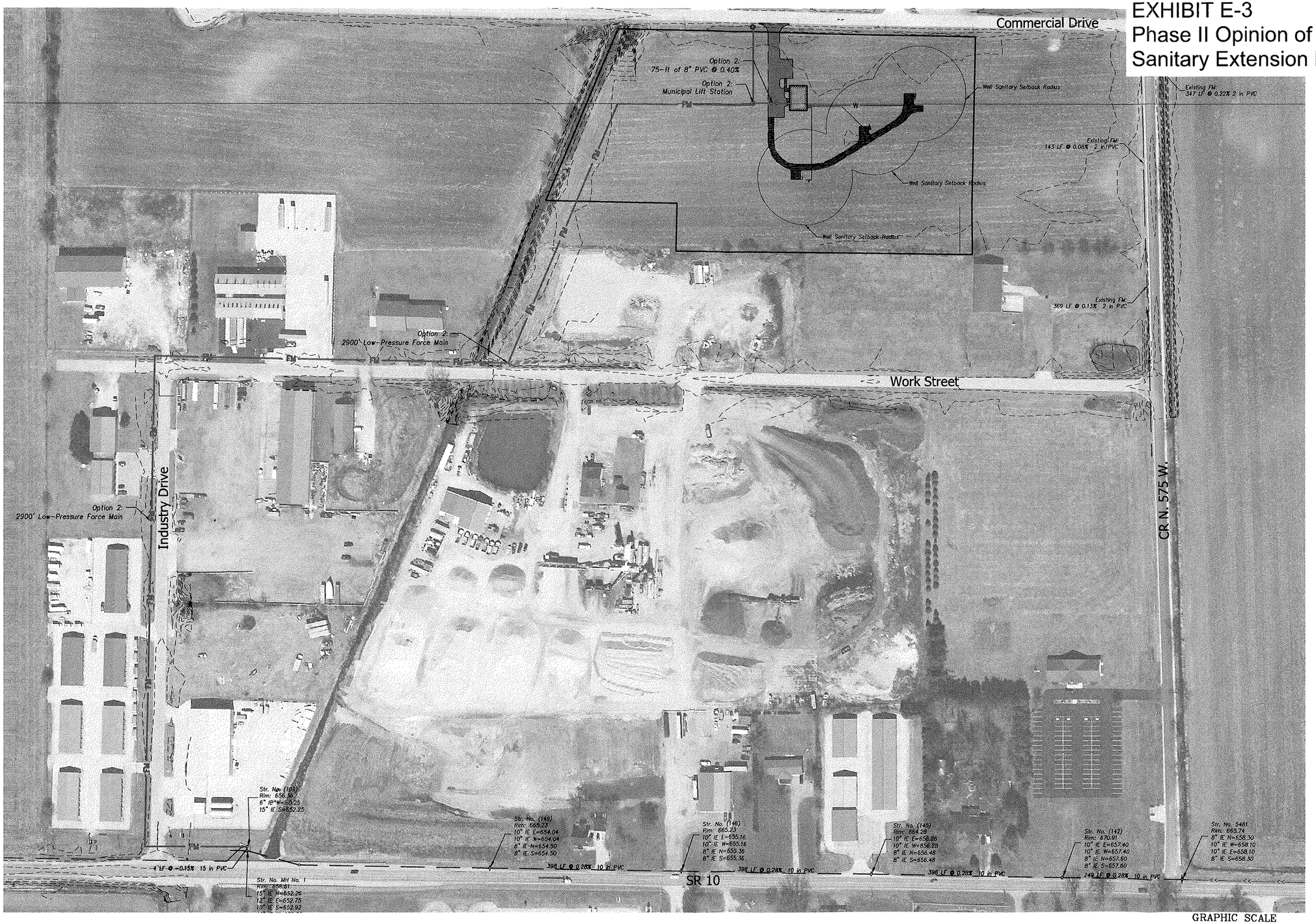
Preliminary Opinion of Probable Cost

PHASE II: KERSEY WELL FIELD AND TREATMENT PLANT

March 23, 2020

	Description	*Spec No*	*Quantity*	*Unit*	*Unit Price*	*Cost*
1.	Construction Engineering		1	LS	0.75%	$18,840
2.	Mobilization/Demobilization		1	LS	5.0%	$119,630
3.	Erosion Control		1	LS	$50,000.00	$50,000
4.	Treatment Plant		1	LS	$1,650,000.00	$1,650,000
5.	Water Main Distribution Piping, C900 PVC, 10 IN.		200	LF	$80.00	$16,000
6.	Water Main Piping, C900 PVC, 6 IN.		600	LF	$40.00	$24,000
7.	Gate Valve, 10"		2	EA	$2,200.00	$4,400
8.	Gate Valve, 6"		6	EA	$1,500.00	$9,000
9.	Hydrant Assemblies		4	EA	$5,000.00	$20,000
10.	Fittings		15	EA	$600.00	$9,000
11.	Well Pumps		3	EA	$15,000.00	$45,000
12.	Site Electrical		1	LS	$50,000.00	$50,000
13.	Well Houses		3	EA	$50,000.00	$150,000
14.	Compacted Aggregate, No. 53, Drive		680	TON	$40.00	$27,200
15.	HMA Pavement, Binder		110	TON	$80.00	$8,800
16.	HMA Pavement, Surface		70	TON	$100.00	$7,000
17.	Sidewalk, Concrete		275	SFT	$50.00	$13,750
18.	Grass Restoration and Fence		1	LS	$85,000.00	$85,000
19.	Sanitary System - Low Pressure		1	LS	$223,420.00	$223,420
	Subtotal:					***$2,531,040***
	Contingency				*15%*	*$379,660*
	Engineering & Construction Administration				*15%*	*$379,660*
	TOTAL:					**$3,290,360**

EXHIBIT E-3
Phase II Opinion of Cost
Sanitary Extension Exhibit



GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.

RNUM	RDESC	RBY	RDATE

ABONMARCHE
17 N. Washington Street
Knox, IN 46534
T 219.850.4424
F 219.850.4425
abonmarche.com
Goshen
Indianapolis
Battle Creek
Grand Rapids
Lafayette
South Bend
South Haven
Valparaiso
Engineering Architecture Land Surveying

PROJECT:
NORWEJ
SYSTEM IMPROVEMENTS

SHEET TITLE:
KERSEY WELL FIELD
AND TREATMENT PLANT
KERSEY SANITARY EXTENSION
OPTION 2 - FORCE MAIN

DRAWN BY: AAA
DESIGNED BY: RSP/CWT
PM REVIEW: DSK
QA/QC REVIEW:
DATE: 2/28/2020
SEAL:
SIGNATURE:
DATE:
SCALE: HORZ: 1" = 100'
VERT:
ACT JOB #: 19-0001
SHEET NO.: 1 of 1

ABONMARCHE

EXHIBIT E-3
Phase II Opinion of Cost
Sanitary Extension Cost Estimate

NORWEJ WATER DISTRICT

System Expansion Project Cost Analysis

19-0001

PHASE II: KERSEY WELL FIELD AND TREATMENT PLANT SANITARY SEWER EXTENSION

3/19/2020

			Option 2		
	Description	*Unit*	*Quantity*	*Unit Price*	*Cost*
1	Construction Engineering	LS	1	1.5%	$2,620
2	Mobilization/Demobilization	LS	1	5.0%	$8,320
3	Maintenance of Traffic	LS	1	$2,000.00	$2,000
4	Erosion Control	LS	1	$5,000.00	$5,000
5	Simplex Lift Station	EA	2	$10,000.00	$20,000
6	Backwash discharge pumps	EA	0	$8,000.00	$0
7	HMA, Surface	LS	1	$2,000.00	$2,000
8	HMA, Intermediate	LS	1	$3,000.00	$3,000
9	Aggregate base	LS	1	$5,000.00	$5,000
10	Restoration	LS	1	$5,000.00	$5,000
11	Gravity Clean Out	EA	2	$1,500.00	$3,000
12	FM Service Connections	LS	2	$1,500.00	$3,000
13	FM Clean Out Structures	EA	2	$2,500.00	$5,000
14	Manhole Sanitary	EA	1	$4,000.00	$4,000
15	Sanitary Tie in	LS	1	$5,000.00	$5,000
16	Force main, 2-4" HDPE directional drill	LF	3,050	$30.00	$91,500
17	Sanitary Sewer, 8-inch, SDR 35	LF	75	$65.00	$4,875
18	Dewatering	LF	3,125	$0.00	$0
19	Air/Vacuum Release Structure	EA	1	$8,000.00	$8,000
	Subtotal:				***$177,320***

Contingency	*10%*	*$17,730*
Engineering	*10%*	*$17,730*
Construction Adminstration	*6%*	*$10,640*
TOTAL:		**$223,420**

ABONMARCHE

EXHIBIT E-4
Phase III Opinion of Cost

Engineering • Architecture • Land Surveying

NORWEJ WATER DISTRICT

Preliminary System Expansion Project Cost Analysis

19-0001

Preliminary Opinion of Probable Cost

PHASE III: KANKAKEE VALLEY HIGH SCHOOL WATER MAIN EXTENSION PROJECT

March 9, 2020

	Description	*Spec No*	*Quantity*	*Unit*	*Unit Price*	*Cost*
1	Construction Engineering		1	LS	1.0%	$13,980
2	Mobilization/Demobilization		1	LS	5.0%	$66,570
3	Maintenance of Traffic		1	LS	$25,000.00	$25,000
4	Erosion Control		1	LS	$5,000.00	$5,000
5	Clearing and Scrubbing		1	LS	$50,000.00	$50,000
6	Fire Hydrant Assembly		28	EA	$5,000.00	$140,000
7	Water Main Distribution Piping, 10 IN., PVC C-900		10,360	LFT	$65.00	$673,400
8	Water Main, Directionally Drilled, Fusible PVC, 10 IN.		1,040	LFT	$150.00	$156,000
9	Steel Casing, 20 IN Directional Drilled/ Bore & Jacked		80	LFT	$550.00	$44,000
10	Gate Valve, 10"		20	EA	$2,200.00	$44,000
11	Gate Valve, 6"		3	EA	$1,500.00	$4,500
12	Fittings		50	EA	$600.00	$30,000
13	Water Service Set		4	EA	$1,500.00	$6,000
14	Water Service, HDPE, 1"		200	LFT	$15.00	$3,000
15	Air Release Structures		3	EA	$5,000.00	$15,000
16	Compacted Aggregate, No. 53, Road Base and Drive		680	TON	$45.00	$30,600
17	HMA Pavement, Binder		210	TON	$80.00	$16,800
18	HMA Pavement, Surface		130	TON	$100.00	$13,000
19	Surface Restoration		1	LS	$75,000.00	$75,000
	Subtotal:					***$1,411,850***
	Contingency				*15%*	*$211,780*
	Engineering & Construction Administration				*15%*	*$211,780*
	TOTAL:					**$1,835,410**

Appendix F
NRCS Coordination

EXHIBIT F-1
Sent to NRCS

Allison Atkinson

From: Allison Atkinson
Sent: Monday, June 10, 2019 2:03 PM
To: kevin.shide@in.usda.gov
Subject: NRCS Form AD-1006 for Drinking Water Project
Attachments: NORWEJ_NRCS Form AD-1006.pdf

Good afternoon Kevin,

We are working on a Preliminary Engineering Report (PER) for a water main extension, new well field, and treatment plant project for the Northwest Jasper Regional Water District (NORWEJ) located within DeMotte, Indiana. For the PER report, we are required to coordinate with the NRCS to complete a form for the Farmland Conversion Impact Rating. After completion, the report will be submitted to the Indiana Finance Authority (IFA) to be used in support for a Drinking Water State Revolving Fund Loan Program.

Please see the attached packet containing the following:

1. Form AD-1006 with only Part I and Part III completed, as indicated in the SRF's environmental guidance document
2. Soil Map with Hydrologic Soil Group from the NRCS Web Soil Survey
3. Exhibit showing the proposed improvements

Please let me know if you need more information in order to complete the form or have further questions about the project.

