City of Plainwell

Rick Brooks, Mayor
Lori Steele, Mayor Pro-Tem
Brad Keeler, Council Member
Todd Overhuel, Council Member
Roger Keeney, Council Member

Department of Administration Services
211 N. Main Street
Plainwell, Michigan 49080
Phone: 269-685-6821 Fax: 269-685-7282
Web Page Address: www.plainwell.org

"The Island City"

AGENDA
City Council
Monday, January 8, 2018
7:00 PM

1. **Call to Order**
2. **Invocation**
3. **Pledge of Allegiance**
4. **Roll Call**
5. **Approval of Minutes/Summary** – 12/27/2017 Regular Meeting
6. **General Public Comments**
7. **County Commissioner Report**
8. **Agenda Amendments**
9. **Mayor's Report**
10. **Recommendations and Reports:**

    A. Site Plan Review – Fair Trade Coffee Shop
    Council will consider accepting the Site Plan for Fair Trade Coffee Shop at 203 S. Main.

    B. DPW – Water Asset Management Plan
    Council will consider accepting the Water Asset Management Plan for submission to the Michigan Department of Environmental Quality.

11. **Communications:** The December 2017 Investment and Fund Balance Reports.
12. **Accounts Payable - $502,174.75**
13. **Public Comments**
14. **Staff Comments**
15. **Council Comments**
16. **Adjournment**

Note: All public comment limited to two minutes, when recognized please rise and give your name and address

MINUTES
Plainwell City Council
December 27, 2017

1. Mayor Brooks called the regular meeting to order at 7:03 PM in City Hall Council Chambers.

2. Steve Smail of Lighthouse Baptist Church gave the invocation.

3. Pledge of Allegiance was given by all present.

4. Roll Call: Present: Mayor Brooks, Mayor Pro-Tem Steele, Councilman Overhuel and Councilman Keeney. Absent: Councilman Keeler.

5. Approval of Minutes/Summary:
A motion by Steele, seconded by Overhuel, to accept and place on file the Council Minutes and Summary of the 12/11/2017 regular meeting. On voice vote, all voted in favor. Motion passed.

6. General Public Comments: None

7. County Commissioner Report / Presentations: None.

8. Agenda Amendments: None

9. Mayor's Report: None.

10. Recommendations and Reports:

   A. **Item A was tabled for a later meeting.**

   B. Personnel Manager Sandy Lamorandier reported on the annual flower purchase from Napp's Greenhouse, which has worked with the city for many years. With increased costs and different layouts, Council approval for the purchase is needed.
   A motion by Steele, seconded by Overhuel, to approve the annual city-wide flower purchase for 2018 from Napp's Greenhouse in an amount not to exceed $4,500. On a roll-call vote, all in favor. Motion passed.

   C. City Manager Wilson reported on a recent bid opening for a project to upgrade the street signal at Prince Street and M-89. The State had installed the controller to allow the 4-way control when M-89 was upgraded in 2012. The city's project is to set controls to allow traffic to flow from North Prince Street.
   A motion by Steele, seconded by Keeney, to approve the bid from J Ranck Electric for $17.050 for improvements to the Prince Street Signal at M-89. On a roll-call vote, all in favor. Motion Passed.

   D. Clerk/Treasurer Kelley outlined five (5) annual resolutions for 2018 – the first lists the Ordinance Enforcement Officers of the city; the second lists the Council meeting dates for 2018; the third lists the employee holiday dates (when City offices are closed); the fourth is a listing of the dates on which the flags are flown on city streets, and; the fifth is a resolution authorizing the Director of Public Safety to liaison with the State of Michigan for temporary closures of M-89.
   A motion by Steele, seconded by Overhuel, to adopt Resolutions 18-01 through 18-05 for Ordinance Enforcement Officers, 2018 Council Meeting Dates, 2018 Employee Holiday Dates, 2018 Street Flag Dates and 2018 Street Closures. On a voice vote, all in favor. Motion Passed.

11. Communications:
   A. **A motion by Steele, seconded by Overhuel, to accept and place on file the November 2017 Water Renewal and Public Safety Reports and the DRAFT 12/12/2017 DDA-TIFA-BRA Minutes. On a voice vote, all in favor. Motion passed.**

12. Accounts Payable:
    A motion by Keeney, seconded by Overhuel, that the bills be allowed and orders drawn in the amount of $347,598.69 for payment of same. On a roll call vote, all in favor. Motion passed.

13. Public Comments None.

14. Staff Comments

    City Manager Wilson briefed Council about ongoing discussions with Consumers Energy and Weyerhauser regarding moving the power poles between the Mill and the River. The estimated cost of the project could exceed $400,000 and the city is working to find a solution. He suggested possibly holding a Public Meeting to invite citizens in for an update on the progress of the Mill Site Cleanup, given pending 2018 work.

15. Council Comments: None

16. Adjournment:
    A motion by Steele, seconded by Overhuel, to adjourn the meeting at 7:37 PM. On voice vote, all voted in favor. Motion passed.

Minutes respectfully
Submitted by,
Brian Kelley
City Clerk/Treasurer

SUMMARY
Plainwell City Council
December 27, 2017

1. Mayor Brooks called the regular meeting to order at 7:03 PM in Council Chambers at City Hall.

2. Invocation given by Steve Smail from Lighthouse Baptist Church.

3. Pledge of Allegiance was given by all present.

4. Roll Call: Present: Brooks, Steele, Overhuel, and Keeney. Absent: Keeler

5. Approved Minutes/Summary of the 12/11/2017 regular meeting.

6. Adopted purchase of flowers for the 2018 plantings from Napp's Greenhouse in an amount not to exceed $4,500.00.

7. Approved bid from J Ranck Electric for $17,050 for improvements to the Prince Street Signal at M-89.

8. Adopted Resolutions 18-01 through 18-05 for Ordinance Enforcement Officers, 2018 City Council Meeting Dates, 2018 Employee Holiday Dates, 2018 Street Flag Dates and 2018 Street Closures.

9. Accepted and placed on file the November 2017 Water Renewal and Public Safety Reports and the DRAFT 12/12/2017 DDA-TIFA-BRA Minutes.

10. Approved Accounts Payable for $347,598.69.

11. Adjourned the meeting at 7:37 pm.

Submitted by,
Brian Kelley
City Clerk/Treasurer

Brian Kelley

From: Don Black <DBlack@ALLEGANCOUNTY.ORG>
Sent: Wednesday, January 3, 2018 10:01 AM
To: Brian Kelley
Subject: January meeting

Hi Brian,

I will not be available at your January 8 meeting. I have nothing new to report and two other meetings to attend/report. Please notify your council.

Sincerely thanks, don

PAID

NOV – 9 2017

Plainwell Treasury Office

City of Plainwell – Zoning Permit Application

Rev: 2/2010

Fee: $5.00 / Additional review fees may be imposed

Date: 11/08/2017 Permit #: 2017 - 43

Address of Project: 203 S. Main St Parcel ID Number: 55-100-057-00

Owner: David & Danene Gless Contractor: DAVID GLESS

Owner's Address: 40 W. B Ave, P-well Contractor Address: 40 W. B AVE PLAINWELL

Owner's Phone Number: 269-762-0392 Contractor Phone Number: 269-720-9539

Work to be done (please check all that apply):

- [ ] New Building Construction
- [ ] Building Demolition
- [ ] Fence
- [ ] Other (please describe):
- [x] Existing Building Addition/Alteration
- [ ] Moving a Building
- [ ] Sign

Zoning District of this property (check):

- [ ] Single Family Residential(R-1A)
- [ ] Single and Two Family Residential (R-1C)
- [ ] Planned Mobile Home (R-MH)
- [ ] Planned Unit Development (PUD)
- [x] Central Business (CBD)
- [ ] Community Service(C-S)
- [ ] General Manufacturing (M-2)
- [ ] Single Family Residential (R-1B)
- [ ] Multi-Family Residential (R-2)
- [ ] Local Commercial (C-1)
- [ ] General Commercial (C-2)
- [ ] Service Business (SB)
- [ ] Restricted Manufacturing (M-1)

General Description of Project (use back of page if necessary): COFFEE (+ TEA + H. CHOC) & FAIR TRADE GIFTS. COFFEE ETC @ IN DRIVE THRU 6-9AM; GIFTS 9-5 OR 6.

Will the work performed in this application change the Use of this property? x Yes ____No

Total Cost of Project: around $4,500

After project is complete, the setbacks established will be (if applicable):

Front: ____ft. Back: ____ft. Side: ____ft. Side ____ft.

Does this project involve a (check one):____ Non-conforming use ____Non-conforming structure

x N/A

Is this a home occupation? If so what kind _____

Any type of special equipment use? no Electrical _____ Plumbing_____

Is this project consistent with the Master Plan x yes ____no If no please explain on back.

Will this project result in an increase in off-street parking? ____yes x no

I understand that before the issuance of a building permit, I must have an approved Zoning Permit Application. Additionally, the UNDERSIGNED affirms that he/she/they is (are) the owner of subject property authorized to represent the interests of all property owners involved in this application and that the answers and statements herein contained and all maps, plans, and other information herewith submitted and attached are in all respects true to the best of his/her/their knowledge and belief. Additionally, the UNDERSIGNED acknowledges they have received or have been made available all applicable Ordinances relevant to said project, and further, will comply with said Ordinances.

Signature of Applicant(s): D Gless **Date of Signature(s):** 11-8-17

Office Use Only

Approved: x Denied: ____

Signature and Date of Zoning Administrator (or designate): Denise Siegel

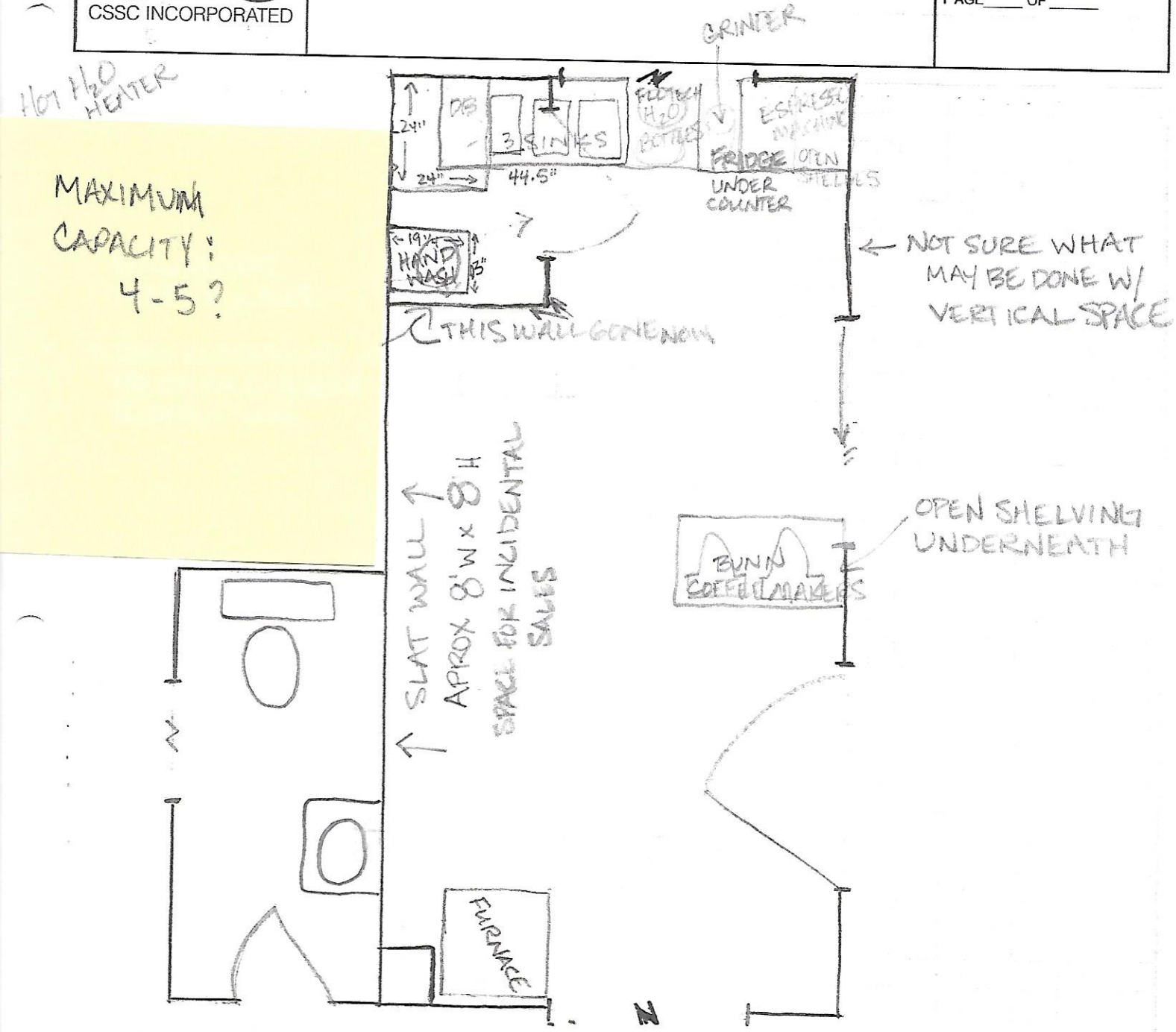
Remarks:

CSSC INCORPORATED

THE STATION AT 203 S. MAIN ST.

DATE

PAGE ____ OF ____



CSSC, Inc.

22 South Street • Morristown • New Jersey • 07960

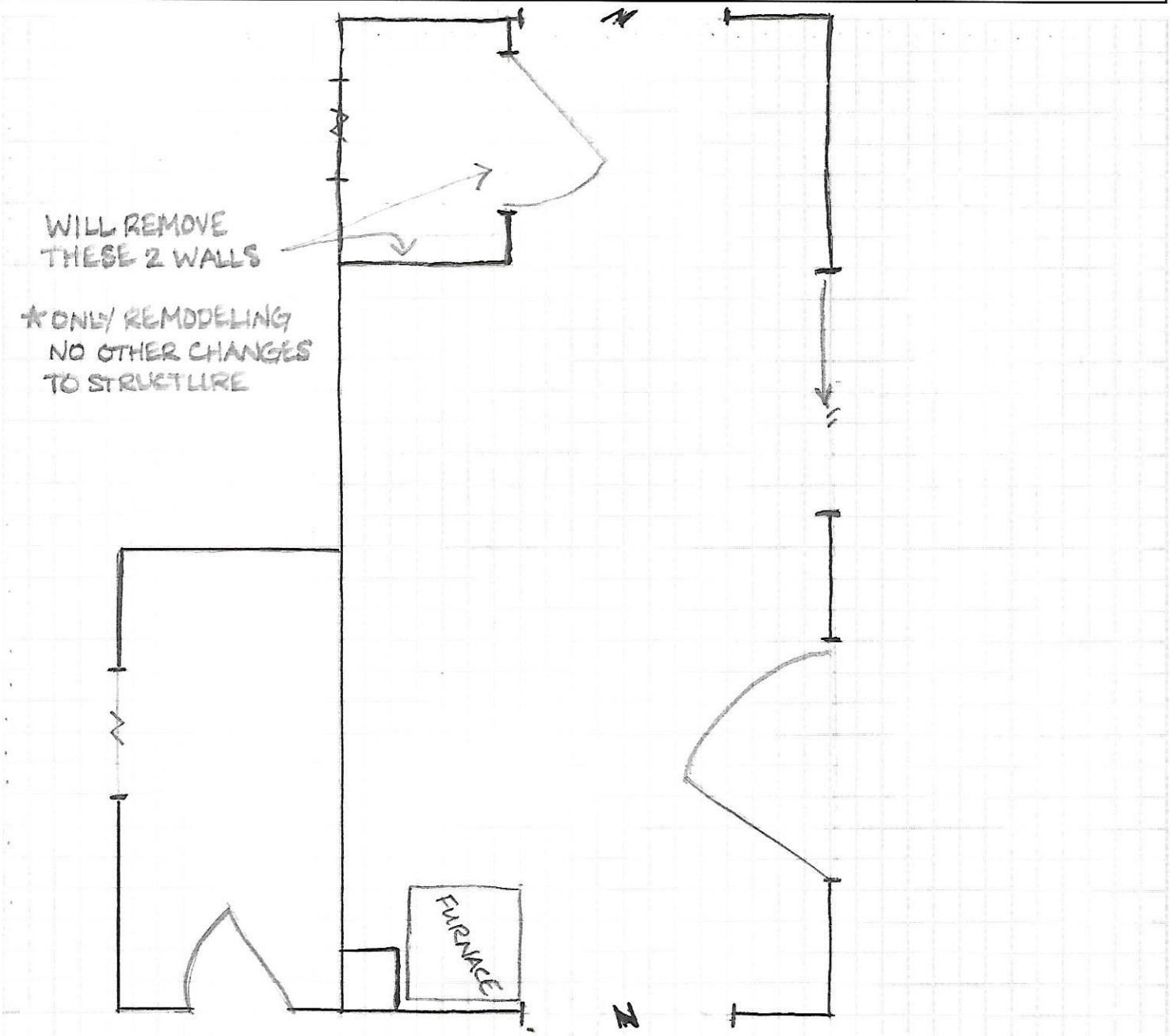
(973) 656-0248 • (973) 656-0408 Fax • http://www.csscinc.net

CSSC INCORPORATED

THE STATION AT 203 S. MAIN ST.

DATE

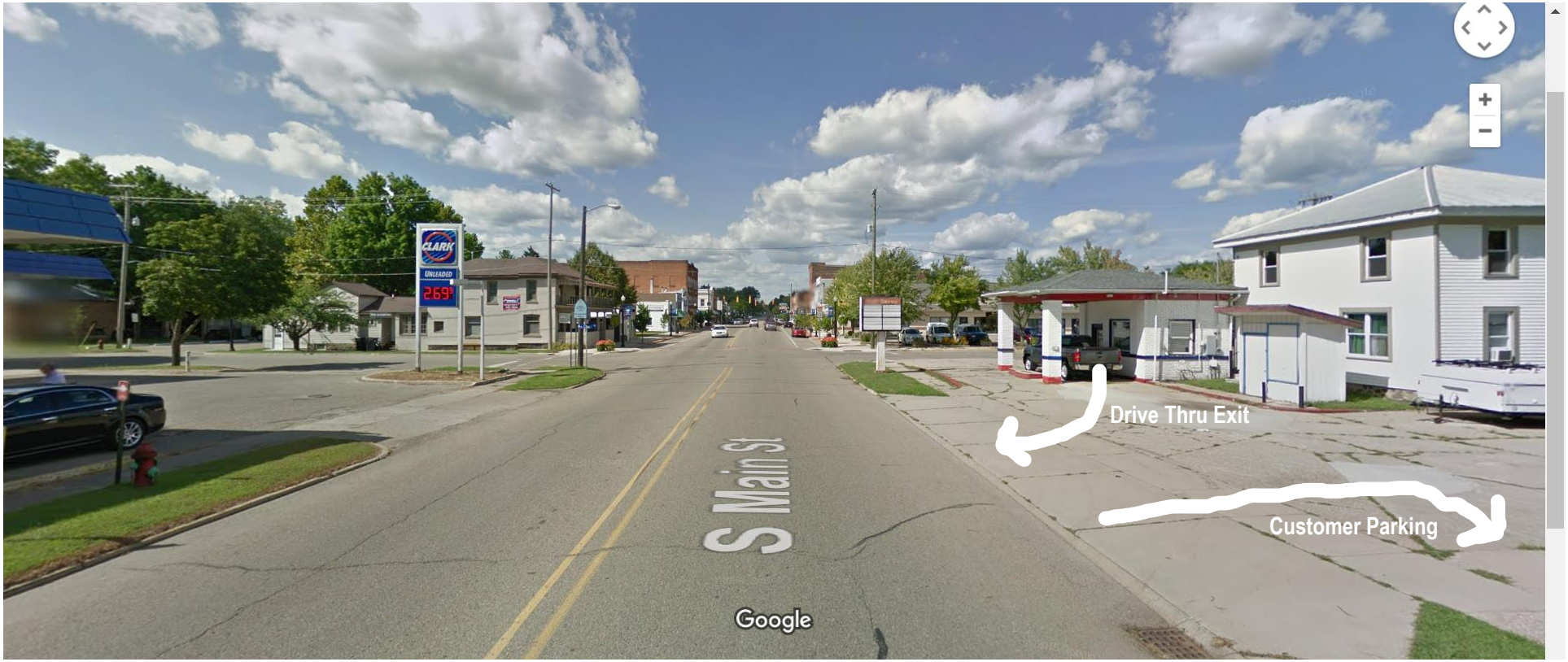
PAGE____ OF _____



2 BLKS = 1'

CSSC, Inc.
22 South Street • Morristown • New Jersey • 07960
(973) 656-0248 • (973) 656-0408 Fax • http://www.csscinc.net

The Station- Fair Trade Coffee and Gifts, 203 South Main Street, Plainwell, MI 49080. Formerly known as Skyline Computer Technologies


CLARK
UNLEADED
269⁹
S Main St
Drive Thru Exit
Customer Parking
Google

CITY OF PLAINWELL

Water Asset Management Plan

Rick Updike

11/28/17

Prepared for the Michigan Department of Environmental Quality (MDEQ)

I. Contents

I. Introduction

The City of Plainwell, Department of Public Works is responsible for managing the infrastructure that pumps, treats, stores, and delivers potable water to nearly 4000 people. This Asset Management Plan (AMP) indexes and assesses water infrastructure, identifies shortcomings and plans for repairs and upgrades to the system. Also included in the plan is a financial plan for the utility. The major sections are as follows.

1. Asset Inventory: The documentation of water system assets. The inventory includes ratings for condition, possibility of failure and consequence of failure.

2. Criticality Assessment: The criticality assessment multiplies the possibility of failure rating times the consequence of failure rating to rank infrastructure for repair and replacement projects.

3. Levels of Service: A statement of current and desired level of service goals and methods used to develop these goals.

4. Capital Improvement Plan: A summary of the DPW water capital improvement plan (CIP) that identifies the water projects for the upcoming 5 year and 20 year periods.

5. Revenue/Rate Structure: A description of the rate methodology and funding strategies used to provide long term sustainability for the water utility and a safe and reliable supply of water to customers.

A. Mission Statement

The Plainwell Department of Public Works will operate the water system to enhance the value of the infrastructure, protect public health and provide the high quality customer service while minimizing long-term operating costs.

B. Asset Management Team

Asset management is an organization-wide responsibility. The asset management team is made up of the following: chief administrative staff, Department of Public Works operational staff,
City Treasurer and a consulting engineering firm.

Water System Asset Management Team

Name	**Title**	**Department**	**Role/Responsibility**
	Council person		Elected Official
Erik Wilson	City Manager	Administrative	Oversight
Rick Updike	Superintendent of Public works	Public Works	Operations/Technical
Brian Kelley	City treasurer	Administrative	Financial
Fleis and VandeBrink	Consulting Engineer		Outside Consultant

II. Asset Inventory

The intent of Plainwell's water asset management program is to catalog significant water assets, and determine their age, condition, useful life and replacement cost. Data produced from the inventory will be used for decision making on Operations and Maintenance (O&M) spending and capital projects.

A. Data Collection

A three-step process was used for data collection: defining the term asset, determining what assets are owned by Plainwell and where they are located and determining the condition, remaining useful life, and replacement cost of the assets.

1. Asset Definition

An asset is generally defined as "an item of value owned." For this AMP DPW defines an asset as tangible or intangible infrastructure owned by Plainwell associated with the producing, pumping, treating, storing, and delivering safe, potable water to the public.

Infrastructure with a value greater than $1,000 was recorded. Assets with values of less than $1,000 were consolidated with other assets under a combined value greater than $1,000 and managed as a single asset. Plainwell also combined some components with values greater than $1,000 if those components would be replaced or upgraded as part of a unit. Repairs to the unit would generally be funded by O&M while replacement would be a capital project.

2. Asset Information

Plainwell's asset indices include three wells, one 750,000 gallon water tower, water mains, valves, hydrants, service lines, meters and a Supervisory Control and Data Acquisition (SCADA) system which operates wells to control the water level in the water tower. Head pressure generated by the water tower level provides water pressure of, nominally, 62 psi. Throughout the distribution system.

a. Wells

Plainwell currently has 3 wells supplying groundwater to the storage and distribution systems. Wells #4 and #7 are located at a wellfield at 329 S. Sherwood Street and well #5 is located at 1163 W. Bridge Street. Well #4 was drilled in 1967, utilizes a 100 HP electric motor, has a 10" discharge and is controlled by a variable frequency drive that was installed in 2009. It has a rated capacity of 1500 Gallons per Minute (GPM). Well 5 was drilled in 1973, utilizes a 60 HP electric motor, has an 8" discharge and is controlled by a variable frequency drive that was installed in 2011. It has a rated capacity of 800 GPM. Well #7 was drilled in 1998, utilizes a 100 HP electric motor, has a 10" discharge and is controlled by a variable frequency drive that was installed in 2009. It has a rated capacity of 1500 GPM. Each well and its associated motor, drives and controls are considered a unit for the purposes of this AMP. The City performs water testing at the wells daily and performs any maintenance required at the wells when necessary. Peerless Midwest performs well

and motor inspections and maintenance yearly. They have been Plainwell's sole well maintenance contractor for over 15 years and recommend any large outlay maintenance needed at the wells. Only routine well maintenance has been recommended in the near future. The City also uses Fleis and VandenBrink engineering of Grand Rapids, MI as its primary civil engineer. Brian Rice, PE is currently investigating a site for a new well should it be needed in the foreseeable future.

Treatment at Plainwell wells consists of the addition of chlorine and fluoride via metering pumps. No component of the water treatment infrastructure meets the definition of an asset. Treatment components at each well will be considered a part of the well.

The useful life of wells is considered to be 50 years. Plainwell wells are inspected and tested yearly and cleaned and rebuilt as needed. The useful life of a specific well is subject to conditions. Well production efficiency over time is the primary indicator of the useful life at each well.