Thank you,
Allison

Allison Atkinson
Staff Civil Engineer, EI

D 219.246.4245
C 317.682.7977
O 219.850.4624 ext. 317

W www.abonmarche.com

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EXHIBIT F-1
Sent to NRCS

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*		Date Of Land Evaluation Request 6/10/2019	
Name of Project NORWEJ System Improvements		Federal Agency Involved US-EPA/Indiana DWSRF	
Proposed Land Use Well Field & Water Treatment Plant		County and State Jasper County, IN	
PART II *(To be completed by NRCS)*		Date Request Received By NRCS	Person Completing Form:
Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)*	YES ☐ NO ☐	Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount of Farmland As Defined in FPPA Acres: %	
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	7.96			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	7.96			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide Important or Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)				

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)				
2. Perimeter In Non-urban Use	(10)				
3. Percent Of Site Being Farmed	(20)				
4. Protection Provided By State and Local Government	(20)				
5. Distance From Urban Built-up Area	(15)				
6. Distance To Urban Support Services	(15)				
7. Size Of Present Farm Unit Compared To Average	(10)				
8. Creation Of Non-farmable Farmland	(10)				
9. Availability Of Farm Support Services	(5)				
10. On-Farm Investments	(20)				
11. Effects Of Conversion On Farm Support Services	(10)				
12. Compatibility With Existing Agricultural Use	(10)				
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	0	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	0	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☐

Reason For Selection:

Name of Federal agency representative completing this form:	Date:

(See Instructions on reverse side)

Form AD-1006 (03-02)

EXHIBIT F-1
Sent to NRCS

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION IMPACT RATING

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as defined in the Farmland Protection Policy Act (FPPA), to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public.USA_map, or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

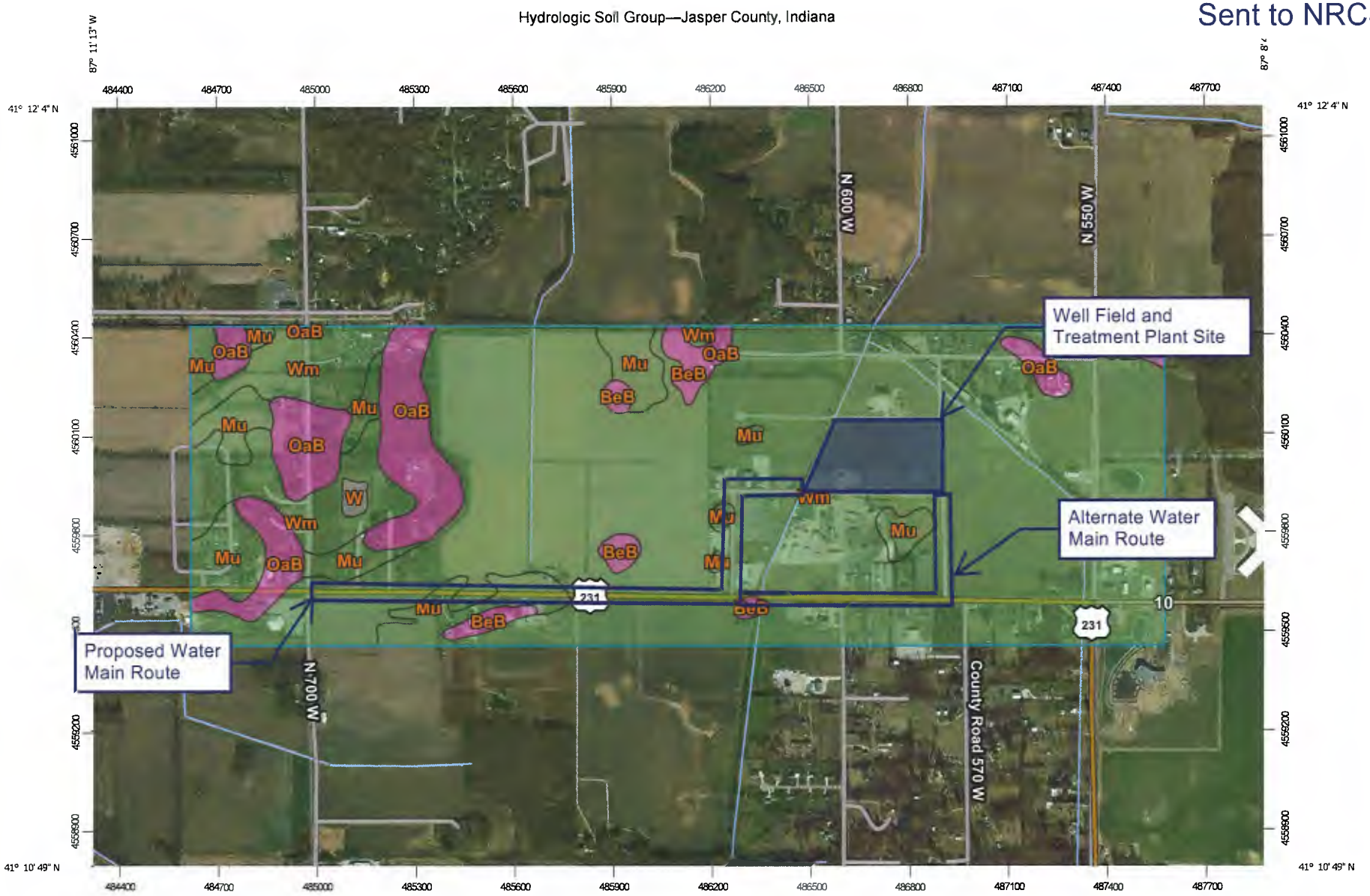
$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \times 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

EXHIBIT F-1
Sent to NRCS

Hydrologic Soil Group—Jasper County, Indiana



Map Scale: 1:16,300 if printed on A landscape (11" x 8.5") sheet.

Meters: 0 200 400 800 1200

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

EXHIBIT F-1
Sent to NRCS

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jasper County, Indiana
Survey Area Data: Version 19, Sep 7, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 3, 2009—Dec 26, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

EXHIBIT F-1
Sent to NRCS

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BeB	Brems loamy sand, 1 to 3 percent slopes	A	14.2	2.0%
Mu	Morocco loamy sand, 0 to 2 percent slopes	A/D	64.8	9.1%
OaB	Oakville fine sand, 2 to 6 percent slopes	A	67.9	9.5%
W	Water		1.9	0.3%
Wm	Watseka-Maumee loamy sands	A/D	565.3	79.2%
Totals for Area of Interest			**714.2**	**100.0%**

EXHIBIT F-1
Sent to NRCS

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

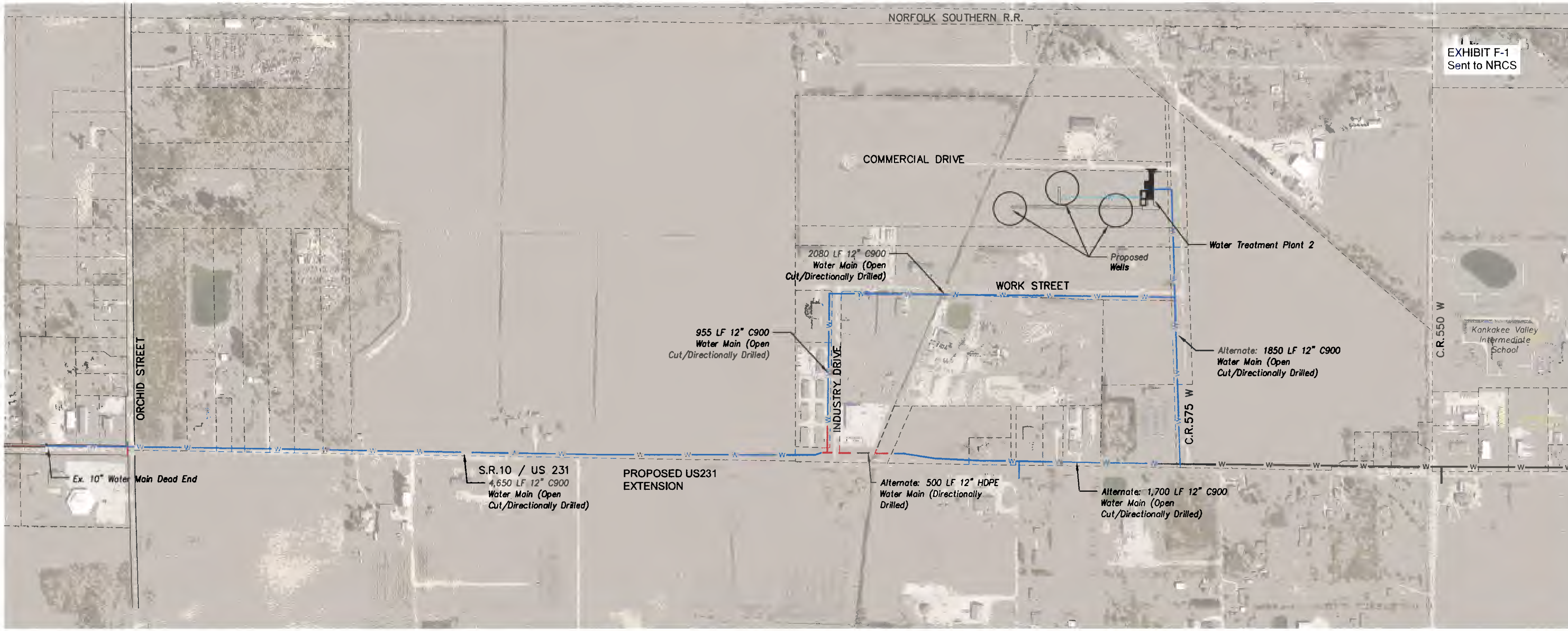
If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

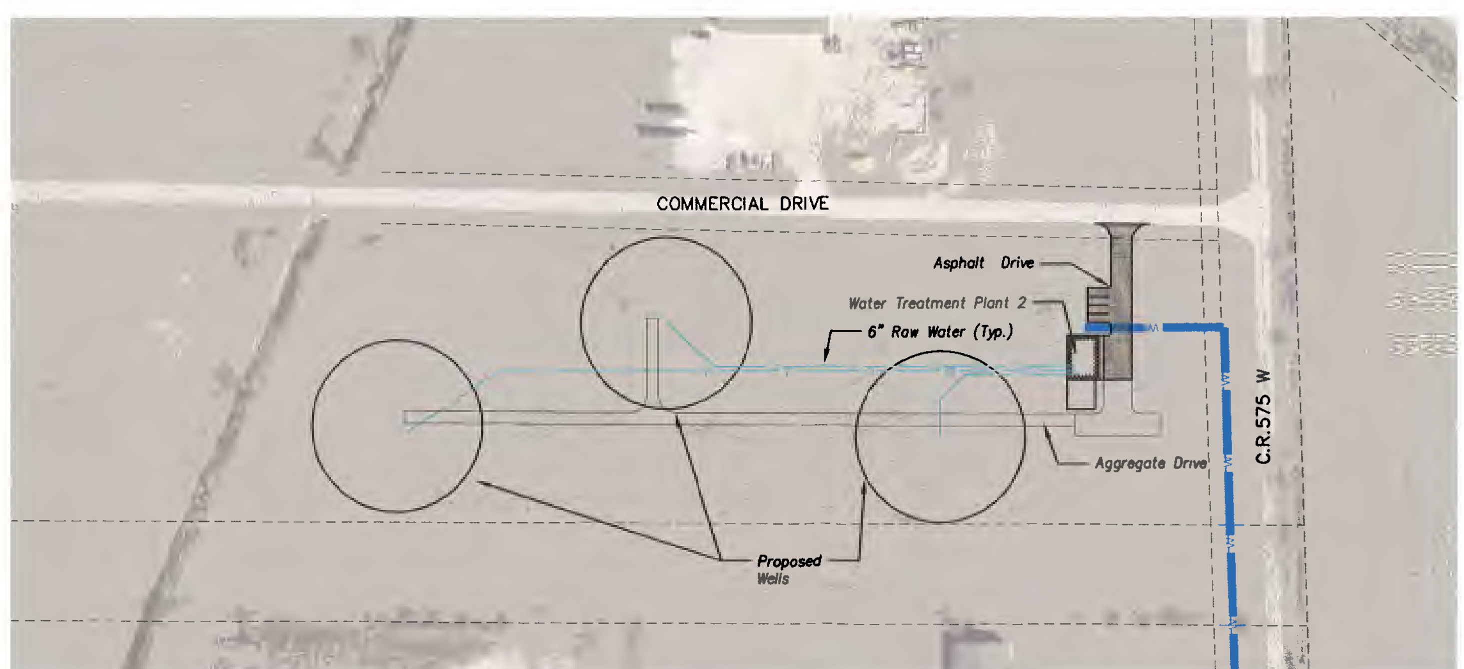
Component Percent Cutoff: None Specified

Tie-break Rule: Higher



OVERALL IMPROVEMENTS

GRAPHIC SCALE
(IN FEET)
1 inch = 300 ft.



*Site layout and water main location preliminary to generate cost estimate.

GRAPHIC SCALE
(IN FEET)
1 inch = 100 ft.

PLANT AND WELL SITE IMPROVEMENTS

NO	REVISION - DESCRIPTION	BY	DATE

ABONMARCHE
17 N. Washington St.
Valparaiso, IN 46383
abonmarche.com
Engineering · Architecture · Land Surveying

PROJECT
NORWEJ Water District
Town of Demotte
System Expansion Cost Analysis

SHEET TITLE
Proposed Improvements
Overall Exhibit

DRAWN BY: CWT
DESIGNED BY: CWT
PM REVIEW: DSK
QA/QC REVIEW: DSK
DATE:
SEAL:
SIGNATURE:
DATE:

HARD COPY IS INTENDED TO BE 24" X 36" WHEN PLOTTED. SCALE(S) INDICATED AND GRAPHIC QUALITY MAY NOT BE ACCURATE FOR ANY OTHER SIZES

SCALE:
HORZ: Varies
VERT:
ACI JOB #
19-0001
SHEET NO.

USDA
United States Department of Agriculture

Natural Resources Conservation Service
Indiana State Office
6013 Lakeside Boulevard
Indianapolis, IN 46278
317-290-3200

June 24, 2019

EXHIBIT F-2
Received from the NRCS

Allison Atkinson
CHA Consulting, Inc.
Union Station
300 South Meridian Street
Indianapolis, Indiana 46225

Dear Ms. Atkinson:

The proposed project to make water treatment plant improvements to the NORWEJ system in Jasper County, Indiana as referred to in your letter received June 10, 2019, will not cause a conversion of prime farmland.

If you need additional information, please contact Daniel Phillips at 317-295-5871.

Sincerely,

JERRY RAYNOR
State Conservationist

EXHIBIT F-2
Received from the NRCS

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RA...

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request 6/10/2019
Name of Project NORWEJ System Improvements	Federal Agency Involved US-EPA/Indiana DWSRF
Proposed Land Use Well Field & Water Treatment Plant	County and State Jasper County, IN
PART II *(To be completed by NRCS)*	Date Request Received By NRCS / Person Completing Form:

Does the site contain Prime, Unique, Statewide or Local Important Farmland? *(If no, the FPPA does not apply - do not complete additional parts of this form)* YES ☐ NO ☐		Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount of Farmland As Defined in FPPA Acres: %	
Name of Land Evaluation System Used	Name of State or Local Site Assessment System	Date Land Evaluation Returned by NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating			
	Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	7.96			
B. Total Acres To Be Converted Indirectly	0			
C. Total Acres In Site	7.96			
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide Important or Local Important Farmland				
C. Percentage Of Farmland in County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland in Govt. Jurisdiction With Same Or Higher Relative Value				
PART V (To be completed by NRCS) Land Evaluation Criterion Relative Value of Farmland To Be Converted (Scale of 0 to 100 Points)				

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(Criteria are explained in 7 CFR 658.5 b. For Corridor project use form NRCS-CPA-106)*	**Maximum Points**	Site A	Site B	Site C	Site D
1. Area In Non-urban Use	(15)				
2. Perimeter In Non-urban Use	(10)				
3. Percent Of Site Being Farmed	(20)				
4. Protection Provided By State and Local Government	(20)				
5. Distance From Urban Built-up Area	(15)				
6. Distance To Urban Support Services	(15)				
7. Size Of Present Farm Unit Compared To Average	(10)				
8. Creation Of Non-farmable Farmland	(10)				
9. Availability Of Farm Support Services	(5)				
10. On-Farm Investments	(20)				
11. Effects Of Conversion On Farm Support Services	(10)				
12. Compatibility With Existing Agricultural Use	(10)				
TOTAL SITE ASSESSMENT POINTS	160	0	0	0	0
PART VII ***(To be completed by Federal Agency)***					
Relative Value Of Farmland *(From Part V)*	100	0	0	0	0
Total Site Assessment *(From Part VI above or local site assessment)*	160	0	0	0	0
TOTAL POINTS ***(Total of above 2 lines)***	260	0	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? YES ☐ NO ☐
Reason For Selection:		
Name of Federal agency representative completing this form:		Date:

(See Instructions on reverse side) **Form AD-1006 (03-02)**

STEPS IN THE PROCESSING THE FARMLAND AND CONVERSION

EXHIBIT F-2
Received from the NRCS

Step 1 - Federal agencies (or Federally funded projects) involved in proposed projects that may convert farmland, as to nonagricultural uses, will initially complete Parts I and III of the form. For Corridor type projects, the Federal agency shall use form NRCS-CPA-106 in place of form AD-1006. The Land Evaluation and Site Assessment (LESA) process may also be accessed by visiting the FPPA website, http://fppa.nrcs.usda.gov/lesa/.

Step 2 - Originator (Federal Agency) will send one original copy of the form together with appropriate scaled maps indicating location(s)of project site(s), to the Natural Resources Conservation Service (NRCS) local Field Office or USDA Service Center and retain a copy for their files. (NRCS has offices in most counties in the U.S. The USDA Office Information Locator may be found at http://offices.usda.gov/scripts/ndISAPI.dll/oip_public.USA_map, or the offices can usually be found in the Phone Book under U.S. Government, Department of Agriculture. A list of field offices is available from the NRCS State Conservationist and State Office in each State.)

Step 3 - NRCS will, within 10 working days after receipt of the completed form, make a determination as to whether the site(s) of the proposed project contains prime, unique, statewide or local important farmland. (When a site visit or land evaluation system design is needed, NRCS will respond within 30 working days.

Step 4 - For sites where farmland covered by the FPPA will be converted by the proposed project, NRCS will complete Parts II, IV and V of the form.

Step 5 - NRCS will return the original copy of the form to the Federal agency involved in the project, and retain a file copy for NRCS records.

Step 6 - The Federal agency involved in the proposed project will complete Parts VI and VII of the form and return the form with the final selected site to the servicing NRCS office.

Step 7 - The Federal agency providing financial or technical assistance to the proposed project will make a determination as to whether the proposed conversion is consistent with the FPPA.

INSTRUCTIONS FOR COMPLETING THE FARMLAND CONVERSION IMPACT RATING FORM

(For Federal Agency)

Part I: When completing the "County and State" questions, list all the local governments that are responsible for local land use controls where site(s) are to be evaluated.

Part III: When completing item B (Total Acres To Be Converted Indirectly), include the following:

1. Acres not being directly converted but that would no longer be capable of being farmed after the conversion, because the conversion would restrict access to them or other major change in the ability to use the land for agriculture.
2. Acres planned to receive services from an infrastructure project as indicated in the project justification (e.g. highways, utilities planned build out capacity) that will cause a direct conversion.

Part VI: Do not complete Part VI using the standard format if a State or Local site assessment is used. With local and NRCS assistance, use the local Land Evaluation and Site Assessment (LESA).

1. Assign the maximum points for each site assessment criterion as shown in § 658.5(b) of CFR. In cases of corridor-type project such as transportation, power line and flood control, criteria #5 and #6 will not apply and will, be weighted zero, however, criterion #8 will be weighed a maximum of 25 points and criterion #11 a maximum of 25 points.

2. Federal agencies may assign relative weights among the 12 site assessment criteria other than those shown on the FPPA rule after submitting individual agency FPPA policy for review and comment to NRCS. In all cases where other weights are assigned, relative adjustments must be made to maintain the maximum total points at 160. For project sites where the total points equal or exceed 160, consider alternative actions, as appropriate, that could reduce adverse impacts (e.g. Alternative Sites, Modifications or Mitigation).

Part VII: In computing the "Total Site Assessment Points" where a State or local site assessment is used and the total maximum number of points is other than 160, convert the site assessment points to a base of 160.
Example: if the Site Assessment maximum is 200 points, and the alternative Site "A" is rated 180 points:

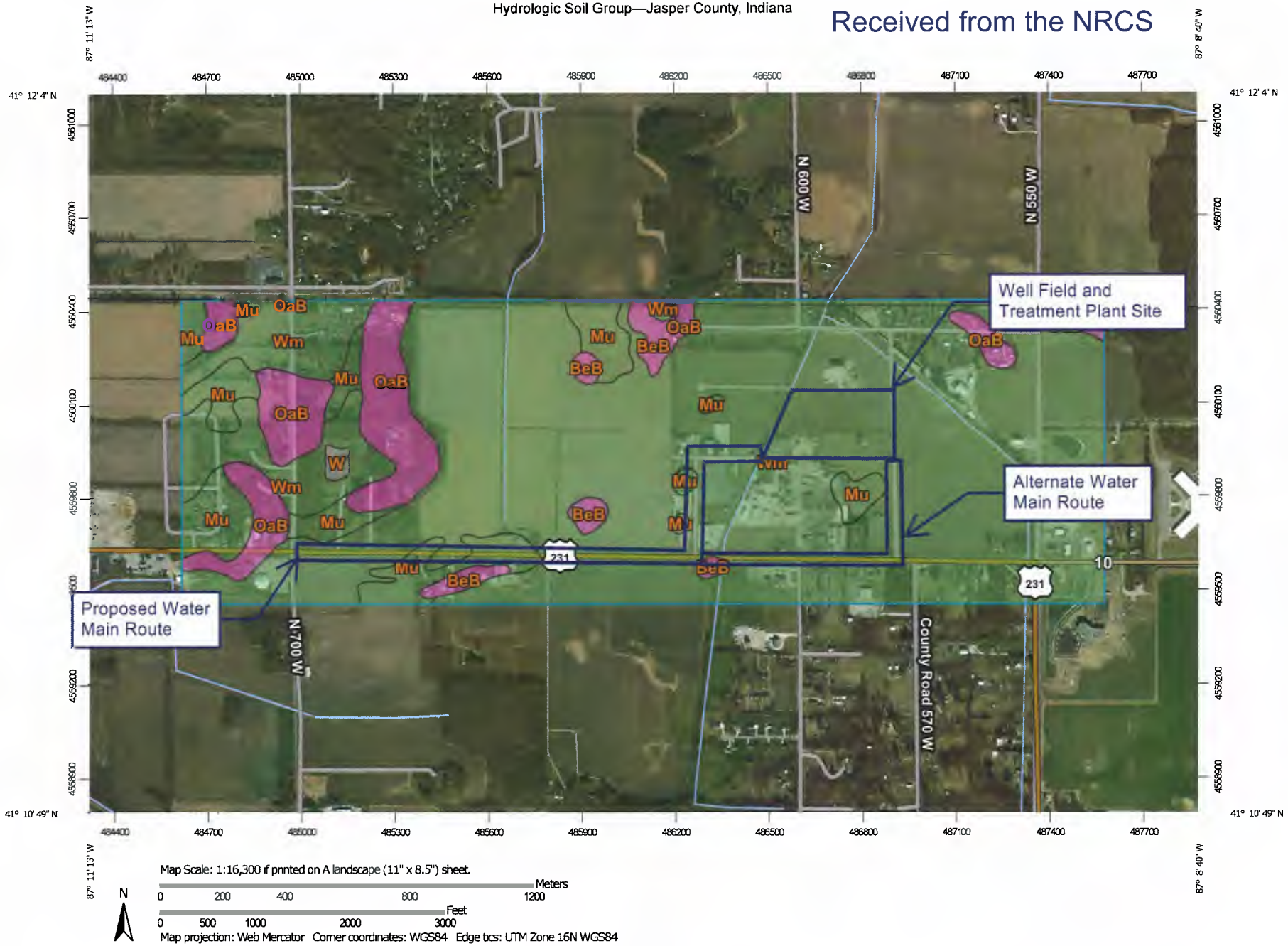
$$\frac{\text{Total points assigned Site A}}{\text{Maximum points possible}} = \frac{180}{200} \times 160 = 144 \text{ points for Site A}$$

For assistance in completing this form or FPPA process, contact the local NRCS Field Office or USDA Service Center.

NRCS employees, consult the FPPA Manual and/or policy for additional instructions to complete the AD-1006 form.

EXHIBIT F-2
Received from the NRCS

Hydrologic Soil Group—Jasper County, Indiana



Map Scale: 1:16,300 if printed on A landscape (11" x 8.5") sheet.

N

Meters: 0 200 400 800 1200

Feet: 0 500 1000 2000 3000

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 16N WGS84

EXHIBIT F-2
Received from the NRCS

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Jasper County, Indiana
Survey Area Data: Version 19, Sep 7, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 3, 2009—Dec 26, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

EXHIBIT F-2
Received from the NRCS

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
BeB	Brems loamy sand, 1 to 3 percent slopes	A	14.2	2.0%
Mu	Morocco loamy sand, 0 to 2 percent slopes	A/D	64.8	9.1%
OaB	Oakville fine sand, 2 to 6 percent slopes	A	67.9	9.5%
W	Water		1.9	0.3%
Wm	Watseka-Maumee loamy sands	A/D	565.3	79.2%
Totals for Area of Interest			**714.2**	**100.0%**

EXHIBIT F-2
Received from the NRCS

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix G
Public Meeting Documents

EXHIBIT G-1
Notice of Public Hearing

Notice of Public Hearing
Northwest Jasper Regional Water District (NORWEJ)
Preliminary Engineering Report (PER) to obtain assistance from
The Drinking Water State Revolving Fund (DWSRF Loan Program)

The Northwest Jasper Regional Water District (NORWEJ) will hold a public hearing at 6:00 PM, local time, on Monday, August 26, 2019 at the DeMotte Town Hall, 112 Carnation St. SE, DeMotte, IN 46310. NORWEJ's engineering consultant, Abonmarche Consultants, Inc., will present the recommended upgrades to NORWEJ's drinking water infrastructure, which will include construction of a new well field and treatment plant and water main extension, as described in the PER. The project will be funded through a DWSRF loan.

At this hearing, there will be the opportunity for questions and comments from the public. Participation is welcomed and encouraged. If special assistance is required at the meeting, please contact Heather Tokarz, 219-987-3831. Copies of the PER are available for public viewing starting August 8, 2019 through September 2, 2019 at the DeMotte Town Hall, 112 Carnation St. SE, DeMotte, IN 46310. Written comments regarding this project should be emailed to Daryl Knip, dknip@abonmarche.com, prior to September 2, 2019. Written comments may also be mailed to Daryl Knip, Abonmarche Consultants, Inc., 750 W. Lincoln Way East, South Bend, IN 46601.

EXHIBIT G-2
NORWEJ Board Minutes

Northwest Jasper Regional District (NORWEJ) August 26, 2019
Minutes of Meeting: Board of Trustees

The Board of Trustees of Northwest Jasper Regional District met in DeMotte Town Hall, 112 Carnation ST SE, DeMotte, IN on August 26, 2019 at 6:00 PM in regular meeting pursuant to call in accordance with the rules of the board.