Table 1 – Well Asset Inventory is included in the Well Asset Criticality Table in the Attachments section.

b. Storage

Plainwell water storage consists of one 750,000 gallon elevated water tower built in 1999. Water towers in neighboring communities (Otsego Township and the City of Otsego) were designed to use the same water operating level as Plainwell and water interconnections between the systems were installed so neighboring systems can run on the water tower of the adjacent community. This redundancy was designed to provide temporary service between communities for tower maintenance work but would allow system solvency for a catastrophic failure of any one tower.

The tower was financed with a DWRF loan that will be finalized in 2019. Water tower debt service has limited additional capital projects since 2000 and the absence of that liability will allow much needed investment after the loan is paid off.

The useful life of a water tower may be 75 years, however, the condition of this high value asset is continually monitored and, with proper maintenance, the useful life may extend beyond what is predicted.

Table 2 – Tower Asset Inventory is included in the Tower Asset Criticality Table in the Attachments section.

c. Distribution

Plainwell's water distribution system is comprised of water mains, water services, hydrants, valves and associated fittings and components. Information on Plainwell's water distribution system was indexed and depicted on ESRI ArcGIS Geographic Information System (GIS) software in 2006. GIS allows lineal and point assets to be accurately mapped for visualizing the system. Data associated with these assets can be compiled and stored in tabular form in GIS. The data is linked to the city's Computerized Maintenance Management System (CMMS), Cartegraph where financial analysis can be performed. Assets information on items that are part of the water system but not suitable for indexing and depicting on GIS, including water services and meters are compiled on Cartegraph.

Cartegraph has modules for public works assets that are capable of indexing and valuing assets and computing depreciation. Beginning in 2008 DPW researched current values for selected assets, used a CIP table from the Bureau of Labor Statistics and worked backwards to determine what the value of each asset, installed, was when it was first put in. DPW did the computation for lineal asset according to parameters such as size and length and for point assets according to parameters such as size. Cartegraph did a depreciation computation on each individual unit which included size and length, amalgamated individual units and provided numbers for the amalgamated asset as a whole. DPW does not index water fittings such as tees, crosses, reducers, bends, etc. We assumed that fitting values equaled 5% of water main values. All numbers used for valuing assets were collected in 2008 and depreciation was applied for subsequent years.

Water main system segments are based on water main from valve to valve, loosely based on city blocks. For the purposes of this plan Plainwell assumes that valves and hydrants have the same expected lifespan, probability of failure and consequence of failure as the water main they are associated with.

The useful life of distribution componentry in Plainwell is approximately 75 years. The useful life of cast iron pipe in Plainwell may extend beyond 75 years. The Department experienced a reduction in water main breaks after installing Variable Frequency Drives at all wells allowing factors other than age to dictate water main replacement schedules.

Table 3 – Water Main Segment Inventory is included in the Water Main Asset Criticality Table in the Attachments section.

d. Meters

The City has three wells, each with its own meter for measuring source water pumped into the distribution system. The Plainwell DPW recently found the water meter at Well #4 to be inaccurate by close to thirty percent. The City has been working with its engineering firm to determine the best way to address the problem and plans to correct the errant meter in 2018.

Meters measuring water customer consumption in Plainwell's system employ two components; the meter itself and a reader accessible from outside the building. Plainwell changed from inside read meters to meters with an outside reader in the early 1990s. Since then meters have been changed out, primarily, when they fail. Periodically a list of meters with high numbers on their registers is generated and those meters are scheduled to be changed. In 2012 ten meters were pulled and sent to the manufacturer for accuracy testing. Eight meters were within specified accuracy, one was .8% outside specified accuracy and one did not register on low flow but was within specified accuracy at other flows.

Meters are read quarterly but billed monthly. Actual water meter readings are subjected to computations by billing software that produce estimates for the two months water meters are not read. On the month the water meters are read again another computation adjusts the bill to correct for estimating errors. There are several problems associated with Plainwell's policy of quarterly meter reading and monthly billing. If a water customer develops a leak in household plumbing early in the read cycle it can be 90 days before it is discovered. That scenario produces a high water bill for the customer and a public relations problem for the

City. Also, computations performed by the billing software Plainwell uses manipulate gallons metered to adjust bills. The manipulated meter readings can't be compared to actual water pumped to determine system water loss. Attempts to do just that have been tried in the past yielding confusing results.

Included in year 2019-2020 of Plainwell's twenty year Capital Improvement Plan is an Automatic Meter Reading system including all new residential and commercial meters. That system will allow monthly reading and billing based on actual meter consumption and will eliminate the problems detailed above.

In the past the useful life of water meters was considered to be approximately 20 years. New materials and designs introduced in the last 25 years have extended the accuracy of meters beyond what was previously expected. The cost of a system wide meter change out is substantial so loss of accuracy becomes a cost/benefit analysis. In Plainwell, however, the factors listed above make a system wide meter replacement program with new technology a priority.

Table 4- Water source meters, customer community meters and commercial meters over 1 ½" are included in the Water Meter Asset Criticality Table in the Attachments section. Residential and Commercial meters less than 2" are not considered capital assets.

e. SCADA

Plainwell employed a local controls contractor, Perceptive Controls of Plainwell, to build its current SCADA system in 2007. A new computer and a software upgrade were performed in 2015.

The SCADA system uses a FCC assigned radio frequency to transmit data for monitoring and controlling wells to provide sufficient water column height to attain 60-80 psi. water pressure at the customer's meter. The system commands well pumps, carries water column height data, well operation information and alarms operators if there is any number of failures in the system.

Plainwell installed a SCADA system in 1999 and replaced that system in 2007**.** In 2014 Plainwell replaced the computer that runs the system and installed updated software. The life expectancy of some of the other componentry of the present SCADA system seems unpredictable, however, the present SCADA system has been operating for 10 years and we believe it will still be in service for another 10 years.

Table 5-SCADA Asset Criticality Table

B. Asset Data Management and Maintenance

Asset data is managed by the Superintendent of Public Works and his staff using ArcGIS and Cartegraph software. Information Technology services are provided by Clark Technical Services.

III. Criticality Assessment

The criticality assessment performed on Plainwell's assets rated two risk factors; the probability of a failure (PoF) occurring and the consequences of the failure (CoF) if it were to occur. Plainwell used a 1-5 scale for PoF and CoF and these two key risk factors were multiplied as a means of measuring the criticality of each asset. PoF rating for wells was based on yearly testing by our maintenance contractor and time since last clean/rebuild. CoF for wells was based on production capability. PoF for storage was based on monitoring reports by Plainwell's tower engineering firm. CoF for storage was based on redundancy which exists on a temporary, not permanent basis. PoF for distribution was based on water main material, age and history of failure. CoF was based on location, interconnectivity and type of customer served. Again, water system segments are based on water main from valve to valve, loosely based on city blocks. For the purposes of this plan Plainwell assumes that valves and hydrants have the same expected lifespan, probability of failure and consequence of failure as the water main they are associated with.

$$\boldsymbol{Asset\ Criticallity} = \boldsymbol{CoF} \times \boldsymbol{PoF}$$

Criticality ratings are included in Asset Criticality Tables in the Attachments.

IV. Level of Service

	Regulatory	
		Meet all federal and state drinking water standards
		Meet all federal and state secondary standards related to aesthetics
CUSTOMER EXPECTATIONS	Quality	Monitor the source on a monthly basis; there shall be no E. coli detected in the source waters
		Investigate all customer complaints within 2 business days of reporting the complaint
		Continually update the asset inventory and conditions of the assets
		Continually update the Level of Service and keep consistent with customer expectations
	Reliability	Limit water system disruptions to less than 8 hours
		Maintain pressures between 45 and 80 psi
		Maintain average pressures ranging from 60 to 80 psi
		Work toward keeping unaccounted for water losses at less than 10%
		Provide fire flow for 100% of the customers within the City of Plainwell
		Maintain one day of storage at all times in the system
		Flush complete water system twice yearly
		Exercise all water main valves every three years
		Notify customers 48 hours prior to scheduled shutdowns
		Repair unplanned water main shutdowns and breaks within 24 hours
		Repair service line leaks within 72 hours
	Financial	Limit non-revenue water to less than 15%
		Maintain an average water bill to less than 2% of the City of Plainwell's median household income
		Review rates periodically and raise as needed to ensure full cost recovery and future planning
		Seek alternative funding avenues for capital improvement projects when necessary
		to minimize the costs to the City of Plainwell

Plainwell meets all regulatory, quality and reliability requirements. We are presently involved in several projects designed to determine the financial viability of its rate structure.

Plainwell has historically used a simple arithmetic method to compare water pumped to water sold; water pumped was divided by water sold to yield the percentage of unaccounted for water. That computation did not take into account any water that was known to be wasted in activities such as main breaks, flushing, hydrant testing, fire-fighting or hose testing.

The City of Plainwell uses Peerless Midwest for testing and inspection services and any maintenance on its water wells. In 2014 DPW questioned the validity of the accuracy claimed for source water meters at city wells four and five. It was determined that the method of testing well meter accuracy was faulty and an

alternate method was developed which showed the well four meter to be measuring approximately 73% of the water being pumped through it. The city is currently working with its engineering firm on a project to restore accuracy to the well four source meter.

DPW also suspects that a computation done by the city's water billing software may be responsible for additional inaccuracies in data necessary for determining unaccounted for water. DPW is working with water billing which is performed by City Administration, not DPW, to generate a report comparing water pumped and metered at city wells to water metered at city customer locations. That data would accurately describe unaccounted for water. A previous attempt to generate such a report compared water pumped and metered at city wells with data from a report generated by BS&A water utility billing software. The data used on that report came from a column labeled billed usage. Data in the billed usage column is not water metered at customer locations. The data is manipulated by the water billing software for the following reasons;

Because meter reading is labor intensive the city bills for water monthly but only reads water meters quarterly. There are two months each quarter where water billed is based on estimated usage. To produce the estimate, the software averages water usage over the quarter in the year previous to the read cycle under consideration, and uses that average for both estimated months. Every time meters are read, actual meter readings are subjected a calculation to adjust for over or under estimating in the previous two months. That is the data in the billed usage column on the BS&A produced report and it does not produce a valuable comparison between water metered at the wells and water metered at the customers meter.

The City uses meter reading equipment and software produced by Sensus Meters to meter and read customer water meters. Meter readings directly from the reader, with no calculations performed, are available and that data is what is needed to be compared with water pumped and metered at city wells. Such a report would only be available quarterly, after each read cycle.

DPW is working with Plainwell City Hall Administration to collect quarterly meter data either directly from the Sensus meter reading equipment or from BS&A software, prior to any adjustments performed to correct over or under estimating on the estimated billing months. In a test using un-manipulated reads provided by City Hall Administration DPW found:

- Some accounts disappear for a period of time. Those accounts are considered "inactive". That causes a misalignment in rows that must be adjusted manually after each read if the city wants to monitor unaccounted for water over time. It remains to be seen if a report can be formatted in a way that wouldn't cause row misalignment over time or if a report can be developed to compare unaccounted for water over time.
- Account numbers in Plainwell's system are not discrete. If a customer has a sprinkling meter, for instance, both meters will have the same account number and, obviously, the meter reading will be different.
- In instances where the same account number is assigned to more than one meter the readings may be juxtaposed from one quarter to the next, according to which meter was read first.
- The first 10 numbers of the account specify a location or customer but the last two numbers may be different. This may be because the house is a rental and one number, 01 for example, may be used when the landlord pays the bill. Subsequent numbers may be for a particular renter. If a renter moves out and another moves in the new renter gets another number. That is why some of the last

two account numbers may be as high as 12. Data must be sorted to be analyzed over time and sorting also causes row misalignment from quarter to quarter.

- Data from the Sensus water meter reading equipment is downloaded to the BS&A water utility billing software when the reads have been collected by water department employees. At that time the city billing clerk runs a report that should indicate unaccounted for water. An exception report is also run to find any problem with the reads that might affect billing. After that report is run the billing clerk directs a water department employee to re-read any meter on the exception report. The billing clerk should wait until all work generated by the exception report is complete and all meters have been properly read before running the unaccounted for water report to capture all metered usage. That is not a priority for billing and is not being done as of this date.

DPW analyzed the data and realigned rows to get the proper reading in the proper rows so calculations could be done. DPW made adjustments to align accounts where the first 10 numbers were the same but the last two numbers were different.

DPW corrected juxtaposed numbers on accounts with the same number. DPW then entered formulas to analyze the data. The test data seemed reasonable at 9.52% for 2015 Q2 and 7.32% for 2015 Q3. DPW has not been successful in getting a report designed by BS&A, the water billing software provider, using the data outlined above. DPW believes that the unadjusted water meter data from the Sensus water meter reading equipment is the proper data to use in the unaccounted for water report the city seeks. The BS&A water billing database contains water meter numbers as well as water account numbers. Water meter numbers are discrete so associating water meter readings with water meter numbers as opposed to water accounts would eliminate more of the problems described in the bullet points above. Finally, waiting until all meter reading data is collected and entered before running the unaccounted for water report would produce the most accurate report and that procedure should be followed.

DPW is working with City Administration to define parameters and contract BS&A to produce a report using the inputs above. Since both water and sewer revenues are generated from water meter readings there is also value in depicting the difference, if any, between water metered at the customer's tap and water and sewer billed. There should be little variation in graphed data showing water meter reads and water and sewer bills. A check on computations used to produce bills from reads must be accomplished to assure a valid rate structure. As mentioned in Part 2c of the Asset Inventory section, the City plans to replace residential and commercial water meters in the 2019-2020 budget year with an AMR system and go to monthly reading and billing which will eliminate problems associated with quarterly meter reading.

Plainwell maintains databases of all water testing required by MDEQ, water billing, all water main and service breaks, fire hydrant testing, unaccounted for water related to system activities, valve exercising and other activities. The Department is working on a report detailing unaccounted for water and considering a rate study.

V. Capital Improvement Plan

The City of Plainwell Capital Improvement Plan (CIP) for water was developed as required by the Michigan Department of Environmental Quality (MDEQ). The plan is also included in the City's comprehensive 6 year CIP document.

The water CIP was developed to accommodate street construction, improve system hydraulics and firefighting capabilities, retire undersized water mains, and to eliminate obsolete water main materials. Additionally, substantial investments are planned to improve water metering, maintain the water tower, and to upgrade the Supervisory Control and Data Acquisition (SCADA) system and well infrastructure.

The CIP incorporates major projects suggested in the 2014 City of Plainwell Water Reliability Study performed by Fleiss and VandenBrink Engineering. Project priority was adjusted where necessary to insure that the water fund balance remained healthy.

All cost figures mentioned in the packet are in 2014 dollars.

Notable items in the CIP include bonding in 2019-2020 budget year for about $1,100,000. That money would allow the City to paint the interior of the water tower tank, relay water main on Sherwood Street from Oak to Main Street and purchase a radio read metering system. The tank painting is a big ticket item that occurs on at 15-18 year basis. The water main on Sherwood is one of the worst in the City in terms of water main breaks and this project would allow another bad section of water main on Main Street between Sherwood and First Avenue to be abandoned. The Sherwood Street Project uses Federal Small Urban funding to help pay for reconstruction of street, sidewalks, curb and gutter. Water work is scheduled to be completed prior to the paving work. The City last had a major water meter replacement project almost 25 years ago and replacing all City meters with radio read technology would allow all meters to be read monthly. That would eliminate estimated bills and enhance the accuracy of the meters which should increase revenues.

The CIP is a planning tool that is intended to guide the Department of Public Works in future budget cycles. Spending for the listed projects will be submitted for approval by Council yearly. Spending remains under the jurisdiction of Council, however, the water CIP was adopted by Council as a planning document in 2016.

The CIP was developed to allow normal utility operations, provide system improvements and maintain a healthy balance in water funds. City Treasurer Brian Kelly stated "I believe (any plan to close a funding gap between CIP costs and revenues) is not applicable as the city has no funding gap in general operations in the Water Fund and uses the Fund's reserves, as needed, to fund any major capital outlay.

Capital Improvement Plan Project Details are included in the Attachments.

VI. Revenue/Rate Structure

Required documents describing the City of Plainwell water operating budget, revenue, rate structure and legal authority for setting rates are included in Attachments. The City will retire a DWRF bond in its 2019-2020 fiscal year and is scheduled to seek DWRF financing that year to fund future projects as described in the Capital Improvement Plan section. Since the terms of that bond are unknown at this time there is some question as to how the new bond will affect the CIP going forward. When the terms of the loan are known and the source and, perhaps, customer metering issues described in the Level of Service section are resolved the City will perform a rate study to be sure rates fund operating and planned capital expenditures in the future.

Water operating budget, revenue, rate and legal authority documents are included in the Attachments.

VII. Tables

Table 1

City of Plainwell Water System Criticality Analysis 11/6/2017

Wells

ID	Location	Installed	Diameter Outflow	HP	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
4	329 S. Sherwood	1967	10	100	3	3	4	12
5	1163 W. Bridge	1973	8	60	3	3	2	6
7	329 S. Sherwood	1998	10	100	4	2	4	8

Backup Generators

ID	Location	Installed	Make	Model	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
5	1163 W. Bridge	1973	Minneapolis-Moline		4	4	2	8
7	329 S. Sherwood	1999	Caterpillar	GNTA14	2	2	5	10

Variable Frequency Drives

ID	Location	Installed	Make	Model	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
4	329 S. Sherwood	2009	Allen Bradley	Powerflex 400	1	1	4	4
5	1163 W. Bridge	2011	Allen Bradley	Powerflex 400	2	2	3	6
7	329 S. Sherwood	2009	Allen Bradley	Powerflex 400	3	3	4	12

Table 2

City of Plainwell Water System Criticality Analysis 11/6/2017

Water Storage Tower

Location	Installed	Diameter Outflow	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
935 Lincoln Parkway	1999	12	3	1	5	5

Table 3

City of Plainwell Water System Criticality Analysis 10/31/2017

Water Main Segments

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00001	12	Ductile Iron	5/15/2003	80	1	1	4	4
00002	6	Ductile Iron	11/15/2012	13	1	1	4	4
00003	12	Ductile Iron	11/15/2012	10	1	1	4	4
00004	6	Cast Iron	11/5/1966	6	3	2	2	4
00005	12	Ductile Iron	11/15/2012	222	1	1	4	4
00006	12	Ductile Iron	11/15/2012	4	1	1	5	5
00007	12	Ductile Iron	4/21/1999	3	2	2	2	4
00008	12	Ductile Iron	11/5/2004	133	1	1	3	3
00009	8	Ductile Iron	7/1/2013	136	1	1	4	4
00010	8	Ductile Iron	7/1/2013	280	1	1	4	4
00011	8	Ductile Iron	7/1/2013	13	1	1	3	3
00012	6	Ductile Iron	7/1/2013	10	1	1	1	1
00014	12	Ductile Iron	7/1/2013	21	1	1	4	4
00015	8	Ductile Iron	7/1/2013	355	1	1	4	4
00016	12	Ductile Iron	12/7/1999	81	2	2	4	8
00017	12	Ductile Iron	12/7/1999	265	2	2	4	8
00019	6	Ductile Iron	12/7/1999	3	2	2	1	2
00020	6	Ductile Iron	12/7/1999	3	2	2	1	2
00021	6	Ductile Iron	7/1/2013	12	1	1	3	3
00022	8	Ductile Iron	7/1/2013	2	1	1	4	4
00023	6	Ductile Iron	7/1/2013	34	1	1	4	4
00024	6	Cast Iron	11/5/1973	176	3	2	2	4
00025	6	Cast Iron	11/5/1973	12	3	2	2	4
00026	6	Cast Iron	11/5/1955	20	4	2	2	4
00027	6	Cast Iron	11/5/1955	3	4	2	1	2
00028	6	Asbestos Concrete	11/5/1955	318	4	2	2	4
00029	6	Asbestos Concrete	11/5/1960	21	4	2	2	4
00030	6	Asbestos Concrete	11/5/1966	3	4	2	2	4
00031	6	Asbestos Concrete	11/5/1966	3	4	2	1	2
00032	10	Cast Iron	11/5/1966	5	2	2	3	6
00033	10	Cast Iron	11/5/1966	10	2	2	3	6
00034	10	Cast Iron	11/5/1966	242	2	3	5	15
00035	10	Cast Iron	11/5/1966	8	2	3	5	15
00036	12	Ductile Iron	11/5/1999	31	2	2	3	6
00037	12	Ductile Iron	11/5/1999	89	2	2	3	6

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00038	12	Ductile Iron	11/5/1999	5	2	2	4	8
00039	12	Ductile Iron	11/5/1999	5	2	2	4	8
00040	12	Ductile Iron	11/5/1999	23	2	1	4	4
00041	6	Ductile Iron	11/5/1999	5	2	2	1	2
00042	6	Ductile Iron	11/5/1999	5	2	2	1	2
00043	12	Ductile Iron	11/5/1999	10	2	1	4	4
00044	12	Ductile Iron	11/5/1999	168	2	1	4	4
00045	12	Ductile Iron	11/5/1999	28	2	1	4	4
00046	12	Ductile Iron	11/5/1999	5	2	1	4	4
00047	12	Ductile Iron	11/5/1999	5	2	1	4	4
00048	12	Ductile Iron	11/5/1999	61	2	1	4	4
00049	12	Ductile Iron	11/5/1999	5	2	1	4	4
00050	12	Ductile Iron	11/5/1999	211	2	1	4	4
00051	12	Ductile Iron	11/5/1999	5	2	1	4	4
00052	8	Ductile Iron	11/5/1966	15	2	1	4	4
00053	12	Ductile Iron	11/5/1999	5	2	1	4	4
00054	8	Cast Iron	11/5/1966	26	3	1	4	4
00055	12	Ductile Iron	11/5/1999	60	2	1	4	4
00056	6	Ductile Iron	11/5/1999	5	2	1	1	1
00057	6	Ductile Iron	11/5/1999	6	2	1	1	1
00058	8	Cast Iron	11/5/1966	528	3	2	2	4
00059	6	Cast Iron	11/5/1966	6	3	2	2	4
00060	8	Cast Iron	11/5/1966	16	3	2	2	4
00061	10	Cast Iron	11/5/1966	10	3	2	2	4
00062	10	Cast Iron	11/5/1966	5	3	2	2	4
00063	10	Cast Iron	11/5/1966	8	3	2	2	4
00064	10	Cast Iron	11/5/1966	393	3	2	2	4
00065	10	Cast Iron	11/5/1966	4	2	2	3	6
00066	10	Cast Iron	11/5/1966	322	3	2	2	4
00067	10	Cast Iron	11/5/1966	6	3	2	2	4
00068	10	Cast Iron	11/5/1966	6	3	2	2	4
00069	6	Cast Iron	11/5/1966	6	3	2	2	4
00070	6	Cast Iron	11/5/1966	18	3	2	2	4
00071	6	Cast Iron	11/5/1966	2	3	2	2	4
00072	6	Cast Iron	11/5/1966	6	3	2	1	2
00073	6	Cast Iron	11/5/1966	554	3	2	2	4
00074	10	Cast Iron	11/5/1966	302	3	3	2	6
00075	10	Cast Iron	11/5/1966	222	3	2	2	4
00075	10	Cast Iron	11/5/1966	12	0	0	0	0
00076	10	Cast Iron	11/5/2013	5	1	1	2	2

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00077	6	Cast Iron	11/5/1966	6	3	2	2	4
00078	6	Cast Iron	11/5/1966	40	3	2	2	4
00079	6	Cast Iron	11/5/2004	26	1	1	2	2
00080	6	Cast Iron	11/5/2004	2	1	1	1	1
00081	12	Ductile Iron	11/5/1999	894	2	1	4	4
00082	6	Ductile Iron	11/5/1999	20	2	0	0	0
00083	6	Ductile Iron	11/5/1999	10	2	0	0	0
00084	12	Ductile Iron	11/5/1999	460	2	1	4	4
00085	12	Ductile Iron	11/5/1999	22	1	1	4	4
00086	12	Ductile Iron	11/5/1999	25	1	1	4	4
00087	12	Ductile Iron	11/5/1999	32	1	1	4	4
00088	12	Ductile Iron	11/5/1999	25	1	1	4	4
00089	6	Ductile Iron	11/5/1999	20	1	1	1	1
00090	6	Ductile Iron	11/5/1999	18	1	1	1	1
00091	12	Plastic	11/5/1999	420	1	1	5	5
00092	12	Ductile Iron	11/5/1999	5	1	1	4	4
00093	12	Ductile Iron	4/21/1999	5	1	1	4	4
00094	12	Ductile Iron	4/21/1999	5	1	1	4	4
00095	12	Ductile Iron	4/21/1999	210	1	1	1	1
00096	6	Ductile Iron	4/21/1999	1	1	1	1	1
00097	12	Ductile Iron	4/21/1999	70	1	1	2	2
00098	6	Cast Iron	11/5/1999	20	1	1	1	1
00099	6	Cast Iron	11/5/1999	3	1	1	1	1
00100	12	Ductile Iron	4/21/1999	173	2	2	2	4
00101	12	Ductile Iron	11/5/1999	3	1	1	5	5
00102	6	Cast Iron	4/21/1961	6	1	1	5	5
00103	6	Cast Iron	4/21/1961	24	3	3	2	6
00104	6	Cast Iron	11/5/1961	3	3	3	1	3
00105	6	Cast Iron	11/5/1961	3	3	3	1	3
00106	6	Cast Iron	4/21/1961	286	3	3	2	6
00107	6	Cast Iron	4/21/1961	5	3	3	2	6
00108	6	Cast Iron	4/21/1961	91	3	3	2	6
00109	6	Cast Iron	4/21/1961	20	3	3	2	6
00110	6	Cast Iron	11/5/1961	6	3	3	1	3
00111	6	Cast Iron	11/5/1961	5	3	3	1	3
00112	6	Cast Iron	4/21/1961	3	3	3	2	6
00113	6	Cast Iron	4/21/1961	10	3	3	2	6
00114	6	Cast Iron	4/21/1961	248	3	3	2	6
00115	8	Cast Iron	4/21/1961	216	3	3	2	6
00116	8	Cast Iron	4/21/1961	3	3	3	2	6