Present		**Absent**
Andy Andree	Don Goetz	
Peggy Michelin	Jeff Cambe	
John Price	Mark Boer	
Kent Bierma		

Andy Andree, who presided, called the meeting to order.

Minutes
Don Goetz motioned to approve the July 22, 2019 minutes. Kent Bierma seconded and motion carried.

Financial Report:
Don Goetz reported on the financial report. All accounts have been reconciled and approved. Operating account balances as of June 30, 2019 were $470, 932.70 and the Bond and Interest Account is $467,061.33. A fund report was given to the board members to show the current balances. Kent Bierma motioned to accept the financial report. Peggy Michelin seconded. Motion carried.

New Business:
SRF Public Hearing - Andy Andree opened the floor for the SRF Public Hearing. There were no comments. Andy Andree closed the floor for the SRF Public Hearing.

Old Business:
Attorney Emily Waddle stated that the Purchase Agreement for the land has been completed and is ready for signature.

Engineer Daryl Knip reported that the original painter for the tank has been contacted.

Water Department Report
Bob Barton gave an update on the well fields. Bob stated that the pump testing has been completed on 2 of the wells. The third well testing should be completed soon.

Bob Barton reported that the divers did the cleaning of the water tower. They discovered that there is a coating failure on the inside of the tank, but it is very minimal.

Bob Barton stated that there will be a sanitary survey, which is also known as a state inspection, on Thursday. Test results from 2014 to present are what will be needed for this survey.

Engineer Report
Daryl Knip reported that the water expansion will be ready for bids within a month. Everything is moving along, and he is working on the easements. Daryl said that he has talked to SRF and will need to contact them when it is determined when funding will be needed. Daryl Knip stated that we are on the agenda with the Jasper County Drainage Board for next month.

Daryl Knip gave an update on the I-65 expansion. Daryl reported that progress has slowed down a bit. Daryl said he would like permission to work with Heather Tokarz and Emily Waddle to draft an agreement with Luvs for the sewer and water project. Don Goetz made a motion to

approve Daryl Knip to work with Heather Tokarz and Emily Waddle to draft an agreement with Luvs regarding the water and sewer project. Mark Boer seconded the motion. Motion carried.

Office Report

Heather Tokarz reported that she is working on possibly lowering the minimum gallons for the water rates. Donna Shear is currently working with Mitchell from Baker Tilly for the review of our current rates.

Heather stated that she will be meeting with Kim Grow from Jasper County next month to discuss possibly putting the fire protection fees on the property taxes.

Heather also reported that she is working with State Board of Accounts on how to apply liens on past due water balances. There is currently $36,688.34 in outstanding water charges.

Motion to adjourn by Kent Bierma and seconded by Don Goetz. Motion carried.

President: Andy Andree

Office Manager, Donna Shear

EXHIBIT G-2
NORWEJ Board Minutes

EXHIBIT G-3
Proof of Publication

PROOF OF PUBLICATION

STATE OF INDIANA)
COUNTY OF NEWTON)

NOTICE OF PUBLIC HEARING

Legal #19-045KV

ABONMARCHE
Publisher's Fee: $69.92

(ATTACH COPY OF AD)

The undersigned, Marlene Taden, Legal Advertising Clerk of THE KV POST NEWS, a weekly newspaper of general circulation, printed in the English language and published in Kentland, Indiana in said county; does hereby certify that the advertisement attached hereto is a true copy, which was duly published in said paper for 1 week(s), successively, the first of which publication was on the 8TH Day of day of AUGUST 2019.

In addition, this Newspaper has a website and this public notice was posted on the same day as it was published in the newspaper.

Dated this 9TH day of AUGUST 2019.

/s/Marlene Taden, Legal Advertising Manager

CLASSIFIEDS

Post News
827 Halleck St. PO Box 110
DeMotte, IN
219.987.5111
Deadline: Noon Friday

3,744 Weekly Print Readers

Action Plus
827 Halleck St. PO Box 110
DeMotte, IN
219.987.5111
Deadline: Noon Tuesday

35,532 Weekly Print Readers

Readership numbers are in accordance with the National Newspaper Association Statistics

MISCELLANEOUS

FOR SALE
INTERNATIONAL SCHOOL BUS IN EXCELLENT CONDITION, LIKE NEW, WILL FINANCE
217-491-8422

Main Street Pizza in Wheatfield for sale. Please call 219-819-0700

NEED CA$H?
BUYING
CARS TRUCKS VANS FARM TRUCKS CATALYTIC CONVERTERS
Running or Not, Title or No Title!
Call Rob 765-427-1081

HELP WANTED

An established business in Rensselaer is now hiring for a part-time administrative assistant position. The job duties include typical office tasks such as answering the phone, scanning documents into our computer system, and filing and photocopying documents as needed. This job is for 20 to 25 hours per week and will begin immediately. A good work ethic is a must. The salary is commensurate with your experience. Please submit a resume of your prior educational and work experience to Blind Ad #7544

HEART LAND FARM SERVICE is hiring CDL Drivers,Mechanics, Field Applicators, and Equipment Operators. Call to apply 708-203-8435 or 219-816-2309
Competitive Pay & Benefits

Heavy truck repair shop now hiring service personnel to do all aspects of truck service and repair. Will train. Call: 765-986-2170

HELP WANTED

On the job training for machinist Needs to possess high mechanical aptitude and ability to learn and follow directions. Duties will include some general labor blueprint reading, project assembly/disassembly, and the desire to learn lathe operation and cylindrical grinding. Email resume to teclark@southlakemachine.com or apply in person at 112 N. Polk St Morocco, IN

MaSh Trucking Inc., based in Rensselaer, is looking for a full-time driver hauling hogs within a 100 mile radius. Steady, local loads. Home at night. Excellent wages, Quarterly safety bonuses, late model equipment. Livestock experience helpful but not required. Will train. Good work ethic and willingness to learn. Class A CDL Required. Contact Mark at 219-819-0429

Need CDL Drivers in Monon IN area! MCD Express is growing! We offer Dedicated MW run, Excellent pay, Home weekends, Paid all Dispatched miles, Late model equipment. Website for application WWW.MCDEXP.COM or call 507-332-4006

Production and Quality Administrative Assistant Kentland
- **Competitive wage and benefits**
- **401K and Incentive Bonus**
- **Kentland, IN**
- **Manufacturing**
- **Equal Opportunity Employer**

Vector (Viscofan Group) is an established international company in the manufacturing industry looking for the services of proactive individuals to train and work in their close knit team in Kentland. Administrative Assistant manages production and quality data and creates reports for management. Strong Excel skills and good communication are required for this position
Please telephone 219-306-8255 for more information.

HELP WANTED

Looking for Seasonal Drivers to Deliver Mums to The Chicago land Area In a 26' Box truck no CDL required also nrd CDL drivers. Competitive starting pay. Exceptence pays better. Contact Quinten 219-869-1159

Wayne's Tank and Trailer Repair, Inc. A sixteen bay tanker/trailer repair facility located in Gary In. is seeking a Class A CDL Truck Driver. Must be at least 23 years old, have a good driving record, minimum two years driving experience, hazmat/tanker endorsement required but we can help in acquiring endorsements. Local driving only, no nights or weekends, moving empty trailers for repair facility and general shop maintenance. Full benefit package available. starting wage $15.00-$20.00 DOE. Please call Daron at (219)406-2492 for more information or send resume by fax (219)977-8745 or e-mail cmathieny@wttrinc.com

The Jasper County Health Department will be accepting applications for a Part-Time Assistant Environmental/Food Sanitarian position. Job qualifications and applications are available for pickup Monday-Friday between 8:00 a.m.- 4:00 p.m.
(Local Time) at the Jasper County Health Department located at 105 W Kellner Blvd Rensselaer In. All completed applications must be returned to this office no later than 4:00 p.m. on August 12th, 2019. Mailed applications must be postmarked on or before this date.

TONY WIREMAN TRUCKING
IS LOOKING TO HIRE.
Company Drivers
Owner/Operators Wanted for Regional Driving
Requirements:
Valid Class A CDL
Minimum 5 yrs experience for company drivers
Minimum 2 yrs experience for owner/op
(must have your own truck)
For more information please contact
Tony Wireman at 219-510-3769

APARTMENTS FOR RENT

3 bedroom ground floor apartment near Tysens. $775 monthly. Range, refrigerator, washer, dryer included. No Pets 219 730-0591

DeMotte - For Rent 2 Bedroom Townhouse $875/month 1 year lease &
Security deposit required.
219-689-7252.

DUPLEX FOR RENT

Duplex in Wheatfield, 2 Large Bedrooms, 1 Bath, 1 car garage. Kitchen, Living, Dining, Appliances, Deck, Large yard. Country Living. No Pets. $800.00 monthly.
219-730-0591

Wheatfield duplex for rent near Casey's store .2 bedrooms.2 bath.5 closets Lease & security deposit $800.00/ plus city sewer 219-689-6083.

HOMES FOR RENT

DeMotte. 3-bedroom, 2-bath. South of DeMotte 990 N. KV Schools. $850/rent. 1st and Last month plus $850/deposit. References required. 219-987-1093.

FOR SALE BY OWNER

2019 TORO TIMECUTTER MX6050 (#74777).
Retail price $4,500
Trade special.
Price after trade & rebate $3,500 + tax.
(Trade must be a tractor or zero turn, must run). While in stock.
Superior Sales & Service
located at 1762 N McKinley Ave, Rensselaer, IN 47978
219-866-5843

LAWN & GARDEN

John Deer 54" tractor snow blade fits older model 300 series lawn Tractor 130 model Garden Tractor fully Hydrophilic. $425.00 obo. 219-775-0357

INDIANA LEGALS

19-217RR 8/7
19-016RP 8/7
19-046KV 8/8
NOTICE TO TAXPAYERS OF PROPOSED ADDITIONAL APPROPRIATIONS
2019-08
Notice is hereby given to the taxpayers of Jasper County Government, Jasper County Indiana, the proper and legal officers of the Jasper County Council will meet at 7:00 P.M., C.S.T., in the Commissioners' Room, Suite 202, of the Jasper County Courthouse located at 115 West Washington Street, Rensselaer, Indiana, on the 20th of August, to consider the following additional appropriations in excess of the budget for the current year of 2019.
COUNTY GENERAL FUND:

Coroner
Autopsy
1000-30012-000-0007
$12,000.00

Coroner
Deputy Training
1000-10082-000-0007 $860.00

Coroner
Deputy Calls
1000-10085-000-0007 $300.00

Courthouse
Utilities
1000-30219-000-0161
$25,000.00

Courthouse
Garbage Disposal
1000-30045-000-0161 $2,500.00

Superior Court
Court Administrator
1000-10088-000-0201
$10,844.00

Superior Court
Court Bailiff
1000-10052-000-0201 $5,314.00

TOTAL COUNTY GENERAL FUND $56,838.00

RECORDER'S RECORDS PERPETUATION FUND

Office Supplies
1189-20050-000-0000
$93,500.00

INDIANA LEGALS

TOTAL RECORDER'S RECORDS PERPETUATION $99,500.00

AIRPORT

Airport Operating Fund $3,000.00

Flight School Operating Fund $72,000.00

TOTAL AIRPORT $75,000.00
Taxpayers appearing at this meeting shall have a right to be heard. The additional appropriations as finally made will be referred to the Indiana Department of Local Government Finance (DLGF). The DLGF will make a written determination as to the sufficiency of funds to support the appropriations made within fifteen (15) days of receipt of a certified copy of action taken.
Kimberly K. Grow,
Auditor of Jasper County
inspaxlp

LEGALS

19-045KV 8/8
Notice of Public Hearing
Northwest Jasper Regional Water District (NORWEJ)
Preliminary Engineering Report (PER) to obtain assistance from The Drinking Water State Revolving Fund (DWSRF Loan Program)
The Northwest Jasper Regional Water District (NORWEJ) will hold a public hearing at 6:00 PM, local time, on Monday, August 26, 2019 at the Demotte Town Hall, 112 Carnation St. SE, Demotte IN 46310, NORWEJ's engineering consultant, Abonmarche Consultants, Inc., will present the recommended upgrades to NORWEJ's drinking water infrastructure, which will include construction of a new well field and treatment plant and water main extension, as described in the PER. The project will be funded through a DWSRF loan.
At this hearing, there will be the opportunity for questions and comments from the public. Participation is welcomed and encouraged. If special assistance is required at the meeting, please contact Heather Tokarz, 219-987-3831. Copies of the PER are available for public viewing starting August 8, 2019 through September 2, 2019 at the Demotte Town Hall, 112 Carnation St. SE, Demotte, IN 46310. Written comments regarding this project should be emailed to Daryl Knip, dknip@abonmarchce.com, prior to September 2, 2019. Written comments may also be mailed to Daryl Knip, Abonmarche Consultants, Inc., 750 W. Lincoln Way East, South Bend, IN 46601
inspaxlp

ABONMARCHE

Engineering • Architecture • Land Surveying

Job
Sheet No.
Calculated by
Checked by
Scale

EXHIBIT G-5
Public Meeting Sign in and Public Comments

NORWEJ PER REVIEW PUBLIC MEETING SIGN IN

9-23/2019

Note: Corrected date, August 26, 2019

Name	Company	Address	Contact
ALLISON ATKINSON	ABONMARCHE	17. N Washington St. Valparaiso IN 46383	219-246-4200
Daryl Knip	Abonmarche	250 Lincolnway E South Bend, IN 46601	574-232-8702

Additional Members Present

Andrew Andree	NORWEJ Board	andreebuilders@netnitco.net
Kent Bierma	NORWEJ Board	kbierma@netdsb.com
Peggy Michelin	NORWEJ Board	pmichelin@myjcpl.org
Don Goetz	NORWEJ Board	dgoetz@netdsb.com
Mark Boer	NORWEJ Board	mkboer@gmail.com
Jeff Cambe	NORWEJ Board	cambe@mchsi.com
John Price	NORWEJ Board	jnpprice@netnitco.net
Heather Tokarz	Town Manager	htokarz@townofdemotte.com
Bob Barton	Water Superintendent	rbarton@townofdemotte.com
Donna Shear	Town Office Manager	dshear@townofdemotte.com
Emily Waddle	Town Lawyer	emilywaddle2005@yahoo.com

Note: No public comments were given at the meeting and no comments were received after the meeting.

Appendix H
Attachments

ATTACHMENT 1

SRF Loan Program
PER Acceptance Resolution

Whereas, the Northwest Jasper Regional Water District of Jasper County Indiana, has caused a Preliminary Engineering Report ("PER"), dated June 2019, to be prepared by the consulting firm of Abonmarche Consultants Inc.; and

Whereas, said PER has been presented to the public at a public hearing held on August 26, 2019, at The DeMotte Town Hall for public comment; and

Whereas, the Northwest Jasper Regional Water District Board of Trustees finds that there was not sufficient evidence presented in objection to the recommended project in the PER.

Now, therefore be it resolved that:

1. The PER dated June 2019be approved and adopted by the August 26, 2019 Council / Board of Trustees; and

2. Said PER be submitted to the State Revolving Fund Loan Program for review and approval.

Adopted and Board of Trustees of the Utility of Jasper County, Indiana, this 26 day of August of 2019.

Council / Board of Trustees

Andrew Rehrer
, President

Attest: Margaret M Michalski
Secretary

ATTACHMENT 2

SRF Loan Program
Signatory Authorization Resolution

Whereas, the Northwest Jasper County Regional Water District, DeMotte, Indiana, (the "Participant") has plans for a drinking water infrastructure improvement project to meet State and Federal regulations and the Participant intends to proceed with the construction of such project:

Now, therefore, be it resolved by the Board of Trustees, the governing body of the Participant, that:

1. Abonmarche Consultants Inc. be authorized to make application for a State Revolving Fund Loan ("SRF Loan") and provide the SRF Loan Program such information, data and documents pertaining to the loan process as may be required, and otherwise act as the authorized representative of the Participant; and

2. The Participant agrees to comply with State and Federal requirements as they pertain to the SRF Loan Program; and

3. Two certified copies of this Resolution be prepared and submitted as part of the Participant's Preliminary Engineering Report.

Adopted and Passed Board of Trustees of the Utility of Northwest Jasper Regional Water District, DeMotte, Indiana, this 26th day of August of 2019.

Board of Trustees

Andrew Andrea
President

Attest: Margaret M Michalski
Secretary

Approved and signed by the Town Manager of DeMotte, Indiana this 26th day of August of 2019 Heather J. Tokarz .

Heather J Tokarz
Town Manager

July 2018

ATTACHMENT 3

Attachment C: DWSRF Loan Program
Financial Information Form

Proposed Project Costs:	
Supply / wells cost	$ 0
Transmission / distribution System cost	$ 2,533,560
Treatment cost	$ 2,531,040
Storage cost	$ 0.00
Subtotal construction cost	$ 5,064,600
Contingencies (should not exceed 10% of construction cost)	$ 506,460
Non-construction costs e.g., engineering, legal and financial services related to the project, land costs, start-up costs, and construction inspection	$ 1,414,420
Total Proposed Project Cost	$ 6,985,480
The following are not SRF Loan Program eligible:	
Previously funded SRF components that have not met useful life	$ 0
Materials and work done on private property	$ 0
Grant applications and income surveys done for other agencies	$ 0
Expenses incurred as a part of forming a utility, Regional Sewer / Water District, or Conservancy District	$ 0
Total Ineligible Costs	$ 0
List other grant / loan funding sources and amounts	
Other grants	$ 0
Other loans	$ 0
Hook-on fees	$ 0
Cash on hand	$ 0
Total Other Funding Sources	$ 0
Requested SRF Loan	$ 6,985,480
Estimated post-project user rate for 4,000 gallons	$
Anticipated SRF interest rate	

Financial Advisor:
Firm Contact john.seever@bakertilly.com
Name John Seever

Bond Counsel:
Firm Contact jjanak@boselaw.com
Name Chris Janok

July 2018

ATTACHMENT 4

Attachment E: DWSRF Loan Program
Preliminary Design Summary

INSTRUCTIONS: List existing and proposed design information.

1. General information
   1.1. Project name: Northwest Jasper Regional Water District (NORWEJ) System Improvements
2. Design information
   2.1. Current population: 3,814 people
   2.2. Design year and population: Design Year: 2029 Population: 5,000
   2.3. Average Design Flow:
      2.3.1. Domestic 370,080-gpd (Original Design); 102,964-gpd (Actual), 183,100-gpd (Proposed)
      2.3.2. Commercial: 30,969-gpd (Existing), 100,240-gpd (Proposed)
      2.3.3. Industrial: 0 gpd
   2.4. Peak design flow: 314-gpm (Existing), 872-gpd (Proposed)
3. Water supply
   3.1. Surface water
      3.1.1. Location: N/A
      3.1.2. Type: N/A
      3.1.3. Volume: N/A
   3.2. Ground water:
      3.2.1. Number of wells: 3
      3.2.2. Location: 5931, 5851, 5781 Commercial Drive, DeMotte, IN 46310
      3.2.3. Type and diameter Bedrock, 10-inch casing
      3.2.4. Capacity: 650-gpm, currently only one well providing 400-gpm is in use (Existing); 450-gpm (Proposed)
      3.2.5. Well house: Yes, planned to be constructed
      3.2.6. Aquifer type: Bedrock
   3.3. Emergency power: Backup generator
4. Flow meters Determined with Final Well Field Design
   4.1. Type:
   4.2. Location:
5. Treatment
   5.1. Provide raw water analysis See Appendix D
   5.2. Pumps Chosen with Full Design of Plant
      5.2.1. Number:
      5.2.2. Capacity:
   5.3. Clarification See Artesian of Pioneer (AOP) Water Treatment Estimates in Appendix A.
      5.3.1. Rapid mixing

5.3.1.1. Number:

5.3.1.2. Size:

5.3.1.3. Detention time:

5.3.2. Flocculation See Artesian of Pioneer (AOP) Water Treatment Estimates in Appendix A.

5.3.2.1. Number:

5.3.2.2. Size:

5.3.2.3. Detention time:

5.3.2.4. Flocculation speed:

5.3.2.5. Velocity:

5.3.3. Sedimentation See Artesian of Pioneer (AOP) Water Treatment Estimates in Appendix A.

5.3.3.1. Number:

5.3.3.2. Size:

5.3.3.3. Detention:

5.3.3.4. Baffle location:

5.3.3.5. Overflow rate:

5.3.3.6. Velocity:

5.3.3.7. Sludge removal:

5.4. Filtration See Artesian of Pioneer (AOP) Water Treatment Estimates in Appendix A.

5.4.1. Type:

5.4.2. Number and size of units:

5.4.3. Peak flow rate:

5.4.4. Average flow rate:

5.4.5. Backwash rate:

5.4.6. Backwash pumps (number and capacity):

5.4.7. Backwash tank capacity:

5.4.8. Wastewater tank capacity:

5.4.9. Method of cleaning:

5.4.10. Disposal of backwash solids:

5.5. Aeration See Artesian of Pioneer (AOP) Water Treatment Estimates in Appendix A.

5.5.1. Type:

5.5.2. Loading rate:

5.6. Iron and Manganese Contro See Artesian of Pioneer (AOP) Water Treatment Estimates in Appendix A.

5.6.1. Type:

5.7. Softening See Artesian of Pioneer (AOP) Water Treatment Estimates in Appendix A.

5.7.1. Type:

5.7.2. Chemical feed location:

5.7.3. Sludge removal and disposal method:

5.7.4. Number and size of brine tank:

5.7.5. Brine waste disposal:

6. Disinfection See Artesian of Pioneer (AOP) Water Treatment Estimates in Appendix A.

6.1. Type of disinfectant used:

6.2. Type of chemical feed system:

6.3. Capacity:

6.4. Disinfectant dosage:

6.5. Contact time:

6.6. Point of application:

6.7. Automatic switchover:

6.8. Ventilation provided:

6.9. Safety equipment:

6.10. Testing equipment:

6.11. Housing:

7. Controls

7.1. Type:

8. Water storage

8.1. Type: Water Tower - Existing

8.2. Number: 1

8.3. Capacity: 500,000-gallons

8.4. High and low water level: 160-feet of storage

8.5. Elevation at bottom of tank:

8.6. Available pressure:

8.7. Booster pump:

9. Distribution system

9.1. Type of pipe material: C900 PVC

9.2. Diameter and lengths: 600-ft of 6-in, 20,930-ft of 10-in

9.3. Number of hydrants: 57

9.4. Number and size of valves: 59 of 6-in, 39 of 10-in.

9.5. Separation distance from sanitary sewers: Min. 10-feet

9.6. Separation distance from other water mains: No other water mains present.

9.7. Fire protection: No other water mains present.

10. Miscellaneous

10.1. Laboratory equipment: Water Testing Materials

10.2. Safety equipment: Eyewash

10.3. Fence location and type: To be determined with design; likely chain link and surrounding well houses.

10.4. Emergency power: Backup Generator

10.5. Sampling facilities: To be determined; likely located within well house.

10.6. Utility building: To be determined; likely located within or adjacent to well houses.

Environmental Programs

Brownfields SRF

STATE REVOLVING FUND LOAN PROGRAM

GREEN PROJECT RESERVE SUSTAINABILITY INCENTIVE

CLEAN WATER CHECKLIST

SRF Loan Program Participant Information

Participant Name: Northwest Jasper Regional Water District

Project Name/Location: Drinking Water System Improvements / DeMotte, IN

Date: June 2019 Revision No. 1

Instructions

This checklist shall be completed by the SRF Loan Program participant and be updated as the project changes from concept to design through construction completion. For instance, a checklist should be submitted with:

1. The SRF Loan Program Application,
2. The Preliminary Engineering Report, along with GPR project description and cost estimates,
3. The Post-Bid Documents, including GPR construction costs, and
4. Construction completion.

Please see the *U.S. EPA Green Project Reserve Guidance* available at www.srf.in.gov for a detailed review of eligibility, definition of the GPR categories: Green Infrastructure, Water Efficiency, Energy Efficiency and Environmentally innovative; examples of ineligible projects; categorical projects and those that require business cases. **All GPR projects, components and activities must be eligible for SRF funding.**

Check all that apply to the project:

I. GREEN INFRASTRUCTURE

1. Categorical Projects
   - ☐ Implementation of green streets (combinations of green infrastructure practices in transportation rights-of-way), for either new development, redevelopment or retrofits including:
     - ☐ Permeable pavement,
     - ☐ Bioretention,
     - ☐ Trees,
     - ☐ Green roofs, and
     - ☐ Other practices such as constructed wetlands that can be designed to mimic natural hydrology and reduce effective imperviousness at one or more scales, and
     - ☐ Vactor trucks and other capital equipment necessary to maintain green infrastructure projects.
   - ☐ Wet weather management systems for parking areas including:
     - ☐ Permeable pavement,
     - ☐ Bioretention,
     - ☐ Trees,
     - ☐ Green roofs, and
     - ☐ Other practices such as constructed wetlands that can be designed to mimic natural hydrology and reduce effective imperviousness at one or more scales.

- ☐ Vactor trucks and other capital equipment necessary to maintain green infrastructure projects.
- ☐ Implementation of comprehensive street tree or urban forestry programs, including expansion of tree boxes to manage additional stormwater and enhance tree health.
- ☐ Stormwater harvesting and reuse projects, such as cisterns and the systems that allow for utilization of harvested stormwater, including pipes to distribute stormwater for reuse.
- ☐ Downspout disconnection to remove stormwater from
  - ☐ Sanitary,
  - ☐ Combined sewers, and
  - ☐ Separate storm sewers and manage runoff onsite.
- ☐ Comprehensive retrofit programs designed to keep wet weather discharges out of all types of sewer systems using green infrastructure technologies and approaches such as:
  - ☐ Green roofs,
  - ☐ Green walls,
  - ☐ Trees and urban reforestation,
  - ☐ Permeable pavements
  - ☐ Bioretention cells, and
  - ☐ Turf removal and replacement with native vegetation or trees that improve permeability.
- ☐ Establishment or restoration of:
  - ☐ Permanent riparian buffers,
  - ☐ Floodplains,
  - ☐ Wetlands (federal rules prevent the SRF Loan Programs from providing financing assistance for a wetland required as a mitigation measure)
  - ☐ Vegetated buffers or soft bioengineered stream banks
  - ☐ Stream day lighting that removes natural streams from artificial pipes and restores a natural stream morphology that is capable of accommodating a range of hydrologic conditions while also providing biological integrity.
- ☐ Projects that involve the management of wetlands to improve water quality and/or support green infrastructure efforts (e.g., flood attenuation).
  - ☐ Includes constructed wetlands.
  - ☐ May include natural or restored wetlands if the wetland and its multiple functions are not degraded and all permit requirements are met.
- ☐ The water quality portion of projects that employ development and redevelopment practices that preserve or restore site hydrologic processes through sustainable landscaping and site design.
- ☐ Fee simple purchase of land or easements on land that has a direct benefit to water quality, such as riparian and wetland protection or restoration.