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00117	6	Cast Iron	11/5/1961	9	3	3	1	3
00118	6	Cast Iron	11/5/1961	3	3	3	1	3
00119	8	Cast Iron	4/21/1961	69	3	3	2	6
00120	8	Cast Iron	4/21/1961	284	3	3	2	6
00121	6	Cast Iron	11/5/1961	9	3	3	1	3
00122	6	Cast Iron	11/5/1961	3	3	3	1	3
00123	8	Cast Iron	4/21/1961	2	3	3	1	3
00124	8	Cast Iron	11/5/1965	3	3	3	2	6
00125	8	Cast Iron	4/21/1961	318	3	3	2	6
00126	6	Cast Iron	11/5/1961	7	3	3	1	3
00127	6	Cast Iron	11/5/1961	6	3	3	1	3
00128	8	Cast Iron	4/21/1961	15	3	3	2	6
00129	6	Cast Iron	11/5/1961	3	3	3	2	6
00130	8	Cast Iron	4/21/1961	303	3	3	2	6
00131	8	Ductile Iron	11/15/2012	22	1	1	2	2
00132	8	Ductile Iron	7/1/2013	24	1	1	4	4
00133	6	Ductile Iron	7/1/2013	3	1	1	1	1
00134	6	Ductile Iron	7/1/2013	18	1	1	1	1
00135	6	Asbestos Concrete	11/5/1954	582	4	3	1	3
00136	8	Ductile Iron	11/5/1998	91	1	1	1	1
00137	8	Ductile Iron	11/5/1998	41	1	1	1	1
00138	2	Copper	11/5/1998	71	1	1	1	1
00139	8	Ductile Iron	11/5/1998	85	1	1	1	1
00140	6	Ductile Iron	11/5/1998	3	1	1	1	1
00141	6	Cast Iron	11/5/1998	3	1	1	1	1
00142	10	Cast Iron	11/5/1967	10	2	3	5	15
00143	10	Cast Iron	11/5/1967	50	2	3	5	15
00144	6	Cast Iron	11/5/1954	3	0	0	0	0
00145	6	Cast Iron	11/5/1954	3	0	0	0	0
00146	12	Ductile Iron	11/5/1998	326	2	2	4	8
00147	12	Ductile Iron	11/5/1998	108	2	2	4	8
00148	12	Ductile Iron	11/5/1998	3	2	2	4	8
00149	12	Ductile Iron	11/5/1998	3	2	2	4	8
00150	6	Ductile Iron	11/5/1998	3	2	0	0	0
00151	12	Ductile Iron	11/5/1998	108	2	2	4	8
00152	6	Ductile Iron	11/5/1998	3	2	2	1	2
00153	6	Ductile Iron	11/5/1998	3	2	2	1	2
00154	12	Ductile Iron	11/5/1998	3	2	1	4	4
00155	12	Ductile Iron	11/5/1998	416	2	2	4	8
00156	12	Ductile Iron	11/5/2004	7	1	1	4	4

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00157	6	Ductile Iron	7/1/2013	12	1	1	4	4
00159	6	Ductile Iron	4/21/1999	5	1	1	1	1
00160	6	Ductile Iron	7/1/2013	10	1	1	4	4
00161	8	Ductile Iron	7/1/2013	24	1	1	4	4
00162	6	Cast Iron	11/5/1966	5	3	2	1	2
00163	12	Cast Iron	12/1/2001	15	0	0	0	0
00164	6	Cast Iron	12/1/2001	3	0	0	0	0
00165	6	Cast Iron	12/1/2001	6	0	0	0	0
00166	12	Ductile Iron	12/1/2001	440	1	1	3	3
00167	6	Cast Iron	8/4/1999	8	2	2	3	6
00168	6	Cast Iron	8/4/1999	8	2	2	1	2
00169	12	Ductile Iron	12/1/2001	466	1	1	3	3
00170	6	Cast Iron	8/4/1999	21	2	2	2	4
00171	6	Cast Iron	8/4/1999	2	2	2	1	2
00172	12	Cast Iron	8/4/1999	7	2	2	2	4
00173	6	Cast Iron	8/4/1999	210	2	2	2	4
00174	6	Cast Iron	8/4/1999	10	2	2	1	2
00175	12	Cast Iron	8/4/1999	280	2	2	2	4
00176	6	Cast Iron	8/4/1999	34	0	0	0	0
00177	6	Cast Iron	8/4/1999	3	0	0	0	0
00178	6	Cast Iron	8/4/1999	3	0	0	0	0
00179	6	Cast Iron	8/4/1999	570	0	0	0	0
00180	6	Cast Iron	8/4/1999	6	0	0	0	0
00181	12	Cast Iron	8/4/1999	774	2	2	2	4
00182	12	Cast Iron	12/3/1985	12	2	2	2	4
00183	12	Cast Iron	12/3/1985	14	2	2	2	4
00184	12	Cast Iron	12/3/1985	70	2	2	2	4
00185	6	Cast Iron	12/3/1985	21	2	2	2	4
00186	6	Cast Iron	12/3/1985	7	2	2	1	2
00187	12	Cast Iron	12/3/1985	500	2	2	2	4
00188	6	Cast Iron	12/3/1985	20	2	2	2	4
00189	6	Cast Iron	12/3/1985	7	2	2	1	2
00190	12	Cast Iron	12/3/1985	394	2	2	4	8
00191	12	Cast Iron	12/3/1985	25	2	2	2	4
00192	10	Ductile Iron	12/3/1975	620	2	2	3	6
00193	10	Ductile Iron	12/3/1975	24	2	2	3	6
00194	6	Ductile Iron	12/3/1975	17	2	2	3	6
00195	6	Ductile Iron	12/3/1975	79	2	2	3	6
00196	6	Ductile Iron	12/3/1975	20	2	2	3	6
00197	6	Ductile Iron	12/3/1975	18	2	2	1	2

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00198	6	Ductile Iron	12/3/1975	48	2	2	3	6
00199	6	Ductile Iron	12/3/1975	13	2	2	4	8
00200	10	Ductile Iron	12/3/1975	455	2	2	3	6
00201	10	Ductile Iron	12/3/1975	26	2	2	3	6
00202	10	Ductile Iron	12/3/1980	37	2	2	3	6
00203	10	Ductile Iron	12/3/1975	321	2	2	2	4
00204	4	Ductile Iron	12/3/1980	220	2	2	2	4
00205	6	Ductile Iron	12/3/1980	50	2	2	2	4
00206	6	Ductile Iron	12/3/1980	6	2	0	0	0
00207	6	Ductile Iron	12/3/1980	5	2	0	0	0
00208	6	Ductile Iron	12/3/1980	184	2	2	1	2
00209	6	Ductile Iron	12/3/1956	122	2	2	2	4
00210	6	Asbestos Concrete	12/3/1956	7	4	2	2	4
00211	6	Asbestos Concrete	12/3/1956	5	4	2	2	4
00212	6	Asbestos Concrete	12/3/1956	5	4	2	1	2
00213	6	Asbestos Concrete	12/3/1956	10	4	2	2	4
00214	6	Asbestos Concrete	12/3/1956	421	4	2	2	4
00215	6	Cast Iron	12/8/1950	3	2	2	2	4
00216	6	Asbestos Concrete	12/3/1956	5	4	2	2	4
00218	6	Asbestos Concrete	12/3/1956	18	4	2	2	4
00219	6	Asbestos Concrete	12/3/1956	581	4	2	2	4
00220	6	Asbestos Concrete	12/3/1956	52	4	2	2	4
00221	6	Ductile Iron	11/20/2015	7	1	1	2	2
00222	6	Ductile Iron	11/20/2015	19	1	1	1	1
00223	6	Asbestos Concrete	12/3/1956	212	4	2	2	4
00224	6	Asbestos Concrete	12/3/1956	352	4	2	2	4
00225	6	Asbestos Concrete	12/3/1956	5	4	2	2	4
00226	6	Asbestos Concrete	12/3/1956	33	4	2	2	4
00227	6	Asbestos Concrete	12/3/1956	145	4	2	2	4
00228	6	Asbestos Concrete	12/3/1956	5	4	2	1	2
00229	6	Asbestos Concrete	12/3/1956	175	4	2	2	4
00230	6	Asbestos Concrete	12/3/1956	430	4	2	2	4
00231	6	Asbestos Concrete	12/3/1947	330	4	2	2	4
00232	6	Asbestos Concrete	12/3/1959	12	4	2	3	6
00233	8	Ductile Iron	12/3/1992	190	2	2	2	4
00234	8	Ductile Iron	12/3/1992	6	2	2	3	6
00235	8	Ductile Iron	12/3/1992	175	2	2	3	6
00236	6	Ductile Iron	12/3/1992	5	2	2	2	4
00237	6	Ductile Iron	12/3/1992	3	2	2	1	2
00238	8	Ductile Iron	12/3/1992	15	2	2	2	4

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00239	8	Ductile Iron	12/3/1992	5	2	2	2	4
00240	8	Ductile Iron	12/3/1992	5	2	2	2	4
00241	8	Ductile Iron	12/3/1992	427	2	2	2	4
00242	8	Ductile Iron	12/3/1992	26	2	2	2	4
00243	6	Cast Iron	12/3/1959	10	3	2	2	4
00244	6	Cast Iron	12/3/1959	5	3	2	2	4
00245	6	Cast Iron	12/3/1959	5	3	2	1	2
00246	6	Cast Iron	12/3/1959	248	3	2	2	4
00247	6	Cast Iron	12/3/1959	3	0	0	0	0
00248	6	Cast Iron	12/3/1959	3	0	0	0	0
00249	6	Cast Iron	12/3/1959	160	3	2	2	4
00250	6	Cast Iron	12/3/1959	5	3	2	2	4
00251	6	Cast Iron	12/3/1959	18	3	2	1	2
00252	6	Cast Iron	12/3/1959	46	3	2	3	6
00253	6	Cast Iron	12/3/1959	5	0	0	0	0
00254	6	Asbestos Concrete	12/3/1959	314	4	2	3	6
00255	6	Asbestos Concrete	12/3/1959	5	4	2	3	6
00256	6	Asbestos Concrete	12/3/1959	18	4	2	1	2
00257	6	Asbestos Concrete	12/3/1959	41	4	2	3	6
00258	6	Asbestos Concrete	12/3/1959	53	4	2	3	6
00259	6	Asbestos Concrete	12/3/1959	305	4	2	3	6
00260	6	Ductile Iron	11/15/2012	25	1	1	4	4
00261	12	Ductile Iron	11/15/2012	104	1	1	4	4
00263	12	Ductile Iron	11/15/2012	5	1	1	4	4
00264	6	Ductile Iron	11/15/2012	13	1	1	4	4
00265	6	Ductile Iron	11/15/2012	3	1	1	2	2
00266	6	Ductile Iron	11/15/2012	58	1	1	4	4
00267	12	Ductile Iron	11/15/2012	10	1	1	4	4
00268	6	Ductile Iron	11/15/2012	19	1	1	4	4
00269	12	Ductile Iron	11/15/2012	37	1	1	4	4
00270	12	Ductile Iron	11/15/2012	12	1	1	4	4
00271	12	Ductile Iron	11/15/2012	66	1	1	2	2
00273	6	Ductile Iron	11/15/2012	5	1	1	2	2
00274	12	Ductile Iron	11/15/2012	94	1	1	2	2
00275	12	Ductile Iron	11/15/2012	10	1	1	2	2
00276	6	Ductile Iron	11/15/2012	81	1	1	4	4
00278	6	Cast Iron	12/3/1961	3	2	2	2	4
00279	6	Cast Iron	12/3/1961	3	2	2	2	4
00280	6	Cast Iron	12/3/1961	4	2	2	1	2
00281	6	Cast Iron	12/3/1961	5	2	2	2	4

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00282	6	Cast Iron	12/3/1961	296	2	2	2	4
00283	6	Cast Iron	12/3/1961	5	2	2	2	4
00284	6	Cast Iron	12/3/1961	39	2	2	2	4
00285	6	Cast Iron	12/3/1961	3	2	2	2	4
00286	6	Cast Iron	12/3/1961	18	2	2	2	4
00287	6	Cast Iron	12/3/1961	475	2	2	2	4
00288	12	Ductile Iron	11/15/2012	200	1	1	4	4
00289	6	Ductile Iron	11/15/2012	35	1	1	4	4
00290	6	Ductile Iron	11/15/2012	14	1	1	4	4
00291	6	Ductile Iron	11/15/2012	9	1	1	3	3
00292	6	Ductile Iron	11/15/2012	10	1	1	4	4
00293	6	Asbestos Concrete	12/3/1959	273	4	2	2	4
00294	8	Ductile Iron	12/1/1985	14	2	2	3	6
00296	6	Ductile Iron	12/1/1986	3	2	2	2	4
00297	6	Ductile Iron	12/1/1986	3	2	2	2	4
00298	12	Ductile Iron	11/15/2012	41	1	1	4	4
00299	12	Ductile Iron	11/15/2012	34	1	1	4	4
00300	12	Ductile Iron	11/15/2012	138	1	1	4	4
00301	6	Ductile Iron	11/15/2012	44	1	1	4	4
00306	4	Ductile Iron	12/3/1985	300	2	2	3	6
00310	10	Ductile Iron	12/4/1975	248	2	2	2	4
00311	6	Ductile Iron	12/4/1975	5	2	2	2	4
00312	6	Ductile Iron	12/4/1975	10	2	2	1	2
00313	8	Ductile Iron	11/15/2012	29	1	1	2	2
00314	8	Ductile Iron	12/1/2002	241	1	2	2	4
00315	6	Ductile Iron	12/1/2002	8	1	2	2	4
00316	6	Ductile Iron	12/1/2002	3	1	2	1	2
00317	8	Ductile Iron	12/3/1969	2	2	0	0	0
00318	8	Ductile Iron	12/1/2002	129	1	2	2	4
00319	8	Ductile Iron	12/1/1979	329	2	2	2	4
00320	6	Ductile Iron	12/3/1979	5	2	2	2	4
00321	6	Ductile Iron	12/3/1979	3	2	2	2	4
00322	8	Ductile Iron	12/3/1979	219	2	2	2	4
00323	8	Ductile Iron	12/3/1979	150	2	2	2	4
00324	8	Ductile Iron	12/3/1979	130	2	2	2	4
00325	6	Ductile Iron	12/3/1979	3	2	2	2	4
00326	6	Ductile Iron	12/3/1979	3	2	2	1	2
00327	8	Ductile Iron	12/1/1985	12	2	2	2	4
00328	10	Ductile Iron	12/4/1975	235	2	2	2	4
00329	10	Ductile Iron	12/4/1975	600	2	2	3	6

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00330	6	Ductile Iron	12/3/1980	33	2	2	2	4
00331	6	Ductile Iron	12/3/1980	133	2	2	2	4
00332	10	Ductile Iron	12/3/1980	271	2	2	3	6
00333	10	Ductile Iron	12/3/1975	24	2	2	2	4
00334	10	Ductile Iron	12/3/1975	65	2	2	2	4
00335	8	Cast Iron	12/8/1967	3	3	3	2	6
00336	8	Cast Iron	12/8/1967	3	3	3	2	6
00337	8	Cast Iron	12/8/1967	3	3	3	2	6
00338	8	Cast Iron	12/8/1967	60	3	3	2	6
00339	6	Cast Iron	12/8/1967	6	0	0	0	0
00340	8	Cast Iron	12/8/1967	3	0	0	0	0
00341	8	Cast Iron	12/8/1967	475	3	3	2	6
00342	6	Cast Iron	12/8/1967	12	3	3	2	6
00343	6	Cast Iron	12/8/1967	19	3	3	0	0
00344	8	Cast Iron	12/8/1959	69	3	3	2	6
00345	6	Asbestos Concrete	12/4/1956	3	4	3	2	6
00346	8	Cast Iron	12/8/1959	12	3	3	2	6
00347	8	Asbestos Concrete	12/8/1959	8	4	3	2	6
00348	8	Cast Iron	12/8/1959	30	3	3	2	6
00349	8	Asbestos Concrete	12/4/1957	513	4	3	0	0
00350	6	Cast Iron	12/4/1974	1	0	3	0	0
00351	8	Asbestos Concrete	12/4/1957	38	4	3	0	0
00352	8	Asbestos Concrete	12/4/1957	28	4	3	0	0
00353	6	Asbestos Concrete	12/4/1957	3	4	3	0	0
00354	6	Asbestos Concrete	12/4/1957	3	4	3	0	0
00355	8	Asbestos Concrete	12/4/1957	767	4	3	2	6
00356	8	Ductile Iron	12/4/1988	3	2	2	2	4
00357	8	Ductile Iron	12/4/1988	15	2	2	2	4
00358	8	Ductile Iron	12/4/1988	35	2	2	2	4
00359	12	Ductile Iron	12/4/1988	617	2	2	2	4
00360	6	Ductile Iron	12/4/1988	3	2	2	2	4
00361	6	Ductile Iron	12/4/1988	4	2	2	1	2
00362	6	Ductile Iron	12/4/1988	3	2	2	2	4
00363	12	Ductile Iron	12/4/1988	657	2	2	2	4
00364	12	Ductile Iron	12/4/1988	5	2	2	2	4
00365	12	Ductile Iron	12/4/1988	6	2	2	2	4
00366	12	Ductile Iron	12/4/1988	3	2	2	2	4
00367	6	Ductile Iron	12/4/1988	3	2	2	2	4
00368	6	Ductile Iron	12/4/1988	3	2	2	1	2
00369	12	Ductile Iron	12/4/1989	885	2	2	2	4

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00370	6	Ductile Iron	12/4/1989	6	2	2	2	4
00371	6	Ductile Iron	12/4/1989	6	2	2	1	2
00372	12	Ductile Iron	12/4/1989	10	2	2	2	4
00373	12	Ductile Iron	12/4/1989	774	2	2	2	4
00374	12	Ductile Iron	12/4/1989	6	2	2	3	6
00375	8	Ductile Iron	12/4/2004	16	2	2	3	6
00376	12	Ductile Iron	12/4/1989	329	2	2	3	6
00377	12	Ductile Iron	12/4/1989	3	2	2	3	6
00378	12	Ductile Iron	12/4/1993	3	2	2	3	6
00379	6	Ductile Iron	10/5/1973	11	2	2	2	4
00380	12	Ductile Iron	12/4/1993	3	2	2	3	6
00381	6	Ductile Iron	10/5/1973	40	2	2	2	4
00382	6	Ductile Iron	10/5/1973	205	2	2	2	4
00383	8	Ductile Iron	12/4/1993	26	2	2	3	6
00384	12	Ductile Iron	12/4/1989	29	2	2	3	6
00385	12	Ductile Iron	12/4/1989	3	2	2	3	6
00386	6	Ductile Iron	10/5/1973	17	2	2	2	4
00387	6	Cast Iron	12/1/1963	114	2	2	2	4
00388	12	Ductile Iron	12/4/1989	577	2	2	3	6
00389	6	Ductile Iron	12/4/1989	3	2	2	3	6
00390	6	Ductile Iron	12/4/1989	14	2	2	2	4
00391	12	Ductile Iron	12/4/1989	5	2	2	3	6
00392	10	Cast Iron	9/30/1975	6	2	2	2	4
00393	6	Cast Iron	10/30/1975	4	2	2	2	4
00394	6	Cast Iron	10/30/1975	5	2	2	1	2
00395	12	Ductile Iron	12/1/1993	109	2	2	3	6
00396	10	Cast Iron	10/30/1975	157	2	2	3	6
00397	10	Cast Iron	10/30/1975	11	2	2	3	6
00398	10	Cast Iron	10/30/1975	26	2	2	3	6
00399	10	Cast Iron	12/4/1959	396	3	2	3	6
00400	10	Cast Iron	12/4/1959	3	3	2	3	6
00401	6	Ductile Iron	12/4/1959	4	2	2	3	6
00402	10	Cast Iron	12/4/1959	4	3	2	3	6
00403	12	Ductile Iron	12/7/1998	72	2	1	3	3
00404	6	Ductile Iron	12/7/1998	3	2	1	3	3
00405	6	Ductile Iron	12/7/1998	4	2	1	3	3
00406	12	Ductile Iron	12/7/1998	256	2	1	3	3
00407	6	Ductile Iron	12/7/1998	3	2	1	3	3
00408	6	Ductile Iron	12/7/1998	3	2	1	3	3
00409	12	Ductile Iron	12/7/1998	7	2	1	3	3

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00410	12	Ductile Iron	12/7/1998	394	2	1	3	3
00411	12	Ductile Iron	12/7/1998	3	2	2	2	4
00412	8	Ductile Iron	12/7/1998	8	2	2	2	4
00413	12	Ductile Iron	12/7/1998	8	2	2	2	4
00414	6	Ductile Iron	12/7/1998	3	2	2	1	2
00415	12	Ductile Iron	12/7/1998	27	2	2	2	4
00416	6	Ductile Iron	12/7/1998	9	2	2	1	2
00417	12	Ductile Iron	12/7/1998	208	2	1	3	3
00418	6	Ductile Iron	12/7/1998	53	2	0	0	0
00419	6	Ductile Iron	12/7/1998	35	2	0	0	0
00420	12	Ductile Iron	12/7/1998	102	2	1	3	3
00421	8	Cast Iron	12/4/1959	271	3	3	2	6
00422	6	Ductile Iron	6/1/2017	9	1	1	1	1
00423	6	Ductile Iron	6/1/2017	3	1	1	1	1
00424	8	Cast Iron	12/7/1959	23	3	3	1	3
00425	4	Cast Iron	12/7/1959	19	3	3	1	3
00426	4	Cast Iron	12/7/1959	6	3	3	3	9
00427	8	Cast Iron	12/4/1959	10	3	3	2	6
00428	6	Cast Iron	12/7/1959	12	3	3	2	6
00429	6	Cast Iron	12/7/1959	3	3	3	1	3
00430	8	Cast Iron	12/7/1959	3	3	3	2	6
00431	8	Cast Iron	12/7/1959	45	3	3	2	6
00432	6	Cast Iron	5/8/1965	30	3	3	2	6
00433	6	Cast Iron	5/8/1965	288	2	3	2	6
00434	6	Cast Iron	5/8/1965	7	2	2	2	4
00435	6	Cast Iron	5/8/1965	76	3	3	2	6
00436	6	Cast Iron	5/8/1965	7	2	2	1	2
00437	6	Cast Iron	12/8/1961	56	3	3	2	6
00438	6	Cast Iron	5/8/1965	20	3	3	2	6
00439	6	Cast Iron	5/8/1965	351	3	3	2	6
00440	6	Cast Iron	5/8/1965	13	3	3	2	6
00441	6	Cast Iron	5/8/1965	3	3	3	1	3
00442	6	Cast Iron	5/8/1965	5	3	3	2	6
00443	4	Ductile Iron	12/7/1998	737	2	2	2	4
00444	6	Cast Iron	5/8/1965	3	3	2	3	6
00445	6	Cast Iron	5/8/1965	5	3	2	3	6
00446	10	Cast Iron	12/4/1959	14	3	2	3	6
00447	10	Cast Iron	12/4/1959	10	3	2	3	6
00448	6	Cast Iron	12/4/1959	3	3	2	3	6
00449	6	Cast Iron	12/4/1959	3	3	2	1	2

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00450	10	Cast Iron	12/4/1959	21	3	2	3	6
00451	6	Cast Iron	12/4/1959	45	3	2	3	6
00452	10	Cast Iron	12/4/1959	8	3	2	3	6
00453	6	Cast Iron	5/8/1965	12	3	2	3	6
00454	6	Cast Iron	5/8/1965	17	0	0	0	0
00455	10	Cast Iron	12/4/1959	24	3	2	3	6
00456	6	Cast Iron	12/4/1959	3	3	2	3	6
00457	6	Cast Iron	12/4/1959	3	3	2	1	2
00458	10	Cast Iron	12/4/1959	273	3	2	3	6
00459	6	Asbestos Concrete	12/7/1954	396	4	2	2	4
00460	6	Asbestos Concrete	12/7/1954	3	4	2	1	2
00461	6	Asbestos Concrete	12/7/1954	3	4	2	2	4
00462	6	Asbestos Concrete	12/7/1954	334	4	2	2	4
00463	6	Asbestos Concrete	12/7/1954	12	4	2	2	4
00464	6	Cast Iron	5/8/1965	60	2	2	2	4
00465	6	Cast Iron	5/8/1965	3	2	2	2	4
00466	6	Cast Iron	5/8/1965	3	2	2	2	4
00467	6	Cast Iron	5/8/1965	13	2	2	1	2
00468	6	Cast Iron	5/8/1965	328	3	2	2	4
00469	6	Cast Iron	5/8/1965	3	2	2	2	4
00470	6	Asbestos Concrete	12/1/1948	32	4	2	2	4
00471	6	Asbestos Concrete	12/7/1948	8	2	2	2	4
00472	6	Cast Iron	12/8/1975	210	2	2	2	4
00473	6	Cast Iron	12/8/1975	73	2	2	2	4
00474	6	Cast Iron	12/8/1975	3	2	2	1	2
00475	6	Asbestos Concrete	12/1/1948	3	4	2	2	4
00476	6	Asbestos Concrete	12/7/1954	2	4	2	2	4
00477	6	Cast Iron	5/8/1965	46	2	2	2	4
00478	6	Cast Iron	12/8/1961	19	2	2	2	4
00479	6	Cast Iron	12/8/1961	3	2	2	2	4
00480	6	Cast Iron	12/8/1961	3	2	2	1	2
00481	6	Cast Iron	12/8/1961	401	3	3	2	6
00482	6	Cast Iron	12/8/1961	3	3	3	2	6
00483	6	Cast Iron	12/8/1961	3	3	3	2	6
00484	6	Cast Iron	12/8/1961	3	3	3	1	3
00485	6	Cast Iron	5/8/1965	341	3	3	2	6
00486	6	Cast Iron	12/8/1961	3	3	2	3	6
00487	10	Cast Iron	12/4/1959	28	3	2	3	6
00488	6	Cast Iron	12/4/1959	4	3	2	3	6
00489	6	Cast Iron	12/4/1959	3	3	3	1	3

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00490	10	Cast Iron	12/4/1959	12	3	2	3	6
00491	10	Cast Iron	12/4/1959	262	3	2	3	6
00492	6	Cast Iron	5/8/1965	5	3	2	3	6
00493	10	Cast Iron	12/4/1959	10	3	2	3	6
00494	6	Cast Iron	5/8/1965	3	3	3	1	3
00495	6	Cast Iron	5/8/1965	315	3	3	2	6
00496	6	Cast Iron	5/8/1965	11	3	3	2	6
00497	6	Cast Iron	5/8/1965	7	3	3	2	6
00498	6	Cast Iron	5/8/1965	413	3	3	2	6
00499	6	Cast Iron	5/8/1965	4	3	3	1	3
00500	6	Cast Iron	5/8/1965	13	3	3	1	3
00501	8	Cast Iron	12/4/1959	40	3	3	1	3
00502	6	Cast Iron	12/4/1959	8	3	3	1	3
00503	6	Cast Iron	12/4/1959	3	3	3	1	3
00504	8	Cast Iron	12/4/1959	4	3	3	1	3
00505	8	Cast Iron	12/4/1959	279	3	3	2	6
00506	8	Cast Iron	12/4/1959	293	3	3	2	6
00507	8	Cast Iron	12/4/1959	7	3	3	2	6
00508	6	Cast Iron	12/4/1959	3	3	3	2	6
00509	6	Cast Iron	12/4/1959	4	3	3	1	3
00510	8	Cast Iron	12/4/1959	28	3	3	1	3
00511	4	Cast Iron	12/9/1940	6	3	3	1	3
00512	4	Cast Iron	12/9/1940	5	3	3	1	3
00513	8	Cast Iron	12/8/1959	15	3	3	1	3
00514	4	Cast Iron	12/9/1940	292	3	3	2	6
00515	8	Cast Iron	12/4/1959	304	3	3	2	6
00517	6	Cast Iron	5/14/1965	392	3	3	2	6
00518	6	Cast Iron	5/14/1965	3	3	3	2	6
00519	8	Cast Iron	12/4/1959	3	3	3	2	6
00520	8	Cast Iron	12/4/1959	300	3	3	2	6
00521	8	Ductile Iron	7/1/2013	12	1	1	4	4
00522	12	Ductile Iron	11/15/2012	338	1	1	4	4
00523	12	Ductile Iron	11/15/2012	10	1	1	4	4
00524	6	Ductile Iron	11/15/2012	10	1	1	4	4
00525	12	Ductile Iron	11/15/2012	8	1	1	4	4
00526	12	Ductile Iron	11/15/2012	11	1	1	4	4
00528	6	Ductile Iron	11/15/2012	14	1	1	4	4
00529	12	Ductile Iron	11/15/2012	10	1	1	4	4
00530	12	Ductile Iron	11/15/2012	101	1	1	4	4
00536	8	Cast Iron	12/8/1957	136	3	3	2	6

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00539	6	Cast Iron	12/8/1957	19	3	3	1	3
00540	4	Cast Iron	12/8/1957	3	3	3	4	12
00541	4	Cast Iron	12/8/1957	171	3	3	4	12
00542	6	Ductile Iron	7/1/2013	18	1	1	1	1
00543	6	Cast Iron	12/8/1957	260	3	3	2	6
00544	6	Cast Iron	12/8/1957	82	3	3	2	6
00545	6	Cast Iron	12/8/1957	17	3	3	2	6
00546	6	Cast Iron	12/8/1957	3	3	3	1	3
00547	6	Cast Iron	12/8/1957	292	3	3	2	6
00548	6	Cast Iron	12/8/1957	28	3	3	2	6
00549	8	Cast Iron	12/8/1957	22	3	3	2	6
00550	8	Cast Iron	12/8/1957	9	3	3	4	12
00551	6	Cast Iron	12/8/1957	2	3	3	2	6
00552	8	Cast Iron	12/8/1957	208	4	4	3	12
00553	8	Cast Iron	12/8/1988	18	2	2	2	4
00554	6	Cast Iron	12/8/1988	12	2	2	3	6
00555	6	Cast Iron	12/8/1988	3	2	2	1	2
00556	8	Cast Iron	12/8/1988	43	2	2	3	6
00557	8	Cast Iron	12/8/1957	69	4	4	2	8
00558	6	Cast Iron	12/8/1957	12	4	3	3	9
00559	6	Cast Iron	12/8/1957	3	4	3	1	3
00560	8	Cast Iron	12/8/1957	34	3	3	3	9
00560	8	Cast Iron	12/8/1957	34	4	4	3	12
00562	8	Cast Iron	12/9/1940	175	3	3	4	12
00563	4	Cast Iron	11/15/1957	393	3	3	4	12
00564	8	Cast Iron	12/9/1940	3	3	3	4	12
00565	10	Ductile Iron	7/1/1999	9	2	3	3	9
00566	6	Ductile Iron	7/1/1999	7	2	3	3	9
00567	6	Ductile Iron	7/1/1999	3	2	3	1	3
00568	10	Cast Iron	12/8/1959	314	3	3	3	9
00569	10	Ductile Iron	11/15/2012	11	1	1	3	3
00570	10	Ductile Iron	11/15/2012	29	1	1	4	4
00571	12	Ductile Iron	11/15/2012	174	1	1	4	4
00572	10	Ductile Iron	11/15/2012	3	1	1	3	3
00574	12	Ductile Iron	11/15/2012	3	1	1	2	2
00575	8	Ductile Iron	11/15/2012	3	1	1	2	2
00576	12	Ductile Iron	11/15/2012	3	1	1	2	2
00577	6	Ductile Iron	11/15/2012	20	1	1	1	1
00578	12	Ductile Iron	11/15/2012	18	1	1	4	4
00579	8	Cast Iron	12/8/1959	215	3	3	1	3

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00580	6	Cast Iron	12/8/1959	3	3	0	0	0
00581	10	Ductile Iron	12/8/1959	315	3	2	2	4
00582	10	Cast Iron	12/8/1959	3	3	3	2	6
00583	6	Cast Iron	12/8/1965	4	3	3	2	6
00584	6	Cast Iron	5/14/1965	3	3	3	2	6
00585	6	Cast Iron	5/14/1959	28	3	3	2	6
00586	6	Cast Iron	5/14/1959	3	3	3	1	3
00587	10	Cast Iron	12/8/1959	3	3	3	2	6
00588	10	Cast Iron	12/8/1959	130	3	2	2	4
00589	8	Ductile Iron	12/1/1988	22	2	2	1	2
00590	0	Cast Iron	12/1/1940	47	0	0	0	0
00591	6	Cast Iron	5/14/1965	100	3	3	2	6
00592	6	Cast Iron	5/14/1965	3	3	3	2	6
00593	6	Cast Iron	5/14/1965	145	3	3	2	6
00594	6	Cast Iron	5/14/1965	3	3	3	2	6
00595	6	Cast Iron	5/14/1965	3	3	3	2	6
00596	6	Cast Iron	5/14/1965	11	3	3	2	6
00597	6	Cast Iron	5/14/1965	3	3	3	2	6
00598	6	Cast Iron	5/14/1965	3	3	3	2	6
00599	6	Cast Iron	5/14/1965	3	3	3	1	3
00600	6	Cast Iron	5/14/1965	118	3	3	2	6
00601	6	Cast Iron	5/14/1965	3	3	3	2	6
00602	6	Cast Iron	5/14/1965	6	3	3	1	3
00603	6	Cast Iron	5/14/1965	12	3	3	2	6
00604	6	Cast Iron	5/14/1965	42	3	3	2	6
00605	6	Cast Iron	5/14/1965	280	3	3	2	6
00606	6	Cast Iron	5/14/1965	3	3	3	2	6
00607	6	Cast Iron	5/14/1965	3	3	3	1	3
00608	10	Cast Iron	12/8/1959	7	0	0	0	0
00610	6	Ductile Iron	12/4/1993	5	2	2	2	4
00611	6	Cast Iron	5/14/1965	302	2	2	2	4
00612	6	Cast Iron	12/8/1948	3	0	0	0	0
00613	6	Asbestos Concrete	12/8/1948	12	4	2	2	4
00614	6	Asbestos Concrete	12/8/1948	5	4	2	2	4
00615	6	Asbestos Concrete	12/8/1948	3	4	2	1	2
00616	6	Asbestos Concrete	12/8/1948	69	4	2	2	4
00617	6	Asbestos Concrete	12/8/1948	261	4	2	2	4
00618	6	Cast Iron	5/14/1965	3	2	2	2	4
00619	6	Cast Iron	5/14/1965	21	2	2	2	4
00620	6	Cast Iron	5/14/1965	9	2	2	1	2

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00621	6	Cast Iron	5/14/1965	380	3	3	2	6
00622	6	Cast Iron	5/14/1965	32	3	3	2	6
00623	6	Cast Iron	5/14/1965	3	3	3	2	6
00624	6	Cast Iron	5/14/1965	7	3	3	1	3
00625	6	Cast Iron	5/14/1965	323	3	3	2	6
00626	6	Cast Iron	5/14/1965	3	3	3	2	6
00627	6	Cast Iron	5/14/1965	3	3	3	1	3
00628	6	Cast Iron	5/14/1965	9	3	3	2	6
00629	6	Cast Iron	12/9/1948	3	3	2	3	6
00630	10	Cast Iron	12/8/1959	5	3	2	3	6
00631	4	Cast Iron	12/9/1948	3	3	2	3	6
00632	10	Cast Iron	12/8/1959	3	3	2	3	6
00633	10	Cast Iron	12/9/1959	234	3	2	3	6
00634	6	Cast Iron	12/9/1959	3	3	2	3	6
00635	6	Cast Iron	12/9/1959	4	3	2	3	6
00636	10	Cast Iron	12/9/1959	95	3	2	2	4
00637	4	Cast Iron	12/9/1948	223	3	3	3	9
00638	4	Cast Iron	12/9/1948	64	3	3	2	6
00639	6	Cast Iron	12/9/1948	4	3	3	2	6
00640	6	Cast Iron	12/9/1948	3	3	3	1	3
00641	4	Cast Iron	12/9/1940	448	3	3	2	6
00642	10	Cast Iron	12/8/1959	315	3	2	3	6
00643	6	Asbestos Concrete	12/8/1948	61	4	2	2	4
00644	6	Asbestos Concrete	12/8/1948	266	4	2	2	4
00645	6	Cast Iron	12/1/1961	3	2	2	2	4
00646	6	Cast Iron	12/8/1961	459	2	2	2	4
00647	6	Cast Iron	12/8/1961	19	2	2	2	4
00648	8	Cast Iron	5/14/1993	20	2	2	2	4
00649	8	Cast Iron	5/14/1993	22	2	2	2	4
00650	6	Cast Iron	12/8/1972	80	2	2	2	4
00651	6	Cast Iron	5/14/1993	20	2	2	2	4
00652	6	Cast Iron	5/14/1993	19	2	2	1	2
00653	6	Cast Iron	12/8/1972	215	2	2	2	4
00654	6	Ductile Iron	12/8/1988	3	2	2	2	4
00655	6	Ductile Iron	12/8/1988	3	2	0	0	0
00656	6	Ductile Iron	12/8/1988	3	2	2	1	2
00657	8	Ductile Iron	12/8/1988	84	2	2	2	4
00658	8	Ductile Iron	12/8/1988	642	2	2	2	4
00659	6	Ductile Iron	12/8/1988	3	2	2	2	4
00660	6	Ductile Iron	12/8/1988	5	2	2	1	2

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00661	8	Ductile Iron	12/8/1988	13	2	2	2	4
00662	8	Ductile Iron	12/8/1988	591	2	2	2	4
00663	6	Ductile Iron	12/8/1988	578	2	2	2	4
00664	6	Ductile Iron	12/8/1988	3	2	2	2	4
00665	8	Ductile Iron	12/8/1988	58	2	2	2	4
00666	6	Ductile Iron	12/8/1988	3	2	2	2	4
00667	6	Ductile Iron	12/8/1988	3	2	2	1	2
00668	8	Ductile Iron	12/8/1988	610	2	2	2	4
00669	6	Ductile Iron	12/8/1988	3	2	2	2	4
00670	6	Ductile Iron	12/8/1988	3	2	2	1	2
00671	8	Ductile Iron	12/8/1988	613	2	2	2	4
00672	6	Cast Iron	1/1/1959	259	3	3	2	6
00673	6	Cast Iron	1/1/1959	3	2	2	2	4
00674	6	Cast Iron	1/1/1959	4	2	2	2	4
00675	6	Cast Iron	1/1/1959	4	2	2	1	2
00676	6	Cast Iron	1/1/1959	7	2	2	2	4
00677	6	Cast Iron	12/10/1993	9	2	2	2	4
00678	6	Cast Iron	12/8/1963	37	2	2	2	4
00679	6	Cast Iron	1/1/1959	50	2	2	2	4
00680	8	Ductile Iron	12/10/1993	543	2	2	2	4
00681	8	Ductile Iron	12/10/1993	296	2	2	2	4
00682	8	Ductile Iron	12/10/1993	43	2	0	0	0
00683	8	Ductile Iron	12/10/1993	29	2	0	0	0
00684	8	Ductile Iron	12/10/1993	19	2	0	0	0
00685	6	Ductile Iron	12/10/1993	3	2	0	0	0
00686	6	Ductile Iron	12/10/1993	3	2	0	0	0
00687	8	Ductile Iron	12/10/1993	466	2	2	2	4
00688	8	Ductile Iron	12/10/1993	48	2	2	2	4
00689	6	Cast Iron	1/1/1959	92	2	2	2	4
00690	6	Cast Iron	1/1/1959	61	2	2	2	4
00691	6	Cast Iron	1/1/1959	3	3	3	2	6
00692	6	Cast Iron	1/1/1959	3	3	3	2	6
00693	6	Cast Iron	1/1/1959	3	3	3	1	3
00694	6	Cast Iron	1/1/1959	268	3	3	2	6
00695	6	Ductile Iron	1/1/1959	7	3	3	2	6
00696	8	Ductile Iron	12/10/1993	5	2	2	2	4
00697	6	Ductile Iron	12/10/1993	20	2	2	2	4
00698	6	Ductile Iron	12/10/1993	3	2	2	1	2
00699	8	Ductile Iron	12/10/1993	492	2	2	2	4
00700	6	Ductile Iron	12/10/1993	20	2	2	2	4

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00701	6	Ductile Iron	12/10/1993	3	2	2	1	2
00702	8	Ductile Iron	12/10/1993	57	2	2	2	4
00703	8	Ductile Iron	12/10/1993	3	2	2	22	44
00704	8	Ductile Iron	12/10/1993	3	2	2	2	4
00705	8	Ductile Iron	12/10/1993	3	2	2	2	4
00706	8	Ductile Iron	12/10/1993	317	2	2	2	4
00707	8	Ductile Iron	12/10/1993	183	2	2	2	4
00708	6	Ductile Iron	12/10/1993	3	2	2	2	4
00709	6	Ductile Iron	12/10/1993	3	2	2	1	2
00710	8	Ductile Iron	12/10/1993	8	2	2	2	4
00711	8	Ductile Iron	12/10/1993	309	2	2	2	4
00712	8	Ductile Iron	12/10/1993	15	2	2	2	4
00713	8	Cast Iron	12/10/1993	5	2	2	2	4
00714	8	Cast Iron	12/10/1993	4	2	2	2	4
00715	8	Cast Iron	12/8/1957	26	3	3	2	6
00716	6	Cast Iron	12/8/1957	4	3	3	2	6
00717	6	Cast Iron	12/8/1957	3	2	2	1	2
00718	8	Cast Iron	12/8/1957	4	3	3	2	6
00719	8	Cast Iron	12/8/1957	626	3	3	2	6
00720	8	Cast Iron	12/8/1957	219	3	3	2	6
00721	8	Cast Iron	12/8/1957	57	3	3	2	6
00722	6	Cast Iron	12/8/1957	75	3	3	2	6
00723	8	Cast Iron	12/8/1957	554	3	2	2	4
00724	8	Cast Iron	12/8/1957	6	2	2	2	4
00725	6	Cast Iron	12/8/1957	6	2	2	2	4
00726	6	Cast Iron	12/8/1957	3	2	2	1	2
00727	8	Cast Iron	12/8/1957	10	2	2	2	4
00728	6	Cast Iron	12/8/1957	9	3	2	2	4
00729	6	Cast Iron	1/1/1959	342	2	2	2	4
00730	8	Cast Iron	12/8/1957	156	3	2	2	4
00731	8	Cast Iron	12/8/1957	4	3	2	2	4
00732	6	Cast Iron	12/8/1957	12	3	2	2	4
00733	6	Cast Iron	12/8/1950	384	3	2	2	4
00734	8	Cast Iron	12/8/1950	8	2	2	2	4
00735	6	Cast Iron	12/8/1950	243	2	2	2	4
00736	8	Ductile Iron	12/3/1992	10	2	2	2	4
00737	6	Cast Iron	12/8/1950	228	2	2	2	4
00738	6	Cast Iron	12/8/1950	4	2	2	2	4
00739	12	Ductile Iron	12/4/1989	265	2	2	3	6
00740	6	Cast Iron	12/8/1950	574	3	3	2	6

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00741	6	Cast Iron	12/8/1950	3	3	3	2	6
00742	6	Cast Iron	12/8/1950	3	3	3	1	3
00743	6	Cast Iron	12/8/1950	6	3	3	2	6
00744	6	Cast Iron	12/8/1950	439	3	3	2	6
00745	6	Cast Iron	12/8/1950	3	3	3	1	3
00746	6	Cast Iron	12/8/1950	23	3	3	1	3
00747	6	Cast Iron	12/8/1950	17	3	3	1	3
00748	6	Cast Iron	12/8/1950	3	3	3	2	6
00749	6	Cast Iron	12/8/1950	5	3	3	1	3
00750	6	Cast Iron	12/8/1950	270	3	2	2	4
00751	6	Ductile Iron	11/15/2012	13	1	1	2	2
00752	12	Ductile Iron	11/15/2012	18	1	1	2	2
00753	12	Ductile Iron	11/15/2012	51	1	1	2	2
00754	6	Ductile Iron	11/15/2012	6	1	1	2	2
00755	12	Ductile Iron	11/15/2012	43	1	1	3	3
00756	12	Ductile Iron	11/15/2012	394	1	1	2	2
00758	6	Ductile Iron	11/15/2012	7	1	1	2	2
00760	12	HDPE	11/15/2012	230	1	1	4	4
00762	8	Cast Iron	12/9/1940	187	3	3	4	12
00763	8	Cast Iron	12/8/1959	27	3	3	2	6
00764	6	Ductile Iron	7/1/1999	4	2	2	2	4
00765	6	Ductile Iron	11/1/2015	3	1	1	1	1
00766	8	Cast Iron	12/8/1959	45	3	3	2	6
00767	12	Ductile Iron	12/1/1992	758	2	2	2	4
00768	6	Ductile Iron	12/1/1992	10	2	2	2	4
00769	6	Ductile Iron	12/1/1992	7	2	2	2	4
00771	6	Ductile Iron	12/1/1992	3	2	2	2	4
00772	6	Ductile Iron	12/1/1992	3	2	2	1	2
00774	6	Ductile Iron	12/1/1992	3	2	2	2	4
00775	6	Ductile Iron	12/1/1992	18	2	2	1	2
00776	12	Ductile Iron	12/1/1992	270	2	2	2	4
00777	12	Ductile Iron	12/1/1992	13	2	2	2	4
00778	6	wood	12/1/1961	13	5	4	4	16
00779	12	Ductile Iron	12/1/1992	24	2	2	2	4
00780	6	Cast Iron	12/1/1961	4	3	3	2	6
00781	6	Cast Iron	12/1/1961	41	3	0	0	0
00782	6	Cast Iron	12/1/1961	29	3	0	0	0
00783	8	Cast Iron	12/1/1960	14	4	4	4	16
00784	8	Cast Iron	12/1/1960	150	4	4	4	16
00785	6	Cast Iron	12/1/1960	4	4	3	2	6

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00786	6	Cast Iron	12/1/1960	3	4	3	2	6
00787	8	Cast Iron	12/1/1960	139	4	4	4	16
00788	8	Cast Iron	12/1/1961	14	4	4	4	16
00789	8	Cast Iron	12/1/1958	295	4	4	3	12
00790	6	Cast Iron	12/1/1961	3	4	3	1	3
00791	8	Cast Iron	12/1/1961	3	4	4	2	8
00792	4	Cast Iron	12/1/1961	335	4	3	2	6
00793	6	Cast Iron	12/1/1961	3	3	3	2	6
00794	6	Cast Iron	12/1/1961	3	3	3	1	3
00795	4	Cast Iron	12/1/1961	147	4	3	2	6
00797	6	Ductile Iron	12/4/1989	3	2	2	3	6
00798	4	Cast Iron	12/8/1950	278	5	0	0	0
00799	8	Cast Iron	12/1/1958	540	4	4	3	12
00800	8	Cast Iron	12/1/1958	10	4	3	2	6
00801	8	Cast Iron	12/1/1958	30	4	3	2	6
00802	6	Cast Iron	12/1/1958	59	4	3	1	3
00803	8	Cast Iron	12/1/1958	320	4	3	2	6
00804	6	Cast Iron	12/1/1958	3	3	2	2	4
00805	8	Cast Iron	12/1/1958	10	4	3	2	6
00806	8	Cast Iron	12/1/1958	159	4	3	2	6
00807	8	Cast Iron	12/1/1964	44	3	3	2	6
00808	6	Cast Iron	12/1/1963	392	2	2	2	4
00809	6	Cast Iron	12/1/1963	5	2	2	2	4
00810	6	Cast Iron	12/1/1963	3	2	2	1	2
00811	6	Cast Iron	12/1/1964	30	2	2	2	4
00812	6	Cast Iron	12/1/1964	37	2	2	2	4
00813	6	Cast Iron	12/1/1964	329	2	2	2	4
00814	10	Ductile Iron	12/1/1972	5	2	2	2	4
00815	10	Ductile Iron	12/1/1972	5	2	2	2	4
00816	10	Ductile Iron	12/1/1972	44	2	2	2	4
00817	6	Ductile Iron	12/1/1972	20	2	2	2	4
00818	6	Ductile Iron	12/1/1972	3	2	2	1	2
00819	8	Ductile Iron	12/1/1964	430	2	2	2	4
00820	8	Cast Iron	12/1/1958	310	3	2	1	2
00821	6	Cast Iron	12/1/1958	3	3	0	0	0
00822	6	Cast Iron	12/1/1958	3	3	0	0	0
00823	8	Cast Iron	12/1/1958	10	3	2	1	2
00824	8	Cast Iron	12/1/1958	10	3	2	1	2
00825	8	Cast Iron	12/1/1958	13	3	2	1	2
00826	8	Cast Iron	12/1/1958	150	3	2	1	2

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00827	6	Cast Iron	12/1/1958	40	3	2	1	2
00828	6	Cast Iron	12/1/1958	3	3	2	1	2
00829	8	Cast Iron	12/1/1958	400	3	2	1	2
00830	8	Ductile Iron	12/5/2012	96	1	1	4	4
00830	8	Cast Iron	12/1/1958	12	3	2	1	2
00831	8	Cast Iron	12/1/1958	587	3	2	1	2
00832	6	Cast Iron	12/1/1958	4	3	2	1	2
00833	6	Cast Iron	12/1/1958	3	3	2	1	2
00834	8	Cast Iron	12/1/1958	7	3	2	1	2
00835	8	Asbestos Concrete	12/1/1958	45	4	2	1	2
00836	8	Asbestos Concrete	12/1/1958	475	4	2	1	2
00837	6	Asbestos Concrete	12/1/1958	3	4	2	1	2
00838	6	Asbestos Concrete	12/1/1958	3	4	2	1	2
00839	8	Asbestos Concrete	12/1/1958	203	4	2	1	2
00840	8	Ductile Iron	7/1/2013	37	1	1	4	4
00843	6	Ductile Iron	7/1/2013	12	1	1	4	4
00844	8	Ductile Iron	7/1/2013	164	1	1	4	4
00845	6	Ductile Iron	7/1/2013	36	1	1	4	4
00846	6	Asbestos Concrete	12/1/1956	344	4	2	1	2
00847	6	Asbestos Concrete	12/1/1956	225	4	2	1	2
00848	6	Asbestos Concrete	12/1/1956	3	4	2	1	2
00849	6	Asbestos Concrete	12/1/1956	3	4	2	1	2
00850	6	Asbestos Concrete	12/1/1956	10	4	2	1	2
00851	6	Asbestos Concrete	12/1/1956	109	4	2	1	2
00852	6	Cast Iron	12/1/1956	352	3	2	1	2
00853	8	Ductile Iron	7/1/2013	42	1	1	4	4
00854	8	Ductile Iron	7/1/2013	55	1	1	4	4
00855	6	Ductile Iron	7/1/2013	45	1	1	4	4
00856	8	Ductile Iron	7/1/2013	79	1	1	3	3
00857	8	Cast Iron	12/1/1964	187	3	2	3	6
00858	6	Cast Iron	12/1/1964	4	3	1	1	1
00859	6	Cast Iron	12/1/1964	3	3	1	1	1
00860	8	Cast Iron	12/1/1964	341	3	2	3	6
00861	6	Cast Iron	12/1/1964	9	3	2	1	2
00862	6	Cast Iron	12/1/1964	3	3	2	1	2
00863	10	Ductile Iron	12/1/1988	102	2	2	3	6
00864	10	Ductile Iron	12/1/1988	10	2	2	5	10
00865	8	Ductile Iron	12/1/1988	5	2	2	5	10
00866	8	Ductile Iron	12/1/1988	10	2	2	1	2
00867	6	Ductile Iron	12/1/1988	8	2	1	1	1