2. Decision Criteria for Business Cases
   - ☐ Green infrastructure projects that are designed to mimic the natural hydrologic conditions of the site or watershed.
   - ☐ Projects that capture, treat, infiltrate, or evapotranspire water on the parcels where it falls and does not result in interbasin transfers of water.
   - ☐ GPR project is in lieu of or to supplement municipal hard/gray infrastructure.
   - ☐ Other - Please provide an attachment explaining the scope of the project and brief explanation of the approach for the business case.

3. Example of Project Requiring a Business Case
   - ☐ Fencing to keep livestock out of streams and stream buffers. Fencing must allow buffer vegetation to grow undisturbed and be placed a sufficient distance from the riparian edge for the buffer to function as a filter for sediment, nutrients and other pollutants.

ATTACHMENT 5

1. Categorical Projects
   - ☐ Installing or retrofitting water efficient devices, such as plumbing fixtures and appliances.
     - ☐ For example, shower heads, toilets, urinals and other plumbing devices.
     - ☐ Implementation of incentive programs to conserve water such as rebates.
     - ☐ Water sense labeled products.
   - ☐ Installing any type of water meter in previously unmetered areas, if rate structures are based on metered use
     - ☐ Can include backflow prevention devices if installed in conjunction with water meter
   - ☐ Replacing existing broken/malfunctioning water meters, or upgrading existing meters, with:
     - ☐ Automatic meter reading systems (AMR), for example:
       - ☐ Advanced metering infrastructure (AMI),
       - ☐ Smart meters,
     - ☐ Meters with built in leak detection,
     - ☐ Can include backflow prevention devices if installed in conjunction with water meter replacement.
   - ☐ Retrofitting/adding AMR capabilities or leak detection equipment to existing meters (not replacing the meter itself).
   - ☐ Water audit and water conservation plans, which are reasonably expected to result in a capital project.
   - ☐ Recycling and water reuse projects that replace potable sources with non-potable sources:
     - ☐ Gray water, condensate and wastewater effluent reuse systems (where local codes allow the practice),
     - ☐ Extra treatment costs and distribution pipes associated with water reuse.
   - ☐ Retrofit or replacement of existing landscape irrigation systems to more efficient landscape irrigation systems, including moisture and rain sensing controllers.
   - ☐ Retrofit or replacement of existing agricultural irrigation systems to more efficient agricultural irrigation systems.

2. Decision Criteria for Business Cases
   - ☐ Water efficiency can be accomplished through water saving elements or reducing water consumption. This will reduce the amount of water taken out of rivers, lakes, streams, groundwater, or from other sources.
   - ☐ Water efficiency projects should deliver equal or better services with less net water use as compared to traditional or standard technologies and practices.
   - ☐ Efficient water use often has the added benefit of reducing the amount of energy required by a POTW, since less water would need to be collected and treated; therefore, there are also energy and financial savings.
   - ☐ Other - Please provide and attachment explaining the scope of the project and brief explanation of the approach for the business case.

3. Example Projects Requiring a Business Case
   - ☐ Water meter replacement with traditional water meters.
   - ☐ Projects that result from a water audit or water conservation plan.
   - ☐ Storage tank replacement/rehabilitation to reduce loss of reclaimed water.
   - ☐ New water efficient landscape irrigation system.
   - ☐ New water efficient agricultural irrigation system.

III. ENERGY EFFICIENCY

1. Categorical Projects
   - ☐ Renewable energy projects such as wind, solar, geothermal, micro-hydroelectric, and biogas combined heat and power systems that provide power to a POTW. Micro-hydroelectric projects involve capturing the energy from pipe flow.
     - ☐ POTW owned renewable energy projects can be located onsite or offsite.
     - ☐ Include the portion of a publicly owned renewable energy project that POTW's energy needs.
     - ☐ Must feed into grid system that the utility draws from and/or there is a direction connection.
   - ☐ POTW energy management planning, including energy assessments, energy audits, optimization studies, and sub-metering of individual processes to determine high energy use areas, which are reasonably expected to result in a capital project are eligible.
   - ☐ Projects that achieve a 20% reduction in energy consumption are categorically eligible for GPR. If a project achieves less than a 20% reduction in energy efficiency, then it may be justified using a business case.
   - ☐ Collection system Infiltration/Inflow detection equipment.

2. Decision Criteria for Business Cases
   - ☐ Project must be cost effective. An evaluation must identify energy savings and payback on capital and operation and maintenance costs that does not exceed the useful life of the asset.
   - ☐ The business case must describe how the project maximizes energy saving opportunities for the POTW or unit process.
   - ☐ Using existing tools such as Energy Star's Portfolio Manager (http://www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanager) or Check Up Program for Small Systems (CUPSS) (http://www.epa/cupss) to document current energy usage and track anticipated savings.
   - ☐ Other - Please provide and attachment explaining the scope of the project and brief explanation of the approach for the business case.

3. Examples of Projects Requiring a Business Case
   - ☐ POTW projects or unit process projects that achieve less than a 20% energy efficiency improvement may be justified using a business case.
   - ☐ Projects implementing recommendations from an energy audit that are not otherwise designated as categorical.
   - ☐ Projects that cost effectively eliminate pumps or pumping stations.
   - ☐ Infiltration/Inflow (I/I) correction projects that save energy from pumping and reduced treatment costs and are cost effective.
     - ☐ Projects that count toward GPR cannot build new structural capacity. These projects may, however, recover existing capacity by reducing flow from I/I.
   - ☐ I/I correction projects where excessive groundwater infiltration is contaminating the influent requiring otherwise unnecessary treatment processes (i.e. arsenic laden groundwater) and I/I correction is cost effective.
   - ☐ Replacing pre-Energy Policy Act of 1992 motors with National Electric Manufacturers Association (NEMA) premium energy efficiency motors.
     - ☐ NEMA is a standards setting association for the electrical manufacturing industry (http://www.nema.org/gov/energy/efficiency/premium/).
   - ☐ Upgrade of POTW lighting to energy efficient sources (such as metal halide pulse start technologies, compact fluorescent, light emitting diode (LED)).
   - ☐ SCADA systems can be justified based upon substantial energy savings.
   - ☐ Variable Frequency Drive can be justified based upon substantial energy savings.

IV. ENVIRONMENTALLY INNOVATIVE

1. Categorical Projects
   - ☐ Total/integrated water resources management planning likely to result in a capital project.
   - ☐ Utility Sustainability Plan consistent with EPA's SRF sustainability policy.
   - ☐ Greenhouse gas (GHG) inventory or mitigation plan and submission of a GHG inventory to a registry (such as Climate Leaders or Climate Registry).
   - ☐ Planning activities by a POTW to prepare for adaptation to the long-term effects of climate change and/or extreme weather.
   - ☐ Construction of US Building Council LEED certified buildings or renovation of an existing building on POTW facilities.
   - ☐ Decentralized wastewater treatment solutions to existing deficient or failing onsite wastewater systems.

2. Decision Criteria for Business Cases
   - ☐ Technology or approach whose performance is expected to address water quality but the actual performance has not been demonstrated in the state;
   - ☐ Technology or approach that is not widely used in the state, but does perform as well or better than conventional technology/approaches at lower cost; or
   - ☐ Conventional technology or approaches that are used in a new application in the state.
   - ☐ Other - Please provide and attachment explaining the scope of the project and brief explanation of the approach for the business case.

3. Examples of Projects Requiring a Business Case
   - ☐ Constructed wetlands projects used for municipal wastewater treatment, polishing, and/or effluent disposal.
     - ☐ Natural wetlands.
     - ☐ Project may not further degrade.
   - ☐ Projects or components of projects that result from total/integrated water resource management planning consistent with the decision criteria for environmentally innovative projects and that are Clean Water SRF eligible.
   - ☐ Projects that facilitate adaptation of POTWs to climate change identified by a carbon footprint assessment or climate adaptation study.
   - ☐ POTW upgrades or retrofits that remove phosphorus for beneficial use, such as biofuel production with algae.
   - ☐ Application of innovative treatment technologies or systems that improve environmental conditions and are consistent with the Decision Criteria for environmentally innovative projects such as:
     - ☐ Projects that significantly reduce or eliminate the use of chemicals in wastewater treatment.
     - ☐ Treatment technologies or approaches that significantly reduce the volume of residuals, minimize the generation of residuals, or lower the amount of chemicals in the residuals.
       - ☐ Includes composting, Class A and other sustainable biosolids management approaches.
   - ☐ Educational activities and demonstration projects for water or energy efficiency.
   - ☐ Projects that achieve the goals/objectives of utility asset management plans.
   - ☐ Sub-surface land application of effluent and other means for ground water recharge, such as spray irrigation and overland flow.
     - ☐ Spray irrigation and overland flow of effluent is not eligible for GPR where there is no other cost effective alternative.

V. CLIMATE AND EXTREME WEATHER RESILIENCY

1. Categorical Projects – none at this time.

2. Decision Criteria for Business Cases

- ☐ Utility functions and performance can be disrupted by climate change/extreme weather events.
  - ☐ Flooding
  - ☐ Drought
  - ☐ Tornado
  - ☐ Lightning strikes
  - ☐ Earthquake
- ☐ Incorporate project elements that provide flexibility to adapt operations and functionality as external conditions change over time.
- ☐ Project components designed to perform beyond the minimum Building Code or Design Standards.
- ☐ Utilize climate resiliency and adaptation strategies when siting or routing key project structures or components.
- ☐ Ability to modify or expand proposed facilities based on future climate change issues.
- ☐ Other - Please provide and attachment explaining the scope of the project and brief explanation of any aspects in the planning, construction or operation phase that support the approach for the business case.

3. Examples of Projects Requiring a Business Case

- ☐ Utilizing natural, native and drought resistant planted elements that are economically replaced at project sites for storm water control or landscaping.
- ☐ Siting new structures away from flash flood areas or poor structural soils in former waterway areas.
- ☐ Consideration of finished floor elevation above the 100 year flood elevation or normal code requirements.
- ☐ Increasing structural, roof (snow) or wind loadings beyond code requirements for new structures.
- ☐ Incorporate passive cooling systems for instrumentation, control or power panel rooms subject to high heat conditions.

ATTACHMENT 6

State Revolving Fund Loan Program
Asset Management Program Certification Form
Inclusive of
Fiscal Sustainability Plan Certification

(To be submitted either at the time of loan closing or no later than the final disbursement of a Participant's loan proceeds)

Participant Name	Northwest Jasper Regional Water District (NORWEJ)	
Street Address 112 Carnation Street SE		P. O. Box Number
City DeMotte	State IN	Zip Code 46310

Indiana Code 5-1.2-10-16 requires a Participant that receives a loan or other financial assistance from the State Revolving Fund Loan Program (SRF) to certify that the Participant has documentation demonstrating it has the financial, managerial, technical and legal capability to operate and maintain its water or wastewater collection and treatment system. A Participant must demonstrate that it has developed an asset management program as defined in the Indiana Finance Authority's (Authority) Asset Management Program Guidelines.

Section 603(d)(1)(E) of the Federal Water Pollution Control Act (FWPCA) requires a recipient of a loan for a project that involves the repair, replacement or expansion of a publically owned treatment works to develop and implement a Fiscal Sustainability Plan (FSP). The requirement pertains to those portions of the treatment works paid for with Clean Water SRF Loan Funds.

The Asset Management Program (AMP) shall be inclusive of the requirements of the FSP for Wastewater and Drinking Water projects and shall include at a minimum the following: (1) A system map (2) An inventory and assessment of system assets (3) development of an infrastructure inspection, repair, and maintenance plan, including a plan for funding such activities (4) an evaluation and implementation of water and energy conservation efforts (5) An analysis of the customer rates necessary to support the AMP (6) Audit performed at least every two years (7) Demonstration of the technical, managerial, legal and financial capability to operate and maintain the system, per the guidelines established by the Authority.

I hereby certify that I am an authorized representative for the above listed Participant and pursuant to IC 5-1.2-10-16 and Section 603(d)(1)(E), the Participant has developed and is implementing an AMP (inclusive of the requirements of an FSP) that meets the requirements established by the Authority. Upon the request of the Environmental Protection Agency (EPA) or the Indiana SRF, the Participant agrees to make the AMP (which includes the FSP requirements) available for inspection and/or review.

Andrew Andree	10-14-19
Signature of Authorized Representative	Date
Andrew Andree	219-987-3831
Printed Name	Phone Number/Email Address

ATTACHMENT 7

INDIANA ARCHAEOLOGICAL SHORT REPORT

State Form 54566 (1-11)

INDIANA DEPARTMENT OF NATURAL RESOURCES
DIVISION OF HISTORIC PRESERVATION
AND ARCHAEOLOGY
402 West Washington Street, Room W274
Indianapolis, Indiana 46204-2739
Telephone Number: (317) 232-1646
Fax Number: (317) 232-0693
E-mail: dhpa@dnr.IN.gov

Where applicable, the use of this form is recommended but not required by the Division of Historic Preservation and Archaeology.

Author: Erin L. Powers

Date *(month, day, year)*: 11, 01, 2019

Project Title: Phase Ia Archaeological Field Reconnaissance and Report - for an approximate 7.64 ac area in Demotte, Jasper County, Indiana

PROJECT OVERVIEW

Project Description: Water main route construction to the project area and water treatment plant construction.

INDOT Designation Number/ Contract Number: Project Number:

DHPA Number: Approved DHPA Plan Number:

Prepared For: Abonmarche Consultants, Inc.

Contact Person: Allison Atkinson

Address: 750 Lincoln Way East

City: South Bend State: IN ZIP Code: 46601

Telephone Number: 219-246-4245 Email Address: aatkinson@abonmarche.com

Principal Investigator: Sean Coughlin

Signature:

Company/Institution: Applied Anthropology Laboratories, Ball State University

Address: 2000 W. University Ave.

City: Muncie State: IN ZIP Code: 47306

Telephone Number: 765-285-5328 Email Address: spcoughlin2@bsu.edu

ATTACHMENT 7

PROJECT LOCATION

County: Jasper

USGS 7.5' series Topographic Quadrangle: Demotte

Civil Township: Keener and Wheatfield

Legal Location:

	1/4,	SE	1/4,	NE	1/4,	SE	1/4,	Section: 25	Township: 32N	Range: 7W
	1/4,	SW	1/4,	NW	1/4,	SW	1/4,	Section: 30	Township: 32N	Range: 6W
	1/4,	NW	1/4,	SW	1/4,	SW	1/4,	Section: 30	Township: 32N	Range: 6W
	1/4,		1/4,		1/4,		1/4,	Section:	Township:	Range:

Topographic Map Datum: NAD 1983 Grid Alignment: NE Corner

Comments:

Property Owner: NORWEJ Water District

PROJECT AREA DETAILS

Length meters: 253 feet: 830.0 Width meters: 135.0 feet: 443.0 hectares: 03.1 acres: 07.6

Natural Region: Kankakee Marsh Section

Topography: Outwash plains, glacial drainage ways, lake plains (Soil Survey Staff 2019).

Soil Association: Granby-Zadog-Maumee (Statsgo Soils).

Soils: Wm Watseka-Maumee soils, fine sand loam, black 10YR 2/1, somewhat to very poorly drained soils formed in sandy eolian deposit, outwash sediments, in depressions on outwash plains, or lake plains, slope ranges from 0-2% (Soil Survey Staff 2019).

Drainage: Maumee

Current Land Use: Agriculture

Comments:

RECORDS REVIEW *(check all that apply)*

Date of Records Check *(month, day, year)*: 10/31/2019

☒ SHAARD database

☐ Site Maps on file at DHPA

Previously Reported Sites within One Mile of the Project *(include citations)*: No sites have been recorded within one mile of the survey area.

☐ Cultural Resource Management reports, other research reports, grant reports on file at DHPA or other institutions

Previous Archaeological Studies within One Mile of the Project *(include citations)*:	AR-37-00026 Martin, Andrew and Mitch Zoll. 2000. Archaeo Field Recon Project STP-188-1, Small Structure Replace US 231 Over Bradbury Ditch, 1 km West of East Junction Des. #9704050.
List other institutions:	

☒ Cemetery Records

Results: No cemeteries within one mile of project area.

☐ McGregor Industrial Site records *(in applicable counties)*

Results:

☒ County Interim Report

Results: Clarence Holladay House (ID:073-161-05027) Contributing, House (ID: 073-161-05028) Contributing, House (ID: 073-161-05029) Demolished, House (ID: 073-161-05030) Contributing, Farm (ID: 073-161-10015) Contributing.

☒ Historic Maps

Results: No sites or structures within the survey area (Anonymous, 1876; Ogle, 1909; Highway Survey Commission, 1936; Anonymous, 1920)

Known Cultural Manifestations and/or Additional Information: Shaard has identified known cultural manifestation sites in Jasper county including: 212 Unidentified Prehistoric, 14 Paleoindian, 11 Early Archaic, 5 Middle Archaic, 12 Late Archaic, 1 Terminal Late Archaic, 3 Early Woodland, 6 Middle Woodland, 12 Late Woodland, 2 Protohistoric, 1 Contact, and 97 Historic period sites.

FIELD INVESTIGATION: *(check all that apply)* Field Investigation Dates *(month, day, year)*: 10/19/19

Field Supervisor: Erin Powers

Field Crew: Catherine Holland

Surface Visibility: 40%

Factors Affecting Visibility: Corn husks left over from harvesting (Figures 1-4).

Visual Walkover ☐ Pedestrian Survey ☒ Shovel Test ☐ Screened ☐ Mesh Size

Interval 5 m ☐ 10 m ☒ 15 m ☐ Other *(describe below)* ☐

Number of Shovel Test Units Excavated: None.

Describe Methods: Pedestrian survey of the entire area at ten meter interval transects due to ground surface visibility over 30%.

Attach photographs documenting disturbances below

Describe Disturbances: Gravel lined exposed buried well fields and utilities (Figures 5-9).

Comments:

Results

☐ Archaeological records check has determined that the project area does not have the potential to contain archaeological resources.

☐ Archaeological records check has determined that the project area has the potential to contain archaeological resources.

ATTACHMENT 7

☒ Phase Ia reconnaissance has located no archaeological resources in the project area.

☐ Phase Ia reconnaissance has identified landforms conducive to buried archaeological deposits.

Actual Area Surveyed hectares: 03.1 acres: 07.6

Comments: Total of sixteen transects at ten meter intervals were walked during pedestrian survey across the extent of the project area due to the ground surface visibility over 30%. Photographs were taken at the Northwest corner of the project area looking onto the project area in cardinal directions (Figures 1-4). No artifacts or features were discovered in the project area. Disturbances were four gravel lined well fields and exposed buried utilities. The disturbances were photographed and surveyed (Figures 5-9). Figure 12 shows the extent of the well fields subterranean.

Recommendation

☐ The archaeological records check has determined that the project area has the potential to contain archaeological resources and a Phase Ia archaeological reconnaissance is recommended.

☐ The archaeological records check has determined that the project area does not have the potential to contain archaeological resources and no further work is recommended before the project is allowed to proceed.

☒ The Phase Ia archaeological reconnaissance has located no archaeological sites within the project area and it is recommended that the project be allowed to proceed as planned.

☐ The Phase Ia archaeological reconnaissance has determined that the project area includes landforms which have the potential to contain buried archaeological deposits. It is recommended that Phase Ic archaeological subsurface reconnaissance be conducted before the project is allowed to proceed.

☐ The Phase Ia archaeological reconnaissance has determined that the project area is within 100 feet of a cemetery and a Cemetery Development Plan is required per IC-14-21-1-26.5.

Cemetery Name:

Other Recommendations/Commitments:

Pursuant to IC-14-21-1, if any archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646.

Attachments

☒ Figure showing project location within Indiana.

☒ USGS topographic map showing the project area *(1:24,000 scale)*.

☒ Aerial photograph showing the project area, land use and survey methods.

☒ Photographs of the project area.

☐ Project plans *(if available)*

Other Attachments: Cover Page

References Cited:

Annonymous
1876 Illustrated Historical Atlas of the Indiana Counties.

Anonymous
1920 Plat Books of Indiana Counties Vol. 3. Sidwell Studio, Lombard.State of Indiana. Baskin, Forster & Co.
Highway Survey Commission
1936 Map of Jasper County. Cultural. Highway Survey

Ogle, George A. and Company
1909 Standard Atlas of Jasper County, Indiana; including a plat book of villages, cities, and townships of the county. George A. Ogle and Company, Chicago.Commission, Indianapolis.
USDA/NRCS
2002 SOILS_STATSGO_IN: Soil Associations in Indiana (U.S. Dept. of Agriculture, 1:250,000, Polygon Shapefile). State Soil Geographic (STATSGO) data base for Indiana.

USGS
1960 Fort Recovery Quadrangle Indiana-Ohio 7.5 Minute Series (Topographic). U. S. Geological Survey, Indiana Department of Conservation, Ohio Department of Natural Resources, Division of Geological Survey, Washington D.C.

Comments:

Curation

Curation Facility for Project Documentation: Applied Anthropology Laboratories, Ball State University.

Appendix I

Environmental Coordination

Environmental Programs
Brownfields

State Revolving Fund Loan Program
an Indiana Finance Authority Environmental Program

100 North Senate Avenue, Room 1275
Indianapolis, Indiana 46204
www.srf.in.gov

Staci M. Orr Gardner
Environmental Review Coordinator
(317) 232-8623
SOrr@ifa.in.gov

May 27, 2020

Mr. Andrew Andree, President
Northwest Jasper Regional Water District
13390 N. 900 W.
Demotte, IN 46310

Dear Mr. Andree:

Re: Environmental Review Responses
Northwest Jasper Regional Water District
Drinking Water System Improvements
SRF Project No. DW 19 17 37 01

The State Historic Preservation Officer, United States Fish and Wildlife Service, and the State of Indiana's Department of Natural Resources Division of Fish and Wildlife have commented on this project. To demonstrate compliance with federal and state environmental review procedures, please familiarize yourself with the enclosures and place them in your copy of the Preliminary Engineering Report (PER).

The SRF Loan Program will review plans and specifications for consistency with the approved PER. Significant changes in the project (such as changing line routes, structure sites, and the like) could require further environmental review and delay project implementation.

If you have any questions, please call or e-mail.

Sincerely,

Staci Orr Gardner

Staci Orr Gardner

SOG

Enclosure:
Letters from SHPO, USFWS, and DNR and attachment from DNR

cc: Abonmarche Engineering (electronic)

DNR Indiana Department of Natural Resources

Eric Holcomb, Governor
Cameron F. Clark, Director

Division of Historic Preservation & Archaeology·402 W. Washington Street, W274·Indianapolis, IN 46204-2739
Phone 317-232-1646·Fax 317-232-0693·dhpa@dnr.IN.gov

HISTORIC PRESERVATION AND ARCHAEOLOGY

May 18, 2020

Staci Orr Gardner
Environmental Review Coordinator
SRF Program, IGCN 1275
100 North Senate Avenue
Indianapolis, Indiana 46204

Re: Project information and archaeological short report (Powers, 11/1/2019) concerning water main extension, construction of a new well field and construction of a new water treatment plant using State Revolving Loan Funds from the Indiana Finance Authority (SRF Project: WW 19173701; DHPA #25459)

Dear Ms. Gardner:

Pursuant to Indiana Code 5-1.2-10, Section 106 of the National Historic Preservation Act (54 U.S.C. § 306108), and 36 C.F.R. Part 800, the Indiana State Historic Preservation Officer ("Indiana SHPO") is conducting an analysis of the materials dated and received by the Indiana SHPO on April 22, 2020 for the above indicated project in Wheatfield and Keener townships, Jasper County, Indiana.

Based on our analysis, it has been determined that no historic properties will be altered, demolished, or removed by the proposed project.

This identification is subject to the following condition:

- The project activities remain within areas disturbed by previous construction or cleared by archaeological reconnaissance.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and 29) requires that the discovery must be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and 29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. 800.

If you have any further questions regarding this determination, please contact the DHPA. Questions about archaeological issues should be directed to Rachel Sharkey at (317) 234-5254 or rsharkey@dnr.IN.gov. Questions about historic buildings or structures pertaining to this project should be directed to Danielle Kauffmann at (317) 232-0582 or dkauffmann@dnr.IN.gov. Additionally, in all future correspondence regarding the above indicated project, please refer to DHPA #25459.

Very truly yours,

Beth K. McCord
Deputy State Historic Preservation Officer
Director, Division of Historic Preservation & Archaeology

BKM:DMK:RAS:ras

emc: Staci Orr Gardner, Indiana Finance Authority

United States Department of the Interior
Fish and Wildlife Service

Indiana Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

April 30, 2020

Ms. Staci Orr Gardner
State Revolving Fund Loan Program
100 North Senate Avenue, Room 1275
Indianapolis, Indiana 46204

Project No.: SRF DW 19 17 37 01
Project: Northwest Jasper Regional Water District Drinking Water System Improvements
Location: DeMotte and Vicinity, Jasper County

Dear Ms. Gardner:

This responds to your letter dated April 23, 2020, requesting our comments on the aforementioned project.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et. seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, and the U. S. Fish and Wildlife Service's Mitigation Policy.

The proposed project will have no effect on wetlands or other significant habitat types. Project impacts are expected to be minor in nature. Based on a review of the information you provided, the U.S. Fish and Wildlife Service has no objections to the project as currently proposed. This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act of 1973, as amended. However, should new information arise pertaining to project plans or a revised list be published, it will be necessary for the Federal agency to reinitiate consultation.