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00868	6	Ductile Iron	12/1/1988	3	2	1	1	1
00869	8	Ductile Iron	12/1/1988	289	2	2	1	2
00870	8	Ductile Iron	12/1/1988	83	2	2	1	2
00871	8	Ductile Iron	12/1/1988	5	2	2	1	2
00872	2	Galvinized	12/1/1965	121	4	0	0	0
00873	8	Ductile Iron	12/1/1988	50	2	2	1	2
00874	6	Cast Iron	12/1/1964	10	3	2	1	2
00875	6	Cast Iron	12/1/1964	3	3	2	1	2
00876	6	Cast Iron	12/1/1964	3	0	0	0	0
00877	6	Cast Iron	12/1/1964	546	3	2	1	2
00878	8	Ductile Iron	7/1/2013	7	1	1	2	2
00879	8	Ductile Iron	7/1/2013	32	1	1	4	4
00880	8	Ductile Iron	7/1/2013	9	1	1	2	2
00881	8	Ductile Iron	7/1/2013	585	1	1	2	2
00882	6	Ductile Iron	7/1/2013	3	1	0	0	0
00884	8	Ductile Iron	7/1/2013	21	1	1	2	2
00886	6	Ductile Iron	12/1/1972	535	2	2	1	2
00887	6	Cast Iron	12/1/1972	4	2	2	1	2
00888	6	Cast Iron	12/1/1972	3	2	2	1	2
00889	6	Ductile Iron	12/4/1989	24	2	0	0	0
00937	6	Asbestos Concrete	12/1/1957	1	4	0	0	0
00940	8	Cast Iron	12/8/1959	300	3	3	2	6
00946	8	Ductile Iron	12/1/2003	186	1	0	0	0
00949	6	Ductile Iron	12/1/2003	55	1	0	0	0
00956	6	Ductile Iron	12/1/1970	3	2	0	0	0
00959	6	Ductile Iron	12/1/1970	19	2	0	0	0
00964	6	Cast Iron	12/1/1963	305	2	2	2	4
00965	6	Cast Iron	12/1/1963	10	2	2	2	4
00966	6	Cast Iron	12/1/1963	3	2	2	1	2
00967	6	Cast Iron	12/1/1963	16	2	2	2	4
00968	6	Cast Iron	12/1/1963	21	2	2	2	4
00969	6	Cast Iron	12/1/1963	6	2	2	2	4
00970	6	Cast Iron	12/1/1963	321	2	2	2	4
00971	6	Cast Iron	12/1/1963	3	2	2	2	4
00972	6	Cast Iron	12/1/1963	3	0	0	0	0
00973	6	Cast Iron	12/1/1963	14	2	2	2	4
00974	6	Cast Iron	12/1/1963	4	2	2	2	4
00975	6	Cast Iron	12/1/1963	3	2	2	1	2
00976	8	Ductile Iron	4/1/2001	324	1	1	2	2
00977	6	Ductile Iron	4/1/2001	3	1	1	2	2

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
00978	6	Ductile Iron	4/1/2001	3	1	1	1	1
00979	8	Ductile Iron	4/1/2001	381	1	1	2	2
00980	6	Ductile Iron	5/4/1995	5	2	2	2	4
00981	6	Ductile Iron	12/1/2003	3	1	0	0	0
00982	6	Cast Iron	10/5/1973	8	2	2	1	2
00983	6	Ductile Iron	10/5/1973	301	2	2	2	4
00984	6	Ductile Iron	10/5/1973	3	2	2	2	4
00985	6	Ductile Iron	10/5/1973	3	2	2	1	2
00986	6	Ductile Iron	10/5/1973	175	2	2	2	4
00987	6	Ductile Iron	10/5/1973	16	2	2	2	4
00988	6	Ductile Iron	10/5/1973	12	2	2	2	4
00989	6	Ductile Iron	10/5/1973	463	2	2	2	4
00990	6	Ductile Iron	10/5/1973	3	2	2	2	4
00991	6	Ductile Iron	10/5/1973	3	2	2	1	2
00992	6	Ductile Iron	10/5/1973	551	2	2	2	4
00993	6	Ductile Iron	10/5/1973	5	2	2	2	4
00994	8	Cast Iron	12/8/1957	160	3	2	2	4
00995	6	Cast Iron	12/8/1957	5	3	2	2	4
00996	6	Cast Iron	12/8/1957	3	3	2	1	2
00997	8	Cast Iron	12/8/1957	42	3	2	2	4
00998	8	Cast Iron	12/8/1957	145	3	2	2	4
00999	6	Cast Iron	12/8/1957	10	3	2	2	4
01000	6	Cast Iron	12/8/1957	36	3	2	2	4
01001	8	Cast Iron	12/8/1957	264	3	2	2	4
01002	6	Cast Iron	12/8/1957	4	3	2	2	4
01003	6	Cast Iron	12/8/1957	3	3	2	1	2
01004	8	Cast Iron	12/8/1957	4	3	2	2	4
01005	8	Cast Iron	12/8/1957	62	3	3	0	0
01006	8	Cast Iron	12/8/1957	262	3	3	2	6
01007	6	Cast Iron	12/8/1957	4	0	0	0	0
01008	6	Cast Iron	12/8/1957	3	0	0	0	0
01009	8	Cast Iron	12/8/1957	217	3	3	2	6
01010	6	Cast Iron	12/8/1957	8	3	3	2	6
01011	6	Cast Iron	12/8/1957	222	3	3	2	6
01012	6	Ductile Iron	12/1/2003	3	1	0	0	0
01013	8	Ductile Iron	12/1/2002	4	1	2	2	4
01014	6	Cast Iron	12/8/1957	227	3	3	2	6
01015	6	Cast Iron	12/8/1957	8	3	3	2	6
01016	6	Cast Iron	12/8/1957	3	3	3	1	3
01017	6	Cast Iron	12/1/1957	56	3	3	2	6

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
01018	6	Cast Iron	12/8/1957	270	3	3	2	6
01019	6	Asbestos Concrete	12/8/1957	478	4	3	2	6
01020	6	Asbestos Concrete	12/8/1957	36	4	2	2	4
01021	8	Cast Iron	12/8/1967	382	3	3	2	6
01022	6	Cast Iron	12/8/1967	3	3	3	2	6
01023	6	Cast Iron	12/8/1967	3	3	3	1	3
01024	12	Ductile Iron	11/15/2012	31	1	1	2	2
01025	12	Ductile Iron	11/15/2012	44	1	1	2	2
01026	12	Ductile Iron	11/15/2012	125	1	1	2	2
01027	12	Ductile Iron	11/15/2012	31	1	1	2	2
01028	6	Ductile Iron	11/15/2012	5	1	1	2	2
01029	6	Cast Iron	12/8/1959	165	0	0	0	0
01030	6	Cast Iron	12/8/1959	112	0	0	0	0
01031	6	Cast Iron	12/8/1959	10	0	0	0	0
01032	6	Cast Iron	12/8/1959	3	0	0	0	0
01033	12	Ductile Iron	11/15/2012	49	1	1	2	2
01034	6	Ductile Iron	11/15/2012	6	1	1	2	2
01035	12	Ductile Iron	11/15/2012	36	1	1	2	2
01036	12	Ductile Iron	11/15/2012	98	1	1	2	2
01037	12	Ductile Iron	11/15/2012	35	1	1	2	2
01038	6	Cast Iron	12/8/1959	435	2	2	2	4
01039	6	Cast Iron	12/8/1959	8	2	2	2	4
01040	6	Cast Iron	12/8/1959	3	2	2	1	2
01041	6	Cast Iron	12/8/1959	27	2	2	2	4
01042	12	Ductile Iron	11/15/2012	77	1	1	3	3
01043	6	Ductile Iron	11/15/2012	9	1	1	3	3
01044	6	Ductile Iron	11/15/2012	14	1	1	1	1
01045	12	Ductile Iron	11/15/2012	17	1	1	2	2
01046	12	Ductile Iron	11/15/2012	78	1	1	3	3
01047	6	Ductile Iron	11/15/2012	25	1	1	3	3
01048	12	Ductile Iron	11/15/2012	109	1	1	3	3
01049	6	Cast Iron	12/8/1959	302	3	2	2	4
01050	6	Cast Iron	12/8/1959	116	2	2	2	4
01051	6	Cast Iron	12/8/1950	4	2	2	1	2
01053	8	Ductile Iron	12/3/1992	404	2	2	2	4
01054	8	Ductile Iron	12/1/2002	320	1	2	2	4
01055	8	Ductile Iron	12/3/1992	539	2	2	2	4
01056	6	Ductile Iron	12/3/1992	4	2	0	0	0
01057	6	Ductile Iron	12/3/1992	3	2	0	0	0
01058	8	Ductile Iron	12/3/1992	50	2	2	3	6

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
01059	8	Ductile Iron	12/3/1992	5	2	2	3	6
01060	8	Ductile Iron	12/3/1992	280	2	2	3	6
01061	6	Ductile Iron	10/5/1973	47	2	2	2	4
01062	6	Cast Iron	12/1/1961	6	3	3	2	6
01063	6	Cast Iron	12/1/1961	6	3	3	2	6
01064	6	Cast Iron	12/1/1961	3	3	3	1	3
01065	8	Cast Iron	12/1/1960	25	4	4	4	16
01066	8	Cast Iron	12/1/1951	50	3	3	4	12
01067	12	Ductile Iron	12/1/1951	16	2	0	0	0
01068	8	Cast Iron	12/1/1951	16	3	3	4	12
01069	8	Cast Iron	4/21/1961	283	3	3	2	6
01070	4	Cast Iron	12/1/1961	21	4	3	2	6
01071	8	Cast Iron	12/1/1951	128	3	2	2	4
01072	6	Cast Iron	12/1/1951	87	3	2	2	4
01073	6	Cast Iron	12/1/1951	71	3	2	2	4
01074	6	Cast Iron	12/1/1951	9	3	2	1	2
01075	8	Cast Iron	12/1/1960	359	4	4	4	16
01076	6	Cast Iron	12/1/1955	20	4	3	2	6
01077	6	Cast Iron	12/1/1955	3	4	3	5	15
01078	8	Cast Iron	12/1/1955	9	4	4	4	16
01079	6	Cast Iron	12/1/1955	62	3	3	4	12
01080	6	Cast Iron	12/1/1961	136	3	3	2	6
01081	6	Cast Iron	12/1/1961	3	3	3	2	6
01082	6	Cast Iron	12/1/1961	3	3	3	1	3
01083	8	Cast Iron	12/1/1955	454	4	4	4	16
01084	6	Cast Iron	12/1/1955	3	4	3	2	6
01085	6	Cast Iron	12/1/1955	3	4	3	2	6
01086	8	Cast Iron	12/1/1955	290	4	4	4	16
01087	6	Cast Iron	12/1/1955	19	3	2	2	4
01088	8	Cast Iron	12/1/1955	53	4	4	4	16
01089	6	Asbestos Concrete	4/22/1960	292	4	2	2	4
01090	6	Asbestos Concrete	4/22/1960	6	4	2	2	4
01091	6	Asbestos Concrete	4/22/1960	3	4	2	2	4
01092	6	Cast Iron	4/22/1960	5	3	2	2	4
01093	6	Cast Iron	4/22/1960	10	3	2	2	4
01094	6	Cast Iron	4/22/1960	3	3	2	2	4
01095	6	Cast Iron	4/22/1960	5	3	2	2	4
01096	6	Cast Iron	4/22/1960	2	3	2	2	4
01097	6	Cast Iron	4/22/1962	402	3	2	2	4
01098	6	Cast Iron	4/22/1962	206	3	2	2	4

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
01099	6	Cast Iron	4/22/1960	21	3	2	2	4
01100	6	Cast Iron	4/22/1962	172	3	2	2	4
01101	6	Cast Iron	4/22/1960	3	3	2	2	4
01102	6	Cast Iron	4/22/1960	3	3	2	1	2
01103	6	Cast Iron	4/22/1960	13	3	2	2	4
01104	6	Cast Iron	4/22/1962	50	3	2	2	4
01105	6	Cast Iron	4/22/1960	20	3	2	2	4
01106	6	Cast Iron	4/22/1960	8	3	2	1	2
01107	6	Cast Iron	4/22/1960	578	3	2	2	4
01108	6	Cast Iron	4/22/1960	373	3	2	2	4
01109	6	Cast Iron	4/22/1960	5	3	2	2	4
01110	6	Cast Iron	4/22/1960	6	3	2	1	2
01111	6	Cast Iron	4/22/1960	45	3	2	2	4
01112	8	Ductile Iron	12/1/1976	7	2	2	2	4
01113	6	Cast Iron	4/22/1962	181	3	3	2	6
01114	8	Ductile Iron	12/1/1976	472	2	2	2	4
01115	6	Ductile Iron	12/1/1976	4	2	0	0	0
01116	6	Ductile Iron	12/1/1976	3	2	2	1	2
01117	8	Ductile Iron	12/1/1976	644	2	2	2	4
01118	8	Ductile Iron	12/1/1976	5	2	2	2	4
01119	10	Ductile Iron	12/1/1979	33	2	2	2	4
01120	10	Ductile Iron	12/1/1979	294	2	2	2	4
01121	10	Ductile Iron	12/1/1979	183	2	2	2	4
01122	10	Ductile Iron	12/1/1979	23	2	2	2	4
01123	6	Ductile Iron	12/1/1979	3	2	2	2	4
01124	10	Ductile Iron	12/1/1979	46	2	2	2	4
01125	10	Ductile Iron	12/1/1979	3	2	2	2	4
01126	10	Ductile Iron	12/1/2002	3	1	2	2	4
01127	10	Ductile Iron	12/1/1979	5	2	2	2	4
01128	10	Ductile Iron	12/1/1979	188	2	2	2	4
01129	6	Ductile Iron	12/1/1979	5	2	2	2	4
01130	6	Ductile Iron	12/1/1979	3	2	2	1	2
01131	10	Ductile Iron	12/1/2002	268	1	1	2	2
01132	6	Ductile Iron	12/1/2002	4	1	1	2	2
01133	6	Ductile Iron	12/1/2002	3	1	1	1	1
01134	10	Ductile Iron	12/1/2002	218	1	1	1	1
01135	6	Ductile Iron	12/1/2002	10	1	1	1	1
01136	10	Ductile Iron	12/1/2002	77	1	1	1	1
01137	6	Ductile Iron	12/1/2002	3	1	1	1	1
01138	6	Asbestos Concrete	12/1/1955	11	4	2	1	2

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
01139	6	Asbestos Concrete	12/1/1955	177	4	2	1	2
01140	10	Ductile Iron	12/1/1979	232	2	2	2	4
01141	6	Ductile Iron	12/1/1979	4	2	2	2	4
01142	6	Ductile Iron	12/1/1979	3	2	2	1	2
01143	10	Ductile Iron	12/1/1979	188	2	2	2	4
01144	10	Ductile Iron	12/1/1979	312	2	2	2	4
01145	10	Ductile Iron	12/1/1979	178	2	2	4	8
01146	10	Ductile Iron	12/1/1980	15	2	2	5	10
01147	10	Ductile Iron	12/1/1980	20	2	2	5	10
01148	6	Ductile Iron	12/1/1980	3	2	1	1	1
01149	6	Ductile Iron	12/1/1980	3	2	1	1	1
01150	10	Ductile Iron	12/1/1972	529	2	2	5	10
01151	10	Ductile Iron	12/1/1972	538	2	2	5	10
01152	10	Ductile Iron	12/1/1972	39	2	2	5	10
01153	10	Ductile Iron	12/1/1972	3	2	2	2	4
01154	10	Ductile Iron	12/1/1972	3	2	2	5	10
01155	6	Ductile Iron	12/1/1972	3	2	1	1	1
01156	6	Ductile Iron	12/1/1972	3	2	1	1	1
01157	10	Ductile Iron	1/22/1980	509	2	2	2	4
01158	6	Ductile Iron	1/22/1980	8	2	1	1	1
01159	6	Ductile Iron	1/22/1980	3	2	1	1	1
01160	10	Ductile Iron	1/22/1980	509	2	2	2	4
01161	6	Ductile Iron	1/22/1980	4	2	1	1	1
01162	6	Ductile Iron	1/22/1980	3	2	2	2	4
01163	10	Ductile Iron	1/22/1980	420	2	2	2	4
01164	6	Ductile Iron	1/22/1980	4	2	1	1	1
01165	6	Ductile Iron	1/22/1980	3	2	1	1	1
01166	10	Ductile Iron	1/22/1980	436	2	2	2	4
01167	6	Ductile Iron	1/22/1980	4	2	0	0	0
01168	6	Ductile Iron	1/22/1980	3	2	1	1	1
01169	10	Ductile Iron	1/22/1980	38	2	2	2	4
01170	10	Ductile Iron	1/22/1980	42	2	2	2	4
01171	10	Ductile Iron	1/22/1980	349	2	2	2	4
01172	6	Cast Iron	12/4/1959	3	3	3	1	3
01173	6	Ductile Iron	1/22/1980	5	2	1	1	1
01174	6	Ductile Iron	1/22/1980	3	2	1	1	1
01175	10	Ductile Iron	10/1/1990	349	2	2	2	4
01176	6	Cast Iron	10/1/1990	5	2	1	1	1
01177	6	Cast Iron	10/1/1990	3	2	1	1	1
01178	10	Ductile Iron	10/1/1990	302	2	1	2	2

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
01179	6	Ductile Iron	10/1/1990	4	2	1	1	1
01180	6	Ductile Iron	10/1/1990	3	2	1	1	1
01181	10	Ductile Iron	10/1/1990	27	2	1	2	2
01182	10	Ductile Iron	10/1/1990	6	22	1	2	2
01183	10	Ductile Iron	10/1/1990	5	2	1	1	1
01184	10	Ductile Iron	10/1/1990	20	2	1	1	1
01185	10	Ductile Iron	10/1/1990	417	2	1	2	2
01186	6	Ductile Iron	10/1/1990	4	2	1	1	1
01187	6	Ductile Iron	10/1/1990	3	2	1	1	1
01188	10	Ductile Iron	10/1/1990	538	2	1	2	2
01189	6	Ductile Iron	10/1/1990	3	2	1	1	1
01190	6	Ductile Iron	10/1/1990	3	2	1	1	1
01191	10	Ductile Iron	10/1/1990	508	2	1	2	2
01192	10	Ductile Iron	10/1/1990	4	2	1	2	2
01193	10	Ductile Iron	10/1/1990	11	2	1	2	2
01194	6	Ductile Iron	10/1/1990	3	2	1	1	1
01195	6	Ductile Iron	10/1/1990	4	2	1	1	1
01196	6	Ductile Iron	10/1/1990	262	2	2	2	4
01197	10	Ductile Iron	10/1/1990	170	2	1	2	2
01198	12	Ductile Iron	12/1/1990	55	2	1	5	5
01199	12	Ductile Iron	12/1/1990	482	2	1	5	5
01200	6	Ductile Iron	12/1/1990	4	2	2	5	10
01201	6	Ductile Iron	12/1/1990	3	2	2	1	2
01202	12	Ductile Iron	12/1/1990	496	2	1	5	5
01203	6	Ductile Iron	12/1/1990	4	2	0	0	0
01204	6	Ductile Iron	12/1/1990	3	2	0	0	0
01205	12	Ductile Iron	12/1/1990	528	2	1	5	5
01206	6	Ductile Iron	12/1/2003	399	1	0	0	0
01207	6	Ductile Iron	12/1/2003	22	1	0	0	0
01208	12	Ductile Iron	12/1/1990	5	2	1	5	5
01209	6	Ductile Iron	12/1/1990	4	2	1	5	5
01210	6	Ductile Iron	12/1/1990	3	2	1	5	5
01211	12	Ductile Iron	12/1/1990	4	2	1	5	5
01212	12	Ductile Iron	12/1/1990	6	2	1	5	5
01213	12	Ductile Iron	12/1/1990	3	2	1	5	5
01214	12	Ductile Iron	12/1/1990	3	2	1	5	5
01215	6	Ductile Iron	12/1/2003	126	1	0	0	0
01216	12	Ductile Iron	12/1/1990	308	2	1	5	5
01217	6	Ductile Iron	12/1/1990	4	2	1	5	5
01218	6	Ductile Iron	12/1/1990	3	2	0	0	0

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
01219	12	Ductile Iron	12/1/1990	60	2	2	5	10
01220	12	Ductile Iron	12/1/1990	3	2	2	5	10
01221	6	Ductile Iron	12/1/1990	3	2	2	5	10
01222	12	Ductile Iron	12/1/1990	3	2	2	5	10
01223	12	Ductile Iron	12/1/1990	3	2	2	5	10
01224	12	Ductile Iron	12/1/1990	418	2	2	5	10
01225	12	Ductile Iron	12/1/1990	31	2	2	5	10
01226	12	Ductile Iron	12/1/1990	64	2	2	5	10
01227	6	Ductile Iron	12/1/1990	4	2	2	5	10
01228	12	Ductile Iron	12/1/1990	38	2	2	5	10
01229	6	Ductile Iron	12/1/1990	3	2	2	1	2
01230	12	Ductile Iron	12/1/1990	27	2	2	5	10
01231	12	Ductile Iron	12/1/1990	157	2	2	1	2
01232	6	Ductile Iron	12/1/1990	5	2	2	1	2
01233	6	Ductile Iron	12/1/1990	3	2	2	1	2
01234	12	Ductile Iron	12/1/1990	398	2	2	1	2
01235	6	Ductile Iron	12/1/2003	6	1	0	0	0
01236	6	Ductile Iron	12/1/1990	4	2	2	1	2
01237	6	Ductile Iron	12/1/1990	3	2	2	1	2
01238	6	Cast Iron	12/1/1961	445	3	3	2	6
01239	6	Cast Iron	12/1/1961	252	3	3	2	6
01240	6	Cast Iron	12/1/1961	20	3	3	2	6
01241	6	Cast Iron	12/1/1961	3	3	3	1	3
01242	6	Cast Iron	12/1/1961	359	3	3	2	6
01243	6	Cast Iron	12/1/1961	5	3	3	1	3
01244	6	Cast Iron	12/1/1961	460	3	3	2	6
01245	6	Cast Iron	12/1/1961	3	3	3	2	6
01246	6	Cast Iron	12/1/1961	10	3	3	2	6
01247	6	Cast Iron	12/1/1961	3	3	3	1	3
01248	6	Cast Iron	12/1/1961	463	3	3	2	6
01249	6	Cast Iron	12/1/1961	3	3	3	2	6
01250	6	Cast Iron	12/1/1961	10	3	3	2	6
01251	6	Cast Iron	12/1/1961	59	3	3	2	6
01252	6	Cast Iron	12/1/1961	5	3	3	2	6
01253	6	Cast Iron	12/1/1961	406	3	3	2	6
01254	6	Cast Iron	12/1/1961	3	3	3	2	6
01255	6	Cast Iron	12/1/1961	4	3	3	1	3
01256	6	Cast Iron	12/1/1961	237	3	3	2	6
01257	6	Cast Iron	12/1/1961	3	0	0	0	0
01258	6	Cast Iron	12/1/1961	3	0	0	0	0

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
01259	6	Cast Iron	12/1/1961	34	0	0	0	0
01260	8	Cast Iron	12/1/1955	308	4	4	4	16
01261	6	Cast Iron	12/1/1955	40	4	4	4	16
01262	6	Cast Iron	12/1/1955	3	4	3	2	6
01263	8	Cast Iron	12/1/1955	73	4	4	4	16
01264	6	Asbestos Concrete	12/1/1955	22	4	3	2	6
01265	8	Cast Iron	12/1/1955	59	4	4	4	16
01266	6	Asbestos Concrete	4/22/1955	307	4	2	2	4
01267	6	Asbestos Concrete	4/22/1962	20	4	2	2	4
01268	6	Asbestos Concrete	4/22/1962	18	4	2	2	4
01269	6	Asbestos Concrete	4/22/1962	33	4	2	2	4
01270	6	Cast Iron	4/22/1962	34	3	2	2	4
01271	6	Cast Iron	4/22/1962	35	3	2	2	4
01272	6	Cast Iron	4/22/1962	40	3	2	2	4
01273	6	Cast Iron	4/22/1962	42	3	2	2	4
01274	6	Cast Iron	4/22/1962	445	3	2	2	4
01275	6	Cast Iron	4/22/1962	510	3	2	2	4
01276	6	Cast Iron	4/22/1962	18	3	2	2	4
01277	6	Cast Iron	4/22/1962	19	3	2	1	2
01278	6	Cast Iron	4/22/1962	51	3	2	2	4
01279	6	Asbestos Concrete	4/22/1955	450	4	3	2	6
01280	6	Asbestos Concrete	4/22/1962	4	4	3	2	6
01281	6	Asbestos Concrete	4/22/1962	4	4	3	2	6
01282	6	Cast Iron	4/22/1960	501	3	2	2	4
01283	6	Cast Iron	4/22/1962	4	3	2	2	4
01284	6	Cast Iron	4/22/1962	4	3	2	1	2
01285	6	Ductile Iron	6/8/1995	250	2	2	2	4
01286	6	Ductile Iron	6/8/1995	20	2	2	2	4
01287	6	Ductile Iron	6/8/1995	19	2	2	1	2
01288	8	Ductile Iron	6/8/1995	362	2	2	2	4
01289	6	Ductile Iron	6/8/1995	19	2	2	2	4
01290	6	Ductile Iron	6/8/1995	19	2	2	1	2
01291	8	Ductile Iron	6/8/1995	323	2	2	2	4
01292	8	Ductile Iron	6/8/1995	3	2	2	2	4
01293	12	Ductile Iron	6/8/1995	3	2	2	2	4
01294	6	Ductile Iron	6/8/1995	32	2	2	1	2
01295	6	Ductile Iron	6/8/1995	6	2	2	1	2
01296	8	Ductile Iron	6/8/1995	2	2	2	2	4
01297	12	Ductile Iron	6/8/1995	331	2	2	2	4
01299	6	Ductile Iron	5/4/1995	6	2	2	1	2

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
01300	12	Cast Iron	5/4/1995	4	0	2	3	6
01301	6	Ductile Iron	5/4/1995	3	2	2	3	6
01302	12	Ductile Iron	5/4/1995	2	2	2	3	6
01303	8	Ductile Iron	5/4/1995	1	2	2	3	6
01304	8	Ductile Iron	5/4/1995	321	2	2	2	4
01305	6	Ductile Iron	5/4/1995	3	2	2	2	4
01306	6	Ductile Iron	5/4/1995	2	2	2	1	2
01307	8	Ductile Iron	5/4/1995	342	2	2	1	2
01308	6	Ductile Iron	5/4/1995	6	2	2	2	4
01309	6	Ductile Iron	5/4/1995	4	2	2	1	2
01310	8	Ductile Iron	5/4/1995	30	2	2	1	2
01311	6	Ductile Iron	5/4/1995	3	2	2	2	4
01312	6	Ductile Iron	6/8/1995	3	2	2	1	2
01313	8	Ductile Iron	6/8/1995	312	2	2	1	2
01314	6	Ductile Iron	6/8/1995	1	2	2	2	4
01315	6	Ductile Iron	6/8/1995	2	2	2	1	2
01316	8	Ductile Iron	6/8/1995	314	2	2	1	2
01317	8	Ductile Iron	5/4/1995	265	2	2	2	4
01318	6	Ductile Iron	5/4/1995	3	2	2	1	2
01319	12	Ductile Iron	6/8/1995	3	2	2	4	8
01320	8	Cast Iron	12/1/1985	3	3	2	2	4
01321	6	Cast Iron	12/1/1985	3	3	2	2	4
01322	6	Cast Iron	12/1/1985	3	3	2	1	2
01323	8	Cast Iron	12/1/1985	605	3	2	2	4
01324	8	Cast Iron	12/1/1985	91	3	2	2	4
01325	6	Cast Iron	12/1/1985	4	3	0	0	0
01326	6	Cast Iron	12/1/1985	3	3	0	0	0
01327	8	Cast Iron	12/1/1955	417	4	3	2	6
01328	8	Ductile Iron	11/15/1996	318	2	2	3	6
01329	6	Ductile Iron	11/15/1996	8	2	2	3	6
01330	6	Ductile Iron	11/15/1996	3	2	2	1	2
01331	8	Ductile Iron	11/15/1996	338	2	2	3	6
01332	8	Ductile Iron	11/15/1996	221	2	2	3	6
01333	6	Ductile Iron	11/15/1996	3	2	2	2	4
01334	8	Ductile Iron	11/15/1996	110	2	2	3	6
01335	6	Ductile Iron	11/15/1996	9	2	2	3	6
01336	6	Ductile Iron	11/15/1996	3	2	2	1	2
01337	8	Ductile Iron	11/15/1996	550	2	2	3	6
01338	6	Ductile Iron	11/15/1996	5	2	2	2	4
01339	6	Ductile Iron	11/15/1996	3	2	2	1	2

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
01340	8	Ductile Iron	11/15/1996	374	2	2	3	6
01341	12	Ductile Iron	6/8/1995	10	2	2	4	8
01342	6	Cast Iron	6/8/1995	3	2	2	4	8
01343	6	Cast Iron	6/8/1995	3	2	2	1	2
01344	12	Ductile Iron	6/8/1995	308	2	2	4	8
01347	8	Ductile Iron	12/1/1979	411	0	0	0	0
01348	12	Ductile Iron	6/8/1995	316	2	2	4	8
01349	6	Ductile Iron	6/8/1995	3	2	0	0	0
01360	6	Ductile Iron	6/8/1995	3	2	0	0	0
01382	12	Ductile Iron	5/4/1995	514	2	2	2	4
01406	6	Cast Iron	11/11/1971	528	3	3	2	6
01407	6	Cast Iron	4/22/1962	9	3	3	2	6
01408	6	Cast Iron	4/22/1962	14	3	3	2	6
01409	6	Cast Iron	4/22/1962	10	3	3	2	6
01410	6	Cast Iron	4/22/1962	44	3	3	2	6
01411	6	Cast Iron	4/22/1962	5	3	3	2	6
01412	6	Cast Iron	4/22/1962	3	3	3	1	3
01413	6	Cast Iron	4/22/1962	349	3	3	2	6
01414	6	Cast Iron	4/22/1962	7	3	3	2	6
01415	6	Cast Iron	4/22/1962	8	3	3	2	6
01416	6	Cast Iron	4/22/1962	10	3	3	2	6
01417	6	Asbestos Concrete	4/22/1965	129	4	3	2	6
01418	6	Asbestos Concrete	4/22/1960	4	4	3	2	6
01419	6	Asbestos Concrete	4/22/1960	3	4	3	1	3
01420	6	Cast Iron	4/22/1962	291	3	3	2	6
01421	6	Cast Iron	4/22/1962	3	3	3	2	6
01422	6	Asbestos Concrete	4/22/1960	318	4	3	2	6
01423	6	Asbestos Concrete	4/22/1960	4	4	3	2	6
01424	6	Cast Iron	4/22/1962	359	3	3	2	6
01425	6	Cast Iron	4/22/1962	600	3	3	2	6
01426	10	Ductile Iron	12/1/1972	420	2	2	5	10
01427	6	Ductile Iron	12/1/1972	4	2	2	5	10
01428	6	Ductile Iron	12/1/1972	3	2	0	0	0
01429	10	Ductile Iron	12/1/1972	310	2	2	5	10
01430	10	Ductile Iron	12/1/1972	4	2	2	5	10
01431	10	Ductile Iron	12/1/1990	247	2	1	5	5
01432	6	Ductile Iron	12/1/1972	3	2	2	1	2
01433	6	Ductile Iron	12/1/1972	122	2	1	2	2
01434	10	Ductile Iron	12/1/1972	30	2	2	5	10
01435	6	Cast Iron	12/8/1950	3	2	2	2	4

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
01436	6	Cast Iron	12/8/1950	3	2	2	1	2
01438	8	Cast Iron	12/4/1959	3	3	3	1	3
01439	6	Cast Iron	4/21/1961	8	3	3	2	6
01440	6	Cast Iron	12/1/1958	3	4	0	0	0
01441	6	Cast Iron	12/1/1958	3	4	0	0	0
01443	6	Cast Iron	12/1/1965	415	3	3	2	6
01444	6	Ductile Iron	11/15/2012	49	1	1	4	4
01445	6	Ductile Iron	11/15/2012	26	1	1	4	4
01446	6	Ductile Iron	11/5/1973	60	2	2	2	4
01447	6	Asbestos Concrete	12/3/1959	7	2	2	2	4
01447	6	Ductile Iron	12/1/1986	7	2	2	2	4
01448	6	Ductile Iron	12/1/1986	378	2	2	2	4
01449	6	Cast Iron	11/26/1961	3	3	3	2	6
01450	6	Cast Iron	4/22/1962	3	3	3	1	3
01451	8	Cast Iron	4/21/1961	48	3	3	2	6
01452	8	Cast Iron	4/21/1961	3	3	3	2	6
01453	12	Ductile Iron	12/1/2001	14	1	0	0	0
01454	12	Ductile Iron	12/1/2001	58	1	1	3	3
01455	12	Ductile Iron	11/5/1998	14	2	2	4	8
01456	8	Ductile Iron	7/1/2013	388	1	1	4	4
01457	6	Ductile Iron	11/15/1996	3	2	2	1	2
01458	6	Cast Iron	12/1/1961	3	3	3	1	3
01459	6	Asbestos Concrete	12/3/1956	3	4	2	2	4
01460	6	Cast Iron	1/1/1959	203	2	2	2	4
01461	6	Ductile Iron	12/1/1970	390	2	0	0	0
01462	6	Ductile Iron	12/1/1970	10	2	0	0	0
01463	6	Ductile Iron	12/1/1970	261	2	0	0	0
01464	6	Ductile Iron	12/1/1970	59	2	0	0	0
01465	6	Ductile Iron	12/1/1970	231	2	0	0	0
01466	6	Ductile Iron	12/1/1970	11	2	0	0	0
01467	6	Cast Iron	12/8/1959	10	3	3	2	6
01468	6	Cast Iron	5/14/1965	62	2	2	2	4
01469	6	Cast Iron	4/22/1960	24	3	2	2	4
01470	6	Cast Iron	4/22/1962	3	0	0	0	0
01471	8	Ductile Iron	6/8/1995	3	2	2	4	8
01472	6	Cast Iron	12/1/1961	3	3	3	1	3
01473	8	Cast Iron	12/4/1959	6	3	3	2	6
01474	8	Cast Iron	12/4/1959	293	3	3	2	6
01475	6	Asbestos Concrete	12/7/1954	3	4	2	2	4
01476	10	Cast Iron	12/4/1959	289	3	2	3	6

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
01477	8	Cast Iron	12/4/1959	3	3	3	2	6
01478	6	Cast Iron	12/4/1959	9	3	3	1	3
01479	8	Cast Iron	12/4/1959	20	3	3	2	6
01480	6	Cast Iron	5/8/1965	318	3	3	2	6
01481	10	Cast Iron	12/4/1959	26	3	2	3	6
01482	4	Cast Iron	12/9/1940	3	3	3	2	6
01483	8	Cast Iron	12/4/1959	2	0	0	0	0
01484	10	Ductile Iron	12/1/1988	20	2	2	3	6
01485	8	Ductile Iron	12/1/1988	3	2	2	3	6
01486	8	Ductile Iron	12/1/1988	8	2	2	3	6
01487	8	Cast Iron	12/1/1988	8	0	2	3	6
01488	6	Asbestos Concrete	12/1/1948	7	4	2	2	4
01489	6	Asbestos Concrete	12/1/1948	5	4	2	2	4
01490	6	Asbestos Concrete	12/1/1948	326	4	2	2	4
01491	6	Asbestos Concrete	12/1/1948	343	4	2	2	4
01492	6	Asbestos Concrete	12/1/1957	3	4	0	0	0
01493	6	Asbestos Concrete	12/1/1957	43	4	0	0	0
01494	6	Ductile Iron	12/1/1970	207	2	0	0	0
01495	6	Ductile Iron	12/1/1970	136	2	0	0	0
01496	12	Ductile Iron	11/5/2004	43	1	1	3	3
01497	8	Cast Iron	12/1/1960	3	4	4	4	16
01498	12	Ductile Iron	12/4/1989	678	2	2	3	6
01499	10	Cast Iron	12/4/1989	53	2	2	2	4
01500	8	Ductile Iron	7/1/2013	103	1	1	4	4
01501	12	Ductile Iron	11/15/2012	42	1	1	4	4
01502	8	Cast Iron	12/8/1957	208	3	3	2	6
01503	8	Cast Iron	12/8/1957	97	3	3	2	6
01504	8	Cast Iron	12/8/1988	172	2	2	3	6
01507	8	Cast Iron	12/8/1959	208	3	3	4	12
01508	10	Ductile Iron	12/1/2002	6	1	1	1	1
01509	10	Ductile Iron	12/1/2002	3	1	1	2	2
01514	8	Ductile Iron	12/1/1979	17	2	2	2	4
01515	8	Ductile Iron	12/1/2002	3	1	2	2	4
01516	8	Ductile Iron	12/1/2002	3	1	2	2	4
01517	8	Ductile Iron	12/1/2002	3	1	2	2	4
01518	8	Ductile Iron	12/1/2002	199	1	2	2	4
01519	8	Ductile Iron	12/1/2002	5	1	2	2	4
01520	8	Ductile Iron	12/1/2002	3	1	2	2	4
01521	8	Ductile Iron	12/1/2002	47	1	2	2	4
01522	8	Ductile Iron	12/1/1985	317	2	2	2	4

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
01523	6	Ductile Iron	12/3/1980	201	2	2	2	4
01524	12	Ductile Iron	11/15/2012	287	1	1	4	4
01525	8	Cast Iron	12/8/1957	335	3	2	2	4
01526	8	Ductile Iron	12/1/2003	253	1	0	0	0
01527	8	Ductile Iron	12/1/2003	25	1	0	0	0
01528	8	Ductile Iron	12/1/2003	3	1	0	0	0
01529	8	Ductile Iron	12/1/2003	20	1	0	0	0
01530	6	Ductile Iron	12/1/2003	4	1	0	0	0
01531	6	Cast Iron	12/1/1940	121	3	3	2	6
01532	6	Cast Iron	12/8/1957	3	3	3	2	6
01535	6	Ductile Iron	1/1/2004	120	1	1	1	1
01536	12	HDPE	11/15/2012	176	1	1	4	4
01537	6	Ductile Iron	4/1/2011	56	1	1	3	3
01538	6	Ductile Iron	11/15/2012	15	1	1	4	4
01539	12	Ductile Iron	11/15/2012	77	1	1	4	4
01540	6	Ductile Iron	11/15/2012	12	1	1	4	4
01541	6	Ductile Iron	11/15/2012	5	1	1	4	4
01543	10	Ductile Iron	11/15/2012	37	1	1	4	4
01543	10	Ductile Iron	1/22/1980	8	2	2	2	4
01544	10	Ductile Iron	1/22/1980	96	2	2	2	4
01545	4	Ductile Iron	12/3/1959	125	2	2	2	4
01546	4	Asbestos Concrete	12/3/1959	60	4	2	2	4
01547	3	Copper	12/3/1959	15	2	2	3	6
01548	2	Copper	12/3/1959	30	2	2	2	4
01549	6	Ductile Iron	11/15/2012	53	1	1	4	4
01550	12	Ductile Iron	11/15/2012	25	1	1	4	4
01551	6	Ductile Iron	11/15/2012	20	1	1	2	2
01552	8	Ductile Iron	11/15/2012	3	1	1	4	4
01553	8	Cast Iron	12/8/1959	106	3	3	2	6
01554	12	Ductile Iron	12/1/1992	77	2	2	2	4
01556	8	Ductile Iron	12/1/1992	77	2	2	2	4
01558	8	Ductile Iron	11/15/2012	46	1	1	4	4
01559	6	Ductile Iron	11/15/2012	10	1	1	2	2
01560	6	Ductile Iron	12/3/1980	4	2	2	1	2
01561	6	Ductile Iron	12/3/1980	38	2	2	3	6
01562	4		12/3/1980	121	2	2	2	4
01563	6	Cast Iron	12/3/1961	470	2	2	2	4
01564	2	PEX	6/30/2012	150	1	2	1	2
01565	8	Ductile Iron	11/15/2012	9	1	1	2	2
01566	8	Ductile Iron	11/15/2012	16	1	1	4	4

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
01567	8	Ductile Iron	11/15/2012	5	1	2	2	4
01568	6	Ductile Iron	7/1/2013	36	1	1	4	4
01570	6	Ductile Iron	11/15/2012	38	1	1	4	4
01571	12	Ductile Iron	11/15/2012	160	1	1	4	4
01572	12	Ductile Iron	11/15/2012	40	1	1	4	4
01573	12	Ductile Iron	11/15/2012	35	1	1	4	4
01574	12	Ductile Iron	11/15/2012	70	1	1	4	4
01575	12	Ductile Iron	11/15/2012	10	1	1	4	4
01581	6	Cast Iron	12/3/1956	4	3	2	1	2
01582	8	Ductile Iron	11/15/1996	127	2	2	3	6
01583	12	Ductile Iron	11/15/2012	54	1	1	4	4
01585	6	Cast Iron	12/8/1965	3	3	3	2	6
01585	8	Ductile Iron	11/15/2012	68	1	1	4	4
01586	12	Ductile Iron	12/1/2001	40	1	1	3	3
01590	12	Ductile Iron	12/1/2001	0	1	0	0	0
01591	8	Cast Iron	12/9/1940	43	3	3	2	6
01592	6		11/5/1999	3	2	0	0	0
01593	6		11/5/1999	3	2	0	0	0
01594	12	Ductile Iron	5/15/2003	18	1	1	4	4
01595	12	Ductile Iron	11/15/2012	21	1	1	4	4
01596	12	Ductile Iron	11/15/2012	13	1	1	4	4
01597	12	Ductile Iron	11/15/2012	18	1	1	4	4
01598	12	Ductile Iron	11/15/2012	20	1	1	4	4
01599	12	Plastic	11/5/2004	460	1	2	5	10
01600	8	Ductile Iron	7/1/2013	15	1	1	4	4
01601	10	Ductile Iron	11/5/1999	7	2	2	4	8
01602	10	Ductile Iron	11/15/2012	2	1	0	0	0
01603	6	Cast Iron	8/4/1999	11	2	2	2	4
01604	6	Ductile Iron	11/15/2012	51	1	1	4	4
01605	12	Ductile Iron	11/15/2012	35	1	1	4	4
01606	12	Ductile Iron	11/15/2012	27	1	1	2	2
01607	12	Ductile Iron	11/15/2012	14	1	1	2	2
01608	12	Ductile Iron	11/15/2012	32	1	1	2	2
01609	12	Ductile Iron	11/15/2012	25	1	1	4	4
01610	12	Ductile Iron	11/15/2012	35	1	1	4	4
01611	12	Ductile Iron	11/15/2012	11	1	1	4	4
01612	12	Ductile Iron	11/15/2012	22	1	1	4	4
01613	12	Ductile Iron	11/15/2012	14	1	1	4	4
01614	12	Ductile Iron	11/15/2012	18	1	1	4	4
01615	12	Ductile Iron	11/15/2012	39	1	1	4	4

ID	DIAMETER	MATERIAL	Installed	Length in Feet	Condition	Probability of Failure	Consequence of Failure	Asset Criticality
01616	8	Ductile Iron	11/15/2012	2	1	2	2	4
01617	6	Cast Iron	11/15/2012	48	0	1	4	4
01617	6	Ductile Iron	12/3/1980	5	2	2	3	6
01618	8	Cast Iron	12/9/1940	3	3	3	3	9
01619	12	Ductile Iron	11/15/2012	49	1	1	4	4
01620	6	Cast Iron	12/8/1950	96	2	2	2	4
01621	12	Ductile Iron	11/15/2012	29	1	1	2	2
01622	12	Ductile Iron	11/15/2012	18	1	1	2	2
01623	12	Ductile Iron	11/15/2012	18	1	1	2	2
01624	8	Cast Iron	12/9/1940	62	3	3	4	12
01625	8	Cast Iron	12/9/1940	9	3	3	2	6
01626	8	Cast Iron	12/8/1959	27	3	3	4	12
01627	8	Cast Iron	12/1/1960	105	4	4	4	16
01628	8	Ductile Iron	10/21/2003	1	1	1	4	4
01629	8	Ductile Iron	10/21/2009	1	1	1	4	4
01630	8	Ductile Iron	10/21/2009	1	1	1	4	4
01631	8	Ductile Iron	10/21/2009	1	1	1	4	4
01632	6	Cast Iron	12/1/1956	106	2	2	1	2
01633	6	Ductile Iron	11/15/2012	54	1	1	3	3
01634	12	Ductile Iron	11/15/2012	36	1	1	2	2
01635	12	Ductile Iron	11/15/2012	20	1	1	2	2
01636	12	Ductile Iron	11/15/2012	39	1	1	2	2
01637	12	Ductile Iron	11/15/2012	41	1	1	2	2
01638	12	Ductile Iron	11/15/2012	94	1	1	2	2
01639	12	Ductile Iron	11/15/2012	19	1	1	2	2
01640	12	Ductile Iron	11/15/2012	94	1	1	2	2
01641	12	Ductile Iron	11/15/2012	58	1	1	2	2
01642	12	Ductile Iron	11/15/2012	27	1	1	2	2
01643	12	Ductile Iron	11/15/2012	8	1	1	2	2
01644	12	Ductile Iron	11/15/2012	4	1	1	2	2
01645	12	Ductile Iron	11/15/2012	38	1	1	3	3
01646	12	Ductile Iron	11/15/2012	54	1	1	2	2
01647	12	Ductile Iron	11/15/2012	45	1	1	4	4
00609	6	Cast Iron	5/14/1965	73	3	3	2	6

Table 4

City of Plainwell Water System Criticality Analysis-Meters 11/6/2017

Source meters

Well	Location	Installed	Totalized Gallons x1000	Probability of Failure	Consequence of Failure	Asset Criticality
5	1163 W. Bridge	2015	23000	1	1	1
4	329 S. Sherwood	1967	437673	5	4	20
7	329 S. Sherwood	1998	556160	2	4	8

Customer Community Meters

Size	Location	Installed	Totalized Gallons	Probability of Failure	Consequence of Failure	Asset Criticality
6"	PINE MEADOWS	10/19/2006	10,880,140	3	2	6
6"	GORES ADDITION	1/15/1994	1,545,000	3	2	6
4"	1168 W BRIDGE ST	4/8/2011	31,793,000	4	2	8
4"	601 SCHOOL DR	8/6/1999	4,235,000	3	2	6
4"	684 STARR RD	7/14/2011	12,892,000	2	2	4

Commercial Meters

Size	Location	Installed	Totalized Gallons	Probability of Failure	Consequence of Failure	Asset Criticality
2"	N 10TH ST	3/28/2017	2815000	1	2	2
2"	327 12TH ST	6/5/2015	2154000	1	2	2
2"	331 12TH ST	8/16/2011	6262000	2	2	4
2"	335 12TH ST	9/27/2012	4889000	1	2	2
2"	343 12TH ST	9/20/2011	3561000	2	2	4
2"	347 12TH ST	9/20/2011	3935000	2	2	4
2"	349 12TH ST	9/20/2011	2547000	2	2	4
2"	381 12TH ST	8/18/1995	1100000	3	2	6
2"	381 12TH ST	1/6/2005	4236000	2	2	4
2"	323 N ACORN ST	12/21/1995	674000	3	2	6
2"	323 N ACORN ST	4/28/1999	58507420	3	2	6
2"	323 N ACORN ST	11/9/1995	2140000	3	2	6
2"	101 ALLEGAN ST	5/6/2013	2293000	1	2	2
2"	200 ALLEGAN ST	4/27/2009	538000	2	2	4
2"	200 ALLEGAN ST	4/27/2009	6790000	2	2	4
2"	200 ALLEGAN ST	1/15/2007	3167000	2	2	4
2"	618 ALLEGAN ST	12/16/2015	561000	1	2	2
2"	622 ALLEGAN ST	1/8/1996	6662000	3	2	6
2"	135 N ANDERSON ST	10/3/2017	0	1	2	2

Size	Location	Installed	Totalized Gallons	Probability of Failure	Consequence of Failure	Asset Criticality
2"	115 W BRIDGE ST	5/3/2010	9000	2	2	4
2"	203 W BRIDGE ST	10/9/2000	8647000	2	2	4
2"	320 BRIGHAM ST	3/12/1996	2952000	3	2	6
2"	720 BRIGHAM ST	1/6/2005	812000	2	2	4
2"	126 FAIRLANE BARN	8/1/2007		2	2	4
2"	GORES ADDITION	10/28/2009	26630000	2	2	4
2"	119 ISLAND AVE	11/30/2012	354667	1	2	2
2"	119 ISLAND AVE	11/30/2012	45000	1	2	2
2"	946 LINCOLN PKWY	1/19/2009	1140000	2	2	4
2"	950 LINCOLN PKWY	1/6/2005	8495000	2	2	4
2"	131 S MAIN ST	12/21/1994	1172000	3	2	6
2"	219 N MAIN ST	8/1/2011	4121000	2	2	4
2"	403 N MAIN ST	6/30/2011	4109000	2	2	4
2"	1100 N MAIN ST	4/12/1993	6225000	3	2	6
2"	409 NAOMI ST	10/7/1993	1924000	3	2	6
2"	413 NAOMI ST	8/9/2000	1076000	2	2	4
2"	345 NAOMI ST	9/5/2003	3088000	2	2	4
2"	345 NAOMI ST	1/6/2005	2734000	2	2	4
2"	200 PARK ST	3/28/1994	1366333	3	2	6
2"	PINE MEADOWS	10/19/2006	2612000	2	2	4
2"	413 PRINCE ST	11/14/1995	5246000	3	2	6
2"	121 N SHERWOOD AV	9/6/2013	2043000	1	2	2
2"	684 STARR RD	1/6/2005	9378000	2	2	4
2"	171 N SUNSET ST	3/19/2006		2	2	4
2"	707 S WOODHAMS ST	10/1/2004	3178000	2	2	4
2"	707 S WOODHAMS ST	1/6/2005	5230000	2	2	4
3"	200 ALLEGAN ST	12/28/2011	797000	1	2	2
3"	720 BRIGHAM ST	6/1/2004	624000	2	2	4
3"	929 LINCOLN PKWY	5/2/1997	2449000	3	2	6
3"	411 NAOMI ST	1/6/2005	3501000	2	2	4
3"	411 NAOMI ST	4/25/2011	6129000	1	2	2
3"	601 SCHOOL DR	8/4/2005	1299000	2	2	4

Table 5

City of Plainwell Water System Capital Improvement Plan 11/6/2017

Water 20 yr. CIP, 17-18 througthrough 21-22

Line Item	Description	17-18 REQUESTED BUDGET	18-19 REQUESTED BUDGET	19-20 REQUESTED BUDGET	20-21 REQUESTED BUDGET	21-22 REQUESTED BUDGET
591-970-972.000	Contracted Services	$54,600.00	$32,817.49	$1,100,000.00	$75,000.00	$21,400.00
591-908-991.000	Principal Payment-DWRF Loan	$85,000.00	$85,000.00	$85,000.00		
591-908-995.000	Interest Payment-DWRF Loan	$9,938.00	$9,938.00	$9,938.00		
Totals for DEBT SERVICE	DEBT SERVICE	$94,938.00	$94,938.00	$94,938.00	$66,766.00	$66,766.00
Totals for CIP		$149,538.00	$127,755.49	$1,194,938.00	$141,766.00	$88,166.00
Amount +-CIP target =	$130,000	-$19,538.00	$2,244.51	-$1,064,938.00	-$11,766.00	$41,834.00
FUND BALANCE		$287,674.44	$289,918.95	$124,980.95	$113,214.95	$155,048.95

City of Plainwell Water System Capital Improvement Plan

Water 20 yr. CIP, 22-23 through 26-27

Line Item	Description		22-23 REQUESTED BUDGET	23-24 REQUESTED BUDGET	24-25 REQUESTED BUDGET	25-26 REQUESTED BUDGET	26-27 REQUESTED BUDGET
591-970-972.000	Contracted /ices		$100,000.00	$0.00	$347,600.00	$0.00	$0.00
591-908-991.000	Principal Payment- DWRF Loan						
591-908-995.000	Interest Payment- DWRF Loan						
Totals for DEBT SERVICE		DEBT SERVICE	$66,766.00	$66,766.00	$66,766.00	$66,766.00	$66,766.00
Totals for CIP			$166,766.00	$66,766.00	$414,366.00	$66,766.00	$66,766.00
Amount +-CIP target =		$130,000	-$36,766.00	$63,234.00	-$284,366.00	$63,234.00	$63,234.00
FUND BALANCE			$118,282.95	$181,516.95	-$102,849.05	-$39,615.05	$23,618.95