We appreciate the opportunity to comment on this proposed project. If project plans change such that fish and wildlife habitat may be affected, please recoordinate with our office as soon as possible. For further discussion, please contact Elizabeth McCloskey at (219) 983-9753 or elizabeth_mccloskey@fws.gov.

Sincerely yours,

/s/ *Elizabeth S. McCloskey*

for Scott E. Pruitt
Supervisor

Sent via email April 30, 2020; no hard copy to follow.

THIS IS NOT A PERMIT

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

DNR #: ER-22474 **Request Received:** April 23, 2020

Requestor:
Indiana Finance Authority
Staci Orr-Gardner
100 North Senate Avenue
Room 1275
Indianapolis, IN 46204

Project: Northwest Jasper Regional Water District (NORWEJ) drinking water system improvements: SR 10 water main extension (Phase I), new Kersey Well Field and Treatment Plant (Phase II), and Kankakee Valley High School water main extension (Phase III); SRF #DW 19 17 37 01

County/Site info: Jasper

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

Regulatory Assessment: The utility crossing over Schatzley Ditch will require the formal approval for construction in a floodway under the Flood Control Act, IC 14-28-1, unless it qualifies for a general license under Administrative Rule 312 IAC 10-5 that applies to utility line crossings (see enclosure). Please include a copy of this letter with the permit application if the project does not meet the general license criteria.

Natural Heritage Database: The Natural Heritage Program's data have been checked.
Tower mustard (Turritis glabra), a state watchlist species, and Plains Pocket Gopher (Geomys bursarius), a state species of special concern, have been documented within 1/2 mile of the project area. The Division of Nature Preserves does not anticipate any impacts to this plant species as a result of this project.

Fish & Wildlife Comments: Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

1) Plains Pocket Gopher:
Areas with existing plains pocket gopher populations can be identified by the presence of large excavation mounds from their burrowing. Mounds can be up to a foot tall and 2 feet or more wide. Impacts to ground where any such mounds are present should be avoided to the extent possible to minimize impacts to this species. Also, any disturbed grassland should be returned to its original soil and drainage structure and reseeded with appropriate native grasses upon project completion.

2) Directional Boring:
We recommend that all creek or stream crossings be done using a trenchless method. The length of the bore should include any forested riparian areas along the creek to minimize impacts to forested habitat. Install erosion control measures such as silt fencing or other appropriate devices around directional drilling pits in order to prevent drilling mud from leaving the immediate area of the pit or entering the stream.

Attachments: A - Utility Exemption Criteria

THIS IS NOT A PERMIT

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

If the open-trench method is necessary and the only feasible option at any of the planned stream crossings due to the site conditions, then the following measures should be implemented:
a. Any open-trench stream crossing should be timed to coincide with the low-water time of year (typically mid- to late-summer).
b. Restore disturbed streambanks using bioengineering bank stabilization methods and revegetate disturbed banks with native trees, shrubs and herbaceous plants. Stream bank slopes after project completion should be restored to stable-slope steepness (not steeper than 2:1).
c. The cleared width through any forested area should be the minimum needed to install the line and no more than 20 feet wide through the forested area to allow the canopy to close over the line.
d. Use graded stone or riprap to protect the section of trench below the normal water level from scour or erosion (any stone or riprap fill in the streambed must not be placed above the existing streambed elevation to avoid creating a fish passage obstruction).

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:
1. Revegetate all bare and disturbed areas within the project area using a mixture of grasses (excluding all varieties of tall fescue), sedges, and wildflowers native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.
2. Do not excavate in the waterways and minimize disturbance to bank vegetation and contain disturbance to within the project limits.
3. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
4. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
5. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty, biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.
6. Plant five trees, at least 2 inches in diameter-at-breast height, for each tree which is removed that is ten inches or greater in diameter-at-breast height.
7. Do not excavate or place fill in any riparian wetland.

Contact Staff: Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife
Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.

Christie L. Stanifer **Date:** May 22, 2020

Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife

Attachments: A - Utility Exemption Criteria

ARTICLE 10. FLOOD PLAIN MANAGEMENT

312 IAC 10-2-42 "Utility line crossing" defined

Authority: IC 14-28-1-5; IC 14-28-3-2
Affected: IC 14-27-7; IC 14-28-1; IC 14-28-3

Sec. 42. "Utility line crossing" means the utility crosses the waterway in a straight line at an angle of between forty-five (45) degrees and one hundred thirty-five (135) degrees from the streambank and does not parallel the waterway for more than fifty (50) feet in the floodway before crossing unless the parallel portion of the line is contained within existing road right-of-way. *(Natural Resources Commission; 312 IAC 10-2-42; filed Jul 5, 2001, 9:12 a.m.: 24 IR 3389, eff Jan 1, 2002)*

Rule 5. General Licenses and Specific Exemptions from Floodway Licensing

312 IAC 10-5-0.3 Determining project eligibility for a general license; general criteria

Authority: IC 14-10-2-4; IC 14-28-1-5
Affected: IC 14-28-1; IC 14-29-1

Sec. 0.3. (a) Except as provided in subsections (b) and (c), a project for a utility line crossing, the removal of logjams and obstructions, or the placement of outfall projects within a floodway is eligible for a general license if the project satisfies the requirements of this rule. For the removal of logjams and obstructions, these requirements include the procedures established by section 0.6 of this rule.

(b) Subsection (a) does not authorize a project in any of the following circumstances:

(1) Within a river or stream listed in the Indiana Register at 16 IR 1677 in the Outstanding Rivers List for Indiana unless prior written approval from the division of water's environmental unit has been obtained.

(2) Within a salmonid stream designated under 327 IAC 2-1.5-5(a)(3).

(3) Within a natural, scenic, or recreational river or stream designated under 312 IAC 7-2.

(4) For a utility line crossing, below the ordinary high watermark of a navigable waterway listed in the Indiana Register at 20 IR 2920 in the Roster of Indiana Waterways Declared Navigable or Nonnavigable unless the utility line is placed beneath the bed of the waterway under section 4(b) of this rule.

(5) Where the project requires an individual permit from the United States Army Corps of Engineers under Section 404 of the Clean Water Act or Section 10 of the Rivers and Harbors Act.

(c) Subsection (a) does not authorize the removal of logjams or obstructions within one-half (½) mile of any of the following:

(1) A species listed in the Indiana Register at 15 IR 1312 in the Roster of Indiana Animals and Plants Which Are Extirpated, Endangered, Threatened, or Rare.

(2) A known mussel resource.

(3) An outstanding natural area, as contained on the registry of natural areas maintained in the natural heritage data center of the department.

(d) The limitations contained in subsection (b) and subsection (c) *[subsections (b) and (c)]* do not apply to section 7 of this rule. *(Natural Resources Commission; 312 IAC 10-5-0.3; filed Aug 2, 2004, 3:18 p.m.: 27 IR 3875)*

312 IAC 10-5-2 General licensing for utility line crossings

Authority: IC 14-10-2-4; IC 14-28-1-5
Affected: IC 14-27-7; IC 14-28-1; IC 14-29-1

Sec. 2. Except as provided in sections 3 and 4 of this rule, a license is required under IC 14-28-1, IC 14-29-1, and 312 IAC 10-4 to place a utility line in or on a floodway where:

(1) the drainage area of a river or stream is at least one (1) square mile at the downstream end of the line's floodway segment; or

(2) a dam or levee regulated under IC 14-27-7 is affected.

(Natural Resources Commission; 312 IAC 10-5-2; filed Jul 5, 2001, 9:12 a.m.: 24 IR 3394, eff Jan 1, 2002)

312 IAC 10-5-3 Aerial electric, telephone, or cable television lines; general license

Authority: IC 14-10-2-4; IC 14-28-1-5
Affected: IC 14-28-1; IC 14-29-1; IC 14-29-6

Sec. 3. The placement of an aerial electric, telephone, or cable television line is authorized without a written license issued by the department under IC 14-28-1, IC 14-29-1, and 312 IAC 10-4 if:

(1) the activity does not disturb the bed of the waterway beneath the line;

(2) the activity conforms with the minimum clearance requirements of section 4(b)(9) of this rule;

(3) the support mechanisms are located at least seventy-five (75) feet from the top of the bank; and

(4) the utility line crossing is not within the floodway of a natural river, scenic river, or recreational river designated under 312 IAC 7-2.

(Natural Resources Commission; 312 IAC 10-5-3; filed Jul 5, 2001, 9:12 a.m.: 24 IR 3394, eff Jan 1, 2002; filed Aug 2, 2004, 3:18 p.m.: 27 IR 3876)

312 IAC 10-5-4 Qualified utility line crossings; general license

Authority: IC 14-10-2-4

Affected: IC 13-11-2-260; IC 14-27-7; IC 14-28-1-29; IC 14-33; IC 36-9-27

Sec. 4. (a) This section establishes a general license for the placement of a qualified utility line crossing in a floodway.

(b) A person who wishes to implement a project for the placement of a qualified utility line crossing on a river or stream, other than on a river or stream identified in section 0.3(b) or 0.3(c) of this rule, may do so without notice to the department if the project conforms to the following conditions:

(1) Tree removal and brush clearing shall be contained and minimized within the utility line crossing area. No more than one (1) acre of trees shall be removed within the floodway.

(2) Construction activities within the waterway from April 1 through June 30 shall not exceed a total of two (2) calendar days.

(3) Best management practices shall be used during and after construction to minimize erosion and sedimentation.

(4) Following the completion of construction, disturbed areas shall be reclaimed and revegetated. Disturbed areas shall be mulched with straw, wood fiber, biodegradable erosion blanket, or other suitable material. To prevent erosion until revegetated species are established, loose mulch shall be anchored by crimping, tackifiers, or netting. To the extent practicable, revegetation must restore species native to the site. If revegetation with native species is not practicable, revegetation shall be performed by the planting of a mixture of red clover, orchard grass, timothy, perennial rye grass, or another species that is approved by the department as being suitable to site and climate conditions. In no case shall tall fescue be used to revegetate disturbed areas.

(5) Disturbed areas with slopes of three to one (3:1) or steeper, or areas where run-off is conveyed through a channel or swale, shall be stabilized with erosion control blankets or suitable structural armament.

(6) No pesticide will be used on the banks.

(7) If a utility line transports a substance that may cause water pollution as defined in IC 13-11-2-260, the utility line will be equipped with an emergency closure system.

(8) If a utility line is placed beneath the bed of a river or stream, the following conditions are met:

(A) Cover of at least three (3) feet measured perpendicularly to the utility line is provided between the utility line and the banks.

(B) If the placement of a utility line is not subject to regulation under IC 14-28-1-29, IC 14-33, or IC 36-9-27, cover is provided as follows:

(i) At least three (3) feet, measured perpendicularly to the utility line, between the lowest point of the bed and the top of the utility line or its encasement, whichever is higher, if the bed is composed of unconsolidated materials.

(ii) At least one (1) foot, measured perpendicularly to the line, between the lowest point of the bed and the top of the utility line or its encasement, whichever is higher, if the bed is composed of consolidated materials.

(C) If the placement of the utility line is subject to regulation under IC 14-28-1-29, IC 14-33, or IC 36-9-27, cover is provided as follows:

(i) At least three (3) feet, measured perpendicularly to the utility line, between the design bed and the top of the line or its encasement, whichever is higher, if the bed is composed of unconsolidated materials.

(ii) At least one (1) foot, measured perpendicularly to the line, between the design bed and the top of the line or its encasement, whichever is higher, if the bed is composed of consolidated materials.

(D) Negative buoyancy compensation is provided where the utility line has a nominal diameter of at least eight (8) inches and transports a substance having a specific gravity of less than one (1).

(9) If a utility line is placed above the bed of a river or stream, the following conditions are met:

(A) Except as provided in clauses (B) and (C), minimum clearance is provided from the lowest point of the utility line (determined at the temperature, load, wind, length of span, and type of supports that produce the greatest sag) calculated as the higher of the following:

(i) Twelve and one-half (12½) feet above the ordinary high watermark.

(ii) Three (3) feet above the regulatory flood elevation.

(B) If the river or stream is a navigable waterway that is subject to IC 14-28-1, the utility line that crosses over the waterway must be placed to provide the greater of the following:

(i) The minimum clearance required under clause (A).

(ii) The minimum clearance required for the largest watercraft that is capable of using the waterway. The utility must consult in advance with the department to determine the minimum clearance for watercraft at the crossing.

(C) If a utility line is attached to or contained in the embankment of an existing bridge or culvert, no portion of the utility line or its support mechanism may project below the low structure elevation or otherwise reduce the effective waterway area.

(10) A utility line placed in a dam or levee regulated under IC 14-27-7 does not qualify for a general license under this subsection.

(c) A person who elects to act under this section must comply with the general conditions under subsection (b). Failure to comply with these terms and conditions may result in the revocation of the general license, a civil penalty, a commission charge, and any other sanction provided by law for the violation of a license issued under IC 14-28-1 and, if the waterway is navigable, the violation of a license issued under IC 14-29-1. *(Natural Resources Commission; 312 IAC 10-5-4; filed Jul 5, 2001, 9:12 a.m.: 24 IR 3394, eff Jan 1, 2002; filed Dec 26, 2001, 2:42 p.m.: 25 IR 1545; errata filed Mar 13, 2002, 11:51 a.m.: 25 IR 2521; filed Aug 2, 2004, 3:18 p.m.: 27 IR 3876)*