City of Plainwell Water System Capital Improvement Plan

Water 20 yr. CIP, 27-28 through 31-32

Line Item	Description		27-28 REQUESTED BUDGET	28-29 REQUESTED BUDGET	29-30 REQUESTED BUDGET	30-31 REQUESTED BUDGET	31-32 REQUESTED BUDGET
591-970-972.000	Contracted Services		$6,400.00	$117,368.74	$90,000.00	$0.00	$90,000.00
591-908-991.000	Principal Payment- DWRF Loan						
591-908-995.000	Interest Payment- DWRF Loan						
Totals for DEBT SERVICE		DEBT SERVICE	$66,766.00	$66,766.00	$66,766.00	$66,766.00	$66,766.00
Totals for CIP			$73,166.00	$184,134.74	$156,766.00	$66,766.00	$156,766.00
Amount +-CIP target =		$130,000	$56,834.00	-$54,134.74	-$26,766.00	$63,234.00	-$26,766.00
FUND BALANCE			$80,452.95	$26,318.21	-$447.79	$62,786.21	$36,020.21

City of Plainwell Water System Capital Improvement Plan

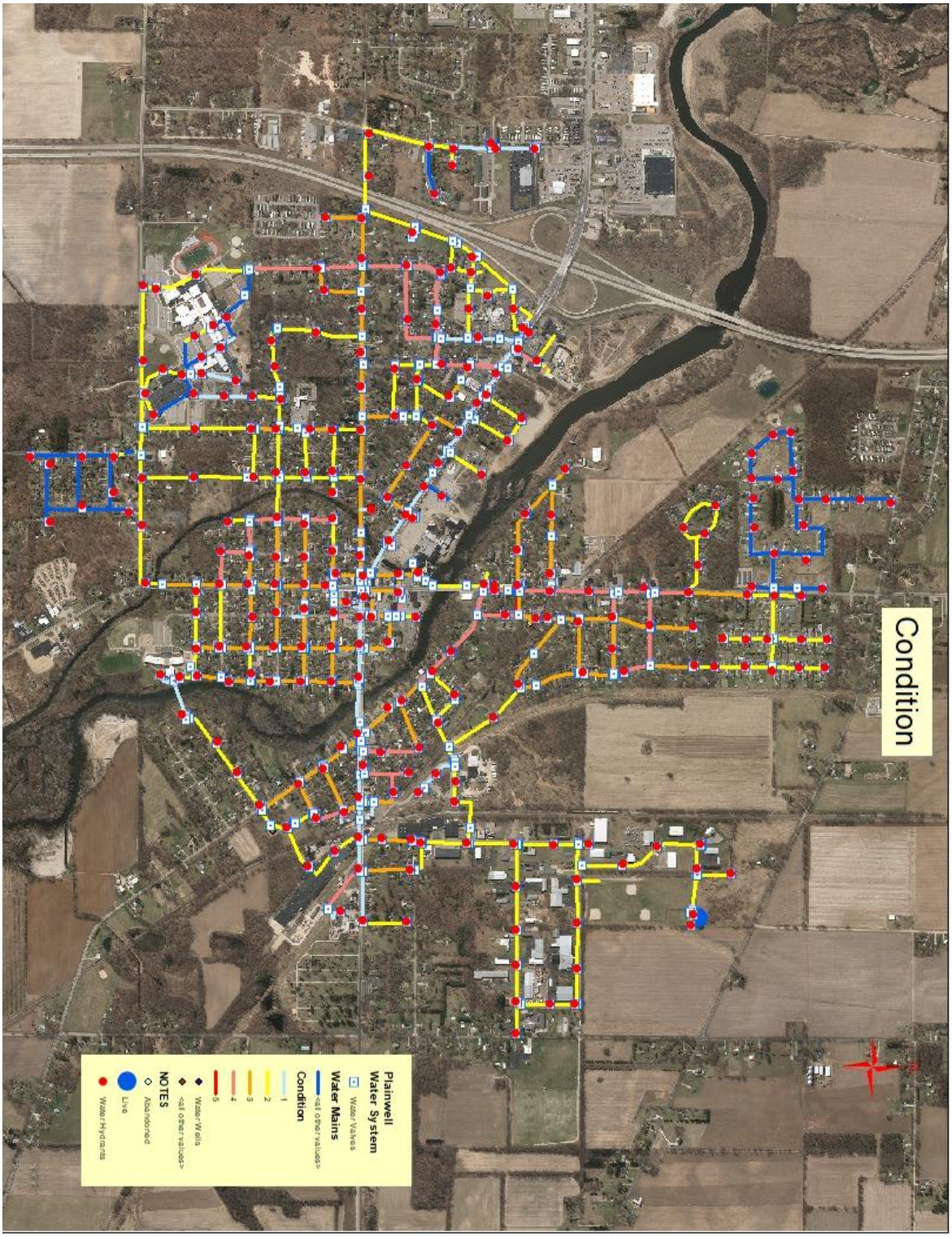
Water 20 yr. CIP, 32-33 through 36-37

Line Item	Description	32-33 REQUESTED BUDGET	33-34 REQUESTED BUDGET	34-35 REQUESTED BUDGET	35-36 REQUESTED BUDGET	36-37 REQUESTED BUDGET
591-970-972.000	Contracted Services	$6,400.00	$0.00	$238,874.00	$29,120.60	$34,093.12
591-908-991.000	Principal Payment- DWRF Loan					
591-908-995.000	Interest Payment- DWRF Loan					
Totals for DEBT SERVICE	DEBT SERVICE	$66,766.00	$66,766.00	$66,766.00	$66,766.00	$66,766.00
Totals for CIP		$73,166.00	$66,766.00	$305,640.00	$95,886.60	$100,859.12
Amount +-CIP target =	$130,000	$56,834.00	$63,234.00	-$175,640.00	$34,113.40	$29,140.88
FUND BALANCE		$92,854.21	$156,088.21	-$19,551.79	$14,561.61	$43,702.49

Attachments VIII.

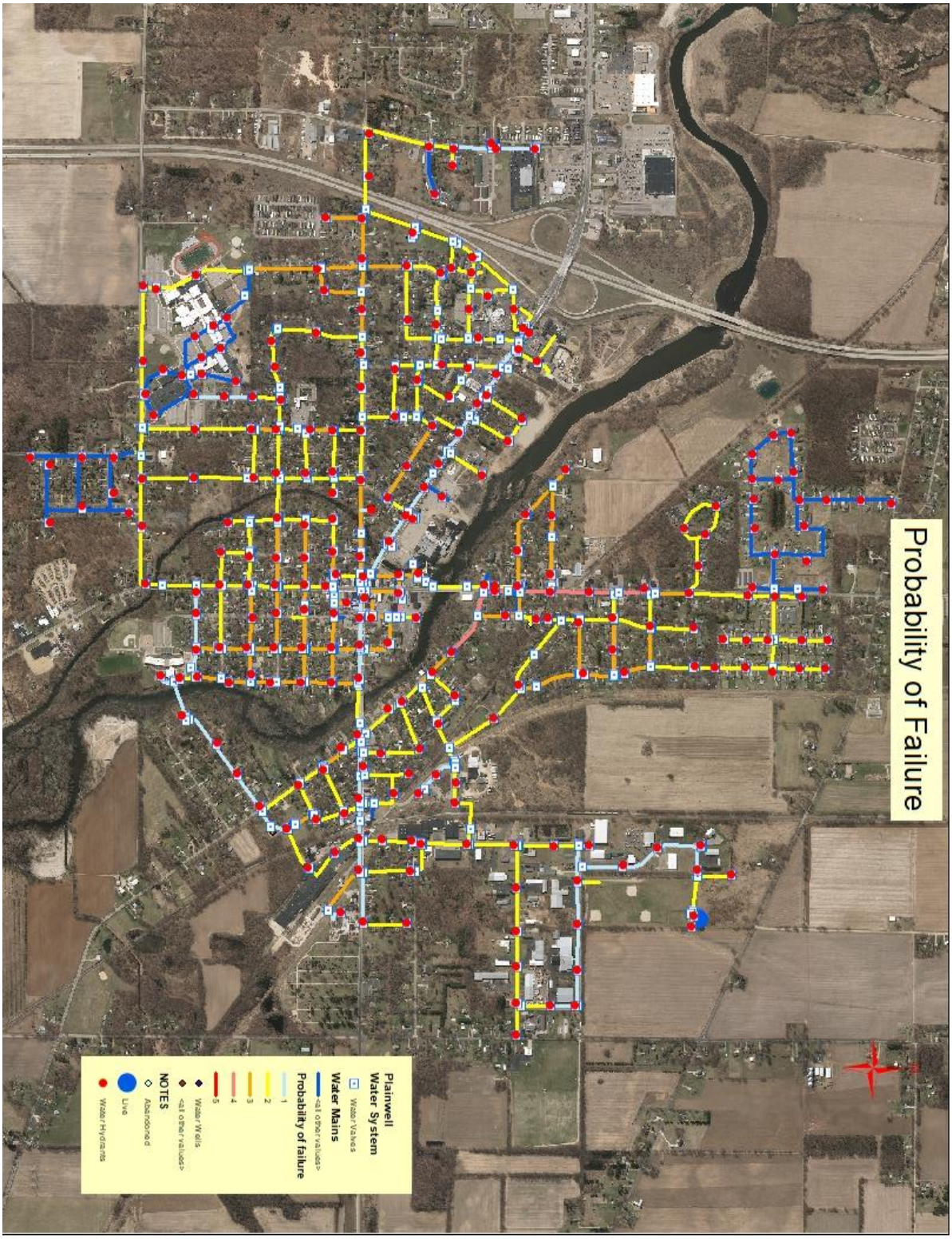
Attachment 1

Condition



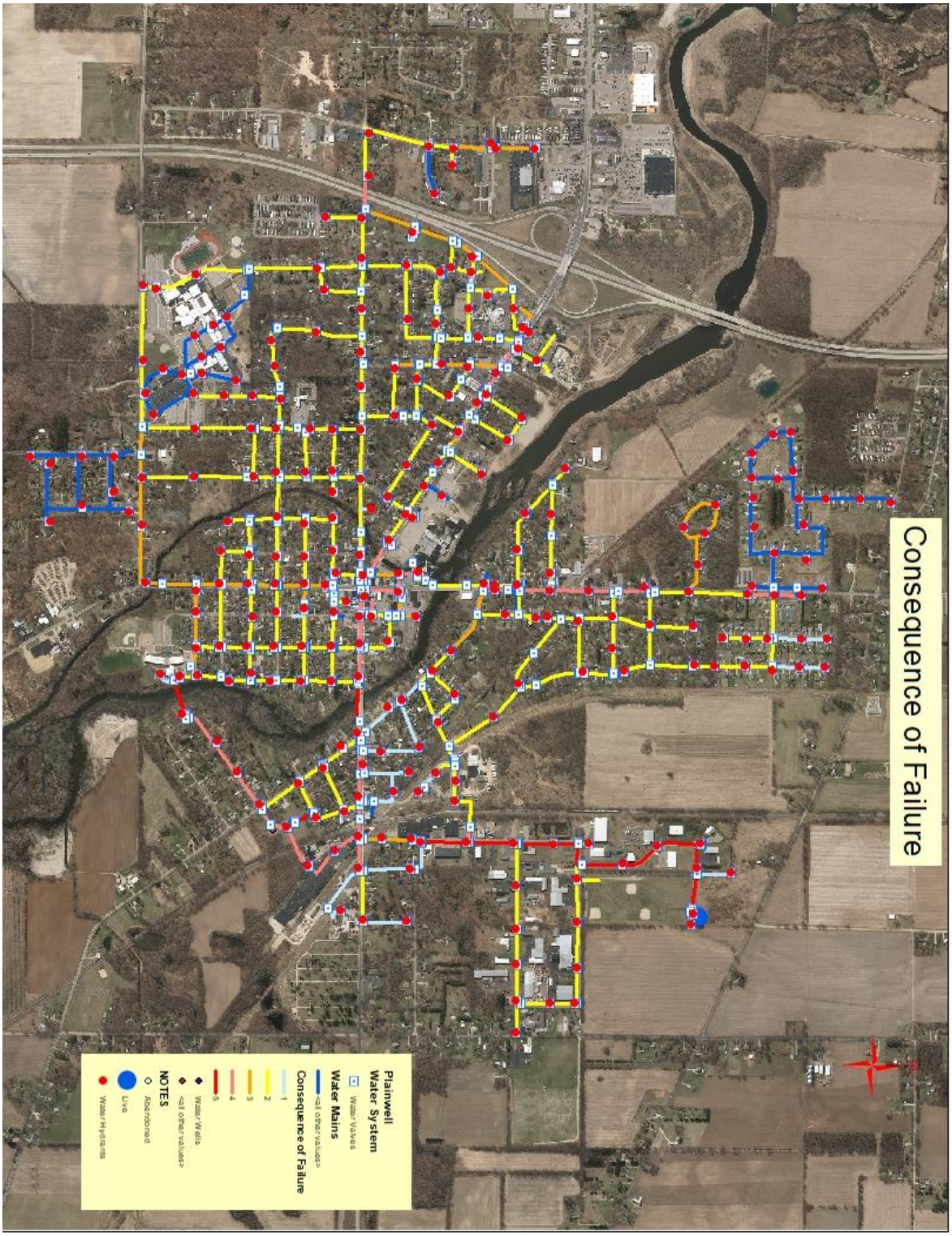
Attachment 2

Probability of Failure



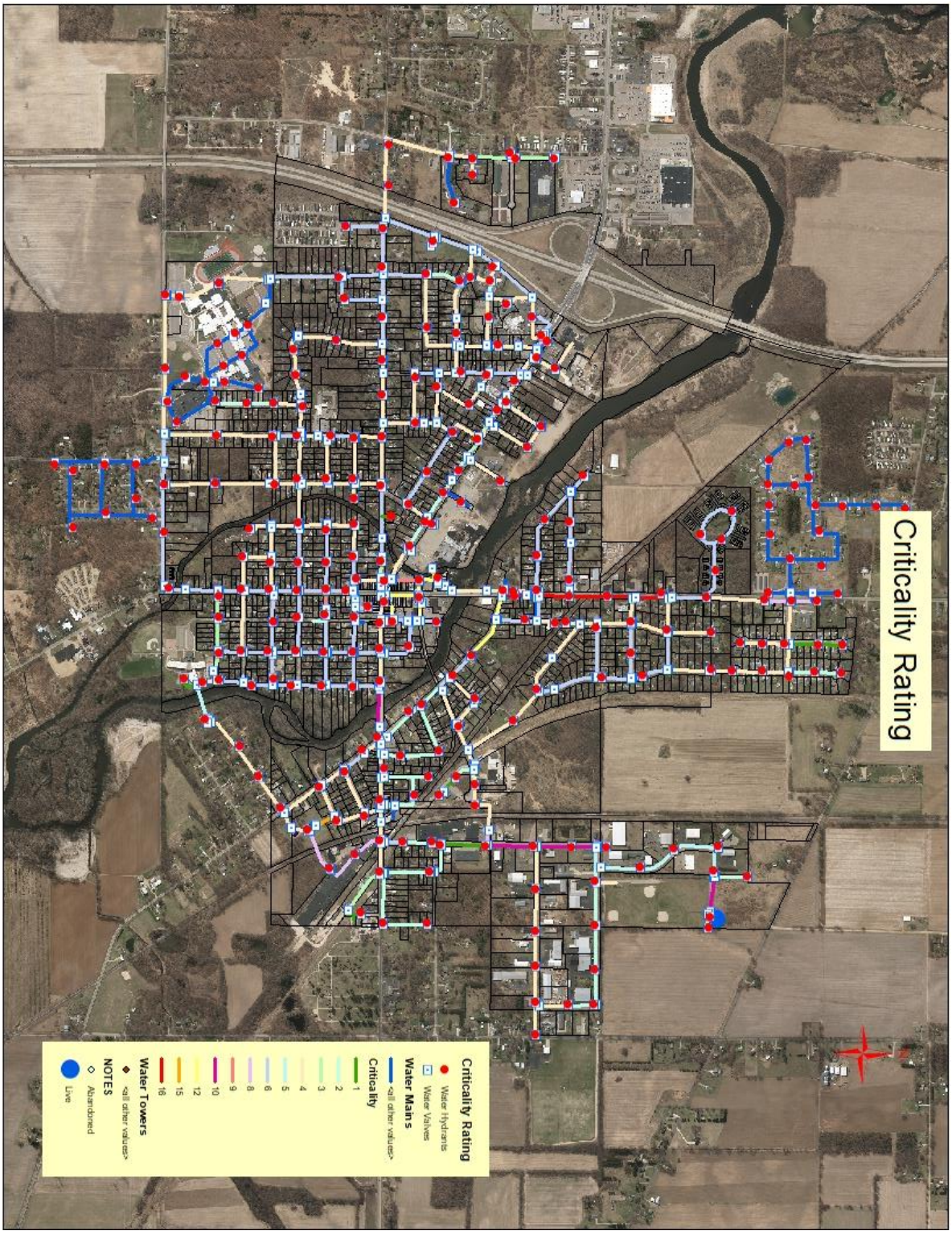
Attachment 3

Consequence of Failure



Attachment 4

Criticality Rating



Attachment 5

Capital Improvement Plan Project Details

2017-2018

Extend 8" water main into former Plainwell Paper property, from Allegan Street near Prince Street, for future development. CIP=$54,600

2018-2019

Connect to an existing 12" water main stubbed from Allegan Street into GHD property at the former east drive into the former Plainwell Paper Property. Extend this 12" 200' north to provide water to the greater Plainwell Paper property in the future. Also, extend an 8" water line to GHD to provide a new service to GHD/ City Hall. This project is also necessary to eliminate old water infrastructure in Pell Park in the future. CIP=$50,000

2019-2020

Bond for $1,100,000 to provide funding for interior water tank painting ($238,874), relaying a 12" water main on Sherwood Street between the 12" main at Oak Street and the 12" main at Main Street ($208,000), and the purchase and installation of a radio water meter reading system ($550,000). Perform this work when scheduling allows. CIP=$1,100,000

2020-2021

Connect to the 12" water main on at the south end of the N. Main Street Bridge over the Kalamazoo River and extend the 12" south 360' to Bannister Street and then 140' west to connect to a 10" main near the Kalamazoo River Mill Race. This project will improve system hydraulics and eliminate old water mains in Pell Park that were installed when the City's water plant was on the property. An 8" water main under the Mill Race can also be abandoned. CIP=$75,000

2021-2022

Water tower tank exterior cleaning. CIP =$6,400

2022-2023

Rebuild 3 Variable Frequency Drives at City source water wells for $5000 each. CIP=$15,000

2023-2024

No work is scheduled this budget cycle.

2024-2025

Extend 8” water main from Florence Street to the Industrial Parkway 10” water main. Project will loop water at the Industrial Park and provide another path for water to flow from the water tower. At present, any disruption in water flow north of 320 Acorn Street isolates the water tower and requires either opening a bypass and feeding water from Otsego Township or running a well with a pressure reducing device wasting water. This project will require right-of-way acquisition in Gun Plain Township. CIP=$347,600

2025-2026

No work is scheduled this budget cycle.

2026-2027

No work is scheduled this budget cycle.

2027-2028

Water tower tank exterior cleaning. CIP=$6,400

2028-2029

Two year project to relay all existing 4" water main with 8" CIP=$117,400

2029-2030

Paint exterior of water tower tank. CIP=$90,000

2030-2031

No work is scheduled this budget cycle.

2031-2032

Upgrade 750' of 8" on Acorn to 12". This project will provide a path using large water main from the primary water wells to the water tower. CIP =$90,000

2032-2033

Water tower tank exterior cleaning. CIP=$6,400

2033-2034

No work is scheduled this budget cycle.

2034-2035

Paint interior of water tower tank. CIP=$240,000

2035-2036

Replace 4" main on N. Main Street. CIP=$55,000

2036-2037

Replace asbestos concrete pipe on N. Sunset Street. CIP=$75,000

Attachment 6

11/08/2017 07:48 AM
User: BKELLEY
DB: Plainwell

BUDGET REPORT FOR CITY OF PLAINWELL
Fund: 591 WATER FUND

GL NUMBER	DESCRIPTION	2014-15 ACTIVITY	2015-16 ACTIVITY	2016-17 ACTIVITY	2017-18 COUNCIL'S BUDGET BUDGET	2017-18 AMENDED BUDGET
ESTIMATED REVENUES						
Dept 000-OPERATIONS						
591-000-443.000	Utility Connection Charge - Inside		4,965	10,300		
591-000-460.000	Readiness to Serve Charge - City	155,200	160,829	166,516	172,246	172,246
591-000-460.010	Readiness to Service Charge - Gun	14,486	15,356	15,835	16,420	16,420
591-000-545.000	State Grant	4,000	10,492			
591-000-642.000	Metered Services (O&M) - City	227,191	232,744	250,973	260,466	260,466
591-000-642.010	Metered Services (O&M) - Gun Plair	18,714	20,410	23,081	22,500	22,500
591-000-651.000	Use Fees - Water Turn-Ons	5,635	4,386	4,849	3,500	3,500
591-000-664.014	Interest - Interfund Loans	308	283	259	235	235
591-000-664.020	Interest Earned - Investments	353	113	975	500	500
591-000-667.000	Rents - Water Tower	32,011	31,830	19,224	12,000	12,000
591-000-676.050	Interfund Transfer In - Major Stre				2,499	2,499
591-000-694.000	Miscellaneous Revenue	1,374	13,910	1,937	1,523	1,523
Totals for dept 000-OPERATIONS		459,272	495,318	493,949	491,889	491,889
TOTAL ESTIMATED REVENUES		459,272	495,318	493,949	491,889	491,889

Attachment 7

Utility Rate Schedule

City of Plainwell

Workpaper Reference C-1.5

Utilities Rate Schedule

Item	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18
Water O & M	1.75	1.79	1.83	1.83	1.83	1.83	1.83	1.88	1.94	2.04	2.11	2.19	2.27	2.36
Water RTS 3/4"	5.95	6.20	6.45	6.45	6.45	6.45	6.45	6.64	6.84	7.20	7.44	7.72	8.00	8.30
Water RTS 1"	8.83	10.22	11.61	11.61	11.61	11.61	11.61	11.96	12.32	12.96	13.40	13.90	14.40	14.95
Water RTS 1 1/2"	9.76	11.34	12.90	12.90	12.90	12.90	12.90	13.29	13.69	14.40	14.89	15.44	16.00	16.61
Water RTS 2"	13.12	15.28	17.42	17.42	17.42	17.42	17.42	17.94	18.48	19.44	20.10	20.84	21.59	22.41
Water RTS 3"	17.98	20.92	23.87	23.87	23.87	23.87	23.87	24.59	25.33	26.65	27.56	28.58	29.61	30.74
Water RTS 4"	24.38	28.32	32.25	32.25	32.25	32.25	32.25	33.22	34.22	36.00	37.22	38.60	39.99	41.61
Water RTS 6"	34.55	40.83	47.09	47.09	47.09	47.09	47.09	48.50	49.96	52.56	54.35	56.36	58.39	6.61
Sewer O & M	3.25	3.25	3.25	3.25	3.25	3.95	3.99	4.20	4.50	4.80	5.07	5.26	5.45	5.66
Sewer RTS/Debt	1.25	1.40	1.40	1.40	1.40	1.40	1.42	1.50	1.75	2.20	2.26	2.34	2.42	2.51
Sewer IPP	0.16	0.16	0.16	0.16	0.16	0.18	0.18	0.19	0.20	0.21	0.22	0.23	0.24	0.25
Turn Off/On	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	7.50	8.00	8.00
Shut Off/On	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00	30.00
Call Out Fee	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	50.00	100.00	100.00
Water Tap 3/4" & 1"	1,950.00	1,950.00	1,950.00	1,950.00	1,950.00	1,950.00	1,950.00	1,950.00	1,950.00	1,950.00	1,950.00	1,950.00	1,950.00	1,950.00
Water Tap 1 1/2"	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00	2,500.00
Water Tap 2"	2,750.00	2,750.00	2,750.00	2,750.00	2,750.00	2,750.00	2,750.00	2,750.00	2,750.00	2,750.00	2,750.00	2,750.00	2,750.00	2,750.00
Water Tap 3" & up	T & M	T & M	T & M	T & M	T & M	T & M	T & M	T & M	T & M	T & M	T&M	T&M	T&M	T&M
Sewer Tap	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,000.00	1,500.00

Attachment 8

Resolution 11-16
City of Plainwell
Allegan County, Michigan

A RESOLUTION APPROVING AN INCREASE IN WATER AND WASTEWATER FEES AS PRESENTED:

WHEREAS, the City of Plainwell is desirous of updating various water and wastewater fees to reasonably reflect the city's cost to provide these services to the citizens of the City and Customer Communities

WHEREAS, with an analysis of the City's water and wastewater utility User Charge System that funds both the commodity (day to day expenditures) and the Readiness-to-Serve (capital expenditures) needs; and

THEREFORE, the City adopts the wastewater rates as follows:

User Charge - O&M Commodity:	$4.20 per thousand gallons
User Charge – Industrial Pretreatment Program (IPP):	$0.19 per thousand gallons
Readiness-to-Serve Capital Charge:	$1.50 per thousand gallons

THEREFORE, the City adopts the water rates as follows:

User Charge – O&M Commodity:		$1.88 per thousand gallons
Ready to serve charge	Meter size	
	¾"	$6.64
	1"	$11.96
	1 ½"	$13.29
	2"	$17.94
	3"	$24.59
	4"	$33.22

The rate increase will become effective July 1, 2011 to be included in the August 1, 2011 billing.

FURTHERMORE, the City hereby adopts the practice of annual fee adjustments for Wastewater reflecting inflation by the Consumer Price Index for All Urban Consumers (CPI-U) category Water, Sewer and Trash as published by the U.S. Bureau of Labor Statistics. The City shall adjust the User Charge System to reflect increases in the CPI, with the exception of any fixed debt service component; and

FURTHERMORE, the City hereby adopts the practice of fee adjustments for Water at a rate of 3% for the fiscal years 2011/2012 and 2012/2013. Subsequent annual fee adjustments for water will reflect inflation by the Consumer Price Index for All Urban Consumers (CPI-U) category Water, Sewer and Trash as published by the U.S. Bureau of Labor Statistics. The City shall adjust the User Charge System to reflect increases in the CPI, with the exception of any fixed debt servicecomponent.

Resolution Declared Adopted: June 27, 2011

YES: **Steele, Keeler, Overhuel, Burnham & Brooks**
NO: **None**
ABSENT: **None**

SIGNED: Richard Brooks
Richard Brooks, Mayor

CERTIFICATION:

I hereby certify that the foregoing is a true and complete copy of a resolution adopted by the Plainwell City Council at a regular meeting held on June 27, 2011 the original of which is on file in my office and available to the public.

Noreen A. Farmer
Noreen Farmer, City Clerk

Investment Activity Report

"The Island City"

City of Plainwell

Investment Portfolio Detail - Unaudited

at: 12/31/2017

Brian Kelley, City Treasurer

I verify that this investment portfolio is in conformity with Michigan laws and the City's Investment Policy as approved by City Council.

Insert Signature: Brian Kelley

Digitally signed by Brian Kelley
DN: c=US, st=MI, l=City of Plainwell, o=Internet Widgits Pty Ltd, cn=Brian Kelley, email=bkelley@plainwell.org
Date: 2018.01.04 14:52:13 -05'00'

	Investment Type	CUSIP	Principal Purchase	Institution or Bank	Contact Name and Number	Purchase Date	Maturity Date	Yield	Remaining Days to Maturity
1	Pooled Investment	N/A	$357,735	Michigan Class	Rich Garay - 734.604.1494	03/28/16		1.42%	
2	365-Day CD	N/A	$252,154	Chemical Bank	Laree Waanders - 269.857.9002	06/30/17	06/30/18	1.30%	181
3	270-Day CD	N/A	$100,900	Chemical Bank	Laree Waanders - 269.857.9002	08/26/17	05/23/18	1.30%	143
4	365-Day CD	N/A	$150,000	Flagstar Bank	Lisa Powell - 616.285.2863	07/27/17	07/27/18	1.35%	208
5	150-Day CD	N/A	$40,363	Chemical Bank	Laree Waanders - 269.857.9002	08/10/17	01/07/18	1.25%	7
6	274-Day CD	N/A	$15,066	Chemical Bank	Laree Waanders - 269.857.9002	08/10/17	05/11/18	1.30%	131
7	30-Day CD	N/A	$21,886	Chemical Bank	Laree Waanders - 269.857.9002	12/08/17	01/07/18	1.14%	7
8	150-Day CD	N/A	$10,040	Chemical Bank	Laree Waanders - 269.857.9002	08/10/17	01/07/18	1.25%	7
9	120-Day CD	N/A	$150,548	Northstar Bank	Julie Smith - 810.329.7104	10/16/17	02/13/18	1.15%	44
10	270-Day CD	N/A	$100,502	Northstar Bank	Julie Smith - 810.329.7104	08/16/17	05/13/18	1.50%	133
11									
12									
13									
14									
15									

Total Investments: $1,199,194.11

Average Yield: 1.30%

Cash Activity for the Month

Cash, beginning of month: $1,427,661.82

Cash, end of month: $1,334,870.93

** Funds 701 and 703 not included - Trust & Agency

Erik J. Wilson, City Manager

I verify that this investment portfolio is in conformity with Michigan laws and the City's Investment Policy as approved by City Council.

Insert Signature: Erik Wilson

Digitally signed by Erik Wilson
DN: c=US, st=Michigan, l=Plainwell, o=City of Plainwell, ou=CoP, cn=Erik Wilson, email=ewilson@plainwell.org
Date: 2018.01.05 13:10:43 -05'00'

CITY OF PLAINWELL
ESTIMATED CASH BALANCE/FUND BALANCE REPORT
MONTH ENDED: **12/31/2017**
% OF FISCAL YEAR: **50.41%**

	AUDITED FIGURES AS OF MOST RECENT AUDIT *		CURRENT YEAR PERFORMACE - UNAUDITED ***					
FUND	CASH BALANCE	FUND BALANCE	ACTUAL REVENUE YTD - CASH BASIS	ACTUAL EXPENSE YTD - CASH BASIS	ESTIMATED FUND BALANCE (AUDIT FB + ACT REV - ACT EXP)	ACTUAL CASH BALANCES - END OF MONTH - RECONCILED ****	CURRENT YEAR AMENDED BUDGET EXP	EXPENSE BUDGET USED
General	263,071	454,546	1,544,679	1,114,432	884,793	314,886	2,179,983	51.12%
Major Streets	67,748	88,027	98,421	157,588	28,860	50,742	306,053	51.49%
Local Streets	73,526	39,835	84,979	188,707	(63,894)	(21,889)	259,954	72.59%
Solid Waste	9,156	2,956	165,602	87,597	80,961	59,349	173,327	50.54%
Fire Reserve	56,229	61,176	79,916	27,293	113,800	43,235	72,525	37.63%
Airport	38,727	44,549	28,089	53,474	19,164	12,845	82,461	64.85%
Revolving Loan	18,787	61,170	7,234	10,000	58,404	5,981	10,000	100.00%
Capital Improvement	33,380	38,327	79,638	39,691	78,274	43,297	83,198	47.71%
Brownfield BRA	20,534	17,229	166,924	141,741	42,412	13,389	251,188	56.43%
Tax Increment TIFA	57,964	57,104	54,837	24,276	87,665	67,665	44,900	54.07%
Downtown DDA	12,995	9,756	42,878	24,378	28,256	30,942	44,887	54.31%
Sewer	701,829	786,466	708,074	704,032	790,508	426,136	1,439,517	48.91%
Water	289,143	293,634	268,876	336,607	225,904	77,197	621,553	54.16%
Equipment	157,883	151,916	134,384	81,032	205,267	185,938	271,699	29.82%
OPEB**	62,427	62,427	20,952	16,337	67,042	25,156	41,095	39.75%
	1,863,399	2,169,118	3,485,483	3,007,185	2,647,416	1,334,871	5,882,340	51.12%

* - Amounts taken from audited financial statements as of June 30, 2017
** - OPEB listing on this worksheet is included in the General Fund for financial statement purposes
*** - These amounts are taken directly from the End of Month Financial Statement provided to Council
**** - These amounts do not included funds invested in CDs or in the Investment Pool

Erik J. Wilson, City Manager	Brian Kelley, City Treasurer
I verify that I have reviewed the revenue and expenditure financial summary attributed to my department and to the best of my knowledge the report is accurate.	**I verify that I have reviewed the revenue and expenditure financial summary attributed to my department and to the best of my knowledge the report is accurate.**
Insert Signature: Erik Wilson Digitally signed by Erik Wilson DN: c=US, st=Michigan, l=Plainwell, o=City of Plainwell, ou=CoP, cn=Erik Wilson, email=ewilson@plainwell.org Date: 2018.01.05 13:11:18 -05'00'	Insert Signature: Brian Kelley Digitally signed by Brian Kelley DN: c=US, st=MI, l=City of Plainwell, o=Internet Widgits Pty Ltd, cn=Brian Kelley, email=bkelley@plainwell.org Date: 2018.01.04 14:51:22 -05'00'

"The Island City"

MEMORANDUM

211 N. Main Street
Plainwell, Michigan 49080
Phone: 269-685-6821
Fax: 269-685-7282

TO: Erik J. Wilson, City Manager

FROM: Brian Kelley, City Clerk/Treasurer

DATE: January 5, 2018

SUBJECT: Accounts Payable Register

ACTION RECOMMENDED: The City Council should consider approving the Invoice Approval Register and the Off-Cycle Payment Authorization reports, as presented.

The City Council reviews and approves the Accounts Payable total at each Council Meeting, which includes an Invoice Approval Register and an Off-Cycle Payment Authorization report. The Invoice Approval Register lists the regular billings issued to the city and consists, primarily, of paper checks. The Off-Cycle Payment Authorization report includes automated clearing house (ACH) payments, paper checks and electronic funds transfer (EFT) payments.

The attached documents cover the period from December 26, 2017 through January 15, 2018 and includes the following breakdown:

Paper checks in regular bill listing:	$ 98,289.63
Other paper checks issued off-cycle:	38,924.18
ACH payments for property taxes:	359,402.11
ACH payments for city business:	-
EFT payments (auto-pay payments):	5,558.83
Total Accounts Payable	$502,174.75

Vendor Code	Vendor Name / Invoice	Description	Amount
000624	AIS CONSTRUCTION-JOHNDEERE POWERPLN		
	G34076	EQUIPMENT REPAIR	148.60
	G34138	EQUIPMENT REPAIR	31.47
	H50662	JOHN DEERE 318G SKID STEER	34,177.37
TOTAL FOR: AIS CONSTRUCTION-JOHNDEERE POWERPLN			34,357.44
000760	ALLEGAN COUNTY SHERIFFS DEPT		
	2017-11	NOVEMBER 2017 WORK CREW	148.00
TOTAL FOR: ALLEGAN COUNTY SHERIFFS DEPT			148.00
000138	AMERICAN OFFICE SOLUTIONS		
	IN146881	12/22/17 - 1/21/18 PD COPIER	86.19
TOTAL FOR: AMERICAN OFFICE SOLUTIONS			86.19
000035	APPLIED IMAGING		
	1043948	12/16/17 - 1/15/18 DPW/WR COPIER	17.65
TOTAL FOR: APPLIED IMAGING			17.65
000155	BRAVE INDUST FASTENERS		
	139365	WELDING GAS	84.33
	139449	MISC	48.32
TOTAL FOR: BRAVE INDUST FASTENERS			132.65
002527	C.O.P.S. TRUST INSURANCE		
	2018-01	JAN 2018 HEALTH INSURANCE	1,710.05
TOTAL FOR: C.O.P.S. TRUST INSURANCE			1,710.05
002116	CHARTER COMMUNICATIONS (SPECTRUM)		
	2018-01	1/1/18 - 1/31/18 WR/DPW INTERNET	109.98
	2018-01 AIRPORT	1/7/18 - 2/6/18 AIRPORT INTERNET	74.00
	2018-01 CITY HALL	1/5/18 - 2/4/18 CITY HALL INTERNET/PHONE	518.26
TOTAL FOR: CHARTER COMMUNICATIONS (SPECTRUM)			702.24
000009	CONSUMERS ENERGY		
	2017-12	11/28/17 - 12/26/17 ELECTRIC BILLS	8,570.29
TOTAL FOR: CONSUMERS ENERGY			8,570.29
002391	CYBERMIND INC		
	NET-474574	1/1/18 - 2/1/18 WEBSITE FEES	49.95
TOTAL FOR: CYBERMIND INC			49.95
REFUND UB	DEHAAN, CATHY		
	01/04/2018	UB refund for account: 05-00069200-03	29.82
TOTAL FOR: DEHAAN, CATHY			29.82
002030	DRUG SCREEN PLUS INC		
	18QTR1.1339	EMPLOYEE DRUG TESTS DPW	56.00
TOTAL FOR: DRUG SCREEN PLUS INC			56.00
000164	ETNA SUPPLY CO INC		
	S102397315.002	WATER PARTS	27.20
	S102451346.002	WATER PARTS	1,064.00
	S102463391.001	WATER PARTS	318.00
TOTAL FOR: ETNA SUPPLY CO INC			1,409.20
000985	EVOQUA WATER TECH (ENVIREX PRODUCTS		

	903369107	REPLACEMENT OF OBSOLETE DYSTOR METHANE SENSOF	3,443.00
TOTAL FOR: EVOQUA WATER TECH (ENVIREX PRODUCTS			3,443.00
002650	FUEL MANAGEMENT SYSTEM PACIFIC PRID		
	1736501	PD FUEL 12/31/17	606.83
TOTAL FOR: FUEL MANAGEMENT SYSTEM PACIFIC PRID			606.83
000059	GOIN POSTAL LLC		
	99222	PD POSTAGE FROM SEPT 2017	2.89
TOTAL FOR: GOIN POSTAL LLC			2.89
000140	HACH CO		
	10770056	NEW LDO PROBE FOR LAB	1,089.39
TOTAL FOR: HACH CO			1,089.39
000995	HIGH GRADE MATERIALS INC		
	660999	STONE	98.10
TOTAL FOR: HIGH GRADE MATERIALS INC			98.10
000309	JOHN VARLEY		
	16/17 B SHOE ALLOWAN	16/17 SHOE ALLOWANCE BALANCE	64.50
TOTAL FOR: JOHN VARLEY			64.50
000079	KAECHELE PUBLICATIONS INC		
	38380	COUNCIL SUMMARIES/AUTO IMAGE	238.10
	38381	DDA	35.00
TOTAL FOR: KAECHELE PUBLICATIONS INC			273.10
001993	KERKSTRA PORTABLE RESTROOMS INC		
	116700	HANDI-CAP RESTROOM @ SHERWOOD PARK	95.00
TOTAL FOR: KERKSTRA PORTABLE RESTROOMS INC			95.00
002139	KOOI INDUSTRIAL PAINTING INC		
	IV00432	PAINTING OF WR PLANT	17,340.00
	IV00432 A	ADDITIONAL PAINTING OF FLOORS WR	2,620.00
TOTAL FOR: KOOI INDUSTRIAL PAINTING INC			19,960.00
000381	LAPHAM HEATING INC		
	981030	WELL #7 140 FORBES ST FURNACE REPAIR	260.29
TOTAL FOR: LAPHAM HEATING INC			260.29
004804	LL JOHNS & ASSOCIATES INC		
	18056R	2018 STORAGE TANK INSURANCE (AT THE AIRPORT)	721.10
TOTAL FOR: LL JOHNS & ASSOCIATES INC			721.10
004206	MADISON NATIONAL LIFE INSURANCE CO		
	1280206	JAN 2018 LIFE INSURANCE	98.99
TOTAL FOR: MADISON NATIONAL LIFE INSURANCE CO			98.99
000682	MAIN-TECH SERVICES INC		
	71226	17/18 CONTRACTOR ASSIST FOR PUMPS AND EQUIPMEN	392.00
TOTAL FOR: MAIN-TECH SERVICES INC			392.00
000017	MASTERCARD		
	2017-12	DECEMBER 2017 CITY MASTERCARD	282.71
TOTAL FOR: MASTERCARD			282.71
002133	MICHIGAN ECONOMIC DEVELOPERS ASSOC.		
	12038	2018 MEMBERSHIP DUES	290.00
TOTAL FOR: MICHIGAN ECONOMIC DEVELOPERS ASSOC.			290.00
004216	NICERINK/STO-COTE PRODUCTS		
	92122	ICE RINK LINER	1,016.92
TOTAL FOR: NICERINK/STO-COTE PRODUCTS			1,016.92

002536	NORMAN BUILDERS		
	2017-12	DECEMBER 2017 SNOWPLOWING @ THE AIRPORT	645.00
TOTAL FOR: NORMAN BUILDERS			645.00
004852	Pace Analytical Services LLC		
	465815	WATER TESTING	90.00
TOTAL FOR: Pace Analytical Services LLC			90.00
001829	PERCEPTIVE CONTROLS INC		
	13089	ONSITE SUPPORT DPW	330.00
TOTAL FOR: PERCEPTIVE CONTROLS INC			330.00
004855	PLAINWELL ACE HARDWARE		
	115	DPS MISC	10.47
	117	CITY HALL TOILET	12.58
	118	BATTERIES FOR SCALES FOR WELL #4 #5 AND #7	25.77
	150	MISC FIRE DEPT	51.87
	21	SLIDE REPAIR	86.69
	24	SLIDE REPAIR	19.15
	38	CHRISTMAS 2017	1.29
	39	MISC	14.99
	44	CHRISTMAS 2017	14.99
	45	#10 SALT BOX	41.31
	6	MISC DISPLAY	5.59
	70	MISC	21.99
TOTAL FOR: PLAINWELL ACE HARDWARE			306.69
000004	PLAINWELL AUTO SUPPLY INC		
	2017-12	DECEMBER 2017 STATEMENT	886.15
TOTAL FOR: PLAINWELL AUTO SUPPLY INC			886.15
000372	PREMIERE PRINTING CORP.		
	231070	PUBLIC SAFETY CARDS	203.00
	231077	HISTORICAL PICTURES FOR FRAMES	25.00
TOTAL FOR: PREMIERE PRINTING CORP.			228.00
001748	REPUBLIC WASTE SERVICES		
	0249-005794484	1/1/18 - 1/31/18 DPW OFFICE RECYCLE	229.16
	0249-005794973	1/1/18 - 1/31/18 WR CITY OFFICE GARBAGE	215.07
TOTAL FOR: REPUBLIC WASTE SERVICES			444.23
000011	SHOPPERS GUIDE INC		
	2017-12	GOLDEN TICKET INFORMATION	29.00
TOTAL FOR: SHOPPERS GUIDE INC			29.00
000855	STATE OF MICHIGAN- MIDEAL		
	MIDEAL-238 2018	2018 MIDEAL-364 CITY OF PLAINWELL	180.00
TOTAL FOR: STATE OF MICHIGAN- MIDEAL			180.00
000370	STATE SYSTEMS RADIO INC		
	158096	MOVE RADIO DPW	221.00
TOTAL FOR: STATE SYSTEMS RADIO INC			221.00
004263	SUPERIOR ASPHALT INC		
	54290	BARBED WIRE PATCH	3,000.00
TOTAL FOR: SUPERIOR ASPHALT INC			3,000.00
002713	SYSTEMS SPECIALTIES CO		
	01035369	PREVENTATIVE MAINTENANCE & REPAIR OF ON FAILED \	5,131.00
TOTAL FOR: SYSTEMS SPECIALTIES CO			5,131.00
002547	TRAVIS TAYLOR		
	2017-12	MANUAL & WORKBOOK REIMBURSEMENT COMPANY OI	128.21

TOTAL FOR: TRAVIS TAYLOR			128.21
002653	VAN MANEN OIL COMPANY		
	2142110	REGULAR GAS DPW 11/29/17	168.37
	2142111	DIESEL FUEL DPW 11/29/17	753.00
	2144085	DIESEL FUEL DPW 12/13/17	808.61
	2144086	REGULAR GAS DPW 12/13/17	278.33
	2145374	DIESEL FUEL 12/21/17	819.63
TOTAL FOR: VAN MANEN OIL COMPANY			2,827.94
000034	VERIZON		
	9798666844	11/24/17 - 12/23/17 PHONE/WIFI	112.41
	9798666845	11/24/17 - 12/23/17 CELL PHONE BILLS	965.20
TOTAL FOR: VERIZON			1,077.61
004200	WIGHTMAN & ASSOCIATES INC		
	57671	ENGINEERING SERVICES - NORTH PRINCE STREET PROJEC	6,800.50
TOTAL FOR: WIGHTMAN & ASSOCIATES INC			6,800.50

TOTAL - ALL VENDORS 98,289.63

INVOICE AUTHORIZATION

Person Compiling Report

I verify that to the best of my knowledge the attached invoice listing is accurate and the procedures in place to compile this invoice listing has been followed.

Insert Signature: Cheryl Pickett

Digitally signed by Cheryl Pickett
DN: c=US, st=Michigan, l=Plainwell, o=City of Plainwell, ou=CoP, cn=Cheryl Pickett, email=cpickett@plainwell.org
Date: 2018.01.04 14:11:53 -05'00'

Brian Kelley, City Clerk/Treasurer

I verify that I have reviewed the expenditures attributed to my department and to the best of my knowledge the attached invoice listing is accurate and complies with the City's purchasing policy.

Insert Signature: Brian Kelley

Digitally signed by Brian Kelley
DN: c=US, st=MI, l=City of Plainwell, o=Internet Widgits Pty Ltd, cn=Brian Kelley, email=bkelley@plainwell.org
Date: 2018.01.05 13:17:16 -05'00'

Bryan Pond, Water Renewal Plant Supt.

I verify that I have reviewed the expenditures attributed to my department and to the best of my knowledge the attached invoice listing is accurate and complies with the City's purchasing policy.

Insert Signature: Bryan Pond

Digitally signed by Bryan Pond
Date: 2018.01.05 09:34:32 -05'00'

Bill Bomar, Public Safety Director

I verify that I have reviewed the expenditures attributed to my department and to the best of my knowledge the attached invoice listing is accurate and complies with the City's purchasing policy.

Insert Signature: Bill Bomar

Digitally signed by Bill Bomar
Date: 2018.01.04 15:51:07 -05'00'

Rick Updike, Public Works Supt.

I verify that I have reviewed the expenditures attributed to my department and to the best of my knowledge the attached invoice listing is accurate and complies with the City's purchasing policy.

Insert Signature:

Erik J. Wilson, City Manager

I verify that I have reviewed the expenditures attributed to my department and to the best of my knowledge the attached invoice listing is accurate and complies with the City's purchasing policy.

Insert Signature: Erik Wilson

Digitally signed by Erik Wilson
DN: c=US, st=Michigan, l=Plainwell, o=City of Plainwell, ou=CoP, cn=Erik Wilson, email=ewilson@plainwell.org
Date: 2018.01.05 13:10:13 -05'00'

Check Date	Check	Vendor Name	Description	Amount
Bank CBGEN Chemical Bank - General AP Account				
Check Type: ACH Transaction				
12/29/2017	1216(A)	ALLEGAN AREA EDUCATION SVC AGENCY	2017 WINTER TAX COLLECTED W/E 12/23/2017	27,281.31
12/29/2017	1217(A)	ALLEGAN COUNTY TREASURER	2017 SUM/WIN TAX/INT COLL W/E 12/23/2017	9,521.75
12/29/2017	1218(A)	PLAINWELL COMMUNITY SCHOOLS	2017 WINTER TAX COLLECTED W/E 12/23/2017	88,990.70
12/29/2017	1219(A)	RANSOM DISTRICT LIBRARY	2017 SUMMER TAX/INT COLL W/E 12/23/2017	231.15
01/05/2018	1222(A)	ALLEGAN AREA EDUCATION SVC AGENCY	2017 WINTER TAXES COLLECTED W/E 12/30/20	52,197.44
01/05/2018	1223(A)	ALLEGAN COUNTY TREASURER	2017 SUM/WIN TAX/INT COLL W/E 12/30/2017	15,453.58
01/05/2018	1224(A)	PLAINWELL COMMUNITY SCHOOLS	2017 WINTER TAXES COLLECTED W/E 12/30/20	165,726.18
			Total ACH Transaction:	359,402.11
Check Type: EFT Transfer				
12/26/2017	1214(E)	FIRST NATIONAL BANK (CREDIT CARD)	Web Hosting	5,107.54
12/26/2017	1215(E)	VOID		0.00
01/15/2018	1220(E)	CITY OF PLAINWELL	JANUARY 2018 CITY WATER/SEWER BILLS	405.32
01/03/2018	1221(E)	STATE OF MICHIGAN	DECEMBER 2017 AIRPORT FUEL SALES TAX	45.97
			Total EFT Transfer:	5,558.83
Check Type: Paper Check				
01/01/2018	11800	PRIORITY HEALTH	JANUARY 2017 HEALTH INSURANCE PREMIUMS	31,089.14
12/29/2017	11801	POSTMASTER	mail water & sewer billing	558.55
12/29/2017	11802	CONSUMERS ENERGY	11/16/17 - 12/15/17 WR PLANT ELECTRIC	6,540.94
12/29/2017	11803	PITNEY BOWES (RENTAL ON METER)	1/1/18 - 3/31/18 POSTAGE METER RENTAL CI	85.05
12/29/2017	11804	PITNEY BOWES/PURCHASE POWER	POSTAGE ON METER 11/28/17	503.50
12/29/2017	11805	US BANK EQUIPMENT FINANCE (COPIER)	JAN 2018 CITY HALL COPIER	147.00
			Total Paper Check:	38,924.18

CBGEN TOTALS:

Total of 17 Checks:	403,885.12
Less 1 Void Checks:	0.00
Total of 16 Disbursements:	***403,885.12***

Off Cycle Payment Authorization

Brian Kelley, City Clerk/Treasurer	Erik J. Wilson, City Manager
I verify that I have reviewed the off-cycle payments listed above and to the best of my knowledge the listing is accurate and complies with the City's purchasing policy.	**I verify that I have reviewed the off-cycle payments listed above and to the best of my knowledge the listing is accurate and complies with the City's purchasing policy.**
Insert Signature: Brian Kelley Digitally signed by Brian Kelley DN: c=US, st=MI, l=City of Plainwell, o=Internet Widgits Pty Ltd, cn=Brian Kelley, email=bkelley@plainwell.org Date: 2018.01.04 15:02:33 -05'00'	Insert Signature: Erik Wilson Digitally signed by Erik Wilson DN: c=US, st=Michigan, l=Plainwell, o=City of Plainwell, ou=CoP, cn=Erik Wilson, email=ewilson@plainwell.org Date: 2018.01.05 13:09:50 -05'00'

Reports & Communications:

A. Site Plan Review – Fair Trade Coffee Shop:
In November 2017, the Planning Commission considered a Site Plan for Fair Trade Coffee Shop at 203 S. Main Street. The Planning Commission recommends approval.
Recommended action: Consider accepting the Site Plan for Fair Trade Coffee Shop at 203 S. Main.

B. DPW – Water Asset Management Plan:
Superintendent Updike has been working on a Water Asset Management Plan to send to Michigan Department of Environmental Quality.
Recommended action: Consider accepting the document and authorizing its filing with the DEQ

Reminder of Upcoming Meetings

- January 11, 2018 – Allegan County Board of Commissioners – 9:00am
- January 9, 2018 – Plainwell DDA/BRA/TIFA Board – 7.30am
- January 17, 2018 – Plainwell Planning Commission – 7:00pm (Public Hearing)
- January 22, 2018 – Plainwell City Council – 7:00pm

Non-Agenda Items / Materials Transmitted

- None